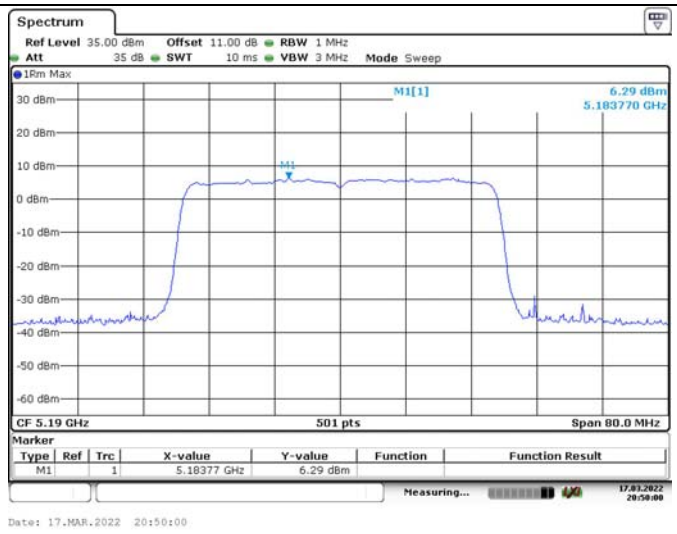
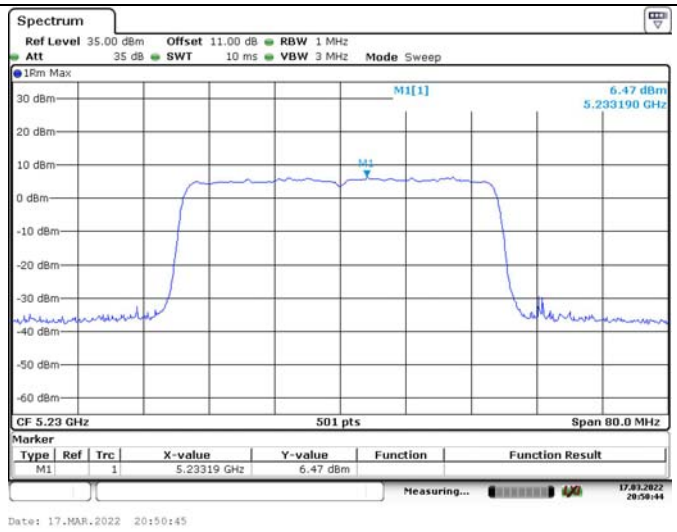
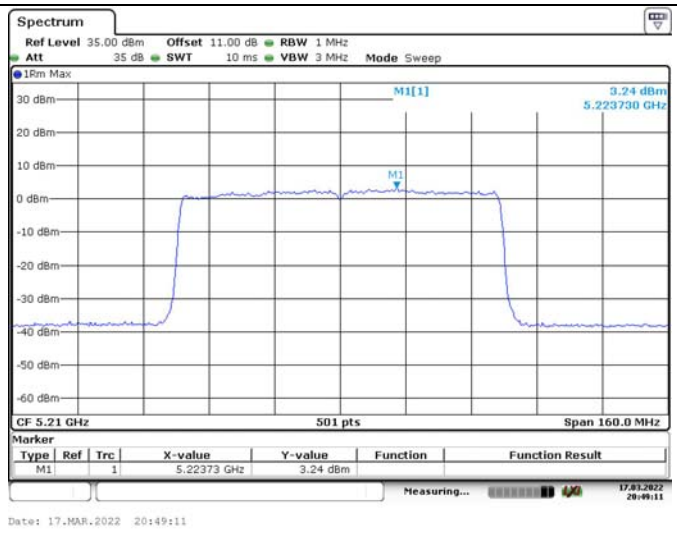
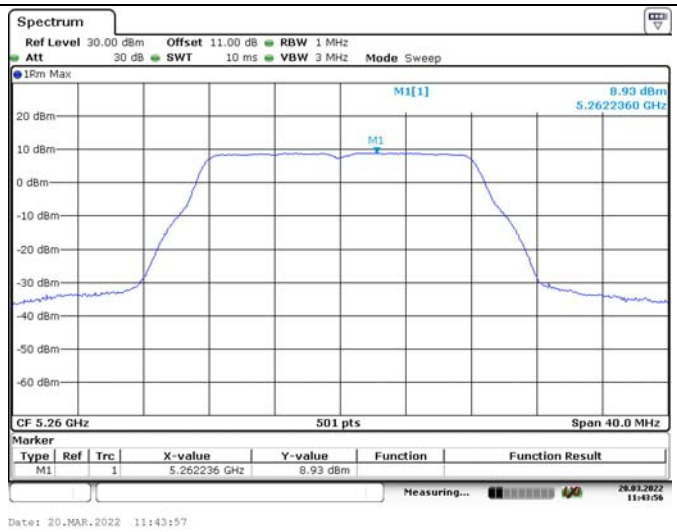
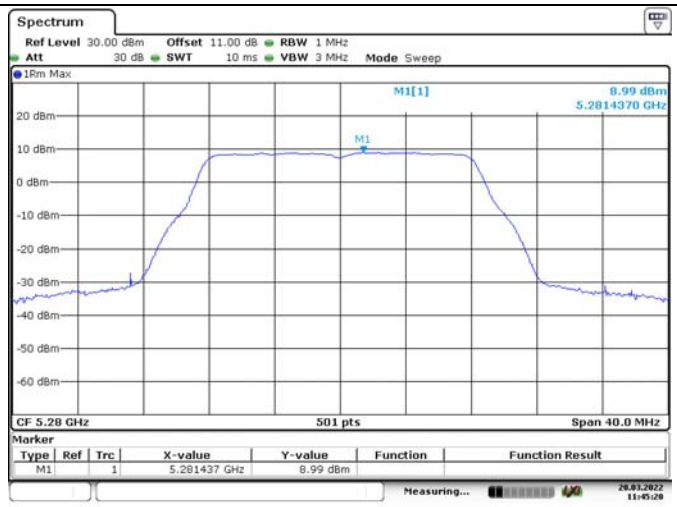
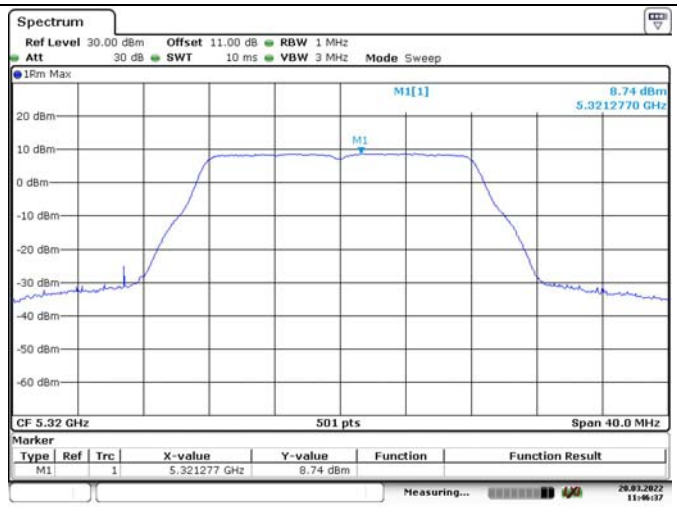
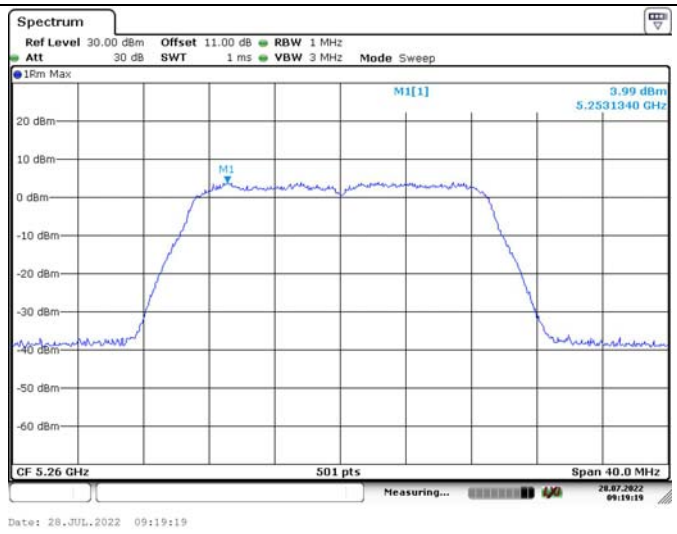
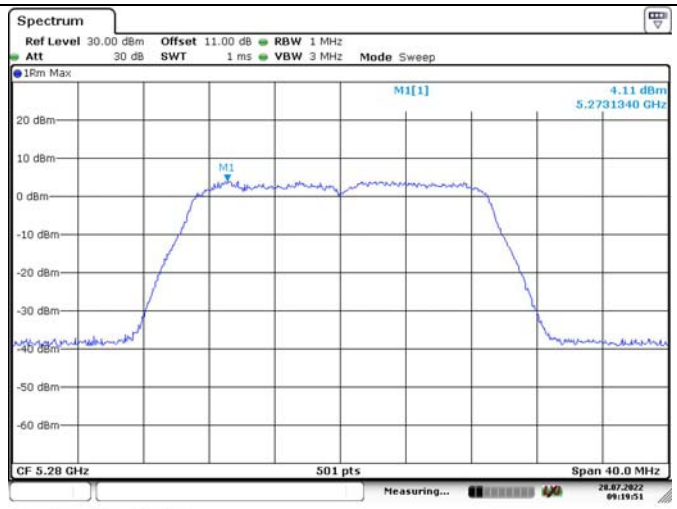
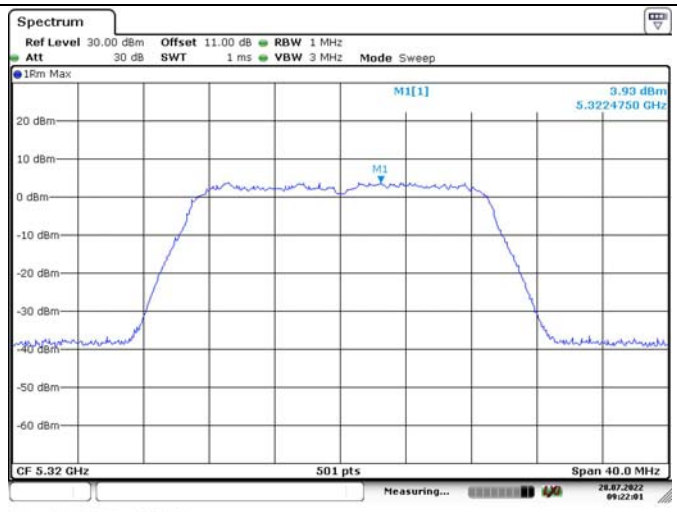
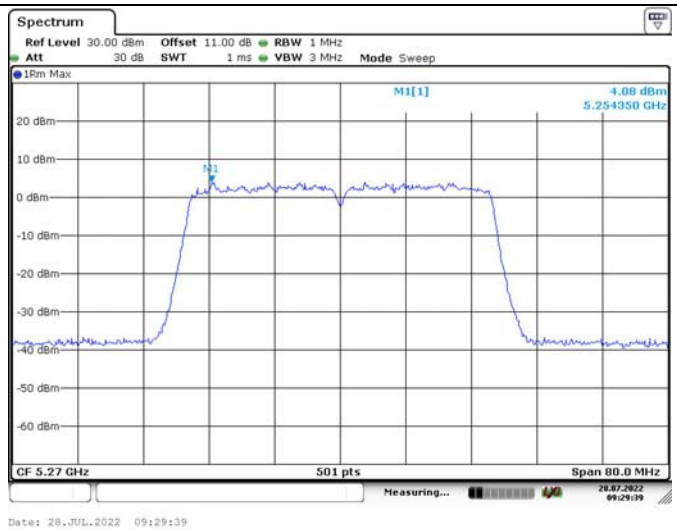
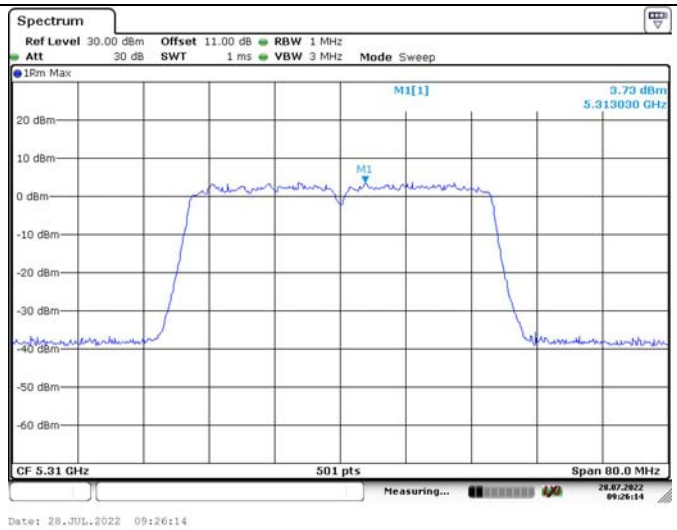
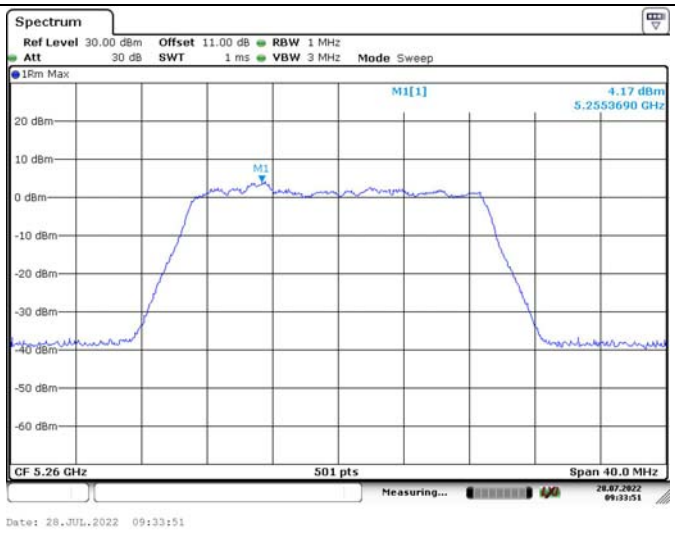
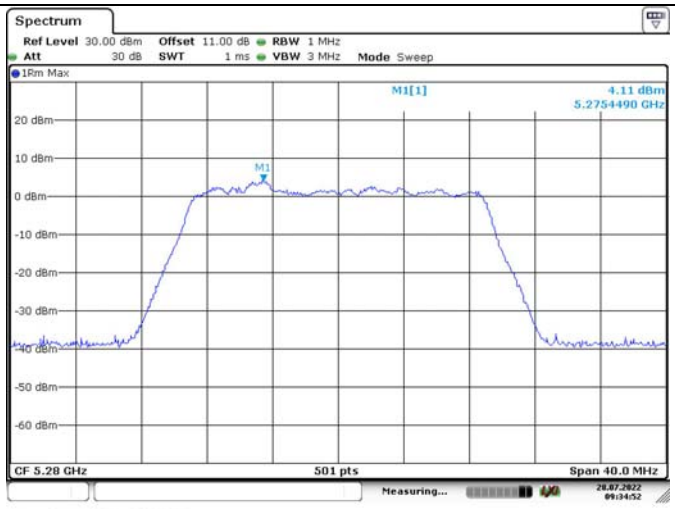
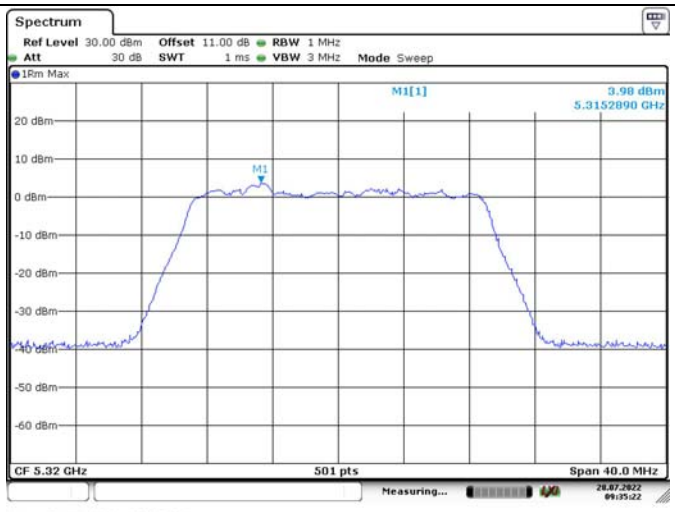
Maximum power spectral density	
802.11ax hew40 Lowest Channel	
802.11ax hew40 Highest Channel	
802.11ax hew80 Middle Channel	

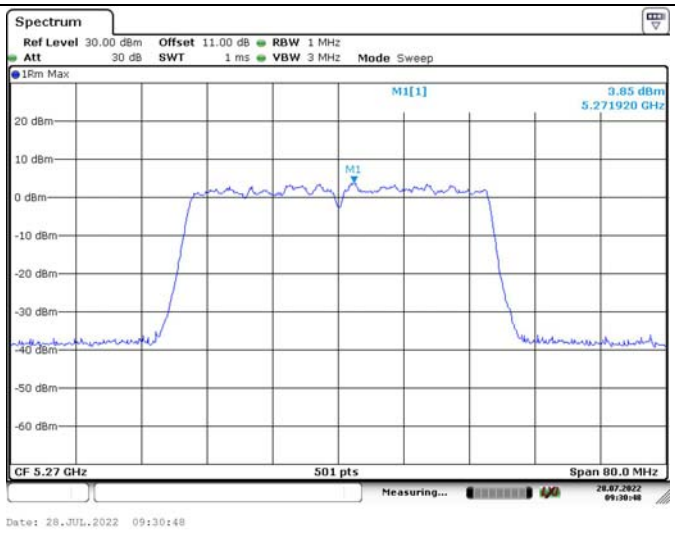
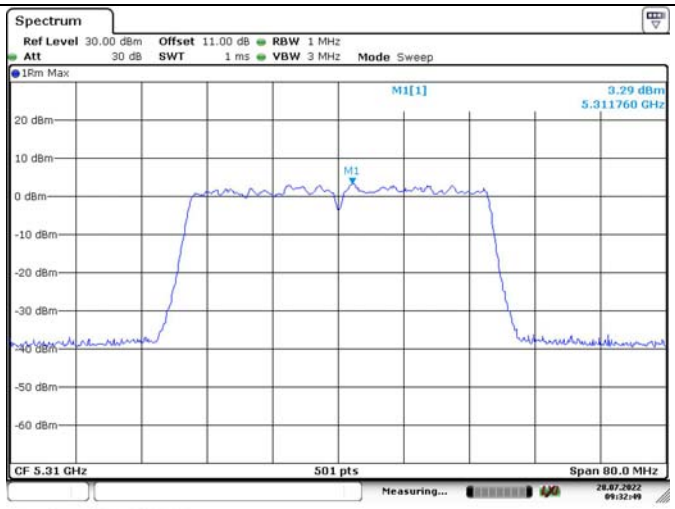
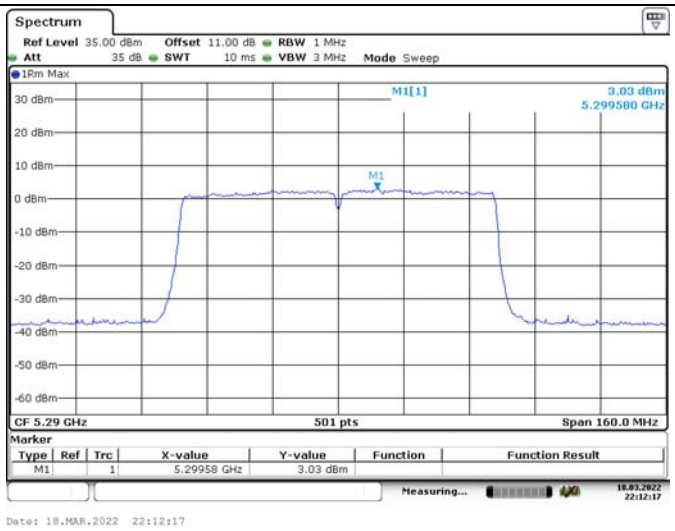
5250-5350MHz:

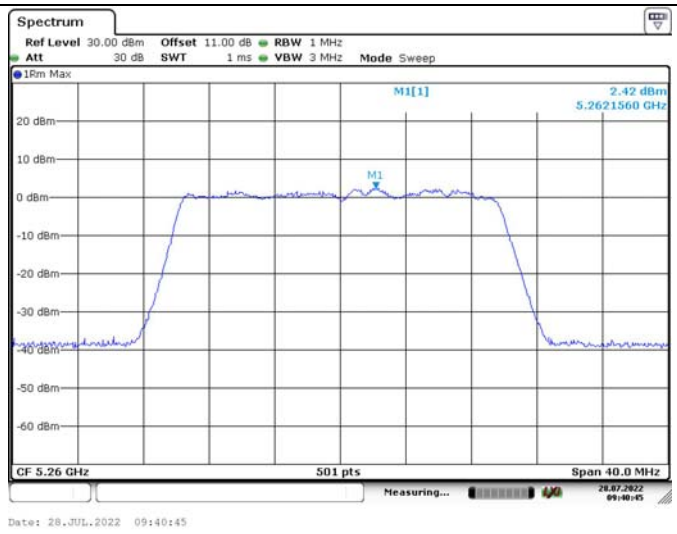
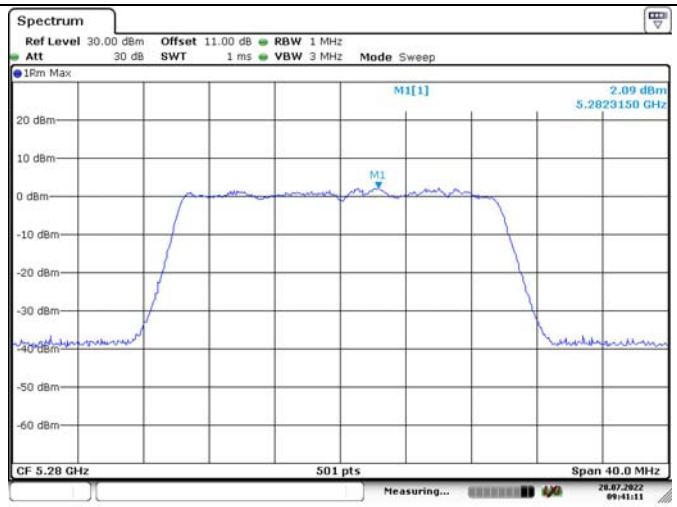
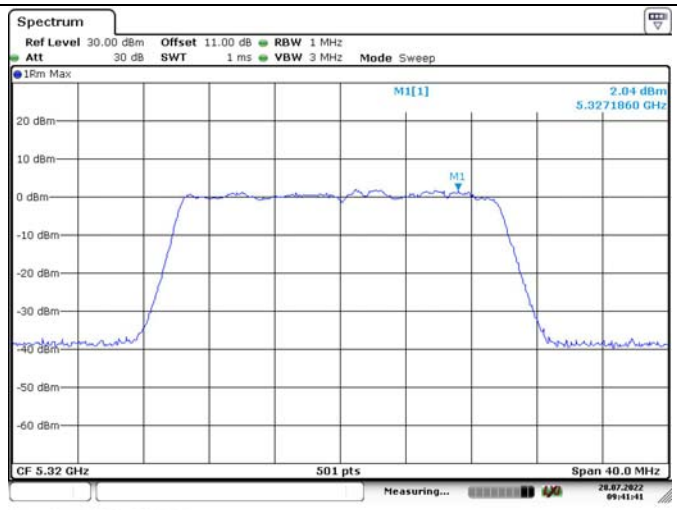
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

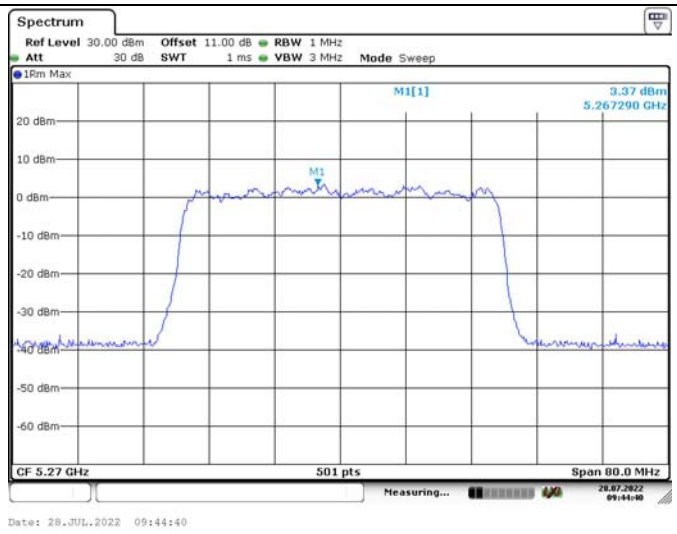
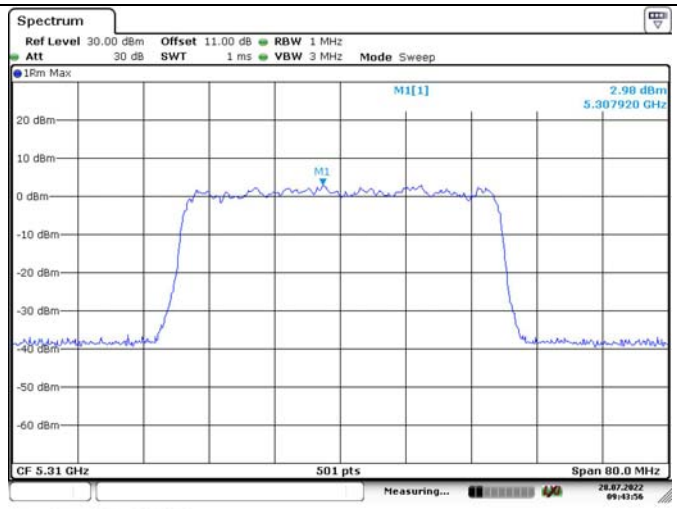
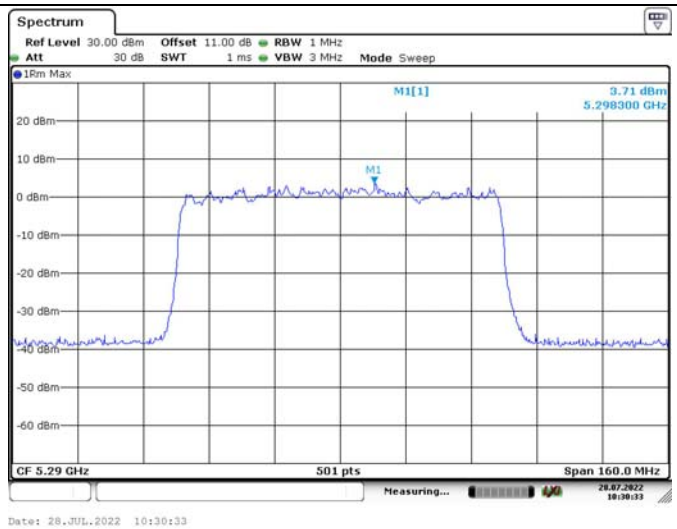
Maximum power spectral density	
802.11n ht20 Lowest Channel	
802.11n ht20 Middle Channel	
802.11n ht20 Highest Channel	

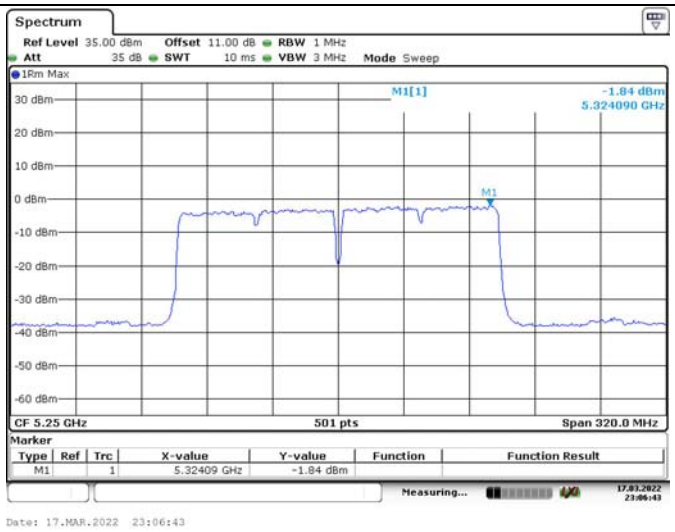
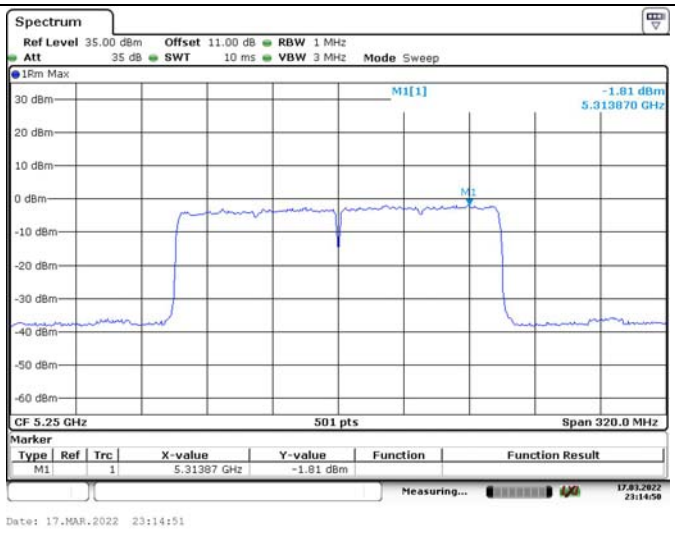
Maximum power spectral density	
802.11n ht40 Lowest Channel	
802.11n ht40 Highest Channel	

Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

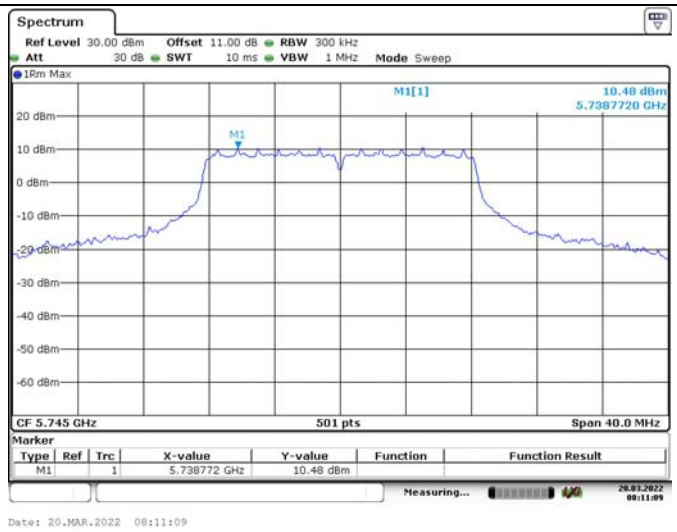
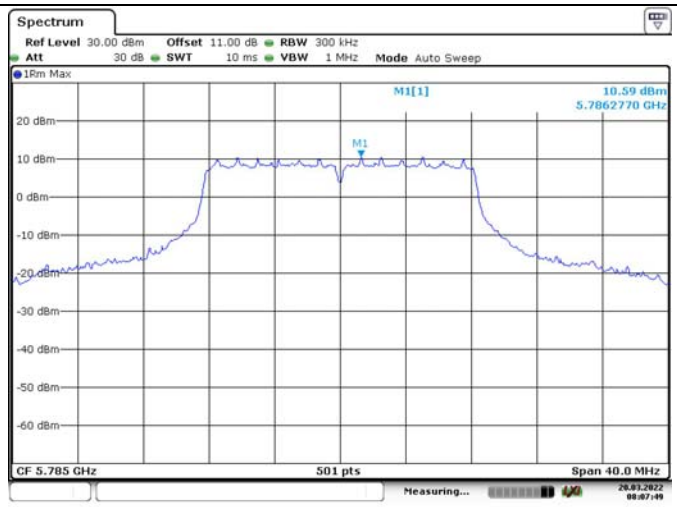
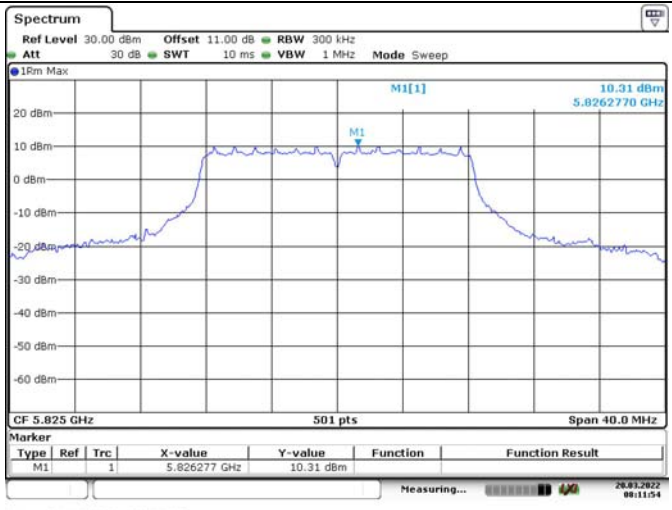
Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

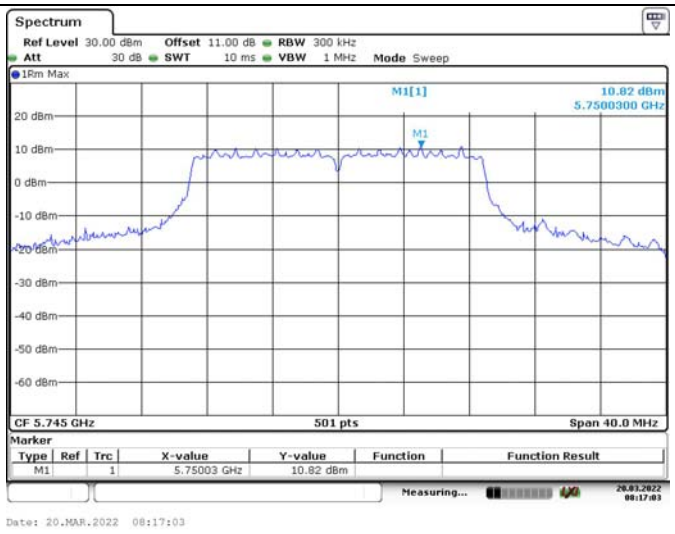
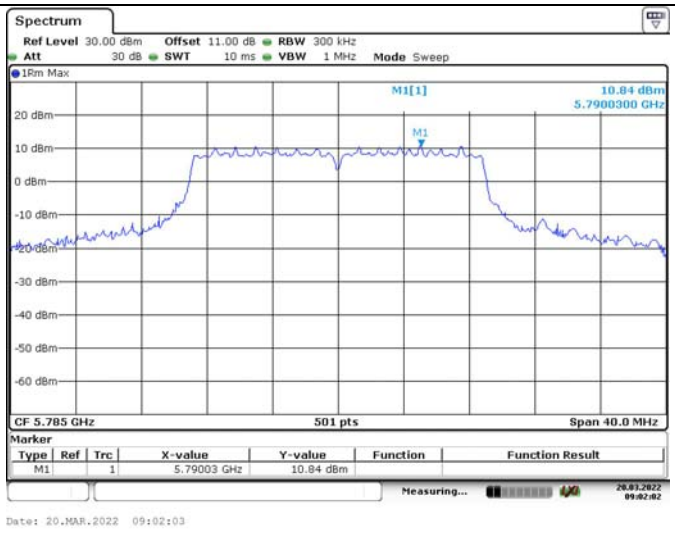
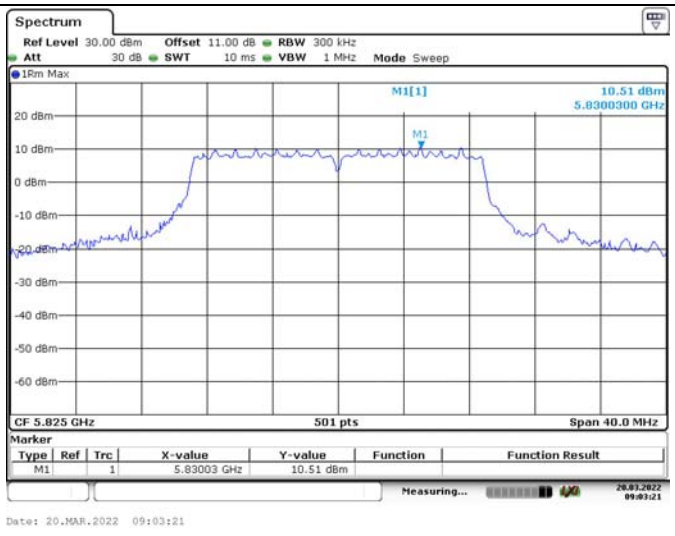
Maximum power spectral density	
802.11ax hew20 Lowest Channel	
802.11ax hew20 Middle Channel	
802.11ax hew20 Highest Channel	

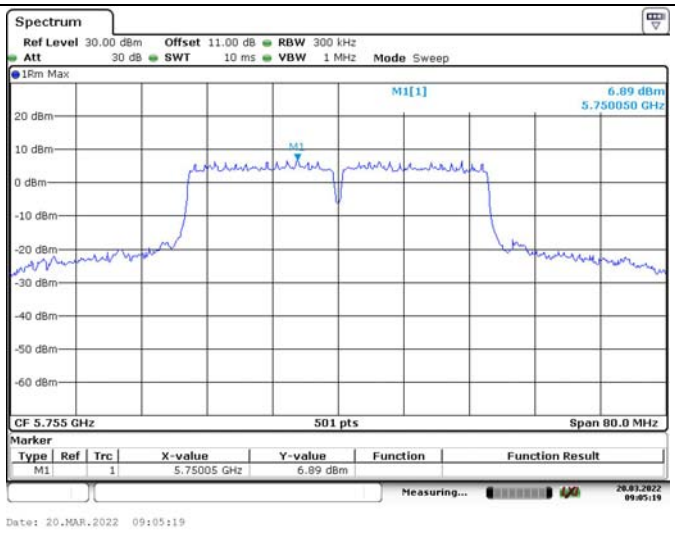
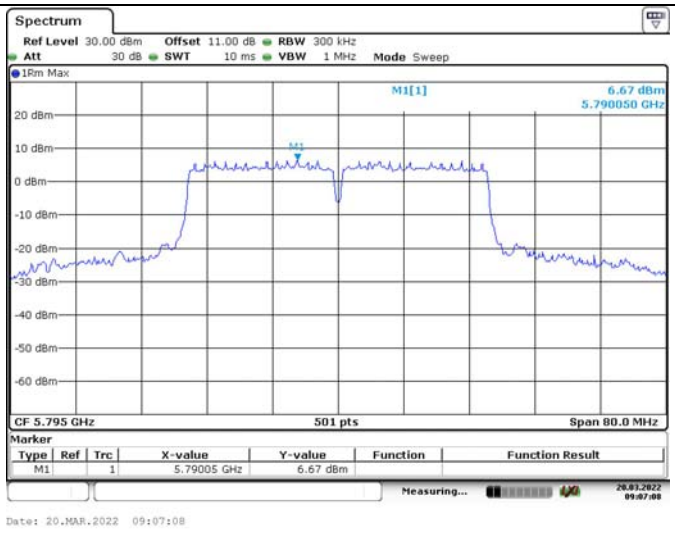
Maximum power spectral density	
802.11ax hew40 Lowest Channel	
802.11ax hew40 Highest Channel	
802.11ax hew80 Middle Channel	

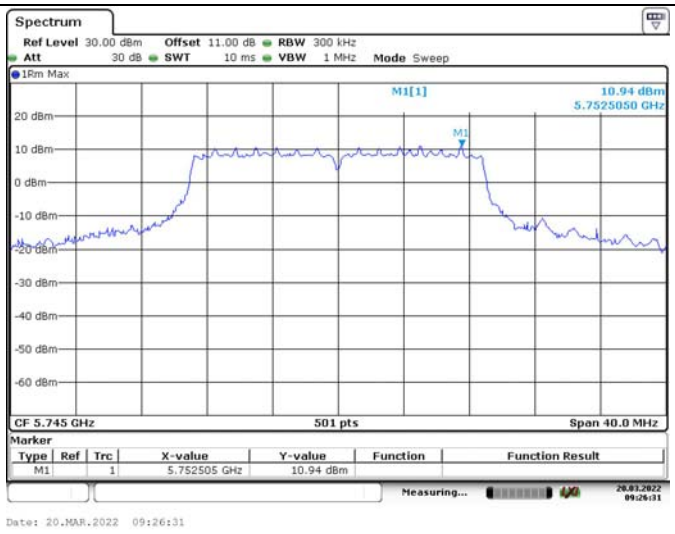
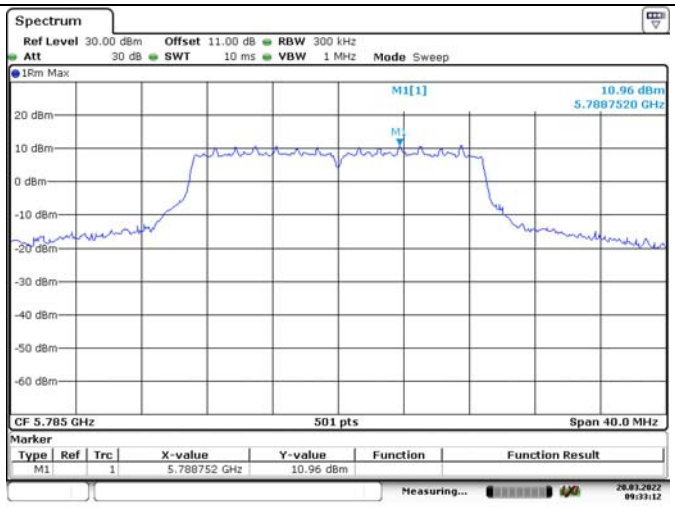
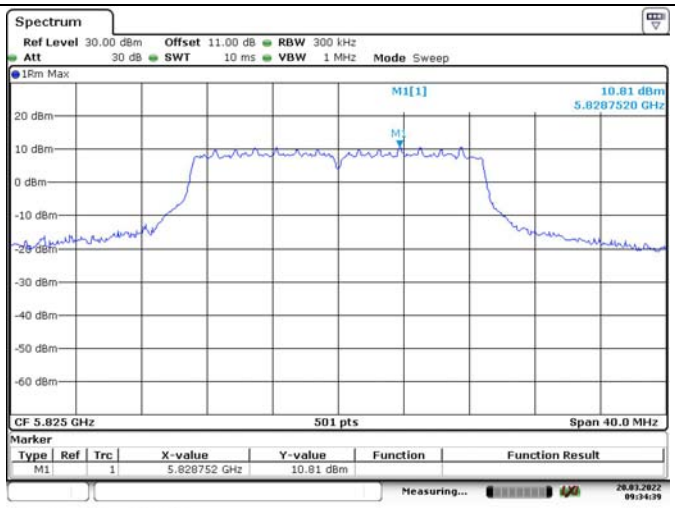
Maximum power spectral density	
802.11ac vht160 Middle Channel	
802.11ax hew160 Middle Channel	

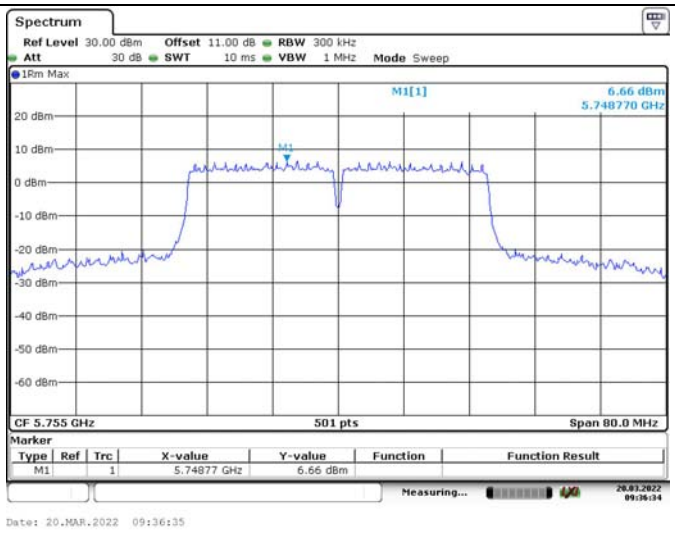
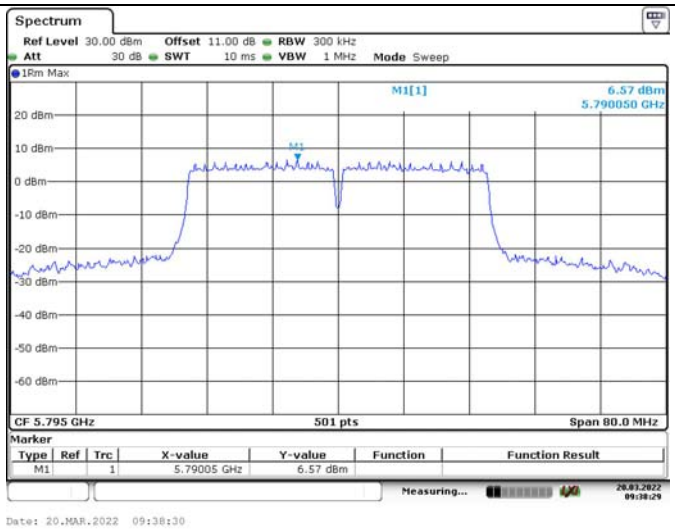
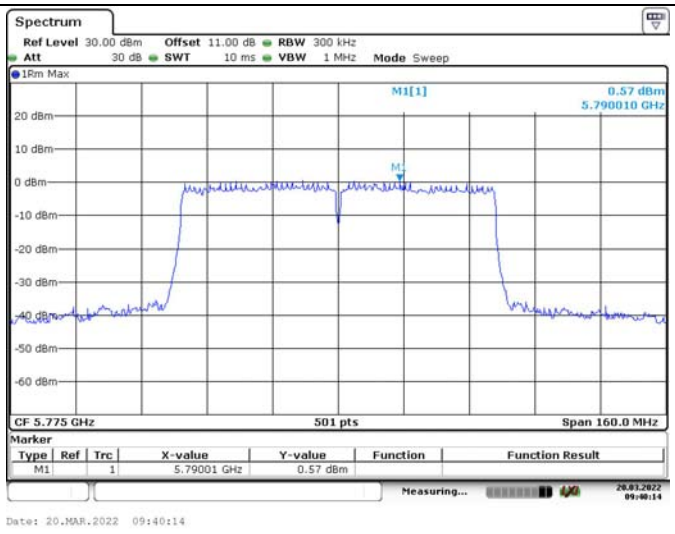
5725-5850MHz

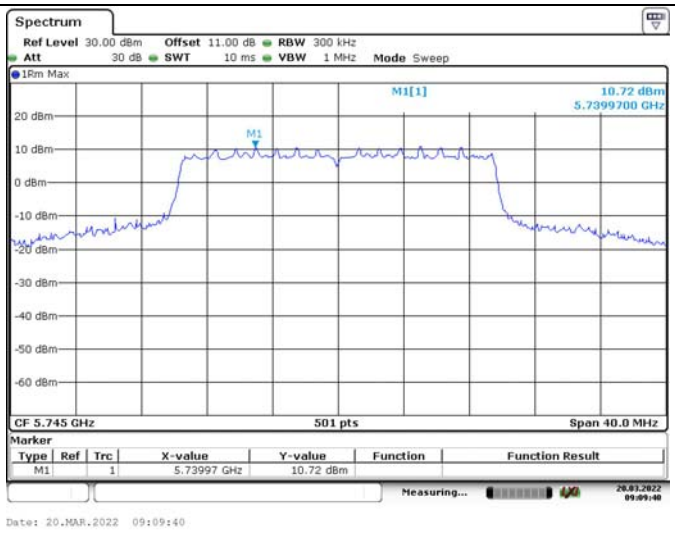
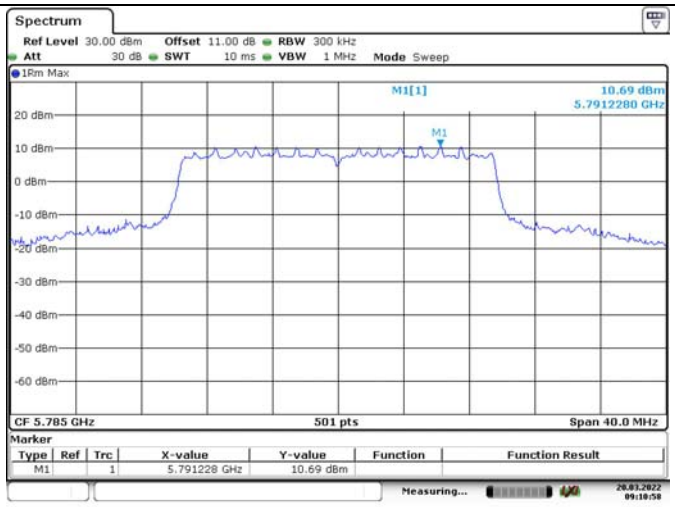
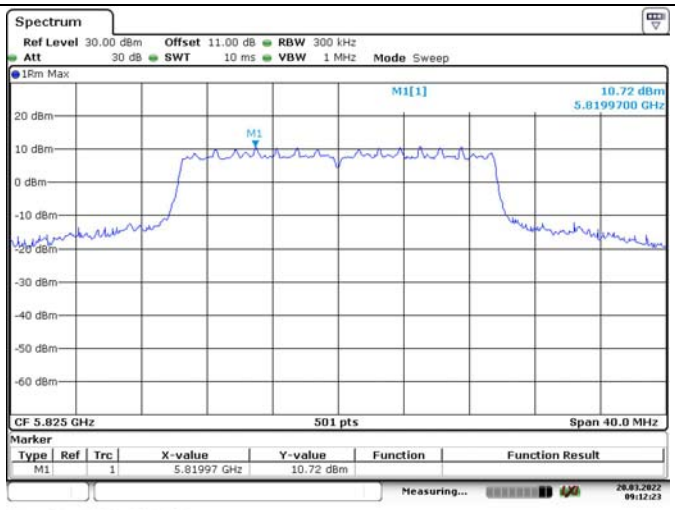
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

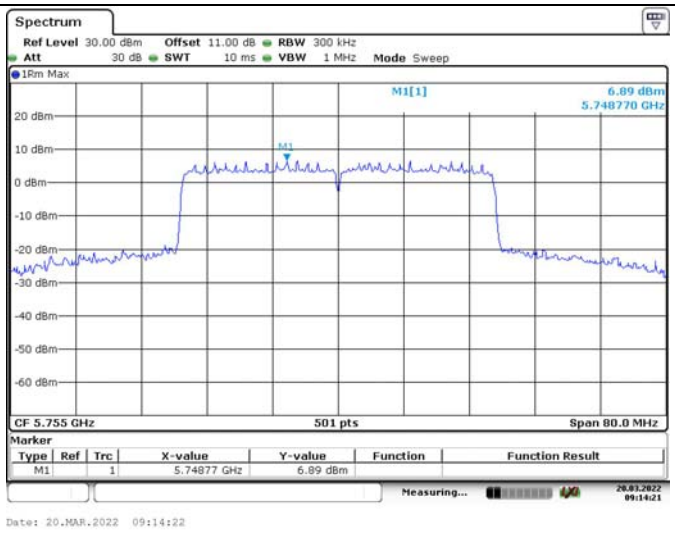
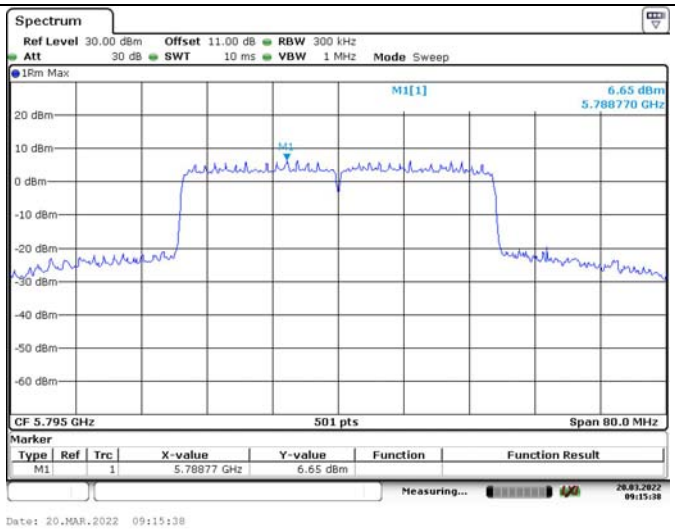
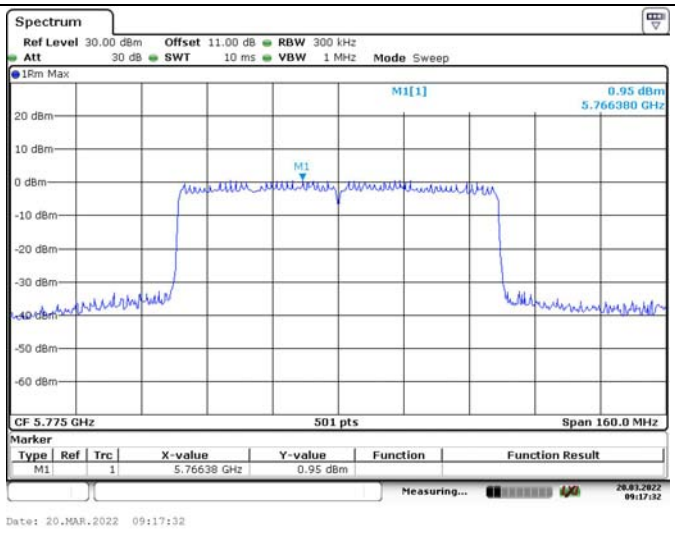
Maximum power spectral density	
802.11n ht20 Lowest Channel	
802.11n ht20 Middle Channel	
802.11n ht20 Highest Channel	

Maximum power spectral density	
802.11n ht40 Lowest Channel	
802.11n ht40 Highest Channel	

Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

Maximum power spectral density	
802.11ax hew20 Lowest Channel	
802.11ax hew20 Middle Channel	
802.11ax hew20 Highest Channel	

Maximum power spectral density	
802.11ax hew40 Lowest Channel	
802.11ax hew40 Highest Channel	
802.11ax hew80 Middle Channel	

4.6 Duty Cycle:

Serial Number:	CR22020017-RF-S1	Test Date:	2022-03-22
Test Site:	RF	Test Mode:	Transmitting
Tester:	Carl Liang	Test Result:	N/A

Environmental Conditions:					
Temperature: (℃)	25.9	Relative Humidity: (%)	68	ATM Pressure: (kPa)	100.5

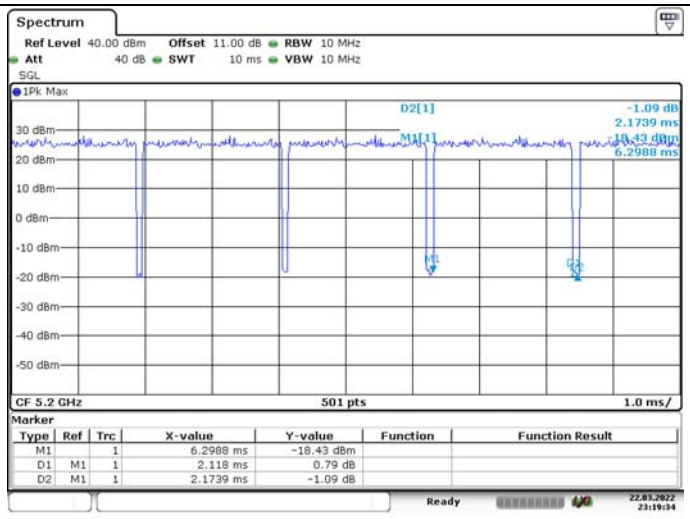
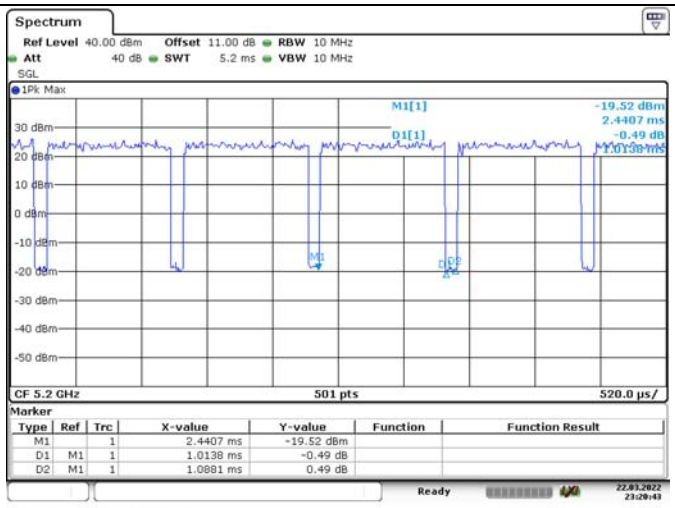
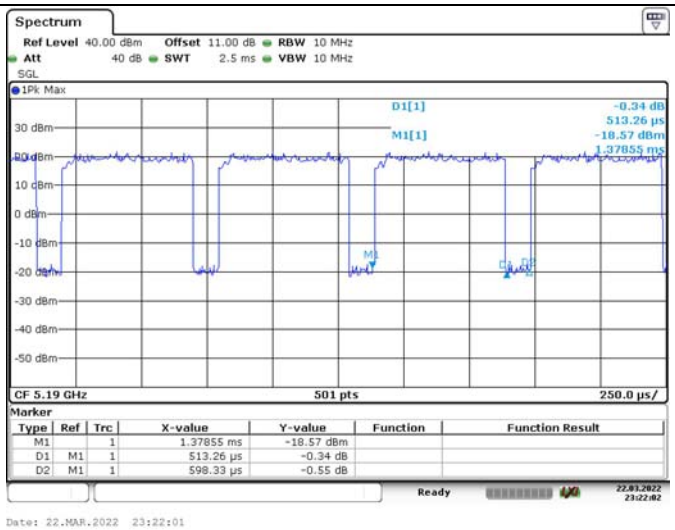
Test Equipment List and Details:

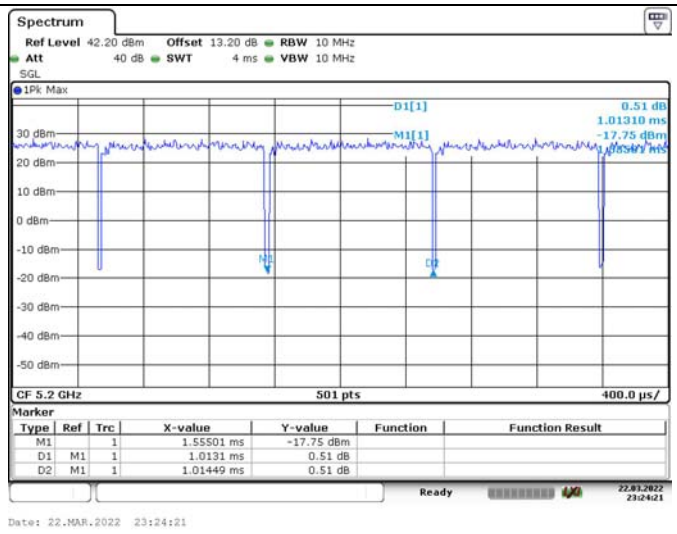
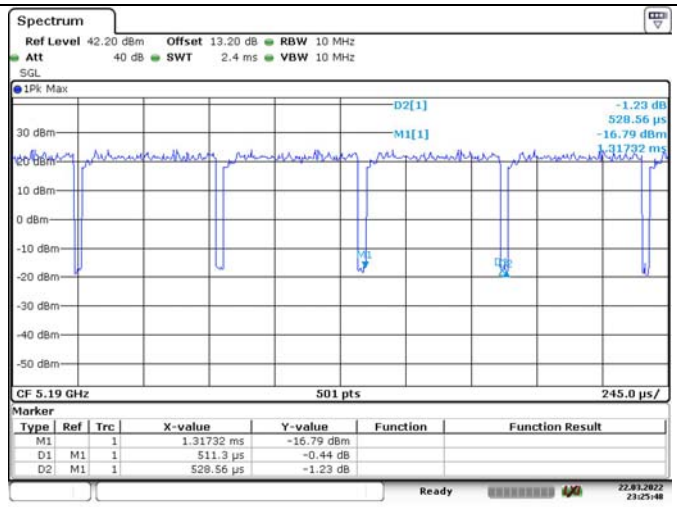
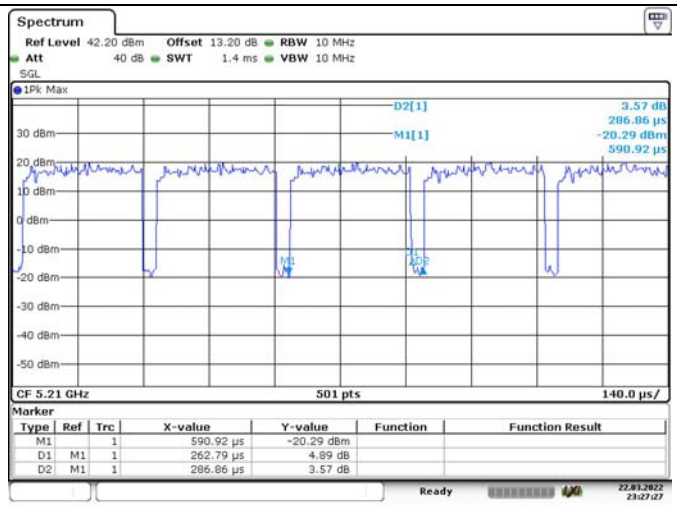
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101943	2021-10-10	2022-10-09
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

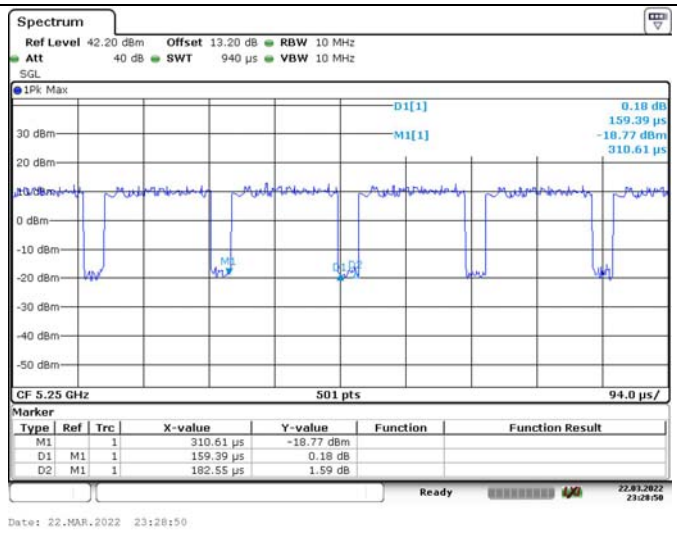
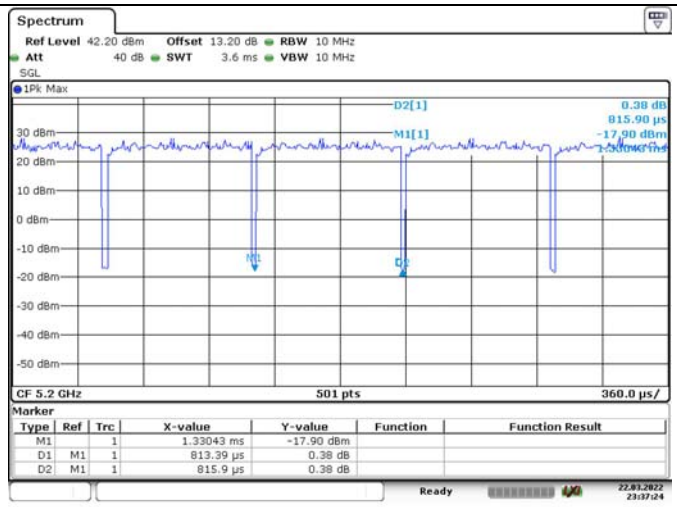
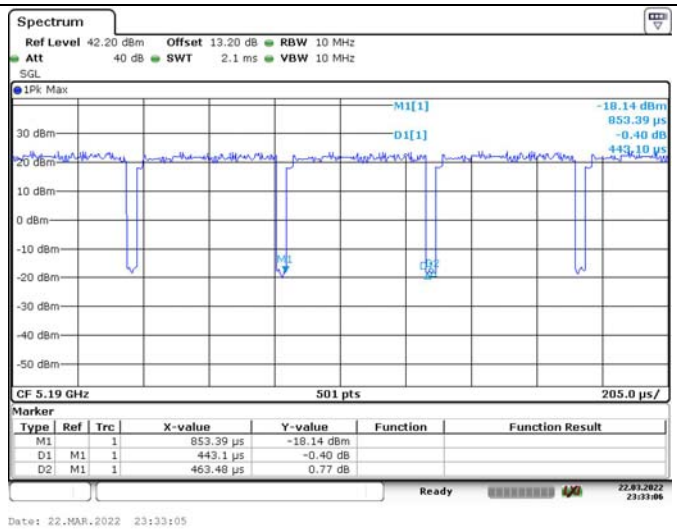
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

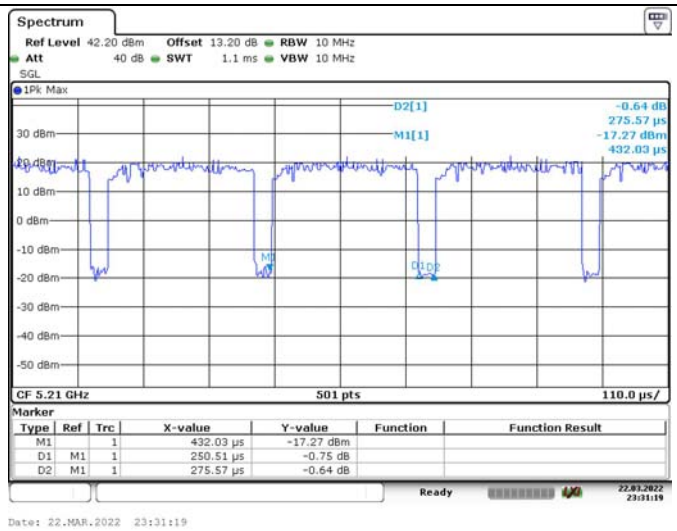
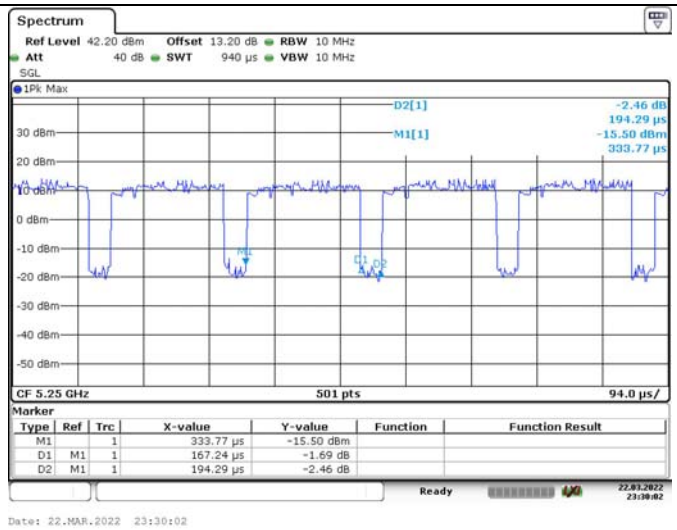
Test Data:

Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)
802.11a	2.118	2.174	97.42
802.11n ht20	1.014	1.088	93.20
802.11n ht40	0.513	0.598	85.79
802.11ac vht20	1.013	1.014	99.90
802.11ac vht40	0.511	0.529	96.60
802.11ac vht80	0.263	0.287	91.64
802.11ac vht160	0.159	0.183	86.89
802.11ax hew20	0.813	0.816	99.63
802.11ax hew40	0.443	0.463	95.68
802.11ax hew80	0.251	0.276	90.94
802.11ax hew160	0.167	0.194	86.08

Duty Cycle	
802.11a	
802.11n ht20	
802.11n ht40	

Duty Cycle	
802.11ac vht20	
802.11ac vht40	
802.11ac vht80	

Duty Cycle	
802.11ac vht160	
802.11ax hew20	
802.11ax hew40	

Duty Cycle	
802.11ax hew80	
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:

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

Where

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

and

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

d = the separation distance (cm);

5.2 Measurement Result

Radio	Frequency (MHz)	Distance (mm)	P_{th}		Maximum Conducted Power including Tune-up Tolerance (dBm)	Antenna Gain (dBi)	ERP (dBm)	Exemption
			(mW)	(dBm)				
2.4G Wi-Fi	2412-2462	200	3060	**34.86**	28	3.8	29.65	Compliant
5G Wi-Fi	5150-5250	200	3060	**34.86**	24	4.5	26.35	Compliant
	5250-5350	200	3060	**34.86**	22	4.5	24.35	Compliant
	5725-5850	200	3060	**34.86**	28	4.5	30.35	Compliant

2.4G Wi-Fi and 5G Wi-Fi can transmit simultenuously:

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

$=P_{2.4G}/T_{th\text{-}5G}+P_{5G}/T_{th\text{-}5G}$
$=803.53/3060+1094/3060$
$=0.62$
<1

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

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