

## **FCC** Radio Test Report

### FCC ID: 2AAGE5081SB4898W

This report concerns: Original Grant

Project No. : 2201H017 Equipment : Tablet Brand Name : Vantron

Test Model : VT-TABLET-5081S

Series Model : N/A

**Applicant**: Chengdu Vantron Technology Co., Ltd.

Address : No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China

610045

Manufacturer : Chengdu Vantron Technology Co., Ltd.

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610045

Date of Receipt : Jan. 10, 2022

**Date of Test** : Jan. 24, 2022~Feb. 27, 2022

**Issued Date** : Apr. 01, 2022

Report Version : R01

Test Sample : Engineering Sample No.: SH2022012417 for EUT

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

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

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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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 No.	Version	Description	Issued Date	Note
BTL-FCCP-1-2201H017	R00	Original Issue.	Mar. 19, 2022	Invalid
BTL-FCCP-1-2201H017	R01	Updated the test model information.	Apr. 01, 2022	Valid



### 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 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.



### 1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 29, Jintang Road, Tangzhen Industry Park, Pudong New Area, Shanghai 201210, China

BTL's Registration Number for FCC: 476765 BTL's Designation Number for FCC: CN1241 BTL's CAB Identifier for ISED: CN0043

### 1.2 MEASUREMENT UNCERTAINTY

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

The BTL measurement uncertainty as below table:

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

	Test Site	Method	Measurement Frequency Range	U, (dB)
ſ	SH-C01	CISPR	150 kHz ~ 30 MHz	2.64

### B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
		9 KHz~30 MHz	•	2.16
		30 MHz~200 MHz	V	4.04
		30 MHz~200 MHz	Ι	2.90
CLI CDOO	CISPR	200 MHz~1,000 MHz	V	3.76
SH-CB02		200 MHz~1,000 MHz	Ι	3.82
		1GHz ~ 6GHz	ı	4.56
		6GHz ~ 18GHz	-	4.14
		18 ~ 26.5 GHz	-	3.48

### C. Conducted test:

Parameter	U
Output Power	±0.95 dB
Occupied Channel Bandwidth	±3.8 %
Power Spectral Density	±0.86 dB
Conducted Spurious Emission	±2.71 dB
Temperature	±0.08 °C
Humidity	±1.5 %
Supply voltages	±0.3 %

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	15°C	38%	AC 120V/60Hz	Max Liu
Radiated Emissions-9kHz to 30 MHz	24°C	58%	AC 120V/60Hz	Forest Li
Radiated Emissions-30MHz to 1000MHz	24°C	58%	AC 120V/60Hz	Forest Li
Radiated Emissions-Above 1000MHz	24°C	58%	AC 120V/60Hz	Forest Li
Bandwidth	22.5°C	38%	AC 120V/60Hz	Danny Dang
Maximum Output Power	22.5°C	38%	AC 120V/60Hz	Danny Dang
Conducted Spurious Emissions	22.5°C	38%	AC 120V/60Hz	Danny Dang
Power Spectral Density	22.5°C	38%	AC 120V/60Hz	Danny Dang



### 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Tablet
Brand Name	Vantron
Test Model	VT-TABLET-5081S
Series Model	N/A
Model Difference(s)	N/A
Software Version	V100R001.F0000-03
Hardware Version	V1.1
Power Source	DC power supply.
Power Rating	DC 5V/2A MAX.10W
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 144.4 Mbps
Maximum Output Power	IEEE 802.11n20: 28.25 dBm (0.6683 W)

### Note:

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



### 2. Channel List:

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

3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
_	NI/A	NI/A	Internal PIFA	N1/A	2.2
1 N/A	N/A	Antenna	N/A	2.2	
	2 N/A	NI/A	Internal PIFA	NI/A	2.4
2		N/A	Antenna	N/A	3.4

### Note

- 1) This EUT supports MIMO 2X2, any transmit signals are correlated with each other, so Directional gain=10log[(10<sup>G1/20</sup>+10<sup>G2/20</sup>+...10<sup>GN/20</sup>)<sup>2</sup>/N]dBi, that is Directional gain=10log[(10<sup>2.2/20</sup>+10<sup>3.4/20</sup>)<sup>2</sup>/4]dBi =2.82. So, the output power limit is 30, the power spectral density limit is 8.
- 2) This EUT supports CDD, and all antennas are not equal, Directional gain = G<sub>ANT</sub>+Array Gain. For power measurements, Array Gain=0dB (N<sub>ANT</sub>≤4), so the Directional gain=3.4. For power spectral density measurements, N<sub>ANT</sub>=2, N<sub>SS</sub> = 1. So the Directional gain=G<sub>ANT</sub>+Array Gain=G<sub>ANT</sub>+10log(N<sub>ANT</sub>/N<sub>SS</sub>)dBi=3.4+10log(2/1)dBi=6.41 Then, the power spectral density limit is 8-(6.41-6)=7.59.
- 3) The antenna gain is provided by the manufacturer.

4. Table for Antenna Configuration:

u	ble for Articilia Cornigaration.				
	Operating Mode TX Mode	1TX	2TX		
	IEEE 802.11b	✓	×		
	IEEE 802.11g	✓	×		
	IEEE 802.11n(HT20)	✓	✓		



### 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		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

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 N(HT20) Mode Channel 01	

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 3	TX N(HT20) Mode Channel 01

Radiated emissions test- Above 1GHz		
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	

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	

### 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 TX N(HT20) Mode Channel 01 is found to be the worst case and recorded.

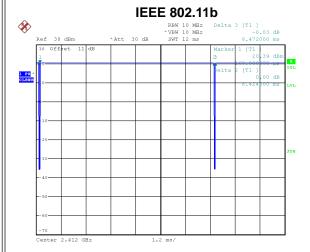


### 2.3 PARAMETERS OF TEST SOFTWARE

Test Software Version	adb		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	Default	Default	Default
IEEE 802.11g	62	79	62
IEEE 802.11n(HT20)	55	55	54

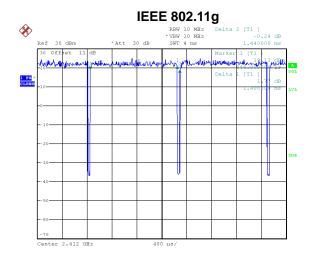


### 2.4 DUTY CYCLE



Date: 28.JAN.2022 16:41:37

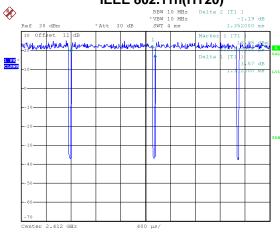
Duty cycle = 8.424 ms / 8.472 ms = 99.43% Duty Factor = 10 log(1/Duty cycle) = 0.0247



Date: 28.JAN.2022 16:42:18

Duty cycle = 1.400 ms / 1.440 ms = 97.22% Duty Factor = 10 log(1/Duty cycle) = 0.1223





Date: 28.JAN.2022 16:42:50

Duty cycle = 1.312 ms / 1.352 ms = 97.04% Duty Factor = 10 log(1/Duty cycle) =0.1304

### 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 10 Hz.

### 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.



EUT	

### 2.6 SUPPORT UNITS

Item	Cable Type	Shielded Type	Ferrite Core	Length
N/A	N/A	N/A	N/A	N/A



### 3. AC POWER LINE CONDUCTED EMISSIONS

### **3.1 LIMIT**

Frequency of Emission (MHz)	Limit (dBμV)		
	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:

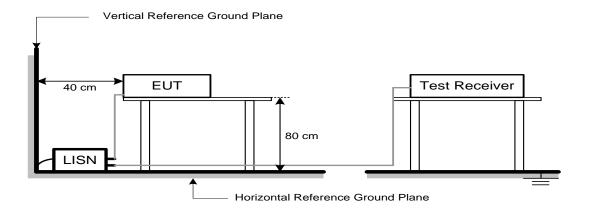
Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

### 3.3 DEVIATION FROM TEST STANDARD

No deviation.



### 3.4 TEST SETUP



### 3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

### 3.6 TEST RESULTS

Please refer to the APPENDIX A.



### 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 (WITZ)	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

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

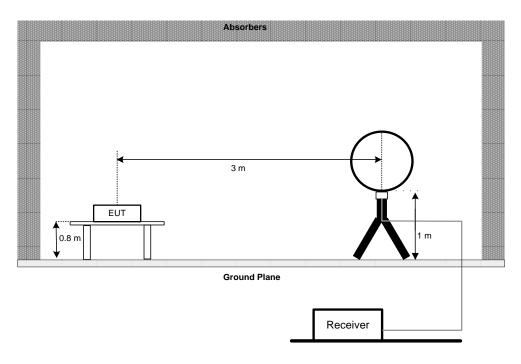


### 4.3 DEVIATION FROM TEST STANDARD

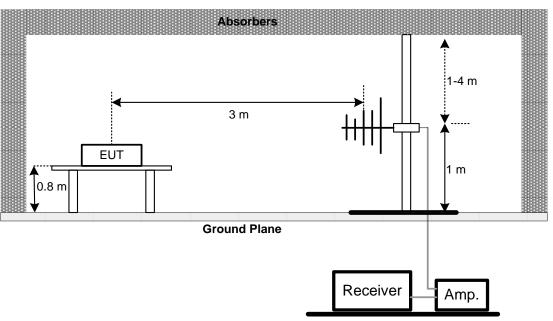
No deviation.

### 4.4 TEST SETUP

### 9 kHz to 30 MHz

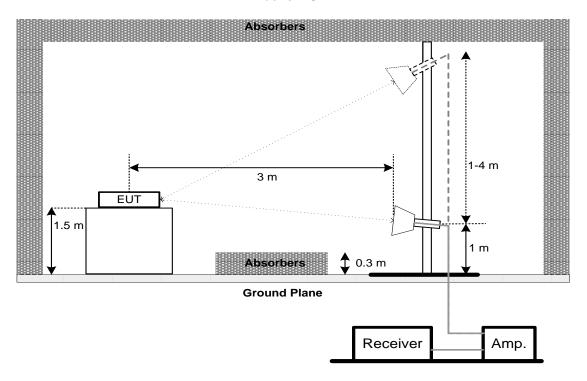


30 MHz to 1 GHz





### **Above 1 GHz**



### 4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

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

Please refer to the APPENDIX B.

### Remark:

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

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

Please refer to the APPENDIX C.

### 4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

### Remark:

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



### 5. BANDWIDTH

### 5.1 LIMIT

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

### **5.2 TEST PROCEDURE**

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

### For 6 dB Bandwidth:

O O O O D Danamann		
Spectrum Parameters	s Setting	
Span Frequency	> Measurement Bandwidth	
RBW	100 kHz	
VBW	300 kHz	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

### For 99% Emission Bandwidth:

O CO / O Emission Bandwidth.				
Spectrum Parameters	Setting			
Span Frequency	Between 1.5 times and 5.0 times the OBW			
RBW	300 kHz For 20MHz			
NBW	1 MHz For 40MHz			
VBW	1 MHz For 20MHz			
VBVV	3 MHz For 40MHz			
Detector	Peak			
Trace	Max Hold			
Sweep Time	Auto			

### **5.3 DEVIATION FROM STANDARD**

No deviation.

### **5.4 TEST SETUP**



### 5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 5.6 TEST RESULTS

Please refer to the APPENDIX E.



### **6. MAXIMUM OUTPUT POWER**

### 6.1 LIMIT

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

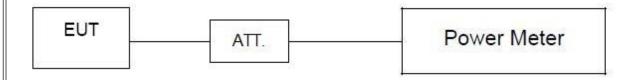
### **6.2 TEST PROCEDURE**

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- b. The maximum conducted output power was performed in accordance with method 11.9.1.3 (for peak power) of ANSI C63.10-2013 and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

### 6.3 DEVIATION FROM STANDARD

No deviation.

### **6.4 TEST SETUP**



### **6.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

### **6.6 TEST RESULTS**

Please refer to the APPENDIX F.



### 7. CONDUCTED SPURIOUS EMISSIONS

### **7.1 LIMIT**

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

### 7.2 TEST PROCEDURE

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

### 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 G.



### 8. POWER SPECTRAL DENSITY

### 8.1 LIMIT

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

### **8.2 TEST PROCEDURE**

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

Spectrum Parameters	Setting	
Span Frequency	25 MHz (20 MHz) / 60 MHz (40 MHz)	
RBW	3 kHz	
VBW	10 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 H.



### 9. MEASUREMENT INSTRUMENTS LIST

	AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Line Impedance Stabilisation Network	Schwarzbeck	NNLK 8121	8121-822	Mar. 20, 2022	
2	TWO-LINE V-NETWORK	R&S	ENV216	101340	Aug. 23, 2022	
3	Test Cable	emci	EMCRG400-BM-N M-10000	170628	April. 11, 2022	
4	EMI Test Receiver	R&S	ESCI	100082	Mar. 21, 2022	
5	50Ω Terminator	SHX	TF2-1G-A	17051602	Mar. 20, 2022	
6	50Ω coaxial switch	Anritsu	MP59B	6201750902	Mar. 21, 2022	
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	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	EMCI	EMCI LPA600	275	May. 20, 2022					
2	MXE EMI Receiver	Keysight	N9038A	MY56400088	Mar. 21, 2022					
3	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A					

	Radiated Emissions - 30 MHz to 1 GHz									
Item	Kind of Equipment Manufacturer		Type No.	Serial No.	Calibrated until					
1	TRILOG Broadband Antenna	Schwarzbeck	VULB 9160	9160-3233	Mar. 26, 2022					
2	Pre-Amplifier	emci	EMC9135	980401	Mar. 20, 2022					
3	MXE EMI Receiver	Keysight	N9038A	MY56400088	Mar. 21, 2022					
4	Test Cable	emci	EMC104-SM-SM-7 000	181020	Apr. 11, 2022					
5	Test Cable	emci	EMC104-SM-SM-2 500	170618	Apr. 11, 2022					
6	Test Cable	emci	EMC104-SM-SM-8 00	170647	Apr. 11, 2022					
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A					



	Radiated Emissions - Above 1 GHz									
Item	Kind of Equipment	Manufacturer		Serial No.	Calibrated until					
1	Kind of Equipment Double Ridged Broadband Horn Antenna	Schwarzbeck	Type No. BBHA 9120D	9120D-1817	Mar. 26, 2022					
2	Pre-Amplifier	emci	EMC051845SE	980725	Aug. 23, 2022					
3	EXA Spectrum Analyzer	Keysight	N9010A	MY56480579	Mar. 21, 2022					
4	Test Cable	emci	EMC104-SM-SM-7 000	181020	Apr. 11, 2022					
5	Test Cable	emci	EMC104-SM-SM-2 500	170618	Apr. 11, 2022					
6	Test Cable	emci	EMC104-SM-SM-8 00	170647	Apr. 11, 2022					
7	Double-Ridged Waveguide Horn Antenna	ETS-Lindgren	3116C	00203919	May 19, 2022					
8	Pre-Amplifier	emci	EMC184045B	980265	Apr. 11, 2022					
9	Test Cable	emci	EMC102-SM-SM-8 00	170335	Apr. 11, 2022					
10	Test Cable	emci	EMC102-KM-KM-2 500	170627	Apr. 11, 2022					
11	MXE EMI Receiver	Keysight	N9038A	MY5640088	Mar. 21, 2022					
12	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A					

Bandwidth									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until				
1	Spectrum Analyzer	R&S	FSP40	100626	May 29, 2022				
2	Attenuator	JUK	ATT-2W6G-S-10	N/A	N/A				

Maximum Output Power									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until				
1	Peak Power Analyze	Keysight	8990B	MY51000507	Mar. 21, 2022				
2	Wideband Power Sensor	Keysight	N1923A	MY58310003	Mar. 21, 2022				
3	Attenuator	JUK	ATT-2W6G-S-10	N/A	N/A				

Antenna Conducted Spurious Emissions									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until				
1	Spectrum Analyzer	R&S	FSP40	100626	May 29, 2022				
2	Attenuator	JUK	ATT-2W6G-S-10	N/A	N/A				

	Power Spectral Density									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until					
1	Spectrum Analyzer	R&S	FSP40	100626	May 29, 2022					
2	Attenuator	JUK	ATT-2W6G-S-10	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.



### 10. EUT TEST PHOTO



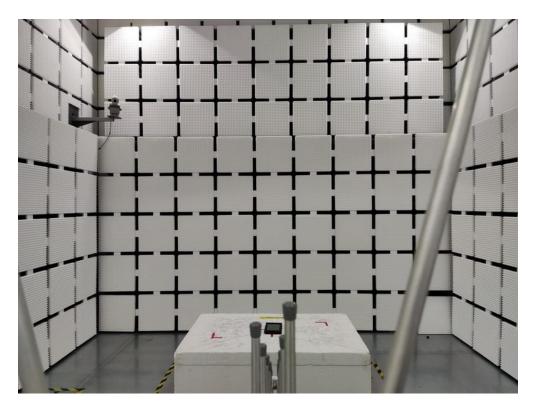


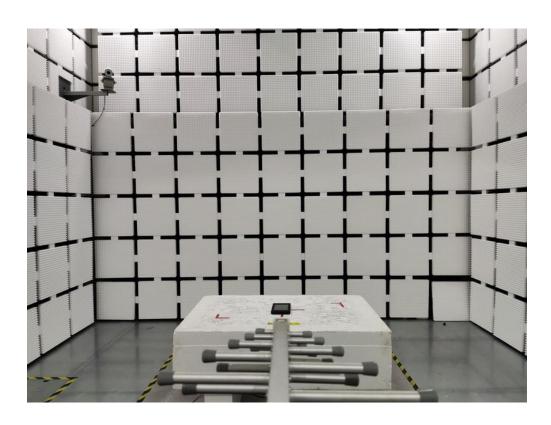




### **Radiated Emissions Test Photos**

### 30 MHz to 1 GHz



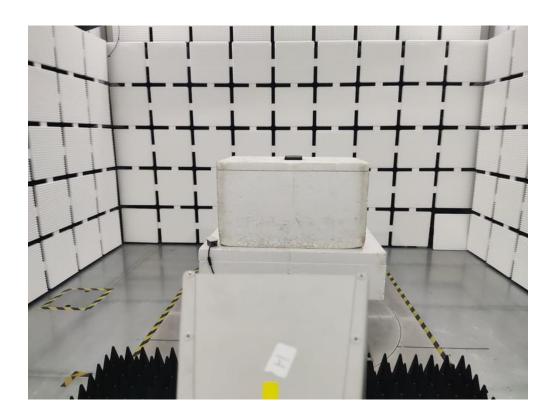




### **Radiated Emissions Test Photos**

### Above 1 GHz



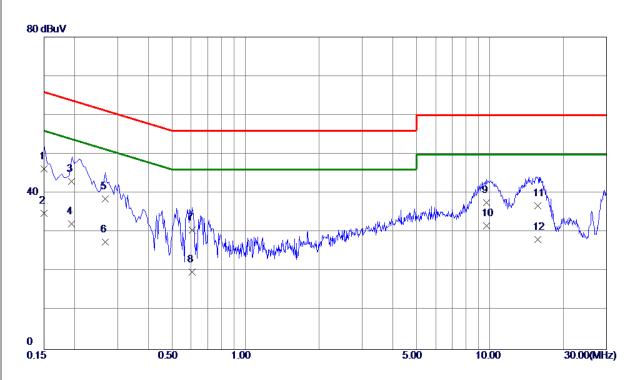




# **APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS**







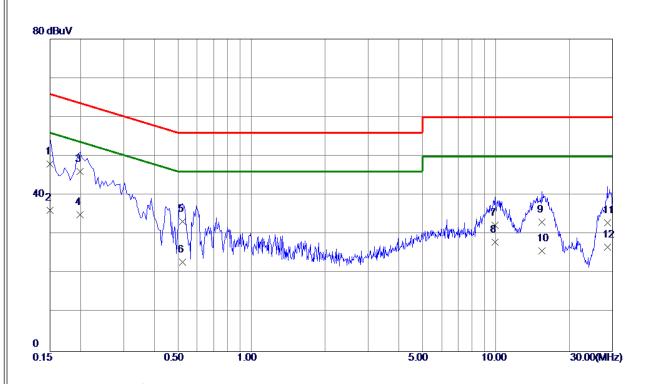
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1500	36. 60	9. 65	46. 25	66.00	-19.75	QP	
2	0.1500	25. 30	9. 65	34.95	56.00	-21.05	AVG	
3	0. 1949	33. 30	9. 70	43.00	63.83	-20.83	QP	
4	0. 1949	22.40	9. 70	32. 10	53.83	-21.73	AVG	
5	0.2670	28.81	9. 73	38. 54	61. 21	-22. 67	QP	
6	0.2670	17.81	9. 73	27.54	51. 21	-23.67	AVG	
7	0.6045	20.80	9. 69	30. 49	56.00	-25. 51	QP	
8	0.6045	10. 20	9. 69	19.89	46.00	-26. 11	AVG	
9	9. 6765	27. 30	10. 26	37. 56	60.00	-22.44	QP	
10 *	9. 6765	21. 40	10. 26	31. 66	50.00	-18. 34	AVG	
11	15. 6795	26. 50	10. 23	36. 73	60.00	-23. 27	QP	
12	15. 6795	18. 00	10. 23	28. 23	50.00	-21. 77	AVG	

### **REMARKS**:

- (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. 1500	38. 40	9.60	48.00	66.00	-18 <b>. 00</b>	QP	
2	0.1500	26. 50	9.60	36. 10	<b>56.00</b>	-19.90	AVG	
3 *	0. 1995	36. 60	9. 50	46. 10	63.63	-17. 53	QP	
4	0. 1995	25. 60	9. 50	35. 10	53. <b>6</b> 3	-18. 53	AVG	
5	0. 5235	23. 49	9.83	33. 32	<b>56. 00</b>	-22. 68	QP	
6	0. 5235	13.09	9.83	22. 92	46.00	-23.08	AVG	
7	9.9060	22.00	10.36	32. 36	60.00	-27.64	QP	
8	9.9060	17.60	10. 36	27. 96	50.00	-22. 04	AVG	
9	15. 4185	22.60	10. 55	33. 15	60.00	-26.85	QP	
10	15. 4185	15. 20	10. 55	25. 75	50.00	-24. 25	AVG	
11	28. 5675	22. 20	10.75	32.95	60.00	<b>-27.05</b>	QP	
12	28. 5675	15. 90	10. 75	26. 65	50.00	-23. 35	AVG	

### **REMARKS**:

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



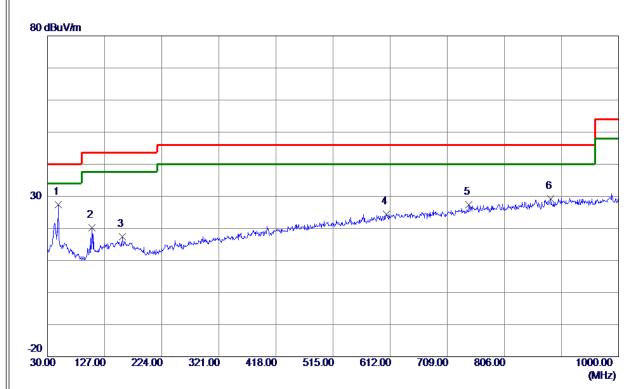
## **APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ** Note: The measured value have enough margin over 20dB than the limit, therefore they are not reported.



APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ







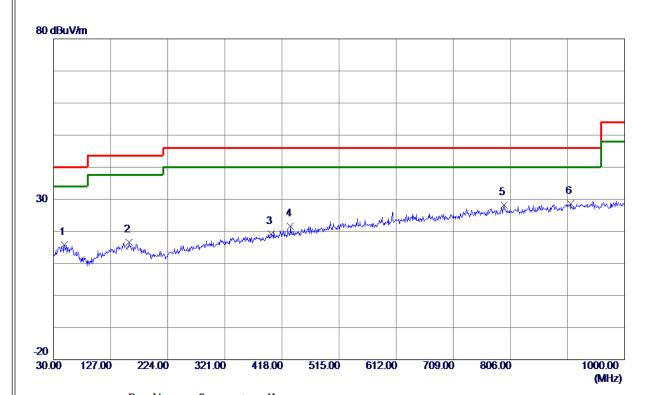
Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
48. 4300	44.71	-17. 30	27.41	40.00	-12.59	Peak	
105.6600	39. 56	-19. 33	20. 23	43.50	-23. 27	Peak	
157. 5549	33. 33	-15. 98	17. 35	43.50	-26. 15	Peak	
605. 2100	32. 73	-8. 35	24. 38	46.00	-21.62	Peak	
745. 8600	33. 62	-6. 26	27. 36	46.00	-18.64	Peak	
885. 0550	33. 92	-4.78	29. 14	46.00	-16.86	Peak	
	MHz 48. 4300 105. 6600 157. 5549 605. 2100 745. 8600	MHz dBuV/m	MHz         dBuV/m         dB           48.4300         44.71         -17.30           105.6600         39.56         -19.33           157.5549         33.33         -15.98           605.2100         32.73         -8.35           745.8600         33.62         -6.26	MHz         dBuV/m         dB         dBuV/m           48.4300         44.71         -17.30         27.41           105.6600         39.56         -19.33         20.23           157.5549         33.33         -15.98         17.35           605.2100         32.73         -8.35         24.38           745.8600         33.62         -6.26         27.36	MHz         dBuV/m         dB         dBuV/m         dBuV/m           48.4300         44.71         -17.30         27.41         40.00           105.6600         39.56         -19.33         20.23         43.50           157.5549         33.33         -15.98         17.35         43.50           605.2100         32.73         -8.35         24.38         46.00           745.8600         33.62         -6.26         27.36         46.00	MHz         dBuV/m         dB         dBuV/m         dBuV/m         dB           48.4300         44.71         -17.30         27.41         40.00         -12.59           105.6600         39.56         -19.33         20.23         43.50         -23.27           157.5549         33.33         -15.98         17.35         43.50         -26.15           605.2100         32.73         -8.35         24.38         46.00         -21.62           745.8600         33.62         -6.26         27.36         46.00         -18.64	MHz         dBuV/m         dB         dBuV/m         dBuV/m         dB         Detector           48.4300         44.71         -17.30         27.41         40.00         -12.59         Peak           105.6600         39.56         -19.33         20.23         43.50         -23.27         Peak           157.5549         33.33         -15.98         17.35         43.50         -26.15         Peak           605.2100         32.73         -8.35         24.38         46.00         -21.62         Peak           745.8600         33.62         -6.26         27.36         46.00         -18.64         Peak

### **REMARKS**:

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







No.	Freq.	Keading Level	Correct Factor	measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	48. 4300	33. 02	-17. 30	15.72	40.00	-24.28	Peak	
2	158. 0399	32.64	-15. 98	16. 66	43.50	-26.84	Peak	
3	399. 5700	31.84	-12.67	19. 17	46.00	-26.83	Peak	
4	432. 5500	33. 43	-11.83	21.60	46.00	-24.40	Peak	
5	794. 8449	34. 16	-5. 94	28. 22	46.00	-17.78	Peak	
6 *	908. 3350	33. 19	-4.51	28.68	46.00	-17.32	Peak	

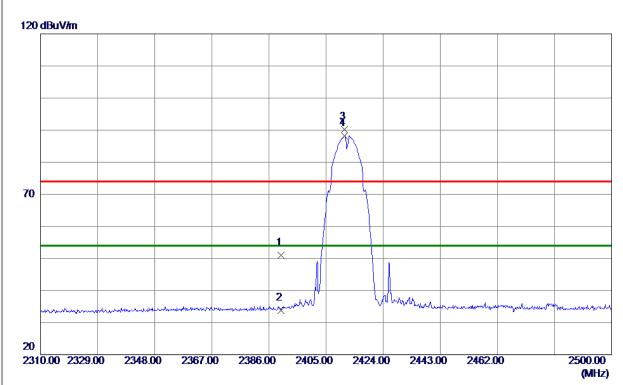
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



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



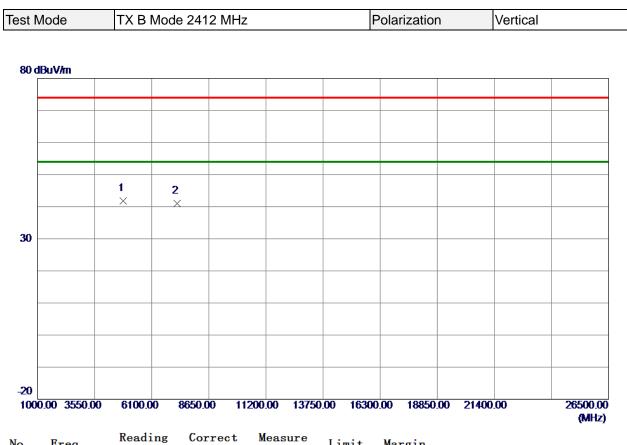




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	24.72	26. 24	50.96	74.00	-23. 04	Peak	
2	2390. 0000	7.61	26. 24	33.85	54.00	-20. 15	AVG	
3	2411. 0800	63.82	26. 31	90. 13	74.00	16. 13	Peak	NO limit
4 *	2411. 0800	61. 94	26. 31	88. 25	54.00	34. 25	AVG	NO limit

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



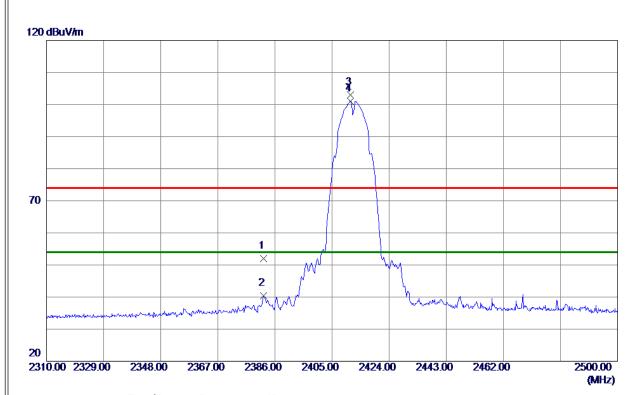


No.	Freq.	Keading Level	Correct Factor	measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.7250	58. 99	-17. 19	41.80	74.00	-32.20	Peak	
2	7236. 0000	54.42	-13. 34	41.08	74.00	-32.92	Peak	

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



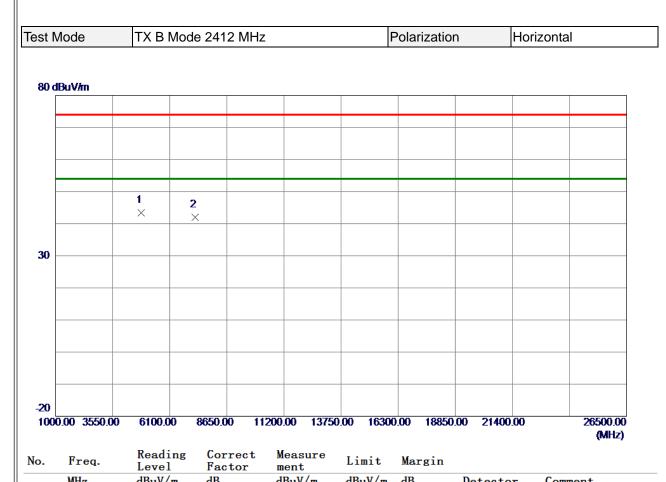




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2382. 2950	25.71	26. 21	51. 92	74.00	<b>-22. 08</b>	Peak	
2	2382. 2950	14. 27	26. 21	40.48	54.00	-13. 52	AVG	
3	2411. 1750	76. 59	26. 31	102. 90	74.00	28. 90	Peak	NO limit
4 *	2411. 1750	74.71	26. 31	101. 02	54.00	47.02	AVG	NO limit

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

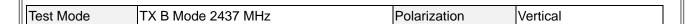


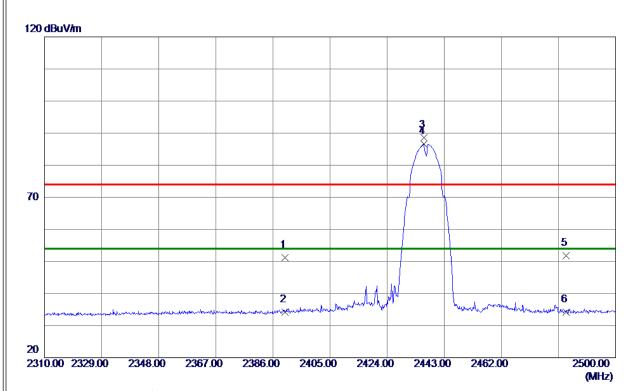


	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.7250	60. 54	-17. 19	43. 35	74.00	-30.65	Peak	
2	7236. 0000	55. 29	-13. 34	41.95	74.00	-32.05	Peak	

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



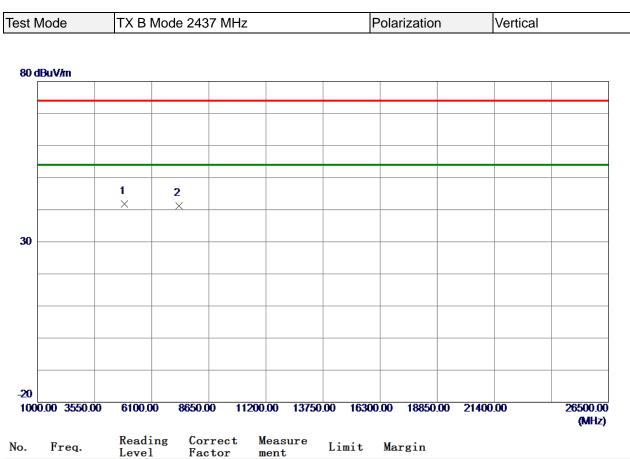




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	24.92	26. 24	51. 16	74.00	-22.84	Peak	
2	2390.0000	7.89	26. 24	34. 13	54.00	-19.87	AVG	
3	2436. 2549	62. 28	26. 39	88. 67	74.00	14.67	Peak	NO limit
4 *	2436. 2549	60. 19	26. 39	86. 58	54.00	32. 58	AVG	NO limit
5	2483. 5000	25. 29	26. 55	51.84	74.00	-22. 16	Peak	
6	2483. 5000	7.64	26. 55	34. 19	54.00	-19.81	AVG	

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



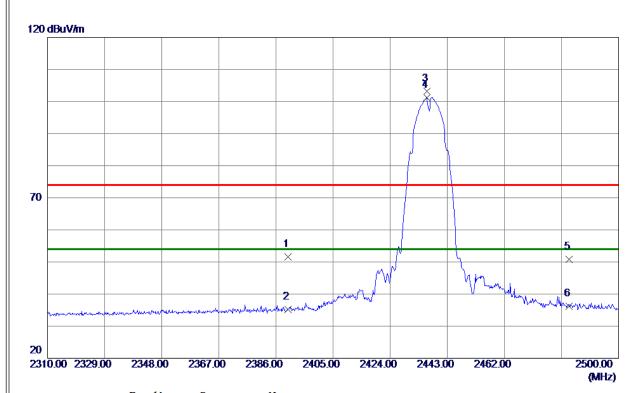


No.	Freq.	Keading Level	Correct Factor	measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873. 4500	58. 75	-17.01	41.74	74.00	-32.26	Peak	
2	7311. 0000	54. 33	-13. 19	41.14	74.00	-32.86	Peak	

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



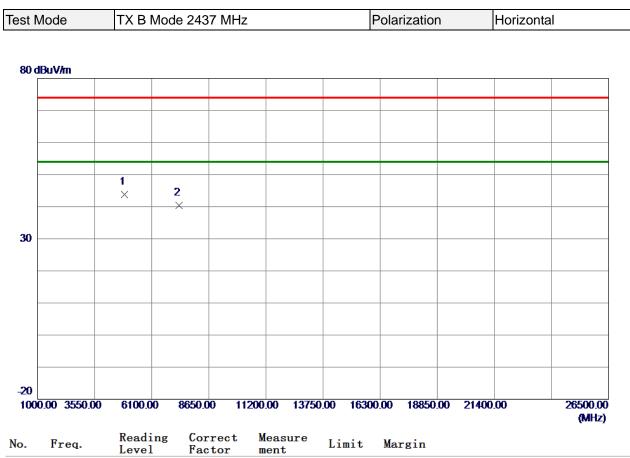




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	25. 35	26. 24	51. 59	74.00	-22.41	Peak	
2	2390.0000	8. 99	26. 24	35. 23	54.00	-18.77	AVG	
3	2436. 1600	76. 75	26. 39	103. 14	74.00	29. 14	Peak	NO limit
4 *	2436. 1600	74.80	26. 39	101. 19	54.00	47. 19	AVG	NO limit
5	2483. 5000	24. 17	26. 55	50.72	74.00	-23. 28	Peak	
6	2483. 5000	9. 68	26. 55	36. 23	54.00	-17.77	AVG	

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



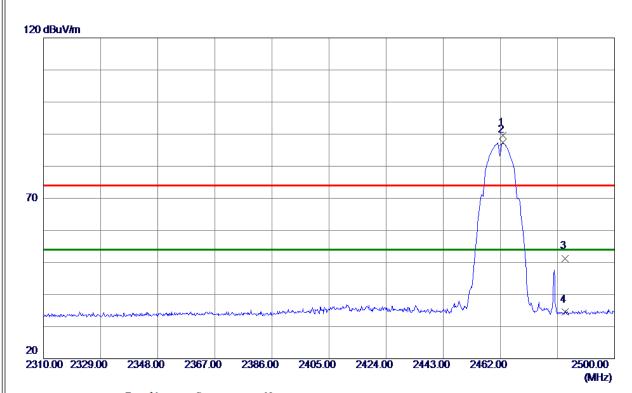


No.	Freq.	Level	Factor	measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873. 4500	60. 90	-17.01	43.89	74.00	-30. 11	Peak	
2	7311. 0000	53. 54	-13. 19	40. 35	74.00	-33.65	Peak	

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



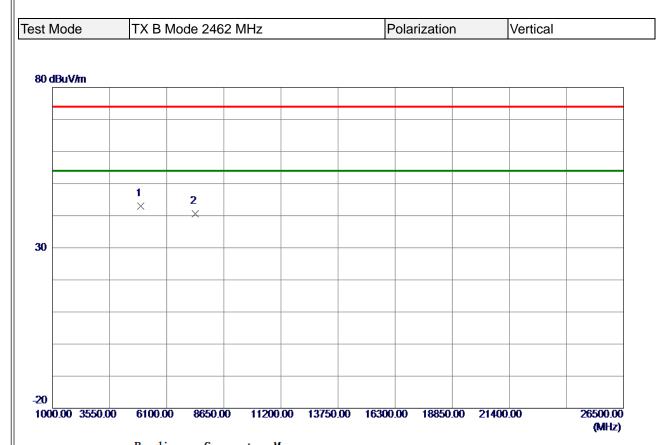




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.8550	63.08	26. 48	89. 56	74.00	15. 56	Peak	NO limit
2 *	2462. 8550	60.84	26. 48	87. 32	54.00	33. 32	AVG	NO limit
3	2483. 5000	24.60	26. 55	51. 15	74.00	-22.85	Peak	
4	2483. 5000	7. 95	26. 55	34. 50	54.00	-19. 50	AVG	

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



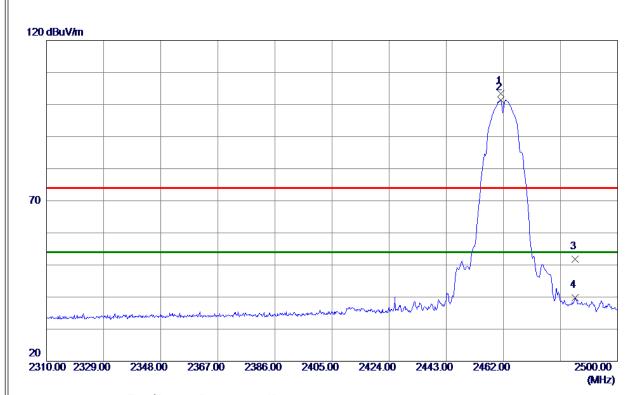


No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924. 4500	59. 79	-16.81	42.98	74.00	-31.02	Peak	
2	7386. 0000	53.62	-13.03	40. 59	74.00	-33.41	Peak	

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





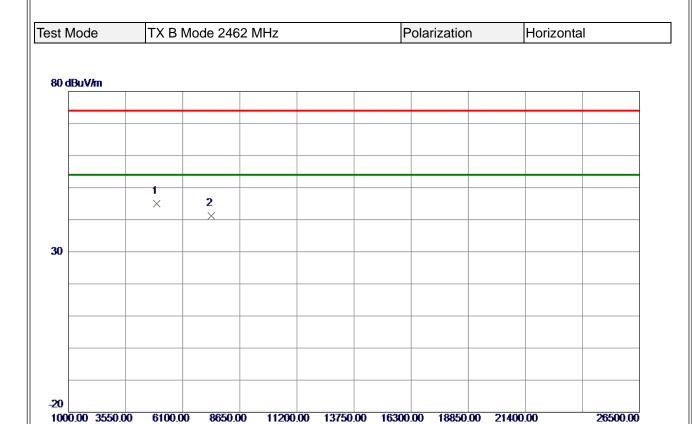


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2461. 1450	76. 92	26. 47	103.39	74.00	29. 39	Peak	NO limit
2 *	2461. 1450	74. 90	26. 47	101.37	54.00	47.37	AVG	NO limit
3	2485. 9400	25. 28	26. 55	51.83	74.00	-22. 17	Peak	
4	2485. 9400	13. 26	26. 55	39. 81	54.00	-14. 19	AVG	

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

(MHz)



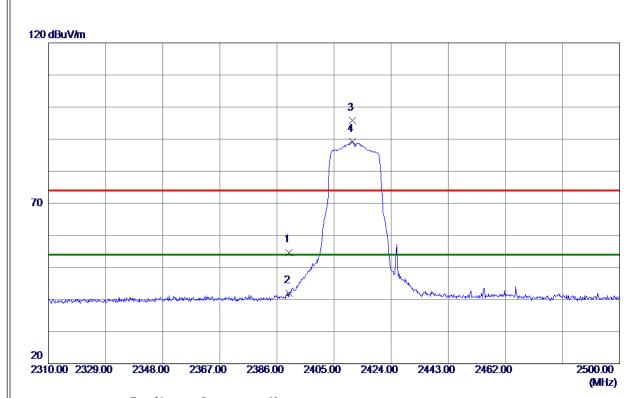


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924. 4500	61.87	-16.81	45.06	74.00	-28.94	Peak	
2	7386 0000	54 21	-13, 03	41 18	74 00	-32 82	Peak	

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





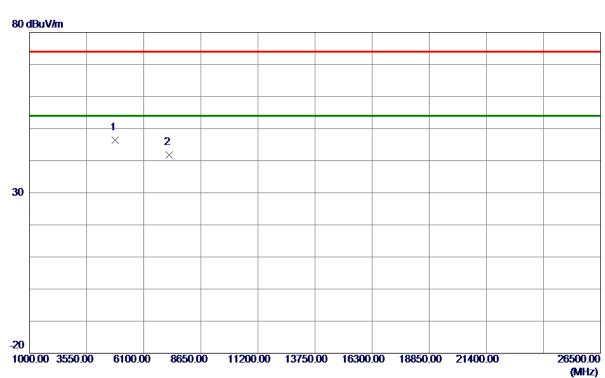


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	24. 15	30. 55	54.70	74.00	-19. 30	Peak	
2	2390.0000	11.42	30. 55	41.97	54.00	-12.03	AVG	
3	2411. 0800	65. 24	30.64	95. 88	74.00	21.88	Peak	NO limit
4 *	2411. 0800	58. 59	30. 64	89. 23	54.00	35. 23	AVG	NO limit

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





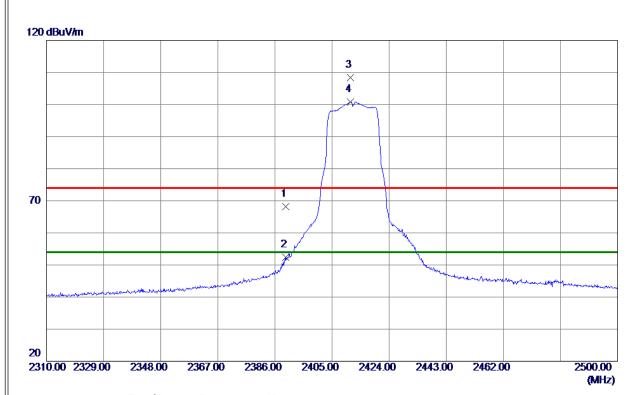


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.7250	63.66	-17. 19	46. 47	74.00	-27.53	Peak	
2	7236, 0000	55. 06	-13, 34	41.72	74. 00	-32, 28	Peak	

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





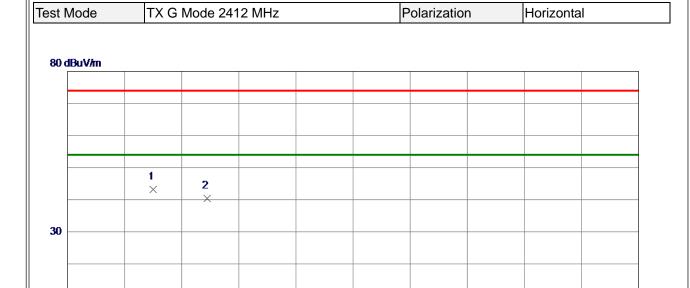


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389. 5149	37.62	30. 54	68. 16	74.00	-5.84	Peak	
2	2389. 5149	21.80	30. 54	52. 34	54.00	-1.66	AVG	
3	2411. 1750	77.78	30.64	108. 42	74.00	34.42	Peak	NO limit
4 *	2411. 1750	70. 14	30. 64	100.78	54.00	46. 78	AVG	NO limit

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

26500.00 (MHz)





No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4825.0000	60.48	-17. 19	43. 29	74.00	-30.71	Peak	
2	7236. 0000	53. 79	-13. 34	40. 45	74.00	-33. 55	Peak	

11200.00 13750.00 16300.00 18850.00 21400.00

# **REMARKS**:

**-20** 

1000.00 3550.00

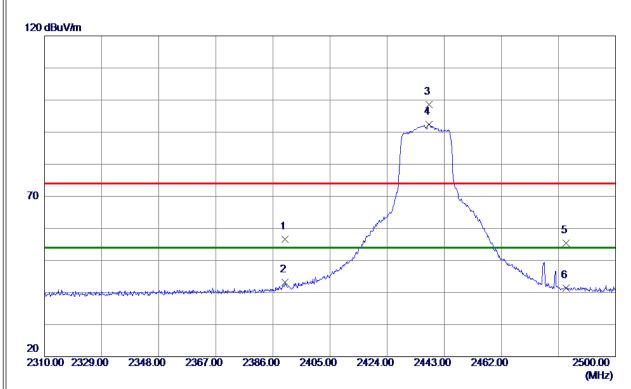
6100.00

8650.00

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





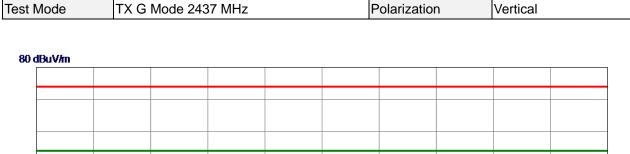


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	25. 96	30. 55	56. 51	74.00	-17.49	Peak	
2	2390.0000	12.71	30. 55	43. 26	54.00	-10.74	AVG	
3	2437.8700	67.92	30.75	98. 67	74.00	24.67	Peak	NO limit
4 *	2437.8700	61.66	30.75	92.41	54.00	38. 41	AVG	NO limit
5	2483. 5000	24.46	30. 94	55. 40	74.00	-18.60	Peak	
6	2483. 5000	10. 47	30. 94	41.41	54.00	-12. 59	AVG	

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

(MHz)





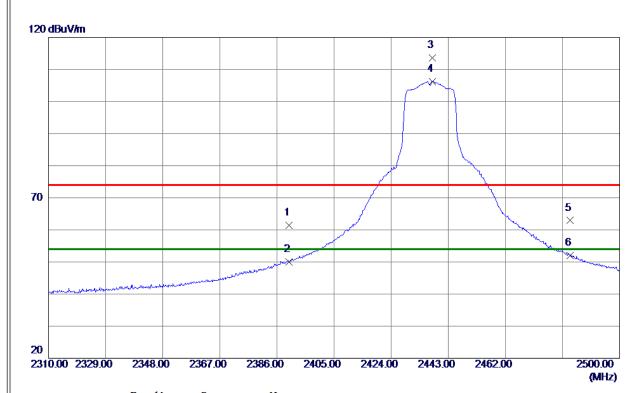


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4869.6250	60.42	-17.02	43.40	74.00	-30.60	Peak	
2	7311. 0000	53. 23	-13. 19	40. 04	74.00	-33. 96	Peak	

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



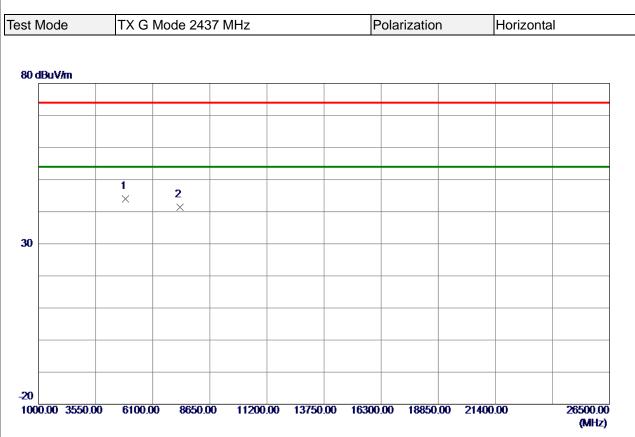




No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	30.80	30. 55	61. 35	74.00	-12.65	Peak	
2	2390.0000	19. 44	30. 55	49. 99	54.00	-4.01	AVG	
3	2437.7750	82. 90	30.75	113.65	74.00	39.65	Peak	NO limit
4 *	2437.7750	75. 49	30.75	106. 24	54.00	52. 24	AVG	NO limit
5	2483. 5000	31. 96	30. 94	62. 90	74.00	-11. 10	Peak	
6	2483. 5000	21. 08	30. 94	52. 02	54.00	-1.98	AVG	

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



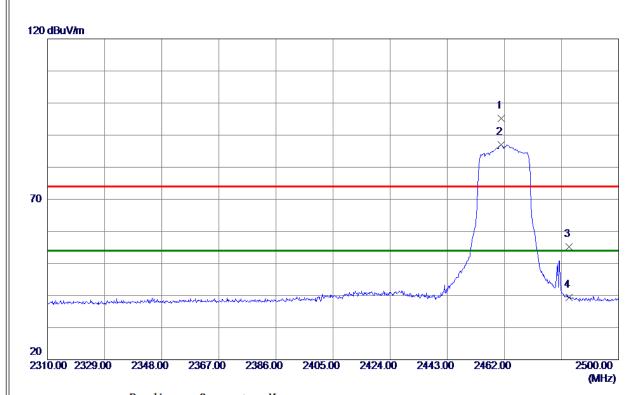


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873. 4500	61.06	-17.01	44.05	74.00	-29. 95	Peak	
2	7311, 0000	54, 50	-13, 19	41.31	74.00	-32, 69	Peak	

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



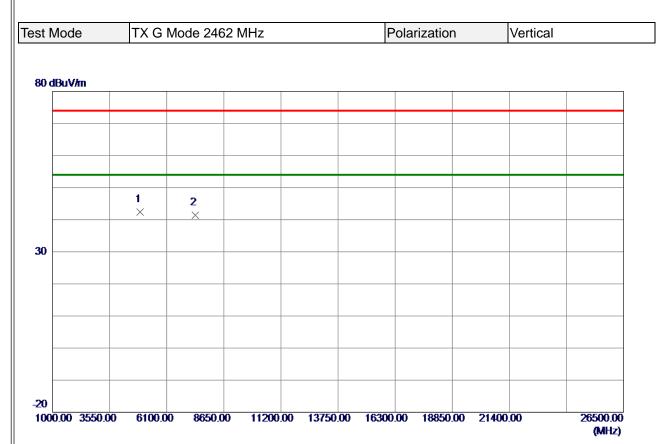




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2460.8600	64. 27	30.85	95. 12	74.00	21. 12	Peak	NO limit
2 *	2460.8600	56. 24	30.85	87. 09	54.00	33.09	AVG	NO limit
3	2483. 5000	24. 28	30. 94	55. 22	74.00	-18.78	Peak	
4	2483. 5000	8. 54	30. 94	39. 48	54.00	-14.52	AVG	
3	2483. 5000	24. 28	30. 94	55. 22	74. 00	-18. 78	Peak	NO lim

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



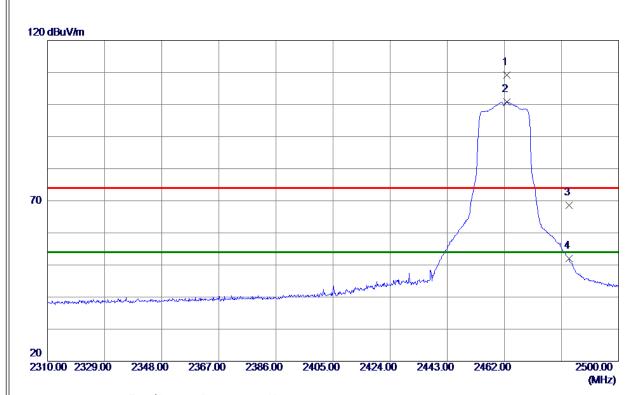


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924.0000	59. 23	-16.82	42.41	74.00	-31. 59	Peak	
2.	7386, 0000	54. 36	-13, 03	41, 33	74.00	-32, 67	Peak	

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





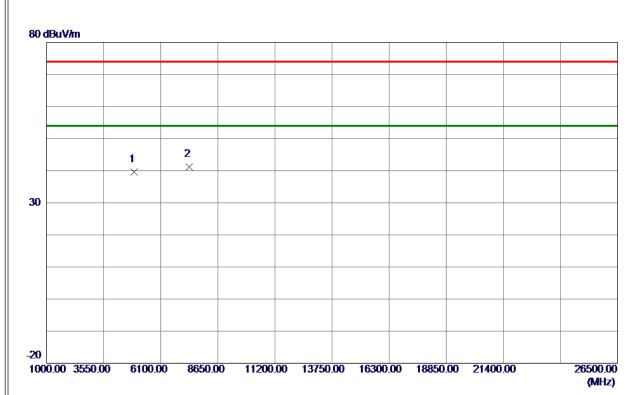


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.7600	78. 26	30.85	109. 11	74.00	35. 11	Peak	NO limit
2 *	2462.7600	69. 99	30.85	100.84	54.00	46.84	AVG	NO limit
3	2483. 5000	37.73	30. 94	68. 67	74.00	-5. 33	Peak	
4	2483. 5000	21.03	30. 94	51. 97	54.00	-2.03	AVG	

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





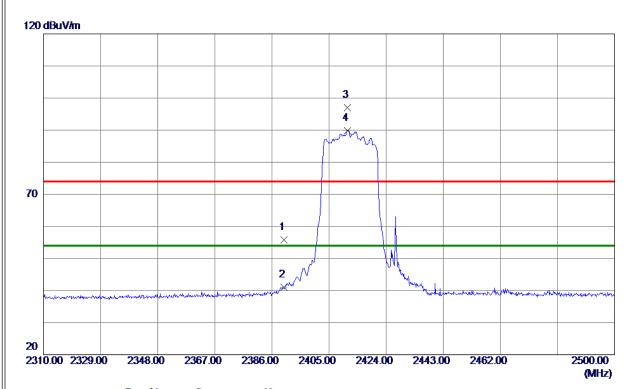


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923. 1750	56. 37	-16.82	39. 55	74.00	-34.45	Peak	
2 *	7386, 0000	54. 17	-13. 03	41.14	74.00	-32, 86	Peak	

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



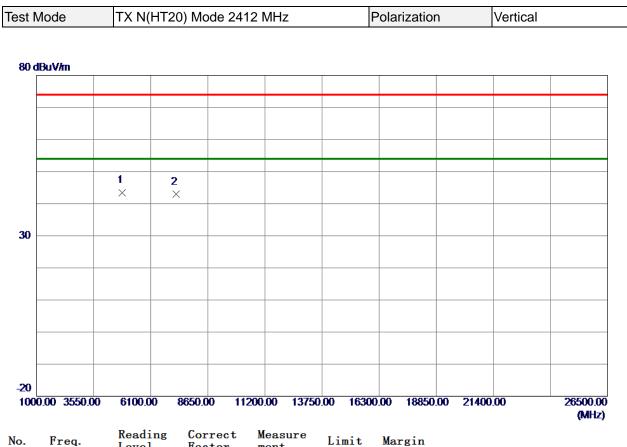




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	25. 30	30. 55	55. 85	74.00	-18. 15	Peak	
2	2390.0000	10.47	30. 55	41.02	54.00	-12.98	AVG	
3	2411. 0800	66. 32	30.64	96. 96	74.00	22.96	Peak	NO limit
4 *	2411. 0800	59. 24	30. 64	89.88	54.00	35. 88	AVG	NO limit
1								

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



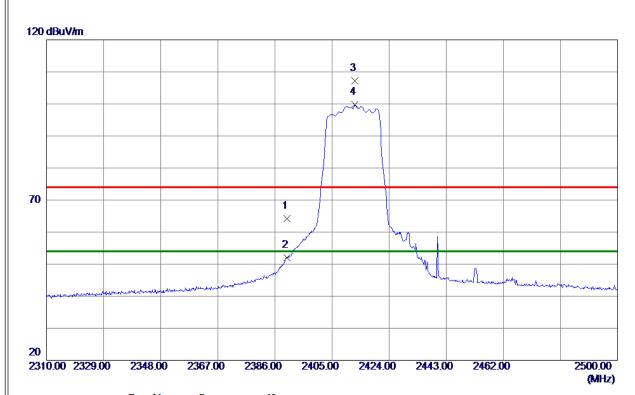


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.7250	60. 54	-17. 19	43. 35	74.00	-30.65	Peak	
2	7236, 0000	56. 24	-13, 34	42. 90	74.00	-31, 10	Peak	

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





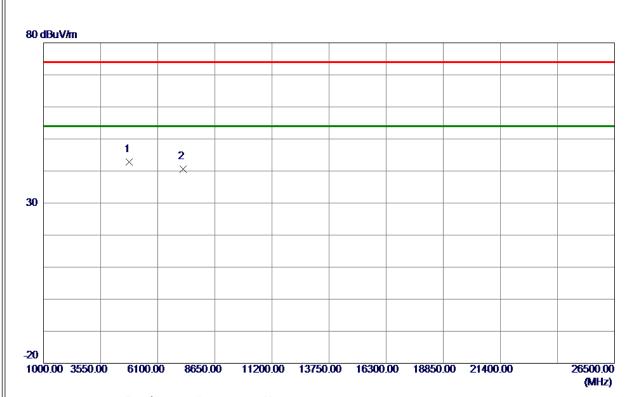


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	33. 74	30. 55	64. 29	74.00	-9.71	Peak	
2	2390.0000	21. 39	30. 55	51.94	54.00	-2.06	AVG	
3	2412.6000	76. 49	30. 64	107. 13	74.00	33. 13	Peak	NO limit
4 *	2412. 6000	69. 10	30. 64	99. 74	54.00	45.74	AVG	NO limit

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





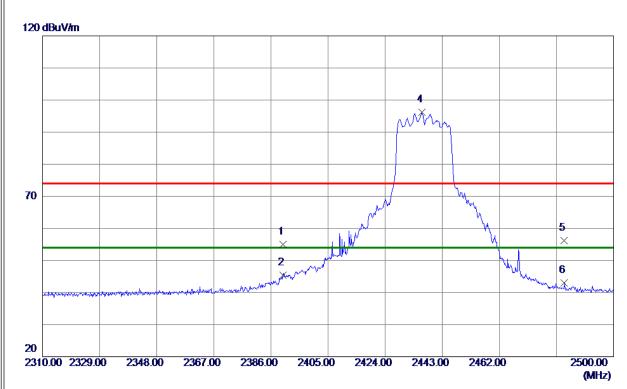


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4822. 4500	60.08	-17.20	42.88	74.00	-31. 12	Peak	
2	7236, 0000	54.02	-13. 34	40.68	74.00	-33, 32	Peak	

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



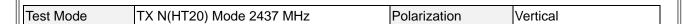


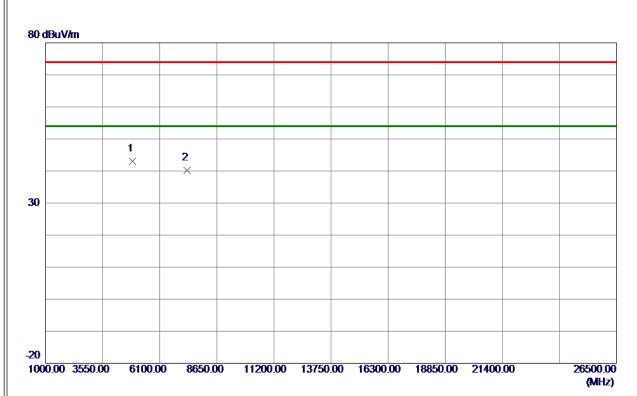


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	24.42	30. 55	54. 97	74.00	-19. 03	Peak	
2	2390.0000	14.78	30. 55	45. 33	54.00	-8. 67	AVG	
3 *	2436. 2549	7173.00	30.74	7203.74	74.00	7129.74	Peak	NO limit
4	2436. 2549	65. 40	30.74	96. 14	54.00	42. 14	AVG	NO limit
5	2483. 5000	25. 33	30. 94	56. 27	74.00	-17.73	Peak	
6	2483. 5000	12. 14	30. 94	43.08	54.00	-10.92	AVG	

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





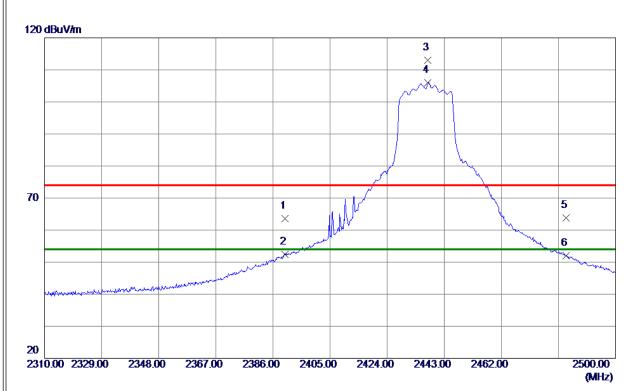


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4874.7250	60. 07	-17.00	43.07	74.00	-30.93	Peak	
2	7311. 0000	53. 36	-13. 19	40. 17	74.00	-33.83	Peak	

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



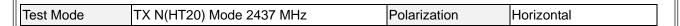


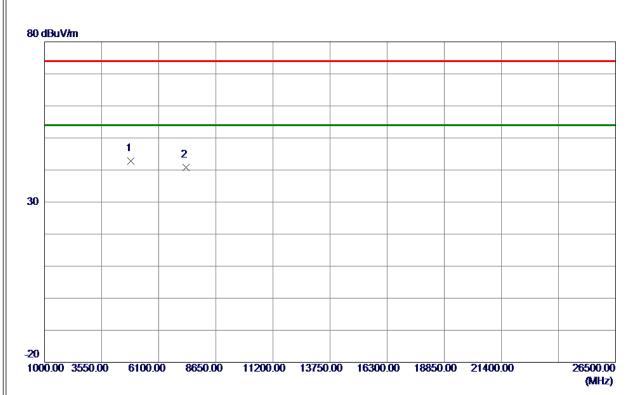


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	33. 14	30. 55	63. 69	74.00	-10.31	Peak	
2	2390.0000	21.80	30. 55	52. 35	54.00	<b>−1. 65</b>	AVG	
3	2437. 4900	82. 23	30.75	112.98	74.00	38. 98	Peak	NO limit
4 *	2437. 4900	75. 32	30.75	106. 07	<b>54.00</b>	52. 07	AVG	NO limit
5	2483. 5000	32. 95	30. 94	63.89	74.00	-10. 11	Peak	
6	2483. 5000	21.03	30. 94	51. 97	54.00	-2. 03	AVG	

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





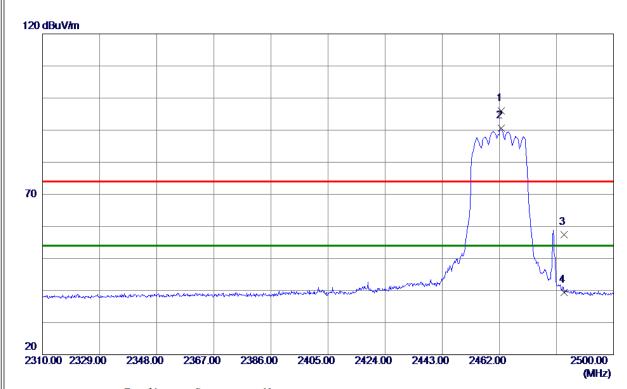


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4867.0750	59. 75	-17.03	42.72	74.00	-31. 28	Peak	
2	7311. 0000	53. 91	-13. 19	40.72	74.00	-33. 28	Peak	

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





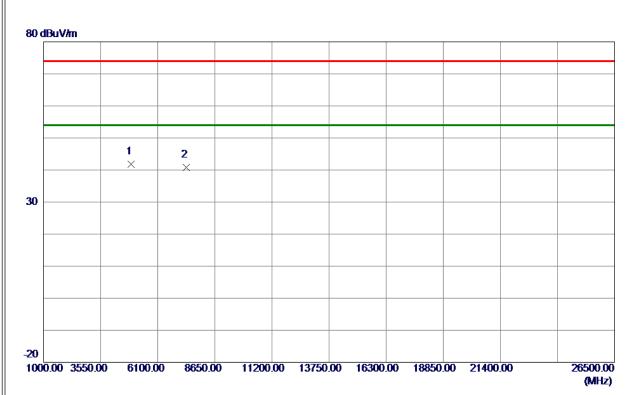


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462.6650	65. 11	30.85	95. 96	74.00	21.96	Peak	NO limit
2 *	2462.6650	59. 72	30.85	90. 57	54.00	36. 57	AVG	NO limit
3	2483. 5000	26. 50	30. 94	57.44	74.00	-16. 56	Peak	
4	2483. 5000	8. 42	30. 94	39. 36	54.00	-14.64	AVG	

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





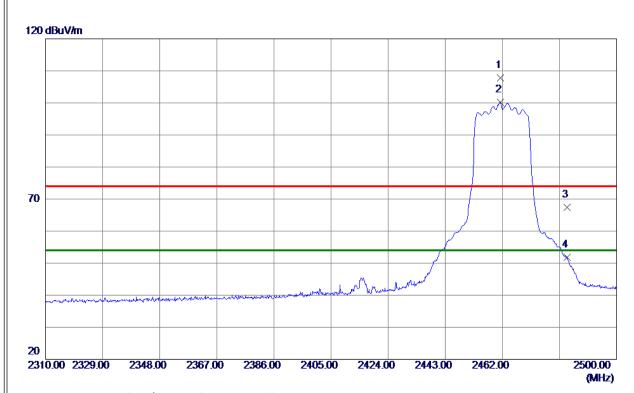


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924.0000	58. 66	-16.82	41.84	74.00	-32. 16	Peak	
2	7386, 0000	53. 74	-13. 03	40.71	74.00	-33. 29	Peak	

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







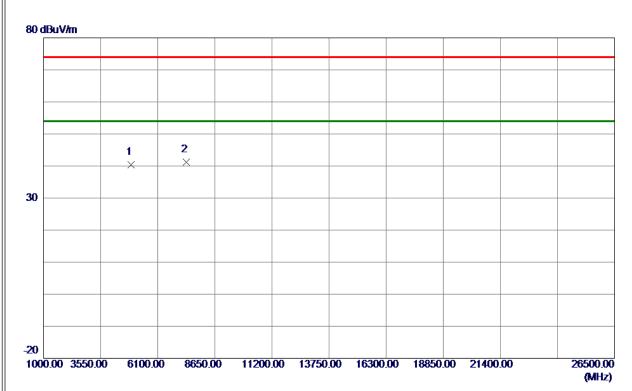
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2461.3350	76. 95	30.85	107.80	74.00	33.80	Peak	NO limit
2 *	2461.3350	69. 31	30.85	100. 16	54.00	46. 16	AVG	NO limit
3	2483. 5000	36. 41	30. 94	67. 35	74.00	-6. 65	Peak	
4	2483. 5000	20.84	30. 94	51. 78	54.00	-2. 22	AVG	

### **REMARKS**:

- (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. 1750	57. 17	-16.82	40. 35	74.00	-33.65	Peak	
2 *	7386. 0000	54. 21	-13. 03	41. 18	74.00	-32.82	Peak	

### **REMARKS**:

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

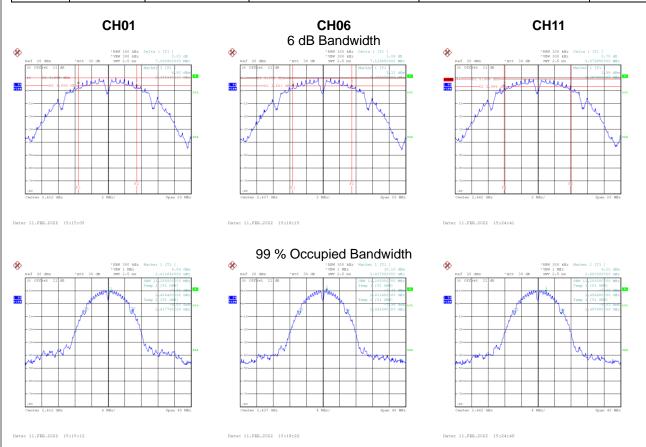


APPENDIX E - BANDWIDTH	



Test Mode	TX B Mode

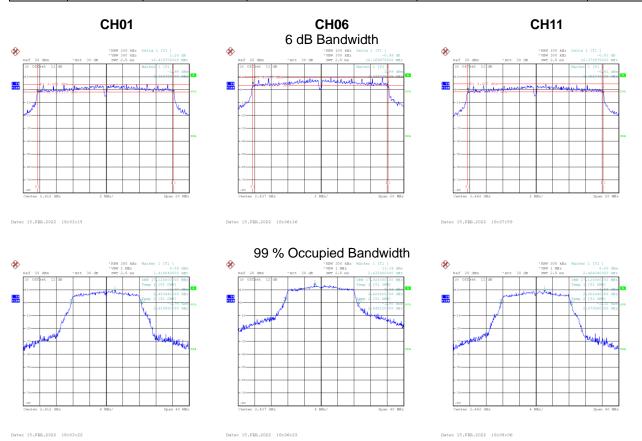
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	7.070	11.280	0.5	Complies
06	2437	7.130	11.200	0.5	Complies
11	2462	8.080	11.200	0.5	Complies





Test Mode	TX G Mode
HEST MIDGE	

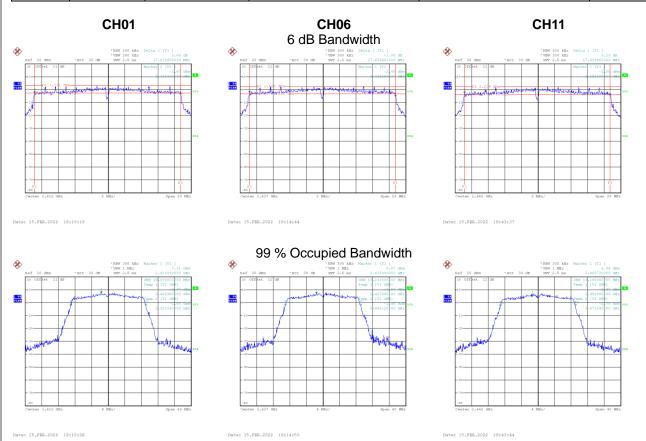
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	16.440	17.120	0.5	Complies
06	2437	16.370	17.920	0.5	Complies
11	2462	16.380	17.120	0.5	Complies





Test Mode	TX N(HT20) Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	17.640	18.080	0.5	Complies
06	2437	17.660	18.240	0.5	Complies
11	2462	17.630	18.160	0.5	Complies





# **APPENDIX F - MAXIMUM OUTPUT POWER**



Test Mode	TX B Mode_	Ant.	1
100t Wood	1 /	_,	•

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	21.01	30.00	1.0000	Complies
06	2437	20.66	30.00	1.0000	Complies
11	2462	20.74	30.00	1.0000	Complies

### Test Mode TX G Mode\_Ant. 1

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.97	30.00	1.0000	Complies
06	2437	26.80	30.00	1.0000	Complies
11	2462	25.80	30.00	1.0000	Complies

## Test Mode TX N(HT20) Mode\_Ant. 1

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.08	30.00	1.0000	Complies
06	2437	24.21	30.00	1.0000	Complies
11	2462	24.60	30.00	1.0000	Complies

### Test Mode TX N(HT20) Mode\_Ant. 2

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.40	30.00	1.0000	Complies
06	2437	25.00	30.00	1.0000	Complies
11	2462	25.54	30.00	1.0000	Complies

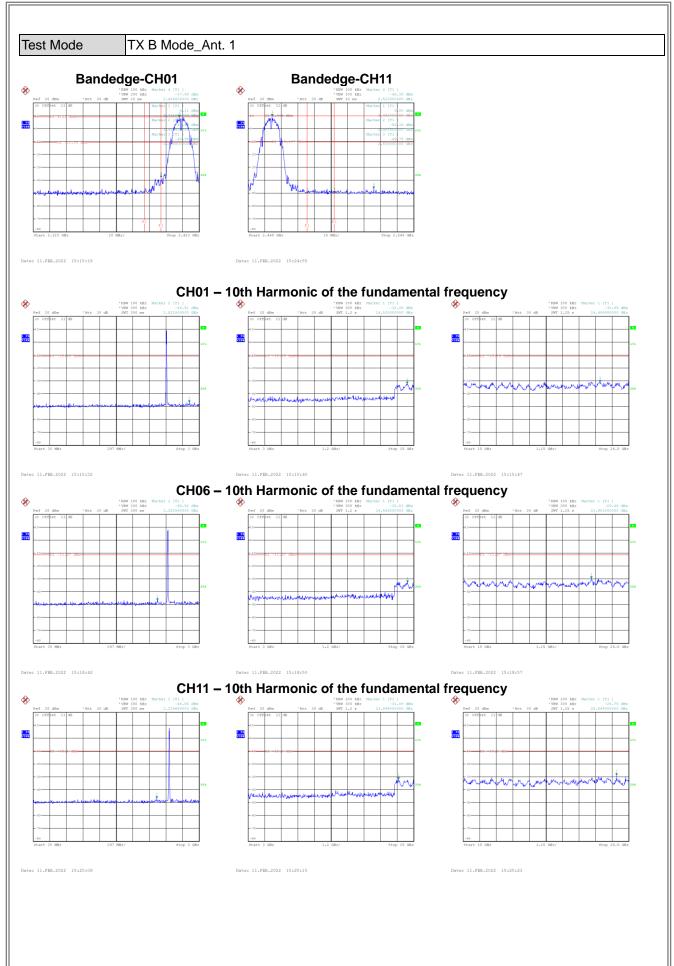
## Test Mode TX N(HT20) Mode\_Total

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	28.25	30.00	1.0000	Complies
06	2437	27.63	30.00	1.0000	Complies
11	2462	28.11	30.00	1.0000	Complies

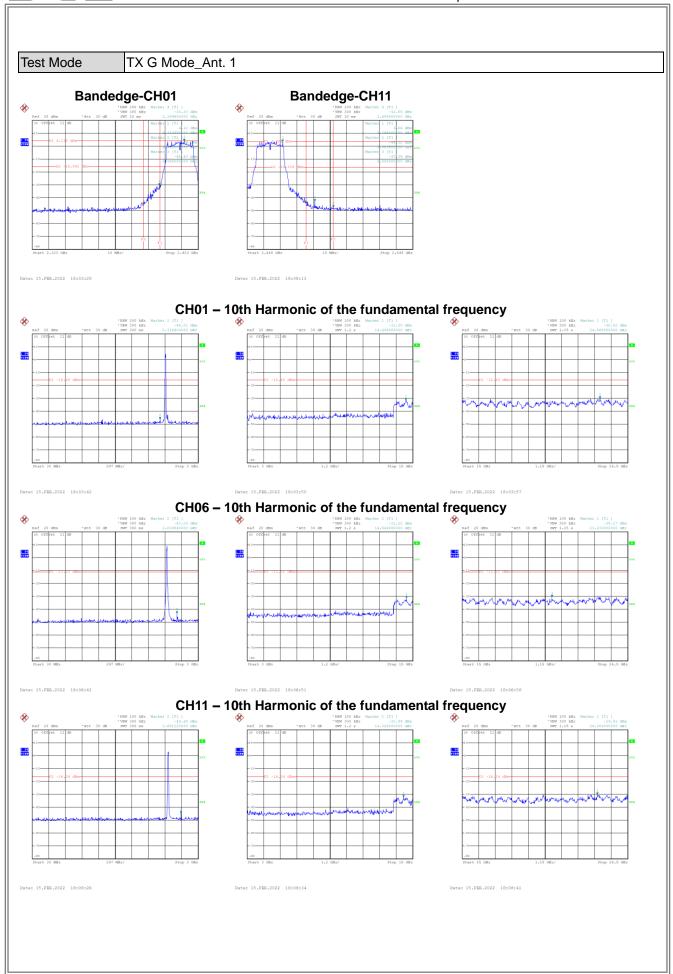


# **APPENDIX G - CONDUCTED SPURIOUS EMISSIONS**

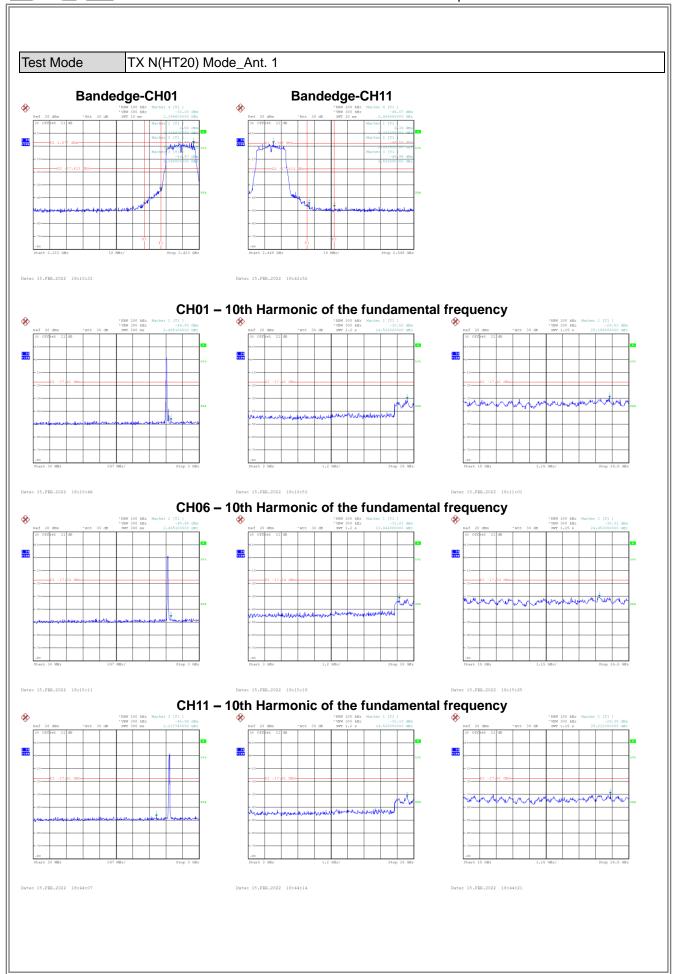




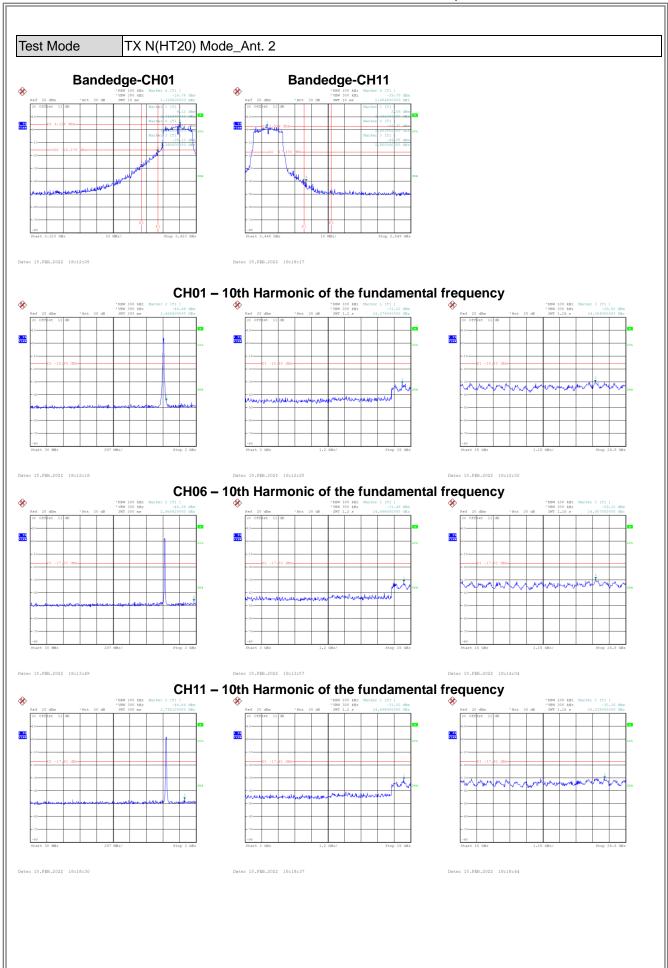














# **APPENDIX H - POWER SPECTRAL DENSITY**



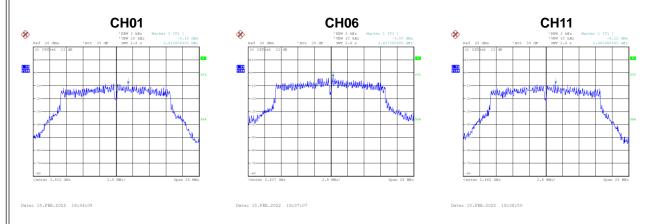
	Test Mode	TX B Mode	Δnt 1
ı	rest wode	I A D IVIOUE	Ant. I

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.45	8.00	Complies
06	2437	-5.38	8.00	Complies
11	2462	-5.00	8.00	Complies



Test Mode TX G Mode_Ant. 1	
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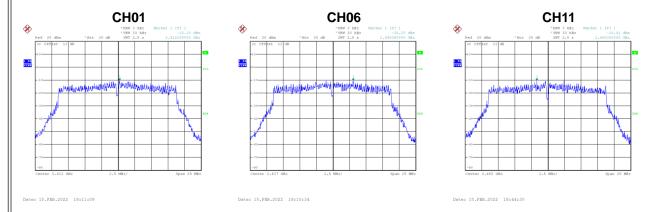
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-8.18	8.00	Complies
06	2437	-3.00	8.00	Complies
11	2462	-8.12	8.00	Complies





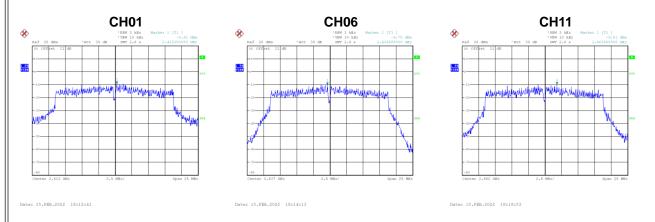
Test Mode	TX N(HT20) Mode_Ant. 1
100t Wiodo	17(11120) Wode_7(11t. 1

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-10.18	7.59	Complies
06	2437	-10.20	7.59	Complies
11	2462	-10.41	7.59	Complies



4		
	Test Mode	TX N(HT20) Mode Ant. 2
	Test Mode	TX N(HT20) Mode Ant. 2
	1000 111000	17. T. (11120) 1110 do_7 and 2

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-8.92	7.59	Complies
06	2437	-9.75	7.59	Complies
11	2462	-9.51	7.59	Complies



	T) ( N ( U T O O ) N A T
Test Mode	TX N(HT20) Mode_Total
TOST WIOGO	17. 14(11120) Wode_Total

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-6.49	7.59	Complies
06	2437	-6.96	7.59	Complies
11	2462	-6.93	7.59	Complies

### **End of Test Report**

