

SC8201Q High Efficiency, Synchronous Boost Controller

1 Description

The SC8201Q is a synchronous boost controller. It supports very wide input and output voltage range. An external driver voltage up to 10V can be supplied so to fully utilize external MOSFETs for highest efficiency.

The SC8201Q supports input current limit, output current limit and over temperature protections to ensure safety under different abnormal conditions.

The SC8201Q adopts 32 pin QFN 4x4 package.

2 Features

- AEC-Q100 qualified for automotive applications:
 - Temperature grade 1: T_A range: -40°C to +125°C
 - HBM ESD classification level H1C
 - CDM ESD classification level C6
- High efficient boost operation
- Dynamic adjustable output voltage
- Wide input voltage range: 2.7 V to 36 V
- Wide output voltage range: 2.7V to 36V
- Integrated 10V, 2A gate driver
- External VCC voltage
- Auxiliary charge pump to realize bypass mode
- Adjustable frequency 200kHz to 600kHz
- Internal inductor current limit
- Input and output current limit
- Dynamic voltage change for output
- Under voltage protection
- QFN-32 Package

3 Applications

- Automotive Head Unit
- Automotive Cluster
- Automotive ADAS

4 Device Information

ORDER NUMBER	PACKAGE	BODY SIZE
SC8201QQDER	32 pin QFN	4mm x 4mm x 0.75mm