



FCC RADIO TEST REPORT

FCC ID : Z8H89FT0062

Equipment : ePMP 5 GHz Force 425 SM/ePMP 5 GHz Force 400C

Brand Name : Cambium Networks

Model Name : ePMP 5 GHz Force 425 SM/ePMP 5 GHz Force 400C

Model Number : C058940P102A
C058940P122A

Applicant : Cambium Networks Inc.
3800 Golf Road, Suite 360 Rolling Meadows, IL 60008,
USA

Manufacturer : Cambium Networks, Ltd.
Ashburton, TQ13 7UP, UK

Standard : 47 CFR FCC Part 90 Subpart Y

The product was received on Jul. 29, 2020, and testing was started from Aug. 21, 2020 and completed on Sep. 01, 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/TIA-603-D-2010, 47 CFR FCC Part 90 Subpart Y, ANSI C63.26-2015 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: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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



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TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A16_3 Ver1.1



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	2.1046/90.1215(a)	Maximum Conducted Output Power / Peak Power Spectral Density	PASS	-
3.2	90.1215	Peak Excursion	PASS	-
3.3	2.1049/90.210(m)	Occupied Bandwidth / Emission Mask	PASS	-
3.4	2.1051/90.210(m)	Transmitter Conducted Unwanted Emissions	PASS	-
3.5	2.1053/90.210(m)	Transmitter Radiated Unwanted Emissions	PASS	-
3.6	2.1055/90.213(a)	Frequency Stability	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:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Wendy Pan



1 General Description

1.1 Product Information

1.1.1 Specification Information

RF General Information				
Frequency Range (MHz)	Modulaton	Ch. Frequency (MHz)	Channel Bandwidth (MHz)	Nant
4940-4990	QPSK	4942.5-4987.5	5	2
4940-4990	QPSK	4945-4985	10	2
4940-4990	QPSK	4950-4980	20	2

Channel Bandwidth	Carrier Frequency (MHz)	Carrier Frequency (MHz)
5 MHz	4942.5	4967.5
	4945	4970
	4947.5	4972.5
	4950	4975
	4952.5	4977.5
	4955	4980
	4957.5	4982.5
	4960	4985
	4962.5	4987.5
	4965	-
10 MHz	4945	4967.5
	4947.5	4970
	4950	4972.5
	4952.5	4975
	4955	4977.5
	4957.5	4980
	4960	4982.5
	4962.5	4985
	4965	-
20 MHz	4950	4967.5
	4952.5	4970
	4955	4972.5
	4957.5	4975
	4960	4977.5
	4962.5	4980
	4965	-

**1.1.2 Antenna Information**

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1, 2	Cambium	1234A0002248A	Dish Antenna	Reversed-SMA	28

Note: The above information was declared by manufacturer.

The EUT has two modes, one is A0 mode can be transmitting/receiving (2TX/2RX) and the other is A1 mode can be receiving (2RX) only.

For 4.9GHz function:

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF (dB)
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX	0.717	1.44
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX	0.52	2.84
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX	0.936	0.29

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From PoE		
Test Software Version	QSPR V5.0-00188		
Device Type	☐ Low power device	☒ High power device	



1.1.5 Table for Multiple Listing

The EUT has two equipment and model names which are identical to each other in all aspects except for the following table:

Equipment Name / Model Name	Model Number	Description
ePMP 5 GHz Force 425 SM	C058940P102A	All the models are identical, the difference equipment and model name as marketing strategy.
ePMP 5 GHz Force 400C	C058940P122A	

Note: 1.From the above models, ePMP 5 GHz Force 425 SM was selected as representative model for the test and its data was recorded in this report.
2.The above information was declared by manufacturer.

1.1.6 Table for EUT Function

EUT	GPS Function	WIFI Function
1	V	V
2	X	V

From the above EUTs, EUT 1 was selected as representative model for the test and its data was recorded in this report.



1.2 Applicable Standards

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

- ♦ 47 CFR FCC Part 90 Subpart Y
- ♦ FCC KDB 971168 D01 v03r01

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

- ♦ ANSI/TIA-603-D-2010
- ♦ FCC KDB 552295 D01v03
- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01

1.3 Testing Information

Testing Location		
☐	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
☒	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Owen Hsu	25.4-26.7°C / 51-53 %	Aug. 24, 2020 ~ Sep. 01, 2020
Radiated<1GHz	03CH06-CB	Stim Sung	24.1-25.8°C / 54-56%	Aug. 21, 2020 ~ Aug. 31, 2020
Radiated Cabinet	03CH05-CB	Stim Sung	24.3-25.8°C / 53-58%	Aug. 21, 2020 ~ Aug. 31, 2020

Test site Designation No. TW0006 with FCC

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

Test Items	Uncertainty	Remark
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.6 dB	Confidence levels of 95%
Conducted Emission	2.8 dB	Confidence levels of 95%



2 Test Configuration

2.1 Test Channel Mode

Mode	PowerSetting
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX	-
4942.5MHz	16
4962.5MHz	16
4987.5MHz	16
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX	-
4945MHz	15.5
4965MHz	15.5
4985MHz	15.5
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX	-
4950MHz	18.5
4965MHz	18.5
4980MHz	18.5



2.2 Worst Case Modulation Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Maximum Conducted Output Power / Peak Power Spectral Density Peak Excursion Occupied Bandwidth / Emission Mask Transmitter Conducted Unwanted Emissions Frequency Tolerance
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Transmitter Radiated Unwanted Emissions
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	The EUT was performed at X axis, Y axis and Z axis position for Unwanted Emissions above 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
	EUT 1 in Z axis
Operating Mode > 1GHz	The EUT was performed at X axis, Y axis and Z axis position and the worst case was found at Z axis. So the measurement will follow this same test configuration.
	EUT 1 in Z axis

Note: The EUT was powered by PoE, and the PoE was for measurement only, would not be marked.

Equipment	Brand Name	Model Name	FCC ID
PoE	Cambium	NET-P30-56IN	N/A

2.3 EUT Operation during Test

During the test, "QSPR V5.0-00188" under WIN 7 was executed the test program to control the EUT continuously transmit RF signal.

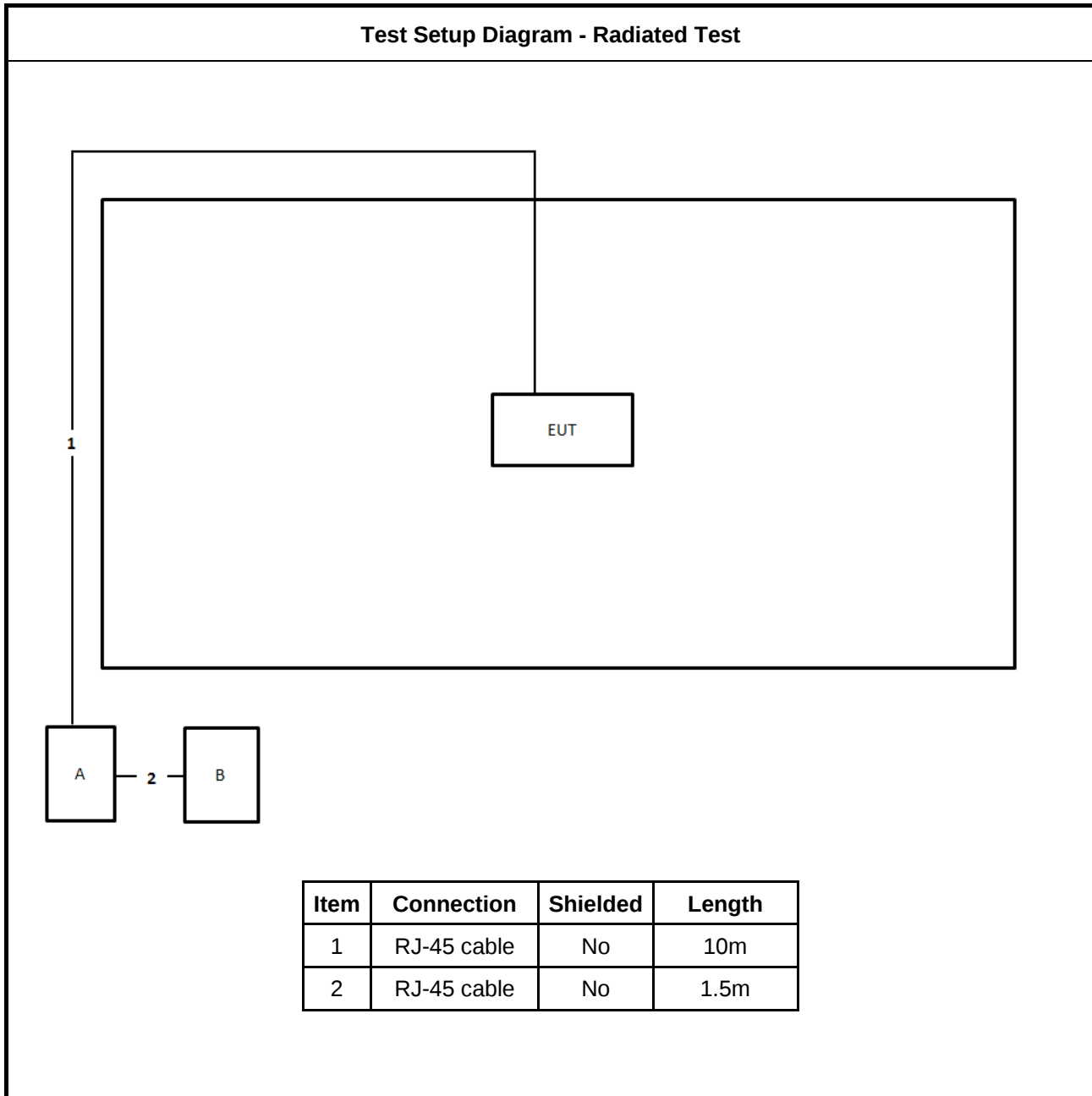
2.4 Accessories

N/A

2.5 Support Equipment

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE	Cambium Networks	NET-P30-56IN	N/A
B	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram





3 Test Result

3.1 Maximum Conducted Output Power and Peak Power Spectral Density Measurement

3.1.1 Limit of Maximum Conducted Output Power and Peak Power Spectral Density

Maximum Conducted Output Power Limit:

The transmitting power of stations operating in the 4940-4990 MHz band must not exceed the maximum limits in this table.

Channel Bandwidth (MHz)	Low Power Device Peak Transmitter Power (dBm)	High Power Device Peak Transmitter Power (dBm)
1	7.0	20.0
5	14.0	27.0
10	17.0	30.0
15	18.8	31.8
20	20.0	33.0

Peak Power Spectral Density Limit:

1. High power devices are also limited to a peak power spectral density of 21 dBm per one MHz. High power devices using channel bandwidths other than those listed above are permitted; however, they are limited to peak power spectral density of 21 dBm/MHz. If transmitting antennas of directional gain greater than 9 dBi are used, both the maximum conducted output power and the peak power spectral density should be reduced by the amount in decibels that the directional gain of the antenna exceeds 9 dBi. However, high power point-to-point and point-to-multipoint operations (both fixed and temporary-fixed rapid deployment) may employ transmitting antennas with directional gain up to 26 dBi without any corresponding reduction in the maximum conducted output power or spectral density. Corresponding reduction in the maximum conducted output power and peak power spectral density should be the amount in decibels that the directional gain of the antenna exceeds 26 dBi.
2. Low power devices are also limited to a peak power spectral density of 8 dBm per one MHz. Low power devices using channel bandwidths other than those listed above are permitted; however, they are limited to a peak power spectral density of 8 dBm/MHz. If transmitting antennas of directional gain greater than 9 dBi are used, both the maximum conducted output power and the peak power spectral density should be reduced by the amount in decibels that the directional gain of the antenna exceeds 9 dBi.

**Maximum Conducted Output Power Definition:**

The maximum conducted output power is measured as a conducted emission over any interval of continuous transmission using instrumentation calibrated in terms of an RMS-equivalent voltage. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true maximum conducted output power measurement conforming to the definitions in this paragraph for the emission in question.

3.1.2 Measuring Instruments and Setting

Power Meter Parameter	Setting
Bandwidth	50MHz bandwidth is greater than the EUT emission bandwidth
Detector	Average

Spectrum Parameters	Setting
Detector	Peak
Center Frequency	Low / middle / high channels
RBW / VBW	1MHz / 3MHz

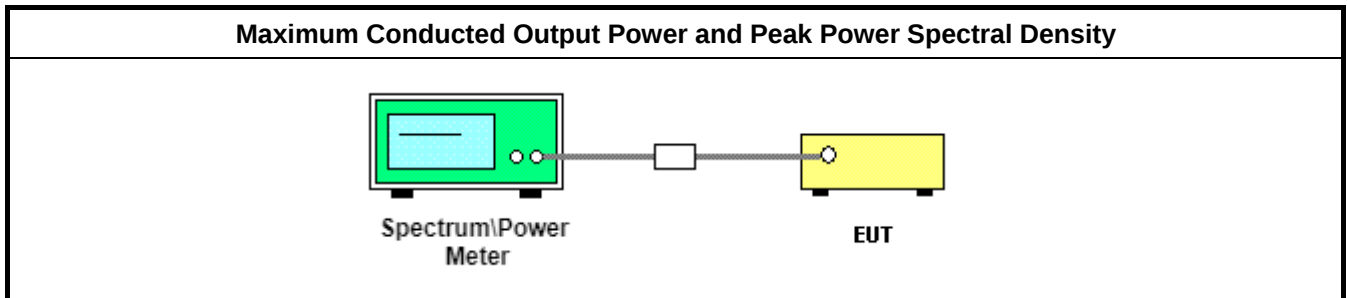
3.1.3 Test Procedures for Maximum Conducted Output Power

Using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required.

3.1.4 Test Procedures for Peak Power Density

1. The EUT transmitter output was connected through an appropriate 50 ohm attenuator to a spectrum analyzer. Resolution bandwidth was set to 1MHz and video bandwidth was set to a value greater than the resolution bandwidth. Instrument limited resolution bandwidth less than channel emission bandwidth; so as to obtain a true peak measurement shall be calculated by total channel power within channel bandwidth.
2. Peak search was used to find peak power spectral density within channel bandwidth and the spectrum analyzer integrated measurement plot was taken.

3.1.5 Test Setup



3.1.6 Test Deviation

There is no deviation with the original standard.

3.1.7 Test Result of Maximum Conducted Output Power

Refer as Appendix A

3.1.8 Test Result of Peak Power Spectral Density (PSD)

Refer as Appendix A

3.2 Peak Excursion Measurement

3.2.1 Limit of Peak Excursion

13 dB

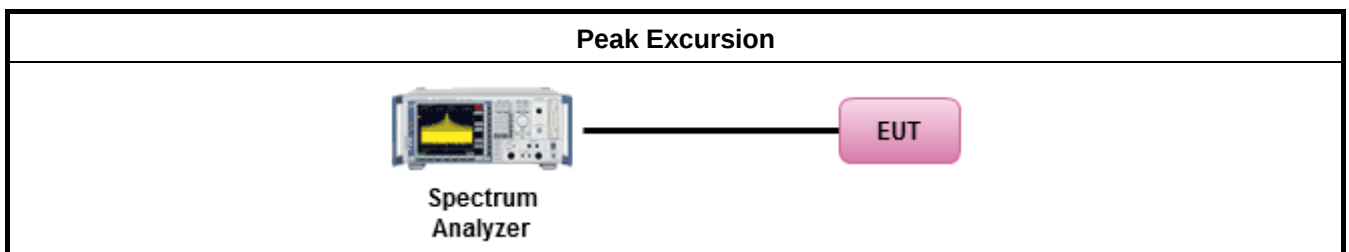
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Testing a single output port is sufficient to demonstrate compliance with the peak excursion.

3.2.4 Test Setup



3.2.5 Test Deviation

There is no deviation with the original standard.

3.2.6 Test Result of Peak Excursion

Refer as Appendix B



3.3 Occupied Bandwidth and Emission Mask Measurement

3.3.1 Limit of Occupied Bandwidth and Emission Mask

Emission Mask M: For high power transmitters (greater than 20 dBm) operating in the 4940-4990 MHz frequency band, the power spectral density of the emissions must be attenuated below the output power of the transmitter as follows:

- (1) On any frequency removed from the assigned frequency between 0–45% of the authorized bandwidth (BW): 0 dB
- (2) On any frequency removed from the assigned frequency between 45–50% of the authorized bandwidth: $568 \log (\% \text{ of (BW)/45})$ dB.
- (3) On any frequency removed from the assigned frequency between 50–55% of the authorized bandwidth: $26 + 145 \log (\% \text{ of (BW)/50})$ dB.
- (4) On any frequency removed from the assigned frequency between 55–100% of the authorized bandwidth: $32 + 31 \log (\% \text{ of (BW)/55})$ dB attenuation.
- (5) On any frequency removed from the assigned frequency between 100–150% of the authorized bandwidth: $40 + 57 \log (\% \text{ of (BW)/100})$ dB attenuation.
- (6) On any frequency removed from the assigned frequency above 150% of the authorized bandwidth: 50 or $55 + 10 \log (P)$ dB, whichever is the lesser attenuation. (P in watts)

The zero dB reference is measured relative to the highest average power of the fundamental emission measured across the designated channel bandwidth using a resolution bandwidth of at least 1% of the occupied bandwidth of the fundamental emission and a video bandwidth of 30 kHz. The power spectral density is the power measured within the resolution bandwidth of the measurement device divided by the resolution bandwidth of the measurement device. Emission levels are also based on the use of measurement instrumentation employing a resolution bandwidth of at least one percent of the occupied bandwidth.

3.3.2 Measuring Instruments and Setting

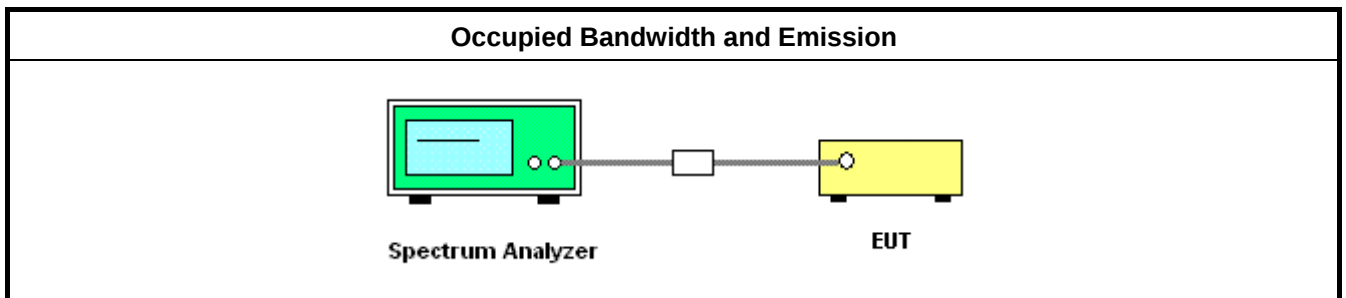
Please refer to section 4 in this report. The following table is the setting of the spectrum.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth of the signal
RBW	at least 1% of the occupied bandwidth
VBW	BW=3 x RBW, Mask=30kHz
Detector	Peak
Trace	Max Hold

3.3.3 Test Procedures

1. The EUT transmitter was connected to a spectrum analyzer through an appropriate 50 ohm attenuator. Used measurement function of spectrum to measure the 99% occupied bandwidth.
2. The reference level for the mask was set using the highest average power of the fundamental emission measured across the channel bandwidth using a RBW of at least 1% of the occupied bandwidth of the fundamental emission and a VBW of 30 kHz.

3.3.4 Test Setup



3.3.5 Test Deviation

There is no deviation with the original standard.

3.3.6 Test Result of 99% Occupied Bandwidth (OBW)

Refer as Appendix C

3.3.7 Test Result of Emission Mask

Refer as Appendix C

3.4 Transmitter Conducted Unwanted Emissions Measurement

3.4.1 Limit of Transmitter Conducted Unwanted Emission

On any frequency removed from the assigned frequency above 150% of the authorized bandwidth: 50 or 55+ 10 log (P) dB, whichever is the lesser attenuation. (P=Average transmit power in watt)

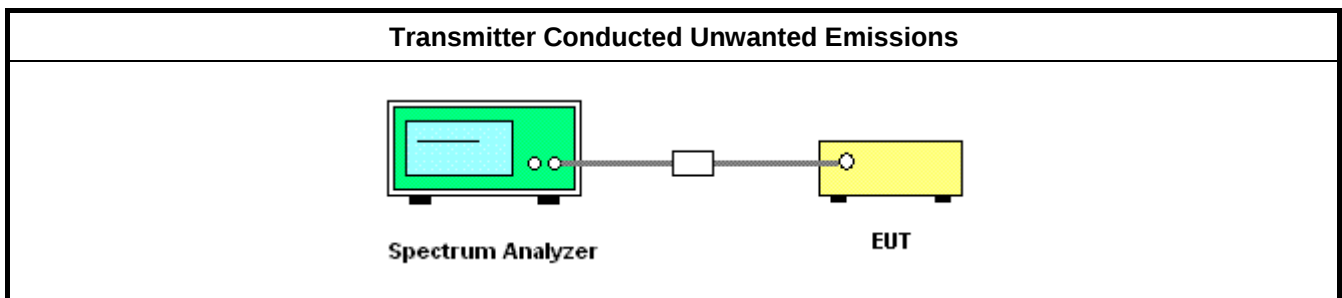
3.4.2 Measuring Instruments and Setting

Spectrum Parameter	Setting
Detector	RMS (Average)
Frequency Range	9kHz – 40GHz

3.4.3 Test Procedures

1. The EUT transmitter was connected to a spectrum analyzer through an appropriate 50 ohm attenuator. The spectrum analyzer resolution bandwidth was set to 1 MHz, and the video bandwidth was set to 1 MHz.
2. Find spurious emissions under 50 or 55+ 10 log (P) dB limit, whichever is the lesser attenuation and the spectrum analyzer integrated measurement plot was taken.

3.4.4 Test Setup Layout



3.4.5 Test Deviation

There is no deviation with the original standard.

3.4.6 Test Result of Transmitter Conducted Unwanted Emissions

Refer as Appendix D



3.5 Transmitter Radiated Unwanted Emissions Measurement

3.5.1 Limit of Transmitter Radiated Unwanted Emissions

On any frequency removed from the assigned frequency above 150% of the authorized bandwidth: 50 or 55+ 10 log (P) dB, whichever is the lesser attenuation. (P=Average transmit power in watt)

3.5.2 Measuring Instruments and Setting

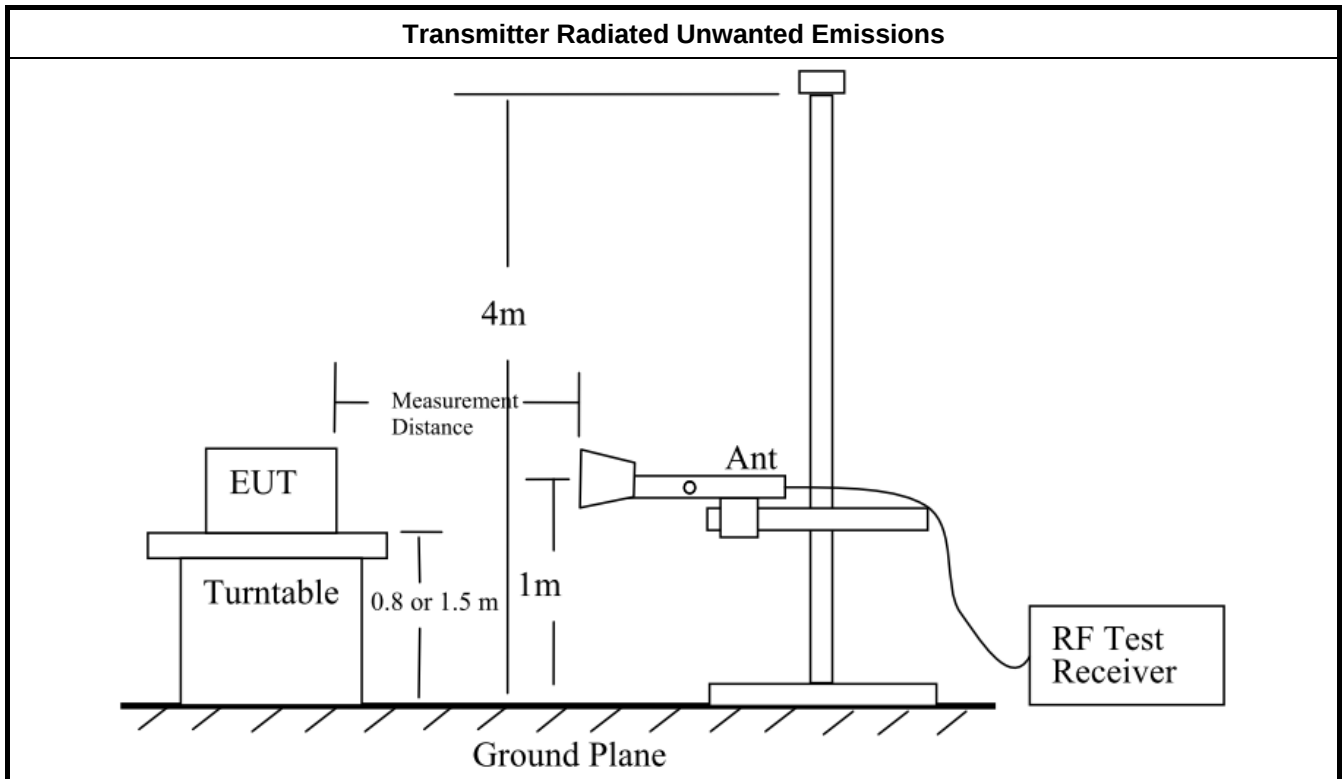
Please refer to section 4 in this report. The following table is the setting of the Spectrum Analyzer.

Spectrum Parameter	Setting
Detector	RMS (Average)
Frequency Range	30MHz – 40GHz
RBW / VBW	1 MHz / 3MHz

3.5.3 Test Procedures

1. The EUT was placed on the top of the turntable in anechoic chamber.
2. A spectrum analyzer was used RBW of 1 MHz and VBW of 3 MHz for the final measurements utilizing an RMS detector at the frequencies with spurious emissions amplitudes.
3. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find spurious emissions reading.
4. Spurious emissions field strength level equal to spurious emissions reading on spectrum analyzer + Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.
5. Final radiated spurious emissions may be converted from spurious emissions field strength level - 95.2 dB

3.5.4 Test Setup



3.5.5 Test Deviation

There is no deviation with the original standard.

3.5.6 Results of Transmitter Radiated Unwanted Emissions

Refer as Appendix E

3.6 Frequency Stability Measurement

3.6.1 Limit of Frequency Stability

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized frequency band. For equipment authorization purposes, this is a reporting requirement only.

3.6.2 Measuring Instruments and Setting

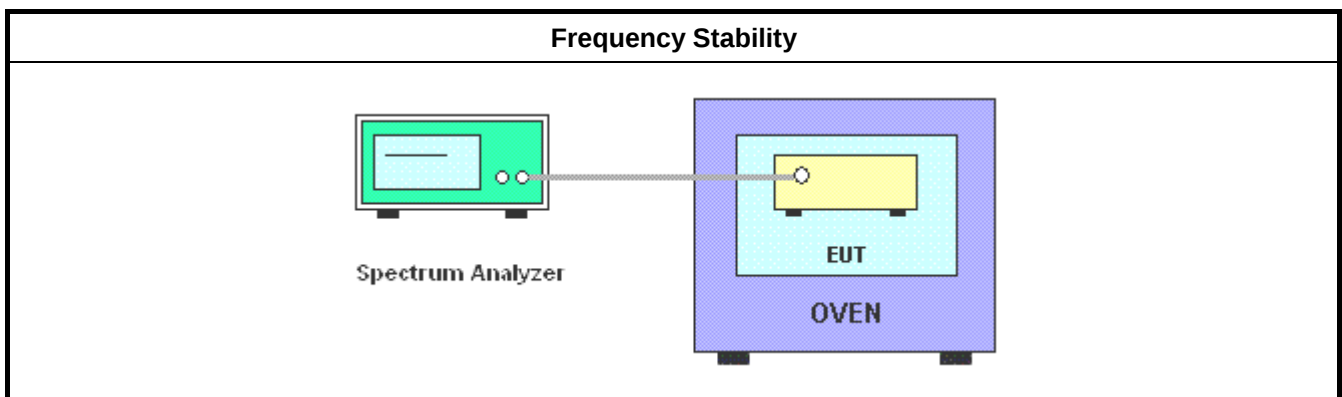
Please refer to section 4 in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Detector	Peak
RBW / VBW	10 kHz / 30kHz

3.6.3 Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channel.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with frequency counter function.
5. f_c is declaring of carrier channel frequency. Then the frequency error formula is $(f_c - f) / f_c \times 10^6$ ppm.
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value and extreme temperature rule is -30°C~55°C.

3.6.4 Test Setup



3.6.5 Test Deviation

There is no deviation with the original standard.

3.6.6 Test Result of Frequency Stability

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (03CH06-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH06-CB	30 MHz ~ 1 GHz	Aug. 10, 2020	Aug. 09, 2021	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Aug. 02, 2020	Aug. 01, 2021	Radiation (03CH06-CB)
Pre-Amplifier	EMCI	EMC330N	980391	20MHz ~ 3GHz	May 21, 2020	May 20, 2021	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	May 07, 2020	May 06, 2021	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 21, 2019	Oct. 20, 2020	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 13, 2020	May 12, 2021	Radiation (03CH06-CB)
RF Cable-low	HUBER+SUHNER	RG402	Low Cable-05+24	30MHz~1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH05-CB	1GHz ~18GHz 3m	Nov. 09, 2019	Nov. 08, 2020	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1291	1GHz~18GHz	Oct. 05, 2019	Oct. 04, 2020	Radiation (03CH05-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630SE	980287	1GHz ~ 26.5GHz	Jul. 03, 2020	Jul. 02, 2021	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH05-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	May 12, 2020	May 11, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Feb. 01, 2020	Jan. 31, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 05, 2020	May 04, 2021	Conducted (TH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	May 28, 2020	May 27, 2021	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz ~ 26.5 GHz	Nov. 18, 2019	Nov. 17, 2020	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Feb. 07, 2020	Feb. 06, 2021	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Feb. 07, 2020	Feb. 06, 2021	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

**Summary**

Mode	Power (dBm)	Power (W)
4.94-4.99GHz	-	-
802.11j_5MHz_Nss1_2TX	18.35	0.068
802.11j_10MHz_Nss1_2TX	18.38	0.069
802.11j_20MHz_Nss1_2TX	21.22	0.132

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Power (dBm)	Power Lim. (dBm)
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX	-	-	-	-	-	-
4942.5MHz	Pass	28.00	14.92	15.72	18.35	25.00
4962.5MHz	Pass	28.00	14.82	15.65	18.27	25.00
4987.5MHz	Pass	28.00	14.71	15.72	18.25	25.00
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX	-	-	-	-	-	-
4945MHz	Pass	28.00	15.31	15.43	18.38	28.00
4965MHz	Pass	28.00	14.93	15.23	18.09	28.00
4985MHz	Pass	28.00	15.19	15.27	18.24	28.00
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX	-	-	-	-	-	-
4950MHz	Pass	28.00	17.90	18.49	21.22	31.00
4965MHz	Pass	28.00	17.89	18.46	21.19	31.00
4980MHz	Pass	28.00	17.78	18.52	21.18	31.00

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

Summary

Mode	PD (dBm/MHz)
4.94-4.99GHz	-
802.11j_5MHz_Nss1_2TX	10.72
802.11j_10MHz_Nss1_2TX	8.17
802.11j_20MHz_Nss1_2TX	7.71

Result

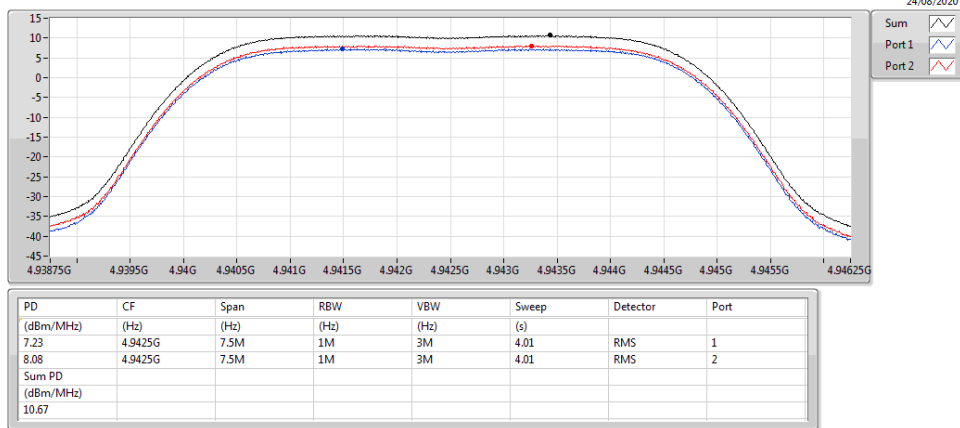
Mode	Result	DG (dBi)	Port 1 (dBm/MHz)	Port 2 (dBm/MHz)	PD (dBm/MHz)	PD Limit (dBm/MHz)
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX	-	-	-	-	-	-
4942.5MHz	Pass	28.00	7.23	8.08	10.67	19.00
4962.5MHz	Pass	28.00	7.24	8.06	10.63	19.00
4987.5MHz	Pass	28.00	7.35	8.20	10.72	19.00
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX	-	-	-	-	-	-
4945MHz	Pass	28.00	5.39	5.03	8.17	19.00
4965MHz	Pass	28.00	5.02	4.61	7.67	19.00
4985MHz	Pass	28.00	5.23	4.75	7.90	19.00
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX	-	-	-	-	-	-
4950MHz	Pass	28.00	4.28	5.11	7.71	19.00
4965MHz	Pass	28.00	4.21	5.03	7.65	19.00
4980MHz	Pass	28.00	4.18	5.09	7.64	19.00

DG = Directional Gain;

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

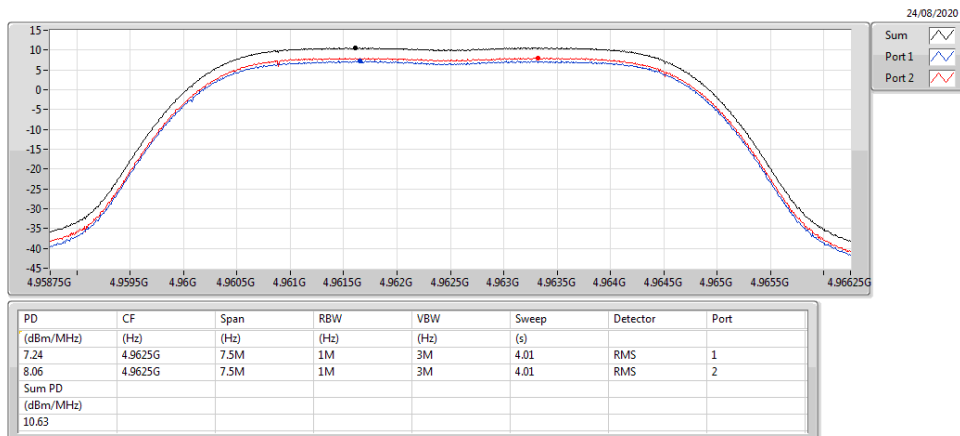
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX
4942.5MHz

PSD



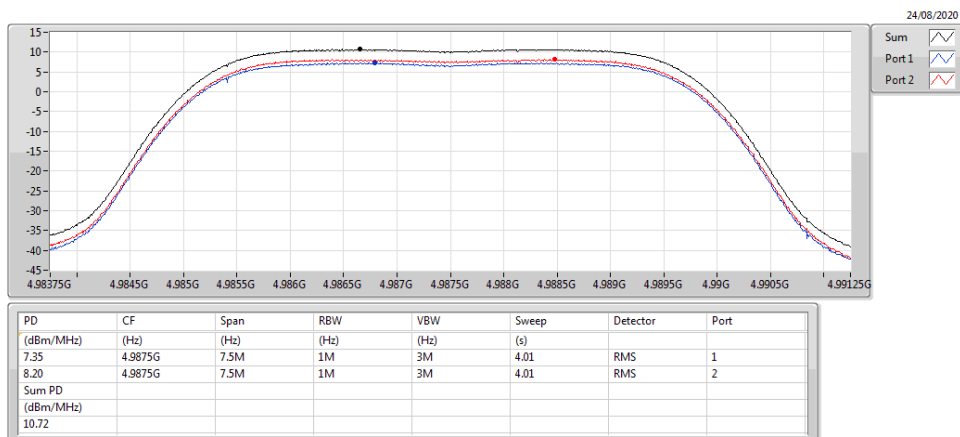
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX
4962.5MHz

PSD



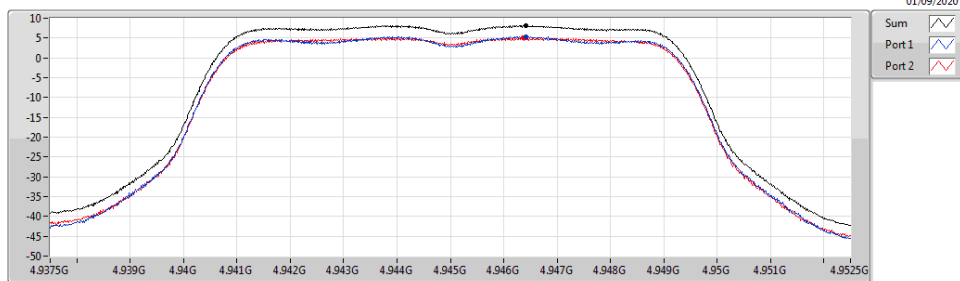
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX
4987.5MHz

PSD



4.94-4.99GHz_802.11j_10MHz_Nss1_2TX
4945MHz

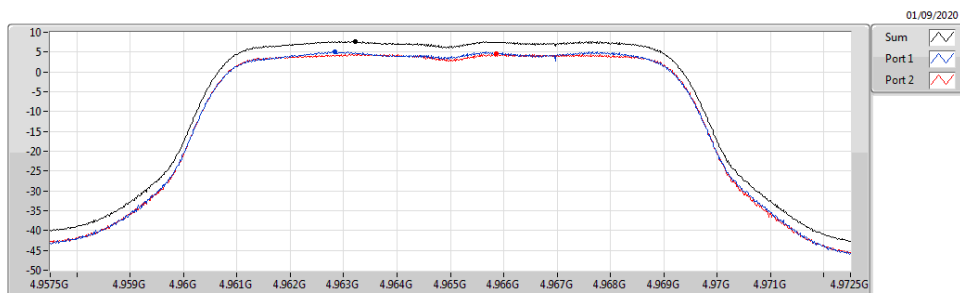
PSD



PD	CF	Span	RBW	VBW	Sweep	Detector	Port
(dBm/MHz)	(Hz)	(Hz)	(Hz)	(Hz)	(s)		
5.39	4.945G	15M	1M	3M	3.15	RMS	1
5.03	4.945G	15M	1M	3M	3.15	RMS	2
Sum PD							
(dBm/MHz)							
8.17							

4.94-4.99GHz_802.11j_10MHz_Nss1_2TX
4965MHz

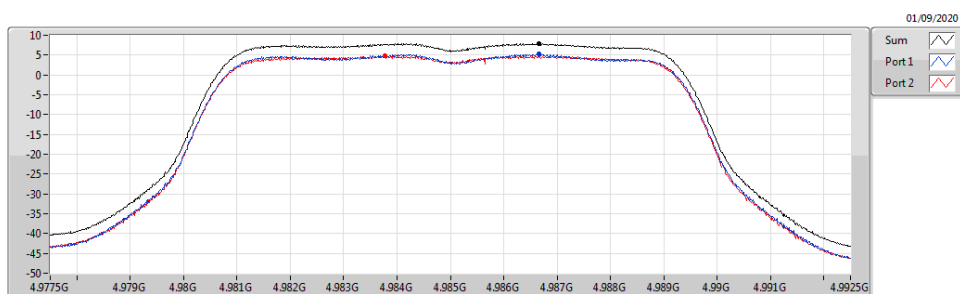
PSD



PD	CF	Span	RBW	VBW	Sweep	Detector	Port
(dBm/MHz)	(Hz)	(Hz)	(Hz)	(Hz)	(s)		
5.02	4.965G	15M	1M	3M	3.15	RMS	1
4.61	4.965G	15M	1M	3M	3.15	RMS	2
Sum PD							
(dBm/MHz)							
7.67							

4.94-4.99GHz_802.11j_10MHz_Nss1_2TX
4985MHz

PSD

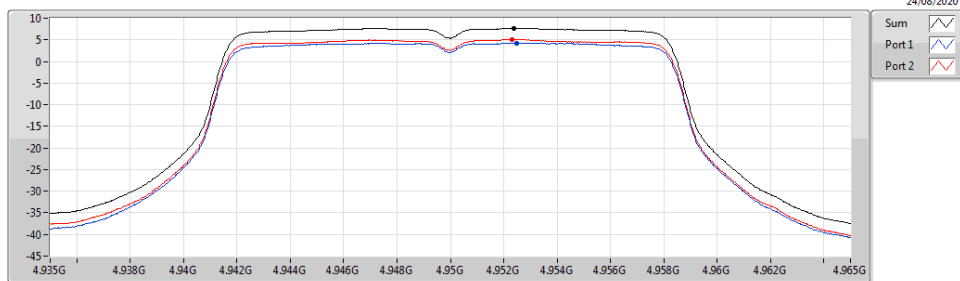


PD	CF	Span	RBW	VBW	Sweep	Detector	Port
(dBm/MHz)	(Hz)	(Hz)	(Hz)	(Hz)	(s)		
5.23	4.985G	15M	1M	3M	3.15	RMS	1
4.75	4.985G	15M	1M	3M	3.15	RMS	2
Sum PD							
(dBm/MHz)							
7.90							

4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

PSD

4950MHz

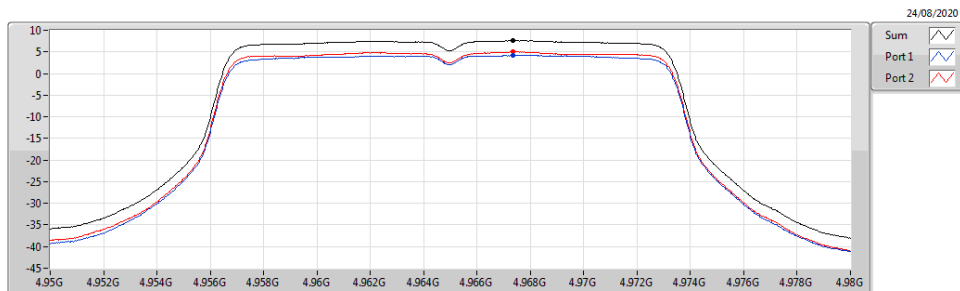


PD	CF	Span	RBW	VBW	Sweep	Detector	Port
(dBm/MHz)	(Hz)	(Hz)	(Hz)	(Hz)	(s)		
4.28	4.95G	30M	1M	3M	15.5	RMS	1
5.11	4.95G	30M	1M	3M	15.5	RMS	2
Sum PD							
(dBm/MHz)							
7.71							

4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

PSD

4965MHz

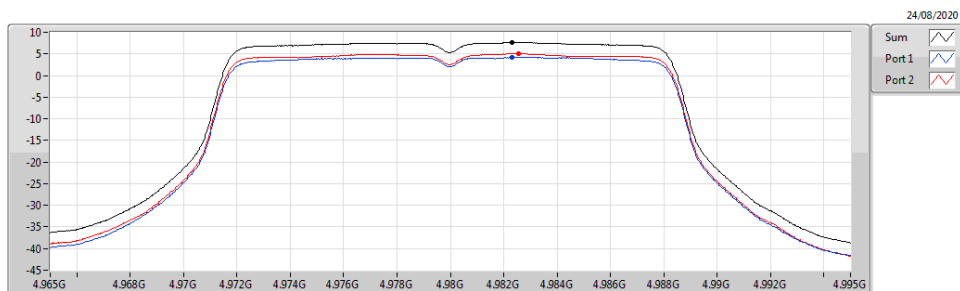


PD	CF	Span	RBW	VBW	Sweep	Detector	Port
(dBm/MHz)	(Hz)	(Hz)	(Hz)	(Hz)	(s)		
4.21	4.965G	30M	1M	3M	15.5	RMS	1
5.03	4.965G	30M	1M	3M	15.5	RMS	2
Sum PD							
(dBm/MHz)							
7.65							

4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

PSD

4980MHz



PD	CF	Span	RBW	VBW	Sweep	Detector	Port
(dBm/MHz)	(Hz)	(Hz)	(Hz)	(Hz)	(s)		
4.18	4.98G	30M	1M	3M	15.5	RMS	1
5.09	4.98G	30M	1M	3M	15.5	RMS	2
Sum PD							
(dBm/MHz)							
7.64							

**Summary**

Mode	Result	Freq (MHz)	Limit (dB)	0.1%	Port
4.94-4.99GHz	-	-	-	-	-
802.11j_5MHz_Nss1_2TX	Pass	4987.5	13.00	8.90	1
802.11j_10MHz_Nss1_2TX	Pass	4965	13.00	9.62	1
802.11j_20MHz_Nss1_2TX	Pass	4950	13.00	7.62	1

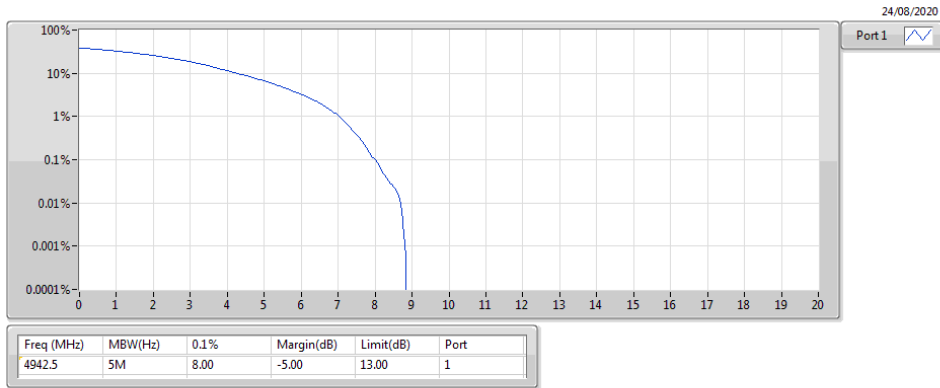
Result

Mode	Result	Freq (MHz)	Limit (dB)	0.1%	Port
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX	-	-	-	-	-
4942.5MHz	Pass	4942.5	13.00	8.00	1
4962.5MHz	Pass	4962.5	13.00	8.03	1
4987.5MHz	Pass	4987.5	13.00	8.90	1
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX	-	-	-	-	-
4945MHz	Pass	4945	13.00	9.57	1
4965MHz	Pass	4965	13.00	9.39	1
4985MHz	Pass	4965	13.00	9.62	1
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX	-	-	-	-	-
4950MHz	Pass	4950	13.00	7.62	1
4965MHz	Pass	4965	13.00	7.48	1
4980MHz	Pass	4980	13.00	7.30	1

4.94-4.99GHz_802.11j_5MHz_Nss1_2TX

PAR

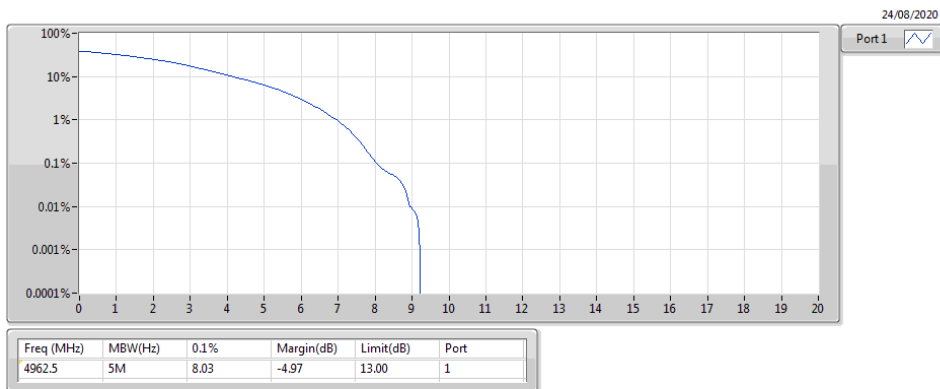
4942.5MHz



4.94-4.99GHz_802.11j_5MHz_Nss1_2TX

PAR

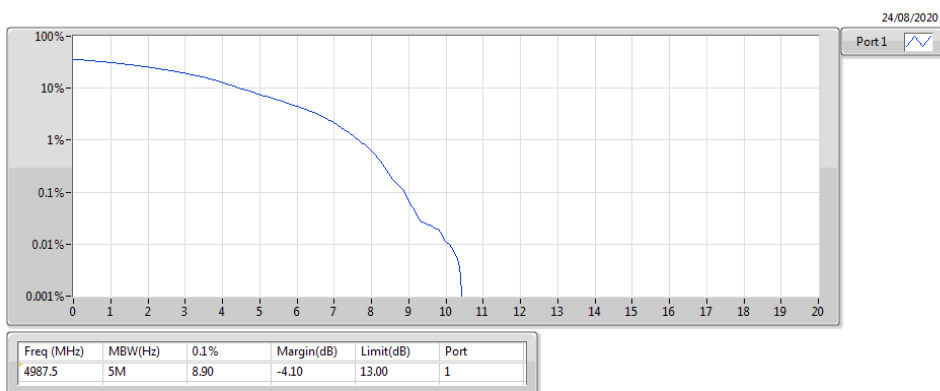
4962.5MHz



4.94-4.99GHz_802.11j_5MHz_Nss1_2TX

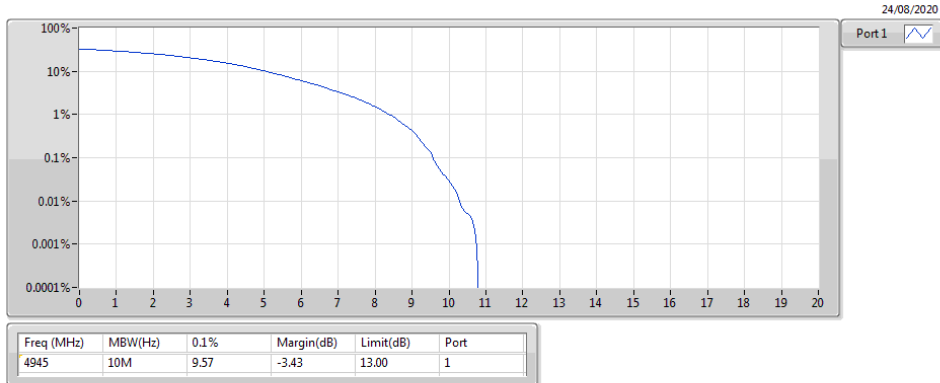
PAR

4987.5MHz



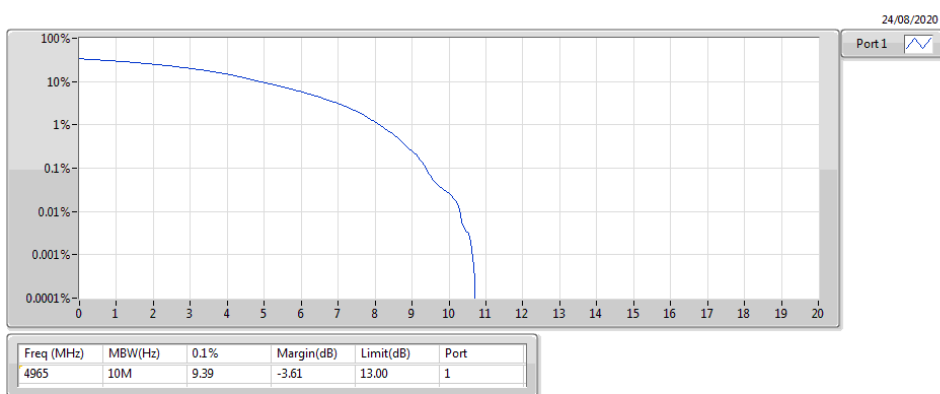
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX
4945MHz

PAR



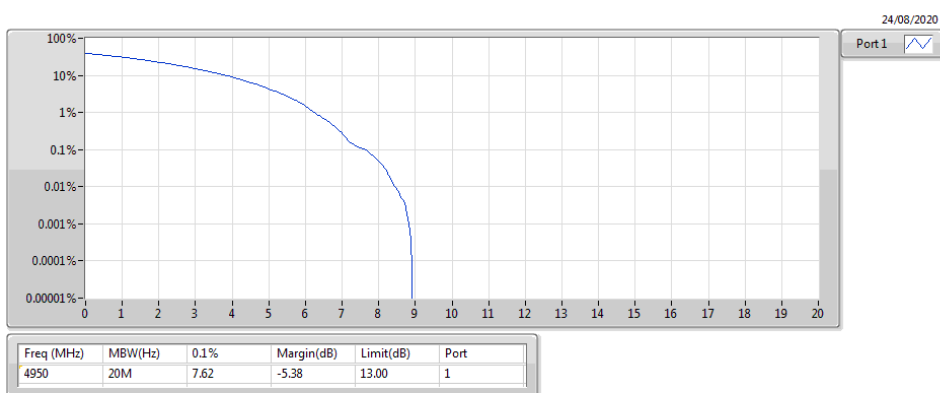
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX
4965MHz

PAR



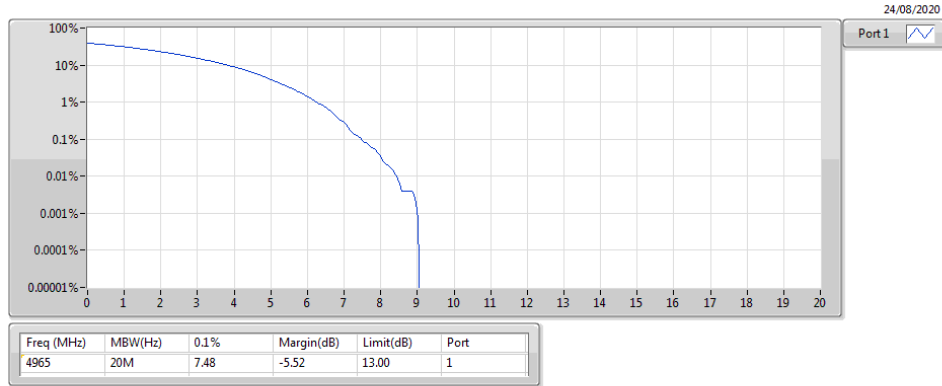
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX
4950MHz

PAR



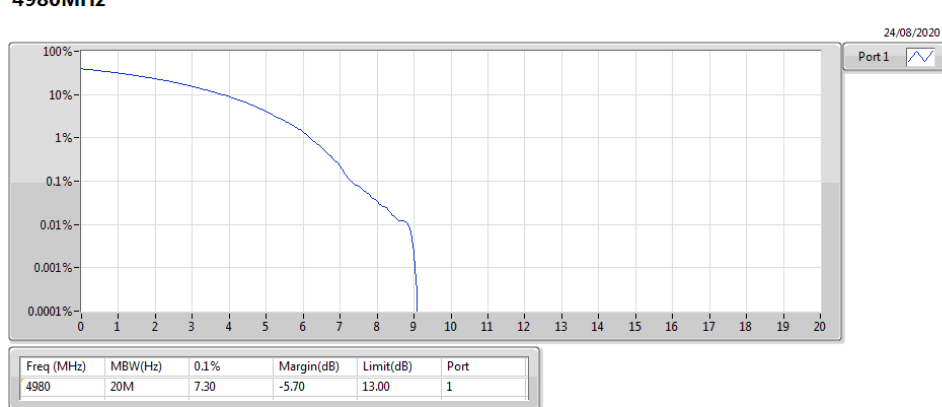
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX
4965MHz

PAR



4.94-4.99GHz_802.11j_20MHz_Nss1_2TX
4980MHz

PAR



Summary

Mode	Max-NdB (Hz)	Max-OBW (Hz)	ITU-Code	Min-NdB (Hz)	Min-OBW (Hz)
4.94-4.99GHz	-	-	-	-	-
802.11j_5MHz_Nss1_2TX	4.844M	4.092M	4M09	4.663M	4.085M
802.11j_10MHz_Nss1_2TX	9.625M	8.208M	8M21	9.463M	8.171M
802.11j_20MHz_Nss1_2TX	19.25M	16.367M	16M4	19.075M	16.367M

Max-N dB = Maximum 26dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 26dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

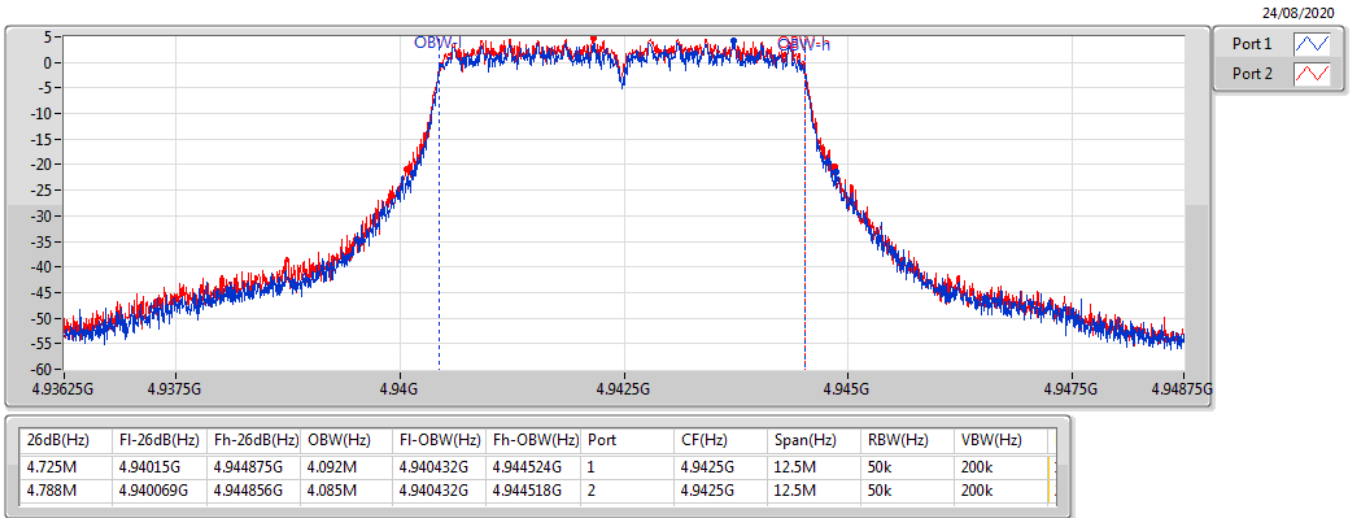
Mode	Result	Limit (Hz)	Port 1-NdB (Hz)	Port 1-OBW (Hz)	Port 2-NdB (Hz)	Port 2-OBW (Hz)
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX	-	-	-	-	-	-
4942.5MHz	Pass	Inf	4.725M	4.092M	4.788M	4.085M
4962.5MHz	Pass	Inf	4.775M	4.092M	4.844M	4.092M
4987.5MHz	Pass	Inf	4.663M	4.085M	4.831M	4.092M
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX	-	-	-	-	-	-
4945MHz	Pass	Inf	9.625M	8.208M	9.563M	8.171M
4965MHz	Pass	Inf	9.6M	8.171M	9.5M	8.183M
4985MHz	Pass	Inf	9.613M	8.183M	9.463M	8.183M
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX	-	-	-	-	-	-
4950MHz	Pass	Inf	19.25M	16.367M	19.075M	16.367M
4965MHz	Pass	Inf	19.2M	16.367M	19.175M	16.367M
4980MHz	Pass	Inf	19.225M	16.367M	19.15M	16.367M

Port X-N dB = Port X 26dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

4.94-4.99GHz_802.11j_5MHz_Nss1_2TX

EBW

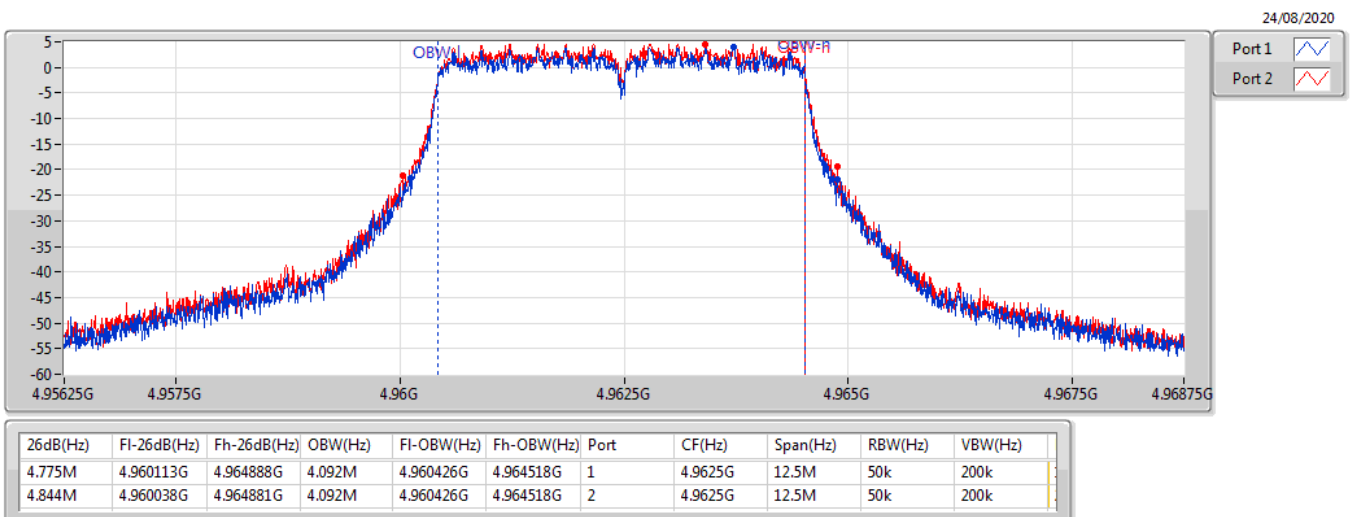
4942.5MHz



4.94-4.99GHz_802.11j_5MHz_Nss1_2TX

EBW

4962.5MHz

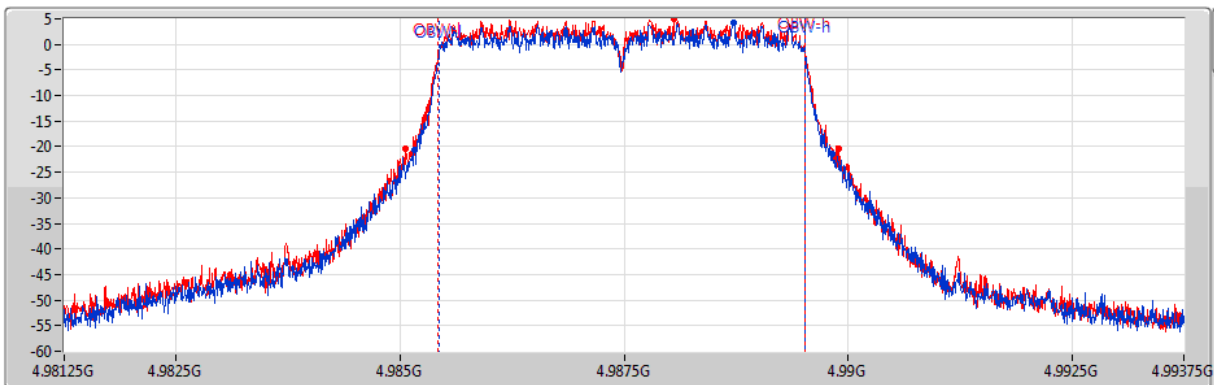


4.94-4.99GHz_802.11j_5MHz_Nss1_2TX

EBW

4987.5MHz

24/08/2020



Port 1
Port 2

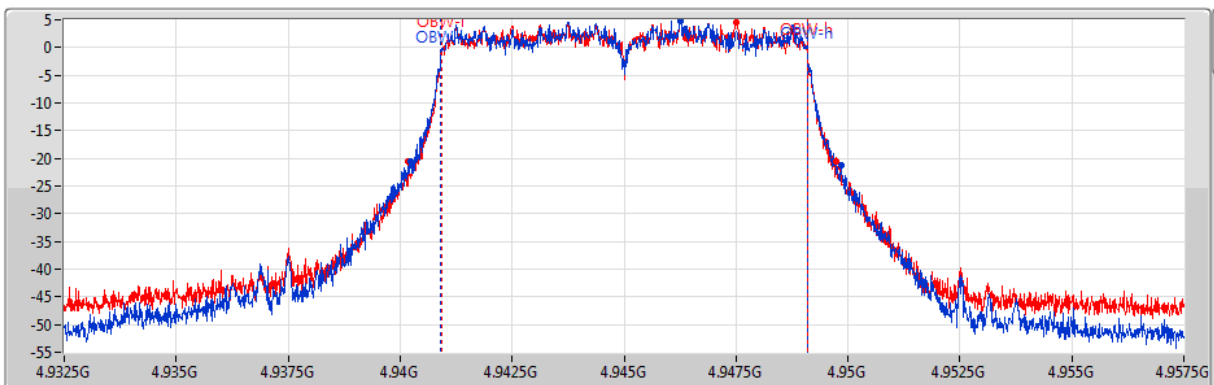
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
4.663M	4.985156G	4.989819G	4.085M	4.985432G	4.989518G	1	4.9875G	12.5M	50k	200k
4.831M	4.985063G	4.989894G	4.092M	4.985426G	4.989518G	2	4.9875G	12.5M	50k	200k

4.94-4.99GHz_802.11j_10MHz_Nss1_2TX

EBW

4945MHz

01/09/2020



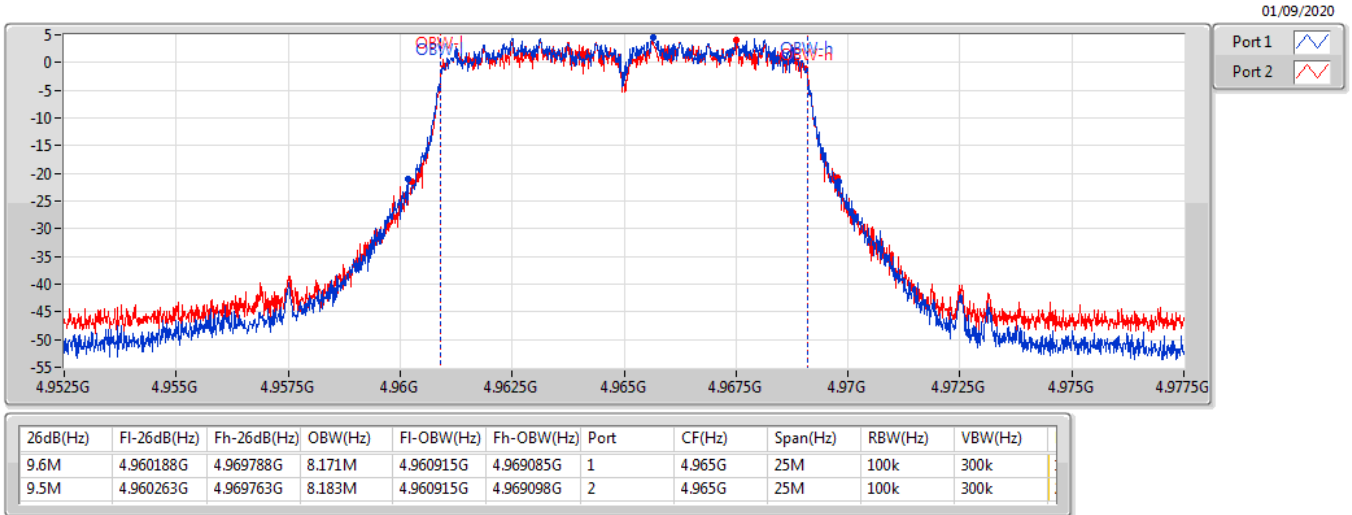
Port 1
Port 2

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
9.625M	4.940225G	4.94985G	8.208M	4.940902G	4.94911G	1	4.945G	25M	100k	300k
9.563M	4.940188G	4.94975G	8.171M	4.940927G	4.949098G	2	4.945G	25M	100k	300k

4.94-4.99GHz_802.11j_10MHz_Nss1_2TX

EBW

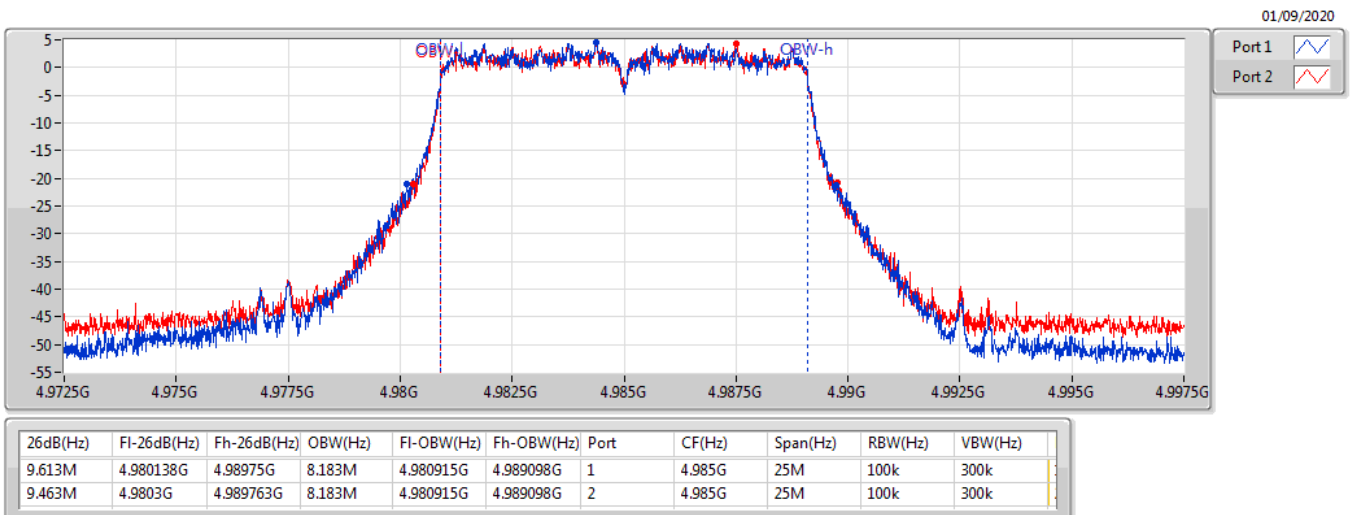
4965MHz



4.94-4.99GHz_802.11j_10MHz_Nss1_2TX

EBW

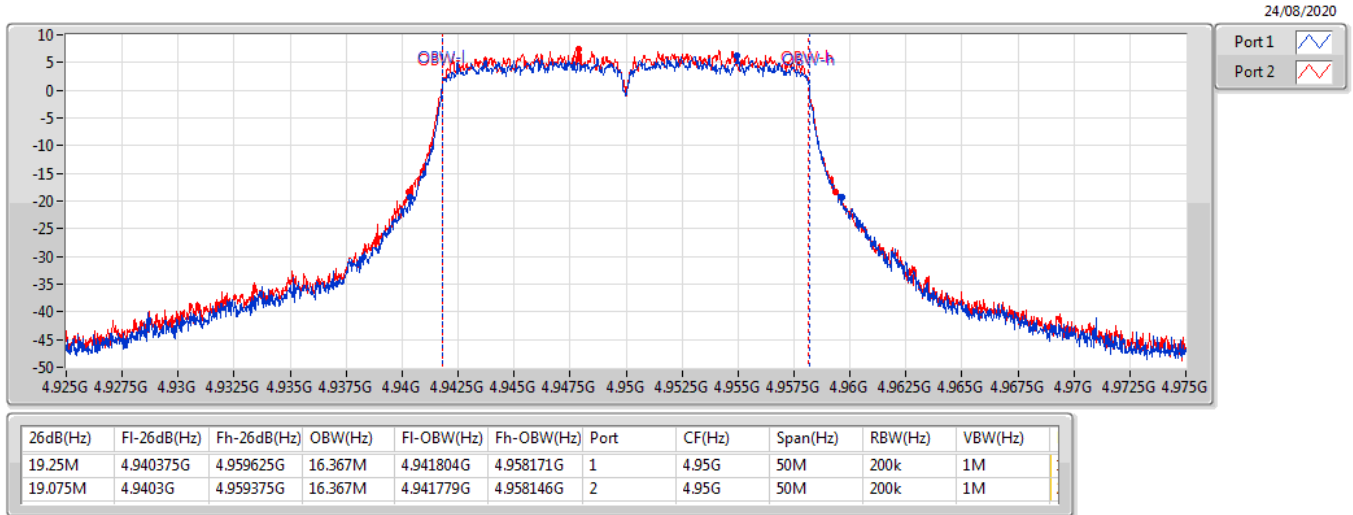
4985MHz



4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

EBW

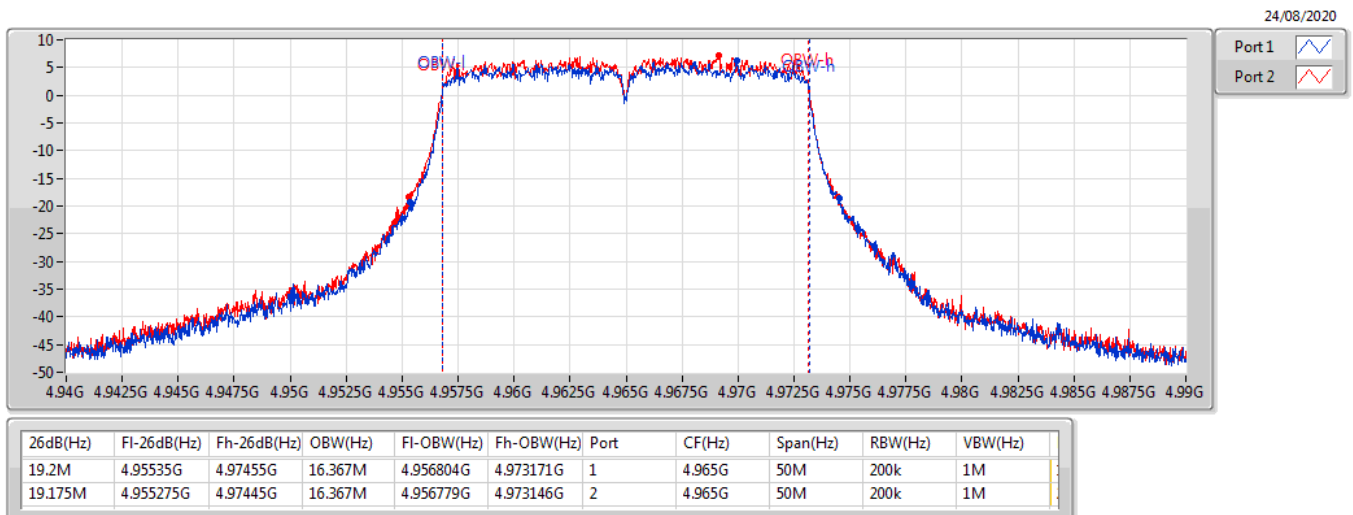
4950MHz



4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

EBW

4965MHz

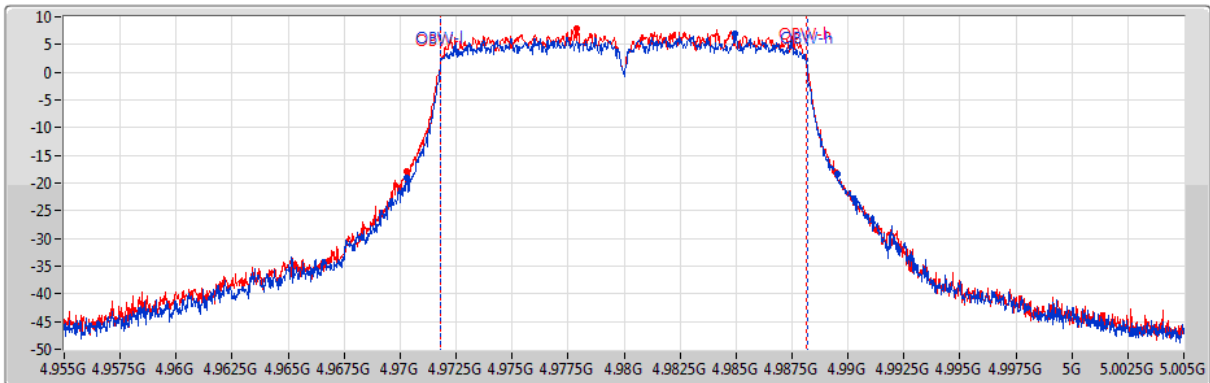


4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

EBW

4980MHz

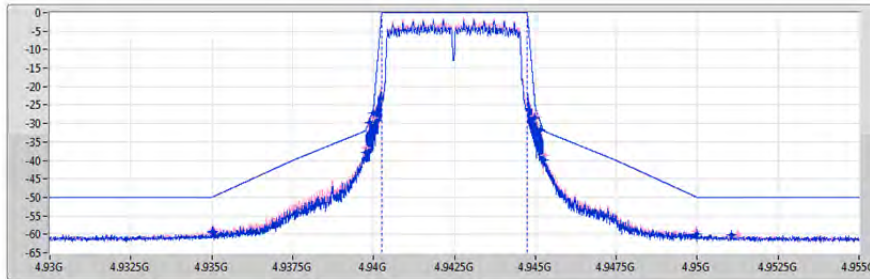
24/08/2020

Port 1
Port 2

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
19.225M	4.9703G	4.989525G	16.367M	4.971804G	4.988171G	1	4.98G	50M	200k	1M
19.15M	4.9703G	4.98945G	16.367M	4.971779G	4.988146G	2	4.98G	50M	200k	1M

4.94-4.99GHz_802.11j_5MHz_Nss1_2TX
4942.5MHz

Mask



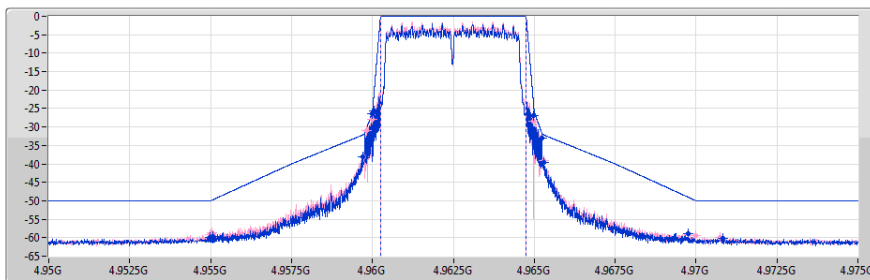
24/08/2020

Port 1
Port 2

F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
4.93G	4.935G	50k	30k	RMS	4.935G	-59.39	-50.00	-9.39	1	-	-
4.935G	4.9375G	50k	30k	RMS	4.93503G	-59.26	-49.90	-9.36	1	-	-
4.9375G	4.93975G	50k	30k	RMS	4.93975G	-37.83	-32.00	-5.83	1	-	-
4.93975G	4.94G	50k	30k	RMS	4.93988G	-29.61	-28.80	-0.81	1	-	-
4.94G	4.94025G	50k	30k	RMS	4.94G	-27.12	-25.90	-1.22	1	-	-
4.94025G	4.94475G	50k	30k	RMS	4.9425G	14.33	Inf	Inf	1	Ref.CP 4.5M	-
4.94475G	4.945G	50k	30k	RMS	4.94498G	-28.37	-23.87	-4.50	1	-	-
4.945G	4.94525G	50k	30k	RMS	4.94514G	-31.78	-29.44	-2.34	1	-	-
4.94525G	4.9475G	50k	30k	RMS	4.94529G	-39.75	-32.11	-7.64	1	-	-
4.9475G	4.95G	50k	30k	RMS	4.94999G	-59.88	-49.94	-9.94	1	-	-
4.95G	4.955G	50k	30k	RMS	4.95105G	-60.26	-50.00	-10.26	1	-	-
4.935G	4.9375G	50k	30k	RMS	4.935G	-59.38	-50.00	-9.38	2	-	-
4.9375G	4.93975G	50k	30k	RMS	4.93505G	-58.64	-49.80	-8.84	2	-	-
4.93975G	4.94G	50k	30k	RMS	4.93975G	-36.54	-32.00	-4.54	2	-	-
4.93975G	4.94G	50k	30k	RMS	4.93984G	-30.05	-29.83	-0.22	2	-	-
4.94G	4.94025G	50k	30k	RMS	4.94G	-28.48	-26.00	-2.48	2	-	-
4.94025G	4.94475G	50k	30k	RMS	4.9425G	15.11	Inf	Inf	2	Ref.CP 4.5M	-
4.94475G	4.945G	50k	30k	RMS	4.94499G	-27.99	-24.60	-3.39	2	-	-
4.945G	4.94525G	50k	30k	RMS	4.94503G	-28.11	-26.79	-1.32	2	-	-
4.94525G	4.9475G	50k	30k	RMS	4.94529G	-38.51	-32.13	-6.38	2	-	-
4.9475G	4.95G	50k	30k	RMS	4.94997G	-59.15	-49.86	-9.29	2	-	-
4.95G	4.955G	50k	30k	RMS	4.95125G	-59.93	-50.00	-9.93	2	-	-

4.94-4.99GHz_802.11j_5MHz_Nss1_2TX
4962.5MHz

Mask



24/08/2020

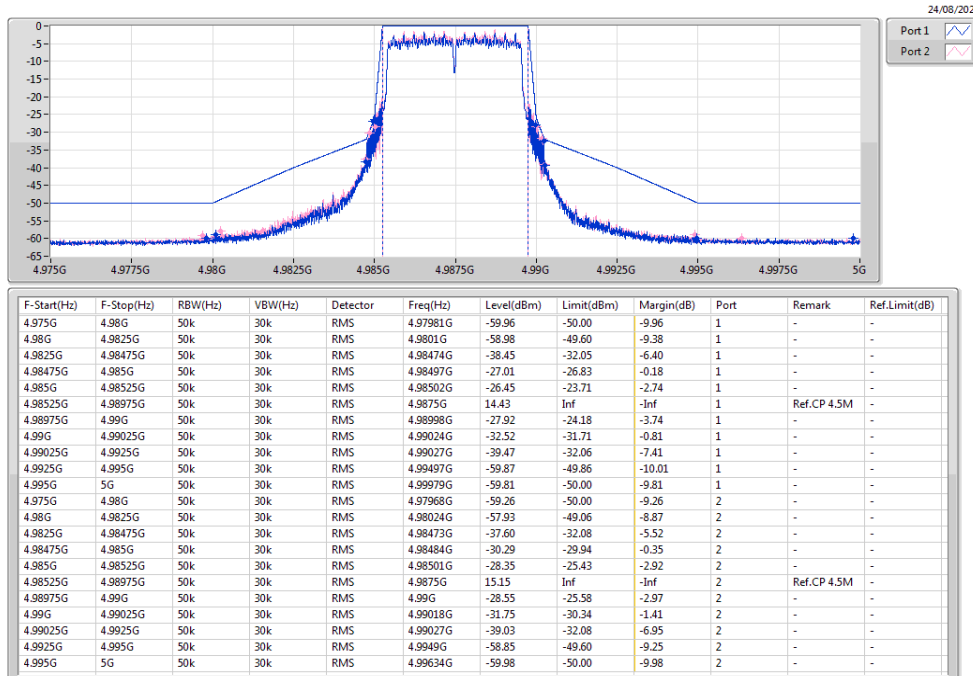
Port 1
Port 2

F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
4.95G	4.955G	50k	30k	RMS	4.95498G	-59.98	-50.00	-9.98	1	-	-
4.955G	4.9575G	50k	30k	RMS	4.95508G	-59.60	-49.68	-9.92	1	-	-
4.9575G	4.95975G	50k	30k	RMS	4.9597G	-38.13	-32.19	-5.94	1	-	-
4.95975G	4.96G	50k	30k	RMS	4.96G	-26.39	-26.07	-0.32	1	-	-
4.96G	4.96025G	50k	30k	RMS	4.96004G	-25.77	-21.63	-4.14	1	-	-
4.96025G	4.96475G	50k	30k	RMS	4.9625G	14.34	Inf	Inf	1	Ref.CP 4.5M	-
4.96475G	4.965G	50k	30k	RMS	4.96497G	-26.91	-22.98	-3.93	1	-	-
4.965G	4.96525G	50k	30k	RMS	4.96523G	-32.99	-31.40	-1.59	1	-	-
4.96525G	4.9675G	50k	30k	RMS	4.9653G	-39.50	-32.19	-7.31	1	-	-
4.9675G	4.97G	50k	30k	RMS	4.96975G	-59.03	-49.00	-10.03	1	-	-
4.97G	4.975G	50k	30k	RMS	4.97082G	-60.13	-50.00	-10.13	1	-	-
4.95G	4.955G	50k	30k	RMS	4.95499G	-59.08	-50.00	-9.08	2	-	-
4.955G	4.9575G	50k	30k	RMS	4.95505G	-58.68	-49.80	-8.88	2	-	-
4.9575G	4.95975G	50k	30k	RMS	4.95973G	-37.98	-32.08	-5.90	2	-	-
4.95975G	4.96G	50k	30k	RMS	4.95983G	-30.89	-30.03	-0.86	2	-	-
4.96G	4.96025G	50k	30k	RMS	4.96G	-27.91	-25.74	-2.17	2	-	-
4.96025G	4.96475G	50k	30k	RMS	4.9625G	15.07	Inf	Inf	2	Ref.CP 4.5M	-
4.96475G	4.965G	50k	30k	RMS	4.96498G	-28.40	-23.61	-4.79	2	-	-
4.965G	4.96525G	50k	30k	RMS	4.96523G	-32.99	-31.41	-1.58	2	-	-
4.96525G	4.9675G	50k	30k	RMS	4.96529G	-39.22	-32.14	-7.08	2	-	-
4.9675G	4.97G	50k	30k	RMS	4.96988G	-59.52	-49.90	-9.62	2	-	-
4.97G	4.975G	50k	30k	RMS	4.97074G	-60.02	-50.00	-10.02	2	-	-

4.94-4.99GHz_802.11j_5MHz_Nss1_2TX

Mask

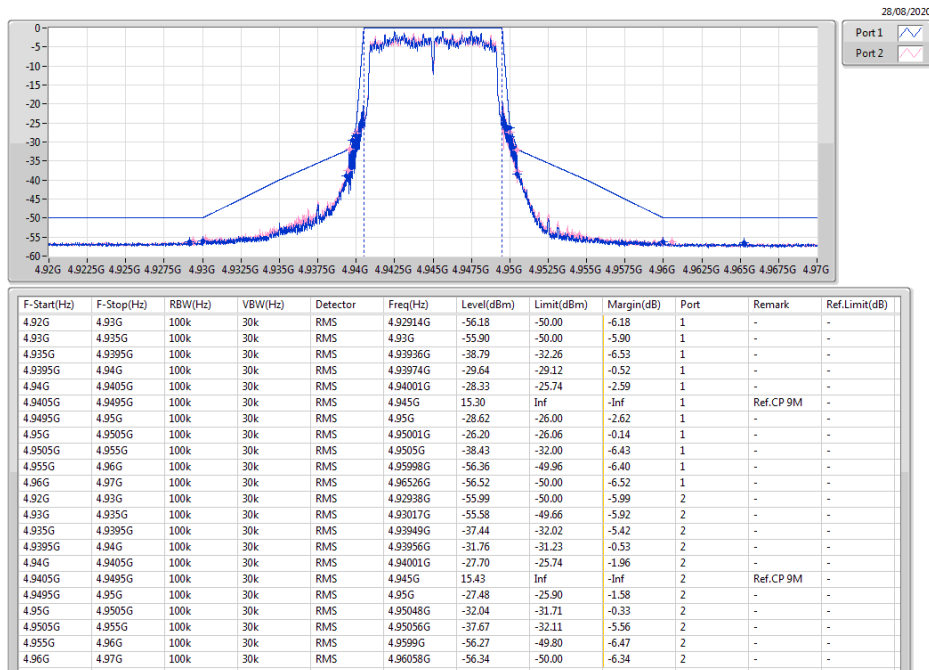
4987.5MHz



4.94-4.99GHz_802.11j_10MHz_Nss1_2TX

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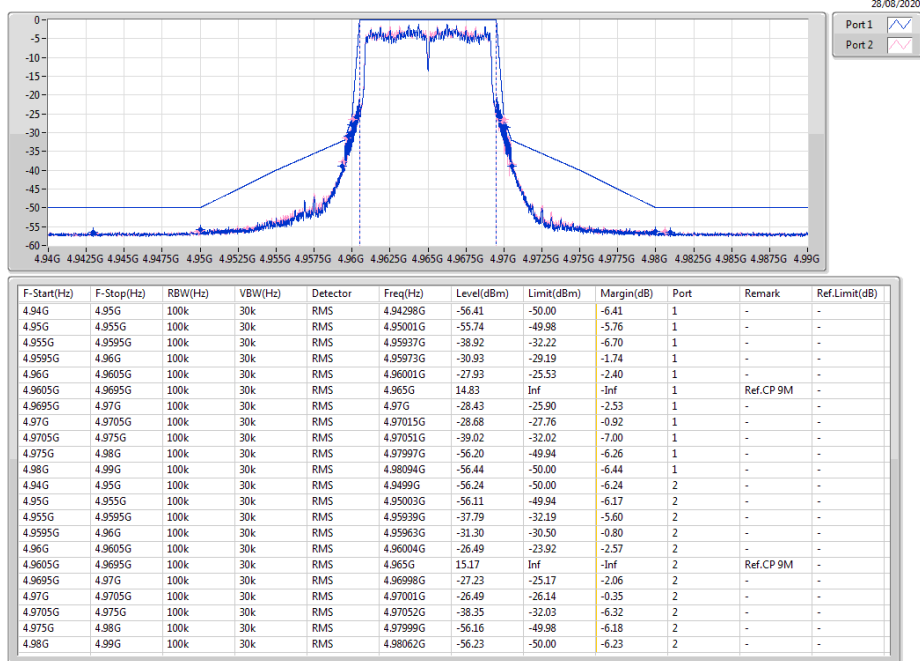
4945MHz



4.94-4.99GHz_802.11j_10MHz_Nss1_2TX

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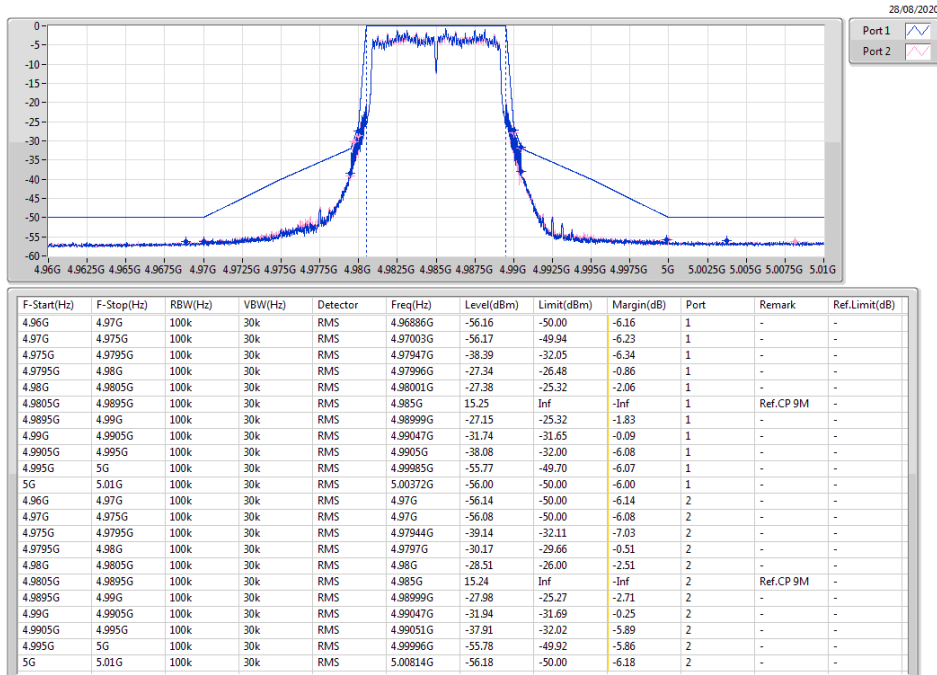
4965MHz



4.94-4.99GHz_802.11j_10MHz_Nss1_2TX

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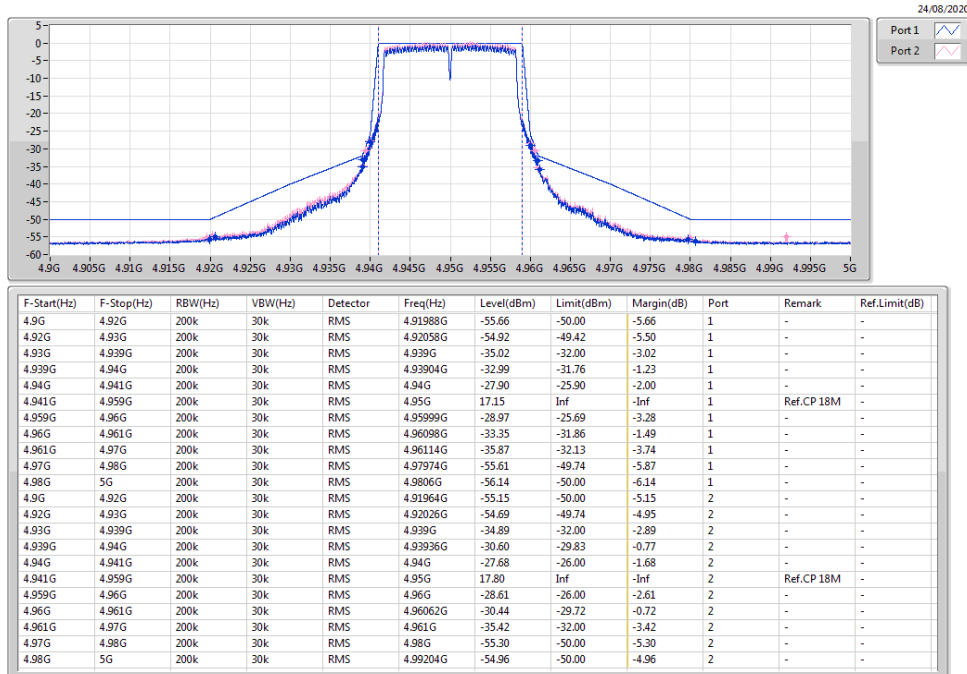
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4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

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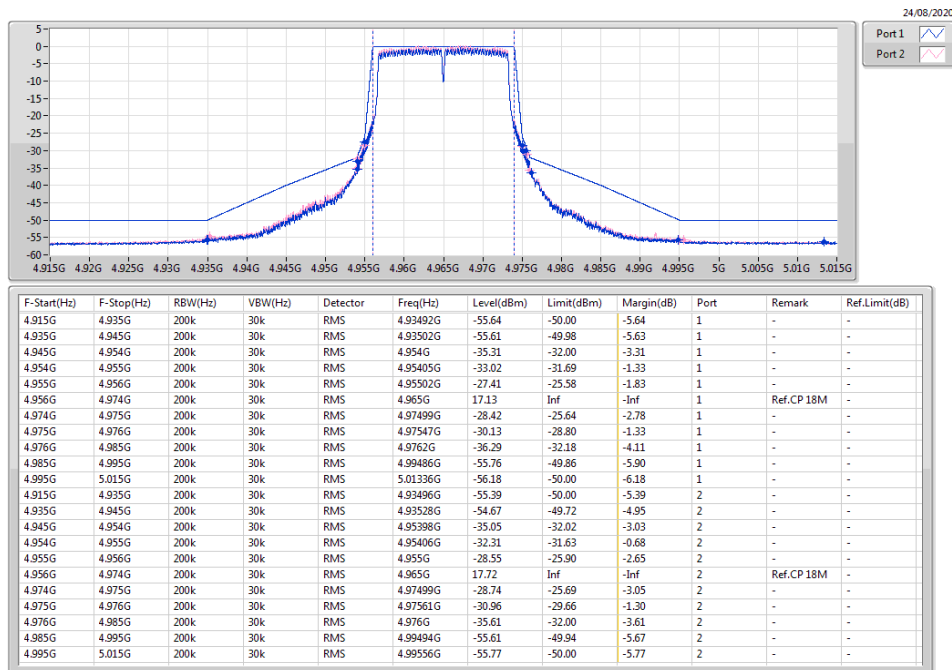
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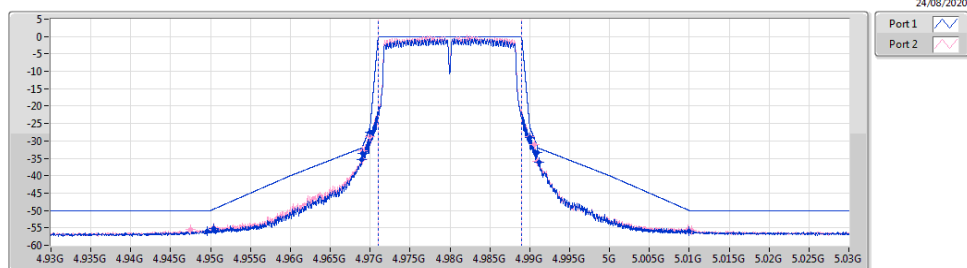
4965MHz



4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

Mask

4980MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
4.93G	4.95G	200k	30k	RMS	4.94964G	-55.88	-50.00	-5.88	1	-	-
4.95G	4.96G	200k	30k	RMS	4.95038G	-55.24	-49.62	-5.62	1	-	-
4.96G	4.969G	200k	30k	RMS	4.96898G	-35.39	-32.02	-3.37	1	-	-
4.969G	4.97G	200k	30k	RMS	4.96901G	-33.63	-31.92	-1.71	1	-	-
4.97G	4.971G	200k	30k	RMS	4.97G	-27.48	-25.90	-1.58	1	-	-
4.971G	4.989G	200k	30k	RMS	4.98G	17.09	Inf	-Inf	1	Ref.CP 18M	-
4.989G	4.99G	200k	30k	RMS	4.98999G	-28.96	-25.84	-3.12	1	-	-
4.99G	4.991G	200k	30k	RMS	4.99095G	-33.44	-31.68	-1.76	1	-	-
4.991G	5G	200k	30k	RMS	4.99114G	-36.21	-32.13	-4.08	1	-	-
5G	5.01G	200k	30k	RMS	5.00992G	-55.93	-49.92	-6.01	1	-	-
5.01G	5.03G	200k	30k	RMS	5.01G	-56.06	-50.00	-6.06	1	-	-
4.93G	4.95G	200k	30k	RMS	4.94748G	-55.53	-50.00	-5.53	2	-	-
4.95G	4.96G	200k	30k	RMS	4.95034G	-54.88	-49.66	-5.22	2	-	-
4.96G	4.969G	200k	30k	RMS	4.969G	-35.27	-32.00	-3.27	2	-	-
4.969G	4.97G	200k	30k	RMS	4.96903G	-32.79	-31.82	-0.97	2	-	-
4.97G	4.971G	200k	30k	RMS	4.97G	-28.81	-25.95	-2.86	2	-	-
4.971G	4.989G	200k	30k	RMS	4.98G	17.69	Inf	-Inf	2	Ref.CP 18M	-
4.989G	4.99G	200k	30k	RMS	4.98999G	-28.89	-25.74	-3.15	2	-	-
4.99G	4.991G	200k	30k	RMS	4.99061G	-31.08	-29.67	-1.41	2	-	-
4.991G	5G	200k	30k	RMS	4.991G	-35.92	-32.00	-3.92	2	-	-
5G	5.01G	200k	30k	RMS	5.00988G	-55.42	-49.88	-5.54	2	-	-
5.01G	5.03G	200k	30k	RMS	5.01028G	-55.71	-50.00	-5.71	2	-	-

Summary

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
4.94-4.99GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11j_5MHz_Nss1_2TX	Pass	30M	1.5G	1M	3M	RMS	30.74M	-42.90	-29.05	-13.85	-	-
802.11j_10MHz_Nss1_2TX	Pass	30M	1.5G	1M	3M	RMS	39M	-36.36	-29.05	-7.31	-	-
802.11j_20MHz_Nss1_2TX	Pass	30M	1.5G	1M	3M	RMS	30.18M	-43.59	-29.05	-14.54	-	-

Result

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-
4942.5MHz	Pass	9k	150k	200	1k	RMS	135.089k	-59.47	-29.05	-30.42	-	-
4942.5MHz	Pass	150k	30M	10k	30k	RMS	1.232M	-45.51	-29.05	-16.46	-	-
4942.5MHz	Pass	30M	1.5G	1M	3M	RMS	30M	-43.85	-29.05	-14.80	-	-
4942.5MHz	Pass	1.5G	4.9315G	1M	3M	RMS	4.9315G	-52.35	-29.05	-23.30	-	-
4942.5MHz	Pass	4.9315G	4.9325G	50k	200k	RMS	4.932G	-53.30	-29.05	-24.25	MBW 1M	-
4942.5MHz	Pass	4.9525G	4.9535G	50k	200k	RMS	4.953G	-53.36	-29.05	-24.31	MBW 1M	-
4942.5MHz	Pass	4.9535G	13.618G	1M	3M	RMS	5.13329G	-51.16	-29.05	-22.11	-	-
4942.5MHz	Pass	13.618G	40G	1M	3M	RMS	39.80543G	-53.31	-29.05	-24.26	-	-
4962.5MHz	Pass	9k	150k	200	1k	RMS	135.089k	-59.60	-29.05	-30.55	-	-
4962.5MHz	Pass	150k	30M	10k	30k	RMS	1.232M	-45.91	-29.05	-16.86	-	-
4962.5MHz	Pass	30M	1.5G	1M	3M	RMS	30.74M	-42.90	-29.05	-13.85	-	-
4962.5MHz	Pass	1.5G	4.9515G	1M	3M	RMS	4.94546G	-52.43	-29.05	-23.38	-	-
4962.5MHz	Pass	4.9515G	4.9525G	50k	200k	RMS	4.952G	-53.28	-29.05	-24.23	MBW 1M	-
4962.5MHz	Pass	4.9725G	4.9735G	50k	200k	RMS	4.973G	-53.22	-29.05	-24.17	MBW 1M	-
4962.5MHz	Pass	4.9735G	13.618G	1M	3M	RMS	5.15503G	-51.92	-29.05	-22.87	-	-
4962.5MHz	Pass	13.618G	40G	1M	3M	RMS	39.79554G	-53.39	-29.05	-24.34	-	-
4987.5MHz	Pass	9k	150k	200	1k	RMS	135.089k	-59.53	-29.05	-30.48	-	-
4987.5MHz	Pass	150k	30M	10k	30k	RMS	1.232M	-45.75	-29.05	-16.70	-	-
4987.5MHz	Pass	30M	1.5G	1M	3M	RMS	32.02M	-44.08	-29.05	-15.03	-	-
4987.5MHz	Pass	1.5G	4.9765G	1M	3M	RMS	4.9765G	-52.81	-29.05	-23.76	-	-
4987.5MHz	Pass	4.9765G	4.9775G	50k	200k	RMS	4.977G	-52.97	-29.05	-23.92	MBW 1M	-
4987.5MHz	Pass	4.9975G	4.9985G	50k	200k	RMS	4.998G	-52.91	-29.05	-23.86	MBW 1M	-
4987.5MHz	Pass	4.9985G	13.618G	1M	3M	RMS	5.17843G	-51.43	-29.05	-22.38	-	-
4987.5MHz	Pass	13.618G	40G	1M	3M	RMS	39.84501G	-53.18	-29.05	-24.13	-	-
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-
4945MHz	Pass	9k	150k	200	1k	RMS	135.089k	-57.55	-29.05	-28.50	-	-
4945MHz	Pass	150k	30M	10k	30k	RMS	1.277M	-41.01	-29.05	-11.96	-	-
4945MHz	Pass	30M	1.5G	1M	3M	RMS	39.37M	-36.49	-29.05	-7.44	-	-
4945MHz	Pass	1.5G	4.924G	1M	3M	RMS	4.91373G	-52.11	-29.05	-23.06	-	-
4945MHz	Pass	4.924G	4.925G	100k	300k	RMS	4.9245G	-52.83	-29.05	-23.78	MBW 1M	-
4945MHz	Pass	4.965G	4.966G	100k	300k	RMS	4.9655G	-52.93	-29.05	-23.88	MBW 1M	-
4945MHz	Pass	4.966G	13.618G	1M	3M	RMS	5.13796G	-52.12	-29.05	-23.07	-	-
4945MHz	Pass	13.618G	40G	1M	3M	RMS	39.82522G	-52.37	-29.05	-23.32	-	-
4965MHz	Pass	9k	150k	200	1k	RMS	135.089k	-57.40	-29.05	-28.35	-	-
4965MHz	Pass	150k	30M	10k	30k	RMS	1.277M	-41.82	-29.05	-12.77	-	-
4965MHz	Pass	30M	1.5G	1M	3M	RMS	39M	-36.47	-29.05	-7.42	-	-
4965MHz	Pass	1.5G	4.944G	1M	3M	RMS	4.93668G	-51.98	-29.05	-22.93	-	-
4965MHz	Pass	4.944G	4.945G	100k	300k	RMS	4.9445G	-53.01	-29.05	-23.96	MBW 1M	-
4965MHz	Pass	4.985G	4.986G	100k	300k	RMS	4.9855G	-52.92	-29.05	-23.87	MBW 1M	-
4965MHz	Pass	4.986G	13.618G	1M	3M	RMS	5.15864G	-52.08	-29.05	-23.03	-	-
4965MHz	Pass	13.618G	40G	1M	3M	RMS	39.81203G	-52.25	-29.05	-23.20	-	-
4985MHz	Pass	9k	150k	200	1k	RMS	135.089k	-57.13	-29.05	-28.08	-	-
4985MHz	Pass	150k	30M	10k	30k	RMS	1.277M	-42.36	-29.05	-13.31	-	-
4985MHz	Pass	30M	1.5G	1M	3M	RMS	39M	-36.36	-29.05	-7.31	-	-
4985MHz	Pass	1.5G	4.964G	1M	3M	RMS	4.96227G	-52.02	-29.05	-22.97	-	-
4985MHz	Pass	4.964G	4.965G	100k	300k	RMS	4.9645G	-52.88	-29.05	-23.83	MBW 1M	-
4985MHz	Pass	5.005G	5.006G	100k	300k	RMS	5.0055G	-52.71	-29.05	-23.66	MBW 1M	-
4985MHz	Pass	5.006G	13.618G	1M	3M	RMS	5.17609G	-51.92	-29.05	-22.87	-	-
4985MHz	Pass	13.618G	40G	1M	3M	RMS	39.59108G	-52.48	-29.05	-23.43	-	-
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-
4950MHz	Pass	9k	150k	200	1k	RMS	135.089k	-60.42	-29.05	-31.37	-	-
4950MHz	Pass	150k	30M	10k	30k	RMS	1.232M	-44.23	-29.05	-15.18	-	-



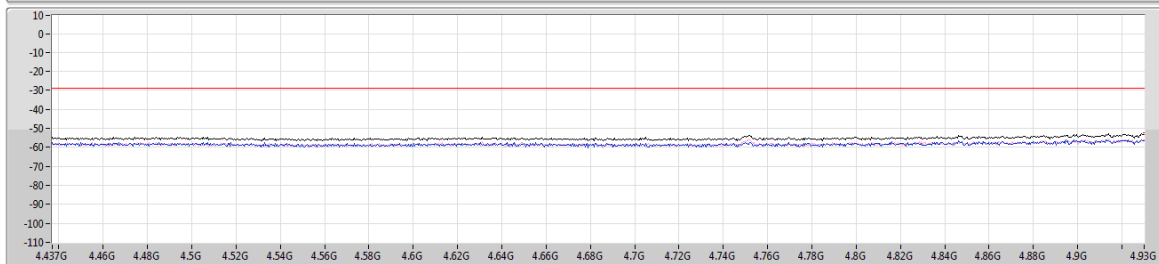
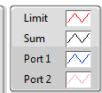
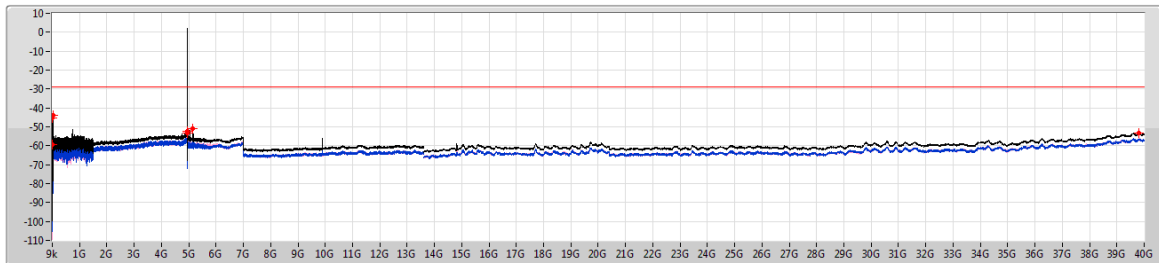
Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
4950MHz	Pass	30M	1.5G	1M	3M	RMS	30.74M	-44.15	-29.05	-15.10	-	-
4950MHz	Pass	1.5G	4.909G	1M	3M	RMS	4.90772G	-52.43	-29.05	-23.38	-	-
4950MHz	Pass	4.909G	4.91G	200k	1M	RMS	4.9095G	-53.00	-29.05	-23.95	MBW 1M	-
4950MHz	Pass	4.99G	4.991G	200k	1M	RMS	4.9905G	-52.76	-29.05	-23.71	MBW 1M	-
4950MHz	Pass	4.991G	13.618G	1M	3M	RMS	4.991G	-52.89	-29.05	-23.84	-	-
4950MHz	Pass	13.618G	40G	1M	3M	RMS	39.83841G	-54.33	-29.05	-25.28	-	-
4965MHz	Pass	9k	150k	200	1k	RMS	135.124k	-60.71	-29.05	-31.66	-	-
4965MHz	Pass	150k	30M	10k	30k	RMS	1.232M	-44.44	-29.05	-15.39	-	-
4965MHz	Pass	30M	1.5G	1M	3M	RMS	30.18M	-43.59	-29.05	-14.54	-	-
4965MHz	Pass	1.5G	4.924G	1M	3M	RMS	4.92272G	-52.47	-29.05	-23.42	-	-
4965MHz	Pass	4.924G	4.925G	200k	1M	RMS	4.9245G	-53.03	-29.05	-23.98	MBW 1M	-
4965MHz	Pass	5.005G	5.006G	200k	1M	RMS	5.0055G	-52.66	-29.05	-23.61	MBW 1M	-
4965MHz	Pass	5.006G	13.618G	1M	3M	RMS	5.15886G	-53.07	-29.05	-24.02	-	-
4965MHz	Pass	13.618G	40G	1M	3M	RMS	39.8483G	-54.55	-29.05	-25.50	-	-
4980MHz	Pass	9k	150k	200	1k	RMS	135.124k	-59.89	-29.05	-30.84	-	-
4980MHz	Pass	150k	30M	10k	30k	RMS	1.232M	-44.60	-29.05	-15.55	-	-
4980MHz	Pass	30M	1.5G	1M	3M	RMS	30.92M	-44.13	-29.05	-15.08	-	-
4980MHz	Pass	1.5G	4.939G	1M	3M	RMS	4.93857G	-52.29	-29.05	-23.24	-	-
4980MHz	Pass	4.939G	4.94G	200k	1M	RMS	4.9395G	-52.77	-29.05	-23.72	MBW 1M	-
4980MHz	Pass	5.02G	5.021G	200k	1M	RMS	5.0205G	-52.53	-29.05	-23.48	MBW 1M	-
4980MHz	Pass	5.021G	13.618G	1M	3M	RMS	5.17467G	-52.82	-29.05	-23.77	-	-
4980MHz	Pass	13.618G	40G	1M	3M	RMS	39.8582G	-54.50	-29.05	-25.45	-	-

4.94-4.99GHz 802.11j 5MHz Nss1_2TX

CSE-TX-Sum

4942.5MHz

24/08/2020



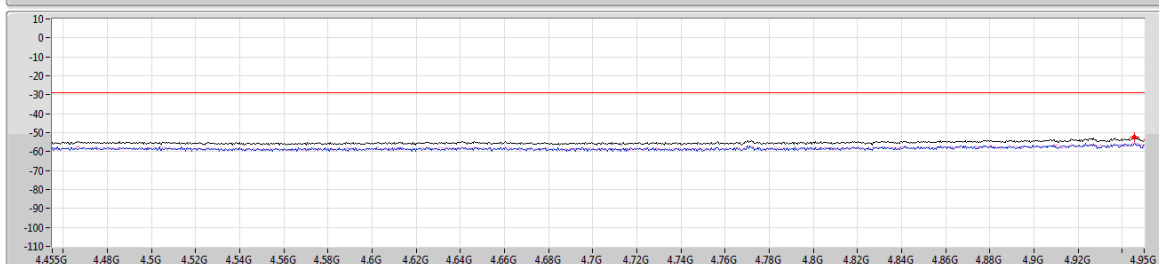
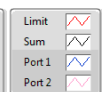
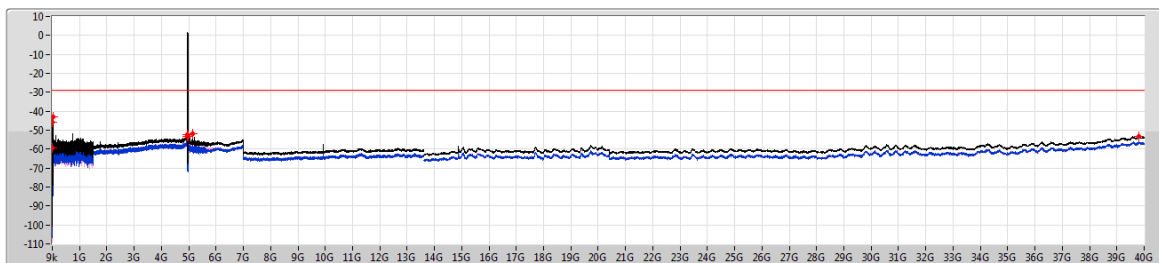
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	135.089k	-59.47	-29.05	-30.42	-	-	-62.01	-63.01
150k	30M	10k	30k	RMS	1.232M	-45.51	-29.05	-16.46	-	-	-49.68	-47.61
30M	1.5G	1M	3M	RMS	30M	-43.85	-29.05	-14.80	-	-	-46.84	-46.88
1.5G	4.9315G	1M	3M	RMS	4.9315G	-52.35	-29.05	-23.30	-	-	-55.36	-55.36
4.9315G	4.9325G	50k	200k	RMS	4.932G	-53.30	-29.05	-24.25	MBW 1M	-	-	-
4.9325G	4.9335G	50k	200k	RMS	4.933G	-53.36	-29.05	-24.31	MBW 1M	-	-	-
4.9335G	13.618G	1M	3M	RMS	5.13329G	-51.16	-29.05	-22.11	-	-	-53.43	-55.06
13.618G	40G	1M	3M	RMS	39.80543G	-53.31	-29.05	-24.26	-	-	-56.56	-56.10

4.94-4.99GHz 802.11j 5MHz Nss1_2TX

CSE-TX-Sum

4962.5MHz

24/08/2020

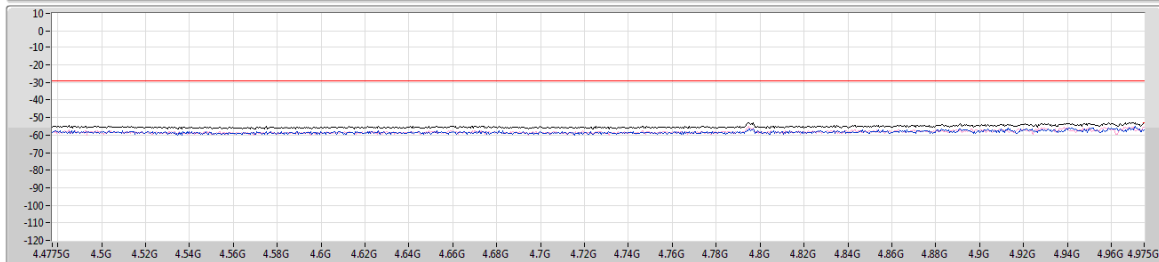
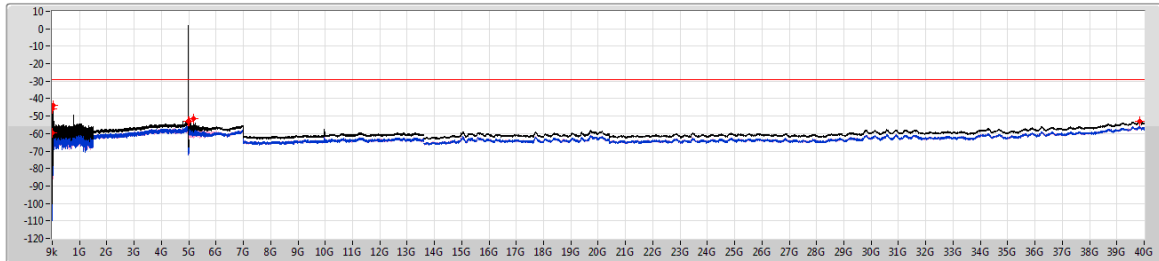


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	135.089k	-59.60	-29.05	-30.55	-	-	-62.85	-62.39
150k	30M	10k	30k	RMS	1.232M	-45.91	-29.05	-16.86	-	-	-49.24	-48.62
30M	1.5G	1M	3M	RMS	30.74M	-42.90	-29.05	-13.85	-	-	-43.77	-50.32
1.5G	4.9315G	1M	3M	RMS	4.94546G	-52.43	-29.05	-23.38	-	-	-55.69	-55.20
4.9315G	4.9525G	50k	200k	RMS	4.952G	-53.28	-29.05	-24.23	MBW 1M	-	-	-
4.9525G	4.9735G	50k	200k	RMS	4.973G	-53.22	-29.05	-24.17	MBW 1M	-	-	-
4.9735G	13.618G	1M	3M	RMS	5.15503G	-51.92	-29.05	-22.87	-	-	-53.90	-56.29
13.618G	40G	1M	3M	RMS	39.79554G	-53.39	-29.05	-24.34	-	-	-56.18	-56.63

4.94-4.99GHz_802.11j_5MHz_Nss1_2TX
4987.5MHz

CSE-TX-Sum

24/08/2020

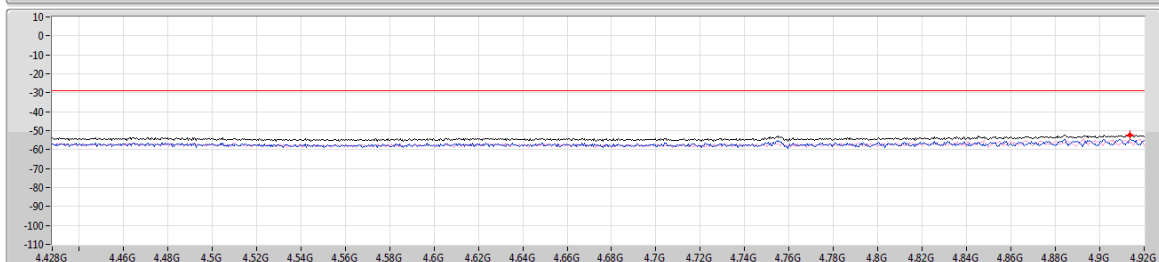
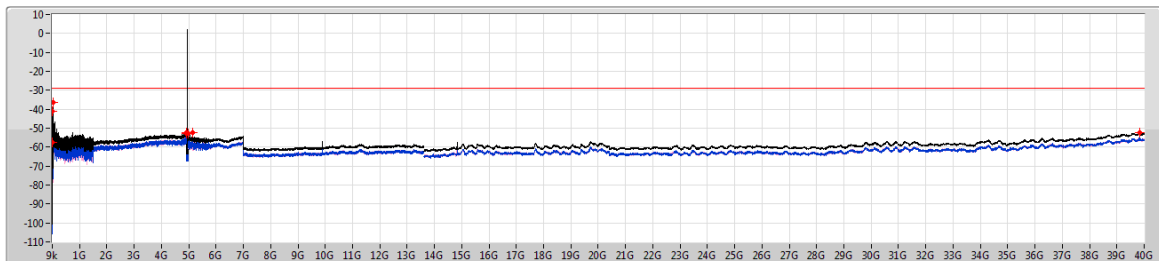


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	135.089k	-59.53	-29.05	-30.48	-	-	-62.41	-62.68
150k	30M	10k	30k	RMS	1.232M	-45.75	-29.05	-16.70	-	-	-49.40	-48.20
30M	1.5G	1M	3M	RMS	32.02M	-44.08	-29.05	-15.03	-	-	-48.44	-46.07
1.5G	4.9765G	1M	3M	RMS	4.9765G	-52.81	-29.05	-23.76	-	-	-57.32	-54.71
4.9765G	4.9775G	50k	200k	RMS	4.977G	-52.97	-29.05	-23.92	MBW 1M	-	-	-
4.9975G	4.9985G	50k	200k	RMS	4.998G	-52.91	-29.05	-23.86	MBW 1M	-	-	-
4.9985G	13.618G	1M	3M	RMS	5.17843G	-51.43	-29.05	-22.38	-	-	-53.67	-55.38
13.618G	40G	1M	3M	RMS	39.84501G	-53.18	-29.05	-24.13	-	-	-56.34	-56.05

4.94-4.99GHz_802.11j_10MHz_Nss1_2TX
4945MHz

CSE-TX-Sum

01/09/2020

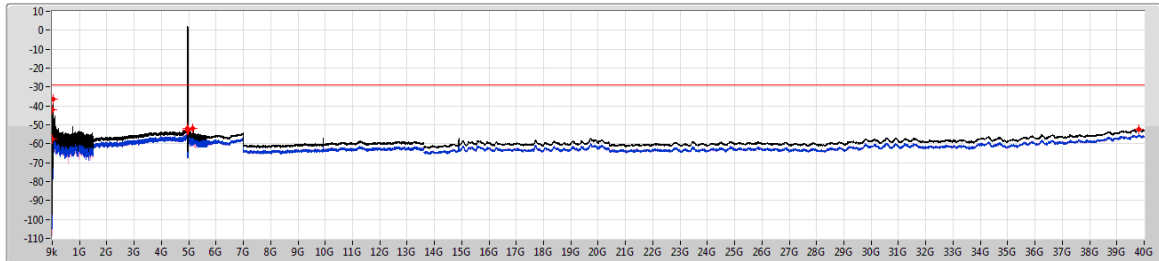


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	135.089k	-57.55	-29.05	-28.50	-	-	-60.52	-60.61
150k	30M	10k	30k	RMS	1.277M	-41.01	-29.05	-11.96	-	-	-43.51	-44.61
30M	1.5G	1M	3M	RMS	39.37M	-36.49	-29.05	-7.44	-	-	-36.94	-46.52
1.5G	4.924G	1M	3M	RMS	4.91373G	-52.11	-29.05	-23.06	-	-	-54.16	-56.36
4.924G	4.925G	100k	300k	RMS	4.9245G	-52.83	-29.05	-23.78	MBW 1M	-	-	-
4.965G	4.966G	100k	300k	RMS	4.9655G	-52.93	-29.05	-23.88	MBW 1M	-	-	-
4.966G	13.618G	1M	3M	RMS	5.13796G	-52.12	-29.05	-23.07	-	-	-58.45	-53.27
13.618G	40G	1M	3M	RMS	39.82522G	-52.37	-29.05	-23.32	-	-	-55.24	-55.52

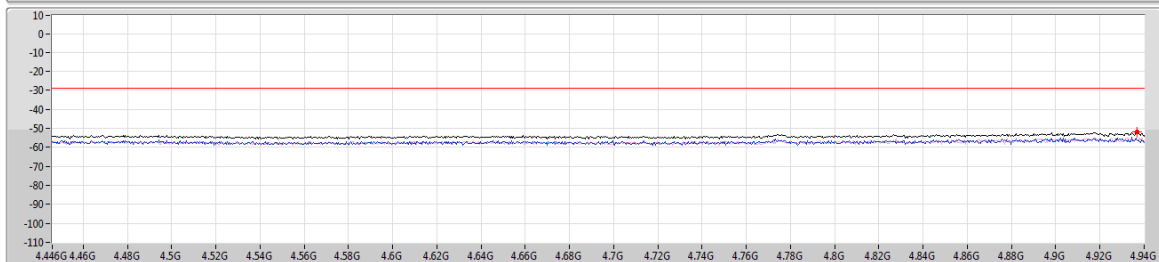
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX
4965MHz

CSE-TX-Sum

01/09/2020



Limit
Sum
Port 1
Port 2

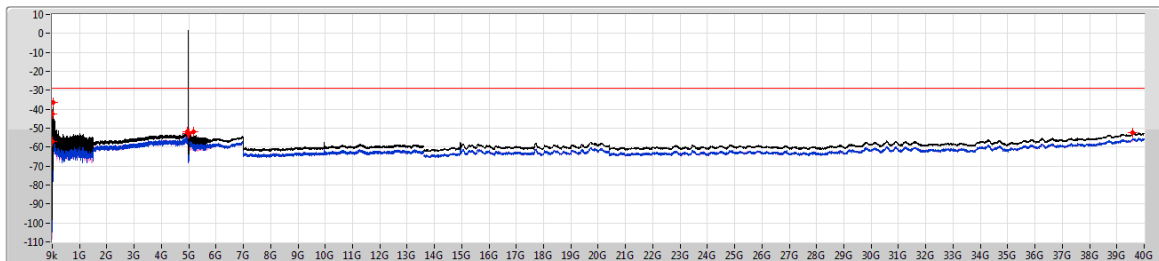


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	135.089k	-57.40	-29.05	-28.35	-	-	-60.21	-60.61
150k	30M	10k	30k	RMS	1.277M	-41.82	-29.05	-12.77	-	-	-43.72	-46.33
30M	1.5G	1M	3M	RMS	39M	-36.47	-29.05	-7.42	-	-	-41.10	-38.30
1.5G	4.944G	1M	3M	RMS	4.93668G	-51.98	-29.05	-22.93	-	-	-55.87	-54.26
4.944G	4.945G	100k	300k	RMS	4.9445G	-53.01	-29.05	-23.96	MBW 1M	-	-	-
4.95G	4.986G	100k	300k	RMS	4.9855G	-52.92	-29.05	-23.87	MBW 1M	-	-	-
4.986G	13.618G	1M	3M	RMS	5.15864G	-52.08	-29.05	-23.03	-	-	-55.16	-55.02
13.618G	40G	1M	3M	RMS	39.81203G	-52.25	-29.05	-23.20	-	-	-55.14	-55.38

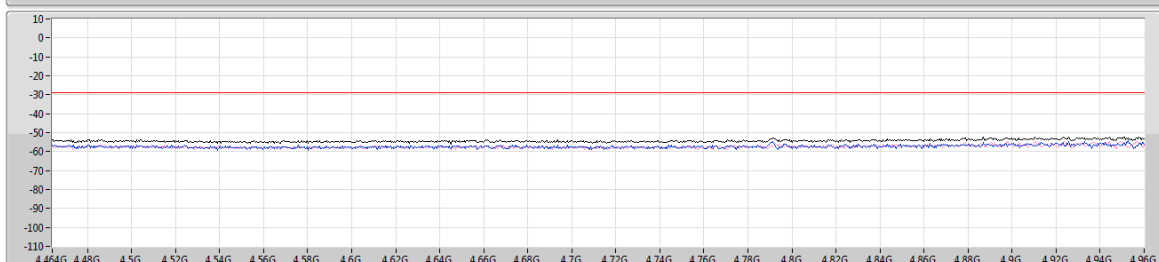
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX
4985MHz

CSE-TX-Sum

01/09/2020



Limit
Sum
Port 1
Port 2



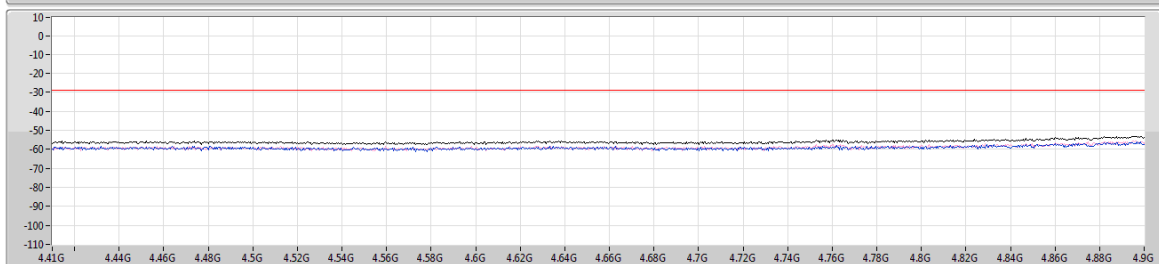
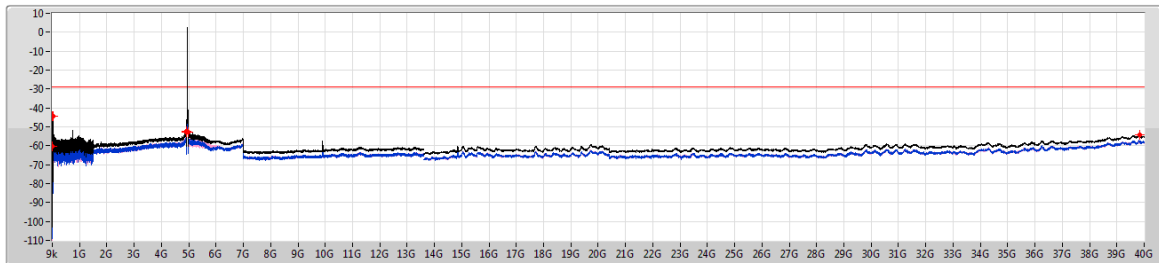
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	135.089k	-57.13	-29.05	-28.08	-	-	-60.09	-60.20
150k	30M	10k	30k	RMS	1.277M	-42.36	-29.05	-13.31	-	-	-44.75	-46.09
30M	1.5G	1M	3M	RMS	39M	-36.36	-29.05	-7.31	-	-	-39.60	-39.16
1.5G	4.964G	1M	3M	RMS	4.96227G	-52.02	-29.05	-22.97	-	-	-56.66	-53.85
4.964G	4.965G	100k	300k	RMS	4.9645G	-52.88	-29.05	-23.83	MBW 1M	-	-	-
5.005G	5.006G	100k	300k	RMS	5.0055G	-52.71	-29.05	-23.66	MBW 1M	-	-	-
5.006G	13.618G	1M	3M	RMS	5.17609G	-51.92	-29.05	-22.87	-	-	-56.14	-53.98
13.618G	40G	1M	3M	RMS	39.59108G	-52.48	-29.05	-23.43	-	-	-55.72	-55.27

4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

CSE-TX-Sum

4950MHz

24/08/2020



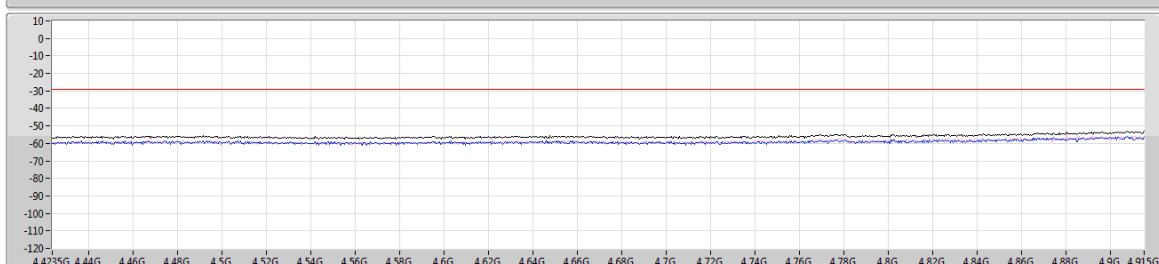
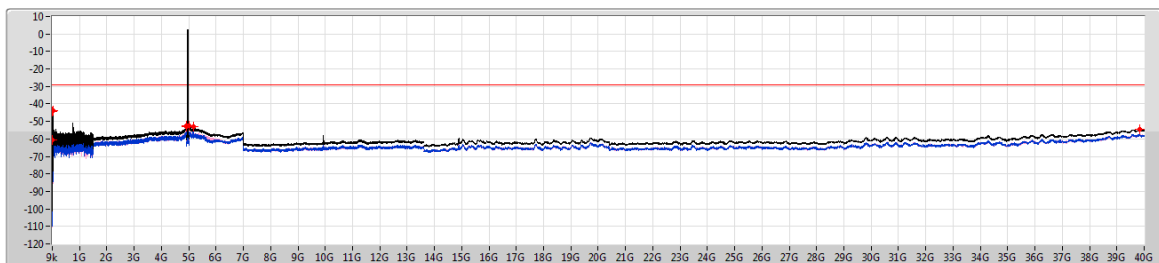
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	135.089k	-60.42	-29.05	-31.37	-	-	-63.43	-63.43
150k	30M	10k	30k	RMS	1.232M	-44.23	-29.05	-15.18	-	-	-47.34	-47.15
30M	1.5G	1M	3M	RMS	30.74M	-44.15	-29.05	-15.10	-	-	-48.70	-46.03
1.5G	4.909G	1M	3M	RMS	4.90772G	-52.43	-29.05	-23.38	-	-	-55.57	-55.31
4.909G	4.91G	200k	1M	RMS	4.9095G	-53.00	-29.05	-23.95	MBW 1M	-	-	-
4.99G	4.991G	200k	1M	RMS	4.9905G	-52.76	-29.05	-23.71	MBW 1M	-	-	-
4.991G	13.618G	1M	3M	RMS	4.991G	-52.89	-29.05	-23.84	-	-	-56.81	-55.15
13.618G	40G	1M	3M	RMS	39.83841G	-54.33	-29.05	-25.28	-	-	-57.35	-57.34

4.94-4.99GHz_802.11j_20MHz_Nss1_2TX

CSE-TX-Sum

4965MHz

24/08/2020

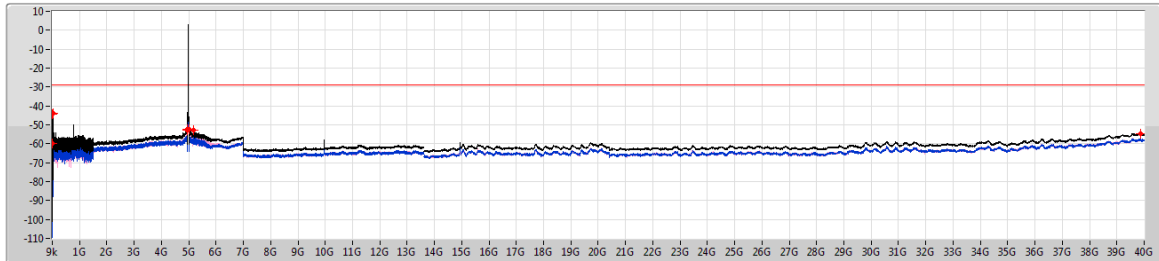


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	135.124k	-60.71	-29.05	-31.66	-	-	-63.77	-63.68
150k	30M	10k	30k	RMS	1.232M	-44.44	-29.05	-15.39	-	-	-48.14	-46.85
30M	1.5G	1M	3M	RMS	30.18M	-43.59	-29.05	-14.54	-	-	-45.63	-47.84
1.5G	4.924G	1M	3M	RMS	4.92272G	-52.47	-29.05	-23.42	-	-	-56.09	-54.95
4.924G	4.925G	200k	1M	RMS	4.9245G	-53.03	-29.05	-23.98	MBW 1M	-	-	-
5.005G	5.006G	200k	1M	RMS	5.0055G	-52.66	-29.05	-23.61	MBW 1M	-	-	-
5.006G	13.618G	1M	3M	RMS	5.15886G	-53.07	-29.05	-24.02	-	-	-55.80	-56.39
13.618G	40G	1M	3M	RMS	39.8483G	-54.55	-29.05	-25.50	-	-	-57.72	-57.40

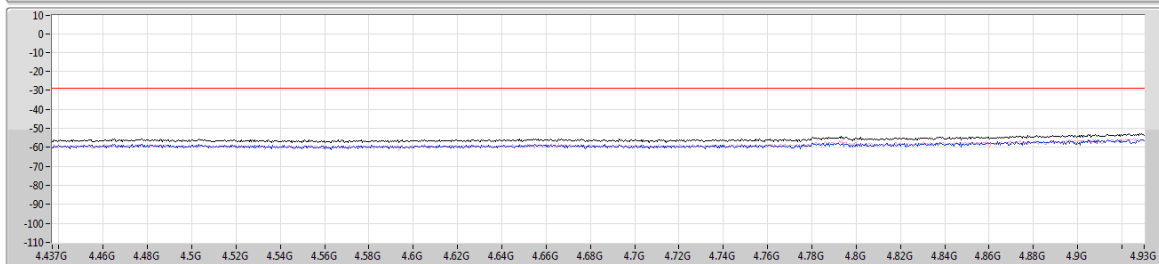
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX
4980MHz

CSE-TX-Sum

24/08/2020



Limit
Sum
Port 1
Port 2



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	135.124k	-59.89	-29.05	-30.84	-	-	-62.89	-62.91
150k	30M	10k	30k	RMS	1.232M	-44.60	-29.05	-15.55	-	-	-48.03	-47.23
30M	1.5G	1M	3M	RMS	30.92M	-44.13	-29.05	-15.08	-	-	-46.52	-47.86
1.5G	4.939G	1M	3M	RMS	4.93857G	-52.29	-29.05	-23.24	-	-	-55.76	-54.89
4.939G	4.94G	200k	1M	RMS	4.9395G	-52.77	-29.05	-23.72	MBW 1M	-	-	-
5.02G	5.021G	200k	1M	RMS	5.0205G	-52.53	-29.05	-23.48	MBW 1M	-	-	-
5.021G	13.618G	1M	3M	RMS	5.17467G	-52.82	-29.05	-23.77	-	-	-55.35	-56.38
13.618G	40G	1M	3M	RMS	39.8582G	-54.50	-29.05	-25.45	-	-	-57.33	-57.69



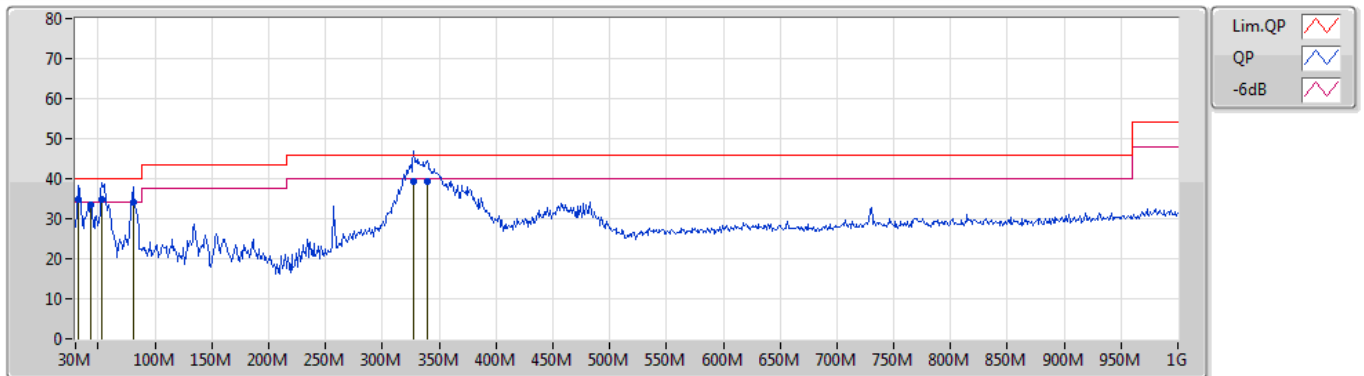
Radiated Emissions below 1GHz

Appendix E.1

Summary

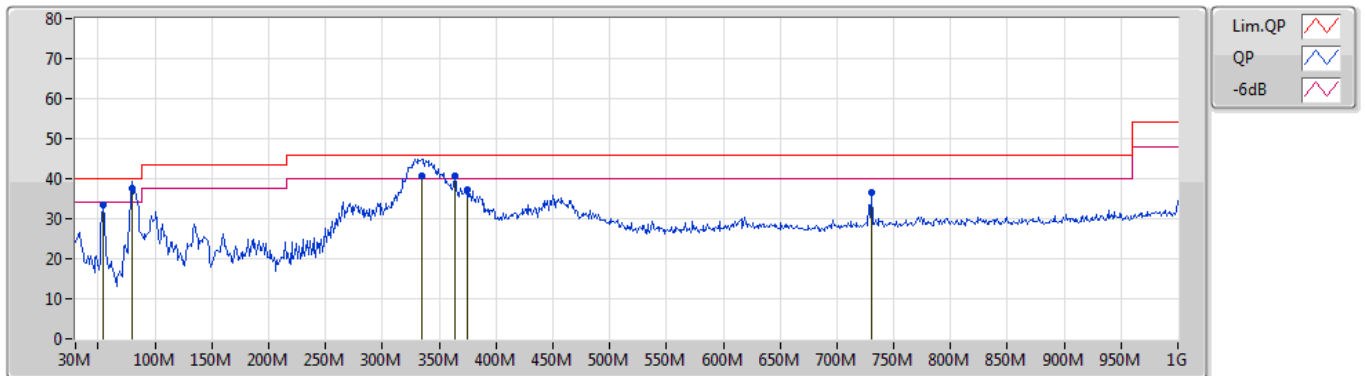
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	79.47M	37.48	40.00	-2.52	Horizontal

21/08/2020



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	32.91M	34.74	40.00	-5.26	-7.49	3	Vertical	37	1.00	-	42.23	22.23	1.56	31.28
PK	43.58M	33.57	40.00	-6.43	-13.53	3	Vertical	24	1.00	-	47.10	16.35	1.60	31.48
QP	53.28M	34.97	40.00	-5.03	-17.26	3	Vertical	24	1.00	"Worst"	52.23	12.86	1.47	31.59
QP	80.44M	34.16	40.00	-5.84	-16.94	3	Vertical	254	1.50	-	51.10	12.86	1.90	31.70
QP	327.79M	39.37	46.00	-6.63	-8.56	3	Vertical	215	1.25	-	47.93	19.65	3.71	31.92
QP	339.43M	39.32	46.00	-6.68	-8.28	3	Vertical	243	1.00	-	47.60	19.93	3.76	31.97

21/08/2020



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	54.25M	33.29	40.00	-6.71	-17.41	3	Horizontal	125	2.00	-	50.70	12.72	1.48	31.61
QP	79.47M	37.48	40.00	-2.52	-17.12	3	Horizontal	164	2.00	"Worst"	54.60	12.69	1.89	31.70
QP	334.58M	40.79	46.00	-5.21	-8.41	3	Horizontal	256	1.00	-	49.20	19.80	3.74	31.95
PK	363.68M	40.80	46.00	-5.20	-7.56	3	Horizontal	214	2.00	-	48.36	20.60	3.88	32.04
PK	375.32M	37.36	46.00	-8.64	-7.25	3	Horizontal	228	2.00	-	44.61	20.86	3.95	32.06
PK	730.34M	36.44	46.00	-9.56	-1.15	3	Horizontal	61	1.00	-	37.59	25.72	5.68	32.55



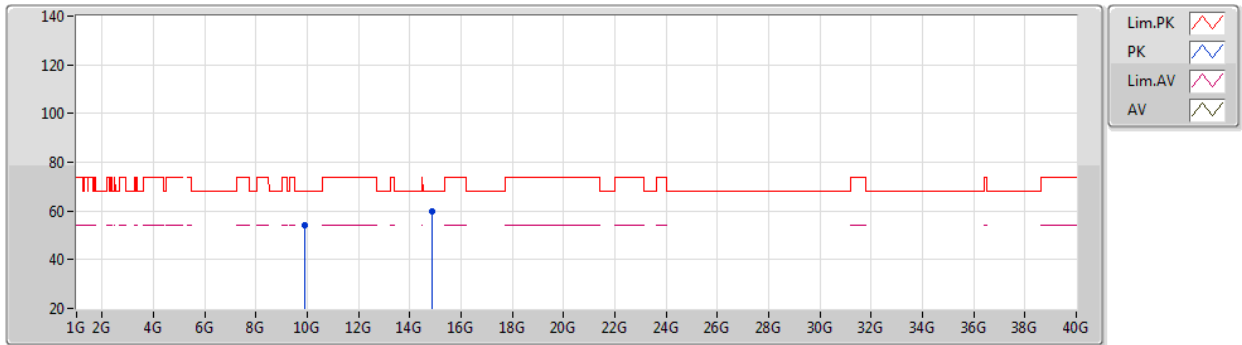
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-
Cabinet_Nss1,(MCS0)_2TX	Pass	PK	14.86416G	59.70	68.20	-8.50	3	Vertical	62	2.94	-

Cabinet_Nss1,(MCS0)_2TX

31/08/2020

4950MHz_TX



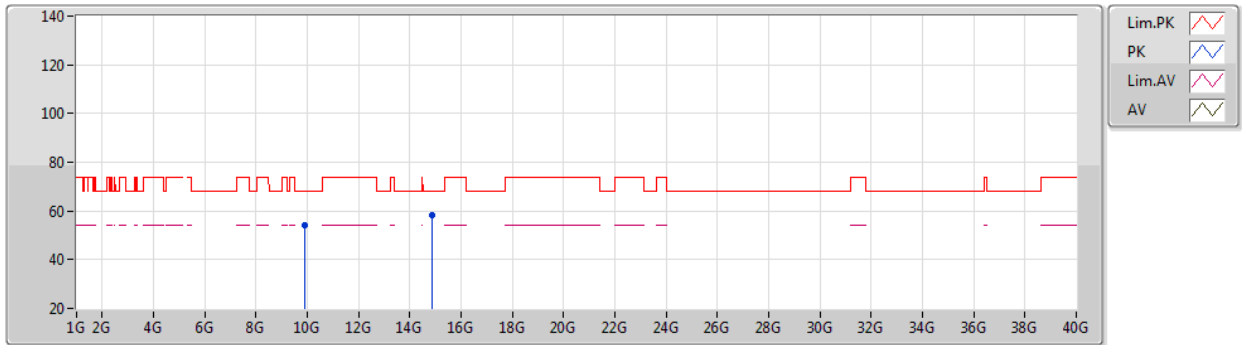
EUT_Z_2TX
Setting 18.5
05-M-N-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	9.89436G	54.05	68.20	-14.15	40.96	3	Vertical	278	1.49	-	39.51	8.15	34.57
PK	14.86416G	59.70	68.20	-8.50	42.43	3	Vertical	62	2.94	-	41.28	9.92	33.93

Cabinet_Nss1,(MCS0)_2TX

31/08/2020

4950MHz_TX



EUT_Z_2TX
Setting 18.5
05-M-N-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	9.9015G	54.18	68.20	-14.02	41.12	3	Horizontal	335	1.65	-	39.49	8.15	34.58
PK	14.85618G	58.27	68.20	-9.93	40.99	3	Horizontal	198	1.18	-	41.32	9.91	33.95



Summary

Mode	Result	Ch (Hz)	Center (Hz)	Fl (Hz)	Fh (Hz)	ppm	Limit (Fl,Fh,ppm)	Port	Remark
4.94-4.99GHz	-	-	-	-	-	-	-	-	-
802.11j_5MHz_Nss1_2TX	Pass	4.9425G	4.942472G	4.94041G	4.944534G	-5.69	4.94G,4.99G,Inf	1	-
802.11j_10MHz_Nss1_2TX	Pass	4.945G	4.944982G	4.940872G	4.949093G	-3.602	4.94G,4.99G,Inf	1	-
802.11j_20MHz_Nss1_2TX	Pass	4.95G	4.949987G	4.941755G	4.958219G	-2.651	4.94G,4.99G,Inf	1	-



Result

Mode	Result	Ch (Hz)	Center (Hz)	Fl (Hz)	Fh (Hz)	ppm	Limit (Fl,Fh,ppm)	Port	Remark
4.94-4.99GHz_802.11j_5MHz_Nss1_2TX	-	-	-	-	-	-	-	-	-
4942.5MHz	Pass	4.9425G	4.942472G	4.940417G	4.944527G	-5.69	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942476G	4.940417G	4.944535G	-4.836	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942477G	4.940415G	4.944538G	-4.741	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942478G	4.940436G	4.944521G	-4.362	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942471G	4.940424G	4.944518G	-5.879	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942472G	4.94041G	4.944534G	-5.69	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942473G	4.940415G	4.94453G	-5.5	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942477G	4.94041G	4.944544G	-4.647	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942474G	4.940417G	4.944531G	-5.216	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942474G	4.940413G	4.944535G	-5.216	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942478G	4.940423G	4.944533G	-4.457	4.94G,4.99G,Inf	1	-
4942.5MHz	Pass	4.9425G	4.942473G	4.940411G	4.944536G	-5.405	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962473G	4.960416G	4.96453G	-5.383	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962475G	4.960417G	4.964532G	-5.1	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962472G	4.960408G	4.964536G	-5.667	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962473G	4.960412G	4.964535G	-5.383	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.96248G	4.960424G	4.964536G	-4.061	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962484G	4.960426G	4.964542G	-3.306	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962478G	4.960425G	4.964532G	-4.345	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.96248G	4.960423G	4.964538G	-3.967	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962472G	4.960414G	4.96453G	-5.572	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962481G	4.960423G	4.964539G	-3.872	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962479G	4.960414G	4.964543G	-4.25	4.94G,4.99G,Inf	1	-
4962.5MHz	Pass	4.9625G	4.962466G	4.960411G	4.964521G	-6.895	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987475G	4.985411G	4.98954G	-4.981	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987476G	4.985421G	4.98953G	-4.887	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987476G	4.985418G	4.989533G	-4.887	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987476G	4.985412G	4.989541G	-4.793	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987476G	4.985419G	4.989532G	-4.887	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987477G	4.985415G	4.989538G	-4.699	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987478G	4.985425G	4.98953G	-4.511	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987475G	4.98541G	4.989541G	-4.981	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987475G	4.98541G	4.98954G	-5.075	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987475G	4.985418G	4.989531G	-5.075	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987478G	4.98541G	4.989545G	-4.511	4.94G,4.99G,Inf	1	-
4987.5MHz	Pass	4.9875G	4.987478G	4.98542G	4.989535G	-4.511	4.94G,4.99G,Inf	1	-
4.94-4.99GHz_802.11j_10MHz_Nss1_2TX	-	-	-	-	-	-	-	-	-



Mode	Result	Ch (Hz)	Center (Hz)	Fl (Hz)	Fh (Hz)	ppm	Limit (Fl,Fh,ppm)	Port	Remark
4945MHz	Pass	4.945G	4.944963G	4.940876G	4.949051G	-7.393	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944979G	4.940887G	4.949072G	-4.17	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944975G	4.940883G	4.949066G	-5.118	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944975G	4.940883G	4.949066G	-5.118	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944982G	4.940872G	4.949093G	-3.602	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944974G	4.940885G	4.949063G	-5.308	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944987G	4.940889G	4.949085G	-2.654	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944971G	4.940872G	4.94907G	-5.876	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944976G	4.940879G	4.949072G	-4.929	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944978G	4.940872G	4.949083G	-4.549	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.944983G	4.940892G	4.949074G	-3.412	4.94G,4.99G,Inf	1	-
4945MHz	Pass	4.945G	4.94497G	4.940887G	4.949053G	-6.066	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964972G	4.960874G	4.96907G	-5.664	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.96498G	4.960885G	4.969076G	-3.965	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964977G	4.960868G	4.969085G	-4.72	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964959G	4.960868G	4.969049G	-8.307	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964962G	4.960883G	4.96904G	-7.741	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964978G	4.960885G	4.96907G	-4.531	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964973G	4.960879G	4.969066G	-5.475	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964967G	4.960889G	4.969046G	-6.608	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964972G	4.960866G	4.969078G	-5.664	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964985G	4.960892G	4.969078G	-3.021	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964965G	4.960876G	4.969055G	-6.986	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964978G	4.960881G	4.969076G	-4.342	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.984989G	4.980892G	4.989085G	-2.256	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.984972G	4.980877G	4.989066G	-5.641	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.984992G	4.980896G	4.989087G	-1.692	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.984985G	4.9809G	4.98907G	-3.009	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.98496G	4.980883G	4.989036G	-8.086	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.984978G	4.980866G	4.989089G	-4.513	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.984978G	4.980887G	4.98907G	-4.325	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.985007G	4.980934G	4.989079G	1.316	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.984967G	4.980891G	4.989044G	-6.581	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.984982G	4.980887G	4.989078G	-3.573	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.984978G	4.980891G	4.989064G	-4.513	4.94G,4.99G,Inf	1	-
4985MHz	Pass	4.985G	4.98496G	4.980868G	4.989051G	-8.086	4.94G,4.99G,Inf	1	-
4.94-4.99GHz_802.11j_20MHz_Nss1_2TX	-	-	-	-	-	-	-	-	-
4950MHz	Pass	4.95G	4.949985G	4.941766G	4.958204G	-3.03	4.94G,4.99G,Inf	1	-



Mode	Result	Ch (Hz)	Center (Hz)	Fl (Hz)	Fh (Hz)	ppm	Limit (Fl,Fh,ppm)	Port	Remark
4950MHz	Pass	4.95G	4.949987G	4.941762G	4.958211G	-2.651	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949987G	4.941759G	4.958215G	-2.651	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949985G	4.941762G	4.958208G	-3.03	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949981G	4.941759G	4.958204G	-3.787	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949987G	4.941755G	4.958219G	-2.651	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949985G	4.941762G	4.958208G	-3.03	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949985G	4.94177G	4.9582G	-3.03	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949987G	4.941785G	4.958189G	-2.651	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949983G	4.941759G	4.958208G	-3.409	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949989G	4.941766G	4.958211G	-2.272	4.94G,4.99G,Inf	1	-
4950MHz	Pass	4.95G	4.949987G	4.941759G	4.958215G	-2.651	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964981G	4.956751G	4.973211G	-3.776	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964981G	4.956751G	4.973211G	-3.776	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964983G	4.956759G	4.973208G	-3.398	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964985G	4.956755G	4.973215G	-3.021	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964985G	4.956759G	4.973211G	-3.021	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964983G	4.956751G	4.973215G	-3.398	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964987G	4.956755G	4.973219G	-2.643	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964985G	4.956777G	4.973193G	-3.021	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964987G	4.95677G	4.973204G	-2.643	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964978G	4.956747G	4.973208G	-4.531	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964985G	4.956755G	4.973215G	-3.021	4.94G,4.99G,Inf	1	-
4965MHz	Pass	4.965G	4.964983G	4.956774G	4.973193G	-3.398	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979989G	4.971759G	4.988219G	-2.259	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979981G	4.971766G	4.988196G	-3.765	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979979G	4.971789G	4.98817G	-4.141	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979981G	4.971747G	4.988215G	-3.765	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979979G	4.971751G	4.988208G	-4.141	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979979G	4.971759G	4.9882G	-4.141	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979981G	4.971762G	4.9882G	-3.765	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979981G	4.971759G	4.988204G	-3.765	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979979G	4.971755G	4.988204G	-4.141	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979985G	4.971755G	4.988215G	-3.012	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979981G	4.971762G	4.9882G	-3.765	4.94G,4.99G,Inf	1	-
4980MHz	Pass	4.98G	4.979983G	4.971766G	4.9882G	-3.388	4.94G,4.99G,Inf	1	-