

# FCC Test Report

**FCC ID** : Q9DAPEX0565567  
**Equipment** : Wireless Access Point  
**Brand Name** : aruba 、 Hewlett Packard Enterprise  
**Model Name** : APEX0565,APEX0567  
**Applicant** : Hewlett Packard Enterprise Company  
3333 Scott Blvd Santa Clara, CA. 95054  
**Manufacturer** : Hewlett Packard Enterprise Company  
3333 Scott Blvd Santa Clara, CA. 95054  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Apr. 30, 2020, and testing was started from May 14, 2020 and completed on Jul. 21, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Allen Lin

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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### Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and explanations:**

According to the applicant's requirements, The Beamforming Function refer as "Letter of Beamforming Declaration".

**Reviewed by: Sam Tsai**

**Report Producer: Jenny Yang**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), VHT20, ax(HEW20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), VHT40, ax(HEW40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	VHT20	20	2TX
2.4-2.4835GHz	VHT40	40	2TX
2.4-2.4835GHz	802.11ax HEW20	20	2TX
2.4-2.4835GHz	802.11ax HEW40	40	2TX

Note:

- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- HEW20, HEW40 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.
- The resource unit of HEW 20, HEW 40 only support full loading.

1.1.2 Antenna Information

Sample 1

Ant.	Brand	Model Name	Antenna Type	Connector
1	HL Technologies	N/A	Dipole (omnidirectional)	MMCX
2	HL Technologies	N/A	Dipole (omnidirectional)	MMCX
3	HL Technologies	N/A	PIFA	Mini Murata

Ant.	Gain (dBi)					BT	Zigbee
	2.4G		5G				
	Vertical polarized	Horizontal polarized	Vertical polarized	Horizontal polarized			
1	-	3.2 dBi	-	5.4 dBi	-	-	
2	3.2 dBi	-	5.4 dBi	-	-	-	
3	-	-	-	-	3.3 dBi	3.3 dBi	

Sample 2

Ant.	Brand	Model Name	Antenna Type	Connector
4	Shanghai Amphenol Airwave Communication Electronics Co., Ltd.	N/A	Dipole (directivity)	MMCX
5	Shanghai Amphenol Airwave Communication Electronics Co., Ltd.	N/A	Dipole (directivity)	MMCX
6	Shanghai Amphenol Airwave Communication Electronics Co., Ltd.	N/A	monopole	Mini Murata

Ant.	Gain (dBi)					BT	Zigbee
	2.4G		5G				
	+45 degree	-45 degree	+45 degree	-45 degree			
4	-	6.8 dBi	-	7.1 dBi	-	-	
5	6.8 dBi	-	7.1 dBi	-	-	-	
6	-	-	-	-	3 dBi	3 dBi	

Note 1: The EUT has six antennas.

Note 2: The antenna for each mode is cross polarized.

**For 2.4GHz function:**

For IEEE 802.11 b/g/n/ax mode (2TX/2RX)

Ant. 1 (Ant. 4) and Ant. 2 (Ant. 5) could transmit/receive simultaneously.

Cross-polarized antenna combination is Ant. 1 (Ant. 4) and Ant. 2 (Ant. 5).

**For BT function:**

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Only Ant. 3 (Ant. 6) can be used as transmitting/receiving antenna.

**For 5GHz function:**

For IEEE 802.11 a/n/ac/ax mode (2TX/2RX)

Ant. 1 (Ant. 4) and Ant. 2 (Ant. 5) could transmit/receive simultaneously.

Cross-polarized antenna combination is Ant. 1 (Ant. 4) and Ant. 2 (Ant. 5).

**For Zigbee function:**

Only Ant. 3 (Ant. 6) can be used as transmitting/receiving antenna.



1.1.3 EUT Information

Identify EUT				
FW Version	RVAB-A65 V1.0			
Operational Condition				
EUT Power Type	From PoE			
EUT Function	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
Type of EUT				
<input checked="" type="checkbox"/>	Stand-alone			
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device)			
	Combined Equipment - Brand Name / Model No.: ...			
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems)			
	Host System - Brand Name / Model No.: ...			
<input type="checkbox"/>	Other:			

1.1.4 Mode Test Duty Cycle

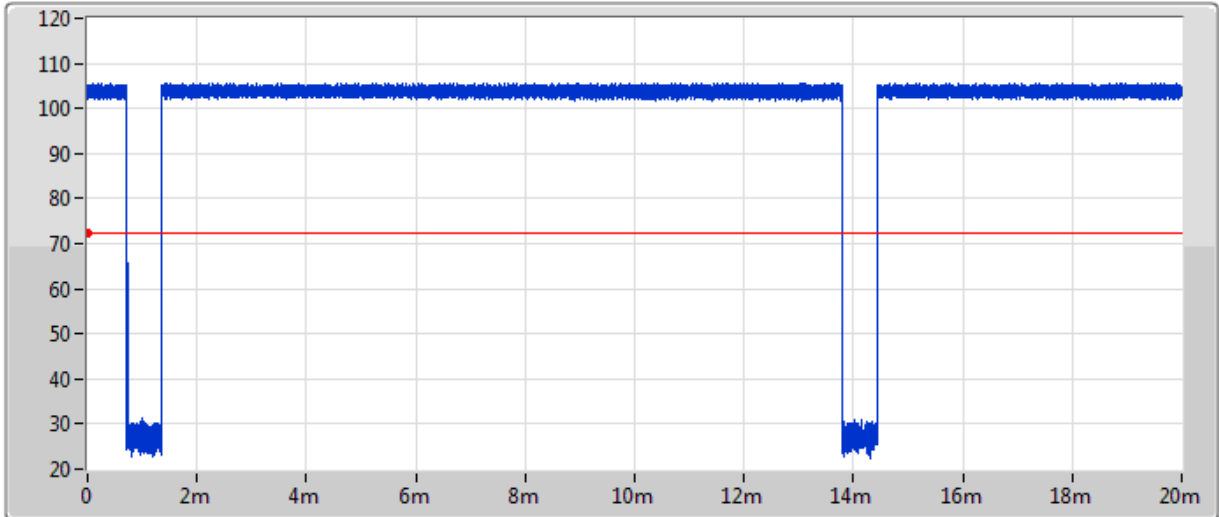
Sample 1

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.935	0.29	12.418m	100
802.11g	0.952	0.21	2.065m	1k
802.11n HT20	0.95	0.22	1.921m	1k
802.11n HT40	0.906	0.43	945u	3k
VHT20	0.986	0.06	n/a (DC>=0.98)	n/a (DC>=0.98)
VHT40	0.97	0.13	953.125u	3k
802.11ax HEW20	0.98	0.09	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40	0.964	0.16	773.125u	3k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

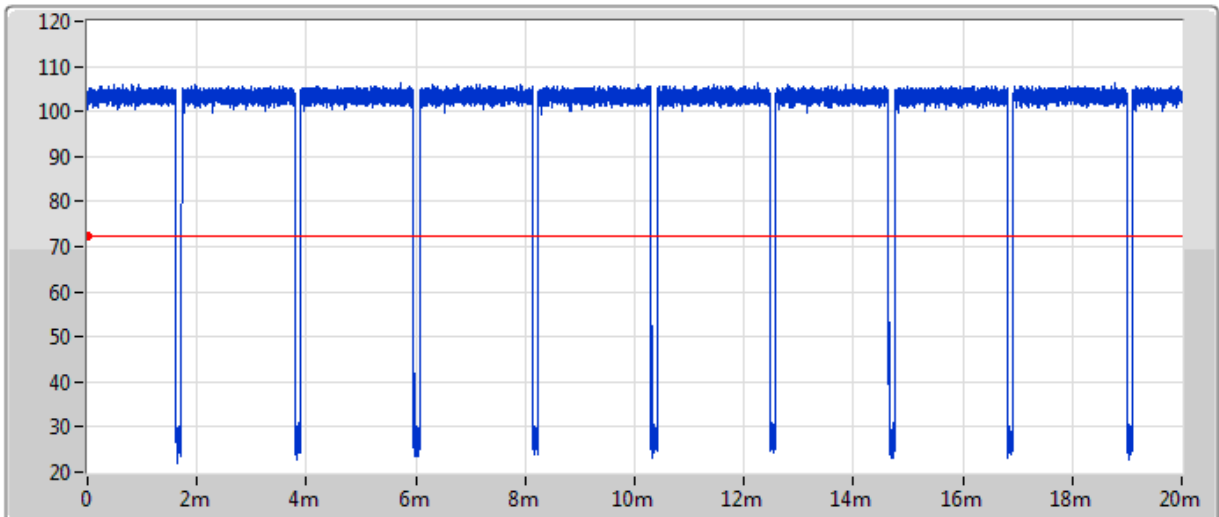


802.11b



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.412GHz	10MHz	10MHz	20ms	32001	625ns	18.708125ms	0.935

802.11g

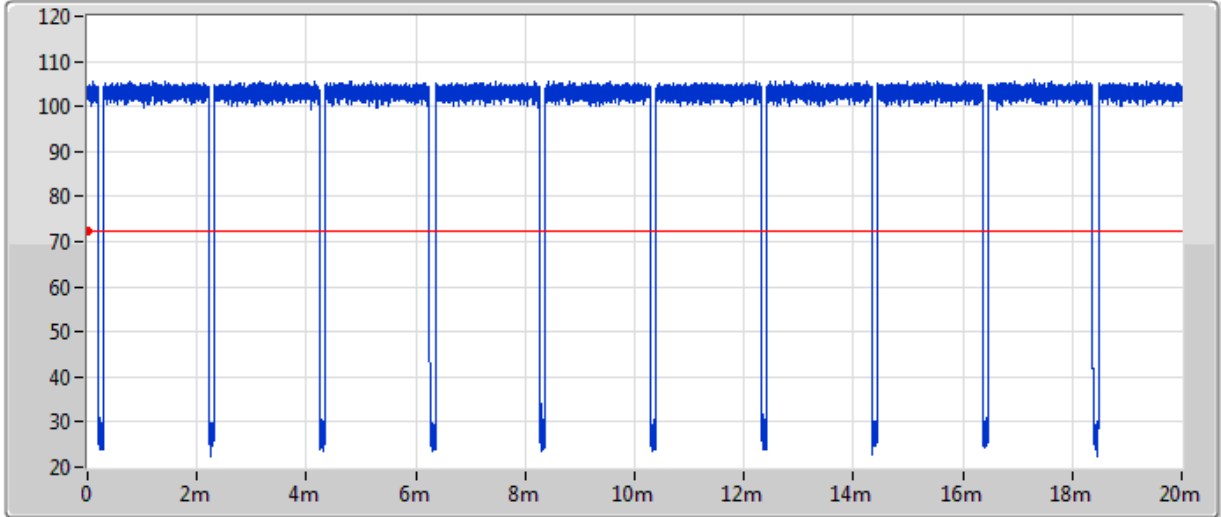


Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.412GHz	10MHz	10MHz	20ms	32001	625ns	19.034375ms	0.952



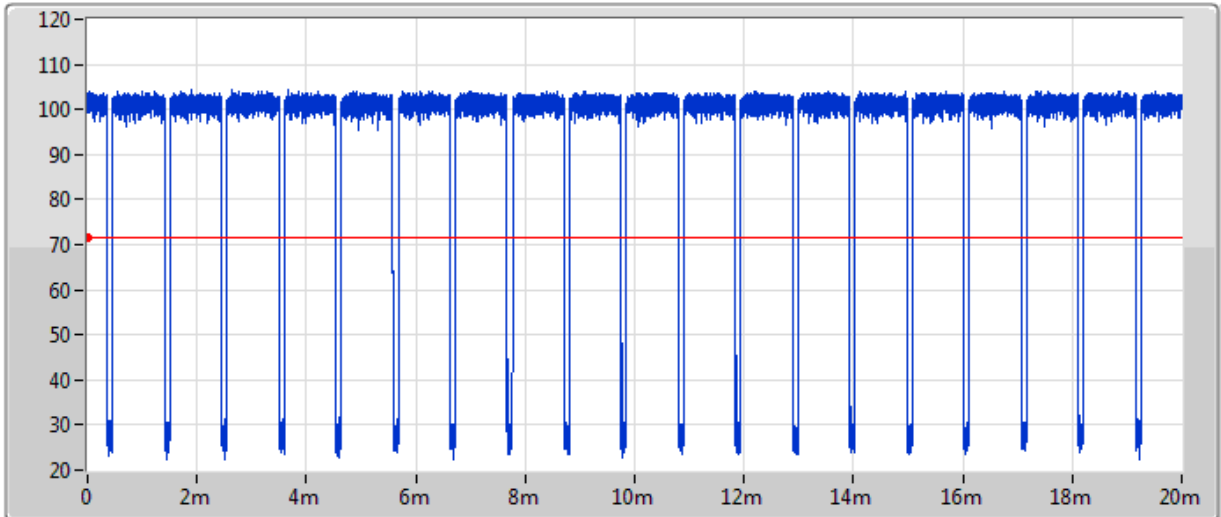


HT20



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.412GHz	10MHz	10MHz	20ms	32001	625ns	19.005ms	0.95

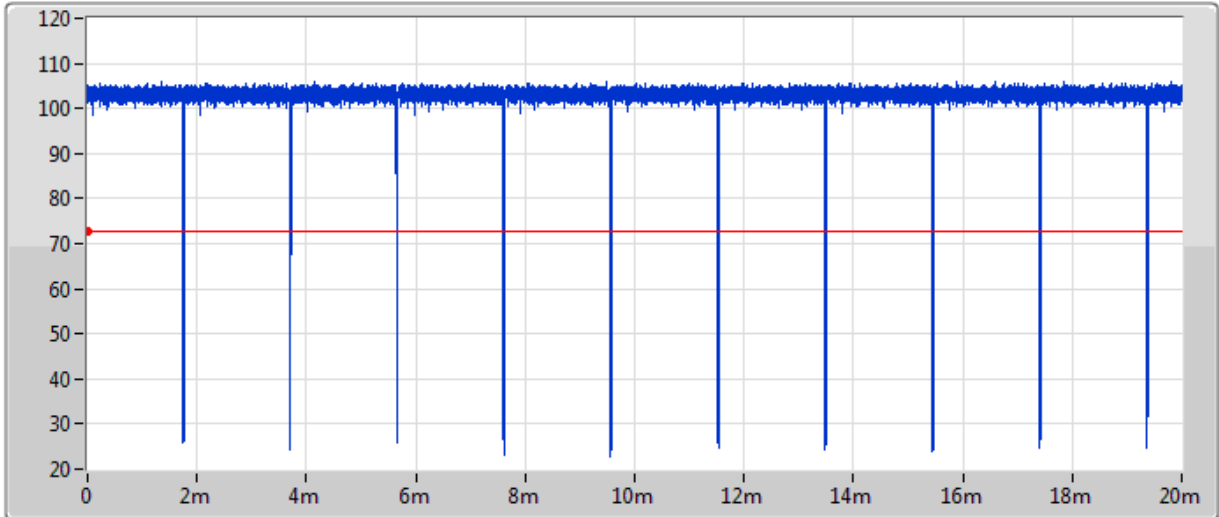
HT40



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.422GHz	10MHz	10MHz	20ms	32001	625ns	18.1125ms	0.906

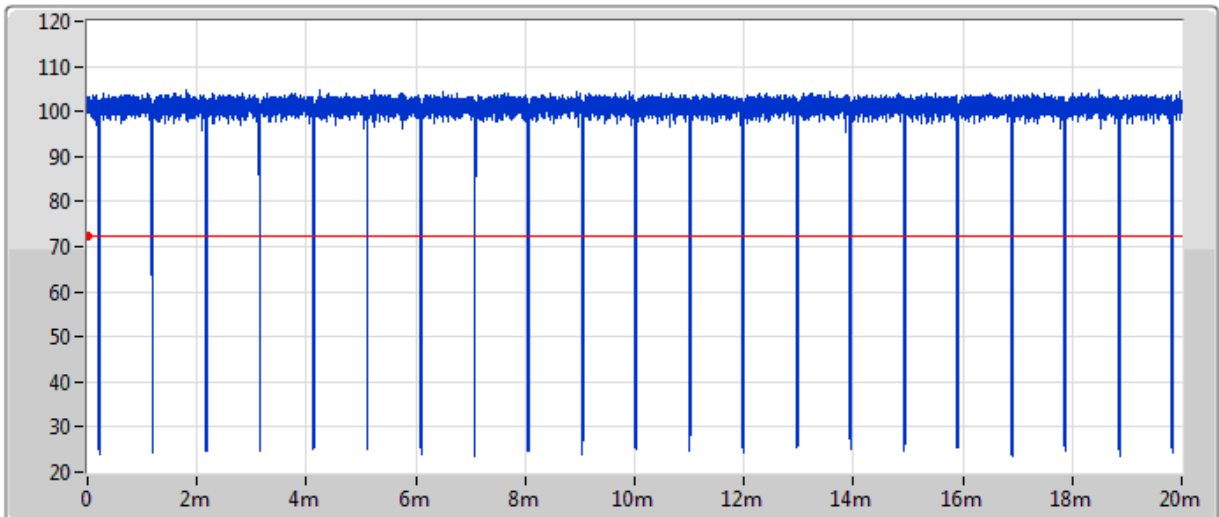


VHT20



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.412GHz	10MHz	10MHz	20ms	32001	625ns	19.71625ms	0.986

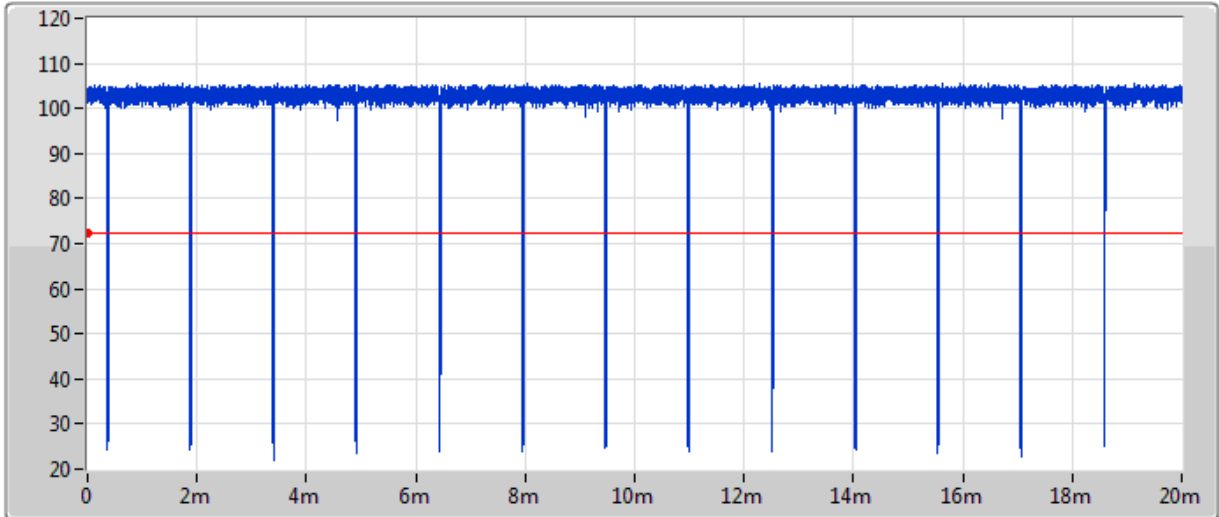
VHT40



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.422GHz	10MHz	10MHz	20ms	32001	625ns	19.39625ms	0.97

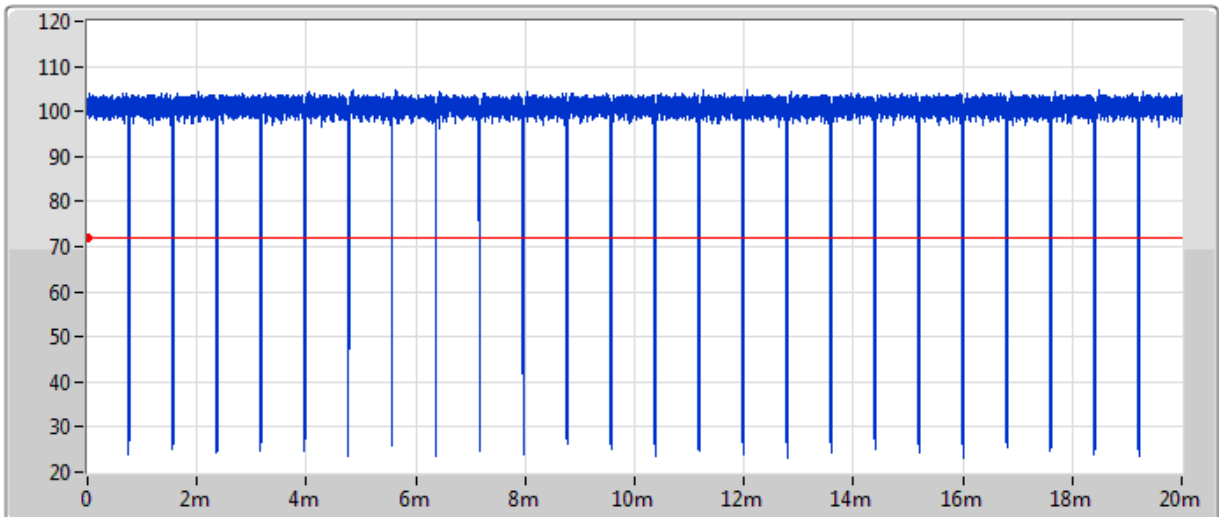


802.11ax HEW20



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.412GHz	10MHz	10MHz	20ms	32001	625ns	19.595ms	0.98

802.11ax HEW40



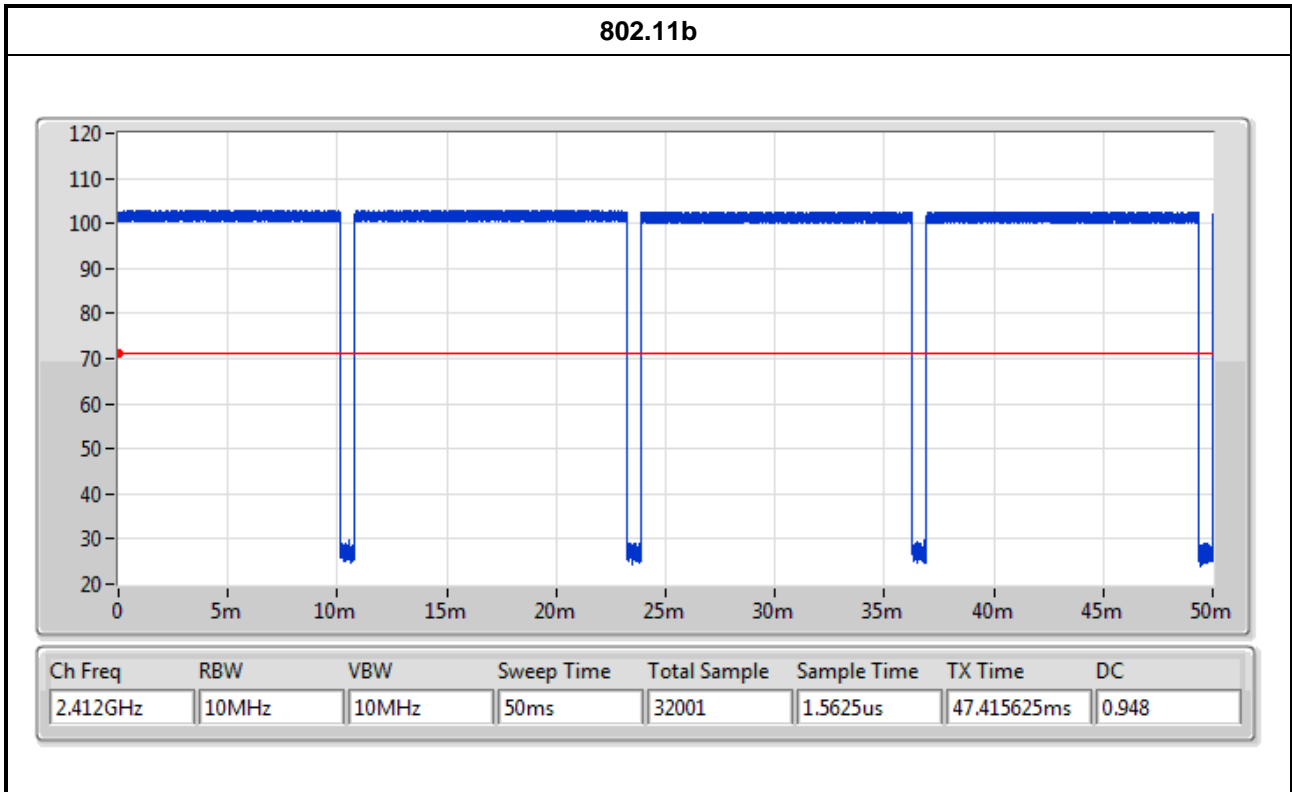
Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.422GHz	10MHz	10MHz	20ms	32001	625ns	19.271875ms	0.964



Sample 2

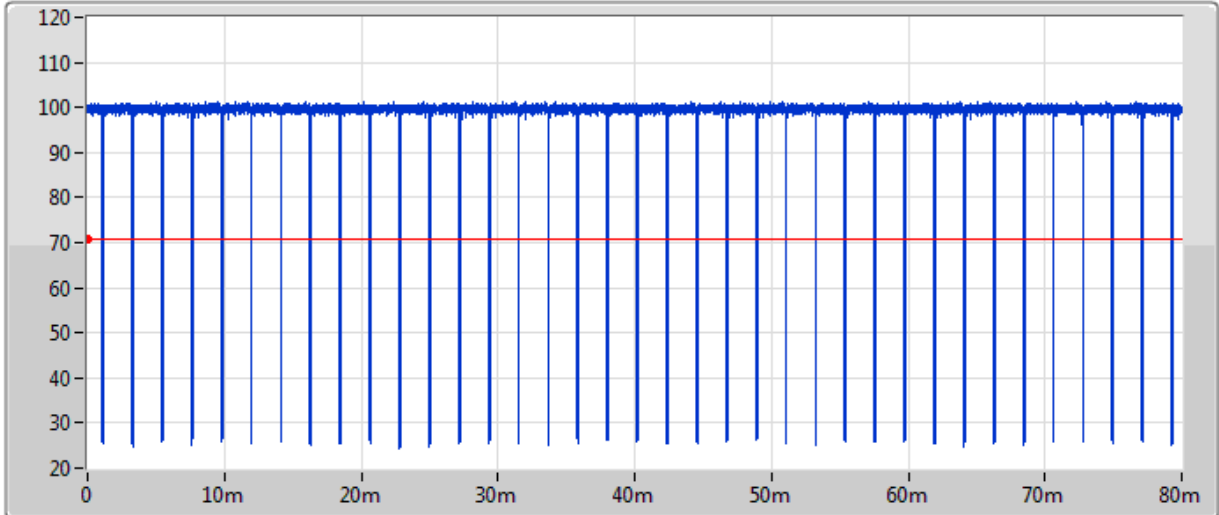
Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_2TX	0.948	0.23	12.419m	100
802.11g_Nss1,(6Mbps)_2TX	0.951	0.22	2.068m	1k
802.11n HT20_Nss1,(MCS0)_2TX	0.951	0.22	1.925m	1k
802.11n HT40_Nss1,(MCS0)_2TX	0.906	0.43	947.5u	3k
VHT20_Nss1,(MCS0)_2TX	0.987	0.06	1.933m	10
VHT40_Nss1,(MCS0)_2TX	0.972	0.12	955u	3k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.981	0.08	1.49m	10
802.11ax HEW40_Nss1,(MCS0)_2TX	0.964	0.16	775u	3k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.



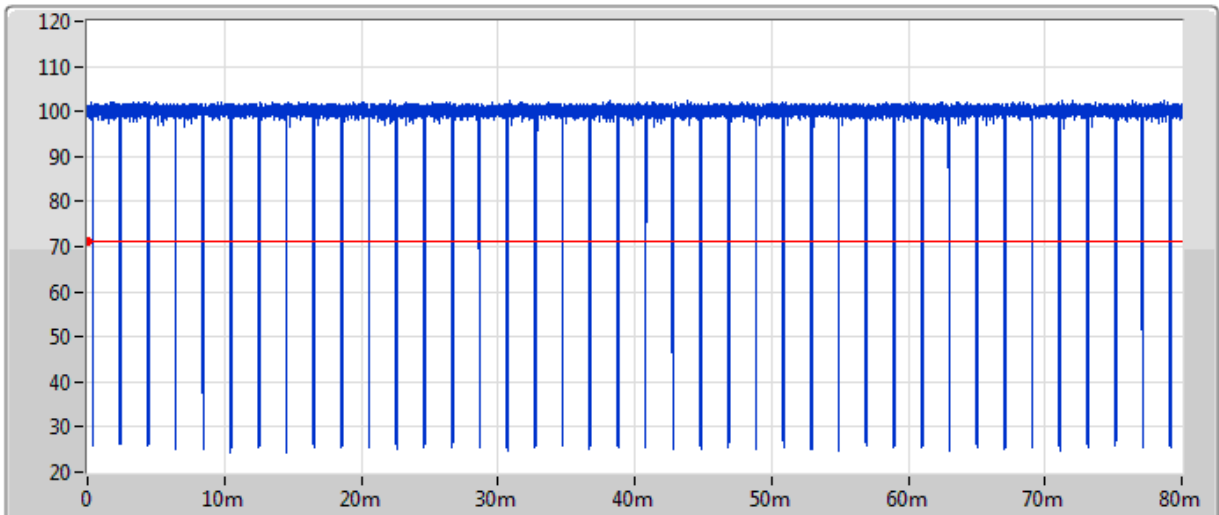


802.11g



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.412GHz	10MHz	10MHz	80ms	32001	2.5us	76.09ms	0.951

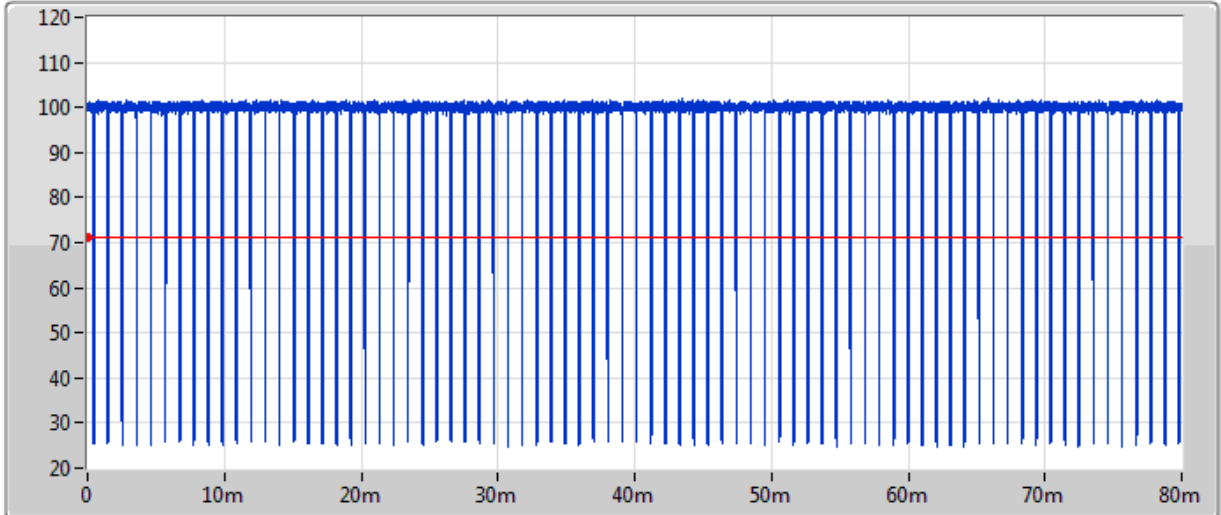
HT20



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.422GHz	10MHz	10MHz	80ms	32001	2.5us	76.1025ms	0.951

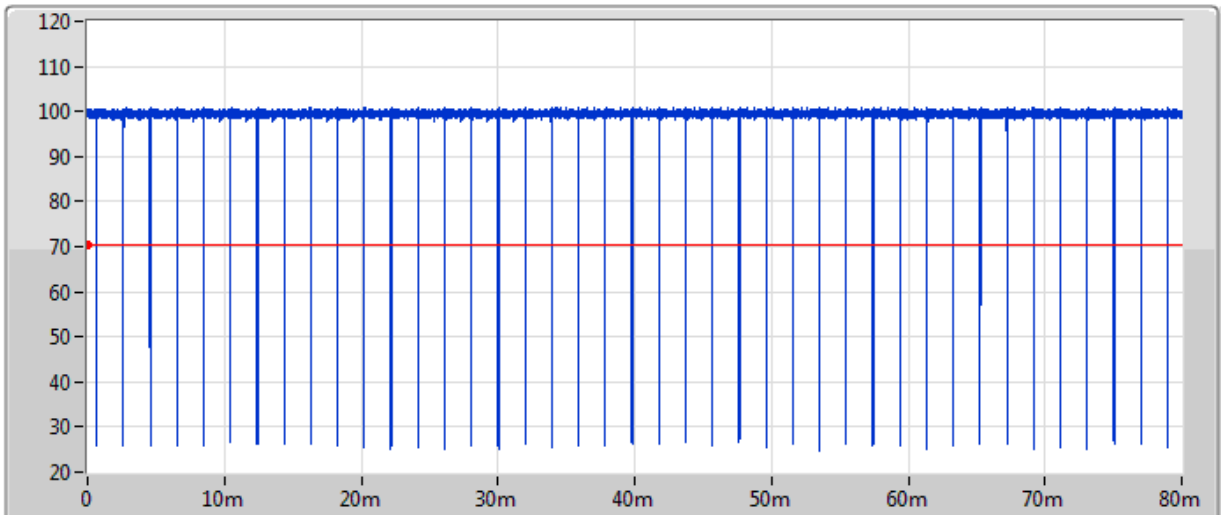


HT40



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.422GHz	10MHz	10MHz	80ms	32001	2.5us	72.485ms	0.906

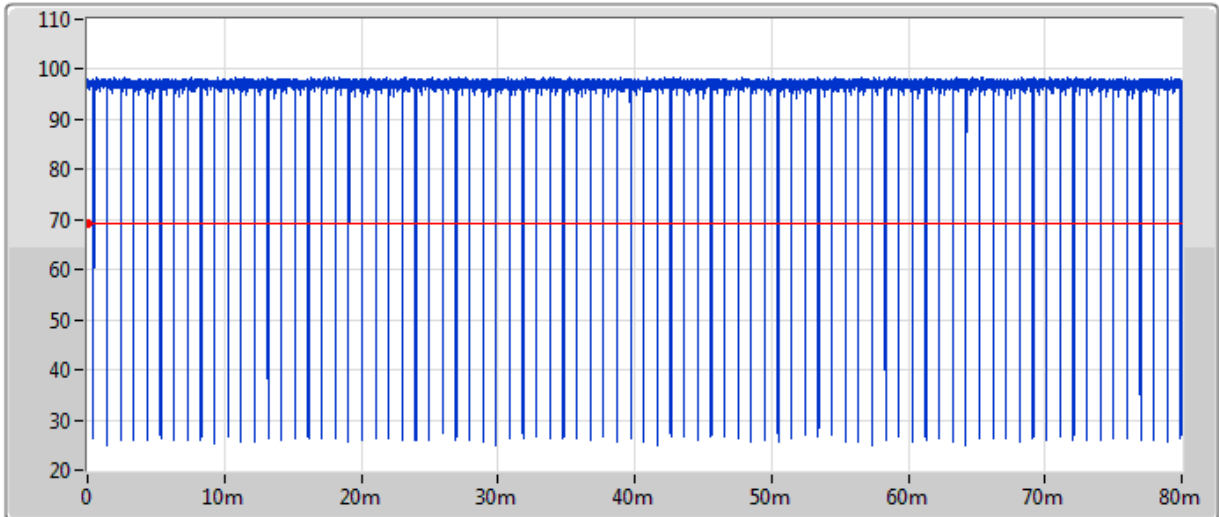
VHT20



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.412GHz	10MHz	10MHz	80ms	32001	2.5us	78.9725ms	0.987

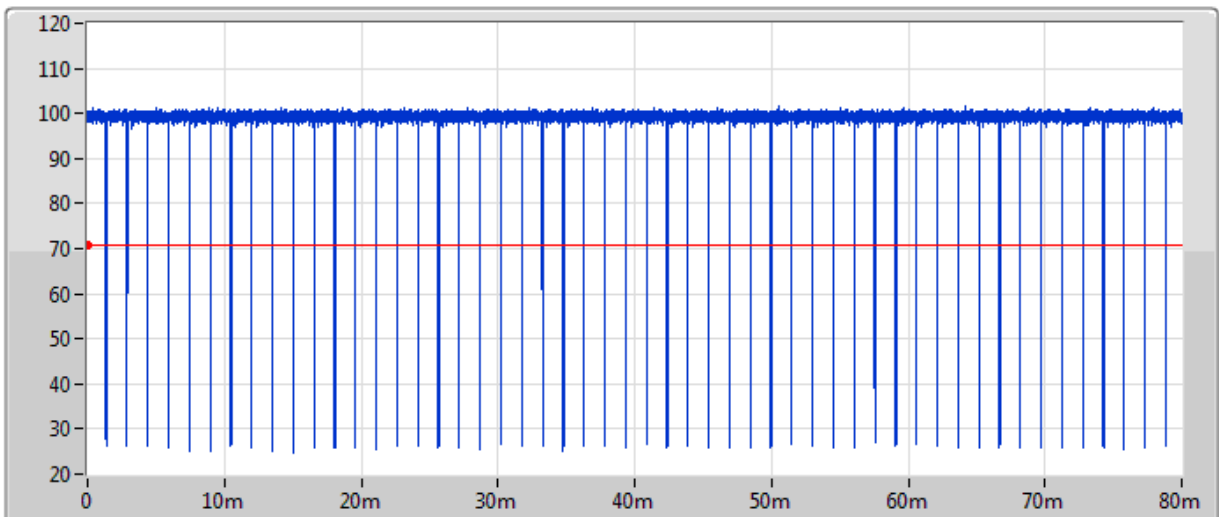


VHT40

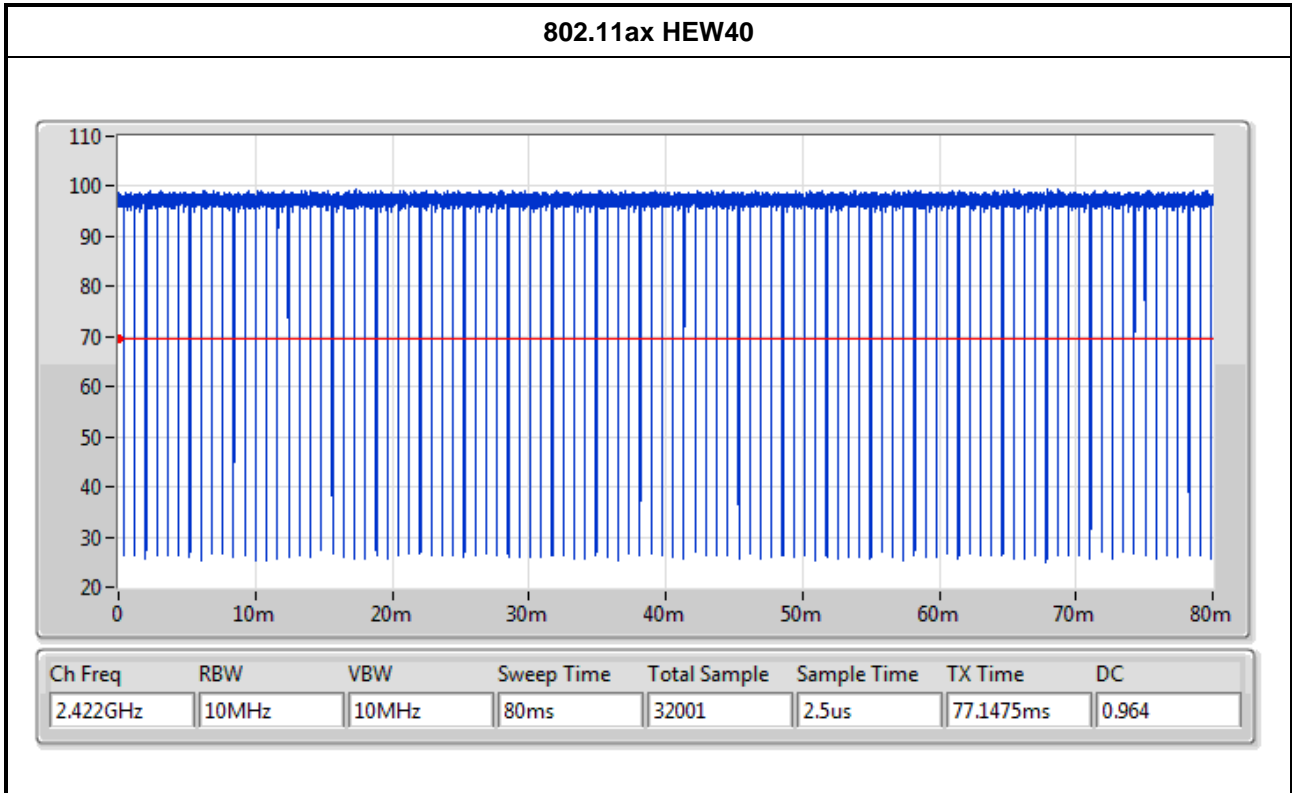


Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.422GHz	10MHz	10MHz	80ms	32001	2.5us	77.795ms	0.972

802.11ax HEW20



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.412GHz	10MHz	10MHz	80ms	32001	2.5us	78.4525ms	0.981



### 1.1.5 Table for Multiple Listing

Sample Number	Model Name	Description
1	APEX0565	There are two Samples for EUT. The only difference between Sample 1 and Sample 2 is the Antenna. For detailed specifications, please refer to section 1.1.2.
2	APEX0567	

## 1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF:

- ◆ KDB 558074 D01 v05r02
- ◆ KDB 662911 D01 v02r01
- ◆ KDB 414788 D01 v01r01



### 1.3 Testing Location Information

Testing Location		
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456      FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.		
<input type="checkbox"/>	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.) TEL : 886-3-656-9065      FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.		
<input checked="" type="checkbox"/>	Wen Shan	ADD : No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL : 886-3-318-0787      FAX : 886-3-318-0287
Test site Designation No. TW1097 with FCC.		

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward Wang	21.4~23.2°C / 52~ 57%	03/Jun/2020~ 04/Jun/2020
RF Conducted	TH01-HY	Barry Hsiao	22.1~25.9°C / 54~60%	15/May/2020~ 23/Jul/2020
Radiated	03CH09-HY	Daniel Hsu	22.3~23.7°C / 53~ 59%	14/May/2020~ 21/Jul/2020

### 1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

### 2.2 Test Channel Mode

Test Software Version	MTool_3_1_0_5
-----------------------	---------------

#### Sample 1

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	92
2417MHz	92
2437MHz	92
2457MHz	92
2462MHz	92
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	81
2417MHz	92
2437MHz	92
2457MHz	90
2462MHz	80
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	81
2417MHz	89
2437MHz	91
2457MHz	85
2462MHz	76
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	77
2427MHz	81
2437MHz	85
2447MHz	79
2452MHz	76
VHT20_Nss1,(MCS0)_2TX	-



Mode	Power Setting
2412MHz	81
2417MHz	89
2437MHz	91
2457MHz	85
2462MHz	76
VHT40_Nss1,(MCS0)_2TX	-
2422MHz	77
2427MHz	81
2437MHz	85
2447MHz	79
2452MHz	76
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	81
2417MHz	89
2437MHz	91
2457MHz	85
2462MHz	76
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	77
2427MHz	81
2437MHz	85
2447MHz	79
2452MHz	76



Sample 2

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	87
2417MHz	87
2437MHz	87
2457MHz	87
2462MHz	87
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	81
2417MHz	86
2437MHz	86
2457MHz	86
2462MHz	82
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	82
2417MHz	85
2437MHz	85
2457MHz	86
2462MHz	83
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	81
2427MHz	81
2437MHz	83
2447MHz	77
2452MHz	77
VHT20_Nss1,(MCS0)_2TX	-
2412MHz	82
2417MHz	85
2437MHz	85
2457MHz	86
2462MHz	83
VHT40_Nss1,(MCS0)_2TX	-
2422MHz	81
2427MHz	81
2437MHz	83
2447MHz	77
2452MHz	77






Mode	Power Setting
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	82
2417MHz	85
2437MHz	85
2457MHz	86
2462MHz	83
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	81
2427MHz	81
2437MHz	83
2447MHz	77
2452MHz	77

## 2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	PoE Mode; Sample 1
2	PoE Mode; Sample 2

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	PoE Mode; Sample 1		
2	PoE Mode; Sample 2		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V		V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4GHz + WLAN 5GHz + Bluetooth
Refer to Sporton Test Report No.: FA042903 for Co-location RF Exposure Evaluation.	



## 2.4 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	PoE	Microsemi	PD-9001GO/AC-INTL	-	Note 1
2	Ground Cable	SPORTON	SPORTON	-	-
3	RJ-45 Cable	Power Sync	CAT-6E-10	-	-

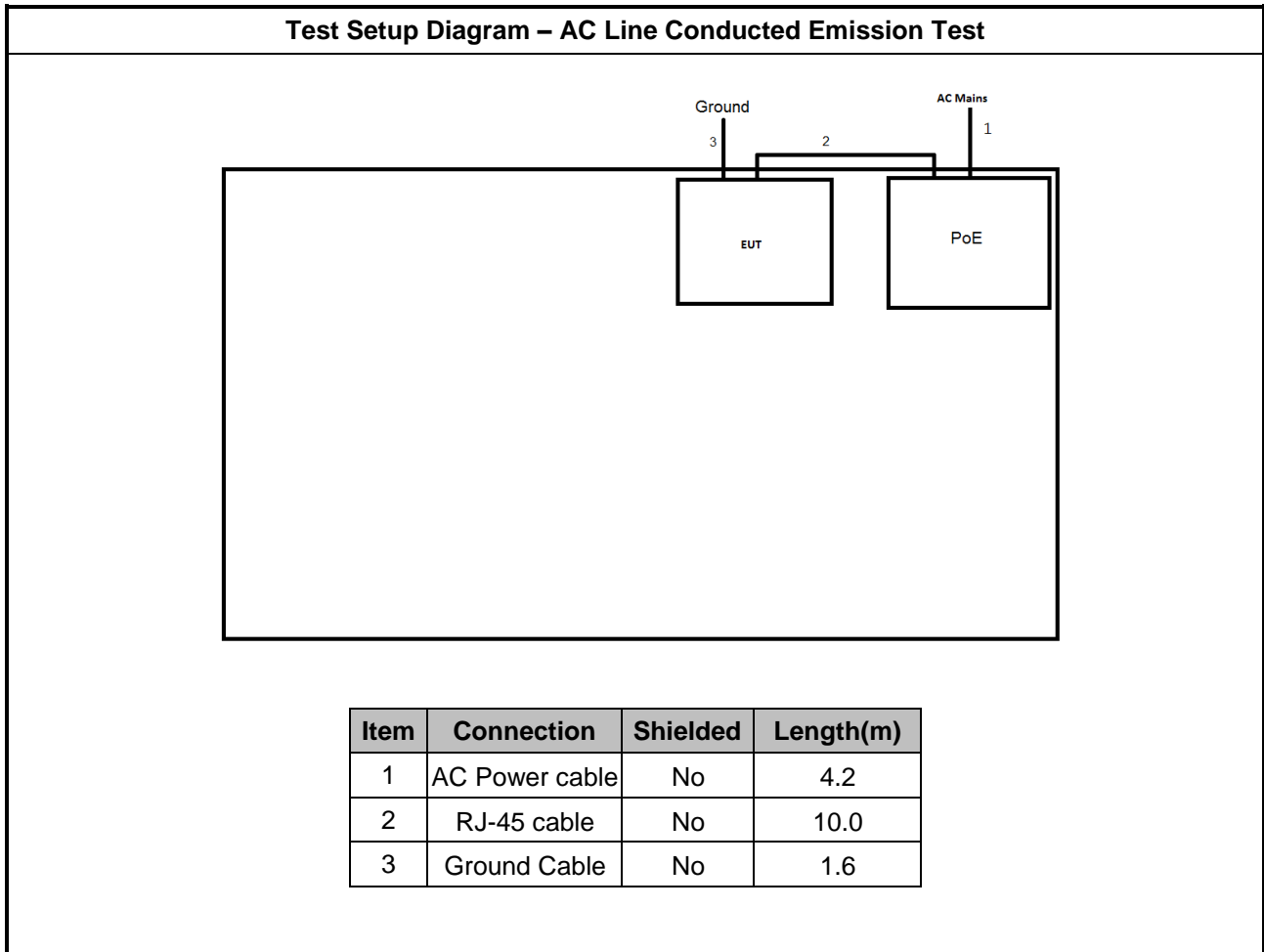
Note 1: Support equipment No.1 was provided by customer.

Support Equipment –Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

Support Equipment –Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Ground Cable	SPORTON	SPORTON	-	-
2	RJ-45 Cable	Power Sync	CAT-6E-10	-	-
3	PoE	Microsemi	PD-9001GO/AC-INTL	-	Note 1 / Remote

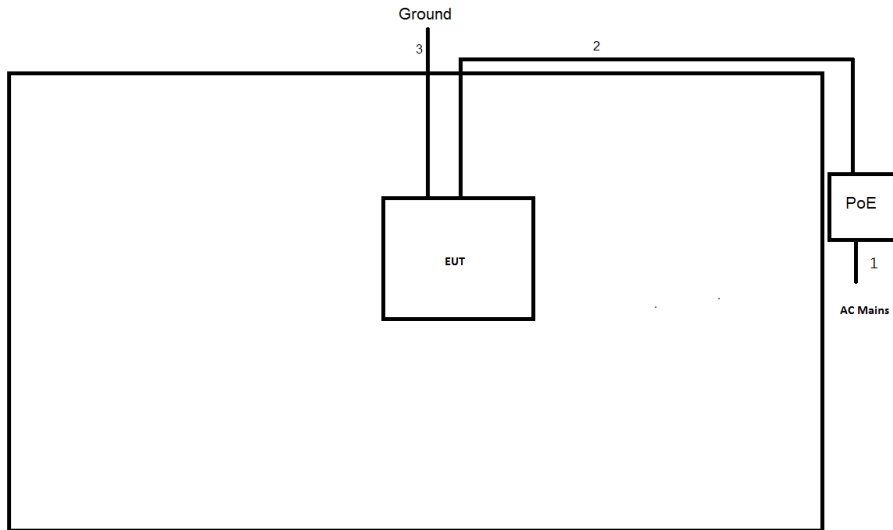
Note 1: Support equipment No.3 was provided by customer.

## 2.5 Test Setup Diagram





Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)
1	AC Power cable	No	4.2
2	RJ-45 cable	No	10.0
3	Ground Cable	No	1.6



### 3 Transmitter Test Result

#### 3.1 AC Power-line Conducted Emissions

##### 3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: \* Decreases with the logarithm of the frequency.

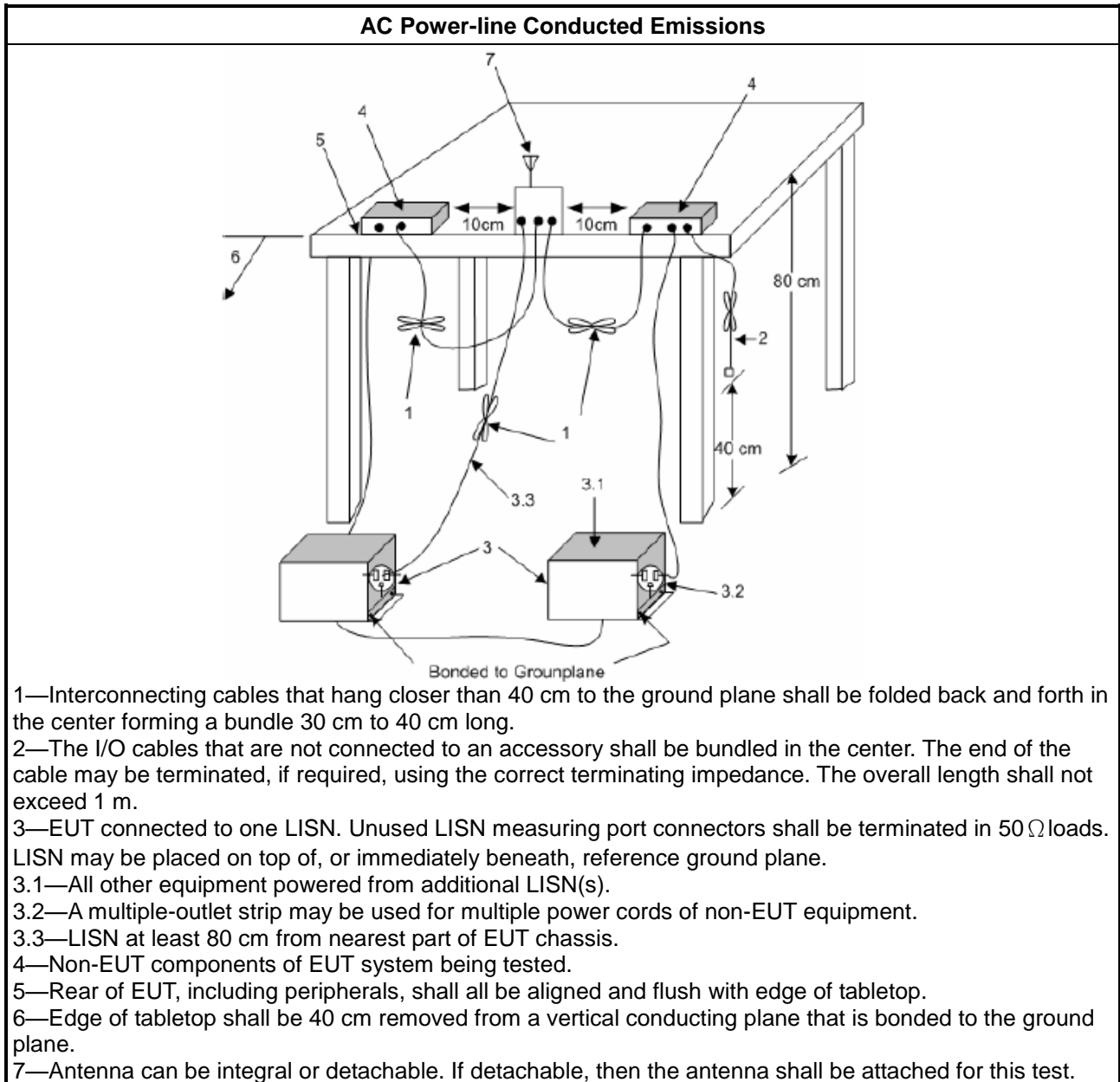
##### 3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

##### 3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

### 3.1.4 Test Setup



### 3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

### 3.2 DTS Bandwidth

#### 3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
<ul style="list-style-type: none"> <li>▪ 6 dB bandwidth <math>\geq</math> 500 kHz.</li> </ul>	

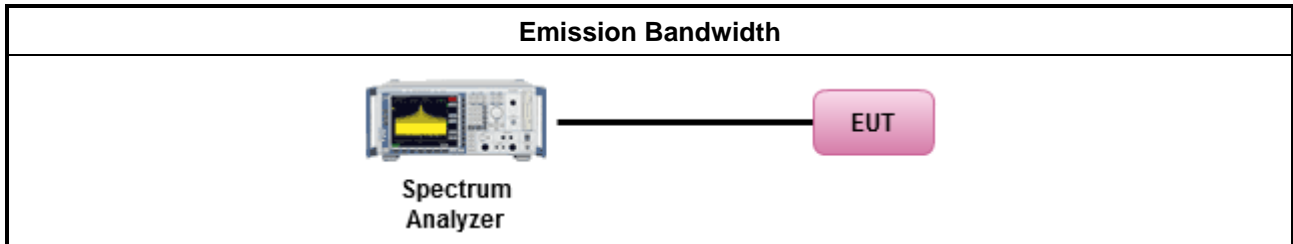
#### 3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

#### 3.2.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>▪ For the emission bandwidth shall be measured using one of the options below:</li> </ul>	
<input checked="" type="checkbox"/>	Refer as KDB 558074. clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
<input type="checkbox"/>	Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

#### 3.2.4 Test Setup



#### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	<ul style="list-style-type: none"> <li>▪ If <math>G_{TX} \leq 6</math> dBi, then <math>P_{Out} \leq 30</math> dBm (1 W)</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-point systems (P2P): If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Smart antenna system (SAS):</li> </ul>
	<ul style="list-style-type: none"> <li>- Single beam: If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>- Overlap beam: If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>- Aggregate power on all beams: If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3 + 8</math> dB dBm</li> </ul>
e.i.r.p. Power Limit:	
	<ul style="list-style-type: none"> <li>▪ 2400-2483.5 MHz Band</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): <math>P_{eirp} \leq 36</math> dBm (4 W)</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-point systems (P2P): <math>P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Smart antenna system (SAS)</li> </ul>
	<ul style="list-style-type: none"> <li>- Single beam: <math>P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>- Overlap beam: <math>P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>- Aggregate power on all beams: <math>P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])</math> dBm</li> </ul>
$P_{Out}$ = maximum peak conducted output power or maximum conducted output power in dBm, $G_{TX}$ = the maximum transmitting antenna directional gain in dBi.	

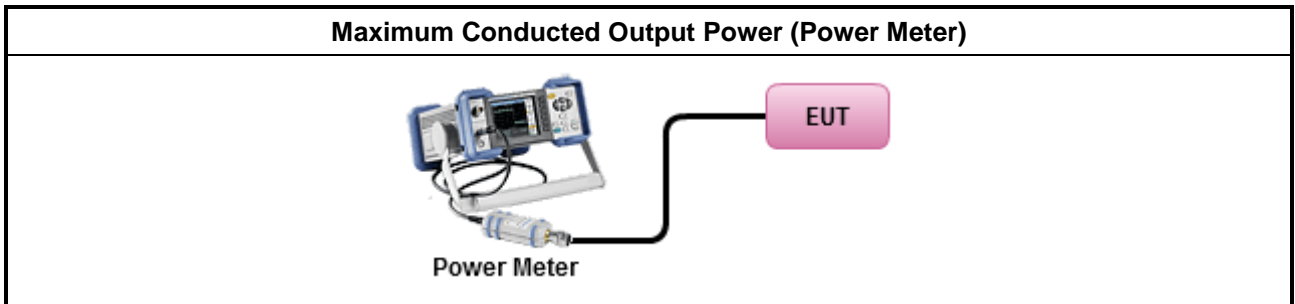
#### 3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>▪ Maximum Peak Conducted Output Power</li> </ul>	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
<ul style="list-style-type: none"> <li>▪ Maximum Average Conducted Output Power</li> </ul>	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
<ul style="list-style-type: none"> <li>▪ For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ If multiple transmit chains, EIRP calculation could be following as methods:  <math>P_{total} = P_1 + P_2 + \dots + P_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = P_{total} + DG</math> </li> </ul>	

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

### 3.4 Power Spectral Density

#### 3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
<ul style="list-style-type: none"> <li>Power Spectral Density (PSD) <math>\leq</math> 8 dBm/3kHz</li> </ul>

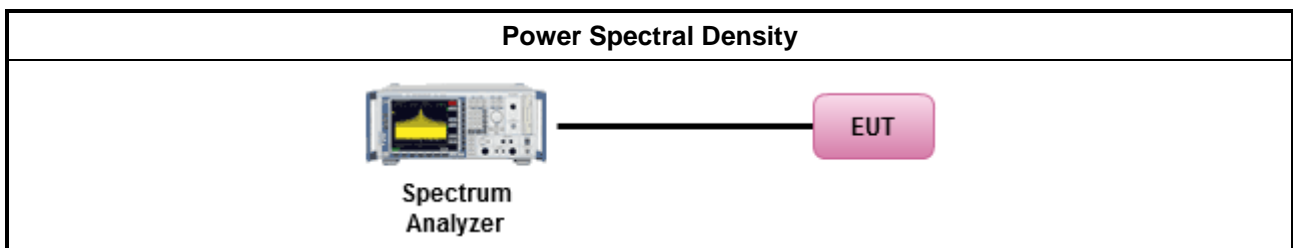
#### 3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

#### 3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).</li> </ul>
<input checked="" type="checkbox"/> Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.
<ul style="list-style-type: none"> <li>For conducted measurement.             <ul style="list-style-type: none"> <li>If The EUT supports multiple transmit chains using options given below:                 <ul style="list-style-type: none"> <li>Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.</li> </ul> </li> </ul> </li> </ul>

#### 3.4.4 Test Setup



#### 3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

### 3.5 Emissions in Non-restricted Frequency Bands

#### 3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak level.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average level.

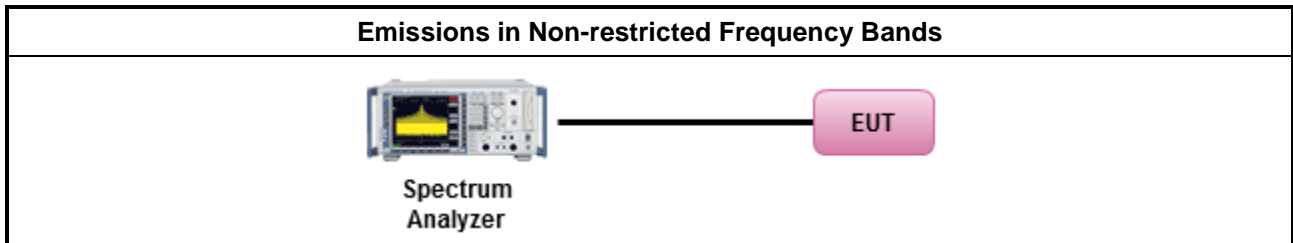
#### 3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

#### 3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.</li> </ul>

#### 3.5.4 Test Setup



#### 3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E





### 3.6 Emissions in Restricted Frequency Bands

#### 3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

#### 3.6.2 Measuring Instruments

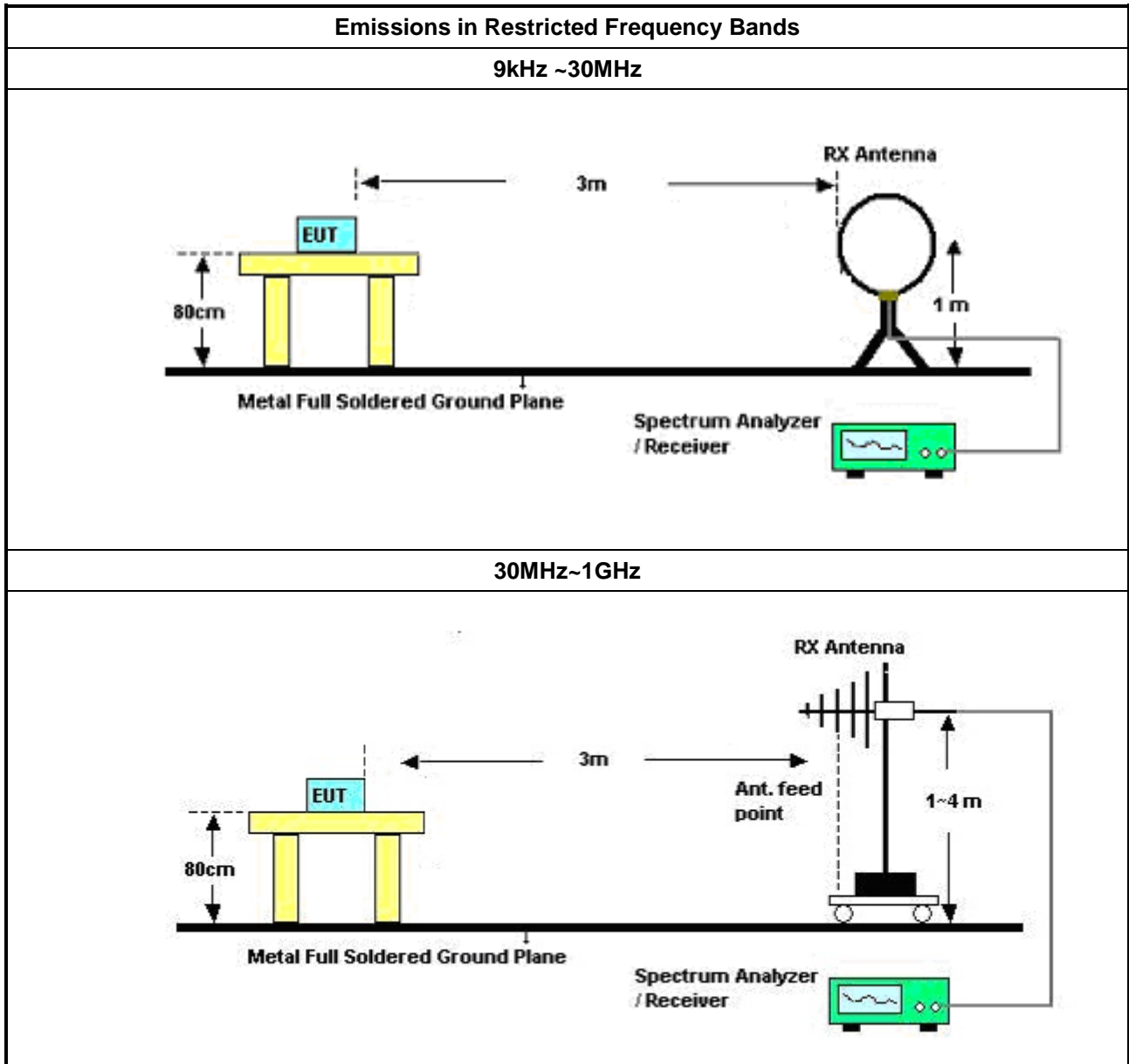
Refer a test equipment and calibration data table in this test report.

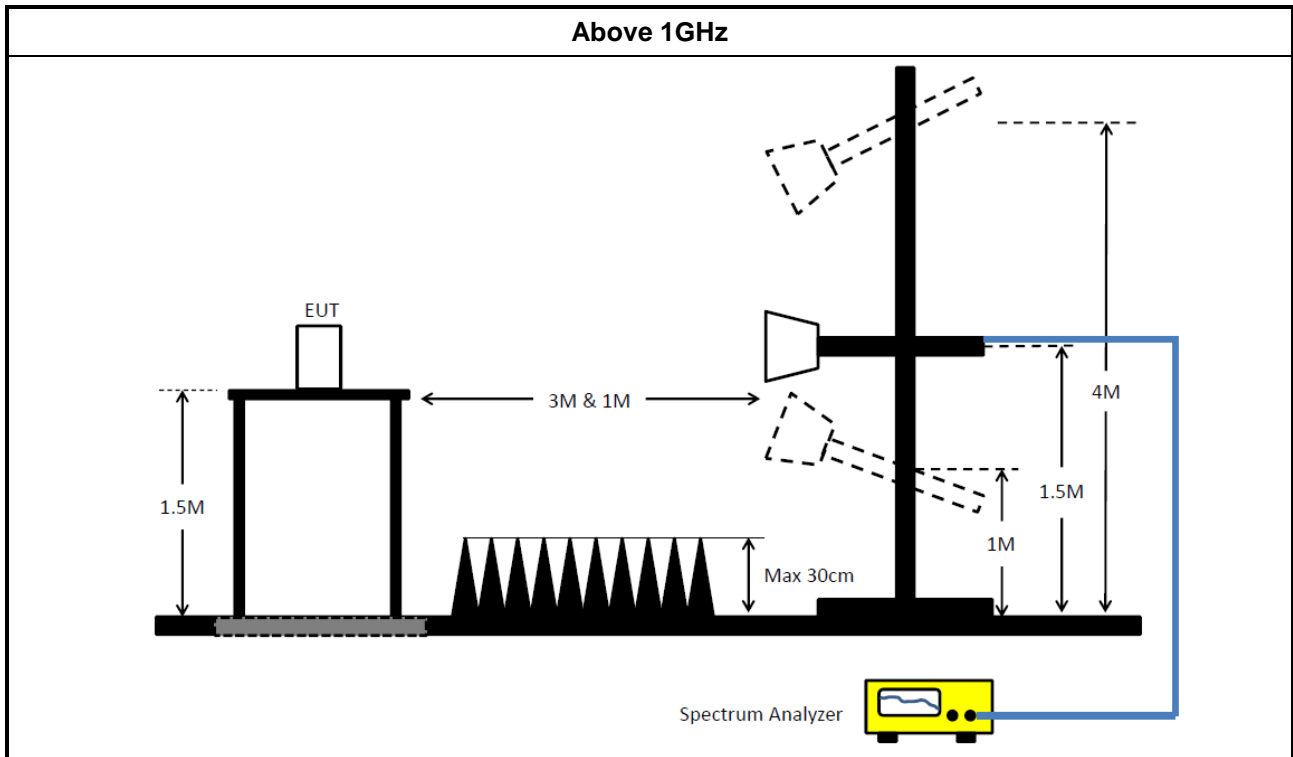


3.6.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> <li>The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].</li> </ul>
	<ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.</li> </ul>
	<ul style="list-style-type: none"> <li>For the transmitter unwanted emissions shall be measured using following options below:</li> </ul>
	<ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.</li> </ul>
	<ul style="list-style-type: none"> <li>For the transmitter band-edge emissions shall be measured using following options below:</li> </ul>
	<ul style="list-style-type: none"> <li>Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.</li> </ul>
	<ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.</li> </ul>
	<ul style="list-style-type: none"> <li>Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.</li> </ul>
	<ul style="list-style-type: none"> <li>Use the following spectrum analyzer settings:</li> </ul>
	<ul style="list-style-type: none"> <li>Set RBW=100 kHz for f &lt; 1 GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.</li> </ul>
	<ul style="list-style-type: none"> <li>Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.</li> </ul>
	<ul style="list-style-type: none"> <li>KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.</li> </ul>
	<ul style="list-style-type: none"> <li>Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.</li> </ul>
	<ul style="list-style-type: none"> <li>Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.</li> </ul>

### 3.6.4 Test Setup





### 3.6.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

### 3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



## 4 Test Equipment and Calibration Data

### Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	04/Nov/2019	05/Nov/2020
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	12/Sep/2019	11/Sep/2020
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	24/Sep/2019	23/Sep/2020

NCR: Non-Calibration Require

### Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	19/Mar/2020	18/Mar/2021
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	17/Feb/2020	16/Feb/2021
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	17/Feb/2020	16/Feb/2021



Instrument for Radiated Test

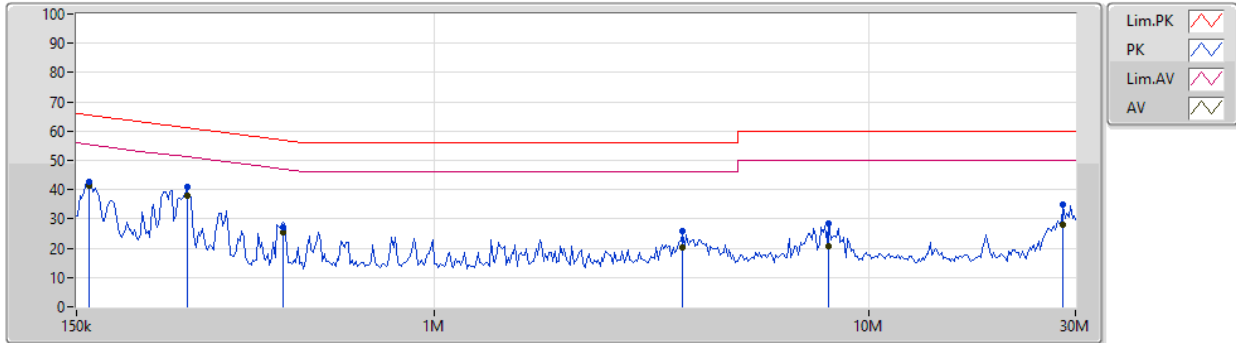
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz~1GHz	27/Mar/2020	26/Mar/2021
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz	19/Mar/2020	18/Mar/2021
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	04/Sep/2019	03/Sep/2020
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	14/Apr/2020	13/Apr/2021
EMC Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	28/May/2019	27/May/2020
EMC Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	07/Aug/2019	06/Aug/2020
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	11/Oct/2019	10/Oct/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	22/May/2019	21/May/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	28/May/2020	27/May/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021
Loop Antenna	TESEQ	HLA 6120	31244	9kHz-30MHz	16/Mar/2020	15/Mar/2021
RF Cable-low	Jye Bao	RG142	CB031+324530/4	9kHz~1GHz	12/Feb/2020	11/Feb/2021
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	324530/4+17173/4	1GHz~40GHz	12/Feb/2020	11/Feb/2021



AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	PoE mode; Sample 1		

04/06/2020



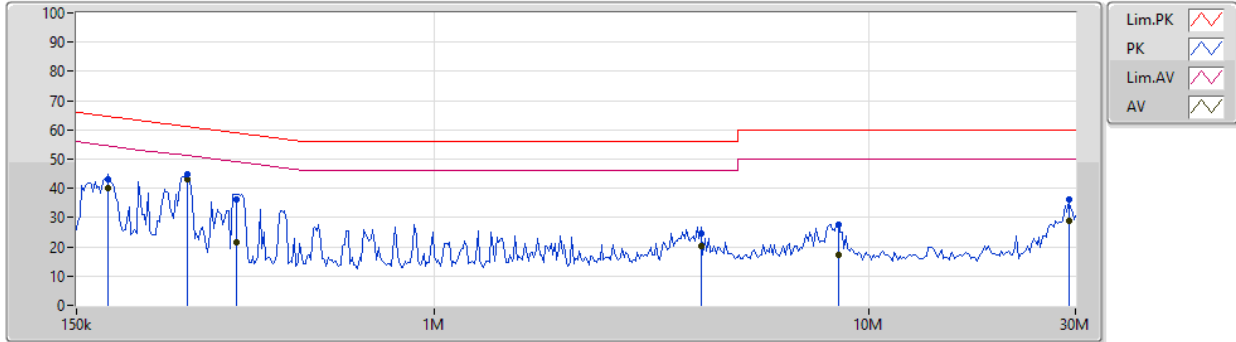
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	160.82k	42.80	65.43	-22.63	19.63	Neutral	-	23.17	9.65	0.11	9.87
AV	160.82k	41.32	55.43	-14.11	19.63	Neutral	-	21.69	9.65	0.11	9.87
QP	269.806k	41.08	61.12	-20.04	19.63	Neutral	-	21.45	9.64	0.12	9.87
AV	269.806k	38.10	51.12	-13.02	19.63	Neutral	"Worst"	18.47	9.64	0.12	9.87
QP	448.17k	27.28	56.92	-29.64	19.63	Neutral	-	7.65	9.63	0.13	9.87
AV	448.17k	25.34	46.92	-21.58	19.63	Neutral	-	5.71	9.63	0.13	9.87
QP	3.732M	25.84	56.00	-30.16	19.72	Neutral	-	6.12	9.66	0.18	9.88
AV	3.732M	20.10	46.00	-25.90	19.72	Neutral	-	0.38	9.66	0.18	9.88
QP	8.109M	28.63	60.00	-31.37	19.82	Neutral	-	8.81	9.69	0.25	9.88
AV	8.109M	20.77	50.00	-29.23	19.82	Neutral	-	0.95	9.69	0.25	9.88
QP	28.128M	35.03	60.00	-24.97	19.99	Neutral	-	15.04	9.67	0.44	9.88
AV	28.128M	28.20	50.00	-21.80	19.99	Neutral	-	8.21	9.67	0.44	9.88



AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	PoE mode; Sample 1		

04/06/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	177.646k	42.91	64.59	-21.68	19.63	Line	-	23.28	9.65	0.11	9.87
AV	177.646k	40.19	54.59	-14.40	19.63	Line	-	20.56	9.65	0.11	9.87
QP	269.806k	44.90	61.12	-16.22	19.64	Line	-	25.26	9.65	0.12	9.87
AV	269.806k	43.08	51.12	-8.04	19.64	Line	"Worst"	23.44	9.65	0.12	9.87
QP	349.468k	36.42	58.98	-22.56	19.63	Line	-	16.79	9.64	0.12	9.87
AV	349.468k	21.50	48.98	-27.48	19.63	Line	-	1.87	9.64	0.12	9.87
QP	4.122M	24.57	56.00	-31.43	19.73	Line	-	4.84	9.66	0.19	9.88
AV	4.122M	20.17	46.00	-25.83	19.73	Line	-	0.44	9.66	0.19	9.88
QP	8.523M	27.41	60.00	-32.59	19.81	Line	-	7.60	9.68	0.25	9.88
AV	8.523M	17.14	50.00	-32.86	19.81	Line	-	-2.67	9.68	0.25	9.88
QP	28.98M	36.02	60.00	-23.98	19.83	Line	-	16.19	9.51	0.44	9.88
AV	28.98M	28.86	50.00	-21.14	19.83	Line	-	9.03	9.51	0.44	9.88

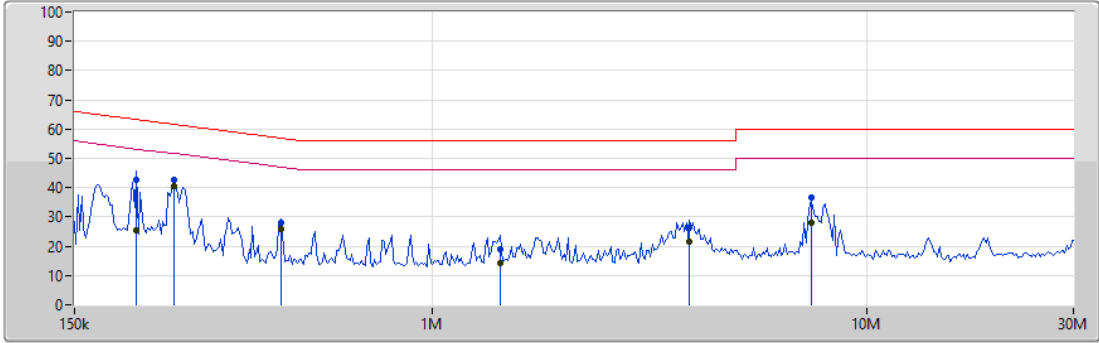




AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Neutral
Operating Function	PoE mode; Sample 2		

04/06/2020



Legend for the graph:

- Lim.PK (Red line)
- PK (Blue line)
- Lim.AV (Pink line)
- AV (Green line)

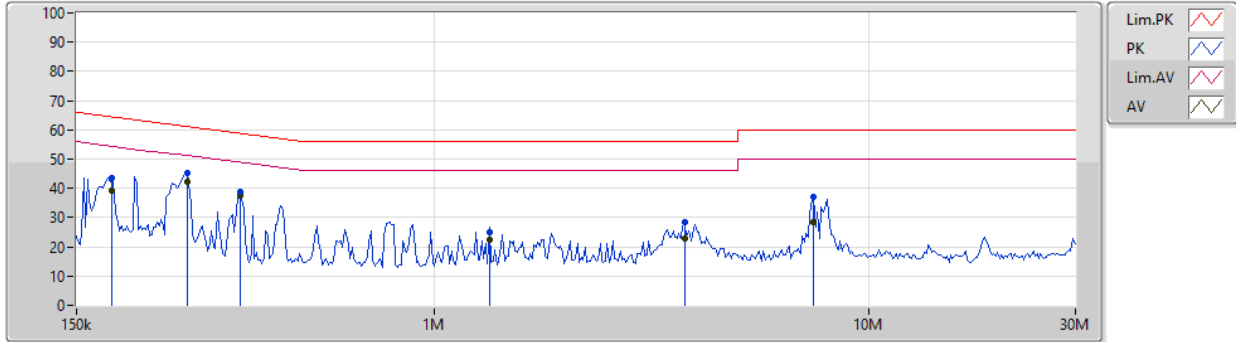
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	208.304k	42.67	63.27	-20.60	19.62	Neutral	-	23.05	9.64	0.11	9.87
AV	208.304k	25.29	53.27	-27.98	19.62	Neutral	-	5.67	9.64	0.11	9.87
QP	254.17k	42.54	61.62	-19.08	19.63	Neutral	-	22.91	9.64	0.12	9.87
AV	254.17k	40.39	51.62	-11.23	19.63	Neutral	"Worst"	20.76	9.64	0.12	9.87
QP	448.17k	27.91	56.92	-29.01	19.63	Neutral	-	8.28	9.63	0.13	9.87
AV	448.17k	25.90	46.92	-21.02	19.63	Neutral	-	6.27	9.63	0.13	9.87
QP	1.436M	19.17	56.00	-36.83	19.64	Neutral	-	-0.47	9.64	0.13	9.87
AV	1.436M	14.21	46.00	-31.79	19.64	Neutral	-	-5.43	9.64	0.13	9.87
QP	3.922M	26.35	56.00	-29.65	19.73	Neutral	-	6.62	9.66	0.19	9.88
AV	3.922M	21.45	46.00	-24.55	19.73	Neutral	-	1.72	9.66	0.19	9.88
QP	7.488M	36.65	60.00	-23.35	19.81	Neutral	-	16.84	9.69	0.24	9.88
AV	7.488M	27.94	50.00	-22.06	19.81	Neutral	-	8.13	9.69	0.24	9.88



AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Line
Operating Function	PoE mode; Sample 2		

04/06/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	181.216k	43.48	64.43	-20.95	19.63	Line	-	23.85	9.65	0.11	9.87
AV	181.216k	39.40	54.43	-15.03	19.63	Line	-	19.77	9.65	0.11	9.87
QP	269.806k	45.18	61.12	-15.94	19.64	Line	-	25.54	9.65	0.12	9.87
AV	269.806k	42.12	51.12	-9.00	19.64	Line	"Worst"	22.48	9.65	0.12	9.87
QP	356.493k	38.63	58.81	-20.18	19.63	Line	-	19.00	9.64	0.12	9.87
AV	356.493k	37.49	48.81	-11.32	19.63	Line	-	17.86	9.64	0.12	9.87
QP	1.339M	25.00	56.00	-31.00	19.65	Line	-	5.35	9.64	0.13	9.88
AV	1.339M	22.56	46.00	-23.44	19.65	Line	-	2.91	9.64	0.13	9.88
QP	3.769M	28.30	56.00	-27.70	19.72	Line	-	8.58	9.66	0.18	9.88
AV	3.769M	22.82	46.00	-23.18	19.72	Line	-	3.10	9.66	0.18	9.88
QP	7.488M	36.96	60.00	-23.04	19.80	Line	-	17.16	9.68	0.24	9.88
AV	7.488M	28.48	50.00	-21.52	19.80	Line	-	8.68	9.68	0.24	9.88



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	7.55M	10.435M	10M4G1D	6.975M	10.235M
802.11g_Nss1,(6Mbps)_2TX	16.35M	16.672M	16M7D1D	16.3M	16.532M
802.11n HT20_Nss1,(MCS0)_2TX	17.6M	17.871M	17M9D1D	17.525M	17.711M
802.11n HT40_Nss1,(MCS0)_2TX	36.35M	36.222M	36M2D1D	35.65M	36.102M
VHT20_Nss1,(MCS0)_2TX	17.6M	17.811M	17M8D1D	17.525M	17.731M
VHT40_Nss1,(MCS0)_2TX	36.3M	36.302M	36M3D1D	35.8M	36.142M
802.11ax HEW20_Nss1,(MCS0)_2TX	19M	19.03M	19M0D1D	18.85M	18.931M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.55M	37.541M	37M5D1D	37.15M	37.421M

**Max-N dB** = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

**Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	7.55M	10.435M	7M	10.255M
2437MHz	Pass	500k	7.525M	10.395M	7.025M	10.355M
2462MHz	Pass	500k	6.975M	10.255M	7.05M	10.235M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.592M	16.325M	16.572M
2437MHz	Pass	500k	16.35M	16.672M	16.35M	16.652M
2462MHz	Pass	500k	16.325M	16.532M	16.325M	16.552M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.811M	17.6M	17.731M
2437MHz	Pass	500k	17.55M	17.871M	17.6M	17.771M
2462MHz	Pass	500k	17.525M	17.731M	17.575M	17.711M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.65M	36.102M	36.3M	36.142M
2437MHz	Pass	500k	36.3M	36.222M	36.25M	36.182M
2452MHz	Pass	500k	35.9M	36.142M	36.35M	36.222M
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.811M	17.575M	17.771M
2437MHz	Pass	500k	17.55M	17.811M	17.575M	17.771M
2462MHz	Pass	500k	17.525M	17.731M	17.6M	17.731M
VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.8M	36.142M	36.05M	36.222M
2437MHz	Pass	500k	36.3M	36.302M	35.95M	36.182M
2452MHz	Pass	500k	36M	36.182M	36.3M	36.222M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.85M	19.01M	18.975M	18.971M
2437MHz	Pass	500k	19M	19.03M	18.925M	18.991M
2462MHz	Pass	500k	18.9M	18.931M	18.9M	18.951M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.15M	37.421M	37.15M	37.501M
2437MHz	Pass	500k	37.55M	37.541M	37.2M	37.501M
2452MHz	Pass	500k	37.25M	37.501M	37.3M	37.541M

Port X-N dB = Port X 6dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;

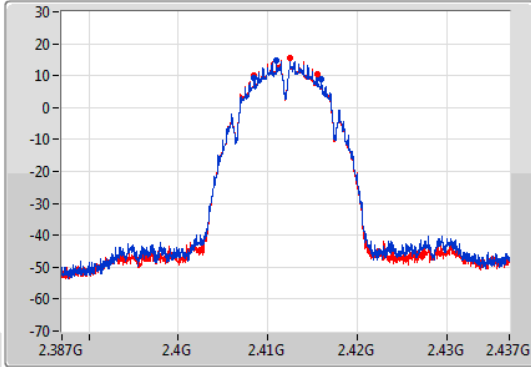
802.11b\_Nss1,(1Mbps)\_2TX

EBW

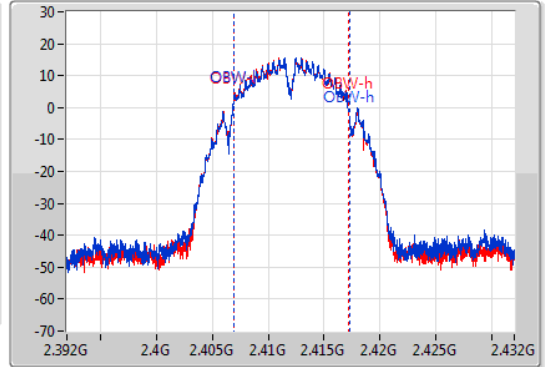
2412MHz

23/07/2020

CF  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.412GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.55M	2.40845G	2.416G	10.435M	2.406883G	2.417317G	500k	1
7M	2.4085G	2.4155G	10.255M	2.406883G	2.417137G	500k	2

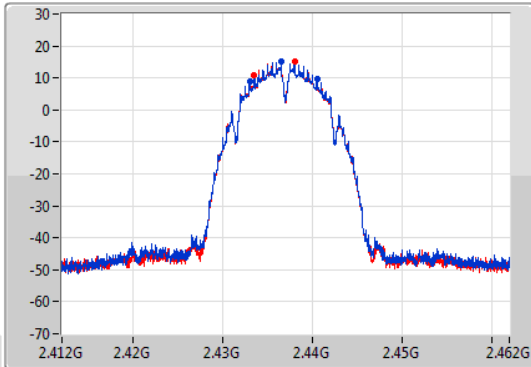
802.11b\_Nss1,(1Mbps)\_2TX

EBW

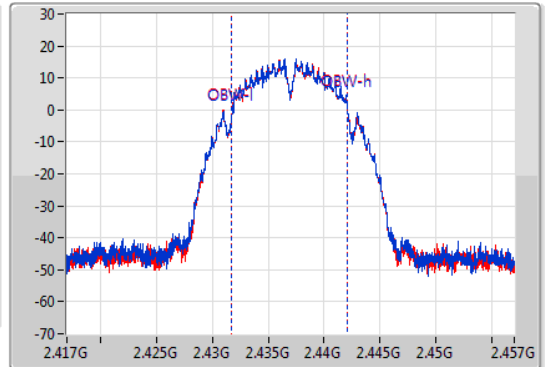
2437MHz

23/07/2020

CF  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.437GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.525M	2.432975G	2.4405G	10.395M	2.431703G	2.442097G	500k	1
7.025M	2.433475G	2.4405G	10.355M	2.431723G	2.442077G	500k	2

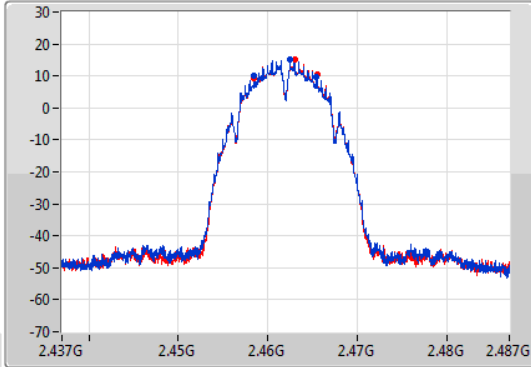
802.11b\_Nss1,(1Mbps)\_2TX

EBW

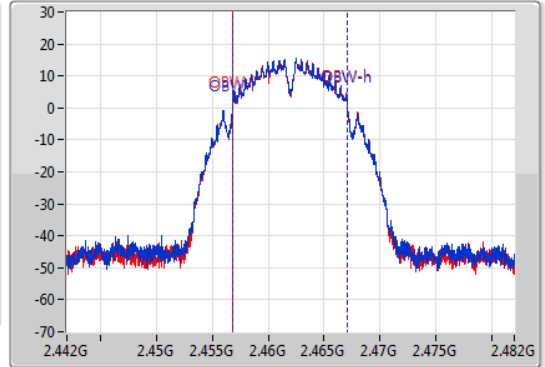
2462MHz

23/07/2020

CF  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.462GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.975M	2.4585G	2.465475G	10.255M	2.456823G	2.467077G	500k	1
7.05M	2.45845G	2.4655G	10.235M	2.456843G	2.467077G	500k	2

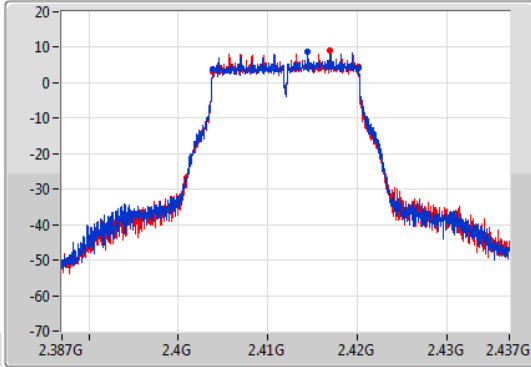
802.11g\_Nss1,(6Mbps)\_2TX

EBW

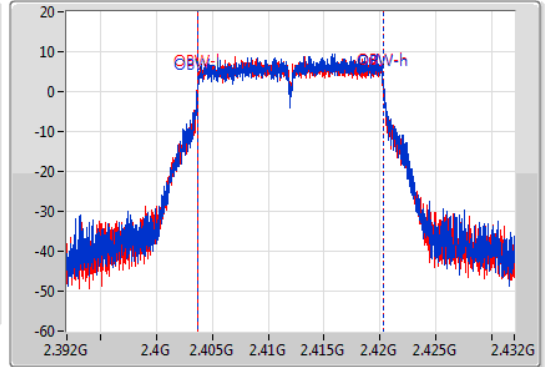
2412MHz

23/07/2020

CF  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.412GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.40385G	2.42015G	16.592M	2.403724G	2.420316G	500k	1
16.325M	2.403825G	2.42015G	16.572M	2.403724G	2.420296G	500k	2

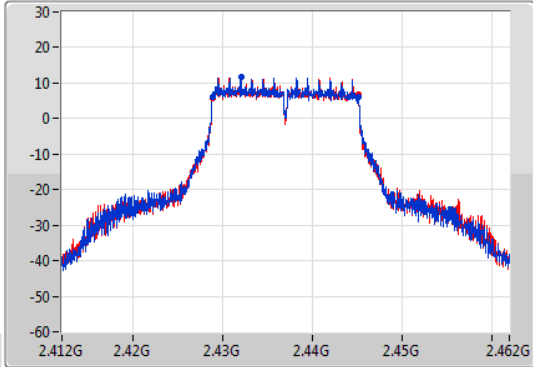
802.11g\_Nss1,(6Mbps)\_2TX

EBW

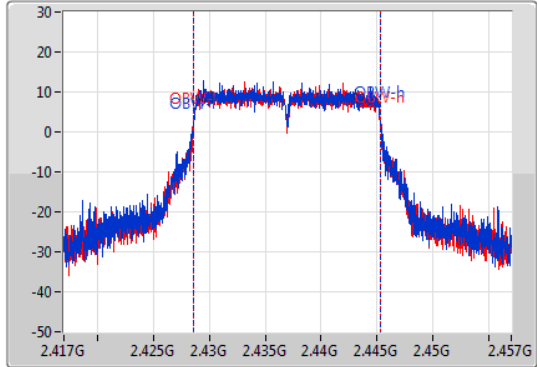
2437MHz

23/07/2020

CF  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.437GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.4288G	2.44515G	16.672M	2.428604G	2.445276G	500k	1
16.35M	2.4288G	2.44515G	16.652M	2.428624G	2.445276G	500k	2

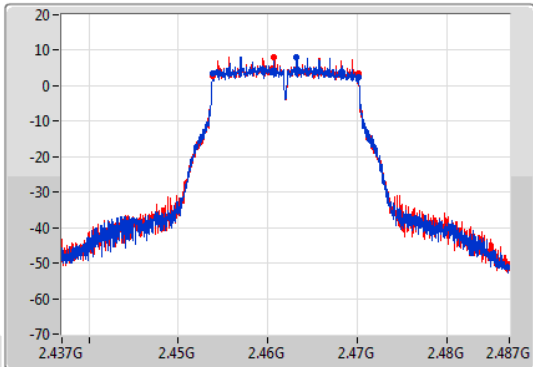
802.11g\_Nss1,(6Mbps)\_2TX

EBW

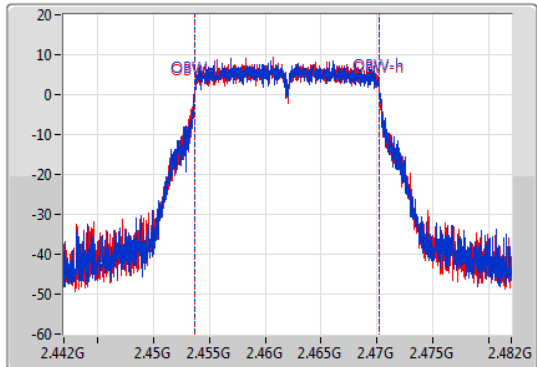
2462MHz

23/07/2020

CF  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.462GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



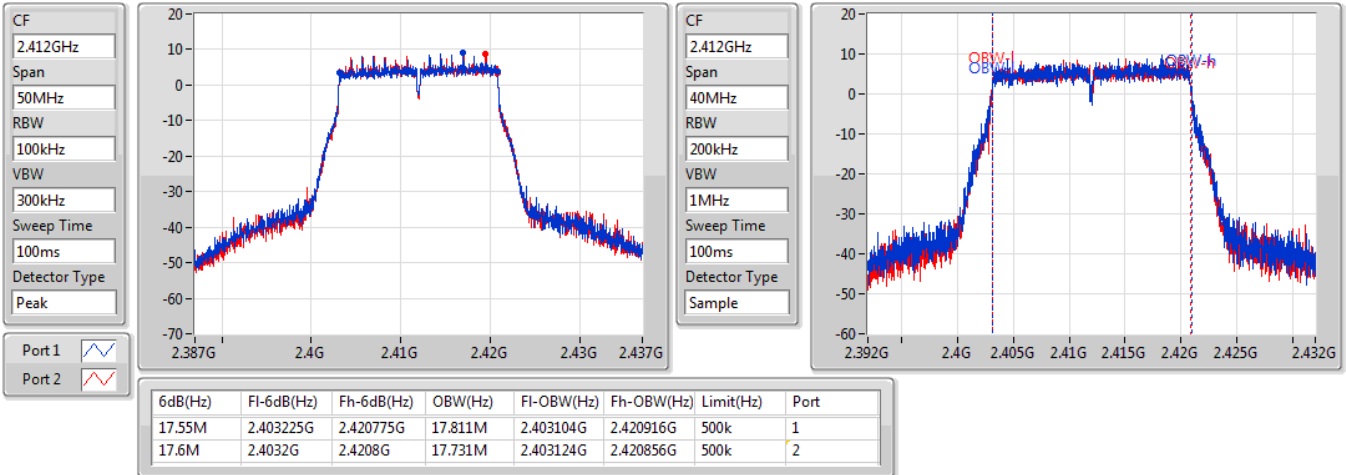
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.532M	2.453704G	2.470236G	500k	1
16.325M	2.453825G	2.47015G	16.552M	2.453684G	2.470236G	500k	2

802.11n HT20\_Nss1,(MCS0)\_2TX

EBW

2412MHz

23/07/2020

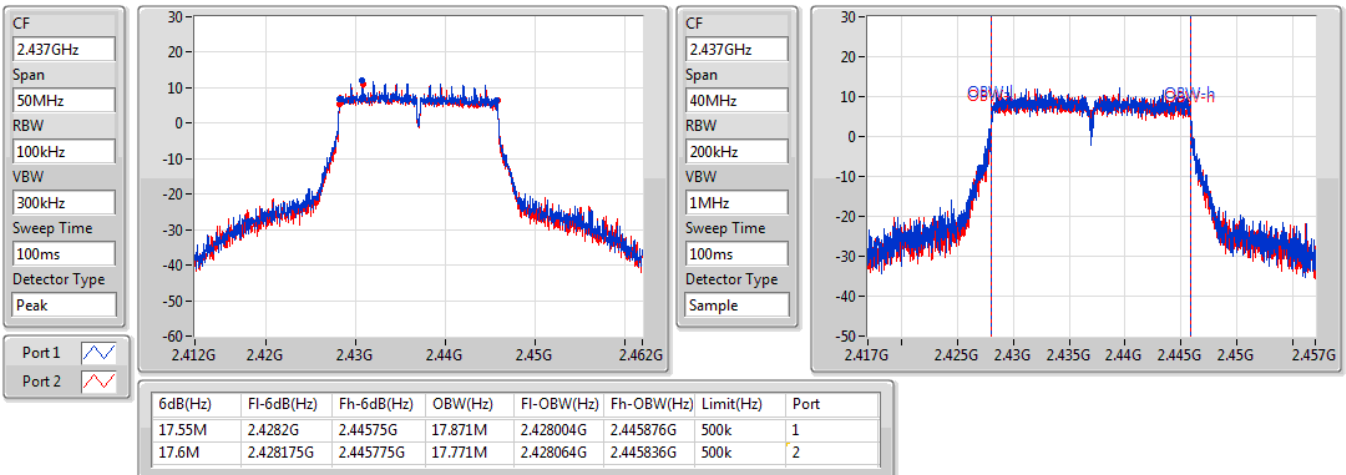


802.11n HT20\_Nss1,(MCS0)\_2TX

EBW

2437MHz

23/07/2020





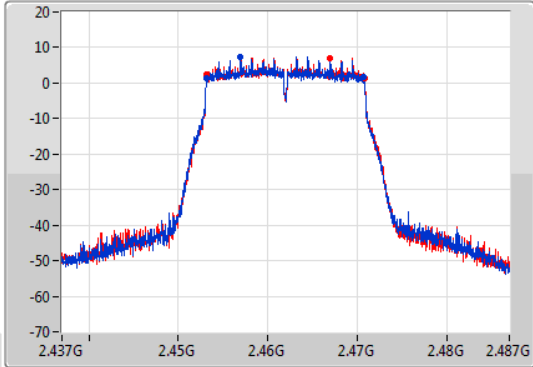
802.11n HT20\_Nss1,(MCS0)\_2TX

EBW

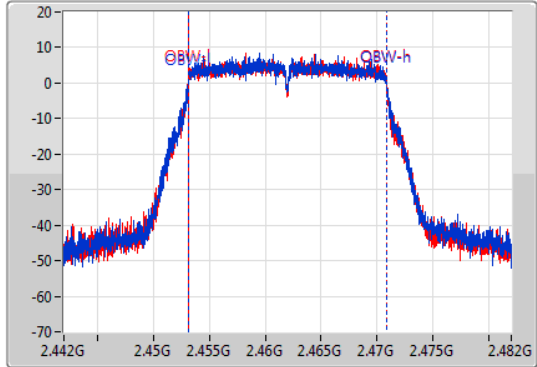
2462MHz

23/07/2020

CF  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.462GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.4532G	2.470725G	17.731M	2.453104G	2.470836G	500k	1
17.575M	2.4532G	2.470775G	17.711M	2.453124G	2.470836G	500k	2

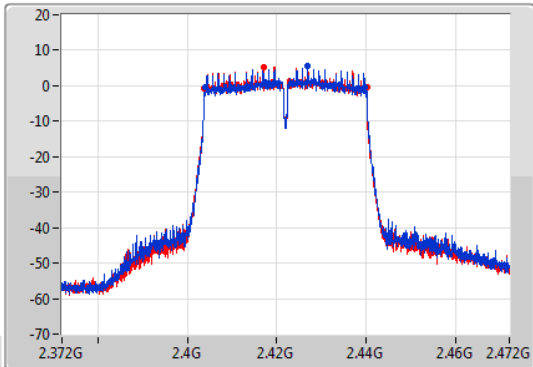
802.11n HT40\_Nss1,(MCS0)\_2TX

EBW

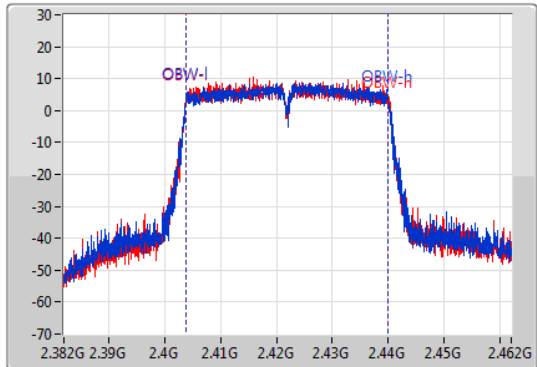
2422MHz

23/07/2020

CF  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.422GHz  
Span  
80MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.65M	2.4041G	2.43975G	36.102M	2.403929G	2.440031G	500k	1
36.3M	2.40385G	2.44015G	36.142M	2.403889G	2.440031G	500k	2

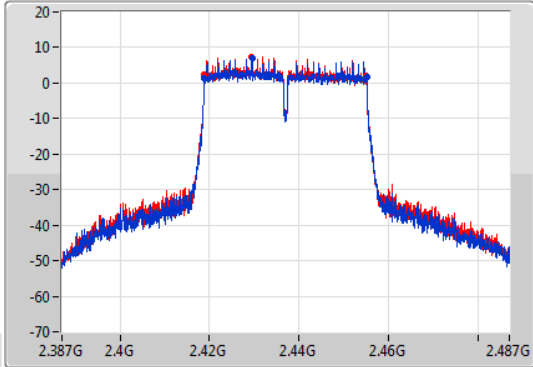
802.11n HT40\_Nss1,(MCS0)\_2TX

EBW

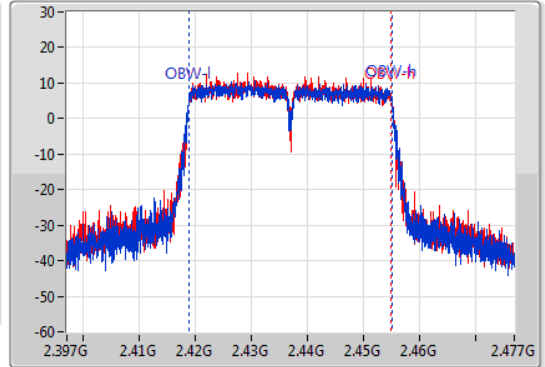
2437MHz

23/07/2020

CF  
2.437GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.437GHz  
Span  
80MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.41885G	2.45515G	36.222M	2.418849G	2.455071G	500k	1
36.25M	2.41885G	2.4551G	36.182M	2.418849G	2.455031G	500k	2

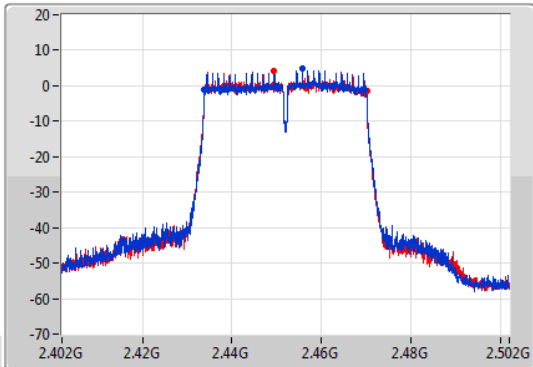
802.11n HT40\_Nss1,(MCS0)\_2TX

EBW

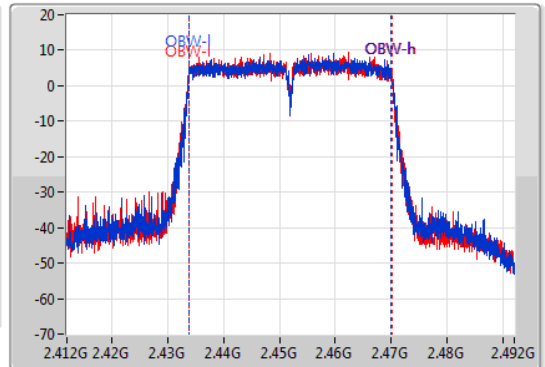
2452MHz

23/07/2020

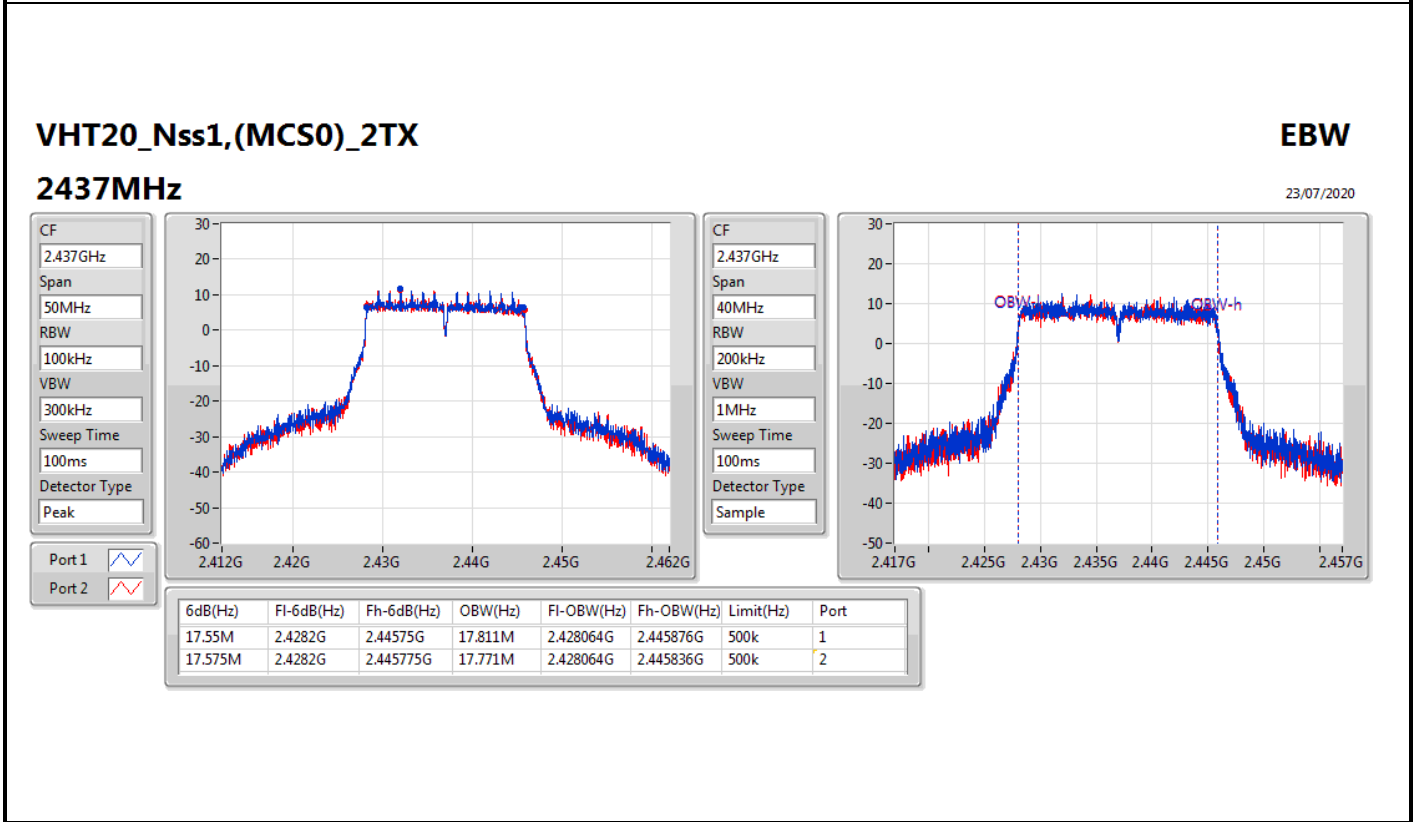
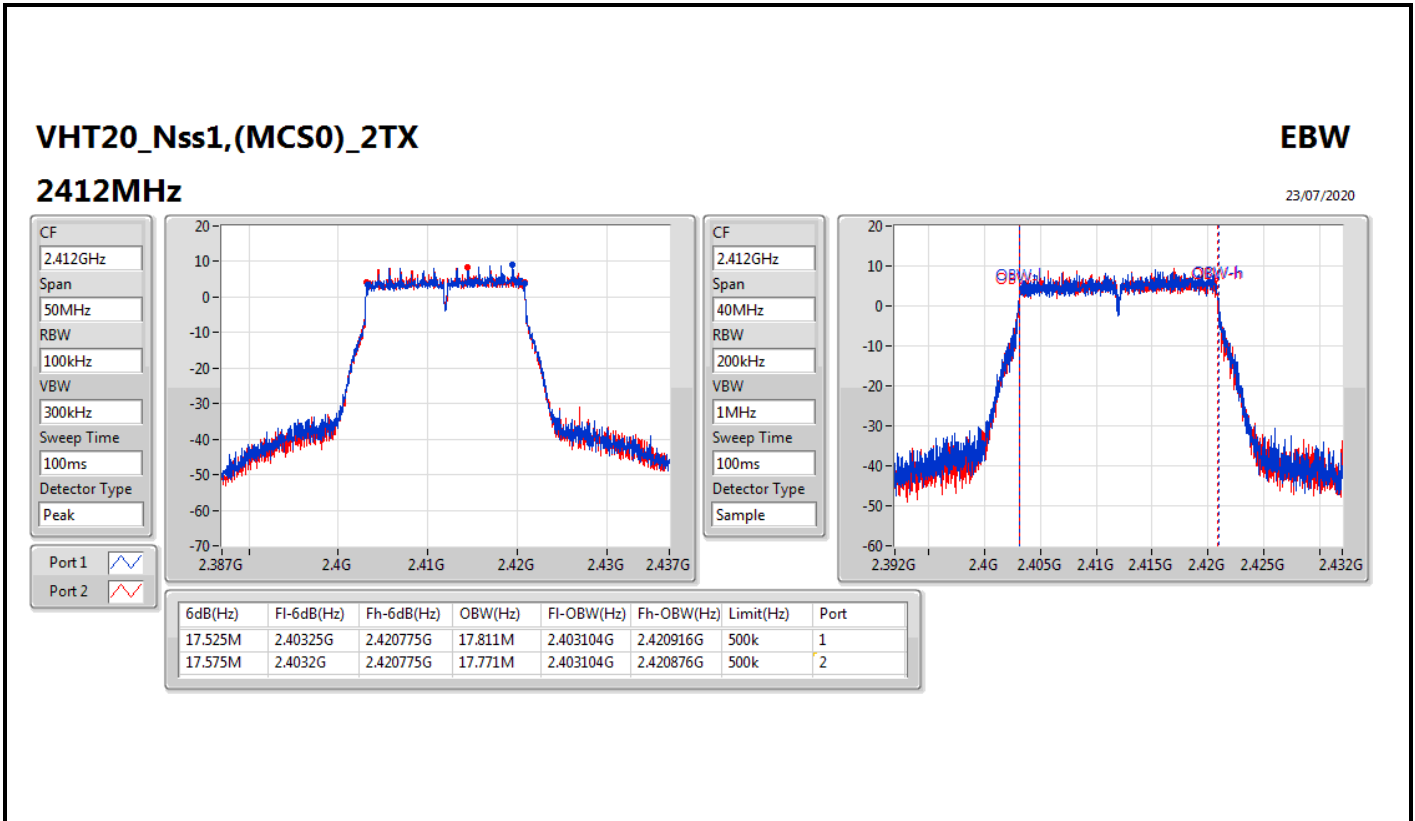
CF  
2.452GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.452GHz  
Span  
80MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.9M	2.43385G	2.46975G	36.142M	2.433889G	2.470031G	500k	1
36.35M	2.4338G	2.47015G	36.222M	2.433849G	2.470071G	500k	2



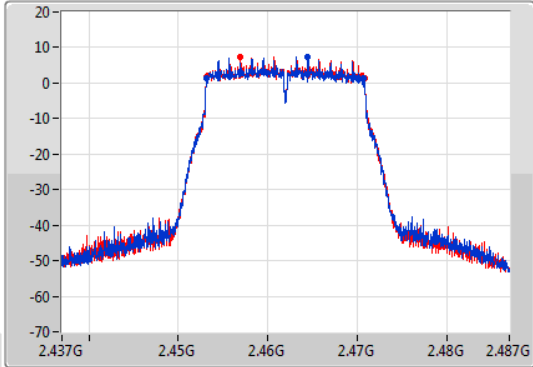
VHT20\_Nss1,(MCS0)\_2TX

EBW

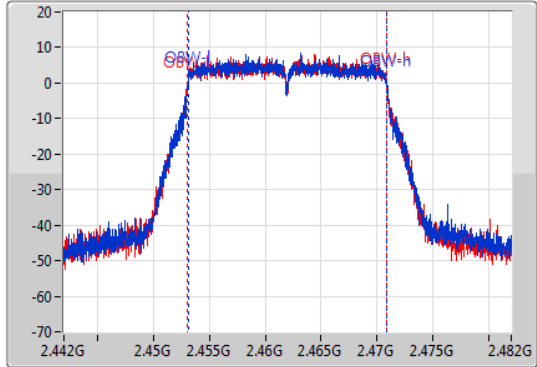
2462MHz

23/07/2020

CF  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.462GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.4532G	2.470725G	17.731M	2.453104G	2.470836G	500k	1
17.6M	2.453175G	2.470775G	17.731M	2.453084G	2.470816G	500k	2

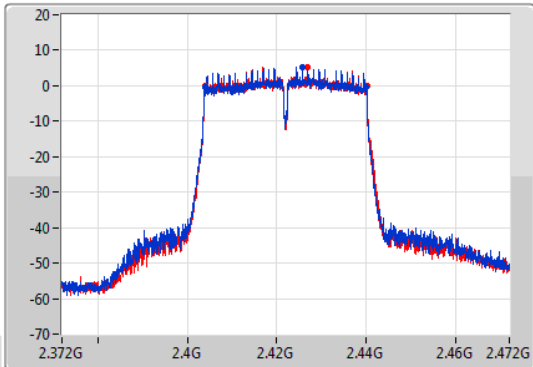
VHT40\_Nss1,(MCS0)\_2TX

EBW

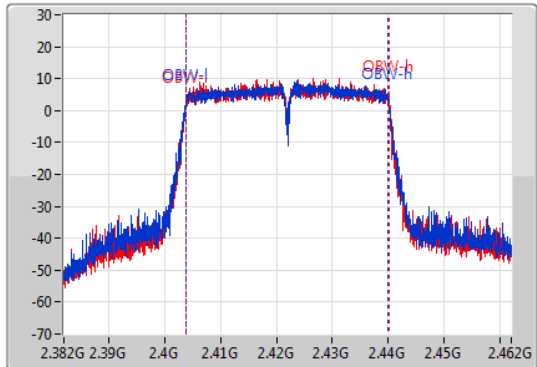
2422MHz

23/07/2020

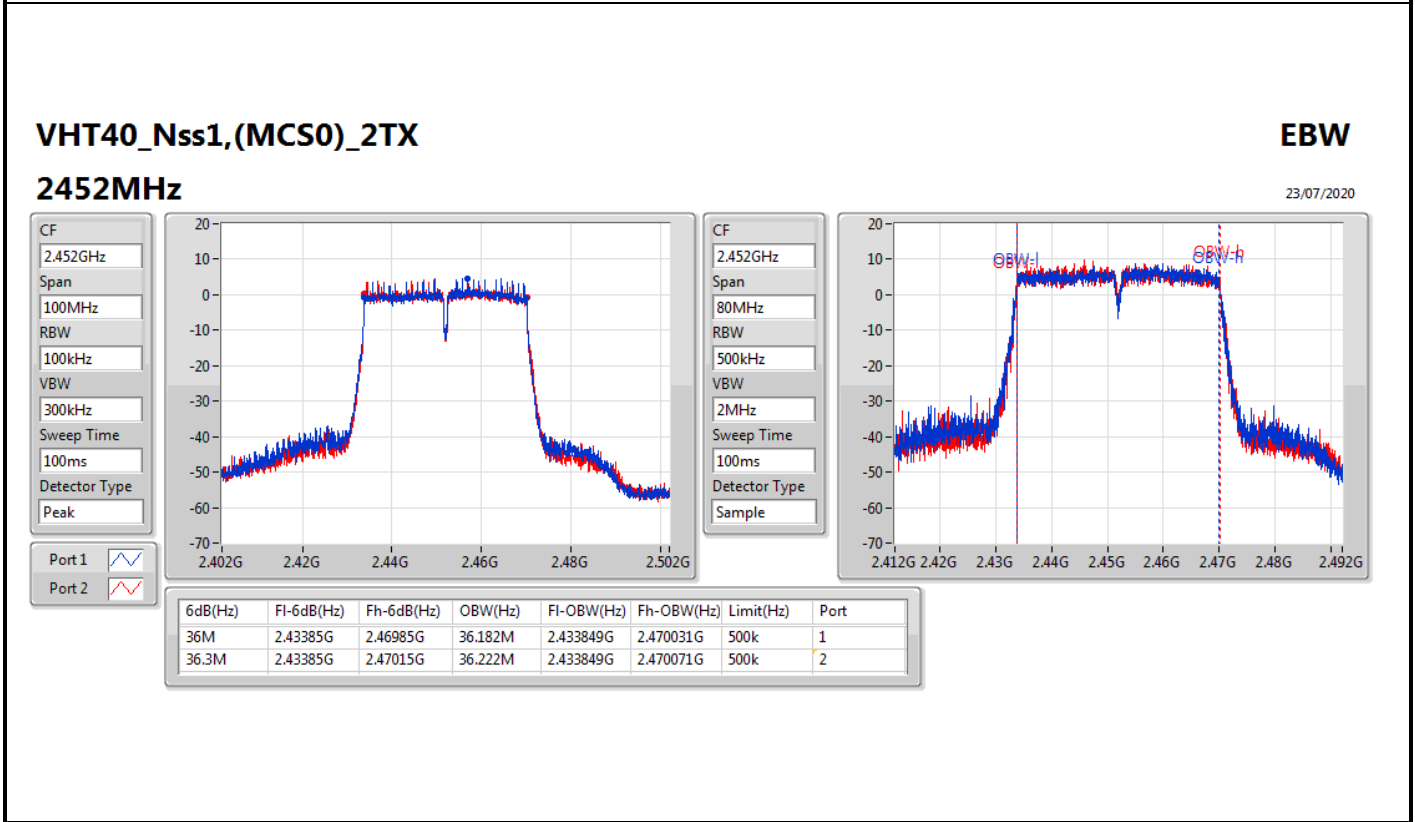
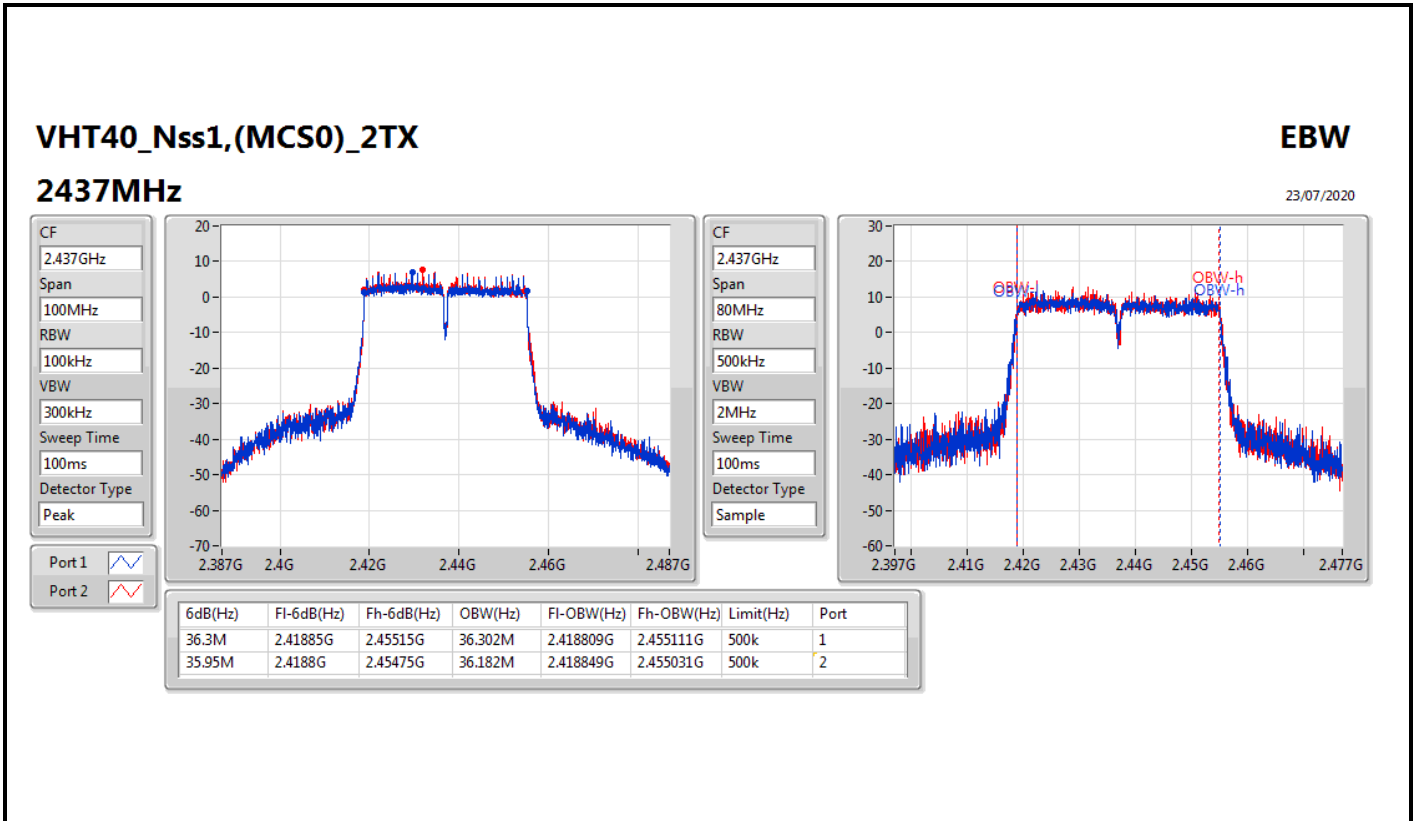
CF  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.422GHz  
Span  
80MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.8M	2.4041G	2.4399G	36.142M	2.403889G	2.440031G	500k	1
36.05M	2.4041G	2.44015G	36.222M	2.403889G	2.440111G	500k	2



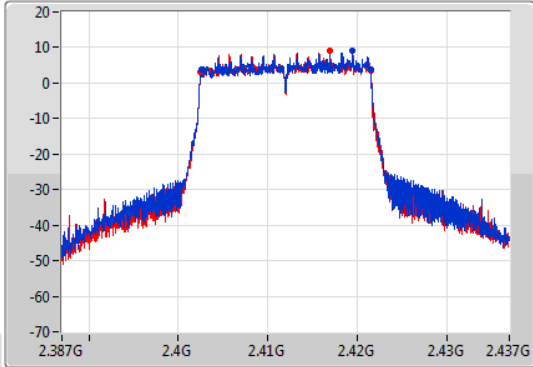
802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

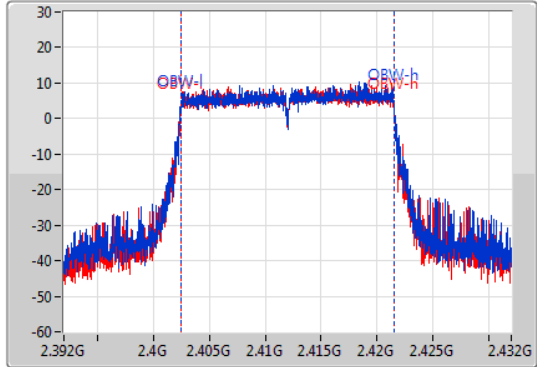
2412MHz

23/07/2020

CF  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.412GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.85M	2.402625G	2.421475G	19.01M	2.402485G	2.421495G	500k	1
18.975M	2.402525G	2.4215G	18.971M	2.402505G	2.421475G	500k	2

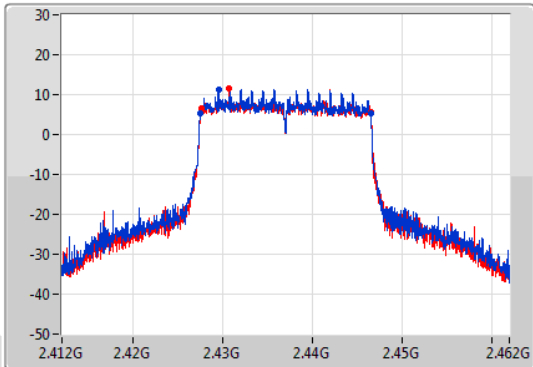
802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

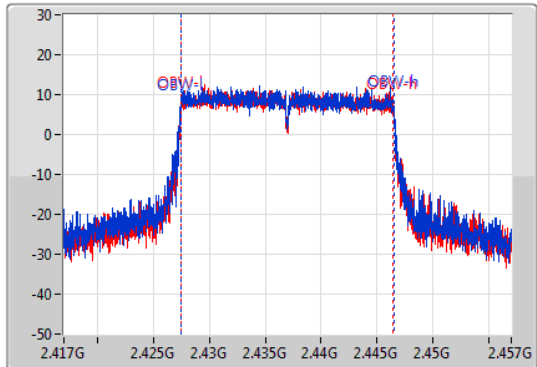
2437MHz

23/07/2020

CF  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.437GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19M	2.427475G	2.446475G	19.03M	2.427445G	2.446475G	500k	1
18.925M	2.42755G	2.446475G	18.991M	2.427465G	2.446455G	500k	2

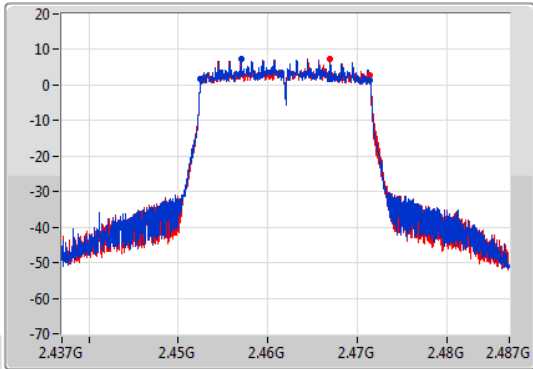
802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

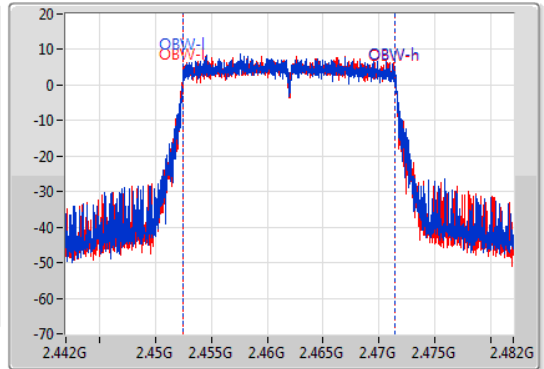
2462MHz

23/07/2020

CF  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.462GHz  
Span  
40MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.9M	2.452475G	2.471375G	18.931M	2.452505G	2.471435G	500k	1
18.9M	2.452525G	2.471425G	18.951M	2.452485G	2.471435G	500k	2

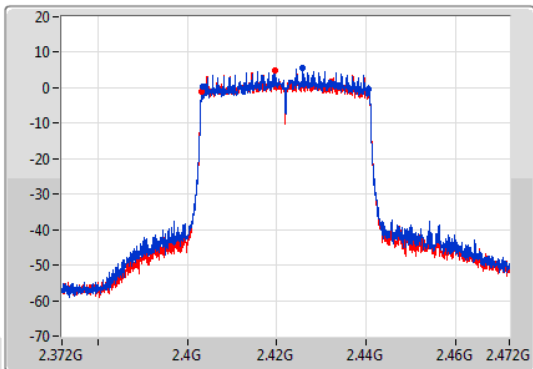
802.11ax HEW40\_Nss1,(MCS0)\_2TX

EBW

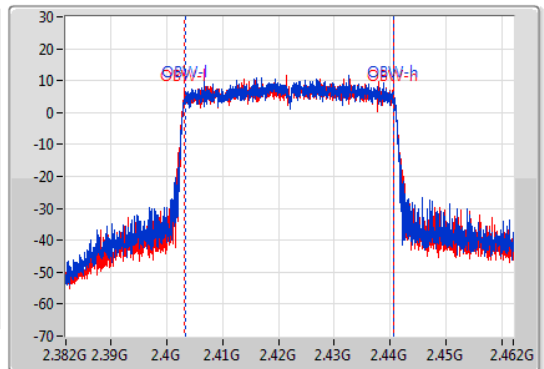
2422MHz

23/07/2020

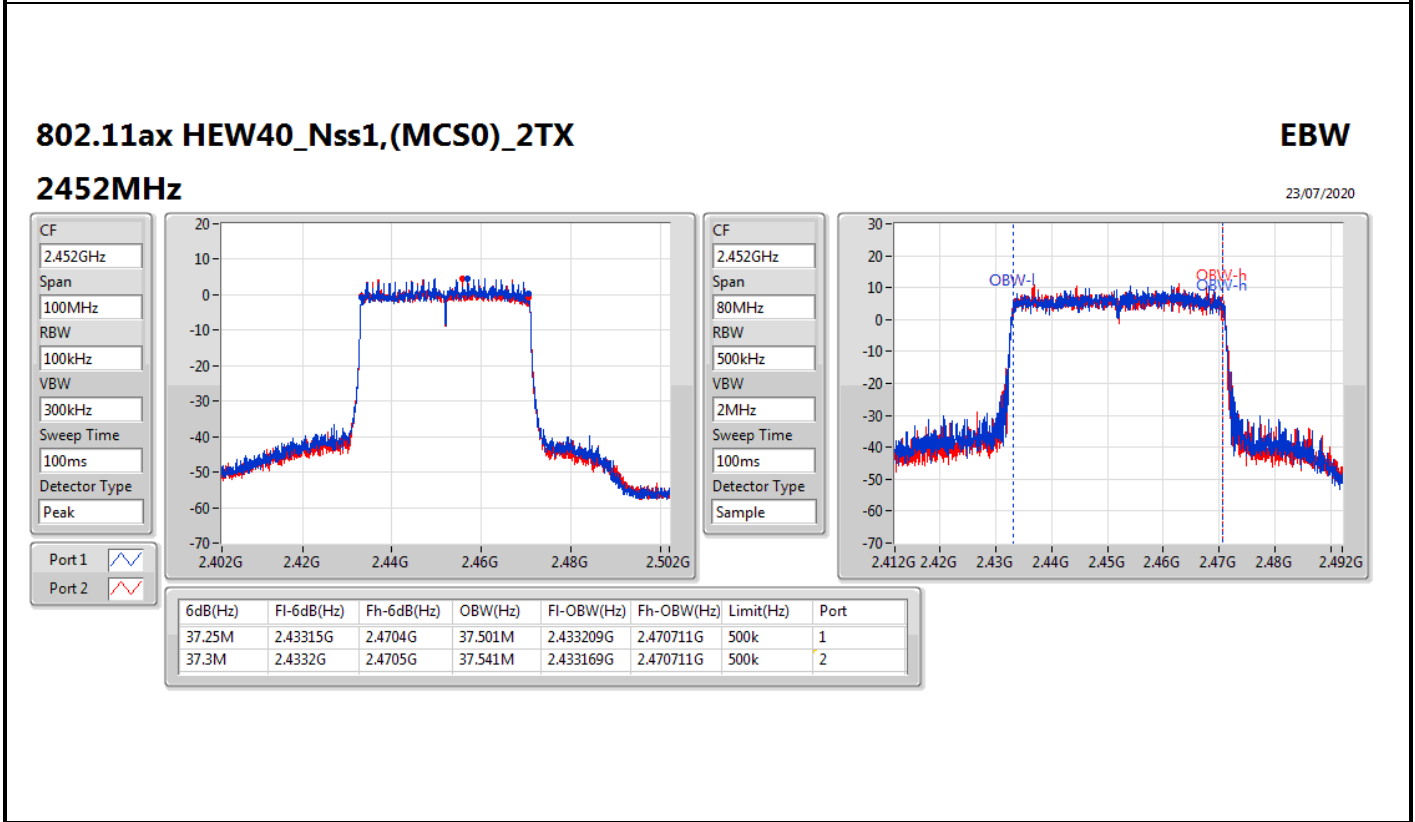
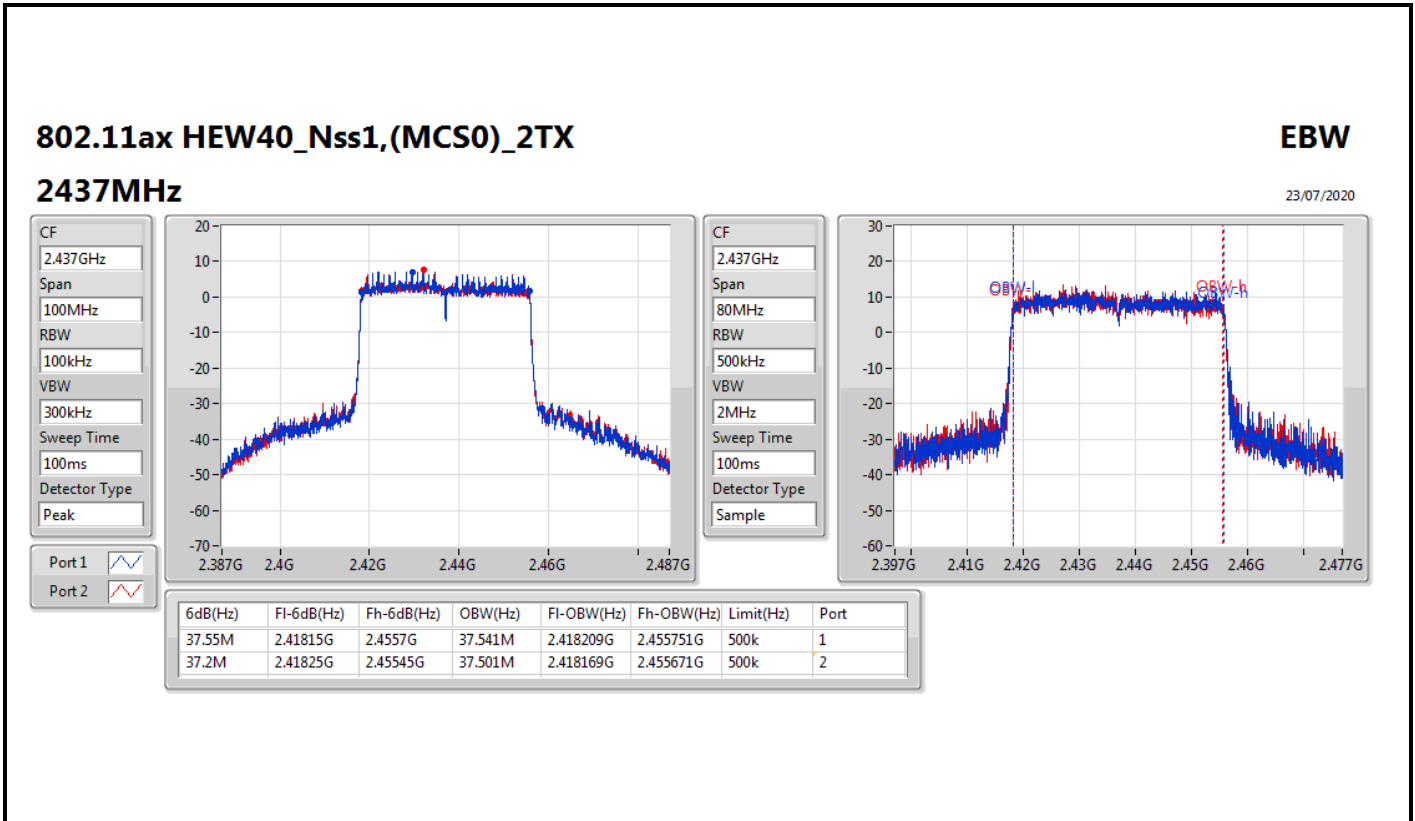
CF  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.422GHz  
Span  
80MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.15M	2.4034G	2.44055G	37.421M	2.403289G	2.440711G	500k	1
37.15M	2.40325G	2.4404G	37.501M	2.403209G	2.440711G	500k	2





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	7.025M	10.335M	10M3G1D	6.575M	10.215M
802.11g_Nss1,(6Mbps)_2TX	16.325M	16.632M	16M6D1D	16.3M	16.532M
802.11n HT20_Nss1,(MCS0)_2TX	17.6M	17.811M	17M8D1D	17.55M	17.731M
802.11n HT40_Nss1,(MCS0)_2TX	36.3M	36.262M	36M3D1D	35.7M	36.142M
VHT20_Nss1,(MCS0)_2TX	17.575M	17.811M	17M8D1D	17.55M	17.691M
VHT40_Nss1,(MCS0)_2TX	36.35M	36.302M	36M3D1D	35.45M	36.142M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.975M	18.991M	19MOD1D	18.875M	18.951M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.55M	37.621M	37M6D1D	35.6M	37.421M

Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth;

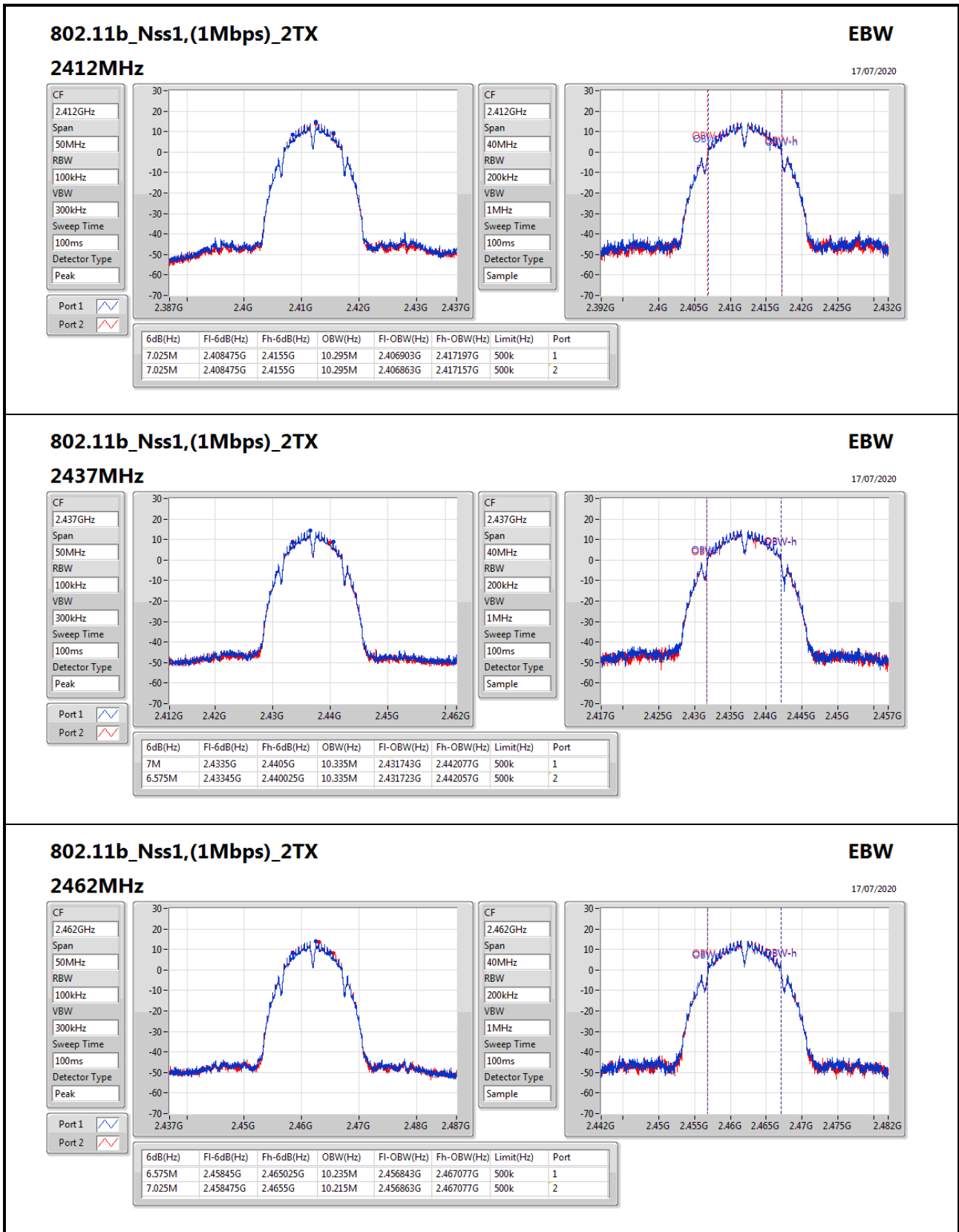
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	7.025M	10.295M	7.025M	10.295M
2437MHz	Pass	500k	7M	10.335M	6.575M	10.335M
2462MHz	Pass	500k	6.575M	10.235M	7.025M	10.215M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.632M	16.3M	16.612M
2437MHz	Pass	500k	16.325M	16.632M	16.325M	16.572M
2462MHz	Pass	500k	16.325M	16.552M	16.325M	16.532M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.6M	17.791M	17.575M	17.731M
2437MHz	Pass	500k	17.55M	17.811M	17.6M	17.751M
2462MHz	Pass	500k	17.55M	17.751M	17.575M	17.751M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.75M	36.142M	35.7M	36.222M
2437MHz	Pass	500k	36.3M	36.222M	36.3M	36.262M
2452MHz	Pass	500k	36.3M	36.262M	36.3M	36.262M
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.575M	17.811M	17.575M	17.771M
2437MHz	Pass	500k	17.55M	17.811M	17.575M	17.751M
2462MHz	Pass	500k	17.55M	17.691M	17.575M	17.711M
VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.45M	36.142M	36.35M	36.142M
2437MHz	Pass	500k	36.3M	36.302M	36.3M	36.262M
2452MHz	Pass	500k	36.35M	36.222M	36.35M	36.262M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.9M	18.991M	18.95M	18.991M
2437MHz	Pass	500k	18.975M	18.971M	18.875M	18.991M
2462MHz	Pass	500k	18.875M	18.951M	18.9M	18.951M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.25M	37.421M	35.6M	37.461M



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
2437MHz	Pass	500k	37.45M	37.581M	37.5M	37.621M
2452MHz	Pass	500k	37.3M	37.501M	37.55M	37.581M

**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;


**802.11b\_Nss1,(1Mbps)\_2TX**
**EBW**

17/07/2020

**2462MHz**

CF: 2.462GHz

Span: 50MHz

RBW: 100kHz

VBW: 300kHz

Sweep Time: 100ms

Detector Type: Peak

Port 1:

Port 2:

CF: 2.462GHz

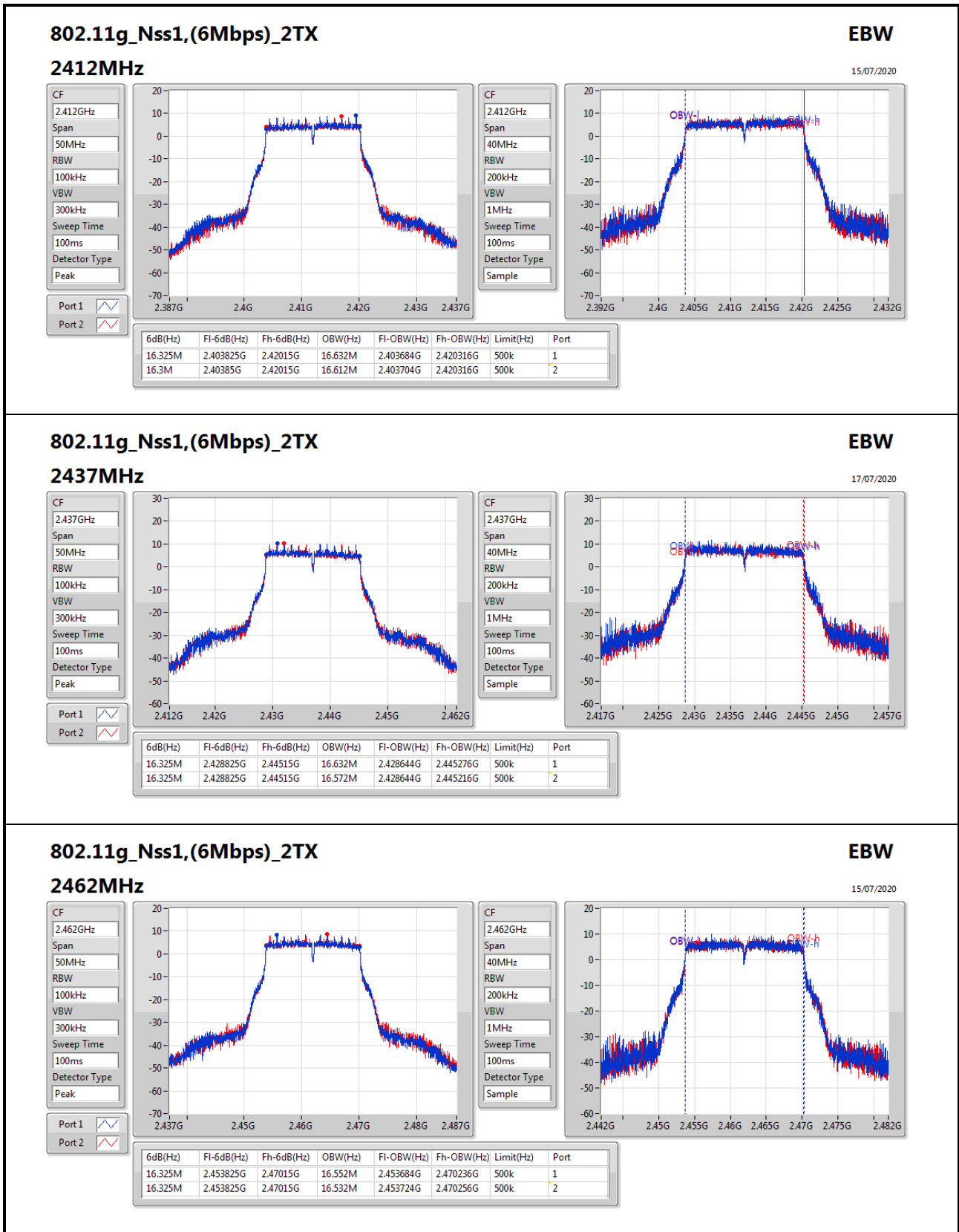
Span: 40MHz

RBW: 200kHz

VBW: 1MHz

Sweep Time: 100ms

Detector Type: Sample



### 802.11g\_Nss1,(6Mbps)\_2TX

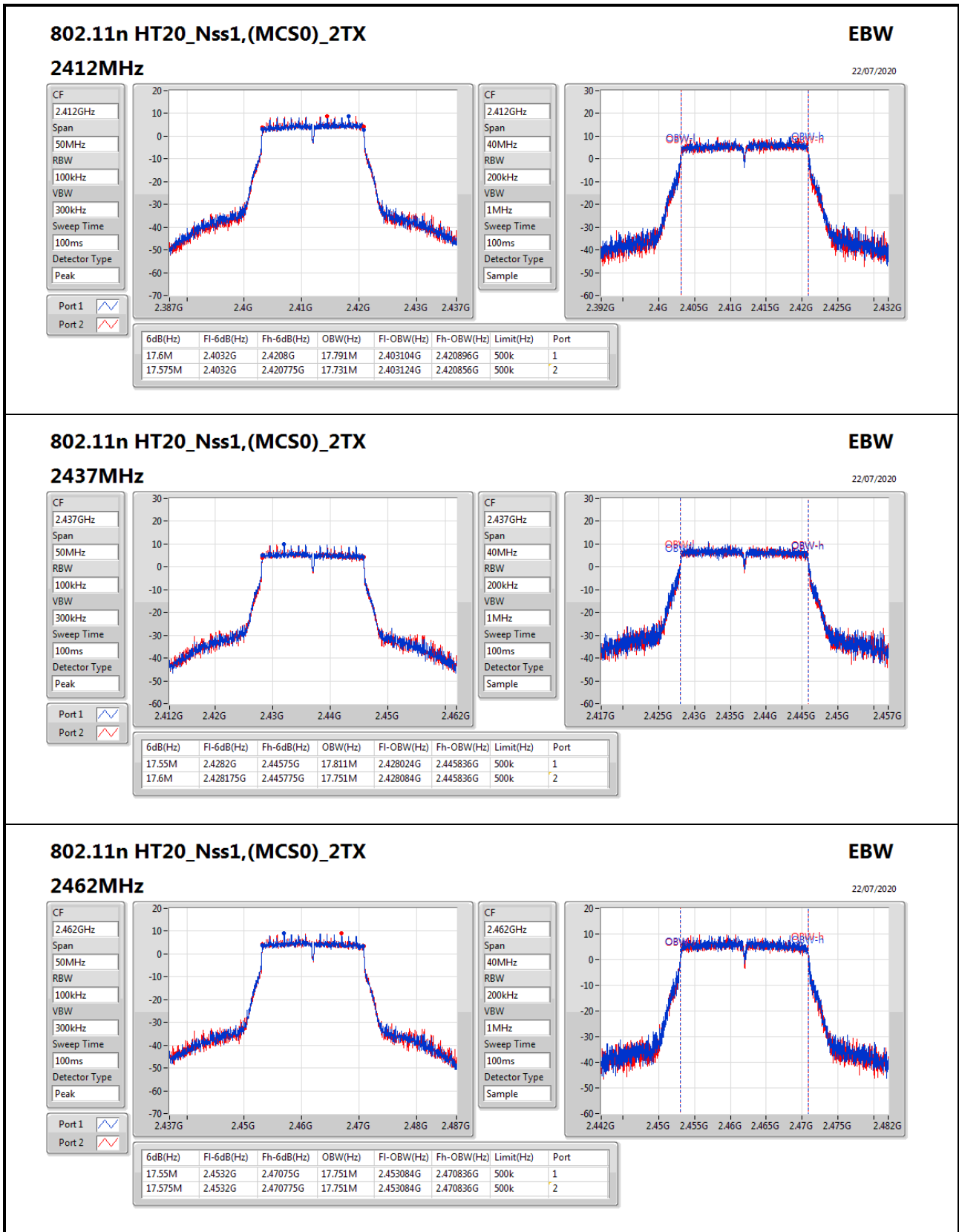
#### 2462MHz

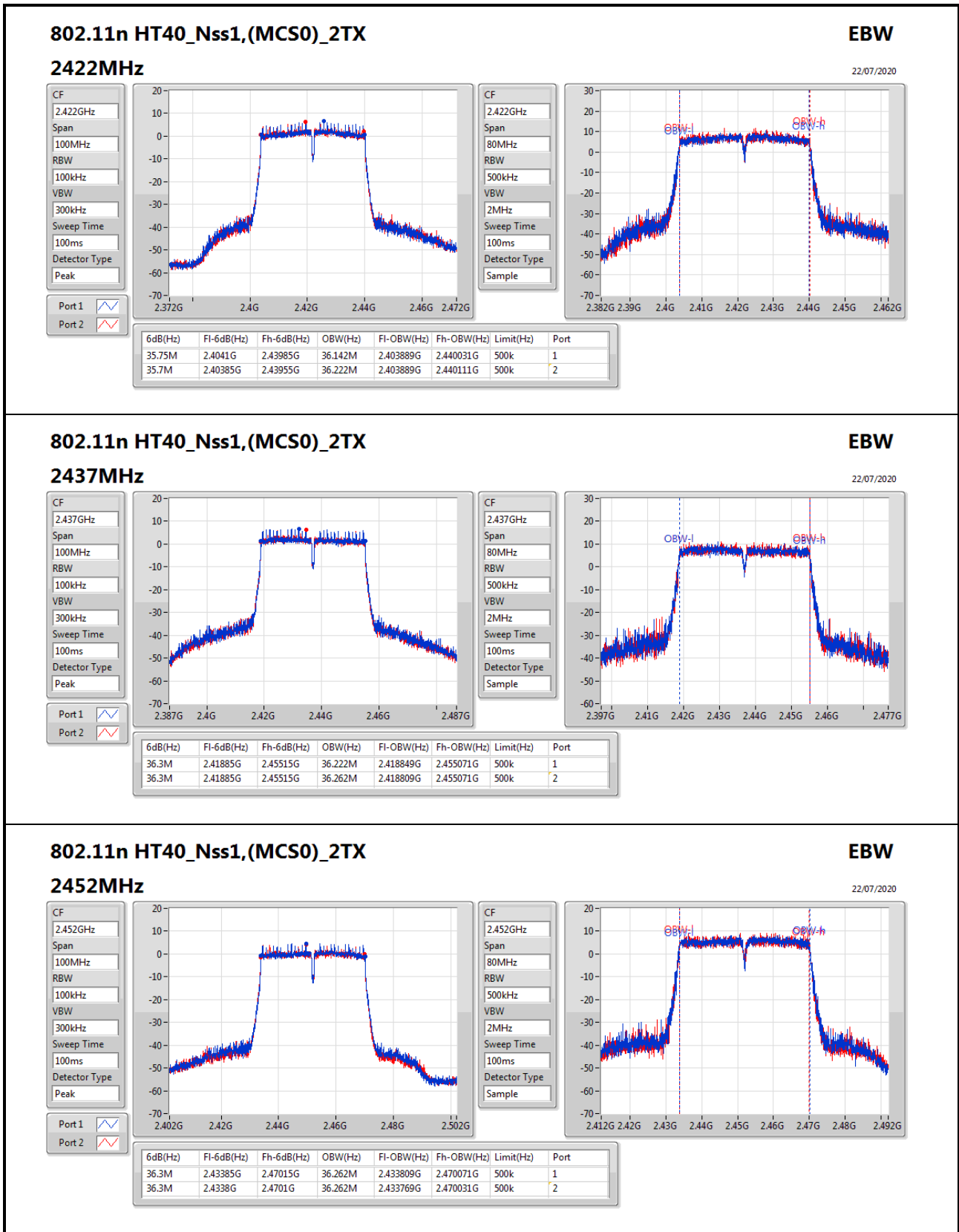
CF: 2.462GHz  
Span: 50MHz  
RBW: 100kHz  
VBW: 300kHz  
Sweep Time: 100ms  
Detector Type: Peak

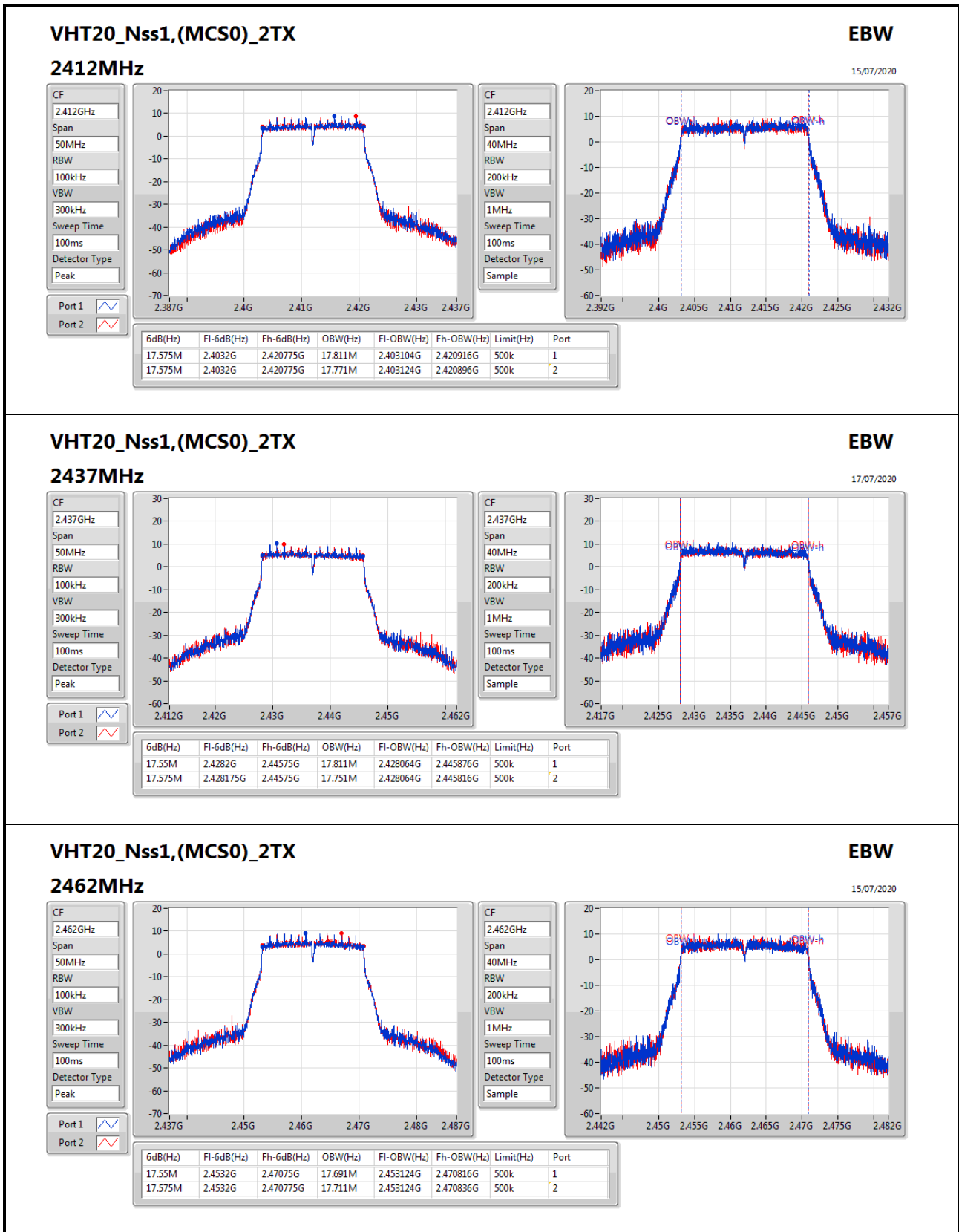
### EBW

15/07/2020

CF: 2.462GHz  
Span: 40MHz  
RBW: 200kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Sample






**VHT20\_Nss1,(MCS0)\_2TX**
**EBW**

15/07/2020

**2462MHz**

CF: 2.462GHz

Span: 50MHz

RBW: 100kHz

VBW: 300kHz

Sweep Time: 100ms

Detector Type: Peak

Port 1:

Port 2:

CF: 2.462GHz

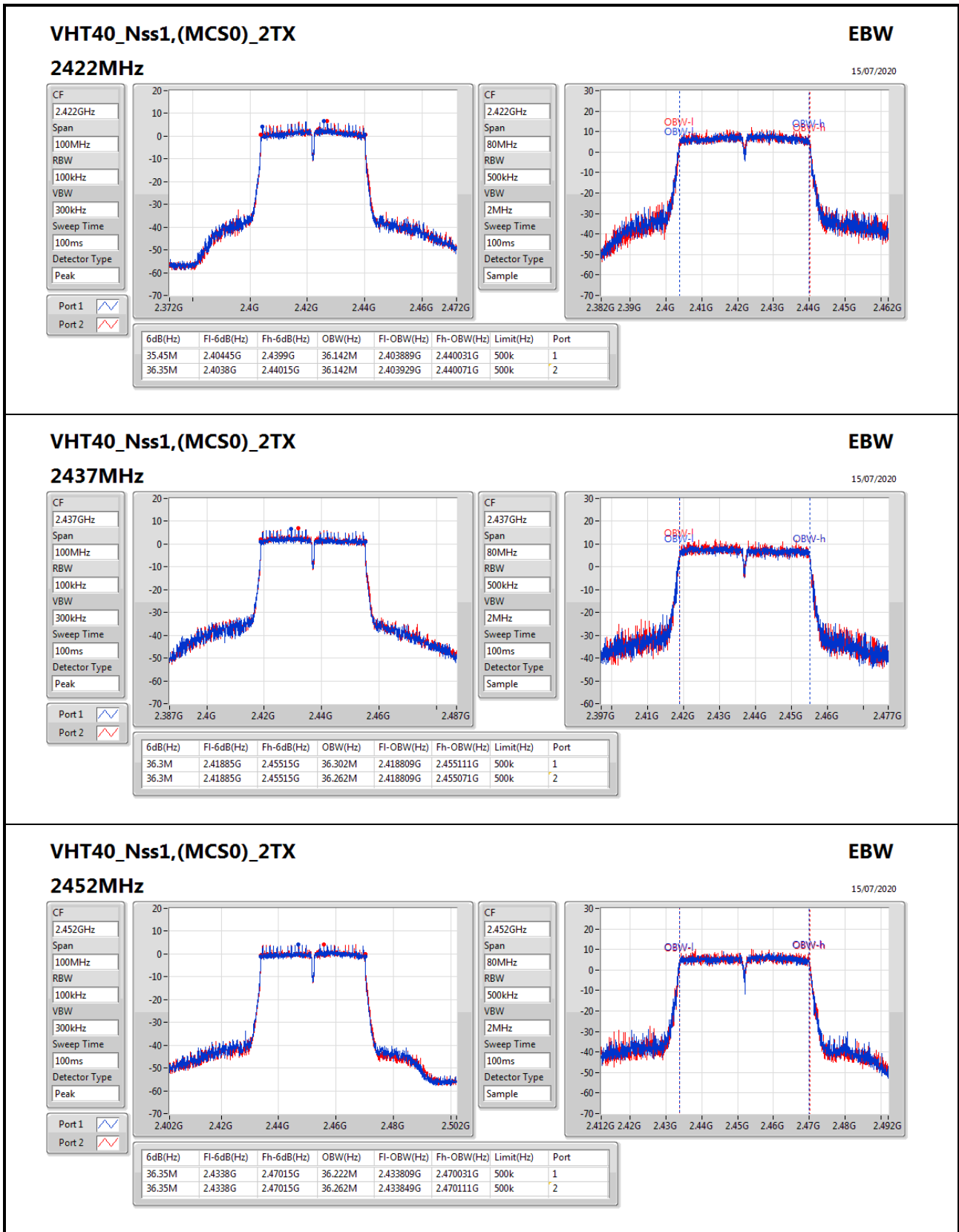
Span: 40MHz

RBW: 200kHz

VBW: 1MHz

Sweep Time: 100ms

Detector Type: Sample


**VHT40\_Nss1,(MCS0)\_2TX**
**EBW**

**2452MHz**

15/07/2020

CF: 2.452GHz

Span: 100MHz

RBW: 100kHz

VBW: 300kHz

Sweep Time: 100ms

Detector Type: Peak

Port 1:

Port 2:

CF: 2.452GHz

Span: 80MHz

RBW: 500kHz

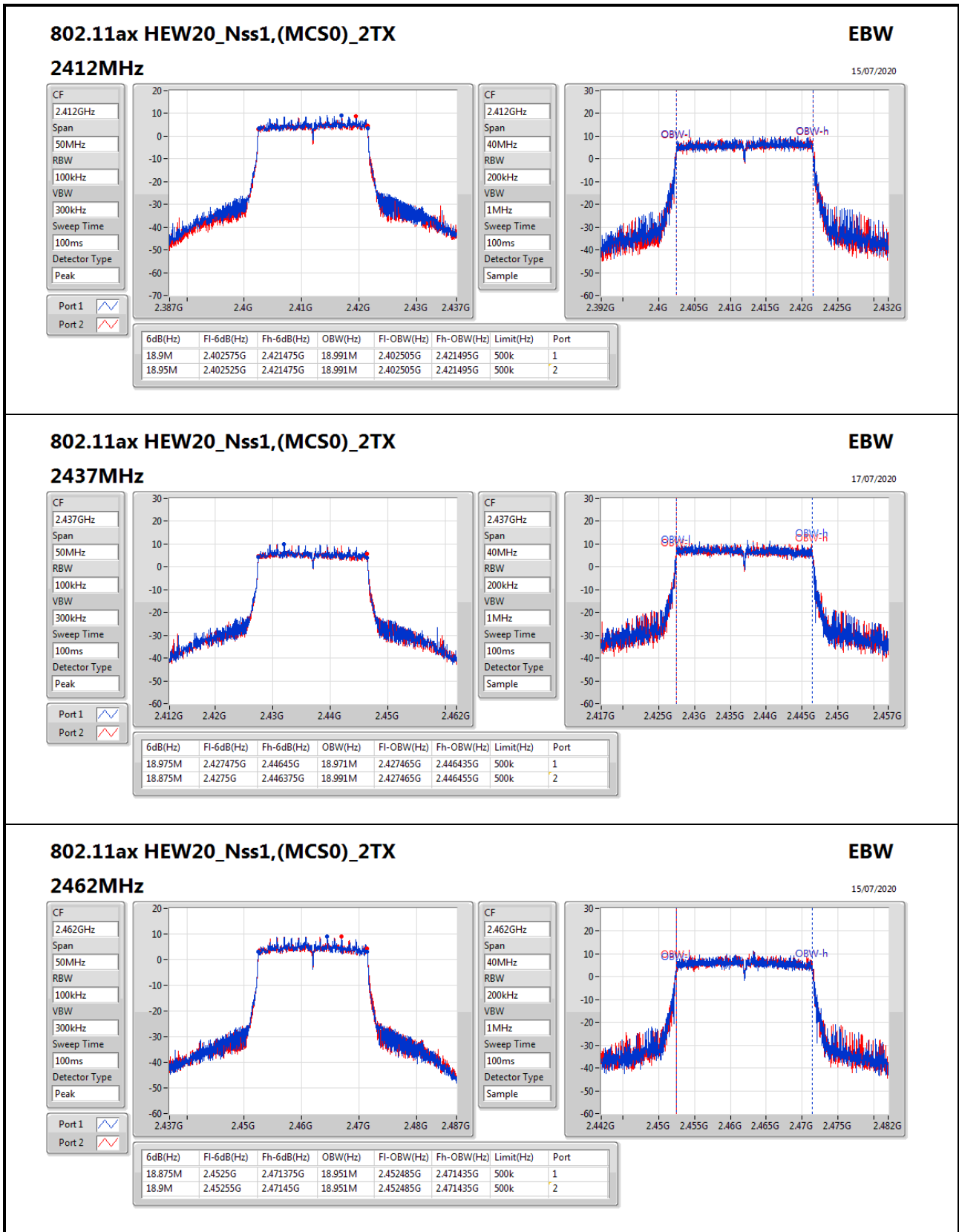
VBW: 2MHz

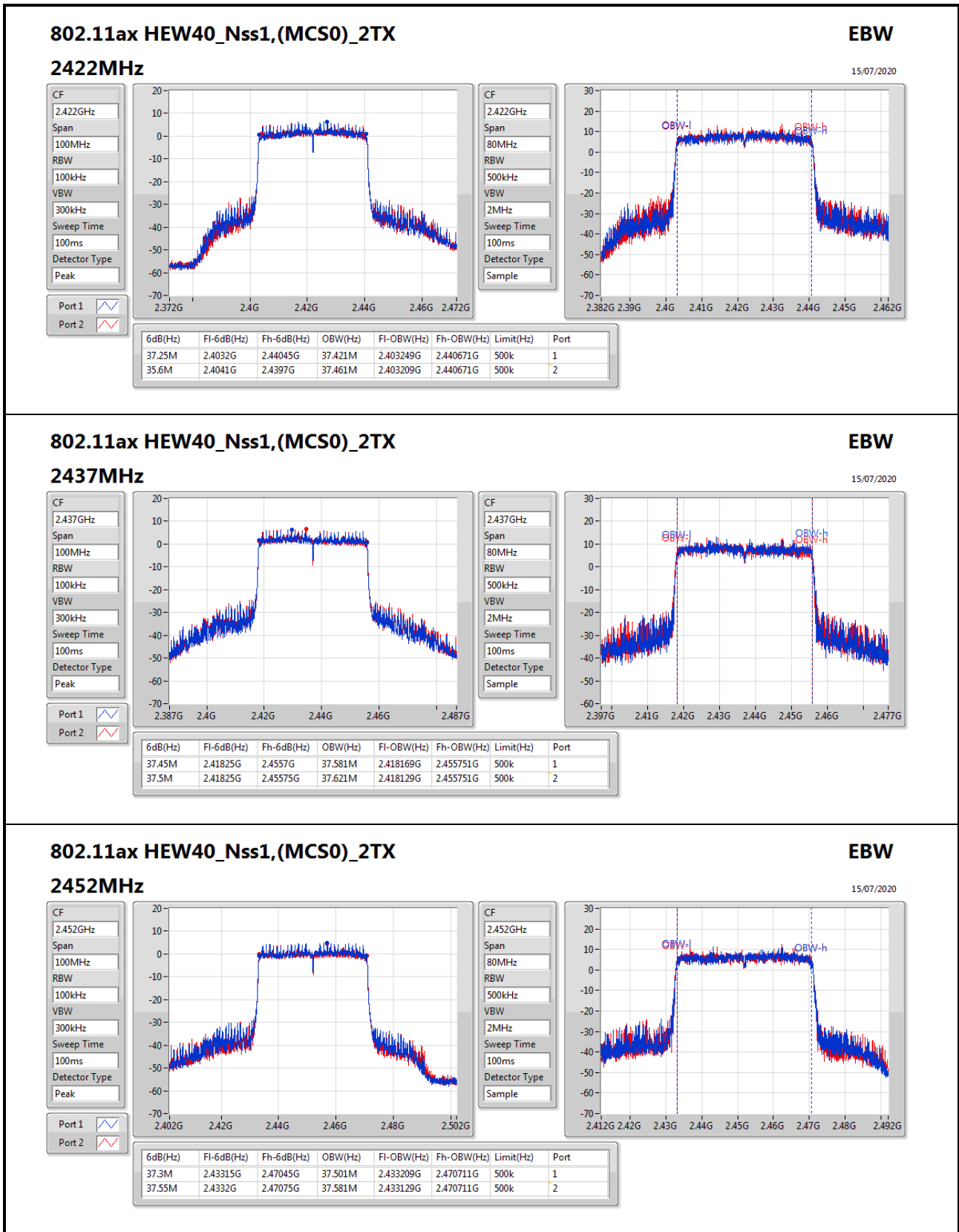
Sweep Time: 100ms

Detector Type: Sample









Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	25.96	0.39446
802.11g_Nss1,(6Mbps)_2TX	25.95	0.39355
802.11n HT20_Nss1,(MCS0)_2TX	25.47	0.35237
802.11n HT40_Nss1,(MCS0)_2TX	23.84	0.24210
VHT20_Nss1,(MCS0)_2TX	25.49	0.35400
VHT40_Nss1,(MCS0)_2TX	23.85	0.24266
802.11ax HEW20_Nss1,(MCS0)_2TX	25.90	0.38905
802.11ax HEW40_Nss1,(MCS0)_2TX	24.24	0.26546



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	22.65	22.81	25.74	30.00
2417MHz	Pass	3.20	22.99	22.91	25.96	30.00
2437MHz	Pass	3.20	22.74	22.90	25.83	30.00
2457MHz	Pass	3.20	22.81	22.93	25.88	30.00
2462MHz	Pass	3.20	22.69	22.93	25.82	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	20.07	19.94	23.02	30.00
2417MHz	Pass	3.20	22.82	22.63	25.74	30.00
2437MHz	Pass	3.20	22.92	22.95	25.95	30.00
2457MHz	Pass	3.20	22.38	22.28	25.34	30.00
2462MHz	Pass	3.20	19.60	19.65	22.64	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	19.91	19.85	22.89	30.00
2417MHz	Pass	3.20	22.15	22.11	25.14	30.00
2437MHz	Pass	3.20	22.50	22.41	25.47	30.00
2457MHz	Pass	3.20	21.13	20.91	24.03	30.00
2462MHz	Pass	3.20	18.24	18.34	21.30	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.20	18.95	18.91	21.94	30.00
2427MHz	Pass	3.20	20.06	20.00	23.04	30.00
2437MHz	Pass	3.20	20.70	20.95	23.84	30.00
2447MHz	Pass	3.20	19.36	19.47	22.43	30.00
2452MHz	Pass	3.20	18.54	18.46	21.51	30.00
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	20.00	19.86	22.94	30.00
2417MHz	Pass	3.20	22.22	22.07	25.16	30.00
2437MHz	Pass	3.20	22.68	22.28	25.49	30.00
2457MHz	Pass	3.20	21.13	21.07	24.11	30.00
2462MHz	Pass	3.20	18.61	17.96	21.31	30.00
VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.20	18.99	18.95	21.98	30.00
2427MHz	Pass	3.20	20.08	20.24	23.17	30.00
2437MHz	Pass	3.20	21.07	20.59	23.85	30.00
2447MHz	Pass	3.20	19.53	19.42	22.49	30.00
2452MHz	Pass	3.20	18.67	18.45	21.57	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	20.30	20.21	23.27	30.00
2417MHz	Pass	3.20	22.52	22.24	25.39	30.00
2437MHz	Pass	3.20	22.99	22.79	25.90	30.00
2457MHz	Pass	3.20	21.47	21.14	24.32	30.00
2462MHz	Pass	3.20	18.83	18.77	21.81	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.20	19.35	19.08	22.23	30.00



## Average Power\_Sample 1

## Appendix C.1

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
2427MHz	Pass	3.20	20.21	20.36	23.30	30.00
2437MHz	Pass	3.20	21.23	21.23	24.24	30.00
2447MHz	Pass	3.20	19.77	19.72	22.76	30.00
2452MHz	Pass	3.20	18.99	18.75	21.88	30.00

DG = Directional Gain; Port X = Port X output power



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	24.95	0.31261
802.11g_Nss1,(6Mbps)_2TX	24.75	0.29854
802.11n HT20_Nss1,(MCS0)_2TX	24.46	0.27925
802.11n HT40_Nss1,(MCS0)_2TX	23.71	0.23496
VHT20_Nss1,(MCS0)_2TX	24.55	0.28510
VHT40_Nss1,(MCS0)_2TX	23.79	0.23933
802.11ax HEW20_Nss1,(MCS0)_2TX	24.82	0.30339
802.11ax HEW40_Nss1,(MCS0)_2TX	24.03	0.25293



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	21.91	21.92	24.93	29.20
2417MHz	Pass	6.80	21.89	21.98	24.95	29.20
2437MHz	Pass	6.80	21.73	21.76	24.76	29.20
2457MHz	Pass	6.80	21.77	21.89	24.84	29.20
2462MHz	Pass	6.80	21.63	21.90	24.78	29.20
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	20.38	20.16	23.28	29.20
2417MHz	Pass	6.80	21.80	21.67	24.75	29.20
2437MHz	Pass	6.80	21.79	21.59	24.70	29.20
2457MHz	Pass	6.80	21.73	21.64	24.70	29.20
2462MHz	Pass	6.80	20.48	20.38	23.44	29.20
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	20.60	20.41	23.52	29.20
2417MHz	Pass	6.80	21.51	20.56	24.07	29.20
2437MHz	Pass	6.80	21.45	21.25	24.36	29.20
2457MHz	Pass	6.80	21.50	21.40	24.46	29.20
2462MHz	Pass	6.80	20.59	20.36	23.49	29.20
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.80	20.26	20.20	23.24	29.20
2427MHz	Pass	6.80	20.31	20.21	23.27	29.20
2437MHz	Pass	6.80	20.73	20.67	23.71	29.20
2447MHz	Pass	6.80	19.17	18.95	22.07	29.20
2452MHz	Pass	6.80	19.04	18.81	21.94	29.20
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	20.62	20.46	23.55	29.20
2417MHz	Pass	6.80	21.54	20.75	24.17	29.20
2437MHz	Pass	6.80	21.51	21.26	24.40	29.20
2457MHz	Pass	6.80	21.59	21.48	24.55	29.20
2462MHz	Pass	6.80	20.73	20.61	23.68	29.20
VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.80	20.38	20.38	23.39	29.20
2427MHz	Pass	6.80	20.29	20.44	23.38	29.20
2437MHz	Pass	6.80	20.77	20.78	23.79	29.20
2447MHz	Pass	6.80	19.09	19.21	22.16	29.20
2452MHz	Pass	6.80	19.07	18.96	22.03	29.20
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	20.84	20.65	23.76	29.20
2417MHz	Pass	6.80	21.78	21.69	24.75	29.20
2437MHz	Pass	6.80	21.81	21.64	24.74	29.20
2457MHz	Pass	6.80	21.96	21.65	24.82	29.20
2462MHz	Pass	6.80	20.82	20.89	23.87	29.20
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.80	20.51	20.56	23.55	29.20



## Average Power\_Sample 2

## Appendix C.2

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
2427MHz	Pass	6.80	20.50	20.62	23.57	29.20
2437MHz	Pass	6.80	21.02	21.01	24.03	29.20
2447MHz	Pass	6.80	19.50	19.11	22.32	29.20
2452MHz	Pass	6.80	19.43	19.26	22.36	29.20

**DG** = Directional Gain; **Port X** = Port X output power





Summary

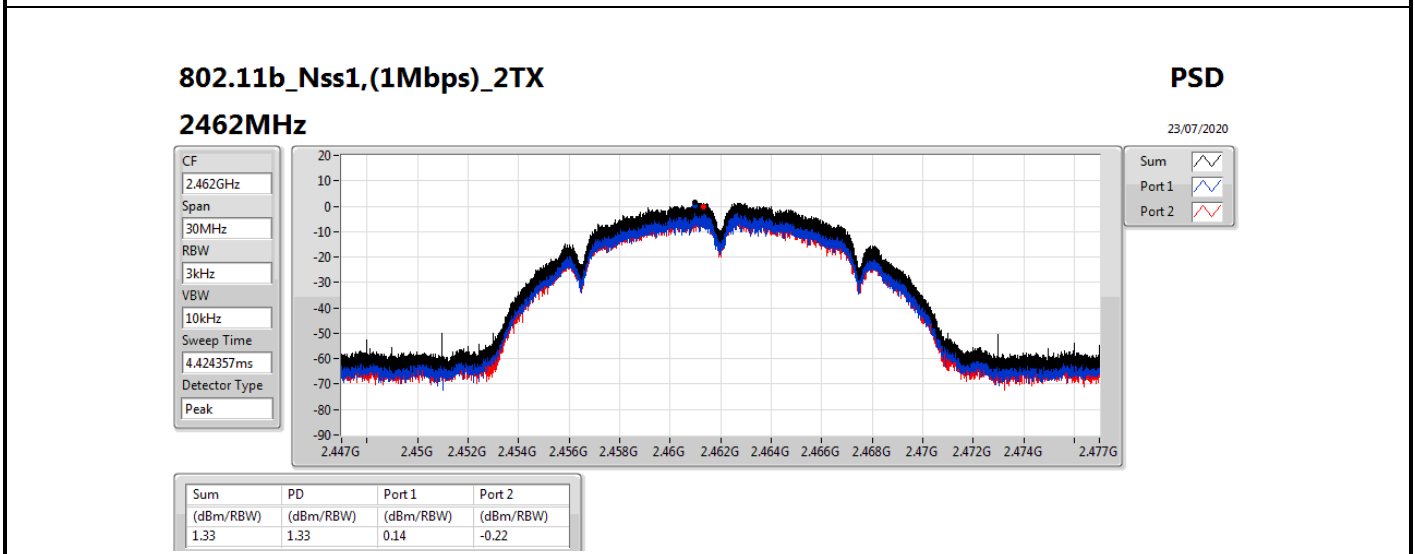
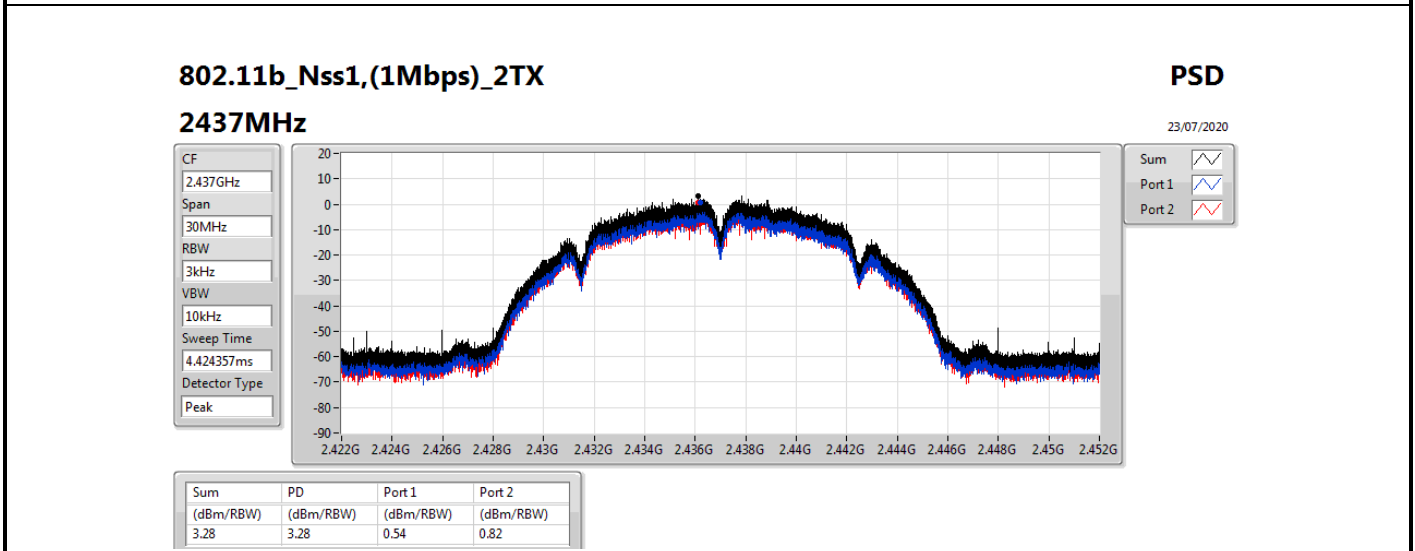
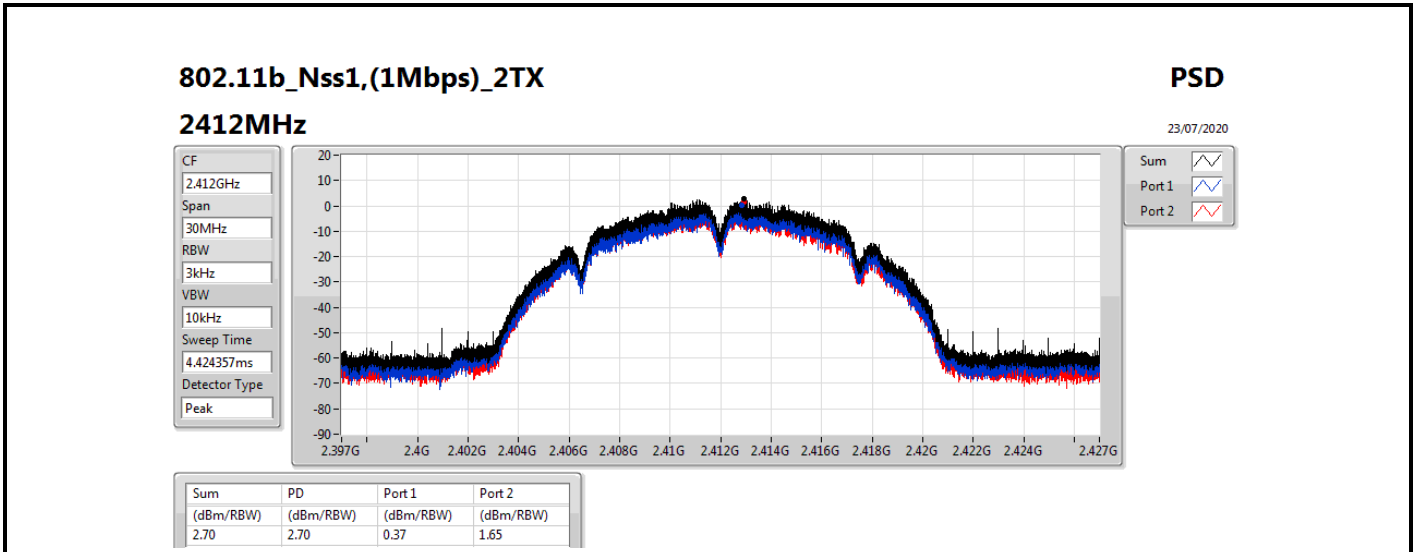
Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	3.28
802.11g_Nss1,(6Mbps)_2TX	0.48
802.11n HT20_Nss1,(MCS0)_2TX	-0.73
802.11n HT40_Nss1,(MCS0)_2TX	-4.99
VHT20_Nss1,(MCS0)_2TX	-0.50
VHT40_Nss1,(MCS0)_2TX	-2.97
802.11ax HEW20_Nss1,(MCS0)_2TX	1.15
802.11ax HEW40_Nss1,(MCS0)_2TX	-4.82

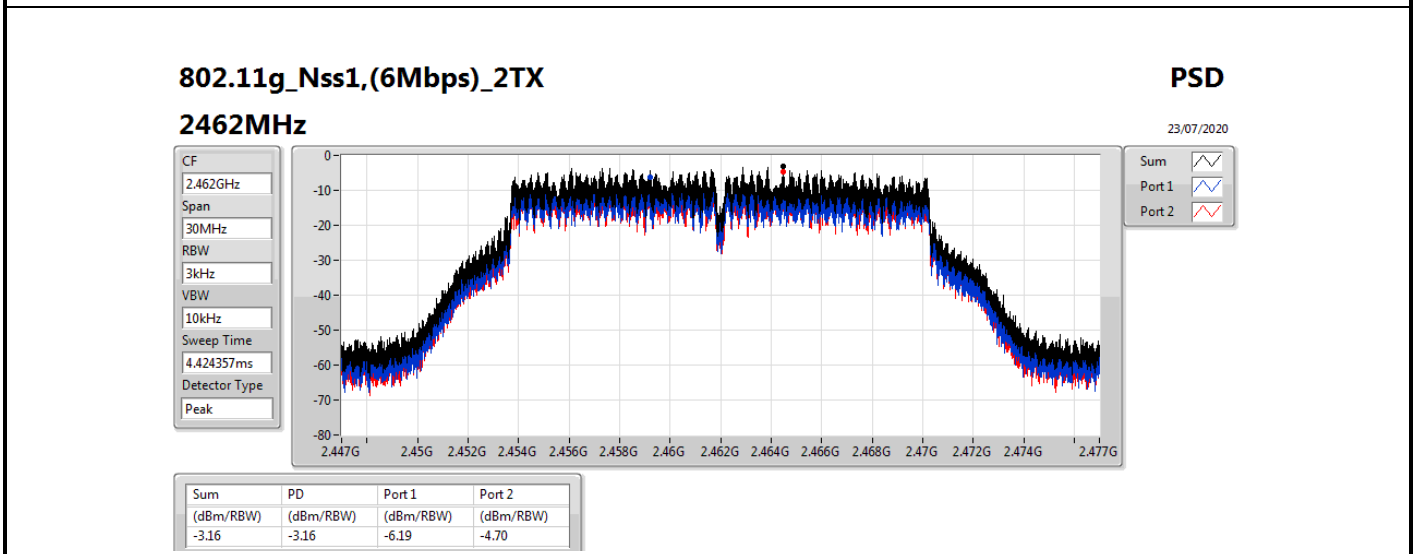
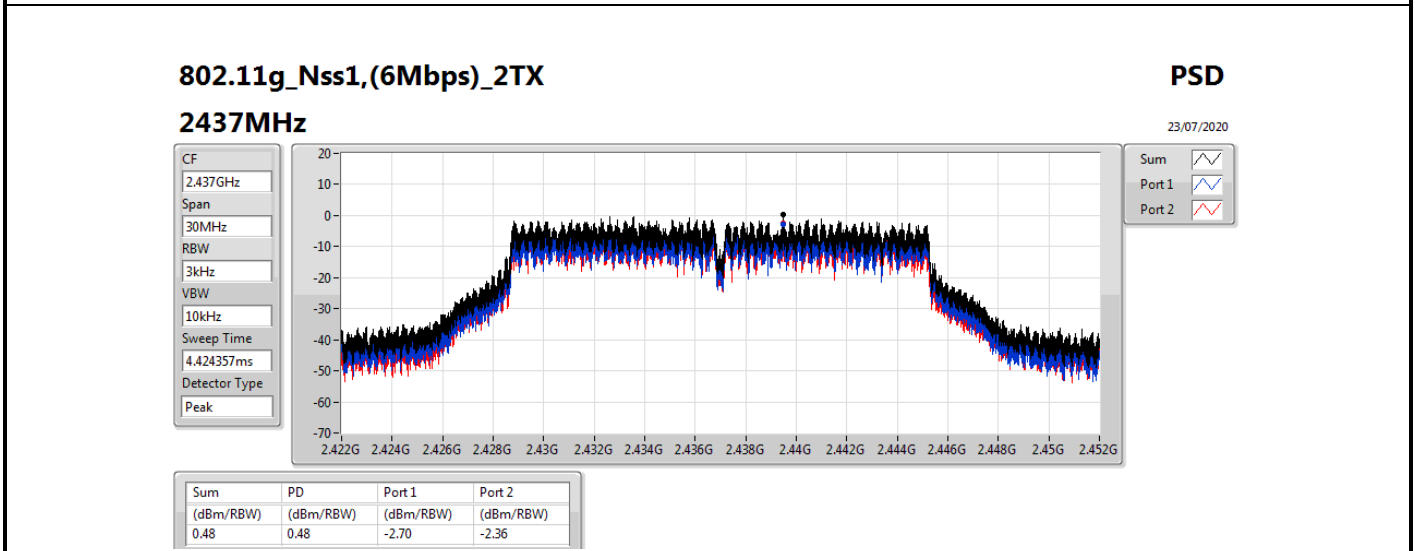
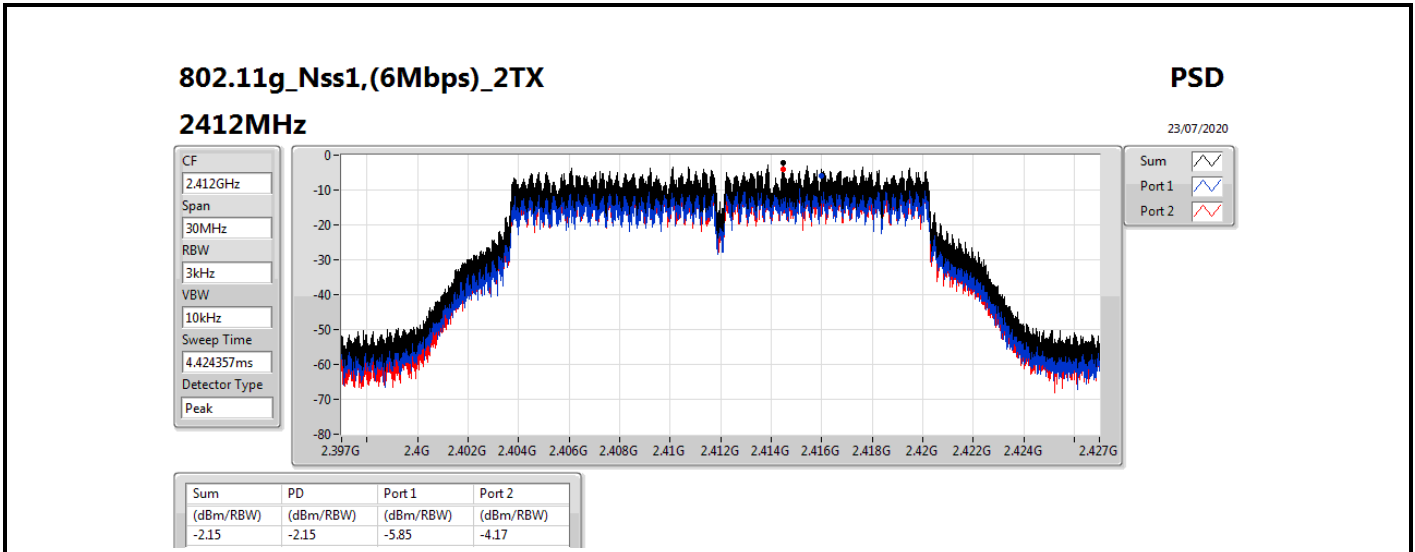


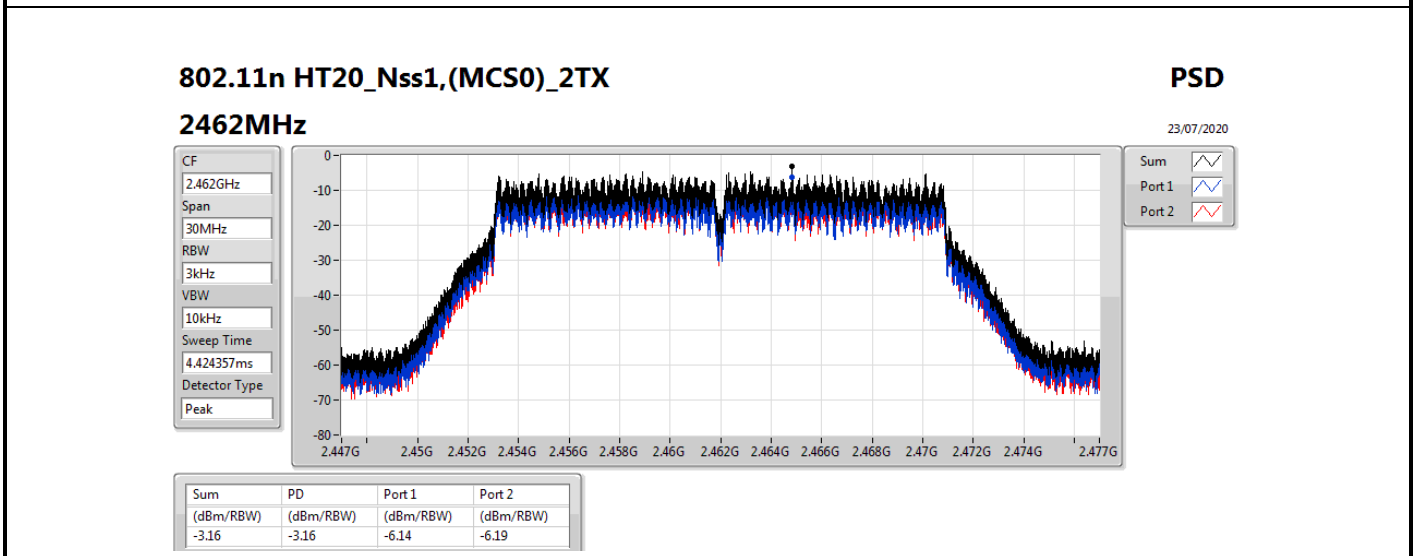
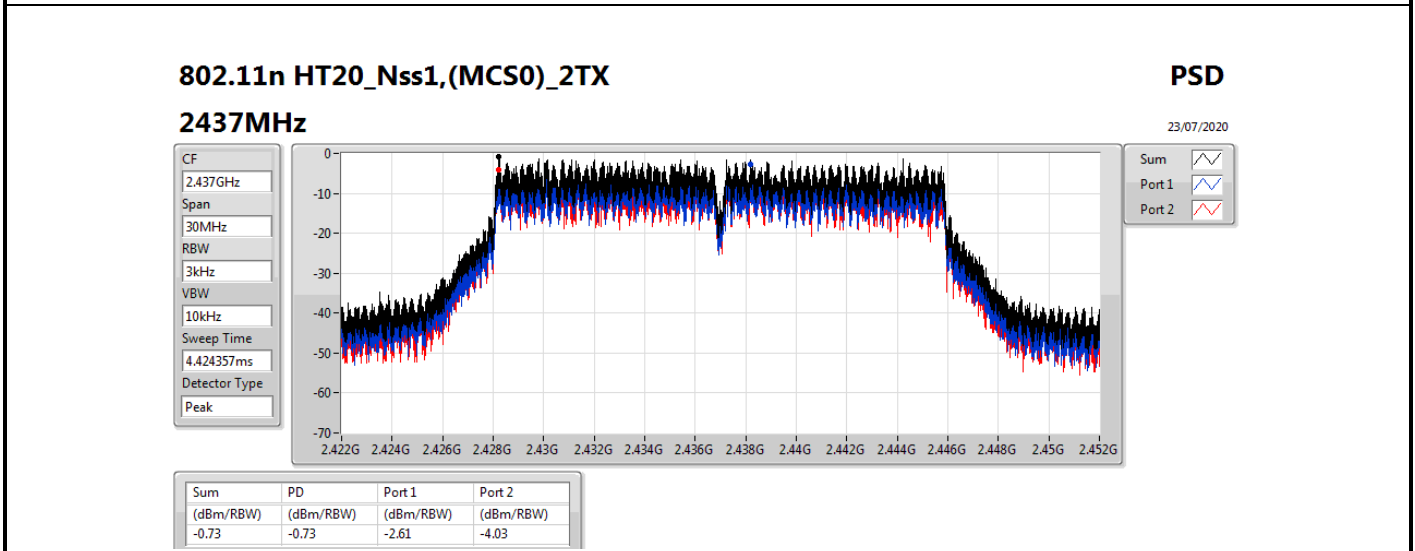
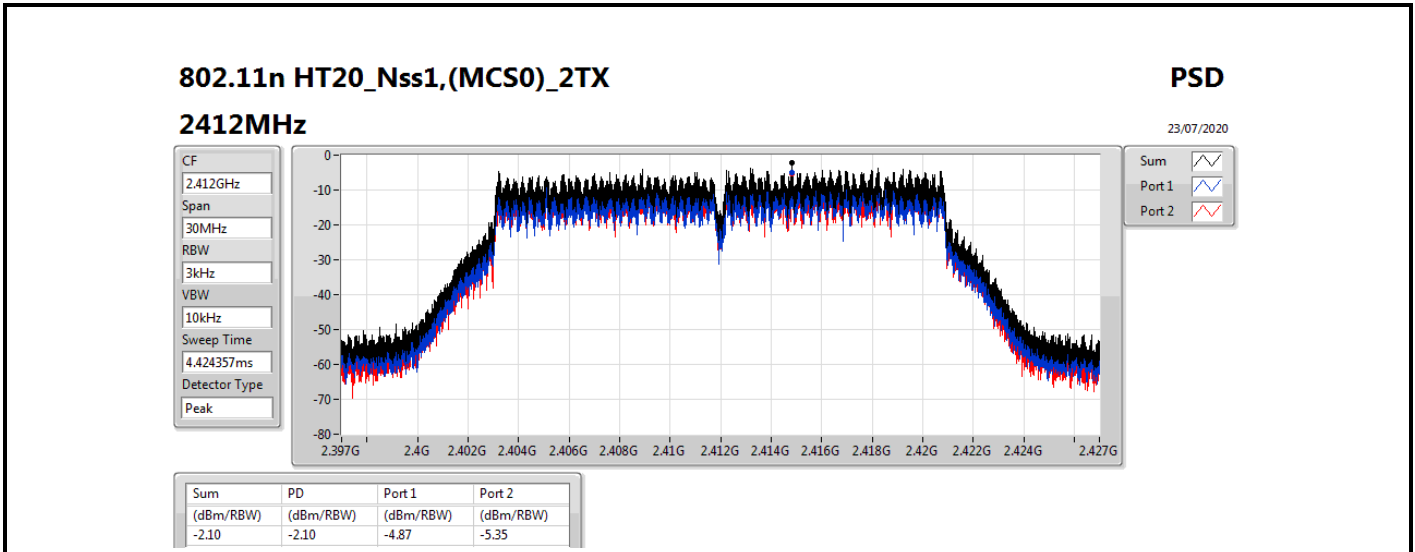
Result

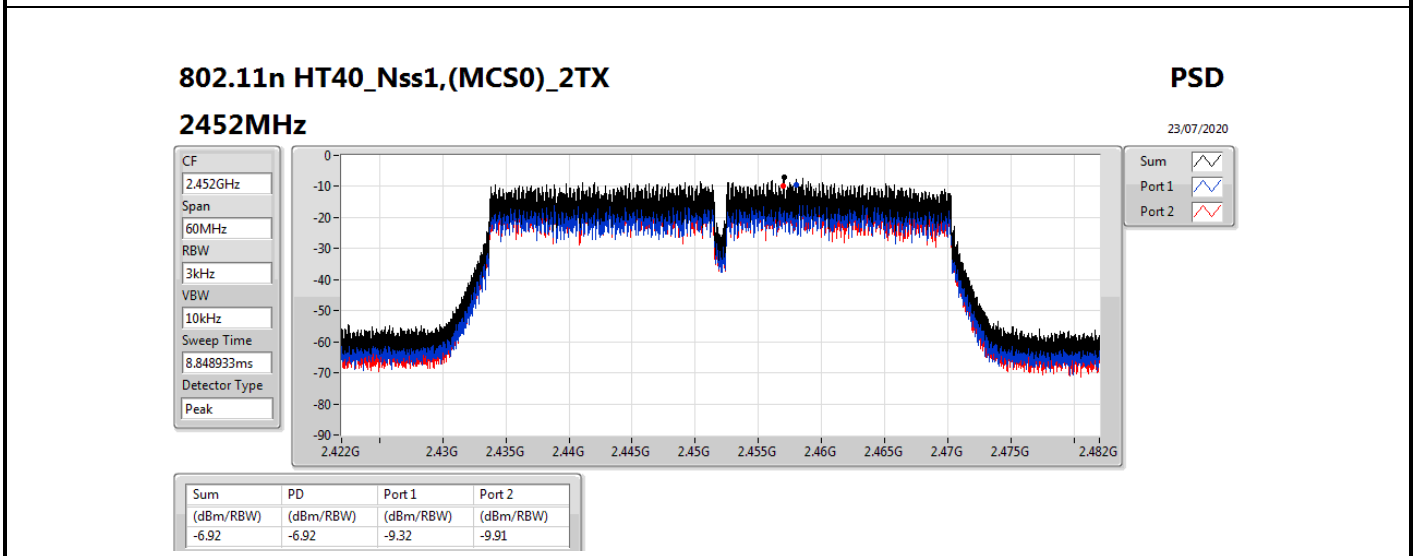
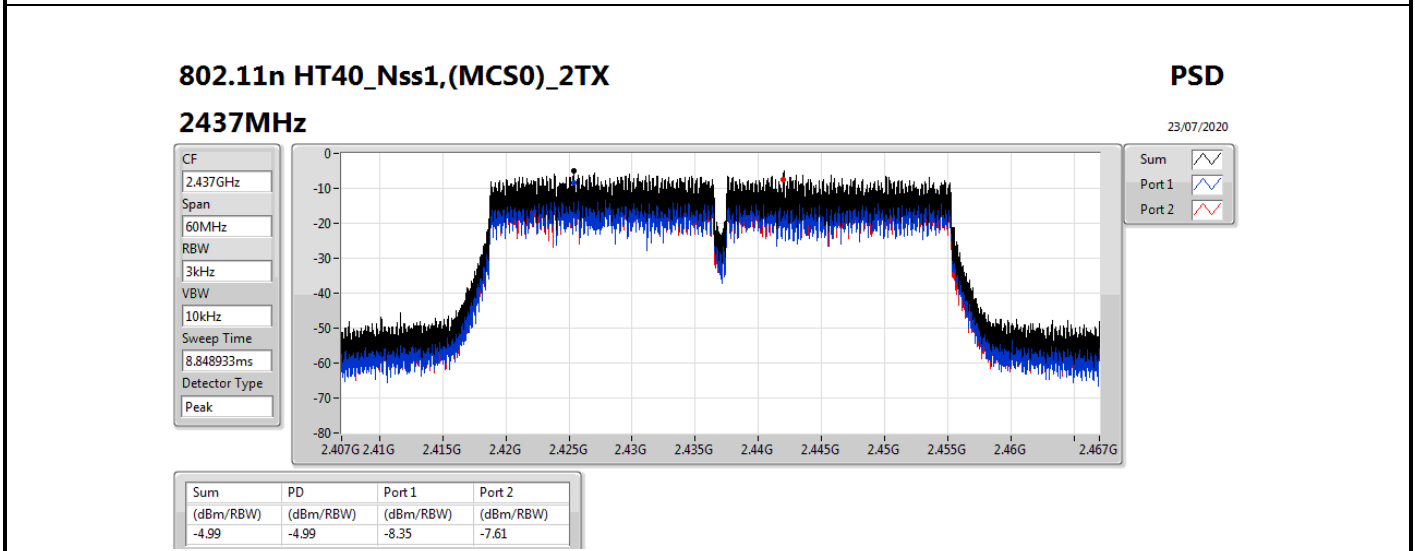
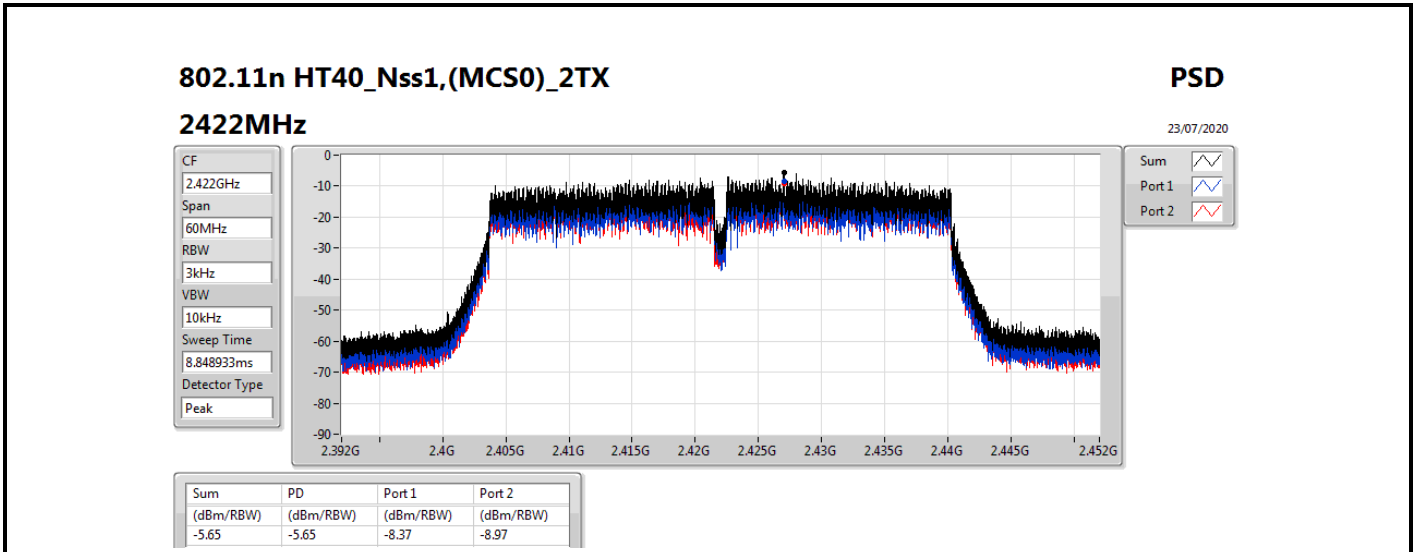
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	0.37	1.65	2.70	8.00
2437MHz	Pass	3.20	0.54	0.82	3.28	8.00
2462MHz	Pass	3.20	0.14	-0.22	1.33	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	-5.85	-4.17	-2.15	8.00
2437MHz	Pass	3.20	-2.70	-2.36	0.48	8.00
2462MHz	Pass	3.20	-6.19	-4.70	-3.16	8.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	-4.87	-5.35	-2.10	8.00
2437MHz	Pass	3.20	-2.61	-4.03	-0.73	8.00
2462MHz	Pass	3.20	-6.14	-6.19	-3.16	8.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.20	-8.37	-8.97	-5.65	8.00
2437MHz	Pass	3.20	-8.35	-7.61	-4.99	8.00
2452MHz	Pass	3.20	-9.32	-9.91	-6.92	8.00
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	-6.01	-6.22	-3.35	8.00
2437MHz	Pass	3.20	-3.23	-3.28	-0.50	8.00
2462MHz	Pass	3.20	-7.10	-6.90	-4.45	8.00
VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.20	-8.28	-8.33	-5.29	8.00
2437MHz	Pass	3.20	-6.38	-5.62	-2.97	8.00
2452MHz	Pass	3.20	-8.88	-8.98	-5.92	8.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.20	-4.99	-4.40	-1.67	8.00
2437MHz	Pass	3.20	-1.41	-2.36	1.15	8.00
2462MHz	Pass	3.20	-5.93	-5.41	-2.65	8.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.20	-9.72	-9.04	-6.38	8.00
2437MHz	Pass	3.20	-7.64	-8.02	-4.82	8.00
2452MHz	Pass	3.20	-10.67	-10.06	-7.39	8.00

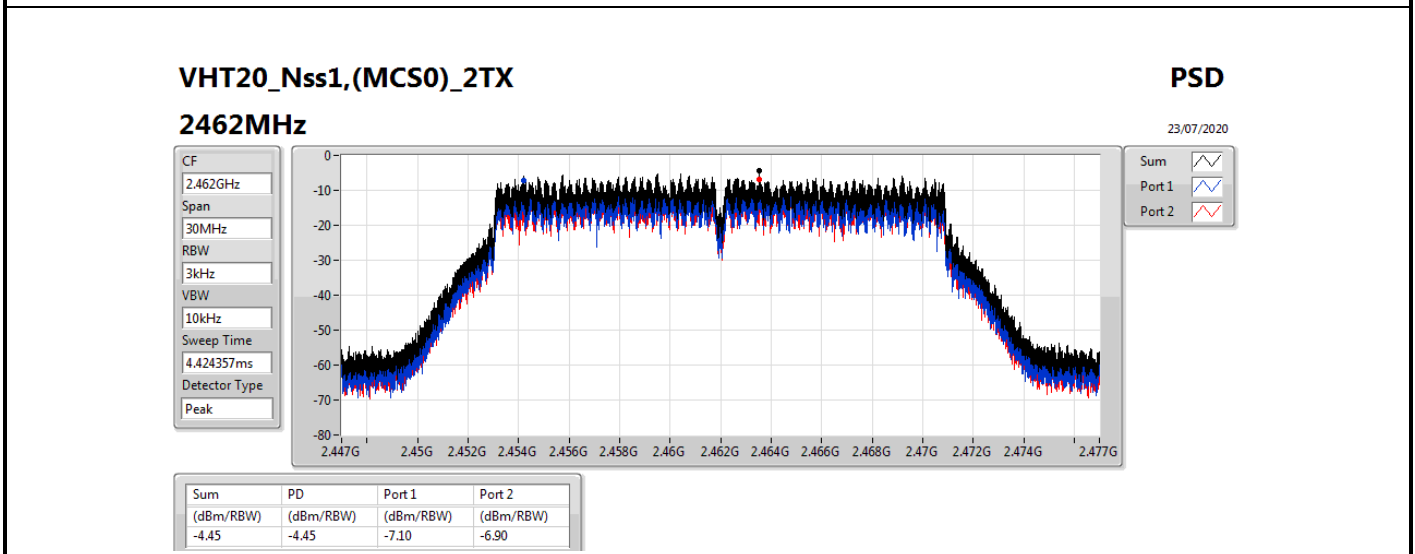
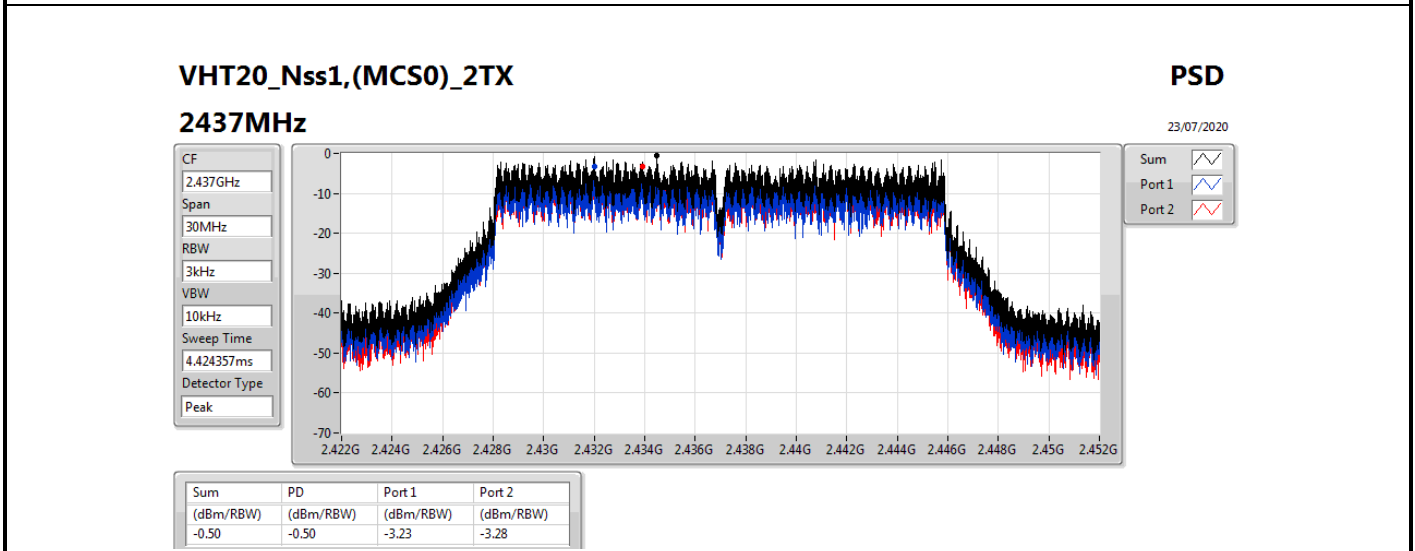
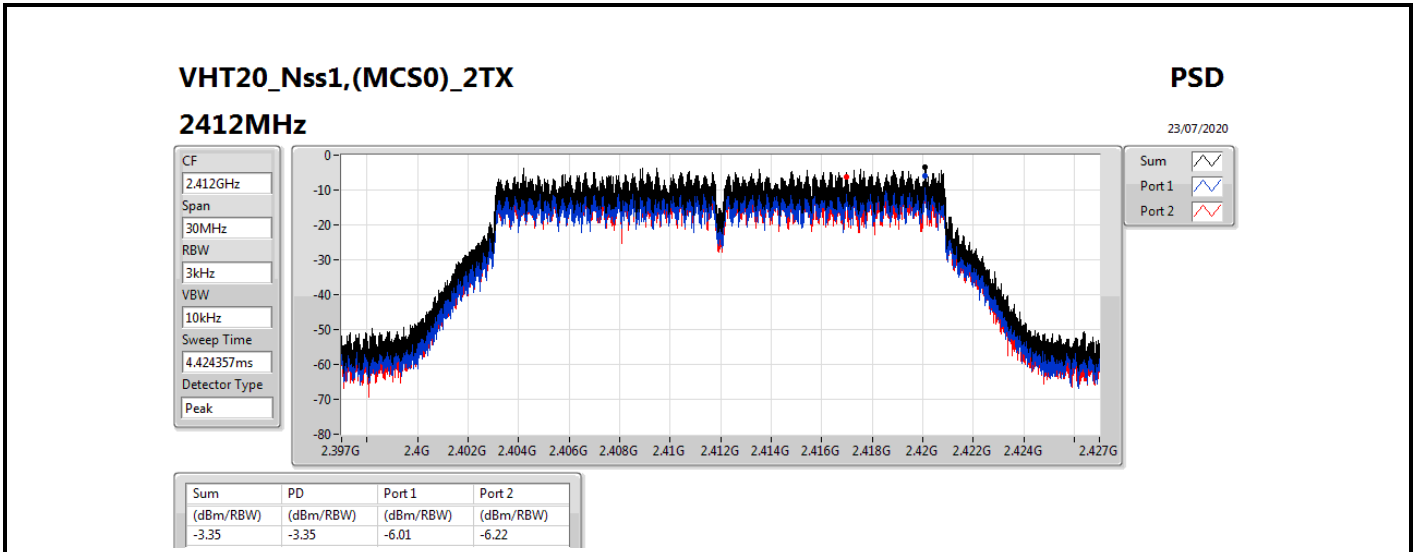
DG = Directional Gain;  
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X power density;

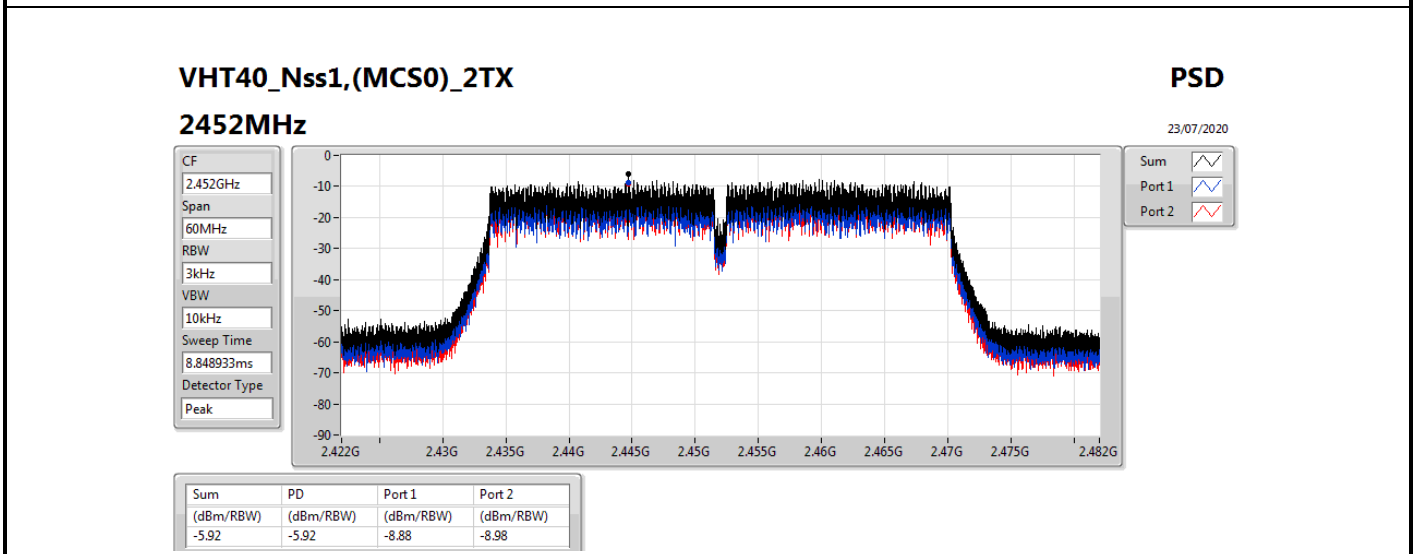
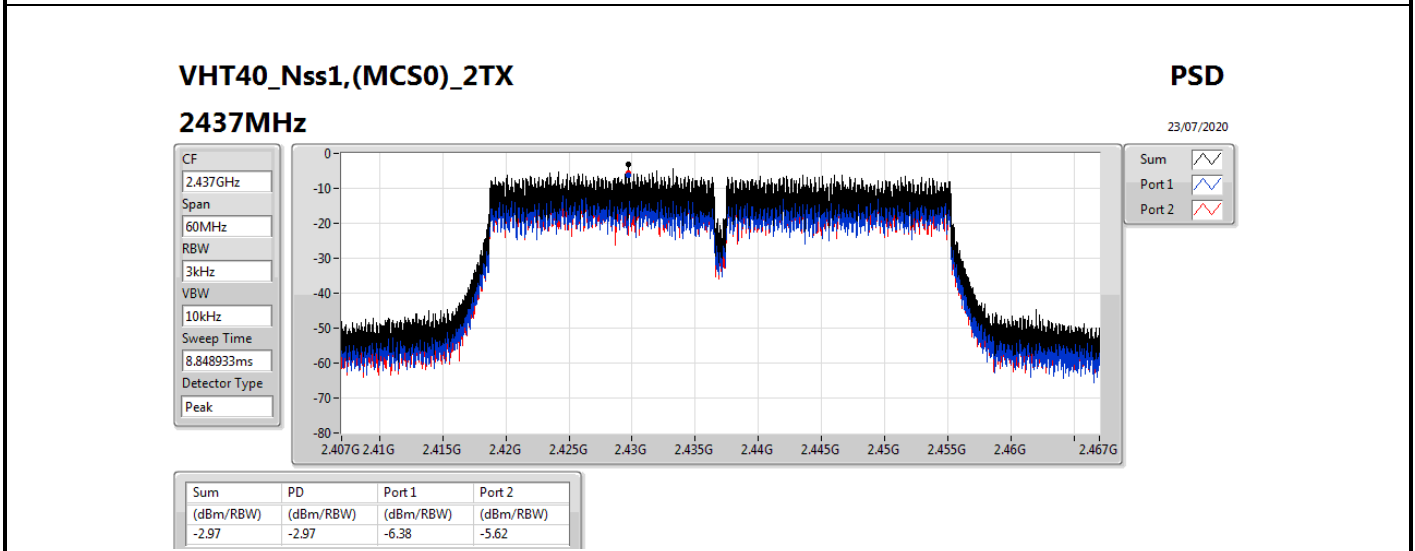
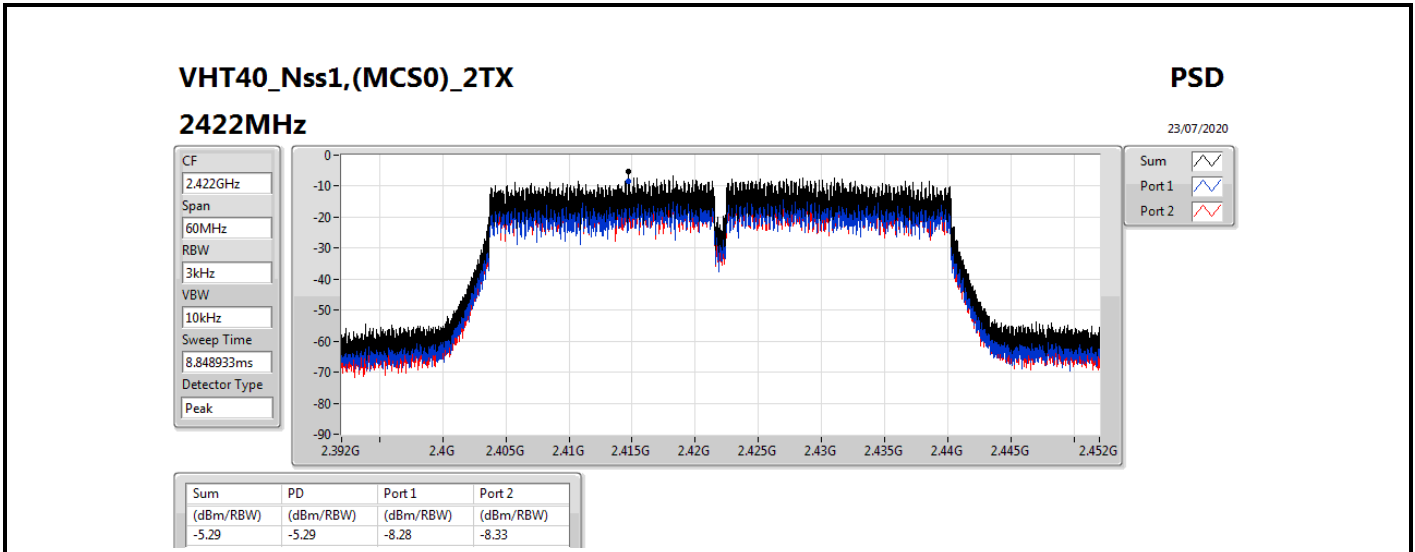




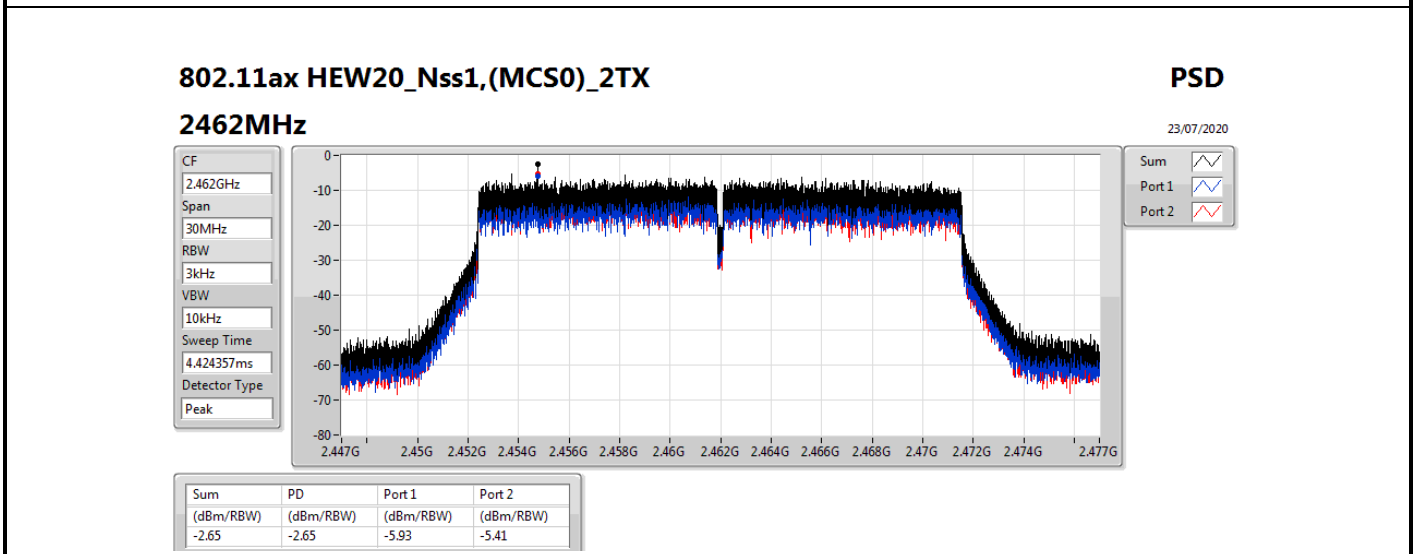
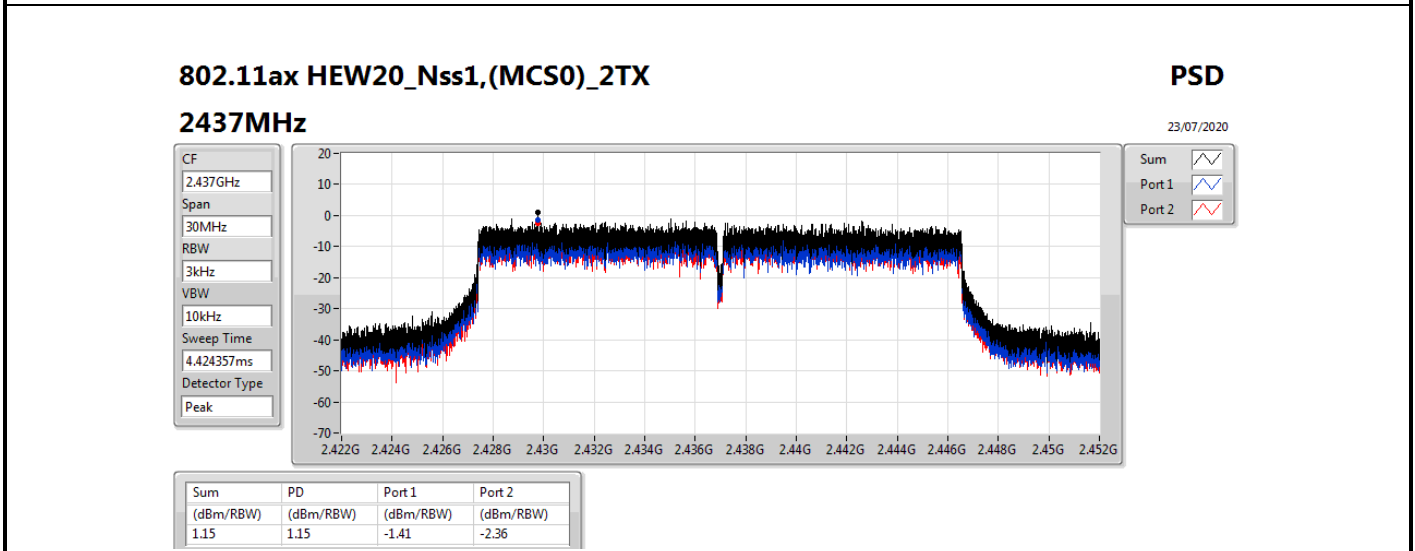
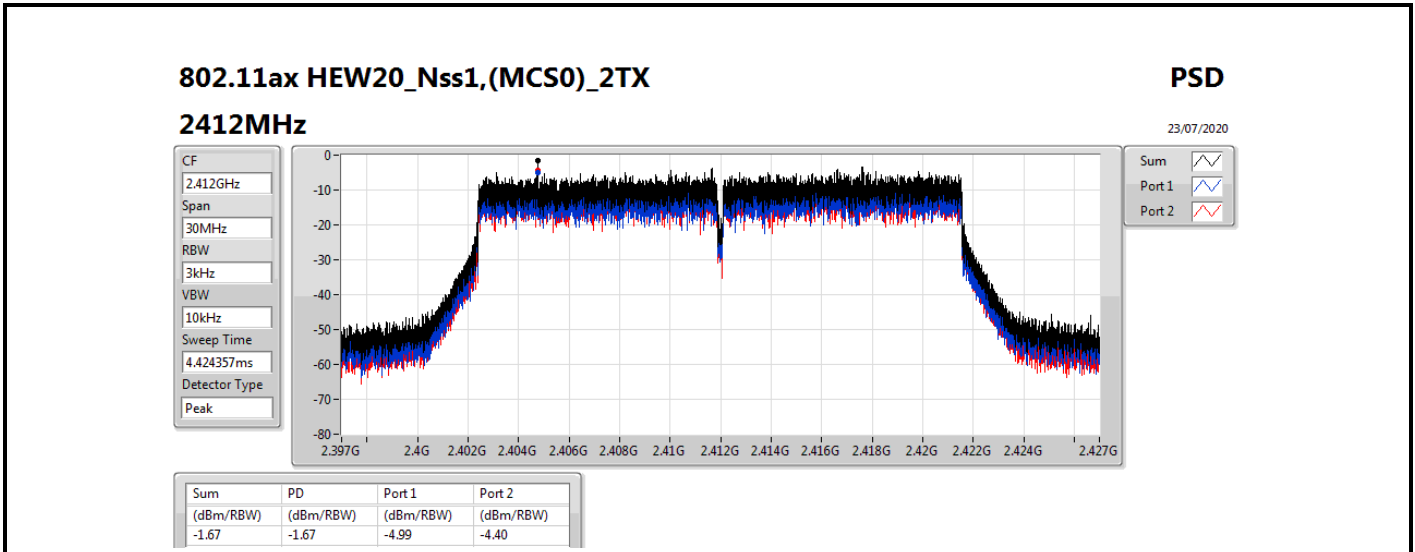


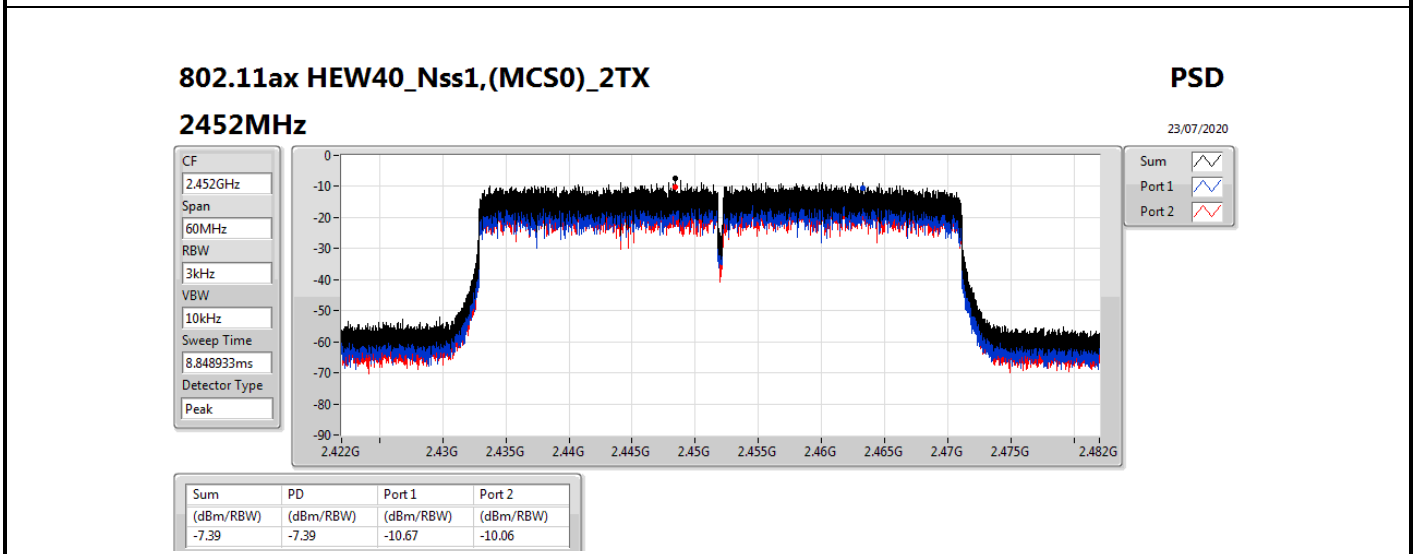
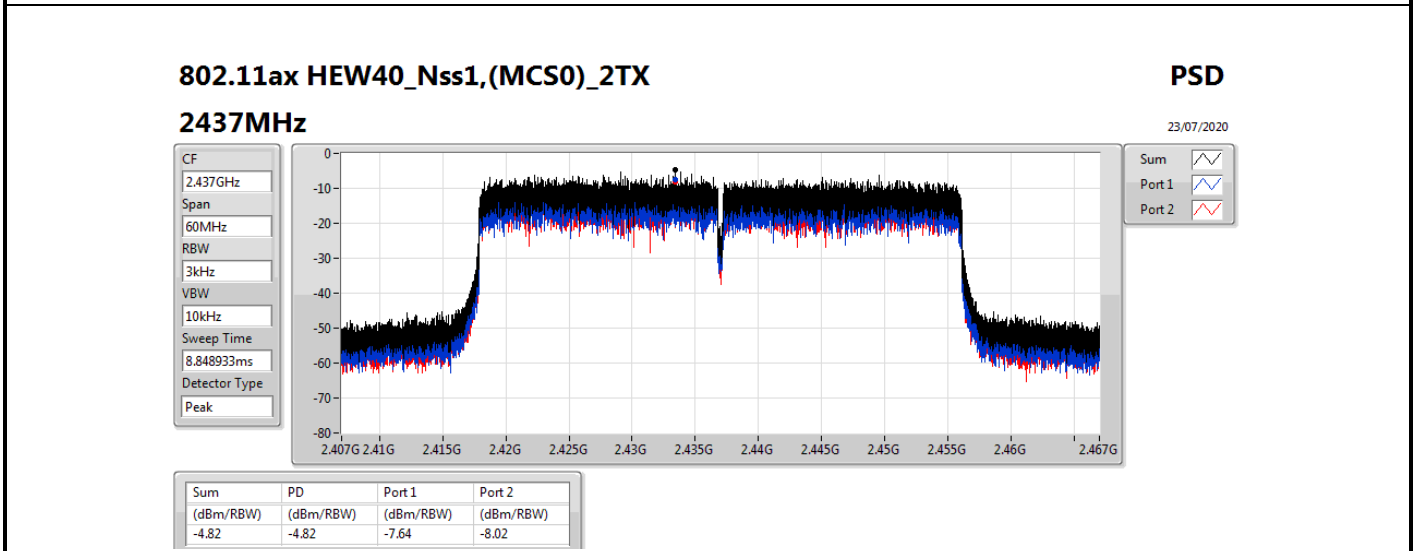
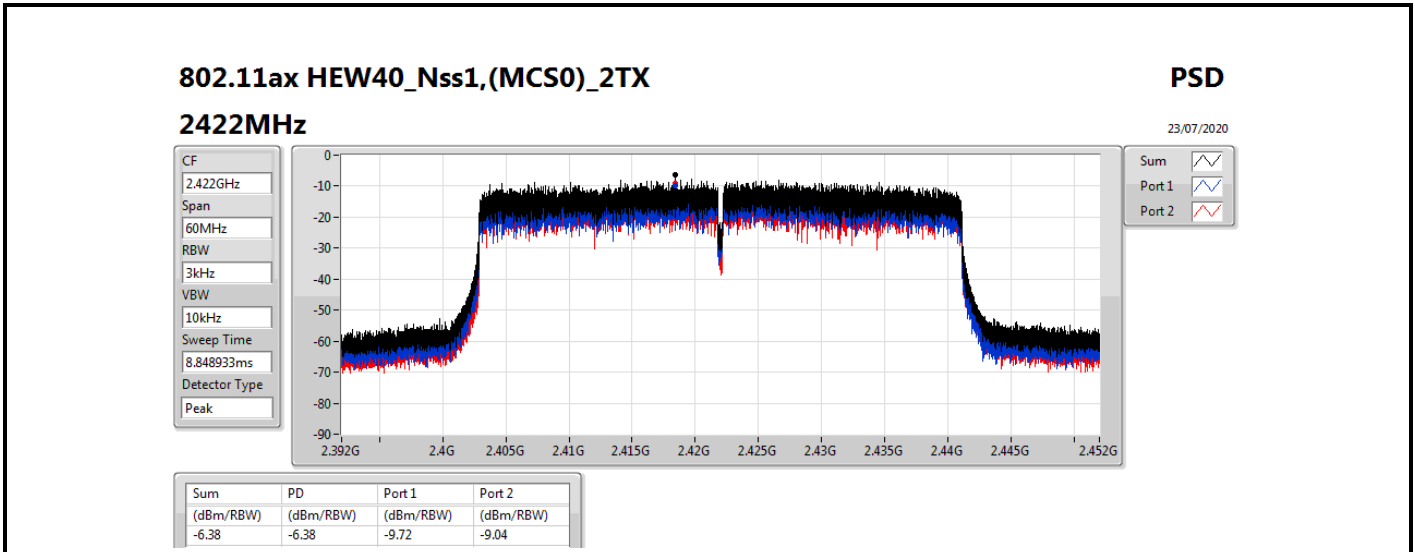














Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	1.30
802.11g_Nss1,(6Mbps)_2TX	-1.70
802.11n HT20_Nss1,(MCS0)_2TX	-1.91
802.11n HT40_Nss1,(MCS0)_2TX	-5.23
VHT20_Nss1,(MCS0)_2TX	-2.21
VHT40_Nss1,(MCS0)_2TX	-3.23
802.11ax HEW20_Nss1,(MCS0)_2TX	0.01
802.11ax HEW40_Nss1,(MCS0)_2TX	-4.95

RBW=3 kHz.

Result

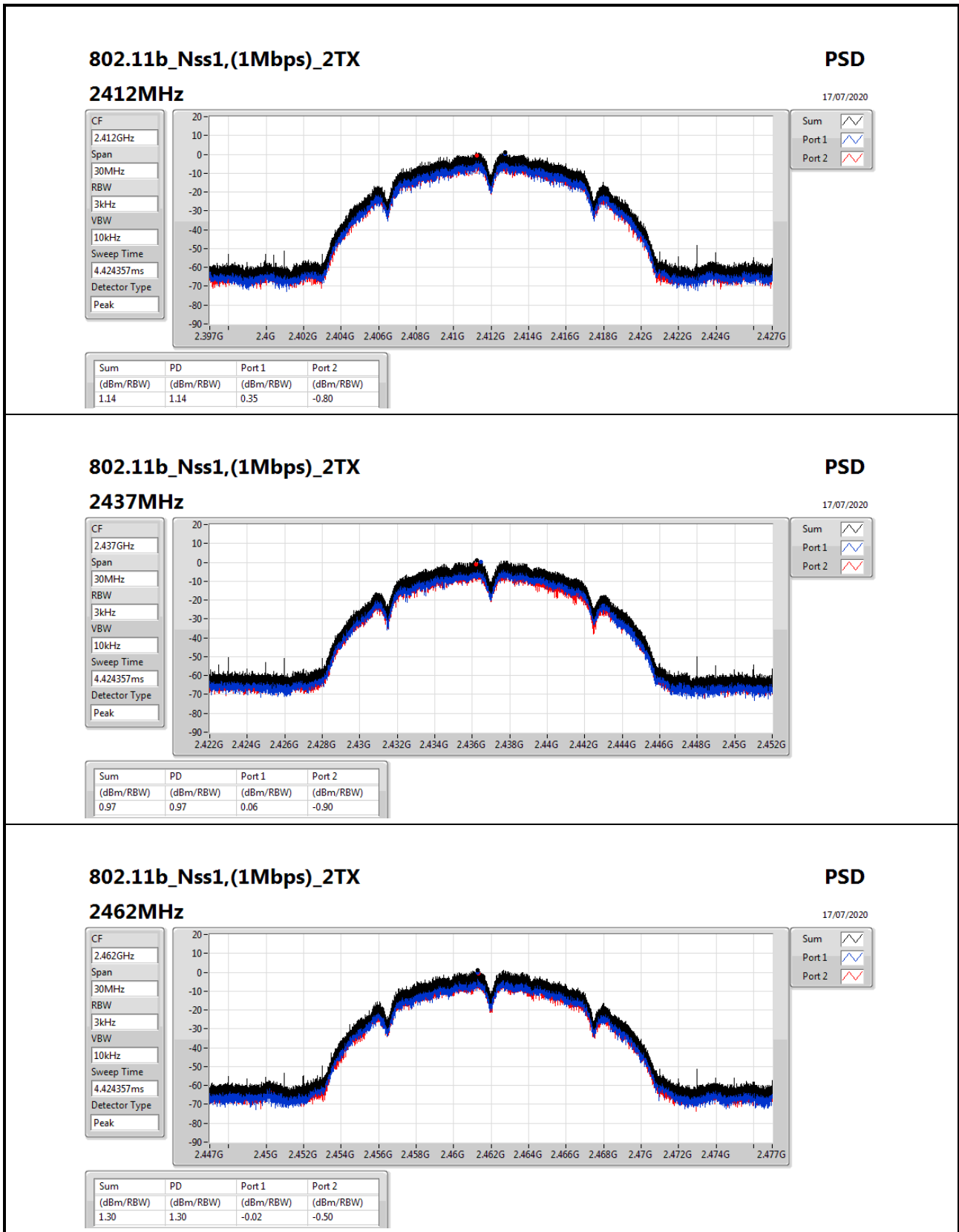
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	0.35	-0.80	1.14	7.20
2437MHz	Pass	6.80	0.06	-0.90	0.97	7.20
2462MHz	Pass	6.80	-0.02	-0.50	1.30	7.20
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	-5.84	-4.31	-2.37	7.20
2437MHz	Pass	6.80	-3.56	-3.17	-1.70	7.20
2462MHz	Pass	6.80	-5.68	-5.25	-2.75	7.20
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	-3.95	-5.57	-1.91	7.20
2437MHz	Pass	6.80	-5.12	-4.45	-2.06	7.20
2462MHz	Pass	6.80	-5.36	-5.49	-2.96	7.20
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.80	-8.26	-7.67	-5.38	7.20
2437MHz	Pass	6.80	-8.10	-7.87	-5.23	7.20
2452MHz	Pass	6.80	-9.21	-9.52	-6.50	7.20
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	-5.76	-5.77	-3.22	7.20
2437MHz	Pass	6.80	-5.07	-4.57	-2.21	7.20
2462MHz	Pass	6.80	-5.13	-5.20	-2.81	7.20
VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.80	-7.46	-7.87	-4.69	7.20
2437MHz	Pass	6.80	-6.34	-6.14	-3.23	7.20
2452MHz	Pass	6.80	-9.07	-9.52	-6.28	7.20
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.80	-5.27	-4.38	-1.79	7.20
2437MHz	Pass	6.80	-3.52	-2.53	0.01	7.20
2462MHz	Pass	6.80	-5.62	-4.15	-1.81	7.20
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.80	-7.83	-8.10	-4.95	7.20
2437MHz	Pass	6.80	-7.88	-8.82	-6.39	7.20

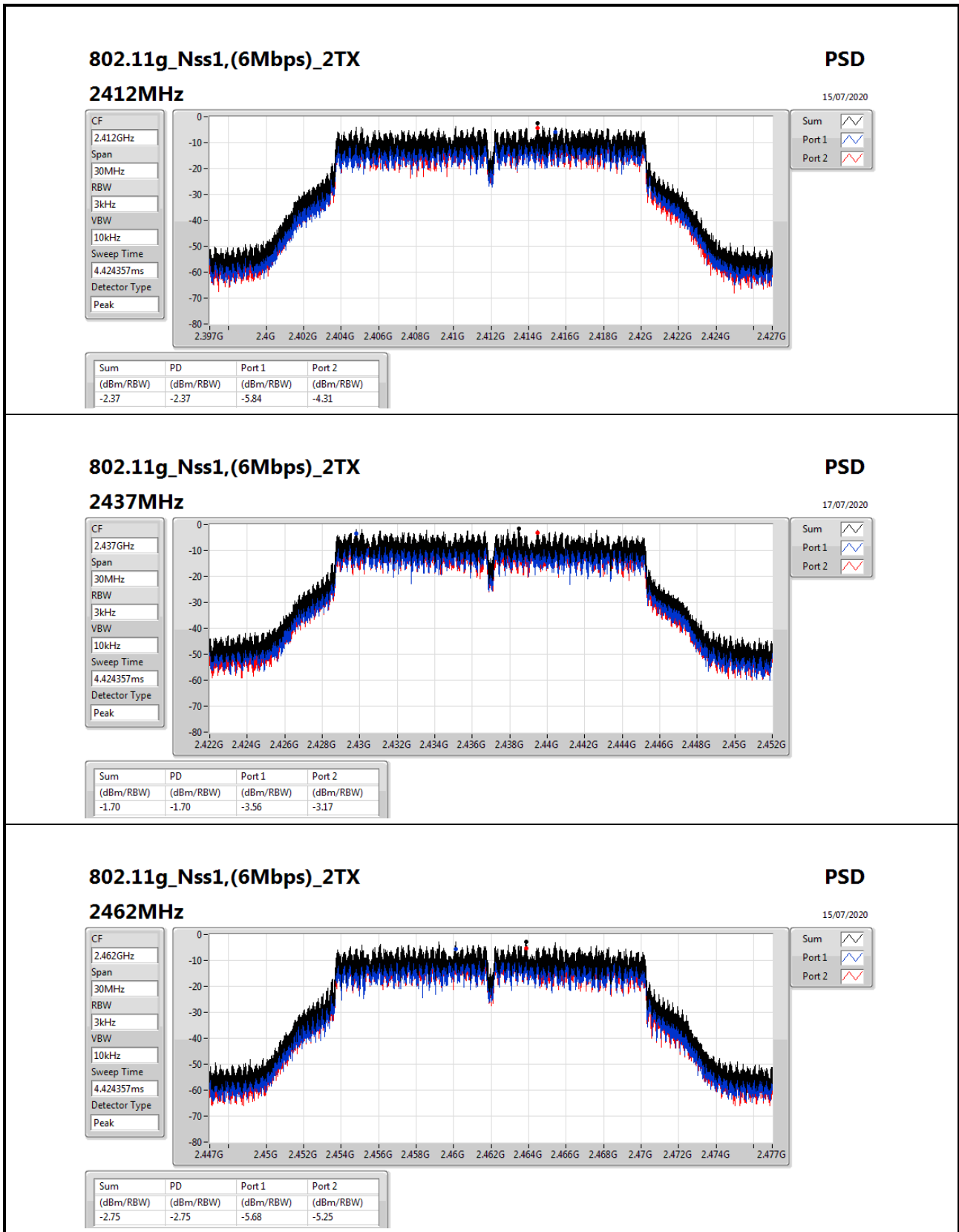


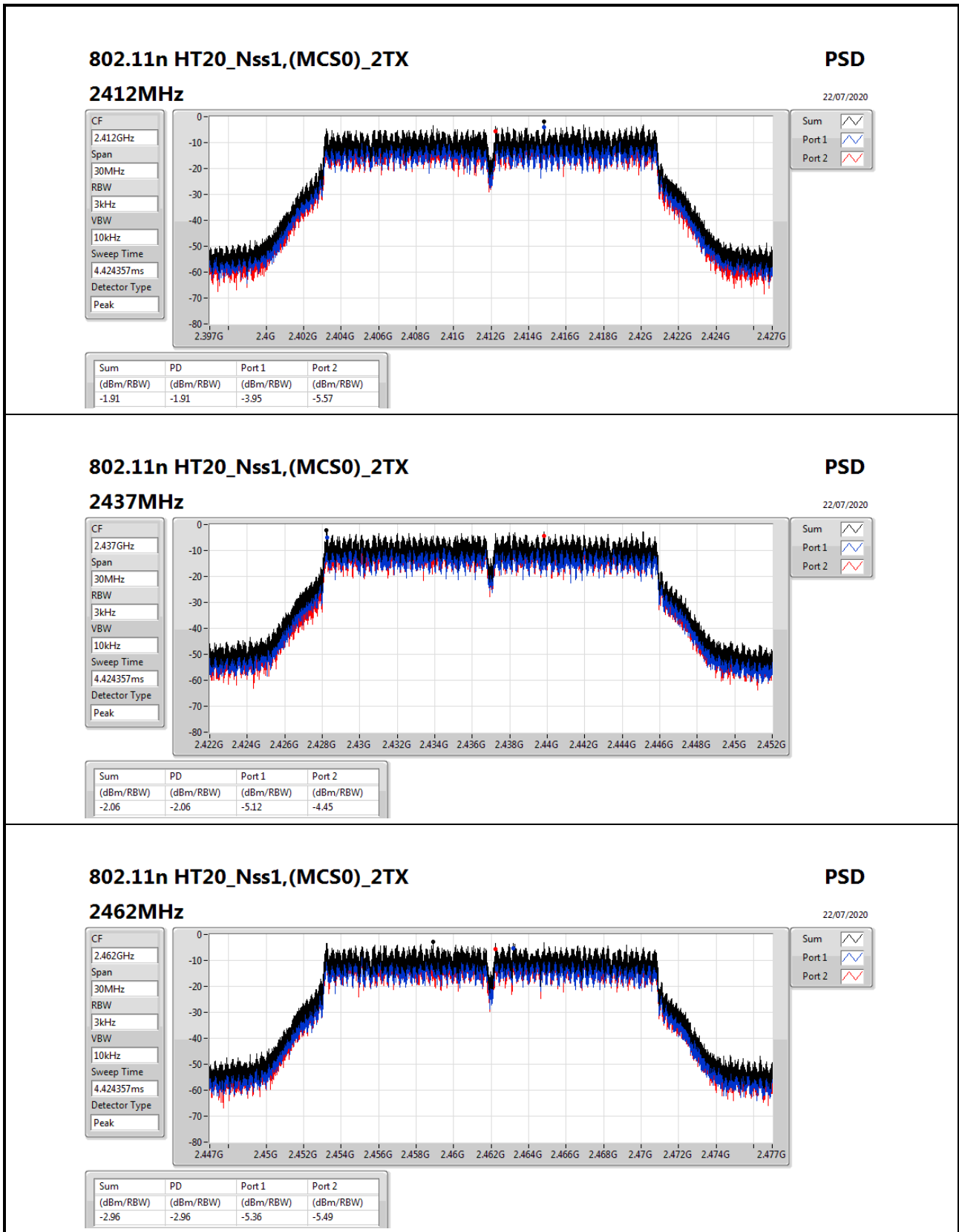
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
2452MHz	Pass	6.80	-10.96	-11.20	-8.49	7.20

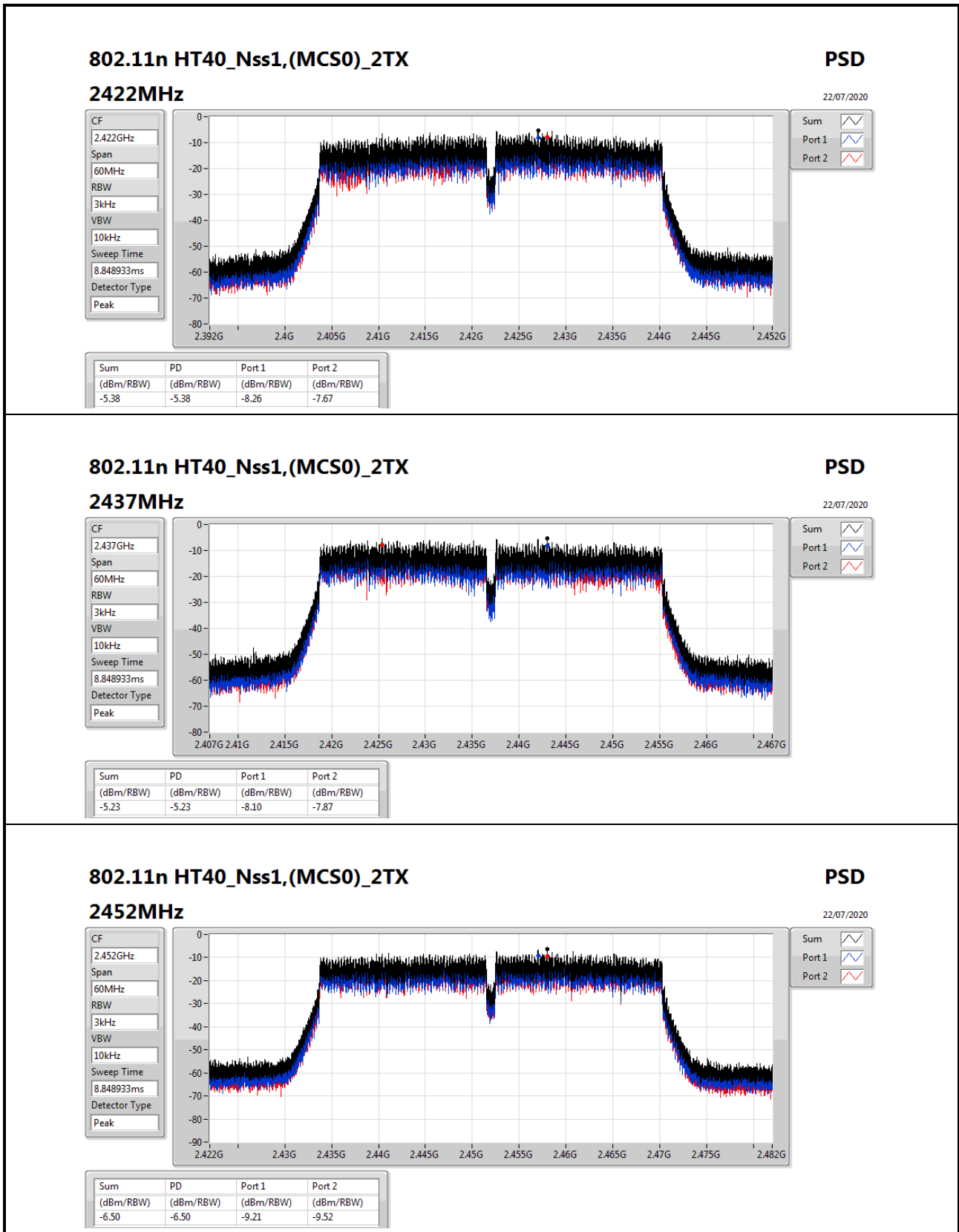
**DG** = Directional Gain; RBW=3 kHz;

**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

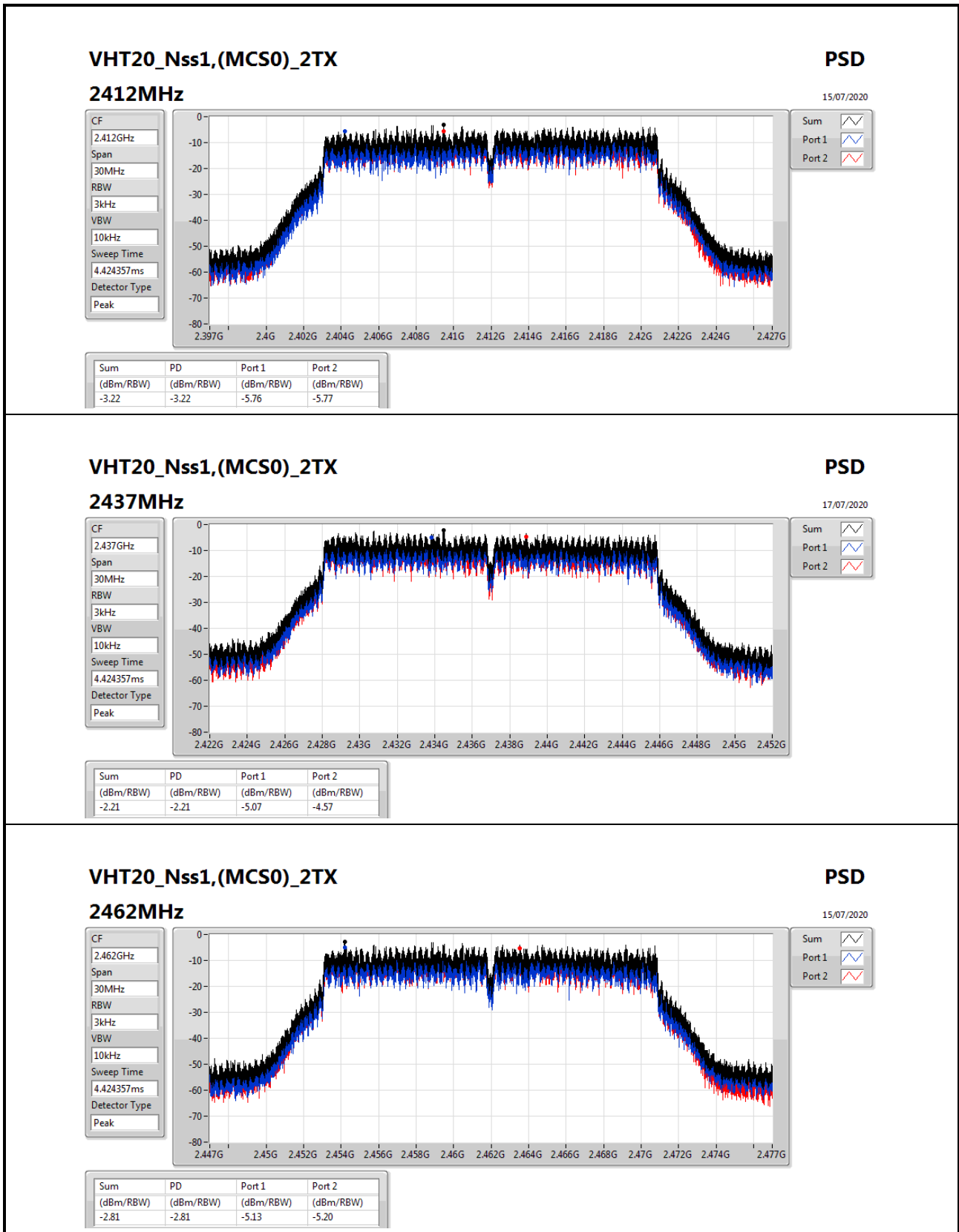


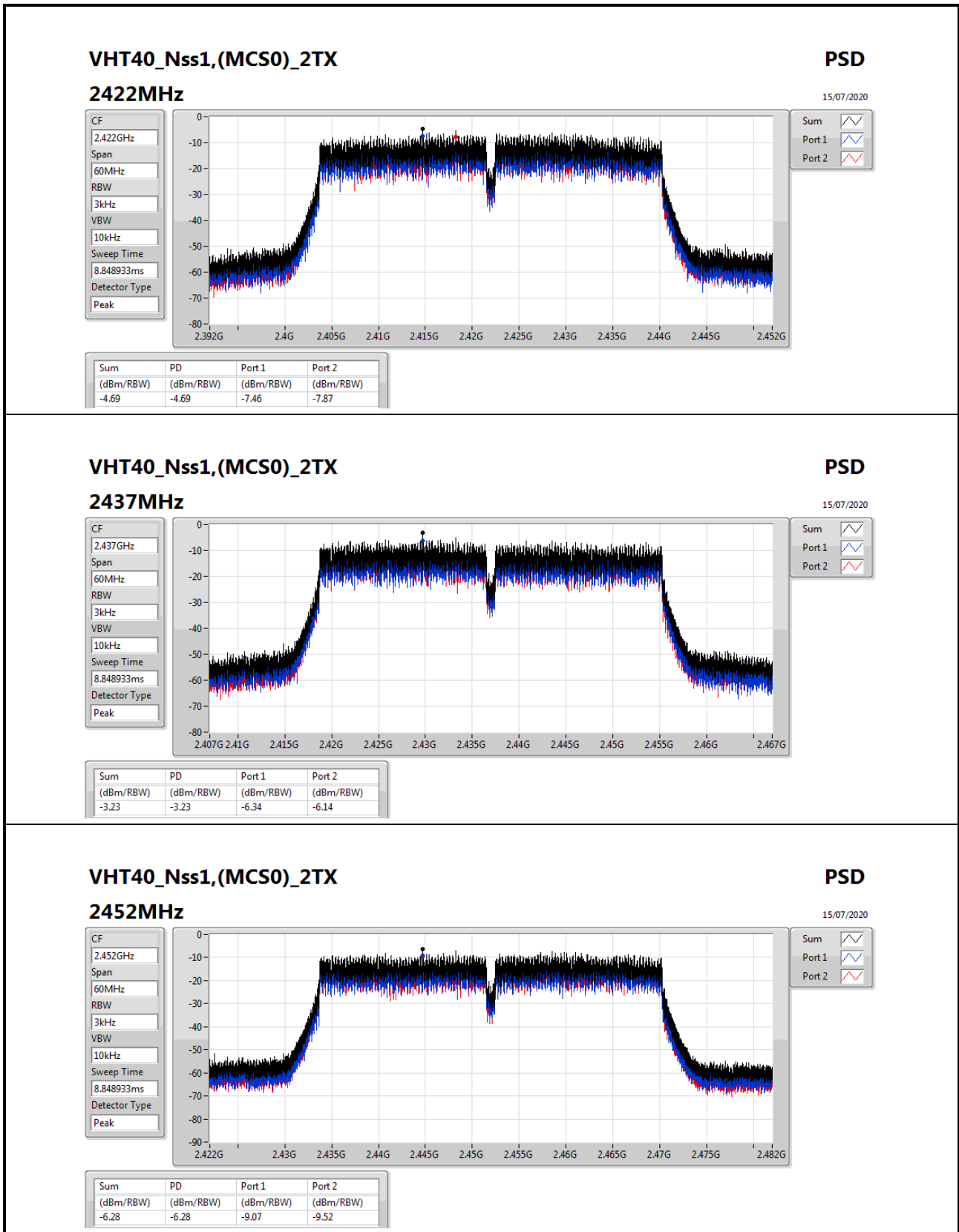


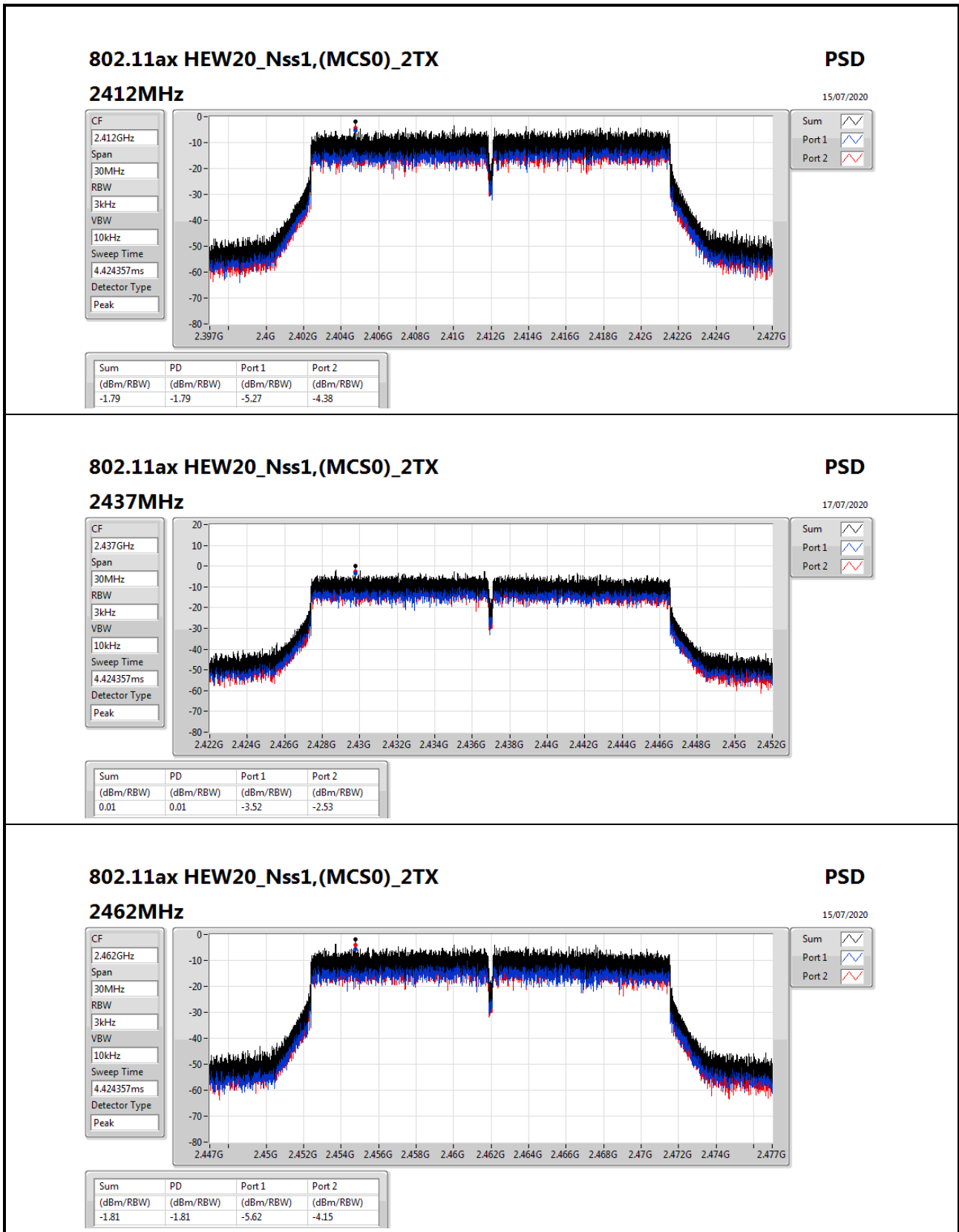


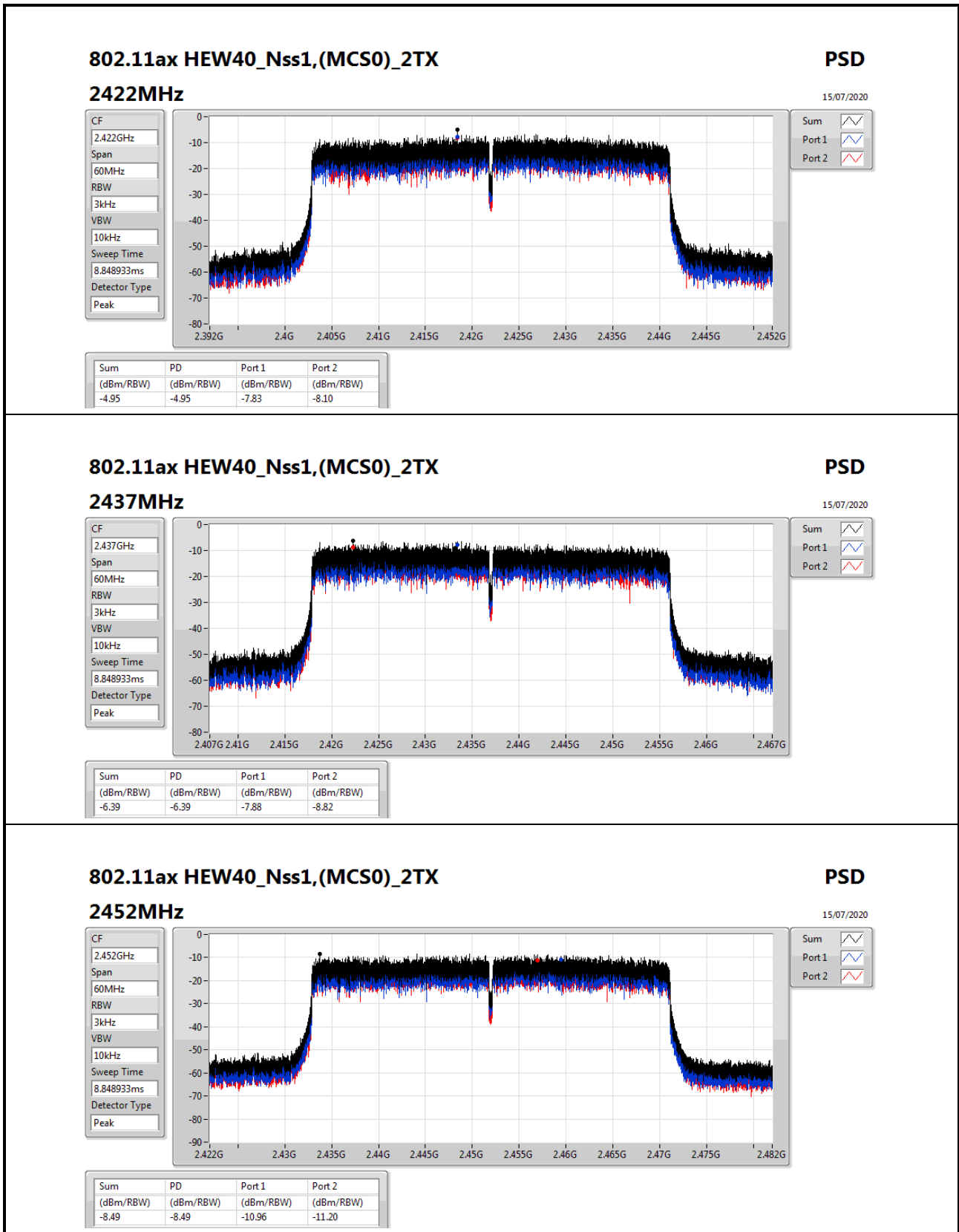














Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43749G	16.05	-13.95	2.06788G	-53.88	2.3971G	-42.07	2.4G	-45.12	2.48648G	-49.72	24.81457G	-40.87	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.43194G	12.69	-17.31	2.10953G	-53.86	2.39976G	-30.90	2.4G	-35.42	2.4861G	-50.02	24.42685G	-41.33	2
802.11n HT20_Nss1,(MCS0)_2TX	Pass	2.42948G	12.06	-17.94	1.77401G	-55.01	2.3998G	-31.06	2.4G	-34.29	2.48592G	-49.84	24.12061G	-40.56	2
802.11n HT40_Nss1,(MCS0)_2TX	Pass	2.43198G	8.39	-21.61	1.95188G	-53.66	2.3996G	-34.95	2.4G	-33.69	2.48386G	-43.11	23.4042G	-41.02	2
VHT20_Nss1,(MCS0)_2TX	Pass	2.43073G	12.53	-17.47	2.13778G	-53.72	2.39916G	-31.29	2.4G	-30.73	2.48398G	-49.65	24.65442G	-40.40	1
VHT40_Nss1,(MCS0)_2TX	Pass	2.43198G	8.46	-21.54	2.14081G	-54.57	2.39948G	-32.76	2.4G	-38.41	2.48398G	-42.94	23.14899G	-39.39	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.43073G	12.53	-17.47	1.95808G	-53.26	2.3997G	-26.59	2.4G	-28.57	2.48508G	-50.40	24.21332G	-39.96	2
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.43198G	8.51	-21.49	2.12506G	-53.76	2.39952G	-33.78	2.4G	-35.75	2.48406G	-41.47	14.67921G	-41.02	2



Result

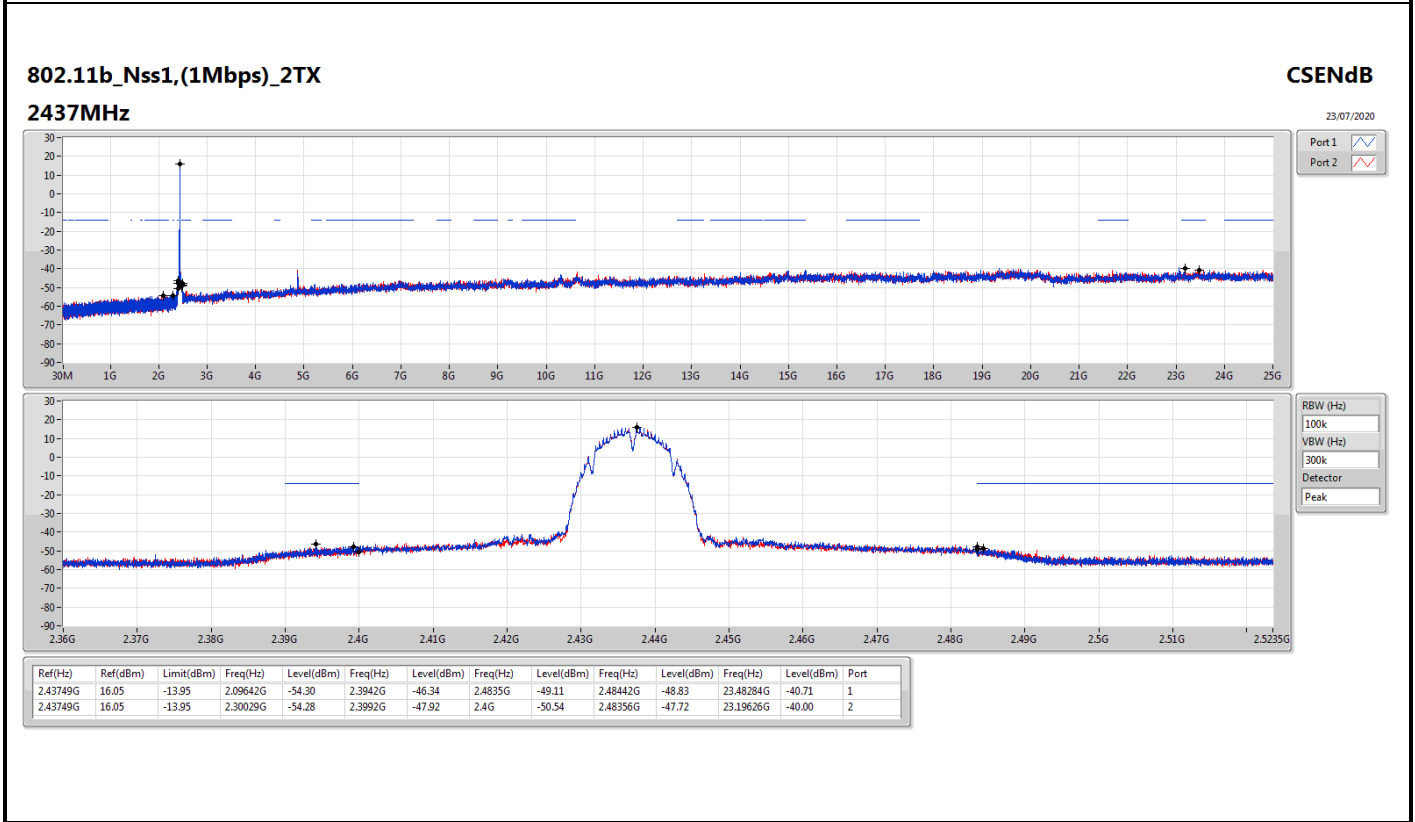
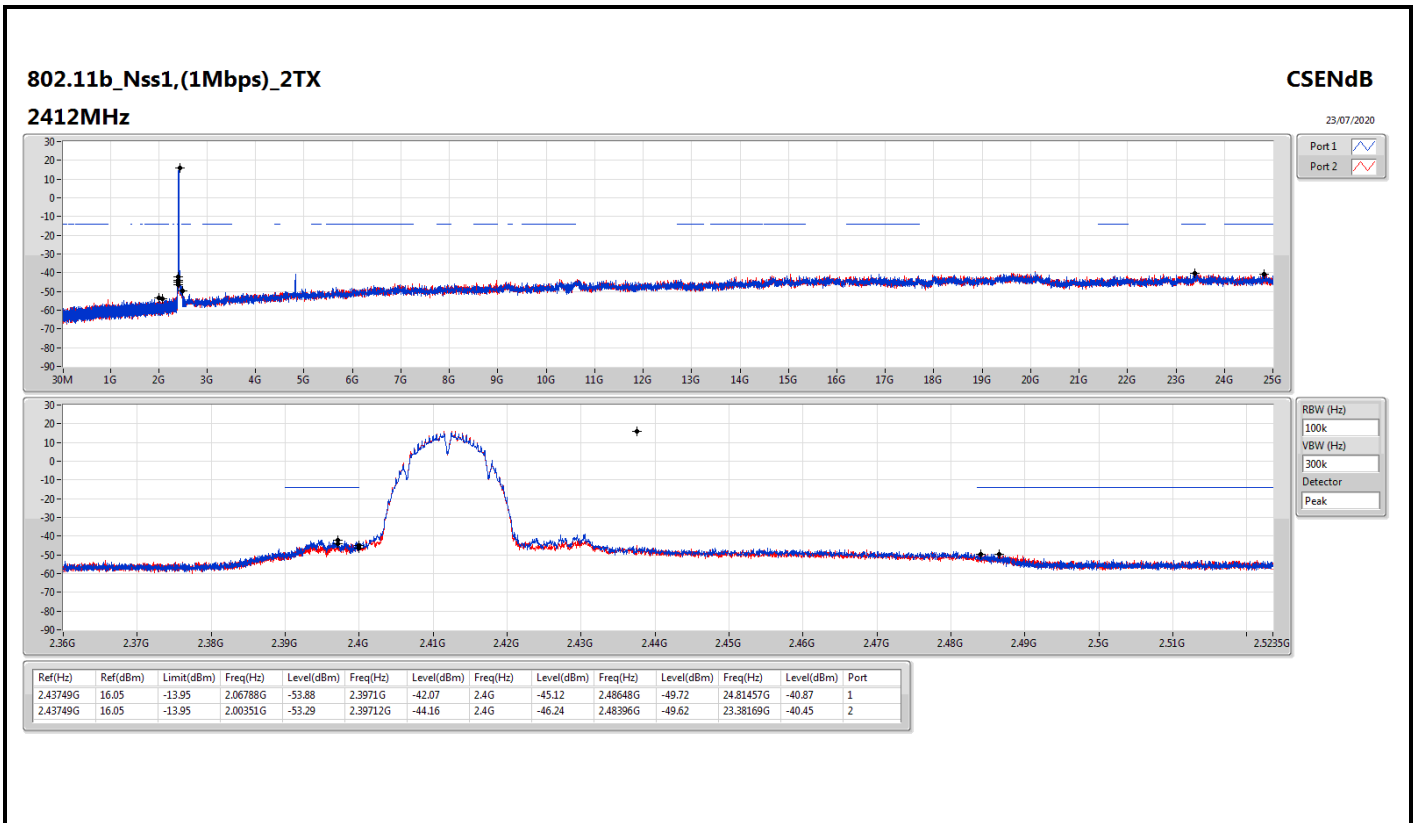
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43749G	16.05	-13.95	2.06788G	-53.88	2.3971G	-42.07	2.4G	-45.12	2.48648G	-49.72	24.81457G	-40.87	1
2412MHz	Pass	2.43749G	16.05	-13.95	2.00351G	-53.29	2.39712G	-44.16	2.4G	-46.24	2.48396G	-49.62	23.38169G	-40.45	2
2437MHz	Pass	2.43749G	16.05	-13.95	2.09642G	-54.30	2.3942G	-46.34	2.4835G	-49.11	2.48442G	-48.83	23.48284G	-40.71	1
2437MHz	Pass	2.43749G	16.05	-13.95	2.30029G	-54.28	2.3992G	-47.92	2.4G	-50.54	2.48356G	-47.72	23.19626G	-40.00	2
2462MHz	Pass	2.43749G	16.05	-13.95	2.12205G	-54.19	2.3993G	-48.95	2.4835G	-49.48	2.48378G	-46.87	24.34256G	-41.05	1
2462MHz	Pass	2.43749G	16.05	-13.95	2.11011G	-52.81	2.3996G	-48.40	2.4835G	-47.17	2.48538G	-46.67	23.38731G	-40.03	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43194G	12.69	-17.31	2.12729G	-53.70	2.39988G	-31.18	2.4G	-34.51	2.48456G	-48.96	23.39012G	-39.63	1
2412MHz	Pass	2.43194G	12.69	-17.31	2.10953G	-53.86	2.39976G	-30.90	2.4G	-35.42	2.4861G	-50.02	24.42685G	-41.33	2
2437MHz	Pass	2.43194G	12.69	-17.31	2.12554G	-54.16	2.39886G	-43.73	2.4G	-43.10	2.48492G	-47.20	24.71342G	-40.50	1
2437MHz	Pass	2.43194G	12.69	-17.31	2.15875G	-54.47	2.39858G	-42.51	2.4G	-47.16	2.48538G	-47.22	23.38731G	-40.80	2
2462MHz	Pass	2.43194G	12.69	-17.31	2.19166G	-54.10	2.39842G	-49.46	2.4835G	-43.00	2.48388G	-41.52	23.4435G	-40.47	1
2462MHz	Pass	2.43194G	12.69	-17.31	1.73847G	-53.81	2.39576G	-49.28	2.4835G	-40.36	2.4839G	-41.05	24.75276G	-40.44	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.42948G	12.06	-17.94	2.12904G	-54.18	2.39978G	-31.40	2.4G	-34.34	2.48374G	-48.62	23.51655G	-40.42	1
2412MHz	Pass	2.42948G	12.06	-17.94	1.77401G	-55.01	2.3998G	-31.06	2.4G	-34.29	2.48592G	-49.84	24.12061G	-40.56	2
2437MHz	Pass	2.42948G	12.06	-17.94	2.16079G	-54.35	2.39878G	-45.34	2.4G	-47.16	2.4836G	-48.12	23.49688G	-41.25	1
2437MHz	Pass	2.42948G	12.06	-17.94	2.18642G	-54.41	2.39972G	-44.27	2.4G	-46.12	2.48364G	-47.42	15.32387G	-40.95	2
2462MHz	Pass	2.42948G	12.06	-17.94	2.12904G	-53.66	2.39414G	-50.30	2.4835G	-47.70	2.48364G	-45.41	23.55588G	-40.73	1
2462MHz	Pass	2.42948G	12.06	-17.94	2.08448G	-53.67	2.39918G	-49.49	2.4835G	-48.90	2.48422G	-45.24	23.43788G	-40.86	2
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	8.39	-21.61	2.19119G	-53.95	2.39996G	-37.44	2.4G	-40.40	2.4837G	-49.45	23.44627G	-40.80	1
2422MHz	Pass	2.43198G	8.39	-21.61	2.30311G	-53.77	2.39924G	-38.35	2.4G	-43.33	2.48354G	-49.09	24.14461G	-40.67	2
2437MHz	Pass	2.43198G	8.39	-21.61	2.13193G	-53.86	2.39888G	-37.32	2.4G	-40.16	2.48382G	-44.05	23.42384G	-40.77	1
2437MHz	Pass	2.43198G	8.39	-21.61	1.95188G	-53.66	2.3996G	-34.95	2.4G	-33.69	2.48386G	-43.11	23.4042G	-41.02	2
2452MHz	Pass	2.43198G	8.39	-21.61	1.93614G	-54.29	2.39948G	-48.55	2.4835G	-45.34	2.48382G	-43.48	15.31024G	-40.26	1
2452MHz	Pass	2.43198G	8.39	-21.61	2.10789G	-53.83	2.39736G	-49.38	2.4835G	-44.86	2.4835G	-44.33	23.46871G	-40.57	2
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43073G	12.53	-17.47	2.13778G	-53.72	2.39916G	-31.29	2.4G	-30.73	2.48398G	-49.65	24.65442G	-40.40	1
2412MHz	Pass	2.43073G	12.53	-17.47	1.95254G	-53.85	2.3984G	-32.85	2.4G	-34.00	2.4853G	-49.93	24.04194G	-40.00	2
2437MHz	Pass	2.43073G	12.53	-17.47	1.97992G	-53.69	2.39944G	-43.82	2.4835G	-47.39	2.48382G	-47.88	24.15994G	-40.63	1
2437MHz	Pass	2.43073G	12.53	-17.47	2.08215G	-54.30	2.39918G	-43.20	2.4G	-46.76	2.4839G	-47.80	24.03913G	-40.97	2
2462MHz	Pass	2.43073G	12.53	-17.47	2.1369G	-54.63	2.3971G	-50.19	2.4835G	-46.63	2.4844G	-45.12	23.43788G	-40.58	1
2462MHz	Pass	2.43073G	12.53	-17.47	2.11011G	-54.37	2.39684G	-50.16	2.4835G	-45.70	2.48418G	-45.00	16.55165G	-40.53	2
VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	8.46	-21.54	2.01486G	-54.66	2.39636G	-38.22	2.4G	-41.36	2.48646G	-49.85	24.81209G	-40.82	1
2422MHz	Pass	2.43198G	8.46	-21.54	2.17115G	-54.60	2.39544G	-38.45	2.4G	-41.49	2.48526G	-49.50	23.4631G	-39.97	2
2437MHz	Pass	2.43198G	8.46	-21.54	2.14081G	-54.57	2.39948G	-32.76	2.4G	-38.41	2.48398G	-42.94	23.14899G	-39.39	1
2437MHz	Pass	2.43198G	8.46	-21.54	1.99568G	-54.35	2.39828G	-33.60	2.4G	-38.78	2.4841G	-42.24	23.4659G	-38.84	2
2452MHz	Pass	2.43198G	8.46	-21.54	1.83567G	-54.39	2.39904G	-48.48	2.4835G	-45.96	2.48378G	-42.69	23.4042G	-40.17	1
2452MHz	Pass	2.43198G	8.46	-21.54	1.98595G	-54.36	2.3996G	-46.00	2.4835G	-45.10	2.48482G	-41.25	23.42664G	-40.11	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43073G	12.53	-17.47	2.16428G	-54.53	2.3997G	-26.88	2.4G	-27.99	2.48436G	-50.21	24.10937G	-40.61	1
2412MHz	Pass	2.43073G	12.53	-17.47	1.95808G	-53.26	2.3997G	-26.59	2.4G	-28.57	2.48508G	-50.40	24.21332G	-39.96	2
2437MHz	Pass	2.43073G	12.53	-17.47	2.06176G	-54.32	2.39914G	-41.28	2.4G	-42.84	2.48396G	-46.41	23.3845G	-40.81	1
2437MHz	Pass	2.43073G	12.53	-17.47	2.09933G	-54.80	2.39918G	-41.02	2.4G	-46.08	2.48508G	-48.07	23.47441G	-40.27	2
2462MHz	Pass	2.43073G	12.53	-17.47	2.00089G	-53.65	2.39986G	-49.61	2.4835G	-45.28	2.48418G	-40.28	23.42103G	-40.94	1



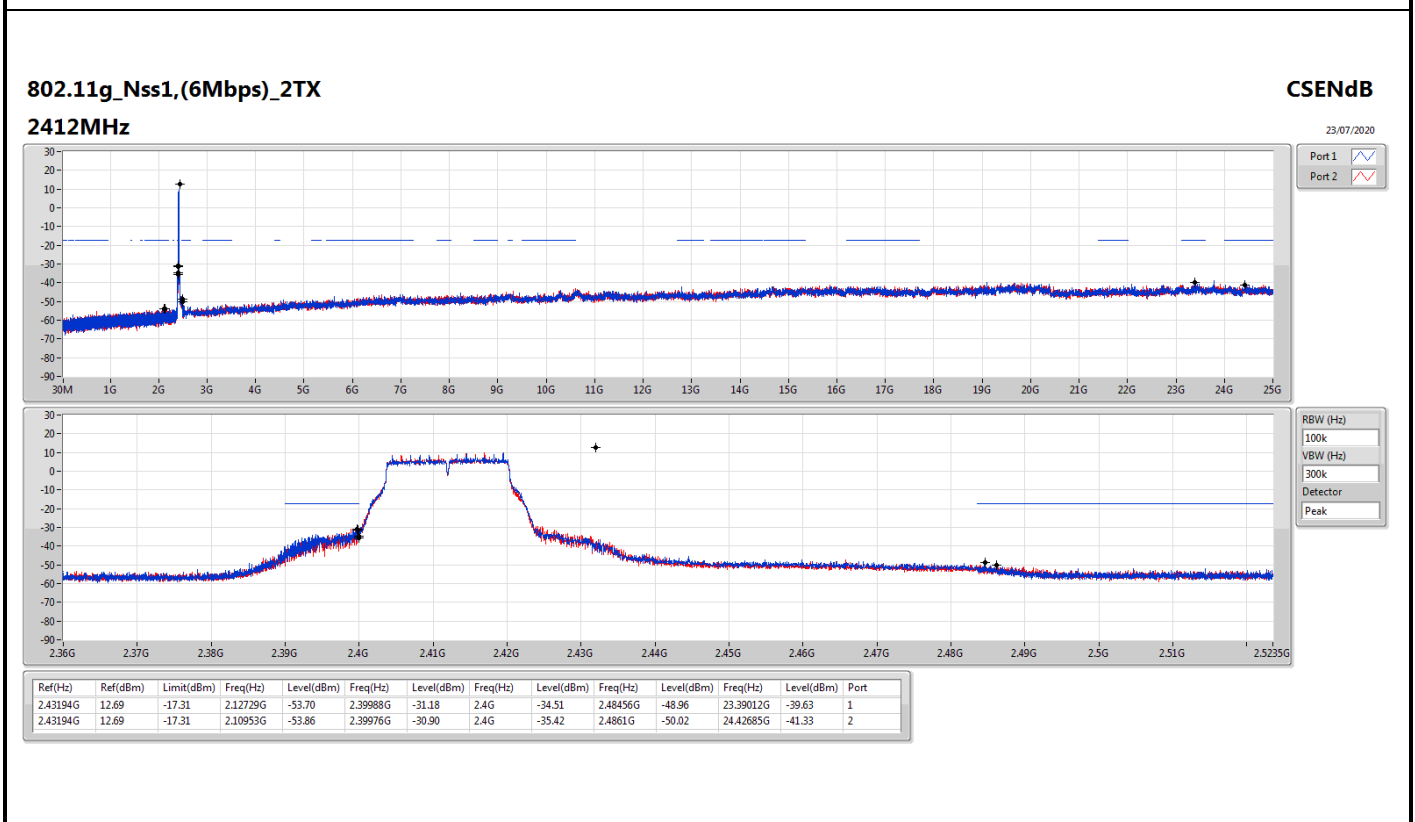
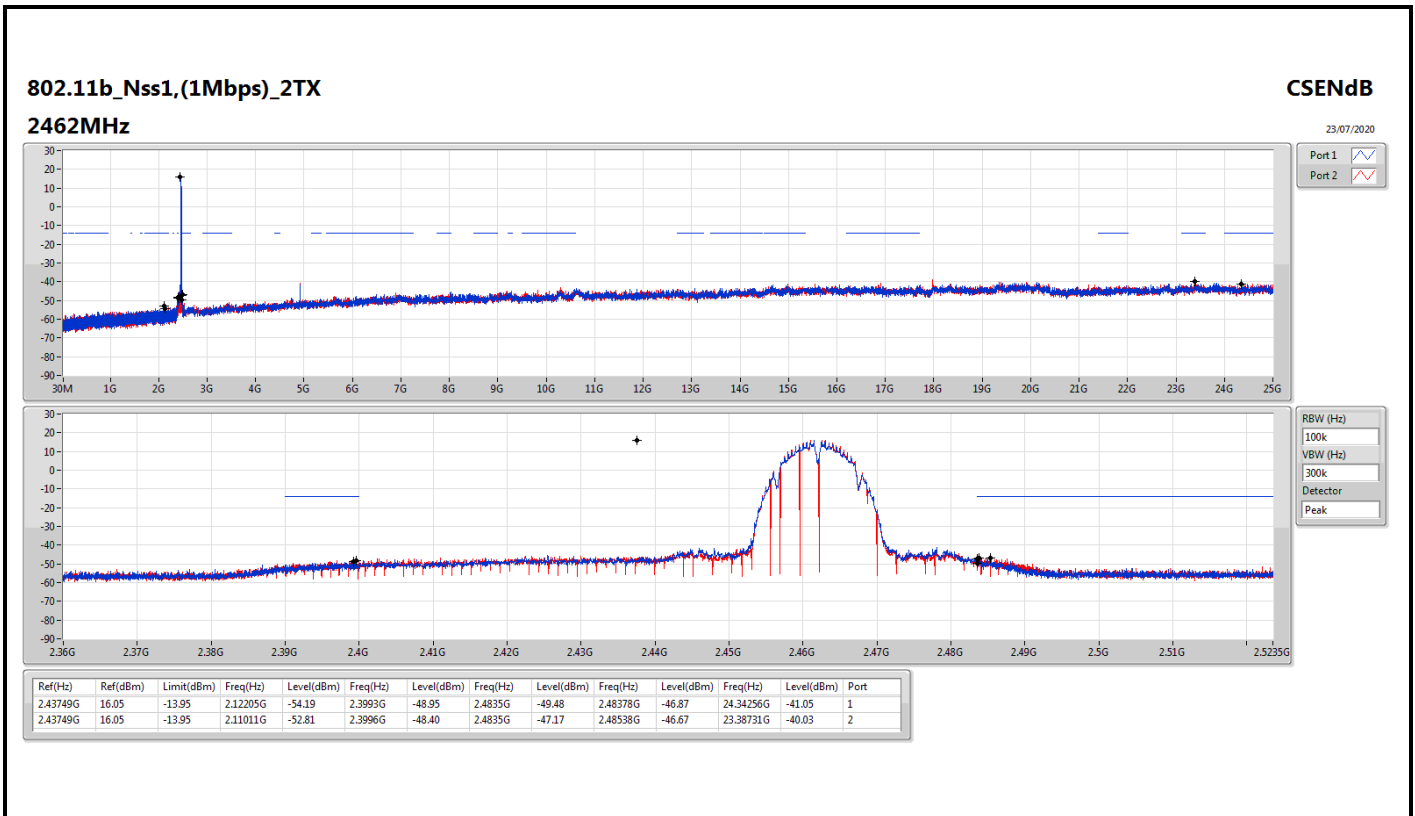
**CSE(Non-restricted Band)\_Sample 1**

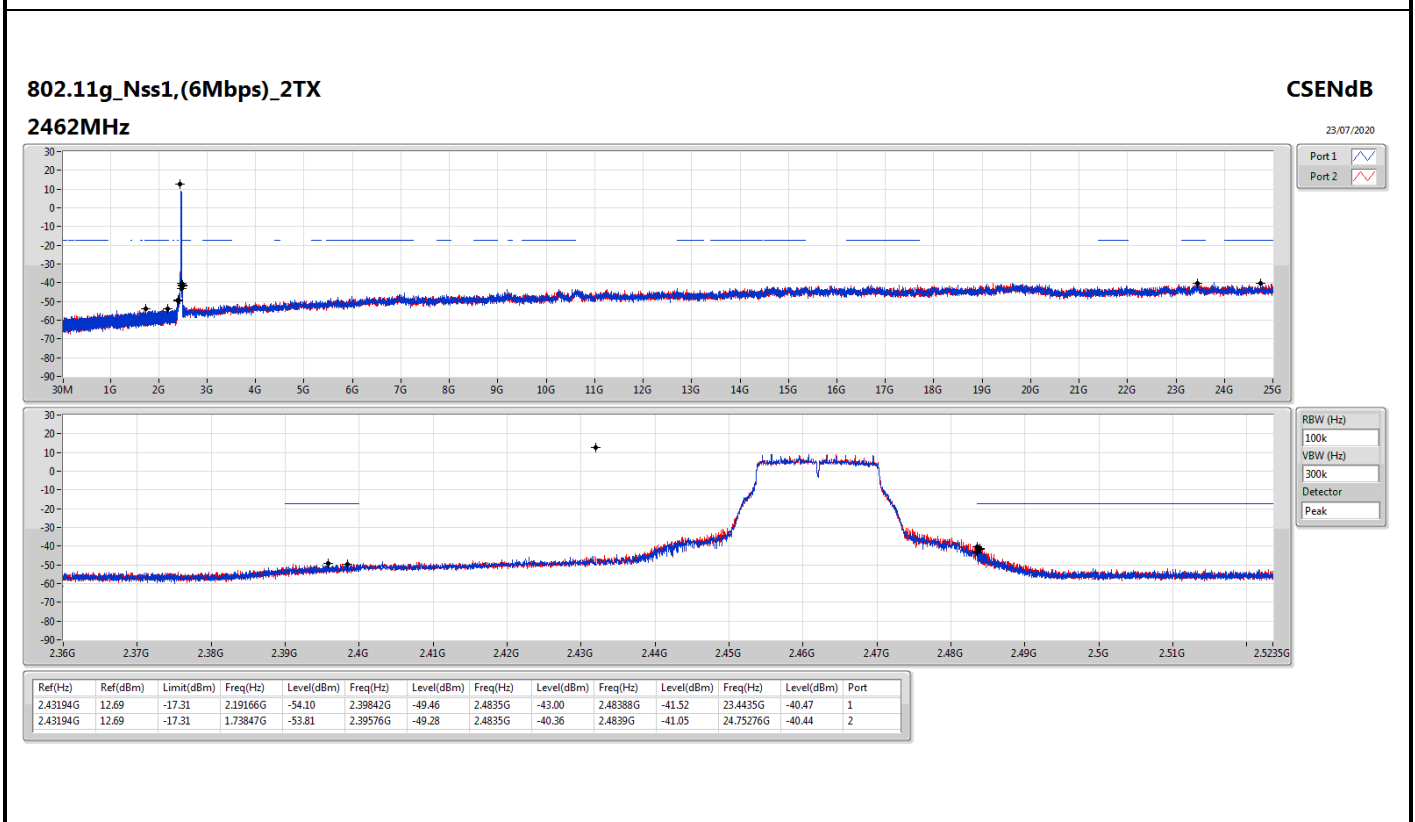
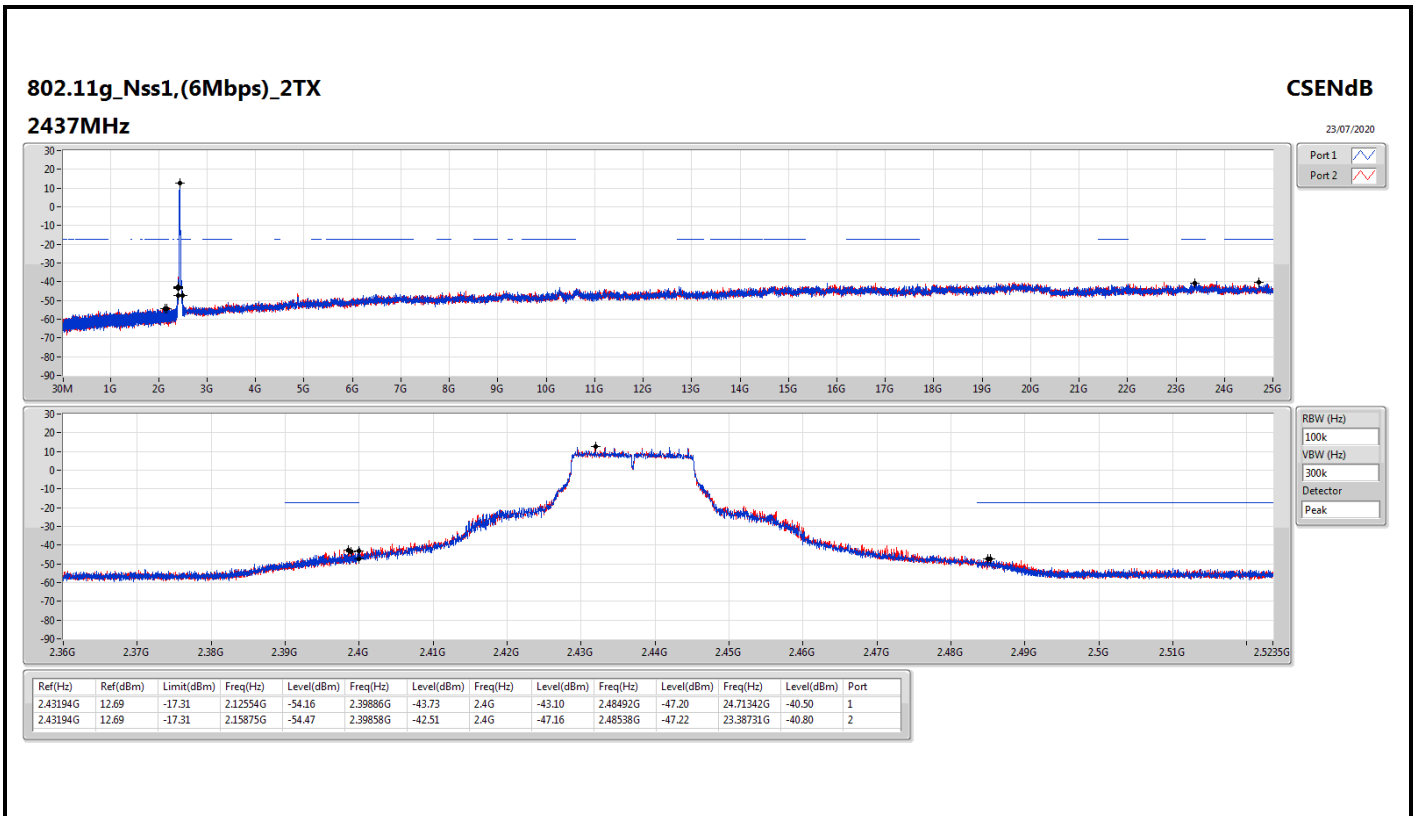
**Appendix E.1**

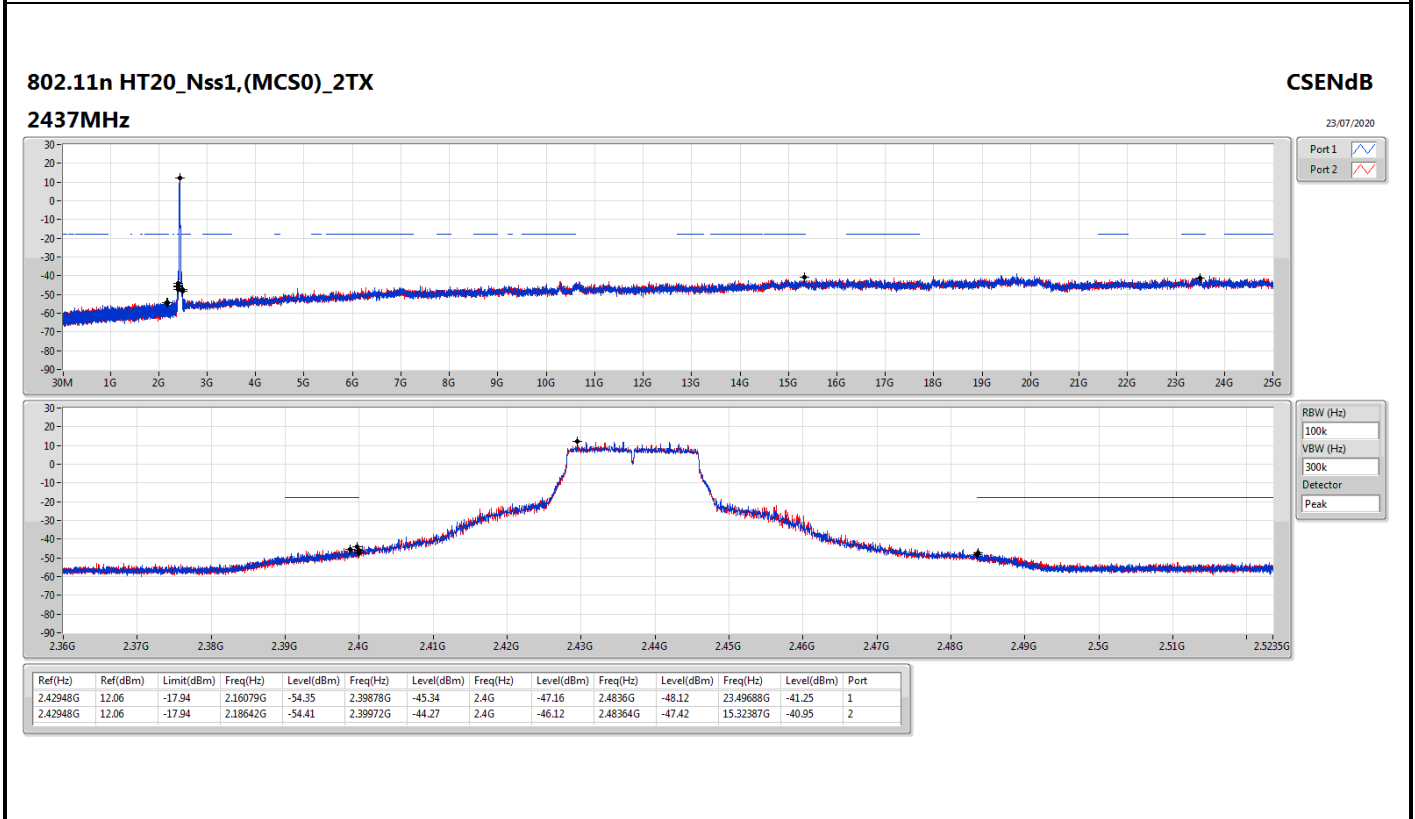
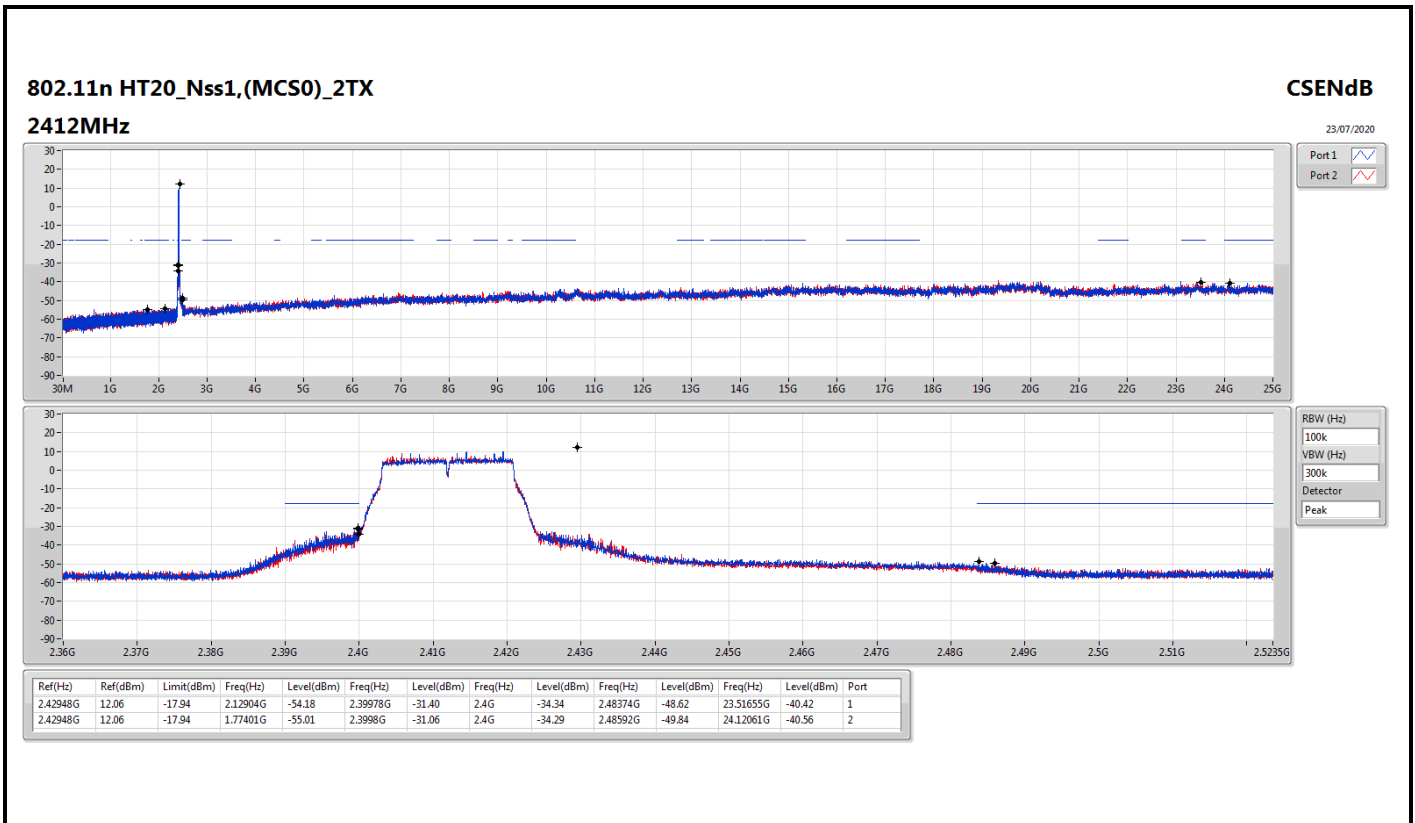
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2462MHz	Pass	2.43073G	12.53	-17.47	2.18554G	-54.47	2.39836G	-49.60	2.4835G	-47.30	2.48362G	-39.83	24.81457G	-40.93	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	8.51	-21.49	2.1494G	-53.83	2.39668G	-37.33	2.4G	-39.70	2.48354G	-49.07	23.55285G	-41.64	1
2422MHz	Pass	2.43198G	8.51	-21.49	2.09673G	-53.94	2.39976G	-38.32	2.4G	-42.31	2.4843G	-49.05	24.02121G	-40.77	2
2437MHz	Pass	2.43198G	8.51	-21.49	2.30454G	-54.31	2.39944G	-34.83	2.4G	-38.48	2.48586G	-42.22	24.85136G	-40.92	1
2437MHz	Pass	2.43198G	8.51	-21.49	2.12506G	-53.76	2.39952G	-33.78	2.4G	-35.75	2.48406G	-41.47	14.67921G	-41.02	2
2452MHz	Pass	2.43198G	8.51	-21.49	1.97736G	-54.08	2.39984G	-48.09	2.4835G	-44.34	2.48414G	-39.90	17.53706G	-40.61	1
2452MHz	Pass	2.43198G	8.51	-21.49	2.11075G	-53.08	2.39868G	-47.97	2.4835G	-46.58	2.4841G	-40.47	24.17265G	-40.83	2

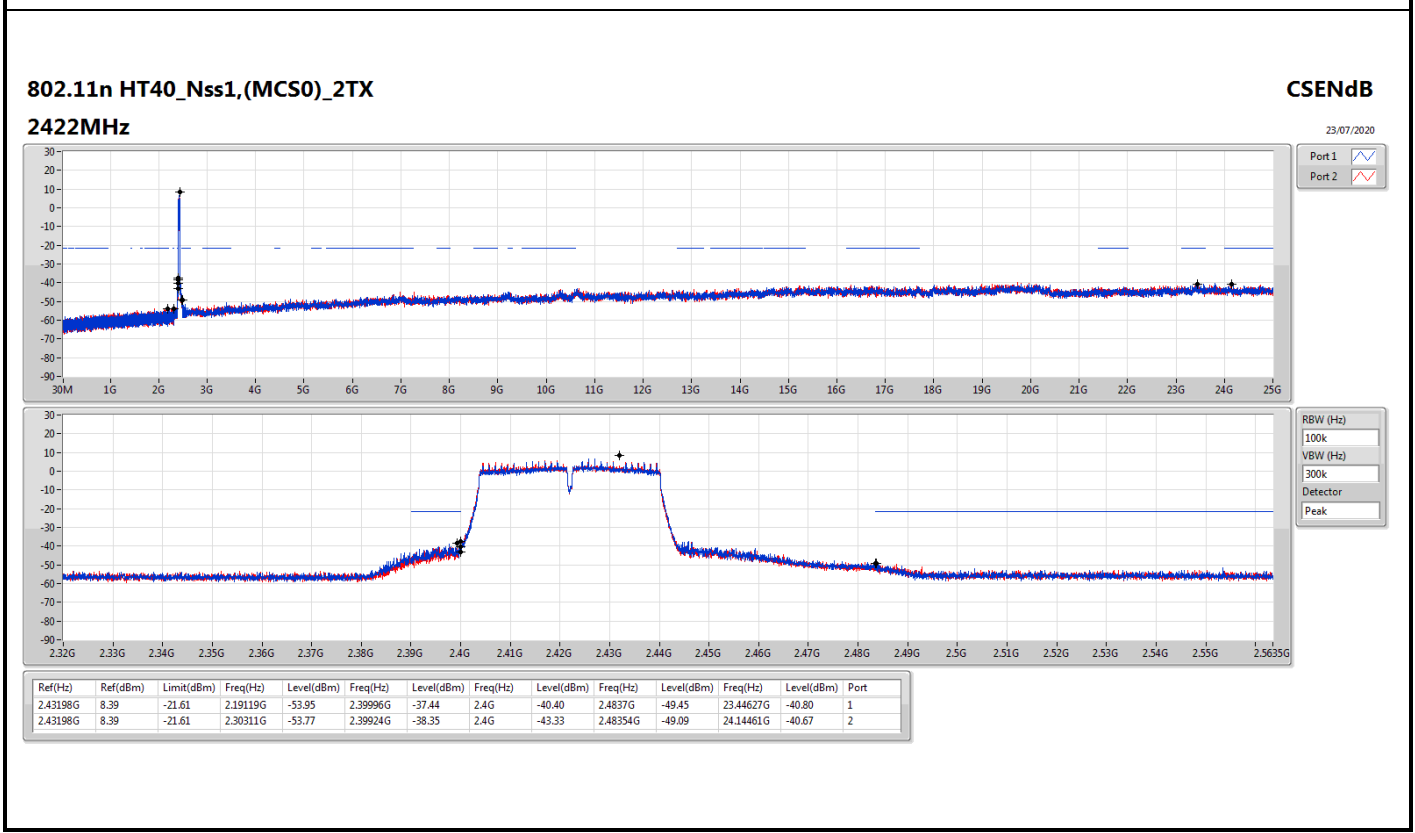
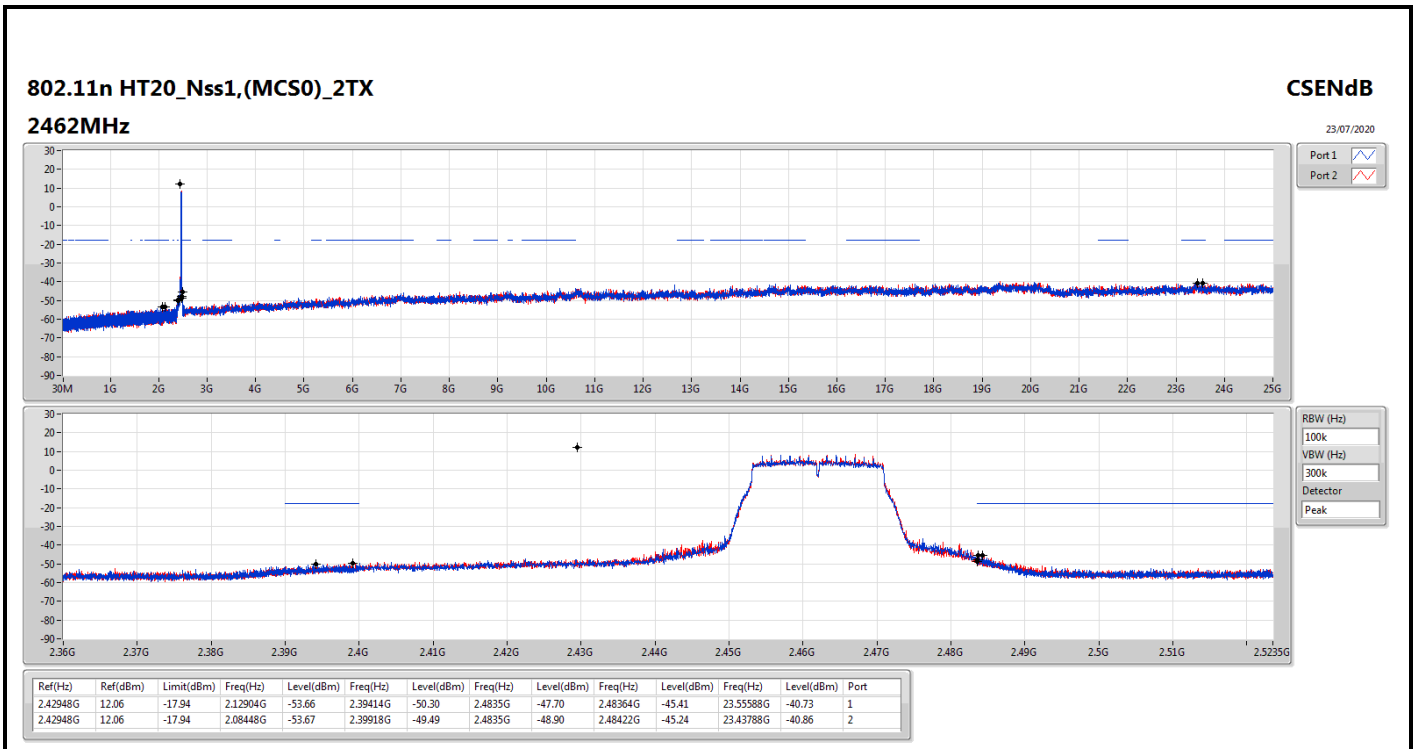


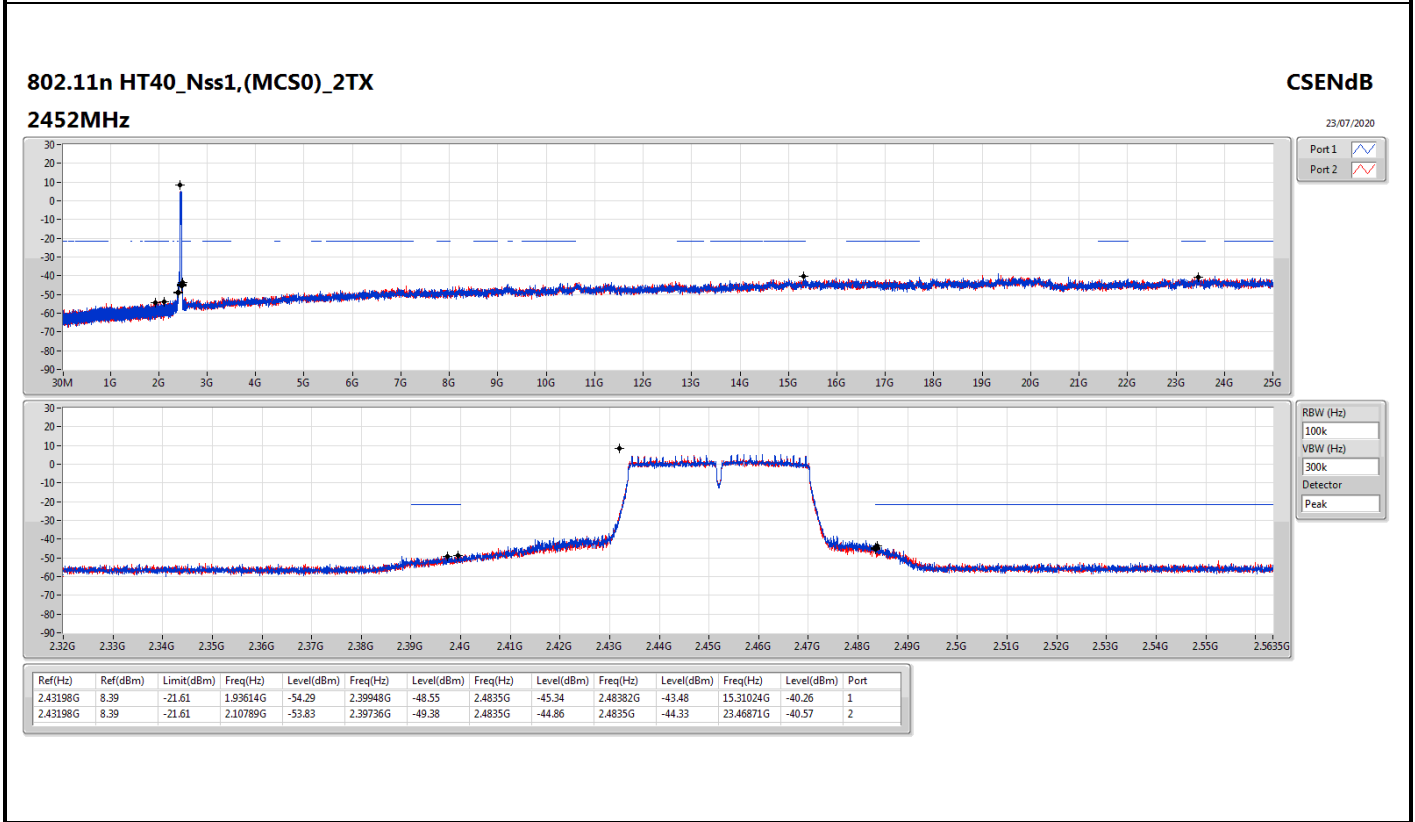
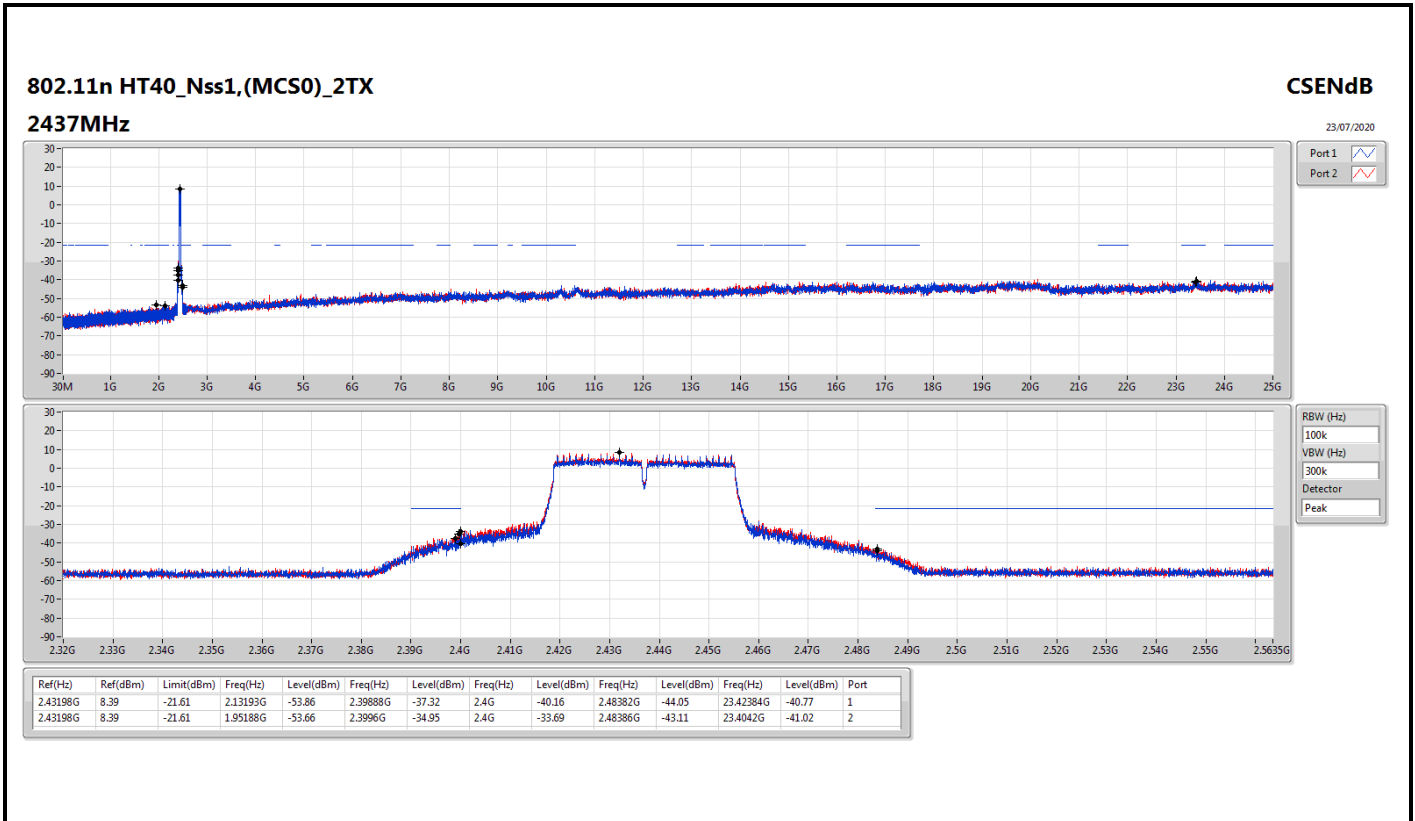


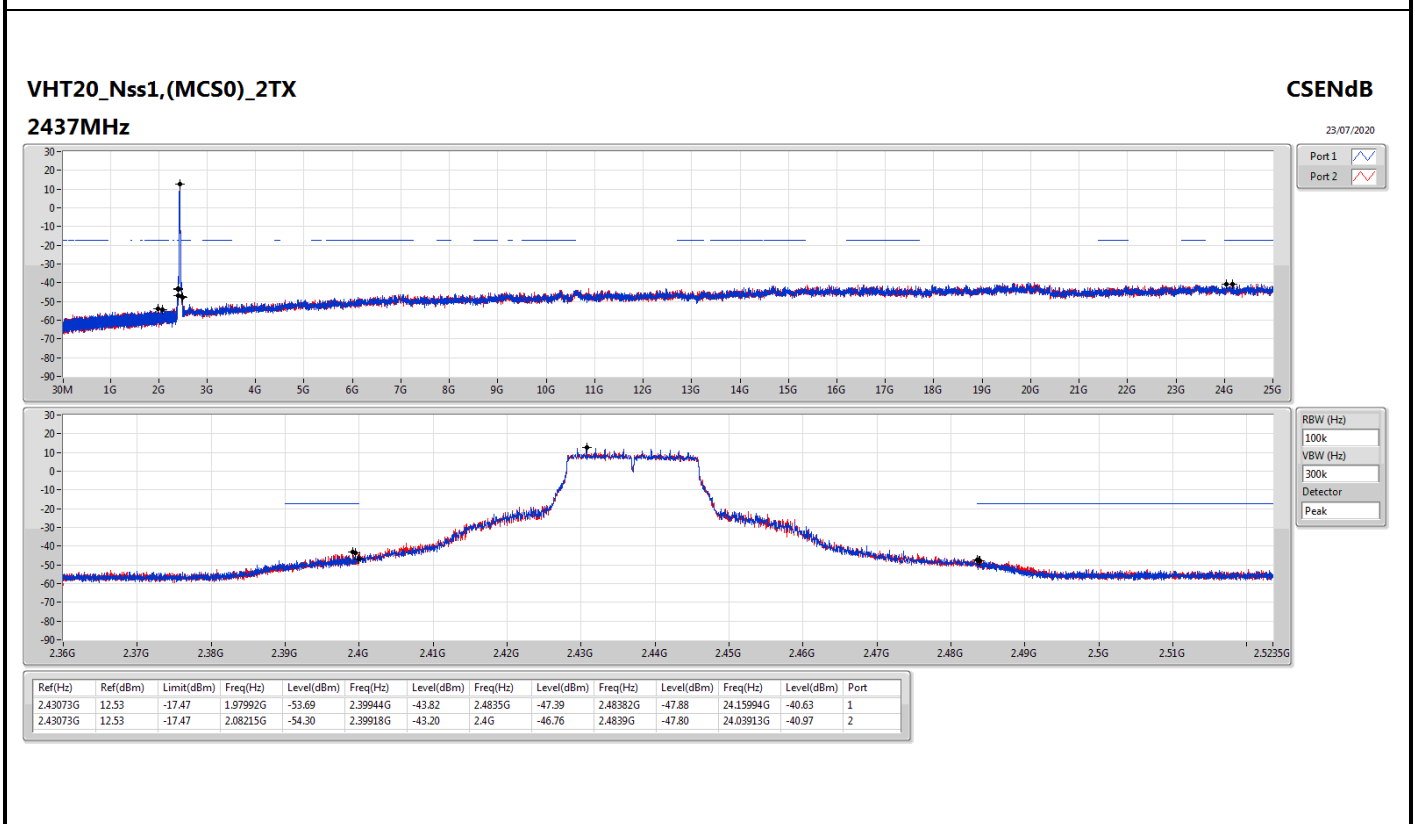
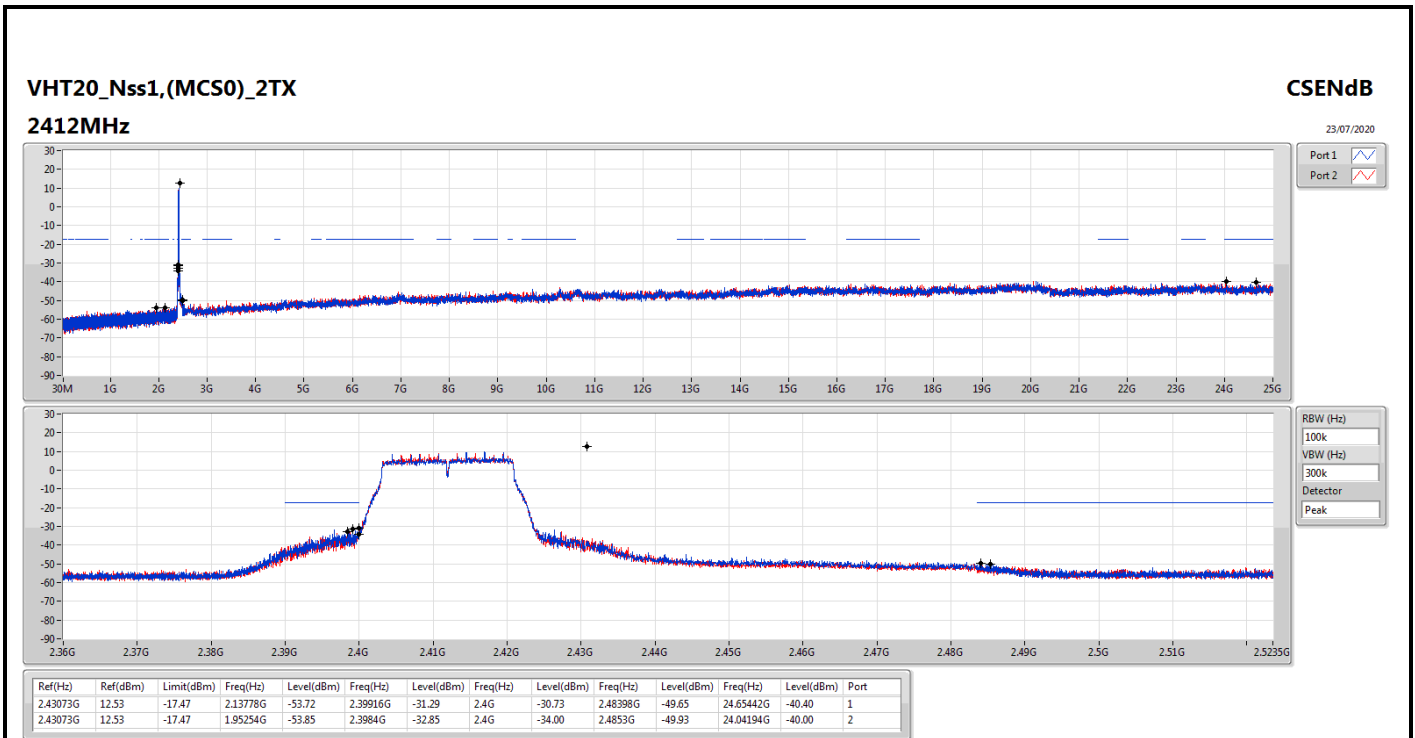


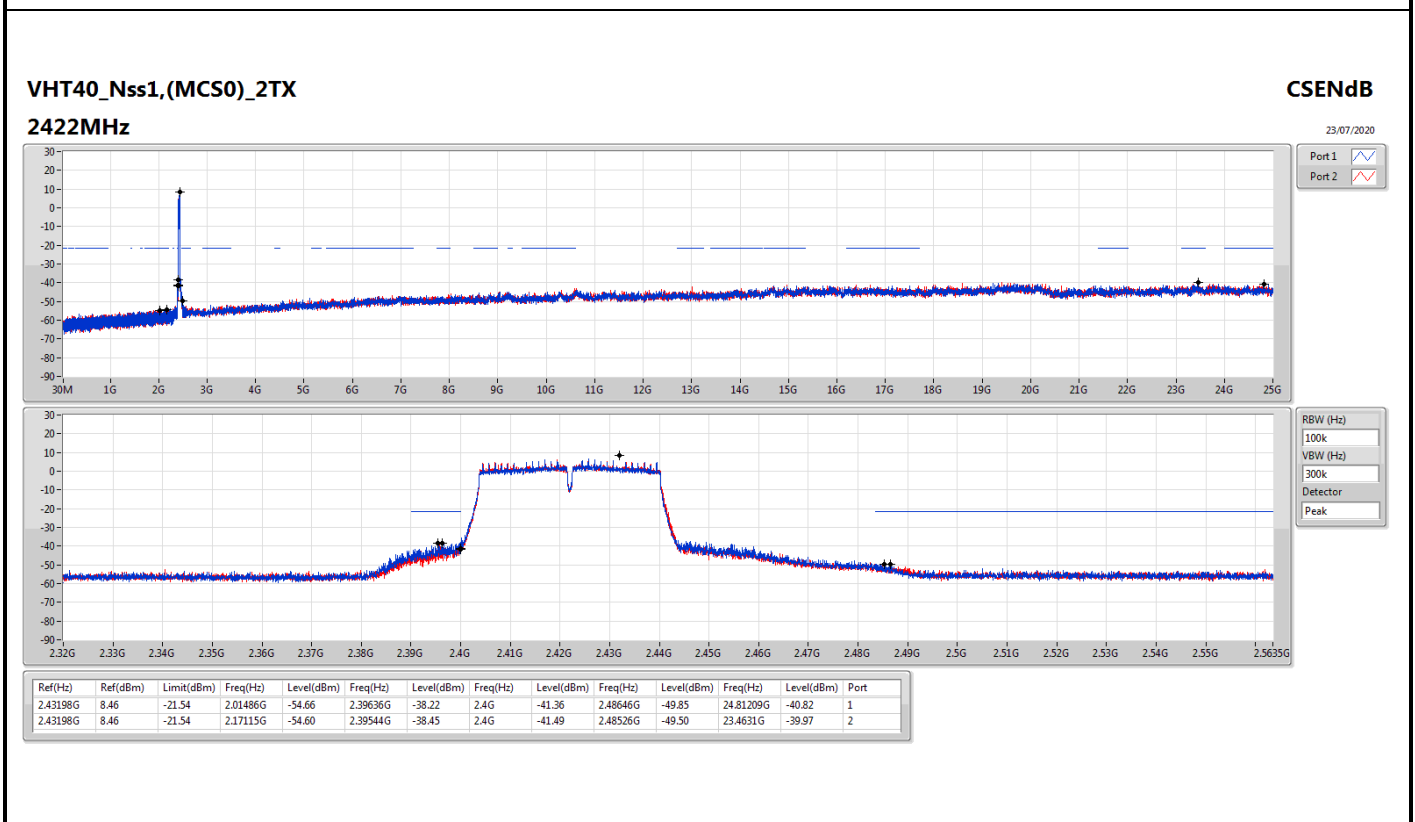
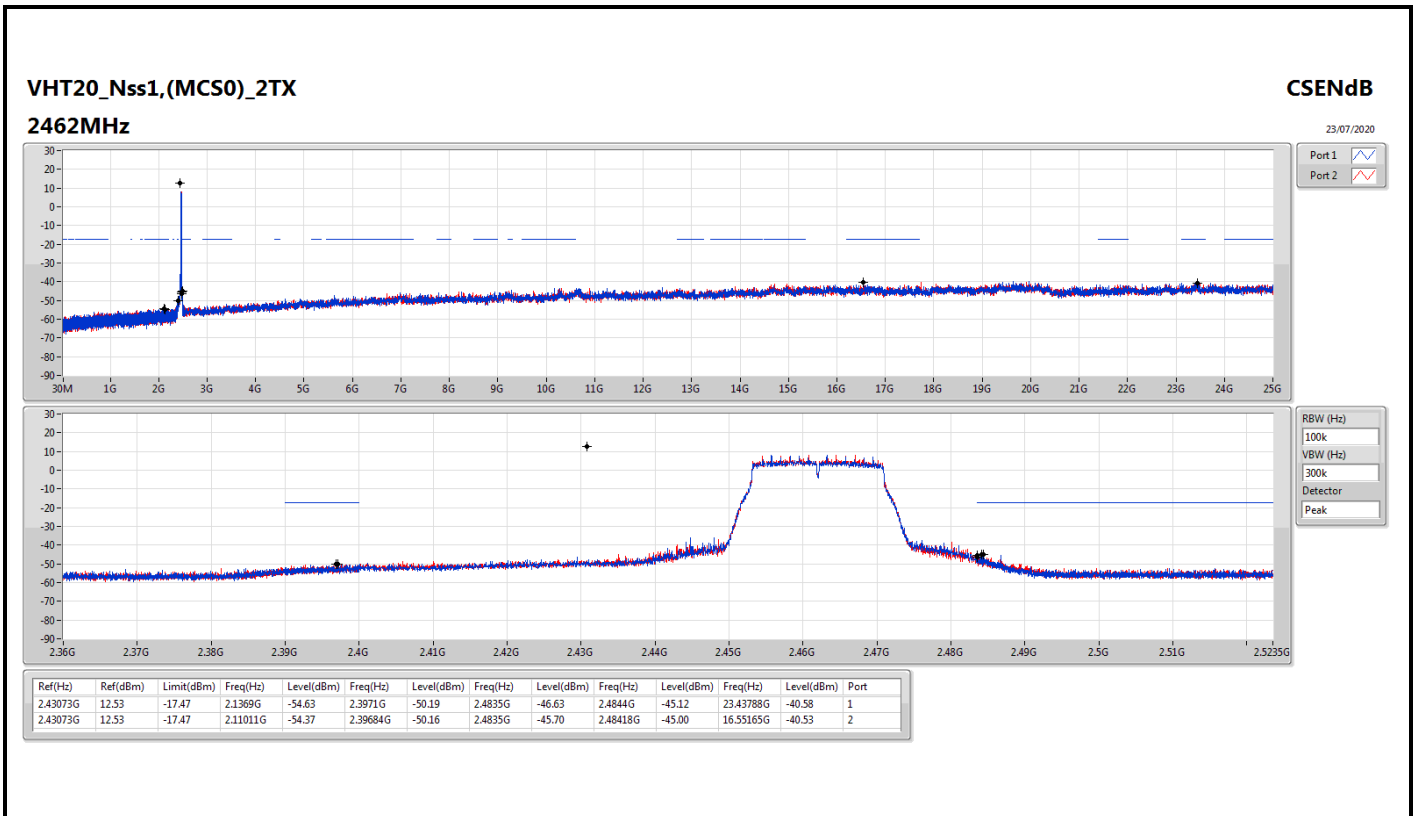


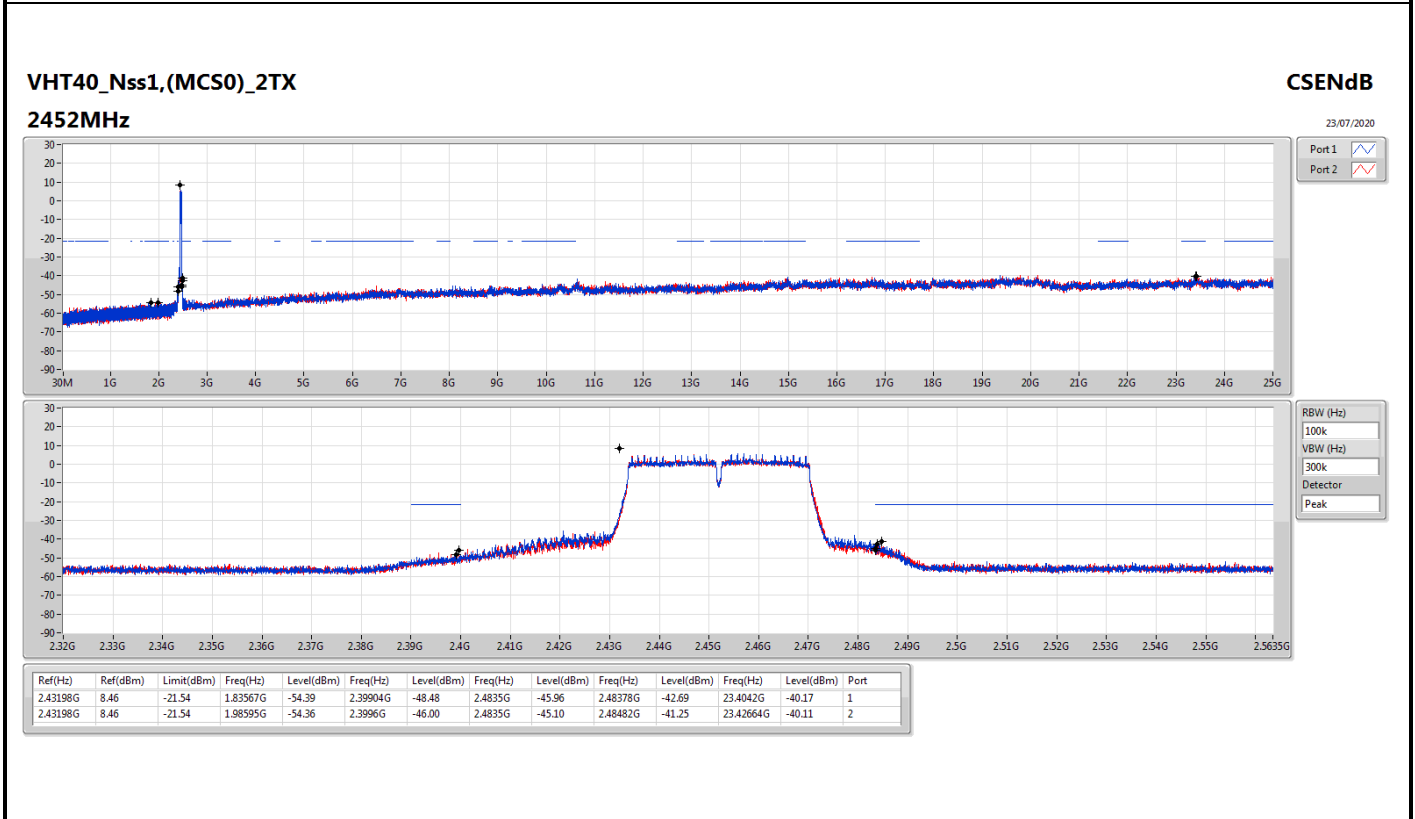
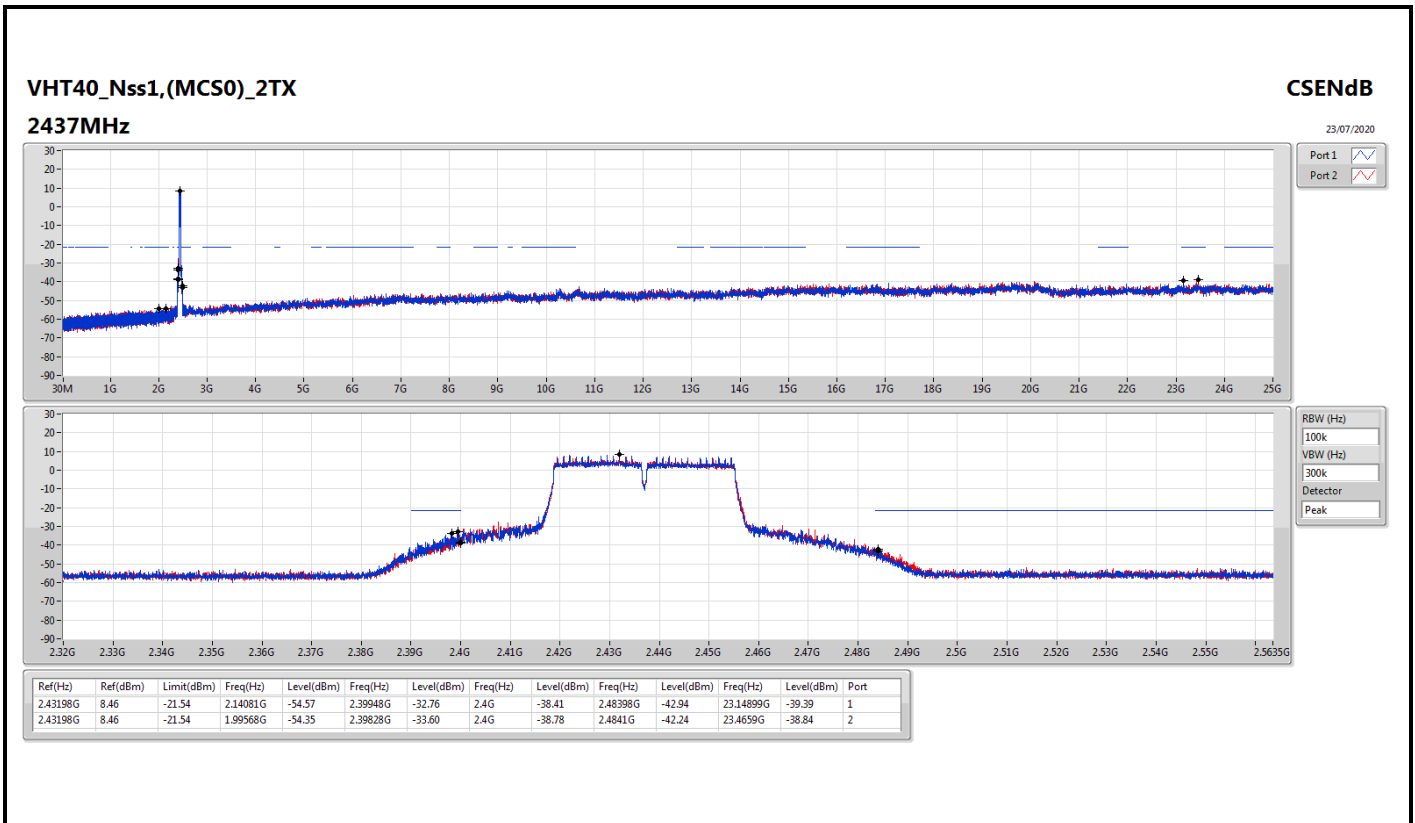




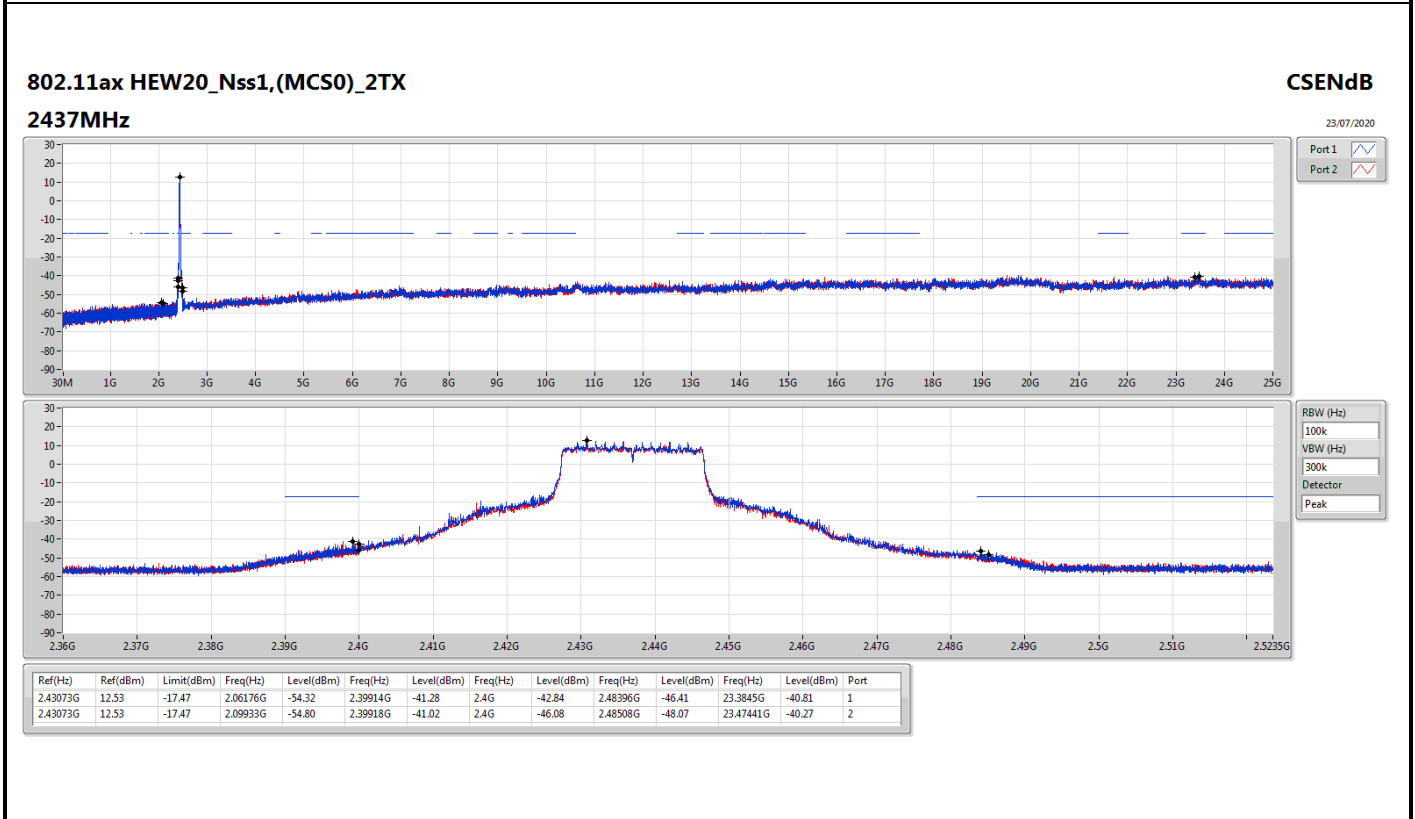
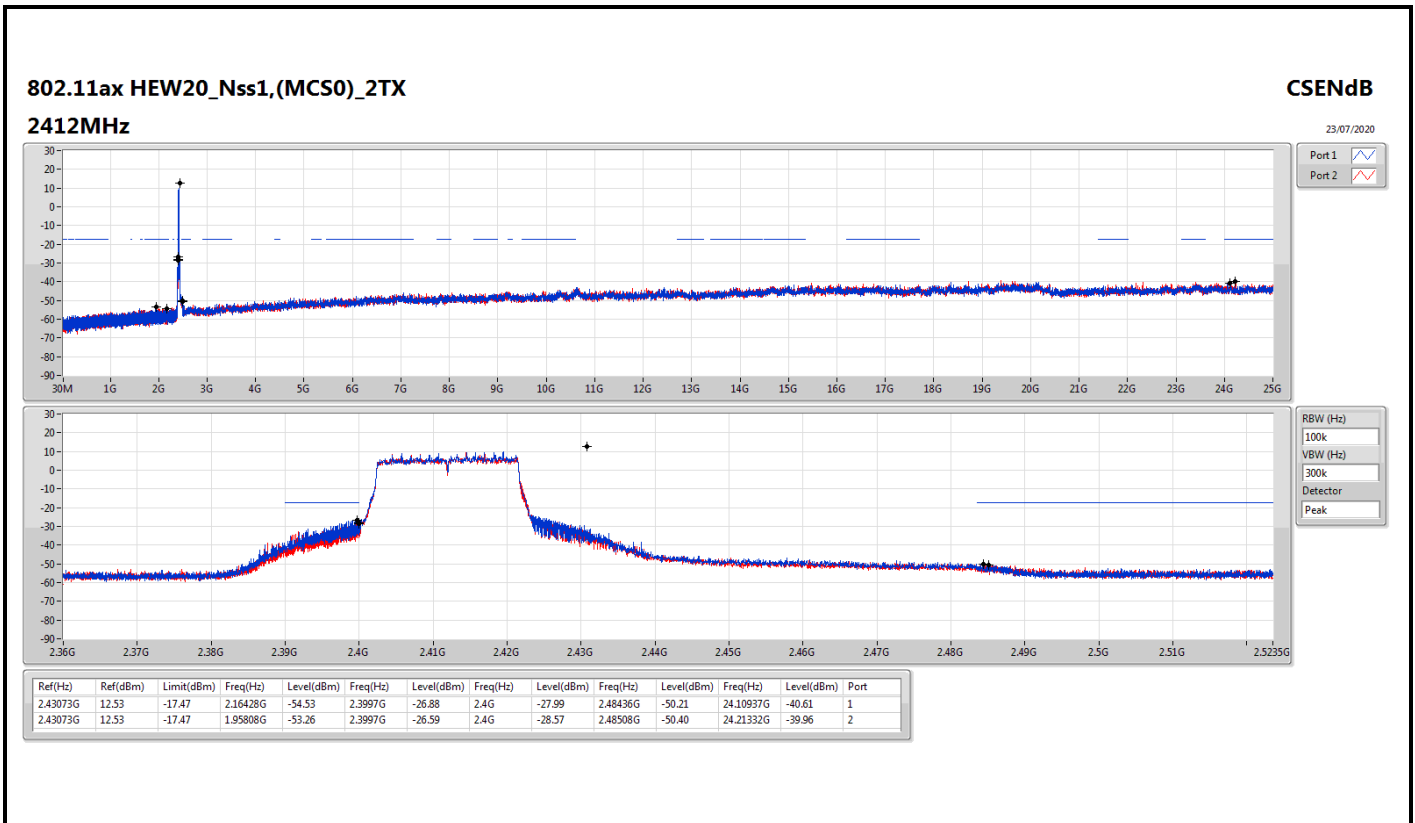


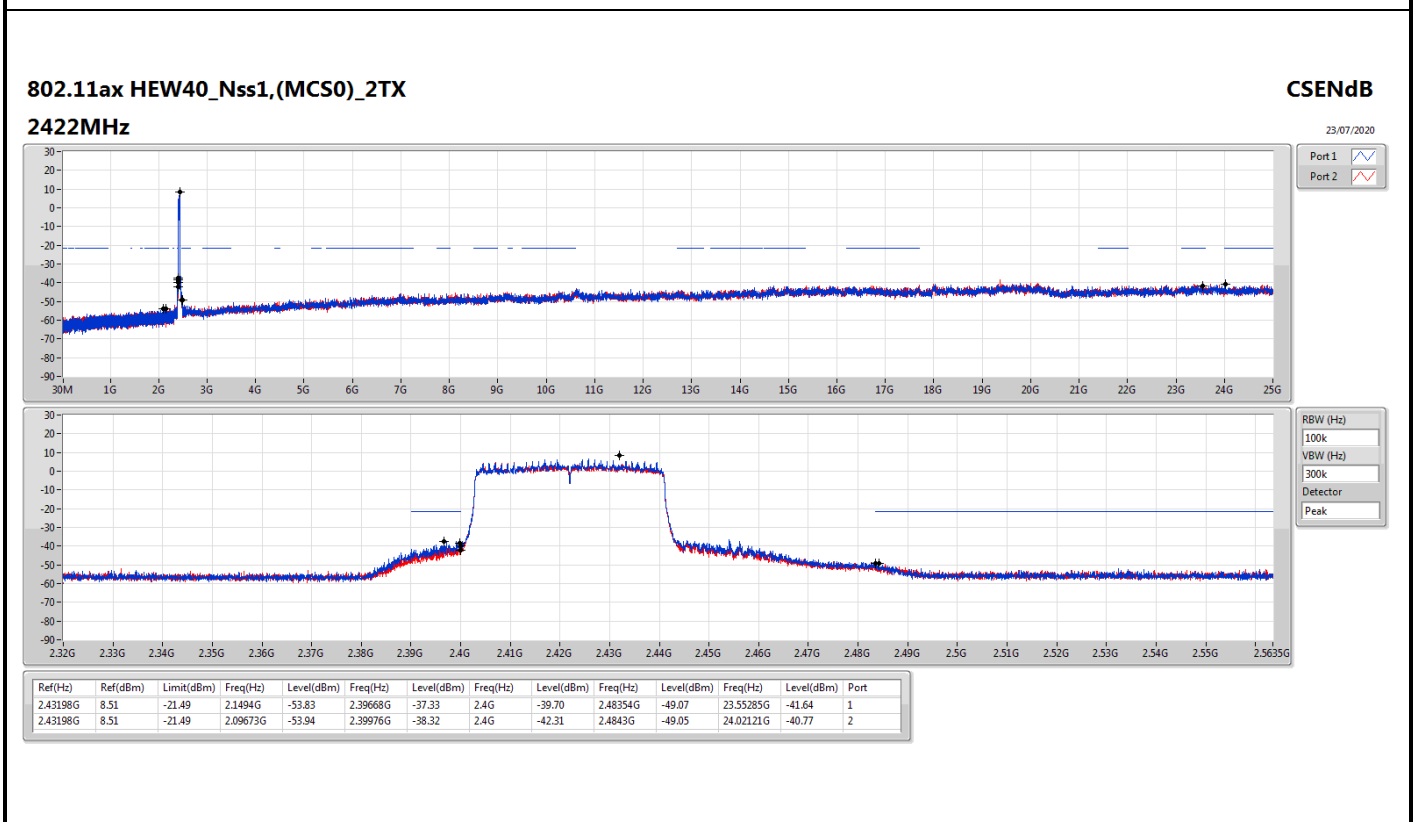
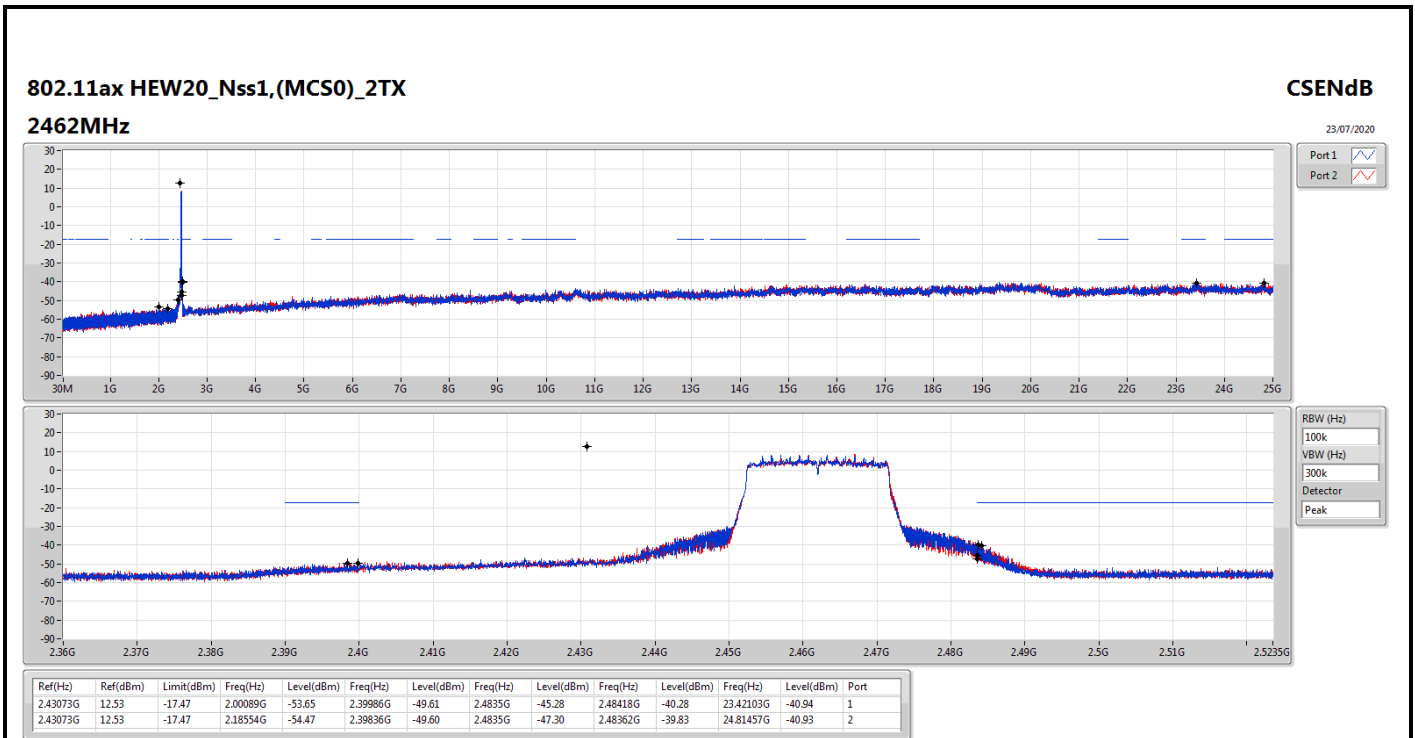


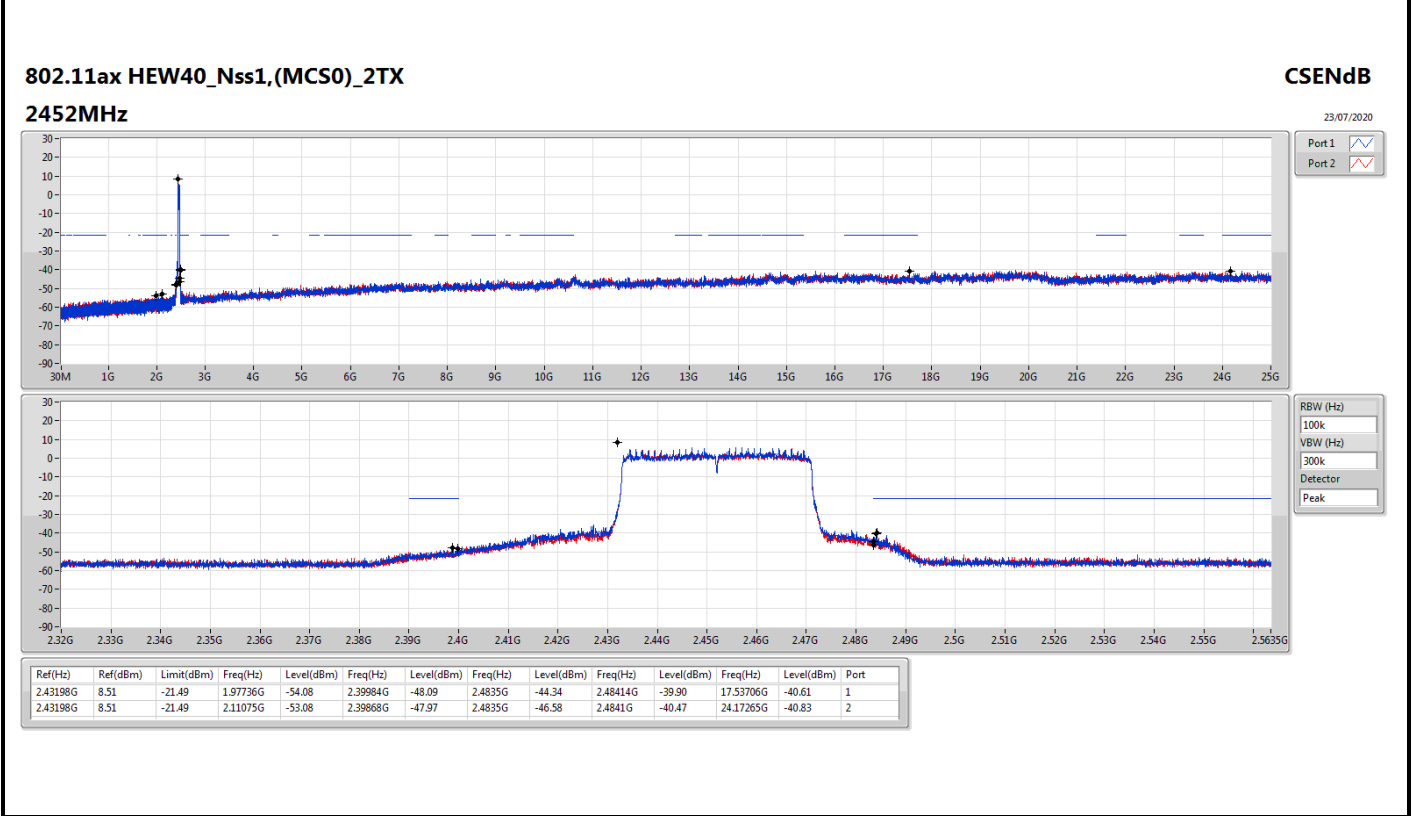
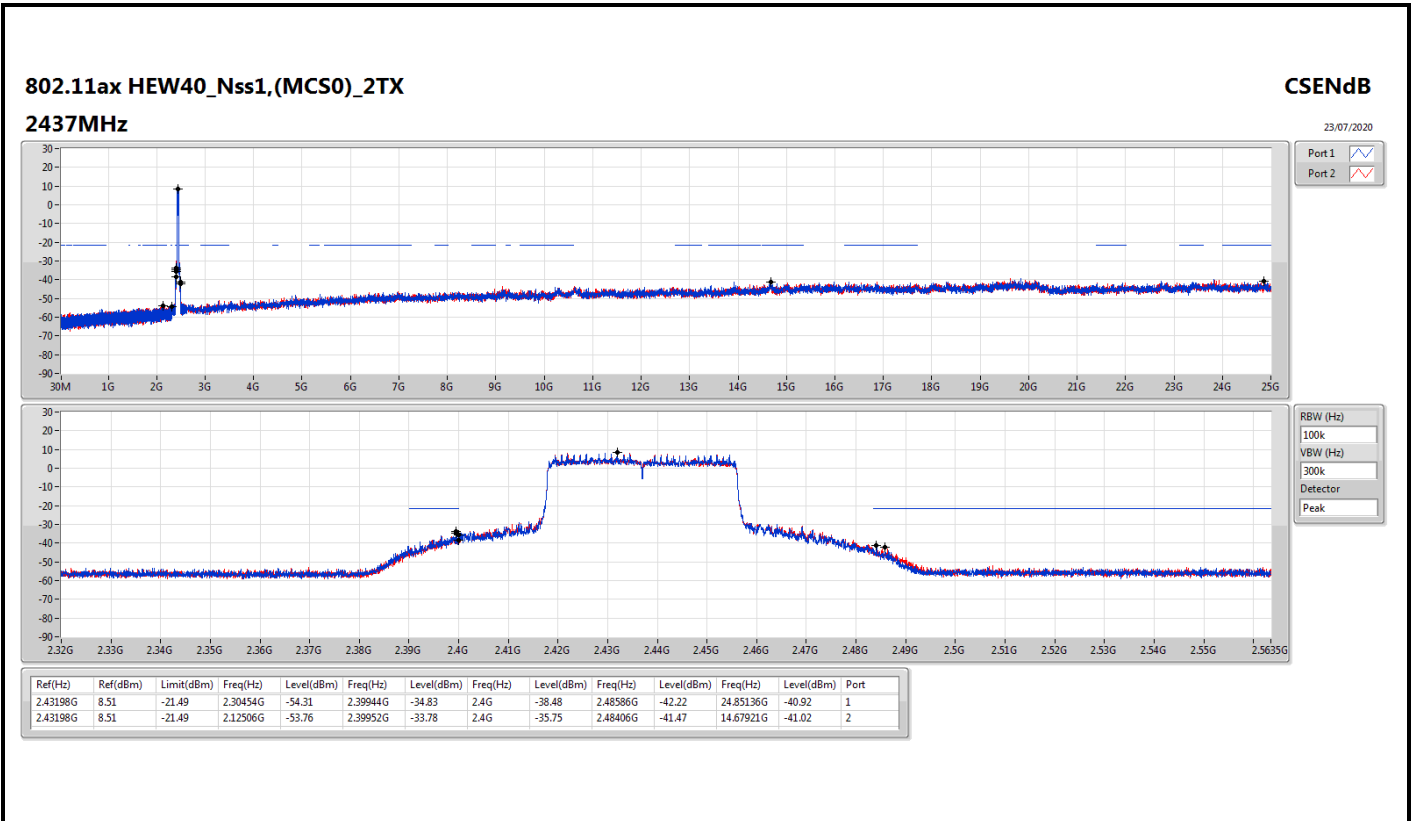














Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.41148G	14.48	-15.52	2.02768G	-55.24	2.39654G	-43.05	2.4G	-44.86	2.48454G	-50.26	23.18221G	-40.62	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.43073G	10.89	-19.11	2.11535G	-54.85	2.39978G	-30.69	2.4G	-31.48	2.48388G	-50.83	23.53903G	-40.47	2
802.11n HT20_Nss1,(MCS0)_2TX	Pass	2.43073G	10.64	-19.36	2.15001G	-54.67	2.3998G	-28.83	2.4G	-34.93	2.48516G	-50.44	23.29179G	-39.61	2
802.11n HT40_Nss1,(MCS0)_2TX	Pass	2.43198G	7.53	-22.47	2.10875G	-54.30	2.39548G	-33.84	2.4G	-38.37	2.48366G	-49.68	24.99159G	-40.32	2
VHT20_Nss1,(MCS0)_2TX	Pass	2.43198G	10.47	-19.53	1.79119G	-54.91	2.3979G	-30.63	2.4G	-33.43	2.48394G	-49.93	23.48284G	-40.58	1
VHT40_Nss1,(MCS0)_2TX	Pass	2.43198G	7.39	-22.61	1.99568G	-54.10	2.39912G	-33.71	2.4G	-35.04	2.4853G	-48.26	16.58631G	-40.20	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.43073G	10.84	-19.16	2.10836G	-53.92	2.39944G	-26.03	2.4G	-27.38	2.48412G	-50.68	23.40136G	-41.37	1
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.43198G	7.37	-22.63	2.17459G	-54.70	2.3998G	-26.64	2.4G	-37.30	2.48606G	-49.28	24.27642G	-40.73	2



Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.41148G	14.48	-15.52	2.02768G	-55.24	2.39654G	-43.05	2.4G	-44.86	2.48454G	-50.26	23.18221G	-40.62	1
2412MHz	Pass	2.41148G	14.48	-15.52	2.12846G	-53.70	2.39846G	-43.87	2.4G	-46.09	2.48574G	-49.54	24.18523G	-41.41	2
2437MHz	Pass	2.41148G	14.48	-15.52	2.1136G	-54.44	2.39904G	-48.93	2.4835G	-50.64	2.48428G	-48.39	24.40156G	-40.45	1
2437MHz	Pass	2.41148G	14.48	-15.52	2.1305G	-54.15	2.39988G	-47.97	2.4835G	-50.34	2.4849G	-48.39	24.40999G	-40.58	2
2462MHz	Pass	2.41148G	14.48	-15.52	1.9805G	-54.52	2.39426G	-49.08	2.4835G	-50.62	2.48422G	-48.26	24.01384G	-40.40	1
2462MHz	Pass	2.41148G	14.48	-15.52	2.16399G	-53.51	2.397G	-48.86	2.4835G	-50.62	2.48698G	-48.70	23.46317G	-41.02	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43073G	10.89	-19.11	2.15205G	-55.37	2.39986G	-31.60	2.4G	-32.34	2.48458G	-49.83	23.46317G	-41.14	1
2412MHz	Pass	2.43073G	10.89	-19.11	2.11535G	-54.85	2.39978G	-30.69	2.4G	-31.48	2.48388G	-50.83	23.53903G	-40.47	2
2437MHz	Pass	2.43073G	10.89	-19.11	2.30874G	-54.78	2.3988G	-48.05	2.4G	-48.01	2.48382G	-47.65	23.41541G	-40.78	1
2437MHz	Pass	2.43073G	10.89	-19.11	2.16515G	-54.69	2.39906G	-47.13	2.4G	-50.36	2.48514G	-48.93	17.65018G	-41.28	2
2462MHz	Pass	2.43073G	10.89	-19.11	1.94643G	-53.94	2.39846G	-49.48	2.4835G	-45.63	2.4839G	-40.19	24.74995G	-40.50	1
2462MHz	Pass	2.43073G	10.89	-19.11	2.14651G	-55.06	2.39598G	-49.67	2.4835G	-40.35	2.48418G	-38.57	23.21593G	-41.41	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43073G	10.64	-19.36	743.85M	-54.29	2.39982G	-30.65	2.4G	-32.23	2.48362G	-48.76	23.30864G	-39.98	1
2412MHz	Pass	2.43073G	10.64	-19.36	2.15001G	-54.67	2.3998G	-28.83	2.4G	-34.93	2.48516G	-50.44	23.29179G	-39.61	2
2437MHz	Pass	2.43073G	10.64	-19.36	815.5M	-54.81	2.39932G	-47.72	2.4G	-49.12	2.4847G	-48.65	21.70438G	-39.38	1
2437MHz	Pass	2.43073G	10.64	-19.36	2.00351G	-54.36	2.3988G	-47.44	2.4G	-50.68	2.4835G	-49.34	23.37607G	-40.81	2
2462MHz	Pass	2.43073G	10.64	-19.36	2.30583G	-54.21	2.3994G	-48.54	2.4835G	-42.30	2.48442G	-37.40	24.59542G	-40.00	1
2462MHz	Pass	2.43073G	10.64	-19.36	2.30961G	-54.70	2.3999G	-49.07	2.4835G	-41.55	2.48414G	-36.67	16.20045G	-40.32	2
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	7.53	-22.47	1.90837G	-53.70	2.39844G	-34.74	2.4G	-36.47	2.48622G	-49.78	24.07169G	-40.71	1
2422MHz	Pass	2.43198G	7.53	-22.47	2.10875G	-54.30	2.39548G	-33.84	2.4G	-38.37	2.48366G	-49.68	24.99159G	-40.32	2
2437MHz	Pass	2.43198G	7.53	-22.47	1.95045G	-54.18	2.3996G	-37.39	2.4G	-35.48	2.48382G	-43.62	23.31726G	-41.03	1
2437MHz	Pass	2.43198G	7.53	-22.47	840.37M	-53.82	2.3996G	-38.07	2.4G	-36.80	2.48434G	-45.11	23.33689G	-39.83	2
2452MHz	Pass	2.43198G	7.53	-22.47	684.08M	-54.22	2.39828G	-49.18	2.4835G	-42.71	2.48406G	-43.15	23.31165G	-40.42	1
2452MHz	Pass	2.43198G	7.53	-22.47	814.61M	-53.52	2.39688G	-49.22	2.4835G	-44.96	2.48542G	-44.67	24.87099G	-40.33	2
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43198G	10.47	-19.53	1.79119G	-54.91	2.3979G	-30.63	2.4G	-33.43	2.48394G	-49.93	23.48284G	-40.58	1
2412MHz	Pass	2.43198G	10.47	-19.53	2.16748G	-54.46	2.39776G	-31.07	2.4G	-32.86	2.48636G	-49.34	24.76962G	-40.57	2
2437MHz	Pass	2.43198G	10.47	-19.53	2.12118G	-54.96	2.39916G	-46.83	2.4835G	-49.93	2.48358G	-48.34	24.53361G	-40.93	1
2437MHz	Pass	2.43198G	10.47	-19.53	2.11943G	-54.30	2.39972G	-47.13	2.4G	-50.64	2.48558G	-49.25	14.64114G	-41.29	2
2462MHz	Pass	2.43198G	10.47	-19.53	2.15554G	-54.30	2.39882G	-49.17	2.4835G	-42.23	2.4836G	-39.83	24.74714G	-40.33	1
2462MHz	Pass	2.43198G	10.47	-19.53	2.10603G	-53.61	2.39972G	-49.81	2.4835G	-39.55	2.4836G	-38.92	24.78647G	-40.77	2
VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	7.39	-22.61	1.99568G	-54.10	2.39912G	-33.71	2.4G	-35.04	2.4853G	-48.26	16.58631G	-40.20	1
2422MHz	Pass	2.43198G	7.39	-22.61	2.15798G	-54.20	2.39964G	-34.32	2.4G	-36.41	2.4855G	-49.72	23.48273G	-40.16	2
2437MHz	Pass	2.43198G	7.39	-22.61	2.12277G	-54.92	2.39964G	-35.08	2.4G	-41.96	2.48458G	-43.36	23.41823G	-41.27	1
2437MHz	Pass	2.43198G	7.39	-22.61	2.10989G	-54.50	2.39856G	-34.65	2.4G	-41.31	2.4867G	-43.59	23.44347G	-40.67	2
2452MHz	Pass	2.43198G	7.39	-22.61	2.30941G	-54.62	2.3966G	-49.33	2.4835G	-43.67	2.48502G	-42.37	24.48396G	-40.22	1
2452MHz	Pass	2.43198G	7.39	-22.61	2.05465G	-53.77	2.39792G	-48.90	2.4835G	-45.78	2.48354G	-43.09	23.41823G	-41.04	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43073G	10.84	-19.16	2.10836G	-53.92	2.39944G	-26.03	2.4G	-27.38	2.48412G	-50.68	23.40136G	-41.37	1
2412MHz	Pass	2.43073G	10.84	-19.16	1.93186G	-53.52	2.3997G	-26.16	2.4G	-28.04	2.48502G	-50.41	23.14007G	-41.32	2
2437MHz	Pass	2.43073G	10.84	-19.16	2.16079G	-54.06	2.39716G	-46.13	2.4G	-48.95	2.48406G	-49.03	24.74714G	-41.02	1
2437MHz	Pass	2.43073G	10.84	-19.16	1.81099G	-55.13	2.39864G	-44.52	2.4G	-49.43	2.48402G	-48.25	24.72747G	-40.36	2
2462MHz	Pass	2.43073G	10.84	-19.16	1.9671G	-54.79	2.39468G	-49.64	2.4835G	-40.09	2.48358G	-36.11	23.55588G	-40.79	1



Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2462MHz	Pass	2.43073G	10.84	-19.16	1.91468G	-54.26	2.39948G	-49.37	2.4835G	-37.82	2.4836G	-36.00	16.20045G	-40.49	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	7.37	-22.63	1.75208G	-54.31	2.39984G	-27.72	2.4G	-34.04	2.4865G	-49.70	17.07992G	-41.56	1
2422MHz	Pass	2.43198G	7.37	-22.63	2.17459G	-54.70	2.3998G	-26.64	2.4G	-37.30	2.48606G	-49.28	24.27642G	-40.73	2
2437MHz	Pass	2.43198G	7.37	-22.63	1.96391G	-53.87	2.39888G	-32.40	2.4G	-38.54	2.48354G	-38.60	23.50797G	-40.63	1
2437MHz	Pass	2.43198G	7.37	-22.63	2.18146G	-54.33	2.39944G	-31.72	2.4G	-39.85	2.4835G	-37.99	23.36774G	-40.26	2
2452MHz	Pass	2.43198G	7.37	-22.63	1.77727G	-54.40	2.3986G	-44.25	2.4835G	-37.42	2.4835G	-36.88	15.32706G	-40.36	1
2452MHz	Pass	2.43198G	7.37	-22.63	2.1743G	-54.46	2.39856G	-45.47	2.4835G	-36.93	2.4835G	-36.97	16.85275G	-41.17	2

