



# **FCC Radio Test Report**

**FCC ID: 2ARNB-DTSWLG3** 

This report concerns: Original Grant

**Project No.** : 2503C220

**Equipment**: Data Transfer Stick

Brand Name : Hoymiles
Test Model : DTS-WL-G3

Series Model : N/A

**Applicant**: Hoymiles Power Electronics Inc.

Address : No. 18 Kangjing Road, Hangzhou, Zhejiang Province, P.R. China

**Manufacturer**: Hoymiles Power Electronics Inc.

Address : No. 18 Kangjing Road, Hangzhou, Zhejiang Province, P.R. China

**Factory**: Hoymiles Power Electronics Inc.

Address : No.149 Kangzhong Road, Hangzhou 310015, Zhejiang Province, P.R.

China

Date of Receipt : Mar. 19, 2025

**Date of Test** : Mar. 20, 2025 ~ Apr. 17, 2025

**Issued Date** : Apr. 24, 2025

Report Version : R00

Test Sample : Engineering Sample No.: DG20250319240 for AC power line

conducted emissions and radiated emissions, DG20250319241 for

others

Standard(s) : FCC CFR Title 47, Part 15, Subpart C

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

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### **Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

**BTL**'s reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. BTL assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by BTL.

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**BTL**'s laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

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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# **REVISION HISTORY**

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-2-2503C220	R00	Original Report.	Apr. 24, 2025	Valid



### 1. APPLICABLE STANDARDS

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of A2LA: KDB 558074 D01 15.247 Meas Guidance v05r02

### 2. 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	APPENDIX E	PASS		
15.247(b)(3)	Maximum Output Power	APPENDIX F	PASS		
15.247(d)	Conducted Spurious Emissions	APPENDIX G	PASS		
15.247(e)	Power Spectral Density	APPENDIX H	PASS		
15.203	Antenna Requirement		PASS	Note(2)	

### Note:

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



### 2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

**For Radiated Emissions 1GHz - 18GHz Items:** Room 102 & Room 702, Building 3, No.9, Jinshagang 1st Road, Dalang Town, Dongguan City, Guangdong People's Republic of China.

For Other Items: 1-2/F, 4/F, Building A, 1-2/F, Building B, 3/F, Building C, No.3, Jinshagang 1st Road,

Dalang Town, Dongguan City, Guangdong People's Republic of China.

BTL's Registration Number for FCC: 747969 BTL's Designation Number for FCC: CN1377

### 2.2 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 95.45% 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	2.88

### B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	<i>U</i> ,(dB)
DG-CB01	CISPR	9kHz ~ 30MHz	2.36

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB03		30MHz ~ 200MHz	V	4.40
	CISPR	30MHz ~ 200MHz	Н	3.62
(3m)	CIOPK	200MHz ~ 1,000MHz	V	4.58
		200MHz ~ 1,000MHz	Н	3.98

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB18	3 CISPR	1GHz ~ 6GHz	4.48
(3m)	CISPR	6GHz ~ 18GHz	3.88

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB03 (1m)	CISPR	18 ~ 26.5 GHz	3.36



### C. Other Measurement:

Test Item	Uncertainty
Bandwidth	0.90 %
Maximum Output Power	1.3 dB
Conducted Spurious Emission	1.9 dB
Power Spectral Density	1.4 dB
Temperature	0.8 °C
Humidity	2.2 %

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

### 2.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By	Test Date
AC Power Line Conducted Emissions	23°C	55%	AC 120V/60Hz	Hayden Chen	Mar. 28, 2025
Radiated Emissions -9kHz to 30 MHz	20°C	48%	DC 5V	Hayden Chen	Mar. 28, 2025
Radiated Emissions -30MHz to 1000MHz	23°C	42%	DC 5V	Chen Mo	Mar. 31, 2025
Radiated Emissions	24°C	48%	DC 5V	Berton Luo	Apr. 06, 2025
-Above 1000MHz	23°C	42%	DC 5V	Calvin Wen	Apr. 01, 2025
Bandwidth	24°C	47%	DC 5V	Jensen Zhou	Apr. 02, 2025
Maximum Output Power	25°C	55%	DC 5V	Andrew Jiang	Mar. 28, 2025
Conducted Spurious Emissions	24°C	47%	DC 5V	Jensen Zhou	Apr. 02, 2025
Power Spectral Density	24°C	47%	DC 5V	Jensen Zhou	Apr. 02, 2025



# 3. GENERAL INFORMATION

### 3.1 GENERAL DESCRIPTION OF EUT

Equipment	Data Transfer Stick
Brand Name	Hoymiles
Test Model	DTS-WL-G3
Series Model	N/A
Model Difference(s)	N/A
Software Version	V02.00.13
Hardware Version	H11.02.01
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/n: OFDM IEEE 802.11ax: OFDMA
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 150 Mbps IEEE 802.11ax: up to 143.4 Mbps
Maximum Output Power	IEEE 802.11b: 20.85 dBm (0.1216 W)

### Note

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

### 2. Channel List:

• · · · • · · · · · · · · · · · · · · ·	marrior Lieu						
CH01 -	CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20), IEEE 802.11ax(HE20)  CH03 - CH09 for IEEE 802.11n(HT40)						
Channel	Channel Frequency (MHz) Channel Frequency (MHz) Channel Frequency (MHz) Frequency (MHz)						
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	80	2447	11	2462
03	2422	06	2437	09	2452		

3. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	SLEing <sup>®</sup>	SLEingA248970045	FPC	MHF	-1.27



# 3.2 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(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09
Mode 5	TX AX(HE20) Mode Channel 01/06/11
Mode 6	TX B Mode Channel 01

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 6	TX B Mode Channel 01	

Radiated emissions test - Below 1GHz & Above 18 GHz		
Final Test Mode	Description	
Mode 6	TX B Mode Channel 01	

Radiated emissions test - 1 GHz - 18 GHz			
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(HT20) Mode Channel 01/06/11		
Mode 4	TX N(HT40) Mode Channel 03/06/09		
Mode 5	TX AX(HE20) Mode Channel 01/06/11		



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(HT20) Mode Channel 01/06/11		
Mode 4	TX N(HT40) Mode Channel 03/06/09		
Mode 5	TX AX(HE20) Mode Channel 01/06/11		

### NOTE:

- (1) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (2) For AC power line conducted emissions and radiated emission below 1 GHz test, the IEEE 802.11b channel 01 is found to be the worst case and recorded.
- (3) 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.
- (4) For radiated emission Harmonic 18-26.5GHz test, only tested the worst case and recorded.
- (5) For radiated emission above 1 GHz test, the polarization of Vertical and Horizontal are evaluated, the worst case is Horizontal and recorded.
- (6) IEEE 802.11ax mode only supports full RU, so only the full RU is evaluated and measured inside report.



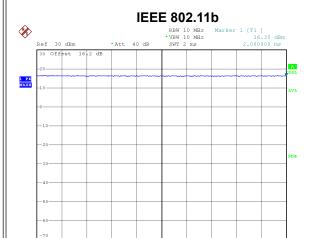
# 3.3 PARAMETERS OF TEST SOFTWARE

Test Software Version	ESP_RF_Test_EN_0		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	24	24	22
IEEE 802.11g	21	21	19
IEEE 802.11n(HT20)	19	19	18
IEEE 802.11ax(HE20)	19	19	18
Frequency (MHz)	2422	2437	2452
IEEE 802.11n(HT40)	18	18	17



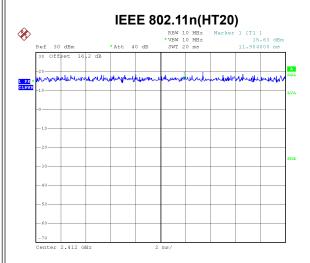
### 3.4 DUTY CYCLE

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.



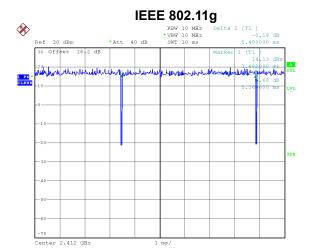
Date: 2.APR.2025 19:38:49

Duty cycle = 2.000 ms / 2.000 ms = 100% Duty Factor = 10 log(1/Duty cycle) = 0.00 dB



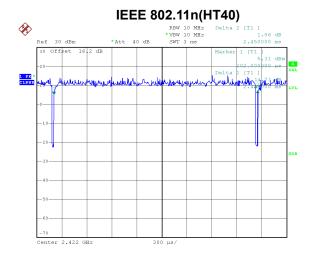
Date: 2.APR.2025 19:46:17

Duty cycle = 11.904 ms / 11.904 ms = 100% Duty Factor = 10 log(1/Duty cycle) = 0.00 dB



Date: 2.APR.2025 19:40:18

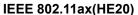
Duty cycle = 5.360 ms / 5.400 ms = 99.26% Duty Factor = 10 log(1/Duty cycle) = 0.00 dB

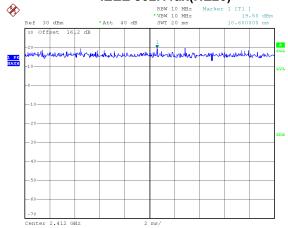


Date: 2.APR.2025 19:48:15

Duty cycle = 2.420 ms / 2.450 ms = 98.78% Duty Factor = 10 log(1/Duty cycle) = 0.00 dB







Date: 2.APR.2025 19:54:22

Duty cycle = 10.600 ms / 10.600 ms = 100% Duty Factor = 10 log(1/Duty cycle) = 0.00 dB

### NOTE:

### For IEEE 802.11b:

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.

### For IEEE 802.11g:

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.

### For 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.

### For IEEE 802.11n(HT40):

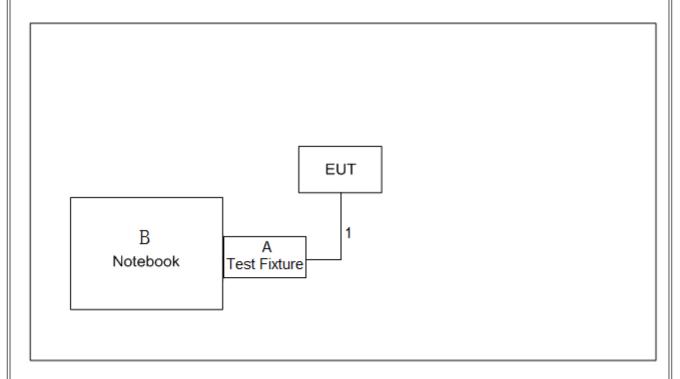
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2 kHz.

### For IEEE 802.11ax(HE20):

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.



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



### 3.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
Α	Test Fixture	N/A	N/A	N/A
В	Notebook	HUAWEI	KLVG-16	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	Data Cable	NO	NO	0.2m

### 3.7 CUSTOMER INFORMATION DESCRIPTION

- 1) The antenna gain is provided by the manufacturer.
- 2) Except for AC power line conducted emissions and radiated emissions, the results of all test items include cable losses. Part of the cable losses (0.5dB) are provided by the manufacturer, while the other parts of the cable losses are provided by the testing laboratory.



### 4. AC POWER LINE CONDUCTED EMISSIONS

### **4.1 LIMIT**

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

### **4.2 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:

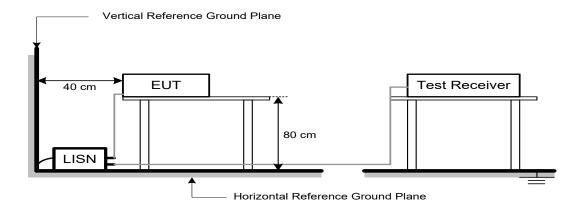
Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

### 4.3 DEVIATION FROM TEST STANDARD

No deviation.



### 4.4 TEST SETUP



# 4.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

### 4.6 TEST RESULTS

Please refer to the APPENDIX A.



### 5. RADIATED EMISSIONS

### 5.1 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)	Band edge/ Harmonic at 3m (dBµV/m)		Harmonic at	1m (dBμV/m)
1 3 ( )	Peak	Average	Peak	Average
Above 1000	74	54	83.5 (Note 4)	63.5 (Note 4)

### 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)

$$FS_{\text{limit}} = FS_{\text{max}} - 20\log\left(\frac{d_{\text{limit}}}{d_{\text{measure}}}\right)$$

 $20log (d_{limit}/d_{measure})=20log (3/1)=9.5 dB.$ 

FS<sub>limit</sub>: Harmonic at 3m Peak and Average limit.

FS<sub>max</sub>: Harmonic at 1m Peak and Average Maximum value.

d<sub>limit</sub>: Harmonic at 3m test distance. d<sub>measure</sub>: Harmonic Actual test distance.



### **5.2 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 or 1 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 1GHz)
- 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

Receiver 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

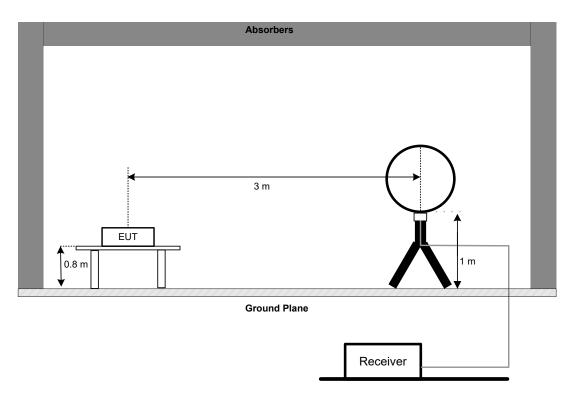


## **5.3 DEVIATION FROM TEST STANDARD**

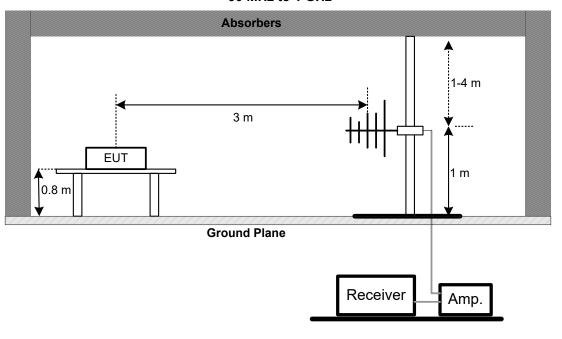
No deviation.

# 5.4 TEST SETUP

### 9 kHz to 30 MHz

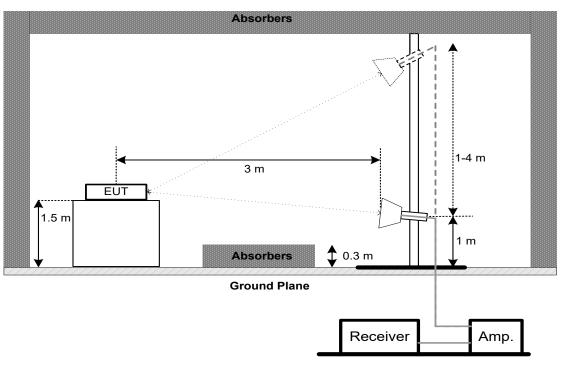


### 30 MHz to 1 GHz

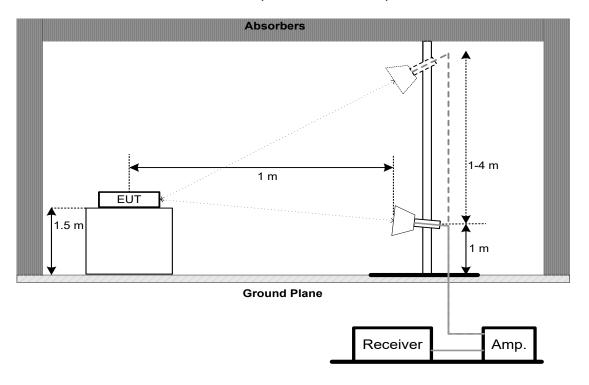




Above 1 GHz Band edge & Harmonic(1 GHz to 18 GHz)



# Harmonic(18 GHz to 26.5 GHz)





### 5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 5.6 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.

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

Please refer to the APPENDIX C.

### 5.8 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.



### 6. BANDWIDTH

### 6.1 LIMIT

Section	Test Item	Limit
ECC 15 247(a)(2)	6 dB Bandwidth	Minimum 500 kHz
FCC 15.247(a)(2)	99% Emission Bandwidth	-

### **6.2 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. The following table is the setting of the spectrum analyzer:

### For 6 dB Bandwidth:

or o ab barramann		
Spectrum Parameters	Setting	
Span	> Measurement Bandwidth	
RBW	100 kHz	
VBW	300 kHz	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

### For 99% Emission Bandwidth:

Spectrum Parameters	Setting	
Span	Between 1.5 times and 5.0 times the OBW	
RBW	300 kHz For 20MHz 1 MHz For 40MHz	
VBW	1 MHz For 20MHz 3 MHz For 40MHz	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

### **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 E.



### 7. MAXIMUM OUTPUT POWER

### 7.1 LIMIT

Section	Test Item	Limit
FCC 15.247(b)(3)	Maximum Output Power	1.0000 Watt or 30.00 dBm

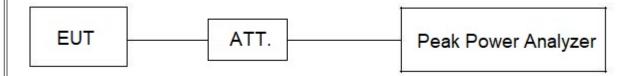
### 7.2 TEST PROCEDURE

- a. The EUT was directly connected to the peak power analyzer 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.

### 7.3 DEVIATION FROM STANDARD

No deviation.

### 7.4 TEST SETUP



### 7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 7.6 TEST RESULTS

Please refer to the APPENDIX F.



### 8. CONDUCTED SPURIOUS EMISSIONS

### **8.1 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.

### **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. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting	
Start Frequency	30 MHz	
Stop Frequency	26.5 GHz	
RBW	100 kHz	
VBW	300 kHz	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

### 8.3 DEVIATION FROM STANDARD

No deviation.

### **8.4 TEST SETUP**



### 8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### **8.6 TEST RESULTS**

Please refer to the APPENDIX G.



### 9. POWER SPECTRAL DENSITY

### 9.1 LIMIT

Section	Test Item	Limit
FCC 15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

### 9.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting	
Span 25MHz (20MHz Bandwidth), 60MHz (40MHz Bandwi		
RBW	3 kHz	
VBW	10 kHz	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

### 9.3 DEVIATION FROM STANDARD

No deviation.

### 9.4 TEST SETUP



### 9.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 9.6 TEST RESULTS

Please refer to the APPENDIX H.



# **10. MEASUREMENT INSTRUMENTS LIST**

	AC Power Line Conducted Emissions						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	TWO-LINE V-NETWORK	R&S	ENV216	102974	Dec. 06, 2025		
2	TWO-LINE V-NETWORK	R&S	ENV216	101447	Dec. 06, 2025		
3	Cable	N/A	SFT205-NMNM-9M -001	9M	Nov. 11, 2025		
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		
5	643 Shield Room	ETS	6*4*3	N/A	N/A		

	Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Active Loop Antenna	Schwarzbeck	FMZB 1513-60	00025	Mar. 01, 2026	
2	MXE EMI Receiver	Keysight	N9038A	MY56400091	Dec. 06, 2025	
3	Cable	N/A	RW4950-3.8A-NMS M-1.5	N/A	Nov. 12, 2025	
4	Cable	N/A	LMR400-NMNM-8 M	N/A	Nov. 12, 2025	
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	
6	966 Chamber room	ETS	9*6*6	N/A	May 16, 2025	

	Radiated Emissions - 30 MHz to 1 GHz							
Itom	Item Kind of Equipment Manufacturer Type No. Serial No. Calibrated until							
пеш		Manufacturei	Type No.	Senai No.	Calibrated urtill			
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	01462	Dec. 14, 2025			
2	Attenuator	EMC INSTRUMENT	EMCI-N-6-06	AT-06009	Dec. 14, 2025			
3	Preamplifier	EMC INSTRUMENT	EMC001330	980998	May 31, 2025			
4	Cable	RegalWay	LMR400-NMNM-12 .5m	N/A	Jun. 06, 2025			
5	Cable	RegalWay	LMR400-NMNM-3 m	N/A	Jun. 06, 2025			
6	Cable	RegalWay	LMR400-NMNM-0. 5m	N/A	Jun. 06, 2025			
7	Receiver	Agilent	N9038A	MY52130039	Jan. 10, 2026			
8	Positioning Controller	MF	MF-7802	N/A	N/A			
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A			
10	966 Chamber room	СМ	9*6*6	N/A	May 16, 2025			



	Radiated Emissions - 1 GHz - 18 GHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	Multi-Device Controller	ETS-Lindgren	N/A	N/A	N/A		
2	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		
3	MXA Signal Analyzer	KEYSIGHT	N9020B	MY63430227	Oct. 29, 2025		
4	Cable	RegalWay	RWLP50-4.0A-SMS M-1.3M	N/A	Jan. 07, 2026		
5	Cable	RegalWay	RWLP50-2.6A-3.5 M2.92MRA-3M	N/A	Jan. 07, 2026		
6	Cable	RegalWay	RWLP50-4.0A-SMS M-9M	N/A	Jan. 07, 2026		
7	966 Chamber room	ETS	RFD-100 (SVSWR)	Q2179	Jan. 07, 2026		
8	Double Ridged Horn Antenna	EMC INSTRUMENT	DRH18-E	210509A18ES	Aug. 28, 2025		
9	Preamplifier	EMC INSTRUMENT	EMC118A45SE	981001	May 31, 2025		
10	Attenuator	Talent Microwave	TA10A2-S-18	N/A	N/A		
11	Filter	STI	STI15-9912	N/A	Oct. 29, 2025		

	Radiated Emissions - Above 18 GHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	EXA Spectrum Analyzer	Keysight	N9010A	MY55150209	Aug. 20, 2025		
2	Preamplifier	EMC INSTRUMENT	EMC184045SE	980905	Oct. 29, 2025		
3	Cable	RegalWay	RWLP50-2.6A-2.92 M2.92M-1.1M	N/A	Jul. 25, 2025		
4	Cable	Tonscend	HF160-KMKM-3M	N/A	Jul. 25, 2025		
5	Broad-Band Horn Antenna	Schwarzbeck	BBHA9170(3m)	9170-319	Jun. 16, 2025		
6	966 Chamber room	CM	9*6*6	N/A	Dec 28, 2025		
7	Positioning Controller	MF	MF-7802	N/A	N/A		
8	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		

Bandwidth & Conducted Spurious Emissions & Power Spectral Density							
Item	Item Kind of Equipment Manufacturer Type No. Serial No. Calibrated un						
1	Spectrum Analyzer	R&S	FSP40	100185	May 31, 2025		
2	2 Measurement BTL BTL Conducted N/A N/A N/A						
3	Isolation attenuator	Z-Link	ASMA-16-18-2W	N/A	N/A		

	Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Peak Power Analyzer	Keysight	8990B	MY51000506	May 31, 2025	
2	Wideband power sensor	Keysight	N1923A	MY58310004	May 31, 2025	
3	Isolation attenuator	Z-Link	ASMA-10-18-2W	N/A	N/A	

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

All calibration period of equipment list is one year.



# 11. EUT TEST PHOTO



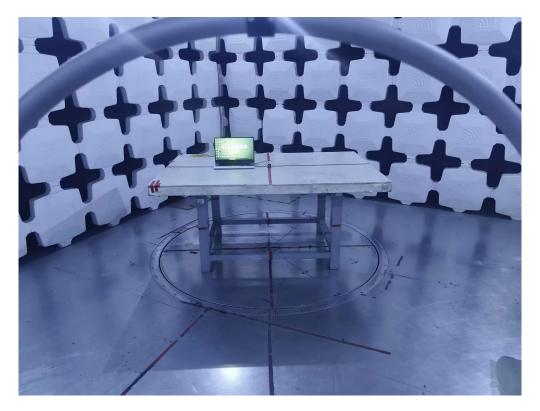


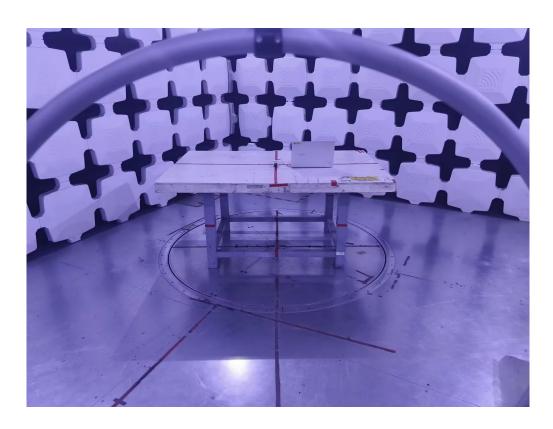




# **Radiated Emissions Test Photos**

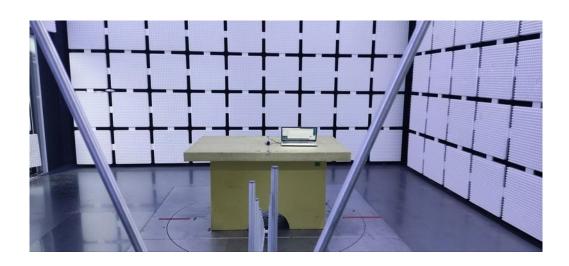
# 9 kHz to 30 MHz

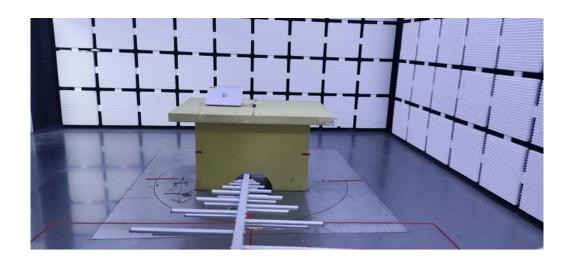






# Radiated Emissions Test Photos 30 MHz to 1000 MHz

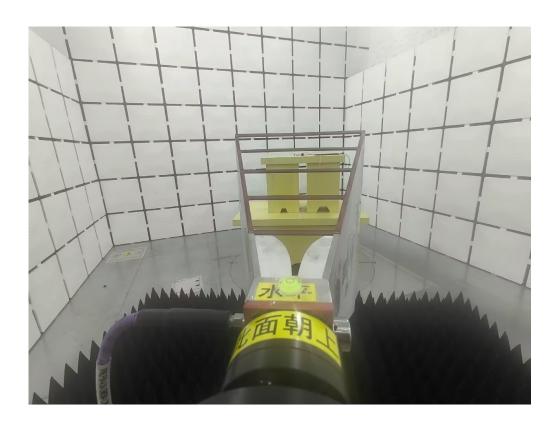






# Radiated Emissions Test Photos Band edge & Harmonic(1 GHz to 18 GHz)

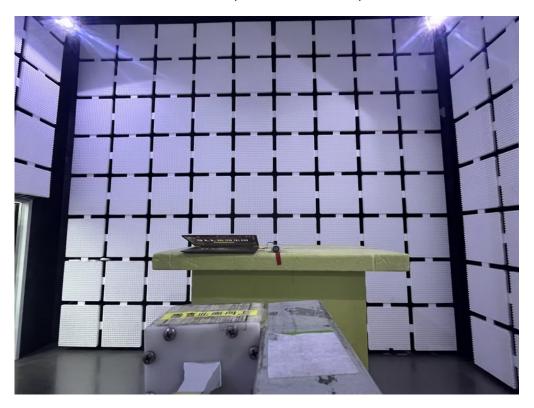


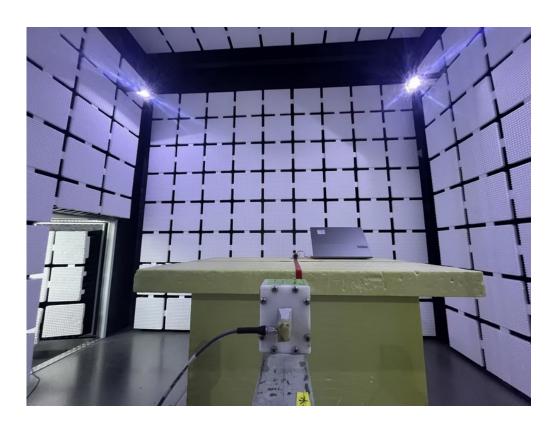




# **Radiated Emissions Test Photos**

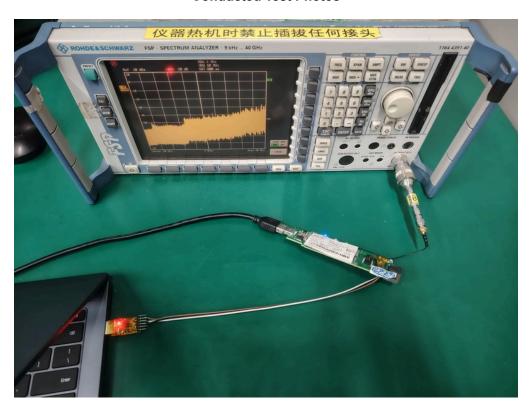
# Harmonic(18 GHz to 26.5 GHz)







# **Conducted Test Photos**

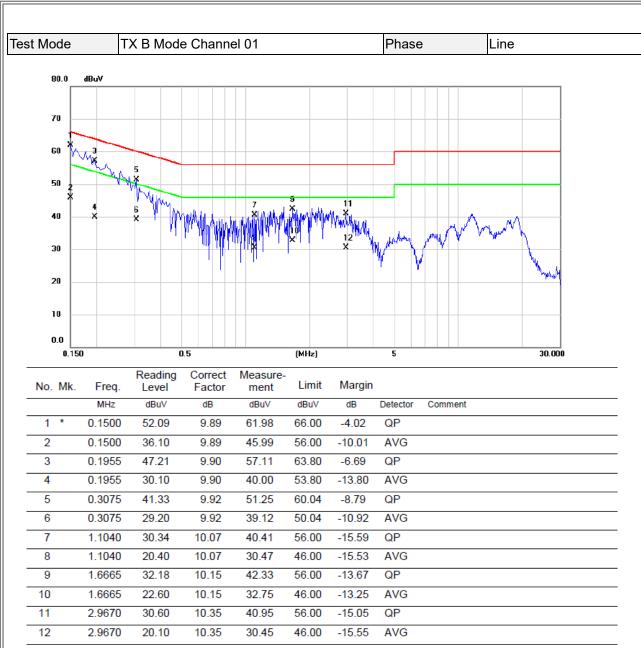






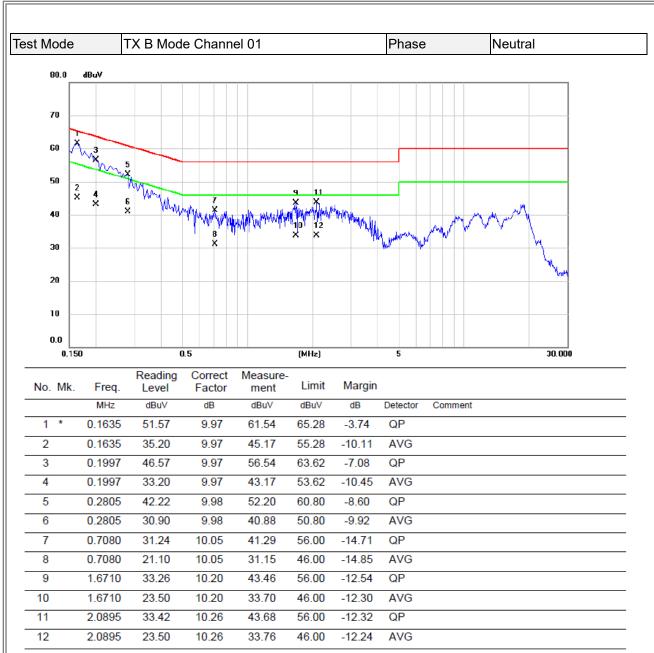
# **APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS**





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



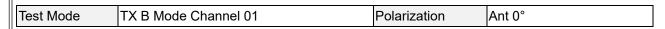


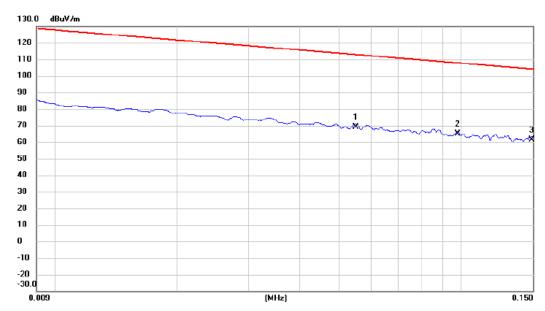
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



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





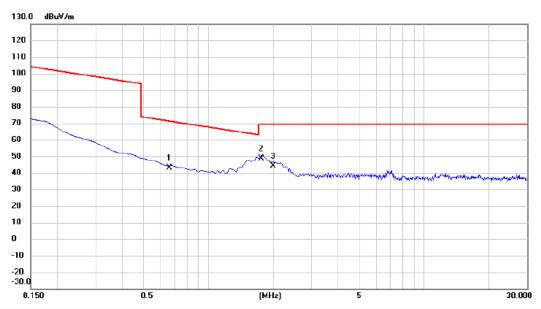


No. Mk.	Freq.			Measure- ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.055	47.58	21.26	68.84	112.80	-43.96	AVG	
2	0.098	43.63	21.34	64.97	107.78	-42.81	QP	
3 *	0.149	40.15	21.27	61.42	104.12	-42.70	QP	

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



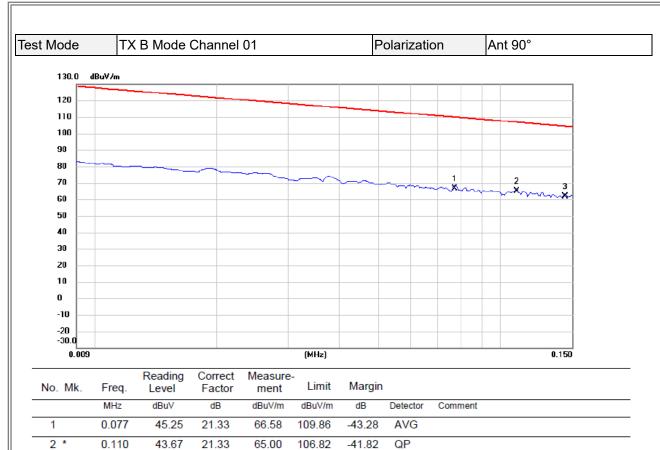




No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.657	21.85	21.11	42.96	71.25	-28.29	QP	
2 *	1.762	27.45	21.13	48.58	69.54	-20.96	QP	
3	2.001	23.16	21.11	44.27	69.54	-25.27	QP	

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





3

0.144

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

40.38

21.27

61.65

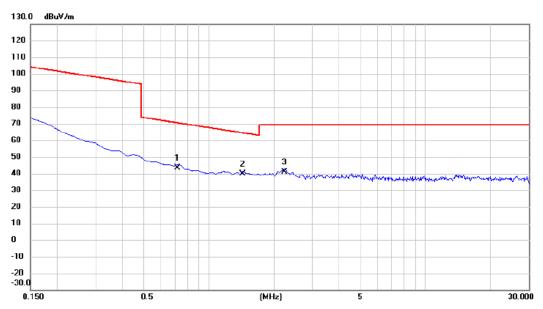
104.43

-42.78

QP







No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.717	22.16	21.13	43.29	70.49	-27.20	QP	
2 *	1.434	18.68	21.16	39.84	64.48	-24.64	QP	
3	2.240	19.74	21.11	40.85	69.54	-28.69	QP	

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



# **APPENDIX C - RADIATED EMISSION - 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	34.8500	39. 83	-12. 40	27. 43	40.00	-12. 57	Peak	
2	132. 8200	43. 72	-12. 31	31. 41	43. 52	-12. 11	Peak	
3	272. 5000	48. 71	-11. 32	37. 39	46.02	-8. 63	Peak	
4	447. 1000	42. 32	-6. 67	35. 65	46.02	-10. 37	Peak	
5 *	531. 4900	47.85	-5. 24	42.61	46.02	-3. 41	QP	
6	930. 1600	41. 21	0. 69	41. 90	46. 02	<b>-4</b> . 12	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	33.8800	40. 99	-12. 51	28. 48	40.00	-11. 52	Peak	
2	132. 8200	41. 31	-12. 31	29.00	43. 52	-14. 52	Peak	
3	221. 0900	47. 03	-14. 20	32. 83	46.02	-13. 19	Peak	
4	277. 3500	49. 08	<b>-11. 02</b>	38. 06	46.02	-7. 96	Peak	
5 *	530. 5200	46. 55	-5. 26	41. 29	46.02	-4. 73	Peak	
6	663. 4099	40. 12	-2. 56	37. 56	46.02	-8. 46	Peak	

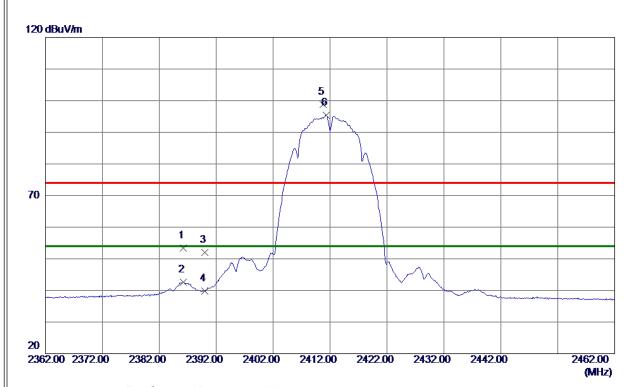
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



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



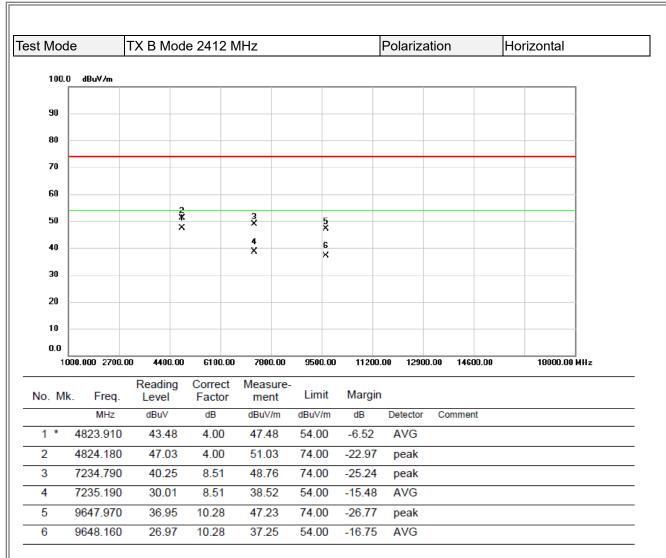




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2386. 2000	44.82	8. 65	53. 47	74.00	-20.53	Peak	
2	2386. 2000	33. 95	8. 65	42.60	54.00	-11. 40	AVG	
3	2390. 0000	43. 36	8. 66	<b>52. 02</b>	74.00	-21. 98	Peak	
4	2390. 0000	31. 18	8. 66	39. 84	54.00	-14. 16	AVG	
5	2410. 8000	90. 14	8. 71	98. 85	74.00	24. 85	Peak	No Limit
6 *	2411. 3000	86. 65	8. 72	95. 37	54. 00	41. 37	AVG	No Limit

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

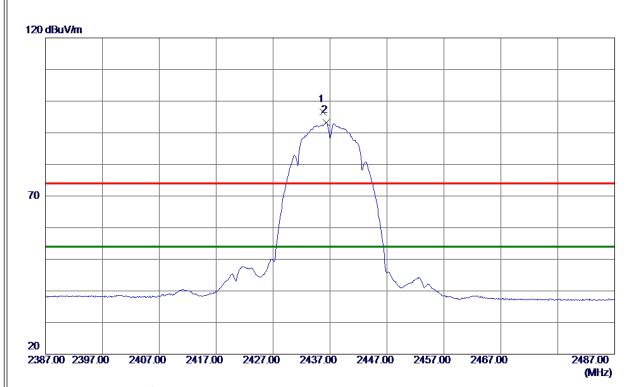




- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



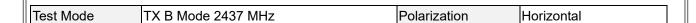


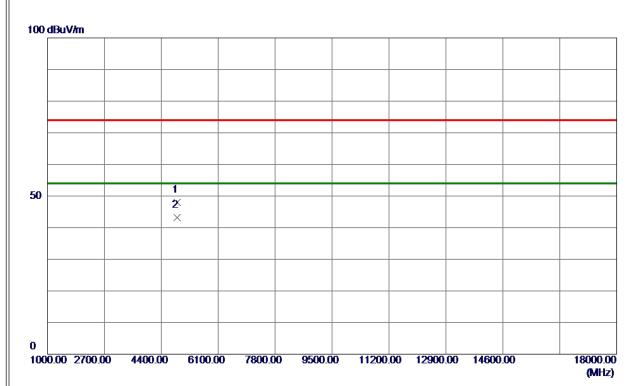


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2435. 8000	87. 91	8. 78	96. 69	74.00	22. 69	Peak	No Limit
2 *	2436. 3000	84. 44	8. 78	93. 22	54. 00	39. 22	AVG	No Limit

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





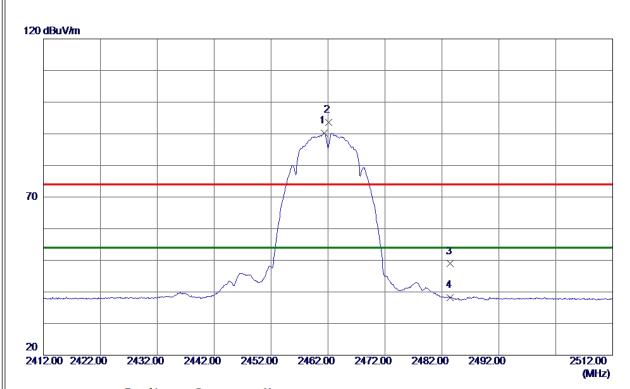


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873. 8200	43. 95	4. 09	48. 04	74.00	-25.96	Peak	
2 *	4873. 9900	39. 11	4. 09	43. 20	54. 00	-10. 80	AVG	

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



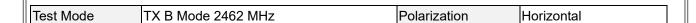


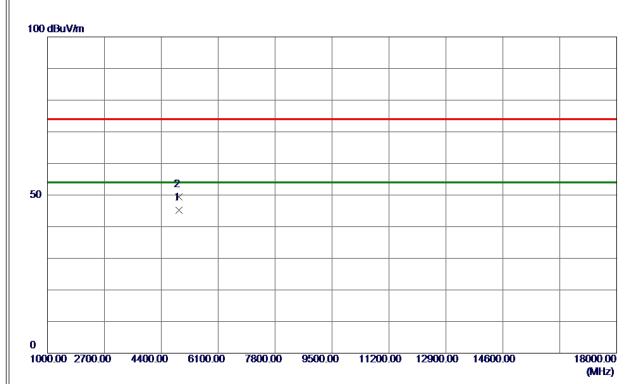


No	<b>)</b> .	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2461. 3000	81. 47	8. 73	90. 20	54.00	36. 20	AVG	No Limit
2		2462. 1000	84. 92	8. 74	93. 66	74.00	19. 66	Peak	No Limit
3		2483. 5000	40. 11	8. 79	48. 90	74.00	-25. 10	Peak	
4		2483. 5000	29. 43	8. 79	38. 22	54.00	-15. 78	AVG	

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





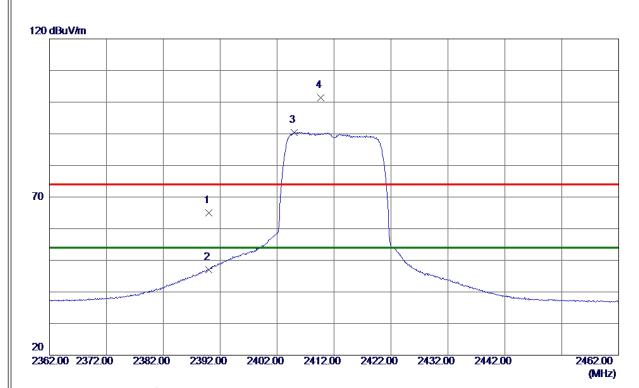


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924. 0200	41.06	4. 18	45. 24	<b>54.00</b>	-8. 76	AVG	
2	4924. 0480	45. 31	4. 18	49. 49	74. 00	-24. 51	Peak	

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





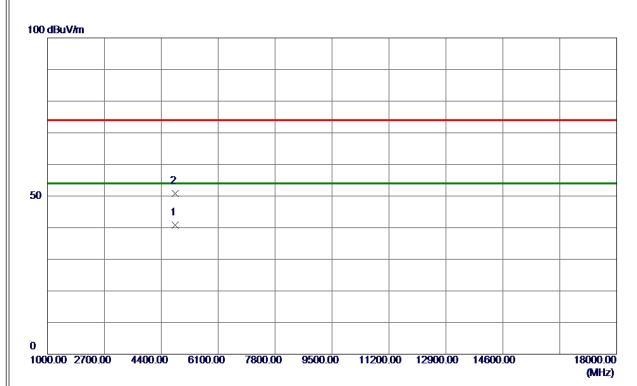


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	56. 41	8. 55	64. 96	74.00	-9. 04	Peak	
2	2390. 0000	38. 50	8. 55	47. 05	54.00	-6. 95	AVG	
3 *	2405. 0000	81. 87	8. 59	90. 46	54.00	36. 46	AVG	No Limit
4	2409. 7000	92. 82	8. 60	101. 42	74. 00	27. 42	Peak	No Limit

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



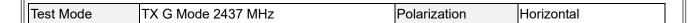
l				
ŀ	Test Mode	TX G Mode 2412 MHz	Polarization	Horizontal

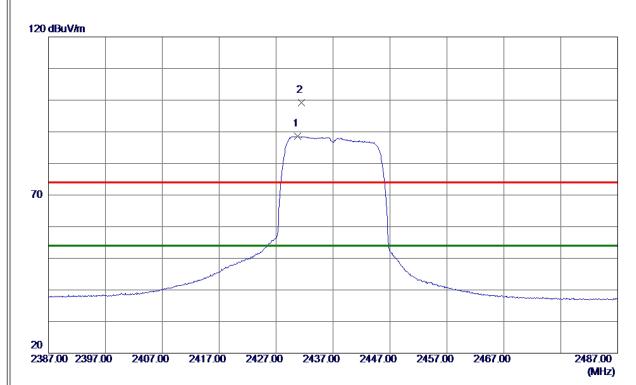


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823. 9840	36. 78	4. 00	40. 78	<b>54.00</b>	-13. 22	AVG	
2	4824. 1020	46. 87	4. 00	50. 87	74. 00	-23. 13	Peak	

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





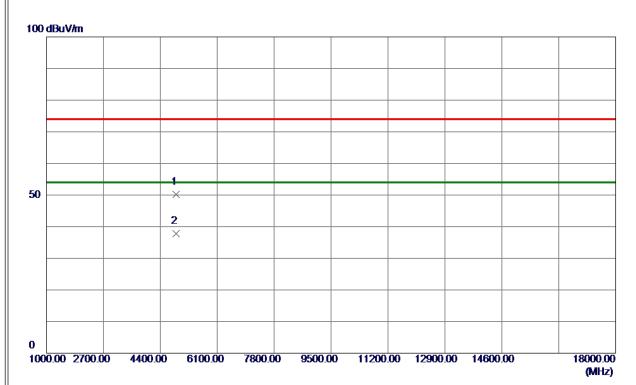


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2430. 8000	79. 88	8. 65	88. 53	54.00	34. 53	AVG	No Limit
2	2431. 4000	90. 53	8. 65	99. 18	74. 00	25. 18	Peak	No Limit

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





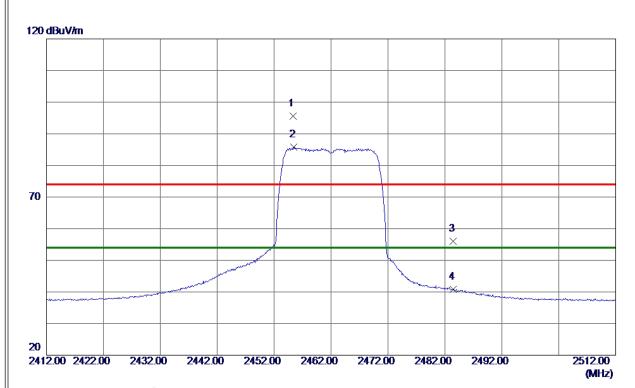


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873. 8120	46. 13	4. 09	<b>50</b> . 22	74.00	-23. 78	Peak	
2 *	4874. 9560	33. 69	4. 09	37. 78	54. 00	-16. 22	AVG	

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



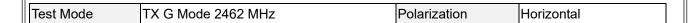


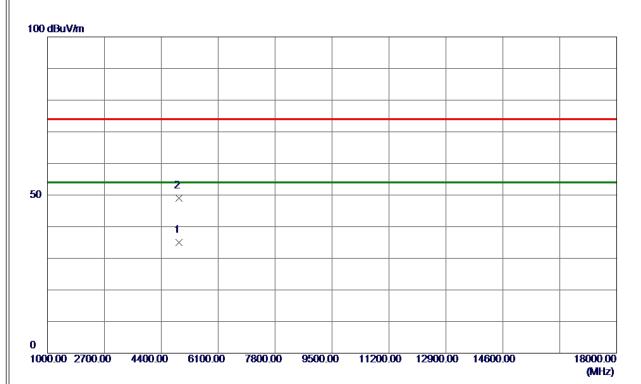


]	No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	2455. 3000	86. 97	8. 72	95. 69	74.00	21. 69	Peak	No Limit
:	2 *	2455. 5000	77. 02	8. 72	85. 74	54.00	31. 74	AVG	No Limit
:	3	2483. 5000	47. 20	8. 79	55. 99	74.00	-18. 01	Peak	
4	4	2483. 5000	31. 93	8. 79	40. 72	54.00	-13. 28	AVG	

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





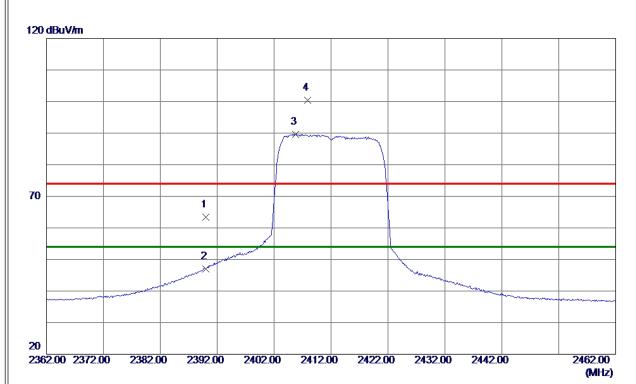


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923. 3040	30. 75	4. 18	34. 93	54.00	-19. 07	AVG	
2	4923. 7080	44. 74	4. 18	48. 92	74. 00	-25. 08	Peak	

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



T	TV/ NI/LITOO) NA I OAAO NALI	D 1 ' "	
Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Horizontal

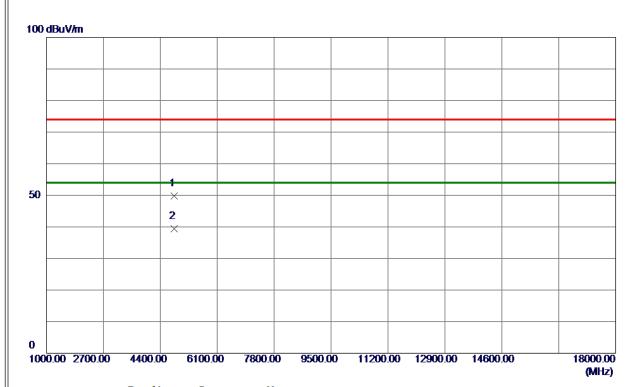


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	54. 89	8. 55	63. 44	74.00	-10. 56	Peak	
2	2390. 0000	38. 45	8. 55	47.00	54.00	-7. 00	AVG	
3 *	2405. 8000	81. 05	8. 59	89. 64	54.00	35. 64	AVG	No Limit
4	2407. 9000	91. 77	8. 59	100. 36	74. 00	26. 36	Peak	No Limit

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



ı				
l	Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Horizontal

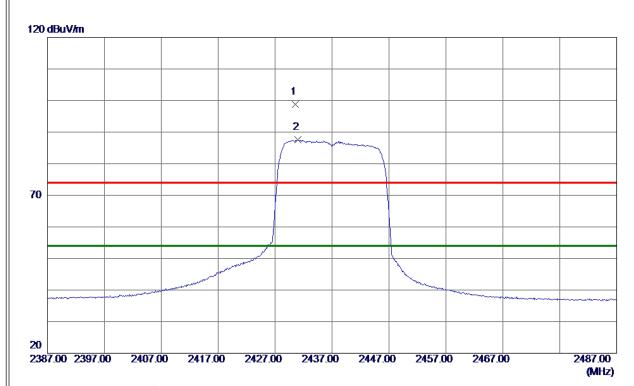


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823. 3860	45.82	4. 00	49.82	74.00	-24. 18	Peak	
2 *	4824. 8720	35. 49	4. 00	39. 49	54. 00	-14. 51	AVG	

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



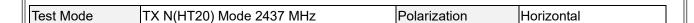
Test Mode	TX N(HT20) Mode 2437 MHz	Polarization	Horizontal

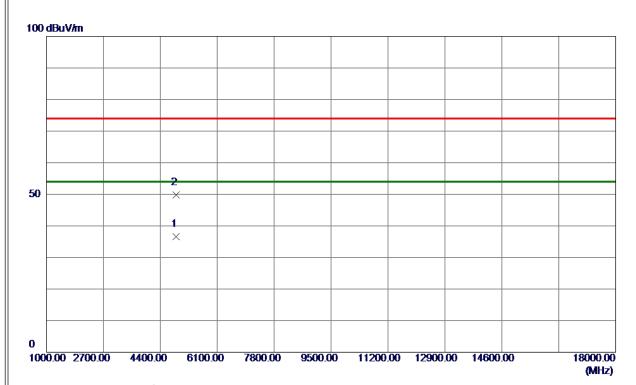


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2430. 6000	90. 19	8. 65	98. 84	74.00	24. 84	Peak	No Limit
2 *	2431. 0000	78. 87	8. 65	87. 52	54. 00	33. 52	AVG	No Limit

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





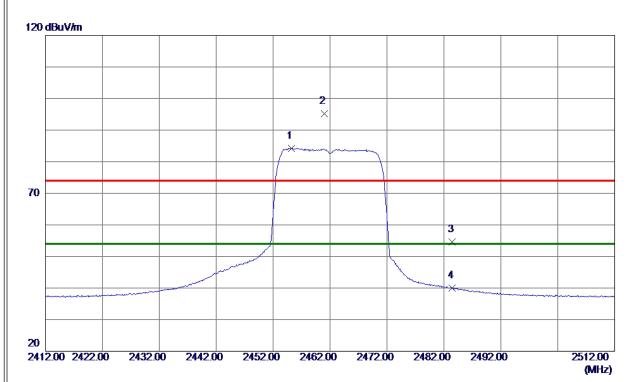


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873. 4800	32. 52	4. 09	36. 61	54.00	-17. 39	AVG	
2	4874. 7919	45. 73	4. 09	49.82	74.00	-24. 18	Peak	

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



T	T) ( N ( U TOO ) NA U O 400 NAU I	D 1 : (:	
Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Horizontal

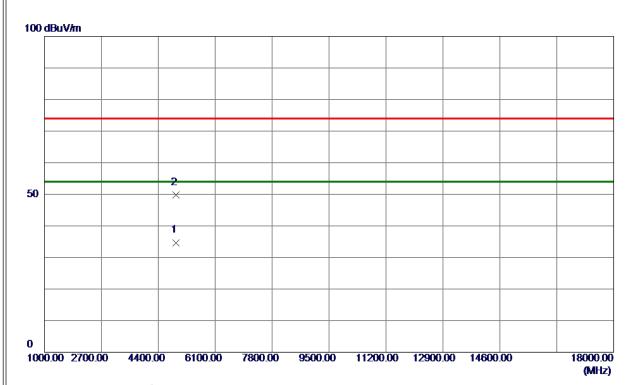


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2455. 2000	75. 56	8. 72	84. 28	54.00	30. 28	AVG	No Limit
2	2461. 0000	86. 43	8. 73	95. 16	74.00	21. 16	Peak	No Limit
3	2483. 5000	45. 80	8. 79	54. 59	74.00	-19. 41	Peak	
4	2483. 5000	31. 12	8. 79	39. 91	54. 00	-14. 09	AVG	

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



-			
	( ) ( ) <del>-</del> ( ) -		
Test Mode TX	(N(HT20) Mode 2462 MHz	Polarization	Horizontal I

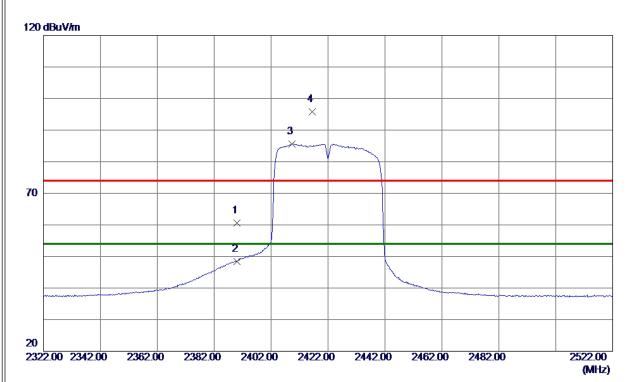


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923. 0299	30. 52	4. 18	34. 70	54.00	-19. 30	AVG	
2	4923. 6020	45. 66	4. 18	49.84	74.00	-24. 16	Peak	

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



	T) ( N ( / L T 40 ) N 4	D 1 1 11	
Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	IHorizontal

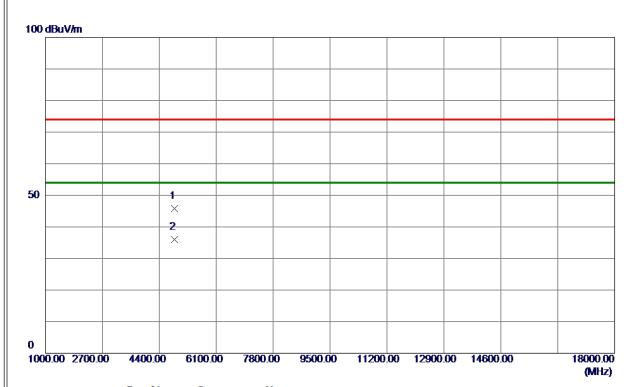


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	52. 06	8. 55	60. 61	74.00	-13. 39	Peak	
2	2390.0000	39. 93	8. 55	48. 48	54.00	-5. 52	AVG	
3 *	2409. 4000	76. 98	8. 60	85. 58	54.00	31. 58	AVG	No Limit
4	2416. 4000	87. 19	8. 62	95. 81	74. 00	21. 81	Peak	No Limit

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



Test Mode	TX N(HT40) Mode 2422 MHz	lPolarization	Horizontal
TOST WIDGE	I I X I V(I I I 40) WOULD Z 422 WII IZ	li olarization	i ionzoniai

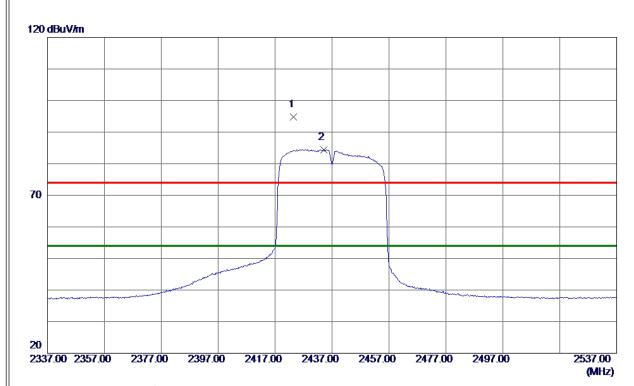


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4844. 0179	41. 68	4. 04	45. 72	74.00	-28. 28	Peak	
2 *	4844. 3080	31. 87	4. 04	35. 91	54. 00	-18. 09	AVG	

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



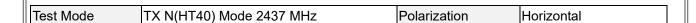
	TV/N///IT40\ N4	<b>-</b>	
Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Horizontal

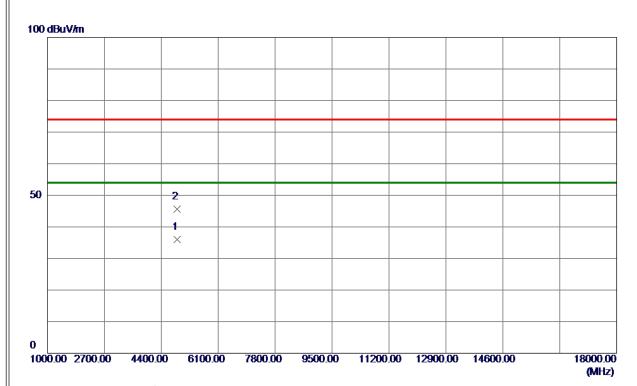


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2423. 4000	86. 12	8. 63	94. 75	74.00	20. 75	Peak	No Limit
2 *	2434. 0000	75. 79	8. 66	84. 45	54.00	30. 45	AVG	No Limit

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





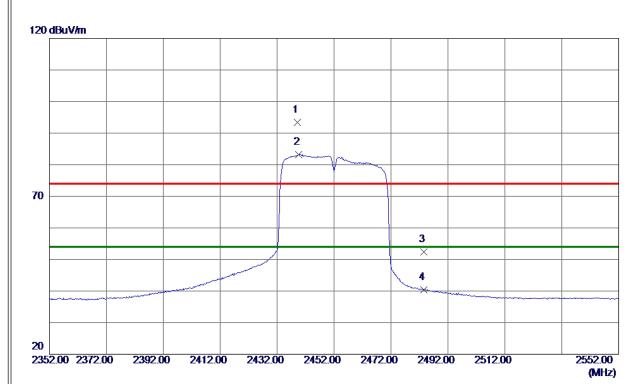


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873. 4000	31. 97	4. 09	36. 06	54.00	-17.94	AVG	
2	4874. 7860	41. 57	4. 09	45. 66	74. 00	-28. 34	Peak	

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



L					
L	Test Mode	TX N(HT40)	) Mode 2452 MHz	lPolarization	lHorizontal l
ı	1631 MOGE	[ 1 / N   N   1   1   4   U	I IVIOUE ATUL IVII IA	i dianzaudn	i ionzoniai

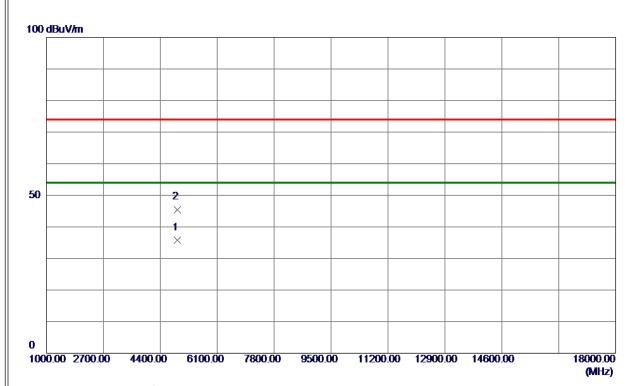


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2439. 2000	84. 82	8. 67	93. 49	74.00	19. 49	Peak	No Limit
2 *	2439. 6000	74. 50	8. 68	83. 18	<b>54.00</b>	29. 18	AVG	No Limit
3	2483. 5000	43.64	8. 79	52. 43	74.00	-21. 57	Peak	
4	2483. 5000	31. 68	8. 79	40. 47	54. 00	-13. 53	AVG	

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



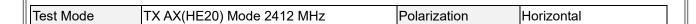
ı				
l	Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Horizontal

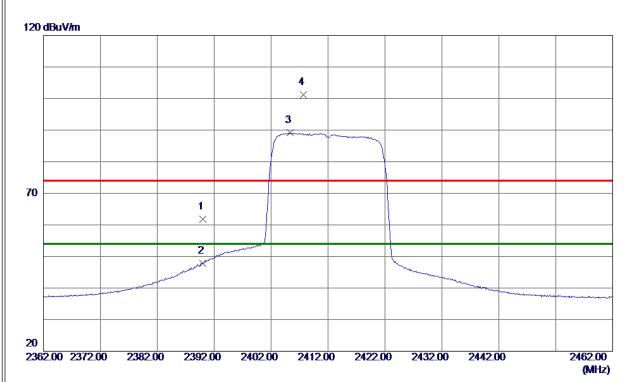


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4903. 2080	31. 70	4. 15	35. 85	54.00	-18. 15	AVG	
2	4903. 3980	41. 35	4. 15	45. 50	74.00	-28. 50	Peak	

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





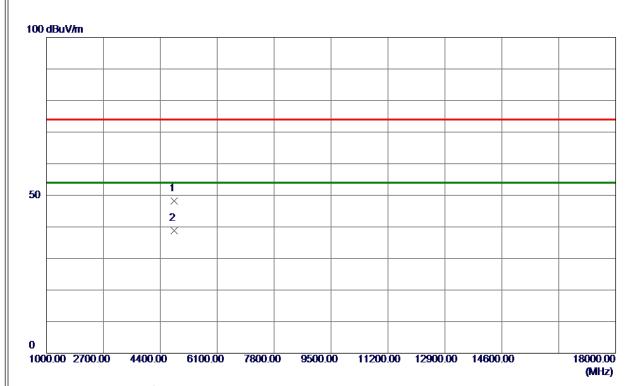


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	53. 21	8. 55	61. 76	74.00	-12. 24	Peak	
2	2390. 0000	39. 27	8. 55	47.82	54.00	-6. 18	AVG	
3 *	2405. 3000	80. 54	8. 59	89. 13	54.00	35. 13	AVG	No Limit
4	2407. 7000	92. 68	8. 59	101. 27	74. 00	27. 27	Peak	No Limit

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



	T) ( A) (()   E 0.0)		n	
Test Mode	HX AX(HE20)	Mode 2412 MHz	Polarization	IHorizontal

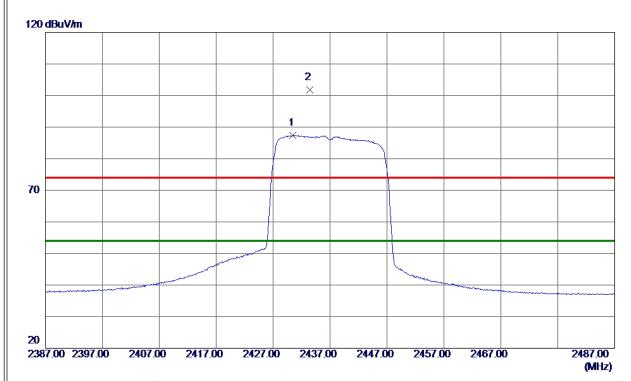


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824. 2580	44. 26	4. 00	48. 26	74.00	-25. 74	Peak	
2 *	4824. 6640	34. 87	4. 00	38. 87	54.00	-15. 13	AVG	

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



Test Mode	TX AX(HE20) Mode 2437 MHz	Polarization	Horizontal

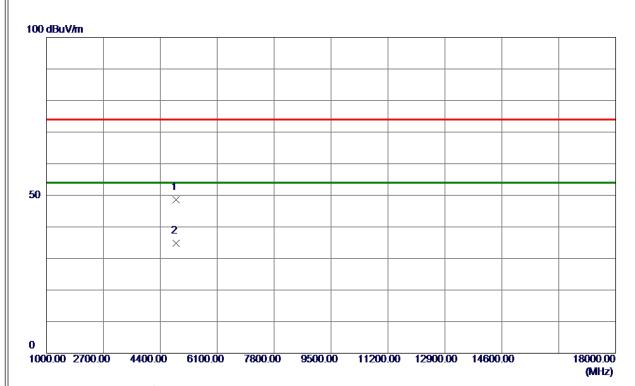


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2430. 5000	78. 70	8. 65	87. 35	54.00	33. 35	AVG	No Limit
2	2433. 4000	93. 06	8. 66	101.72	74.00	27.72	Peak	No Limit

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



ı				
l	Test Mode	TX AX(HE20) Mode 2437 MHz	Polarization	Horizontal

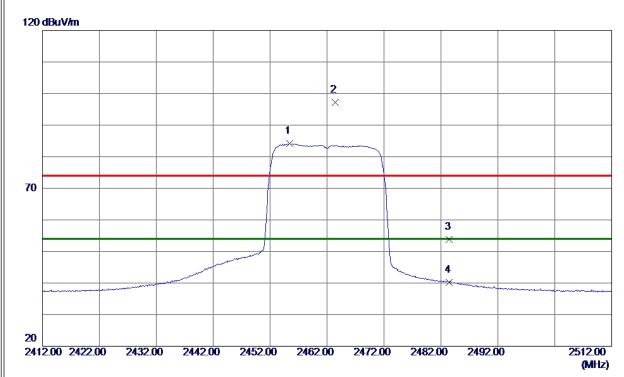


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873. 2440	44. 51	4. 09	48. 60	74.00	-25.40	Peak	
2 *	4873. 8800	30. 79	4. 09	34. 88	54. 00	-19. 12	AVG	

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



Test Mode	TX AX(HE20) Mode 2462 MHz	Polarization	Horizontal

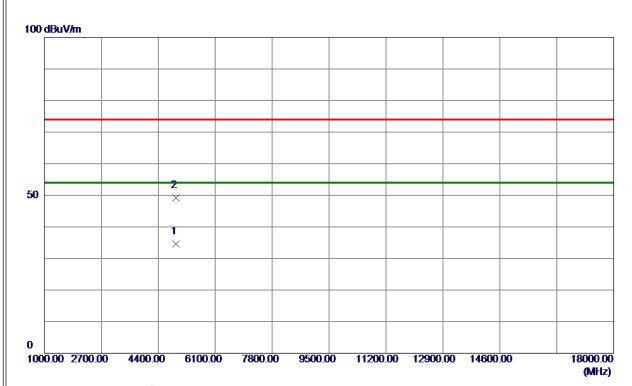


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2455. 4000	75. 46	8. 72	84. 18	54.00	30. 18	AVG	No Limit
2	2463. 4000	88. 50	8. 74	97. 24	74.00	23. 24	Peak	No Limit
3	2483. 5000	45. 06	8. 79	53. 85	74.00	-20. 15	Peak	
4	2483. 5000	31. 47	8. 79	40. 26	54. 00	-13. 74	AVG	

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



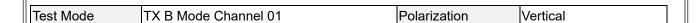
ı				
l	Test Mode	TX AX(HE20) Mode 2462 MHz	Polarization	Horizontal

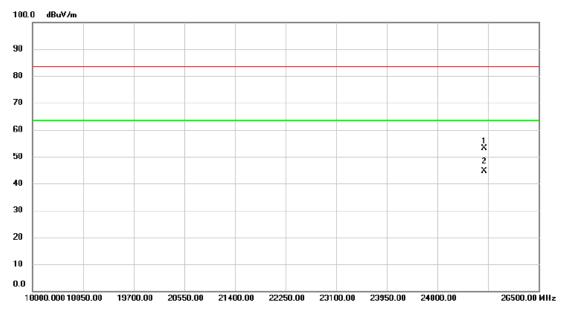


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923. 1780	30. 44	4. 18	34. 62	<b>54.00</b>	-19. 38	AVG	
2	4923. 6260	44. 95	4. 18	49. 13	74. 00	-24. 87	Peak	

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



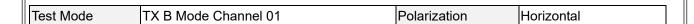


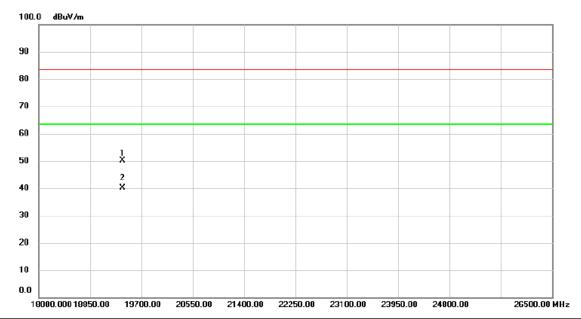


No.	Mk.	Freq.			Measure- ment		Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	25	5582.000	50.65	2.39	53.04	83.50	-30.46	peak	
2	* 25	582.000	42.36	2.39	44.75	63.50	-18.75	AVG	

- (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	19	385.500	51.29	-1.22	50.07	83.50	-33.43	peak	
2	* 19	385.500	41.36	-1.22	40.14	63.50	-23.36	AVG	

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

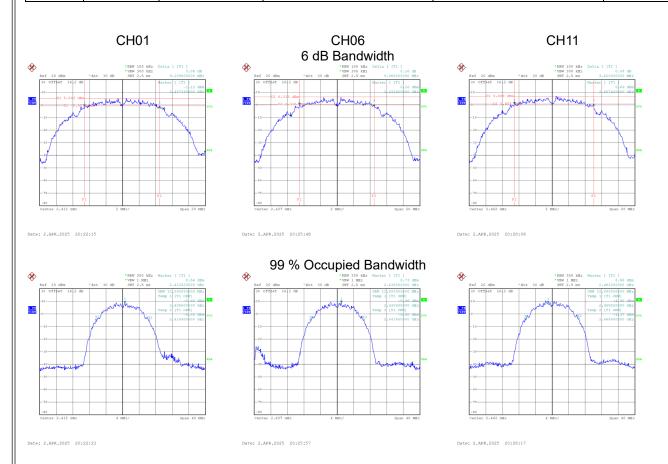


APPENDIX E - BANDWIDTH	



	Test Mode	TX B Mode
ı	100t Wiodo	I / C D IVIO GO

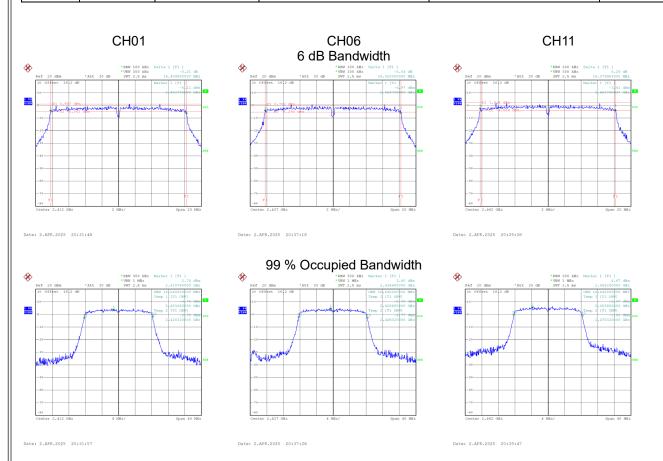
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	9.110	12.800	0.5	Pass
06	2437	9.060	12.800	0.5	Pass
11	2462	9.620	12.880	0.5	Pass





Test Mode	TX G Mode
TEST MODE	I A O MOGE

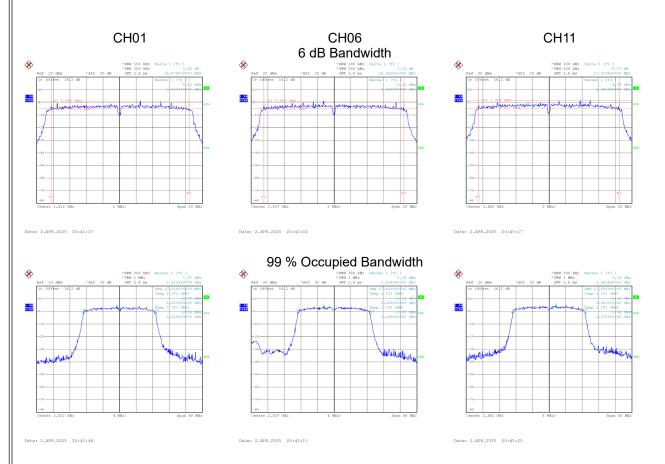
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	16.410	16.640	0.5	Pass
06	2437	16.420	16.640	0.5	Pass
11	2462	16.380	16.640	0.5	Pass





Test Mode	TX N(HT20)	) Mode
Test Mode	17/11/11/20	, ivioue

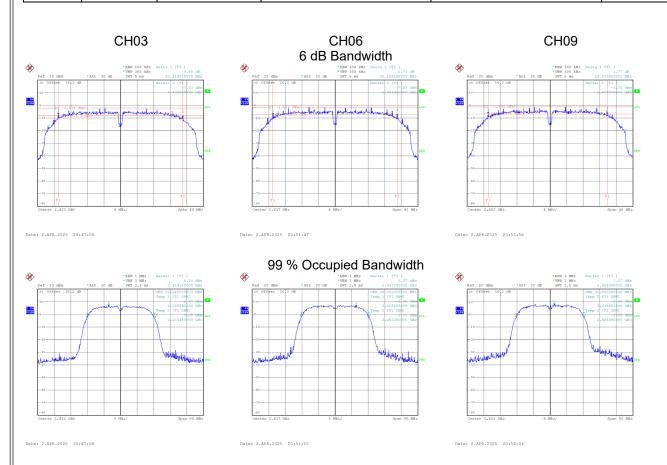
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	16.679	17.520	0.5	Pass
06	2437	16.959	17.600	0.5	Pass
11	2462	17.030	17.600	0.5	Pass





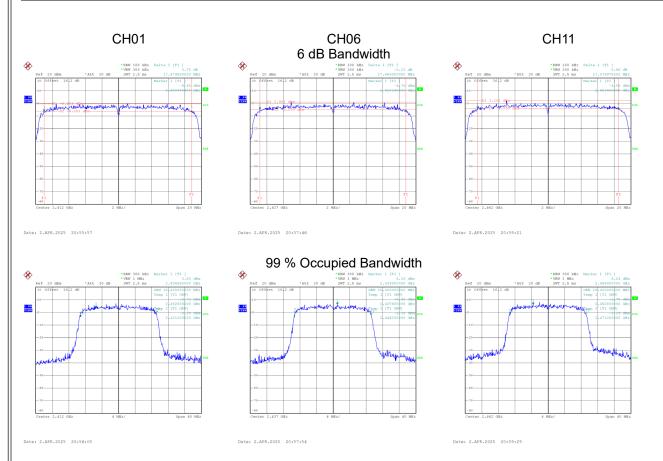
Test Mode TX N(HT40) Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
03	2422	30.120	32.640	0.5	Pass
06	2437	30.159	32.800	0.5	Pass
09	2452	28.880	32.800	0.5	Pass





Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	17.880	18.400	0.5	Pass
06	2437	17.660	18.400	0.5	Pass
11	2462	17.080	18.400	0.5	Pass





# **FAPPENDIX F - MAXIMUM OUTPUT POWER**



Test Mode	TX B Mode
100t Wood	

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dB)	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	20.85	0.00	20.85	30.00	1.0000	Pass
06	2437	20.73	0.00	20.73	30.00	1.0000	Pass
11	2462	20.57	0.00	20.57	30.00	1.0000	Pass

Test Mode	TX G Mode
103t Wood	I I X O IVIOUC

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dB)	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	20.27	0.00	20.27	30.00	1.0000	Pass
06	2437	20.17	0.00	20.17	30.00	1.0000	Pass
11	2462	20.14	0.00	20.14	30.00	1.0000	Pass

Test Mode	TX N(HT20	)) Mode
103t Wood	17/11/11/20	, iviouc

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dB)	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.07	0.00	19.07	30.00	1.0000	Pass
06	2437	19.16	0.00	19.16	30.00	1.0000	Pass
11	2462	19.34	0.00	19.34	30.00	1.0000	Pass

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dB)	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	18.91	0.00	18.91	30.00	1.0000	Pass
06	2437	18.71	0.00	18.71	30.00	1.0000	Pass
09	2452	18.65	0.00	18.65	30.00	1.0000	Pass



Test Mode TX AX(HE20) Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dB)	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.57	0.00	19.57	30.00	1.0000	Pass
06	2437	19.56	0.00	19.56	30.00	1.0000	Pass
11	2462	19.30	0.00	19.30	30.00	1.0000	Pass

Note: Output power = Measure result + Cable loss



# **APPENDIX G - CONDUCTED SPURIOUS EMISSIONS**



