Cat6A S/FTP Snagless RJ45 Patch Cord

4 Pairs | 26 AWG Copper | 500 MHz | RJ45 to RJ45



1. GENERAL DESCRIPTION

Cat6A S/FTP snagless patch cord is a factory-terminated shielded Ethernet cable for connecting switches, servers, patch panels and wall outlets in data rooms and LANs. It features four twisted pairs of 26 AWG copper conductors, each pair wrapped in aluminium foil, an overall copper braid screen, and shielded RJ45 plugs at both ends with snagless boots that protect the latch and stop the cord catching on other cables. It supports 10/100/1000BASE-T and 10GBASE-T Ethernet; because of the finer 26 AWG conductors, keep patch cord lengths short and follow the channel length limits. Characterised up to 500 MHz.

2. KEY FEATURES

- 26 AWG copper conductors — thin and flexible for dense patching
- Snagless boots protect the plug latch and prevent the cord catching on other cables
- Cat6A performance up to 500 MHz — suitable for 10GBASE-T (10 Gbps) Ethernet
- Individually foiled pairs plus overall braid (S/FTP) — high immunity to interference and crosstalk
- Available in standard lengths from [0.5 m to 10 m]

3. APPLICATIONS

- Connecting switches, routers, patch panels, servers and wall outlets in LAN and data-room cabling
- 10GBASE-T and Gigabit Ethernet links, including electrically noisy environments
- High-density patching in data centers, server racks and telecom rooms
- Patch fields and test benches with frequent plugging and unplugging

4. APPLICABLE STANDARDS

- ANSI/TIA-568.2-D — Category 6A balanced twisted-pair cabling
- ISO/IEC 11801-1 — Class EA generic cabling (Category 6A); IEC 61156-6; IEC 60603-7 (RJ45 plug)
- IEC 60332-1 — Flame propagation (single vertical cable)
- [If LSZH] IEC 60754-1 / -2 — Halogen content and acidity of gases
- [If LSZH] IEC 61034 — Smoke density

5. CABLE CONSTRUCTION

Conductor	[Stranded bare copper, 26 AWG (7 × 0.16 mm)]
Insulation	[Foam-skin / solid polyethylene (PE)]
Pairs	4 twisted pairs, different twist lengths to minimise crosstalk

Pair Colour Code	White-Blue / Blue, White-Orange / Orange, White-Green / Green, White-Brown / Brown
Screening	[Individual Al/PET foil per pair + overall tinned copper braid (S/FTP)]
Separator	[Cross filler]
Connectors	Shielded RJ45 (8P8C) plug at both ends, [metal housing, gold-plated contacts], snagless strain-relief boot; wired straight-through [T568B]
Outer Jacket	[LSZH / PVC] — colour: [Grey / Blue / White]
Marking	CAT6A S/FTP 4P 26AWG [standard]
Length / Packing	[0.5 / 1 / 2 / 3 / 5 m] — individually bagged [and labelled]

Pair colour code

Pair	Conductor 1 (Tip)	Conductor 2 (Ring)
1	White / Blue	Blue
2	White / Orange	Orange
3	White / Green	Green
4	White / Brown	Brown

6. MECHANICAL & ENVIRONMENTAL

Overall Diameter (approx.)	[6.0 ± 0.3 mm]
Min. Bending Radius (installation)	8 × overall diameter
Operating Temperature	[-20 °C to +60 °C]
Installation Temperature	[0 °C to +50 °C]
Flame Retardancy	IEC 60332-1

7. ELECTRICAL CHARACTERISTICS (AT 20 °C)

Characteristic Impedance (1–500 MHz)	[100 Ω ± 15 Ω]
Max. DC Resistance (per conductor)	[≤ 160 Ω/km (16 Ω/100 m)]
Max. DC Resistance Unbalance	5 %
Max. Mutual Capacitance (1 kHz)	[5.6 nF/100 m]
Max. Capacitance Unbalance (pair to ground)	[330 pF/100 m]
Max. Propagation Delay (500 MHz)	[≤ 536 ns/100 m]
Nominal Velocity of Propagation (NVP)	[~ 0.64]
Max. Operating Voltage	[72 V]
Dielectric Strength (DC, 1 min)	[1.0 kV]

8. TRANSMISSION PERFORMANCE (PER 100 M)

Frequency (MHz)	Insertion Loss — max (dB)	NEXT — min (dB)
1	2.1	74.3
4	3.8	65.3
10	5.9	59.3
16	7.5	56.2
31.25	10.5	51.9
62.5	15.0	47.4
100	19.1	44.3
250	31.1	38.3
500	45.3	33.8

9. INSTALLATION & HANDLING GUIDELINES

- Do not exceed the max. pulling tension or the min. bending radius (8 × OD).
- Avoid kinks, sharp bends, crushing and over-tight cable ties — do not exceed the bend radius to keep crosstalk within limits.
- Keep separation from power cables according to local wiring standards (EN 50174-2 / TIA-569).
- Do not pull the cord by the cable; unplug using the plug body and release the latch first.
- Connect only to Cat6A-rated jacks, patch panels and equipment, and ground the screen through shielded connectors, to maintain channel performance.
- 26 AWG patch cords have higher attenuation: keep patch cord lengths short, reduce the permanent link length accordingly, and test the channel with a certified cable tester (Category 6A channel).