



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

The Category 6 Unshielded Twisted Pair (U/UTP) B2ca LSZH 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 Cat6 U/UTP cable exceeds Cat6/Class E performance requirements and supports 10-BASE-T, 100-BASE-TX 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 Cat6 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

- Cat6/Class E up to 250Mhz applications
- 10BASE-T, 100BASE-TX, 1000Base-T applications
- Horizontal network installations
- Backwards compatible with Category 5e 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
Average Thickness	0.60mm ± 0.1
Diameter	6.0mm ± 0.20

### Electrical properties at 20 °C

Characteristic Impedance (1-100MHz)	100 ± 15Ω
DC loop resistance	≤ 19.0Ω/100m
Resistance unbalance	≤ 2%
Capacitance unbalance to earth	≤ 1600pF/km
Delay Skew	≤ 40ns/100m @ 100MHz
Nominal velocity of propagation	67%
Propagation delay (Nominal)	≤ 534ns/100m
Test voltage (d.c. for 1 minute) Conductor/Conductor	1000V
Insulation resistance (500V d.c.)	≥ 500MΩ.km
Coupling attenuation	≥ 40dB
Temperature Rating	-20°C — + 70°C
Cold Bend ( -20±2°C×4)	8×Cable O.D. No visible cracks

### 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 RETURN LOSS
1	2.1	74.0	71.9	72.0	68	65	20
4	3.8	65.3	61.5	63.3	56	53	23
10	6.0	59.3	53.3	57.3	48	45	25
16	7.6	56.0	48.4	54.0	44	41	25
20	9.3	45.8	36.5	42.8	42	39	25
62.5	17	38.4	21.4	35.4	32	29	21.5
100	22.0	35.3	13.3	32.3	28	25	20.1
125	22.5	43.0	20.5	41.0	26	23	19.5
155.5	25.4	42.0	16.6	40.0	24	21	18.8
250	33.0	38.3	5.3	32.3	20	17	17.3

## Standards Compliance

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

- Class E / Category 6
- ANSI/TIA/EIA-568-C.2
- ISO/IEC 11801 2<sup>nd</sup> Edition
- EN 50173
- IEC 61156-5
- EN 50288-3-1
- IEC 60332-1-2
- IEC 60754-2
- IEC 61034
- RoHS / REACH / SvHC

## Ordering Information

DESCRIPTION	PART NUMBER
CAT6 U/UTP 23 AWG B2ca LSZH Cable - 305m box	OCC-6-11-305-B2CA
CAT6 U/UTP 23 AWG B2ca LSZH Cable - 500m reel	OCC-6-11-500-B2CA

## Additional Images

