



## Category 6A U/UTP - Unshielded Twisted Pair B2ca LSZH Cable

The Category 6A Unshielded Twisted Pair (U/UTP) B2ca cable with 4 x 2 x 23 AWG copper wire structure fully complies with ISO/IEC 11801 and TIA/EIA 568 standards. They ensure optimum bandwidth for today's high speed network applications and are designed to deliver a robust standard based performance. OptronicsPlus Cat6a U/UTP cable exceeds Cat6A/Class EA performance requirements and supports 10G-BASE-T, 2G FCBASE-T, 4G FCBASE-T and 1000Base-T applications. The B2ca LSZH sheath offers excellent fire performance making this the ideal choice in public buildings and other high-risk locations.

### Features

- 23 AWG conductors
- Exceeds Cat6A performance requirements
- ISO/IEC 11801 and TIA/EIA568 compliant
- Available with flame retardant LSZH outer jacket
- Supplied in 305m boxes or 500m reels
- Printed metre marks

### Applications

- Cat6A/Class EA up to 500Mhz applications
- 1000Base-T, 2G FCBASE-T and 10G BASE-T applications
- Horizontal network installations
- Backwards compatible with Cat5e and Cat6 distribution systems

## Specifications

### CONSTRUCTION

Conductor	23AWG (0.550 ± 0.01mm) Solid bare Copper
Insulation	Polyethylene (HDPE)
Cable	8 insulated wires formed into 4 pairs.
Sheath	LSZH-B2ca
Test Method	EN 50575:2014+A1:2016
Euro Class	B2ca-s1a,d0,a1
Diameter	6.9mm ± 0.30

### Electrical properties at 20 °C

Characteristic Impedance (1-100MHz)	100 ± 15Ω
Characteristic Impedance (100-250MHz)	100 ± 18Ω
DC loop resistance	≤ 19.0Ω/100m
Resistance unbalance	≤ 2%
Capacitance unbalance to earth	≤ 1600pF/km
Delay Skew	≤ 40ns/100m @ 100MHz
Nominal velocity of propagation	78%
Propagation delay (Nominal)	≤ 534ns/100m
Test voltage (d.c. for 1 minute) Conductor/Conductor	1000V
Insulation resistance (500V d.c.)	≥ 500MΩ.km
Coupling attenuation	≥ 55dB

### Mechanical Characteristics Temperature Range

Operation	-20°C to + 60°C
Installation	0°C to + 50°C
Storage	-20°C to + 70°C

### Maximum Tensile Force

During Installation	100N
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### Minimum Bend Radius

Installation	8 x Cable Diameter
Installed	8 x Cable Diameter

## Transmission Line Performance

FREQUENCY (MHZ)	ATTENUATION DB/100M	NEXT DB	ACR DB	MIN DB PSNEXT	MIN DB ELFEXT	MIN DB PSELFEXT	MIN DB PSANEXT	MIN DB RETURN LOSS
1	1.8	95.0	93.2	95.0	68.0	65.0	-	-
4	3.8	66.3	62.5	66.3	58.0	55.0	76.5	23
10	5.9	60.3	54.4	60.3	50.0	47.0	72.5	25
20	8.4	55.8	47.4	55.8	44.0	41.0	69.5	25
62.5	15.0	48.4	33.4	48.4	34.1	31.1	64.5	21.5
100	19.1	45.3	26.2	45.3	30.0	27.0	62.5	20.1
250	31.1	29.3	8.2	39.3	22.0	19.0	56.5	17.3
500	45.3	34.8	-10.5	34.8	16.0	13.0	52.0	17.3

## Standards Compliance

The CAT6 U/UTP B2ca LSZH cable is manufactured and tested directly in accordance with the major industry standards:

- Class EA / Category 6A
- ISO/IEC 11801 2nd Edition
- ANSI/TIA 568-C.2
- EN 50173
- IEC 61156-5
- EN 50288-3-1
- IEC 60332-1-2
- IEC 60754-2
- IEC 61034
- RoHS
- REACH

## Ordering Information

DESCRIPTION	PART NUMBER
CAT6A U/UTP 23 AWG B2ca LSZH Cable Violet - 305m box	OCC-6A-11-305-B2CA
CAT6A U/UTP 23 AWG B2ca LSZH Cable Violet - 500m reel	OCC-6A-11-500-B2CA
CAT6A U/UTP 23 AWG B2ca LSZH Cable Blue - 305m box	OCC-6A-11-305-B2CA-2
CAT6A U/UTP 23 AWG B2ca LSZH Cable Blue - 500m reel	OCC-6A-11-500-B2CA-2
CAT6A U/UTP 23 AWG B2ca LSZH Cable Yellow - 305m box	OCC-6A-11-305-B2CA-3
CAT6A U/UTP 23 AWG B2ca LSZH Cable Yellow - 500m reel	OCC-6A-11-500-B2CA-3
CAT6A U/UTP 23 AWG B2ca LSZH Cable Green - 305m box	OCC-6A-11-305-B2CA-4
CAT6A U/UTP 23 AWG B2ca LSZH Cable Green - 500m reel	OCC-6A-11-500-B2CA-4
CAT6A U/UTP 23 AWG B2ca LSZH Cable Red - 305m box	OCC-6A-11-305-B2CA-5
CAT6A U/UTP 23 AWG B2ca LSZH Cable Red - 500m reel	OCC-6A-11-500-B2CA-5
CAT6A U/UTP 23 AWG B2ca LSZH Cable Orange - 305m box	OCC-6A-11-305-B2CA-8
CAT6A U/UTP 23 AWG B2ca LSZH Cable Orange - 500m reel	OCC-6A-11-500-B2CA-8

## Additional Images

OPTRONICSPLUS CATEGORY 6A U/UTP LSZH B2CA

