



# CFR 47 FCC PART 15 SUBPART C

### **TEST REPORT**

For

### Sky Rover KnightForce

#### MODEL NUMBER: US858922

#### FCC ID: 2AIRP-858950

#### **REPORT NUMBER: 4790123026-1**

ISSUE DATE: October 8, 2021

Prepared for

ALPHA GROUP CO., LTD. Alpha Animation Industrial Area, Jinhong Road East & Fengxiang Road North, Chenghai District Shantou,Guangdong China

Prepared by

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#### **Revision History**

Rev.	Issue Date	Revisions	Revised By
V0	10/08/2021	Initial Issue	



Summary of Test Results					
Clause	Test Items FCC Rules Test R		Test Results		
1	20dB Bandwidth and 99% Occupied Bandwidth	CFR 47 FCC §15.215 (c)	Pass		
2	2 Radiated Emission CFR 47 FCC §15.2 CFR 47 FCC §15.205		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 but can't be charged.



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# **1. ATTESTATION OF TEST RESULTS**

Applicant Information Company Name: Address:	ALPHA GROUP CO., LTD. Alpha Animation Industrial Area, Jinhong Road East & Fengxiang Road North, Chenghai District Shantou,Guangdong China
Manufacturer Information Company Name: Address:	ALPHA GROUP CO., LTD. Alpha Animation Industrial Area, Jinhong Road East & Fengxiang Road North, Chenghai District Shantou,Guangdong China
EUT Information	
EUT Name:	Sky Rover KnightForce
Model:	US858922
Sample Received Date:	September 15, 2021
Sample Status:	Normal
Date of Tested:	September 20, 2021 ~ September 25, 2021

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

Prepared By:

Bucur

Checked By:

Shenny les

Shawn Wen Laboratory Leader

Denny Huang Project Engineer

Approved By:

ephenbuo

Stephen Guo Laboratory Manager



# 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

	/erification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Accreditation Certificate Accreditation Certificate Accreditation Com Ident VCC UL V has I Com Ident VCC UL V has I Com Ident Facil Char	been assessed and proved to be in compliance with A2LA. (FCC Designation No.: CN1187) /erification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. been recognized to perform compliance testing on equipment subject to Commission's Declaration of Conformity (DoC) and Certification rules. D (Company No.: 21320) /erification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. been registered and fully described in a report filed with ISED. The upany Number is 21320 and the test lab Conformity Assessment Body tifier (CABID) is CN0046. EI (Registration No.: G-20019, R-20004, C-20012 and T-20011) /erification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. been assessed and proved to be in compliance with VCCI, the abership No. is 3793. lity Name: mber D, the VCCI registration No. is G-20019 and R-20004 Iding 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.



# 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.			



# 5. EQUIPMENT UNDER TEST

EUT Name	Sky Rover KnightForce		
EUT Description	The EUT is a wireless controller.		
Model	US858922		
Broduct Description	Operation Frequency	2415 MHz ~ 2471 MHz	
Product Description	Modulation Type	GFSK	
Battery	DC 4.5 V		

### 5.1. DESCRIPTION OF EUT

### 5.2. MAXIMUM FIELD STRENGTH

	uency IHz)	Channel Number	Max Peak field strength (dBµV/m)	Max Average field strength (dBµV/m)
24	415	1[57]	99.92	70.45

## 5.3. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2415	16	2430	31	2445	46	2460
2	2416	17	2431	32	2446	47	2461
3	2417	18	2432	33	2447	48	2462
4	2418	19	2433	34	2448	49	2463
5	2419	20	2434	35	2449	50	2464
6	2420	21	2435	36	2450	51	2465
7	2421	22	2436	37	2451	52	2466
8	2422	23	2437	38	2452	53	2467
9	2423	24	2438	39	2453	54	2468
10	2424	25	2439	40	2454	55	2469
11	2425	26	2440	41	2455	56	2470
12	2426	27	2441	42	2456	57	2471
13	2427	28	2442	43	2457	/	/
14	2428	29	2443	44	2458	/	/
15	2429	30	2444	45	2459	1	/

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### 5.4. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1 2415 ~ 2471 monopole A		monopole Anteni	na 2
T ( ) / .	de Trevenit and De	A Share Manufa	Description

Test 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 29(MID Channel), CH 57(High Channel)	2415 MHz, 2443 MHz, 2471 MHz

### 5.6. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2415 MHz ~ 2471 MHz Band					
Test Soft	ware Version	/			
Modulation Type Transmit Antenna		Test Channel			
	Number	CH 1	CH 29	CH 57	
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 4.5 V	
	VH	/	

Note: VL= Lower Extreme Test Voltage VN= Nominal Voltage VH= Upper Extreme Test Voltage TN= Normal Temperature



### 5.8. DESCRIPTION OF TEST SETUP

#### SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	/	1	/	1

#### I/O CABLES

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

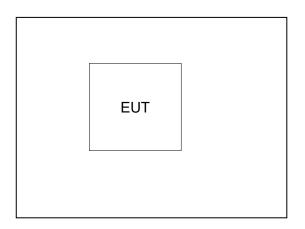
#### ACCESSORY

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

#### TEST SETUP

The EUT have the engineer mode inside.

#### SETUP DIAGRAM FOR TEST



Note: New battery was used during all tests.

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### 5.9. MEASURING INSTRUMENT AND SOFTWARE USED

	Radiated Emissions							
			Ins	strument				
Used	Equipment	Manufacturer	Mode	el No.	Seria	Il No.	Last Cal.	Next Cal.
V	MXE EMI Receiver	KESIGHT	N90	)38A	MY564	00036	Nov. 12, 2020	Nov. 11, 2021
	Hybrid Log Periodic Antenna	TDK	HLP-;	3003C	130	960	Aug. 2, 2021	Aug. 2, 2023
V	Preamplifier	HP	844	47D	2944A	09099	Nov. 12, 2020	Nov. 11, 2021
V	EMI Measurement Receiver	R&S	ES	R26	101	377	Nov. 12, 2020	Nov. 11, 2021
V	Horn Antenna	TDK	HRN	-0118	130	940	July 20, 2021	July 19, 2024
V	Preamplifier	TDK	PA-02-0118		TRS- 000	-305- 067	Nov. 20, 2020	Nov. 19, 2021
V	Horn Antenna	Schwarzbeck	BBHA9170		#6	97	Jul. 20, 2021	Jul. 20, 2023
V	Preamplifier	TDK	PA-02-2		TRS- 000	-307- 003	Nov. 12, 2020	Nov. 11, 2021
V	Preamplifier	TDK	PA-	02-3	TRS- 000	-308- )02	Nov. 12, 2020	Nov. 11, 2021
V	Loop antenna	Schwarzbeck	15 <sup>-</sup>	19B	000	800	Jan.17, 2019	Jan.17,2022
V	Preamplifier	TDK	PA-02-0	001-3000	TRS- 000	-302- 050	Nov. 12, 2020	Nov. 11, 2021
V	Preamplifier	Mini-Circuits	ZX60-8	3LN-S+	SUP01	201941	Nov. 20, 2020	Nov. 19, 2021
V	High Pass Filter	Wi	3000-	10-2700- 18000- ISS	2	3	Nov. 12, 2020	Nov. 11, 2021
V	Band Reject Filter	Wainwright	WRCJV8-2350- 2400-2483.5- 2533.5-40SS		2	1	Nov. 12, 2020	Nov. 11, 2021
			S	oftware				
Used		escription		Manufa	cturer	1	Name	Version
V		vare for Radiat sturbance	ed	Fara	ad	Ež	Z-EMC	Ver. UL-3A1

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# 6. ANTENNA PORT TEST RESULTS

### 6.1. ON TIME AND DUTY CYCLE

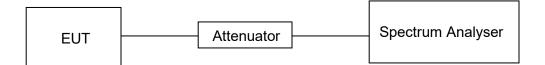
#### **LIMITS**

None; for reporting purposes only

#### PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

#### TEST SETUP



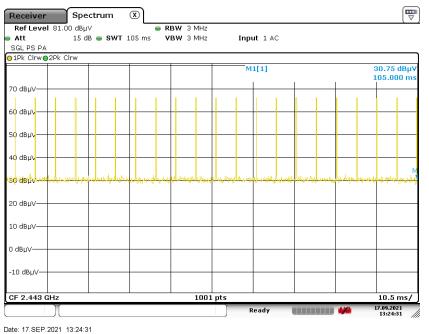
#### **TEST ENVIRONMENT**

Temperature	24.3 °C	Relative Humidity	61 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 4.5 V

#### **RESULTS**

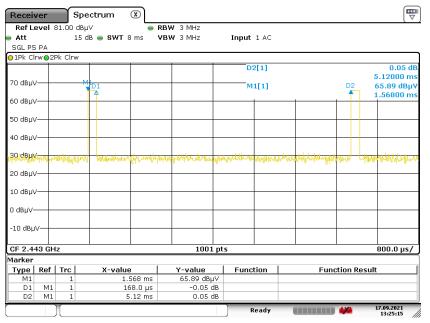
Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)
GFSK	3.36	100	0.0336	3.36	-29.47

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



#### ON TIME AND DUTY CYCLE MID CH PLOT





Date: 17.SEP.2021 13:25:16

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

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### 6.2. 20 dB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

#### <u>LIMITS</u>

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

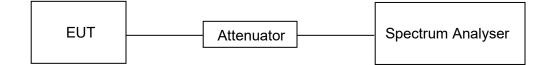
#### TEST PROCEDURE

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 3×RBW
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 4.5 V

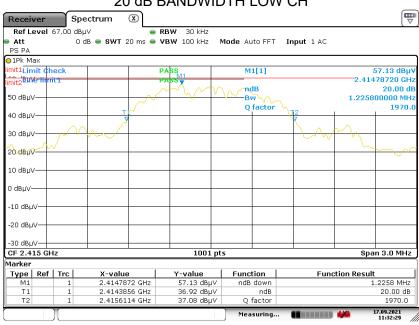
#### **RESULTS**

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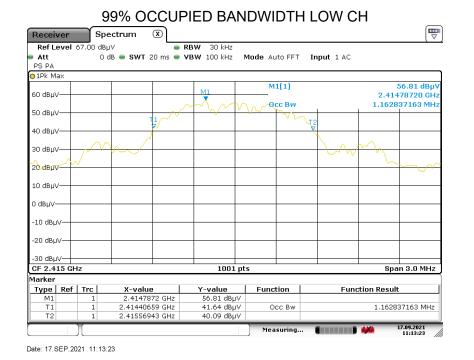
#### REPORT NO.: 4790123026-1 Page 15 of 49

Frequency	20dB bandwidth	99% bandwidth	Result
(MHz)	(MHz)	(MHz)	
2415	1.2258	1.1628	PASS

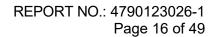


#### 20 dB BANDWIDTH LOW CH

Date: 17.SEP.2021 11:32:29



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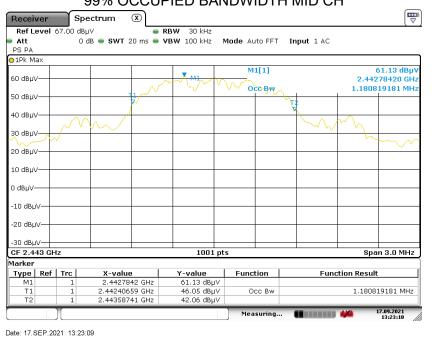


Frequency	20dB bandwidth	99% bandwidth	Result
(MHz)	(MHz)	(MHz)	
2443	1.2318	1.1808	PASS

#### 20 dB BANDWIDTH MID CH

PS PA PIPk Max mit1Limit Check mit2PWermmit1 50 dBµV 40 dBµV	「 20 ms ● ♥	BW 30 kHz BW 100 kHz	Mod	M1[1] M1[1] M1B Bw Q factor	Input 1 AC		61.12 dBµ¥ 278720 GHz 20.00 dB 300000 MHz 1983.2
PS PA PIPk Max mit1Limit Check mit2PWermmit1 50 dBµV 40 dBµV	P/	ASS	Mod	M1[1]			278720 GHz 20.00 dB 300000 MHz
PIPk Max mitLimit Check mit2BWHmmrt1 50 dBµV 40 dBµV		V	Ś		112 T2		278720 GHz 20.00 dB 300000 MHz
mit1Limit check mit2BW/Fmm11 50 dBµV 40 dBµV		V	Ŵ		T2 V		278720 GHz 20.00 dB 300000 MHz
mit2 <sup>вине-титс1</sup> 50 dBµV		V	Ŵ		T2 V		278720 GHz 20.00 dB 300000 MHz
50 dBµV 40 dBµV	T A A		<u>~</u>	—Bw 🔍 🗸	T2 V		20.00 dB 800000 MHz
50 dBµV 40 dBµV			. 0.	—Bw 🔍 🗸	T2	1.231	800000 MHz
40 dBµV	T				T2 V	1.231	
- $        -$				Q factor		h-0	1983.2
- $        -$						h-0	
					$\sim \sim \sim$		
					~ ~ ~	$\Gamma \sim$	
30 dBµV						1 5	
20 dBµV							
10 dBµV							
0 dBµV							
-10 dBµV							
00.40.44							
-20 dBµV							
-30 dBµV							
		1001					0.0.000
CF 2.443 GHz		1001	pιs			sp	an 3.0 MHz
1arker							
Type Ref Trc X-val		Y-value		-unction	Fun	ction Resu	
	7872 GHz	61.12 dBµ		ndB down			1.2318 MHz
	3856 GHz	41.50 dBµ		ndB			20.00 dB
T2 1 2.4430	6174 GHz	40.99 dBµ	IV	Q factor			1983.2
				Measuring		-	17.09.2021 13:23:56

Date: 17.SEP.2021 13:23:56

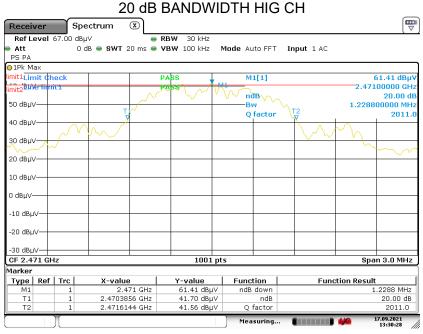


#### 99% OCCUPIED BANDWIDTH MID CH



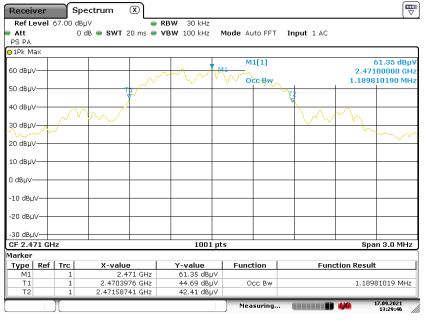
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Frequency	20dB bandwidth	99% bandwidth	Result
(MHz)	(MHz)	(MHz)	
2471	1.2288	1.1898	PASS



Date: 17.SEP.2021 13:30:27

#### 99% OCCUPIED BANDWIDTH HIG CH



Date: 17.SEP.2021 13:29:46



# 7. RADIATED TEST RESULTS

### 7.1. LIMITS AND PROCEDURE

#### <u>LIMITS</u>

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)	Field strength of Fundamental	Field strength of Harmonics	Distance (m)
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 Stre	ngth Limit	
(MHz)	(uV/m) at 3 m	(dBuV/m) at 3 m		
(((((((((((((((((((((((((((((((((((((((		Quasi-Peak		
30 - 88	100	4	0	
88 - 216	150	43	5.5	
216 - 960	200	46		
Above 960	500	54		
Above 1000	500	Peak	Average	
	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:

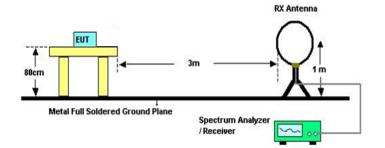
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
<sup>1</sup> 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
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: <sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. <sup>2</sup>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.

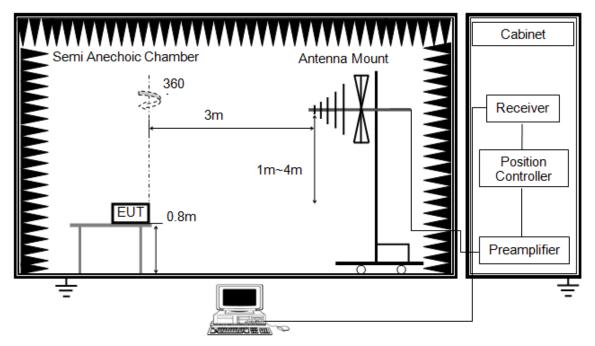
6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode remeasured. If the emission level of the EUT measured 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  $\Omega$ . 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.

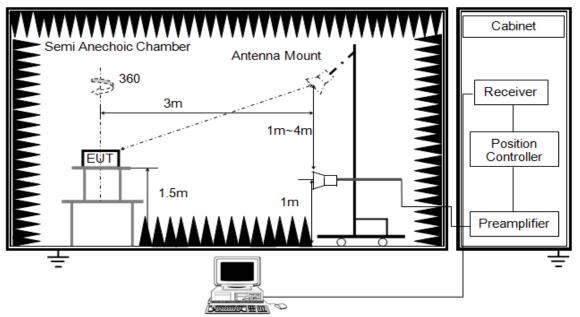
3. The EUT was placed on a turntable with 80cm above ground.

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)
IVBW/	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
NBW	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.

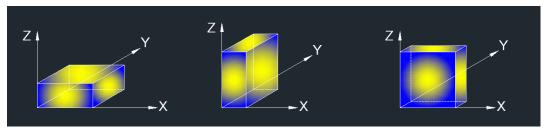
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5. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements. Where necessary, average emission are determined by applying the Duty Cycle Correction Factor to the peak measurements. 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×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

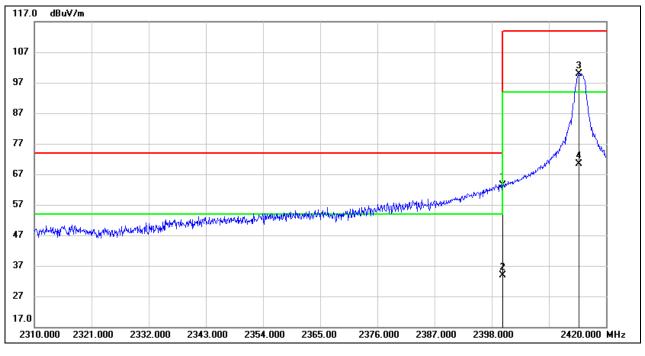
Temperature	24.3 °C	Relative Humidity	61 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 4.5 V

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### 7.2. RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2400.000	29.90	33.43	63.33	74.00	-10.67	peak
2	2400.000	/	/	33.86	54.00	-20.14	AVG
3	2414.720	66.44	33.48	99.92	114.00	-14.08	peak
4	2414.720	/	/	70.45	94.00	-23.55	AVG

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

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

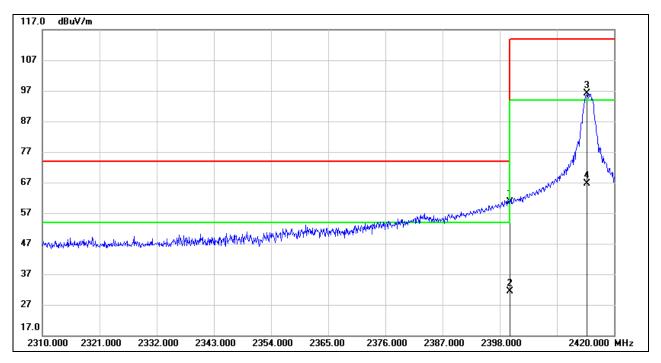
3. Peak: Peak detector.

4. AVG Result=Peak Result + Duty Cycle Correction Factor.

5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.



#### 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	27.31	33.43	60.74	74.00	-13.26	peak
2	2400.000	/	/	31.27	54.00	-22.73	AVG
3	2414.830	62.63	33.48	96.11	114.00	-17.89	peak
4	2414.830	/	/	66.64	94.00	-27.36	AVG

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

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

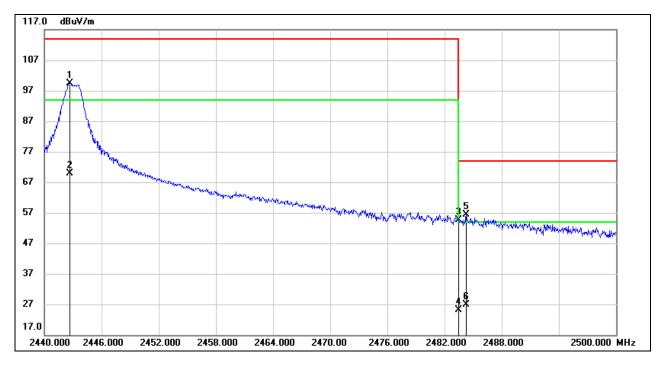
3. Peak: Peak detector.

4. AVG Result=Peak Result + Duty Cycle Correction Factor.

5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.



#### 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	2442.700	65.89	33.57	99.46	114.00	-14.54	peak
2	2442.700	/	/	69.99	94.00	-24.01	AVG
3	2483.500	20.84	33.71	54.55	74.00	-19.45	peak
4	2483.500	/	/	25.08	54.00	-28.92	AVG
5	2484.280	22.57	33.71	56.28	74.00	-17.72	peak
6	2484.280	/	/	26.81	54.00	-27.19	AVG

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

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

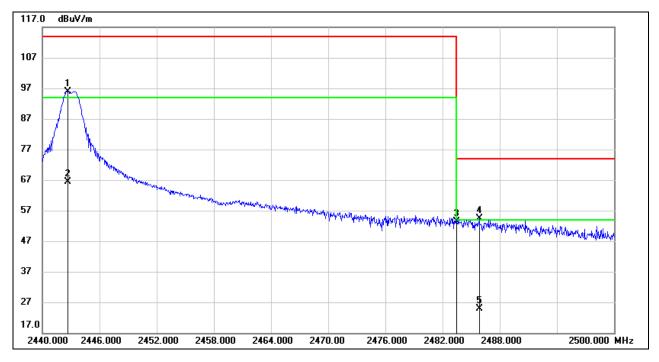
3. Peak: Peak detector.

4. AVG Result=Peak Result + Duty Cycle Correction Factor.

5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.



#### 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	2442.640	62.33	33.57	95.90	114.00	-18.10	peak
2	2442.640	/	/	66.43	94.00	-27.57	AVG
3	2483.500	19.67	33.71	53.38	74.00	-20.62	peak
4	2485.840	20.60	33.71	54.31	74.00	-19.69	peak
5	2485.840	/	/	24.84	54.00	-29.16	AVG

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

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

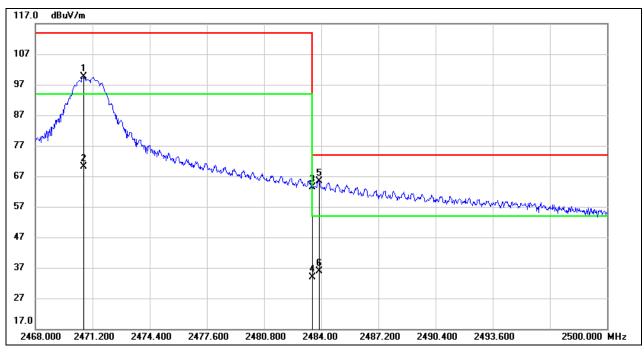
3. Peak: Peak detector.

4. AVG Result=Peak Result + Duty Cycle Correction Factor.

5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.



#### 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	2470.688	65.87	33.67	99.54	114.00	-14.46	peak
2	2470.688	/	/	70.07	94.00	-23.93	AVG
3	2483.500	29.65	33.71	63.36	74.00	-10.64	peak
4	2483.500	/	/	33.89	54.00	-20.11	AVG
5	2483.872	31.76	33.71	65.47	74.00	-8.53	peak
6	2483.872	/	/	36.00	54.00	-18.00	AVG

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

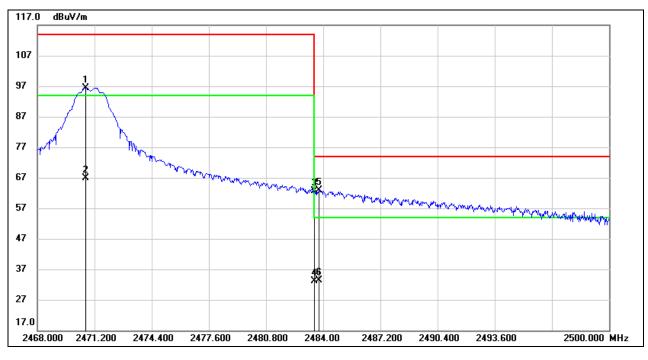
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit. 3. Peak: Peak detector.

4. AVG Result=Peak Result + Duty Cycle Correction Factor.

5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.



#### 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	2470.688	62.79	33.67	96.46	114.00	-17.54	peak
2	2470.688	/	/	66.99	94.00	-27.01	AVG
3	2483.500	28.98	33.71	62.69	74.00	-11.31	peak
4	2483.500	/	/	33.22	54.00	-20.78	AVG
5	2483.776	29.14	33.71	62.85	74.00	-11.15	peak
6	2483.776	/	/	33.38	54.00	-20.62	AVG

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

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

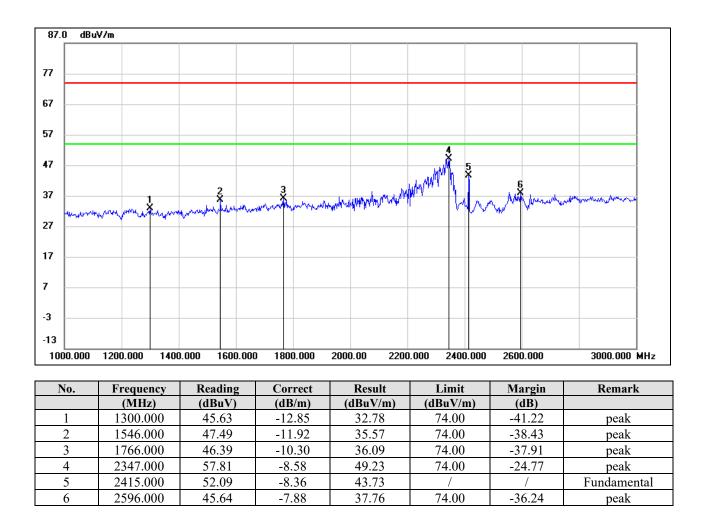
4. AVG Result=Peak Result + Duty Cycle Correction Factor.

5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.



# 7.3. SPURIOUS EMISSIONS (1 ~ 3 GHz)

#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

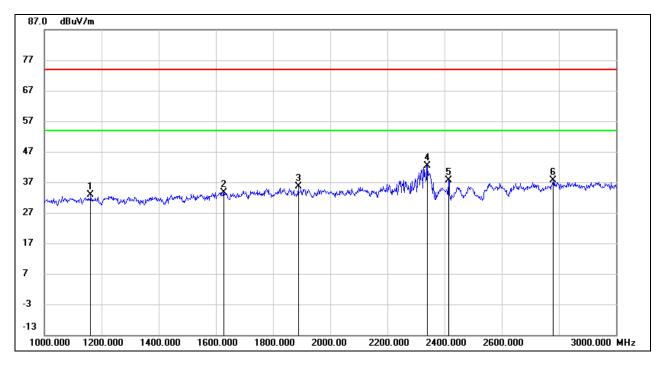


- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
- 5. Proper operation of the transmitter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

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#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

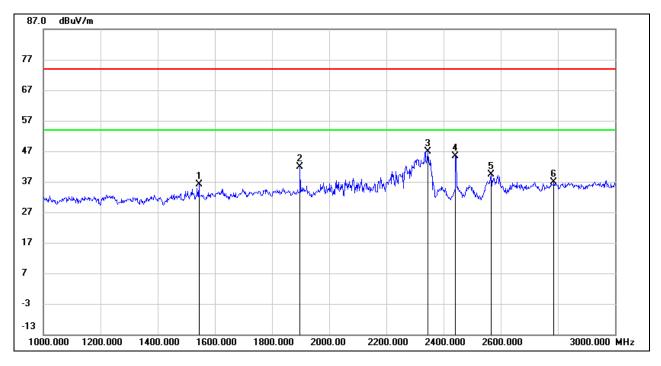


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1163.000	45.94	-13.17	32.77	74.00	-41.23	peak
2	1628.000	45.08	-11.34	33.74	74.00	-40.26	peak
3	1889.000	45.73	-10.11	35.62	74.00	-38.38	peak
4	2340.000	51.00	-8.59	42.41	74.00	-31.59	peak
5	2415.000	46.04	-8.36	37.68	/	/	Fundamental
6	2781.000	44.36	-6.68	37.68	74.00	-36.32	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)

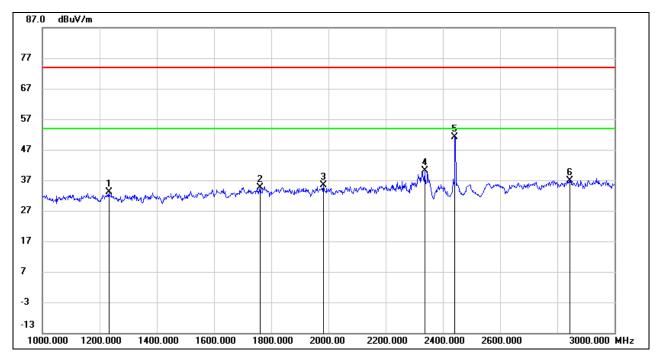


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1545.000	47.98	-11.92	36.06	74.00	-37.94	peak
2	1898.000	52.06	-10.12	41.94	74.00	-32.06	peak
3	2346.000	55.52	-8.58	46.94	74.00	-27.06	peak
4	2443.000	53.79	-8.31	45.48	/	/	Fundamental
5	2566.000	47.27	-7.99	39.28	74.00	-34.72	peak
6	2786.000	43.56	-6.65	36.91	74.00	-37.09	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)

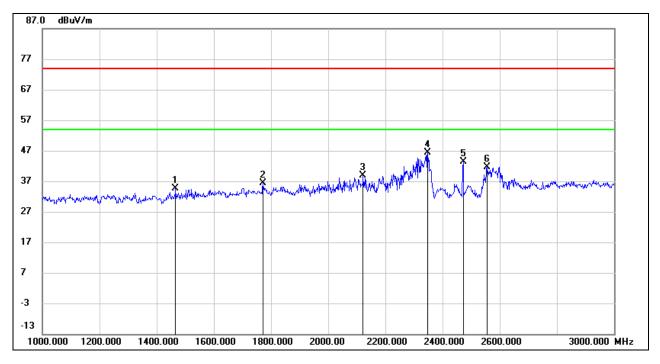


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1233.000	46.11	-12.95	33.16	74.00	-40.84	peak
2	1763.000	45.05	-10.33	34.72	74.00	-39.28	peak
3	1983.000	45.67	-10.18	35.49	74.00	-38.51	peak
4	2336.000	48.79	-8.61	40.18	74.00	-33.82	peak
5	2443.000	59.33	-8.31	51.02	/	/	Fundamental
6	2844.000	43.27	-6.34	36.93	74.00	-37.07	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)

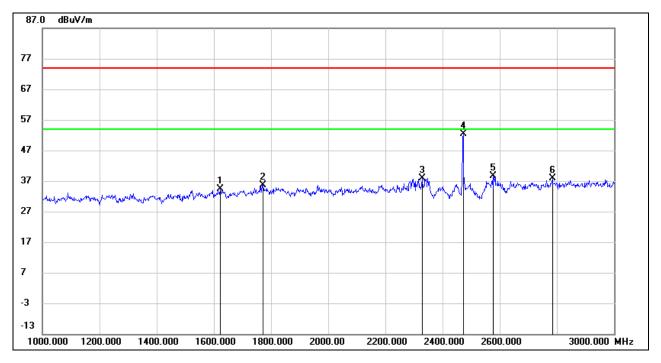


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1466.000	46.95	-12.39	34.56	74.00	-39.44	peak
2	1772.000	46.74	-10.26	36.48	74.00	-37.52	peak
3	2122.000	48.29	-9.49	38.80	74.00	-35.20	peak
4	2348.000	54.95	-8.57	46.38	74.00	-27.62	peak
5	2471.000	51.67	-8.27	43.40	/	/	Fundamental
6	2556.000	49.75	-8.03	41.72	74.00	-32.28	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)



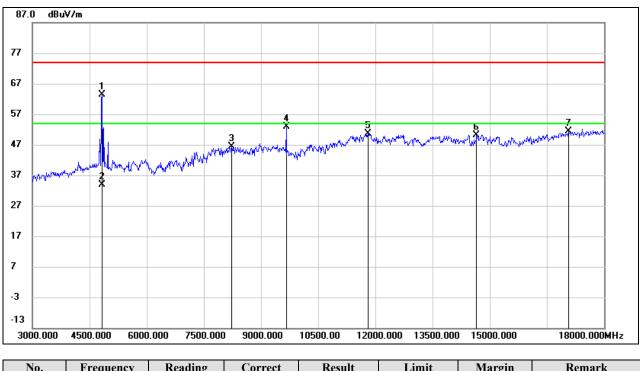
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1622.000	45.65	-11.39	34.26	74.00	-39.74	peak
2	1772.000	45.98	-10.26	35.72	74.00	-38.28	peak
3	2328.000	46.53	-8.64	37.89	74.00	-36.11	peak
4	2471.000	60.54	-8.27	52.27	/	/	Fundamental
5	2578.000	46.49	-7.95	38.54	74.00	-35.46	peak
6	2784.000	44.61	-6.66	37.95	74.00	-36.05	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)

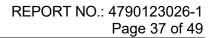
#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4830.000	62.82	0.64	63.46	74.00	-10.54	peak
2	4830.000	/	/	33.99	54.00	-20.01	AVG
3	8235.000	37.10	9.22	46.32	74.00	-27.68	peak
4	9660.000	42.68	10.32	53.00	74.00	-21.00	peak
5	11805.000	35.08	15.60	50.68	74.00	-23.32	peak
6	14662.500	33.65	16.57	50.22	74.00	-23.78	peak
7	17077.500	30.74	20.54	51.28	74.00	-22.72	peak

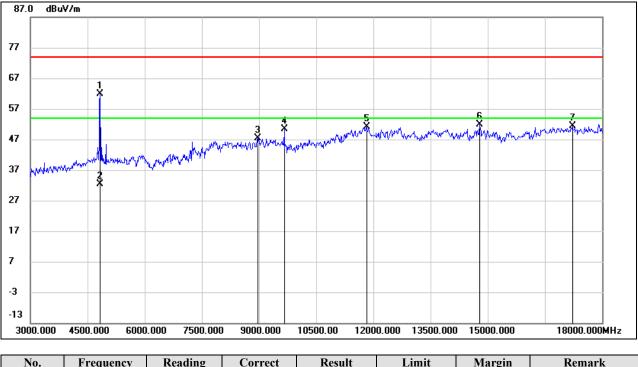
Note: 1. Measurement = Reading Level + Correct Factor.

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

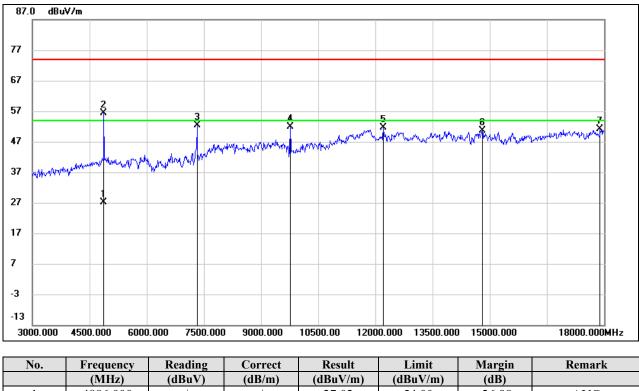


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4830.000	61.17	0.64	61.81	74.00	-12.19	peak
2	4830.000	/	/	32.34	54.00	-21.66	AVG
3	8970.000	37.06	10.32	47.38	74.00	-26.62	peak
4	9660.000	40.16	10.32	50.48	74.00	-23.52	peak
5	11827.500	35.46	15.57	51.03	74.00	-22.97	peak
6	14797.500	34.99	16.79	51.78	74.00	-22.22	peak
7	17220.000	30.42	21.01	51.43	74.00	-22.57	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)

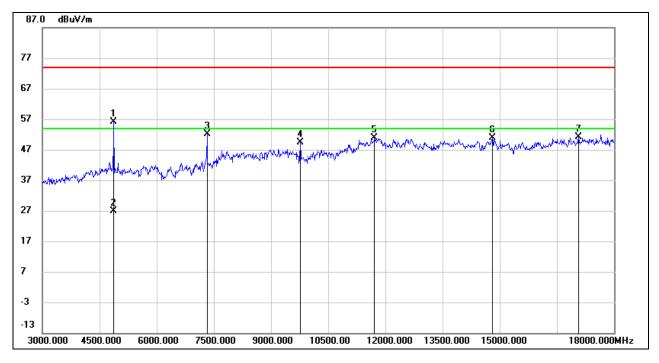


110.	requency	Reading	Contect	ittouit	Linnit	margin	ixtinal K
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4886.000	/	/	27.02	54.00	-26.98	AVG
2	4886.000	55.76	0.73	56.49	74.00	-17.51	peak
3	7327.500	44.98	7.46	52.44	74.00	-21.56	peak
4	9772.500	41.95	10.04	51.99	74.00	-22.01	peak
5	12217.500	36.59	15.14	51.73	74.00	-22.27	peak
6	14805.000	33.78	16.80	50.58	74.00	-23.42	peak
7	17902.500	28.39	22.70	51.09	74.00	-22.91	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	4886.000	55.51	0.73	56.24	74.00	-17.76	peak
2	4886.000	/	/	26.77	54.00	-27.23	AVG
3	7327.500	44.73	7.46	52.19	74.00	-21.81	peak
4	9772.500	39.39	10.04	49.43	74.00	-24.57	peak
5	11715.000	35.64	15.15	50.79	74.00	-23.21	peak
6	14805.000	34.15	16.80	50.95	74.00	-23.05	peak
7	17077.500	30.58	20.54	51.12	74.00	-22.88	peak

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

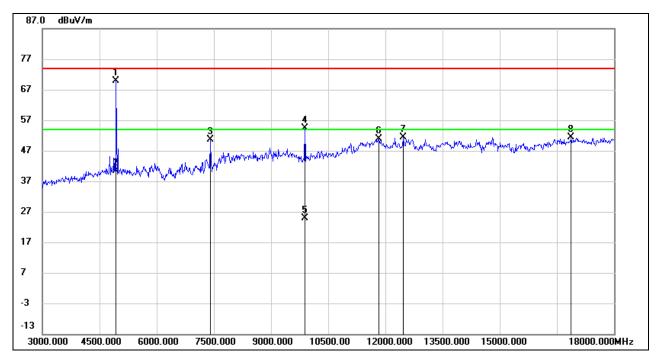
If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
Peak: Peak detector.

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)

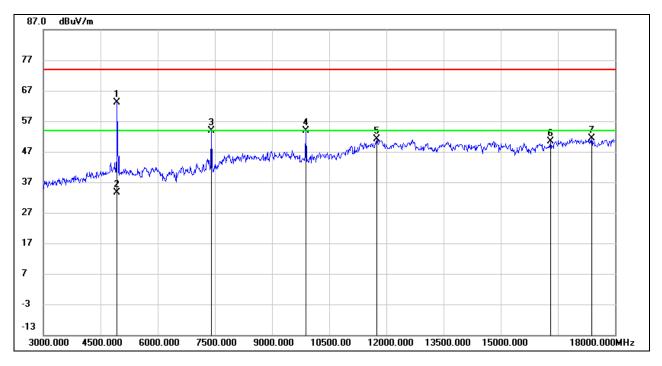


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4942.000	69.13	0.81	69.94	74.00	-4.06	peak
2	4942.000	/	/	40.47	54.00	-13.53	AVG
3	7410.000	42.90	7.73	50.63	74.00	-23.37	peak
4	9885.000	44.29	10.08	54.37	74.00	-19.63	peak
5	9885.000	/	/	24.90	54.00	-29.10	AVG
6	11820.000	35.26	15.58	50.84	74.00	-23.16	peak
7	12465.000	36.07	15.42	51.49	74.00	-22.51	peak
8	16875.000	31.51	19.92	51.43	74.00	-22.57	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)



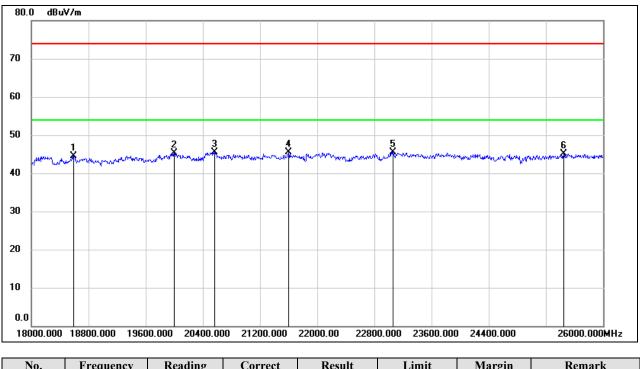
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4942.000	62.34	0.81	63.15	74.00	-10.85	peak
2	4942.000	/	/	33.68	54.00	-20.32	AVG
3	7410.000	46.11	7.73	53.84	74.00	-20.16	peak
4	9885.000	43.70	10.08	53.78	74.00	-20.22	peak
5	11745.000	35.86	15.31	51.17	74.00	-22.83	peak
6	16305.000	31.97	18.30	50.27	74.00	-23.73	peak
7	17385.000	30.65	20.76	51.41	74.00	-22.59	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)

#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18592.000	49.75	-5.31	44.44	74.00	-29.56	peak
2	20000.000	50.81	-5.45	45.36	74.00	-28.64	peak
3	20560.000	50.73	-5.30	45.43	74.00	-28.57	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	25448.000	46.83	-1.76	45.07	74.00	-28.93	peak

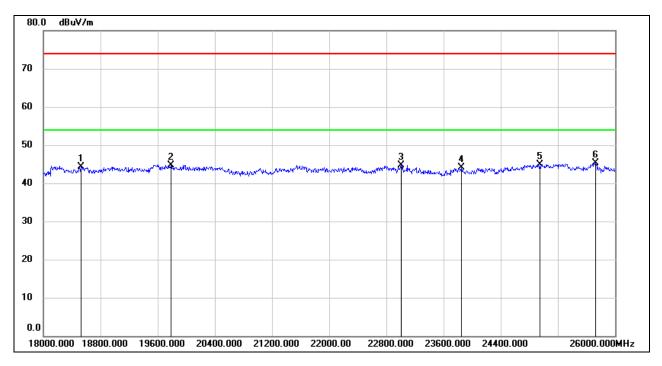
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



#### HARMONICS AND SPURIOUS EMISSIONS (LOW 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	49.61	-5.26	44.35	74.00	-29.65	peak
2	19784.000	50.07	-5.28	44.79	74.00	-29.21	peak
3	23008.000	48.10	-3.44	44.66	74.00	-29.34	peak
4	23848.000	47.18	-3.03	44.15	74.00	-29.85	peak
5	24944.000	47.05	-2.15	44.90	74.00	-29.10	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.

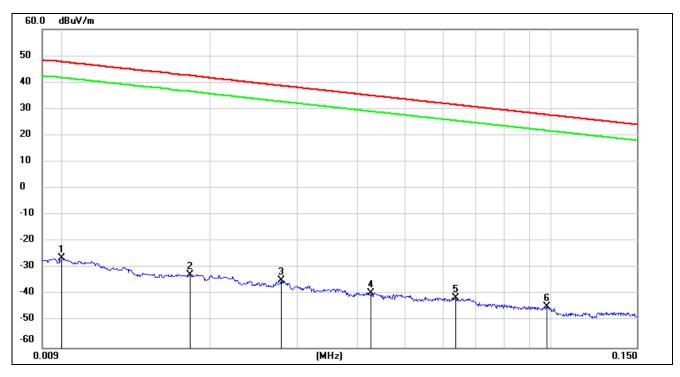
3. Peak: Peak detector.

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



# 7.6. SPURIOUS EMISSIONS BELOW 30 MHz

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



#### <u>9 kHz ~ 150 kHz</u>

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0100	75.22	-101.40	-26.18	47.6	-73.78	peak
2	0.0181	68.85	-101.36	-32.51	42.45	-74.96	peak
3	0.0279	66.67	-101.38	-34.71	38.69	-73.40	peak
4	0.0427	62.14	-101.45	-39.31	34.99	-74.30	peak
5	0.0636	60.31	-101.54	-41.23	31.53	-72.76	peak
6	0.0981	57.27	-101.78	-44.51	27.77	-72.28	peak

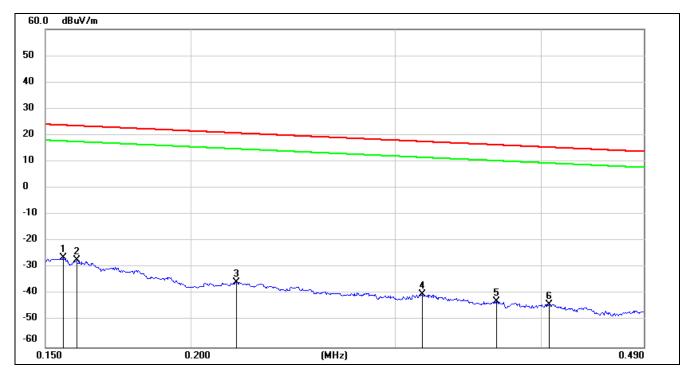
Note: 1. Measurement = Reading Level + Correct Factor.

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.



#### <u>150 kHz ~ 490 kHz</u>



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	0.1595	74.36	-101.65	-27.29	23.55	-50.84	peak
3	0.2190	66.27	-101.75	-35.48	20.79	-56.27	peak
4	0.3163	61.70	-101.87	-40.17	17.6	-57.77	peak
5	0.3662	59.08	-101.93	-42.85	16.33	-59.18	peak
6	0.4062	58.14	-101.96	-43.82	15.43	-59.25	peak

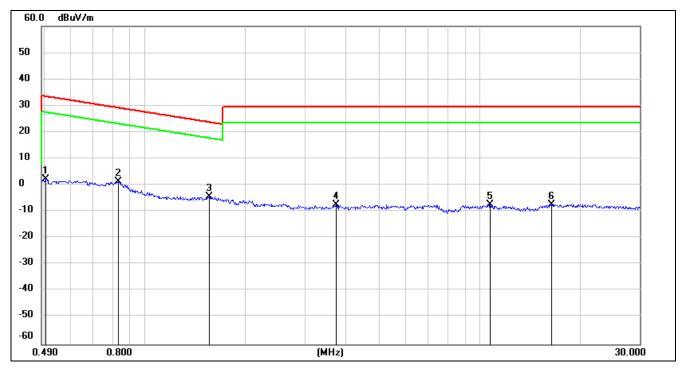
Note: 1. Measurement = Reading Level + Correct Factor.

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.



#### <u>490 kHz ~ 30 MHz</u>



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	1.5564	57.68	-62.02	-4.34	23.76	-28.10	peak
4	3.7100	54.20	-61.41	-7.21	29.54	-36.75	peak
5	10.7299	53.48	-60.83	-7.35	29.54	-36.89	peak
6	16.3959	53.67	-60.96	-7.29	29.54	-36.83	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.

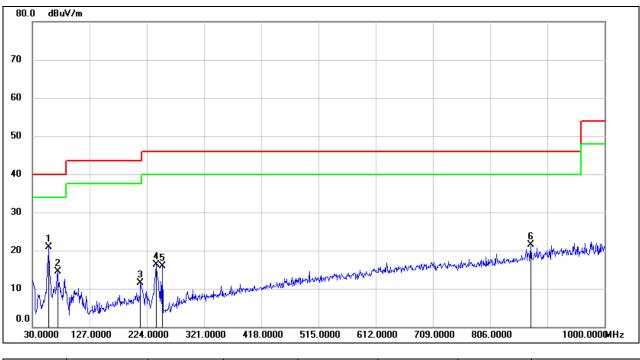
3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

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 (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	58.1300	41.49	-20.55	20.94	40.00	-19.06	QP
2	72.6800	35.21	-20.76	14.45	40.00	-25.55	QP
3	213.3300	29.17	-17.58	11.59	43.50	-31.91	QP
4	239.5200	35.56	-19.16	16.40	46.00	-29.60	QP
5	250.1900	34.82	-18.91	15.91	46.00	-30.09	QP
6	874.8700	27.15	-5.64	21.51	46.00	-24.49	QP

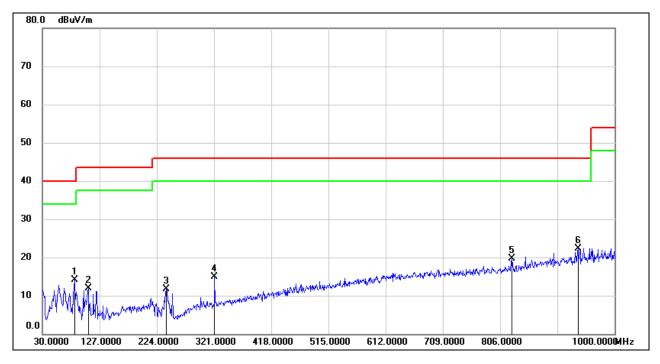
Note: 1. Result Level = Read Level + Correct Factor.

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 (LOW CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	84.3200	35.79	-21.63	14.16	40.00	-25.84	QP
2	107.6000	32.53	-20.58	11.95	43.50	-31.55	QP
3	240.4900	30.83	-19.17	11.66	46.00	-34.34	QP
4	321.9700	29.60	-14.75	14.85	46.00	-31.15	QP
5	826.3700	26.41	-6.76	19.65	46.00	-26.35	QP
6	937.9200	26.88	-4.56	22.32	46.00	-23.68	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.



# 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.

RESULTS Complies

# **END OF REPORT**