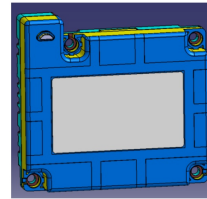


**Panasonic**  
WCPM2 Wireless  
Charging Pad Module 2



# Panasonic WCPM2 Wireless Charging Pad Module 2 Owner's Manual

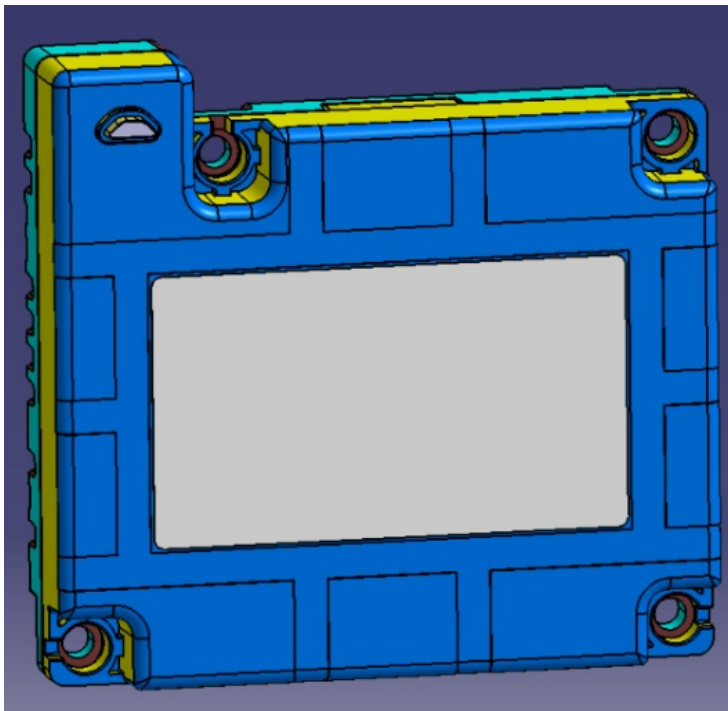
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# Panasonic

**Panasonic WCPM2 Wireless Charging Pad Module 2**



## Product Information

### Specifications

- **Function:** Wireless Charging Pad Module 2 (WCPM2)
- **Operating Voltage:** 6.6V – 16V
- **Charging Current:** 3A max
- **Off Idle Mode Current (Non-SPAARK):** 34uA
- **Idle Mode Current (with SPAARK):** 15mA
- **WPC Acquisition Time:** Determined by WPC Specs
- **LED Acquisition Time:** Determined by WPC Specs
- **Undock Time:** 1s
- **Charge Rate:** 15W
- **Alignment offset from center:** 10mm (per coil)
- **Height offset:** 8mm

### Product Usage Instructions

#### Operation of the WCPM2

The Stellantis Wireless Charging Pad Module 2 (WCPM2) has two main functions:

1. **NFC Communication:** Facilitates NFC communication with a smartphone/NFC card and the vehicle's SPAARK module.
2. **Wireless Charging:** Charges a Qi-compliant smartphone with BPP supporting transfer of up to about 5W and EPP supporting transfer of up to about 15W of power.

#### LED Indicator Operation

The LED lights blue when a Qi-compliant device is placed on the unit.

Functions of the WCPM2

- **Wireless Charging:** LED lights blue when a Qi-compliant device is placed on the unit.
- **NFC:** No LED indication during SPAAK (NFC) mode.

WCPM2 Mode Descriptions

The WCPM2 has the following modes:

- **Normal Mode, Charging:** When a Qi-compliant device is placed on the charger, the blue LED turns on until the device is fully charged or removed.
- **NFC Mode:** NFC card is placed near the center of the unit. WCPM2 sends data only when there is a valid NFC card.
- **Sleep Mode:** Less power consumption, not charging, NFC not active. Un-Powered WCMP2 is disconnected from battery power.

Frequently Asked Questions (FAQ)

- **What is the maximum charging power supported by the WCPM2?**  
The WCPM2 supports wireless charging with a maximum power transfer of up to about 15W.
- **How can I check if my smartphone is Qi compliant?**  
You can refer to your smartphone’s specifications or check for the Qi certification logo on your device.

Support information

Supplier Contact Information

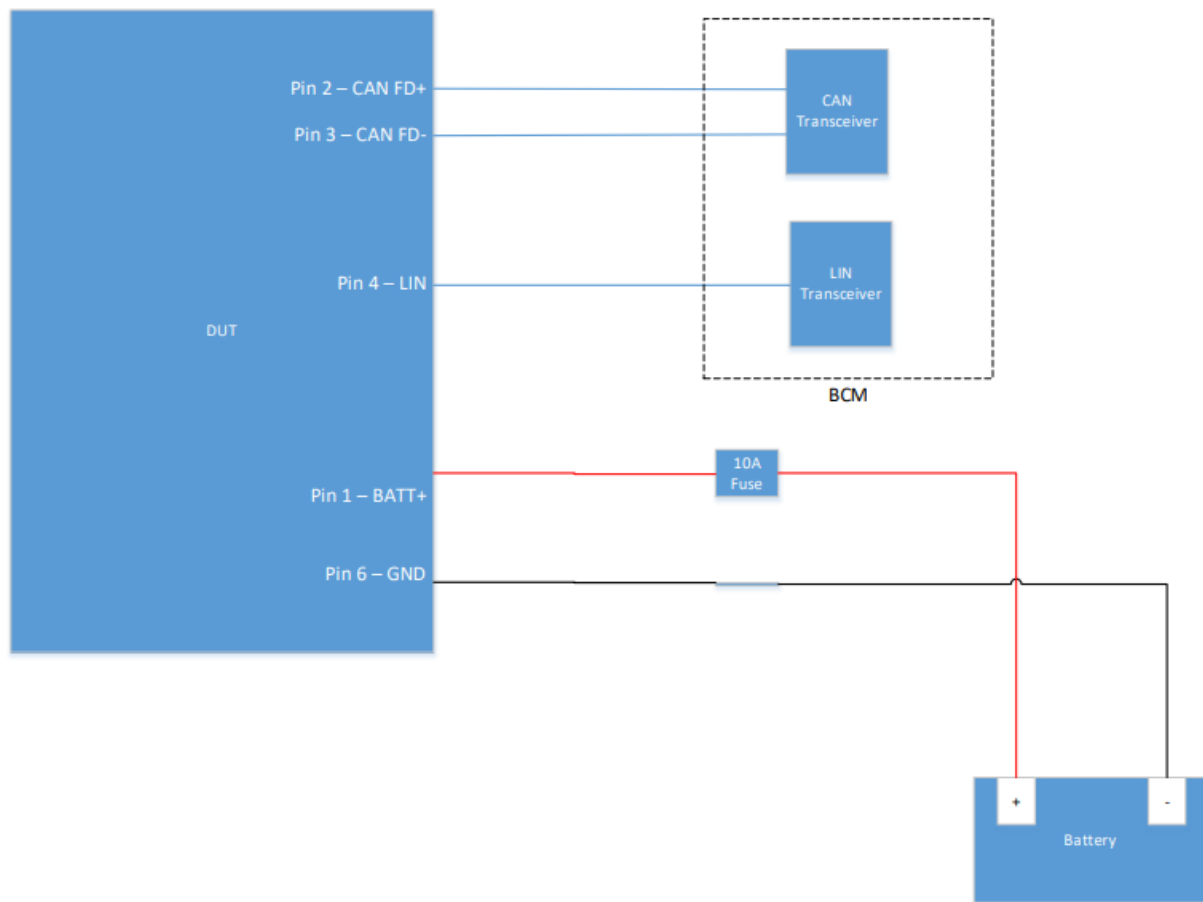
Company Name:	Panasonic Automotive Systems Company of America
Company Address:	776 Highway 74 South, Peachtree City, GA 30269
Company Website:	<a href="https://na.panasonic.com/us/automotive-solutions">https://na.panasonic.com/us/automotive-solutions</a>

Revision History

Revision	Date MM/DD/YY	Description (Sections Changed)
R1	06/19/2023	Initial release
R2	08/22/2023	Updated Sec.2.4 & Sec.3.3. Deleted Sections for Regulatory Certification Release
R3	08/22/2023	Added Footer
R4	04/03/2024	Revised Sec.2.4 and Sec. 3.3. Added Sec.5 – Regulatory Notices

## General

### DUT Pinout Information



PIN #	Color	Signal Description	Voltage (V)	Current (A)	Comments
1	Red	BATT+	13.5V	3A(max)	
2	Blue	CAN FD+	58V(max)	–	Use 120Ω terminating resistor on connector
3	White	CAN FD-	-58V(max)	–	Use 120Ω terminating resistor on connector
4	Green	LIN	9 ~ 18V	–	
5	–	NC			Not Used
6	Black	GND	–	–	

### Operation of the WCPM2

The Stellantis Wireless Charging Pad Module 2 (WCPM2) performs (2) separate functions First, the unit facilitates NFC communication with a smartphone/NFC card and the vehicle's SPAAK (SmartPhone As A Key) module. Second, the unit will wireless charge a smartphone that is 1.3 Qi compliant, BPP (Baseline Power Profile) supporting transfer of up to about 5 W and an EPP (Extended Power Profile) supporting transfer of up to about 15 W of power.

LED Indicator Operation:

- Solid Green: Fully Charged (if supported by Smartphone)
- Solid Blue: Charging
- Blinking Red: Internal fault/Foreign Object Detect

- 2 Modes: Daytime (100% intensity) and Nighttime (10% intensity).

## Functions of the WCPM2

	Functions	
1	Wireless Charging	LED lights Blue when Qi compliant device is placed on unit.
1a	LED	<p>Blue LED – to be lit when charging, no blinking.</p> <p>Red LED – to be lit and blinking while charging and an internal error has occurred, or foreign object detected.</p> <p>Green LED – to be lit once charging is complete, no blinking.</p>
2	NFC	No LED indication during SPAAK {NFC} mode.

## WCPM2 Mode Descriptions

Note: Include any details with regards to load etc. for specific component.

Name	Mode Descriptions
Normal Mode, Charging	<p>Charging, 5W (BPP) 135kHz or 15W (EPP) 127kHz</p> <p>Qi compliant device is placed on charger, the blue LED will turn ON and continue until the device is full charged or removed.</p>
Normal Mode, NFC	NFC card is placed near the center of unit. WCPM2 will send the data only when there is a valid NFC card.
Sleep Mode	Less power consumption, not charging, NFC not active.
Un-Powered	WCMP2 disconnected from Battery power

## Specifications

### Electrical

Electrical Specifications				
Function	Unit	Min	Nominal	Max
Operating Voltage	Volts	6.6	13.5V	16V
Charging Current	Ampere			3A
Off	Ampere		34uA	100uA
Idle Mode Current (Non-SPAACK)	Ampere		15mA	40mA
Idle Mode Current (with SPAACK)	Ampere		85mA	120mA
WPC Acquisition Time	Seconds			Determined by WPC Specs
LED Acquisition Time	Seconds			1s
Undock Time	Seconds			Determined by WPC Specs
Charge Rate	Watts			15W
Alignment offset from center	mm			10mm (per coil)
Height offset	mm			8mm

## Environmental

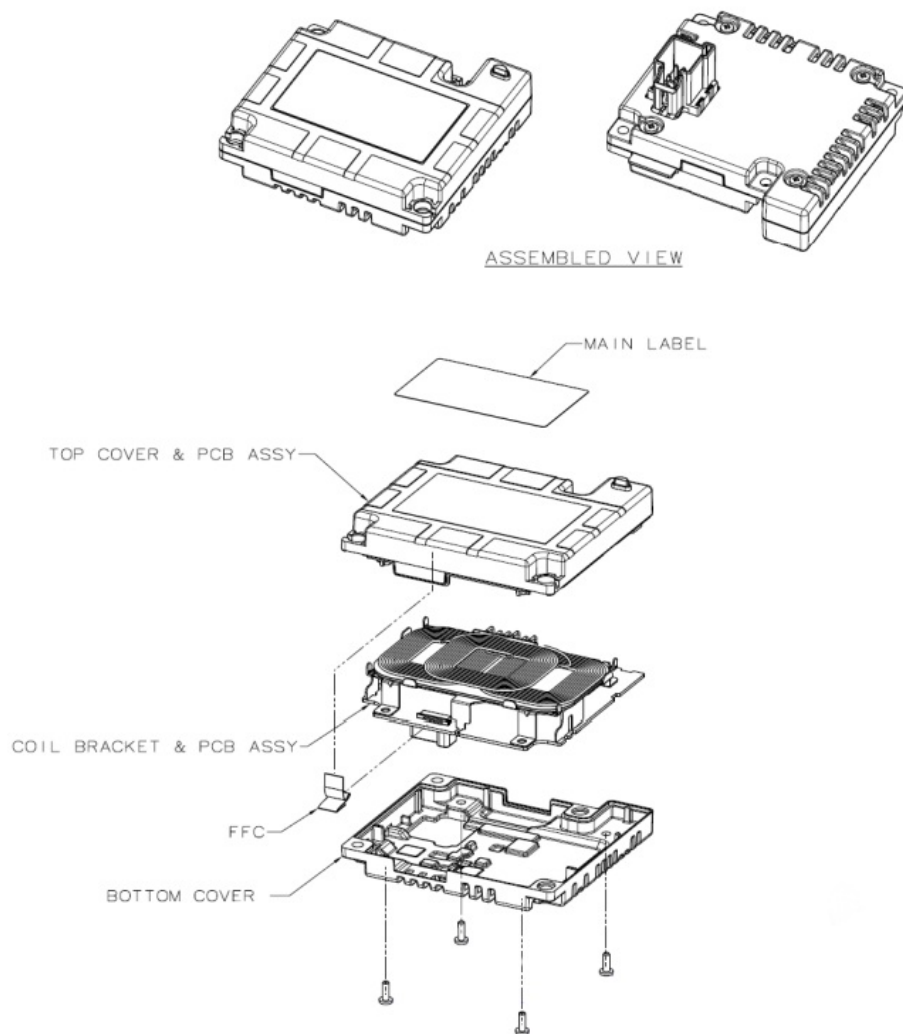
Environmental Specifications				
Function	Unit	Min	Nominal	Max
Operating Temperature	Celsius	-40°C		85°C
Storage Temperature	Celsius	-40°C		105°C
IP Category	NA		IP5K2	
Humidity (non-condensing)	NA			85%

## RF

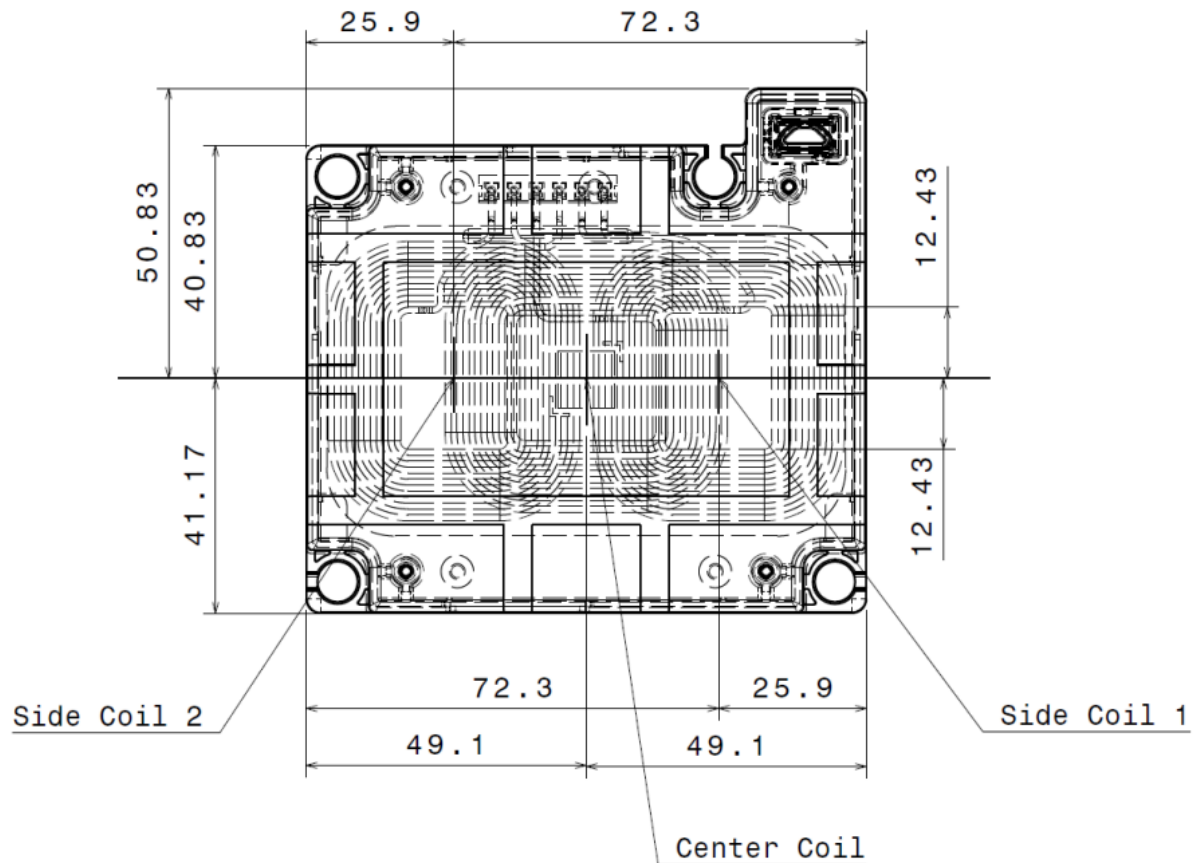
RF Specifications				
Function	Unit	Min	Nominal	Max
NFC	Hertz		13.56MHz	
Wireless Charging (Qi 1.3)	Hertz		127kHz or 13 5kHz	
Notes: 1) ) 127kHz max power 15W 2) ) 135kHz max power 5W				

## Drawings

### Exploded View



### Coil Locations



## Regulatory Notices

### U.S.A and Canada

#### FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. The device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### EMC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



## RF exposure safety

- This device complies with the FCC RF exposure limits and has been evaluated in compliance with portable exposure conditions.
- The equipment must be installed and operated and was evaluated with minimum distance of 0.415 cm of the human body. This distance or greater is maintained by vehicle design and ensures compliance by normal use of the vehicle.

## ISED CANADA

This device complies with Industry Canada License-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. The device must accept any interference received, including interference that may cause undesired operation.

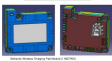
## RF exposure safety:

- This device complies with the ISED RF exposure limits and has been evaluated in compliance with portable exposure conditions.
- The equipment must be installed and operated and was evaluated with minimum distance of 0.415 cm from the human body. This distance or greater is maintained by vehicle design and ensures compliance by normal use of the vehicle.

## FCC Part 18: Information to the user

- This product may create interference, please reposition any device that is showing interference. If unable to remedy the issue, please consult the dealership where purchased or Stellantis N.V. for help.
- This product is maintenance free and does not require any periodic adjustments.

## Documents / Resources

	<p><a href="#">Panasonic WCPM2 Wireless Charging Pad Module 2</a> [pdf] Owner's Manual MY25, 68516749AC, CA-QC7CN0GX, WCPM2 Wireless Charging Pad Module 2, WCPM2, Wireless Charging Pad Module 2, Charging Pad Module 2, Pad Module 2, Module 2</p>
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## References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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