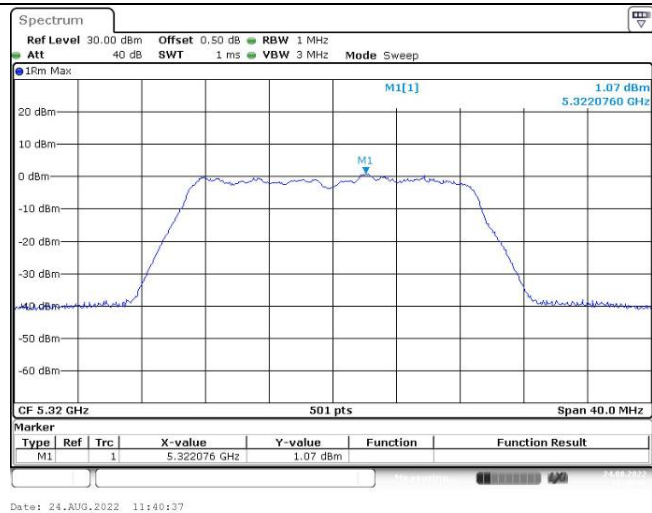
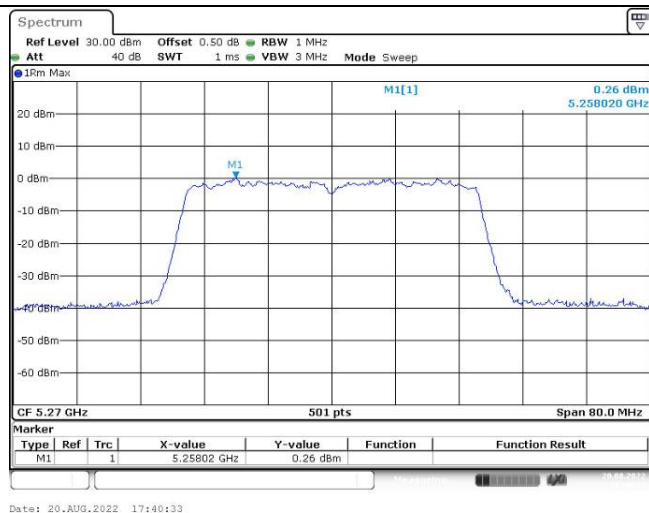
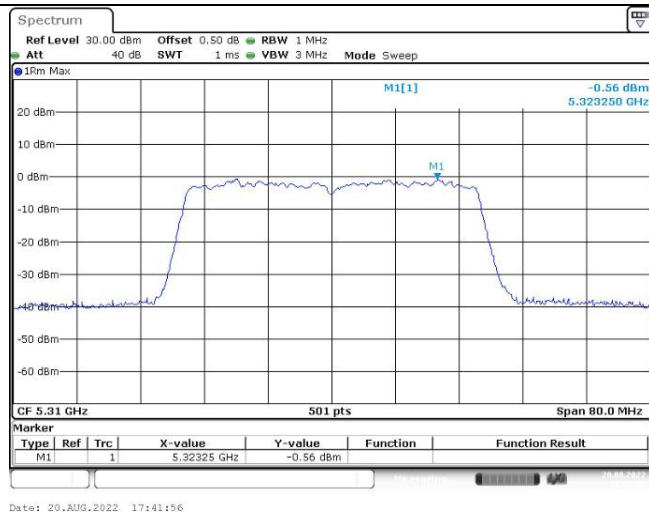
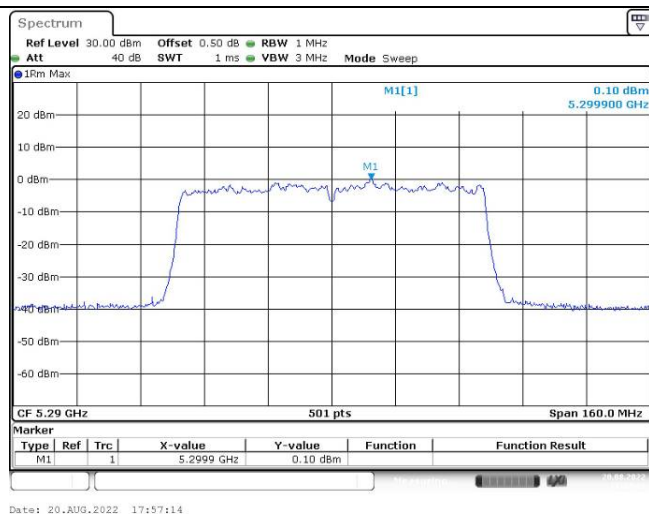


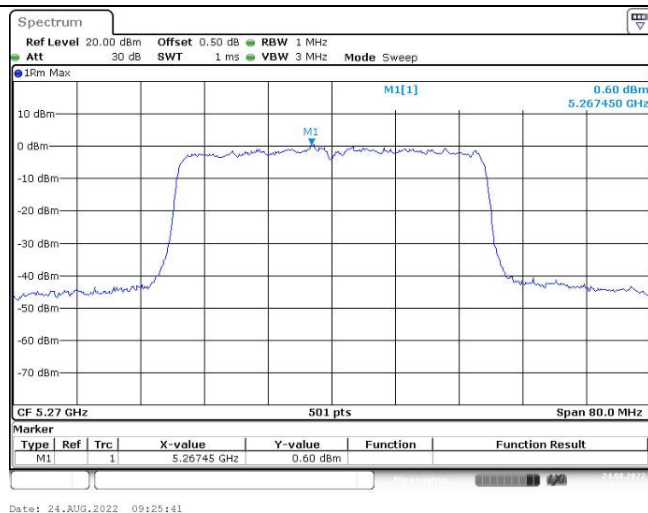
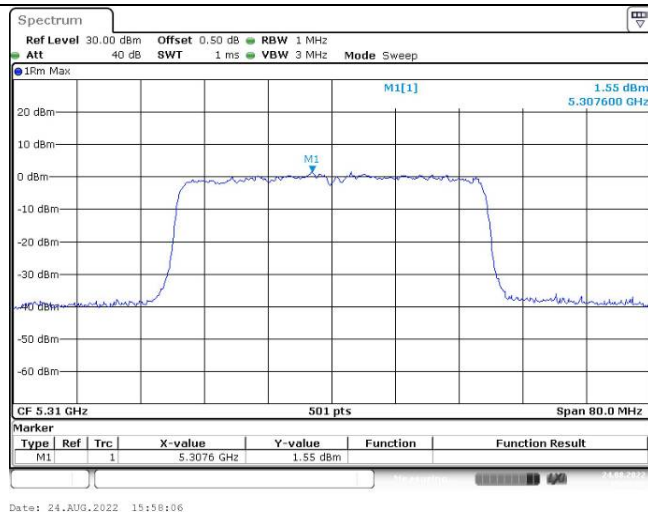
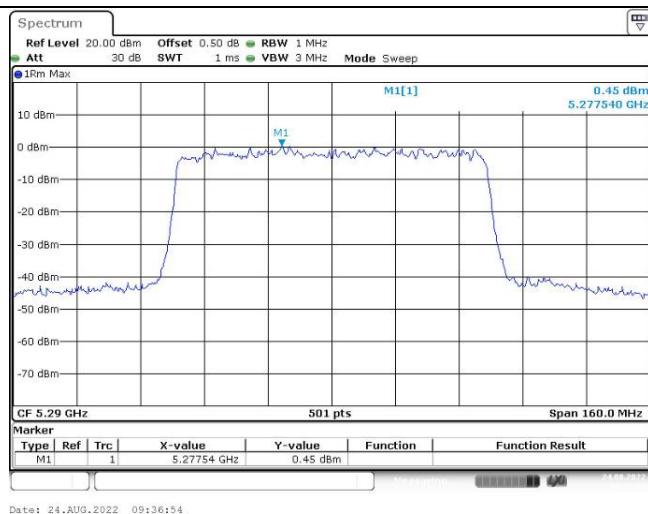
Maximum power spectral density

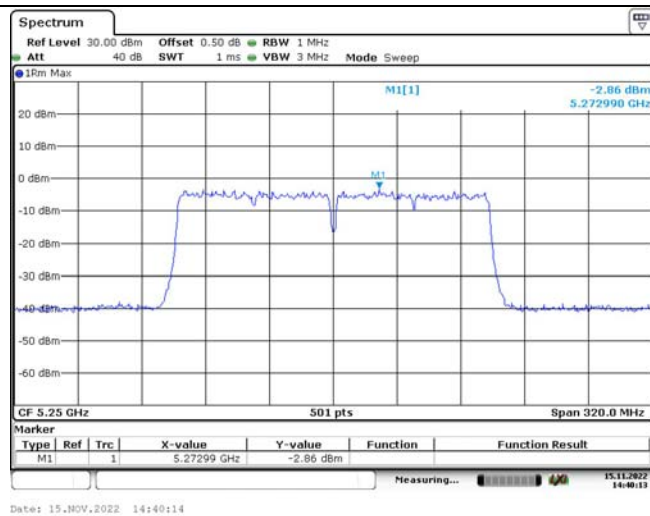
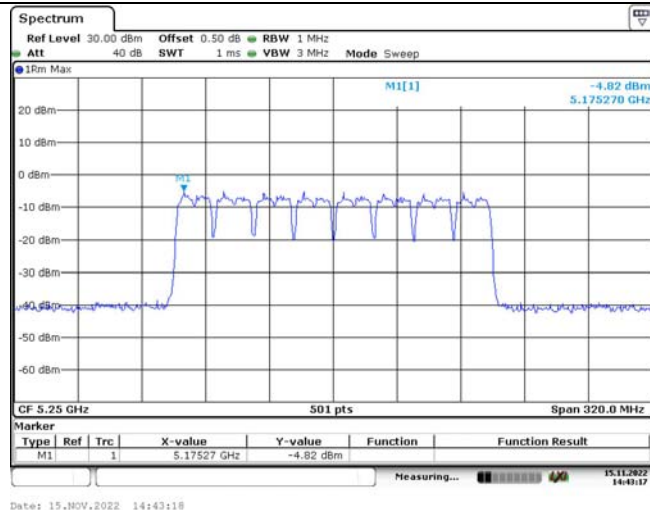
802.11ac vht20
Lowest Channel802.11ac vht20
Middle Channel802.11ac vht20
Highest Channel

Maximum power spectral density

802.11ac vht40
Lowest Channel802.11ac vht40
Highest Channel802.11ac vht80
Middle Channel

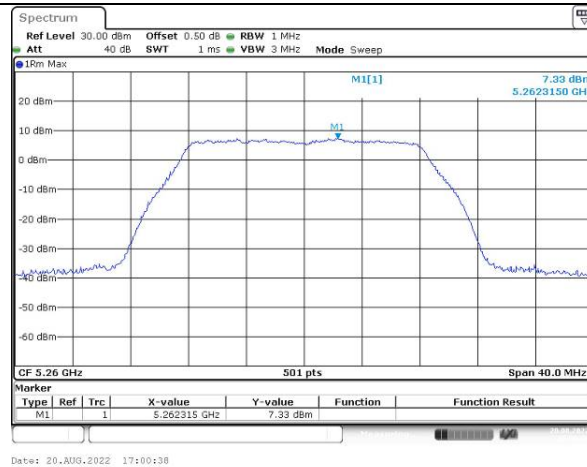
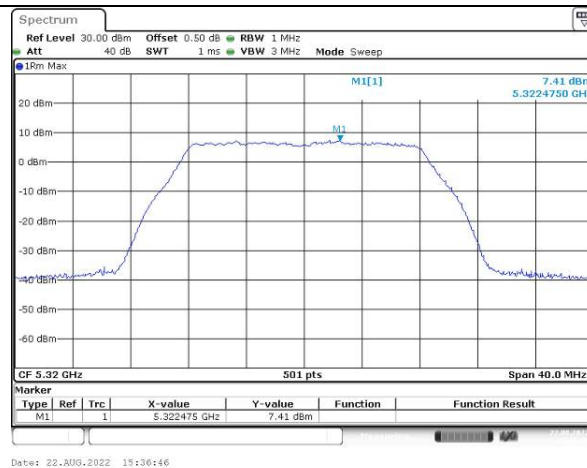
Maximum power spectral density802.11ax hew20
Lowest Channel802.11ax hew20
Middle Channel802.11ax hew20
Highest Channel

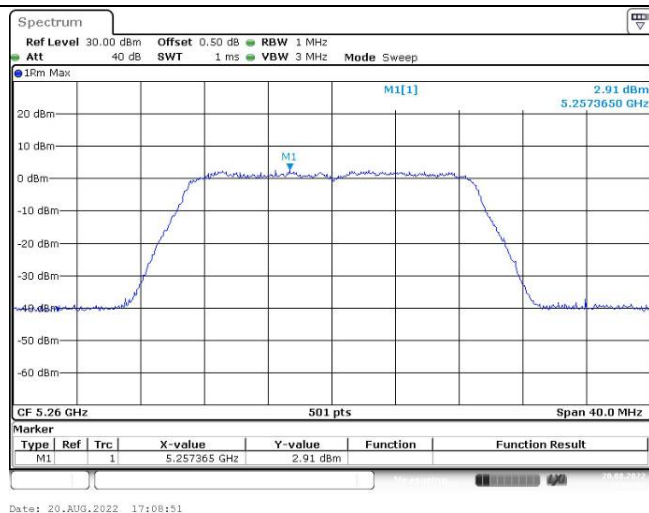
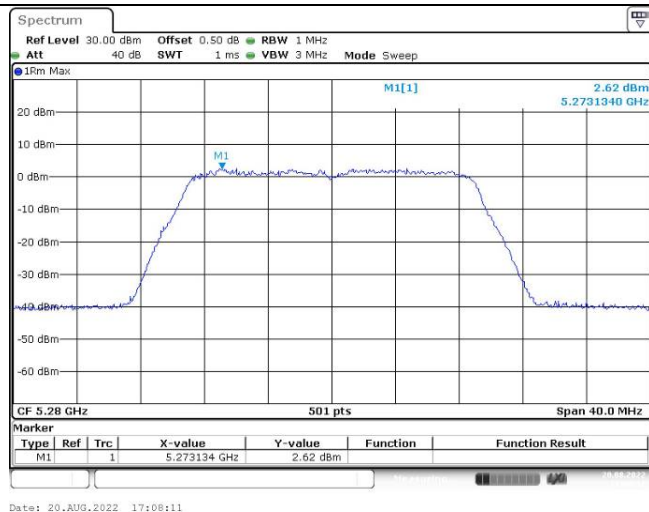
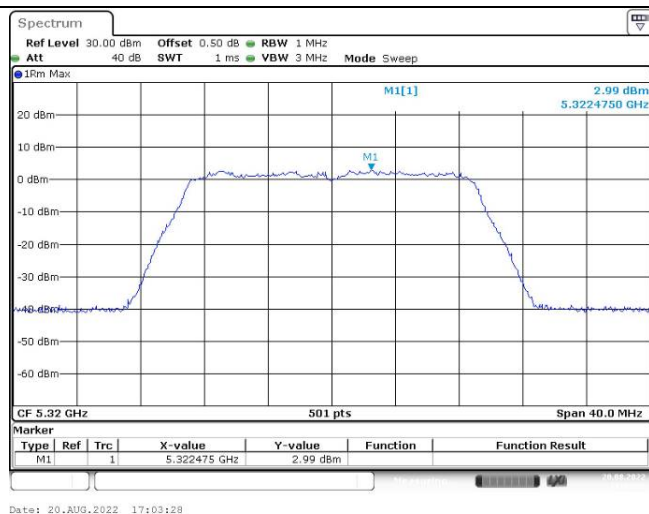
Maximum power spectral density802.11ax hew40
Lowest Channel802.11ax hew40
Highest Channel802.11ax hew80
Middle Channel

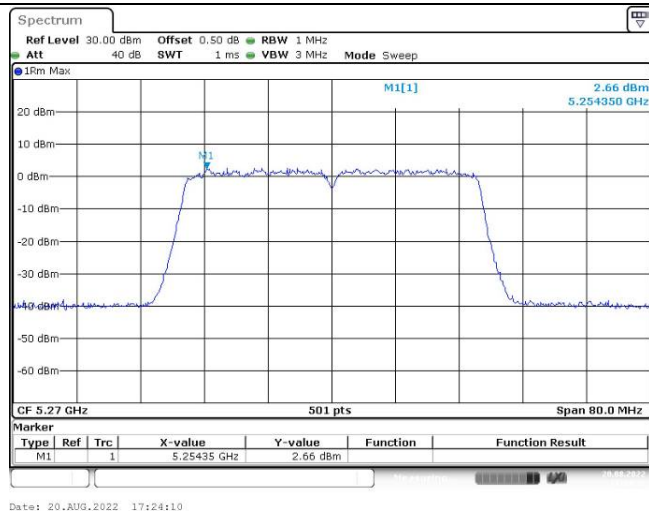
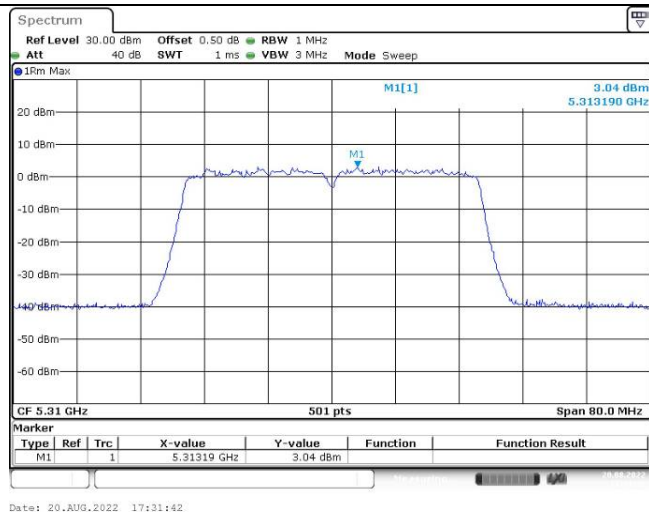
Maximum power spectral density802.11ac hew160
Middle Channel802.11ax hew160
Middle Channel

Chain1:

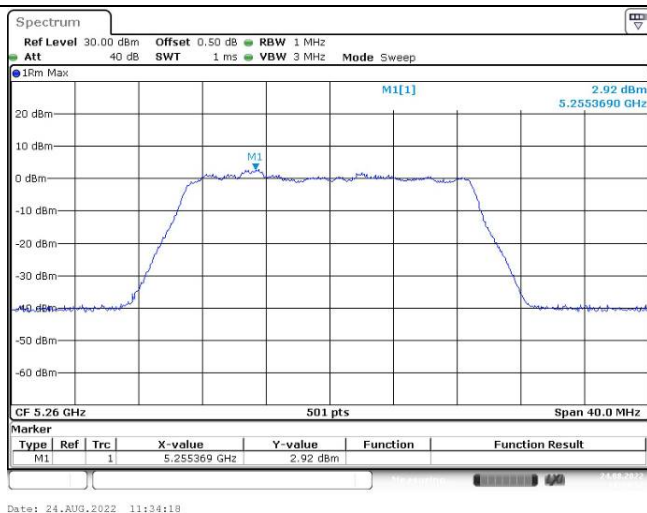
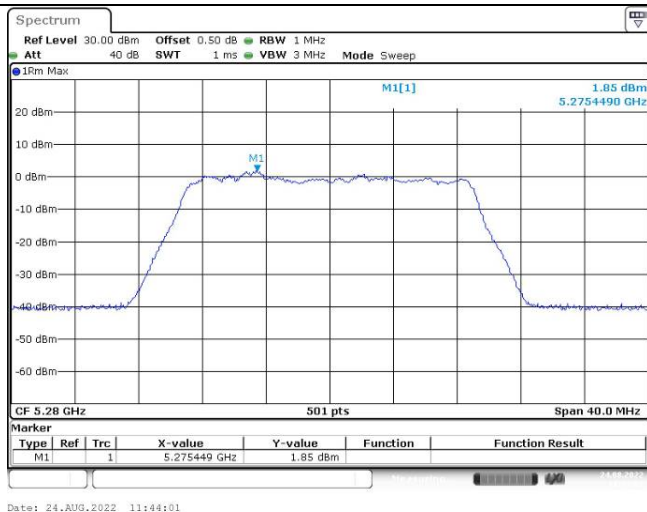
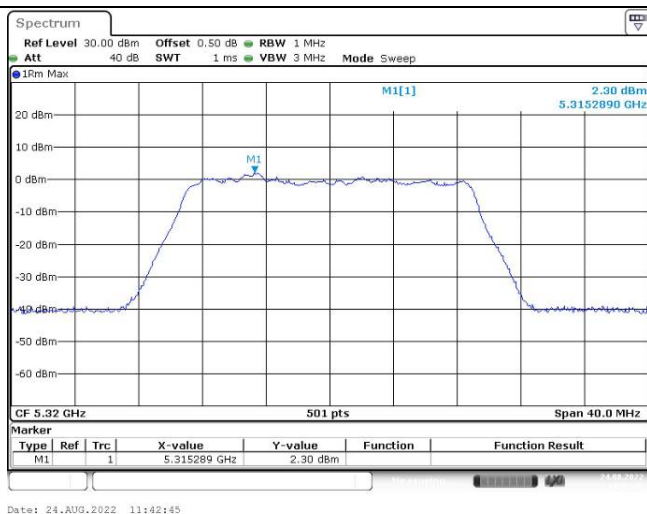
Maximum power spectral density

802.11a
Lowest Channel802.11a
Middle Channel802.11a
Highest Channel

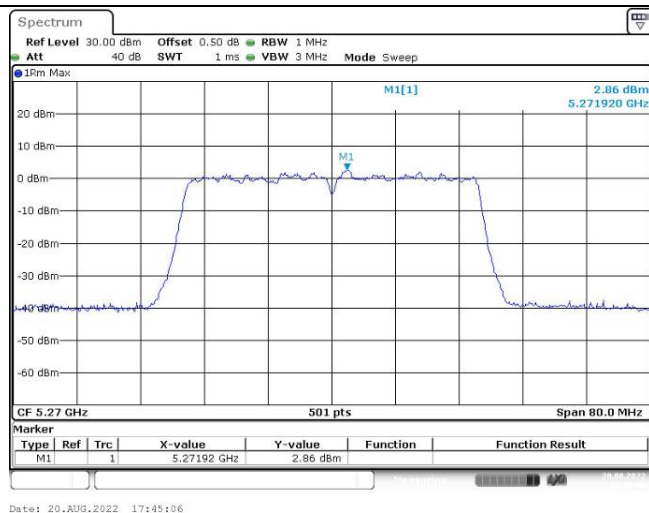
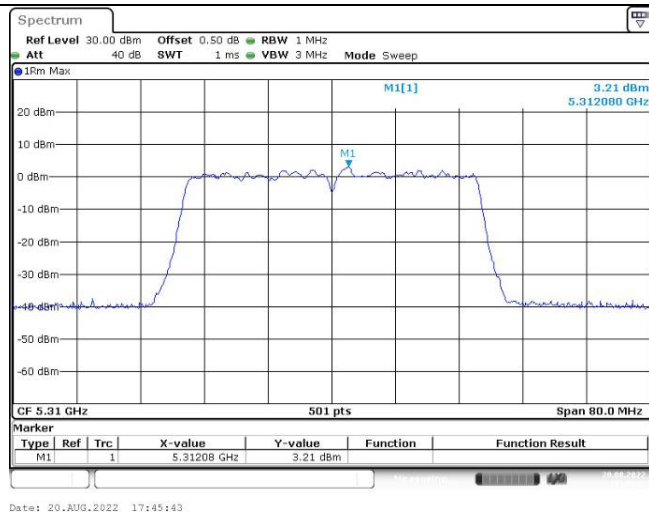
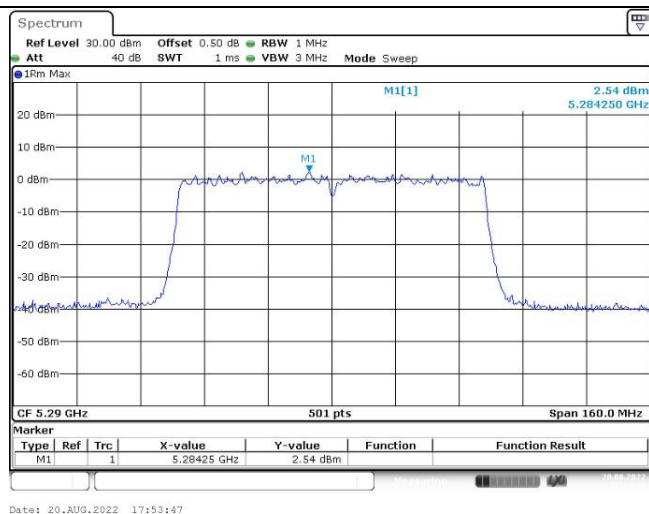
Maximum power spectral density802.11n ht20
Lowest Channel802.11n ht20
Middle Channel802.11n ht20
Highest Channel

Maximum power spectral density802.11n ht40
Lowest Channel802.11n ht40
Highest Channel

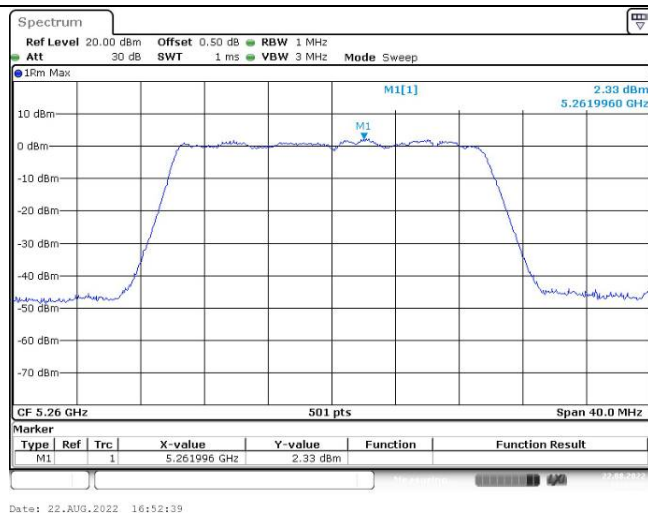
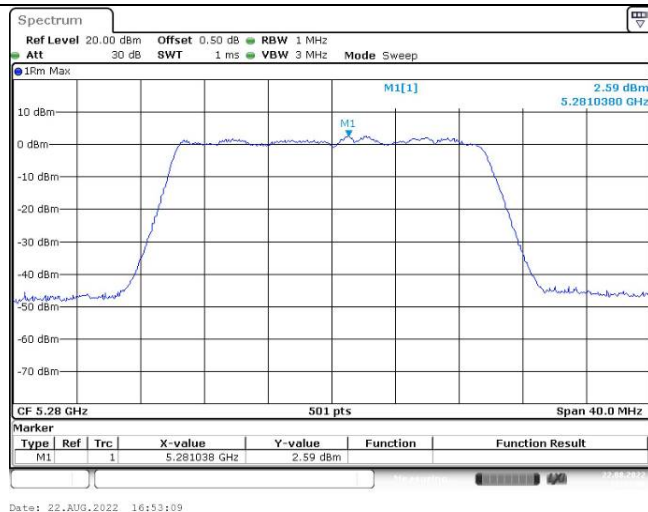
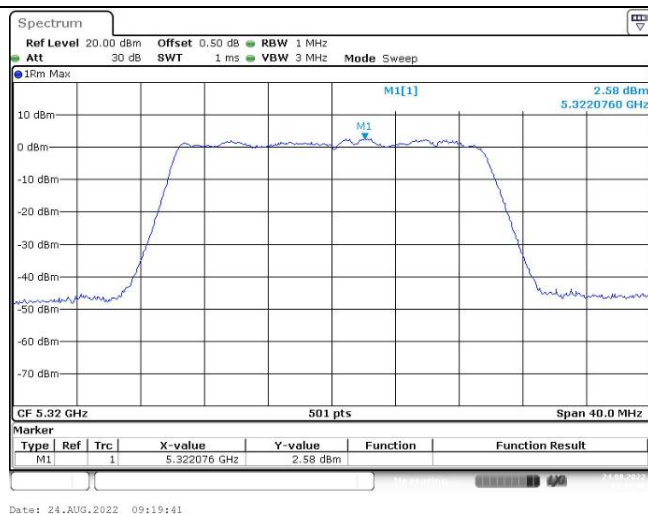
Maximum power spectral density

802.11ac vht20
Lowest Channel802.11ac vht20
Middle Channel802.11ac vht20
Highest Channel

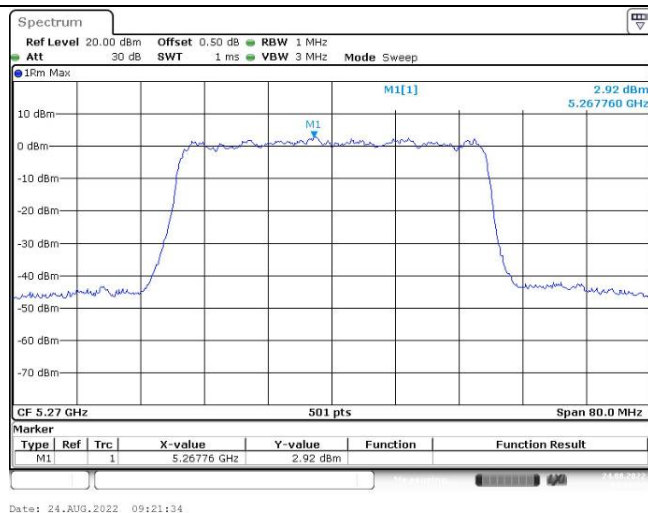
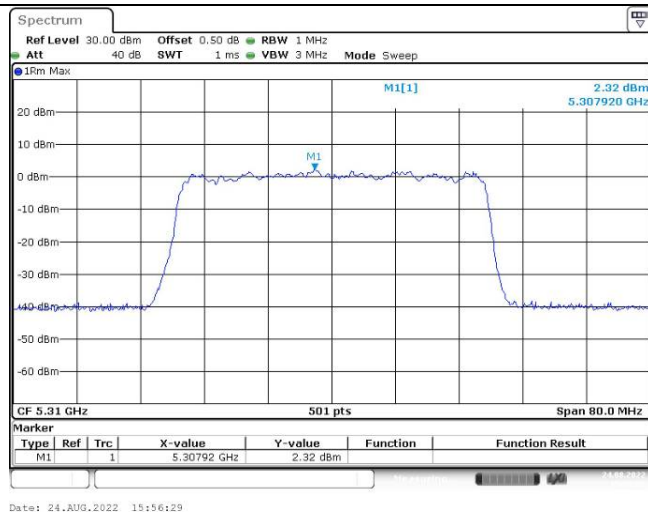
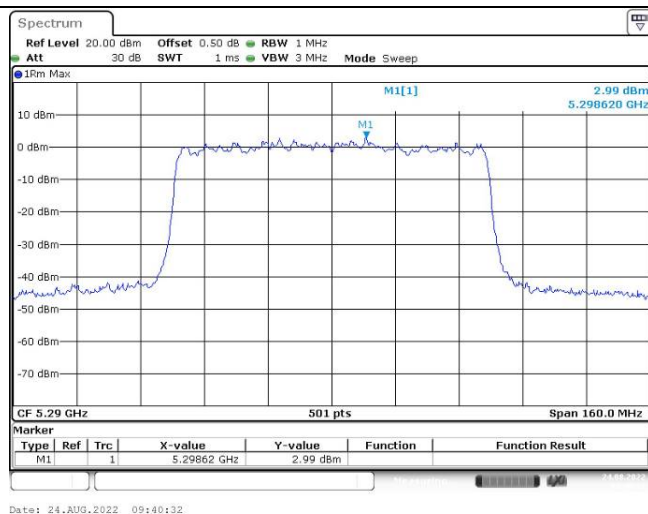
Maximum power spectral density

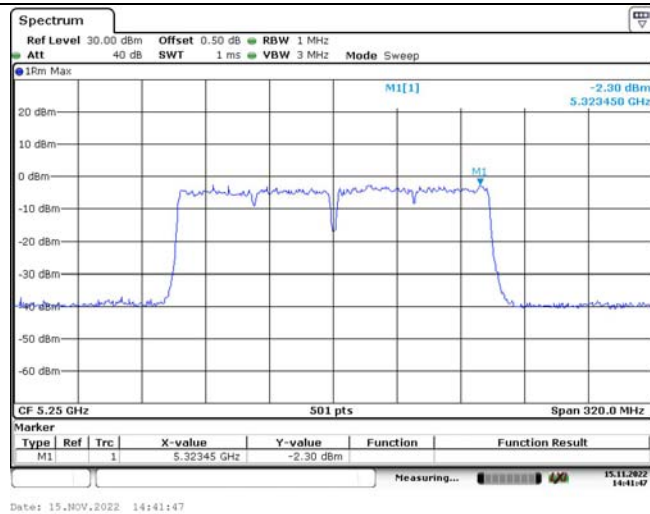
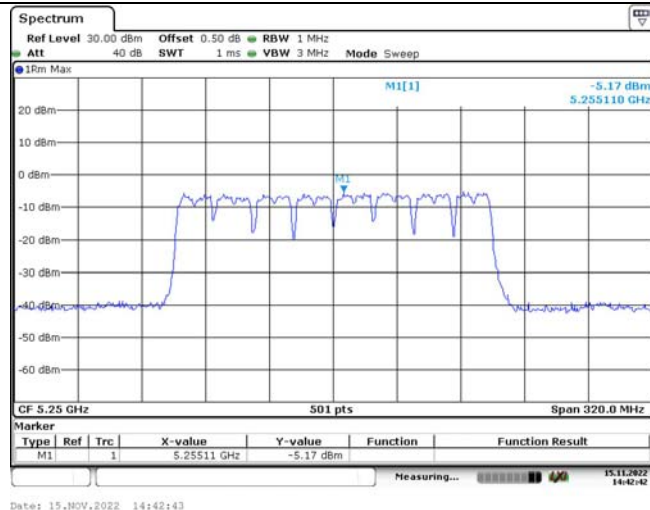
802.11ac vht40
Lowest Channel802.11ac vht40
Highest Channel802.11ac vht80
Middle Channel

Maximum power spectral density

802.11ax hew20
Lowest Channel802.11ax hew20
Middle Channel802.11ax hew20
Highest Channel

Maximum power spectral density

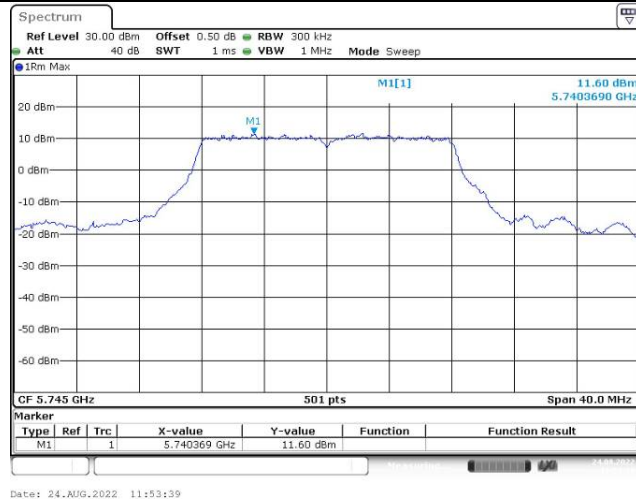
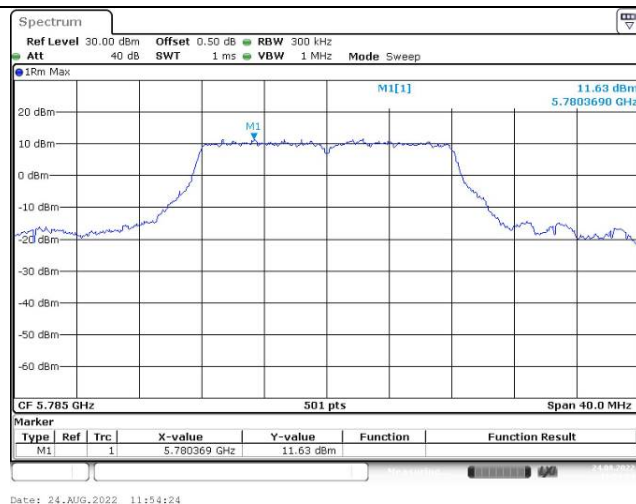
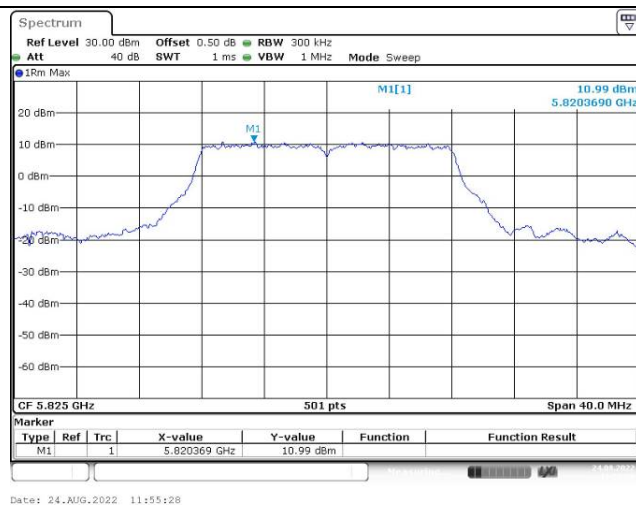
802.11ax hew40
Lowest Channel802.11ax hew40
Highest Channel802.11ax hew80
Middle Channel

Maximum power spectral density802.11ac hew160
Middle Channel802.11ax hew160
Middle Channel

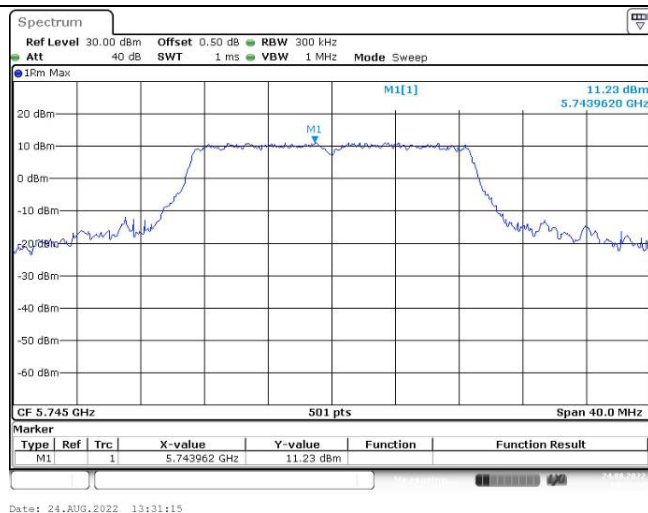
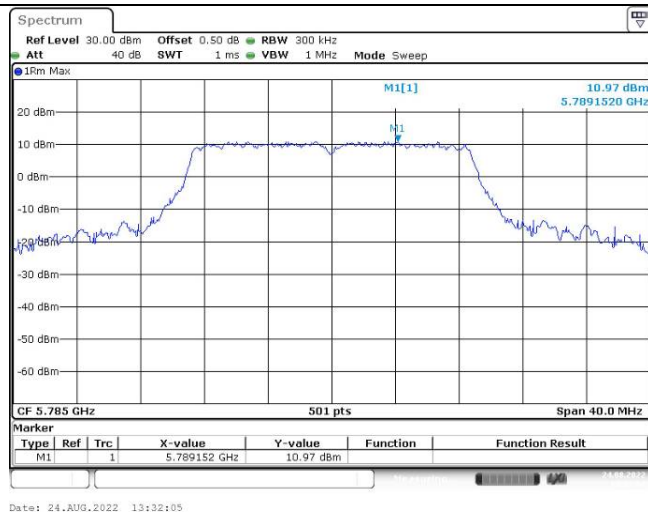
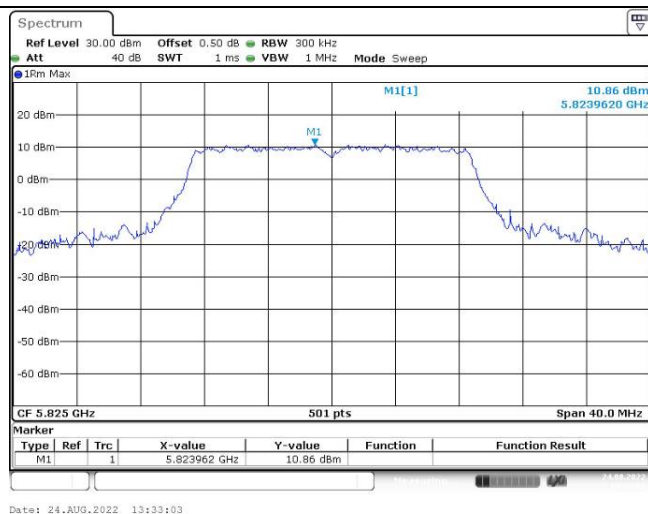
5725-5850MHz

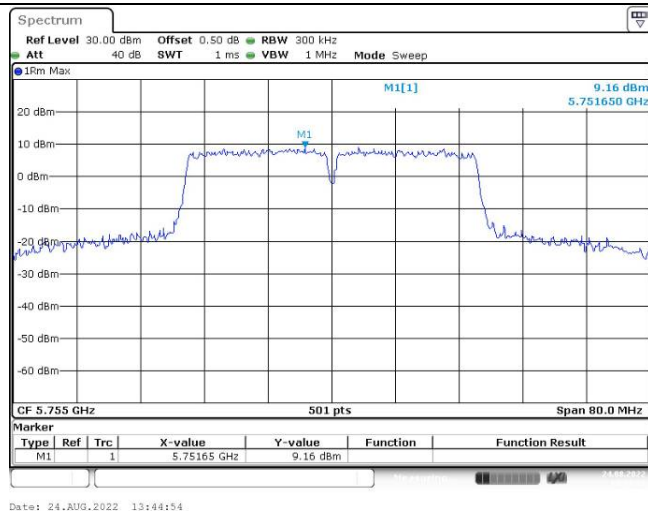
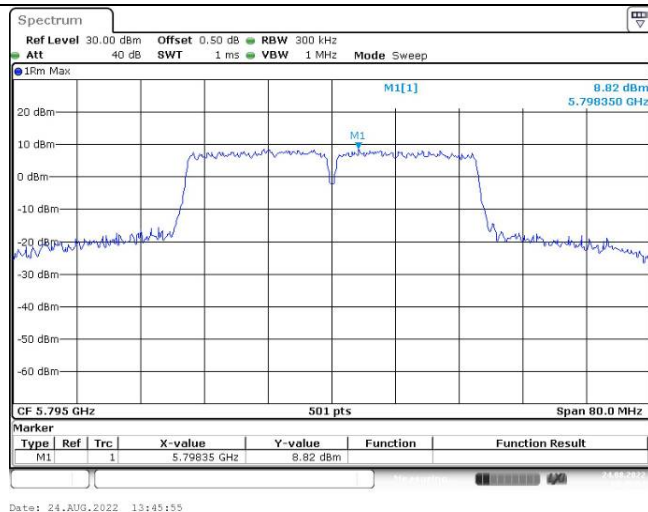
Chain0:

Maximum power spectral density

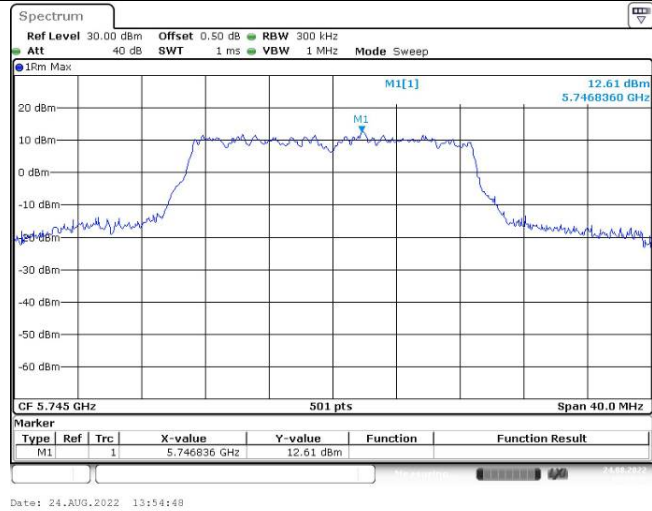
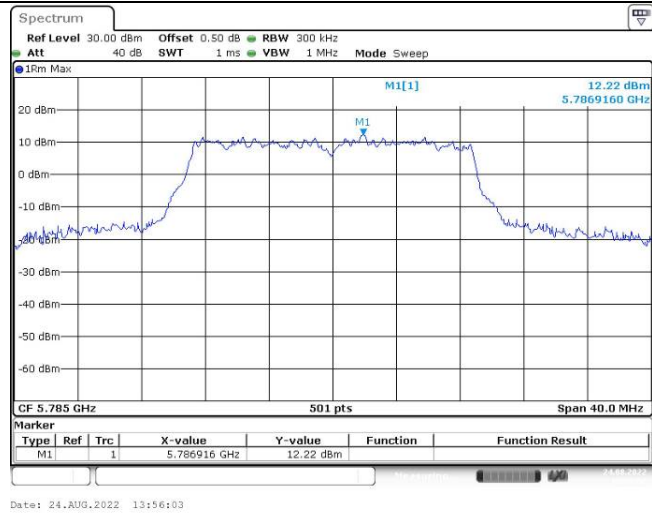
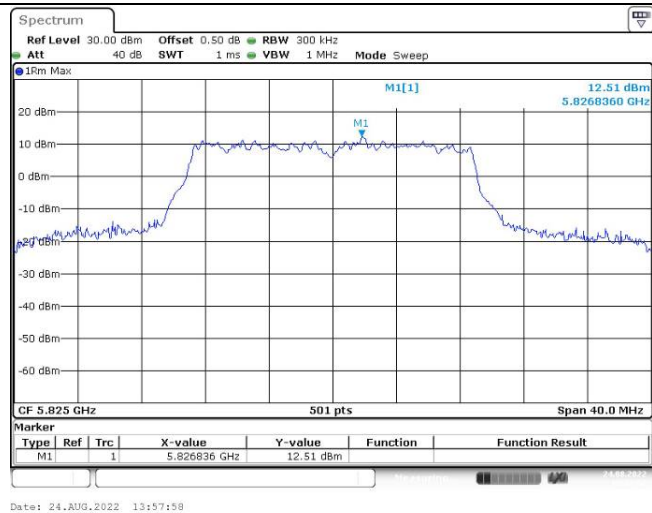
802.11a
Lowest Channel802.11a
Middle Channel802.11a
Highest Channel

Maximum power spectral density

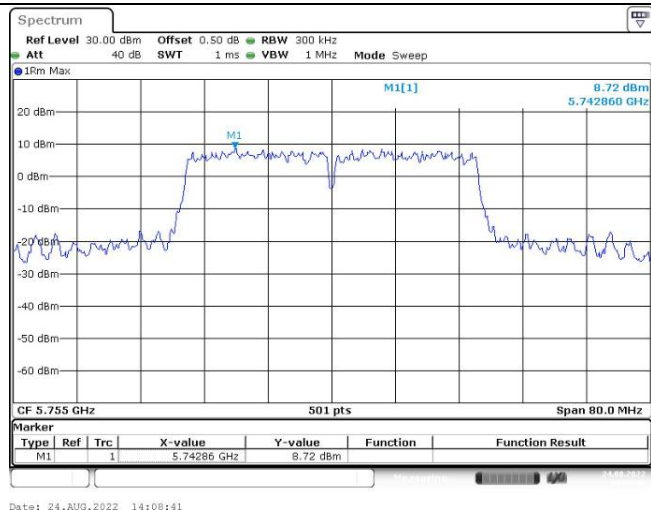
802.11n ht20
Lowest Channel802.11n ht20
Middle Channel802.11n ht20
Highest Channel

Maximum power spectral density802.11n ht40
Lowest Channel802.11n ht40
Highest Channel

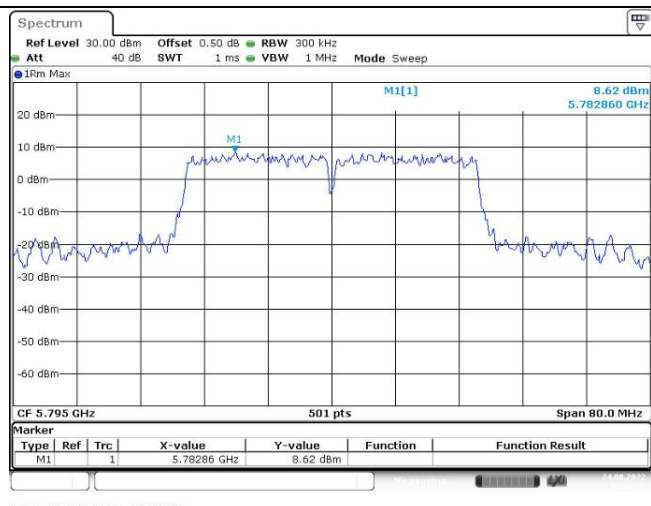
Maximum power spectral density

802.11ac vht20
Lowest Channel802.11ac vht20
Middle Channel802.11ac vht20
Highest Channel

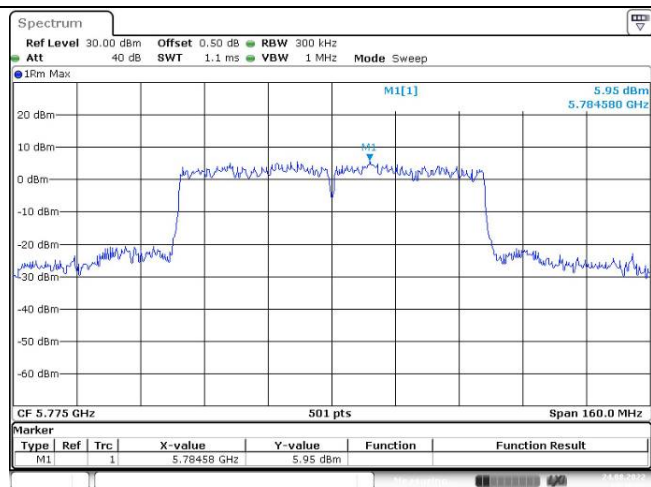
Maximum power spectral density

802.11ac vht40
Lowest Channel

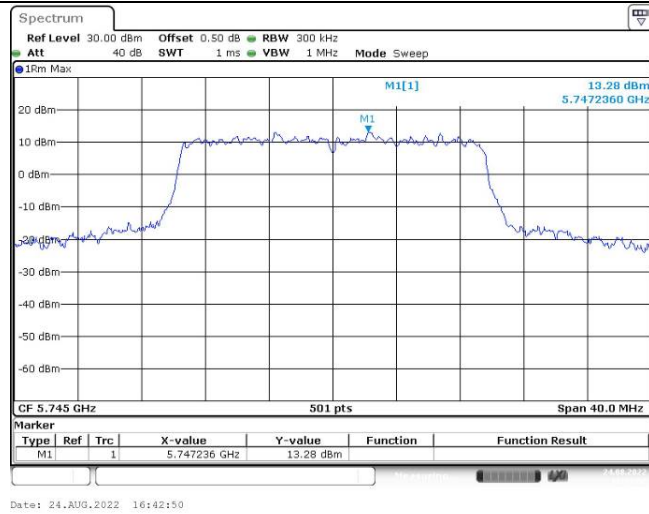
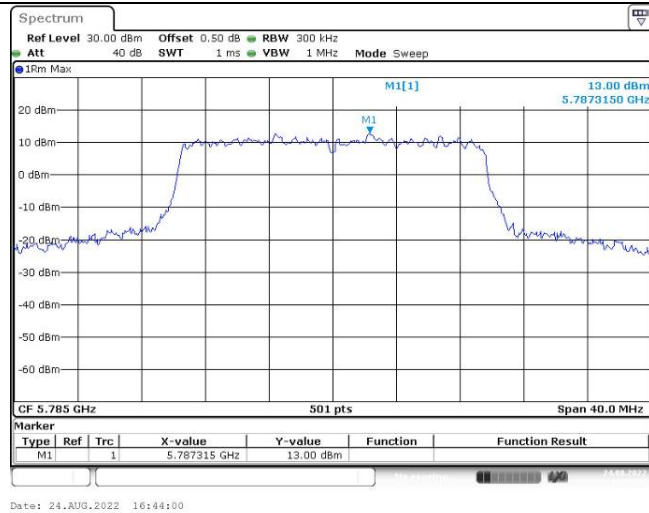
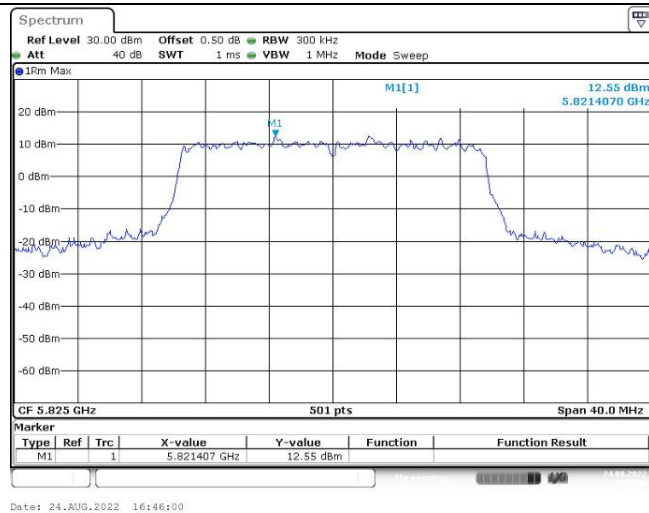
Date: 24.AUG.2022 14:08:41

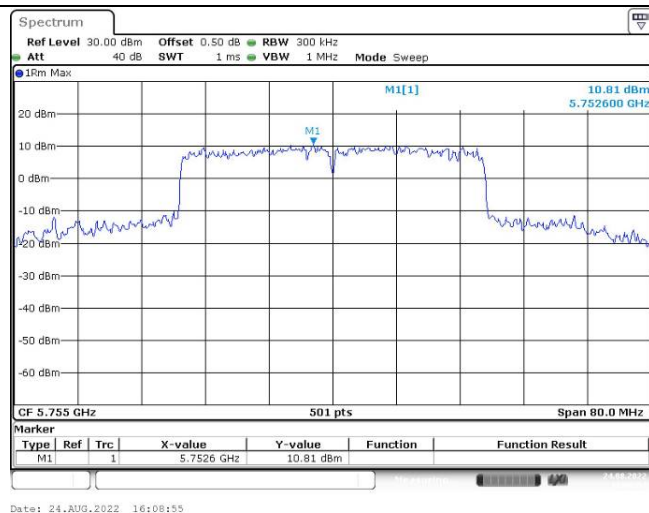
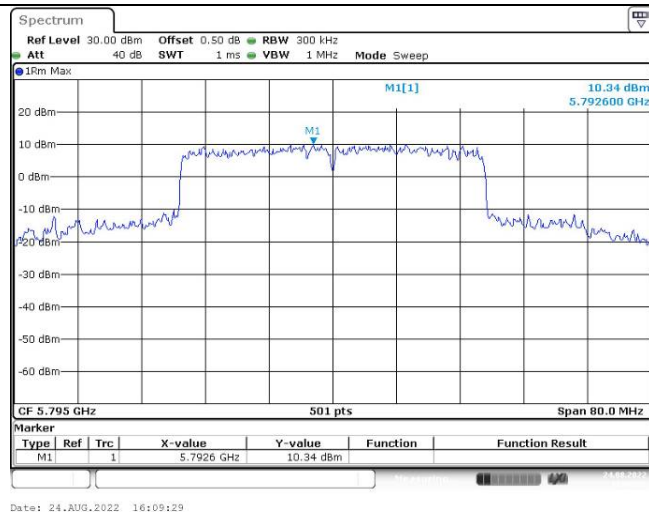
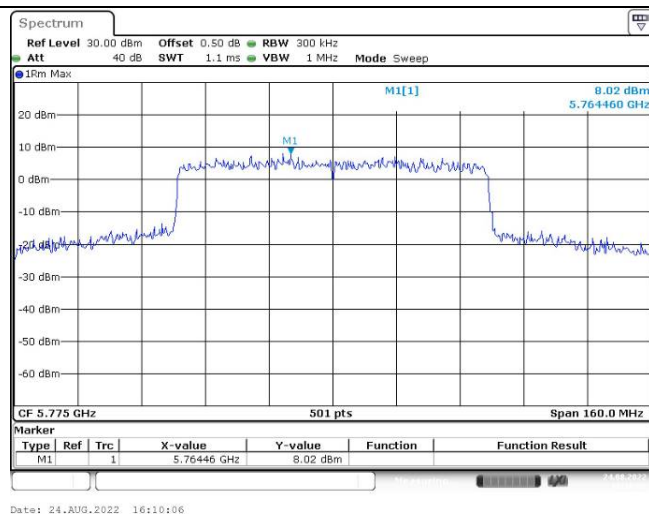
802.11ac vht40
Highest Channel

Date: 24.AUG.2022 14:09:50

802.11ac vht80
Middle Channel

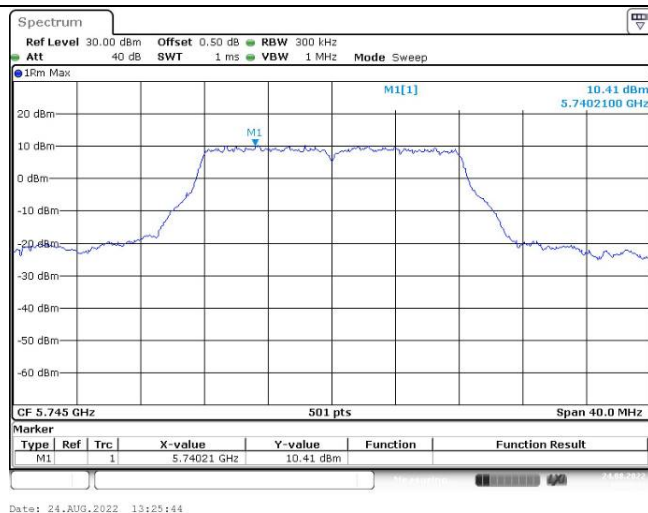
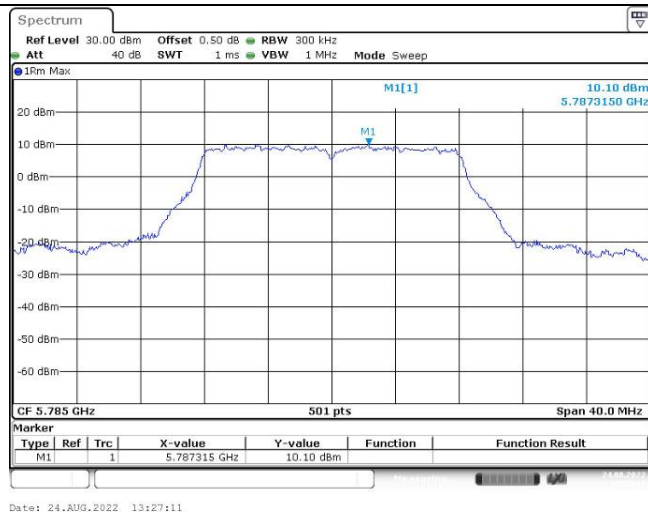
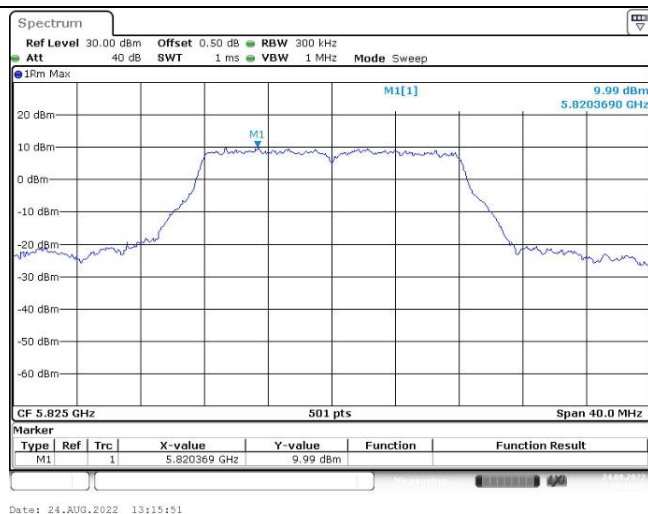
Date: 24.AUG.2022 14:16:06

Maximum power spectral density802.11ax hew20
Lowest Channel802.11ax hew20
Middle Channel802.11ax hew20
Highest Channel

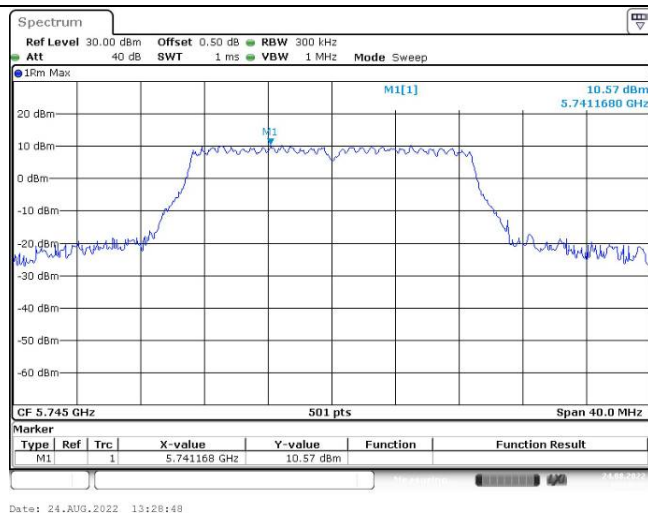
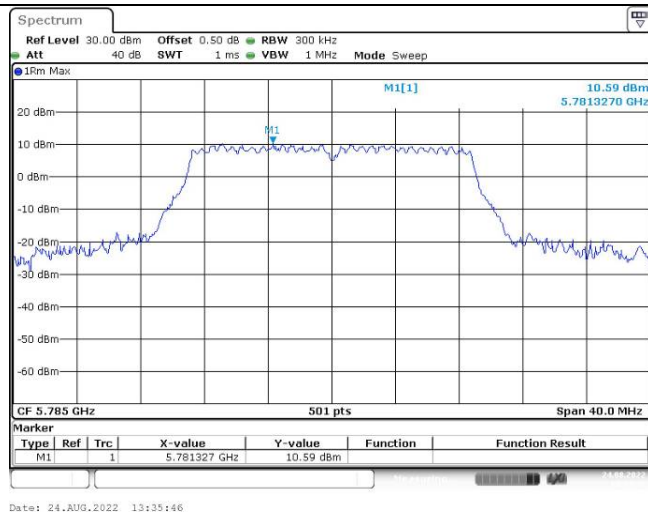
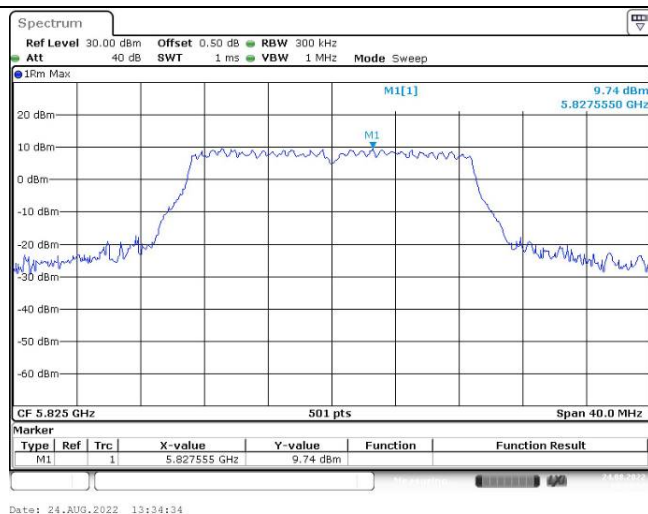
Maximum power spectral density802.11ax hew40
Lowest Channel802.11ax hew40
Highest Channel802.11ax hew80
Middle Channel

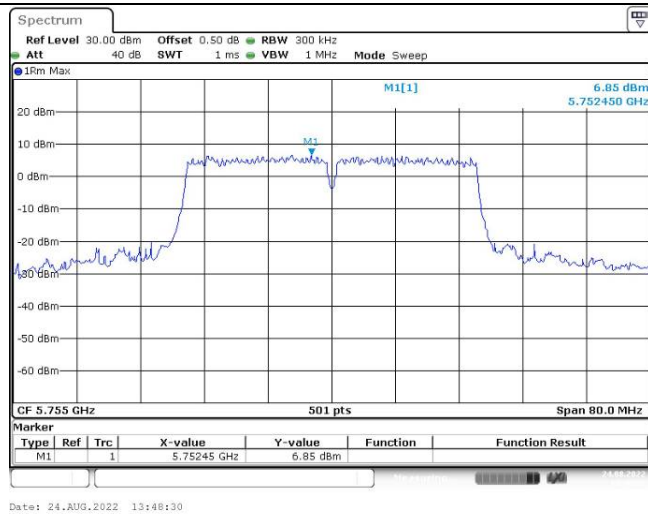
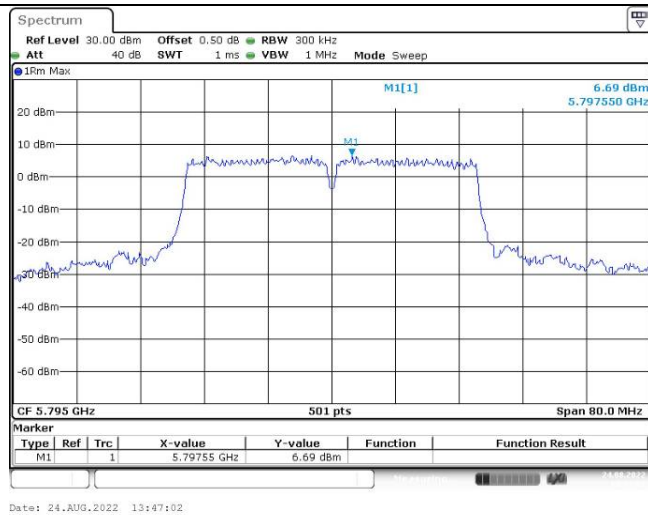
Chain1:

Maximum power spectral density

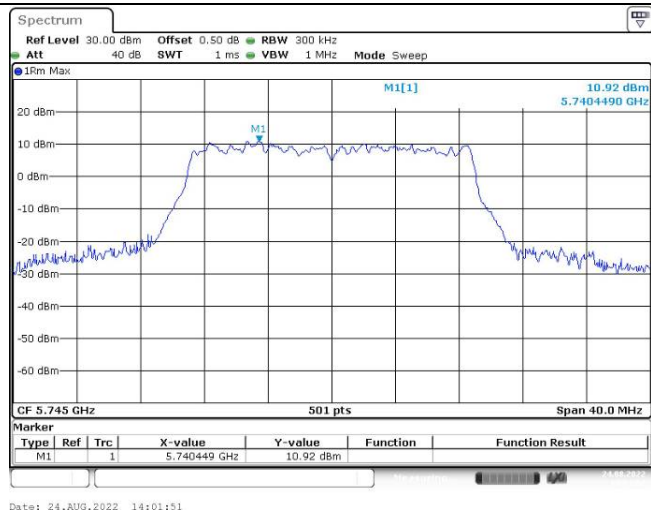
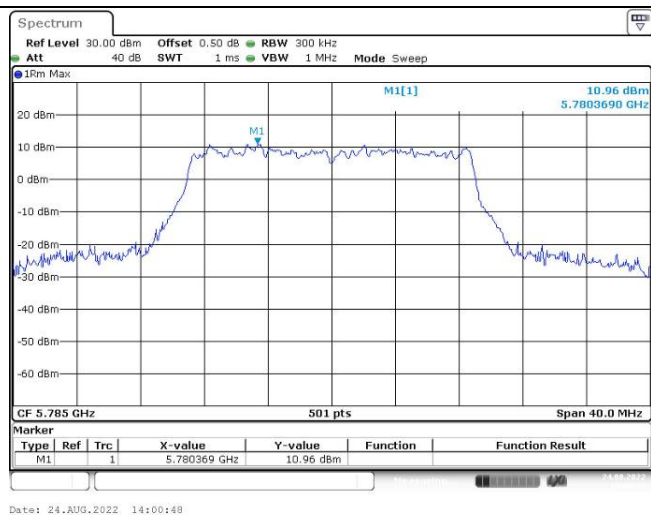
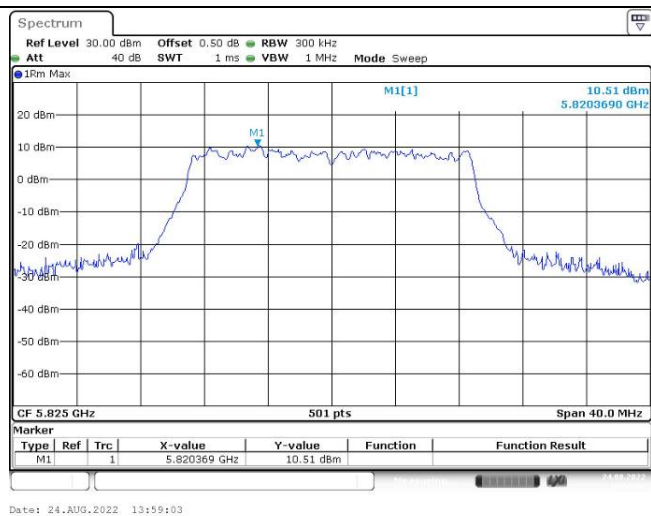
802.11a
Lowest Channel802.11a
Middle Channel802.11a
Highest Channel

Maximum power spectral density

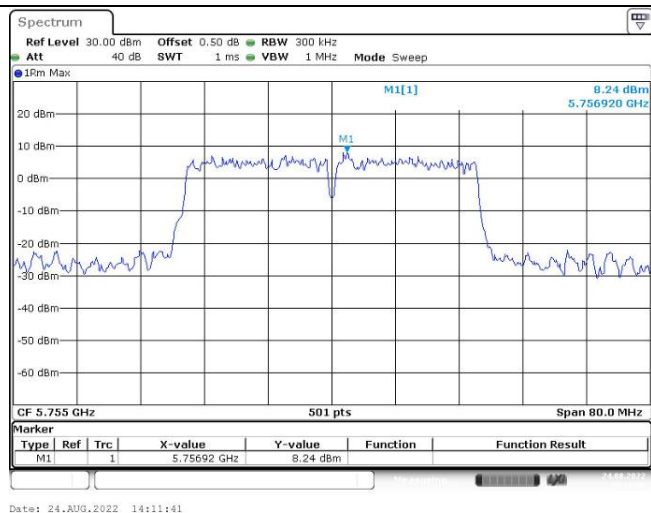
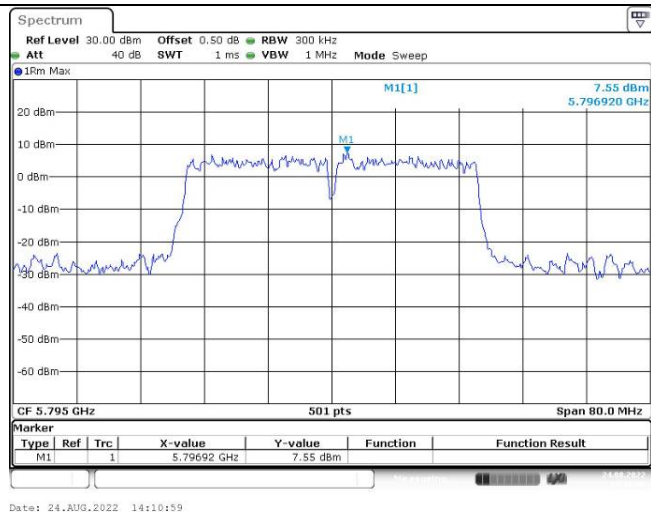
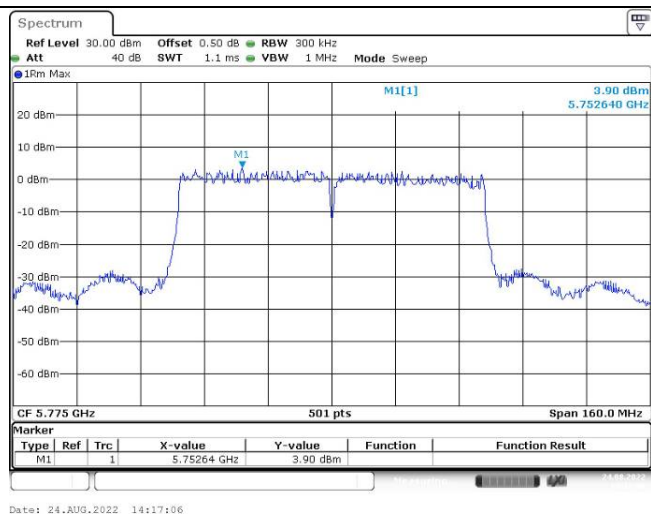
802.11n ht20
Lowest Channel802.11n ht20
Middle Channel802.11n ht20
Highest Channel

Maximum power spectral density802.11n ht40
Lowest Channel802.11n ht40
Highest Channel

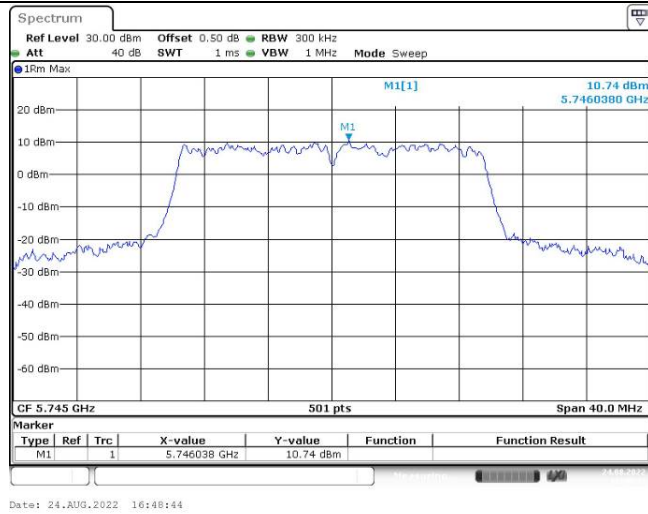
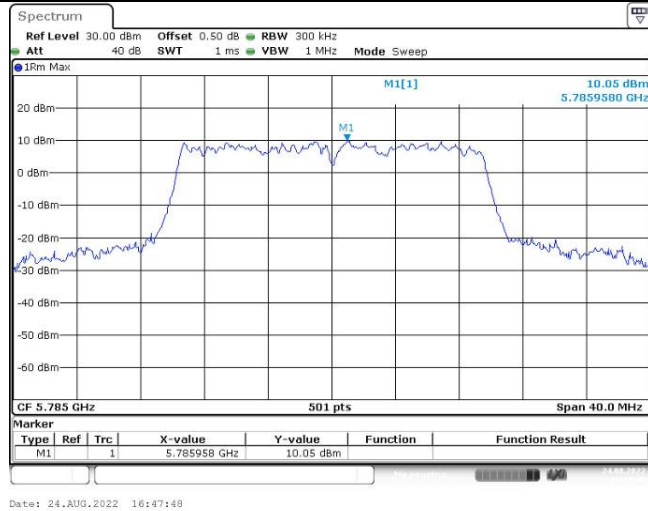
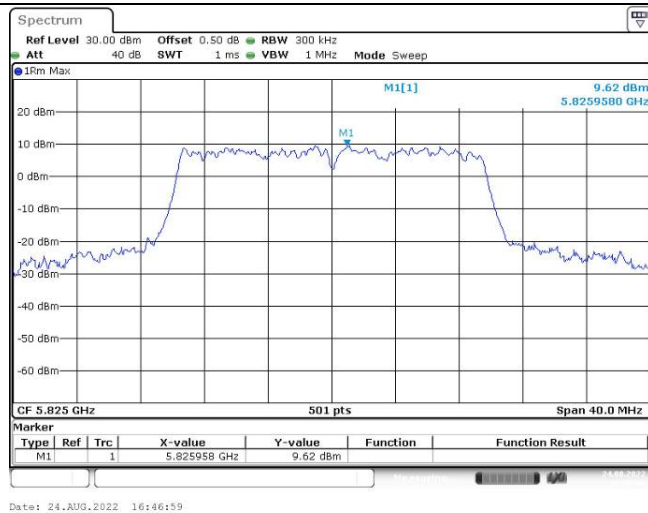
Maximum power spectral density

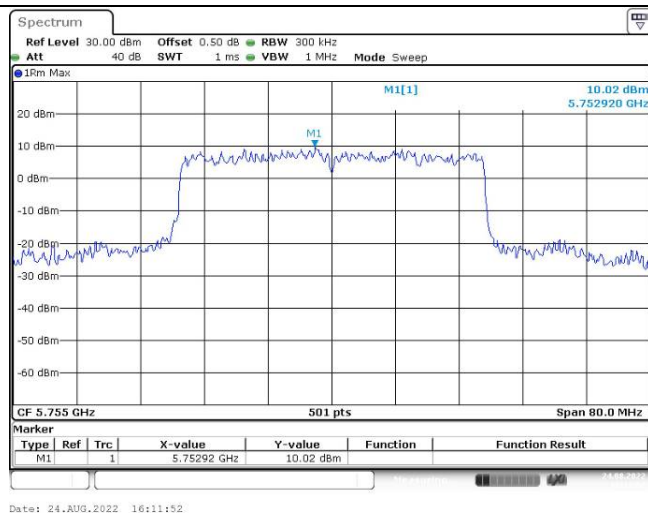
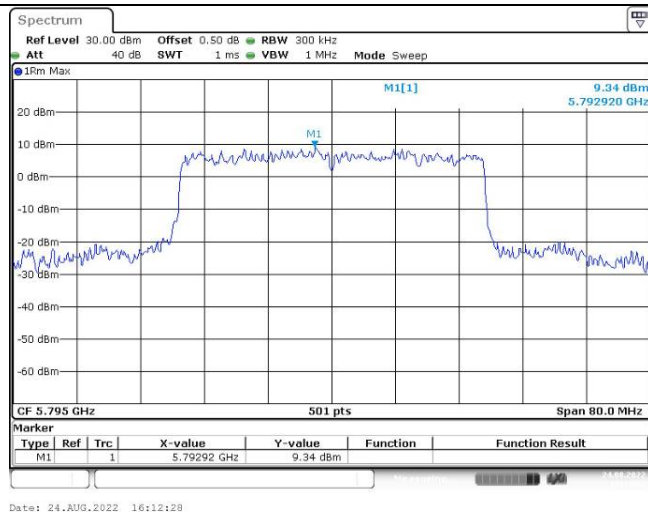
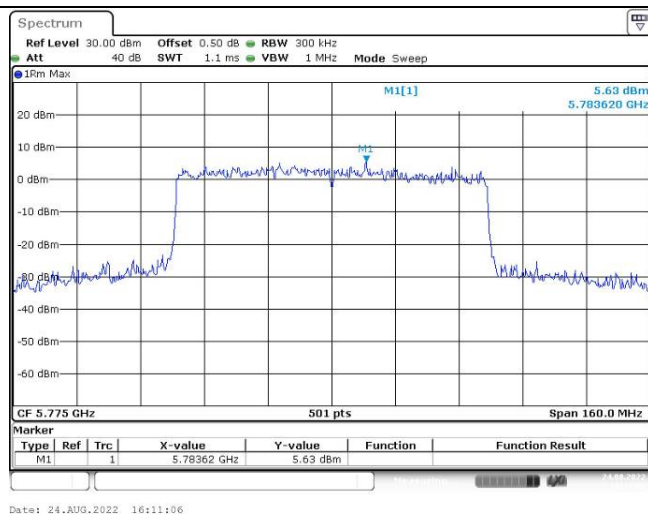
802.11ac vht20
Lowest Channel802.11ac vht20
Middle Channel802.11ac vht20
Highest Channel

Maximum power spectral density

802.11ac vht40
Lowest Channel802.11ac vht40
Highest Channel802.11ac vht80
Middle Channel

Maximum power spectral density

802.11ax hew20
Lowest Channel802.11ax hew20
Middle Channel802.11ax hew20
Highest Channel

Maximum power spectral density802.11ax hew40
Lowest Channel802.11ax hew40
Highest Channel802.11ax hew80
Middle Channel

4.6 Duty Cycle:

Serial Number:	CR22080019-RF-S1	Test Date:	2022/8/25-2022/8/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Julie Tan	Test Result:	N/A

Environmental Conditions:

Temperature: (°C)	26.1-26.7	Relative Humidity: (%)	62-66	ATM Pressure: (kPa)	99.8-100.2
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101943	2021-10-10	2022-10-09
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554404	Each time	N/A

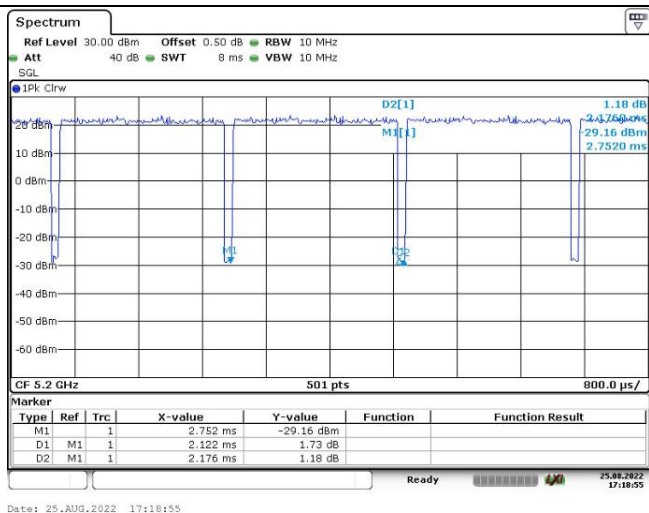
* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

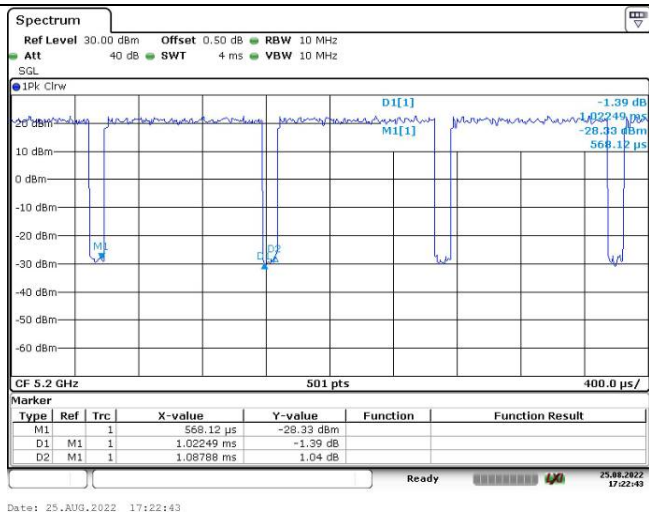
Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)
802.11a	2.122	2.176	97.52
802.11n ht20	1.022	1.088	93.93
802.11n ht40	0.516	0.602	85.71
802.11ac vht20	0.127	0.154	82.47
802.11ac vht40	0.088	0.114	77.19
802.11ac vht80	0.068	0.093	73.12
802.11ax hew20	0.139	0.167	83.23
802.11ax hew40	0.111	0.138	80.43
802.11ax hew80	0.098	0.126	77.78
802.11ac vht160	0.057	0.086	66.28
802.11ax hew160	0.083	0.111	74.77

Duty Cycle

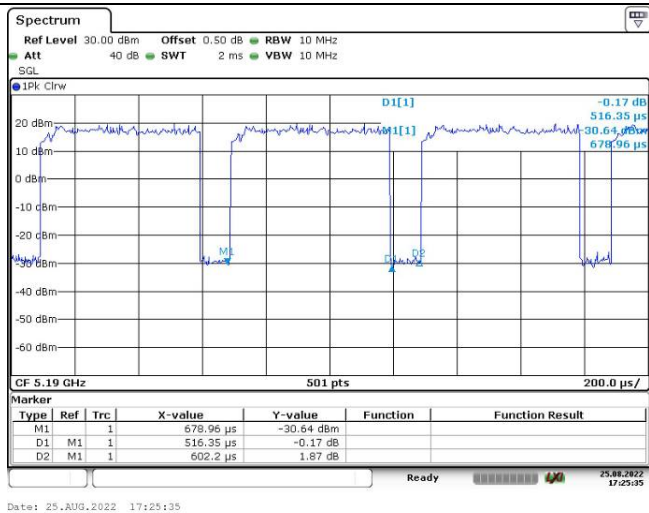
802.11a



802.11n ht20

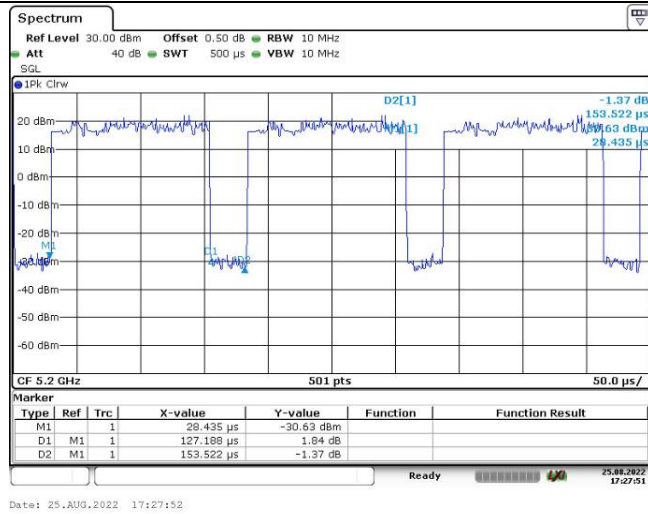


802.11n ht40

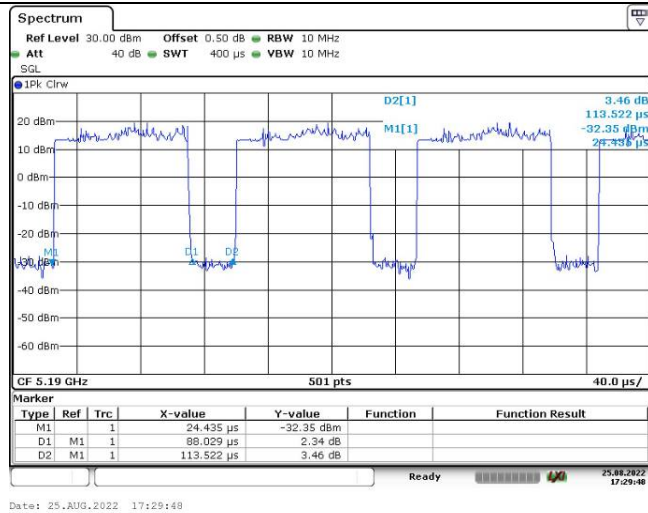


Duty Cycle

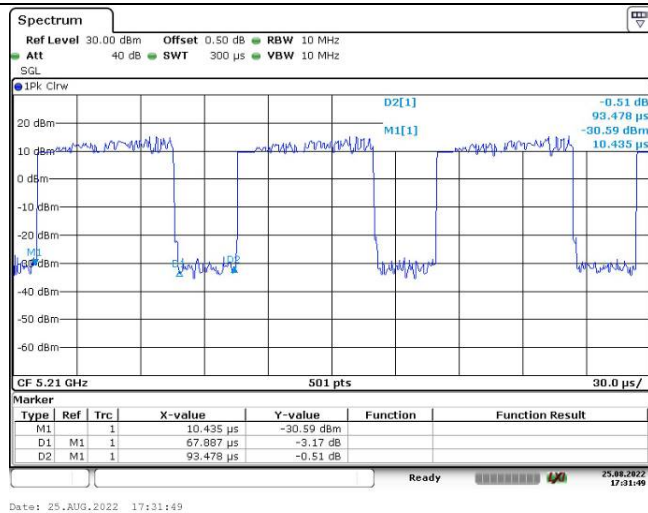
802.11ac vht20



802.11ac vht40

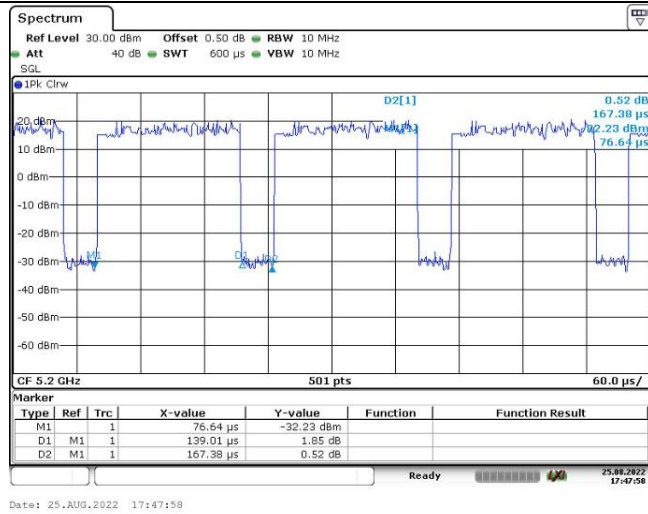


802.11ac vht80

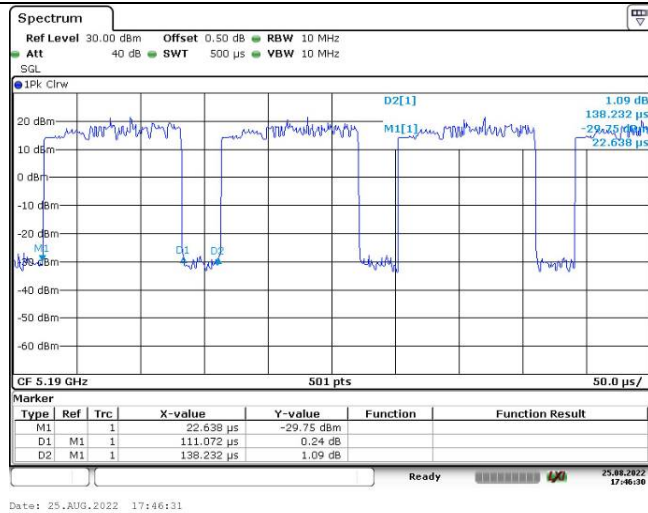


Duty Cycle

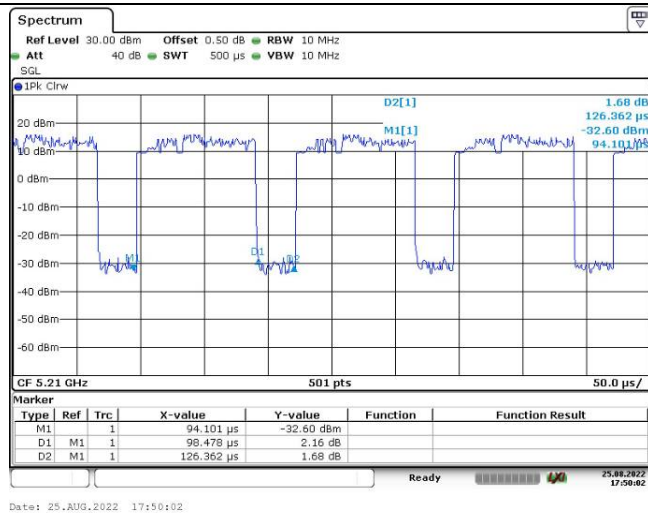
802.11ax hew20



802.11 ax hew40

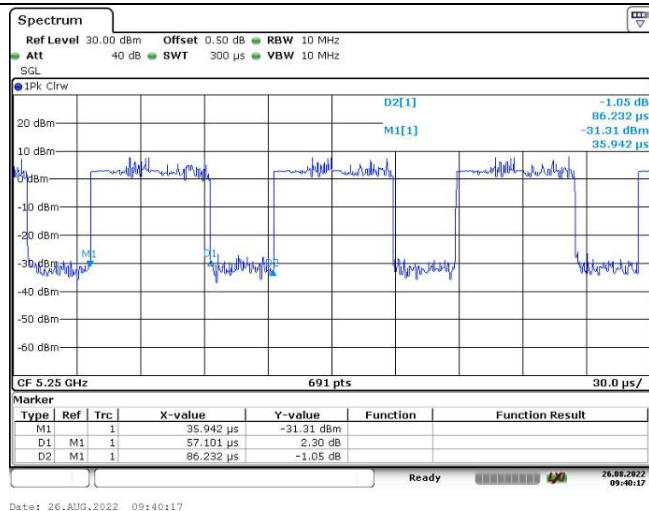


802.11ax hew80

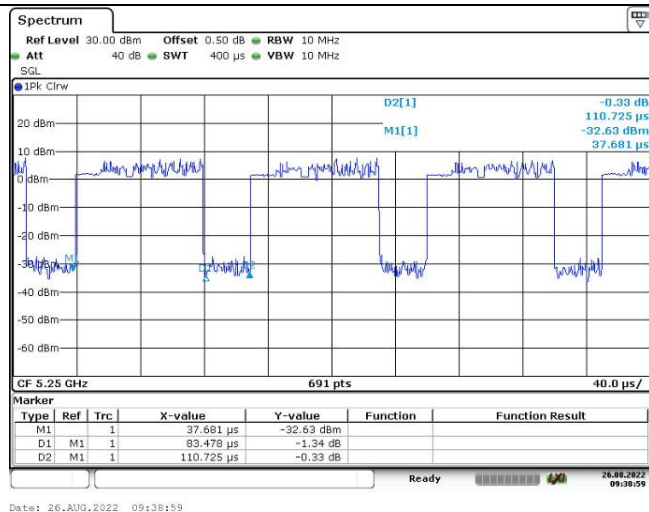


Duty Cycle

802.11ac hew160



802.11ax hew160



5. RF EXPOSURE EVALUATION

5.1 Applicable Standard

According to §1.1307(b)(3)(i)

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20\text{ cm}}(d/20\text{ cm})^x & d \leq 20\text{ cm} \\ ERP_{20\text{ cm}} & 20\text{ cm} < d \leq 40\text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20\text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20\text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3\text{ GHz} \leq f < 1.5\text{ GHz} \\ 3060 & 1.5\text{ GHz} \leq f \leq 6\text{ GHz} \end{cases}$$

d = the separation distance (cm);

5.2 Measurement Result

Operation Modes	Frequency (MHz)	Distance (mm)	P_{th}		Maximum Conducted Power including Tune-up Tolerance (dBm)	Antenna Gain (dBi)	ERP (P) (dBm)	ERP (P) (mW)	Exemption
			(mW)	(dBm)					
WLAN 2.4G	2412-2462	200	3060	34.86	25.3	8.0	31.15	1303.17	Compliant
WLAN 5G	5150-5250	200	3060	34.86	22	9.0	28.85	767.36	Compliant
	5250-5350	200	3060	34.86	17	9.0	23.85	242.66	Compliant
	5725-5850	200	3060	34.86	25.5	9.0	32.35	1717.91	Compliant

Note: Antenna gain includes beamforming gain. The Maximum Conducted Power including Tune-up Tolerance was declared by manufacturer.

WLAN 2.4G and 5G can transmit simultaneously:

$$\sum_{i=1}^a \left(\frac{P_i}{P_{th-i}} \right) + \sum_{j=1}^b \left(\frac{ERP_j}{ERP_{th-j}} \right) + \sum_{k=1}^c \left(\frac{Evaluated_k}{Exposure Limit_k} \right)$$

$$= P_{2.4G}/P_{th-2.4G} + P_{5G}/P_{th-5G}$$

$$= 1303.17/3060 + 1717.91/3060$$

$$= 0.99$$

Result: The device compliant the Exemption at 20cm distances.

===== END OF REPORT =====