

PD Power Classification and Usage

Class	Usage	Range of Maximum Power Used	Class Description
0	Default	0.44 W to 12.95 W	Class unimplemented
1	Optional	0.44 W to 3.84 W	Very low power
2	Optional	3.84 W to 6.49 W	Low power
3	Optional	6.49 W to 12.95 W	Mid power
4	Type 2 devices	12.95 W to 25.5 W	High power

PD: Powered Devices

PD Classification Signature

Parameter	Conditions	Minimum	Maximum	Unit
Class 0	14.5 V to 20.5 V	0	4	mA (milliampere)
Class 1	14.5 V to 20.5 V	9	12	mA
Class 2	14.5 V to 20.5 V	17	20	mA
Class 3	14.5 V to 20.5 V	26	30	mA
Class 4	14.5 V to 20.5 V	36	44	mA

Power over Ethernet (PoE) Standards

Ratified Ammendment	IEEE Std	Clause
IEEE 802.3af-2003	IEEE Std 802.3-2005	33
IEEE 802.3at-2009	IEEE Std 802.3-2012	33

PSE Pinout Alternatives

Conductor	Alternative A (MDI-X)	Alternative A (MDI)	Alternative B (all)
1	Negative voltage	Positive voltage	
2	Negative voltage	Positive voltage	
3	Positive voltage	Negative voltage	
4			Positive voltage
5			Positive voltage
6	Positive voltage	Negative voltage	
7			Negative voltage
8			Negative voltage

PSE: Power Sourcing Equipment

Wi-Fi Alliance Certifications

Wi-Fi CERTIFIED n	Voice-Personal
Wi-Fi CERTIFIED ac	Wi-Fi Aware
Wi-Fi Direct	Wi-Fi Location
Wi-Fi CERTIFIED WiGig	Wi-Fi Agile Multiband
WPA2 (Wi-Fi Protected Access 2)	Wi-Fi TimeSync
Passpoint	Wi-Fi Vantage
Wi-Fi Protected Setup	WMM (Wi-Fi Multimedia)
Miracast	WMM-Power Save
Voice-Enterprise	

Security Standards

802.11 Standard	Wi-Fi Alliance Certification	Authentication Method	Encryption Method	Cipher	Key Generation
802.11 legacy		Open System or Shared Key	WEP	RC4	Static
802.11-2012 (RSN)	WPA-Personal	WPA PSK (Preshared Key)	TKIP	RC4	Dynamic
	WPA-Enterprise	802.1X/EAP	TKIP	RC4	Dynamic
	WPA2-Personal	WPA2 PSK (Preshared Key)	CCMP (mandatory) TKIP (optional)	AES (mandatory) RC4 (optional)	Dynamic
	WPA2-Enterprise	802.1X/EAP	CCMP (mandatory) TKIP (optional)	AES (mandatory) RC4 (optional)	Dynamic

Types of PSE

	Endpoint PSE		Midspan PSE	
	802.11af	802.11at	802.11af	802.11at
Alternative A	✓	✓		✓
Alternative B	✓	✓	✓	✓

PSE Power

Class	Minimum Power from the PSE
0	15.4 W
1	4.0 W
2	7.0 W
3	15.4 W
4	30.0 W