

# **FCC Radio Test Report**

**FCC ID: R9C-CPH2365** 

This report concerns: Original Grant

Project No. : 2108C136 Equipment : Mobile Phone

Brand Name : OPPO
Test Model : CPH2365
Series Model : N/A

**Applicant**: Guangdong OPPO Mobile Telecommunications Corp., Ltd.

Address : NO.18 Haibin Road, Wusha Village, Chang'an Town, Dongguan City,

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Guangdong, China

Date of Receipt : Dec. 23, 2020

**Date of Test** : Dec. 24, 2020 ~ Aug. 29, 2021

**Issued Date** : Aug. 30, 2021

Report Version : R00

**Test Sample**: Engineering Sample No.: DG2020122315 for conducted,

DG2020122314 for radiated.

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

ANSI C63.10-2013

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

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

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**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** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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

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

### Limitation

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

determining the Pass/Fail results.



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# **REPORT ISSUED HISTORY**

Report Version	Description	Issued Date
R00	Original Issue.	Aug. 30, 2021



### 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C					
Standard(s) Section	Standard(s) Section Test Item		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. 3 Jinshagang 1st Rd. Shixia, Dalang Town, Dongguan City, Guangdong, People's Republic of China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

### 1.2 MEASUREMENT UNCERTAINTY

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

The BTL measurement uncertainty as below table:

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

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

### B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
		9kHz ~ 30MHz	-	2.36
		30MHz ~ 200MHz	V	4.36
		30MHz ~ 200MHz	Η	3.32
		200MHz ~ 1,000MHz	V	4.08
DG-CB03	DG-CB03 CISPR	200MHz ~ 1,000MHz	Н	3.96
		1GHz ~ 6GHz	ı	3.80
		6GHz ~ 18GHz	ı	4.82
		18GHz ~ 26.5GHz	ı	3.62
		26.5GHz ~ 40GHz	-	4.00

### C. Other Measurement:

Test Item	Uncertainty
Bandwidth	±3.8 %
Maximum Output Power	±0.95 dB
Conducted Spurious Emission	±2.71 dB
Power Spectral Density	±0.86 dB
Temperature	±0.08 °C
Humidity	±1.5%

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

### 1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	25°C	53%	AC 120V/60Hz	Luca Jiang
Radiated Emissions-9K to 30MHz	25°C	60%	AC 120V/60Hz	Wade Liang
Radiated Emissions-30 MHz to 1GHz	26°C	52%	AC 120V/60Hz	Grani Zhou
Radiated Emissions-Above 1000 MHz	26°C	52%	AC 120V/60Hz	Grani Zhou
Bandwidth	21.7°C	43%	DC 3.87V	Jesse Wang
Maximum output power	21.7°C	43%	DC 3.87V	Jesse Wang
Conducted Spurious Emissions	21.7°C	43%	DC 3.87V	Jesse Wang
Power Spectral Density	21.7°C	43%	DC 3.87V	Jesse Wang



# 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile Phone
Brand Name	OPPO
Test Model	CPH2365
Series Model	N/A
Model Difference(s)	N/A
Power Source	1. DC Voltage supplied from AC adapter.  Model: VCB3HAUH 2. Supplied from Li-ion Polymer battery.  1# Manufacturer / Model: Sunwoda / BLP851  2# Manufacturer / Model: TWS / BLP851  3. Supplied from USB port.
Power Rating	1. I/P:100-240V~ 50/60Hz 1.2A O/P: 5V === 2A or 5-11V === 3A MAX 2. 3.87Vdc, 4880mAh 3. DC 5V
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM IEEE vht: 256QAM
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 72.2 Mbps IEEE vht: up to 86.7 Mbps
Maximum Output Power	IEEE 802.11b: 19.22 dBm (0.0836 W)

### Note:

### 2. Channel List:

Onamio Liot	•						
CI	CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n (HT20), IEEE vht20						
Channel Frequency (MHz) Channel Frequency (MHz) Channel Frequency (MHz) Channel Frequency (MHz)					Frequency (MHz)		
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

## 3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Internal	N/A	-3

Note: The antenna gain is provided by the manufacturer.

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



# 2.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) MHz Mode Channel 01/06/11
Mode 4	TX vht20 MHz Mode Channel 01/06/11
Mode 5	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 5	TX B Mode Channel 01	

Radiated emissions test - Below 1GHz		
Final Test Mode	Description	
Mode 5	TX B 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) MHz Mode Channel 01/06/11	
Mode 4	TX vht20 MHz 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) MHz Mode Channel 01/06/11	
Mode 4	TX vht20 MHz 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.

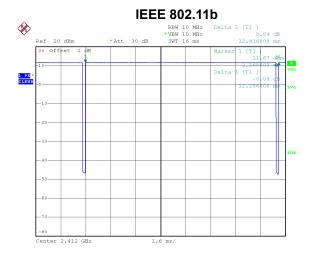
### 2.3 PARAMETERS OF TEST SOFTWARE

Test Software		QRCT	
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	18	18	18
IEEE 802.11g	17.5	17.5	17.5
IEEE 802.11n (HT20)	17	17	17
IEEE vht20	17	17	17



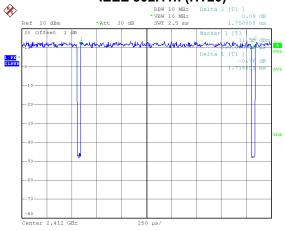
### 2.4 DUTY CYCLE

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



Date: 30.DEC.2020 10:30:53

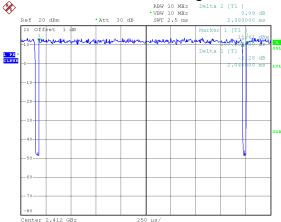
Duty cycle = 12.256 ms / 12.416 ms = 98.71% Duty Factor = 10 log(1/Duty cycle) = 0.00 IEEE 802.11n (HT20)



Date: 30.DEC.2020 10:31:33

Duty cycle = 1.715 ms / 1.750 ms = 98.00% Duty Factor = 10 log(1/Duty cycle) = 0.00

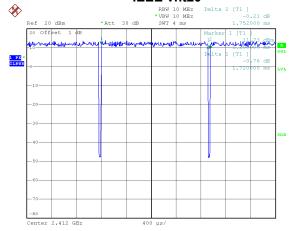
# IEEE 802.11g



Date: 30.DEC.2020 10:31:13

Duty cycle = 2.040 ms / 2.080 ms = 98.08% Duty Factor = 10 log(1/Duty cycle) = 0.00





Date: 30.DEC.2020 10:33:46

Duty cycle = 1.720 ms / 1.752 ms = 98.17% Duty Factor = 10 log(1/Duty cycle) = 0.00

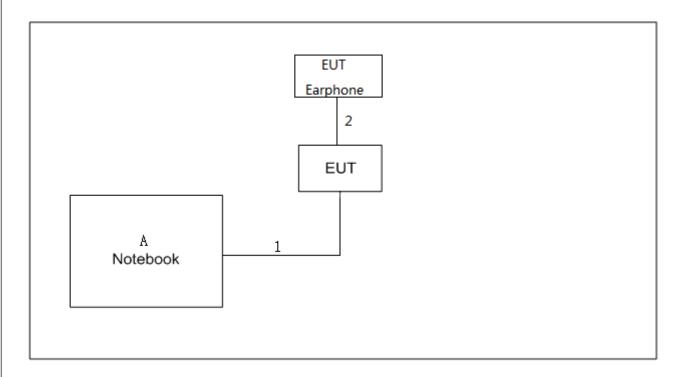
### NOTE:

For IEEE 802.11b, IEEE 802.11g, IEEE 802.11n (HT20) and IEEE vht20:

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



# 2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



### 2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
Α	Notebook	Dell	Inspiron 14-N4030	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	YES	NO	1m
2	Audio Cable	NO	NO	1.1m



### 3. AC POWER LINE CONDUCTED EMISSIONS

### **3.1 LIMIT**

Fraguency of Emission (MLIT)	Limit (d	ΒμV)
Frequency of Emission (MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

### NOTE:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

### 3.2 TEST PROCEDURE

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

The following table is the setting of the receiver:

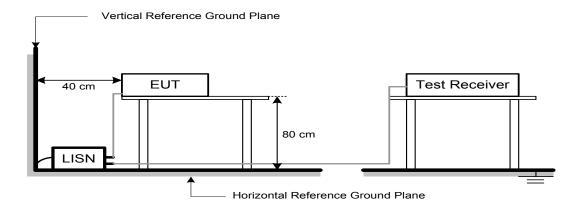
Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

### 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)

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

### NOTE:

- (1) The limit for radiated test was performed according to FCC 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	

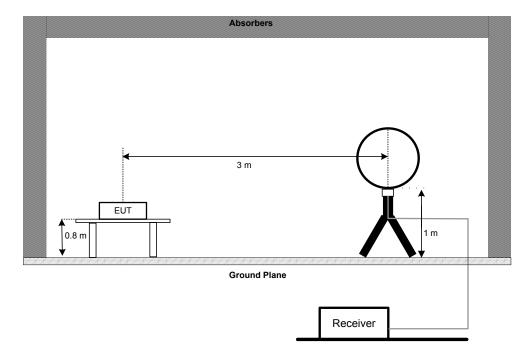
### 4.3 DEVIATION FROM TEST STANDARD

No deviation.

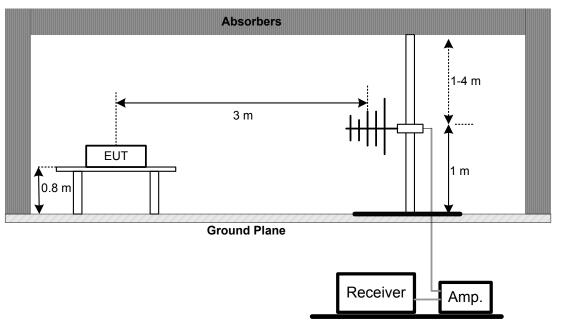


# 4.4 TEST SETUP

### 9 kHz to 30 MHz

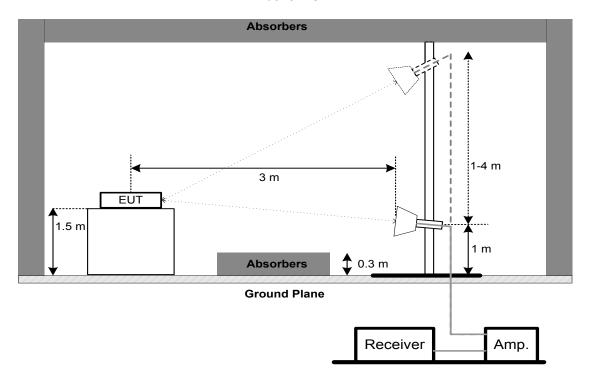


### 30 MHz to 1 GHz





### **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:

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

### For 99% Emission Bandwidth:

Spectrum Parameters	Setting		
Span Frequency	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		

### **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
15.247(b)(3)	Maximum Output Power	1 Watt or 30dBm

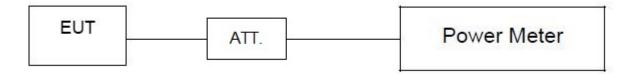
### **6.2 TEST PROCEDURE**

- a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- b. The maximum conducted output power was performed in accordance with method 11.9.2.3.1 (for AVG power) of ANSI C63.10-2013.

### **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

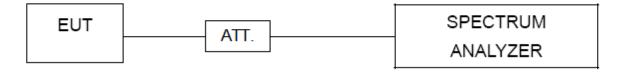
- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Start Frequency	30 MHz
Stop Frequency	26.5 GHz
RBW	100 kHz
VBW	100 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 TEST

### **8.1 LIMIT**

Section	Section Test Item	
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	EMI Test Receiver	R&S	ESCI	100382	Feb. 28, 2022	
2	LISN	EMCO	3816/2	52765	Feb. 27, 2022	
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 27, 2022	
4	50Ω Terminator	SHX	TF5-3	15041305	Feb. 27, 2022	
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	
6	Cable	N/A	RG223	12m	Mar. 09, 2022	
7	643 Shield Room	ETS	6*4*3m	N/A	N/A	

	Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Loop Antenna	EM	EM-6876-1	230	Apr. 28, 2022	
2	Cable	N/A	RG 213/U	N/A	May 27, 2022	
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 27, 2022	
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	
5	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 2022	

	Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 15, 2022	
2	Amplifier	HP	8447D	2944A08742	Feb. 28, 2022	
3	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022	
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 20, 2022	
5	Controller	CT	SC100	N/A	N/A	
6	Controller	MF	MF-7802	MF780208416	N/A	
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	
8	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 2022	

	Radiated Emissions - Above 1 GHz									
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until					
1	Double Ridged Guide Antenna	ETS	3115	75789	May 10, 2022					
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022					
3	Amplifier	Agilent	8449B	3008A02584	Jul. 10, 2022					
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 28, 2022					
5	Receiver	Agilent N9038A		MY52130039	Mar. 19, 2022					
6	Controller	CT	SC100	N/A	N/A					
7	Controller	MF	MF-7802	MF780208416	N/A					
8	Cable	N/A	EMC104-SM-SM-6 000	N/A	Oct. 16, 2021					
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A					
10	Filter	STI	STI15-9912	N/A	Jul. 10, 2022					
11	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 2022					



Bandwidth & Conducted Spurious Emissions & Power Spectral Density										
Item	tem Kind of Equipment Manufacturer Type No. Serial No. Calibrated until									
1	1 Spectrum Analyzer R&S FSP40 100185 Jul. 10, 202									
2	2 Attenuator WOKEN 6SM3502 VAS1214NL Feb. 07, 202									
3	3 RF Cable Tongkaichuan N/A N/A N/A									
4	DC Block	Mini	N/A	N/A	N/A					

	Maximum Output Power									
Item	Kind of Equipment	Serial No.	Calibrated until							
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Jul. 10, 2022					
2	Wideband power sensor	Keysight	N1923A	MY58310004	Jul. 10, 2022					
3	3 Attenuator WOKE		6SM3502	VAS1214NL	Feb. 07, 2022					
4	RF Cable	Tongkaichuan	N/A	N/A	N/A					

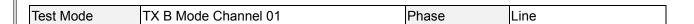
Remark: "N/A" denotes no model name, serial no. or calibration specified.

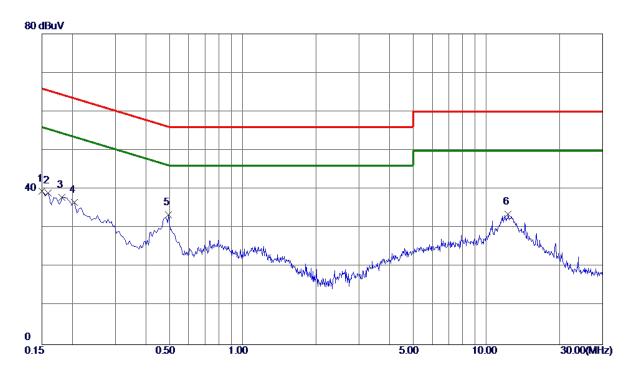
All calibration period of equipment list is one year.



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



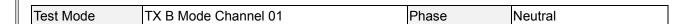


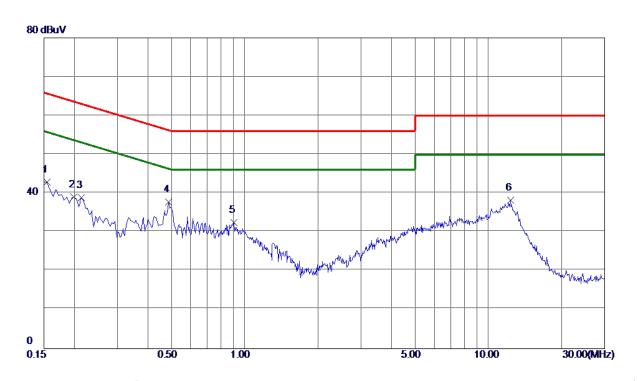


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0. 1500	29. 86	9. 67	39. 53	66.00	-26. 47	Peak	
2	0. 1590	29. 37	9. 74	39. 11	65. 52	-26. 41	Peak	
3	0. 1815	28. 06	9. 85	37. 91	64. 42	-26. 51	Peak	
4	0. 2040	26. 69	9. 91	36. 60	63. 45	-26. 85	Peak	
5 *	0. 4965	23. 52	9. 95	33. 47	56. 06	-22. 59	Peak	
6	12 2775	22. 77	10 80	33 57	60 00	-26 43	Peak	

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







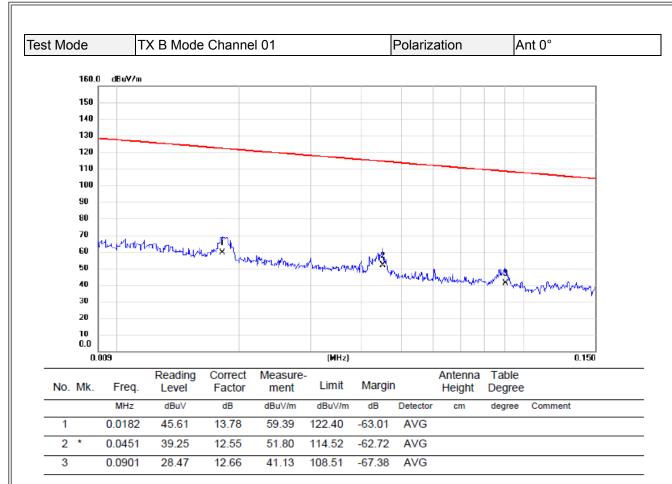
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0. 1545	33. 14	9. 78	<b>42.92</b>	65. 75	-22. 83	Peak	
2	0. 1995	28. 98	10. 01	38. 99	63. 63	-24. 64	Peak	
3	0. 2130	28. 89	10.00	38. 89	63. 09	-24. 20	Peak	
4 *	0. 4875	27. 66	10. 13	37. 79	<b>56</b> . 21	-18.42	Peak	
5	0.9060	22. 26	10. 27	32. 53	56. 00	-23. 47	Peak	
6	12. 3495	27. 18	11. 08	38. 26	60.00	-21. 74	Peak	

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



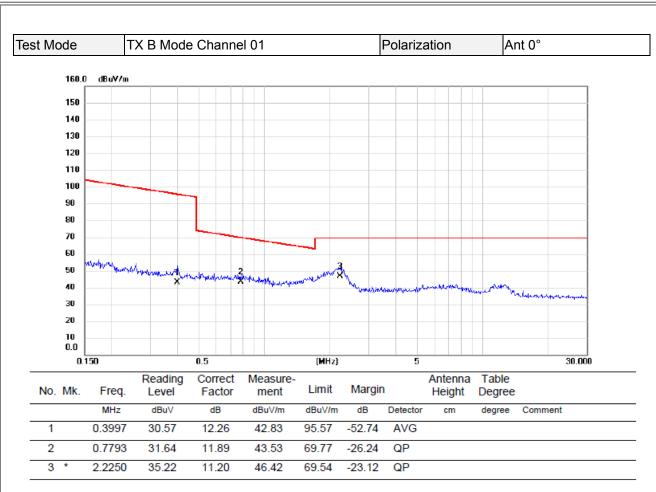
# **APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ**





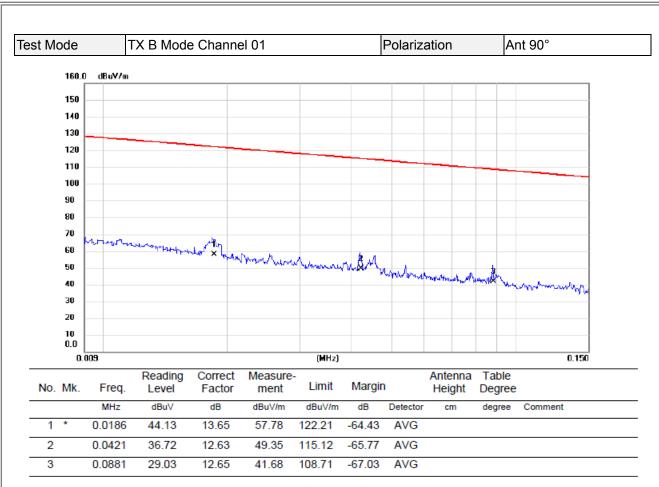
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





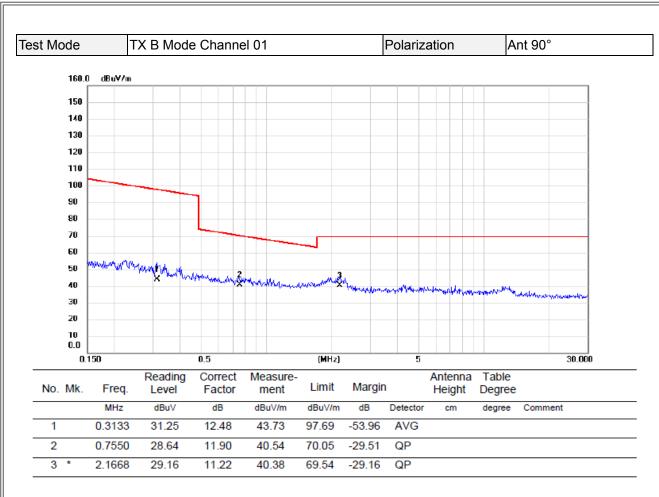
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





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



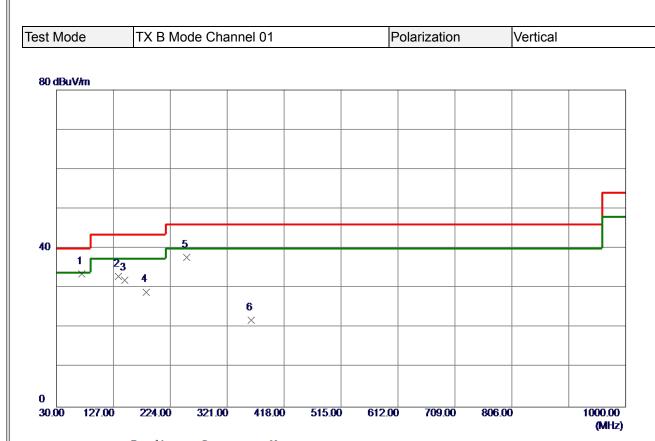


- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.



APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 M	IHZ

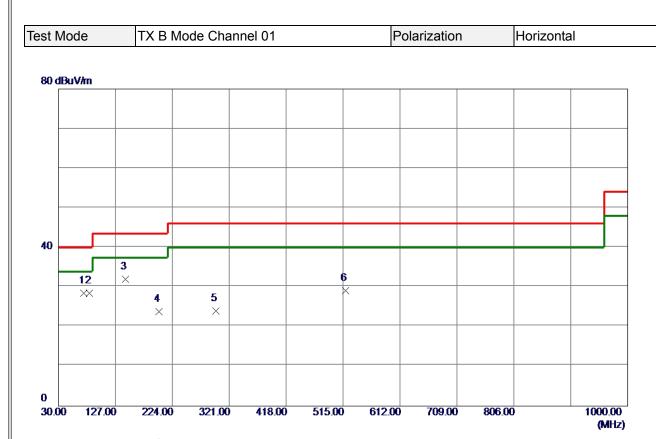




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	72. 6800	50. 03	-16. 41	33. 62	40.00	-6. 38	Peak	
2	135. 7300	45. 59	-12. 64	32. 95	43. 50	-10.55	Peak	
3	146. 4000	44. 20	-12. 18	32. 02	43. 50	-11. 48	Peak	
4	183. 2600	42. 25	-13. 21	29. 04	43. 50	-14. 46	Peak	
5	252. 1300	50. 82	-13. 07	37. 75	46.00	-8. 25	Peak	
6	361.7400	31. 81	-9. 92	21.89	46.00	-24. 11	Peak	

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





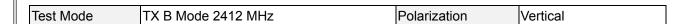
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	72. 6800	44. 92	-16. 41	28. 51	40.00	-11. 49	Peak	
2	83. 3500	45. 55	-17. 07	28. 48	40.00	-11. 52	Peak	
3	144. 4600	44. 23	-12. 29	31. 94	43. 50	-11. 56	Peak	
4	201. 6900	38. 69	-14. 88	23. 81	43. 50	-19. 69	Peak	
5	298. 6900	35. 00	-11. 06	23. 94	46. 00	-22. 06	Peak	
6	518. 8800	36. 16	-7. 09	29. 07	46.00	-16. 93	Peak	

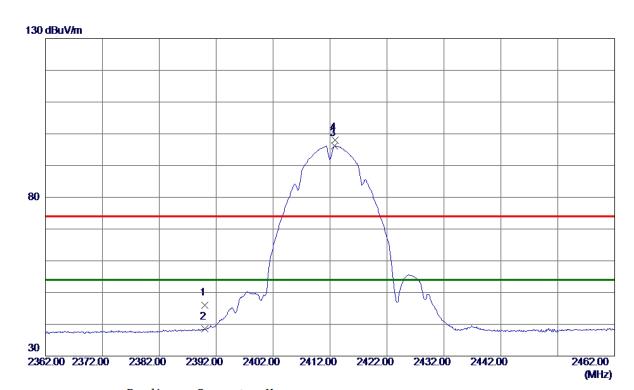
- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.



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



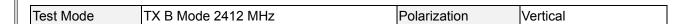


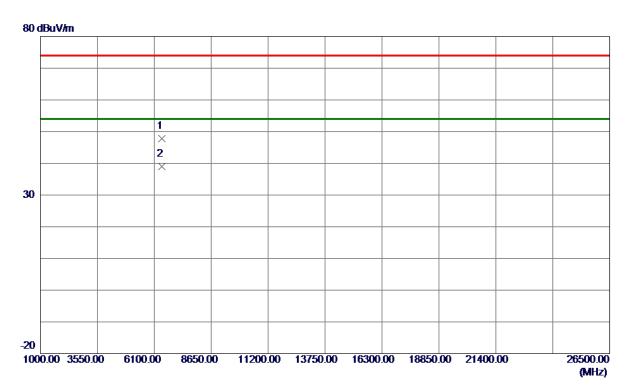


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	38. 72	7. 26	<b>45.</b> 98	74.00	-28. <b>0</b> 2	Peak	
2	2390. 0000	31. 24	7. 26	38. 50	<b>54.00</b>	-15. 50	AVG	
3 *	2412. 7500	88. 91	7. 26	96. 17	<b>54.00</b>	42. 17	AVG	No Limit
4	2412. 9000	90. 70	7. 26	97. 96	74.00	23. 96	Peak	No Limit

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





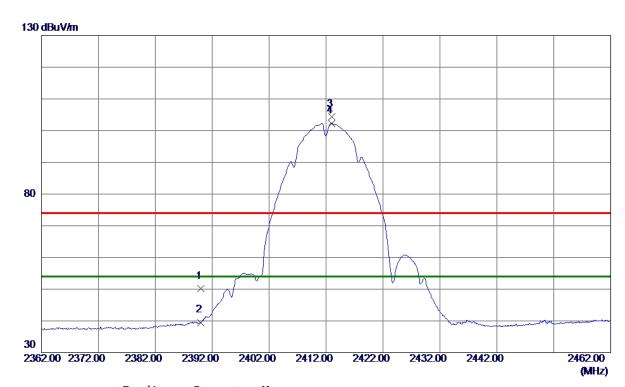


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6431. 9200	39. 67	8. 04	47. 71	74.00	-26. 29	Peak	
2 *	6432. 0150	31. 00	8. 04	39. 04	54. 00	-14. 96	AVG	

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



Test Mode	TX B 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	42. 88	7. 26	50. 14	74.00	-23. 86	Peak	
2	2390. 0000	32. 24	7. 26	39. 50	54.00	-14. 50	AVG	
3	2412. 9500	97. 05	7. 26	104. 31	74.00	30. 31	Peak	No Limit
4 *	2412. 9500	95. 04	7. 26	102. 30	54.00	48. 30	AVG	No Limit

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



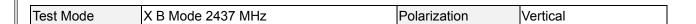
T ( ) 4 (	TV D M I O440 MII	D 1 ' ''	
Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal

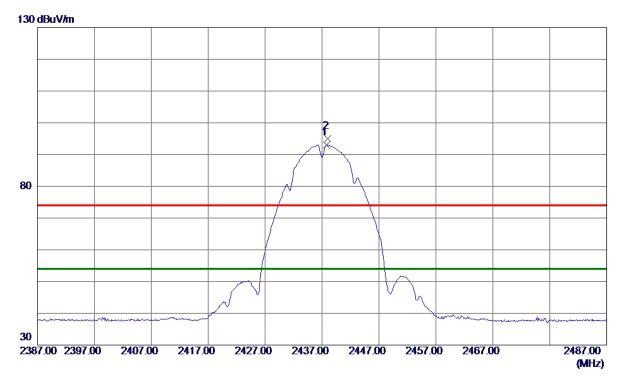


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	6432. 0350	29. 68	8. 05	37. 73	54.00	-16. 27	AVG	
2	6432 4720	39 23	8 05	47 28	74 00	-26 72	Peak	

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



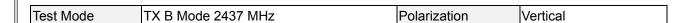


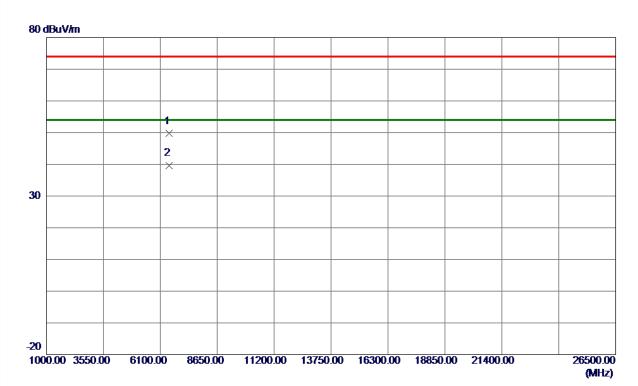


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2437. 7500	85. 81	7. 25	93. 06	54.00	39. 06	AVG	No Limit
2	2437. 9500	87. 82	7. 25	95. 07	74.00	21. 07	Peak	No Limit

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



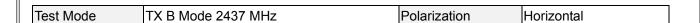


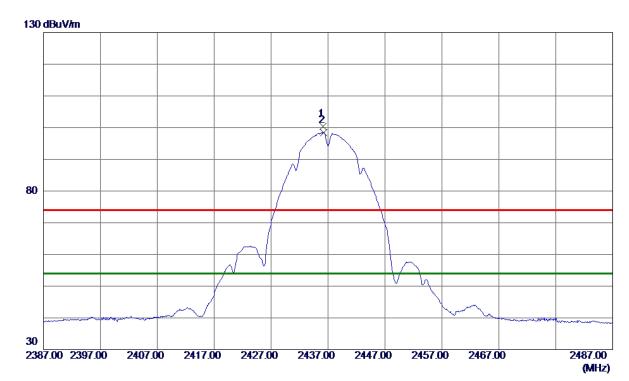


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6498. 2780	41. 50	8. 20	49. 70	74.00	-24. 30	Peak	
2 *	6499. 4800	31. 33	8. 20	39. 53	54.00	-14. 47	AVG	

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





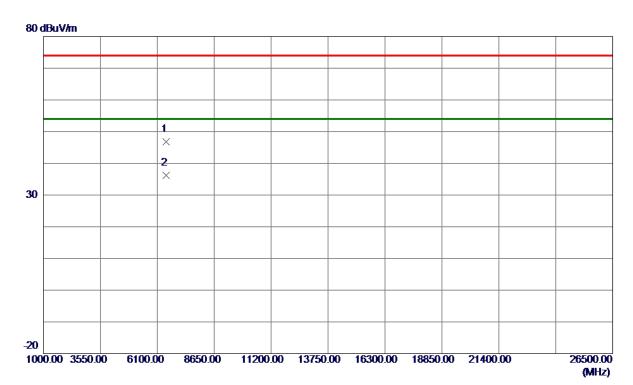


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2436. 1500	93. 11	7. 25	100. 36	74.00	26. 36	Peak	No Limit
2 *	2436. 2000	91. 17	7. 25	98. 42	54.00	44. 42	AVG	No Limit

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



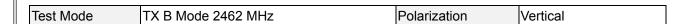
Test Mode	TX B Mode 2437 MHz	Polarization	Horizontal

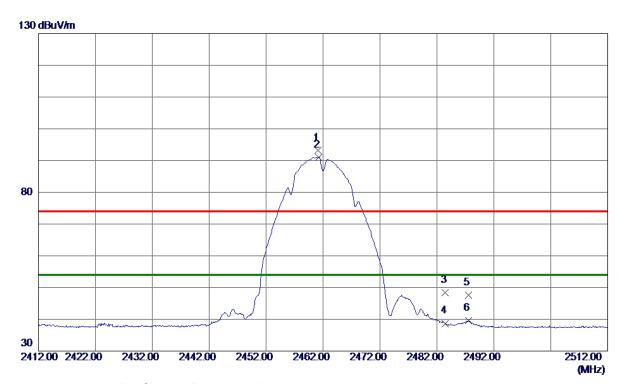


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6497. 7960	38. 61	8. 19	46. 80	74. 00	-27. 20	Peak	
2 *	6498. 9980	28. 07	8. 20	36. 27	54. 00	-17. 73	AVG	

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



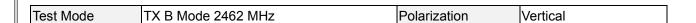




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2461. 1000	85. 98	7. 25	93. 23	74.00	19. 23	Peak	No Limit
2 *	2461. 2000	83. 78	7. 25	91. 03	<b>54.00</b>	37. 03	AVG	No Limit
3	2483. 5000	41. 24	7. 25	48. 49	74.00	-25. 51	Peak	
4	2483. 5000	31. 45	7. 25	38. 70	<b>54.00</b>	-15. 30	AVG	
5	2487. 5500	40. 35	7. 25	47. 60	74.00	-26. 40	Peak	
6	2487. 5500	32. 39	7. 25	39. 64	54.00	-14. 36	AVG	

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



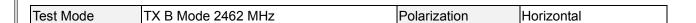


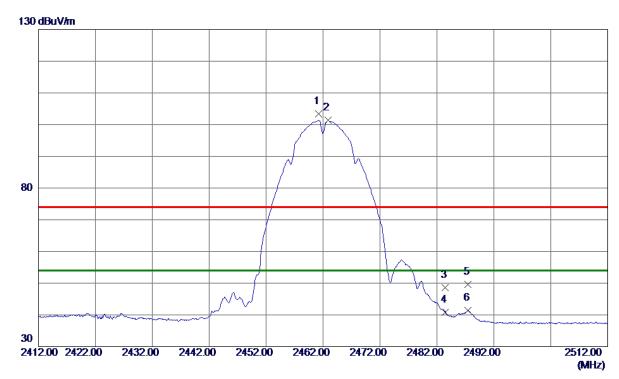


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6565. 0120	40. 77	8. 41	49. 18	74.00	-24. 82	Peak	
2 *	6565. 1530	30. 37	8. 41	38. 78	54.00	-15. 22	AVG	

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





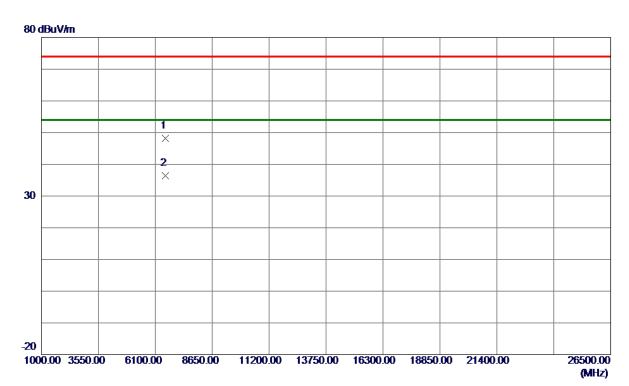


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2461. 2500	96. 19	7. 25	103. 44	74.00	29. 44	Peak	No Limit
2 *	2462. 8500	94. 24	7. 25	101. 49	54.00	47. 49	AVG	No Limit
3	2483. 5000	41. 40	7. 25	48. 65	74.00	-25. 35	Peak	
4	2483. 5000	33. 54	7. 25	40. 79	54.00	-13. 21	AVG	
5	2487. 5000	42. 26	7. 25	49. 51	74.00	-24. 49	Peak	
6	2487. 5000	34. 12	7. 25	41. 37	54.00	-12. 63	AVG	

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



To at Marala	TV D Mode 2462 MHz	Delevimeties	l lawima sakal
Test Mode	TX B Mode 2462 MHz	Polarization	Horizontal

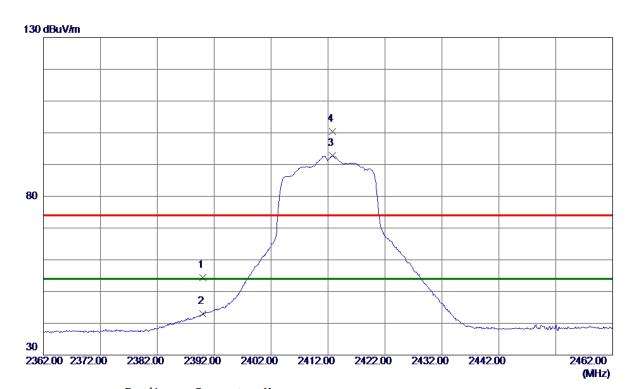


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6564. 3280	39. 79	8. 40	48. 19	74.00	-25. 81	Peak	
2 *	6565. 4260	28. 08	8. 41	36. 49	54. 00	-17. 51	AVG	

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







No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	47. 20	7. 26	54. 46	74.00	-19. 54	Peak	
2	2390. 0000	35. 82	7. 26	43.08	54.00	-10. 92	AVG	
3 *	2412. 7500	85. 59	7. 26	92. 85	54.00	38. 85	AVG	No Limit
4	2412. 8000	93. 10	7. 26	100. 36	74.00	26. 36	Peak	No Limit

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



Test Mode	TX G Mode 2412 MHz	Polarization	Vertical

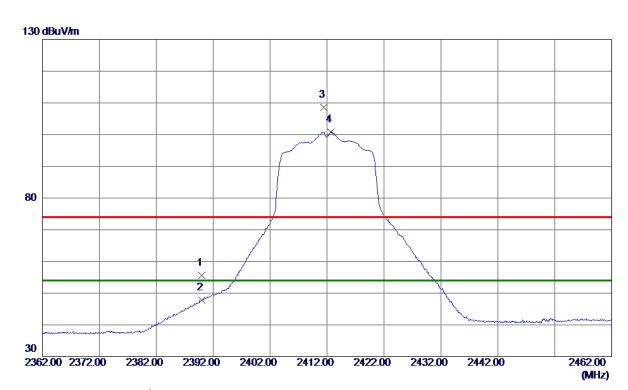


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	6431. 8860	30. 32	8. 04	38. 36	54.00	-15. 64	AVG	
2	6432, 9020	40. 18	8. 05	48. 23	74. 00	-25. 77	Peak	

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



T ( ) 4 (	TV D M I O440 MII	D 1 ' ''	
Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal

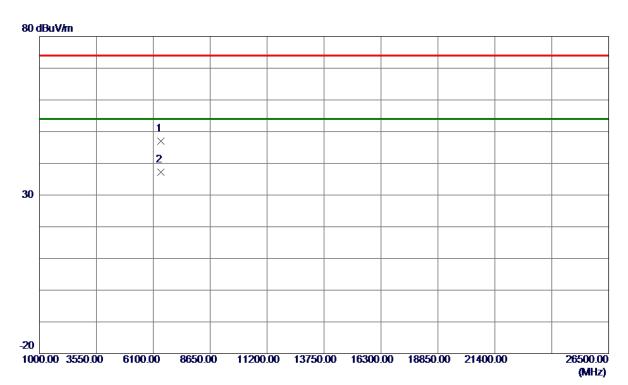


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	48. 37	7. 26	55. 63	74.00	-18. 37	Peak	
2	2390. 0000	40. 50	7. 26	47. 76	54.00	-6. 24	AVG	
3	2411. 4500	101. 33	7. 26	108. 59	74.00	34. 59	Peak	No Limit
4 *	2412. 7000	93. 56	7. 26	100.82	54.00	46.82	AVG	No Limit

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



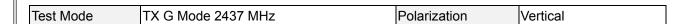
T ( ) 4 (	TV O M I O 440 MII	D 1 ' ''	
Test Mode	TX G Mode 2412 MHz	Polarization	Horizontal

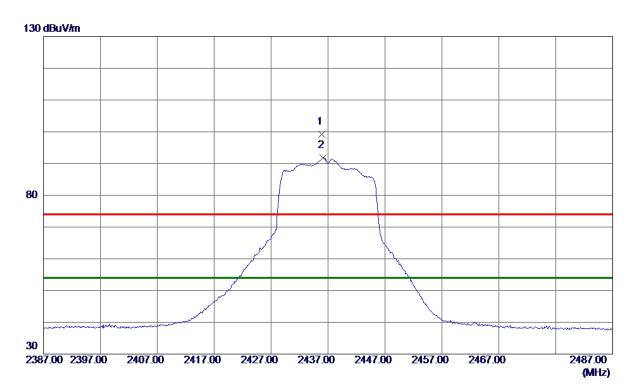


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6431. 1920	38. 95	8. 04	46. 99	74.00	-27.01	Peak	
2 *	6431. 9000	29. 11	8. 04	37. 15	54. 00	-16. 85	AVG	

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



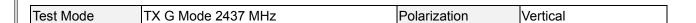




No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2435. 9000	92. 01	7. 25	99. 26	74.00	25. 26	Peak	No Limit
2 *	2436. 1500	84. 60	7. 25	91.85	<b>54</b> . <b>00</b>	37. 85	AVG	No Limit

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



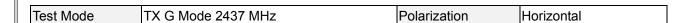


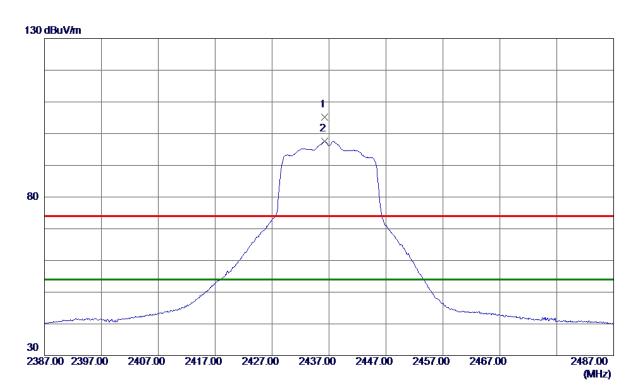


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	6498. 1830	30. 03	8. 20	38. 23	54.00	-15. 77	AVG	
2	6499. 0660	41. 20	8. 20	49. 40	74.00	-24. 60	Peak	

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





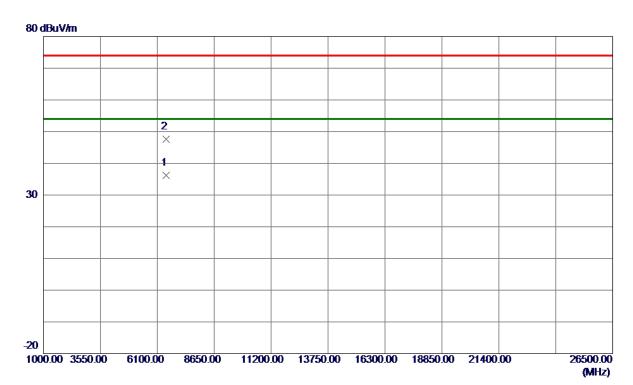


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2436. 2500	97. 94	7. 25	105. 19	74.00	31. 19	Peak	No Limit
2 *	2436, 2500	90. 39	7. 25	97. 64	54. 00	43, 64	AVG	No Limit

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



Test Mode	TX G Mode 2437 MHz	Polarization	Horizontal

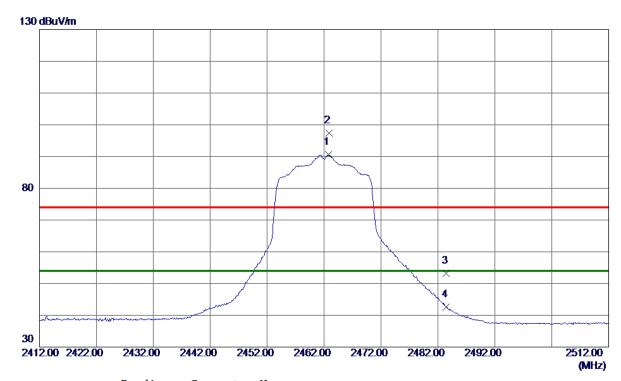


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	6498. 3550	28. 03	8. 20	36. 23	54.00	-17. 77	AVG	
2	6498. 6549	39. 48	8. 20	47. 68	74. 00	-26. 32	Peak	

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



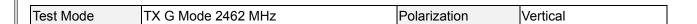
	T) ( 0 14 1 0 100 141 1	<b>5</b> :	
Test Mode	TX G Mode 2462 MHz	lPolarization	Vertical

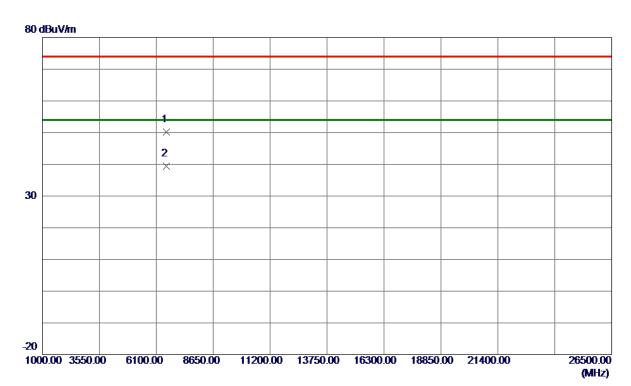


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2462. 7500	83. 26	7. 25	90. 51	54.00	36. 51	AVG	No Limit
2	2462. 8500	90. 16	7. 25	97. 41	74.00	23. 41	Peak	No Limit
3	2483. 5000	45. 88	7. 25	53. 13	74.00	-20.87	Peak	
4	2483. 5000	35. 30	7. 25	42. 55	54.00	-11. 45	AVG	

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



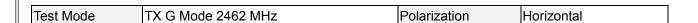


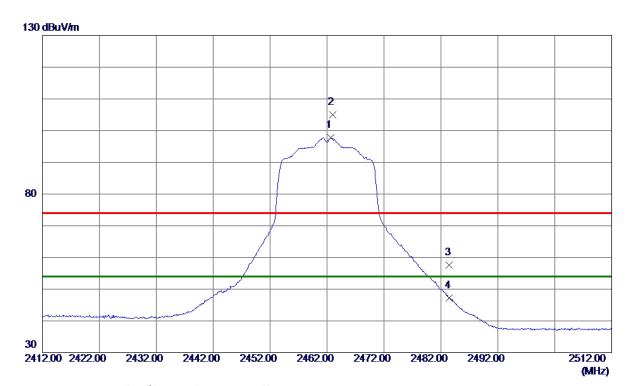


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6564. 5320	41. 70	8. 41	50. 11	74.00	-23.89	Peak	
2 *	6565. 5290	31. 05	8. 41	39. 46	54. 00	-14. 54	AVG	

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





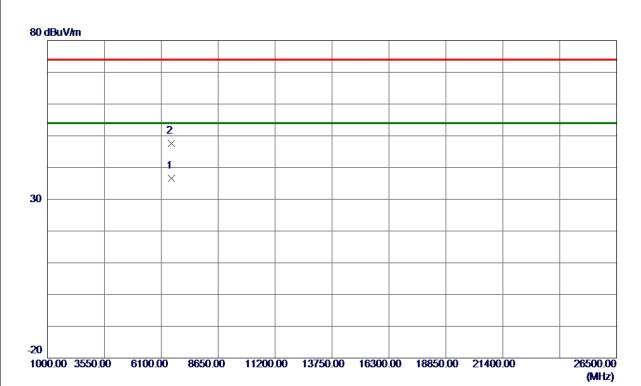


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2462. 6500	90. 50	7. 25	97. 75	54.00	43. 75	AVG	No Limit
2	2462. 9500	97. 75	7. 25	105. 00	74.00	31. 00	Peak	No Limit
3	2483. 5000	50. 31	7. 25	57. 56	74.00	-16. 44	Peak	
4	2483. 5000	39. 87	7. 25	47. 12	54.00	-6. 88	AVG	

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



Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal

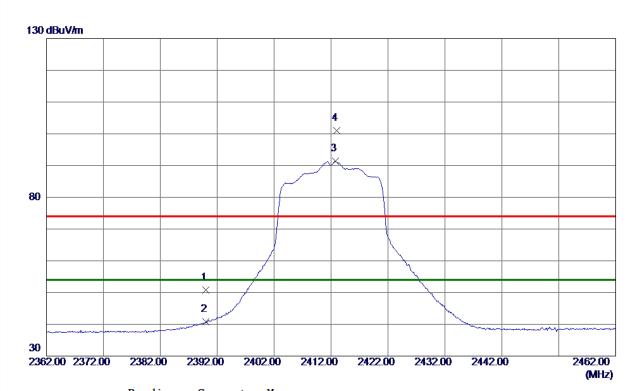


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	6565. 4790	28. 14	8. 41	36. 55	54.00	<b>−17. 45</b>	AVG	
2	6566. 2790	39. 23	8. 41	47. 64	74. 00	-26. 36	Peak	

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



Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical

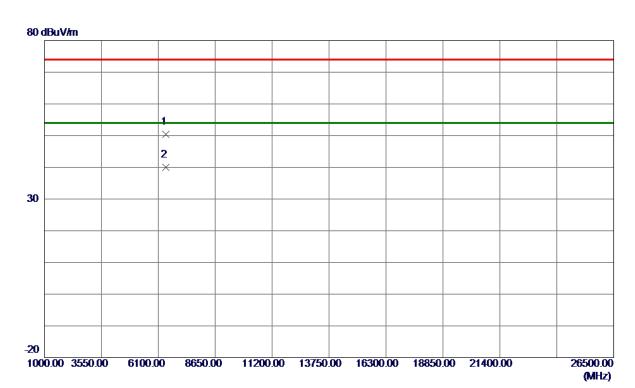


Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
2390. 0000	43.62	7. 26	50. 88	74.00	-23. 12	Peak	
2390. 0000	33. 47	7. 26	40. 73	54.00	-13. 27	AVG	
2412. 7500	84. 11	7. 26	91. 37	54.00	37. 37	AVG	No Limit
2413. 0500	93. 81	7. 26	101. 07	74. 00	27. 07	Peak	No Limit
	MHz 2390. 0000 2390. 0000 2412. 7500	Freq. Level	Hz dBuV/m dB 2390.0000 43.62 7.26 2390.0000 33.47 7.26 2412.7500 84.11 7.26	MHz         dBuV/m         dB         dBuV/m           2390.0000         43.62         7.26         50.88           2390.0000         33.47         7.26         40.73           2412.7500         84.11         7.26         91.37	MHz         dBuV/m         dB         dBuV/m         dBuV/m           2390.0000 43.62         7.26         50.88         74.00           2390.0000 33.47         7.26         40.73         54.00           2412.7500 84.11         7.26         91.37         54.00	MHz         dBuV/m         dB         dBuV/m         dB         Margin           2390.0000 43.62         7.26         50.88         74.00         -23.12           2390.0000 33.47         7.26         40.73         54.00         -13.27           2412.7500 84.11         7.26         91.37         54.00         37.37	MHz         dBuV/m         dB         dBuV/m         dBuV/m         dB         Detector           2390.0000 43.62         7.26         50.88         74.00         -23.12         Peak           2390.0000 33.47         7.26         40.73         54.00         -13.27         AVG           2412.7500 84.11         7.26         91.37         54.00         37.37         AVG

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



Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical

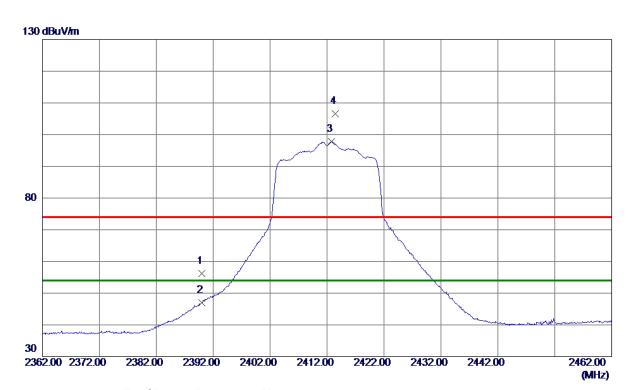


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6431. 6120	42. 41	8. 04	<b>50.45</b>	74.00	-23.55	Peak	
2 *	6432. 2639	31. 91	8. 05	39. 96	54. 00	-14. 04	AVG	

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



Test Mode	TX N(HT20) Mode 2412 MHz	lPolarization	lHorizontal
103t Wood	TIX N(TITEO) WOOC 24 12 WILL	i Olarization	i ionzontai

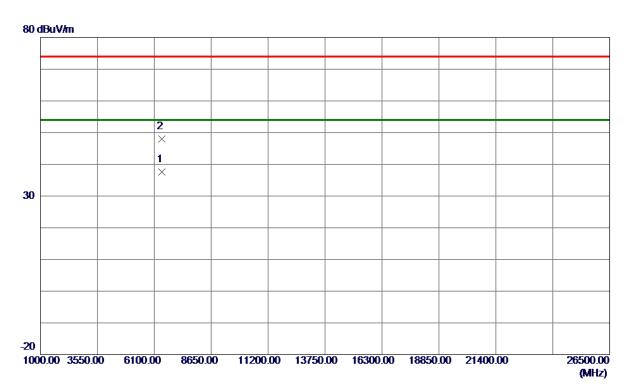


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390. 0000	48. 88	7. 26	56. 14	74.00	-17. 86	Peak	
2	2390. 0000	39. 65	7. 26	46. 91	54.00	-7. 09	AVG	
3 *	2412. 7500	90. 48	7. 26	97. 74	54.00	43. 74	AVG	No Limit
4	2413. 4500	99. 38	7. 26	106. 64	74.00	32. 64	Peak	No Limit

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



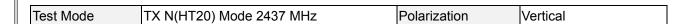
Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Horizontal

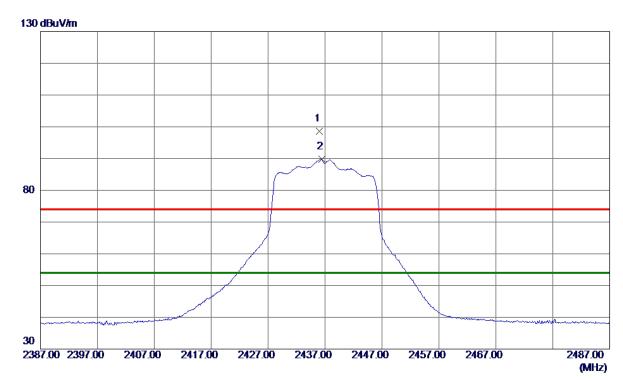


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	6432. 0830	29. 59	8. 05	37. 64	54. 00	-16. 36	AVG	
2	6432. 1469	40. 01	8. 05	48. 06	74. 00	-25. 94	Peak	

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



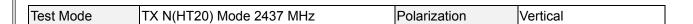


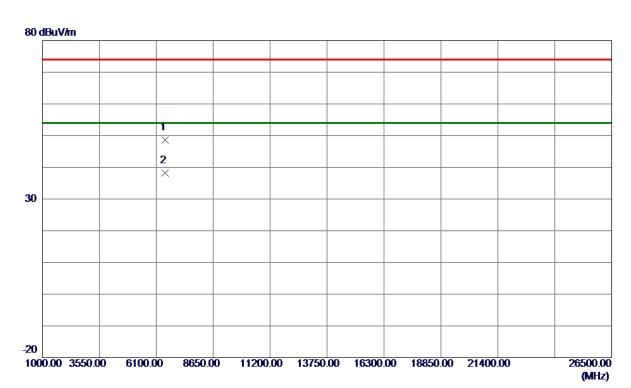


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2436. 0000	91. 36	7. 25	98. 61	74.00	24. 61	Peak	No Limit
2 *	2436. 4500	82. 57	7. 25	89. 82	54.00	35. 82	AVG	No Limit

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



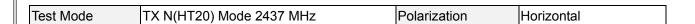


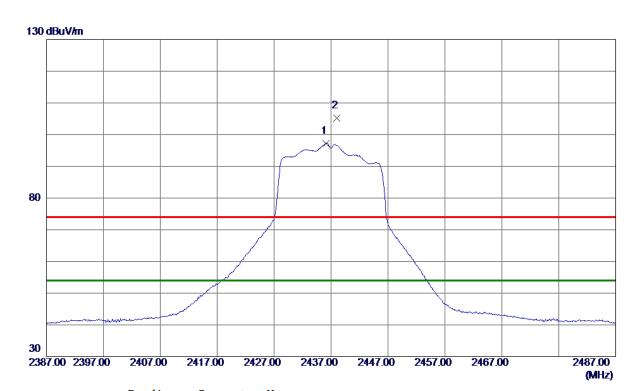


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6499. 1490	40. 31	8. 20	48. 51	74.00	-25.49	Peak	
2 *	6499. 2200	30. 04	8. 20	38. 24	54. 00	-15. 76	AVG	

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





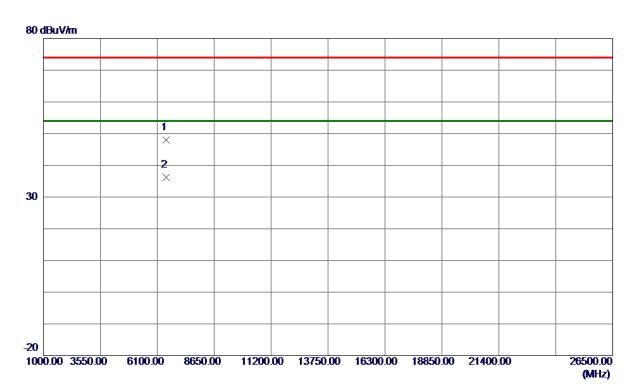


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2436. 1500	89. 92	7. 25	97. 17	54.00	43. 17	AVG	No Limit
2	2438. 0500	98. 04	7. 25	105. 29	74.00	31. 29	Peak	No Limit

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



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

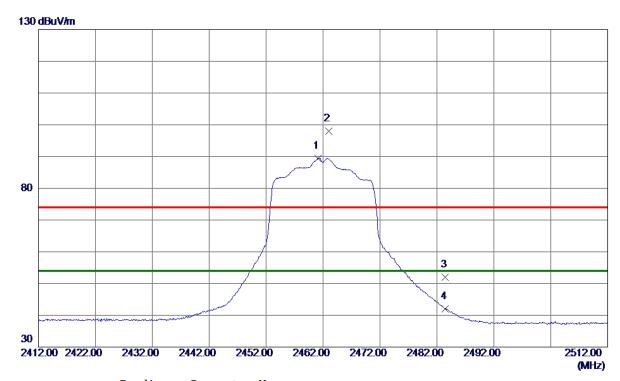


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6498. 5950	39. 75	8. 20	47. 95	74.00	-26. 05	Peak	
2 *	6499. 5790	28. 03	8. 20	36. 23	54.00	-17. 77	AVG	

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



Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Vertical

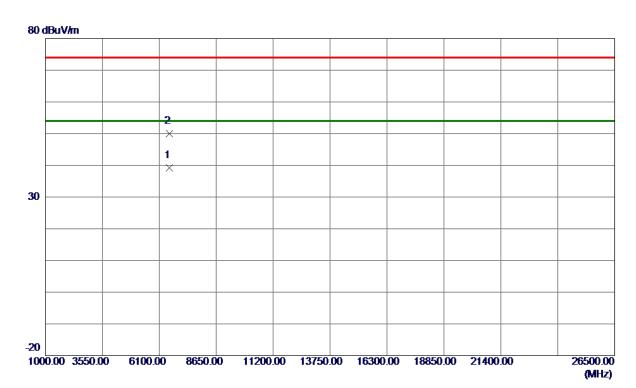


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2461. 1000	82. 18	7. 25	89. 43	54.00	35. 43	AVG	No Limit
2	2463.0500	90. 74	7. 25	97. 99	74.00	23. 99	Peak	No Limit
3	2483. 5000	44. 72	7. 25	51. 97	74.00	-22. 03	Peak	
4	2483. 5000	34. 84	7. 25	42. 09	54.00	-11. 91	AVG	

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



Test Mode	TX N(HT20) Mode 2462	MHz	Polarization	Vertical I
103t Wood	17 14(11120) WOUL 2702	IVII IZ	i olarization	VCITICAI

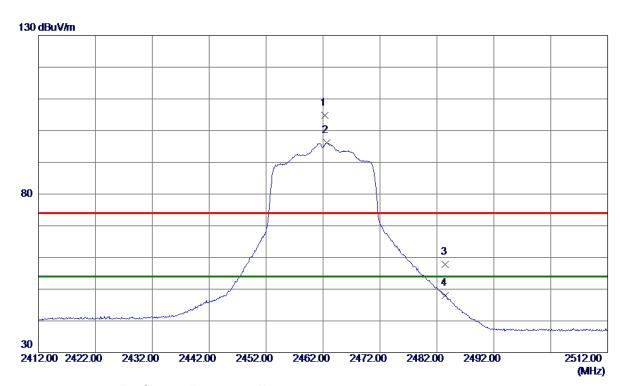


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	6564. 8610	30. 85	8. 41	39. 26	54.00	-14. 74	AVG	
2	6564. 8940	41. 67	8. 41	50. 08	74.00	-23. 92	Peak	

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



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116	est Mode	LLX N(H120)	) Mode 2462 MHz	lPolarization	lHorizontal
	JOL IVIOUC	177 14(11120	INIOGE ZTOZ IVII IZ	1 Oldrization	i ionzontai

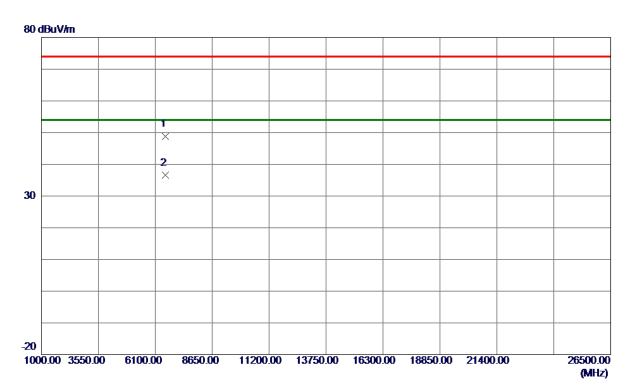


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2462. 3500	97. 62	7. 25	104. 87	74.00	30. 87	Peak	No Limit
2 *	2462. 6500	88. 90	7. 25	96. 15	54.00	42. 15	AVG	No Limit
3	2483. 5000	50. 47	7. 25	57. 72	74.00	-16. 28	Peak	
4	2483. 5000	40. 73	7. 25	47. 98	54. 00	-6. 02	AVG	

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



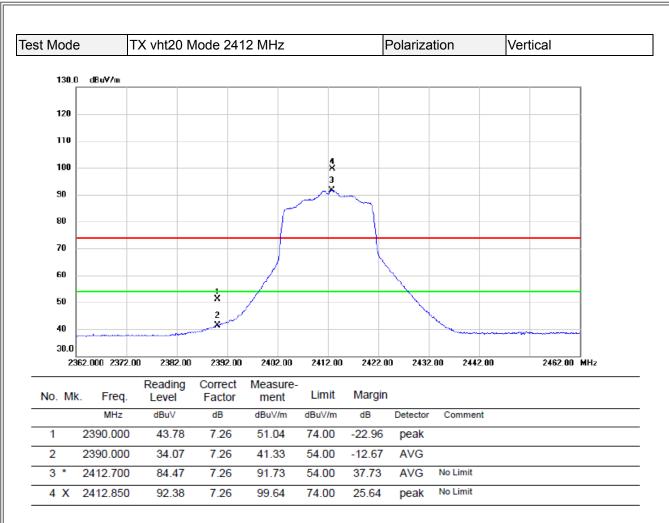
_					
116	est Mode	LLX N(H120)	) Mode 2462 MHz	lPolarization	lHorizontal
	JOL IVIOUC	177 14(11120	INIOGE ZTOZ IVII IZ	1 Oldrization	i ionzontai



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	6565. 5600	40. 45	8. 41	48. 86	74.00	-25. 14	Peak	
2 *	6566. 0170	28. 09	8. 41	36. 50	54. 00	-17.50	AVG	

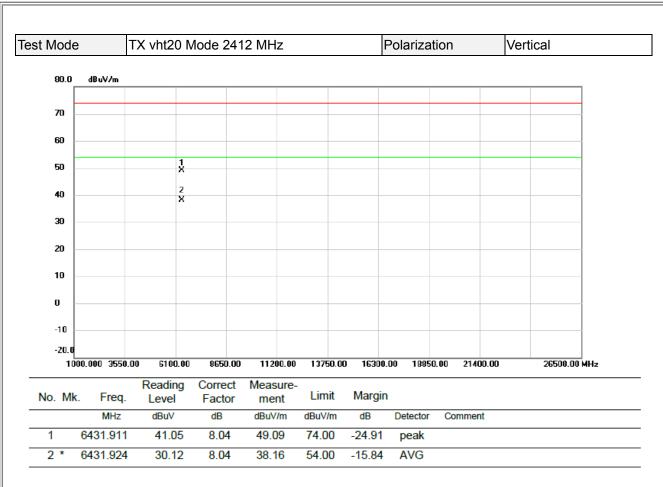
- (1) Measurement Value = Reading Level + Correct Factor.(2) Margin Level = Measurement Value Limit Value.





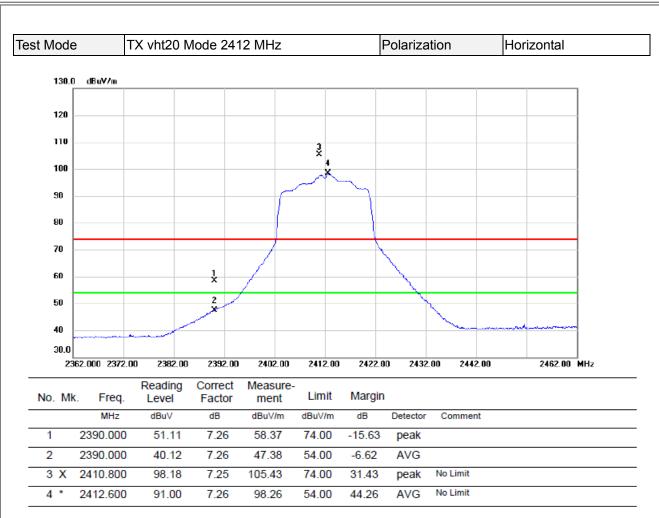
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





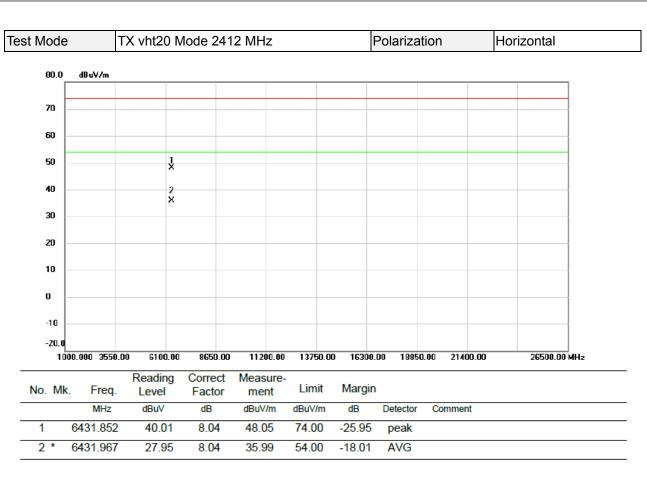
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





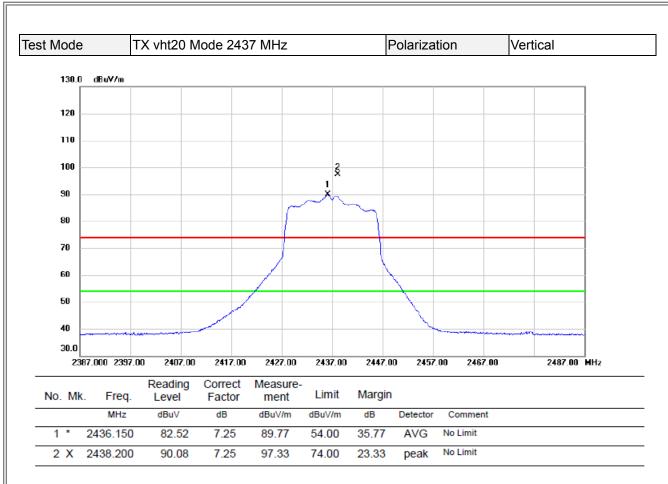
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





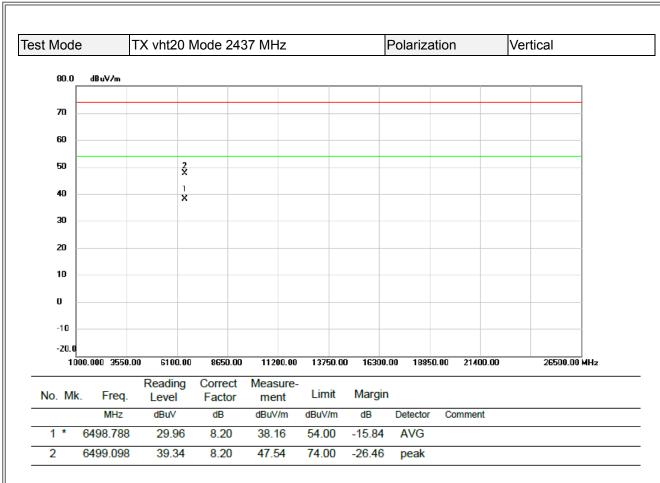
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





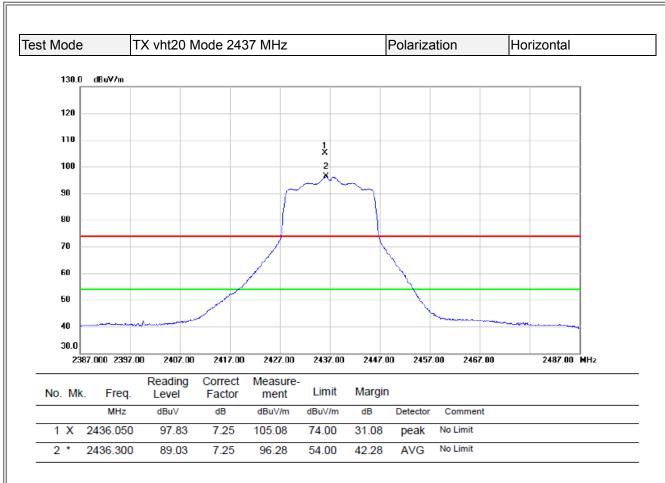
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





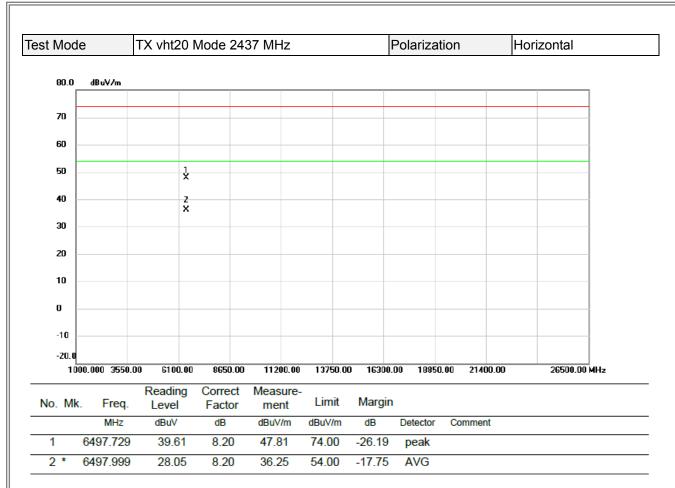
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





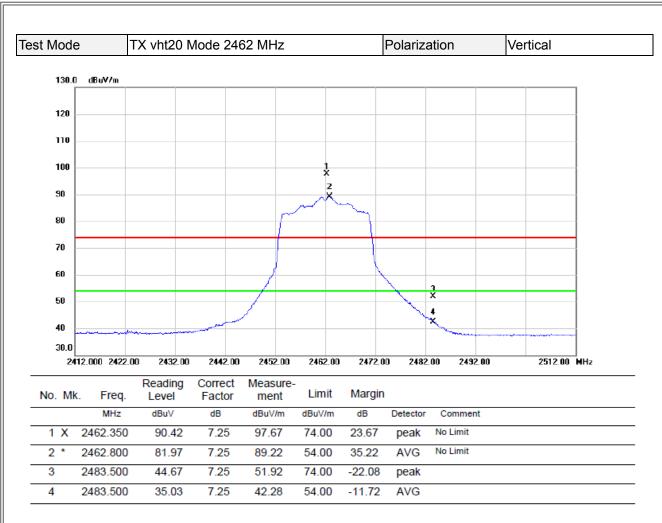
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





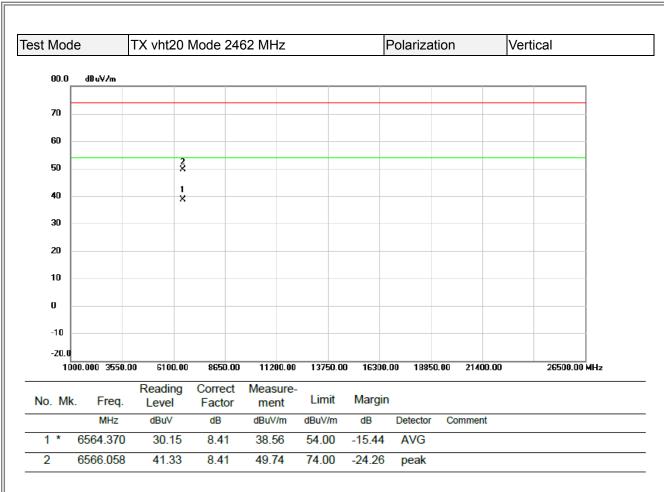
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





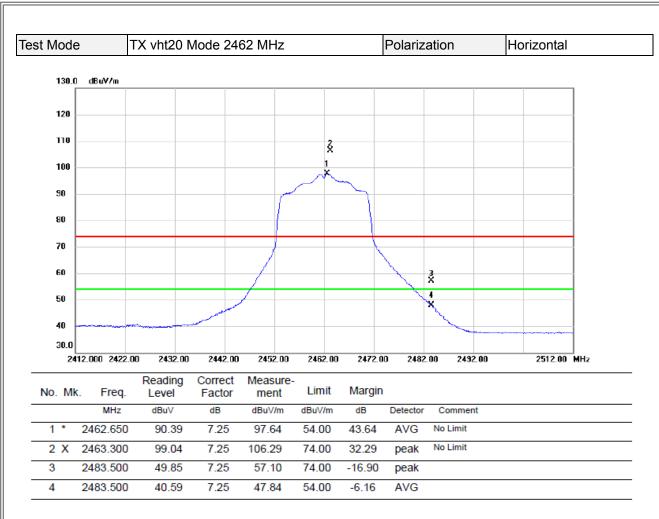
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





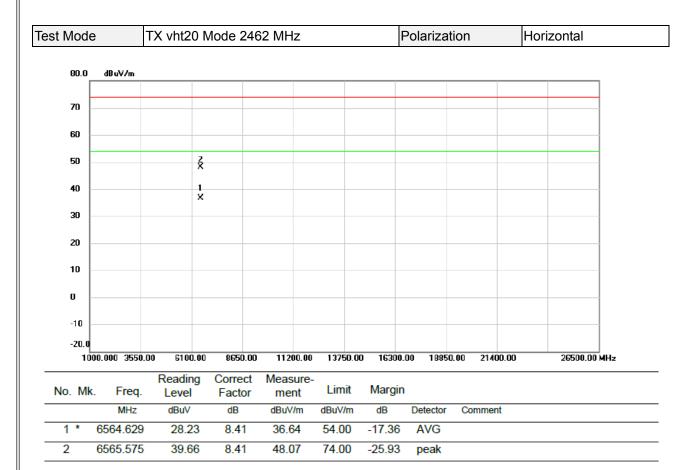
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





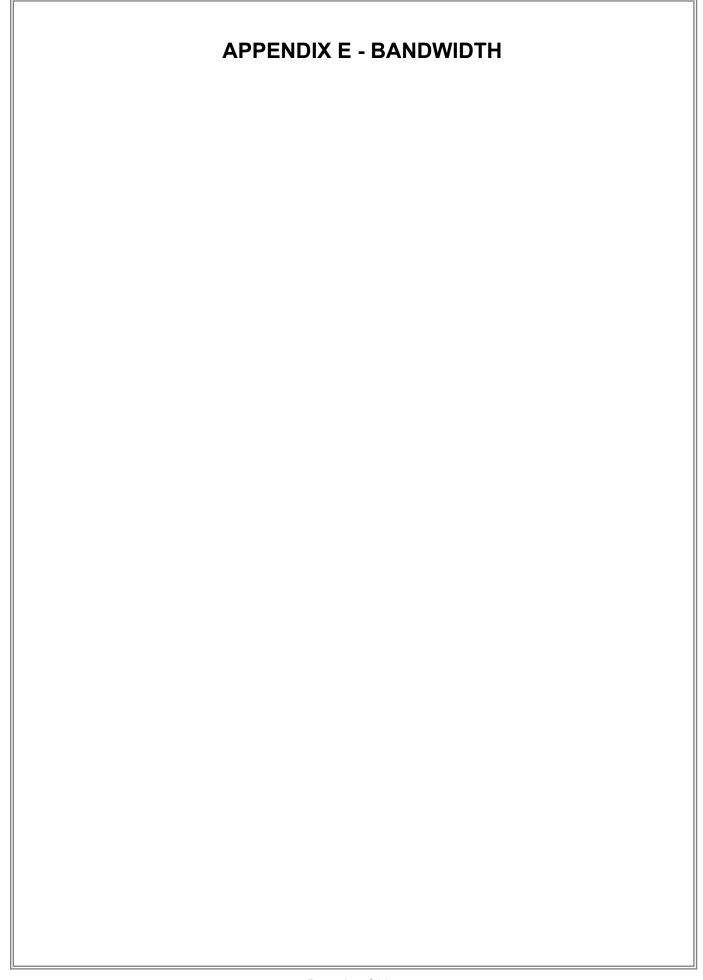
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value Limit Value.





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

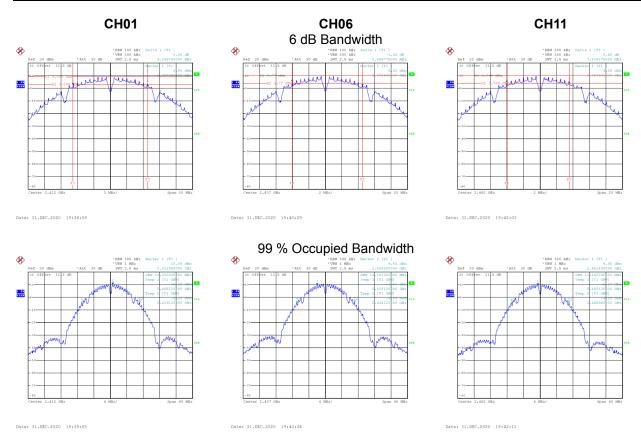






Test Mode	TX B Mode
TEST MICHE	I I V D IVIOUC

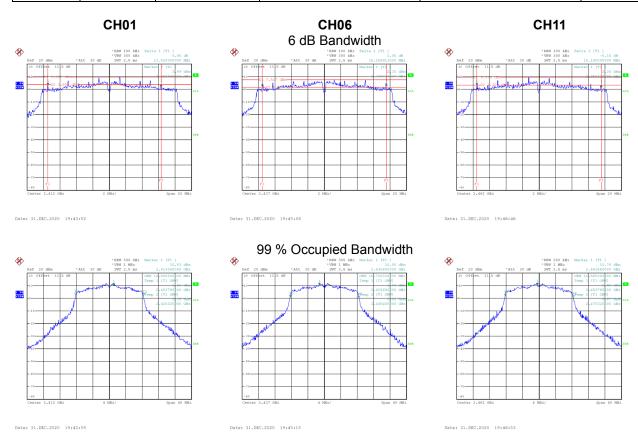
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	9.11	14.00	0.5	Complies
06	2437	8.60	14.00	0.5	Complies
11	2462	7.64	13.84	0.5	Complies





Test Mode	TX G Mode
103t Wood	I A O MOGC

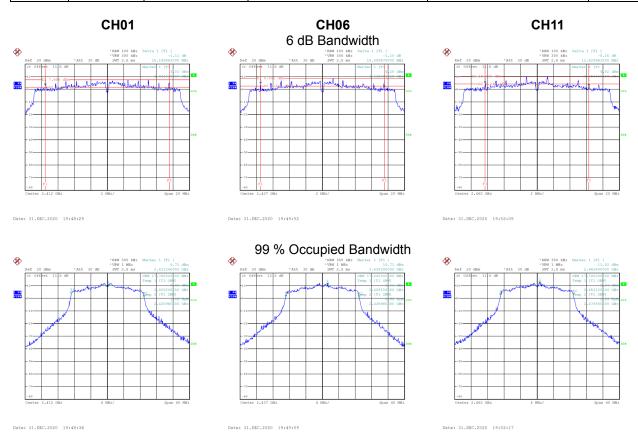
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	13.82	16.56	0.5	Complies
06	2437	15.16	16.72	0.5	Complies
11	2462	15.14	16.56	0.5	Complies





Test Mode	TX N(HT20)	) Mode
163t Widde	17/11/11/20	, ivioue

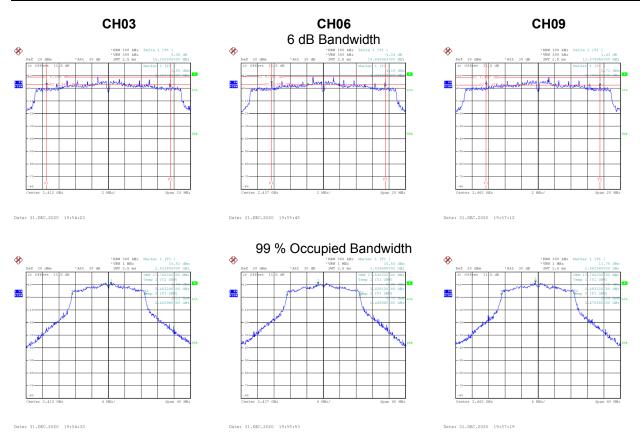
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	15.15	17.76	0.5	Complies
06	2437	15.10	17.84	0.5	Complies
11	2462	12.63	17.76	0.5	Complies





Test Mode TX vht20 Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
03	2412	15.10	17.76	0.5	Complies
06	2437	13.90	17.84	0.5	Complies
09	2462	13.88	17.76	0.5	Complies





# **APPENDIX F - MAXIMUM OUTPUT POWER**



Test Mode	TX B Mode

Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.22	0.00	19.22	30.00	1.0000	Complies
06	2437	19.11	0.00	19.11	30.00	1.0000	Complies
11	2462	19.14	0.00	19.14	30.00	1.0000	Complies

## Test Mode TX G Mode

Channel	Frequency (MHz)	Avg Output Power (dBm)		Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.11	0.00	16.11	30.00	1.0000	Complies
06	2437	16.23	0.00	16.23	30.00	1.0000	Complies
11	2462	16.04	0.00	16.04	30.00	1.0000	Complies

## Test Mode TX N(HT20) Mode

Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	11/12/4   11/11/11	Max. Limit (W)	Result
01	2412	15.57	0.00	15.57	30.00	1.0000	Complies
06	2437	15.68	0.00	15.68	30.00	1.0000	Complies
11	2462	15.61	0.00	15.61	30.00	1.0000	Complies

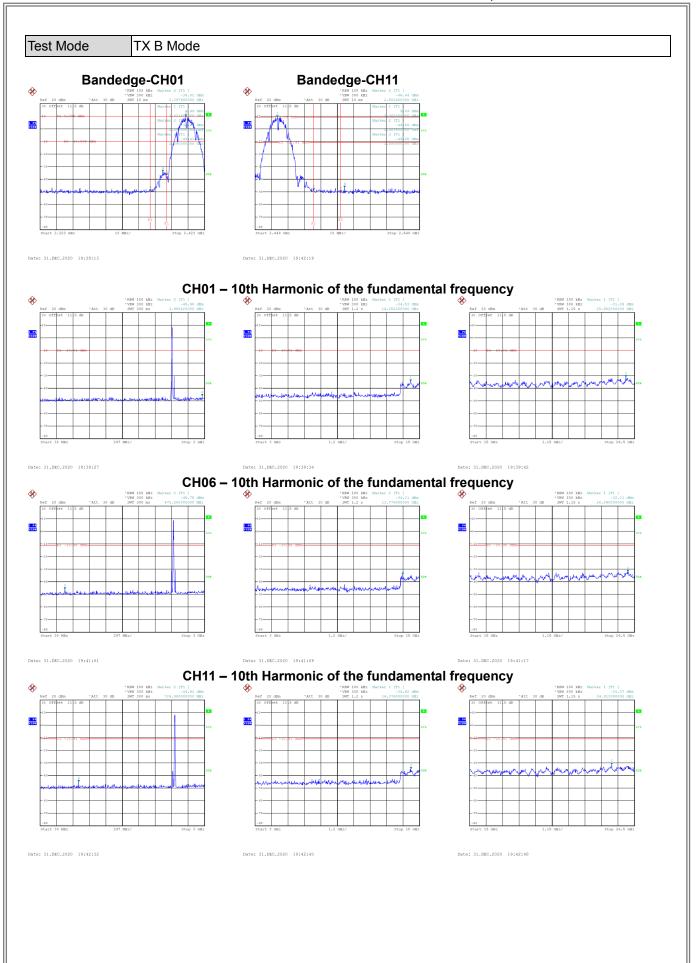
## Test Mode TX vht20 Mode

Channel	Frequency (MHz)	Avg Output Power (dBm)	I I )   T\/	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2412	15.39	0.00	15.39	30.00	1.0000	Complies
06	2437	15.58	0.00	15.58	30.00	1.0000	Complies
09	2462	15.45	0.00	15.45	30.00	1.0000	Complies

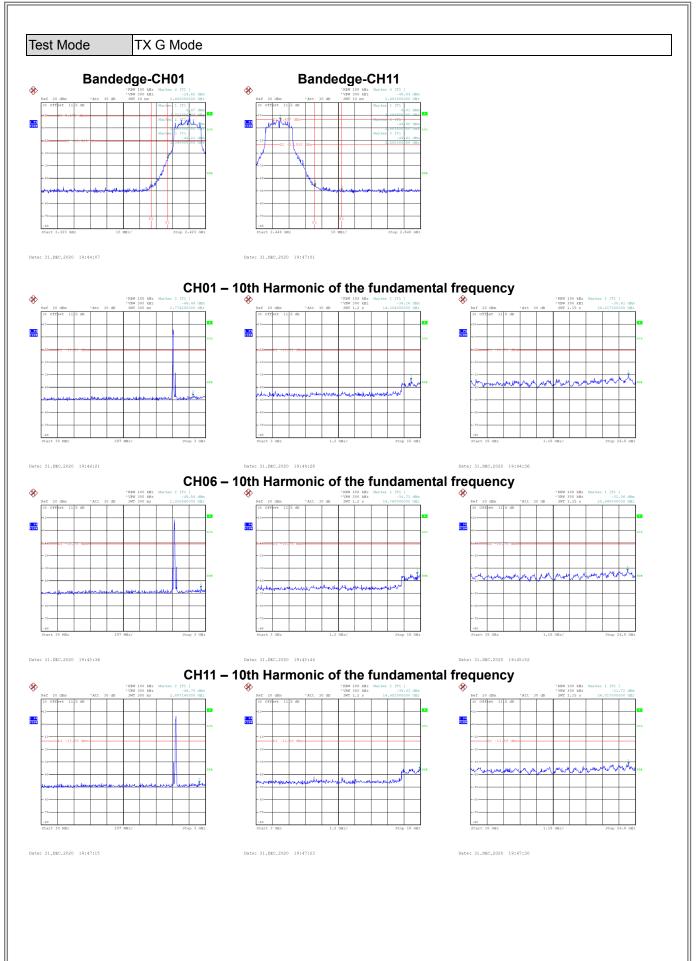


АРГ	PENDIX G - CONDUCTED SPURIOUS EMISSIONS

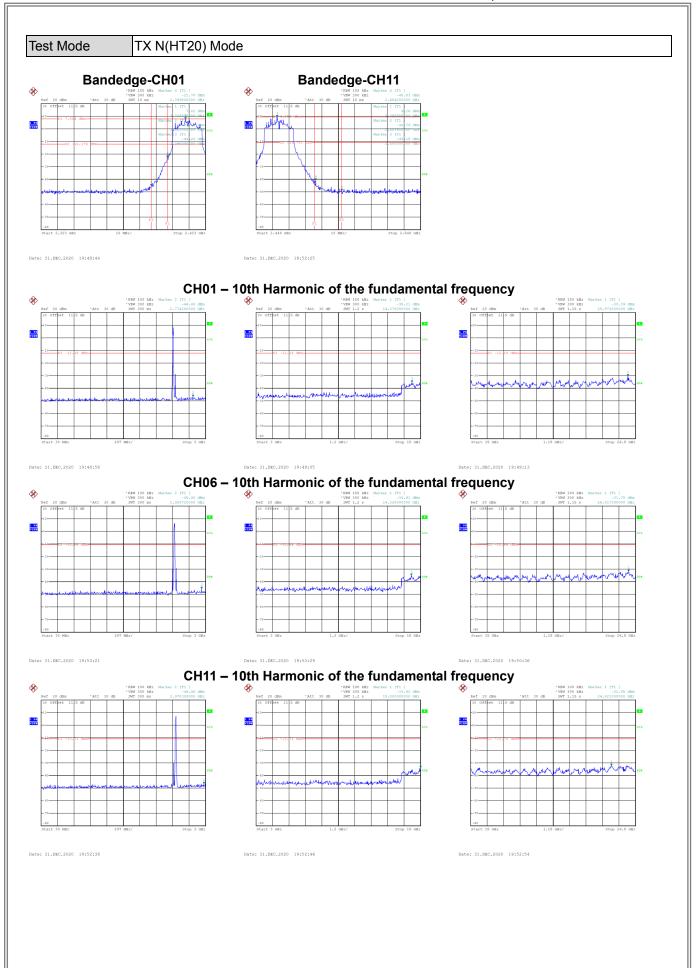




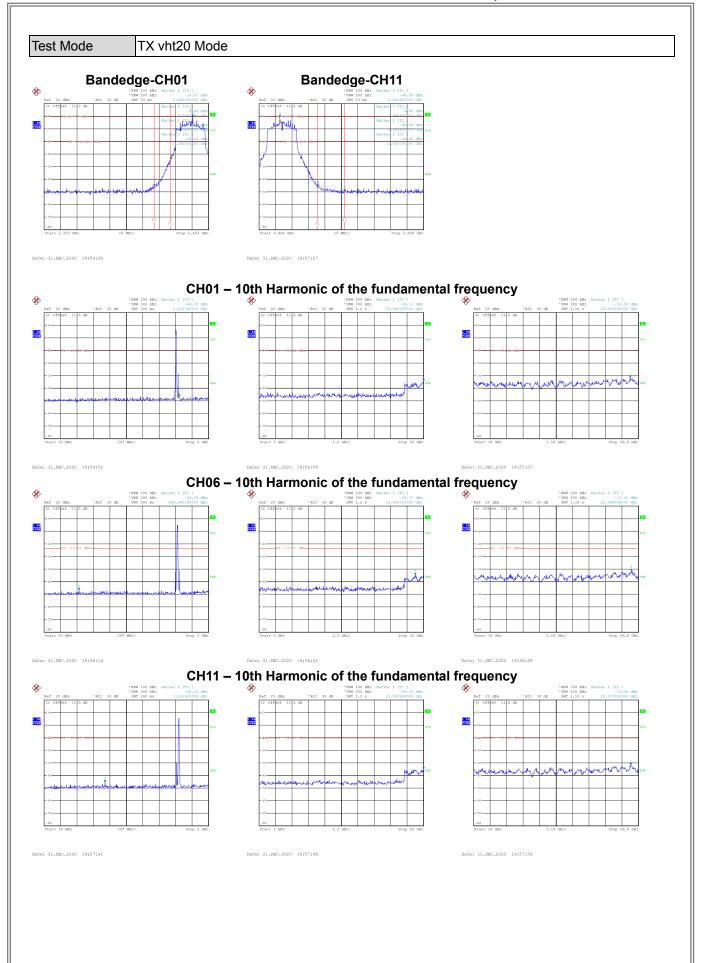














# **APPENDIX H - POWER SPECTRAL DENSITY**



Test Mode	TX B Mode
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-4.82	8.00	Complies
06	2437	-5.24	8.00	Complies
11	2462	-5.06	8.00	Complies



Test Mode	TX G Mode
TEST MORE	

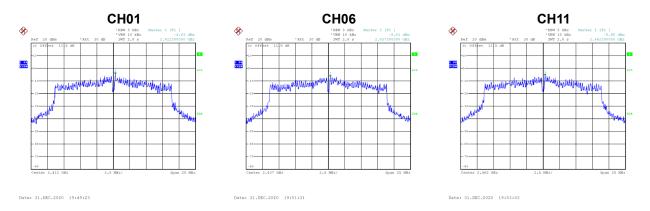
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.86	8.00	Complies
06	2437	-4.58	8.00	Complies
11	2462	-6.15	8.00	Complies





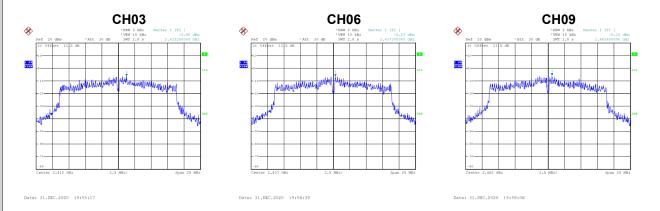
Test Mode	TX N(HT20	) Mode
100t Wood	177 14(11120	, iviouc

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-4.83	8.00	Complies
06	2437	-6.81	8.00	Complies
11	2462	-5.95	8.00	Complies



Test Mode	TX vht20 Mode

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2412	-5.98	8.00	Complies
06	2437	-6.23	8.00	Complies
09	2462	-5.23	8.00	Complies



### **End of Test Report**