

Ethernet: identity, link and PoE

22 October 2026 / Revision 2 / AI-assisted source reference; no independent review or hardware validation

Treat modular form, port service, data path and power roles as separate checks. A cable category marking is not a declaration about an unknown port.

8P8C / port service	An eight-position/eight-contact modular outline can appear on a serial console cable as well as Ethernet equipment. [S020, S021]
Cable / complete link	Check exact cable and intervening equipment limits; a named injector can constrain an otherwise faster endpoint path. [S124, S131]
Data / power direction	Ethernet data travels both ways; PoE separates power-sourcing equipment (PSE) and powered device (PD) roles. [S131, S132]
Documented PoE scope	The existing worksheet models af/at and selected profiles only. A shared reference standard is not actual hardware confirmation. [S131, S132]
Standards / proprietary power	Connector shape or the word PoE cannot establish standards-based powering or exact-product certification. [S646]
Injector topology	The cited TL-POE160S has a particular data-in versus power-plus-data-out arrangement. Read the actual model diagram. [S124, S131]

CHECK THE COMPLETE TASK

1. Read device model and exact port label/function. Distinguish console, data input, data-plus-power output and other documented roles.
2. Record required link task, cable identity/termination and every intervening component. Treat category and nominal link rates as separate evidence.
3. If power is needed, obtain exact PSE/PD and powering-method documentation plus source/device requirements and the complete path.

STOP CONDITION

Do not apply power to an unidentified modular jack. Unknown port service, proprietary powering or an absent role mapping is a stop for a compatibility conclusion.

Conceptual comparisons only: no photographs, contact-position maps, measured mating geometry or actual-size templates.

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SOURCE TRAIL: EXACT ORIGINAL SCOPE

S020 / TE Connectivity

RJ45 connectors
RJ45 / 8-position modular product family
[Open original: www.te.com](http://www.te.com)
Recorded inspection: 2026-10-01

S021 / Cable Matters

USB to RJ45 FTDI console cable
Console cable description
[Open original: www.cablematters.com](http://www.cablematters.com)
Recorded inspection: 2026-10-01

S124 / TP-Link

TL-POE160S version 2.6 product specifications
Interface / PoE power / Product diagram labels in accessible text
[Open original: www.tp-link.com](http://www.tp-link.com)
Recorded inspection: 2026-10-03

EVIDENCE NOTE: RETAIN THE EXACT MODEL AND SOURCE

Exact equipment + port roles:

Data target / power needed?:

S131 / Ubiquiti

Intro to Networking: Power Over Ethernet
PSE and PD terminology / Active and passive PoE
[Open original: help.ui.com](http://help.ui.com)
Recorded inspection: 2026-10-03

S132 / Ubiquiti

PoE Availability and Modes
PoE Modes: Type 1 and 2 / Lite family / Physical Security consumption
[Open original: help.ui.com](http://help.ui.com)
Recorded inspection: 2026-10-03

S646 / Ethernet Alliance

Q&A: The State of the Power over Ethernet Market
Questions 1, 6, 7; IEEE standards-based PoE, proprietary solutions and certification
[Open original: ethernetalliance.org](http://ethernetalliance.org)
Recorded inspection: 2026-10-15

Cable + intervening component models:

PSE / PD / supported standard + missing evidence:

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