

PMT100

DC Power User Manual



DESCRIPTION

The PMT 100 is a medium 40W wireless power solution without a microcontroller on the receiver side 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.

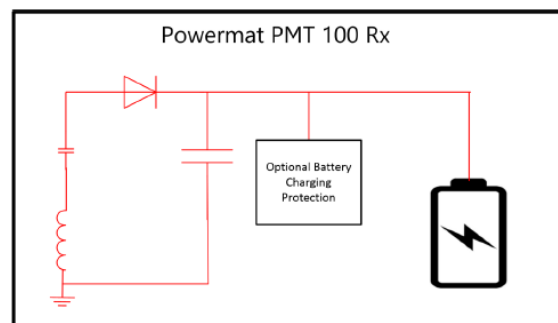
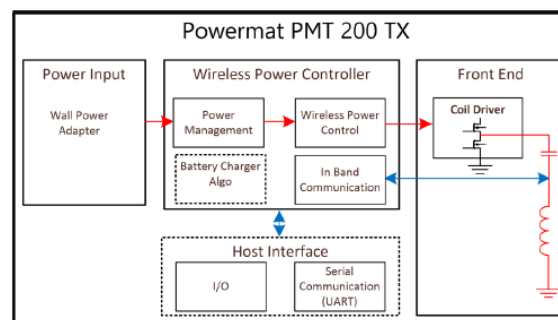
FEATURES

- Up to 40W wireless power transfer
- Up to 15mm coil to coil distance
- Up to 15mm lateral misalignment
- Advanced battery charging algorithm
- Optimizing power transfer efficiency in low power mode
- Software based DC-to-DC functionality
- Operation frequency 100-300KHz
- Cost-effective: Software-based MCU-less Rx solution designed for small device charging

APPLICATIONS

- Medical devices
- IoT
- Portable devices
- Wearables

FUNCTIONAL BLOCK DIAGRAM



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SPECIFICATIONS

Feature	Specification	Note
Wireless Power Transfer		
Coil size (Symmetric Rx, Tx, coil)	20mm/30mm/40mm	Optional customization
Max charge power	40W	Battery charging/fixed voltage
Coil to coil distance*	15mm (40mm coil) 10mm (30mm coil) 7mm (20mm coil)	SmartInductive™ Technology mid-range coupling
Coil lateral misalignment (X/Y)*	15mm (40mm coil) 10mm (30mm coil) 7mm (20mm coil)	SmartInductive™ Technology mid-range coupling
Efficiency	>90%	Peak end-to-end
Operation Frequency	100KHz-300KHz	
Battery Management		
Battery charging	CCCV	1-2 li-Ion cells
Battery voltage	Up to 30V on Rx module	Software controlled DCDC over the inductive link
Maximum charge current	2A	
Fuel gauging		Software algorithm
Battery protection	OV, OC	Software algorithm
PCB Dimensions		
PCB Dimensions	15 x 15mm	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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