

APPLICATION FOR CERTIFICATION

On Behalf of
AutoMicro Technology Inc.
Remote Control (Transmitter)
Model : TX3314S
Brand : AutoMicro
FCC ID : IXV-TX3314S

Prepared for : AutoMicro Technology Inc.
No. 6, Alley 8, Lane 214, Pao-Ping Road,
Young-Ho City, Taipei Hsien, Taiwan

Prepared by : Audix Technology Corporation
EMC Department
No. 53-11, Tin-Fu Tsun, Lin-Kou,
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Report Number : EM-F960618
Date of Test : Dec. 18 ~ 20, 2007
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TEST REPORT CERTIFICATION

Applicant : AutoMicro Technology Inc.
 Manufacturer : AutoMicro Technology Inc.
 EUT Description : Remote Control (Transmitter)
 FCC ID : IXV-TX3314S
 (A) Model Number : TX3314S
 (B) Serial Number : N/A
 (C) Brand : AutoMicro
 (D) Power Supply : DC 12V
 (E) Test Voltage : DC 12V (Via Battery)

Measurement Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART C, SEP. 2007
 AND ANSI C63.4/2003
 (FCC CFR 47 Part 15C, §15.231, §15.207 and §15.209)

The device described above was tested by AUDIX Technology Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C limits both radiated and conducted emissions.

The measurement results are contained in this test report and AUDIX Technology Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX Technology Corporation.

Date of Test: Dec. 18 ~ 20, 2007

Prepared by: Cherry Wang Jan. 18, 2008
 (Cherry Wang/Section Manager)

Test Engineer: Ben Cheng Jan. 18, 2008
 (Ben Cheng/Section Manager)

Approved & Authorized Signer: Leon Liu Jan. 18, 2008
 (Leon Liu/Vice President)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Remote Control (Transmitter) This remote control is use in security system.
Model Number	:	TX3314S
FCC ID	:	IXV-TX3314S
Brand	:	AutoMicro
Applicant	:	AutoMicro Technology Inc. No. 6, Alley 8, Lane 214, Pao-Ping Road, Young-Ho City, Taipei Hsien, Taiwan
Manufacturer	:	AutoMicro Technology Inc. No. 6, Alley 8, Lane 214, Pao-Ping Road, Young-Ho City, Taipei Hsien, Taiwan
Fundamental Frequency	:	433.92MHz
Power Supply	:	DC 12V Battery
Date of Receipt of Sample	:	Nov. 26, 2007
Date of Test	:	Dec. 18 ~ 20, 2007

Remark:

1. **Antenna requirement:** This EUT's transmitter antenna is design in soldered to a printed circuit board, comply with §15.203 and inform to user that any change and modify is prohibited.
2. This test report of EM-F960618 is for the remote control transmitter unit, the receiver unit's model is G5 and tested in report of EM-F960617.

1.2. Description of Test Facility

Name of Firm : **Audix Technology Corporation**
EMC Department
 No. 53-11, Tin-Fu Tsun, Lin-Kou,
 Taipei, Taiwan.

Test Site : **Semi-Anechoic Chamber**
 (AC) No. 53-11, Tin-Fu Tsun, Lin-Kou,
 Taipei, Taiwan.

Federal Communication Commission
 Registration Number: 90993
 Date of Renewal: May 16, 2006

NVLAP Lab. Code : 200077-0
 (NVLAP is a NATA accredited body under Mutual Recognition Agreement)

1.3. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Conduction Test	150kHz~30MHz	±1.73dB
Radiation Test (Distance: 3m)	30MHz~300MHz	±2.91dB
	300MHz~1000MHz	±2.94dB
	Above 1GHz	± 5.02dB

Remark : Uncertainty = $k_{uc}(y)$

2. POWERLINE CONDUCTED EMISSION MEASUREMENT

【The EUT only employ battery power for operation, no conductive emissions limits are required according to FCC Part 15 Section §15.207】

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipment are used during the radiated emission measurement :

3.1.1. For Frequency Range 30MHz~1000MHz (at Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000134	Jun. 27, 07'	Jun. 26, 08'
2.	Test Receiver	R & S	ESCS30	100265	Sep. 04, 07'	Sep. 03, 08'
3.	Pre-Amplifier	HP	8447D	2944A06305	Mar. 03, 07'	Mar. 02, 08'
4.	Biconical Antenna	CHASE	VBA6106A	1264	Apr. 11, 07'	Apr. 10, 08'
5.	Log Periodic Antenna	Schwarzbeck	UHALP9108-A	0139	Apr. 11, 07'	Apr. 10, 08'

3.1.2. For Frequency Above 1GHz (at Semi-Anechoic Chamber)

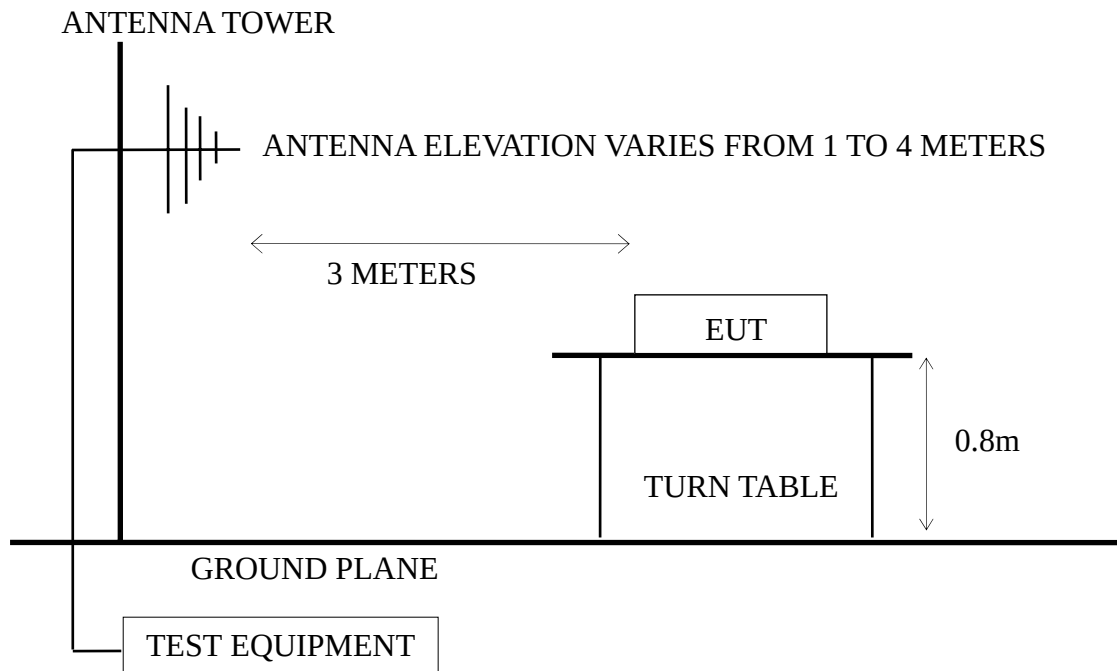
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000134	Jun. 27, 07'	Jun. 26, 08'
2.	Pre-Amplifier	HP	8449B	3008A01284	Jun. 22, 07'	Jun. 21, 08'
3.	Horn Antenna	EMCO	3115	9112-3775	May 23, 07'	May 22, 08'

3.2. Test Setup

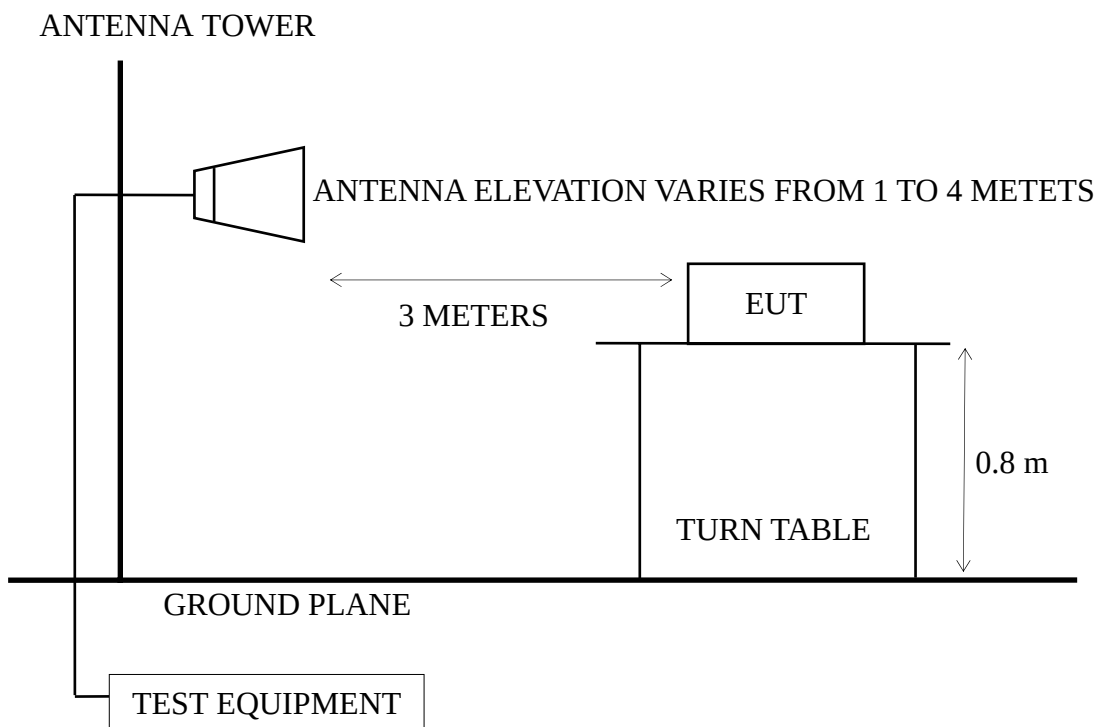
3.2.1. Block Diagram of connection between EUT and simulators

**REMOTE CONTROL (TRANSMITTER)
(EUT)**

3.2.2. Semi-Anechoic Chamber (3m) Setup Diagram for 30-1000MHz



3.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for above 1GHz



3.3. Radiation Limit (§15.231/§15.209)

3.3.1. §15.231 Radiated Emission Limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMITS	
		$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$
Fundamental Freq.	3	10996.68	80.825 (Quasi-Peak)
Spurious Emission	3	1099.668	60.825 (Quasi-Peak)
Above 1GHz *(6)	3	---	74 (Peak)
Above 1GHz *(6)	3	---	54 (Average)

- Remark :
- (1) Emission level ($\text{dB}\mu\text{V/m}$) = $20 \log$ Emission level ($\mu\text{V/m}$)
 - (2) The tighter limit applies at the edge between two frequency bands.
 - (3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
 - (4) Where limit of Fundamental Freq. is calculated by:
 $41.6667 \times 433.92 - 7083.3333 = 10996.68 \mu\text{V/m} = 80.825 \text{dB}\mu\text{V/m}$
 limit of spurious emission is $80.825 \text{dB}\mu\text{V/m} - 20 \text{dB} = 60.825 \text{dB}\mu\text{V/m}$
 - (5) The limits in this table are based on CFR 47 Part 15.205(a)(b) and Part 15.209 (a) and Part 15.231(b).
 - (6) The over 1GHz limit, FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.205(b) & Part 15.209(b) & Part 15.231(a)-(3).

3.3.2. §15.209 Radiated Emission Limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMITS	
		$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

- Remark :
- (1) Emission level ($\text{dB}\mu\text{V/m}$) = $20 \log$ Emission level ($\mu\text{V/m}$)
 - (2) The tighter limit applies at the edge between two frequency bands.
 - (3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.4. EUT's Configuration during Compliance Measurement

The following equipment were installed on radiated measurement to meet the commission requirement and operating in a manner which tended to maximize its emission characteristics in a normal application.

3.4.1. Remote Control (Transmitter) (EUT)

Model Number	:	TX3314S
Serial Number	:	N/A
Manufacturer	:	AutoMicro Technology Inc.
FCC ID.	:	IXV-TX3314S
Fundamental Frequency	:	433.92MHz

3.5. Operating Condition of EUT

- 3.5.1. Setup the EUT and simulator as shown on 3.2.
- 3.5.2. Turned on the power of all equipment.
- 3.5.3. The EUT [Remote Control (Transmitter)] was emitted the fundamental frequency at the stand, side and lie conditions.
- 3.5.4. The EUT was at worked on maximum transmitting status during all testing.

3.6. Test Procedure

The EUT and its simulators were placed on a turn table which was 0.8 meter above the ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. For 30MHz to 5GHz frequency range, EUT was set 3 meters away from the receiving antenna which was mounted on a antenna tower. The antenna moved up and down between 1 to 4 meters for 30MHz to 5GHz frequency range to find out the maximum emission level. Broadband antenna such as calibrated biconical and log- periodical antenna or horn antenna were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to FCC ANSI C63.4-2003 regulation.

The bandwidth of test receiver was set at 120kHz for 30-1000MHz frequency range and resolution bandwidth of spectrum analyzer was set at 1MHz for 1-5GHz frequency range.

The frequency range from 30MHz to 5GHz was checked.

EUT with three kinds of position (on Lie、Side、Stand) were done during radiated measurement and all the test results are listed in section 3.7.

Mode	Operation of EUT	Reference Test Data No.	
		Horizontal	Vertical
Frequency Range: 30-1000MHz			
1.	EUT on Lie, Transmitting Mode	# 2.	# 1.
2.	EUT on Side, Transmitting Mode	# 1.	# 2.
3.	EUT on Stand, Transmitting Mode	# 2.	# 1.
Frequency Range: 1000-2680MHz			
1.	EUT on Lie, Transmitting Mode	# 4, 8.	# 3, 7.
2.	EUT on Side, Transmitting Mode	# 5, 7.	# 6, 8.
3.	EUT on Stand, Transmitting Mode	# 4, 8.	# 3, 7.
Frequency Range: 2680-5000MHz			
1.	EUT on Lie, Transmitting Mode	# 5.	# 6.
2.	EUT on Side, Transmitting Mode	# 4.	# 3.
3.	EUT on Stand, Transmitting Mode	# 5.	# 6.

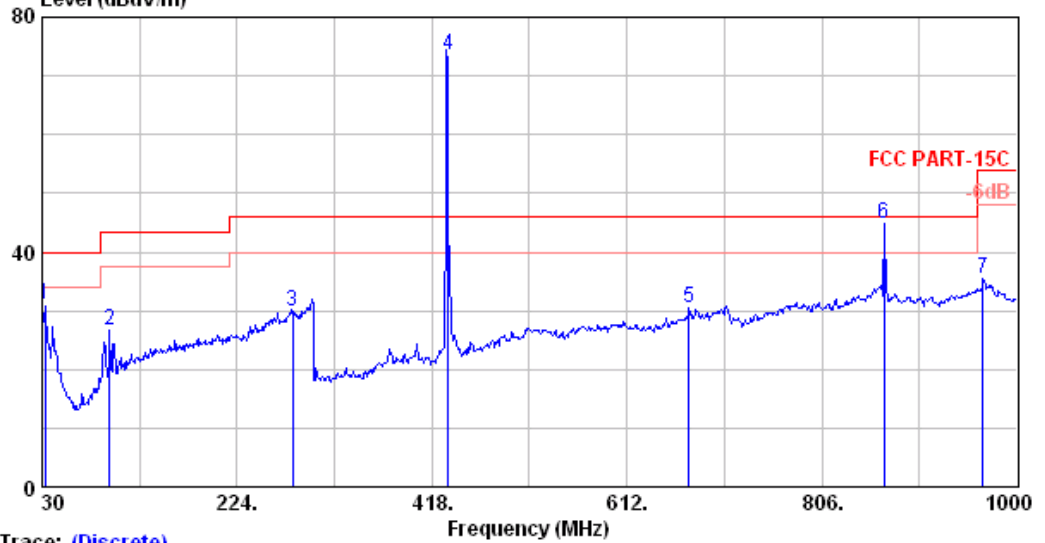
3.7. Radiated Emission Noise Measurement Results

3.7.1. 30MHz to 1GHz Frequency Range Measurement Results: **PASSED.**

All the emissions not reported below are too low against the FCC part 15 Subpart C limit.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Lie Fundamental Freq. : 433.92MHz

Data: 2 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 2
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C
 Env. / Ins. : ESC830 24°C/39% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	32.910	23.42	1.10	6.40	30.92	40.00	9.08	
2	96.930	16.75	2.05	7.73	26.53	43.50	16.97	
3	279.290	25.24	3.80	0.94	29.98	46.00	16.02	
4	433.920	17.33	5.20	50.88	73.41	80.82	7.41	
5	674.080	22.87	6.40	1.35	30.61	46.00	15.39	
6	867.840	25.89	7.20	11.63	44.72	60.82	16.10	
7	966.050	26.89	7.70	0.73	35.32	54.00	18.68	

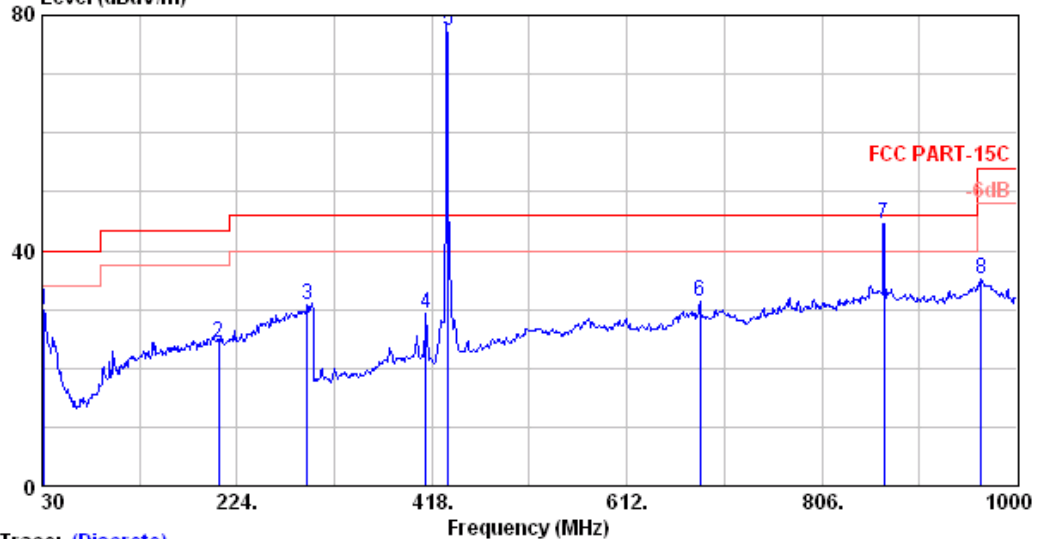
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Quasi-Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C

EUT : Remote Control (Transmitter) Humidity : 63%

Test Position : EUT on Lie Fundamental Freq. : 433.92MHz

Data: 1 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
Level (dBuV/m)



Trace: (Discrete)

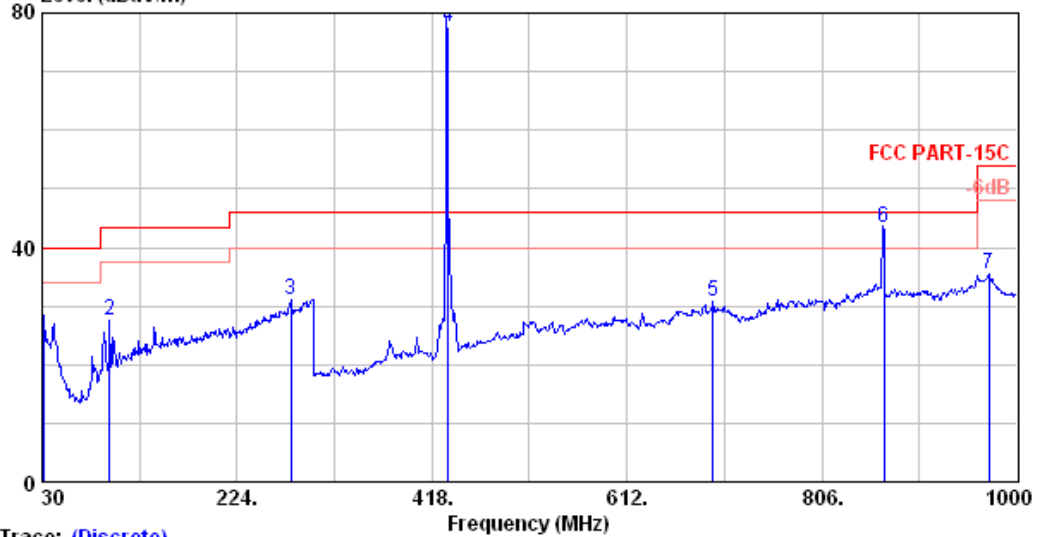
Site no. : A/C Chamber Data no. : 1
Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : VERTICAL
Limit : FCC PART-15C
Env. / Ins. : ESCS30 24°C/39% Engineer : Henning_Chang
EUT : Remote Control M/N:TX3314S
Power Rating : DC 12V
Test Mode : Keyless

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	31.940	24.26	1.10	4.60	29.96	40.00	10.04	
2	205.570	21.94	3.10	-0.75	24.28	43.50	19.22	
3	293.840	26.33	3.96	0.36	30.65	46.00	15.35	
4	412.180	17.09	4.91	7.32	29.33	46.00	16.67	
5	433.920	17.33	5.20	54.69	77.22	80.82	3.60	
6	684.750	23.11	6.49	1.61	31.22	46.00	14.78	
7	867.840	25.89	7.20	11.43	44.52	60.82	16.30	
8	964.110	26.80	7.60	0.90	35.29	54.00	18.71	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.
3. All readings are Quasi-Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Side Fundamental Freq. : 433.92MHz

Data: 1 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

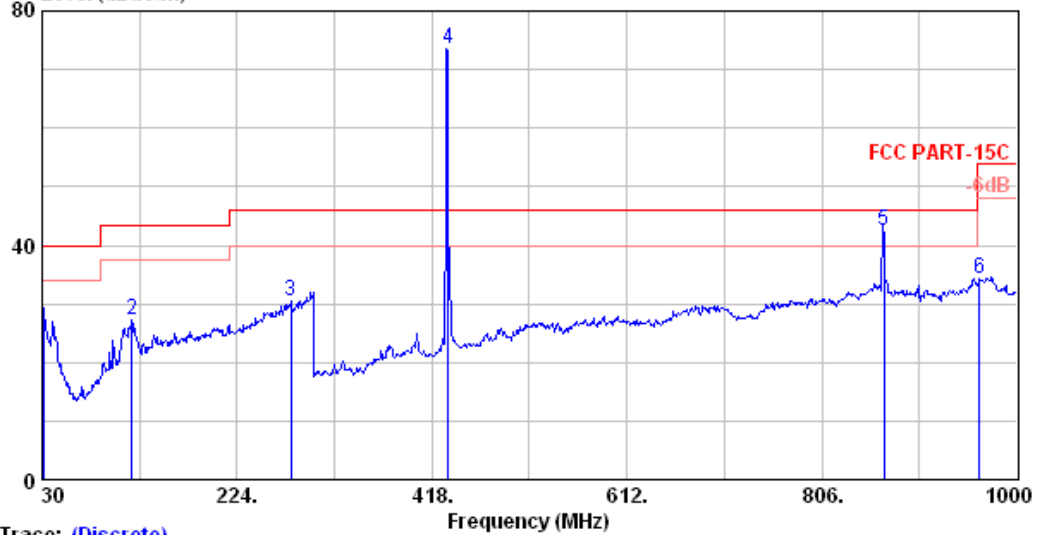
Site no. : A/C Chamber Data no. : 1
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C
 Env. / Ins. : ESCS30 24°C/39% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Side

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.970	24.81	1.10	2.85	28.76	40.00	11.24	
2	96.930	16.75	2.05	8.80	27.60	43.50	15.90	
3	277.350	25.25	3.80	2.07	31.12	46.00	14.88	
4	433.920	17.33	5.20	55.07	77.60	80.82	3.22	
5	697.360	23.32	6.50	0.82	30.64	46.00	15.36	
6	867.840	25.89	7.20	10.28	43.37	60.82	17.45	
7	971.870	26.79	7.70	0.95	35.45	54.00	18.55	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Quasi-Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Side Fundamental Freq. : 433.92MHz

Data: 2 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 2
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : VERTICAL
 Limit : FCC PART-15C
 Env. / Ins. : ESCS30 24°C/39% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Side

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.970	24.81	1.10	2.53	28.44	40.00	11.56	
2	119.240	19.02	2.30	5.92	27.24	43.50	16.26	
3	277.350	25.25	3.80	1.47	30.52	46.00	15.48	
4	433.920	17.33	5.20	51.03	73.56	80.82	7.26	
5	867.840	25.89	7.20	9.48	42.57	60.82	18.25	
6	963.140	26.63	7.60	-0.07	34.16	54.00	19.84	

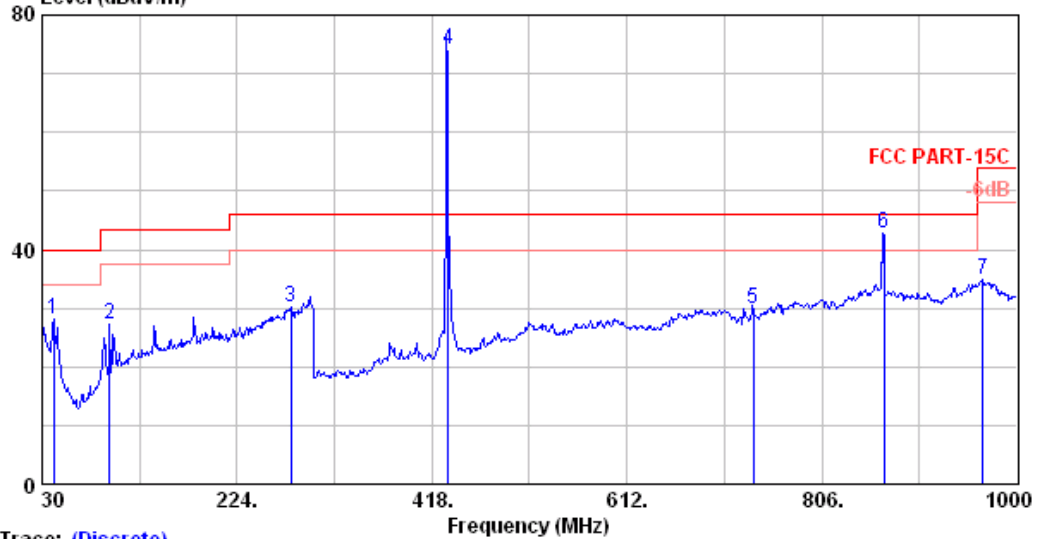
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Quasi-Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C

EUT : Remote Control (Transmitter) Humidity : 63%

Test Position : EUT on Stand Fundamental Freq. : 433.92MHz

Data: 2 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
Level (dBuV/m)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 2
Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : HORIZONTAL
Limit : FCC PART-15C
Env. / Ins. : ESCS30 24°C/39% Engineer : Henning_Chang
EUT : Remote Control M/N:TX3314S
Power Rating : DC 12V
Test Mode : Keyless-Stand

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	41.640	20.14	1.30	6.75	28.19	40.00	11.81	
2	96.930	16.75	2.05	8.54	27.34	43.50	16.16	
3	277.350	25.25	3.80	1.18	30.23	46.00	15.77	
4	433.920	17.33	5.20	51.68	74.21	80.82	6.61	
5	738.100	22.29	6.60	1.12	30.01	46.00	15.99	
6	867.840	25.92	7.20	9.61	42.72	60.82	18.10	
7	966.050	26.89	7.70	0.16	34.75	54.00	19.25	

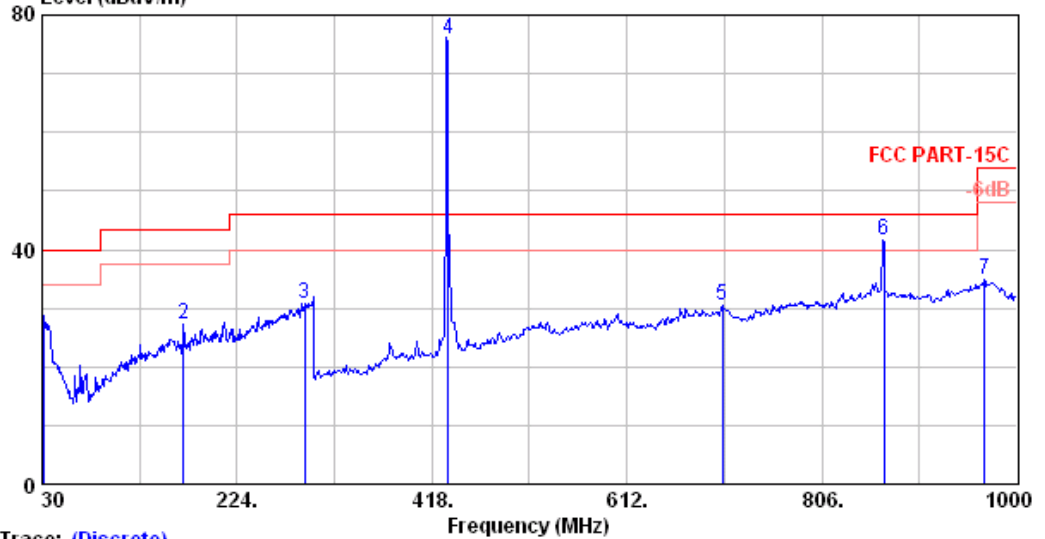
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.
3. All readings are Quasi-Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C

EUT : Remote Control (Transmitter) Humidity : 63%

Test Position : EUT on Stand Fundamental Freq. : 433.92MHz

Data: 1 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 1

Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : VERTICAL

Limit : FCC PART-15C

Env. / Ins. : ESCS30 24°C/39% Engineer : Henning_Chang

EUT : Remote Control M/N:TX3314S

Power Rating : DC 12V

Test Mode : Keyless-Stand

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.970	24.81	1.10	2.80	28.71	40.00	11.29	
2	170.650	21.03	2.80	3.53	27.36	43.50	16.14	
3	290.930	26.14	3.90	0.63	30.67	46.00	15.33	
4	433.920	17.33	5.20	53.30	75.83	80.82	4.99	
5	707.060	23.55	6.60	0.39	30.54	46.00	15.46	
6	867.840	25.92	7.20	8.52	41.64	60.82	19.36	
7	967.990	26.90	7.69	0.34	34.93	54.00	19.18	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.

3. All readings are Quasi-Peak values.

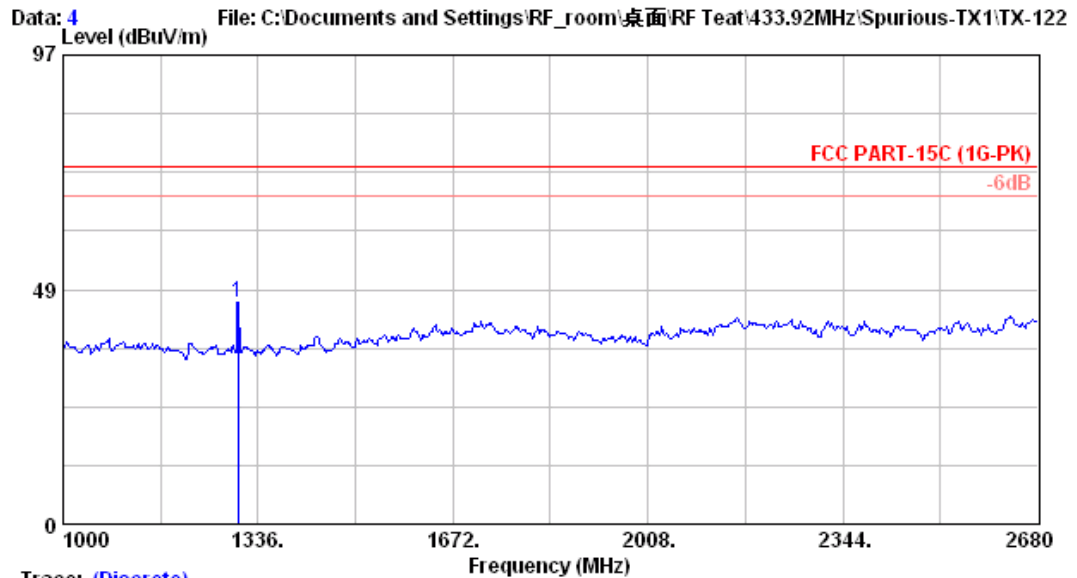
3.7.2. 1GHz to 5GHz Frequency Range Measurement Results: **PASSED.**

The frequency spectrum from 1GHz to 5GHz (up to 10th harmonics) was investigated. All the emissions not reported below are too low against the FCC part 15 Subpart C limit.

Date of Test : Dec. 20, 2007 Temperature : 28°C

EUT : Remote Control (Transmitter) Humidity : 63%

Test Position : EUT on Lie Fundamental Freq. : 433.92MHz



Site no. : A/C Chamber Data no. : 4

Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL

Limit : FCC PART-15C (1G-PK)

Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang

EUT : Remote Control M/N:TX3314S

Power Rating : DC 12V

Test Mode : Keyless

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1301.700	25.33	4.84	15.60	45.77	74.00	28.23	Peak	

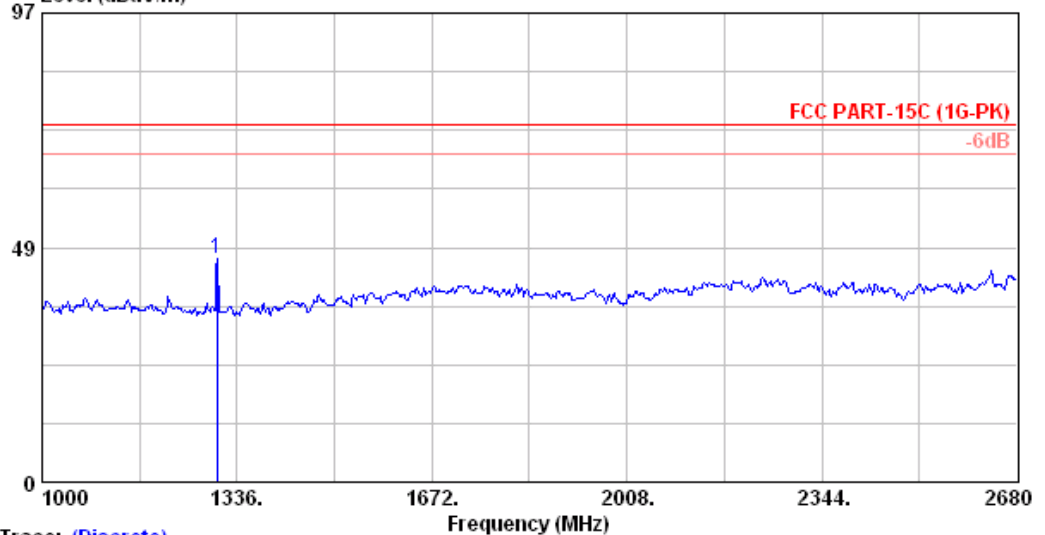
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.

3. All readings are Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Lie Fundamental Freq. : 433.92MHz

Data: 3 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

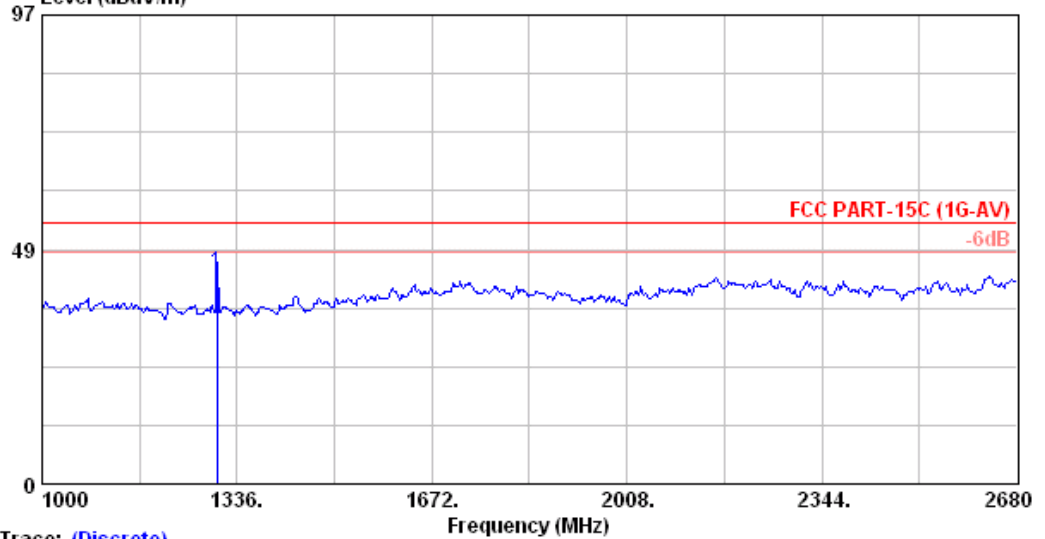
Site no.	: A/C Chamber	Data no.	: 3
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART-15C (1G-PK)	Engineer	: Henning_Chang
Env. / Ins.	: E7405A 28°C/63%		
EUT	: Remote Control M/N:TX3314S		
Power Rating	: DC 12V		
Test Mode	: Keyless		

Freq. (MHz)	Ant. Cable		Emission		Limits	Margin	Remark
	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)			
1 1301.700	25.33	4.84	16.18	46.35	74.00	27.65	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Lie Fundamental Freq. : 433.92MHz

Data: 8 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

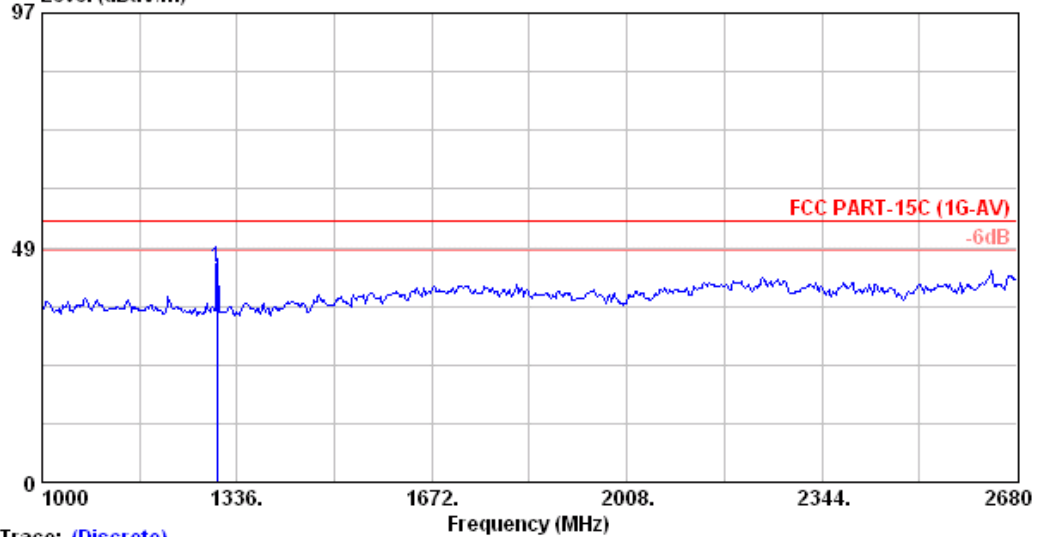
Site no.	: A/C Chamber	Data no.	: 8
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART-15C (1G-AV)	Engineer	: Henning_Chang
Env. / Ins.	: E7405A 28°C/63%		
EUT	: Remote Control M/N:TX3314S		
Power Rating	: DC 12V		
Test Mode	: Keyless		

Freq. (MHz)	Ant. Cable		Emission		Limits	Margin	Remark
	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)			
1 1301.700	25.33	4.84	13.60	43.77	54.00	10.23	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Average values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Lie Fundamental Freq. : 433.92MHz

Data: 7 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

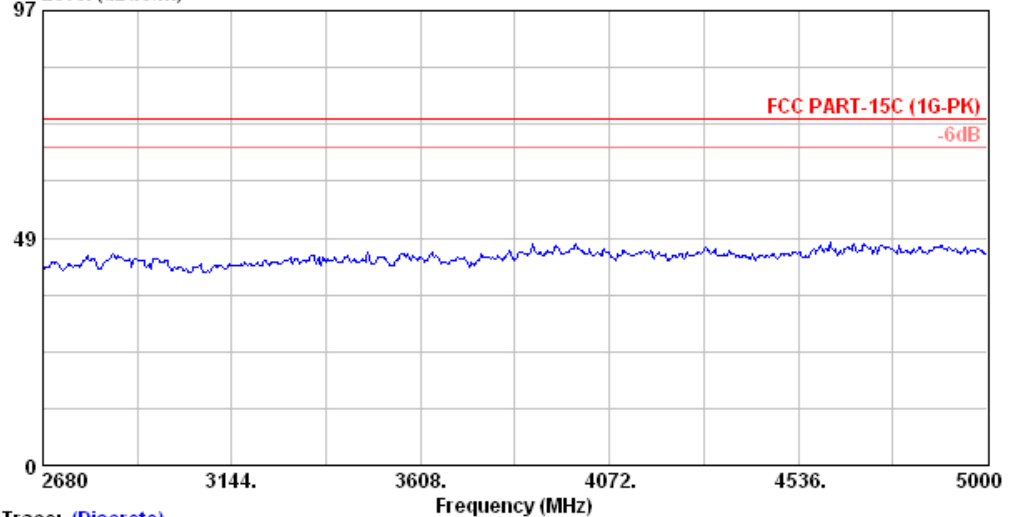
Site no. : A/C Chamber Data no. : 7
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1301.700	25.33	4.84	14.18	44.35	54.00	9.65	Average	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Average values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Lie Fundamental Freq. : 433.92MHz

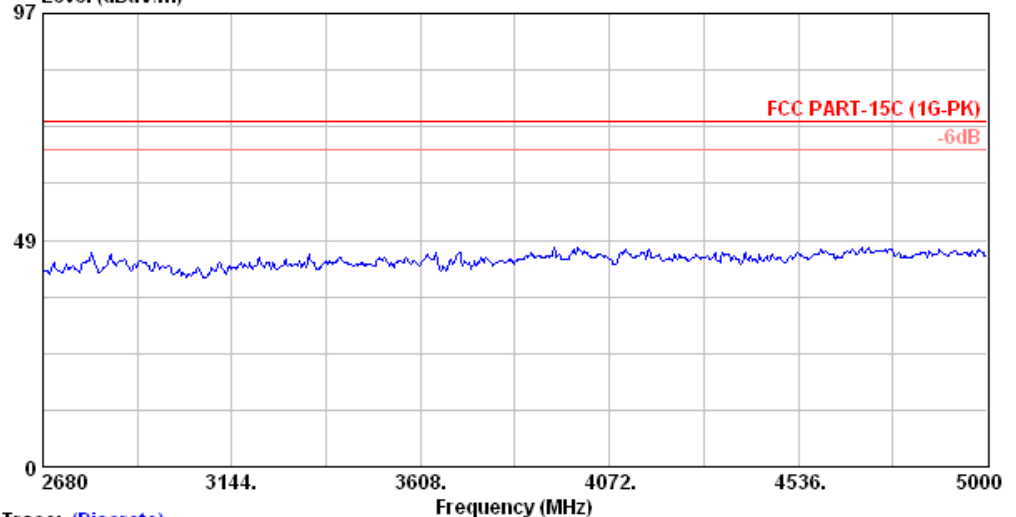
Data: **5** File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 5
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless

Data: **6** File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)

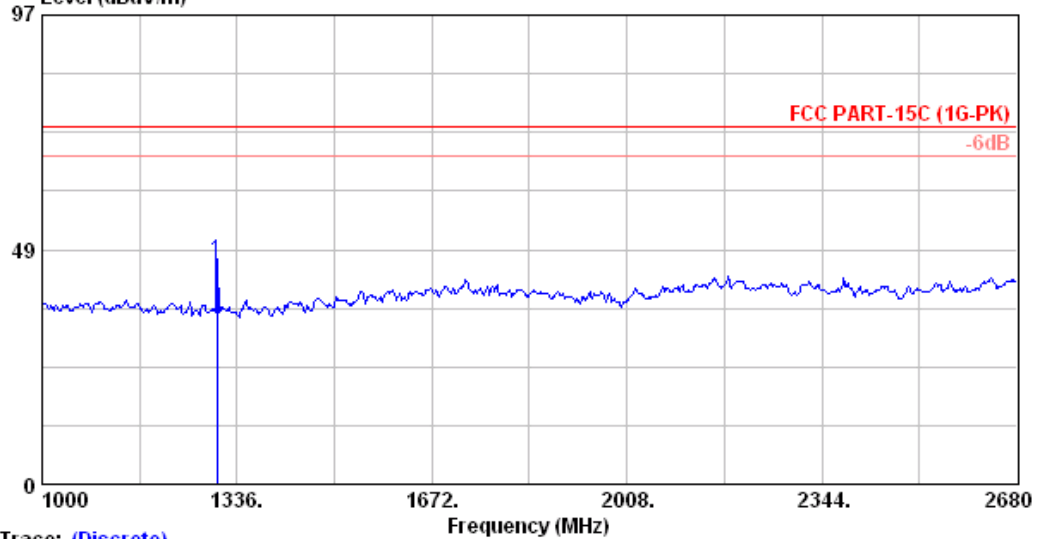


Trace: (Discrete)

Site no. : A/C Chamber Data no. : 6
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Side Fundamental Freq. : 433.92MHz

Data: 5 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

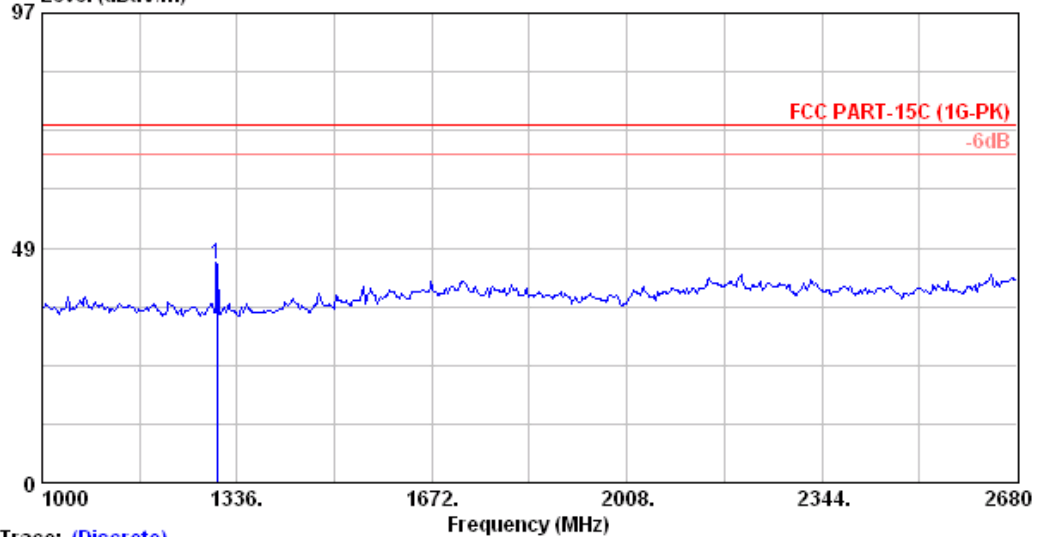
Site no.	: A/C Chamber	Data no.	: 5
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART-15C (1G-PK)	Engineer	: Henning_Chang
Env. / Ins.	: E7405A 28°C/63%		
EUT	: Remote Control M/N:TX3314S		
Power Rating	: DC 12V		
Test Mode	: Keyless-Side		

Freq. (MHz)	Ant. Cable		Emission		Limits	Margin	Remark
	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)			
1 1301.700	25.33	4.84	16.10	46.27	74.00	27.73	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Side Fundamental Freq. : 433.92MHz

Data: 6 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

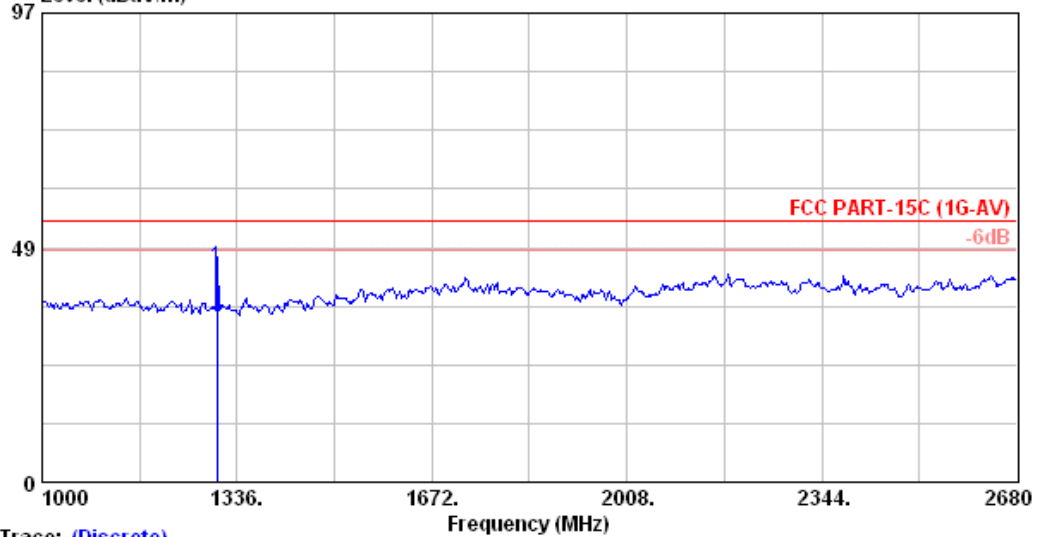
Site no.	: A/C Chamber	Data no.	: 6
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART-15C (1G-PK)	Engineer	: Henning_Chang
Env. / Ins.	: E7405A 28°C/63%		
EUT	: Remote Control M/N:TX3314S		
Power Rating	: DC 12V		
Test Mode	: Keyless-Side		

Freq. (MHz)	Ant. Cable		Emission		Limits	Margin	Remark
	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)			
1 1301.700	25.33	4.84	15.02	45.19	74.00	28.81	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Side Fundamental Freq. : 433.92MHz

Data: 7 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

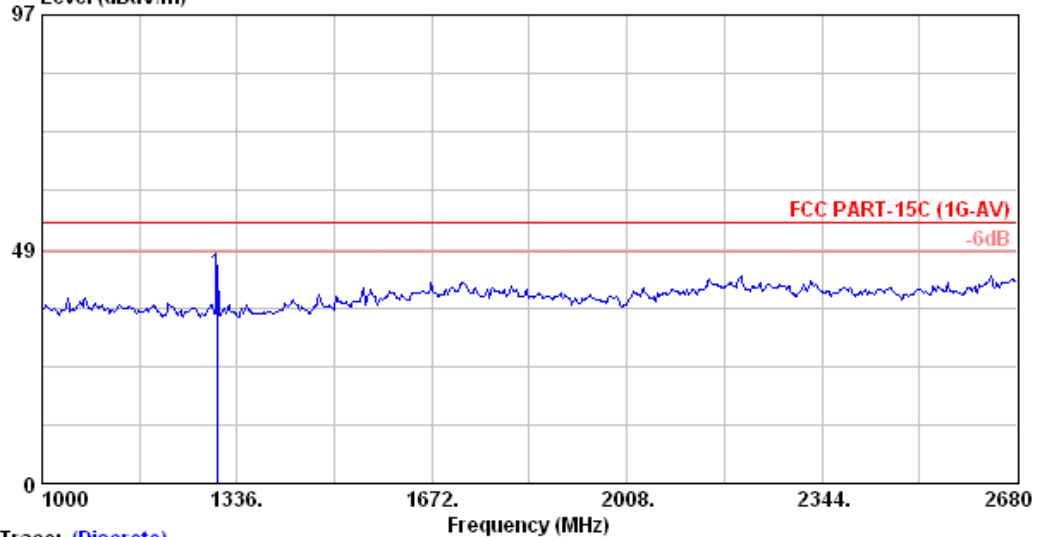
Site no. : A/C Chamber Data no. : 7
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Side

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1301.700	25.33	4.84	14.10	44.27	54.00	9.73	Average	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Average values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Side Fundamental Freq. : 433.92MHz

Data: 8 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 8
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Side

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1301.700	25.33	4.84	13.02	43.19	54.00	10.81	Average	

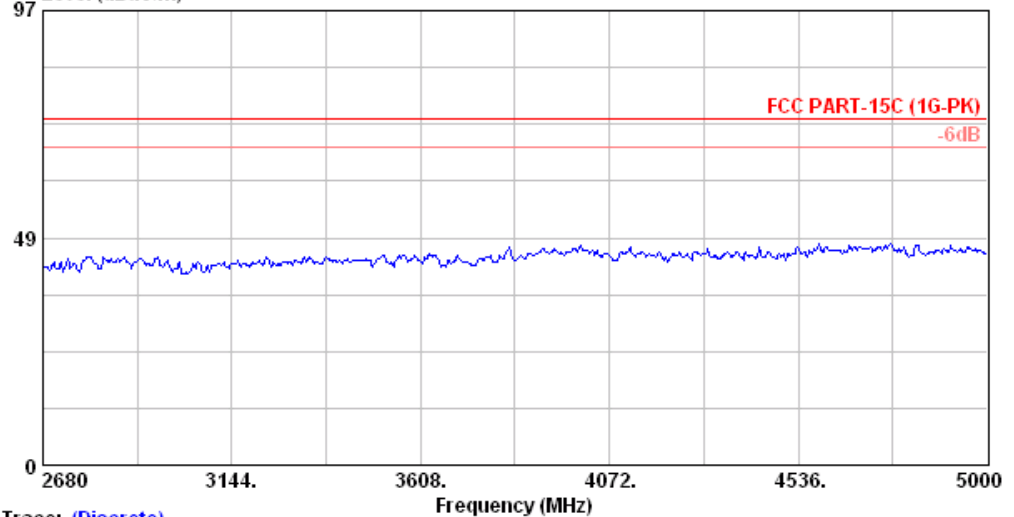
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Average values.

Date of Test : Dec. 20, 2007 Temperature : 28°C

EUT : Remote Control (Transmitter) Humidity : 63%

Test Position : EUT on Side Fundamental Freq. : 433.92MHz

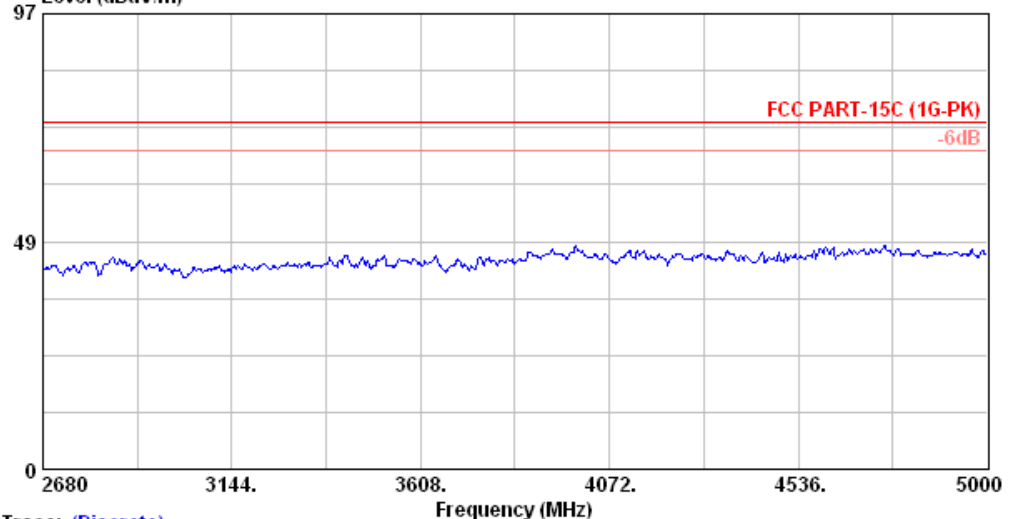
Data: **4** File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
Level (dBuV/m)



Trace: (Discrete)

Site no.	: A/C Chamber	Data no.	: 4
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART-15C (1G-PK)		
Env. / Ins.	: E7405A 28°C/63%	Engineer	: Henning_Chang
EUT	: Remote Control M/N:TX3314S		
Power Rating	: DC 12V		
Test Mode	: Keyless-Side		

Data: **3** File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
Level (dBuV/m)

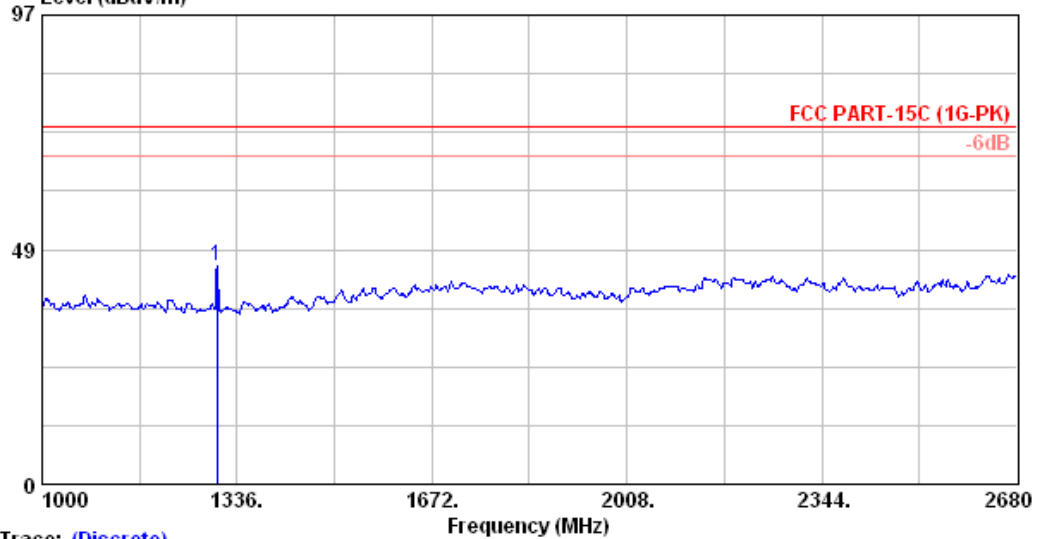


Trace: (Discrete)

Site no.	: A/C Chamber	Data no.	: 3
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART-15C (1G-PK)		
Env. / Ins.	: E7405A 28°C/63%	Engineer	: Henning_Chang
EUT	: Remote Control M/N:TX3314S		
Power Rating	: DC 12V		
Test Mode	: Keyless-Side		

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Stand Fundamental Freq. : 433.92MHz

Data: 4 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

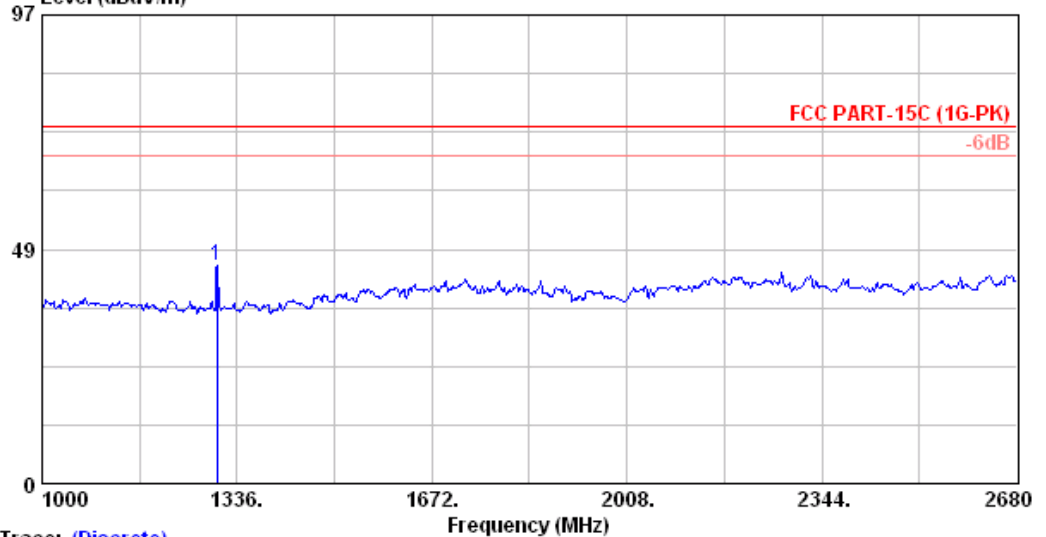
Site no. : A/C Chamber Data no. : 4
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Stand

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1301.700	25.33	4.84	14.90	45.07	74.00	28.93	Peak	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Stand Fundamental Freq. : 433.92MHz

Data: 3 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

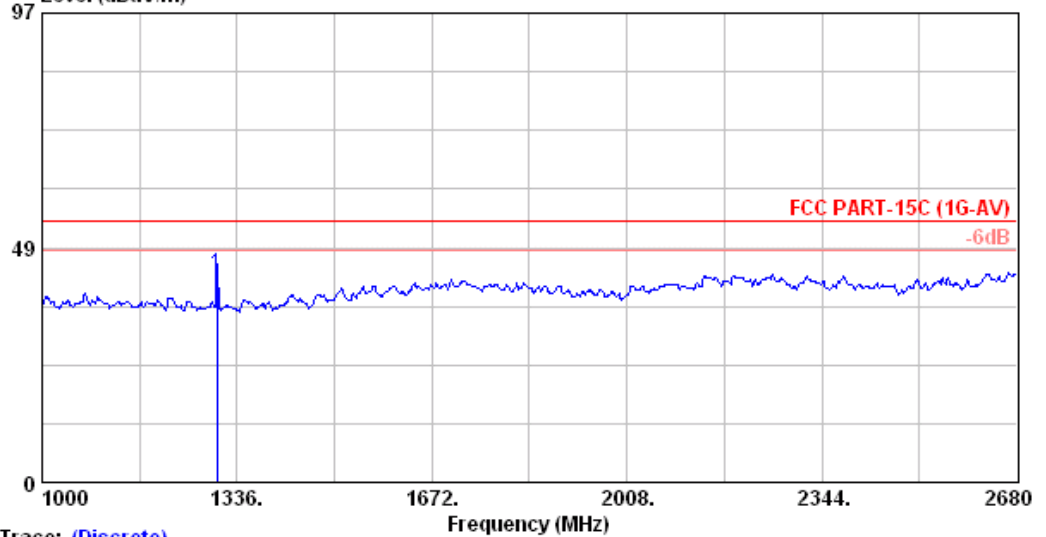
Site no. : A/C Chamber Data no. : 3
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Stand

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1301.700	25.33	4.84	14.99	45.16	74.00	28.84	Peak	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Peak values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Stand Fundamental Freq. : 433.92MHz

Data: 8 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

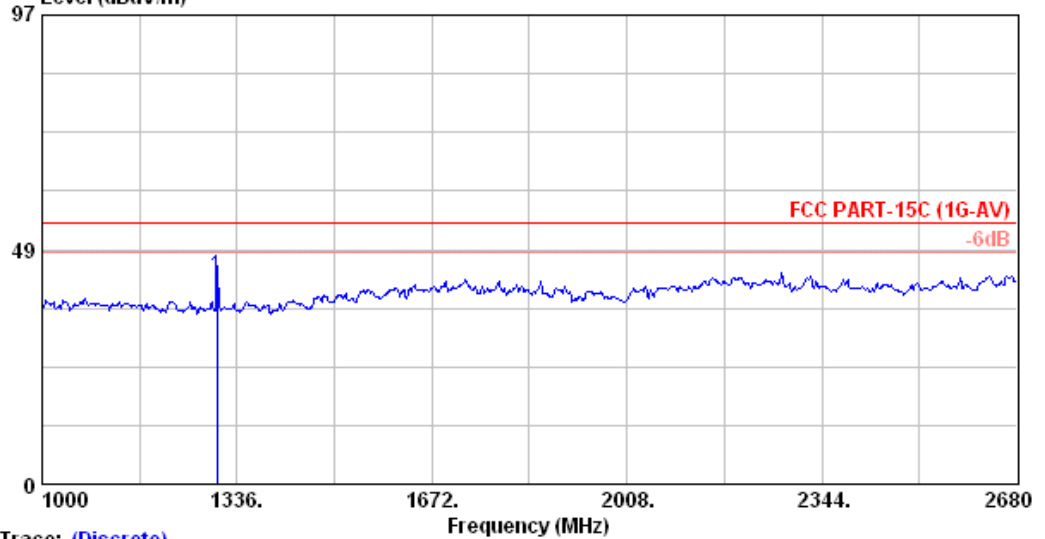
Site no. : A/C Chamber Data no. : 8
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Stand

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1301.700	25.33	4.84	12.90	43.07	54.00	10.93	Average	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Average values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Stand Fundamental Freq. : 433.92MHz

Data: 7 File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

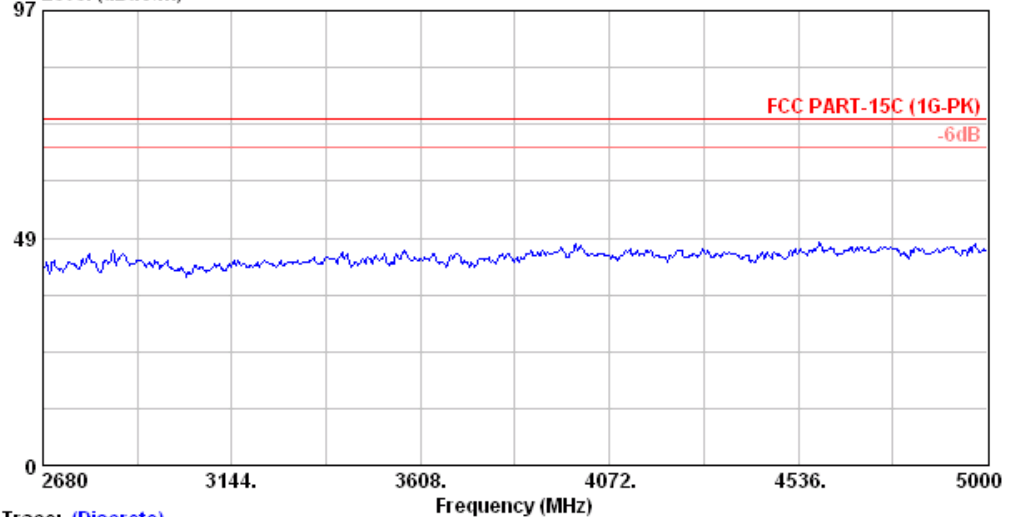
Site no. : A/C Chamber Data no. : 7
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Stand

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1301.700	25.33	4.84	12.99	43.16	54.00	10.84	Average	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All readings are Average values.

Date of Test : Dec. 20, 2007 Temperature : 28°C
 EUT : Remote Control (Transmitter) Humidity : 63%
 Test Position : EUT on Stand Fundamental Freq. : 433.92MHz

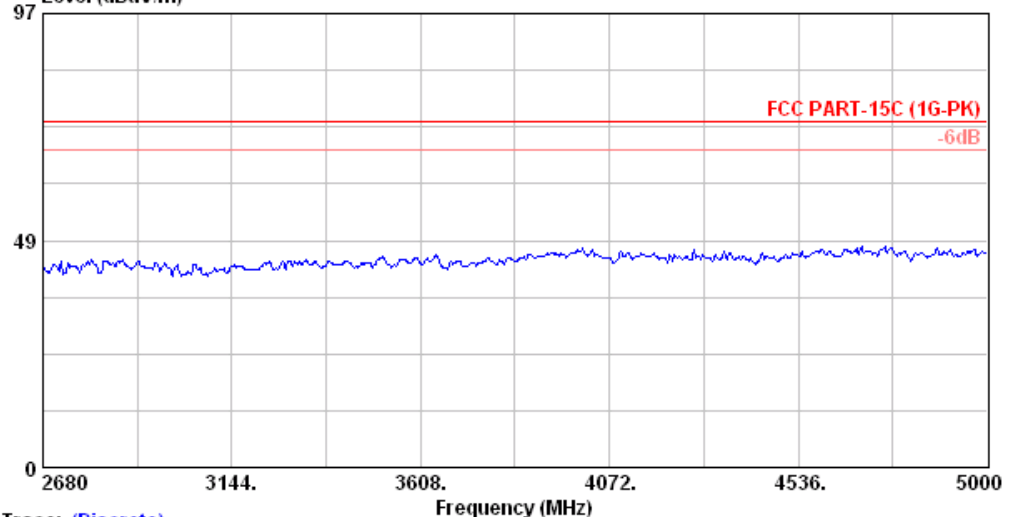
Data: **5** File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 5
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Stand

Data: **6** File: C:\Documents and Settings\RF_room\桌面\RF Test\433.92MHz\Spurious-TX1\TX-122
 Level (dBuV/m)



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 6
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : E7405A 28°C/63% Engineer : Henning_Chang
 EUT : Remote Control M/N:TX3314S
 Power Rating : DC 12V
 Test Mode : Keyless-Stand

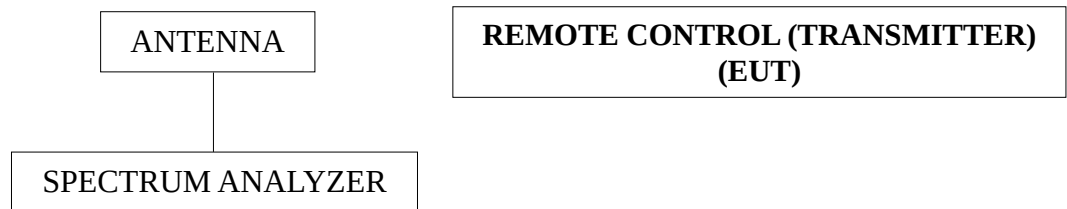
4. EMISSION BANDWIDTH MEASUREMENT

4.1. Test Equipment

The following test equipment were used during the Bandwidth Measurement :

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug. 13, 07'	Aug. 12, 08'
2.	Wide Band Antenna	Diamond	RH799	N/A	N/A	N/A

4.2. Block Diagram of Test Setup



4.3. Specification Limits [§15.231-(c)]

The bandwidth of emission shall be no wider than 0.25% of the center frequency for device operating above 70MHz and below 900MHz. Bandwidth is determined at the points 20dB down from the modulated carrier.

4.4. EUT's Configuration during Compliance Measurement

The configuration of EUT were same as section 3.4.

4.5. Emission Bandwidth Measurement Results

PASSED. (0.012% < 0.25%)

Fundamental Frequency: 433.92MHz

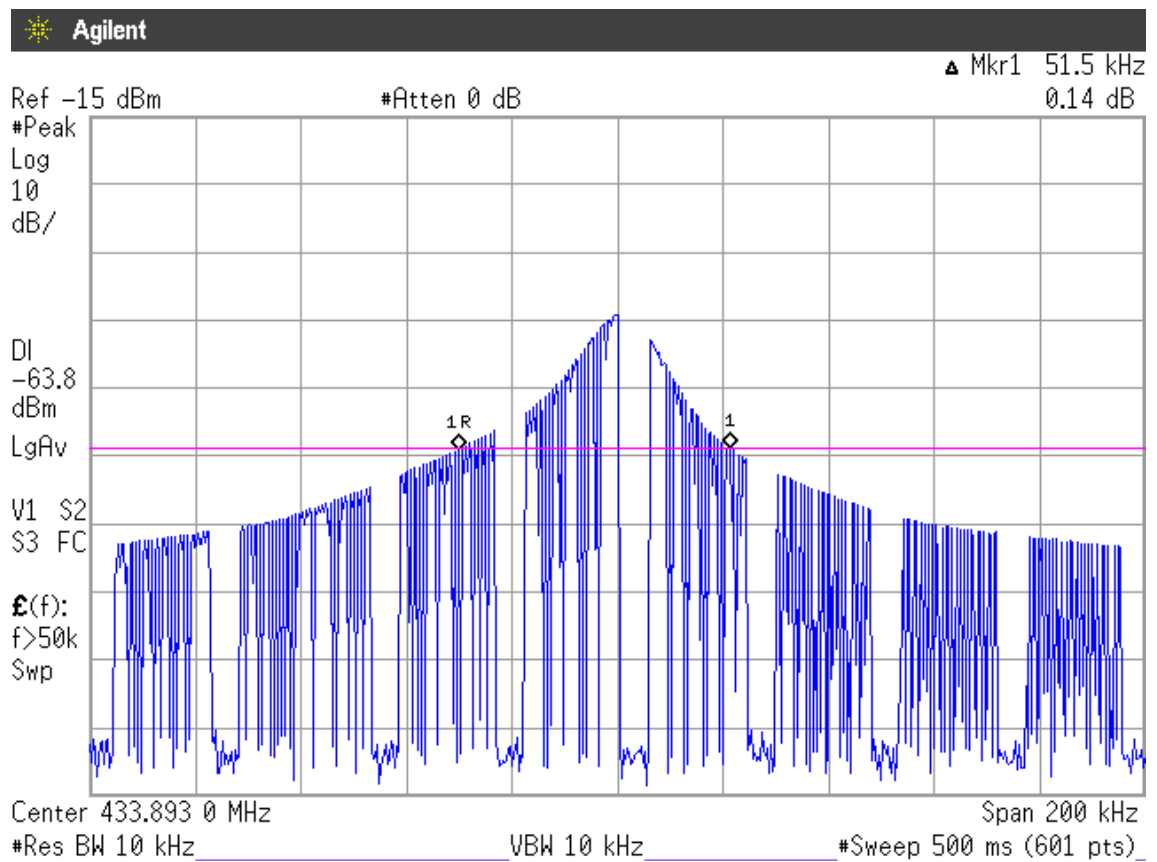
Test Date : Dec. 18, 2007 Temperature : 28°C Humidity : 36%

Test Voltage: DC 12V

No.	Center Frequency	Bandwidth	Tolerance (%)
1.	433.893MHz	51.5kHz	0.012%

The graph of bandwidth measured is attached in next page.

(Graph of Bandwidth Measurement)



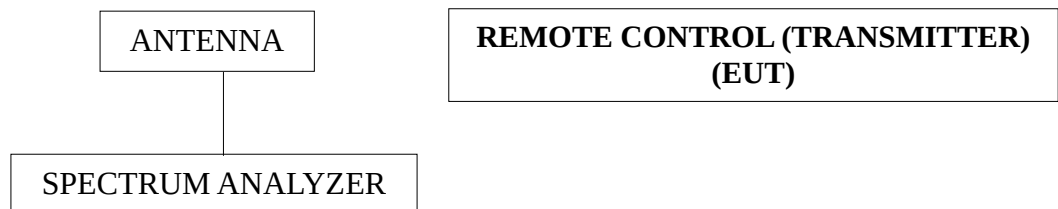
5. PERIODIC OPERATED MEASUREMENT

5.1. Test Equipment

The following test equipment were used during the periodic operated Measurement :

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug. 13, 07'	Aug. 12, 08'
2.	Wide Band Antenna	Diamond	RH799	N/A	N/A	N/A

5.2. Block Diagram of Test Setup



5.3. Specification Limits [§15.231-(a)-(1)]

The operation of this device is manually operated transmitter that is automatically deactivated the transmitter within not more than 5 seconds of being released, Compliance with §15.231 (a)- (1).

5.4. EUT's Configuration during Compliance Measurement

The configuration of EUT were same as section 3.4.

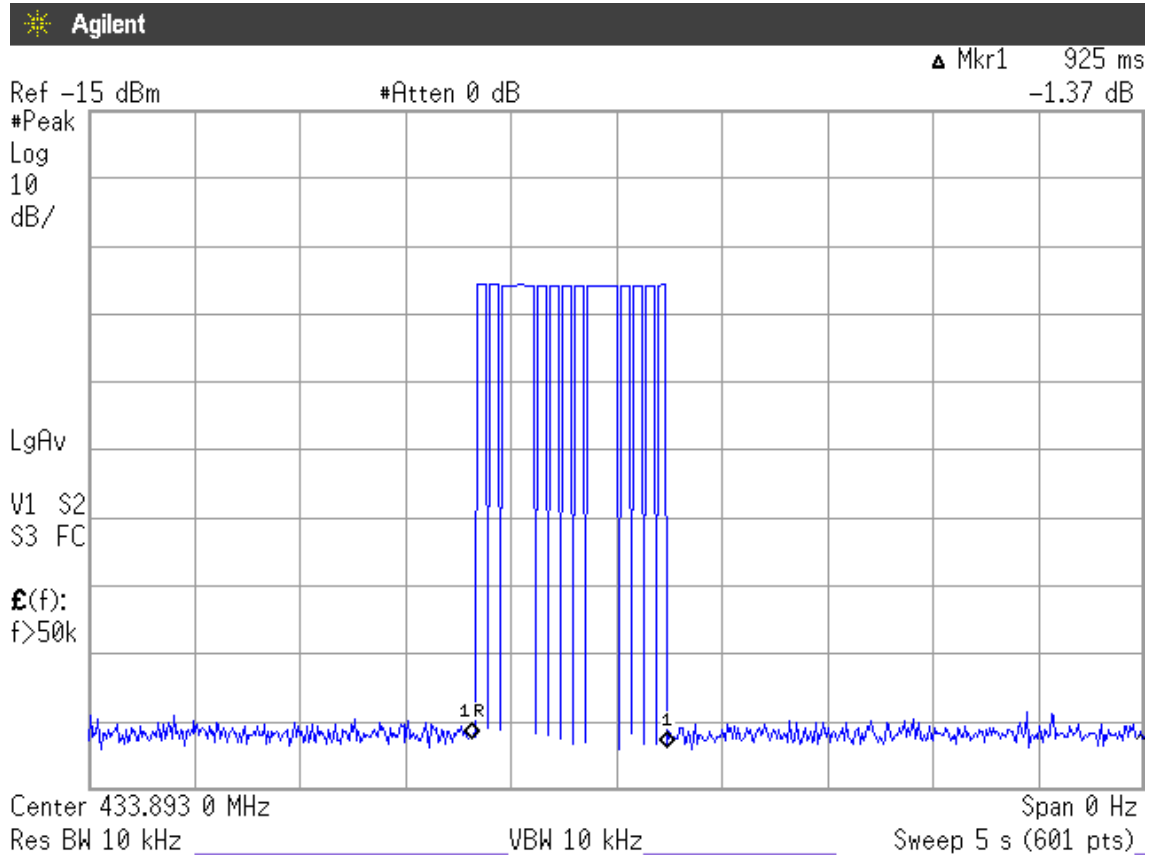
5.5. Periodic Operated Measurement Results

PASSED. T = 925ms. (< 5sec.)

Test Date : Dec. 18, 2007 Temperature : 28°C Humidity : 36%

Test Voltage: DC 12V

The graph of testing is attached in next page.

(Graph of Periodic Operated Measurement)

6. DEVIATION TO TEST SPECIFICATIONS

【NONE】