



FCC Radio Test Report

FCC ID: TE7T4UV32

This report concerns: Original Grant

Project No. : 1911C140

Equipment: AC1300 High Gain Wireless MU-MIMO USB Adapter

Brand Name : tp-link
Test Model : Archer T4U

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.

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Technology Park, Shennan Rd, Nanshan, Shenzhen, China

Date of Receipt : Nov. 21, 2019

Date of Test : Dec. 11, 2019 ~ Jan. 13, 2020

Issued Date : Mar. 19, 2020

Report Version : R01

Test Sample: Engineering Sample No.: DG2019112233 for conducted,

DG2019112227 for radiated.

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

ANSI C63.10-2013

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

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

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lac-MRA



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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.	Mar. 12, 2020
R01	Updated the data of appendix D for N40.	Mar. 19, 2020



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 Average 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 in this test report.
- (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	Η	3.57	
		30MHz ~ 200MHz	V	4.88	
			30MHz ~ 200MHz	Τ	4.14
DG-CB03	CISPR	200MHz ~ 1,000MHz	V	4.62	
DG-CB03	CISER	200MHz ~ 1,000MHz	Τ	4.80	
		1GHz ~ 6GHz	ı	4.58	
		6GHz ~ 18GHz	ı	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	Sheldon Ou
Radiated Emissions-9K-30MHz	25°C	60%	DC 5V	Sheldon Ou
Radiated Emissions-30 MHz to 1GHz	24°C	68%	DC 5V	Sheldon Ou
Radiated Emissions-Above 1000 MHz	26°C	65%	DC 5V	Sheldon Ou
Bandwidth	25°C	60%	DC 5V	Hayden Chen
Maximum Average Output Power	25°C	60%	DC 5V	Laughing Zhang
Conducted Spurious Emissions	25°C	60%	DC 5V	Hayden Chen
Power Spectral Density	25°C	60%	DC 5V	Hayden Chen



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC1300 High Gain Wireless MU-MIMO USB Adapter
Brand Name	tp-link
Test Model	Archer T4U
Series Model	N/A
Model Difference(s)	N/A
Power Source	Supplied from USB port.
Power Rating	DC 5V
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 Average Output Power	IEEE 802.11b: 17.87 dBm (0.0612 W) IEEE 802.11g: 18.24 dBm (0.0667 W) IEEE 802.11n (HT20): 19.09 dBm (0.0811 W) IEEE 802.11n (HT40): 19.80 dBm (0.0955 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) 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	Model Name	Antenna Type	Connector	Gain (dBi)
1	TP-LINK [®]	3101500829	Dipole	I-PEX	1.99
2	TP-LINK°	3101500829	Dipole	I-PEX	3.95

Note: This EUT supports CDD, and antenna gains are not equal, so Directional gain= 10log [(10^{G1/20}+10^{G2/20}+...10^{GN/20})²/N]dBi=6.04. So the output power limit is 30-(6.04-6)=29.96, the power spectral density limit is 8-(6.04-6)=7.96.

4. Table for Antenna Configuration:

Operating Mode TX Mode	1TX	2TX
IEEE 802.11b	V (Ant. 2)	-
IEEE 802.11g	V (Ant. 2)	-
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 N40 Mode Channel 06
Mode 6	TX B Mode Channel 01/02/06/10/11
Mode 7	TX G Mode Channel 01/02/06/10/11
Mode 8	TX N-20 MHz Mode Channel 01/02/06/10/11
Mode 9	TX N-40 MHz Mode Channel 03/04/06/08/09

Following mode(s) as (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 5	TX N40 Mode Channel 06	

Radiated emissions test - Below 1GHz		
Final Test Mode	Description	
Mode 5	TX N40 Mode Channel 06	

Radiated emissions test- Above 1GHz		
Final Test Mode	Description	
Mode 6	TX B Mode Channel 01/02/06/10/11	
Mode 7	TX G Mode Channel 01/02/06/10/11	
Mode 8	TX N-20 MHz Mode Channel 01/02/06/10/11	
Mode 9	TX N-40 MHz Mode Channel 03/04/06/08/09	



Conducted test		
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	

NOTE:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (3) For radiated emission below 1 GHz test, the IEEE 802.11n40 Channel 06 is found to be the worst case and recorded.
- (4) 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.

2.3 PARAMETERS OF TEST SOFTWARE

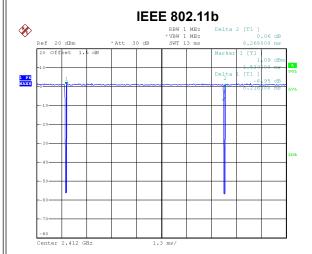
Test Software	00007454-Win7_MP_Kit_RTL11ac_8822BU_USB_v0.17_20170117(BETA)		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	42	43	42
IEEE 802.11g	48	48	49
IEEE 802.11n (HT20)	43/41	44/43	41/40
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	38/37	43/43	37/37





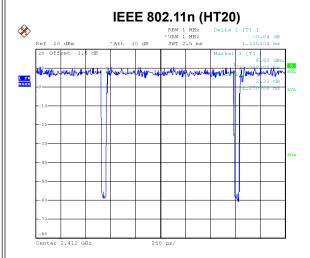
2.4 DUTY CYCLE

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: 23.NOV.2019 16:24:47

Duty cycle = 8.216 ms / 8.268 ms = 99.37% Duty Factor = 10 log(1/Duty cycle) = 0.00

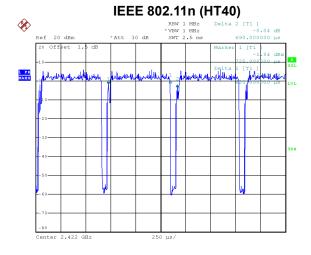


Date: 23.NOV.2019 16:22:08

Duty cycle = 1.270 ms / 1.335 ms = 95.13% Duty Factor = 10 log(1/Duty cycle) = 0.22

Date: 23.NOV.2019 16:19:31

Duty cycle = 1.360 ms / 1.420 ms = 95.77% Duty Factor = 10 log(1/Duty cycle) = 0.19



Date: 23.NOV.2019 16:21:31

Duty cycle = 0.620 ms / 0.690 ms = 89.86% Duty Factor = 10 log(1/Duty cycle) = 0.46

NOTE:

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

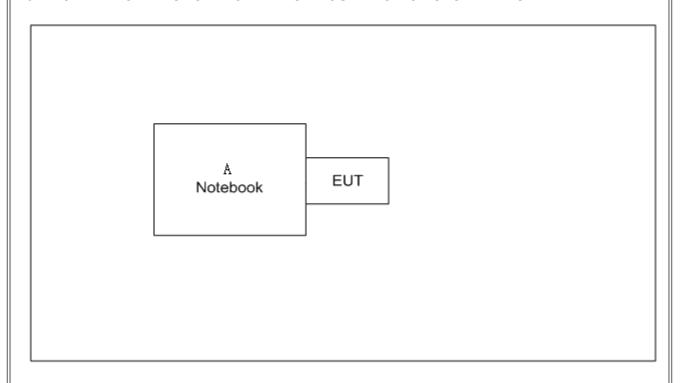
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle < 98%).

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	Lenovo	E40-70	MP075DW6

Item	Cable Type	Shielded Type	Ferrite Core	Length
-	-	-	-	-



3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dBμV)		
Frequency of Emission (WHZ)	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

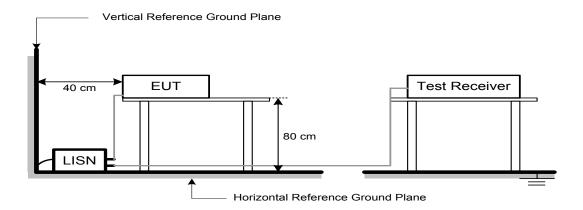
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1 GHz)
- h. 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)
- i. For the actual test configuration, please refer to the related Item -EUT Test Photos.

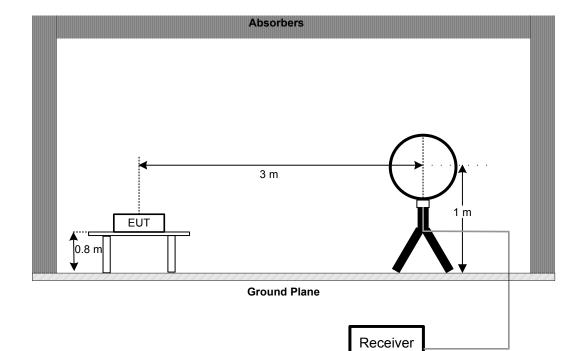
4.3 DEVIATION FROM TEST STANDARD

No deviation

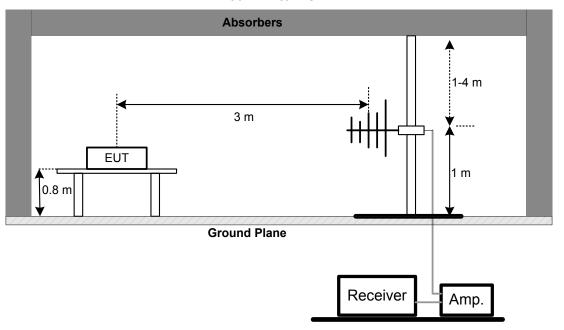


4.4 TEST SETUP

9 kHz-30 MHz

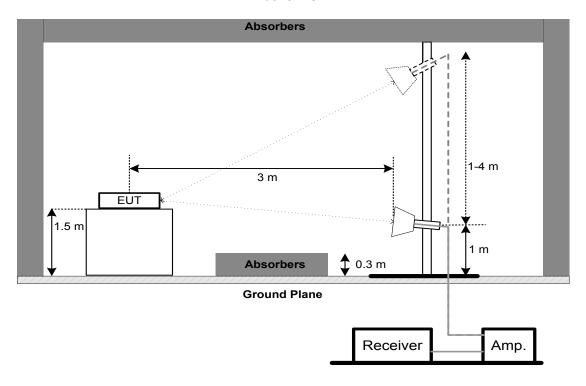


30 MHz to 1 GHz





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				
45.047(-)(0)	6 dB Bandwidth	Minimum 500 kHz		
15.247(a)(2)	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 = auto.

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 AVERAGE OUTPUT POWER TEST

6.1 LIMIT

FCC Part15, Subpart C (15.247)				
Section Test Item Limit				
15.247(b)(3) Maximum Average 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 conducted output power was performed in accordance with method 11.9.2.3.1 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 (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	TWO-LINE V-NETWORK	R&S	ENV216	101447	May 19, 2020	
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 10, 2020	
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	
6	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								
Item	Item Kind of Equipment Manufacturer Type No. Serial No. Calibrated until								
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020				

	Maximum Average Output Power											
Item	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.

"*" calibration period of equipment list is three year.

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



10. EUT TEST PHOTO





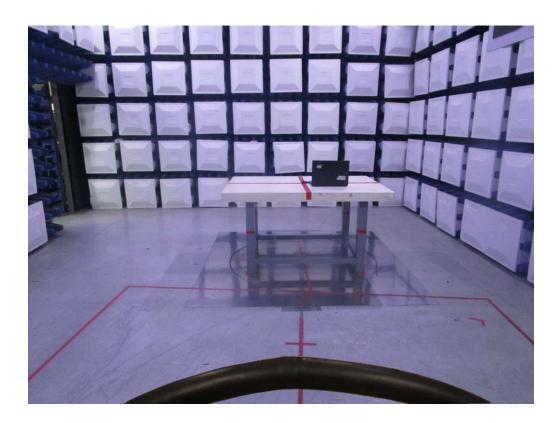




Radiated Emissions Test Photos

9 kHz to 30 MHz







Radiated Emissions Test Photos

30 MHz to 1 GHz

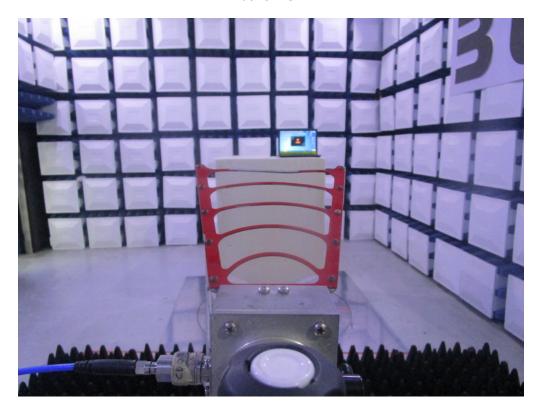


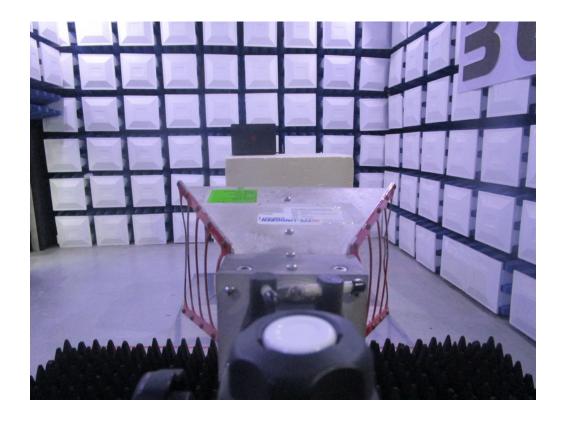




Radiated Emissions Test Photos

Above 1 GHz



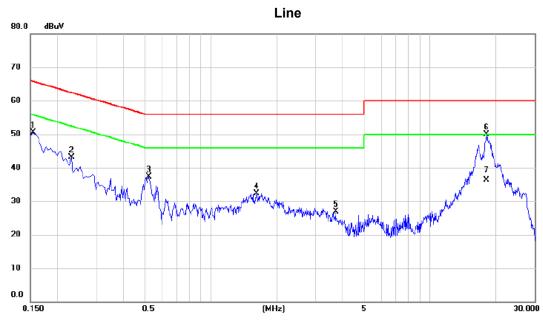




APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS



Test Mode: TX N40 Mode Channel 06

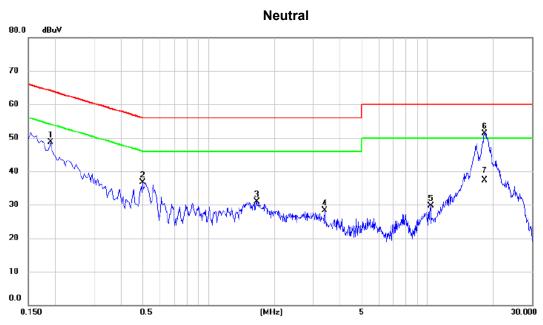


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBu∨	dB	Detector	Comment
1	0.1545	40.60	9.82	50.42	65.75	-15.33	peak	
2	0.2310	33.34	9.82	43.16	62.41	-19.25	peak	
3	0.5235	27.35	9.88	37.23	56.00	-18.77	peak	
4	1.6215	22.36	9.96	32.32	56.00	-23.68	peak	
5	3.7185	16.71	10.11	26.82	56.00	-29.18	peak	
6 *	18.1635	38.94	11.03	49.97	60.00	-10.03	peak	
7	18.1635	25.24	11.03	36.27	50.00	-13.73	AVG	

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



Test Mode: TX N40 Mode Channel 06



			Factor	ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1905	38.72	9.90	48.62	64.01	-15.39	peak	
2	0.5010	26.74	10.03	36.77	56.00	-19.23	peak	
3	1.6575	20.69	10.17	30.86	56.00	-25.14	peak	
4	3.3900	17.94	10.28	28.22	56.00	-27.78	peak	
5 1	0.3334	18.90	10.77	29.67	60.00	-30.33	peak	
6 * 1	8.2805	39.93	11.34	51.27	60.00	-8.73	peak	
7 1	8.2805	25.97	11.34	37.31	50.00	-12.69	AVG	

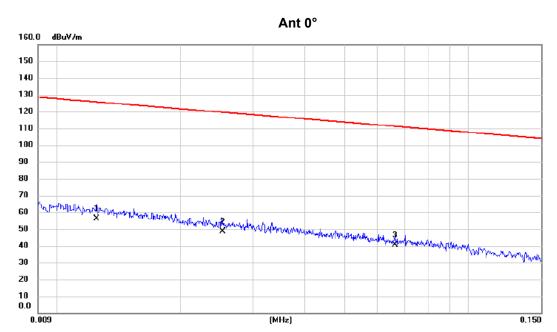
- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ



Test Mode: TX N40 Mode Channel 06

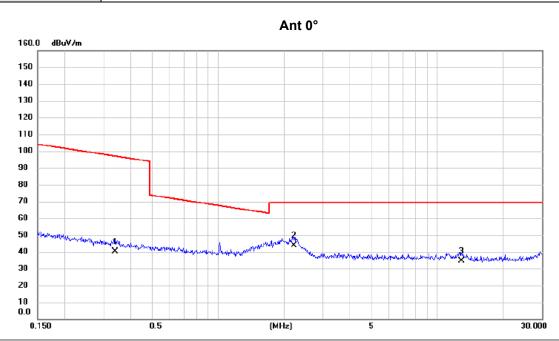


No. Mk.	Freq.			Measure- ment		Margin		
	MHz	dBu∀	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.0125	40.21	16.07	56.28	125.67	-69.39	AVG	
2	0.0253	34.65	13.84	48.49	119.54	-71.05	AVG	
3	0.0663	26.95	13.67	40.62	111.17	-70.55	AVG	

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







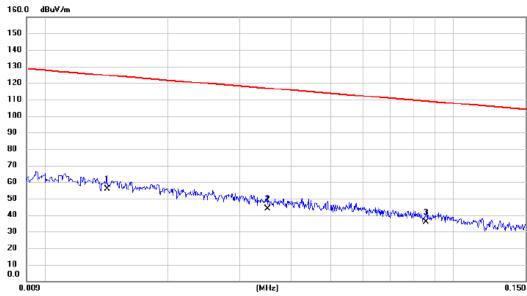
	No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1		0.3392	26.85	13.45	40.30	97.00	-56.70	AVG	
_	2	*	2.2132	32.14	11.69	43.83	69.54	-25.71	QP	
_	3		12.8516	22.84	11.60	34.44	69.54	-35.10	QP	

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



Test Mode: TX N40 Mode Channel 06

Ant 90°

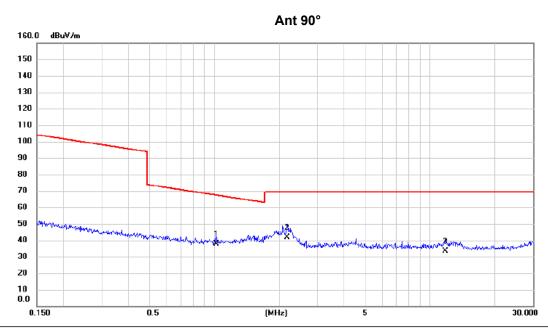


No. Mk.	Freq.	Reading Level		Measure ment	- Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.0142	40.25	15.56	55.81	124.56	-68.75	AVG	
2	0.0350	30.00	13.88	43.88	116.72	-72.84	AVG	
3	0.0857	22.25	13.54	35.79	108.95	-73.16	AVG	

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







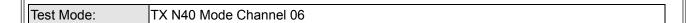
No. Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	1.0211	25.47	12.49	37.96	67.42	-29.46	QP	
2 *	2.1783	30.15	11.71	41.86	69.54	-27.68	QP	
3	11.7446	21.69	11.62	33.31	69.54	-36.23	QP	

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

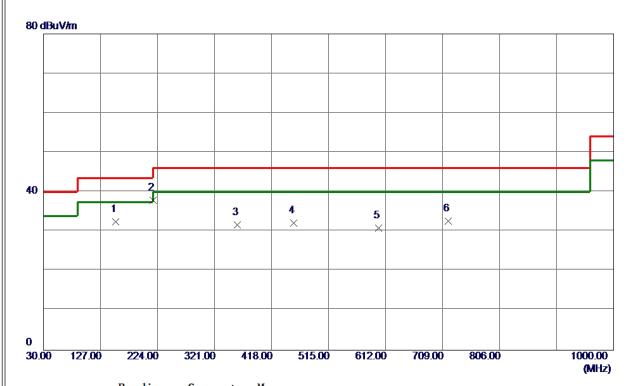








Vertical



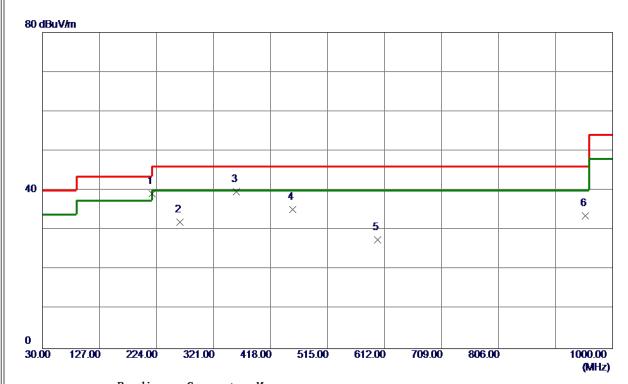
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	153. 1900	44.35	-11. 94	32.41	43.50	-11.09	Peak	
2 *	216. 2400	52. 93	-15. 07	37.86	46.00	-8. 14	Peak	
3	359.8000	42. 15	-10. 51	31.64	46.00	-14.36	Peak	
4	455.8300	40. 25	-8. 10	32. 15	46.00	-13.85	Peak	
5	600. 3600	36. 61	-5. 79	30.82	46.00	-15. 18	Peak	
6	718. 7000	36. 56	-3. 90	32.66	46.00	-13. 34	Peak	

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



Test Mode: TX N40 Mode Channel 06

Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	216. 2400	54. 26	-15.07	39. 19	46.00	-6. 81	Peak	
2	263.7700	44.89	-12.89	32.00	46.00	-14.00	Peak	
3 *	359.8000	50 . 21	-10. 51	39.70	46.00	-6. 30	Peak	
4	455.8300	43. 33	-8. 10	35. 23	46.00	-10.77	Peak	
5	600. 3600	33. 25	-5. 79	27.46	46.00	-18. 54	Peak	
6	953. 4400	34. 28	-0. 65	33. 63	46.00	-12. 37	Peak	

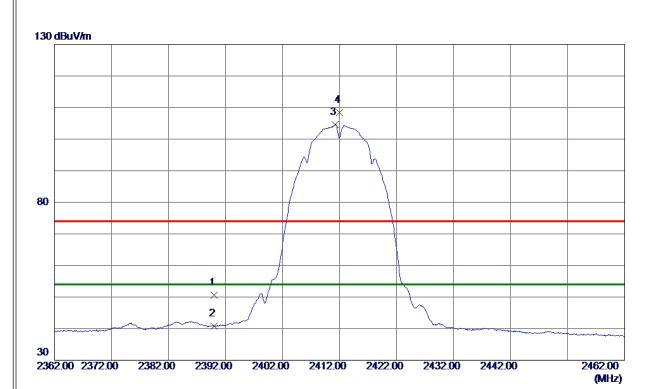
- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ



Vertical

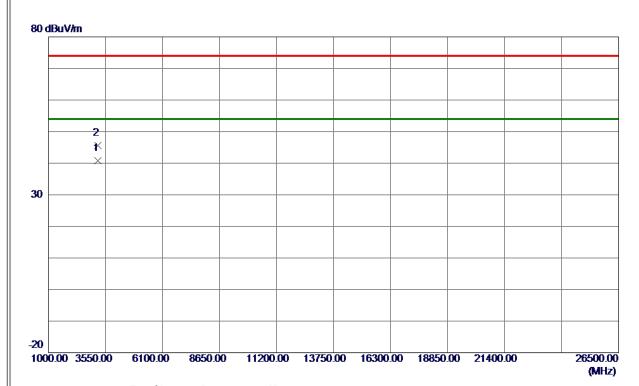


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	43.08	7. 56	50.64	74.00	-23.36	Peak	
2	2390.0000	33. 24	7. 56	40.80	54.00	-13. 20	AVG	
3 *	2411. 2500	96. 88	7.64	104. 52	54.00	50. 52	AVG	No Limit
4	2412. 0000	100.76	7.64	108. 40	74.00	34.40	Peak	No Limit

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



Vertical

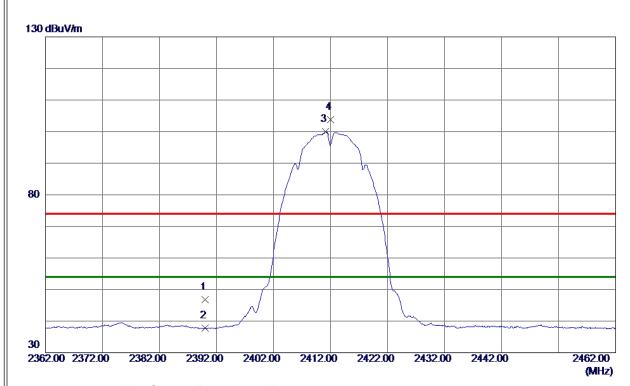


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3215. 9860	40. 47	0.32	40.79	54.00	-13. 21	AVG	
2	3216.0270	45. 23	0. 32	45. 55	74.00	-28.45	Peak	

- (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	39. 22	7. 56	46. 78	74.00	-27.22	Peak	
2	2390.0000	30. 17	7. 56	37.73	54.00	-16. 27	AVG	
3 *	2411. 1500	92. 30	7.64	99. 94	54.00	45.94	AVG	No Limit
4	2411. 9500	96. 14	7.64	103. 78	74.00	29.78	Peak	No Limit

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



Horizontal

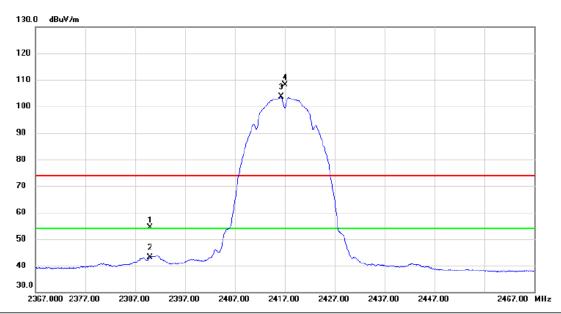


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3215.9270	45. 12	0.32	45. 44	74.00	-28. 56	Peak	
2 *	3216.0450	40.80	0.32	41. 12	54.00	-12.88	AVG	

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



Vertical

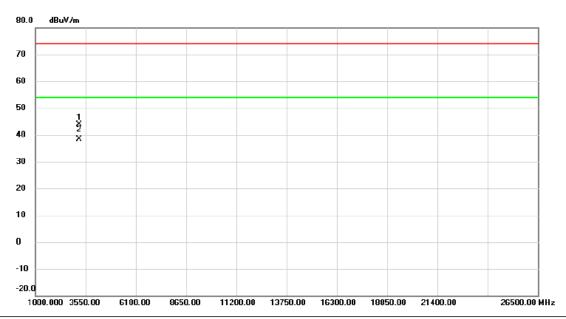


No.	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	46.84	7.57	54.41	74.00	-19.59	peak	
2		2390.000	35.67	7.57	43.24	54.00	-10.76	AVG	
3	*	2416.300	95.89	7.66	103.55	54.00	49.55	AVG	No Limit
4	X	2417.100	100.40	7.66	108.06	74.00	34.06	peak	No Limit

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



Vertical

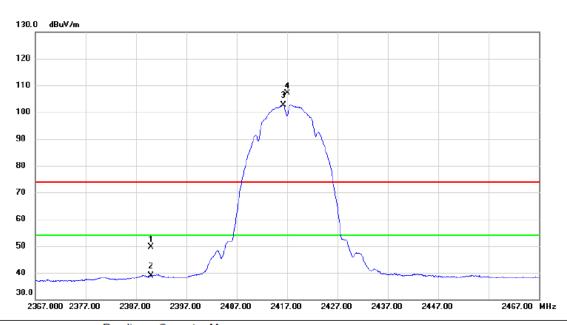


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3	3222.547	43.45	0.32	43.77	74.00	-30.23	peak	
2	* 3	3222.596	37.95	0.32	38.27	54.00	-15.73	AVG	

- (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	2390.000	41.95	7.57	49.52	74.00	-24.48	peak	
_	2	2390.000	31.40	7.57	38.97	54.00	-15.03	AVG	
	3 *	2416.250	95.08	7.66	102.74	54.00	48.74	AVG	No Limit
_	4 X	2417.000	99.43	7.66	107.09	74.00	33.09	peak	No Limit

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



Horizontal

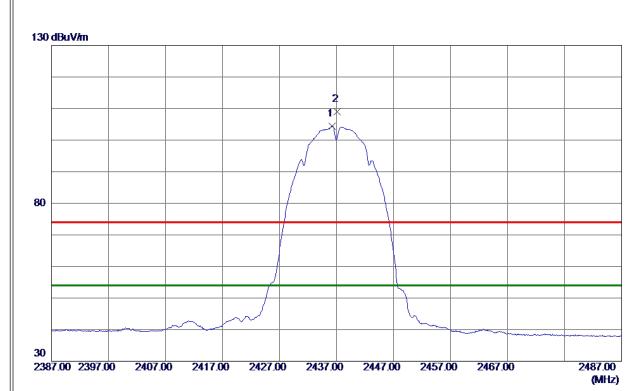


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	;	3222.627	44.70	0.32	45.02	74.00	-28.98	peak	
2	*	3222.675	40.09	0.32	40.41	54.00	-13.59	AVG	

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



Vertical

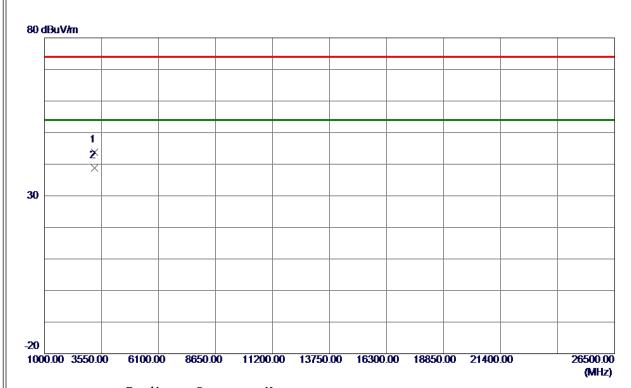


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2436. 2000	96. 66	7.72	104.38	54.00	50.38	AVG	No Limit
2	2437, 1000	101.34	7.72	109.06	74.00	35. 06	Peak	No Limit

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



Vertical

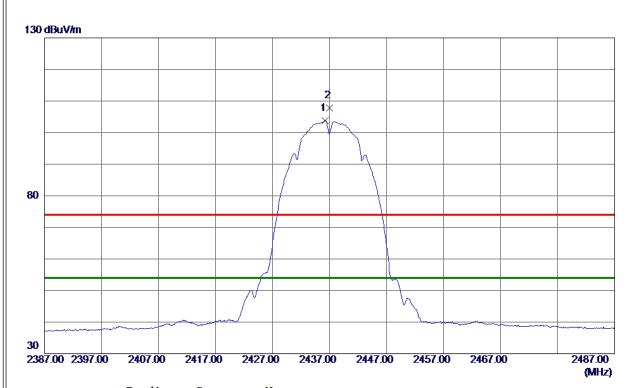


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3249. 2440	43.42	0. 36	43.78	74.00	-30. 22	Peak	
2 *	3249. 3260	38. 37	0. 36	38. 73	54.00	-15. 27	AVG	

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



Horizontal

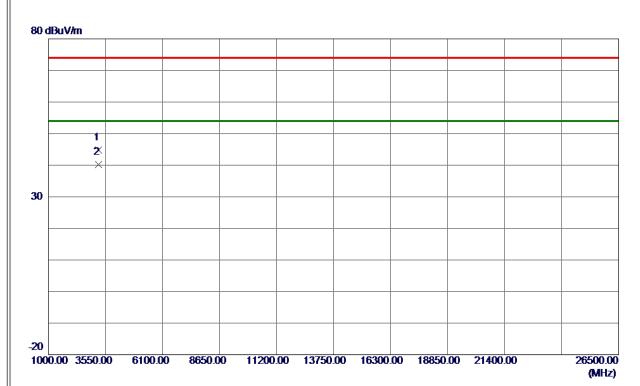


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2436. 2500	96. 13	7.72	103.85	54.00	49.85	AVG	No Limit
2	2437.0500	100.01	7.72	107.73	74.00	33. 73	Peak	No Limit

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



Horizontal

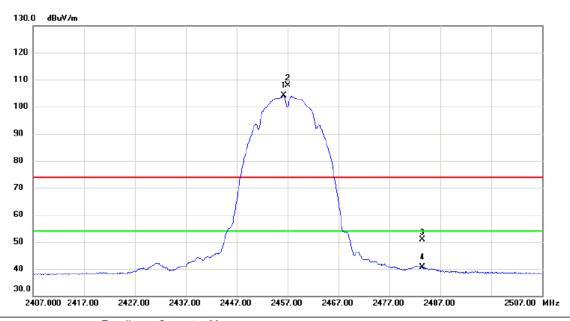


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3249.0730	44.41	0. 36	44.77	74.00	-29. 23	Peak	
2 *	3249. 3110	39.85	0. 36	40. 21	54.00	-13.79	AVG	

- (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 *	2456.250	96.33	7.78	104.11	54.00	50.11	AVG	No Limit
	2 X	2457.000	100.12	7.79	107.91	74.00	33.91	peak	No Limit
	3	2483.500	42.90	7.87	50.77	74.00	-23.23	peak	
•	4	2483.500	32.69	7.87	40.56	54.00	-13.44	AVG	

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



Vertical

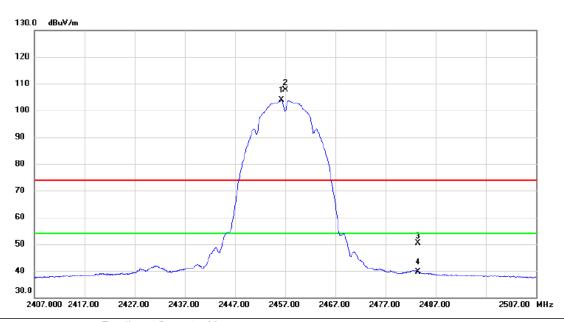


No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	,	3275.873	43.47	0.41	43.88	74.00	-30.12	peak	
2	* .	3275.920	38.17	0.41	38.58	54.00	-15.42	AVG	

- (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	Limit	Margin		
Ī		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1 *	2456.250	96.01	7.78	103.79	54.00	49.79	AVG	No Limit
	2 X	2457.000	99.91	7.79	107.70	74.00	33.70	peak	No Limit
	3	2483.500	42.57	7.87	50.44	74.00	-23.56	peak	
	4	2483.500	31.69	7.87	39.56	54.00	-14.44	AVG	

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



Horizontal

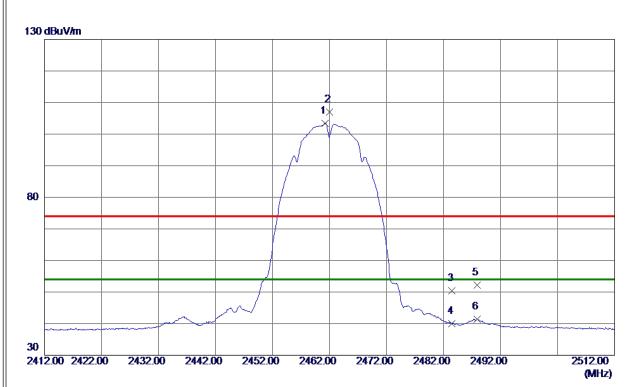


No.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		3275.874	44.13	0.41	44.54	74.00	-29.46	peak	
2	*	3276.000	39.40	0.41	39.81	54.00	-14.19	AVG	

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



Vertical

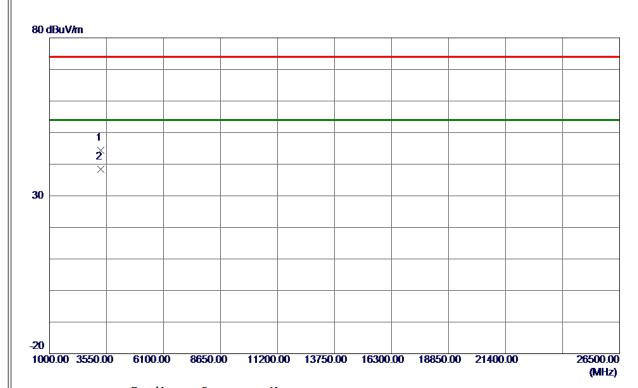


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2461. 2000	95. 62	7.80	103.42	54.00	49.42	AVG	No Limit
2	2462.0000	99. 28	7.80	107.08	74.00	33.08	Peak	No Limit
3	2483. 5000	42. 56	7.88	50.44	74.00	-23. 56	Peak	
4	2483. 5000	32. 12	7. 88	40.00	54.00	-14.00	AVG	
5	2487.8500	44.35	7.89	52. 24	74.00	-21.76	Peak	
6	2487.8500	33. 50	7. 89	41. 39	54.00	-12.61	AVG	

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



Vertical

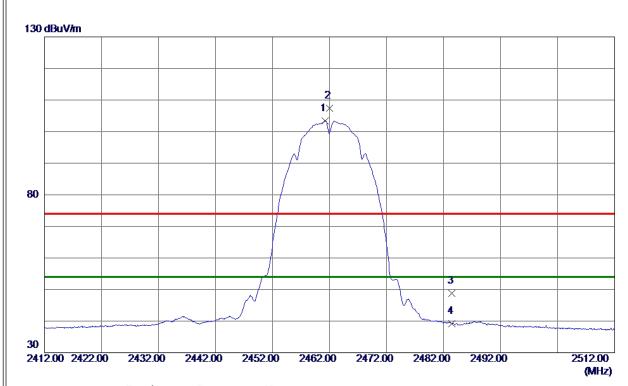


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3282. 5930	44.08	0.41	44. 49	74.00	-29. 51	Peak	
2 *	3282.6850	38. 07	0.41	38. 48	54.00	-15. 52	AVG	

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



Horizontal

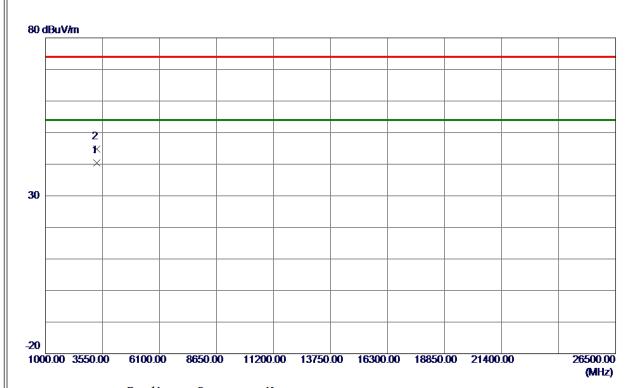


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2461. 2500	95. 66	7.80	103. 46	54.00	49. 46	AVG	No Limit
2	2461.9500	99.61	7.80	107.41	74.00	33.41	Peak	No Limit
3	2483. 5000	40.99	7.88	48.87	74.00	-25. 13	Peak	
4	2483. 5000	31. 39	7. 88	39. 27	54.00	-14.73	AVG	

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



Horizontal

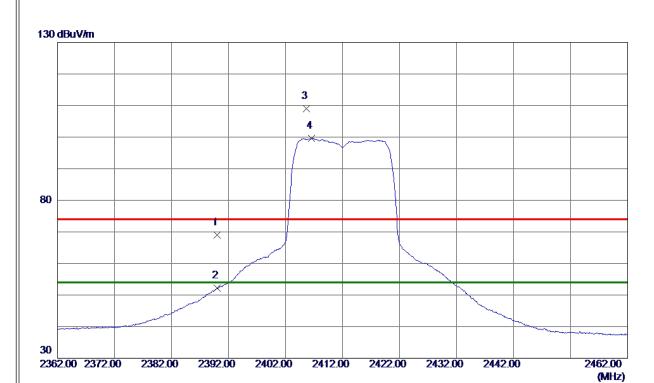


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3282.6439	40.00	0.41	40.41	54.00	-13. 59	AVG	
2	3282.7370	44.38	0.41	44.79	74.00	-29. 21	Peak	

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



Vertical

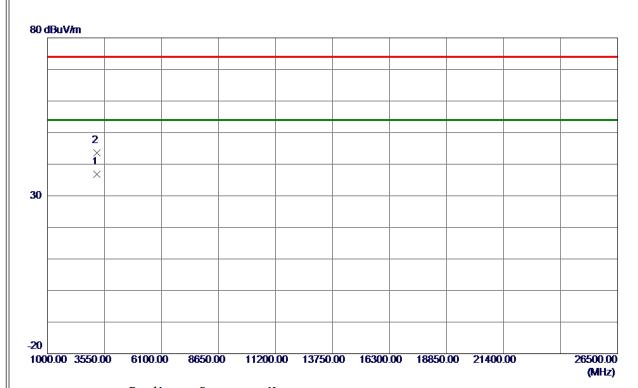


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	61. 53	7. 56	69. 09	74.00	-4.91	Peak	
2	2390.0000	44. 56	7. 56	52. 12	54.00	-1.88	AVG	
3	2405.6500	101. 39	7.62	109. 01	74.00	35. 01	Peak	No Limit
4 *	2406. 6000	92.06	7. 62	99. 68	54.00	45. 68	AVG	No Limit

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



Vertical

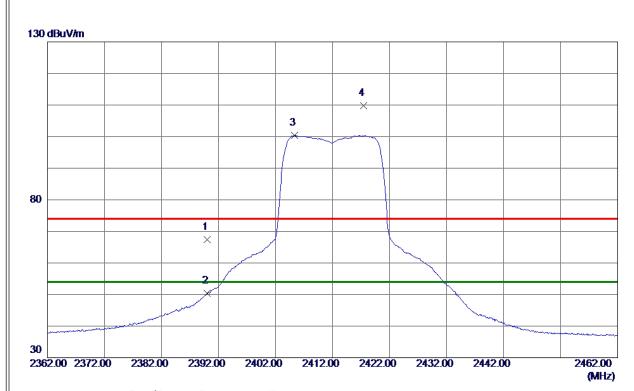


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3215. 9920	36. 52	0.32	36. 84	54.00	-17. 16	AVG	
2	3216. 1459	43. 33	0. 32	43.65	74.00	-30. 35	Peak	

- (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	59.81	7. 56	67.37	74.00	-6. 63	Peak	
2	2390.0000	42.80	7. 56	50. 36	54.00	-3.64	AVG	
3 *	2405. 3500	92.75	7.62	100. 37	54.00	46. 37	AVG	No Limit
4	2417. 4000	102. 16	7. 66	109.82	74.00	35. 82	Peak	No Limit

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



Horizontal

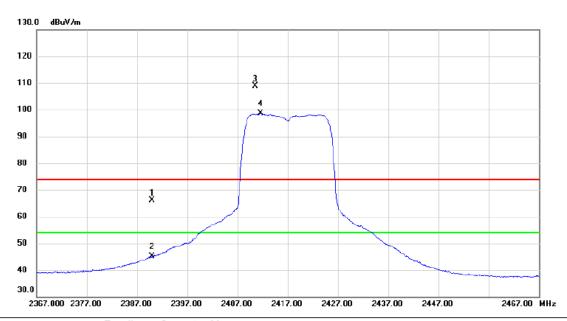


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3216. 0189	37.47	0. 32	37.79	54.00	-16. 21	AVG	
2	3216. 2500	42.94	0. 32	43. 26	74.00	-30.74	Peak	

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



Vertical

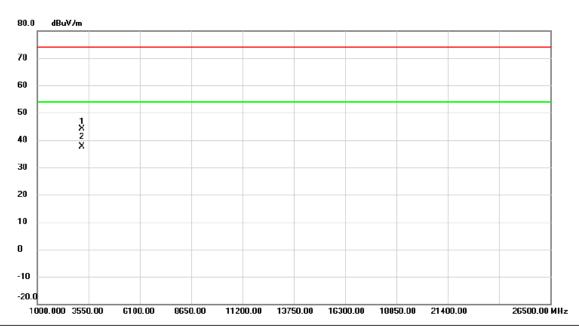


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	58.55	7.57	66.12	74.00	-7.88	peak	
2		2390.000	37.47	7.57	45.04	54.00	-8.96	AVG	
3	X	2410.500	101.15	7.63	108.78	74.00	34.78	peak	No Limit
4	*	2411.600	91.03	7.64	98.67	54.00	44.67	AVG	No Limit

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



Vertical

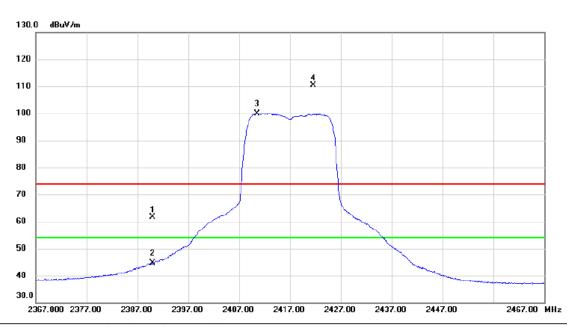


	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	3	3222.594	43.91	0.32	44.23	74.00	-29.77	peak	
_	2	* 3	3222.656	37.22	0.32	37.54	54.00	-16.46	AVG	

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



Horizontal

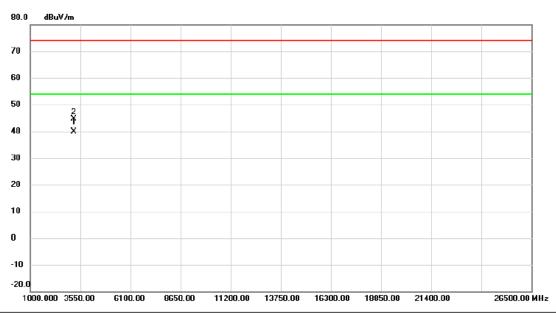


	No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
-		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
Ī	1	2390.000	54.11	7.57	61.68	74.00	-12.32	peak	
Ī	2	2390.000	37.09	7.57	44.66	54.00	-9.34	AVG	
Ī	3 *	2410.500	92.30	7.63	99.93	54.00	45.93	AVG	No Limit
	4 X	2421.550	102.69	7.67	110.36	74.00	36.36	peak	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	* 3	3222.625	39.47	0.32	39.79	54.00	-14.21	AVG	
2	3	3222.714	44.24	0.32	44.56	74.00	-29.44	peak	

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

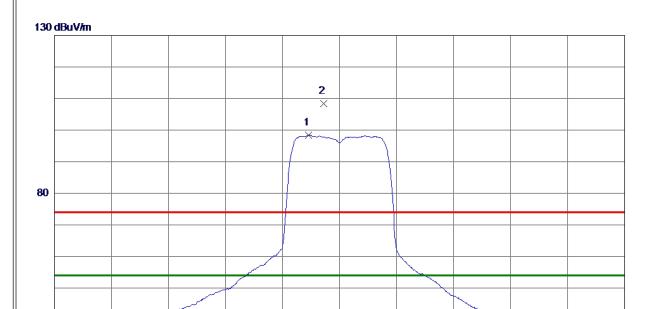
2487.00

(MHz)



Test Mode: TX G Mode 2437 MHz

Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2431.6000	90.75	7.70	98. 45	54.00	44.45	AVG	No Limit
2	2434, 2000	100.69	7.71	108.40	74.00	34. 40	Peak	No Limit

2457.00

2417.00 2427.00 2437.00 2447.00

REMARKS:

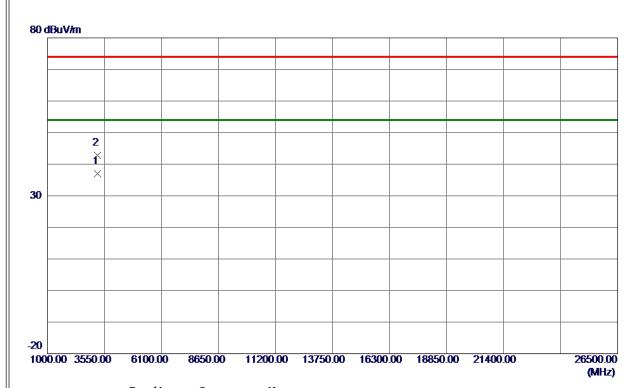
2387.00 2397.00

2407.00

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



Vertical

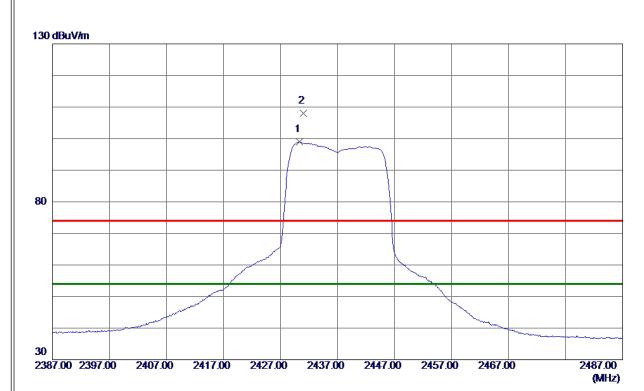


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3249. 3590	36. 64	0. 36	37.00	54.00	-17.00	AVG	
2	3249. 4090	42.40	0. 36	42.76	74.00	-31. 24	Peak	

- (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 *	2430. 3000	91. 24	7.70	98. 94	54.00	44.94	AVG	No Limit
2	2431.0500	100. 34	7.70	108. 04	74.00	34.04	Peak	No Limit

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



Horizontal

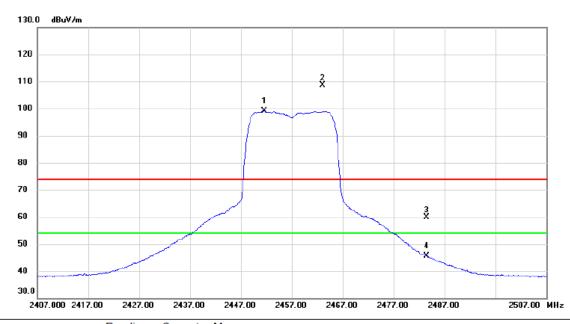


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3249. 1390	44. 22	0. 36	44. 58	74.00	-29.42	Peak	
2 *	3249. 3020	39. 14	0. 36	39. 50	54.00	-14. 50	AVG	

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



Vertical

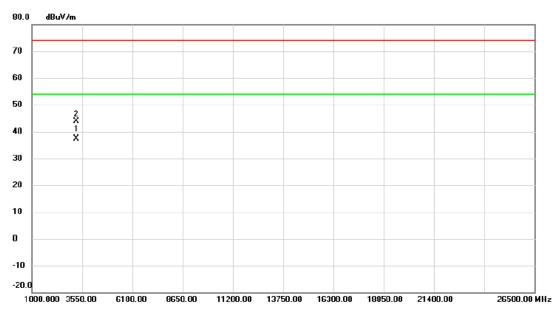


	No. M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
	1 *	2451.550	91.33	7.77	99.10	54.00	45.10	AVG	No Limit	
	2 X	2463.000	100.94	7.81	108.75	74.00	34.75	peak	No Limit	
	3	2483.500	51.96	7.87	59.83	74.00	-14.17	peak		
•	4	2483.500	37.69	7.87	45.56	54.00	-8.44	AVG		

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



Vertical

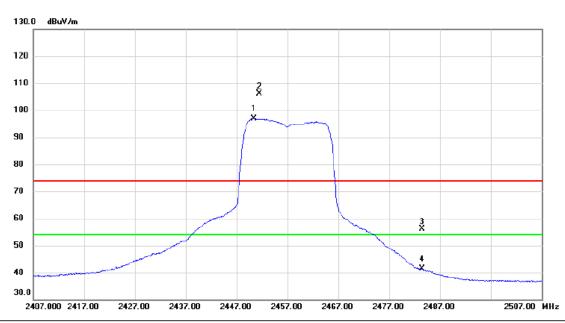


No. Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3275.989	37.09	0.41	37.50	54.00	-16.50	AVG	
2	3276.077	43.49	0.41	43.90	74.00	-30.10	peak	

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



Horizontal

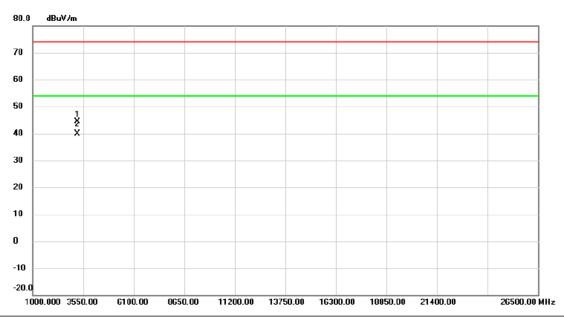


	No. MI	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
•		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1 *	2450.400	89.24	7.76	97.00	54.00	43.00	AVG	No Limit
	2 X	2451.400	98.36	7.77	106.13	74.00	32.13	peak	No Limit
	3	2483.500	48.15	7.87	56.02	74.00	-17.98	peak	
	4	2483.500	33.42	7.87	41.29	54.00	-12.71	AVG	

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



Horizontal

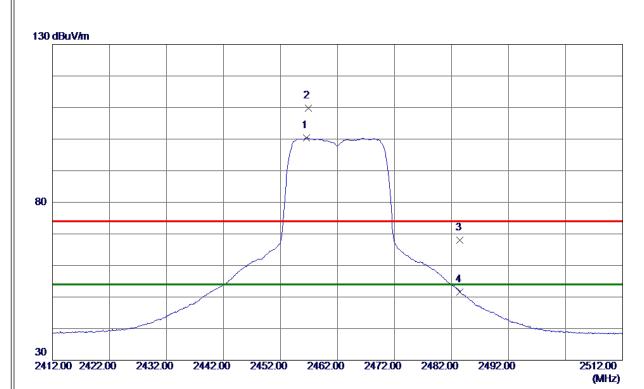


No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3	275.871	43.85	0.41	44.26	74.00	-29.74	peak	
2	* 3	275.946	39.58	0.41	39.99	54.00	-14.01	AVG	

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



Vertical



MHz dBuV/m dB dBuV/m dBuV/m dB Detector Comment 1 * 2456.6000 92.63 7.79 100.42 54.00 46.42 AVG No Limit			Margin	Limit	Measure ment	Correct Factor	Reading Level	Freq.	No.
1 * 2456 6000 92 63 7 79 100 42 54 00 46 42 AVG No Limit	Comment	Detector	dB	dBuV/m	dBuV/m	dB	dBuV/m	MHz	
1 2100.000 02.00 1.10 100.12 01.00 10.12 110 100 100 100 100 100 100 100 100 1	No Limit	AVG	46. 42	54.00	100.42	7. 79	92.63	2456. 6000	1 *
2 2456.8500 102.06 7.79 109.85 74.00 35.85 Peak No Limit	No Limit	Peak	35. 85	74.00	109.85	7. 79	102.06	2456. 8500	2
3 2483.5000 60.07 7.88 67.95 74.00 -6.05 Peak		Peak	-6. 05	74.00	67. 95	7.88	60.07	2483. 5000	3
4 2483. 5000 43. 78 7. 88 51. 66 54. 00 -2. 34 AVG		AVG	-2. 34	54.00	51. 66	7.88	43.78	2483. 5000	4

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



Vertical

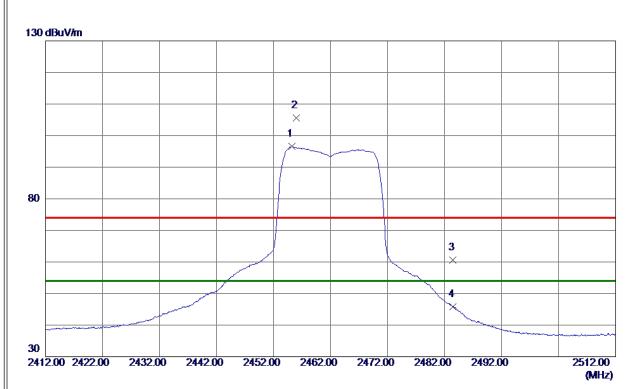


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3282.6399	37. 19	0.41	37. 60	54.00	-16. 40	AVG	
2	3282.6940	43. 24	0.41	43.65	74.00	-30. 35	Peak	

- (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 *	2455. 2500	88.74	7. 78	96. 52	54.00	42. 52	AVG	No Limit
2	2455.9500	97. 78	7. 78	105. 56	74.00	31. 56	Peak	No Limit
3	2483. 5000	52.75	7.88	60.63	74.00	-13. 37	Peak	
4	2483. 5000	38. 00	7. 88	45.88	54.00	-8. 12	AVG	

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



Horizontal

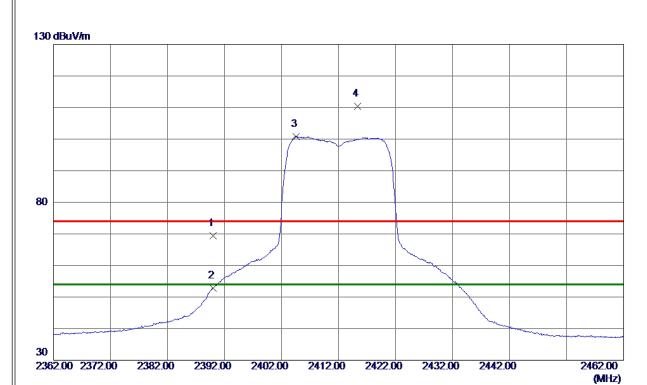


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3282.6730	39. 13	0.41	39. 54	54.00	-14.46	AVG	
2	3282.7490	43.51	0.41	43. 92	74.00	−30. 0 8	Peak	

- (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	2390.0000	61.90	7. 56	69. 46	74.00	-4.54	Peak	
2	2390.0000	45. 23	7. 56	52. 79	54.00	-1.21	AVG	
3 *	2404.6000	93. 27	7.61	100.88	54.00	46.88	AVG	No Limit
4	2415. 3000	102. 76	7. 65	110. 41	74.00	36. 41	Peak	No Limit

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



Vertical

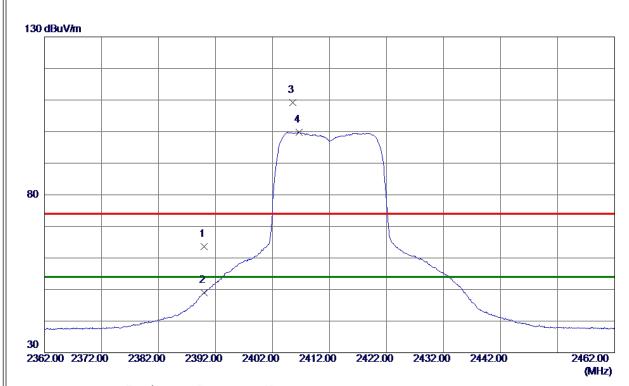


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3216.0310	29. 27	0.32	29. 59	54.00	-24.41	AVG	
2	3216.0680	39. 24	0. 32	39. 56	74.00	-34.44	Peak	

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



Horizontal

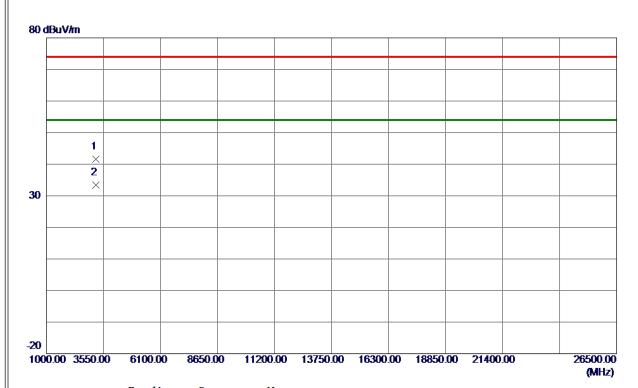


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	56. 11	7. 56	63. 67	74.00	-10.33	Peak	
2	2390.0000	41.43	7. 56	48. 99	54.00	-5. 01	AVG	
3	2405.6000	101. 59	7.62	109. 21	74.00	35. 21	Peak	No Limit
4 *	2406. 7000	92. 18	7. 62	99. 80	54.00	45.80	AVG	No Limit

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



Horizontal

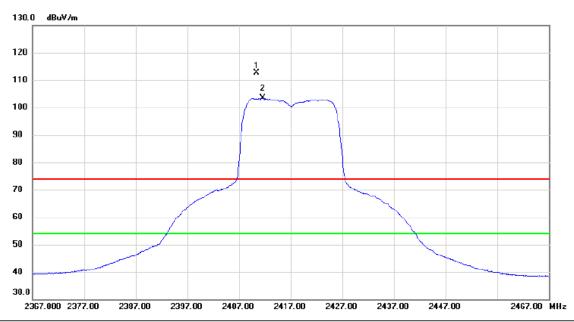


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3215.9010	41.30	0. 32	41.62	74.00	-32. 38	Peak	
2 *	3215. 9070	33. 12	0. 32	33. 44	54.00	-20. 56	AVG	

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



Vertical

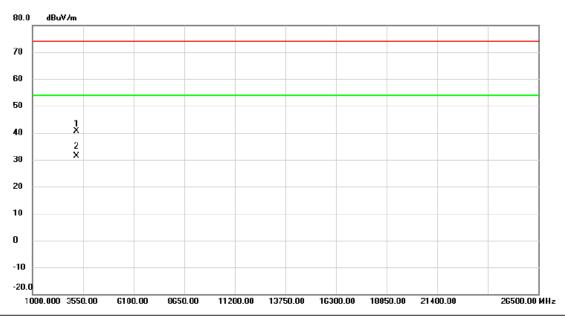


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1.2	X	2410.350	105.11	7.63	112.74	74.00	38.74	peak	No Limit	
2 '	k	2411.650	95.82	7.64	103.46	54.00	49.46	AVG	No Limit	

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



Vertical

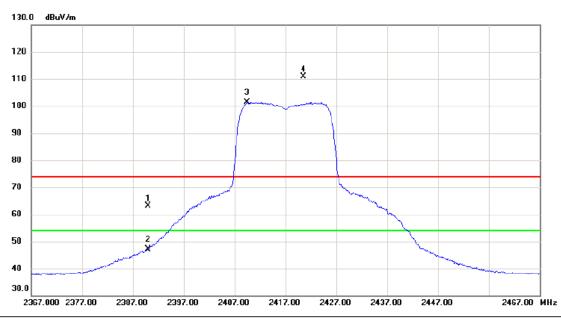


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	;	3222.430	40.41	0.32	40.73	74.00	-33.27	peak	
2	*	3222.676	30.96	0.32	31.28	54.00	-22.72	AVG	

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



Horizontal

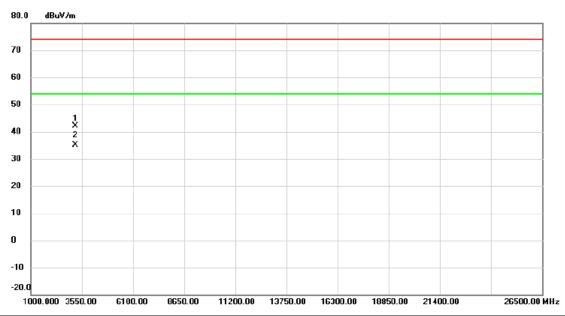


1	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	2	2390.000	55.62	7.57	63.19	74.00	-10.81	peak	
	2	2	2390.000	39.54	7.57	47.11	54.00	-6.89	AVG	
	3	* 2	2409.500	93.76	7.62	101.38	54.00	47.38	AVG	No Limit
	4	X 2	2420.500	103.16	7.67	110.83	74.00	36.83	peak	No Limit

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



Horizontal

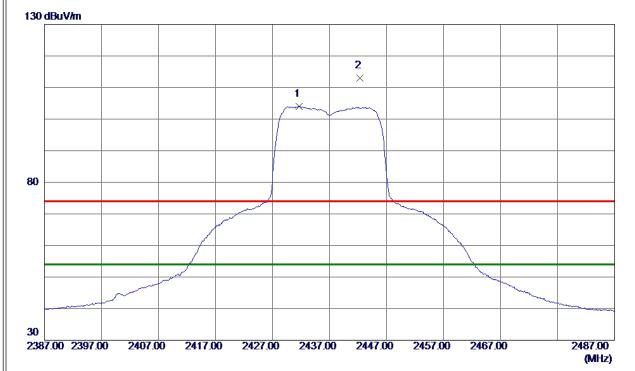


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3	3222.443	41.71	0.32	42.03	74.00	-31.97	peak	
2	* :	3222.592	34.77	0.32	35.09	54.00	-18.91	AVG	

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



Vertical

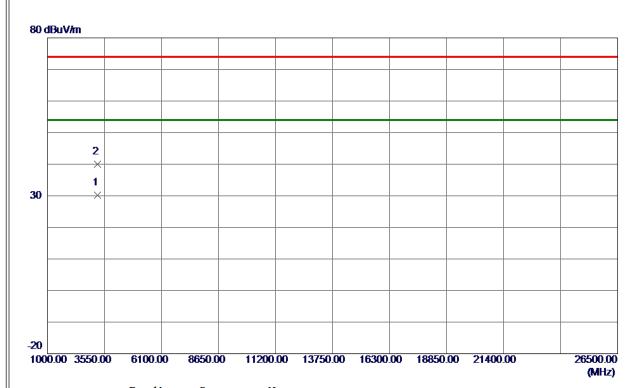


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2431.6500	96. 33	7.70	104.03	54.00	50.03	AVG	No Limit
2	2442. 3500	105. 34	7.74	113.08	74.00	39. 08	Peak	No Limit

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



Vertical

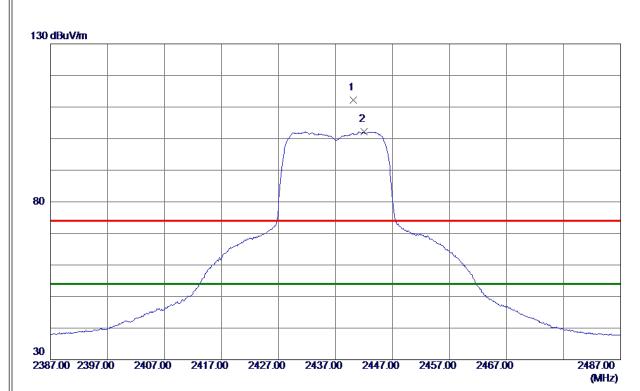


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3249. 3859	29. 90	0. 36	30. 26	54.00	-23.74	AVG	
2	3249. 4230	39. 57	0. 36	39. 93	74.00	-34.07	Peak	

- (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		
l		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
l	1	2440. 1000	104.49	7.73	112. 22	74.00	38. 22	Peak	No Limit
	2 *	2441.9500	94.40	7.74	102. 14	54.00	48. 14	AVG	No Limit
ı									

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



Horizontal

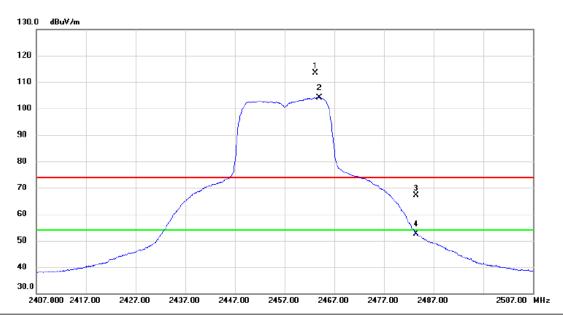


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3249. 2830	32.86	0. 36	33. 22	54.00	-20. 78	AVG	
2	3249. 5810	40. 21	0. 36	40. 57	74.00	-33. 43	Peak	

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



Vertical

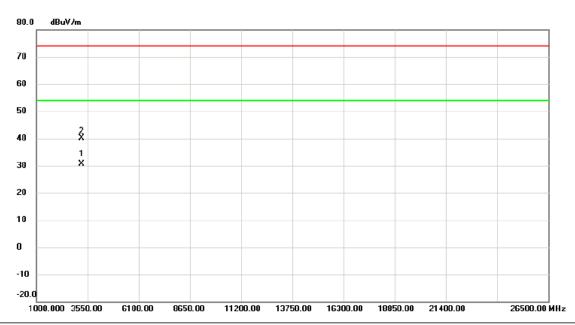


	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	X	2463.150	105.52	7.81	113.33	74.00	39.33	peak	No Limit
	2	*	2464.000	96.43	7.81	104.24	54.00	50.24	AVG	No Limit
	3		2483.500	59.26	7.87	67.13	74.00	-6.87	peak	
-	4		2483.500	44.85	7.87	52.72	54.00	-1.28	AVG	

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



Vertical

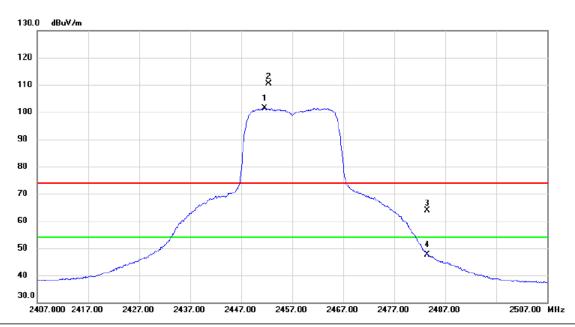


	No.	Mk.	Freq.			Measure- ment	Limit	Margin		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1	*	3276.086	30.31	0.41	30.72	54.00	-23.28	AVG	
	2	;	3276.137	39.74	0.41	40.15	74.00	-33.85	peak	

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



Horizontal

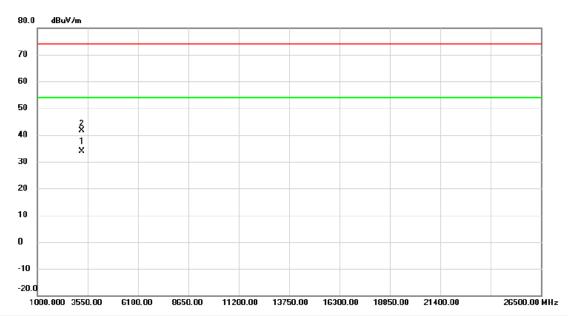


	No. MI	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
•		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1 *	2451.600	93.72	7.77	101.49	54.00	47.49	AVG	No Limit
	2 X	2452.400	102.63	7.78	110.41	74.00	36.41	peak	No Limit
	3	2483.500	56.01	7.87	63.88	74.00	-10.12	peak	
	4	2483.500	39.88	7.87	47.75	54.00	-6.25	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	* 3	3275.878	33.58	0.41	33.99	54.00	-20.01	AVG	
2	3	3276.286	41.31	0.41	41.72	74.00	-32.28	peak	

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

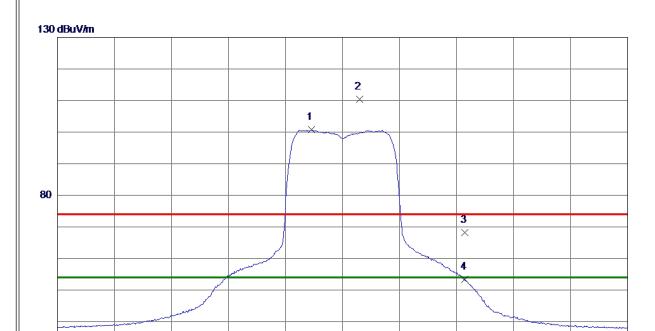
2512.00

(MHz)



Test Mode: TX N-20M Mode 2462 MHz

Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2456.6000	92. 97	7. 79	100.76	54.00	46.76	AVG	No Limit
2	2465.0000	102. 55	7.81	110. 36	74.00	36. 36	Peak	No Limit
3	2483. 5000	60. 23	7.88	68. 11	74.00	-5.89	Peak	
4	2483. 5000	45. 48	7. 88	53. 36	54.00	-0.64	AVG	

2462.00 2472.00

2482.00

2452.00

2442.00

REMARKS:

30

2412.00 2422.00

2432.00

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



Vertical

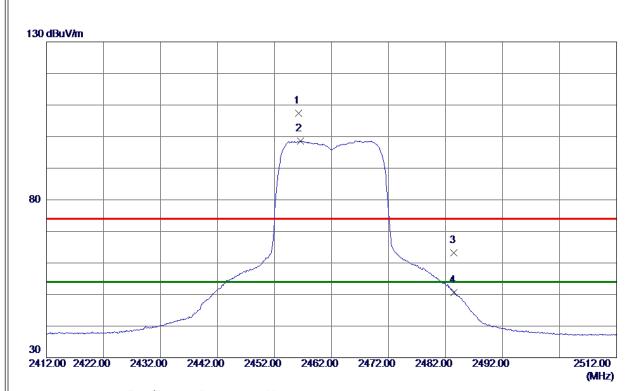


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3282.4850	40.92	0.41	41.33	74.00	-32.67	Peak	
2 *	3282.6890	32.49	0.41	32. 90	54.00	-21. 10	AVG	

- (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	2456. 2000	99. 58	7. 78	107.36	74.00	33. 36	Peak	No Limit
2 *	2456.6000	90.83	7. 79	98. 62	54.00	44.62	AVG	No Limit
3	2483. 5000	55. 31	7.88	63. 19	74.00	-10.81	Peak	
4	2483. 5000	42.80	7. 88	50.68	54.00	-3. 32	AVG	

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



Horizontal

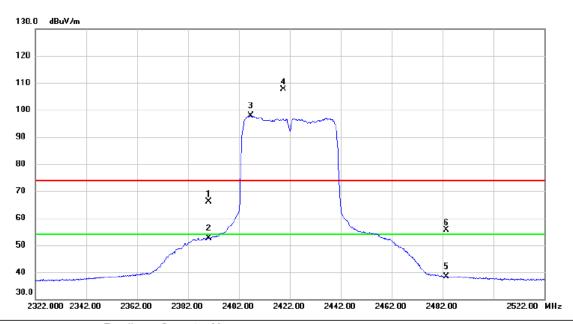


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3282.7150	34. 17	0.41	34. 58	54.00	-19.42	AVG	
2	3282. 8000	41. 22	0.41	41.63	74. 00	-32. 37	Peak	

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



Vertical



	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1		2390.000	58.52	7.57	66.09	74.00	-7.91	peak	
-	2		2390.000	45.03	7.57	52.60	54.00	-1.40	AVG	
-	3	*	2406.600	90.22	7.61	97.83	54.00	43.83	AVG	No Limit
-	4	X	2419.600	99.92	7.66	107.58	74.00	33.58	peak	No Limit
-	5		2483.500	30.62	7.87	38.49	54.00	-15.51	AVG	
-	6		2483.570	47.78	7.87	55.65	74.00	-18.35	peak	

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



Vertical

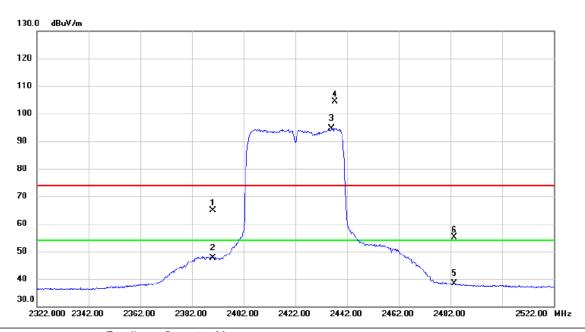


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3229. 3819	40. 29	0. 34	40.63	74.00	-33. 37	Peak	
2 *	3229. 3879	31.04	0.34	31. 38	54.00	-22.62	AVG	
2 *	3229. 3879	31. 04	0. 34	31. 38	54.00	-22.62	AVG	

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



Horizontal

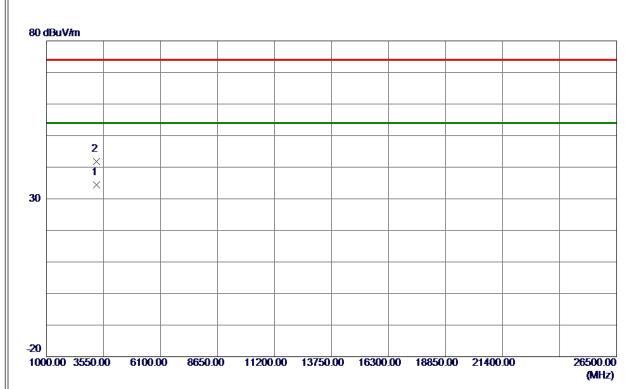


No) .	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	2	2390.000	57.43	7.57	65.00	74.00	-9.00	peak	
- 2	2	2	2390.000	40.10	7.57	47.67	54.00	-6.33	AVG	
	3	* 2	2436.100	86.85	7.71	94.56	54.00	40.56	AVG	No Limit
4	4	X 2	2437.300	96.75	7.71	104.46	74.00	30.46	peak	No Limit
	5	2	2483.500	30.45	7.87	38.32	54.00	-15.68	AVG	
(3	2	2483.500	47.15	7.87	55.02	74.00	-18.98	peak	

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



Horizontal

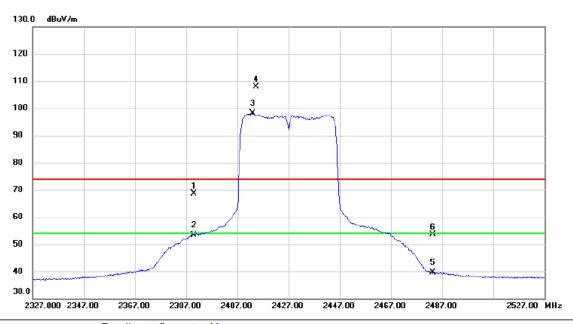


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	3229. 3420	34.03	0. 34	34. 37	54.00	-19.63	AVG	
2	3229. 5440	41.44	0.34	41.78	74.00	-32. 22	Peak	

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



Vertical

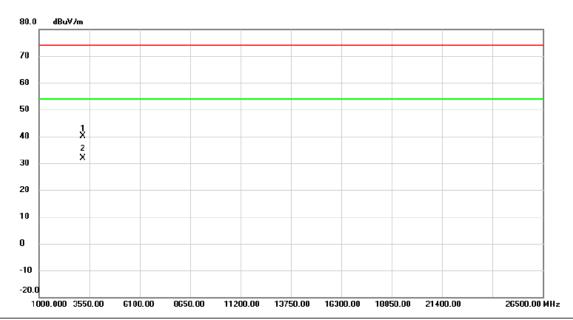


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	61.17	7.57	68.74	74.00	-5.26	peak	
2		2390.000	45.90	7.57	53.47	54.00	-0.53	AVG	
3	*	2412.900	90.38	7.65	98.03	54.00	44.03	AVG	No Limit
4	X	2414.400	100.1	7.65	107.81	74.00	33.81	peak	No Limit
5		2483.500	31.75	7.87	39.62	54.00	-14.38	AVG	
6		2483.500	45.81	7.87	53.68	74.00	-20.32	peak	

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



Vertical

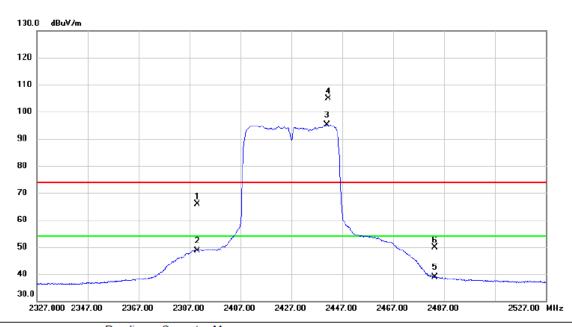


	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1	3	235.939	39.90	0.34	40.24	74.00	-33.76	peak	
_	2	* 3	235.962	31.42	0.34	31.76	54.00	-22.24	AVG	

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



Horizontal



No	0.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2390.000	58.27	7.57	65.84	74.00	-8.16	peak	
	2		2390.000	40.98	7.57	48.55	54.00	-5.45	AVG	
	3	*	2441.100	87.44	7.74	95.18	54.00	41.18	AVG	No Limit
	4	Χ	2441.500	97.19	7.74	104.93	74.00	30.93	peak	No Limit
	5		2483.500	30.95	7.87	38.82	54.00	-15.18	AVG	
	6		2483.500	41.90	7.87	49.77	74.00	-24.23	peak	

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



Test Mode: TX N-40M Mode 2427 MHz

Horizontal



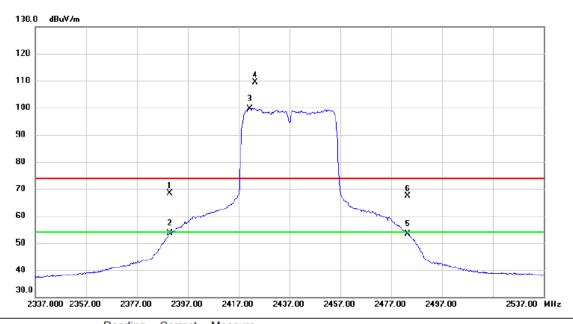
No. I	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	32	236.022	33.97	0.34	34.31	54.00	-19.69	AVG	
2	32	236.245	41.17	0.34	41.51	74.00	-32.49	peak	

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



Test Mode: TX N-40M Mode 2437 MHz

Vertical



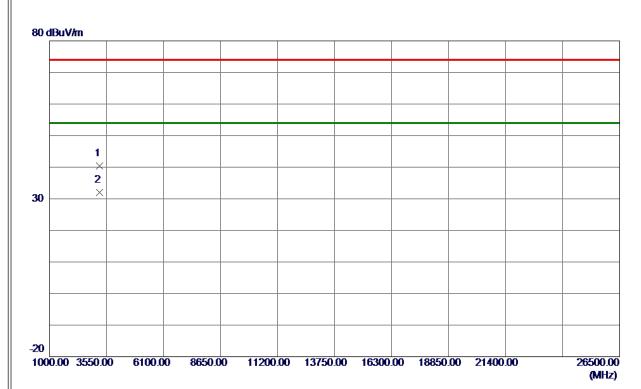
N	lo.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2390.000	60.79	7.57	68.36	74.00	-5.64	peak	
	2		2390.000	46.02	7.57	53.59	54.00	-0.41	AVG	
	3	*	2421.500	91.92	7.67	99.59	54.00	45.59	AVG	No Limit
	4	Χ	2423.400	101.8	7.67	109.50	74.00	35.50	peak	No Limit
	5		2483.500	45.58	7.87	53.45	54.00	-0.55	AVG	
	6		2483.500	59.60	7.87	67.47	74.00	-6.53	peak	

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



Test Mode: TX N-40M Mode 2437 MHz

Vertical



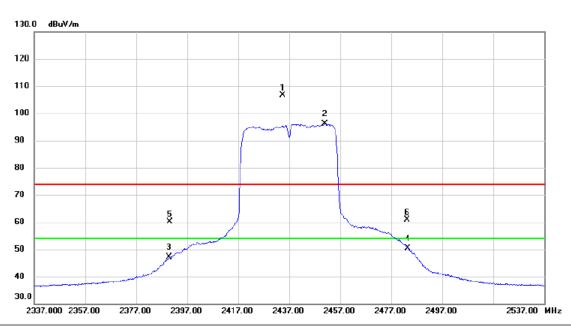
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3249. 2689	40. 10	0. 36	40.46	74.00	-33. 54	Peak	
2 *	3249. 3510	31.68	0. 36	32.04	54.00	-21.96	AVG	

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



Test Mode: TX N-40M Mode 2437 MHz

Horizontal



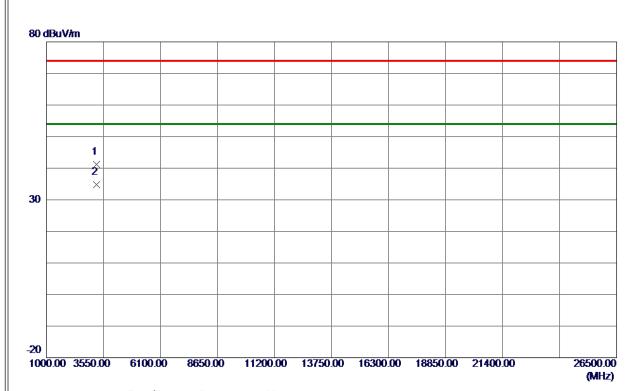
	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
Ī	1	Χ	2434.600	98.82	7.71	106.53	74.00	32.53	peak	No Limit
	2	*	2451.100	88.46	7.76	96.22	54.00	42.22	AVG	No Limit
	3		2390.000	39.58	7.57	47.15	54.00	-6.85	AVG	
•	4		2483.500	42.54	7.87	50.41	54.00	-3.59	AVG	
	5		2390.140	52.61	7.57	60.18	74.00	-13.82	peak	
	6		2483.170	53.06	7.87	60.93	74.00	-13.07	peak	

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



Test Mode: TX N-40M Mode 2437 MHz

Horizontal



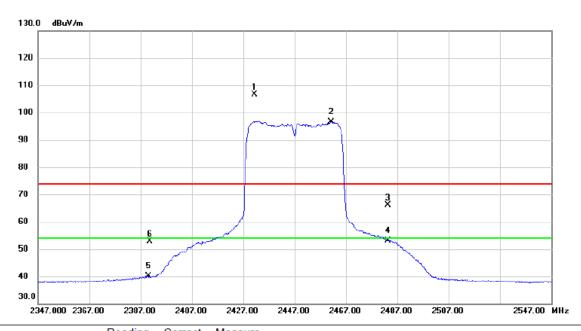
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3249. 1290	40.90	0. 36	41. 26	74.00	-32.74	Peak	
2 *	3249. 3480	34.44	0. 36	34.80	54.00	-19. 20	AVG	

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



Test Mode: TX N-40M Mode 2447 MHz

Vertical



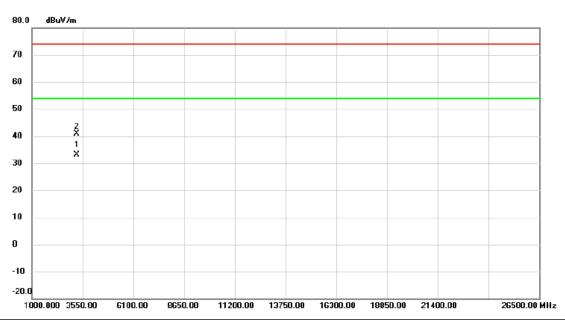
۷o.	Mk	. Freq.	Reading Level	Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	Χ	2431.500	98.90	7.70	106.60	74.00	32.60	peak	No Limit
2	*	2461.200	88.84	7.79	96.63	54.00	42.63	AVG	No Limit
3		2483.500	58.16	7.87	66.03	74.00	-7.97	peak	
4		2483.500	45.27	7.87	53.14	54.00	-0.86	AVG	
5		2390.000	32.57	7.57	40.14	54.00	-13.86	AVG	
6		2390.570	45.21	7.57	52.78	74.00	-21.22	peak	
	1 2 3 4 5	1 X 2 * 3 4	MHz 1 X 2431.500 2 * 2461.200 3 2483.500 4 2483.500 5 2390.000	MHz dBuV 1 X 2431.500 98.90 2 * 2461.200 88.84 3 2483.500 58.16 4 2483.500 45.27 5 2390.000 32.57	MHz dBuV dB 1 X 2431.500 98.90 7.70 2 * 2461.200 88.84 7.79 3 2483.500 58.16 7.87 4 2483.500 45.27 7.87 5 2390.000 32.57 7.57	MHz dBuV dB dBuV/m 1 X 2431.500 98.90 7.70 106.60 2 * 2461.200 88.84 7.79 96.63 3 2483.500 58.16 7.87 66.03 4 2483.500 45.27 7.87 53.14 5 2390.000 32.57 7.57 40.14	MHz dBuV dB dBuV/m dBuV/m 1 X 2431.500 98.90 7.70 106.60 74.00 2 * 2461.200 88.84 7.79 96.63 54.00 3 2483.500 58.16 7.87 66.03 74.00 4 2483.500 45.27 7.87 53.14 54.00 5 2390.000 32.57 7.57 40.14 54.00	MHz dBuV dB dBuV/m dBuV/m dBuV/m dB 1 X 2431.500 98.90 7.70 106.60 74.00 32.60 2 * 2461.200 88.84 7.79 96.63 54.00 42.63 3 2483.500 58.16 7.87 66.03 74.00 -7.97 4 2483.500 45.27 7.87 53.14 54.00 -0.86 5 2390.000 32.57 7.57 40.14 54.00 -13.86	MHz dBuV dB dBuV/m dBuV/m dB uV/m dB uV/m

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



Test Mode: TX N-40M Mode 2447 MHz

Vertical



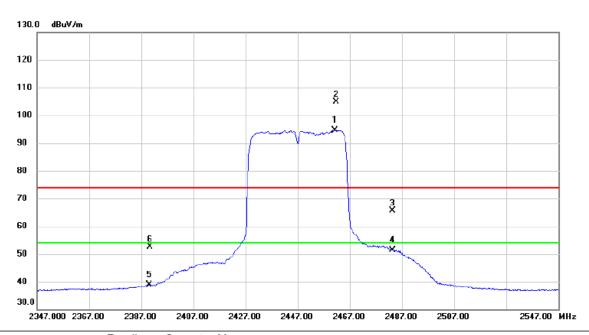
No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	3262.700	32.78	0.39	33.17	54.00	-20.83	AVG	
2	;	3263.005	40.59	0.39	40.98	74.00	-33.02	peak	

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



Test Mode: TX N-40M Mode 2447 MHz

Horizontal



	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1	*	2461.200	86.80	7.79	94.59	54.00	40.59	AVG	No Limit
_	2	Χ	2461.900	97.00	7.80	104.80	74.00	30.80	peak	No Limit
_	3		2483.500	57.74	7.87	65.61	74.00	-8.39	peak	
_	4		2483.500	43.53	7.87	51.40	54.00	-2.60	AVG	
_	5		2390.000	31.20	7.57	38.77	54.00	-15.23	AVG	
	6		2390.240	45.12	7.57	52.69	74.00	-21.31	peak	

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



Test Mode: TX N-40M Mode 2447 MHz

Horizontal



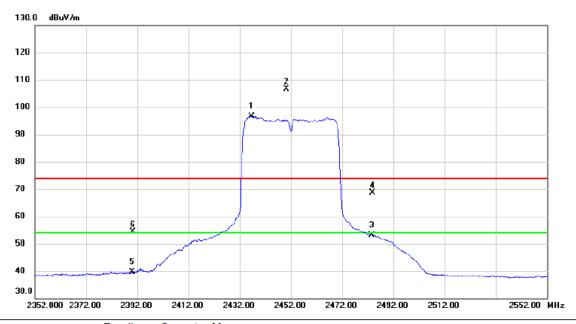
	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1	*	3262.675	34.94	0.39	35.33	54.00	-18.67	AVG	
	2		3262.819	41.04	0.39	41.43	74.00	-32.57	peak	

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



Test Mode: TX N-40M Mode 2452 MHz

Vertical



	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	*	2436.600	88.94	7.71	96.65	54.00	42.65	AVG	No Limit
Ī	2	Χ	2450.200	98.78	7.76	106.54	74.00	32.54	peak	No Limit
	3		2483.500	45.31	7.87	53.18	54.00	-0.82	AVG	
-	4		2483.800	60.80	7.87	68.67	74.00	-5.33	peak	
Ī	5		2390.000	31.97	7.57	39.54	54.00	-14.46	AVG	
-	6		2390.160	46.87	7.57	54.44	74.00	-19.56	peak	

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



Test Mode: TX N-40M Mode 2452 MHz

Vertical



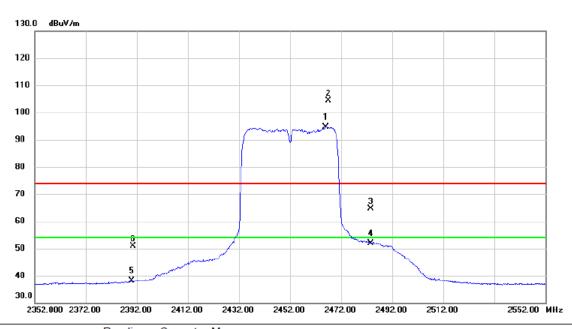
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3269. 2410	40. 13	0. 39	40. 52	74.00	-33.48	Peak	
2 *	3269. 3480	32. 31	0. 39	32.70	54.00	-21. 30	AVG	

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



Test Mode: TX N-40M Mode 2452 MHz

Horizontal



No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2466.100	86.83	7.83	94.66	54.00	40.66	AVG	No Limit
2	Χ	2467.100	96.62	7.83	104.45	74.00	30.45	peak	No Limit
3		2483.500	56.76	7.87	64.63	74.00	-9.37	peak	
4		2483.500	44.09	7.87	51.96	54.00	-2.04	AVG	
5		2390.000	30.45	7.57	38.02	54.00	-15.98	AVG	
6		2390.500	43.34	7.57	50.91	74.00	-23.09	peak	

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



Test Mode: TX N-40M Mode 2452 MHz

Horizontal



N	lo.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	3269. 3680	35. 12	0. 39	35. 51	54.00	-18.49	AVG	
2		3269.4470	41.63	0. 39	42.02	74.00	-31. 98	Peak	
_									

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

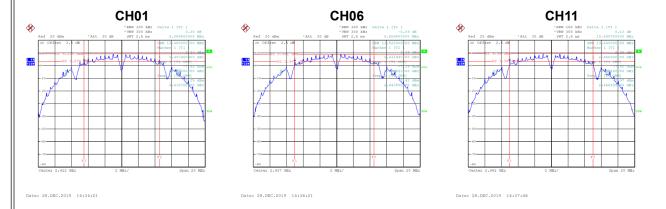


APPENDIX E - BANDWIDTH	

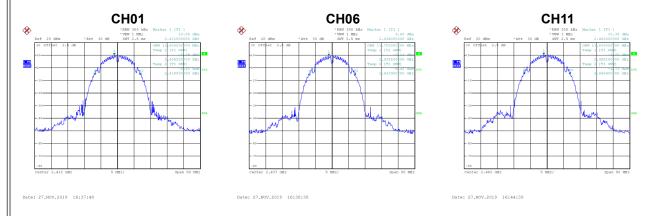


Test Mode	TX B Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	9.10	500	Complies
06	2437	9.56	500	Complies
11	2462	10.06	500	Complies



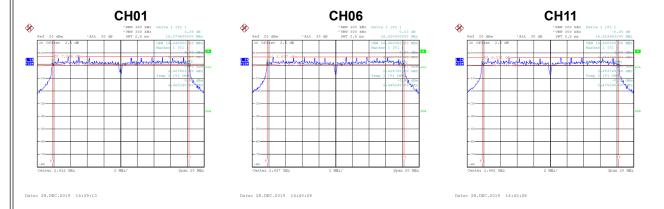
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	13.60	Complies
06	2437	13.70	Complies
11	2462	13.80	Complies





Test Mode	TX G Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.38	500	Complies
06	2437	16.42	500	Complies
11	2462	16.43	500	Complies



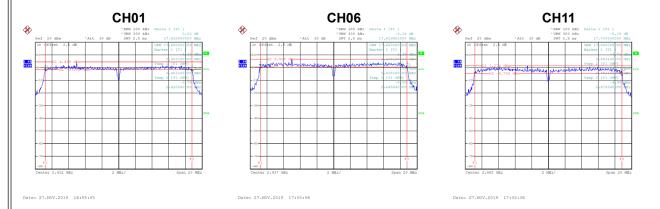
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.00	Complies
06	2437	17.20	Complies
11	2462	17.00	Complies





Test Mode	TX N-20M Mode
1000 1110 40	

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	17.62	500	Complies
06	2437	17.62	500	Complies
11	2462	17.70	500	Complies



Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	18.00	Complies
06	2437	18.30	Complies
11	2462	18.00	Complies





Test Mode	TX N-40M Mode
1001111040	17414 10111 111040

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	36.39	500	Complies
06	2437	36.36	500	Complies
09	2452	36.56	500	Complies



Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	37.40	Complies
06	2437	37.60	Complies
09	2452	37.20	Complies





APPENDIX F - MAXIMUM AVERAGE OUTPUT POWER



Test Mode	TX B Mode
100t Woodo	I I A D IVIOGO

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)		Max. Limit (W)	Result
01	2412	17.87	0.00	17.87	30.00	1.0000	Complies
06	2437	17.61	0.00	17.61	30.00	1.0000	Complies
11	2462	17.82	0.00	17.82	30.00	1.0000	Complies

Test Mode TX G Mode

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)		Max. Limit (W)	Result
01	2412	18.02	0.19	18.21	30.00	1.0000	Complies
06	2437	18.04	0.19	18.23	30.00	1.0000	Complies
11	2462	18.05	0.19	18.24	30.00	1.0000	Complies



Test Mode	TX N-20M Mode	Ant	1
TEST MICHE	I A IN-ZUIVI IVIUUC	Λιιι.	ı

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.94	0.22	16.16	30.00	1.0000	Complies
06	2437	15.86	0.22	16.08	30.00	1.0000	Complies
11	2462	14.64	0.22	14.86	30.00	1.0000	Complies

Test Mode TX N-20M Mode_Ant. 2

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.77	0.22	15.99	30.00	1.0000	Complies
06	2437	15.87	0.22	16.09	30.00	1.0000	Complies
11	2462	14.28	0.22	14.50	30.00	1.0000	Complies

Test Mode TX N-20M Mode_Total

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.08	29.96	0.9908	Complies
06	2437	19.09	29.96	0.9908	Complies
11	2462	17.69	29.96	0.9908	Complies



Test Mode	TX N-40M Mode	Ant.	1
1000 111000	17 C 1 C 10111 1110 ao_	_,	•

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	13.43	0.46	13.89	30.00	1.0000	Complies
06	2437	16.43	0.46	16.89	30.00	1.0000	Complies
09	2452	13.21	0.46	13.67	30.00	1.0000	Complies

Test Mode TX N-40M Mode_Ant. 2

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	13.36	0.46	13.82	30.00	1.0000	Complies
06	2437	16.22	0.46	16.68	30.00	1.0000	Complies
09	2452	13.14	0.46	13.60	30.00	1.0000	Complies

Test Mode TX N-40M Mode_Total

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	16.87	29.96	0.9908	Complies
06	2437	19.80	29.96	0.9908	Complies
09	2452	16.65	29.96	0.9908	Complies



