



ENGLISH

## Datasheet

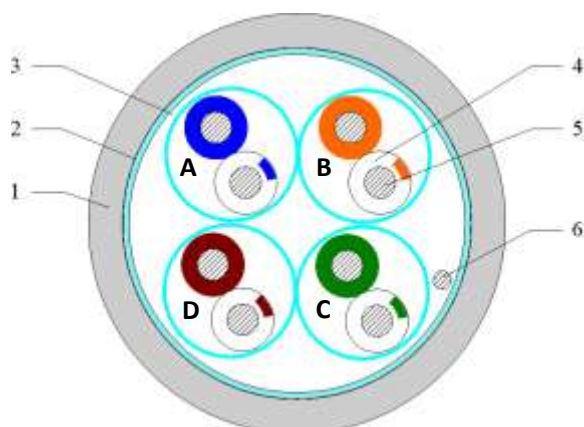
# RS PRO 4 pairs F/FTP Cat6A LSZH

Stock No: 2097610

LN-A0423AD6A-LIS-075-WH-100



### Cross Section



|   |              |
|---|--------------|
| 1 | Outer jacket |
| 2 | AL/Polyester |
| 3 | AL/Polyester |
| 4 | Insulation   |
| 5 | Conductor    |
| 6 | Drain wire   |

## Physical characteristics

|                                   |                                       |  |
|-----------------------------------|---------------------------------------|--|
| <b>Structure</b>                  | Construction                          | F/FTP  |
|                                   | Number of Pairs                       | 4  |
| <b>Conductor</b>                  | AWG                                   | 23 AWG   |
|                                   | Conductor material                    | Solid bare copper  |
|                                   | Conductor dimension                   | 0.566±0.02 mm  |
| <b>Insulation</b>                 | Insulation material                   | Foam PE  |
|                                   | Insulation dimension                  | 1.28±0.05 mm   |
|                                   | Number colour<br>(Stripe marking)     | A. White/Blue(Stripe) & Blue<br>B. White/Orange(Stripe) & Orange<br>C. White/Green(Stripe) & Green<br>D. White/Brown(Stripe) & Brown |
|                                   |                                       |  |
| <b>Cabling</b>                    | Twisting lay length                   | ≅ 30mm   |
|                                   | Cabling lay length                    | ≅ 200mm  |
| <b>Filler</b>                     | Filler material                       | N/A  |
| <b>Shield</b>                     | Individual shield & material          | AL/Polyester,AL-foil facing outside  |
|                                   | Primary overall shield braid&material | AL/Polyester,AL-foil facing inside   |
|                                   | Shield coverage.                      | 100%   |
|                                   | Drain wire                            | 1/26AWG tinned copper  |
| <b>Outer jacket</b>               | Outer jacket material                 | LSZH   |
|                                   | Outer jacket thickness (Min.)         | 0.4 mm   |
|                                   | Overall nominal dimension             | 7.0±0.3 mm   |
|                                   | Outer jacket rip cord                 | N/A  |
|                                   | Outer jacket colour                   | White (RAL9003)  |
| <b>Mechanical characteristics</b> | Operating temperature range           | -20 °C ~ +75 °C  |
|                                   | Cold bend                             | No crack (@ -20°C x 4hrs)  |
|                                   | Max. recommended pulling tension      | 110 N  |
|                                   | Outer jacket tensile strength         | ≅ 9 MPa  |
|                                   | Outer jacket elongation               | ≅ 100%   |
|                                   | Outer jacket aging condition          | (100±2) °C x 168 hrs   |
|                                   | After aging, Tensile strength         | ≅ 70% of Unaging   |
| After aging, Elongation           | ≅ 50% of Unaging                      |  |
| <b>Electrical characteristics</b> | Nom. mutual capacitance               | ≅ 5.6 nF/100m (@1kHz)  |
|                                   | Pair to ground capacitance unbalance  | ≅ 160 pF/100m  |
|                                   | Nominal velocity of propagation       | 74%  |
|                                   | Max. delay skew                       | 45ns/100m  |
|                                   | Max. conductor DC resistance          | 9.5Ω/100m (@ 20 °C)  |
|                                   | Conductor resistance unbalance        | ≤2% (@ 20 °C)  |
|                                   | Resistance unbalance between pairs    | ≤5% (@ 20 °C)  |
|                                   | Min. insulation resistance            | 5000 MΩ·m  |
|                                   | Max. operating voltage - UL           | 300 V  |

## Performance(Test Length : 100m)

### Electrical characteristics:

| Frequency<br>(MHz) | Attenuation<br>(dB/100m) | NEXT<br>(dB Min) | PSNEXT<br>(dB Min) | Return loss<br>(dB Min) | ACR-F<br>(dB Min) | PSACR-F<br>(dB Min) | ANEXT<br>(dB Min) | PSANEXT<br>(dB Min) | PD<br>( ns/100m ) |
|--------------------|--------------------------|------------------|--------------------|-------------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| 4                  | 3.8                      | 66.3             | 63.3               | 23.0                    | 56.0              | 53.0                | 67.0              | 66.2                | 552.0             |
| 8                  | 5.3                      | 61.8             | 58.8               | 24.5                    | 49.9              | 46.9                | 67.0              | 60.1                | 546.7             |
| 10                 | 5.9                      | 60.3             | 57.3               | 25.0                    | 48.0              | 45.0                | 67.0              | 58.2                | 545.4             |
| 16                 | 7.5                      | 57.2             | 54.2               | 25.0                    | 43.9              | 40.9                | 67.0              | 54.1                | 543.0             |
| 20                 | 8.4                      | 55.8             | 52.8               | 25.0                    | 42.0              | 39.0                | 67.0              | 52.2                | 542.0             |
| 25                 | 9.4                      | 54.3             | 51.3               | 24.3                    | 40.0              | 37.0                | 67.0              | 50.2                | 541.2             |
| 31.25              | 10.5                     | 52.9             | 49.9               | 23.6                    | 38.1              | 35.1                | 67.0              | 48.3                | 540.4             |
| 62.5               | 15.0                     | 48.4             | 45.4               | 21.5                    | 32.1              | 29.1                | 65.6              | 42.3                | 538.6             |
| 100                | 19.1                     | 45.3             | 42.3               | 20.1                    | 28.0              | 25.0                | 62.5              | 38.2                | 537.6             |
| 150                | 23.7                     | 42.7             | 39.7               | 18.9                    | 24.5              | 21.5                | 59.9              | 34.7                | 536.9             |
| 200                | 27.6                     | 40.8             | 37.8               | 18.0                    | 22.0              | 19.0                | 58.0              | 32.2                | 536.5             |
| 250                | 31.1                     | 39.3             | 36.3               | 17.3                    | 20.0              | 17.0                | 56.5              | 30.2                | 536.3             |
| 300                | 34.3                     | 38.1             | 35.1               | 17.3                    | 18.5              | 15.5                | 55.3              | 28.7                | 536.1             |
| 400                | 40.1                     | 36.3             | 33.3               | 17.3                    | 16.0              | 13.0                | 53.5              | 26.2                | 535.8             |
| 500                | 45.3                     | 34.8             | 31.8               | 17.3                    | 14.0              | 11.0                | 52.0              | 24.2                | 535.6             |

| Frequency<br>(MHz) | Input<br>Impedance<br>upper limit | Input<br>Impedance<br>lower limit |
|--------------------|-----------------------------------|-----------------------------------|
|                    | ( $\Omega$ )                      | ( $\Omega$ )                      |
| 4                  | 115.2                             | 86.8                              |
| 8                  | 112.6                             | 88.8                              |
| 10                 | 111.9                             | 89.4                              |
| 16                 | 111.9                             | 89.4                              |
| 20                 | 111.9                             | 89.4                              |
| 25                 | 112.9                             | 88.5                              |
| 31.25              | 114.1                             | 87.7                              |
| 62.5               | 118.3                             | 84.5                              |
| 100                | 121.9                             | 82.0                              |
| 150                | 125.7                             | 79.6                              |
| 200                | 128.8                             | 77.6                              |
| 250                | 131.5                             | 76.0                              |
| 300                | 131.6                             | 76.0                              |
| 400                | 131.6                             | 76.0                              |
| 500                | 131.6                             | 76.0                              |
| -                  | -                                 | -                                 |
| -                  | -                                 | -                                 |
| -                  | -                                 | -                                 |

**Note:**

\* Test ambient temp. is 20°C

\* Cable that meet the requirements of the characteristic impedance are not required to be measured for return loss, alternately cables that meet the return loss requirements are not required to be measured for characteristic impedance.

\* Cable measurement precautions

Mutual capacitance, capacitance unbalance, characteristic impedance, return loss, insertion loss, SRL, NEXT loss, ACRF, TCL, and TCTL measurements and calculations shall be performed on cable samples of 100 m (328 ft) removed from the reel or packaging. The test sample shall be laid out along a non-conducting surface, loosely coiled, or supported in aerial spans, and all pairs shall be terminated according to the specific requirements of this annex. Other test configurations are acceptable if correlation to the reference method has been verified. In case of conflict, the reference method (100 m, off-reel, resistor terminated) shall be used to determine conformance to the minimum requirements of this Standard.

## Description

- Rated temperature: 75°C
- Reference standard: IEC 61156-5&ISO/IEC 11801,
- Product standard certification: CPR
- Flame test: EUROCLASS Eca
- Solid bare copper conductor
- Colour-coded PE insulation
- LSZH jacket
- Packaging: Per customer request

## Application

- 100Base-T4
- 100Base-TX
- 100VG-AnyLAN
- 1000Base-T
- 1000Base-TX
- 155Mbps ATM
- 622Mbps ATM
- 10 Gb Ethernet

## Marking

HUAXUN LAN CABLE 4PR 23AWG EUROCLASS Eca F/FTP CAT6A LSZH 75°C YYYYMMDDJNN \*\*\*\*\*M

### Note:

- 1.The jacket shall be used black jet print marking except white color on black jacket.
- 2.YYYYMMDDJNN-Batch number.
- 3.\*\*\*\*\*- sequential meter marking with 1m interval.
- 4.Marking height :3+/-0.3mm,width 2+/-0.3mm.