

SC8721A High Efficiency, Synchronous, Buck-Boost Converter with Four Integrated MOSFET

1 Descriptions

SC8721A is a synchronous 4-switch buck-boost converter with four integrated switches. It is able to effectively output voltage no matter it is higher, lower or equal to the input voltage.

SC8721A supports very wide input and output voltage range. It can support applications from 2.7V to 22V input range and 0.7V to 22V output range. Through its I2C interface, user can program the output voltage and output current limit and switching frequency. VINREG voltage can be adjusted by external resistor.

SC8721A employs current-mode control and supports output current limit, dynamic output voltage adjustment, internal current limit, output short protection and over temperature protections to ensure safety under different abnormal conditions.

The IC is in a 21 pin 4x4 QFN package.

3 Applications

- USB Power Delivery
- Wall Adapter
- Type C Hub
- Industry Power Supplies

2 Features

- High Efficiency Buck-Boost Conversion
- Integrated Switches, 10 mΩ for Q1/4, 20 mΩ for Q2/3
- Wide VIN Range: 2.7 V to 22 V, 25V sustainable
- Wide VOUT Range: 0.7 V to 22 V, 25V sustainable
- Dynamic Output Voltage Control
- Adjustable Switching Frequency
- Output Voltage Cable Drop Compensation
- I2C Programmable Output Voltage
- I2C Programmable Output Current Limit
- Output Current Monitor
- Under Voltage Protection, Over Voltage Protection, Over Current Protection
- Short Protection
- Thermal Shutdown Protection
- QFN-21 4 x 4 Package

4 Device Information

Part Number	Package	Dimension
SC8721AQFER	21 pin QFN	4.0mm x 4.0mm x 0.75mm