

## FCC Radio Test Report FCC ID: N4ZFLYSKYGT2

This report concerns (check one) : Original Grant Class II Change

Issued Date : May. 09, 2012
Project No. : 1204C017
Equipment : 2 CH Cup Redi

**Equipment**: 2 CH Gun Radio

Model Name: FS-GT2

**Applicant** : FLYSKY RC MODEL TECHNOLOGY CO.,LTD. **Address** : West building3,Huangjianyuan Ind Park QIAOLI

North Gate Changping Town Dongguan CN.

Manufacturer: FLYSKY RC MODEL TECHNOLOGY CO.,LTD.

Address: West building3,Huangjianyuan Ind Park QIAOLI

North Gate Changping Town Dongguan CN.

Tested by:

Neutron Engineering Inc. EMC Laboratory

Date of Receipt: Apr. 02, 2012

**Date of Test:** 

Apr. 02, 2012 ~ May. 08, 2012

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## **Declaration**

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For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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## 1. CERTIFICATION

Equipment: 2 CH Gun Radio

Trade Name FLYSKY Model Name. FS-GT2

Applicant: FLYSKY RC MODEL TECHNOLOGY CO.,LTD.

Date of Test: Apr. 02, 2012 ~ May. 08, 2012 Test Item: ENGINEERING SAMPLE

Standards: FCC Part15, Subpart C(15.247) / ANSI C63.4: 2009

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-1204C017) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and TAF according to the ISO-17025 quality assessment standard and technical standard(s).

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## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

	FCC Part15 (15.247) , Subpart C					
Standard Section	Test Item	Judgment	Remark			
15.207	Conducted Emission	PASS				
15.247(d)	Antenna conducted Spurious Emission	PASS				
15.247 (a)(1)	Hopping Channel Separation	PASS				
15.247 (b)(1)	Peak Output Power	PASS				
15.247(d)/15/209	Radiated Spurious Emission	PASS				
15.247 (a)(1)(iii)	Number of Hopping Frequency	PASS				
15.247 (a)(1)(iii)	Dwell Time	PASS				
15.205	Restricted Bands	PASS				
15.203	Antenna Requirement	PASS				

## NOTE:

- (1)" N/A" denotes test is not applicable in this Test Report
- (2) The test report is according to DA 00-705.

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## 2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3, Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.523792 Neutron's test firm number is 319330

## 2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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

## A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
DG-C02	CISPR	150 KHz ~ 30MHz	1.94	

## B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)	NOTE
		30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	Н	3.60	
DG-CB03	CISPR	200MHz ~ 1,000MHz	V	3.86	
DG-CB03	CISER	200MHz ~ 1,000MHz	Н	3.94	
		1GHz~26.5GHz	V	3.12	
		1GHz~26.5GHz	Н	3.68	

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## 3. GENERAL INFORMATION

## 3.1 GENERAL DESCRIPTION OF EUT

Equipment	2 CH Gun Radio		
Trade Name	FLYSKY		
Model Name	FS-GT2		
OEM Brand/Model Name	N/A		
Model Difference	N/A		
Product Description	The EUT is a 2 CH Gun Radio  Operation Frequency: 2405.5~2475MHz  Modulation Technology: GFSK  Bit Rate of Transmitter: 500Kbps  Number Of Channel 140 Channels, see Note:2  Antenna Designation: Please see Note 3.  Antenna Gain(Peak) Please see Note 3.  Output Power: 7.01 dBm  More details of EUT technical specification, please refe to the User's Manual.		
Channel List	Please refer to the Note 2.		
Power Source	#1 DC Voltage supplied from 8*AA battery. #2 DC Voltage supplied from Host system.		
Power Rating	#1 DC 12V #2 IP AC 120V/60Hz DC 5V		
Connecting I/O Port(s)	Please refer to the User'	s Manual	

## Note:

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

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2.

	Channel List						
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2405.5	36	2423	71	2440.5	106	2458
02	2406	37	2423.5	72	2441	107	2458.5
03	2406.5	38	2424	73	2441.5	108	2459
04	2407	39	2424.5	74	2442	109	2459.5
05	2407.5	40	2425	75	2442.5	110	2460
06	2408	41	2425.5	76	2443	111	2460.5
07	2408.5	42	2426	77	2443.5	112	2461
08	2409	43	2426.5	78	2444	113	2461.5
09	2409.5	44	2427	79	2444.5	114	2462
10	2410	45	2427.5	80	2445	115	2462.5
11	2410.5	46	2428	81	2445.5	116	2463
12	2411	47	2428.5	82	2446	117	2463.5
13	2411.5	48	2429	83	2446.5	118	2464
14	2412	49	2429.5	84	2447	119	2464.5
15	2412.5	50	2430	85	2447.5	120	2465
16	2413	51	2430.5	86	2448	121	2465.5
17	2413.5	52	2431	87	2448.5	122	2466
18	2414	53	2431.5	88	2449	123	2466.5
19	2414.5	54	2432	89	2449.5	124	2467
20	2415	55	2432.5	90	2450	125	2467.5
21	2415.5	56	2433	91	2450.5	126	2468
22	2416	57	2433.5	92	2451	127	2468.5
23	2416.5	58	2434	93	2451.5	128	2469
24	2417	59	2434.5	94	2452	129	2469.5
25	2417.5	60	2435	95	2452.5	130	2470
26	2418	61	2435.5	96	2453	131	2470.5
27	2418.5	62	2436	97	2453.5	132	2471
28	2419	63	2436.5	98	2454	133	2471.5
29	2419.5	64	2437	99	2454.5	134	2472
30	2420	65	2437.5	100	2455	135	2472.5
31	2420.5	66	2438	101	2455.5	136	2473
32	2421	67	2438.5	102	2456	137	2473.5
33	2421.5	68	2439	103	2456.5	138	2474
34	2422	69	2439.5	104	2457	139	2474.5
35	2422.5	70	2440	105	2457.5	140	2475

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Group 1	Group 2	Group 3	Group 4	Group 5
2410	2409.5	2409	2480.5	2408
2415	2414.5	2414	2413.5	2413
2420	2419.5	2419	2418.5	2418
2425	2424.5	2420.5	2420	2419.5
2430	2429.5	2424	2423.5	2423
2432	2431.5	2429	2428.5	2428
2435	2434.5	2434	2433.5	2433
2440	2439.5	2439	2438.5	2438
2445	2444.5	2444	2443.5	2443
2450	2449.5	2449	2448.5	2448
2455	2454.5	2454	2453.5	2453
2460	2459.5	2459	2458.5	2458
2465	2464.5	2464	2463.5	2463
2470	2469.5	2469	2468.5	2468
2472.5	2470.5	2470.5	2473.5	2473
2475	2474.5	2474	2475	2474.5

Group 6	Group 7	Group 8	Group 9	Group 10
2407.5	2407	2406.5	2406	2405.5
2412.5	2412	2411.5	2411	2410.5
2417.5	2417	2416.5	2416	2415.5
2419	2418.5	2418	2417.5	2417
2422.5	2422	2421.5	2421	2420.5
2427.5	2427	2426.5	2426	2425.5
2432.5	2432	2431.5	2431	2430.5
2437.5	2437	2436.5	2436	2435.5
2442.5	2442	2441.5	2441	2440.5
2447.5	2447	2446.5	2446	2445.5
2452.5	2452	2451.5	2451	2450.5
2457.5	2457	2456.5	2456	2455.5
2462.5	2462	2461.5	2461	2460.5
2467.5	2467	2466.5	2466	2465.5
2472.5	2472	2471.5	2471	2470.5
2474	2473.5	2473	2472.5	2472

Note: The EUT 16 channels of each sequence, total 10 sequences are used.

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## 3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	N/A	N/A	Dipole antenna	N/A	2.42	

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## 3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	CH01
Mode 2	CH75
Mode 3	CH140
Mode 4	USB Charge

For Conducted Emission				
Final Test Mode Description				
Mode 4 USB Charge				

For Radiated Emission				
Final Test Mode	Description			
Mode 1	CH01			
Mode 2	CH75			
Mode 3	CH140			

## Note:

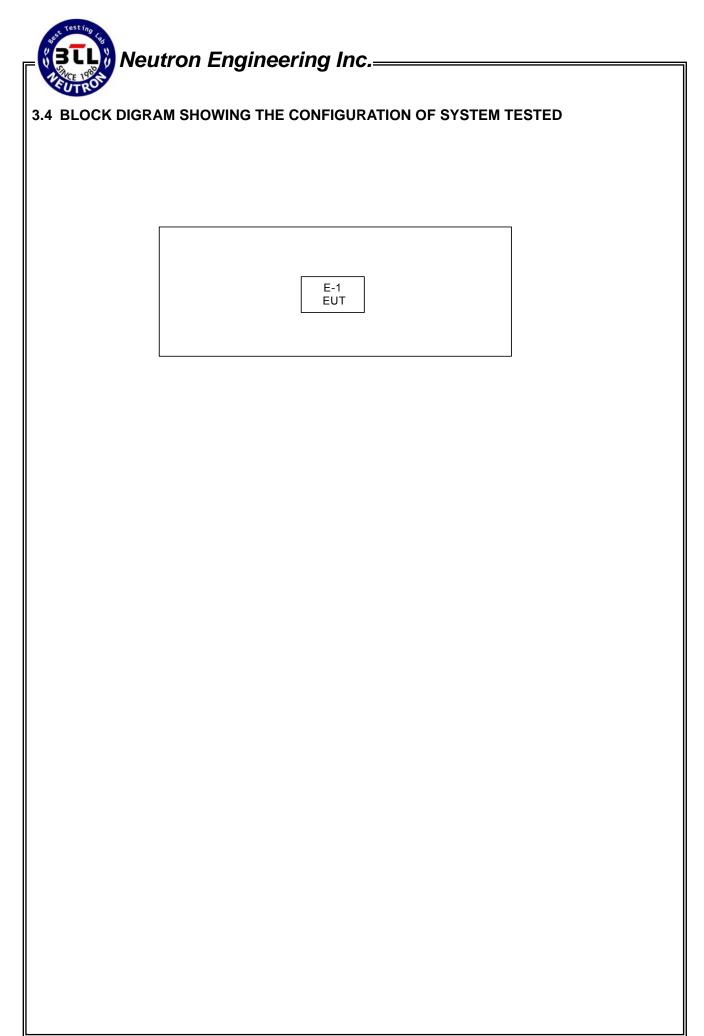
## 3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

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

Test software Version	Test program: RF Control Kit v1.0			
Frequency	2405.5 MHz 2442.5 MHz 2475 MHz			
Parameters(500Kbps)	N/A	N/A	N/A	

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<sup>(1)</sup> The measurements are performed at the highest, middle, lowest available channels.



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## 3.5 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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

Ite	m Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-	1 2 CH Gun Radio	FLYSKY	FS-GT2	N4ZFLYSKYGT2	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

## Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in m in <code>[Length]</code> column.

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## 4. EMC EMISSION TEST

## 4.1 CONDUCTED EMISSION MEASUREMENT

## 4.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
FREQUENCT (MITZ)	Quasi-peak	Average	Quasi-peak	Average	Stariuaru
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

## Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

## 4.1.2 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	00052765	May.26.2012
2	LISN	R&S	ENV216	100087	May.26.2012
3	Test Cable	N/A	C_17	N/A	Mar.30.2013
4	EMI TEST RECEIVER	R&S	ESCS30	826547/022	May.26.2012
5	50Ω Terminator	SHX	TF2-3G-A	08122902	May.26.2012

Remark: "N/A" denotes No Model No., Serial No. or No Calibration specified.

The following table is the setting of the receiver

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

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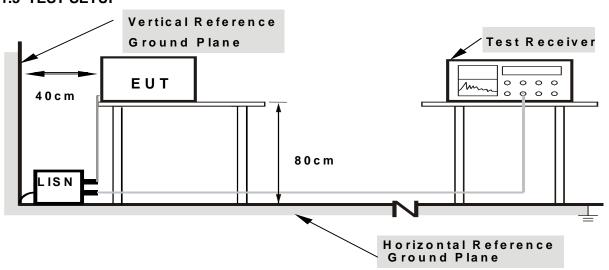
## 4.1.3 TEST PROCEDURE

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

## 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

## 4.1.5 TEST SETUP



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

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

## 4.1.6 EUT OPERATING CONDITIONS

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

The EUT was programmed to be in continuously transmitting / Hopping on mode.

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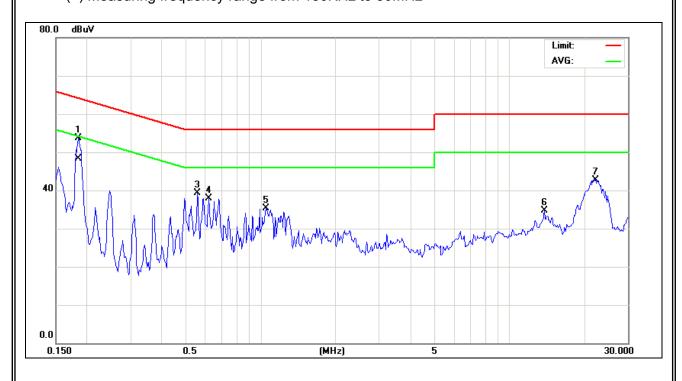
## 4.1.7 TEST RESULTS

EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>25</b> ℃	Relative Humidity:	57 %
Pressure:	1009hPa	Test Power :	AC 120V/60Hz
Test Mode :	USB Charge		

Freq.	Terminal	Measure	d(dBuV)	Limits(	(dBuV)	Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	NOLE
0.18	Line	53.70	48.38	64.29	54.29	-5.91	(AV)
0.56	Line	39.32	*	61.87	51.87	-22.55	(QP)
0.62	Line	37.82	*	56.00	46.00	-18.18	(QP)
1.05	Line	35.34	*	56.00	46.00	-20.66	(QP)
13.84	Line	34.62	*	60.00	50.00	-25.38	(QP)
22.18	Line	42.76	*	60.00	50.00	-17.24	(QP)

## Remark

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note ... If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform In this case, a " \* " marked in AVG Mode column of Interference Voltage Measured •
- (2) Measuring frequency range from 150KHz to 30MHz  $\circ$



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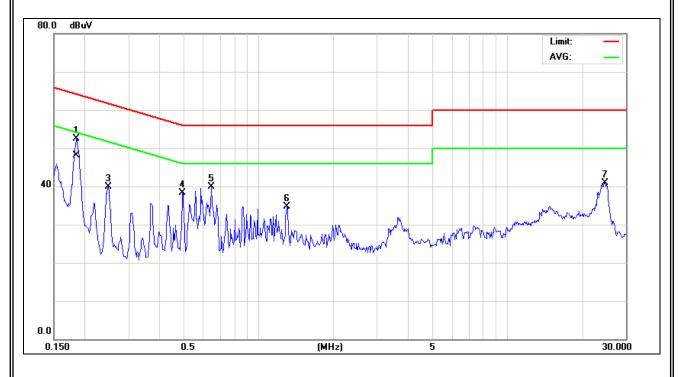


EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>25</b> ℃	Relative Humidity:	57 %
Pressure:	1009hPa	Test Power :	AC 120V/60Hz
Test Mode :	USB Charge		

Freq.	Terminal	Measured(dBuV)		Limits(dBuV)		Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	NOLE
0.18	Neutral	52.45	48.08	64.29	54.29	-6.21	(AV)
0.25	Neutral	39.83	*	61.82	51.82	-21.99	(QP)
0.49	Neutral	38.28	*	56.10	46.10	-17.82	(QP)
0.64	Neutral	39.93	*	56.00	46.00	-16.07	(QP)
1.30	Neutral	34.66	*	56.00	46.00	-21.34	(QP)
24.66	Neutral	40.82	*	60.00	50.00	-19.18	(QP)

## Remark

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note ... If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform In this case, a " \* " marked in AVG Mode column of Interference Voltage Measured •
- (2) Measuring frequency range from 150KHz to 30MHz  $\circ$



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## 4.2 RADIATED EMISSION MEASUREMENT

## 4.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

## LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)		
FREQUENCT (MITZ)	PEAK	AVERAGE	
Above 1000	74	54	

## Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

## FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower

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## 4.2.2 MEASUREMENT INSTRUMENTS LIST ANS SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Jun.03.2013
2	Amplifier	HP	8447D	2944A09673	May.26.2012
3	Test Receiver	R&S	ESCI	100382	May.26.2012
4	Test Cable	N/A	C-01_CB03	N/A	Dec.29.2012
5	Controller	CT	SC100	N/A	N/A
6	Antenna	ETS	3115	00075789	May.26.2012
7	Amplifier	Agilent	8449B	3008A02274	May.26.2012
8	Spectrum	Agilent	E4408B	US39240143	Nov.25.2012
9	Test Cable	HUBER+SUHNER	C-45	N/A	May.04.2013
10	Controller	СТ	SC100	N/A	N/A
11	Active Loop Antenna	R&S	HFH2-Z2	830749/020	May.26.2012
12	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Oct.13.2012

Remark: "N/A" denotes No Model Name / Serial No. and No Calibration specified.

Spectrum Parameter	Setting	
Attenuation	Auto	
Start Frequency	1000 MHz	
Stop Frequency	10th carrier harmonic	
RBW / VBW (emission in restricted	1 MHz / 1 MHz for Dook, 1 MHz / 10Hz for Average	
band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average	

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz for PK/AVG detector
Start ~ Stop Frequency	90kHz~110kHz for QP detector
Start ~ Stop Frequency	110kHz~490kHz for PK/AVG detector
Start ~ Stop Frequency	490kHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

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## 4.2.3 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. 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.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.4 DEVIATION FROM TEST STANDARD

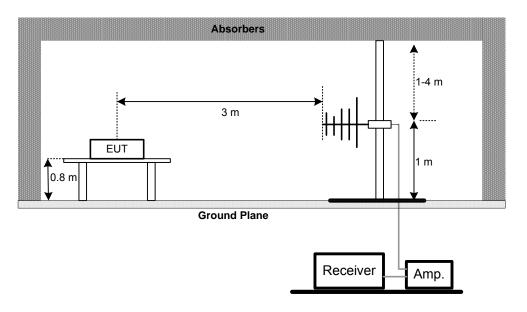
No deviation

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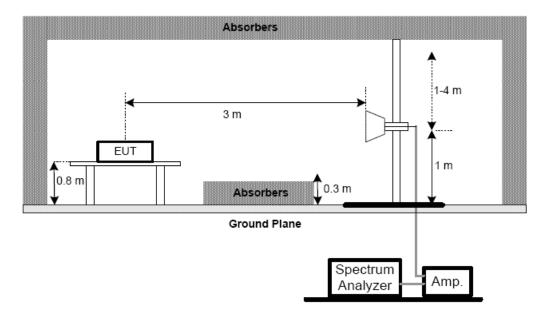


## 4.2.5 TEST SETUP

(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



## 4.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **4.1.6** Unless otherwise a special operating condition is specified in the follows during the testing.

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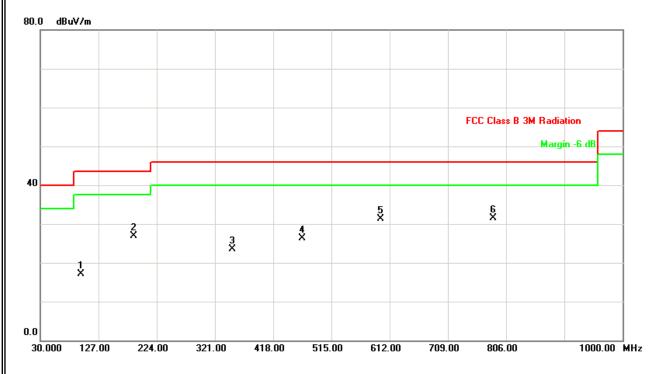
## 4.2.7 TEST RESULTS (BETWEEN30 - 1000 MHZ)

EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	47 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX Mode 2405.5MHz		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
97.90	V	35.47	-18.45	17.02	43.50	- 26.48	
185.20	V	43.68	-16.81	26.87	43.50	- 16.63	
350.10	V	34.31	-10.84	23.47	46.00	- 22.53	
466.50	V	34.12	-7.87	26.25	46.00	- 19.75	
597.45	V	35.54	-4.33	31.21	46.00	- 14.79	
784.18	V	33.54	-2.10	31.44	46.00	- 14.56	

## Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz  $^{\circ}$
- (2) All readings are Peak unless otherwise stated QP in column of  $\lceil$  Note  $\rceil$ . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform  $\circ$
- (3) Measuring frequency range from 30MHz to 1000MHz o
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table  $\circ$

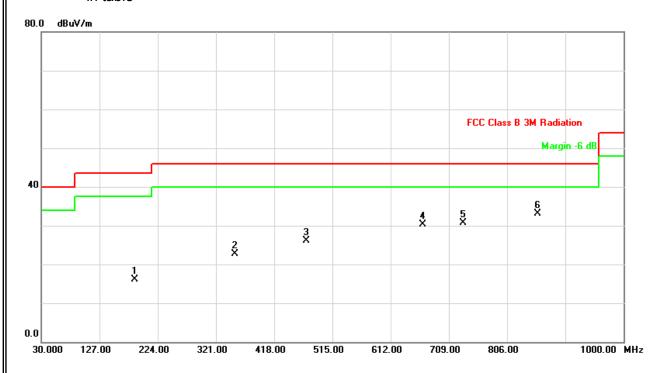


EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	47 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX Mode 2405.5MHz		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
185.20	Η	32.88	-16.81	16.07	43.50	- 27.43	
352.53	Н	33.43	-10.75	22.68	46.00	- 23.32	
471.35	Η	33.87	-7.79	26.08	46.00	- 19.92	
665.35	Ι	33.57	-3.29	30.28	46.00	- 15.72	
733.25	Η	33.55	-2.77	30.78	46.00	- 15.22	
856.93	Н	33.79	-0.77	33.02	46.00	- 12.98	

## Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time =  $0.3 \text{ sec./MHz} \circ$
- (2) All readings are Peak unless otherwise stated QP in column of  $\lceil$  Note $_{
  m I}$ . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform  $_{
  m O}$
- (3) Measuring frequency range from 30MHz to 1000MHz o
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table  $\circ$



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## 4.2.8 TEST RESULTS (ABOVE 1000 MHZ)

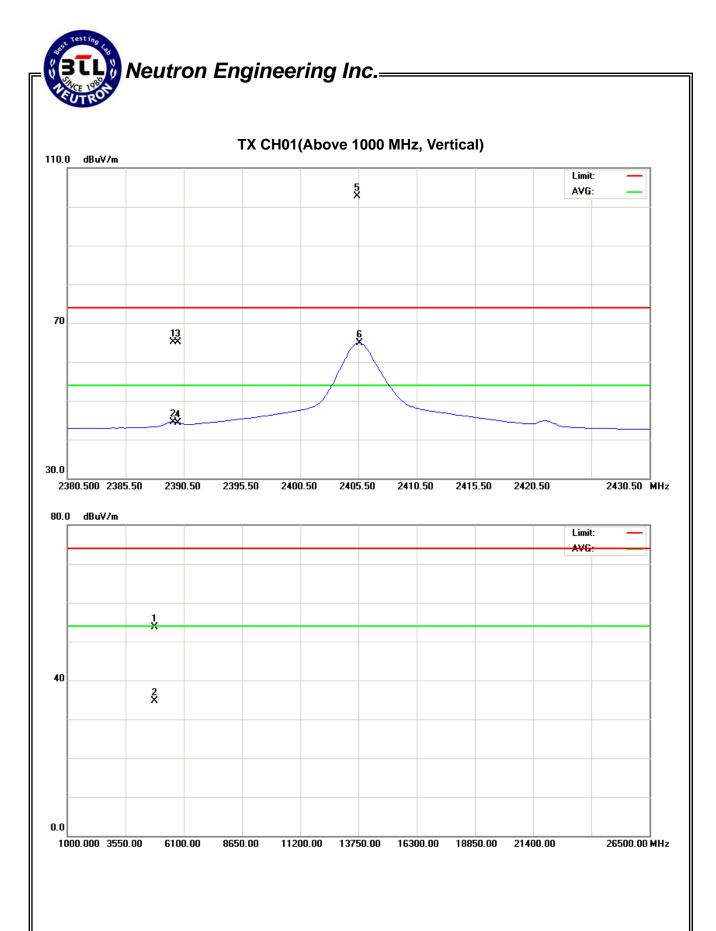
EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX 2405.5MHz		

Freq.	Ant.Pol.	Rea	Reading		Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2389.63	V	33.12	12.58	31.91	65.03	44.49	74.00	54.00	X/E
2390.00	V	33.24	12.38	31.91	65.15	44.29	74.00	54.00	X/E
2405.37	V	70.86	33.09	31.90	102.76	64.99			X/F
4811.45	V	48.44	29.53	5.24	53.68	34.77	74.00	54.00	X/H

## Remark:

- (1) All readings are Peak unless otherwise stated QP in column of  ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$ . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform  ${}_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission  $\circ$
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
  - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010hPa	Test Voltage :	DC 12V
Test Mode :	TX 2405.5MHz		

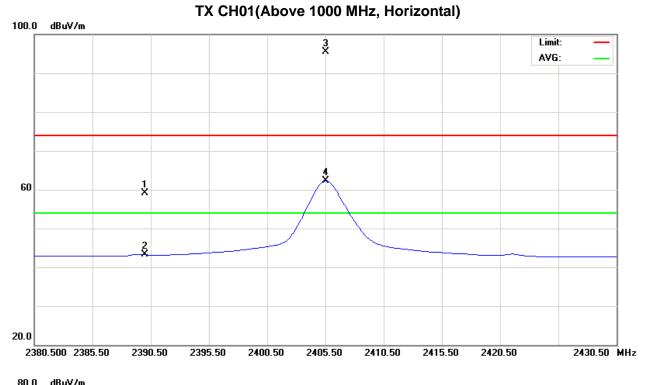
Freq.	Ant.Pol.	Rea	Reading		Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	27.11	11.35	31.91	59.02	43.26	74.00	54.00	X/E
2405.50	Н	63.60	30.37	31.90	95.50	62.27			X/F
4810.64	Н	47.59	28.82	5.24	52.83	34.06	74.00	54.00	X/H

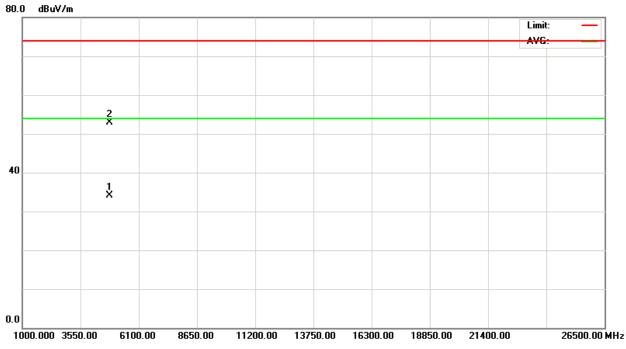
## Remark:

- (1) All readings are Peak unless otherwise stated QP in column of  $\lceil$ Note $_{
  m J}$ . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform  $_{
  m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission  $\circ$
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
  - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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# Neutron Engineering Inc.= TX CH01(Above 1000 MI





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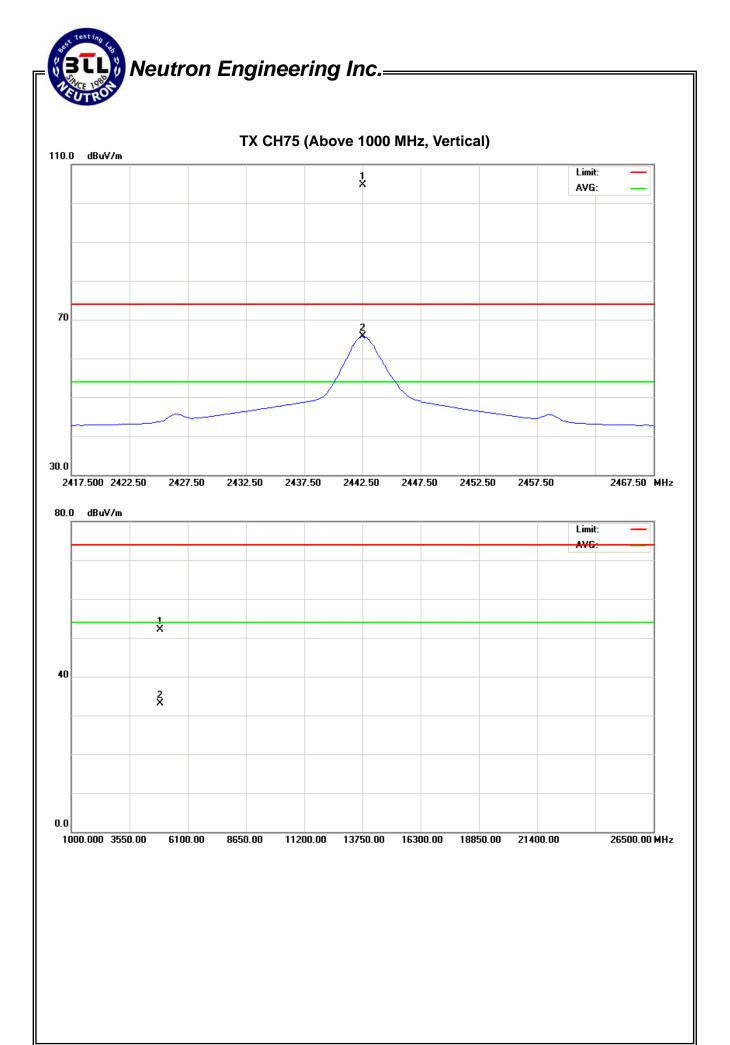
EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX 2442.5MHz		

F	req.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
			Peak	AV		Peak	AV	Peak	AV	Note
(	MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
24	42.50	V	72.94	33.81	31.86	104.80	65.67			X/F
48	85.55	V	46.53	27.64	5.52	52.05	33.16	74.00	54.00	X/H

## Remark:

- (1) All readings are Peak unless otherwise stated QP in column of  ${}^{\mathbb{F}}$ Note  ${}_{\mathbb{J}}$ . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform  ${}^{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission  $\circ$
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
  - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX 2442.5MHz		

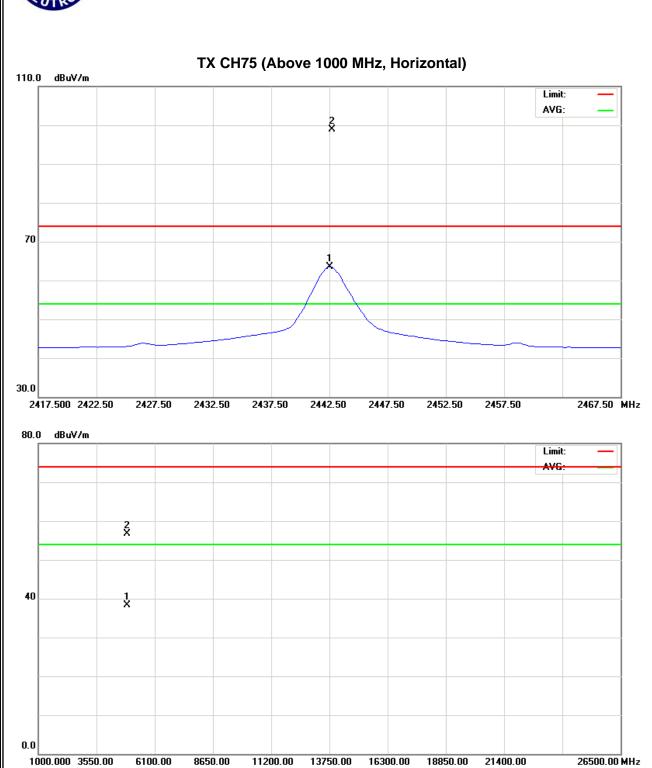
Freq.	Ant.Pol.	Read	Reading		Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	) H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2442.5	0 H	67.14	31.65	31.86	99.00	63.51			X/F
4884.5	3 H	51.16	32.86	5.50	56.66	38.36	74.00	54.00	X/H

## Remark:

- (1) All readings are Peak unless otherwise stated QP in column of  $\lceil$ Note $_{
  m l}$ . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform  $_{
  m o}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission  $\circ$
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
  - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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# Neutron Engineering Inc.



EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010hPa	Test Voltage :	DC 12V
Test Mode :	TX 2475MHz		

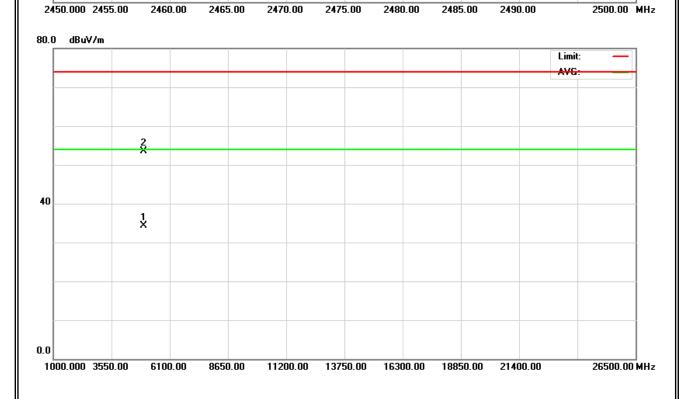
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2475.25	V	73.63	34.09	31.81	105.44	65.90			X/F
2483.50	V	41.57	15.40	31.80	73.37	47.20	74.00	54.00	X/E
2491.00	V	37.79	14.07	31.79	69.58	45.86	74.00	54.00	X/E
4949.40	V	47.83	28.56	5.75	53.58	34.31	74.00	54.00	X/H

## Remark:

- (1) All readings are Peak unless otherwise stated QP in column of  $\lceil$ Note $_{
  m J}$ . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform  $_{
  m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency of F denotes fundamental frequency; "H" denotes spurious frequency. (E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission  $\circ$
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
  - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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# TX CH140 (Above 1000 MHz, Vertical) TX CH140 (Above 1000 MHz, Vertical) TX CH140 (Above 1000 MHz, Vertical)



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30.0

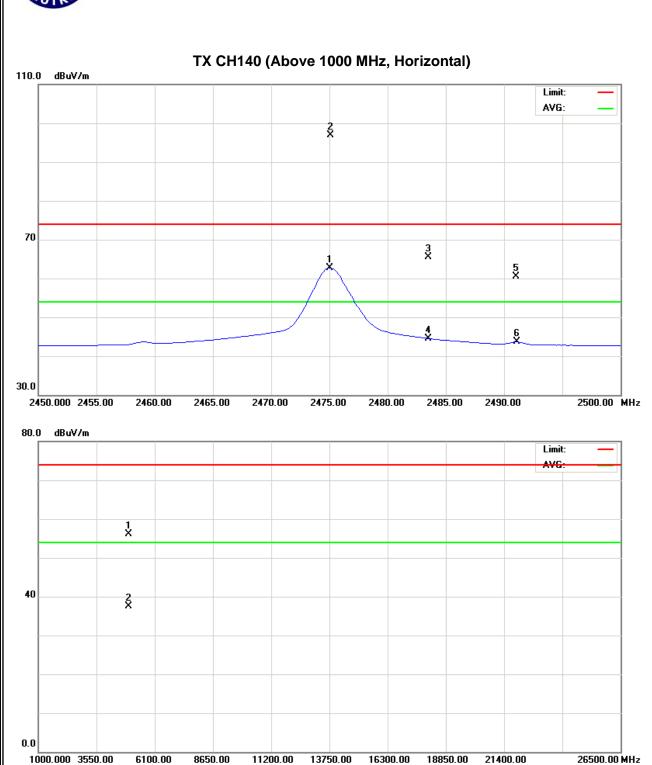
EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX 2475MHz		

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2475.00	Н	65.14	30.92	31.81	96.95	62.73			X/F
2483.50	Н	33.75	12.72	31.80	65.55	44.52	74.00	54.00	X/E
2491.00	Н	28.72	11.85	31.79	60.51	43.64	74.00	54.00	X/E
4949.63	Н	50.39	31.76	5.75	56.14	37.51	74.00	54.00	X/H

## Remark:

- (1) All readings are Peak unless otherwise stated QP in column of  $\lceil$ Note $_{
  m J}$ . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform  $_{
  m O}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency of F denotes fundamental frequency; "H" denotes spurious frequency. (E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission  $\circ$
- (4) Data of measurement within this frequency range shown " \* " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
  - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna

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#### 5. NUMBER OF HOPPING CHANNEL

#### 5.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Frequency Range (MHz)	Result	
15.247 (a)(1)(iii)	Number of Hopping Channel	2400-2483.5	PASS	

#### **5.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov.25.2012

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency > Operating Frequency Range	
RBW	100 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

#### **5.1.2 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

#### **5.1.3 DEVIATION FROM STANDARD**

No deviation.

#### 5.1.4 TEST SETUP



#### **5.1.5 EUT OPERATION CONDITIONS**

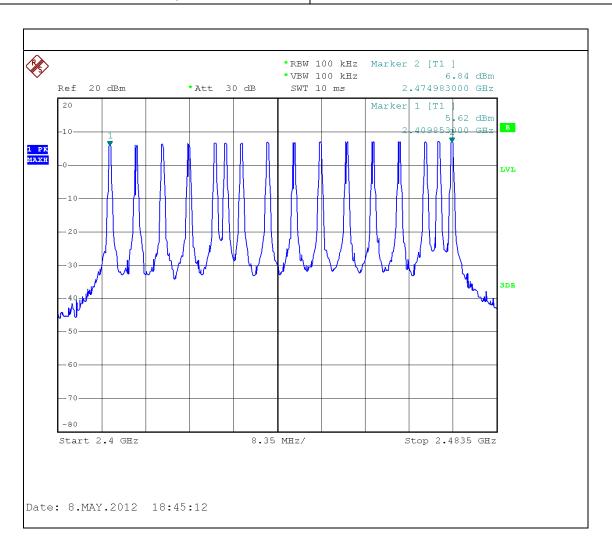
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Hopping Mode-Group 1		

Number of Hopping Channel	16



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#### 6. AVERAGE TIME OF OCCUPANCY

#### **6.1 APPLIED PROCEDURES / LIMIT**

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247 (a)(1)(iii)	Average Time of Occupancy	0.4sec	2400-2483.5	PASS

#### **6.1.1 MEASUREMENT INSTRUMENTS LIST**

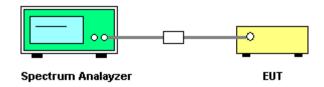
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov.25.2012

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

#### 6.1.2. TEST PROCEDURES

- a. The transmitter output (antenna port) was connected to the spectrum analyzer
- b. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
- C. Use a video trigger with the trigger level set to enable triggering only on full pulses.
- d. Sweep Time is more than once pulse time.
- e. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- f Measure the maximum time duration of one single pulse.
- g. Set the EUT for packet transmitting.
- h Measure the maximum time duration of one single pulse.
- j. Dwell time = [spreading rate/16] x duty-cycle x 0.4 seconds

#### 6.1.3. TEST SETUP LAYOUT



#### **6.1.4. TEST DEVIATION**

There is no deviation with the original standard.

#### 6.1.5. EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting/Hopping mode.

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EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1015 hPa	Test Voltage :	DC 12V
Test Mode :	Hopping Mode		

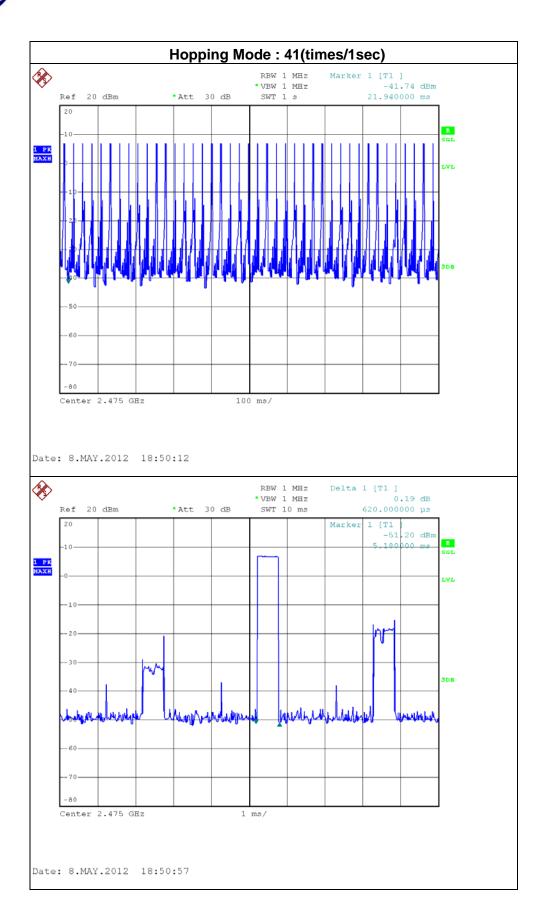
Mode	Number of transmission in a 6.4(16Hopping*0.4)	Length of transmission time (msec)	Result (msec)	Limit (msec)
2475 MHz	(41/1) *6.4=262.4 times <b>Note1</b>	0.62	162.688	400

Note1: 41 times of occupied channels per 1 second

**Note2:** The EUT 16 channels of each sequence, total 140 sequences is used, so it not considered as a hopping device.

	Results
Measured cycle (sec)	16 CH*0.4=6.4
The total number of frequency-hopping per second	((41/1)*6.4)= 262.4
The number of occupied channels per second	262.4/6.4=41(number/sec)
occupied time for each channel(1)	0.62ms
The total number of channels occupied within one cycle (2)	(41/1) *6.4=262.4 times
The average time of occupancy within one cycle(1)*(2)	162.688msec
LIMIT (msec)	400msec

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#### 7. HOPPING CHANNEL SEPARATION MEASUREMENT

#### 7.1 APPLIED PROCEDURES / LIMIT

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

#### 7.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov.25.2012

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

Spectrum Parameter	Setting	
Attenuation	Auto	
Span Frequency	> Measurement Bandwidth or Channel Separation	
RBW	30 kHz (20dB Bandwidth) / 30 kHz (Channel Separation)	
VBW	100 kHz (20dB Bandwidth) / 100 kHz (Channel Separation)	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

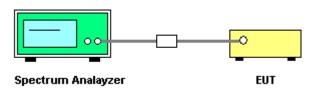
#### 7.1.2 TEST PROCEDURE

- a. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
- b. The resolution bandwidth of 30 kHz and the video bandwidth of 100 kHz were utilised for 20 dB bandwidth measurement.
- c. The resolution bandwidth of 30 kHz and the video bandwidth of 100 kHz were utilised for channel separation measurement.

#### 7.1.3 DEVIATION FROM STANDARD

No deviation.

#### 7.1.4 TEST SETUP



#### 7.1.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in Hopping on mode.

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EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	Hopping on CH140		

Frequency	Ch. Separation (MHz)	20dB Bandwidth (MHz)	Result
2475 MHz	2.51	1.06	Complies

#### Ch. Separation Limits: >20dB bandwidth or >2/3 of 20dB bandwidth



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#### 8. BANDWIDTH TEST

#### 8.1 APPLIED PROCEDURES / LIMIT

7.1.1 E1EE 1 11.0 0 E 2 0 11.E 2 7 E1						
	FCC Part15 (15.247) , Subpart C					
Section	Test Item	Limit	Frequency Range (MHz)	Result		
15.247 (a)(1)	Bandwidth	None	2400-2483.5	PASS		

#### 8.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov.25.2012

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

Spectrum Parameter	Setting	
Attenuation	Auto	
Span Frequency	> Measurement Bandwidth or Channel Separation	
RBW	30 kHz (20dB Bandwidth) / 30 kHz (Channel Separation)	
VBW	100 kHz (20dB Bandwidth) / 100 kHz (Channel Separation)	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

#### **8.1.2 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 30KHz, VBW=100KHz, Sweep time = Auto.

#### 8.1.3 DEVIATION FROM STANDARD

No deviation.

#### 8.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

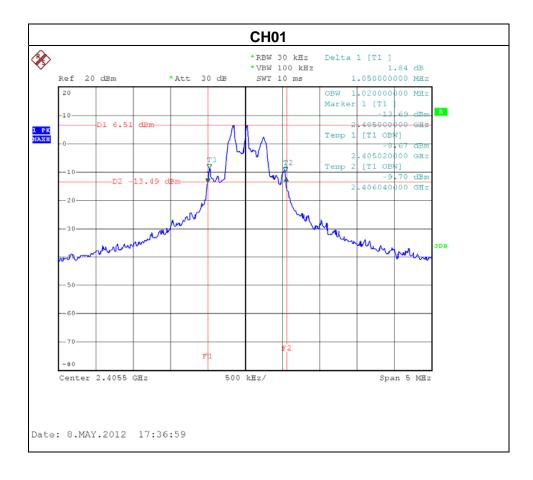
#### **8.1.5 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

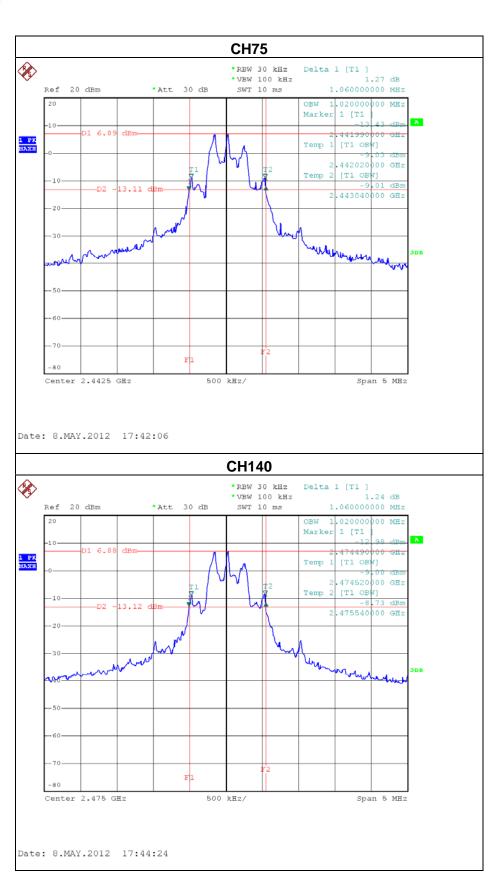
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EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	CH01 / CH75/ CH140		

Frequency	20dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2405.5 MHz	1.05	<= 2.51MHz	PASS
2442.5 MHz	1.06	<= 2.51MHz	PASS
2475 MHz	1.06	<= 2.51MHz	PASS



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#### 9. PEAK OUTPUT POWER TEST

#### 9.1 APPLIED PROCEDURES / LIMIT

	FCC Part15 (15.247) , Subpart C					
Section	Section Test Item Limit Frequency Range (MHz) Result					
15.247 (b)(1)	Peak Output Power	0.125 watt or 21dBm	2400-2483.5	PASS		

#### 9.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov.25.2012

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

#### 9.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 3MHz, VBW= 3MHz, Sweep time = Auto.

#### 9.1.3 DEVIATION FROM STANDARD

No deviation.

#### 9.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

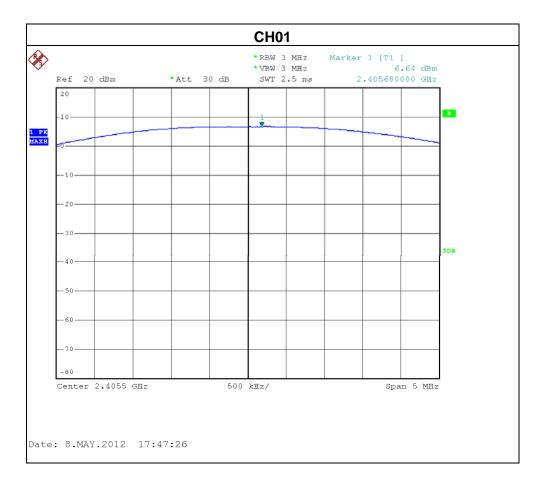
#### 9.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

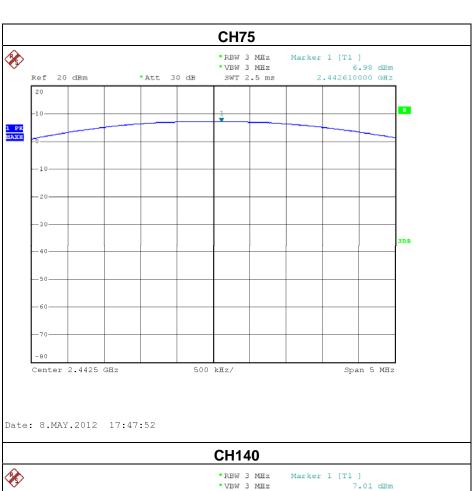
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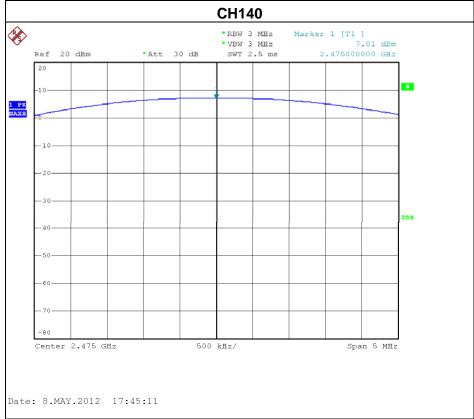
EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	CH01 / CH75/ CH140		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2405.5 MHz	6.64	21	0.125
CH75	2442.5 MHz	6.98	21	0.125
CH140	2475 MHz	7.01	21	0.125



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#### 10. ANTENNA CONDUCTED SPURIOUS EMISSION

#### 10.1 APPLIED PROCEDURES / LIMIT

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

#### 10.1.1 MEASUREMENT INSTRUMENTS LIST AND SETTING

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov.25.2012

Remark: "N/A" denotes No Model Name, Serial No. or No Calibration specified.

#### **10.1.2 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

#### 10.1.3 DEVIATION FROM STANDARD

No deviation.

#### **10.1.4 TEST SETUP**



#### 10.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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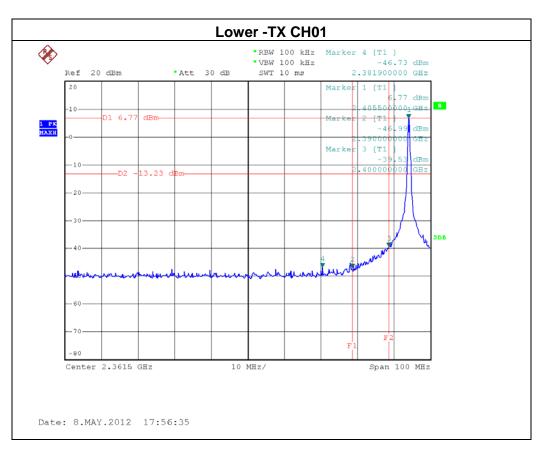
EUT:	2 CH Gun Radio	Model Name :	FS-GT2
Temperature:	<b>23</b> ℃	Relative Humidity:	51 %
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	CH01 / CH75 / CH140 & Hop	01 / CH75 / CH140 & Hopping on mode	

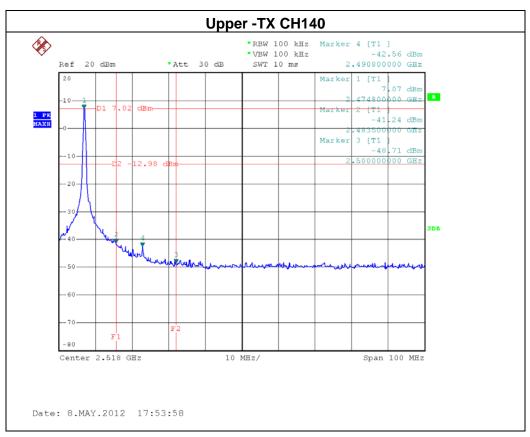
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.		
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)	
2400.00	-39.53	2483.50	-41.24	
Result				

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

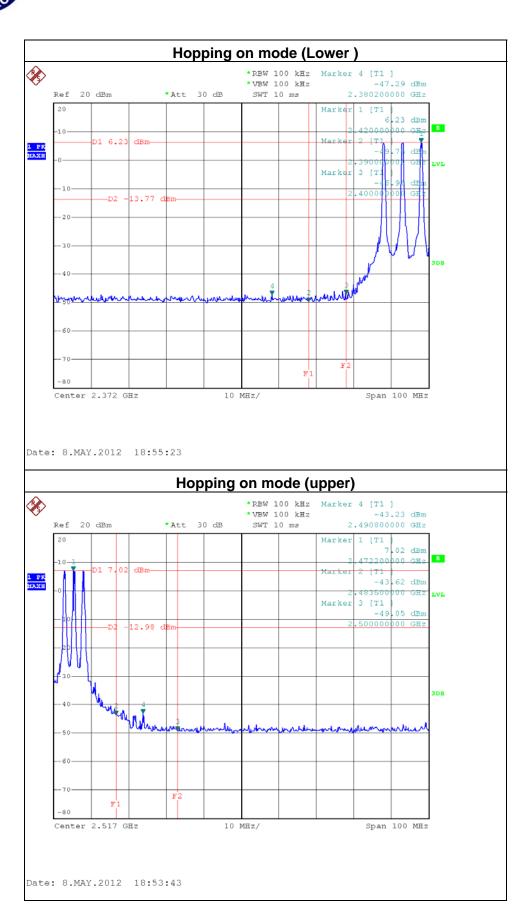
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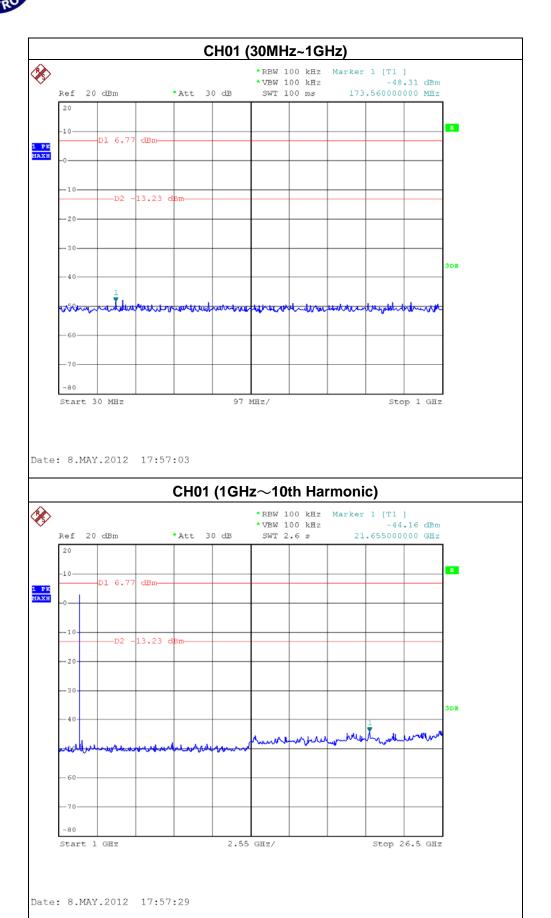


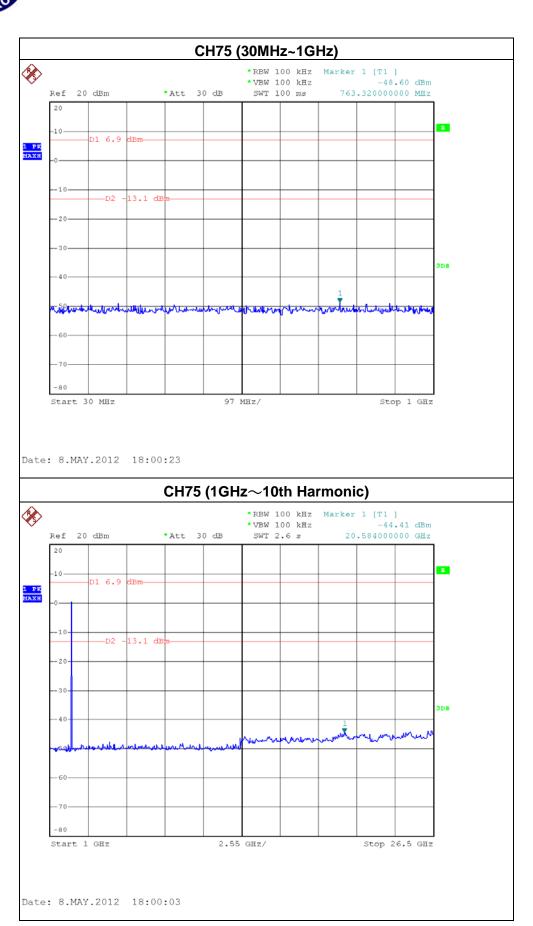


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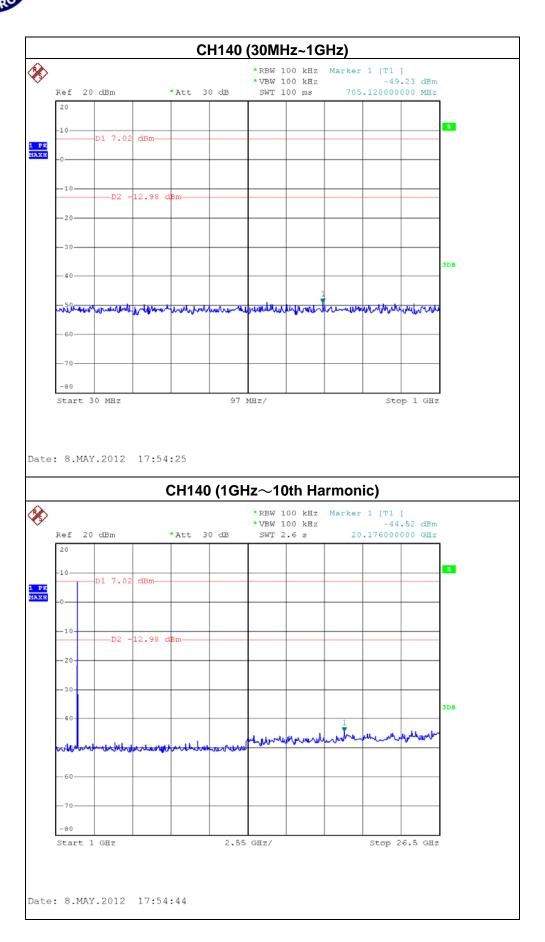


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#### 11. EUT TEST PHOTO

#### **Conducted Measurement Photos**

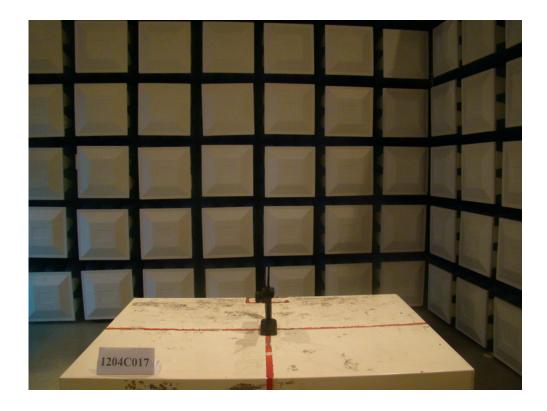


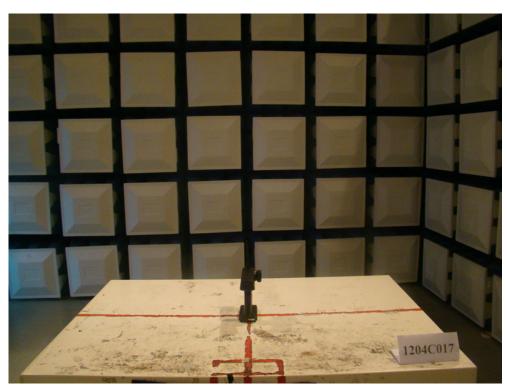


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#### **Radiated Measurement Photos**





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