



Radio Test Report

Report No.: STS2512547W03

Issued for

Tyco Safety Products Canada Ltd.

3301 Langstaff Road Concord, Ontario, L4K 4L2 Canada

Product Name: IQ Lock-PGP, IQ Lock Touch-PGP

Brand Name: IQ

Model Name: IQDLK-PGOK-MB

Series Model(s): IQDLK-PGOK-SN, IQDLK-PGOK-ORB,
IQDLK-PGONKT-SN, IQDLK-PGONKT-MB,
IQDLK-PGONKT-ORB

FCC ID: F53252RFLOCK

Test Standards: FCC Part15.249

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

**TEST REPORT**

Applicant's Name.....: Tyco Safety Products Canada Ltd.
Address: 3301 Langstaff Road Concord, Ontario, L4K 4L2 Canada
Manufacturer's Name.....: Shenzhen Kaadas Intelligent Technology Co., Ltd.
Address: Floor 11, Building B2, Phase 2, Creative City, Xiandong Road, Xili Community, Xili Street, Nanshan District, Shenzhen, Guangdong, 518000, China

Product Description

Product Name.....: IQ Lock-PGP, IQ Lock Touch-PGP
Brand Name: IQ
Model Name: IQDLK-PGOK-MB
Series Model(s).....: IQDLK-PGOK-SN, IQDLK-PGOK-ORB, IQDLK-PGONKT-SN, IQDLK-PGONKT-MB, IQDLK-PGONKT-ORB
Standards: FCC Part 15.249

Test Procedure.....: ANSI C63.10-2020+Cor 1-2023

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test.....:
Date of receipt of test item: 31 Dec. 2025
Date of performance of tests..: 31 Dec. 2025 ~ 22 Jan. 2026
Date of Issue.....: 22 Jan. 2026
Test Result.....: **Pass**

Testing Engineer :

Aaron Bu

(Aaron Bu)

Technical Manager :

Skylar Li

(Skylar Li)

Authorized Signatory :

Bovey Yang

(Bovey Yang)





Table of Contents	Page
1. SUMMARY OF TEST RESULTS	5
1.1 TEST FACTORY	6
1.2 MEASUREMENT UNCERTAINTY	6
2. GENERAL INFORMATION	7
2.1 GENERAL DESCRIPTION OF THE EUT	7
2.2 DESCRIPTION OF THE TEST MODES	8
2.3 TEST SOFTWARE AND POWER LEVEL	8
2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	8
2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	9
2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS	10
3. EMC EMISSION TEST	11
3.1 CONDUCTED EMISSION MEASUREMENT	11
3.2 RADIATED EMISSION MEASUREMENT	13
4. BANDWIDTH TEST	36
4.1 TEST PROCEDURE	36
4.2 TEST SETUP	36
4.3 EUT OPERATION CONDITIONS	36
4.4 TEST RESULTS	37
5. ANTENNA REQUIREMENT	39
5.1 STANDARD REQUIREMENT	39
5.2 EUT ANTENNA	39
APPENDIX- PHOTOS OF TEST SETUP	40

**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	22 Jan. 2026	STS2512547W03	ALL	Initial Issue



1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part 15.249 , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	N/A	--
15.203	Antenna Requirement	Pass	--
15.249	Radiated Spurious Emission	Pass	--
15.249	Radiated Band Edge Emission	Pass	--
15.249	Field Strength of fundamental	Pass	--
15.215(c)	20dB Bandwidth	Pass	--

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report.
- (2) All tests are according to ANSI C63.10-2020+Cor 1-2023.



1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. :101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.751\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.888\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 2.48\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 2.52\text{dB}$
5	All emissions, radiated 1G-18GHz	$\pm 3.48\text{dB}$
6	All emissions, radiated >18GHz	$\pm 4.18\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.48\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.52\text{dB}$
9	Occupied Channel Bandwidth	$\pm 3.6\%$
10	Power Spectral Density, conducted	$\pm 1.214\text{dB}$
11	Duty Cycle	$\pm 3.2\%$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	IQ Lock-PGP, IQ Lock Touch-PGP	
Brand Name	IQ	
Model Name	IQDLK-PGOK-MB	
Series Model(s)	IQDLK-PGOK-SN, IQDLK-PGOK-ORB, IQDLK-PGONKT-SN, IQDLK-PGONKT-MB, IQDLK-PGONKT-ORB	
Model Difference	The circuit design, layout, components used and internal wiring are exactly the same, only the model name, keyboard board and appearance color are different	
Product Description	The EUT is a IQ Lock-PGP, IQ Lock Touch-PGP	
	Operation Frequency:	908.4MHz, 908.42MHz, 916MHz
	Modulation Type:	FSK
	Antenna Designation:	FPC
	Antenna Gain(Peak):	1.85dBi
Power Rating	Input: DC 6V	
Adapter	N/A	
Battery	N/A	
Hardware version number	RL00543D_FL00544B	
Software version number	V1.1.4	
Connecting I/O Port(s)	Please refer to the Note 1.	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
- 2.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	908.4	2	908.42
4	916	/	/

3.

Test channel List		
Test Channel	EUT Channel	Test Frequency (MHz)
lowest	CH01	908.4
middle	CH02	908.42
highest	CH04	916

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.



2.2 DESCRIPTION OF THE TEST MODES

For conducted test items and radiated spurious emissions
Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively.

Pretest Mode	Description	Data/Modulation
Mode 1	TX/CH01	FSK
Mode 2	TX/CH02	FSK
Mode 3	TX/CH04	FSK

Note:

(1) All above mode have been measurement, only worst data was reported.

2.3 TEST SOFTWARE AND POWER LEVEL

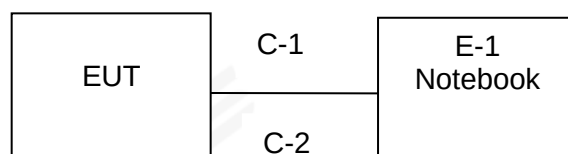
During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

RF Function	Type	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
Zwave	900M	FSK	1.85	Default	sscom5.13.1.exe

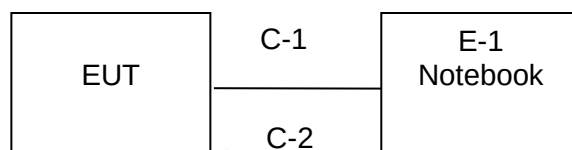
2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters.

Radiated Spurious Emission Test



RF Conducted Test





2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Note
E-1	Notebook	DELL	Inspiron 3501	N/A
C-1	Serial port board	XES	WTYZK	N/A
C-2	USB Cable	MI	RYEW3A	N/A

Item	Equipment	Mfr/Brand	Length	Note
C-2	Shielded	NO	150cm	N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

RF Radiation Test Equipment					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23
Pre-Amplifier(0.1M-3GHz)	EM	EM330	060665	2025.02.22	2026.02.21
Pre-Amplifier(1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2025.09.25	2026.09.24
Pre-Amplifier(18G-40GHz)	SKET	LNPA_1840-50	SK2018101801	2025.02.22	2026.02.21
Active loop Antenna	ZHINAN	ZN30900C	16035	2025.02.25	2027.02.24
Bilog Antenna	TESEQ	CBL6111D	34678	2025.09.27	2027.09.26
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2025.09.27	2027.09.26
Horn Antenna	A-INFOMW	LB-180400-KF	J211020657	2025.09.27	2027.09.26
Positioning Controller	MF	MF-7802	MF-780208587	N/A	N/A
Signal Analyzer	R&S	FSV 40-N	101823	2025.09.26	2026.09.25
RF Coaxial Cable	LEITAI M-WAVE	CA360	DC-18G	2025.09.26	2026.09.25
RF Coaxial Cable	LEITAI M-WAVE	CA360	DC-18G	2025.09.26	2026.09.25
RF Coaxial Cable	LEITAI M-WAVE	CA3507	DC-40G	2025.09.26	2026.09.25
RF Coaxial Cable	LEITAI M-WAVE	CA3507	DC-40G	2025.09.26	2026.09.25
Switch Control Box	N/A	N/A	N/A	N/A	N/A
High-Pass Filter	HX MICROWAVE	HXLBQ-GTA14	N/A	N/A	N/A
Antenna Mast	MF	MFA-440H	N/A	N/A	N/A
Turn Table	MF	SC100_1	60531	N/A	N/A
AC Power Source	APC	KDF-11010G	F214050035	N/A	N/A
DC power supply	HONGSHENGFE NG	DPS-305AF	17064939	2025.09.22	2026.09.21
Test SW	EZ-EMC	Ver.STSLAB-03A1 RE			
RF Connected Test					
Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Signal Analyzer	Agilent	N9020A	MY51510623	2025.02.22	2026.02.21
RF Coaxial Cable	XINQY	CT26PE	DC-26.5G	2025.02.22	2026.02.21
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of “ * ” marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

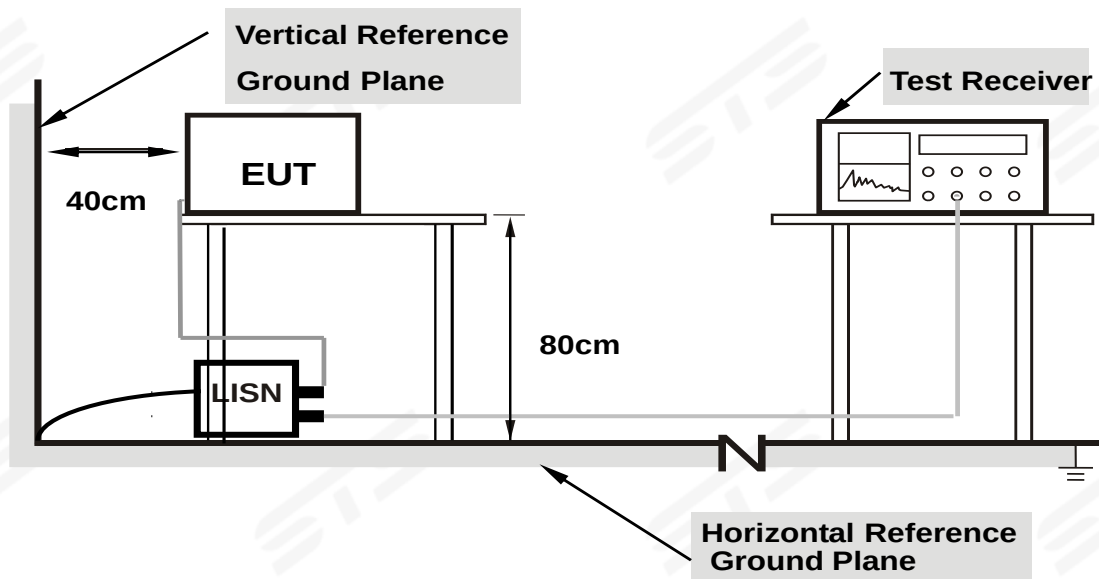
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.5 TEST RESULT

Note: EUT cannot be powered by DC Power and is not applicable.



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on Part 15.249 and the Part 15.209(a) limit in the table below has to be followed.

Standard FCC 15.209

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3
Above 1000	Other:74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	3

Standard FCC 15.249

Frequency of Emission (MHz)	Field Strength of fundamental (millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
900~928	50	500
2400~2483.5	50	500
5725~5875	50	500
24000~242500	250	2500

Notes:

- (1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.
- (2) Emission level (dBuV/m) =20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7



6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

Spectrum Parameter	Setting
Detector	Peak/AV
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB (emission in restricted band)	>20BW
VB (emission in restricted band)	=3xRB

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
	90kHz~110kHz / RB 200Hz for QP
	110kHz~490kHz / RB 200Hz for PK & AV
	490kHz~30MHz / RB 9kHz for QP
	30MHz~1000MHz / RB 120kHz for QP



3.2.2 TEST PROCEDURE

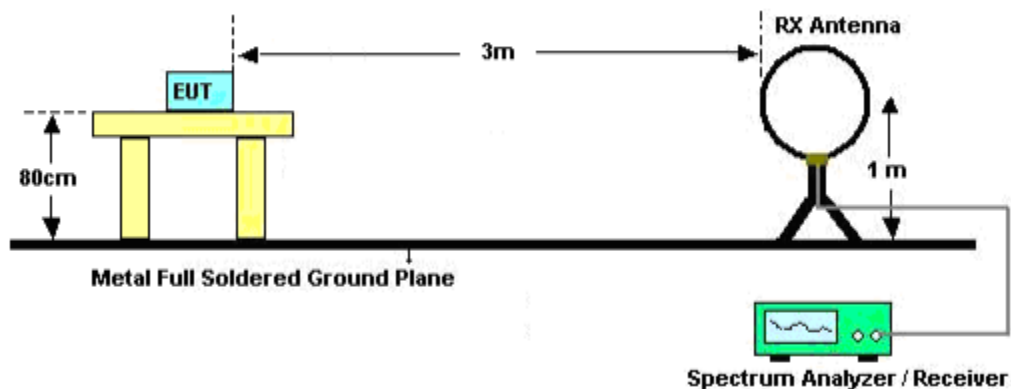
- a. The measuring distance of 3m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation (Below 1GHz)
- b. The measuring distance of 3m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation (Above 1GHz)
- c. The height of the test antenna shall vary between 1m to 4m. Both horizontal and vertical polarization of the antenna are set to make the measurement.
- d. The initial step in collecting radiated emission data is a receive peak detector mode. Pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. All readings are peak unless otherwise stated QP in column of Note. Peak denoted that the Peak reading compliance with the QP limits and then QP Mode measurement didn't perform (Below 1GHz)
- f. All readings are Peak mode value unless otherwise stated AVG in column of Note. If the Peak mode measured value compliance with the Peak limits and lower than AVG Limits, the EUT shall be deemed to meet Peak & AVG limits and then only Peak mode was measured, but AVG mode didn't perform. (Above 1GHz)
- g. For the actual test configuration, please refer to the related Item –EUT Test Photos.
Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.3 DEVIATION FROM TEST STANDARD

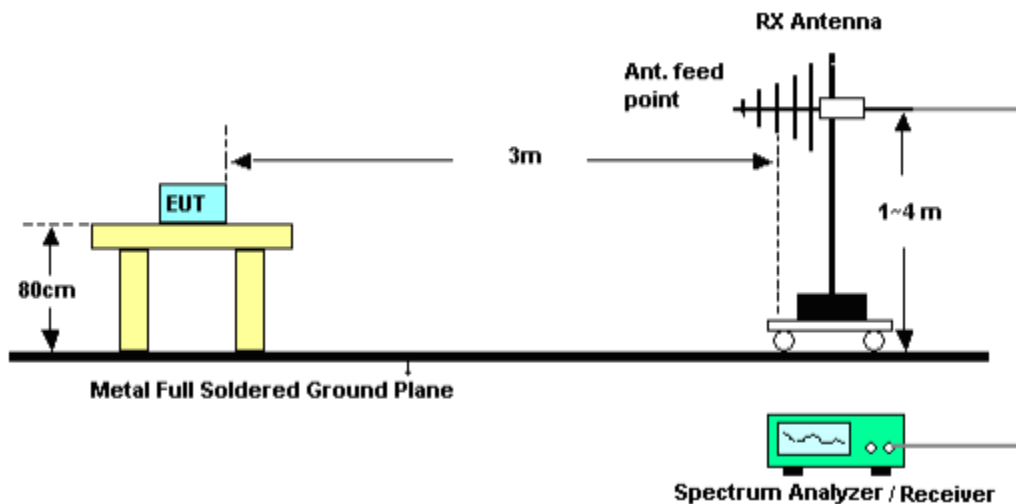
No deviation

3.2.4 TEST SETUP

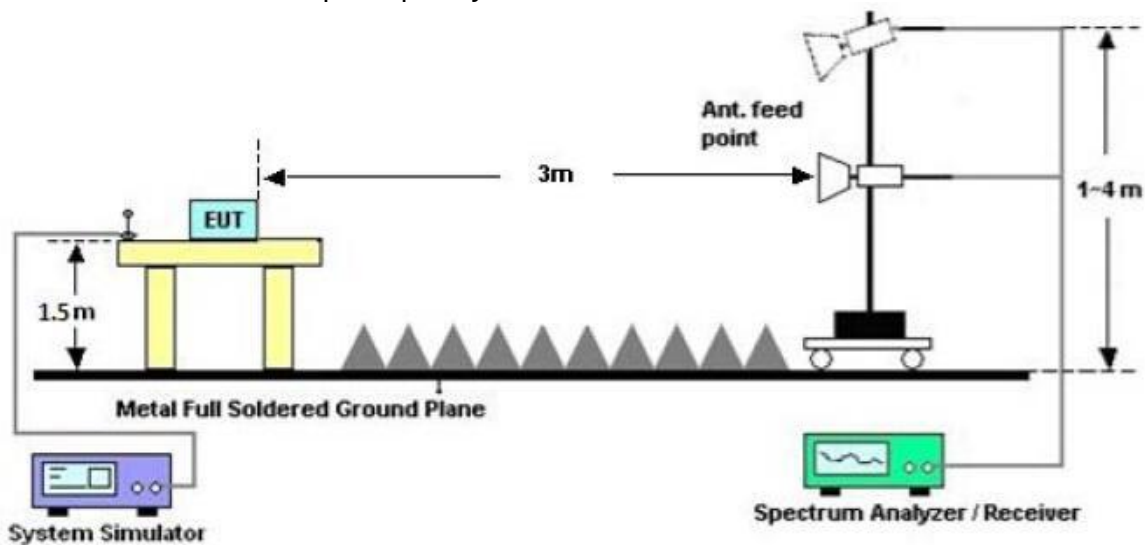
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz





3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

Margin=PL-PK L or AL- AV L; Margin only shown the worst case.

Where

PR = Peak Reading

AR = Average Reading

PL = Peak Level

AL = Average Level

AF = Antenna Factor

PK L = Peak Limit

AV L = AV Limit

For example

Frequency	PR	AR	AF	PL	AL	PK L	AV L	Margin
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV/m)	(dBμV/m)	(dBμV/m)	(dB)
2178	40.23	30.31	9.83	50.06	40.14	74.00	54.00	-13.86



3.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

Below 30 MHz

Temperature:	23.4°C	Relative Humidity:	60%
Test Voltage:	DC 6V	Polarization:	--
Test Mode:	TX Mode		

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance/test distance})$ (dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.



Between 30MHz – 1000 MHz Radiation Spurious

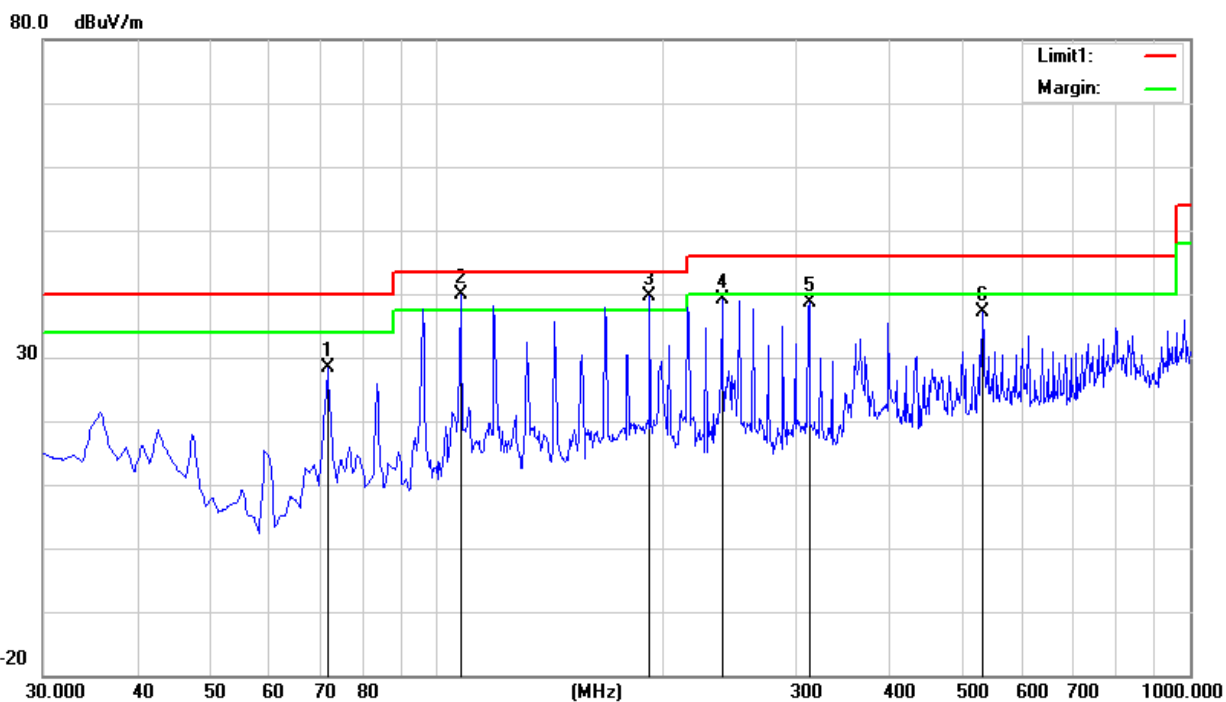
IQ Lock-PGP

Temperature:	23.4°C	Relative Humidity:	60%
Test Voltage:	DC 6V	Phase:	Horizontal
Test Mode:	Mode 1/2/3 (Mode 3 worst mode)		

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	71.7100	52.90	-24.56	28.34	40.00	-11.66	peak
2	107.6000	59.18	-19.32	39.86	43.50	-3.64	peak
3	191.9900	60.74	-21.04	39.70	43.50	-3.80	peak
4	239.5200	57.15	-18.10	39.05	46.00	-6.95	peak
5	312.2700	52.99	-14.36	38.63	46.00	-7.37	peak
6	531.4900	44.42	-7.37	37.05	46.00	-8.95	peak

Remark:

1. Margin = Result (Result = Reading + Factor) – Limit
2. Factor = Antenna factor + Cable attenuation factor (cable loss) – Amplifier gain
3. All modes have been tested, only show the worst case.





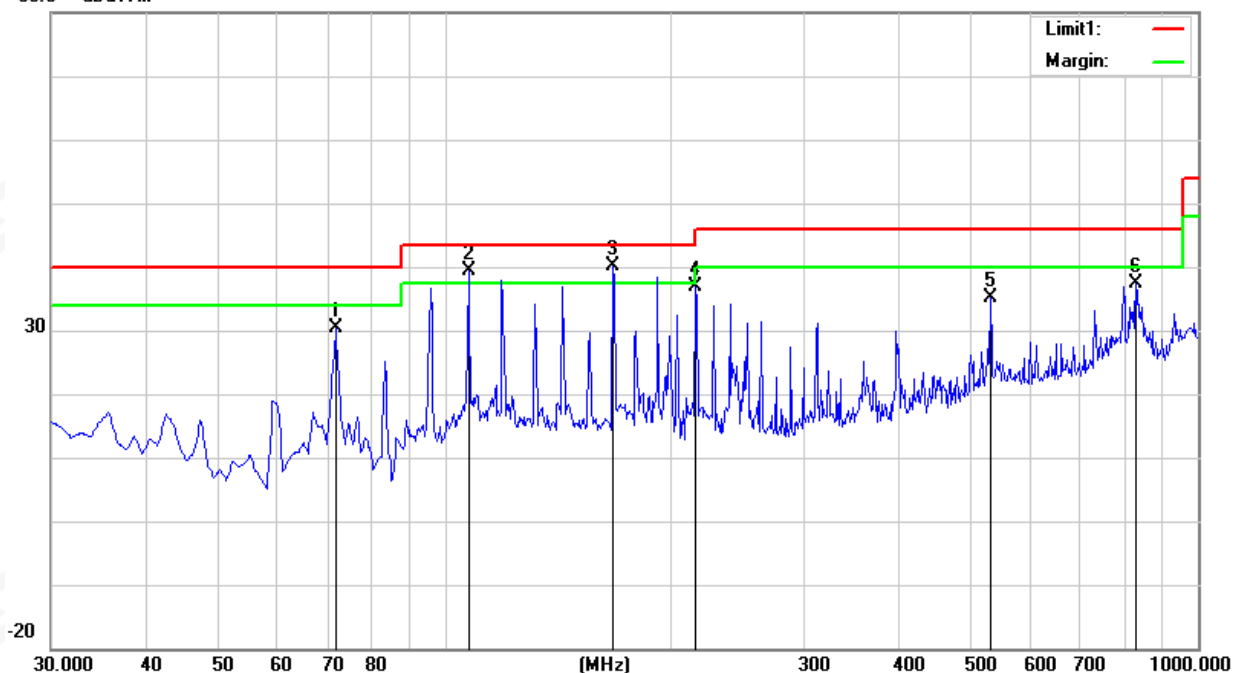
Temperature:	23.4°C	Relative Humidity:	60%
Test Voltage:	DC 6V	Phase:	Vertical
Test Mode:	Mode 1/2/3 (Mode 3 worst mode)		

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	71.7100	54.84	-24.56	30.28	40.00	-9.72	peak
2	107.6000	58.62	-19.32	39.30	43.50	-4.20	peak
3	167.7400	59.72	-19.58	40.14	43.50	-3.36	peak
4	215.2700	57.09	-20.17	36.92	43.50	-6.58	peak
5	531.4900	42.38	-7.37	35.01	46.00	-10.99	peak
6	830.2500	38.04	-0.74	37.30	46.00	-8.70	peak

Remark:

4. $\text{Margin} = \text{Result} (\text{Result} = \text{Reading} + \text{Factor}) - \text{Limit}$
5. $\text{Factor} = \text{Antenna factor} + \text{Cable attenuation factor (cable loss)} - \text{Amplifier gain}$
6. All modes have been tested, only show the worst case.

80.0 dBuV/m





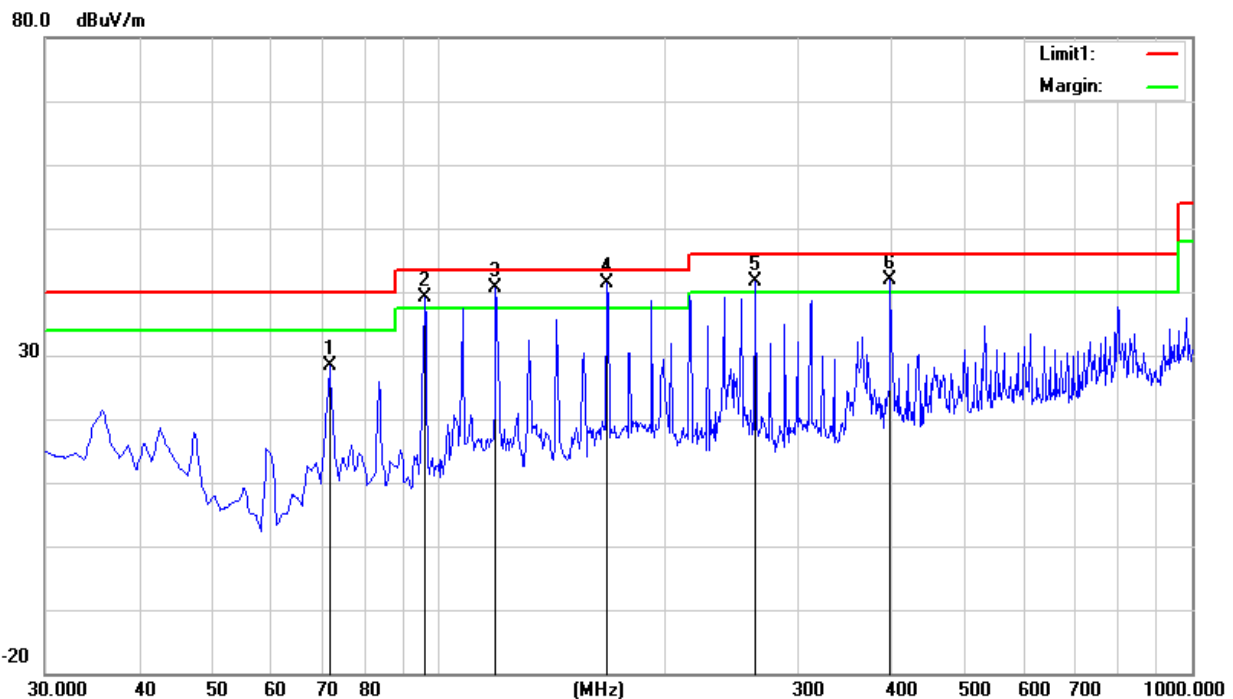
IQ Lock Touch-PGP

Temperature:	23.4°C	Relative Humidity:	60%
Test Voltage:	DC 6V	Phase:	Horizontal
Test Mode:	Mode 1/2/3 (Mode 3 worst mode)		

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	71.7100	52.90	-24.56	28.34	40.00	-11.66	peak
2	95.9600	59.68	-20.67	39.01	43.50	-4.49	peak
3	119.2400	59.12	-18.38	40.74	43.50	-2.76	peak
4	167.7400	60.87	-19.58	41.29	43.50	-2.21	peak
5	263.7700	56.35	-14.75	41.60	46.00	-4.40	peak
6	398.6000	53.15	-11.20	41.95	46.00	-4.05	peak

Remark:

7. Margin = Result (Result = Reading + Factor) – Limit
8. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain
9. All modes have been tested, only show the worst case.





Temperature:	23.4°C	Relative Humidity:	60%
Test Voltage:	DC 6V	Phase:	Vertical
Test Mode:	Mode 1/2/3 (Mode 3 worst mode)		

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	71.7100	54.84	-24.56	30.28	40.00	-9.72	peak
2	95.9600	58.73	-20.67	38.06	43.50	-5.44	peak
3	119.2400	59.67	-18.38	41.29	43.50	-2.21	peak
4	191.9900	60.91	-21.04	39.87	43.50	-3.63	peak
5	215.2700	59.59	-20.17	39.42	43.50	-4.08	peak
6	796.3000	41.45	-2.02	39.43	46.00	-6.57	peak

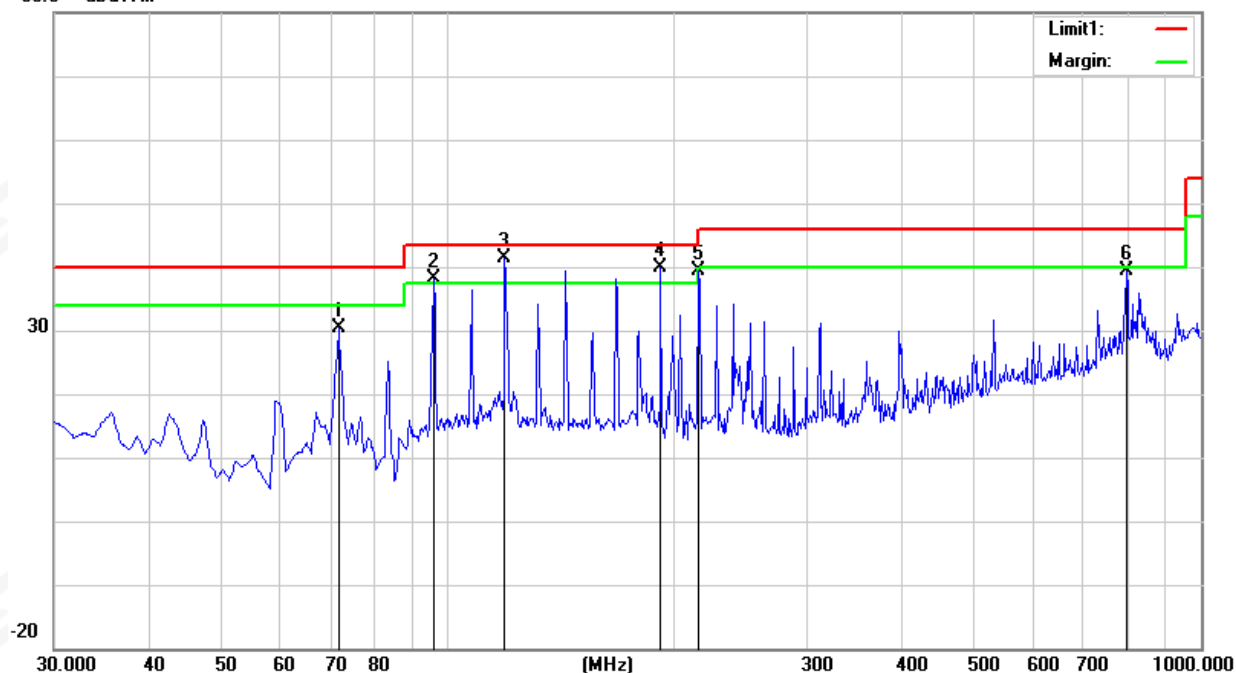
Remark:

10. Margin = Result (Result =Reading + Factor)-Limit

11. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

12. All modes have been tested, only show the worst case.

80.0 dBuV/m

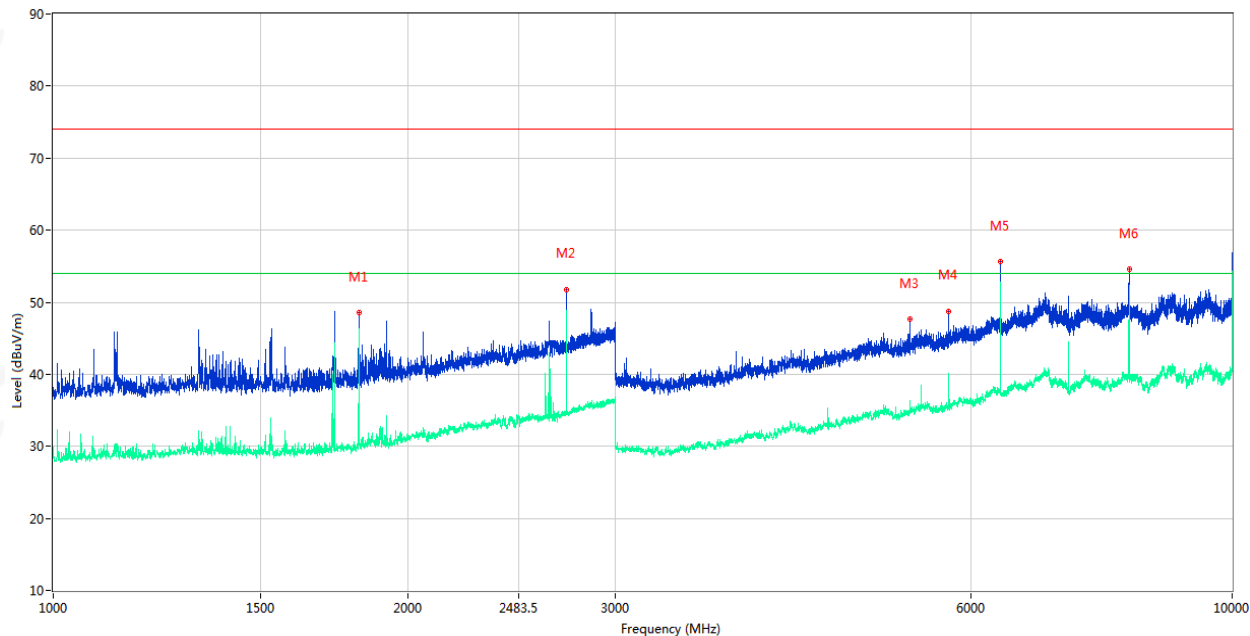




Above 1G Radiation Spurious

Low
Horizontal

RE_FCC Test Case_FCC 15C 1GHz-10GHz

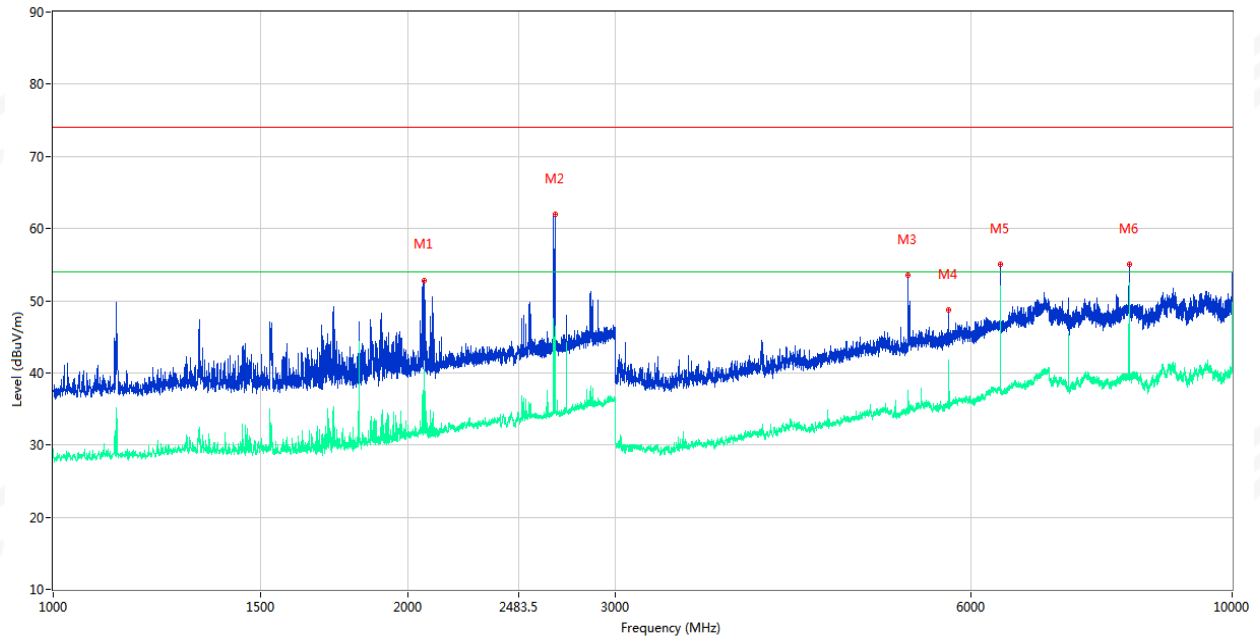


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1817.000	48.58	-0.53	74.0	25.42	Peak	10.40	100	Horizontal	Pass
1**	1817.000	46.33	-0.53	54.0	7.67	AV	10.40	100	Horizontal	Pass
2	2725.500	51.69	4.21	74.0	22.31	Peak	260.20	100	Horizontal	Pass
2**	2725.500	48.83	4.21	54.0	5.17	AV	260.20	100	Horizontal	Pass
3	5330.000	47.67	-5.43	74.0	26.33	Peak	134.90	100	Horizontal	Pass
3**	5330.000	36.37	-5.43	54.0	17.63	AV	134.90	100	Horizontal	Pass
4	5752.000	48.78	-4.32	74.0	25.22	Peak	130.80	100	Horizontal	Pass
4**	5752.000	40.20	-4.32	54.0	13.80	AV	130.80	100	Horizontal	Pass
5	6359.000	55.62	-1.96	74.0	18.38	Peak	151.60	100	Horizontal	Pass
5**	6359.000	52.82	-1.96	54.0	1.18	AV	151.60	100	Horizontal	Pass
6	8176.000	54.60	-0.48	74.0	19.40	Peak	233.20	100	Horizontal	Pass
6**	8176.000	52.29	-0.48	54.0	1.71	AV	233.20	100	Horizontal	Pass



Vertical

RE_FCC Test Case_FCC 15C 1GHz-10GHz

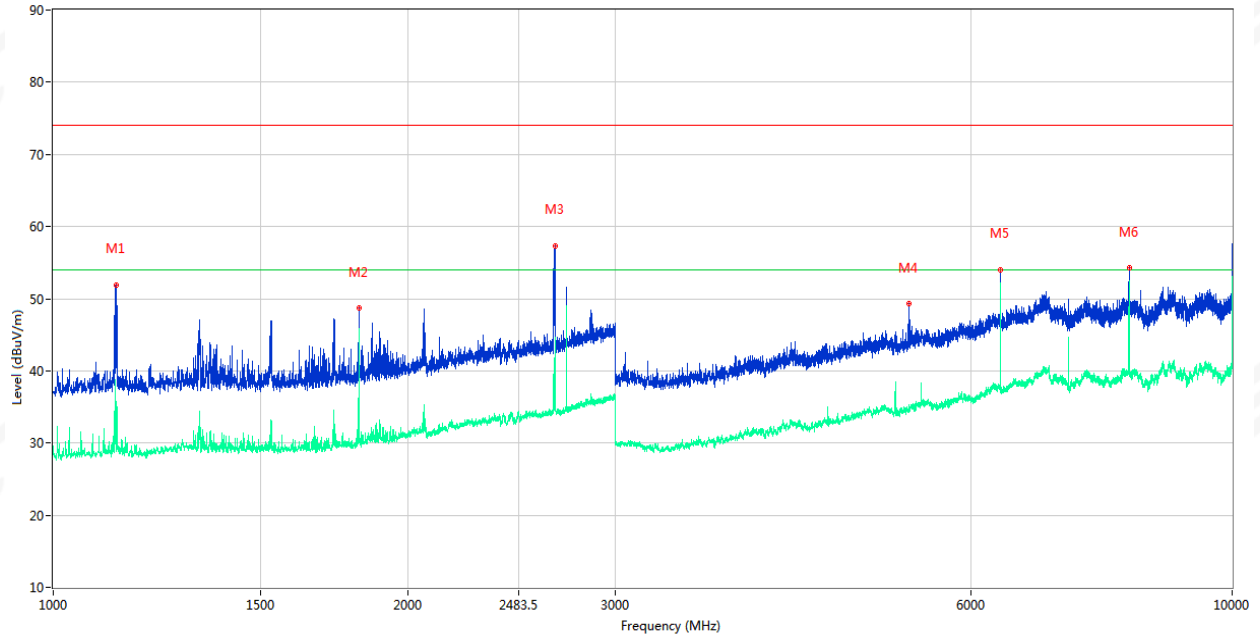


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2064.000	52.84	0.83	74.0	21.16	Peak	100.30	100	Vertical	Pass
1**	2064.000	40.50	0.83	54.0	13.50	AV	100.30	100	Vertical	Pass
2	2664.000	61.94	3.98	74.0	12.06	Peak	89.50	100	Vertical	Pass
2**	2664.000	46.46	3.98	54.0	7.54	AV	89.50	100	Vertical	Pass
3	5309.000	53.50	-5.53	74.0	20.50	Peak	76.60	100	Vertical	Pass
3**	5309.000	37.59	-5.53	54.0	16.41	AV	76.60	100	Vertical	Pass
4	5752.000	48.75	-4.32	74.0	25.25	Peak	8.40	100	Vertical	Pass
4**	5752.000	41.83	-4.32	54.0	12.17	AV	8.40	100	Vertical	Pass
5	6359.000	55.07	-1.96	74.0	18.93	Peak	267.30	100	Vertical	Pass
5**	6359.000	52.05	-1.96	54.0	1.95	AV	267.30	100	Vertical	Pass
6	8175.250	56.08	-0.48	74.0	17.92	Peak	156.40	100	Vertical	Pass
6**	8175.250	52.03	-0.48	54.0	1.97	AV	156.40	100	Vertical	Pass



Middle
Horizontal

RE_FCC Test Case_FCC 15C 1GHz-10GHz

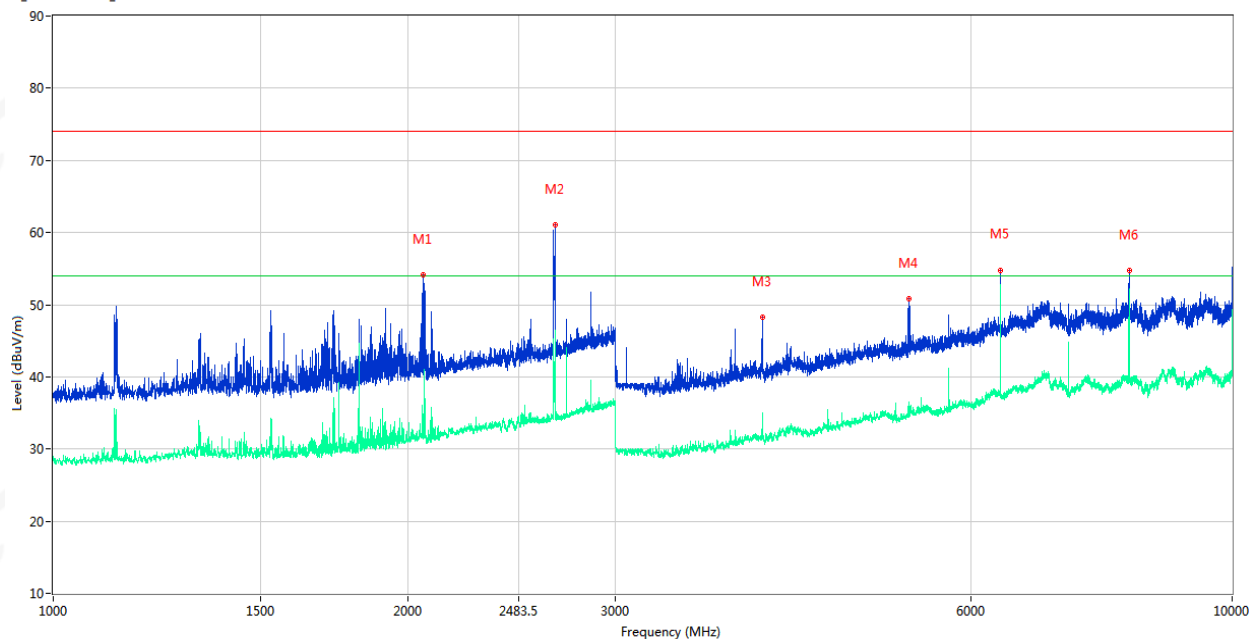


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1132.000	51.93	-1.71	74.0	22.07	Peak	189.40	100	Horizontal	Pass
1**	1132.000	35.82	-1.71	54.0	18.18	AV	189.40	100	Horizontal	Pass
2	1816.500	48.71	-0.54	74.0	25.29	Peak	5.20	100	Horizontal	Pass
2**	1816.500	45.81	-0.54	54.0	8.19	AV	5.20	100	Horizontal	Pass
3	2665.000	57.37	3.98	74.0	16.63	Peak	132.20	100	Horizontal	Pass
3**	2665.000	44.58	3.98	54.0	9.42	AV	132.20	100	Horizontal	Pass
4	5324.000	49.26	-5.45	74.0	24.74	Peak	97.60	100	Horizontal	Pass
4**	5324.000	35.31	-5.45	54.0	18.69	AV	97.60	100	Horizontal	Pass
5	6359.000	54.04	-1.96	74.0	19.96	Peak	168.30	100	Horizontal	Pass
5**	6359.000	52.23	-1.96	54.0	1.77	AV	168.30	100	Horizontal	Pass
6	8175.250	54.33	-0.48	74.0	19.67	Peak	125.40	100	Horizontal	Pass
6**	8175.250	52.42	-0.48	54.0	1.58	AV	125.40	100	Horizontal	Pass



Vertical

RE_FCC Test Case_FCC 15C 1GHz-10GHz

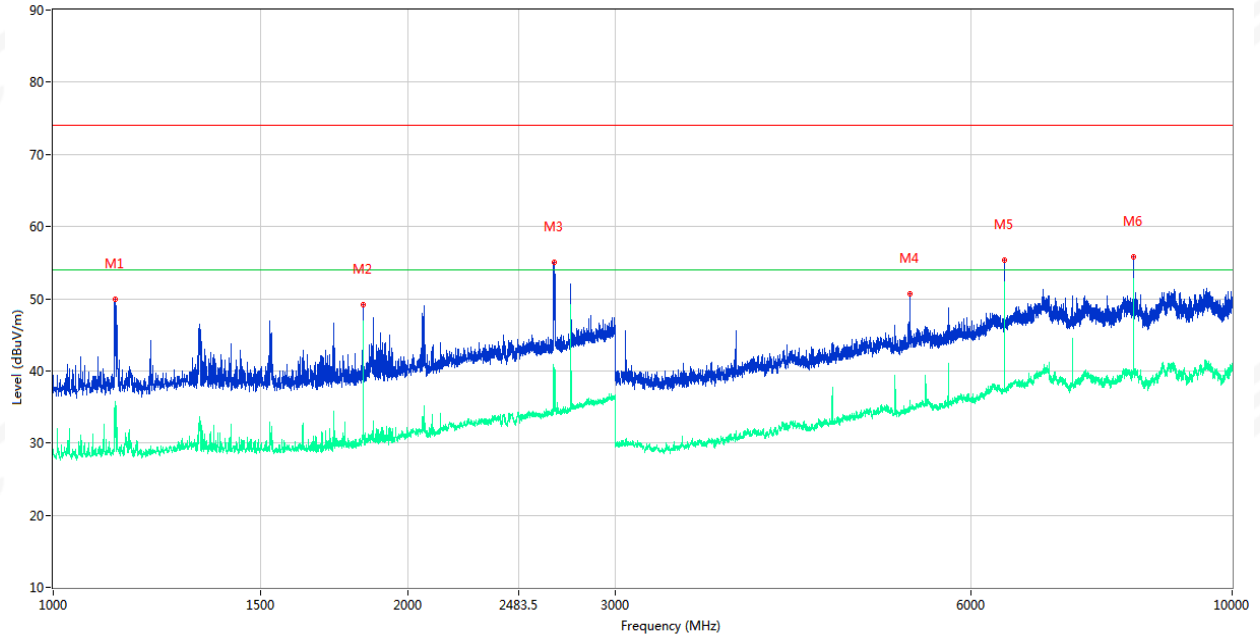


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2061.500	54.17	0.83	74.0	19.83	Peak	116.80	100	Vertical	Pass
1**	2061.500	34.93	0.83	54.0	19.07	AV	116.80	100	Vertical	Pass
2	2667.000	61.06	3.98	74.0	12.94	Peak	101.50	100	Vertical	Pass
2**	2667.000	46.42	3.98	54.0	7.58	AV	101.50	100	Vertical	Pass
3	3996.000	48.24	-9.69	74.0	25.76	Peak	182.90	100	Vertical	Pass
3**	3996.000	35.02	-9.69	54.0	18.98	AV	182.90	100	Vertical	Pass
4	5318.000	50.78	-5.48	74.0	23.22	Peak	234.20	100	Vertical	Pass
4**	5318.000	36.29	-5.48	54.0	17.71	AV	234.20	100	Vertical	Pass
5	6359.000	54.81	-1.96	74.0	19.19	Peak	265.80	100	Vertical	Pass
5**	6359.000	52.84	-1.96	54.0	1.16	AV	265.80	100	Vertical	Pass
6	8175.250	54.68	-0.48	74.0	19.32	Peak	174.10	100	Vertical	Pass
6**	8175.250	52.21	-0.48	54.0	1.79	AV	174.10	100	Vertical	Pass



High Horizontal

RE_FCC Test Case_FCC 15C 1GHz-10GHz

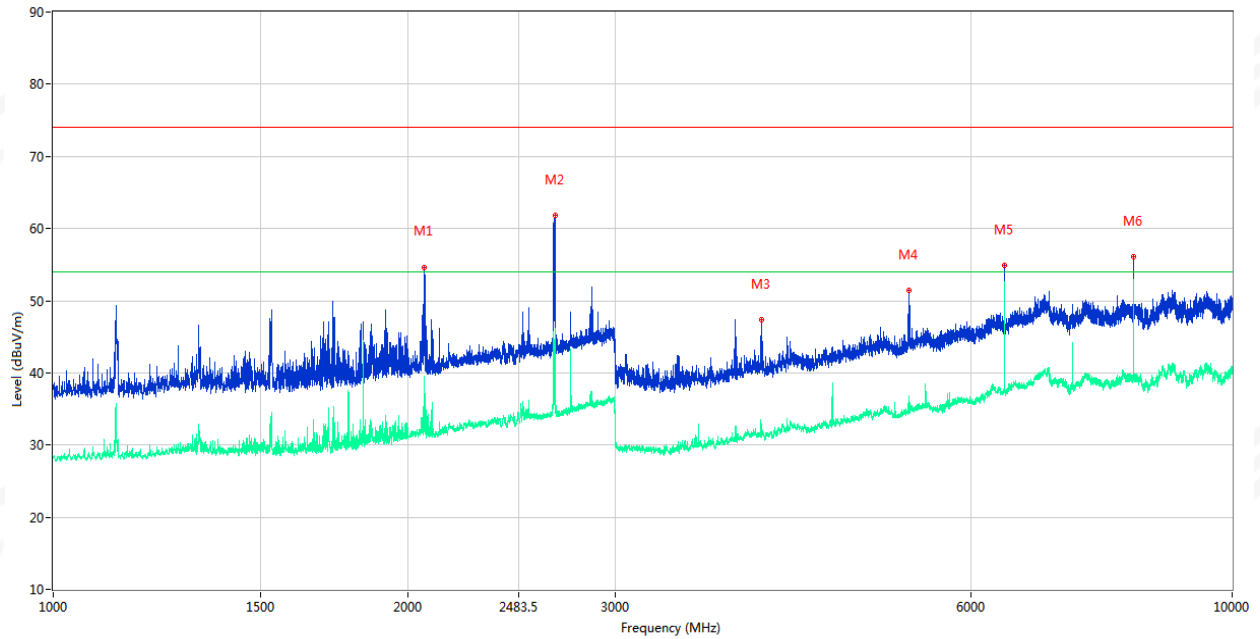


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Detect or	Table (Degree)	Height (cm)	Antenna	Verdict
1	1128.000	49.86	-1.71	74.0	24.14	Peak	148.40	100	Horizontal	Pass
1**	1128.000	34.66	-1.71	54.0	19.34	AV	148.40	100	Horizontal	Pass
2	1831.500	49.19	-0.32	74.0	24.81	Peak	6.10	100	Horizontal	Pass
2**	1831.500	44.79	-0.32	54.0	9.21	AV	6.10	100	Horizontal	Pass
3	2659.500	55.02	3.98	74.0	18.98	Peak	142.10	100	Horizontal	Pass
3**	2659.500	38.89	3.98	54.0	15.11	AV	142.10	100	Horizontal	Pass
4	5326.000	50.66	-5.45	74.0	23.34	Peak	96.90	100	Horizontal	Pass
4**	5326.000	35.86	-5.45	54.0	18.14	AV	96.90	100	Horizontal	Pass
5	6412.000	55.38	-1.86	74.0	18.62	Peak	151.60	100	Horizontal	Pass
5**	6412.000	52.29	-1.86	54.0	1.71	AV	151.60	100	Horizontal	Pass
6	8244.250	55.81	-0.47	74.0	18.19	Peak	128.00	100	Horizontal	Pass
6**	8244.250	52.74	-0.47	54.0	1.26	AV	128.00	100	Horizontal	Pass



Vertical

RE_FCC Test Case_FCC 15C 1GHz-10GHz

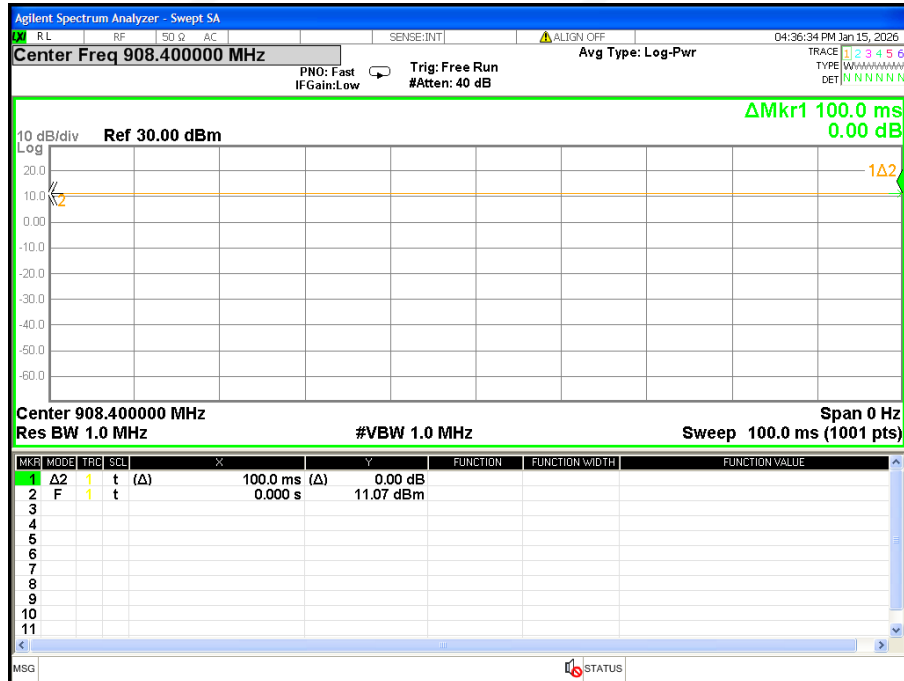


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2062.500	54.65	0.83	74.0	19.35	Peak	110.30	100	Vertical	Pass
1**	2062.500	39.60	0.83	54.0	14.40	AV	110.30	100	Vertical	Pass
2	2666.000	61.78	3.98	74.0	12.22	Peak	89.50	100	Vertical	Pass
2**	2666.000	46.21	3.98	54.0	7.79	AV	89.50	100	Vertical	Pass
3	3990.000	47.36	-9.69	74.0	26.64	Peak	183.30	100	Vertical	Pass
3**	3990.000	32.91	-9.69	54.0	21.09	AV	183.30	100	Vertical	Pass
4	5319.000	51.44	-5.48	74.0	22.56	Peak	78.00	100	Vertical	Pass
4**	5319.000	36.63	-5.48	54.0	17.37	AV	78.00	100	Vertical	Pass
5	6412.000	54.86	-1.86	74.0	19.14	Peak	268.80	100	Vertical	Pass
5**	6412.000	52.61	-1.86	54.0	1.39	AV	268.80	100	Vertical	Pass
6	8244.250	56.07	-0.47	74.0	17.93	Peak	155.00	100	Vertical	Pass
6**	8244.250	52.98	-0.47	54.0	1.02	AV	155.00	100	Vertical	Pass



Duty cycle

Ton (ms)	Tp (ms)	Duty cycle(%)	Duty Factor
100	100	100	0.00



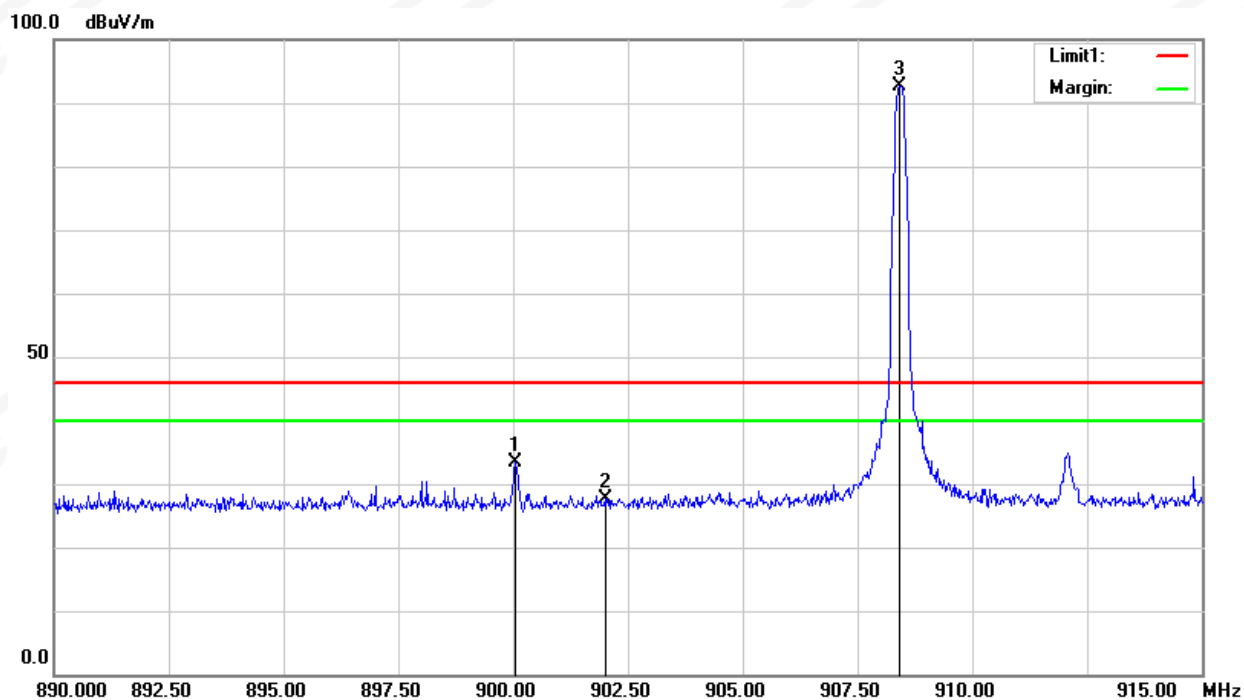
Note: Duty Factor=20*LOG10(1/(Ton/Tp))



(Radiation Band edge)

Low

Horizontal



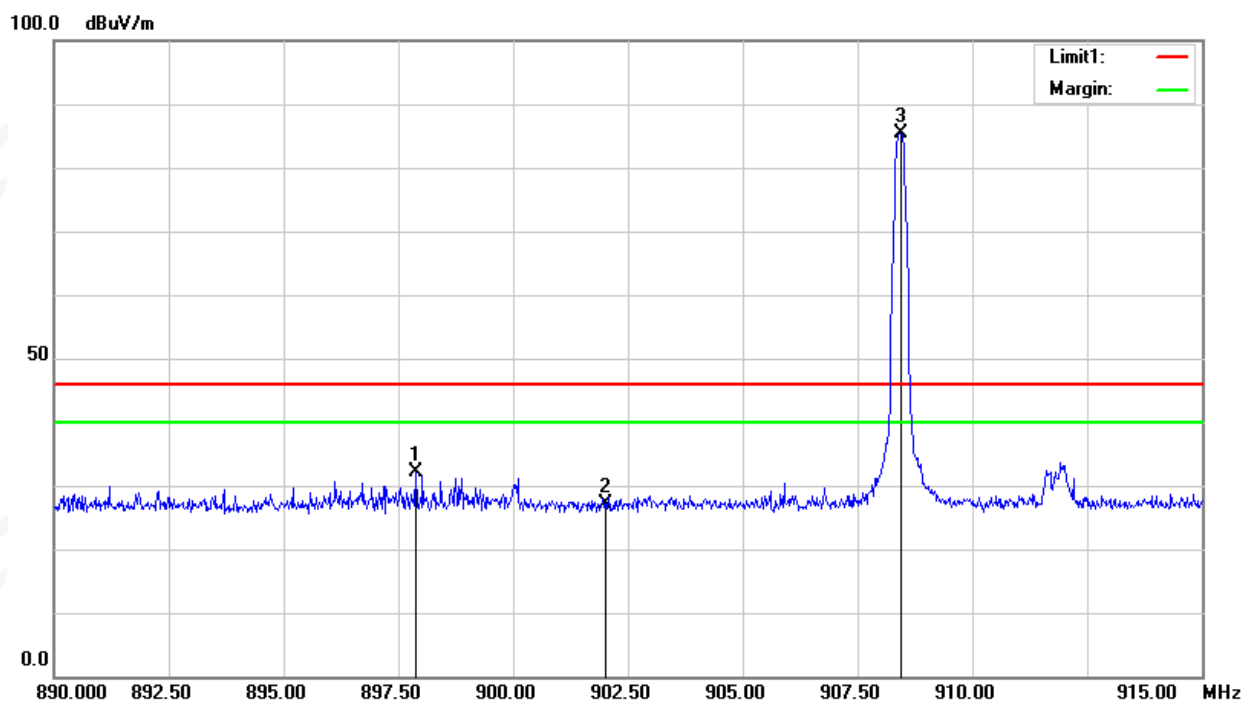
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	900.0500	33.78	-0.45	33.33	46.00	-12.67	peak
2	902.0000	28.11	-0.40	27.71	46.00	-18.29	peak

Fundamental Frequency

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Duty cycle Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
3	908.4000	92.90	-0.23	-	92.67	114	-21.33	Peak
3	908.4000	92.90	-0.23	0	92.67	94	-1.33	QP



Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	897.8750	32.60	-0.50	32.10	46.00	-13.90	peak
2	902.0000	27.57	-0.40	27.17	46.00	-18.83	peak

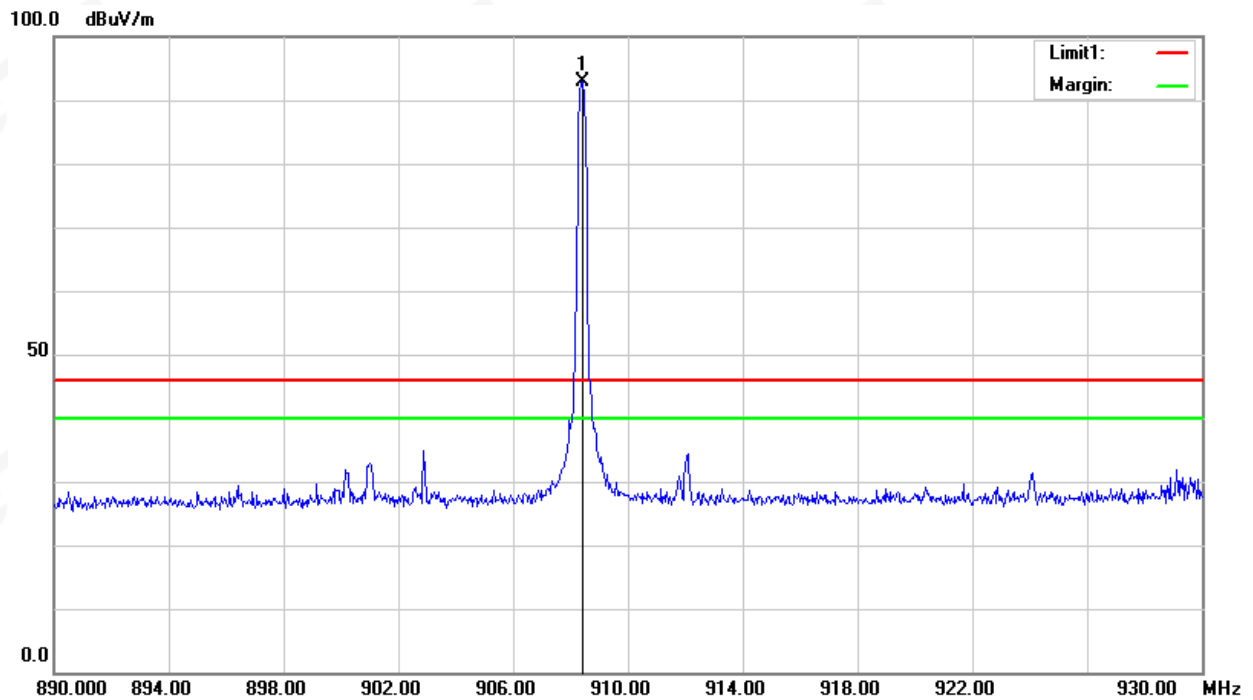
Fundamental Frequency

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Duty cycle Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
3	908.4000	85.65	-0.22	-	85.43	114	-28.57	Peak
3	908.4000	85.65	-0.22	0	85.43	94	-8.57	QP



Middle

Horizontal

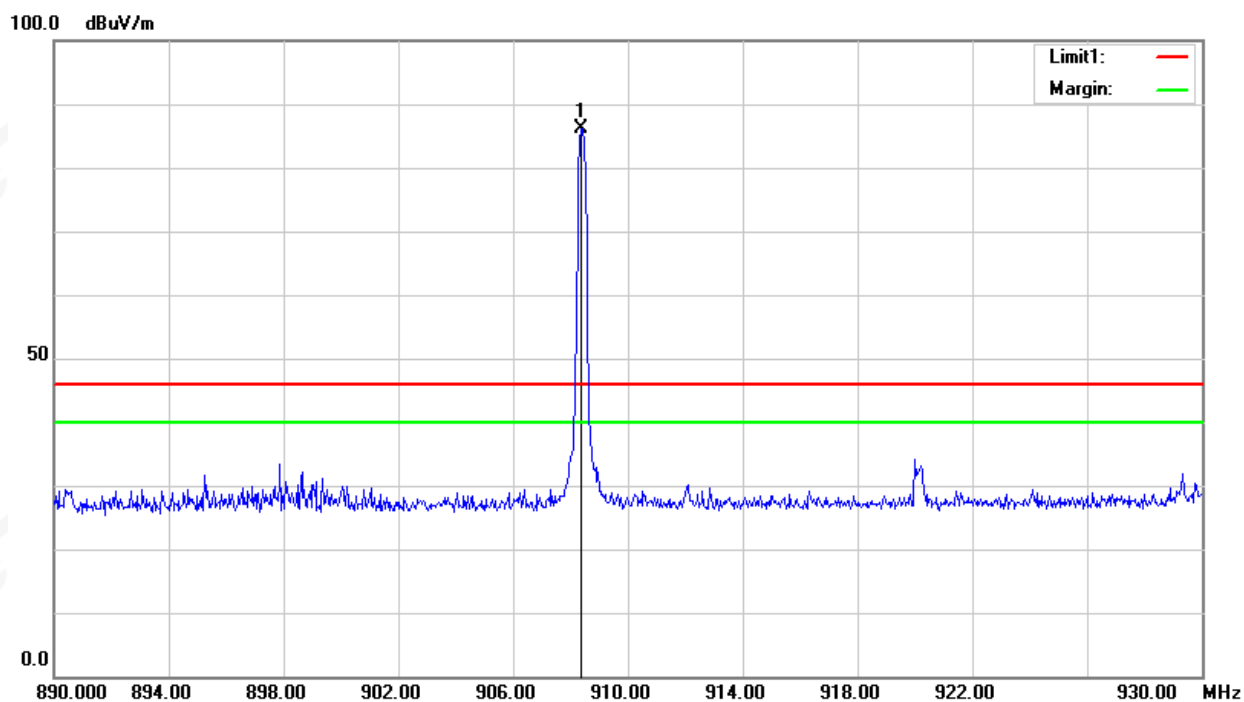


Fundamental Frequency

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Duty cycle Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	908.4200	93.02	-0.23	-	92.79	94	-21.21	Peak
1	908.4200	93.02	-0.23	0	92.79	94	-1.21	QP



Vertical



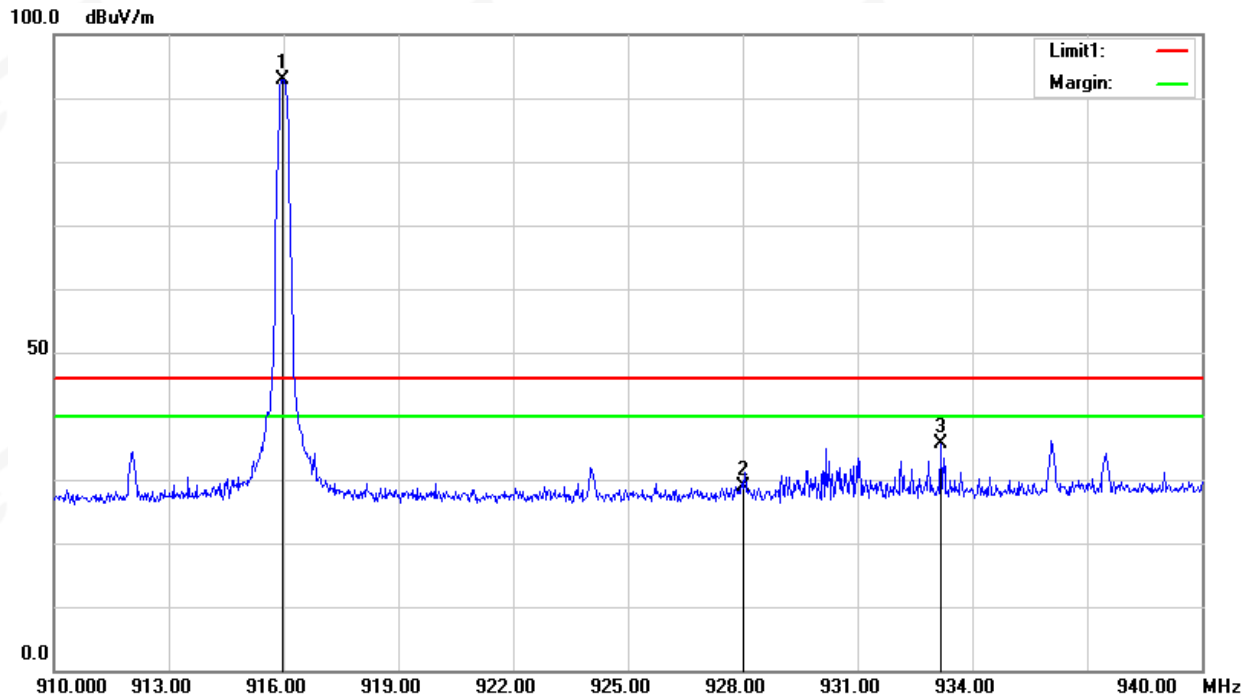
Fundamental Frequency

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Duty cycle Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	908.4200	86.35	-0.23	-	86.12	114	-27.88	Peak
1	908.4200	86.35	-0.23	0	86.12	94	-7.88	QP



High

Horizontal



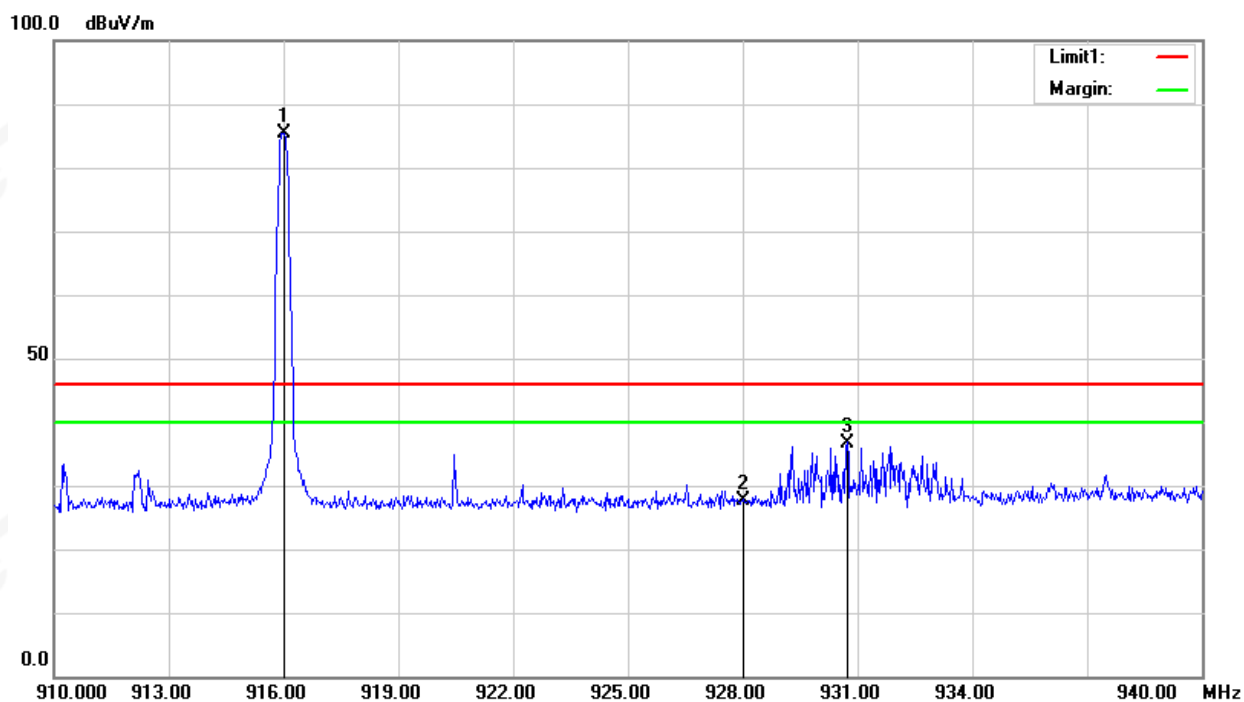
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2	928.0000	28.41	0.43	28.84	46.00	-17.16	peak
3	933.1900	34.77	0.81	35.58	46.00	-10.42	peak

Fundamental Frequency

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Duty cycle Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	916.0000	93.06	-0.09	-	92.97	114	-21.03	Peak
1	916.0000	93.06	-0.09	0	92.97	94	-1.03	QP



Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
2	928.0000	27.14	0.43	27.57	46.00	-18.43	peak
3	930.7300	36.14	0.61	36.75	46.00	-9.25	peak

Fundamental Frequency

No.	Frequency	Reading	Correct	Duty cycle	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	916.0000	85.56	-0.09	-	85.47	114	-28.53	Peak
1	916.0000	85.56	-0.09	0	85.47	94	-8.53	QP



4. BANDWIDTH TEST

4.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting : RBW= 1% to 5% OBW, VBW $\geq$ RBW, Sweep time = Auto.

4.2 TEST SETUP



4.3 EUT OPERATION CONDITIONS

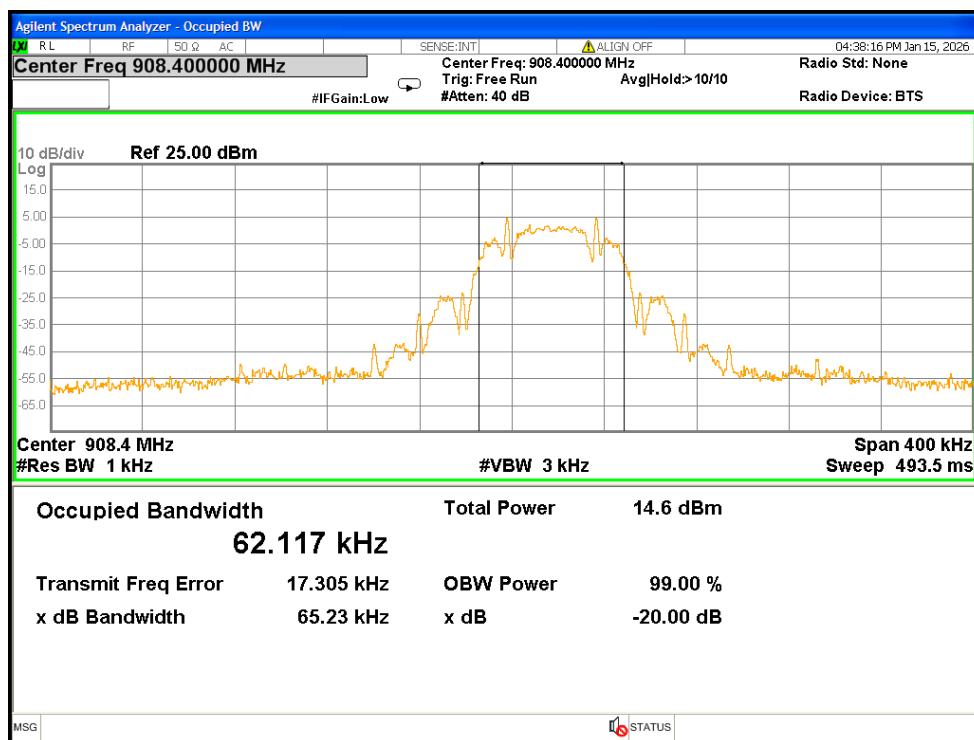
TX mode.



4.4 TEST RESULTS

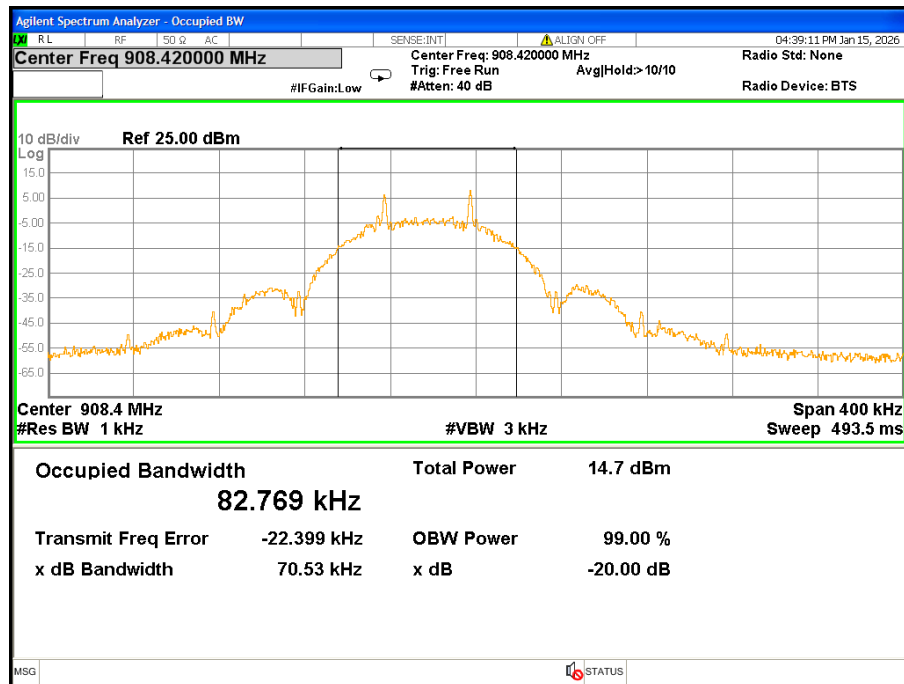
Test Channel	Frequency(MHz)	20dB Bandwidth(KHz)	99% Bandwidth(KHz)
CH01	908.4	65.23	62.117
CH02	908.42	70.53	82.769
CH04	916	121.9	113.08

908.4 MHz

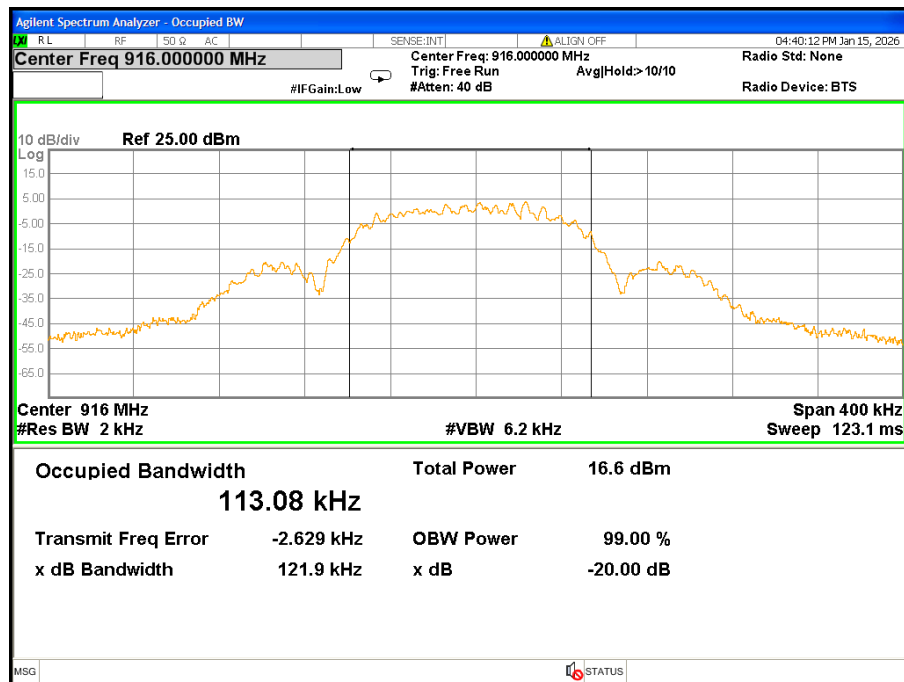




908.42 MHz



916 MHz





5. ANTENNA REQUIREMENT

5.1 STANDARD REQUIREMENT

According to the FCC Part 15 Paragraph 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.

5.2 EUT ANTENNA

The EUT antenna is FPC Antenna. It conforms to the standard requirements.



APPENDIX- PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

*****END OF THE REPORT*****