



# **FCC Radio Test Report**

# FCC ID: TE7M9PLUSV2

This report concerns: Original Grant

**Project No.** : 1908C067

**Equipment**: AC2200 Smart Home Mesh Wi-Fi System

Brand Name : tp-link

Test Model : Deco M9 Plus

Series Model : N/A

**Applicant**: TP-Link Technologies Co., Ltd.

Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and

Technology Park, Shennan Rd, Nanshan, Shenzhen, China

Manufacturer : TP-Link Technologies Co., Ltd.

Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and

Technology Park, Shennan Rd, Nanshan, Shenzhen, China

Date of Receipt : Aug. 09, 2019

**Date of Test** : Aug. 09, 2019 ~ Dec. 06, 2019

**Issued Date** : Dec. 11, 2019

Report Version : R01

Test Sample : Engineering Sample No.: DG19081571 for conducted, DG19081572 for

radiated.

Standard(s) : FCC Part15, Subpart C (15.247)

ANSI C63.10-2013

FCC KDB 558074 D01 15.247 Meas Guidance v05r02 FCC KDB 662911 D01 Multiple Transmitter Output v02r01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Prepared by: Welly Zhou

Approved by: Ethan Ma

IBC-MRA ACCREDITE

Certificate #5123.02

Add: No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

Tel: +86-769-8318-3000 Web: www.newbtl.com



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The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

### Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective. Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.



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# **REPORT ISSUED HISTORY**

Report Version	Description	Issued Date
R00	Original Issue.	Nov. 25, 2019
R01	Revised report to address ACB's comments.	Dec. 11, 2019



### 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart C (15.247)					
Standard(s) Section	Test Item	Test Result	Judgment	Remark	
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS		
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS		
15.247(a)(2)	Bandwidth	APPENDIX E	PASS		
15.247(b)(3)	Maximum Output Power	APPENDIX F	PASS		
15.247(d)	Conducted Spurious Emissions	APPENDIX G	PASS		
15.247(e)	Power Spectral Density	APPENDIX H	PASS		
15.203	Antenna Requirement		PASS	Note(2)	

### Note:

- (1) "N/A" denotes test is not applicable to this device.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.



### 1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

### 1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

The BTL measurement uncertainty as below table:

### A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.60

### B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)	
		9kHz ~ 30MHz	V	3.79	
		9kHz ~ 30MHz	Н	3.57	
		30MHz ~ 200MHz	V	4.88	
DG-CB03 CISPR		30MHz ~ 200MHz	Н	4.14	
	CICDD	200MHz ~ 1,000MHz	V	4.62	
	200MHz ~ 1,000MHz	Н	4.80		
		1GHz ~ 6GHz	-	4.58	
			6GHz ~ 18GHz	-	5.18
		18GHz ~ 26.5GHz	-	3.62	
		26.5GHz ~ 40GHz	-	4.00	

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

### 1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	25°C	53%	AC 120V/60Hz	Laughing Zhang
Radiated Emissions-9K-30MHz	25°C	60%	AC 120V/60Hz	Damon Deng
Radiated Emissions-30 MHz to 1GHz	24°C	68%	AC 120V/60Hz	Laughing Zhang
Radiated Emissions-Above 1000 MHz	26°C	65%	AC 120V/60Hz	Laughing Zhang
Bandwidth	26°C	65%	AC 120V/60Hz	Jonas Chen
Maximun Output Power	26°C	65%	AC 120V/60Hz	Jonas Chen
Conducted Spurious Emissions	26°C	65%	AC 120V/60Hz	Jonas Chen
Power Spectral Density	26°C	65%	AC 120V/60Hz	Jonas Chen



# 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC2200 Smart Home Mesh Wi-Fi System
Brand Name	tp-link
Test Model	Deco M9 Plus
Series Model	N/A
Model Difference(s)	N/A
Power Source	DC voltage supplied from AC/DC adapter.  Model: T120200-2B4
Power Rating	I/P: 100-240V~ 50/60Hz 0.8A O/P: 12V === 2A
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps
Maximum Output Power_Non Beamforming	IEEE 802.11b: 28.39 dBm (0.6902 W) IEEE 802.11g: 28.30 dBm (0.6761 W) IEEE 802.11n (HT20): 28.17 dBm (0.6561 W) IEEE 802.11n (HT40): 22.52 dBm (0.1786 W)
Maximum Output Power_Beamforming	IEEE 802.11n (HT20): 26.27 dBm (0.4236 W) IEEE 802.11n (HT40): 22.92 dBm (0.1959 W)

### Note:

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

# 2. Channel List:

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n (HT20) CH03 - CH09 for IEEE 802.11n (HT40)							
Channel Frequency (MHz) Channel Frequency (MHz) Channel Frequency (MHz) Channel Frequency (MHz)							
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		



### 3. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	<b>TP-LINK®</b>	3101502635	PCB	I-PEX	1.20
2	TP-LINK <sup>®</sup>	3101502634	PCB	I-PEX	1.20

### Note:

This EUT supports CDD, and all antennas have the same gain,

(1) For Non Beamforming function, Directional gain= $G_{ANT}$ +Array Gain, For output power measurements, Array Gain=0 ( $N_{ANT} \le 4$ ), so, Directional gain=1.20 For power spectral density measurements, Array Gain=10log( $N_{ANT}/N_{SS}$ ) dB, so Directional gain=1.20+10log(2/1)=4.21

- (2) For Beamforming function, Beamforming Gain: 3.0 dB, so Directional gain=3.0+1.20=4.20
- 4. The worst case for 2TX as follow:

For Non Beamforming:

FOI NOIL BEALLIOITHING.	
Operating Mode TX Mode	2TX
IEEE 802.11b	V (Ant. 1+ Ant. 2)
IEEE 802.11g	V (Ant. 1+ Ant. 2)
IEEE 802.11n(HT20)	V (Ant. 1+ Ant. 2)
IEEE 802.11n(HT40)	V (Ant. 1+ Ant. 2)

For Beamforming:

i or bearmorning.		
Operating Mode TX Mode	2TX	
IEEE 802.11n(HT20)	V (Ant. 1+ Ant. 2)	
IEEE 802.11n(HT40)	V (Ant. 1+ Ant. 2)	



### 2.2 DESCRIPTION OF TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

Pretest Mode	Description	
Mode 1	TX B Mode Channel 01/06/11	
Mode 2	TX G Mode Channel 01/06/11	
Mode 3	TX N-20 MHz Mode Channel 01/06/11	
Mode 4	TX N-40 MHz Mode Channel 03/06/09	
Mode 5	TX B Mode Channel 01/02/06/10/11	
Mode 6	TX G Mode Channel 01/02/06/10/11	
Mode 7	TX N-20 MHz Mode Channel 01/02/06/10/11	
Mode 8	TX N-40 MHz Mode Channel 03/04/07/08/09	
Mode 9	TX B Mode Channel 06	

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test		
Final Test Mode:	Description	
Mode 9	TX B Mode Channel 06	

Radiated emissions test - Below 1GHz		
Final Test Mode:	Description	
Mode 9	TX B Mode Channel 06	

Radiated emissions test - Above 1GHz for Non Beamforming			
Final Test Mode:	Description		
Mode 5 TX B Mode Channel 01/02/06/10/11			
Mode 6	TX G Mode Channel 01/02/06/10/11		
Mode 7	TX N-20 MHz Mode Channel 01/02/06/10/11		
Mode 8 TX N-40 MHz Mode Channel 03/04/07/08/09			



Radiated emissions test - Above 1GHz for Beamforming			
Final Test Mode: Description			
Mode 7 TX N-20 MHz Mode Channel 01/02/06/10/11			
Mode 8 TX N-40 MHz Mode Channel 03/04/07/08/09			

Conducted test for Non Beamforming			
Final Test Mode:	Description		
Mode 1	TX B Mode Channel 01/06/11		
Mode 2	TX G Mode Channel 01/06/11		
Mode 3	TX N-20 MHz Mode Channel 01/06/11		
Mode 4	TX N-40 MHz Mode Channel 03/06/09		

Conducted test for Beamforming		
Final Test Mode:	Description	
Mode 3 TX N-20 MHz Mode Channel 01/06/11		
Mode 4 TX N-40 MHz Mode Channel 03/06/09		

### NOTE:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) For radiated emission below 1 GHz test, the IEEE 802.11b Channel 06 is found to be the worst case and recorded.
- (3) For radiated emission above 1 GHz test, 1GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
- (4) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.



# 2.3 PARAMETERS OF TEST SOFTWARE

# Non Beamforming

Test Software	QRCT v3.0.187.0		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	22	24	22.5
IEEE 802.11g	19	25	19
IEEE 802.11n (HT20)	19.5	25	19
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	16	18.5	18

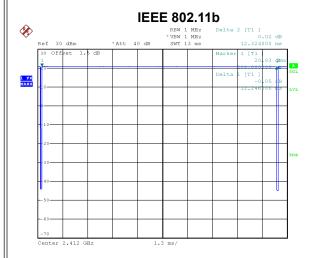
# Beamforming

Test Software	QRCT v3.0.187.0			
Frequency (MHz)	2412 2437 2462			
IEEE 802.11n (HT20)	18.5	22	19	
Frequency (MHz)	2422	2437	2452	
IEEE 802.11n (HT40)	16	19	17	



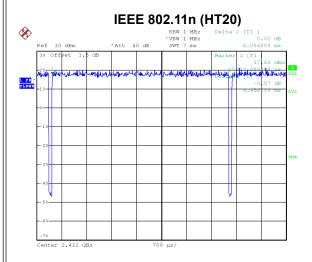
### 2.4 DUTY CYCLE

If duty cycle is  $\geq$  98 %, duty factor is not required. If duty cycle is < 98 %, duty factor shall be considered. The output power = measured power + duty factor.



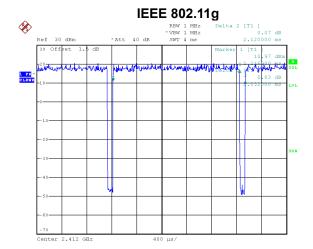
Date: 14.AUG.2019 20:02:49

Duty cycle = 12.246 ms / 12.324 ms = 99.37% Duty Factor = 10 log(1/Duty cycle) = 0.00



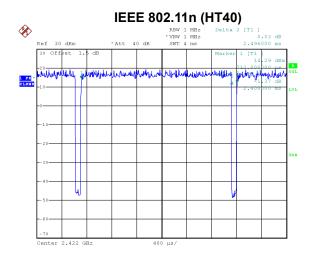
Date: 14.AUG.2019 20:03:32

Duty cycle = 4.956 ms / 5.054 ms = 98.06% Duty Factor = 10 log(1/Duty cycle) = 0.00



Date: 14.AUG.2019 20:03:08

Duty cycle = 2.032 ms / 2.120 ms = 95.85% Duty Factor = 10 log(1/Duty cycle) = 0.18



Date: 14.AUG.2019 20:03:47

Duty cycle = 2.408 ms / 2.496 ms = 96.47% Duty Factor = 10 log(1/Duty cycle) = 0.16

### NOTE:

For IEEE 802.11g and IEEE 802.11n (HT20):

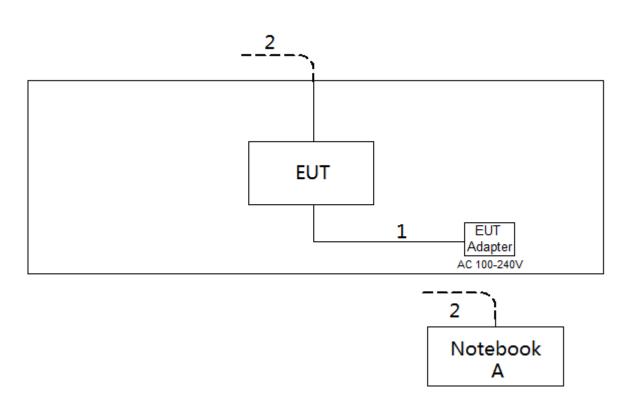
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle < 98%).

For IEEE 802.11n (HT40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2 kHz (Duty cycle < 98%).



### 2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



### 2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
Α	Notebook	Dell	Inspiron 15-7559	N/A

Ite	em	Cable Type	Shielded Type	Ferrite Core	Length
1	1	DC Cable	NO	NO	1.5m
2	2	RJ45 Cable	NO	NO	10m



### 3. AC POWER LINE CONDUCTED EMISSIONS TEST

### **3.1 LIMIT**

Fraguency of Emission (MHT)	Limit (dBμV)	
Frequency of Emission (MHz)	Quasi-peak	Average
0.15 - 0.50	66 to 56*	56 to 46*
0.50 - 5.0	56	46
5.0 - 30.0	60	50

### NOTE:

(1) The tighter limit applies at the band edges.

(2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

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

### 3.2 TEST PROCEDURE

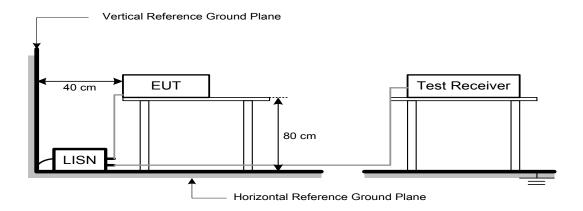
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.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

### 3.3 DEVIATION FROM TEST STANDARD

No deviation



### 3.4 TEST SETUP



### 3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

### 3.6 TEST RESULTS

Please refer to the APPENDIX A.



### 4. RADIATED EMISSIONS TEST

### **4.1 LIMIT**

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

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

Fraguency (MHz)	(dBuV/m at 3 m)	
Frequency (MHz)	Peak	Average
Above 1000	74	54

### NOTE:

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

Spectrum Parameter	Setting	
Attenuation	Auto	
Start Frequency	1000 MHz	
Stop Frequency	10th carrier harmonic	
RBW / VBW	1 MHz / 3 MHz for Peak,	
(Emission in restricted band)	1 MHz / 1/T for Average	

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



### **4.2 TEST PROCEDURE**

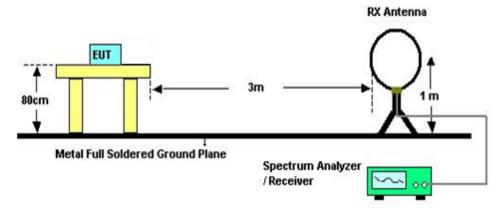
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1 GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- All readings are Book unless otherwise stated OP in column of Note. Book denotes that the Book

g.	readings are reak unless otherwise stated Qr in column of Note. Feak denotes that the reak reading compliance with the QP Limits and then QP Mode measurement didn't perform.  (below 1 GHz)
	All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)  For the actual test configuration, please refer to the related Item -EUT Test Photos.
	DEVIATION FROM TEST STANDARD deviation

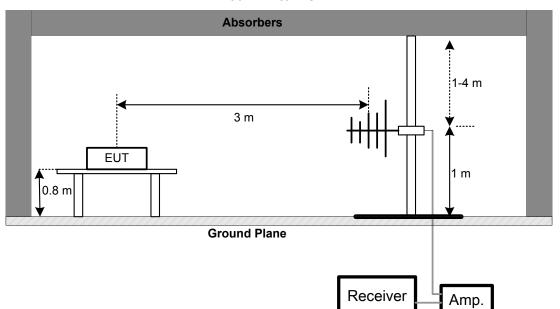


### 4.4 TEST SETUP

### 9 kHz-30 MHz

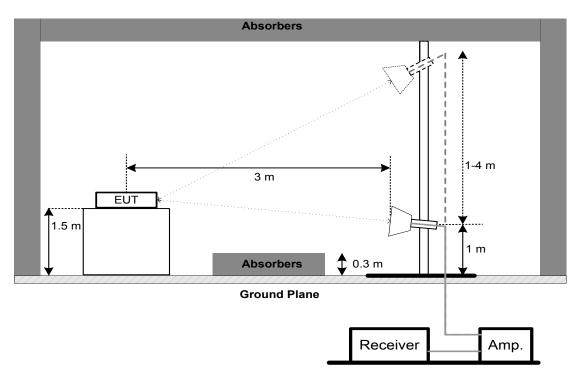


### 30 MHz to 1 GHz





### **Above 1 GHz**



### 4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 4.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B

### Remark:

- (1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

### 4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

### 4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

### Remark:

(1) No limit: This is fundamental signal, the judgment is not applicable. For fundamental signal judgment was referred to Peak output test.



### 5. BANDWIDTH TEST

### **5.1 LIMIT**

FCC Part15, Subpart C (15.247)		
Section Test Item		Limit
15.247(a)(2)	6 dB Bandwidth	Minimum 500 kHz
	99% Emission Bandwidth	-

### **5.2 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting:

For 6 dB Bandwidth: RBW= 100 kHz, VBW=300 kHz, Sweep time = 2.5 ms. For 99% Emission Bandwidth B/G/N-20 Mode: RBW= 300 KHz, VBW=1 MHz, Sweep time = 2.5 ms. For 99% Emission Bandwidth N-40 Mode: RBW= 1 MHz, VBW=3 MHz, Sweep time = 2.5 ms.

c. The bandwidth was performed in accordance with method 11.8.1 of ANSI C63.10-2013.

### **5.3 DEVIATION FROM STANDARD**

No deviation.

### **5.4 TEST SETUP**

EUT	SPECTRUM
	ANALYZER

### 5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### **5.6 TEST RESULTS**

Please refer to the APPENDIX E.



### 6. MAXIMUM OUTPUT POWER TEST

### 6.1 LIMIT

FCC Part15, Subpart C (15.247)			
Section Test Item Limit			
15.247(b)(3)	Maximum Output Power	1 Watt or 30dBm	

### **6.2 TEST PROCEDURE**

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- b. The maximum Output Power was performed in accordance with method11.9.2.3.1 of ANSI C63.10-2013 and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

### **6.3 DEVIATION FROM STANDARD**

No deviation.

### **6.4 TEST SETUP**



### **6.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

### **6.6 TEST RESULTS**

Please refer to the APPENDIX F.



### 7. CONDUCTED SPURIOUS EMISSIONS

### **7.1 LIMIT**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak Output Power limits. If the transmitter complies with the Output Power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required.

### 7.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW= 100 kHz, VBW=300 kHz, Sweep time = Auto.

### 7.3 DEVIATION FROM STANDARD

No deviation.

### 7.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

### 7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 7.6 TEST RESULTS

Please refer to the APPENDIX G.



### 8. POWER SPECTRAL DENSITY TEST

### 8.1 LIMIT

FCC Part15, Subpart C (15.247)		
Section	Test Item	Limit
15.247(e)	Power Spectral Density	8 dBm
15.247(e)	Power Spectral Delisity	(in any 3 kHz)

### **8.2 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW=3 kHz, VBW=10 kHz, Sweep time = Auto.
- c. The Power Spectral Density was performed in accordance with method 11.10.2 of ANSI C63.10-2013.

### 8.3 DEVIATION FROM STANDARD

No deviation.

### **8.4 TEST SETUP**

EUT	SPECTRUM
	ANALYZER

### 8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 8.6 TEST RESULTS

Please refer to the APPENDIX H.



# 9. MEASUREMENT INSTRUMENTS LIST

	AC Power Line Conducted Emissions									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until					
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 10, 2020					
2	LISN	EMCO	3816/2	52765	Mar. 10, 2020					
3	50ohm Terminator	SHX	TF5-3	15041305	Mar. 10, 2020					
4	Artificial-Mains Network	Schwarzbeck	NSLK 8127	8127685	Mar. 10, 2020					
5	TRANSIENT LIMITER	EM	EM-7600	772	Mar. 10, 2020					
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A					
7	Cable	N/A	RG223	12m	Mar. 12, 2020					

	Radiated Emissions - 9 kHz to 30 MHz									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until					
1	Loop Antenna	EM	EM-6876-1	230	Jan. 15, 2020					
2	Cable	N/A	RG 213/U	C-102	May 31, 2020					
3	EMI Test Receiver	R&S	ESCI	100895	Mar. 10, 2020					
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A					

	Radiated Emissions - 30 MHz to 1 GHz								
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until				
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2020				
2*	Amplifier	HP	8447D	2944A09673	Aug. 11, 2021				
3	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020				
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 24, 2020				
5	Controller	CT	SC100	N/A	N/A				
6	Controller	MF	MF-7802	MF780208416	N/A				
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A				

	Radiated Emissions - Above 1 GHz									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until					
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 09, 2020					
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 23, 2020					
3	Amplifier	Agilent	8449B	3008A02333	Mar. 10, 2020					
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 10, 2020					
5	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020					
6	Controller	CT	SC100	N/A	N/A					
7	Controller	MF	MF-7802	MF780208416	N/A					
8	Cable	mitron	B10-01-01-12M	18072744	Jun. 29, 2020					
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A					



	Bandwidth & Antenna Conducted Spurious Emissions & Power Spectral Density						
It	tem	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
	1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020	

	Maximum Output Power									
Item	tem Kind of Equipment Manufacturer Type No. Serial No. Calibrated until									
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Aug. 03, 2020					
2	Wideband power sensor	Keysight	N1923A	MY58310004	Aug. 03, 2020					

Remark: "N/A" denotes no model name, serial no. or calibration specified.

Except \* item, all calibration period of equipment list is one year.

<sup>&</sup>quot;\*" calibration period of equipment list is three year.



# 10. EUT TEST PHOTO



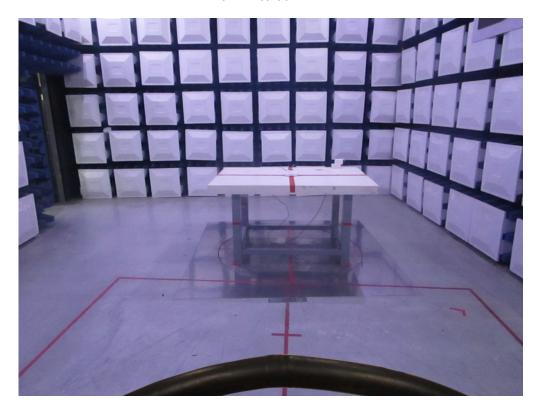


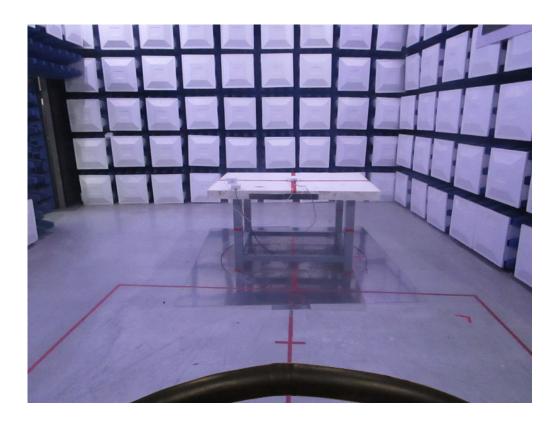




# **Radiated Emissions Test Photos**

9 kHz to 30 MHz







# **Radiated Emissions Test Photos**

30 MHz to 1 GHz

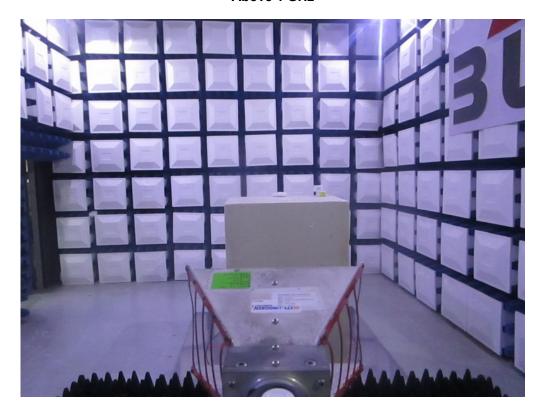


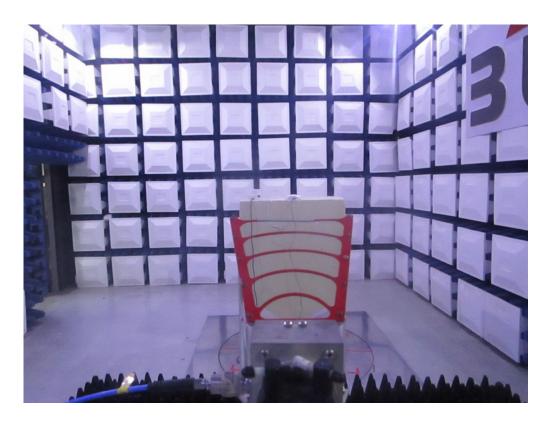




# **Radiated Emissions Test Photos**

# Above 1 GHz





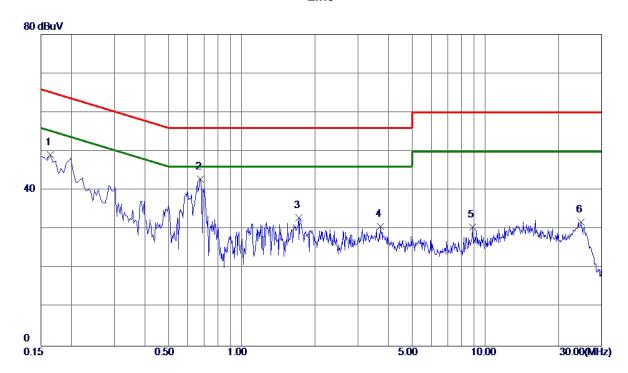


# **APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS**



Test Mode: TX B Mode Channel 06

### Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0. 1635	39. 34	9.82	49. 16	<b>65. 28</b>	-16. 12	Peak	
2 *	0.6765	33.00	9. 90	42.90	<b>56. 00</b>	-13. 10	Peak	
3	1.7115	22. 99	9. 97	32. 96	<b>56.00</b>	-23.04	Peak	
4	3.7140	20.63	10. 11	30.74	<b>56. 00</b>	-25. 26	Peak	
5	8.8530	20.09	10. 43	30. 52	60.00	-29.48	Peak	
6	24.6660	20.74	11. 13	31.87	60.00	-28. 13	Peak	

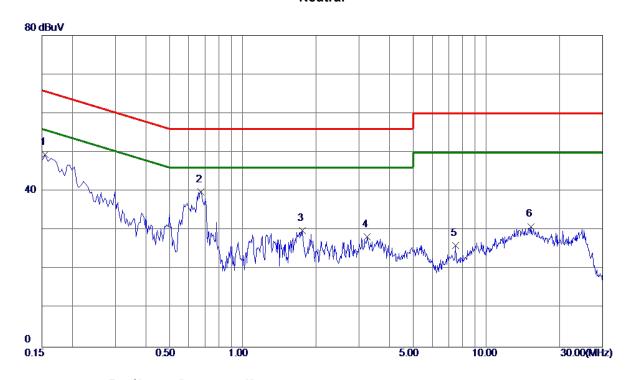
### **REMARKS**:

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode: TX B Mode Channel 06

### **Neutral**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0. 1544	39. 51	9. 91	49.42	65.76	-16. 34	Peak	
2 *	0.6720	29.84	10.06	39. 90	56.00	-16. 10	Peak	
3	1.7565	19.73	10. 17	29. 90	56.00	-26. 10	Peak	
4	3. 2325	18.08	10. 27	28. 35	56.00	-27.65	Peak	
5	7.4805	15. 47	10.61	26.08	60.00	-33. 92	Peak	
6	15. 2295	19.86	11. 10	30. 96	60.00	-29.04	Peak	

### **REMARKS**:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.

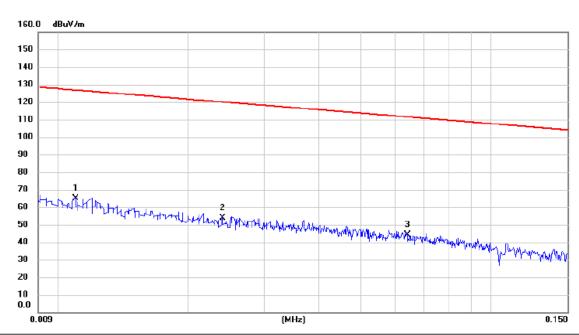


# **APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ**



Test Mode: TX B Mode Channel 06

### Ant 0°



No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.011	48.40	16.52	64.92	126.78	-61.86	AVG	
2	0.024	40.03	13.83	53.86	120.00	-66.14	AVG	
3	0.064	30.58	13.70	44.28	111.47	-67.19	AVG	

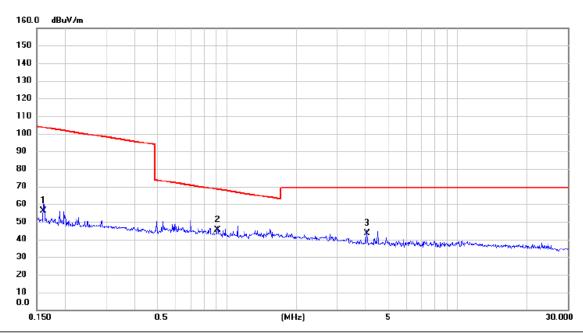
### **REMARKS**:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode: TX B Mode Channel 06

# Ant 0°



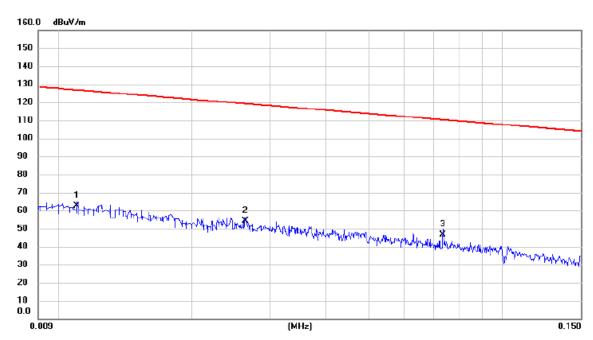
No. Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.160	42.60	13.57	56.17	103.50	-47.33	AVG	
2 *	0.913	33.06	12.52	45.58	68.39	-22.81	QP	
3	4.049	32.40	10.95	43.35	69.54	-26.19	QP	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode: TX B Mode Channel 06

# Ant 90°



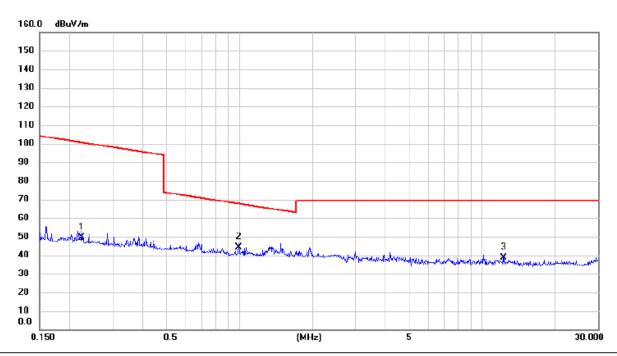
No. Mk.	Freq.			Measure- ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.011	46.04	16.52	62.56	126.78	-64.22	AVG	
2	0.026	40.50	13.84	54.34	119.17	-64.83	AVG	
3 *	0.073	33.25	13.55	46.80	110.28	-63.48	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode: TX B Mode Channel 06

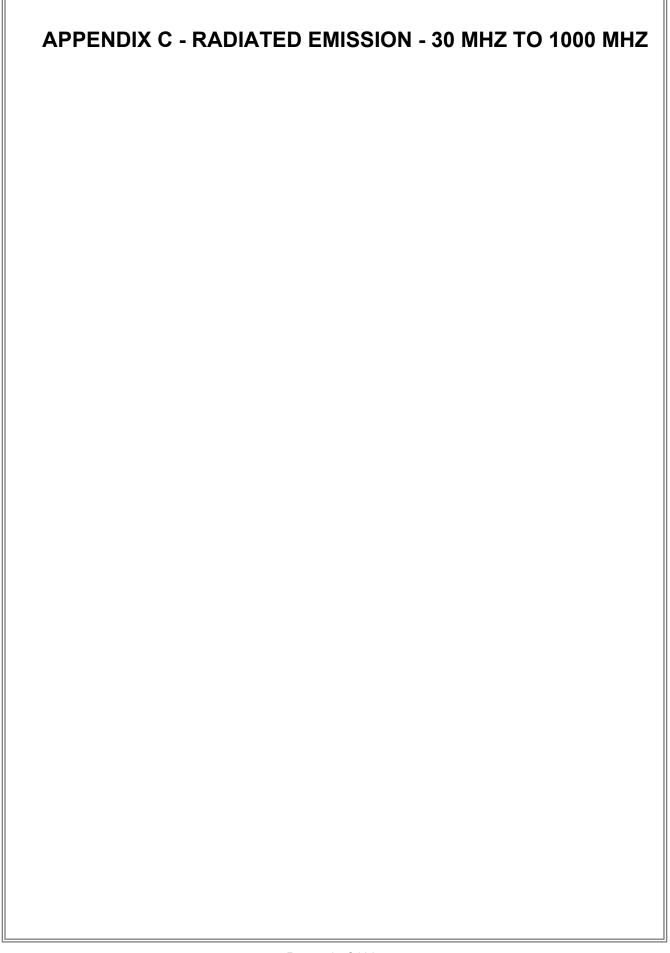
# Ant 90°



No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin			
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	0.223	35.66	13.63	49.29	100.64	-51.35	AVG		
2 *	0.994	31.82	12.50	44.32	67.66	-23.34	QP		
3	12.253	27.13	11.60	38.73	69.54	-30.81	QP		

- (1) Measurement Value = Reading Level + Correct Factor.
  (2) Margin Level = Measurement Value Limit Value.

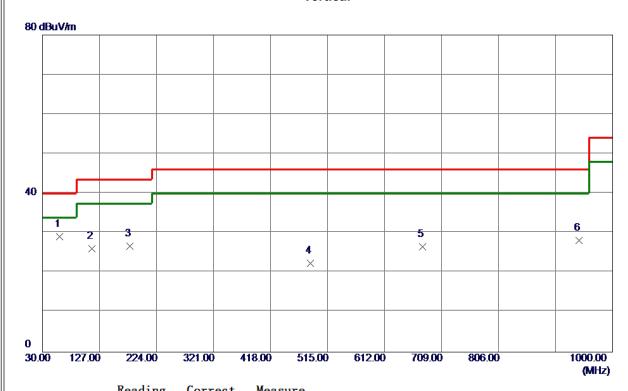






Test Mode: TX B Mode Channel 06

### Vertical



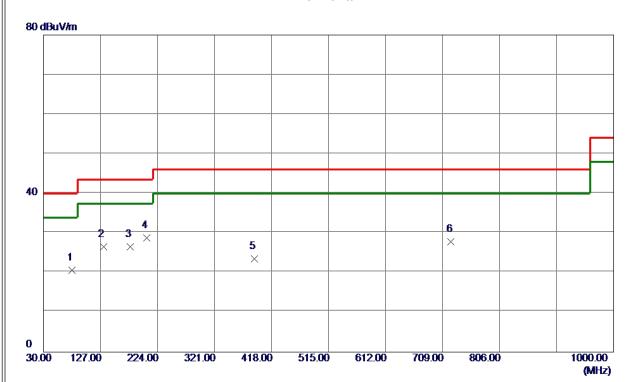
MHz         dBuV/m         dB         dBuV/m         dBuV/m         dB         Detector         Comment           1 * 59.1000 43.90         -14.75         29.15         40.00         -10.85         Peak           2 113.9050 40.01         -13.94         26.07         43.50         -17.43         Peak           3 178.4100 39.75         -13.03         26.72         43.50         -16.78         Peak           4 486.3850 30.22         -7.79         22.43         46.00         -23.57         Peak           5 676.5050 30.94         -4.32         26.62         46.00         -19.38         Peak	No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin			
2     113. 9050 40. 01     -13. 94     26. 07     43. 50     -17. 43     Peak       3     178. 4100 39. 75     -13. 03     26. 72     43. 50     -16. 78     Peak       4     486. 3850 30. 22     -7. 79     22. 43     46. 00     -23. 57     Peak		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
3 178.4100 39.75 -13.03 26.72 43.50 -16.78 Peak 4 486.3850 30.22 -7.79 22.43 46.00 -23.57 Peak	1 *	59. 1000	43.90	-14.75	29. 15	40.00	-10.85	Peak		
4 486. 3850 30. 22 -7. 79 22. 43 46. 00 -23. 57 Peak	2	113. 9050	40.01	-13. 94	26. 07	43.50	-17.43	Peak		
	3	178. 4100	39. 75	-13. 03	26.72	43.50	-16. 78	Peak		
5 676. 5050 30. 94 -4. 32 26. 62 46. 00 -19. 38 Peak	4	486. 3850	30. 22	<b>−7. 79</b>	22.43	46.00	-23.57	Peak		
	5	676. 5050	30. 94	-4.32	26. 62	46.00	-19.38	Peak		
6 943. 2550 29. 04 -0. 93 28. 11 46. 00 -17. 89 Peak	6	943. 2550	29. 04	-0. 93	28. 11	46.00	-17.89	Peak		

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode: TX B Mode Channel 06

# Horizontal



No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	78. 9850	38. 55	-17.85	20.70	40.00	-19.30	Peak	
2	131.8500	39. 55	-13. 02	26. 53	43.50	-16. 97	Peak	
3	177. 9250	39. 52	-12. 99	26. 53	43.50	-16. 97	Peak	
4 *	205. 5700	44. 25	-15. 42	28. 83	43.50	-14.67	Peak	
5	388. 4150	33. 26	-9. 74	23. 52	46.00	-22.48	Peak	
6	723. 5500	31.63	-3.84	27. 79	46.00	-18. 21	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# **APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ**

2462.00

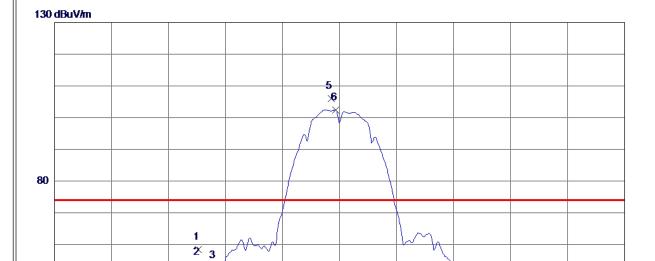
(MHz)



# **Non Beamforming**

Test Mode:	ITX B Mode 2412 MHz
TEST MICHE.	

### Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2387. 2000	50.82	7. 56	58. 38	74.00	-15.62	Peak	
2	2387. 2000	45. 97	7. 56	53. 53	54.00	-0.47	AVG	
3	2390.0000	44. 98	7. 56	52. 54	74.00	-21.46	Peak	
4	2390.0000	38. 33	7. 56	45.89	54.00	-8. 11	AVG	
5	2410. 5000	98. 29	7. 63	105. 92	74.00	31.92	Peak	No Limit
6 *	2411. 3000	94. 84	7. 64	102. 48	54.00	48. 48	AVG	No Limit

2412.00

2422.00

2432.00

2442.00

# **REMARKS**:

**30** 

2362.00 2372.00

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.

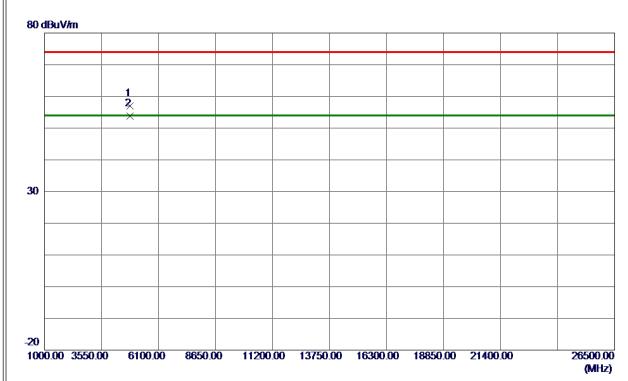
2382.00

2392.00

2402.00



# Vertical

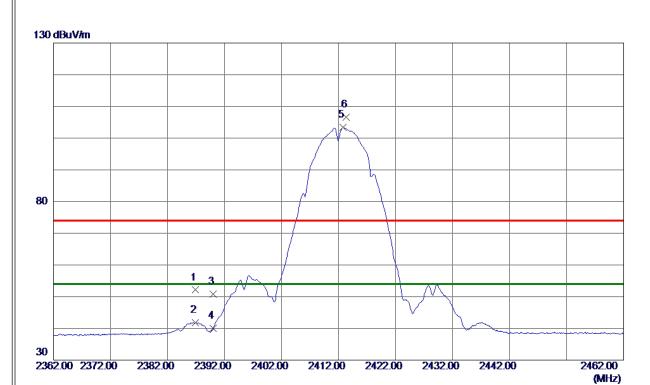


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823. 9080	52. 67	4. 25	56. 92	74.00	-17.08	Peak	
2 *	4824, 0019	49. 60	4. 26	53. 86	54.00	-0. 14	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
  (2) Margin Level = Measurement Value Limit Value.



# Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2386. 9000	44.55	7. 55	52. 10	74.00	-21. 90	Peak	
2	2386. 9000	34. 33	7. 55	41.88	54.00	-12. 12	AVG	
3	2390.0000	43. 19	7. 56	<b>50</b> . <b>7</b> 5	74.00	-23. 25	Peak	
4	2390. 0000	32. 39	7. 56	39. 95	54.00	-14.05	AVG	
5 *	2412. 8000	95. 80	7.64	103.44	54.00	49.44	AVG	No Limit
6	2413. 3000	99. 01	7.64	106.65	74.00	32.65	Peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.

(MHz)



Test Mode: TX B Mode 2412 MHz

# Horizontal

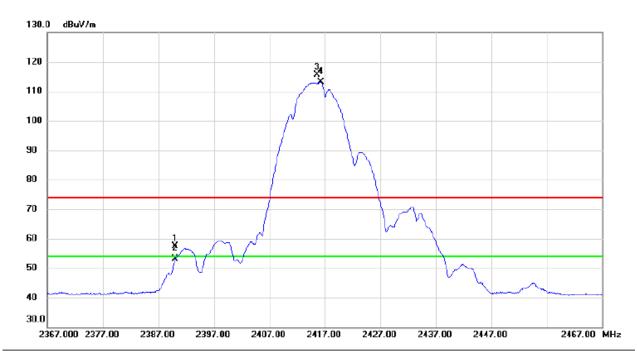


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.8110	48. 16	4. 25	52.41	74.00	-21. 59	Peak	
2 *	4824. 0179	44.78	4. 26	49. 04	54.00	-4. 96	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	49.91	7.57	57.48	74.00	-16.52	peak	
2		2390.000	45.60	7.57	53.17	54.00	-0.83	AVG	
3	X	2415.550	107.90	7.65	115.55	74.00	41.55	peak	No Limit
4	*	2416.250	105.43	7.66	113.09	54.00	59.09	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Vertical

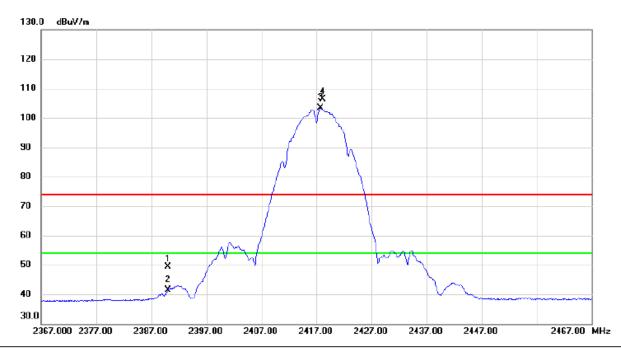


	No.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	4	4833.924	52.76	4.29	57.05	74.00	-16.95	peak	
	2	* 4	4833.992	49.23	4.29	53.52	54.00	-0.48	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Horizontal

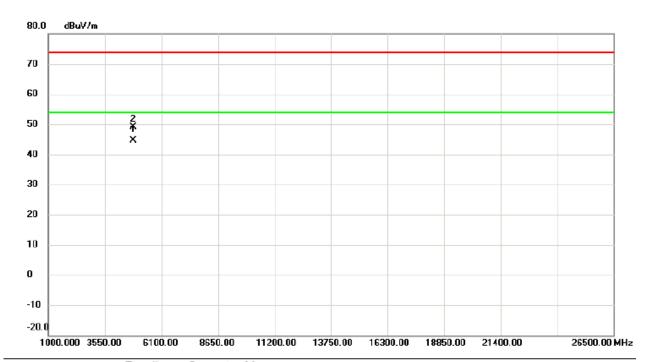


No.	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	41.93	7.57	49.50	74.00	-24.50	peak	
2		2390.000	33.80	7.57	41.37	54.00	-12.63	AVG	
3	*	2417.750	95.72	7.66	103.38	54.00	49.38	AVG	No Limit
4	X	2418.150	98.84	7.66	106.50	74.00	32.50	peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

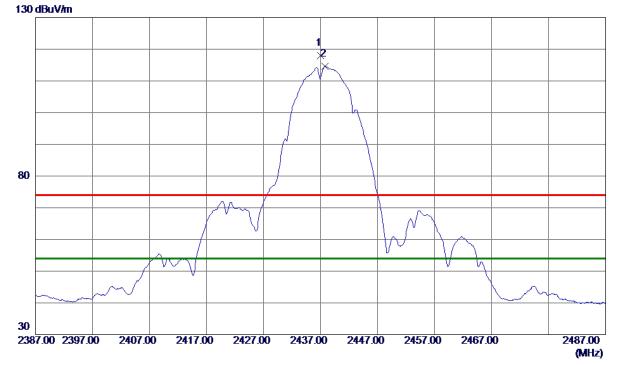


No	o. M	k. Freq.		Correct Factor	Measure- ment		Margin				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
	1 *	4834.017	40.30	4.29	44.59	54.00	-9.41	AVG			
- :	2	4834.104	44.87	4.29	49.16	74.00	-24.84	peak			

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

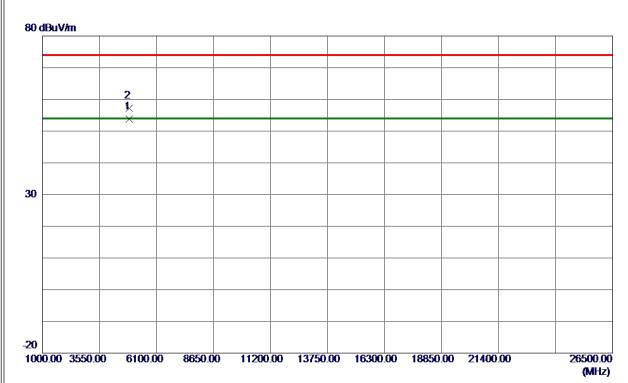


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	110. 23	7.72	117. 95	74.00	43.95	Peak	No Limit
2 *	2437.7500	106. 92	7.72	114.64	54.00	60.64	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

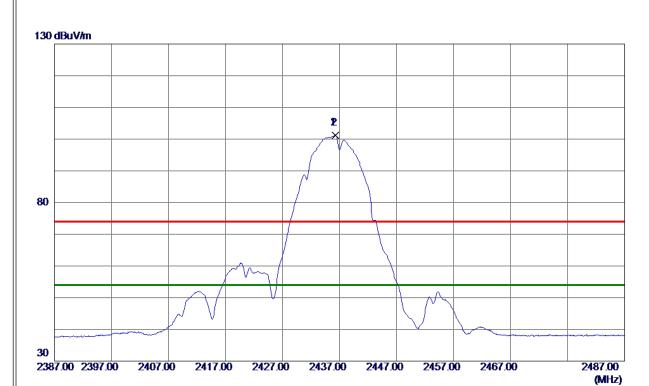


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4874. 0179	49.41	4.44	53.85	54.00	-0. 15	AVG	
2	4874, 0259	52.74	4.44	57. 18	74.00	-16, 82	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

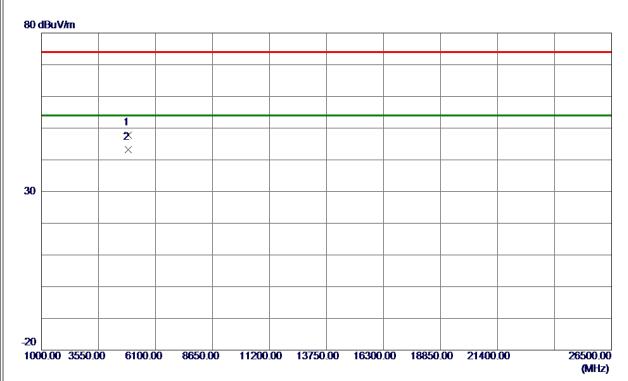


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2436. 2500	93. 50	7.72	101. 22	74.00	27. 22	Peak	No Limit
2 *	2436, 3000	93. 54	7.72	101. 26	54.00	47. 26	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

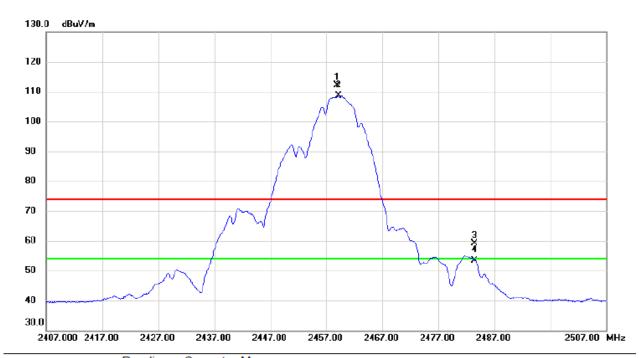


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.8630	43. 32	4.44	47.76	74.00	-26. 24	Peak	
2 *	4874. 0230	38. 74	4.44	43. 18	54.00	-10.82	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Vertical

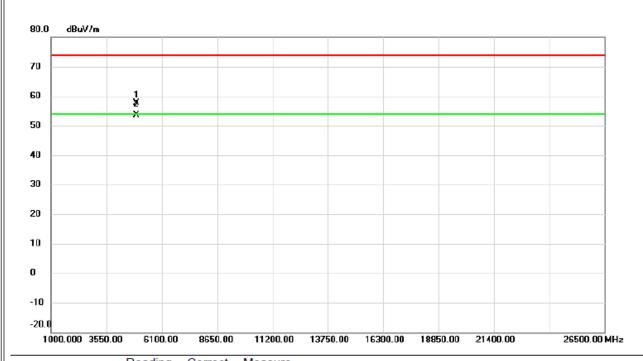


No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 X	2458.900	104.40	7.79	112.19	74.00	38.19	peak	No Limit
2 *	2459.250	100.79	7.79	108.58	54.00	54.58	AVG	No Limit
3	2483.500	51.20	7.87	59.07	74.00	-14.93	peak	
4	2483.500	45.62	7.87	53.49	54.00	-0.51	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

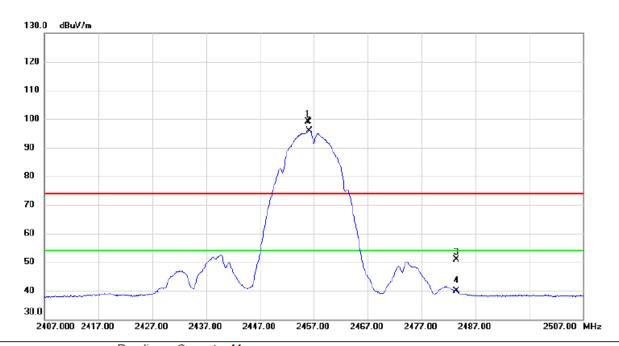


No.	Mk.	Freq.		Factor	Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	913.952	53.00	4.58	57.58	74.00	-16.42	peak	
2	* 4	914.038	49.09	4.58	53.67	54.00	-0.33	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

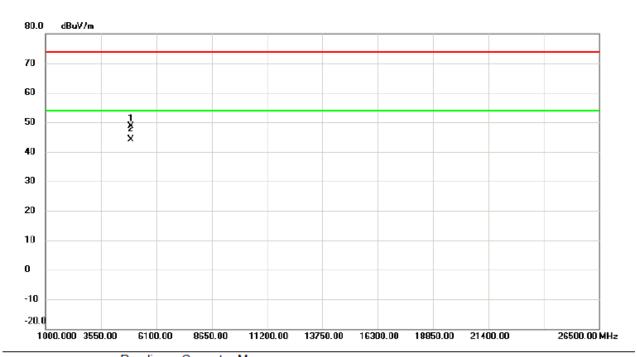


	No. Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
l	1 X	2455.800	91.26	7.78	99.04	74.00	25.04	peak	No Limit		
l	2 *	2456.200	88.08	7.78	95.86	54.00	41.86	AVG	No Limit		
	3	2483.500	43.07	7.87	50.94	74.00	-23.06	peak			
l	4	2483.500	31.96	7.87	39.83	54.00	-14.17	AVG			

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

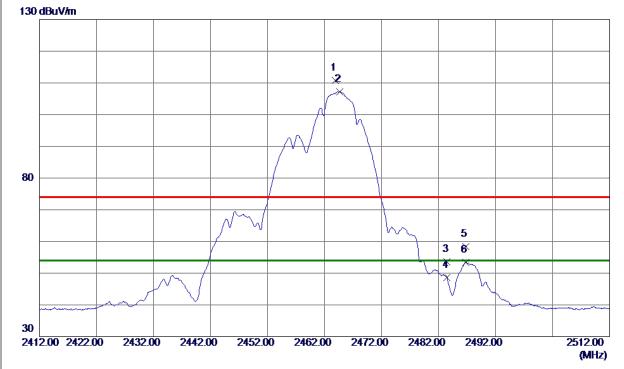


No.	Mk.	Freq.	_	Correct Factor	Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	1913.703	44.17	4.58	48.75	74.00	-25.25	peak	
2	* 4	1914.000	39.63	4.58	44.21	54.00	-9.79	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

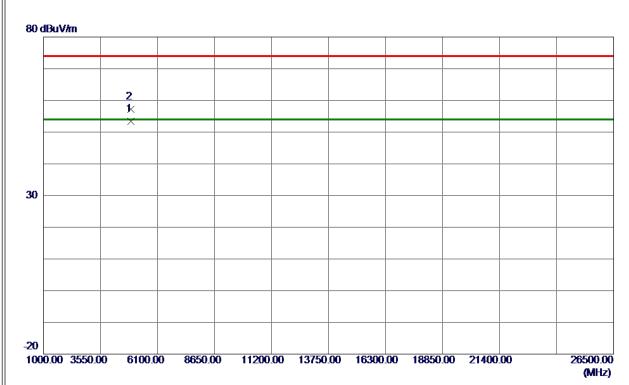


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2463.9000	102.94	7.81	110.75	74.00	36. 75	Peak	No Limit
2 *	2464.6500	99. 40	7.81	107. 21	54.00	53. 21	AVG	No Limit
3	2483. 5000	45.77	7.88	<b>53.65</b>	74.00	-20. 35	Peak	
4	2483. 5000	40.64	7.88	48. 52	54.00	-5.48	AVG	
5	2486. 7500	50.42	7. 89	58. 31	74.00	-15. 69	Peak	
6	2486. 7500	45. 56	7.89	53. 45	54.00	-0. 55	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Vertical

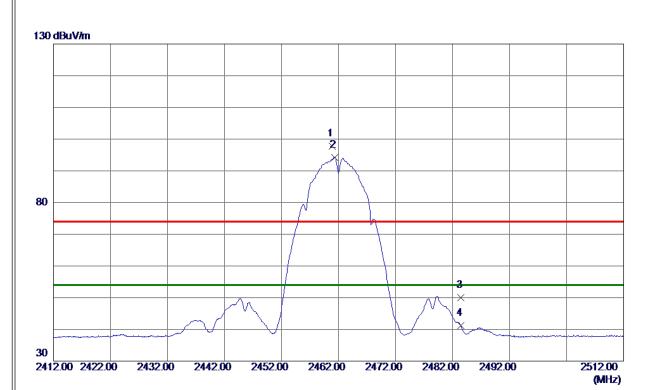


N	o.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4924.0290	48. 79	4.63	53.42	54.00	<b>-0.</b> 58	AVG	
2		4924. 0460	52. 54	4.63	57. 17	74.00	-16. 83	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

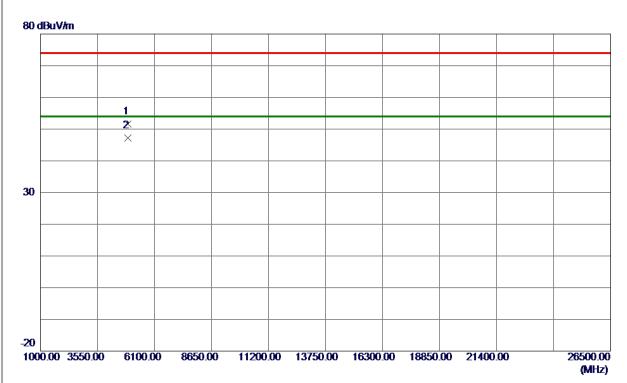


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2460.8500	90. 03	7.80	97.83	74.00	23.83	Peak	No Limit
2 *	2461. 3000	86. 43	7.80	94. 23	54.00	40. 23	AVG	No Limit
3	2483. 5000	42. 17	7.88	50.05	74.00	-23.95	Peak	
4	2483. 5000	33. 29	7.88	41. 17	54.00	-12.83	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923. 9860	46.88	4.63	51. 51	74.00	-22.49	Peak	
2 *	4924, 0230	42.48	4. 63	47.11	54.00	-6. 89	AVG	

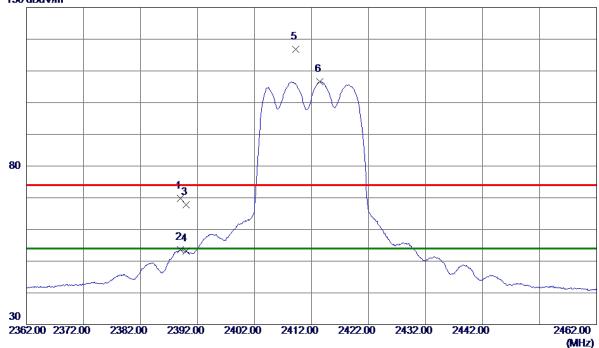
- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode: TX G Mode 2412 MHz

# Vertical

### 130 dBuV/m



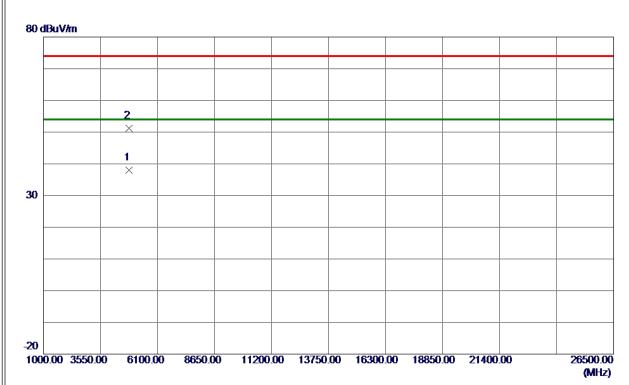
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2388.9500	62. 28	7. 56	69. 84	74.00	-4. 16	Peak	
2	2388.9500	46. 13	7. 56	53. 69	54.00	-0.31	AVG	
3	2390.0000	60. 29	7. 56	67.85	74.00	-6. 15	Peak	
4	2390.0000	45. 59	7. 56	53. 15	54.00	<b>-0.</b> 85	AVG	
5	2409. 2000	109. 19	7.63	116.82	74.00	42.82	Peak	No Limit
6 *	2413. 4000	98. 95	7.64	106. 59	54.00	52. 59	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode: TX G Mode 2412 MHz

# Vertical



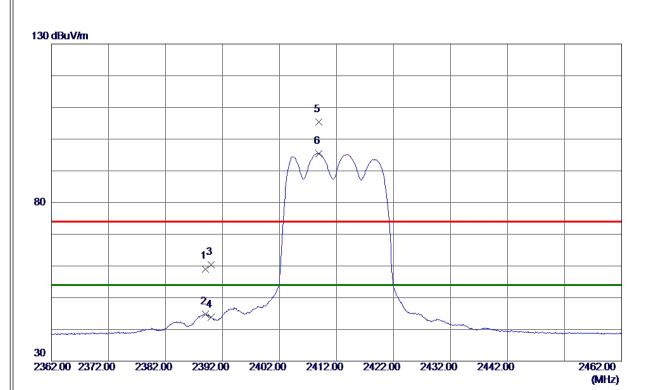
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4822.7200	33. 70	4. 25	37. 95	54.00	-16. 05	AVG	
2	4828. 0600	46. 93	4. 27	51. 20	74. 00	-22. 80	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode: TX G Mode 2412 MHz

# Horizontal



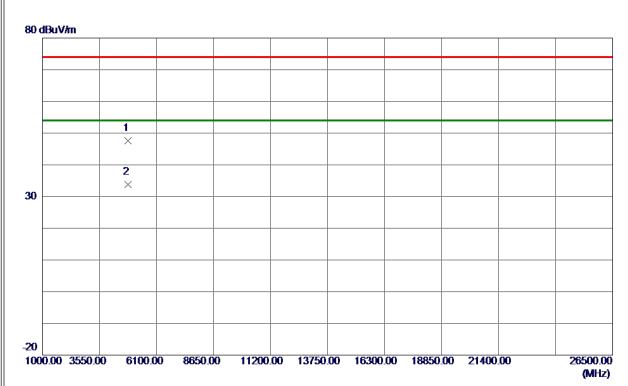
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389.0500	51. 54	7. 56	59. 10	74.00	-14.90	Peak	
2	2389.0500	37. 21	7. 56	44.77	54.00	-9. 23	AVG	
3	2390.0000	52. 91	7. 56	60.47	74.00	-13.53	Peak	
4	2390.0000	36. 17	7. 56	43.73	54.00	-10. 27	AVG	
5	2408.8500	97.75	7. 63	105.38	74.00	31. 38	Peak	No Limit
6 *	2408. 8500	87.85	7. 63	95. 48	54.00	41.48	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



Test Mode: TX G Mode 2412 MHz

# Horizontal

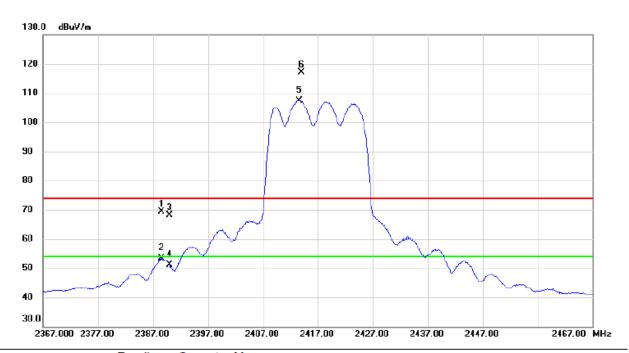


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.0410	43. 37	4. 25	47.62	74.00	-26. 38	Peak	
2 *	4823. 2020	29. 50	4. 25	33. 75	54.00	-20. 25	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

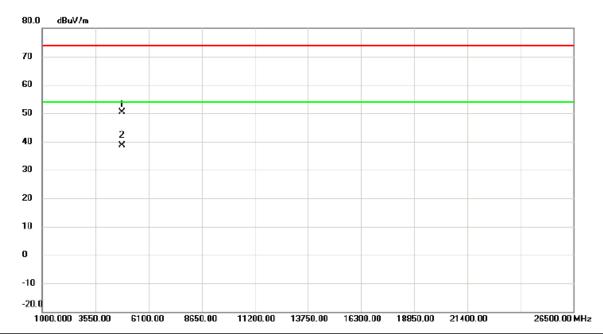


	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	2	2388.550	61.94	7.56	69.50	74.00	-4.50	peak	
	2	2	2388.550	45.84	7.56	53.40	54.00	-0.60	AVG	
	3	2	2390.000	60.56	7.57	68.13	74.00	-5.87	peak	
	4	2	2390.000	43.65	7.57	51.22	54.00	-2.78	AVG	
	5	* 2	2413.600	99.79	7.65	107.44	54.00	53.44	AVG	No Limit
	6	X 2	2414.000	109.57	7.65	117.22	74.00	43.22	peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

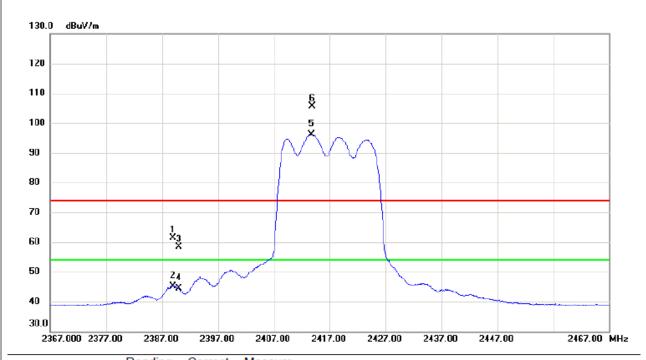


No.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	1828.480	46.19	4.28	50.47	74.00	-23.53	peak	
2	* 4	1833.320	34.38	4.29	38.67	54.00	-15.33	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2	2388.950	53.77	7.57	61.34	74.00	-12.66	peak	
2	2	2388.950	37.47	7.57	45.04	54.00	-8.96	AVG	
3	2	2390.000	50.89	7.57	58.46	74.00	-15.54	peak	
4	2	2390.000	36.85	7.57	44.42	54.00	-9.58	AVG	
5	* 2	2413.700	88.47	7.65	96.12	54.00	42.12	AVG	No Limit
6	X 2	2413.850	98.05	7.65	105.70	74.00	31.70	peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Horizontal



No.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	* 4	1833.170	29.65	4.29	33.94	54.00	-20.06	AVG	
2	4	1833.945	42.00	4.29	46.29	74.00	-27.71	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical



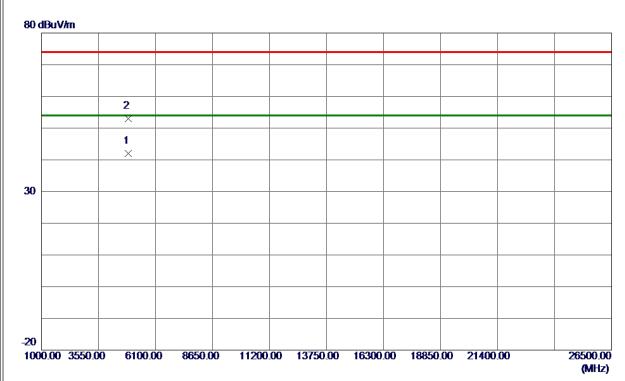


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2438.7000	111.01	7.73	118.74	74.00	44.74	Peak	No Limit
2 *	2438. 8500	101. 50	7.73	109. 23	54.00	55. 23	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4872. 9400	37. 55	4.44	41.99	54.00	-12.01	AVG	
2	4877. 4800	48. 53	4. 45	52. 98	74.00	-21. 02	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

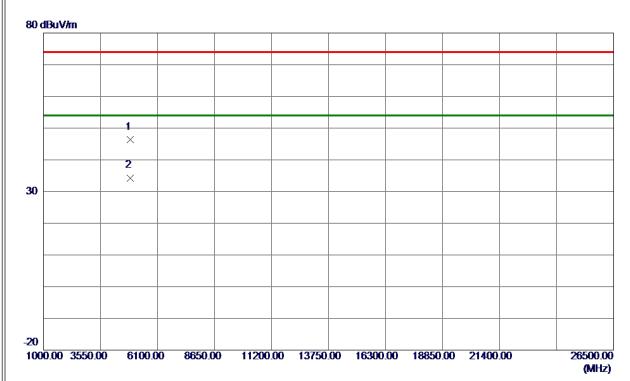


No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2432.6000	90. 38	7.71	98. 09	54.00	44.09	AVG	No Limit
2	2433. 3500	100. 17	7.71	107.88	74.00	33.88	Peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

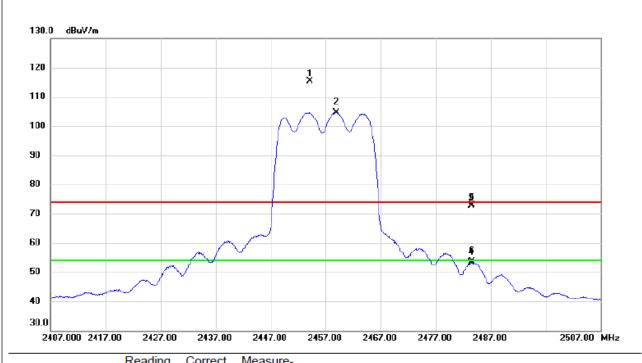


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873. 0800	42.02	4.44	46. 46	74.00	-27.54	Peak	
2 *	4873. 1130	29. 86	4.44	34. 30	54.00	-19. 70	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

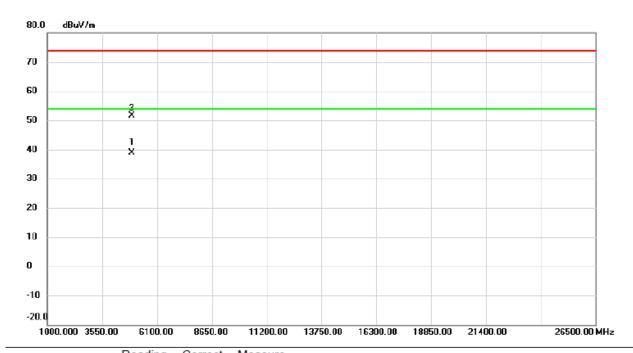


No.	Mk	. Freq.	Level	Factor	ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2454.100	107.67	7.78	115.45	74.00	41.45	peak	No Limit
2	*	2458.950	96.79	7.79	104.58	54.00	50.58	AVG	No Limit
3		2483.500	64.75	7.87	72.62	74.00	-1.38	peak	
4		2483.500	45.36	7.87	53.23	54.00	-0.77	AVG	
5		2483.600	65.00	7.87	72.87	74.00	-1.13	peak	
6		2483.600	45.64	7.87	53.51	54.00	-0.49	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Vertical

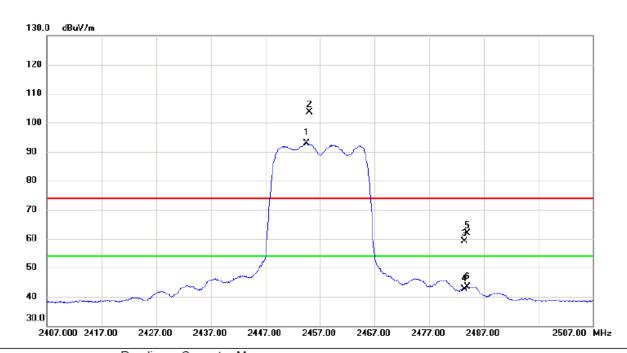


No. M	k. Freq.	_	Factor	Measure- ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4912.700	34.41	4.58	38.99	54.00	-15.01	AVG	
2	4913.220	46.93	4.58	51.51	74.00	-22.49	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

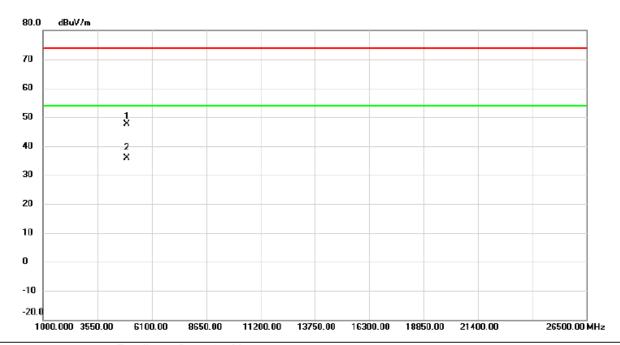


	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	*	2454.550	85.14	7.78	92.92	54.00	38.92	AVG	No Limit
-	2	X	2455.100	95.94	7.78	103.72	74.00	29.72	peak	No Limit
-	3		2483.500	51.31	7.87	59.18	74.00	-14.82	peak	
-	4		2483.500	34.87	7.87	42.74	54.00	-11.26	AVG	
-	5		2484.050	53.94	7.87	61.81	74.00	-12.19	peak	
-	6		2484.050	35.57	7.87	43.44	54.00	-10.56	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal



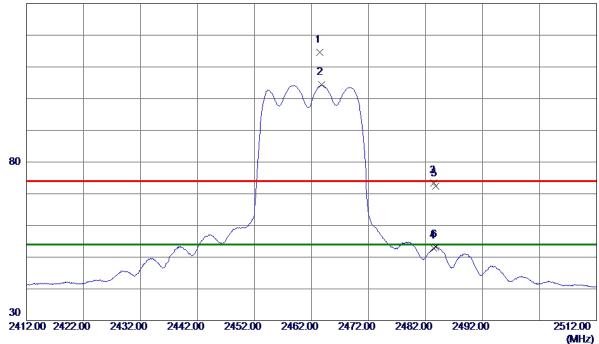
	No.	Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Margin			
l			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
	1	4	4912.550	43.07	4.58	47.65	74.00	-26.35	peak		
	2	* 4	4913.075	31.24	4.58	35.82	54.00	-18.18	AVG		

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

# 130 dBuV/m

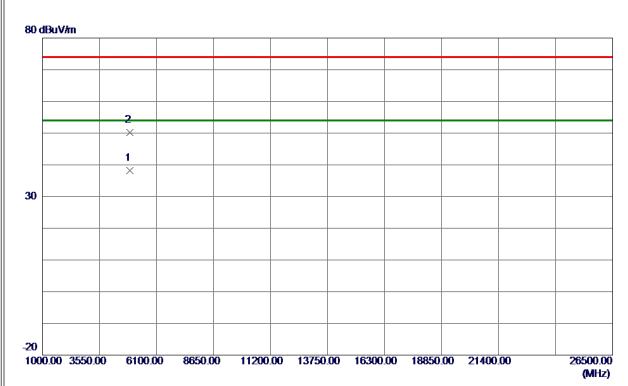


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2463. 4500	106.83	7.81	114.64	74.00	40.64	Peak	No Limit
2 *	2463.8000	96. 57	7.81	104.38	54.00	50.38	AVG	No Limit
3	2483. 5000	65. 53	7.88	73. 41	74.00	-0. 59	Peak	
4	2483. 5000	44.88	7.88	52. 76	54.00	-1.24	AVG	
5	2483.8000	64. 43	7.88	72. 31	74.00	-1.69	Peak	
6	2483.8000	45. 29	7.88	53. 17	54.00	-0.83	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

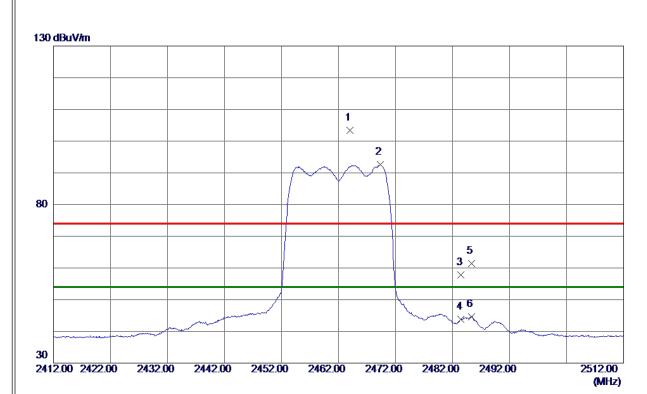


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4922. 6800	33.60	4.62	38. 22	<b>54.00</b>	-15. 78	AVG	
2	4922, 7200	45. 67	4.62	50. 29	74.00	-23.71	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

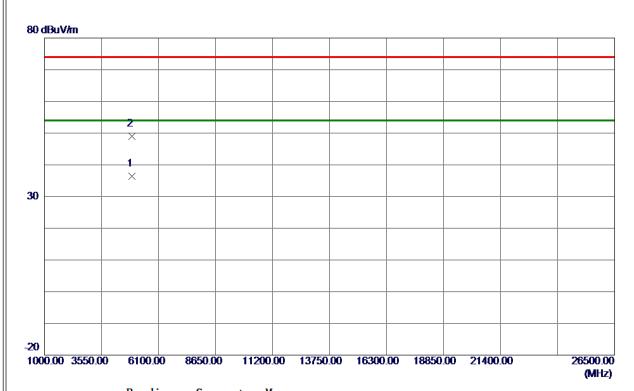


No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2464.0500	95. 62	7.81	103.43	74.00	29.43	Peak	No Limit
2 *	2469. 3000	84.70	7.83	92. 53	54.00	38. 53	AVG	No Limit
3	2483. 5000	49. 99	7.88	57.87	74.00	-16. 13	Peak	
4	2483. 5000	35. 85	7.88	43.73	54.00	-10. 27	AVG	
5	2485. 3000	53. 50	7.88	61. 38	74.00	-12.62	Peak	
6	2485. 3000	36. 77	7.88	44.65	54.00	-9. 35	AVG	
I								

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal



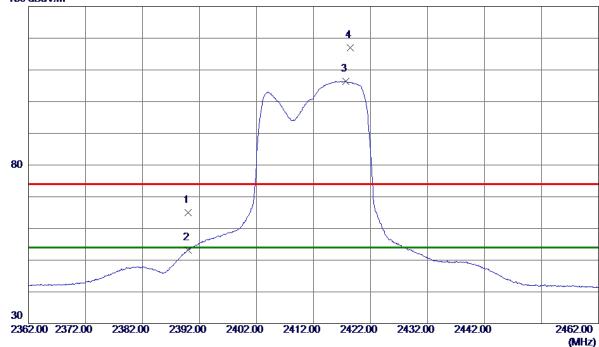
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923. 0099	31. 79	4.62	36. 41	<b>54.00</b>	-17.59	AVG	
2	4923. 1130	44. 39	4. 62	49. 01	74.00	-24. 99	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

### 130 dBuV/m

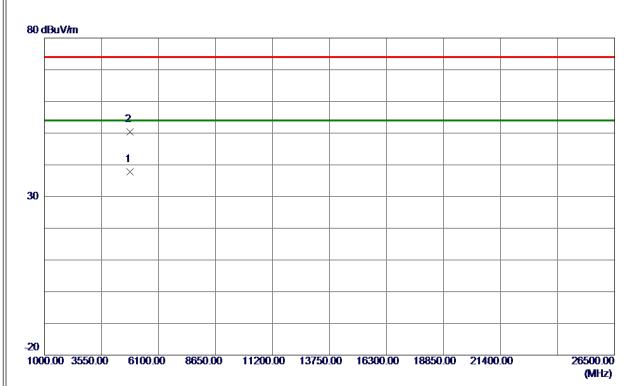


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	57. 51	7. 56	65. 07	74.00	-8. 93	Peak	
2	2390.0000	45. 67	7. 56	53. 23	54.00	-0.77	AVG	
3 *	2417.7000	98. 75	7. 66	106. 41	54.00	52.41	AVG	No Limit
4	2418. 4000	109. 42	7. 66	117.08	74.00	43.08	Peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Vertical

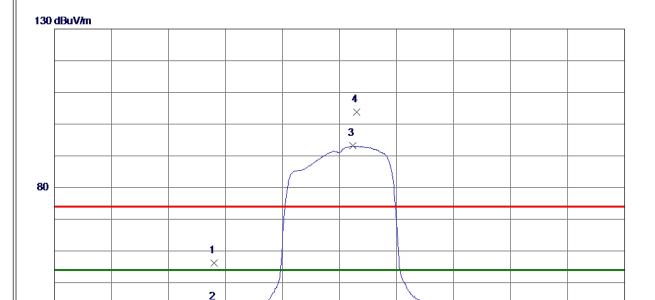


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4821. 1000	33. 58	4.24	37.82	54.00	-16. 18	AVG	
2	4821, 4200	46. 14	4. 25	50. 39	74.00	-23. 61	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	48. 67	7. 56	56. 23	74.00	-17.77	Peak	
2	2390.0000	34.00	7. 56	41.56	<b>54.00</b>	-12.44	AVG	
3 *	2414.3500	85. 49	7.65	93. 14	<b>54.00</b>	39. 14	AVG	No Limit
4	2414. 9500	96. 20	7.65	103.85	74.00	29.85	Peak	No Limit

2412.00

2422.00

2432.00

2442.00

2462.00 (MHz)

# **REMARKS**:

**30** 

2362.00 2372.00

2382.00

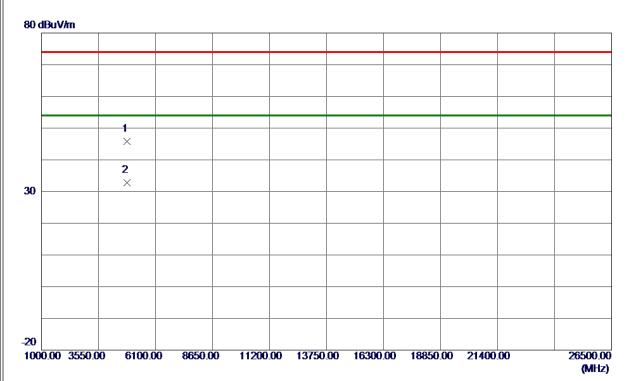
2392.00

2402.00

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

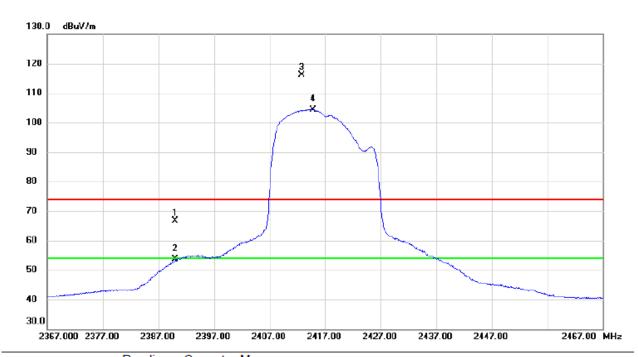


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.0099	41.64	4. 25	45.89	74.00	-28. 11	Peak	
2 *	4823. 0339	28. 60	4. 25	32. 85	54.00	-21. 15	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

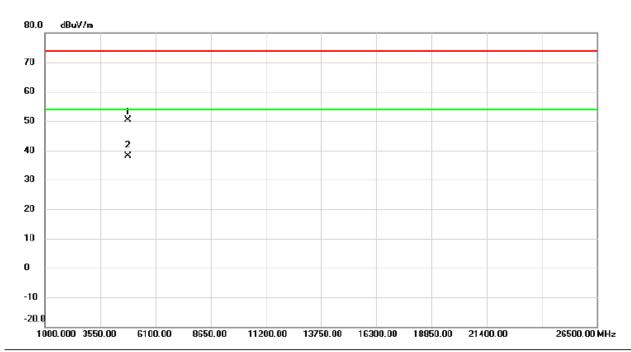


	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	2	2390.000	59.03	7.57	66.60	74.00	-7.40	peak	
	2	2	2390.000	45.98	7.57	53.55	54.00	-0.45	AVG	
	3 )	X 2	2412.850	108.57	7.65	116.22	74.00	42.22	peak	No Limit
	4 '	2	2414.750	96.75	7.65	104.40	54.00	50.40	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

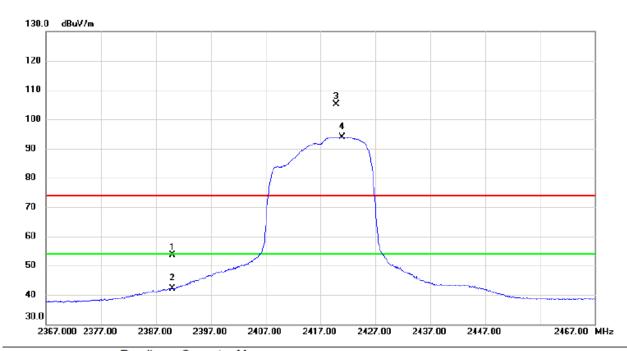


	No.	Mk.	Freq.			Measure- ment	Limit	Margin		
l			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	4	830.520	46.20	4.28	50.48	74.00	-23.52	peak	
	2	* 4	831.780	33.90	4.28	38.18	54.00	-15.82	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

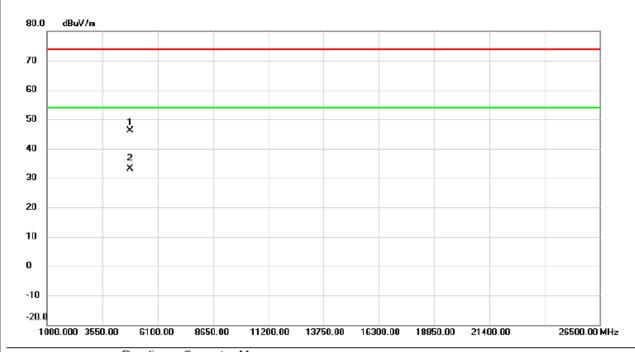


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	46.18	7.57	53.75	74.00	-20.25	peak	
2		2390.000	34.60	7.57	42.17	54.00	-11.83	AVG	
3	X	2419.800	97.37	7.66	105.03	74.00	31.03	peak	No Limit
4	*	2420.900	86.31	7.67	93.98	54.00	39.98	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal



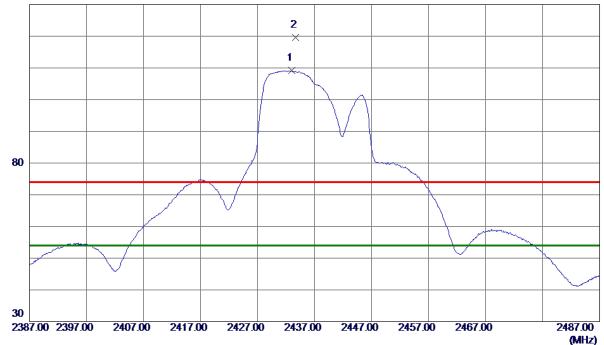
	No.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	4	833.113	41.76	4.29	46.05	74.00	-27.95	peak	
l	2	* 4	833.412	28.94	4.29	33.23	54.00	-20.77	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

### 130 dBuV/m

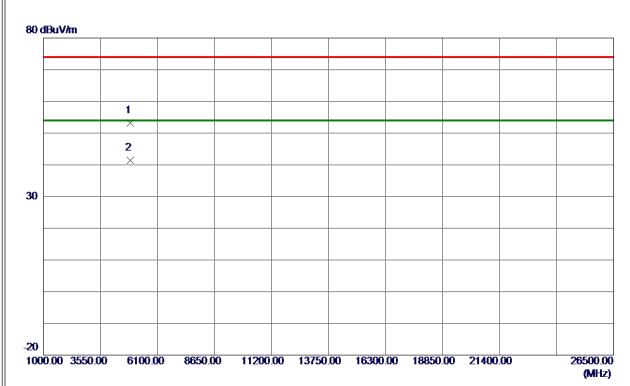


No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2432.9500	101.48	7.71	109. 19	54.00	55. 19	AVG	No Limit
2	2433. 7000	111.81	7.71	119. 52	74.00	45. 52	Peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

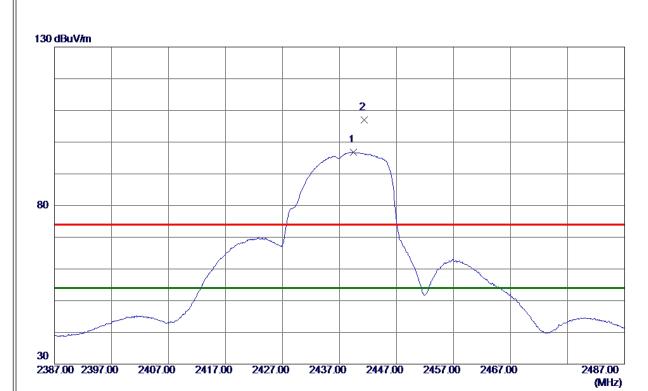


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4869. 3000	48.74	4.42	53. 16	74.00	-20.84	Peak	
2 *	4869. 5800	37.00	4.42	41.42	54.00	-12. 58	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

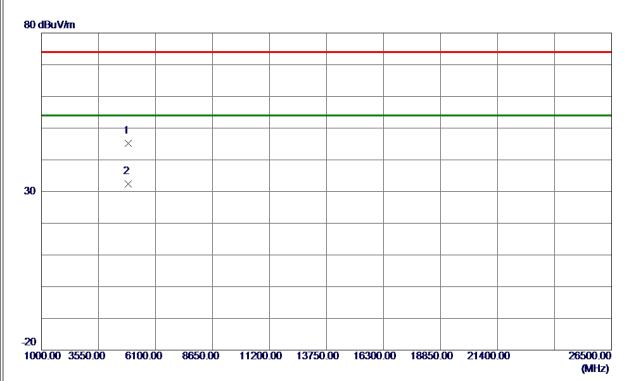


No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2439. 4500	89. 16	7. 73	96. 89	54.00	42.89	AVG	No Limit
2	2441. 3000	99. 28	7.74	107.02	74.00	33. 02	Peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

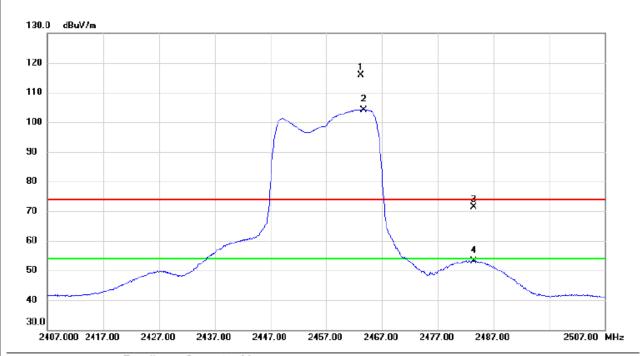


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873. 1509	40.76	4.44	45. 20	74.00	-28.80	Peak	
2 *	4873. 3270	27. 96	4.44	32. 40	54.00	-21. 60	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Vertical

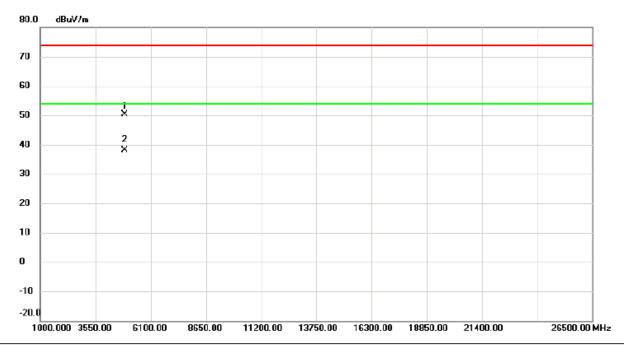


	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	X	2463.150	108.16	7.81	115.97	74.00	41.97	peak	No Limit
	2	*	2463.700	96.44	7.81	104.25	54.00	50.25	AVG	No Limit
	3		2483.500	63.47	7.87	71.34	74.00	-2.66	peak	
l	4		2483.500	45.18	7.87	53.05	54.00	-0.95	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

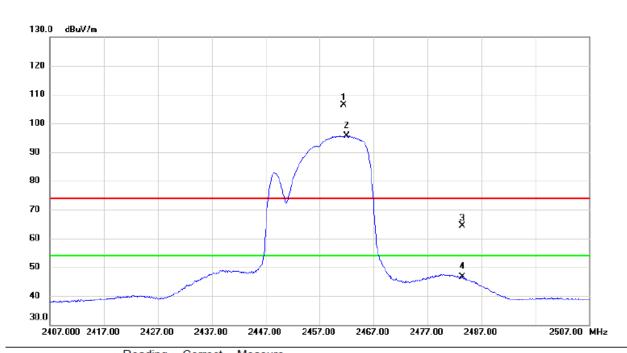


No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	1909.680	45.82	4.58	50.40	74.00	-23.60	peak	
2	* 4	1909.900	33.65	4.58	38.23	54.00	-15.77	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

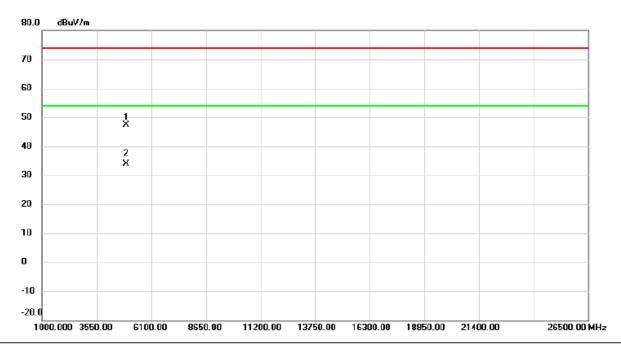


	No. MI	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
	1 X	2461.400	98.66	7.80	106.46	74.00	32.46	peak	No Limit	
	2 *	2462.000	87.81	7.80	95.61	54.00	41.61	AVG	No Limit	
	3	2483.500	56.51	7.87	64.38	74.00	-9.62	peak		
	4	2483.500	38.64	7.87	46.51	54.00	-7.49	AVG		

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Horizontal



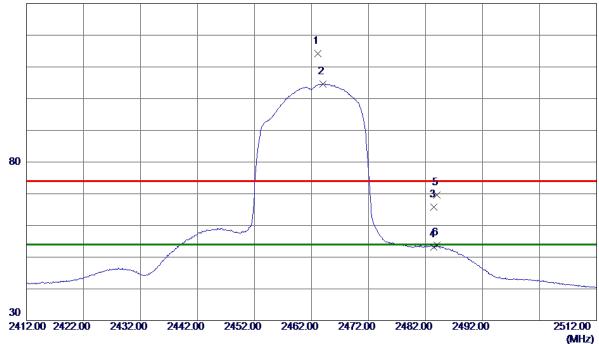
No.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	1913.009	42.69	4.58	47.27	74.00	-26.73	peak	
2	* 4	1913.047	29.33	4.58	33.91	54.00	-20.09	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

### 130 dBuV/m

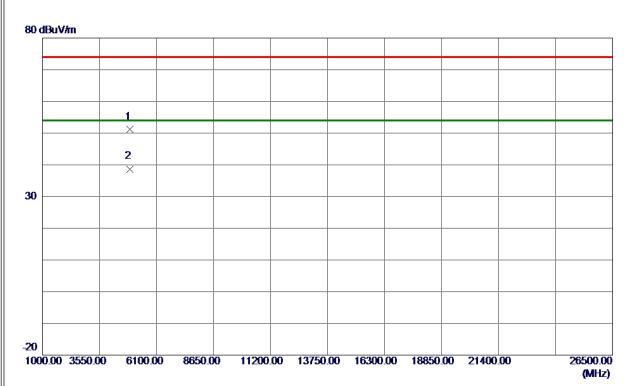


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2463. 1500	106. 43	7.81	114. 24	74.00	40. 24	Peak	No Limit
2 *	2464.0000	96. 84	7.81	104.65	54.00	<b>50.65</b>	AVG	No Limit
3	2483. 5000	57.91	7.88	65. 79	74.00	-8. 21	Peak	
4	2483. 5000	45. 39	7.88	53. 27	54.00	-0.73	AVG	
5	2484.0500	61.63	7.88	69. 51	74.00	-4.49	Peak	
6	2484.0500	45.86	7.88	53.74	54.00	-0. 26	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

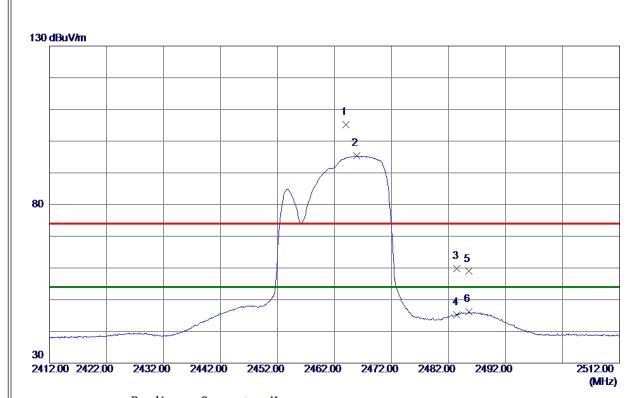


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4919.0600	46. 62	4.61	51. 23	74.00	-22.77	Peak	
2 *	4920, 9600	34. 08	4. 62	38. 70	54.00	-15. 30	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

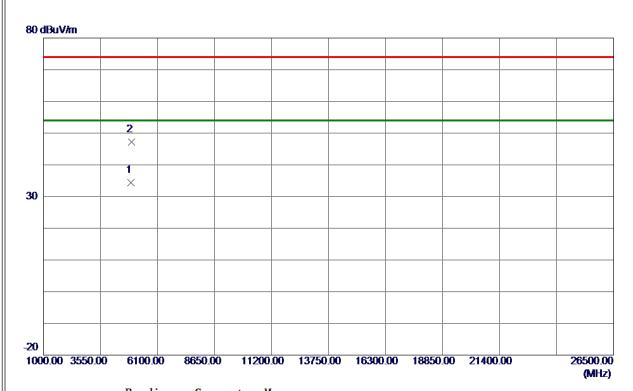


No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2464.0500	97. 38	7.81	105. 19	74.00	31. 19	Peak	No Limit
2 *	2465.8500	87. 53	7.82	95. 35	54.00	41.35	AVG	No Limit
3	2483. 5000	51.94	7.88	59.82	74.00	-14. 18	Peak	
4	2483. 5000	37. 29	7.88	45. 17	54.00	-8.83	AVG	
5	2485. 5500	51.02	7.88	<b>58. 90</b>	74.00	-15. 10	Peak	
6	2485. 5500	38. 26	7.88	46. 14	54.00	-7.86	AVG	
I								

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal



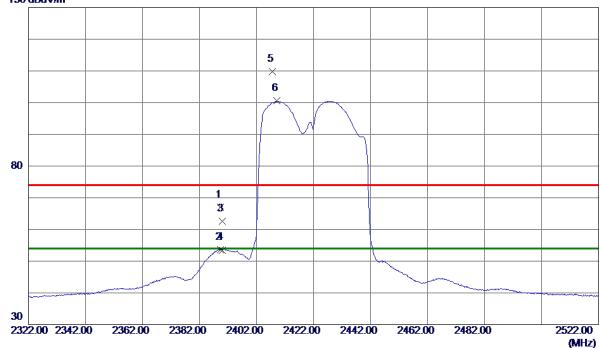
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923. 1450	29. 81	4.62	34.43	54.00	-19.57	AVG	
2	4924. 3000	42.60	4. 63	47. 23	74.00	-26.77	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical



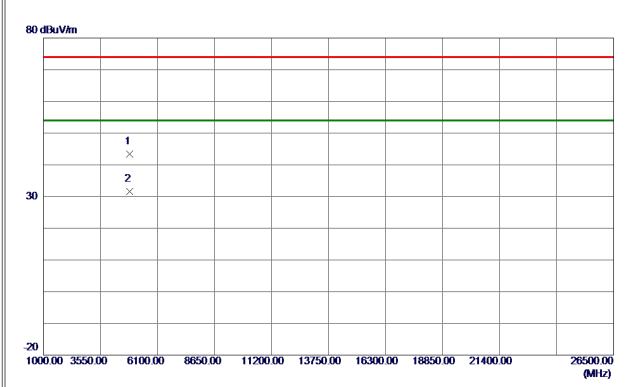


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389. 3000	59. 49	7. 56	67. 05	74.00	-6. 95	Peak	
2	2389. 3000	46. 12	7. 56	53. 68	54.00	<b>-0.32</b>	AVG	
3	2390.0000	55. <b>0</b> 5	7. 56	62. 61	74.00	-11. 39	Peak	
4	2390.0000	45.94	7. 56	53. 50	54.00	-0.50	AVG	
5	2407.5000	102. 15	7. 62	109.77	74.00	35. 77	Peak	No Limit
6 *	2409. 2000	92. 92	7.63	100. 55	54.00	46. 55	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Vertical

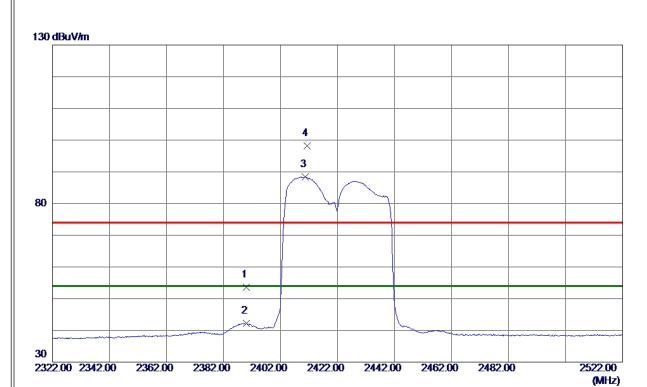


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4840. 7250	39. 03	4. 32	43. 35	74.00	-30.65	Peak	
2 *	4841, 2000	27. 35	4. 32	31.67	54.00	-22.33	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

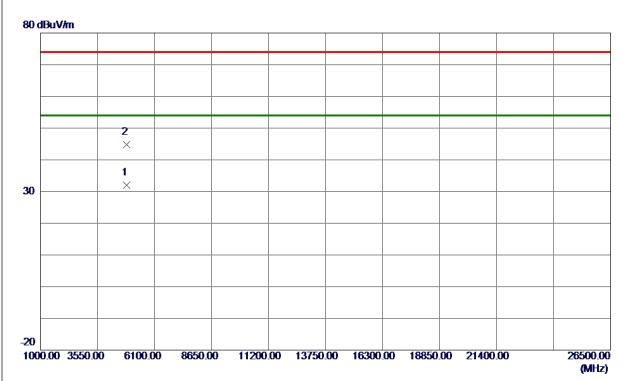


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	45. 98	7. 56	53. 54	74.00	-20.46	Peak	
2	2390.0000	34.64	7. 56	42. 20	<b>54.00</b>	-11.80	AVG	
3 *	2410.7000	80.85	7.63	88. 48	<b>54.00</b>	34.48	AVG	No Limit
4	2411. 4000	90. 57	7.64	98. 21	74.00	24. 21	Peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Horizontal

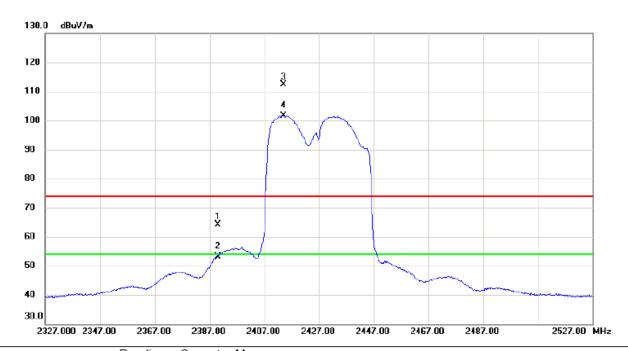


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4843. 1910	27.63	4.33	31.96	54.00	-22.04	AVG	
2	4844. 7670	40.41	4. 33	44.74	74.00	-29. 26	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Vertical



No. MI	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.000	56.66	7.57	64.23	74.00	-9.77	peak	
2	2390.000	45.68	7.57	53.25	54.00	-0.75	AVG	
3 X	2414.100	104.72	7.65	112.37	74.00	38.37	peak	No Limit
4 *	2414.100	94.06	7.65	101.71	54.00	47.71	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

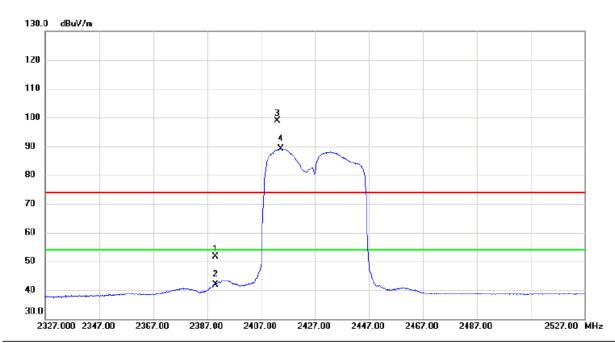


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1	* 4	851.925	28.44	4.36	32.80	54.00	-21.20	AVG			
2	4	852.800	39.80	4.36	44.16	74.00	-29.84	peak			

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



## Horizontal

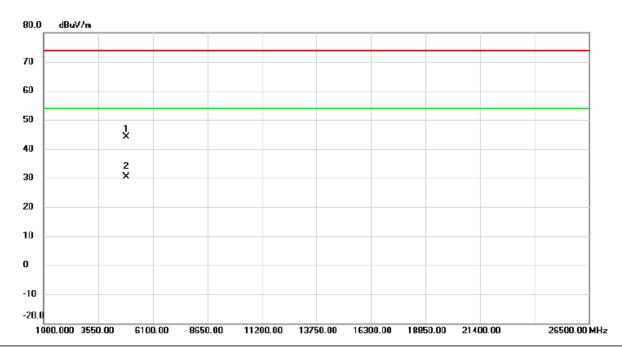


No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	44.07	7.57	51.64	74.00	-22.36	peak	
2		2390.000	34.38	7.57	41.95	54.00	-12.05	AVG	
3	X	2412.900	91.15	7.65	98.80	74.00	24.80	peak	No Limit
4	*	2414.300	81.57	7.65	89.22	54.00	35.22	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal



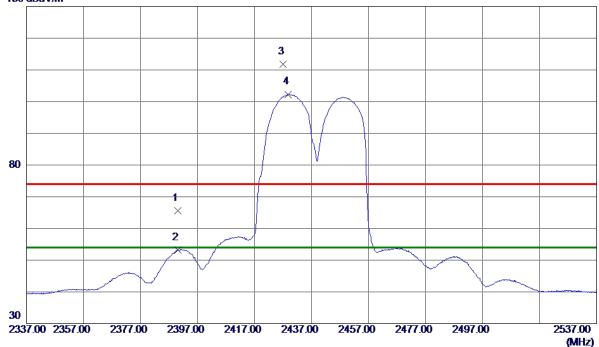
	No.	Mk.	Freq.			Measure- ment		Margin		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		4853.050	39.79	4.36	44.15	74.00	-29.85	peak	
-	2	*	4853.128	25.94	4.37	30.31	54.00	-23.69	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
  (2) Margin Level = Measurement Value Limit Value.



## Vertical



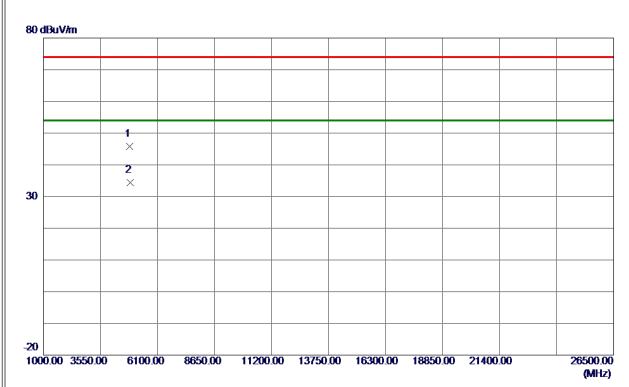


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	58. 10	7. 56	65. 66	74.00	-8. 34	Peak	
2	2390.0000	45. 70	7. 56	53. 26	54.00	-0.74	AVG	
3	2426. 9000	104. 18	7. 69	111.87	74.00	37.87	Peak	No Limit
4 *	2428. 7000	94. 61	7. 69	102. 30	54.00	48. 30	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## **Vertical**

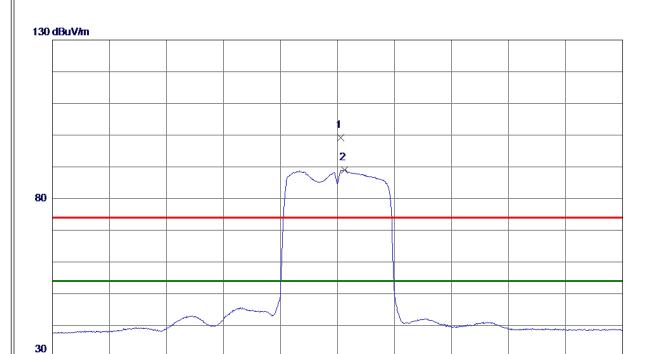


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4867. 2000	41. 32	4.42	45.74	74.00	-28. 26	Peak	
2 *	4867, 5500	30. 03	4.42	34.45	54.00	-19.55	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal



No.	Freq.	Reading Level	Correct Measure Factor ment		Limit			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2438. 1000	91.42	7.72	99. 14	74.00	25. 14	Peak	No Limit
2 *	2439. 5000	81. 24	7. 73	88. 97	54.00	34.97	AVG	No Limit

2437.00 2457.00

2497.00

2537.00

(MHz)

## REMARKS:

2337.00 2357.00

(1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value - Limit Value.

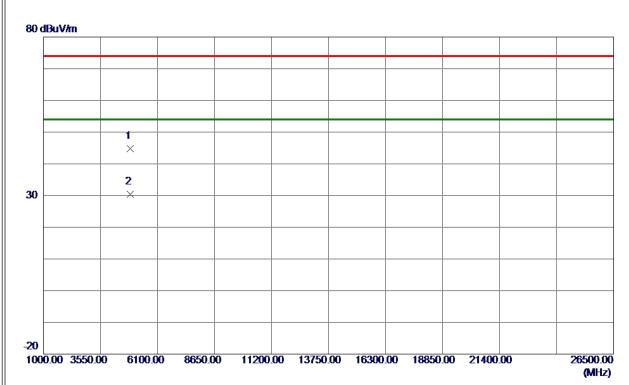
2397.00

2377.00

2417.00



## Horizontal

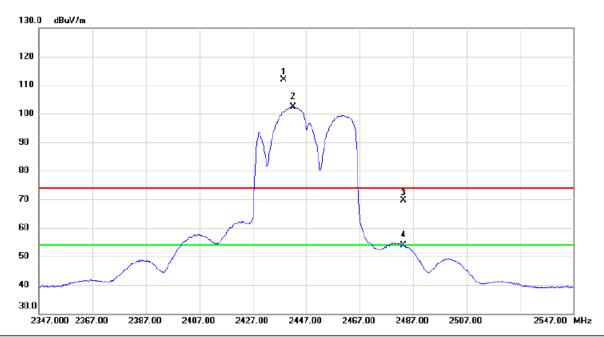


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873. 0339	40.42	4.44	44.86	74.00	-29. 14	Peak	
2 *	4873. 1469	26. 04	4.44	30. 48	54.00	-23. 52	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
  (2) Margin Level = Measurement Value Limit Value.



## Vertical

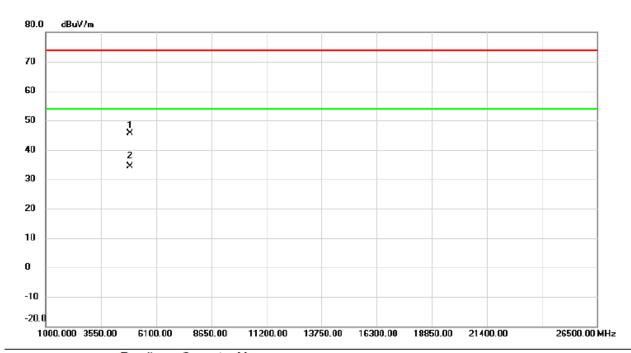


No. M	k. I	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 X	2438	3.700	104.02	7.74	111.76	74.00	37.76	peak	No Limit
2 *	2442	2.200	94.55	7.74	102.29	54.00	48.29	AVG	No Limit
3	2483	3.500	61.86	7.87	69.73	74.00	-4.27	peak	
4	2483	3.500	46.01	7.87	53.88	54.00	-0.12	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

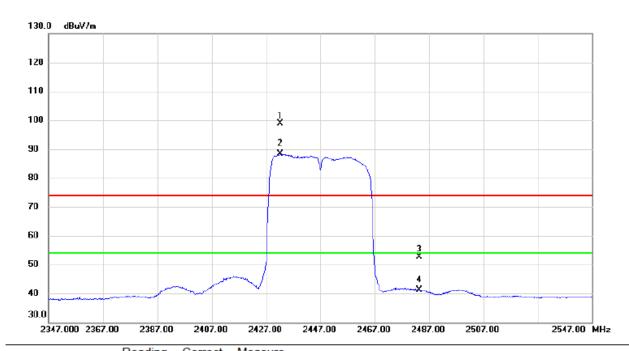


ı	No.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1	4	886.850	41.15	4.49	45.64	74.00	-28.36	peak	
	2	* 4	889.150	29.79	4.49	34.28	54.00	-19.72	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal



No.	Mk	. Freq.	Level	Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	Χ	2432.300	91.09	7.70	98.79	74.00	24.79	peak	No Limit
2	*	2432.300	80.56	7.70	88.26	54.00	34.26	AVG	No Limit
3		2483.500	44.77	7.87	52.64	74.00	-21.36	peak	
4		2483.500	33.34	7.87	41.21	54.00	-12.79	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal



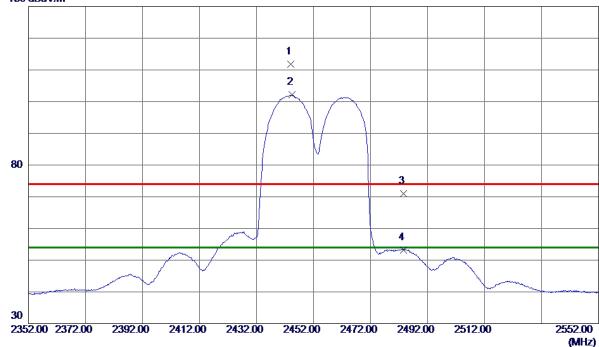
No.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	* 4	1893.129	27.20	4.52	31.72	54.00	-22.28	AVG	
2	4	1893.226	40.08	4.52	44.60	74.00	-29.40	peak	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



## Vertical

#### 130 dBuV/m

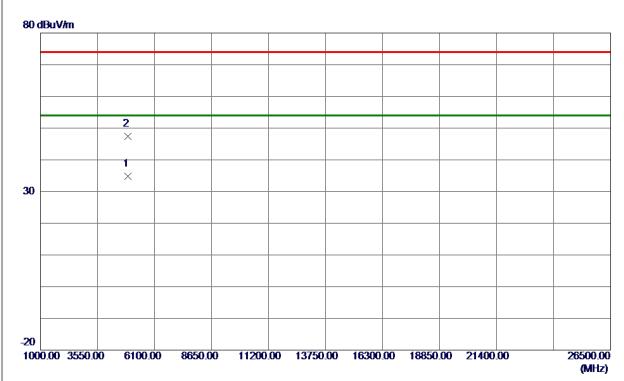


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2444.0000	104. 13	7.74	111.87	74.00	37.87	Peak	No Limit
2 *	2444. 4000	94.44	7.75	102. 19	54.00	48. 19	AVG	No Limit
3	2483. 5000	63. 21	7.88	71.09	74.00	-2.91	Peak	
4	2483. 5000	45. 39	7. 88	53. 27	54.00	-0.73	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

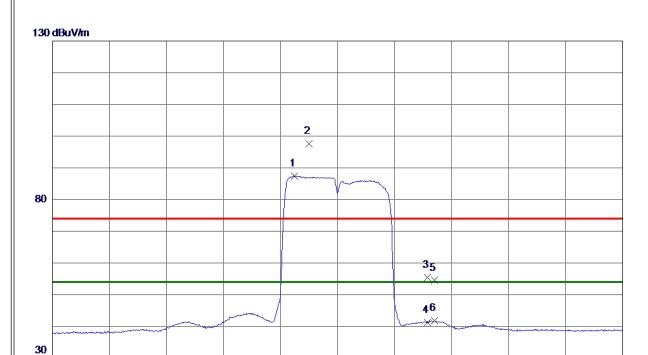


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4898.8000	30. 28	4. 53	34.81	54.00	-19. 19	AVG	
2	4901, 8000	42.83	4. 54	47. 37	74.00	-26. 63	Peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal



No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2436. 9000	79. 74	7.72	87.46	54.00	33.46	AVG	No Limit
2	2442. 1000	89. 80	7.74	97. 54	74.00	23. 54	Peak	No Limit
3	2483. 5000	47. 56	7.88	55.44	74.00	-18. 56	Peak	
4	2483. 5000	33. 38	7.88	41. 26	54.00	-12.74	AVG	
5	2485. 9000	46. 62	7.88	<b>54. 50</b>	74.00	-19. 50	Peak	
6	2485.9000	33.88	7.88	41.76	54.00	-12. 24	AVG	
ı								

2452.00

2472.00

2492.00

2512.00

2552.00

(MHz)

#### **REMARKS**:

2352.00 2372.00

(1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value - Limit Value.

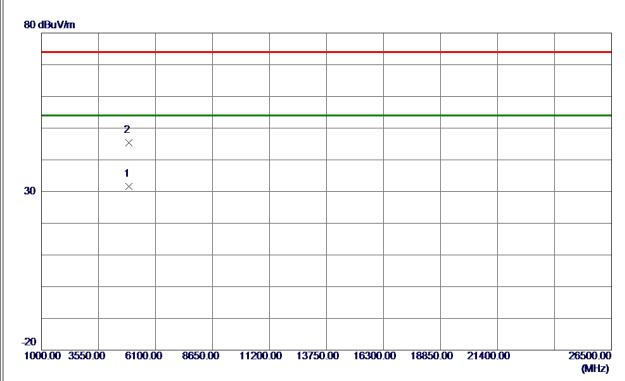
2412.00

2392.00

2432.00



## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4903. 0390	27. 05	4.55	31.60	54.00	-22.40	AVG	
2	4903. 0419	40.82	4.55	45. 37	74.00	-28, 63	Peak	

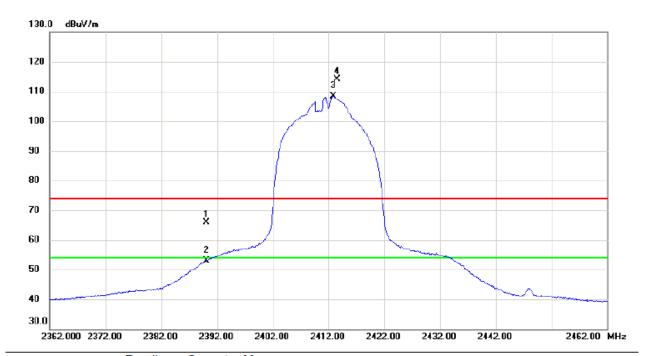
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



# Beamforming

Test Mode: TX N-20M Mode 2412 MHz

#### Vertical



	No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
l		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
	1	2390.000	58.38	7.57	65.95	74.00	-8.05	peak		
	2	2390.000	45.21	7.57	52.78	54.00	-1.22	AVG		
	3 *	2412.800	100.82	7.65	108.47	54.00	54.47	AVG	No Limit	
	4 X	2413.550	106.43	7.65	114.08	74.00	40.08	peak	No Limit	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

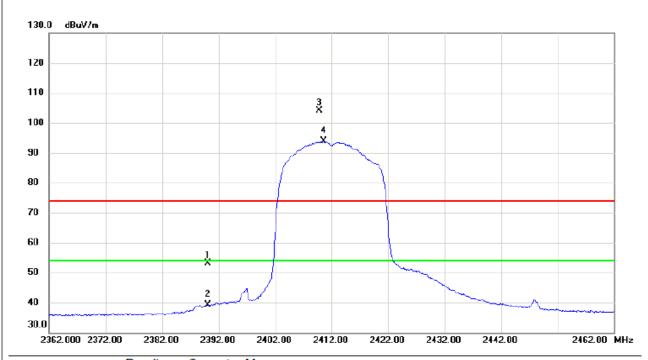


No.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4823.356	37.53	4.26	41.79	74.00	-32.21	peak	
2	*	4823.432	25.33	4.26	29.59	54.00	-24.41	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



## Horizontal

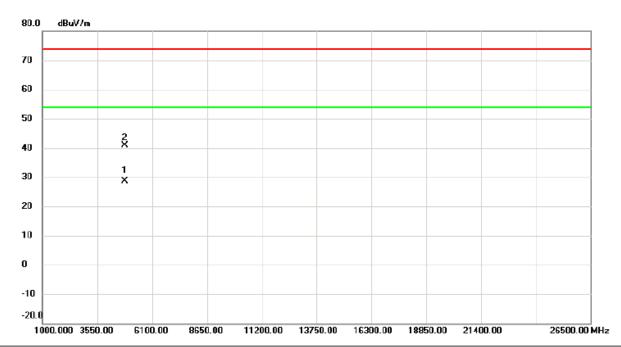


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2390.000	45.55	7.57	53.12	74.00	-20.88	peak		
2		2390.000	31.45	7.57	39.02	54.00	-14.98	AVG		
3	X	2409.750	96.38	7.63	104.01	74.00	30.01	peak	No Limit	
4	*	2410.550	86.15	7.63	93.78	54.00	39.78	AVG	No Limit	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



## Horizontal

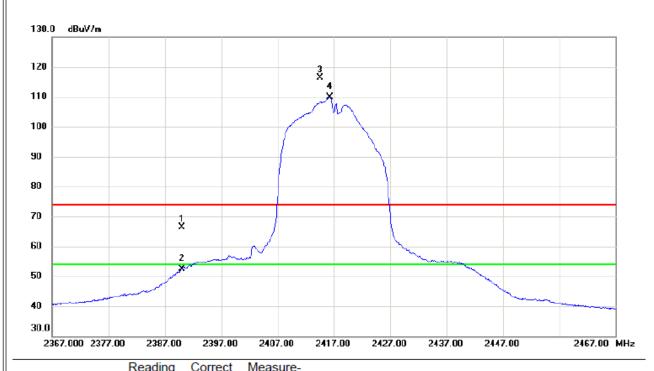


	No.	Mk.	Freq.			Measure- ment		Margin		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1	* 4	1822.733	24.44	4.26	28.70	54.00	-25.30	AVG	
_	2	4	1823.020	36.64	4.26	40.90	74.00	-33.10	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

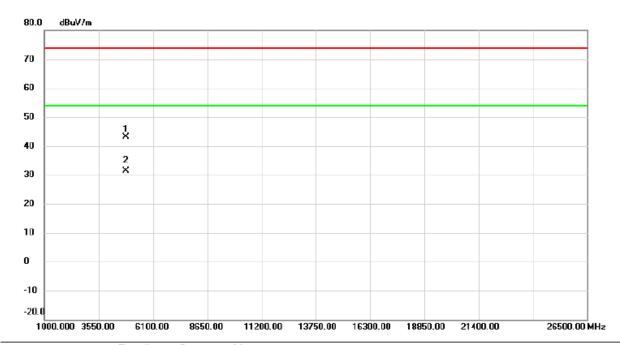


No.	Mk.	Freq.	Level		ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	2	2390.000	58.82	7.57	66.39	74.00	-7.61	peak		
2	2	2390.000	44.85	7.57	52.42	54.00	-1.58	AVG		
3	X 2	2414.550	108.70	7.65	116.35	74.00	42.35	peak	No Limit	
4	* 4	2416.250	102.17	7.66	109.83	54.00	55.83	AVG	No Limit	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

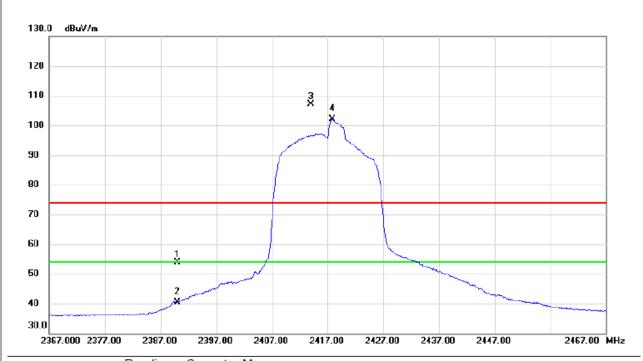


	No.	Mk.	Freq.		Correct Factor	Measure- ment		Margin		
l			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
l	1	4	834.420	38.92	4.30	43.22	74.00	-30.78	peak	
l	2	* 4	835.350	27.17	4.30	31.47	54.00	-22.53	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



## Horizontal

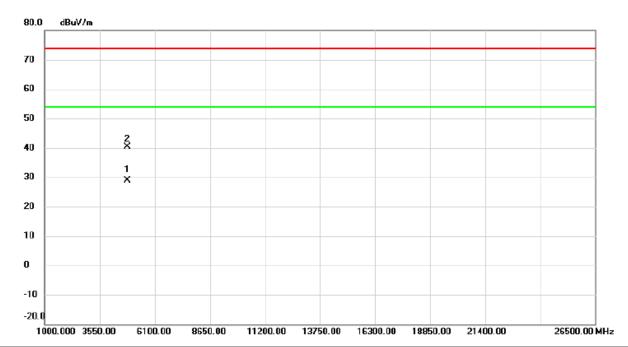


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2	390.000	46.28	7.57	53.85	74.00	-20.15	peak	
2	2	390.000	32.80	7.57	40.37	54.00	-13.63	AVG	
3 )	<b>(</b> 2	413.950	99.54	7.65	107.19	74.00	33.19	peak	No Limit
4 *	2	417.800	94.37	7.66	102.03	54.00	48.03	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



## Horizontal

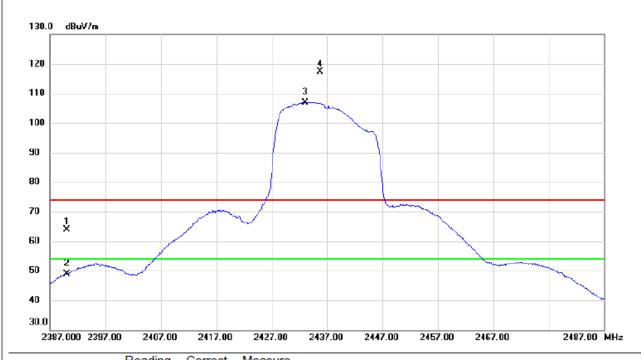


	No.	1	Mk.	Freq.			Measure- ment		Margin		
-				MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	*	4	823.180	24.50	4.26	28.76	54.00	-25.24	AVG	
-	2		4	825.880	36.19	4.26	40.45	74.00	-33.55	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

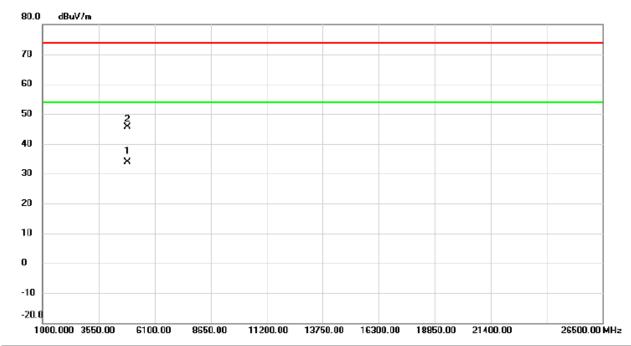


No.	Mk.	Freq.	Level		ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	56.34	7.57	63.91	74.00	-10.09	peak	
2		2390.000	41.24	7.57	48.81	54.00	-5.19	AVG	
3	*	2433.000	99.28	7.70	106.98	54.00	52.98	AVG	No Limit
4	X	2435.750	109.73	7.71	117.44	74.00	43.44	peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

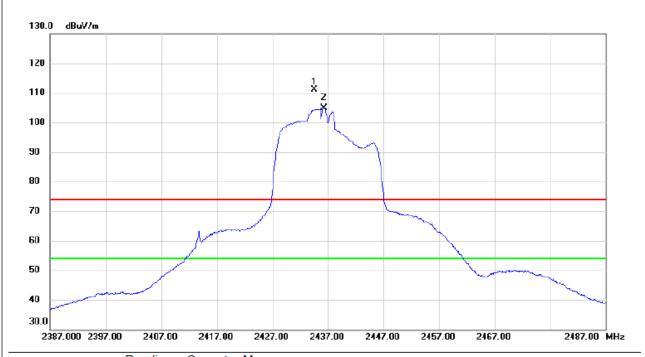


No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4873.700	29.43	4.45	33.88	54.00	-20.12	AVG	
2		4874.050	41.29	4.45	45.74	74.00	-28.26	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal

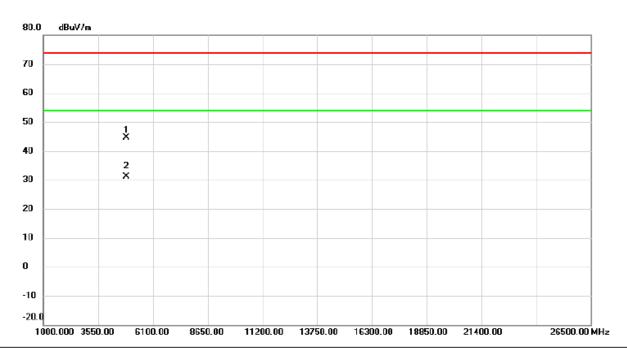


	No.	Mk.	Freq.	_		Measure- ment		Margin		
l			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	X	2434.600	103.33	7.71	111.04	74.00	37.04	peak	No Limit
l	2	*	2436.250	97.15	7.71	104.86	54.00	50.86	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal

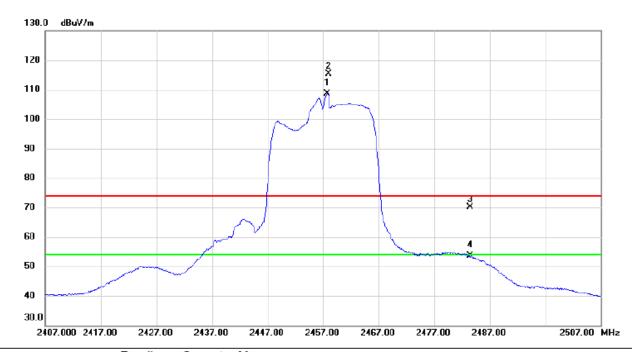


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4873.054	40.16	4.44	44.60	74.00	-29.40	peak	
2	*	4874.200	26.72	4.45	31.17	54.00	-22.83	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



## Vertical

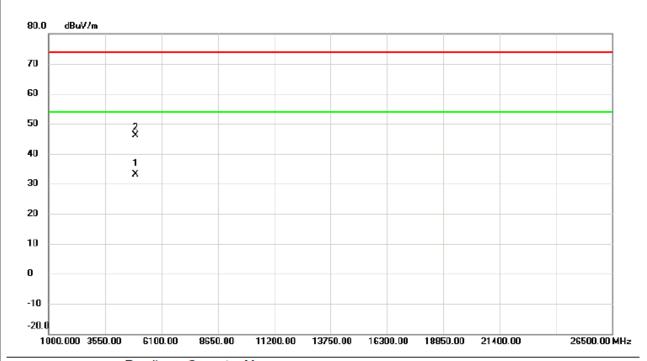


	No. M	c. Freq.	Reading Level		Measure- ment	Limit	Margin			
l		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
l	1 *	2457.750	100.74	7.79	108.53	54.00	54.53	AVG	No Limit	
l	2 X	2458.050	107.60	7.79	115.39	74.00	41.39	peak	No Limit	
l	3	2483.500	62.30	7.87	70.17	74.00	-3.83	peak		
l	4	2483.500	45.76	7.87	53.63	54.00	-0.37	AVG		

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

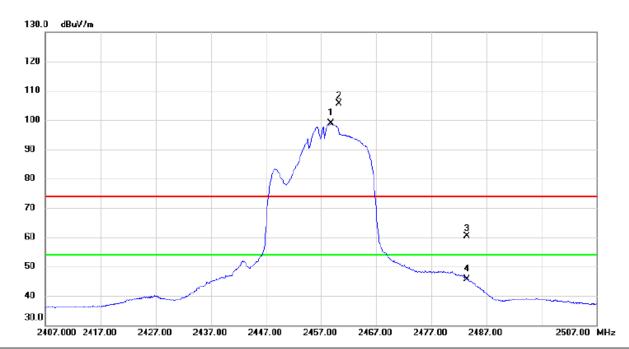


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	* 4	913.925	28.55	4.58	33.13	54.00	-20.87	AVG	
2	4	914.825	41.56	4.59	46.15	74.00	-27.85	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal

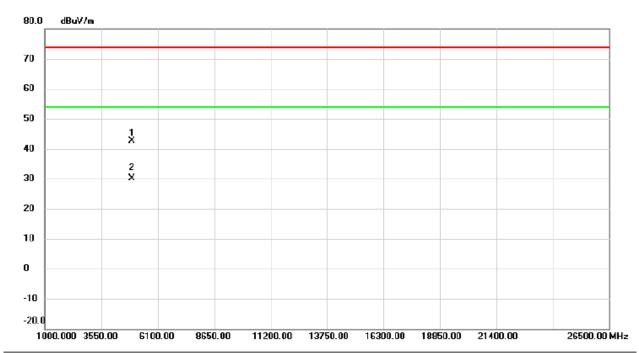


No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2458.850	91.13	7.79	98.92	54.00	44.92	AVG	No Limit
2 X	2460.300	97.92	7.79	105.71	74.00	31.71	peak	No Limit
3	2483.500	52.50	7.87	60.37	74.00	-13.63	peak	
4	2483.500	37.76	7.87	45.63	54.00	-8.37	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal

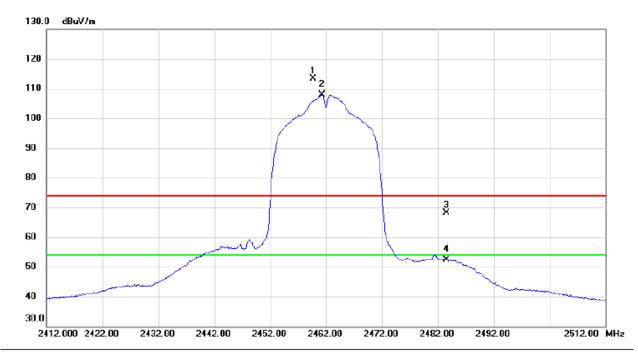


No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	914.475	38.09	4.58	42.67	74.00	-31.33	peak	
2	* 4	914.750	25.52	4.59	30.11	54.00	-23.89	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

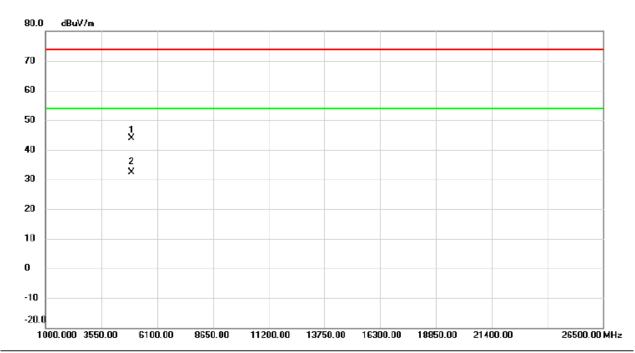


	No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
	1 X	2459.700	105.63	7.79	113.42	74.00	39.42	peak	No Limit	
	2 *	2461.250	100.17	7.79	107.96	54.00	53.96	AVG	No Limit	
	3	2483.500	60.17	7.87	68.04	74.00	-5.96	peak		
	4	2483.500	44.58	7.87	52.45	54.00	-1.55	AVG		

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Vertical

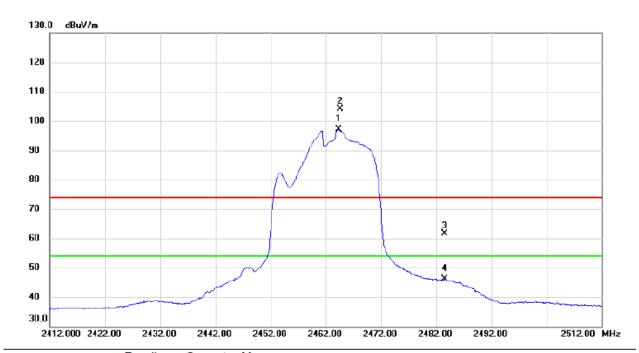


No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4923.444	39.27	4.63	43.90	74.00	-30.10	peak	
2	*	4924.205	27.69	4.63	32.32	54.00	-21.68	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal

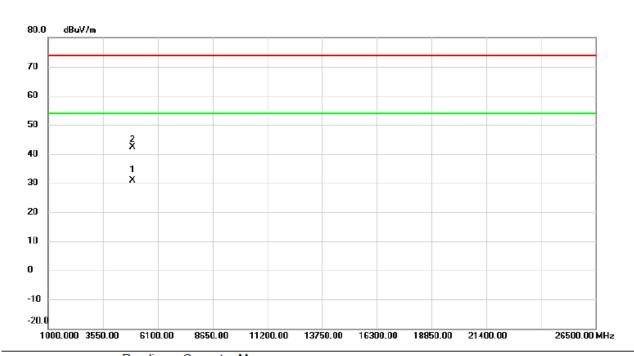


	No. M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
	1 *	2464.300	89.30	7.81	97.11	54.00	43.11	AVG	No Limit		
	2 X	2464.600	96.33	7.81	104.14	74.00	30.14	peak	No Limit		
	3	2483.500	53.64	7.87	61.51	74.00	-12.49	peak			
ı	4	2483.500	38.15	7.87	46.02	54.00	-7.98	AVG			

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



## Horizontal

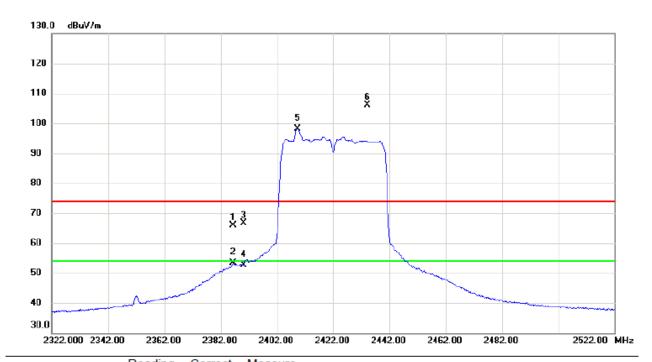


No.	Mk.	Freq.		Correct Factor	Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4926.652	26.20	4.64	30.84	54.00	-23.16	AVG	
2	-	4928.334	37.67	4.65	42.32	74.00	-31.68	peak	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



## Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2386.300	58.35	7.55	65.90	74.00	-8.10	peak	
2		2386.300	45.92	7.55	53.47	54.00	-0.53	AVG	
3		2390.000	59.13	7.57	66.70	74.00	-7.30	peak	
4		2390.000	45.17	7.57	52.74	54.00	-1.26	AVG	
5	*	2409.300	90.63	7.62	98.25	54.00	44.25	AVG	No Limit
6	X	2434.200	98.39	7.71	106.10	74.00	32.10	peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



### Vertical

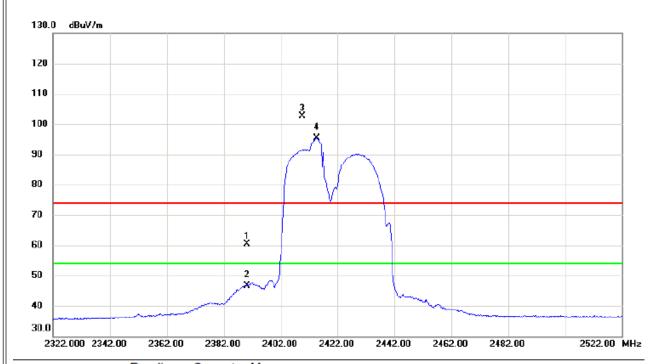


l	No.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
l			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
l	1	* 4	843.023	25.03	4.32	29.35	54.00	-24.65	AVG	
l	2	4	844.127	36.38	4.33	40.71	74.00	-33.29	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Horizontal

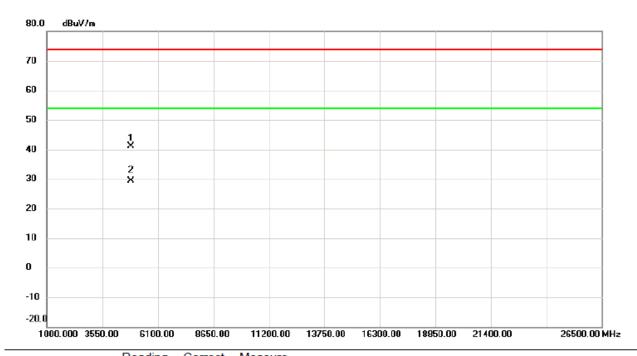


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	2	2390.000	52.83	7.57	60.40	74.00	-13.60	peak		
2	2	2390.000	39.11	7.57	46.68	54.00	-7.32	AVG		
3	X 2	2409.600	95.13	7.62	102.75	74.00	28.75	peak	No Limit	
4	*	2414.700	87.82	7.65	95.47	54.00	41.47	AVG	No Limit	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Horizontal

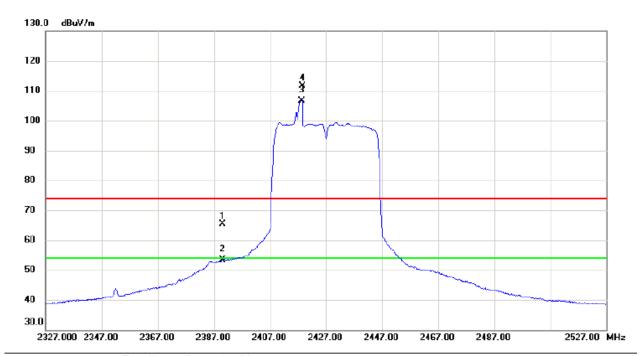


No. M	k. Freq.	_		ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4849.280	36.87	4.35	41.22	74.00	-32.78	peak	
2 *	4850.634	24.98	4.36	29.34	54.00	-24.66	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Vertical



	No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin				
l		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
l	1	2390.000	57.88	7.57	65.45	74.00	-8.55	peak			
l	2	2390.000	45.73	7.57	53.30	54.00	-0.70	AVG			
l	3 *	2418.300	99.01	7.66	106.67	54.00	52.67	AVG	No Limit		
l	4 X	2418.500	104.03	7.66	111.69	74.00	37.69	peak	No Limit		

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Vertical

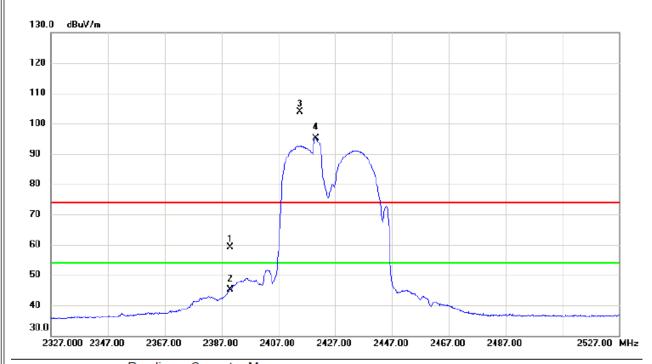


No.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	1855.000	36.59	4.37	40.96	74.00	-33.04	peak	
2	* 4	1858.650	24.87	4.38	29.25	54.00	-24.75	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Horizontal

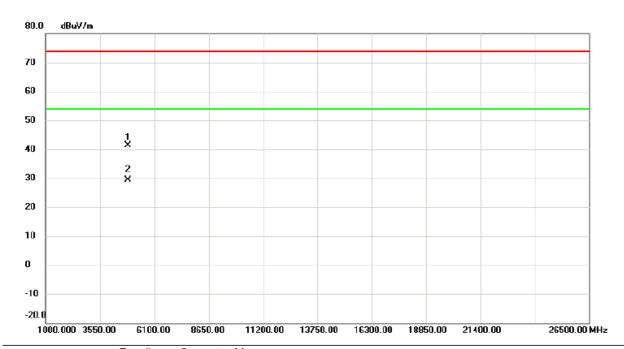


l	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin				
l			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		_
l	1	2	390.000	51.47	7.57	59.04	74.00	-14.96	peak			
l	2	2	2390.000	37.60	7.57	45.17	54.00	-8.83	AVG			
l	3	X 2	414.500	96.16	7.65	103.81	74.00	29.81	peak	No Limit		
l	4	* 2	420.200	87.53	7.66	95.19	54.00	41.19	AVG	No Limit		

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Horizontal

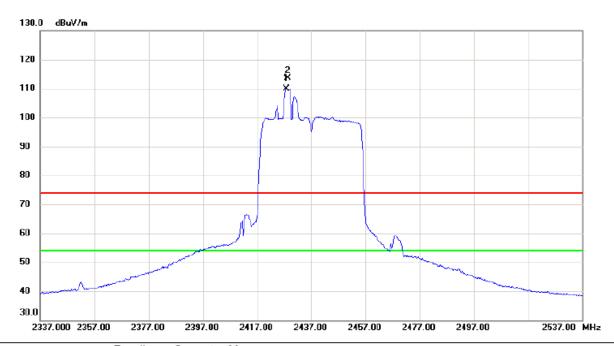


	No.	Mk.	Freq.	Reading Level		Measure- ment		Margin			
l			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
l	1	4	866.514	36.88	4.41	41.29	74.00	-32.71	peak		
l	2	* 4	868.800	24.98	4.42	29.40	54.00	-24.60	AVG		

- (1) Measurement Value = Reading Level + Correct Factor.
  (2) Margin Level = Measurement Value Limit Value.



# Vertical

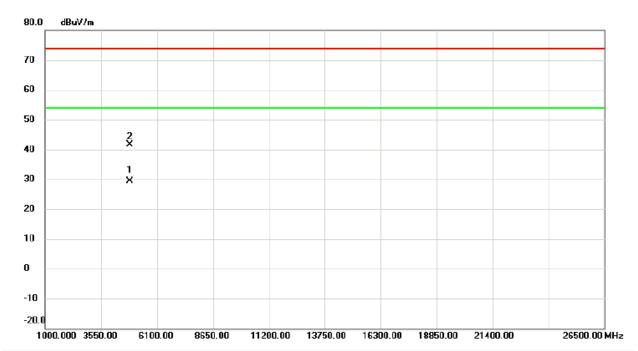


	No.	Mk	. Freq.			Measure- ment		Margin		
l			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
l	1	*	2427.800	102.22	7.69	109.91	54.00	55.91	AVG	No Limit
	2	X	2428.300	105.84	7.69	113.53	74.00	39.53	peak	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



### Vertical



No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4874.325	24.99	4.45	29.44	54.00	-24.56	AVG	
2		4875.032	37.10	4.45	41.55	74.00	-32.45	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Horizontal



	No.	Mk.	Freq.		Correct Factor	Measure- ment		Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	X	2424.300	95.48	7.68	103.16	74.00	29.16	peak	No Limit
l	2	*	2429.300	89.58	7.69	97.27	54.00	43.27	AVG	No Limit

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Horizontal

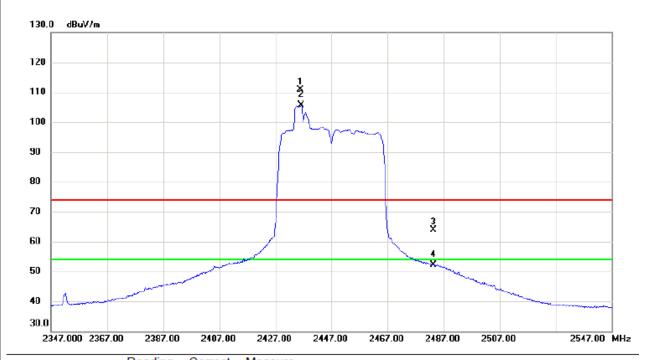


No.	Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	872.741	37.02	4.44	41.46	74.00	-32.54	peak	
2	* 4	873.650	25.41	4.45	29.86	54.00	-24.14	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Vertical

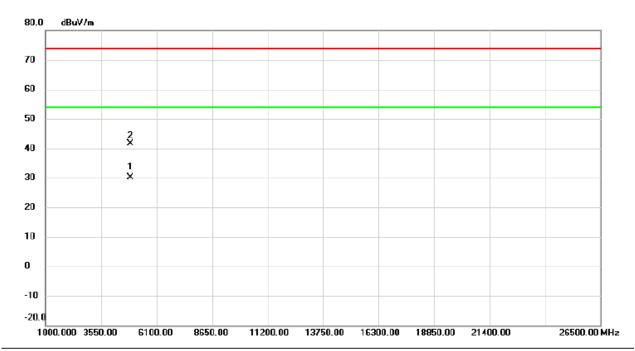


No. MI	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin				
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1 X	2435.800	103.22	7.71	110.93	74.00	36.93	peak	No Limit		
2 *	2436.200	97.87	7.71	105.58	54.00	51.58	AVG	No Limit		
3	2483.500	55.91	7.87	63.78	74.00	-10.22	peak			
4	2483.500	44.25	7.87	52.12	54.00	-1.88	AVG			

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



### Vertical

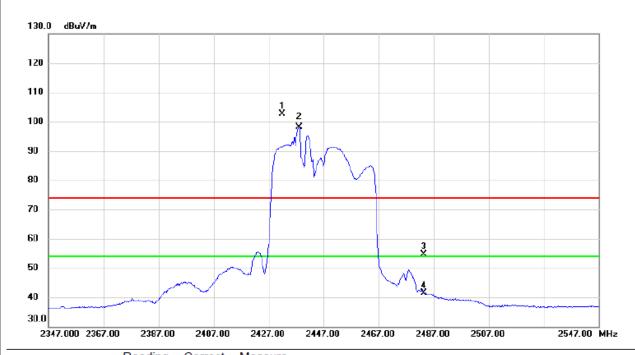


No.	Mk.	Freq.			Measure- ment		Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	4889.691	25.68	4.49	30.17	54.00	-23.83	AVG		
2		4892.365	37.05	4.51	41.56	74.00	-32.44	peak		

- (1) Measurement Value = Reading Level + Correct Factor.
  (2) Margin Level = Measurement Value Limit Value.



### Horizontal



No. Mi	c. Freq.	Reading Level	Correct Factor	Measure- ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 X	2432.000	94.94	7.70	102.64	74.00	28.64	peak	No Limit
2 *	2438.200	90.35	7.73	98.08	54.00	44.08	AVG	No Limit
3	2483.500	46.87	7.87	54.74	74.00	-19.26	peak	
4	2483.500	33.44	7.87	41.31	74.00	-32.69	peak	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



### Horizontal

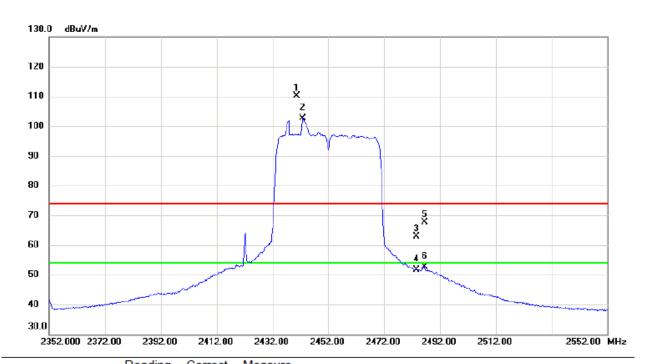


No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	* 4	890.687	24.06	4.50	28.56	54.00	-25.44	AVG	
2	4	895.369	37.11	4.52	41.63	74.00	-32.37	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



# Vertical

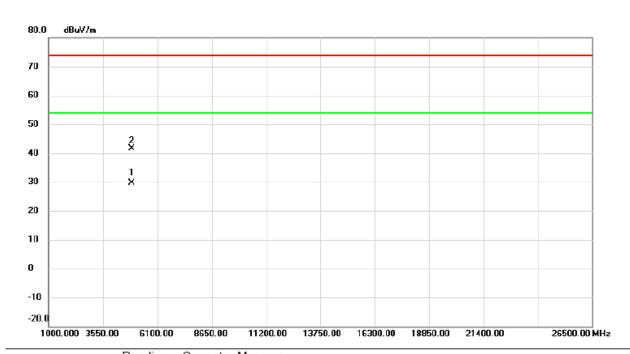


No	. Mk	. Freq.	Reading Level	Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2440.600	102.43	7.74	110.17	74.00	36.17	peak	No Limit
2	*	2442.900	94.78	7.74	102.52	54.00	48.52	AVG	No Limit
3		2483.500	54.95	7.87	62.82	74.00	-11.18	peak	
4		2483.500	43.80	7.87	51.67	54.00	-2.33	AVG	
5		2486.400	59.79	7.88	67.67	74.00	-6.33	peak	
6	i	2486.400	44.87	7.88	52.75	54.00	-1.25	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



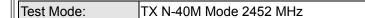
### **Vertical**



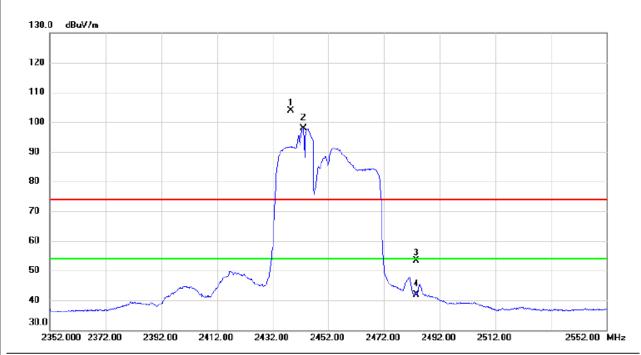
No.	Mk.	Freq.	_	Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	* 4	903.652	25.02	4.56	29.58	54.00	-24.42	AVG	
2	4	903.990	36.98	4.56	41.54	74.00	-32.46	peak	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





### Horizontal

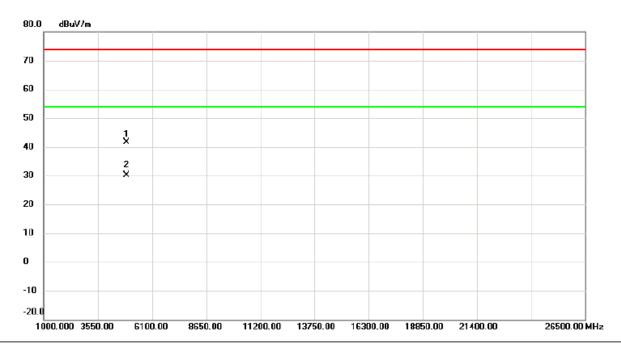


No. I	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1)	Κ .	2438.400	96.22	7.73	103.95	74.00	29.95	peak	No Limit
2 *	t	2443.200	90.17	7.75	97.92	54.00	43.92	AVG	No Limit
3		2483.500	45.59	7.87	53.46	74.00	-20.54	peak	
4		2483.500	34.01	7.87	41.88	54.00	-12.12	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



### Horizontal



	No.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1		4905.685	37.12	4.56	41.68	74.00	-32.32	peak	
_	2	*	4906.021	25.65	4.56	30.21	54.00	-23.79	AVG	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode:

BLE\_TX Mode 2480MHz + Zigbee\_TX Mode 2405MHz + WLAN2.4G\_TX B Mode 2437MHz + RLAN5G\_TX N(HT40) Mode 5755MHz

### Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	_
1	*	4823.942	48.93	4.26	53.19	54.00	-0.81	AVG		_
2		4825.765	52.64	4.26	56.90	74.00	-17.10	peak		_

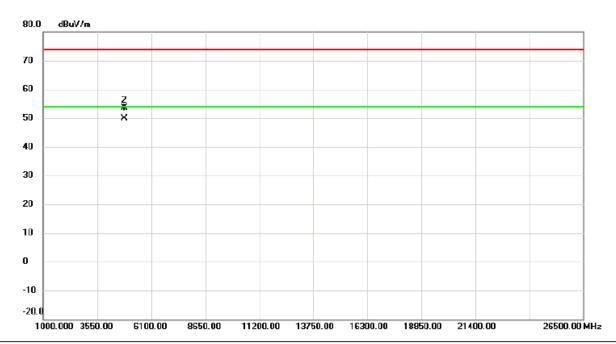
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



Test Mode:

BLE\_TX Mode 2480MHz + Zigbee\_TX Mode 2405MHz + WLAN2.4G\_TX B Mode 2437MHz + RLAN5G\_TX N(HT40) Mode 5755MHz

#### Horizontal



	No.	Mk.	Freq.	Reading Level		Measure- ment		Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	* 4	4823.554	45.64	4.26	49.90	54.00	-4.10	AVG	
	2	4	4824.271	49.36	4.26	53.62	74.00	-20.38	peak	

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



APPENDIX E - BANDWIDTH	



# Non Beamforming

Test Mode	TX B Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	9.12	500	Complies
06	2437	8.06	500	Complies
11	2462	7.63	500	Complies



Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	12.40	Complies
06	2437	12.80	Complies
11	2462	12.40	Complies

