

FCC Radio Test Report

FCC ID: 2A5CV-RH-009

The report concerns: Original Grant				
Report Reference No:	24EFSS11090 05351			
Date Sample(s) Received:	2025-02-17			
Date of Tested:	From 2025-02-17 to 2025-03-22			
Date of issue	2025-04-02			

Testing Laboratory	.:
Address	

Applicant's name	:
Address	:
Manufacturer	:

Equipment	:
Trade Mark	:
Model	:
Ratings	:

DongGuanShuoXin Electronic Technology Co., Ltd. Zone A, 1F, No. 6, XinGang Road YuanGang Street, XinAn District, ChangAn Town, DongGuan City, GuangDong, China

Huizhou Ronghui Technology Co., Ltd
Liboshui No.1 Industrial Zone, Shiwan Town, Boluo
County, Huizhou City, Guangdong Province, China
Huizhou Ronghui Technology Co., Ltd

Wireless Controller for RH-009

RH-009 I/P: 5Vdc, 500mA

/

Test Engineer:

Jelene On Hang

Jelena OuYang

Leo Chen

Leo Chen Smile Womg Smile Wang

Responsible Engineer :

Authorized Signatory:



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1. TEST REPORT DECLARE

Applicant	Huizhou Ronghui Technology Co., Ltd
Address	Liboshui No.1 Industrial Zone, Shiwan Town, Boluo County, Huizhou City, Guangdong Province, China
Manufacturer	Huizhou Ronghui Technology Co., Ltd
Address	Liboshui No.1 Industrial Zone, Shiwan Town, Boluo County, Huizhou City, Guangdong Province, China
Factory	Huizhou Ronghui Technology Co., Ltd
Address	Liboshui No.1 Industrial Zone, Shiwan Town, Boluo County, Huizhou City, Guangdong Province, China
Equipment	Wireless Controller for RH-009
Model No.	RH-009
Trade Mark	/
Standard	FCC Part15, Subpart C (15.247) ANSI C63.10-2013

We Declare:

The equipment described above is tested by DongGuanShuoXin Electronic Technology Co., Ltd(ATT). and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and DongGuanShuoXin Electronic Technology Co., Ltd.(ATT) is assumed of full responsibility for the accuracy and completeness of these tests.

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

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



2. SUMMARY OF TEST RESULTS

The EUT have been tested according to the applicable standards as referenced below:

Standard(s) Section	Test Item	Judgment	Remark
15.207	AC Power Line Conducted Emissions	PASS	
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions PASS		
15.247(a)(2)	Bandwidth	PASS	
15.247(b)(3)	Maximum Output Power	PASS	
15.247(d)	Conducted Spurious Emission	PASS	
15.247(e)	Power Spectral Density	PASS	
15.203	Antenna Requirement PASS Not		Note(2)

Note:

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

2.1 MEASUREMENT UNCERTAINTY

Test Item	Uncertainty
Uncertainty for Conduction emission test (9kHz-150kHz)	3.7 dB
Uncertainty for Conduction emission test (150kHz-30MHz)	3.3 dB
Upportainty for Padiation Emission test (201447, 200147)	4.60 dB (Polarize: V)
Uncertainty for Radiation Emission test (30MHz-200MHz)	4.60 dB (Polarize: H)
Lineartaint, far Dadiation Emission test (2000/11- 4011-)	6.10 dB (Polarize: V)
Uncertainty for Radiation Emission test (200MHz-1GHz)	5.08 dB (Polarize: H)
	5.01 dB (Polarize: V)
Uncertainty for Radiation Emission test (1GHz-6GHz)	5.01 dB (Polarize: H)
	5.26 dB (Polarize: V)
Uncertainty for Radiation Emission test (6GHz-18GHz)	5.26 dB (Polarize: H)
Line entriety (an De disting Envirois y (act (4001) - 40011)	5.06 dB (Polarize: V)
Uncertainty for Radiation Emission test (18GHz-40GHz)	5.06 dB (Polarize: H)
Uncertainty for radio frequency	±0.048kHz
Uncertainty for conducted RF Power ±0.32dB	

Note:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test Facility:

The Test site used by DongGuanShuoXin Electronic Technology Co., Ltd. to collect test data is located on the Zone A, 1F, No. 6, XinGang Road YuanGang Street, XinAn District, ChangAn Town, DongGuan City, GuangDong, China

The test facility is recognized, certified, or accredited by the following organizations:

Item	Registration No.	Expiration Date
CNAS	L3098	2030-08-27
A2LA	4893.01	2026-06-30
Innovation, Science and Economic Development Canada (ISED)	11033A	2026-06-30
Federal Communications Commission (FCC)	171688 Designation No.:CN1235	2026-06-30



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless Controller for RH-009		
Brand Name	/		
Test Model	RH-009		
Series Model	N/A		
Model Difference(s)	N/A		
Hardware Version	1.0		
Software Version	1.0		
Power Source	USB		
Power Rating	I/P: 5Vdc, 500mA		
Operation Frequency	2412 MHz~ 2462 MHz		
Modulation Technology	IEEE 802.11b:DSSS IEEE 802.11g:OFDM IEEE 802.11n:OFDM		
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps		
Operating Mode	IEEE 802.11b: TX IEEE 802.11g: TX IEEE 802.11n (HT20): TX		
Antenna Information	Antenna Type: PIFA Maximum Peak Gain:1.14dBi (Provide by manufacturer)		
Max. Output Power	IEEE 802.11b: 7.31dBm(0.005383W) IEEE 802.11g: 7.65dBm(0.005821W) IEEE 802.11n (HT20): 7.87dBm(0.006124W)		

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		

3.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description	
Mode 1	TX B Mode Channel 01/06/11	
Mode 2	TX G Mode Channel 01/06/11	
Mode 3	TX N-20 MHz Mode Channel 01/06/11	
Mode 4	TX N-20 MHz Mode Channel 06	

Following mode(s) as (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test			
Final Test Mode Description			
Mode 4	TX N-20 MHz Mode Channel 06		

Radiated emissions test - Below 1GHz			
Final Test Mode Description			
Mode 4	TX N-20 MHz Mode Channel 06		

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-20 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-20 MHz Mode Channel 01/06/11			



NOTE:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1Mbps)
 - 802.11g mode: OFDM (6Mbps)
 - 802.11n HT20 mode: BPSK (13Mbps)
 - For radiated emission tests, the highest output powers were set for final test.

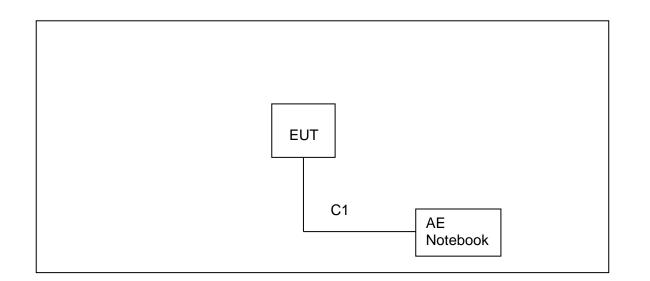
(3) For radiated emission below 1GHzand AC power line conducted emissions test, the IEEE 802.11n20 channel 06 is found to be the worst case and recorded.

3.3 PARAMETERS OF TEST SOFTWARE

Test Software	iComm_HW_Tool_1.3.5			
Frequency (MHz)	2412 2437 2462			
IEEE 802.11b	Default	Default		
IEEE 802.11g	Default Default De		Default	
IEEE 802.11n (HT20)	Default Default Default			



3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.5 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
AE	Notebook	Lenovo	/	/

Item	Cable Type Shielded Type Ferrite Core Lengt		Length	
C1	DC Cable	NO	NO	0.8m

3.6 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage
AC Power Line Conducted Emissions	25°C	53%	DC 5V (AC 120V/60Hz)
Radiated Emissions-9K-30MHz	25°C	60%	DC 5V
Radiated Emissions-30 MHz to 1GHz	24.6°C	53%	DC 5V
Radiated Emissions-Above 1000 MHz	24.1°C	42%	DC 5V
Bandwidth	24.8°C	40.9%	DC 5V
Maximum Output Power	24.8°C	40.9%	DC 5V
Conducted Spurious Emission	24.8°C	40.9%	DC 5V
Power Spectral Density	24.8°C	40.9%	DC 5V



3.7 DUTY CYCLE

All tests were performed under the condition of 100% Duty Cycle

NOTE:

For IEEE 802.11b, IEEE 802.11g IEEE 802.11n (HT20)

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



4. AC POWER LINE CONDUCTED EMISSIONS TEST

4.1 LIMIT

	Limit (dBµV)		
Frequency of Emission (MHz)	Quasi-peak	Average	
0.15 -0.50	66to 56*	56 to 46*	
0.50 -5.0	56	46	
5.0 -30.0	60	50	

NOTE:

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

The following table is the setting of the receiver

Receiver Parameters	Setting	
Attenuation	10 dB	
Start Frequency	0.15 MHz	
Stop Frequency	30 MHz	
IF Bandwidth	9 kHz	

4.2 TEST PROCEDURE

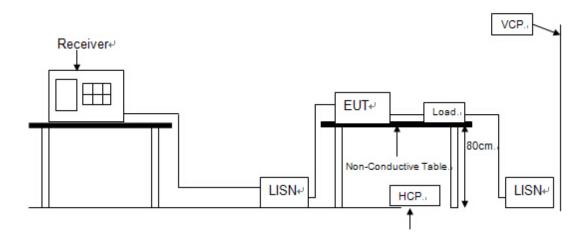
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.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

4.3 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Pulse Limiter	MTS-systemtec hnik	MTS-IMP-136	261115-010-0024	11/17/2025
2	EMI Test Receiver	R&S	ESCI	101308	06/05/2025
3	LISN	AFJ	LS16	16011103219	06/05/2025
4	LISN	Schwarzbeck	NSLK 8127	8127-432	06/05/2025
5	Measurement Software	Farad	EZ-EMC (Ver.ATT-03A)	N/A	N/A



4.4 TESTSETUP

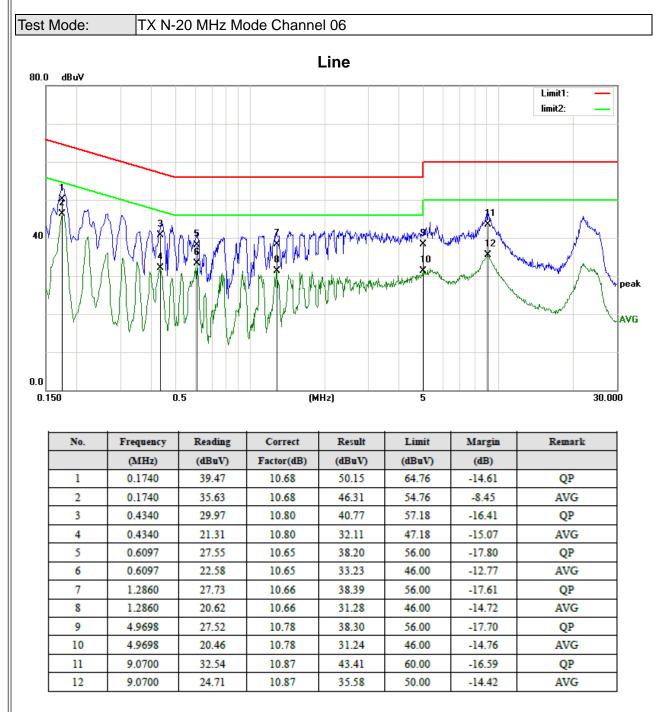


4.5 EUT OPERATION CONDITIONS

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



4.6 TEST RESULTS

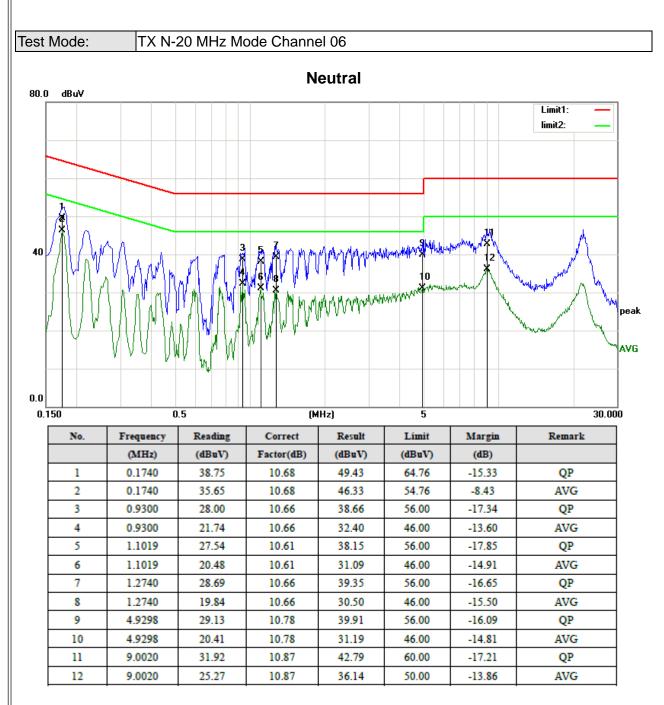


Remarks:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.





Remarks:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.



5. RADIATED EMISSIONSTEST

5.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a) and RSS-Gen 8.10, then the 15.209(a) and RSS-Gen 8.9 limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000MHz)

Frequency	Field Strength Measurement Dista	
(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 (9 kHz-30 MHz)

Frequency	Magnetic field strength (H-Field)	Measurement Distance	
(MHz)	(µA/m)	(meters)	
0.009-0.490	6.37/F(kHz)	300	
0.490-1.705	6.37/F(kHz)	30	
1.705-30.0	0.08	30	

LIMITS OF RADIATED EMISSION MEASUREMENT (30 MHz-1000MHz)

Frequency	Field Strength
(MHz)	(µV/m at 3m)
30-88	100
88-216	150
216-960	200
Above 960	500

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

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

NOTE:

(1) The limit for radiated test was performed according to FCC PART 15C and RSS-247.

- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).



5.2 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- 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 1GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- 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 1GHz)
- 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 1GHz)
- i. The test result is calculated as the following:
 - (1) Result = Reading + Correct Factor
 - (2) Correct Factor = Antenna Factor + Cable Loss Amplifier Gain + Attenuator
 - (3) Margin = Result Limit

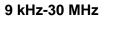
Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW	1MHz / 3MHz for Peak,
(Emission in restricted band)	1MHz / 1/T for Average

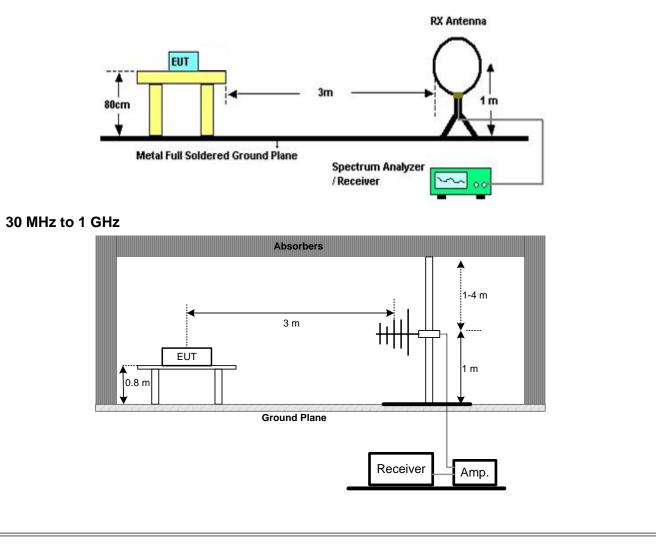
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	101307	06/05/2025
2	Spectrum Analyzer	Agilent	E4407B	US40240708	11/17/2025
3	Loop antenna	SCHWARZBECK K	FMZB1519	1519-062	03/30/2025
4	Broadband antenna	SCHWARZBECK	VULB9168	VULB9168-192	03/29/2025
5	HORN ANTENNA	SCHWARZBECK	BBHA9120D	9120D 1065	03/29/2025
6	Preamplifier Amplifier	HP	8447F	3113A05680	11/17/2025
7	PRE-AMPLIFIER	EMEC	EM01G26G	980136	03/29/2025
8	RF Cable	R&S	Test Cable 4	4	11/17/2025
9	RF Cable	R&S	Test Cable 5	5	11/17/2025
10	RF Cable	R&S	Test Cable 9	9	04/17/2025
11	RF Cable	R&S	Test Cable 10	10	04/17/2025
12	Measurement Software	Farad	EZ-EMC (Ver.ATT-03A)	N/A	N/A

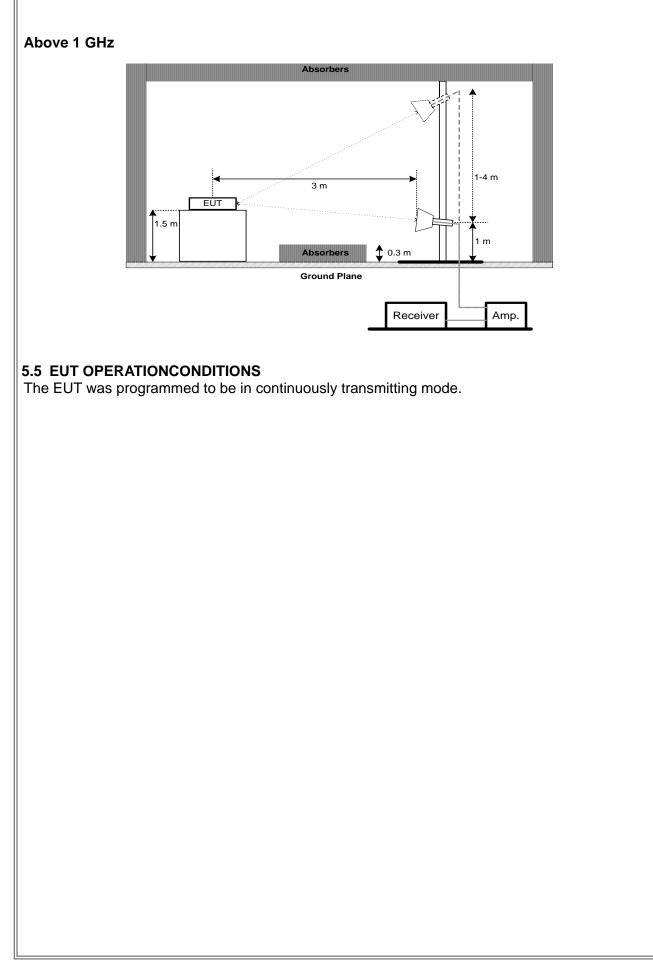
5.3 MEASUREMENT INSTRUMENTS LIST

5.4 TESTSETUP











5.6 TEST RESULTS - 9kHz TO 30MHz

Test Mode:

TX N-20 MHz Mode Channel 06

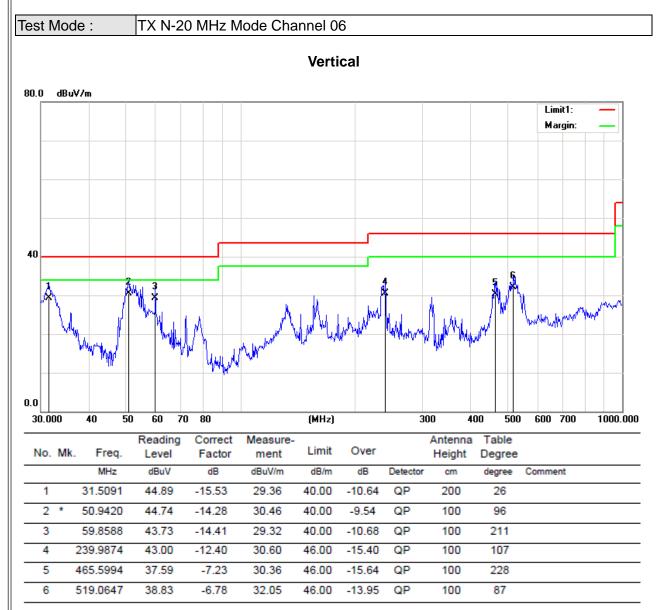
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
				Р
				Р

Note:

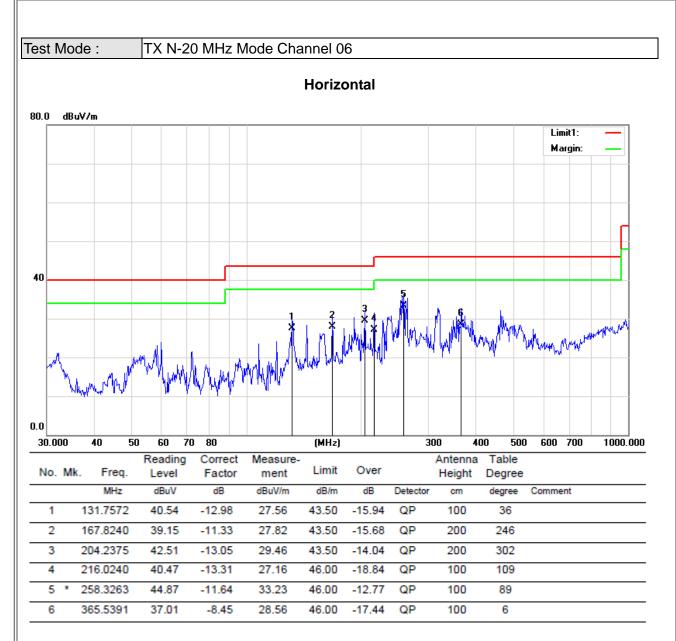
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =20 log (specific distance/test distance)(dB); Limit line = specific limits(dBuv) + distance extrapolation factor

5.7 TEST RESULTS - 30MHz TO 1000MHz

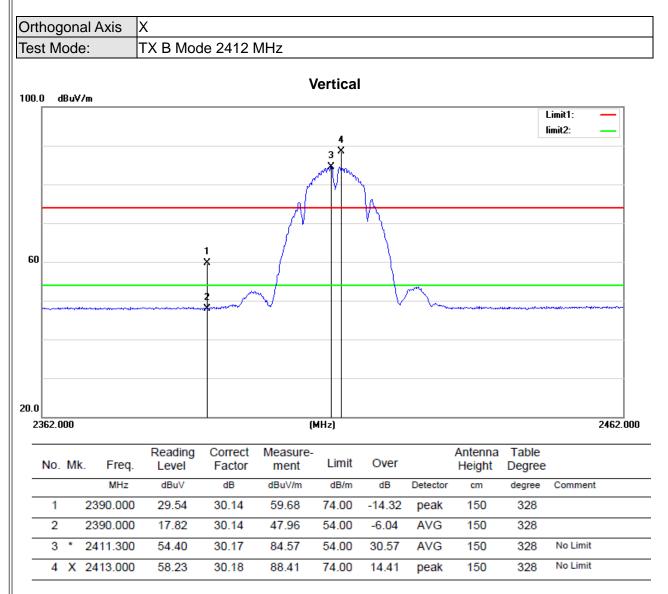








5.8 TEST RESULTS- ABOVE 1000MHz (BAND EDGE)



*

2411.300

53.92

30.17

84.09

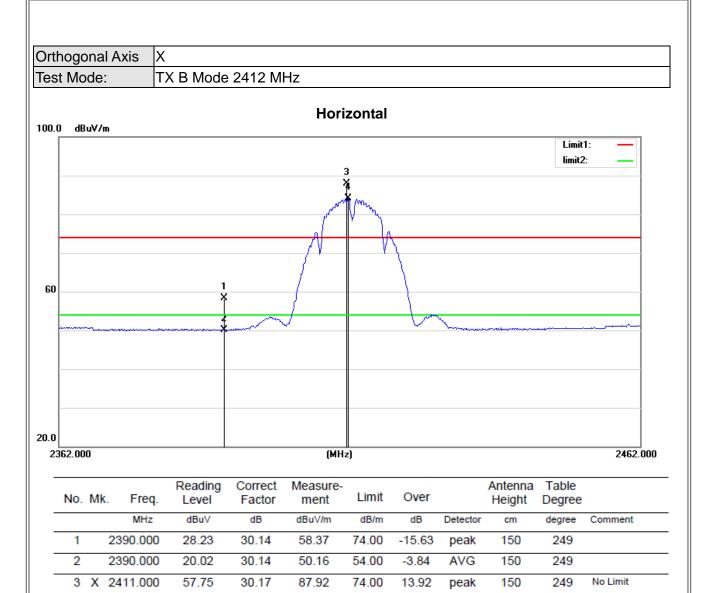
54.00

30.09

AVG

4



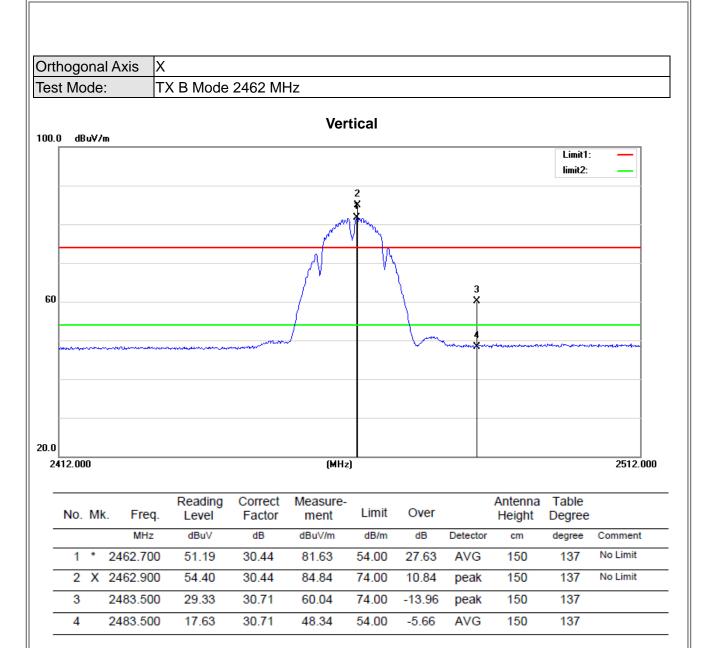


150

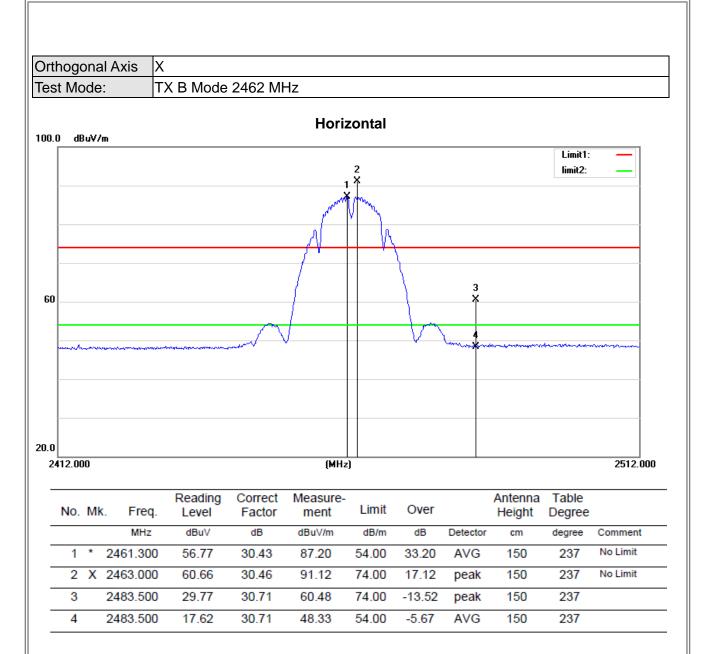
No Limit

249





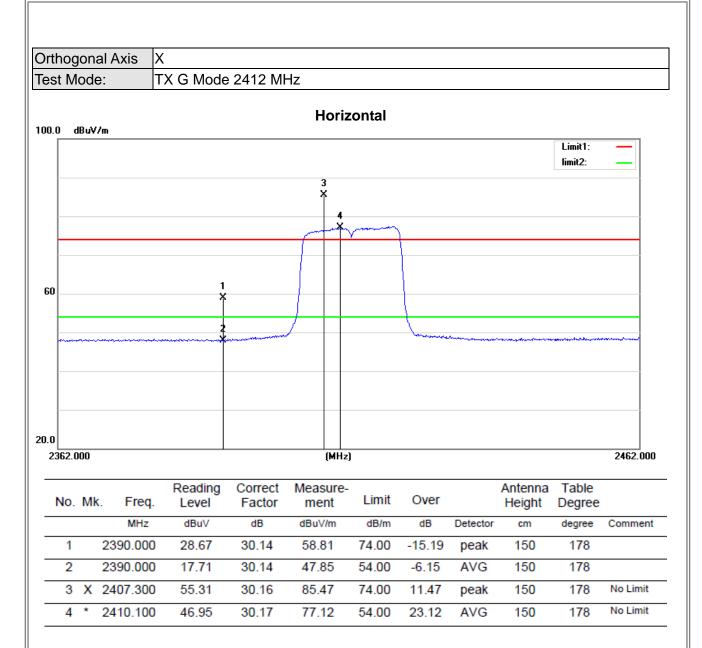




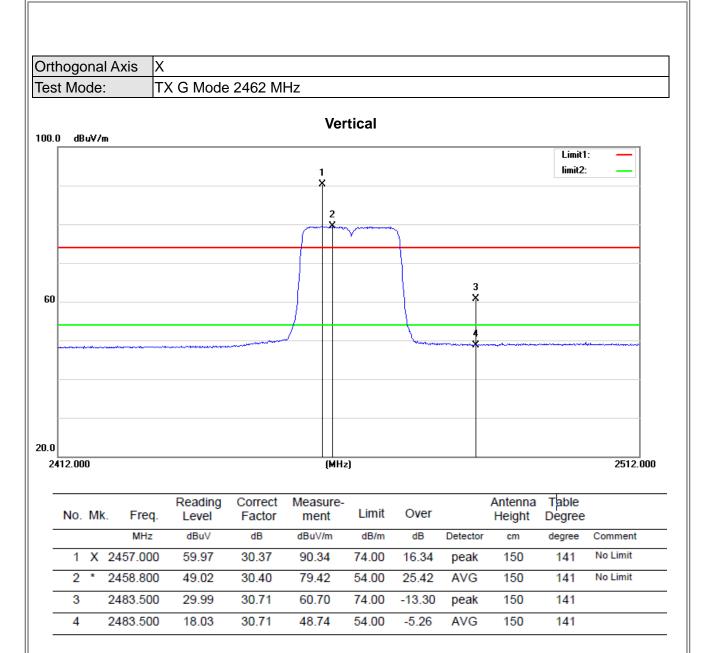


Orthogonal Axis Х Test Mode: TX G Mode 2412 MHz Vertical 100.0 dBuV/m Limit1: limit2: 3 X 1 60 20.0 2362.000 2462.000 (MHz) Antenna Correct Measure-Table Reading Limit Over No. Mk. Freq. Height Degree Level Factor ment MHz dBuV dB dBuV/m dB/m dB Detector cm degree Comment 2390.000 59.76 155 1 29.62 30.14 74.00 -14.24 peak 150 2 2390.000 17.77 30.14 47.91 54.00 -6.09 AVG 150 155 3 X 2407.100 59.44 30.16 89.60 74.00 15.60 150 155 No Limit peak 4 * 2410.000 48.26 30.17 78.43 54.00 24.43 AVG 150 155 No Limit

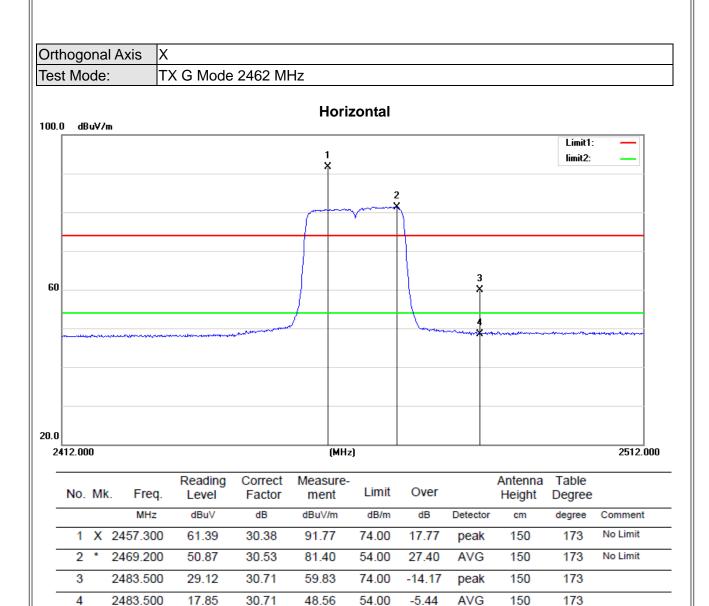








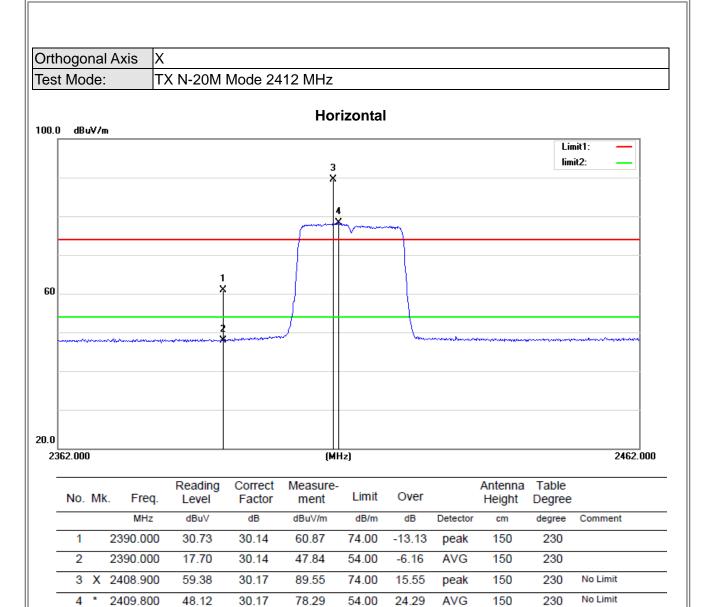




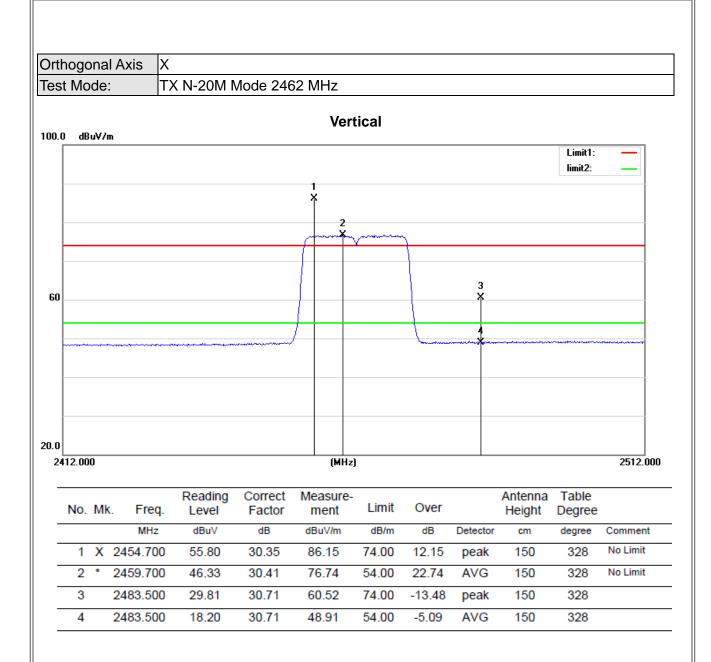


Х Orthogonal Axis Test Mode: TX N-20M Mode 2412 MHz Vertical 100.0 dBuV/m Limit1: limit2: 3 ¥ 4 1 60 X 20.0 2362.000 (MHz) 2462.000 Correct Reading Measure-Antenna Table Limit Over No. Mk. Freq. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB Detector degree cm Comment 2390.000 1 30.02 30.14 60.16 74.00 -13.84 150 152 peak 2 2390.000 18.61 30.14 48.75 54.00 -5.25 AVG 150 152 3 X 2405.800 56.53 30.16 86.69 74.00 12.69 peak 150 152 No Limit No Limit 4 * 2408.800 45.24 30.17 75.41 54.00 21.41 AVG 150 152

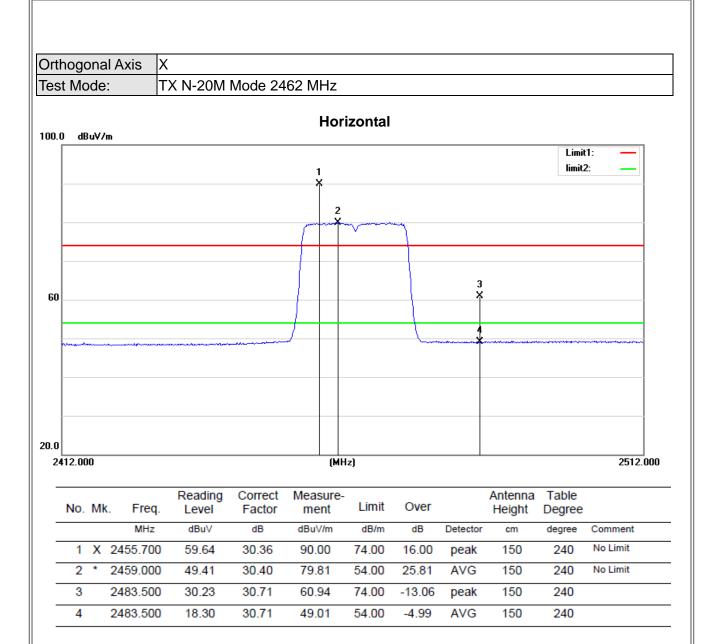






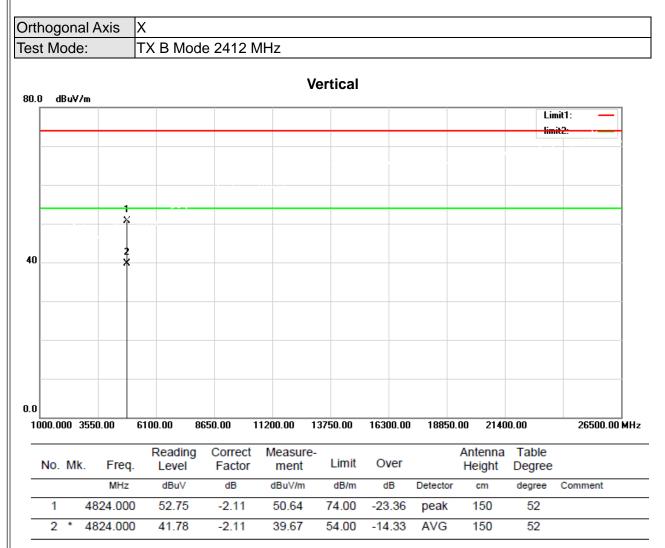








5.9 TEST RESULTS- ABOVE 1000MHz (HARMONIC)





Orthogonal Axis Х TX B Mode 2412 MHz Test Mode: Horizontal 80.0 dBuV/m Limit1: 12-24-5 2 X 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table Limit Over No. Mk. Freq. Factor Height Degree Level ment MHz dB dBuV dBuV/m dB/m dB Detector cm degree Comment 1 4824.000 54.15 -2.11 52.04 74.00 -21.96 peak 150 28 2 * 4824.000 43.80 -2.11 54.00 -12.31 AVG 150 41.69 28



Orthogonal Axis Х Test Mode: TX B Mode 2437 MHz Vertical 80.0 dBuV/m Limit1: 347 Ķ 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table Limit Over No. Mk. Freq. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB Detector cm degree Comment 1 4874.000 53.70 -2.22 51.48 74.00 -22.52 peak 150 78 2 * 4874.000 44.09 -2.22 150 78 54.00 -12.13 AVG 41.87



Orthogonal Axis Х TX B Mode 2437 MHz Test Mode: Horizontal 80.0 dBuV/m Limit1: 12-24 1 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Table Measure-Antenna Limit No. Mk. Freq. Over Level Factor Height Degree ment MHz dBuV dB dBuV/m dB/m dB degree Detector cm Comment 4874.000 55.78 -2.22 53.56 74.00 150 33 -20.44 1 peak 2 * 4874.000 45.87 -2.22 43.65 54.00 -10.35 AVG 150 33



Orthogonal Axis Х Test Mode: TX B Mode 2462 MHz Vertical 80.0 dBuV/m Limit1: 347 4 40 0.0 26500.00 MHz 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 Reading Correct Measure-Antenna Table Limit Over No. Mk. Freq. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB Detector cm degree Comment 4924.000 53.66 -1.90 -22.24 150 108 1 51.76 74.00 peak 2 * 4924.000 42.89 -1.90 40.99 54.00 -13.01 AVG 150 108



Orthogonal Axis Х Test Mode: TX B Mode 2462 MHz Horizontal 80.0 dBuV/m Limit1: 12-24-5 X 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Correct Table Reading Measure-Antenna No. Mk. Freq. Limit Over Level Height Degree Factor ment MHz dBuV dB dBuV/m dB/m dB degree Detector cm Comment 4924.000 53.61 -1.90 51.71 74.00 150 44 1 -22.29 peak 2 * 4924.000 42.11 -1.90 40.21 54.00 -13.79 AVG 150 44



Orthogonal Axis Х TX G Mode 2412 MHz Test Mode: Vertical 80.0 dBuV/m Limit1: limit2 1 40 0.0 1000.000 3550.00 26500.00 MHz 6100.00 8650.00 16300.00 18850.00 21400.00 11200.00 13750.00 Reading Correct Measure-Antenna Table Limit Over No. Mk. Freq. Level Factor ment Height Degree dB/m MHz dBuV dB dBuV/m dB Detector cm degree Comment 4874.000 54.93 -2.22 52.71 74.00 23 1 -21.29 peak 150 2 * 4874.000 44.79 -2.22 23 42.57 54.00 -11.43 AVG 150



Orthogonal Axis Х Test Mode: TX G Mode 2412 MHz Horizontal 80.0 dBuV/m Limit1: 12-24 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table Limit Over No. Mk. Freq. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB Detector cm degree Comment 4874.000 -2.22 52.33 74.00 99 1 54.55 -21.67 peak 150 2 * 4874.000 43.47 -2.22 54.00 -12.75 150 41.25 AVG 99



Orthogonal Axis Х Test Mode: TX G Mode 2437 MHz Vertical 80.0 dBuV/m Limit1: 347 X 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table Limit Over No. Mk. Freq. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB Detector cm degree Comment 1 4874.000 54.20 -2.22 51.98 74.00 -22.02 peak 150 101 2 * -2.22 4874.000 41.90 39.68 54.00 -14.32 AVG 150 101



Orthogonal Axis Х TX G Mode 2437 MHz Test Mode: Horizontal 80.0 dBuV/m Limit1: - 24 X 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table Limit Over No. Mk. Freq. Level Factor ment Height Degree MHz dB dBuV/m dB/m dBuV dB degree Detector cm Comment 4874.000 53.45 -2.22 51.23 74.00 -22.77 150 58 1 peak 4874.000 42.91 -2.22 54.00 2 * 40.69 -13.31 AVG 150 58



Orthogonal Axis Х Test Mode: TX G Mode 2462 MHz Vertical 80.0 dBuV/m Limit1: 347 ¥ 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Measure-Antenna Table Correct Limit Over No. Mk. Freq. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB degree Detector Comment cm 4924.000 53.16 95 1 -1.90 51.26 74.00 -22.74 peak 150 2 * 4924.000 42.23 -1.90 40.33 54.00 -13.67 AVG 150 95



Orthogonal Axis Х TX G Mode 2462 MHz Test Mode: Horizontal 80.0 dBuV/m Limit1: 12-24-5 X 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table Limit Over No. Mk. Freq. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB Detector degree Comment cm 4924.000 53.61 74.00 -22.29 4 1 -1.90 51.71 peak 150 2 * 4924.000 43.26 -1.90 41.36 54.00 -12.64 AVG 150 4



Orthogonal Axis Х Test Mode: TX N-20M Mode 2412 MHz Vertical 80.0 dBuV/m Limit1: 347 X, 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table Limit Over No. Mk. Freq. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB Detector cm degree Comment 106 4824.000 53.73 -2.11 51.62 74.00 -22.38 150 1 peak 2 * 4824.000 42.72 150 -2.11 40.61 54.00 -13.39 AVG 106



Orthogonal Axis Х Test Mode: TX N-20M Mode 2412 MHz Horizontal 80.0 dBuV/m Limit1: 12-24-5 **2** 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table No. Mk. Limit Over Freq. Level Factor ment Height Degree MHz dBu∨ dB dBuV/m dB/m dB Detector cm degree Comment 4824.000 54.50 -2.11 52.39 74.00 -21.61 150 59 1 peak 4824.000 43.44 -2.11 41.33 54.00 -12.67 AVG 150 59 2 *

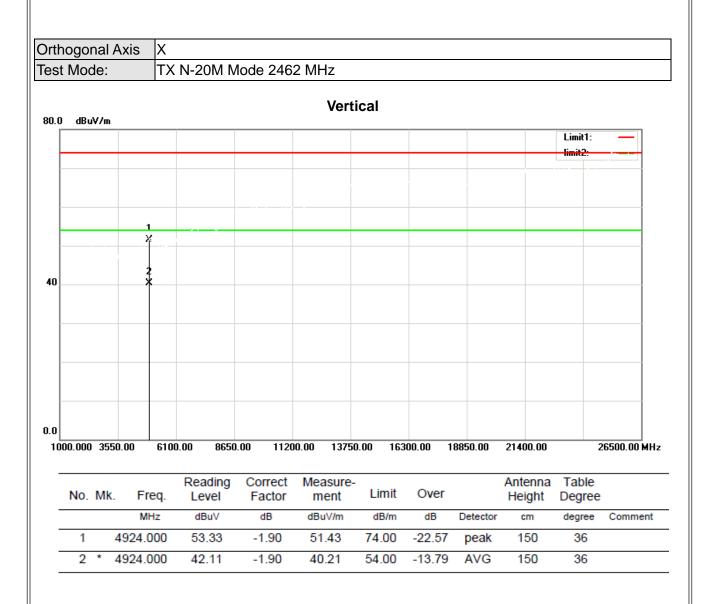


Orthogonal Axis Х Test Mode: TX N-20M Mode 2437 MHz Vertical 80.0 dBuV/m Limit1: 14.1 40 0.0 16300.00 18850.00 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table No. Mk. Limit Over Freq. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB Detector degree Comment cm 1 4874.000 54.68 -2.22 52.46 74.00 -21.54 peak 150 11 4874.000 -2.22 -12.02 44.20 41.98 54.00 AVG 150 2 * 11



Orthogonal Axis Х Test Mode: TX N-20M Mode 2437 MHz Horizontal 80.0 dBuV/m Limit1: 12-24-5 × 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Table Measure-Antenna Limit Over No. Mk. Freq. Degree Level Factor ment Height MHz dBuV dB dBuV/m dB/m dB Detector degree Comment cm 4874.000 53.78 -2.22 51.56 74.00 -22.44 150 104 1 peak 2 * 4874.000 42.06 -2.22 39.84 54.00 -14.16 AVG 150 104







Orthogonal Axis Х Test Mode: TX N-20M Mode 2462 MHz Horizontal 80.0 dBuV/m Limit1: 111 40 0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz Reading Correct Measure-Antenna Table Limit Over Freq. No. Mk. Level Factor ment Height Degree MHz dBuV dB dBuV/m dB/m dB Detector degree Comment cm 1 4924.000 53.85 -1.90 51.95 74.00 -22.05 peak 150 6 150 2 * 4924.000 42.37 -1.90 40.47 54.00 -13.53 AVG 6



6. BANDWIDTH TEST

6.1 LIMIT

FCC Part15, Subpart C (15.247)					
Section Test Item Limit					
15.247(a)(2)	6dB Bandwidth	Minimum 500 kHz			
	99% Emission Bandwidth	-			

6.2 TEST PROCEDURE AND SETTING

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. For 6dB Bandwidth Spectrum setting: RBW= 100KHz, VBW=300KHz, Sweep time = 2.5ms. For 99% OBW Spectrum Setting: RBW= 300KHz, VBW=1MHz, Sweep time = 2.5ms.
- c. The bandwidth was performed in accordance with method 11.8.1 of ANSI C63.10-2013.

6.3 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum analyzer	KEYSIGHT	N9010A	MY55150427	2025/05/22
2	Attenuator	Mini-Circuits	BW-S10W2	101109	N/A
3	RF Cable	Mi-cable	C10-01-01-1	100309	N/A

6.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

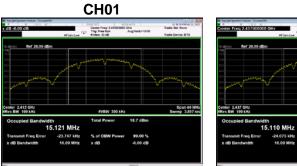
6.5 EUT OPERATION CONDITIONS

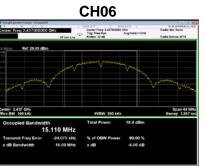
The EUT tested system was configured as the statements of 4.5 unless otherwise a special operating condition is specified in the follows during the testing.

6.6 TESTRESULTS

	TX B Mode						
		6dB Bandwidth Min. Limit(kHz)	Result				
01	2412	10.090	15.127	500	PASS		
06	2437	10.090	15.112	500	PASS		
11	2462	10.090	15.104	500	PASS		

6dB







99%





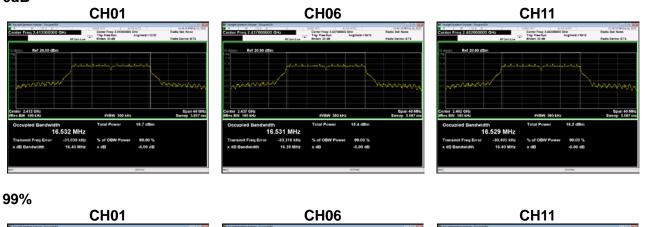


CH11



	TX G Mode					
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Emission Bandwidth(MHz)	6dB Bandwidth Min. Limit(kHz)	Result	
01	2412	16.400	16.528	500	PASS	
06	2437	16.390	16.523	500	PASS	
11	2462	16.400	16.525	500	PASS	

6dB





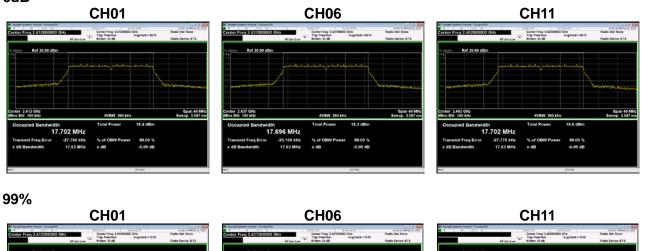
And Bandwidth Total Power 1920 States Provide Fred 237 States Provide

	Center Freq 2.46200000		Center Freq: 2.462900000	N AUTO DHIZ Avg(Hali£>1010	16.32 30 PMIde 34, 242 Radio Std: None Radio Std: None
Operation Press Sport 84 Million Operation Press Sport 84 Million Sport 84 Million Occupied Bandwidth Total Power 18.3 dBm Sport 84 Million Transmit Fire gifter 32.53 Million Sport 60 Million Sport 84 Million	10 dillov Ref 20.00 dBe	1			
Revs BM 300 kHz PVBW 1 MHz Beweip 3887 Occupied Bandwidth Total Power 18.3 dBm 16.525 MHz Transmit Freq Error -32.563 kHz			and and a graduate		
16:525 MHz Transmit Freq Error -32.563 kHz % of OBW Power 99.00 %	Center 2,482 GHz RRes BW 300 kHz		EVEW 1 MHz		Span 40 MH Sweep 3.887 m
			Total Power	18.3 dBm	



	TX N (HT20) Mode						
Channel Frequency (MHz) 6dB Bandwidth (MHz) 99% Emission Bandwidth(MHz) 6dB Bandwidth Min. Limit(kHz) R				Result			
01	2412	17.630	17.694	500	PASS		
06	2437	17.630	17.701	500	PASS		
11	2462	17.630	17.689	500	PASS		

6dB





A W 90 A	#FGeinLow	Center Freq: 2.46200000 Trig: Free Run Alden: 30 dB		Radio Std: None Radio Std: None Radio Device: 815
B dillov Ref 20.00 dBm				
	/	ladada gabahah	hadradang	
Center 2.482 GHz Res BW 300 kHz		EVBW 1 MHz		Span 40 MH Sweep 3.897 m
Occupied Bandwidth 17.	689 MHz	Total Power	18.5 dBm	
Transmit Freq Error x dB Bandwidth	-25.501 kHz 20.05 MHz	% of OBW Power x dB	99.00 % -26.00 dB	



7. MAXIMUM OUTPUT POWER TEST

7.1 LIMIT

FCC Part15, Subpart C (15.247)				
Section Test Item Limit				
15.247(b)(3)	Maximum Output Power	1 Watt or 30dBm		

7.2 TEST PROCEDURE AND SETTING

- 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 of ANSI C63.10-2013.and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

7.3 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	Power Sensor	KEYSIGHT	U2021XA	MY55240009	05/22/2025
2	Attenuator	Mini-Circuits	BW-S10W2	101109	N/A
3	RF Cable	Micable	C10-01-01-1	100309	N/A
4	Test Software	KEYSIGHT	Power Panel	V3.11	N/A

7.4 TEST SETUP

Test P	С	 ower ensor	EUT and Assistant System	

7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.5 unless otherwise a special operating condition is specified in the follows during the testing.

7.6 TESTRESULTS

		TX B Mode		
Channel	Frequency	Output Power	Output Power	Deput
Channel	(MHz)	(dBm)	(W)	Result
01	2412	7.220	0.005272	PASS
06	2437	7.310	0.005383	PASS
11	2462	7.140	0.005176	PASS
Limit	30dBm / 1W			

TX G Mode					
Channel	Frequency	Output Power	Output Power	Deput	
	(MHz)	(dBm)	(W)	Result	
01	2412	7.650	0.005821	PASS	
06	2437	7.440	0.005546	PASS	
11	2462	7.300	0.005370	PASS	
Limit	30dBm / 1W				

	TX N (HT20)					
Channel	Frequency	Output Power	Output Power	Deput		
Channel	(MHz)	(dBm)	(W)	Result		
01	2412	7.870	0.006124	PASS		
06	2437	7.670	0.005848	PASS		
11	2462	7.420	0.005521	PASS		
Limit	30dBm / 1W					



8. CONDUCTED SPURIOUS EMISSIONS

8.1 LIMIT

For FCC

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.

For ISED

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak Output Power limits. If the transmitter complies with the Output Power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

8.2 TEST PROCEDURE AND SETTING

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW= 100 kHz, VBW=300 kHz, Sweep time = Auto.

8.3 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum analyzer	KEYSIGHT	N9010A	MY55150427	2025/05/22
2	Attenuator	Mini-Circuits	BW-S10W2	101109	N/A
3	RF Cable	Mi-cable	C10-01-01-1	100309	N/A

8.4 TEST SETUP

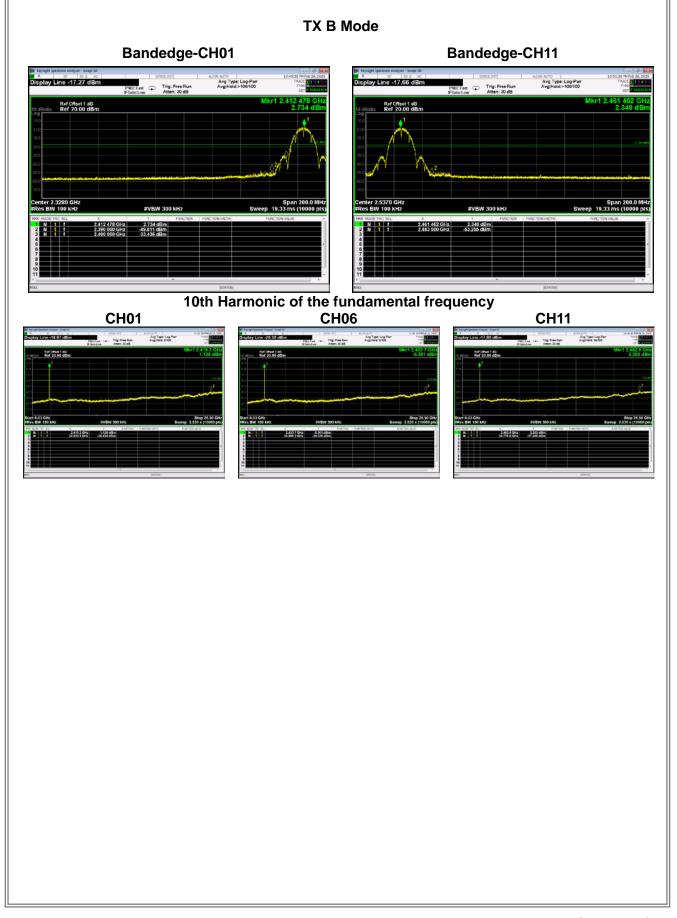
EUT	SPECTRUM
	ANALYZER

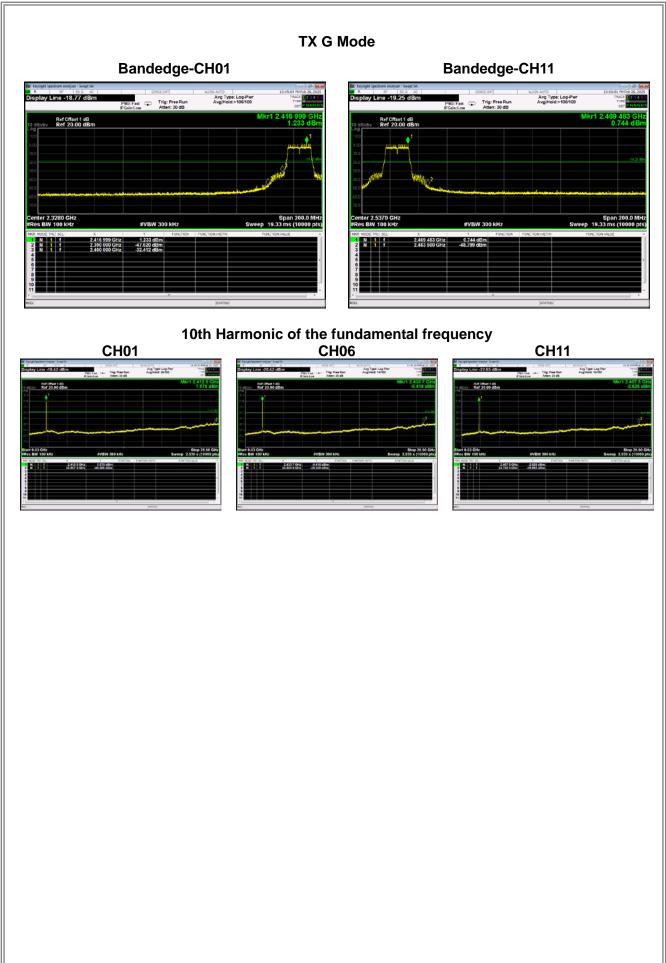
8.5EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.5unless otherwise a special operating condition is specified in the follows during the testing.

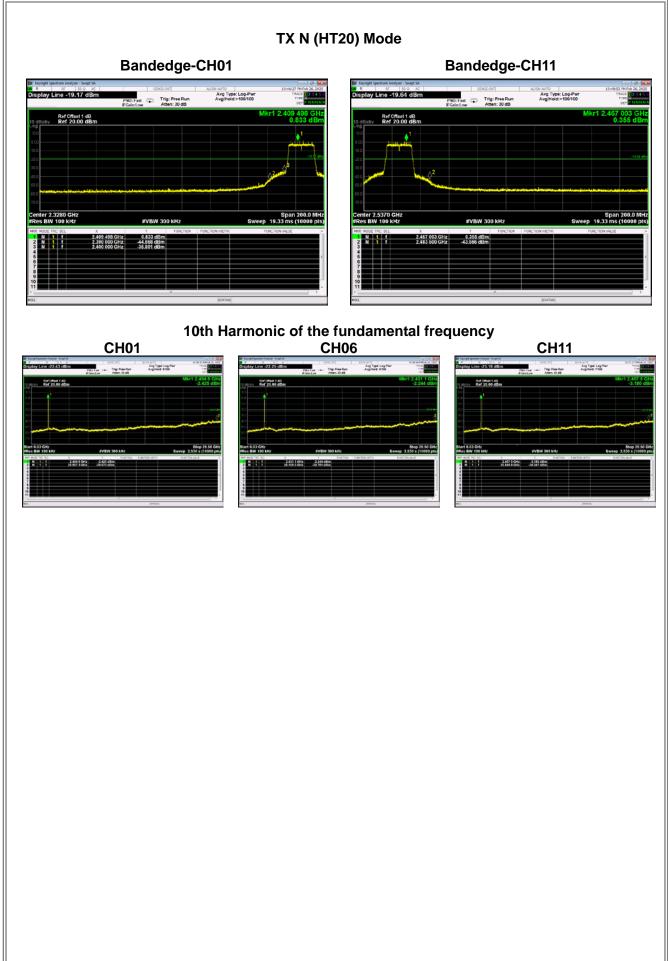


8.6 TESTRESULTS











9. POWER SPECTRAL DENSITY TEST

9.1 LIMIT

FCC Part15, Subpart C (15.247)				
Section Test Item Limit				
15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)		

9.2 TEST PROCEDURE AND SETTING

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW=3 kHz, VBW=10 kHz, Sweep time = Auto.
- c. The Power Spectral Density was performed in accordance with method11.10.2 of ANSI C63.10-2013.

9.3 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum analyzer	KEYSIGHT	N9010A	MY55150427	2025/05/22
2	Attenuator	Mini-Circuits	BW-S10W2	101109	N/A
3	RF Cable	Mi-cable	C10-01-01-1	100309	N/A

9.4 TEST SETUP

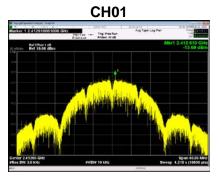
EUT	SPECTRUM
	ANALYZER

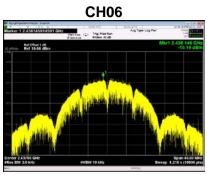
9.5 EUT OPERATION CONDITIONS

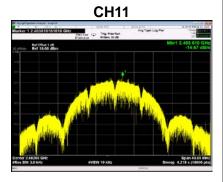
The EUT tested system was configured as the statements of 4.5 unless otherwise a special operating condition is specified in the follows during the testing.

9.6 TESTRESULTS

		TX B Mode		
Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Limit: <dbm 3khz<="" td=""><td>Result</td></dbm>	Result
01	2412	-13.69	8	PASS
06	2437	-15.14	8	PASS
11	2462	-14.67	8	PASS



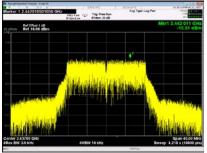


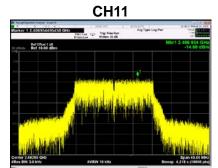


TX G Mode					
Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Limit: <dbm 3khz<="" td=""><td>Result</td></dbm>	Result	
01	2412	-14.16	8	PASS	
06	2437	-15.51	8	PASS	
11	2462	-14.69	8	PASS	



CH06







TX N (HT20) Mode					
Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Limit: <dbm 3khz<="" td=""><td>Result</td></dbm>	Result	
01	2412	-15.54	8	PASS	
06	2437	-15.84	8	PASS	
11	2462	-15.52	8	PASS	

