**APPLICATIONS**

* Medical devices
* IoT
* Portable devices
* Wearables

**FUNCTIONAL BLOCK DIAGRAM**

A diagram of a power controller

Description automatically generated

A diagram of a battery charging system

Description automatically generated

**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

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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-lon 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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