

YX2765-Bidirectional Boost Controller EVM

Demo Manual

1 Description and Features

This EVM is built to evaluate the performance of YX2765, which is a bidirectional boost controller. It has wide input and output range, compatible to drive GaN or Si FET. This is suitable for wide input voltage range system such as battery powered system and bidirectional USB PD charger system. The main features of YX2765 are listed in bellow and can be evaluated on the demo board:

- Wide V_{IN} : 4V to 65V, Wide V_{OUT} : 2V to 65V
- Programmable soft start time
- Adjustable switching frequency and dead time
- Programmable input and output current limits
- Bidirectional power path control

2 Board Specifications

The YX2765 EVB features a two-switch bidirectional boost converter based on YX2765 Wide VIN buck controller. This converter is designed to operate at input voltage 48V and provide a 12V regulated output with a load current of up to 3A in forward and reverse direction. The board specifications are listed in Table 1.

Table 1 Board specification

Parameter	Value	Unit
Input Voltage	12	V
Output Voltage	48	V
Maximum Output Current	3	A
Default Switching frequency	400	kHz
Board Size	65X78	mm

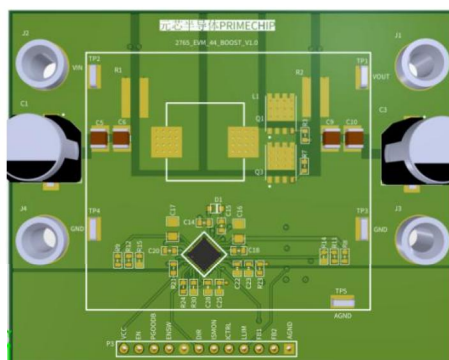


Figure 1 YX2765 EVB