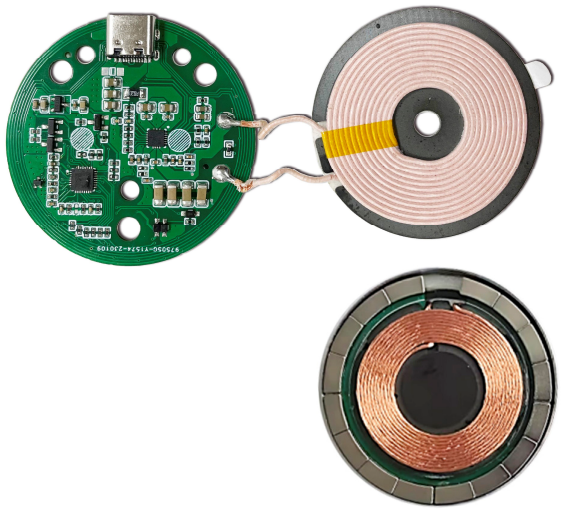
WCM-WP8037

Qi 2.0 Compliant Wireless Power Transmitter Module



* Magnetic Ring not included

WCM-WP8037, a wireless charging chip certified with Qi2.0 MPP, integrates a robust 32-bit core alongside peripherals tailored to wireless charging requirements. It is purpose-built for wireless charging, supporting not only the MPP protocol but also displaying compatibility with BPP, EPP, and other proprietary protocols, showcasing its adaptability.

Furthermore, WCM-WP8037 integrates a high-resolution full-bridge controller and multi-channel ASK demodulation technology, allowing flexibility in handling various power sources like DC power, USB-PD, HVDCP, among others. This integration provides users with rich IO interfaces, enabling easy control over various peripheral chips.

FEATURE

. Multi-pole oscillation design suitable for tightly coupled magnets.

. Variety of strong magnet types suitable for different scenarios.

. Increased metal shielding and EMI requirements.

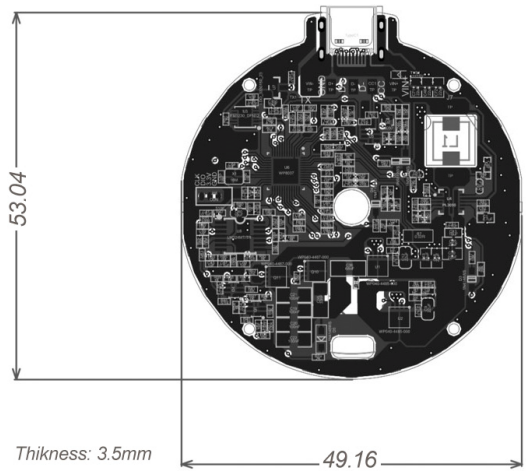
. Compatibility with other BPP, EPP features after increasing power.

. Share the same dimensions with Apple C222 module

. No design modification, Pin replacement

. Qi2 certificated, support MPP/ EPP/ BPP protocols

. USB PD 9V/ 2.22A 5V/3A; DC 9V/2.22A



SPECIFICATION

Item	Parameter
Input Power	USB 9V/5V, DC 9V
Output Power	15W Max
Standby power	<500mW
System Efficiency	78% (Max)
Protocol	• MPP (Qi 2.0) • EPP/ BPP (Qi 1.3.3)
Coil Type	MPP 7.42uH@360KHz
Protection	OVP/ UVP / OCP / OTP / OSP
FOD	Q factor / Analog Ping / Power Transfer FOD based on power loss modeling
Module Dimension	53.04mm*49.16mm*3.5mm (magnetic ring not included)
Main Chips Interface	WP8037 (WPINNO) / FM1203 (Fudan Micro) Programming: TX, GND, SDA, SCL, VDD,CC2 Power: V+, V-, D+,D D-, CC1

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Charging Efficiency Test Summary

Rx Device: MPP iPhone 12 (Prect Power) and YBZ Rx test equipment

Tx module: WCM-MP8037 (Pin Power)

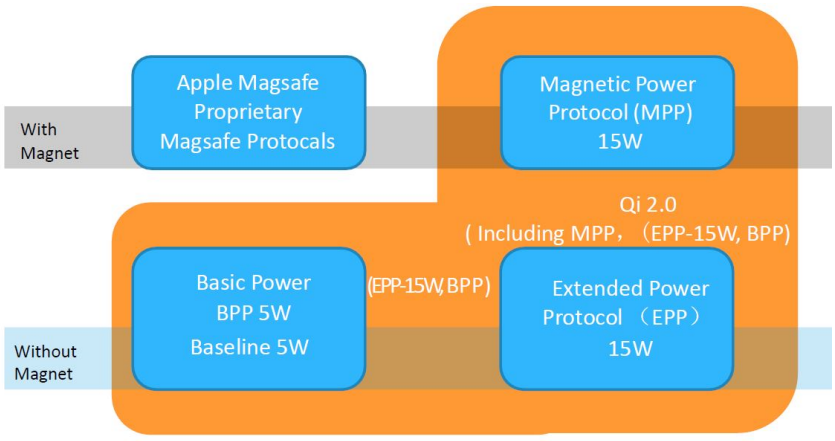
Test Results: The efficiency for 15W is nearly same when charging in 127Khz and 360khz

Pout (W)	Efficiency Data	
	WCM-WP8037 with YBZ Rx	WCM-WP8037 with MPP Rx
1	47.76%	46.07%
2	58.98%	60.46%
3	65.33%	65.25%
4	73.06%	69.32%
5	76.57%	76.90%
7	77.71%	78.63%
8	78.18%	78.82%
9	79.92%	79.50%
10	79.75%	80.29%
11	80.69%	80.34%
13	80.58%	79.67%
14	81.41%	80.04%
15	81.33%	80.15%

RE and ESD Test Summary

Module	AC Input	Loading	Minimum Margin/dB
WCM-WP8037	AC 120V	iPhone	-6.19
	AC 230V		-5.03
	AC 120V	Rx tester	-5.87
	AC 230V		-6.63

What is the difference between Qi 2.0 and MPP



* Features and specification are subject to change without notice.

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