



PRESS RELEASE

High Efficiency Transformers for Power over Ethernet (PoE) Applications available Off-the-Shelf

Focus EDL announces a series of high efficiency, small footprint, off-the-shelf power transformers for powered device (PD) side Power over Ethernet (PoE) products that meet IEEE standard 802.3af. Produced by Pulse, the parts are approved for use with many of the most popular PoE ICs and are available in standard output voltages from 3.3V to 12V.

Applications include Voice over Internet Protocol (VoIP) phones, security cameras, web cameras, wireless routers, gaming machines, retail point of information systems, building access control systems, and battery chargers for mobile phones and PDAs.

The PoE series consists of 22 powered device side PoE transformers for 3, 7 and 13W output power levels. The Pulse transformers have 50 percent lower leakage than other PoE power transformers, reducing the need for inefficient snubber circuits and increasing overall power supply efficiency. Power supply efficiency is crucial for PoE applications because limited input power is available over the Ethernet cable. Higher efficiency transformers directly increase the amount of power that can be delivered to the powered device.

Pulse has designed 3.3V, 5.0V, and 12.0V output voltage transformers at each of the three power levels. Three sizes of power transformers and three output voltage levels for each power class allow designers to select the smallest and most efficient package for the class of PoE device they are designing and to use standard, off-the-shelf components.

The transformers are designed for continuous mode flyback topologies operating between 200 and 400kHz. This topology has been chosen by all the major power IC vendors because it is the least expensive and produces 90%+ efficiency. The 1500Vrms isolation between primary and secondary windings meets the isolation voltage specification for PoE applications as defined in the IEEE 802.af standard. Each transformer has a primary side auxiliary winding to supply input power to the power IC, further reducing power loss.