DEKRA Testing and Certification, S.A.U.
Parque Tecnológico de Andalucía,
c/ Severo Ochoa nº 2 · 29590 Campanillas · Málaga · España
C.I.F. A29507456

ISED CABid: ES1909
Lab. Company Number: 4621A

Test Report No:
79469RRF.002A1

Test Report

USA FCC Part 15.407, 15.209
CANADA RSS-247, RSS-Gen

(*) Identification of item tested	Infotainment Head Unit
(*) Trademark	Marelli
(*) Model and /or type reference	HUAIDP21BY
Other identification of the product	FCC ID: RX2HUAIDP21BY IC: 4983A-HUAIDP21BY
(*) Features	Bluetooth, WLAN a, n, ac: (20/40/80 MHz BW), channel #149 HW version: PRS2.1 SW version: PI26.53
Applicant	Marelli Europe S.p.A. Viale A. Borletti 61/63 – 20011 Corbetta (MI) - ITALY
Test method requested, standard	USA FCC Part 15.407 (10-1-23) Edition: Unlicensed National Information Infrastructure (U-NII) Devices. General technical requirements. USA FCC Part 15.209 (10-1-23) Edition: Radiated emission limits; general requirements. CANADA RSS-247 Issue 3 (August 2023). CANADA RSS-Gen Issue 5 Amendment 2 (February 2021). Guidance for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices 789033 D02 General U-NII Test Procedures New Rules v02r01 dated Dec 14, 2017. ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.
Summary	IN COMPLIANCE
Approved by (name / position & signature)	José Manuel Gómez Galván EMC Consumer & RF Lab. Manager Firmado digitalmente por 53680346W JOSE MANUEL GOMEZ (C:A29507456)
Date of issue	2024-08-09
Report template No	FDT08_24 (*) "Data provided by the client"

Index

Acronyms

Acronym ID	Acronym Description
Avg Power	Maximum Average Conducted Output Power
DC	Duty Cycle
Detector	Detector used
Ebw	Emission Bandwidth
Freq	Frequency
Freq Rng	Frequency Range
MP	Measurement Point
Max EIRP	Maximum Burst EIRP
Mod	Modulation
Mode	MIMO Mode
Occ Ch BW	Occupied Channel Bandwidth
Operation Band	Operation Band
PSD	Power Spectral Density
Pol	Polarization
Port	Active Port
TPC	TPC
Unwanted Freq	Unwanted Emissions Frequency
Unwanted Lvl	Unwanted Emissions Level

Competences and guarantees

DEKRA Testing and Certification S.A.U. is a testing laboratory accredited by the National Accreditation Body (ENAC -Entidad Nacional de Acreditación), to perform the tests indicated in the Certificate No. 51/LE 147.

DEKRA Testing and Certification S.A.U. is an FCC-recognized accredited testing laboratory with appropriate scope of accreditation that covers the performed tests in this report.

DEKRA Testing and Certification S.A.U. is an ISED-recognized accredited testing laboratory, CABid: ES1909, Company Number: 4621A, with the appropriate scope of accreditation that covers the performed tests in this report.

In order to assure the traceability to other national and international laboratories, DEKRA Testing and Certification S.A.U. has a calibration and maintenance program for its measurement equipment.

DEKRA Testing and Certification S.A.U. guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at DEKRA Testing and Certification S.A.U. at the time of performance of the test.

DEKRA Testing and Certification S.A.U. is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA Testing and Certification S.A.U.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Testing and Certification S.A.U. and the Accreditation Bodies.

Uncertainty

Uncertainty (factor k=2) was calculated according to the DEKRA Testing and Certification S.A.U. internal document PODT000.

The total uncertainty of the measurement system for the radiated emissions of EUT from 30 MHz to 1 GHz is: Measurement uncertainty ≤ ± 5,35 dB with factor (k = 2).

The total uncertainty of the measurement system for the radiated emissions of EUT from 1 GHz to 17 GHz is: Measurement uncertainty ≤ ± 4,32 dB with factor (k = 2).

The total uncertainty of the measurement system for the radiated emissions of EUT from 17 GHz to 40 GHz is: Measurement uncertainty ≤ ± 5,55 dB with factor (k = 2).

The total uncertainty of the measurement system for the conducted testing of EUT is:
RF Average Output Power: Measurement uncertainty ≤ ± 2,01 dB
Duty Cycle: Measurement uncertainty ≤ ± 0,84 ms
Power Spectral Density: Measurement uncertainty ≤ ± 2,01 dB
Occupied/26 dBc Bandwidth: Measurement uncertainty
≤ ± 57,76 kHz for BW 20MHz;
≤ ± 115,53 kHz for BW 40MHz; and
≤ ± 231,06 kHz for BW 80MHz.

6 dB Banwidth: Measurement uncertainty
≤ ± 34,67 kHz for BW 20MHz;
≤ ± 46,22 kHz for BW 40MHz; and
≤ ± 80,90 kHz for BW 80MHz.

Conducted Band-edge spurious emissions: Measurement uncertainty ≤ ± 2,57 dB

Data provided by the client

The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested").

2. The sample consists of an Infotainment Head Unit. Infotainment Head Unit, with Bluetooth and Wi-Fi.

DEKRA Testing and Certification S.A.U. declines any responsibility with respect to the information provided by the client and that may affect the validity of results.

Usage of samples

Samples undergoing test have been selected by: The client.

Id	Control Number	Description	Model	Serial Nº	Date of Reception	Application
S/01	75807_1.1	Infotainment Head Unit	HUAIDP21BY	1ATF3B158F1E	2024-02-05	Element Under Test
S/01	75807_10.1	CONNECTION CABLE	--	--	2024-02-05	Auxiliary Element
S/01	75807_12.1	CONNECTION CABLE	--	--	2024-02-05	Auxiliary Element
S/01	75807_3.1	CAN BOX	--	2026-08	2024-02-05	Auxiliary Element
S/01	75807_5.1	MAIN HARNESS	--	--	2024-02-05	Auxiliary Element
S/01	75807_6.1	CONNECTION CABLE (USB)	--	--	2024-02-05	Auxiliary Element
S/02	75807_46.1	Infotainment Head Unit	HUAIDP21BY	1ATF3B150F1E	2024-03-05	Element Under Test
S/02	75807_7.1	CONNECTION CABLE	-	-	2024-02-05	Auxiliary Element
S/02	75807_60.1	MCANbox2	AIDAR2	-	2024-03-12	Auxiliary Element

Notes referenced to samples during the project:

Id	Type
S/01	Radiated tests.
S/02	Conducted tests.

Test sample description

Ports…… :	Port name and description	Cable			
		Specified max length [m]	Attached during test	Shielded	Coupled to patient(3)
	Main connector (12ways)	>3	[X]	[ ]	[ ]
	MQS connector (8ways)	>3	[X]	[ ]	[ ]
	shielded cables	>3	[X]	[X]	[ ]
	.....	.....	[ ]	[ ]	[ ]

Supplementary information to the ports…… :	.....						
Rated power supply .....:	Voltage and Frequency		Reference poles				
			L1	L2	L3	N	PE
	[ ]	AC:	[ ]	[ ]	[ ]	[ ]	[ ]
	[X]	DC: Main and MQS cables: 12 Vdc nominal voltage (9.5 - 16 Vdc)					
	[X]	DC: shielded cables: 12 Vdc nominal voltage (9.5 - 16 Vdc)					
Rated Power .....:	.....						
Clock frequencies.....:	.....						
Other parameters .....:	.....						
Software version .....:	PI26.53						
Hardware version .....:	PRS2.1						
Dimensions in cm (W x H x D) ....:	220 x 160 x 52 mm						
Mounting position .....:	[ ]	Table top equipment					
	[ ]	Wall/Ceiling mounted equipment					
	[ ]	Floor standing equipment					
	[ ]	Hand-held equipment					
	[X]	Other: HUAIDP21BY is installed in vehicle dashboard (automotive environment)					
Modules/parts.....:	Module/parts of test item		Type		Manufacturer		
	.....		.....		.....		
Accessories (not part of the test item) .....:	Description		Type		Manufacturer		
	.....		.....		.....		
Documents as provided by the applicant.....:	Description		File name		Issue date		
	.....		.....		.....		

(3) Only for Medical Equipment

Identification of the client

Marelli Europe S.p.A.
Viale A. Borletti 61/63 – 20011 Corbetta (MI) - ITALY

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U.
Date (start)	2024-03-25
Date (finish)	2024-06-14

Document history

Report number	Date	Description
79469RRF.002	2024-07-05	First release.
79469RRF.002A1	2024-08-09	Second release. This test report is modified due to a missing information. This modification test report cancels and replaces the test report 79469RRF.002.

Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 20 % Max. = 75 %

In the semianechoic chamber, the following limits were not exceeded during the test.

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 20 % Max. = 75 %

In the chamber for conducted measurements, the following limits were not exceeded during the test:

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 20 % Max. = 75 %

Remarks and comments

The tests have been performed by the technical personnel: Pablo Redondo Reyes and Rafael Fernandez Martin.

Used instrumentation:

Control No.	Equipment	Model	Manufacturer	Next Calibration
07760	DIGITAL MULTIMETER	175	FLUKE	2024-11-08
05850	DIGITAL MULTIMETER	179	FLUKE	2024-11-02
06615	ETHERNET TEMPERATURE AND HUMIDITY LOGGER	HWg-STE	HW GROUP	2025-04-04
06609	ETHERNET TEMPERATURE AND HUMIDITY LOGGER	HWg-STE	HW GROUP	2025-04-22
07040	EXTENSION FOR OPEN SWITCH UNIT UP TO 40GHz	OSP-B157Wx	ROHDE AND SCHWARZ	2025-04-19
09029	HIGH PASS FILTER 17-40 GHZ	STHP-17-40G-92	TEMSTRON/TEM WELL	2025-03-29
07091	HIGH PASS FILTER 7-18 GHZ	ST-7GA3619-HS	TEMSTRON/TEM WELL	2025-04-08
04657	HORN ANTENNA 18-40GHz	BBHA 9170	SCHWARZBECK	2026-06-12
06496	HORN ANTENNA 1-18GHz	BBHA 9120 D	SCHWARZBECK	2026-12-01
06143	HYBRID BILOG ANTENNA 30MHz-6GHz	3142E	ETS LINDGREN	2027-01-22
07193	MULTI-DEVICE CONTROLLER	CO3000	INNCO	N/A
08848	OPEN SWITCH UNIT UP TO 7.5 GHz	OSP-B157W8 PLUS	ROHDE & SCHWARZ	2024-12-21
03335	POWER SENSOR 10MHz-8GHz	NRP-Z11	ROHDE AND SCHWARZ	2024-05-29
00922	POWER SUPPLY DC 40 V / 40 A	NGPE 40/40	ROHDE AND SCHWARZ	--
08856	PRE-AMPLIFIER G>30dB 18-40GHz	BLMA 1840-4A	BONN ELEKTRONIK	2025-02-27
03783	PRE-AMPLIFIER G>30dB 1GHz-18GHz	BLMA 0118-3A	BONN ELEKTRONIK	2025-03-15
06142	PRE-AMPLIFIER G>38dB 30MHz-6GHz	BLNA 0360-01N	BONN ELEKTRONIK	2024-06-28
06791	SEMIANECHOIC ABSORBER LINED CHAMBER IV	FACT 3 200 STP	ETS LINDGREN	N/A
06793	SHIELDED ROOM	S101	ETS LINDGREN	N/A
10304	EMI TEST RECEIVER 2Hz-44GHz	ESW44	ROHDE AND SCHWARZ	2026-02-19
07794	SIGNAL AND SPECTRUM ANALYZER 10Hz-40GHz	FSV40	ROHDE AND SCHWARZ	2025-04-21
07791	SIGNAL GENERATOR 8kHz-6GHz	SMB100B	ROHDE AND SCHWARZ	2026-03-15

Control No.	Equipment	Model	Manufacturer	Next Calibration
07793	SIGNAL GENERATOR 8kHz-6GHz	SMBV100B	ROHDE AND SCHWARZ	2026-03-11
04848	SOFTWARE FOR EMC/RF TESTING	EMC32	ROHDE AND SCHWARZ	N/A
06611	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2025-04-04
07795	WIRELESS CONNECTIVITY TESTER BW 160 MHz	CMW270	ROHDE AND SCHWARZ	2025-03-13
07798	WMS32	WMS32	ROHDE AND SCHWARZ	N/A

Testing verdicts

Fail	F
Inconclusive	I
Not applicable	N/A
Not measured	N/M
Pass	P

Summary

A. U-NII-3 Band: 5.725 - 5.85 GHz

FCC PART 15 PARAGRAPH / RSS-247			
Requirement – Test case		**Verdict**	**Remark**
FCC 15.407 (a)(3) / RSS-247 6.2.4.1	Transmitter Maximum conducted Output Power	P	
FCC 15.407 (e) / RSS-247 6.2.4.1	6 dB bandwidth.	P	
FCC 15.407 (a)(3) / RSS-247 6.2.4.1	Transmitter Maximum Power Spectral Density	P	
FCC 15.407 (b)(4) / RSS-247 6.2.4.2	Transmitter Band Edge Radiated Emissions	P	
FCC 15.407 (b)(4)(6) / RSS-247 6.2.4.2	Transmitter Out of Band Radiated Emissions	P	
RSS-Gen 6.10. / Section 15.35 Subclause (c)	Duty Cycle	P	
RSS-Gen 6.6 / RSS-247 6.2.	99% Occupied Bandwidth	P	
Section 15.407 Subclause 15.403(i)	26 dB Emission Bandwidth (EBW)	P	
Supplementary information and remarks: (1) Test not requested.			

Appendix A: Test results for the U-NII-3 Band 5.725 - 5.85 GHz

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TEST CONDITIONS

(*): Data provided by the client.

POWER SUPPLY (*):

Vnominal:	Main and MQS cables: 12 Vdc nominal voltage (9.5 - 16 Vdc) or shielded cables: 12 Vdc nominal voltage (9.5 - 16 Vdc)
Type of Power Supply:	Vehicle battery

ANTENNA (*):

Type of Antenna:	PCB integral antenna (printed antenna)
Maximum Declared Antenna Gain:	0 dBi

Technology Tested:	WLAN (IEEE 802.11 a/n/ac): U-NII-3 band	
Modes:	802.11a: 6, 9, 12, 18, 24, 36, 48 & 54 Mbps	
	802.11n HT20: MCS0 to MCS7	
	802.11n HT40: MCS0 to MCS7	
	802.11ac VHT20: MCS0 to MCS8	
	802.11ac VHT40: MCS0 to MCS9	
	802.11ac VHT80: MCS0 to MCS9	
Setting of cores / ports:	One port.	
Beamforming:	No	
Frequency Range:	5725 MHz to 5850 MHz	
Channel Spacing:	20 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Low: 149	5745
Channel Spacing:	40 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Low: 151	5755
Channel Spacing:	80 MHz	
Transmit Channels	Middle: 155	5775

The test set-up was made in accordance to the general provisions of FCC Unlicensed National Information Infrastructure (U-NII) Devices 789033 D02 General U-NII Test Procedures New Rules v02r01 dated Dec 14, 2017.

The EUT was tested in the following operating mode:

- Continuously transmitting with a modulated carrier at maximum power in all required channels using the supported data rates/modulations types.

The field strength at the band edges was evaluated for each mode on the lowest and highest channels at the rated power for the channel under test.

For all modes, the EUT was configured in test mode using a software application. The application was used to enable a continuous transmission and to select the test channels as required. The client supplied instructions to configure the EUT. The customer supplied a document containing the setup instructions.

The worst cases for testing were identified for output power and spurious levels at the band edges which were selected based on preliminary testing that correspond to next data rates:

- 802.11 a20: 6 Mbps
- 802.11 n HT20: MCS0
- 802.11 n HT40: MCS0
- 802.11 ac VHT20: MCS0
- 802.11 ac VHT40: MCS0
- 802.11 ac VHT80: MCS0

CONDUCTED MEASUREMENTS:

The equipment under test was set up in a shielded room and it is connected to the TS8997 using a low loss RF cable. The reading of the spectrum analyser is corrected taking into account the cable loss.

RADIATED MEASUREMENTS:

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna (Bilog antenna for the range between 30 MHz to 1000 MHz and 1 GHz-17 GHz Double ridge horn antenna) is situated at a distance of 3 m and at a distance of 1.5 m for the frequency range 17 GHz-26 GHz (17 GHz-40 GHz horn antenna).

For radiated emissions in the range 17 GHz-26 GHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

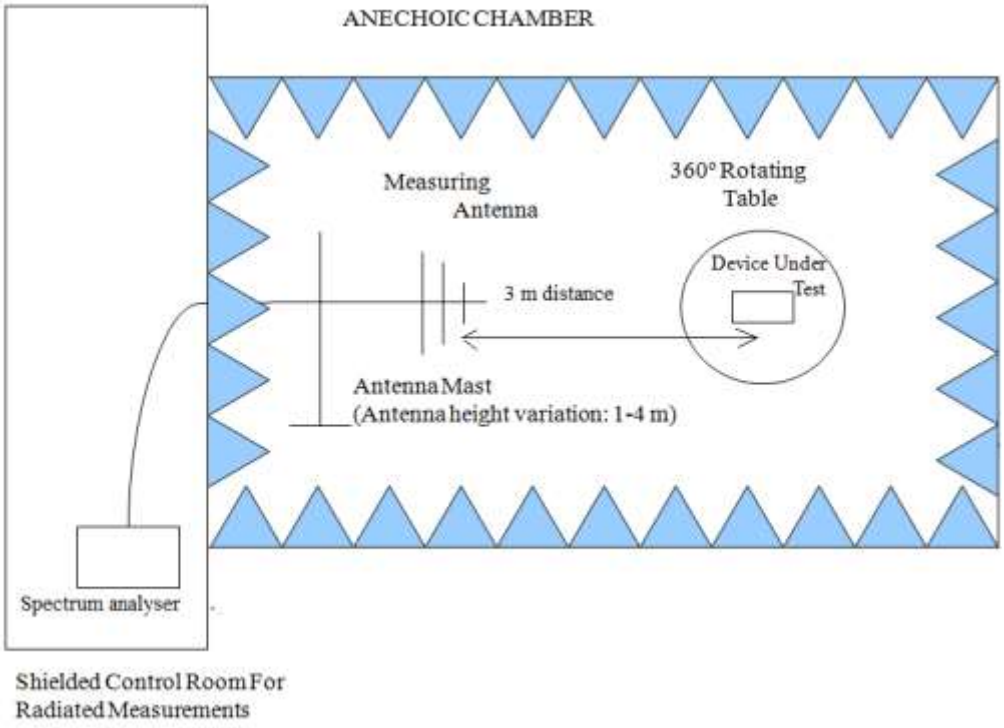
The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360º and the antenna height (Bilog antenna and Double ridge horn antenna) was varied from 1 to 4 meters to find the maximum radiated emission.

Measurements were made in both horizontal and vertical planes of polarization.

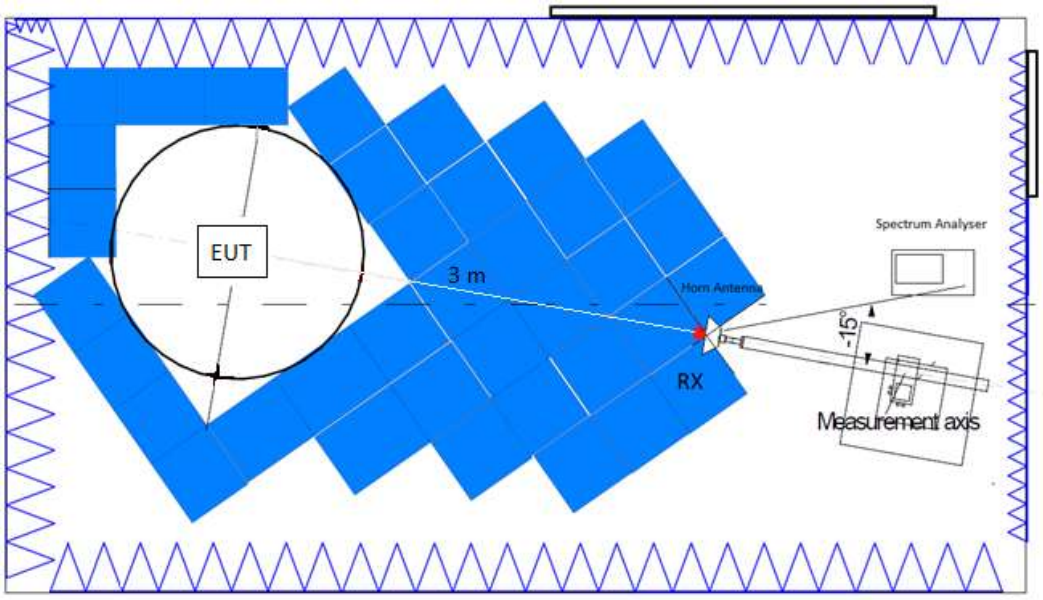
The final measured value, for the given emission, in the tables below incorporates the calibrated antenna factor and cable loss.

A resolution bandwidth/video bandwidth of 100 kHz / 300 kHz was used for frequencies below 1 GHz and 1 MHz / 3 MHz for frequencies above 1 GHz.

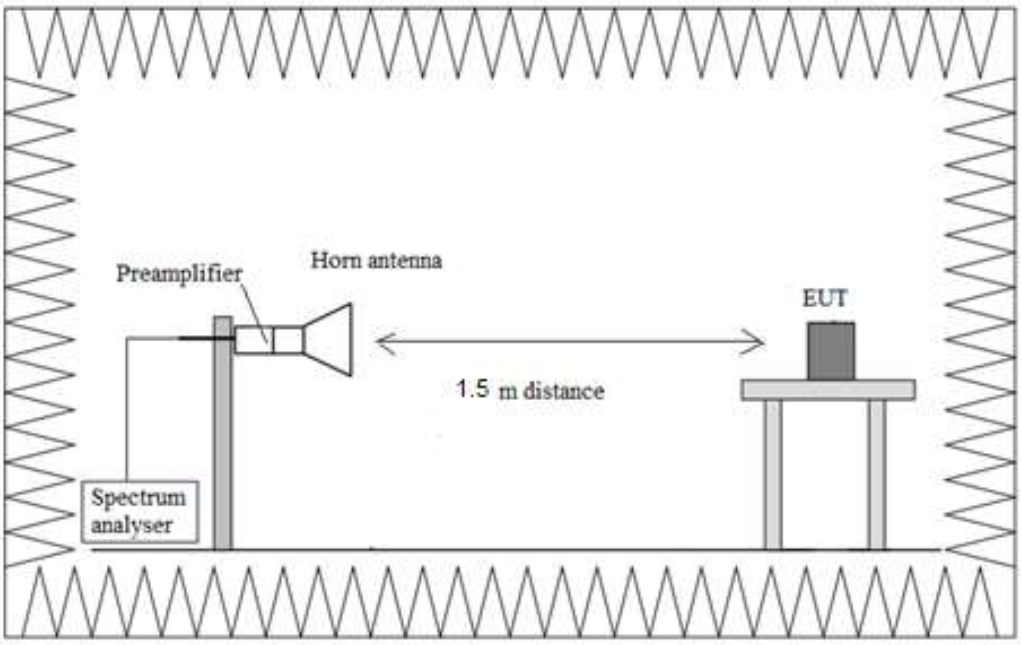
Radiated measurements setup from 30 MHz to 1 GHz:



Radiated measurements setup from 1 GHz to 17 GHz:



Radiated measurements setup f > 17 GHz:



TEST CASES DETAILS

RSS-247 6.2.4.1 / FCC 15.407 (a) (3) [Avcp] Maximum Conducted output power UNII-3

Limits

For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

MIMO Mode: SISO

Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Avg Power (dBm)	Max EIRP (dBm)
[5725, 5850]	1	5745.00000	No	12.63	12.63

Modulation: 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Avg Power (dBm)	Max EIRP (dBm)
[5725, 5850]	1	5755.00000	No	12.54	12.54

Modulation: 802.11a (OFDM 6 Mbit/s)

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Avg Power (dBm)	Max EIRP (dBm)
[5725, 5850]	1	5745.00000	No	12.88	12.88

Modulation: 802.11ac VHT20 (OFDM MCS0)

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Avg Power (dBm)	Max EIRP (dBm)
[5725, 5850]	1	5745.00000	No	12.63	12.63

Modulation: 802.11ac VHT40 (OFDM MCS0)

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Avg Power (dBm)	Max EIRP (dBm)
[5725, 5850]	1	5755.00000	No	12.54	12.54

Modulation: 802.11ac VHT80 (OFDM MCS0)

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Avg Power (dBm)	Max EIRP (dBm)
[5725, 5850]	1	5775.00000	No	11.54	11.54

RSS-247 6.2.4.1 / FCC 15.407 (a) (3) [Psd] Transmitter Maximum Power Spectral Density UNII-3

Limits

For the band 5.725-5.850 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Freq (MHz)	PSD (dBm)
[5725, 5850]	1	5745.00000	No	5746.188119	-2.17

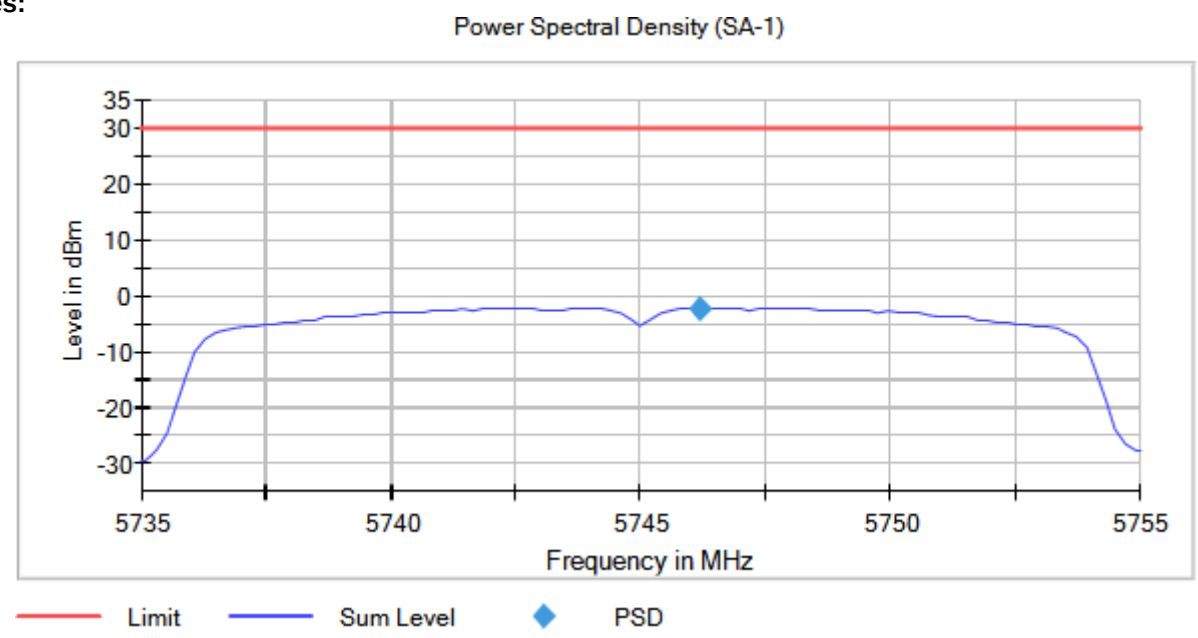
Verdict

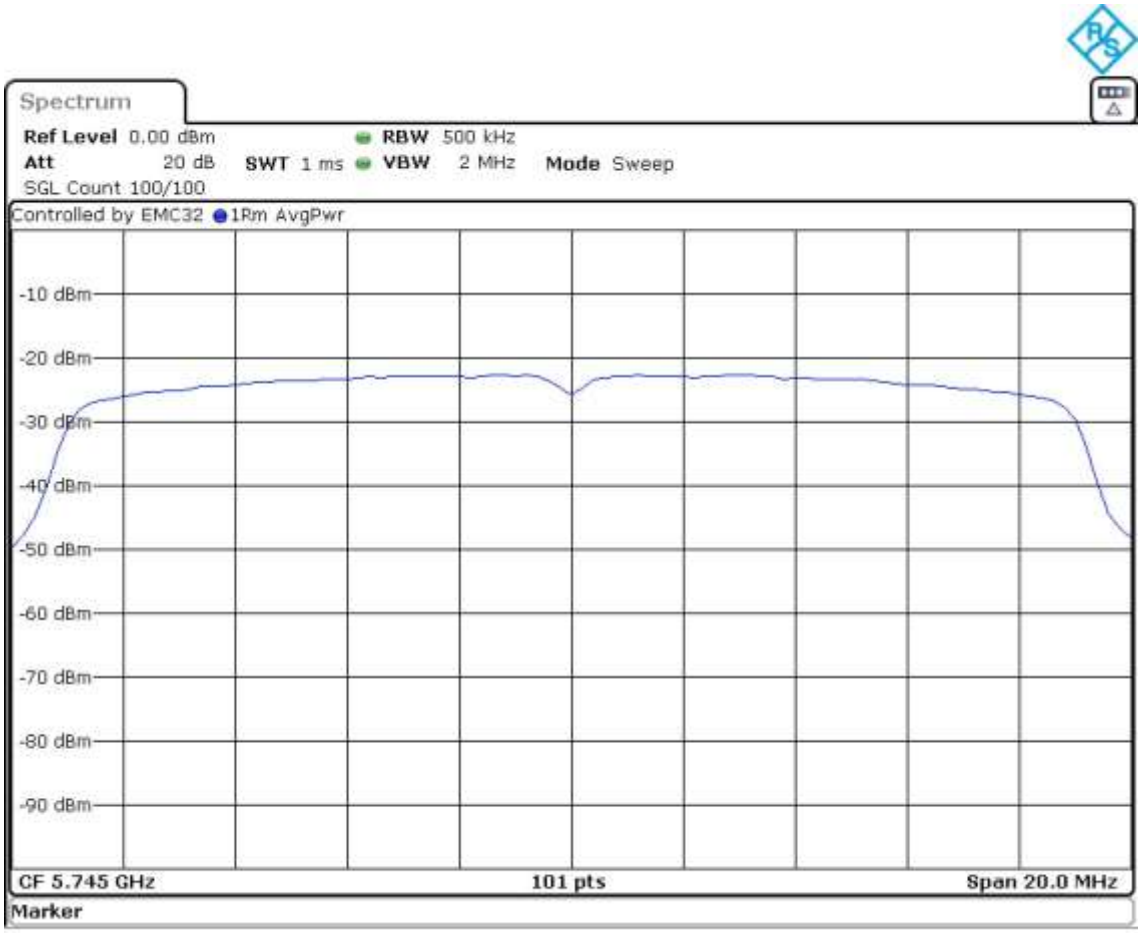
Pass

Attachments

Operation Band MHz = [5725, 5850]	Active Port = 1
Frequency MHz = 5745.00000	Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)
TPC = No	MIMO Mode = SISO

Images:





Modulation: 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Freq (MHz)	PSD (dBm)
[5725, 5850]	1	5755.00000	No	5752.625000	-5.60

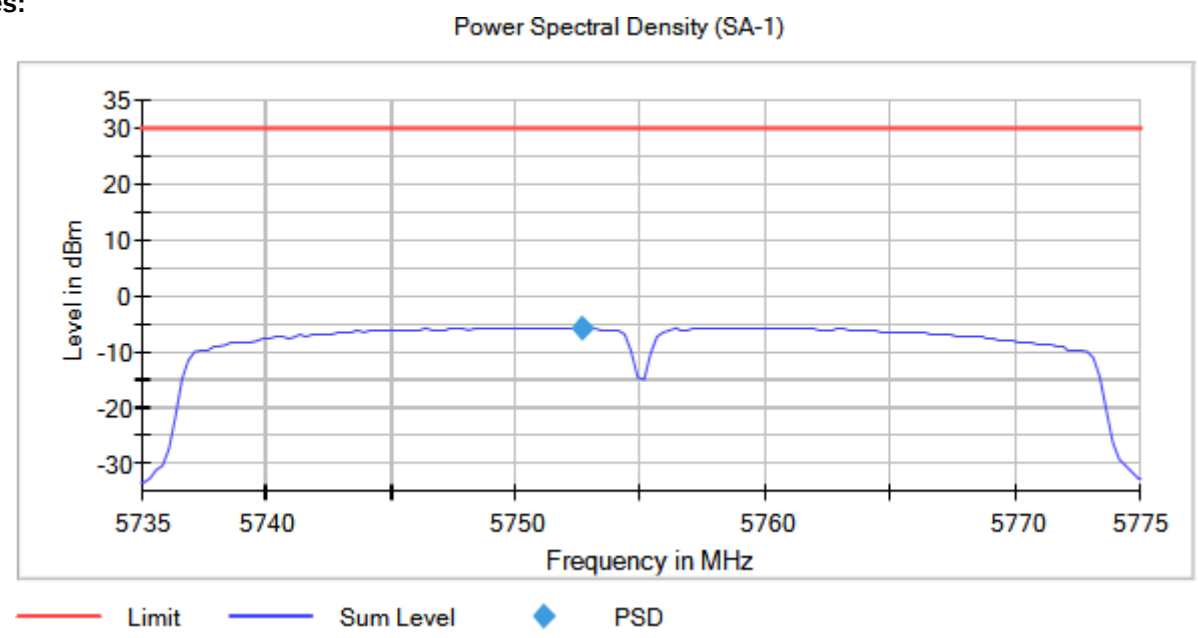
Verdict

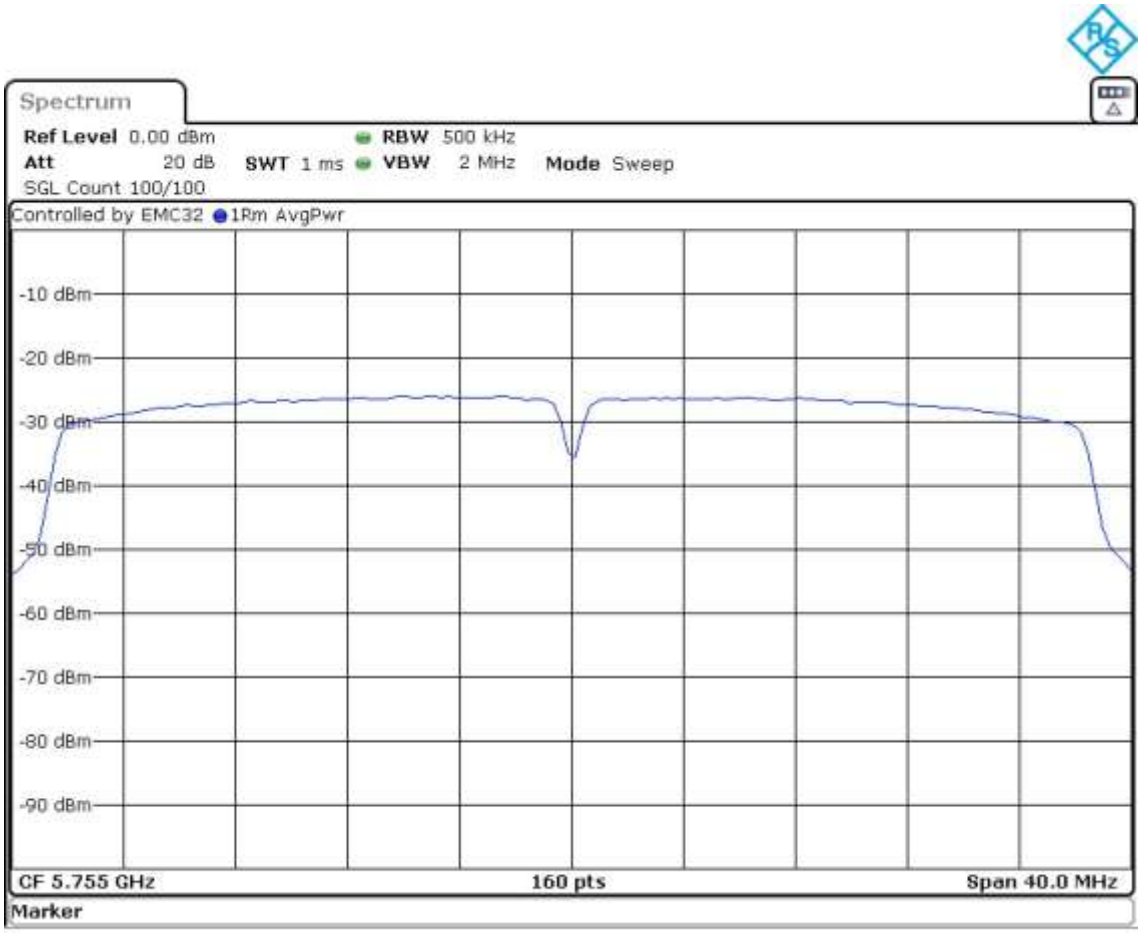
Pass

Attachments

Operation Band MHz = [5725, 5850]	Active Port = 1
Frequency MHz = 5755.00000	Modulation = 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)
TPC = No	MIMO Mode = SISO

Images:





Modulation: 802.11a (OFDM 6 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Freq (MHz)	PSD (dBm)
[5725, 5850]	1	5745.00000	No	5747.574257	-1.76

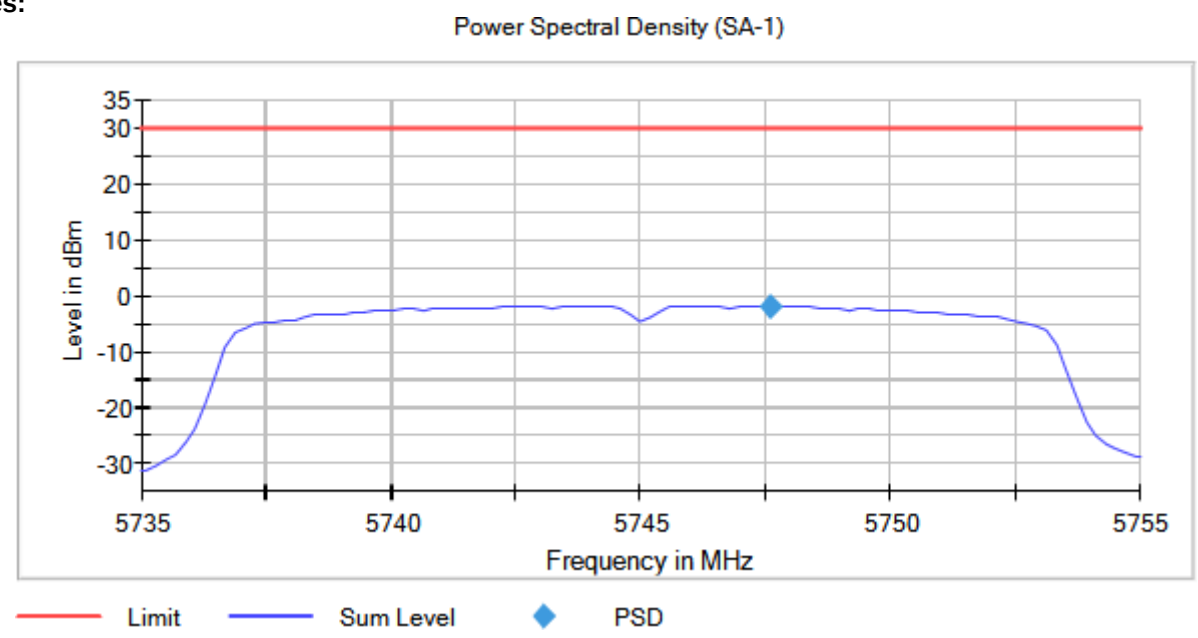
Verdict

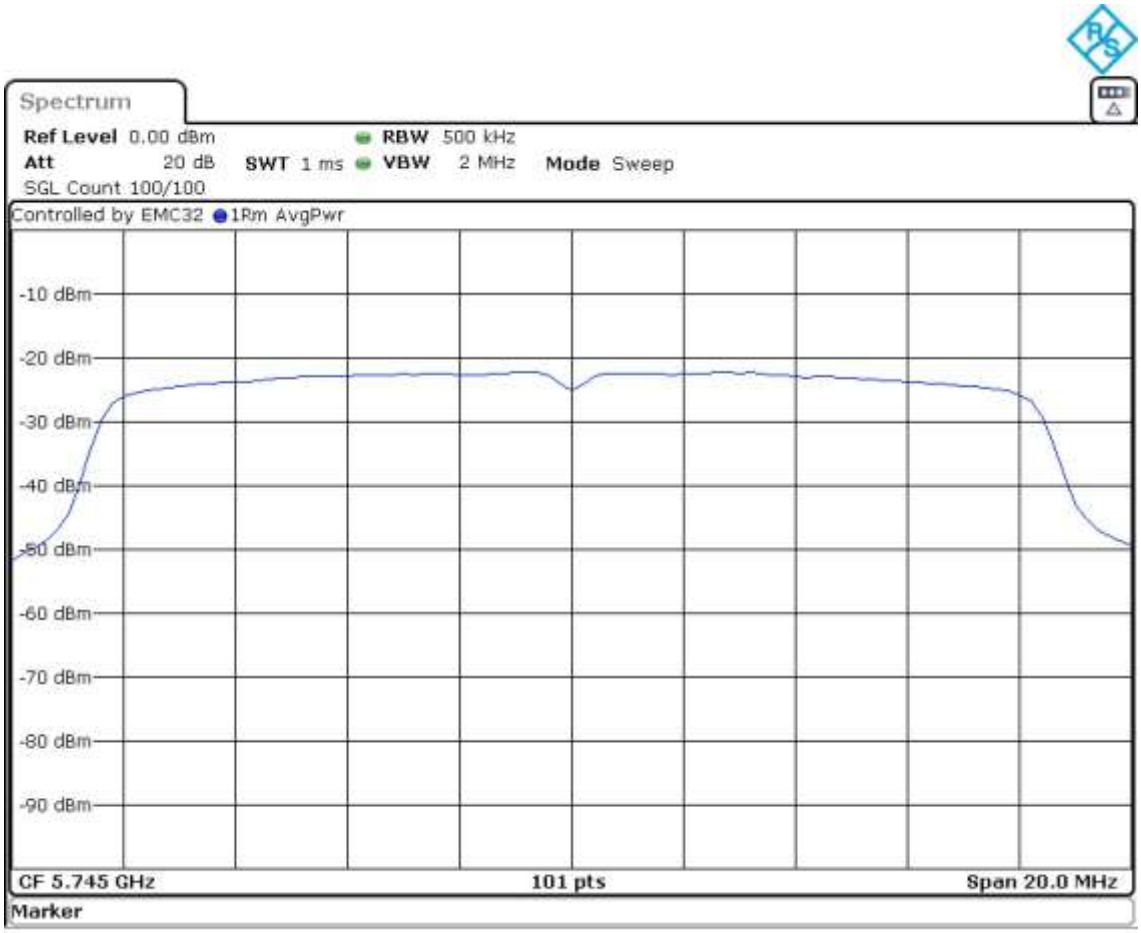
Pass

Attachments

Operation Band MHz = [5725, 5850]	Active Port = 1
Frequency MHz = 5745.00000	Modulation = 802.11a (OFDM 6 Mbit/s)
TPC = No	MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT20 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Freq (MHz)	PSD (dBm)
[5725, 5850]	1	5745.00000	No	5744.009901	-2.24

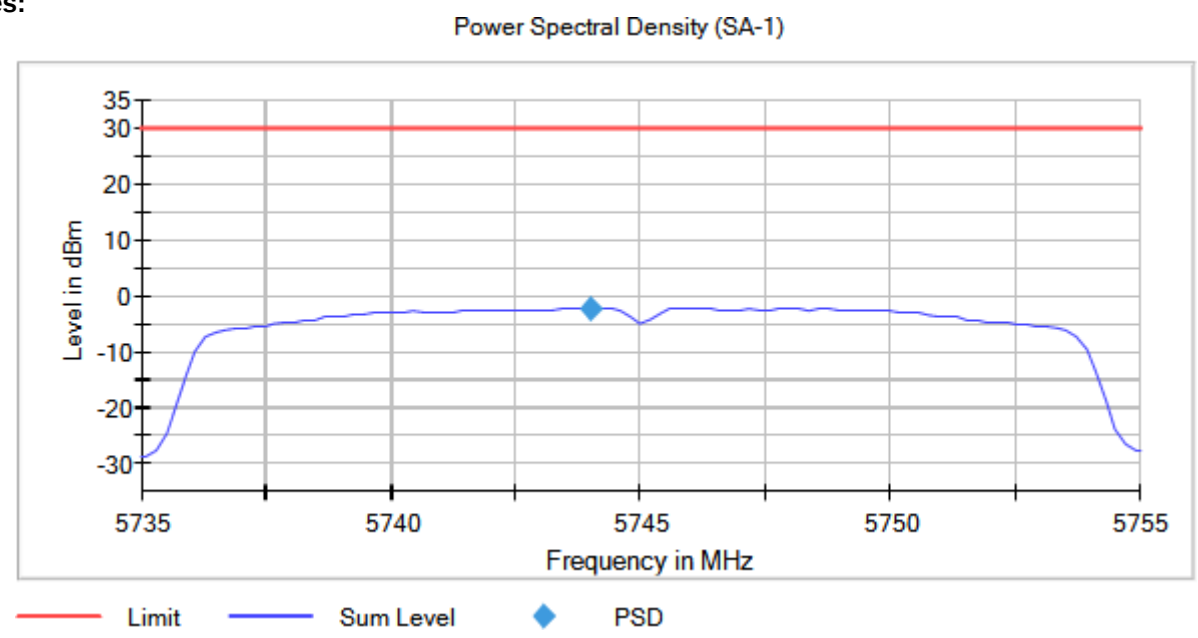
Verdict

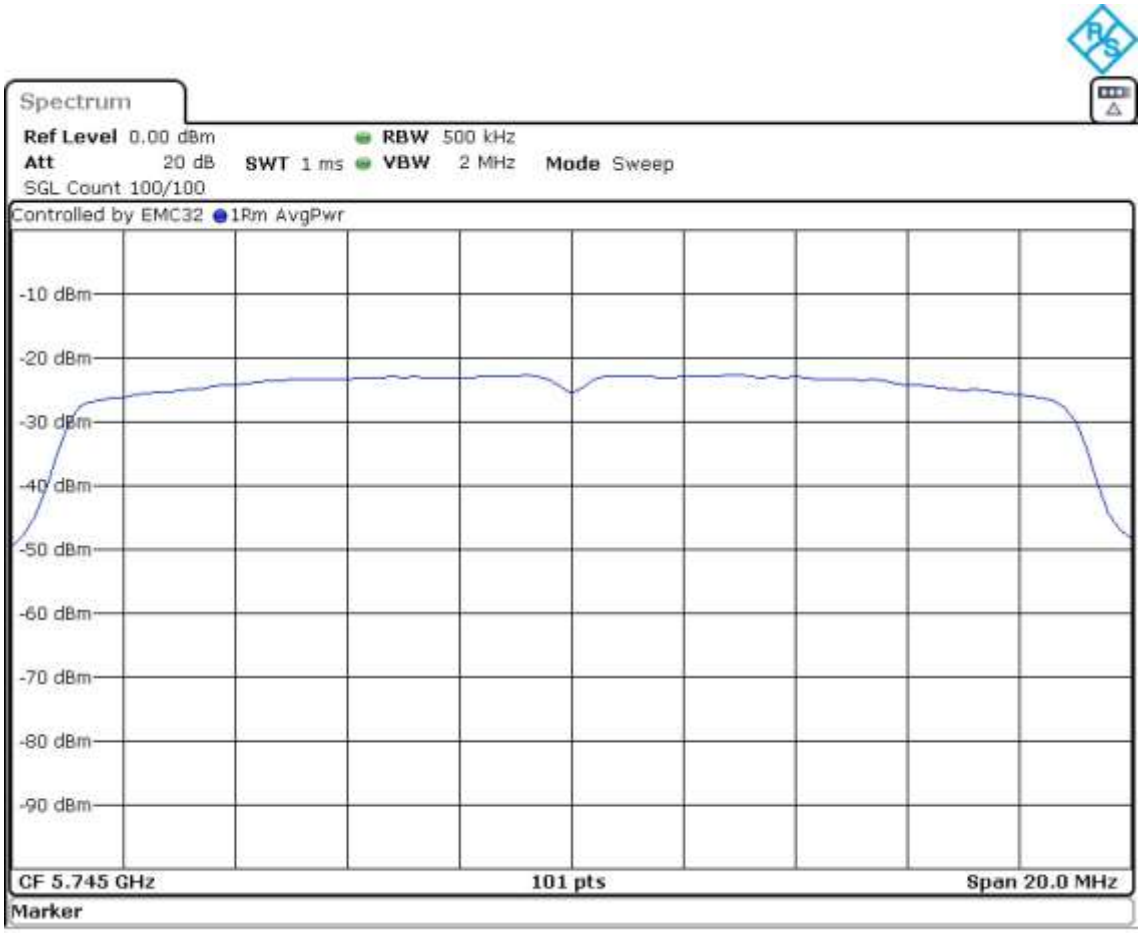
Pass

Attachments

Operation Band MHz = [5725, 5850]	Active Port = 1
Frequency MHz = 5745.00000	Modulation = 802.11ac VHT20 (OFDM MCS0)
TPC = No	MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT40 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Freq (MHz)	PSD (dBm)
[5725, 5850]	1	5755.00000	No	5749.875000	-5.53

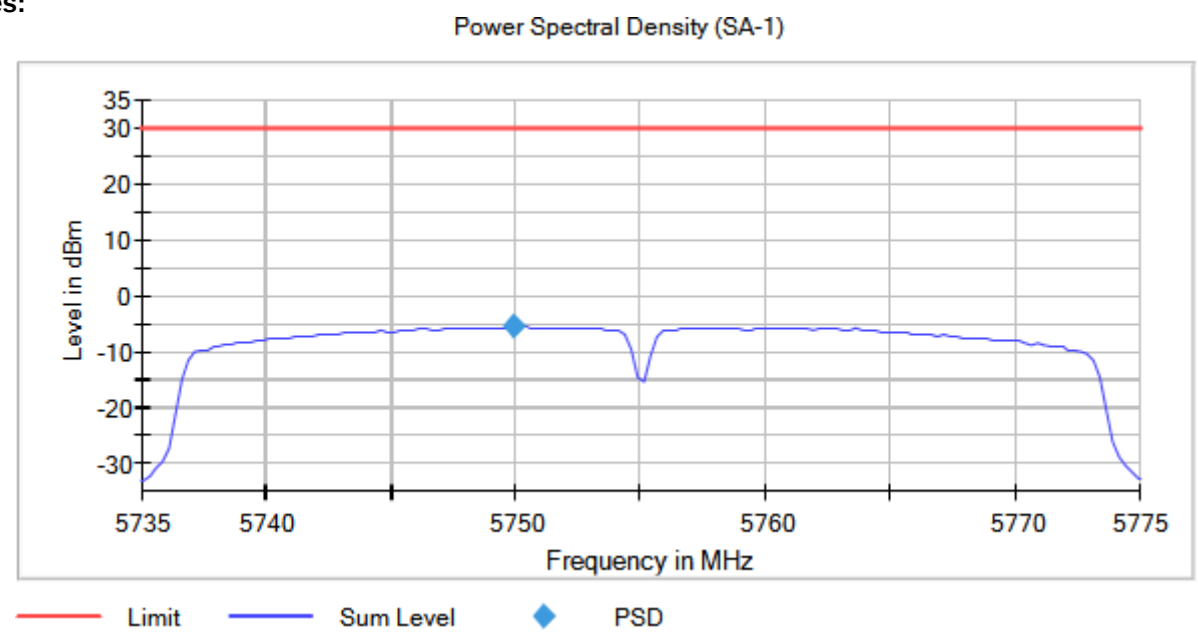
Verdict

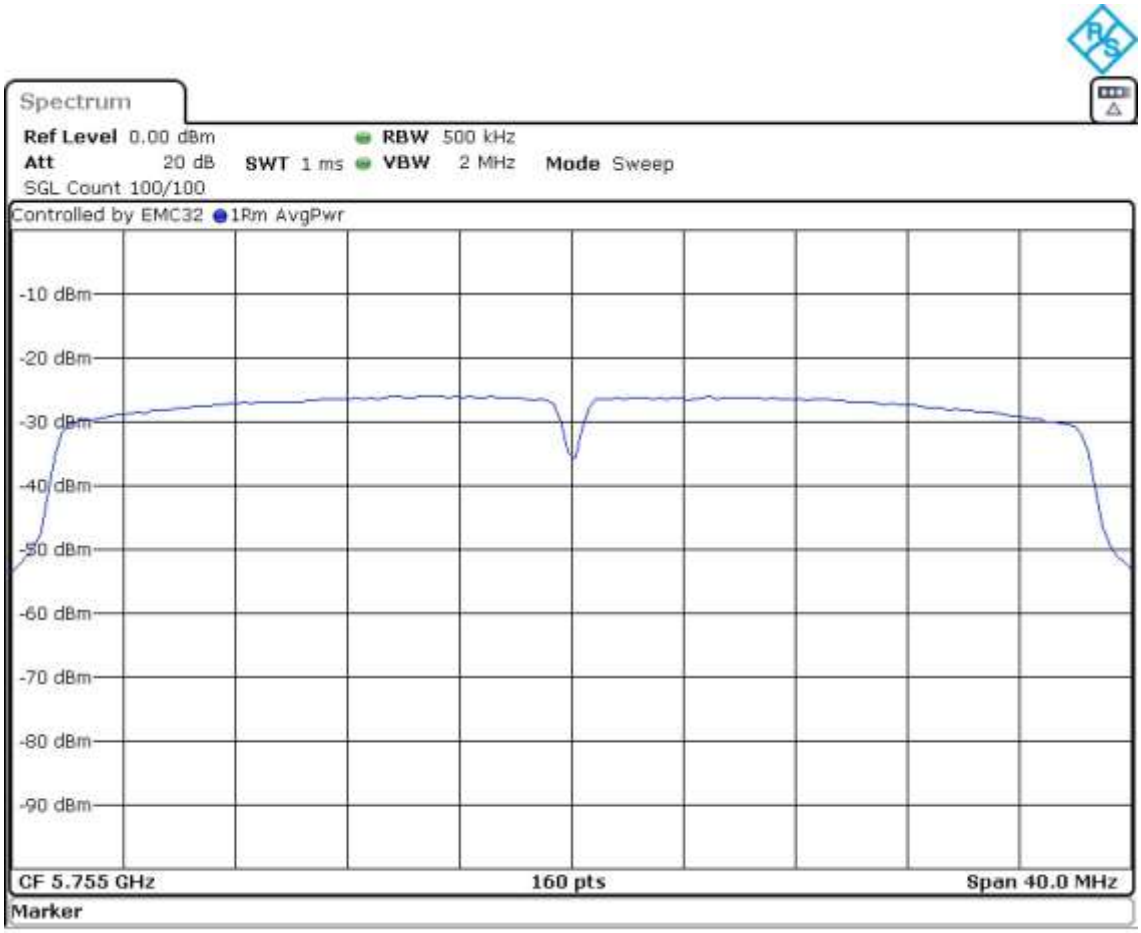
Pass

Attachments

Operation Band MHz = [5725, 5850]	Active Port = 1
Frequency MHz = 5755.00000	Modulation = 802.11ac VHT40 (OFDM MCS0)
TPC = No	MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT80 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	TPC	Freq (MHz)	PSD (dBm)
[5725, 5850]	1	5775.00000	No	5763.625000	-9.96

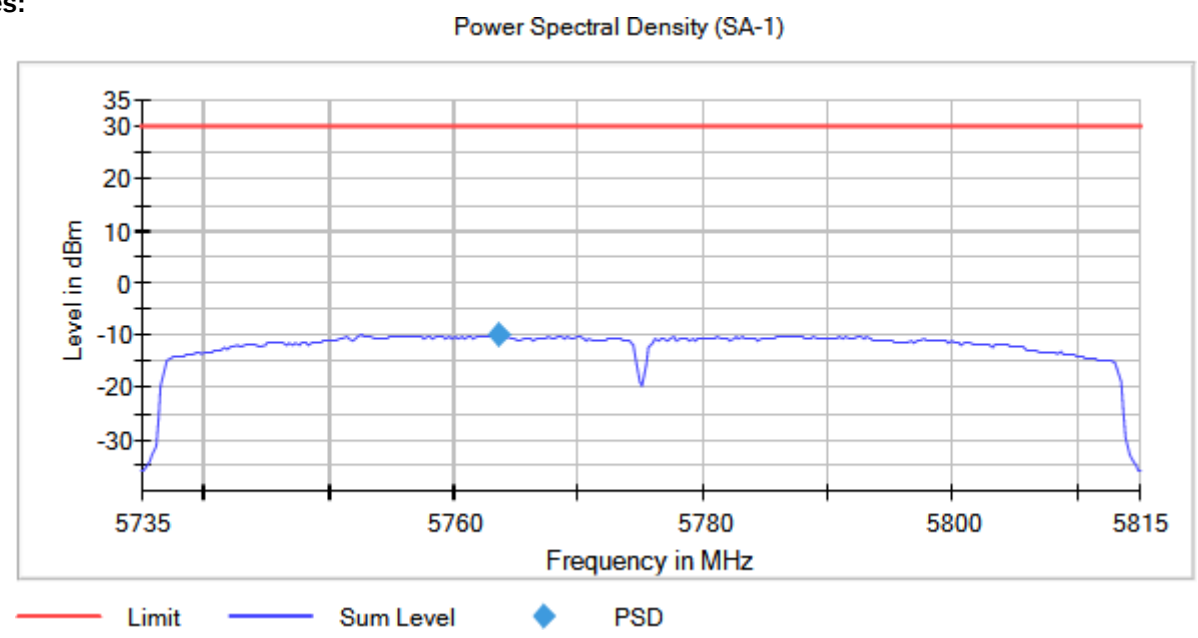
Verdict

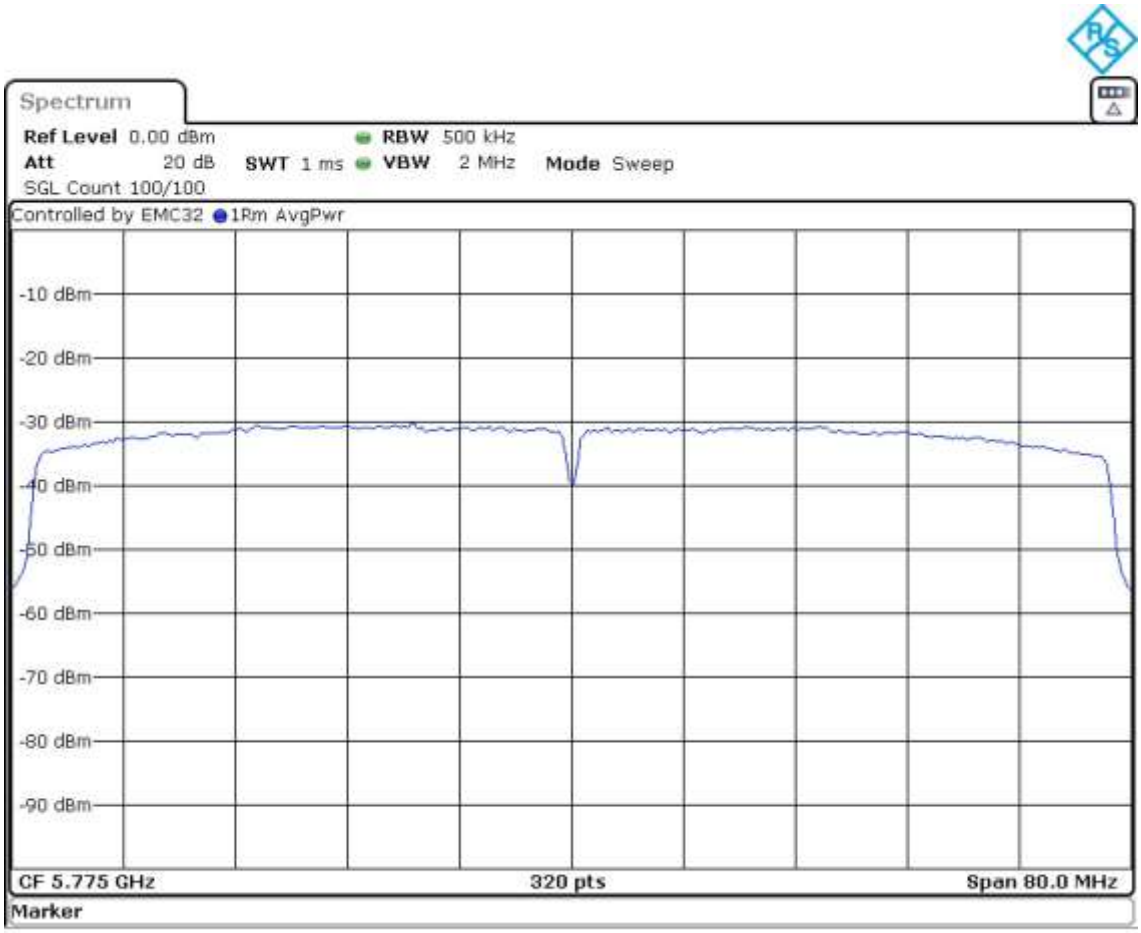
Pass

Attachments

Operation Band MHz = [5725, 5850]	Active Port = 1
Frequency MHz = 5775.00000	Modulation = 802.11ac VHT80 (OFDM MCS0)
TPC = No	MIMO Mode = SISO

Images:





RSS-247 6.2.4.1 / FCC 15.407 (e) [6dBw] 6 dB Emission Bandwidth

Limits

The minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5745.00000	15.250

Verdict

Pass

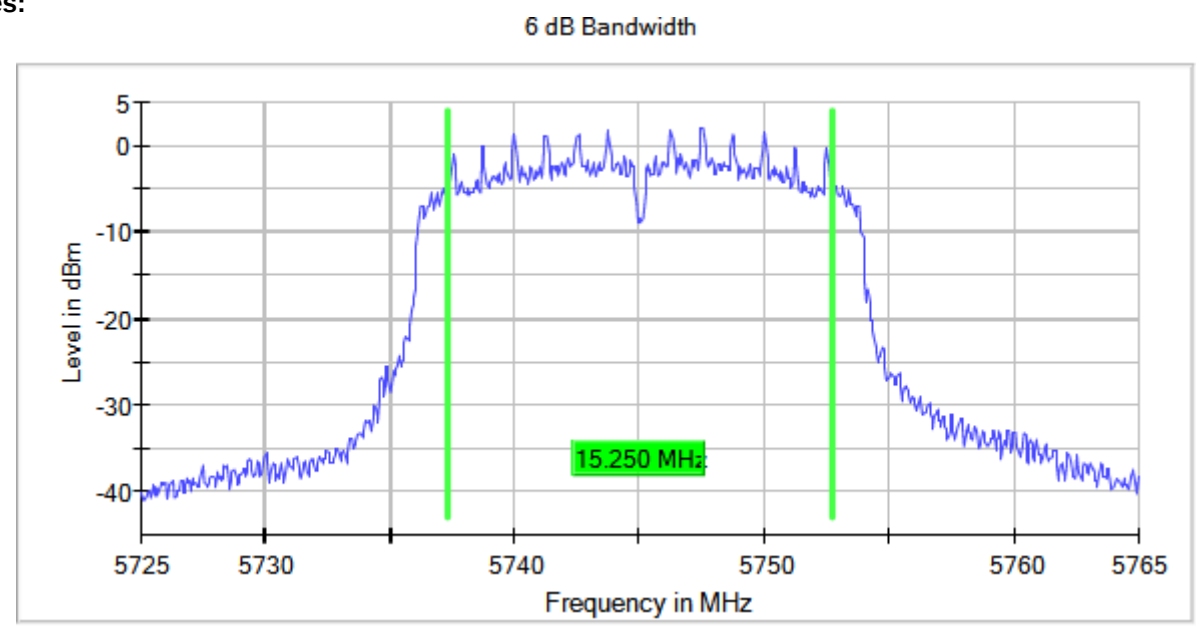
Attachments

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000 Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

MIMO Mode = SISO

Images:



Modulation: 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5755.00000	35.150

Verdict

Pass

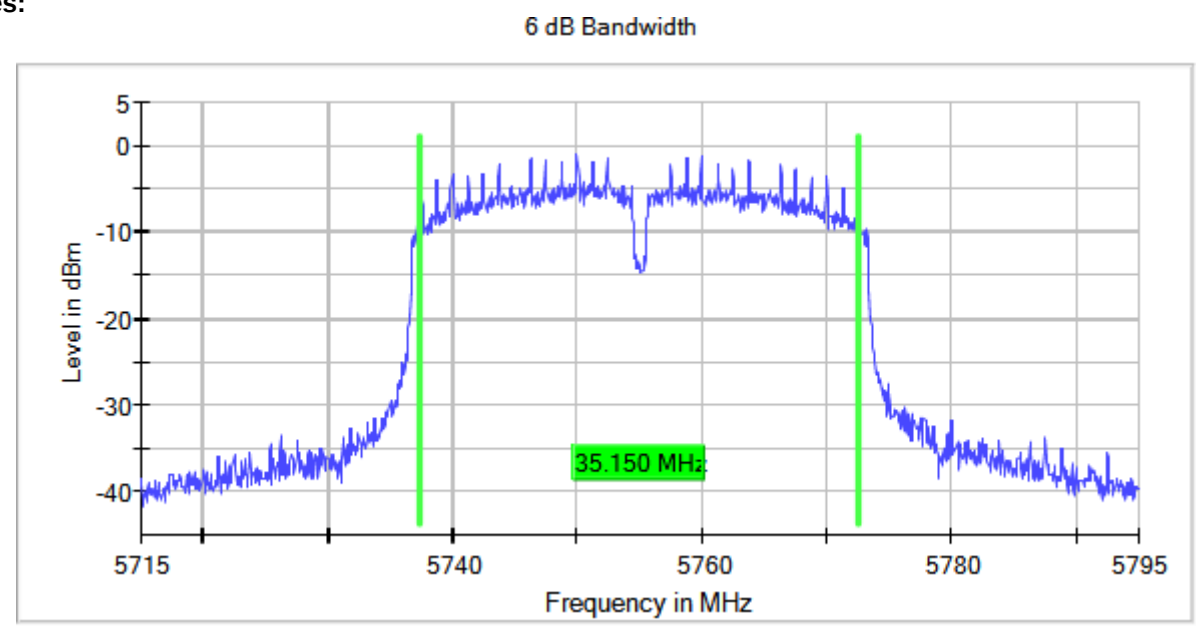
Attachments

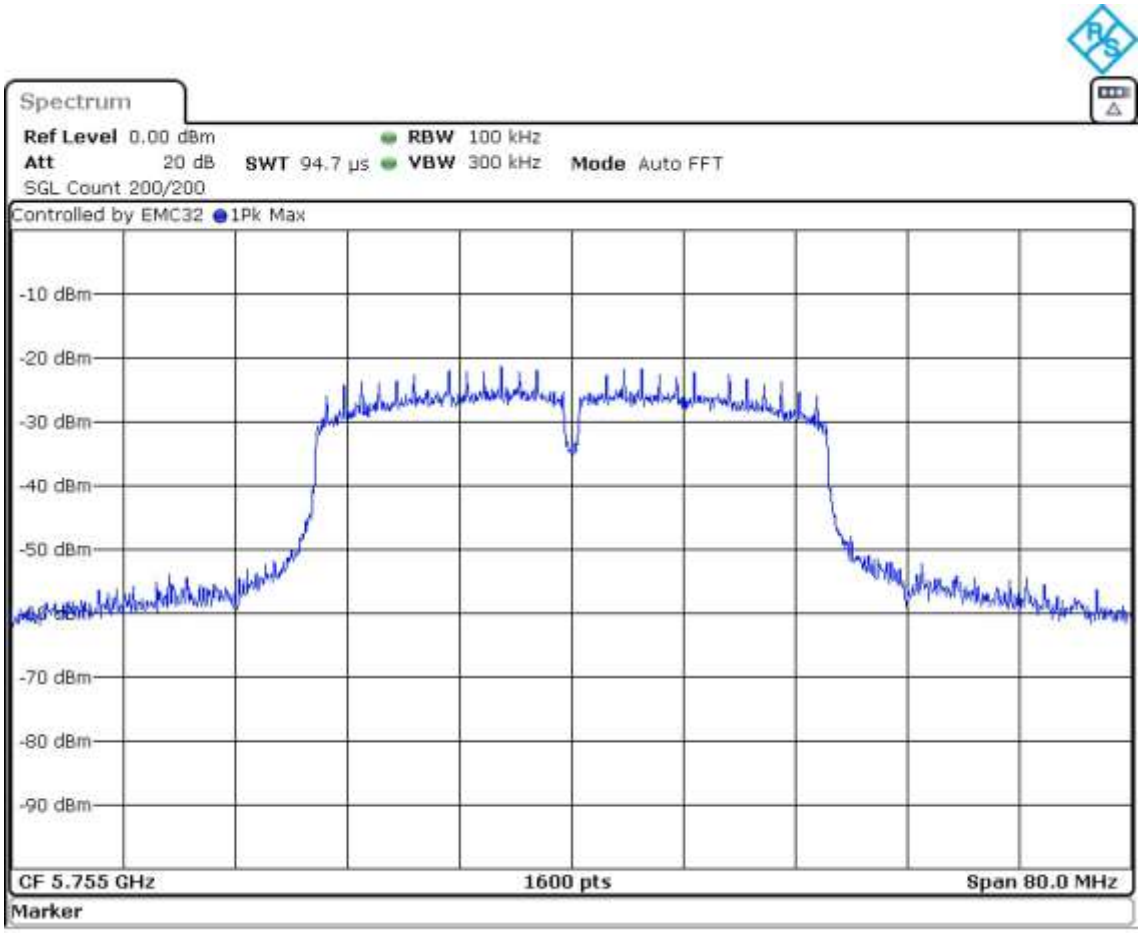
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5755.00000 Modulation = 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)

MIMO Mode = SISO

Images:





Modulation: 802.11a (OFDM 6 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5745.00000	15.250

Verdict

Pass

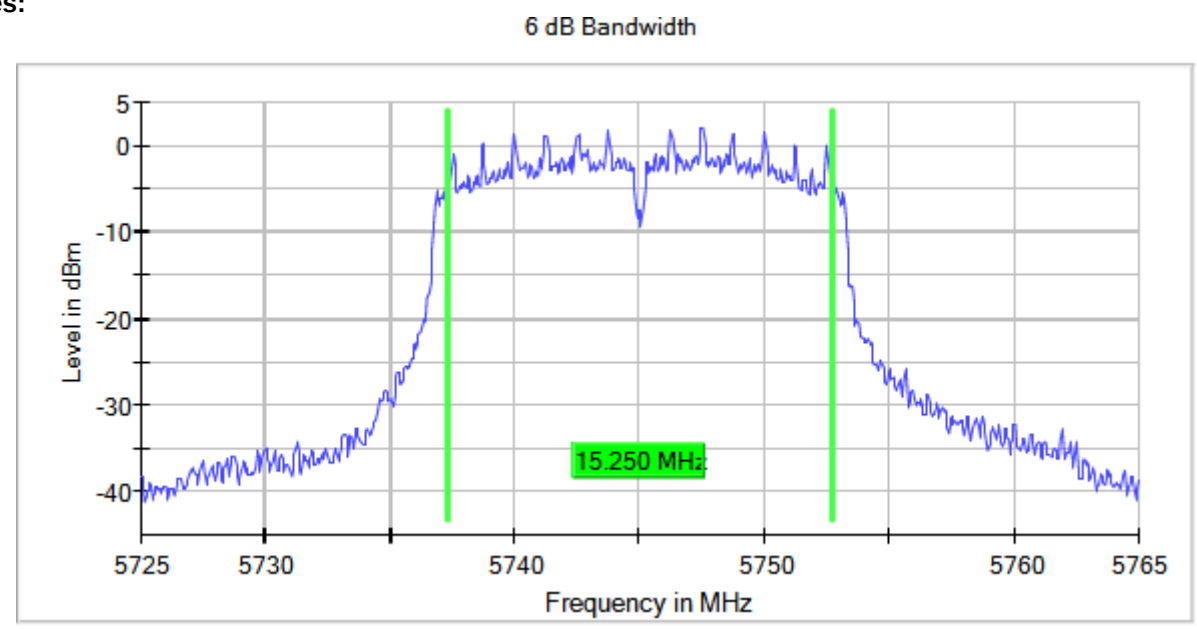
Attachments

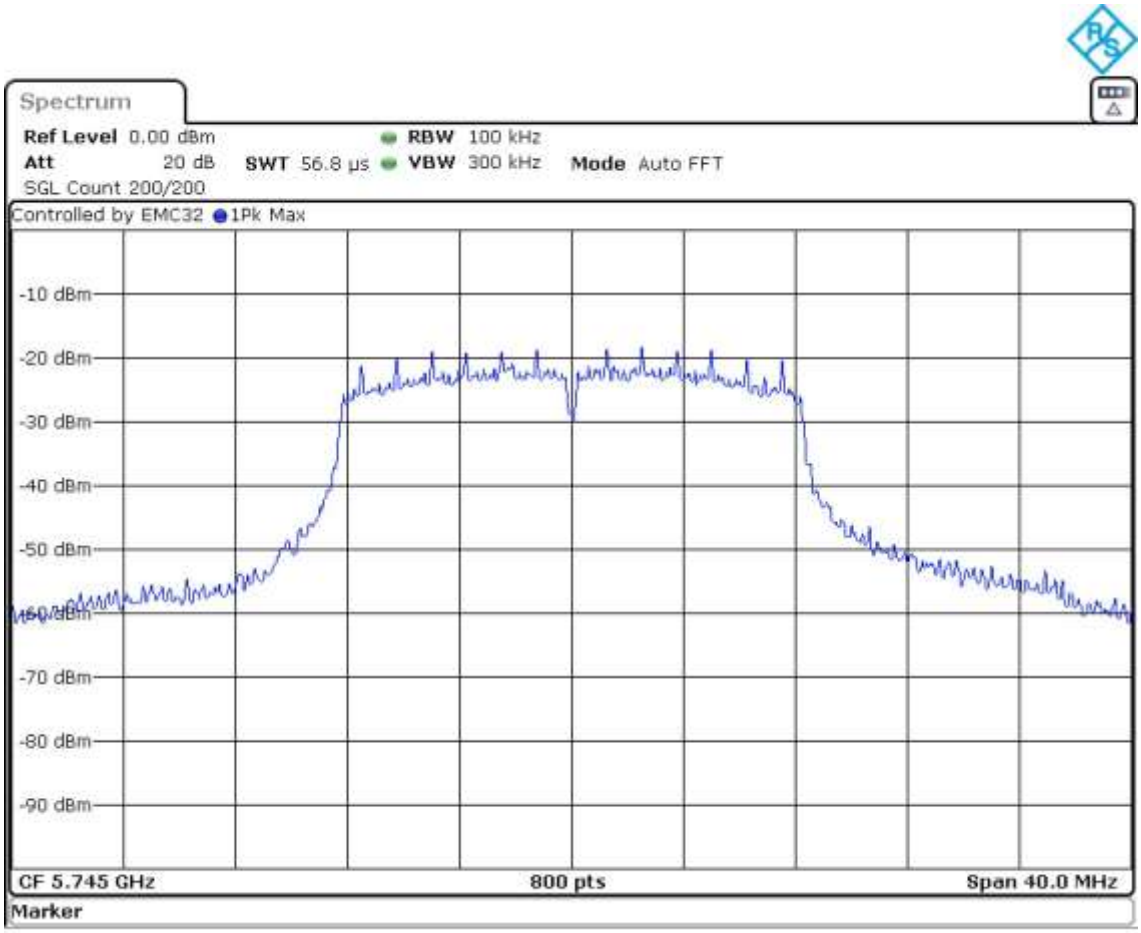
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000 Modulation = 802.11a (OFDM 6 Mbit/s)

MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT20 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5745.00000	15.250

Verdict

Pass

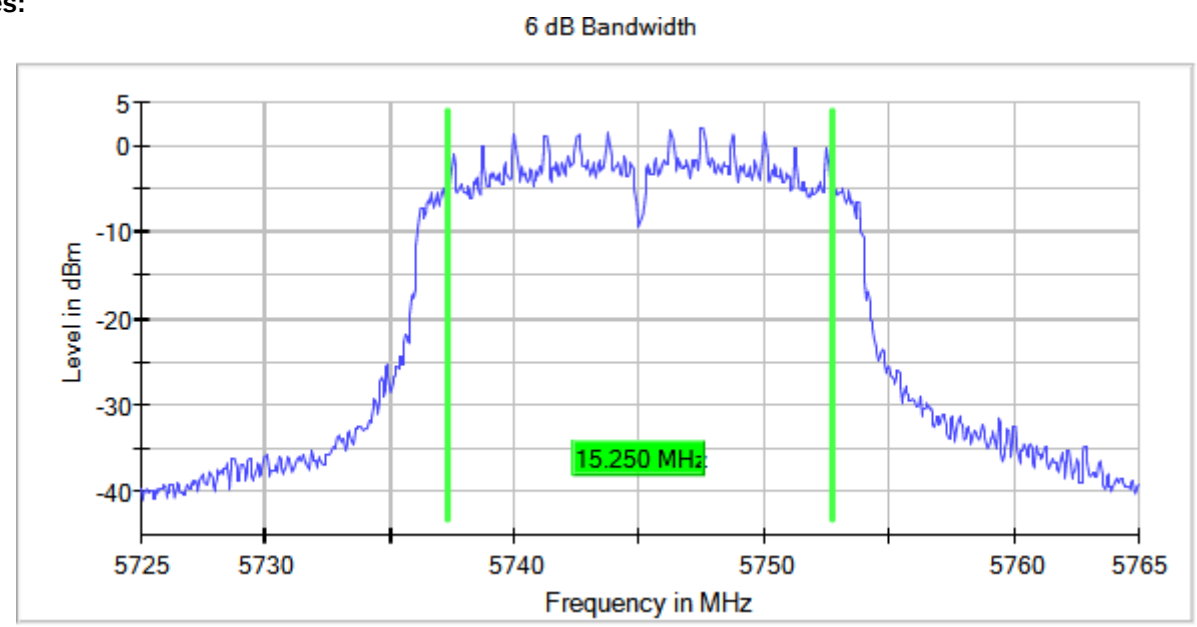
Attachments

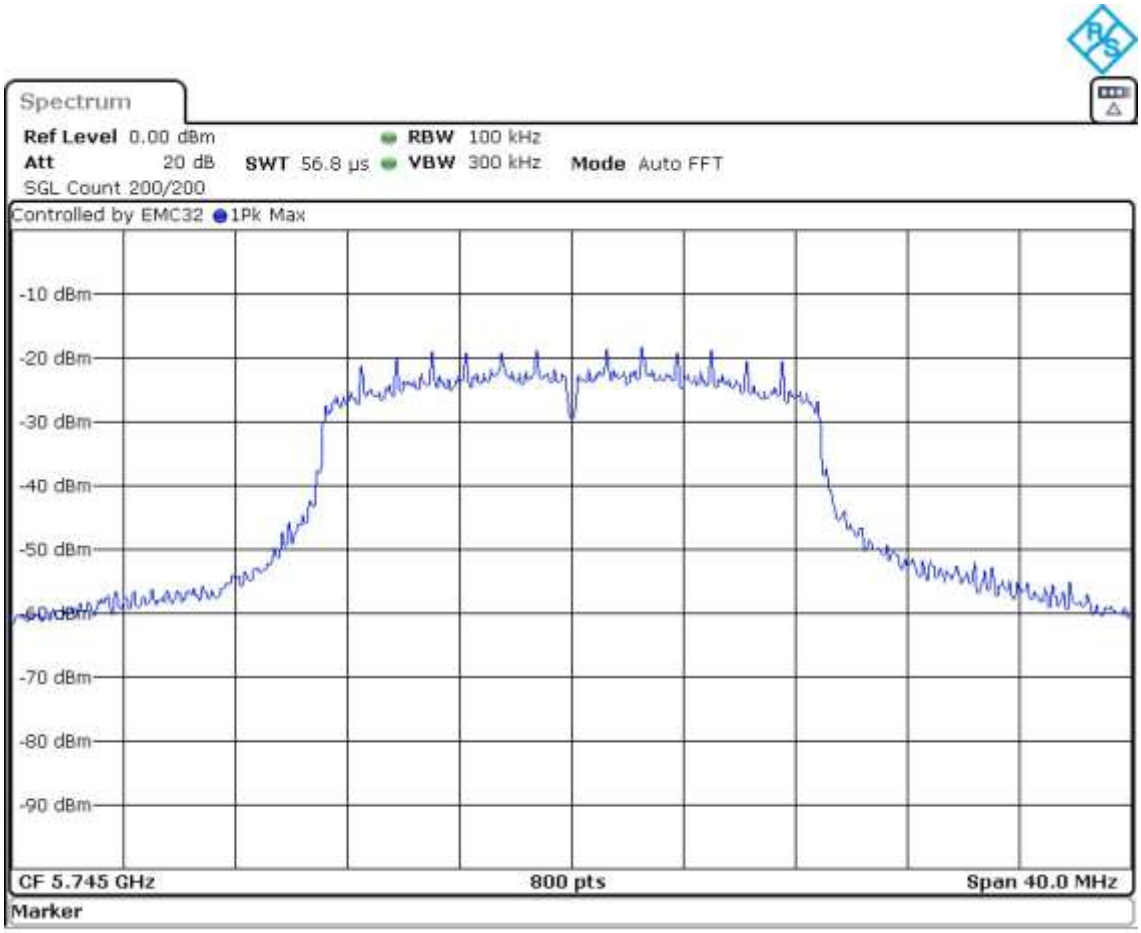
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000 Modulation = 802.11ac VHT20 (OFDM MCS0)

MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT40 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5755.00000	35.150

Verdict

Pass

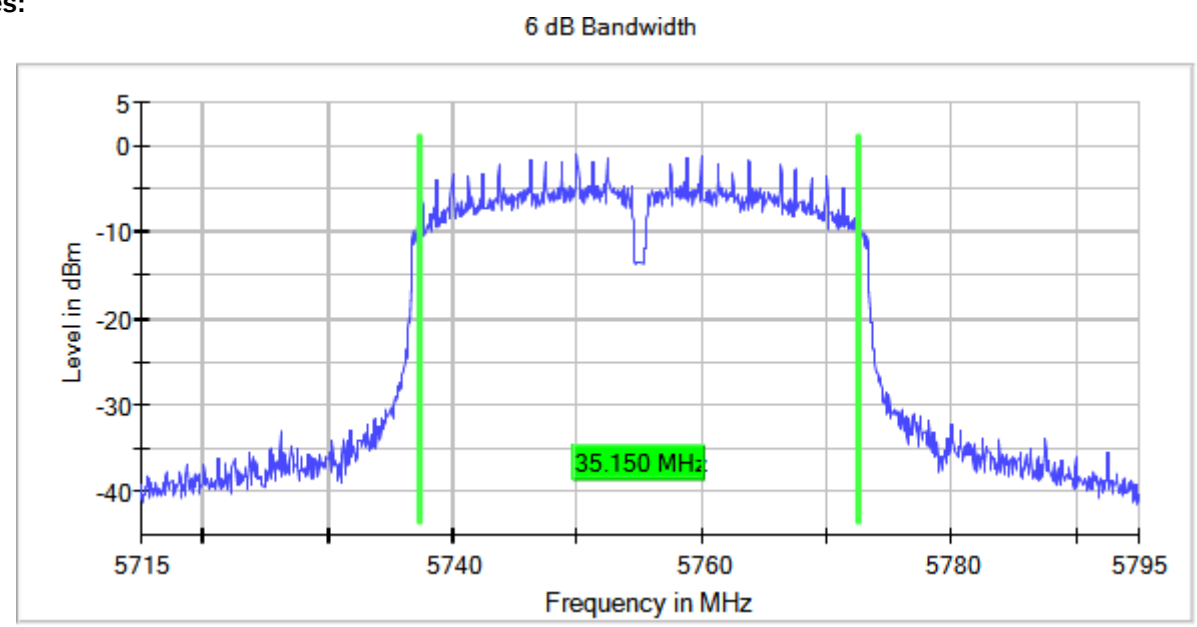
Attachments

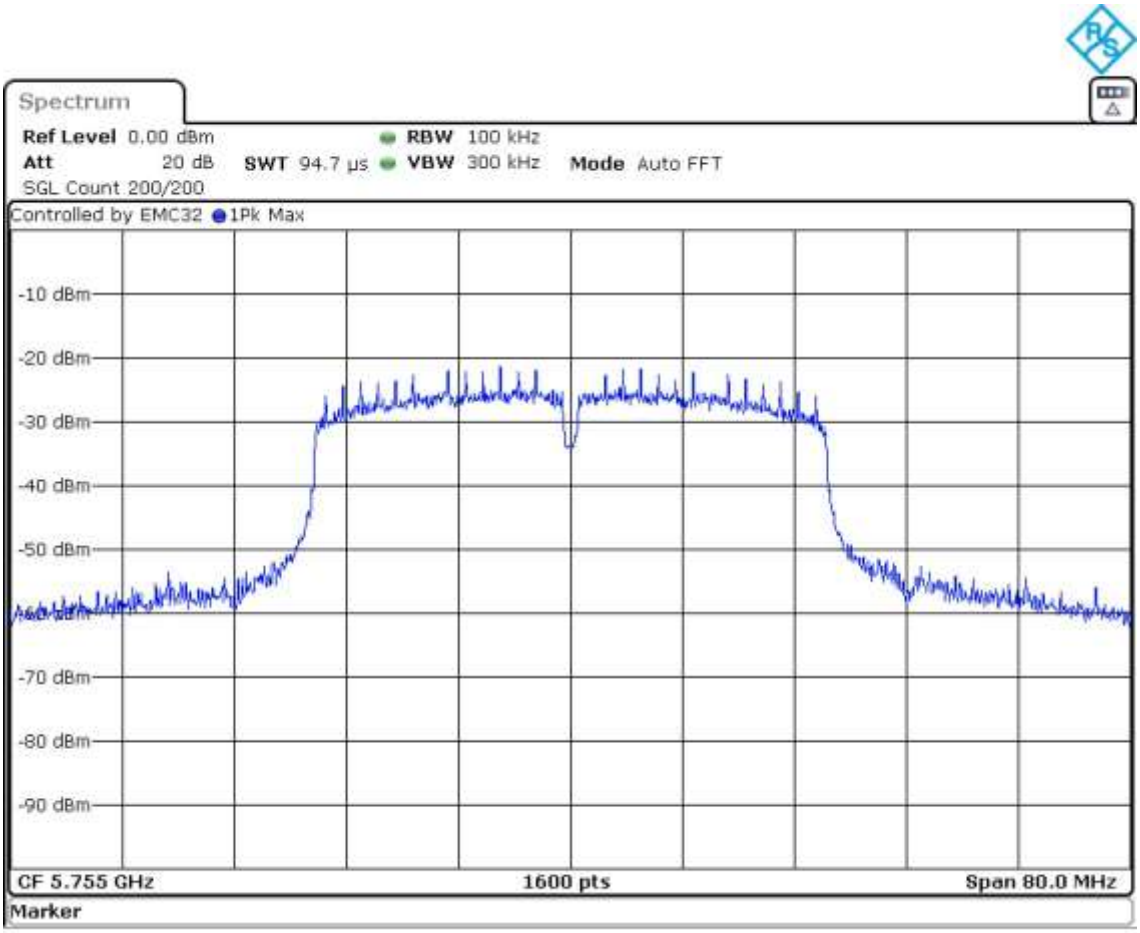
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5755.00000 Modulation = 802.11ac VHT40 (OFDM MCS0)

MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT80 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5775.00000	75.150

Verdict

Pass

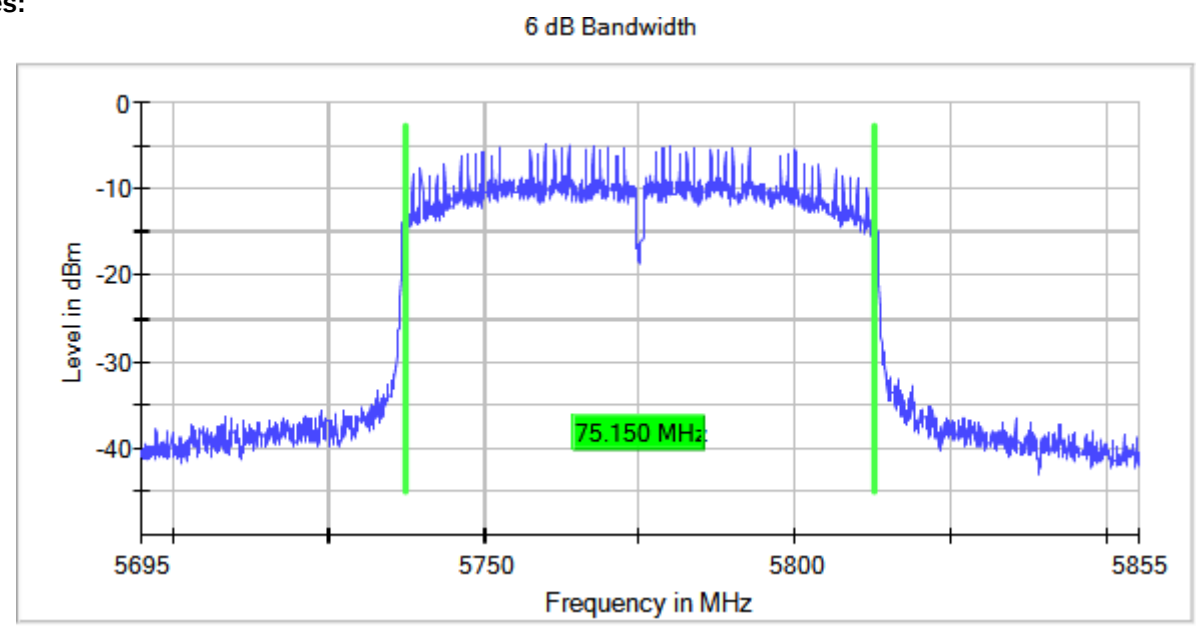
Attachments

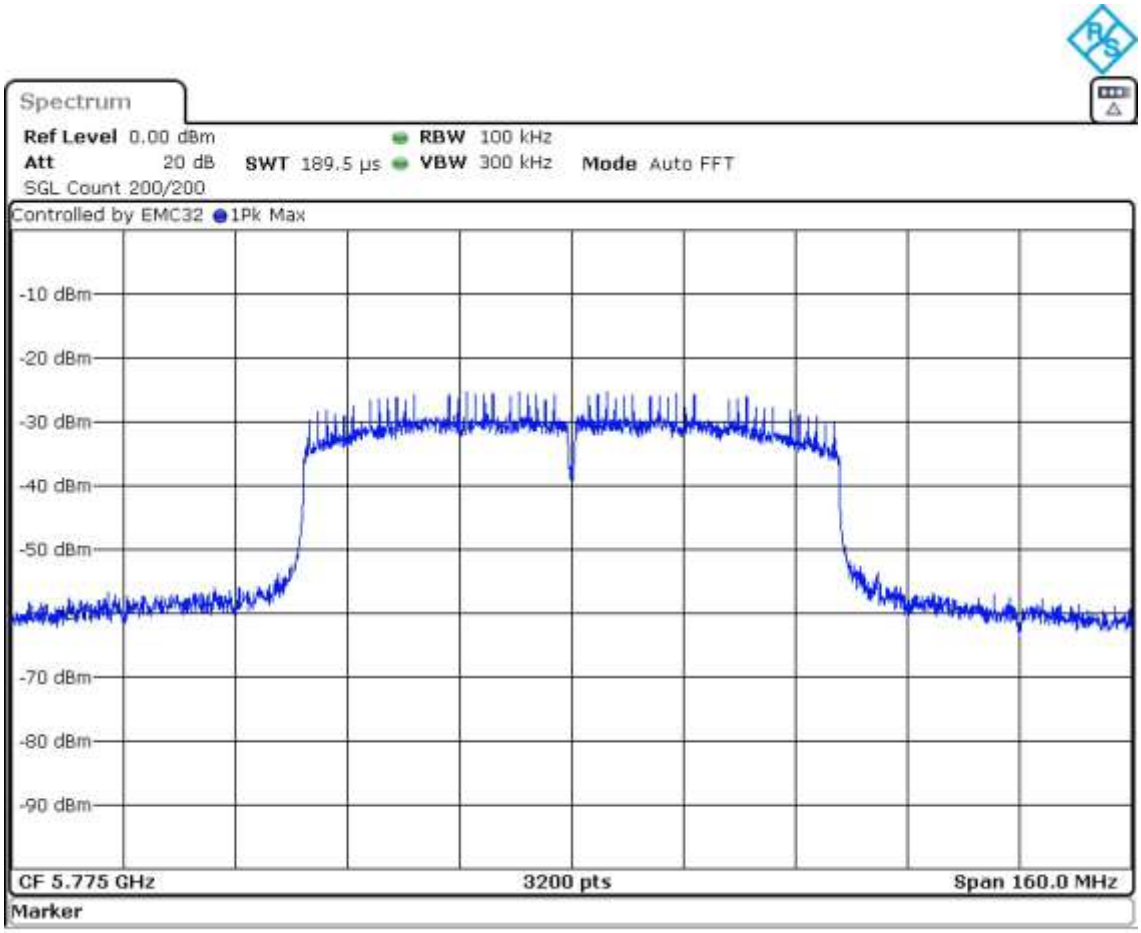
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5775.00000 Modulation = 802.11ac VHT80 (OFDM MCS0)

MIMO Mode = SISO

Images:





RSS-247 6.2.4.2 / FCC 15.407 (b) (4) (6) [Rse] Transmitter Out of Band Radiated Emissions and Transmitter Band Edge Radiated Emissions.

Limits

* FCC 15.407: For transmitters operating in the 5.725–5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz (68.23 dBµV/m at 3 m distance) at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)):

Frequency Range (MHz)	Field strength (µV/m)	Field strength (dBµV/m)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705 - 30.0	30	-	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
960 - 40000	500	54	3

The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function.

* RSS-247:

Attenuation below the general field strength limits specified in RSS-Gen is not required.

Frequency range tested for Radiated emissions:

Start frequency: no radiofrequency signal generated in the device found below 10th sub-harmonic, no further investigation required.
Stop frequency: it has been performed the radiated spurious emissions until 10th harmonic.

OUT OF BAND EMISSIONS: For spurious emissions outside of the U-NII-3 band edge mask of 5.65-5.925 GHz, the worst-case mode was determined after preliminary measurements of the E.I.R.P. density (radiated). This worst-case mode is reported below.

Worst case is the Modulation: 802.11a (OFDM 6 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq Rng (GHz)	Freq (MHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
[5725, 5850]	1	[0.03, 1]	5745.00000	47.612	26.58	V	PK
				47.612	17.05	V	QP
				48.188	27.31	V	PK
				48.188	19.05	V	QP
				49.218	28.39	V	PK
				49.218	19.89	V	QP
				50.037	27.52	V	PK
				50.037	19.51	V	QP
				53.038	27.76	V	PK
				53.038	18.77	V	QP
				54.159	29.31	V	PK
				54.159	21.11	V	QP
				56.190	23.65	V	PK
				56.190	16.30	V	QP
		[1, 6.5]		1400.900	42.86	V	PK
				1919.300	46.83	V	PK
				5746.300	102.14	H	PK
		[6.5, 17]		11492.015	56.25	V	PK
				11492.015	44.65	V	AVG

Verdict

Pass

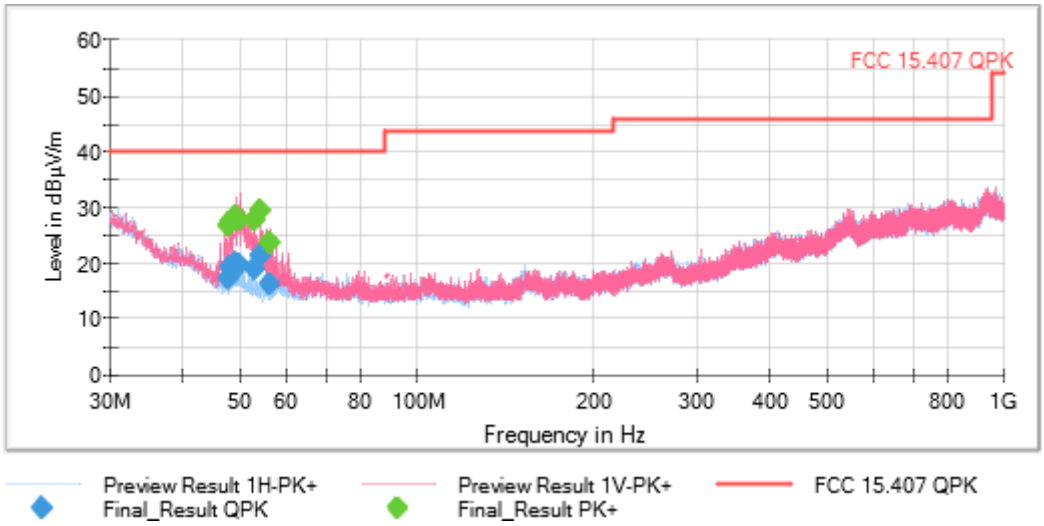
Attachments

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency Range GHz = [0.03, 1] Frequency MHz = 5745.00000

Modulation = 802.11a (OFDM 6 Mbit/s) MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

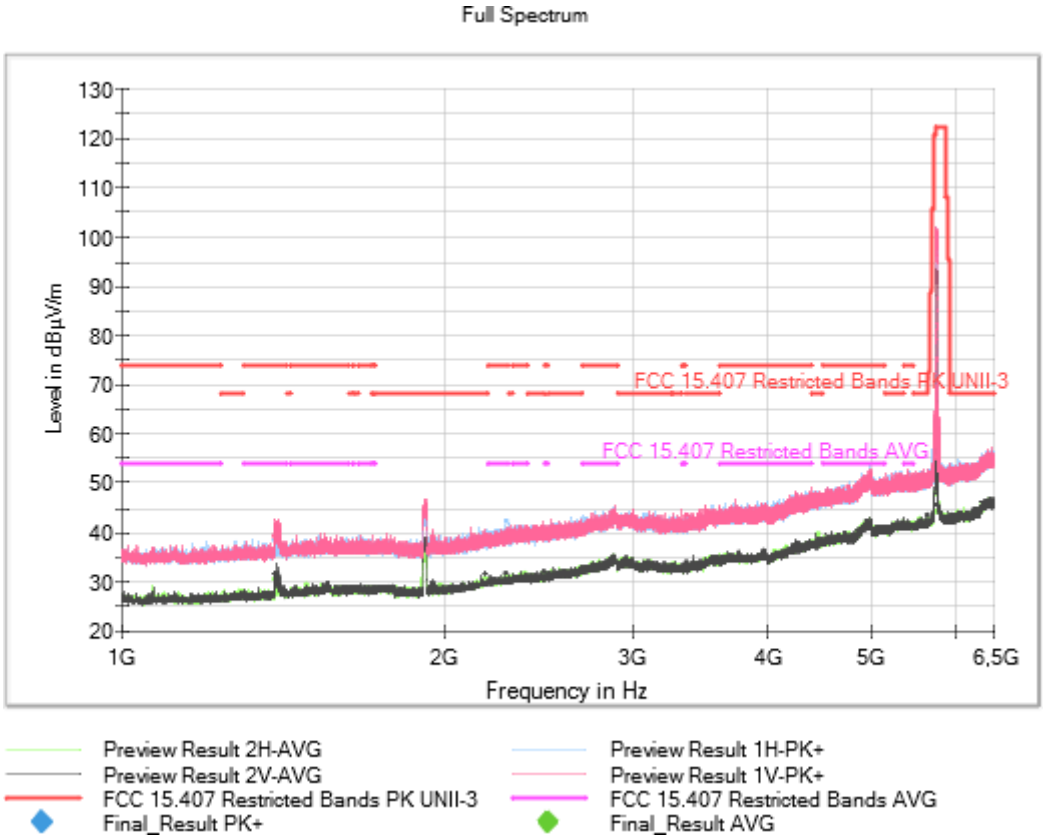
	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	30 MHz - 1 GHz	30,312 kHz	PK+	100 kHz	1 s	30 dB

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency Range GHz = [1, 6.5] Frequency MHz = 5745.00000

Modulation = 802.11a (OFDM 6 Mbit/s) MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

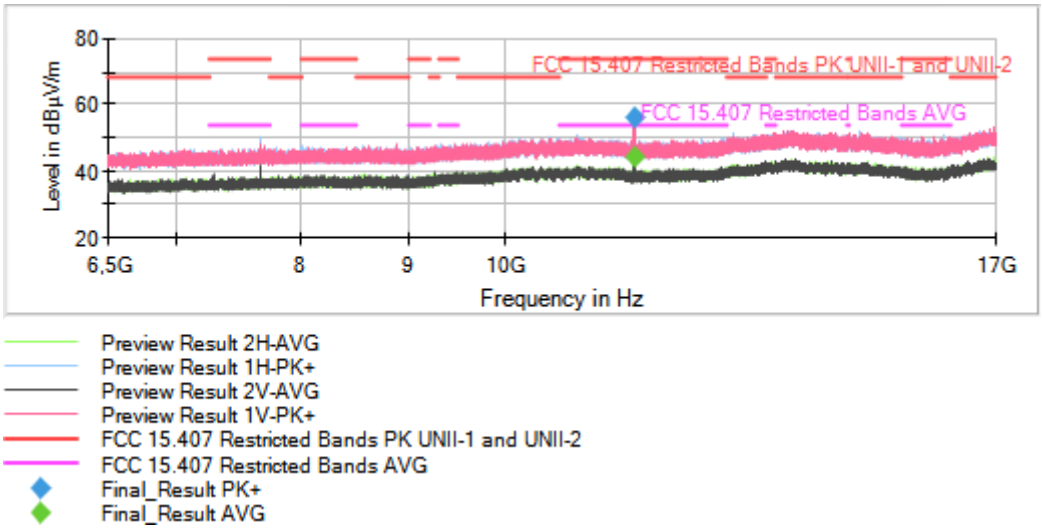
	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 26]					
	1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	30 dB

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency Range GHz = [6.5, 17] Frequency MHz = 5745.00000

Modulation = 802.11a (OFDM 6 Mbit/s) MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

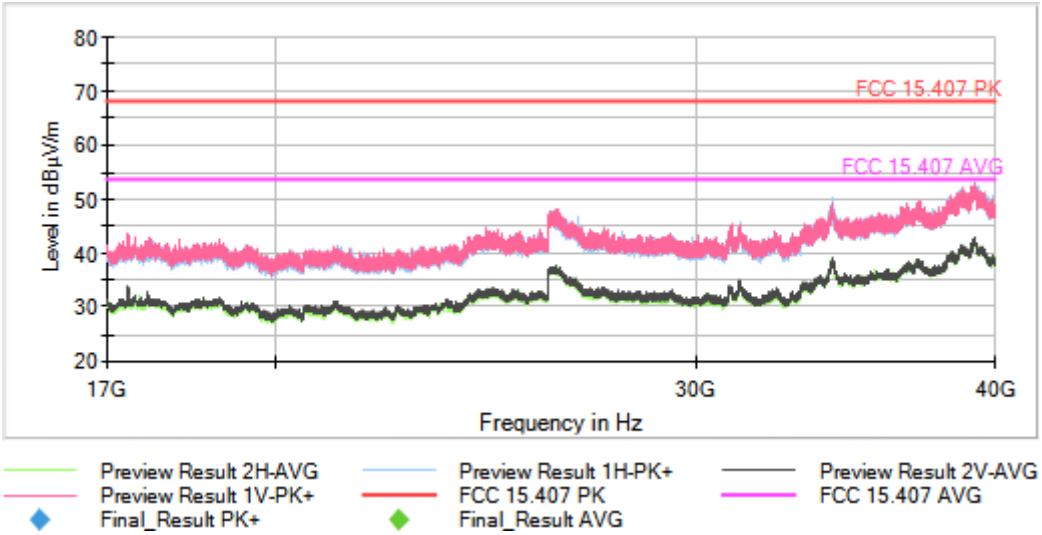
	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 26]					
	6,5 GHz - 17 GHz	105 kHz	PK+ ; AVG	1 MHz	1 s	30 dB

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency Range GHz = [17, 40] Frequency MHz = 5745.00000

Modulation = 802.11a (OFDM 6 Mbit/s) MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	17 GHz - 40 GHz	766,667 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

BAND EDGE EMISSIONS:

Modulation: 802.11a (OFDM 6 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq Rng (GHz)	Freq (MHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
[5725, 5850]	1	[1, 6.5]	5745.00000	5746.300	102.14	V	PK

Verdict

Pass

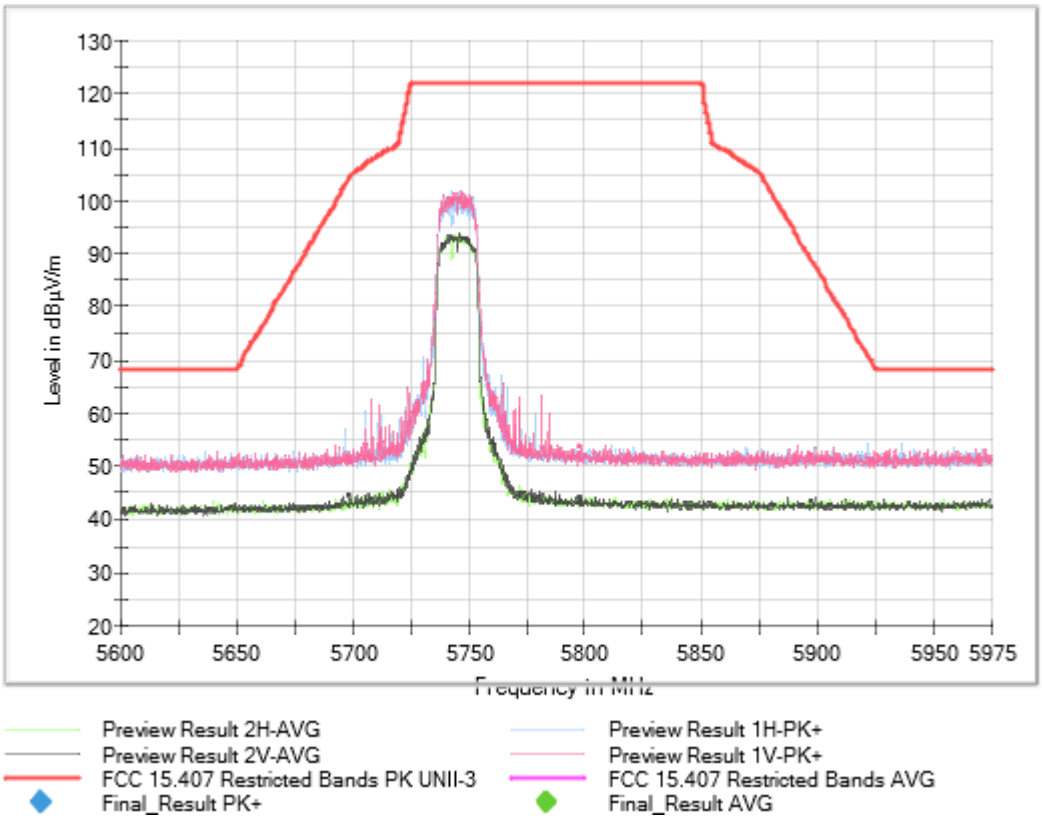
Attachments

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000

Modulation = 802.11a (OFDM 6 Mbit/s) MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 26]					
	1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	30 dB

Modulation: 802.11n HT20 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq Rng (GHz)	Freq (MHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
[5725, 5850]	1	[1, 6.5]	5745.00000	5748.500	100.96	V	PK

Verdict

Pass

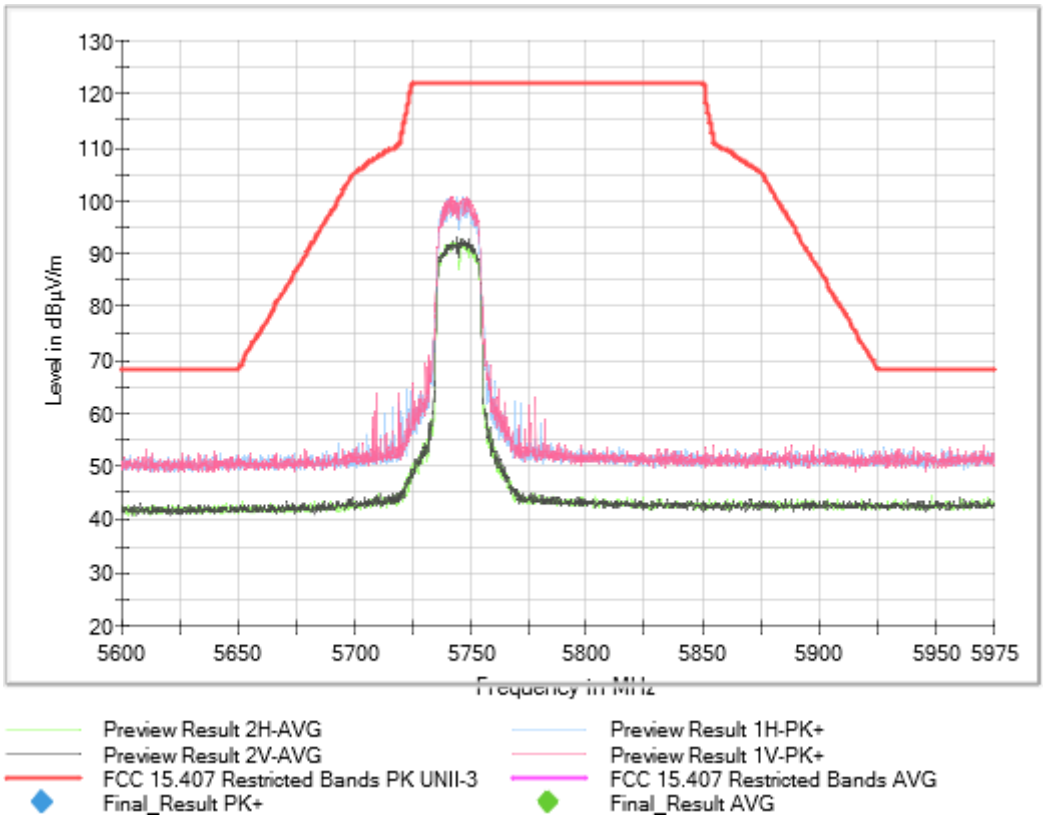
Attachments

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000

Modulation = 802.11n HT20 (OFDM MCS0) MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 26]					
	1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	30 dB

Modulation: 802.11n HT40 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq Rng (GHz)	Freq (MHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
[5725, 5850]	1	[1, 6.5]	5755.00000	5758.800	98.02	V	PK

Verdict

Pass

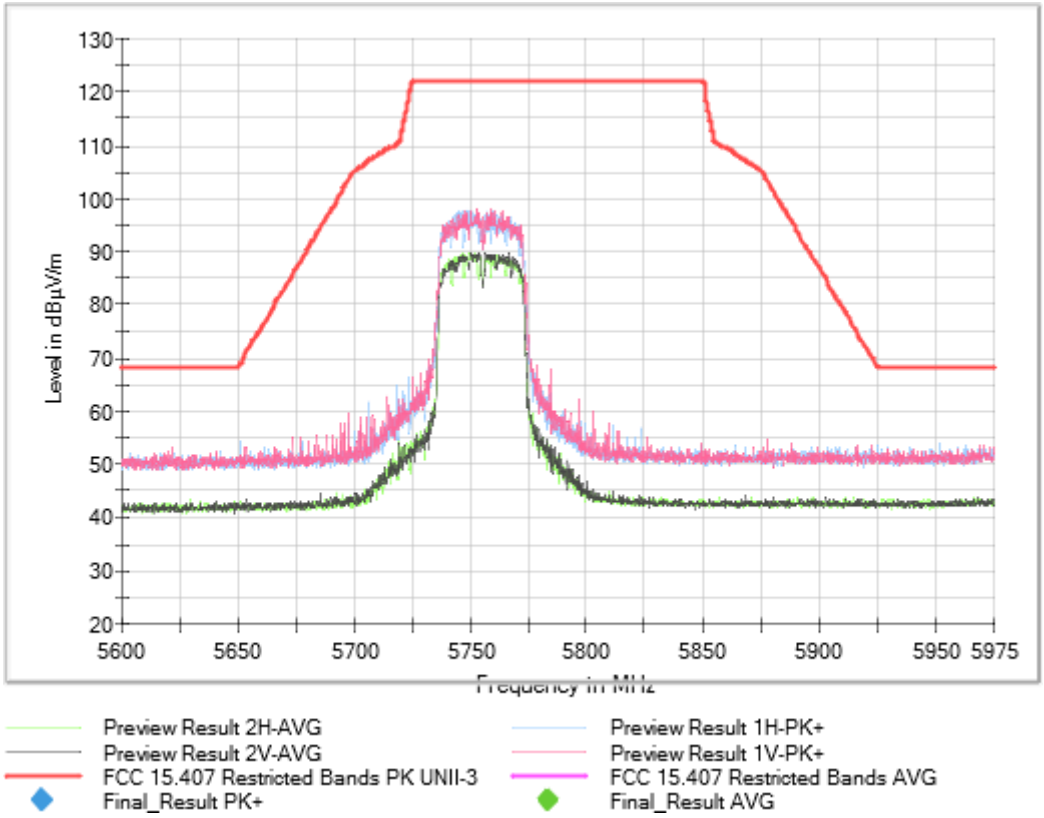
Attachments

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5755.00000

Modulation = 802.11n HT40 (OFDM MCS0) MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 26]					
	1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	30 dB

Modulation: 802.11ac VHT20 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq Rng (GHz)	Freq (MHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
[5725, 5850]	1	[1, 6.5]	5745.00000	5748.300	101.19	H	PK

Verdict

Pass

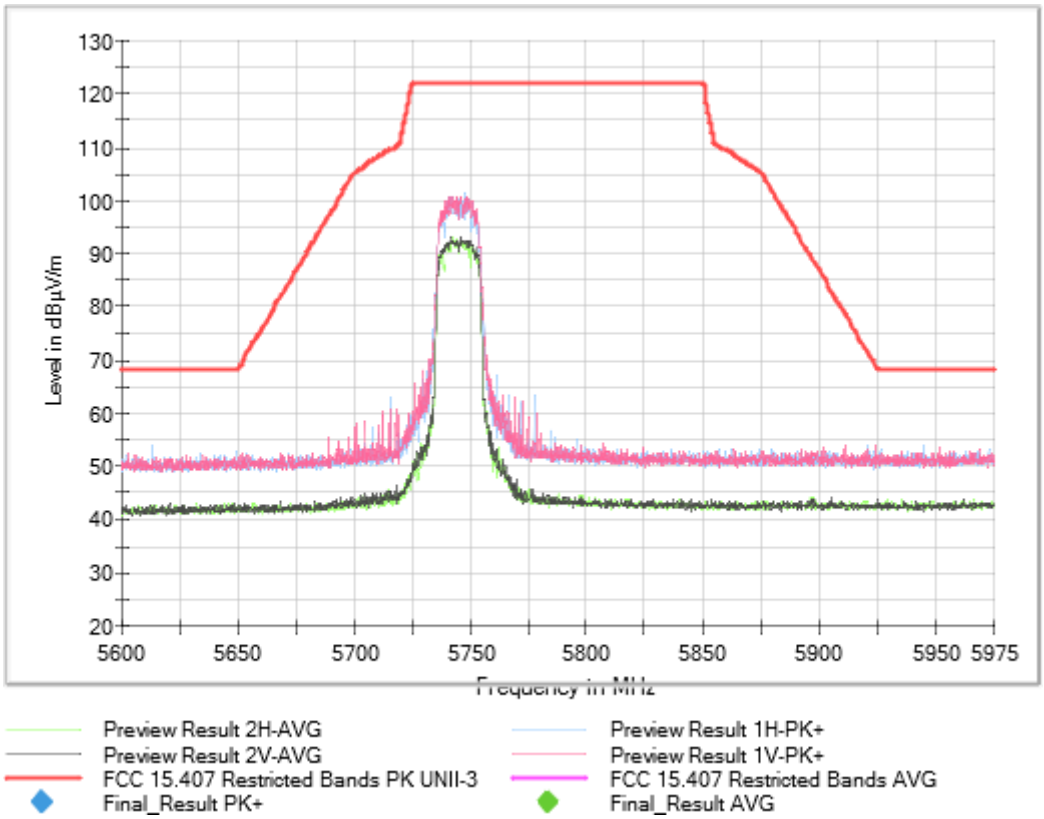
Attachments

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000

Modulation = 802.11ac VHT20 (OFDM MCS0) MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 26]					
	1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	30 dB

Modulation: 802.11ac VHT40 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq Rng (GHz)	Freq (MHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
[5725, 5850]	1	[1, 6.5]	5755.00000	5756.800	98.18	V	PK

Verdict

Pass

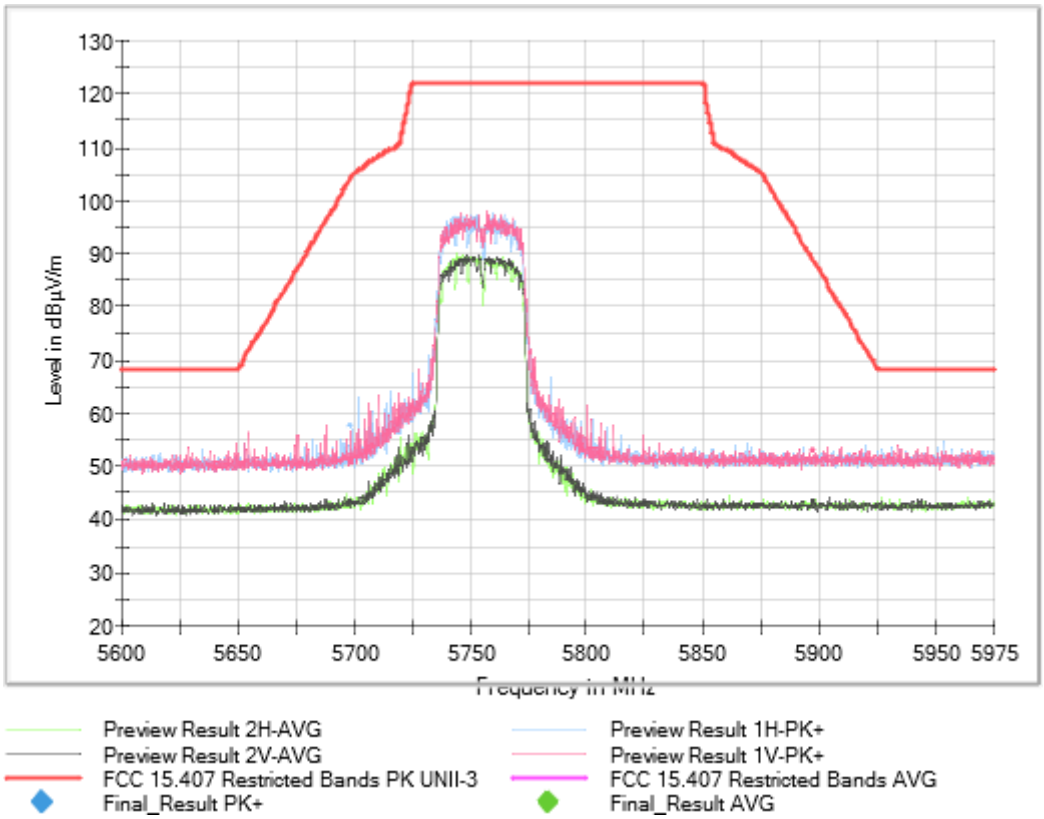
Attachments

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5755.00000

Modulation = 802.11ac VHT40 (OFDM MCS0) MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 26]					
	1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	30 dB

Modulation: 802.11ac VHT80 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq Rng (GHz)	Freq (MHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
[5725, 5850]	1	[1, 6.5]	5775.00000	5751.100	93.77	V	PK

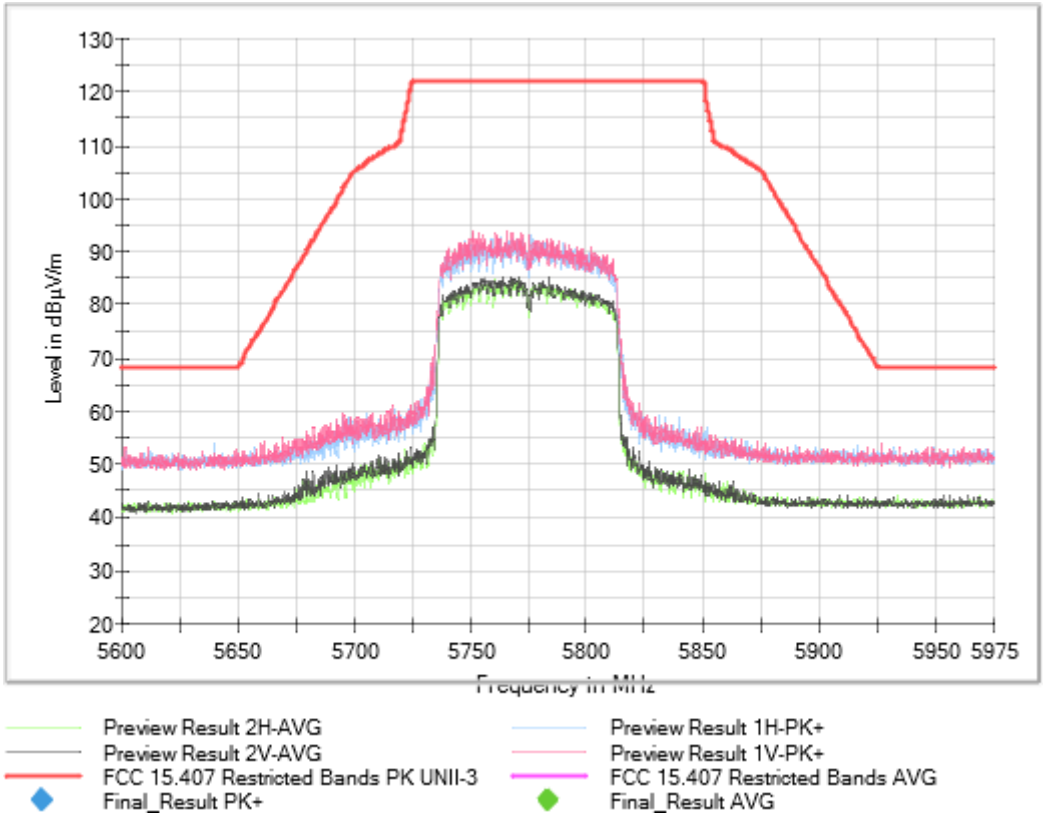
Verdict

Pass

Attachments

Operation Band MHz = [5725, 5850]
Active Port = 1
Frequency MHz = 5775.00000
Modulation = 802.11ac VHT80 (OFDM MCS0)
MIMO Mode = SISO

Images:



Tables:

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 26]					
	1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	30 dB

RSS-Gen 6.10. / Section 15.35 Subclause (c) [DC] Duty Cycle

Limits

The results below are for data rates with a duty cycle less than 98%. The results for all rest of modes having a value > 98%.

Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

Results

Operation Band (MHz)	Port	Freq (MHz)	DC (%)
[5725, 5850]	1	5745.00000	93.83

Modulation: 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)

Results

Operation Band (MHz)	Port	Freq (MHz)	DC (%)
[5725, 5850]	1	5755.00000	88.61

Modulation: 802.11a (OFDM 6 Mbit/s)

Results

Operation Band (MHz)	Port	Freq (MHz)	DC (%)
[5725, 5850]	1	5745.00000	94.26

Modulation: 802.11ac VHT20 (OFDM MCS0)

Results

Operation Band (MHz)	Port	Freq (MHz)	DC (%)
[5725, 5850]	1	5745.00000	93.93

Modulation: 802.11ac VHT40 (OFDM MCS0)

Results

Operation Band (MHz)	Port	Freq (MHz)	DC (%)
[5725, 5850]	1	5755.00000	88.55

Modulation: 802.11ac VHT80 (OFDM MCS0)

Results

Operation Band (MHz)	Port	Freq (MHz)	DC (%)
[5725, 5850]	1	5775.00000	79.35

RSS-Gen 6.6 / RSS-247 6.2. [99dBW] Transmitter 99% Occupied Bandwidth

Limits

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained.

The following conditions shall be observed for measuring the occupied bandwidth:

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.
- The detector of the spectrum analyzer shall be set to “Sample”. However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or “Max Hold”) may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.

For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).

Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Occ Ch BW (MHz)
[5725, 5850]	1	5745.00000	17.400

Verdict

Pass

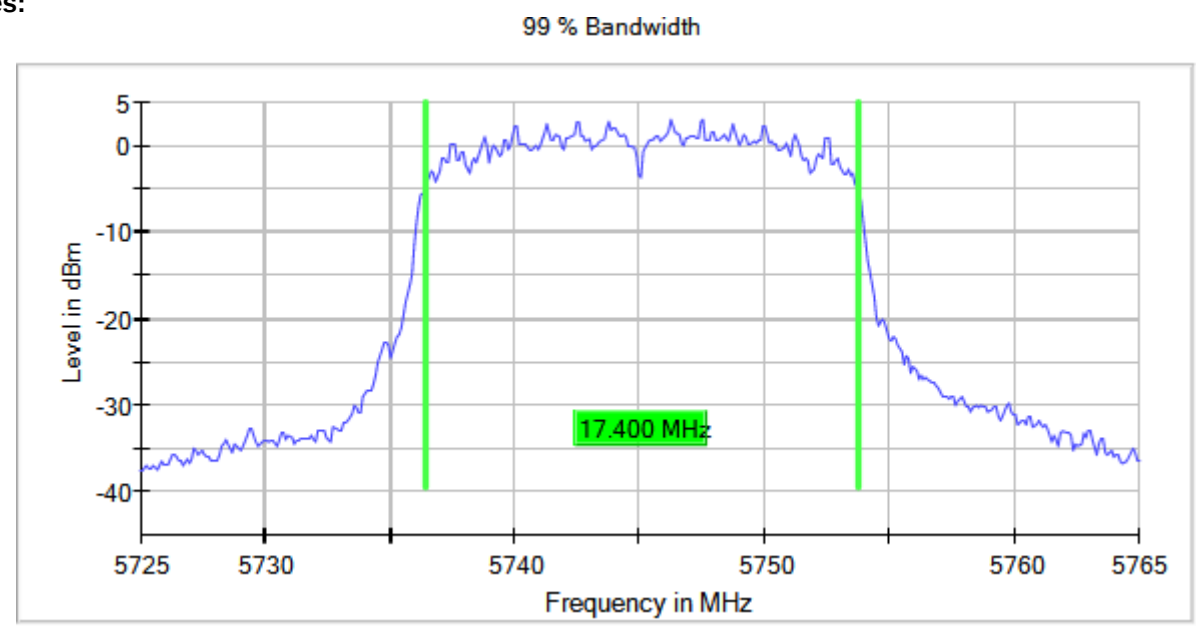
Attachments

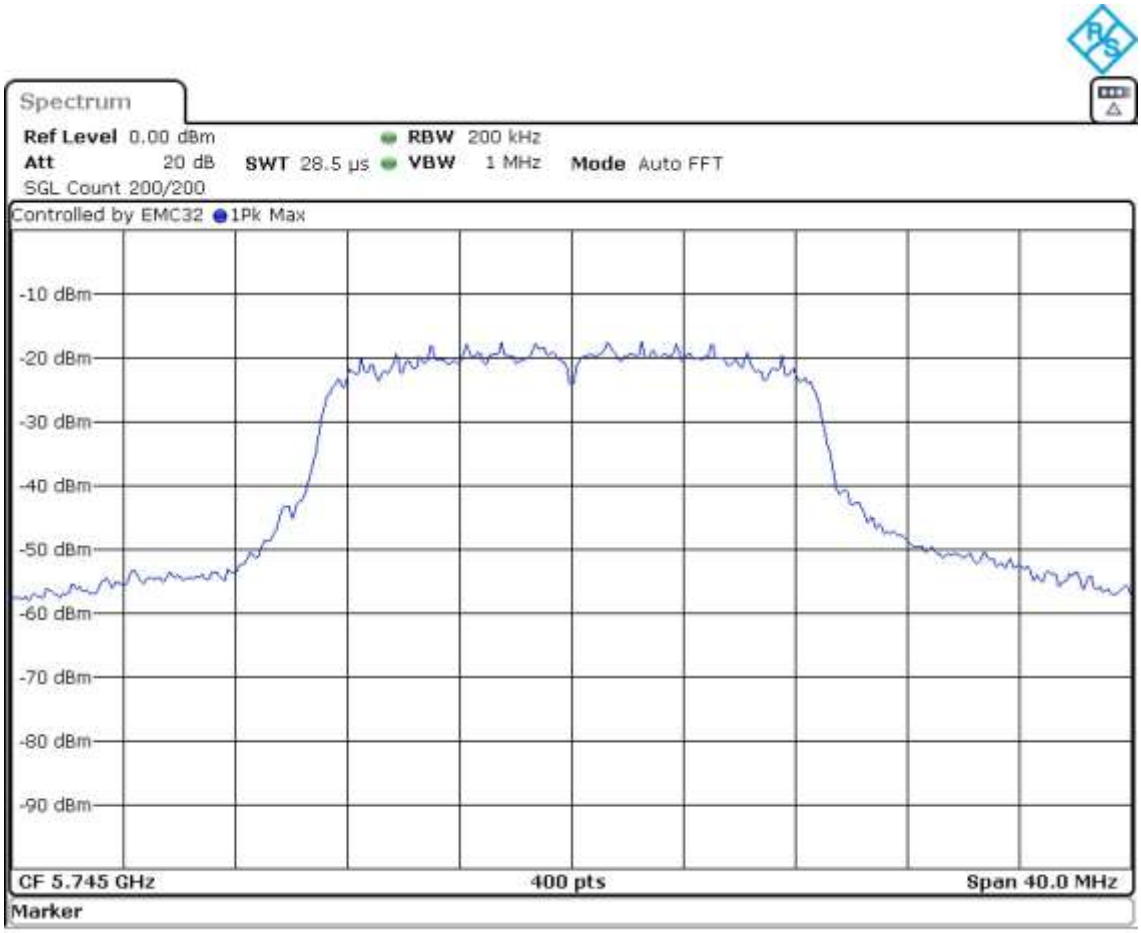
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000 Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

MIMO Mode = SISO

Images:





Modulation: 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Occ Ch BW (MHz)
[5725, 5850]	1	5755.00000	36.000

Verdict

Pass

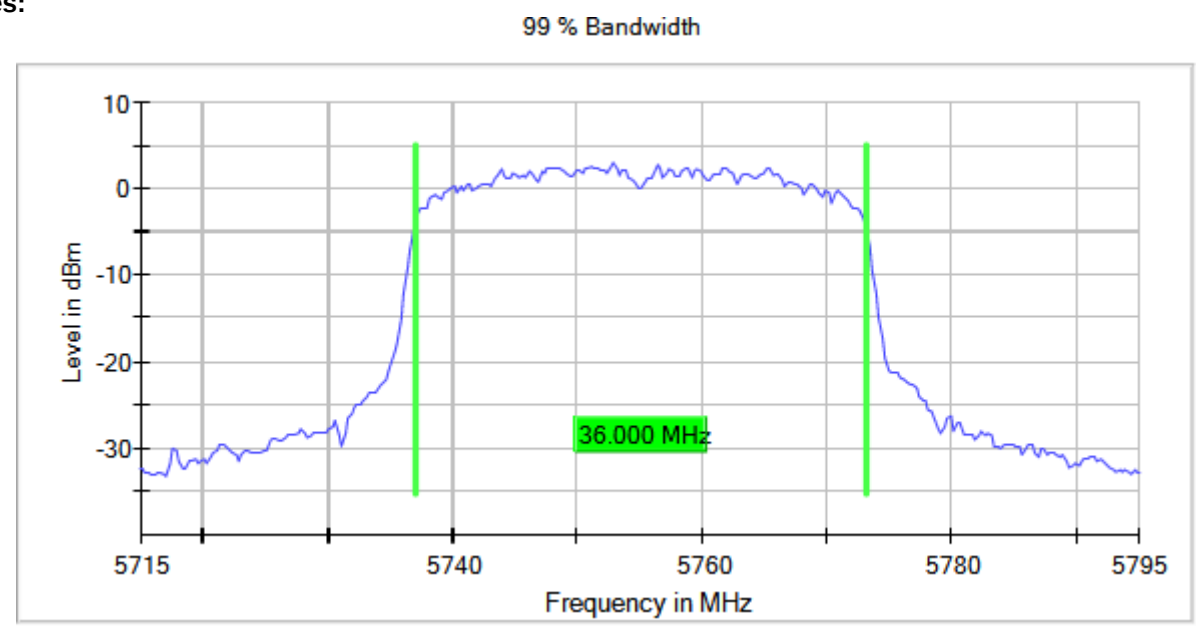
Attachments

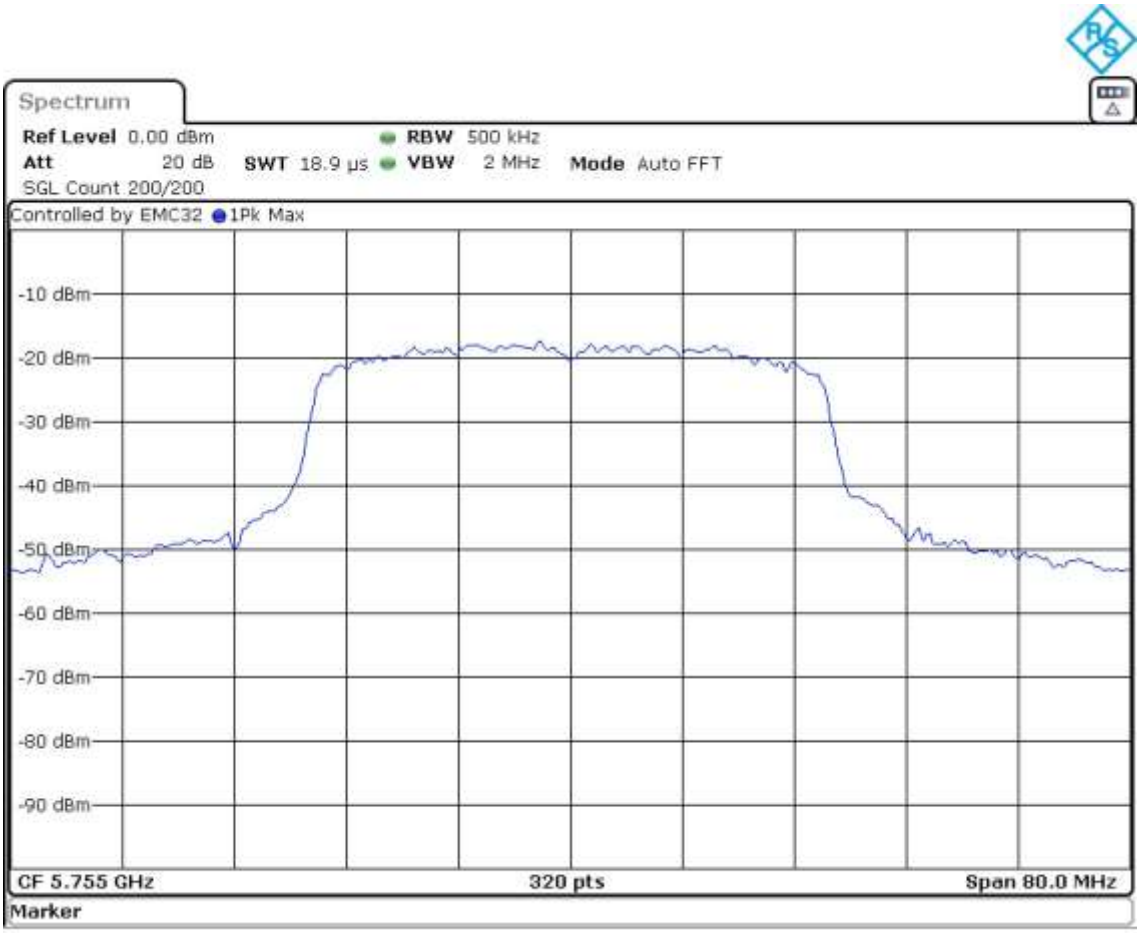
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5755.00000 Modulation = 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)

MIMO Mode = SISO

Images:





Modulation: 802.11a (OFDM 6 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Occ Ch BW (MHz)
[5725, 5850]	1	5745.00000	16.300

Verdict

Pass

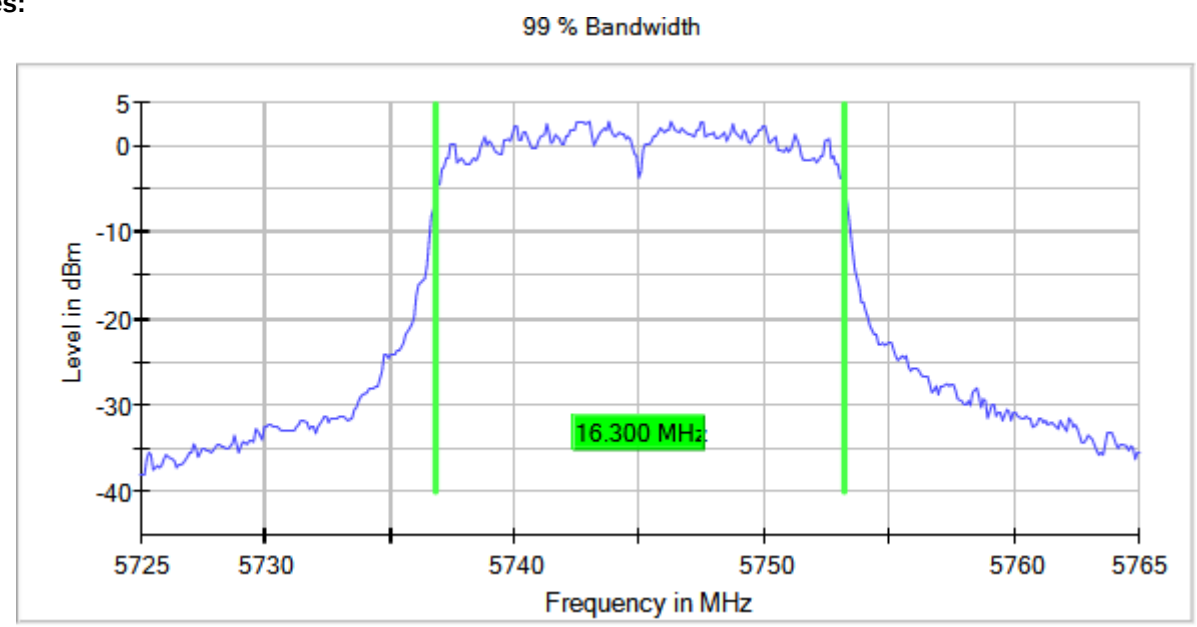
Attachments

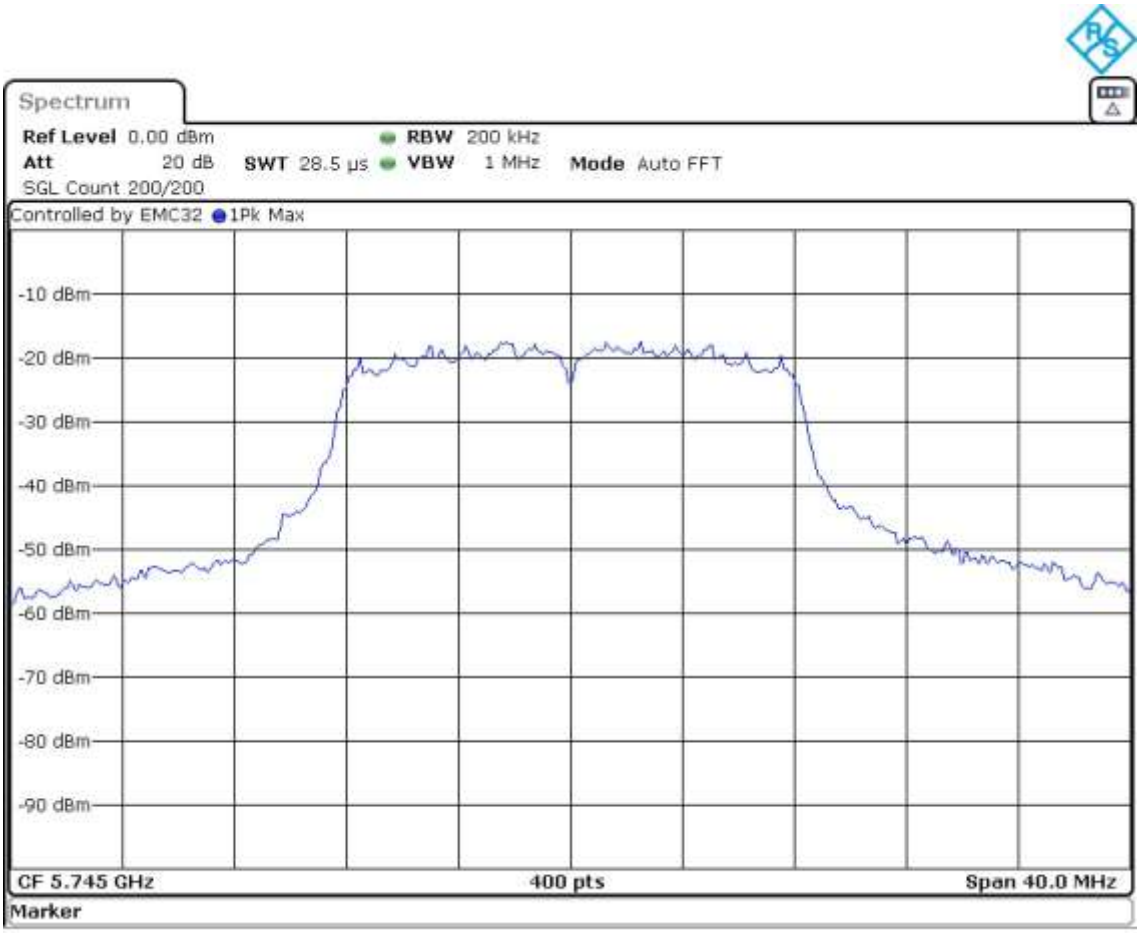
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000 Modulation = 802.11a (OFDM 6 Mbit/s)

MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT20 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Occ Ch BW (MHz)
[5725, 5850]	1	5745.00000	17.400

Verdict

Pass

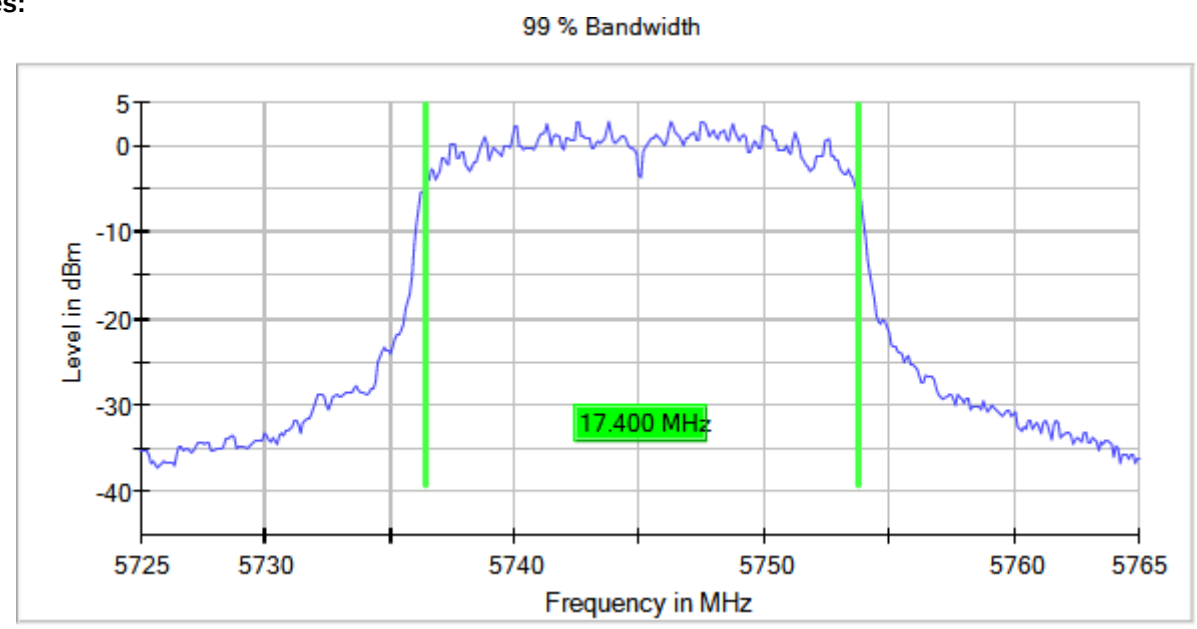
Attachments

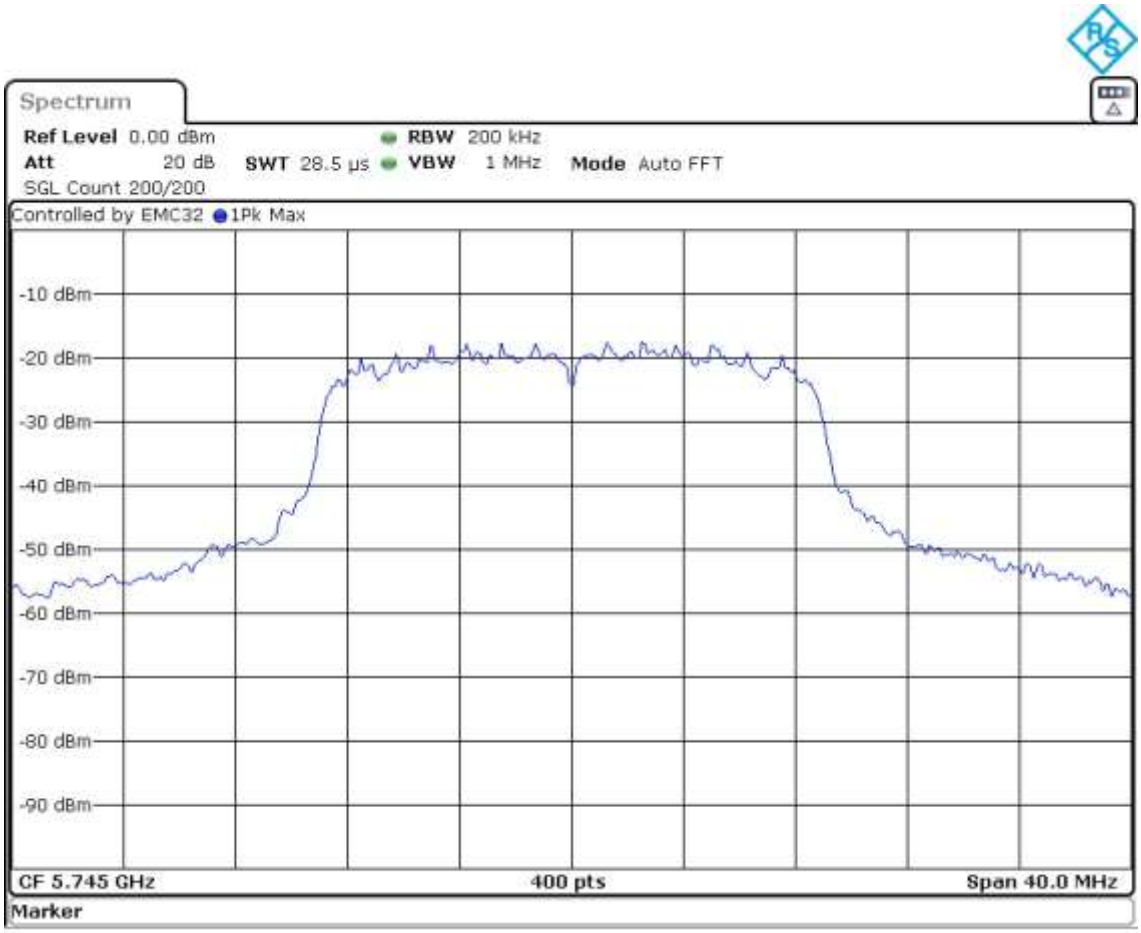
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000 Modulation = 802.11ac VHT20 (OFDM MCS0)

MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT40 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Occ Ch BW (MHz)
[5725, 5850]	1	5755.00000	36.000

Verdict

Pass

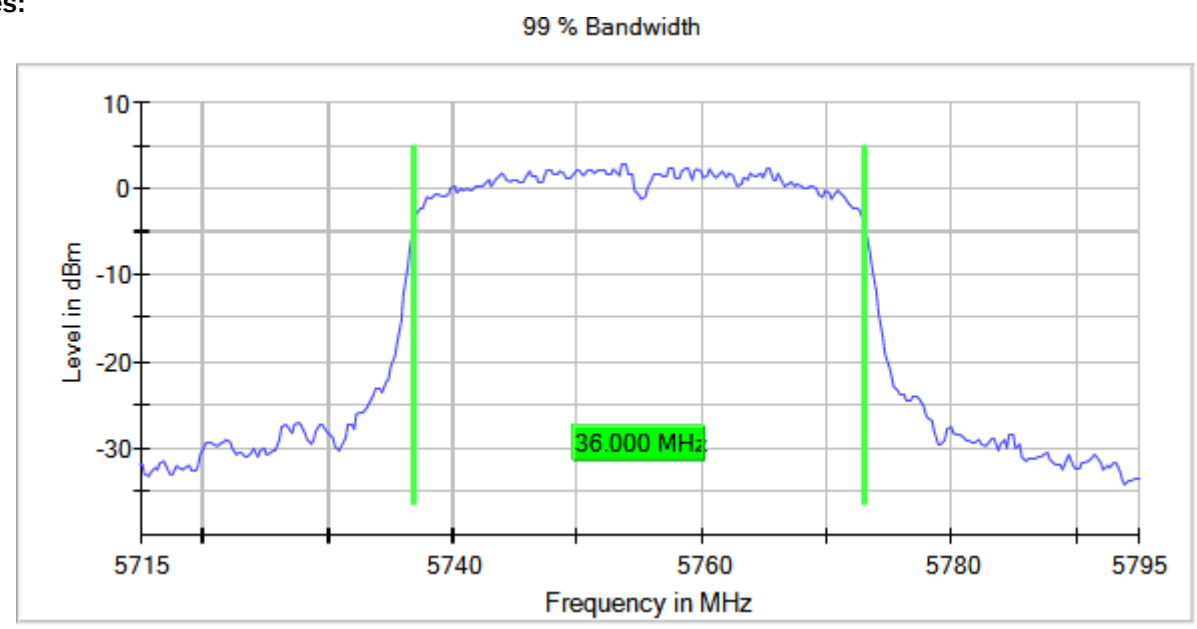
Attachments

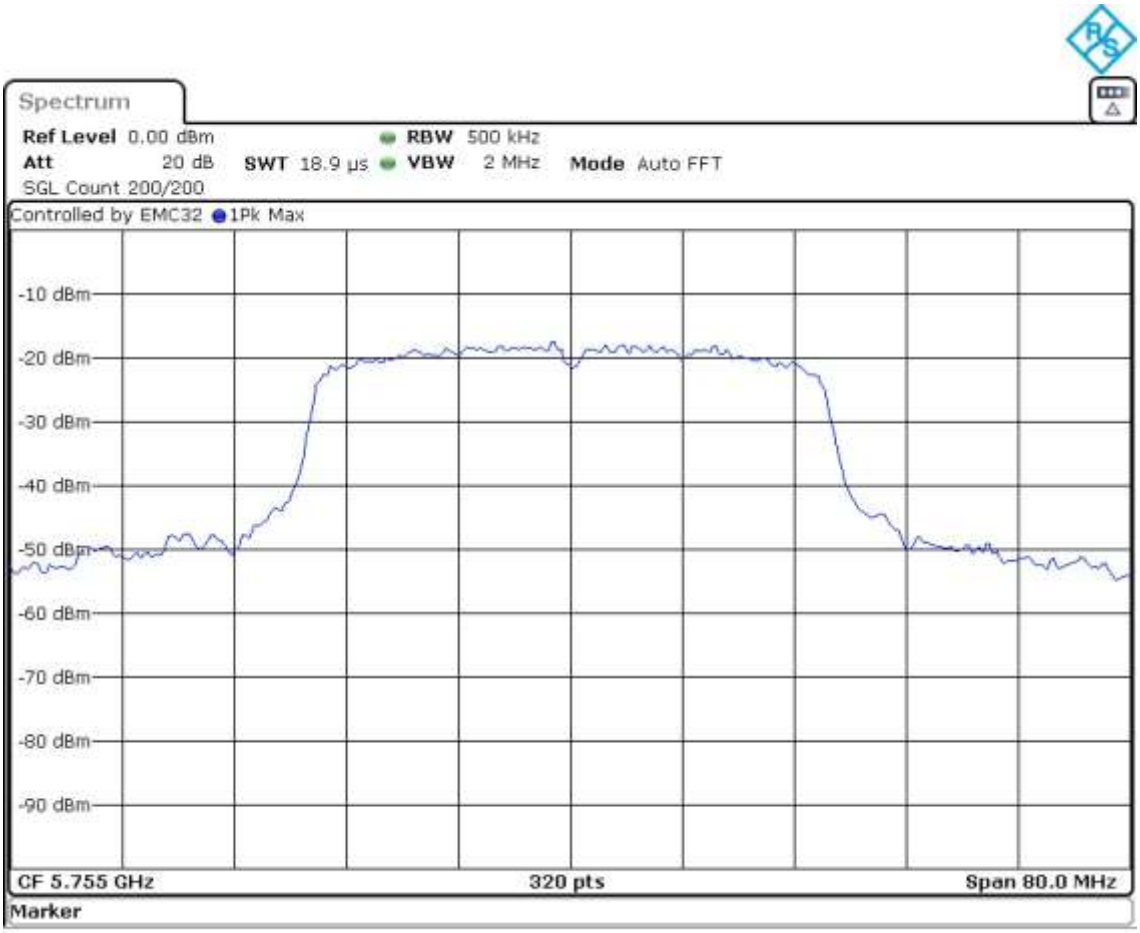
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5755.00000 Modulation = 802.11ac VHT40 (OFDM MCS0)

MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT80 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Occ Ch BW (MHz)
[5725, 5850]	1	5775.00000	75.000

Verdict

Pass

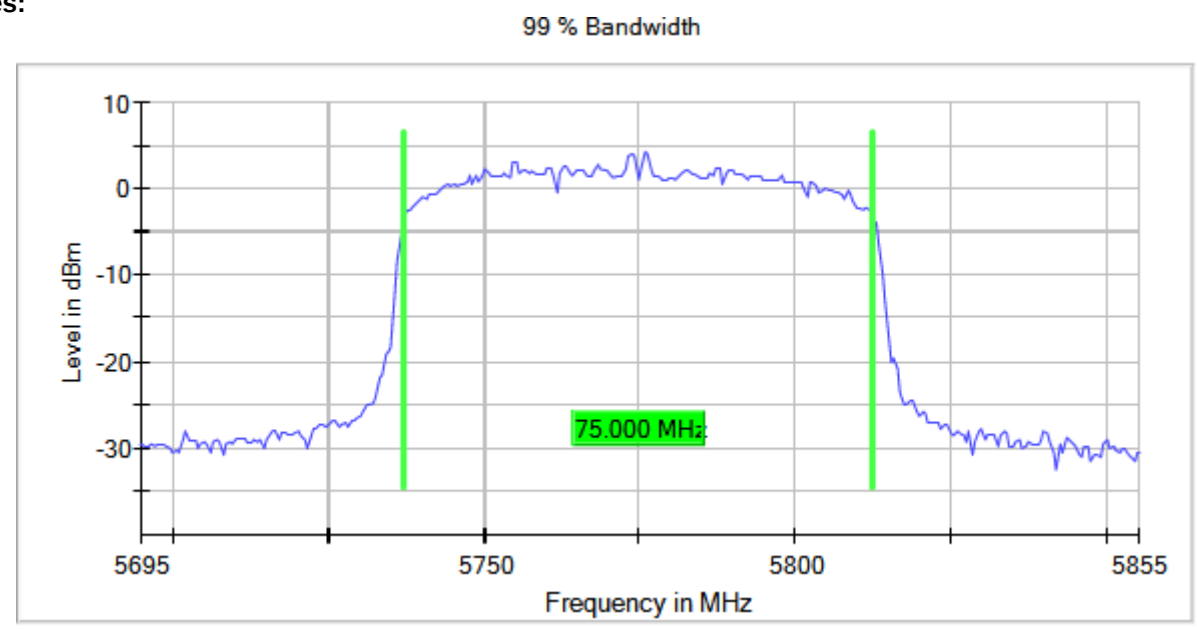
Attachments

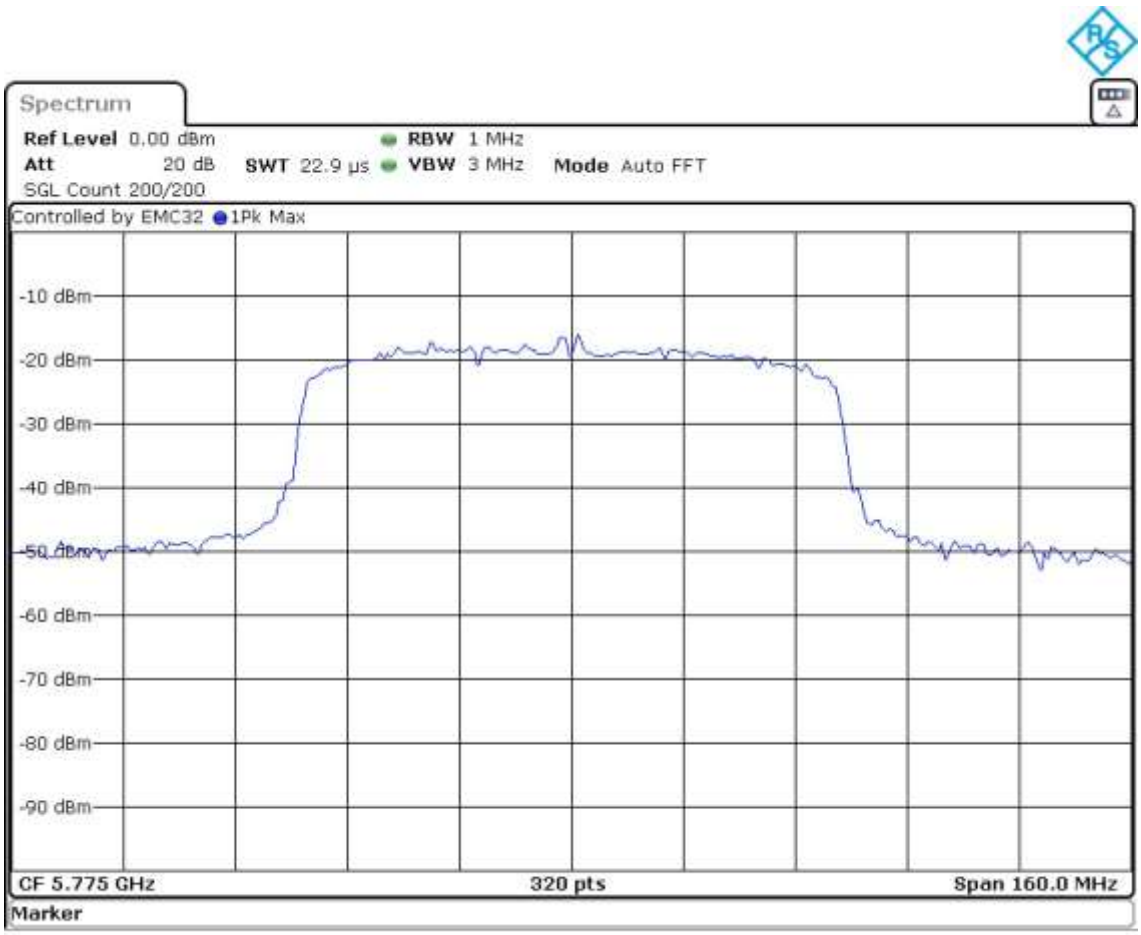
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5775.00000 Modulation = 802.11ac VHT80 (OFDM MCS0)

MIMO Mode = SISO

Images:





Section 15.407 Subclause 15.403(i) [Ebw] Transmitter 26 dB Emission Bandwidth (EBW)

Limits

The 26 dB Emission Bandwidth was measured using the method according to point C) 1) of 789033 D02 General UNII Test Procedures New Rules v02r01.

This test was performed on all the supported modes of the EUT, in the worst data rates after preliminary testing:

- 802.11a: 6 Mbps SISO 1Tx.
- 802.11n HT20: MCS0 SISO 1Tx.
- 802.11n HT40: MCS0 SISO 1Tx.
- 802.11ac VHT20: MCS0 SISO 1Tx.
- 802.11ac VHT40: MCS0 SISO 1Tx.
- 802.11ac VHT80: MCS0 SISO 1Tx.

Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5745.00000	20.200

Verdict

Pass

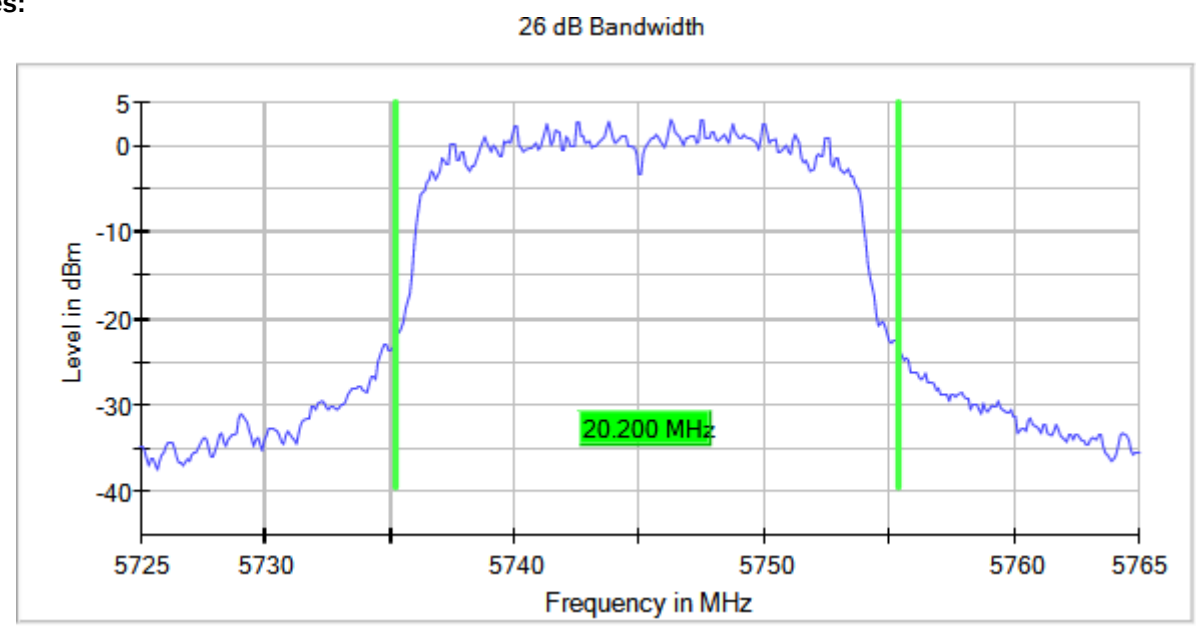
Attachments

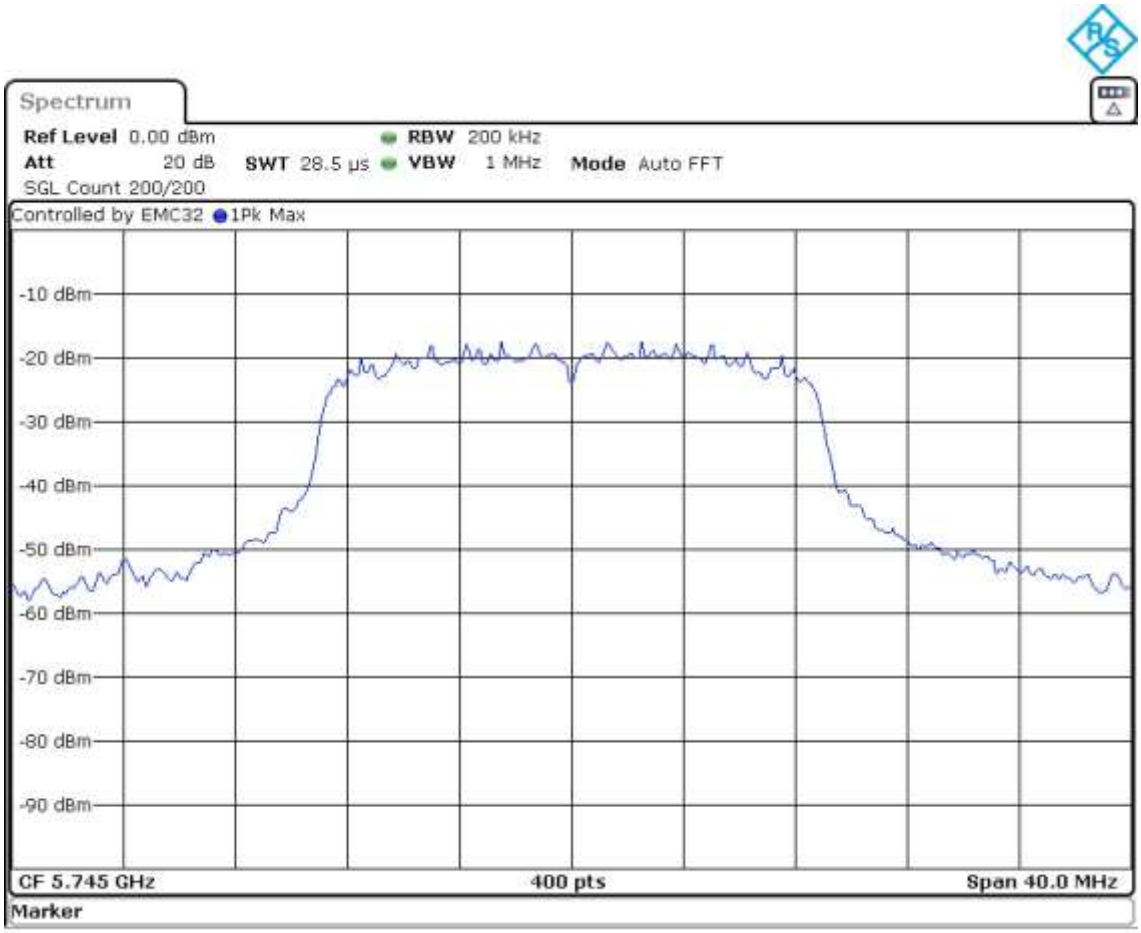
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000 Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

MIMO Mode = SISO

Images:





Modulation: 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5755.00000	41.726

Verdict

Pass

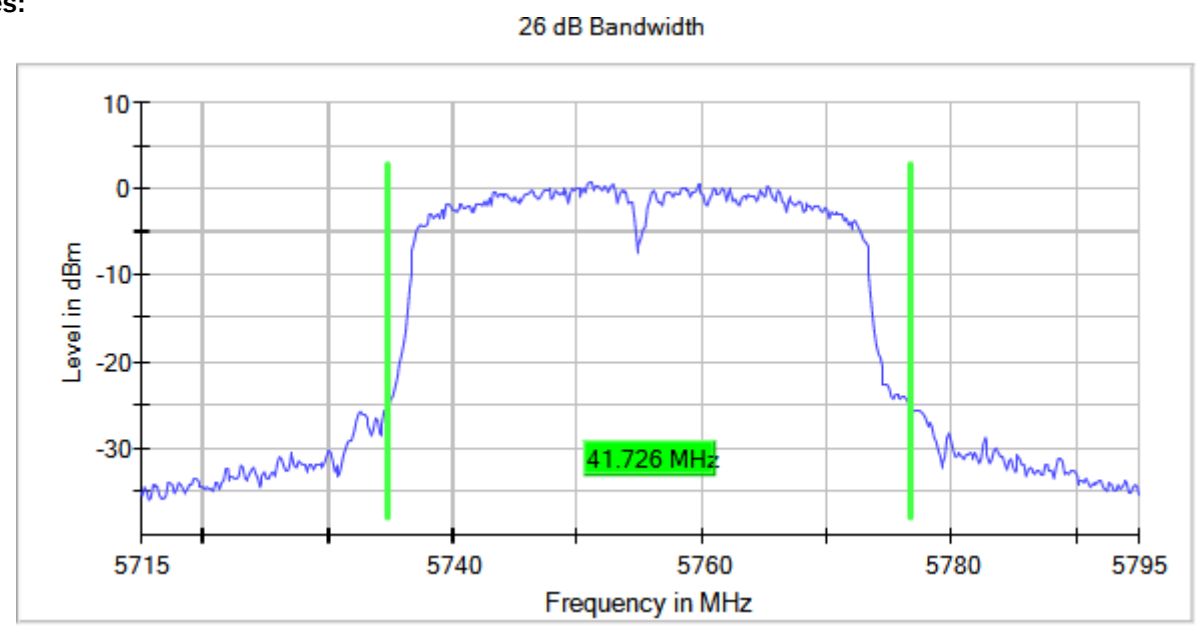
Attachments

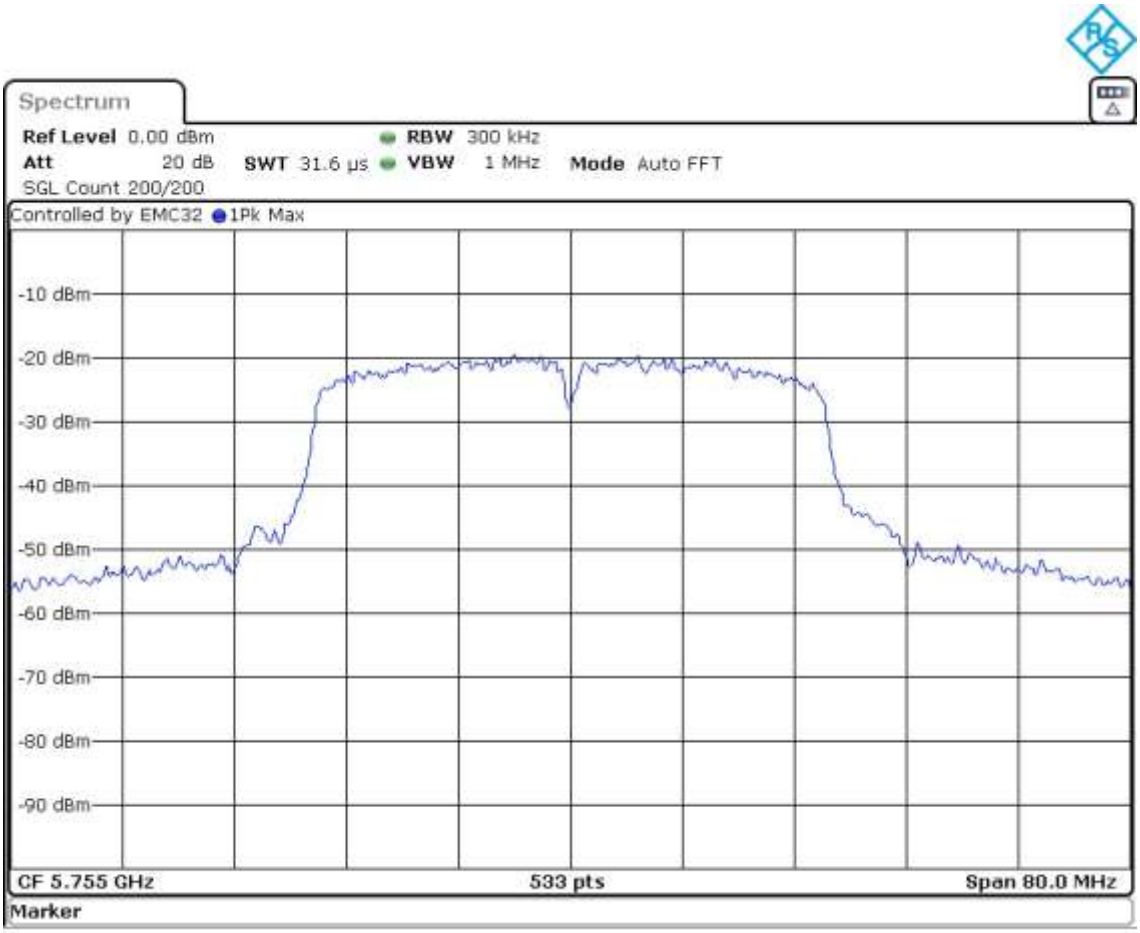
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5755.00000 Modulation = 802.11n HT40 (OFDM MCS0 13.5 Mbit/s)

MIMO Mode = SISO

Images:





Modulation: 802.11a (OFDM 6 Mbit/s)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5745.00000	20.000

Verdict

Pass

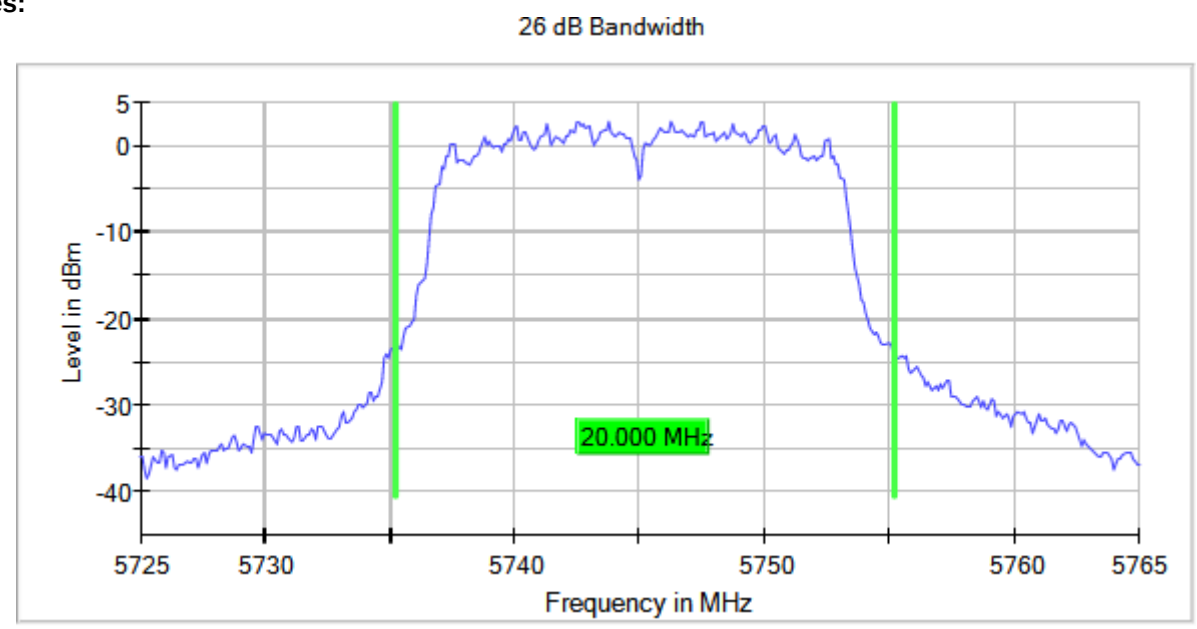
Attachments

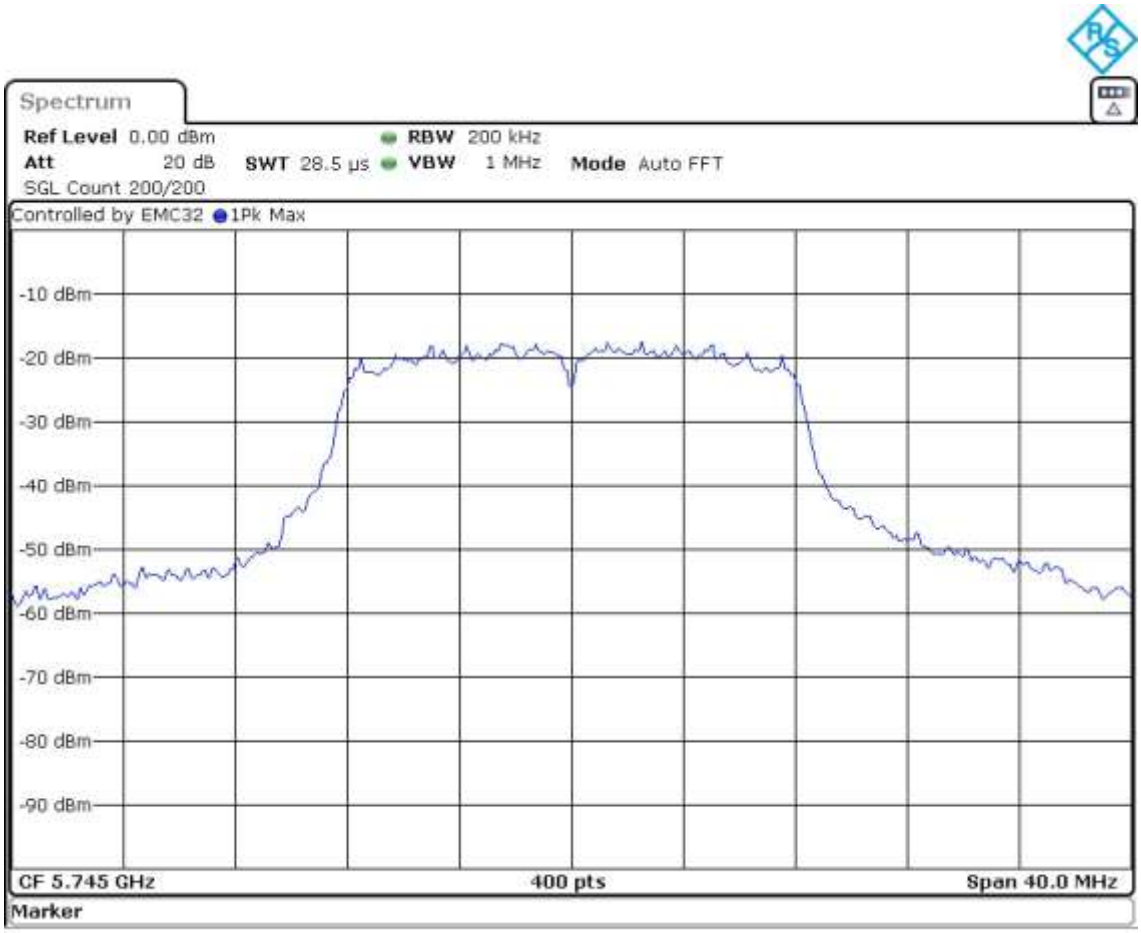
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000 Modulation = 802.11a (OFDM 6 Mbit/s)

MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT20 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5745.00000	20.400

Verdict

Pass

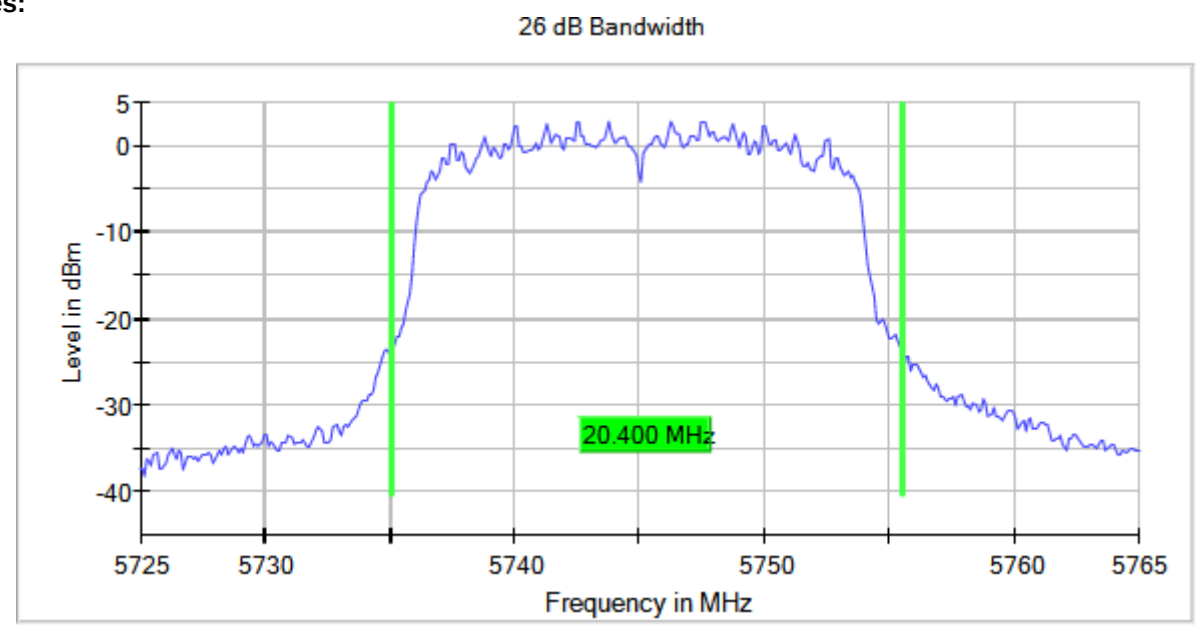
Attachments

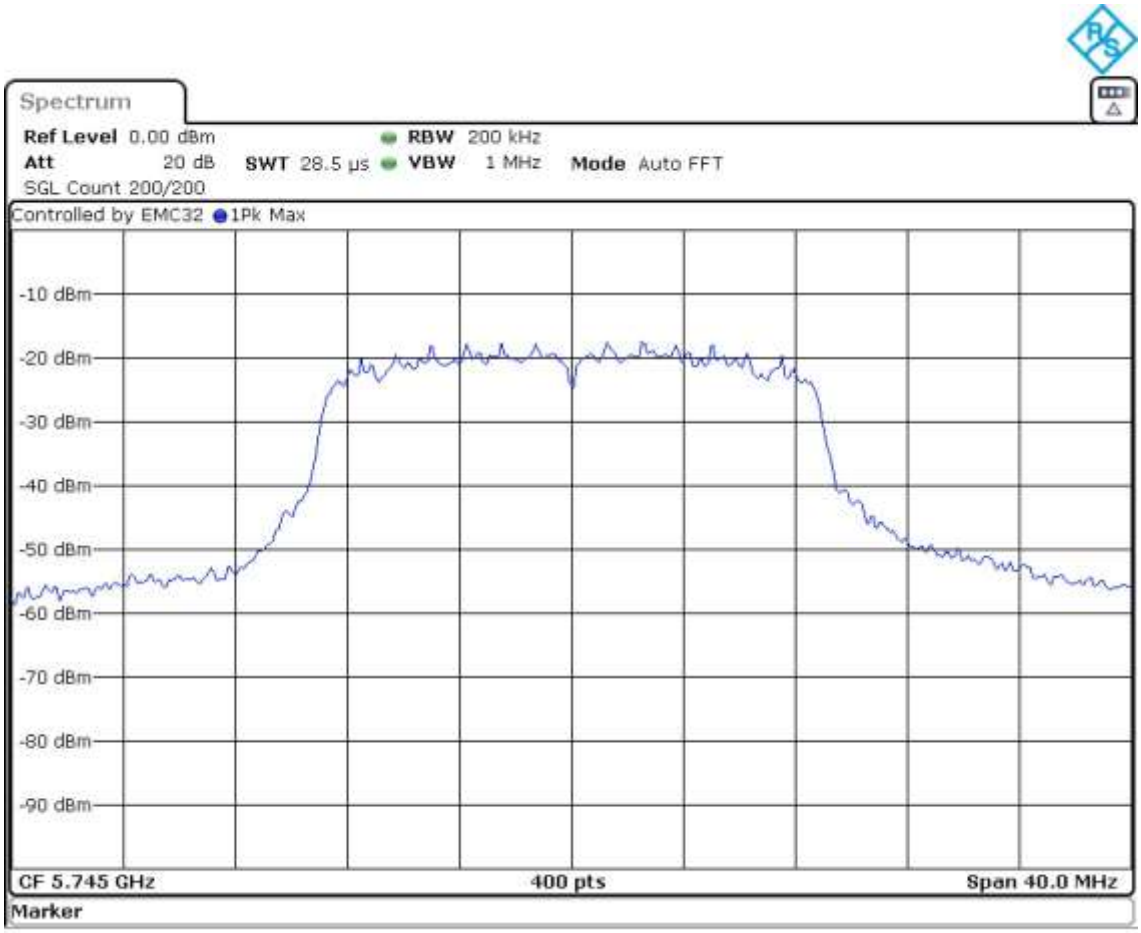
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5745.00000 Modulation = 802.11ac VHT20 (OFDM MCS0)

MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT40 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5755.00000	40.075

Verdict

Pass

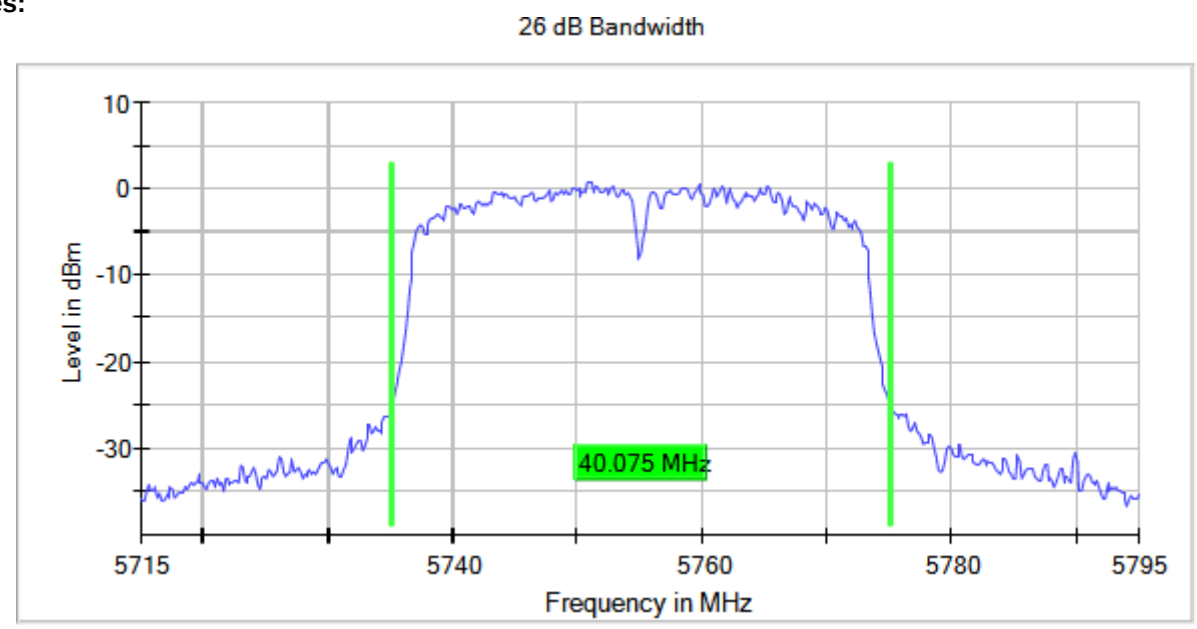
Attachments

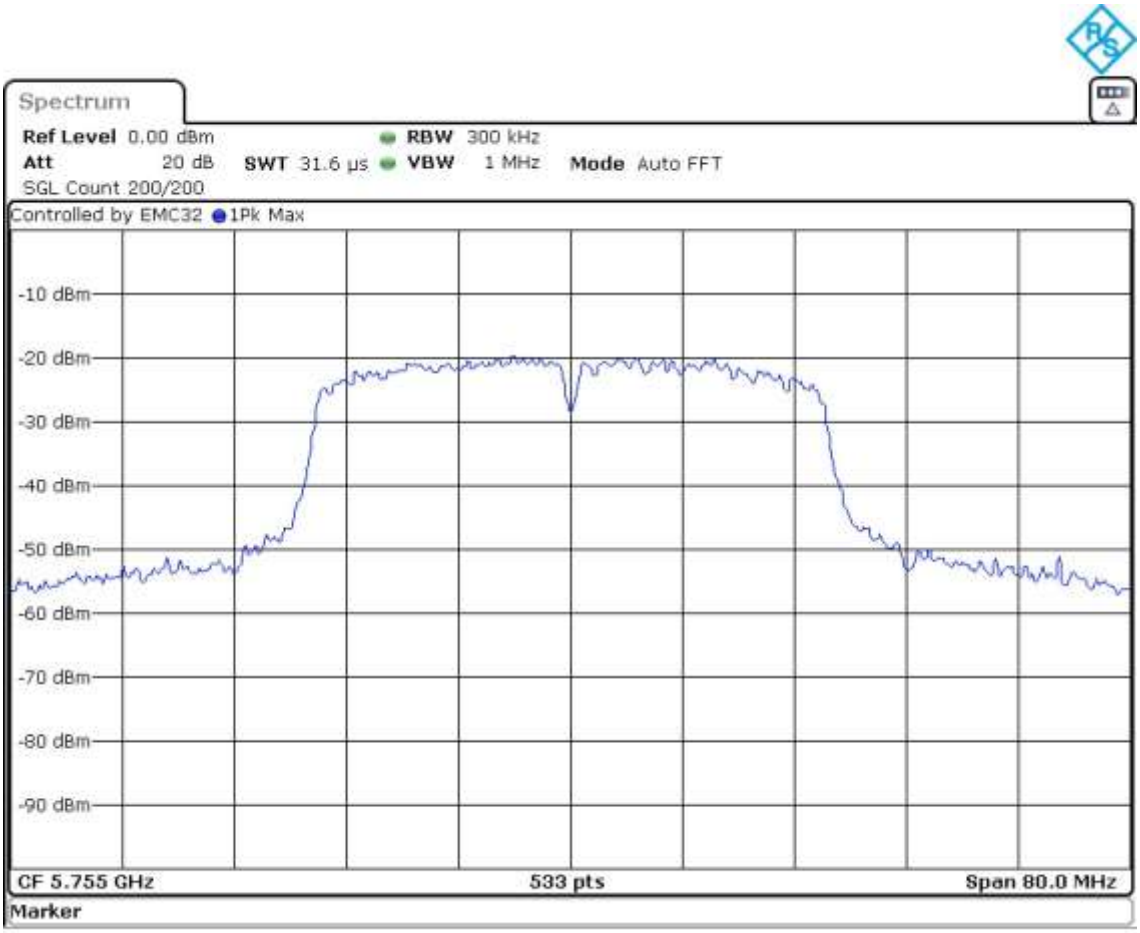
Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5755.00000 Modulation = 802.11ac VHT40 (OFDM MCS0)

MIMO Mode = SISO

Images:





Modulation: 802.11ac VHT80 (OFDM MCS0)

MIMO Mode: SISO

Results

Operation Band (MHz)	Port	Freq (MHz)	Ebw (MHz)
[5725, 5850]	1	5775.00000	84.000

Verdict

Pass

Attachments

Operation Band MHz = [5725, 5850] Active Port = 1

Frequency MHz = 5775.00000 Modulation = 802.11ac VHT80 (OFDM MCS0)

MIMO Mode = SISO

Images: