

## YX5315 6-48V Input, 12V Output Isolated Power EVB Manual

### 1 Description and Features

The YX5315 is an isolated Flyback controller with high efficiency over a wide input voltage range of 2.7V to 100V. It directly measures output voltage from the primary side Flyback waveform and no needs opto-coupler or third winding for regulation. Only a single resistor required to set the output voltage. The YX5315 provides 5V gate drive voltage to drive external N-channel MOSFET or GaN. The internal compensation and soft-start functions decreases the number of external components. To maintain the high efficiency and minimize the output voltage ripple, the YX5315 operates in Burst Mode at light load.

The YX5315 features under voltage lockout (UVLO), short circuit protection (SCP) and over temperature protection (OTP) to help the device operate safely and reliably.

The YX5315 is available in 6-lead TSOT-23 package.

### Features

- Wide input voltage range of 2.7V to 100V
- Gate driver with 5V gate drive voltage for N-channel MOSFET or GaN
- Set VOUT with single external resistor
- No opto-coupler or third winding of transformer required for VOUT regulation
- High efficiency at light load mode (DCM)
- Low input quiescent current
- Internal compensation and soft-start function
- Shut down and Enable control
- Build-In UVLO and short circuit protection
- Over current and over temperature protection
- 6-Lead TSOT-23 Package

### 2 Board Specifications

Table 1 Board specification

Parameter	Value	Unite
Input Voltage	6 to 48	V
Output Voltage	12	V
Maximum Output Current	1(Vin=6V) 2(48≥Vin≥12)	A
Rated switching frequency	139 @12Vin,2A Load	kHz
Board Size	7.0x6.5	mm

### 3 Test Setup

