

SureLAN®

Cat6.A SU/FTP <10Gb> DataGuard® Armoured (SWA)



Application

10 Gigabit high speed data transmission cable for horizontal cable distribution local computer networks. This cable operates at the ISO/IEC EA class for the 10 GBASE-T application and will function up to 550 MHz. IEEE 802.3. Using DataGuard® Armouring this cable is also suitable for Indoor/Outdoor applications, Mechanical protection, Rodent Protection, Direct Burial.

Cable Design

Conductor	Bare copper wire (23awg) Ø 0,57 mm
Insulation	PE, Ø 1.30 mm nom
Twisting	2 cores to the pair
Pair Screen	Individual Aluminium/polyester tape
Cable lay up	4 shielded pairs stranded
Overall Screen	Tinned copper wire braid
Inner Sheath	LSZH FireFighter® : Ø 7,70 ± 0,50 mm
Armour	DataGuard® Steel Wire Armour (SWA)
Outer Jacket	LSZH FireFighter® UV-resistant : Ø 12,40 ± 0,50 mm



Standards

Flammability Rating	IEC 60332-1, IEC 60332-3-24, IEC 60754-2, EN 61034, IEC 61034
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Specification

Part Number	Colour	Type
147297	Black	Cat6.A SU/FTP 4x2xAWG23/1 <550 MHz> DataGuard® Armoured (SWA) LSZH
147297-02	Blue	Cat6.A SU/FTP 4x2xAWG23/1 <550 MHz> DataGuard® Armoured (SWA) LSZH
147297-05	Grey	Cat6.A SU/FTP 4x2xAWG23/1 <550 MHz> DataGuard® Armoured (SWA) LSZH

Colour Code Chart

Pair	Colour
1	Blue + White
2	Orange + White
3	Green + White
4	Brown + White

Electrical Data @ 20°C

Complete conductor resistance	≤ 146.4 Ω/km
Resistance unbalance	≤ 2 %
Dielectric strength (continuous current)	1kV during 1min=no breakdown
Insulation resistance (500V)	≥ 5000 MΩ . km
Capacitance unbalance Real-ground	≤ 1600 pF/km
Characteristic impedance at 100 MHz	100 ± 5 Ω
Nom. Velocity	78 %
Transfer Impedance	1 MHz ≤ 10 mΩ/m
	10 MHz ≤ 10 mΩ/m
	30 MHz ≤ 20 mΩ/m
	100 MHz ≤ 30 mΩ/m

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Electrical Characteristics

Frequency (MHz)	Attenuation (dB/100m)		NEXT (dB)		ACR dB/100m	EL-FEXT (dB)		Return Loss (dB)	
	Nom.	Max. Cat 7	Nom.	Min. Cat 6	Nom.	Nom.	Min. Cat 6	Nom.	Min. Cat 6
1	1.8	[2.0]	100	66	98.2	92	66	23	-
4	3.3	3.6	100	65	96.7	92	58	27	23.1
10	5.3	5.7	100	59	94.7	92	50	30	25
16	6.7	7.2	100	56	93.3	92	46	30	25
20	7.5	8.1	100	55	92.5	90	44	30	25
100	17.3	18.5	98	44	80.7	75	30	28	20.1
155	21.7	23.4	94	41	72.3	70	26	27	18.8
200	24.9	26.8	91	40	66.1	68	24	25	18
300	30.7	33.3	88	-	57.3	64	-	24	-
500	39.1	44.1	85	-	45.9	59	-	22	-
600	44.6	48.9	82	-	37.4	57	-	21	-

The performance data given are typical measured values

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