# A P T IV 

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RE: WCM-Tx2
FCC: L2C0092TR
IC: 3432A-0092TR
HVIN original (PV1): 13560617
HVIN updated (PV2): 13564196
To whom it may concern,
The GM Wireless Charging Module WCM_tx2 has been updated from a PV1 to PV2 and we are seeking a FCC and ISED class 2 permissive change.

These differences are;

1) HW Change - Antenna PCB

- Layers 3 \& 4 swapped to improve PCB flatness / manufacturing quality
- No copper change

Emissions and immunity evaluated by $3^{\text {rd }}$ party: no change from PV1 to PV2
2) HW Change - BOM change

- Tuning of NFC matching to compensate for slight change in NFC antenna impedance due to antenna board layer swap
- Populate C181 100uF capacitor on output of 5V DC converter
- BOM change only, no layout change

Emissions and immunity evaluated by $3^{\text {rd }}$ party: no change from PV1 to PV2
3) HW Change - New circuit

- New circuit added for receiver demodulation

Emissions and immunity evaluated by $3^{\text {rd }}$ party: no change from PV1 to PV2
4) HW Change - New circuit

- New level shifter circuit to monitor QI_SW1 at micro

Emissions and immunity evaluated by $3^{\text {rd }}$ party: no change from PV1 to PV2
5) HW Change - BOM change

- Component value changes to improve scaling of signals to be read by microcontroller ADC
- No layout change

Emissions and immunity evaluated by $3^{\text {rd }}$ party: no change from PV1 to PV2

## EMC Comparison PV1 $\rightarrow$ PV2

## Background

- Based on the changes in hardware from PV1 to PV2, no emissions impact is expected
- Emission and immunity testing was performed by a $3^{\text {rd }}$ party to verify they are equivalent in PV2 vs PV1

Sincerely,


John Gettel

