

TSW304 Powering Options

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This chapter contains information on powering options supported by TSW304 switch.

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The switch has a 2 pin power socket and can be powered by a 7-57 VDC and 9-40 VAC power supply unit (PSU). Refer to the image below for the power socket's pinout information:

Power socket

2 pin power socket

The power socket is bipolar.



If you decide not to use the standard 50 VDC power supply unit and want to power the device with other voltages (7-57 VDC or 9-40 VAC), please make sure that you choose a power supply of high quality. Some power supplies can produce voltage peaks significantly higher than the declared output voltage, especially during connection and disconnection.

While the device is designed to accept input voltage of up to 57 VDC or 40 VAC peaks, high voltage power supplies can harm the device. If you want to use high voltage power supplies it is recommended to also use additional safety equipment to suppress voltage peaks from the power supply.

Passive PoE


The device may also be powered by an Ethernet cable via the **LAN1** port:
(Do not use in other ports!)



- The device is **NOT COMPLIANT** with the IEEE 802.3af-2003 standard: powering the device from an IEEE 802.3af-2003 power supply **will damage the device** as it is not rated for input voltages of the PoE standard.
- The device is **NOT COMPLIANT** with the IEEE 802.3at standard: it cannot power other

devices over Ethernet.

RJ45 pinout:

10/100		RJ45 pinout:		Pins on plug face (socket is reversed)
Pin mode B, DC on spares	T568A Color	T568B Color		
1	TX+	white/green stripe	white/orange stripe	
2	TX-	green solid	orange solid	
3	RX+	white/orange stripe	white/green stripe	
4	DC+ 9-30 VDC	blue solid	blue solid	
5	DC+ 9-30 VDC	white/blue stripe	white/blue stripe	
6	RX-	orange solid	green solid	
7	DC-	white/brown stripe	white/brown stripe	
8	DC-	brown solid	brown solid	

Ground loops

Do not connect the power supply negative terminal of our device to the chassis or earth exclusively.

This connection could cause ground loops. For example, if the antenna shield and power supply negative terminal are connected to the chassis or earth, it forms a ground loop, therefore unwanted current could flow through a device PCB ground and may cause damage.

In networking switches connecting our device power supply negative terminal to the chassis or earth could cause damage to other devices connected to the switch or unintentional power up of other devices.

