

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Control Unit CU458-2
Model Name	A1320
FCC ID	O3YCU458-2

2. EVALUATION METHOD

According to 447498 D01 General RF Exposure Guidance v05

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Where $f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

3. CALCULATION

BLE:

$$P_t = -3.690\text{dBm} = 0.43\text{mW}$$

The value of the Maximum output power P_t is referred to the test report of the CFR47

§15.247.

The result for RF exposure evaluation $\text{SAR} = (0.43\text{mW} / 5\text{mm}) \cdot [\sqrt{2.48(\text{GHz})}] = 0.14 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

2.4G GFSK:

$$P_t = -0.649\text{dBm} = 0.86\text{mW}$$

The value of the Maximum output power P_t is referred to the test report of the CFR47

§15.247.

The result for RF exposure evaluation $\text{SAR} = (0.86\text{mW} / 5\text{mm}) \cdot [\sqrt{2.403(\text{GHz})}] = 0.27 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Note: BLE and 2.4G GFSK don't work at the same time.

4. CONCLUSION

The SAR evaluation is not required.