



EVALPM8803-FLY

EVALPM8803-FLY: IEEE802.3at compliant demonstration kit
with synchronous flyback PoE converter

Features

- IEEE 802.3at compliant
- Support for Gigabit Ethernet
- Data pass-through for the Ethernet data
- Works with power supplied from Ethernet LAN cables or from local auxiliary sources
- Successful IEEE802.3at layer1 classification indicator
- Single output 3.3 V/5 V
- 90+% converter efficiency
- Board size 10x13 cm

Description

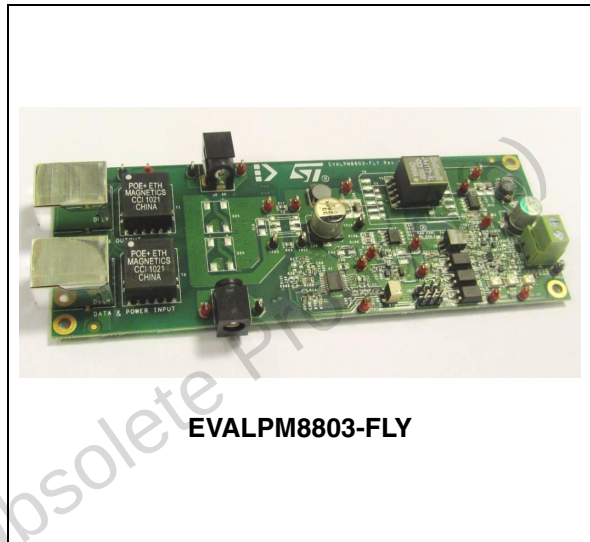
The EVALPM8803-FLY is a demonstration board implementing an IEEE802.3at compatible interface together with a synchronous rectification flyback converter based on PM8803.

The board is designed to work up to 30 W, and with minimal changes the output voltage can be selected either 5 V or 3.3 V. For sake of flexibility, alternative footprint have been foreseen for the main component (MOS, transformer, etc).

It is possible to connect auxiliary sources to one of the 2 jacks in the EVALPM8803-FLY like in real application design. In one case thanks to the PM8803 feature, prevalence of the auxiliary source can be guaranteed.

Three LEDs give indication of :

- the converter is running
- an external auxiliary source is connected to the board a type 2 PSE is connected to the board.



1 Schematic diagrams

Figure 1. Demonstration kit schematic: detail of the PoE+ input section including data transformer, diode bridges, protection and optional CM choke

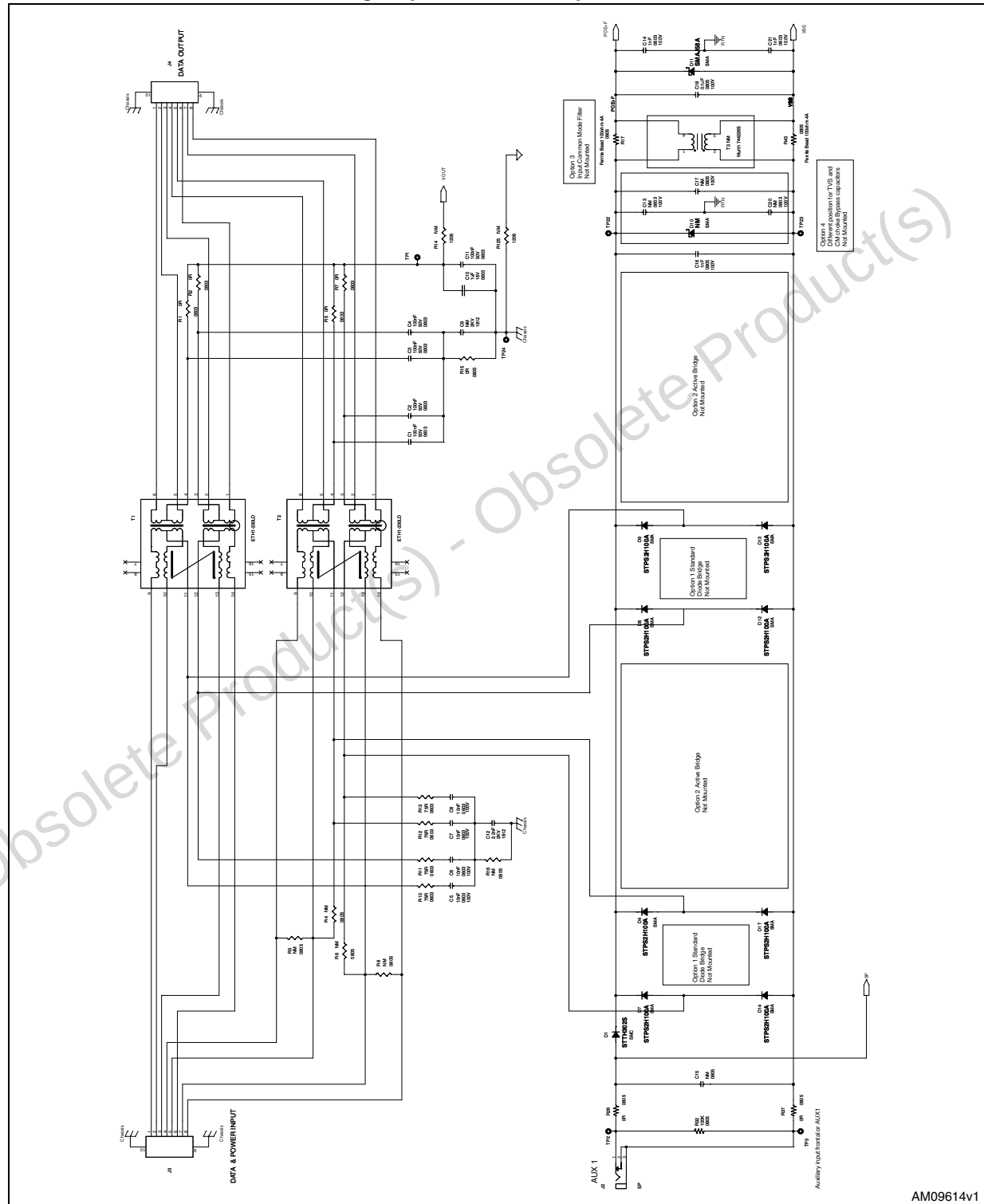
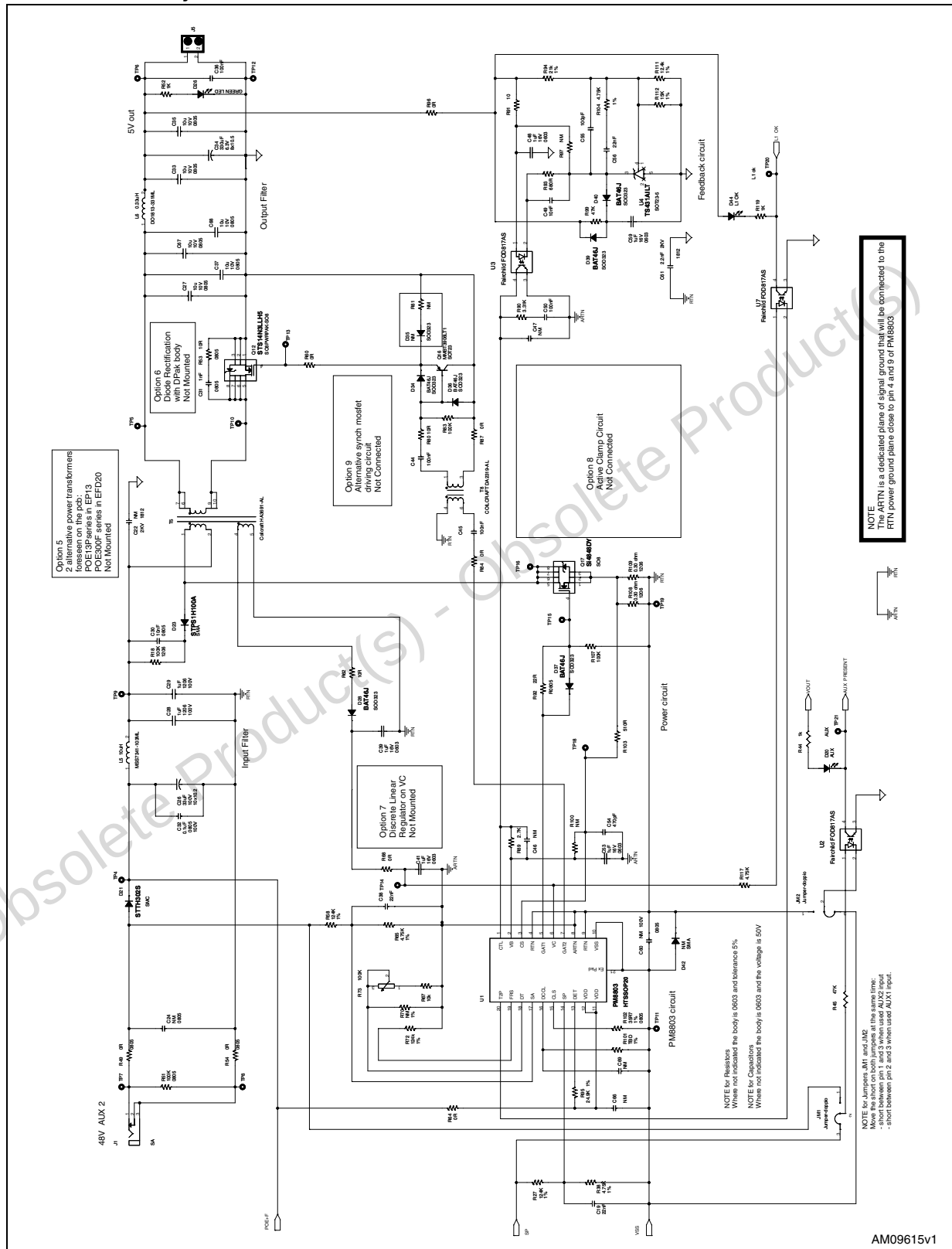


Figure 2. Demonstration kit schematic: detail of the PoE+ section based on flyback topology with synchronous rectification



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
11-Apr-2011	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

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