

PRODUCT NOTE

RoadPak module SiC performance



Hitachi ABB Power Grids' SiC e-mobility module pushes the boundaries of power density and reduces stray inductance to new levels.

01 RoadPak module

Hitachi ABB Power Grids' power semiconductors provide unsurpassed reliability and outstanding quality. Failure is not an option when driving electrical motors, ensuring smooth acceleration of trains, or transmitting gigawatt power over long distances and underwater. RoadPak is the first module for e-mobility applications in our proven portfolio of power semiconductors that takes advantage of silicon carbide (SiC) technology.

RoadPak benefits

The key benefit is the high-current rating in a small package that is enabled by the use of SiC, combined with very small stray inductance and well-known ABB reliability. The RoadPak will be certified according to IATF19646 and will be AQG 324 qualified.

Features SiC MOSFET transistors

- Compact design
- Half bridge configuration with two MOSFET switches
- Pin-Fin structure for lowest thermal resistance
- Lowest loss enabled by SiC chipset
- Lowest stray inductance
- Voltage ratings: 750 V, 1200 V
- Current up to 980A

Typical applications

Electric cars

Scalable current and power ratings in the RoadPak support inverter platforms of various e-cars

Trucks

High power in a small package allows efficient inverter design

Public transport

High reliability for the typical stop-and-go operation of e-buses and trams

Aviation

Performance and reliability to meet the demands of a wide range of aviation applications

Charging

Delivers performance to enable fast charging of trucks and buses

Available ratings

Voltage (V)	Current (A)	Configurations
750	660*	Half bridge
750	880*	Half bridge
750	1100*	Half bridge
1200	580*	Half bridge
1200	780*	Half bridge
1200	980*	Half bridge

* Max. chip rating



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