



# Volition™ 500 MHz 10 Gigabit Cable

## Category 6a F/UTP LSOH



Volition™ 10 Gigabit F/UTP LSOH Cable



Volition™ 10 Gigabit cables are specially designed to ensure total immunity to alien crosstalk to 500 MHz. They were developed to exceed the requirements of the 6 around 1 test, that is, the Powersum of ANEXT effects generated by 6 cables (or 24 pairs) on one pair of an adjacent cable.

All constructions of 10 Gigabit Volition™ cables have general shielding and/or shielding by pair. Volition™ 10 Gigabit cables have unequalled immunity against AXTLK.

Volition™ 10 Gigabit cables allow easy installation, with no particular precautions, thanks to their round shape. Connection to Volition™ OCK10S8 jack remains simple and natural. Cable laying is easy thanks to the external diameter of the cable, which is the same as the Volition™ Category 6/Class E 250MHz cable. Volition™ 10 Gigabit cables are available in LSOH versions

### Standards

#### Applications

- Ethernet IEEE 802.3
- FDDI
- ATM
- RNIS

#### Cabling standards

- EN 50173
- ISO/IEC 11801
- TIA/EIA 568
- EN 50188-10 (draft)
- IEC 61156-5 Ed 2 (draft)

#### Environmental standards

- Fire resistance IEC 60332-1 Cat. C2
- Low smoke emission IEC 61034
- Toxicity/Corrosion IEC 60754-1/-2

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### Features

- Alien crosstalk immunity certified up to 500MHz
- Aluminium/Polyester screen
- Length printed on the cable sheath
- LSOH sheath, IEC 60332-1 Category C2 type

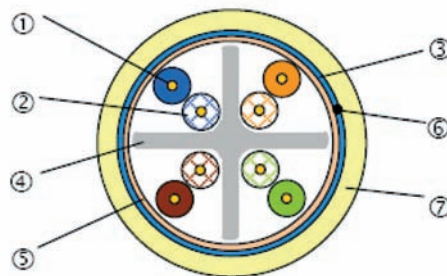
### Benefits

- Excellent electrical performance for 10 Gigabit Ethernet
- Ensure the effects of alien crosstalk are reduced
- Simplified Installation
- Excellent fire resistance

# Technical Specification

## Electrical characteristics at 20° C:

Conductor resistance (max.)	98,6 Ω /km
Insulation resistance (min)	5000 MΩ/km
Dielectric strength at 50Hz	1 KV / 1 min
Unbalanced capacitance - pair to ground (max)	800 pF / 500m
Propagation velocity (NVP)	78%
Characteristic impedance at 100 MHz	100Ω ± 15% from 1 to 100 MHz



- Cable construction
- 1- Conductor diameter: 24 AWG
  - 2- Insulation: Low loss dielectric Pe
  - 3- Cross separator: Especially designed to optimize the NEXT result. Synthetic. Guarantee the stability of the structure and the results after installation.
  - 4- Tape:
  - 5- Shield: Alu/polyester. Ensure optimum ANEXT performance.
  - 6- Drain wire: Tinned copper. Used with a 9 point connector.
  - 7- Sheath material: Low smoke emission material.

## Mechanical installation characteristics

Minimum bend radius	60
Maximum pulling tension	90
Nominal weight	51 kg/km
Temperature characteristics (°C)	
Transport / storage	0 to +50°C
Operating temperature	-20 to +60°C

## Electrical performance

Frequency (MHz)		4	10	20	62,5	100	250	500	600
<b>Attenuation (max)</b>	Typical value	3,6	5,6	8	14,2	18,1	28,9	41,2	45
	(dB/100 m)	Cat 6A (min.)	3,8	5,9	8,4	15	19,1	31,1	45,3
<b>NEXT</b>	Typical value	71	65	61	53	50	44	40	38
	(dB)	Cat 6A (min.)	65,3	59,3	54,8	47,4	44,3	38,3	33,8
<b>PSNEXT</b>	Typical value	68	62	58	50	47	41	37	35
	(dB)	Cat 6A (min.)	63,3	57,3	52,8	45,4	42,3	36,3	31,8
<b>ELFEXT</b>	Typical value	73	65	59	49	45	37	31	29
	(dB)	Cat 6A (min.)	58	50	44	34,1	30	22	16
<b>PS ELFEXT</b>	Typical value	70	62	56	46	42	34	28	26
	(dB)	Cat 6A (min.)	55	47	41	31,1	27	19	13
<b>Return Loss</b>	Typical value	27	27	27	25,8	25	22	18	16
	(dB)	Cat 6A (min.)	23	25	25	21,5	20,1	17,3	15,2
<b>PS ANEXT</b>	Typical value	85	85	80	75	75	75	75	75
	(dB)	Cat 6A (min.)	76,5	72,5	69,5	64,5	62,5	56,5	52

## Ordering Information



### Volition™ Category 6a F/UTP 100 Ohm LSOH

4 pairs Length: 1000 m Unit: 1 drum



**VOL6FL41000**

### Volition™ Category 6a F/UTP 100 Ohm LSOH

2x4 pairs Length: 500 m Unit: 1 drum



**VOL6AUFL8500**

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### Important Notice

All questions of liability relating to this product are governed by our Terms of Sale subject where applicable to the prevailing law.



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