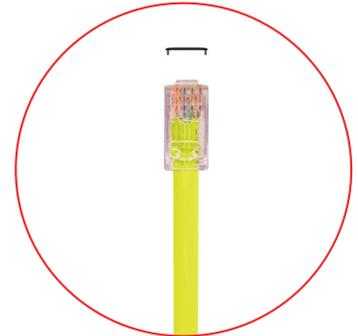
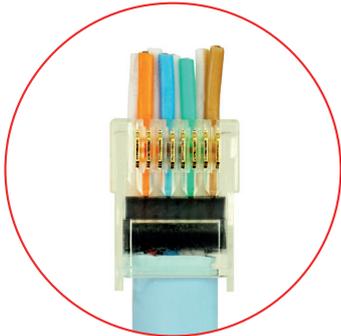




# Product Data Sheet

Simply45® –CAT7A 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, S45-1755P. The uniquely designed and patented Simply45® ProSeries S45-1755P simplifies and improves the terminated plug performance for shielded 10G LAN cables. The Simply45® ProSeries S45-1755P Pass-Through RJ45 modular plugs are by far the highest performing, easiest to use, and most cost-effective way to professionally terminate 10G Shielded and other large diameter shielded LAN cables.

The S45-1755P are IEEE 802.3 10GBase-T compliant and are recommended for shielded 10G LAN Cables Cat7a/7/6a with FPE insulated wires, and Large OD Shielded LAN cables with PE insulated wires such as Cat6 STP and Cat6a F/UTP. These plugs include some unique features that simplify the RJ45 10G termination process and improves the terminated plug performance.

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.

Our S45-1755P 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 S45-1755P supports performance standards: ANSI/TIA 568.2-D for Cat7a/7/6a/6; ISO/IEC 11801 Class F, Ea, and E. Supports 10GBaseT performance applications over shielded twisted pair cables.



# Product Data Sheet

## Simply45® – CAT7A STP

Bar45® Load Bar– Again, we tried everything we could to avoid using a load bar for the shielded pass-through plugs, but without a load bar, we could not achieve the desired IEEE 802.3 10GBASE-T performance levels we were demanding. The uniquely designed Bar45® load bar does 3 things:

1. Bar45® is made of a material that provides better signal isolation improving NEXT performance;
2. Bar45® Improves the signal integrity by reducing the length of open untwisted wires inside the plug;
3. Bar45® is the easiest and fastest load bar to use for 10G LAN cable termination. No more headaches fiddling with the wires trying to get them to fit through the front of the pass-through RJ45 plug. Bar45® makes it so easy. Learn more about Bar45® here.

**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 wires. Accommodates Large Diameter Shielded LAN Cables. The S45-1755P is the perfect RJ45 for large diameter shielded 10G LAN cables such as Cat7a, Cat7, Cat6a with S/FTP, U/FTP, F/FTP, and F/UTP constructions. Also recommended for large diameter shielded Cat6 F/UTP LAN cables. Works with a multitude of jacket materials: PVC, Plenum, LSZH, Extruded, and even PUR. The maximum LAN cable diameter is 8.0mm (0.315").

**High/Low Staggered Wire Insert.** LAN cable wire conductors are easily inserted into the S45-1755P in a Staggered High/Low wire arrangement out through the front of the RJ45 pass-through modular plug. The S45-1755P is recommended for shielded 10G LAN cables and other large diameter shielded LAN cables. It accommodates both FPE (Foam PE) and PE insulated wires. Wire conductor sizes for 23 AWG Solid from 1.15mm to 1.35mm (0.045" - 0.053").

**Accommodates Large Diameter Shielded LAN Cables.** The S45-1755P is the perfect RJ45 for large diameter shielded 10G LAN cables such as Cat7a, Cat7, Cat6a with S/FTP, U/FTP, F/FTP, and F/UTP constructions. Also recommended for large diameter shielded Cat6 F/UTP LAN cables. Works with a multitude of jacket materials: PVC, Plenum, LSZH, Extruded, and even PUR. The maximum LAN cable diameter is 8.0mm (0.315").

**3 Prong Pin Design with 50µ of True 24ct Gold Plating.** All Simply45® pass-through RJ45 modular plugs use 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 S45-1755P 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 S45-1755P. These innovative features include a revolutionary plug design, the Bar45® load bar, and Cap45®. The S45-1755P ProSeries plug is a MUST HAVE for terminating all shielded 10G 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 S45-1755P comes with a Yellow 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.

**Color-Coded Jar Caps.** The S45-1755P jar cap is Yellow matching the color tint of the RJ45 mod plug. This makes it very easy to find to identify the items in your bag or kit. Saves time identifying the RJ45 modular plugs that you need to use.



# Product Data Sheet

## Simply45® – CAT7A STP

UL Listed. The S45-1755P 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 S45-1755P ProSeries is the BEST shielded Pass-Through RJ45 modular plug for 10G and other large diameter shielded LAN cables. The S45-1755P is recommended whenever PoE or PoH may be used over shielded 10G 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 S45-1755P 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 F, Ea, E; 60603-7; 8877:1992; FCC

Product	SKU
CAT7A STP PASS THROUGH RJ45 PLUG	FA-04-9127

## Technical Specification

### CAT7A 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: 1.15mm-1.35mm (0.045"-0.053")	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	