

CAT7A 4x2x23/1 AWG Solid S/FTP LSZH-SHF1

Application: Shipboard installations, Maritime Environment, High data rates, Telecom systems, High bandwidth digital applications with low BER, Indoor/Outdoor use, fixed installations, Ships, High speed & Light craft.

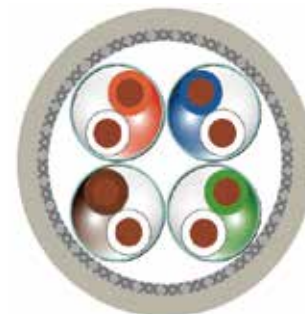
Install at: 0°C to + 60 °C, Bend minimum: 20 times O.D.

Operate at: -30°C to + 75 °C, Bend minimum: 10 times O.D.

Pull maximum: 110 N

Weight: 81 kg/km

Standards: ISO/IEC 11801 , IEC 61156-1, IEC 61156-5, IEC 60092-350, IEC 60092-360, RoHS-2 2011/65/EU, UL 1581



Design & Construction

Conductor: Soft annealed bare copper wire

Conductor size: 23 AWG

Insulation: PE-Foam

Insulation OD: Normal $\varnothing 1.38 \pm 0.05$ mm

Insulation thickness: 0.39 mm

Pair: 2 insulated conductors stranded together into a pair

Color code: 1. White/blue + Blue 2. White/orange + Orange
3. White/green + Green 4. White/brown + Brown

Shield pair to pair: Aluminum Foil-Polyester Tape

Shield pair to pair coverage: 100%

Outer shield: Solid Tinned Copper Braid

Outer shield coverage: Nom 80%

Outer jacket: LSZH SHF1

Nominal outer sheath thickness: 0.75 ± 0.30 mm

Outer jacket OD: 8.4 ± 0.50 mm

Marking: YANGER® CAT7A 4x2x23/1 AWG Solid S/FTP LSZH-SHF1 <batch no.> <meter marking>

Outer jacket color: Grey

Environmental properties and Fire Performances

Degree of acidity of gases: IEC 60754-1/2

Halogen acid gas: IEC 60754-1/2

Smoke emission: IEC 61034-1/2

Flame retardant: IEC 60332-1-2

UV resistance: UL 1581

Fire retardant: IEC 60332-3-22

Electrical characteristics

Resistance of the conductor@20°C: $\leq 93.8 \Omega/\text{km}$

Insulation resistance: $\geq 5000 \text{ M}\Omega/\text{km}$

Average characteristic impedance @ 100 MHz: $100 \pm 5 \Omega$

Transfer impedance: $\leq 100 \text{ m}\Omega/\text{m}$ @10 MHz

Delay skew (4~100 MHz): $\leq 25 \text{ ns}/100 \text{ m}$

Velocity factor: 74%

Conductor resistance unbalance within pair: $\leq 2.0\%$

Conductor resistance unbalance between pair: $\leq 4.0\%$

capacitance unbalance to earth at 800Hz or 1000Hz: $\leq 160 \text{ pF}/100 \text{ m}$

Mutual capacitance: $\leq 56 \text{ nF}/\text{km}$

Electrical Properties

Frequency (MHz):	1	4	10	16	20	31.25	62.5	100	200	250	300	500	600	1000
Attenuation dB/100m (Max.)	—	3.7	5.8	7.3	8.2	10.3	14.6	18.5	26.5	29.7	32.7	42.8	47.1	61.9
NEXT dB (Min.)	78.0	78.0	78.0	78.0	78.0	78.0	78.0	75.4	70.9	69.4	68.2	64.9	63.7	60.4
PS-NEXT (Min.)	75.0	75.0	75.0	75.0	75.0	75.0	75.0	72.4	67.9	66.4	65.2	61.9	60.7	57.4
Return Loss dB (Min.)	20.0	23.0	25.0	25.0	25.0	23.6	21.5	20.1	18.0	17.3	17.3	17.3	17.3	15.1

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