

Part Number: PL-RJAT6

PLANET PL-RJAT6 is a Category 6A shielded angled toolless RJ45 field-termination plug designed for high-performance structured copper cabling in space-constrained installations. The angled cable-exit architecture can be oriented in multiple directions while the metal shield supports 360° screen continuity and the internal IDC system enables termination without a conventional crimping tool.

The PLANET commercial configuration uses 15 µin hard-gold plating on the RJ45 mating contacts as standard, with 30 µin and 50 µin available as optional upgrades. Category 6A / Class EA performance up to 500 MHz and 10GBASE-T are the product targets when installed on compatible shielded cable and verified by appropriate component or channel test evidence.

CAT6A
500 MHz

15 µin
Gold Standard

TOOLLESS
IDC Termination

8 × 45°
Angled Outlet

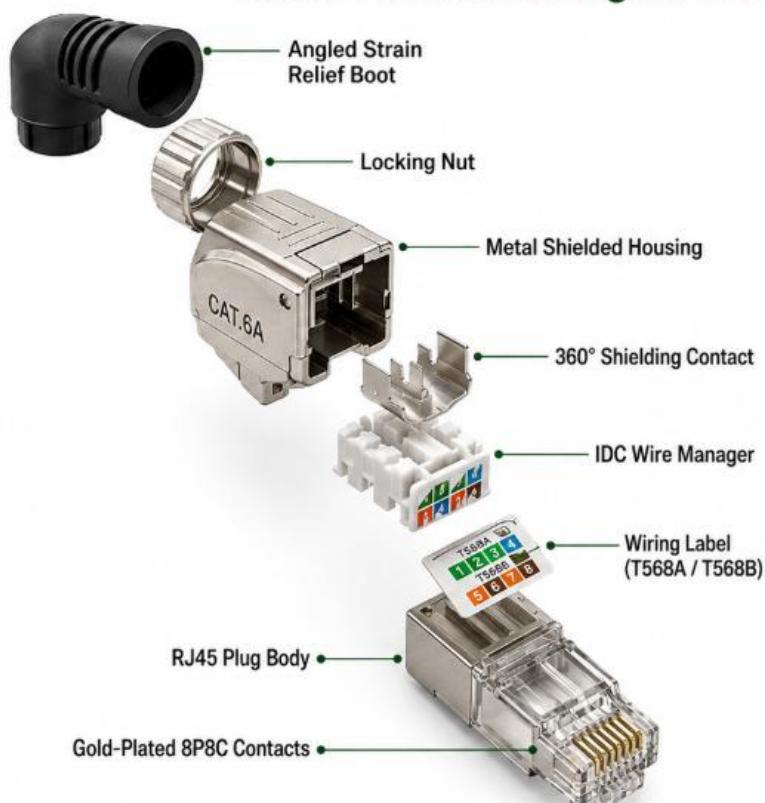
"Angled Installation. Toolless Termination. Cat6A Shielded Performance."

1. General Description

PL-RJAT6 combines an 8P8C shielded RJ45 male interface, color-coded T568A/T568B conductor guide, IDC termination module, shielded metal housing and rotatable angled cable outlet. The termination system is intended for 22-26 AWG solid or stranded shielded four-pair copper cables with typical outer diameters of 6.0-8.2 mm. The cable outlet can be oriented in 8 positions at 45° increments, providing routing flexibility behind equipment, in cabinets and in industrial installations.

CONSTRUCTION

Cat.6A Shielded Angled Toolless RJ45 Plug



Front View

Side View

Top View

2. Construction

Parameter	Specification
Product Type	Category 6A shielded angled toolless RJ45 field-termination plug
Part Number	PL-RJAT6
Interface	RJ45 8P8C male plug, fully shielded
Cable Outlet	Angled / rotatable cable exit; 8 positions at 45° increments
Shielding	Metal shield housing with 360° cable-screen continuity architecture
Contact System	8 phosphor-bronze RJ45 contacts with gold-plated mating area
Gold Contact Plating	15 µin hard gold standard; 30 µin and 50 µin optional
Termination	Toolless IDC termination with color-coded T568A / T568B wiring guide
Cable Compatibility	22-26 AWG solid or stranded shielded cable; typical O.D. 6.0-8.2 mm
Internal Materials	IDC housing: PC, UL94 V-0; PCB: FR-4, UL94 V-0, nominal 1.6 mm

TECHNICAL SPECIFICATIONS

CAT6A ANGLED TOOLLESS RJ45 | PL-RJAT6

3. Electrical Characteristics

Parameter	Specification
Frequency Range	1-500 MHz Category 6A / Class EA engineering target
Ethernet Application	10GBASE-T / 1000BASE-T / 100BASE-TX / 10BASE-T in compliant channels
Characteristic Interface	100 Ω balanced twisted-pair cabling system
RJ45 Contact Resistance	≤ 20 mΩ design / qualification target
Insulation Resistance	≥ 500 MΩ design / qualification target
Shield Continuity	360° conductive cable-screen-to-plug-shell path when correctly terminated
Remote Powering: PoE / PoE+ / 4-Pair PoE subject to qualified cable, contact resistance and installed-channel thermal design	

4. Mechanical Characteristics

Parameter	Value
RJ45 Mating Durability	Minimum 1500 insertions as OEM-family reference; production qualification recommended
IDC Re-Termination	Minimum 250 re-terminations as OEM-family reference
Wire Gauge	22-26 AWG solid or stranded shielded conductors
Cable Outer Diameter	6.0-8.2 mm typical compatibility range
Operating Temperature	-10°C to +60°C reference range

5. Technical Performance

PL-RJAT6 is intended for Category 6A / Class EA shielded applications up to 500 MHz and 10GBASE-T. Installed performance remains dependent on compatible cable construction, conductor preparation, pair untwist, termination quality, shield bonding and the complete channel design. For consultant or tender submissions, production samples should be supported by applicable transmission test evidence.

Performance Item	Requirement	Performance Item	Requirement	Application	Requirement	Status
Frequency	1-500 MHz target	Insertion Loss / NEXT	Cat6A compliant when verified	10GBASE-T	Supported	Target
Shield Continuity	End-to-end conductive path	Return Loss	Cat6A compliant when verified	1000BASE-T	Supported	Baseline
Cable Exit	8 positions × 45°	Alien Crosstalk / Balance	Project test evidence required	PoE / PoE+ / 4PPoE	Supported*	Application
Wire Map	T568A / T568B	Contact Continuity	100% production test recommended	Toolless Termination	Supported	QA

* Remote-power capability depends on the complete installed channel, conductor size, contact resistance, cable bundle temperature and applicable PoE thermal limits. ** Higher durability and plating configurations should be supported by production qualification evidence.

APPLICATIONS, FEATURES & COMPLIANCE	PL-RJAT6 CAT6A SHIELDED ANGLED TOOLLESS RJ45
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6. Applications

- 10GBASE-T enterprise and data-center copper links
- Industrial Ethernet and field-terminated equipment connections
- High-density cabinets, patching zones and space-constrained outlets
- IP CCTV, wireless access points, access control and building systems
- Shielded Cat6A F/UTP, U/FTP or S/FTP cable assemblies subject to dimensional compatibility
- Equipment connections requiring an angled or rotatable cable exit
- PoE / PoE+ / 4-Pair PoE applications when the installed channel is qualified

7. Transmission & Shielding Performance

- Category 6A / Class EA engineering target up to 500 MHz
- Supports 10GBASE-T, 1000BASE-T, 100BASE-TX and 10BASE-T applications in a compliant channel
- 360° shield continuity architecture for properly prepared and bonded shielded cable
- Angled 8-position cable exit assists bend-radius control and cable management in tight spaces

8. Key Features

- Cat6A shielded 8P8C RJ45 field-termination plug with angled cable outlet
- 15 µin hard-gold mating contact plating as standard
- 30 µin and 50 µin hard-gold plating available as optional upgrades
- Toolless IDC termination with T568A / T568B color-coded wiring guide
- Accepts 22-26 AWG solid and stranded shielded conductors; typical cable O.D. 6.0-8.2 mm
- Rotatable cable outlet: 8 positions at 45° increments
- Metal-shielded housing and internal shield contact for EMI/RFI continuity

9. Standards Compliance

Standard / Certification	Status
ANSI/TIA-568.2-E	Category 6A balanced twisted-pair component/channel reference
ISO/IEC 11801-1	Class EA generic cabling system reference
EN 50173-1	European generic cabling reference for Class EA applications
IEC 60603-7-51	8-way shielded connector reference for Category 6A up to 500 MHz
IEEE 802.3an / 802.3af / 802.3at / 802.3bt	10GBASE-T and remote-power application references
RoHS / REACH	Subject to applicable production declaration

QUALITY, OPTIONS & WARRANTY	PL-RJAT6 CAT6A ANGLED TOOLLESS RJ45 PLUG
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10. Quality Assurance

Manufactured under controlled quality procedures to ensure:

- Consistent IDC contact geometry, RJ45 pin alignment and housing closure
- Reliable 360° shield contact and angled cable-retention mechanism
- Controlled gold-plating thickness according to the ordered configuration

Validation: Production inspection should include 100% wire-map and continuity testing, shield-continuity verification, contact and IDC inspection, housing/rotation checks, cable-retention checks, plating-thickness verification and representative Category 6A transmission testing. Test reports should be available when required by the consultant or project specification.

11. Gold Plating & Product Options

- Standard RJ45 mating contact plating: 15 µin (0.38 µm) hard gold over nickel
- Optional RJ45 mating contact plating: 30 µin (0.76 µm) hard gold over nickel
- Premium RJ45 mating contact plating: 50 µin (1.27 µm) hard gold over nickel
- Cable O.D., wire-gauge range, strain-relief geometry and durability qualification are subject to the approved production configuration and test evidence

12. Warranty

25-Year System Warranty

Subject to proper installation, use of approved PLANET system components and applicable warranty terms.

Packing 1pc / PE bag

BOX	50 PCS
Carton	500 PCS