



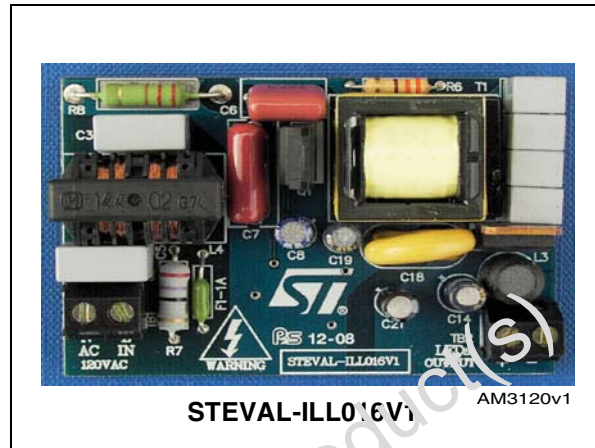
## STEVAL-ILL016V1

15 W offline TRIAC dimmable LED driver based on the LD6562AD and TSM1052 (USA market-115 V)

Data Brief

### Features

- 120 V line (96 V to 132 Vrms)
- $V_{out}$  is set at 40 V max
- $I_{out}$  is set at 0.7 A maximum average current
- 0.7 minimum power factor, required for residential use
- 0.9 or greater power factor, required for commercial use
- Capable of FCC Class B conducted EMI
- Emitted acoustic noise less than 24 dBA
- Isolated output, "safe" voltage
- Dimmable with low-cost TRIAC based dimmer, average current down to less than 10% of maximum LED current
- LED lifetime of 25,000 hours (residential) or 35,000 hours (commercial) to 70% light output
- Meets requirements of US DOE ENERGY STAR® program requirements for SSL luminaires - version 1.0

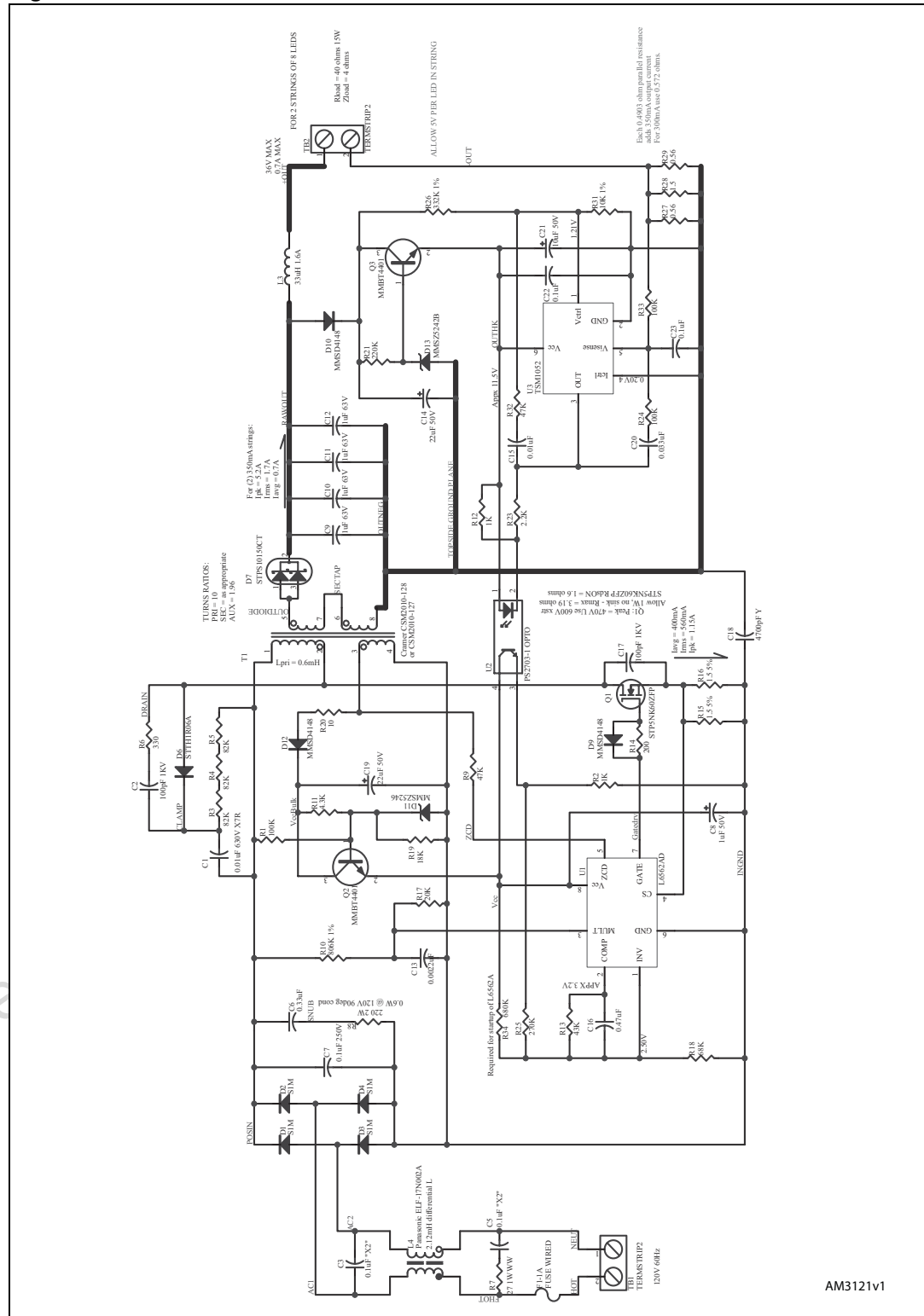


### Description

This demonstration board is a low cost driver for LEDs that is compatible with TRIAC phase-control dimmers. The design gives illumination manufacturers a low-cost, commonly available dimming option for home fixtures. A side benefit is that, when not wired to a dimmer, the unit's power factor is over 0.9.

The design is based on the LD6562A transition mode PFC controller driving a single stage PFC-flyback power converter.

**Figure 1. STEVAL-ILL016V1 schematic**



## 2 Revision history

Table 1. Document revision history

| Date        | Revision | Changes         |
|-------------|----------|-----------------|
| 06-Nov-2008 | 1        | Initial release |

Obsolete Product(s) - Obsolete Product(s)

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