CAT6A 4x2x23/7 AWG Stranded S/FTP LSZH-SHF1

Application:	Telecom systems, High data rates, High bandwidth digital applications with low BER, Indoor use, fixed installations
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:	80 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:	Stranded Bare copper wire
Conductor size:	23 AWG
Insulation:	PE-Foam/skin-PE
Insulation OD:	Normal Ø1.41 ± 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® CAT6A 4x2x23/7 AWG Stranded 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:	≤95.0 Ω/km
Insulation resistance:	≥5000 MΩ/km
Average characteristic impedance@100 MHz:	100 ± 5 Ω
Transfer impedance:	< 100 mΩ/m @ 10 MHz
Delay skew (4~100 MHz):	≤45 ns/100 m
Velocity factor:	69%
Conductor resistance unbalance within pair:	≤2.0%
Conductor resistance unbalance between pair:	≤4.0%
capacitance unbalance to earth at 800 Hz or 1000 Hz:	≤160 pF/100 m
Mutual capacitance:	≤56 nF/km

Electrical Properties

Frequency (MHz):	1	4	10	16	20	31.25	62.5	100	200	250	400	500
Attenuation dB/100m (Max.)	—	3.8	5.9	7.5	8.4	10.5	15.0	19.1	27.6	31.1	40.1	45.3
NEXT dB (Min.)	74.3	65.3	59.3	56.2	54.8	51.9	47.4	44.3	39.8	38.3	35.3	33.8
PS-NEXT (Min.)	72.3	63.3	57.3	54.2	52.8	49.9	45.4	42.3	37.8	36.3	33.3	31.8
ELFEXT dB (Min.)	67.8	55.8	47.8	43.7	41.8	37.9	31.9	27.8	21.8	19.8	15.8	13.8
Return Loss dB (Min.)	20.0	23.0	25.0	25.0	25.0	23.6	21.5	20.1	18.0	17.3	15.9	15.2
PSELFEXT (Min.)	64.8	52.8	44.8	40.7	38.8	34.9	28.9	24.8	18.8	16.8	12.8	10.8