



STEVAL-ISA080V1

90 W HB LLC resonant converter demonstration board
based on the L6585DE combo IC

Data brief

Features

- Input voltage range : 90 to 265 VRMS
- Line frequency : 50/60 Hz
- Output voltage : 19 V
- Output current : 4.7 A
- RoHS compliant

Description

The STEVAL-ISA080V1 demonstration board is a 90 W, wide range mains, power factor corrected AC-DC power supply.

The architecture is based on a two-stage approach: a front-end PFC pre-regulator and a downstream multi-resonant half bridge converter.

Both stages are controlled by the new L6585DE that integrates PFC and half-bridge control circuits and the relevant drivers.

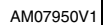
Although this new device is dedicated to manage electronic ballast, it's possible to use it also for HB LLC resonant converter.

The PFC section achieves current mode control operating in transition mode, offering a highly linear multiplier including a THD optimizer that allows for an extremely low THD, even over a large range of input voltages and loading conditions.



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Figure 1. Schematic circuit



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
25-Feb-2011	1	Initial release.

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