Power look-alikes: stop and verify

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

A similar shell, contact count or apparent fit does not establish the power role, voltage, polarity, cable mapping or exact equipment support.

Barrel 2.1 / 2.5 mm	Outer diameter, inner bore and exposed mating length are separate. A 5.5 mm outer size does not determine the bore or electrical requirements. [S031, S484]
EPS / PCIe eight-pin	Documented EPS 4+4 and PCIe 6+2 examples have different roles. A motherboard can also have a PCIe-power input. [S474]
Modular PSU cable	Match the exact PSU model/cable family and component instructions. The wrong modular cable type can damage hardware. [S489]
16-contact GPU power	Generic twelve-power/four-sideband appearance does not establish header revision, cable rating or complete seating. Board-header and cable-housing roles differ. [S280, S561]
12 V RGB / 5 V ARGB	The documented MSI JRGB and JRAINBOW examples differ in voltage and pin form. A 5 V strip on a 12 V header can be damaged. [S458]

CHECK THE COMPLETE TASK

1. Read exact device, supply/PSU and cable identities. Retain manufacturer labels, model/revision and the supported connection class.

2. For barrel power, obtain exact geometry and device/supply voltage, polarity and current requirements. Do not substitute overall body length for exposed mating length.

3. For internal power, use exact board/GPU/PSU documentation and the maker cable-compatibility list. Keep qualified housing/header views and revision limits.

STOP CONDITION

Do not energize, trial-fit, repin or modify a cable to resolve an unknown. Unresolved identity, electrical requirements, cable mapping or technical qualification remains a stop.

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

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SOURCE TRAIL: EXACT ORIGINAL SCOPE

S031 / CUI

Selecting appropriate input and output plugs

Barrel connector section only

Open original: www.cui.com

Recorded inspection: 2026-10-01

S484 / Tensility

55-00050 DC plug drawing, revision A6

Sheet 1: assembled view, 5.5 outer / 2.5 bore / 12 barrel labels and component breakdown. PDF screenshot inspected.

Open original: tensility.s3.us-west-2.amazonaws.com

Recorded inspection: 2026-10-11

S474 / CORSAIR

Which PSU cables go where? - EPS and PCIe sections

4-pin ATX12V / 8-pin EPS12V and 6-pin / 6+2-pin PCIe sections. Text inspected; linked product images could not be retrieved.

Open original: www.corsair.com

Recorded inspection: 2026-10-11

S489 / CORSAIR

PSU cable compatibility - Type 3/4 versus Type 5 warning

Disclaimer item 3; cable-type headings. The model chart icon cells are not interpreted.

Open original: www.corsair.com

Recorded inspection: 2026-10-11

S280 / Molex

Micro-Fit+ PCIe CEM5 12V-2x6 header

Part details and PCIe CEM5 12V2x6 product specification

Open original: www.molex.com

Recorded inspection: 2026-10-06

S561 / Intel

Intel ATX12VO Design Guide revision 2.11 - role and generation boundaries

Revision 2.11 / May 2024. Printed pages 17, 58, 59 and 63 visually inspected; page 63 special note compares 12V-2x6 and earlier 12VHPWR.

Open original: cdrdv2-public.intel.com

Recorded inspection: 2026-10-12

S458 / MSI

Installation method for JRGB and JRAINBOW connectors on MSI motherboards

JRGB connector; JRAINBOW connector; warning on voltage mismatch; motherboard manual check

Open original: www.msi.com

Recorded inspection: 2026-10-09

S162 / Raspberry Pi

27W USB-C Power Supply - product specification

Introduction; Specification

Open original: www.raspberrypi.com

Recorded inspection: 2026-10-03

EVIDENCE NOTE: RETAIN THE EXACT MODEL AND SOURCE

Device / PSU / supply model + revision:

Exact cable / connector part + role:

Manufacturer requirements and matching evidence:

Unknown fields / qualified next review:

Inherited scoped research reused; not every source was reopened for this sheet. No source artwork, logos or full manuals are redistributed. Missing or unverified fields remain unresolved. No independent review or hardware validation.