



Product Data Sheet

Simply45® – CAT6A STP

Description



Simply45® the industry-leading brand for RJ45 modular plug innovation and performance solutions introduces our ProSeries Shielded with External Ground Pass-Through RJ45 Modular Plug, S45-1750P. The uniquely designed and patented Simply45® ProSeries S45-1750P simplifies and improves the terminated plug performance for shielded Cat6/6a LAN cables. The Simply45® ProSeries S45-1750P Pass-Through RJ45 modular plugs are by far the highest performing, easiest to use, and most cost-effective way to professionally terminate Cat6 Shielded STP and Cat6a F/UTP LAN cables.

Simply45® ProSeries introduces the exclusive Cap45® (PATENT: 10,811,831 B1). Cap45® is an isolation cap/bar that snaps onto the front of the pass-through RJ45 plug after termination, covering the exposed wire ends. Cap45® prevents electrical shorting in the RJ45 socket due to improperly trimmed wires or in device sockets that may not be 100% compliant. With Cap45®, any electrical risks associated with exposed wire ends are now eliminated completely.

Cap45® is a must-have for all pass-through RJ45 modular plugs used in commercial and certified system terminations.

Our S45-1750P ProSeries Pass-Through RJ45 modular plugs incorporate the following features:

Two-Piece Plug. We tried all that we could to use a one-piece design, but it proved too difficult to work with during the testing trials. As such, we separated the metal shell shield from the RJ45 body. This allowed us to make additional modifications and the result is a dramatically improved termination process that is faster and easier to use. Separating the plug body from the metal shield allows the large diameter 10G LAN cables to be inserted further into the plug. This is a significant advancement in RJ45 design because this feature improves NEXT performance by reducing the length of untwisted wires inside the plug. Please refer to our Technical Bulletin "It's All About Those Twists" for more information on how this feature raises RJ45 performance.

The S45-1750P supports performance standards: ANSI/TIA 568.2-D for Cat6/6a; ISO/IEC 11801 Class Ea and E. Supports 10GBaseT performance applications over shielded twisted pair cables.

Bar45® Load Bar. The exclusive Simply45® Bar45® are load bars designed to match specific Simply45® RJ45 modular plugs to improve termination performance and SIMPLIFY the termination process. The innovative S45-1750P Bar45® is the easiest to use load bars ever made for larger shielded LAN cables such as Cat6 STP and Cat6a F/UTP with PE insulated wires.



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The S45-1750P Bar45® does several things:

S45-1750P Bar45® is made of materials that provide better signal isolation and substantially reduce the effects of crosstalk inside the RJ45 mod plug. Bar45® absorbs and limits both near-end crosstalk (NEXT) and far-end crosstalk (FEXT), thereby improving cable performance.

The S45-1750P Bar45® is correctly designed to maximize performance for PE insulated LAN cable wire conductors. It has a more traditional load bar design and works similarly to other load bars you may have used. However, the materials we use to create the S45-1750P Bar45® are unique and provide better signal isolation and terminated performance than other load bars on the market. The S45-1750P Bar45® uses a Hi/Lo stagger design that slides down to the LAN cable jacket. This significantly reduces the amount of untwisted wires inside the RJ45 plug.

S45-1750P Bar45® combined with the S45-1750P internal RJ45 design innovations allows the LAN cable itself to be inserted further into the plug, reducing the length of untwisted wires. This symbiotic design of load bar and internal RJ45 plug design helps maintain improved headroom performance and better signal integrity than any other Standard RJ45 solution for larger diameter shielded LAN cables with PE insulated wires.

Works in all compliant RJ45 modular plug sockets. Supports performance standards: ANSI/TIA 568.2-D and ISO/IEC 11801.

Cap45® (PATENT: 10,811,831 B1). Cap45® is an isolation cap/bar that snaps onto the front of the pass-through RJ45 plug after termination, covering the exposed wire ends. Cap45® is fast and easy to use. Fits all compliant RJ45 sockets. With Cap45®, any electrical risks associated with pass-through RJ45 modular plug exposed wire ends are now eliminated completely. Learn more about Cap45® in our ProSeries Product Line discussion. If you don't want to use Cap45®, no problem. It will not affect plug performance. You just won't have the Cap45® benefits.

High/Low Staggered Wire Insert. LAN cable wire conductors are easily inserted into the S45-1750P in a Staggered High/Low wire arrangement out through the front of the RJ45 pass-through modular plug. The S45-1750P is recommended for Cat6/6a shielded LAN cables. It accommodates PE insulated wires. Wire conductor sizes for 23 AWG Solid from 1.10mm to 1.20mm (0.043" - 0.047").

3 Prong Pin Design with 50µ of True 24ct Gold Plating. All Simply45® pass-through RJ45 modular plugs uses only 50µ 24ct gold plated 3-Prong pin design instead of a 2-Prong design as found on most other pass-through RJ45 modular plugs. A 3-Prong pin provides 3 points of contact with the copper wire conductor instead of 2. This improves electrical performance and signal integrity. A 3-prong pin also holds stronger onto the wire conductors.

Improved Crosstalk Performance. The S45-1750P incorporates an exclusive and unique combination of features that work together to improve the Crosstalk performance of the shielded pass-through RJ45 modular plug. No other shielded pass-through RJ45 performs as well as the S45-1750P. These innovative features include a revolutionary plug design, the Bar45® load bar, and Cap45®. The S45-1750P ProSeries plug is a MUST HAVE for terminating shielded Cat6/6a LAN cables.

Commercial Rated. These RJ45 mod plugs are UL94 V0 (IEC 60695-11-10) rated for all commercial installations. These RJ45 mod plugs are recommended for CMP Plenum, CMR, CM; and LSZH up to B2ca rated LAN cables.

Color Tinted RJ45 Modular Plugs. The S45-1750P comes with a Red tint for easy pass-through RJ45 modular plug identification. No more trouble identifying which plug is which. All Simply45® RJ45 modular plugs are color-coded for easy identification.

Wide Mouth Jar for Easy Hand Access. No need to spill RJ45 mod plugs out of the jar just to reach them. Most hands (unless you are "Shrek") can easily reach the last plug in the jar.

Color-Coded Jar Caps. The S45-1750P jar cap is White. This makes it very easy to find the items in your bag or kit. Saves time identifying the RJ45 modular plugs that you need to use.



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UL Listed. The S45-1750P pass-through RJ45 modular plugs are UL Listed and bear the UL Logo on the Simply45® packaging. Only Simply45® provides the UL Listed logo for quality and safety on pass-through RJ45 modular plugs. UL is the strictest 3rd party verification service in the world and products bearing the UL mark represent the highest quality and safety standards.

PoE/PoH Rated. The S45-1750P ProSeries is the BEST shielded Pass-Through RJ45 modular plug for Cat6/6a shielded LAN cables. The S45-1750P is recommended whenever PoE or PoH may be used over shielded Cat6/6a LAN cables. In addition to the correct 3-Prong Pin design; true 24ct gold plated pins; highest quality RJ45 materials used in our pass-through RJ45 plugs; the S45-1750P incorporates a revolutionary plug design, the Bar45® load bar, and Cap45® working together to ensure the lowest resistance and lowest heat build-up of any other shielded pass-through RJ45 for large diameter shielded LAN cables.

Compliant to Industry Standards. ANSI/TIA 568.2-D for Cat6 and Cat6a, 1096-A; ISO/IEC 11801 Class Ea, E; 60603-7; 8877:1992; FCC

Product	SKU
CAT6A STP PASS THROUGH RJ45 PLUG	FA-02-1750

Technical Specification

CAT6A STP Specification

Performance: Meets or Exceeds ANSI/TIA 568-D.2; ISO/IEC 11801 Class D; ANSI/TIA 1096-A; IEC 60603-7	Shielded Material: Hard Brass
Wire Cond(s) OD: 23AWG: 1.10mm - 1.20mm (0.043" - 0.047")	Shielded Plating: 80 Micro-Inch minimum Nickel Plating
Max LAN Cable OD: 8mm (0.315")	Plug Tolerances and Dimensions: Meets ANSI/TIA-1096-A specifications (formerly FCC Part 68)
Supports PoE/PoH: Yes	Conductor Type(s): Solid and Stranded
Cable Fire Resistance Ratings: Commercial Rated, CMP, CMR, CM, CMX, LSZH up to B2ca EuroClass	Operating Temperature: -40° C to +70° C
Flame Autoextinguish: UL94 V0, IEC 60695-11-10	Insertion/Extraction Life: 2000 Minimum Cycles
Contact Material: Phosphor Bronze - .012" thick	Contact Resistance: 20 Milli-Ohms maximum
Contact Plating: Min 50 Micro-Inch Pure Gold - 24 Carat Hard Gold Plate in contact area over 100 Micro-Inch Min	Current/Voltage: 30 VAC/42 VDC at 1.5 Amps
Nickel Plating. Exceeds ANSI/TIA-1096-A specifications (formerly FCC Part 68)	Compliance: UL Listed, RoHS, FCC, NEC
Plug Material: Polycarbonate	