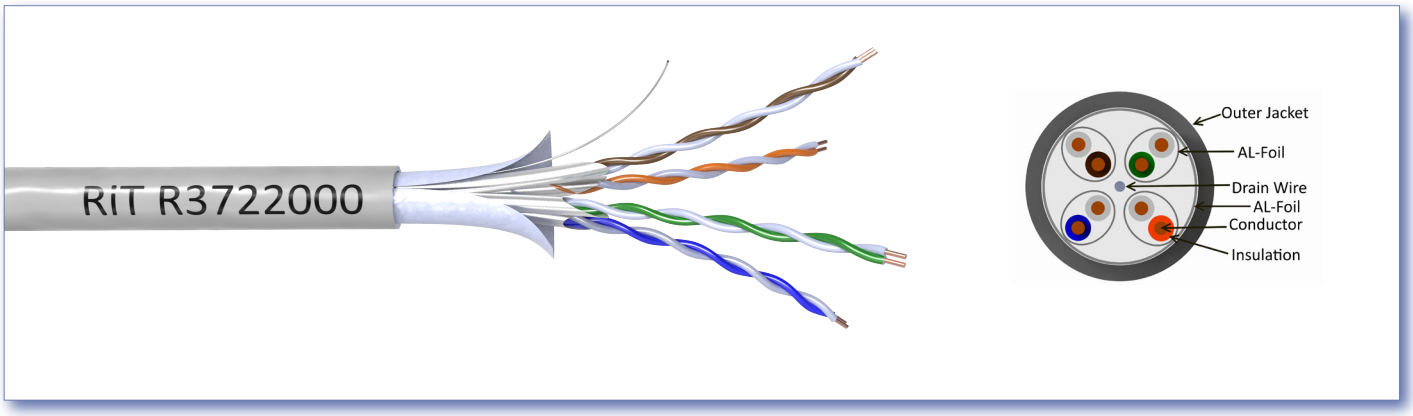
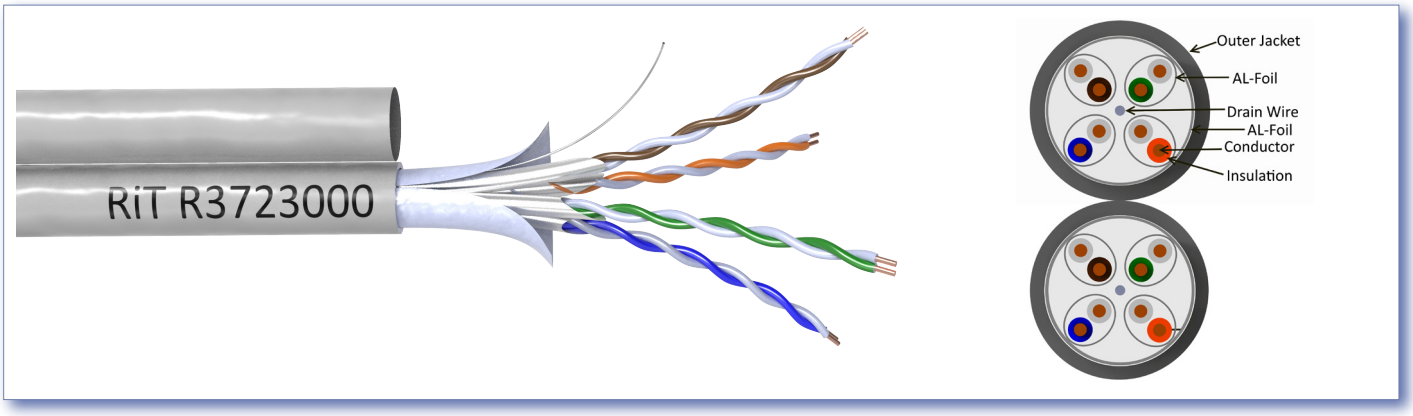
# Cat 7 23AWG F/FTP LSZH Horizontal Cable

**Copper | Cables | Cat 7**




RiT Category 7 F/FTP Single and Double (Fig-8) Horizontal Cables, 23 AWG solid wires, 4 individually AL-Foil shielded twisted pairs (two groups in Fig-8 cable), overall Al-Foil cabled together with drain wire and jacketed with LSZH compound.

## KEY APPLICATIONS

- 10/100/1000Base-T, 10G
- Power over Ethernet (PoE)
- Indoor use

## KEY FEATURES

- Designed to support Cat 7 Link and Channel performance
- Electrical performance up to 600 MHz
- Supports PoE Type 4 applications (IEEE 802.3bt)

## STANDARDS COMPLIANCE

- ISO/IEC 11801 Class F
- IEEE 802.3bt (PoE Type 4)
- IEC 61156-5
- Flammability Rating: IEC 60332-1
- Acid Gas Emission Test IEC 60754-1&2
- Smoke Density Test IEC 61034-1&2
- RoHS2: Directives 2011/65/EU, 2015/863/EU



**RiT Tech (Intelligence Solutions) Ltd.**
20 Atir Yeda St. Kfar Saba, 4464315, Israel | Tel: +972-77-2707270 | Fax: +972-3-6474115 | www.rittech.com

## TECHNICAL SPECIFICATION

| FREQ. | Attenuation | RL | NEXT | PS NEXT | EL FEXT | PS ELFEXT | Delay |
|---|---|---|---|---|---|---|---|
| MHz | dB/100m | dB | dB | dB | dB | dB | ns/100m |
| 4 | 3.7 | 23 | 78 | 75 | 78 | 75 | 552 |
| 8 | 5.2 | 24.5 | 78 | 75 | 77.2 | 74.2 | 547 |
| 10 | 5.9 | 25 | 78 | 75 | 75.3 | 72.3 | 545 |
| 16 | 7.4 | 25 | 78 | 75 | 71.2 | 68.2 | 543 |
| 20 | 8.3 | 25 | 78 | 75 | 69.3 | 66.3 | 542 |
| 25 | 9.3 | 24.3 | 78 | 75 | 67.3 | 64.3 | 541 |
| 31.25 | 10.4 | 23.6 | 78 | 75 | 65.4 | 62.4 | 540 |
| 62.5 | 14.9 | 21.5 | 75.5 | 72.5 | 59.4 | 56.4 | 539 |
| 100 | 19 | 20.1 | 72.4 | 69.4 | 55.3 | 52.3 | 538 |
| 200 | 27.5 | 18 | 67.9 | 64.9 | 49.3 | 46.3 | 537 |
| 250 | 31 | 17.3 | 66.4 | 63.4 | 47.3 | 44.3 | 536 |
| 300 | 34.2 | 17.3 | 65.2 | 62.2 | 45.8 | 42.8 | 536 |
| 500 | 45.3 | 17.3 | 61.9 | 58.9 | 41.3 | 38.3 | 536 |
| 600 | 50.1 | 17.3 | 60.7 | 57.7 | 39.7 | 36.7 | 535 |

| Cable Construction | |
|---|---|
| Outer Jacket Diameter | Ø7.1mm Nom<br>Ø7.1x15mm (Fig-8) |
| Outer Jacket Thickness | 0.55mm Nom |
| Outer Jacket Material | LSZH, FR (Flame Retardant) |
| Conductor Material | Annealed Bare Copper |
| Conductor Size | 23 AWG |
| Conductor Construction | Solid |
| Conductor unit lay-up | Twisted Pairs |
| Number of conductors | 8/16 |
| Drain-wire (when applicable) | Ø0.4 mm Tinned Copper |
| Insulation Material | Foam Polyethylene |
| Color Code | White - Blue, White - Orange,<br>White - Green, White - Brown |
| Ind. Pair Shield Design | Helically applied Polyester-Al-Foil<br>100% coverage |
| Ind. Pair Shield Material | Aluminum/ Poly-laminated Foil |
| Overall Shielding | Al-Foil 100% coverage |
| Cable Marking | RiT P/N, Cable Description, Meter<br>Mark and Batch Number |

| Electrical Characteristics | |
|---|---|
| Frequency Range | 600 MHz |
| Characteristic Impedance | 100 Ω ±15 Ω (1-100Mhz)<br>100 Ω ±22 Ω (101-250Mhz)<br>100 Ω ±25 Ω (251-600Mhz) |
| Max. DC Resistance | 77 Ω/Km |
| Transfer Impedance | IEC 61156-5 Grade I |
| Coupling Attenuation | IEC 61156-5 Type Ib |
| Max. Resistance Unbalance | 2 % (in pairs) |
| Capacitance | 56 pF/m nom. @ 1 KHz |
| Max. Propagation Delay | 534+36/f1/2 nS/100m |
| Max. Propagation Delay Skew: | 25 ns/100m |
| Max. Capacitance Unbalance | 1600 pF/1Km |
| NVP | 74% |
| Max. Voltage Rating | 72 Vdc |



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| Mechanical Properties | |
|---|---|
| Minimum Bending Radius | 60mm Long Term, 40mm Short Term |
| Maximum Pulling Force | 110 N / 200 N (Fig-8) |
| Storage Temperature | -20°C to +60°C |
| Operating Temperature | -20°C to +65°C |
| Installation Temperature | 0°C to +50°C |
| Weight | ~ 48 Kg/Km / ~ 98 Kg/Km |

## ORDERING INFORMATION

| P/N | DESCRIPTION |
|---|---|
| R3722000 | CAT7, F/FTP, Horizontal Cable, 23AWG, LSZH, Light Gray, 500m Reel |
| R3723000 | CAT7, F/FTP, Fig-8, Horizontal Cable, 23AWG, LSZH, Light Gray, 500m Reel |
| R3722009 | CAT7, F/FTP, Horizontal Cable, 23AWG, LSZH, Red, 500m Reel |
| R3723009 | CAT7, F/FTP, Fig-8, Horizontal Cable, 23AWG, LSZH, Red, 500m Reel |

Packing:
Available in Reels of guaranteed 500 Meter Length

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