

# FCC 47 CFR PART 15 SUBPART C ISED RSS-247 Issue 3

### **TEST REPORT**

For

**Electronic Scale** 

**MODEL NUMBER: UNI-8RP** 

**PROJECT NUMBER: 4790976937** 

REPORT NUMBER: 4790976937-1

FCC ID: 2BAGW-UNI8RP

IC: 30176-UNI8RP

**HVIN: UNI-8RP** 

**ISSUE DATE: Sep. 26, 2023** 

Prepared for

### SHANGHAI ISHIDA ELECTRONIC SCALES CO LTD

Prepared by

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# **Revision History**

Rev.	Issue Date	Revisions	Revised By
V0	09/26/2023	Initial Issue	



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## 1. APPLICANT INFORMATION

**Applicant Information** 

Company Name: SHANGHAI ISHIDA ELECTRONIC SCALES CO LTD Address: Building 2, No. 86, Minxue Rd, Pudong, Shanghai

**Manufacturer Information** 

Company Name: SHANGHAI ISHIDA ELECTRONIC SCALES CO LTD Address: Building 2, No. 86, Minxue Rd, Pudong, Shanghai

**EUT Description** 

Product Name: Electronic Scale

Model Name: UNI-8RP

Additional No.: /
Model Difference: /

Sample Number: 6397208
Data of Receipt Sample: Sep. 01, 2023

Test Date: Sep. 01, 2023~ Sep. 26, 2023

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	PASS
ISED RSS-247 Issue 3	PASS
ISED RSS-GEN Issue 5	PASS



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Summary of Test Results					
Clause	Test Items	FCC&ISED Rules	Test Results		
1	6 dB Bandwidth and 99% Occupied Bandwidth	FCC 15.247 (a) (2) RSS-247 Clause 5.2 (a) RSS-Gen Clause 6.7	PASS		
2	Conducted Power	FCC 15.247 (b) (3) RSS-247 Clause 5.4 (d) RSS-Gen Clause 6.12	PASS		
3	Power Spectral Density	FCC 15.247 (e) RSS-247 Clause 5.2 (b)	PASS		
4	Conducted Band edge And Spurious emission	FCC 15.247 (d) RSS-247 Clause 5.5 RSS-GEN Clause 6.13	PASS		
5	Radiated Band edges and Spurious emission	FCC 15.247 (d) FCC 15.209 FCC 15.205 RSS-247 Clause 5.5 RSS-GEN Clause 6.13 RSS-GEN Clause 8.9 RSS-GEN Clause 8.10	PASS		
6	Conducted Emission Test for AC Power Port	FCC 15.207 RSS-GEN Clause 8.8	PASS		
7	Antenna Requirement	FCC 15.203 RSS-GEN Clause 6.8	PASS		

Note:

The measurement result for the sample received is <Pass> according to < ANSI C63.10-2013, FCC 47 CFR Part 2, FCC 47 CFR Part 15C, ISED RSS-247, ISED RSS-Gen > when <Accuracy Method> decision rule is applied.

Prepared By:	Reviewed By:	
Tom Tang	Leun. Shen	
Tom Tang	Kevin Shen	
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Leon Wu		
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## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r02, 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15, ANSI C63.10-2013, ISED RSS-247 Issue 3 and ISED RSS-GEN Issue 5.

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 4829.01) UL-CCIC COMPANY LIMITED has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1247) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules. IC (IC Designation No.: 25056; CAB No.: CN0073) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.
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Note 1: All tests measurement facilities use to collect the measurement data are located at No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, China.

Note 2: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. These measurements below 30MHz had been correlated to measurements performed on an OFS.

Note 3: The test anechoic chamber in UL-CCIC COMPANY LIMITED had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.



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# 4. CALIBRATION AND UNCERTAINTY

# 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

## 4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Conduction emission	3.1 dB
Maximum Conduct Output Power	± 1.3 dB
DTS Bandwidth	±1.9%
Maximum Conducted Output Power	± 0.69 dB
Maximum Power Spectral Density Level	±1.5 dB
Band-edge Compliance	± 1.9%
Unwanted Emissions in Non-restricted Freq Bands	9 kHz-30 MHz: ±0.90 dB 30 MHz-1 GHz: ±1.5 dB 1 GHz-12.75 GHz: ±1.9 dB 12.75 GHz-26.5 GHz: ±2.1 dB
Radiation Emission test (include Fundamental emission) (9kHz-30MHz)	3.4 dB
Radiation Emission test (include Fundamental emission) (30MHz-1GHz)	3.4 dB
Radiation Emission test (1GHz to 26GHz) (include Fundamental emission)	3.5 dB (1 GHz-18 GHz)
Note: This upportainty represents an expanded up	3.9d B (18 GHz-26.5 GHz)

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



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# 5. EQUIPMENT UNDER TEST

# 5.1. DESCRIPTION OF EUT

Product Name:	Electronic Scale
Model No.:	UNI-8RP
Operating Frequency:	IEEE 802.11B/G/N(HT20): 2412MHz to 2462MHz IEEE 802.11N(HT40): 2422MHz to 2452MHz
Type of Modulation:	IEEE for 802.11B: DSSS (CCK, DQPSK, DBPSK) IEEE for 802.11G: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11N(HT20 and HT40): OFDM (64QAM, 16QAM, QPSK, BPSK)
Channels Step:	Channels with 5MHz step
Sample Type:	Fixed production
Test software of EUT:	PowerShell (manufacturer declare)
Antenna Type:	FPC Antenna
	6.51 dBi
Antenna Gain:	Note: This data is provided by customer and our lab isn't responsible for this data.



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#### **MAXIMUM OUTPUT POWER** 5.2.

Number of Transmit Chains (NTX)	IEE Std. 802.11	Channel Number	Max AVG Conducted Power (dBm)
1	IEEE 802.11B	1-11[11]	12.55
1	IEEE 802.11G	1-11[11]	11.86
1	IEEE 802.11N HT20	1-11[11]	12.14
1	IEEE 802.11N HT40	3-9[7]	9.50

## 5.3. CHANNEL LIST

	Channel List for 802.11B/G/N(20 MHz)						
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452		

Channel List for 802.11N(40 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	5	2432	7	2442	9	2452
4	2427	6	2437	8	2447		



# 5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel (MHz)
	LCH: CH01 2412
IEEE 802.11B	MCH: CH06 2437
	HCH: CH11 2462
	LCH: CH01 2412
IEEE 802.11G	MCH: CH06 2437
	HCH: CH11 2462
	LCH: CH01 2412
IEEE 802.11N HT20	MCH: CH06 2437
	HCH: CH11 2462
	LCH: CH03 2422
IEEE 802.11N HT40	MCH: CH06 2437
	HCH: CH09 2452

# 5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band								
Test Softw	/are			Powe	erShell			
	Transmit			Test C	hannel			
Modulation Mode	Antenna		NCB: 20MHz			NCB: 40MHz		
Wiode	Number	CH 1	CH 6	CH 11	CH 3	CH 6	CH 9	
802.11B	1	36	36	36				
802.11G	1	44	44	44	/			
802.11N HT20	1	44	44	44				
802.11N HT40	1		/		38	38	38	



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## 5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2400-2483.5	FPC Antenna	6.51

Note: This data is provided by customer and our lab isn't responsible for this data.

Test Mode	Transmit and Receive Mode	Description
IEEE 802.11B	⊠1TX, 1RX	Antenna1 can be used as transmitting/receiving antenna independently.
IEEE 802.11G	⊠1TX, 1RX	Antenna1 can be used as transmitting/receiving antenna independently.
IEEE 802.11N HT20	⊠1TX, 1RX	Antenna1 can be used as transmitting/receiving antenna independently.
IEEE 802.11N HT40	⊠1TX, 1RX	Antenna1 can be used as transmitting/receiving antenna independently.

## 5.7. THE WORSE CASE CONFIGURATIONS

For WIFI module, the worst-case data rates as provided by the client were:

802.11B mode: 1 Mbps 802.11G mode: 6 Mbps 802.11N HT20 mode: MCS0 802.11N HT40 mode: MCS0

## 5.8. TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests				
Relative Humidity:	55 ~ 65%				
Atmospheric Pressure:	1025Pa				
Temperature:	TN	23 ~ 28°C			
	VL	N/A			
Voltage:	VN	AC 120V			
	VH	N/A			

Note: VL= Lower Extreme Test Voltage

VN= Nominal Voltage

VH= Upper Extreme Test Voltage

TN= Normal Temperature



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# 5.9. DESCRIPTION OF TEST SETUP

# **SUPPORT EQUIPMENT**

Item	Equipment	Brand Name	Model Name	Description
1	Laptop	ThinkPad	E590	Supplied by UL Lab

# **I/O PORT**

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	LAN	LAN	LAN	100cm Length	/
2	USB	USB	USB	100cm Length	/

# **ACCESSORY**

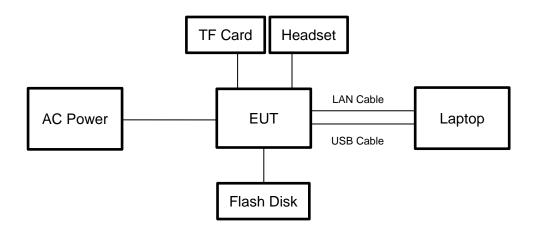
Item	Accessory	Brand Name	Model Name	Description
1	TF Card	SanDisk	A1	32G
2	Flash Disk	SanDisk	CZ73	16G
3	Headset	PHILIPS	SHE6000	Supplied by UL Lab



**TEST SETUP** 

The EUT can work in an engineer mode with a software through a laptop.

# **SETUP DIAGRAM FOR TESTS**





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# 5.10. MEASURING INSTRUMENT AND SOFTWARE USED

	Conducted Emissions (Instrument)								
Used	Equipment	Manufacturer	Mod	lel No.	Seri	al No.	Upper Last Cal.	Last Cal.	Next Cal.
$\overline{\checkmark}$	EMI Test Receiver	R&S	ESR3		12	6700	2021-12-04	2022-12-03	2023-12-02
$\overline{\checkmark}$	Two-Line V-Network	R&S	EN	V216	12	6701	2021-12-04	2022-12-03	2023-12-02
	Artificial Mains Networks	R&S	EN	NY81	12	6712	2021-10-12	2022-10-09	2023-10-08
				Softv	ware				
Used	Des	scription		Ма	nufac	turer	Name	Version	
$\checkmark$	Test Software for 0	Conducted distur	bance		R&S	;	EMC32	Ver. 9.25	
		Ra	diated	d Emissi	ons (	Instrum	ent)		
Used	Equipment	Manufacturer	Mod	lel No.	Seri	al No.	Upper Last Cal.	Last Cal.	Next Cal.
$\checkmark$	EMI test receiver	R&S		SR7		2993	2022-05-20	2023-04-08	2024-04-07
$\overline{\mathbf{V}}$	EMI test receiver	R&S		SR26		6703	2021-12-04	2022-12-03	2023-12-02
$\square$	Spectrum Analyzer	R&S	FS\	/3044	22	2992	2022-05-20	2023-04-08	2024-04-07
$\square$	Receiver Antenna (9kHz-30MHz)	Schwarzbeck	FMZ	B 1513	15	5456	2018-06-04	2021-06-03	2024-06-02
<b>V</b>	Receiver Antenna (30MHz-1GHz)	SunAR RF Motion	J	IB1	17	7821	2019-01-28	2022-01-18	2025-01-17
$\square$	Receiver Antenna (1GHz-18GHz)	R&S	HF	907	12	6705	2019-01-27	2022-02-28	2025-02-27
$\checkmark$	Receiver Antenna (18GHz-26.5GHz)	Schwarzbeck	BBHA9170		12	6706	2019-02-29	2022-02-28	2025-02-27
<b>V</b>	Pre-amplification (To 18GHz)	Tonscned	TAP01018050		22	4539	/	2022-10-20	2023-10-19
<b>V</b>	Pre-amplification (To 18GHz)	R&S	SCI	J-18D	13	4667	2021-12-04	2022-12-03	2023-12-02
<b>V</b>	Pre-amplification (To 26.5GHz)	R&S	SCI	J-26D	13	5391	2021-12-04	2022-12-03	2023-12-02
<b>V</b>	Band Reject Filter	Wainwright	2375 2485	CGV12- 5-2400- 5-2510- OSS		1	2022-05-20	2023-04-08	2024-04-07
	High Pass Filter	COM-MW		3-3-18G- 01		2	2022-05-20	2023-04-08	2024-04-07
	Software								
Used	Desci	ription	I	Manufac	turer		Name	Version	
$\overline{\mathbf{V}}$	Test Software for R			Tonsce			TS+	Ver. 2.5	
$\overline{\mathbf{V}}$	☑ Test Software for Radiated disturbance Chinese-EMC RE_RSE Ver. 3.0						Ver. 3.03		
Other instruments									
Used	Equipment	Manufacturer	Mod	lel No.	Seri	al No.	Upper Last Cal.	Last Cal.	Next Cal.
	Spectrum Analyzer	Keysight	N9	010B	15	5368	2022-05-20	2023-04-08	2024-04-07
	Power Meter	MWT	MW10	0-RFCB	22	1694	2022-05-23	2023-04-08	2024-04-07
V	Attenuator	PASTERNACK	PE7	'087-6	1	624	2022-05-23	2023-04-08	2024-04-07



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# 6. MEASUREMENT METHODS

No.	Test Item	KDB Name	Section
1	6dB Bandwidth and 99% Occupied Bandwidth	KDB 558074 D01 15.247 Meas Guidance v05r02	8.2
2	Output Power	KDB 558074 D01 15.247 Meas Guidance v05r02	8.3.2.3 (Method PM)
3	Power Spectral Density	KDB 558074 D01 15.247 Meas Guidance v05r02	8.4 (Method PKPSD)
4	Out-of-band emissions in non-restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.5
5	Out-of-band emissions in restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.6
6	Band-edge	KDB 558074 D01 15.247 Meas Guidance v05r02	8.7
7	Conducted Emission Test for AC Power Port	ANSI C63.10-2013	6.2



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## 7. ANTENNA PORT TEST RESULTS

# 7.1. ON TIME AND DUTY CYCLE

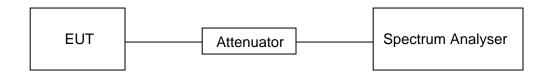
## **LIMITS**

None; for reporting purposes only

### **PROCEDURE**

FCC KDB 558074 Zero-Span Spectrum Analyzer Method

### **TEST SETUP**



### **TEST ENVIRONMENT**

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

### **TEST RESULTS TABLE**

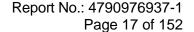
Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)	1/T Minimum VBW (kHz)	Final VBW (kHz)
11B	12.42	12.58	0.9873	98.73%	0.06	-	0.01
11G	2.06	2.19	0.9406	94.06%	0.27	0.49	1
802.11N HT20	1.92	2.09	0.9187	91.87%	0.37	0.52	1
802.11N HT40	0.94	1.11	0.8468	84.68%	0.72	1.06	2

Note: 1) Duty Cycle Correction Factor=10log(1/x).

2) Where: x is Duty Cycle (Linear)

3) Where: T is On Time (transmit duration)

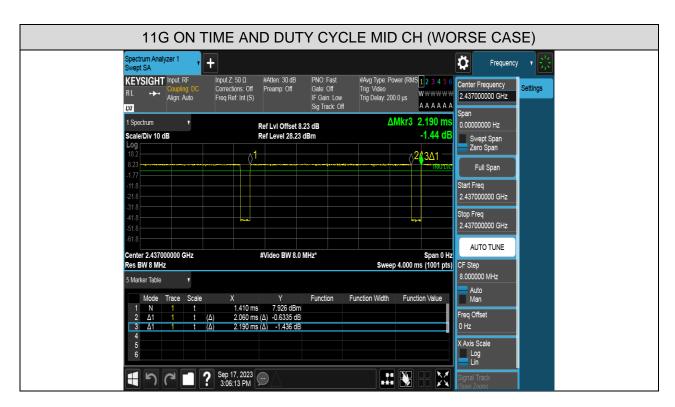
4) If the duty cycle is above 98%, the Final VBW is 10Hz.

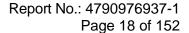




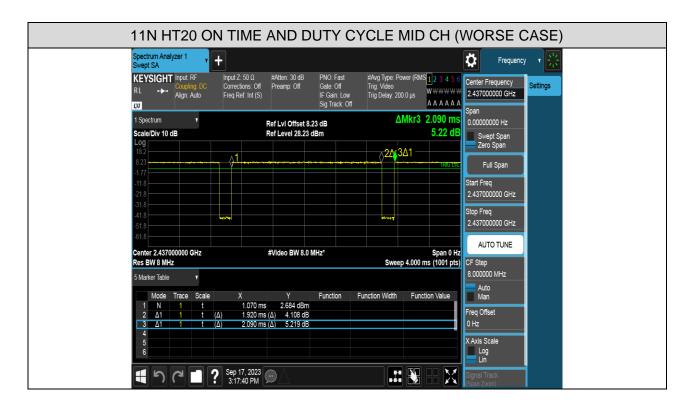
### **TEST GRAPHS**















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## 7.2. 6 dB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

## **LIMITS**

FCC Part15 (15.247), Subpart C						
Section	on Test Item Limit Frequency Range (MHz)					
CFR 47 FCC 15.247(a)(2) ISED RSS-247 5.2 (a)	6dB Bandwidth	>= 500kHz	2400-2483.5			
ISED RSS-Gen Clause 6.7	99% Occupied Bandwidth	For reporting purposes only	2400-2483.5			

## **TEST PROCEDURE**

Refer to ANSI C63.10-2013 clause 11.8 for DTS bandwidth and clause 6.9 for Occupied Bandwidth.

Connect the EUT to the spectrum analyser and use the following settings:

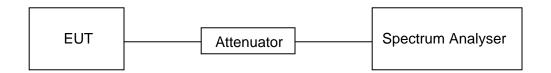
Connect the LOT to the spectrum analyser and use the following settings.		
Center Frequency	The centre frequency of the channel under test	
Detector	Peak	
IRRW	For 6 dB Bandwidth: 100 kHz For 99% Occupied Bandwidth: 1% to 5% of the occupied bandwidth	
1\/ <b>B</b> \/ \/	For 6 dB Bandwidth: ≥3 × RBW For 99% Occupied Bandwidth: ≥3 × RBW	
Trace	Max hold	
Sweep	Auto couple	

- a) Use the 99% power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.
- b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



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# **TEST SETUP**



# **TEST ENVIRONMENT**

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

# **TEST RESULTS TABLE**

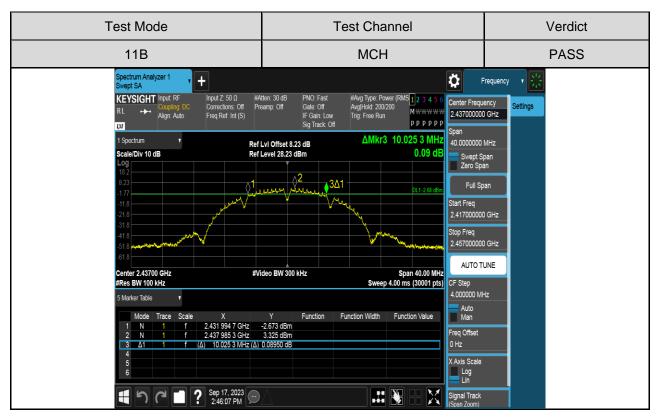
Test Mode	Test Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Result
	LCH	10.0333	14.765	Pass
11B	MCH	10.0253	14.729	Pass
	HCH	9.0747	14.740	Pass
	LCH	16.3187	16.580	Pass
11G	MCH	16.3533	16.568	Pass
	HCH	16.3333	16.575	Pass
	LCH	17.5480	17.743	Pass
11N HT20	MCH	17.3173	17.747	Pass
	HCH	17.5680	17.753	Pass
	LCH	35.2827	36.105	Pass
11N HT40	MCH	35.3413	36.113	Pass
	HCH	35.6480	36.142	Pass

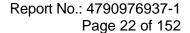


### **TEST GRAPHS**

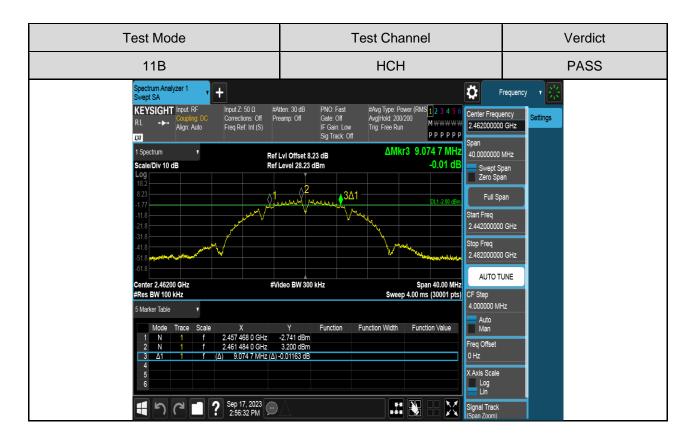
### 6dB Bandwdith

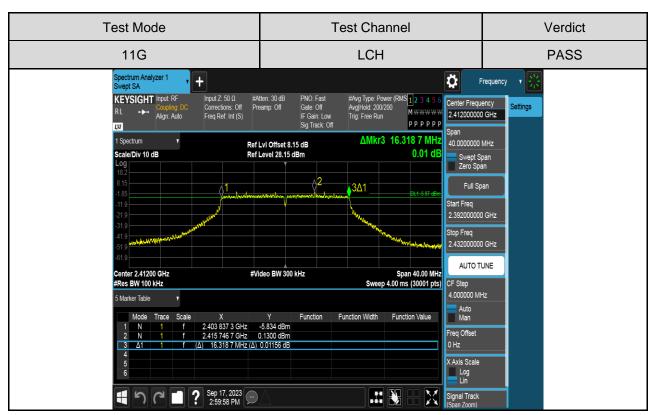


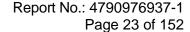






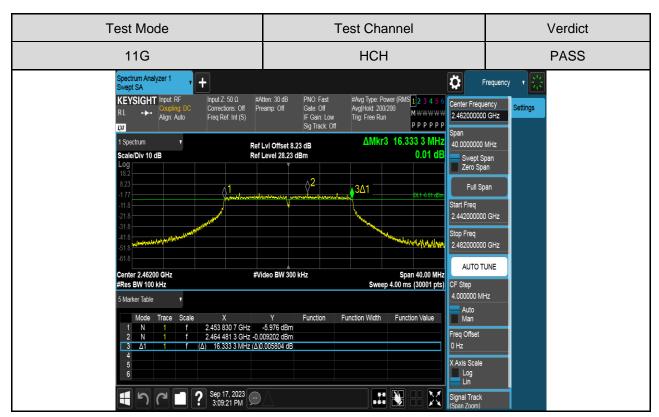


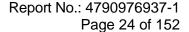




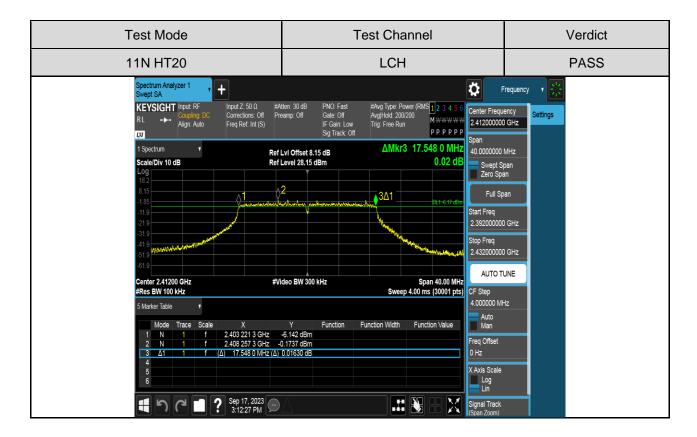


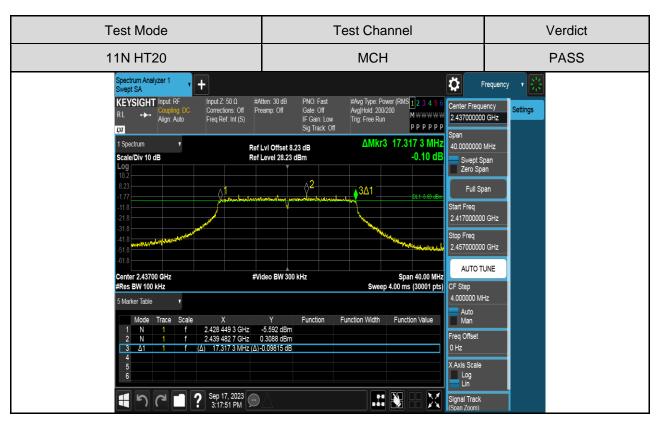


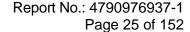




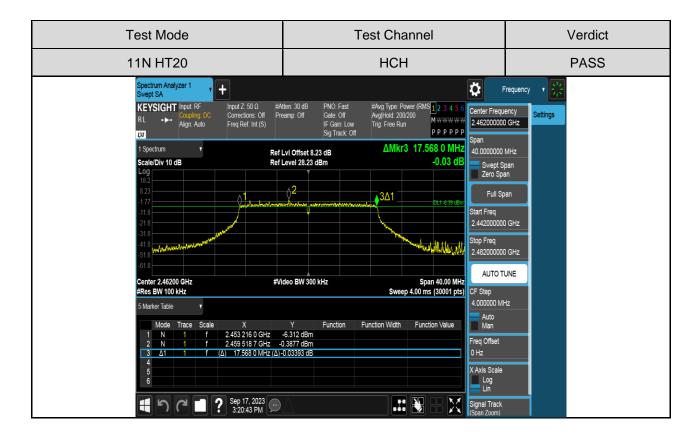


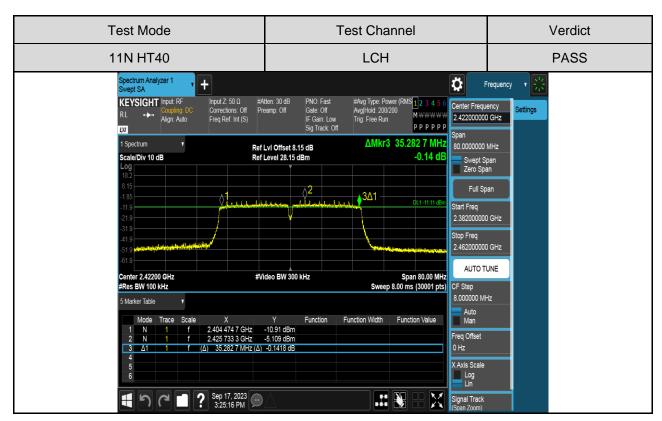


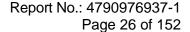




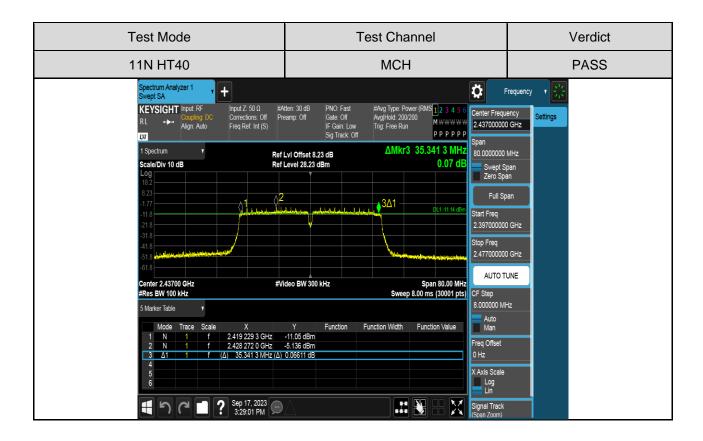


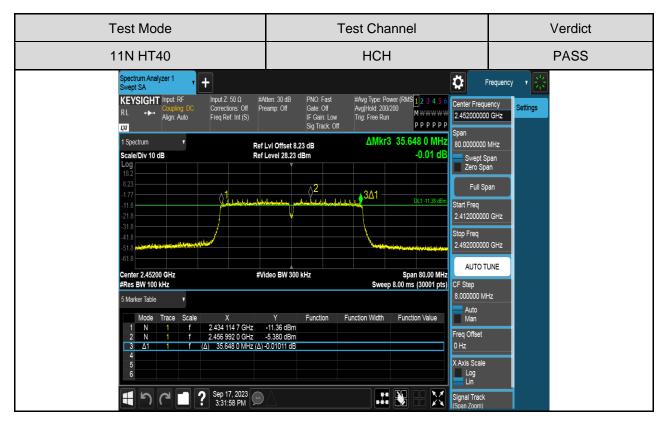








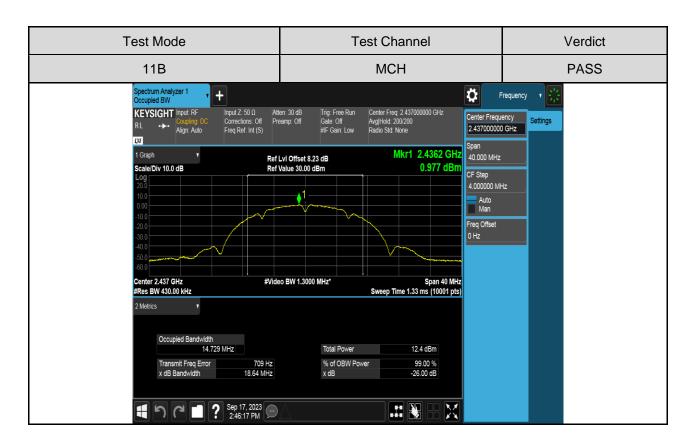


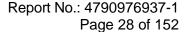




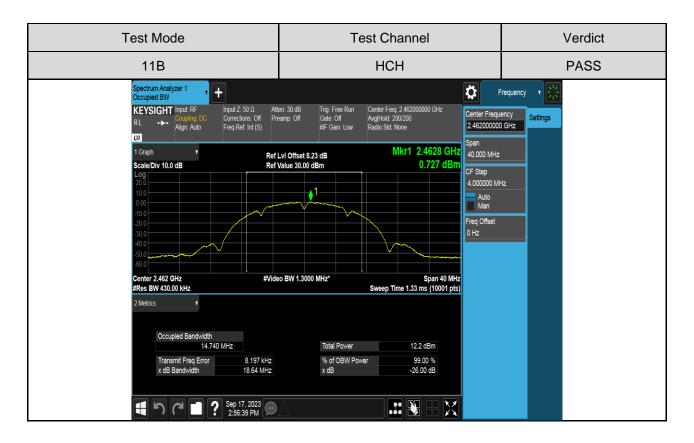
99% Bandwidth

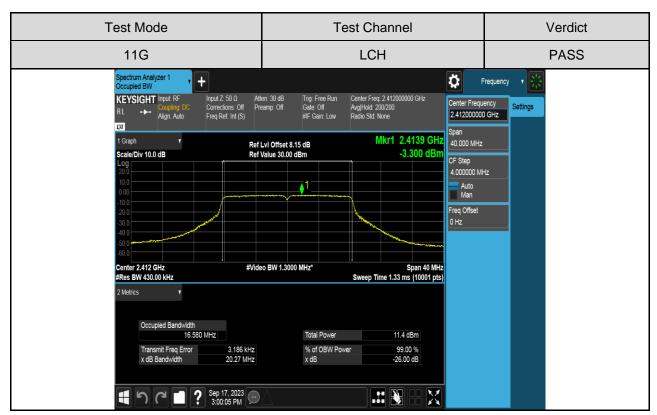


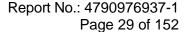




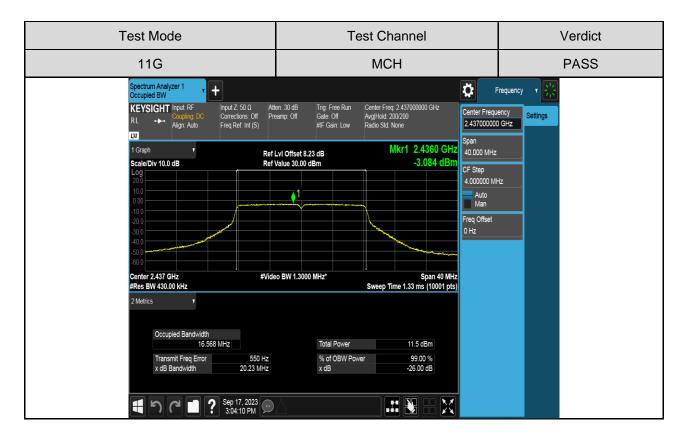


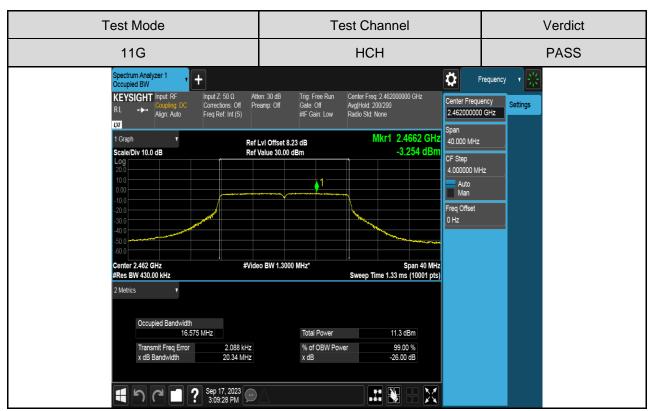


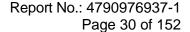




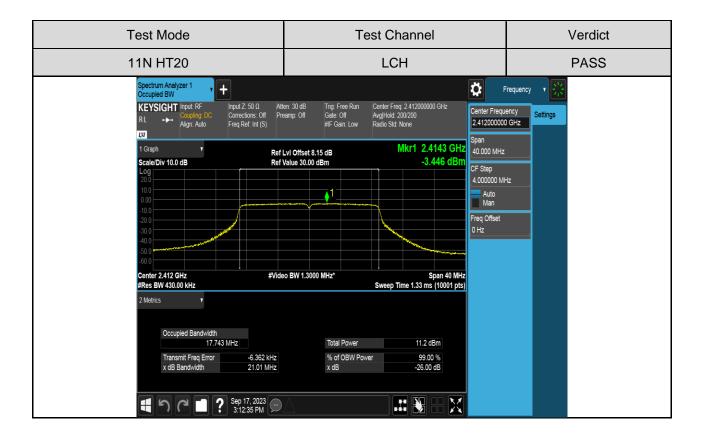


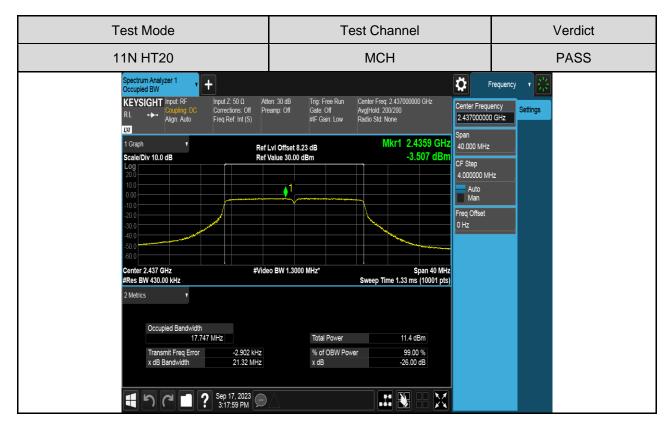


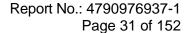




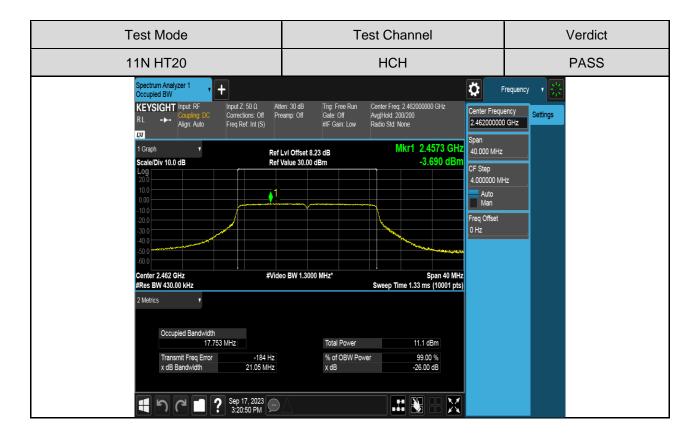


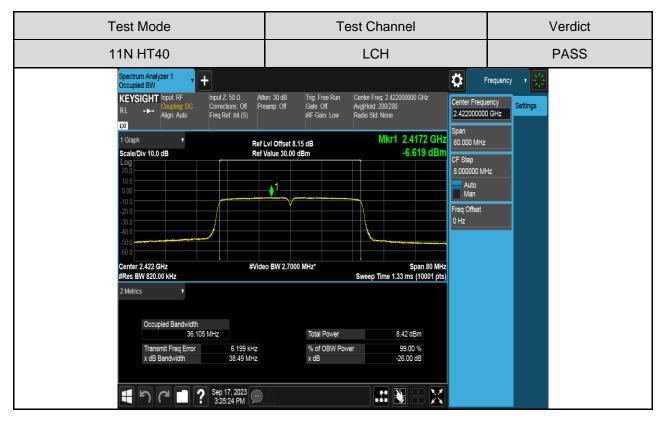


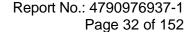




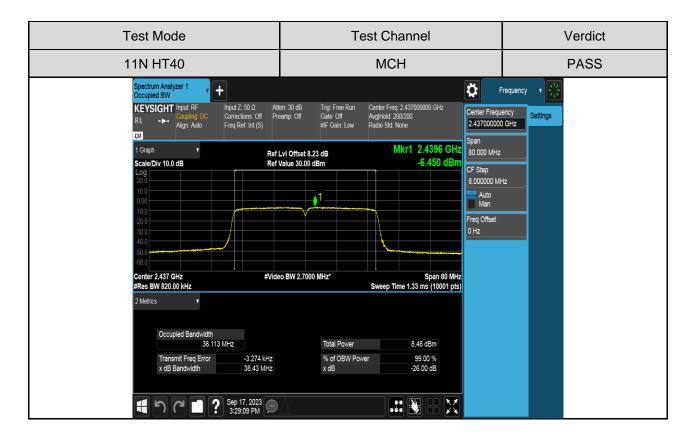


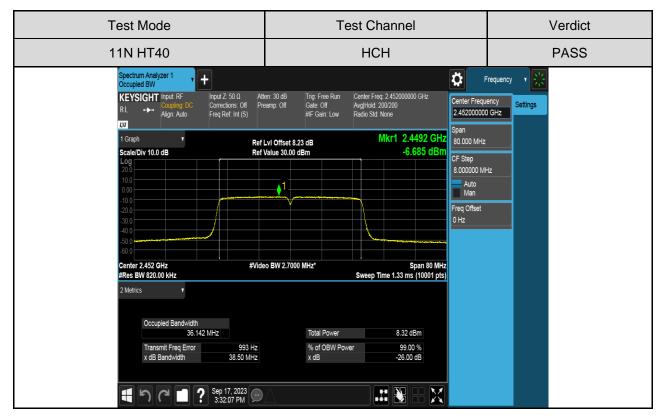














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## 7.3. CONDUCTED OUTPUT POWER

### **LIMITS**

	FCC Part15 (	15.247), Subpart C	
Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.247(b)(3) ISED RSS-247 5.4 (d) RSS-Gen Clause 6.12	Output Power	1 watt or 30dBm	2400-2483.5

Note: As the transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### **TEST PROCEDURE**

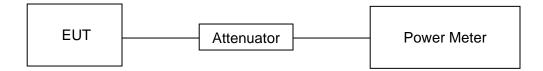
Place the EUT on the table and set it in the transmitting mode.

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Power sensor.

Measure the power of each channel.

AVG Detector used for AVG result.

### **TEST SETUP**





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# **TEST ENVIRONMENT**

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

# **TEST RESULTS TABLE**

Test Mode	Test Channel	Measurement Output Power (AV)	10log(1/x) Factor	Maximum Conducted Output Power (AV)	LIMIT
		dBm	dBm	dBm	dBm
	LCH	12.29	0.06	12.35	29.49
11B	MCH	12.49	0.06	12.55	29.49
	HCH	12.14	0.06	12.20	29.49
	LCH	11.54	0.27	11.81	29.49
11G	MCH	11.59	0.27	11.86	29.49
	HCH	11.38	0.27	11.65	29.49
	LCH	11.47	0.37	11.84	29.49
11N HT20	MCH	11.77	0.37	12.14	29.49
	HCH	11.29	0.37	11.66	29.49
	LCH	8.76	0.72	9.48	29.49
11N HT40	MCH	8.78	0.72	9.50	29.49
	HCH	8.56	0.72	9.28	29.49



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## 7.4. POWER SPECTRAL DENSITY

# **LIMITS**

	FCC Part15 (15.247),	Subpart C	
Section Test Item Limit Frequency Range (MHz)			
FCC §15.247 (e) ISED RSS-247 5.2 (b)	Power Spectral Density	8 dBm/3 kHz	2400-2483.5

## **TEST PROCEDURE**

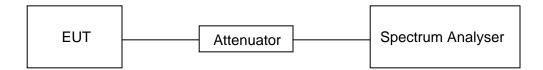
Refer to FCC KDB 558074, connect the UUT to the spectrum analyser and use the following settings:

<del>ootan igoi</del>	
Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	3 kHz ≤ RBW ≤100 kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

## **TEST SETUP**





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# **TEST ENVIRONMENT**

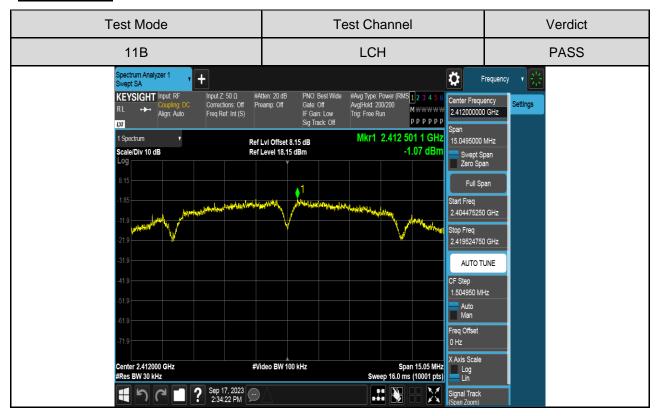
Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

# **TEST RESULTS TABLE**

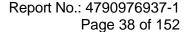
Test Mode	Test Channel	Maximum Peak power spectral density (dBm/30kHz)	Result
	LCH	-1.07	Pass
11B	MCH	-0.12	Pass
	HCH	0.59	Pass
	LCH	-3.90	Pass
11G	MCH	-3.99	Pass
	HCH	-4.04	Pass
	LCH	-4.63	Pass
11N HT20	MCH	-4.47	Pass
	HCH	-4.63	Pass
	LCH	-10.19	Pass
11N HT40	MCH	-10.15	Pass
	HCH	-10.23	Pass



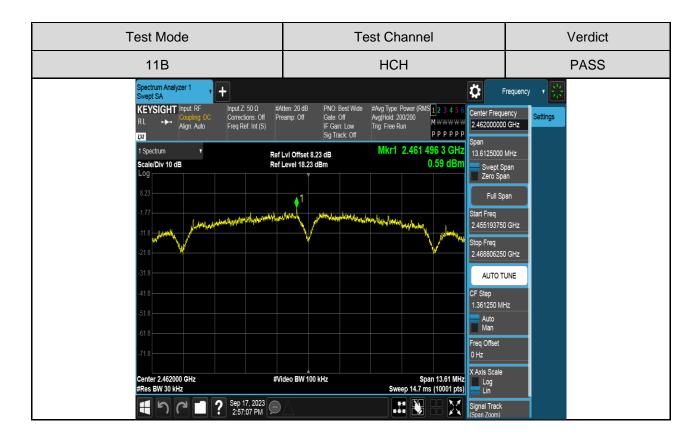
### **TEST GRAPHS**

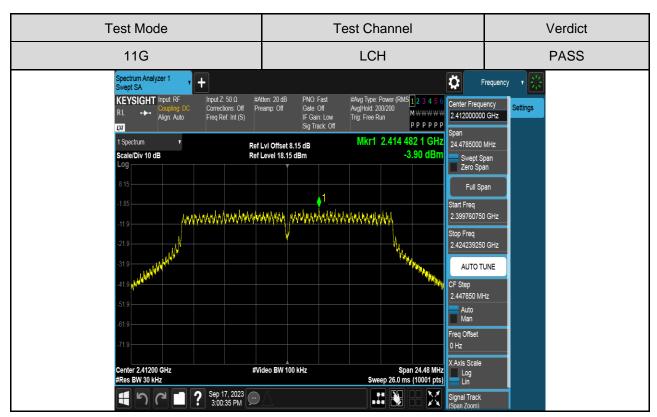


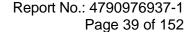




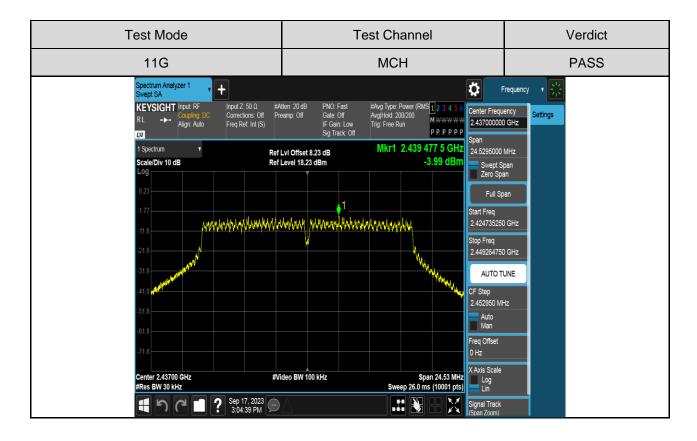


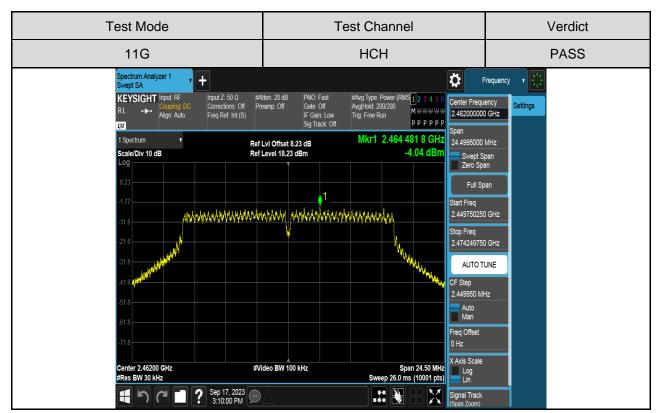


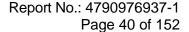




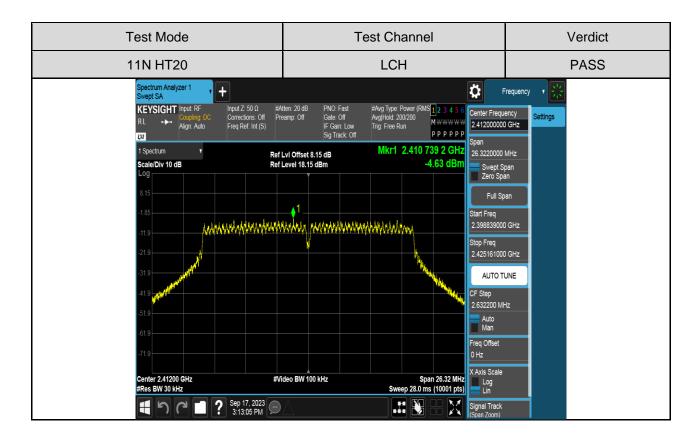


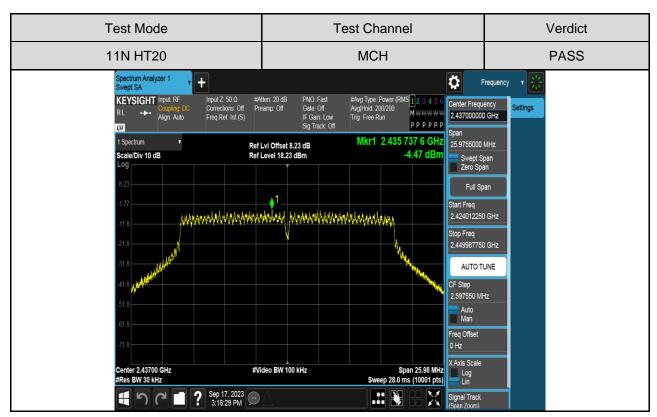


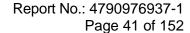




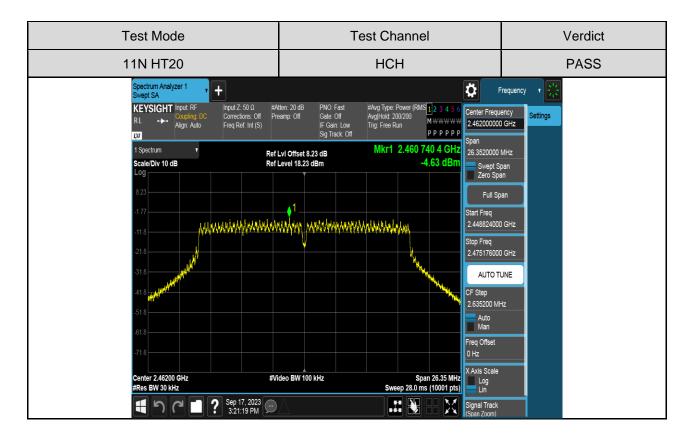


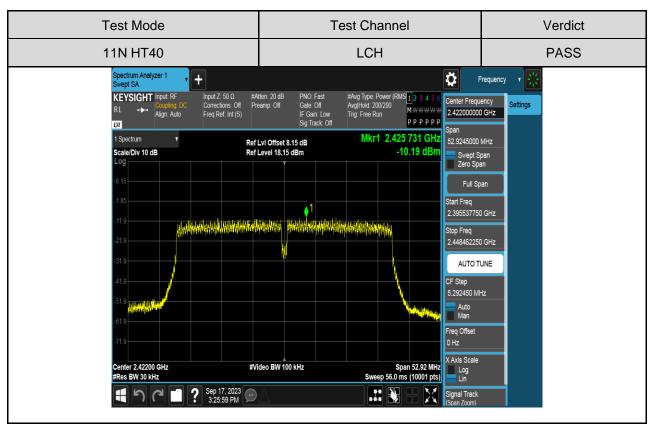


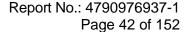




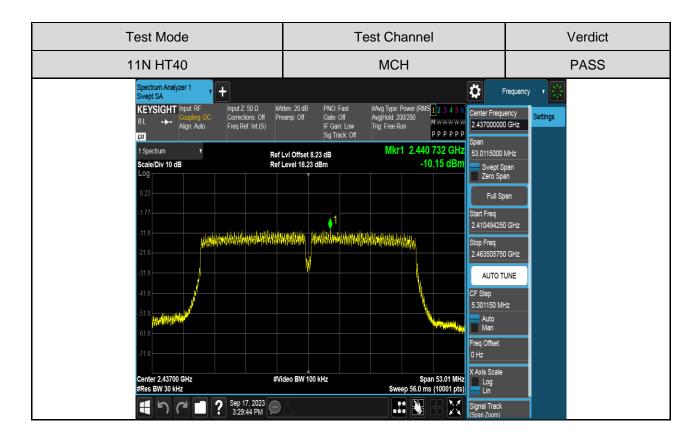


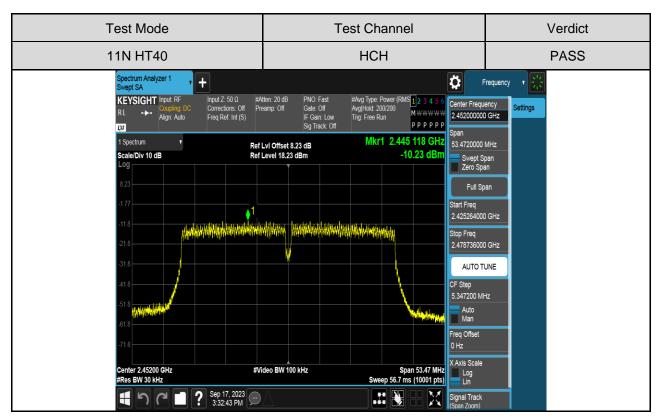














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# 7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

## **LIMITS**

FCC Part15 (15.247), Subpart C			
Section Test Item Limit			
FCC §15.247 (d) Conducted 30 dB below that in the 100 kHz bandwidth			
RSS-247 Clause 5.5 Bandedge and within the band that contains the highest			
RSS-GEN Clause 6.13	Spurious Emissions	level of the desired power	

## **TEST PROCEDURE**

Refer to FCC KDB 558074, connect the UUT to the spectrum analyser and use the following settings:

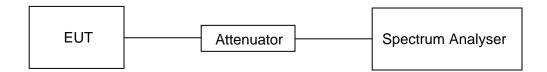
Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	100K
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum PSD level.

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100K
VBW	≥3 × RBW
measurement points	≥span/RBW
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum amplitude level.

## **TEST SETUP**





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# **TEST ENVIRONMENT**

Temperature	22°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V

# PART 1: REFERENCE LEVEL MEASUREMENT

# **TEST RESULTS TABLE**

Test Mode	Test Channel	Result[dBm]
11B	LCH	3.62
	MCH	3.75
	HCH	3.58
11G	LCH	0.49
	MCH	0.39
	HCH	0.09
11N HT20	LCH	0.21
	MCH	0.45
	HCH	0.37
11N HT40	LCH	-5.07
	MCH	-4.98
	HCH	-5.15