Test Report

FCC Part15.249

Product Name	:	FLEX RP Repeater
Model No.	:	FLEX-RP-B, FLEX-RP-B-LL
FCC ID	:	TDB-FLEX-RP

Applicant	:	Sensys Networks, Inc.
Address	:	1608 Fourth Street, Suite 200 Berkeley, CA 94710, U.S.A

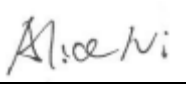
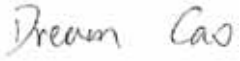
Date of Receipt	:	Jul. 03, 2014
Test Date	:	Jul. 03, 2014~Sep. 03, 2014
Issued Date	:	Sep. 05, 2014
Report No.	:	1470114R-RF-US-P06V01
Report Version	:	V1.0

The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.
This report must not be used to claim product endorsement by TAF, CNAS or any agency of the government.
The test report shall not be reproduced without the written approval of QuieTek Corporation.

Test Report Certification

Issued Date : Sep. 05, 2014
Report No. : 1470114R-RF-US-P06V01

Product Name	:	FLEX RP Repeater
Applicant	:	Sensys Networks, Inc.
Address	:	1608 Fourth Street, Suite 200 Berkeley, CA 94710, U.S.A
Manufacturer	:	N/A
Address	:	N/A
Model No.	:	FLEX-RP-B, FLEX-RP-B-LL
FCC ID	:	TDB-FLEX-RP
EUT Voltage	:	DC: 3.6V
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C: 2012 ANSI C63.4: 2009, ANSI C63.10:2009
Test Result	:	Complied
Performed Location	:	Suzhou EMC Laboratory No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., Suzhou, China TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 FCC Registration Number: 800392

Documented By	:	
Reviewed By	:	
Approved By	:	

Laboratory Information

We, **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	**:**	**BSMI, NCC, TAF**
Germany	**:**	**TUV Rheinland**
Norway	**:**	**Nemko, DNV**
USA	**:**	**FCC**
Japan	**:**	**VCCI**
China	**:**	**CNAS**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site :http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory :
No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory :
No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

Suzhou Testing Laboratory :
No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., SuZhou, China
TEL : +86-512-6251-5088 / FAX : 86-512-6251-5098 E-Mail : service@quietek.com

TABLE OF CONTENTS

History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1470114R-RF-US-P06V01	V1.0	Initial Issued Report	Sep. 05, 2014

1. General Information

1.1. EUT Description

Product Name	FLEX RP Repeater
Model No.	FLEX-RP-B, FLEX-RP-B-LL
Working Voltage	DC: 3.6V
Frequency Range	2405~2480 MHz
Channel Number	16
Type of Modulation	QPSK
Date Rate	250kbps
Channel Control	Auto
Antenna Type	Ant0:Microstrip Patch Antenna Ant1a: Standard External Antenna Ant1b: Long Range External Antenna
Antenna Gain	Ant 0:5.5dBi, Ant 1a:5.5dBi, Ant 1b:14dBi

Note:

The RF specifications of two models are identical. There is no other difference among these models, layout, schematics and bom lists are identical.

Channel List

Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2405	4	2425	8	2445	12	2465
1	2410	5	2430	9	2450	13	2470
2	2415	6	2435	10	2455	14	2475
3	2420	7	2440	11	2460	15	2480

1.2. Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: Transmit by Ant 0
Mode 2: Transmit by Ant 1a
Mode 3: Transmit by Ant 1b

Note:

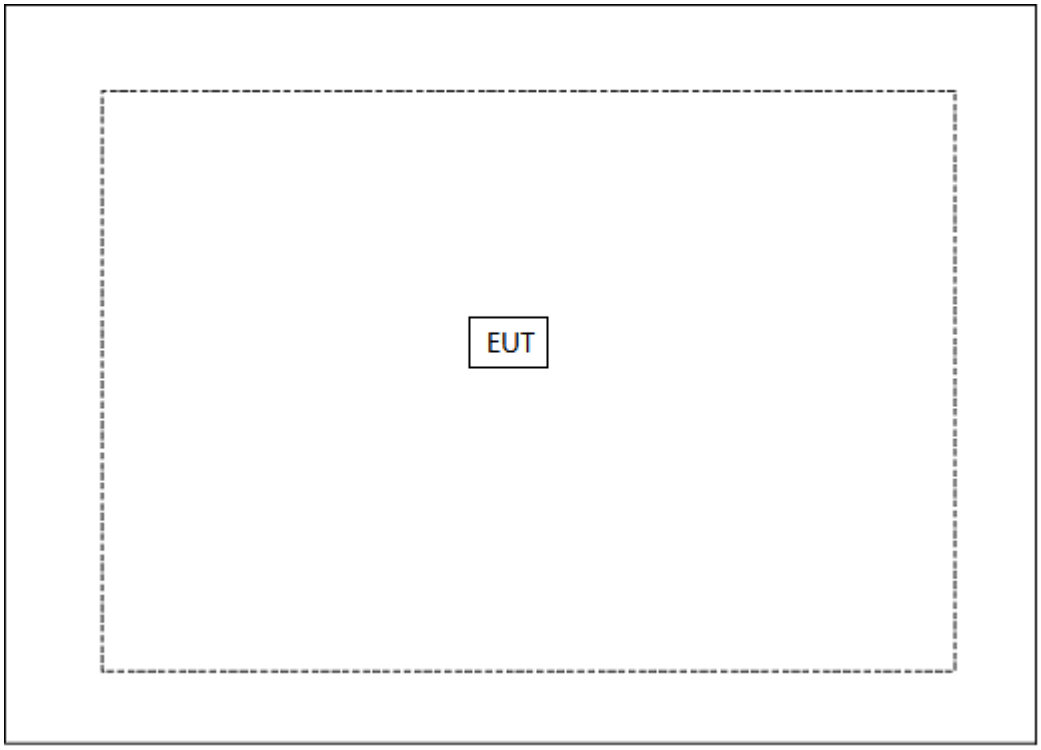
1. Regards to the frequency band operation: the lowest、middle and highest frequency of channel were selected to perform the test, then shown on this report.

1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	N/A	N/A	N/A	N/A	N/A

1.4. Configuration of Tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	N/A	N/A

1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of equipment.
3	Select the channel and start to test.

2. Technical Test

2.1. Summary of Test Result

☒ No deviations from the test standards

☐ Deviations from the test standards as below description:

Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.207 RSS-Gen Issue 3 December 2010 Section 7.2.2	N/A	No
20dB Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.215(c)	Yes	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.209 and 15.249 RSS-210 Issue 8 December 2010 Section 2.7 Table 2 and Table 3	Yes	No
Band-edge Compliance of RF Conducted Emissions	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.215(c)	Yes	No

2.2. Test Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

3. Conducted Emission

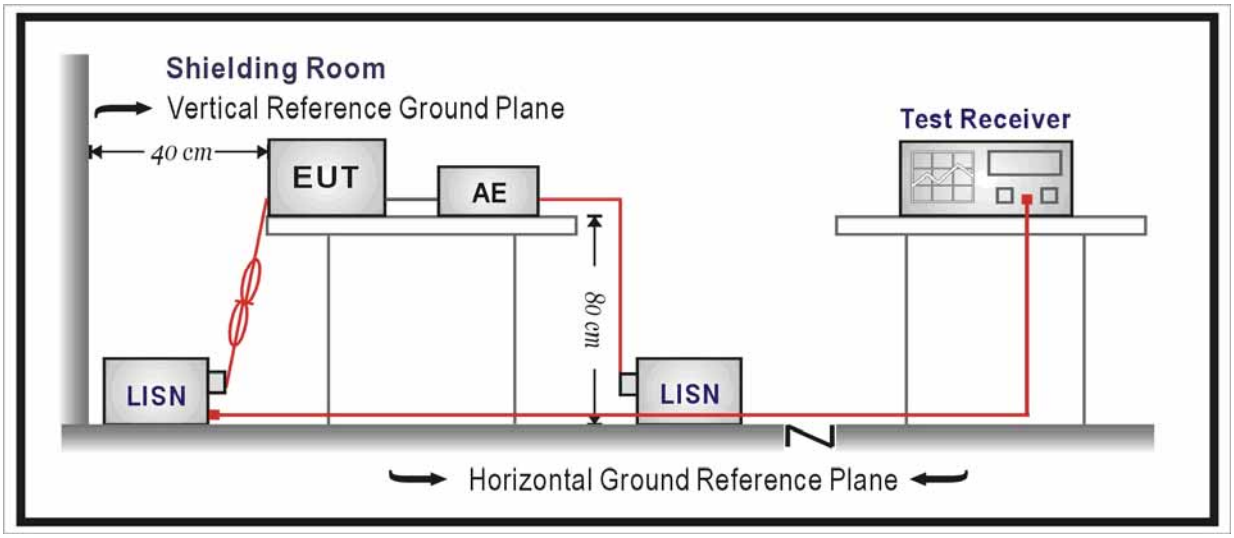
3.1. Test Equipment

Conducted Emission / TR-1

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
EMI Test Receiver	R&S	ESCI	100726	2015.03.28
Two-Line V-Network	R&S	ENV216	101043	2015.03.28
Two-Line V-Network	R&S	ENV216	101044	2014.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2015.03.01
50ohm Termination	SHX	TF2	07081401	2014.09.16
Temperature/Humidity Meter	zhicheng	ZC1-2	TR1-TH	2015.01.08

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

3.2. Test Setup



3.3. Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

3.4. Test Procedure

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB

3.6. Test Result

Not applicable.

4. 20dB Bandwidth

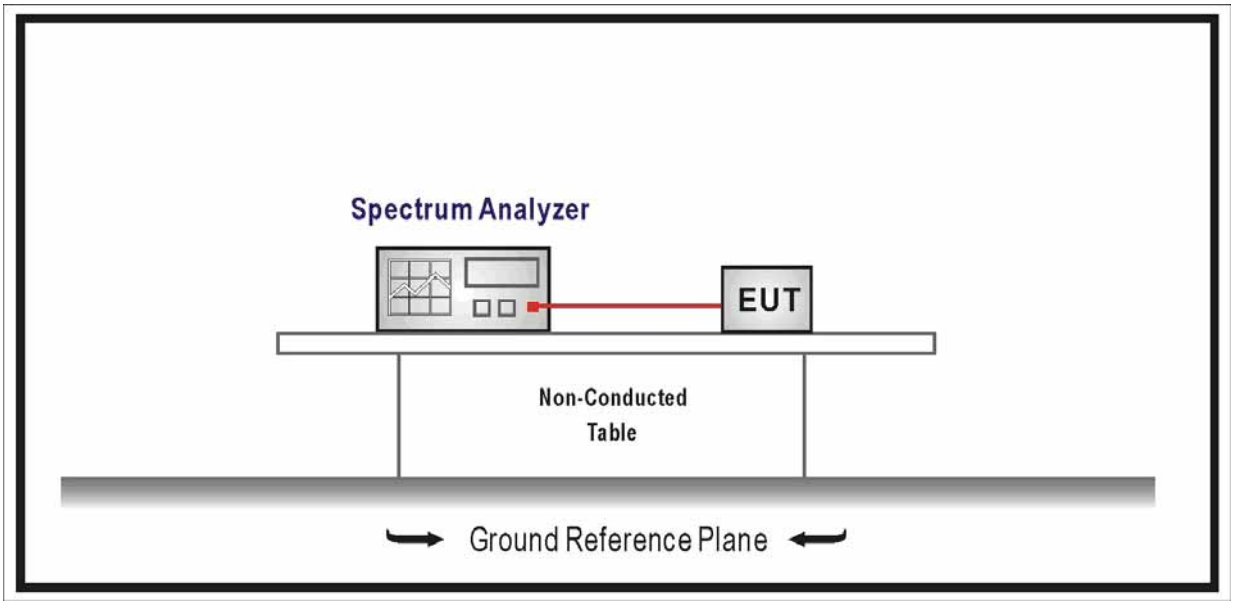
4.1. Test Equipment

20dB Bandwidth / TR8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2015.01.07
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2015.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

4.2. Test Setup



4.3. Limit

- For frequency hopping systems operating in 2400-2483.5 MHz band, no limitation.
- For frequency hopping systems operating in 902-928 MHz band, the maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.
- For frequency hopping systems operating in 5725-5850 MHz band, the maximum 20 dB bandwidth of the hopping channel is 1 MHz.

4.4. Test Procedure

According to ANSI C63.10: 2009.
Use the following spectrum analyzer settings:
Span = shall be between two times and five times the OBW
RBW ≧ 1% of the 20dB bandwidth
VBW ≧ RBW
Sweep = auto
Detector function = peak
Trace = max hold
The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize.
Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation.

4.5. Uncertainty

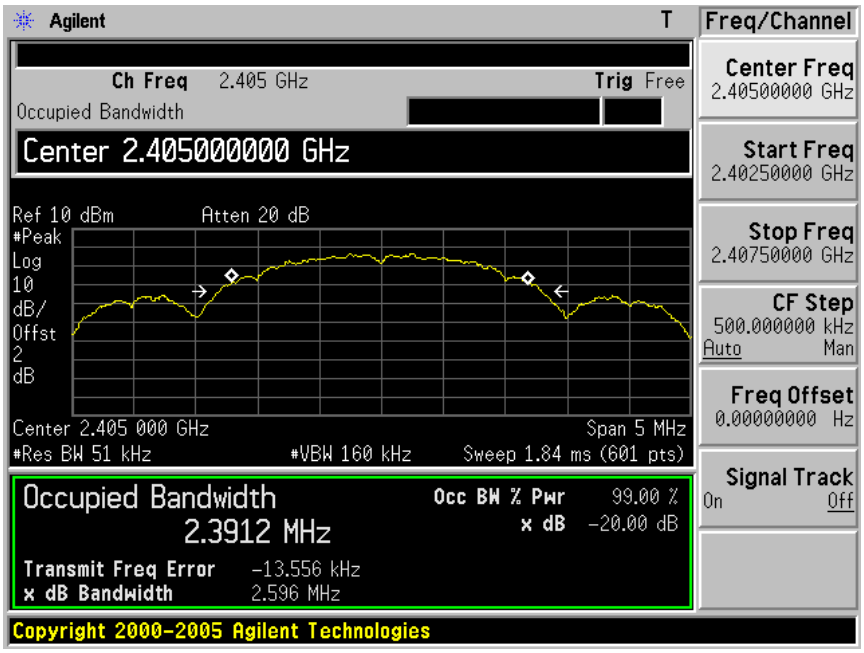
The measurement uncertainty is defined as ± 1 kHz

4.6. Test Result

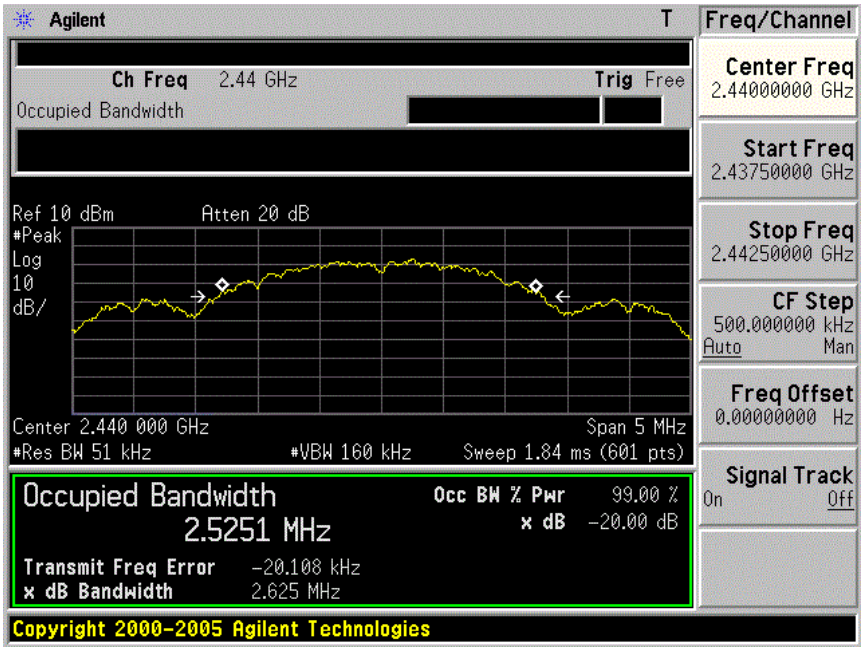
Product	:	FLEX RP Repeater
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by Ant 0

Channel No.	Frequency (MHz)	20dB Bandwidth (kHz)
00	2405	2596
07	2440	2625
15	2480	2639

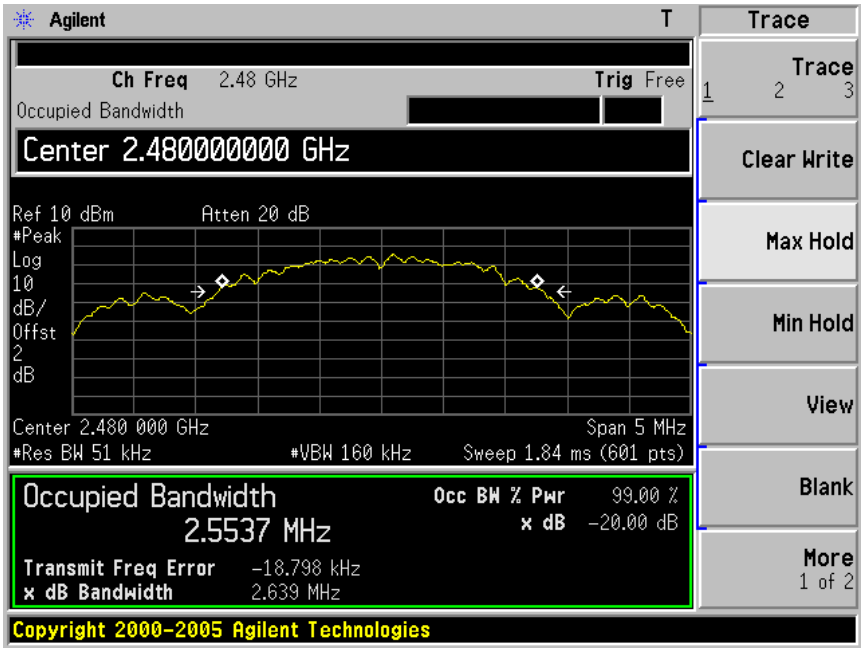
Channel 00 (2405MHz)



Channel 07 (2440MHz)



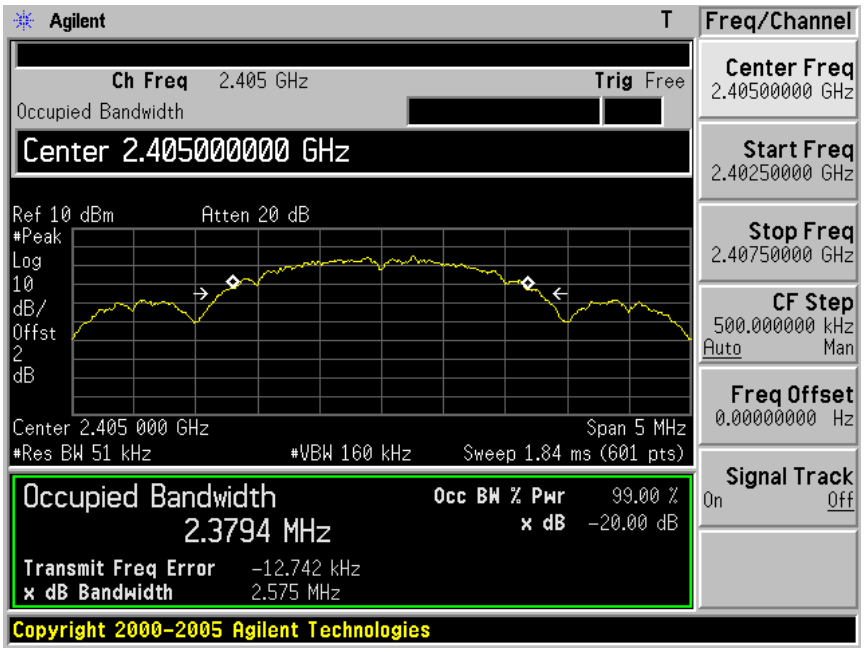
Channel 15 (2480MHz)



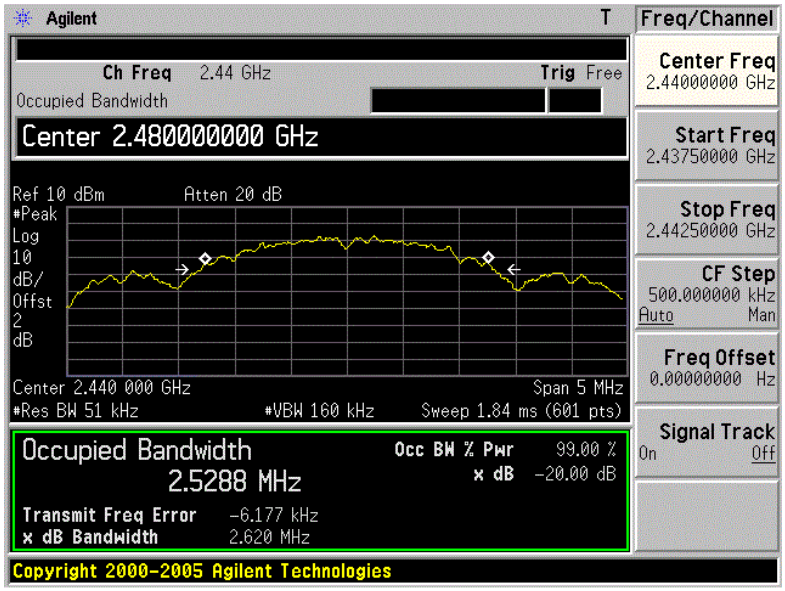
Product	:	FLEX RP Repeater
Test Item	:	Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode2&3: Transmit by Ant 1a&1b

Channel No.	Frequency (MHz)	20dB Bandwidth (kHz)
00	2405	2575
07	2440	2620
15	2480	2654

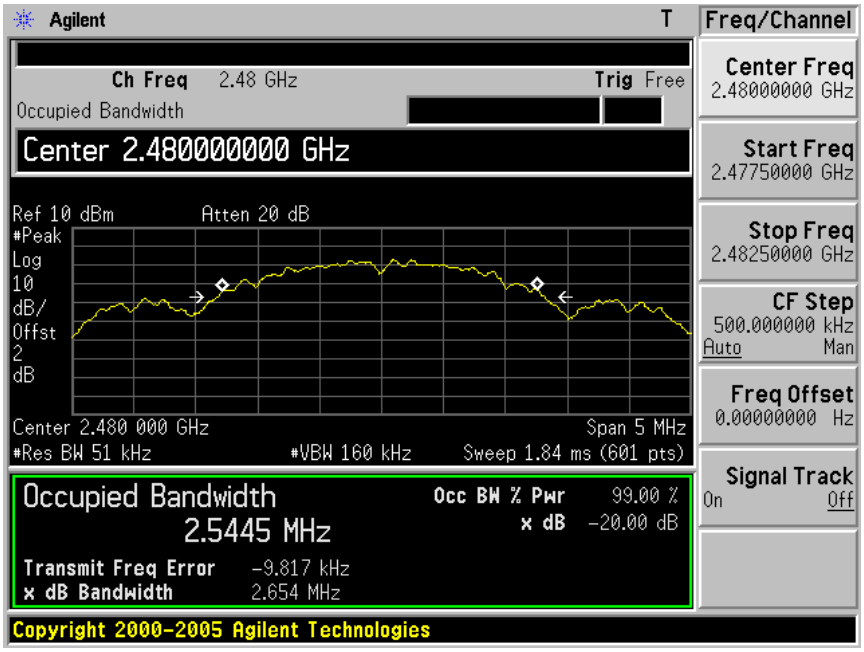
Channel 00 (2405MHz)



Channel 07 (2440MHz)



Channel 15 (2480MHz)



5. Radiated Emission

5.1. Test Equipment

Radiated Emission / AC-2

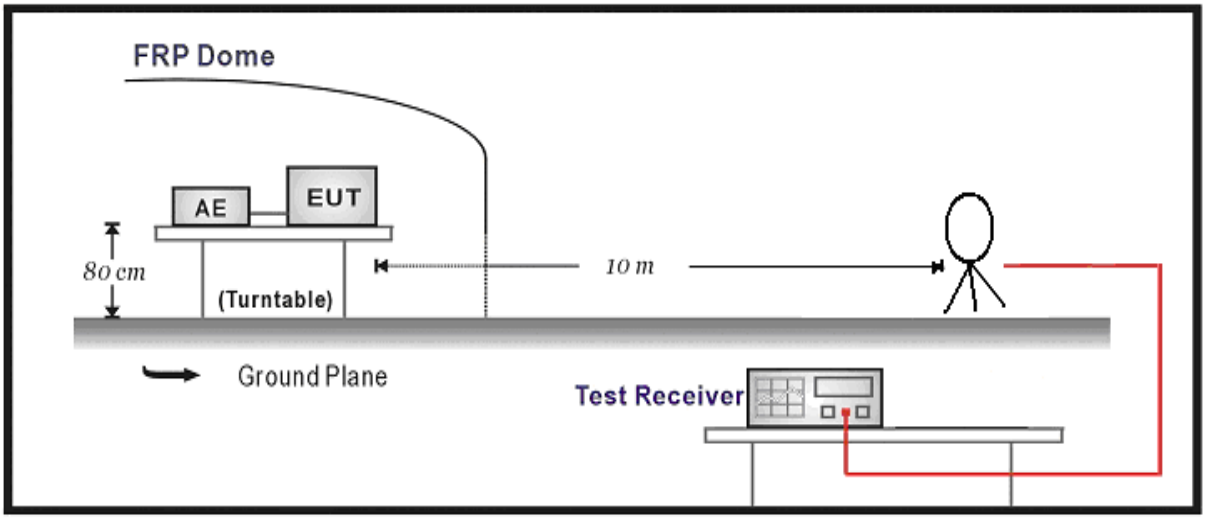
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
EMI Test Receiver	R&S	ESCI	100573	2015.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2014.11.16
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2014.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2015.03.01
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC2-TH	2015.04.09

Radiated Emission / AC-5

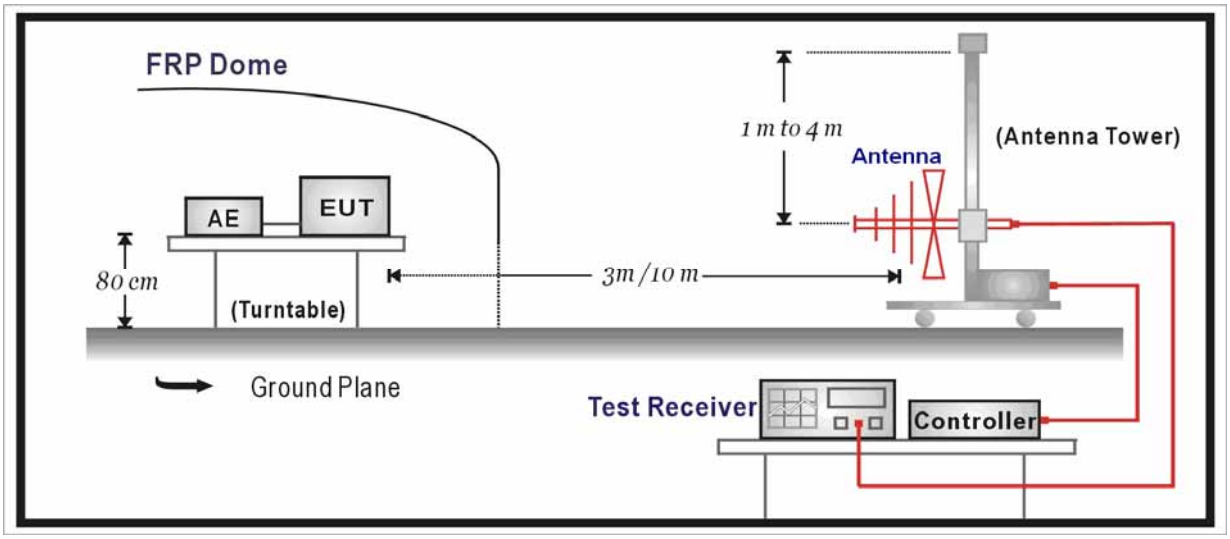
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2015.03.28
Preamplifier	QuieTek	AP-025C	CHM-0602008	2015.05.03
Preamplifier	Miteq	NSP1800-25	1364185	2015.05.03
Preamplifier	QuieTek	AP-040G	CHM-0906001	2015.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2014.10.15
DRG Horn	ETS-Lindgren	3117	00123988	2015.01.07
Horn Antenna	Schwarzbeck	BBHA9170	294	2015.04.10
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2015.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2015.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2015.03.01
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2015.01.08

5.2. Test Setup

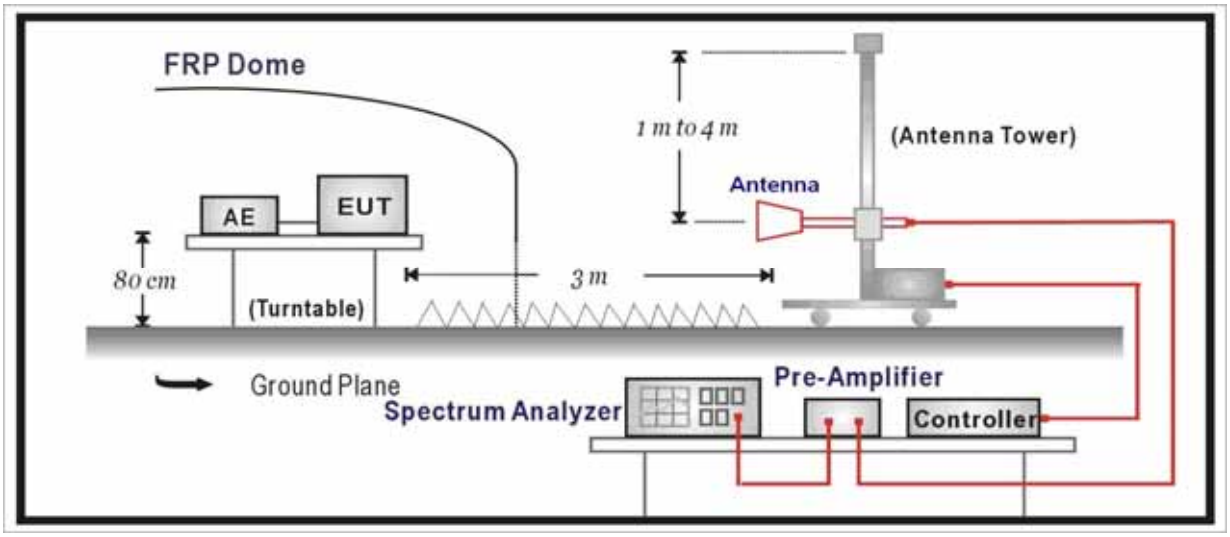
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.3. Limit

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (uV/m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-80	100**	3
80-216	150**	3
216-960	200**	3
Above 960	500	3

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dBuV/m) = 20 log E field strength (uV/m).

FCC Part 15 Subpart C Paragraph 15.249		
Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902-928(MHz)	50	500
2400-2483.5(MHz)	50	500
5725-5875(MHz)	50	500
24.0-24.25(GHz)	250	2500

- FCC Part 15.249 (d), Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

5.4. Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2009 / ANSI C63.10: 2009 on radiated measurement.
The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.
The frequency range from 30MHz to 10th harmonic is checked.
Note: When doing emission measurement above 1GHz, the horn antenna will be bended down a little (as horn antenna has the narrow beamwidth) in order to keeping the antenna in the “cone of radiation” of EUT. The 3dB beamwidth is 60~10 degrees for H-plane and 90~10 degrees for E-plane.

5.5. Uncertainty

The measurement uncertainty above 1G is defined as ± 3.9 dB
below 1G is defined as ± 3.8 dB

5.6. Test Result

All of the test result shown indicates the worst case, and spectrum analyzer parameters setting as shown below:

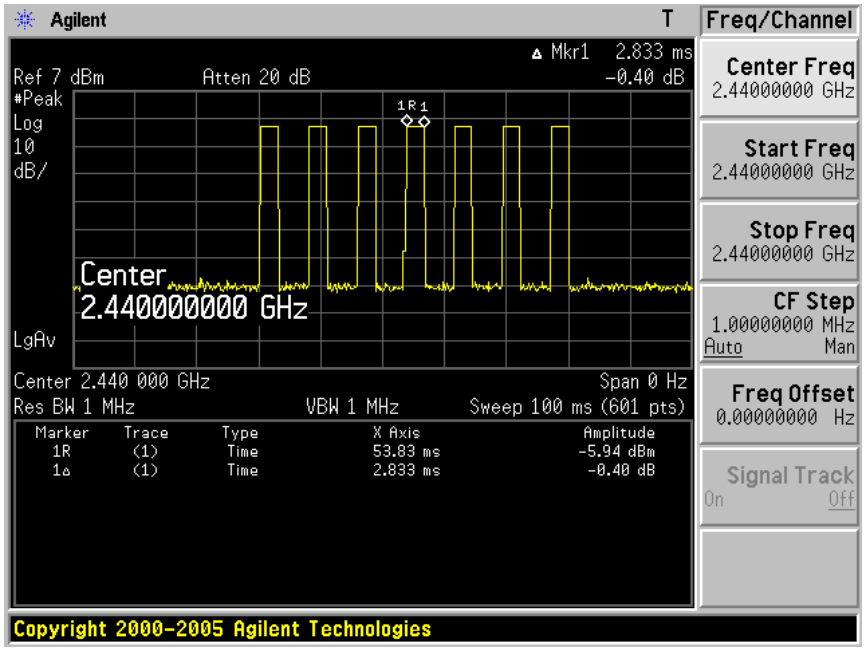
Peak detector: RBW = 3MHz, VBW = 3MHz, sweep time = 200ms;

Average detector = Peak detector - 20*Log(1/Duty Cycle)

The maximum duty cycle plot is as the following:

Duty cycle correction factor (DCCF)=20*Log(2.833*7/100)=-14.05dB

duty cycle



Fundamental Radiated Emission

Product	:	FLEX RP Repeater
Test Item	:	Fundamental Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 1: Transmit by Ant 0

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
2405	H	63.7	37.7	101.4	114	-12.6	PK
	V	60.3	37.7	98.0	114	-16.0	PK
2440	H	62.3	37.9	100.2	114	-13.8	PK
	V	60.9	37.9	98.8	114	-15.2	PK
2480	H	61.6	38.1	99.7	114	-14.3	PK
	V	62.3	38.1	100.4	114	-13.6	PK

Note: 1. Measure Level = Reading Level + Factor.
2.Factor= Antenna factor +cable loss factor –preamp factor

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
2405	H	101.4	14.0	87.4	94	-6.6	AV
	V	98.0	14.0	84.0	94	-10.0	AV
2440	H	100.2	14.0	86.2	94	-7.8	AV
	V	98.8	14.0	84.8	94	-9.2	AV
2480	H	99.7	14.0	85.7	94	-8.3	AV
	V	100.4	14.0	86.4	94	-7.6	AV

Note: 1. Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Fundamental Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 2: Transmit by Ant 1a

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
2405	H	59.9	37.7	97.6	114	-16.4	PK
	V	61.1	37.7	98.8	114	-15.2	PK
2440	H	58.5	37.9	96.4	114	-17.6	PK
	V	58.4	37.9	96.3	114	-17.7	PK
2480	H	59.5	38.1	97.6	114	-16.4	PK
	V	61.9	38.1	100.0	114	-14.0	PK

Note: 1. Measure Level = Reading Level + Factor.
2.Factor= Antenna factor +cable loss factor –preamp factor

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
2405	H	97.6	14.0	83.6	94	-10.4	AV
	V	98.8	14.0	84.8	94	-9.2	AV
2440	H	96.4	14.0	82.4	94	-11.6	AV
	V	96.3	14.0	82.3	94	-11.7	AV
2480	H	97.6	14.0	83.6	94	-10.4	AV
	V	100.0	14.0	86.0	94	-8.0	AV

Note: 1. Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Fundamental Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 3: Transmit by Ant 1b

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
2405	H	54.6	37.7	92.3	114	-21.7	PK
	V	69.5	37.7	107.2	114	-6.8	PK
2440	H	51.9	37.9	89.8	114	-24.2	PK
	V	68.5	37.9	106.4	114	-7.6	PK
2480	H	51.1	38.1	89.2	114	-24.8	PK
	V	56.3	38.1	94.4	114	-19.6	PK

Note: 1. Measure Level = Reading Level + Factor.
2.Factor= Antenna factor +cable loss factor –preamp factor

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
2405	H	92.3	14.0	78.3	94	-15.7	AV
	V	107.2	14.0	93.2	94	-0.8	AV
2440	H	89.8	14.0	75.8	94	-18.2	AV
	V	106.4	14.0	92.4	94	-1.6	AV
2480	H	89.2	14.0	75.2	94	-18.8	AV
	V	94.4	14.0	80.4	94	-13.6	AV

Note: 1. Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Harmonic Radiated Emission

PK: Peak detector: RBW = 1MHz, VBW = 3MHz, sweep time = 500ms;

For average, use peak measure level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Harmonic Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 1: Transmit at Low Channel by Ant 0

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4810.0	H	32.9	9.4	42.3	74	-31.7	PK
4810.0	V	31.8	9.3	41.1	74	-32.9	PK
7215.0	H	29.4	11.6	41.0	74	-33.0	PK
7215.0	V	29.1	11.5	40.6	74	-33.4	PK

Note: Measure Level = Reading Level + Factor.

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4810.0	H	42.3	14.0	28.3	54	-25.7	AV
4810.0	V	41.1	14.0	27.1	54	-26.9	AV
7215.0	H	41.0	14.0	27.0	54	-27.0	AV
7215.0	V	40.6	14.0	26.6	54	-27.4	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Harmonic Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 1: Transmit at Mid Channel by Ant 0

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4880.0	H	31.9	10.1	42.0	74	-32.0	PK
4880.0	V	32.6	9.8	42.4	74	-31.6	PK
7320.0	H	28.9	12.2	41.1	74	-32.9	PK
7320.0	V	29.5	11.7	41.2	74	-32.8	PK

Note: Measure Level = Reading Level + Factor.

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4880.0	H	42.0	14.0	28.0	54	-26.0	AV
4880.0	V	42.4	14.0	28.4	54	-25.6	AV
7320.0	H	41.1	14.0	27.1	54	-26.9	AV
7320.0	V	41.2	14.0	27.2	54	-26.8	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Harmonic Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 1: Transmit at High Channel by Ant 0

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4960.0	H	32.1	10.0	42.1	74	-31.9	PK
4960.0	V	31.9	10.1	42.0	74	-32.0	PK
7740.0	H	29.2	12.3	41.5	74	-32.5	PK
7740.0	V	28.9	12.2	41.1	74	-32.9	PK

Note: Measure Level = Reading Level + Factor.

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4960.0	H	42.1	14.0	28.1	54	-25.9	AV
4960.0	V	42.0	14.0	28.0	54	-26.0	AV
7740.0	H	41.5	14.0	27.5	54	-26.5	AV
7740.0	V	41.1	14.0	27.1	54	-26.9	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Harmonic Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 2: Transmit at Low Channel by Ant 1a

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4810.0	H	32.6	9.4	42.0	74	-32.0	PK
4810.0	V	33.2	9.3	42.5	74	-31.5	PK
7215.0	H	28.9	11.6	40.5	74	-33.5	PK
7215.0	V	29.1	11.5	40.6	74	-33.4	PK

Note: Measure Level = Reading Level + Factor.

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4810.0	H	42.0	14.0	28.0	54	-26.0	AV
4810.0	V	42.5	14.0	28.3	54	-25.7	AV
7215.0	H	40.5	14.0	26.3	54	-27.7	AV
7215.0	V	40.6	14.0	26.4	54	-27.6	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Harmonic Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 2: Transmit at Mid Channel by Ant 1a

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4880.0	H	33.4	9.8	43.2	74	-30.8	PK
4880.0	V	31.8	9.8	41.6	74	-32.4	PK
7320.0	H	29.3	11.7	41.0	74	-33.0	PK
7320.0	V	29.9	11.7	41.6	74	-32.4	PK

Note: Measure Level = Reading Level + Factor.

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4880.0	H	43.2	14.0	29.2	54	-24.8	AV
4880.0	V	41.6	14.0	27.6	54	-26.4	AV
7320.0	H	41.0	14.0	27.0	54	-27.0	AV
7320.0	V	41.6	14.0	27.6	54	-26.4	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Harmonic Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 2: Transmit at High Channel by Ant 1a

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4960.0	H	31.9	10.0	41.9	74	-32.1	PK
4960.0	V	33.2	10.1	43.3	74	-30.7	PK
7740.0	H	28.8	12.3	41.1	74	-32.9	PK
7740.0	V	28.7	12.2	40.9	74	-33.1	PK

Note: Measure Level = Reading Level + Factor.

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4960.0	H	41.9	14.0	27.9	54	-26.1	AV
4960.0	V	43.3	14.0	29.3	54	-24.7	AV
7740.0	H	41.1	14.0	27.1	54	-26.9	AV
7740.0	V	40.9	14.0	26.9	54	-27.1	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Harmonic Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 3: Transmit at Low Channel by Ant 1b

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4810.0	H	32.5	9.4	41.9	74	-32.1	PK
4810.0	V	32.8	9.3	42.1	74	-31.9	PK
7215.0	H	30.1	11.6	41.7	74	-32.3	PK
7215.0	V	29.0	11.5	40.5	74	-33.5	PK

Note: Measure Level = Reading Level + Factor.

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4810.0	H	41.9	14.0	27.9	54	-26.1	AV
4810.0	V	42.1	14.0	28.1	54	-25.9	AV
7215.0	H	41.7	14.0	27.7	54	-26.3	AV
7215.0	V	40.5	14.0	26.5	54	-27.5	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Harmonic Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 3: Transmit at Mid Channel by Ant 1b

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4880.0	H	32.4	9.8	42.2	74	-31.8	PK
4880.0	V	32.2	9.8	42.0	74	-32.0	PK
7320.0	H	30.5	11.7	42.2	74	-31.8	PK
7320.0	V	29.9	11.7	41.6	74	-32.4	PK

Note: Measure Level = Reading Level + Factor.

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4880.0	H	42.2	14.0	28.2	54	-25.8	AV
4880.0	V	42.0	14.0	28.0	54	-26.0	AV
7320.0	H	42.2	14.0	28.2	54	-25.8	AV
7320.0	V	41.6	14.0	27.6	54	-26.4	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Product	:	FLEX RP Repeater
Test Item	:	Harmonic Radiated Emission
Test Site	:	AC-5
Test Mode	:	Mode 3: Transmit at High Channel by Ant 1b

Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4960.0	H	31.5	10.0	41.5	74	-32.5	PK
4961.0	V	35.3	10.1	45.4	74	-28.6	PK
7740.0	H	29.4	12.3	41.7	74	-32.3	PK
7740.0	V	29.3	12.2	41.5	74	-32.5	PK

Note: Measure Level = Reading Level + Factor.

Frequency (MHz)	Antenna	Peak Measure (dBuV/m)	Duty Cycle Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Type
4960.0	H	41.5	14.0	27.5	54	-26.5	AV
4960.0	V	45.4	14.0	31.4	54	-22.6	AV
7740.0	H	41.7	14.0	27.7	54	-26.3	AV
7740.0	V	41.5	14.0	27.5	54	-26.5	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

General Radiated Emission

Product	:	FLEX RP Repeater
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit at High Channel by Ant 1b

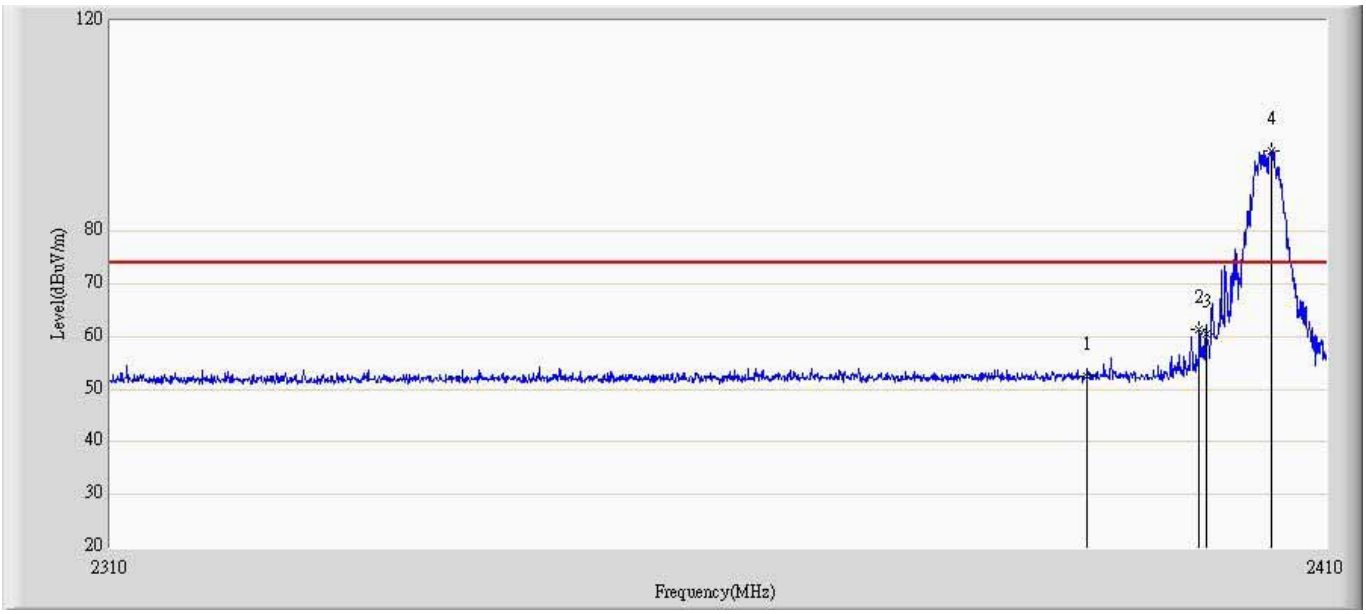
Frequency (MHz)	Antenna	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
130.1	H	4.0	10.9	14.9	43.5	-28.6	QP
131.6	V	3.4	11.8	15.2	43.5	-28.3	QP
298.5	H	6.1	12.7	18.8	46	-27.2	QP
228.1	V	5.8	11.9	17.7	46	-28.3	QP
4960.0	H	31.9	10.0	41.9	74	-32.1	PK
4960.0	V	36.1	10.1	46.2	74	-27.8	PK
7740.0	H	29.8	12.3	42.1	74	-31.9	PK
7740.0	V	28.9	12.2	41.1	74	-32.9	PK

Note:

1. Measure Level = Reading Level + Factor.
2. The test trace is same as the ambient noise (the test frequency range: 9kHz~30MHz, 18GHz~25GHz), therefore no data appear in the report.
3. The middle channel is the worst case among all test modes.

Restricted Band Result:

Engineer: Cloud	
Site: AC5	Time: 2014/08/23 - 16:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT:Repeater	Power: by battery
Note: Mode 1 Transmit at CH0 ant0	

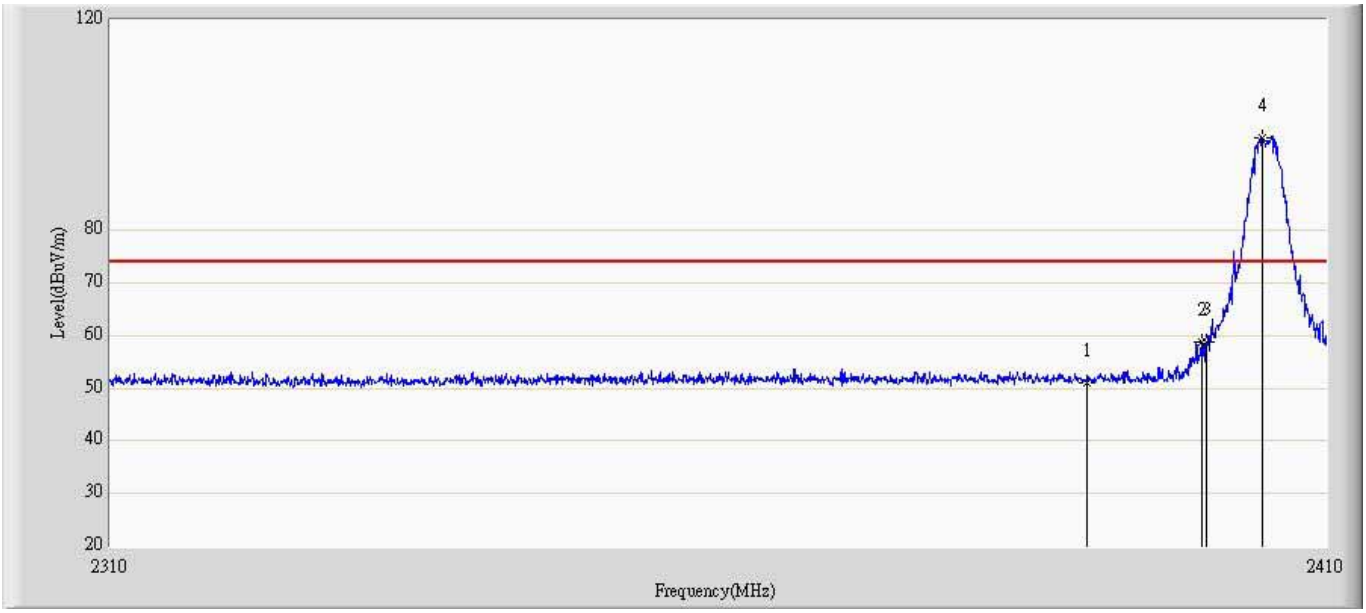


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	52.407	14.714	-21.593	74.000	37.693	PK
2			2399.400	61.410	23.671	-12.590	74.000	37.739	PK
3			2400.000	60.540	22.798	-13.460	74.000	37.742	PK
4		*	2405.450	95.383	57.613	21.383	74.000	37.770	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
5			2390.000	52.407	38.357	-15.643	54.000	-14.050	AV
6			2399.400	61.410	47.360	-6.640	54.000	-14.050	AV
7			2400.000	60.540	46.490	-7.510	54.000	-14.050	AV
8		*	2405.450	95.383	81.333	-12.667	94.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/23 - 16:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT:Repeater	Power: by battery
Note: Mode 1 Transmit at CH0 ant0	

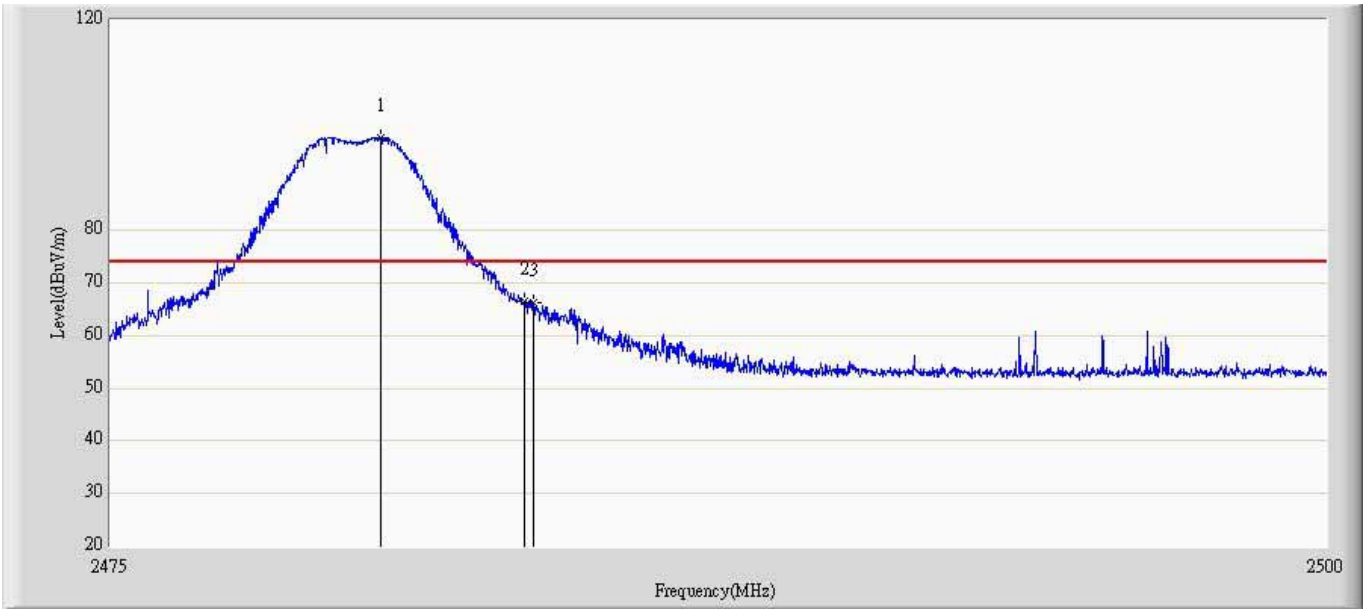


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.000	51.147	13.454	-22.853	74.000	37.693	PK
2			2399.550	58.798	21.058	-15.202	74.000	37.740	PK
3			2400.000	58.789	21.047	-15.211	74.000	37.742	PK
4		*	2404.700	97.586	59.820	-16.414	114.000	37.766	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
1			2390.000	51.147	37.097	-16.903	54.000	-14.050	AV
2			2399.550	58.798	44.748	-9.252	54.000	-14.050	AV
3			2400.000	58.789	44.739	-9.261	54.000	-14.050	AV
4		*	2404.700	97.586	83.536	-10.464	94.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/31 - 15:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT:Repeater	Power: by battery
Note: Mode 1 Transmit at CH15 ant0	

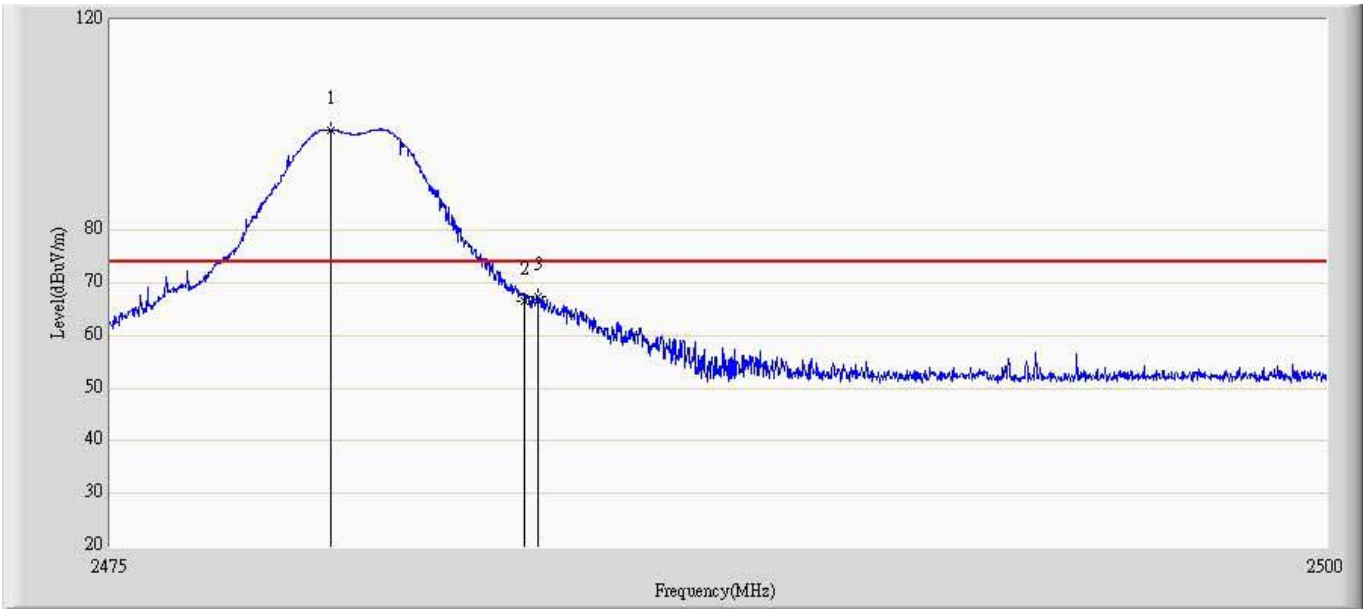


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2480.538	97.701	59.564	-16.299	114.000	38.137	PK
2			2483.500	66.421	28.271	-7.579	74.000	38.150	PK
3			2483.675	66.260	28.108	-7.740	74.000	38.152	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
4		*	2480.538	97.701	83.651	-10.349	94.000	-14.050	AV
5			2483.500	66.421	52.371	-1.629	54.000	-14.050	AV
6			2483.675	66.260	52.210	-1.790	54.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/31 - 16:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT:Repeater	Power: by battery
Note: Mode 1 Transmit at CH15 ant0	

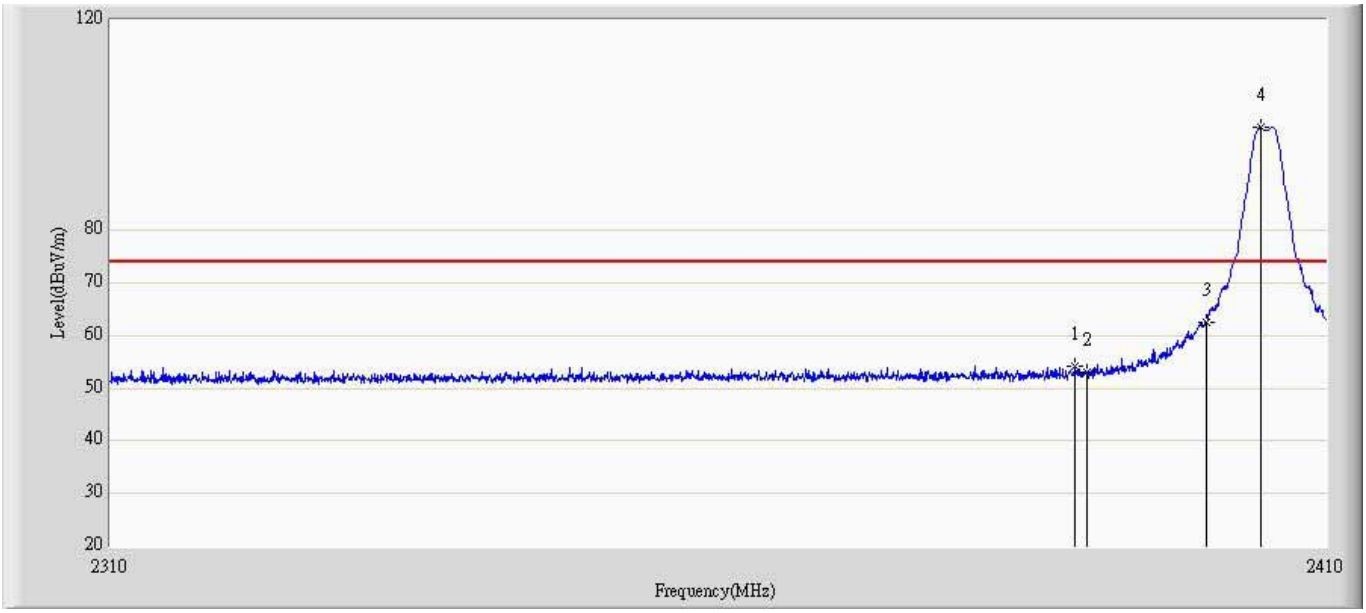


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2479.512	99.116	60.985	-14.884	114.000	38.132	PK
2			2483.500	66.480	28.330	-7.520	74.000	38.150	PK
3			2483.775	67.453	29.301	-6.547	74.000	38.152	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
4		*	2479.512	99.116	85.066	-8.934	94.000	-14.050	AV
5			2483.500	66.480	52.430	-1.57	54.000	-14.050	AV
6			2483.775	67.453	53.403	-0.597	54.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/31 - 15:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT:Repeater	Power: by battery
Note: Mode 2 Transmit at CH0 ant1	

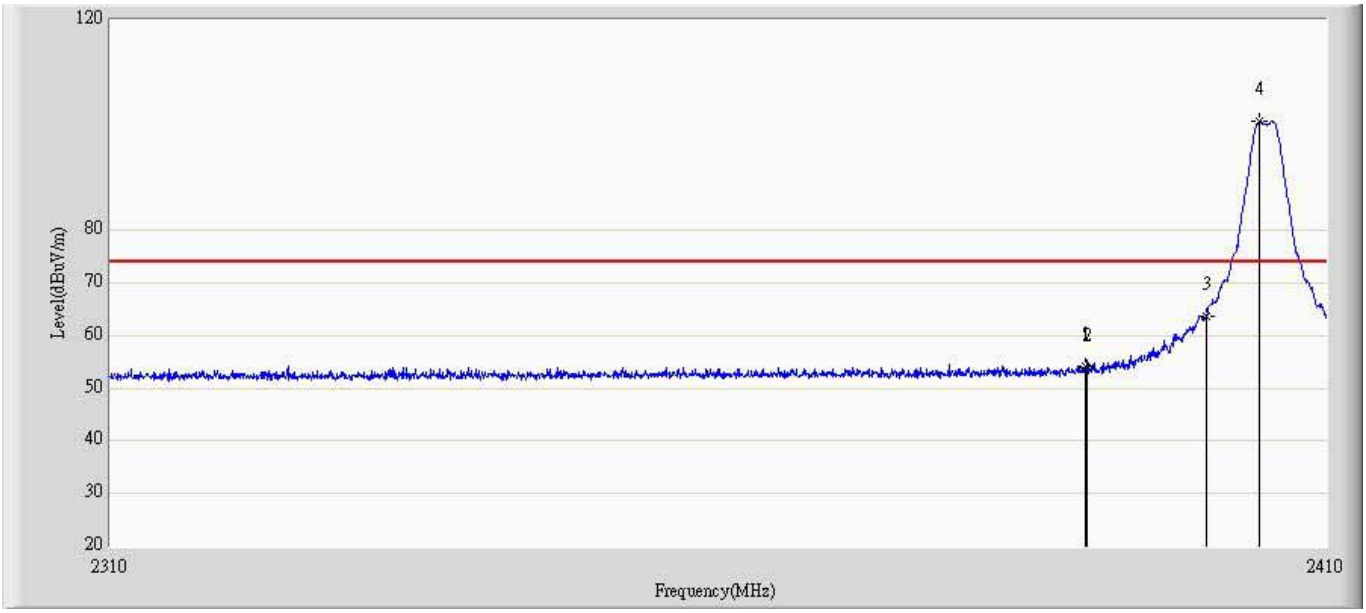


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2389.050	54.169	16.481	-19.831	74.000	37.688	PK
2			2390.000	52.960	15.267	-21.040	74.000	37.693	PK
3			2400.000	62.589	24.847	-11.411	74.000	37.742	PK
4		*	2404.550	99.515	61.750	-14.485	114.000	37.764	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
5			2389.050	54.169	40.119	-13.881	54.000	-14.050	AV
6			2390.000	52.960	38.910	-15.090	54.000	-14.050	AV
7			2400.000	62.589	48.539	-5.461	54.000	-14.050	AV
8		*	2404.550	99.515	85.465	-8.535	94.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/31 - 15:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT:Repeater	Power: by battery
Note: Mode 2 Transmit at CH0 ant1	

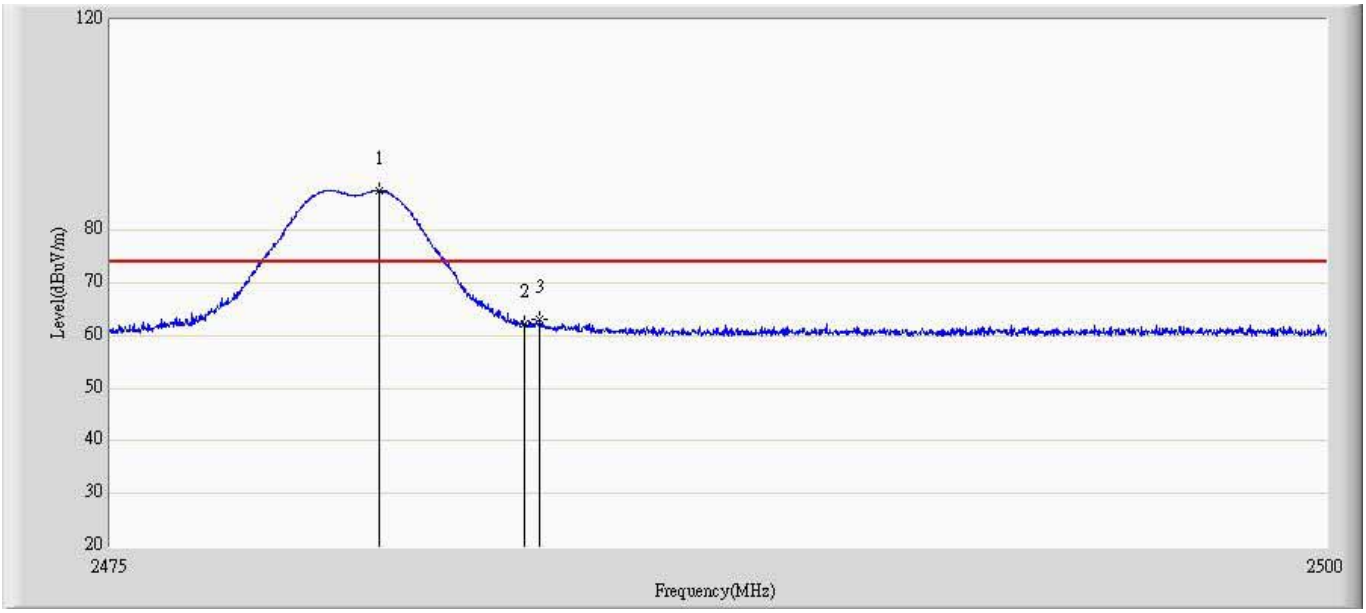


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2389.850	54.329	16.637	-19.671	74.000	37.692	PK
2			2390.000	53.868	16.175	-20.132	74.000	37.693	PK
3			2400.000	63.809	26.067	-10.191	74.000	37.742	PK
4		*	2404.400	100.649	62.885	-13.351	114.000	37.764	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
1			2389.850	54.329	40.279	-13.721	54.000	-14.050	AV
2			2390.000	53.868	39.818	-14.182	54.000	-14.050	AV
3			2400.000	63.809	49.759	-4.241	54.000	-14.050	AV
4		*	2404.400	100.649	86.599	-7.401	94.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/31 - 15:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT:Repeater	Power: by battery
Note: Mode 1 Transmit at CH15 ant1	

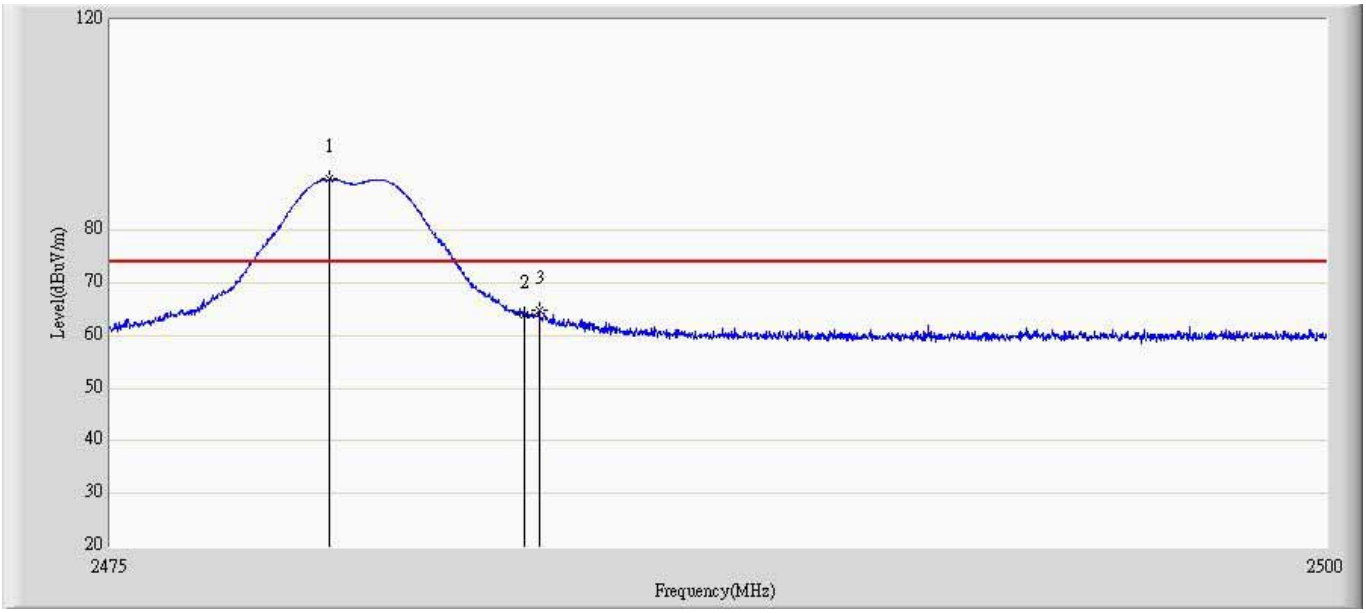


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2480.525	87.407	49.271	-26.593	114.000	38.137	PK
2			2483.500	62.381	24.230	-11.619	74.000	38.150	PK
3			2483.812	62.975	24.823	-11.025	74.000	38.153	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
4		*	2480.525	87.407	73.357	-20.643	94.000	-14.050	AV
5			2483.500	62.381	48.331	-5.669	54.000	-14.050	AV
6			2483.812	62.975	48.925	-5.075	54.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/31 - 15:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT:Repeater	Power: by battery
Note: Mode 2 Transmit at CH15 ant1	

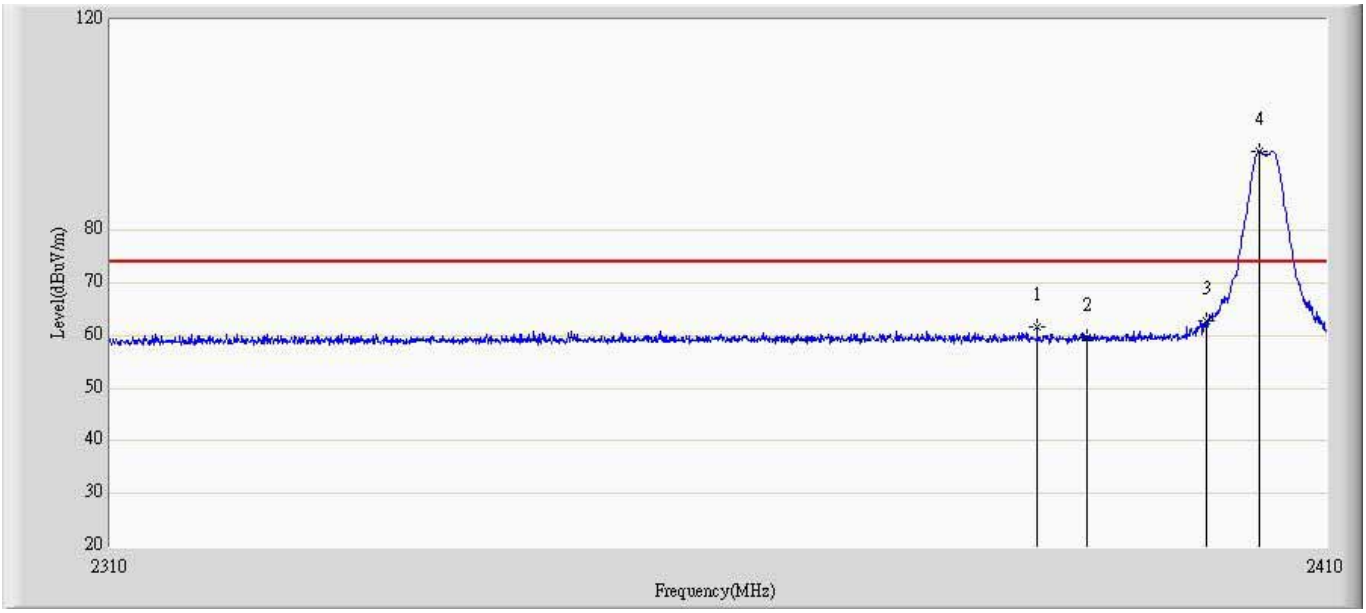


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2479.488	89.738	51.607	-24.262	114.000	38.132	PK
2			2483.500	63.949	25.798	-10.051	74.000	38.150	PK
3			2483.788	64.730	26.578	-9.270	74.000	38.152	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
3		*	2479.488	89.738	75.688	-18.312	94.000	-14.050	AV
4			2483.500	63.949	49.899	-4.101	54.000	-14.050	AV
			2483.788	64.730	50.680	-3.320	54.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/31 - 15:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT:Repeater	Power: by battery
Note: Mode 3 Transmit at CH0 ant2	

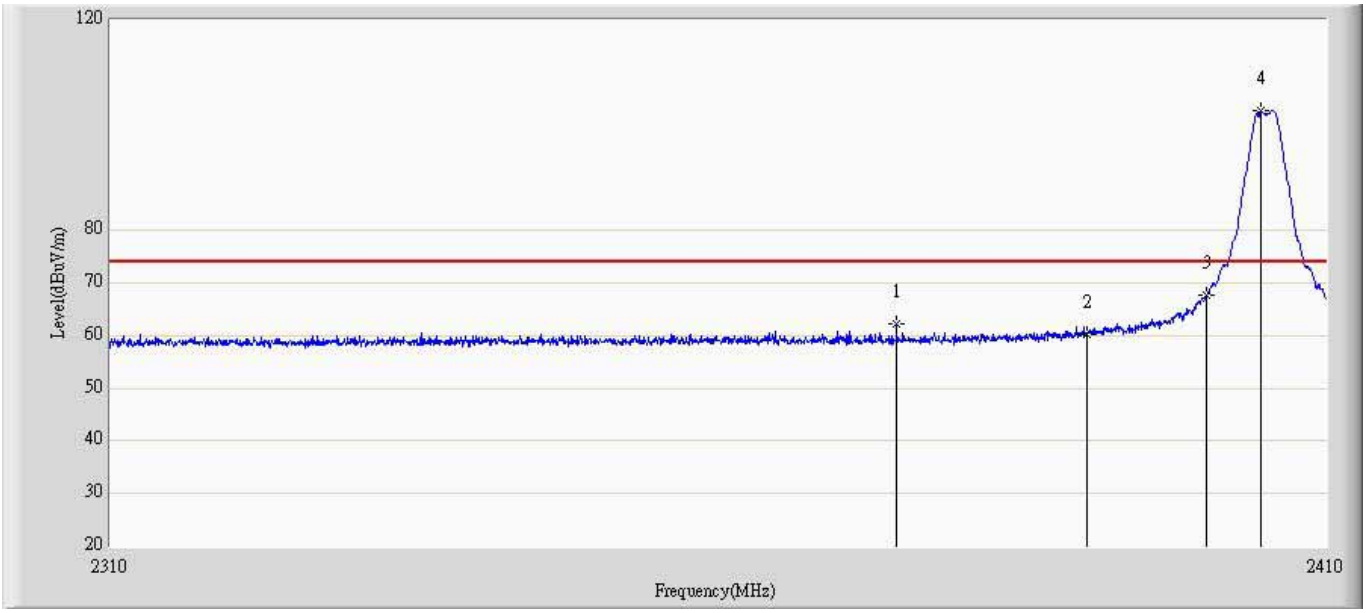


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2385.850	61.724	24.051	-12.276	74.000	37.673	PK
2			2390.000	59.691	21.998	-14.309	74.000	37.693	PK
3			2400.000	62.827	25.085	-11.173	74.000	37.742	PK
4		*	2404.400	95.015	57.251	-18.985	114.000	37.764	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
5			2385.850	61.724	47.674	-6.326	54.000	-14.050	AV
6			2390.000	59.691	45.641	-8.359	54.000	-14.050	AV
7			2400.000	62.827	48.777	-5.223	54.000	-14.050	AV
8		*	2404.400	95.015	80.965	-13.035	94.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer:	
Site: AC5	Time: 2014/09/18 - 12:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Repeater	Power: by battery
Note: Mode 3 Transmit at CH0 ant2	

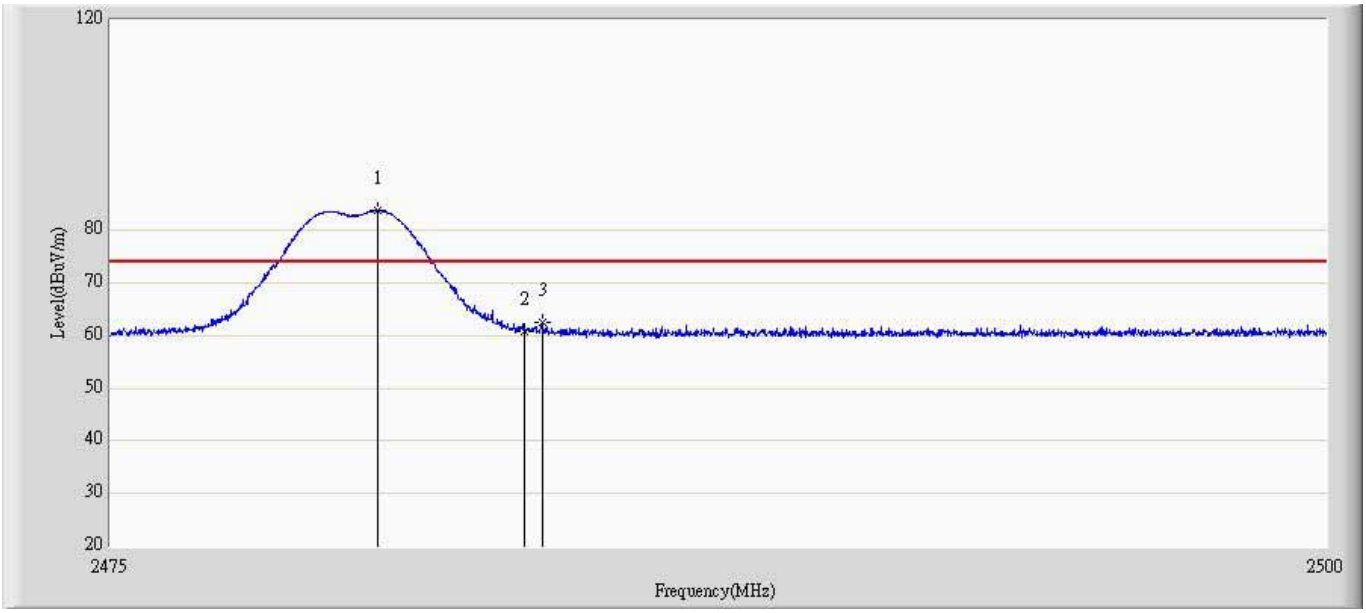


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2374.200	62.208	24.591	-11.792	74.000	37.617	PK
2			2390.000	60.175	22.482	-13.825	74.000	37.693	PK
3			2400.000	67.732	29.990	-6.268	74.000	37.742	PK
4		*	2404.600	102.665	64.900	-11.335	114.000	37.765	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
1			2374.200	62.208	48.158	-5.842	54.000	-14.050	AV
2			2390.000	60.175	46.125	-7.875	54.000	-14.050	AV
3			2400.000	67.732	53.682	-0.318	54.000	-14.050	AV
4		*	2404.600	102.665	88.615	-5.385	94.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/31 - 14:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT:Repeater	Power: by battery
Note: Mode 1 Transmit at CH15 ant2	

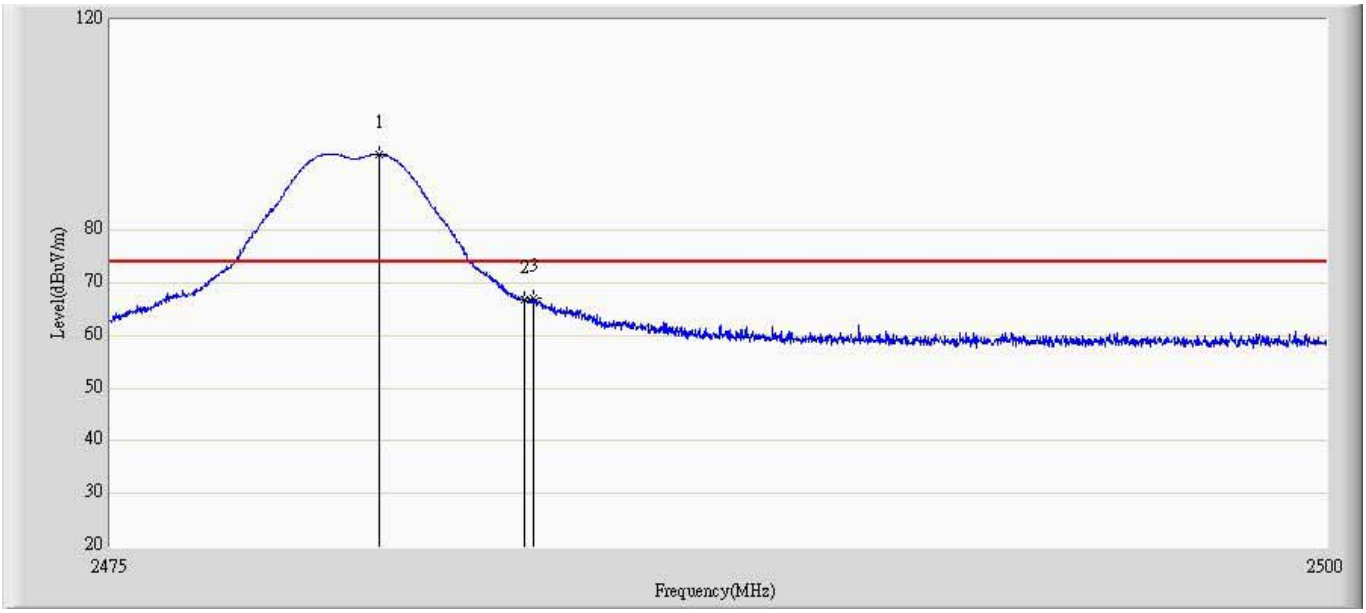


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2480.488	83.788	45.652	-30.212	114.000	38.136	PK
2			2483.500	60.752	22.601	-13.248	74.000	38.150	PK
3			2483.850	62.533	24.380	-11.467	74.000	38.153	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
4		*	2480.488	83.788	69.738	-24.262	94.000	-14.050	AV
5			2483.500	60.752	46.702	-7.298	54.000	-14.050	AV
6			2483.850	62.533	48.483	-5.517	54.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

Engineer: Cloud	
Site: AC5	Time: 2014/08/31 - 15:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT:Repeater	Power: by battery
Note: Mode 1 Transmit at CH15 ant2	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2480.500	94.394	56.258	-19.606	114.000	38.136	PK
2			2483.500	66.968	28.817	-7.032	74.000	38.150	PK
3			2483.663	67.194	29.042	-6.806	74.000	38.152	PK

No	Flag	Mark	Frequency (MHz)	Peak Measure Level (dBuV/m)	Average Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Cycle Correction Factor	Type
3		*	2480.5	94.394	80.344	-13.656	94.000	-14.050	AV
4			2483.5	66.968	52.918	-1.082	54.000	-14.050	AV
			2483.663	67.194	53.144	-0.856	54.000	-14.050	AV

Note: Average Measure Level = Peak Measure Level + Duty Cycle Correct Factor.

6. Band-edge Compliance of RF Conducted Emissions

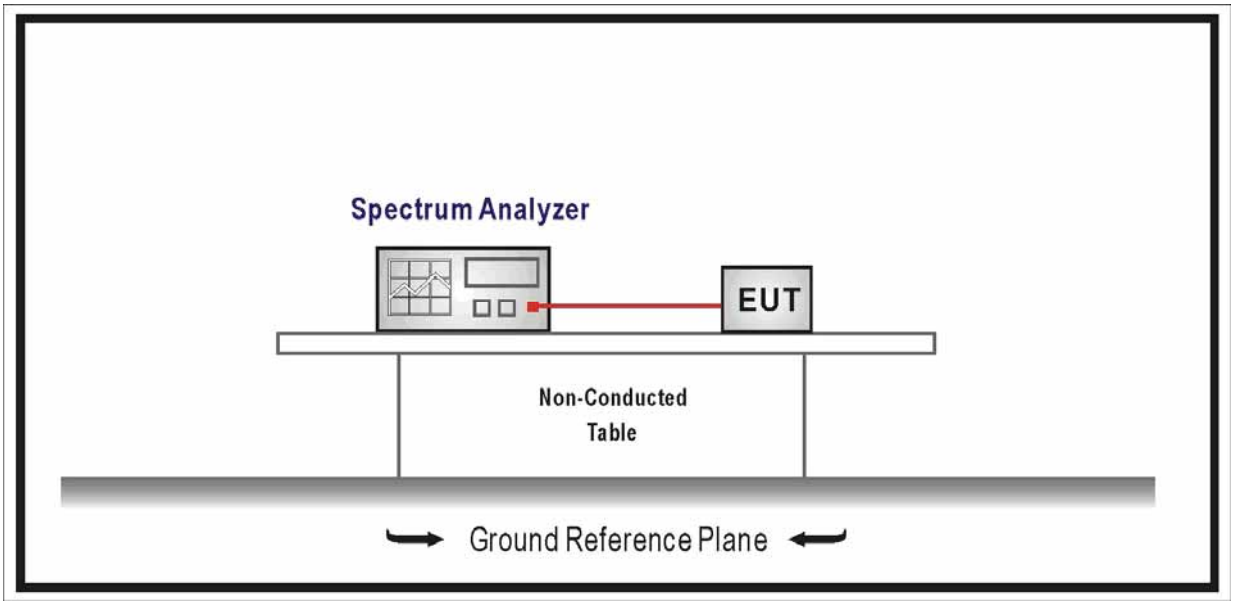
6.1. Test Equipment

Band-edge Compliance of RF Conducted Emissions / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2015.01.07
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2015.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

6.2. Test Setup



6.3. Limit

- FCC Part 15.215 (c), Intentional radiators operating under the alternative provisions to the general emission limits as contained in 15.217 through 15.257 and in Subpart E of FCC part 15, must be designed to ensure that 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

6.4. Test Procedure

Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation.
RBW ≧ 1% of the span
VBW ≧ RBW
Sweep = auto
Detector function = peak
Trace = max hold
Allow the trace to stabilize. Set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge.
Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. The marker-delta value now displayed must comply with the limit specified in this Section.
Now, using the same instrument settings, enable the hopping function of the EUT. Allow the trace to stabilize. Follow the same procedure listed above to determine if any spurious emissions caused by the hopping function also comply with the specified limit.

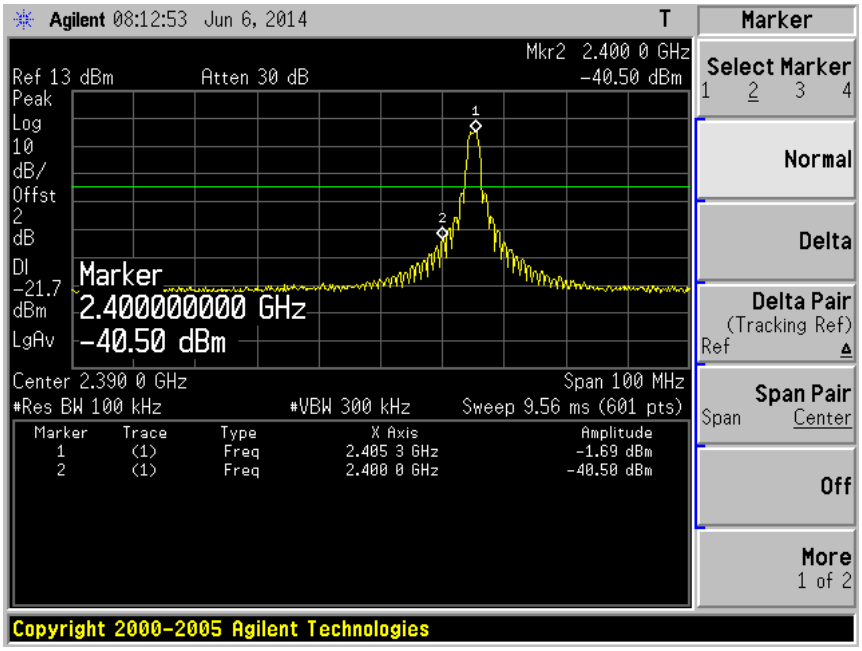
6.5. Uncertainty

The measurement uncertainty is defined as ± 1.0 dB

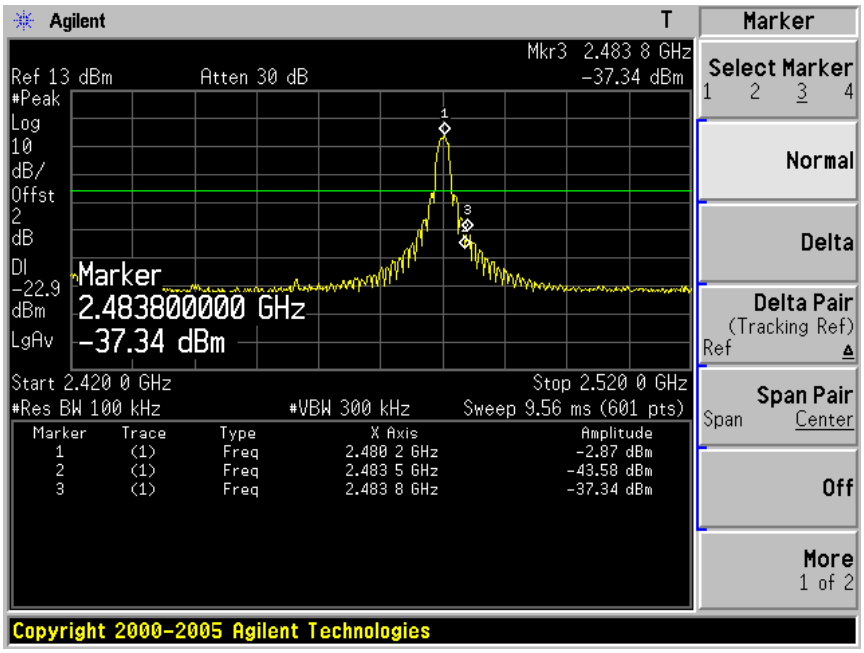
6.6. Test Result

Product	:	FLEX RP Repeater
Test Item	:	Band-edge Compliance of RF Conducted Emissions for FCC Part15.215
Test Mode	:	Mode1: Transmit by Ant 0

Channel 00 (2405MHz)

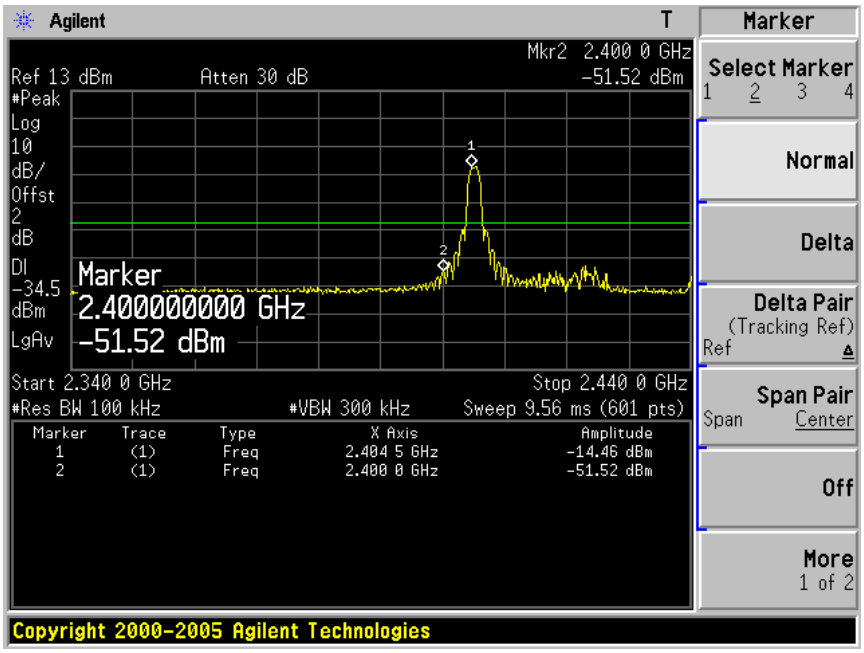


Channel 15 (2480MHz)

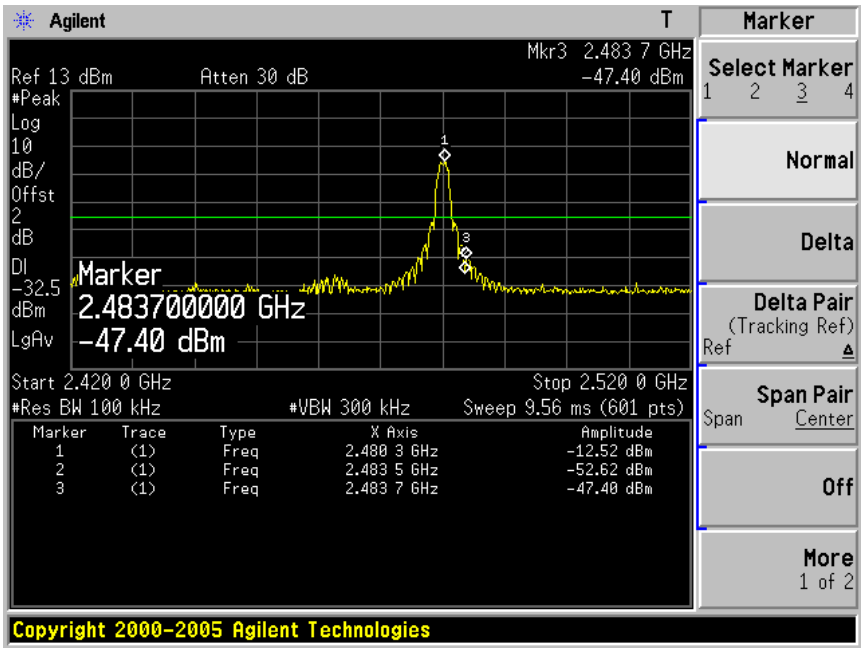


Product	:	FLEX RP Repeater
Test Item	:	Band-edge Compliance of RF Conducted Emissions for FCC Part15.215
Test Mode	:	Mode2&3: Transmit by Ant 1a&1b

Channel 00 (2405MHz)



Channel 15 (2480MHz)



The End