

Applicant: SHENZHEN LONGOT TECHNOLOGY

DEVELOPMENT CO., LTD

Product: Thermal sights

Model No.: NB650LRF, NB225, NB225LRF, NB335, NB335LRF,

NB635, NB635LRF, NB650, KB225, KB225LRF, OE25, OH35, OQ35, OQ50, OE25L, OH35L, OQ35L, OQ50L, R6, R6PRO, R6PLUS, R7, R7PLUS, R9, R9PLUS, R6PL,

R9PL, R635, R650, R635L, R650L

Trademark: LONGOT

Test Standards: FCC Part 15.247

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10, FCC Part 15.247 for

the evaluation of electromagnetic compatibility

Approved By

Term long

Terry Tang Manager

Dated: April 29, 2025

Results appearing herein relate only to the sample tested The technical reports is issued errors and omissions exempt and is subject to withdrawal at

# SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com



Date: 2025-04-29



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# **Special Statement:**

# FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

# Industry Canada (IC) — Registration No.:5205A

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

# A2LA (Certification Number: 5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

CAB identifier: CN0033

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Report No.: TW2504015-01E

Date: 2025-04-29



# **Test Report Conclusion**

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#### 1.0 General Details

# 1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

Site Listed with Federal Communications commission (FCC)

Registration Number:744189 For 3m Anechoic Chamber

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC: 5205A

For 3m Anechoic Chamber

### 1.2 Applicant Details

Applicant: SHENZHEN LONGOT TECHNOLOGY DEVELOPMENT CO., LTD

Address: 906 Hanhaida Building, No.7 Songgang Avenue, Tantou Community, Songgang Baoan,

Shenzhen city, Guangdong, China.

# 1.3 Description of EUT

Product: Thermal sights

Manufacturer: SHENZHEN LONGOT TECHNOLOGY DEVELOPMENT CO., LTD Address: 906 Hanhaida Building, No.7 Songgang Avenue, Tantou Community,

SonggangBaoan, Shenzhen city, Guangdong, China.

Trademark: LONGOT

Model Number: NB650LRF

Additional Model Number: NB225, NB225LRF, NB335, NB335LRF, NB635, NB635LRF, NB650,

KB225, KB225LRF, OE25, OH35, OQ35, OQ50, OE25L, OH35L, OQ35L, OQ50L, R6, R6PRO, R6PLUS, R7, R7PLUS, R9, R9PLUS, R6PL, R9PL,

R635, R650, R635L, R650L

Hardware Version: 2.0.1
Software Version: 2.0.4
Serial No.: 25010080

Rating: Input: DC5V/2A

Battery: DC3.7V, 3200mAh Li-ion battery

Type of Modulation IEEE 802.11b: DSSS (CCK, QPSK, DBPSK)

IEEE 802.11g/n (HT20, HT40): OFDM (64QAM, 16QAM, QPSK, BPSK)

Frequency range IEEE 802.11b/g/n (HT20): 2412-2462MHz;

IEEE 802.11n HT40: 2422-2452MHz

The report refers only to the sample tested and does not apply to the bulk.

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Channel Spacing 5MHz for IEEE 802.11b/g/n (HT20, HT40)

Air Data Rate IEEE 802.11b: 11, 5.5, 2, 1 Mbps

IEEE 802.11g: 54, 48,36, 24, 18, 12, 9, 6 Mbps

IEEE 802.11n HT20/HT40: mcs0-mcs7

Frequency Selection By software

Channel Number IEEE 802.11b/g/n (HT20): 11 Channels;

IEEE 802.11n (HT40): 7 Channels;

Antenna: Chip antenna with gain 6.1dBi Max (Get from the antenna specification)

1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2025-04-18 to 2025-04-28

1.6 Test Uncertainty

Conducted Emissions Uncertainty = 3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty = 6.0dB

Occupied Channel Bandwidth Uncertainty =5%

Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2024-07-12	2025-07-11
LISN	R&S	EZH3-Z5	100294	2024-07-12	2025-07-11
LISN	R&S	EZH3-Z5	100253	2024-07-12	2025-07-11
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2024-07-12	2025-07-11
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2024-07-12	2025-07-11
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2022-07-18	2025-07-17
Horn Antenna	R&S	BBHA 9120D	9120D-631	2022-07-18	2025-07-17
Power meter	Anritsu	ML2487A	6K00003613	2024-07-12	2025-07-11
Power sensor	Anritsu	MA2491A	32263	2024-07-12	2025-07-11
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2022-07-18	2025-07-17
9*6*6 Anechoic			N/A	2022-07-26	2025-07-25
EMI Test Receiver	RS	ESVB	826156/011	2024-07-12	2025-07-11
EMI Test Receiver	RS	ESCS 30	834115/006	2024-07-12	2025-07-11
Spectrum	HP/Agilent	E4407B	MY50441392	2024-07-12	2025-07-11
Spectrum	RS	FSP	1164.4391.38	2024-07-12	2025-07-11
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA	1	2024-07-12	2025-07-11
RF Cable	Zhengdi	7m	1	2024-07-12	2025-07-11
Pre-Amplifier	Schwarebeck	BBV9743	#218	2024-07-12	2025-07-11
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2024-07-12	2025-07-11
LISN	SCHAFFNER	NNB42	00012	2024-07-12	2025-07-11
ESPI Test Receiver	R&S	ESPI 3	100379	2024-07-12	2025-07-11
LISN	R&S	EZH3-Z5	100294	2024-07-12	2025-07-11

### 2.2 Automation Test Software

#### For Conducted Emission Test

Name	Version
EZ-EMC	Ver.EMC-CON 3A1.1

# For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

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# 3. DESCRIPTION OF TEST MODES

# IEEE 802.11b, 802.11g, 802.11n (HT20) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode: 1Mbps data rate (worst case) was chosen for full testing. IEEE 802.11g mode: 6Mbps data rate (worst case) was chosen for full testing. IEEE 802.11n (HT20) mode: 6.5Mbps (worst case) were chosen for full testing;

# IEEE 802.11n (HT40) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2422
Middle	2437
High	2452

IEEE 802.11n (HT40) mode: mcs0 data rate (worst case) were chosen for full testing

Note: During the test, the duty cycle was set up to >98%

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#### 3.0 **Technical Details**

#### 3.1 **Summary of test results**

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph15.207	<b>Conducted Emission Test</b>	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth>500kHz	Pass	Complies
FCC Part 15, Paragraph 15.247(b)	Maximum peak output power Limit: max. 30dBm	Pass	Complies
FCC Part 15, Paragraph 15.109,15.205 & 15.209	Transmitter Radiated Emission Limit: Table 15.209	Pass	Complies
FCC Part 15, Paragraph 15.247(e)	Power Spectral Density Limit: max. 8dBm/3kHz	Pass	Complies
FCC Part 15, Paragraph 15.247(d)	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209	Pass	Complies

#### 3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

#### 4.0 **EUT Modification**

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

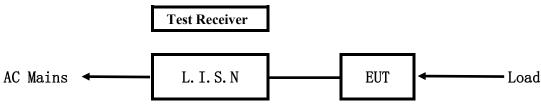
Date: 2025-04-29



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#### 5.0 Power Line Conducted Emission Test

### 5.1 Schematics of the test

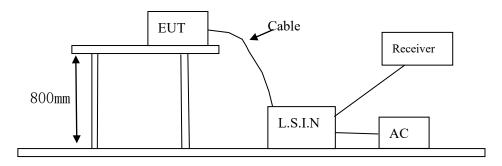


**EUT: Equipment Under Test** 

#### 5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10 –2013.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



# 5.3 Configuration of the EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

### A. EUT

Device	Manufacturer	Model	FCC ID
		NB650LRF, NB225, NB225LRF,	
		NB335, NB335LRF, NB635,	
	SHENZHEN LONGOT	NB635LRF, NB650, KB225,	
The agree of a selector	TECHNOLOGY	KB225LRF, OE25, OH35, OQ35,	2A6JR-729A
Thermal sights	DEVELOPMENT CO.,	OQ50, OE25L, OH35L, OQ35L,	2A0JR-729A
	LTD	OQ50L, R6, R6PRO, R6PLUS, R7,	
		R7PLUS, R9, R9PLUS, R6PL, R9PL,	
		R635, R650, R635L, R650L	

### B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
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N/A		
1 1/1 1		

#### C. Peripherals

Device	Manufacturer	Model	Rating
Power	Xiaomi	MDY-12-EF	Input: 100-240V~, 1.7A, 50/60Hz;
Supply			Output: DC5-20V, 6.2-3.25A (67W Maximum)

#### 5.4 **EUT Operating Condition**

Operating condition is according to ANSI C63.10-2013.

- Α Setup the EUT and simulators as shown on follow
- В Enable AF signal and confirm EUT active to normal condition

#### 5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency	Limits (dB $\mu$ V)		
(MHz)	Quasi-peak Level	Average Level	
$0.15 \sim 0.50$	66.0~56.0*	56.0~46.0*	
$0.50 \sim 5.00$	56.0	46.0	
5.00 ~ 30.00	60.0	50.0	

Notes:

- 1. \*Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

#### 5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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#### A: Conducted Emission on Live Terminal (150kHz to 30MHz)

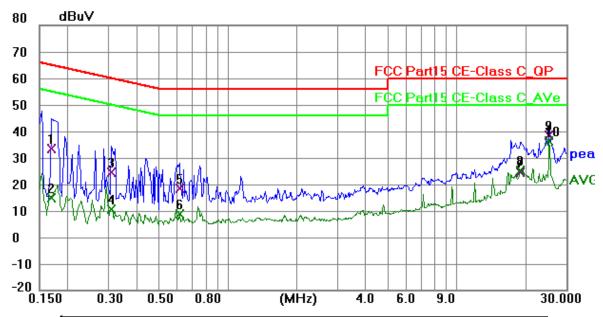
# **EUT Operating Environment**

Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Keep WIFI Transmitting** 

**Results: Pass** 

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1695	22.99	10.33	33.32	64.98	-31.66	QP	Р
2	0.1695	4.47	10.33	14.80	54.98	-40.18	AVG	Р
3	0.3099	14.06	10.35	24.41	59.97	-35.56	QP	Р
4	0.3099	0.26	10.35	10.61	49.97	-39.36	AVG	Р
5	0.6180	7.79	10.44	18.23	56.00	-37.77	QP	Р
6	0.6180	-1.52	10.44	8.92	46.00	-37.08	AVG	Р
7	18.9354	8.25	16.16	24.41	60.00	-35.59	QP	Р
8	18.9354	9.08	16.16	25.24	50.00	-24.76	AVG	Р
9	25.2300	23.22	15.29	38.51	60.00	-21.49	QP	Р
10	25.2300	21.06	15.29	36.35	50.00	-13.65	AVG	Р

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#### B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

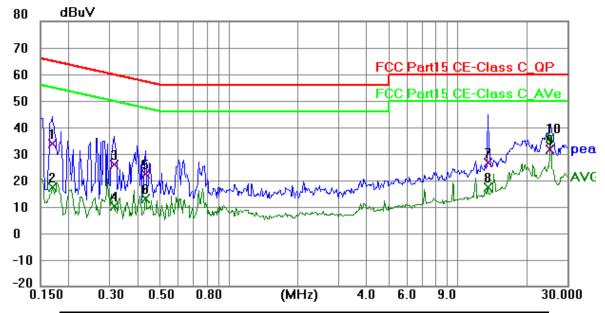
# **EUT Operating Environment**

Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

**EUT set Condition: Charging and Keep WIFI Transmitting** 

**Results: Pass** 

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1695	23.32	10.33	33.65	64.98	-31.33	QP	Р
2	0.1695	7.09	10.33	17.42	54.98	-37.56	AVG	Р
3	0.3138	15.54	10.35	25.89	59.87	-33.98	QP	Р
4	0.3138	-0.05	10.35	10.30	49.87	-39.57	AVG	Р
5	0.4308	11.82	10.38	22.20	57.24	-35.04	QP	Р
6	0.4308	2.48	10.38	12.86	47.24	-34.38	AVG	ъ
7	13.5495	11.81	14.75	26.56	60.00	-33.44	QP	Ъ
8	13.5495	2.41	14.75	17.16	50.00	-32.84	AVG	Р
9	25.3080	16.32	15.28	31.60	60.00	-28.40	QP	Р
10	25.3080	20.56	15.28	35.84	50.00	-14.16	AVG	Р

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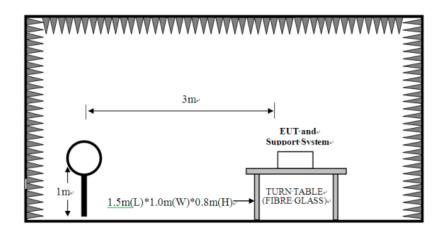
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#### 6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 9kHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

### **Block diagram of Test setup**

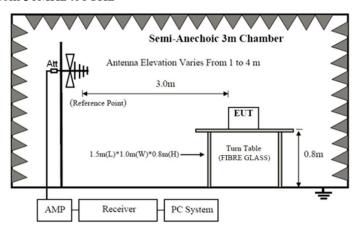
For radiated emissions from 9kHz to 30MHz



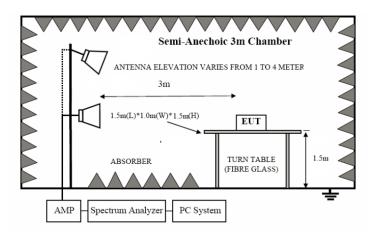
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For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



- 6.2 Configuration of The EUT

  Same as section 5.3 of this report
- 6.3 EUT Operating Condition
  Same as section 5.4 of this report.
- 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

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# Frequencies in restricted band are complied to limit on Paragraph 15.209

Frequency Range (MHz)	Distance (m)	Field strength (dB µ V/m)
0.009-0.049	3	20log(2400/F(kHz)) +40log (300/3)
0.490-1.705	3	20log(24000/F(kHz)) +40log (30/3)
1.705-30	3	69.5
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage  $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 5. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.
- 6. Worse case were recorded in the test report. 802.11g was the worst case.
- 7. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.
- 8. Battery was fully charged during the test

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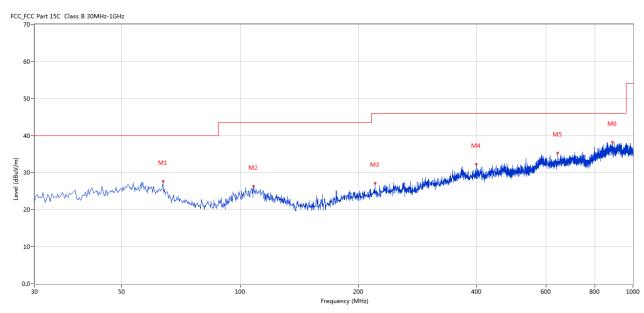


# Test result General Radiated Emission Data and Harmonics Radiated Emission Data

# Radiated Emission In Horizontal (30MHz----1000MHz)

**EUT set Condition: Keep Transmitting** 

**Results: Pass** 



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	63.699	27.63	-5.75	40.0	12.37	Peak	283.00	100	Horizontal	Pass
2	108.308	26.38	-5.98	43.5	17.12	Peak	196.00	100	Horizontal	Pass
3	220.315	27.16	-6.11	46.0	18.84	Peak	344.00	100	Horizontal	Pass
4	398.993	32.28	-1.70	46.0	13.72	Peak	36.00	100	Horizontal	Pass
5	643.614	35.36	1.59	46.0	10.64	Peak	296.00	100	Horizontal	Pass
6	887.508	38.26	4.85	46.0	7.74	Peak	3.00	100	Horizontal	Pass

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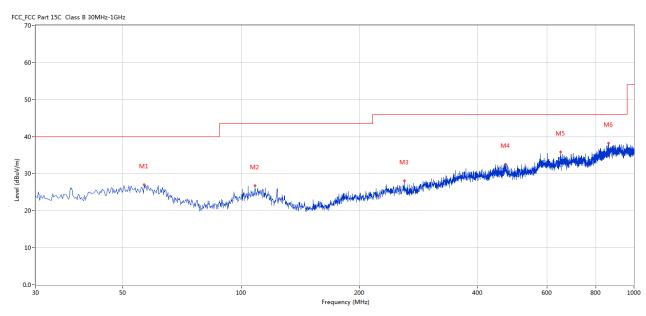


# Test result General Radiated Emission Data and Harmonics Radiated Emission Data

# Radiated Emission In Vertical (30MHz----1000MHz)

**EUT set Condition: Keep Transmitting** 

Pass **Results:** 



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	56.668	26.99	-4.99	40.0	13.01	Peak	109.00	100	Vertical	Pass
2	108.550	26.77	-5.98	43.5	16.73	Peak	38.00	100	Vertical	Pass
3	260.560	28.13	-4.81	46.0	17.87	Peak	243.00	100	Vertical	Pass
4	471.240	32.52	-0.28	46.0	13.48	Peak	0.00	100	Vertical	Pass
5	650.645	35.88	1.74	46.0	10.12	Peak	341.00	100	Vertical	Pass
6	860.840	38.27	4.87	46.0	7.73	Peak	191.00	100	Vertical	Pass

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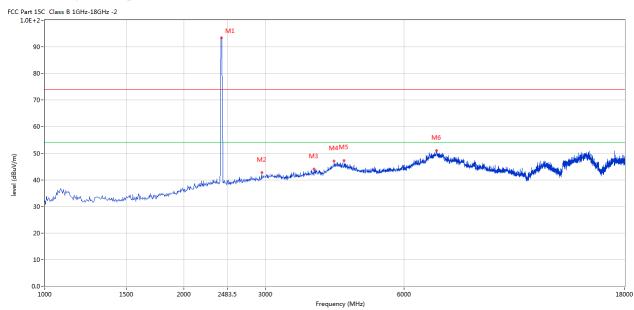
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Please refer to the following test plots for details:

# CH01 for 11g at 6Mbps: Horizontal



No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
1	2410.647	93.49	-3.57	74.0	19.49	Peak	179.00	100	Horizontal	N/A
2	2950.262	42.80	-2.66	74.0	-31.20	Peak	345.00	100	Horizontal	Pass
3	3829.793	44.04	0.46	74.0	-29.96	Peak	142.00	100	Horizontal	Pass
4	4229.193	47.00	1.67	74.0	-27.00	Peak	351.00	100	Horizontal	Pass
5	4824.044	47.50	3.14	74.0	-26.50	Peak	179.00	100	Horizontal	Pass
6	7050.487	51.01	8.03	74.0	-22.99	Peak	257.00	100	Horizontal	Pass

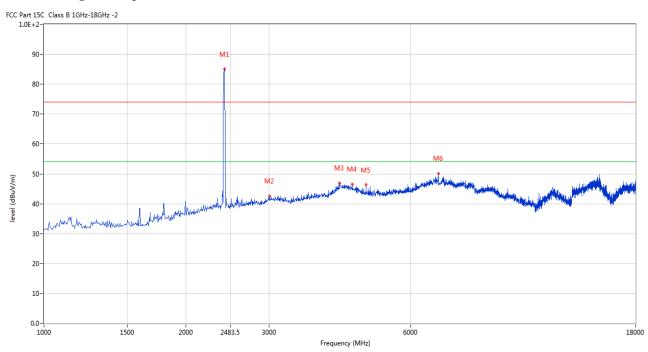
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# CH01 for 11g at 6Mbps: Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2414.896	85.04	-3.57	74.0	11.04	Peak	106.00	100	Vertical	N/A
2	3009.748	42.55	-2.60	74.0	-31.45	Peak	280.00	100	Vertical	Pass
3	4237.691	46.96	1.69	74.0	-27.04	Peak	142.00	100	Vertical	Pass
4	4509.623	46.52	2.24	74.0	-27.48	Peak	354.00	100	Vertical	Pass
5	4824.044	46.30	3.14	74.0	-27.70	Peak	106.00	100	Vertical	Pass
6	6867.783	51.00	7.41	74.0	-23.00	Peak	75.00	100	Vertical	Pass

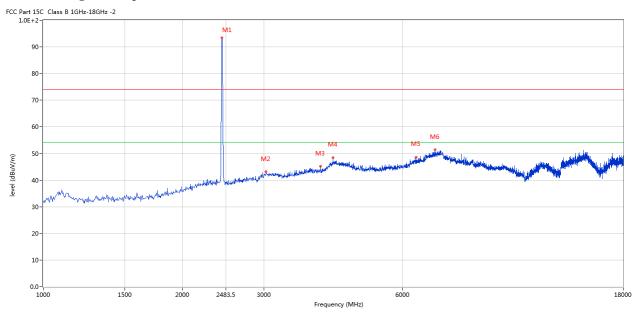
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# CH06 for 11g at 6Mbps: Horizontal



No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(0)	(cm)		
1	2436.141	93.40	-3.57	74.0	19.40	Peak	183.00	100	Horizontal	N/A
2	3035.241	43.11	-2.48	74.0	-30.89	Peak	112.00	100	Horizontal	Pass
3	3978.505	45.12	1.12	74.0	-28.88	Peak	343.00	100	Horizontal	Pass
4	4237.691	48.39	1.69	74.0	-25.61	Peak	101.00	100	Horizontal	Pass
5	6417.396	48.64	5.43	74.0	-25.36	Peak	343.00	100	Horizontal	Pass
6	7054.736	51.33	8.03	74.0	-22.67	Peak	259.00	100	Horizontal	Pass

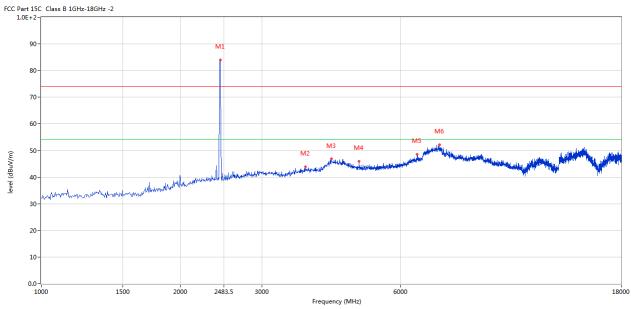
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# CH06 for 11g at 6Mbps: Vertical



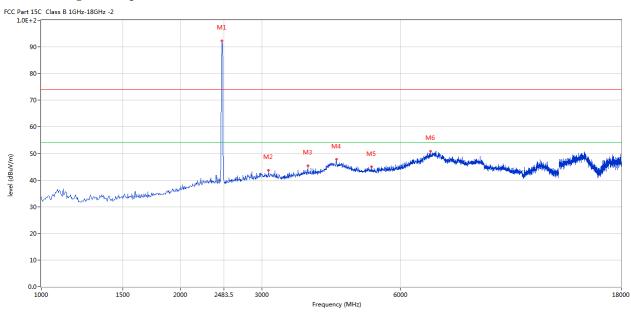
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2440.390	84.03	-3.57	74.0	10.03	Peak	292.00	100	Vertical	N/A
2	3727.818	43.84	-0.08	74.0	-30.16	Peak	214.00	100	Vertical	Pass
3	4246.188	46.91	1.71	74.0	-27.09	Peak	79.00	100	Vertical	Pass
4	4875.031	45.98	3.19	74.0	-28.02	Peak	106.00	100	Vertical	Pass
5	6515.121	48.61	5.83	74.0	-25.39	Peak	236.00	100	Vertical	Pass
6	7271.432	52.09	8.11	74.0	-21.91	Peak	84.00	100	Vertical	Pass

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# CH11 for 11g at 6Mbps: Horizontal



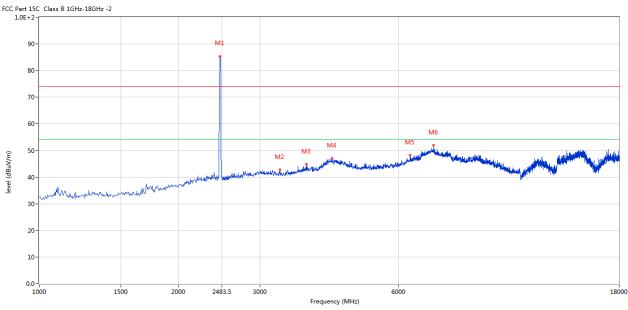
No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(0)	(cm)		
1	2461.635	92.29	-3.57	74.0	18.29	Peak	179.00	100	Horizontal	N/A
2	3103.224	43.61	-2.19	74.0	-30.39	Peak	41.00	100	Horizontal	Pass
3	3774.556	45.42	0.17	74.0	-28.58	Peak	345.00	100	Horizontal	Pass
4	4352.412	47.74	1.92	74.0	-26.26	Peak	210.00	100	Horizontal	Pass
5	5185.204	44.95	3.67	74.0	-29.05	Peak	36.00	100	Horizontal	Pass
6	6952.762	50.93	7.80	74.0	-23.07	Peak	340.00	100	Horizontal	Pass

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### CH11 for 11g at 6Mbps: Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(0)	(cm)		
1	2461.635	85.37	-3.57	74.0	11.37	Peak	104.00	100	Vertical	N/A
2	3319.920	42.69	-2.05	74.0	-31.31	Peak	119.00	100	Vertical	Pass
3	3783.054	44.78	0.22	74.0	-29.22	Peak	0.00	100	Vertical	Pass
4	4297.176	47.01	1.83	74.0	-26.99	Peak	145.00	100	Vertical	Pass
5	6349.413	48.17	5.16	74.0	-25.83	Peak	42.00	100	Vertical	Pass
6	7003.749	52.48	8.01	74.0	-21.52	Peak	358.00	100	Vertical	Pass

Note: 1. Result Level = Reading + Factor

- 2. Factor= AF + Cable Loss- Preamp
- 3. Margin = Result– Limit
- 4. For radiated Emissions from 18-25GHz and below 30MHz, it is only the floor noise and less than the limit for more than 20dB. No necessary to take down.
- 5. Note: the final peak measurement results less than the AV limit. No necessary to take down the final AV measurement result

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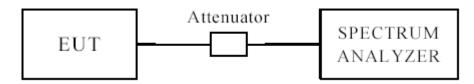
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# 7.0 6dB Bandwidth Measurement

# 7.1 Test Setup



### 7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

### 7.3 Test Procedure

- 1. Set resolution bandwidth (RBW) = 100 kHz
- 2. Set the video bandwidth (VBW)  $\geq$  3 x RBW.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 7.4 Test Result

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# 6dB Occupied Bandwidth

EUT		The	rmal sights		Model		NBo	550LRF
Mode		8	302.11b		Test Volta	ige	DO	C3.7V
Temperat	ure	24	l deg. C,		Humidity		56	% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)			ım Limit Hz)	Pass/ Fail
1		2412	1	10.24 0.5		0.5	Pass	
6		2437	1	10	.24	0	0.5	Pass
11		2462	1	10	0.24	C	0.5	Pass
1		2412	11	11	.44	0	0.5	Pass
6		2437	11	11	.44	0.5		Pass
11	2462 11		11.20		0.5		Pass	

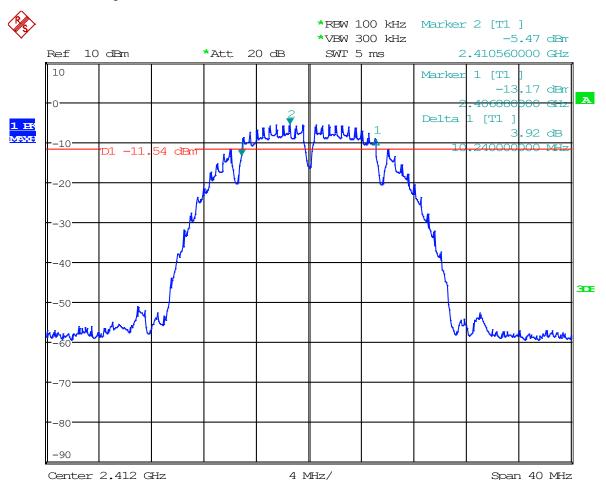
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# 1. 802.11b at 1Mbps of CH01



Date: 25.APR.2025 17:04:22

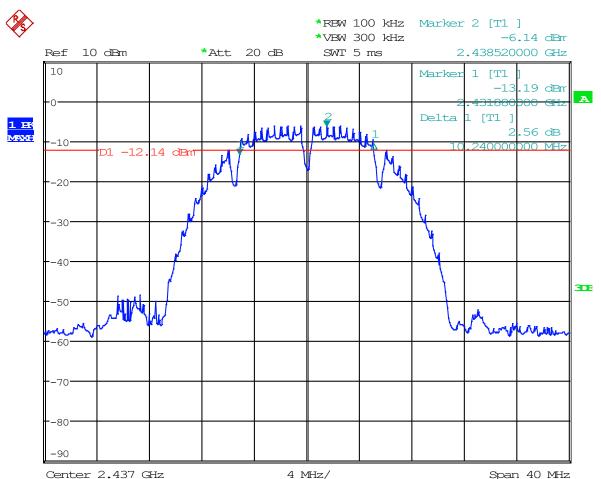
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# 2. 802.11b at 1Mbps of CH06



Date: 25.APR.2025 16:58:15

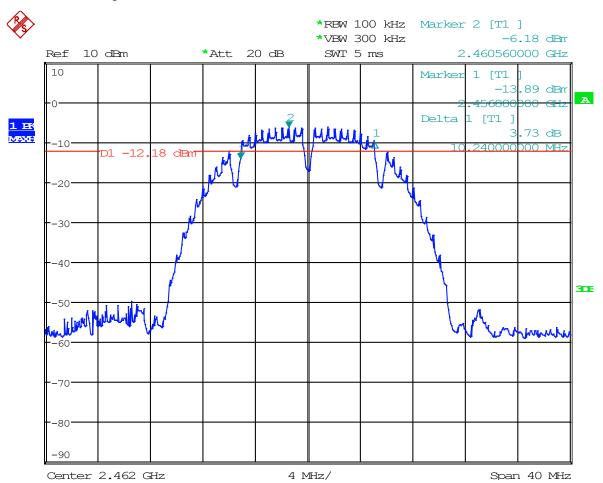
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# 3. 802.11b at 1Mbps of CH11



Date: 25.APR.2025 17:06:41

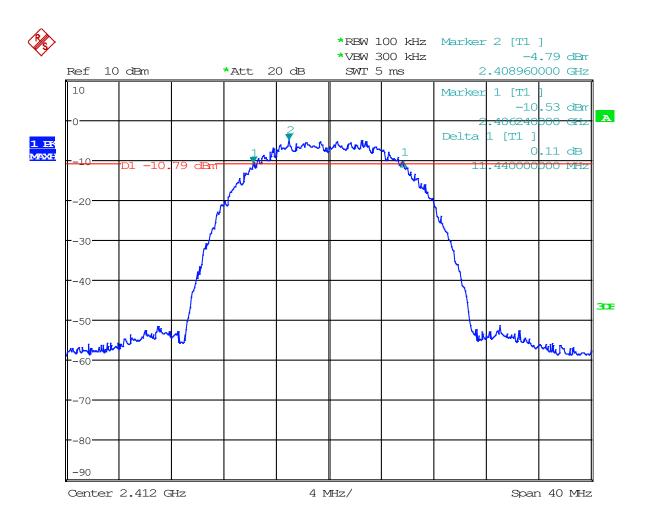
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# 4. 802.11b at 11Mbps of CH01



Date: 25.APR.2025 17:18:11

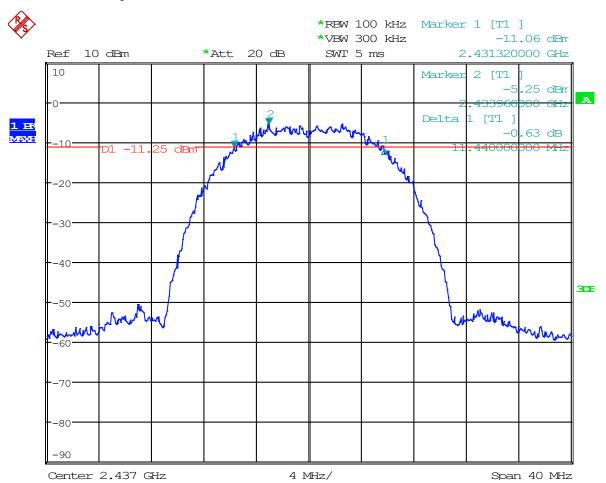
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# 5. 802.11b at 11Mbps of CH06



Date: 25.APR.2025 17:14:56

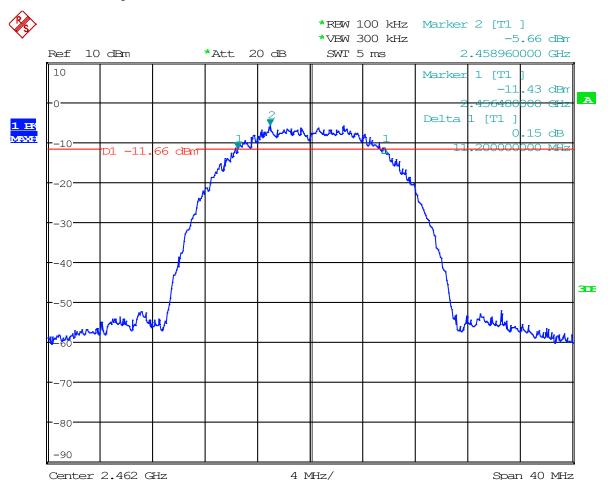
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# 6. 802.11b at 11Mbps of CH11



Date: 25.APR.2025 17:09:13

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# 6dB Occupied Bandwidth

EUT			Thermal si	ights	Model	NB650LRF	
Mode			802.11	g	Test Voltage	DC3.7V	
Temperature		24 deg. C,			Humidity	56% RH	
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Lim (MHz)	it Pass/ Fail	
1		2412	6	16.40	0.5	Pass	
6		2437	6	16.40	0.5	Pass	
11		2462	6	16.40	0.5	Pass	

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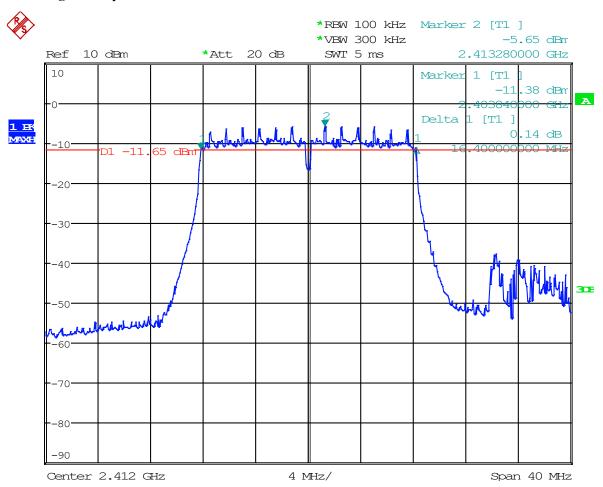
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#### **Test Plots:**

# 1. 802.11g at 6Mbps of CH01



Date: 25.APR.2025 17:23:17

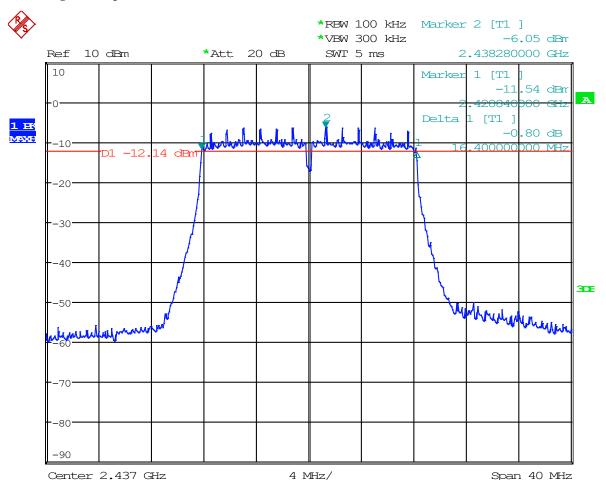
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# 2. 802.11g at 6Mbps of CH06



Date: 25.APR.2025 17:25:26

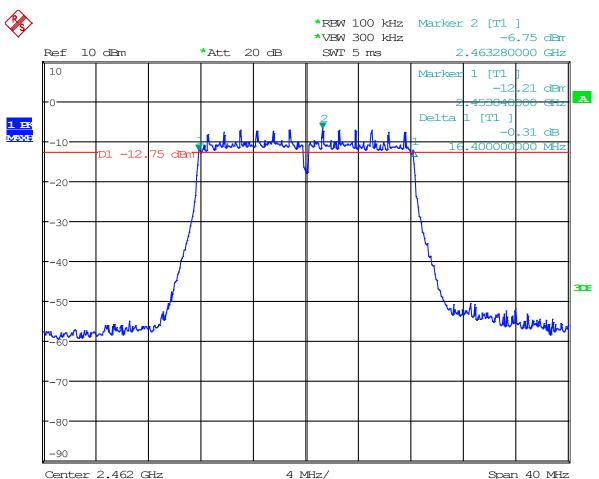
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# 3. 802.11g at 6Mbps of CH11



Date: 25.APR.2025 17:27:47

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# 6dB Occupied Bandwidth

EUT		Thermal sights			Model	NB650LRF	
Mode			802.11n H	T20	Test Voltage	DC3.7V	
Temperature		24 deg. C,			Humidity	56% RH	
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	
1		2412	6.5	17.20	0.5	0.5	
6		2437	6.5	17.04	0.5		Pass
11		2462	6.5	17.20	0.5		Pass

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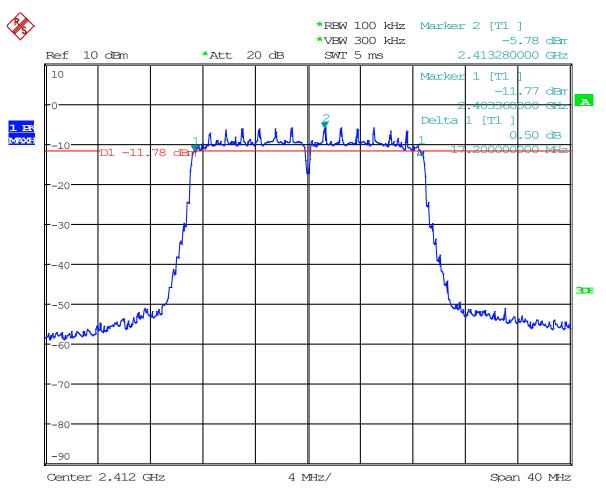
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#### **Test Plots:**

# 1. 802.11n at HT20 of CH01



Date: 25.APR.2025 17:48:10

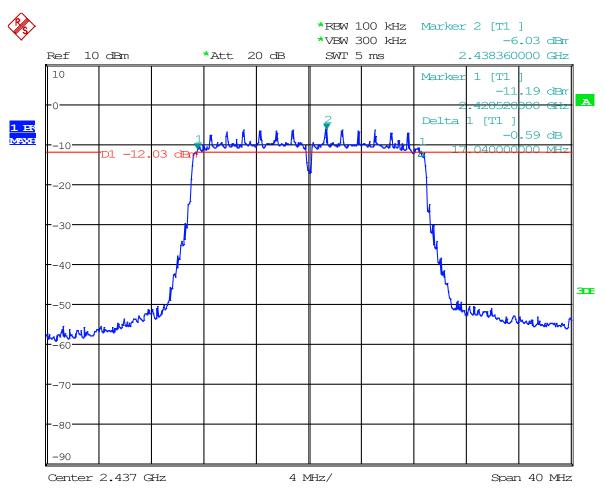
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#### 2. 802.11n at HT20 of CH06



Date: 25.APR.2025 17:44:37

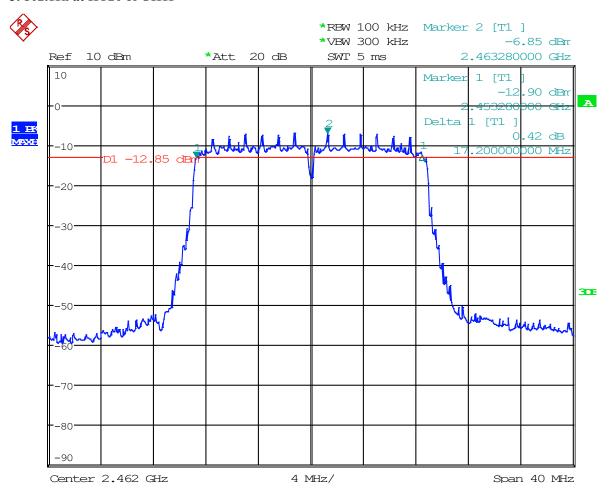
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#### 3. 802.11n at HT20 of CH11



Date: 25.APR.2025 17:34:44

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# 6dB Occupied Bandwidth

EUT		The	Model		NB	650LRF		
Mode		802	2.11n HT40	)	Test Vol	tage	D	C3.7V
Temperat	ure	2	4 deg. C,		Humidi	ty	56	5% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Ban (MH		Minimur (MF		Pass/ Fail
3		2422	mcs0	36.2	0.5		5	Pass
6	2437		mcs0	36.0	0		0.5	
9		2452		36.1	0	0	5	Pass

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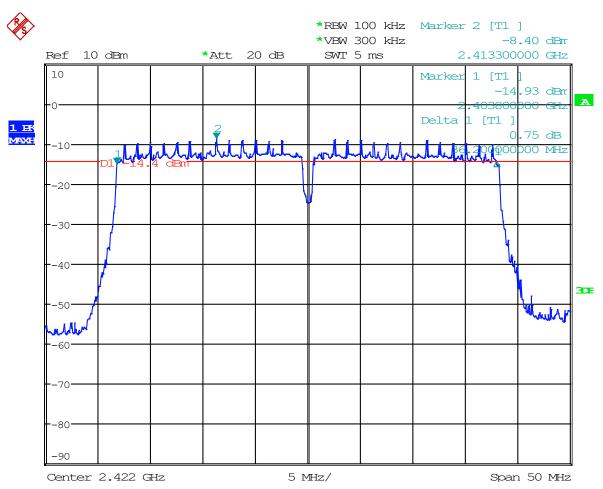
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#### **Test Plots:**

# 1. 802.11n at HT40 of CH03



Date: 25.APR.2025 17:53:19

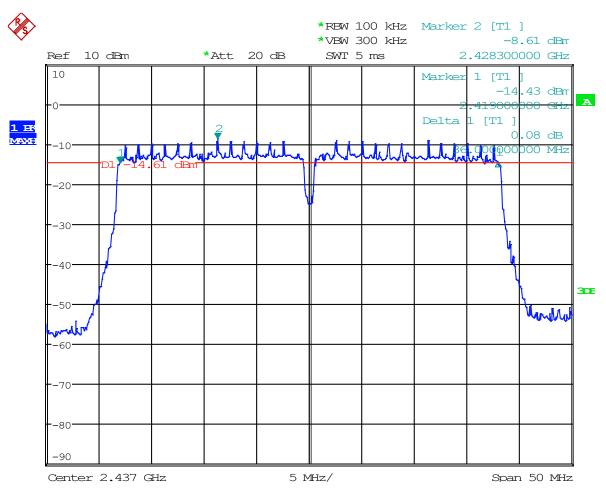
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#### 2. 802.11n at HT40 of CH06



Date: 25.APR.2025 18:02:09

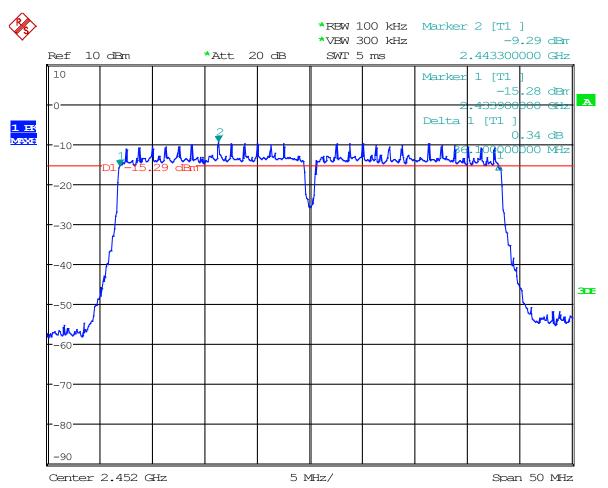
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#### 3. 802.11n at HT40 of CH09



Date: 25.APR.2025 17:57:33

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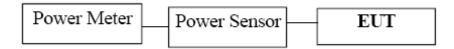
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# 8. Maximum Output Power

# 8.1 Test Setup



### 8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

#### **8.3 Test Procedure**

The RF power output was measured with a Power meter connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

Note: The AV power was measured

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#### **8.4Test Results**

EUT			Thermal sights	Model	N	B650LRF	
Mode	Mode		802.11b	Test Voltage	Test Voltage		
Temperat	ure		24 deg. C,	Humidity		56% RH	
Channel	Frequence (MH	uency z)	AV Power (dBm)	Power Lin (dBm)	nit	Pass/ Fail	
1	2412		-0.36	30		Pass	
6	2437		-0.71	30		Pass	
11	11 2462		-2.31	30		Pass	

Note: 1. At finial test to get the worst-case emission at 1Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow: Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT			Thermal sights	Model	N	B650LRF
Mode	Mode		802.11g	Test Voltage	est Voltage D	
Temperat	ure		24 deg. C,	Humidity 569		56% RH
Channel	Freque	uency z)	AV Power (dBm)	Power Limit (dBm)		Pass/ Fail
1	2412		-1.09	30		Pass
6	2437		-1.63	30		Pass
11	11 2462		-2.25	30		Pass

Note: 1. At finial test to get the worst-case emission at 6Mbps for CH01, CH06 and CH11

- 2. The result basic equation calculation as follow: Power Output = Power Reading + Cable loss + Attenuator
- 3. The worse case was recorded

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EUT			Thermal sights		odel N		B650LRF	
Mode		802.11n (HT20)		Test V	Test Voltage		DC3.7V	
Temperat	ure		24 deg. C,	Hun	nidity		56% RH	
Channel	Freque	uency z)	AV Power (dBm)		Power L (dBm		Pass/ Fail	
1	1 2412		-1.23		30		Pass	
6	6 2437		-1.73		30		Pass	
11	11 2462		-2.62		30		Pass	

Note: 1. At finial test to get the worst-case emission at mcs0 of 11n HT20 for CH01, CH06 and CH11

2. The result basic equation calculation as follow: Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT		Thermal sights		Mo	odel 1		NB650LRF	
Mode	/lode		802.11n (HT40)		oltage/		DC3.7V	
Temperat	ure		24 deg. C,	Hum	nidity	56% RH		
Channel	Frequ (MH	uency z)	AV Power (dBm)		Power Limit (dBm)		Pass/ Fail	
3	2422		-1.95				Pass	
6	2437		-2.51	-2.51 30			Pass	
9	9 2452		-3.23	-3.23			Pass	

Note: 1. At finial test to get the worst-case emission at msc0 of 11n HT40 for CH03, CH06 and CH09

- 2. The result basic equation calculation as follow: Power Output = Power Reading + Cable loss + Attenuator
- 3. The worse case was recorded

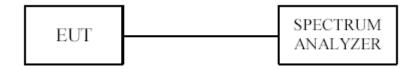
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# 9. Power Spectral Density Measurement

# 9.1 Test Setup



### 9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm/3kHz.

#### 9.3 Test Procedure

- 1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
- 2. Set the RBW = 10 kHz.
- 3. Set the VBW  $\geq$  30 kHz.
- 4. Set the span to 1.5 times the DTS channel bandwidth.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
- 11. The resulting peak PSD level must be  $\leq 8 \text{ dBm/3kHz}$ .

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### 9.4Test Result

EUT			Thermal sights	Model	NB65	50LRF
Mode		802.11b 11Mbps		Test Voltage	DC.	3.7V
Temperat	perature		24 deg. C,	Humidity	56%	6 RH
Channel	Freq	uency	nency Power Spectral Density (dBm/10kH		Limit	Pass/ Fail
	(M	Hz)			(dBm/3kHz)	
1	24	112	-15.01		8	Pass
6	24	137	-15.64	-15.64		Pass
11	24	162	-16.24		8	Pass

EUT			Thermal sights	Model	NB650LRF		
Mode		802.11b 1Mbps		Test Voltage	DC3	.7V	
Temperat	Temperature		24 deg. C,	Humidity	56%	56% RH	
Channel	Freq	uency	Power Spectral Density (dB	Power Spectral Density (dBm/10kHz)		Pass/ Fail	
	(M	Hz)			(dBm/3kHz)		
1	24	112	-15.60		8	Pass	
6	24	137	-16.02		8	Pass	
11	24	162	-16.81		8	Pass	

EUT			Thermal sights	Model	NB650LRF	
Mode			802.11g 6Mbps	Test Voltage	DC3	.7V
Temperat	Temperature		24 deg. C,	Humidity	56%	RH
Channel	Freq	uency	Power Spectral Density (dBm	ensity (dBm/10kHz)		Pass/ Fail
	(M	Hz)			(dBm/3kHz)	
1	24	112	-16.75		8	Pass
6	24	137	-16.84		8	Pass
11	24	162	-17.93		8	Pass

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EUT			Thermal sights	Model	NB650	0LRF
Mode			802.11n HT20 6.5Mbps	Test Voltage	DC3	.7V
Temperat	Temperature		24 deg. C,	deg. C, Humidity		RH
Channel	Freq	uency	Power Spectral Density (dBm	ver Spectral Density (dBm/10kHz)		Pass/ Fail
	(M	Hz)			(dBm/3kHz)	
1	24	112	-16.55		8	Pass
6	24	137	-17.01		8	Pass
11	24	162	-18.20		8	Pass

EUT			Thermal sights	Model	NB650	OLRF
Mode		802.11n HT40 mcs0		Test Voltage	DC3.7V	
Temperat	emperature		24 deg. C,	Humidity	56%	RH
Channel	Freq	uency	Power Spectral Density (dBm/10kHz)		Limit	Pass/ Fail
	(M	Hz)			(dBm/3kHz)	
3	24	122	-18.99		8	Pass
6	24	137	-19.11		8	Pass
9	24	152	-20.76		8	Pass

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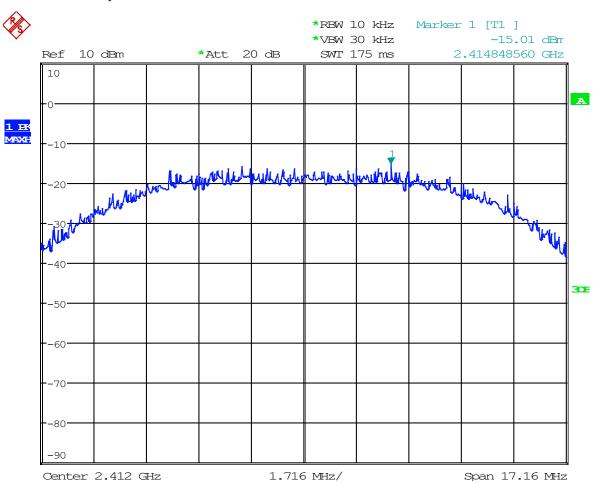
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# 9.5 Photo of Power Spectral Density Measurement

1.802.11b at 11Mbps of CH01



Date: 27.APR.2025 10:35:03

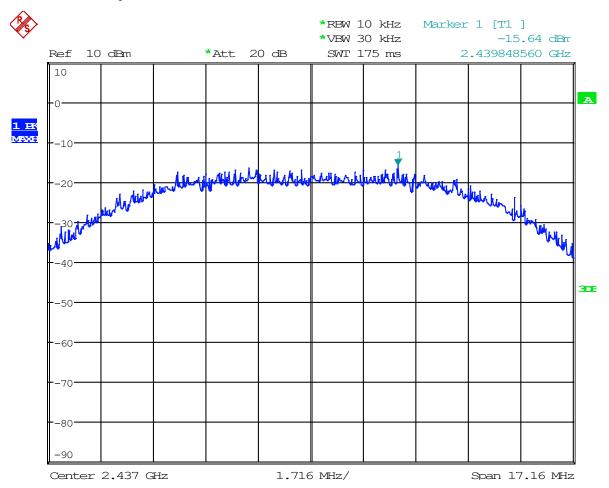
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# 2. 802.11b at 11Mbps at CH06



Date: 27.APR.2025 10:32:48

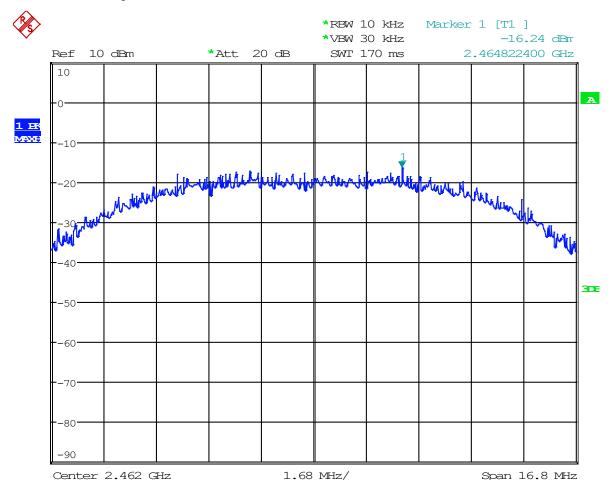
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# 3. 802.11b at 11Mbps of CH11



Date: 27.APR.2025 10:27:48

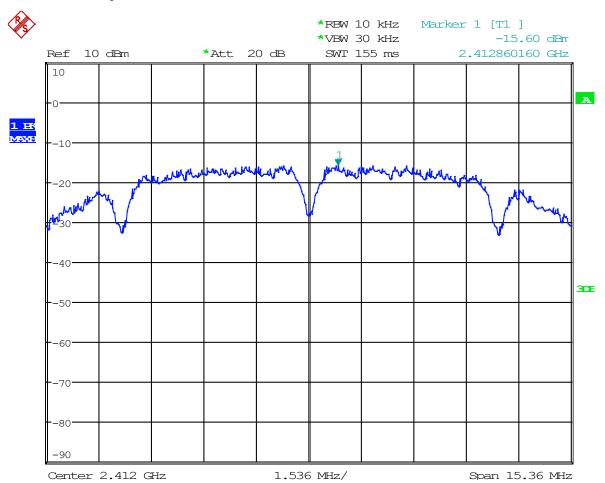
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# 4. 802.11b at 1Mbps of CH1



Date: 27.APR.2025 10:17:49

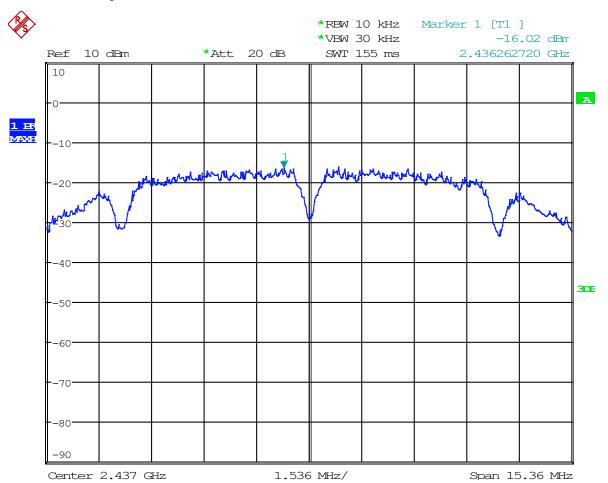
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# 5. 802.11b at 1Mbps of CH6



Date: 27.APR.2025 10:19:11

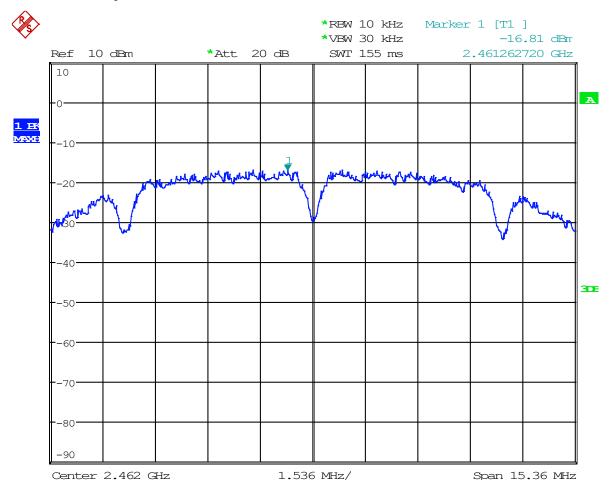
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# 6. 802.11b at 1Mbps of CH11



Date: 27.APR.2025 10:22:43

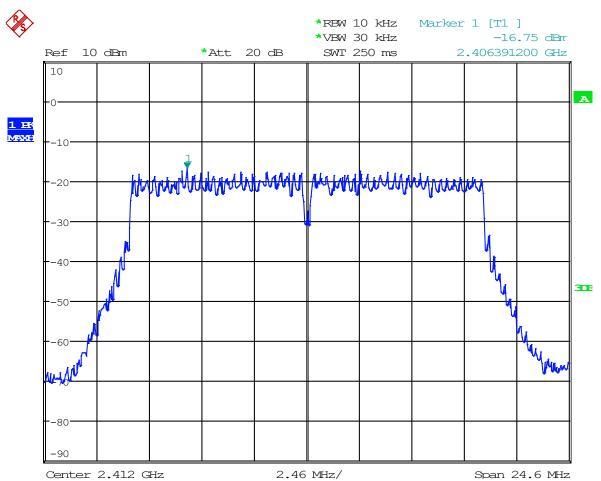
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# 7. 802.11g at 6Mbps of CH1



Date: 25.APR.2025 19:07:57

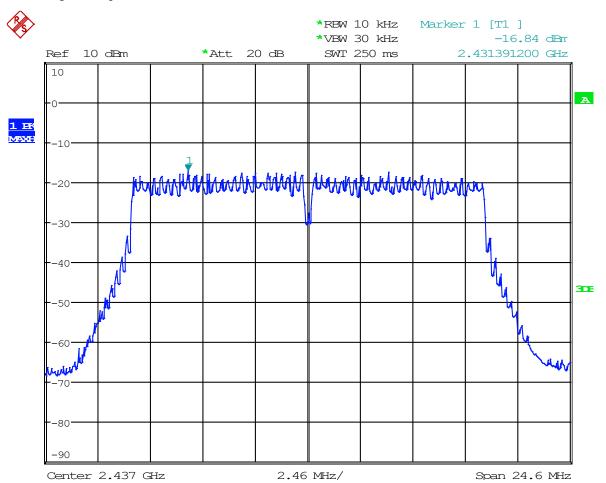
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Date: 2025-04-29



# 8. 802.11g at 6Mbps of CH6



Date: 25.APR.2025 19:07:14

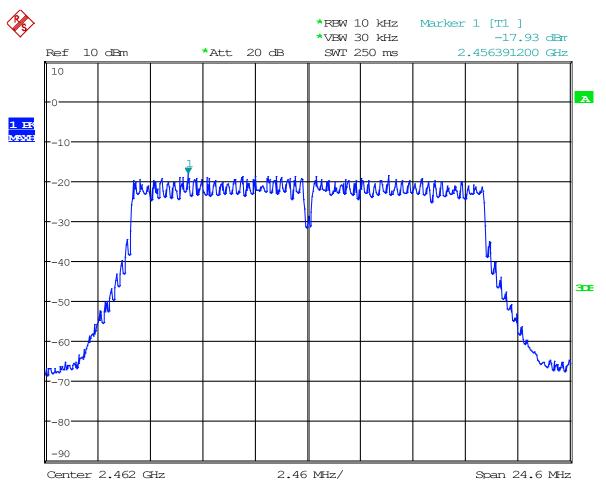
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# 9. 802.11g at 6Mbps of CH11



Date: 25.APR.2025 19:04:58

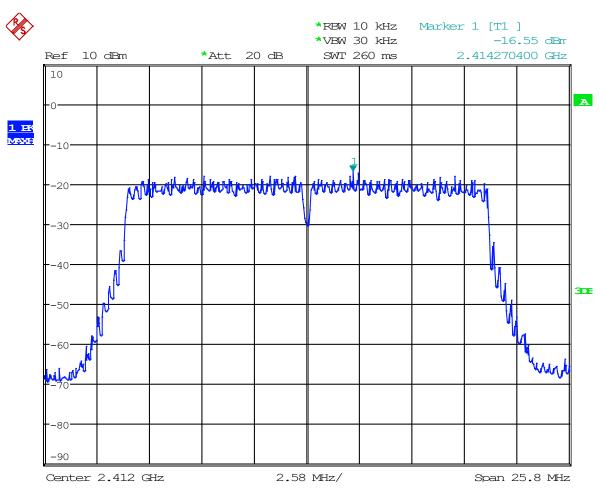
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### 10. 802.11n at HT20 of CH01



Date: 25.APR.2025 18:54:47

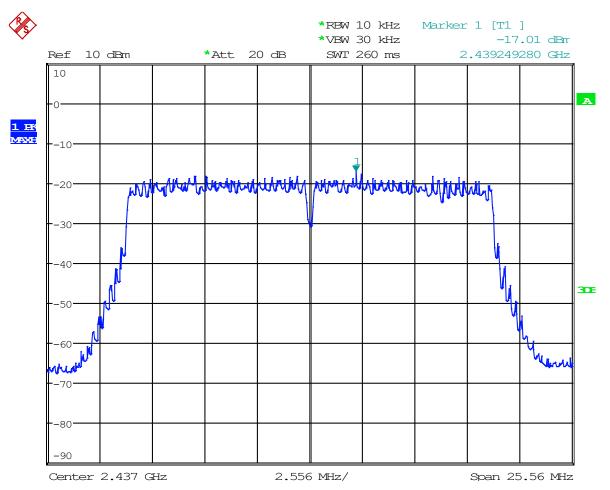
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### 11. 802.11n at HT20 of CH06



Date: 25.APR.2025 18:58:54

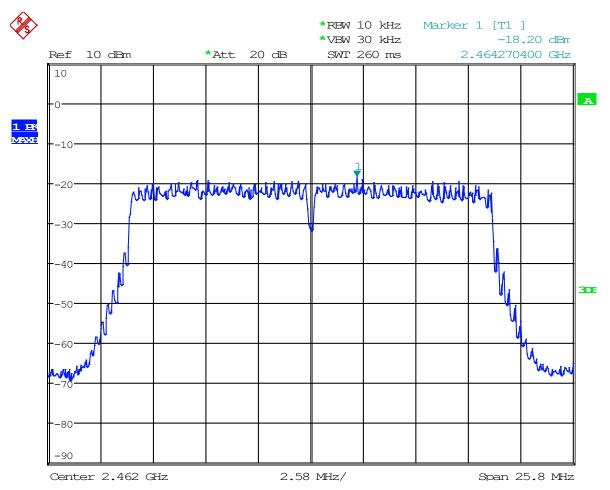
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### 12. 802.11n at HT20 of CH11



Date: 25.APR.2025 19:00:59

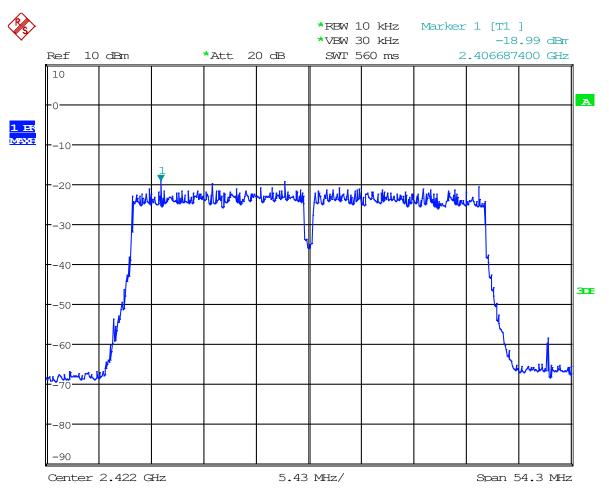
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### 13. 802.11n at HT40 of CH03



Date: 27.APR.2025 10:44:26

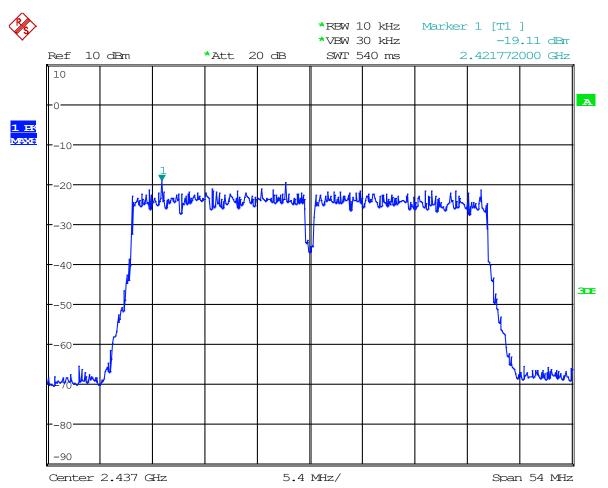
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#### 14. 802.11n at HT40 of CH06



Date: 27.APR.2025 10:47:56

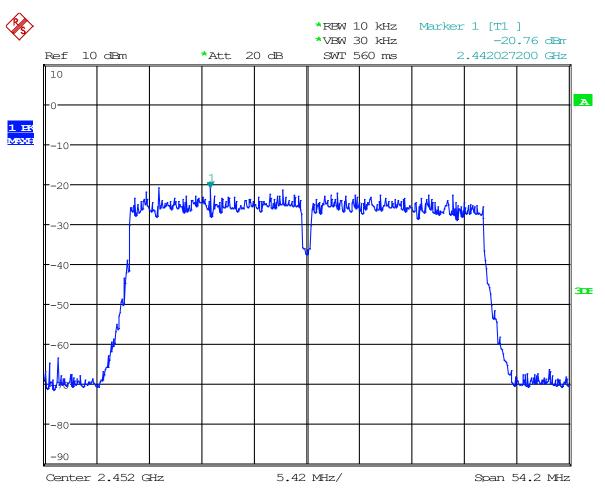
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#### 15. 802.11n at HT40 of CH09



Date: 27.APR.2025 10:50:05

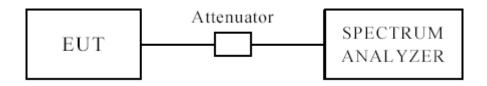
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# 10 Out of Band Measurement 10.1 Test Setup for band edge



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

#### 10.2 Limits of Out of Band Emissions Measurement

- 1. Below –30dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

#### **10.3 Test Procedure**

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test. (Peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK detector)

For bandage test, the spectrum set as follows: RBW=100, VBW=300 kHz. A conducted measurement used

#### 10.4 Test Result

Please see next pages

Note: 1. For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

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# For 802.11b mode

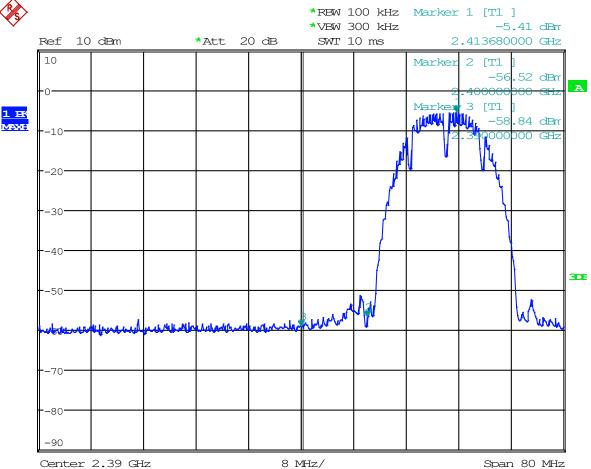
CH01 at 1Mbps

#### 10.4 Band-edge Measurement

EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

# **Test Figure:**





Date: 25.APR.2025 16:09:21

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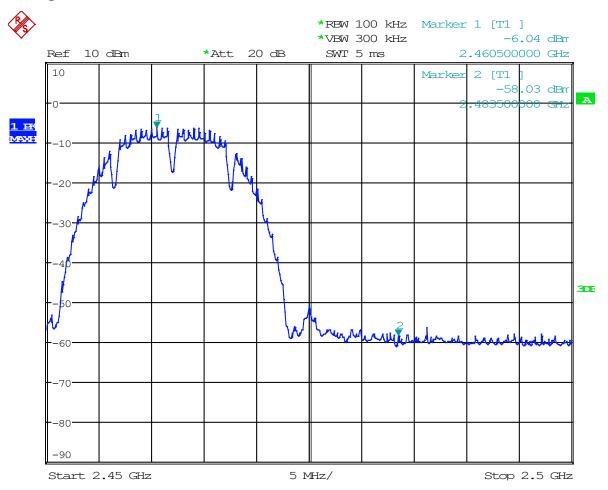


### CH11 at 1Mbps

#### 10.4 Band-edge Measurement

EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

# **Test Figure:**



Date: 25.APR.2025 16:10:23

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# For 802.11b mode

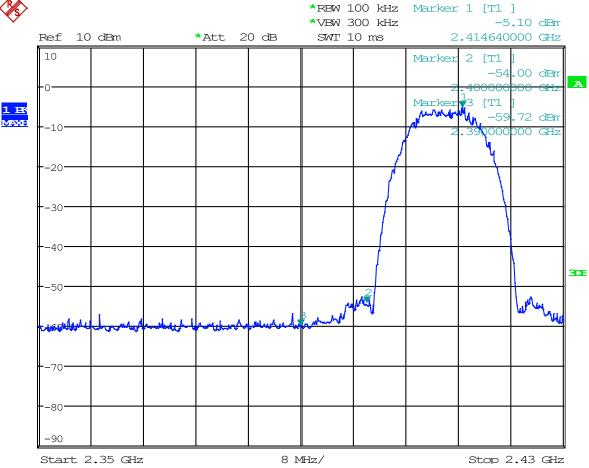
CH01 at 11Mbps

#### 10.4 Band-edge Measurement

EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

# **Test Figure:**





Date: 25.APR.2025 16:12:51

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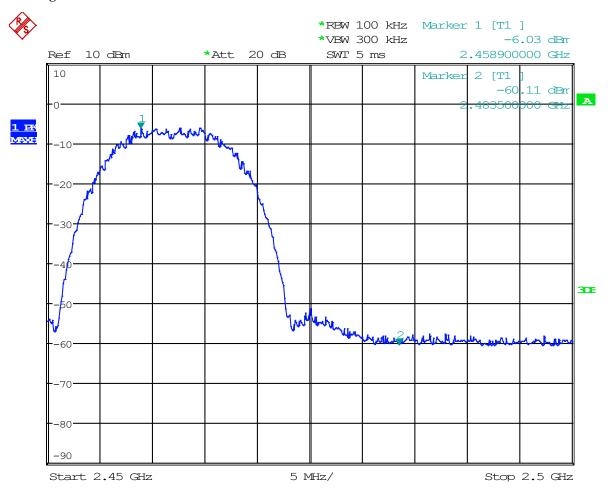


# CH11 at 11Mbps

#### 10.4 Band-edge Measurement

EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

# **Test Figure:**



Date: 25.APR.2025 16:11:35

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# For 802.11g mode

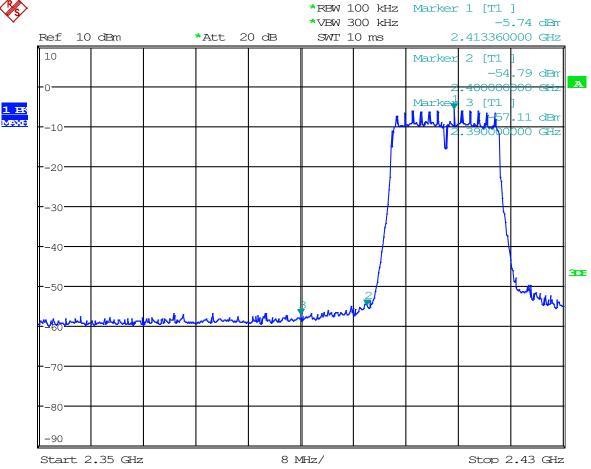
CH01 at 6Mbps

#### 10.4 Band-edge Measurement

EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

# **Test Figure:**





Date: 25.APR.2025 16:16:46

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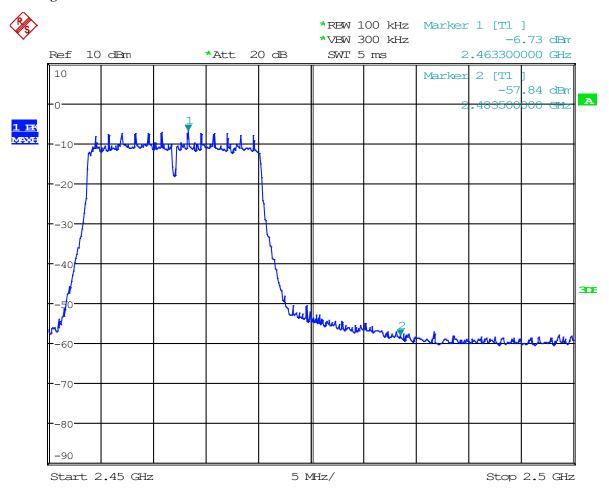


# CH11 at 6Mbps

#### Band-edge Measurement 10.4

EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

# **Test Figure:**



Date: 25.APR.2025 16:18:17

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# For 802.11n (HT20) mode

CH01 at 6.5Mbps

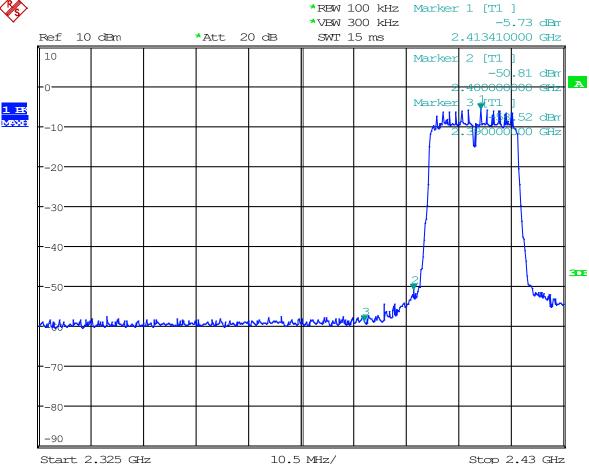
#### Band-edge Measurement 10.4

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EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

# **Test Figure:**





Date: 25.APR.2025 16:24:31

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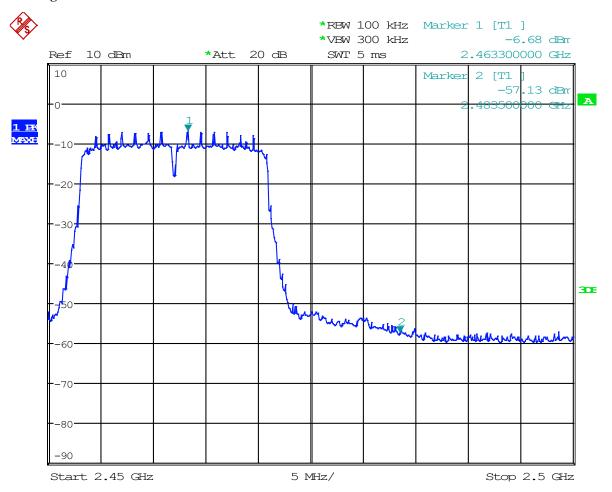


## CH11 at 6.5Mbps

#### 10.4 Band-edge Measurement

EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

# **Test Figure:**



Date: 25.APR.2025 16:22:14

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## For 802.11n (HT40) mode

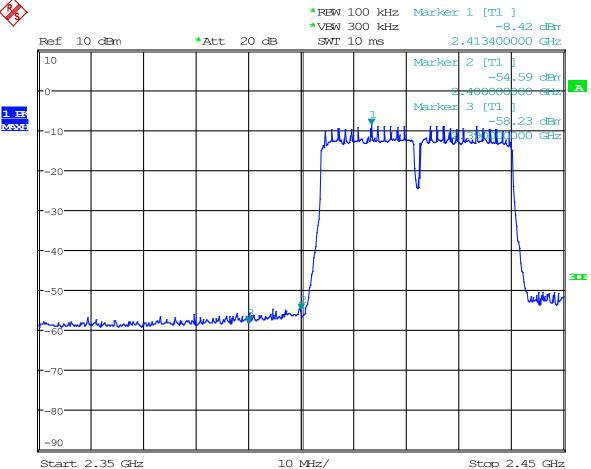
CH03 at 6.5Mbps

#### 10.4 Band-edge Measurement

EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

## **Test Figure:**





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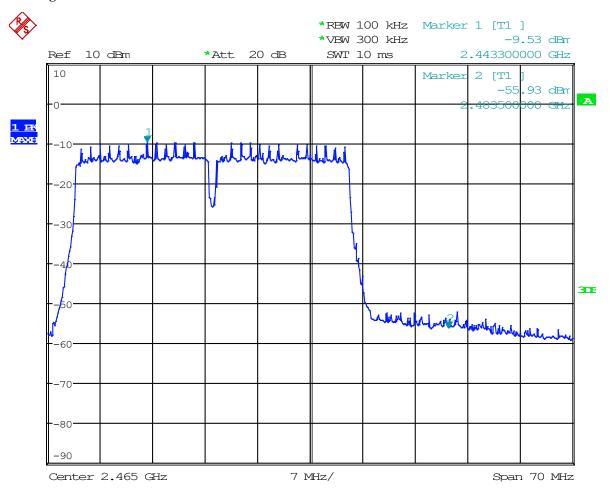


## CH03 at 6.5Mbps

#### 10.4 Band-edge Measurement

EUT	Thermal sights	Model	NB650LRF
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C	Humidity	56% RH
Test Result:	Pass	Detector	PK

# **Test Figure:**



Date: 25.APR.2025 16:40:04

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#### 10.5 Restricted band Measurement

EUT		Thermal sights		Mo	odel	NB650LRF			
Mode	Kee	Keeping Transmitting				DC3.7V			
Temperature			Hum	nidity	56% RH				
Test Result:		Pass				PK			
802.11b mode, Low Channel, Horizontal									
2390 MHz	PK (dBµV/m)	38.18	т:.			$74(dB\mu V/m)$			
	AV (dBμV/m)		Lli	mit	54(dBμV/m)				
	802.11b mode, Low Channel, Vertical								
2390 MHz	PK (dBμV/m)	38.52	т.:.	.,		74(dBμV/m)			
	AV (dBμV/m)		Lli	mit	54(dBμV/m)				

EUT		Thermal sights		M	odel	NB650LRF		
Mode	Keeping Transmitting				Voltage	DC3.7V		
Temperature	24 deg. C,			Hur	nidity	56% RH		
Test Result:		Pass				PK		
802.11b mode, High Channel, Horizontal								
2483.5 MHz	PK (dBµV/m)	38.12	т.	•,	74(dBμV/m)			
	AV (dBμV/m)		Lim	IŢ	54(dBμV/m)			
		802.11b mode, High	Channel, V	/ertical				
2483.5 MHz	PK (dBμV/m)	37.07	Lim	T		74(dBμV/m)		
	AV (dBμV/m)		Lim	Il		$54(dB\mu V/m)$		

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#### 10.5 Restricted band Measurement

EUT		Thermal sights		Mo	odel	NB650LRF			
Mode	Kee	Keeping Transmitting				DC3.7V			
Temperature		24 deg. C,				56% RH			
Test Result:		Pass				PK			
802.11g mode, Low Channel, Horizontal									
2390 MHz	PK (dBµV/m)	39.68	т:.			$74(dB\mu V/m)$			
	AV (dBμV/m)		Lli	mit	54(dBμV/m)				
	802.11g mode, Low Channel, Vertical								
2390 MHz	PK (dBμV/m)	40.21	т.:.	•,		74(dBμV/m)			
	AV (dBμV/m)		Lli	mit	54(dBμV/m)				

EUT		Thermal sights		M	odel	NB650LRF		
Mode	Keeping Transmitting				Voltage	DC3.7V		
Temperature	24 deg. C,			Hur	nidity	56% RH		
Test Result:		Pass		Det	tector	PK		
802.11g mode, High Channel, Horizontal								
2483.5 MHz	PK (dBµV/m)	41.93	т.	٠,		$74(dB\mu V/m)$		
	AV (dBμV/m)		Lim	1τ	54(dBμV/m)			
		802.11g mode, High	Channel, V	/ertical				
2483.5 MHz	PK (dBμV/m)	40.28	Lim	74		74(dBμV/m)		
	AV (dBμV/m)		Lim	11		$54(dB\mu V/m)$		

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#### 10.5 Restricted band Measurement

EUT		Thermal sights		Model		NB650LRF		
Mode	Kee	Keeping Transmitting				DC3.7V		
Temperature	24 deg. C,			Hun	nidity	56% RH		
Test Result:			Dete	ector	PK			
802.11n HT20 mode, Low Channel, Horizontal								
2390 MHz	PK (dBμV/m)	40.57	т:.			$74(dB\mu V/m)$		
	AV (dBμV/m)		Liı	mı	54(dBμV/m)			
	8	302.11n HT20 mode, Lo	ow Chanr	nel, Vertic	cal			
2390 MHz	PK (dBμV/m)	40.26	т:.	- · ·,		74(dBµV/m)		
	AV (dBμV/m)		Limit			54(dBµV/m)		

EUT		Thermal sights		M	odel	NB650LRF		
Mode	Keeping Transmitting			Test '	Voltage	DC3.7V		
Temperature	24 deg. C,			Hur	nidity	56% RH		
Test Result:		Pass		Det	ector	PK		
802.11n HT20 mode, High Channel, Horizontal								
2483.5 MHz	PK (dBμV/m)	42.26	т.	•,	$74(dB\mu V/m)$			
	AV (dBμV/m)		Lim	IŢ	54(dBμV/m)			
	8	302.11n HT20 mode, H	igh Channe	el, Verti	cal			
2483.5 MHz	PK (dBμV/m)	41.58	Lim	. 74(dBµV/m)		74(dBμV/m)		
	$AV (dB\mu V/m)$		Lim	Il		$54(dB\mu V/m)$		

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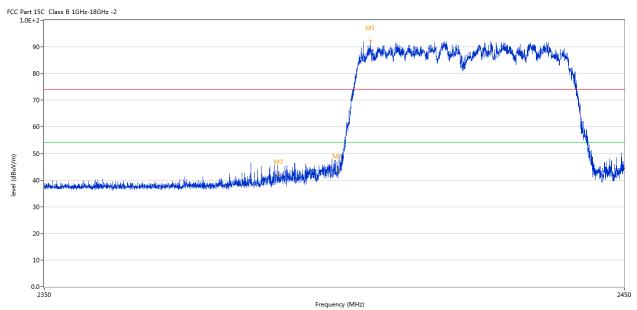
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#### 10.5 Restricted band Measurement

EUT		Thermal sights		M	odel	NB650LRF			
Mode	Kee	Keeping Transmitting				DC3.7V			
Temperature			Hur	nidity	56% RH				
Test Result:		Pass		Det	Detector PK				
802.11n HT40 mode, Low Channel, Horizontal									
2390 MHz	PK (dBμV/m)	41.82	т:.	:4		74(dBμV/m)			
	AV (dBμV/m)		Lli	mit	54(dBμV/m)				
		802.11n HT40 mode, L	ow Chan	nel Vertic	al				
2390 MHz	PK (dBμV/m)	45.35	т.:.			74(dBμV/m)			
	AV (dBμV/m)		Limit			$54(dB\mu V/m)$			

## **Test Plots**



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2405.711	92.23	-3.57	74.0	18.23	Peak	184.00	100	Horizontal	N/A
2	2400.000	43.92	-3.57	74.0	-30.08	Peak	180.00	100	Horizontal	Pass
3	2390.000	41.82	-3.53	74.0	-32.18	Peak	224.20	100	Horizontal	Pass

The report refers only to the sample tested and does not apply to the bulk.

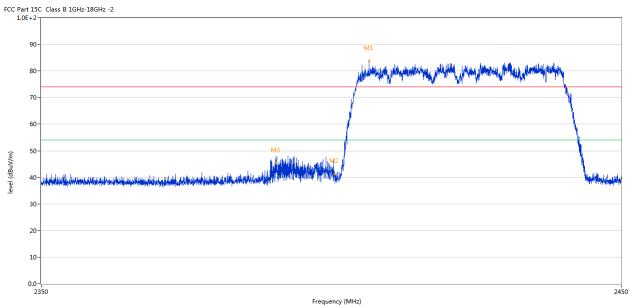
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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2405.986	83.75	-3.57	74.0	9.75	Peak	277.00	100	Vertical	N/A
2	2400.000	41.25	-3.57	74.0	-32.75	Peak	290.00	100	Vertical	Pass
3	2390.000	45.35	-3.53	74.0	-28.65	Peak	291.00	100	Vertical	Pass

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EUT	Thermal sights				Iodel	NB650LRF			
Mode	Keeping Transmitting				Voltage	DC3.7V			
Temperature	24 deg. C,				midity	56% RH			
Test Result:		Pass	De	etector	PK				
802.11n HT40 mode, High Channel, Horizontal									
2483.5 MHz	PK (dBµV/m)	44.73	Limit			$74(dB\mu V/m)$			
	AV (dBμV/m)		Lim	Ιt	$54(dB\mu V/m)$				
802.11n HT40 mode, High Channel, Vertical									
2483.5 MHz	PK (dBμV/m)	40.49		٠,		74(dBμV/m)			
	AV (dBμV/m)		Limit			$54(dB\mu V/m)$			



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2435.581	91.34	-3.57	74.0	17.34	Peak	191.00	100	Horizontal	N/A
2	2483.500	44.73	-3.57	74.0	-29.27	Peak	181.22	100	Horizontal	Pass

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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2454.704	85.07	-3.57	74.0	11.07	Peak	289.00	100	Vertical	N/A
2	2483.500	40.49	-3.57	74.0	-33.51	Peak	210.67	100	Vertical	Pass

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## 11.0 Antenna Requirement

## 11.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi

are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

### 11.2 Antenna Connected construction

Chip antenna with gain 6.1dBi Max (Get from the antenna specification)

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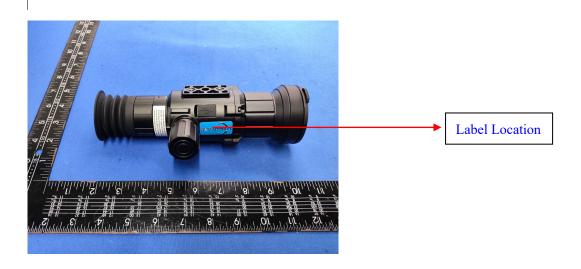


### 12.0 FCC ID Label

## **FCC ID: 2A6JR-729A**

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

### **Mark Location:**



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#### 13.0 **Photo of testing**

Conducted Emission Test Setup:



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## Radiated Emission Test Setup:



The report refers only to the sample tested and does not apply to the bulk.

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# Photographs - EUT

Outside View





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Outside View





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Outside View





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Inside View





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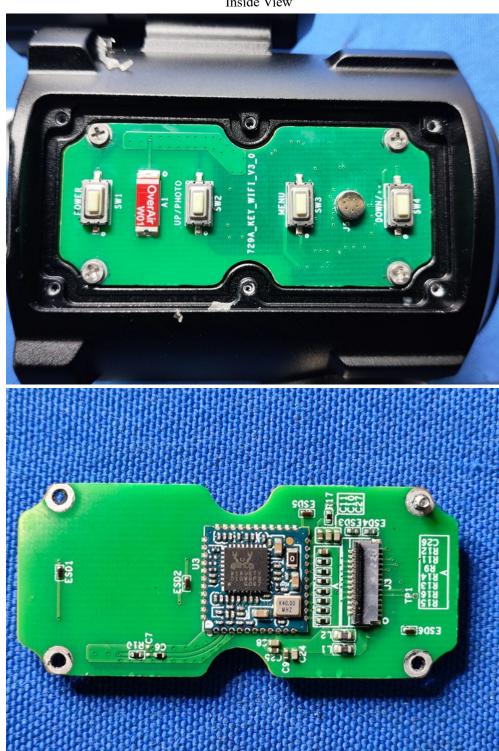
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Inside View



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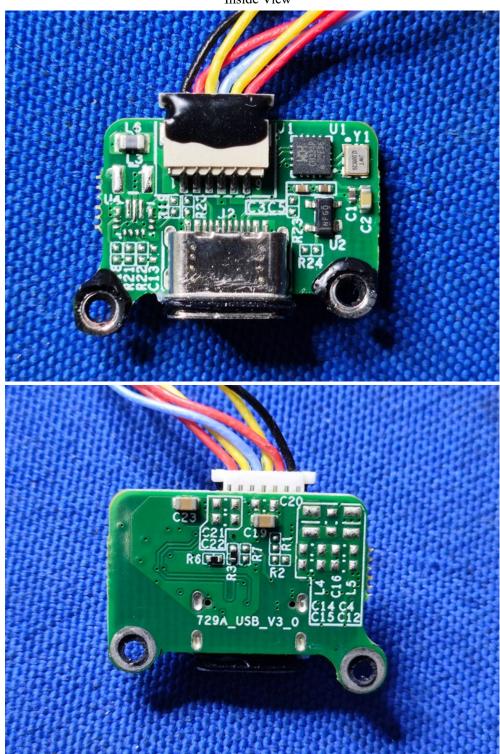
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Inside View



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