

FEATURES

- 19 wire strands of size 33 AWG
- Tinned copper conductors
- Unterminated to unterminated
- Annealed tinned copper braid to reduce interference
- Impedance of 50 Ω
- Capacitance of 101pF/m
- Length of 500 m
- PVC sheath for protection
- Diameter of 4.95mm
- Minimum operating temperature of -40°C without cracking
- Maximum operating temperature of +85°C without melting
- Unterminated cable
- Complies with EU Directives 2011/65/EU and 2015/863

RS PRO White Unterminated to Unterminated RG58 Coaxial Cable, 50 Ω 4.95mm OD 500m

RS Stock No.: 521-7916



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

Looking to connect a radio frequency antenna to an electronic device? The RS PRO unterminated to unterminated RG58 coaxial cable is designed to do exactly that. It can join a satellite antenna to a TV, link a digital audio signal to a radio or connect computer networks over the internet. It comes in a handy 500-m reel so it's easy to carry between jobs.

This lead has a 50 ohms (Ω) rating for resistance, so it's best-suited to transmitting data and wireless communications. As an RG58 cable, it's one of the smallest options available.

General Specifications

Coaxial Type	RG58
Connector A	Unterminated
Connector B	Unterminated
Terminated/Unterminated	Unterminated
Shielding	Braid Tinned Copper
Sheath Colour	White
Applications	Industrial, Instrument, Medical Equipment

Electrical Specifications

Voltage Rating	4000DC / 2000V RMS
Capacitance	100pF/m (2pF/m Tolerance)
Characteristic Impedance	50 Ω
Velocity Propagation (%)	66
Conductor DCR (Ohm/km)	40.6 Max.
Maximum Operating Frequency (MHz)	1000
Maximum Operating Voltage (RMS)	2000

Attenuation (@ 20°C)

Frequency (MHz)	Attenuation (db/100m)
400	37.7
700	55.8
900	65.6
1GHz	70.5

Mechanical Specifications

Length	500m
Outer Diameter	4.95mm
Conductor Strand Type	Stranded
American Wire Gauge	21 AWG
Core Strands	19

Operation Environment Specifications

Operating Temperature Range	-40°C to 70°C
Minimum Operating Temperature	-40°C
Maximum Operating Temperature	+70°C

Approvals

Standards Met	Eca Euroclass, EN 50290-2-20 and EN 50289, 58/U Type, MIL-C-17, 2011/65/EU and 2015/863, IEC 60332-1-2, RoHS Compliance
---------------	---

Physical Characteristics (Overall)

Conductor

Stranding	Material	Construction n x D	Diameter +/- Tolerance	No. of Coax
Stranded	TC - Tinned Copper	19x0.18 mm	0.02 mm	1

Conductor Count:	1
Conductor Size:	21 AWG

Insulation

Type	Material	Nominal Diameter	Diameter +/- Tolerance
Dielectric	Polyethylene	2.95 mm	0.15 mm

Outer Shield Material

Type	Material	Coverage [%]	Nominal Diameter	Diameter +/- Tolerance	Coverage +/- Tolerance
Braid	TC - Tinned Copper	93 %	3.5 mm	0.2 mm	4 %

Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance
PVC - Polyvinyl Chloride	4.95 mm	0.2 mm

OuterJacket1, Table Note:	According to EN 50290-2-20
---------------------------	----------------------------

Construction and Dimensions

Min Elongation at Breakof Jacket:	150 %
Min Tensile Strength of Jacket:	12.5 MPa

Electrical Characteristics

Conductor DCR

Max. Conductor DCR

40.6 Ohm/km

Capacitance

Nom. Capacitance	Capacitance Tolerance
100 pF/m	2 pF/m

Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance	Regularity of Impedance
----------------------------------	----------------------------------	-------------------------

50 Ohm	2 Ohm	Min. 40 dB
--------	-------	------------

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
10 MHz	4.7 dB/100m
200 MHz	23 dB/100m
400 MHz	34 dB/100m
1000 MHz	60 dB/100m

Delay

Nominal Velocity of Propagation (VP) [%]
66 %

High Freq

Frequency [MHz]	Min. RL (Return Loss) [dB]
5 - 30 MHz	20 dB
30 - 470 MHz	20 dB
470 - 1000 MHz	18 dB

High Freq Table Note: In each frequency band, 3 peak values up to 4 dB lower are allowed

Voltage

Voltage Rating [V]
4000 DC / 2000 V RMS

Temperature Range

Installation Temp Range:	-5°C To +50°C
Storage Temp Range:	-40°C To +70°C
Operating Temp Range:	-40°C To +70°C

Mechanical Characteristics

Min Bend Radius (W/o Pulling Strength):	25 mm
Crush Resistance:	Max. 1% (load of 700N) N

Standards

CPR Euroclass:	Eca
CENELEC Compliance:	EN 50290-2-20 and EN 50289
RG Type:	58/U Type
MIL Spec Rating:	MIL-C-17

Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	1998-01-01
---------------------------------------	------------

Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1-2
-----------------------	---------------

Part Number

Variants

Item #	Color	Length
MRG5800.00500	Black	500 m
MRG5800.00B200	Black	200 m
MRG5800.01500	Black	500 m
MRG5800.10100	Black	100 m
MRG5800.02500	White	500 m
MRG5800.12100	White	100 m