

DRIVE 11 Evaluation System

Wireless charging for EV & PHEV Platforms

Highlights

- High power transfer rates
 - WPT-1: 3.6 kW
 - WPT-2: 7.7 kW
 - WPT-3: 11 kW
- Highest efficiency (up to 94% grid to battery)
- Works across all vehicle ground clearance classes
 - low: 10 cm-15 cm (Z1 class)
 - med: 14 cm-21 cm (Z2 class)
 - high: 17 cm-25 cm (Z3 class)
- Features WiTricity patented Tunable Matching Network (TMN) 28 x 28cm up to 42 x 42cm
- Tolerant to parking misalignment
 - +/- 10cm side to side
 - +/- 7.5 cm front to back
- SAE J2954™ Emissions compliant (FCC, CISPR, ICNIRP)
- Available "Foreign Object Detection" (FOD) Sensor
- Available "Live Object Detection" (LOD) Sensor
- Available "Position Detection" (PD) Sensor
- Standards Compliant



Overview

The DRIVE 11 evaluation system is WiTricity's end to end reference design for "Park-and-Charge" wireless charging of electric and hybrid vehicles. Capable of delivering up to 11kW of power at efficiencies up to 94%, the system is ideal for automotive OEMs and Tier 1s seeking to develop and integrate magnetic resonance systems based on the SAE J2954™ and IEC/ISO standards. Designed for the utmost in interoperability, the Drive 11 ground assembly (GA) is capable of charging vehicles at industry standard 3.6 kW, 7.7, kW, or 11 kW levels- and is capable of on-ground and in-ground installation. The Drive 11 vehicle assembly (VA) is available in low, mid, and high ground clearance versions to handle the full range of passenger vehicles, SUVs, and light trucks. Drive 11's combination of high efficiency, low emissions, cost effective architecture, and interoperability make it the leading wireless charging reference design for global Tier 1s and carmakers.

Technology

WiTricity's second generation system incorporates the latest cutting edge technology and features to maximize system performance, provide greater implementation flexibility and interoperability and meet the evolving needs of the SAE J2954™ standard. Featuring WiTricity's Tunable Matching Network (TMN), DRIVE 11 is able to maximize efficiency and power delivery over a very broad range of parking alignment, battery voltage, and power conditions. In addition, DRIVE 11 offers direct to battery charging to eliminate system losses associated with DC-DC converters and onboard chargers and can be configured to handle a wide range of battery voltage including the latest 800V packs used for next generation high performance EVs.