



FCC TEST REPORT

**Test report
On Behalf of
Curvalux UK Ltd
For**

**Access Point and CPE
Model No.: 900-00021, 900-00025**

FCC ID: 2A8EB-900-00021

**Prepared For : Curvalux UK Ltd
Electric Works Sheffield, S1 2BJ United Kingdom**

**Prepared By : Shenzhen HUAKE Testing Technology Co., Ltd.
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Date of Test: Oct. 09, 2022 ~ Dec. 09, 2022

Date of Report: Dec. 09, 2022

Report Number: HK2210094428-4E

**TEST RESULT CERTIFICATION****Applicant's name**.....: Curvalux UK Ltd

Address: Electric Works Sheffield, S1 2BJ United Kingdom

Manufacture's Name: Curvalux UK Ltd

Address: Electric Works Sheffield, S1 2BJ United Kingdom

Product description

Trade Mark: N/A

Product name: Access Point and CPE

Model and/or type reference ..: 900-00021, 900-00025

Standards.....: FCC 47 CFR Part 15 Subpart E

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Date of Test.....:

Date (s) of performance of tests.....: Oct. 09, 2022 ~ Dec. 09, 2022

Date of Issue: Dec. 09, 2022

Test Result.....: Pass

Testing Engineer :

(Gary Qian)

Technical Manager :

(Edén Hu)

Authorized Signatory :

(Jason Zhou)

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**** Modified History ****

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Dec. 09, 2022	Jason Zhou



1. EUT DESCRIPTION

Product Name:	Access Point and CPE			
Brand Name:	N/A			
Model Name:	900-00021			
Series Model:	900-00025			
Model Difference:	All model's the function, software and electric circuit are the same, only with a product color and model named different. Test sample mode: 900-00021.			
Power Rating	DC 48V From POE			
Frequency Range :	Band	Mode	Frequency Range(MHz)	Number of Channels
	Band II UNII-2A	IEEE802.11a mode mode	5250 MHz ~5350 MHz	4
		IEEE802.11 n/ac/ax HT20 mode		4
		IEEE802.11 n/ac/ax HT40 mode		2
		IEEE802.11 ac/ax HT80 mode		1
	Band III UNII-2C	IEEE802.11a mode mode	5470 MHz ~5725 MHz	4
		IEEE802.11 n/ac/ax HT20 mode		4
		IEEE802.11 n/ac/ax HT40 mode		3
		IEEE802.11 ac/ax HT80 mode		2
	Modulation Technique:	IEEE802.11a mode: OFDM (6,9,12,18,24,36,48 and 54 Mbps) IEEE802.11 n/ac/ax HT20 mode: OFDM (MCS0~MCS7) IEEE802.11 n/ac/ax HT40 mode: OFDM (MCS0~MCS7) IEEE802.11 ac/ax HT80 mode: OFDM (MCS0~MCS7)		
Antenna Specification:	External Antenna Antenna 1:23dBi Antenna 2:23dBi MIMO: 26.01dBi			
Operating Mode:	Master			

Remark:

1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.
2. This submittal(s) (test report) is intended for **ECCID: 2A8EB-900-00021** filing to comply with FCC Part 15, Subpart E Rules.



2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10:2013 and FCC CFR 47 15.207, 15.209 and 15.407.

2.1 EUT CONFIGURATION

The EUT configuration for testing is installed for RF field strength measurement to meet the Commissions requirement, and is operated in a manner intended to generate the maximum emission in a continuous normal application.

2.2 EUT EXERCISE

The EUT is operated in the engineering mode to fix the Tx frequency for the purposes of measurement.

According to its specifications, the EUT must comply with the requirements of Section 15.407 under the FCC Rules Part 15 Subpart E.

2.3 GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turn table, which is positioned at 0.8 m above the ground plane. According to the requirements in Section 13.3 of ANSI C63.10:2013, the conducted emission from the EUT is measured in the frequency range between 0.15MHz and 30MHz, using the CISPR Quasi-Peak detector mode.

Radiated Emissions

Under 1GHz

The EUT is placed on a turn table, which is 0.8m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.10:2013.

Above 1GHz

The EUT is placed on a turn table, which is 1.5m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.10:2013.



2.4 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.50 - 5.15
0.495 - 0.505 ⁽¹⁾	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960.0 - 1240	7.25 - 7.75
4.125 - 4.128	25.50 - 25.67	1300 - 1427	8.025 - 8.500
4.17725 - 4.17775	37.50 - 38.25	1435.0 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73.00 - 74.60	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.80 - 75.20	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108.00 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.90 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500.0	17.7 - 21.4
8.37625 - 8.38675	156.70 - 156.90	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.1700	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.20	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358.0	36.43 - 36.5 ⁽²⁾
12.57675 - 12.57725	322.0 - 335.4	3600 - 4400	
13.36 - 13.41			

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510MHz.

² Above 38.6

Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.



2.5 DESCRIPTION OF TEST MODES

Description	Modulation Technology	Modulation Type
26dB Bandwidth and 99% bandwidth	OFDM	BPSK
Maximum conducted output power	OFDM	BPSK
Band edges measurement	OFDM	BPSK
Peak Power Spectral Density	OFDM	BPSK
Radiated undesirable emission	OFDM	BPSK
Power line conducted emission	OFDM	BPSK

IEEE802.11a mode:

Channel (5260MHz), Channel (5280MHz), Channel (5320MHz), Channel (5500MHz), Channel (5580MHz) and Channel (5700MHz) with 6Mbps data rate were chosen for full testing.

IEEE802.11n/ac/axHT20 mode:

Channel (5260MHz), Channel (5280MHz), Channel (5320MHz), Channel (5500MHz), Channel (5580MHz) and Channel (5700MHz) with 6Mbps data rate were chosen for full testing.

IEEE802.11n/ac/axHT40 mode:

Channel (5270MHz), Channel (5310MHz), Channel (5510MHz), Channel (5550MHz) and Channel (5670MHz) with 6Mbps data rate were chosen for full testing.

IEEE802.11ac/axHT80 mode:

Channel (5290MHz), Channel (5530MHz), Channel (5610MHz) with MCS0 data rate were chosen for full testing.

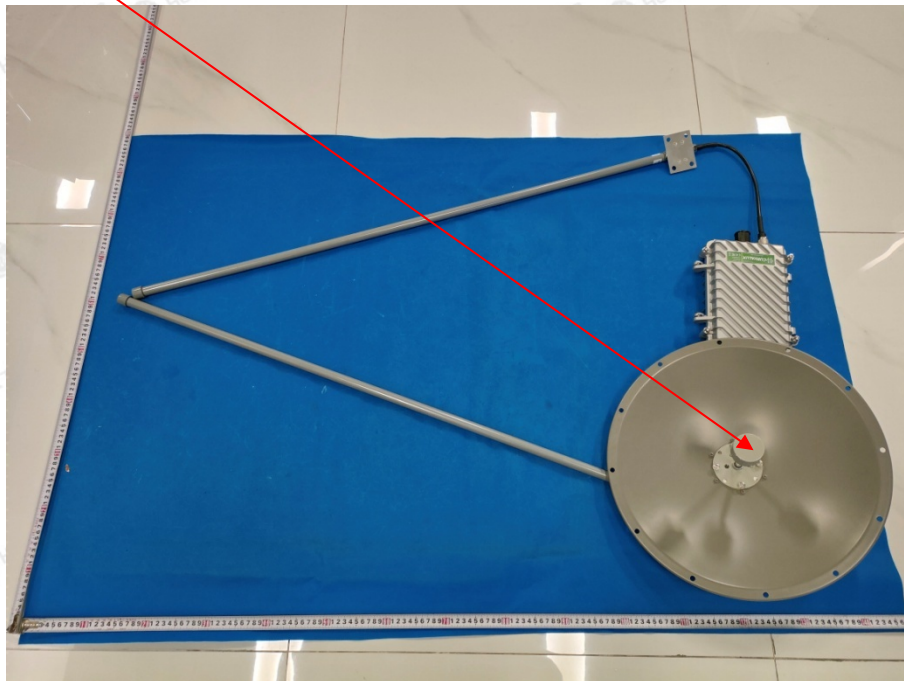


2.6 ANTENNA DESCRIPTION

an intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached or an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section"

- * the antenna of this EUT is a unique(External Antenna for WiFi).
- * the EUT complies with the requirement of 15.203.

WIFI ANTENNA





3. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented here in, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

3.1 MEASUREMENT EQUIPMENT USED

Conducted Emissions Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-048	2022-02-18	2023-02-17
Spectrum analyzer	R&S	FSP40	HKE-025	2022-02-18	2023-02-17
Power meter	Agilent	E4419B	HKE-085	2022-02-18	2023-02-17
Power Sensor	Agilent	E9300A	HKE-086	2022-02-18	2023-02-17
Power SPLITTER	Mini-Circuits	ZN2PD-9G	HKE-125	N.C.R	N.C.R
programmable power	Agilent	E3634A	HKE-091	N.C.R	N.C.R
Temperature and humidity	Boyang	HTC-1	HKE-079	2022-02-18	2023-02-17

977 Chamber					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-048	2022-02-18	2023-02-17
Spectrum analyzer	R&S	FSP40	HKE-025	2022-02-18	2023-02-17
Spectrum analyzer	Agilent	N9020A	HKE-089	2022-02-18	2023-02-17
Receiver	R&S	ESCI 7	HKE-010	2022-02-18	2023-02-17
Preamplifier	EMCI	EMC051845SE	HKE-015	2022-02-18	2023-02-17
Preamplifier	Agilent	83051A	HKE-016	2022-02-18	2023-02-17
Broadband antenna	Schwarzbeck	VULB 9163	HKE-012	2022-02-18	2023-02-17
Horn antenna	Schwarzbeck	9120D	HKE-013	2022-02-18	2023-02-17
Loop antenna	Schwarzbeck	FMZB 1519 B	HKE-014	2022-02-18	2023-02-17
High gain antenna	Schwarzbeck	LB-180400KF	HKE-054	2022-02-18	2023-02-17
Position controller	Taiwan MF	MF7802	HKE-011	N.C.R	N.C.R
Antenna tower	Taiwan MF	CTERG23	HKE-120	N.C.R	N.C.R
Controller	Taiwan MF	CT100	HKE-121	N.C.R	N.C.R
Test Software			EZ-EMC		



Conducted Emission					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Receiver	R&S	ESCI 7	HKE-010	2022-02-18	2023-02-17
LISN	R&S	ENV216	HKE-002	2022-02-18	2023-02-17
LISN	ENV216	R&S	HKE-059	2022-02-18	2023-02-17
ISN	Schwarzbeck	ISN CAT5 8158	HKE-062	2022-02-18	2023-02-17
Test Software	EZ-EMC				

Remark: Each piece of equipment is scheduled for calibration once a year.

3.2 MEASUREMENT UNCERTAINTY

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR 100 028-1 [2] and shall correspond to an expansion factor(coverage factor) $k = 1,96$ or $k = 2$ (which provide confidence levels of respectively 95% and 95,45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

Table 6 is based on such expansion factors.

Table6: Maximum measurement uncertainty

Parameter	UNCERTAINTY
Radio frequency	$\pm 0.8 \times 10^{-7}$
RF power, conducted	$\pm 3.35\text{dB}$
Maximum frequency deviation: -within 300Hz and 6 kHz of audio frequency -within 6 kHz and 25 kHz of audio frequency	1.3% 0.65 dB
Adjacent channel power	0.2054
Conducted spurious emission of transmitter, valid up to 6 GHz	$\pm 2.20\text{dB}$
Conducted emission of receivers	$\pm 0.37\text{dB}$
Radiated emission of transmitter, valid up to 6 GHz	$\pm 3.94\text{ dB}$
Radiated emission of receiver, valid up to 6 GHz	$\pm 3.94\text{ dB}$
RF level uncertainty for a given BER	$\pm 0.3\text{ dB}$
Temperature	$\pm 0.1^\circ\text{C}$
Humidity	$\pm 1.0\%$



4. FACILITIES AND ACCREDITATIONS

4.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

☒ 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

The sites are constructed in conformance with the requirements of ANSI C63.10:2013 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16 1, "Radio Interference Measuring Apparatus and Measurement Methods."

Testing Laboratory Authorization:

A2LA Accreditation Code is 4781.01.

FCC Designation Number is CN1229.

Canada IC CAB identifier is CN0045.

CNAS Registration Number is L9589.

4.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with preselectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

4.3 TABLE OF ACCREDITATIONS AND LISTINGS

The test facilities used to perform radiated and conducted emissions tests are accredited by American Association for Laboratory Accreditation Program for the specific scope accreditation under Lab Code: 200581-0 to perform Electromagnetic Interference tests according to FCC Part 15 and CISPR 22 requirements. In addition, the test facilities are listed with USA, Certification and Engineering Bureau, 424105 for 10m chamber, 238958 for 3m chamber.



5. SETUP OF EQUIPMENT UNDER TEST

5.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

5.2 SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	FCC ID
1.	Laptop	/	TP00018A	N/A	N/A

Remark:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



6. FCC PART 15 REQUIREMENTS

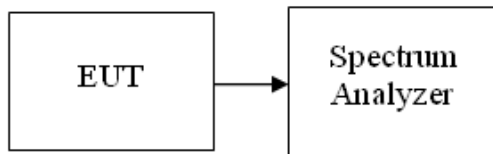
6.1 26 DB EMISSION BANDWIDTH

LIMIT

According to §15.403(i), for purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Compliance with the emissions limits is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

Test Configuration

TESTPROCEDURE



1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low-loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzers RBW = approximately 1% of the emission bandwidth, VBW > RBW, Detector = Peak, Span > 26dB bandwidth, and Sweep = auto, Trace mode = max hold.
4. Measure the maximum width of the emission that is 26dB down from the maximum of the emission.
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
5. Repeat until all the rest channels were investigated.

TESTRESULTS

No non-compliance noted

Test Data

**Antenna 1****Testmode:IEEE802.11a mode****5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	18.88
Mid	5280	18.68
High	5320	18.56

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	18.64
Mid	5580	19.12
High	5700	18.60

Testmode:IEEE802.11n HT20 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	19.80
Mid	5280	20.24
High	5320	19.80

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	19.88
Mid	5580	19.76
High	5700	20.36

Testmode:IEEE802.11n HT40 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5270	39.28
High	5310	39.12

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5510	39.36
Mid	5550	39.36
High	5670	39.36

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**Testmode:IEEE802.11ac HT20 mode****5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	19.92
Mid	5280	19.76
High	5320	19.96

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	19.80
Mid	5580	19.92
High	5700	19.76

Testmode:IEEE802.11ac HT40 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5270	39.52
High	5310	39.12

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5510	39.44
Mid	5550	39.20
High	5670	39.52

Testmode:IEEE802.11ac HT80 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
---	5290	80.80

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5530	80.96
High	5610	80.64

**Testmode:IEEE802.11ax HT20 mode****5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	20.920
Mid	5280	20.640
High	5320	20.560

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	20.800
Mid	5580	20.440
High	5700	20.640

Testmode:IEEE802.11ax HT40 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5270	40.080
High	5310	39.840

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5510	39.920
Mid	5550	40.160
High	5670	40.320

Testmode:IEEE802.11ax HT80 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
---	5290	81.440

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5530	81.280
High	5610	81.280



Test Plot

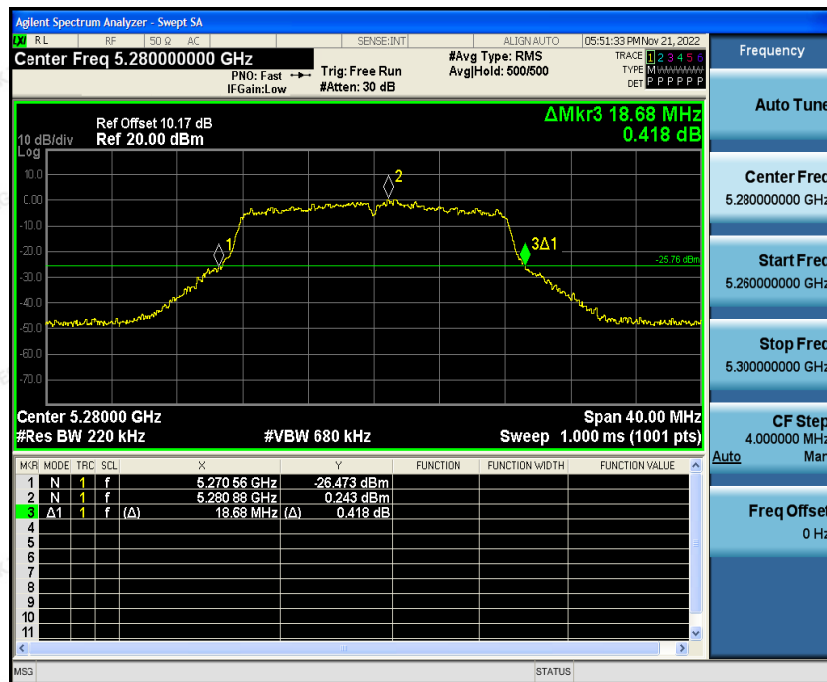
IEEE802.11a mode:

5250~5350MHz

Low Channel



Mid Channel



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High Channel



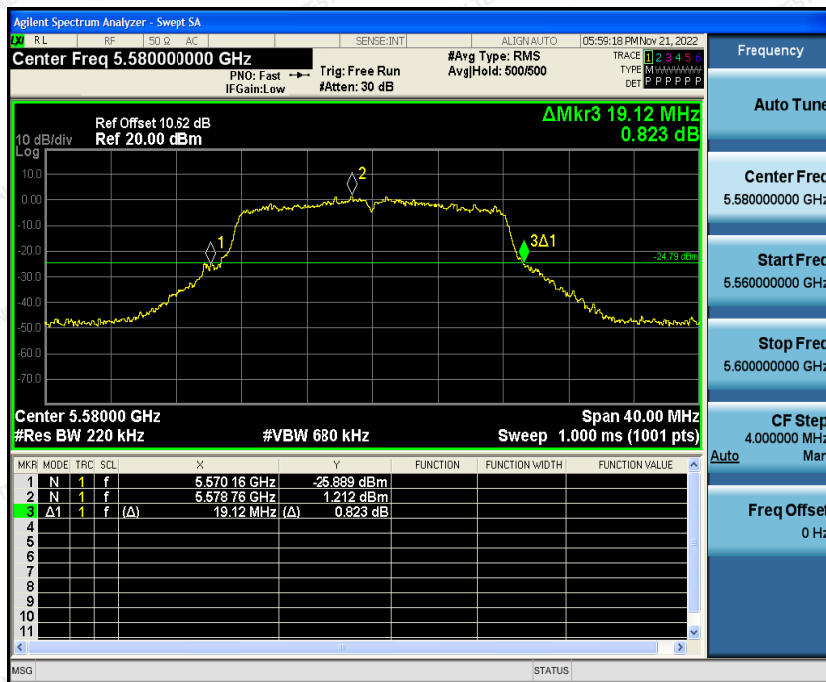
5470~5725MHz

Low Channel

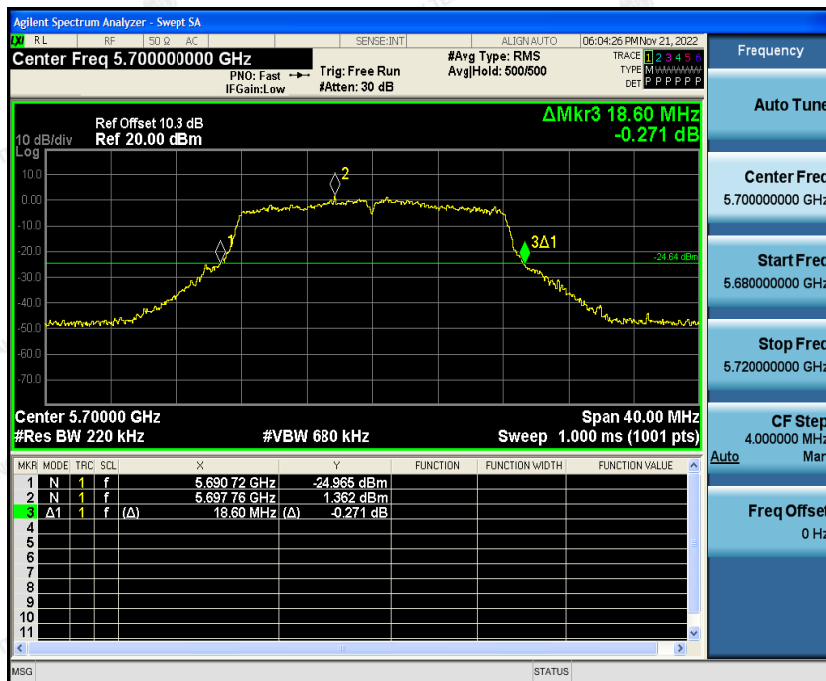




Mid Channel



High Channel



IEEE802.11n HT20 mode

5250~5350MHz

Low Channel



Mid Channel



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High Channel



5470~5725MHz

Low Channel

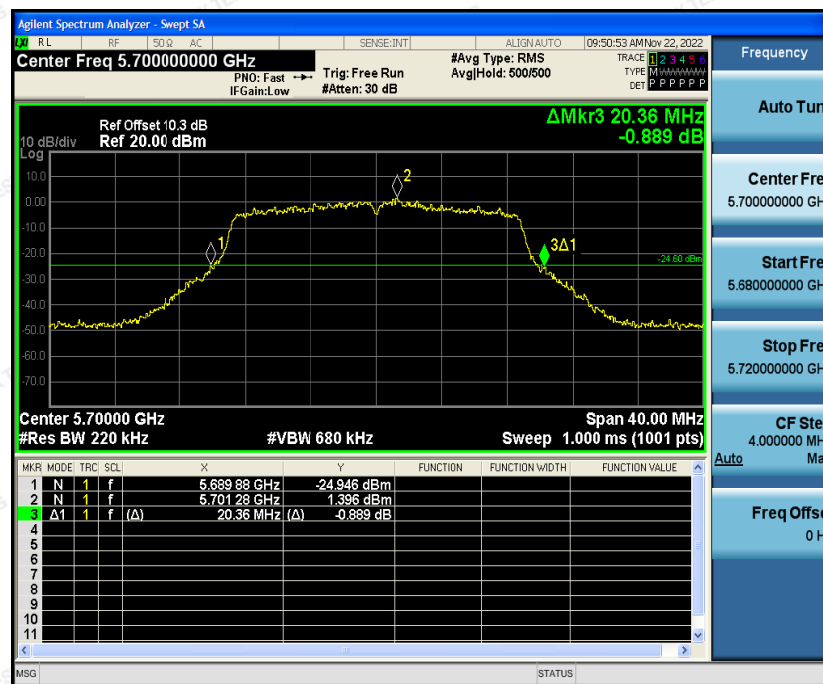




Mid Channel



High Channel





5470~5725MHz

Low Channel

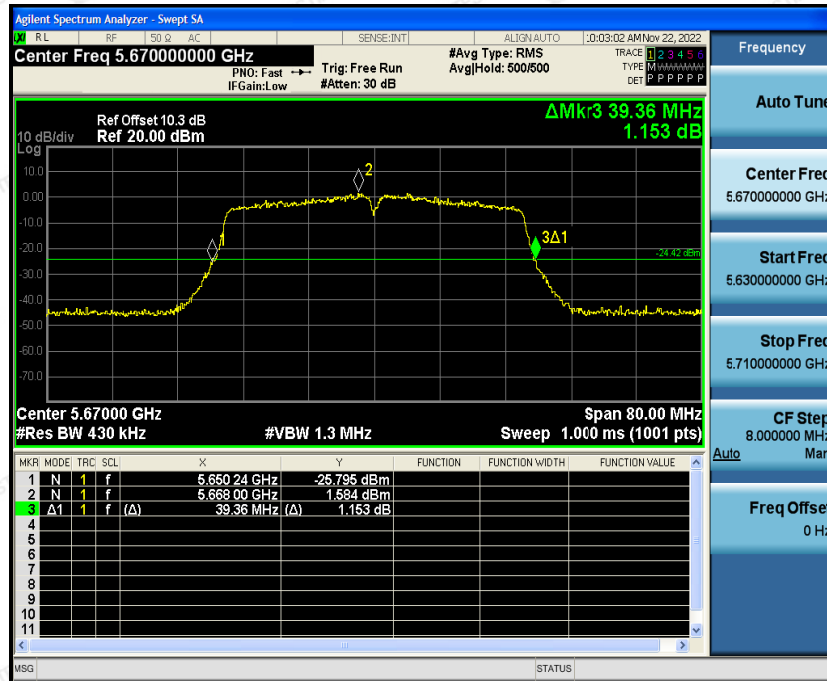


Mid Channel





High Channel



**IEEE802.11ac HT20 mode****5250~5350MHz****Low Channel****Mid Channel**



High Channel



5470~5725MHz

Low Channel





Mid Channel



High Channel





IEEE802.11ac HT40 mode

5250~5350MHz

Low Channel



High Channel



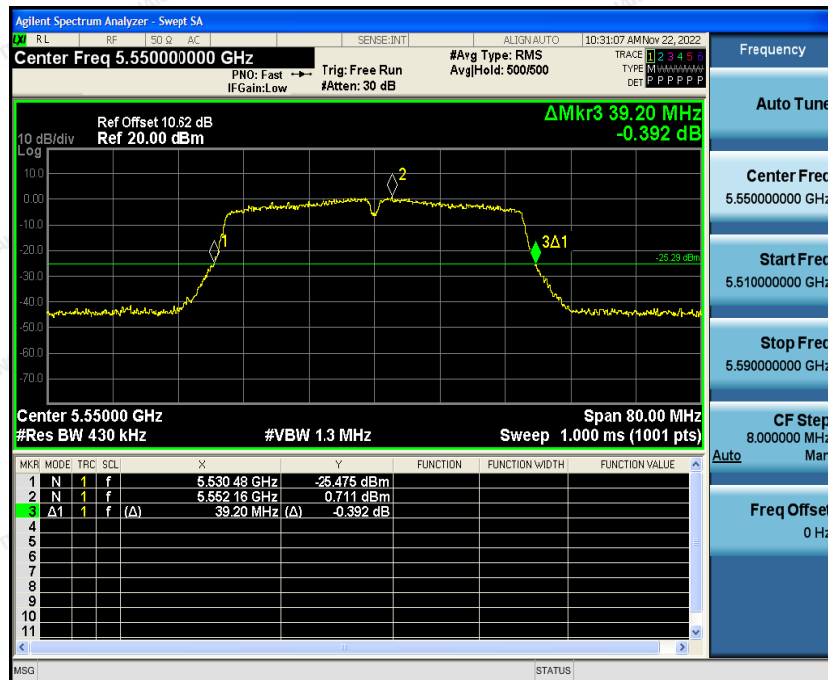


5470~5725MHz

Low Channel



Mid Channel





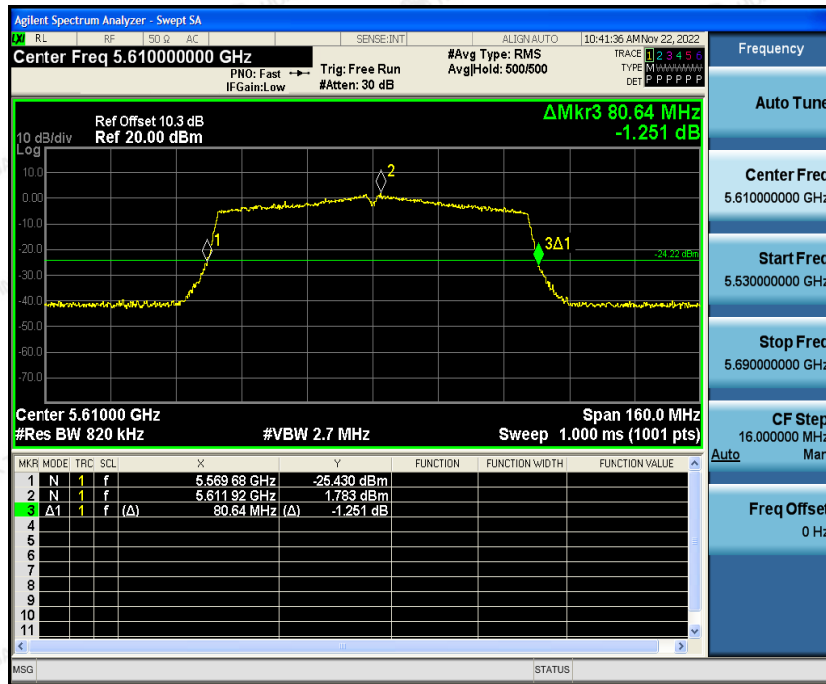
High Channel



**IEEE802.11ac HT80 mode****5250-5350MHz****5470-5725MHz****Low Channel**



High Channel



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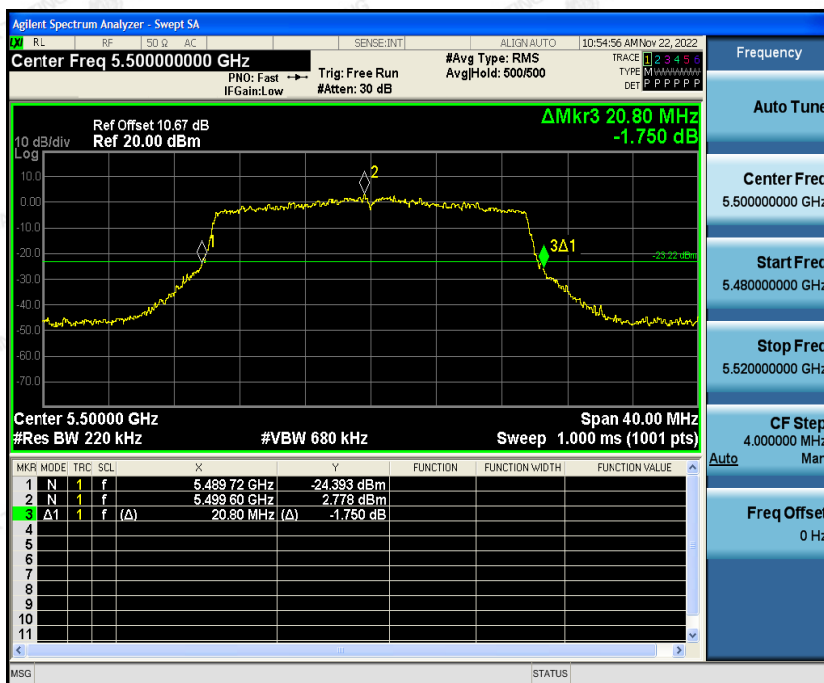
**IEEE802.11ax HT20 mode****5250~5350MHz****Low Channel****Mid Channel**

High Channel



5470~5725MHz

Low Channel



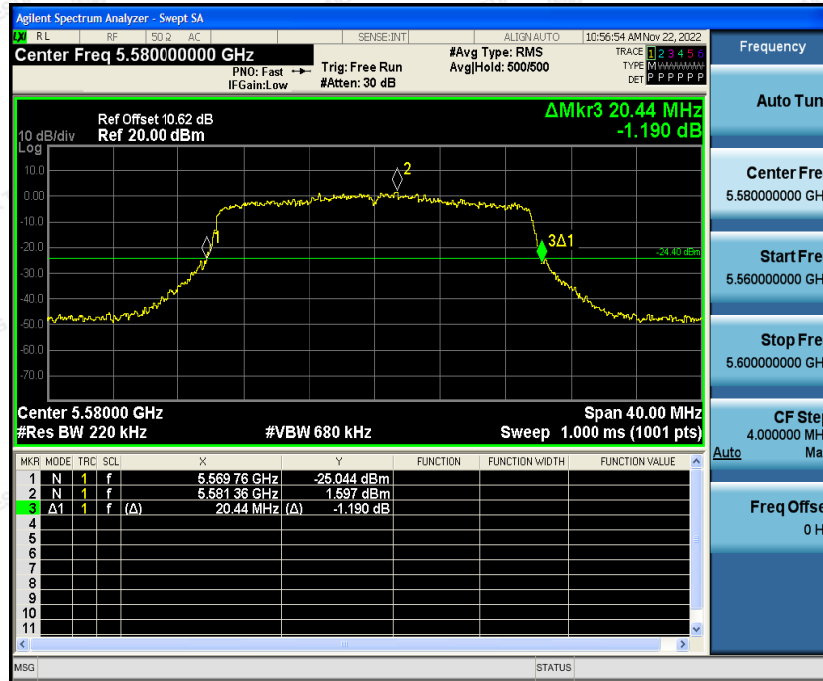
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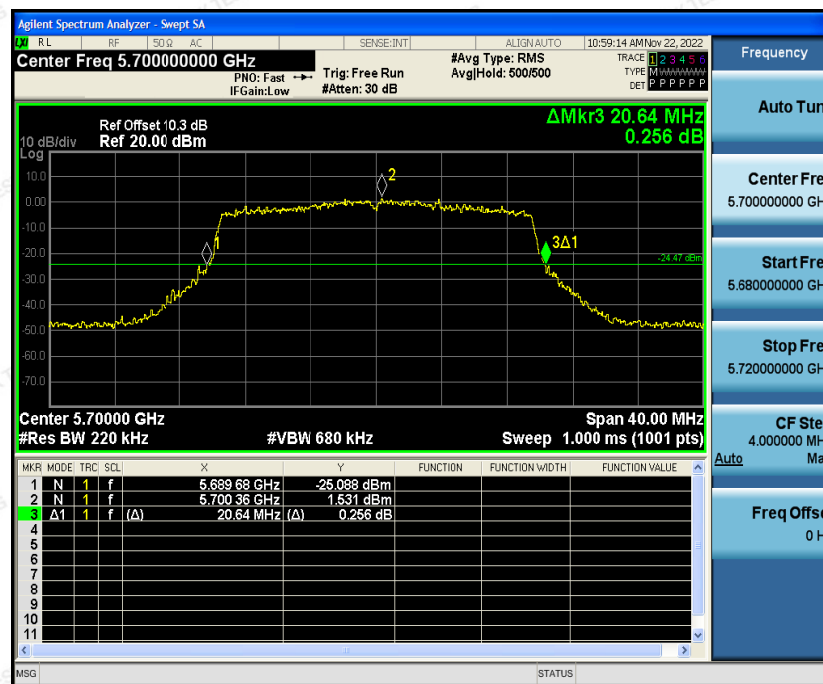
Add: 1-2F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



Mid Channel



High Channel

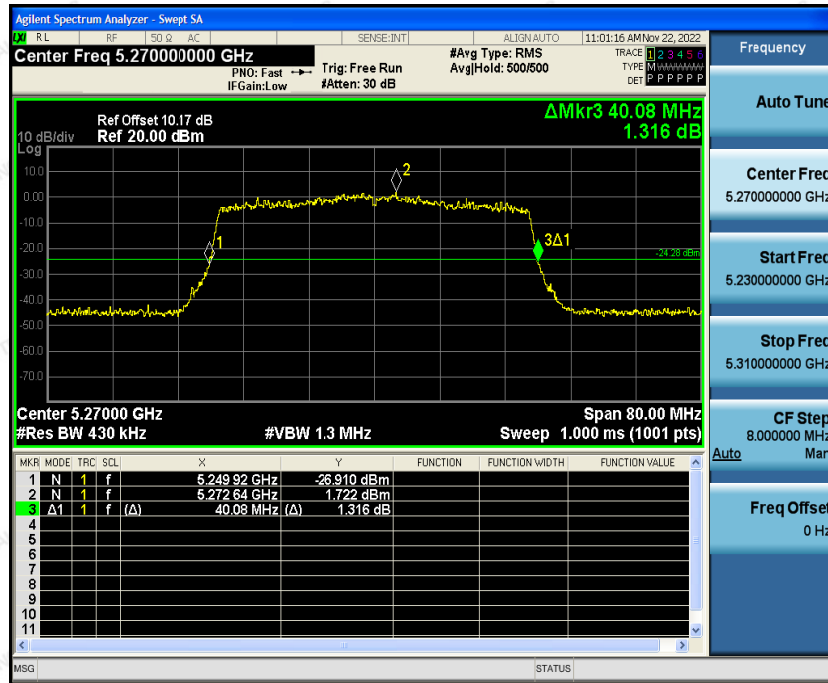




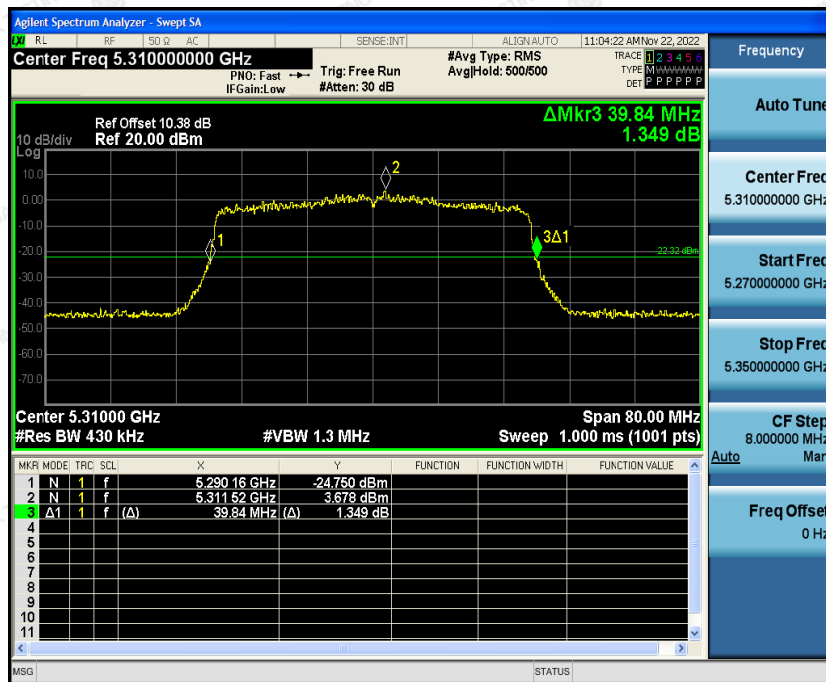
IEEE802.11ax HT40 mode

5250~5350MHz

Low Channel



High Channel

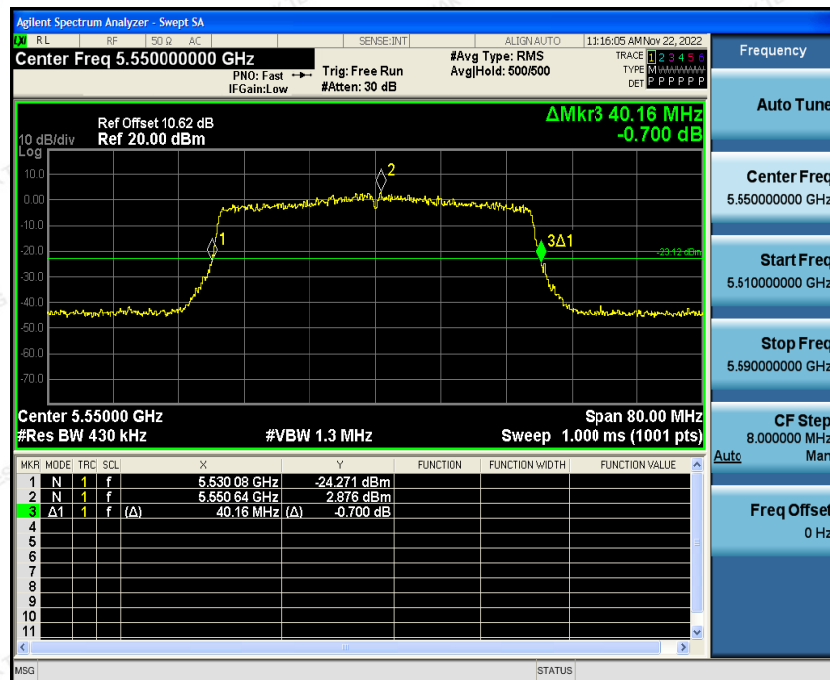


5470~5725MHz

Low Channel



Mid Channel



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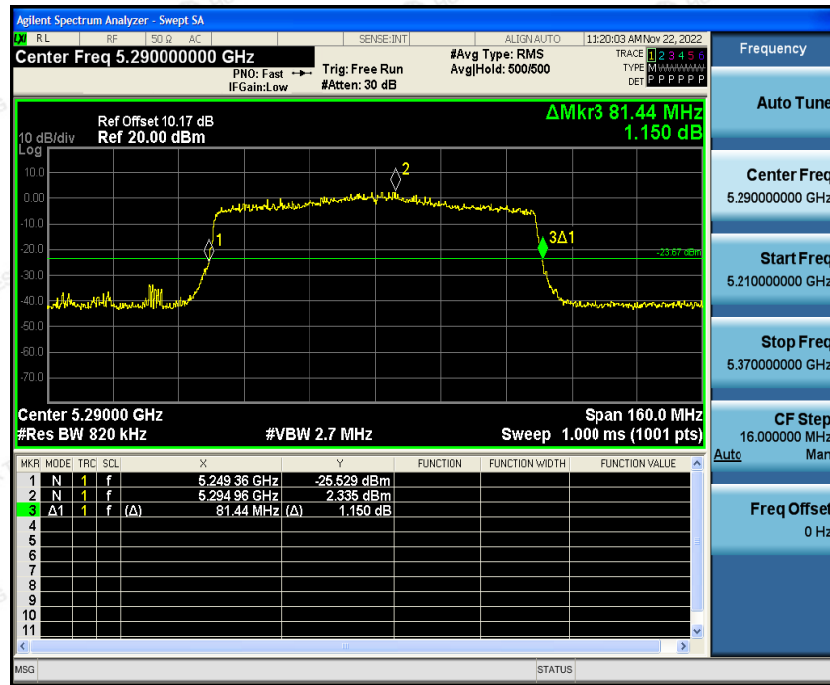
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High Channel



**IEEE802.11ax HT80 mode****5250-5350MHz****5470-5725MHz****Low Channel**

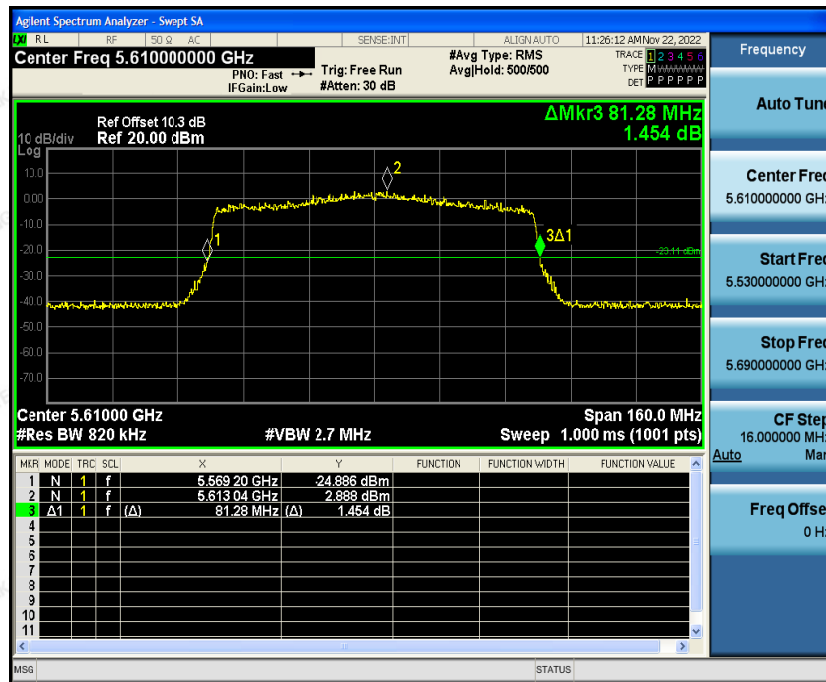
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High Channel



**Antenna 2****Testmode:IEEE802.11a mode****5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	18.64
Mid	5280	18.56
High	5320	18.68

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	18.76
Mid	5580	18.64
High	5700	18.76

Testmode:IEEE802.11n HT20 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	19.80
Mid	5280	19.88
High	5320	19.72

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	19.88
Mid	5580	19.92
High	5700	20.28

Testmode:IEEE802.11n HT40 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5270	38.88
High	5310	39.04

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5510	39.28
Mid	5550	39.28
High	5670	39.28

**Testmode:IEEE802.11ac HT20 mode****5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	19.96
Mid	5280	19.52
High	5320	19.92

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	20.24
Mid	5580	20.16
High	5700	19.84

Testmode:IEEE802.11ac HT40 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5270	39.60
High	5310	39.36

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5510	39.20
Mid	5550	39.60
High	5670	39.28

Testmode:IEEE802.11ac HT80 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
---	5290	80.96

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5530	81.12
High	5610	80.80

**Testmode:IEEE802.11ax HT20 mode****5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	20.64
Mid	5280	20.52
High	5320	20.52

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	20.88
Mid	5580	20.76
High	5700	20.68

Testmode:IEEE802.11ax HT40 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5270	40.00
High	5310	39.76

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5510	39.92
Mid	5550	40.40
High	5670	39.84

Testmode:IEEE802.11ax HT80 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
---	5290	81.44

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5530	81.12
High	5610	81.76

**Test Plot****IEEE802.11a mode:****5250~5350MHz****Low Channel****Mid Channel**

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High Channel



5470~5725MHz

Low Channel

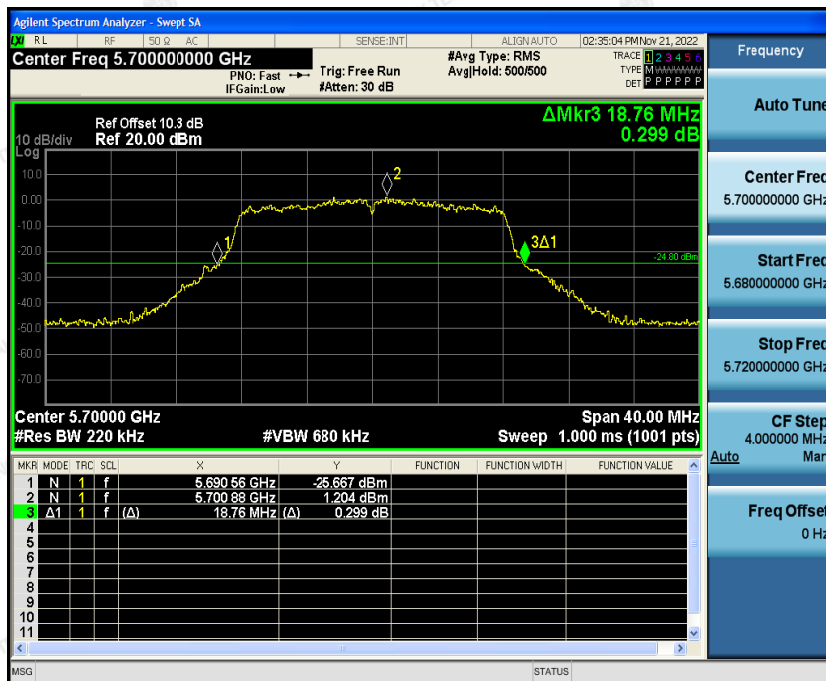




Mid Channel



High Channel





IEEE802.11n HT20 mode

5250~5350MHz

Low Channel



Mid Channel





High Channel



5470~5725MHz

Low Channel





Mid Channel



High Channel

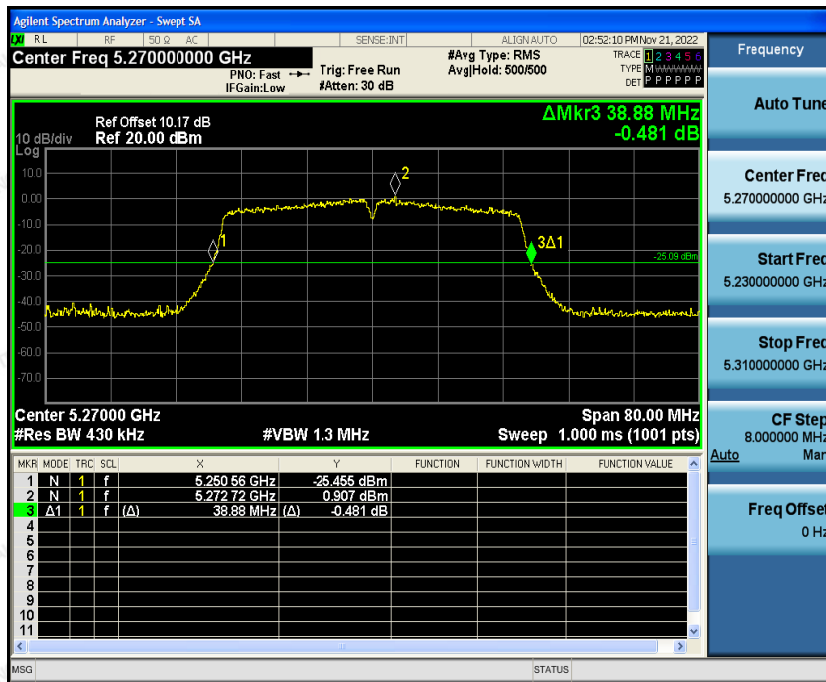




IEEE802.11n HT40 mode

5250~5350MHz

Low Channel



High Channel





5470~5725MHz

Low Channel

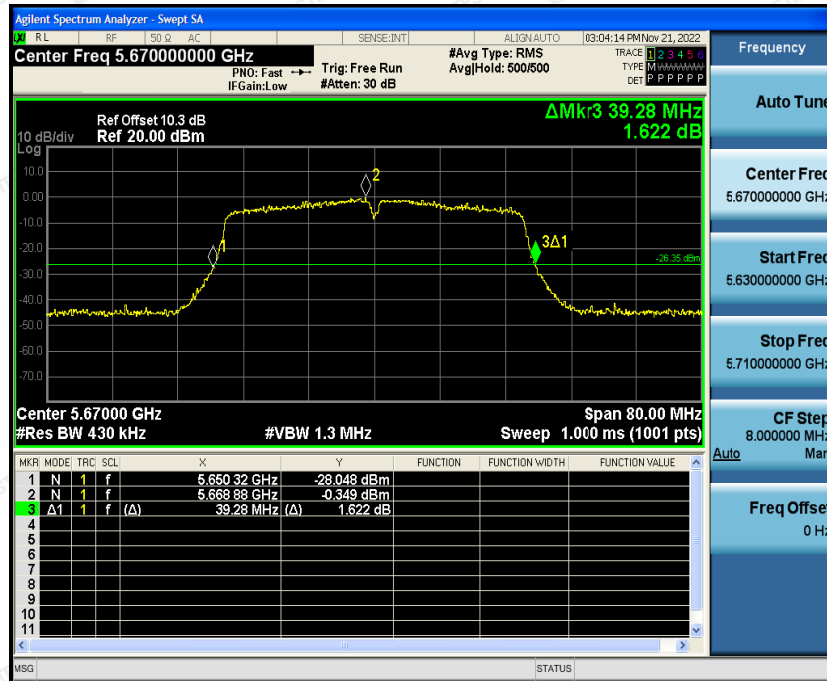


Mid Channel





High Channel



**IEEE802.11ac HT20 mode****5250~5350MHz****Low Channel****Mid Channel**



High Channel



5470~5725MHz

Low Channel





Mid Channel



High Channel

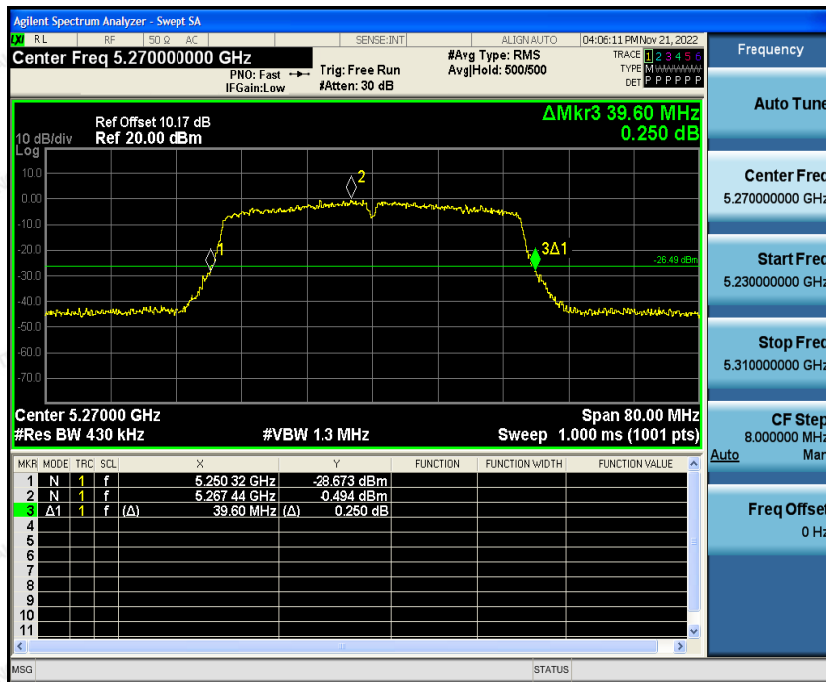




IEEE802.11ac HT40 mode

5250~5350MHz

Low Channel



High Channel





5470~5725MHz

Low Channel



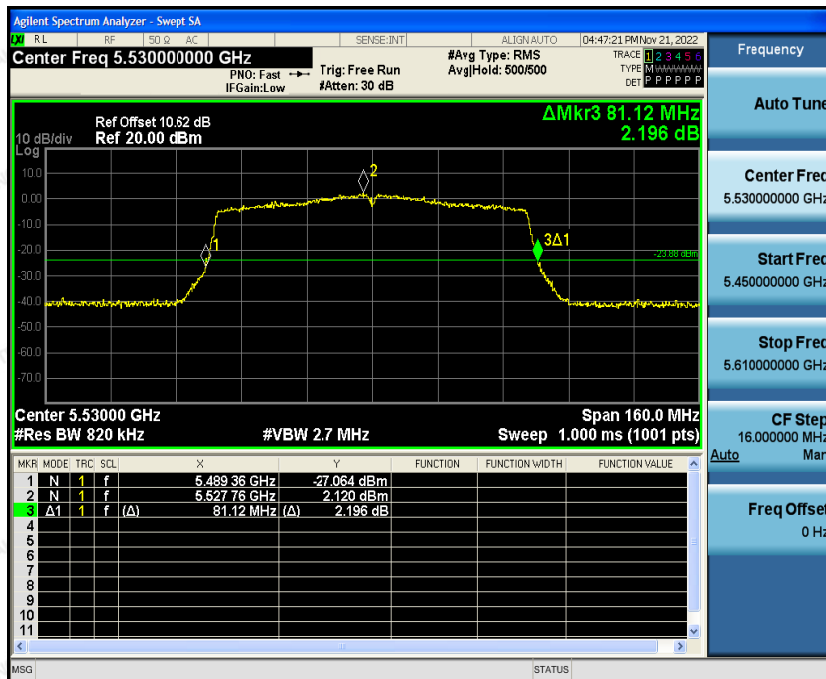
Mid Channel





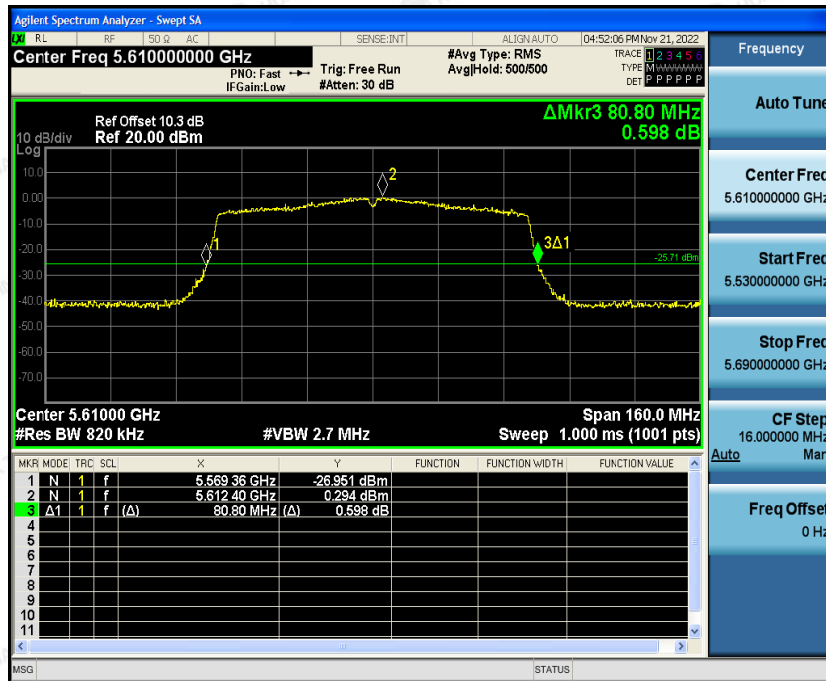
High Channel



**IEEE802.11ac HT80 mode****5250-5350MHz****5470-5725MHz****Low Channel**



High Channel



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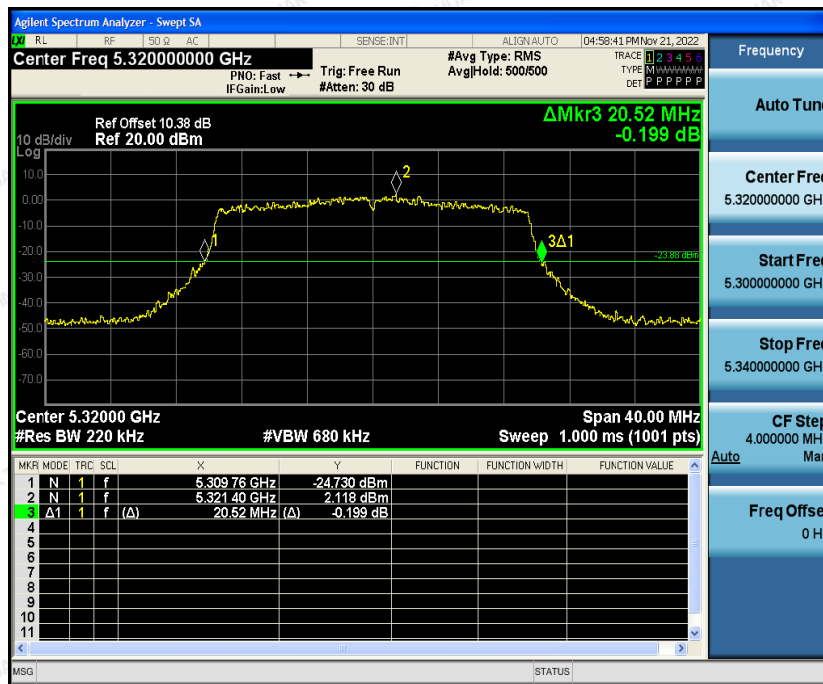
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**IEEE802.11ax HT20 mode****5250~5350MHz****Low Channel****Mid Channel**



High Channel



5470~5725MHz

Low Channel

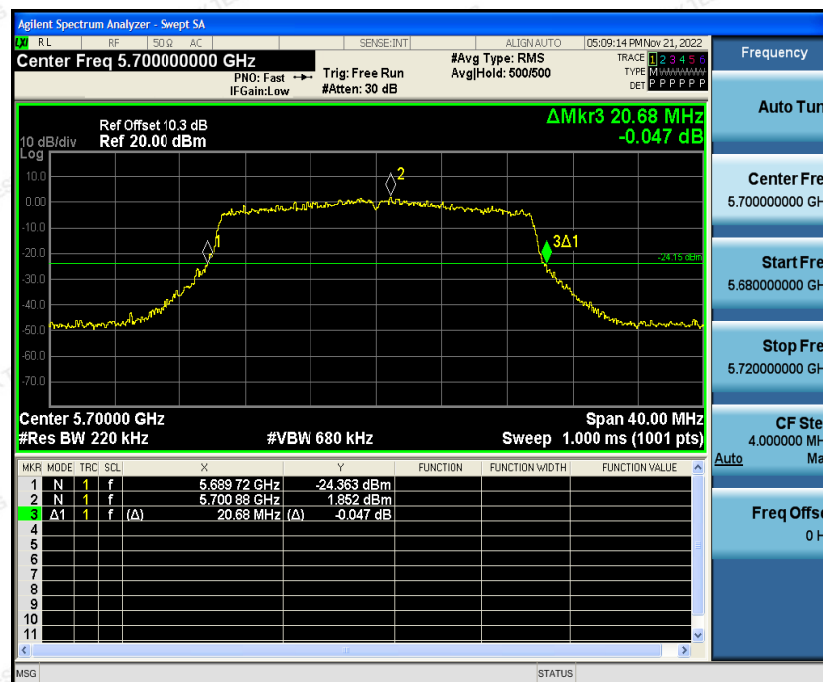




Mid Channel



High Channel

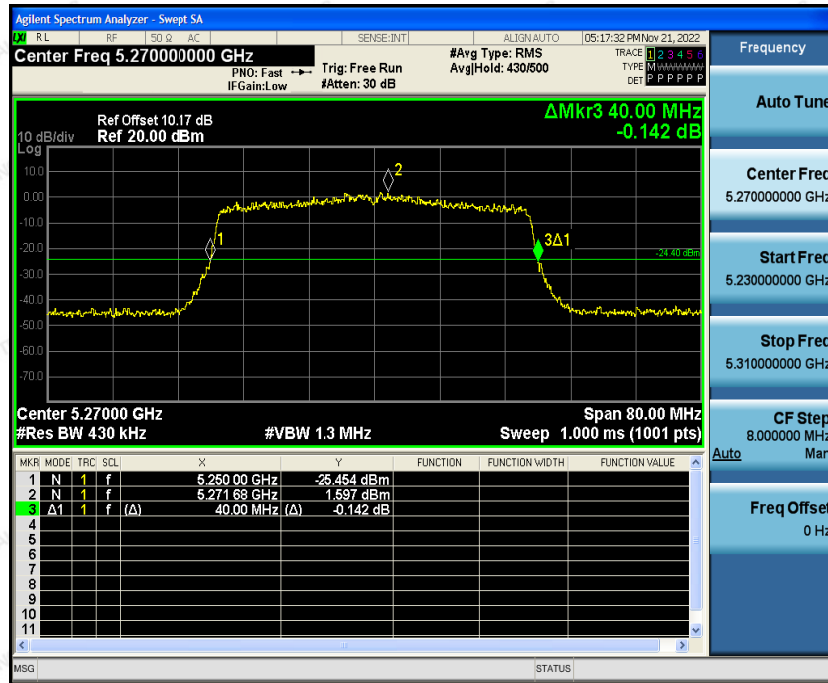




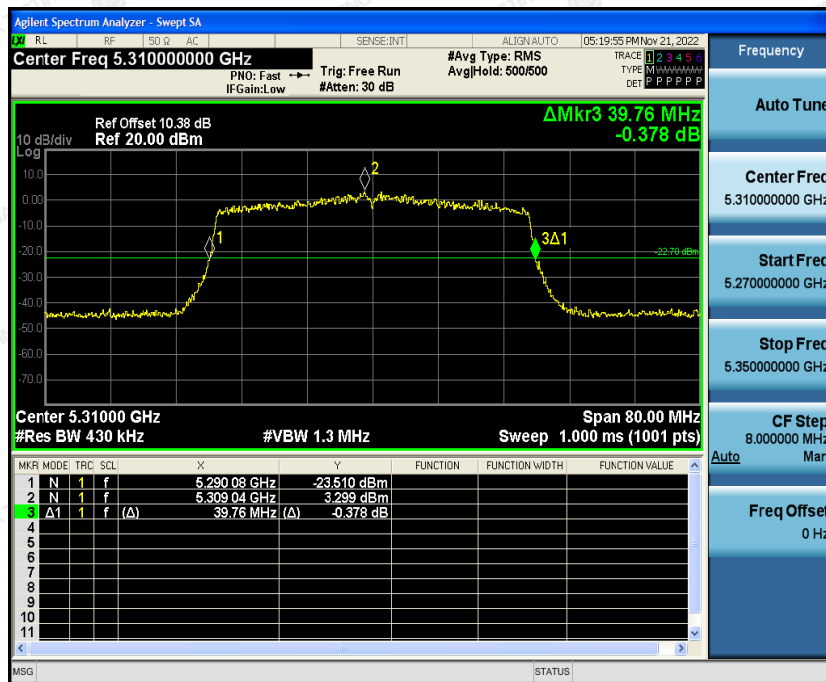
IEEE802.11ax HT40 mode

5250~5350MHz

Low Channel



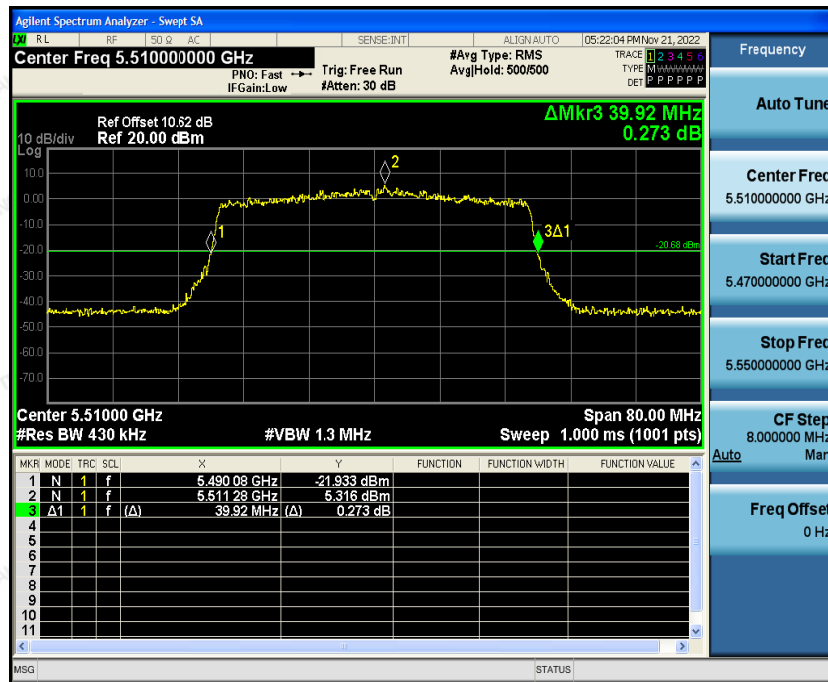
High Channel



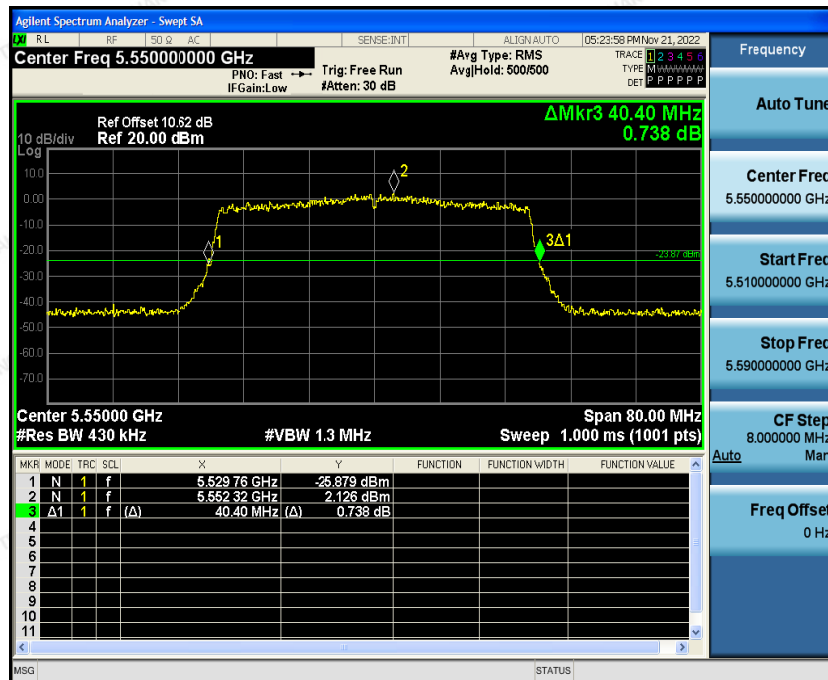


5470~5725MHz

Low Channel



Mid Channel





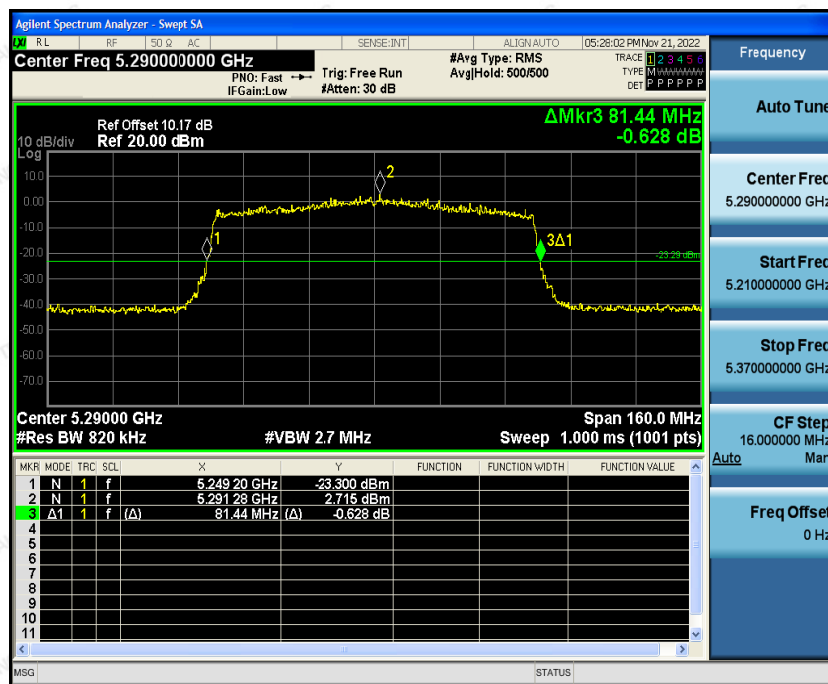
High Channel





IEEE802.11ax HT80 mode

5250-5350MHz



5470-5725MHz

Low Channel



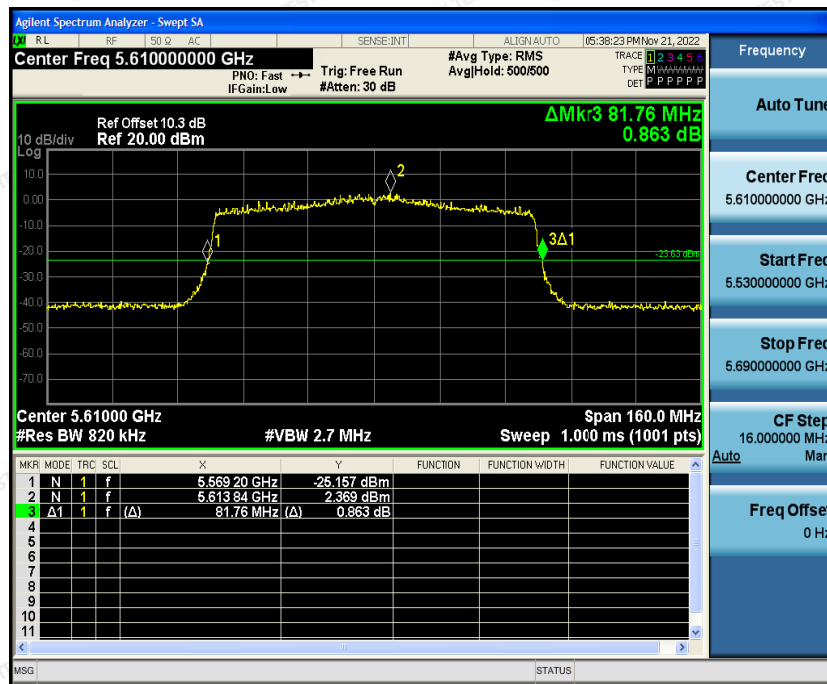
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High Channel



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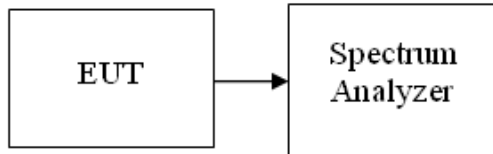


6.2 99% DB EMISSION BANDWIDTH

LIMIT

None; for reporting purposes only.

Test Configuration



Test Procedure

2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1% to 5 % of the OBW
5. Set VBW $\geq 3 \cdot$ RBW
6. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
7. Use the 99 % power bandwidth function of the instrument (if available).

TEST RESULTS

No non-compliance noted

Test Data

**Antenna 1****Testmode:IEEE802.11a mode****5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5260	16.337
Mid	5280	16.361
High	5320	16.340

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5500	16.372
Mid	5580	16.358
High	5700	16.363

Testmode:IEEE802.11n HT20 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5260	17.533
Mid	5280	17.551
High	5320	17.553

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5500	17.573
Mid	5580	17.561
High	5700	17.548

Testmode:IEEE802.11n HT40 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5270	35.848
High	5310	35.805

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5510	35.870
Mid	5550	35.865
High	5670	35.782

**Testmode:IEEE802.11ac HT20 mode****5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5260	17.526
Mid	5280	17.544
High	5320	17.534

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5500	17.548
Mid	5580	17.554
High	5700	17.543

Testmode:IEEE802.11ac HT40 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5270	35.845
High	5310	35.822

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5510	35.853
Mid	5550	35.924
High	5670	35.824

Testmode:IEEE802.11ac HT80 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth (MHz)
--	5290	74.906

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5530	74.796
High	5610	74.777

**Testmode:IEEE802.11ax HT20 mode****5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5260	18.810
Mid	5280	18.823
High	5320	18.846

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5500	18.799
Mid	5580	18.854
High	5700	18.804

Testmode:IEEE802.11ax HT40 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5270	37.480
High	5310	37.495

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5510	37.506
Mid	5550	37.629
High	5670	37.537

Testmode:IEEE802.11ax HT80 mode**5250~5350MHz**

Channel	Frequency (MHz)	Bandwidth (MHz)
--	5290	76.721

5470~5725MHz

Channel	Frequency (MHz)	Bandwidth (MHz)
Low	5530	76.660
High	5610	76.453



Test Plot

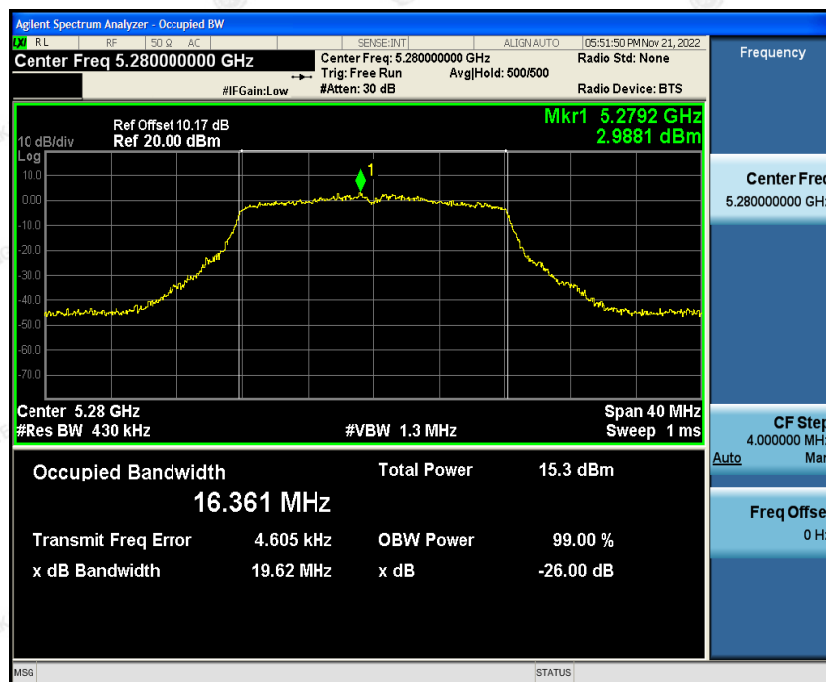
IEEE802.11a mode:

5250~5350MHz

Low Channel

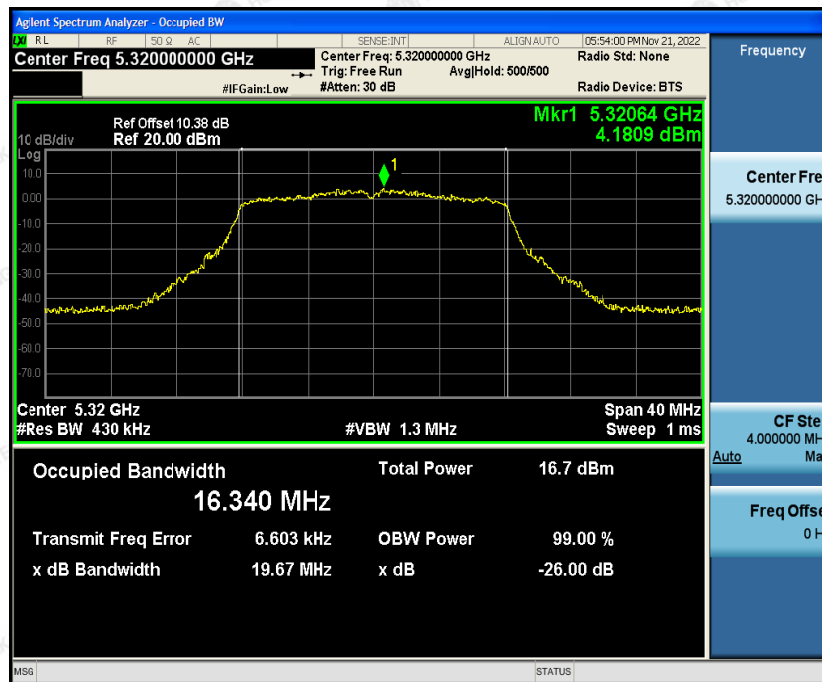


Mid Channel



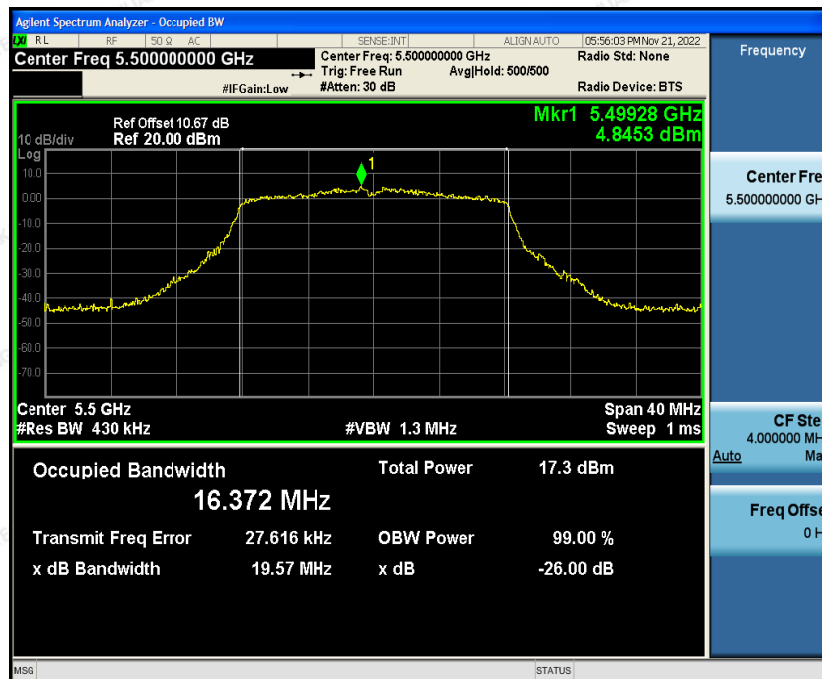


High Channel



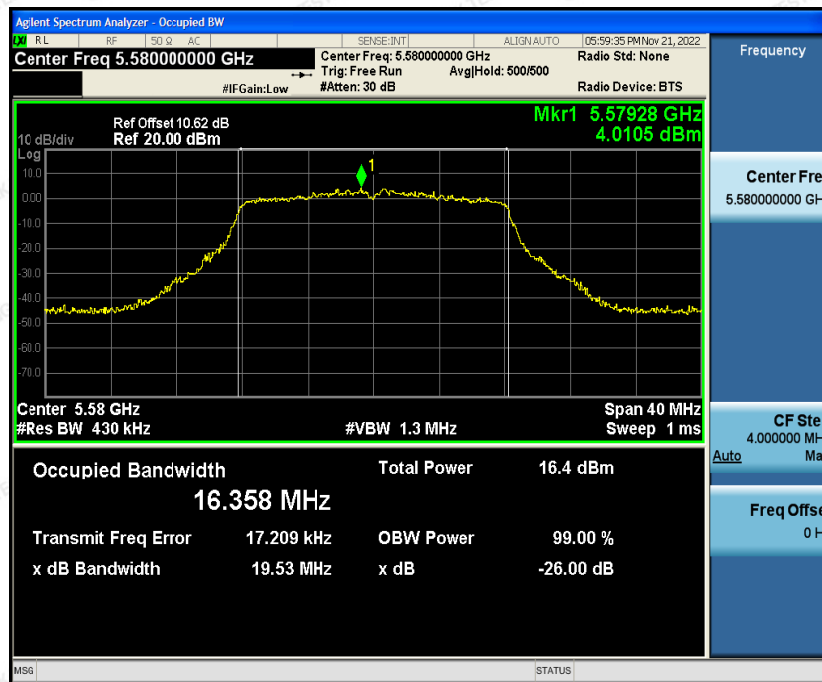
5470~5725MHz

Low Channel





Mid Channel



High Channel

