



CFR 47 FCC PART 15 SUBPART C

TEST REPORT

For

TOY Transmitter

MODEL NUMBER: GF31TRR2

FCC ID: G6DGF31TRR2

REPORT NUMBER: 4790259496-1

ISSUE DATE: January 25, 2021

Prepared for

NEW BRIGHT INDUSTRIAL CO., LTD 9/F., NEW BRIGHT BUILDING, 11 SHEUNG YUET ROAD, KOWLOON BAY, KOWLOON,HONG KONG

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

> Tel: +86 769 22038881 Fax: +86 769 33244054 Website: www.ul.com



REPORT NO.: 4790259496-1

Page 2 of 49

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	01/25/2022	Initial Issue	



REPORT NO.: 4790259496-1

Page 3 of 49

	Summary of Test Results					
Clause	Test Items	FCC Rules	Test Results			
1	20dB Bandwidth and 99% Occupied Bandwidth	CFR 47 FCC §15.215 (c)	Pass			
2	Radiated Emission	CFR 47 FCC §15.249 (a)(d)(e) CFR 47 FCC §15.205 and §15.209	Pass			
3	Conducted Emission Test for AC Power Port	FCC Part 15.207	Not Applicable (Note 3)			
4	Antenna Requirement	CFR 47 FCC §15.203	Pass			

Note 1: This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

Note 2: The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 15 SUBPART C > when <Accuracy Method> decision rule is applied.

Note 3: The EUT was power by battery and can't be charged.



TABLE OF CONTENTS

1. A	TTESTATION OF TEST RESULTS	5
2. T	EST METHODOLOGY	6
3. F	ACILITIES AND ACCREDITATION	6
4. C	CALIBRATION AND UNCERTAINTY	7
4.1.	MEASURING INSTRUMENT CALIBRATION	7
4.2.	MEASUREMENT UNCERTAINTY	7
5. E	QUIPMENT UNDER TEST	8
5.1.	DESCRIPTION OF EUT	8
5.2.	MAXIMUM FIELD STRENGTH	8
5.3.	. CHANNEL LIST	8
5.4.	DESCRIPTION OF AVAILABLE ANTENNAS	9
5.5.	TEST CHANNEL CONFIGURATION	9
5.6.	THE WORSE CASE POWER SETTING PARAMETER	9
5.7.	TEST ENVIRONMENT	9
5.8.	DESCRIPTION OF TEST SETUP	10
5.9.	MEASURING INSTRUMENT AND SOFTWARE USED	11
6. A	NTENNA PORT TEST RESULTS	12
6.1.	ON TIME AND DUTY CYCLE	12
6.2.	. 20 dB BANDWIDTH AND 99% OCCUPIED BANDWIDTH	14
7. R	ADIATED TEST RESULTS	18
7.1.	LIMITS AND PROCEDURE	18
7.2.	RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL E 24	MISSIONS
7.3.	SPURIOUS EMISSIONS (1 ~ 3 GHz)	30
7.4.	SPURIOUS EMISSIONS (3 ~ 18 GHz)	36
7.5.	SPURIOUS EMISSIONS (18 ~ 26 GHz)	42
7.6.	SPURIOUS EMISSIONS BELOW 30 MHz	44
7.7.	SPURIOUS EMISSIONS BELOW 1 GHz AND ABOVE 30 MHz	47
8 Δ	NTENNA REQUIREMENTS	49



REPORT NO.: 4790259496-1

Page 5 of 49

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: NEW BRIGHT INDUSTRIAL CO., LTD

Address: 9/F., NEW BRIGHT BUILDING, 11 SHEUNG YUET ROAD,

KOWLOON BAY, KOWLOON, HONG KONG.

Manufacturer Information

Company Name: NEW BRIGHT INDUSTRIAL CO., LTD

Address: 9/F., NEW BRIGHT BUILDING, 11 SHEUNG YUET ROAD,

KOWLOON BAY, KOWLOON, HONG KONG.

EUT Information

EUT Name: TOY Transmitter

Model: GF31TRR2 Sample ID: 4574300

Sample Received Date: January 12, 2022

Sample Status: Normal

Date of Tested: January 12, 2022 ~ January 24, 2022

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 15 SUBPART C	PASS

Prepared By:	Checked By:	
Danny Grany	Shemylies	
Denny Huang Project Engineer	Shawn Wen Laboratory Leader	

Approved By:

Stephen Guo

Laboratory Manager



REPORT NO.: 4790259496-1 Page 6 of 49

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 414788 D01 Radiated Test Site v01r01, FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

	A2LA (Certificate No.: 4102.01)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.
	FCC (FCC Designation No.: CN1187)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	Has been recognized to perform compliance testing on equipment subject to
	the Commission's Declaration of Conformity (DoC) and Certification rules.
	ISED (Company No.: 21320)
A	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Accreditation	has been registered and fully described in a report filed with ISED. The
Certificate	Company Number is 21320 and the test lab Conformity Assessment Body
	Identifier (CABID) is CN0046.
	VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	has been assessed and proved to be in compliance with VCCI, the
	Membership No. is 3793.
	Facility Name:
	Chamber D, the VCCI registration No. is G-20019 and R-20004
	Shielding Room B, the VCCI registration No. is C-20012 and T-20011

Note:

- All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China
- 2. The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.
- 3. For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.



REPORT NO.: 4790259496-1 Page 7 of 49

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Conduction emission	3.62 dB
Radiation Emission test (include Fundamental emission) (9 kHz ~ 30 MHz)	2.2 dB
Radiation Emission test (include Fundamental emission) (30 MHz ~ 1 GHz)	4.00 dB
Radiation Emission test	5.78 dB (1 GHz ~ 18 GHz)
(1 GHz ~ 26 GHz) (include Fundamental emission)	5.23 dB (18 GHz ~ 26 GHz)

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

REPORT NO.: 4790259496-1

Page 8 of 49

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	TOY Transmitter		
EUT Description	The EUT is a wireless controller.		
Model	GF31TRR2		
Product Description	Operation Frequency	2410 MHz ~ 2473 MHz	
Product Description	Modulation Type GFSK		
Battery	DC 3 V		

MAXIMUM FIELD STRENGTH 5.2.

Frequency (MHz)	Channel Number	Max Peak field strength (dBµV/m)	Max AVG field strength (dBµV/m)
2473	32[32]	101.25	77.47

CHANNEL LIST 5.3.

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2410	11	2443	21	2460	31	2471
2	2422	12	2444	22	2461	32	2472
3	2426	13	2445	23	2462	33	2473
4	2430	14	2446	24	2463	/	/
5	2432	15	2447	25	2464	/	/
6	2434	16	2449	26	2465	/	/
7	2437	17	2452	27	2466	/	/
8	2439	18	2456	28	2467	/	/
9	2440	19	2458	29	2468	/	/
10	2442	20	2459	30	2469	/	/



REPORT NO.: 4790259496-1

Page 9 of 49

DESCRIPTION OF AVAILABLE ANTENNAS 5.4.

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2410 ~ 2473	Line antenna	0

Test Mode	t Mode Transmit and Receive Mode Description	
GFSK	⊠1TX	Antenna 1 can be used as transmitting antenna.

5.5. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency
GFSK	CH 1(Low Channel), CH 18(MID Channel), CH 32(High Channel)	2410 MHz, 2442 MHz, 2473 MHz

5.6. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2410 MHz ~ 2473 MHz Band				
Test Soft	ware Version		/	
Modulation Type	Transmit Antenna	Test Channel		
Wodulation Type	Number	CH 1	CH 18	CH 32
GFSK	1	Default	Default	Default

5.7. TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests		
Relative Humidity	55 ~ 65 %		
Atmospheric Pressure:	1025 Pa		
Temperature	TN	22 ~ 28 °C	
	VL	/	
Voltage:	VN	DC 3 V	
	VH	/	

Note: VL= Lower Extreme Test Voltage

VN= Nominal Voltage

VH= Upper Extreme Test Voltage

TN= Normal Temperature



REPORT NO.: 4790259496-1 Page 10 of 49

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
/	/	/	/	/

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	/	/	/	/	/

ACCESSORY

Item	Equipment	Mfr/Brand	Model/Type No.	Specification	Series No.
/	/	/	/	/	/

TEST SETUP

The EUT have the engineer mode inside.

SETUP DIAGRAM FOR TEST

EUT

Note: New battery was used during all tests.



5.9. MEASURING INSTRUMENT AND SOFTWARE USED

Radiated Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Oct.30, 2021	Oct.29, 2022
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130959	Aug.02, 2021	Aug.01, 2024
Preamplifier	HP	8447D	2944A09099	Oct.30, 2021	Oct.29, 2022
EMI Measurement Receiver	R&S	ESR26	101377	Oct.30, 2021	Oct.29, 2022
Horn Antenna	TDK	HRN-0118	130940	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-0118	TRS-305- 00067	Oct.30, 2021	Oct.29, 2022
Horn Antenna	Schwarzbeck	BBHA9170	697	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-2	TRS-307- 00003	Oct.31, 2021	Oct.30, 2022
Preamplifier	TDK	PA-02-3	TRS-308- 00002	Oct.31, 2021	Oct.30, 2022
Loop antenna	Schwarzbeck	1519B	80000	Dec.14, 2021	Dec.13, 2024
Preamplifier	TDK	PA-02-001- 3000	TRS-302- 00050	Oct.31, 2021	Oct.30, 2022
High Pass Filter	Wi	WHKX10- 2700-3000- 18000-40SS	23	Oct.31, 2021	Oct.30, 2022
Band Reject Filter	Wainwright	WRCJV8- 2350-2400- 2483.5- 2533.5-40SS	4	Oct.31, 2021	Oct.30, 2022
Software					
	Description		Manufacturer	Name	Version
Test Software for Radiated Emissions			Farad	EZ-EMC	Ver. UL-3A1



6. ANTENNA PORT TEST RESULTS

6.1. ON TIME AND DUTY CYCLE

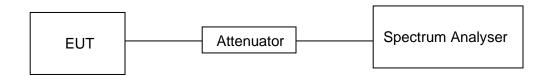
LIMITS

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP



TEST ENVIRONMENT

Temperature	25.5 °C	Relative Humidity	55 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 3 V

RESULTS

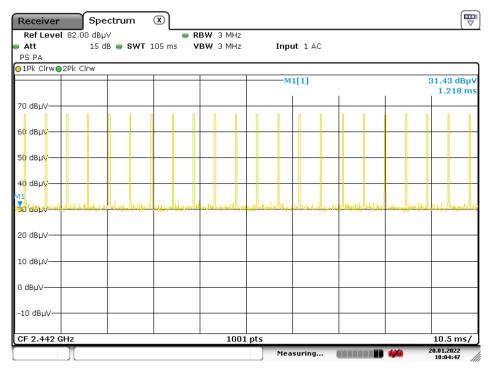
Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)
GFSK	6.468	100	0.06468	64.68	-23.78

Note: Duty Cycle Correction Factor=20log(x).

Where: x is Duty Cycle



ON TIME AND DUTY CYCLE MID CH PLOT-1



Date: 20.JAN.2022 10:04:48

ON TIME AND DUTY CYCLE MID CH PLOT-2



Date: 20.JAN.2022 10:04:25

Note: All the modes had been tested, but only the worst duty cycle recorded in the report.



6.2. 20 dB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

LIMITS

CFR 47 FCC Part15 (15.249) Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	
CFR 47 FCC §15.215 (c)	20dB Bandwidth	for reporting purposes only	2400-2483.5	

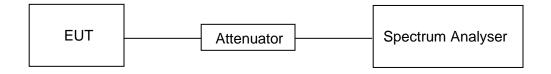
TEST PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW 1% to 5% of the occupied bandwidth	
VBW	approximately 3xRBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB/99% relative to the maximum level measured in the fundamental emission.

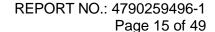
TEST SETUP



TEST ENVIRONMENT

Temperature	24.3 °C	Relative Humidity	61 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 3 V

RESULTS

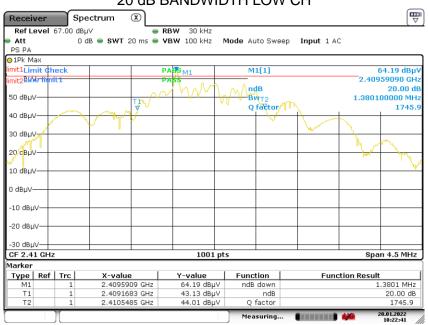




 Frequency (MHz)
 20dB bandwidth (MHz)
 99% bandwidth (MHz)
 Result

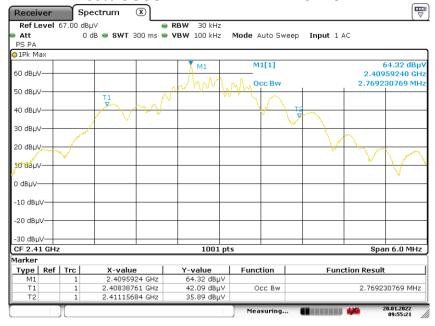
 2410
 1.3801
 2.7692
 PASS

20 dB BANDWIDTH LOW CH

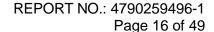


Date: 20.JAN.2022 10:22:41

99% OCCUPIED BANDWIDTH LOW CH



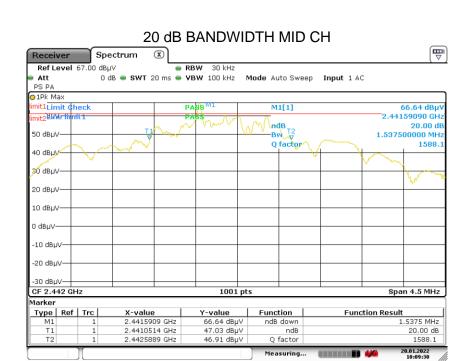
Date: 20.JAN.2022 09:55:21



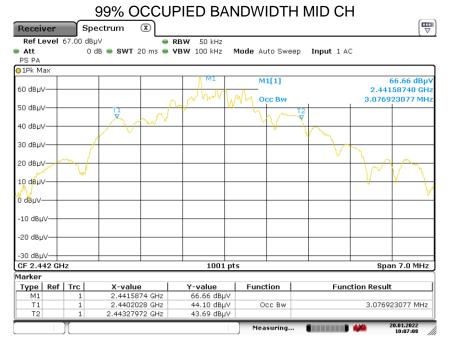


 Frequency (MHz)
 20dB bandwidth (MHz)
 99% bandwidth (MHz)
 Result

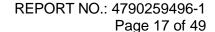
 2442
 1.5375
 3.0769
 PASS



Date: 20.JAN.2022 10:09:31



Date: 20.JAN.2022 10:07:08





Frequency (MHz)

20dB bandwidth (MHz)

99% bandwidth (MHz)

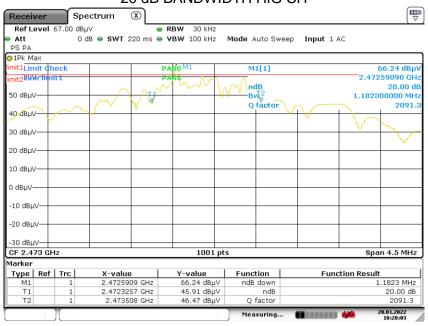
Result

1.1823

3.5245

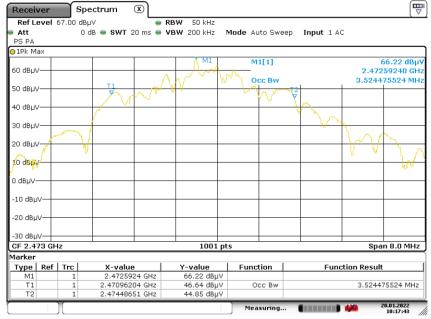
PASS





Date: 20.JAN.2022 10:20:03

99% OCCUPIED BANDWIDTH HIG CH



Date: 20.JAN.2022 10:17:43

REPORT NO.: 4790259496-1 Page 18 of 49

7. RADIATED TEST RESULTS
7.1. LIMITS AND PROCEDURE

LIMITS

CFR 47 FCC §15.205 and §15.209

CFR 47 FCC §15.249 (a)(d)(c)(e)

The field strength of emissions from intentional radiators operated within these frequency bands								
Frequency (MHz)	. , , , , , , , , , , , , , , , , , , ,							
902 - 928	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3					
2400 – 2483.5	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3					
5725 – 5875	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3					

Emissions radiated outside of the specified frequency bands above 30MHz						
Frequency Range	Field Strength Limit	Field Strength Limit				
(MHz)	(uV/m) at 3 m	(dBuV/m	n) at 3 m			
(1411 12)	(4 7/11) 41 3 111	Quasi	-Peak			
30 - 88	100	40				
88 - 216	150	43.5				
216 - 960	200	46				
Above 960	500	500 54				
Above 1000	500	Peak	Average			
Above 1000	500	74	54			

FCC Emissions radiated outside of the specified frequency bands below 30MHz						
Frequency (MHz) Field strength (microvolts/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						



FCC Restricted bands of operation:

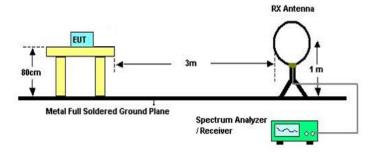
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	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	(²)
13.36-13.41			

Note: 1 Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. 2 Above 38.6c



TEST SETUP AND PROCEDURE

Below 30MHz



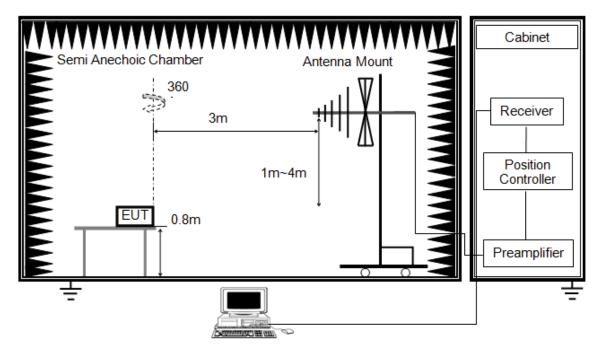
The setting of the spectrum analyser

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013.
- 2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 80 cm above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.
- 5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
- 6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode remeasured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.
- 7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30 m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.
- 8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377 Ω . For example, the measurement frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.



Below 1 GHz and Above 30 MHz



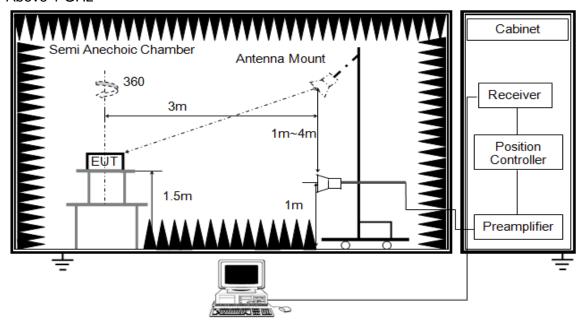
The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 80cm above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured



Above 1 GHz



The setting of the spectrum analyser. (For Bandedge and Field strength)

RBW	≥ OBW (2 MHz)
VBW	PEAK: ≥ 3×RBW AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

The setting of the spectrum analyser. (For Spurious emissions)

RBW	1 MHz
11/81///	PEAK: 3 MHz AVG: see note 5
Sweep	Auto
Detector	Peak
Trace	Max hold

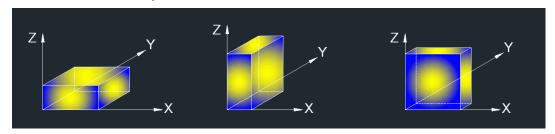
- 1. The testing follows the guidelines in ANSI C63.10-2013.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (1.5 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter or band reject filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 150cm above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.



5. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements. Where necessary, average emission are determined by applying the Duty Cycle Correction Factor to the peak measurements. For the Duty Cycle and Correction Factor please refer to clause 6.1. ON TIME AND DUTY CYCLE.

6. For measurements Bandedge above 1 GHz, the resolution bandwidth is set to 2 MHz, then the video bandwidth is set to $\ge 3 \times RBW$ for peak measurements. This test results are worse than using 1 MHz resolution bandwidth, so if the result is pass, the test is considered to meet the standard requirements.

X axis, Y axis, Z axis positions:



Note: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

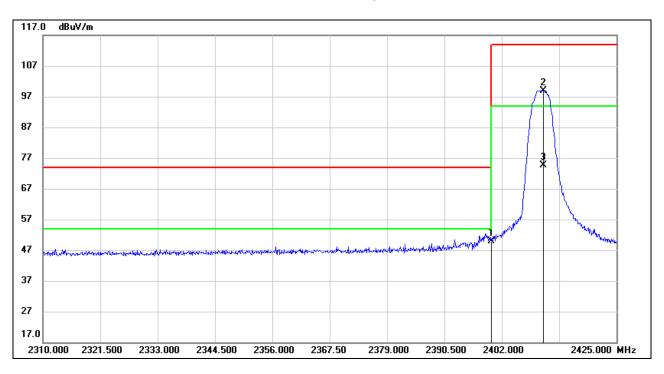
TEST ENVIRONMENT

Temperature	24.3 °C	Relative Humidity	61 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 3 V



7.2. RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS

RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (LOW CHANNEL, HORIZONTAL)

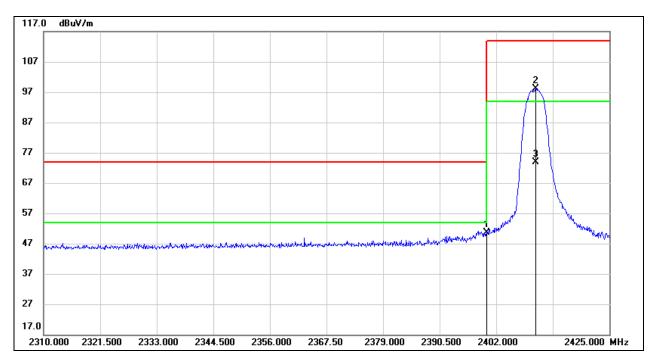


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2400.000	17.02	32.75	49.77	74.00	-24.23	peak
2	2410.395	66.10	32.80	98.90	114.00	-15.10	peak
3	2410.395	/	/	75.12	94.00	-18.88	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (LOW CHANNEL, VERTICAL)

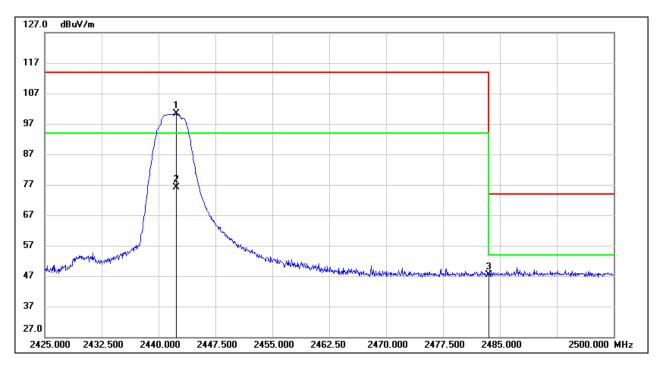


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2400.000	17.93	32.75	50.68	74.00	-23.32	peak
2	2410.050	65.39	32.79	98.18	114.00	-15.82	peak
3	2410.050	/	/	74.40	94.00	-19.60	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



FIELD STRENGTH OF INTENTIONAL EMISSIONS (MIDDLE CHANNEL, HORIZONTAL)

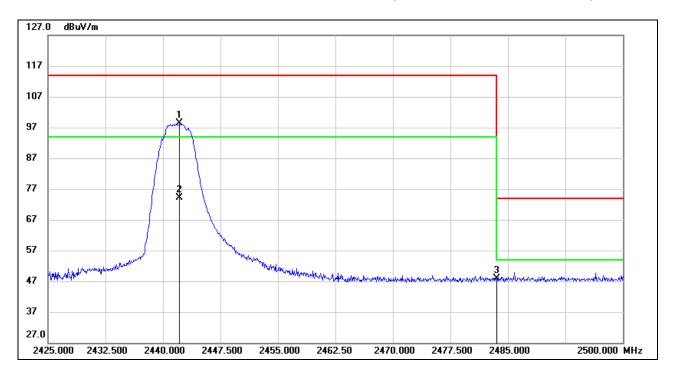


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2442.325	67.34	32.92	100.26	114.00	-13.74	peak
2	2442.325	/	/	76.48	94.00	-17.52	AVG
3	2483.500	14.39	33.10	47.49	74.00	-26.51	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



FIELD STRENGTH OF INTENTIONAL EMISSIONS (MIDDLE CHANNEL, VERTICAL)

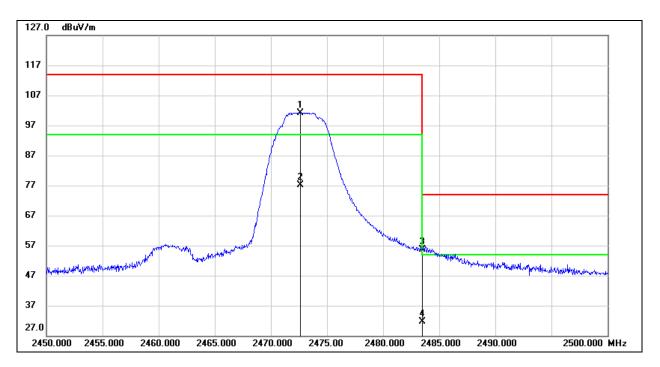


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2442.175	65.35	32.92	98.27	114.00	-15.73	peak
2	2442.175	/	/	74.49	94.00	-19.51	AVG
3	2483.500	14.71	33.10	47.81	74.00	-26.19	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (HIGH CHANNEL, HORIZONTAL)

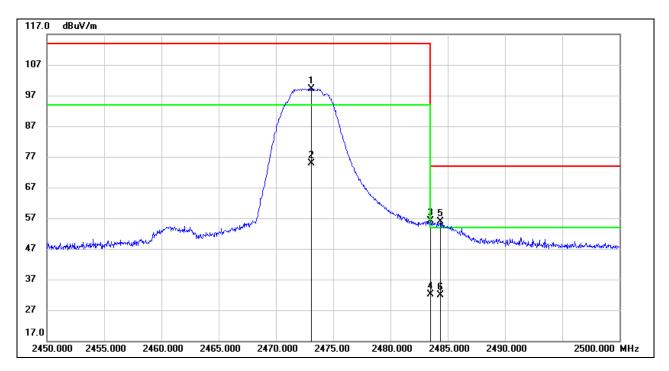


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2472.600	68.20	33.05	101.25	114.00	-12.75	peak
2	2472.600	/	/	77.47	94.00	-16.53	AVG
3	2483.500	22.64	33.10	55.74	74.00	-18.26	peak
4	2483.500	/	/	31.96	54.00	-22.04	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (HIGH CHANNEL, VERTICAL)



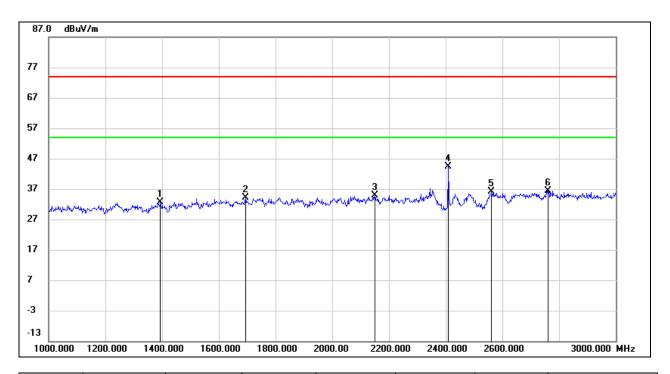
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2473.100	66.05	33.05	99.10	114.00	-14.90	peak
2	2473.100	/	/	75.32	94.00	-18.68	AVG
3	2483.500	23.12	33.10	56.22	74.00	-17.78	peak
4	2483.500	/	/	32.44	54.00	-21.56	AVG
5	2484.350	22.86	33.10	55.96	74.00	-18.04	peak
6	2484.350	/	/	32.18	54.00	-21.82	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



7.3. SPURIOUS EMISSIONS (1 ~ 3 GHz)

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

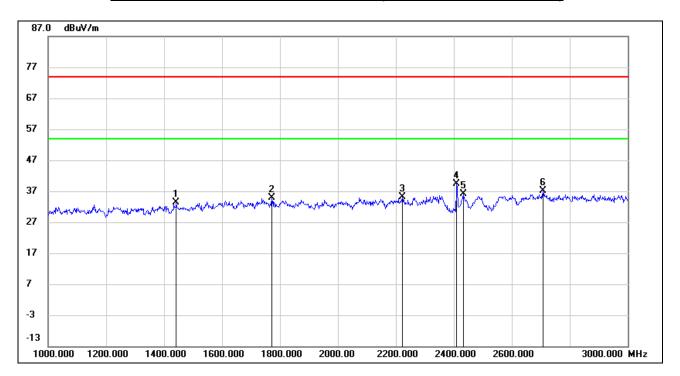


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1395.000	45.81	-13.18	32.63	74.00	-41.37	peak
2	1694.000	45.62	-11.42	34.20	74.00	-39.80	peak
3	2150.000	45.03	-10.22	34.81	74.00	-39.19	peak
4	2410.000	53.46	-9.05	44.41	/	/	fundamental
5	2562.000	44.85	-8.71	36.14	74.00	-37.86	peak
6	2762.000	44.32	-7.88	36.44	74.00	-37.56	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

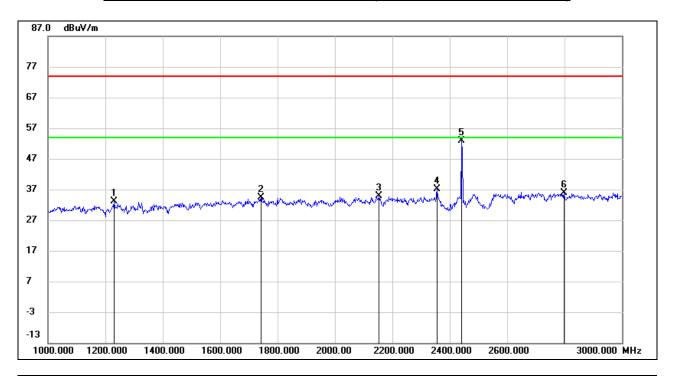


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1442.000	46.32	-12.90	33.42	74.00	-40.58	peak
2	1772.000	45.72	-10.94	34.78	74.00	-39.22	peak
3	2223.000	44.93	-9.80	35.13	74.00	-38.87	peak
4	2410.000	48.44	-9.05	39.39	/	/	fundamental
5	2433.000	45.11	-8.98	36.13	74.00	-37.87	peak
6	2709.000	45.37	-8.12	37.25	74.00	-36.75	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

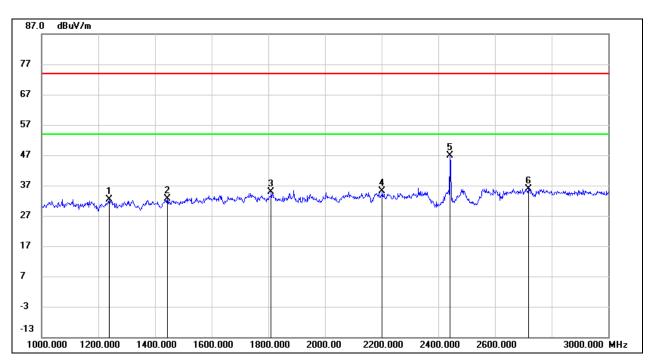


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1230.000	46.74	-13.68	33.06	74.00	-40.94	peak
2	1742.000	45.62	-11.13	34.49	74.00	-39.51	peak
3	2154.000	44.95	-10.19	34.76	74.00	-39.24	peak
4	2357.000	46.42	-9.25	37.17	74.00	-36.83	peak
5	2442.000	61.86	-8.97	52.89	/	/	fundamental
6	2799.000	43.60	-7.69	35.91	74.00	-38.09	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

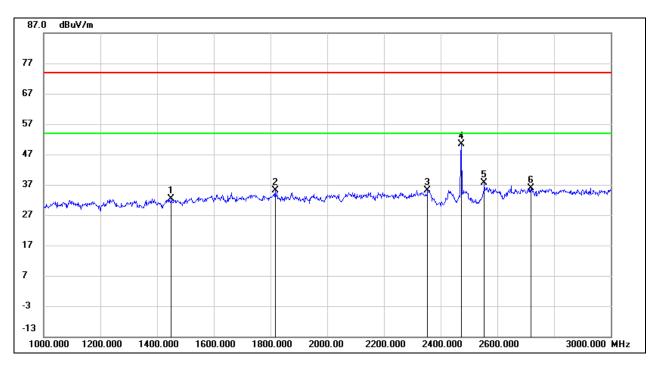


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1239.000	46.13	-13.66	32.47	74.00	-41.53	peak
2	1445.000	45.58	-12.88	32.70	74.00	-41.30	peak
3	1811.000	45.65	-10.79	34.86	74.00	-39.14	peak
4	2202.000	45.03	-9.88	35.15	74.00	-38.85	peak
5	2442.000	55.81	-8.97	46.84	/	/	fundamental
6	2719.000	43.97	-8.08	35.89	74.00	-38.11	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

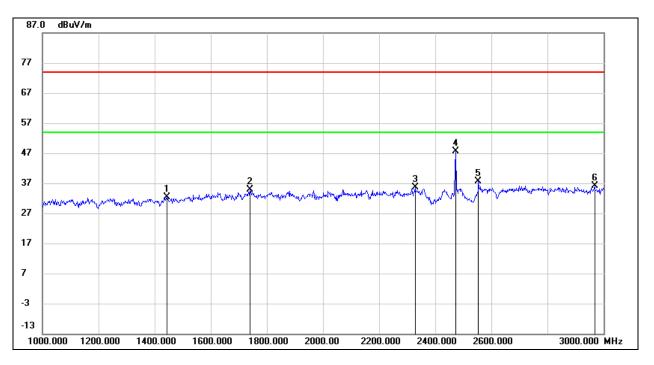


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1450.000	45.27	-12.84	32.43	74.00	-41.57	peak
2	1817.000	45.88	-10.80	35.08	74.00	-38.92	peak
3	2355.000	44.51	-9.26	35.25	74.00	-38.75	peak
4	2473.000	59.35	-8.89	50.46	/	/	fundamental
5	2554.000	46.39	-8.72	37.67	74.00	-36.33	peak
6	2719.000	43.85	-8.08	35.77	74.00	-38.23	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



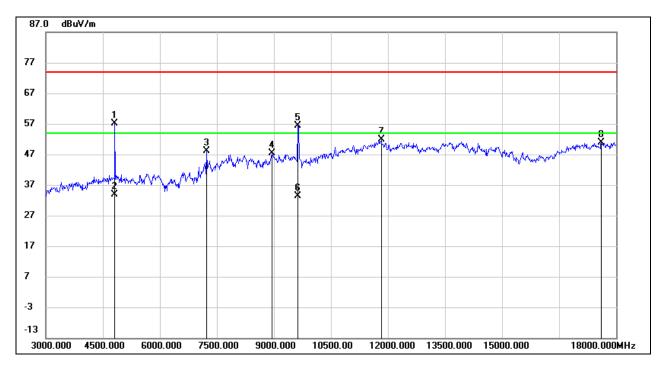
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1445.000	45.25	-12.88	32.37	74.00	-41.63	peak
2	1740.000	46.00	-11.14	34.86	74.00	-39.14	peak
3	2329.000	45.07	-9.36	35.71	74.00	-38.29	peak
4	2473.000	56.49	-8.89	47.60	/	/	fundamental
5	2554.000	46.39	-8.72	37.67	74.00	-36.33	peak
6	2968.000	43.27	-7.19	36.08	74.00	-37.92	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



7.4. SPURIOUS EMISSIONS (3 ~ 18 GHz)

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

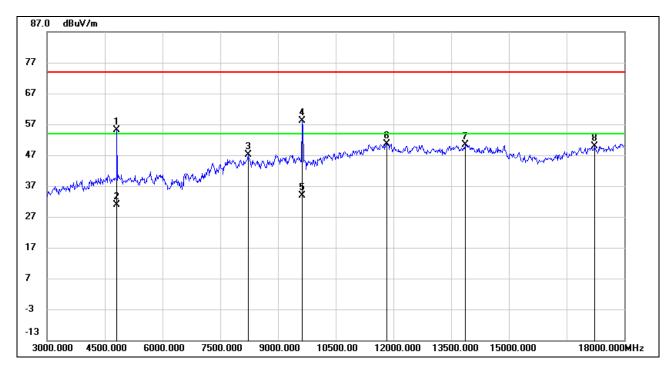


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	57.72	-0.64	57.08	74.00	-16.92	peak
2	4815.000	/	/	33.30	54.00	-20.70	AVG
3	7230.000	41.94	6.22	48.16	74.00	-25.84	peak
4	8940.000	37.79	9.47	47.26	74.00	-26.74	peak
5	9637.500	45.94	10.47	56.41	74.00	-17.59	peak
6	9637.500	/	/	32.63	54.00	-21.37	AVG
7	11827.500	34.55	17.30	51.85	74.00	-22.15	peak
8	17617.500	29.96	20.93	50.89	74.00	-23.11	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. The High Pass filter loss factor already add into the correct factor.
- 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

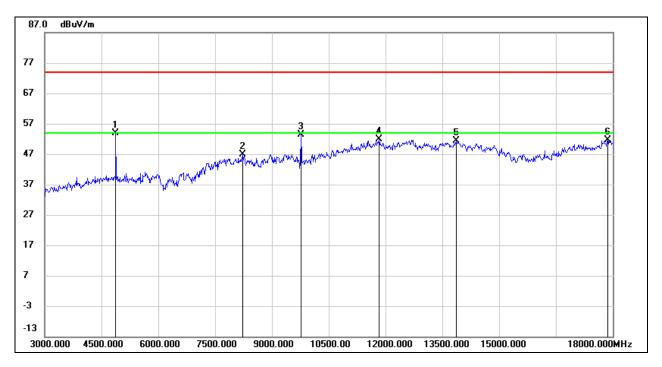


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	57.57	-0.64	56.93	74.00	-17.07	peak
2	4815.000	/	/	33.15	54.00	-20.85	AVG
3	8257.500	37.91	8.49	46.40	74.00	-27.60	peak
4	9637.500	44.58	10.47	55.05	74.00	-18.95	peak
5	9637.500	/	/	31.27	54.00	-22.73	AVG
6	11827.500	34.21	17.30	51.51	74.00	-22.49	peak
7	13912.500	31.88	18.65	50.53	74.00	-23.47	peak
8	17377.500	30.87	19.82	50.69	74.00	-23.31	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

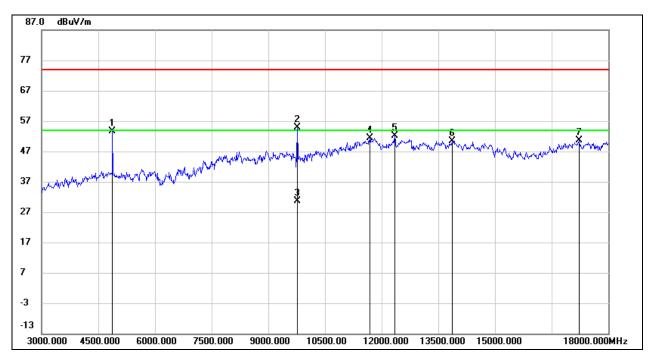


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4882.500	54.41	-0.59	53.82	74.00	-20.18	peak
2	8235.000	38.39	8.58	46.97	74.00	-27.03	peak
3	9765.000	42.95	10.33	53.28	74.00	-20.72	peak
4	11842.500	34.59	17.28	51.87	74.00	-22.13	peak
5	13860.000	32.70	18.71	51.41	74.00	-22.59	peak
6	17872.500	28.68	23.04	51.72	74.00	-22.28	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. The High Pass filter loss factor already add into the correct factor.
- 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

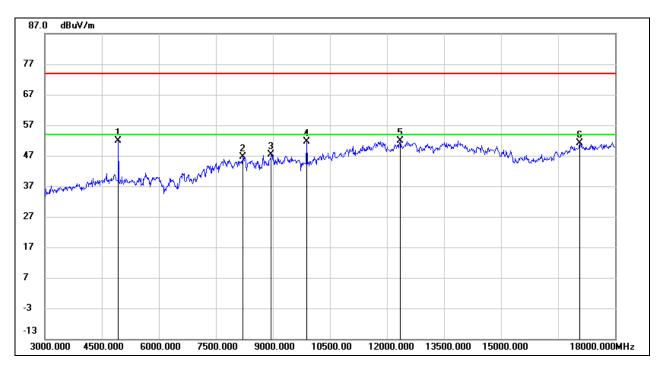


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4882.500	54.17	-0.59	53.58	74.00	-20.42	peak
2	9765.000	44.49	10.33	54.82	74.00	-19.18	peak
3	9765.000	/	/	31.04	54.00	-22.96	AVG
4	11692.500	34.66	16.78	51.44	74.00	-22.56	peak
5	12345.000	35.21	16.82	52.03	74.00	-21.97	peak
6	13867.500	31.74	18.70	50.44	74.00	-23.56	peak
7	17227.500	30.83	19.75	50.58	74.00	-23.42	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

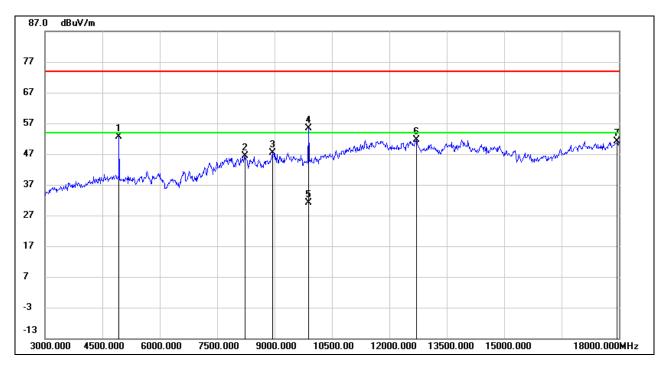


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4942.500	52.53	-0.55	51.98	74.00	-22.02	peak
2	8212.500	37.86	8.66	46.52	74.00	-27.48	peak
3	8962.500	37.79	9.71	47.50	74.00	-26.50	peak
4	9892.500	41.15	10.53	51.68	74.00	-22.32	peak
5	12345.000	35.05	16.82	51.87	74.00	-22.13	peak
6	17077.500	32.19	19.00	51.19	74.00	-22.81	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. The High Pass filter loss factor already add into the correct factor.
- 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



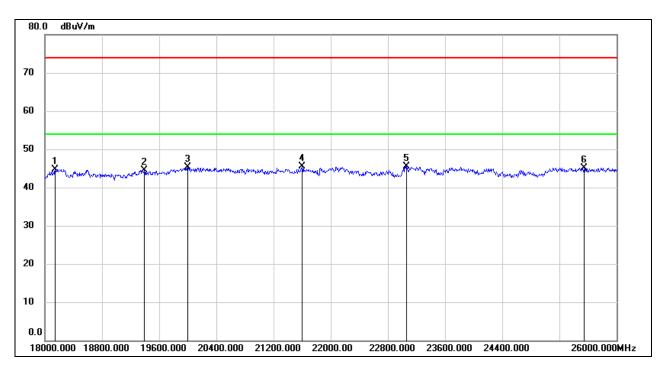
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4942.500	53.13	-0.55	52.58	74.00	-21.42	peak
2	8227.500	37.65	8.61	46.26	74.00	-27.74	peak
3	8947.500	37.89	9.56	47.45	74.00	-26.55	peak
4	9892.500	44.77	10.53	55.30	74.00	-18.70	peak
5	9892.500	/	/	31.52	54.00	-22.48	AVG
6	12712.500	34.77	16.88	51.65	74.00	-22.35	peak
7	17955.000	27.90	23.26	51.16	74.00	-22.84	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
- 5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
- 6. The High Pass filter loss factor already add into the correct factor.
- 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.



7.5. SPURIOUS EMISSIONS (18 ~ 26 GHz)

<u>HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)</u>

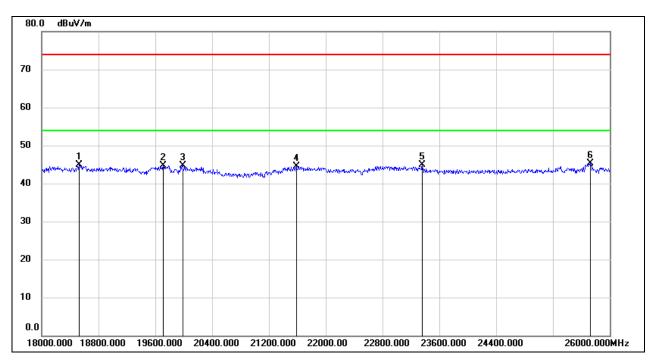


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18144.000	50.27	-5.48	44.79	74.00	-29.21	peak
2	19392.000	50.12	-5.57	44.55	74.00	-29.45	peak
3	20000.000	50.81	-5.45	45.36	74.00	-28.64	peak
4	21600.000	50.02	-4.54	45.48	74.00	-28.52	peak
5	23064.000	48.99	-3.42	45.57	74.00	-28.43	peak
6	25544.000	46.67	-1.58	45.09	74.00	-28.91	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18528.000	50.11	-5.26	44.85	74.00	-29.15	peak
2	19712.000	50.01	-5.29	44.72	74.00	-29.28	peak
3	19984.000	50.21	-5.44	44.77	74.00	-29.23	peak
4	21584.000	49.10	-4.56	44.54	74.00	-29.46	peak
5	23360.000	48.10	-3.26	44.84	74.00	-29.16	peak
6	25728.000	46.11	-0.72	45.39	74.00	-28.61	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

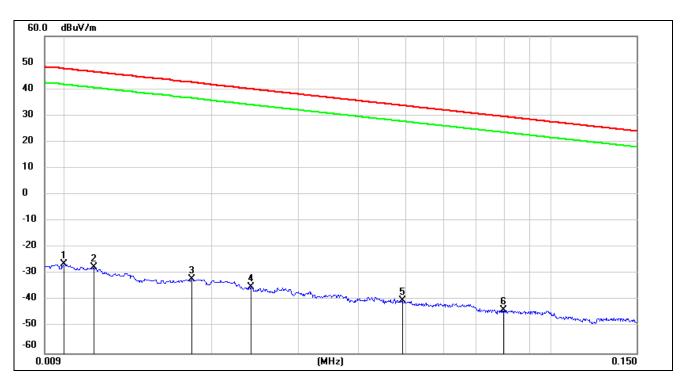
Note: All test modes had been tested, only the worst data record in the report.



7.6. SPURIOUS EMISSIONS BELOW 30 MHz

SPURIOUS EMISSIONS (HIGH CHANNEL, LOOP ANTENNA FACE ON TO THE EUT, WORST-CASE CONFIGURATION)

9 kHz ~ 150 kHz

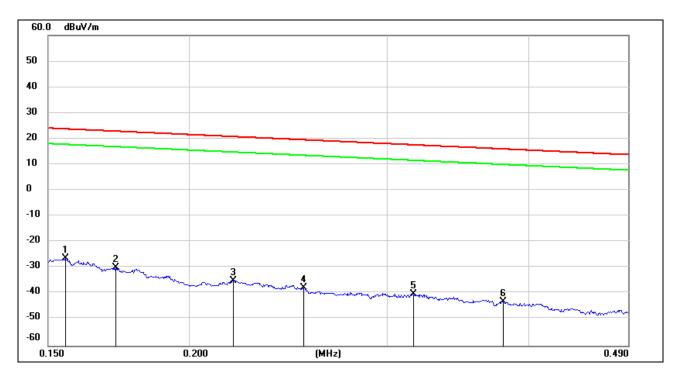


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.01	75.22	-101.4	-26.18	47.6	-73.78	peak
2	0.0114	73.88	-101.4	-27.52	46.46	-73.98	peak
3	0.0181	69.35	-101.36	-32.01	42.45	-74.46	peak
4	0.024	66.32	-101.36	-35.04	40	-75.04	peak
5	0.0492	61.55	-101.47	-39.92	33.76	-73.68	peak
6	0.0796	58.03	-101.63	-43.6	29.58	-73.18	peak

- 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
- 3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
 - 4. $dBuA/m = dBuV/m 20log10(120\pi) = dBuV/m 51.5$.



150 kHz ~ 490 kHz

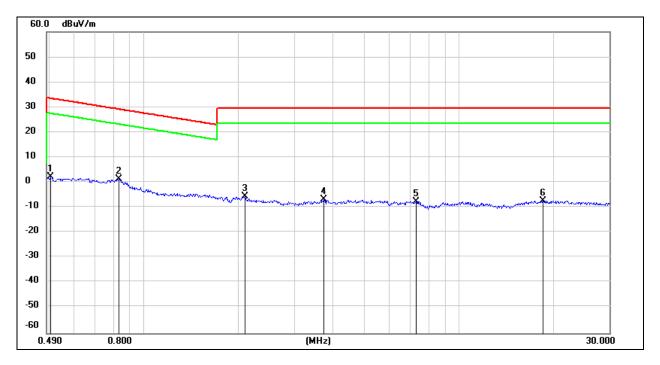


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1554	75.27	-101.65	-26.38	23.77	-50.15	peak
2	0.1720	71.69	-101.67	-29.98	22.9	-52.88	peak
3	0.2190	66.77	-101.75	-34.98	20.79	-55.77	peak
4	0.2530	64.14	-101.8	-37.66	19.54	-57.20	peak
5	0.3163	61.7	-101.87	-40.17	17.6	-57.77	peak
6	0.3800	59.02	-101.94	-42.92	16.01	-58.93	peak

- 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
- 3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
 - 4. $dBuA/m = dBuV/m 20log10(120\pi) = dBuV/m -51.5$.



490 kHz ~ 30 MHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5039	64.44	-62.07	2.37	33.56	-31.19	peak
2	0.8296	63.44	-62.17	1.27	29.23	-27.96	peak
3	2.0939	56.39	-61.79	-5.40	29.54	-34.94	peak
4	3.7100	54.7	-61.41	-6.71	29.54	-36.25	peak
5	7.3361	53.58	-61.17	-7.59	29.54	-37.13	peak
6	18.4908	53.56	-60.89	-7.33	29.54	-36.87	peak

Note: 1. Measurement = Reading Level + Correct Factor.

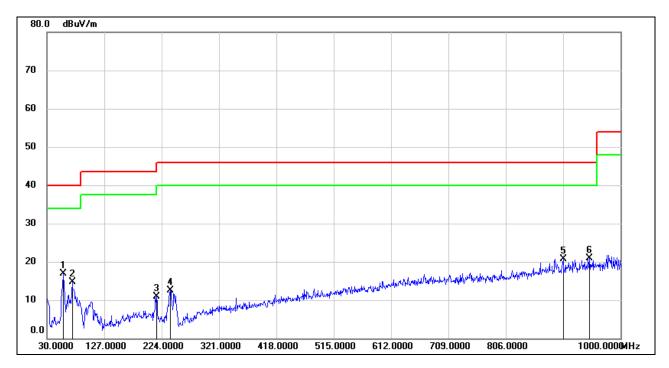
- 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
- 3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
 - 4. $dBuA/m = dBuV/m 20log10(120\pi) = dBuV/m -51.5$.

Note: All test modes had been tested, only the worst data record in the report.



7.7. SPURIOUS EMISSIONS BELOW 1 GHz AND ABOVE 30 MHz

SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



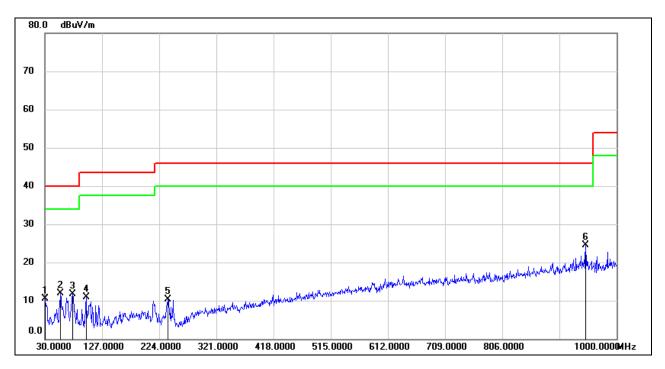
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	57.1600	37.39	-20.58	16.81	40.00	-23.19	QP
2	72.6800	35.52	-20.76	14.76	40.00	-25.24	QP
3	215.2700	28.64	-17.76	10.88	43.50	-32.62	QP
4	238.5500	31.54	-19.10	12.44	46.00	-33.56	QP
5	903.0000	25.86	-5.15	20.71	46.00	-25.29	QP
6	947.6200	25.24	-4.43	20.81	46.00	-25.19	QP

Note: 1. Result Level = Read Level + Correct Factor.

- 2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
- 3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.9700	29.64	-19.04	10.60	40.00	-29.40	QP
2	56.1900	32.57	-20.61	11.96	40.00	-28.04	QP
3	77.5300	32.76	-21.14	11.62	40.00	-28.38	QP
4	99.8399	31.99	-21.15	10.84	43.50	-32.66	QP
5	238.5500	29.35	-19.10	10.25	46.00	-35.75	QP
6	947.6200	29.01	-4.43	24.58	46.00	-21.42	QP

Note: 1. Result Level = Read Level + Correct Factor.

- 2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
- 3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

Note: All the channels have been tested, only the worst data was recorded in the report.



REPORT NO.: 4790259496-1 Page 49 of 49

8. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §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.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

<u>RESULTS</u>	
Complies	
	FND OF REPORT