

EV/HEV On-Board Charger – Automotive Power Module Based

Innovation

Integrated Power Module based 3.3 kW On-Board Charger (OBC) demo showcases the complete solution for charging in HEV/EV with the PFC and LLC topology developed using various components from ON Semiconductor. It has wide output voltage coverage range, 200 – 450V and has high efficiency (95 %) at 400V output

Value Advantage

- ✓ AEC-Qualified APM to reduce PCB space and size.
- ✓ Two-channel interleaved PFC for high efficiency & power density
- ✓ Full Bridge LLC with soft switching
- ✓ Hardware PFC and LLC control for improved fault modes.
- ✓ 95% efficiency at nominal condition
- ✓ Flyback topology to supply auxiliary power.
- ✓ Fully functional solution including input/output current/voltage sensing and CC/CV PWM control interface

Current Proposition

