

TEST REPORT

Product Name : Automotive Diagnostic Tool
Model Number : TKT03
FCC ID : 2AUARTKTOOL08

Prepared for : THINKCAR TECH CO., LTD.
Address : 2606, building 4, phase II, TiananYungu, Gangtou community, Bantian, Longgang District, Shenzhen

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Report Number : ENS2302080082W00402R
Date(s) of Tests : February 09, 2023 to March 3, 2023
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1 TEST RESULT CERTIFICATION

Applicant : THINKCAR TECH CO., LTD.
Address : 2606, building 4, phase II, TiananYungu, Gangtou community, Bantian, Longgang District, Shenzhen
Manufacturer : THINKCAR TECH CO., LTD.
Address : 2606, building 4, phase II, TiananYungu, Gangtou community, Bantian, Longgang District, Shenzhen
EUT : Automotive Diagnostic Tool
Model Name : TKT03
Trademark : THINKCAR, XHINKCAR, MUCAR

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 15, Subpart E	PASS

The above equipment was tested by EMTEK (SHENZHEN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Part 15.407

The test results of this report relate only to the tested sample identified in this report.

Date of Test : February 09, 2023 to March 3, 2023

Prepared by :



Una Yu /Editor

Reviewer :



Joe Xia /Supervisor

Approve & Authorized Signer :



Lisa Wang/Manager



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2 EUT TECHNICAL DESCRIPTION

Characteristics	Description	
Product	Automotive Diagnostic Tool	
Model Number	TKT03	
Sample number	2#	
Wifi Type	<input checked="" type="checkbox"/> UNII-1: 5150MHz-5250MHz Band <input checked="" type="checkbox"/> UNII-3 with 5725MHz-5850MHz Band	
WLAN Supported	<input checked="" type="checkbox"/> 802.11a <input checked="" type="checkbox"/> 802.11n(20MHz channel bandwidth) <input checked="" type="checkbox"/> 802.11n(40MHz channel bandwidth) <input checked="" type="checkbox"/> 802.11ac(20MHz channel bandwidth) <input checked="" type="checkbox"/> 802.11ac(40MHz channel bandwidth) <input checked="" type="checkbox"/> 802.11ac(80MHz channel bandwidth)	
Data Rate	802.11a:54/48/36/24/18/12/9/6Mbps 802.11n:up to 300 Mbps 802.11ac:up to 867Mbps	
Modulation	<input checked="" type="checkbox"/> OFDM with BPSK/QPSK/16QAM/64QAM for 802.11a/n; <input checked="" type="checkbox"/> OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11ac;	
Frequency Range	<input checked="" type="checkbox"/> UNII-1: 5150MHz-5250MHz Band	
	<input checked="" type="checkbox"/> 5180-5240MHz for 802.11a; <input checked="" type="checkbox"/> 5180-5240MHz for 802.11n(HT20); <input checked="" type="checkbox"/> 5180-5240MHz for 802.11ac(HT20);	<input checked="" type="checkbox"/> 5190-5230MHz for 802.11n(HT40); <input checked="" type="checkbox"/> 5190-5230MHz for 802.11ac(HT40); <input checked="" type="checkbox"/> 5210MHz for 802.11ac(HT80);
	<input checked="" type="checkbox"/> UNII-3 with 5725MHz-5850MHz Band	
	<input checked="" type="checkbox"/> 5745-5825MHz for 802.11a; <input checked="" type="checkbox"/> 5745-5825MHz for 802.11n(HT20); <input checked="" type="checkbox"/> 5745-5825MHz for 802.11ac(HT20);	<input checked="" type="checkbox"/> 5755-5795MHz for 802.11n(HT40); <input checked="" type="checkbox"/> 5755-5795MHz for 802.11ac(HT40); <input checked="" type="checkbox"/> 5775MHz for 802.11ac(HT80);
TPC Function	<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> Not Applicable
Antenna Type	Internal Antenna	
Antenna Gain	UNII-1: 3.68 dBi UNII-3: 5.46 dBi	
Transmit Power	Output Power (Max.) for UNII-1	11.90 dBm
	Output Power (Max.) for UNII-3	9.41 dBm
Power supply	DC7.6V from internal battery DC 5V from adapter	

Note: for more details, please refer to the User's manual of the EUT.

3 SUMMARY OF TEST RESULT

FCC Part Clause	Test Parameter	Verdict	Remark
15.407 (a) 15.407 (e)	99% , 6dB and 26dB Bandwidth	PASS	
15.407 (a)	Maximum Conducted Output Power	PASS	
15.407 (a)	Peak Power Spectral Density	PASS	
15.407 (b)	Radiated Spurious Emission	PASS	
15.407 (b)(6) 15.207	Power Line Conducted Emission	PASS	
15.407(a) 15.203	Antenna Application	PASS	
NOTE1: N/A (Not Applicable) Remark: The test method refers to KDB 789033 and FCC 47 CFR Part 2, Subpart J			

RELATED SUBMITTAL(S) / GRANT(S):

This submittal(s) (test report) is intended for FCC ID: 2AUARTKTOOL08 filing to comply with Section 15.407 of the FCC Part 15, Subpart E Rules.

4 TEST METHODOLOGY

4.1 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC 47 CFR Part 15, Subpart E

4.2 MEASUREMENT EQUIPMENT USED

4.2.1 Conducted Emission Test Equipment

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LASTCAL.	Cal. Interval
EMI Test Receiver	Rohde & Schwarz	ESCI	101384	2022/5/14	1Year
AMN	Rohde & Schwarz	ESH3-Z5	100191	2022/5/15	1Year
AMN	Schwarzbeck	NNLK 8129	8129203	2022/5/15	1Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100107	2022/5/14	1Year
Capacitive Voltage Probe	TESEQ	CVP 2200 A	47173	2022/5/15	1Year

4.2.2 Radiated Emission Test Equipment

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	Cal. Interval
EMI Test Receiver	Rohde & Schwarz	ESCI	101414	2022/5/14	1Year
Pre-Amplifier	HP	8447F	2944A07999	2022/5/14	1Year
Bilog Antenna	Schwarzbeck	VULB9163	712	2021/7/5	2Year
Loop Antenna	Schwarzbeck	FMZB1519	1519-012	2021/6/12	2Year
Horn Antenna	Schwarzbeck	BBHA 9170	9170-399	2021/6/12	2Year
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1198	2021/6/15	2Year
Cable	Schwarzbeck	AK9513	ACRX1	2022/5/14	1Year
Cable	Rosenberger	N/A	FP2RX2	2022/5/14	1Year
Cable	Schwarzbeck	AK9513	CRPX1	2022/5/14	1Year
Cable	Schwarzbeck	AK9513	CRRX2	2022/5/14	1Year

4.2.3 Radio Frequency Test Equipment

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LASTCAL.	Cal. Interval
Wideband Radio Communication Tester	R&S	CMW500	171168	2022/5/3	1Year
Frequency Extender	R&S	CMW-Z800A	100430	2022/5/16	1Year
Spectrum Analyzer	R&S	FSV3044	MY60242456	2022/4/11	1Year
Analog Signal Generator	R&S	SMB100A	MY61252625	2022/4/22	1Year
Vector Signal Generator	R&S	SMM100A	MY61252674	2022/5/9	1Year
RF Control Unit	Tonscend	JS0806-2	22C8060567	2022/7/20	N/A
Temperature&Humidity Chamber	ESPEC	EL-02KA	12107166	2022/7/2	1 Year

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

4.3 DESCRIPTION OF TEST MODES

The EUT has been tested under its typical operating condition.

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

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Frequency and Channel list for 802.11a/n (HT20)/802.11ac (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220		
40	5200	48	5240		

Frequency and Channel list for 802.11n (HT40)/ 802.11ac (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190				
46	5230				

Frequency and Channel list for 802.11ac Wave2 (HT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210				

Test Frequency and Channel for 802.11a/n (HT20)/802.11ac (HT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	40	5200	48	5240

Test Frequency and channel for 802.11n (HT40)/ 802.11ac (HT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	N/A	N/A	46	5230

Test Frequency and channel for 802.11ac Wave2 (HT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	N/A	N/A	N/A	N/A

☒ Wifi 5G with U-NII -3

Frequency and Channel list for 802.11a/n (HT20)/802.11ac (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785	165	5825
153	5765	161	5805		

Frequency and Channel list for 802.11n (HT40)/ 802.11ac (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755				
159	5795				

Frequency and Channel list for 802.11ac (HT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775				

Test Frequency and Channel for 802.11a/n (HT20)/802.11ac (HT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785	165	5825

Test Frequency and channel for 802.11n (HT40)/ 802.11ac (HT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	N/A	N/A	159	5795

Test Frequency and channel for 802.11ac (HT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775				

5 FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

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

Building 69, Majialong Industry Zone District, Nanshan District, Shenzhen, China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

5.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

EMC Lab.

: **Accredited by CNAS**

The Certificate Registration Number is L2291.

The Laboratory has been assessed and proved to be in compliance with CNAS-CL01 (identical to ISO/IEC 17025:2017)

Accredited by FCC

Designation Number: CN1204

Test Firm Registration Number: 882943

Accredited by A2LA

The Certificate Number is 4321.01.

Accredited by Industry Canada

The Conformity Assessment Body Identifier is CN0008

Name of Firm

: EMTEK (SHENZHEN) CO., LTD.

Site Location

: Building 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China

6 TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

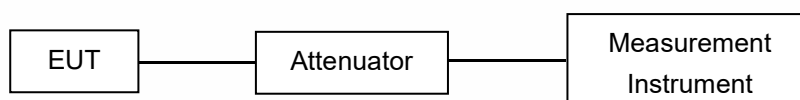
Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-5}$
Maximum Peak Output Power Test	$\pm 1.0\text{dB}$
Conducted Emissions Test	$\pm 2.0\text{dB}$
Radiated Emission Test	$\pm 2.0\text{dB}$
Power Density	$\pm 2.0\text{dB}$
Occupied Bandwidth Test	$\pm 1.0\text{dB}$
Band Edge Test	$\pm 3\text{dB}$
All emission, radiated	$\pm 3\text{dB}$
Antenna Port Emission	$\pm 3\text{dB}$
Temperature	$\pm 0.5^\circ\text{C}$
Humidity	$\pm 3\%$

Measurement Uncertainty for a level of Confidence of 95%

7 SETUP OF EQUIPMENT UNDER TEST

7.1 RADIO FREQUENCY TEST SETUP

The WLAN component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



7.2 RADIO FREQUENCY TEST SETUP

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

Below 30MHz:

The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna (loop antenna). The Antenna should be positioned with its plane vertical at the specified distance from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. The center of the loop shall be 1 m above the ground. For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT.

Above 30MHz:

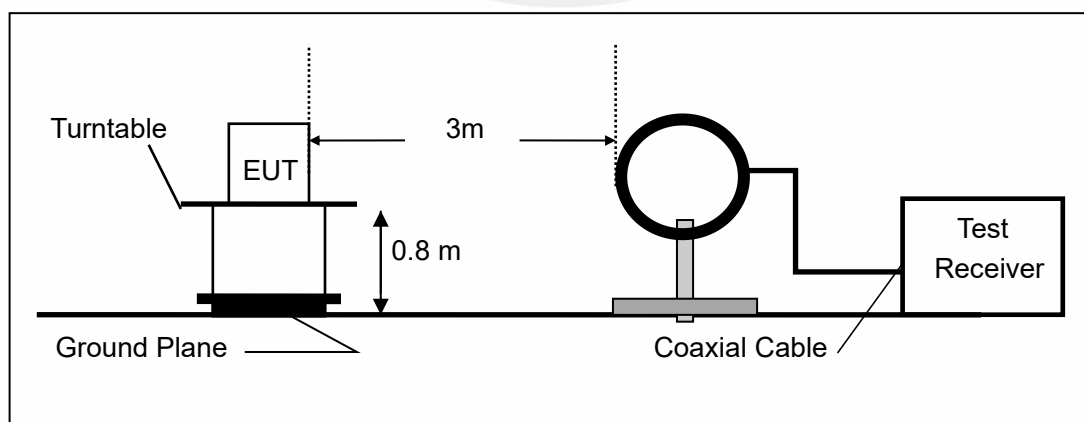
The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

Above 1GHz:

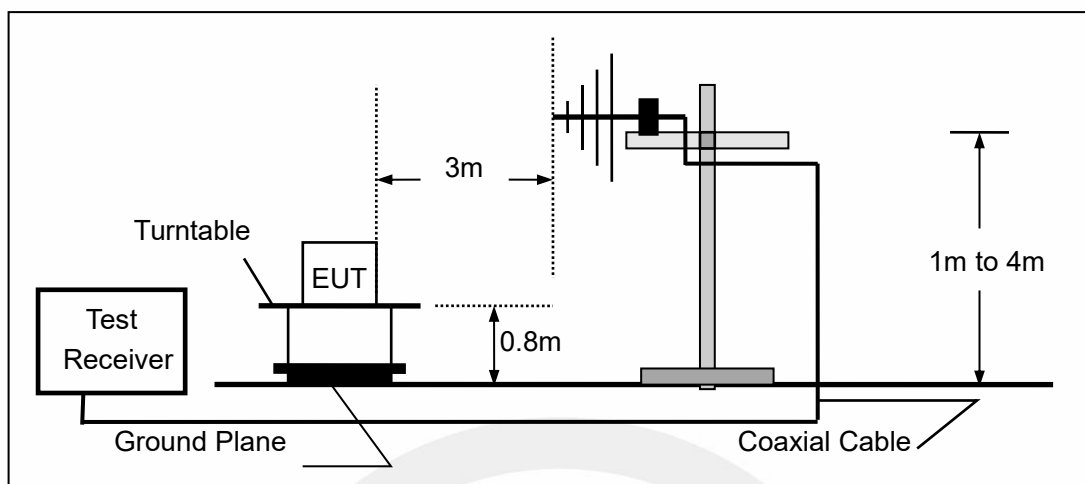
(Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.)

The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

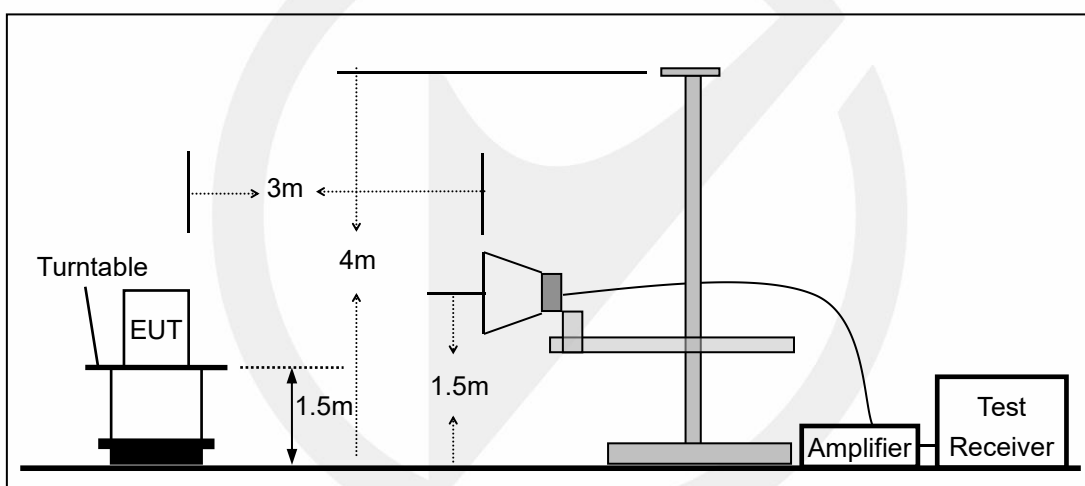
(a) Radiated Emission Test Set-Up, Frequency Below 30MHz



(b) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(c) Radiated Emission Test Set-Up, Frequency above 1000MHz

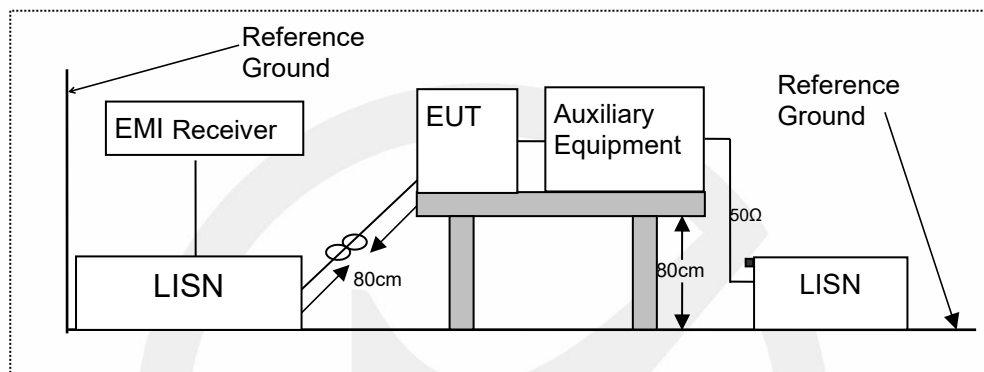


7.3 CONDUCTED EMISSION TEST SETUP

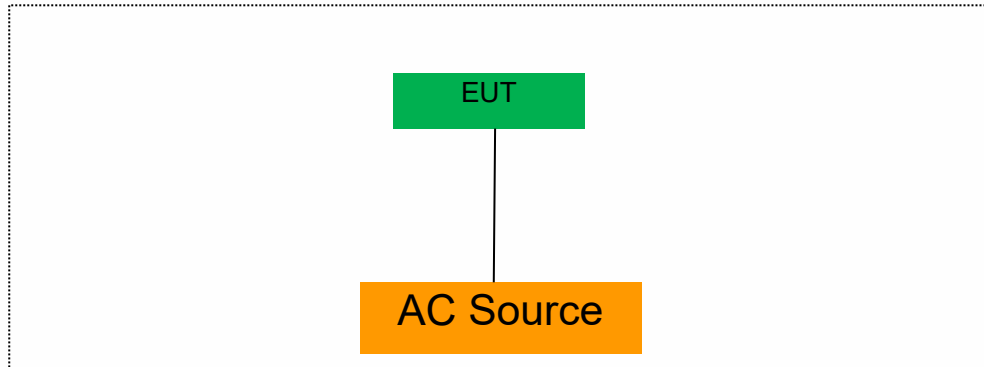
The mains cable of the EUT (maybe per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.1 m.

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.



7.4 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM



7.5 SUPPORT EQUIPMENT

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Notebook	acer	ZR1	LXTECOCO76643158 372500

Notes:

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.

8 TEST REQUIREMENTS

8.1 BANDWIDTH MEASUREMENT

8.1.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to FCC Part 15.407(e) for UNII Band III
According to 789033 D02 Section II(C)
According to 789033 D02 Section II(D)

8.1.2 Conformance Limit

(1) For the band 5.15-5.25 GHz.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, 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.

(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

8.1.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.1.4 Test Procedure

According to 789033 D02 v02r01 section C&D, the following is the measurement procedure.

1. Emission Bandwidth (EBW)

a) Set RBW = approximately 1% of the emission bandwidth.

b) Set the VBW > RBW.

c) Detector = Peak.

d) Trace mode = max hold.

e) Measure the maximum width of the emission that is 26 dB 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%.

2. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

D. 99 Percent Occupied Bandwidth

The 99-percent occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission. Measurement of the 99-percent occupied bandwidth is required only as a condition for using the optional band-edge measurement techniques described in section II.G.3.d). Measurements of 99-percent occupied bandwidth may also optionally be used in lieu of the EBW to 789033 D02 v01r02 General UNII Test Procedures New Rules v01 define the minimum frequency range over which the spectrum is integrated when measuring maximum conducted output power as described in section II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with 15.407(a).

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot$ RBW
5. 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.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

8.1.5 Test Results

Emission Bandwidth

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.24	5169.92	5190.16	---	---
		5200	20.24	5189.84	5210.08	---	---
		5240	20.16	5229.92	5250.08	---	---
		5745	20.24	5734.88	5755.12	---	---
		5785	20.00	5775.00	5795.00	---	---
		5825	20.08	5815.00	5835.08	---	---
11N20MIMO	Ant1	5180	20.52	5169.76	5190.28	---	---
		5200	20.48	5189.84	5210.32	---	---
		5240	20.48	5229.80	5250.28	---	---
		5745	20.28	5734.88	5755.16	---	---
		5785	20.40	5774.80	5795.20	---	---
		5825	20.40	5814.80	5835.20	---	---
11N40MIMO	Ant1	5190	40.64	5169.68	5210.32	---	---
		5230	41.12	5209.44	5250.56	---	---
		5755	41.20	5734.36	5775.56	---	---
		5795	41.20	5774.44	5815.64	---	---
11AC20MIMO	Ant1	5180	20.36	5169.84	5190.20	---	---
		5200	20.36	5189.92	5210.28	---	---
		5240	20.32	5229.88	5250.20	---	---
		5745	20.32	5734.84	5755.16	---	---
		5785	20.44	5774.84	5795.28	---	---
		5825	20.32	5814.84	5835.16	---	---
11AC40MIMO	Ant1	5190	41.20	5169.60	5210.80	---	---
		5230	45.36	5205.12	5250.48	---	---
		5755	41.52	5734.04	5775.56	---	---
		5795	41.44	5774.36	5815.80	---	---
11AC80MIMO	Ant1	5210	81.60	5169.20	5250.80	---	---
		5775	81.76	5734.20	5815.96	---	---

Occupied channel bandwidth

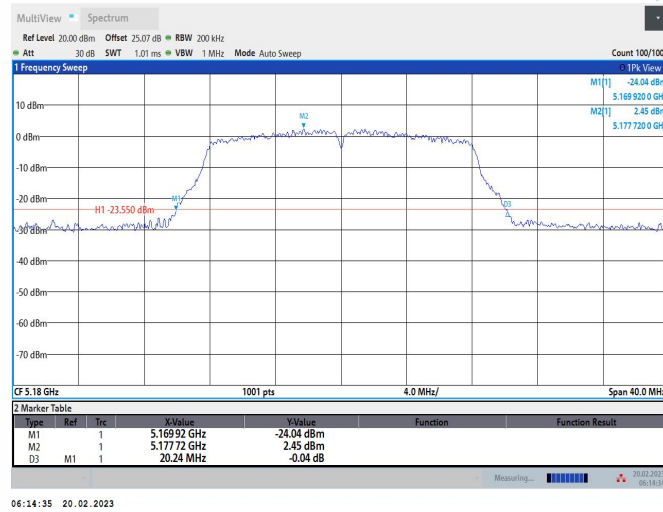
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.262	5171.3707	5188.6332	---	---
		5200	17.297	5191.3565	5208.6533	---	---
		5240	17.29	5231.3440	5248.6340	---	---
		5745	17.428	5736.2633	5753.6909	---	---
		5785	17.562	5776.2297	5793.7921	---	---
		5825	17.5	5816.2151	5833.7155	---	---
11N20MIMO	Ant1	5180	18.212	5170.8937	5189.1061	---	---
		5200	18.253	5190.8897	5209.1426	---	---
		5240	18.256	5230.8656	5249.1218	---	---
		5745	18.308	5735.8390	5754.1471	---	---
		5785	18.389	5775.8040	5794.1935	---	---
		5825	18.4	5815.8099	5834.2104	---	---
11N40MIMO	Ant1	5190	36.822	5171.5957	5208.4178	---	---
		5230	36.884	5211.4992	5248.3829	---	---
		5755	37.061	5736.4314	5773.4923	---	---
		5795	37.346	5776.3434	5813.6895	---	---
11AC20MIMO	Ant1	5180	18.162	5170.9315	5189.0934	---	---
		5200	18.123	5190.9491	5209.0721	---	---
		5240	18.116	5230.9564	5249.0725	---	---
		5745	18.228	5735.8948	5754.1228	---	---
		5785	18.362	5775.8192	5794.1815	---	---
		5825	18.298	5815.8843	5834.1827	---	---
11AC40MIMO	Ant1	5190	36.65	5171.6956	5208.3457	---	---
		5230	36.671	5211.7056	5248.3769	---	---
		5755	36.918	5736.4967	5773.4149	---	---
		5795	37.225	5776.4206	5813.6461	---	---
11AC80MIMO	Ant1	5210	76.2	5171.9463	5248.1462	---	---
		5775	77.552	5736.2068	5813.7591	---	---

Min emission bandwidth

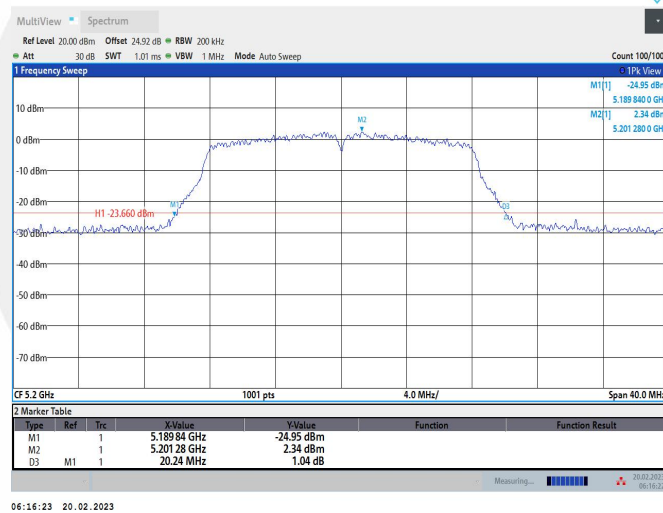
TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.80	5737.08	5752.88	0.5	PASS
		5785	15.44	5777.44	5792.88	0.5	PASS
		5825	15.12	5817.44	5832.56	0.5	PASS
11N20MIMO	Ant1	5745	15.16	5737.40	5752.56	0.5	PASS
		5785	15.72	5776.84	5792.56	0.5	PASS
		5825	15.44	5817.44	5832.88	0.5	PASS
11N40MIMO	Ant1	5755	35.12	5737.48	5772.60	0.5	PASS
		5795	35.12	5777.48	5812.60	0.5	PASS
11AC20MIMO	Ant1	5745	15.16	5737.40	5752.56	0.5	PASS
		5785	15.16	5777.40	5792.56	0.5	PASS
		5825	15.16	5817.40	5832.56	0.5	PASS
11AC40MIMO	Ant1	5755	35.12	5737.48	5772.60	0.5	PASS
		5795	35.12	5777.48	5812.60	0.5	PASS
11AC80MIMO	Ant1	5775	75.20	5737.40	5812.60	0.5	PASS

Emission Bandwidth

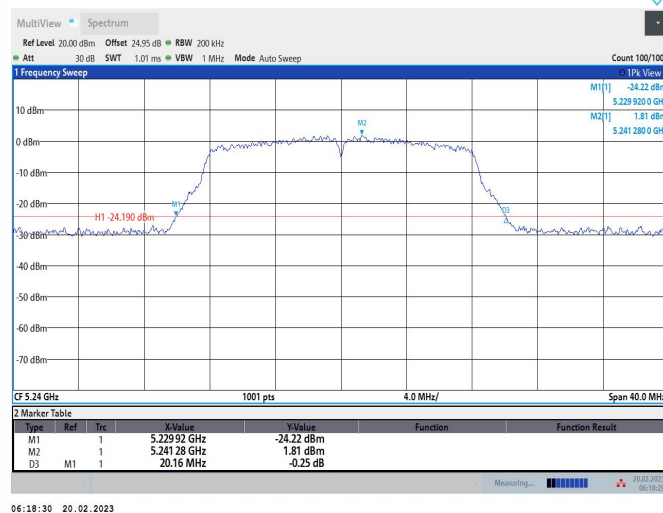
11A_Ant1_5180



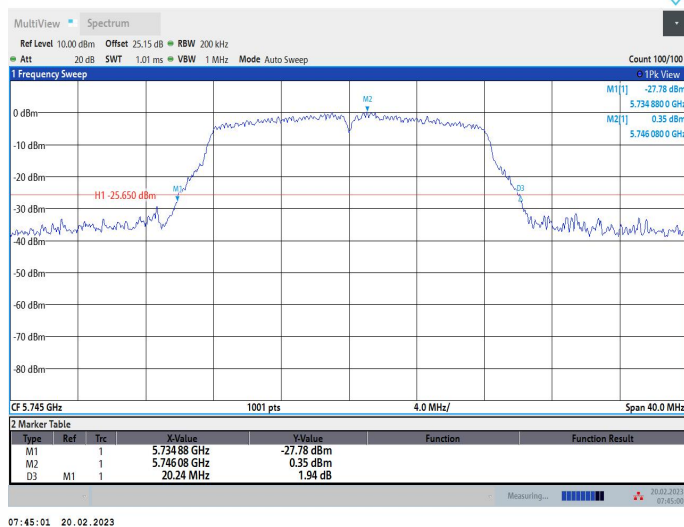
11A_Ant1_5200



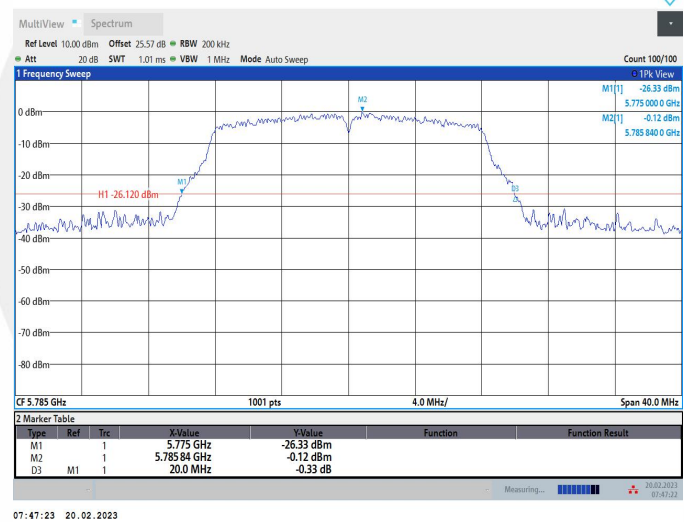
11A_Ant1_5240



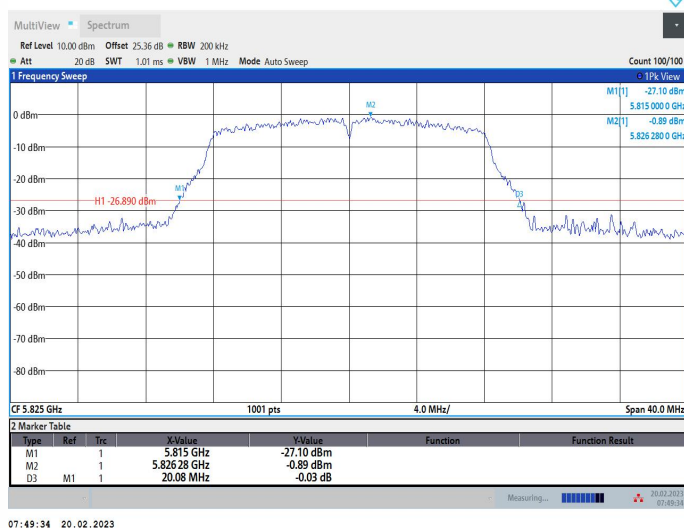
11A_Ant1_5745



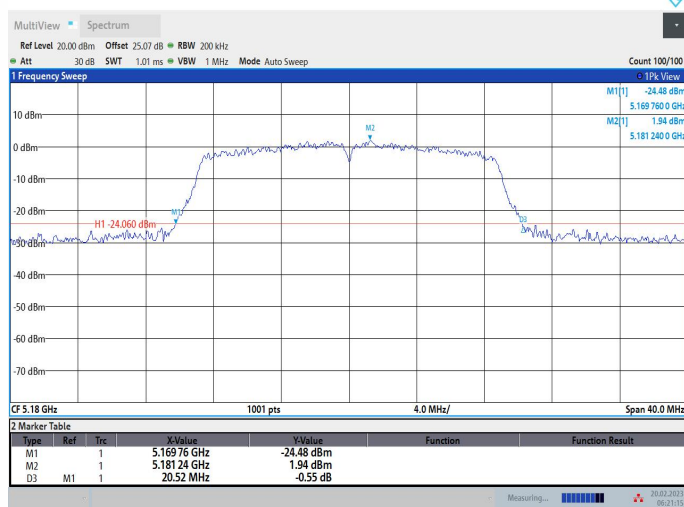
11A_Ant1_5785



11A_Ant1_5825

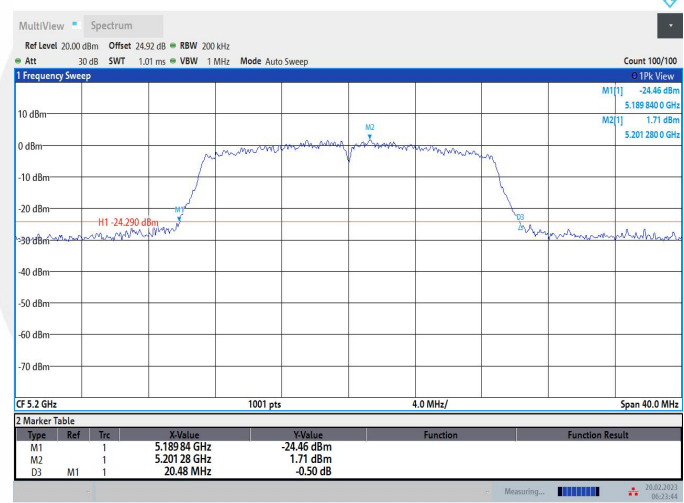


11N20MIMO_Ant1_5180



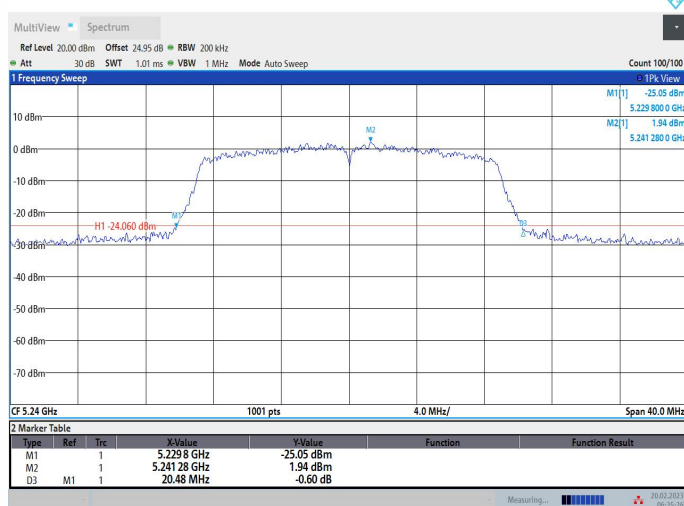
06:21:15 20.02.2023

11N20MIMO_Ant1_5200



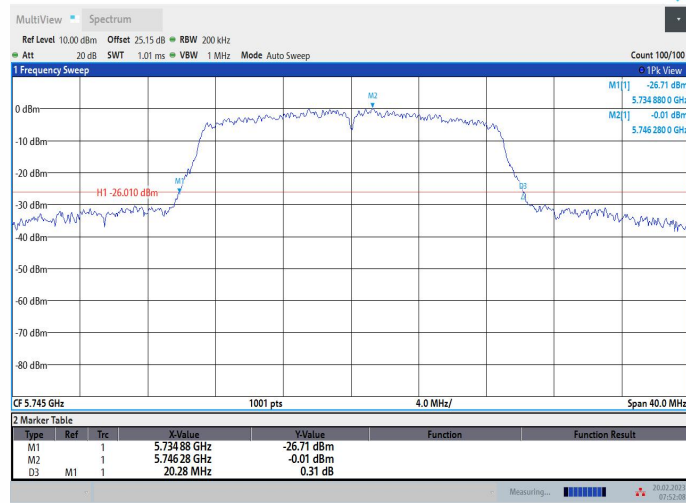
06:23:48 20.02.2023

11N20MIMO_Ant1_5240



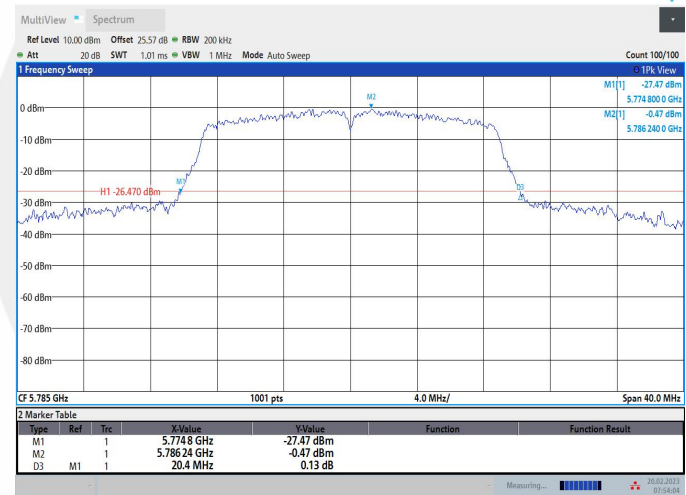
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11N20MIMO_Ant1_5745



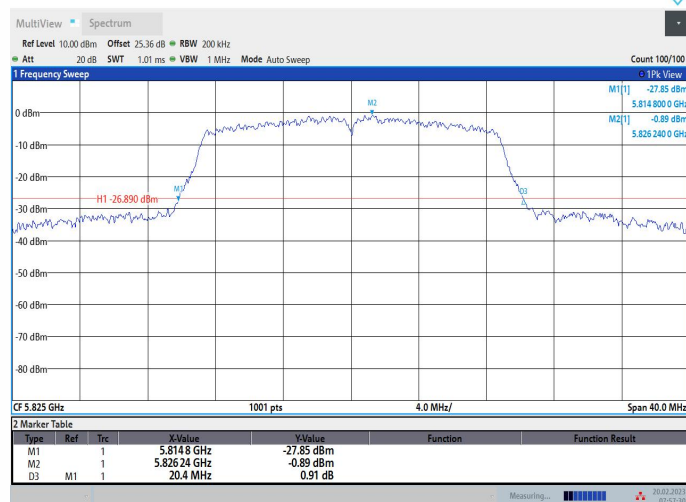
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11N20MIMO_Ant1_5785



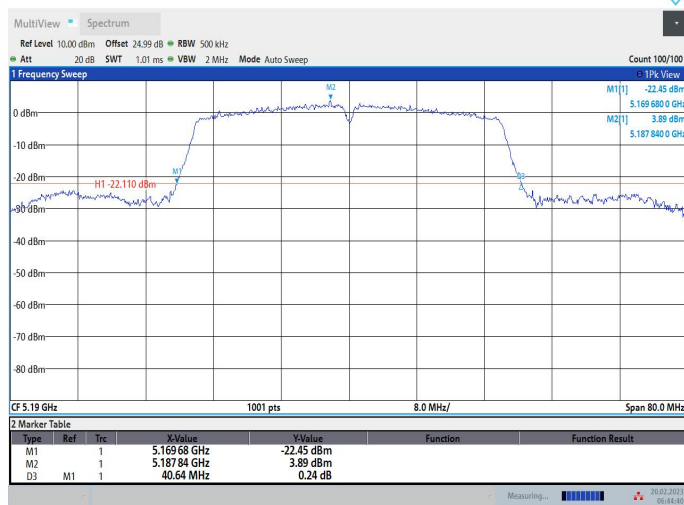
07:54:05 20.02.2023

11N20MIMO_Ant1_5825



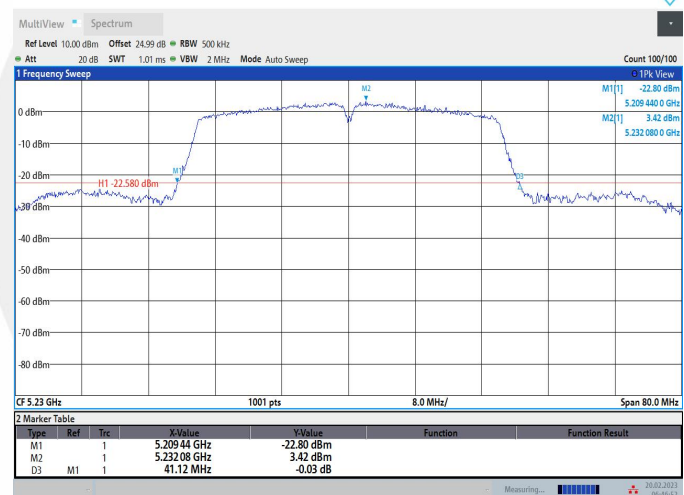
07:57:30 20.02.2023

11N40MIMO_Ant1_5190



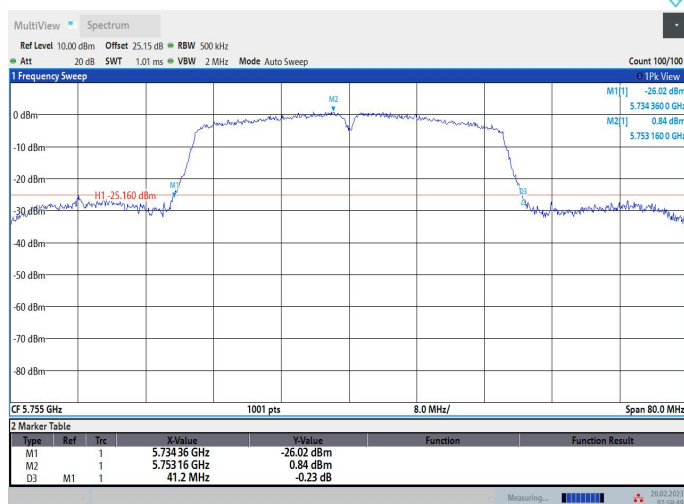
06:44:41 20.02.2023

11N40MIMO_Ant1_5230



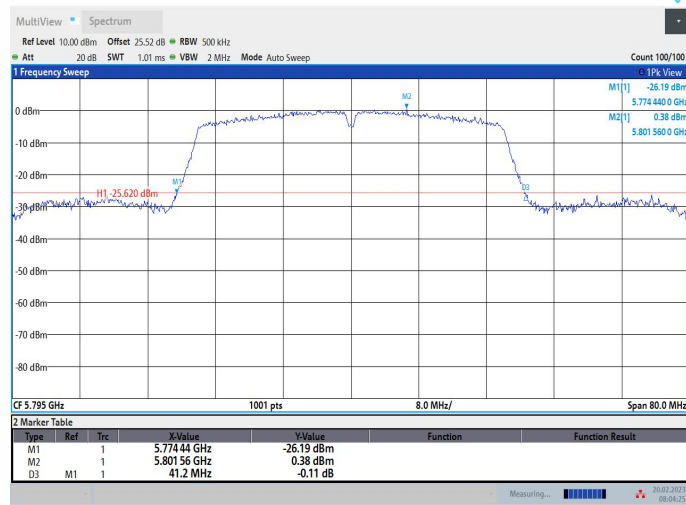
06:46:52 20.02.2023

11N40MIMO_Ant1_5755



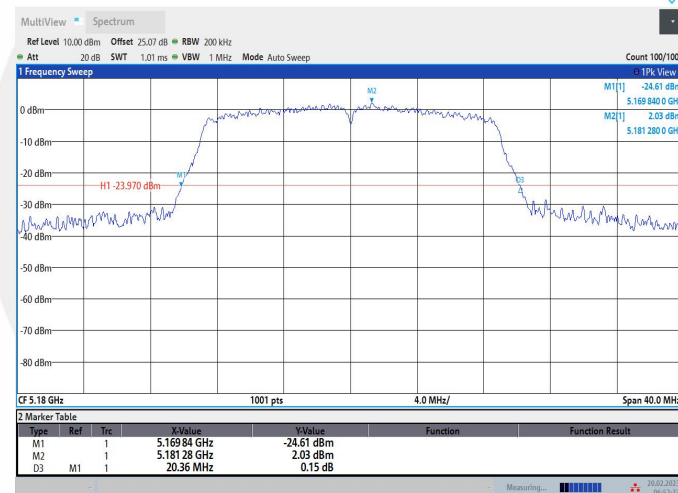
07:59:50 20.02.2023

11N40MIMO_Ant1_5795



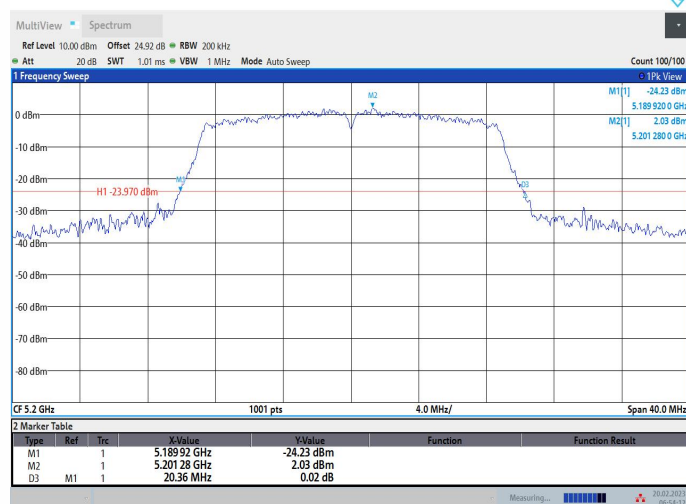
08:04:25 20.02.2023

11AC20MIMO_Ant1_5180



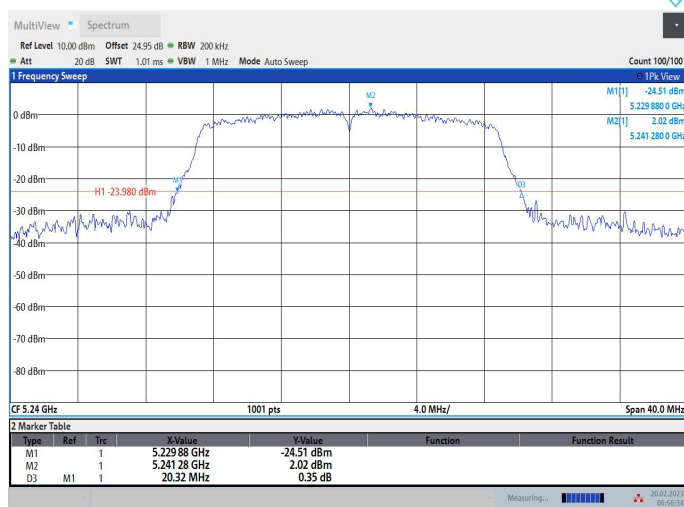
06:52:33 20.02.2023

11AC20MIMO_Ant1_5200



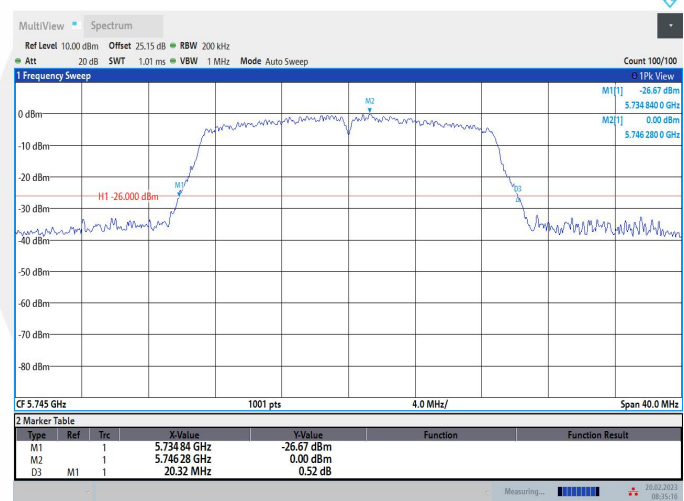
06:54:12 20.02.2023

11AC20MIMO_Ant1_5240



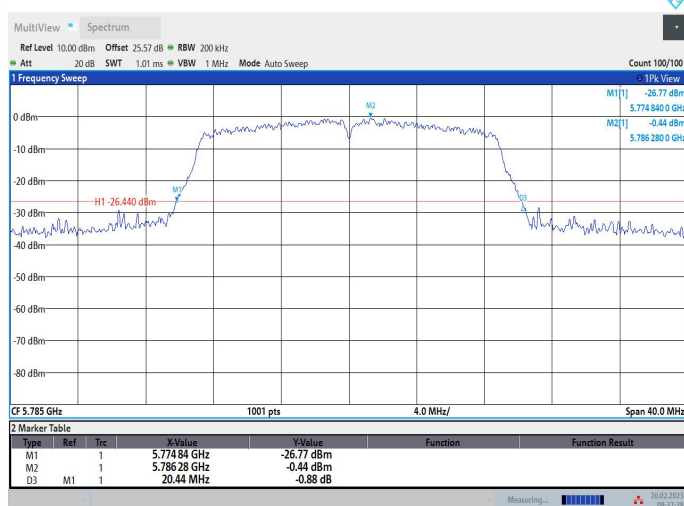
06:56:34 20.02.2023

11AC20MIMO_Ant1_5745



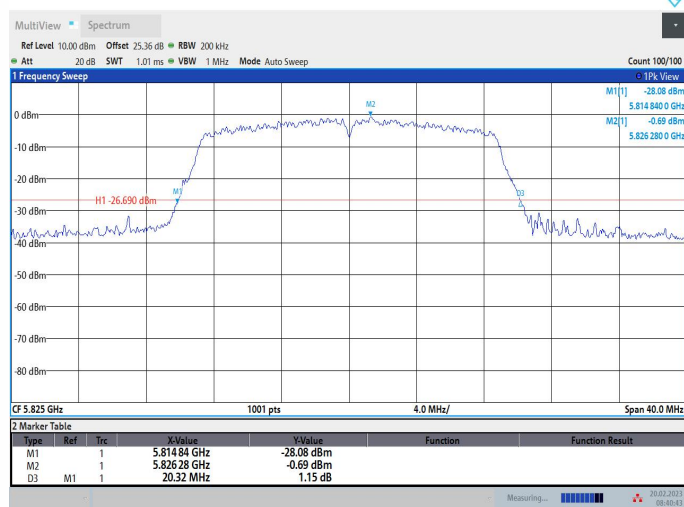
08:35:18 20.02.2023

11AC20MIMO_Ant1_5785



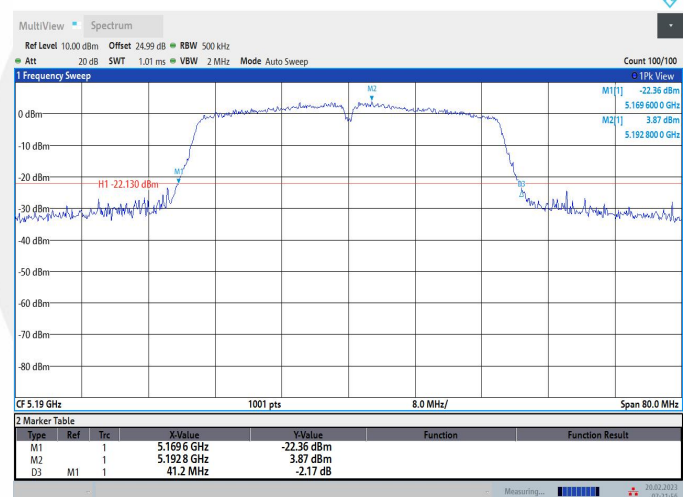
08:37:30 20.02.2023

11AC20MIMO_Ant1_5825



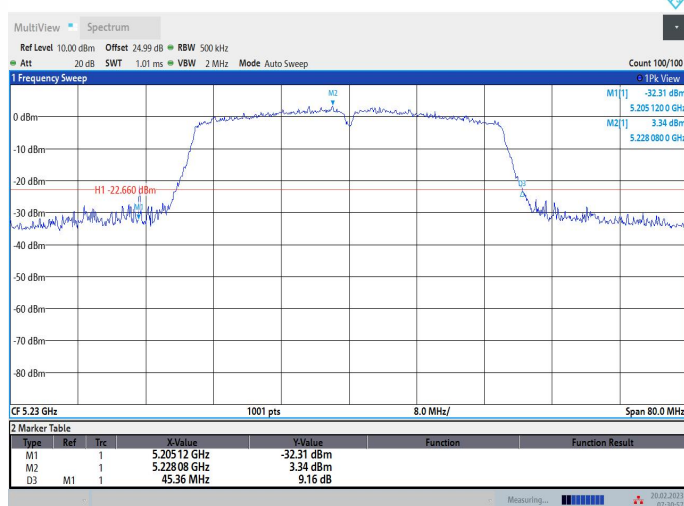
08:40:44 20.02.2023

11AC40MIMO_Ant1_5190



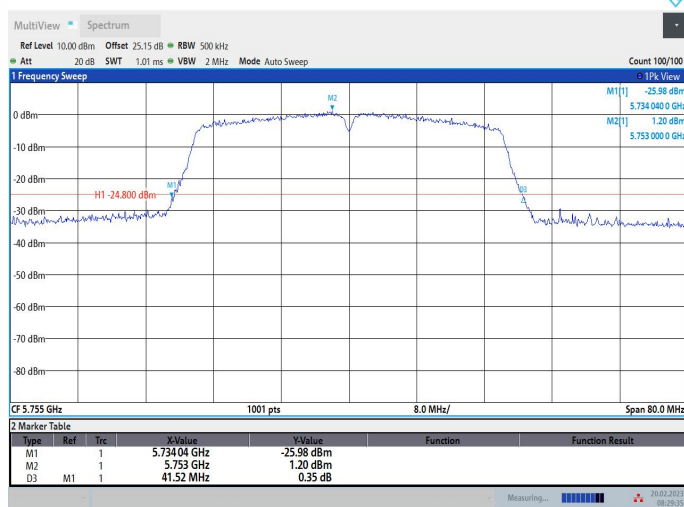
07:21:56 20.02.2023

11AC40MIMO_Ant1_5230



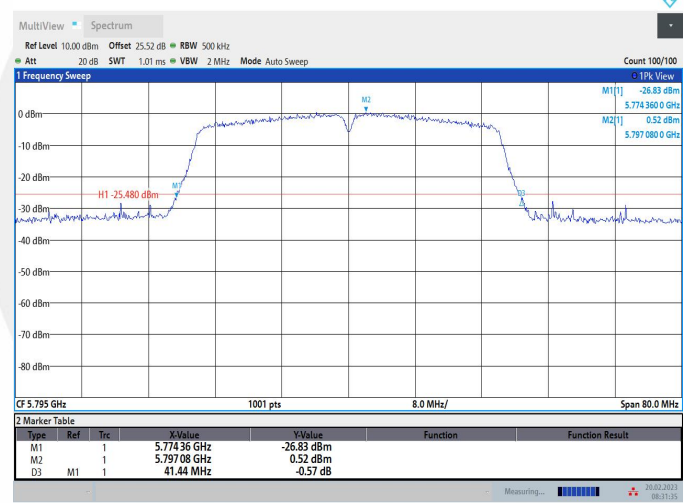
07:30:58 20.02.2023

11AC40MIMO_Ant1_5755



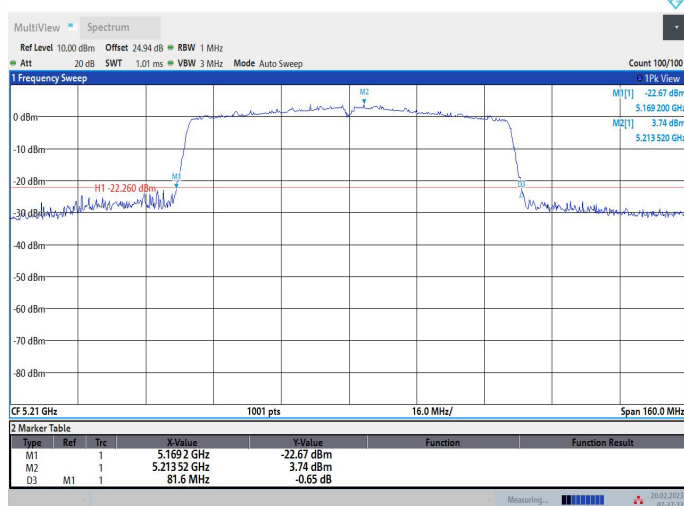
08:29:36 20.02.2023

11AC40MIMO_Ant1_5795

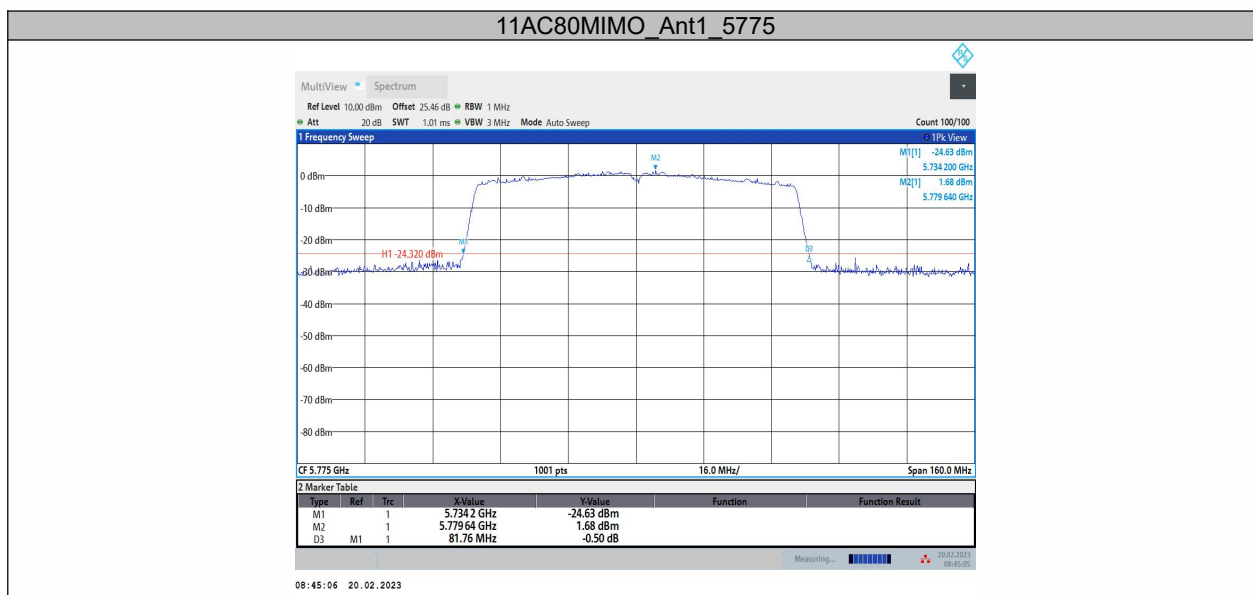


08:31:37 20.02.2023

11AC80MIMO_Ant1_5210

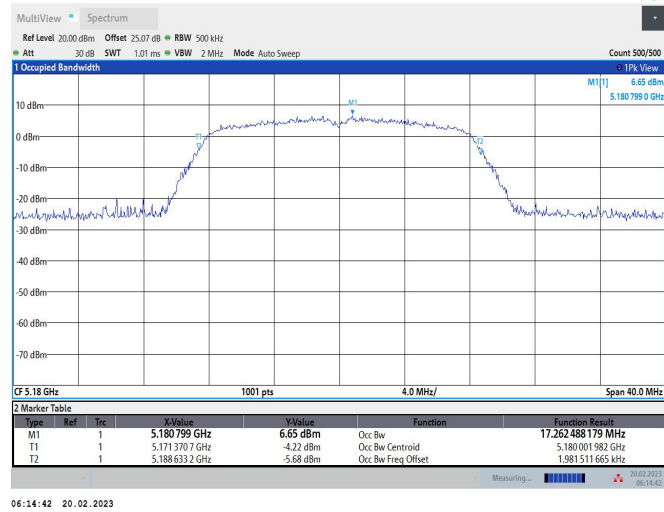


07:37:24 20.02.2023

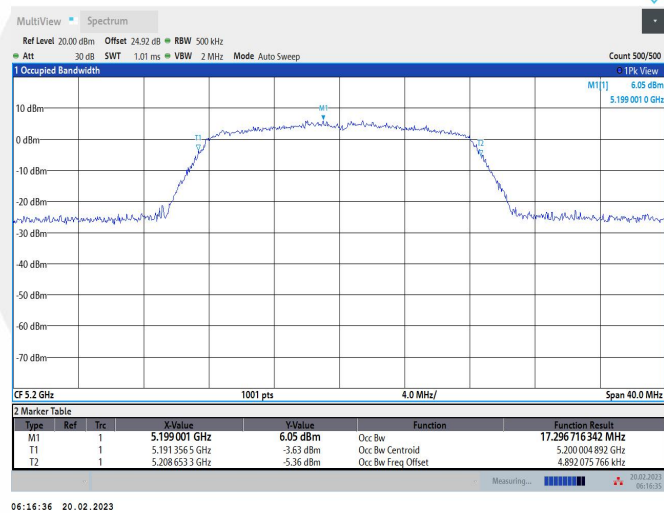


Occupied channel bandwidth

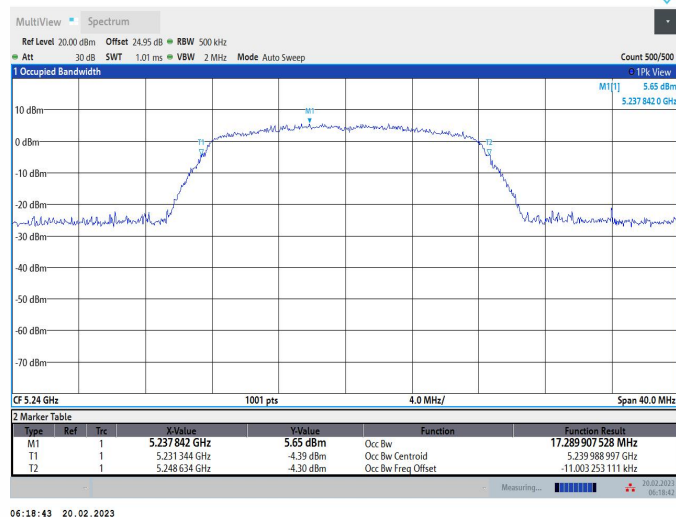
11A_Ant1_5180



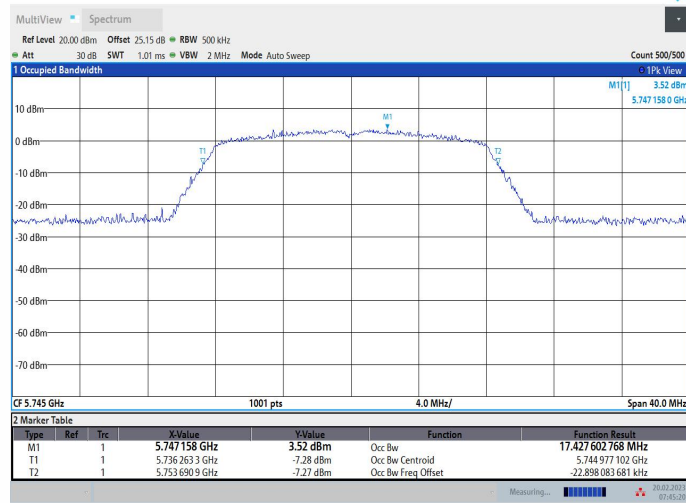
11A_Ant1_5200



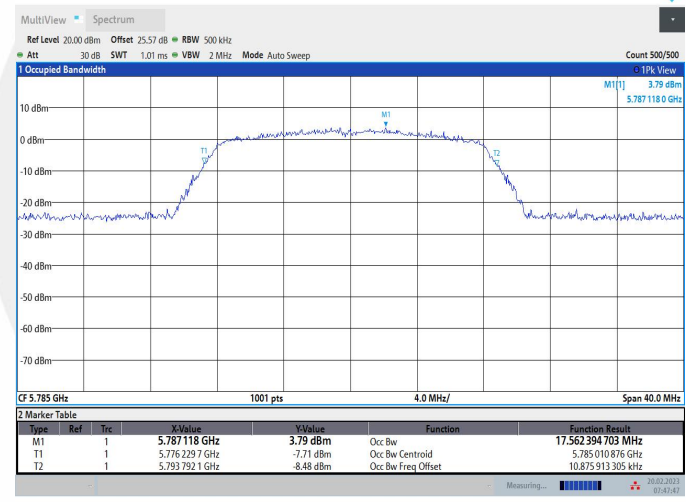
11A_Ant1_5240



11A_Ant1_5745



11A_Ant1_5785



11A_Ant1_5825

