

APPLICATION FOR CERTIFICATION  
On Behalf of  
Dynamco Pty. Ltd.

Remote Relay (Transmitter)

Model : TX97

FCC ID : PJ9TX97

Prepared for : Dynamco Pty. Ltd.  
10 Brown Street, East Perth,  
Western Australia 6004 Australia

Prepared by : Audix Corporation  
Technical Division EMC Department  
No. 53-11, Tin-Fu Tsun, Lin-Kou,  
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File Number : EM950572  
Report Number : EM-F950155  
Date of Test : May 04 ~ 06, 2006  
Date of Report : May 11, 2006

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# TEST REPORT CERTIFICATION

Applicant : Dynamco Pty. Ltd.  
Manufacturer : Tesor Plus Corp.  
EUT Description : Remote Relay (Transmitter)  
FCC ID : PJ9TX97  
(A) MODEL NO. : TX97  
(B) SERIAL NO. : N/A  
(C) POWER SUPPLY : DC 6V Battery

Measurement Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART C, FEB 2006  
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 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 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 CORPORATION.

Date of Test: May 04 ~ 06, 2006

Prepared by: Cherry Wang May 18, 2006  
(Cherry Wang/Section Manager)

Test Engineer: Ben Cheng May 19, 2006  
(Ben Cheng/Section Manager)

Approved & Authorized Signer: Leon Liu May. 19 2006  
(Leon Liu/Senior Manager)

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

Description : Remote Relay (Transmitter)  
This remote relay is use of immobiliser vehicle security system.

Model Number : TX97

FCC ID : PJ9TX97

Applicant : Dynamco Pty. Ltd.  
10 Brown Street, East Perth,  
Western Australia 6004 Australia

Manufacturer : Tesor Plus Corp.  
37, Lane 136, Chung-Hsing N.St.,  
San-Chung, Taipei Hsien, Taiwan

Fundamental Frequency : 433MHz

Power Supply : DC 6V Battery

Date of Receipt of Sample : Apr. 21, 2006

Date of Test : May 04 ~ 06, 2006

#### **Remark:**

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.

## 1.2. Description of Test Facility

Name of Firm : Audix Corporation  
 Technical Division EMC Department  
 No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,  
 Taipei Hsien 24443, Taiwan, R.O.C.

Test Location & Facility : **Semi-Anechoic Chamber**  
 (A/C) No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,  
 Taipei Hsien 24443, Taiwan, R.O.C.

May. 16, 2003 Re-File on  
 Federal Communication Commission  
 Registration Number: 90993

NVLAP Lab. Code : 200077-0

## 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

Remark : Uncertainty =  $ku_c(y)$

## 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 30MHz~1000MHz Frequency (at Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep.25, 05'	Sep.24, 06'
2.	Test Receiver	R&S	ESCS 30	100265	Sep.27, 05'	Sep.26, 06'
3.	Pre-Amplifier	HP	8447D	2944A06305	Mar.09, 06'	Mar.08, 07'
4.	Biconical Antenna	CHASE	VBA6106A	1264	Nov.11, 05'	Nov.10, 06'
5.	Log Periodic Antenna	Schwarzbeck	UHALP9108-A	0139	Nov.19, 05'	Nov.18, 06'
6.	Coaxial Switch	Anritsu	MP59B	6100226512	Mar.11, 06'	Mar.10, 07'

##### 3.1.2. For 1GHz~5GHz frequency (at Semi-Anechoic Chamber)

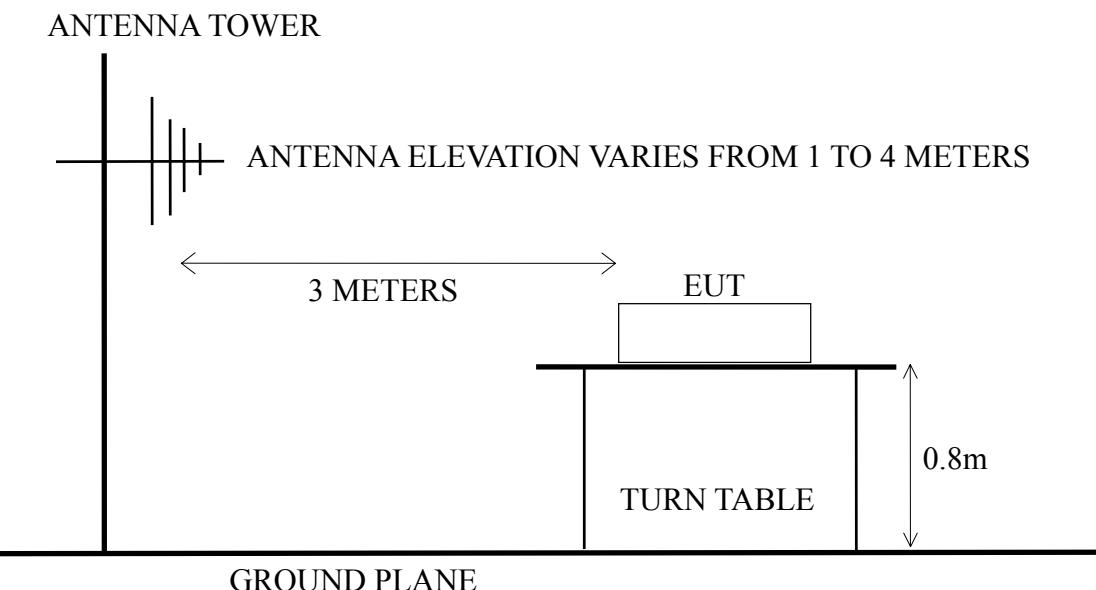
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep.25, 05'	Sep.24, 06'
2.	Pre-Amplifier	HP	8449B	3008A01284	Jul.05, 05'	Jul.04, 06'
3.	Horn Antenna	EMCO	3115	9609-4927	Jul.08, 05'	Jul.07, 06'

#### 3.2. Test Setup

##### 3.2.1. Block Diagram of connection between EUT and simulators



##### 3.2.2. Semi-Anechoic Chamber (3m) Setup Diagram



### 3.3. Radiation Limit (§15.231)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMITS	
		µV/m	dBµV/m
Fundamental Freq.	3	10958.34	80.795 (Quasi-Peak)
Spurious Emission	3	1095.834	60.795 (Quasi-Peak)
Above 1GHz *(6)	3	---	74 (Peak)
Above 1GHz *(6)	3	---	54 (Average)

Remark :

- (1) Emission level (dBµV/m) = 20 log Emission level (µV/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:  

$$41.6667 \times 433 - 7083.3333 = 10958.34 \mu\text{V}/\text{m} = 80.795 \text{dB}\mu\text{V}/\text{m}$$
 limit of spurious emission is  $80.795 \text{dB}\mu\text{V}/\text{m} - 20 \text{dB} = 60.795 \text{dB}\mu\text{V}/\text{m}$
- (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).

### 3.4. 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 Relay (Transmitter) (EUT)

Model Number	:	TX97
Serial Number	:	N/A
Manufacturer	:	Tesor Plus Corp.
FCC ID.	:	PJ9TX97
Fundamental Frequency	:	433MHz

### 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 Relay (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	# 5.	# 6.
2.	EUT on Side, Transmitting Mode	# 6.	# 5.
3.	EUT on Stand, Transmitting Mode	# 5.	# 6.
Frequency Range: 1000-2678MHz			
1.	EUT on Lie, Transmitting Mode	# 4.	# 3.
2.	EUT on Side, Transmitting Mode	# 4.	# 3.
3.	EUT on Stand, Transmitting Mode	# 4.	# 3.
Frequency Range: 2678-5000MHz			
1.	EUT on Lie, Transmitting Mode	# 1.	# 2.
2.	EUT on Side, Transmitting Mode	# 1.	# 2.
3.	EUT on Stand, Transmitting Mode	# 1.	# 2.

### 3.7. Radiated Emission Noise Measurement Results

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

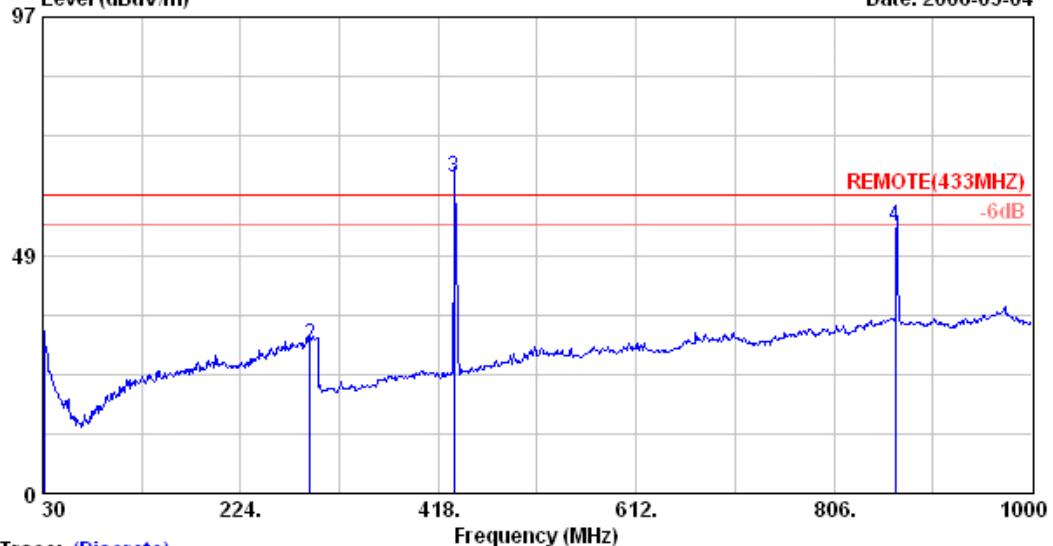
All the emissions not reported below are too low against the FCC part 15 Subpart C limit.

Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Lie Fundamental Freq. : 433MHz

Data: 5 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Lie.EMI (6) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 5  
 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL  
 Limit : REMOTE(433MHZ)  
 Env. / Ins. : 8593EM 26\*C/62% Engineer : Alvin\_Yang  
 EUT : Remote Relay M/N:TX97  
 Power Rating : DC 6V  
 Test Mode : Lie

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission			
				Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Remark
1 31.940	24.26	1.10	3.24	28.60	60.80	32.19	QP
2 291.900	26.17	3.90	0.10	30.17	60.80	30.63	QP
3 433.200	17.33	5.20	41.78	64.31	80.80	16.49	QP
4 866.400	25.97	7.20	21.34	54.52	60.80	6.28	QP

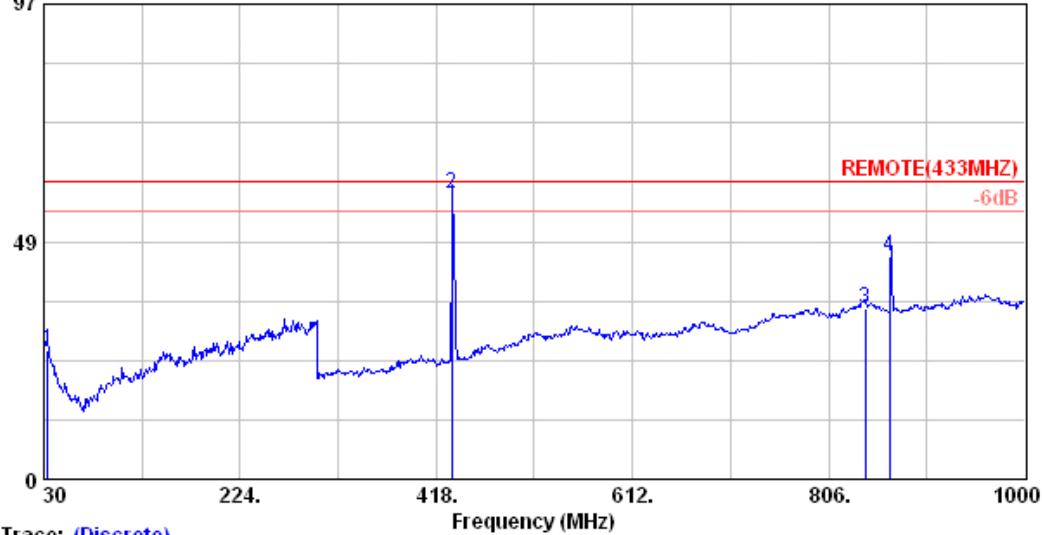
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All readings are Quasi-Peak values.

Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Lie Fundamental Freq. : 433MHz

Data: 6 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Lie.EMI (6)  
Level (dB $\mu$ V/m) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 6  
Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL  
Limit : REMOTE (433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Lie

Freq. (MHz)	Ant. Cable		Emission				Remark
	Factor (dB/m)	Loss (dB)	Reading (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	
1 33.880	21.97	1.10	3.16	26.23	60.80	34.57	QP
2 433.200	17.19	5.20	35.75	58.14	80.80	22.66	QP
3 841.890	26.62	7.10	0.94	34.66	60.80	26.13	QP
4 866.400	25.35	7.20	12.79	45.34	60.80	15.46	QP

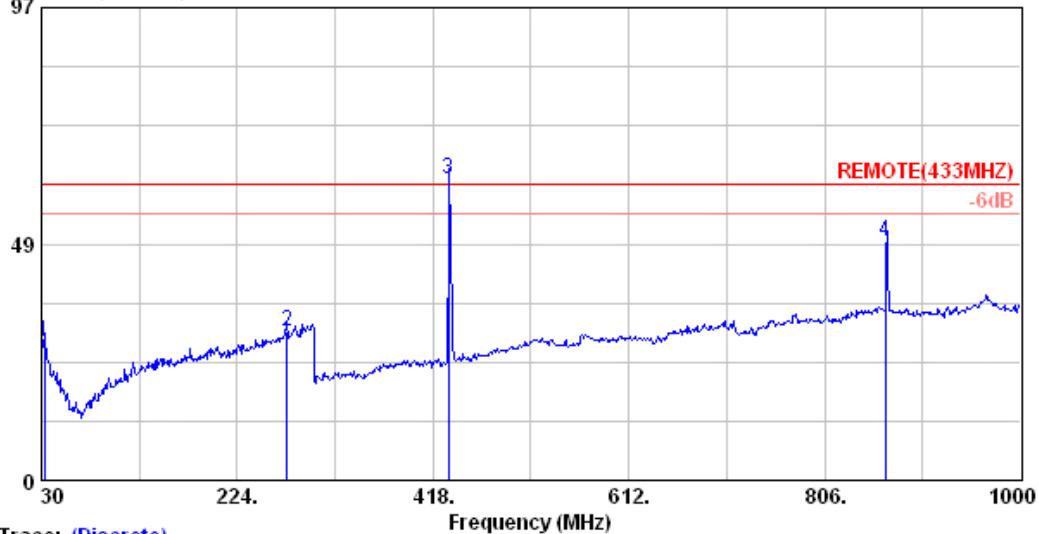
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.  
3. All readings are Quasi-Peak values.

Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Side Fundamental Freq. : 433MHz

Data: 6 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Side.EMI (6) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 6  
 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL  
 Limit : REMOTE (433MHZ)  
 Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
 EUT : Remote Relay M/N:TX97  
 Power Rating : DC 6V  
 Test Mode : Side

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission			
				Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Remark
1 32.910	23.42	1.10	3.74	28.26	60.80	32.53	QP
2 273.470	25.14	3.70	1.67	30.51	60.80	30.29	QP
3 433.200	17.33	5.20	39.34	61.87	80.80	18.92	QP
4 866.400	25.97	7.20	15.72	48.90	60.80	11.90	QP

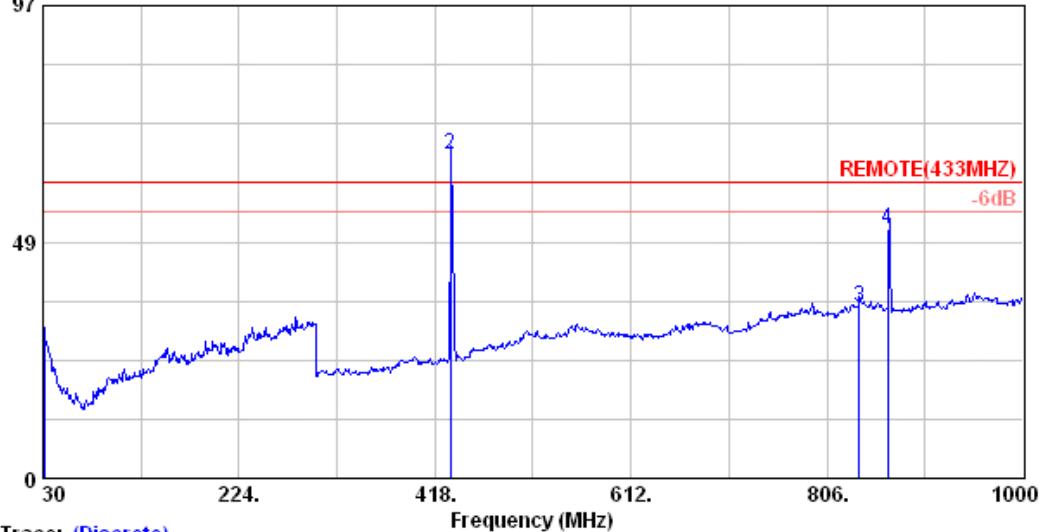
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All readings are Quasi-Peak values.

Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Side Fundamental Freq. : 433MHz

Data: 5 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Side.EMI (6)  
Level (dB $\mu$ V/m) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 5  
Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL  
Limit : REMOTE (433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Side

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission			
				Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Remark
1 31.940	31.940	22.57	1.10	3.03	26.69	60.80	34.10 QP
2 433.200	433.200	17.19	5.20	43.98	66.37	80.80	14.42 QP @
3 838.010	838.010	26.57	7.10	1.58	35.25	60.80	25.54 QP
4 866.400	866.400	25.35	7.20	18.69	51.24	60.80	9.56 QP

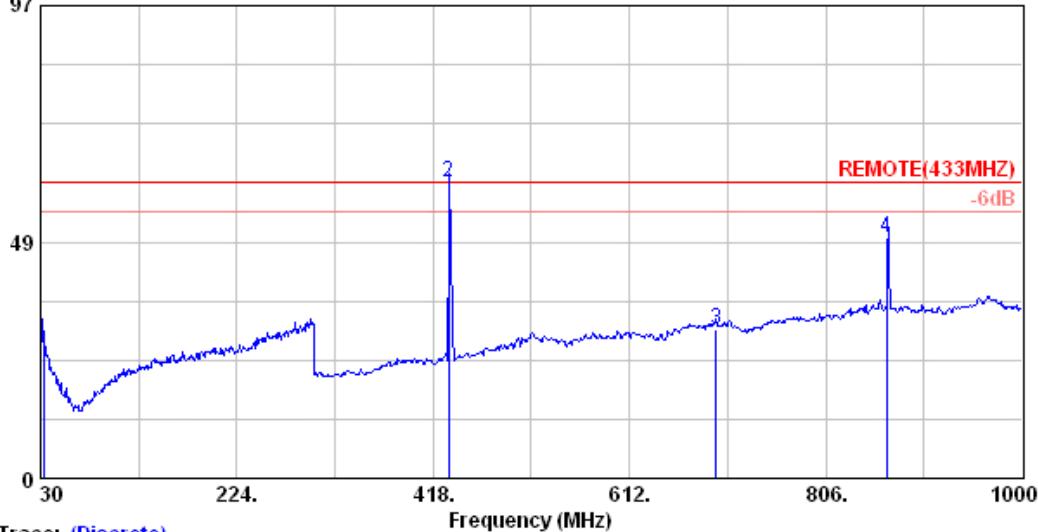
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.  
3. All readings are Quasi-Peak values.

Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Stand Fundamental Freq. : 433MHz

Data: 5 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Stand.EMI (6) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 5  
 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL  
 Limit : REMOTE (433MHZ)  
 Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
 EUT : Remote Relay M/N:TX97  
 Power Rating : DC 6V  
 Test Mode : Stand

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Remark
1 32.910	23.42	1.10	3.74	28.26	60.80	32.53	QP
2 433.200	17.33	5.20	38.16	60.69	80.80	20.11	QP @
3 697.360	23.32	6.50	0.82	30.64	60.80	30.16	QP
4 866.400	25.97	7.20	16.21	49.39	60.80	11.41	QP

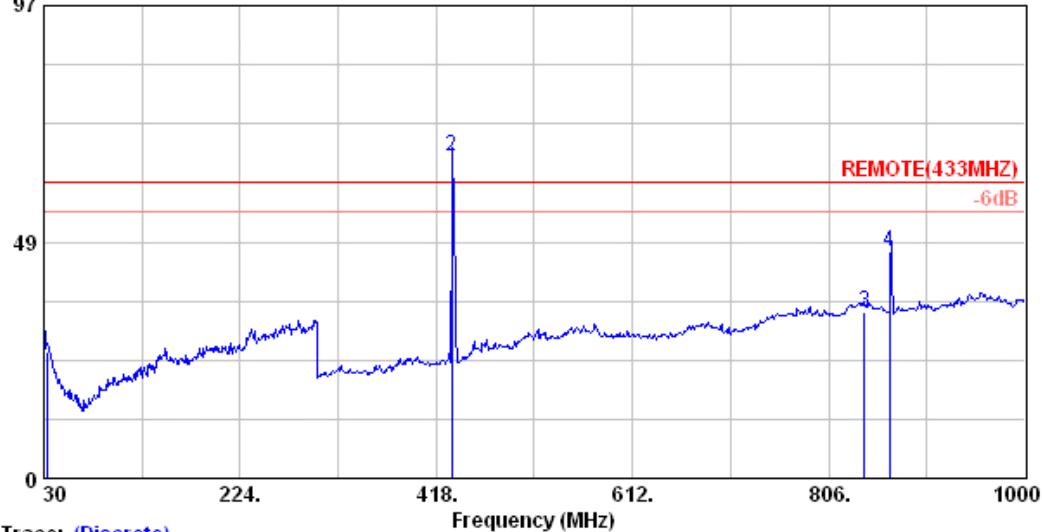
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. All readings are Quasi-Peak values.

Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Stand Fundamental Freq. : 433MHz

Data: 6 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Stand.EMI (6)  
Level (dB $\mu$ V/m) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 6  
Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL  
Limit : REMOTE (433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Stand

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission			
			Reading (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)
1 32.910	22.11	1.10	2.58	25.79	60.80	35.01 QP
2 433.200	17.19	5.20	43.54	65.93	80.80	14.86 QP @
3 840.920	26.62	7.10	0.52	34.24	60.80	26.56 QP
4 866.400	25.35	7.20	13.86	46.41	60.80	14.39 QP

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.

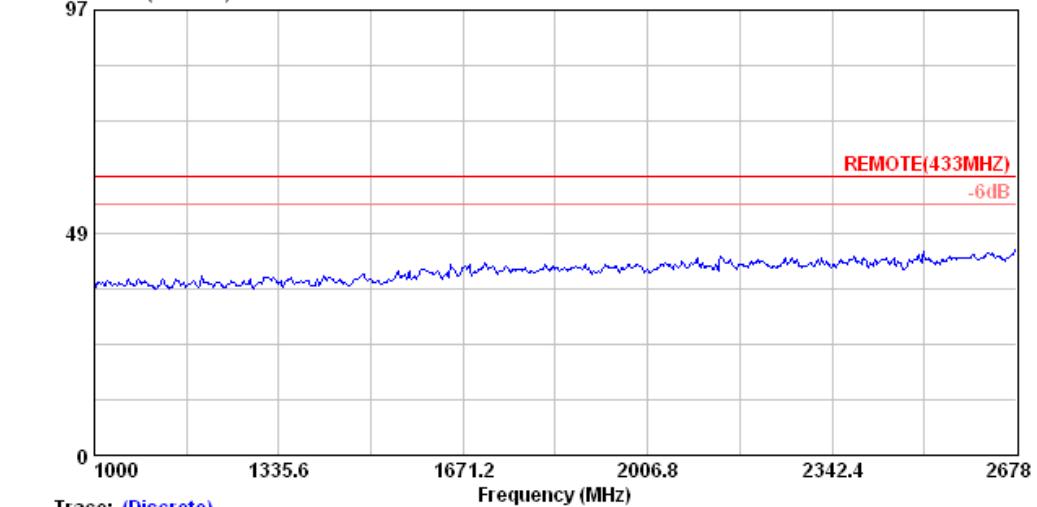
The frequency spectrum from 1GHz to 5GHz (up to 10<sup>th</sup> harmonics) was investigated. All the emissions not reported below are too low against the FCC part 15 Subpart C limit.

Date of Test : May 04, 2006 Temperature : 26°C

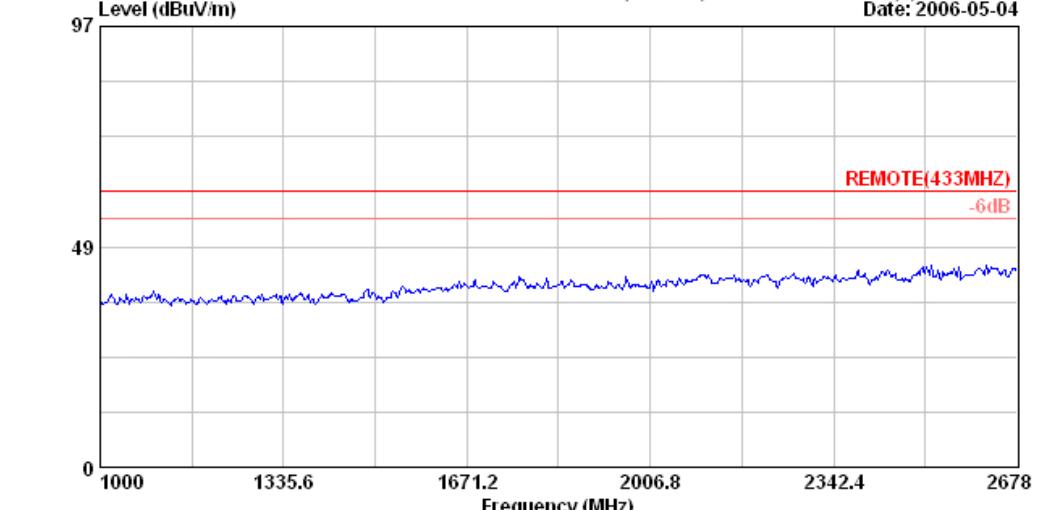
EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Lie Fundamental Freq. : 433MHz

Data: 4 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Lie.EMI (6) Date: 2006-05-04



Data: 3 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Lie.EMI (6) Date: 2006-05-04

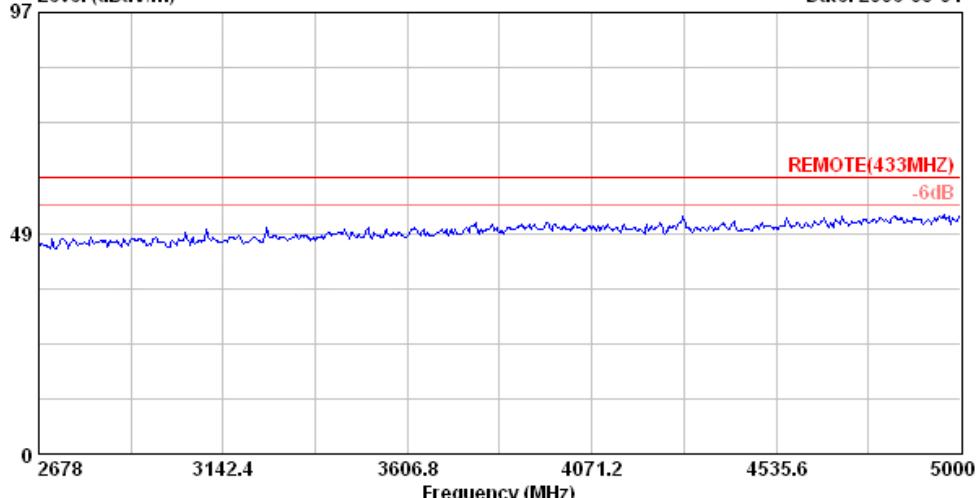


Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Lie Fundamental Freq. : 433MHz

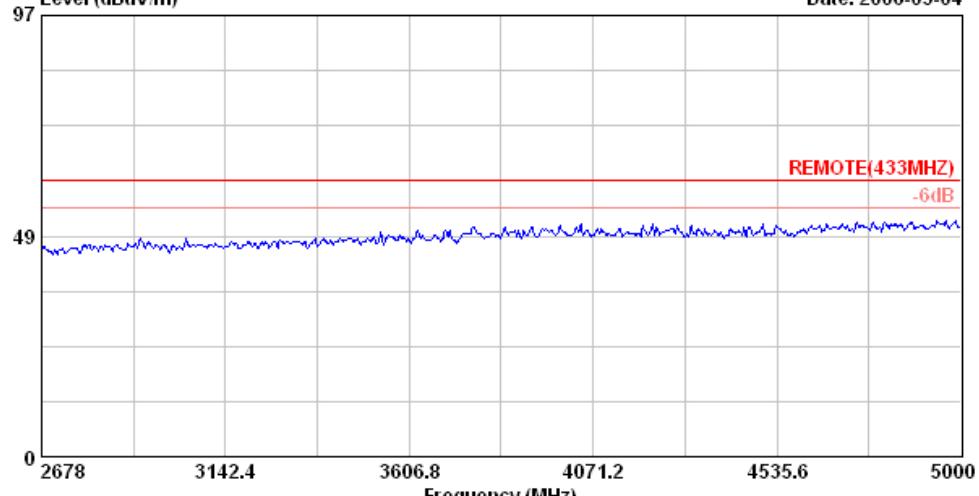
Data: 1 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Lie.EMI (6)  
Level (dBuV/m) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 1  
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
Limit : REMOTE(433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Lie

Data: 2 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Lie.EMI (6)  
Level (dBuV/m) Date: 2006-05-04



Trace: (Discrete)

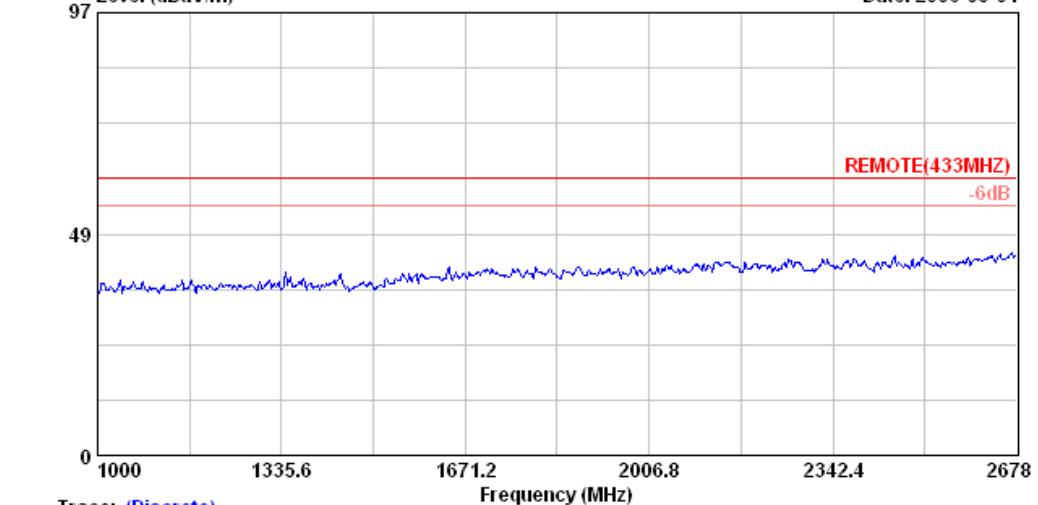
Site no. : A/C Chamber Data no. : 2  
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
Limit : REMOTE(433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Lie

Date of Test : May 04, 2006 Temperature : 26°C

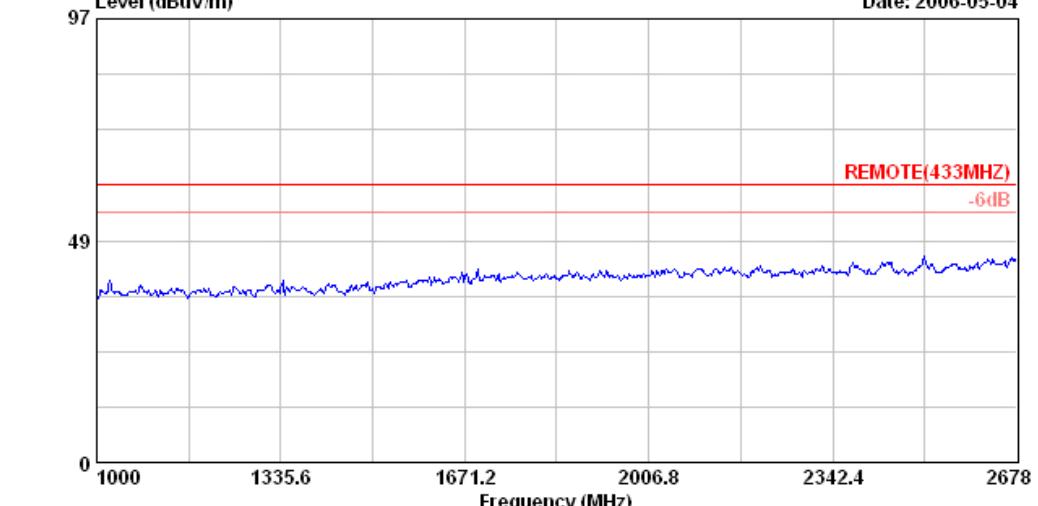
EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Side Fundamental Freq. : 433MHz

Data: 4 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Side.EMI (6)  
Level (dBuV/m) Date: 2006-05-04



Data: 3 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Side.EMI (6)  
Level (dBuV/m) Date: 2006-05-04

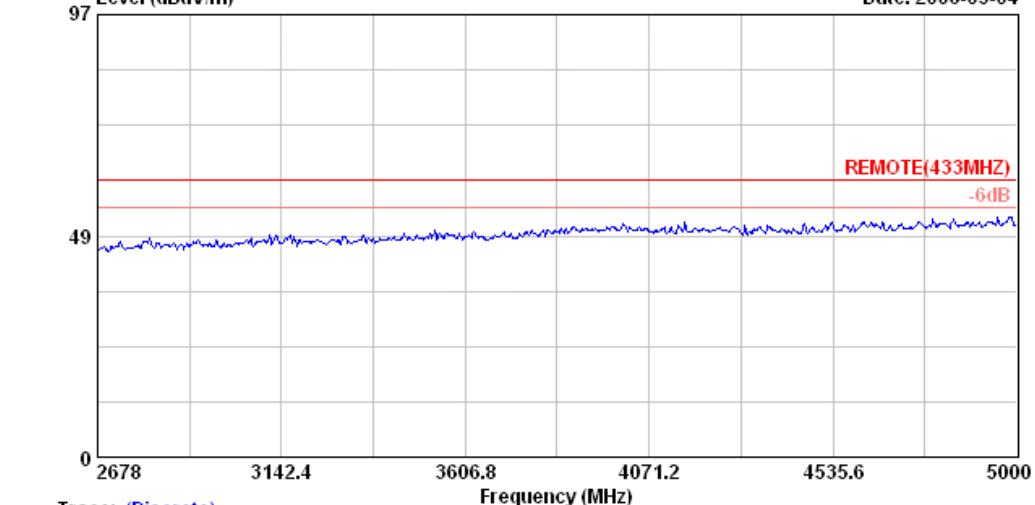


Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Side Fundamental Freq. : 433MHz

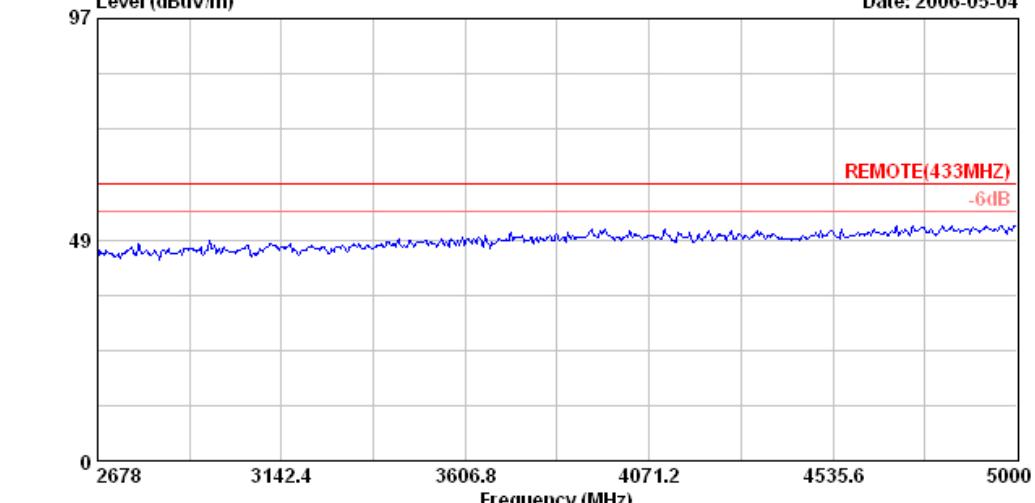
Data: 1 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Side.EMI (6)  
Level (dBuV/m) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 1  
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
Limit : REMOTE(433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Side

Data: 2 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Side.EMI (6)  
Level (dBuV/m) Date: 2006-05-04



Trace: (Discrete)

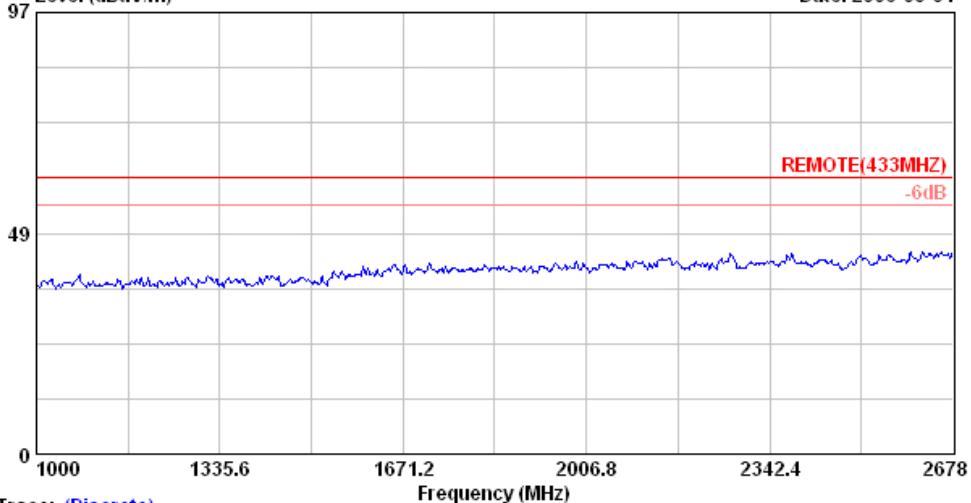
Site no. : A/C Chamber Data no. : 2  
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
Limit : REMOTE(433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Side

Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

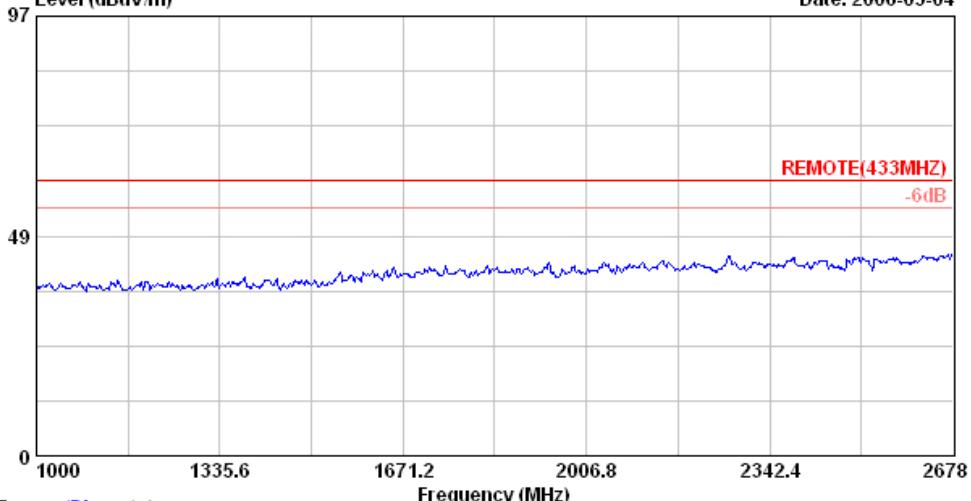
Test Position : EUT on Stand Fundamental Freq. : 433MHz

Data: 4 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Stand.EMI (6)  
Level (dBuV/m) Date: 2006-05-04



Trace: (Discrete)  
Site no. : A/C Chamber Data no. : 4  
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
Limit : REMOTE(433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Stand

Data: 3 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Stand.EMI (6)  
Level (dBuV/m) Date: 2006-05-04



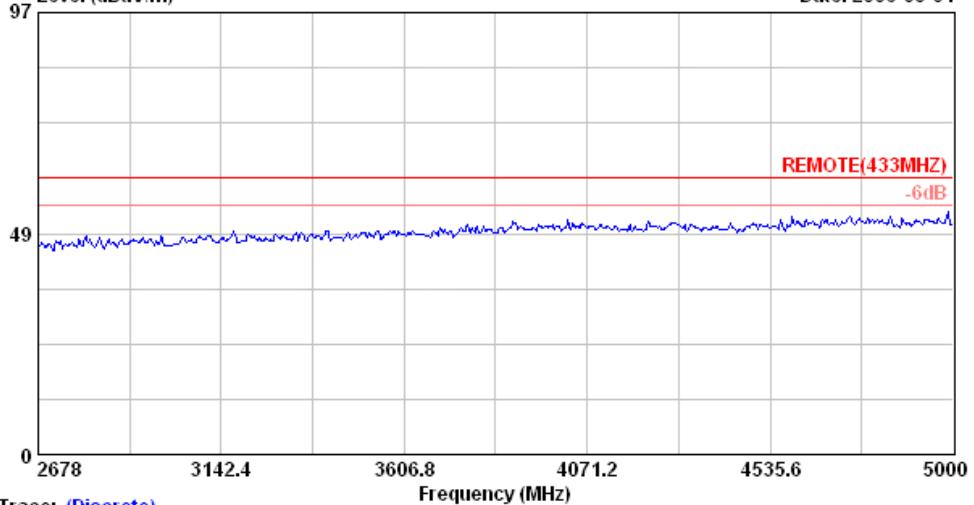
Trace: (Discrete)  
Site no. : A/C Chamber Data no. : 3  
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
Limit : REMOTE(433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Stand

Date of Test : May 04, 2006 Temperature : 26°C

EUT : Remote Relay (Transmitter) Humidity : 62%

Test Position : EUT on Stand Fundamental Freq. : 433MHz

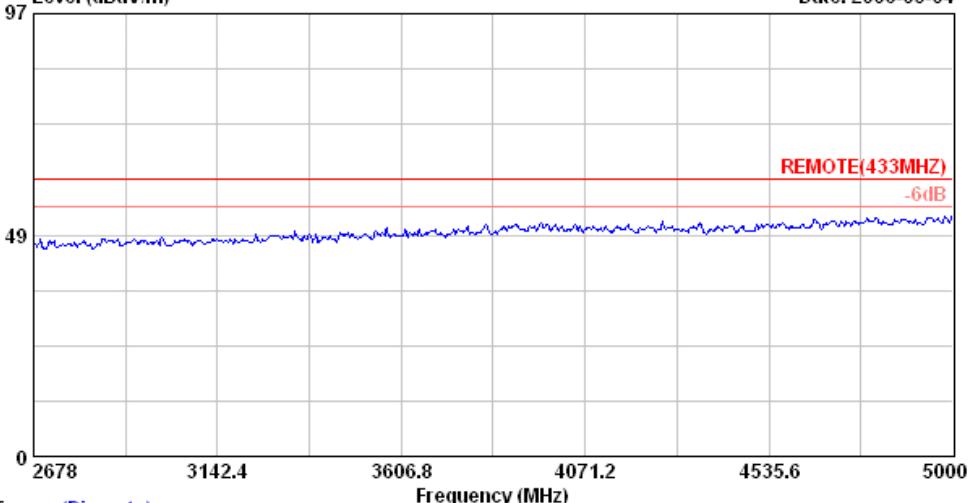
Data: 1 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Stand.EMI (6)  
Level (dBuV/m) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 1  
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
Limit : REMOTE(433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Stand

Data: 2 File: D:\Test&Photo\2006 DATA\EM950572(Remote)\DATA\470K\Stand.EMI (6)  
Level (dBuV/m) Date: 2006-05-04



Trace: (Discrete)

Site no. : A/C Chamber Data no. : 2  
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
Limit : REMOTE(433MHZ)  
Env. / Ins. : 8593EM 26°C/62% Engineer : Alvin\_Yang  
EUT : Remote Relay M/N:TX97  
Power Rating : DC 6V  
Test Mode : Stand

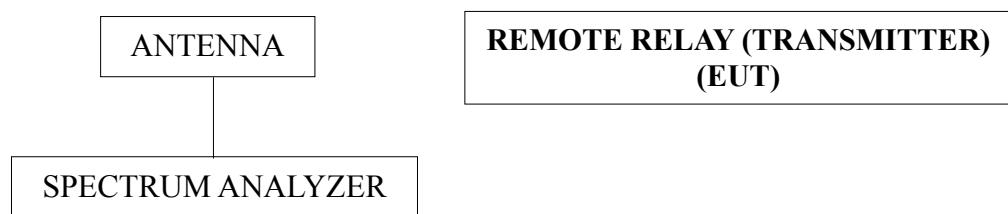
## 4. EMISSION BANDWIDTH MEASUREMENT

### 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.23, 05'	Aug.22, 06'
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.** (0.01065% < 0.25%)

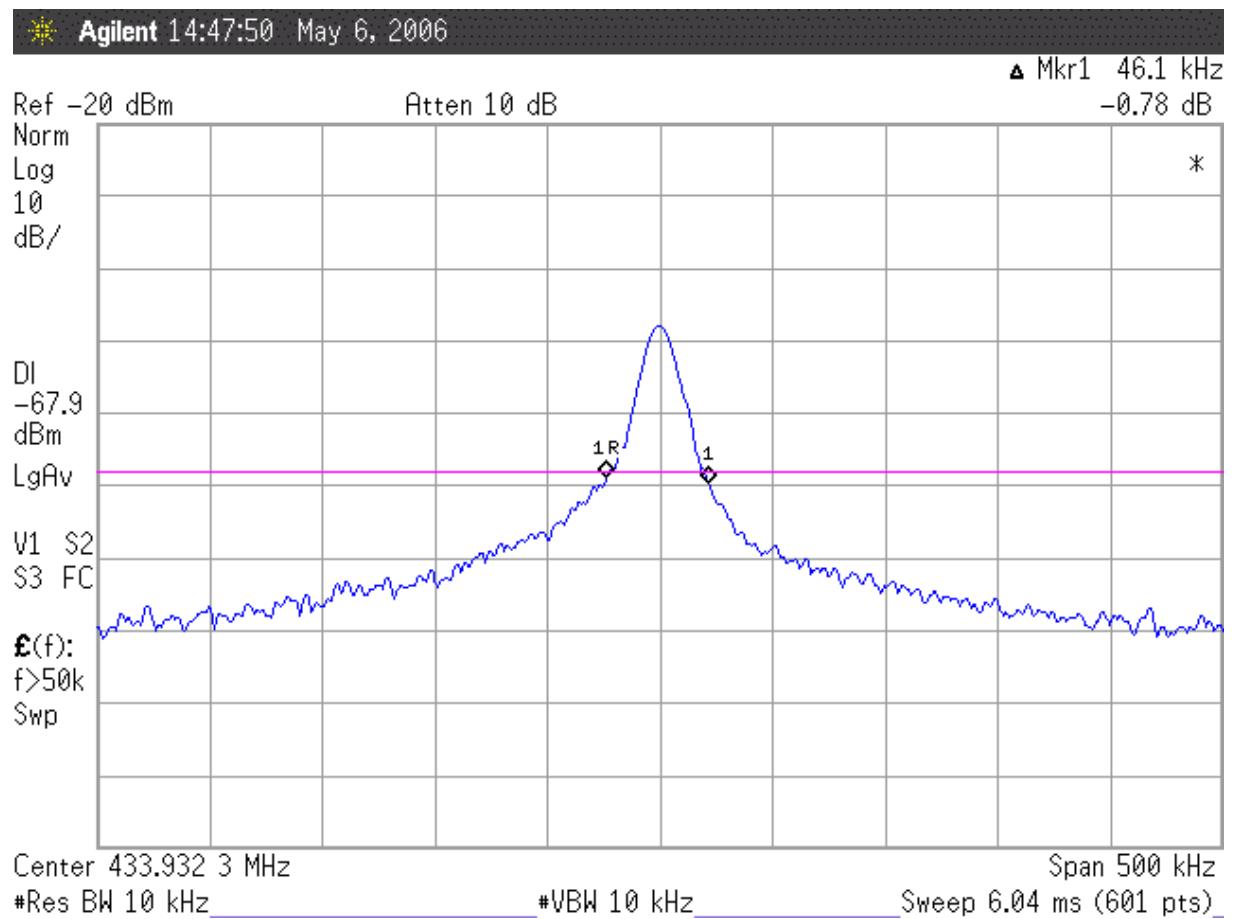
Fundamental Frequency: 433MHz

(Test Date: May 06, 2006, Temperature: 26°C, Humidity: 62% )

No.	Center Frequency	Bandwidth	Tolerance (%)
1.	433MHz	46.1kHz	0.01065%

The graph of bandwidth measured is attached in next page.

## (Graph of Bandwidth Measurement)



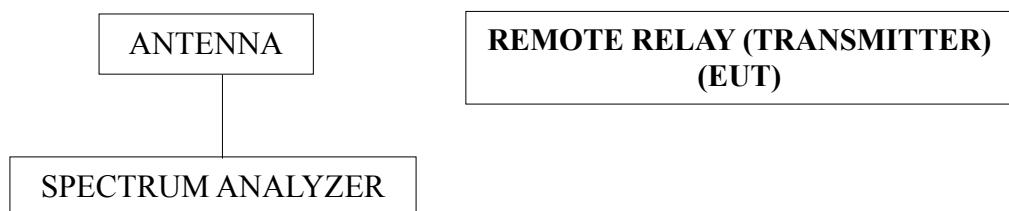
## 5. PERIODIC OPERATED MEASUREMENT

### 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.23, 05'	Aug.22, 06'
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

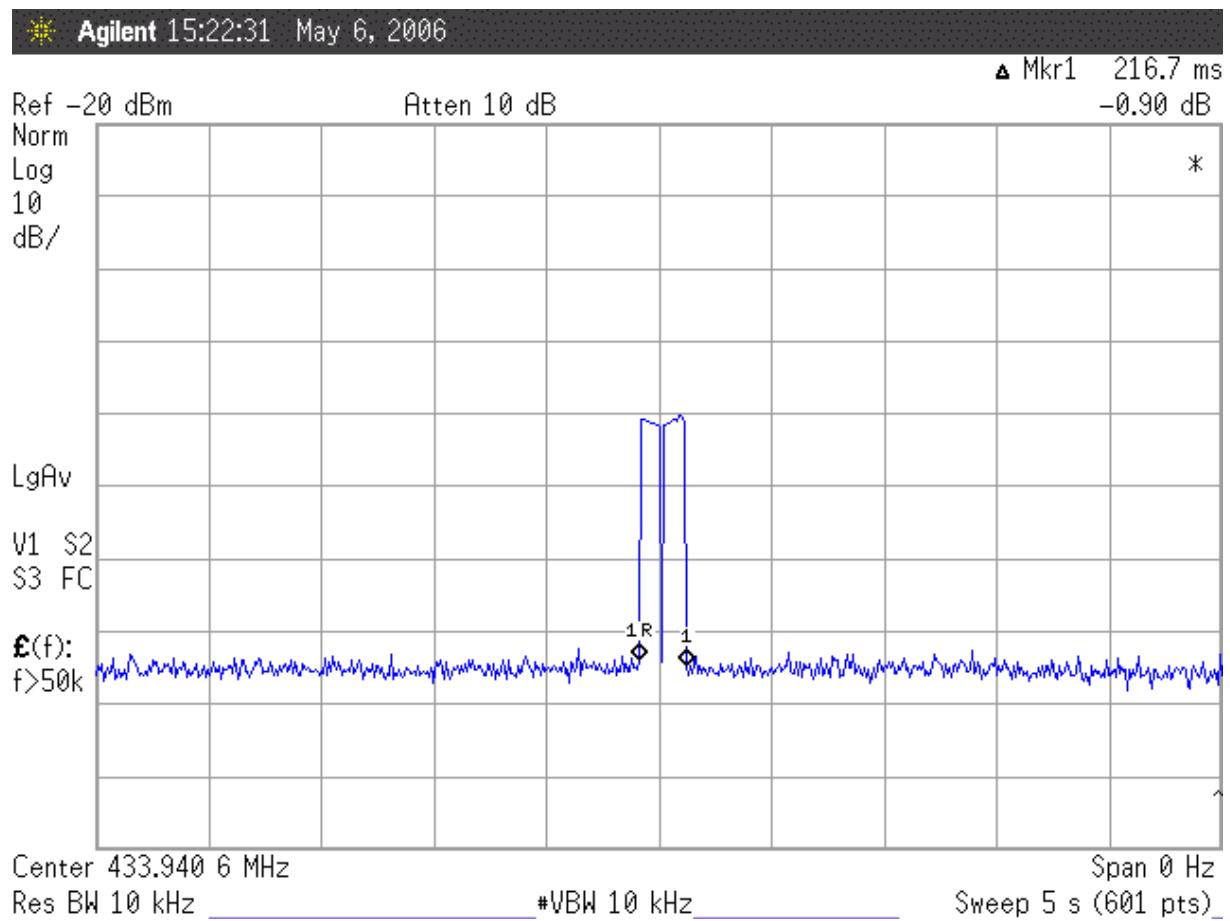
The configuration of EUT were same as section 3.4.

### 5.5. Periodic Operated Measurement Results

**PASSED.** T = 216.7ms. (< 5sec.)

(Test Date: May 06, 2006, Temperature: 26°C, Humidity: 62%)

The graph of testing is attached in next page.

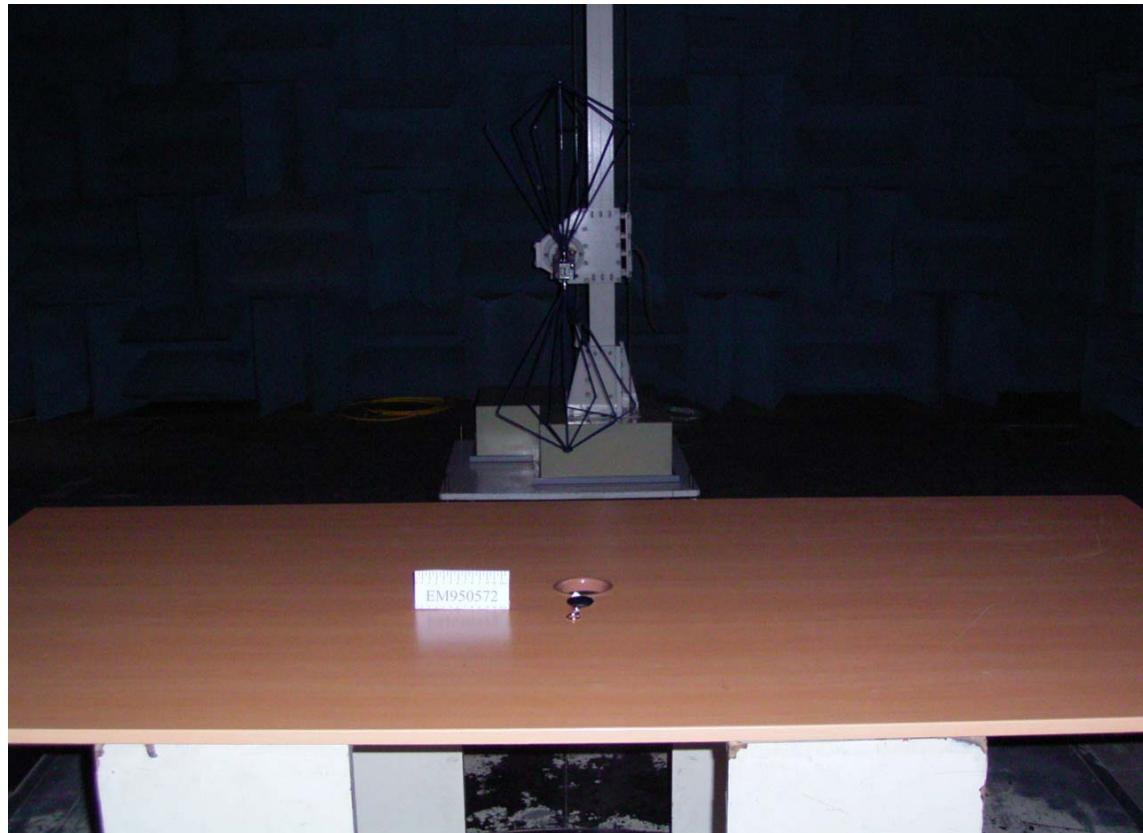
**(Graph of Periodic Operated Measurement)**

## 6. DEVIATION TO TEST SPECIFICATIONS

【NONE】

## 7. PHOTOGRAPHS

### 7.1. Photos of Radiated Measurement at Semi-Anechoic Chamber (30~1000MHz) EUT on Lie



EUT on Side



EUT on Stand

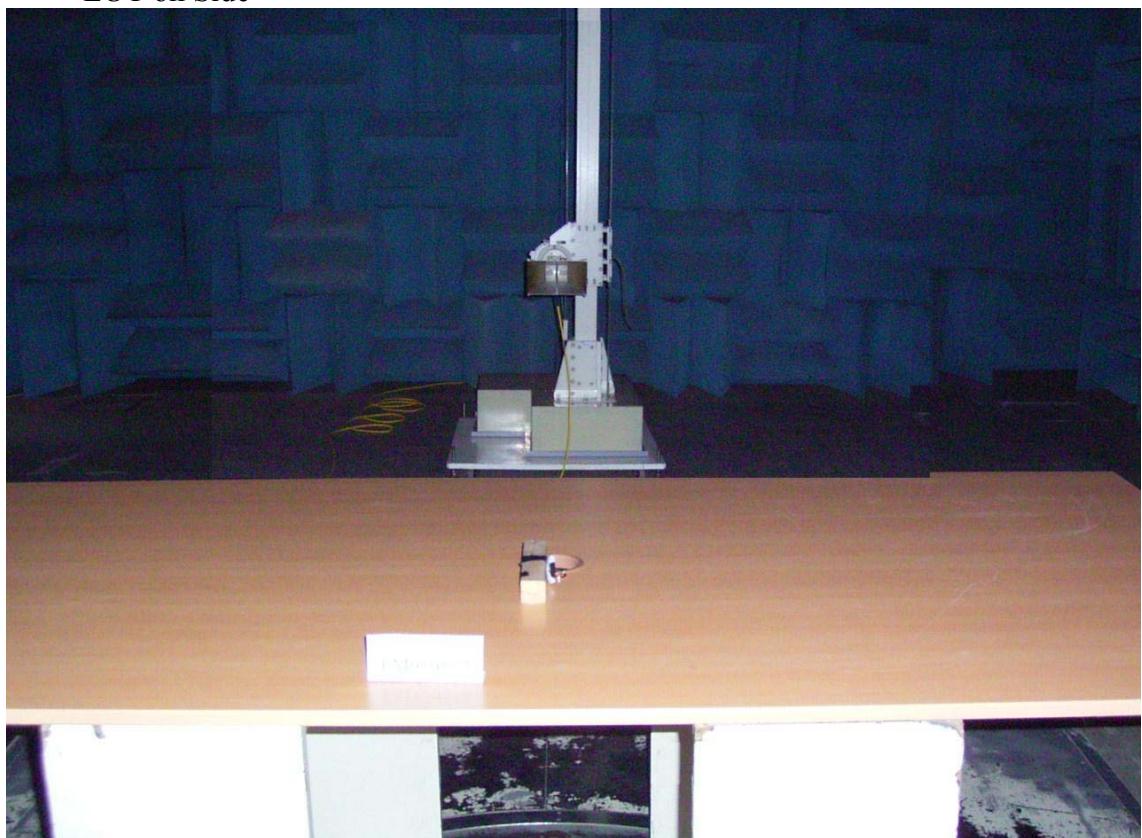


## 7.2. Photos of Radiated Measurement at Semi-Anechoic Chamber (1~5GHz)

EUT on Lie



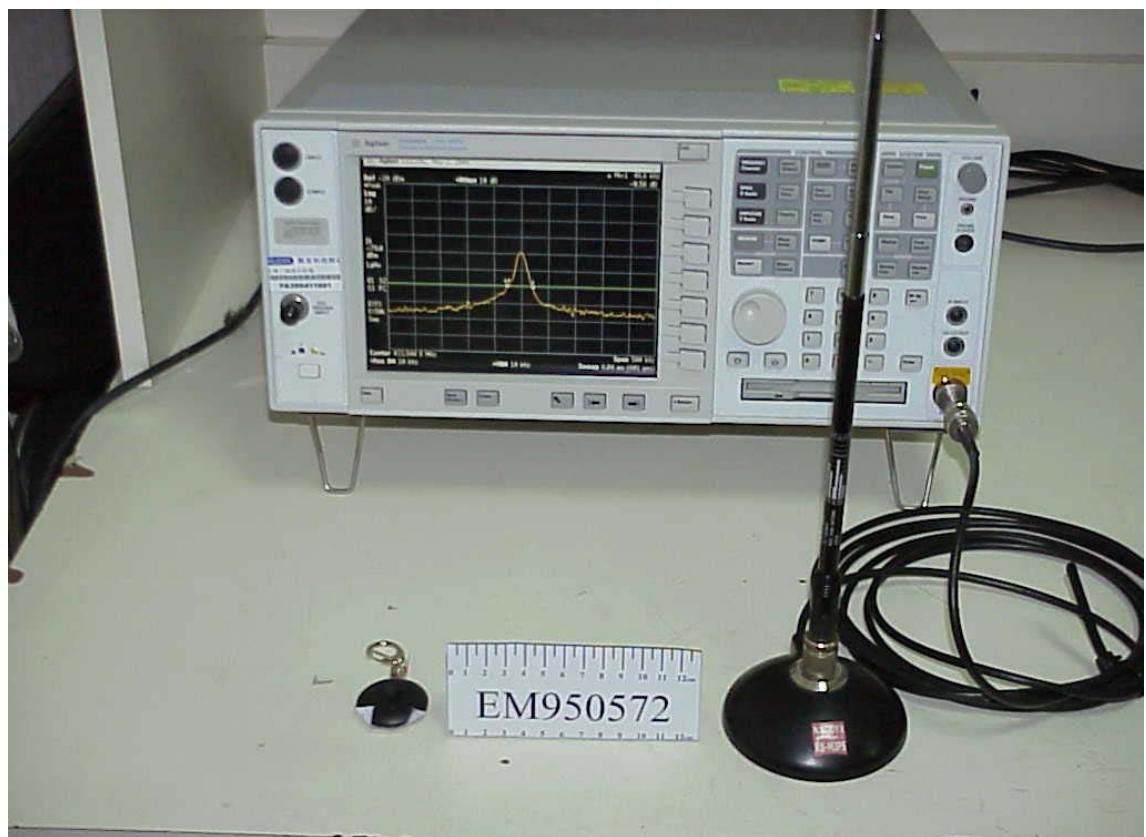
EUT on Side



EUT on Stand



### 7.3. Photos of Bandwidth Measurement



### 7.4. Photos of Periodic Operated Measurement

