

Product Training Module: SPoE (Power Over Ethernet) Surface Mount Transformers **Introduction**

- Purpose:
 - To introduce Signal Transformer's **Power Over Ethernet Surface Mount Transformer Series (SPoE)**
- Objectives:
 - Explain the benefits of the SPoE Series in various applications
 - Highlight the standard platforms and specifications designed into the SPoE Series
 - Explore where the SPoE Series are used
- Size: 7 Pages
- Duration: 8 minutes

Product Training Module: SPoE (Power Over Ethernet) Surface Mount Transformers Overview

Signal's latest product innovation for Power Over Ethernet (PoE) applications is the **SPoE Surface Mount Transformer Series**.

SPoE is a new product for equipment or devices which are connecting to an Ethernet network and rely on ethernet cables to receive power and digital data signals for operation and processing, respectively.

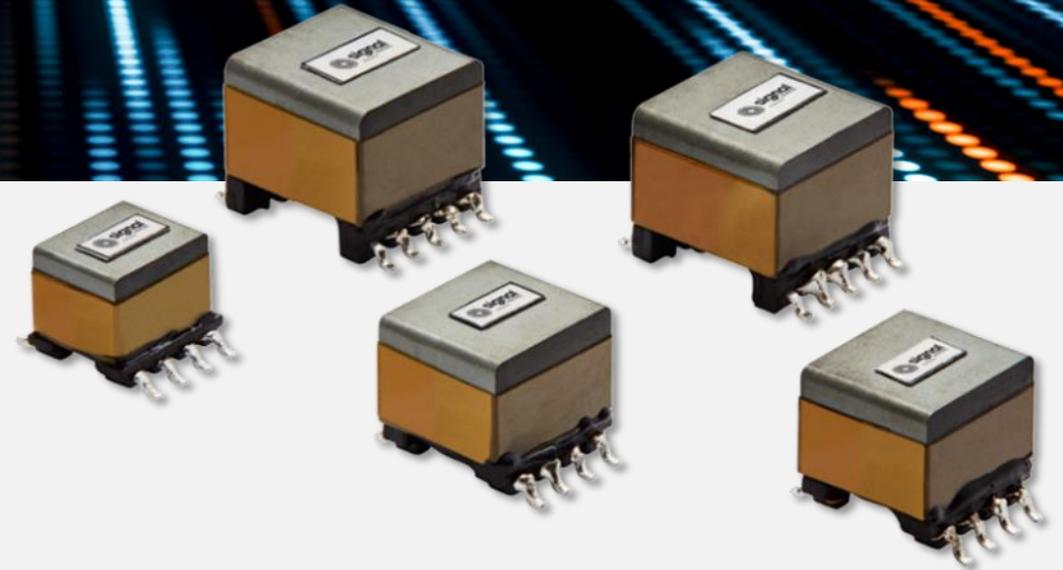
PoE transformers are also used in conjunction with other circuitry within the equipment for isolation and splitting the two power/digital signals. Specific applications include IP phones, WLAN access points, smart home appliances and smart LED lighting, healthcare and other connected security cameras, wireless data systems, information displays, as well as PoE switchers, extenders, splitters and injectors.



Product Training Module: SPoE (Power Over Ethernet) Surface Mount Transformers

Key Features

- Optimized for High Density Boards
- Standard SMT Platforms – EP7, EP10 & EP13 (8, 10 & 13 Pin Surface Mount)
- Flyback Circuit Topology
- Isolation & Data Interface Transformer Type
- Low Leakage Inductance
- Operating Temperature Range: -40°C to +125°C
- REACH & RoHS Compliant



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Technical Specifications

- Power Range: 3W to 27W
- Five Power Levels – 3, 7, 10, 13 & 27W
- Input Voltage Range from 9V – 57V
- Vout: 3.3V to 15.0V
- 250 KHz Operating Switching Frequency
- Primary to Secondary Isolation; 1500Vrms Operational



Product Training Module: SPoE (Power Over Ethernet) Surface Mount Transformers Photo Gallery

**EP7
3W**



Part #: POE3-1212

**EP10
7W**



Part #: POE3-0508

**EP10
10W**



Part #: POE13-3308

**EP13
13-27W**



Part #: POE27-1512

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Applications



**PoE Switchers,
Extenders,
Splitters &
Injectors**



**VoIP
Phones**



IP Cameras



**Wireless
Access
Points**



**IPTV
Decoders**



**Network
Routers**

Product Training Module: SPoE (Power Over Ethernet) Surface Mount Transformers Markets

Commercial



Industrial



LED
Lighting



Smart
Home



Smart
Office



Healthcare
Environment



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Summary

Signal Transformer's new line of **SPoE Series** surface mount transformers are used for isolation and splitting two power/digital signals. Applications for this series include PoE switchers, extenders, splitters and injectors, VoIP phones, IP cameras, wireless access points, IPTV decoders and network routers.

They are designed to connect to an Ethernet network and rely on ethernet cables to receive power and digital data signals for operation and processing, respectively.