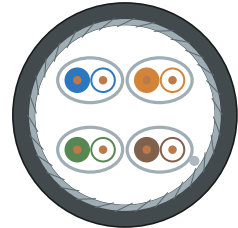


Cat7A+ S/FTP

4 pairs / 22 AWG / LSZH / 1200 MHz



Ø 8 mm approx.

SCHEMATIC / NOT TO SCALE

UPCOM series illustration. Jacket colour and conductor size follow the specification below.

8.00 mm

APPROX. OUTER DIAMETER

67 kg/km

APPROX. CABLE WEIGHT

33 kg/km

COPPER WEIGHT

The Cat7A+ series uses 22 AWG solid copper with individually foil-screened pairs and an overall tinned copper braid. Its specified operating band extends to 1200 MHz; the plus suffix identifies the extended-bandwidth series.

CONSTRUCTION

Conductor	Solid annealed copper, 22 AWG
Insulation	Foam polyethylene (PE); EN 50290-2-23
Core assembly	4 twisted pairs
Pair identification	Colour coded to ANSI/TIA-568
Individual pair screen	Aluminium/polyester foil on each pair
Overall screen	Tinned copper braid
Drain wire	Tinned copper
Outer jacket	Low smoke zero halogen (LSZH); EN 50290-2-27
Jacket colour	RAL 9003 White; other colours on request

APPLICATION

10BASE-T, 100BASE-TX and 1000BASE-T, plus 10GBASE-T. IEEE 802.3af / 802.3at / 802.3bt (Types 1-4).

Link length, connecting hardware and PoE bundle temperature must be checked for the complete installation.

Cat7A+ S/FTP

4 pairs / 22 AWG / LSZH

ELECTRICAL CHARACTERISTICS / 20°C

Conductor resistance at 20°C	< 60 Ω/km	Delay skew	< 25 ns/100 m
Resistance unbalance	< 1%	Operating voltage	72 V
Insulation resistance, 500 V DC / 1 min	> 5000 MΩ·km	Dielectric test, 1 min	1000 V
Mutual capacitance	43 pF/m	Transverse conversion loss (TCL)	Minimum level 2
Capacitance unbalance	1600 pF/km	Coupling attenuation	Type 1
Characteristic impedance at 100 MHz	100 ± 5 Ω	Transfer impedance	Grade 1
Velocity of propagation	78%	Segregation class	d

SELECTED TRANSMISSION CHARACTERISTICS

Frequency MHz	Insertion loss dB / 100 m	NEXT dB	PS NEXT dB	Return loss dB
4	3.5	101	98	30
10	5.4	101	98	33
100	17.5	101	98	33
250	28.5	101	98	28
500	41.8	99	96	26
600	46.3	96	93	25
800	56.9	93	90	24
1000	62	88	85	23
1200	69	85	82	21

Cable reference values over the stated operating band. Channel performance depends on the installed link.

INSTALLATION AND JACKET

Operating temperature	-20°C to +60°C	LSZH-jacketed version for projects specifying low smoke and halogen-free materials. A jacket designation alone does not establish a CPR Euroclass.
Minimum bend radius	8 × D / approx. 64 mm	
D	Actual cable outer diameter	

Flame propagation: IEC/EN 60332-1-2. Smoke: IEC/EN 61034-2. Halogen acid gas and corrosivity: IEC/EN 60754-1 and IEC/EN 60754-2.

Reference specifications: IEC 61156-5, ISO/IEC 11801, EN 50173-1, EN 50288-9-1.

CPR classification and the corresponding Declaration of Performance must be confirmed for the ordered construction.

Cat7A+ is the UPCOM extended-bandwidth series designation.