



# STEVAL-TSP001V1

## Power over Ethernet (PoE) demonstration board based on the L6565

Data Brief

### Features

- Low profile, small size: 5" x 1.5" x 0.65" (0.5" except RJ-45 Ethernet connectors)
- Complies with all IEEE 802.3-2005 (IEEE 802.3af) PoE specifications
- Respects source limitations
- Does not pollute power source
- 1500 V isolated outputs eliminate ground loops
- Economical output power (total power at output approximately 10 W)
- Useful output voltages
  - 12 V @0.65 A output (7.8 W, loose tolerance)
  - 3.3 V @0.65 A output (2.145 W, tight tolerance)
- Increased cost-effectiveness due to SMT construction (through-hole connectors for ruggedness)



could be used to supply the power without requiring DC-DC conversion.

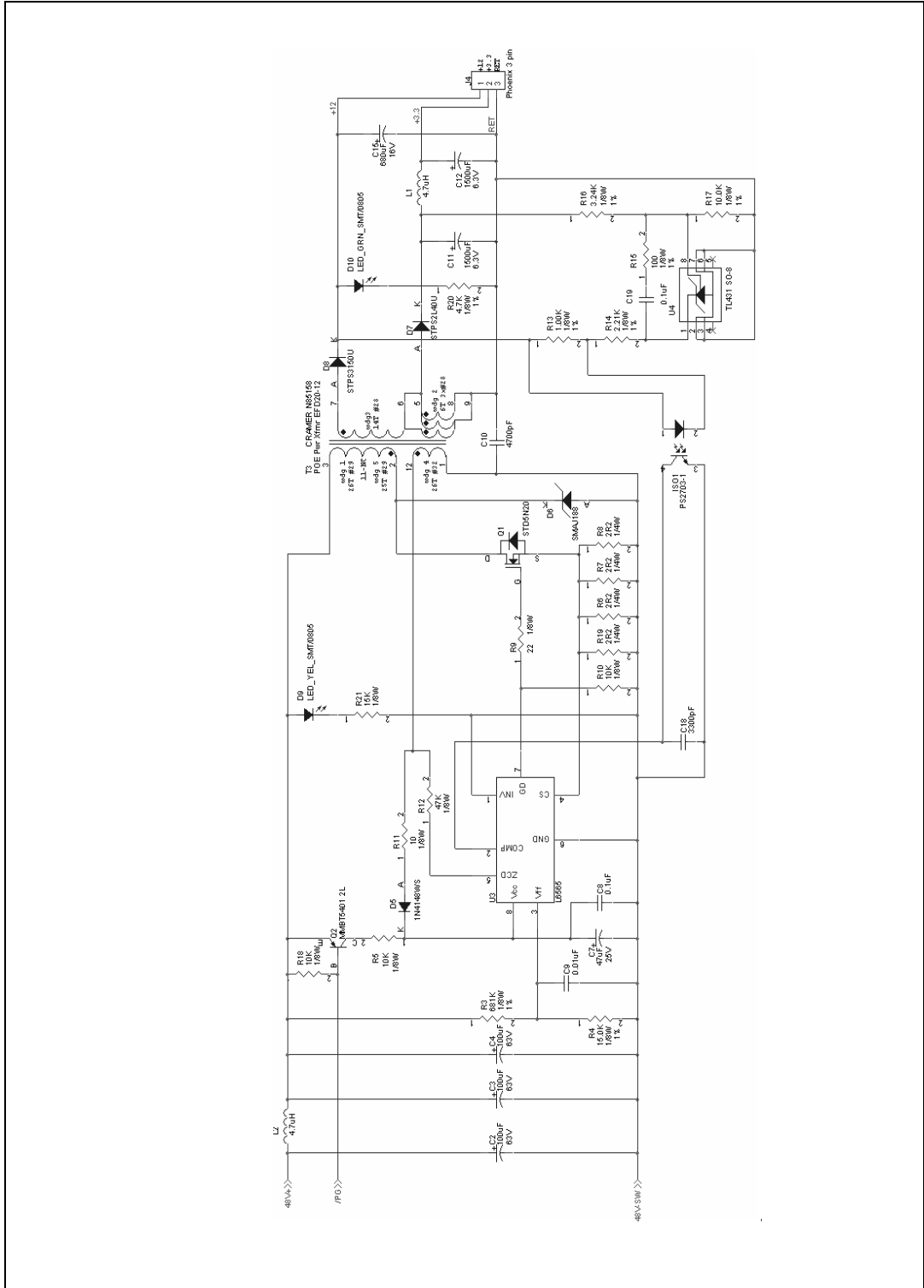
### Description

This demonstration board is a Power over Ethernet (PoE) system used to transmit electrical power, along with data, to remote devices over a standard twisted-pair cable in an Ethernet network. The power supply fully complies with IEEE 802.3-2005 PoE specifications and delivers the rated output from any compliant source.

Outputs of 3.3 V and 12 V are used as examples in this document, but other requirements can be easily met with minor changes. The IEEE 802.3af specification is intended to greatly simplify the wiring to remote equipment by providing power over the same medium that carries the signal to and from the equipment. This concept is particularly suitable for applications such as security cameras, wireless access points, and internet telephones (VoIP). The cable voltage was selected so that existing 48 V telecom equipment

# 1 Board schematic

Figure 1. Schematic diagram



## 2 Revision history

**Table 1. Document revision history**

Date	Revision	Changes
27-Aug-2008	1	Initial release.

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