COMMSCOPE®

Category 6_A Shielded Patch Panels

CommScope's Category 6_A shielded patch panels meet or exceed channel specifications of ANSI/TIA-568-C.2 Category 6_A and Amendment 1 to ISO/IEC 11801:2002 Class E_A up to 500 MHz when used as a component in a properly installed CommScope 10 GbE F/UTP channel. CommScope's Category 6_A F/UTP System complies with all of the performance requirements for current and proposed applications such as Gigabit Ethernet (1000BASE-Tx), 10/100BASE-Tx, token ring, 155 Mbps ATM, 100 Mbps TP-PMD, ISDN, analog and digital video, analog and digital voice (VoIP), and exceeds all requirements for IEEE 802.3an 10 Gigabit Ethernet on all parameters.

CommScope's 10 GbE shielded patch panels feature patent-pending integrated bonding technology allowing each AMP-TWIST modular jack (included with, but packaged separately from the panel) to be bonded together simply by snapping each jack into the interface housing. Each interface housing accommodates traditional labeling and icons and is front loadable, so installations are easier in tight spaces. Panels are shipped with a 8.5"x11" card stock label sheet. Labels are removable/replaceable and are intended to be secured in the panel by clear, snap-in label covers that are included with each panel. Panels can also accommodate adhesive labels. Best of all, the panels look like standard UTP panels when installed, so your equipment room looks neater and more organized.

CommScope's AMP-TWIST modular jacks have a slim profile and offer universal wiring labels which permit termination to either T568A or T568B wiring patterns. The modular jacks feature a robust, die-cast metal body which creates an integral shield. Cables are dressed at 180° (rear entry) and modular jacks include an integrated lacing fixture for use with the SL Series modular jack termination tool (1725150). The modular jacks contain integrated cutting blades used during termination to eliminate the need to manually trim conductors and to allow all four pairs of a four pair cable to be terminated at one time.

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Specification (text in brackets [ ] requires a choice)

Patch panels shall be **[standard or angled]** foot print, **[1RU, 24-port or 2RU, 48-port]**, and shall accept SL Series form factor modular jacks and inserts. Patch panels shall be configured with front-loadable 6-port modules with individually replaceable ports, and accept optional icons and standard labeling. Each 6-port module shall feature an integrated bonding bar which shall create a continuous ground path for each module. Patch panels shall be supplied unloaded with jacks packaged separately, for termination using CommScope's SL Series Termination Tool (p/n: 1725150). Panels shall accommodate removable/replaceable labels that are secured by snap-in label covers.

Modular jacks shall be unkeyed, 4-pair, RJ-45, with an integrated shield and shall fit in a .790" X .582" opening. Modular jacks shall terminate using CommScope's SL Series modular jack termination tool part number 1725150-3 (or 1725150-1 after removing the tool's lacing fixture), and be color-coded for both T568A and T568B wiring. Each jack shall contain integrated cutting blades to automatically trim conductors during termination. Each modular jack shall be wired to **[T568A or T568B]** and shall accommodate cable with a maximum O.D. of 9.00 mm. The insulation displacement contacts shall be capable of terminating 24-22 AWG solid or 26-24 AWG stranded conductors with a maximum insulation diameter of 1.60 mm. The insulation displacement contacts shall be paired, with additional space between pairs to improve crosstalk performance. Modular jacks shall utilize a secondary PC board, separate from the signal path, for crosstalk compensation. Each modular jack shall meet the ANSI/TIA-568-C.2, Category 6_A performance standards and the requirements listed in the following table.

Channel Performance Characteristics (meet or exceed ANSI/TIA, ISO/IEC and IEEE requirements)

Frequency (MHz)	Insertion Loss (dB)	NEXT (dB)	PSNEXT (dB)	ACRF (dB)	PSACRF (dB)	Return Loss (dB)	Prop Delay (ns/100m)	Prop Delay Skew (ns)	TCL (dB)	ELTCL/ TCTL (dB)	PSANEXT (dB)	PSAACRF/ PSAFEXT (dB)
0.772	2.1	65.0	62.0	65.5	62.5	19.0	585.0	50.0	40.0	32.2	67.0	67.0
1	2.3	65.0	62.0	63.3	60.3	19.0	580.0	50.0	40.0	30.0	67.0	67.0
4	4.2	63.0	60.5	51.2	48.2	19.0	562.0	50.0	40.0	18.0	67.0	65.0
8	5.8	58.2	55.6	45.2	42.2	19.0	556.7	50.0	39.5	11.9	67.0	58.9
10	6.5	56.6	54.0	43.3	40.3	19.0	555.4	50.0	38.0	10.0	67.0	57.0
16	8.2	53.2	50.6	39.2	36.2	18.0	553.0	50.0	34.9	5.9	67.0	52.9
20	9.2	51.6	49.0	37.2	34.2	17.5	552.0	50.0	33.5	4	67.0	51.0
25	10.2	50.0	47.3	35.3	32.3	17.0	551.2	50.0	32.0	2	66.0	49.0
31.25	11.5	48.4	45.7	33.4	30.4	16.5	550.4	50.0	30.4	-	65.1	47.1
62.5	16.4	43.4	40.6	27.3	24.3	14.0	548.6	50.0	24.4	-	62.0	41.1
100	20.9	39.9	37.1	23.3	20.3	12.0	547.6	50.0	20.3	-	60.0	37.0
200	30.1	34.8	31.9	17.2	14.2	9.0	546.5	50.0	14.3	-	55.5	31.0
250	33.9	33.1	30.2	15.3	12.3	8.0	546.3	50.0	12.3	-	54.0	29.0
300	37.4	31.7	28.8	13.7	10.7	7.2	546.1	50.0	10.8	-	52.8	27.5
400	43.6	28.7	25.8	11.2	8.2	6.0	545.8	50.0	8.3	-	51.0	24.9
500	49.3	26.1	23.2	9.28	6.3	6.0	545.6	50.0	6.3	-	49.5	23.0

Modular jacks shall be independently tested for performance to the following specifications:

ANSI/TIA-568-C.2
ISO/IEC 11801:2002/Amd 1:2008
IEEE 802.3an

Patch panels shall be CommScope part number **[1933319-2, 1933320-2, 1933321-2 or 1933322-2]**.

Ordering Information

Description	Panel Form Factor	Port Count	Height	Part Numbers
6_A Shielded Patch Panels	Standard	24	1RU (1.75")	1933319-2
		48	2RU (3.50")	1933320-2
	Angled	24	1RU (1.75")	1933321-2
		48	2RU (3.50")	1933322-2

Technical Details

Materials

Modular Jack and Lacing Fixture Housing: Zinc Alloy

IDC Connecting Block: Polycarbonate, 94V-0 rated

Contacts: Beryllium copper, plated with 1.27µm [50µin] thick gold in localized area and 3.81µm [150µin] minimum thick nickel underplate and 3.8µin minimum thick tin-lead in solder area over 1.27µm minimum thick nickel underplate

Cutting Blade and Shield Point Contact: Stainless Steel

Insulation Displacement Contacts: Phosphorous bronze, plated with 3.81µm [150µin] minimum thick matte tin over 1.27µm [50µin] minimum thick nickel underplate

Connector Housing Interface (6-Pack Module): Polyester molding compound, black

Panel: Steel, black powder coat

Screws: 12-24 x 0.5 in [12.7mm], carbon steel, black, cross recessed
10-32 x 0.5 in [12.7mm], carbon steel, black, cross recessed

Electrical Characteristics

Voltage: 150VAC max.

Operating Temperature: -40° to 70°C (-40° to 158°F)

Mechanical Characteristics

Modular Jack: 750 mating cycles

Insulation Displacement Contacts: Accept solid, 24-22 AWG conductors or stranded 26-24 AWG conductors with a maximum insulation diameter of 1.60 mm

Cutout Opening: See Diagrams below

Cable Outside Diameter: Accepts cables with a maximum O.D. of 9.00 mm

UL Listed

File Number: E81956

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PS-317961.1-AE (11/15)