

FAN48610

2.5 MHz, 1 A, Fixed-Output Synchronous TinyBoost® Regulator

Product Overview

For complete documentation, see the data sheet.

The FAN48610 is a low-power boost regulator designed to provide a minimum voltage-regulated rail from a standard single-cell Li-Ion battery and advanced battery chemistries. Even below the minimum system battery voltage, the device maintains the output voltage regulation for a minimum output load current of 1.0 A. The combination of built-in power transistors, synchronous rectification, and low supply current suit the FAN48610 for battery-powered applications.

The FAN48610 is available in a 9-bump, 0.4 mm pitch, Wafer-Level Chip-Scale Package (WLCSP).

Features

- Input Voltage Range: 2.5 V to 4.80 V
 - Output Voltages Range: 3 V to 5 V
 - IOU_T = 1 A at VO_UT 5.0 V, VI_N = 2.5 V
 - IOU_T = 1.5 A at VO_UT 5.0 V, VI_N = 3.0 V
 - Up to 94% Efficient
 - Internal Synchronous Rectification
 - Soft-Start with True Load Disconnect
 - Short-Circuit Protection
 - 9-Bump, 1.215 mm x 1.215 mm, 0.4 mm Pitch WLCSP
 - Three External Components: 2016 0.47 µH Inductor, 0603 Case Size Input / Output Capacitors
- For more features, see the data sheet

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Topology	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	V _O Typ (V)	I _O Typ (A)	Efficiency (%)	f _{SW} Typ (kHz)	Package Type
FAN48610BUC33X	0.28		Active	Step-Up	Voltage Mode	2.5	4.8	3.3	1	92	2500	WLCSP-9
FAN48610BUC45X	0.3733		Active	Step-Up	Voltage Mode	2.5	4.8	4.5	1	94	2500	WLCSP-9
FAN48610BUC50X	0.2899		Active	Step-Up	Voltage Mode	2.5	4.8	5	1	94	2500	WLCSP-9
FAN48610UC50X	0.28		Active	Step-Up	Voltage Mode	2.5	4.8	5	1	94	2500	WLCSP-9