

ACOLAN[®] 550 FU

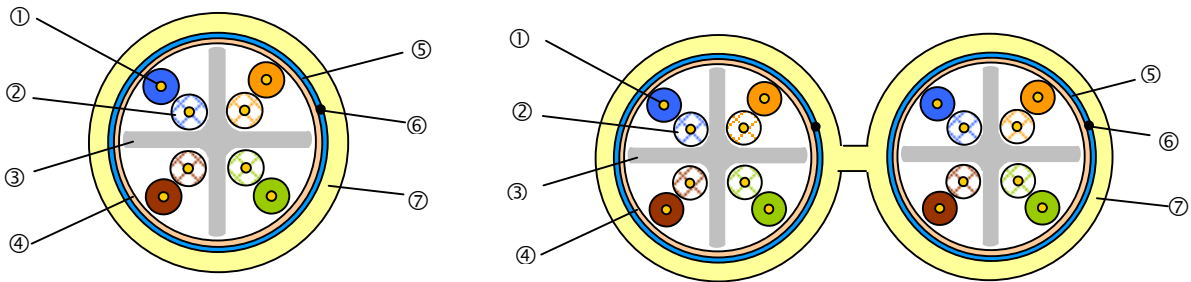
Horizontal cable 10 Gigabit Ethernet F/UTP - Category 6a - 4P & 2x4P LSOH



New

Applications

- 10 Gigabit high speed data transmission cables are designed for horizontal cable distribution local computer networks.
- These cables allow the use of the protocol supported by the **E_A class** for the 10 GBASE-T application.
- They are characterized of up to **550 MHz**.



Cable construction

- ① - **Conductor diameter** : 24AWG
- ② - **Insulation** : Low loss dielectric, Pe, $\varnothing \leq 1,10$ mm
- ③ - **Cross separator** : Especially designed to optimize the NEXT result.
- ④ - **Tape** : Synthetic. Guaranteed the stability of the structure and the results after the laying.
- ⑤ - **Shield** : Alu/polyester. Insured the optimum ANEXT result.
- ⑥ - **Drainwire** : Tinned copper. To be used with a 9 points connector.
- ⑦ - **Sheath material** : Low smoke emission material.

Colour code

- Blue + White/Blue
- Orange + White/Orange
- Green + White/Green
- Brown + White/ Brown

Directive / standard

Applications	Cables	Cabling system standard	Cabling system installation standards	Directive
IEEE 802.3	Draft IEC 61156-5 ed. 2 Draft EN 50288-10	IS 11801 ed.2 EN 50173-1	EN 50174	RoHS 2002/95/EC

Fire resistance

Sheath LSOH

- IEC 60332-1
- NF C 32-070 2.1 (C2)
(low smoke emission)
- IEC 60754-1
- IEC 60754-2
- IEC 61034

Additional information and references

Type	Reference	Colour	Max diameter mm	Weight Kg/km	PCS (superior calorific capacity)		Max. pulling tension (N)
					MJ/Km	KWh/m	
ACOLAN [®] 550 FU 4P LSOH	R7291	Ivory	7,40	54	845	0,235	80
ACOLAN [®] 550 FUD 2x4P LSOH	R7292	Ivory	7,40x14,90	100	1 594	0,443	160

Reel packaging

Type of cable	Length	Drum	Weight loaded drum (kg)
4P	500 m	KL	31
2x4P	500 m	XC	55

Palettes packaging 1200 x 800

Type of cable	Length	Number of drum	Weight loaded palette (kg)
4P	500 m	6	197
4P	500 m	12	380
2x4P	500 m	4	343

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Mechanical characteristics

Bending radius	Dynamic (installation)	≥ 60 mm
	Static (installed)	≥ 30 mm
Temperature range	In service	- 20°C at + 60°C
	At the installation	0°C at + 50°C
	Transport and storage	0°C at + 50°C

Electrical characteristics at 20°C

Complete conductor resistance		≤ 190 Ω / km
Resistance unbalance		≤ 2 %
Dielectric strength	Continuous current 50 Hz	1kV during 1 minute = no breakdown
Insulation resistance	(500 V)	≥ 5000 MΩ . km
Capacitance unbalance	Real-ground	≤ 1600 pF / km
Characteristic impedance	at 100 MHz	100 ± 5 Ω
Velocity	nominal	78 %
Transfer impedance	at 1 MHz	≤ 40 mΩ / m
	at 10 MHz	≤ 40 mΩ / m
	at 30 MHz	≤ 50 mΩ / m
	at 100 MHz	≤ 200 mΩ / m

Transmission characteristics at 20°C (indicatives values not contractual pending of the standardization)

Frequency (MHz)		4	10	20	62.5	100	250	500	550**
Max. attenuat. (dB/100m)	Typical value	3.6	5.6	8	14.2	18.1	28.9	41.2	43.5
	Cat. 6a* (max.)	3.8	5.9	8.4	15	19.1	31.1	45.3	-
Min. Next (dB)	Typical value	71	65	61	53	50	44	40	39
	Cat. 6a* (min.)	66.3	60.3	55.8	48.4	45.3	39.3	34.8	-
PS Next (dB)	Typical value	68	62	58	50	47	41	37	36
	Cat. 6a* (min.)	66.3	60.3	55.8	48.4	45.3	39.3	34.8	-
ELFEXT (dB/100 m)	Typical value	73	65	59	49	45	37	31	30
	Cat. 6a* (min.)	58	50	44	34.1	30	22	16	-
PS ELFEXT (dB/100 m)	Typical value	70	62	56	46	42	34	28	27
	Cat. 6a* (min.)	55	47	41	31.1	27	19	13	-
Return Loss (dB)	Typical value	27	27	27	25.8	25	22	18	17
	Cat. 6a* (min.)	23	25	25	21.5	20.1	17.3	17.3	-
PS ANEXT (dB)	Typical value	85	85	80	75	75	75	75	75
	Cat. 6a* (min.)	76.5	72.5	69.5	64.5	62.5	56.5	52	-

* Category 6a acc. to Draft IEC 61156-5 Ed.2

** For information only