Fumo Telecommunications
POWER OF CONNECTION

GPLCAF6AL

UTP Cable Category 6A –U FTP LSZH 500MH

General standards

- International standard: ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
- European standard: EN 50173-1 (2002) and EN 50173-1 Amendment 1 (2009)
- U.S. Standards: ANSI/TIA/EIA 568-B.2-10 (2008)

Physical dimensions

1- Conductor
Material: Solid bare copper ETP
Diameter: AWG 23

2- Insulation
Individual Pair Shield: Aluminum foil, providing 100% coverage with 25% overlap, aluminum facing out
Drain Wire: Tinned copper braid laid in close contact with the individual foil shields

3- Cable core
Pair: 2 twisted insulated conductors with overall foil
Foil: Laminated aluminum-polyester
Number of pairs: 4, all twisted together with AWG 26 tinned copper drain wire
Color code pair 1: White / Blue & Blue
Color code pair 2: White / Orange & Orange
Color code pair 3: White / Green & Green
Color code pair 4: White / Brown & Brown

4- Foil shielding
Material: Laminated Aluminum / Polyester
Position Aluminum: Facing inside

5- Jacket
Material: LSZH Halogen Free Retardant
Diameter: 7.1 ± 0.3 mm
Ripcord: Nylon ripcord under jacket

Electrical characteristics

Low frequency and D.C. (at 20°C)	Specifications
D.C. resistance conductor	< 9,5 Ω/100m
Resistance unbalance: within a pair / between pairs	< 2 / < 4 %
Insulation resistance	≥ 5000 MΩ.km
Dielectric strength conductor-conductor and conductor-screen (2 sec.)	2.5 kV DC
Mutual capacitance	< 56 nF/km
Capacitance unbalance pair to ground	< 1600 pF/km
Nominal velocity of propagation (for information only)	0.77 c
Delay skew (differential delay)	≤ 25 ns/100m
Transfer impedance according IEC 61156-5	Grade 2
Coupling attenuation according IEC 61156-5	Type II

High frequency (at 20°)

TYPE	1*	4	10	16	31.2	62.5	100	125	200	250	300	500	625*	MHz
Attenuation	2.1	3.8	5.9	7.5	10.5	15.0	19.1	21.5	27.6	31.1	34.3	45.3	51.2	dB/100m
NEXT	75.3	66.3	60.3	57.2	52.9	48.4	45.3	43.8	40.8	39.3	38.1	34.8	33.4	dB/100m
PS NEXT	72.3	63.3	57.3	54.2	49.9	45.4	42.3	40.8	37.8	36.3	35.1	31.8	30.4	dB/100m
ACR	73.2	62.5	54.4	49.8	42.4	33.4	26.2	22.3	13.2	8.3	3.9	-10.4	-17.8	dB/100m
PS ACR	70.2	59.5	51.4	46.8	39.4	30.4	23.2	19.3	10.2	5.3	0.9	-13.4	-20.8	dB/100m
ACR-F	68.0	56.0	48.0	43.9	38.1	32.1	28.0	26.1	22.0	20.0	18.5	14.0	12.1	dB/100m
PS ACR-F	65.0	53.0	45.0	40.9	35.1	29.1	25.0	23.1	19.0	17.0	15.5	11.0	9.1	dB/100m
Return Loss	20.0	23.0	25.0	25.0	23.6	21.5	20.1	19.4	18.0	17.3	17.3	17.3	17.3	dB/100m
Impedance upper limit	122.2	115.2	111.9	111.9	114.1	118.3	121.9	123.9	128.8	131.5	131.6	131.6	131.6	Ω
Impedance lower limit	81.8	86.8	89.4	89.4	87.7	84.5	82.0	80.7	77.6	76.0	76.0	76.0	76.0	Ω
Propagation delay	570	552	545	543	540	539	538	537	536	536	536	536	536	ns/100m

Mechanical Characteristics

	Specifications
Elongation at break of the conductors	8%
Minimum elongation at break of the insulation	≥ 100 %
Minimum elongation at break of the sheath	≥ 100 %
Tensile strength of sheath	> 9 MPa

Overall characteristics

	Specifications
Maximum operating voltage (for all temperatures cable is intended to be used)	72 V D.C.
Maximum continuous current per conductor (@25°C)	1.5 A
Temperature rating installation	0 / 50 °C
Temperature rating operation	- 30 / 70 °C
Total cable weight	48 kg/km
Minimum bending radius (during operation and installation)	29 / 57 mm
Maximum pulling strength	79 N
Burning load	515 kJ/m
Smoke density acc. to IEC 61034-1/2 & EN50268-1/2; transmittance	> 10 %
Amount of halogen acid gas acc. to IEC 60754-1/2 & EN50267-1/2; pH	> 4.3
Amount of halogen acid gas acc. to IEC 60754-1/2 & EN50267-1/2; Conductivity	0 µS/mm
Reaction to fire according IEC 60332-1	Pass
Reaction to fire according EN 50575	Dca-s2,d1,a1

PRODUCT Family

SLCAF6AP-B	Blue
SLCAF6AP-GY	Gray
SLCAF6AP-W	White
SLCAF6AP-OW	Off White
SLCAF6AP-GN	Green
SLCAF6AP-Y	Yellow