Exhibit: RF Exposure – FCC

(FCC ID: JQU802041)

RF Exposure – FCC

The device is intended for use on extremities and the minimum separation distance from the radiating structure to any part of the body or extremity of a user is 120 mm as stated by the manufacturer during normal operation.

General SAR test exclusion guidance:

As per FCC KDB 447498 Section 4.3.1 b), the SAR Test Exclusion Threshold for 100 MHz to 6 GHz at test separation distances > 50 mm is determined by:

1) {[Power allowed at *numeric threshold* for 50 mm in step a)] + [(test separation distance – 50 mm)·($f_{(MHz)}$/150)]} mW, for 100 MHz to 1500 MHz

2) {[Power allowed at *numeric threshold* for 50 mm in step a)] + [(test separation distance – 50 mm)·10]} mW, for > 1500 MHz and ≤ 6 GHz

Where:
Power allowed at *numeric threshold* for 50 mm in step a) (for 1-g SAR) is given by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] $[\sqrt{f_{(GHz)}}] \leq 7.5$

(max power of channel, including tune-up tolerance, mW) $\leq [7.5 / \sqrt{f_{(GHz)}}]$ * [min. test separation distance, mm]

Where:
$f_{(GHz)}$ is the RF channel transmit frequency in GHz
(max. power of channel, including tune-up tolerance, mW)
(min. test separation distance, mm)

These test exclusion conditions are based on <u>source-based time-averaged maximum conducted output power</u> of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions

SAR Calculations: 915 MHz transmitter

Power allowed at *numeric threshold* for 50 mm in step a)

(max power of channel, including tune-up tolerance, mW) $\leq [7.5 / \sqrt{f_{(GHz)}}]$ * [min. test separation distance, mm]

(max power of channel, including tune-up tolerance, mW) $\leq$ [7.5 / $\sqrt{}$(0.915 GHz)] * [50 mm)

(max power of channel, including tune-up tolerance, mW) $\leq$ 392.03 mW

Therefore SAR Exclusion for 120 mm test distance is

{[Power allowed at *numeric threshold* for 50 mm in step a)] + [(test separation distance – 50 mm)·($f_{(MHz)}$/150)]} mW, for 100 MHz to 1500 MHz

{[392.03 mW] + [(120 mm – 50 mm) * (915 MHz/150)]} mW

{819} mW

Peak conducted power of transmitter was measured to be 571.5 mW. Therefore, the EUT meets SAR Exclusion Threshold based on peak conducted power.

Radiofrequency Radiation Exposure Evaluation: Mobile Devices

Portable devices shall be evaluated for RF radiation exposure according to the provisions of FCC §2.1093 and the MPE guidelines identified in FCC §1.1310.

The limits, as defined FCC 1.1310 Table 1 (B) limits for general public exposure was applied. The limits for the frequency ranges 300 MHz to 1.5 GHz and 1.5 GHz to 100 GHz was applied. The limits are f/1500 mW/cm^2 and 1.0 mW/cm^2 respectively

The power density formula is given by:
P_d = PG / (4*pi*R^2)

Where,
P = Peak Antenna Conducted Power in mW
G = Numeric Antenna Gain
Pi = 3.1416
R = Separation distance in cm

MPE Calculations: 915 MHz transmitter

The LMS transmitter have a 2.2 dBi antenna and the maximum peak power is 571.5 mW.

$P_d = (571.5 \text{ mW} * 1.65) / (4 * 3.1416 * (12\text{cm})^2)$
$P_d = 0.5 \text{ mW/ cm}^2$

The device passes the requirement. The calculated power density is 0.5 mW/cm^2 and this is below the $(902.8/1500) = 0.6$ mW/cm^2 limit.