

# GO FURTHER WITH FAST AND CONNECTED CHARGING

## RENESAS ELECTRIC VEHICLE CHARGING SOLUTIONS



Renesas seamlessly blends its electric vehicle (EV) charging solutions with the market needs. We provide a wide range of EV charging solutions from delivering faster charging experience, enhancing user convenience through IoT connection to enabling developers to build an integrated and easy-to-use global EV charging system. These EV charging solutions are developed with the vision to make life easier for both the users and the developers of EV charging applications.

### Key Features

- DC fast charging based on 200kW output
- Multiple communication interfaces to support various connectivity options – Wi-Fi, Cat-M1, LTE or PLC with options to add additional interfaces like Ethernet, Bluetooth® Low Energy
- Multiple channels of CAN interface embedded in MCUs to support multiple communication protocols
- High-reliability buck and LDO provide a stable power supply
- Alternative charging options – portable EV charger or swappable battery charging kiosk

### Benefits

- Shorten EV charging time by more than an hour with 200kW output
- Enable IoT connectivity to access charging control and customize billing.
- Build a global EV system supporting different country's communication protocol in one system
- Reduce user's anxiety with portable EV charging option
- Reduce waiting time with autonomous and easy operations to charge in a small kiosk

### Applications

- Residential / Home EV Chargers
- Public EV Chargers
- Portable EV Chargers

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## Recommended Products for EV Charging Winning Combination Solutions

	<a href="#">DC Fast Charging Station for Electric Vehicles</a>	<a href="#">Electric Vehicle Charger</a>	<a href="#">High-performance Electric Vehicle Charger Wall Box</a>	<a href="#">Metered Electric Vehicle Charging Station</a>	<a href="#">Portable Electric Vehicle Charger</a>	<a href="#">Swappable Battery Charging Kiosk</a>	<a href="#">Toll &amp; Communication Unit of Electric Vehicle Charger Pile</a>
AC/DC Buck Converter					✓	✓	
Battery Front End IC						✓	
Bluetooth® Low Energy Module					✓		
Buck Regulator			✓	✓			✓
Cellular IoT Module			✓	✓			
Flyback & Forward Controller		✓	✓	✓		✓	
Gate Driver	✓						
General Purpose Op-amp		✓					
IGBT	✓						
Intelligent Power Device	✓						
Linear Regulator					✓	✓	✓
Load Switch			✓			✓	
Low Power Wi-Fi				✓		✓	
Low-Side FET Driver		✓			✓		
Microcontroller (MCU)	✓	✓	✓	✓	✓	✓	✓
Microprocessor (MPU)			✓				
NFC			✓	✓			
Power Management IC	✓						
Photocoupler/Optocoupler	✓				✓		✓
PLC Line Driver / Modem IC				✓			
Power MosFet	✓						
Real-Time Clocks							✓
RS-232 Serial Interface				✓			
RS-485/422 with Enhanced ESD Protection				✓			
SPI NOR Flash				✓			✓

For more details, please visit: [www.renesas.com/e-mobility](http://www.renesas.com/e-mobility)



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