

**MPE CALCULATION**  
**FCC ID: QTA-AF120, FCC ID: 2ABCB-RPI3BP**

**RF Exposure Requirements:** 47 CFR §1.1307(b)  
**RF Radiation Exposure Limits:** 47 CFR §1.1310  
**RF Radiation Exposure Guidelines:** FCC OST/OET Bulletin Number 65  
**EUT Frequency Band: 2.4GHz** 2412-2462 MHz,  
**Limits for General Population/Uncontrolled Exposure in the band of:** 1500 - 100,000 MHz  
**Power Density Limit:** 1 mW / cm<sup>2</sup>

**Equation:**  $S = PG / 4\pi R^2$  or  $R = \sqrt{PG / 4\pi S}$   
 Where, S = Power Density  
 P = Power Input to Antenna  
 G = Antenna Gain  
 R = distance to the center of radiated antenna

**EUT: SensArray®Automation FOUP, Model No.: AF120**

Type	Conducted Power (dBm)	Antenna Gain (dBi)	Tune-Up Tolerance	Tolerance Max Power (dBm)	Measurement Distance (cm)	Calculated MPE (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )	Pass/Fail
2.4G WLAN	16.025	1.9	±1dB	17.025	20	0.016	1	Pass
Raspberry Pi 2.4G WLAN	14.77	3.5	±1dB	15.77	20	0.017	1	Pass

Total: 0.016+0.017 =0.033<1

The Above Result had shown that the device complied with MPE requirement at a prediction distance of 20cm.

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