Antenna Test Report

Inverted F Trace Antenna

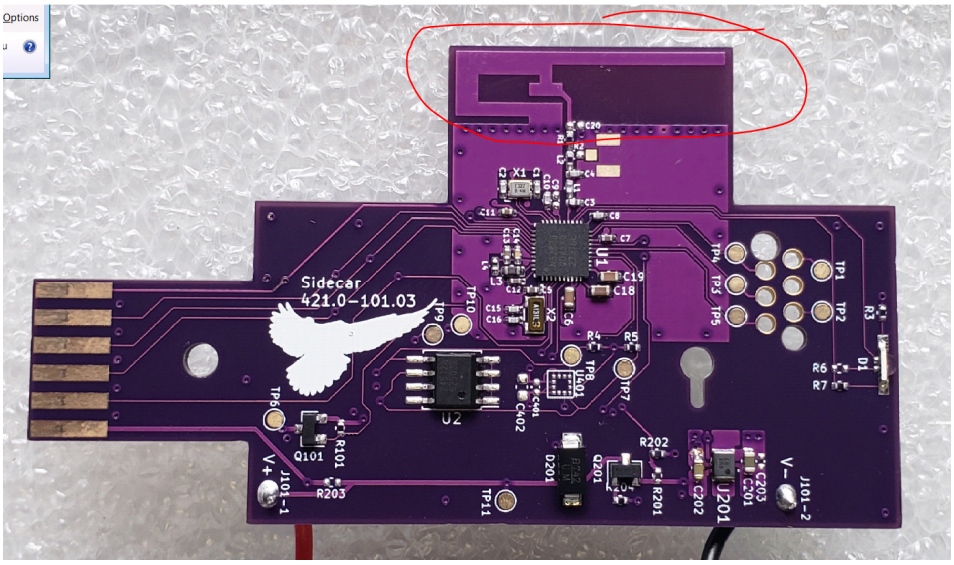

Figure 1. EUT antenna design

Table 1. Measured Field Strength from Test Report

Test: FCC Part 15,247(d), Test Distance= 3 m								
Frequency (MHz)	**Test Data (dBuV)**	**Additional Factor**	**AF+CL-PA (dB/m)**	**Corrected Results (dBuV/m)**	**Limits (dBuV/m)**	**Distance / Polarization**	**Margin (dB)**	**Detector**
Low Channel - PEAK								
2402.00	67.74	0.00	32.35	100.09	--	3.0m./HORZ	--	**PK**
Mid Channel – PEAK								
2442.00	69.13	0.00	32.55	101.68	--	3.0m./VERT	--	**PK**
High Channel– PEAK								
2480.00	67.06	0.00	32.81	99.87	--	3.0m./VERT	--	**PK**

Antenna gain calculated using the following equations to convert the measured field strength value to V/m.

$$\text{dBuV/m to V/m} = 10^{\left(\frac{[\text{dBuV/m}] - 120}{20}\right)}$$

Table 2. Converted Fundamental to V/m

Frequency of Fundamental (MHz)	V/m	
2402	0.101	
2442	0.121	
2480	0.099	

Table 3. Measured Conducted Output Power from Test Report

Frequency of Fundamental (MHz)	Raw Test Data dBm	Converted Data (mW)
2402	-1.19	0.75
2442	-0.47	0.89
2480	0.17	1.03

Gain numeric = (Meters * V/m)^2/(30*Watts)
Watts = measured conducted output power from Table 3 above.
Gain numeric to Gain dBi = 10^(Gain numeric/10)

Table 4. Antenna Gain

Frequency of Fundamental (MHz)	Gain Numeric	Gain dBi	Peak Antenna Gain dBi
2402	0.404	1.09	1.12
2442	0.494	1.12	
2480	0.284	1.06	