

Part Number:

PL-KE6AUTL



FEATURES

- Category 6A UTP unshielded toolless keystone jack, 180° cable entry, specified for 1 to 500 MHz.
- Supports T568A and T568B wiring with a color-coded IDC termination cap.
- Toolless termination provides strain relief, bend-radius control and secure cable retention; the IDC profile is 110-compatible only where permitted by the approved installation instruction.
- Accepts 23&24 AWG solid or stranded copper conductors ; CCA and CCS conductors are not accepted. Conductor construction and insulation diameter shall follow the approved production drawing.
- High-impact polycarbonate housing with UL 94 V-0 material flammability rating.
- RJ45 mating contacts use nickel underplate and gold plating: 15 microinch standard; 30 or 50 microinch optional.
- Minimum 750 plug insertion/removal cycles and lead-free, RoHS-compliant IDC finish.
- Category 6A transmission performance, including applicable alien-crosstalk requirements, shall be confirmed for the released PL-KE6AUTL configuration by a component report through 500 MHz.

APPLICATIONS

- 10GBASE-T, 5GBASE-T and 2.5GBASE-T Ethernet over a compliant complete Category 6A channel
- 1000BASE-T, 100BASE-TX and 10BASE-T Ethernet
- Voice and IP telephony
- IEEE 802.3 remote-powering applications subject to released connector and complete-channel verification

REFERENCE STANDARDS

- ANSI/TIA-568.2-E - Category 6A balanced twisted-pair cabling and components
- ISO/IEC 11801-1:2017 (including Amd 1:2025 and its Cor 1:2025) - Category 6A / Class EA
- EN 50173-1:2018 - Category 6A / Class EA generic cabling
- IEC 60603-7-41:2010 - Unshielded 8-way connectors up to 500 MHz
- IEEE 802.3-2022 - Ethernet and remote-powering application compatibility
- IEC 60512-99-002:2022 + Amd 1:2025 - PoE unmating endurance under electrical load

GOLD PLATING CONFIGURATION

STANDARD	OPTION	OPTION
15 microinch 0.38 micrometre	30 microinch 0.76 micrometre	50 microinch 1.27 micrometre

CHARACTERISTICS

Property	Specification
Category / bandwidth	Category 6A connecting hardware; 1-500 MHz; unshielded U/UTP channel use
RJ45 housing	High-impact polycarbonate (PC), UL 94 V-0 material rating
IDC cap / housing	High-impact polycarbonate (PC), UL 94 V-0 material rating
RJ45 contact material	Phosphor bronze with 50-60 microinch (1.27-1.52 micrometre) nickel underplate
Gold-plated contact area	RJ45 mating-contact area only: minimum 3 mm contact length; 15 microinch (0.38 micrometre) gold standard
Optional gold plating	RJ45 mating-contact area: 30 microinch (0.76 micrometre) or 50 microinch (1.27 micrometre), available as options
IDC terminal	Phosphor bronze, nickel underplate and lead-free tin finish; 110-compatible IDC profile subject to the approved installation instruction
Cable compatibility	23&24 AWG solid or stranded copper conductors ; CCA/CCS excluded; construction and insulation diameter per approved production drawing
Wiring scheme	T568A and T568B color coding
Insertion force	Maximum 8.8 N (approximately 900 gf) for 8 contacts
Plug retention	Minimum 75.5 N (approximately 7.7 kgf) between jack and compatible plug
Operating temperature	-30°C to +70°C
RJ45 durability	Minimum 750 mating cycles; contact resistance checked at defined test intervals
IDC durability	Permitted retermination cycles and conductor-reuse limitations shall be stated in the released qualification report and installation instruction
Component qualification	Independent component report to ANSI/TIA-568.2-E and IEC 60603-7-41 through 500 MHz; test setup, samples, limits and PASS margins identified
Electrical verification	Released report shall state rated voltage/current and measured contact-resistance, insulation-resistance and dielectric-strength results
Environmental	RoHS-compliant materials; lead-free IDC plating

GOLD PLATING CONFIGURATION

STANDARD 15 microinch 0.38 micrometre	OPTION 30 microinch 0.76 micrometre	OPTION 50 microinch 1.27 micrometre
---	---	---

MANDATORY CAT.6A CABLE / LINK VALIDATION

Complete-cable / installed-link check	Required record
DC loop resistance	Maximum 18.76 ohm/100 m at 20°C (9.38 ohm/100 m per conductor)
Mutual capacitance	Maximum 5.6 nF/100 m at 1 kHz
Propagation delay	Maximum 538 ns/100 m; record measurement frequency and test configuration
Delay skew	Maximum 45 ns/100 m

PL-KE6AUTL RELEASE CONTROLS

Control	Required release evidence
Transmission performance	Independent component report through 500 MHz covering insertion loss, return loss, NEXT, FEXT/ACR-F, TCL/TCTL and applicable power-sum alien-crosstalk parameters; identify test setup, samples, limits and worst-case PASS margins.
Electrical integrity	Released electrical report shall state contact resistance, insulation resistance, dielectric strength and rated voltage/current using identified test methods.
Cable / termination interface	Approved drawing shall define the permitted 24 AWG solid/stranded copper construction, conductor and insulation diameters, preparation method, strain relief and cable-retention range; CCA/CCS are excluded.
Mechanical qualification	Released evidence shall identify keystone dimensions, tolerances, faceplate/patch-panel compatibility, mating durability, retermination limits and post-cycle acceptance criteria.
Remote powering	Where PoE is claimed, verify resistance unbalance, current-carrying capacity, temperature rise and unmating under electrical load for the released connector and complete channel.
Ordering traceability	Ordering codes, drawings and reports shall distinguish the standard 15 microinch contact finish from the optional 30 and 50 microinch versions.

COMPLIANCE NOTES

- Gold thickness applies to the RJ45 mating-contact area only; the IDC uses a separate lead-free tin finish over nickel.
- 10GBASE-T, 5GBASE-T, 2.5GBASE-T and PoE application support depends on the validated complete installed channel and is not a standalone keystone rating.
- PoE support shall be confirmed by resistance-unbalance, current-carrying, temperature-rise and loaded-unmating evidence for the released connector and complete channel.
- UL 94 V-0 identifies the flammability rating of the plastic material; it does not by itself represent a UL product listing.
- Category 6A compliance applies only to the released PL-KE6AUTL construction represented by the approved drawing and matching test report.

PERFORMANCE DOCUMENTATION: Detailed electrical performance test reports and compliance documentation for the released product configuration are available upon request.

Packing 1pc / PE bag

BOX	50 PCS
Carton	500 PCS