



# **FCC Radio Test Report**

FCC ID: RWO-RC30042602

This report concerns: Class II Permissive Change

**Project No.** : 2108C009

**Equipment**: Backlit Head Cushion

**Brand Name** : RAZER **Test Model** : RC81-0398

Series Model : RC81-0398XXXX-XXXX(X can be 0-9 or A-Z)

**Applicant**: Razer Inc.

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Date of Receipt : Aug. 02, 2021

**Date of Test** : Aug. 04, 2021 ~ Sep. 02, 2021

Issued Date : Jan. 18, 2022

Report Version : R00

Test Sample : Engineering Sample No.: DG2021080393
Standard(s) : FCC CFR Title 47, Part 15, Subpart C

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

ANSI C63.10-2013

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

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#### Declaration

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BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

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.	Jan. 18, 2022



#### 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C				
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		PASS	
15.247(b)(3)	Maximum Output Power	APPENDIX E	PASS	
15.247(d)	Conducted Spurious Emission		PASS	
15.247(e)	Power Spectral Density		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.
- (3) The RF module of this Backlit Head Cushion has been tested and certified. Please refer to the module report as listed in the below table for the test results of the RF module.

RF Module Model	Module Function	Report Number	Standard
RC30-042602	Bluetooth LE	BTL-FCCP-1-2107C041	FCC CFR Title 47, Part 15, Subpart C ANSI C63.10-2013

#### Note:

1) Thus, only the radiated spurious emissions and AC Power Line Conducted Emissions were evaluated and recorded in this report. For the test results of all other test items please refer to above module test report.



#### 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 Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.

BTL's 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 Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.68

#### B. Radiated emissions Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
	9kHz ~ 30MHz	-	3.02	
		30MHz ~ 200MHz	V	4.36
DG-CB03 CISPR	30MHz ~ 200MHz	Ι	3.32	
		200MHz ~ 1,000MHz	V	4.08
	200MHz ~ 1,000MHz	Ι	3.96	
		1GHz ~ 6GHz	ı	3.80
		6GHz ~ 18GHz	-	4.82
		18GHz ~ 26.5GHz	ı	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-9 kHz to 30 MHz	25°C	60%	DC 5V	Hayden Chen
Radiated Emissions-30 MHz to 1000 MHz	26°C	52%	DC 5V	Hayden Chen
Radiated Emissions-Above 1000 MHz	24°C	60%	DC 5V	Hayden Chen



# 2. GENERAL INFORMATION

# 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Backlit Head Cushion
Brand Name	RAZER
Test Model	RC81-0398
Series Model	RC81-0398XXXX-XXXX(X can be 0-9 or A-Z)
Model Difference(s)	It is the same as the basic model and X is used to define which country it is for under the same family series.
Power Source	Supplied from USB port.
Power Rating	5V <del>===</del> 2A
Operation Frequency	2402 MHz ~ 2480 MHz
Modulation Type	GFSK
Bit Rate of Transmitter	1Mbps, 2Mbps

#### Note:

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

#### 2. Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	20	2442
01	2404	21	2444
02	2406	22	2446
03	2408	23	2448
04	2410	24	2450
05	2412	25	2452
06	2414	26	2454
07	2416	27	2456
08	2418	28	2458
09	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

# 3. Table for Filed Antenna:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	GINPAQ NWG TECHNOLOGY CO., LTD	RFPCA420620IMAB301	PCB	N/A	2.39

Note: The antenna gain is provided by the manufacturer.



#### 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 Mode_1Mbps Channel 00/19/39
Mode 2	TX Mode_2Mbps Channel 00/19/39
Mode 3	TX Mode_2Mbps Channel 39

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 3 TX Mode_2Mbps Channel 39			

Radiated emissions test - Below 1GHz		
Final Test Mode	Description	
Mode 3	TX Mode_2Mbps Channel 39	

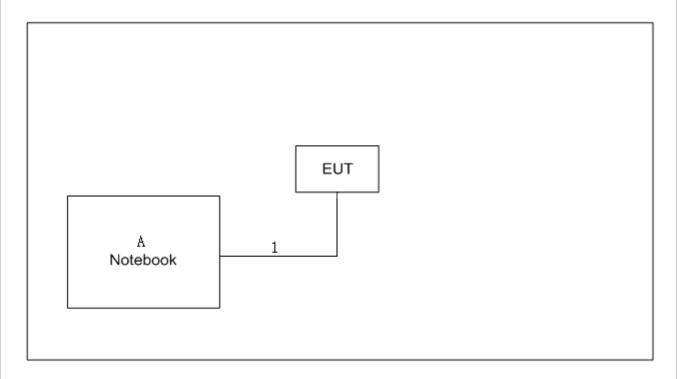
Radiated emissions test - Above 1GHz		
Final Test Mode	Description	
Mode 1	TX Mode_1Mbps Channel 00/19/39	
Mode 2	TX Mode_2Mbps Channel 00/19/39	

#### Note:

- (1) For radiated emission above 1 GHz test, the spurious points of 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) For AC power line conducted emissions and radiated emissions below 1 GHz test, the 2Mbps Channel 39 is found to be the worst case and recorded.



# 2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



# 2.4 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
Α	Notebook	Lenovo	V310-14ISK	LR07GZNB

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	NO	NO	0.8m



#### 3. AC POWER LINE CONDUCTED EMISSIONS

#### **3.1 LIMIT**

Frequency of Emission (MHz)	Limit (dBμV)		
Frequency of Emission (MHZ)	Quasi-peak	Average	
0.15 - 0.5	66 to 56*	56 to 46*	
0.5 - 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.

#### 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.

The following table is the setting of the receiver:

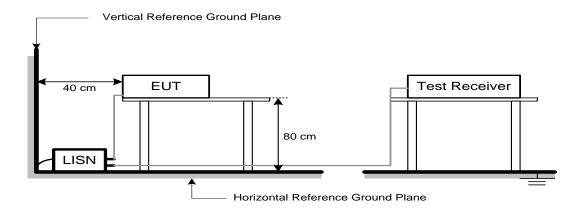
g and the same g		
Receiver Parameters	Setting	
Start Frequency	0.15 MHz	
Stop Frequency	30 MHz	
IF Bandwidth	9 kHz	

#### 3.3 DEVIATION FROM TEST STANDARD

No deviation.



#### 3.4 TEST SETUP



#### 3.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

#### 3.6 TEST RESULTS

Please refer to the APPENDIX A.

#### Remark:

- (1) All readings are QP Mode value unless otherwise stated AVG in column of <code>Note</code>. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a " \* " marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150 kHz to 30 MHz.



# 4. RADIATED EMISSIONS

#### 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)

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

#### Note:

- (1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).



#### **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.

The following table is the setting of the receiver:

Spectrum Parameters	Setting	
Start ~ Stop Frequency	9 kHz~150 kHz for RBW 200 Hz	
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz	
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz	

Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW	1 MHz / 3 MHz for PK value
(Emission in restricted band)	1 MHz / 1/T Hz for AVG value

Spectrum Parameters	Setting
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
Start ~ Stop Frequency	1 GHz~26.5 GHz for PK/AVG detector

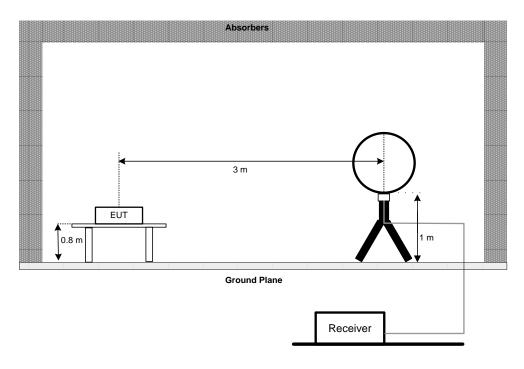


# **4.3 DEVIATION FROM TEST STANDARD**

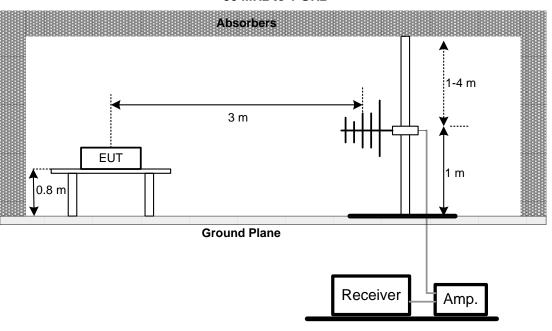
No deviation.

# 4.4 TEST SETUP

#### 9 kHz to 30 MHz

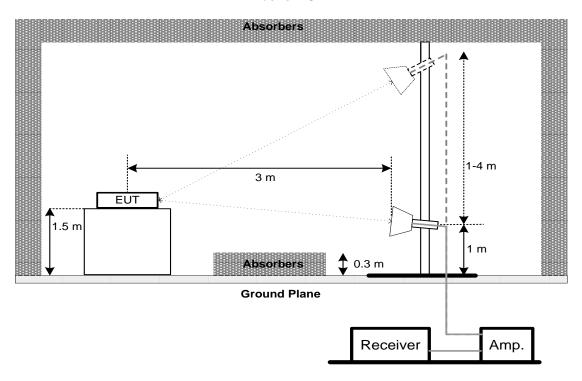


# 30 MHz to 1 GHz





#### **Above 1 GHz**



#### 4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

# 4.6 TEST RESULT - 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 RESULT - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.

#### 4.8 TEST RESULT - 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. 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	Feb. 28, 2022	
2	LISN	EMCO	3816/2	52765	Feb. 27, 2022	
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 27, 2022	
4	50Ω Terminator	SHX	TF5-3	15041305	Feb. 27, 2022	
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	
6	Cable	N/A	RG223	12m	Mar. 09, 2022	
7	643 Shield Room	ETS	6*4*3m	N/A	N/A	

	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	Apr. 28, 2022				
2	Cable	N/A	RG 213/U	N/A	May 27, 2022				
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 27, 2022				
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A				
5	966 Chambe Room	RM	9*6*6m	N/A	Jul. 26, 2022				

	Radiated Emissions - 30 MHz to 1 GHz								
Item	Kind of Equipment	Manufacturer	Manufacturer Type No.		Calibrated until				
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 15, 2022				
2	Amplifier	HP	8447D	2944A08742	Feb. 28, 2022				
3	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022				
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 20, 2022				
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				
8	966 Chambe Room	RM	9*6*6m	N/A	Jul. 26, 2022				

	Radiated Emissions - Above 1 GHz							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Double Ridged Guide Antenna	ETS	3115	75789	May 10, 2022			
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022			
3	Amplifier	Agilent	8449B	3008A02584	Jul. 10, 2022			
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 28, 2022			
5	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022			
6	Controller	CT	SC100	N/A	N/A			
7	Controller	MF	MF-7802	MF780208416	N/A			
8	Cable	N/A	EMC104-SM-SM-6 000	N/A	Oct. 16, 2021			
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A			
10	Filter	STI	STI15-9912	N/A	Jul. 10, 2022			
11	966 Chambe Room	RM	9*6*6m	N/A	Jul. 26, 2022			

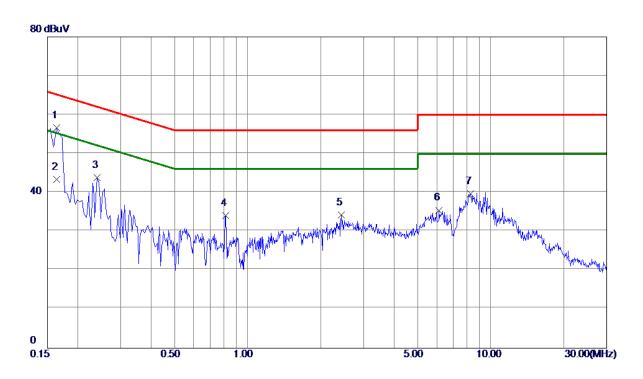
Remark: "N/A" denotes no model name, serial no. or calibration specified. All calibration period of equipment list is one year.



APPENDIX A - AC POWER LINE CONDUCTED EM	ISSIONS





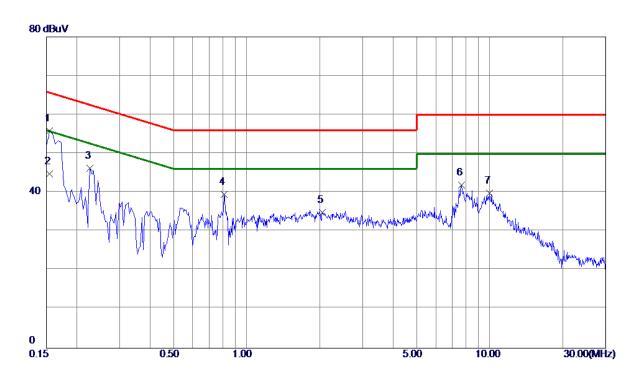


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0. 1635	46. 87	9. 77	56. 64	65. 28	-8. 64	Peak	
2	0. 1635	33. 60	9. 77	43. 37	55. 28	-11. 91	AVG	
3	0. 2400	33. 90	9. 88	43. 78	62. 10	-18. 32	Peak	
4	0.8114	24. 17	9. 96	34. 13	56.00	-21.87	Peak	
5	2. 4224	24. 10	10.09	34. 19	56.00	-21.81	Peak	
6	6. 1215	<b>25. 08</b>	10. 36	35. 44	60.00	-24. 56	Peak	
7	8. 2545	29. 09	10. 52	39. 61	60.00	-20. 39	Peak	

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







No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0. 1545	46. 03	9. 78	55. 81	65. 75	-9. 94	Peak	
2	0. 1545	35. 09	9. 78	44.87	55. 75	-10.88	AVG	
3	0. 2265	36. 32	9. 99	46. 31	62. 58	-16. 27	Peak	
4	0.8070	29. 34	10. 22	39. 56	56.00	-16. 44	Peak	
5	2. 0535	24. 50	10. 38	34. 88	56.00	-21. 12	Peak	
6	7. 6695	31. 02	10. 83	41.85	60.00	-18. 15	Peak	
7	9. 9825	28. 82	11. 02	39. 84	60.00	-20. 16	Peak	

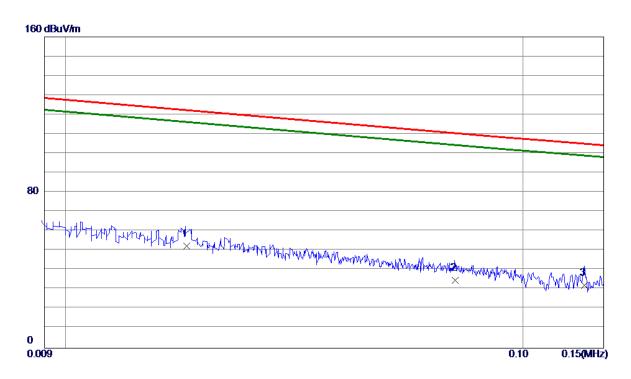
- (1) Measurement Value = Reading Level + Correct Factor.
  (2) Margin Level = Measurement Value Limit Value.



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



Test Mode	TX Mode_2Mbps Channel 39	Polarization	Ant 0°

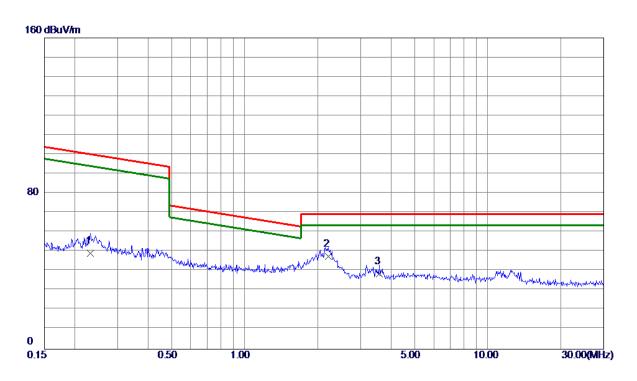


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1 *	0.0184	38. 62	13. 72	52. 34	122. 24	-69. 90	AVG		
2	0.0711	22. 43	12. 55	34. 98	110. 55	-75. 57	AVG		
3	0. 1363	19. 48	12. 73	32. 21	104. 92	-72. 71	AVG		

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



Test Mode	TX Mode_2Mbps Channel 39	Polarization	Ant 0°

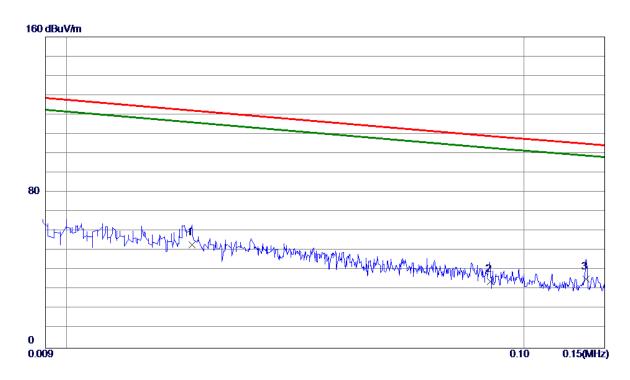


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin			
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	0. 2316	36. 59	12. 68	49. 27	100. 31	-51. 04	AVG		
2 *	2. 2132	36. 53	11. 20	47. 73	69. 54	-21.81	QP		
3	3. 5843	27. 68	10.89	38. 57	69. 54	-30. 97	QP		

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



Test Mode	TX Mode_2Mbps Channel 39	Polarization	Ant 90°

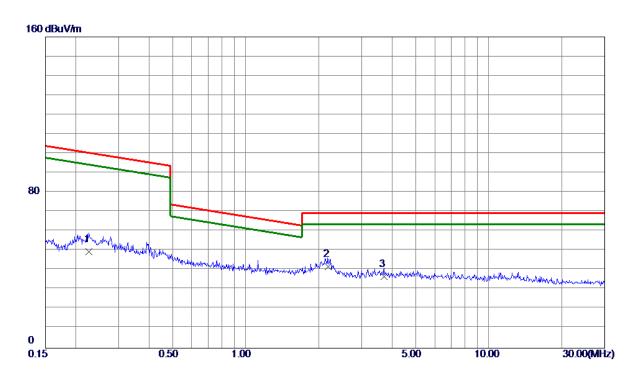


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	0.0188	39. 65	13. 59	53. 24	122. 05	-68. 81	AVG	
2	0.0843	21. 53	12.63	34. 16	109.08	<b>−74. 92</b>	AVG	
3	0. 1367	22. 67	12. 73	35. 40	104.89	<b>−69. 49</b>	AVG	

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



Test Mode	TX Mode_2Mbps Channel 39	Polarization	Ant 90°



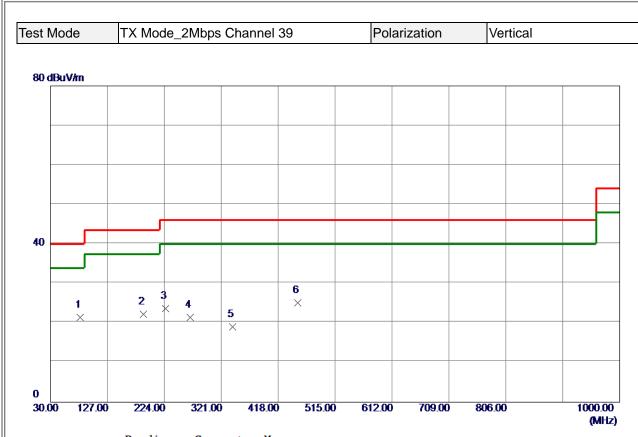
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0. 2268	36. 85	12. 70	49. 55	100. 49	-50. 94	AVG	
2 *	2. 1783	30. 56	11. 21	41.77	69. 54	-27. 77	<b>Q</b> P	
3	3. 7198	25. 78	10. 91	36. 69	69. 54	-32. 85	QP	

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



APPENDIX C - RADIATED EMISSION	ON - 30 MHZ TO 1000 MHZ



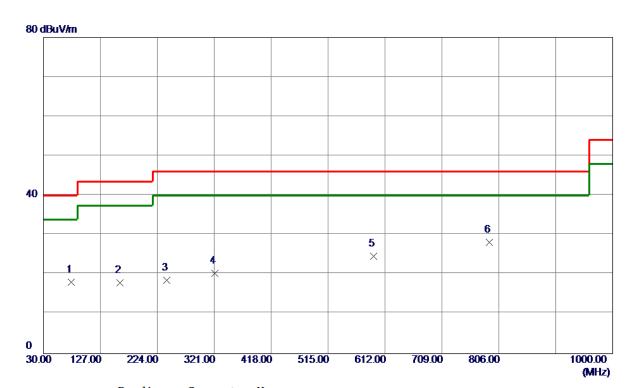


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	80. 4400	39. 82	-18. 40	21. 42	40.00	-18. 58	Peak	
2	188. 1100	36. 94	-14. 69	22. 25	43. 50	-21. 25	Peak	
3	225. 9400	38. 03	-14. 29	23. 74	46.00	-22. 26	Peak	
4	268. 6200	33. 65	-12. 23	21. 42	46.00	-24. 58	Peak	
5	340. 4000	29. 18	-10. 14	19. 04	46.00	-26. 96	Peak	
6	450. 9800	32. 45	-7. 39	25. 06	46. 00	-20. 94	Peak	

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







No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	77. 5300	35. 97	-17. 85	18. 12	40.00	-21.88	Peak	
2	159. 9800	30. 29	-12. 37	17. 92	43. 50	-25.58	Peak	
3	240. 4900	31. 97	-13. 36	18. 61	46.00	-27. 39	Peak	
4	321. 9700	30. 79	-10. 48	20. 31	46.00	-25. 69	Peak	
5	592. 6000	29. 40	<b>-4.</b> 75	24. 65	46.00	-21. 35	Peak	
6 *	789. 5100	29. 10	-0. 95	28. 15	46. 00	-17. 85	Peak	
6 *	789. 5100	29. 10	-0. 95	28. 15	46. 00	-17. 85	Peak	

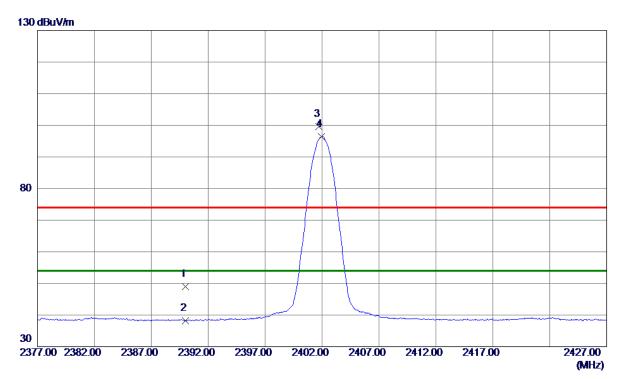
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ



Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Vertical

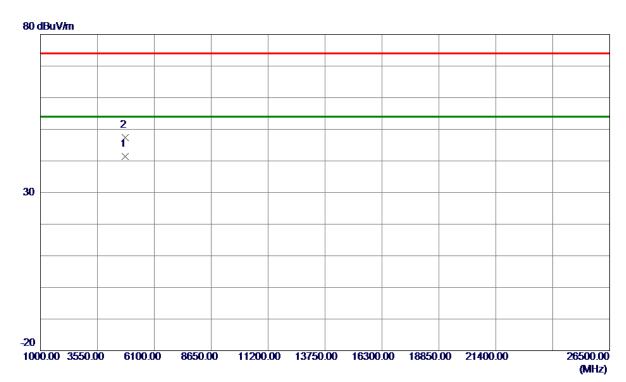


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	38. 97	9. 98	48. 95	74.00	-25.05	Peak	
2	2390. 0000	28. 27	9. 98	38. 25	<b>54.00</b>	-15. 75	AVG	
3	2401. 7250	89. 66	9. 98	99. 64	74.00	25. 64	Peak	No Limit
4 *	2401. 9500	86. 48	9. 98	96. 46	54. 00	42. 46	AVG	No Limit

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



Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Vertical

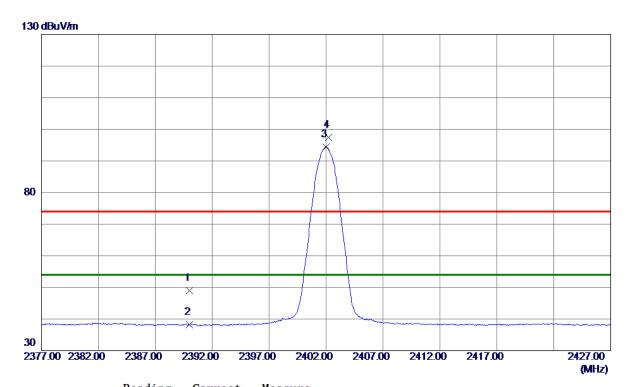


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4803. 9700	33. 41	7. 95	41. 36	54.00	-12. 64	AVG	
2	4804, 3300	39. 46	7. 95	47. 41	74.00	-26, 59	Peak	

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



Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	39. 11	9. 98	49. 09	74.00	-24. 91	Peak	
2	2390. 0000	28. 29	9. 98	38. 27	54.00	-15. 73	AVG	
3 *	2401. 9750	84. 38	9. 98	94. 36	54.00	40. 36	AVG	No Limit
4	2402. 2250	87. 44	9. 98	97. 42	74.00	23. 42	Peak	No Limit

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



Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Horizontal

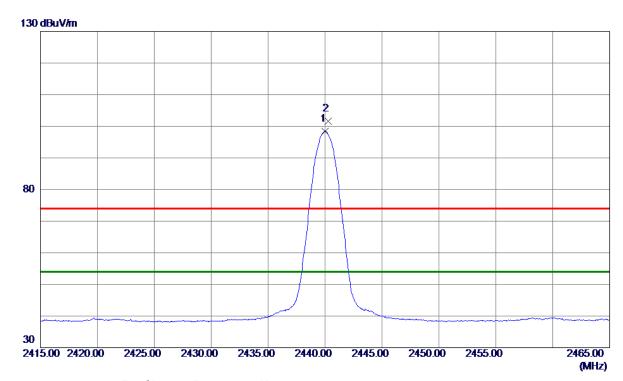


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4803. 9800	32. 47	7. 95	40. 42	54.00	-13. 58	AVG	
2	4804. 2350	38. 25	7. 95	46. 20	74.00	-27.80	Peak	

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





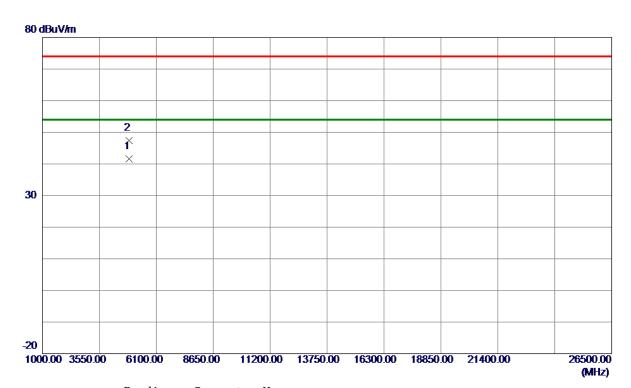


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2440. 0000	88. 40	10.00	98. 40	54.00	44. 40	AVG	No Limit
2	2440. 2500	91. 67	10.00	101. 67	74.00	27.67	Peak	No Limit

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



Test Mode	TX 2440 MHz _CH19_1Mbps	Polarization	Vertical

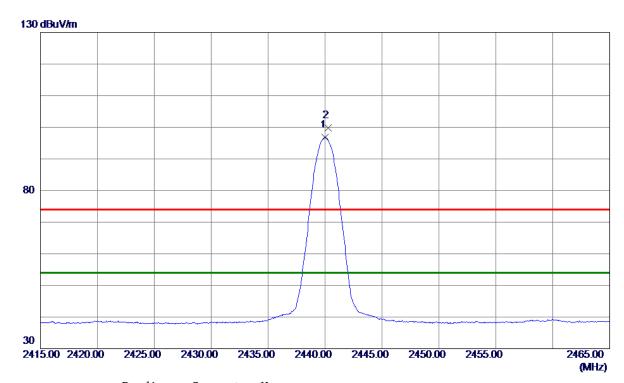


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4877. 6300	33. 47	8. 19	41. 66	54.00	-12. 34	AVG	
2	4878. 1300	39. 21	8. 19	47. 40	74. 00	-26. 60	Peak	

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





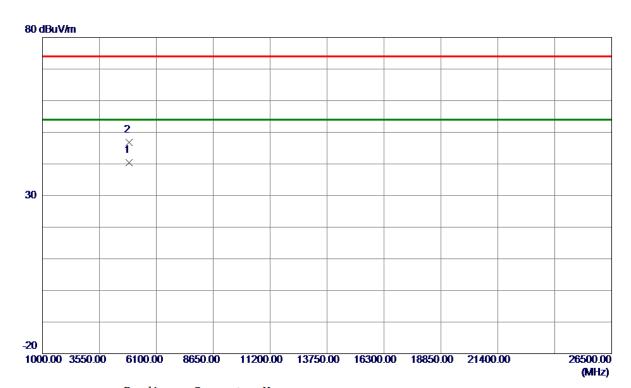


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2440. 0000	86. 84	10.00	96. 84	54.00	42.84	AVG	No Limit
2	2440. 2500	89. 87	10.00	99. 87	74.00	25. 87	Peak	No Limit

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



Test Mode	TX 2440 MHz _CH19_1Mbps	Polarization	Horizontal

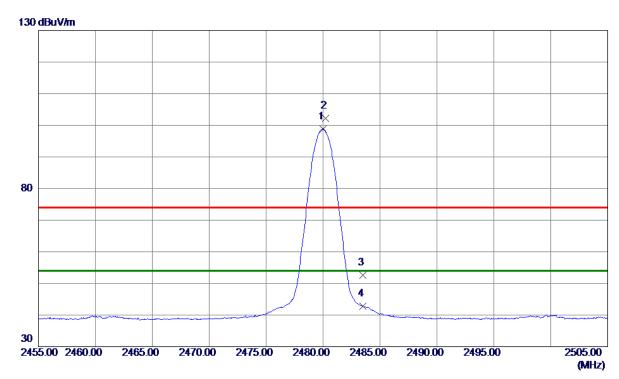


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4877. 6100	32. 14	8. 19	40. 33	54.00	-13. 67	AVG	
2	4877. 6349	38. 62	8. 19	46. 81	74.00	-27. 19	Peak	

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



Test Mode	TX 2480 MHz _CH39_1Mbp	os Polarization	Vertical

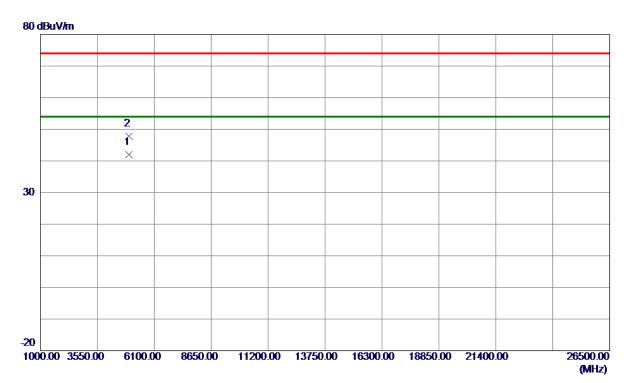


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2479. 9750	88. 78	10. 01	98. 79	54.00	44. 79	AVG	No Limit
2	2480. 2250	92. 11	10. 01	102. 12	74.00	28. 12	Peak	No Limit
3	2483. 5000	42. 61	10. 01	52. 62	74. 00	-21. 38	Peak	
4	2483. 5000	32. 78	10. 01	42. 79	54. 00	-11. 21	AVG	

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



Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Vertical

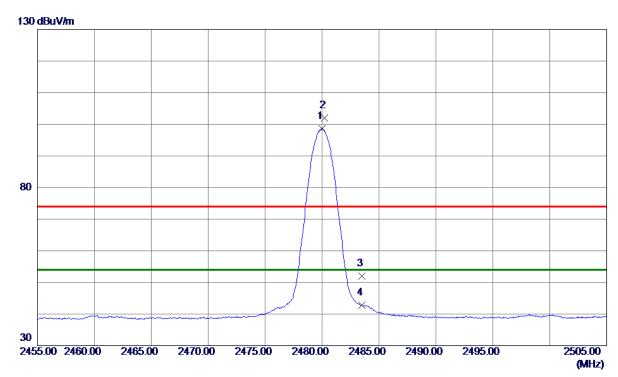


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4957. 7700	33. 48	8. 45	41. 93	54.00	-12. 07	AVG	
2	4960, 9500	39. 26	8. 46	47. 72	74. 00	-26, 28	Peak	

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



Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Horizontal

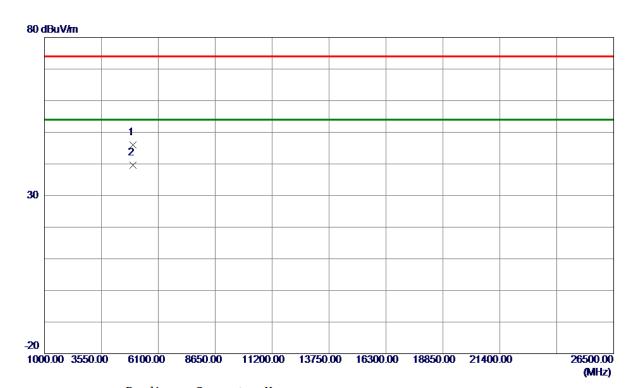


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2480. 0000	88. 60	10. 01	98. 61	54.00	44. 61	AVG	No Limit
2	2480. 2250	91. 96	10. 01	101. 97	74.00	27. 97	Peak	No Limit
3	2483. 5000	41. 95	10. 01	51. 96	74.00	<b>-22. 04</b>	Peak	
4	2483. 5000	32. 71	10. 01	42.72	54.00	-11. 28	AVG	

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



Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Horizontal

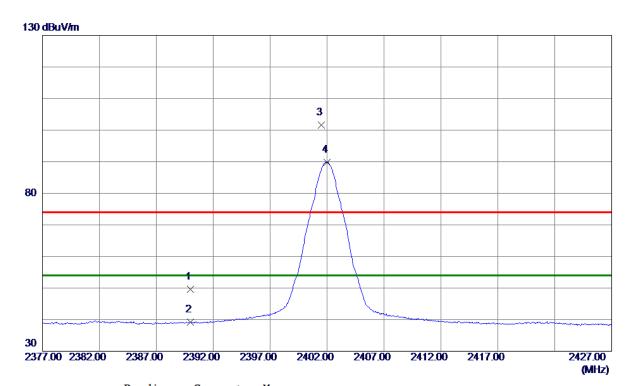


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4959. 1100	37. 52	8. 46	45. 98	74.00	-28 <b>. 0</b> 2	Peak	
2 *	4961. 3950	31. 16	8. 46	39. 62	54.00	-14. 38	AVG	

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



Test Mode	TX 2402 MHz _CI	H00_2Mbps	Polarization	Vertical

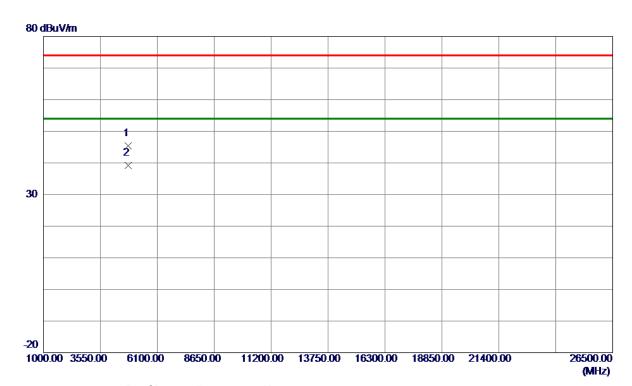


Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
2390. 0000	39. 60	9. 98	49. 58	74.00	-24. 42	Peak	
2390. 0000	29. 24	9. 98	39. 22	54.00	-14. 78	AVG	
2401. 5000	91. 61	9. 98	101. 59	74.00	27. 59	Peak	No Limit
2401. 9750	79. 90	9. 98	89. 88	54.00	35. 88	AVG	No Limit
	MHz 2390. 0000 2390. 0000 2401. 5000	Freq. Level	Hz dBuV/m dB 2390.0000 39.60 9.98 2390.0000 29.24 9.98 2401.5000 91.61 9.98	MHz         dBuV/m         dB         dBuV/m           2390.0000         39.60         9.98         49.58           2390.0000         29.24         9.98         39.22           2401.5000         91.61         9.98         101.59	MHz         dBuV/m         dB         dBuV/m         dBuV/m           2390.0000         39.60         9.98         49.58         74.00           2390.0000         29.24         9.98         39.22         54.00           2401.5000         91.61         9.98         101.59         74.00	MHz         dBuV/m         dB         dBuV/m         dB         dBuV/m         dB           2390.0000         39.60         9.98         49.58         74.00         -24.42           2390.0000         29.24         9.98         39.22         54.00         -14.78           2401.5000         91.61         9.98         101.59         74.00         27.59	MHz         dBuV/m         dB         dBuV/m         dBuV/m         dB         Detector           2390.0000 39.60         9.98         49.58         74.00         -24.42         Peak           2390.0000 29.24         9.98         39.22         54.00         -14.78         AVG           2401.5000 91.61         9.98         101.59         74.00         27.59         Peak

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



Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Vertical

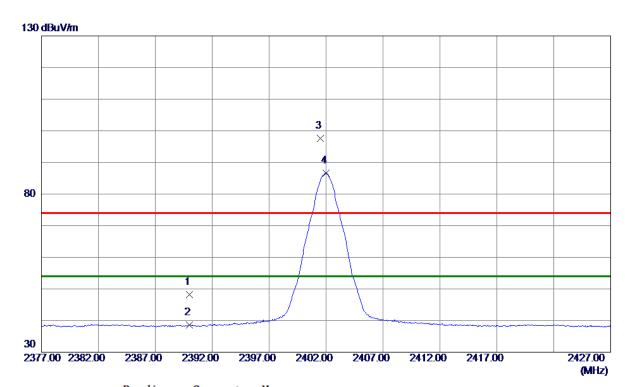


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4803. 5700	37. 47	7. 95	<b>45. 42</b>	74.00	-28. 58	Peak	
2 *	4803. 9550	31. 24	7. 95	39. 19	54.00	-14. 81	AVG	

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





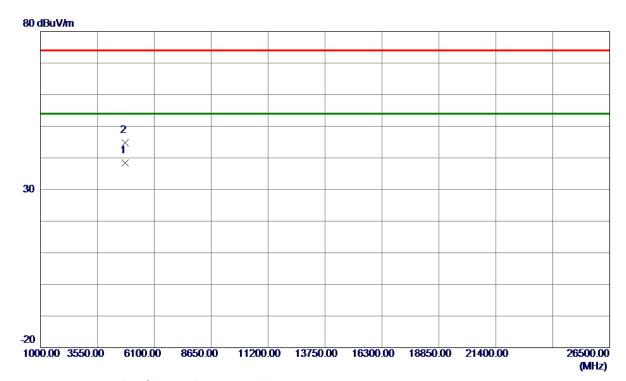


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	38. 25	9. 98	48. 23	74.00	-25. 77	Peak	
2	2390. 0000	28. 57	9. 98	38. 55	54.00	-15. 45	AVG	
3	2401. 5000	87. 65	9. 98	97. 63	74.00	23. 63	Peak	No Limit
4 *	2401. 9750	76. 61	9. 98	86. 59	54.00	32. 59	AVG	No Limit

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



Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Horizontal

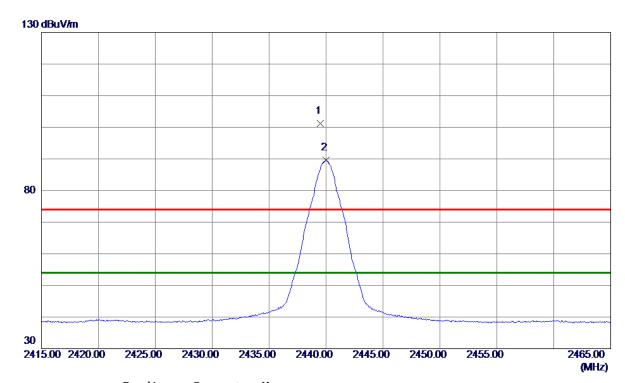


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4803. 9100	30. 48	7. 95	38. 43	54.00	-15. 57	AVG	
2	4804. 6050	36. 78	7. 95	44. 73	74.00	-29. 27	Peak	

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



Test Mode	TX 2440 MHz _CH19_2Mbps	Polarization	Vertical

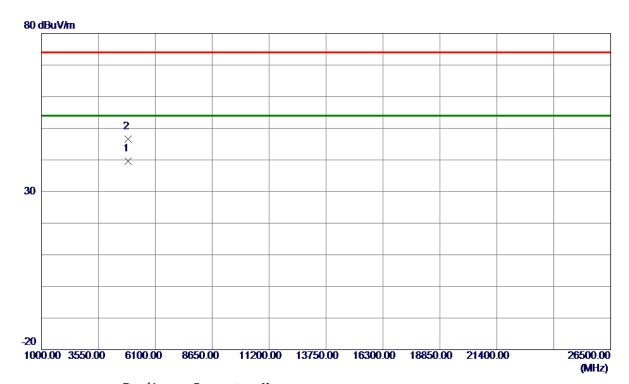


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2439. 5000	91. 19	10.00	101. 19	74.00	27. 19	Peak	No Limit
2 *	2440. 0000	79. 51	10. 00	89. 51	54.00	35. 51	AVG	No Limit

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



Test Mode	TX 2440 MHz _CH19_2Mbps	Polarization	Vertical

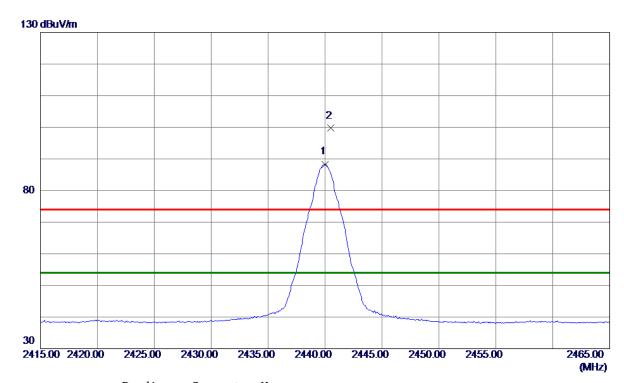


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4882. 1549	31. 48	8. 20	39. 68	54.00	-14. 32	AVG	
2	4882. 2250	38. 40	8. 20	46. 60	74.00	-27.40	Peak	

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







No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2440. 0250	78. 30	10.00	88. 30	54.00	34. 30	AVG	No Limit
2	2440. 4750	89. 70	10.00	99. 70	74.00	25. 70	Peak	No Limit

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



Test Mode	TX 2440 MHz _CH19_2Mbps	Polarization	Horizontal

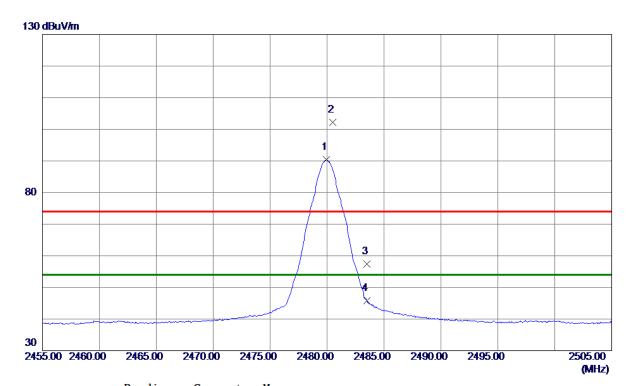


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4878. 0870	37. 23	8. 19	<b>45. 42</b>	74.00	-28. 58	Peak	
2 *	4878. 8769	30. 14	8. 19	38. 33	<b>54</b> . <b>00</b>	-15. 67	AVG	

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



Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2479. 9500	80. 37	10. 01	90. 38	54.00	36. 38	AVG	No Limit
2	2480. 5000	92. 25	10. 01	102. 26	74.00	28. 26	Peak	No Limit
3	2483. 5000	47. 36	10. 01	57. 37	74.00	-16. 63	Peak	
4	2483. 5000	35. 84	10. 01	45. 85	54.00	-8. 15	AVG	

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



Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Vertical

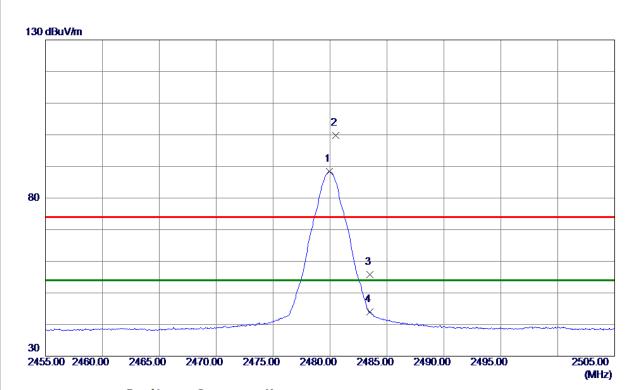


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4957. 7570	31. 26	8. 45	39. 71	54.00	-14. 29	AVG	
2	4959. 8230	37. 14	8. 46	45. 60	74.00	-28. 40	Peak	

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





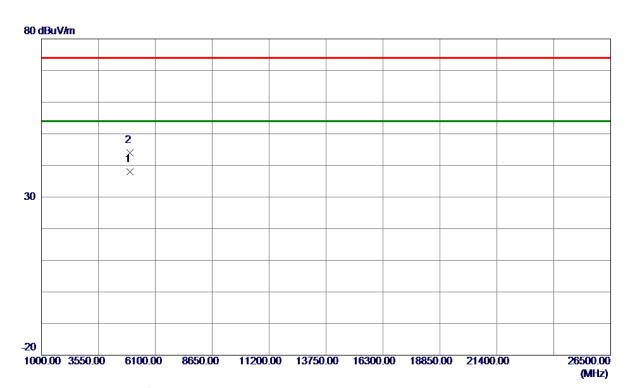


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2479. 9500	78. 37	10. 01	88. 38	<b>54.00</b>	34. 38	AVG	No Limit
2	2480. 4750	89. 84	10. 01	99. 85	74.00	25. 85	Peak	No Limit
3	2483. 5000	45. 73	10. 01	55. 74	74.00	-18. 26	Peak	
4	2483. 5000	33. 90	10. 01	43. 91	54.00	-10. 09	AVG	

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



Test Mode	TX 2480 MHz	CH39_2Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4959. 1480	29. 58	8. 46	38. 04	54.00	-15. 96	AVG	
2	4962, 1880	35. 47	8. 47	43. 94	74. 00	-30. 06	Peak	

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

### **End of Test Report**