

PMT350

600W Wireless Power Solution



DESCRIPTION

The PMT 350 is a medium to high wireless power solution up to 600W and can be tailored to fit specific product requirements based on SmartInductive™ Technology. The solutions supply the power, magnetics, and interface to meet customer product requirements. The solutions deliver pinnacle flexibility, safety, and cost-efficiency for a 100% wireless life.

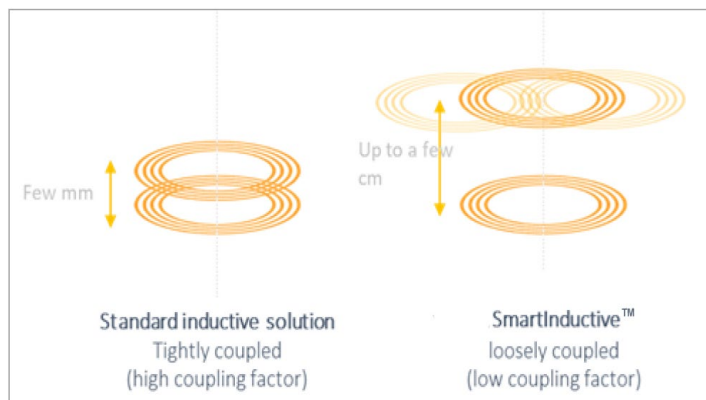
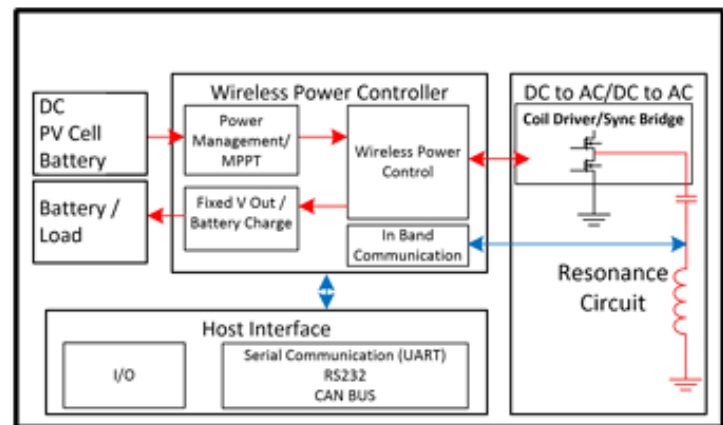
FEATURES

- Up to 600W wireless power transfer
- Up to 58V / 12A (48V nominal)
- Up to 200mm coil to coil distance
- Up to 70mm lateral misalignment
- Advanced battery charging algorithm
- Optimizing power transfer efficiency in low power mode
- Software based DC-to-DC functionality
- In-band communication (WPT management and proprietary host system communication)
- Enhanced Foreign Object Detection (FOD)
- Operation frequency 100-300KHz
- Cost-effective: Software-based wireless power transfer and communication algorithms

APPLICATIONS

- Industrial and commercial robotics
- High power domestic robotics
- Large drones
- High power telecom edge technology (CPE)
- POE-based applications
- E-bikes
- E-scooters

FUNCTIONAL BLOCK DIAGRAM



Powercast products and technology are covered by one or more patents with other patents pending. All patent and trademark information can be found at <http://www.powercastco.com/IP/>.

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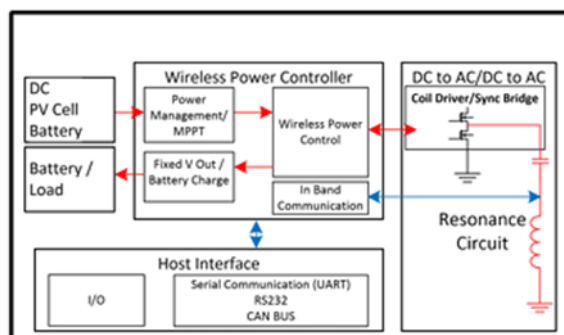
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SPECIFICATIONS

Feature	Specification	Note
Wireless Power Transfer		
Coil size (Symmetric Rx, Tx, coil)	70mm/130mm/200mm	Optional customization
Max charge power	600W	Battery charging/fixed voltage
Coil to coil distance*	200mm (200mm coil) 50mm (130mm coil) 35mm (70mm coil)	SmartInductive™ Technology mid-range coupling
Coil lateral misalignment (X/Y)*	70mm (200mm coil) 50mm (130mm coil) 30mm (70mm coil)	SmartInductive™ Technology mid-range coupling
Efficiency	>90%	Peak end-to-end
Operation Frequency	100KHz-300KHz	
Interface (optional)		
Host Interface	IO/UART (RS232/LVTTL)/CAN	Digital I/O with customizable functionality
Battery Management		
Battery charging	CCCV	3-12 li-Ion cells 3-13 LiFePO ₄ cells 12V/24V/36V/48V lead-acid battery
Battery voltage	Up to 58V on Rx module (48V nominal)	Software controlled DCDC over the inductive link
Maximum charge current	12.5A	
Fuel gauging		Software algorithm
Battery protection	OV, OC, OT, UT	Software algorithm
PCB Dimensions		
PCB Dimensions	55mm x 55mm	Can be customized
Environmental		
Operating	0°C ~ 70°C	
Storage	-40°C ~ 85°C	

*Coil distance and lateral misalignment are coil size dependent



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