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## RF EXPOSURE CALCULATIONS

### Requirement:

According to USA CFR 15 §1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. For Canada, RSS-102 sets out the requirements and measurement techniques used to evaluate radio frequency (RF) exposure compliance of radiocommunication apparatus designed to be used within the vicinity of the human body.

### Maximum Permissible Exposure Calculations:

USA REF: 1.1310, 2.1091/1093, 447498 D01 General RF Exposure Guidance v06

IC REF: RSS-102 Issue 5, Safety Code 6

Min. Sep. Distance: 20 cm (Mobile)

Test Date: 4-Mar-22

Test Engineer: Joseph Brunett

EUT: Allegion FE789W(C)

EUT Mode: Worst Case

Meas. Distance: Conducted

Mode	Freq.	Worst Case Po/EIRP(Avg)**	E20cm(Avg)	S20cm(Avg)****	Canada ISED RSS-102 MPE		USA FCC 1.1310 MPE	
					SC6 Limit (S20cm)	MPE Ratio	S Limit	MPE Ratio
	MHz	dBm	dBuV/m	mW/cm2	mW/cm2		mW/cm2	
BLE	2402	3.1	121.9	0.00041	5.5	0.0000747	1.00000	0.0004091
BLE	2440	2.9	121.6	0.00039	5.5	0.0000710	1.00000	0.0003889
BLE	2480	2.8	121.5	0.00038	5.5	0.0000691	1.00000	0.0003783
WLAN - B/G/N	2412.00	14.0	132.8	0.00504	5.5	0.0009215	1.00000	0.0050443
WLAN - B/G/N	2437.00	11.3	130.1	0.00271	5.5	0.0004949	1.00000	0.0027089
WLAN - B/G/N	2462.00	13.9	132.6	0.00486	5.5	0.0008881	1.00000	0.0048618
					MPE Max (<1):	.000921	MPE Total (<1):	.005044
					Complies?	Yes	Complies?	Yes

\*As Measured / Computed from highest fundamental emission, see fundamental emission section of this report.

\*\*maximum of either EIRP or Pout as measured.

\*\*\* For FCC MPE, use of 300 kHz limit for signals below 300 kHz as previously requested by FCC.

\*\*\*\* EIRP (mW) = S (mW/cm<sup>2</sup>) x 4 x PI x 20cm<sup>2</sup>

### Summary:

The EUT with all transmitters is compliant with both the FCC power density limit and the ISED Exposure Evaluation limits.