Appendix for TEST REPORT, No. I17D00184-MPE01

JRN-430K has two modules in the device, WL18MODGI and PLS62-W.
For WL18MODGI, please refer to the following data.

- Equipment: WiFi and Bluetooth Module
- Model name: WL18MODGI
- FCC ID: Z64-WL18DBMOD
- IC: 451I-WL18DBMOD

1. Radio Frequency Radiation Exposure Evaluation

1.1 Standalone and Collocated Power Density Calculation results, WL18MODGI

[FCC]

（*Standalone*）2.4GHz WLAN Power Density / Limit	（*Standalone*）Bluetooth Power Density / Limit	（*Collocated*） Σ (Power Density / Limit) of WLAN+Bluetooth
0.023	0.007	0.03

（*Standalone*）5GHz WLAN Power Density / Limit	（*Standalone*）Bluetooth Power Density / Limit	（*Collocated*） Σ (Power Density / Limit) of WLAN+Bluetooth
0.05	0.007	0.057

The worst case is 0.05 of 5GHz WLAN.

[ISED]

（*Standalone*）2.4GHz WLAN Power Density / Limit	（*Standalone*）Bluetooth Power Density / Limit	（*Collocated*） Σ (Power Density / Limit) of WLAN+Bluetooth
0.234	0.074	0.308

（*Standalone*）5GHz WLAN Power Density / Limit	（*Standalone*）Bluetooth Power Density / Limit	（*Collocated*） Σ (Power Density / Limit) of WLAN+Bluetooth
0.5	0.074	0.574

The worst case is 0.5 of 5GHz WLAN.

1.2 Standalone Power Density Calculation results, PLS62-W

This application is used the following antenna for PLS62-W.

- Model name: 7ABLE0009
- Antenna type: Half-wave length dipole antenna
- Antenna again: -1.0 ~ +1.6dBi

[FCC]
From page 10, #5.4, LTE Band 2, the Power Density is 0.091 mW/cm^2 and the MPE limit is 1 mW/cm^2, so the ratio is 0.091/1 = 0.091.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 10, #5.5, LTE Band 4, the Power Density is 0.091 mW/cm^2 and the MPE limit is 1 mW/cm^2, so the ratio is 0.091/1 = 0.091.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 10, #5.6, LTE Band 5, the Power Density is 0.079 mW/cm^2 and the MPE limit is 0.549 mW/cm^2, so the ratio is 0.079/0.549 = 0.144
*Ant. gain: 1.0 dBi (numeric gain 1.26)

From page 11, #5.8, LTE Band 12, the Power Density is 0.050 mW/cm^2 and the MPE limit is 0.477 mW/cm^2, so the ratio is 0.050/0.477 = 0.105.
*Ant. gain: -1.0 dBi (numeric gain 0.79)

From page 12, #5.11, GSM850, the Power Density is 0.099 mW/cm^2 and the MPE limit is 0.549 mW/cm^2, so the ratio is 0.099/0.549 = 0.18.
*Ant. gain: 1.0 dBi (numeric gain 1.26)

From page 13, #5.12, GSM1900, the Power Density is 0.057 mW/cm^2 and the MPE limit is 1 mW/cm^2, so the ratio is 0.057/1 = 0.057.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 13, #5.13, WCDMA Band 2, the Power Density is 0.091 mW/cm^2 and the MPE limit is 1 mW/cm^2, so the ratio is 0.091/1 = 0.091.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 13, #5.14, WCDMA Band 4, the Power Density is 0.091 mW/cm^2 and the MPE limit is 1 mW/cm^2, so the ratio is 0.091/1 = 0.091.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 14, #5.15, WCDMA Band 5, the Power Density is 0.079 mW/cm^2 and the MPE limit is 0.549 mW/cm^2, so the ratio is 0.079/0.549 = 0.144.
*Ant. gain: 1.0 dBi (numeric gain 1.26)

The worst case is 0.18 of GSM850.

[ISED]
From page 10, #5.4, LTE Band 2, the Power Density is 0.091 mW/cm^2 and the MPE limit @1850MHz is 4.48 W/m^2 = 0.448 mW/cm^2, so the ratio is 0.091/0.448 = 0.203.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 10, #5.5, LTE Band 4, the Power Density is 0.091 mW/cm^2 and the MPE limit @1710MHz is 4.24 W/m^2 = 0.424 mW/cm^2, so the ratio is 0.091/0.424 = 0.215.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 10, #5.6, LTE Band 5, the Power Density is 0.079 mW/cm^2 and the MPE limit @824MHz is 2.58 W/m^2 = 0.258 mW/cm^2, so the ratio is 0.079/0.258 = 0.306.
*Ant. gain: 1.0 dBi (numeric gain 1.26)

From page 11, #5.8, LTE Band 12, the Power Density is 0.079 mW/cm^2 and the MPE limit @699MHz is 2.30 W/m^2 = 0.230 mW/cm^2, so the ratio is 0.079/0.230 = 0.343.
*Ant. gain: -1.0 dBi (numeric gain 0.79)

From page 12, #5.11, GSM850, the Power Density is 0.099 mW/cm^2 and the MPE limit @824MHz is 2.58 W/m^2 = 0.258 mW/cm^2, so the ratio is 0.099/0.258 = 0.384.
*Ant. gain: 1.0 dBi (numeric gain 1.26)

From page 13, #5.12, GSM1900, the Power Density is 0.057 mW/cm^2 and the MPE limit @1850MHz is 4.48 W/m^2 = 0.448 mW/cm^2, so the ratio is 0.057/0.448 = 0.127.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 13, #5.13, WCDMA Band 2, the Power Density is 0.091 mW/cm^2 and the MPE limit @1850MHz is 4.48 W/m^2 = 0.448 mW/cm^2, so the ratio is 0.091/0.448 = 0.203.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 13, #5.14, WCDMA Band 4, the Power Density is 0.091 mW/cm^2 and the MPE limit @1710MHz is 4.24 W/m^2 = 0.424 mW/cm^2, so the ratio is 0.091/0.424 = 0.215.
*Ant. gain: 1.6 dBi (numeric gain 1.45)

From page 14, #5.15, WCDMA Band 5, the Power Density is 0.079 mW/cm^2 and the MPE limit @824MHz is 2.58 W/m^2 = 0.258 mW/cm^2, so the ratio is 0.079/0.258 = 0.306.
*Ant. gain: 1.0 dBi (numeric gain 1.26)

The worst case is 0.384 of GSM850.

1.3 Summation of the calculation results

[FCC]
WL18MODGI (5GHz WLAN) + GSM850 = 0.5 + 0.18 = 0.68

According to 47 CFR § 2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

[ISED]
WL18MODGI (5GHz WLAN) + GSM850 = 0.5 + 0.384 = 0.884

According to ISED RSS-102 Issue 5, the RF exposure analysis concludes that the RF Exposure is IC compliant.