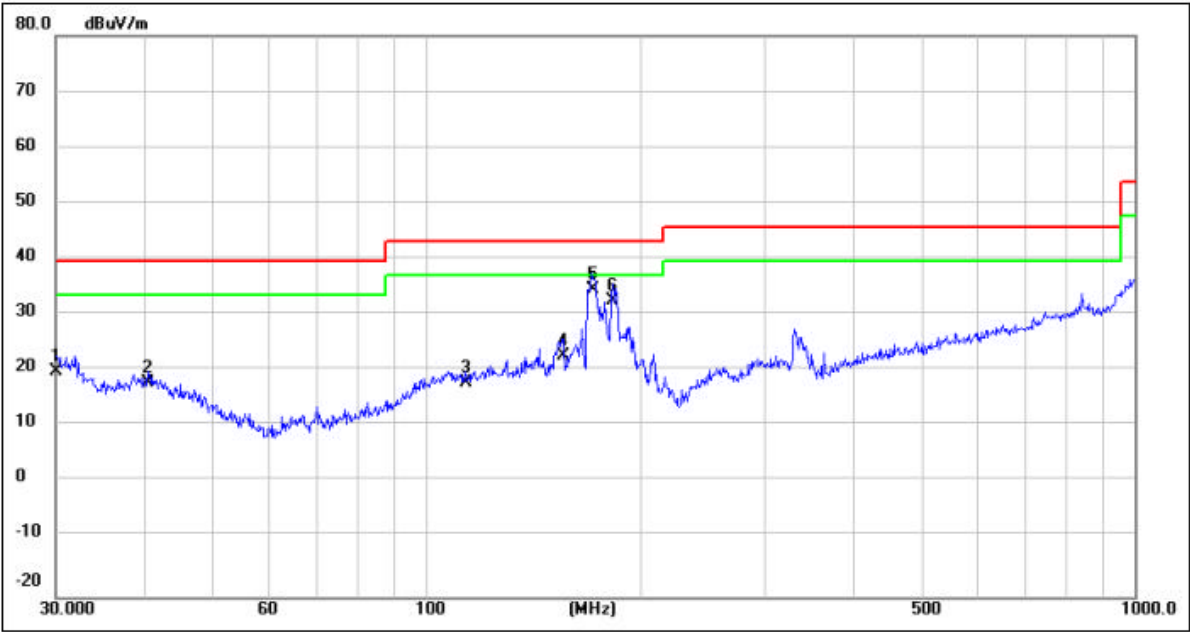
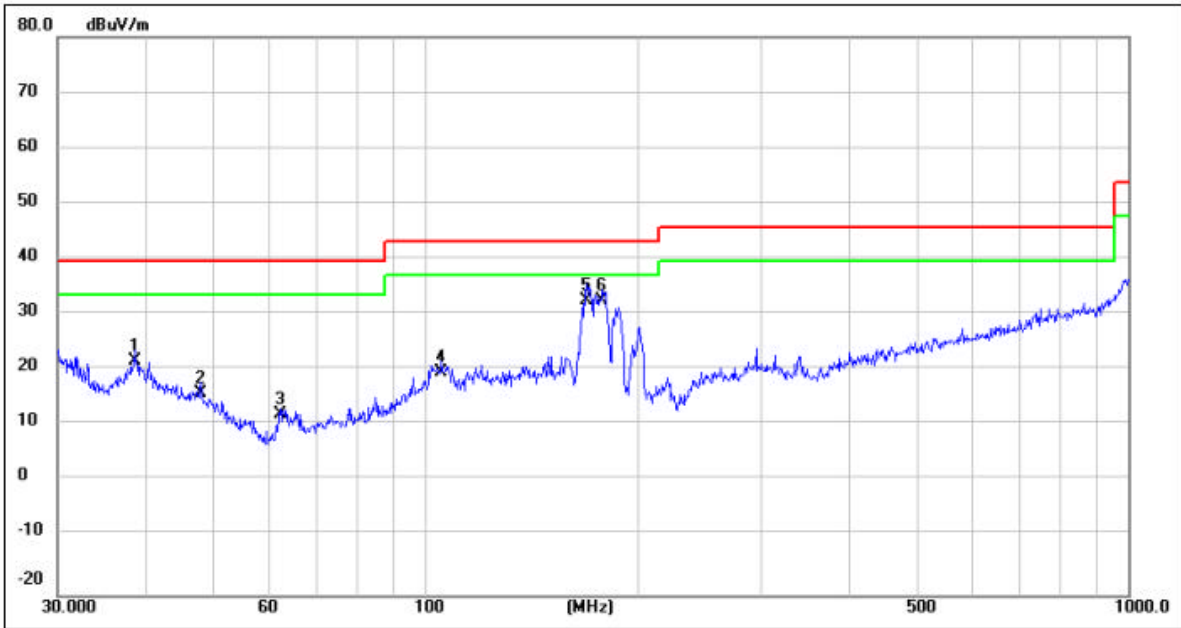


■ Spurious Emission below 1GHz (30MHz to 1GHz)
All modes have been tested, and the worst result recorded was report as below:



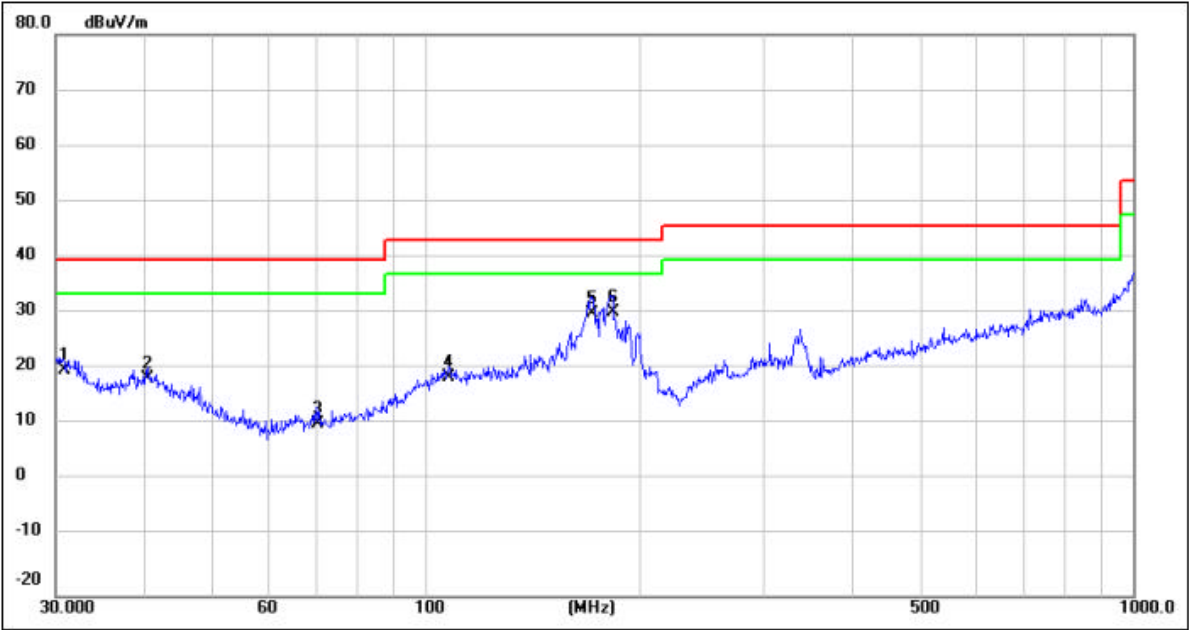
Site:		Antenna::Vertical	Temperature(C):24.5(C)
Limit:	FCC Part15C Radiation(QP)		Humidity(%):55%
M/N.:	BT150	Power Rating:	AC 120V/60Hz
Mode:	TX 2402	Test Engineer:	Ken
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.			
1	30.0000	20.01	0.38	20.39	40.00	-19.61	QP			
2	40.4172	23.49	-5.20	18.29	40.00	-21.71	QP			
3	113.3163	22.26	-3.85	18.41	43.50	-25.09	QP			
4	155.9101	27.26	-4.06	23.20	43.50	-20.30	QP			
5 *	171.3926	40.45	-5.51	34.94	43.50	-8.56	QP			
6	183.2005	39.77	-6.99	32.78	43.50	-10.72	QP			



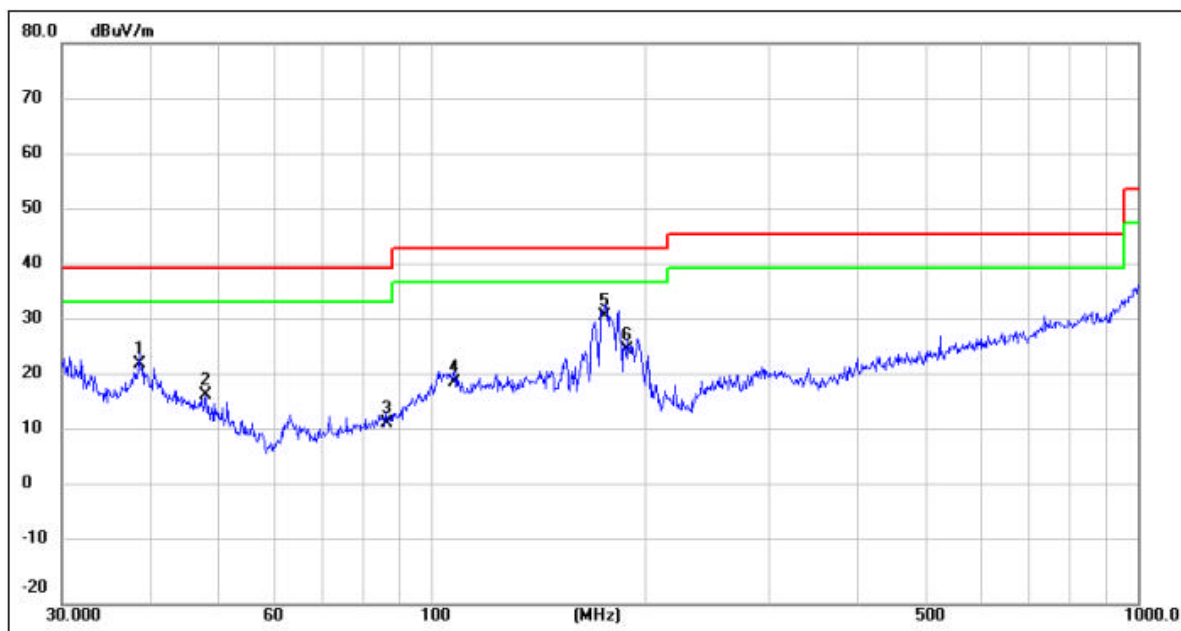
Site:	Antenna::Horizontal	Temperature(C):24.5(C)
Limit: FCC Part15C Radiation(QP)		Humidity(%):55%
M/N.: BT150	Power Rating:	AC 120V/60Hz
Mode: TX 2402	Test Engineer:	Ken
Note:		

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.			
1	38.6160	27.23	-5.03	22.20	40.00	-17.80	QP			
2	47.9940	24.96	-8.69	16.27	40.00	-23.73	QP			
3	62.2128	26.93	-14.29	12.64	40.00	-27.36	QP			
4	105.6415	24.43	-4.44	19.99	43.50	-23.51	QP			
5	169.5990	38.05	-5.23	32.82	43.50	-10.68	QP			
6 *	178.7584	39.75	-6.76	32.99	43.50	-10.51	QP			



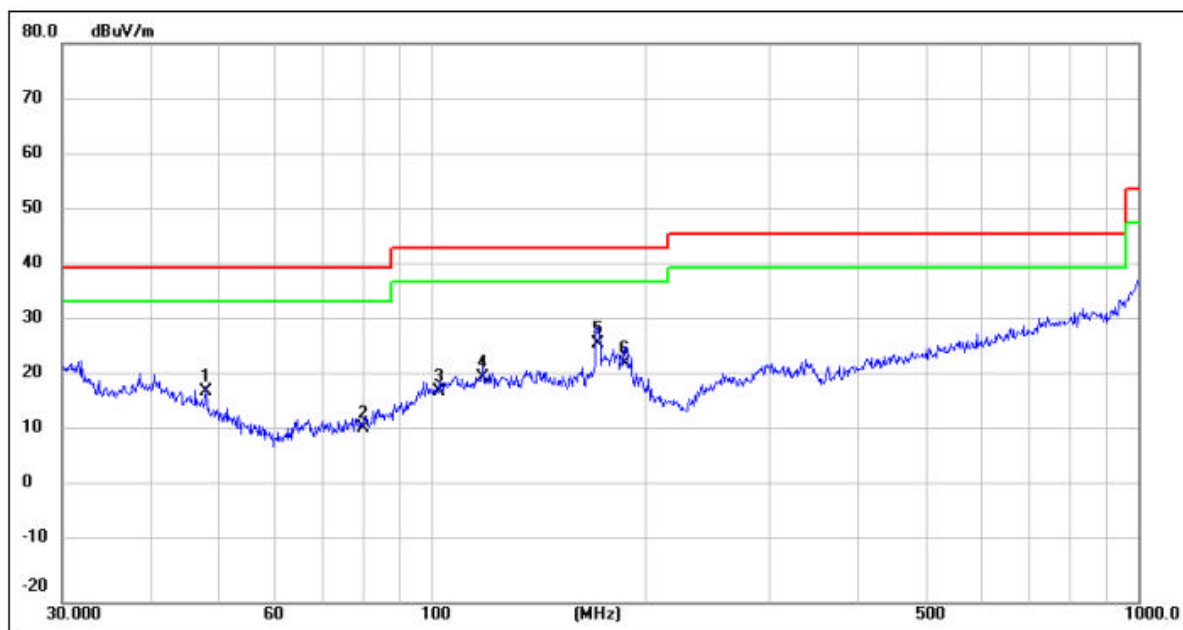
Site:	Antenna::Vertical		Temperature(C):24.5(C)
Limit:	FCC Part15C Radiation(QP)		Humidity(%):55%
M/N.:	BT150	Power Rating:	AC 120V/60Hz
Mode:	TX 2440	Test Engineer:	Ken
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.			
1	30.7455	20.83	-0.43	20.40	40.00	-19.60	QP			
2	40.4172	24.01	-5.20	18.81	40.00	-21.19	QP			
3	70.0903	23.19	-12.52	10.67	40.00	-29.33	QP			
4	107.8877	23.34	-4.31	19.03	43.50	-24.47	QP			
5	171.9946	36.04	-5.61	30.43	43.50	-13.07	QP			
6 *	183.8440	37.74	-7.00	30.74	43.50	-12.76	QP			



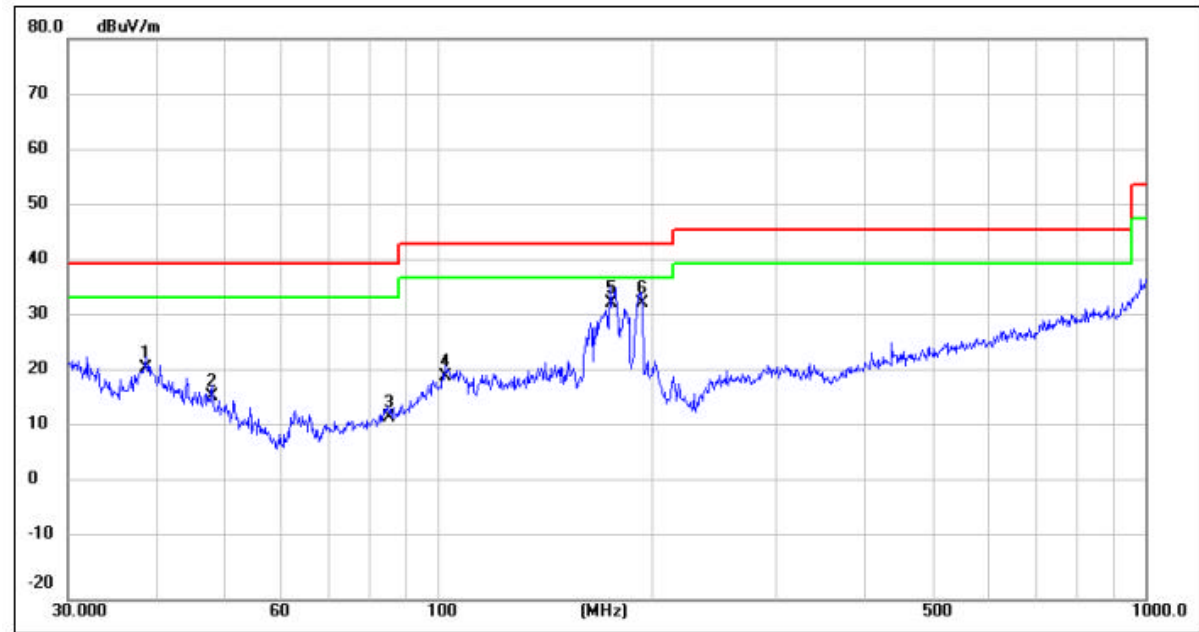
Site:	Antenna::Horizontal	Temperature(C):24.5(C)
Limit: FCC Part15C Radiation(QP)		Humidity(%):55%
M/N.: BT150	Power Rating:	AC 120V/60Hz
Mode: TX 2440	Test Engineer:	Ken
Note:		

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.			
1	38.6160	27.94	-5.03	22.91	40.00	-17.09	QP			
2	47.9940	26.02	-8.69	17.33	40.00	-22.67	QP			
3	86.2001	21.82	-9.64	12.18	40.00	-27.82	QP			
4	107.8877	23.96	-4.31	19.65	43.50	-23.85	QP			
5 *	176.2686	37.82	-6.33	31.49	43.50	-12.01	QP			
6	189.7385	32.42	-7.05	25.37	43.50	-18.13	QP			



Site:		Antenna::Vertical	Temperature(C):24.5(C)
Limit:	FCC Part15C Radiation(QP)		Humidity(%):55%
M/N.:	BT150	Power Rating:	AC 120V/60Hz
Mode:	TX 2480	Test Engineer:	Ken
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.			
1	47.9940	26.50	-8.69	17.81	40.00	-22.19	QP			
2	80.0805	22.03	-10.87	11.16	40.00	-28.84	QP			
3	102.7192	22.46	-4.61	17.85	43.50	-25.65	QP			
4	118.1862	23.58	-3.36	20.22	43.50	-23.28	QP			
5 *	171.9946	32.04	-5.61	26.43	43.50	-17.07	QP			
6	187.7529	29.97	-7.04	22.93	43.50	-20.57	QP			



Site:		Antenna::Horizontal	Temperature(C):24.5(C)
Limit:	FCC Part15C Radiation(QP)		Humidity(%):55%
M/N.:	BT150	Power Rating:	AC 120V/60Hz
Mode:	TX 2480	Test Engineer:	Ken
Note:			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.			
1	38.6160	26.44	-5.03	21.41	40.00	-18.59	QP			
2	47.9940	24.98	-8.69	16.29	40.00	-23.71	QP			
3	84.9995	22.42	-9.88	12.54	40.00	-27.46	QP			
4	102.3597	24.34	-4.63	19.71	43.50	-23.79	QP			
5	175.0368	39.05	-6.13	32.92	43.50	-10.58	QP			
6 *	193.7728	40.01	-7.07	32.94	43.50	-10.56	QP			

7.6 CONDUCTED EMISSIONS TEST

7.6.1 Applicable Standard

According to FCC Part 15.207(a)

7.6.2 Conformance Limit

Frequency(MHz)	Conducted Emission Limit	
	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

Remark: Test results were obtained from the following equation:

$$\begin{aligned}\text{Measurement (dB}\mu\text{V)} &= \text{LISN Factor (dB)} + \text{Cable Loss (dB)} + \text{Reading (dB}\mu\text{V)} \\ \text{Over (dB)} &= \text{Measurement (dB}\mu\text{V)} - \text{Limit (dB}\mu\text{V)}\end{aligned}$$

7.6.3 Test Configuration

Test according to clause 6.3 conducted emission test setup

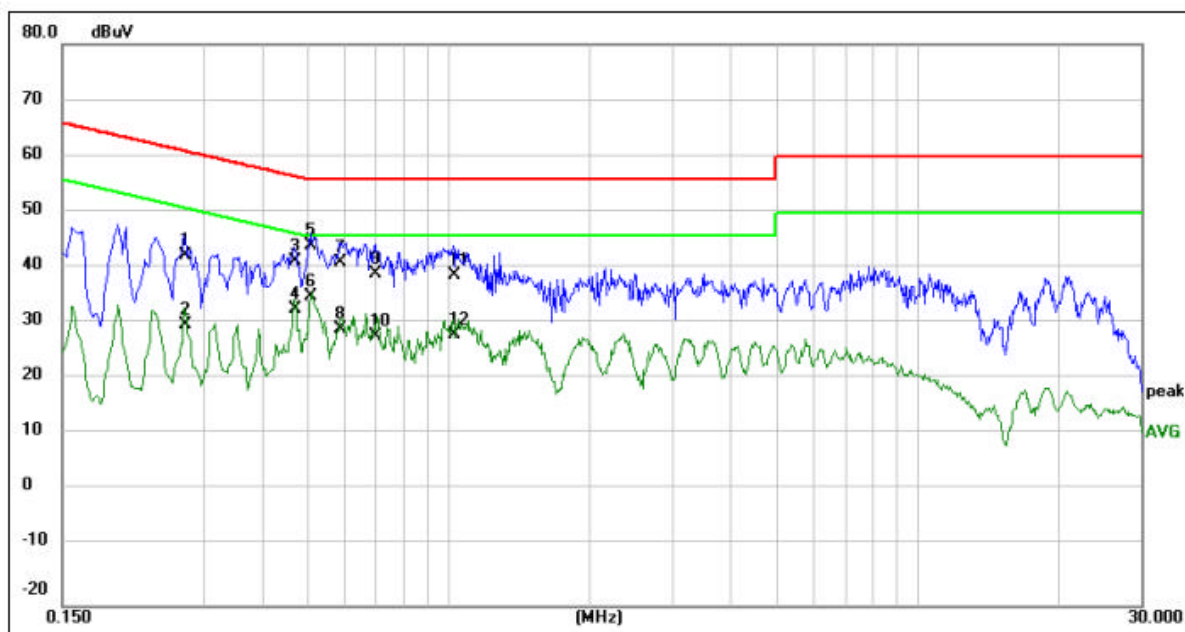
7.6.4 Test Procedure

The EUT was placed on a table which is 0.8m above ground plane.
Maximum procedure was performed on the highest emissions to ensure EUT compliance.
Repeat above procedures until all frequency measured were complete.

7.6.5 Test Results

Pass

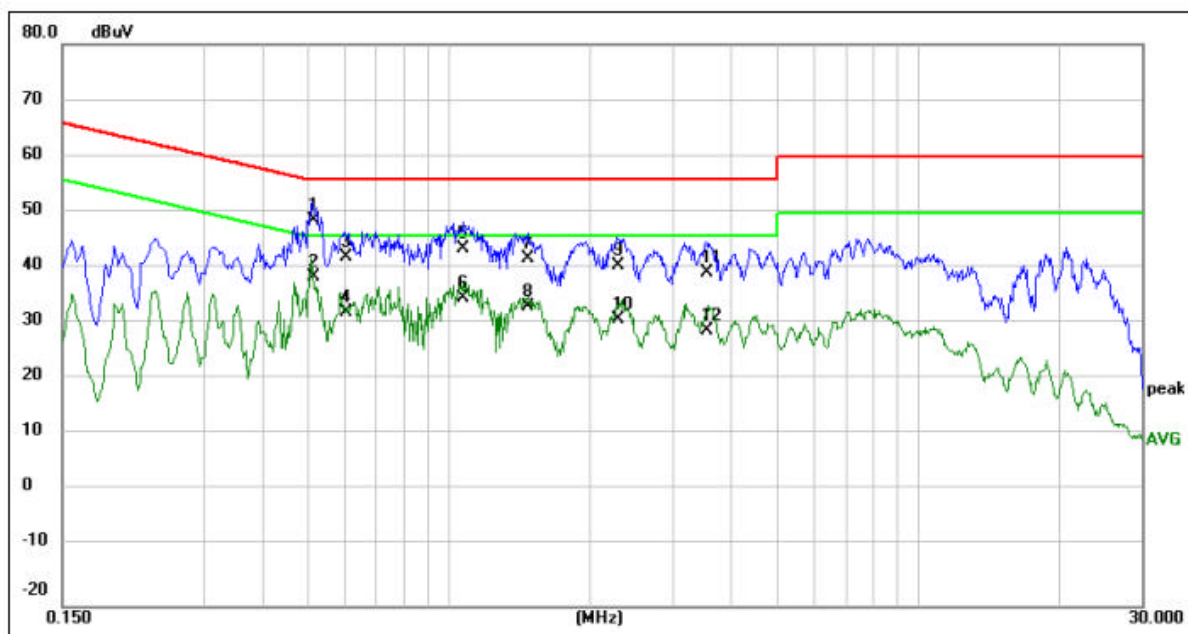
All modes have been tested, and the worst result recorded was report as below:



Site:	Phase:L1	Temperature(C):24(C)
Limit: FCC Part 15C Conduction(QP)		Humidity(%):53%

M/N.: BT150	Power Rating: AC120V/60Hz
Mode: BLE Mode	Test Engineer: Ken
Note:	

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
1	0.2740	30.68	11.86	42.54	61.00	-18.46	QP	
2	0.2740	18.23	11.86	30.09	51.00	-20.91	AVG	
3	0.4700	29.65	11.89	41.54	56.51	-14.97	QP	
4	0.4700	21.03	11.89	32.92	46.51	-13.59	AVG	
5	0.5100	32.24	11.89	44.13	56.00	-11.87	QP	
6 *	0.5100	23.25	11.89	35.14	46.00	-10.86	AVG	
7	0.5860	29.33	11.89	41.22	56.00	-14.78	QP	
8	0.5860	17.54	11.89	29.43	46.00	-16.57	AVG	
9	0.6980	27.35	11.89	39.24	56.00	-16.76	QP	
10	0.6980	16.35	11.89	28.24	46.00	-17.76	AVG	
11	1.0260	27.07	11.85	38.92	56.00	-17.08	QP	
12	1.0260	16.53	11.85	28.38	46.00	-17.62	AVG	



Site:	Phase:N	Temperature(C):24(C)
Limit: FCC Part 15C Conduction(QP)	Humidity(%):53%	
M/N.: BT150	Power Rating: AC120V/60Hz	
Mode: BLE Mode	Test Engineer: Ken	
Note:		

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
1 *	0.5140	36.84	11.89	48.73	56.00	-7.27	QP	
2	0.5140	26.71	11.89	38.60	46.00	-7.40	AVG	
3	0.6020	30.28	11.89	42.17	56.00	-13.83	QP	
4	0.6020	20.39	11.89	32.28	46.00	-13.72	AVG	
5	1.0740	31.87	11.81	43.68	56.00	-12.32	QP	
6	1.0740	23.19	11.81	35.00	46.00	-11.00	AVG	
7	1.4780	30.53	11.40	41.93	56.00	-14.07	QP	
8	1.4780	21.93	11.40	33.33	46.00	-12.67	AVG	
9	2.2860	30.14	10.60	40.74	56.00	-15.26	QP	
10	2.2860	20.64	10.60	31.24	46.00	-14.76	AVG	
11	3.5300	29.49	9.93	39.42	56.00	-16.58	QP	
12	3.5300	19.25	9.93	29.18	46.00	-16.82	AVG	

7.7 ANTENNA APPLICATION

7.7.1 Antenna Requirement

Standard	Requirement
FCC CRF Part 15.203	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

7.7.2 Result

PASS.

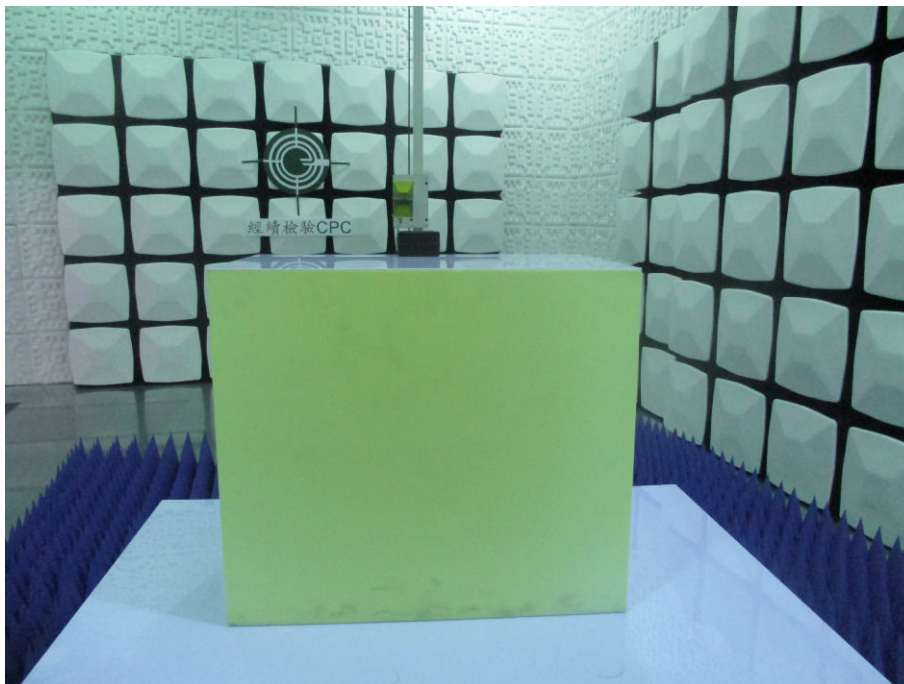
The EUT has 1 antenna: a PCB Antenna for BT V5.0 with classic model, the gain is 0.5 dBi;

Note: ☒ Antenna use a permanently attached antenna which is not replaceable.
☐ Not using a standard antenna jack or electrical connector for antenna replacement
☐ The antenna has to be professionally installed (please provide method of installation)

which in accordance to section 15.203, please refer to the internal photos.

8 PHOTOGRAPHS

8.1 PHOTO OF RADIATION EMISSION MEASUREMENT



8.2 PHOTO OF POWER LINE CONDUCTED EMISSION MEASUREMENT



----- END OF REPORT -----