

FCC CERTIFICATION TEST REPORT

FOR

Applicant	:	Formovie (Chongqing) Innovative Technology Co., Ltd.
Address	:	4-401, #2 Longgang Road, Guojiatuo Area, Jiangbei District, Chongqing, China
Equipment under Test	:	Laser Projector
Model No.	:	L065FGE, L065***** (*=0-9, a-z, A-Z, - or blank, indicates for different market purposes)
Trade Mark	:	WEMAX, FORMOVIE
FCC ID	:	2AZNP-L065FGE
Manufacturer	:	Formovie (Chongqing) Innovative Technology Co., Ltd.
Address	:	4-401, #2 Longgang Road, Guojiatuo Area, Jiangbei District, Chongqing, China

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park,
Dongguan City, Guangdong Province, China, 523808

Tel: +86-0769-38826678, **E-mail:** ddt@dgddt.com, <http://www.dgddt.com>

REPORT

TABLE OF CONTENTS

	Test report declares.....	4
1.	Summary of test results	6
2.	General test information	7
2.1.	Description of EUT	7
2.2.	Accessories of EUT	8
2.3.	Assistant equipment used for test.....	8
2.4.	Block diagram of EUT configuration for test	8
2.5.	Deviations of test standard.....	9
2.6.	Test environment conditions	10
2.7.	Test laboratory	10
2.8.	Measurement uncertainty.....	10
3.	Equipment used during test	11
4.	26dB Bandwidth, 6dB Bandwidth and 99% Bandwidth	13
4.1.	Block diagram of test setup.....	13
4.2.	Limits	13
4.3.	Test Procedure	13
4.4.	Test Result	14
4.5.	Original test data	19
5.	Maximum Output Power.....	109
5.1.	Block diagram of test setup.....	109
5.2.	Limits	109
5.3.	Test Procedure	109
5.4.	Test Result	110
6.	Power Spectral Density.....	115
6.1.	Block diagram of test setup.....	115
6.2.	Limits	115
6.3.	Test Procedure	115
6.4.	Test Result	116
6.5.	Original test data	118
7.	Frequency Stability Measurement	160
7.1.	Limit of Frequency Stability	160
7.2.	Measuring Instruments.....	160
7.3.	Test Procedures	160
7.4.	Test Setup	160
7.5.	Test Result	160
8.	Emissions in restricted frequency bands	168
8.1.	Block diagram of test setup.....	168

8.2.	Limit	169
8.3.	Test Procedure	170
8.4.	Test result	172
9.	Band Edge Compliance	219
9.1.	Block diagram of test setup	219
9.2.	Limit	219
9.3.	Test Procedure	219
9.4.	Test result	219
10.	Power Line Conducted Emission	285
10.1.	Block diagram of test setup	285
10.2.	Power Line Conducted Emission Limits (Class B)	285
10.3.	Test Procedure	285
10.4.	Test Result	286
11.	Dynamic Frequency Selection	289
11.1.	Applicability of DFS requirements	289
11.2.	Limit	290
11.3.	Parameters of radar test waveforms	290
11.4.	Calibration of radar waveform	291
11.5.	Channel closing transmission time, channel move time and non-occupancy period	294
11.6.	Test setup	295
11.7.	Test result	295
12.	Antenna Requirements	298
12.1.	Limit	298
12.2.	Result	298
13.	Test setup photograph	299
14.	Photos of the EUT	301

Test Report Declare

Applicant	:	Formovie (Chongqing) Innovative Technology Co., Ltd.
Address	:	4-401, #2 Longgang Road, Guojiatuo Area, Jiangbei District, Chongqing, China
Equipment under Test	:	Laser Projector
Model No.	:	L065FGE, L065***** (*=0-9, a-z, A-Z, - or blank, indicates for different market purposes)
Trade Mark	:	WEMAX, FORMOVIE
Manufacturer	:	Formovie (Chongqing) Innovative Technology Co., Ltd.
Address	:	4-401, #2 Longgang Road, Guojiatuo Area, Jiangbei District, Chongqing, China

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart E.

Test procedure used: ANSI C63.10:2013, 789033 D02 General U-NII Test Procedures New Rules v02r01, 662911 D01 Multiple Transmitter Output v02r01

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

Report No:	DDT-R22011701-2E04		
Date of Receipt:	Jan. 18, 2022	Date of Test:	Jan. 18, 2022 ~ Feb. 25, 2022

Prepared By:

Johnny Wang

Johnny Wang/Engineer

Approved By:



Damon Hu/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Feb. 25, 2022	

1. Summary of test results

The EUT have been tested according to the applicable standards as referenced below.

Description of Test Item	Standard	Results
6/26db Bandwidth and 99% Bandwidth	FCC 15.407 (e)	Pass
Maximum Conducted Output Power	FCC 15.407 (a)	Pass
Power Spectral Density	FCC 15.407 (a)	Pass
Frequency Stability Measurement	FCC 15.407 (g)	Pass
Emissions in restricted frequency bands	FCC 15.407 (a) FCC 15.209 FCC 15.205	Pass
Band Edge Compliance	FCC 15.407 (a) FCC 15.209 FCC 15.205	Pass
Power Line Conducted Emission	FCC 15.207	Pass
Antenna requirement	FCC 15.203	Pass
Dynamic Frequency Selection	FCC 15.407 (h)	Pass

2. General test information

2.1. Description of EUT

EUT* Name	: Laser Projector
Model Number	: L065FGE, L065***** (*=0-9, a-z, A-Z, - or blank, indicates for different market purposes)
Difference of models	: Above models are identical in schematic and structure, only the model name is different for different market purposes, therefore the test performed on the model L065FGE.
EUT function description	: Please reference user manual of this device
Power Supply	: Input: 100-240V ~ 50/60Hz 1.5A
Radio Technology	: IEEE 802.11a/n/ac
FCC Operation frequency	: IEEE 802.11a: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5700MHz, 5745MHz-5825MHz IEEE 802.11n HT20: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5700MHz, 5745MHz-5825MHz IEEE 802.11n HT40: 5190MHz-5230MHz, 5270MHz-5310MHz, 5510MHz-5670MHz, 5755MHz-5755MHz IEEE 802.11ac HT20: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5700MHz, 5745MHz-5825MHz IEEE 802.11ac HT40: 5190MHz-5230MHz, 5270MHz-5310MHz, 5510MHz-5670MHz, 5755MHz-5755MHz IEEE 802.11ac HT80: 5210MHz, 5290MHz, 5530MHz, 5610MHz, 5775MHz
Modulation	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Transmitter rate	: IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: 14.4, 28.9, 43.3, 57.8, 86.7, 115.6, 130.0, 144.4 Mbps IEEE 802.11n HT40: 30, 60, 90, 120, 180, 240, 270, 300 Mbps IEEE 802.11ac HT20: 14.4, 28.8, 43.4, 57.8, 86.6, 115.6, 130, 144.4, 173.4 Mbps IEEE 802.11ac HT40: 30, 60, 90, 120, 180, 240, 270, 300, 360, 400 Mbps IEEE 802.11ac HT80: 65, 130, 195, 260, 390, 520, 585, 650, 780, 866.6 Mbps
Antenna Gain	: Antenna 1: maximum PK gain: 5.18 dBi Antenna 2: maximum PK gain: 3.78 dBi
Sample Type	: Series production
Serial number	: N/A

Note: EUT is the ab. of equipment under test.

Antenna information			
	Ant1 gain	Ant2 gain	MIMO
IEEE 802.11a	5.18	3.78	/
IEEE 802.11n HT20	5.18	3.78	7.55
IEEE 802.11n HT40	5.18	3.78	7.55
IEEE 802.11ac VHT20	5.18	3.78	7.55

IEEE 802.11ac VHT40	5.18	3.78	7.55
IEEE 802.11ac VHT80	5.18	3.78	7.55

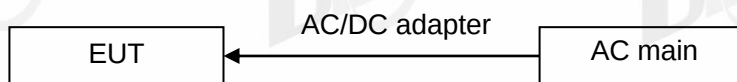
2.2. Accessories of EUT

Assistant equipment	Manufacturer	Model number	EMC Compliance	SN
AC/DC ADAPTER	N/A	AY65AA-W-CH	N/A	Input: 100-240V ~ 50/60Hz 1.5A Output: PD3.0: 5V3A, 9V3A, 12V3A, 15V3A, 20V3.25A 65WVMax
Remote Control	Formovie (Chongqing)	N/A	N/A	N/A

2.3. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	EMC Compliance	SN
N/A	N/A	N/A	N/A	N/A

2.4. Block diagram of EUT configuration for test



Test software: Putty.exe

The test software was used to control EUT work in Continuous Tx mode, and select test channel, wireless mode as below table.

Tested mode, channel, and data rate information				
Mode	Setting Tx Power	data rate (Mbps) (see Note)	Channel	Frequency (MHz)
IEEE 802.11a	14	54	Low: CH36	5180
	14	54	Middle: CH40	5200
	14	54	High: CH48	5240
	14	54	Low: CH52	5260
	14	54	Middle: CH56	5280
	14	54	High: CH64	5320
	14	54	Low: CH100	5500
	14	54	Middle: CH116	5580
	14	54	High: CH140	5700
	14	54	Low: CH149	5745
	14	54	Middle: CH157	5785
	14	54	High: CH165	5825
IEEE 802.11n HT20	14	MCS 15	Low: CH36	5180
	14	MCS 15	Middle: CH40	5200

	14	MCS 15	High: CH48	5240
	14	MCS 15	Low: CH52	5260
	14	MCS 15	Middle: CH56	5280
	14	MCS 15	High: CH64	5320
	14	MCS 15	Low: CH100	5500
	14	MCS 15	Middle: CH116	5580
	14	MCS 15	High: CH140	5700
	14	MCS 15	Low: CH149	5745
	14	MCS 15	Middle: CH157	5785
	14	MCS 15	High: CH165	5825
IEEE 802.11n HT40	13	MCS 15	Low: CH38	5190
	13	MCS 15	Middle: CH46	5230
	13	MCS 15	High: CH54	5270
	13	MCS 15	Low: CH62	5310
	13	MCS 15	Middle: CH102	5510
	13	MCS 15	High: CH110	5550
	13	MCS 15	Low: CH134	5670
	13	MCS 15	Middle: CH151	5755
	13	MCS 15	High: CH159	5795
IEEE 802.11ac HT20	13	MCS 9	Low: CH36	5180
	13	MCS 9	Middle: CH40	5200
	13	MCS 9	High: CH48	5240
	13	MCS 9	Low: CH52	5260
	13	MCS 9	Middle: CH56	5280
	13	MCS 9	High: CH64	5320
	13	MCS 9	Low: CH100	5500
	13	MCS 9	Middle: CH116	5580
	13	MCS 9	High: CH140	5700
	13	MCS 9	Low: CH149	5745
	13	MCS 9	Middle: CH157	5785
	13	MCS 9	High: CH165	5825
IEEE 802.11ac HT40	13	MCS 9	Low: CH38	5190
	13	MCS 9	Middle: CH46	5230
	13	MCS 9	High: CH54	5270
	13	MCS 9	Low: CH62	5310
	13	MCS 9	Middle: CH102	5510
	13	MCS 9	High: CH110	5550
	13	MCS 9	Low: CH134	5670
	13	MCS 9	Middle: CH151	5755
	13	MCS 9	High: CH159	5795
IEEE 802.11ac HT80	12	MCS 9	CH42	5210
	12	MCS 9	CH58	5290
	12	MCS 9	CH106	5530
	12	MCS 9	CH122	5610
	12	MCS 9	CH155	5775

Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

2.5. Deviations of test standard

No Deviation.

2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25℃
Humidity range:	40-75%
Pressure range:	86-106 kPa

2.7. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, G-20118

2.8. Measurement uncertainty

Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB (10 MHz ≤ f < 3.6 GHz); 1.38 dB (3.6 GHz ≤ f < 8 GHz)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB (10 MHz ≤ f < 3.6 GHz); 1.38 dB (3.6 GHz ≤ f < 8 GHz)
Frequencies Stability	6.7 × 10 ⁻⁸ (Antenna couple method) 5.5 × 10 ⁻⁸ (Conducted method)
Conducted spurious emissions	0.86 dB (10 MHz ≤ f < 3.6GHz); 1.40 dB (3.6 GHz ≤ f < 8 GHz) 1.66 dB (8 GHz ≤ f < 22 GHz)
Uncertainty for radio frequency (RBW<20kHz)	3×10 ⁻⁸
Temperature	0.4℃
Humidity	2%
Uncertainty for Radiation Emission test (30MHz-1GHz)	4.70 dB (Antenna Polarize: V) 4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1GHz-40GHz)	4.10 dB (1-6 GHz) 4.40 dB (6 GHz-18 GHz) 3.54 dB (18 GHz-26 GHz) 4.30 dB (26 GHz-40 GHz)
Uncertainty for Power line conduction emission test	3.32 dB (150 kHz-30 MHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

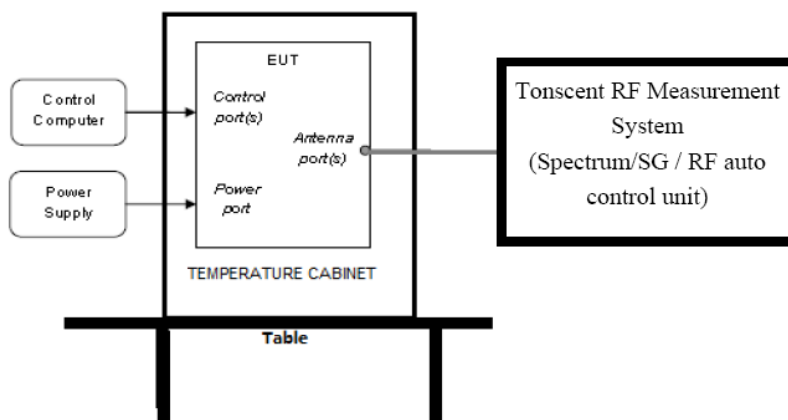
3. Equipment used during test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
☐ RF Connected Test (Tonscend RF Measurement System 1#)					
Spectrum analyzer	R&S	FSU26	200071	Sep. 02, 2021	1 Year
Wideband Radio Communication tester	R&S	CMW500	120259	Sep. 02, 2021	1 Year
Vector Signal Generator	Agilent	E8267D	US49060192	Sep. 18, 2021	1 Year
Vector Signal Generator	Agilent	N5182A	MY48180737	Jun. 01, 2021	1 Year
RF Control Unit	Tonsend	JS0806-2	158060010	Jun. 01, 2021	1 Year
Temp&Humi Programmable	ZHIXIANG	ZXGDJS-150 L	ZX170110-A	Jun. 01, 2021	1 Year
Test Software	JS Tonscend	JS1120-3	Ver.2.6.77.0518	N/A	N/A
☐ RF Connected Test (Tonscend RF Measurement System 3#)					
Signal analyzer	R&S	FSQ26	101272	Jun. 01, 2021	1 Year
Wideband Radio Communication tester	R&S	CMW500	117491	Jun. 01, 2021	1 Year
Vector Signal Generator	Agilent	N5182A	MY19060405	Jun. 01, 2021	1 Year
Vector Signal Generator	Agilent	N5182A	MY48180912	Jun. 01, 2021	1 Year
RF Control Unit	Tonsend	JS0806-2	DDT-ZC01449	Jun. 01, 2021	1 Year
Temp&Humi Programmable	ZHIXIANG	ZXGDJS-150 L	ZX170110-A	Jun. 01, 2021	1 Year
Test Software	JS Tonscend	JS1120-3	Ver.2.6.77.0518	N/A	N/A
☒ RF Connected Test (Tonscend RF Measurement System 4#)					
MXA Signal Analyzer	Agilent	N9020A	MY49100362	Sep. 02, 2021	1 Year
Wideband Radio Communication tester	R&S	CMW500	120259	Jun. 01, 2021	1 Year
MXG Vector Signal Generator	Agilent	N5182B	MY59100192	Jun. 01, 2021	1 Year
Vector Signal Generator	Agilent	E8267D	US49060192	Sep. 18, 2021	1 Year
RF Control Unit	Tonsend	JS0806-2	2118060485	Oct. 18, 2021	1 Year
Temp&Humi Programmable	ZHIXIANG	ZXGDJS-150 L	ZX170110-A	Jun. 01, 2021	1 Year
Test Software	JS Tonscend	JS1120-3	Ver.2.6.88.0346	N/A	N/A
☒ Radiation 3#chamber					
EMI Test Receiver	R&S	ESU	100472	Jun. 01, 2021	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	Jun. 01, 2021	1 Year
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	Sep. 19, 2021	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	01429	Aug. 07, 2021	1 Year
Double Ridged Horn Antenna	Schwarzbeck	BBHA9120	02108	Jul. 17, 2021	1 Year
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	May 08, 2021	1 Year
Pre-amplifier	COM-POWER	PAM-118A	18040084	Sep. 02, 2021	1 Year

Pre-amplifier	COM-POWER	PAM-840A	461369	Mar. 15, 2021	1 Year
Test software	Audix	E3	V 6.1.1.1	N/A	N/A
☒ Power Line Conducted Emissions Test 1#					
Test Receiver	R&S	ESCI	100551	Sep. 02, 2021	1 Year
LISN 1	R&S	ENV216	101109	Sep. 02, 2021	1 Year
LISN 2	R&S	ESH2-Z5	100309	Sep. 02, 2021	1 Year
Pulse Limiter	R&S	ESH3-Z2	101242	Sep. 02, 2021	1 Year
CE Cable 1	HUBSER	N/A	W10.01	Sep. 02, 2021	1 Year
LISN 3	SCHWARZBECK	NSLK 8163	00017	Sep. 02, 2021	1 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A
☐ Power Line Conducted Emissions Test 2#					
Test Receiver	R&S	ESCI	101028	Sep. 02, 2021	1 Year
LISN 1	R&S	ENV216	101170	Sep. 02, 2021	1 Year
Pulse Limiter	R&S	KH43101	431011801568-12#	Jun. 01, 2021	1 Year
CE Cable 2	HUBSER	RG214-5	N/A	Jun. 01, 2021	1 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A

4. 26dB Bandwidth, 6dB Bandwidth and 99% Bandwidth

4.1. Block diagram of test setup



4.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Bandwidth	26 dB Bandwidth	5150-5250
	26 dB Bandwidth	5250-5350
	26 dB Bandwidth	For FCC:5470-5725 For IC:5470-5600 5650-5725
	Minimum 500kHz 6dB Bandwidth	5725-5850

4.3. Test Procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	For 6 dB Bandwidth: RBW=100 kHz For 26 dB Bandwidth: approximately 1% of the emission bandwidth.
VBW	For 6 dB Bandwidth: VBW=300 kHz For 26 dB Bandwidth: >3 RBW
Trace	Max hold
Sweep	Auto couple

(2) Allow the trace to stabilize, 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 26 dB and 6 dB relative to the maximum level measured in the fundamental emission.

4.4. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5180	16.791	5171.615	5188.406	---	Pass
	Ant2	5180	16.661	5171.727	5188.388	---	Pass
	Ant1	5200	16.795	5191.612	5208.407	---	Pass
	Ant2	5200	16.693	5191.731	5208.424	---	Pass
	Ant1	5240	16.757	5231.608	5248.365	---	Pass
	Ant2	5240	16.671	5231.718	5248.389	---	Pass
	Ant1	5260	16.732	5251.629	5268.361	---	Pass
	Ant2	5260	16.701	5251.701	5268.402	---	Pass
	Ant1	5280	16.728	5271.631	5288.359	---	Pass
	Ant2	5280	16.694	5271.695	5288.389	---	Pass
	Ant1	5320	16.769	5311.586	5328.355	---	Pass
	Ant2	5320	16.698	5311.687	5328.385	---	Pass
	Ant1	5500	16.756	5491.619	5508.375	---	Pass
	Ant2	5500	16.653	5491.693	5508.346	---	Pass
	Ant1	5580	16.760	5571.584	5588.344	---	Pass
	Ant2	5580	16.718	5571.687	5588.405	---	Pass
	Ant1	5700	16.768	5691.592	5708.360	---	Pass
	Ant2	5700	16.711	5691.687	5708.398	---	Pass
	Ant1	5745	16.786	5736.584	5753.370	---	Pass
	Ant2	5745	16.725	5736.684	5753.409	---	Pass
	Ant1	5785	16.755	5776.609	5793.364	---	Pass
	Ant2	5785	16.758	5776.678	5793.436	---	Pass
	Ant1	5825	16.746	5816.626	5833.372	---	Pass
	Ant2	5825	16.717	5816.682	5833.399	---	Pass
11N20MIMO	Ant1	5180	17.856	5171.075	5188.931	---	Pass
	Ant2	5180	17.707	5171.157	5188.864	---	Pass
	Ant1	5200	18.074	5190.996	5209.070	---	Pass
	Ant2	5200	17.759	5191.122	5208.881	---	Pass
	Ant1	5240	17.933	5231.036	5248.969	---	Pass
	Ant2	5240	17.767	5231.106	5248.873	---	Pass
	Ant1	5260	17.890	5251.060	5268.950	---	Pass
	Ant2	5260	17.723	5251.133	5268.856	---	Pass
	Ant1	5280	17.859	5271.065	5288.924	---	Pass
	Ant2	5280	17.762	5271.090	5288.852	---	Pass
	Ant1	5320	17.847	5311.055	5328.902	---	Pass
	Ant2	5320	17.727	5311.109	5328.836	---	Pass
	Ant1	5500	17.853	5491.065	5508.918	---	Pass
	Ant2	5500	17.711	5491.138	5508.849	---	Pass
	Ant1	5580	17.899	5571.031	5588.930	---	Pass
	Ant2	5580	17.723	5571.111	5588.834	---	Pass
	Ant1	5700	18.017	5690.993	5709.010	---	Pass
	Ant2	5700	17.828	5691.066	5708.894	---	Pass
	Ant1	5745	17.996	5735.966	5753.962	---	Pass
	Ant2	5745	17.778	5736.088	5753.866	---	Pass
	Ant1	5785	17.911	5776.028	5793.939	---	Pass
	Ant2	5785	17.740	5776.109	5793.849	---	Pass
	Ant1	5825	17.881	5816.083	5833.964	---	Pass

	Ant2	5825	17.739	5816.125	5833.864	---	Pass
11N40MIMO	Ant1	5190	36.331	5171.928	5208.259	---	Pass
	Ant2	5190	36.418	5171.923	5208.341	---	Pass
	Ant1	5230	36.370	5211.933	5248.303	---	Pass
	Ant2	5230	36.289	5211.892	5248.181	---	Pass
	Ant1	5270	36.289	5251.929	5288.218	---	Pass
	Ant2	5270	36.275	5251.846	5288.121	---	Pass
	Ant1	5310	36.206	5291.914	5328.120	---	Pass
	Ant2	5310	36.319	5291.826	5328.145	---	Pass
	Ant1	5510	36.401	5491.831	5528.232	---	Pass
	Ant2	5510	36.353	5491.877	5528.230	---	Pass
	Ant1	5550	36.421	5531.817	5568.238	---	Pass
	Ant2	5550	36.388	5531.812	5568.200	---	Pass
	Ant1	5670	36.433	5651.803	5688.236	---	Pass
	Ant2	5670	36.512	5651.777	5688.289	---	Pass
	Ant1	5755	36.637	5736.707	5773.344	---	Pass
	Ant2	5755	36.537	5736.749	5773.286	---	Pass
	Ant1	5795	36.899	5776.640	5813.539	---	Pass
	Ant2	5795	36.576	5776.738	5813.314	---	Pass
11AC20MIMO	Ant1	5180	17.722	5171.163	5188.885	---	Pass
	Ant2	5180	17.727	5171.169	5188.896	---	Pass
	Ant1	5200	17.733	5191.175	5208.908	---	Pass
	Ant2	5200	17.734	5191.164	5208.898	---	Pass
	Ant1	5240	17.756	5231.160	5248.916	---	Pass
	Ant2	5240	17.760	5231.125	5248.885	---	Pass
	Ant1	5260	17.730	5251.160	5268.890	---	Pass
	Ant2	5260	17.752	5251.135	5268.887	---	Pass
	Ant1	5280	17.733	5271.135	5288.868	---	Pass
	Ant2	5280	17.731	5271.127	5288.858	---	Pass
	Ant1	5320	17.740	5311.147	5328.887	---	Pass
	Ant2	5320	17.743	5311.110	5328.853	---	Pass
	Ant1	5500	17.771	5491.139	5508.910	---	Pass
	Ant2	5500	17.746	5491.145	5508.891	---	Pass
	Ant1	5580	17.752	5571.140	5588.892	---	Pass
	Ant2	5580	17.722	5571.137	5588.859	---	Pass
	Ant1	5700	17.760	5691.142	5708.902	---	Pass
	Ant2	5700	17.715	5691.155	5708.870	---	Pass
	Ant1	5745	17.809	5736.096	5753.905	---	Pass
	Ant2	5745	17.771	5736.099	5753.870	---	Pass
	Ant1	5785	17.800	5776.116	5793.916	---	Pass
	Ant2	5785	17.738	5776.138	5793.876	---	Pass
	Ant1	5825	17.799	5816.131	5833.930	---	Pass
	Ant2	5825	17.748	5816.135	5833.883	---	Pass
11AC40MIMO	Ant1	5190	36.383	5171.906	5208.289	---	Pass
	Ant2	5190	36.338	5171.912	5208.250	---	Pass
	Ant1	5230	36.299	5211.938	5248.237	---	Pass
	Ant2	5230	36.328	5211.830	5248.158	---	Pass
	Ant1	5270	36.332	5251.902	5288.234	---	Pass
	Ant2	5270	36.304	5251.845	5288.149	---	Pass
	Ant1	5310	36.338	5291.862	5328.200	---	Pass
	Ant2	5310	36.415	5291.773	5328.188	---	Pass

	Ant1	5510	36.336	5491.895	5528.231	---	Pass
	Ant2	5510	36.276	5491.896	5528.172	---	Pass
	Ant1	5550	36.337	5531.857	5568.194	---	Pass
	Ant2	5550	36.350	5531.823	5568.173	---	Pass
	Ant1	5670	36.392	5651.837	5688.229	---	Pass
	Ant2	5670	36.400	5651.821	5688.221	---	Pass
	Ant1	5755	36.609	5736.746	5773.355	---	Pass
	Ant2	5755	36.479	5736.806	5773.285	---	Pass
	Ant1	5795	36.574	5776.769	5813.343	---	Pass
	Ant2	5795	36.485	5776.792	5813.277	---	Pass
11AC80MIMO	Ant1	5210	76.419	5171.991	5248.410	---	Pass
	Ant2	5210	76.246	5171.954	5248.200	---	Pass
	Ant1	5290	76.356	5251.921	5328.277	---	Pass
	Ant2	5290	76.465	5251.690	5328.155	---	Pass
	Ant1	5530	76.541	5491.821	5568.362	---	Pass
	Ant2	5530	76.505	5491.807	5568.312	---	Pass
	Ant1	5610	76.531	5571.797	5648.328	---	Pass
	Ant2	5610	76.728	5571.588	5648.316	---	Pass
	Ant1	5775	77.573	5736.421	5813.994	---	Pass
	Ant2	5775	77.253	5736.451	5813.704	---	Pass

Test Mode	Antenna	Channel	26db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5180	19.520	5170.280	5189.800	---	Pass
	Ant2	5180	19.600	5170.240	5189.840	---	Pass
	Ant1	5200	19.760	5190.240	5210.000	---	Pass
	Ant2	5200	19.840	5190.160	5210.000	---	Pass
	Ant1	5240	19.680	5230.240	5249.920	---	Pass
	Ant2	5240	19.640	5230.200	5249.840	---	Pass
	Ant1	5260	19.720	5250.200	5269.920	---	Pass
	Ant2	5260	19.680	5250.200	5269.880	---	Pass
	Ant1	5280	19.760	5270.080	5289.840	---	Pass
	Ant2	5280	19.560	5270.160	5289.720	---	Pass
	Ant1	5320	19.560	5310.160	5329.720	---	Pass
	Ant2	5320	19.680	5310.120	5329.800	---	Pass
	Ant1	5500	19.760	5490.160	5509.920	---	Pass
	Ant2	5500	19.720	5490.200	5509.920	---	Pass
	Ant1	5580	19.640	5570.160	5589.800	---	Pass
	Ant2	5580	19.840	5570.120	5589.960	---	Pass
	Ant1	5700	19.680	5690.160	5709.840	---	Pass
	Ant2	5700	19.680	5690.200	5709.880	---	Pass
	Ant1	5745	19.840	5735.080	5754.920	---	Pass
	Ant2	5745	19.600	5735.200	5754.800	---	Pass
	Ant1	5785	19.600	5775.240	5794.840	---	Pass
	Ant2	5785	19.640	5775.200	5794.840	---	Pass
	Ant1	5825	19.800	5815.160	5834.960	---	Pass
	Ant2	5825	19.640	5815.160	5834.800	---	Pass
11N20MIMO	Ant1	5180	20.200	5169.960	5190.160	---	Pass
	Ant2	5180	20.240	5169.880	5190.120	---	Pass
	Ant1	5200	21.240	5189.760	5211.000	---	Pass
	Ant2	5200	20.360	5189.840	5210.200	---	Pass

	Ant1	5240	20.680	5229.800	5250.480	---	Pass
	Ant2	5240	20.360	5229.840	5250.200	---	Pass
	Ant1	5260	20.360	5249.880	5270.240	---	Pass
	Ant2	5260	20.400	5249.800	5270.200	---	Pass
	Ant1	5280	20.240	5269.880	5290.120	---	Pass
	Ant2	5280	20.400	5269.760	5290.160	---	Pass
	Ant1	5320	20.280	5309.840	5330.120	---	Pass
	Ant2	5320	20.360	5309.800	5330.160	---	Pass
	Ant1	5500	20.080	5489.920	5510.000	---	Pass
	Ant2	5500	20.280	5489.880	5510.160	---	Pass
	Ant1	5580	20.240	5569.880	5590.120	---	Pass
	Ant2	5580	20.360	5569.800	5590.160	---	Pass
	Ant1	5700	22.840	5689.080	5711.920	---	Pass
	Ant2	5700	20.720	5689.520	5710.240	---	Pass
	Ant1	5745	20.560	5734.680	5755.240	---	Pass
	Ant2	5745	20.400	5734.720	5755.120	---	Pass
	Ant1	5785	20.240	5774.840	5795.080	---	Pass
	Ant2	5785	20.320	5774.840	5795.160	---	Pass
	Ant1	5825	20.200	5814.960	5835.160	---	Pass
	Ant2	5825	20.360	5814.880	5835.240	---	Pass
11N40MIMO	Ant1	5190	40.400	5169.920	5210.320	---	Pass
	Ant2	5190	40.320	5169.920	5210.240	---	Pass
	Ant1	5230	40.080	5209.920	5250.000	---	Pass
	Ant2	5230	40.400	5209.840	5250.240	---	Pass
	Ant1	5270	40.320	5249.680	5290.000	---	Pass
	Ant2	5270	40.400	5249.760	5290.160	---	Pass
	Ant1	5310	40.320	5289.920	5330.240	---	Pass
	Ant2	5310	40.720	5289.600	5330.320	---	Pass
	Ant1	5510	40.320	5489.760	5530.080	---	Pass
	Ant2	5510	40.560	5489.680	5530.240	---	Pass
	Ant1	5550	40.160	5530.000	5570.160	---	Pass
	Ant2	5550	40.560	5529.760	5570.320	---	Pass
	Ant1	5670	40.320	5649.920	5690.240	---	Pass
	Ant2	5670	40.160	5650.000	5690.160	---	Pass
	Ant1	5755	39.760	5735.160	5774.920	---	Pass
	Ant2	5755	40.960	5734.520	5775.480	---	Pass
	Ant1	5795	40.080	5775.000	5815.080	---	Pass
	Ant2	5795	40.480	5774.760	5815.240	---	Pass
11AC20MIMO	Ant1	5180	19.800	5170.160	5189.960	---	Pass
	Ant2	5180	20.160	5169.880	5190.040	---	Pass
	Ant1	5200	20.040	5190.000	5210.040	---	Pass
	Ant2	5200	20.040	5190.000	5210.040	---	Pass
	Ant1	5240	19.920	5230.080	5250.000	---	Pass
	Ant2	5240	20.040	5230.000	5250.040	---	Pass
	Ant1	5260	20.080	5249.920	5270.000	---	Pass
	Ant2	5260	20.240	5249.880	5270.120	---	Pass
	Ant1	5280	20.000	5269.960	5289.960	---	Pass
	Ant2	5280	19.960	5270.080	5290.040	---	Pass
	Ant1	5320	20.080	5310.000	5330.080	---	Pass
	Ant2	5320	20.040	5309.960	5330.000	---	Pass
	Ant1	5500	20.120	5490.000	5510.120	---	Pass

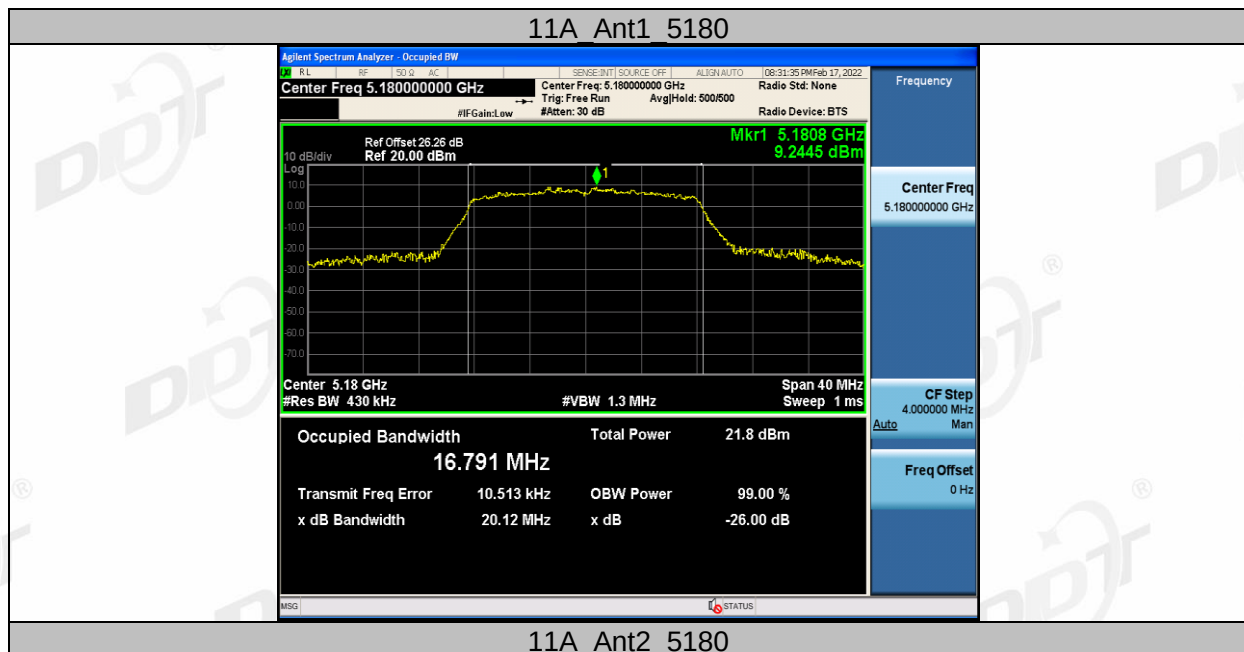
	Ant2	5500	20.080	5490.000	5510.080	---	Pass
	Ant1	5580	20.160	5569.920	5590.080	---	Pass
	Ant2	5580	19.920	5570.040	5589.960	---	Pass
	Ant1	5700	19.960	5690.040	5710.000	---	Pass
	Ant2	5700	20.040	5690.040	5710.080	---	Pass
	Ant1	5745	20.160	5734.920	5755.080	---	Pass
	Ant2	5745	20.000	5735.080	5755.080	---	Pass
	Ant1	5785	20.120	5774.880	5795.000	---	Pass
	Ant2	5785	20.280	5774.920	5795.200	---	Pass
	Ant1	5825	20.000	5815.040	5835.040	---	Pass
	Ant2	5825	19.720	5815.120	5834.840	---	Pass
	Ant1	5190	40.240	5169.680	5209.920	---	Pass
11AC40MIMO	Ant2	5190	39.920	5170.160	5210.080	---	Pass
	Ant1	5230	40.000	5210.000	5250.000	---	Pass
	Ant2	5230	40.400	5209.840	5250.240	---	Pass
	Ant1	5270	40.400	5249.760	5290.160	---	Pass
	Ant2	5270	40.400	5249.760	5290.160	---	Pass
	Ant1	5310	40.160	5289.840	5330.000	---	Pass
	Ant2	5310	40.560	5289.680	5330.240	---	Pass
	Ant1	5510	40.160	5489.920	5530.080	---	Pass
	Ant2	5510	40.000	5490.160	5530.160	---	Pass
	Ant1	5550	40.320	5529.760	5570.080	---	Pass
	Ant2	5550	40.800	5529.680	5570.480	---	Pass
	Ant1	5670	40.240	5649.840	5690.080	---	Pass
	Ant2	5670	40.800	5649.440	5690.240	---	Pass
	Ant1	5755	40.640	5734.520	5775.160	---	Pass
	Ant2	5755	40.560	5734.840	5775.400	---	Pass
	Ant1	5795	40.800	5774.520	5815.320	---	Pass
	Ant2	5795	41.680	5774.600	5816.280	---	Pass
11AC80MIMO	Ant1	5210	81.280	5169.360	5250.640	---	Pass
	Ant2	5210	80.160	5170.160	5250.320	---	Pass
	Ant1	5290	81.440	5249.200	5330.640	---	Pass
	Ant2	5290	80.160	5249.840	5330.000	---	Pass
	Ant1	5530	81.440	5489.200	5570.640	---	Pass
	Ant2	5530	80.160	5490.000	5570.160	---	Pass
	Ant1	5610	81.280	5569.360	5650.640	---	Pass
	Ant2	5610	80.000	5570.160	5650.160	---	Pass
	Ant1	5775	81.440	5734.040	5815.480	---	Pass
	Ant2	5775	80.640	5734.680	5815.320	---	Pass

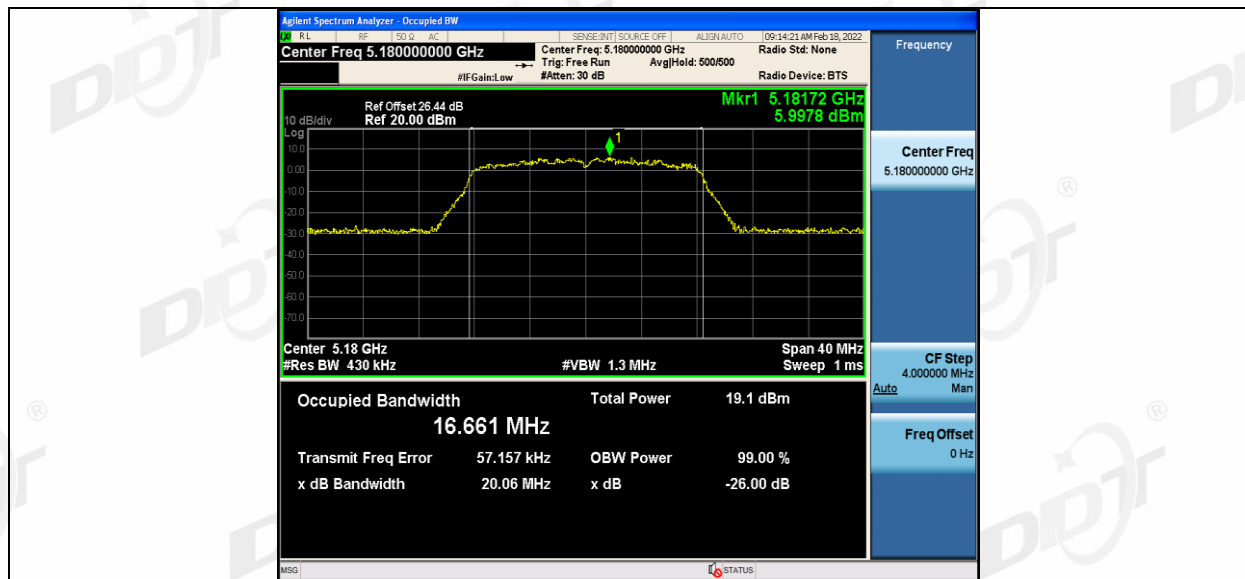
Test Mode	Antenna	Channel	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	15.080	5737.440	5752.520	0.5	Pass
	Ant2	5745	15.320	5737.440	5752.760	0.5	Pass
	Ant1	5785	15.120	5777.440	5792.560	0.5	Pass
	Ant2	5785	15.120	5777.440	5792.560	0.5	Pass
	Ant1	5825	15.200	5817.440	5832.640	0.5	Pass
	Ant2	5825	15.120	5817.440	5832.560	0.5	Pass
11N20MIMO	Ant1	5745	15.040	5737.440	5752.480	0.5	Pass
	Ant2	5745	15.080	5737.480	5752.560	0.5	Pass
	Ant1	5785	13.880	5777.440	5791.320	0.5	Pass

	Ant2	5785	15.040	5777.520	5792.560	0.5	Pass
	Ant1	5825	15.120	5817.440	5832.560	0.5	Pass
	Ant2	5825	15.040	5817.520	5832.560	0.5	Pass
11N40MIMO	Ant1	5755	35.120	5737.400	5772.520	0.5	Pass
	Ant2	5755	35.040	5737.480	5772.520	0.5	Pass
	Ant1	5795	35.120	5777.480	5812.600	0.5	Pass
11AC20MIMO	Ant2	5795	35.040	5777.480	5812.520	0.5	Pass
	Ant1	5745	15.680	5736.880	5752.560	0.5	Pass
	Ant2	5745	15.320	5737.240	5752.560	0.5	Pass
11AC40MIMO	Ant1	5785	16.560	5776.880	5793.440	0.5	Pass
	Ant2	5785	15.360	5777.200	5792.560	0.5	Pass
	Ant1	5825	15.120	5817.440	5832.560	0.5	Pass
11AC80MIMO	Ant2	5825	15.120	5817.440	5832.560	0.5	Pass
	Ant1	5755	35.040	5737.480	5772.520	0.5	Pass
	Ant2	5755	35.040	5737.480	5772.520	0.5	Pass
11AC40MIMO	Ant1	5795	35.120	5777.480	5812.600	0.5	Pass
	Ant2	5795	35.040	5777.480	5812.520	0.5	Pass
	Ant1	5775	75.680	5736.920	5812.600	0.5	Pass
11AC80MIMO	Ant2	5775	75.200	5737.400	5812.600	0.5	Pass
	Ant1	5775	75.200	5737.400	5812.600	0.5	Pass
	Ant2	5775	75.200	5737.400	5812.600	0.5	Pass

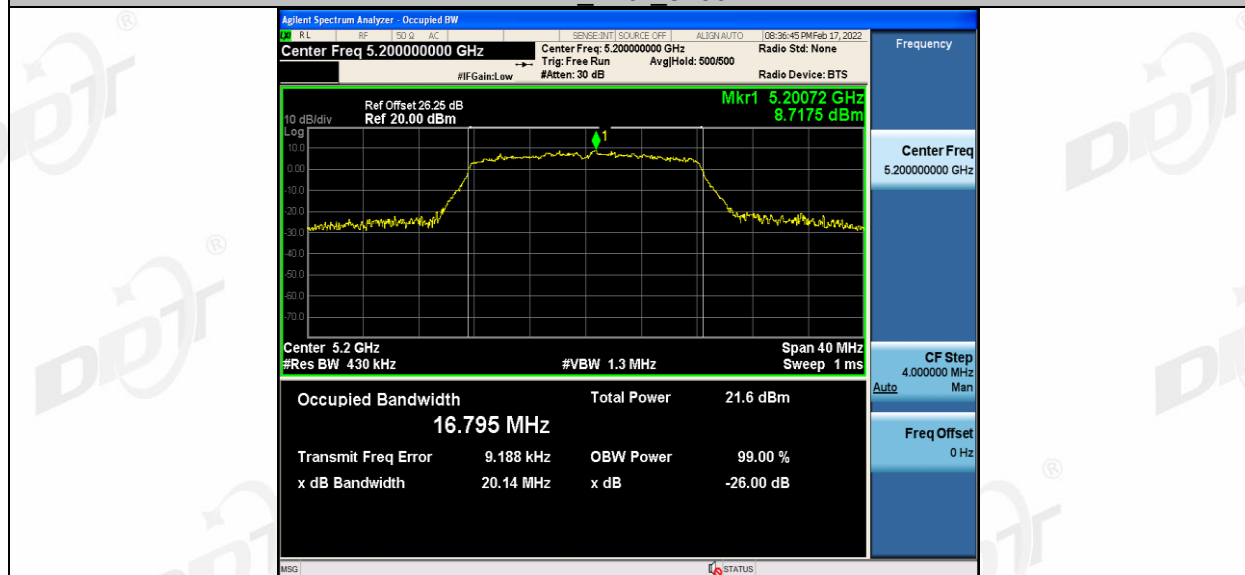
4.5. Original test data

99% OBW:

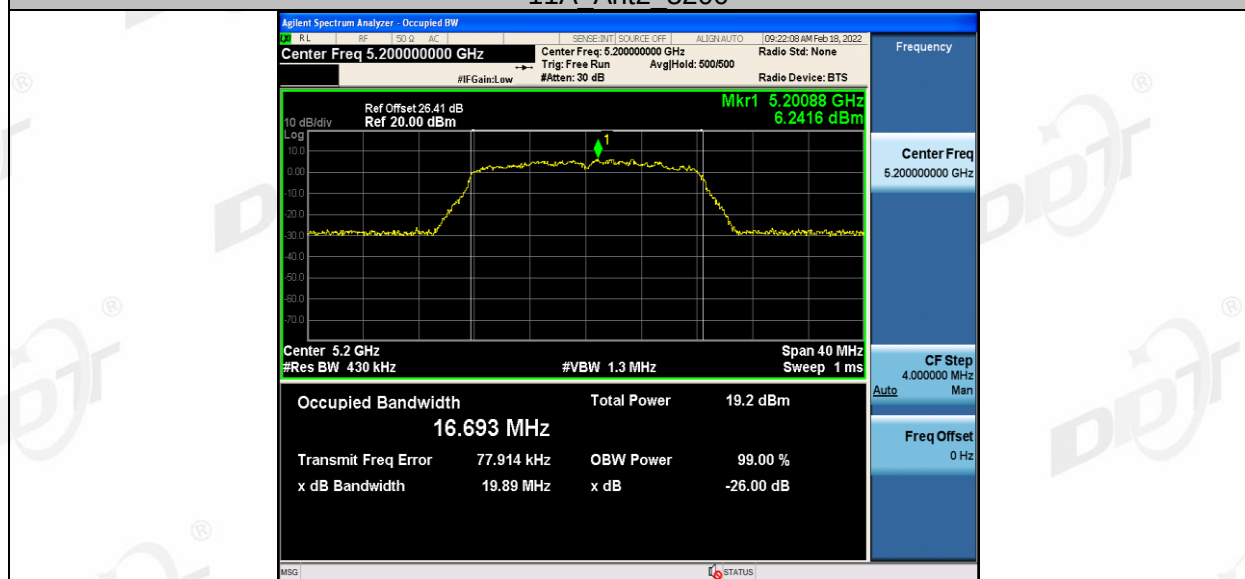




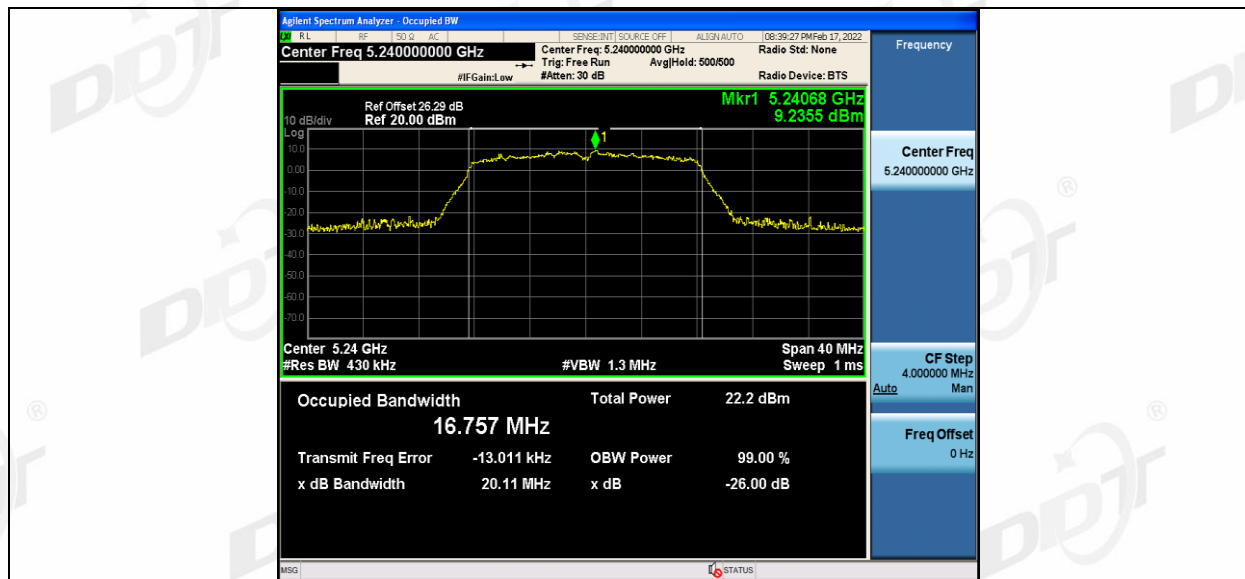
11A Ant1 5200



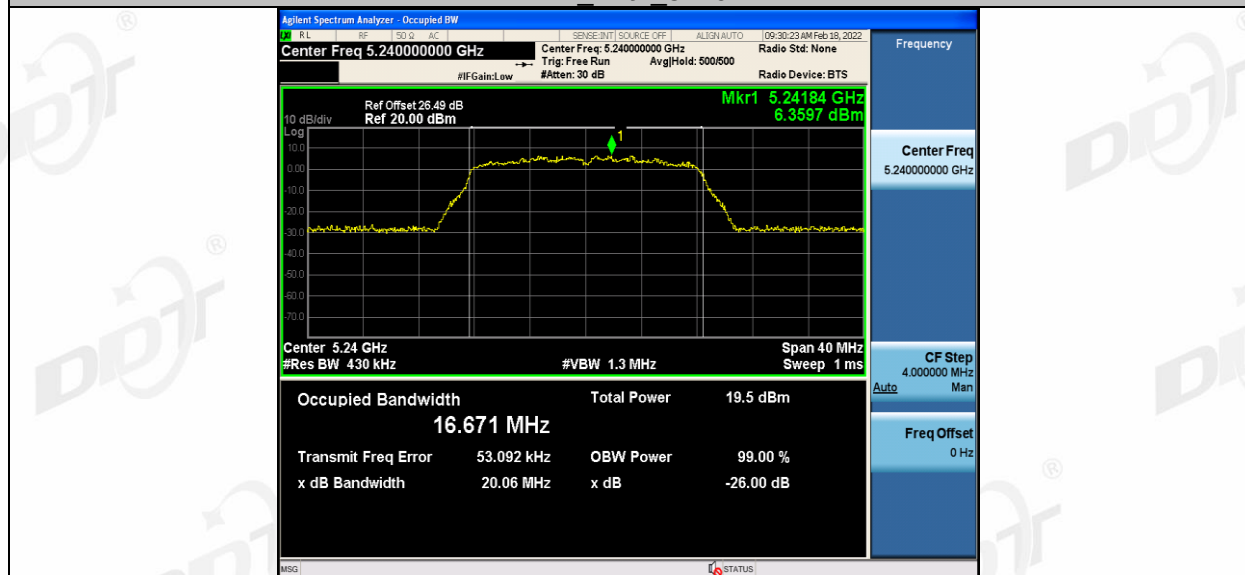
11A Ant2 5200



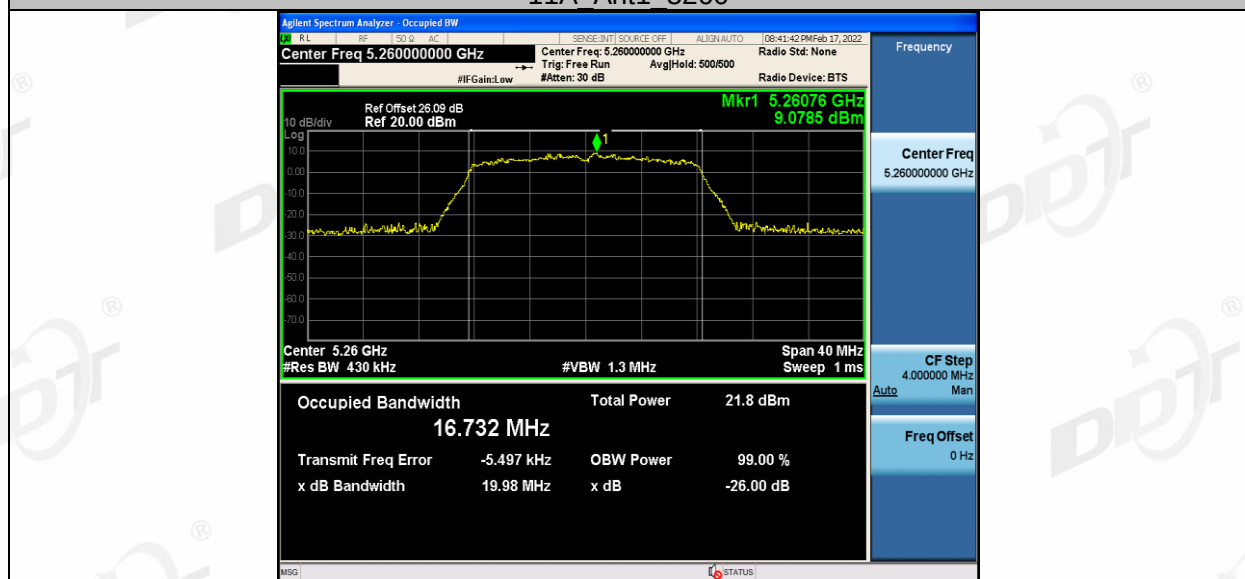
11A Ant1 5240



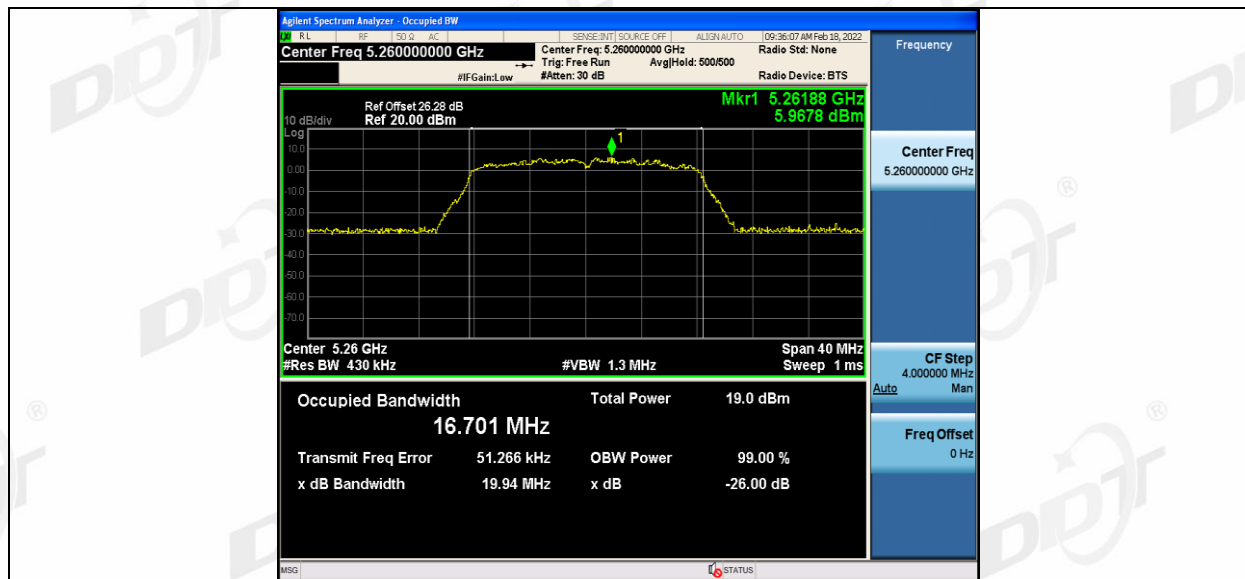
11A Ant2 5240



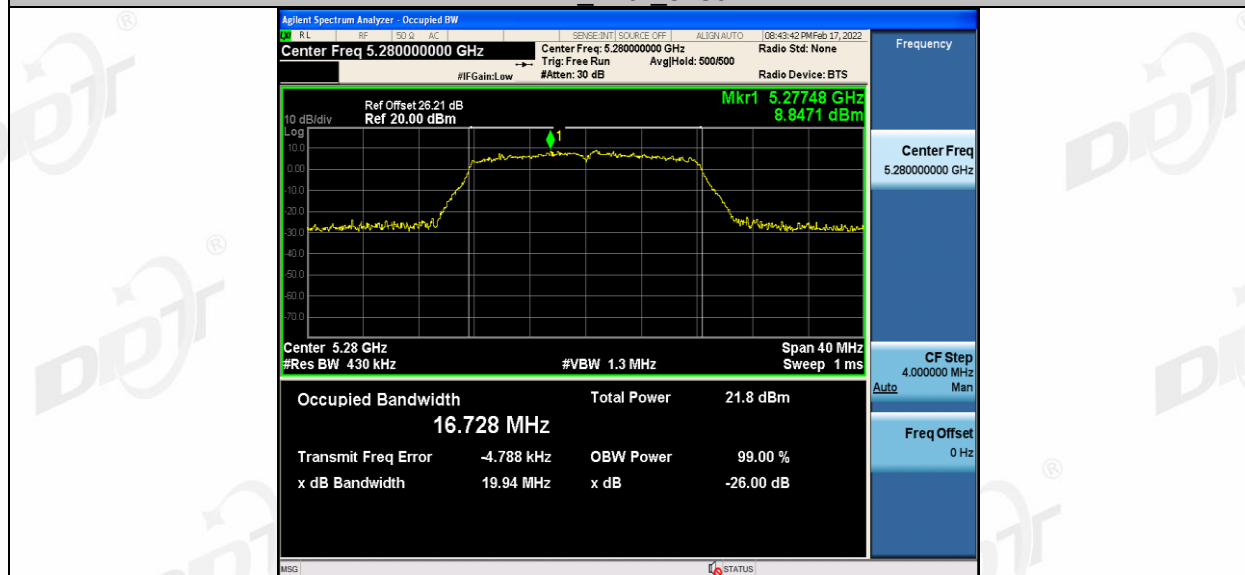
11A Ant1 5260



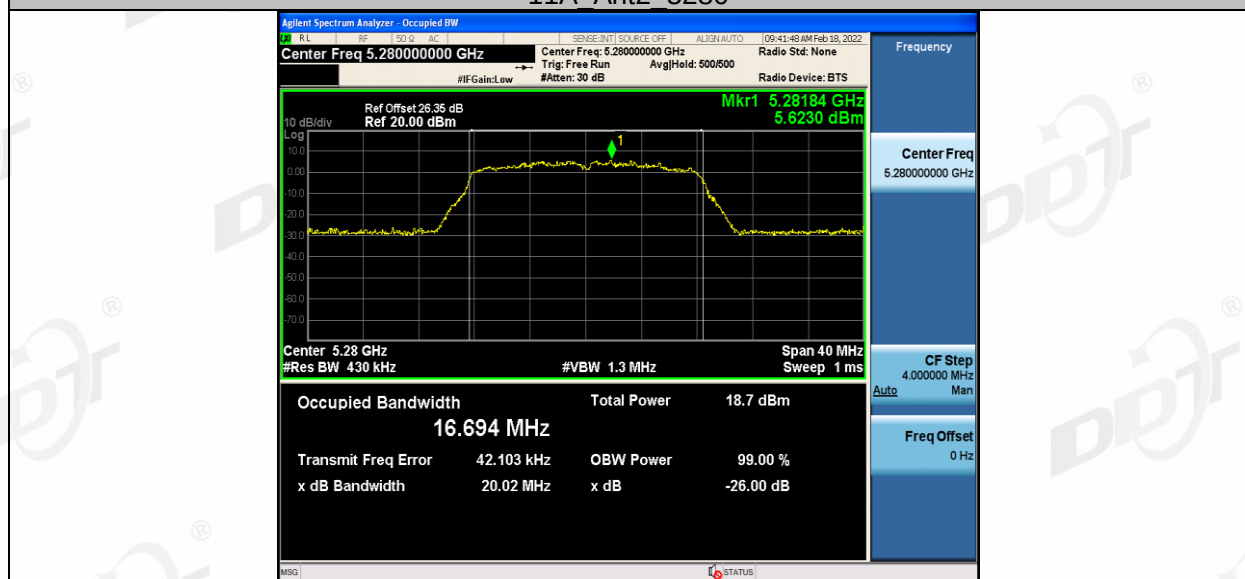
11A Ant2 5260



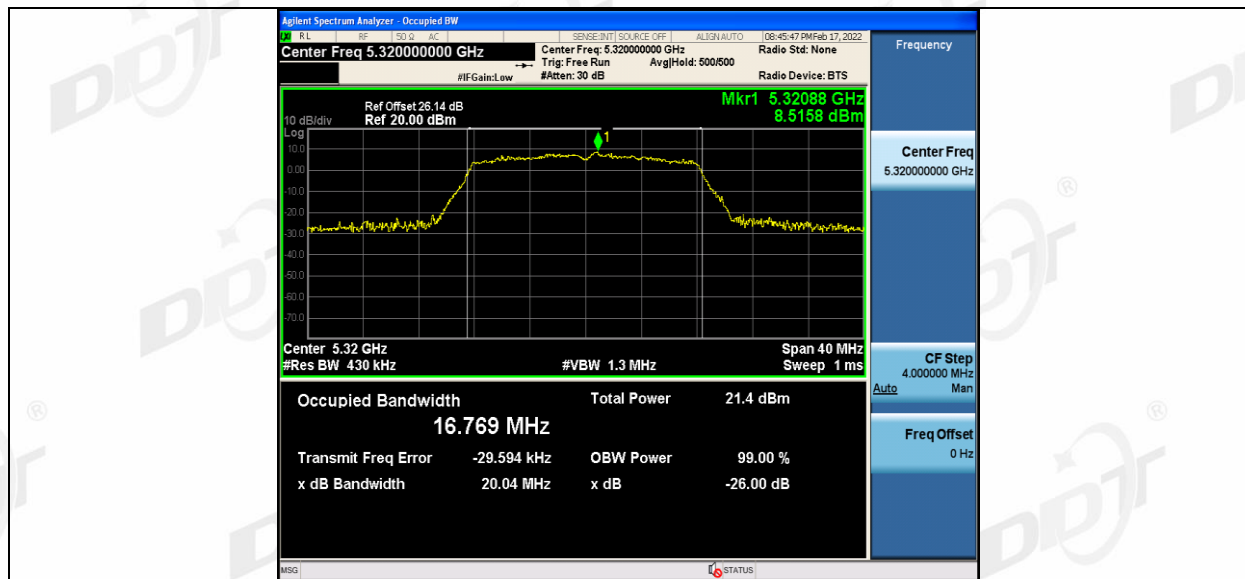
11A Ant1 5280



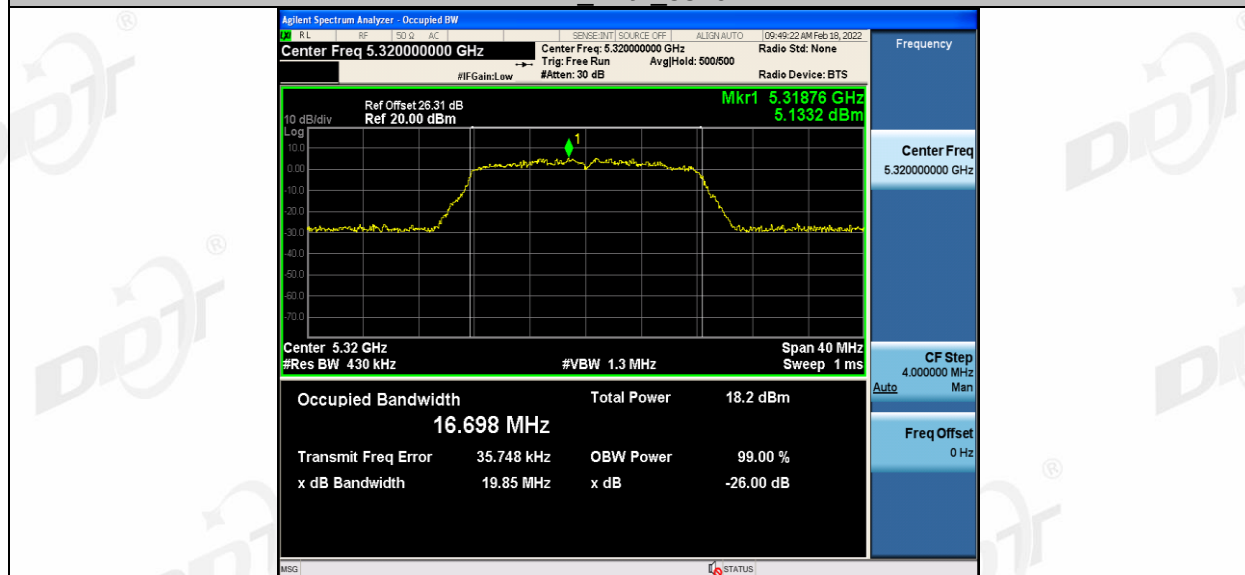
11A Ant2 5280



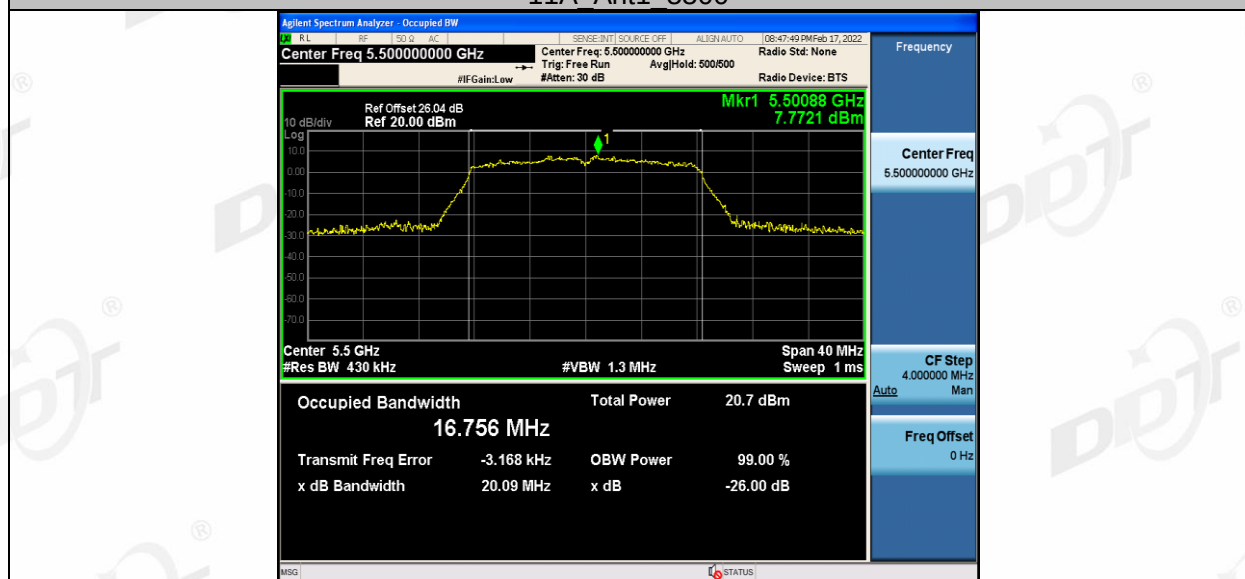
11A Ant1 5320



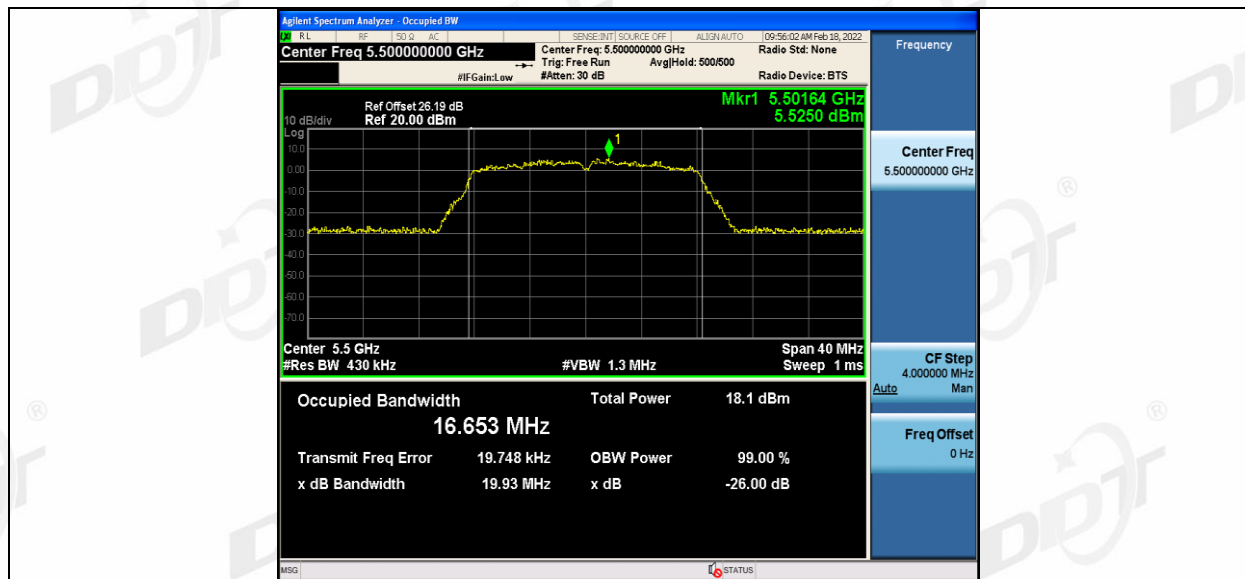
11A Ant2 5320



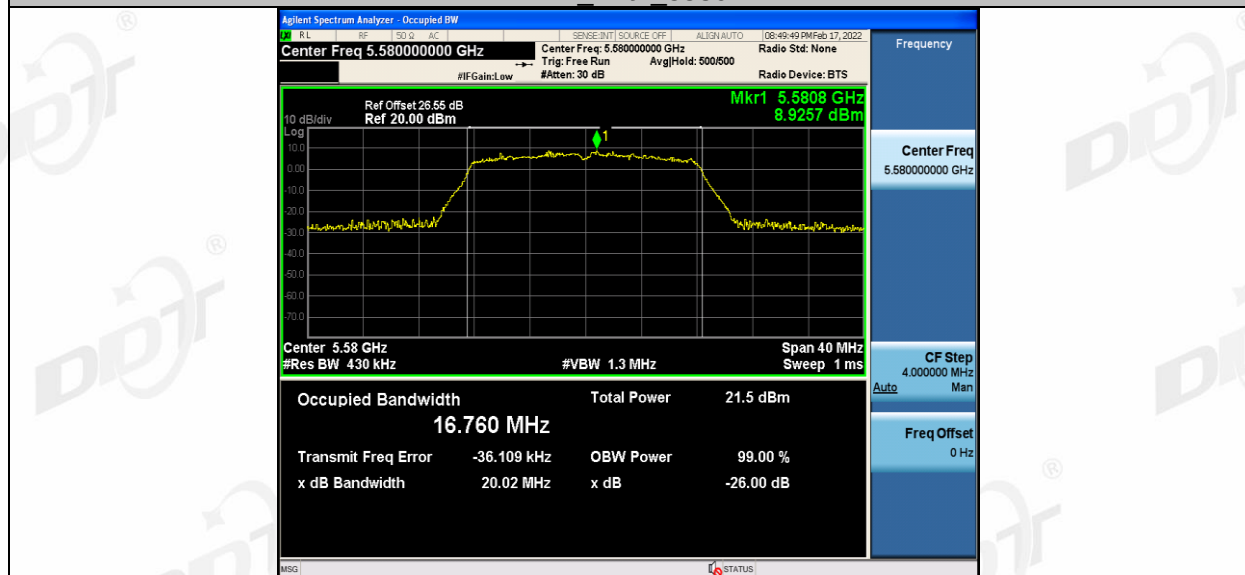
11A Ant1 5500



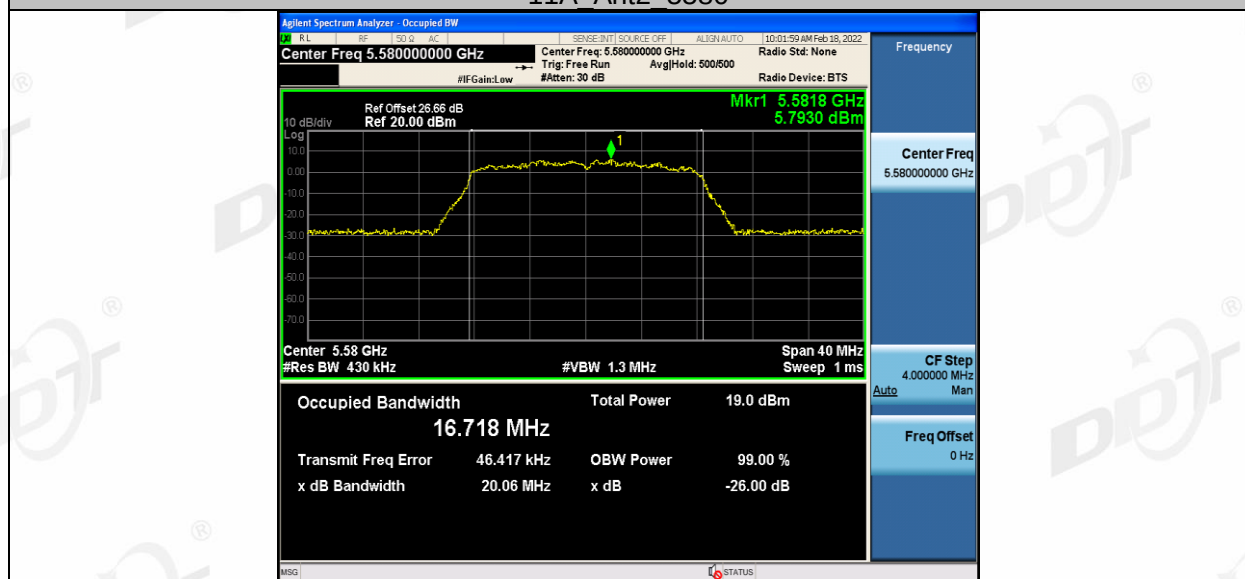
11A Ant2 5500



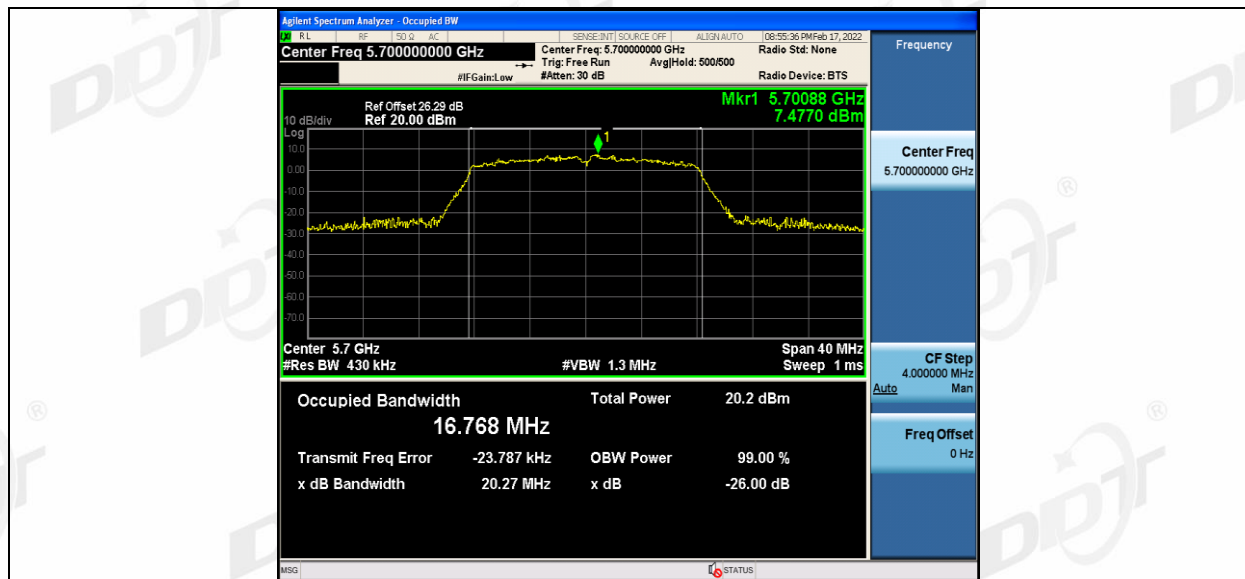
11A Ant1 5580



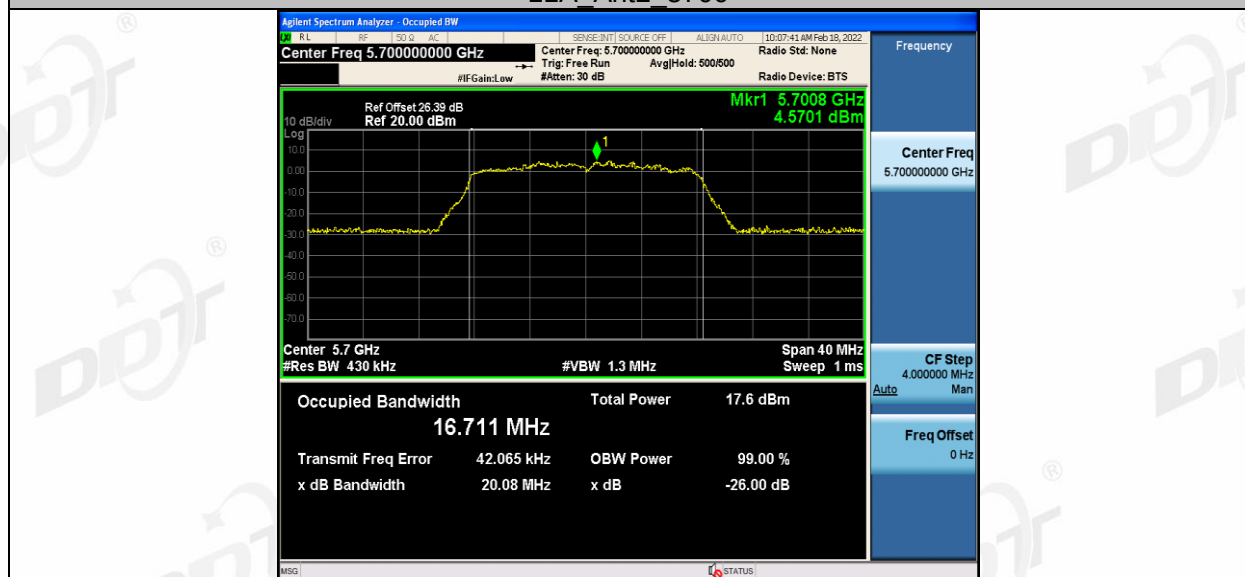
11A Ant2 5580



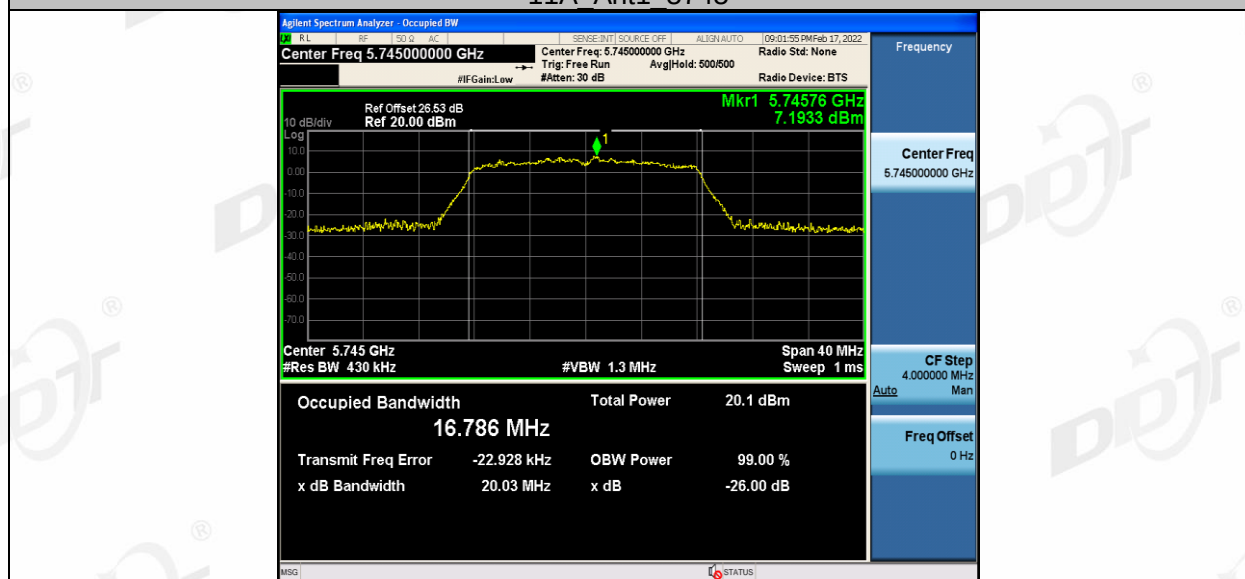
11A Ant1 5700



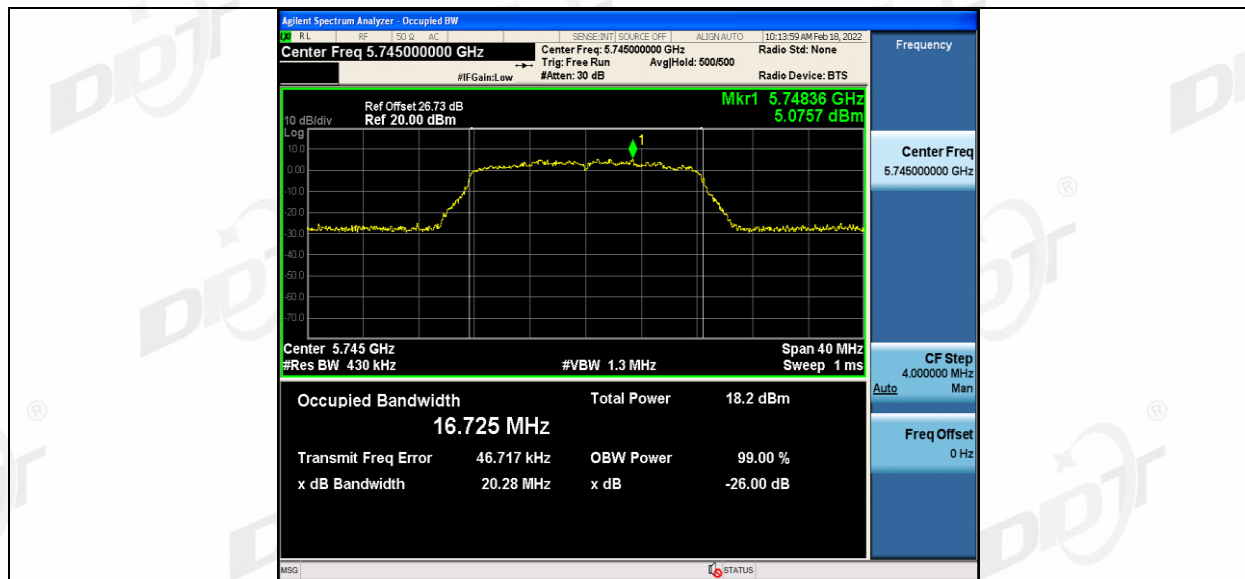
11A Ant2 5700



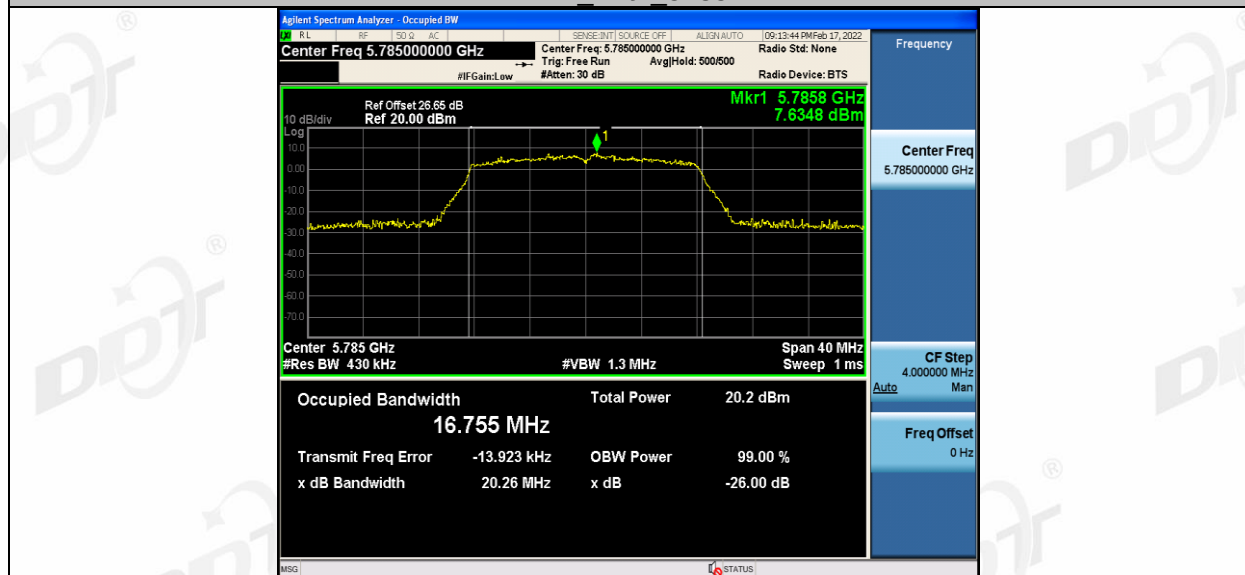
11A Ant1 5745



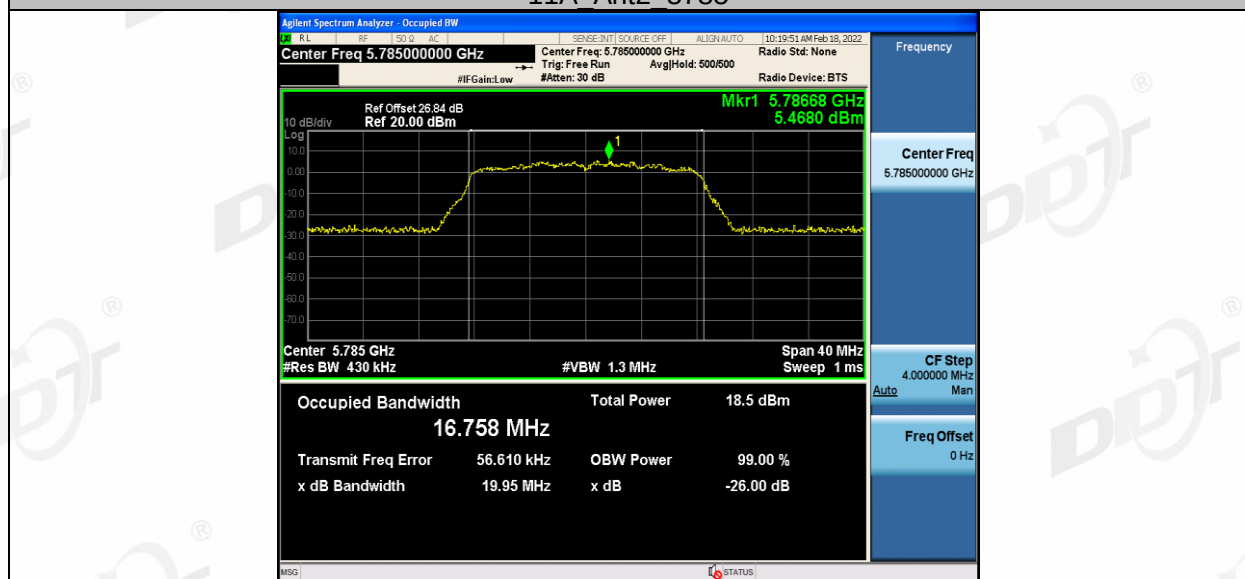
11A Ant2 5745



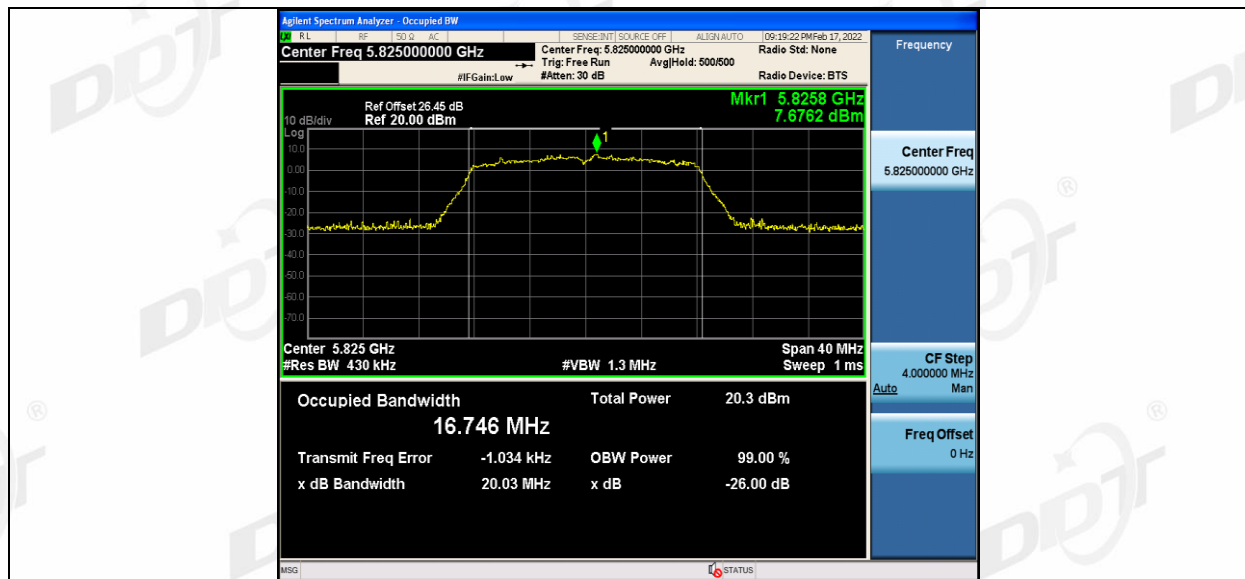
11A Ant1 5785



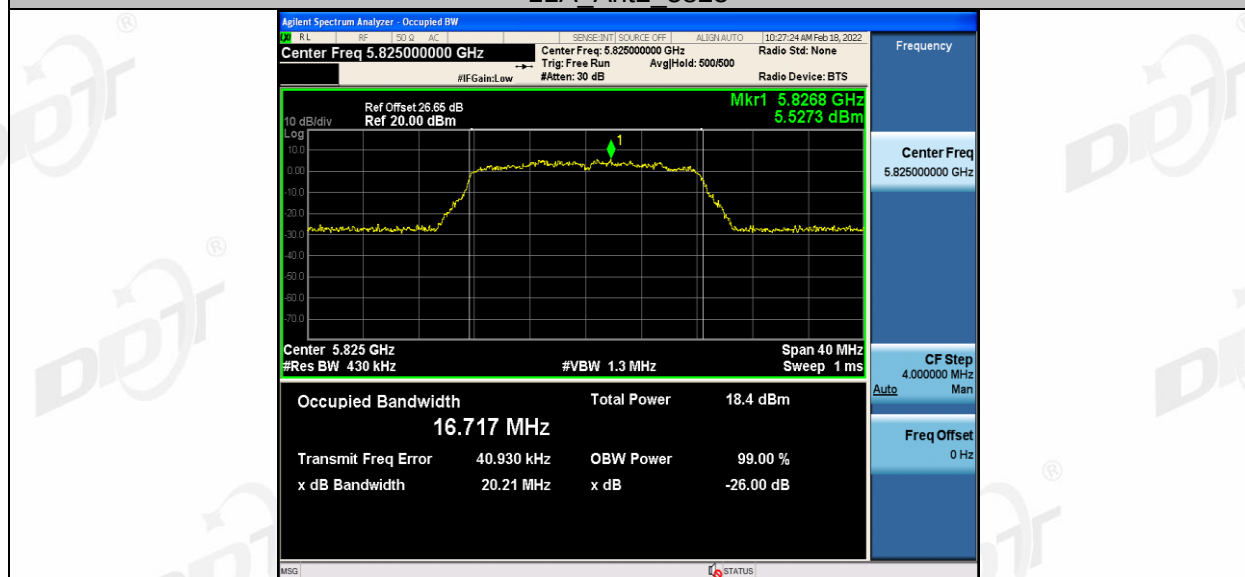
11A Ant2 5785



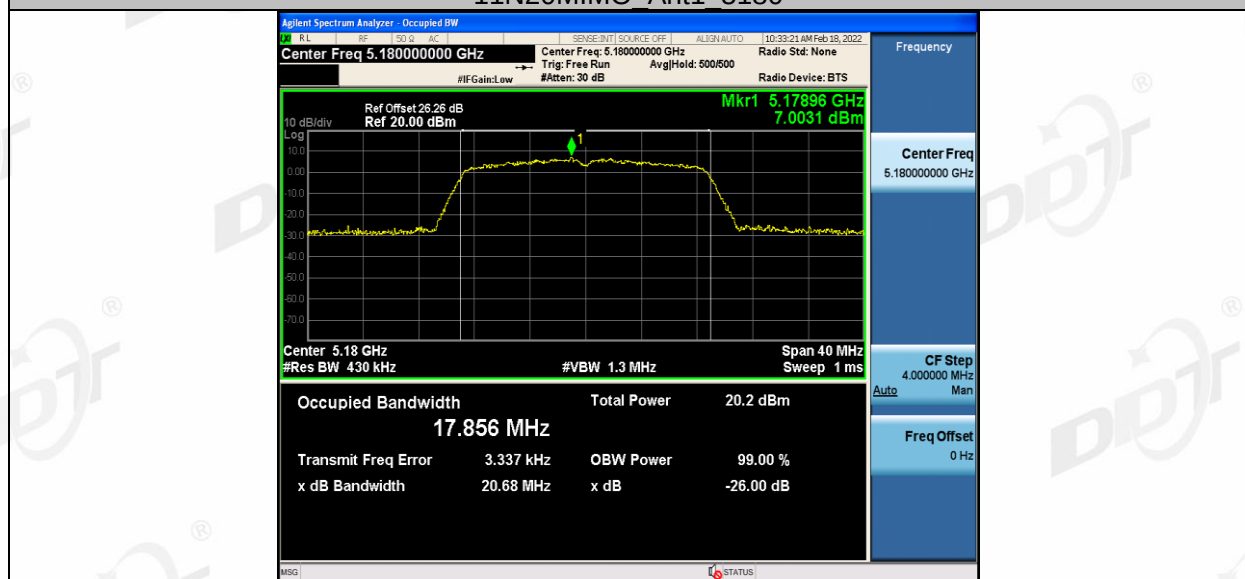
11A Ant1 5825



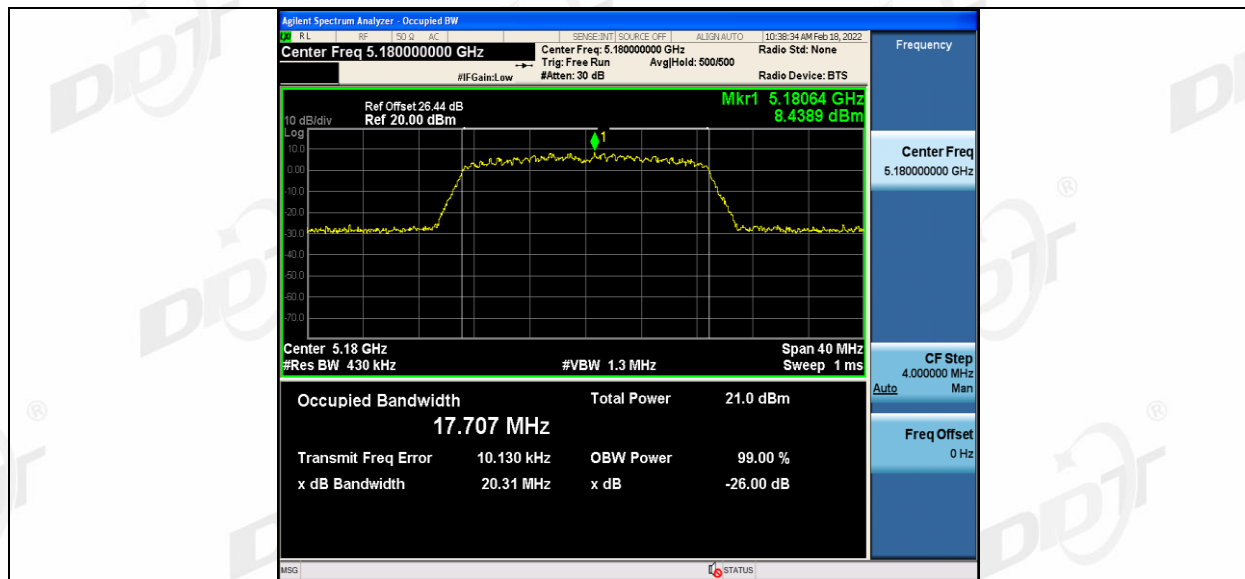
11A Ant2 5825



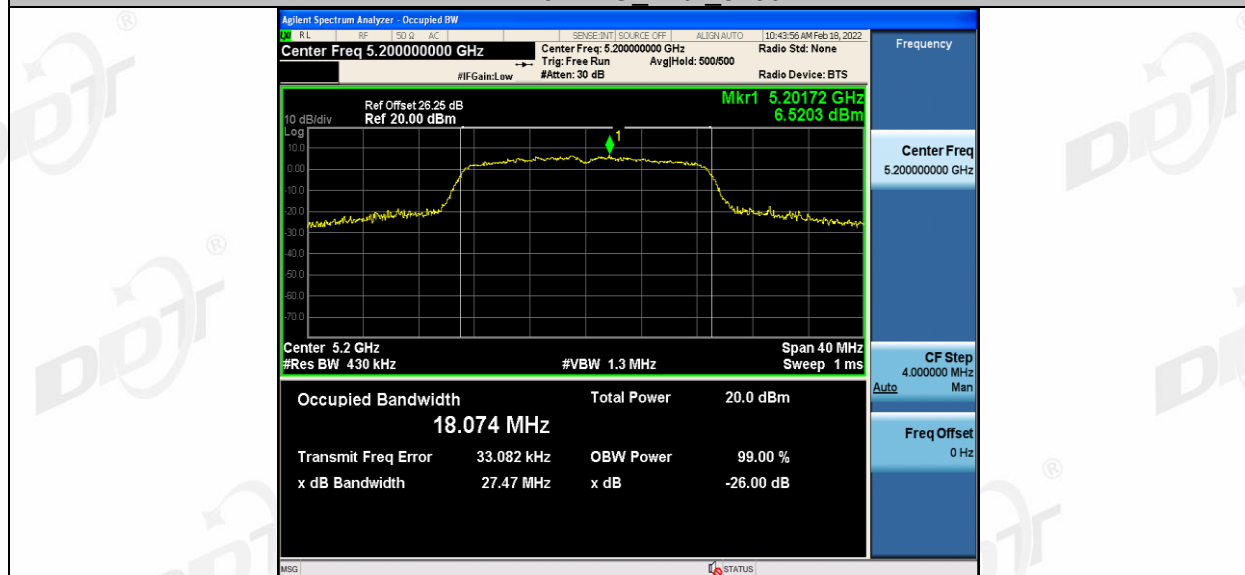
11N20MIMO Ant1 5180



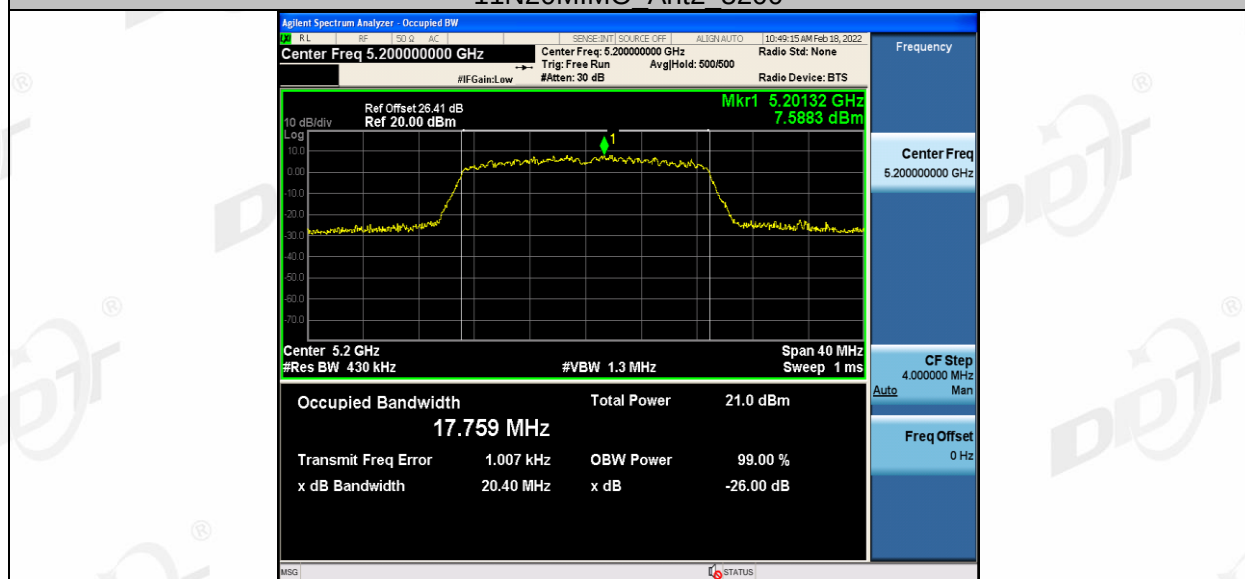
11N20MIMO Ant2 5180



11N20MIMO_Ant1_5200



11N20MIMO_Ant2_5200



11N20MIMO_Ant1_5240

