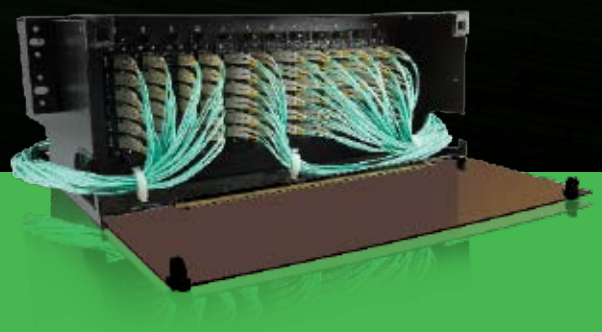
Life Is On | Schneider Electric

Actassi

Catalogue

User delighting end-to-end connectivity



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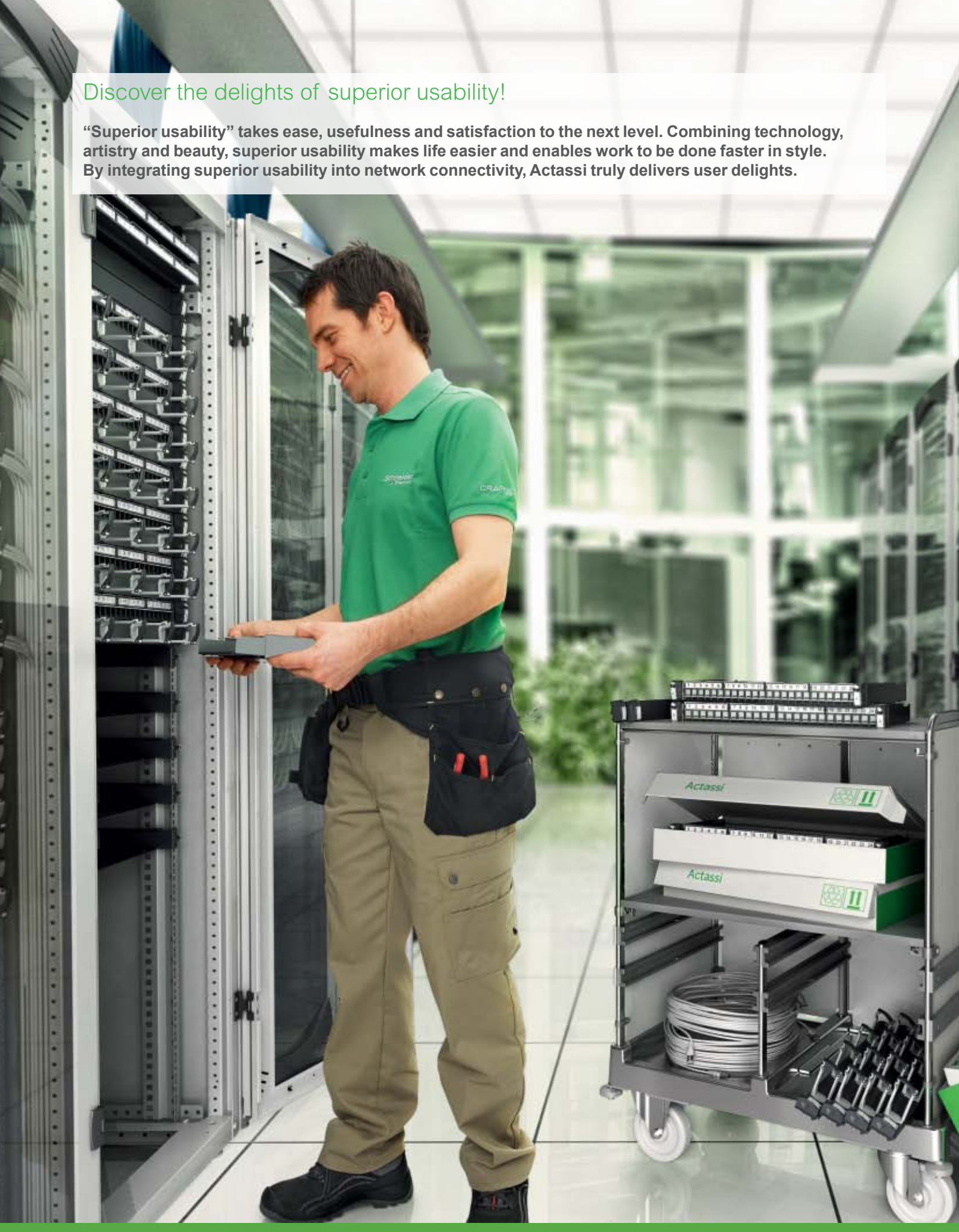
Actassi puts all the differences aside!

The best features of our local brands and ranges are now merged into one, complete global system – Actassi.

Contents

Discover the delights of superior usability!

“Superior usability” takes ease, usefulness and satisfaction to the next level. Combining technology, artistry and beauty, superior usability makes life easier and enables work to be done faster in style. By integrating superior usability into network connectivity, Actassi truly delivers user delights.



A short Actassi summary

Actassi means “share the ocean”.

By choosing Actassi as your network connectivity solution, you will enter a “blue ocean” of ideas where connectivity becomes user-centric and truly delightful rather than merely easy to use.

Here is a short summary for you: Actassi is Schneider Electric’s new global state-of-the-art range for networking and connectivity infrastructure solutions, created for buildings and data centres. It consists of the best performing features from local Schneider Electric brands such as LexCom, Infraplus, Clipsal Datacomms, Sarel and Himel. To be able to offer every installer around the world, the best-of-the-best solutions, we have created ONE single system; Actassi.

All products are designed to give superior usability and performance. They exceed the most advanced international standards, such as ISO/IEC 11801: 2011 Ed2.2 for the new S-One connector. All S-One connectors are manufactured to provide exceptional Cat 5e, Cat 6 and Cat 6_A performance for shielded and unshielded data networks.

Furthermore Actassi is fully integrated with a wide range of other Schneider Electric solutions and products, such as the Total Office Performance system including products to create a true organic office.

The Actassi system consists of a comprehensive set of products:

- Connectors for Cat 5e, Cat 6 and Cat 6_A performance
- Cross-connect panels
- Copper and fibre optic LAN cables
- Patch cords and connecting hardware
- Cabling and server enclosures

Actassi network connectivity solutio

Entrance Room (ER)

Actassi single-mode OS2 fibre cables for optimised cable performance in entrance room

Single-mode OS2 fibre cables

Telecommunication Room (TR)

Actassi multi-mode OM4 fibre cables for speeds beyond 40 Gigabit/s and 100 Gigabit/s

Multi-mode OM4 fibre cables

Equipment Distribution Area (EDA)

Actassi ID-TracerTM smart patching solution for optimised network management; Tough Cabling for superior data transmission performance regardless of installation quality; and 10G solution for fast data transmission over extensive equipment distributions

ID-TracerTM Smart patching (Copper)

F² cables

10G solution

ID-3TM F² patch cords

Storage area

Actassi's fibre solution for quick retrieval of storage data

ns for data centres

Test lab

Actassi ID-Tracer™ Smart patching and Tough Cabling for efficient testing activities

F² cables

ID-TracerTM Smart patching

Control room

Actassi Tough Cabling for superior data transmission, and F² secure patch cords to ensure there are no unauthorised disconnections

F² cables

ID-3TM F² secure patch cords

Main Distribution Area (MDA)

Actassi MPO plug-n-play solution for high bandwidth demand, high-density reliability and scalability

MPO solution

Horizontal Distribution Area (HDA)

Actassi ID-TracerTM smart patching solution for optimised network management; MPO plug-n-play solution for guaranteed performance; and 10G solution for fast data transmission over extensive data applications

ID-TracerTM Smart patching

10G solution

MPO solution

Backbone cabling

Horizontal cabling

From building backbone…

Actassi provides superior usability in network connectivity from end-to-end for an array of buildings such as offices, hotels, hospitals, educational institutions and many more. It all starts off with the campus cabling that links network connectivity of different buildings or the backbone cabling for individual buildings. They set the foundation of network connectivity in all types of buildings. Actassi fibre and 10G solutions are specially designed to provide robust and reliable structured cabling for high-speed data networks in campus and building backbone environments.

… to server rooms

Combined with the ID-Tracer™ smart patching solution, Tough Cabling allows easy installation and maximum control of network operations in server rooms. They greatly simplify network operations. Actassi is designed to delight technologically savvy IT professionals so they can enjoy the peace of mind that comes from exceptional levels of product reliability and control.

… to meeting rooms

Create an organised and stylish impression of meeting rooms with Actassi's secure, reliable and easily wired network connections. Install ergo-aesthetic terminals and bid farewell to tangled patch cords on and under conference tables.

… to workstations

Improve the ergonomics of your workstations with ergo-aesthetic terminals. Delivering convenient connectivity, they spell an end to fumbling around for patch cords.

… to hotel guest rooms

When travelling out of town on business or pleasure, thoughtful Actassi ergo-aesthetic terminals found in hotel rooms will make a world of difference to your stay.

Server room

Workstation

Meeting room

Hotel guest room

ID-Tracer™ 2

The Actassi Smart labeling solution consists of Actassi fibre panel, ID-Tracer Control Software and LAN controller. It is an intelligent optical system with real-time remote labeling.

The Actassi ID-Tracer2 with built-in connectivity monitoring to report and monitor the online connectivity status of the entire cabling network. Network administrators are able to manage overall network activities such as Move, Add or Change (MAC) in an easy manner. Customers are able to plan and optimize their network resources while dealing with various cabling requirements. The Actassi fibre patch panels are scalable by as few as 24-ports (single panel version). LAN version is also available by matching one Actassi LAN controller per group of maximum 10 Actassi fibre patch panels.

Product features

- Accommodates up to 3 connector module (SC/LC)
- 1U panel and 19" front rack mounting enclosure provides patching and fibre slack storage capability or standard tube interfacing
- Accommodates both single-mode and multi-mode fibre
- Splice tray mounted to the unit
- Front wake-up button to wake up the panel during sleep mode.

Customer benefits

- Explicit ID labeling and LED indication
- Allow distinguish icon identifications
- Provide connectivity monitoring and security alert
- Login security for authorized personnel
- Real-time record for any MACs for network administrator
- Energy efficiency and economic.

Smart Patching Solution - patch panels_1

ACTFM1U224L

3_ACTFA2L8SMZP

ACTFA2L8SMZP

Description	Ref. No
1U, 24-port, Led fibre enclosure, sliding, unloaded	**ACTFM1U224L**
8-port, LC duplex module, SM	**ACTFA2L8SMZP**
8-port, SC duplex module, SM	**ACTFA2C8SMZP**
8-port, LC duplex module, MM	**ACTFA2L8MMZP**
8-port, SC duplex module, MM	**ACTFA2C8MMZP**

Technical specifications	
Material	Powder coated mild steel
Accommodataion	Up to 24 x SC connectors
	Up to 24 x LC connectors
Transmission performance	
Meets and exceeds TIA/EIA-568-C.3	

Contents

Pre-terminated trunk cables
Category 6A F/UTP

Actassi pre-terminated copper trunk cable provides simple plug-and-play solution for high density network.
With the flexibility for customization, users can choose their own configuration with different length, connector type. Optional angled jack to angled jack connector to aid high density environment application.
In addition, 100 % factory tested copper assemblies assure transmission performance and reduce installation time caused by field termination.

Product features
- Double ended with 6-connector construction
- 100 % factory tested
- Individual serial number.

Customer benefits
- Fast installation by plug & play
- Reliable solution to supports 10 Gigabit ethernet application
- Increase visibility of back tracking.

Description	Ref. No
Jack-to-jack	
Pre-terminated Category 6A F/UTP, jack-to-jack, 6 pieces bundled, CM, blue	**ACTPTCJJ6ASCMxxBU**
Pre-terminated Category 6A F/UTP, jack-to-jack, 6 pieces bundled, LSZH, white	**ACTPTCJJ6ASLSxxWE**
Anglejack-to-anglejack	
Pre-terminated Category 6A F/UTP, anglejack-to-anglejack, 6 pieces bundled, CM, blue	**ACTPTCAA6ASCMxxBU**
Pre-terminated Category 6A F/UTP, anglejack-to-anglejack, 6 pieces bundled, LSZH, white	**ACTPTCAA6ASLSxxWE**

Where **xx** denotes the cable length from 02 m to 90 m.

Frequency	Attenuation		NEXT		PSNEXT		ACRF		PSACRF		RL		DELAY	
MHz	dB/100 m		dB/100 m		dB/100 m		dB/100 m		dB/100 m		dB/100 m		ns/100 m	
	Standard	Actassi	Standard	Actassi	Standard	Actassi	Standard	Actassi	Standard	Actassi	Standard	Actassi	Standard	Actassi
1	1.9	2.1	65.0	76.3	62.0	74.3	64.2	69.8	61.2	66.8	19.1	21.0	521	570.0
4	3.5	3.8	64.1	67.3	61.8	65.3	52.1	57.8	49.1	54.8	21.0	24.0	504	552.0
8	5.0	5.3	59.4	62.8	57.0	60.8	46.1	51.7	43.1	48.7	21.0	25.5	500	546.7
10	5.5	5.9	57.8	61.3	55.5	59.3	44.2	49.8	41.2	46.8	21.0	26.0	498	545.4
16	7.0	7.5	54.6	58.2	52.2	56.2	40.1	45.7	37.1	42.7	20.0	26.0	496	543.0
20	7.9	8.4	53.1	56.8	50.7	54.8	38.2	43.8	35.2	40.8	19.5	26.0	495	542.0
25	8.9	9.4	51.5	55.3	49.1	53.3	36.2	41.8	33.2	38.8	19.0	25.3	495	541.2
31.25	10.0	10.5	50.0	53.9	47.5	51.9	34.3	39.9	31.3	36.9	18.5	24.6	494	540.4
62.5	14.4	15.0	45.1	49.4	42.7	47.4	28.3	33.9	25.3	30.9	16.0	22.5	492	538.6
100	18.6	19.1	41.8	46.3	39.3	44.3	24.2	29.8	21.2	26.8	14.0	21.1	491	537.6
200	27.4	27.6	36.9	41.8	34.3	39.8	18.2	23.8	15.2	20.8	11.0	19.0	490	536.5
250	31.1	31.1	35.3	40.3	32.7	38.3	16.2	21.8	13.2	18.8	10.0	18.3	490	536.3
300	32.7	34.3	34.0	39.1	31.4	37.1	14.6	20.3	11.6	17.3	9.2	17.8	490	536.1
400	38.4	40.1	29.9	37.3	27.1	35.3	12.1	17.8	9.1	14.8	8.0	16.9	490	535.8
500	43.8	45.3	26.7	35.8	23.8	33.8	10.2	15.8	7.2	12.8	8.0	16.2	490	535.6

Technical specifications

Physical specifications	
Rated temperature (˚C)	75
Flammability Ttest	CM/LSZH
Reference standards	UL Subject 444, EIA/TIA 568-C.2 & ISO/IEC 11801, IEC 61156-5
Construction	
Trunk cable	Six Category 6 F/UTP cable bundled together
Outer jacket	PVC / LSZH
Individual cable construction	
Conductor	23 AWG solid bare copper
Conductor dia. nom. (mm)	0.565
Insulation	HD PE
Average thickness (mm)	0.27
Insulation diameter (± 0.10 mm)	1.16
Filler	PE
Drain wire	Stranded tinned copper (0.49 mm)
Shield	Aluminum/Polyester
Jacket	PV/LSZH
Average thickness (± 0.05 mm)	0.5
Outer diameter (± 0.2 mm)	7.3

Pre-terminated trunk cables
Category 6 U/UTP

Actassi pre-terminated copper trunk cable provides simple plug-and-play solution for high density network.
With the flexibility for customization, users can choose their own configuration with different length, connector type. Optional angled jack connector to aid for high density environment.
In addition, 100 % factory tested copper assemblies assure transmission performance and reduce installation time caused by field termination.

Product features
- Double ended with 6-connector construction
- 100 % factory tested
- Individual serial number.

Customer benefits
- Fast installation by plug & play
- Reliable solution to supports Gigabit ethernet application
- Increase visibility of back tracking.

Description	Ref. No
Jack-to-jack	
Pre-terminated Category 6 UTP, jack-to-jack, 6 pieces bundled, CM, blue	**ACTPTCJJ6UCMxxBU**
Pre-terminated Category 6 UTP, jack-to-jack, 6 pieces bundled, LSZH, white	**ACTPTCJJ6ULSxxWE**
Anglejack-to-anglejack	
Pre-terminated Category 6 UTP, anglejack-to-anglejack, 6 pieces bundled, CM, blue	**ACTPTCAA6UCMxxBU**
Pre-terminated Category 6 UTP, anglejack-to-anglejack, 6 pieces bundled, LSZH, white	**ACTPTCAA6ULSxxWE**

Where **xx** denotes the cable length from 02 m to 90 m.

Frequency	Attenuation		NEXT		PSNEXT		ACRF		PSACRF		RL		DELAY	
MHz	dB/100 m		dB/100 m		dB/100 m		dB/100 m		dB/100 m		dB/100 m		ns/100 m	
	Standard	Actassi	Standard	Actassi	Standard	Actassi	Standard	Actassi	Standard	Actassi	Standard	Actassi	Standard	Actassi
1	1.9	2.0	65.0	77.3	62.0	75.3	64.2	70.8	61.2	67.8	19.1	21.0	521	570.0
4	3.5	3.8	64.1	68.3	61.8	66.3	52.1	58.8	49.1	55.8	21.0	24.0	504	552.0
8	5.0	5.3	59.4	63.8	57.0	61.8	46.1	52.7	43.1	49.7	21.0	25.5	500	546.7
10	5.5	6.0	57.8	62.3	55.5	60.3	44.2	50.8	41.2	47.8	21.0	26.0	498	545.4
16	7.0	7.6	54.6	59.2	52.2	57.2	40.1	46.7	37.1	43.7	20.0	26.0	496	543.0
20	7.9	8.5	53.1	57.8	50.7	55.8	38.2	44.8	35.2	41.8	19.5	26.0	495	542.0
25	8.9	9.5	51.5	56.3	49.1	54.3	36.2	42.8	33.2	39.8	19.0	25.3	495	541.2
31.25	10.0	10.7	50.0	54.9	47.5	52.9	34.3	40.9	31.3	37.9	18.5	24.6	494	540.4
62.5	14.4	15.4	45.1	50.4	42.7	48.4	28.3	34.9	25.3	31.9	16.0	22.5	492	538.6
100	18.6	19.8	41.8	47.3	39.3	45.3	24.2	30.8	21.2	27.8	14.0	21.1	491	537.6
200	27.4	29.0	36.9	42.8	34.3	40.8	18.2	24.8	15.2	21.8	11.0	19.0	490	536.5
250	31.1	32.8	35.3	41.3	32.7	39.3	16.2	22.8	13.2	19.8	10.0	18.3	490	536.3

Technical specifications

Physical specifications	
Rated temperature (˚C)	75
Flammability Ttest	CM/LSZH
Reference standards	UL Subject 444, EIA/TIA 568-C.2 & ISO/IEC 11801, IEC 61156-5
Construction	
Trunk cable	Six Category 6 UTP cable bundled together
Outer jacket	PVC / LSZH
Individual cable construction	
Conductor	23 AWG solid bare copper
Conductor dia. nom. (mm)	0.565
Insulation	PE
Average thickness (mm)	0.22
Insulation diameter (± 0.10 mm)	1.04
Filler	PE
Jacket	PV/LSZH
Average thickness (± 0.05 mm)	0.49
Outer diameter (± 0.2 mm)	5.95

Cables
10G Cat 6A F/UTP 4-pair LAN cables

Actassi 10G Cat 6A F/UTP 4-pair cable is a high quality product delivering excellent network performance when using in conjunction with other Actassi 10G products.

The Cat 6A F/UTP cable consists of 4 pairs of solid insulated copper 23 AWG. It is designed for use in horizontal cabling situations and applied in 305 m (1,000 ft) plastic reel. The cable provides a significant margin above the Category 6A Alien Crosstalk (ANEXT) requirement of TIA/EIA 568-C.2 Category 6A and ISO/IEC 11801 Class Ea.

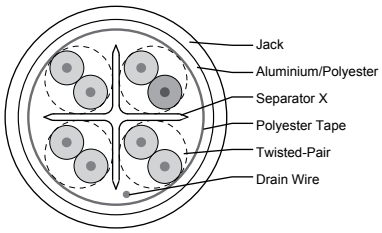
Product features
- Complies with TIA/EIA-568-C.2 Category 6A and ISO/IEC 11801 Class Ea standards
- Centre filler to maintain pair twisting and optimum NEXT and ELFEXT performance
- Aluminium foil to eliminate ANEXT across cables
- 23 AWG conductors for improved insertion loss performance.

Customer benefits
- Aluminium foil helps to optimum Alien crosstalk performance
- Exceeds TIA/EIA-568-C.2 Category 6A and ISO/IEC 11801 Class Ea requirements
- Support 10G Base-T, 1000 Base-T and 1000 Base-TX LANs and broadband video applications.

ACCTG4P6ASCM3BU

ACTTG4P6ASLS3RBU

Cross view



Description	Ref. No
Category 6A F/UTP cable, CM, 4 pair, 305 m reel, blue	**ACTTG4P6ASCM3RBU**
Category 6A F/UTP cable, CMR, 4 pair, 305 m reel, blue	**ACTTG4P6ASCR3RBU**
Category 6A F/UTP cable, LSZH, 4 pair, 305 m reel, white	**ACTTG4P6ASLS3RWE**

Technical specifications

Physical specifications	
Rated temperature (˚C)	75
Application	Horizontal wiring in LAN
Reference standards	TIA/EIA 568-C.2 & ISO/IEC 11801 Class Ea
Construction	
Conductor	Solid bare copper
AWG	23
Conductor dia. nom. (mm)	0.565
Insulation	HD PE
Average thickness (mm)	0.27
Insulation dia. (± 0.05 mm)	1.15
Twisting lay length (mm)	30 underneath
Cabling lay length (mm)	200 underneath
Filler	PE
Shield	Polyester tape
Drain wire	Stranded tinned copper (7/0.15 mm)
Shield	Aluminium/Polyester
Jacket	PVC or LSZH
Average thickness	0.5
Outer Dia. (± 0.2 mm)	7.3
Mechanical characteristics	
Test object	Jacket
Before tensile strength (kg/mm^2)	⩾ 1.05
Aging elongation (%)	⩾ 100
Aging condition kg/mm^2 (˚C x hrs)	100 x 240
After tensile strength (kg/mm^2 pt)	⩾ 85 % of unaged
Aging elongation (%)	⩾ 50 % of unaged
Cold bend (-20 ± 2˚C x 4 hrs)	No crack
Electrical characteristics	
1.0-100 MHz input impedance (ohms)	100 ± 15
100-250 MHz input impedance (ohms)	100 ± 22
1.0-250 MHz delay skew (ns/100 m)	⩾ 45
Pair-to-ground capacitance unbalance (pf/100 m)	⩽ 330
Max. conductor DC resistance 20˚C (ohms/km)	72
Resistance unbalance (%)	⩾ 45
Dimensions	
Shipping reel	400 mm (W) x 215 mm (H)
Shipping weight	17 kg

Frequency	Attenuation	NEXT	PSNEXT	ACRF	PSACRF	RL	DELAY	PSANEXT	PSAACRF
MHz	dB/100 m	dB/100 m	dB/100 m	dB/100 m	dB/100 m	dB/100 m	ns/100 m	dB/100 m	dB/100 m
1	2.1	76.3	74.3	69.8	66.8	21	570	67	67
4	3.8	67.3	65.3	57.8	54.8	24	552	67	66.2
8	5.3	62.8	60.8	51.7	48.7	25.5	546.7	67	60.1
10	5.9	61.3	59.3	49.8	46.8	26	545.4	67	58.2
16	7.5	58.2	56.2	45.7	42.7	26	543	67	54.1
20	8.4	56.8	54.8	43.8	40.8	26	542	67	52.2
25	9.4	55.3	53.3	41.8	38.8	25.3	541.2	67	50.2
31.25	10.5	53.9	51.9	39.9	36.9	24.6	540.4	67	48.3
62.5	15	49.4	47.4	33.9	30.9	22.5	538.6	65.6	42.3
100	19.1	46.3	44.3	29.8	26.8	21.1	537.6	62.5	38.2
200	27.6	41.8	39.8	23.8	20.8	19	536.5	58	32.2
250	31.1	40.3	38.3	21.8	18.8	18.3	536.3	56.5	30.2
300	34.3	39.1	37.1	20.3	17.3	17.8	536.1	55.3	28.7
400	40.1	37.3	35.3	17.8	14.8	16.9	535.8	53.5	26.2
500	45.3	35.8	33.8	15.8	12.8	16.2	535.6	52	24.2

Cables
10G Cat 6A U/UTP 4-pair LAN cables

Actassi 10G Cat 6A U/UTP 4-pair LAN cable is a high quality product delivering excellent network performance when using in conjunction with other Actassi 10G products.

The Cat 6A U/UTP cable consists of 4 pairs of solid insulated copper 23 AWG (0.59 mm). It is designed for use in horizontal cabling situations and applied in 305 m (1,000 ft) reel.

The Cat 6A U/UTP cable provides a significant margin above the Category 6A Alien crosstalk (ANEXT) requirement of TIA/EIA 568-C.2 Category 6A and ISO/IEC 11801 Class Ea.

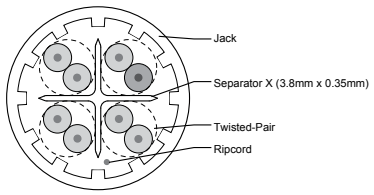
Product features
- Complies with TIA/EIA-568-C.2 Category 6A and ISO/IEC 11801 Class Ea standards
- Centre filler to maintain pair twisting and optimum NEXT and ELFEXT performance
- 23 AWG conductors for improved insertion loss performance
- Newly design Jacket to optimize the ANEXT performance.

Customer benefits
- Exceeds TIA/EIA-568-C.2 Category 6A and ISO/IEC 11801 Class Ea requirements
- Support 10G Base-T, 1000 Base-T and 1000 Base-TX LANs and broadband video applications.

P7190170

ACTTG4P6ASLS3RBU

10G UTP Cable



Description	Ref. No
Category 6A U/UTP cable, CM, 4 pair, 305 m reel, blue	**ACTTG4P6AUCM3RBU**
Category 6A U/UTP cable, CMR, 4 pair, 305 m reel, blue	**ACTTG4P6AUCR3RBU**
Category 6A U/UTP cable, LSZH, 4 pair, 305 m reel, white	**ACTTG4P6AULS3RWE**

Technical specifications	
Physical specifications	
Rated temperature (˚C)	75
Application	Horizontal wiring in LAN
Reference standards	TIA/EIA 568-C.2 & ISO/IEC 11801, IEC 61156-5
Construction	
Conductor	Solid bare copper
AWG	23
Conductor dia. nom. (mm)	0.59
Insulation	HD PE
Average thickness (mm)	0.27
Insulation dia. (± 0.05 mm)	1.15
Filler	PE
Jacket	PVC or LSZH
Average thickness	0.65
Outer dia. (± 0.2 mm)	8.5
Mechanical characteristics	
Test object	Jacket
Before tensile strength (kg/mm^2)	⩾ 1.05
Aging Elongation (%)	⩾ 100
Aging Condition kg/mm^2 (˚C x hrs)	100 x 240
After tensile strength (kg/mm^2 pt)	⩾ 85 % of unaged
Aging elongation (%)	⩾ 50 % of unaged
Cold bend (-20 ± 2˚C x 4 hrs)	No crack
Electrical characteristics	
1.0-100 MHz input impedance (ohms)	100 ± 15
1.0-500 MHz delay skew (ns/100 m)	⩽ 45
Pair-to-ground capacitance unbalance (pf/100 m)	⩽ 330
Max. conductor DC resistance 20˚C (ohms/km)	72
Resistance unbalance (%)	⩽ 5

Frequency	Attenuation	NEXT	PSNEXT	ACRF	PSACRF	RL	DELAY	PSANEXT	PSAACRF
MHz	dB/100 m	dB/100 m	dB/100 m	dB/100 m	dB/100 m	dB/100 m	ns/100 m	dB/100 m	dB/100 m
1	2.1	76.3	74.3	69.8	66.8	21	570	67	67
4	3.8	67.3	65.3	57.8	54.8	24	552	67	66.2
8	5.3	62.8	60.8	51.7	48.7	25.5	546.7	67	60.1
10	5.9	61.3	59.3	49.8	46.8	26	545.4	67	58.2
16	7.5	58.2	56.2	45.7	42.7	26	543	67	54.1
20	8.4	56.8	54.8	43.8	40.8	26	542	67	52.2
25	9.4	55.3	53.3	41.8	38.8	25.3	541.2	67	50.2
31.25	10.5	53.9	51.9	39.9	36.9	24.6	540.4	67	48.3
62.5	15	49.4	47.4	33.9	30.9	22.5	538.6	65.6	42.3
100	19.1	46.3	44.3	29.8	26.8	21.1	537.6	62.5	38.2
200	27.6	41.8	39.8	23.8	20.8	19	536.5	58	32.2
250	31.1	40.3	38.3	21.8	18.8	18.3	536.3	56.5	30.2
300	34.3	39.1	37.1	20.3	17.3	17.8	536.1	55.3	28.7
400	40.1	37.3	35.3	17.8	14.8	16.9	535.8	53.5	26.2
500	45.3	35.8	33.8	15.8	12.8	16.2	535.6	52	24.2

Cables
F² Category 6 U/UTP cables

Actassi F² Category 6 U/UTP cable is a superior product designed for use in horizontal cabling, delivering the best network performance when used in conjunction with other Actassi products.

The Actassi F² cable consists of 4 pairs of solid and insulated copper 23 AWG (0.58 mm) and comes in a 305 m reel. The patent pending F² Construction separator has features of both firm and flexibility, a superior design for heavy strain relief.

The Actassi F² Category 6 U/UTP cable provides a significant margin above the minimum Category 6 NEXT requirement of TIA/EIA 568C.2 and ISO/IEC 11801.

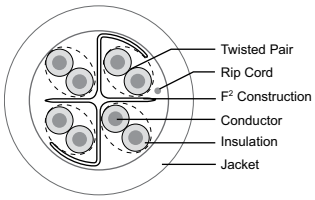
Product features
- Patent-pending design F² Construction separator form virtual shielded compartments to ensure all four pairs of wires are being properly partitioned off and in good separation for optimum NEXT performance
- The nonmetallic will not introduce additional electrical ground issue
- 23 AWG conductors for improved insertion loss performance
- Fully compliant to TIA/EIA 568C Category 6 and ISO/IEC 11801 Class E standards
- UL listed CM fire rated.

Customer benefits
- Improvement in return loss, maximizing cable balance and minimizing echo to enhance overall channel performance
- Provide superior headroom for most robust network & applications e.g. Gigabit ethernet, broadband video, 3D imaging and other multimedia applications
- Minimize additional workload for cable installation, termination, and re-work
- Longer product life and higher product reliability.

Cable

VDIB1775XUWE

Cat 6 FTP Cable_diag [Converted]



Description	Ref. No
F² Category 6 U/UTP cable, CM, 305 m reel, blue	**2D4P6T2PS3RBU**
F² Category 6 U/UTP cable, CM, 305 m reel, grey	**2D4P6T2PS3RGY**

Technical specifications

Physical specifications	
Rated temperature	75°C
Product standard certification	UL
Flammability test	CM
Application	Horizontal wiring in LAN
Reference standard	TIA/EIA 568C.2 & ISO/IEC 11801, IEC 61156-5
Construction	
Conductor	**Solid bare copper**
AWG	23
Conductor dia. nom. (mm)	0.48
Insulation	PE
Average thickness (mm)	0.22
Insulation dia. (±0.05 mm)	1.03
Separator	F² construction (PE)
Jacket	PVC
Nom. thickness (mm)	0.63
Min. point thickness (mm)	0.40
Outer diameter (±0.2 mm)	6.50
Rip cord	Yes
Mechanical characteristics	
Test object	**Jacket**
Test material	PVC
Before tensile strength (Mpa)	⩾ 13.8
Aging elongation (%)	⩾ 100
Aging condition (°C x hrs)	100 x 240
After tensile strength (Mpa)	⩾ 85 % of unaged
Aging elongation (%)	⩾ 50 % of unaged
Cold bend (-20 ± 2°C x 4 hrs)	No crack

Cables
Category 6 F/UTP cables

Category 6 F/UTP cable
The Actassi 4-pair Category 6 cable is a superior product delivering excellent network performance when used in conjunction with other Actassi Category 6 products.

The Category 6 cable consists of 4 pairs of solid insulated copper 23 AWG and is UL listed with a CM fire rating. It is designed for use in horizontal cabling situations and supplied in 305 m (1,000 ft) easy pull out boxes.

The Category 6 cable provides a significant margin above the minimum Category 6 Near End Crosstalk NEXT requirement of ANSI/TIA/EIA-568 and ISO/IEC 11801.

Category 6 FTP LSZH cables
The avaibility of a central filler helps in delivering superior cross-talk isolation and therefore ensures excellent performance. This precision and unique manufacturing process design allows for easy removal, which maximises both performance and termination.

The Actassi Category 6 LSZH 4-pair cables are designed to carry high-bandwidth applications, including the IEEE802.3AB 1000 Base-T (Gigabit ethernet), TIA/EIA 1000 Base-TX, 1.2Gb/s ATM and any future applications designed for Category 6/ Class E cabling, as well as analogue broadband video.

Insulated with non-halogen high-density polyethylene and covered with low smoke zero halogen compounds. It is designed for use in horizontal cabling situations where building smoke requirements mandate low smoke and zero halogen installation and supplied in 305 m (1,000 ft) easy pull out boxes.

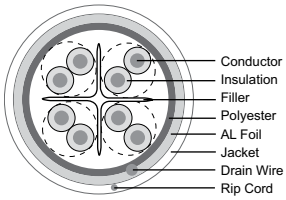
The Actassi LSZH cable is IEC tested for low smoke and non-halogen emission and passes the following tests:
- IEC 60754 part 2, non-halogen based on pH and conductivity measurements
- IEC 61034 part 2, smoke emission
- IEC 60332-1, Flammability and Fire Retardant.

Product features
- Foil shielded to provide good level of screen.
- Centre filler to maintain pair twisting and optimum NEXT and ELFEXT performance.
- 23 AWG conductors for improved insertion loss performance.

Customer benefits
- Exceeds Category 6 ANSI/TIA/EIA-568-C2-1 and ISO/IEC 11801 standards
- Supports Gigabit ethernet (1000 Base-T and 1000 Base-TX) and beyond.

2D4P6IPVFTP3_Cat6 FTP PVC1

ACT4P6SCM3RBxx
ACT4P6SLS3RBxx



Description	Ref. No
Category 6, 4 pair FTP cable 305 m, CM	**ACT4P6SCM3RBxx**
Category 6, 4 pair FTP cable 305 m, LSZH	**ACT4P6SLS3RBxx**

Where **xx** denotes the color of jacket: BU = blue, WE = white, BK = black, GY = grey, GR = green, RD = red, YL = yellow.

Technical specifications

Physical specifications	
Rated temperature (˚C)	75
Flammability Ttest	CM/LSZH
Reference standards	UL Subject 444, EIA/TIA 568-C.2 & ISO/IEC 11801, IEC 61156-5
Construction	
Conductor	**Solid bare copper**
AWG	23
Conductor dia. nom. (mm)	0.565
Insulation	PE
Average thickness (mm)	0.27
Min. point thickness (mm)	0.24
Insulation diameter (± 0.10 mm)	1.15
Twisting lay length (mm)	30 underneath
Cabling lay length (mm)	200 underneath
Filler	PE
Polyester binder	Yes
Drain wire	Solid tinned copper
AL foil	Yes
Jacket	PVC
Average thickness (± 0.05 mm)	0.50
Min. point thickness (mm)	0.40
Outer diameter (± 0.2 mm)	7.30
Rip cord	Yes
Mechanical characteristics	
Test object	**Jacket**
Test material	PVC
Before tensile strength (Mpa)	≥ 13.8
Aging elongation (%)	≥ 100
Aging condition (˚C x hrs)	100 x 240
After tensile strength (Mpa)	≥ 85 % of unaged
Aging elongation (%)	≥ 50 % of unaged
Cold bend (-20 ± 2˚C x 4 hrs)	No crack
Electrical characteristics	
1.0-100 MHz input impedance (ohms)	100 ± 6
100-250 MHz input impedance (ohms)	100 ± 6
1.0-250 MHz delay skew (ns/100 m)	≤ 45
Pair-to-ground capacitance unbalance (pf/100 m)	≤ 330
Max. conductor DC resistance 20˚C (ohms/km)	73.2
Resistance unbalance (%)	≤ 5

Frequency	Attenuation	NEXT	PSNEXT	ACRF	PSACRF	RL	DELAY
MHz	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**ns/100 m**
1	2.0	74.3	72.3	67.8	64.8	20	570
4	3.8	65.3	63.3	55.8	52.8	23	552
8	5.3	60.8	58.8	49.7	46.7	24.5	546.7
10	6.0	59.3	57.3	47.8	44.8	25	545.4
16	7.6	56.2	54.2	43.7	40.7	25	543
20	8.5	54.8	52.8	41.8	38.8	25	542
25	9.5	53.3	51.3	39.8	36.8	24.3	541.2
31.25	10.7	51.9	49.9	37.9	34.9	23.6	540.4
62.5	15.4	47.4	45.4	31.9	28.9	21.5	538.6
100	19.8	44.3	42.3	27.8	24.8	20.1	537.6
200	29.0	39.8	37.8	21.8	18.8	18	536.5
250	32.8	38.3	36.3	19.8	16.8	17.3	536.3

Cables
Category 6 U/UTP cables

Category 6 UTP PVC cables
The Actassi 4-pair Category 6 cable is a superior product delivering excellent network performance when used in conjunction with other Actassi Category 6 products.

The Category 6 cable consists of 4 pairs of solid insulated copper 23 AWG and is UL listed with a CM or CMR fire rating.
It is designed for use in horizontal cabling situations and supplied in 305 m (1,000 ft) easy pull out boxes.

The Category 6 cable provides a significant margin above the minimum Category 6 near end crosstalk NEXT requirement of ANSI/TIA/EIA-568 and ISO/IEC 11801.

Category 6 UTP LSZH cables
The avaibility of a central filler helps in delivering superior cross-talk isolation and therefore ensures excellent performance. This precision and unique manufacturing process design allows for easy removal, which maximises both performance and termination.

The Actassi Category 6 LSZH 4-pair cables are designed to carry high-bandwidth applications, including the IEEE 802.3AB 1000 Base-T (Gigabit ethernet), TIA/EIA 1000 Base-TX, 1.2Gb/s ATM and any future applications designed for Category 6/ Class E cabling, as well as analogue broadband video.

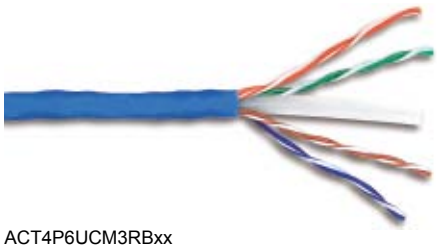
Insulated with non-halogen high-density polyethylene and covered with low smoke zero halogen compounds. It is designed for use in horizontal cabling situations where building smoke requirements mandate low smoke and zero halogen installation and supplied in 305 m (1,000 ft) easy pull out boxes.

The Actassi LSZH cable is IEC tested for low smoke and non-halogen emission and passes the following tests:
- IEC 60754 part 2, non-halogen based on pH and conductivity measurements
- IEC 61034 part 2, smoke emission
- IEC 60332-1, flammability and fire retardant.

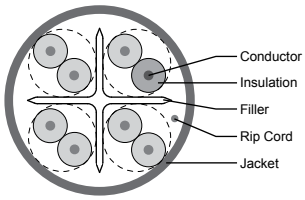
Product features
- Centre filler to maintain pair twisting and optimum NEXT and ELFEXT performance.
- 23 AWG conductors for improved insertion loss performance.

Customer benefits
- Exceeds Category 6 ANSI/TIA/EIA-568-C2-1 and ISO/IEC 11801 standards
- Supports Gigabit ethernet (1000 Base-T and 1000 Base-TX) and beyond.

2D4P6IPV3B_Cat 6 UTP



ACT4P6UCM3RBxx
ACT4P6UCR3RBxx
ACT4P6ULS3RBxx



Description	Ref. No
PVC cables	
Category 6, 4 pair UTP cable 305 m, CM	**ACT4P6UCM3RBxx**
Category 6, 4 pair UTP cable 305 m, CMR	**ACT4P6UCR3RBxx**
LSZH cables	
Category 6, 4 pair UTP cable 305 m, LSZH	**ACT4P6ULS3RBxx**

Where **xx** denotes the color of jacket: BU = blue, WE = white, BK = black, GY = grey, GR = green, RD = red, YL = yellow.

Technical specifications	
Physical specifications	
Rated temperature (˚C)	75
Flammability test	CMR, CM, LSZH
Reference standards	UL Subject 444, EIA/TIA 568-C.2 & ISO/IEC 11801, IEC 61156-5
Construction	
Conductor	**Solid bare copper**
AWG	23
Conductor dia. nom. (mm)	0.565
Insulation	PE
Average thickness (mm)	0.22
Min. point thickness (mm)	0.18
Insulation diameter (± 0.10 mm)	1.04
Twisting lay length (mm)	30 underneath
Cabling lay length (mm)	200 underneath
Filler	PE
Jacket	PVC
Average thickness (± 0.05 mm)	0.49
Min. point thickness (mm)	0.43
Outer diameter (± 0.2 mm)	6.00
Rip cord	Yes
Electrical characteristics	
1.0-100 MHz input impedance (ohms)	100 ± 6
100-250 MHz input impedance (ohms)	100 ± 6
1.0-250 MHz delay skew (ns/100 m)	⩽ 45
Pair-to-ground capacitance unbalance (pf/100 m)	⩽ 330
Max. conductor DC resistance 20˚C (ohms/km)	73.2
Resistance unbalance (%)	⩽ 5

Frequency	Attenuation	NEXT	PSNEXT	ACRF	PSACRF	RL	DELAY
MHz	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**ns/100 m**
1	2.0	77.3	75.3	70.8	67.8	21	570
4	3.8	68.3	66.3	58.8	55.8	24	552
8	5.3	63.8	61.8	52.7	49.7	25.5	546.7
10	6.0	62.3	60.3	50.8	47.8	26	545.4
16	7.6	59.2	57.2	46.7	43.7	26	543
20	8.5	57.8	55.8	44.8	41.8	26	542
25	9.5	56.3	54.3	42.8	39.8	25.3	541.2
31.25	10.7	54.9	52.9	40.9	37.9	24.6	540.4
62.5	15.4	50.4	48.4	34.9	31.9	22.5	538.6
100	19.8	47.3	45.3	30.8	27.8	21.1	537.6
200	29.0	42.8	40.8	24.8	21.8	19	536.5
250	32.8	41.3	33.3	22.8	19.8	18.3	536.3

Cables
Category 5e F/UTP cables

Category 5e UTP PVC cables
The Actassi Category 5e 4-pair cable consists of 24 AWG (0.51 mm) solid-copper conductors insulated with high-density polyethylene. The insulated conductors are tightly twisted into pairs and covered with PVC material.

The Actassi Category 5e 4-pair cable provides excellent high-speed transmission, is certified to 100 MHz and supports applications such as 155 Mb/s ATM, 622 Mb/s ATM and IEEE 802.3 1000 Base-T (Gigabit ethernet) standard, using parallel transmission technology. This product is UL listed with a CM fire rating.

Category 5e FTP LSZH cables
The Actassi Category 5e low smoke zero halogen (LSZH) 4-pair cable consists of 24 AWG (0.51 mm) solid-copper conductors insulated with high-density polyethylene. The insulated conductors are tightly twisted into pairs and covered with a non-halogen high-density polyethylene jacket made from low smoke zero halogen compounds.

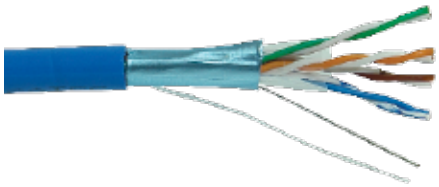
The Actassi Category 5e LSZH 4-pair cable provides excellent high-speed transmission, and certified to 155 MHz and supports applications such as 155 Mb/s ATM, 622 Mb/s ATM and IEEE 802.3 1000 Base-T (Gigabit ethernet) standards, using parallel transmission technology. This product is UL listed with a CM fire rating.

The Actassi Category 5e LSZH 4-pair cable is IEC tested for low smoke and non-halogen emission and passes the following tests:
- IEC 60754 part 2, non-halogen based on pH and conductivity measurements
- IEC 61034 part 2, smoke emission
- IEC 60332-1, flammability and fire retardant.

Product features
- Compliant with enhanced Category 5 standard
- Wrapped with aluminum foil as binder
- PE insulation of conductors.

Customer benefits
- Ideal for high-speed networks and broadband distribution in the premise
- Suits horizontal and vertical wiring
- Packaged in an easy pull out box.

CAB5E305F TP



ACT4P5ESCR3RBBU

Description	Ref. No
Category 5e, FTP cable, CM rated, 305 m	**ACT4P5ESCM3RBxx**
Category 5e, FTP cable, CMR, 305 m	**ACT4P5ESCR3RBxx**
Category 5e, FTP cable, LSZH, 305 m	**ACT4P5ESLS3RBxx**

Where **xx** denotes the color of jacket: BU = blue, WE = white, BK = black, GY = grey, GR = green, RD = red, YL = yellow.

Technical specifications	
Physical specifications	
Gauge	24 AWG
Jacket thickness	0.5 mm
Weight	42 kg/km
Tensile strength (Mpa)	⩾ 13.8 kg
Outside diameter	5.0 mm
Operating temperature range	-20˚C ~ 60˚C
Insulation thickness	0.25 mm
Construction	
Conductor	**Solid bare copper**
AWG	24
Conductor dia. nom. (mm)	0.51
Insulation	PE
Average thickness (mm)	0.2
Min. point thickness (mm)	0.16
Insulation diameter (± 0.10 mm)	0.925
Twisting lay length (mm)	30 underneath
Cabling lay length (mm)	200 underneath
Jacket	PVC
Average thickness (± 0.05 mm)	0.45
Min. point thickness (mm)	0.43
Outer diameter (± 0.2 mm)	4.8
Rip cord	Yes
Electrical characteristics	
Non. Velocity of Prop. (NVP)	0.69
Max. conductor resistance 20˚C	9.38 ohms/100 m
Resistance unbalance %	⩽ 5 %
Pair-to-ground capacitance unbalance	⩽ 330 pF/100 m

Frequency	Attenuation	NEXT	PSNEXT	ACRF	PSACRF	RL	DELAY
MHz	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**ns/100 m**
1	2.0	65.3	62.3	63.8	60.8	20.0	570.0
4	4.1	56.3	53.5	51.8	48.8	23.0	552.0
8	5.8	51.8	48.8	45.7	42.7	24.5	546.7
10	6.5	50.3	47.3	43.8	40.8	25.0	545.4
16	8.2	47.2	44.2	39.7	36.7	25.0	543.0
20	9.3	45.8	42.8	37.8	34.8	25.0	542.0
25	10.4	44.3	41.3	35.8	32.8	24.3	541.2
31.25	11.7	42.9	39.9	33.9	30.9	23.6	540.4
62.5	17.0	38.4	35.4	27.9	24.9	21.5	538.6
100	22.0	35.3	32.3	23.8	20.8	20.1	537.6

Cables
Category 5e U/UTP cables

Category 5e UTP PVC cables
The Actassi Category 5e 4-pair cable consists of 24 AWG (0.51 mm) solid-copper conductors insulated with high-density polyethylene. The insulated conductors are tightly twisted into pairs and covered with PVC material.

The Actassi Category 5e 4-pair cable provides excellent high-speed transmission, is certified to 100 MHz and supports applications such as 155 Mb/s ATM, 622 Mb/s ATM and IEEE 802.3 1000 Base-T (Gigabit ethernet) standard, using parallel transmission technology. This product is UL listed with a CM or CMR fire rating.

Category 5e UTP LSZH cables
The Actassi Category 5e low smoke zero halogen (LSZH) 4-pair cable consists of 24 AWG (0.51 mm) solid-copper conductors insulated with high-density polyethylene. The insulated conductors are tightly twisted into pairs and covered with a non-halogen high-density polyethylene jacket made from low smoke zero halogen compounds.

The Actassi Category 5e LSZH 4-pair cable provides excellent high-speed transmission, and certified to 155 MHz and supports applications such as 155 Mb/s ATM, 622 Mb/s ATM and IEEE 802.3 1000 Base-T (Gigabit ethernet) standards, using parallel transmission technology. This product is UL listed with a CM fire rating.

The Actassi Category 5e LSZH 4-pair cable is IEC tested for low smoke and non-halogen emission and passes the following tests:
- IEC 60754 part 2, non-halogen based on pH and conductivity measurements
- IEC 61034 part 2, smoke emission
- IEC 60332-1, flammability and fire retardant.

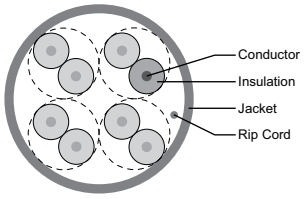
Product features
- Compliant with enhanced Category 5 standard.

Customer benefits
- Ideal for high-speed networks and broadband distribution in the premise
- Suits horizontal and vertical wiring
- Packaged in an easy pull out box.

2D4P5IPV3B_Cat5e UTP PVC

ACT4P5EULS3RBBU

Cat5e UTP Cable_dwg



Description	Ref. No
PVC cables	
Category 5e 4 pair UTP cable 305 m, CM	**ACT4P5EUCM3RBxx**
Category 5e 4 pair UTP cable 305 m, CMR	**ACT4P5EUCR3RBxx**
LSZH cables	
Category 5e 4 pair UTP cable 305 m, LSZH	**ACT4P5EULS3RBxx**

Where **xx** denotes the color of jacket: BU = blue, WE = white, BK = black, GY = grey, GR = green, RD = red, YL = yellow.

Technical specifications	
Physical specifications	
Rated temperature (˚C)	75
Flammability test	CMR, CM, LSZH
Reference standards	UL subject 444, ANSI/TIA/EIA-568B & ISO/IEC 11801
Construction	
Conductor	**Solid bare copper**
AWG	24
Conductor dia. nom. (mm)	0.51
Insulation	PE
Average thickness (mm)	0.2
Min. point thickness (mm)	0.16
Insulation diameter (± 0.10 mm)	0.925
Twisting lay length (mm)	30 underneath
Cabling lay length (mm)	200 underneath
Jacket	PVC
Average thickness (± 0.05 mm)	0.45
Min. point thickness (mm)	0.43
Outer diameter (± 0.2 mm)	4.8
Rip cord	Yes
Electrical characteristics	
1.0-100 MHz input impedance (ohms)	100 ± 6
1.0-250 MHz delay skew (ns/100 m)	⩽ 45
Pair-to-ground capacitance unbalance (pf/100 m)	⩽ 330
Max. conductor DC resistance 20˚C (ohms/km)	93.8
Resistance unbalance (%)	⩽ 5

Frequency	Attenuation	NEXT	PSNEXT	ACRF	PSACRF	RL	DELAY
MHz	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**dB/100 m**	**ns/100 m**
1	2.0	68.3	65.3	66.8	63.8	21	570.0
4	4.1	59.3	56.3	54.8	51.8	24	552.0
8	5.8	54.8	51.8	48.7	45.7	25.5	546.7
10	6.5	53.3	50.3	46.8	43.8	26	545.4
16	8.2	50.2	47.2	42.7	39.7	26	543.0
20	9.3	48.8	45.8	40.8	37.8	26	542.0
25	10.4	47.3	44.3	38.8	35.8	25.3	541.2
31.25	11.7	45.9	42.9	36.9	33.9	24.6	540.4
62.5	17.0	41.4	38.4	30.9	27.9	22.5	538.6
100	22.0	38.3	35.3	26.8	23.8	21.1	537.6

Cables
Category 5e multipair UTP cables

Category 5 25-pair cable is constructed of 24 AWG (0.5 mm) solid-copper conductors insulated with high density polyethylene. The insulated conductors are tightly twisted into pairs, stranded into mini-units. This construction allows for easy pair identification and subsequent termination.

Category 5 25-pair cable provides excellent high-speed transmission, certified to 100 MHz and supports applications such as 155 Mb/s ATM, 622 Mb/s ATM and IEEE 802.3 1000 Base-T (Gigabit ethernet) standards, using parallel transmission technology or as a high performance voice riser cable. This product is UL listed with a CMR fire rating for riser use.

Category 5e 25-pair cable allows the use of multi-pair cables in interconnect and zone cabling applications. The 25-pair cable construction reduces tray and conduit fill rates whilst allowing high-density interconnections.

Product features
- Compliant with enhanced Category 5 standard
- PE insulation of conductors
- Grey PVC jacket.

Customer benefits
- Ideal for high-speed netwoks and broadband distribution in the premise
- Suits horizontal and vertical wiring.

CAB5E025305_Cat5e 25P

ACT25P5EUCR3RGY

Description	Ref. No
Cat.5e 25 pr UTP cable 305 m/reel grey CM	**ACT25P5EUCM3RGY**
Cat.5e 25 pr UTP cable 305 m/reel grey CMR	**ACT25P5EUCR3RGY**
Cat.5e 25 pr UTP cable 305 m/reel grey LSZH	**ACT25P5EULS3RGY**

Technical specifications								
Physical specifications								
Gauge	24 AWG							
Jacket thickness	0.8 mm							
Weight	184 kg/km							
Outside diameter	12.5 mm							
Operating temperature range	-20˚C ~ 60˚C							
Insulation thickness	0.21 mm							
Electrical characteristics								
Non. velocity of prop. (NVP)	0.69							
Max. conductor resistance 20˚C	9.38 ohms/100 m							
Resistance unbalance %	≤ 5 %							
Pair-to-ground capacitance unbalance	≤ 330 pF/100 m							
Electrical performance								
Transmission frequency (MHz)	1	4	10	16	20	31.25	62.5	100
NEXTA db/100 m	65.3	56.3	50.3	47.3	45.8	42.9	38.4	35.3
Characteristic impedance	100 ± 15							
Attenuation db/100 m	2.0	4.1	6.5	8.2	9.2	11.7	17.0	22.0
Structural return loss db/100 m	> 23				> 23 – 10 log (F/20)			
Return loss db/100 m	N/A							
Nominal velocity of propagation	> 65 %							
PSNEXTA db/100 m	65.3	53.3	47.3	44.4	42.8	39.9	35.4	32.3
ACR db/100 m	63.3	52.2	43.8	39.1	36.5	31.2	21.4	13.3
PSACR db/100 m	60.3	49.2	40.8	36.1	33.5	28.3	18.4	10.3

Cables
Category 3 multipair UTP cables

The Category 3 cable has the same electrical and performance characteristics as Category 3 multipair LAN cable.

Product features
- Compliant with ANSI/TIA/EIA-568C Category 3 standard
- IEC LSZH fire retardant tested
- 24 AWG, solid conductor.

Customer benefits
- Suitable for IEEE 802.3 10 Base-T or telephony applications
- Available in 25-pair or 100-pair configurations.

CAB3050305_Cat3 50P

ACT25P3UCM3RGY

Description	Ref. No
Cat.3, 25 pr UTP cable 305 m/reel grey CM	**ACT25P3UCM3RGY**
Cat.3, 25 pr UTP cable 305 m/reel grey CMR	**ACT25P3UCR3RGY**
Cat.3, 25 pr UTP cable 305 m/reel grey LSZH	**ACT25P3ULS3RGY**
Cat.3, 50 pr UTP cable 305 m/reel grey CM	**ACT50P3UCM3RGY**
Cat.3, 50 pr UTP cable 305 m/reel grey CMR	**ACT50P3UCR3RGY**
Cat.3, 50 pr UTP cable 305 m/reel grey LSZH	**ACT50P3ULS3RGY**
Cat.3, 100 pr UTP cable 305 m/reel grey CM	**ACT100P3UCM3RGY**
Cat.3, 100 pr UTP cable 305 m/reel grey CMR	**ACT100P3UCR3RGY**
Cat.3, 100 pr UTP cable 305 m/reel grey LSZH	**ACT100P3ULS3RGY**

Technical specifications					
Physical specifications					
Gauge	24 AWG				
Tensile strength (Mpa)	⩾ 13.8 kg				
Insulation thickness	0.188 ± 0.01mm				
Operating temperature range	-20˚C ~ 60˚C				
Jacket thickness (mm)	0.6/1.2/1.3 for 25/50/100-pair				
Outer diameter (mm)	11.0/15.8/22.0 for 25/50/100-pair				
Electrical characteristics					
Non. Velocity of Prop. (NVP)	0.69				
Max. conductor resistance 20˚C	9.38 ohms/100 m				
Resistance unbalance (%)	⩽ 5 %				
Pair-to-ground capacitance unbalance	⩽ 330 pF/100 m				
Electrical performance					
Transmission frequency (MHz)	1	4	8	10	16
NEXTA db/100 m	41	32	27	26	23
Characteristic impedance	100 ± 15				
Attenuation db/100 m	2.6	5.6	8.5	9.7	13.1
Structural return loss db/100 m	12	12	12	12	10
Return loss db/100 m	N/A				
Nominal velocity of propagation	> 65 %				

Connectivity
10G Cat 6A shielded 24-port patch panels

The Actassi 10G Cat 6A shielded 24-ports patch panel is fully loaded with Category 6A shielded keystone modular jacks. Panel is of a metal frame construction with ABS fascia, bracket and bundle with a rear cable management bar. The panel is powder coated for protection against scratches and rust. The rear cable management bar will ensure a neat cable installation and as well as strain relief.

Product features
- Category 6A fully shielded keystone modular jacks
- Universal colour-coding for 568A and 568B standards
- Front labelling system
- Removable rear cable management bar is bundled with Velcro tapes
- Compatible with standard 19" equipment racks
- Fully compliant ISO/IEC 11801 edition 2 2002 and ANSI/TIA/EIA-568-C series connecting hardware standards.

Customer benefits
- Modular jacks are individually removable and replaceable
- Complete kit with all mounting and cable fixing hardware
- Label holders for easy labelling and identification
- Cable management bar provides neat installation and strain relief
- Compliance with international standards gives the customer peace of mind that their network will perform to link, channel and application requirements.

Actassi panel with tooless jack

ACTPP6ATGS24NSS

Description	Ref. No
10G Cat.6A shielded 24-port patch panel, loaded	**ACTPP6ATGS24NSS**
10G Cat.6A shielded 24-port patch panel, unloaded*	**ACTPPS24NSU**
10G Cat.6A shielded 24-port angle patch panel, unloaded	**ACTPPAS24NS**

(*) Remarks: ACTPPS24NSU can be used on Cat 6 shielded and Cat 5e FTP keystone jacks.

Technical specifications	
Transmission performance	
Meet 10G channel performance requirements specified in TIA/EIA-568-C-2.Category 6A and ISO/IEC 11801 Classe Ea	
Environmental conditions	
Temperature range	
Storage	-20 to +60˚C
Operational	-10 to +50˚C
Relative humidity (operational)	Maximum non-condensing 93 %
Mechanical characteristics	
Modular connector	
Total mating force	800 grams for a 8 wire leads minimum
Retention	30 Lbs min between the jack and plug
Insertion/Extraction life	750 cycles minimum
Number of IDC termination	200 minimum
Electrical characteristics	
Modular connector	
Electrical insulation resistance	10 Mega ohms minimum
Dielectric withstanding voltage	1,000 V rms at 60 Hz for 1 Minute
Contact resistance	20 Milliohms maximum
Current ratings	1.5 A at 20˚C
Dimensions	
Shipping reel	510 mm (L) x 80 mm (H) x 135 mm (D)
Shipping weight	1.5 kg

Connectivity

10G Cat 6A unshielded 24-port patch panels

The Actassi 10G Cat 6A unshielded 24-ports patch panel is fully loaded with Category 6A keystone modular jacks. Panel is of a metal frame construction with ABS fascia, bracket and bundle with a rear cable management bar. The panel is powder coated for protection against scratches and rust. The rear cable management bar will ensure a neat cable installation as well as strain relief.

Product features

- Universal color-coding for 568A and 568B standards
- Front labeling system
- Removable rear cable management bar is bundled with Velcro tapes
- Compatible with standard 19" equipment racks
- Fully compliant ISO/IEC 11801 Edition 2002 and ANSI/
- TIA/EIA-568-C series connecting hardware standards.

Customer benefits

- Modular jacks are individually removable and replaceable
- Complete kit with all mounting and cable fixing hardware
- Label holders for easy labeling and identification
- Cable management bar provides neat installation and strain relief
- Adaptable with international standards and easy to use.

ACTPP6ATGU24NSS

ACTPP6ATGU24NSS

Description	Ref. No
10G Cat.6A unshielded 24-port patch panel, non-shutter	**ACTPP6ATGU24NSS**
10G Cat.6A unshielded 24-port patch panel, Shutter	**ACTPP6ATGU24SHS**

Technical specifications	
Transmission performance	
Meet 10G channel performance requirements specified in TIA/EIA-568-C-2 Category 6A and ISO/IEC 11801 Classe Ea	
Environmental conditions	
Temperature range	
Storage	-20 to +60˚C
Operational	-10 to +50˚C
Relative humidity (operational)	Maximum non-condensing 93 %
Mechanical characteristics	
Modular connector	
Total Mating Force	800 grams for a 8 wire leads minimum
Retention	30 Lbs min between the jack and plug
Insertion/extraction life	750 cycles minimum
Number of IDC termination	200 minimum
Electrical characteristics	
Modular connector	
Electrical insulation resistance	10 Mega ohms minimum
Dielectric withstanding voltage	1,000 V rms at 60 Hz for 1 Minute
Contact resistance	20 Milliohms maximum
Current ratings	1.5 A at 20˚C

Connectivity
ID6 patch panels

The ID6 patch panels are a perfect combination of sleek looks, outstanding performance and end-user functionality.

The 24 individual Category 6 shuttered keystone modular jacks incorporate patented flushed-faced, zero footprint design, improving consistency in performance, and exactly matching the work-area outlets. This product incorporates channel designation dials with icons for the top and colours for the bottom of each outlet. It also features top and bottom hinged label windows allowing for further identification of each channel designation. Velcro cable ties, cage nuts and screws are also provided with the product.

Combined with other Actassi products, the ID6 patch panel provides the ultimate structured cabling solution.

Product features
- Aesthetic, contemporary design
- Shuttered outlets/ports
- Top (icon) and bottom (colour) designation dials
- Top and bottom hinged label windows for additional identification
- Powder coated metal framework
- Universal colour-coding for T568A and T568B wiring scheme
- Removable rear cable management tray
- Compatible with standard 19” equipment frames
- IDC termination using an Actassi or other compatible tools
- Fully compliant to AS/NZS 3080: 2003, ISO/IEC 11801 edition 2002 and ANSI/TIA/EIA-568-C series connecting hardware standards.

Customer benefits
- Contemporary design will improve the aesthetic of all installations
- Outlet shutters protect the contact pins from dust ingress, insect infestation and the insertion of foreign objects
- Channel designation dials and hinged windows provide an extensive level of designation identification
- Better than Category 6 performance
- Complete with all mounting and cable fixing hardware
- Rear cable management tray is supplied loose, allowing the installer to fit after termination
- Powder coated metal frame is robust and protects the patch panel from corrosion and scratching
- Compliance with international standards give customers peace of mind that their network will perform to link, channel and application requirements.

ACTPP6U24SHC

31071U24KPPI_Cat6P IDCPP

Description	Ref. No
Category 6 UTP 24-port ID6 shuttered patch panel, loaded	**ACTPP6U24SHC**

Technical specifications	
Mechanical characteristics	
Modular connector	
RJ45 8-pin connector	FCC part 68, subpart F and IEC 60603-7 compliant
Durability	1,000 mating cycles
Material	Phosphor bronze with 50 micro-inches of gold over 100 micro-inches nickel plating
IDC connector	
IDC connector	Insulation slicing of 22 to 24 AWG (0.64 mm to 0.41 mm)
Insulation diameter (Wire)	0.70 mm - 1.40 mm
Connector material	Phosphor bronze with nickel plating
Electrical characteristics	
Dielectric strength	1,000 V rms at 60 Hz for 1 minute
Current rating	1.5 A maximum
Insulation resistance	200 mΩ minimum
Contact resistance	1 mΩ per contact
Temperature Range	-40˚C to +70˚C
Transmission performance	Exceeds ISO/IEC 11801 Class E
	AS/NZS 3080: 2003 Class E

IDC body & cover material fire-retardant, UL 94V-0, plastic.

Connectivity
Category 6 patch panels

The patch panels are a perfect combination of sleek looks and outstanding performance.

The 24 individual Category 6 keystone modular jacks, improving consistency in performance, and exactly matching the work-area outlets. These modular jacks are colour coded for both T568A and T568B wiring scheme and can be terminated using an Actassi or other compatible tools. Clear wire retaining caps are supplied and can be used to provide additional cable strain relief.

The sleek silver fascia of the product comprises of three designation-strip holders with a label kit supplied. Velcro cable ties, cage nuts and screws are also provided with the product.

Combined with other Actassi products, they are the perfect solution to your voice and data communications needs.

Product features
- Aesthetic, contemporary design
- Powder coated metal framework
- Universal colour-coding for T568A and T568B wiring scheme
- Removable rear cable management tray
- Compatible with standard 19" equipment frames
- IDC termination using a Actassi or other compatible tools
- Fully compliant to AS/NZS 3080: 2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-C series connecting hardware standards.

Customer benefits
- Contemporary design will improve the aesthetic of all installations.
- Better than Category 6 performance.
- Complete with all mounting and cable fixing hardware.
- Rear cable management tray is supplied loose, allowing the installer to fit after termination.
- The front labeling system provides a clear and efficient means of identifying circuits.
- Powder coated metal frame is robust and protects the patch panel from corrosion and scratching.
- Compliance with international standards give customers peace of mind that their network will perform to link, channel and application requirements.

RJ6A124PPSH_24PCat6P PP

ACTPP6U24NSS_S

Description	Ref. No
Category 6, UTP 24-port, non-shutter, patch panel, loaded	**ACTPP6U24NSS_S**
Category 6, UTP 24-port, Shuttered, patch panel, loaded	**ACTPP6U24SHS**
Category 6, UTP 24-port, non-shutter, Angled panel, unloaded	**ACTPPAU24NS**
Category 6, FTP 24-port, non-shutter, Angled panel, unloaded	**ACTPPAS24NS**

Technical specifications	
Mechanical characteristics	
Modular connector	
RJ45 8-pin connector	FCC part 68, subpart F and IEC 60603-7 compliant
Durability	1,000 mating cycles
Material	Phosphor bronze with 50 micro-inches of gold over 100 micro-inches nickel plating
IDC connector	
IDC connector	Insulation slicing of 22 to 24 AWG (0.64 mm to 0.41 mm)
Insulation diameter (Wire)	0.70 mm - 1.40 mm
Connector material	Phosphor bronze with nickel plating
Electrical characteristics	
Dielectric strength	1,000 V rms at 60 Hz for 1 minute
Current rating	1.5 A maximum
Insulation resistance	200 mΩ minimum
Contact resistance	1 mΩ per contact
Temperature range	-40˚C to +70˚C
Transmission performance	Exceeds ISO/IEC 11801 Class E
	AS/NZS 3080: 2003 Class E

IDC Body & Cover Material Fire-Retardant, UL 94V-0, Plastic.

Connectivity
Category 5e patch panels

The Category 5e patch panels are a perfect combination of sleek looks and outstanding performance.

They feature 24 individual Category 5e modular jacks that are colour coded for both T568A and T568B wiring scheme and can be terminated using a Actassi or other compatible tools. Clear wire retaining caps are supplied and can be used to provide additional cable strain relief.

The sleek silver face of the product comprises three designation-strip holders with a label kit supplied. Velcro cable ties, cage nuts and screws are also provided with the product.

Combined with other Actassi products, they are the perfect solution to your voice and data communications needs.

Product features
- Aesthetic, contemporary design
- Powder coated metal framework
- Universal colour-coding for T568A and T568B wiring scheme
- Removable rear cable management tray
- Compatible with standard 19" equipment frames
- IDC termination using an Actassi or other compatible tools
- Fully compliant to AS/NZS 3080: 2003, ISO/IEC 11801 edition 2 2002 and ANSI/TIA/EIA-568-C series connecting hardware standards.

Customer benefits
- Contemporary design will improve the aesthetic of all installations
- Complete with all mounting and cable fixing hardware
- Rear cable management tray is supplied loose, allowing the installer to fit after termination
- The front labelling system provides a clear and efficient means of identifying circuits
- Powder coated metal frame is robust and protects the patch panel from corrosion and scratching
- Compliance with international standards give customers peace of mind that their network will perform to link, channel and application requirements.

RJ6A124PPSH_24PCat6P PP

ACTPP5EU24NSS

Description	Ref. No
Category 5e UTP 24-port non-shutter patch panel, loaded	**ACTPP5EU24NSS**

Technical specifications	
Mechanical characteristics	
Modular connector	
RJ45 8-pin connector	FCC part 68, subpart F and IEC 60603-7 compliant
Durability	750 insertion cycles min.
Material	Phosphor bronze with 50 micro-inches of gold over 100 micro-inches nickel plating
IDC connector	
IDC connector	Insulation slicing of 22 to 24 AWG (0.64 mm to 0.41 mm)
Insulation diameter (wire)	0.70 mm - 1.60 mm
Connector material	Phosphor bronze with nickel plating
Electrical characteristics	
Dielectric strength	1,000 V rms at 60 Hz for 1 minute
Current rating	1.5 A maximum
Insulation resistance	10 mΩ minimum
Contact resistance	2 mΩ per contact
Temperature range	-10˚C to +60˚C
Transmission performance	Exceeds ISO/IEC 11801 Class E
	AS/NZS 3080: 2003 Class E

IDC body & cover material fire-retardant, UL 94V-0, plastic.

Connectivity
10G Cat 6A fully shielded modular jacks

The Actassi 10G Cat 6A Fully shielded modular jack is a keystone information outlet which is developed primarily for use of high speed 10G LAN applications. The newly designed toolless modular jack provides no punch down tool for termination. Fully shielded jack eliminates Alien Crosstalk (ANEXT) and delivers the best network performance when used in conjunction with other Actassi 10G products.

Product features
- Complies with TIA/EIA-568-C.2-10 Category 6A and ISO/IEC 11801Class Ea standards
- Newly design toolless termination
- Zinc-alloy fully shielded
- Accepts solid or stranded 22-24 AWG conductors
- Universal colour coding for 568A and 568B.

Customer benefits
- Termination without punch-down tool
- Fully shielded eliminating ANEXT
- Compatible with keystone wall plates.

ACTRJSMTG6ANSS

ACTRJSMTG6ANSS

actjsma6anssp

ACTRJSMA6ANSSP

Description	Ref. No
Category 6A shielded modular jack, non-shutter	**ACTRJSMTG6ANSS**
Category 6A shielded modular jack, non-shutter, panel version	**ACTRJSMTG6ANSSP**
Category 6A shielded angled modular jack, non-shutter	**ACTRJSMA6ANSSP**

Technical specifications	
Transmission performance	
Meet 10G channel performance requirements specified in TIA/EIA-568-C.2-10 Category 6A and ISO/IEC 11801 Class Ea	
Physical specifications	
Housing	Zinc-alloy fully shielded
Spring Wire	Phosphor bronze alloy plated with 50 µ" of gold over 70~100 µ" of nickel
IDC	Phosphor bronze alloy with 100 µ" tin, planted with 100 % tin mistiness
Mechanical characteristics	
Total Mating Force	800 g for a 8 wire leads min.
Retention	50 N (11 Lbs) for 60 s ± 5 s
Insertion/extraction life	750 Cycles Minimum
IDC wire gauge	22~24 AWG
Electrical characteristics	
Insulation resistance	500 mΩ min. @ 100 V DC
Dielectric withstanding voltage	1000 V DC/AC @ 60 Hz for 1 minute
Spring wire contact resistance	20 mΩ max.
IDC contact resistance	2.5 mΩ max.
Environmental conditions	
Temperature range	-40 to 70°C
Operation	-10 to 60°C
Relative humidity (operational)	Max. non-condensing 93 %
Packaging	
Shipping pack	Individual PE bag
Shipping weight	35 g

Connectivity
10G Cat 6A unshielded modular jacks

The Actassi range of Category 6A unshielded modular jacks is the next generation of data communications solutions.

These modular jacks are colour-coded for both 568A and 568B standards and can be terminated using a Schneider Electric punch down impact or Krone tool.

Clear wire retaining caps are supplied and can be used to provide additional cable strain relief.

Combined with other Actassi products, they are the perfect solution to your voice and data communications needs.

Product features
- Complies with TIA/EIA-568-C.2-10 Category 6A and ISO/IEC 11801Class Ea standards
- Aesthetic, contemporary design
- Patented flush-faced, zero footprint shutter mechanism
- Accepts solid or stranded 22-24 AWG conductors
- Universal color coding for 568A and 568B
- Flexible locking tabs (30-Mech connectors)
- UL 94V-0 rated.

Customer benefits
- Shutter mechanism is easy to operate, simply insert the plug lead into the jack.
- Protection from dust ingress, insect infestation and the insertion of foreign objects.
- Various color for easier circuit identification.

30RJ88SMA6_C6 KS ModJack

VDIB1775XUWE

Description	Ref. No
Cat 6A 30 Mech	
Category 6A unshielded modular jack, 30 Mech, non-shutter	**VDIB1775XUxx**
Category 6A unshielded modular jack, 30 Mech, Shutter	**VDIB1773XUxx**
Cat 6A keystone	
Category 6A unshielded modular jack, non-shutter	**VDIB1776XUxx**
Category 6A unshielded modular jack, Shutter	**VDIB1774XUxx**

Where **xx** denotes color: BK = black, BU = blue, GR = green, RD = red, SG = soft grey, WE = white, YL = yellow.

Technical specifications	
Mechanical characteristics	
Modular connector	
RJ45 8-pin connector	FCC part 68, subpart F and IEC 60603-7 compliant
Durability	1,000 mating cycles min.
Material	Phosphor bronze with 50 micro-inches of gold over 100 micro-inches nickel plating
IDC connector	Insulation slicing of 22 to 24 AWG (0.64 mm to 0.41 mm)
Insulation diameter (Wire)	0.70 mm - 1.40 mm
Connector material	Phosphor bronze with nickel plating
Electrical characteristics	
Dielectric strength	1,000 V rms at 60 Hz for 1 minute
Current rating	1.5 A maximum
Insulation resistance	200 mΩ max.
Contact resistance	1 mΩ per contact
Temperature range	-40°C to +70°C
Transmission performance	ANSI/TIA/EIA-568-C,ISO/IEC 11801 Class E, AS/NZS 3080: 2003 Class E

Connectivity
Category 6 shielded modular jacks

The Schneider Electric Category 6 shielded modular jack is an extremely compact, self contained unit which simply snaps into standard Schneider Electric E-series and E2000 series wall plates. The compact size of the modular jack provides versatility in its application. Modular jacks can be mounted onto the shielded patch panel or onto a single standard size wall plate (oriented either vertically or horizontally to suit all regions).

Product features
- Fast, reliable installation process with dressing block and installation tool
- Automatic earthing when connector is plugged onto the FTP patch panel
- Automatic contact of the earthing RJ45 body.

Customer benefits
- 180° cable dress for easy termination
- Modular jack is backward compatible
- Fits in standard Schneider Electric keystone wall plates.

ACTRJSMT6GANSS

ACTRJSM6NSS

actrjsma6anssp

ACTRJSMA6NSS

Description	Ref. No
Category 6, shielded keystone, non-shutter modular jack	**ACTRJSM6NSS**
Category 6, shielded keystone, non-shutter modular jack for panel version	**ACTRJSM6NSSP**
Category 6, shielded angled, non-shutter modular jack	**ACTRJSMA6NSS**

Technical specifications	
Mechanical characteristics	
Materials	Housing bayblend with a 3 layers metallisation (Ni, Cu, Ni)
Dressing block	Polyamide
Contacts	Copper alloy
	Plating: gold over full nickel
Max. diameter on the core insulation to fit into the dressing block channels	1.45 mm
Conductor range acceptance	
Type	Single core
Min. diameter	0.45 mm
Max. diameter	0.64 mm
Electrical characteristics	
Contact resistance	<20 mΩ
Insulation resistance	>5 gΩ
Shielding resistance	<20 mΩ
Propagation delay	1.0 ns
Skew delay	0.4 ns
Transfer impedance	25 mΩ @ 1 MHz (Acc to IEC 96-1)
	160 mΩ @ 1 MHz (Acc to IEC 96-1)
Operating voltage (U_{eff})	125 V
Dielectric withstand voltage	1000 V
Dimensions	
Depth	37.65 mm
Width	17.60 mm
Height	25.50 mm (with rear cover)

Frequency	NEXT	PSNEXT	FEXT	PS-FEXT	Return loss	Insertion loss
MHz	**dB**	**dB**	**dB**	**dB**	**dB**	**dB**
1	>75.0	>71.0	>75.0	>72.0	>30.0	<0.10
4	>75.0	>71.0	>71.1	>68.1	>30.0	<0.10
10	>74.0	>70.0	>63.0	>60.1	>30.0	<0.10
16	>69.9	>65.9	>59.0	>56.0	>30.0	<0.10
20	>68.0	>64.0	>57.1	>54.1	>30.0	<0.10
31.25	>64.1	>60.1	>53.2	>50.2	>30.0	<0.11
62.5	>58.1	>54.1	>47.2	>44.2	>28.1	<0.16
100	>54.0	>50.0	>43.1	>40.1	>24.0	<0.20
200	>48.0	>44.0	>37.1	>34.1	>18.0	<0.28
250	>46.0	>42.0	>35.1	>32.1	>16.0	<0.32

Connectivity
Category 6 unshielded modular jacks

The Actassi range of Category 6 unshielded modular jacks is the next generation of data communications solutions.

The Category 6 shuttered modular jacks incorporates our patented shutter mechanism. Combining this feature with our new shutter technology and you have the most technically advanced Category 6 connector on the market. These modular jacks are colour-coded for both 568A and 568B standards and can be terminated using a Schneider Electric punch down impact or Krone tool.

Clear wire retaining caps are supplied and can be used to provide additional cable strain relief.

Combined with other Actassi products, they are the perfect solution to your voice and data communications needs.

Product features
- Aesthetic, contemporary design
- Patented flush-faced, zero footprint shutter mechanism
- Fully compliant to AS/NZS 3080: 2003, ISO/IEC 11801 edition 2002 and ANSI/TIA/EIA-568-C series connecting hardware standards
- Backward compatible with Category 5 and 5e products
- Flexible locking tabs (30-Mech connectors)
- UL 94V-0 rated
- Accepts solid 22-24 AWG diameter conductors.

Customer benefits
- Performs beyond Category 6 standards
- Shutter mechanism is easy to operate, simply insert the plug lead into the jack
- Protection from dust ingress, insect infestation and the insertion of foreign objects
- Various colours for easier circuit identification
- Backward compatible with Category 5 and 5e products, allowing component mixing without degrading the network below the minimum component category
- 30-Mech style fits all Schneider Electric wall plates (Australian, US and British), giving the customer access to the most popular plates on the market
- For use in Multi-User Telecommunication Outlet applications (MUTO) and Consolidation Points (CP)
- Flexible locking tabs allow for easy removal from wall plates (30-Mech)
- Clear IDC caps that allow for termination verification and assist in cable retention
- Compatible with Schneider Electric.

VDIB17736UWE

VDIB17756UWE

VDIB17736UWE

VDIB17736UWE

30RJ88SMA6_C6 KS ModJack

VDIB17766UWE

30RJ88SMA6SH_6CP KS MJack

VDIB17746UWE

Description	Ref. No
Cat 6 30 Mech	
Non-shutter modular jack, Category 6 unshielded, 30 M	**VDIB17756Uxx**
Shutter modular jack, Category 6 unshielded, 30 M	**VDIB17736Uxx**
Cat 6 keystone	
Non-shutter modular jack, Category 6 unshielded, keystone	**VDIB17766Uxx**
Shutter modular jack, Category 6 unshielded, keystone	**VDIB17746Uxx**
Cat 6 angled Jack	
Non-shutter modular jack, Category 6 unshielded, angled	**ACTRJSMA6NSUxx**

Where **xx** denotes the color of jacket: BK = black, BU = blue, GR = green, RD = red, SG = soft grey, WE = white, YL = yellow.

Technical specifications	
Mechanical characteristics	
Modular connector	
RJ45 8-pin connector	FCC part 68, subpart F and IEC 60603-7 compliant
Durability	1,000 mating cycles min.
Material	Phosphor bronze with 50 micro-inches of gold over 100 micro-inches nickel plating
IDC connector	
IDC connector	Insulation slicing of 22 to 24 AWG (0.64 mm to 0.41 mm)
Insulation diameter (wire)	0.70 mm - 1.40 mm
Connector material	Phosphor bronze with nickel plating
Electrical characteristics	
Dielectric strength	1,000 V rms at 60 Hz for 1 minute
Current rating	1.5 A maximum
Insulation resistance	200 mΩ minimum
Contact resistance	1 mΩ per contact
Temperature range	-40˚C to +70˚C
Transmission performance	ANSI/TIA/EIA-568-C, ISO/IEC 11801 Class E
	AS/NZS 3080: 2003 Class E

Connectivity
Category 5e unshielded modular jacks

The Category 5e modular jacks incorporate patented shutter mechanism. These modular jacks are colour-coded for both T568A and T568B wiring scheme and can be terminated using an Actassi or other compatible tools.

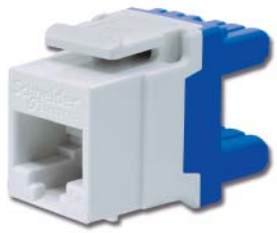
Clear wire retaining caps are supplied and can be used to provide additional cable strain relief.

Combined with other Actassi products, they are the perfect solution to your voice and data communications needs.

Product features
- Aesthetic, contemporary design
- Patented flush-faced, zero footprint shutter mechanism
- Fully compliant to AS/NZS 3080: 2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-C series connecting hardware standards
- Flexible locking tabs (30-Mech connectors)
- Compatible with Actassi or other compatible tools
- UL 94 V-0 rated
- Accepts solid 22-24 AWG diameter conductors.

Customer benefits
- Shutter mechanism is easy to operate, simply insert the plug lead into the jack
- Protection from dust ingress, insect infestation and the insertion of foreign objects
- Available in various colours for easier circuit identification
- 30-Mech style fits all Schneider Electric Wall Plates (Australian, US and British), giving the customer access to the most popular plates on the market
- For use in multi-user Telecommunications Outlet Applications (MUTO) and Consolidation Points (CP)
- Flexible locking tabs allow for easy removal from wall plates (30-Mech)
- Clear IDC caps that allow for termination verification and assist in cable retention.

30RJ88SMA5_C5e KS ModJack



ACTRJSM5ENSUWE

30RJ88SMA5_30Mech ModJck_L2

ACTRJ30M5ENSUWE

Description	Ref. No
Category 5e 30 Mech	
Non-shutter modular jack, Category 5e unshielded 30 M	**ACTRJ30M5ENSUxx**
Shutter modular jack, Category 5e, 30 M	**VDIB17735Uxx**
Category 5e keystone	
Non-shutter modular jack, Category 5e unshielded keystone	**ACTRJSM5ENSUxx**
Shutter modular jack, Category 5e unshielded keystone	**VDIB17745Uxx**

Where **xx** denotes the color of jacket: BK = black, BU = blue, GR = green, RD = red, SG = soft grey, WE = white, YL = yellow.

Technical specifications	
Mechanical characteristics	
Modular connector	
RJ45 8-pin connector	FCC part 68, subpart F and IEC 60603-7 compliant
Durability	750 insertion cycles min.
Material	Phosphor bronze with 50 micro-inches of gold over 100 micro-inches nickel plating
IDC connector	
IDC connector	Insulation slicing of 22 to 24 AWG (0.64 mm to 0.41 mm)
Insulation diameter (wire)	0.70 mm - 1.60 mm
Connector material	Phosphor bronze with nickel plating
Electrical characteristics	
Dielectric strength	1,000 V rms at 60 Hz for 1 minute
Current rating	1.5 A maximum
Insulation resistance	500 mΩ minimum
Contact resistance	2 mΩ per contact
Temperature range	-40˚C to +70˚C
Transmission performance	Exceeds ISO/IEC 11801 Class E
	AS/NZS 3080: 2003 Class E

IDC body & cover material fire-retardant, UL 94V-0, plastic

Connectivity
Category 5e shielded modular jacks

The Category 5e shielded modular jack is a superior product delivering the best performance. The compact size of the modular jack provides versatility in its application. The modular jack simply snaps into standard E-Series and E2000 Series wall plates and can be mounted onto the FTP patch panel or any standard size wall plates (oriented either vertically or horizontally to suit all regions).

Product features
- Category 5e compliant
- Fits all style wall plates (US, Australian and British)
- Flexible locking tabs for easy insertion/removal
- Universal colour coding for T568A and T568B.

Customer benefits
- Designed to snap in wall plates and unloaded FTP panel
- Features 180° and 90° angled versions
- Accepts solid 22-24 AWG conductors.

ACTRJSMTG6ANSS

ACTRJSM5ENSS

Description	Ref. No
Category 5e, shielded, modular jack, non-shutter	**ACTRJSM5ENSS**
Category 5e, shielded, modular jack, non-shutter for patch panel	**ACTRJSM5ENSSP**

Technical specifications	
Mechanical characteristics	
Materials	Housing bayblend with a 3 layers metallisation (Ni, Cu, Ni)
Dressing block	Polyamide
Contacts	Copper alloy
	Plating: gold over full nickel
Max. diameter on the core insulation to fit into the dressing block channels	1.45 mm
Electrical characteristics	
Contact resistance	< 20 mΩ
Insulation resistance	> 5 gΩ
Shielding resistance	< 20 mΩ
Propagation delay	1.0 ns
Skew delay	0.4 ns
Transfer Impedance	25 mΩ @ 1 MHz (Acc to IEC 96-1)
	160 mΩ @ 1 MHz (Acc to IEC 96-1)
Operating voltage (Ueff) dielectric	125 V
Withstand voltage	1000 V
Dimensions	
Depth	37.65 mm
Width	17.60 mm
Height	25.50 mm (with rear cover)

Connectivity
10G Cat 6A F/UTP patch cords

The Actassi 10G Cat 6A F/UTP patch cord is a high quality product delivering excellent network performance when using in conjunction with other Actassi 10G products. The patch cord is constructed of high grade cable and quality RJ45 plugs, and is designed to operate up to 500 MHz. This enables it to operate successfully in a 10G environment. The RJ45 plugs are shielded with brass alloy. The assembly boot ensures excellent strain relief and together with the insert, ensures that performance is stable when using the patch cord. patch cords are available in Blue, Grey & White colours, with matching boots to help with circuit identification in cabinet/rack.

Product features
- Meet 10G channel performance requirements specified in TIA/EIA-568-C.2-10 Category 6A and ISO/IEC 11801 Class Ea
- UL CM fire rated or LSZH jacketing
- PE insulation on conductors
- Plug assembly is compatible with FCC Part 68-F.

Customer benefits
- Support 10G network transmission
- Available in various lengths to assist with better cable management
- Assembly boot not only ensures pair integrity but also provides an enhanced strain relief, especially during installations or moves.

ACTPT6ASXYY10ZZ

ACTPTG6Axyy10zz

Description	Ref. No
Category 6A F/UTP patch cord, 1.0M	**ACTPTG6ASxyy10zz**
Category 6A F/UTP patch cord, 2.0M	**ACTPTG6ASxyy20zz**
Category 6A F/UTP patch cord, 3.0M	**ACTPTG6ASxyy30zz**
Category 6A F/UTP patch cord, 5.0M	**ACTPTG6ASxyy50zz**

Where **x** denotes wiring sequence: A - 568A, B - 568B
Where **yy** denotes Jacket material: CM - PVC, LS - LSZH
Where **zz** denotes colour: GY - Grey, BU - Blue, WE - White

Technical specifications	
Physical specifications	
Rated temperature (˚C)	75
Application	Horizontal wiring in LAN
Reference standards	TIA/EIA 568B.2-10 & ISO/IEC 11801 Class Ea
Mechanical characteristics	
AWG	26
Pair count	4-pair Individually colour with filler and PVC or LSZH Jacke
Sequence	Wiring sequence 568A/B
Retention	50N for 60 s ± 5 s
Durability	750 mating cycles min.
Plug housing	Polycarbonate, UL94V-0
Plug blades	Nickel with 50 µ" gold-plated
Electrical characteristics	
Dielectric withstanding voltage	1000 V AC/DC Peak, contact to contact
	1500 V AC/DC Peak, contact to test panel
Insulation resistance	500 mΩ Minimum @ 100 V DC
Contact resistance	20 mΩ maximum
Current ratings	2.1 A maximum
Packaging	
Shipping pack	Individual PE bag
Shipping weight	Depends on lengths

Connectivity
ID-3™ F² U/UTP patch cords

Actassi ID-3™ F² patch cord is a superior Category 6 product delivering excellent network performance when used in conjunction with other Actassi products.

The ID-3™ F² patch cord is constructed with the patent pending F² construction stranded cable and high quality RJ45 plugs, and is designed to operate up to 300MHz. The product can operate successfully in a Category 6 environment with a higher margin in performance.

The RJ45 plugs are provided with an over mould boot to ensure pair integrity. The over mould boot ensures excellent strain relief and together with the insert, ensures that performance is stable when using the patch cord.

Patch Cords are equipped with explicit ID-3™ labeling identification, with changeable channel caps and ring to help with circuit identification in cabinet/rack.

Product features
- Explicit ID-3™ labeling identification
- Equipped with 5 sets of changeable coloured channel caps and rings, up to 36 combinations
- Constructed of stranded Cat 6 cable equipped with F² construction separator
- Fully mould boot and RJ45 plugs
- UL listed CM fire rated
- Fully compliant to TIA/EIA 568C.2-1 Category 6 and ISO/IEC 11801 Class E standards.

Customer benefits
- F² construction cable provides better performance in RL and NEXT
- Allow distinguish colour and numbering identifications
- Available in various lengths to assist with better cable management
- Fully moulded RJ45 plugs not only ensures pair integrity but also provides an enhanced strain relief, especially during installations or moves
- Money saving for keeping single color of patch cords
- Ease to install and flexible for connection
- Time saving for maintenance
- Tractability for critical services.

Patch cord

RJ6T2/10PL

Description	Ref. No
Actassi ID-3™ patch cord, Category 6, UTP, 1m	**RJ6T2/10PL**
Actassi ID-3™ patch cord, Category 6, UTP, 2 m	**RJ6T2/20PL**
Actassi ID-3™ patch cord, Category 6, UTP, 3 m	**RJ6T2/30PL**
Actassi ID-3™ patch cord, Category 6, UTP, 5 m	**RJ6T2/50PL**

Technical specifications	
Physical specifications	
Rated temperature	75°C
Product standard certification	UL
Flammability test	CM
Application	Horizontal wiring in LAN
Reference standard	TIA/EIA 568C.2 & ISO/IEC 11801
Mechanical characteristics	
AWG	23
Pair count	4-pair with F² construction and PVC jacket
Sequence	Wiring sequence 568A/B
Durability	1,000 mating cycles
RJ45 plug	Polycarbonate, UL94V-2
Plug contact	Copper alloy with 50 µ" gold-plated
Electrical characteristics	
Dielectric	100 V rms at 60 Hz for 1 minute
Voltage rating	150 V AC maximum
Current rating	1.5 A maximum
Insulation	500 mΩ minimum
Contact resistance	10 mΩ maximum

(*) Transmission Performance based on 105 m.

Connectivity
ID-3™ Cat 6 U/UTP secure patch cords

The Actassi ID-3™ F² Cat.6 UTP Secure patch cord is comprised of two parts: unlock key and secure patch cord itself.

The Secure patch cord deters unintended or unauthorized disconnection of the cord. The patch cord requires special unlock key for removal, but it can be freely inserted into an outlet to secure the connection. M type color clips are used on the RJ45 connectors of the secure patch cord. The patch cords are easy to be recognized.

The Secure patch cord is compatible with Schneider Electric Actassi UTP RJ45 outlets and can be used in a variety of applications to protect mission critical networks such as data centres, finance, health care environments and government IT systems.

Remarks: it is not recommended to apply the secure patch cord with laptops and shuttered wall-plates.

Standards test and certification
- Channel performance verified to TIA/EIA-568-C.2-1:2002, Category 6
- CM grade – comply with the UL flame exposure described in UL 1685
- RoHS compliant according to European directive 2002/95/EC.

Customer benefits
- Prevent loss caused by unauthorized plug-out situation in data critical environments, e.g. data centres, medical care, transportation
- Allow distinguish color and numbering identifications
- Available in various lengths to assist with better cable management.
- Fully moulded RJ45 plugs not only ensures pair integrity, but also provides an enhanced strain relief, especially during installations or moves
- Money saving for keeping single color of patch cords.

P7190158

ACTPCC6UBCM1E20WE

Description	Ref. No
Actassi ID-3™ 1-end secure patch cord, Cat.6 UTP, 1 m, CM	**ACTPCC6UBCM1E10WE**
Actassi ID-3™ 1-end secure patch cord, Cat.6 UTP, 2 m, CM	**ACTPCC6UBCM1E20WE**
Actassi ID-3™ 2-end secure patch cord, Cat.6 UTP, 1 m, CM	**ACTPCC6UBCM2E10WE**
Actassi ID-3™ 2-end secure patch cord, Cat.6 UTP, 2 m, CM	**ACTPCC6UBCM2E20WE**
Actassi ID-3™ 2-end secure patch cord, Cat.6 UTP, 3 m, CM	**ACTPCC6UBCM2E30WE**

Technical specifications	
Mechanical characteristics	
AWG	24
Pair count	4-pair individually color with filler and PVC jacket
Sequence	Wiring sequence 568B
Plug housing	Polycarbonate, UL94V-0
Plug blades	Coppy alloy with 50 µ gold-plated
Retention	50 N (11 lbf) for 60 s ± 5 s
Insertion/Extraction life	750 cycles minimum
Tensile strength	≥ 20 N per wire
	≥ 70 N cable to plug
Electrical characteristics	
Dielectric withstanding voltage	1000 V DC / AC peak, contact to contact
	1500 V DC / AC peak, contact to test panel
Insulation	500 mΩ minimum @ 100 V DC
Contact resistance	20 mΩ maximum
Current rating	2.1 A maximum
Environmental characteristics	
Temperature range	
Storage	- 40°C to 70°C
Operation	- 10°C to 60°C
Relative humidity (operational)	Max. non-condensing 93 %

Connectivity
Category 6 FTP patch cords

The Actassi Category 6 FTP cord is a superior product delivering the best network performance when used in conjunction with other Actassi Category 6 FTP products. The patch cord is constructed of high grade Category 6+ cable and quality RJ45 plugs and is designed to operate up to 250 MHz. This enables it to operate successfully in a Category 6 FTP environment. Patch cords are available in white and blue with matching boots to help with circuit identification in the cabinet/rack.

Product features

- Fully compliant to AS/NZS 3080: 2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-C series connecting hardware standards.
- LSZH fire rated jacket.
- PE insulation on conductors.
- PVC outer jacket material.
- Backward compatible with Category 5 and 5e products.

Customer benefits

- Performs beyond the latest Category 6 international standards.
- Comes in various lengths to assist with better cable management.
- Is backward compatible with Category 5 and 5e products, allowing component mixing without degrading the network below the minimum component category.

Cat 6 FTP patchCord

ACTPC6SBCMxxyy
ACTPC6SBLSxxyy

Description	Ref. No
PVC patch cords	
Category 6, patch cord, FTP, CM	**ACTPC6SBCMxxyy**
LSZH patch cords	
Category 6, patch cord, FTP, LSZH	**ACTPC6SBLSxxyy**

Where **xx** denotes the length of patch cords (w): 10 = 1 m, 20 = 2 m, 30 = 3 m, 50 = 5 m, 100 = 10 m.
Where **yy** denotes the color of the patch cord (yy): BK = black, BU = blue, GR = green, GY = grey, RD = red, WE = white, YL = yellow.
Note: customized color and length is available upon request with additional lead time and MOQ requirement.

Technical specifications	
Mechanical characteristics	
Cable	
Gauge	FCC part 68, subpart F and IEC 60603-7 compliant
Pair count	4-pair individually colour coded with filler and PVC jacket
Sequence	Wiring sequence T568A/B
Durability	1,000 mating cycles
RJ45 plug	Polycarbonate, FCC Part 68 subpart F, UL 94V-0
Plug boot	PVC
Contact material	Phosphor bronze with 50 micro-inches gold over 100 micro-inches nickel
Electrical characteristics	
Dielectric strength	100 V rms at 60 Hz for 1 minute
Voltage rating	150 V AC maximum
Current rating	1.5 A maximum
Insulation	500 mΩ minimum
Contact resistance	10 mΩ maximum

Connectivity
Category 5e F/UTP patch cords

The Actassi Category 5e F/UTP Cord is designed for use in either workstation or cabinet environments. The product delivers the best network performance when used in conjunction with other Actassi Category 5e F/UTP products. The patch cord is constructed of stranded Category 5e cable and quality shielded RJ45 plugs. This enables it to operate successfully in a Category 5e F/UTP environment. Patch cords are available in grey and blue with matching boots to help with circuit identification in the cabinet/rack.

Product features
- Fully compliant to AS/NZS 3080: 2003 Class D and Category 5e standards
- LSZH fire rated jacket
- PE insulation on conductors
- PVC outer jacket material
- High-quality UTP/RJ45 patch cords
- Fully moulded RJ45 plugs ensure stable performance.

Customer benefits
- Comes in various lengths to assist with better cable management.
- Fully moulded boot and insert not only ensures pair integrity but also provides an enhanced strain relief, especially during installations or moves.

Cat5e FTP patchCord

ACTPC5ESBCM10BU

Description	Ref. No
PVC patch cords	
Category 5e, patch cord, F/UTP, CM	**ACTPC5ESBCMxxyy**
LSZH patch cords	
Category 5e, patch cord, F/UTP, LSZH	**ACTPC5ESBLSxxyy**

Where **xx** denotes the length of patch cords (w): 10 = 1 m, 20 = 2 m, 30 = 3 m, 50 = 5 m, 100 = 10 m.
Where **yy** denotes the color of the patch cord (yy): BK = black, BU = blue, GR = green, GY = grey, RD = red, WE = white, YL = yellow.
Note: customized color and length is available upon request with additional lead time and MOQ requirement.

Technical specifications		
Transmission specifications		
@100 MHz	**Product specification**	**Cat 5e standard**
Crosstalk (-dB) - 2 m	35.3	35.0
Crosstalk (-dB) - 5 m	35.1	34.7
Crosstalk (-dB) - 10 m	34.8	34.5
Return loss (-dB)	20.0	18.0
Mechanical characteristics		
Connectors		
Gauge	FCC part 68, subpart F and IEC 60603-7 compliant	
Pair count	4-pair individually colour coded with filler and PVC jacket	
Sequence	Wiring sequence T568A/B	
Durability	1,000 mating cycles	
RJ45 plug	Polycarbonate, FCC Part 68 subpart F, UL 94V-0	
Plug boot	PVC	
Contact material	Phosphor bronze with 50 micro-inches gold over 100 micro-inches nickel	
Electrical characteristics		
Dielectric strength	100 V rms at 60 Hz for 1 minute	
Voltage rating	150 V AC maximum	
Current rating	1.5 A maximum	
Insulation	1 mΩ minimum	
Contact resistance	10 mΩ maximum	

Connectivity
Category 6 U/UTP patch cords

The Actassi Category 6 patch cord is a superior product delivering the best network performance when used in conjunction with other Actassi Category 6 products.

The patch cord is constructed of high grade cable and quality RJ45 plugs, and is designed to operate up to 300 MHz.
This enables it to operate successfully in a Category 6 environment.

Patch cords are available in various colours with matching boots to help with circuit identification in the cabinet/rack.

As an integral part of the Actassi series, this product has a system performance guarantee when installed by a Schneider Electric endorsed installer or endorsed partner.

Product features
- Fully compliant to AS/NZS 3080: 2003, ISO/IEC 11801 Edition 2 2002 and ANSI/TIA/EIA-568-C series connecting hardware standards
- Fire rated jacket
- PE insulation on conductors
- PVC outer jacket material
- Backward compatible with Category 5 and 5e products.

Customer benefits
- Performs beyond the latest Category 6 international standards
- Comes in various lengths to assist with better cable management
- Is backward compatible with Category 5 and 5e products, allowing component mixing without degrading the network below the minimum component category.

Cat 6 UTP patchCord

ACTPC6UBCMxxyy
ACTPC6UBLSxxyy

Description	Ref. No
PVC patch cords	
Category 6, patch cord, U/UTP, CM	**ACTPC6UBCMxxyy**
LSZH patch cords	
Category 6, patch cord, U/UTP, LSZH	**ACTPC6UBLSxxyy**

Where **xx** denotes the length of patch cords (w): 10 = 1 m, 20 = 2 m, 30 = 3 m, 50 = 5 m, 100 = 10 m.
Where **yy** denotes the color of the patch cord (yy): BK = black, BU = blue, GR = green, GY = grey, RD = red, WE = white, YL = yellow.
Note: customized color and length is available upon request with additional lead time and MOQ requirement.

Technical specifications		
Transmission specifications		
Parameter	**Value (-dB)**	**Cat 6 (-dB)**
NEXT	55.1	≥ 54.0
Power sum NEXT	52.0	≥ 54.0
FEXT	49.8	≥ 43.1
Power sum FEXT	46.9	≥ 40.1
Attenuation	0.1	≤ 0.2
Return loss	27.0	≥ 23.0
Mechanical characteristics		
Cable		
Gauge	FCC part 68, subpart F and IEC 60603-7 compliant	
Pair count	4-pair individually colour coded with filler and PVC jacket	
Sequence	Wiring sequence T568A/B	
Durability	1,000 mating cycles	
RJ45 plug	Polycarbonate, FCC Part 68 Subpart F, UL 94V-0	
Plug boot	PVC	
Contact material	Phosphor bronze with 50 micro-inches gold over 100 micro-inches nickel	
Electrical characteristics		
Dielectric strength	100 V rms at 60 Hz for 1 minute	
Voltage rating	150 V AC maximum	
Current rating	1.5 A maximum	
Insulation	500 mΩ minimum	
Contact resistance	10 mΩ maximum	

Connectivity
Category 5e U/UTP patch cords

The Actassi Series Category 5e patch cord is a superior product delivering the best network performance when used in conjunction with other Actassi Category 5e products.

The patch cord is constructed of high grade cable and quality RJ45 plugs. The RJ45 plugs are provided with a fully moulded boot and a moulded insert to ensure pair integrity. The fully moulded boot ensures excellent strain relief and together with the insert, ensures that performance is not degraded when using the patch cord.

Patch cords are available in various colours to help with circuit identification in the cabinet/rack.

Product features
- Fully compliant to AS/NZS 3080: 2003 Class D and Category 5e standards
- Fire rated jacket
- PE insulation on conductors
- PVC outer jacket material
- High-quality UTP/RJ45 patch cords
- Fully moulded RJ45 plugs ensure stable performance.

Customer benefits
- Comes in various lengths to assist with better cable management.
- Fully moulded boot and insert not only ensures pair integrity but also provides an enhanced strain relief, especially during installations or moves.

Cat5e UTP patchCord

ACTPC5EUBCMxxyy
ACTPC5EUBLSxxyy

Description	Ref. No
PVC patch cords	
Category 5e, patch cord, U/UTP, CM	**ACTPC5EUBCMxxyy**
LSZH patch cords	
Category 5e, patch cord, U/UTP, LSZH	**ACTPC5EUBLSxxyy**

Where **xx** denotes the length of patch cords (w): 10 = 1 m, 20 = 2 m, 30 = 3 m, 50 = 5 m, 100 = 10 m.
Where **yy** denotes the color of the patch cord (yy): BK = black, BU = blue, GR = green, GY = grey, RD = red, WE = white, YL = yellow.
Note: customized color and length is available upon request with additional lead time and MOQ requirement.

Technical specifications		
Transmission specifications		
@100 MHz	**Product specification**	**Cat 5e standard**
Crosstalk (-dB) - 2 M	35.3	35.0
Crosstalk (-dB) - 5 M	35.1	34.7
Crosstalk (-dB) - 10 M	34.8	34.5
Return loss (-dB)	20.0	18.0
Mechanical characteristics		
Connectors		
Gauge	FCC part 68, subpart F and IEC 60603-7 compliant	
Pair count	4-pair individually colour coded with filler and PVC jacket	
Sequence	Wiring sequence T568A/B	
Durability	1,000 mating cycles	
RJ45 plug	Polycarbonate, FCC part 68 subpart F, UL 94V-0	
Plug boot	PVC	
Contact material	Phosphor bronze with 50 micro-inches gold over 100 micro-inches nickel	
Electrical characteristics		
Dielectric strength	100 V rms at 60 Hz for 1 minute	
Voltage rating	150 V AC maximum	
Current rating	1.5 A maximum	
Insulation	1 mΩ minimum	
Contact resistance	10 mΩ maximum	

S-110 accessories
Fast termination tool with cut module

It is a fast termination tool primary for all telecom and data communication installers. This tool simultaneously seats and trims eight all wires at one single squeeze. With this tool, installers can easily perform wire terminations and cable trimming when installing designated Actassi modular jacks. keystone or 30-Mech.

Product features
- Fast and easy field installation tool
- Simple squeeze handle
- Special jack guide design
- Replaceable cutting module design
- Handle lock design.

Customer benefits
- Save up termination time over 80 %
- Save up termination force needed to 70 %
- Termination of all wires at one single squeeze
- Ensure stability and safety during termination
- Prolong tool's life cycle
- Easy & handy carrying and storage.

P122301

Tool

Video how to use it?

P122303

Module

Description	Ref. No
For most premium Actassi module jack	
Quick termination punchdown tool (2 modules ACTTLQTBCM included)	**ACTTLQTB**
Cut module for punchdown tool	**ACTTLQTBCM**
For specific angled jack panel only	
Quick termination punchdown tool angled (1 module ACTFSMODULE180 included)	**ACTFSPUNCH110**
110 cut module	**ACTFSMODULE180**

Note: for details, please contact on sale office.

Standard tool (for S-110 tools for Cat 6_A, Cat 6 and Cat 5e)

P136447

Tool

Video how to use it?

P136448

Blade

Description	Ref. No
Punchdown tool (1 blade ACTTRJ45PDTB included)	**ACTTRJ45PDT**
Blade for standard punchdown tool ACTTRJ45PDT	**ACTTRJ45PDTB**

Technical specifications	
Dimensions	
Fast punchdown tool with 110 cut module	
Shipping pack	190 x 190 x 30 mm (LxWxH)
Shipping weight	305 g
Quick termination tool with cut module	
Shipping pack	213 x 132 x 35 mm (LxWxH)
Shipping weight	395 g

110 system
Category 6 110 wiring blocks

The Cat.6 110 wiring block is a popular way of terminating cables for cross connecting data and voice. It is used in either a rack or wall mounted situation. The base block is where the riser/horizontal cable is terminated and a 110 connector is then placed over the terminated pairs. This now allows access for jumper wires or 110 patch cords to cross connect.

The wall-mount blocks are available in 48, 96 and 288-pair with legs; rack mounted blocks is supplied with back panel (1U~3U) available in 96, 192 and 288-pair.

The 110 connectors is available in 4-pair size. The termination of cable on 110 wiring blocks is achieved with the use of speedy 4-pair termination tool. The 4-pair tool can only be used to terminate on the wiring block and not to terminate jumpers on the 110 connector.

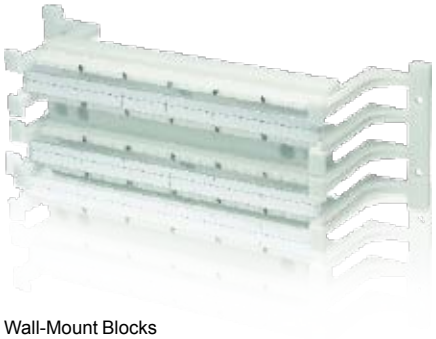
Product features

- Popular 110 connector technology meets TIA/EIA 568B 2.1 Cat.6 connecting hardware standards
- Both available in wall-mount and rack-mount types
- Speedy 4-pair punch down block base saving installation time and cost.

Customer benefits

- More cost-effective solution than RJ45 patching solutions
- Supports Category 6 performance
- Wire management available for jumpers and patch cords to prevent accidental disconnection
- Label holder and label for easy circuit identification.

110 Block Solution - Connector Blocks2



Wall-Mount Blocks

Description	Ref. No
Cat.6 110 block 48-pair with legs	**ACTC6110WMW48**
Cat.6 110 block 96-pair with legs	**ACTC6110WMW96**
Cat.6 110 block 288-pair with legs	**ACTC6110WMW288**
Rack mount Cat.6 110 block 96-pair, 1U	**ACTC6110RM96P**
Rack mount Cat.6 110 block 192-pair, 2U	**ACTC6110RM192P**
Rack mount Cat.6 110 block 288-pair, 3U	**ACTC6110RM288P**
Cat.6 110 IDC 4-pair	**ACTC6110BL4P**
4-pair punch down tool	**ACTC6110PDT4P**

Technical specifications		
Environmental characteristics		
Dielectric withstanding voltage	1000 Volts rms@60 Hz for 1 min	
Temperature range	Storage: -40 to 70°C	
	Operational: -10 to 60°C	
Relative humidity (operational)	Maximum condensing: 93 %	
Physical & mechanical characteristics		
Housing	PC UL94V-0	
IDC terminal material	Phosphor bronze alloy plated with 100 micro inch Sn	
	Operational: -10 to 60°C	
Durability	200 cycles minimum (for block)	
Shipping weight	395 g	
Dimensions	**Wall-mount**	**Rack-mount**
48-pair	272 mm (H) x 45 mm (W) x 85 mm (D)	N/A
96-pair	272 mm (H) x 88 mm(W) x 85 mm (D)	483 mm (L) x 45 mm (H)
192-pair	N/A	483 mm (L) x 88 mm (H)
288-pair	272 mm (H) x 27 mm (W) x 85 mm (D)	483 mm (L) x 133 mm (H)

110 system
Category 6 110 patch cords

ACTC6110PC1PB1

Product features
- UL94V-0 fire retardant plastic
- 110-110 type and 110-RJ45 type are available
- Meets TIA/EIA-568-B.2-1 Category 6 connecting hardware standards.

Customer benefits
- Available in various lengths to assist in better cable management
- Available in multi-pair configuration to cater to data, fax and voice applications.

Description	Ref. No
Cat.6 110-110 patch cord, 1P, 1 m	**ACTC6110PC1PA1**
Cat.6 110-110 patch cord, 1P, 2 m	**ACTC6110PC1PA2**
Cat.6 110-110 patch cord, 1P, 3 m	**ACTC6110PC1PA3**
Cat.6 110-110 patch cord, 2P, 1 m	**ACTC6110PC2PA1**
Cat.6 110-110 patch cord, 2P, 2 m	**ACTC6110PC2PA2**
Cat.6 110-110 patch cord, 2P, 3 m	**ACTC6110PC2PA3**
Cat.6 110-110 patch cord, 4P, 1 m	**ACTC6110PC4PA1**
Cat.6 110-110 patch cord, 4P, 2 m	**ACTC6110PC4PA2**
Cat.6 110-110 patch cord, 4P, 3 m	**ACTC6110PC4PA3**
Cat.6 110-RJ45 patch cord, 1P, 1 m	**ACTC6110PC1PB1**
Cat.6 110-RJ45 patch cord, 1P, 2 m	**ACTC6110PC1PB2**
Cat.6 110-RJ45 patch cord, 1P, 3 m	**ACTC6110PC1PB3**
Cat.6 110-RJ45 patch cord, 2P, 1 m	**ACTC6110PC2PB1**
Cat.6 110-RJ45 patch cord, 2P, 2 m	**ACTC6110PC2PB2**
Cat.6 110-RJ45 patch cord, 2P, 3 m	**ACTC6110PC2PB3**
Cat.6 110-RJ45 patch cord, 4P, 1 m	**ACTC6110PC4PB1**
Cat.6 110-RJ45 patch cord, 4P, 2 m	**ACTC6110PC4PB2**
Cat.6 110-RJ45 patch cord, 4P, 3 m	**ACTC6110PC4PB3**

Technical specifications

Environmental characteristics

Pair count	1-4 pair individually color coded with filler and PVC jacket
Sequence	Wiring sequence T568 B
Durability	1,000 mating cycles
RJ45 plug	Polycarbonate, FCC Part 68 subpart F, UL 94V-0
Plug boot	PVC
Contact material	Phosphor bronze with 50 micro-inches gold over 100 micro-inches nickel

110 system
Category 5e 110 wiring blocks

The 110 wiring block is an extremely popular way of terminating cables for cross connecting data and voice. It is used in either a rack or wall mounted situation. The base block is where the riser/horizontal cable is terminated and a 110 connector is then placed over the terminated pairs. This now allows access for jumper wires or 110 patch cords to cross connect. The wall mount is available with or without legs to allow room behind the block for cable entry and to stand off from the wall.

The blocks are available in 50, 100 and 300-pair with legs. Blocks without legs are available in 50 and 100-pair configurations. The 110 connectors are available in 4 and 5-pair sizes. The termination of cable on 110 wiring blocks is achieved with the use of 110 tools. Use either the single contact tool or the speedy 5-pair termination tool. Both tools have a cut-off mechanism. Both can be used on the wiring block bases (for cable termination) as well as the top of the IDC contact block (for jumpering). The 5-pair tool can only be used to terminate on the wiring block and not to terminate jumpers on the 110 connector.

Product features
- Popular 110 connector technology
- Available with or without legs for the block base
- Speedy 5-pair punch down block base saving installation time and cost
- Suitable for jumper wire or patch cords
- 4 and 5-pair 110 connectors available.

Customer benefits
- More cost-effective solution than RJ45 patching solutions
- Supports Category 5e performance
- Wire management available for jumpers and patch cords to prevent accidental disconnection
- Label holder and label for easy circuit identification
- 1,2 and 4-pair patch cords available for data, fax and voice applications.

B110L100PCC_110ConnBlk

ACTC5E110WMN100

Description	Ref. No
Category 5E	
50-pair, base connector, without legs	**ACTC5E110WMN50**
50-pair, base connector, with legs	**ACTC5E110WMW50**
100-pair, base connector, without legs	**ACTC5E110WMN100**
100-pair, base connector, with legs	**ACTC5E110WMW100**
110 cable management panel	**ACT110CMP**
4-pair connector (100 pcs/bag)	**ACTC5E110BL4P**
5-pair connector (100 pcs/bag)	**ACTC5E110BL5P**
4 and 5-pair connector kit (for 100-pair) (20xC4 + 4xC5)	**ACTC5E110BL45P**
110 Kit, 50-pair base and 10xC4 + 2xC5 connector, without legs	**ACTC5E110WMN50K**
110 Kit, 50-pair base and 10xC4 + 2xC5 connector, with legs	**ACTC5E110WMW50K**
110 Kit, 100-pair base and 20xC4 + 4xC5 connector, without legs	**ACTC5E110WMN100K**
110 Kit, 100-pair base and 20xC4 + 4xC5 connector, with legs	**ACTC5E110WMW100K**
100-pair, 19” rack mount	**ACTC5E110RM100P**
4-pair punch down tool (for Cat 5e 110 only)	**ACTC5E110PDT4P**

Please add “A” for T568A wiring and “B” for T568B wiring at the back of the part number during ordering.

Technical specifications	
Dimensions	
50-pair without legs	
Physical size	52 mm (H) x 216 mm (W) x 36 mm (D)
Shipping weight	80 g
50-pair with legs	
Physical size	46 mm (H) x 272 mm (W) x 85 mm (D)
Shipping weight	115 g
100-pair without legs	
Physical size	88 mm (H) x 216 mm (W) x 36 mm (D)
Shipping weight	190 g
100-pair with legs	
Physical size	92 mm (H) x 273 mm (W) x 82 mm (D)
Shipping weight	260 g
300-pair with legs	
Physical size	280 mm (H) x 273 mm (W) x 82 mm (D)
Shipping weight	790 g
Cable management panel	
Physical size	45 mm (H) x 215 mm (W) x 65 mm (D)
Shipping weight	75 g

110 system
Category 5e 110 patch cords

Category 5 110 patch cords complements the Connect 110 wiring block solution. Cords are available in 1, 2 and 4-pair configuration for data, fax and voice applications. Also available is RJ45 to 110 and 110 to raw end for direct termination. These cords are available in white and are used as jumper cords or end-user patch cords.

Category 5 110 patch cord supports both Category 5 and Category 5e.

Product features
- UL listed CM fire rated jacketing
- PE insulation on conductors
- PVC outer jacket material
- Available in multiple lengths and 1, 2 and 4-pair configuration.

Customer benefits
- Category 5e ANSI/TIA/EIA-568-C compliant
- Available in various lengths to assist in better cable management
- Available in multipair configuration to cater to data, fax and voice applications.

C110110010CC_110Cords

ACT5E110PC1PA1

Description	Ref. No
Category 5e, 1-pair, 110 to 110 patch cord, 1.0 m	**ACT5E1100PC1PA1**
Category 5e, 1-pair, 110 to 110 patch cord, 2.0 m	**ACT5E1100PC1PA2**
Category 5e, 1-pair, 110 to 110 patch cord, 3.0 m	**ACT5E1100PC1PA3**
Category 5e, 2-pair, 110 to 110 patch cord, 1.0 m	**ACT5E1100PC2PA1**
Category 5e, 2-pair, 110 to 110 patch cord, 2.0 m	**ACT5E1100PC2PA2**
Category 5e, 2-pair, 110 to 110 patch cord, 3.0 m	**ACT5E1100PC2PA3**
Category 5e, 4-pair, 110 to 110 patch cord, 1.0 m	**ACT5E1100PC4PA1**
Category 5e, 4-pair, 110 to 110 patch cord, 2.0 m	**ACT5E1100PC4PA2**
Category 5e, 4-pair, 110 to 110 patch cord, 3.0 m	**ACT5E1100PC4PA3**

Please add “A” for T568A wiring and “B” for T568B wiring at the back of the part number during ordering.

Technical specifications		
Transmission specifications		
@100 MHz	**Product specification**	**Cat 5e standard**
Crosstalk (-dB) - 2 m	35.3	35.0
Crosstalk (-dB) - 5 m	35.1	34.7
Crosstalk (-dB) - 10 m	34.8	34.5
Return loss (-dB)	20.0	18.0
Mechanical characteristics		
Cable		
Gauge	FCC part 68, Subpart F and IEC 60603-7 compliant	
Pair count	4-pair individually colour coded with filler and PVC jacket	
Sequence	Wiring sequence T568A/B	
Durability	1,000 mating cycles	
RJ45 plug	Polycarbonate, FCC Part 68 subpart F, UL 94V-0	
Plug boot	PVC	
Contact material	Phosphor bronze with 50 micro-inches gold over 100 micro-inches nickel	
Electrical characteristics		
Dielectric strength	100 V rms at 60 Hz for 1 minute	
Voltage rating	150 V AC maximum	
Current rating	1.5 A maximum	
Insulation	1 mΩ minimum	
Contact resistance	10 mΩ maximum	

Please add “A” for T568A wiring and “B” for T568B wiring at the back of the part number during ordering.

110 system
Category 5e 110-RJ45 patch cords

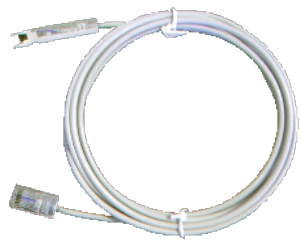
Category 5 110-RJ45 patch cords complements the Connect 110 wiring block solution. Cords are available in 1, 2 and 4-pair configuration for data, fax and voice applications. Also available is RJ45 to 110 and 110 to raw end for direct termination. These cords are available in white and are used as jumper cords or end-user patch cords.

Category 5 110-RJ45 patch cord supports both Category 5 and Category 5e.

Product features
- UL listed CM fire rated jacketing
- PE insulation on conductors
- PVC outer jacket material
- Available in multiple lengths and 1,2 and 4-pair configuration.

Customer benefits
- Category 5e ANSI/TIA/EIA-568-C compliant
- Available in various lengths to assist in better cable management
- Available in multipair configuration to cater to data, fax and voice applications.

whole cable picture 2



ACT5E110PC1PB1

Description	Ref. No
Category 5e, 110-RJ45, 1-pair, patch cord, 1.0 m	**ACT5E110PC1PB1**
Category 5e, 110-RJ45, 1-pair, patch cord, 2.0 m	**ACT5E110PC1PB2**
Category 5e, 110-RJ45, 1-pair, patch cord, 3.0 m	**ACT5E110PC1PB3**
Category 5e, 110-RJ45, 2-pair, patch cord, 1.0 m	**ACT5E110PC2PB1**
Category 5e, 110-RJ45, 2-pair, patch cord, 2.0 m	**ACT5E110PC2PB2**
Category 5e, 110-RJ45, 2-pair, patch cord, 3.0 m	**ACT5E110PC2PB3**
Category 5e, 110-RJ45, 4-pair, patch cord, 1.0 m	**ACT5E110PC4PB1**
Category 5e, 110-RJ45, 4-pair, patch cord, 2.0 m	**ACT5E110PC2PB2**
Category 5e, 110-RJ45, 4-pair, patch cord, 3.0 m	**ACT5E110PC2PB3**

Technical specifications		
Transmission specifications		
@100 MHz	**Product specification**	**Cat 5e standard**
Crosstalk (-dB) - 2 M	35.3	35.1
Crosstalk (-dB) - 5 M	35.3	34.8
Crosstalk (-dB) - 10 M	35.1	34.6
Return loss (-dB)	20.0	18.0
Mechanical characteristics		
Cable		
Gauge	24 AWG (710.20 mm)	
Pair count	HDPE insulation	
Sequence	T568 A/B	
Durability	2,000 mating cycles	
RJ45 plug	UL 94V-2	
Plug boot	None	
Electrical characteristics		
Dielectric strength	AC-500 V / 1 minute	
Voltage rating	300 V DC maximum	
Current rating	1 A	
Insulation	DC 300 V/5 m	
Contact resistance	20 mΩ maximum	

Voice distribution
Distribution frames

The distribution frames are available for use as a Campus Distributor or Building Distributor (MDFs), Floor Distributor (IDF) or Final Distribution Point (FDP).

Product features
- Made from high-quality stainless steel
- Bundled with label holders
- Moulded plastic covers are optional.

Customer benefits
- Available in various sizes.
- Easy installation and management.

3100F100MDF_DistFrame

ACT3100F250MDF

Description	Ref. No
250-pair frame, accommodates 25 modules & 2 label holders	**ACT3100F250MDF**
500-pair frame, accommodates 50 modules & 5 label holders	**ACT3100F500MDF**

Voice distribution
Distribution enclosures

The distribution enclosures can be used as either a Horizontal Cross-Connect (HC), Floor Distributor (IDF) or a Final Distribution Point (FDP). Weatherproof enclosures for use as campus or building distributors (MDF) are also available. Record cards and keyed locks are included.

Product features
- Category 3 compliant
- Permanent services are hardwired rather than patched
- Accepts 22-24 AWG diameter conductors.

Customer benefits
- Suitable for flooring or consolidation voice connection
- Water proof and key locked enclosure.

DSC5383

ACT3100E30IDF

Description	Ref. No
30-pair enclosure, accommodates 3 modules	**ACT3100E30IDF**
100-pair enclosure, accommodates 10 modules	**ACT3100E100IDF**

Technical specifications	
Module size	10/20/30-pair
Dimensions	105 mm (H) x 152 mm (W) x 56 mm (D)
Base/cover	35.1

Voice distribution
Connection modules

The connection modules are Krone backmount frame compatible. Accessories available add further convenience and safety to the Voice Connection Range.

Product features
- Category 3 compliant
- Permanent services are hardwired rather than patched
- Accepts 22-24 AWG diameter conductors.

Customer benefits
- Low cost solution for voice connection.
- Connector modules and accessories are Krone compatible.

3100VDM10_DiscModule

ACT3100VDM10

3100VEM10_TRC EarthModule

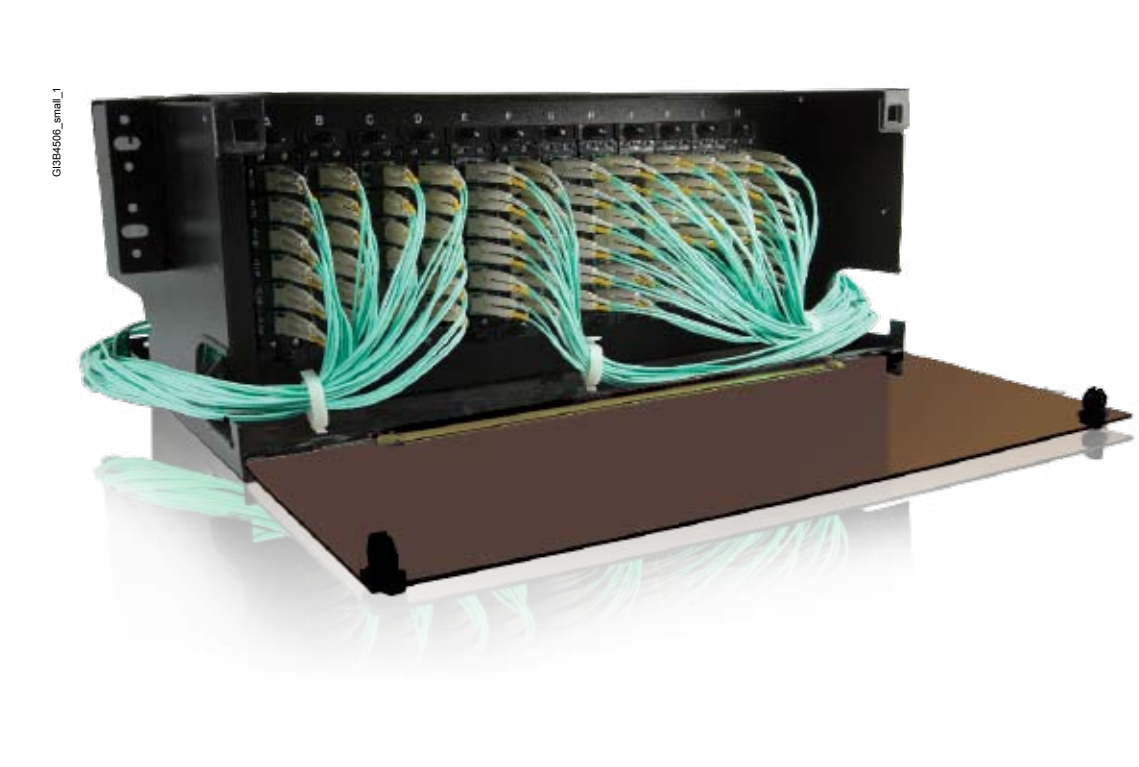
ACT3100VEM10

Description	Ref. No
10-pair connection module, with numbers 1-10, 10-100	**ACT3100VCM10**
10-pair disconnection module, with numbers 1-10, 10-100	**ACT3100VDM10**
TRC earth module, 38 wire, red	**ACT3100VEM10**
Label holder, 1 position, hinged	**ACT3100LABHLDRH**

Technical specifications	
Electrical characteristics	
10-pair connection module	
Housing/base	PBT/PBT UL94V-0
Contacts	Phosphor bronze (0.5 mm)
Plating	Silver (20 µ) over nickel
Wire size	0.4 ~ 0.8 mm
Housing colour	Grey
10-pair disconnection module	
Housing/base	PBT/PBT UL94V-0
Contacts	Phosphor bronze (0.5 mm)
Plating	Silver (20 µ) over nickel
Wire size	0.4 ~ 0.8 mm
Housing colour	White
10-pair TRC earth module	
Housing/base	PBT/PBT UL94V-0
Contacts	Phosphor bronze (0.5 mm)
Plating	Silver (100 µ) over nickel
Wire size	0.4 ~ 0.8 mm
Housing colour	Red
10-pair over-voltage magazine	
Housing/base	PBT/PBT UL94V-0
Contacts	Phosphor bronze (0.5 mm)
Plating	Silver (20 µ) over nickel
Housing colour	Grey

Contents

Actassi Multi-Fibre Push On (MPO) Solution



Answering to your quick deployment and high reliability needs

Schneider Electric MPO (Multi-fibre Push On) system is a pre-terminated optical fibre cabling system specifically designed to satisfy the increasing demand for high bandwidth and high density in data center network, enterprise building applications.

Factory-terminated solutions provide improved system performance; ensure component compatibility and consistent quality. The MPO (MTP Brand) System significantly reduces installation time and cost by simplifying the process of deploying an optical network in the limited space environment, particularly in data center applications.

100 %

100 % pre-assembled and pre-tested in factory.

High density and performance for data centres

- **Up to 18 ports in 1U, up to 432 fibres**
- **MTP connector: MPO technical evolution which guarantees better robustness**
- **OM3, OM4, OS2, Bend Insensitive, Indoor/Outdoor**
- **Fan out splitter protections**
- **10 G ready. Ready to support future 40 G performances thanks to choosen polarity**
- **Fully compliant to following international standards**

Plug & play fibre optic solution.

High security for your network

- **Complete plug & play systems**
- **Pre-equipped cassettes, panels, standard and cassettes all types of links**
- **Expertise: factory 100 % pre-assembled and 100 % pre-tested**
- **On demand length to adjust to end user needs**

Time secured for installation on site

- **Delivery secured**
- **x3 faster installation compared to standard optic offer: save connection time on site, only deploy links and then reduce human intervention on site**

Scalable and adaptable

- **Pay as you grow**
- **Make your data centre evolve according to your needs**
- **Extensions possible thanks to on demand links**

P111047

Energy efficient thanks to "Green environment"

- **Fibre use**
- **Reduce up to 90 % of waste on site**

Multi-fibre Push On (MPO) solution

19-HD fibre panel

Schneider Electric offers an innovative, robust 1U enclosure with sliding mechanism for 3 MPO cassettes and 4U enclosure for 12 MPO (MTP Brand) cassettes. It offers a flexible solution to customers, enabling them to incorporate a multi-functional enclosure which allow easy access during installation or maintenance, with no disturbance of existing cables.
This 19-HD fibre panel can fit MTP cassettes as pre-terminated solution or standard fibre adaptor plate for field-termination application.

Product features

- Fits 19” standard rack or cabinet
- Accommodate to all available MPO (MTP Brand) cassettes
- Also accommodate standard fibre adaptor plates (refer to page 95)
- Adjustable wiring ring for cable management
- Flexigrass front door with magnetic suction
- Cable gland with "U" rubber seal
- Compliant with EIA-310-D.

Customer benefits

- Support indoor applications for data centre, premise installations, telecommunication networks
- Easy to manage cable assembles or fan-out cables
- Flexible to manage incoming trunk cables or cable assembles.

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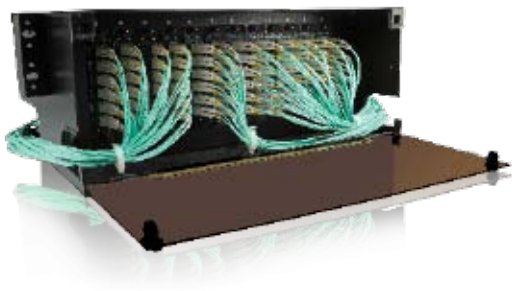


Description	Ref. No
19-HD fibre panel, 1U, fits 3 MTP cassettes, unloaded	**ACTMP1U**
19-HD fibre panel, 4U, fits 12 MTP cassettes, unloaded	**ACTMP4U**

Technical specifications		
Material		Power coated mild steel
Color		Black
Capacity	1U unit	MTP cassette x 3 (max.)
	4U unit	MTP cassette x 12 (max.)
Dimension	1U unit	400 x 482 x 44 mm
	4U unit	400 x 482 x 175 mm

Multi-fibre Push On (MPO) solution
MTP cassette

Schneider Electric MPO (MTP brand) fibre cassette is a repaid and flexible plug and play cable management solution to improve cabling manageability.

Each fibre cassette is pre-installed with factory terminated and tested to assure quality on optical loss performance. The fibre cassette is flexible to be integrated into 1U/4U 19-HD fibre panel, which support rapid deployment and reliable cable management of high density data centre infrastructure.

Product features
- MTP (US Conec) brand MPO in standard compliant multi fibre connector
- Duplex LC adaptors faceplate
- OS2, OM3 and OM4 fibre available
- Factory terminated and tested
- Options of polarity (straight through, reversed pair flip)
- Compliant with TIA/EIA-568-C.3, ISO/IEC 11801.

Customer benefits
- Simple installation and reconfiguration for Moves, Adds and Changes (MACs)
- High density easy-plug cassette (12-fibre per cassette as standard)
- Reduces labour cost and saves times on installation and testing
- Offer high precision and robust connectivity.

P92276528

ACTMMOT24xx

Description	Ref. No
MTP cassette, 12-core, LC duplex, single-mode OS2	**ACTMMOS12xx**
MTP cassette, 24-core, LC duplex, single-mode OS2	**ACTMMOS24xx**
MTP cassette, 12-core, LC duplex, multi-mode OM3	**ACTMMOT12xx**
MTP cassette, 24-core, LC duplex, multi-mode OM3	**ACTMMOT24xx**
MTP cassette, 12-core, LC duplex, multi-mode OM4	**ACTMMOG12xx**
MTP cassette, 24-core, LC duplex, multi-mode OM4	**ACTMMOG24xx**
Blank plate for ACTMP1U and ACTMP4U	**ACTMPBP**

Where **xx** denotes polarity (S: Straight through, F: pair Flipped, R: Reversed, RF: Reversed, pair Flipped).

Technical specifications					
Material		Power coated mild steel			
Color		Black			
Accommodation		Pluggable module options			
		12/24 x LC connectors			
		12-core MTP female connector (male connector is upon request)			
Dimension		136 x 104.5 x 39.5 mm			
Environment	Operating temperature	-20ºC ~ 60ºC			
	Installation temperature	-5ºC ~ 50ºC			
Optical performance					
Cable performance		**Single mode (OS2)**		**Multi mode (OM3/OM4)**	
		1310 nm	**1550 nm**	**850 nm**	**1300 nm**
Attenuation dB/km		⩽ 0.45	⩽ 0.3	⩽ 3.5	⩽ 1.5
Connector performance					
MTP		**Single mode APC**		**Multi mode PC**	
Insertion loss (dB)		⩽ 0.5	⩽ 0.5	⩽ 0.5	⩽ 0.5
RL (dB)		⩾ 60	⩾ 60	⩾ 20	⩾ 20
LC (UPC)		**Single mode**		**Multi mode**	
Insertion loss (dB)		⩽ 0.2	⩽ 0.2	⩽ 0.15	⩽ 0.15
RL (dB)		⩾ 50	⩾ 50	⩾ 30	⩾ 30

Multi-fibre Push On (MPO) solution
Trunk cables

Schneider MPO (MTP brand) trunk cables providing an effective way to install a large amount of cables quickly. It is especially suitable for the areas that require high density, rapid deployment and high performance such as Data Centre.

These high performance factory terminated and tested assemblies are pre-terminated 12-fibrer MTP connectors in LC connectors and offered in customer specified lengths. Normal fibre count is 12 or 24 (high core counts up to 144 fibres available) and fibre types (OS2, OM3, OM4) are available for each installation needs.

Product features
- Compliant TIA/EIA-568-C3, ISO/IEC 11801, TIA/EIA-604-5
- 100 % factory terminated and tested
- Use of low loss MTP connectors
- Options of polarity (straight through, reversed, pair flipped)
- Provide pulling eye at both ends of the cable
- Label on the trunk cable for traceability.

Customer benefits
- A reliable high density, high performance optic interconnections
- Quick and easy connection with MTP mechanism
- Low insertion loss and reflectance for cable
- No cable preparation is necessary
- Reduced on-site disruption and installation time
- Pulling eye design to fit for different installation environment
- Cost effective optic cabling solution.

IMG_9616

ACTMTMMT12LS055R

Description	Ref. No
MTP-MTP trunk cable, single-mode OS2, OFNP	**ACTMTMMSxxFPyyyz**
MTP-LC duplex trunk cable, single-mode OS2, OFNP	**ACTMTMLSxxFPyyyz**
MTP-MTP trunk cable, single-mode OS2, LSZH	**ACTMTMMSxxLSyyyz**
MTP-LC duplex trunk cable, single-mode OS2, LSZH	**ACTMTMLSxxLSyyyz**
MTP-MTP trunk cable, multi-mode OM3, OFNP	**ACTMTMMTxxFPyyyz**
MTP-LC duplex trunk cable, multi-mode OM3, OFNP	**ACTMTMLTxxFPyyyz**
MTP-MTP trunk cable, multi-mode OM3, LSZH	**ACTMTMMTxxLSyyyz**
MTP-LC duplex trunk cable, multi-mode OM3, LSZH	**ACTMTMLTxxLSyyyz**

- Where **xx** denotes number of fibre core: 12, 24
- Where **yyy** denotes length: 5 to 60 m with separator of 5 m (e.g. 025 - 25 m)
- Where **z** denotes polarity (S: Streight through, F: pair Flipped, R: Reversed).

Technical specifications				
Material				
Connectors	MTP-MTP, MTP-LC			
Cables	12/24/.../144			
Cable structure				
Fibre	OS2, OM3, OM4			
Strength merinber	Aramid yarn			
Inner sheath	LSZH or PVC (OFNP) or outer			
Optical performance				
Cable performance	**Single mode (OS2)**		**Multi mode (OM3/OM4)**	
	1010 nm	**1550 nm**	**850 nm**	**1300 nm**
Attenuation dB/km	≤ 0.45	≤ 0.3	≤ 3.5	≤ 1.5
RL (dB)	≥ 50	≥ 50	≥ 30	≥ 30
Connector performance				
MTP	**Single mode APC**		**Multi mode PC**	
Insertion loss (dB)	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
RL (dB)	≥ 60	≥ 60	≥ 20	≥ 20
LC (UPC)	**Single mode**		**Multi mode**	
Insertion loss (dB)	≤ 0.2	≤ 0.2	≤ 0.15	≤ 0.15
RL (dB)	≥ 50	≥ 50	≥ 30	≥ 30

Multi-fibre Push On (MPO) solution

Harness and fan-out cables

Schneider Electric MTP ruggedized harness fan-out assembly is ideal for short internal interconnection. They are used to directly interconnect MTP cassettes, panels or backbone. MTP assemblies with the active equipment, saving costly data centre rack space and easing fibre management.

MTP harners / fan-out assemblies are offered in fibre count 12 and 12 fibres (up to 144 fibres versions) using a compact and suggest micro cable structure.
The compact cables optimize pathway use and improve airflow.

Product features

- Compliant to TIA/EIA-568-C.3, ISO/IEC 11801, TIA/EIA-604-5 & IEC 61754-7
- Standard fibre offer: OS2, OM3, OM4
- 12/24 core micro cable trunk assemblies
- LSZH, OFNP cable jacket
- 100 % factory terminated and tested
- Use of low loss MTP connectors
- Options of polarity (straight through, reversed, pair flipped)
- Add pulling eye at MTP connector if cable length exceeds 20 m
- Label on the harners cable for traceability.

Customer benefits

- Multiple fibres angles and flammability options
- Application specific design 12 up to 144 fibres
- Can be secured to cabinet mounting profile for saving space
- Compact cable
- Reduced interconnection topology improves power budget
- High reliability due to 100 % factory terminated and tested.

MTP-LC 12F Harness

ACTMHMLT20185F

Description	Ref. No
MTP-LC duplex fan-out cable, 12-core, single-mode OS2	**ACTMHTLSxxyyyyZ**
MTP-LC duplex fan-out cable, 24-core, single-mode OS2 (12 fibre MTP x 2)	**ACTMHTTSxxyyyyZ**
MTP-LC duplex fan-out cable, 12-core, multi-mode OM3	**ACTMHTLT2xxyyyyZ**
MTP-LC duplex fan-out cable, 24-core, multi-mode OM3 (12 fibre MTP x 2)	**ACTMHTT2Txxyyyy Z**
MTP-LC duplex fan-out cable, 12-core, multi-mode OM4	**ACTMHMLGxxyyyyZ**
MTP-LC duplex fan-out cable, 24-core, multi-mode OM4	**ACTMHMTGxxyyyyZ**

- Where **xx** denotes fibre sheath: FP - OFNP, LS - LSZH
- Where **yyy** denotes length: 5 to 10 m with separator of 0.5 m (e.g. 0135 - 13.5 m)
- Where **z** denotes polarity (S: Straight through, R: Reversed, F: pair Flipped).

Technical specifications				
Material				
Connectors	MTP-LC			
Cables	12/24 core fibres			
Cable structure				
Fibre	OS2, OM3, OM4			
Strength merinber	Aramid yarn			
Inner sheath	LSZH or PVC (OFNP)			
Optical performance				
Cable performance	**Single mode (OS2)**		**Multi mode (OM3/OM4)**	
	1310 nm	**1550 nm**	**850 nm**	**1300 nm**
Attenuation dB/km	⩽ 0.45	⩽ 0.3	⩽ 3.5	⩽ 1.5
Connector performance				
MTP	**Single mode APC**		**Multi mode PC**	
Insertion loss (dB)	⩽ 0.5	⩽ 0.5	⩽ 0.5	⩽ 0.5
RL (dB)	⩾ 60	⩾ 60	⩾ 20	⩾ 20
LC (UPC)	**Single mode**		**Multi mode**	
Insertion loss (dB)	⩽ 0.2	⩽ 0.2	⩽ 0.15	⩽ 0.15
RL (dB)	⩾ 50	⩾ 50	⩾ 30	⩾ 30

Cables
Indoor building cables, LSZH

Indoor duct cables

The Actassi indoor building cable is designed to provide superior optical performance. These flexible, flame retardant cables are for use indoors. All cables use high quality single-mode or multi-mode fibres. Each fibre is coated to 900 microns with durable, protective material. buffers are colour-coded.The buffered fibres are surrounded by aramid yarns for strength, and are covered with Low Smoke Zero Halogen (LSZH) sheath to meet tough enission cobtrol.

Product features

- High quality and compact design
- Small diameter and bend radius
- Compliant with Bellcore GR-409-core and ANSI/TIA/EIA-568C, ISO/IEC 11801 standards.

Customer benefits

- Easy to terminate
- Easy installation in space constrained area.

General specifications	
Fibre selections	
Single-mode	OS2, BISMF (bend-insensitive G.657A2)
Multi-mode	OM1, OM2, OM3, OM4
Cable sheath colours	
Single-mode	Yellow
Multi-mode	Orange (OM1, OM2)
	Aqua (OM3, OM4)

TB04SM9PVC_TightBufferBldg

ACTNDTB04SM9FR

Description	Ref. No
Indoor building, xx-core, 9/125 µm single-mode OS2, LSZH	**ACTNDxxSM9LS**
Indoor building, xx-core, 9/125 µm single-mode bend-insensitive, LSZH	**ACTNDxxSMBLS**
Indoor building, xx-core, 62.5/125 µm multi-mode OM1, LSZH	**ACTNDxxMM6LS**
Indoor building, xx-core, 50/125 µm multi-mode OM2, LSZH	**ACTNDxxMM5LS**
10G Indoor building, xx-core, 50/125 µm multi-mode OM3, LSZH	**ACTNDTGxxMMLS**
100G Indoor building, xx-core, 50/125 µm multi-mode OM4, LSZH	**ACTNDxxMM5XLS**

Where **xx** denotes fibre counts (e.g. 02/04/06/08/12/16/24/48).

Cable transmission

Items	Attenuation				1 Gb/s ethernet link distance (MAX)		10 Gb/s ethernet link distance (MAX)	Bandwidth	
Fibre type	850 nm	1300 nm	1310 nm	1550 nm	850 nm	1300 nm	850 nm	850 nm	1300 nm
Unit	dB/km	dB/km	dB/km	dB/km	m	m	m	MHz•km	MHz•km
OS2	-	-	⩽ 0.5	⩽ 0.4	-	-	-	-	-
BISMF	-	-	⩽ 0.5	⩽ 0.4	-	-	-	-	-
OM2	⩽ 3.5	⩽ 1.5	-	-	550	550	86	⩾ 500	⩾ 500
OM1	⩽ 3.5	⩽ 1.5	-	-	275	550	35	⩾ 200	⩾ 500
OM3	⩽ 3.5	⩽ 1.5	-	-	1000	-	300	⩾ 1500	⩾ 500
OM4	⩽ 3.5	⩽ 1.5	-	-	1100	-	550	⩾ 3500	⩾ 500

Technical specifications for 2-core to 12-core

Construction data

Tight buffer fibre diameter		900 ± 50 µm					
Tight buffer fibre color		1. blue, 2. orange, 3. green, 4. brown, 5. grey, 6. white, 7. red, 8. black, 9. yellow, 10. violet, 11. pink, 12. aqua					
Core reinforce		Aramid yarn					
Out jacket material		LSZH, PVC (OFNR) as optional					

Technical data-physical

Fibre count		2	4	6	8	10	12
Cable diameter (mm) ± 0.2		3.2	4.8	5.1	5.6	5.8	6.2
Jacket thickness (mm) ± 0.1		0.5	0.7	0.7	0.8	0.8	0.9
Cable weight (kg/km)		11.3	21.6	25.5	31.4	35.0	40.3
Temperature rating	Operation	-20˚C ~ +60˚C					
	Storage	-20˚C ~ +60˚C					

Technical data-mechanical

Max. loading (N) (IEC 794-1)	Installation	660 N
	Operation	220 N
Min bending radius (IEC 794-1)	With load (mm)	20 x D (10 x D for bend insensitive fibre)
	Without load (mm)	10 x D (5 x D for bend insensitive fibre)
Crush resistance (IEC 794-1)		1000 N/100 mm

Technical specifications for 14-core to 48-core

Construction data

Tight buffer fibre diameter		900 ± 50 µm	
Tight buffer fibre Color		1. blue, 2. orange, 3. green, 4. brown, 5. grey, 6. white	1. blue, 2. orange, 3. green, 4. brown, 5. grey, 6. white, 7. red, 8. black, 9. yellow, 10. violet, 11. pink, 12. aqua
Core reinforce		Aramid yarn	
Subunit color code		The units have sequential numbering print on the surface for identification	
Central strength member		All dielectric	
Out jacket material		LSZH	
Out jacket thickness		1.1 mm ± 0.1 mm	

Technical data-physical

Fibre count		14-24	26-30	32-36	38-48
Cable diameter (mm) ± 0.5		10.4	12.4	13.5	14.7
Jacket thickness (mm) ± 0.2		3.5	3.5	3.5	5.0
FRP diameter (mm) ± 0.1		1.52	2.5	2.5	2.25
CSM diameter (mm) ± 0.2		-	-	3.6	-
Subunit number		4	5	6	4
Cable weight (kg/km)		96	149	185	177
Temperature rating	Operation	-20˚C ~ +60˚C			
	Storage	-20˚C ~ +60˚C			

Technical data-mechanical

Max. loading (N) (IEC 794-1)	Installation	1320 N
	Operation	400 N
Min bending radius (IEC 794-1)	With load (mm)	20 x D
	Without load (mm)	10 x D
Crush resistance (IEC 794-1)		1000 N/100 mm

Cables
Indoor/outdoor LSZH duct cables

The Actassi indoor/outdoor LSZH cable is a Low Smoke Zero Halogen (LSZH) cable that provides excellent anti-flame performance. The need for splicing between indoor and outdoor cables can be eliminated. The buffered tubes are surrounded by aramid yarns and are covered by a low smoke, flame-retardant jacket for protection. A direct outdoor to indoor transition can be completed with this single cable.

The indoor/outdoor LSZH cable passed the following tests:
- IEC 754 part 3, acidity/corrosively based on pH and conductivity measurements
- IEC 332 part 3, flammability and fire retardant
- NES 713, toxicity index
- IEC 1034, smoke emissions.

Product features
- Complies with ANSI/TIA/EIA-568-C, ISO/IEC11801 standards
- All dielectric self-supporting fibre
- Filled with water-resistant filling compound
- LSZH or PE rated.

Customer benefits
- Supports 100 Gigabit ethernet application
- Suitable for indoor/outdoor or inter/intra building backbones installation
- Water-blocking
- Excellent anti-flame performance.

ID06SMLSZH_Indoot.SZHBldg2

ACTNUD04MM5LS

Description	Ref. No
Indoor/outdoor, xx-core, 9/125 µm single-module OS2, LSZH	**ACTNUDxxSM9LS**
Indoor/outdoor, xx-core, 9/125 µm single-module bend-insensitive, LSZH	**ACTNUDxxSM9BLS**
Indoor/outdoor, xx-core, 62.5/125 µm multi-module OM1, LSZH	**ACTNUDxxMM6LS**
Indoor/outdoor, xx-core, 62.5/125 µm multi-module OM1 plus, LSZH	**ACTNUDxxMM6HLS**
Indoor/outdoor, xx-core, 50/125 µm multi-module OM2, LSZH	**ACTNUDxxMM5LS**
Indoor/outdoor, xx-core, 50/125 µm multi-module OM2 plus, LSZH	**ACTNUDxxMM5HLS**
10G Indoor/outdoor, xx-core, 50/125 µm multi-module OM3, LSZH	**ACTNUDxxMM5TLS**
100G Indoor/outdoor, xx-core, 50/125 µm multi-module OM4, LSZH	**ACTNUDxxMM5XLS**

Note: where **xx** denotes fibre counts (e.g. 04/06/08/12/16/24).

Indoor/outdoor, xx-core, 9/125 µm single-module OS2, PE	**ACTNUDxxSM9PE**
Indoor/outdoor, xx-core, 9/125 µm single-module bend-insensitive, PE	**ACTNUDxxSM9BPE**
Indoor/outdoor, xx-core, 62.5/125 µm multi-module OM1, PE	**ACTNUDxxMM6PE**
Indoor/outdoor, xx-core, 62.5/125 µm multi-module OM1 Plus, PE	**ACTNUDxxMM6HPE**
Indoor/outdoor, xx-core, 50/125 µm multi-module OM2, PE	**ACTNUDxxMM5PE**
Indoor/outdoor, xx-core, 50/125 µm multi-module OM2 plus, PE	**ACTNUDxxMM5HPE**
10G Indoor/outdoor, xx-core, 50/125 µm multi-module OM3, PE	**ACTNUDxxMM5TPE**
100G Indoor/outdoor, xx-core, 50/125 µm multi-module OM4, PE	**ACTNUDxxMM5XPE**

Note: where **xx** denotes fibre counts (e.g. 04/06/08/12/16/24).

Cable transmission

Items	Attenuation				1 Gb/s ethernet link distance (MAX)		10 Gb/s ethernet link distance (MAX)	Bandwidth	
Fibre type	850 nm	1300 nm	1310 nm	1550 nm	850 nm	1300 nm	850 nm	850 nm	1300 nm
Unit	dB/km	dB/km	dB/km	dB/km	m	m	m	MHz•km	MHz•km
OS2	-	-	⩽ 0.5	⩽ 0.4	-	-	-	-	-
BISMF	-	-	⩽ 0.5	⩽ 0.4	-	-	-	-	-
OM2	⩽ 3.5	⩽ 1.5	-	-	550	550	86	⩾ 500	⩾ 500
OM1	⩽ 3.5	⩽ 1.5	-	-	275	550	35	⩾ 200	⩾ 500
OM2+	⩽ 3.5	⩽ 1.5	-	-	750	2000	110	⩾ 500	⩾ 1000
OM1+	⩽ 3.5	⩽ 1.5	-	-	500	1000	65	⩾ 200	⩾ 600
OM3	⩽ 3.5	⩽ 1.5	-	-	1000	-	300	⩾ 1500	⩾ 500
OM4	⩽ 3.5	⩽ 1.5	-	-	1100	-	550	⩾ 3500	⩾ 500

Technical specifications

Indoor/outdoor cable					
Fibre count		2-12		14-24	
Cable sheath		LSZH	PE	LSZH	PE
Construction data					
Loose tube material		PBT			
Tight buffer fibre color		Fibre filling			
Core reinforce		Aramid yarn			
Out jacket material		LSZH	PE	LSZH	PE
Jacket thinkness (mm) ± 0.1		1.5	1.0	1.5	1.0
Technical data-physical					
Fibre count ± 0.1		28		38	
Cable diameter (mm) ± 0.2		7.8	5.8	8.0	6.8
Cable weight (kg/km)		40	26	50	34
Temperature rating	Operation	-20˚C ~ +60˚C			
	Storage	-20˚C ~ +60˚C			
Technical data-mechanical					
Max. loading (N)	Installation	660 N			
	Operation	200 N			
Min bending radius	With load (mm)	20 x D			
	Without load (mm)	10 x D			
Crush resistance		1000 N/100 mm			

Cables
Unitube non-armoured cables

Duct, Aerial cables

The Actassi unitube non-armoured cable is housed in a loose tube made of a high modulus plastic. The tube is filled with a water-resistant filling compound. Over the tube, water-blocking material is applied to keep the cable watertight. Two parallel steel wires are placed at the two sides of the cable. The cable is covered with a polyethylene (PE) sheath or flame-retardnard sheath as option.

Product features

- Accurate fibre excess length
- High strength loose tube
- Two parallel steel wires
- PE sheath
- Small diameter, lightweight and hassle-free installation
- Long delivery length.

Customer benefits

- Accurate fibre excess length ensures good mechanical and temperature performance
- High strength loose tube is hydrolysis resistant and special tube filling compound ensures critical protection of fibre
- Two parallel steel wires ensure tensile strength
- PE sheath protects cable from ultraviolet radiation
- Flame retardant sheath proeats canle from fine.

UTNA02SM9_UnitubeNonArmr

ACTUDUTNA04SM9

Description	Ref. No
Unitube non-armoured, xx-core, 9/125 µm single-module OS2, PE	**ACTUDUTNAxxSM9**
Unitube non-armoured, xx-core, 9/125 µm single-module bend-insensitive, PE	**ACTUDUTNAxxSM9B**
Unitube non-Armoured, xx-core, 62.5/125 µm multi-module OM1, PE	**ACTUDUTNAxxMM6**
Unitube non-armoured, xx-core, 62.5/125 µm multi-module OM1 Plus, PE	**ACTUDUTNAxxMM6H**
Unitube non-armoured, xx-core, 50/125 µm multi-module OM2, PE	**ACTUDUTNAxxMM5**
Unitube non-armoured, xx-core, 50/125 µm multi-module OM2 plus, PE	**ACTUDUTNAxxMM5H**
10G Unitube non-armoured, xx-core, 50/125 µm multi-module OM3, PE	**ACTUDUTNAxxMM5T**
100G Unitube non-armoured, xx-core, 50/125 µm multi-module OM4, PE	**ACTUDUTNAxxMM5X**

Where **xx** denotes fibre counts (e.g. 04/06/08/12/16/24).

Cable transmission

Items	Attenuation				1 Gb/s ethernet link distance (MAX)		10 Gb/s ethernet link distance (MAX)	Bandwidth	
Fibre type	850 nm	1300 nm	1310 nm	1550 nm	850 nm	1300 nm	850 nm	850 nm	1300 nm
Unit	dB/km	dB/km	dB/km	dB/km	m	m	m	MHz/km	MHz/km
OS2	-	-	≤ 0.5	≤ 0.4	-	-	-	-	-
BISMF	-	-	≤ 0.5	≤ 0.4	-	-	-	-	-
OM2	≤ 3.5	≤ 1.5	-	-	550	550	86	≥ 500	≥ 500
OM1	≤ 3.5	≤ 1.5	-	-	275	550	35	≥ 200	≥ 500
OM2+	≤ 3.5	≤1.5	-	-	750	2000	110	≥ 500	≥ 1000
OM1+	≤ 3.5	≤ 1.5	-	-	500	1000	65	≥ 200	≥ 600
OM3	≤ 3.5	≤ 1.5	-	-	1000	-	300	≥ 1500	≥ 500
OM4	≤ 3.5	≤ 1.5	-	-	1100	-	550	≥ 3500	≥ 500

Technical specifications

Outdoor cables				
Fibre count	2.12		14-24	
Cable sheath	PE			
Construction data				
Fibre colour	1. blue, 2. orange, 3. green, 4. brown, 5. grey, 6. white, 7. red, 8. black, 9. yellow, 10. violet, 11. pink, 12. aqua			
Loose tube material	PBT loose tube with jelly filling			
Identification yarn colour (for 24 cores)	1. grey, 2. white			
Water blocking material	Water blocking tape or yarn			
Out jacket material	PE	LSZH	PE	LSZH
Jacket thinkness (mm)	2.4 ± 0.2			
Technical data-physical				
Fibre count	28 ± 0.1		38 ± 0.1	
Cable diameter (mm)	9.0 ± 0.2	9.2 ± 0.2	9.6 ± 0.2	9.8 ± 0.2
Cable weight (kg/km)	77	109	84	122
Steel wire diameter (mm)	1.2			
Temperature rating — Operation	-40˚C ~ +70˚C			
Temperature rating — Storage	-40˚C ~ +70˚C			
Technical data-mechanical				
Max. loading (N) — Installation	660 N			
Max. loading (N) — Operation	200 N			
Crush resistance	1000 N/100 mm			

Cables
Unitube light-armoured cables

The Actassi Unitube light-armoured cable features a loose tube, made of a high modulus plastic. The tube is filled with a water-resistant filling compound and is longitudinally wrapped with a layer of Polyethylene Steel Polyethylene (PSP). Between the PSP and the loose tube, water-blocking material is applied to keep the cable compact and watertight.
Two parallel steel wires are placed at the two sides of the steel tape. The cable is covered with a polyethylene (PE) sheath or flame retardand sheath as option.

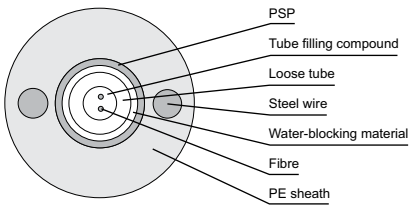
Product features
- Accurate fibre excess length
- High strength loose tube
- Specially designed compact structure and PE sheath
- Crush resistant and flexible
- PSP enhances the cable's crush-resistance, impact-resistance and moisture-proofing
- Two parallel steel wires ensure tensile strength
- Small diameter, lightweight and hassle-free installation
- Long delivery length

Customer benefits
- Accurate fibre excess length ensures good mechancial and temperature performance.
- High strength loose tube is hydrolysis resistant and special tube filling compound ensures critical protection of fibre.
- Specially designed compact structure prevents loose tubes from shrinking.
- PE sheath protects cable from ultra-violet radiation.
- Flame-retardant sheath protects cable from fine.

UTLA04SM9_UniT_LightArmored

ACTUDUTLA04SM9

Unitube_LightArmoured



Description	Ref. No
Unitube light-armoured, xx-core, 9/125 µm single-module OS2, PE	**ACTUDUTLAxxSM9**
Unitube light-armoured, xx-core, 9/125 µm single-module bend-insensitive, PE	**ACTUDUTLAxxSM9B**
Unitube light-armoured, xx-core, 62.5/125 µm multi-module OM1, PE	**ACTUDUTLAxxMM6**
Unitube light-armoured, xx-core, 62.5/125 µm multi-module OM1 plus, PE	**ACTUDUTLAxxMM6H**
Unitube light-armoured, xx-core, 50/125 µm multi-module OM2, PE	**ACTUDUTLAxxMM5**
Unitube light-armoured, xx-core, 50/125 µm multi-module OM2 plus, PE	**ACTUDUTLAxxMM5H**
10G Unitube light-armoured, xx-core, 50/125 µm multi-module OM3, PE	**ACTUDUTLAxxMM5T**
100G Unitube light-armoured, xx-core, 50/125 µm multi-module OM4, PE	**ACTUDUTLAxxMM5X**

Where **xx** denotes fibre counts (e.g. 04/06/08/12/16/24).

Technical data - Transmission

Items	Attenuation				1 Gb/s ethernet link distance (MAX)		10 Gb/s ethernet link distance (MAX)	Bandwidth	
Fibre type	850 nm	1300 nm	1310 nm	1550 nm	850 nm	1300 nm	850 nm	850 nm	1300 nm
Unit	dB/km	dB/km	dB/km	dB/km	m	m	m	MHz/km	MHz/km
OS2	-	-	≤ 0.36	≤ 0.22	-	-	-	-	-
BISMF	-	-	≤ 0.36	≤ 0.22	-	-	-	-	-
OM2	≤ 3.0	≤ 1.0	-	-	550	550	86	≥ 500	≥ 500
OM1	≤ 3.3	≤ 1.0	-	-	275	550	35	≥ 200	≥ 500
OM2+	≤ 3.0	≤ 1.0	-	-	750	2000	110	≥ 500	≥ 1000
OM1+	≤ 3.3	≤ 1.0	-	-	500	1000	65	≥ 200	≥ 600
OM3	≤ 3.0	≤ 1.0	-	-	1000	-	300	≥ 1500	≥ 500
OM4	≤ 3.0	≤ 1.0	-	-	1100	-	550	≥ 3500	≥ 500

Technical specifications

Indoor / outdoor cables			
Fibre count		2.12	14-24
Cable sheath		PE (Black)	
Construction data			
Fibre colour		1. blue, 2. orange, 3. green, 4. brown, 5. grey, 6. white, 7. red, 8. black, 9. yellow, 10. violet, 11. pink, 12. aqua	
Loose tube material		PBT loose tube with jelly filling	
Identification yarn colour (for 24 cores)		1. grey, 2. white	
Water blocking material		Water blocking tape or yarn	
Out jacket material		PE	PE
Jacket thinkness (mm)		2.2 ± 0.2	2.4 ± 0.2
Technical data-physical			
Fibre count		2.6 ± 0.1	3.8 ± 0.1
Cable diameter (mm)		0.8 ± 0.2	11.5 ± 0.2
Cable weight (kg/km)		82	128
Steel wire diameter (mm)		1.2	
Temperature rating	Operation	-40˚C ~ +70˚C	
	Storage	-40˚C ~ +70˚C	
Technical data-mechanical			
Max. loading (N)	Installation	1500 N	
	Operation	600 N	
Crush resistance		1000 N/100 mm	

Cables
Stranded loose tube light-armoured

The Actassi Stranded loose tube light-armoured cable is housed in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. A steel wire, sheathed with polyethylene (PE) is used for cables with high fibre counts and is located in the core centre to act as a metallic strength member. Tubes and fillers are stranded around the strength member into a compact and circular cable core. Polyethylene Steel Polyethylene (PSP) is longitudinally applied over the cable core, and the core is then filled with a filling compound to protect it from water ingress. The cable is covered with a PE sheath.

Product features

- Accurate fibre excess length
- High strength loose tube
- Specially designed compact structure
- Crush resistant and flexible
- Tight water-resistant measures - steel wire used as central strength member, loose tube filling compound, 100 % cable core filling, PSP enhancing moisture-proofing and water-blocking material.

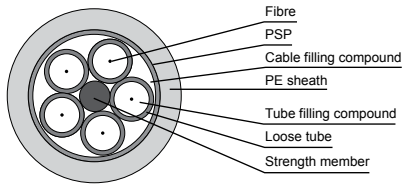
Customer benefits

- Accurate fibre excess length ensures good mechanical and temperature performance
- High strength loose tube is hydrolysis resistant and special tube filling compound ensures critical protection of fibre
- Specially designed compact structure prevents loose tubes from shrinking.

SLLA04SM915

ACTUDSLLA04SM9

SLT_LightArmoured



Description	Ref. No
Stranded loose tube light-armoured, xx-core, 9/125 µm single-module OS2, PE	**ACTUDSLLAxxSM9**
Stranded loose tube light-armoured, xx-core, 9/125 µm single-module bend-Insensitive, PE	**ACTUDSLLAxxSM9B**
Stranded loose tube light-armoured, xx-core, 62.5/125 µm multi-module OM1, PE	**ACTUDSLLAxxMM6**
Stranded loose tube light-armoured, xx-core, 62.5/125 µm multi-module OM1 plus, PE	**ACTUDSLLAxxMM6H**
Stranded loose tube light-armoured, xx-core, 50/125 µm multi-module OM2, PE	**ACTUDSLLAxxMM5**
Stranded loose tube light-armoured, xx-core, 50/125 µm multi-module OM2 plus, PE	**ACTUDSLLAxxMM5H**
10G Stranded loose tube light-armoured, xx-core, 50/125 µm multi-module OM3, PE	**ACTUDSLLAxxMM5T**
100G Stranded loose tube light-armoured, xx-core, 50/125 µm multi-module OM4, PE	**ACTUDSLLAxxMM5X**

Where **xx** denotes fibre counts (e.g. 04/06/08/12/16/24/30/36/48/72/96/144).

Technical data - Transmission

Items	Attenuation				1 Gb/s ethernet link distance (MAX)		10 Gb/s ethernet link distance (MAX)	Bandwidth	
Fibre type	850 nm	1300 nm	1310 nm	1550 nm	850 nm	1300 nm	850 nm	850 nm	1300 nm
Unit	dB/km	dB/km	dB/km	dB/km	m	m	m	MHz/km	MHz/km
OS2	-	-	⩽ 0.36	⩽ 0.22	-	-	-	-	-
BISMF	-	-	⩽ 0.36	⩽ 0.22	-	-	-	-	-
OM2	⩽ 3.0	⩽ 1.0	-	-	550	550	86	⩾ 500	⩾ 500
OM1	⩽ 3.3	⩽ 1.0	-	-	275	550	35	⩾ 200	⩾ 500
OM2+	⩽ 3.0	⩽ 1.0	-	-	750	2000	110	⩾ 500	⩾ 1000
OM1+	⩽ 3.3	⩽ 1.0	-	-	500	1000	65	⩾ 200	⩾ 600
OM3	⩽ 3.0	⩽ 1.0	-	-	1000	-	300	⩾ 1500	⩾ 500
OM4	⩽ 3.0	⩽ 1.0	-	-	1100	-	550	⩾ 3500	⩾ 500

Technical specifications

Outdoor cables

Fibre count	144-core (max.)
Cable sheath	PE (black)

Construction data

Fibre colour	1. blue, 2. orange, 3. green, 4. brown, 5. grey, 6. white, 7. red, 8. black, 9. yellow, 10. violet, 11. pink, 12. aqua
Loose tube material	PBT loose tube with jelly filling
Loose tube colour	1. blue, 2. orange, 3. green, 4. brown, 5. grey, 6. white, 7. red, 8. black, 9. yellow, 10. violet, 11. pink, 12. aqua
Water blocking material	Cable filling compound
Out jacket material	PE
Jacket thinkness (mm)	1.6 ± 0.2

Technical data-physical

Fibre count		2-30	32-36	38-60	62-72	74-96	98-120	122-144
Max. fibre per tube		6		12				
Unitube diameter (mm)		1.8 ± 0.1		2.3 ± 0.1				
Kiise tube number		1-5	6	4-5	6	7-8	9-10	11-12
Filler number		4-0	0	1-0	0	1-0	1-0	1-0
Steel wire diameter (mm)		1.5 ± 0.1	2.0 ± 0.1	1.8 ± 0.1	2.0 ± 0.1	2.0 ± 0.1	2.0 ± 0.1	2.5 ± 0.1
CSM diameter (mm)		-	-	-	2.5 ± 0.2	4.0 ± 0.2	7.2 ± 0.2	7.2 ± 0.2
Cable diameter (mm)		9.5 ± 0.3	10.0 ± 0.3	11.0 ± 0.3	12.0 ± 0.3	13.6 ± 0.3	15.0 ± 0.3	16.9 ± 0.3
Cable weight (Kg/Km)		100	119	136	155	192	227	277
Temperature rating	Operation	-40˚C ~ +70˚C						
	Storage	-40˚C ~ +70˚C						

Technical data-mechanical

Max. loading (N)	Installation	1500 N	3000
	Operation	600 N	1000
Min. bend radius (mm)	Long-term	10xD	10xD
	Short-term	20xD	20xD
Crush resistance		1000 N/100 mm	

Cables
Stranded loose tube armoured cables

The Actassi Stranded loose tube Armoured cable (with moisture barrier) is housed in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. A steel wire, sheathed with polyethylene (PE) is used for cables with high fibre counts and is located in the core centre to act as a metallic strength member.

Tubes and fillers are stranded around the strength member into a compact and circular cable core. An Aluminium Polyethylene Laminate (APL) is applied around the cable core, which is then filled with filling compound to protect it from water-ingress. The cable core is covered with a thin PE inner sheath. After the Polyethylene Steel Polyethylene (PSP) is longitudinally applied over the inner sheath, the cable is covered with a PE outer sheath.

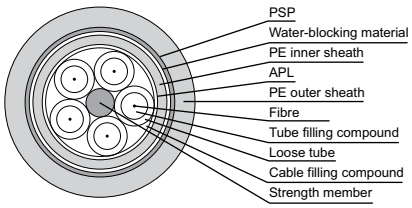
Product features
- Accurate fibre excess length
- High strength loose tube
- Specially designed compact structure
- Crush resistant and flexible
- Tight water-resistant measures - steel wire used as central strength member, loose tube filling compound, 100 % cable core filling, APL moisture barrier, PSP enhanced moisture-proofing and water-blocking material.

Customer benefits
- Accurate fibre excess length ensures good mechanical and temperature performance
- High strength loose tube is hydrolysis resistant and special tube filling compound ensures critical protection of fibre
- Specially designed compact structure prevents loose tubes from shrinking.

SLAM04SM9 16_SLT_Armored

ACTUDSLAM04SM9

SLT_Armoured



Description	Ref. No
Stranded loose armoured, xx-core, 9/125 µm single-module OS2, PE	**ACTUDSLAMxxSM9**
Stranded loose armoured, xx-core, 9/125 µm single-module bend-insensitive, PE	**ACTUDSLAMxxSM9B**
Stranded loose armoured, xx-core, 62.5/125 µm multi-module OM1, PE	**ACTUDSLAMxxMM6**
Stranded loose armoured, xx-core, 62.5/125 µm multi-module OM1 plus, PE	**ACTUDSLAMxxMM6H**
Stranded loose armoured, xx-core, 50/125 µm multi-module OM2, PE	**ACTUDSLAMxxMM5**
Stranded loose armoured, xx-core, 50/125 µm multi-module OM2 plus, PE	**ACTUDSLAMxxMM5H**
10G Stranded loose armoured, xx-core, 50/125 µm multi-module OM3, PE	**ACTUDSLAMxxMM5T**
100G Stranded loose armoured, xx-core, 50/125 µm multi-module OM4, PE	**ACTUDSLAMxxMM5X**

Where **xx** denotes fibre counts (e.g. 04/06/08/12/16/24/30/36/48/72/96/144).

Technical data - Transmission

Items	Attenuation				1 Gb/s ethernet link distance (MAX)		10 Gb/s ethernet link distance (MAX)	Bandwidth	
Fibre type	850 nm	1300 nm	1310 nm	1550 nm	850 nm	1300 nm	850 nm	850 nm	1300 nm
Unit	dB/km	dB/km	dB/km	dB/km	m	m	m	MHz/km	MHz/km
OS2	-	-	⩽ 0.36	⩽ 0.22	-	-	-	-	-
BISMF	-	-	⩽ 0.36	⩽ 0.22	-	-	-	-	-
OM2	⩽ 3.0	⩽ 1.0	-	-	550	550	86	⩾ 500	⩾ 500
OM1	⩽ 3.3	⩽ 1.0	-	-	275	550	35	⩾ 200	⩾ 500
OM2+	⩽ 3.0	⩽ 1.0	-	-	750	2000	110	⩾ 500	⩾ 1000
OM1+	⩽ 3.3	⩽ 1.0	-	-	500	1000	65	⩾ 200	⩾ 600
OM3	⩽ 3.0	⩽ 1.0	-	-	1000	-	300	⩾ 1500	⩾ 500
OM4	⩽ 3.0	⩽ 1.0	-	-	1100	-	550	⩾ 3500	⩾ 500

Technical specifications

Indoor / outdoor cables

Fibre count	144-core (max.)
Cable sheath	PE (black)

Construction data

Fibre colour	1. blue, 2. orange, 3. green, 4. brown, 5. grey, 6. white, 7. red, 8. black, 9. yellow, 10. violet, 11. pink, 12. aqua
Loose tube material	PBT loose tube with jelly filling
Loose tube colour	1. blue, 2. orange, 3. green, 4. brown, 5. grey, 6. white, 7. red, 8. black, 9. yellow, 10. violet, 11. pink, 12. aqua
Water blocking material	Cable filling compound
	PSP corrugated steel tape (0.25 mm)
Out jacket material	PE
Inner sheath thickness (mm)	0.9 ± 0.1
Outer sheath thickness (mm)	1.6 ± 0.2

Technical data-physical

Fibre count		2-36	38-60	62	74-96	98-120	122-144
Max. fibre per tube		6	12				
Unitube diameter (mm)		1.8 ± 0.1	2.3 ± 0.1				
Kiise tube Number		1-6	4-5	6	7-8	9-10	11-12
Filler number		5-0	1-0	0	1-0	1-0	1-0
Steel wire diameter (mm)		2.0 ± 0.1	2.0 ± 0.1	2.0 ± 0.1	2.0 ± 0.1	2.0 ± 0.1	2.5 ± 0.1
CSM diameter (mm)		-	-	2.5 ± 0.2	4.0 ± 0.2	5.4 ± 0.2	7.2 ± 0.2
Cable diameter (mm)		13.4 ± 0.3	14.0 ± 0.3	15.3 ± 0.3	16.7 ± 0.3	19.0 ± 0.3	20.9 ± 0.3
Cable weight (kg/km)		190	229	244	288	325	373
Temperature rating	Operation	-40˚C ~ +70˚C					
	Storage	-40˚C ~ +70˚C					

Technical data-mechanical

Max. loading (N)	Installation	3000 N
	Operation	1000 N
Min bending radius (mm)	Long-term	10 x D
	Short-term	20 x D
Crush resistance		3000 N/100 mm

Connectivity
LC fibre patch cords

The simplex and duplex LC fibre patch cords are 1.6 mm mini cordage with push-pull LC connectors terminated on each end. These patch cords are available in simplex, duplex, multi-mode and single-mode configurations.

Product features
- Meets ANSI/TIA/EIA 568-C.3 and ISO/IEC 11801 standards
- Patch cords are available in single-mode and multi-mode configurations with different length options
- Cords are easy-to-install and environmentally stable
- Change to Low Smoke Zero Halogen (LSZH) sheath compliant to IEC 60332-3C.

Customer benefits
- Supports LAN, WAN and active device termination
- Provides a reliable and durable connection solution
- All cords are factory terminated and tested.

3108P2FC10M_OptPRO FC FPC

ACTFP2L1S19S10

Description	Ref. No
Simplex OS2, single-mode	
LC-LC simplex, single-mode, patch cord, 1 m	**ACTFP1L1S19S10**
LC-LC simplex, single-mode, patch cord, 2 m	**ACTFP1L1S19S20**
LC-LC simplex, single-mode, patch cord, 3 m	**ACTFP1L1S19S30**
LC-LC simplex, single-mode, patch cord, 5 m	**ACTFP1L1S19S50**
LC-LC simplex, single-mode, patch cord, 10 m	**ACTFP1L1S19S100**
Duplex OS2, single-mode	
LC-LC duplex, single-mode, patch cord, 1 m	**ACTFP2L1S19S10**
LC-LC duplex, single-mode, patch cord, 2 m	**ACTFP2L1S19S20**
LC-LC duplex, single-mode, patch cord, 3 m	**ACTFP2L1S19S30**
LC-LC duplex, single-mode, patch cord, 5 m	**ACTFP2L1S19S50**
LC-LC duplex, single-mode, patch cord, 10 m	**ACTFP2L1S19S100**
Duplex OM1, multi-mode	
LC-LC 62.5 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2L1M16M10**
LC-LC 62.5 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2L1M16M20**
LC-LC 62.5 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2L1M16M30**
LC-LC 62.5 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2L1M16M50**
LC-LC 62.5 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2L1M16M100**
Duplex OM2, multi-mode	
LC-LC 50 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2L1M25M10**
LC-LC 50 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2L1M25M20**
LC-LC 50 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2L1M25M30**
LC-LC 50 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2L1M25M50**
LC-LC 50 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2L1M25M100**
Duplex OM3, multi-mode	
LC-LC OM3 50 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2L1M35M10**
LC-LC OM3 50 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2L1M35M20**
LC-LC OM3 50 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2L1M35M30**
LC-LC OM3 50 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2L1M35M50**
LC-LC OM3 50 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2L1M35M100**
Duplex OM4, multi-mode	
LC-LC OM4 50 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2L1M45M10**
LC-LC OM4 50 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2L1M45M20**
LC-LC OM4 50 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2L1M45M30**
LC-LC OM4 50 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2L1M45M50**
LC-LC OM4 50 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2L1M45M100**

Note: duplex OM4, multi-mode will be provided upon request.

Technical specifications

Physical specifications

Tight buffer diameter	600 µm
Cable outside diameter	Simplex: 1.6 mm
	Duplex: 3.4 mm x 1.6 mm
Min. bend radius	Dynamic: 32 mm
	Static: 16 mm

Cable specifications

Multi-mode		OM1	OM2	OM3	OM4	OS2
Glass core/cladding diameter		62.5/125 µm	50/125 µm	50/125 µm	50/125 µm	9/125 µm
Attenuation	@ 850 nm	≤ 3.5 dB/km				-
	@ 1300 nm	≤ 1.5 dB/km				-
	@ 1310 nm	-				≤ 0.45 dB/km
	@ 1550 nm	-				≤ 0.3 dB/km
Cable color		Orange		Aqua		Yellow
Jacket specification		LSZH				

Connector specifications

	End 1	End 2
Connector type	LC	LC
Ferrule material	Zirconia ceramic	Zirconia ceramic
Housing body	Engineered resin	Engineered resin
Boot	Thermoplastic elastomer	Thermoplastic elastomer
Flammability	UL94V-0	UL94V-0
Insertion loss	≤ 0.2 dB	≤ 0.2 dB
Maximum return loss	-50 dB (SM) / -30 dB (MM)	-50 dB (SM) / -30 dB (MM)

Environmental

Operating temperature range	-20°C to 60°C
Storage temperature range	-20°C to 60°C

Connectivity
SC fibre patch cords

The simplex and duplex SC fibre patch cords are 1.6 mm mini cordage with push-pull SC connectors terminated on each end. These patch cords are available in simplex, duplex, multi-mode and single-mode configurations.

Product features
- Meets ANSI/TIA/EIA 568-C.3 and ISO/IEC 11801 standards
- Patch cords are available in simplex, duplex, single-mode and multi-mode configurations with different length options
- Cords are easy-to-install and environmentally stable
- Change to Low Smoke Zero Halogen (LSZH) sheath compliant to IEC 60332-3C.

Customer benefits
- Supports LAN, WAN and active device termination
- All cords are factory terminated and tested
- Provides a reliable and durable connection solution.

3108P2SC10M_OptSCFPC1

ACTFP2C1S19S10

Description	Ref. No
Simplex OS2, single-mode	
SC-SC simplex, single-mode, patch cord 1 m	**ACTFP1C1S19S10**
SC-SC simplex, single-mode, patch cord 2 m	**ACTFP1C1S19S20**
SC-SC simplex, single-mode, patch cord 3 m	**ACTFP1C1S19S30**
SC-SC simplex, single-mode, patch cord 5 m	**ACTFP1C1S19S50**
SC-SC simplex, single-mode, patch cord 10 m	**ACTFP1C1S19S100**
Duplex OS2, single-mode	
SC-SC duplex, single-mode, patch cord 1 m	**ACTFP2C1S19S10**
SC-SC duplex, single-mode, patch cord 2 m	**ACTFP2C1S19S20**
SC-SC duplex, single-mode, patch cord 3 m	**ACTFP2C1S19S30**
SC-SC duplex, single-mode, patch cord 5 m	**ACTFP2C1S19S50**
SC-SC duplex, single-mode, patch cord 10 m	**ACTFP2C1S19S100**
Duplex OM1, multi-mode	
SC-SC 62.5 µm duplex, multi-mode, patch cord 1 m	**ACTFP2C1M16M10**
SC-SC 62.5 µm duplex, multi-mode, patch cord 2 m	**ACTFP2C1M16M20**
SC-SC 62.5 µm duplex, multi-mode, patch cord 3 m	**ACTFP2C1M16M30**
SC-SC 62.5 µm duplex, multi-mode, patch cord 5 m	**ACTFP2C1M16M50**
SC-SC 62.5 µm duplex, multi-mode, patch cord 10 m	**ACTFP2C1M16M100**
Duplex OM2, multi-mode	
SC-SC 50 µm duplex, multi-mode, patch cord 1 m	**ACTFP2C1M25M10**
SC-SC 50 µm duplex, multi-mode, patch cord 2 m	**ACTFP2C1M25M20**
SC-SC 50 µm duplex, multi-mode, patch cord 3 m	**ACTFP2C1M25M30**
SC-SC 50 µm duplex, multi-mode, patch cord 5 m	**ACTFP2C1M25M50**
SC-SC 50 µm duplex, multi-mode, patch cord 10 m	**ACTFP2C1M25M100**
Duplex OM3, multi-mode	
SC-SC OM3 50 µm duplex, multi-mode, patch cord 1 m	**ACTFP2C1M35M10**
SC-SC OM3 50 µm duplex, multi-mode, patch cord 2 m	**ACTFP2C1M35M20**
SC-SC OM3 50 µm duplex, multi-mode, patch cord 3 m	**ACTFP2C1M35M30**
SC-SC OM3 50 µm duplex, multi-mode, patch cord 5 m	**ACTFP2C1M35M50**
SC-SC OM3 50 µm duplex, multi-mode, patch cord 10 m	**ACTFP2C1M35M100**
Duplex OM4, multi-mode	
SC-SC OM4 50 µm duplex, multi-mode, patch cord 1 m	**ACTFP2C1M45M10**
SC-SC OM4 50 µm duplex, multi-mode, patch cord 2 m	**ACTFP2C1M45M20**
SC-SC OM4 50 µm duplex, multi-mode, patch cord 3 m	**ACTFP2C1M45M30**
SC-SC OM4 50 µm duplex, multi-mode, patch cord 5 m	**ACTFP2C1M45M50**
SC-SC OM4 50 µm duplex, multi-mode, patch cord 10 m	**ACTFP2C1M45M100**

Technical specifications

Physical specifications

Tight buffer diameter	600 µm
Cable outside diameter	Simplex: 1.6 mm
	Duplex: 3.4 mm x 1.6 mm
Min. bend radius	Dynamic: 32 mm
	Static: 16 mm

Cable specifications

Multi-mode		OM1	OM2	OM3	OM4	OS2
Glass core/cladding diameter		62.5/125 µm	50/125 µm	50/125 µm	50/125 µm	9/125 µm
Attenuation	@ 850 nm	≤ 3.5 dB/km				-
	@ 1300 nm	≤ 1.5 dB/km				-
	@ 1310 nm	-				≤ 0.45 dB/km
	@ 1550 nm	-				≤ 0.3 dB/km
Cable color		Orange		Aqua		Yellow
Jacket specification		LSZH				

Connector specifications

	End 1	End 2
Connector type	SC	SC
Ferrule material	Zirconia ceramic	Zirconia ceramic
Housing body	Engineered resin	Engineered resin
Boot	Thermoplastic elastomer	Thermoplastic elastomer
Flammability	UL94V-0	UL94V-0
Insertion loss	≤ 0.2 dB	≤ 0.2 dB
Maximum return loss	-50 dB (SM) / -30 dB (MM)	-50 dB (SM) / -30 dB (MM)

Environmental

Operating temperature range	-20°C to 60°C
Storage temperature range	-20°C to 60°C

Connectivity
ST fibre patch cords

The simplex and duplex ST fibre patch cords are 1.6 mm mini cordage with push-pull ST connectors terminated on each end. These patch cords are available in simplex, duplex, multi-mode and single-mode configurations.

Product features
- Meets ANSI/TIA/EIA 568-C.3 and ISO/IEC 11801 standards
- Patch cords are available in single-mode and multi-mode configurations with different length options
- Cords are easy-to-install and environmentally stable
- Change to Low Smoke Zero Halogen (LSZH) sheath compliant to IEC 60332-3C.

Customer benefits
- Supports LAN, WAN and active device termination
- Provides a reliable and durable connection solution
- All cords are factory terminated and tested.

TFP2T3M16M20

ACTFP2T1S19S10

Description	Ref. No
Simplex OS2, single-mode	
ST-ST simplex, single-mode, patch cord, 1 m	**ACTFP1T1S19S10**
ST-ST simplex, single-mode, patch cord, 2 m	**ACTFP1T1S19S20**
ST-ST simplex, single-mode, patch cord, 3 m	**ACTFP1T1S19S30**
ST-ST simplex, single-mode, patch cord, 5 m	**ACTFP1T1S19S50**
ST-ST simplex, single-mode, patch cord, 10 m	**ACTFP1T1S19S100**
Duplex OS2, single-mode	
ST-ST duplex, single-mode, patch cord, 1 m	**ACTFP2T1S19S10**
ST-ST duplex, single-mode, patch cord, 2 m	**ACTFP2T1S19S20**
ST-ST duplex, single-mode, patch cord, 3 m	**ACTFP2T1S19S30**
ST-ST duplex, single-mode, patch cord, 5 m	**ACTFP2T1S19S50**
ST-ST duplex, single-mode, patch cord, 10 m	**ACTFP2T1S19S100**
Duplex OM1, multi-mode	
ST-ST 62.5 µm duplex, multi-mode, patch cord, 1 m	**ACTFP2T1M16M10**
ST-ST 62.5 µm duplex, multi-mode, patch cord, 2 m	**ACTFP2T1M16M20**
ST-ST 62.5 µm duplex, multi-mode, patch cord, 3 m	**ACTFP2T1M16M30**
ST-ST 62.5 µm duplex, multi-mode, patch cord, 5 m	**ACTFP2T1M16M50**
ST-ST 62.5 µm duplex, multi-mode, patch cord, 10 m	**ACTFP2T1M16M100**
Duplex OM2, multi-mode	
ST-ST 50 µm duplex, multi-mode, patch cord, 1 m	**ACTFP2T1M25M10**
ST-ST 50 µm duplex, multi-mode, patch cord, 2 m	**ACTFP2T1M25M20**
ST-ST 50 µm duplex, multi-mode, patch cord, 3 m	**ACTFP2T1M25M30**
ST-ST 50 µm duplex, multi-mode, patch cord, 5 m	**ACTFP2T1M25M50**
ST-ST 50 µm duplex, multi-mode, patch cord, 10 m	**ACTFP2T1M25M100**
Duplex OM3, multi-mode	
ST-ST OM3 50 µm duplex, multi-mode, patch cord, 1 m	**ACTFP2T1M35M10**
ST-ST OM3 50 µm duplex, multi-mode, patch cord, 2 m	**ACTFP2T1M35M20**
ST-ST OM3 50 µm duplex, multi-mode, patch cord, 3 m	**ACTFP2T1M35M30**
ST-ST OM3 50 µm duplex, multi-mode, patch cord, 5 m	**ACTFP2T1M35M50**
ST-ST OM3 50 µm duplex, multi-mode, patch cord, 10 m	**ACTFP2T1M35M100**
Duplex OM4, multi-mode	
ST-ST OM4 50 µm duplex, multi-mode, patch cord, 1 m	**ACTFP2T1M45M10**
ST-ST OM4 50 µm duplex, multi-mode, patch cord, 2 m	**ACTFP2T1M45M20**
ST-ST OM4 50 µm duplex, multi-mode, patch cord, 3 m	**ACTFP2T1M45M30**
ST-ST OM4 50 µm duplex, multi-mode, patch cord, 5 m	**ACTFP2T1M45M50**
ST-ST OM4 50 µm duplex, multi-mode, patch cord, 10 m	**ACTFP2T1M45M100**

Technical specifications

Physical specifications

Tight buffer diameter	600 µm
Cable outside diameter	Simplex: 1.6 mm
	Duplex: 3.4 mm x 1.6 mm
Min. bend radius	Dynamic: 32 mm
	Static: 16 mm

Cable specifications

Multi-mode		OM1	OM2	OM3	OM4	OS2
Glass core/cladding diameter		62.5/125 µm	50/125 µm	50/125 µm	50/125 µm	9/125 µm
Attenuation	@ 850 nm	≤ 3.5 dB/km				-
	@ 1300 nm	≤ 1.5 dB/km				-
	@ 1310 nm	-				≤ 0.45 dB/km
	@ 1550 nm	-				≤ 0.3 dB/km
Cable color		Orange		Aqua		Yellow
Jacket specification		LSZH				

Connector specifications

	End 1	End 2
Connector type	ST	ST
Ferrule material	Zirconia ceramic	Zirconia ceramic
Housing body	Nickel plated zinc	Nickel plated zinc
Boot	Thermoplastic elastomer	Thermoplastic elastomer
Flammability	UL94V-0	UL94V-0
Insertion loss	≤ 0.2 dB	≤ 0.2 dB
Maximum return loss	-50 dB (SM) / -30 dB (MM)	-50 dB (SM) / -30 dB (MM)

Environmental

Operating temperature range	-20°C to 60°C
Storage temperature range	-20°C to 60°C

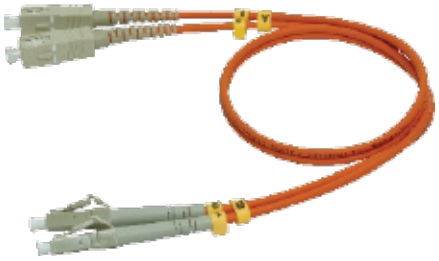
Connectivity
SC-LC fibre patch cords

The duplex SC-LC fibre patch cords are 1.6 mm mini cordage with push-pull SC-LC connectors terminated on each end. These patch cords are available in simplex, duplex multi-mode and single-mode configurations.

Product features
- Meets ANSI/TIA/EIA 568-C.3 and ISO/IEC 11801 standards
- Patch cords are available in Duplex, multi-mode configurations with different length options
- Cords are easy-to-install and environmentally stable
- Change to Low Smoke Zero Halogen (LSZH) sheath compliant to IEC 60332-3C.

Customer benefits
- Supports LAN, WAN and active device termination
- Provides a reliable and durable connection solution
- All cords are factory terminated and tested.

TFP2CL3M16M05



ACTFP2CL1M25M10

Description	Ref. No
Simplex OS2, single-mode	
SC-LC simplex, single-mode, patch cord, 1 m	**ACTFP1CL1S19S10**
SC-LC simplex, single-mode, patch cord, 2 m	**ACTFP1CL1S19S20**
SC-LC simplex, single-mode, patch cord, 3 m	**ACTFP1CL1S19S30**
SC-LC simplex, single-mode, patch cord, 5 m	**ACTFP1CL1S19S50**
SC-LC simplex, single-mode, patch cord, 10 m	**ACTFP1CL1S19S100**
Duplex OS2, single-mode	
SC-LC duplex, single-mode, patch cord, 1 m	**ACTFP2CL1S19S10**
SC-LC duplex, single-mode, patch cord, 2 m	**ACTFP2CL1S19S20**
SC-LC duplex, single-mode, patch cord, 3 m	**ACTFP2CL1S19S30**
SC-LC duplex, single-mode, patch cord, 5 m	**ACTFP2CL1S19S50**
SC-LC duplex, single-mode, patch cord, 10 m	**ACTFP2CL1S19S100**
Duplex OM1, multi-mode	
SC-LC 62.5 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2CL1M16M10**
SC-LC 62.5 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2CL1M16M20**
SC-LC 62.5 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2CL1M16M30**
SC-LC 62.5 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2CL1M16M50**
SC-LC 62.5 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2CL1M16M100**
Duplex OM2, multi-mode	
SC-LC 50 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2CL1M25M10**
SC-LC 50 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2CL1M25M20**
SC-LC 50 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2CL1M25M30**
SC-LC 50 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2CL1M25M50**
SC-LC 50 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2CL1M25M100**
Duplex OM3, multi-mode	
SC-LC OM3 50 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2CL1M35M10**
SC-LC OM3 50 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2CL1M35M20**
SC-LC OM3 50 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2CL1M35M30**
SC-LC OM3 50 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2CL1M35M50**
SC-LC OM3 50 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2CL1M35M100**
Duplex OM4, multi-mode	
SC-LC OM4 50 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2CL1M45M10**
SC-LC OM4 50 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2CL1M45M20**
SC-LC OM4 50 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2CL1M45M30**
SC-LC OM4 50 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2CL1M45M50**
SC-LC OM4 50 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2CL1M45M100**

Technical specifications

Physical specifications

Tight buffer diameter	600 µm
Cable outside diameter	Simplex: 1.6 mm
	Duplex: 3.4 mm x 1.6 mm
Min. bend radius	Dynamic: 32 mm
	Static: 16 mm

Cable specifications

Multi-mode		OM1	OM2	OM3	OM4	OS2
Glass core/cladding diameter		62.5/125 µm	50/125 µm	50/125 µm	50/125 µm	9/125 µm
Attenuation	@ 850 nm	≤ 3.5 dB/km				-
	@ 1300 nm	≤ 1.5 dB/km				-
	@ 1310 nm	-				≤ 0.45 dB/km
	@ 1550 nm	-				≤ 0.3 dB/km
Cable color		Orange		Aqua		Yellow
Jacket specification		LSZH				

Connector specifications

	End 1	End 2
Connector type	SC	LC
Ferrule material	Zirconia ceramic	Zirconia ceramic
Housing body	Engineered resin	Engineered resin
Boot	Thermoplastic elastomer	Thermoplastic elastomer
Flammability	UL94V-0	UL94V-0
Insertion loss	≤ 0.2 dB	≤ 0.2 dB
Maximum return loss	-50 dB (SM) / -30 dB (MM)	-50 dB (SM) / -30 dB (MM)

Environmental

Operating temperature range	-20°C to 60°C
Storage temperature range	-20°C to 60°C

Connectivity
ST-SC fibre patch cords

The duplex ST-SC fibre patch cords are 1.6 mm mini cordage with push-pull ST-SC connectors terminated on each end. These patch cords are available in simplex, duplex multi-mode and single-mode configurations.

Product features
- Meets ANSI/TIA/EIA 568-C.3 and ISO/IEC 11801 standards
- Patch cords are available in duplex multi-mode configurations with different length options
- Cords are easy-to-install and environmentally stable
- Change to Low Smoke Zero Halogen (LSZH) sheath compliant to IEC 60332-3C.

Customer benefits
- Supports LAN, WAN and active device termination
- Provides a reliable and durable connection solution
- All cords are factory terminated and tested.

TFP2TCM16M10

ACTFP2TC1M16M10

Description	Ref. No
simplex OS2, single-mode	
ST-SC simplex, single-mode, patch cord, 1 m	**ACTFP1TC1S19S10**
ST-SC simplex, single-mode, patch cord, 2 m	**ACTFP1TC1S19S20**
ST-SC simplex, single-mode, patch cord, 3 m	**ACTFP1TC1S19S30**
ST-SC simplex, single-mode, patch cord, 5 m	**ACTFP1TC1S19S50**
ST-SC simplex, single-mode, patch cord, 10 m	**ACTFP1TC1S19S100**
Duplex OS2, single-mode	
ST-SC duplex, single-mode, patch cord, 1 m	**ACTFP2TC1S19S10**
ST-SC duplex, single-mode, patch cord, 2 m	**ACTFP2TC1S19S20**
ST-SC duplex, single-mode, patch cord, 3 m	**ACTFP2TC1S19S30**
ST-SC duplex, single-mode, patch cord, 5 m	**ACTFP2TC1S19S50**
ST-SC duplex, single-mode, patch cord, 10 m	**ACTFP2TC1S19S100**
Duplex OM1, multi-mode	
ST-SC 62.5 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2TC1M16M10**
ST-SC 62.5 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2TC1M16M20**
ST-SC 62.5 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2TC1M16M30**
ST-SC 62.5 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2TC1M16M50**
ST-SC 62.5 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2TC1M16M100**
Duplex OM2, multi-mode	
ST-SC 50 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2TC1M25M10**
ST-SC 50 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2TC1M25M20**
ST-SC 50 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2TC1M25M30**
ST-SC 50 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2TC1M25M50**
ST-SC 50 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2TC1M25M100**
Duplex OM3, multi-mode	
ST-SC OM3 50 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2TC1M35M10**
ST-SC OM3 50 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2TC1M35M20**
ST-SC OM3 50 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2TC1M35M30**
ST-SC OM3 50 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2TC1M35M50**
ST-SC OM3 50 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2TC1M35M100**
Duplex OM4, multi-mode	
ST-SC OM4 50 µm, duplex, multi-mode, patch cord, 1 m	**ACTFP2TC1M45M10**
ST-SC OM4 50 µm, duplex, multi-mode, patch cord, 2 m	**ACTFP2TC1M45M20**
ST-SC OM4 50 µm, duplex, multi-mode, patch cord, 3 m	**ACTFP2TC1M45M30**
ST-SC OM4 50 µm, duplex, multi-mode, patch cord, 5 m	**ACTFP2TC1M45M50**
ST-SC OM4 50 µm, duplex, multi-mode, patch cord, 10 m	**ACTFP2TC1M45M100**

Technical specifications

Physical specifications

Tight buffer diameter	600 µm
Cable outside diameter	Simplex: 1.6 mm
	Duplex: 3.4 mm x 1.6 mm
Min. bend radius	Dynamic: 32 mm
	Static: 16 mm

Cable specifications

Multi-mode		OM1	OM2	OM3	OM4	OS2
Glass core/cladding diameter		62.5/125 µm	50/125 µm	50/125 µm	50/125 µm	9/125 µm
Attenuation	@ 850 nm	≤ 3.5 dB/km				-
	@ 1300 nm	≤ 1.5 dB/km				-
	@ 1310 nm	-				≤ 0.45 dB/km
	@ 1550 nm	-				≤ 0.3 dB/km
Cable color		Orange		Aqua		Yellow
Jacket specification		LSZH				

Connector specifications

	End 1	End 2
Connector type	ST	SC
Ferrule material	Zirconia ceramic	Zirconia ceramic
Housing body	Nickel plated zinc	Engineered resin
Boot	Thermoplastic elastomer	Thermoplastic elastomer
Flammability	UL94V-0	UL94V-0
Insertion loss	≤ 0.2 dB	≤ 0.2 dB
Maximum return loss	-50 dB (SM) / -30 dB (MM)	-50 dB (SM) / -30 dB (MM)

Environmental

Operating temperature range	-20°C to 60°C
Storage temperature range	-20°C to 60°C

Connectivity
LC fibre pigtails

The simplex ST fibre pigtails are 0.9 mm tight buffrt fibre with push-pull ST connectors terminated on each end. These pigtails are available in simplex multi-mode and single-modeconfigurations.

Product features
- Meets ANSI/TIA/EIA 568-C.3 and ISO/IEC 11801 standards
- Patch cords are available in simplex, single-mode and multi-mode configurations with different length options
- Cords are easy-to-install and environmentally stable
- Change to Low Smoke Zero Halogen (LSZH) sheath compliant to IEC 60332-3C.

Customer benefits
- Supports LAN, WAN and active device termination
- Provides a reliable and durable connection solution
- All cords are factory terminated and tested.

TFT1L3M16M20

ACTFT1L1M25M20

Description	Ref. No
OS2, single-mode	
LC, single-mode, pigtail, 1.0 m	**ACTFT1L1S19S10**
LC, single-mode, pigtail, 1.5 m	**ACTFT1L1S19S15**
LC, single-mode, pigtail, 2.0 m	**ACTFT1L1S19S20**
OM2, multi-mode	
LC, 50 µm, multi-mode, pigtail, 1.0 m	**ACTFT1L1M25M10**
LC, 50 µm, multi-mode, pigtail, 1.5 m	**ACTFT1L1M25M15**
LC, 50 µm, multi-mode, pigtail, 2.0 m	**ACTFT1L1M25M20**
OM3, multi-mode	
LC, 50 µm, multi-mode, pigtail, 1.0 m	**ACTFT1L1M35M10**
LC, 50 µm, multi-mode, pigtail, 1.5 m	**ACTFT1L1M35M15**
LC, 50 µm, multi-mode, pigtail, 2.0 m	**ACTFT1L1M35M20**
OM4, multi-mode	
LC, 50 µm, multi-mode, pigtail, 1.0 m	**ACTFT1L1M45M10**
LC, 50 µm, multi-mode, pigtail, 1.5 m	**ACTFT1L1M45M15**
LC, 50 µm, multi-mode, pigtail, 2.0 m	**ACTFT1L1M45M20**

Technical specifications

Physical specifications

Coated fibre diameter	900 µm
Cable outside diameter	0.9 mm
Min. bend radius	Dynamic: 50 mm
	Static: 30 mm

Cable specifications

Multi-mode		OM1	OM2	OM3	OM4	OS2
Glass core/cladding diameter		62.5/125 µm	50/125 µm	50/125 µm	50/125 µm	9/125 µm
Attenuation	@ 850 nm	⩽ 3.5 dB/km				-
	@ 1300 nm	⩽ 1.5 dB/km				-
	@ 1310 nm	-				⩽ 0.45 dB/km
	@ 1550 nm	-				⩽ 0.3 dB/km
Cable color		Orange		Aqua		Yellow
Jacket specification		LSZH				

Connector specifications

Connector type	LC
Insertion loss	⩽ 0.2 dB
Maximum return loss	-50 dB (SM) / -30 dB (MM)

Connectivity
SC fibre pigtails

The Simplex SC fibre pigtails are 0.9 mm tight buffer fibre with push-pull SC connectors terminated on each end. These pigtails are available in simplex single-mode and multi-mode configurations.

Product features
- Meets ANSI/TIA/EIA 568-C.3 and ISO/IEC 11801 standards
- Patch cords are available in simplex, single-mode and multi-mode configurations with different length options
- Cords are easy-to-install and environmentally stable
- Change to Low Smoke Zero Halogen (LSZH) sheath compliant to IEC 60332-3C.

Customer benefits
- Supports LAN, WAN and active device termination
- Provides a reliable and durable connection solution
- All cords are factory terminated and tested.

TFT1C3M16M20

ACTFT1C1M25M20

Description	Ref. No
OS2, single-mode	
SC, single-mode, pigtail, 1.0 m	**ACTFT1C1S19S10**
SC, single-mode, pigtail, 1.5 m	**ACTFT1C1S19S15**
SC, single-mode, pigtail, 2.0 m	**ACTFT1C1S19S20**
OM2, multi-mode	
SC, 50 µm, multi-mode, pigtail, 1.0 m	**ACTFT1C1M25M10**
SC, 50 µm, multi-mode, pigtail, 1.5 m	**ACTFT1C1M25M15**
SC, 50 µm, multi-mode, pigtail, 2.0 m	**ACTFT1C1M25M20**
OM3, multi-mode	
SC, OM3, 50 µm, multi-mode, pigtail, 1.0 m	**ACTFT1C1M35M10**
SC, OM3, 50 µm, multi-mode, pigtail, 1.5 m	**ACTFT1C1M35M15**
SC, OM3, 50 µm, multi-mode, pigtail, 2.0 m	**ACTFT1C1M35M20**
OM4, multi-mode	
SC, OM4, 50 µm, multi-mode, pigtail, 1.0 m	**ACTFT1C1M45M10**
SC, OM4, 50 µm, multi-mode, pigtail, 1.5 m	**ACTFT1C1M45M15**
SC, OM4, 50 µm, multi-mode, pigtail, 2.0 m	**ACTFT1C1M45M20**

Technical specifications						
Physical specifications						
Coated fibre diameter		900 µm				
Cable outside diameter		0.9 mm				
Min. bend radius		Dynamic: 50 mm				
		Static: 30 mm				
Cable specifications						
Multi-mode		**OM1**	**OM2**	**OM3**	**OM4**	**OS2**
Glass core/cladding diameter		**62.5/125 µm**	**50/125 µm**	**50/125 µm**	**50/125 µm**	**9/125 µm**
Attenuation	@ 850 nm	≤ 3.5 dB/km				-
	@ 1300 nm	≤ 1.5 dB/km				-
	@ 1310 nm	-				≤ 0.45 dB/km
	@ 1550 nm	-				≤ 0.3 dB/km
Cable color		Orange		Aqua		Yellow
Jacket specification		LSZH				
Connector specifications						
Connector type		SC				
Insertion loss		≤ 0.2 dB				
Maximum return loss		-50 dB (SM) / -30 dB (MM)				

Connectivity
ST fibre pigtails

The simplex ST fibre pigtails are 0.9 mm tight buffrt fibre with push-pull ST connectors terminated on each end. These pigtails are available in simplex multi-mode and single-modeconfigurations.

Product features
- Meets ANSI/TIA/EIA 568-C.3 and ISO/IEC 11801 standards
- Patch cords are available in simplex, single-mode and multi-mode configurations with different length options
- Cords are easy-to-install and environmentally stable
- Change to Low Smoke Zero Halogen (LSZH) sheath compliant to IEC 60332-3C.

Customer benefits
- Supports LAN, WAN and active device termination
- Provides a reliable and durable connection solution
- All cords are factory terminated and tested.

TFT1T3S19S05_SC_MTRJPP

ACTFT1T1S19S10

Description	Ref. No
OS2, single-mode	
ST, single-mode, pigtail, 1.0 m	**ACTFT1T1S19S10**
ST, single-mode, pigtail, 1.5 m	**ACTFT1T1S19S15**
ST, single-mode, pigtail, 2.0 m	**ACTFT1T1S19S20**
OM2, multi-mode	
ST, 50 µm, multi-mode, pigtail, 1.0 m	**ACTFT1T1M25M10**
ST, 50 µm, multi-mode, pigtail, 1.5 m	**ACTFT1T1M25M15**
ST, 50 µm, multi-mode, pigtail, 2.0 m	**ACTFT1T1M25M20**

Note: OM3, OM4 will be provided upon request.

Technical specifications

Physical specifications						
Coated fibre diameter		900 µm				
Cable outside diameter		0.9 mm				
Min. bend radius		Dynamic: 50 mm				
		Static: 30 mm				
Cable specifications						
Multi-mode		**OM1**	**OM2**	**OM3**	**OM4**	**OS2**
Glass core/cladding diameter		**62.5/125 µm**	**50/125 µm**	**50/125 µm**	**50/125 µm**	**9/125 µm**
Attenuation	@ 850 nm	⩽ 3.5 dB/km				-
	@ 1300 nm	⩽ 1.5 dB/km				-
	@ 1310 nm	-				⩽ 0.45 dB/km
	@ 1550 nm	-				⩽ 0.3 dB/km
Cable color		Orange		Aqua		Yellow
Jacket specification		LSZH				
Connector specifications						
Connector type		ST				
Insertion loss		⩽ 0.2 dB				
Maximum return loss		-50 dB (SM) / -30 dB (MM)				

Connectivity
Through adaptors

The Actassi fibre optic connectors and adaptors are superior products delivering the best networking performance when used in conjunction with other Actassi fibre optic products.

Specifications

■ Fibre optic adapters suitable to connect and align optic connectors (for both applications: optic patchpanels in telecom/equipment rooms and faceplates at workstation)
- □ both multimode and singlemode versions
- □ identification of multimode adapters with beige color
- □ identification of singlemode adapters with blue color
- □ available in SC, ST, LC and MTRJ formats
- □ zirconia ceramic material ferrules
- □ snap-in latch.

Performances

- ■ SC connectors compliant with TIA/EIA 604-3 and IEC 61754-4 Ed.2
- ■ LC connectors compliant with TIA/EIA 604-10A and IEC 61754-20 Ed.2
- ■ ST connectors compliant with TIA/EIA 604-2 and IEC 61754-2
- ■ MTRJ connectors compliant with TIA/EIA 604-12 and IEC 61754-18.

TFA1TSMZM

ACTFA1TSMZM

TFA1CSMZP

ACTFA1CSMZP

TFA2CSMZP

ACTFA2CSMZP

TFA2LMMZP

ACTFA2LMMZP

TFA2LSMZP

ACTFA2LSMZP

TFA2MSMP

ACTFA2MSMP

Description	Ref. No
ST adaptors	
ST adaptor, simplex, single-mode, zirconia ceramic, metal	**ACTFA1TSMZM**
ST adaptor, simplex, multi-mode, zirconia ceramic, metal	**ACTFA1TMMZM**
SC adaptors	
SC adaptor, simplex, single-mode, zirconia ceramic, plastic	**ACTFA1CSMZP**
SC adaptor, simplex, multi-mode, zirconia ceramic, plastic	**ACTFA1CMMZP**
SC adaptor, duplex, single-mode, zirconia ceramic, plastic	**ACTFA2CSMZP**
SC adaptor, duplex, multi-mode, zirconia ceramic, plastic	**ACTFA2CMMZP**
LC adaptors	
LC adaptor, duplex, single-mode, zirconia ceramic, plastic	**ACTFA2LSMZP**
LC adaptor, duplex, multi-mode, zirconia ceramic, plastic	**ACTFA2LMMZP**
MTRJ adaptors	
MTRJ adaptor, duplex, multi-mode, plastic	**ACTFA2MMMP**
SC-ST adaptors	
SC-ST adaptor, duplex, single-mode, zirconia ceramic, plastic	**ACTFA2CTSMZP**
SC-STadaptor, duplex, multi-mode, zirconia ceramic, plastic	**ACTFA2CTMMZP**
SC-LC adaptors	
SC-LC adaptor, duplex, single-mode, zirconia ceramic, plastic	**ACTFA2CLSMZP**
SC-LC adaptor, duplex, multi-mode, zirconia ceramic, plastic	**ACTFA2CLMMZP**

Connectivity
Connectors

Schneider Electric offers the customer access to the most popular connector and adaptor types including the new Actassi connector. The Actassi fibre optic connectors and Adaptors are superior products delivering the best networking performance when used in conjunction with Actassi fibre optic products.

Specifications
■ Optic pigtails suitable for splices terminaion with fibre optic cables inside optic patchpanels and/or at workstation:
□ zirconia ceramic material ferrules
□ colored housing to identify quickly performances of the connectors.

Performances
■ SC connectors compliant with TIA/EIA 604-3 and IEC 61754-4 Ed.2
■ LC connectors compliant with TIA/EIA 604-10A and IEC 61754-20 Ed.2
■ ST connectors compliant with TIA/EIA 604-2 and IEC 61754-2
■ MTRJ connectors compliant with TIA/EIA 604-12 and IEC 61754-18.

TFSTSM3_ST_con

ACTFCSTSM3

TFCSCMM3

ACTFCSCMM3

TFCLCMM1

ACTFCLCMM1

TFCMTJMM2_MTRJ_Conn

ACTFCMTRJMM2

Description	Ref. No
ST connectors	
ST connector, single-mode, 3.0 mm	**ACTFCSTSM3**
ST connector, single-mode, 0.9 mm	**ACTFCSTSM9**
ST connector, multi-mode, 3.0 mm	**ACTFCSTMM3**
ST connector, multi-mode, 0.9 mm	**ACTFCSTMM9**
SC connectors	
SC connector, single-mode, 3.0 mm	**ACTFCSCSM3**
SC connector, single-mode, 0.9 mm	**ACTFCSCSM9**
SC connector, multi-mode, 3.0 mm	**ACTFCSCMM3**
SC connector, multi-mode, 0.9 mm	**ACTFCSCMM9**
LC connectors	
LC connector, single-mode, 1.6 mm	**ACTFCLCSM1**
LC connector, single-mode, 3.0 mm	**ACTFCLCSM3**
LC connector, multi-mode, 1.6 mm	**ACTFCLCMM1**
LC connector, multi-mode, 3.0 mm	**ACTFCLCMM3**
MTRJ connectors	
MTRJ connector, multi-mode, 1.6 mm	**ACTFCMTRJMM1**

Actassi 19-HD Fibre panels

Answering to your high density needs

Actassi 19-HD Fibre Panel is a superior and compact fibre termination solution for High Density Premium building and small data centre applications, covering the following requirements:

High density field termination solution

- **Accepts 3 adaptor plates, up to 72 ports in 1U**
- **Accepts 12 adaptor plates, up to 288 ports in 4U**
- **Space optimization, 50% more than standard fibre panel**

Safety and Protection

- **Transparent front cover (with magnetic suction mechanism) provides instant visibility of the connection status also provides perfect protection against dust and humidity**
- **Radiation safety label is available in the front cover**

Scalable and flexible

- **Pay as you grow**
- **Optional snap-in adaptor plates and blank plate**
- **Fusion splicing is possible with optional spice tray kit sets**
- **Built-in (adjustable in 1U panel) wiring rings, rubber-seal cable entries are aimed to cater easy cable management**
- **Single-mode and Multi-mode adaptors are available with color differentiation**

P111047

Energy efficient thanks to "Green environment"

- **Fibre use**
- **Reduce up to 90 % of waste on site**

19-HD Fibre panels
Range

The Actassi 19-HD Fibre panel is a superior and compact fibre termination solution. It is mountable in 19” equipment racks or cabinets. The 1U panel accepts maximum 3 adaptor plates with maximum 72 fibres count while 4U panel can accept maximum 12 adaptor plates with maximum capacity of 288 fibres.
Built-in (adjustable in 1U panel) wiring rings, rubber-seal cable entries are aimed to cater easy cable management.
Transparent front cover (with magnetic suction mechanism) provides instant visibility of the connection status, also provides perfect protection against dust and humidity.
Design with multiple applications in mind, the Actassi 19-HD Fibre panel can accommodate different types of modular adaptor panel plates and splice trays (optional) to give outstanding performance and functionality.
Actassi 19-HD Fibre panel can also accommodate MTP cassettes as pre-terminated solution (see page ??)

1U Panel: 400 x 482 x 44 mm

- Compatible with 19” open rack / cabinets (depth > 500 mm)
- 1U panel drawer with sliding rails and stopper lock mechanism
- Optional snap-in adaptor plates / blank plates (max. 3)
- Built-in adjustable cable management rings and cable entries
- Maximum density of 72 fibres (LC version).

P146940-30

Description	Ref. No
HD Fibre panel, 1U, fits up to 3 adaptor plates, Unloaded	**ACTMP1U**

4U panel: 400 x 482 x 175 mm

- Compatible with 19” open rack / cabinets (depth > 500 mm)
- With removal top cover lip
- Optional snap-in adaptor plates / blank plates (max. 12)
- Built-in cable management rings and cable entries
- Maximum density of 288 fibres (LC version).

P146941-45

Description	Ref. No
HD Fibre panel, 4U, fits up to 12 adaptor plates, Unloaded	**ACTMP4U**

19-HD Fibre panels
Range

P146933-18

P146932-18

P146988-16

P146934-40

P146935-40

Plates

- Blank plates and adapter plates to be fixed on Actassi 19-HD Fibre panel ref ACTMP1U and ACTMP4U
- Quick fixation by push-pull rivets
- Zirconia ceramic material ferrules for higher performance.

Coverplates with adapters

Description	Ref. No
Adapter plate with 3 SC duplex beige adapters for multimode OM2/OM3/OM4 (support also singlemode)	**ACTFM1UF2SC3PMM**
Adapter plate with 3 SC duplex blue adapters for singlemode OS1/OS2 (support also multimode OM2/OM3/OM4)	**ACTFM1UF2SC3PSM**
Adapter plate with 6 SC duplex beige adapters for multimode OM2/OM3/OM4 (support also singlemode)	**ACTFM1UF2SC6PMM**
Adapter plate with 6 SC duplex blue adapters for singlemode OS1/OS2 (support also multimode OM2/OM3/OM4)	**ACTFM1UF2SC6PSM**
Adapter plate with 6 LC duplex beige adapters for multimode OM2/OM3/OM4 (support also singlemode)	**ACTFM1UF2LC6PMM**
Adapter plate with 6 LC duplex blue adapters for singlemode OS1/OS2 (support also multimode OM2/OM3/OM4)	**ACTFM1UF2LC6PSM**
Adapter plate with 12 LC duplex beige adapters for multimode OM2/OM3/OM4 (support also singlemode)	**ACTFM1UF2LC12PM**
Adapter plate with 12 LC duplex blue adapters for singlemode OS1/OS2 (support also multimode OM2/OM3/OM4)	**ACTFM1UF2LC12PS**

Blank plate

Description	Ref. No
Blank adapter plate for ACTMP1U & ACTMP4U	**ACTMPBP**

Splice tray

- Delivered with a cover and accessories
- Maximum 3 x 1U fusion splice tray kit can be stacked inside 1U HD Fibre panel
- Only 1x 4U fusion splice tray kit is needed for 4U HD Fibre panel (total 12 splice trays)
- Ready to install: fusion splice holders & heat shrink tube included.

Description	Ref. No
1U Fusion splice tray kit (max. 24-fibres)	**ACTFMSPTKIT**
4U Fusion splice tray kit (Full Set for up to 288 fibres)	**ACTFMSPT4USET**

Contents

Metallic cable management panel

The metallic cable management panel is a superior product delivering excellent cable management support when used in conjunction with other Schneider Electric series products.

The panel is a 1 rack unit (1U) item designed for use in 19” rack environments, managing patch cords/cables that are connected between patch panels and/or hubs. The product is generally mounted between every 2nd row of patch panels/hubs. The base is of a metal construction and it comes with a metallic cover to cover the patch cords, once installed a neat appearance of the patch field can be maintained. The metallic fingers allow space for the patch cords to locate prior to closing the cover (2 patch cords per slot).

Product features

- Cable management panel with metal fingers and metallic cover
- Metal base is powder coated to provide protection against scratches and rust
- A metallic cover provides security and aesthetics
- Available as a 1-rack unit (1U) item
- Available in graphite grey
- Compatible with standard 19” equipment racks.

Customer benefits

- Powder coated metal provides protection from scratches while being installed and stops rust from forming, ensuring the full life of the product
- Metal fingers and cover are designed to keep the cabinet environment neat, secure and uncluttered
- Enables easier circuit identification and administration.

RJ5ECMPCC_CabMngtPnl

ACTRJ1UCMPM

Description	Ref. No
1U cable management panel	**ACTRJ1UCMPM**

Technical specifications	
Mechanical characteristics	
Panel material	1.6 mm mild steel, powder-coated
Cover material	Polypropylene, graphite grey
Dimensions	
Shipping box	50 mm (H) x 495 mm (W) x 125 mm (D)
Shipping weight	770 g

Cable management panel

The Actassi cable management panel is a superior product delivering the best cable management support when used in conjunction with other Actassi series products.

The panel is a 1 rack unit (1U) item designed for use in 19” rack environments, managing patch cords that are connected between patch panels and/or hubs. The product is recommended for mounting between every 2nd row of patch panels/hubs.

The unique clips provide a quick and simple means of installing the panel in the rack or cabinet. Each of the 4 cable management rings have been reinforced to accommodate the capacity for up to 48/24 patch cords. The rings have been designed to facilitate easy insertion and removal of the patch cords, necessary in dynamic environments where movement and changes are unavoidable. Unique design of sliding lockable cover provides better appearance with Actassi patch panel style.

Product features

- Rack mount clips eliminate the need for cage nuts and screws
- Reinforced cable management rings can accommodate up to 50 patch cords
- Cavities behind each ring provide additional space for cable slack
- Additional depth on cable rings ensures compliance with minimum bend radius requirements
- Compliments Actassi patch panel styling.

Customer benefits

- Quick product installation using rack mount clips
- Rapid insertion and removal of patch cords.

RJ1UCMPC

ACTRJ1UCMPC

RJ1UCMPSC

ACTRJ1UCMPSC

Description	Ref. No
1U, Actassi deep cable management panel	**ACTRJ1UCMPC**
1U, Actassi shallow cable management panel	**ACTRJ1UCMPSC**

Technical specifications	
ACTRJ1UCMPC	482 mm (W) x 100 mm (D) x 43 mm (H)
ACTRJ1UCMPSC	482 mm (W) x 65 mm (D) x 43 mm (H)

Contents

C-cosmo wall plates
British and Australian/US standard

E2031SRJKI(SE)

E2031SRJKI

British standard

The 2000 series wall plates are compatible with British standard (83 mm x 83 mm) dimensions and are designed to accept Actassi keystone modular jacks.
All 2000 series wall plates come standard with designation labelling behind a clear removable window and provision to insert a coloured icon designating the channel application. Up to 2 Actassi keystone modular jacks can be inserted into the unshuttered British wall plate.

Channel application identification icons
Channel application identification is accomplished via colour matched snap-in plastic icons that are preprinted with symbols or text labels.

Description	Ref. No
RJ45 keystone shuttered wall plates	
RJ45 keystone, shuttered, 1 gang unloaded outlet wall plate, with channel & circuit ID slot	**E2031SRJKI**
RJ45 keystone, shuttered, 2 gang unloaded outlet wall plate, with channel & circuit ID slot	**E2032SRJKI**

Technical specifications		
Material	Polycarbonate	
Dimensions (H x W)	**Grid plate only**	**Grid plate with surround**
British standard	85 mm x 85 mm	86 mm x 86 mm

Australian/US standard

Description	Ref. No
RJ45 keystone wall plates	
RJ45, 1 gang keystone wall plate, with channel & circuit ID slot, horizontal	**2031HRJKI WE**
RJ45, 2 gang keystone wall plate, with channel & circuit ID slot, horizontal	**2032HRJKI WE**
RJ45, 3 gang keystone wall plate, with channel & circuit ID slot, horizontal	**2033HRJKI WE**
RJ45, 1 gang keystone wall plate, with channel & circuit ID slot, vertical	**2031VRJKI WE**
RJ45, 2 gang keystone wall plate, with channel & circuit ID slot, vertical	**2032VRJKI WE**

Technical specifications		
Material	Polycarbonate	
Dimensions (H x W)	**Grid plate only**	**Grid plate with surround**
Australian standard	68 mm x 110 mm	69 mm x 111 mm
US standard	110 mm x 68 mm	111 mm x 69 mm

- Text icon labels in seven bright colours preprinted with Category 5e & 6, phone, fax, LAN and ISDN.
- Plus seven brightly coloured image icons in grey, green, purple, blue, yellow, orange and red.

Product features

- Designed to accept RJ45 keystone modular jacks
- Grid plate comes with standard white colour surrounds
- Protected clear designation label windows
- Provision on grid plate assemblies and inserts to snap-in coloured plastic icons (icon sold separately)
- Supplied complete with self tapping screws.

Customer benefits

- Contemporary design will improve the aesthetics of all installations
- Colour coordinate the interior - select from a wide range of C-graphic or metal finish wall plates and surrounds
- Complete with all mounting and fixing hardware
- The front labeling system provides a clear and efficient means of identifying outlets
- Flame retardant polycarbonate material with finely polished finishing for extra durability, safety and a smarter look.

ZENcelo fibre wall plates
British standard

The Actassi ZENcelo fibre wall plates are compatible with British standard dimensions and are designed to support FTTD (Fibre-To-The-Desk) application. It supports various Actassi fibre adaptors, e.g. ST, SC, LC.

Product features
- Angled design for more space in the wall box for better fibre bending radius
- Designed to accept various fibre adaptors: ST simplex, SC simplex, SC duplex, LC duplex
- Supplied complete with self tapping screws for easy installation
- Flame retardant polycarbonate material with finely polished finishing for extra durability, safety and a smarter look.

Customer benefits
- Enough space reserved behind the wall plate for better bending radius
- Contemporary design will improve the aesthetics of all installations
- Complete with all mounting and fixing hardware for easier application.

E8431FC

E8431FL

E8431FL

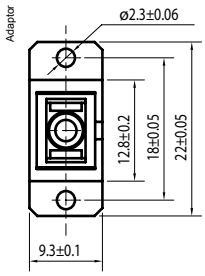
E8431FC

E8032ASWW

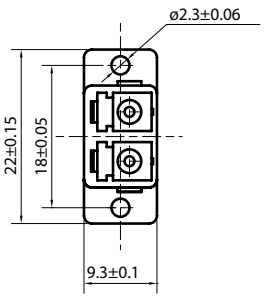
E8431FT

Description	Ref. No
ZENcelo fibre wall-plate, STx2	**E8431FT**
ZENcelo fibre wall-plate, SC duplex	**E8431FC**
ZENcelo fibre wall-plate, LC/SC simplex	**E8431FL**

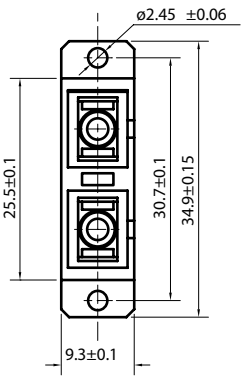
Technical specifications	
Material	Polycarbonate
Dimensions (H x W x D)	**Grid plate with surround**
British standard	87.2 mm x 87.2 mm x 27.7 mm
Installation	
Recommended base box	Depth ≥ 47 mm
Recommended dimension for non Schneider Electric fibre adaptors	



SC simplex



LC duplex



SC duplex

Concept module jack adaptor

The enrichment of existing Concept offer range to support the increasing demand for faster and flexible data transmission. It can support various Schneider Electric VDI voice & data keystone jacks.

Product features

- Fit perfectly well in Concept surround
- Both shutter & non-shutter version available
- Supplied with exchangeable labeling & icon
- Flame retardant polycarbonate material with finely polished finishing for extra durability, safety and a smarter look.

Customer benefits

- Labelling & icon for easy network identification
- Compatible for various keystone jacks offer superior flexibility
- Shutter & non-shutter versions support different application needs
- Contemporary design will improve the aesthetics of all installation.

3031RJU

3031RJU

3031RJS

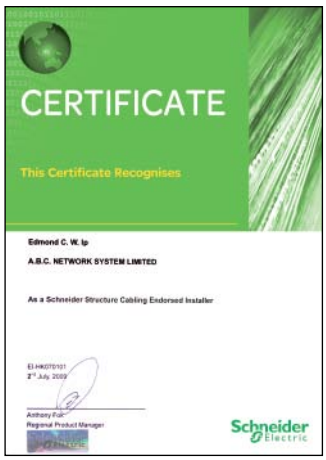
3031RJS

Description	Ref. No
Concept keystone jack adaptor, with shutter	**3031RJS**
Concept keystone jack adaptor, non-shutter	**3031RJU**

Technical specifications	
Material	Polycarbonate
Dimensions (H x W x D)	23.2 mm x 46 mm x 14 mm

Training & warranty

Certificate Recognises



Schneider Electric VDI offers comprehensive Schneider Endorsed Installer (SEI) training programs for consultants and installers alike.

Training	
Basic training	1 day
Core training	2 days
Refresh training	1 day

P147037

Installer accreditation is coupled with an innovative 20-year (Actassi series) system warranty program to provide end users with peace of mind. Customers are assured of worldwide support for their data communications requirements with highest standard of service at a local level.

Network standard: TIA/EIA-568-C

T568B "commercial building telecommunications cabling standard"

- Planning and installing of structured wiring systems
- Cable specification, performance and installation requirements
- Physical star topology
- Cabling division: horizontal & backbone.

Horizontal

- Cabling installed between the telecommunications closet and wall outlet
- Maximum distance of 90 m for UTP and fibre from closet to outlet, 5 m for workstation jumpers and 5 m for cross connect jumpers and patch cords
- Two wall outlets per workstation:
  - one cable must be 4-pair UTP
  - other cable can be any of the recognized media
- Recognised media:
  - 4-pair, 100 ohm UTP
  - 4-pair 100 ohm ScTP
  - 62.5 µm fibre
  - 50 µm fibre.

Backbone

- Cabling between equipment rooms, entrance facilities and telecommunications closet
- Conventionally, vertical shaft cable; but also used in a star topology in a campus type network
- Recognised media:
  - 100 ohm multipair UTP
  - 4-pair 100 ohm ScTP
  - 62.5 µm fibre & 50 µm fibre, multi-mode
  - single-mode fibre.

Work area

- Cabling extended from telecommunications outlet to work station equipment
- Work area cord and balun with a maximum length of 5 m.

Telecommunications room(s)

- Termination of horizontal and backbone cables to the compatible with connecting hardware
- Recognised media:
  - patch cord
  - wire jumper
  - connecting hardware.

Equipment room(s)

- Provides a controlled environment to house telecommunications equipment and protection apparatus where applicable.

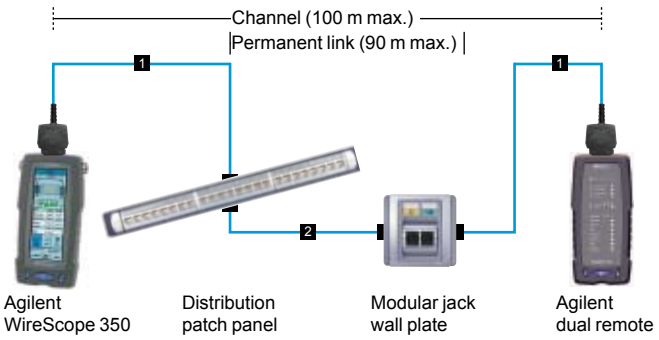
Entrance facilities

- Demarcation point between access provider and the customer’s premises cabling
- Electrical protection
- Grounding and bonding.

Twisted-pair performance

Permanent link model

Permanent link consists of up to 90 m horizontal cabling, including a connector at each end and a maximum of 2 m test equipment cord at each end.

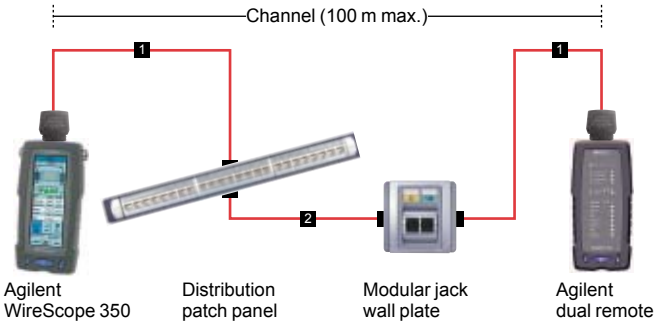


1 Smart probe link
2 4-pair UTP solid horizontal cable*
*Category 5e or Category 6 configurations may be used depending on chosen application.

Channel model

The following figure shows a channel including the cabling components that determine the channel performance.
The components that make up the channel consists of the following:

- Telecommunications outlet.
- Balance twisted-pair cable at 90 m.
- Cross-connect systems.
- A total of 10 m of equipment, line and patch cords.
- Consolidation point.



1 Patch cord & workstation cords*
2 4-pair UTP solid horizontal cable*
*Category 5e or Category 6 configurations may be used depending on chosen application.

Note: the channel model specified in ANSI/TIA/EIA-568-C does not include the connectors at either end (at the hub or the station).

Solid vs. stranded cable

UTP solid cable

For runs between building distributor and floor distributor to a wall plate, choose regular UTP cable. These solid-conductor cables, designed for horizontal and backbone cable runs should not be flexed, bent or twisted repeatedly and should be installed in accordance with recommended installation guidelines.

UTP stranded patch cable

Use stranded patch cable for connecting your workstation NICs to the wall plate, with patch panels and with other equipment such as switches. Since it is made with stranded wires, stranded patch cable is excellent for applications that call for repeated flexing without damaging the cable.

Since attenuation is higher in stranded cables than in solid-conductor cables, you should try to keep these cable runs short to lower the chance of introducing even more attenuation into your system. It is best to keep lengths of stranded patch cables under 5.0 metres, and if a total cord length of 10 m per channel is to be exceeded, then the PL discounting formulae must be applied.

Unshielded vs. shielded twisted pair cable

In "noisy" environments such as airports and manufacturing facilities, shielded cable is preferred. These environments contain radio frequency interference (RFI) and/or electromagnetic interference (EMI). The shielding protects the data being transmitted through the cable and it keeps the cable itself from emitting EMI and RFI.

Cables feature the same core and jacket as the widely used unshielded Twisted pair (UTP) cables. And they contain a drain wire and foil shield that covers all four pairs. The plugs are also shielded. S/FTP cables use individually screened pairs with an overall braid shield, which sets them apart from less expensive FTP (F/UTP) cables.

Choosing fibre type

As a general guideline in premises applications for backbone cabling:
- ■ 62.5/125 µm or 50/12 µm multi-mode optical fibre is recommended for:
  - □ distances of 2 km and under for OM1, OM2 optical fibre types in both 850 nm and 1300 nm wavelengths
  - □ data rates of 1000 Mb/s and beyond.
- ■ Single-mode fibre is recommended for greater distances or higher data rates:
  - □ distances of 3 km and under for OS1 in both 1310 nm and 1550 nm wavelengths
  - □ data rates up to 10 Gb/s IEEE802.3: 10G Base-LR/LW + ER/EW respectively.

Often, a backbone comprised of both multi-mode and single-mode fibre is recommended to satisfy present and future needs in the backbone.
- ■ For horizontal cabling, 62.5/125 µm or 50/125 µm multi-mode optical fibre is recommended for:
  - □ distances up to 90 m.
  - □ data rates up to 1 Gb/s.
- ■ For centralised cabling, 50/125 µm multi-mode optical fibre is recommended for:
  - □ Distances up to 300 m.
  - □ Data rates up to 10 Gb/s.

Always follow the Original Equipment Manufacturer (OEM) electronic equipment specifications for optical fibre core size when designing an optical fibre telecommunications system. Contact the OEM if:
- ■ Specifications vary from the 62.5/125 µm or 50/125 µm multi-mode standard
- ■ The fibre is used for a unique application.

The most common identification of fibres is in 12-fibre groups with each group colour coded as follows:

1	Blue	**5**	Grey	**9**	Yellow
2	Orange	**6**	White	**10**	Violet
3	Green	**7**	Red	**11**	Light Blue/Aqua
4	Brown	**8**	Black	**12**	Pink

Note: OM3 multi-mode optical fibre can now support 10Gb/s IEEE 802.3: 10G Base SR/SW.

Segregation of UTP/STP from power cable

When routing UTP cable, maintain the following minimum distances from power source:

- 15 cm (6 in.) from powerlines of 2 kVA or less
- 30 cm (12 in.) from lighting (including fluorescent)
- 90 cm (36 in.) from powerlines of 5 kVA or greater
- 100 cm (40 in.) from transformers and motors.

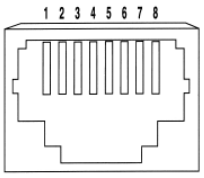
When routing STP cable, maintain the following minimum distances from power source:

- 6.5 cm (3 in.) from powerlines of 2 kVA or less
- 15 cm (6 in.) from powerlines of 2 kVA or less
- 30 cm (12 in.) from lighting (including fluorescent)
- 90 cm (36 in.) from powerlines of 5 kVA or greater.

Sequence options

Sequence is defined as the order in which the incoming pairs are terminated into the modular interface pins. Each pair is designed as a transmit conductor and a receive conductor.

SeqOpt_diag

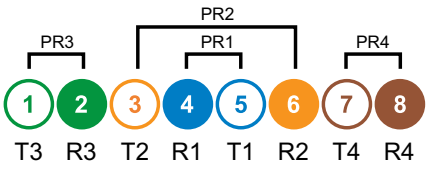


RJ-45 modular jack female

SeqOpt_diag

RJ-45 modular jack male

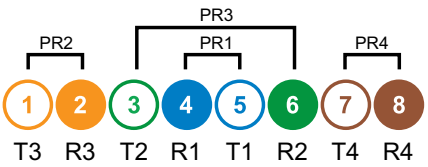
EIATIA568A_diag



T568A

This is the preferred connection sequence for Australia and New Zealand as stated in AS/NZS 3080-1885; also the EIA commercial cabling specification draft 9.0 for termination of UTP data cable. The international standard for ISDN also states this standard. This is similar to the T568B sequence except that pairs #2 and #3 are transposed. This provides backward compatibility to the USOC sequence for two pairs instead of the single pair of 568B.

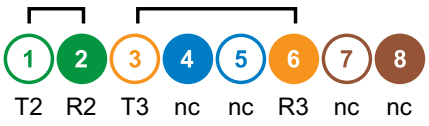
EIATIA568B_diag



T568B

This is the preferred connection sequence for the US and is derived from ISO 11801 and is a sub-set of IEEE 802.3 10 Based-T ethernet over twisted pair.
This standard is only applicable to eight wire polarisation (WE8W). In the T568B sequence, pair #1 and pair #3 correspond to pair #1 and pair #2 of the USOC sequence, providing backward compatibility with 2 pair systems (such as analogue voice). Pair #1 is therefore designated as "T1 and R1". The sequence defines which pins of the modular interface are defined as T1, R1, T2, R2 etc. Some sequences are only applicable to certain polarisation.

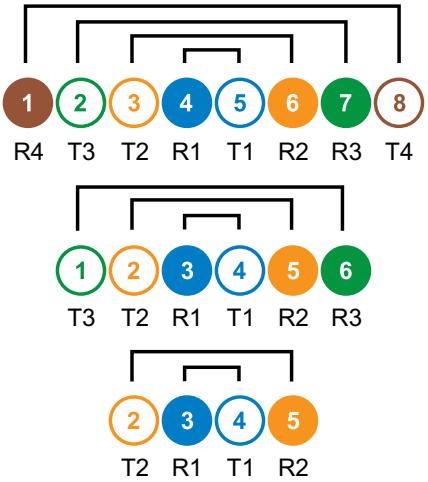
10BaseT_diag



10 Base-T

Used with the WE8W polorisation, this is a modification of the EIA 568B sequence, leaving pair #1 open and starting with pair #2. This provides an additional level of protection from interconnection of voice and data equipment. If voice equipment is always wired on pins 4 and 5 (pair #1), and data equipment never has pins 4 and 5 active, no interconnection is possible.

UniSrvOdrCde_diag



Universal Service Order Code (USOC)

Historically was the most common sequence and is used by US telephone system. Pairs are "nested", i.e. pair #1 is centred, pair #2 is the next two contacts out, etc. This maintains pair-to-pair continuity when, for instance, one pair equipment is connected through a 4 pair circuit. Nesting of pairs also enables a reversal to be made within each pair through the use of simple "reversing" line cord (1 to 8, 2 to 7). USOC is applicable to WE2W, WE4W, WE6W and WE8W polarisations.
An advantage of the pair nesting of the USOC sequence is that a WE4W/6W plug inserted into a WE8W jack works fine as long as quality (correctly toleranced) components are used.

Note: USOC pin/pair sequences are rarely used outside of North America.

Glossary

Type	Description
˚C	Degrees Celsius
10 Base-T	An implementation of the Institute of Electrical and Electronic Engineers (IEEE) ethernet standard on 24 AWG, unshielded, twisted-pair wiring, a baseband medium of 10 Mb/s.
100 Base-T	Official project name for 100 Mb/s fast ethernet on CLASS C.
100 Base-TX	100 Mb/s fast ethernet using 2-pair Category 5 cable.
1000 Base-T	A specification for Gigabit ethernet over copper wire (IEEE standard 802.3ab). The standard defines 1 Gb/s data transfer over distances of up to 100 metres using four pairs of CLASS D balanced copper cabling and a 5-level coding scheme.
1000 Base-TX	A specification for Gigabit ethernet over copper wire (TIA/EIA). The standard defines 1 Gb/s data transfer over distances of up to 100 metres using four pairs of Category 6 balanced copper cabling.
10G Base-LX4 ER/EW,SR/SW LR/LW	IEEE specification of 10 Gigabit ethernet over optical fibre cabling, with specifications for multi-mode and single-mode fibre.
10G Base-T	A standard (IEEE 802.3an) released in 2006 to provide 10 Gb/s connection over unshielded or shielded twisted pair cables over distances up to 100 metres.
802.3	Defined by the Institute of Electrical and Electronic Engineer (IEEE), these standards govern the use of the Carrier Sense Multiple Access/Collision Detection (CSMA/CD) network access method used by ethernet networks.
802.5	Defined by the Institute of Electrical and Electronic Engineer (IEEE), these standards govern the use of the token ring network access method.
802.11	Defined by the Institute of Electrical and Electronic Engineer (IEEE), these standards govern the use of wireless LANs.
A	See Ampere (A)
Adaptor	A device that (1) enables different sizes or types of plugs to mate with one another or to fit into an information outlet, (2) provides for the rearrangement of leads, (3) allows large cables with numerous wires to fan out into smaller groups of wires, or (4) makes interconnections between cables.
American National	ANSI is the principal group in the United States for defining standards.
Standards Institute (ANSI)	ANSI represents the U.S in the International Standards Organisation (ISO).
American Wire Gauge (AWG)	The standard gauge for measuring the diametre of copper, aluminium, and other conductors.
Ampere (A)	A standard unit of current. One ampere of current is produced by one coulomb of charge passing a point in one second.
Analogue Transmission	A method of signal transmission in which the shape of the signal is a continuously variable and directly measurable physical quantity.
ANSI	See American National Standards Institute (ANSI)
ANSI/TIA/EIA 568B/C	North American Commercial Building Telecommunications Wiring Standard.
ANSI/TIA/EIA 569B	North American Commercial Building Standard for Telecommunications Pathway and Spaces. Its purpose is to standardise specific design and construction practices within and between buildings which are in support of telecommunications media and equipment.
ANSI/TIA/EIA 606A	North American Administration Standard for the Telecommunication Infrastructure and Commercial Buildings. Its purpose is to provide guidelines for uniform administration scheme for cabling infrastructure.
Application	A system, with its associated transmission method which is supported by telecommunications cabling.
Asynchronous Transfer Mode (ATM)	ATM is a high speed (155 Mbps/622 Mb/s) cell relay, switching and transport technology for either local or wide area environments.
Attachment Unit Interface (AUI)	Most commonly used with reference to the 15-pin D-type connector and cables used to connect single and multiple channel equipment to an ethernet transceiver.
Attenuation	The effect of signal reduction, experienced with accumulation line length or distance of radio transmission.
Attenuator	A device inserted into the electrical or optical path to lessen or weaken the signal.
Australian Standard/ New Zealand (AS/NZ)	Joint Australian and New Zealand standards.
Balanced coupler	A coupler having an even ratio of power splits.i.e. 1x4-25/25/25/25.
Bandwidth	The range of frequencies that can be used for transmitting information on a channel. It indicates the transmission - carrying capacity of a channel. Thus, the larger the bandwidth, the greater the amount of information that can pass through the circuit. Measured in Hertz MHz km (for fibre) or MHz.
Bend loss	A form of increased attenuation caused by either having the fibre curved around a restrictive radius of curvature, or microbends caused by minute distortions in the fibre imposed by externally induced perturbations. Excessive bend loss may result from poor drawing or cable manufacturing techniques.
Bend radius	The radius of curvature that fibre or copper can bend without breaking or causing excessive loss.
Bidirectional	The movement of signals in opposite directions through a common cable.
Broadband	Networks in which the bandwidth can be shared by multiple simultaneous signals that are encoded using modulation techniques.
Buffer	The plastic material that surrounds the core and cladding of an optical fibre strand. This coating adds strength and flexibility to the fibre strand. Typically 250 µm in size.

Type	Description
Cable assembly	Cable that has connectors installed on one or both ends. General use of these cable assemblies includes the interconnection of cable systems. If connectors are attached to only one end of the cable, it is known as a pigtail. If connectors are attached to both ends, it is known as a jumper or patch cord.
Cable fill	The ratio of cable installed into a conduit/trunking against the theoretical maximum capacity of the conduit/trunking.
Cabinet	A physical enclosure for rack-mount equipment; standard cabinets have 19” wide horizontal spacing between mounting rails.
Cabling	A system of telecommunication cables, cords and connecting hardware that can support the connection of information technology equipment.
Capacitance	The property in a system of conductors and dielectrics that permits the storage of electrically separated charges whenever a difference in potential exists between the conductors. Capacitance is undesirable in copper wire cable because it interferes with signals travelling on the wire by opposing the desired flow of current.
Category 3	For cable and connecting hardware products with transmission characteristics specified to 16 MHz, typically used to support digital transmission of 10 Mb/s.
Category 5e	This is an enhanced version of Category 5,with additional parametres specified to enable parallel transmission with full duplex across the four pairs. Category 5e specifications for cable and connecting hardware products with transmission characteristics specified to 100 MHz, intended to support digital transmission of 1000 Mb/s.
Category 6	For cable and connecting hardware products with transmisson characteristics specified to 250 MHz, used to support digital transmission of 1 Gb/s and above.
Category 6A	For cable and connecting hardware products with transmission characterisitcs speeified to 500 MHz. It can support 10 G bit/s applications up to a maximum distance of 100 metres.
Category 7	For cable and connecting hardware products with transmission characteristics specified to 1000 MHz.
CATV	An acronym for cable television, derived from Community Antenna Television.
Characteristic Impedance	A frequency-dependant resistance that quantifies the Complex opposition to current flow offered by a transmission line (Expressed as 2° and typically 100 - 2).
Circuit	A two-way communication path between electronic devices.
Cladding	The low refractive index material that surrounds the core of an optical fibre, usually pure silica (typically 125 µm).
Client-server	A technique by which processing can be distributed between nodes requesting information (clients) and those maintaining data (servers).
Coating	A protective layer of material over the cladding of an optical fibre (typically 250 µm).
Coaxial cable (coax)	A cable with a centre conductor surrounded by thick dielectric, surrounded by a conductor made of metal braid. An outer jacket insulation is optional.
Composite cable	A cable construction technique that combines multiple cables or media in a single overjacket.
Conductor	A medium such as copper wire that can carry electrical current.
Conduit	A pipe, usually metal, that runs underground from floor to floor, or along a floor or ceiling to protect cables. In riser backbone subsystems when riser telecommunication closets are not aligned, conduit is used to protect cable and provide the means for pulling cable from floor to floor. In the horizontal Subsystem, conduit may be used between a telecommunication closet and an information outlet in an office or other room. Conduit is also used for in-conduit campus distribution, where it is run underground between buildings and intermediate manholes and is made of plastic encased in concrete.
Connecting block	A flame-retardant plastic block containing metal wiring terminal (IDC’s) that establishes an electrically tight connection between the cable and the cross-connect wire.
Connector	A device that allows you physically to connect and disconnect copper wires or fibres to cable equipment or to other wires or fibres. Copper wire and fibre optic connectors must often join transmission media to equipment or crossconnects.
Core	The central transmission area of fibre. The core always has a refractive index higher than that of the cladding.
Cords	A short length of copper wire or fibre optic cable with connectors on each end. Used to connect equipment to cabling, or to connect cabling segments (cross-connection).
Coulomb (C)	A quantity of electricity transferred by a current of one ampere in one second.
Coupling	Transfer of light into or out of an optical fibre. Note: coupling does not require a coupler.
Coupler	A device that connects three or more fibre ends, dividing one input between two or more outputs or combining two or more inputs into one output.
CRC	See Cyclic Redundancy Check (CRC)
Cross-connect	A facility enabling the termination of cable elements and their interconnection, primarily by means of patch cords or jumpers.
Crosstalk	An electromagnetic coupling between two physically isolated circuits in a system. This coupling causes a signal on one circuit to induce a noise voltage on adjacent circuits, thereby causing signal interference.
Cyclic Redundancy Check (CRC)	A coded sequence of information allowing error checking and correction.

Glossary

Type	Description
Data Communication Equipment (DCE)	General terminology for data communication equipment such as modems. A device that terminated a data communication session and provides encoding or conversion if necessary. See also Data Terminating Equipment (DTE).
Data Terminating Equipment (DTE)	The term used to describe any type of computer or other equipment, when connected to a data communication network.
Decibel (dB)	A unit used to measure relative increase or decrease in power, voltage or current using a logarithmic scale.
Delay skew	Delay skew is the difference in propagation delay between pairs within the same cable sheath.
Dielectric	A non-conducting or insulating material that resists passage of electric current.
Dielectric cable	A non-conducting cable, such as fibre optic cable, without metallic members.
Dielectric constant	The ratio of the capacitance of the insulated wire to that of the same wire uninsulated in air.
Dielectric strength	A measure of the maximum voltage that the insulation of a particular cable can withstand without breakdown.
Digital signal	A signal that represents information by a series of fixed, encoded rectangular pulses, usually consisting of two possible levels. Each voltage level indicates one of two possible values or logic states, such as on or off, open or closed, true or false.
Digital transmission	A technique in which all information is converted into binary digits for transmission.
Dispersion	The tendency of light to spread out and lose its focus in fibre optic cables.
Distributor	The term used for the function of a collection of components (for example, patch panels, patch cords) used to connect cables.
Drop cable	The coaxial cable that connects the feeder portion of the distribution system to the subscriber's premises.
Duplex	A duplex cable contains two fibres, a duplex connector links two pairs of fibres.
ANSI/TIA/EIA	North American Standards organisation.
ANSI/TIA/EIA/568B	North American commercial building telecommunications wiring standard.
ANSI/TIA/EIA/569B	North American commercial building standard for telecommunication pathways and spaces. Its purpose is to standardise specific cabling accommodation practices within and between buildings which are in support of telecommunication media and equipment.
ANSI/TIA/EIA/T606A	North American administration standard for the telecommunications infrastructure of commercial buildings. Its purpose is to provide guidelines for a uniform administration scheme for the cabling infrastructure.
Electromagnetic Compatibility (EMC)	The ability of a system, equipment or device to operate satisfactorily in its environment without introducing unacceptable electromagnetic disturbance, or being affected by that environment.
Electronics Industries Association (EIA)	North American Electronics Association.
Electromagnetic flux	Electric and magnetic fields (commonly referred to as emission) generated by equipment or system.
Electromagnetic interference	The interference in signal transmission or reception caused by the radiation of electric and magnetic fields(EMI).
EMC	See Electromagnetic Compatibility.
EMI	See Electromagnetic Interference.
EN 50173	The European standard for generic cabling for customer premises similar to ISO/IEC 11801.
EN 50174	A proposed European cabling system planning & installing standard developed by CENELEC similar to EIA/TIA 569A.
Equipment cable	A cable connecting equipment to a distributor.
Equipment room	The room in which voice and data common equipment is housed, protected, and maintained and where circuit administration is done using distribution cross-connects.
Equipment Ssubsystem	The part of a premises distribution system that includes the cable and distribution components in an equipment room and that interconnects system-common equipment, other associated equipment, and cross-connects.
Ethernet	The common name for the most widely used local area network (LAN), generally conforming to the Institute of Electrical and Electronic engineers(IEEE) 802.3 Standard.
ETL	Electrical Testing Laboratory (US).
Far End Crosstalk (FEXT)	Refers to the undesired coupling of signals from the transmit pair onto (FEXT) the receive pair at the other (=far) end. FEXT loss is also expressed in dB. For some applications this is an important parameter, for most applications however, the NEXT values are more important.
Fast ethernet	A 100 Mb/s LAN based on CSMA/CD protocol. See 100 Base-T.
Federal Communication Commission (FCC)	A board of five commissioners, appointed by the president (US) that regulates all electronic communications systems originating in the United States, including telephone systems.
Ferrule	The alignment sleeve portion of an optical connector.
Fibre	Any filament or fibre that guides light. See also fibre optics.
Fibre channel	This is an ANSI standard describing point and switched point to point physical interface, transmission protocol, signalling protocol, services and command set mapping of a high performance serial link for uses between mainframe computers and computer peripherals.

Type	Description
Fibre Distributed Data Interface (FDDI)	An American National Standards Institute (ANSI) standard for a fibre-based token ring physical and data link protocol that operates at a 100Mb/s data transfer rate.
Fibre optic	A fibre optic cable in which individual optical fibres are formed into a cable.
Fibre optics	A technique of conveying light or images through glass or plastic fibres.
Fibre optic cable	A transmission medium consisting of a core of glass or plastic surrounded by a cladding, strengthening material and outer jacket. Signal are transmitted as light pulses, introduced into the fibre by a light transmitter (either a laser or light-emitting diode [LED]). Some of the advantages offered by fibre optic cable are low data loss, high speed transmission, large bandwidth, small physical size, light weight, and freedom from electromagnetic interference and grounding problems.
Fibre optic connectors	Connectors designed to connect and disconnect either single or multiple optical fibres repeatedly. Fibre optic connectors are used to connect fibre cable to equipment and interconnect cables.
Fibre optic cross-connection	Fibre optic apparatus for terminating cable. Designed for high-density cross-connection fields, the apparatus can terminate multiple fibres on each shelf. Single shelves can also be wall mounted. Cross-connections are handled with fibre optic patch cords. See also patch cords.
Fibre optic interconnect	It provides interconnection for individual optical fibre but, unlike the fibre optic cross-connect panel, it does not use patch panel cords or jumpers. The fibre optic interconnect provides some capability for routing and re-routing circuits, but is usually used where circuit rearrangements are infrequent.
Fibre optic Splice	A fibre optic cable splice is used to join together 2 fibre optic cable ends, permanently (mechanical or fusion).
Foil Screened Twisted pair cable (FTP)	A cable that uses a metallic foil to surround the conductors in a wisted pair cable. FTP is used mostly by the ISO/IEC.USA uses 5cTP.
Frame	A metallic structure for hanging switch hardware.
Frequency	The number of cycles completed by a signal in one second: measured in Hertz (Hz).
FTP	See Foil Screened Twisted pair cable.
Full duplex	In contrast to half-duplex devices, full duplex ones allow permanent, simultaneous two-way transmission of information, without interaction or interference of receive and transmit signals.
Fusing	The actual operation of joining fibres together by fusing or melting. (e.g. fusion splicing).
Gauge	A measure of a conducting wire's physical size; usually referred to as AWG (American Wire Gauge). See also American Wire Gauge (AWG).
Graded-index fibre	Fibre design in which the refractive index of the core is lower toward the outside of the fibre core and increases toward the center of the core allows light to travel faster in the lower index of refraction region. This type of fibre provides high bandwidth capabilities.
Half duplex	A telecommunication device allowing two-way transmission of signals or other information, but only in one direction at a time. Thus a half-duplex device cannot simultaneously transmit and receive, though interspersed burst in each direction are possible.
Headend	The central facility where signals are combined and distributed in a cable television system.
Hertz (Hz)	The standard unit of frequency; equal to one cycle per second.
Horizontal cable	A cable connecting the floor distributor to the telecommunications outlet(s).
Insulation Displacement Contact (IDC)	A type of wire terminating connection in which the insulating jacket is cut by the connector when the wire is inserted.
Institute of Electrical and Electronic Engineers (IEEE)	This organisation is also involved in producing Local Area Network standards such as ethernet and token ring.
Insertion loss	The amount of signal loss (attenuation) as the signal passes through a connection, interface, or channel.
Insulation	A material having high resistance to flow of electric current. Thin conducting wires are covered with colour coded insulation for protection.
Insulation resistance	The measure of ability of an insulation material to resist the flow of current through it; usually measured in Megohm.
Interconnect	A circuit administration point, other than a cross-connect or information outlets, that provides capability for routing and re-routing circuits. It does not use patch cords or jumpers. Typically it is a jack and plug device used in smaller distribution arrangements or to connect circuits in large cables to those in smaller cables.
Interference	A signal impairment caused by the interaction of another unwanted signal.
Integrated Services Digital Network (ISDN)	A CCITT standard providing switched end to end simultaneous handling of digitised voice and data traffic.
International Standard Organisation (ISO)	The organisation responsible for the Open Systems Interconnect (OSI) standards.
Interoperability	The ability to operate and exchange information in a heterogeneous network.
ISO/IEC 11801	An international standard for generic cabling for customer premises (AS/NZS 3080 is derived from this standard).
ISO/IEC 14763-1	The international standard for basic administration of generic cabling.

Glossary

Type	Description
Jack	A receptacle used with a plug to make electrical contact between communications circuits. Jacks and their associated plugs are used in a variety of connecting hardware applications including adaptor, information outlets, and equipment connections.
Jacket	The flexible covering of a cable, used to protect the colour coded conductors inside.
Jumper	A cable unit or cable element without connectors used to make a connection on a cross-connect.
Jumper wire	A short length of copper wire used to route a circuit by linking two cross-connect termination points.
Kevlar	An aramid yarn used to provide crush resistance and pulling strength in a fibre cable. Kevlar is a trademark of the Du Pont Company.
LAN	See Local Area Network.
Link	The transmission path between any two interfaces of generic cabling. It excludes equipment cable and work area cables.
LIU	Live interface unit.
Laser	A device that amplifies light waves and concentrates them in a narrow, very intense beam.
Light Emitting Diode (LED)	A device used in a transmitter to convert information from electric to optical form. It typically has a large spectral width.
Local Area Network (LAN)	A data communication network consisting of host computers or other equipment interconnected to terminal devices, such as personal computers, often via twisted-pair or coaxial cables. LANs allow users to share information and computer resources. Typically, a network is limited to a single premises.
Loose tube	A protective tube loosely surrounding a fibre is often filled with gel for external plant applications.
Macrobending	Excess bending in fibre.
Mechanical splicing	One of several available devices for splicing fibres in lieu of fusion splicing. Mechanical splices are primarily designed for any environment where a permanent, low loss joint is required.
Megabit (Mb)	One million binary bits.
Megabits per second (Mbps)	Rate of data transmission.
Megahertz (MHz)	One million Hertz (cycles per second).
Microbending	Bends in the fibre, usually of a radius less than 1 mm, that cause a localised increase in the loss of the fibre due to the leaking of light through the core-cladding interface.
Micron (mm)	A micrometre; one-millionth of a metre.
Modem	A modulator/demodulator unit used for data transmission. It converts digital data into analogue tones when transmitting over standard voice-grade telephone lines and reverses this process when receiving.
Modulation	Coding of information onto the carrier frequency. This includes amplitude, frequency or phase modulation techniques.
Multifibre cable	An optical cable that contains two or more fibres, each of which provides a separate information channel.
Multi-mode	Many light rays (modes) propagating through the fibre core.
Multi-mode fibre	Optical fibres that have a large core and that permit nonaxial rays or modes to propagate through the core. 62.5 or 50 micron are the common standard core sizes for premises cabling systems.
Multiplexing	The process of combining multiple signals, usually by time - division multiplexing (TDM) on a high-frequency carrier, to optimise the use of available transmission media.
Nanometre (nm)	A unit of length in the metric system denoting one-billionth of a metre (10 nm) Measure of wavelength.
Near End Crosstalk (NEXT)	Refers to the undesired coupling of signals from the transmit pair onto the receive pair on the same (near) end. NEXT isolation is expressed in dB and is a measure of how well the pairs in a cable are isolated from each other.
Network	The local and long-distance telecommunications capability provided by common carriers for switch and private line telecommunications services.
Network architecture	Network topology and design.
Network interface	The point of interconnection between building communications wiring and outside communications lines (telephone company facilities e.g. MDF).
Network Interface Card (NIC)	The piece of equipment that is installed into the expansion port of a personal computer and allows communication between the PC and the network.
Node(s)	A piece of communication equipment on the network.
Noise	The term used for spurious signals produced in a conductor by sources other than the transmitter to which it is connected. Noise can affect a legitimate signal to the extent that it is inaccurate or indecipherable when it reaches the receiver. The higher the speed of data transmission, the worse the effects of noise.
Numerical aperture	The number that expresses the light gathering ability of a fibre.
Ohm(w)	The standard unit of electrical resistance. One volt will cause one ampere of current to flow through one ohm of resistance.
Open System Interconnection (OSI)	The model describes the 7-layer process of communication between "co-operating" computers.
Model	The model provides a standard for the development of communication protocols allowing for computers of different manufacturers to be interconnected.
Optical connectors	See fibre optic connectors.

Type	Description
Optical fibre	A transmission medium consisting of a core of glass or plastic surrounded by a cladding. Signals are transmitted as light pulses, introduced into the fibre by a light transmitter i.e. Laser or an LED.
Optical Time-Domain Reflectometre (OTDR)	An instrument that characterises cable loss by measuring the of injected light as a function of time. It is useful for estimating attenuation and for locating splices, connecting and breaks.
Outlets	A term used to describe the sockets provided in the work location of a Structured Cabling System. These are usually 8-pin modular sockets which can support a variety of service e.g. voice, video and data. (e.g. RJ45).
Pair	Two wires (usually twisted) together and marked with reciprocal reciprocal colour coding. See also Twisted pair.
Passive device	A static device that requires no power for its intended function.
Patch cord(s)	A short length of copper wire or fibre optic cable with a connector on each end used to join communication circuits as a cross-connect.
Patch panel(s)	A cross-connect designed to accommodate the use of patch cords. It facilitates administration for moves and changes.
PCB	Printed Circuit Board.
Pigtail	Fibre optic cable that has connectors installed on one end. See also cable Assembly.
Plenum cable	Cable specifically designed for use in a plenum, the space above a suspended ceiling used to circulate air back to the heating or cooling system in a building. Plenum cable has insulated conductors often jacketed with TEFLON or HALAR on the copper and low smoke PVC on fibre optics to give them low flame-producing and low smoke producing properties.
Polyvinyl Chloride (PVC)	A flame-retardant thermoplastic insulation material that is commonly used in jacks or building cables.
Port	The cable terminations in the equipment system at which various types of communication devices, switching equipment, and other devices are connected to the transmission network.
Power sum	A method of testing and measuring crosstalk in multi-pair cables that accounts for the sum of crosstalk affecting a pair when all other pairs are active.
Primary Rate Interface (PRI)	ISDN standard interface comprising 23 B+1D Channel for North America, and 30B+1D Channel for Europe. Integrated Services Digital Network (ISDN).
Propagation delay	A signal travelling from end to end of a link is delayed in time by an amount equal to the length of cable divided by the velocity of propagation for that transmission medium. The delay is called Propagation Delay.
Protocol(s)	A rule of procedure by which computer devices intercommunicate. Thus a protocol is the equivalent of a human language, with punctuation and grammatical rules.
Pulling Tension	The amount of pull placed on a cable during installation. Expressed in Newton-metres or foot-pounds.
Registered Jack (RJ)	Acronym describing modular jacks in 4 (RJ11), 6 (RJ12) and 8 (RJ45) wire versions.
Resistance	The property of a conductor that determines the current produced by a given potential difference. It impedes the flow of current and results in the dissipation of power as heat. Resistance is measured in ohms.
Return loss	The channel Return Loss (RL) is a measure of the consistency of the impedance down the length of the cable, the connections and the patch cables.
Riser(s)	The term used to describe a space utilised by backbone cabling to house communications cabling and other building services. This space should preferably be specified, or allowed for, at the time of the building design.
Riser backbone subsystem	The part of a premises distribution system that includes a main cable route and structure for supporting the cable from an equipment room (often in the building basement) to the upper floors, or along the same floor, where it is terminated on a cross-connect in a telecommunications room, at the network interface, or at distribution components of the Campus Backbone Subsystem. The Riser Backbone Subsystem usually extends from an equipment room (often in a building's basement) to the upper floors in a multistorey building, or along the same floor in a low-wide building. It is terminated on a cross-connect in a riser telecommunication room, at the network interface, or on distribution components of the campus backbone subsystem.
Riser cable	Used in applications for indoor cables that pass between floors. It is normally used in a vertical shaft or space.
Router(s)	A router can be used to connect networks with similar protocols (802.5 token ring local area network [LANs]) or dissimilar Open System Interconnection (OSI) model protocols (802.5 token ring LANs and X.25 packet-switching networks). Routers are more sophisticated than bridges and can be used to prevent some of the speed mismatch, security and reliability problems that occur in large networks. An intermediate system between two or more networks capable of forwarding data packets at the network layer (layer 3).
Serial data transmission	Data transmission between computer devices using only a single circuit path. Whole bytes of information (8 bits) are sent in sequential pattern.
Serial port(s)/transmission	Normally a DB 9 pin connector located on the motherboard of a PC. A technique in which each bit of information is sent sequentially on a single channel.
Server(s)	Host computer(s).

Glossary

Type	Description
Sheath	A common term for the jacket over twisted pairs of multi pair cables.
Shield	The metallic layer that surrounds insulated conductors in shielded cable. The shield may be the metallic sheath of the cable or the metallic layer inside a non-metallic sheath.
Shielded Twisted Pair cable (STP)	A cable comprising of one or more elements each of which is individually shielded. There may be an overall shield in which case the cable is referred to as a shielded twisted pair cable with an overall shield.
Simplex	A transmission means allowing only one direction of transmission.
Single-mode	Optical fibre with a small core diametre in which only single mode is capable of propagation. 8.3 micron is the common standard core size.
Sleeves	Short length of rigid metal pipe, approximately 4 in (10.0 cm) in diametre, located in riser telecommunication rooms that allows cables to pass from floor to floor when rooms are vertically aligned. Sleeves also provide for easy pulling of cable.
Slots	Opening in the floor of riser telecommunications closets that allow cables to pass through from floor to floor when rooms are vertically aligned. A slot accommodates more cable than an individual sleeve.
Splice	The physical joining of two or more copper wire or optical fibres.
Splice closure	A container used to organise and protect splice trays.
Splitter	Another name for coupler. See also Coupler.
Splitting ratio	The ratio of power emerging from multiple output ports of a coupler.
Straight-Tip (ST) connector	A fibre optic connector.
Stranded cable	A strong woven-copper-wire used to support cable in aerial distribution systems. The cable is lashed to the stranded cable during installation.
Structured cabling	Cabling scheme which allows rapid reconfiguration for office moves though patching.
Surge	A sudden voltage rise and fall in an electrical circuit.
Telecommunication closet/room	An enclosed space for housing telecommunication equipment, cable terminations, and cross-connect cabling. The telecommunications closet is a recognised cross-connect point between the backbone and horizontal cabling subsystems.
Telecommunication outlet	A connector where the horizontal cables terminate in the work area.
Thick coax	The transmission medium used for ethernet or IEEE 802.3 10Base5 LANs. It is a 50 Ohm thick coax cable (commonly referred to as the thick yellow cable).
Thin coax	The transmission medium used for IEEE 802.3 10Base2 LANs (sometimes referred to as CheaperNet). It is a 50 Ohm thin coax cable.
TIA/EIA	North American Standards Organisation.
TP-PMD	Twisted pair Physical medium Dependent. A twisted pair version of the FDDI standard that allows 100 Mb/s transmission over Category 5 copper.
Transport Control Protocol/Internet Protocol (TCP/IP)	A common network layer and transport layer data networking protocol. Layer 4 of the OSI model. The transport layer provides for end-to-end data relaying services across any type of data network and is responsible for end-to-end reliability. Transport Layer.
Twisted pair(s)	Two insulated copper wires twisted together. The twists, or lays, are varied in length to reduce the potential for signal interference between pairs. In cables greater than 25-pairs, the twisted pairs are grouped and bound together in a common sheath. Twisted pair is the most common type of transmission media. Often refered to as balanced twisted pairs.
UL	Underwriters' Laboratories, Inc.
Uniformity	The variation of power level between the optical outputs of a splitter.
Unshielded Twisted pair (UTP) cable	Normal copper building cable, capable of high-speed data transmission.
Volt (V)	The standard unit of electromotive force or electrical pressure. One volt is the amount of pressure that will cause one ampere of current to flow through one ohm of resistance.
Watt (W)	A unit of power equal to one joule per second.
Wavelength	The physical distance of one electromagnetic wave cycle.
Wavelength Division Multiplexer (WDM)	A passive device that transmits signals at different wavelength through the same fibre.
Wide Area Network (WAN)	Any physical network topology that spans large geographic distances. WANs usually operate at lower speeds and have higher delays than local area networks (LANs).
Wireless LANs	Local area network that communicates using radio technology.
Wiring closet	See Telecommunication closet/room.

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Note

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As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in utilities & infrastructure, industries & machines manufacturers, non-residential building, data centres & networks and in residential. Focused on making energy safe, reliable, efficient, productive and green, the group's 140,000 plus employees achieved sales of 24 billion euros in 2012, through an active commitment to help individuals and organizations make the most of their energy.

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