

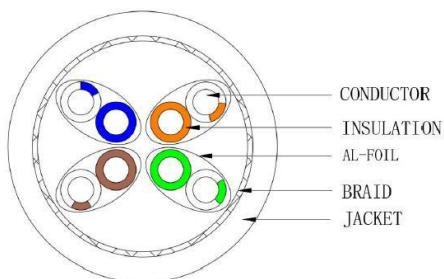
## Data Sheet

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### Cat7 S/FTP Installation Solid Cable BC 23AWG/1 LSZH 600 MHz, CPR, Orange



Drawing:



| BN      | Length (m) | Cable Color |
|---------|------------|-------------|
| 2114028 | 50         | Orange      |
| 2752208 | 100        | Orange      |
| 2752209 | 305        | Orange      |

#### Application

10 BASE-T (IEEE 802.3)  
4/16 Mbps TOKEN RING (IEEE 802.5)  
100 BASE-VG-AnyLAN  
100 Mbps TP-PMD (ANSI X3T9.5)  
100 BASE-T (IEEE 802.3)  
55/155 Mbps ATM  
1000 BASE-T (Gigabit Ethernet)  
1.2 Gbps ATM  
10G BASE-T

## Data Sheet

### Reference Standard

ISO/IEC 11801, EN 50173, ANSI/TIA-568.2-D

IEC 61156-5

EN 50288-4-1

EN 50575

EN 60332-1-2

Low smoke (IEC 61034)

Halogen free (IEC 60754-1/2)

Flame retardant (IEC60332-1-2)

CPR-Dca s2, d1, a1 Verified

ROHS 2.0 &amp; REACH Compliant

3P Certified

GHMT Certified

### Technical Data

|            |                                                  |                                                                                                  |
|------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Structure  | Construction                                     | S/FTP                                                                                            |
|            | Number of Pairs                                  | 4 Pairs                                                                                          |
| Conductor  | AWG                                              | 23                                                                                               |
|            | Conductor material                               | 99.99% oxygen-free copper                                                                        |
|            | Conductor dimension                              | 1/0.55±0.005 mm                                                                                  |
| Insulation | Insulation material                              | FMPE                                                                                             |
|            | Insulation dimension                             | 1.35±0.05 mm                                                                                     |
|            | Number color<br>(Ring or stripe or pure marking) | 1.White-Blue & Blue<br>2.White-Orange & Orange<br>3.White-Green & Green<br>4.White-Brown & Brown |
| Cabling    | Twisting lay length                              | ≤30 mm                                                                                           |
|            | Cabling lay length                               | ≤200 mm                                                                                          |
| Filler     | Filler material                                  | N/A                                                                                              |
| Binder     | Binder material                                  | N/A                                                                                              |
| Shield     | Individual shield & material                     | AL-Foil                                                                                          |
|            | Primary overall shield & material                | AL-MG braid                                                                                      |
|            | Secondary overall shield & material              | N/A                                                                                              |
|            | Shield coverage approx.                          | 40%                                                                                              |
|            | Drain wire                                       | N/A                                                                                              |

## Data Sheet

|                            |                                         |                             |
|----------------------------|-----------------------------------------|-----------------------------|
| Outer Jacket               | Jacket material                         | LSZH                        |
|                            | Jacket thickness nominal                | 0.50 mm                     |
|                            | Overall nominal dimension               | 7.60±0.30 mm                |
|                            | Jacket rip cord                         | None                        |
| Mechanical Characteristics | Operating temperature range             | -20 °C ~ +75 °C             |
|                            | Installation temperature range          | 0 °C ~ +50 °C               |
|                            | Bulk cable weight approx.               | -                           |
|                            | Max. recommended pulling tension        | 110 N                       |
|                            | Min. bend radius (install)              | 8 x O.D.                    |
|                            | Outer jacket tensile strength           | ≥9.0 MPa                    |
|                            | Outer jacket elongation                 | ≥100%                       |
|                            | Outer jacket aging condition            | 100 °C x 168 hrs            |
|                            | After aging, tensile strength           | ≥70% of Unaging             |
|                            | After aging, elongation                 | ≥50% of Unaging             |
|                            | Cold bend (static)                      | No Crack (@ -20 °C x 4 hrs) |
| Electrical Characteristics | Nom. mutual capacitance                 | ≤5.6 nF/100 m (@1 kHz)      |
|                            | Pair to ground capacitance unbalance    | ≤160 pF/100 m               |
|                            | Nominal velocity of propagation         | 72%                         |
|                            | Max. delay skew                         | 25 ns/100 m                 |
|                            | Max. conductor DC resistance            | 9.5 Ω/100 m (@2 °C)         |
|                            | Max. conductor resistance unbalance     | 2% (@ 20 °C) within a pair  |
|                            | Min. insulation resistance              | 5000 MΩ.km                  |
|                            | Max. operating voltage - UL             | 300 V                       |
|                            | Dielectric strength                     | 2.5 kV DC for 2 s           |
|                            | (Conductor/conductor, conductor/screen) | 1.0 kV DC for 1 min         |

## Data Sheet

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### Electrical Characteristics

| Frequency | Attenuation | NEXT | PSNEXT | Return loss | ELFEXT | PSELFEXT |
|-----------|-------------|------|--------|-------------|--------|----------|
| (MHz)     | (dB/ 100m)  | (dB) | (dB)   | (dB)        | (dB)   | (dB)     |
| 4         | 3.74        | 78.0 | 75.0   | 23.0        | 82.0   | 79.0     |
| 8         | 5.24        | 78.0 | 75.0   | 24.5        | 75.9   | 72.9     |
| 10        | 5.86        | 78.0 | 75.0   | 25.0        | 74.0   | 71.0     |
| 16        | 7.41        | 78.0 | 75.0   | 25.0        | 69.9   | 66.9     |
| 20        | 8.29        | 78.0 | 75.0   | 25.0        | 68.0   | 65.0     |
| 25        | 9.29        | 78.0 | 75.0   | 24.3        | 66.0   | 63.0     |
| 31.25     | 10.41       | 78.0 | 75.0   | 23.6        | 64.1   | 61.1     |
| 62.5      | 14.88       | 75.5 | 72.5   | 21.5        | 58.1   | 55.1     |
| 100       | 19.02       | 72.4 | 69.4   | 20.1        | 54.0   | 51.0     |
| 250       | 30.97       | 66.4 | 63.4   | 17.3        | 46.0   | 43.0     |
| 300       | 34.19       | 65.2 | 62.2   | 17.3        | 44.5   | 41.5     |
| 400       | 40.01       | 63.4 | 60.4   | 17.3        | 42.0   | 39.0     |
| 500       | 45.26       | 61.9 | 58.9   | 17.3        | 40.0   | 37.0     |
| 600       | 50.10       | 60.7 | 57.7   | 17.3        | 38.4   | 35.4     |
| 1000      | 66.93       | 57.4 | 54.4   | 17.3        | 34.0   | 31.0     |

**Remark:**

The cable performance between 600 MHz and 1000 MHz is achieved by design only and it is therefore not necessary to test for this performance above 600 MHz.