Client:	Apptricity Corporation	PR Number:	PR124075
Model:	BT Tag 550-135-100	T-Log Number:	TL124075-RA
		Project Manager:	Christine Krebill
Contact:	Marci Haslam	Project Engineer:	David Bare
Standard:	FCC Part 15.247, RSS-247	Class:	N/A

Maximum Permissible Exposure / SAR Exclusion

Specific Details

Objective: Evaluate the RF Exposure requirements per FCC 1.1310, 2.1091, 2.1093 and RSS-102.

Date of Test: 1/21/2021
Test Engineer: David Bare

General Test Configuration

Calculation uses the free space transmission formula:

$$S = (PG)/(4\ \pi d^2)$$

Where: S is power density (W/m^2), P is output power (W), G is antenna gain relative to isotropic, d is separation distance from the transmitting antenna (m).

SAR exclusion calculation formula is from FCC KDB 447498 D01 section 4.3:

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

Where: $f_{(GHz)}$ is the RF trasnmit channel frequency

Summary of Results

Device complies with SAR exclusion at 5mm separation:	Yes

Deviations From The Standard

No deviations were made from the requirements of the standard.

FCC SAR Exclusion Calculation

Freq.	EUT Power		Cable Loss	Ant	Power at Ant		Separation	SAR	SAR Exclusion Limit
			Loss	Gain		EIRP	Distance	Exclusion	
MHz	dBm	mW*	dB	dBi	dBm	mW	(mm)	Calc.	
2480	1.4	1.38	0	3.5	1.4	3.09	5.0	0.43	3.0

Power for calculation reduced by 20 dB due to as by design in any 1 second period the maximum exposure duty cycle would be .35% (3.53ms/second).