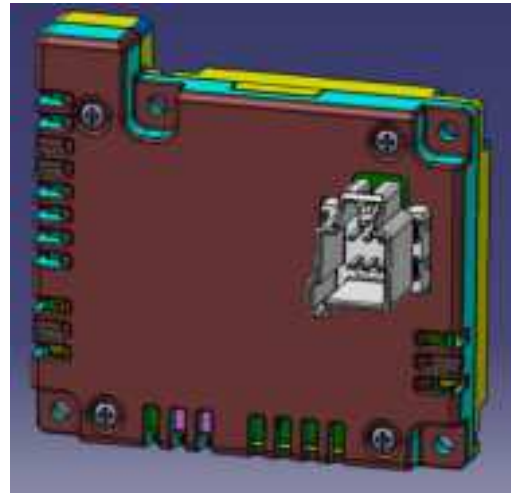
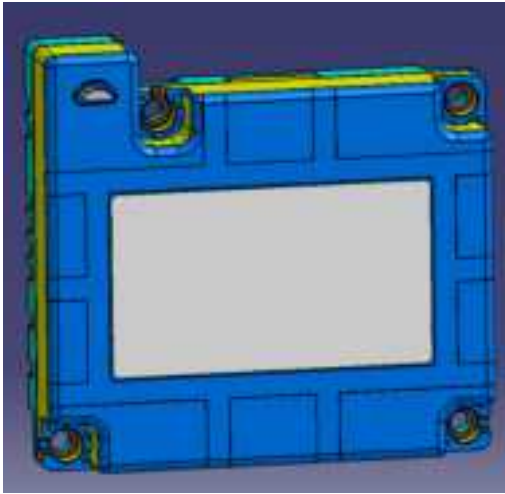


Wireless Charging Pad Module 2 (WCPM2)



Name: Stellantis Wireless Charging Pad Module 2 (WCPM2)
Description: 15W Charger with NFC capabilities.
Model Year: MY25
Customer#: 68516749AC
Panasonic#: CA-QC7CN0GX

1 Support information

1.1 Supplier Contact Information

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

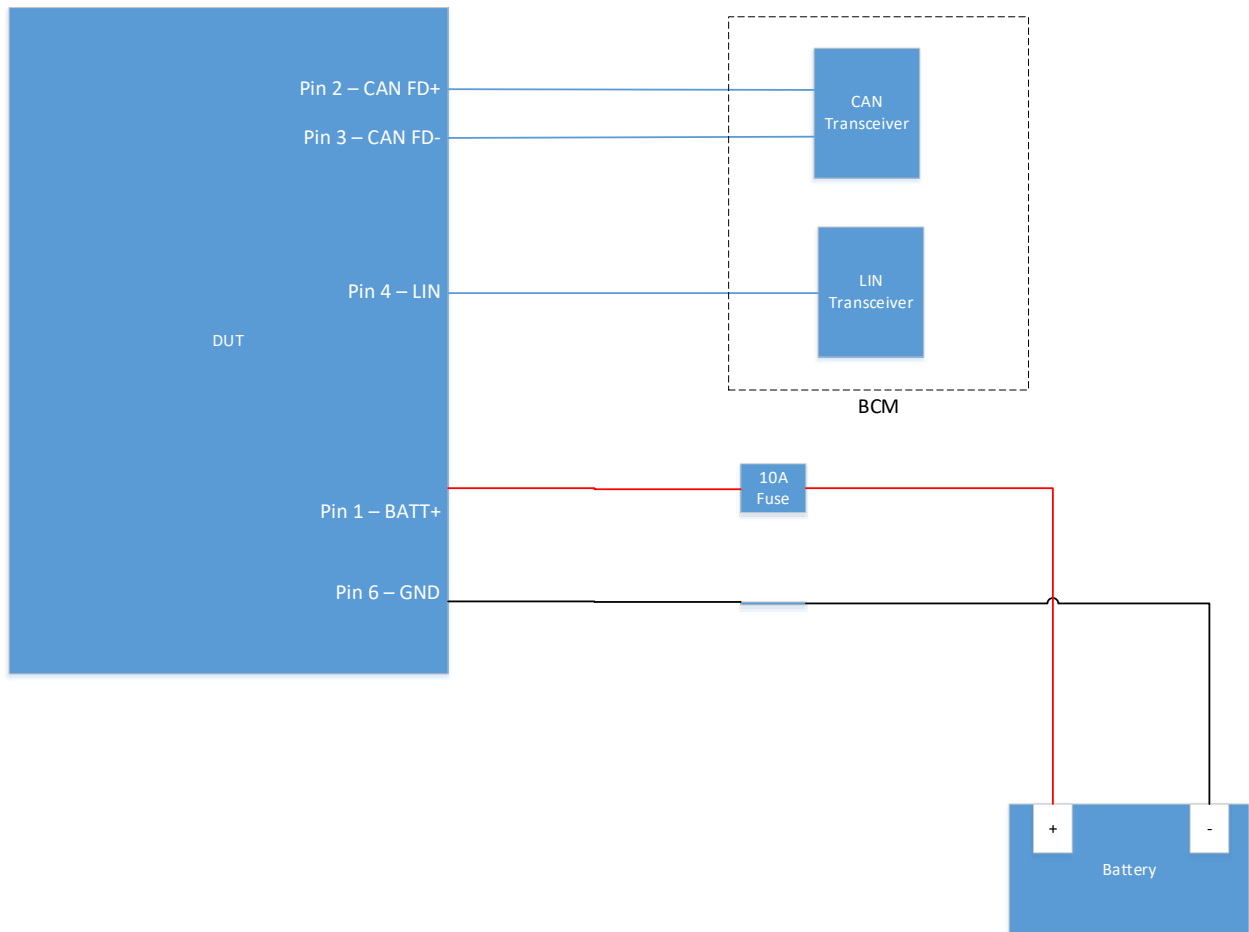
1.2 Revision History

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

2 General

2.1 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	-	-	





2.2 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).

2.3 Functions of the WCPM2

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

2.4 WCPM2 Mode Descriptions

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

Name	Mode Descriptions
Normal Mode, Charging	Charging, 5W (BPP) 135kHz or 15W (EPP) 127kHz Qi compliant device is placed on charger, the blue LED will turn ON and continue until the device is full charged or removed.
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



3 Specifications

3.1 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

3.2 Environmental

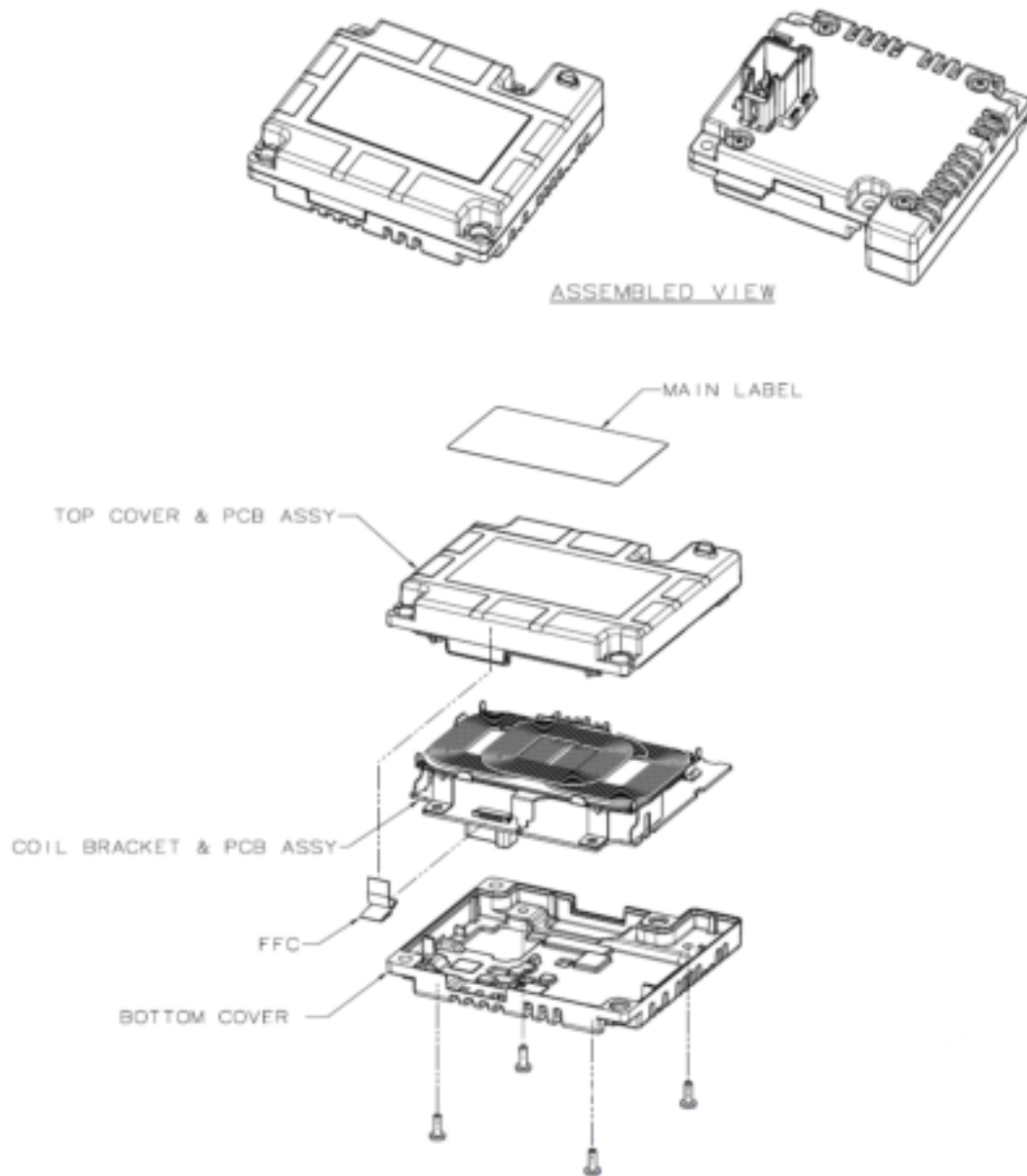
Environmental Specifications				
Function	Unit	Min	Nominal	Max
Operating Temperature	Celsius	-40°C		85°C
Storage Temperature	Celsius	-40°C		105°C
IP Category	NA		IP5K2	
Humidity (non-condensing)	NA			85%

3.3 RF

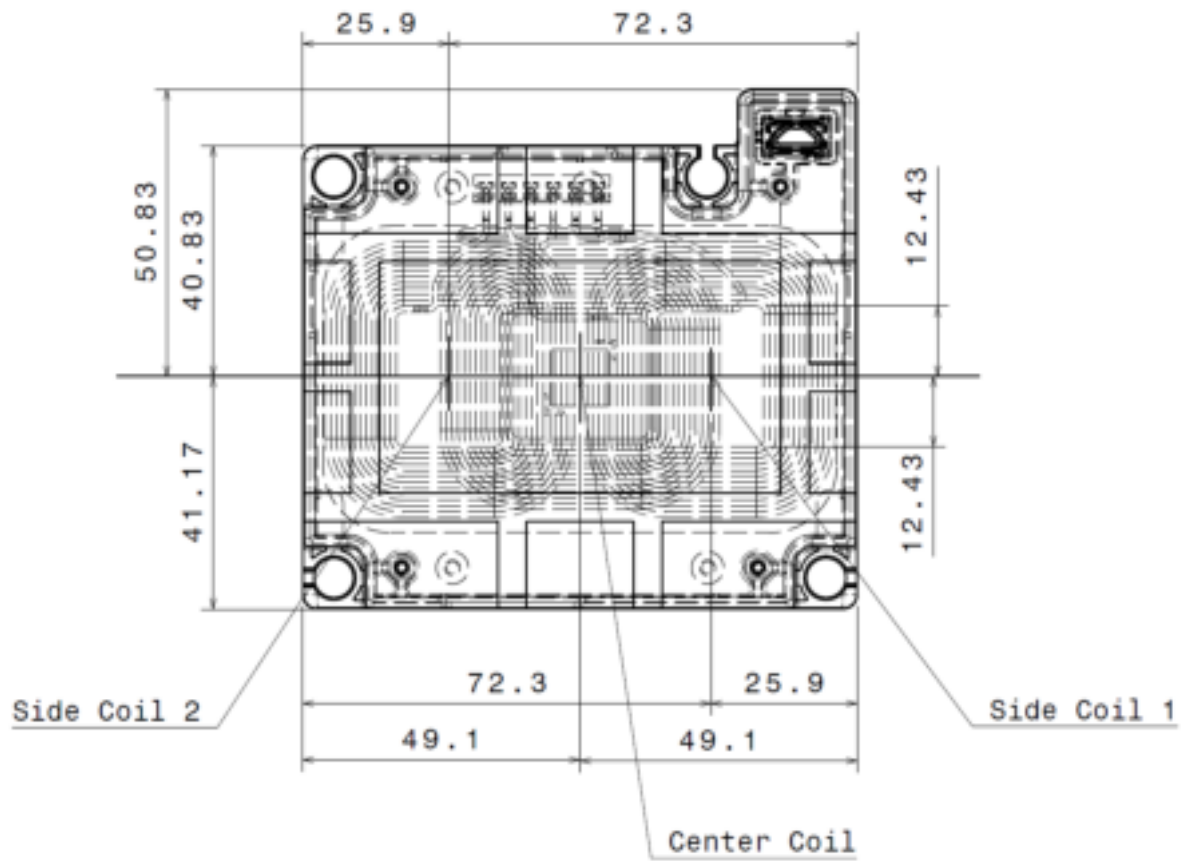
RF Specifications				
Function	Unit	Min	Nominal	Max
NFC	Hertz		13.56MHz	
Wireless Charging (Qi 1.3)	Hertz		127kHz or 135kHz	
Notes: 1)) 127kHz max power 15W 2)) 135kHz max power 5W				

4 Drawings

4.1 Exploded View



4.2 Coil Locations





5 Regulatory Notices

5.1 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

Class B

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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et,
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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

**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.

CAN ICES-003

Les changements ou modifications non expressément approuvés par la partie responsable de la conformité peuvent annuler le droit de l'utilisateur à utiliser l'équipement.

Sécurité d'exposition aux RF

Cet appareil est conforme aux limites d'exposition RF d'ISED et a été évalué conformément aux conditions d'exposition portable.

L'équipement doit être installé et utilisé à une distance minimale de **0.415 cm** du corps humain. Cette distance ou plus est maintenue par la conception du véhicule et assure la conformité par l'utilisation normale du véhicule.

CAN NMB-003

Cet appareil numérique de classe B est conforme à la norme canadienne NMB-003.

5.2 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.

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