OUTCLASS

Power over Ethernet class and power correction

The adaptor may be used to make the following PoE devices Class 2 IEEE 802.3af compatible:

- Non-compliant devices, such as most 48V always-on implementations
- Partly-compliant devices, such as spare pair-only implementations
- IEEE compliant devices that do not implement power classification

OUTCLASS is a simple passive adapter which corrects problems that are frequently found with Power over Ethernet powered devices. It gives low-power devices a Class 2 signature to solve power budgeting issues, and can be used to modify or upgrade legacy devices to meet the IEEE 802.3af standard.

Power over Ethernet (PoE) equipment that adheres to the IEEE 802.3af standard fall into different "Power Classes" according to how much electrical power they require to operate. Many IP cameras and other PoE devices draw under 6 watts of power, but do not use classification (they are "Class 0"). This means that PoE switches or injectors cannot tell how much power is required by the camera, so they must reserve around 15 watts of their total power budget for it.

OUTCLASS gives these devices a Class 2 PoE signature, telling the PoE source that under 6.5 watts of PoE power is required. This allows it to enable more devices with the power it has available.

IEEE 802.3af compliant PoE-powered devices must be capable of receiving their electrical power on either the "spare" or "data" pairs of their Cat 5 or similar network cable. However some devices will only receive spare-pair power. OUTCLASS routes the PoE power to the spare pairs of the network cable, allowing such devices to be used with all IEEE-compliant PoE sources.

Some PoE-powered devices are not IEEE-compliant and require "always-on" or "dumb" PoE injection. OUTCLASS gives these devices a PoE signature and power class (class 2 as standard), allowing them to be used safely with regular IEEE 802.3af/at switches and midspan injectors.

SPECIFICATION

Power in:	IEEE 802.3af Class 2 powered device
Power out:	37-55V (nominal 48V) on spare pairs Pin 4,5 - positive Pin 7,8 - negative Device power 0.5W to 6.0W
Network:	Transparent to 10BASE-T / 100BASE-TX Ethernet
Dimensions:	55 x 19 x 22mm (2.15 x 0.75 x 0.85in) 30g (1.05oz)

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