

FCC CERTIFICATION TEST REPORT

FOR

Applicant	:	GUANGZHOU LIUHUAN INFORMATION TECHNOLOGY CO., LTD.
Address	:	ROOM 1101 OF BUILDING 2, ROOM 802 OF BUILDING 1, NO.6, YUNPU FOUR ROAD, HUANGPU DISTRICT, GUANGZHOU CITY, GUANGDONG PROVINCE, CHINA
Equipment under Test	:	Car audio navigation
Model No.	:	U720AC-D, U720AC-T, U720AC-DS, M901PT-B, M901PT-C, U720AC-M, U720AC-L, U702P-D, DD680W, San Pedro 950, MC750, La Paz 880, Santo Andre 770, VM012, PCPA675W, M-DL9000&M-DL9000W&M-DL9000D, BE950WCPA, BVCP9850W, U720AC-XXXXX, U905AC-XXXXX, M903AT-XXXXX, U102AC-XXXXX, AE6H0DBC (X=0~9, A~Z, blank), U722AC&D728AR, U905AC, U102AC
Trade Mark	:	BLAUPUNKT, MACROM, EVUS, DAIICHI, BOSS, BOSS ELITE, PLANET AUDIO, SSL, Phonocar
Manufacturer	:	Guangdong Coagent Electronic Technology Co., Ltd.
Address	:	Foshan City, Southwest Industrial Park, Sanshui District, Guangdong Haobangshou Electronic Technology Co., Ltd.

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.....	10
2.6.	Test environment conditions	10
2.7.	Test laboratory.....	10
2.8.	Measurement uncertainty.....	11
3.	Equipment Used During Test.....	12
4.	26 dB Bandwidth, 6 dB Bandwidth and 99% Bandwidth.....	14
4.1.	Block diagram of test setup.....	14
4.2.	Limits	14
4.3.	Test procedure	14
4.4.	Test result.....	15
4.5.	Original test data	18
5.	Maximum Output Power	60
5.1.	Block diagram of test setup.....	60
5.2.	Limits	60
5.3.	Test procedure	60
5.4.	Test result.....	60
6.	Power Spectral Density.....	62
6.1.	Block diagram of test setup.....	62
6.2.	Limits	62
6.3.	Test procedure	62
6.4.	Test result.....	63
6.5.	Original test data	65
7.	Frequency Stability Measurement	85
7.1.	Limit of frequency stability.....	85
7.2.	Measuring instruments.....	85
7.3.	Test procedures	85
7.4.	Test setup.....	85
7.5.	Test result.....	85
8.	Spurious Emissions.....	100

8.1.	Block diagram of test setup.....	100
8.2.	Limit.....	101
8.3.	Test procedure	102
8.4.	Test result.....	104
9.	Band Edge Compliance	112
9.1.	Block diagram of test setup.....	112
9.2.	Limit.....	112
9.3.	Test procedure	113
9.4.	Test result.....	113
10.	Power Line Conducted Emission	175
10.1.	Block diagram of test setup.....	175
10.2.	Power line conducted emission limits (Class B).....	175
10.3.	Test procedure	175
10.4.	Test result.....	176
11.	Antenna Requirements	177
11.1.	Limit.....	177
11.2.	Result	177
12.	Dynamic Frequency Selection	178
12.1.	Applicability of DFS requirements	178
12.2.	Limit.....	179
12.3.	Parameters of radar test waveforms	179
12.4.	Calibration of radar waveform	180
12.5.	Channel closing transmission time, channel move time and non-occupancy period	184
12.6.	Test setup.....	185
12.7.	Test result.....	185
13.	Test Setup Photograph	188
14.	Photos of The EUT	189

Test Report Declare

Applicant	:	GUANGZHOU LIUHUAN INFORMATION TECHNOLOGY CO., LTD.
Address	:	ROOM 1101 OF BUILDING 2, ROOM 802 OF BUILDING 1, NO.6, YUNPU FOUR ROAD, HUANGPU DISTRICT, GUANGZHOU CITY, GUANGDONG PROVINCE, CHINA
Equipment under Test	:	Car audio navigation
Model No	:	U720AC-D, U720AC-T, U720AC-DS, M901PT-B, M901PT-C, U720AC-M, U720AC-L, U702P-D, DD680W, San Pedro 950, MC750, La Paz 880, Santo Andre 770, VM012, PCPA675W, M-DL9000&M-DL9000W&M-DL9000D, BE950WCPA, BVCP9850W, U720AC-XXXXX, U905AC-XXXXX, M903AT-XXXXX, U102AC-XXXXX, AE6H0DBC (X=0~9, A~Z, blank), U722AC&D728AR, U905AC, U102AC
Trade Mark	:	BLAUPUNKT, MACROM, EVUS, DAIICHI, BOSS, BOSS ELITE, PLANET AUDIO, SSL, Phonocar
Manufacturer	:	Guangdong Coagent Electronic Technology Co., Ltd.
Address	:	Foshan City, Southwest Industrial Park, Sanshui District, Guangdong Haobangshou Electronic Technology Co., Ltd.

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

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-R20042710-1E4		
Date of Receipt:	Apr. 20, 2020	Date of Test:	Apr. 20, 2020 ~ Jun. 24, 2020

Prepared By:

Sam Li

Sam Li/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	Jun. 30, 2020	

1. Summary of Test Results

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

Description of Test Item	Standard	Results
6/26 dB 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
Spurious Emissions	FCC 15.407 (b) FCC 15.209	PASS
Band Edge Compliance	FCC 15.407 (b) FCC 15.209 FCC 15.205	PASS
Power Line Conducted Emission	FCC 15.207	N/A
Antenna requirement	FCC 15.203	PASS
Dynamic Frequency Selection	FCC 15.407 (h)	PASS

Note: N/A is an abbreviation for Not Applicable.

2. General Test Information

2.1. Description of EUT

EUT* Name	: Car audio navigation
Model Number	: U720AC-D, U720AC-T, U720AC-DS, M901PT-B, M901PT-C, U720AC-M, U720AC-L, U702P-D, DD680W, San Pedro 950, MC750, La Paz 880, Santo Andre 770, VM012, PCPA675W, M-DL9000&M-DL9000W&M-DL9000D, BE950WCPA, BVCP9850W, U720AC-XXXXX, U905AC-XXXXX, M903AT-XXXXX, U102AC-XXXXX, AE6H0DBC (X=0~9, A~Z, blank), U722AC&D728AR, U905AC, U102AC
Difference of model number	: All models are identical except for different appearance and number name, therefore the test performed on the model U720AC-D
EUT function description	: Please reference user manual of this device
Power supply	: DC 9~16V
Radio Technology	: IEEE 802.11a/n/ac
Operation frequency	: IEEE 802.11a: 5180 MHz - 5240 MHz, 5260 MHz - 5320 MHz, 5500 MHz - 5700 MHz, 5745 MHz - 5825 MHz IEEE 802.11n HT20: 5180 MHz - 5240 MHz, 5260 MHz - 5320 MHz, 5500 MHz - 5700 MHz, 5745 MHz - 5825 MHz IEEE 802.11n HT40: 5190 MHz - 5230 MHz, 5270 MHz - 5310 MHz, 5510 MHz - 5670 MHz, 5755 MHz - 5795 MHz IEEE 802.11ac HT20: 5180 MHz - 5240 MHz, 5260 MHz - 5320 MHz, 5500 MHz - 5700 MHz, 5745 MHz - 5825 MHz IEEE 802.11ac HT40: 5190 MHz - 5230 MHz, 5270 MHz - 5310 MHz, 5510 MHz - 5670 MHz, 5755 MHz - 5795 MHz IEEE 802.11ac HT80: 5210 MHz, 5290 MHz, 5530 MHz, 5610 MHz, 5775 MHz
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 Type	: Dedicated FPCB antenna, maximum PK gain: 0.5 dBi
Sample Type	: Series production

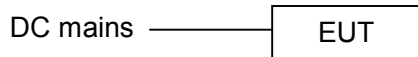
Note: EUT is the ab. of equipment under test.

2.2. Accessories of EUT

Description of Accessories	Manufacturer	Model number	Description	Remark
N/A	N/A	N/A	N/A	N/A

2.3. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	EMC Compliance	SN
Notebook	Lenovo Beijing Co. Ltd.	ThinkPad	FCC/CE	TP00015A
Wireless LAN Access Point	HUAWEI	AP6050	21500829352SC5000371	FCC ID: QISAP6050DN6150DN

2.4. Block diagram of EUT configuration for test

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	15	6	Low: CH36	5180
	15	6	Middle: CH40	5200
	15	6	High: CH48	5240
	15	6	Low: CH52	5260
	15	6	Middle: CH56	5280
	15	6	High: CH64	5320
	15	6	Low: CH100	5500
	15	6	Middle: CH116	5580
	15	6	High: CH140	5700
	15	6	Low: CH149	5745
	15	6	Middle: CH157	5785
	15	6	High: CH165	5825
IEEE 802.11n HT20	15	MCS 0	Low: CH36	5180
	15	MCS 0	Middle: CH40	5200
	15	MCS 0	High: CH48	5240
	15	MCS 0	Low: CH52	5260
	15	MCS 0	Middle: CH56	5280
	15	MCS 0	High: CH64	5320
	15	MCS 0	Low: CH100	5500
	15	MCS 0	Middle: CH116	5580
	15	MCS 0	High: CH140	5700
	15	MCS 0	Low: CH149	5745
	15	MCS 0	Middle: CH157	5785
	15	MCS 0	High: CH165	5825
IEEE 802.11n HT40	14	MCS 0	Low: CH38	5190
	14	MCS 0	Middle: CH46	5230
	14	MCS 0	High: CH54	5270
	14	MCS 0	Low: CH62	5310
	14	MCS 0	Middle: CH102	5510
	14	MCS 0	High: CH110	5550
	14	MCS 0	Low: CH134	5670
	14	MCS 0	Middle: CH151	5755
	14	MCS 0	High: CH159	5795
IEEE 802.11ac HT20	15	MCS 0	Low: CH36	5180
	15	MCS 0	Middle: CH40	5200
	15	MCS 0	High: CH48	5240
	15	MCS 0	Low: CH52	5260
	15	MCS 0	Middle: CH56	5280
	15	MCS 0	High: CH64	5320
	15	MCS 0	Low: CH100	5500
	15	MCS 0	Middle: CH116	5580
	15	MCS 0	High: CH140	5700
	15	MCS 0	Low: CH149	5745
	15	MCS 0	Middle: CH157	5785
	15	MCS 0	High: CH165	5825

IEEE 802.11ac HT40	14	MCS 0	Low: CH38	5190
	14	MCS 0	Middle: CH46	5230
	14	MCS 0	High: CH54	5270
	14	MCS 0	Low: CH62	5310
	14	MCS 0	Middle: CH102	5510
	14	MCS 0	High: CH110	5550
	14	MCS 0	Low: CH134	5670
	14	MCS 0	Middle: CH151	5755
	14	MCS 0	High: CH159	5795
IEEE 802.11ac HT80	13	MCS 0	CH42	5210
	13	MCS 0	CH58	5290
	13	MCS 0	CH106	5530
	13	MCS 0	CH122	5610
	13	MCS 0	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 °C
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 No. 3870.01

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

Industry Canada site registration number: 10288A-1

2.8. Measurement uncertainty

Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum Analyzer)	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Frequencies Stability	6.7×10^{-8} (Antenna couple method)
	5.5×10^{-8} (Conducted method)
Conducted Spurious Emissions	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.40 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
	1.66 dB ($8 \text{ GHz} \leq f < 22 \text{ GHz}$)
Uncertainty for Radio Frequency (RBW < 20 kHz)	3×10^{-8}
Temperature	0.4 °C
Humidity	2 %
Uncertainty for Radiation Emission Test (30 MHz - 1 GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission Test (1 GHz - 40 GHz)	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.

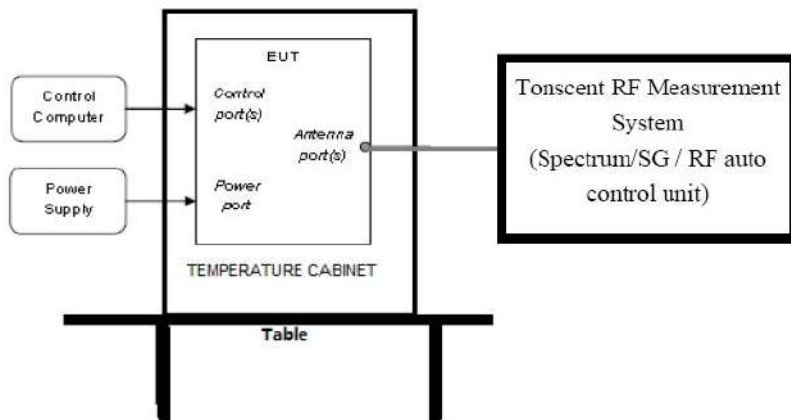
3. Equipment Used During Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
RF Connected Test (Tonscend RF Measurement System)					
Spectrum analyzer	R&S	FSU26	200071	Sep. 29, 2019	1 Year
Wideband Radio Communication tester	R&S	CMW500	117491	Jun. 25, 2019	1 Year
Vector Signal Generator	Agilent	E8267D	US49060192	Sep. 29, 2019	1 Year
Vector Signal Generator	Agilent	N5182A	MY48180737	Jun. 25, 2019	1 Year
Power Sensor	Agilent	U2021XA	MY55150010	Jun. 28, 2019	1 Year
Power Sensor	Agilent	U2021XA	MY55150011	Jun. 28, 2019	1 Year
DC Power Source	MATRIS	MPS-3005L-3	D813058W	Jun. 25, 2019	1 Year
RF Cable	Micable	C10-01-01-1	100309	Sep. 29, 2019	1 Year
Temp&Humi Programmable	ZHIXIANG	ZXGDJS-150L	ZX170110-A	Oct. 21, 2019	1 Year
Test Software	JS Tonscend	JS1120-3	Ver.2.7	N/A	N/A
Radiation 1#chamber					
EMI Test Receiver	R&S	ESU8	100316	Sep. 29, 2019	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	Jun. 25, 2019	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	Nov. 15, 2019	1 Year
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	Sep. 29, 2019	1 Year
Double Ridged Horn Antenna	R&S	HF907	100276	Nov. 15, 2019	1 Year
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	Sep. 29, 2019	1 Year
Pre-amplifier	A.H.	PAM-0118	360	Sep. 29, 2019	1 Year
Pre-amplifier	TERA-MW	TRLA-0040 G35	101303	Sep. 29, 2019	1 Year
RF Cable	HUBSER	CP-X2+ CP-X1	W11.03+ W12.02	Sep. 29, 2019	1 Year
RF Cable	N/A	5m+6m+1m	06270619	Sep. 29, 2019	1 Year
MI Cable	HUBSER	C10-01-01-1 M	1091629	Sep. 29, 2019	1 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A
Radiation 2#chamber					
EMI Test Receiver	R&S	ESCI	101364	Sep. 29, 2019	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	Jun. 25, 2019	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	9163-994	Nov. 15, 2019	1 Year
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	Sep. 29, 2019	1 Year
Double Ridged Horn Antenna	Schwarzbeck	BBHA9120	02108	Jul. 21, 2019	1 Year
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	Sep. 29, 2019	1 Year

Pre-amplifier	TERA-MW	TRLA-0040 G35	101303	Sep. 29, 2019	1 Year
RF Cable	N/A	14+1.5m	06270619	Sep. 29, 2019	1 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A

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

4.1. Block diagram of test setup



4.2. Limits

FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Bandwidth	26 dB Bandwidth	5150 - 5250
	26 dB Bandwidth	5250 - 5350
	26 dB Bandwidth	5470 - 5725
	Minimum 500 kHz 6 dB 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

99% Bandwidth:

Test Mode	Antenna	Channel	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5180	16.72	5171.640	5188.360	---	PASS
		5200	16.76	5191.640	5208.400	---	PASS
		5240	16.64	5231.680	5248.320	---	PASS
		5260	16.68	5251.680	5268.360	---	PASS
		5280	16.76	5271.680	5288.440	---	PASS
		5320	16.64	5311.720	5328.360	---	PASS
		5500	16.64	5491.720	5508.360	---	PASS
		5580	16.64	5571.680	5588.320	---	PASS
		5700	16.80	5691.640	5708.440	---	PASS
		5745	16.84	5736.600	5753.440	---	PASS
		5785	16.80	5776.600	5793.400	---	PASS
		5825	17.76	5816.280	5834.040	---	PASS
11N20 SISO	Ant1	5180	17.68	5171.160	5188.840	---	PASS
		5200	17.76	5191.160	5208.920	---	PASS
		5240	17.64	5231.200	5248.840	---	PASS
		5260	17.72	5251.200	5268.920	---	PASS
		5280	17.80	5271.160	5288.960	---	PASS
		5320	17.72	5311.200	5328.920	---	PASS
		5500	17.72	5491.200	5508.920	---	PASS
		5580	17.88	5571.080	5588.960	---	PASS
		5700	17.76	5691.160	5708.920	---	PASS
		5745	18.16	5736.040	5754.200	---	PASS
		5785	17.72	5776.160	5793.880	---	PASS
		5825	18.16	5816.080	5834.240	---	PASS
11N40 SISO	Ant1	5190	36.56	5171.680	5208.240	---	PASS
		5230	36.56	5211.760	5248.320	---	PASS
		5270	36.40	5251.840	5288.240	---	PASS
		5310	36.24	5291.920	5328.160	---	PASS
		5510	36.32	5491.840	5528.160	---	PASS
		5550	36.32	5531.920	5568.240	---	PASS
		5670	36.16	5651.920	5688.080	---	PASS
		5755	36.32	5736.840	5773.160	---	PASS
		5795	36.32	5776.840	5813.160	---	PASS
11AC20 SISO	Ant1	5180	17.72	5171.160	5188.880	---	PASS
		5200	17.68	5191.120	5208.800	---	PASS
		5240	17.60	5231.200	5248.800	---	PASS
		5260	17.72	5251.120	5268.840	---	PASS
		5280	17.68	5271.160	5288.840	---	PASS
		5320	17.64	5311.160	5328.800	---	PASS
		5500	17.68	5491.160	5508.840	---	PASS
		5580	17.68	5571.120	5588.800	---	PASS
		5700	17.68	5691.120	5708.800	---	PASS
		5720	17.64	5711.160	5728.800	---	PASS
		5745	17.68	5736.120	5753.800	---	PASS
		5785	17.64	5776.160	5793.800	---	PASS
		5825	17.68	5816.120	5833.800	---	PASS

11AC40 SISO	Ant1	5190	36.40	5171.680	5208.080	---	PASS
		5230	36.56	5211.680	5248.240	---	PASS
		5270	36.40	5251.760	5288.160	---	PASS
		5310	36.32	5291.840	5328.160	---	PASS
		5510	36.40	5491.760	5528.160	---	PASS
		5550	36.24	5531.840	5568.080	---	PASS
		5670	36.24	5651.840	5688.080	---	PASS
		5755	36.40	5736.760	5773.160	---	PASS
		5795	36.32	5776.760	5813.080	---	PASS
11AC80 SISO	Ant1	5210	75.36	5172.240	5247.600	---	PASS
		5290	75.20	5252.400	5327.600	---	PASS
		5530	74.88	5492.560	5567.440	---	PASS
		5610	75.36	5572.240	5647.600	---	PASS
		5690	74.88	5652.400	5727.280	---	PASS
		5775	74.88	5737.400	5812.280	---	PASS

26 dB EBW:

Test Mode	Antenna	Channel	26 db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5180	21.360	5169.360	5190.720	---	PASS
		5200	21.440	5189.480	5210.920	---	PASS
		5240	21.000	5229.680	5250.680	---	PASS
		5260	21.080	5249.760	5270.840	---	PASS
		5280	22.200	5269.560	5291.760	---	PASS
		5320	21.640	5309.720	5331.360	---	PASS
		5500	21.160	5489.720	5510.880	---	PASS
		5580	20.520	5569.680	5590.200	---	PASS
		5700	22.280	5689.680	5711.960	---	PASS
11N20 SISO	Ant1	5180	21.520	5168.960	5190.480	---	PASS
		5200	22.120	5188.960	5211.080	---	PASS
		5240	21.160	5229.520	5250.680	---	PASS
		5260	21.240	5249.560	5270.800	---	PASS
		5280	21.840	5269.520	5291.360	---	PASS
		5320	21.680	5309.600	5331.280	---	PASS
		5500	21.240	5489.600	5510.840	---	PASS
		5580	21.080	5569.600	5590.680	---	PASS
		5700	21.720	5689.480	5711.200	---	PASS
11N40 SISO	Ant1	5190	52.960	5159.600	5212.560	---	PASS
		5230	57.040	5199.680	5256.720	---	PASS
		5270	46.400	5246.480	5292.880	---	PASS
		5310	47.040	5286.640	5333.680	---	PASS
		5510	46.080	5486.560	5532.640	---	PASS
		5550	46.080	5526.880	5572.960	---	PASS
		5670	43.600	5647.600	5691.200	---	PASS
11AC20 SISO	Ant1	5180	21.440	5169.360	5190.800	---	PASS
		5200	20.720	5189.560	5210.280	---	PASS
		5240	20.680	5229.680	5250.360	---	PASS
		5260	20.640	5249.600	5270.240	---	PASS
		5280	20.880	5269.520	5290.400	---	PASS
		5320	20.760	5309.560	5330.320	---	PASS
		5500	20.720	5489.600	5510.320	---	PASS

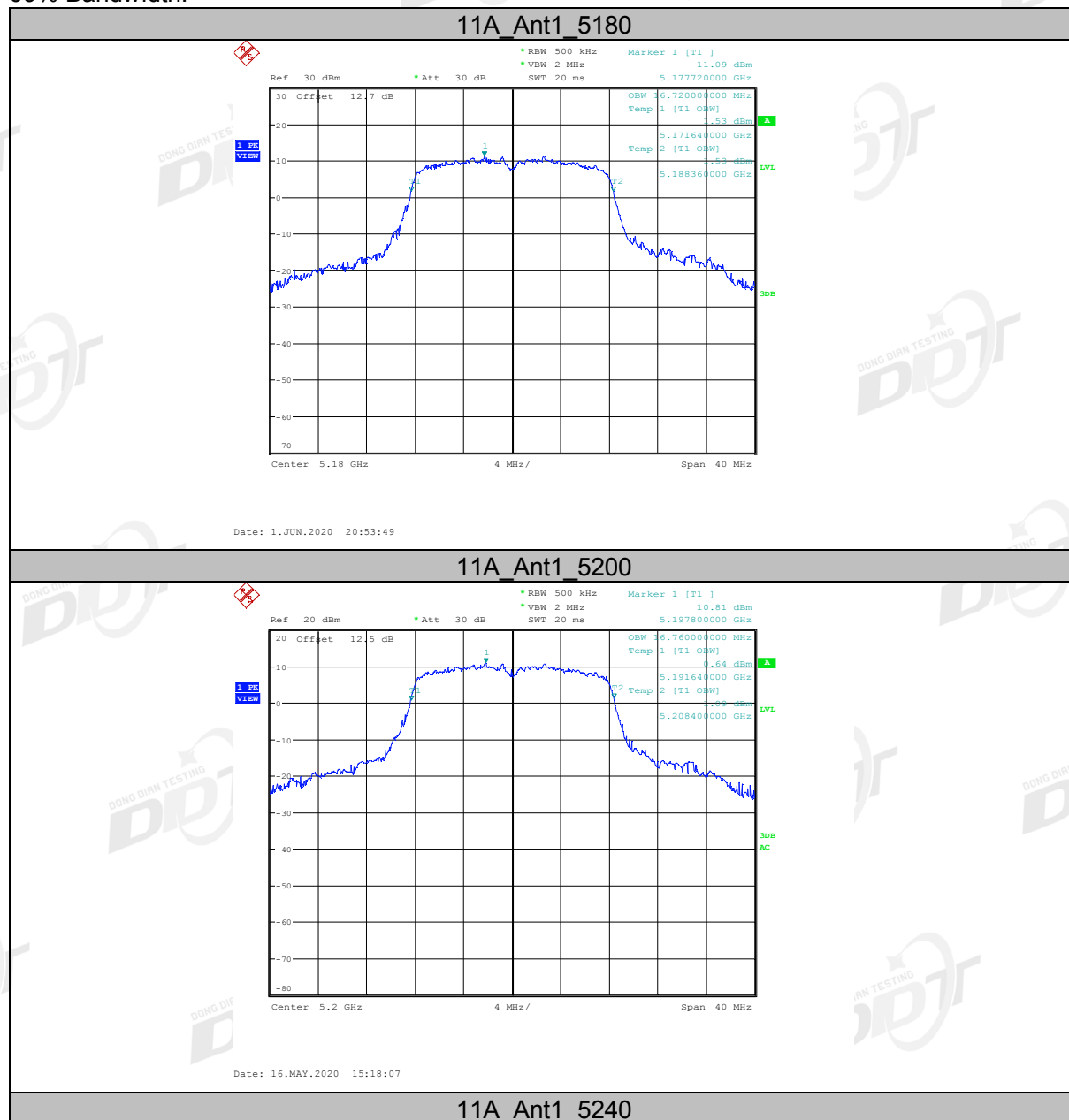
		5580	20.600	5569.640	5590.240	---	PASS
		5700	20.680	5689.640	5710.320	---	PASS
		5720	20.680	5709.600	5730.280	---	PASS
11AC40 SISO	Ant1	5190	46.560	5166.000	5212.560	---	PASS
		5230	45.920	5207.040	5252.960	---	PASS
		5270	46.880	5246.480	5293.360	---	PASS
		5310	44.000	5287.200	5331.200	---	PASS
		5510	46.480	5487.120	5533.600	---	PASS
		5550	46.240	5526.160	5572.400	---	PASS
		5670	45.760	5647.120	5692.880	---	PASS
11AC80 SISO	Ant1	5210	83.200	5168.080	5251.280	---	PASS
		5290	83.360	5247.920	5331.280	---	PASS
		5530	81.920	5489.200	5571.120	---	PASS
		5610	85.600	5567.920	5653.520	---	PASS
		5690	82.080	5648.880	5730.960	---	PASS

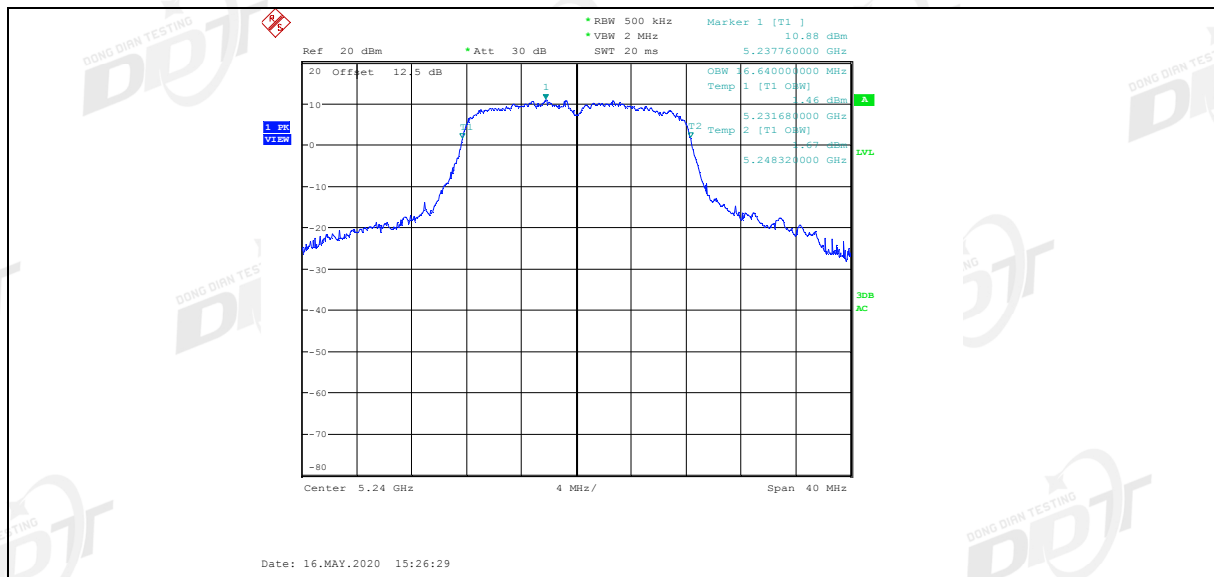
6 db EBW:

Test Mode	Antenna	Channel	6 db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	15.400	5737.200	5752.600	0.5	PASS
		5785	15.200	5777.400	5792.600	0.5	PASS
		5825	15.200	5817.400	5832.600	0.5	PASS
11N20S ISO	Ant1	5745	15.200	5737.400	5752.600	0.5	PASS
		5785	15.520	5777.080	5792.600	0.5	PASS
		5825	15.240	5817.360	5832.600	0.5	PASS
11N40S ISO	Ant1	5755	35.280	5737.320	5772.600	0.5	PASS
		5795	35.280	5777.320	5812.600	0.5	PASS
11AC20 SISO	Ant1	5745	15.240	5737.360	5752.600	0.5	PASS
		5785	15.200	5777.360	5792.560	0.5	PASS
		5825	15.240	5817.360	5832.600	0.5	PASS
11AC40 SISO	Ant1	5755	35.280	5737.320	5772.600	0.5	PASS
		5795	35.280	5777.320	5812.600	0.5	PASS
11AC80 SISO	Ant1	5775	74.240	5737.240	5811.480	0.5	PASS

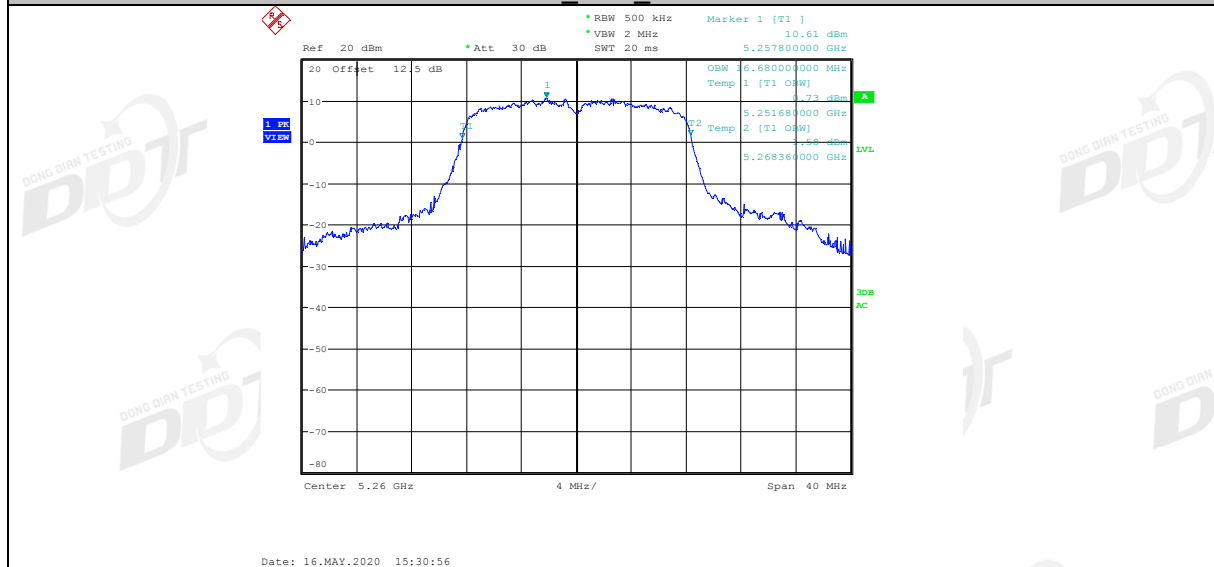
4.5. Original test data

99% Bandwidth:

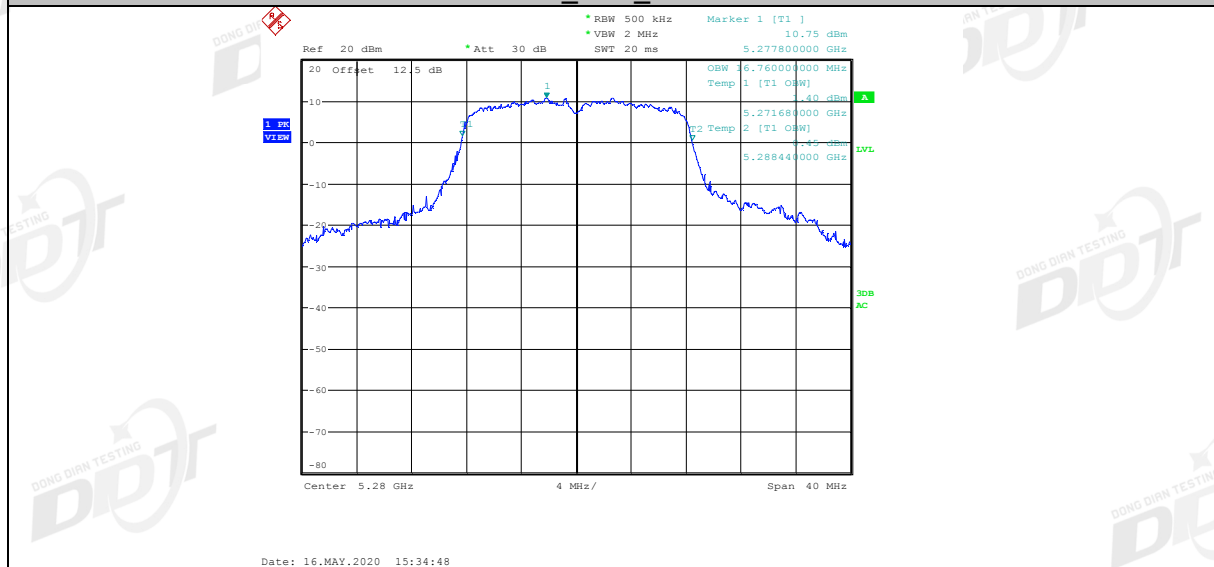




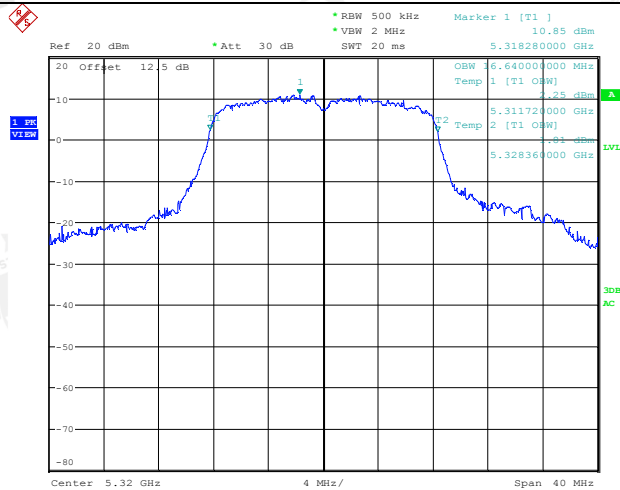
11A_Ant1_5260



11A_Ant1_5280

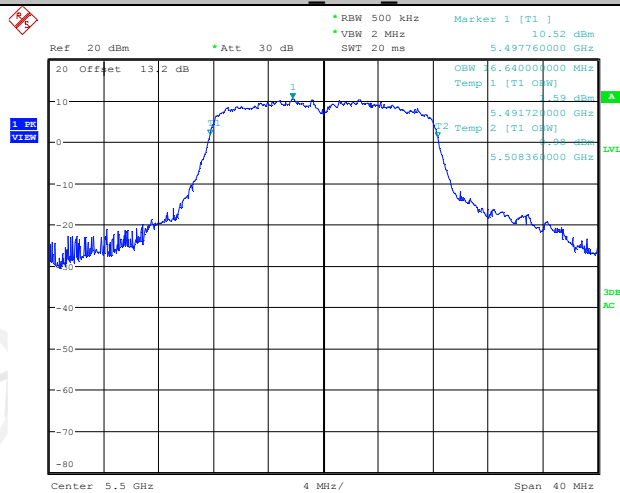


11A_Ant1_5320



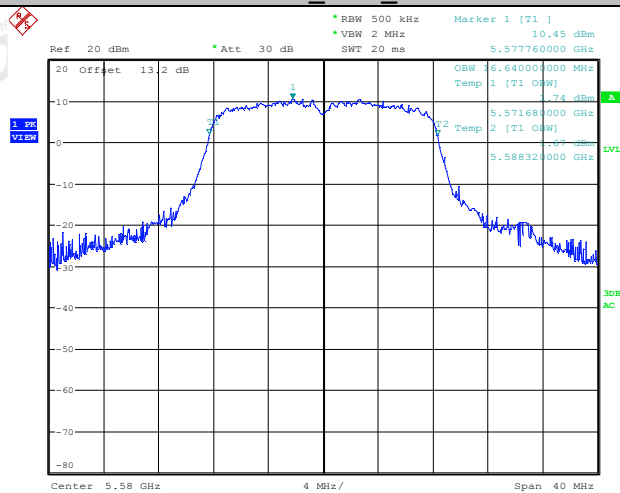
Date: 16.MAY.2020 15:37:45

11A_Ant1_5500



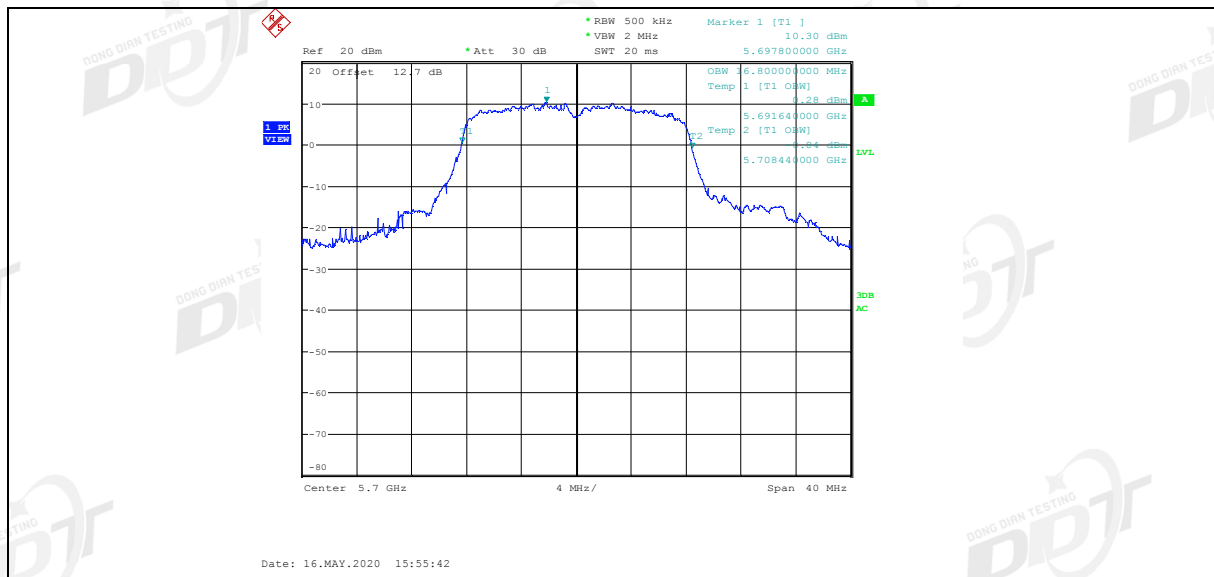
Date: 16.MAY.2020 15:46:35

11A_Ant1_5580

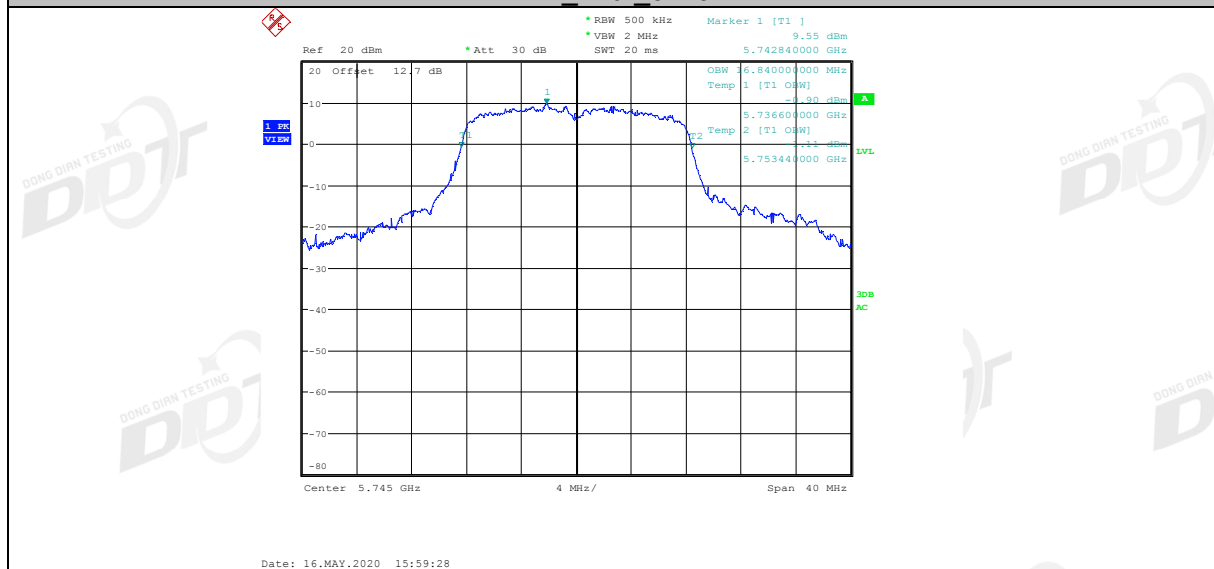


Date: 16.MAY.2020 15:52:35

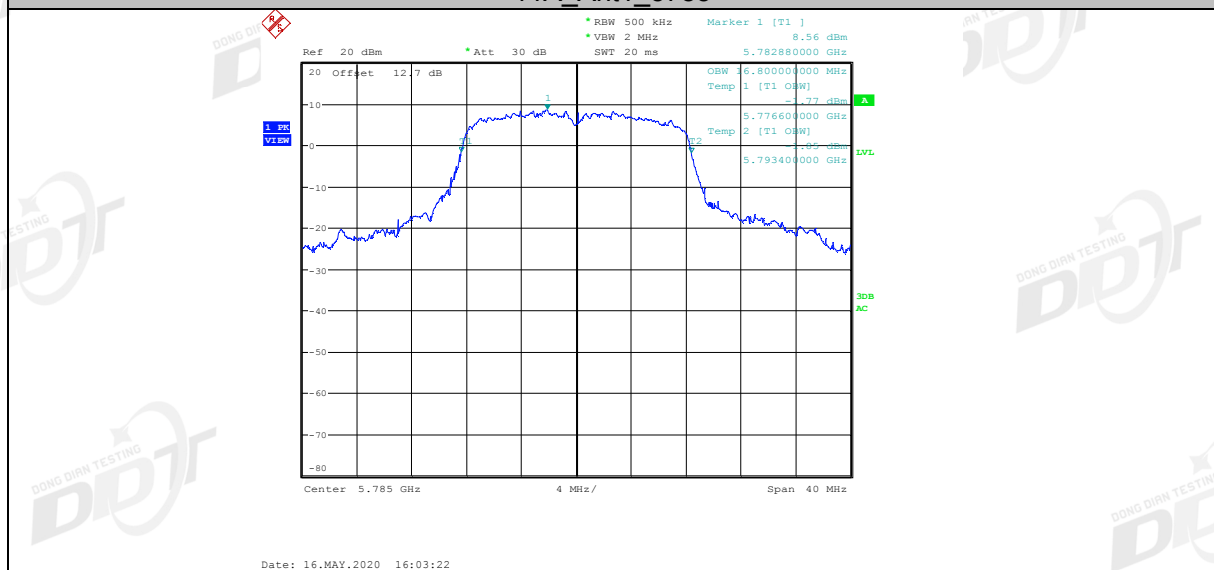
11A Ant1 5700



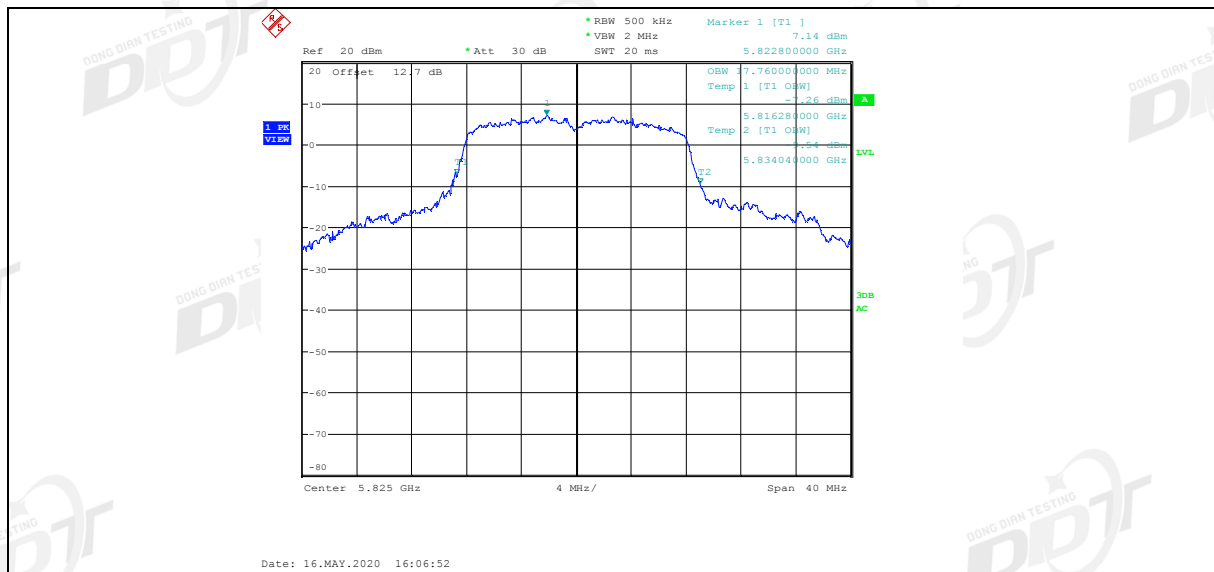
11A_Ant1_5745



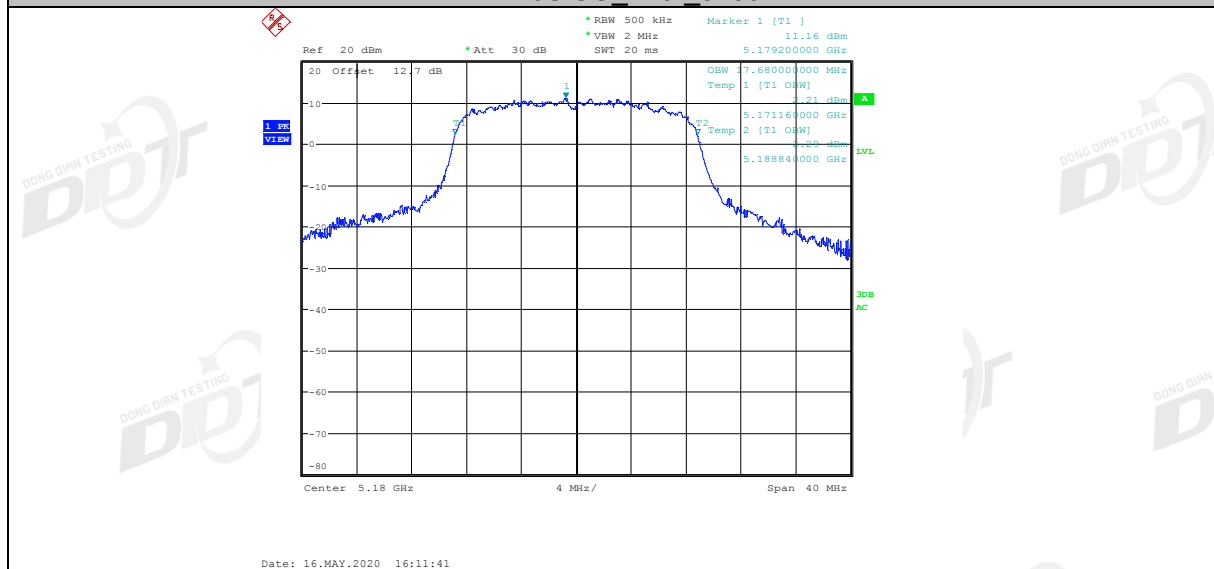
11A_Ant1_5785



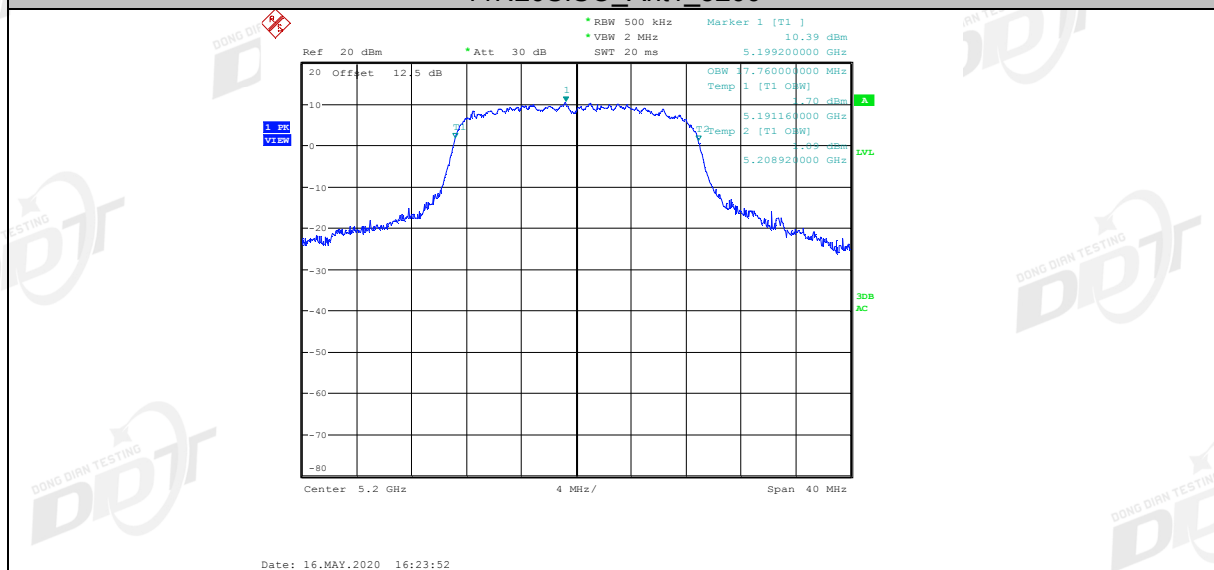
11A_Ant1_5825



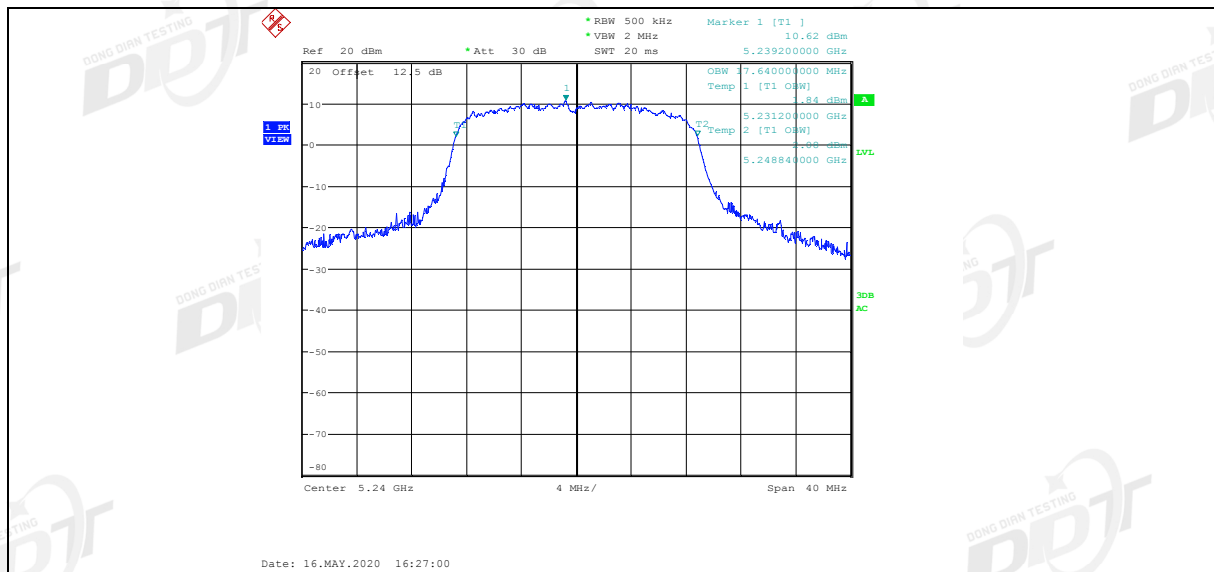
11N20SISO_Ant1_5180



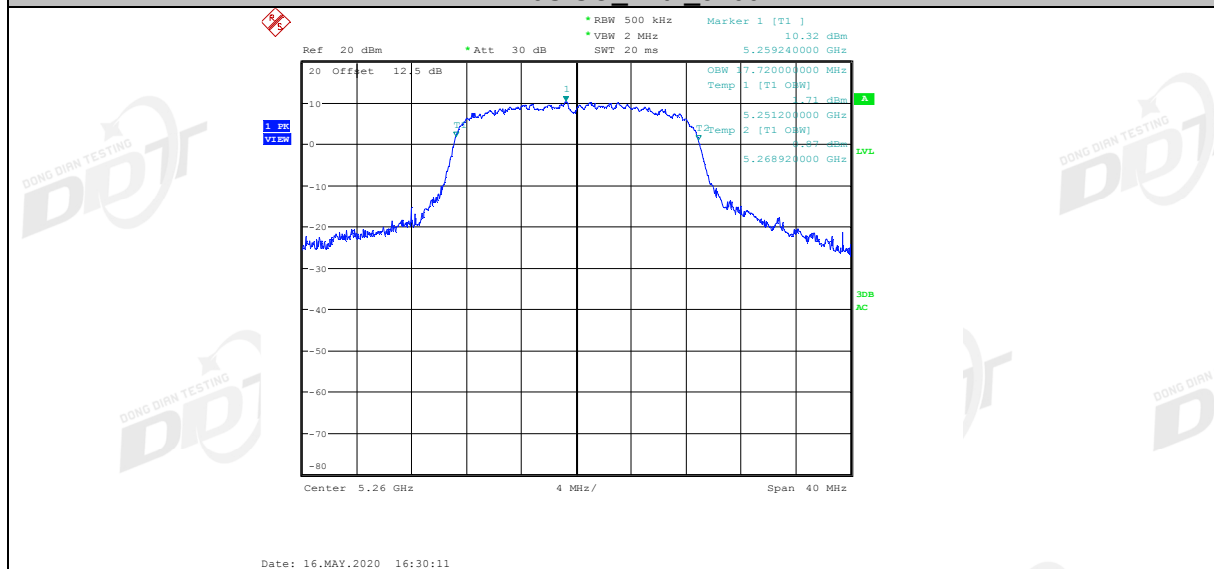
11N20SISO_Ant1_5200



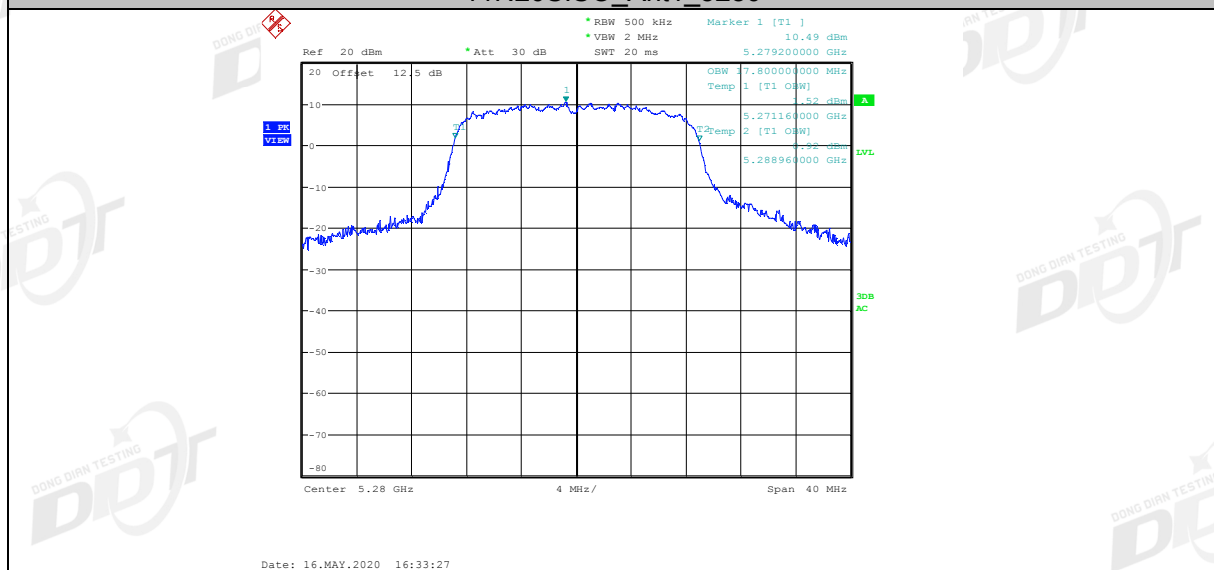
11N20SISO_Ant1_5240



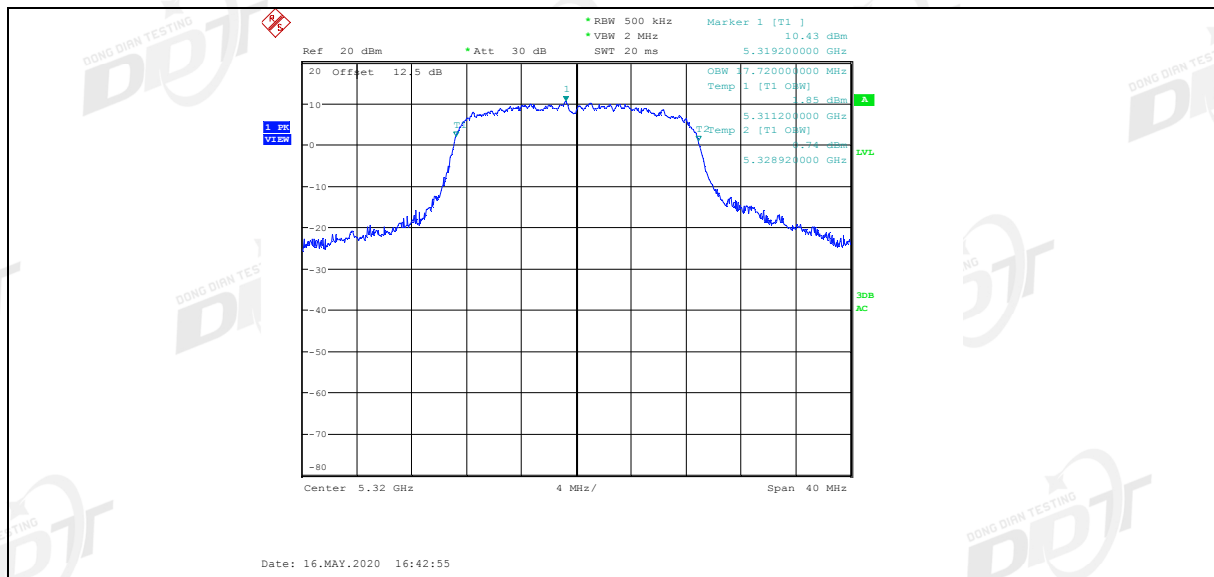
11N20SISO_Ant1_5260



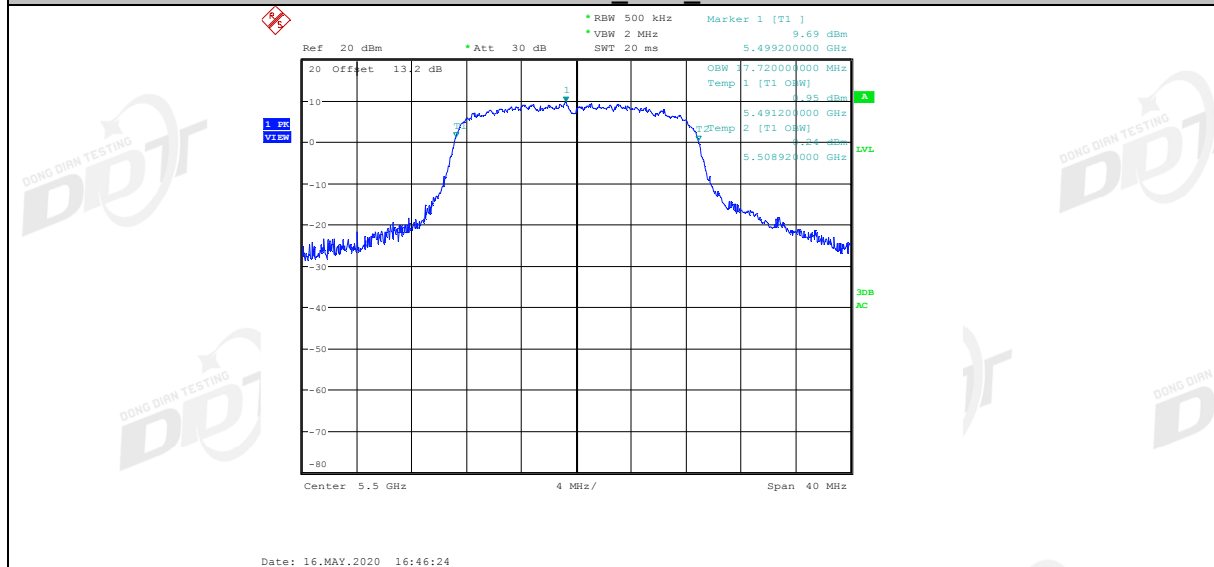
11N20SISO_Ant1_5280



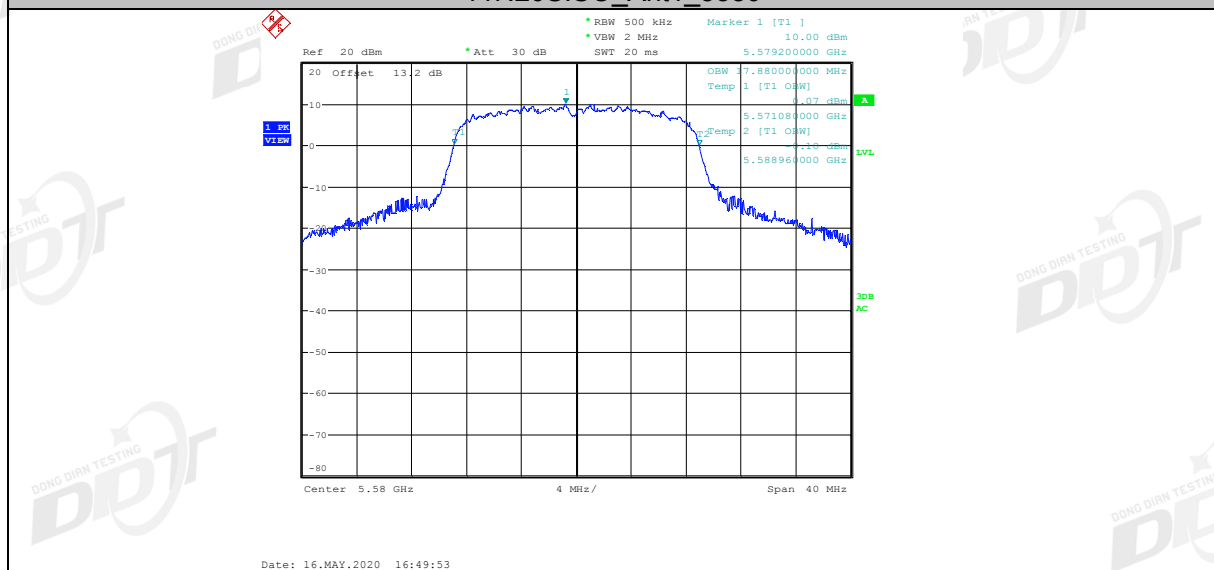
11N20SISO_Ant1_5320



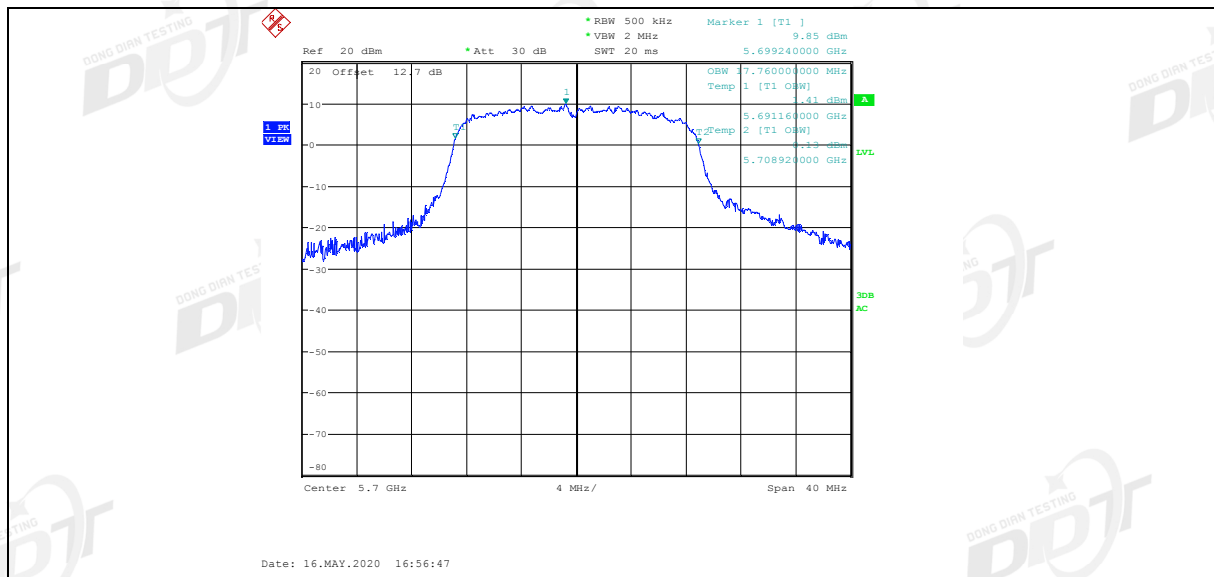
11N20SISO_Ant1_5500



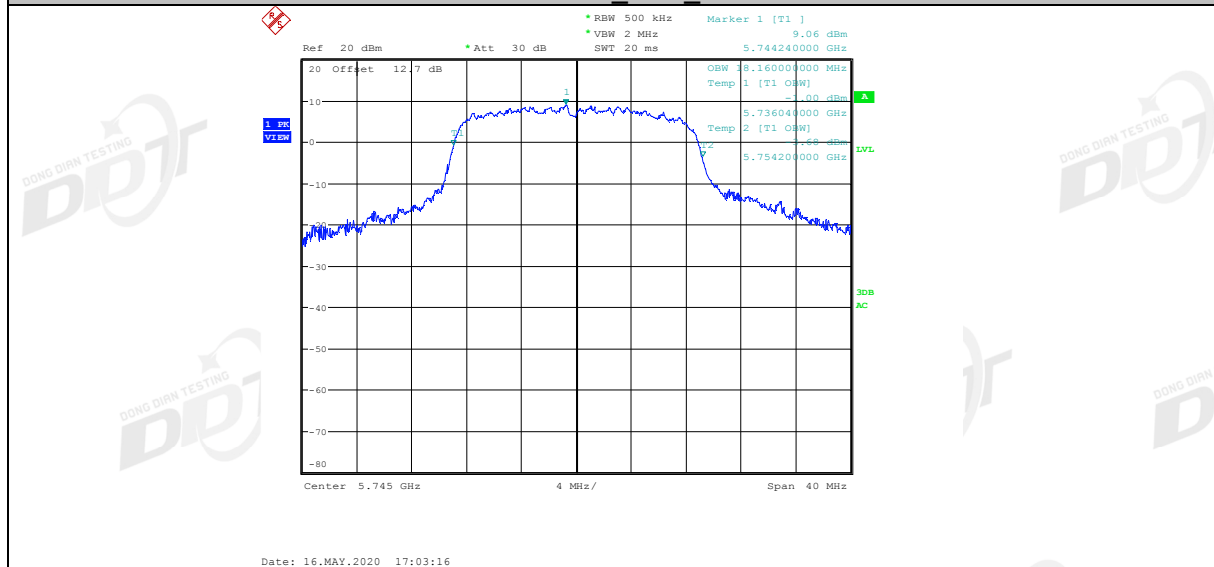
11N20SISO_Ant1_5580



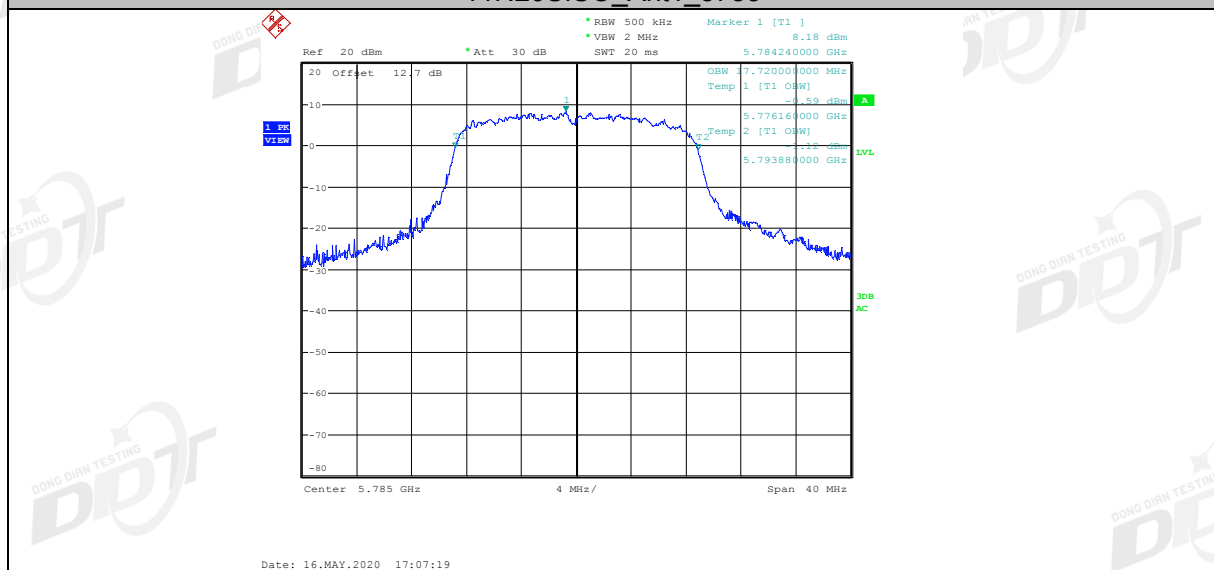
11N20SISO_Ant1_5700



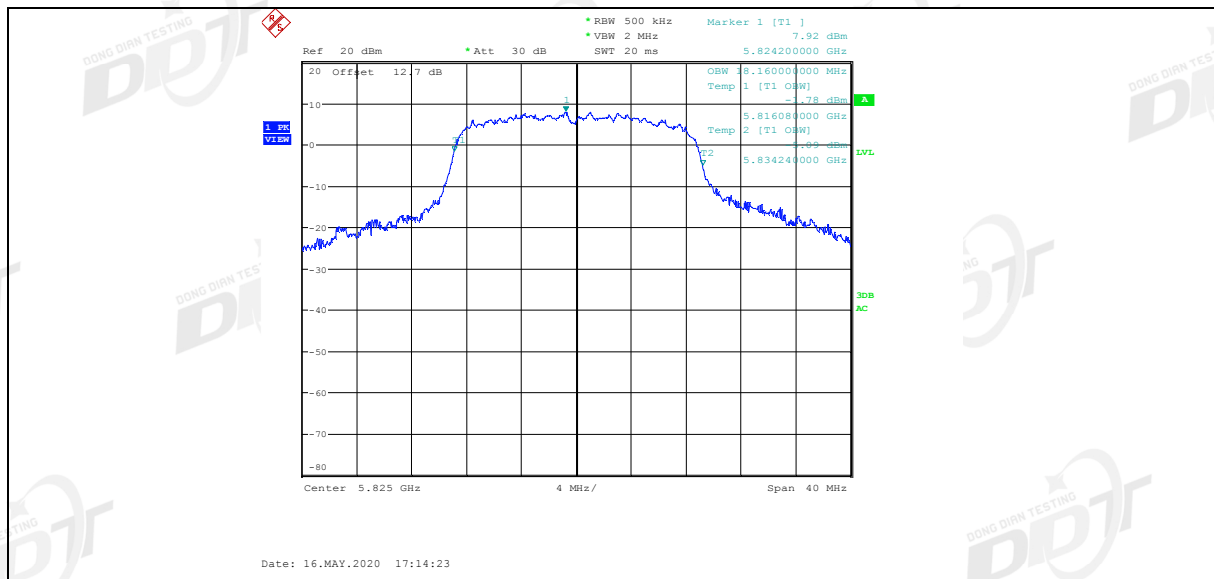
11N20SISO_Ant1_5745



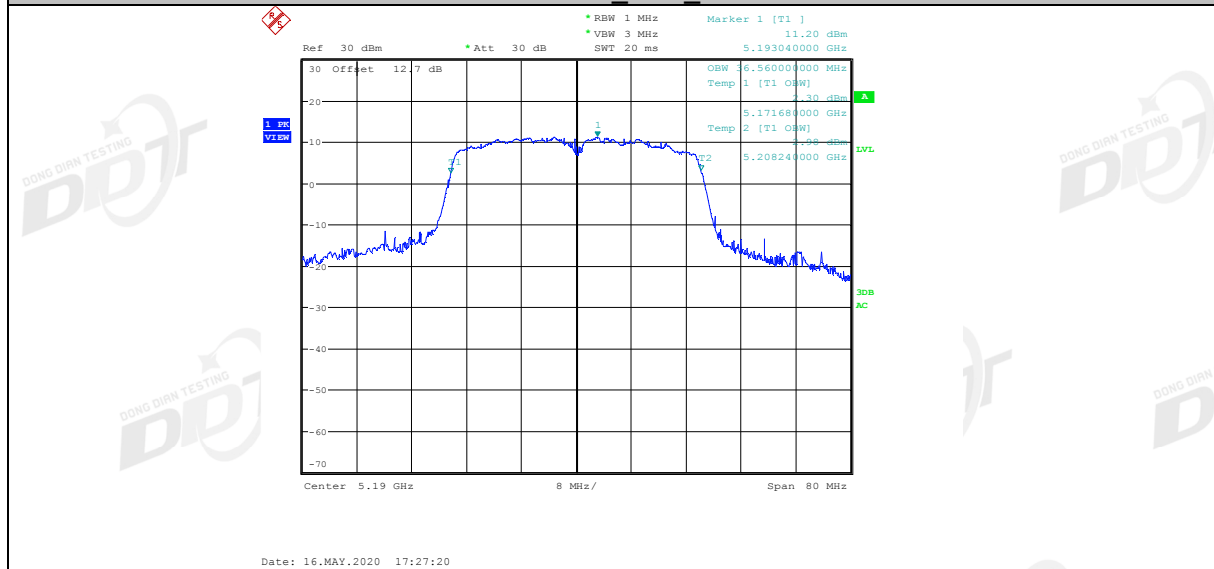
11N20SISO_Ant1_5785



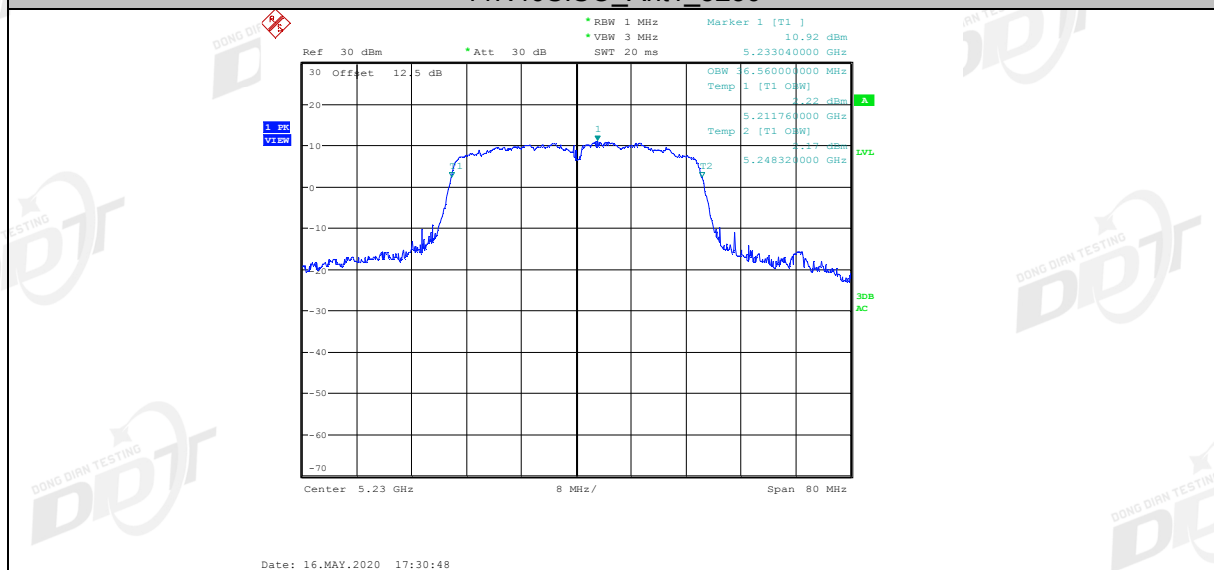
11N20SISO_Ant1_5825



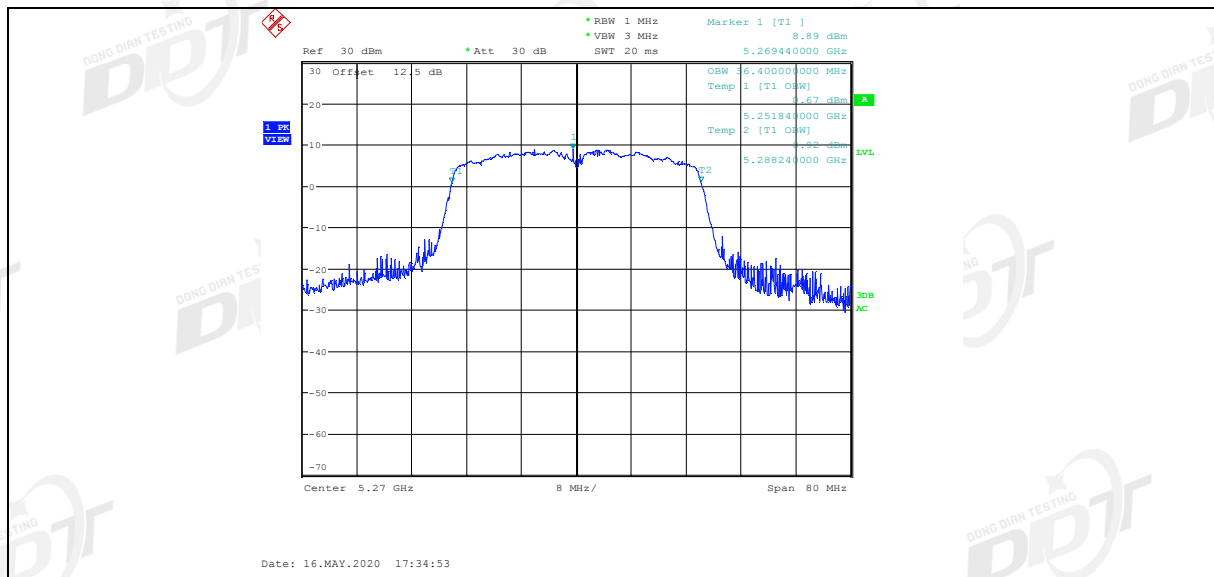
11N40SISO_Ant1_5190



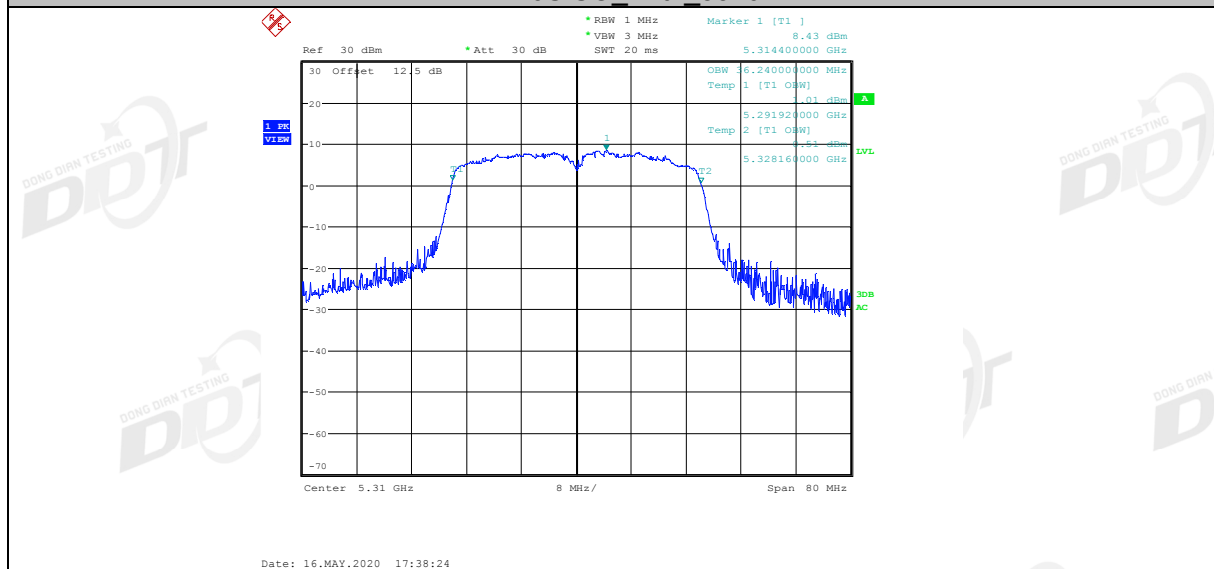
11N40SISO_Ant1_5230



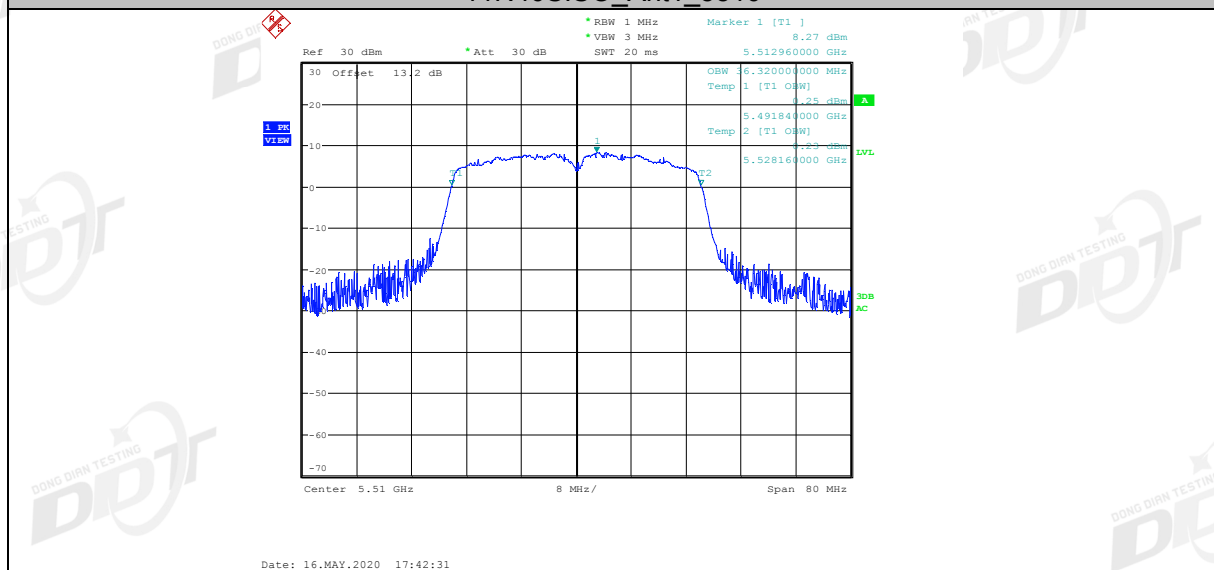
11N40SISO_Ant1_5270



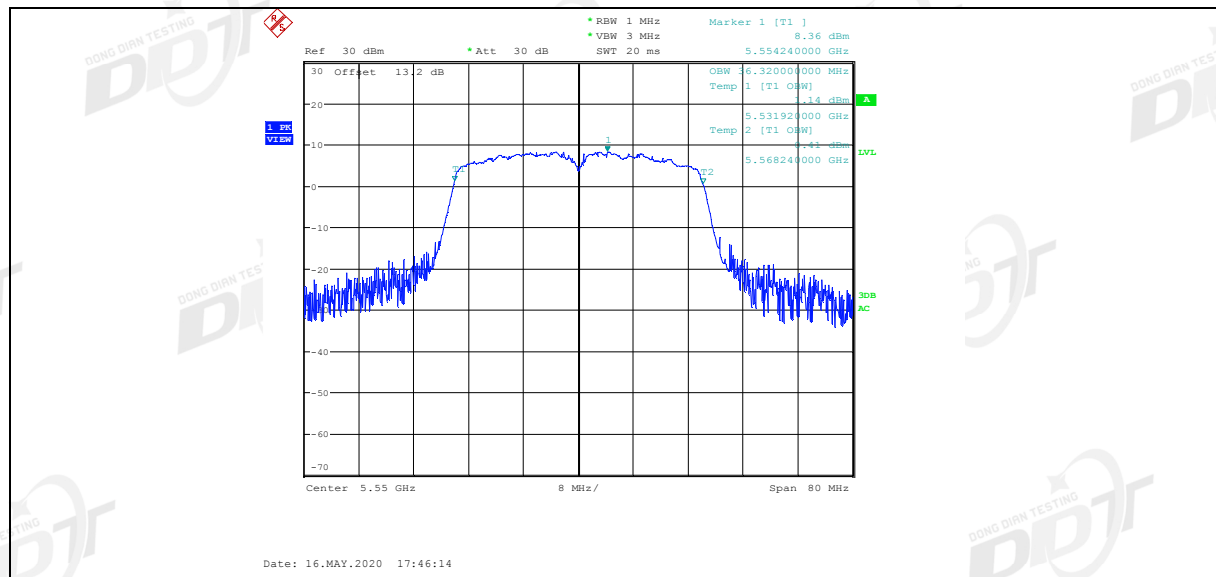
11N40SISO_Ant1_5310



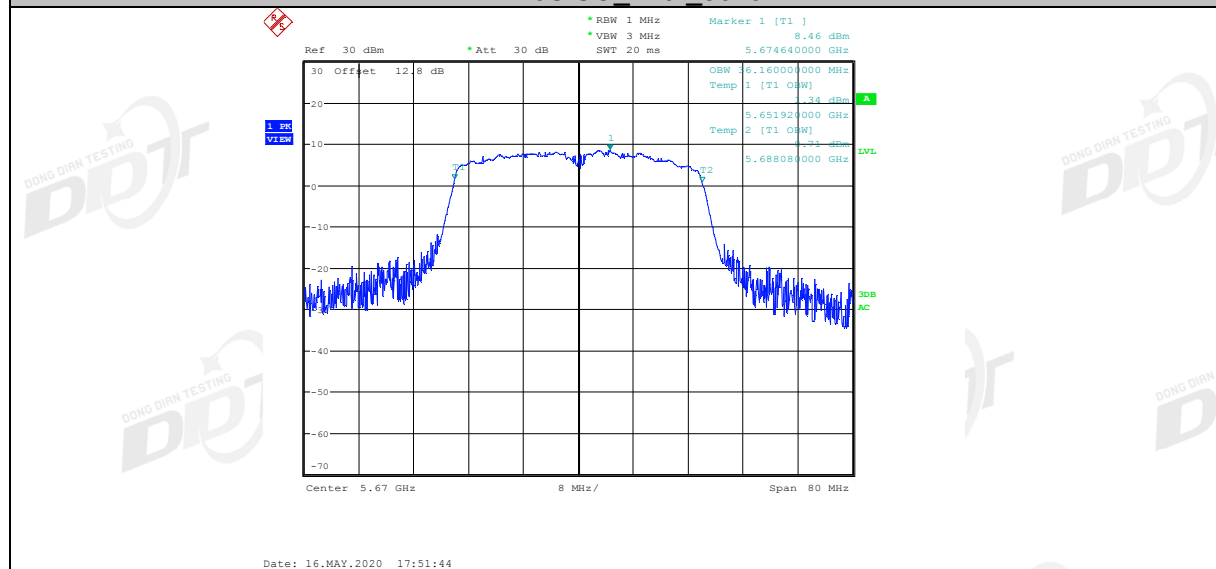
11N40SISO_Ant1_5510



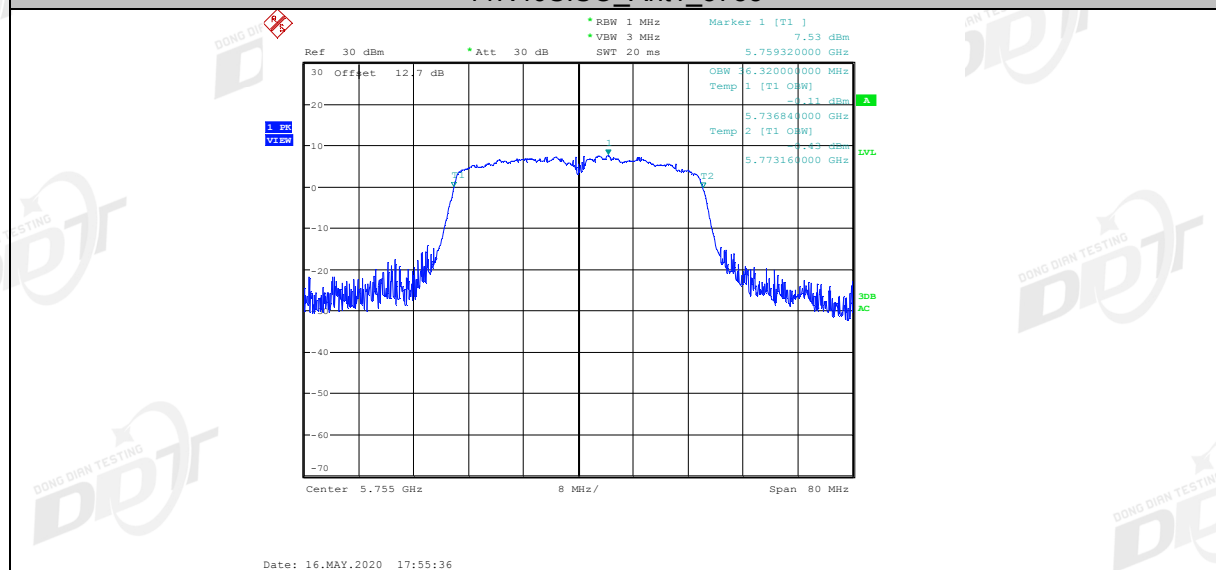
11N40SISO_Ant1_5550



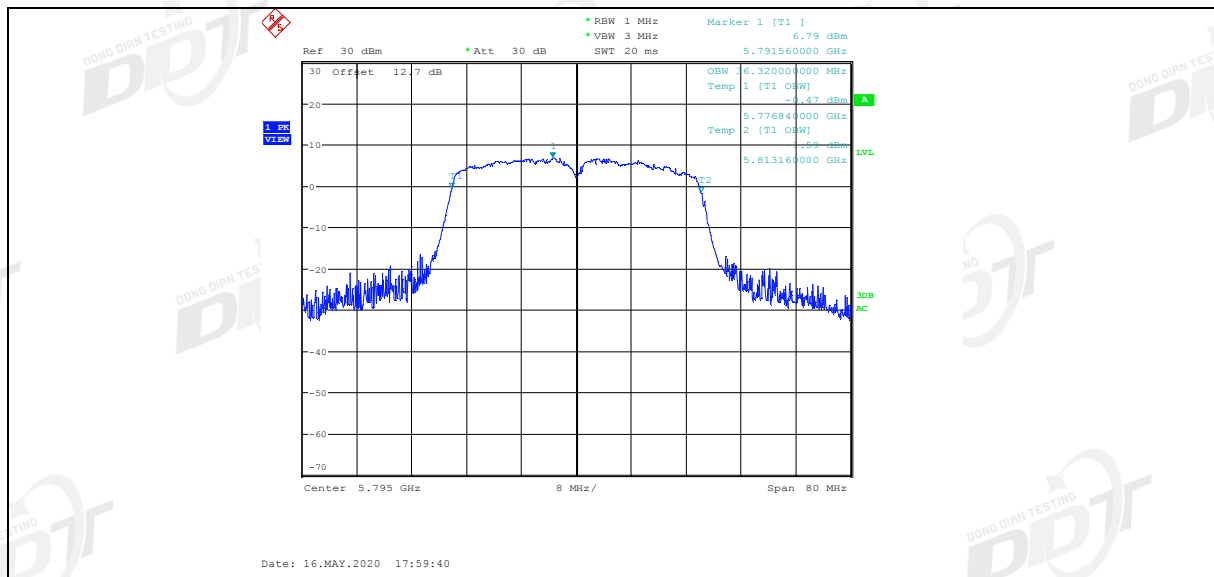
11N40SISO_Ant1_5670



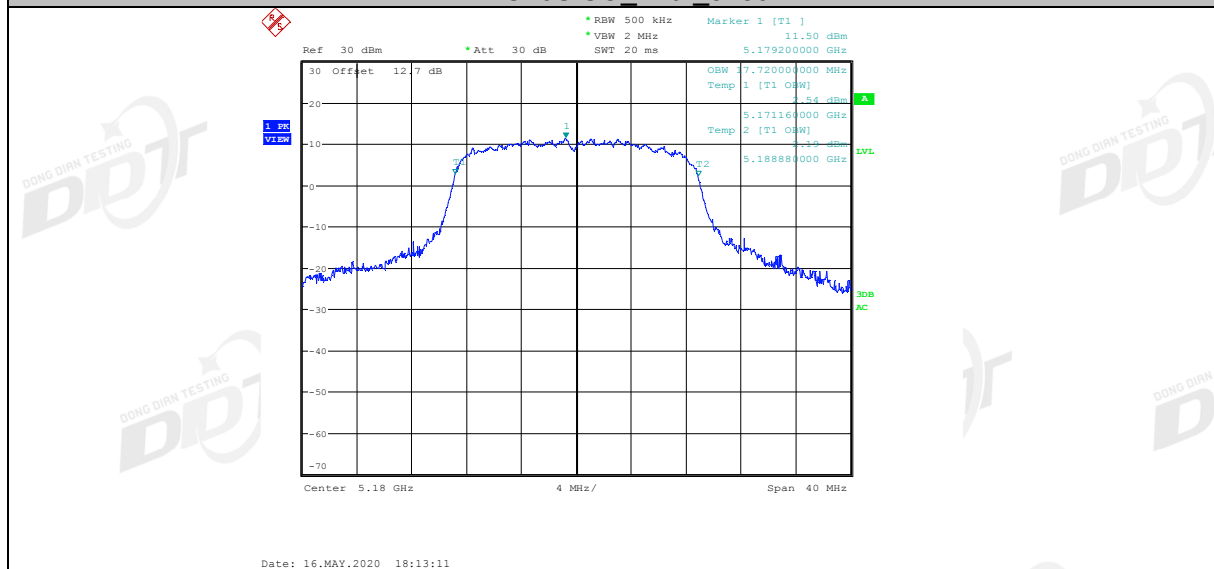
11N40SISO_Ant1_5755



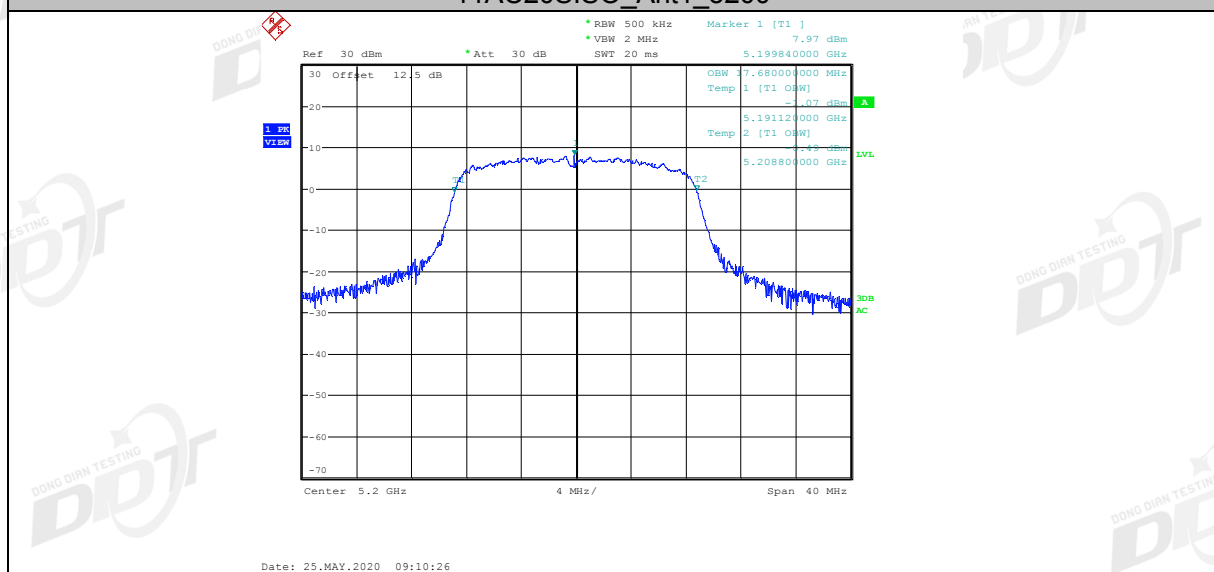
11N40SISO_Ant1_5795



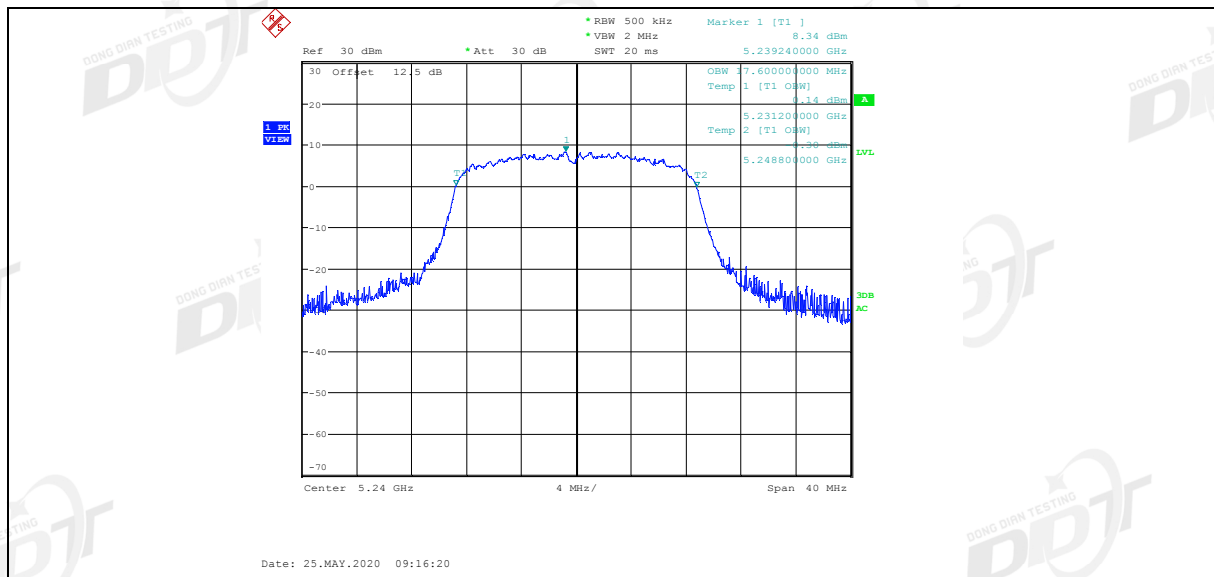
11AC20SISO_Ant1_5180



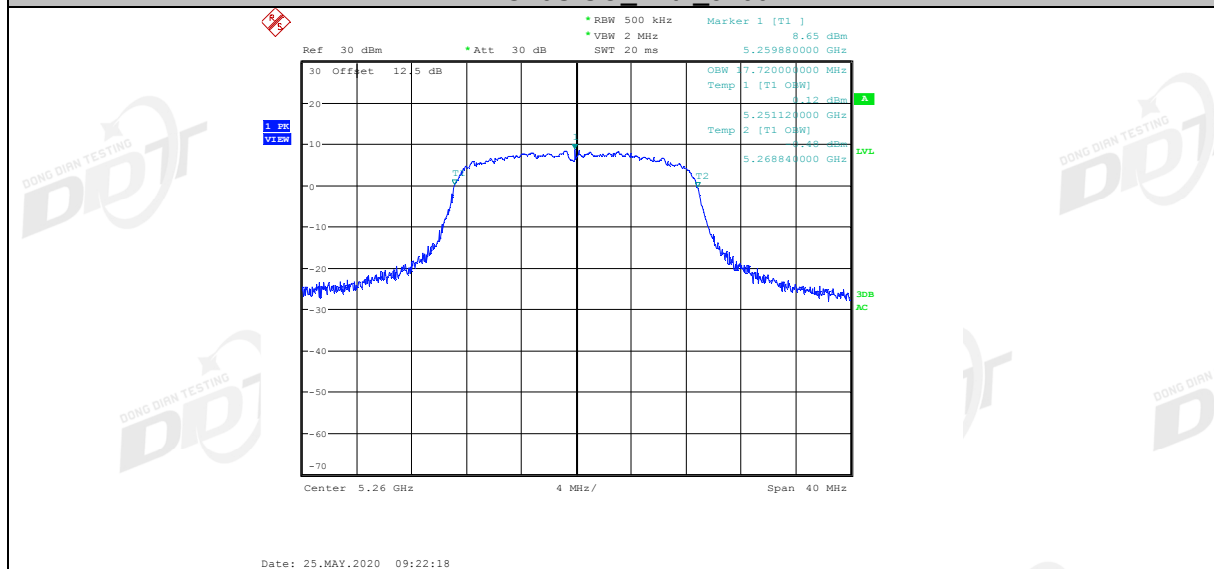
11AC20SISO_Ant1_5200



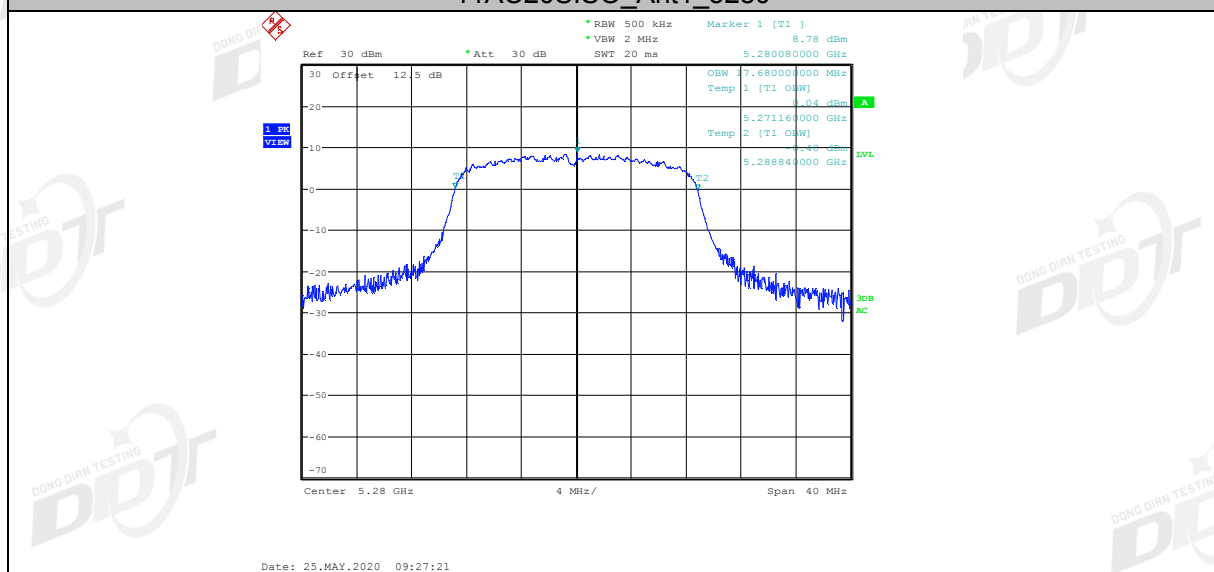
11AC20SISO_Ant1_5240



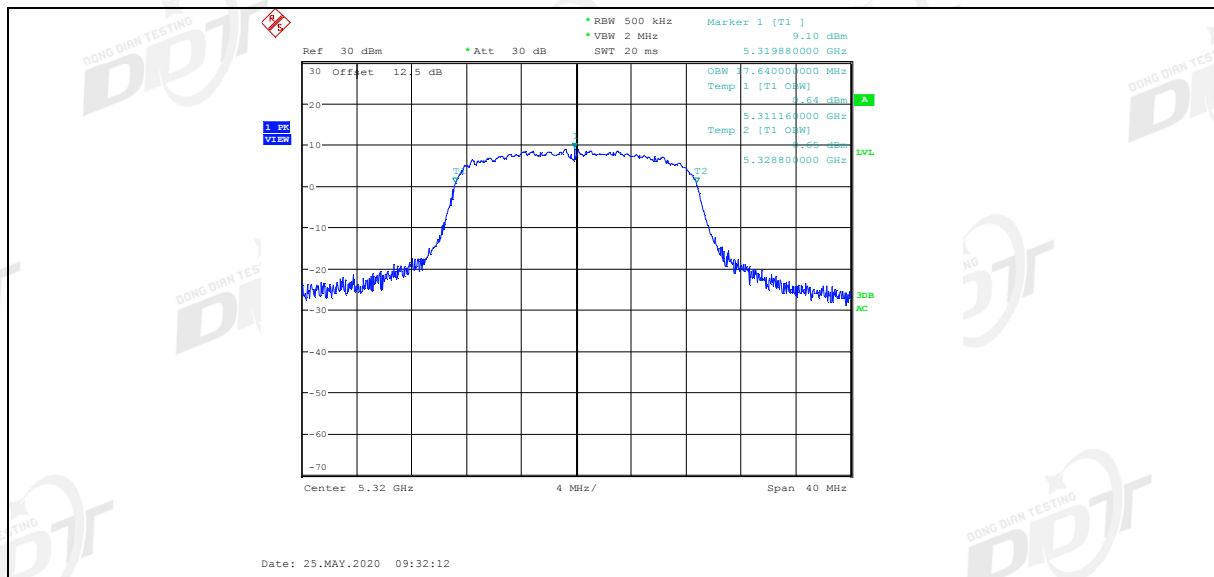
11AC20SISO_Ant1_5260



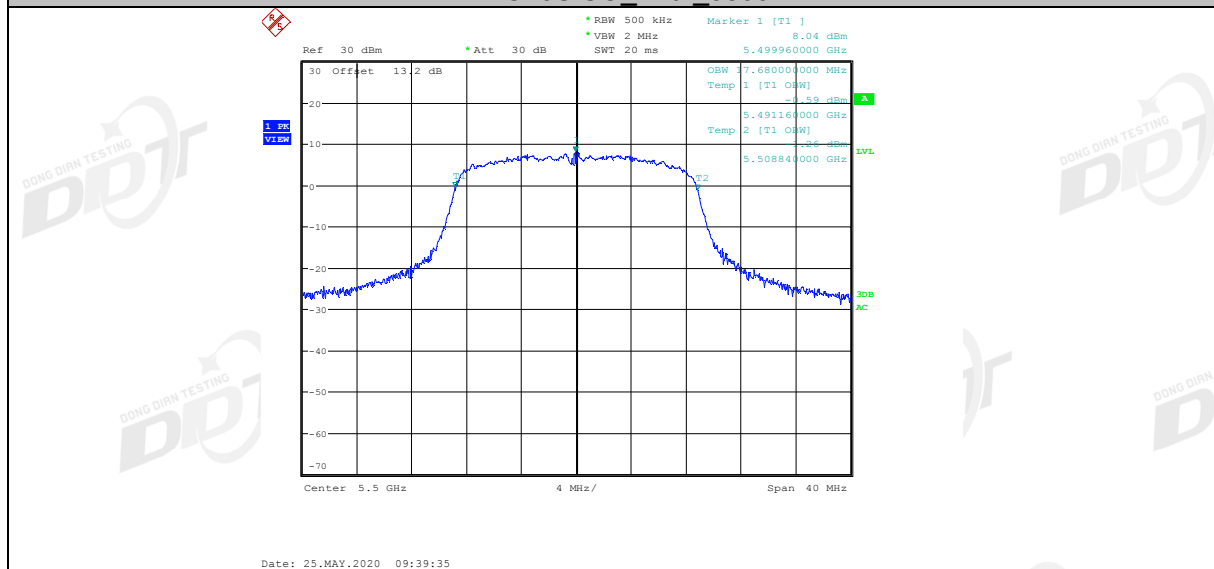
11AC20SISO_Ant1_5280



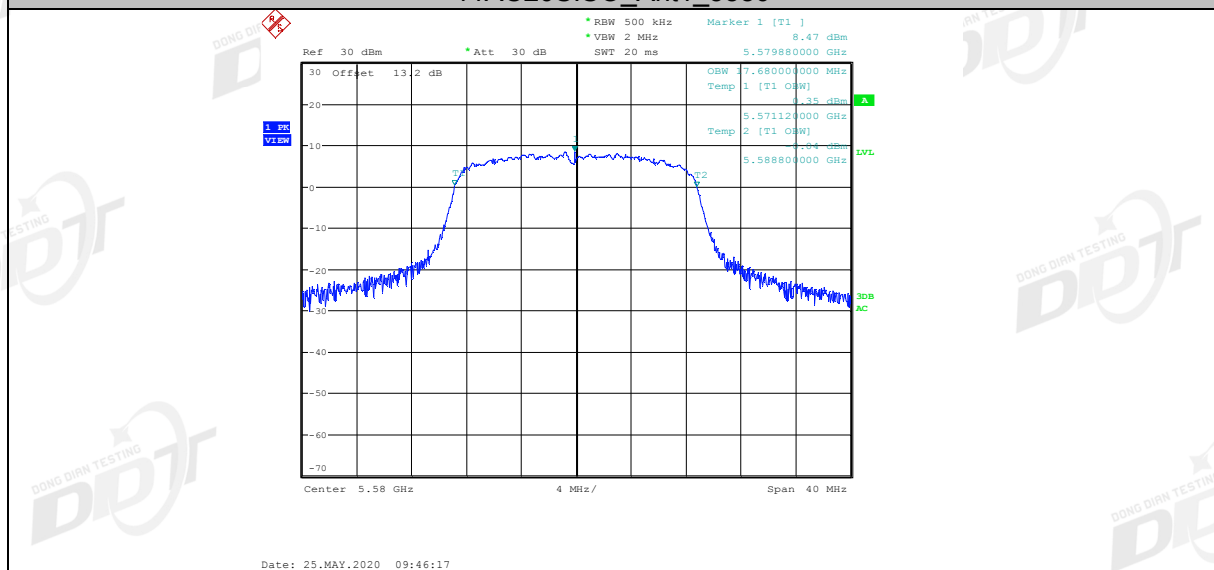
11AC20SISO_Ant1_5320



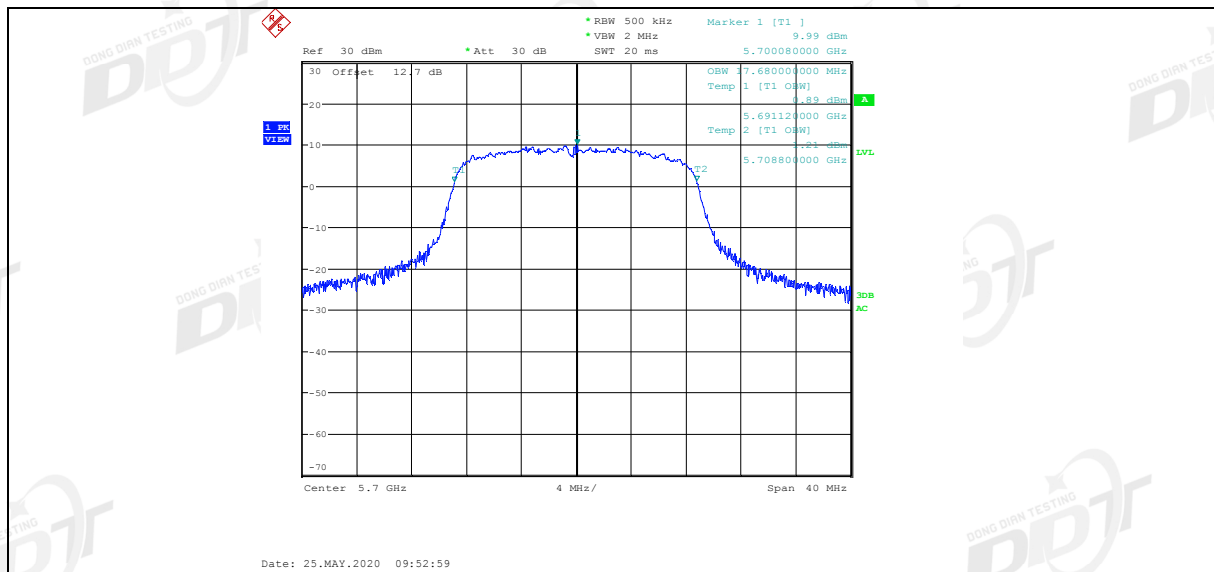
11AC20SISO_Ant1_5500



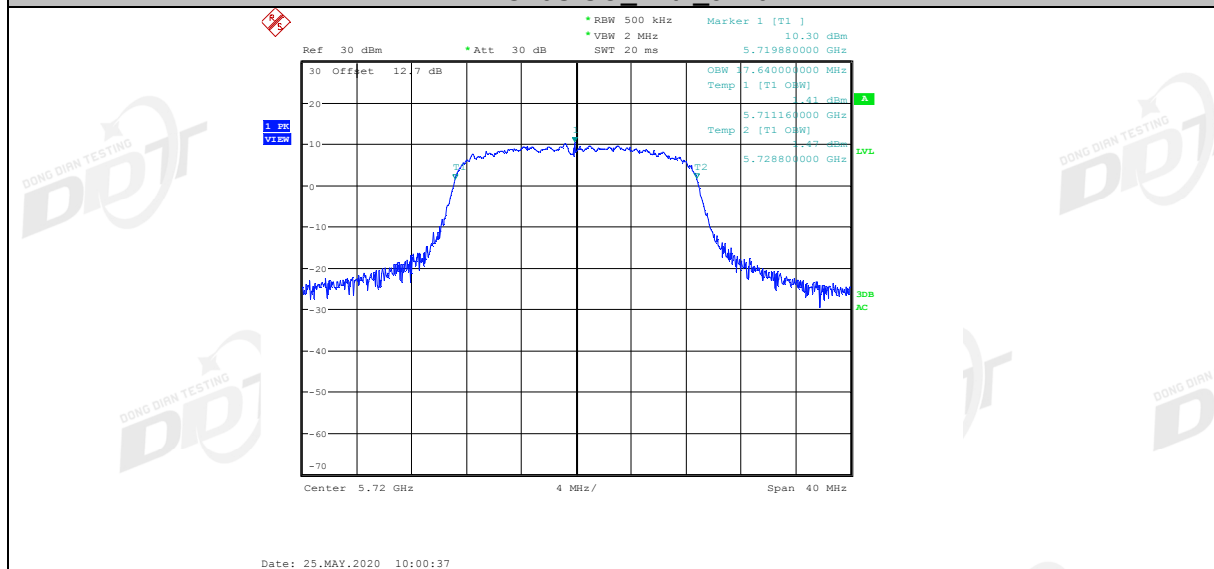
11AC20SISO_Ant1_5580



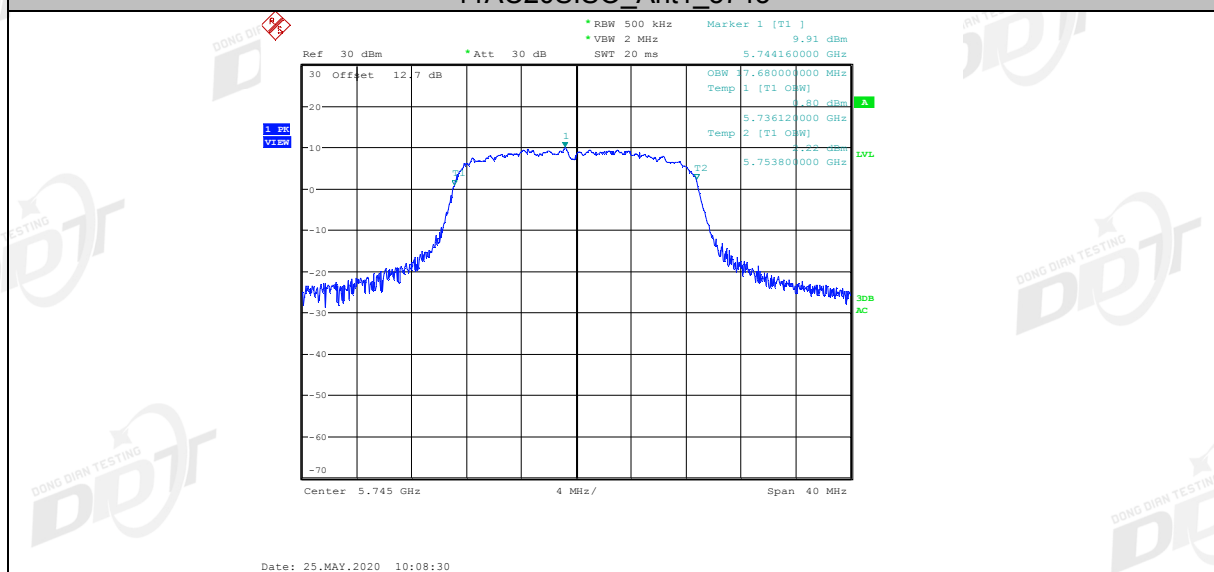
11AC20SISO_Ant1_5700



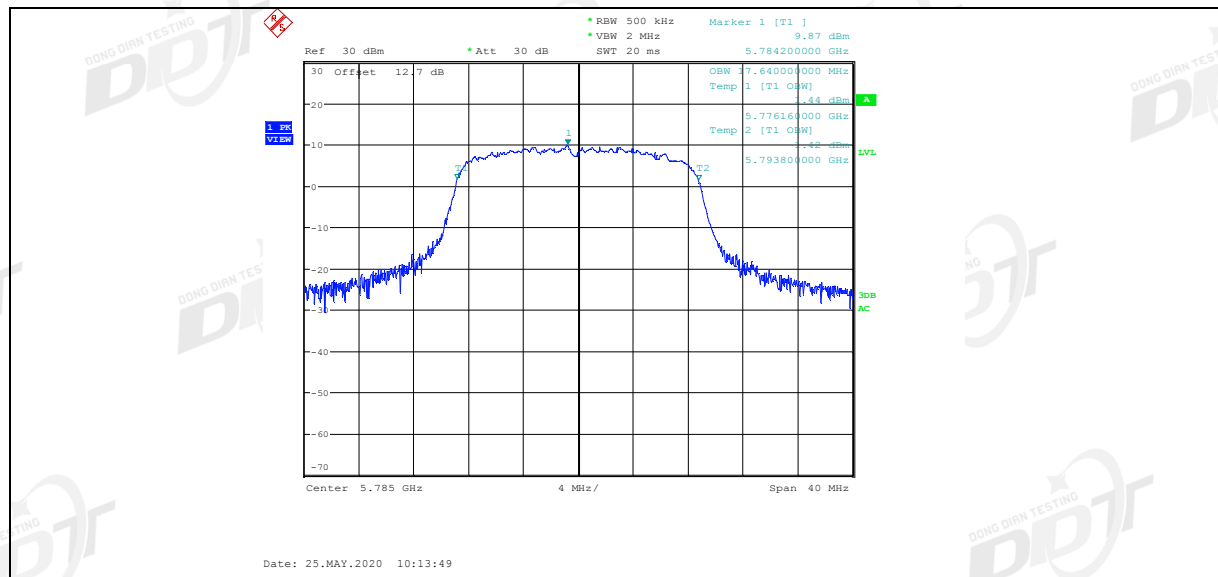
11AC20SISO_Ant1_5720



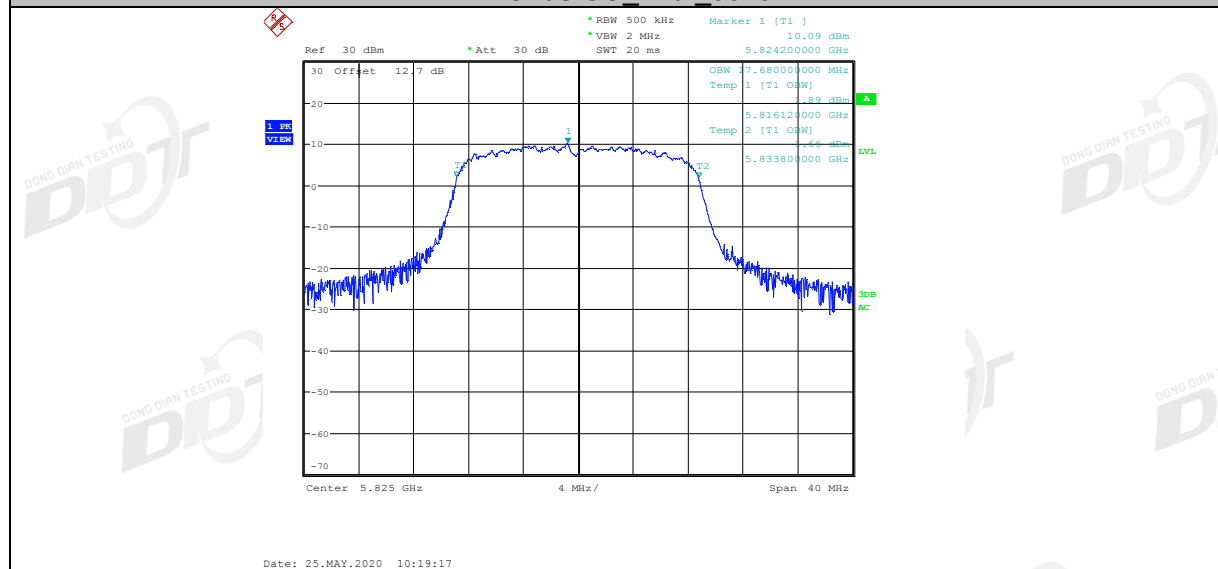
11AC20SISO_Ant1_5745



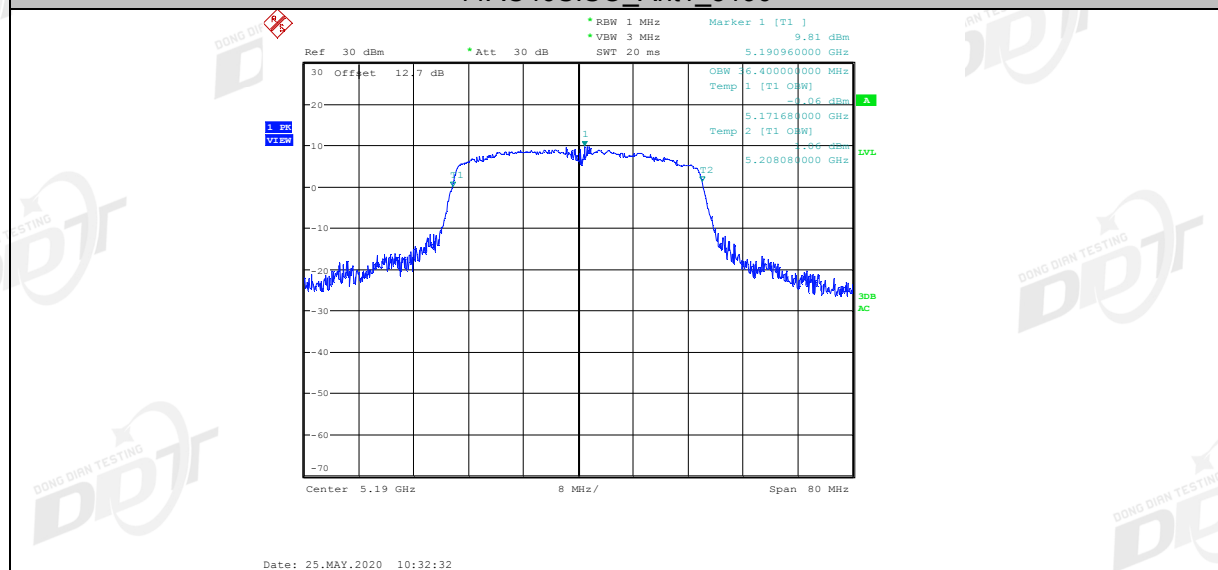
11AC20SISO_Ant1_5785



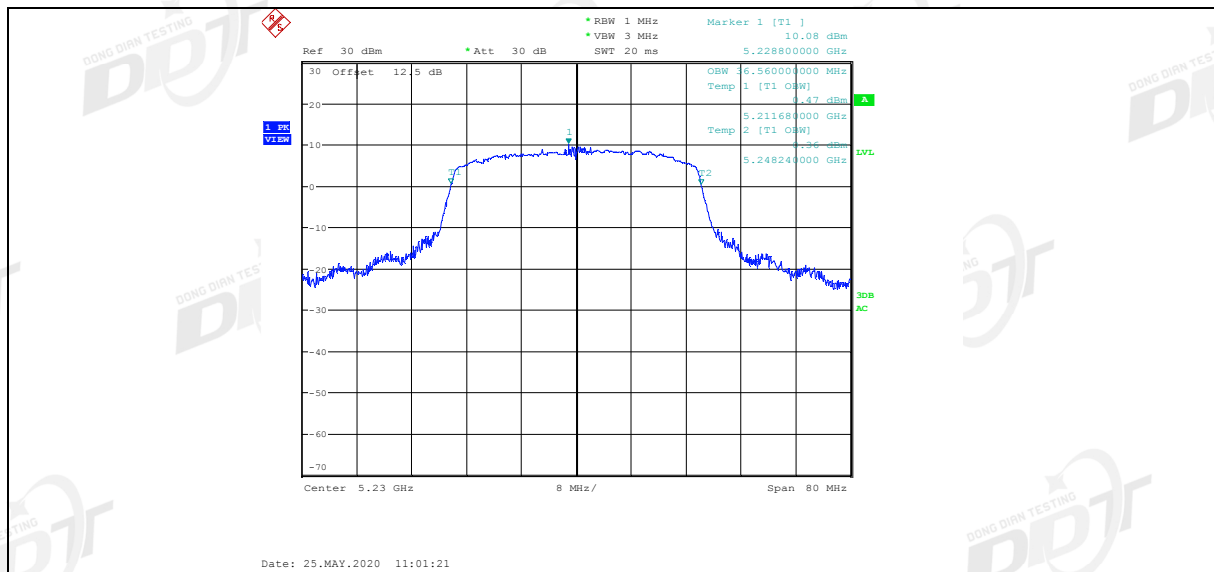
11AC20SISO_Ant1_5825



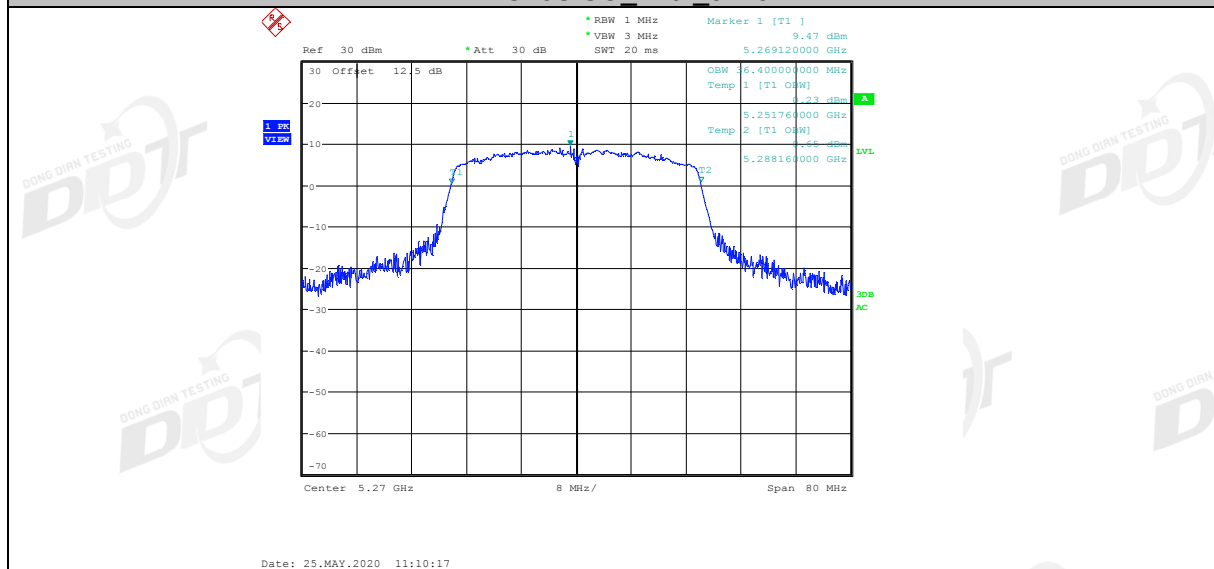
11AC40SISO_Ant1_5190



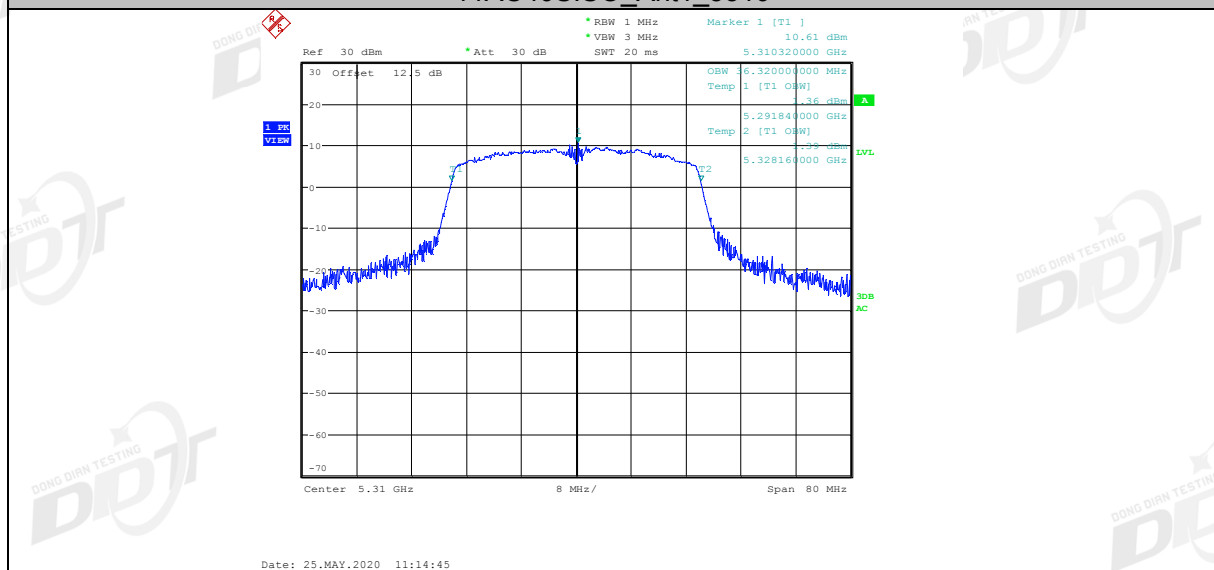
11AC40SISO_Ant1_5230



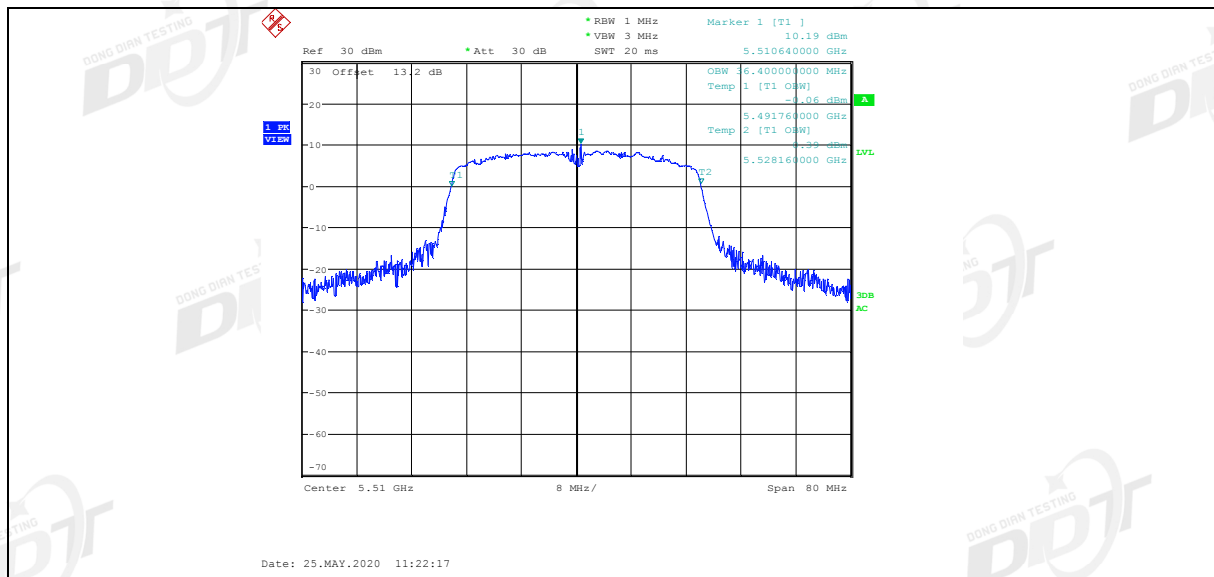
11AC40SISO_Ant1_5270



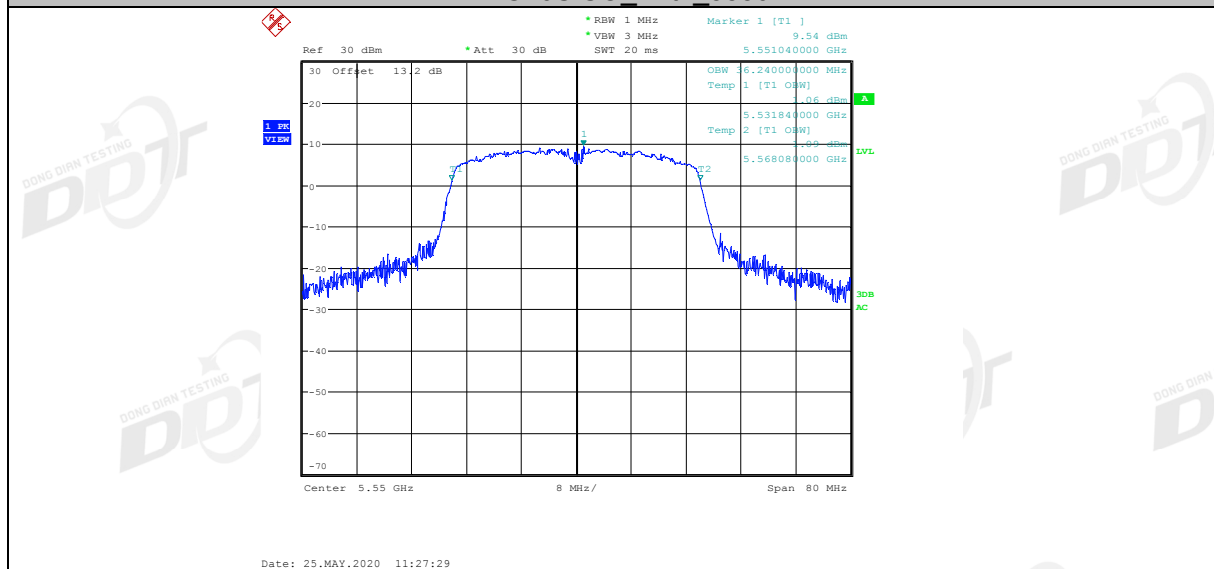
11AC40SISO_Ant1_5310



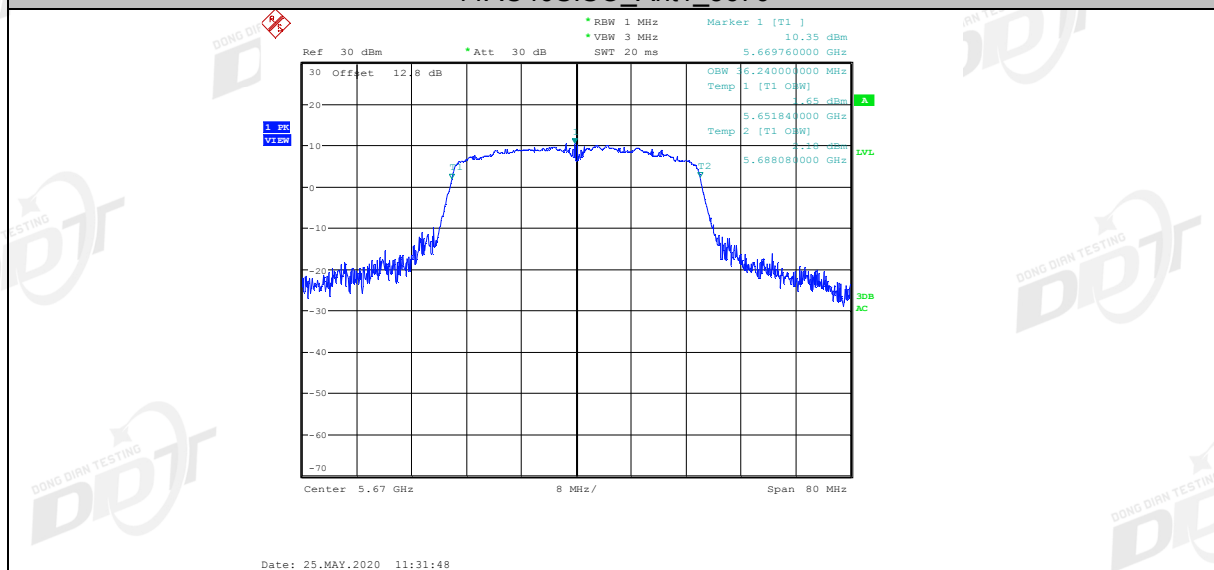
11AC40SISO_Ant1_5510



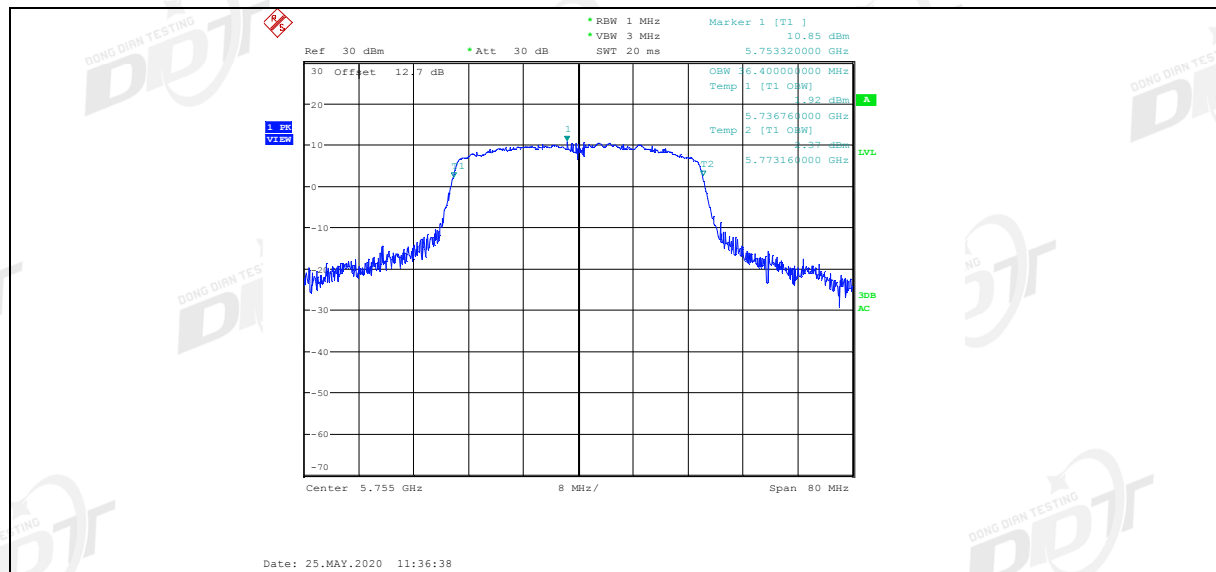
11AC40SISO_Ant1_5550



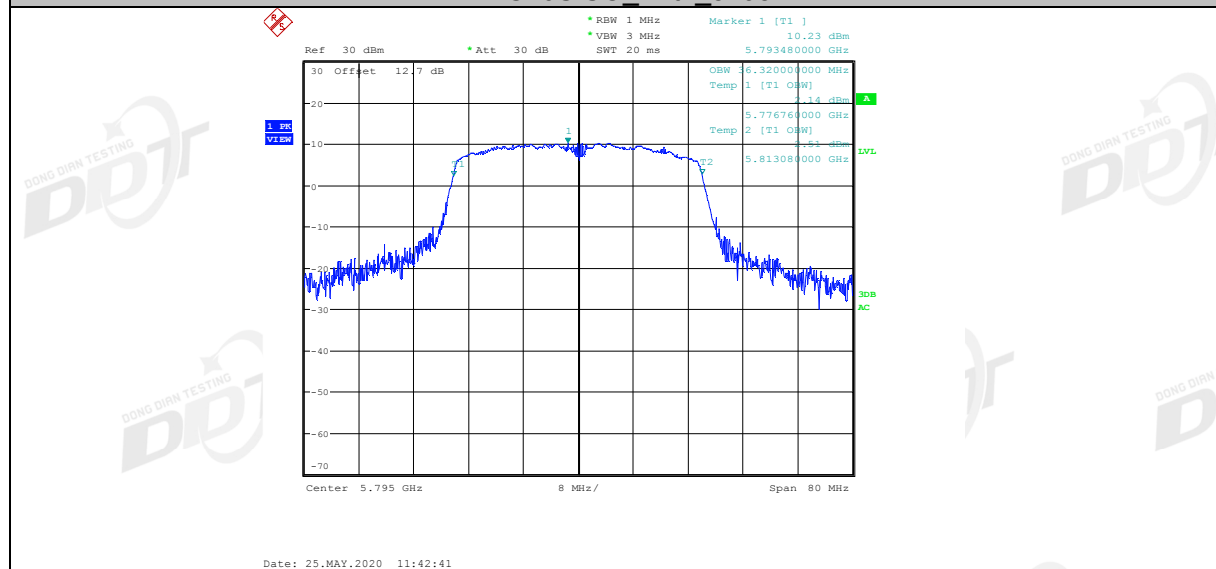
11AC40SISO_Ant1_5670



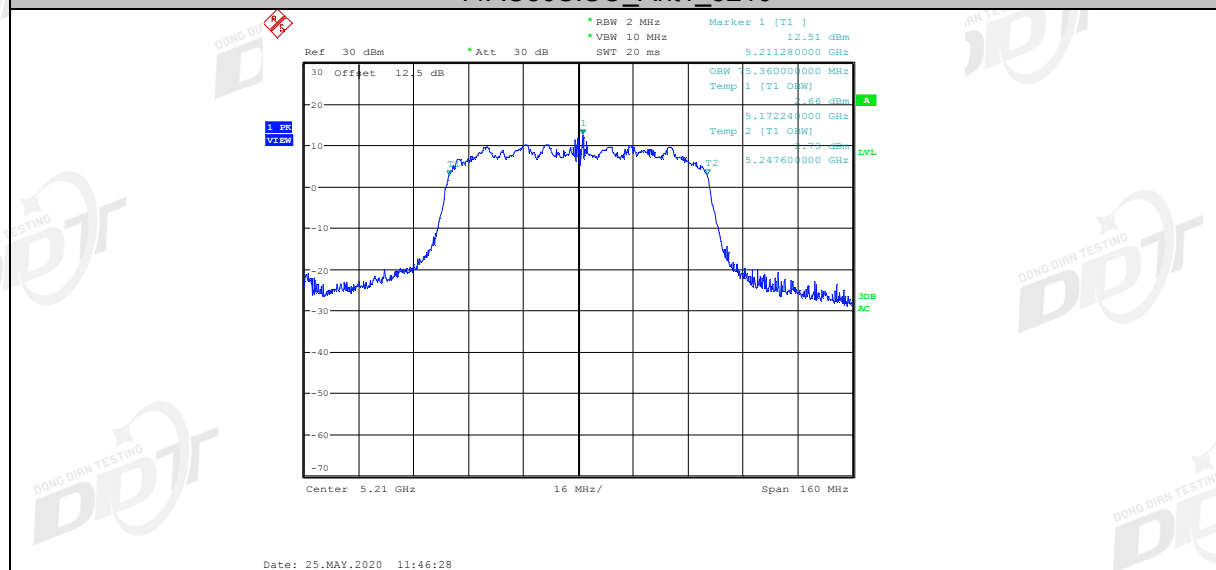
11AC40SISO_Ant1_5755



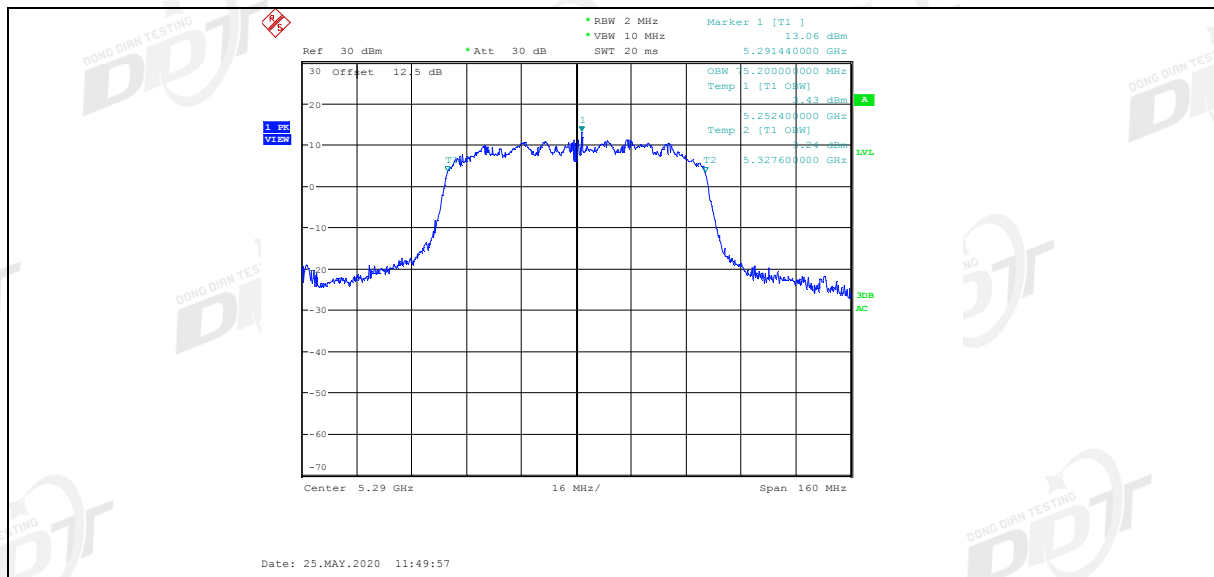
11AC40SISO_Ant1_5795



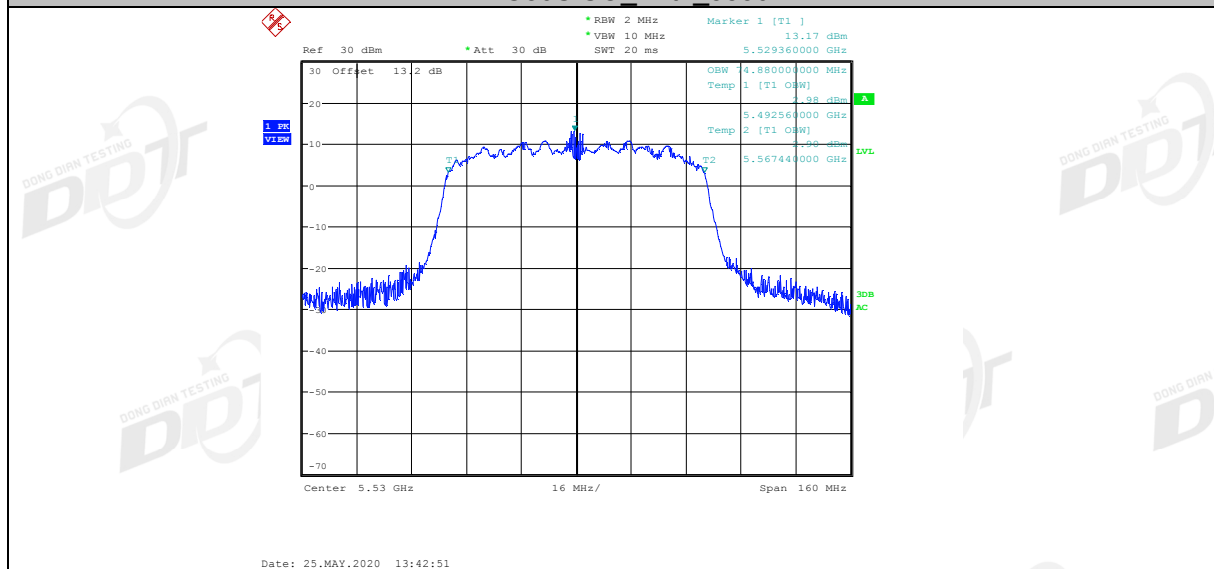
11AC80SISO_Ant1_5210



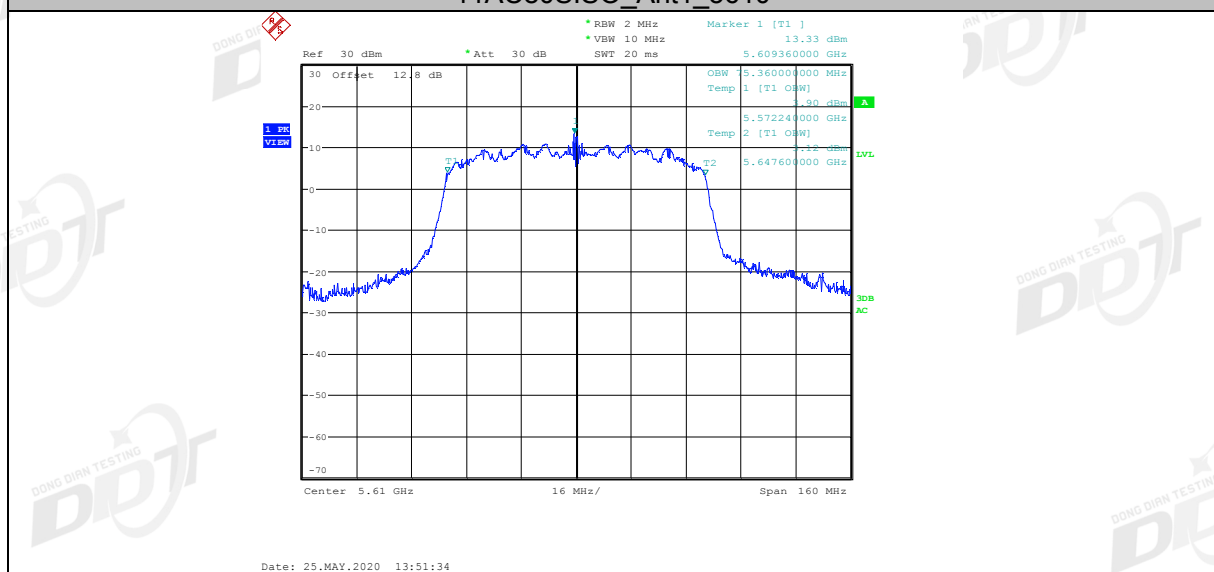
11AC80SISO_Ant1_5290



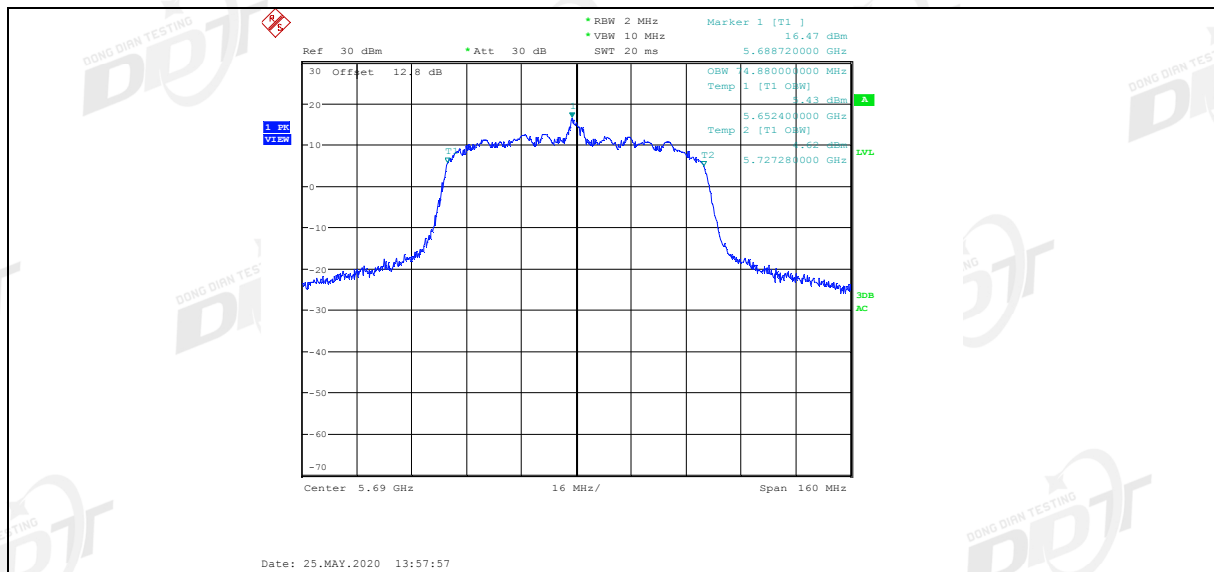
11AC80SISO_Ant1_5530



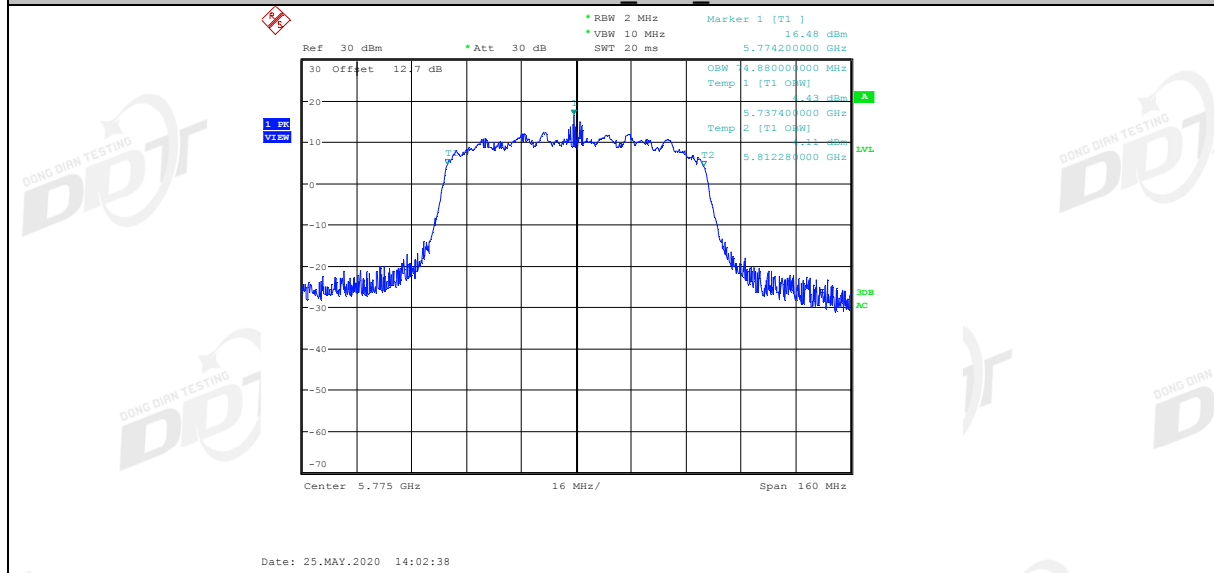
11AC80SISO_Ant1_5610



11AC80SISO_Ant1_5690

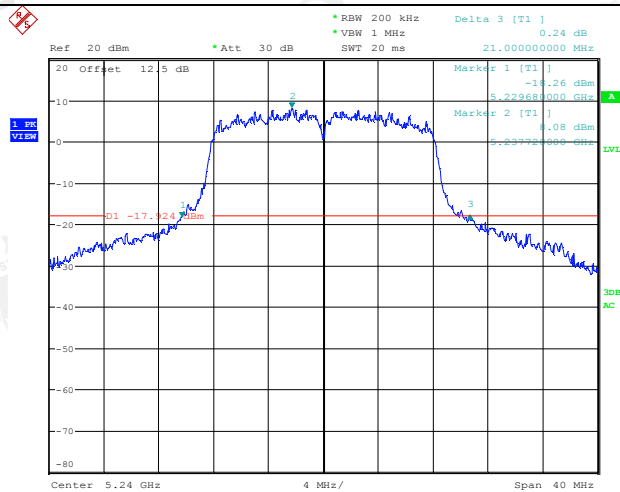


11AC80SISO Ant1_5775



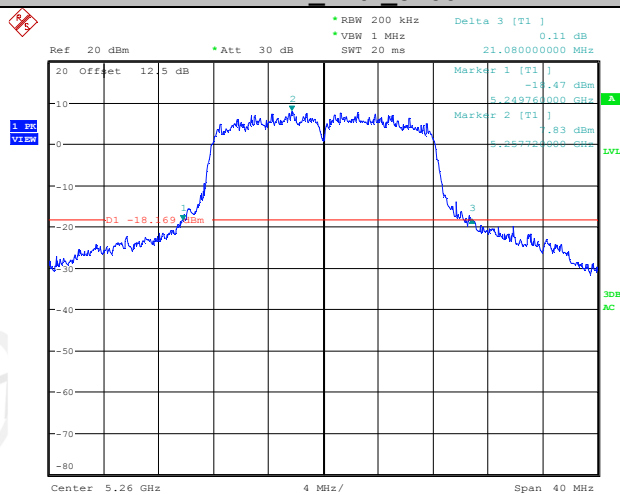
26 dB EBW:





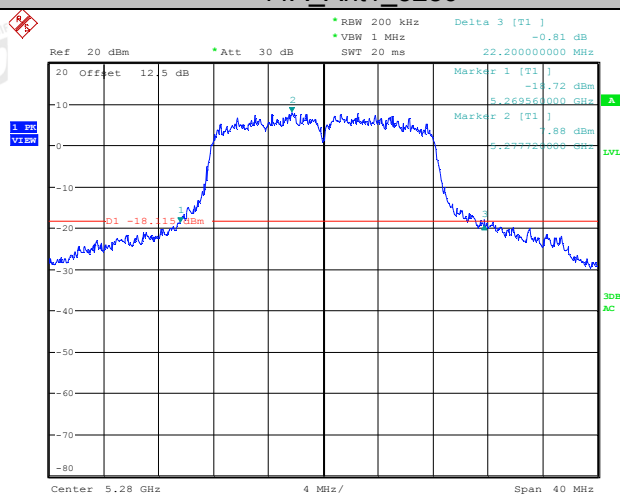
Date: 16.MAY.2020 15:26:15

11A Ant1 5260



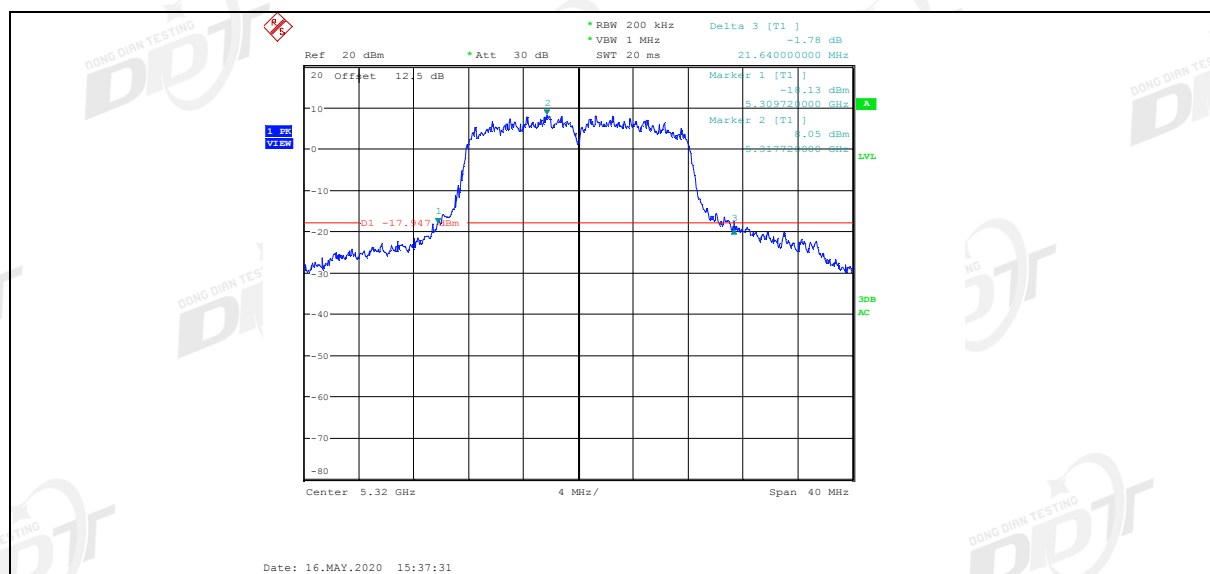
Date: 16.MAY.2020 15:30:41

11A Ant1 5280

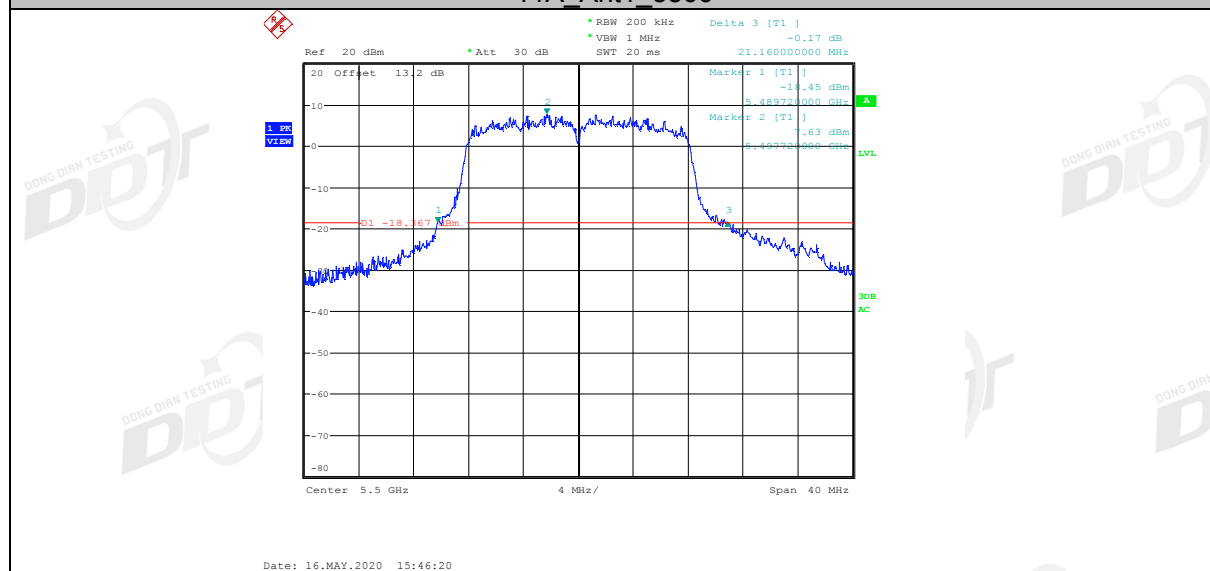


Date: 16.MAY.2020 15:34:33

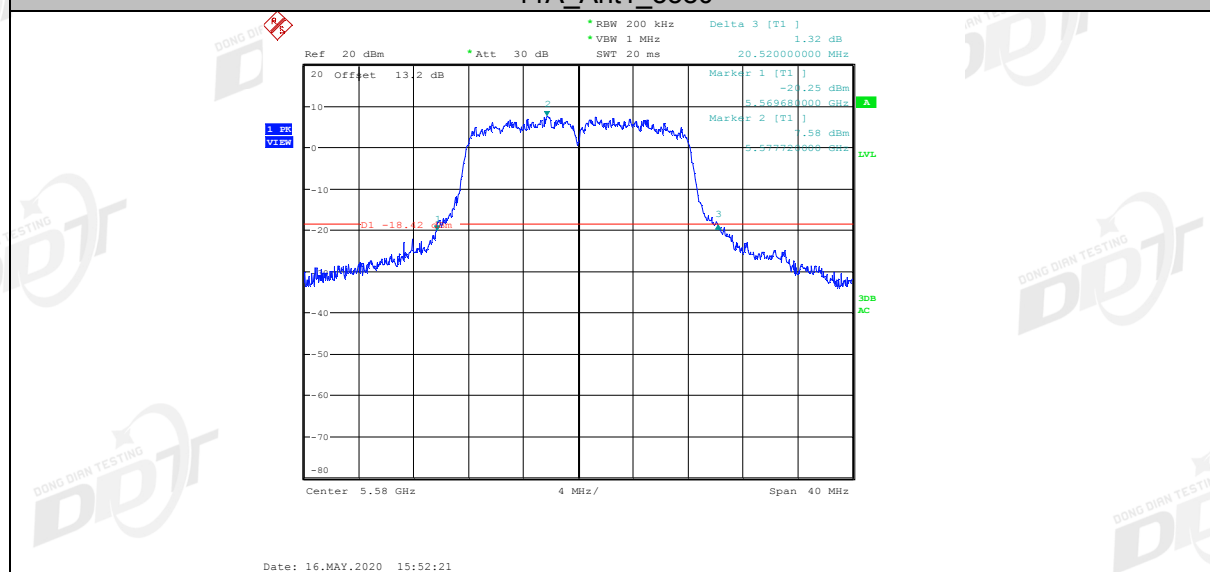
11A Ant1 5320



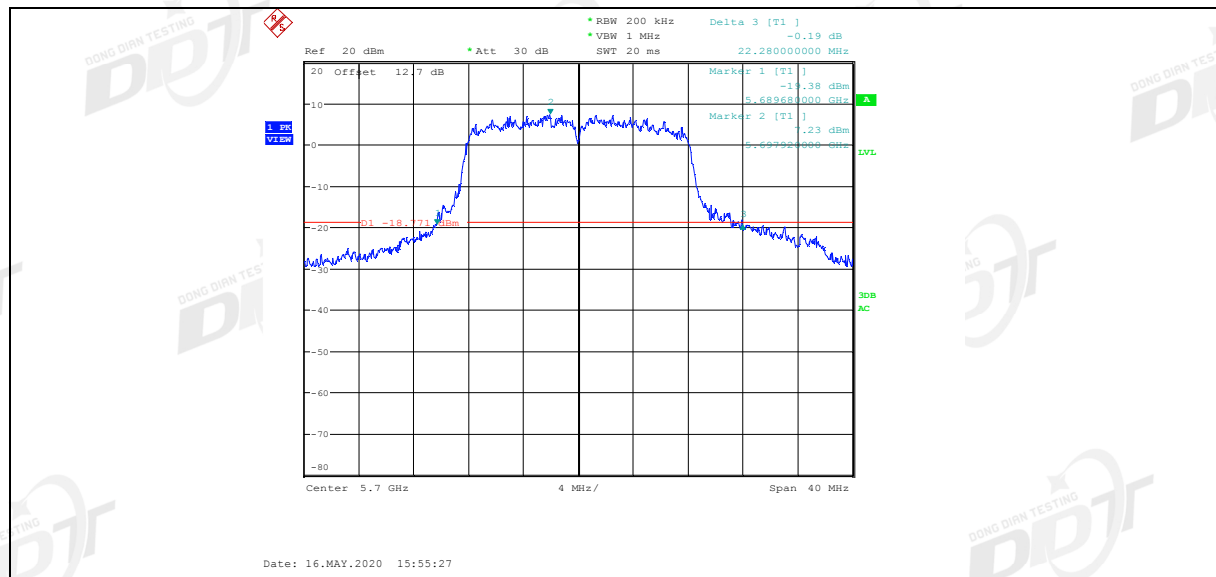
11A_Ant1_5500



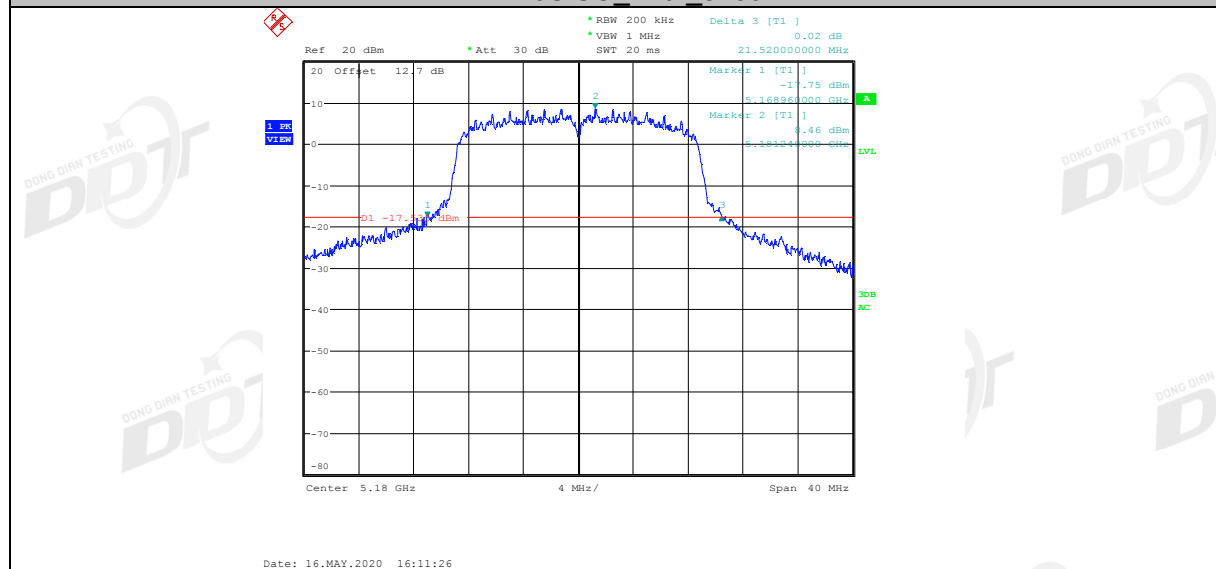
11A_Ant1_5580



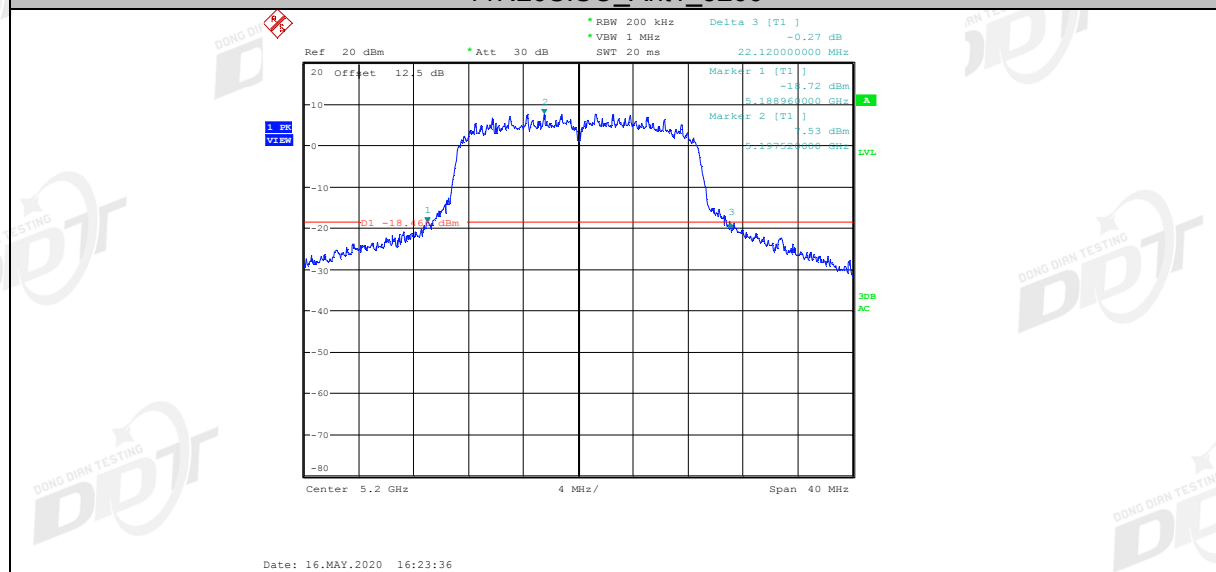
11A_Ant1_5700



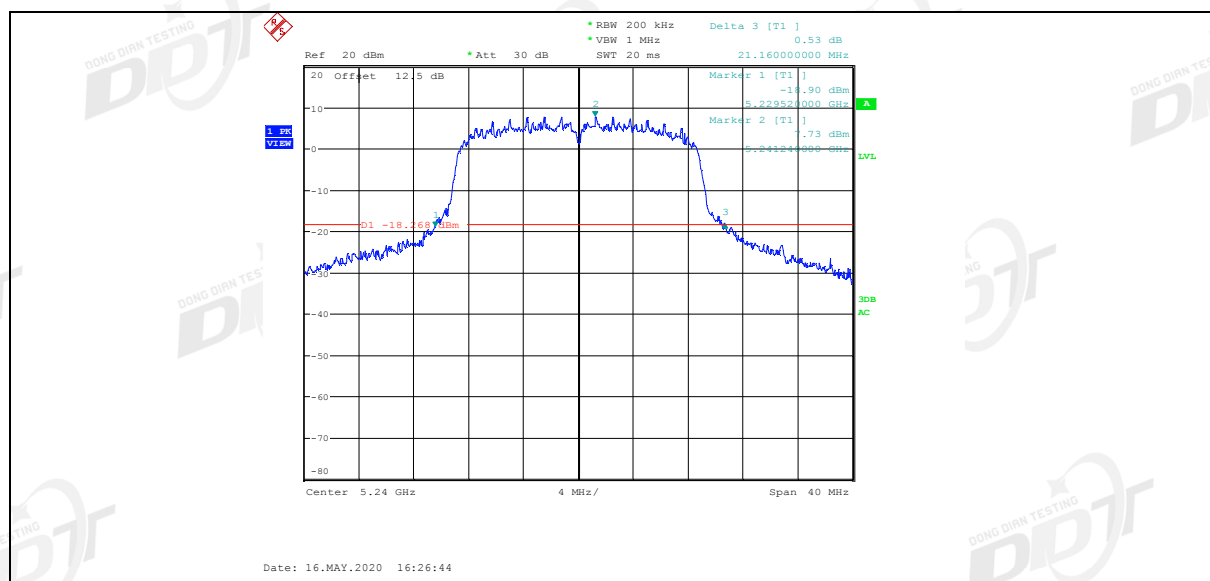
11N20SISO_Ant1_5180



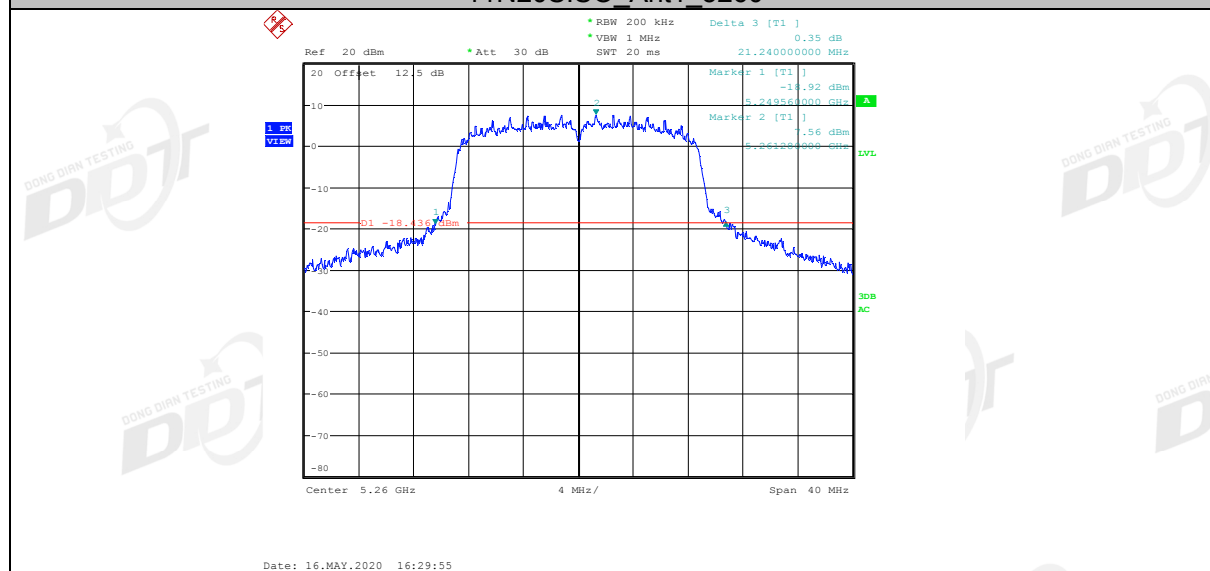
11N20SISO_Ant1_5200



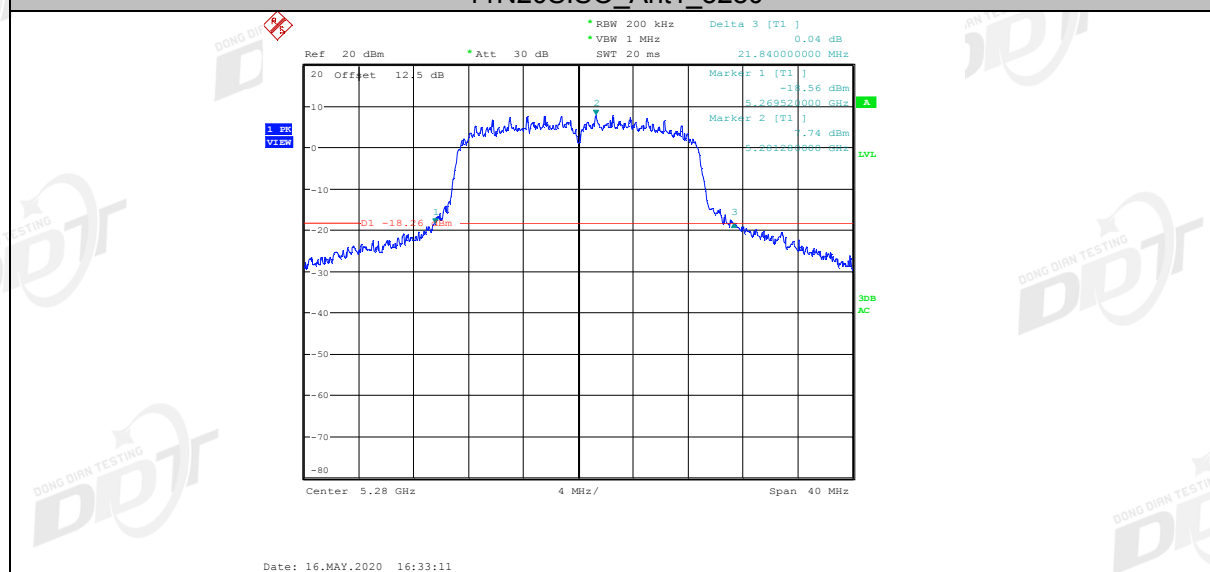
11N20SISO_Ant1_5240



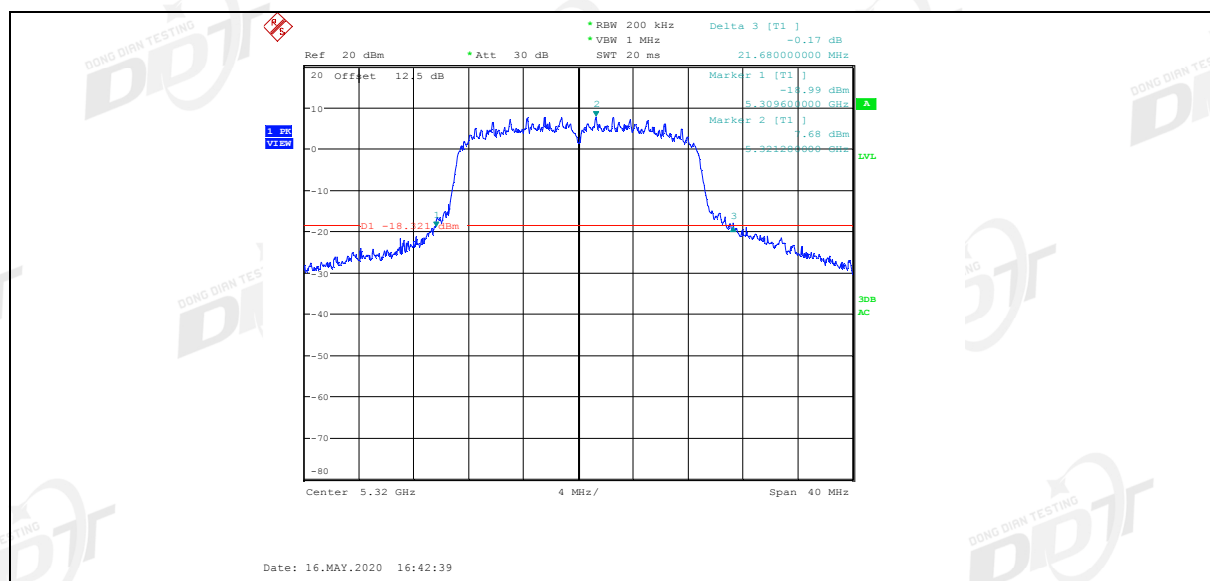
11N20SISO_Ant1_5260



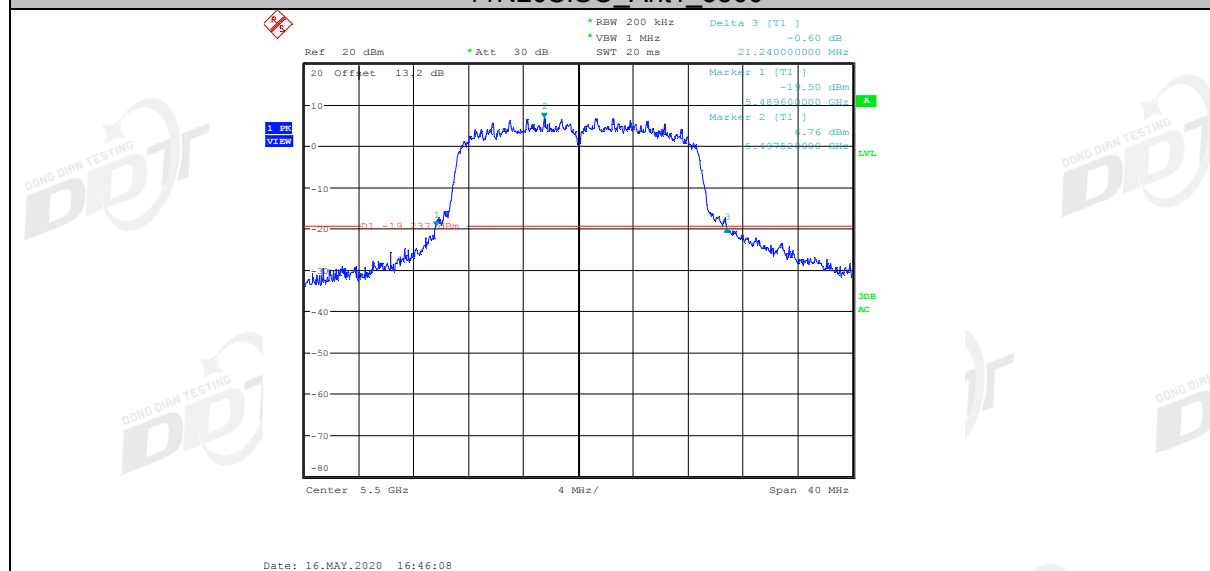
11N20SISO_Ant1_5280



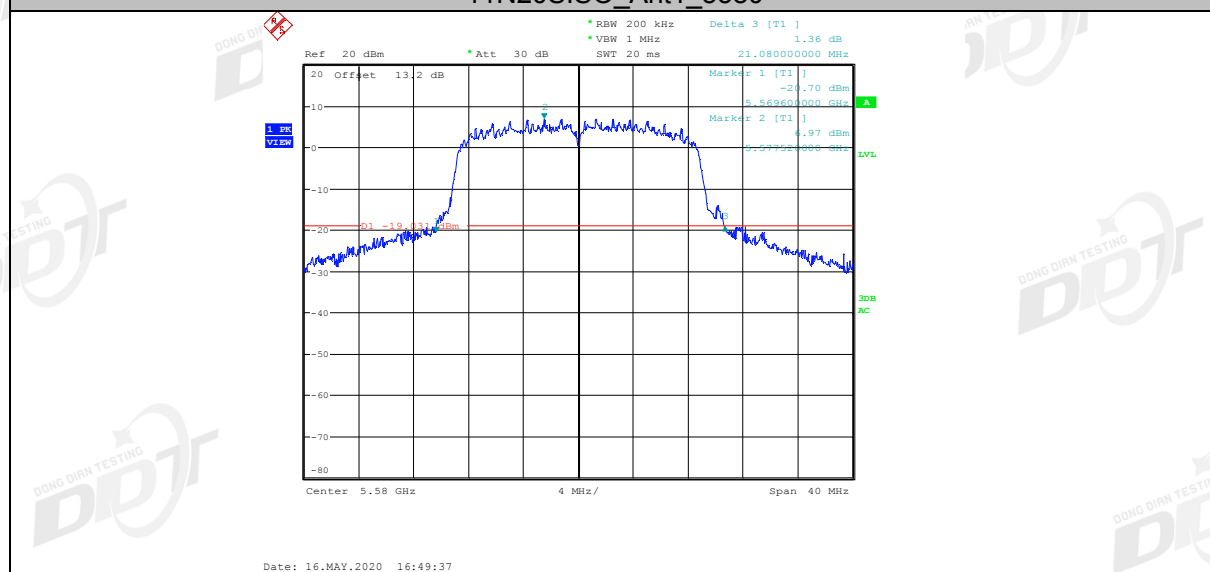
11N20SISO_Ant1_5320



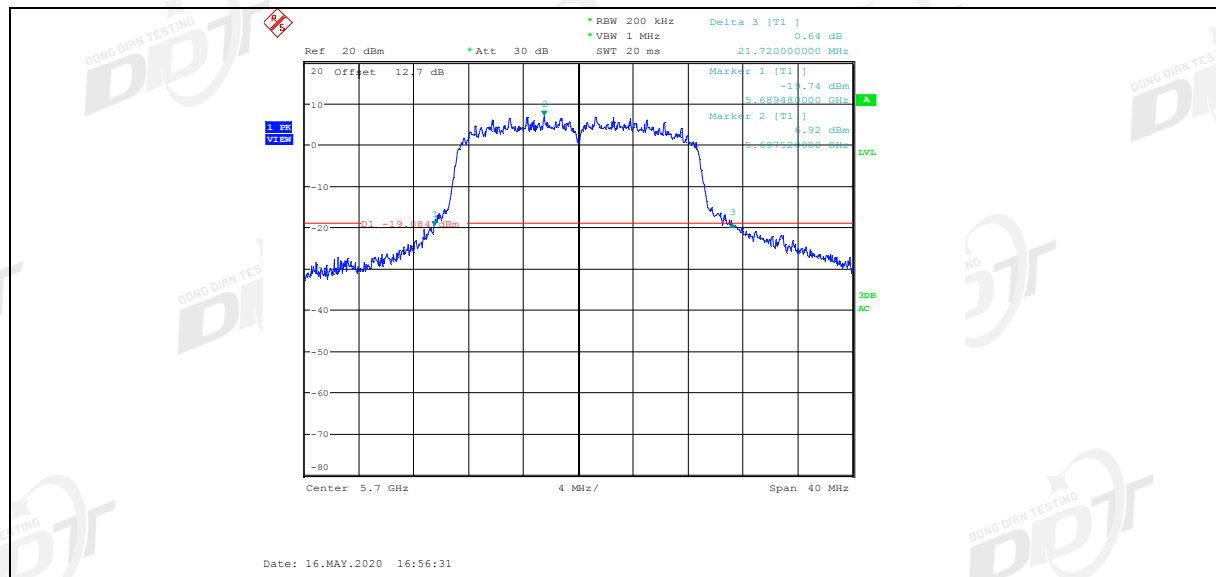
11N20SISO_Ant1_5500



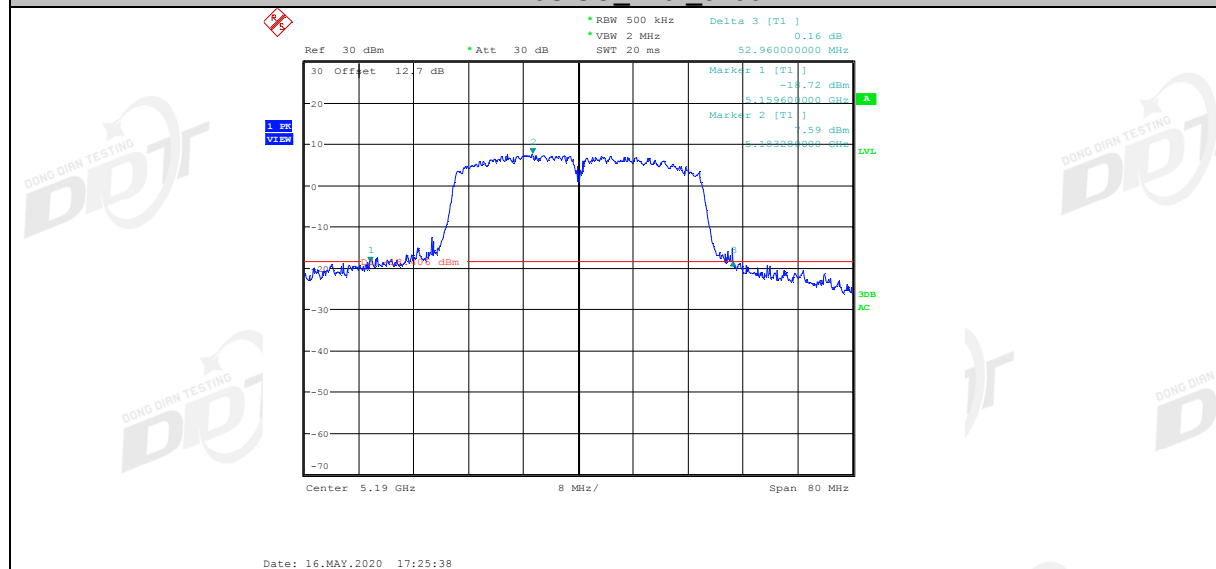
11N20SISO_Ant1_5580



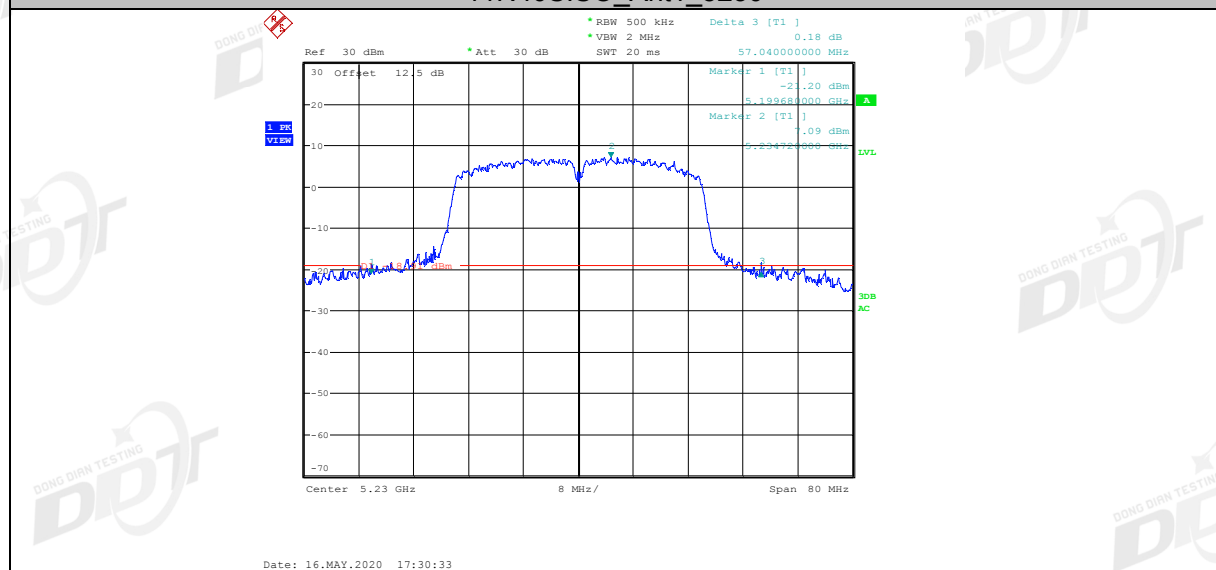
11N20SISO_Ant1_5700



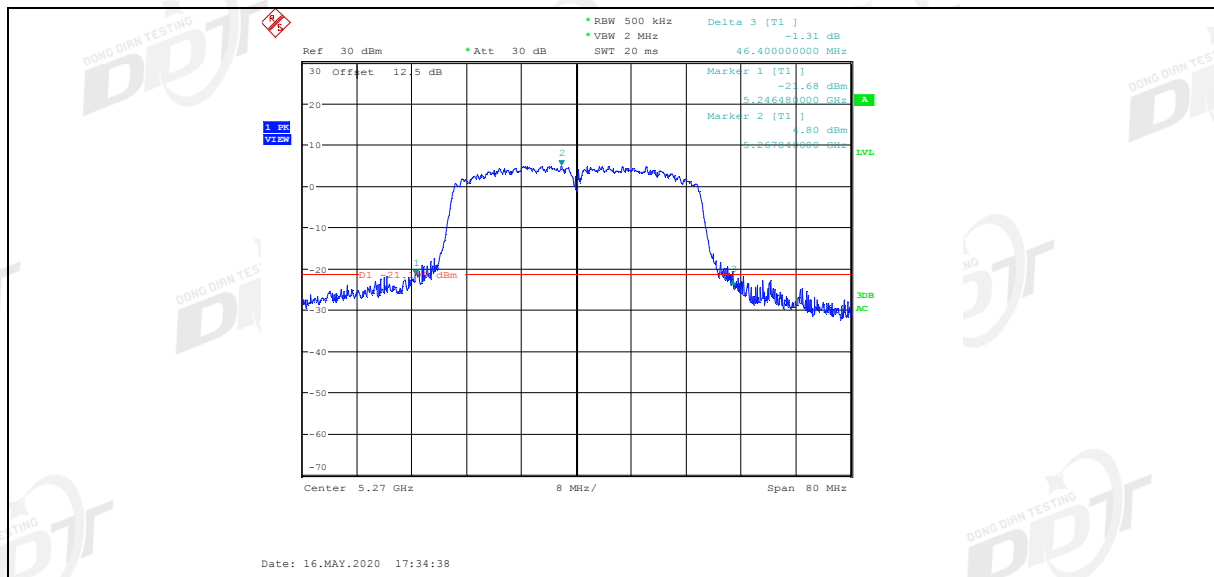
11N40SISO_Ant1_5190



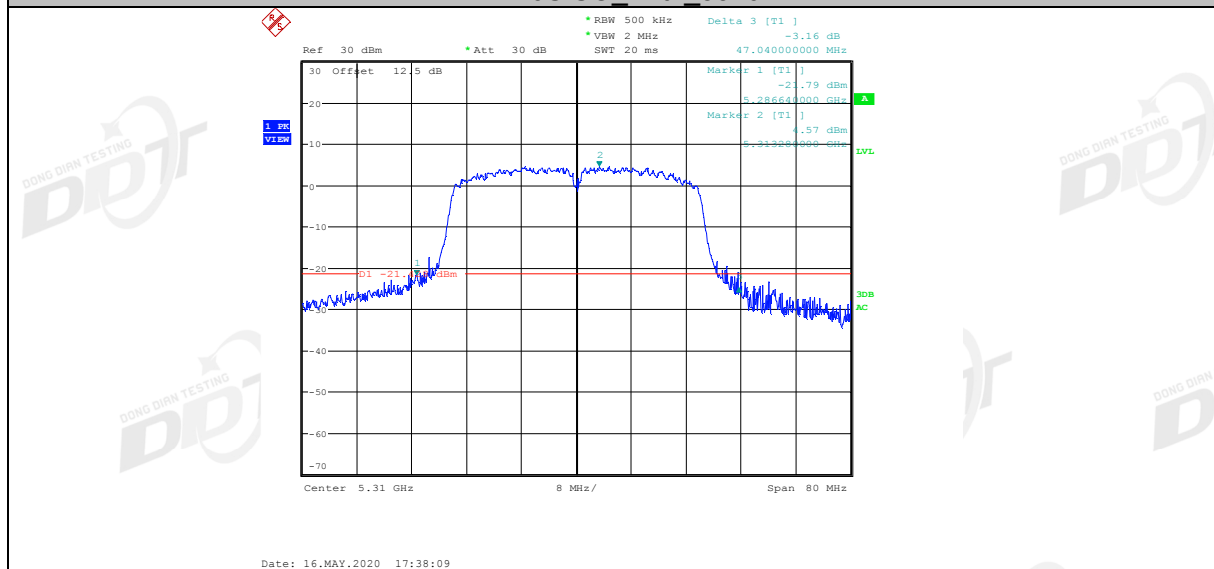
11N40SISO_Ant1_5230



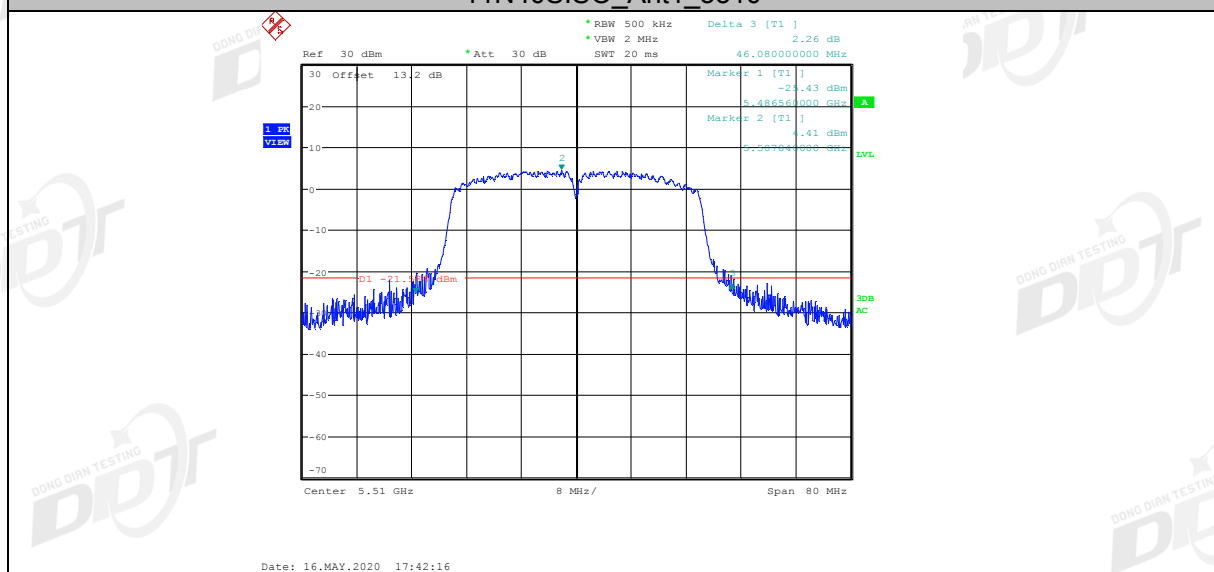
11N40SISO_Ant1_5270



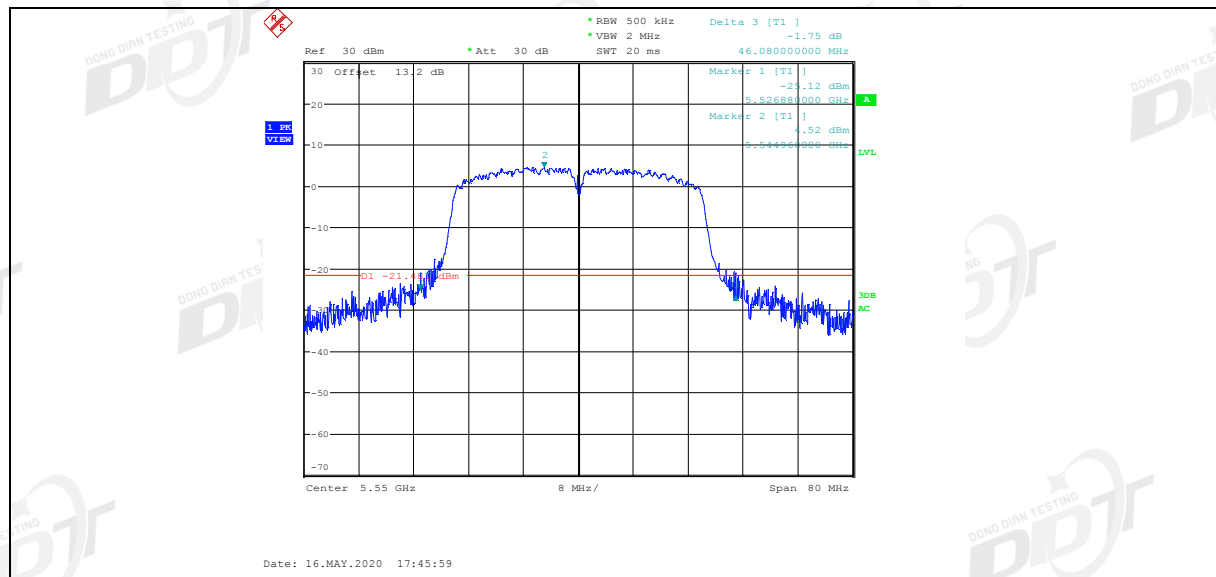
11N40SISO_Ant1_5310



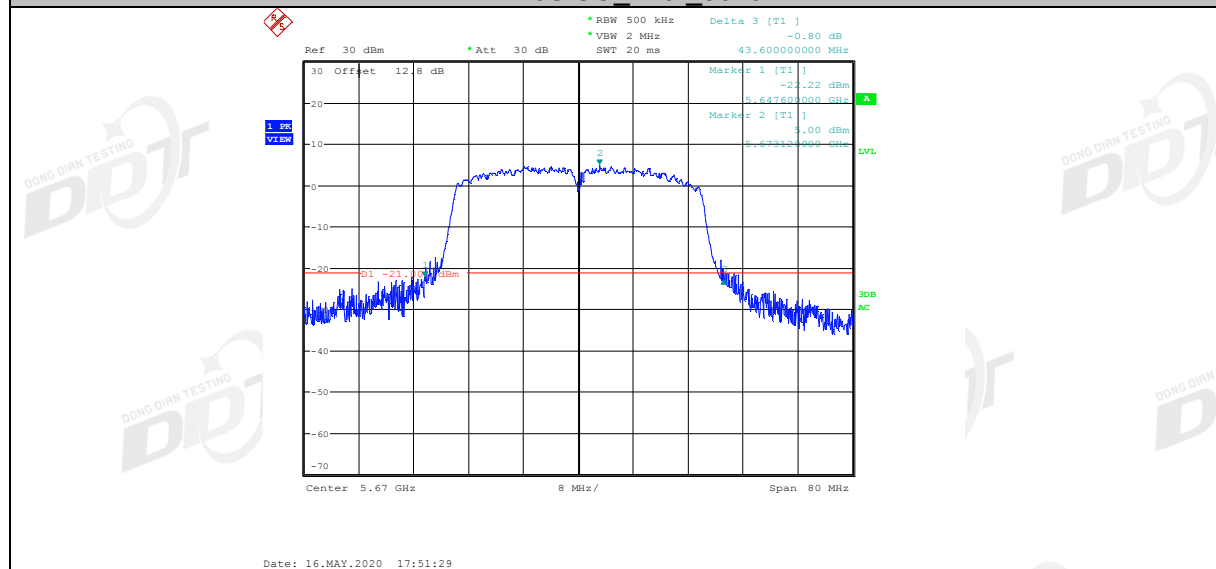
11N40SISO_Ant1_5510



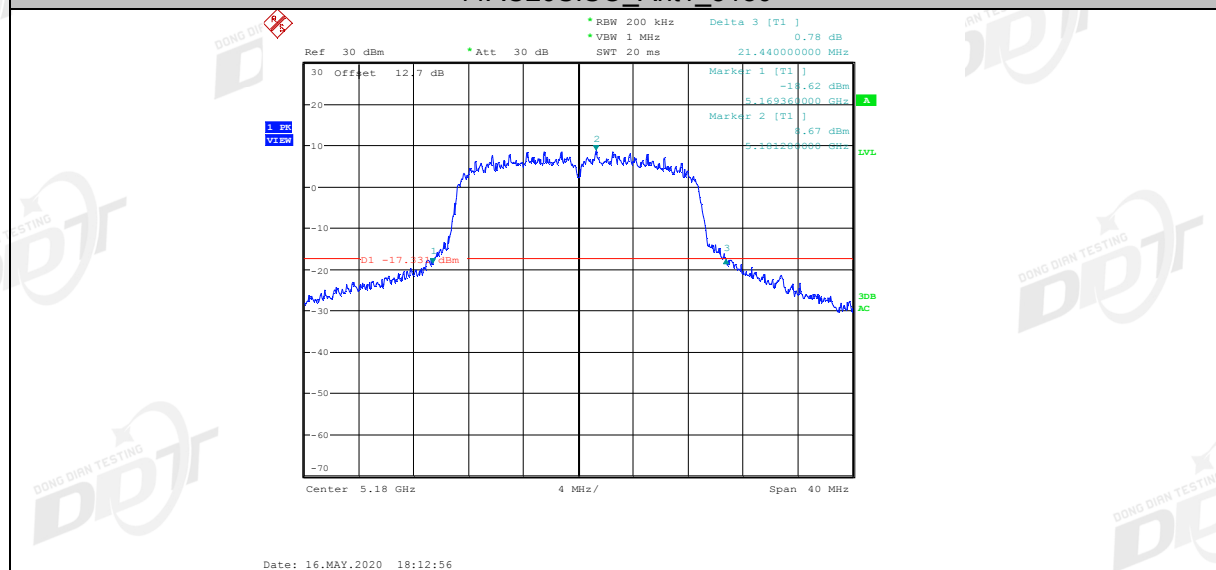
11N40SISO_Ant1_5550



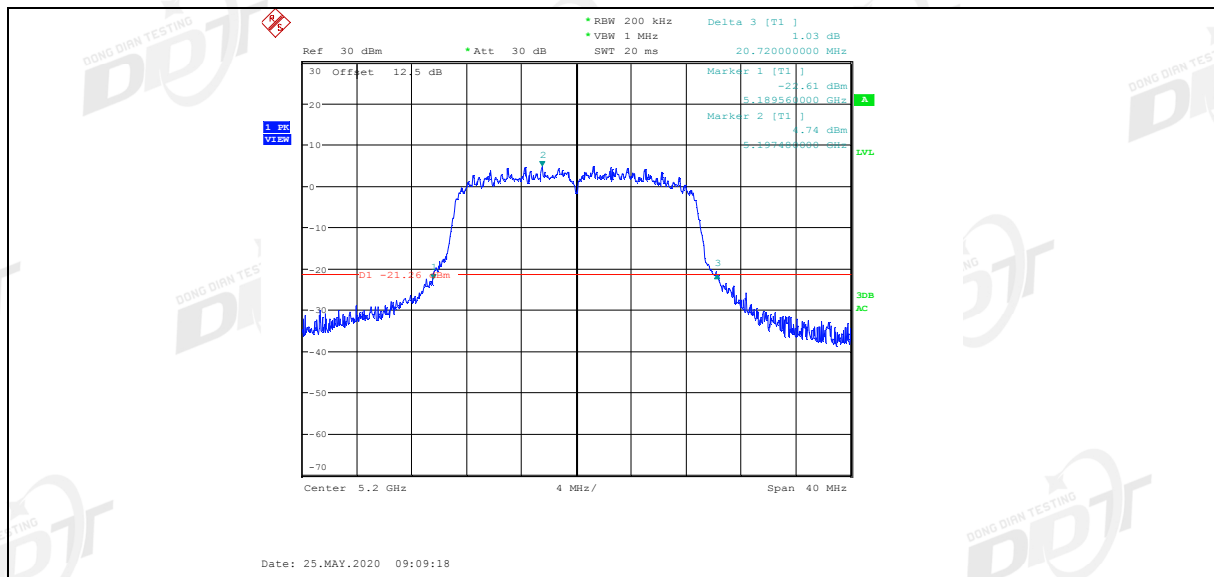
11N40SISO_Ant1_5670



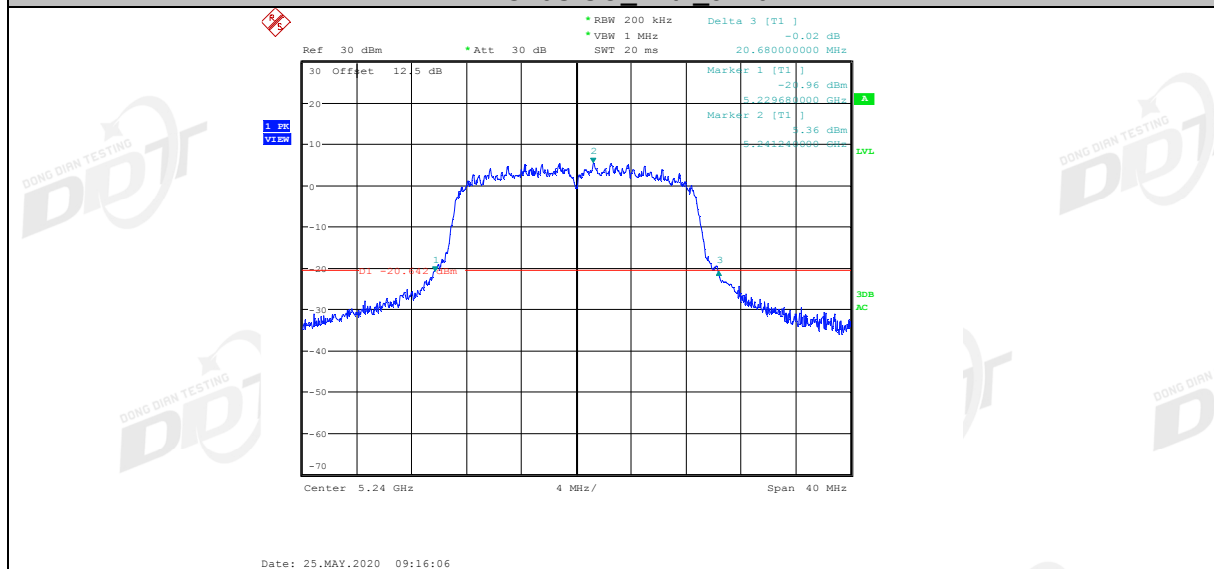
11AC20SISO_Ant1_5180



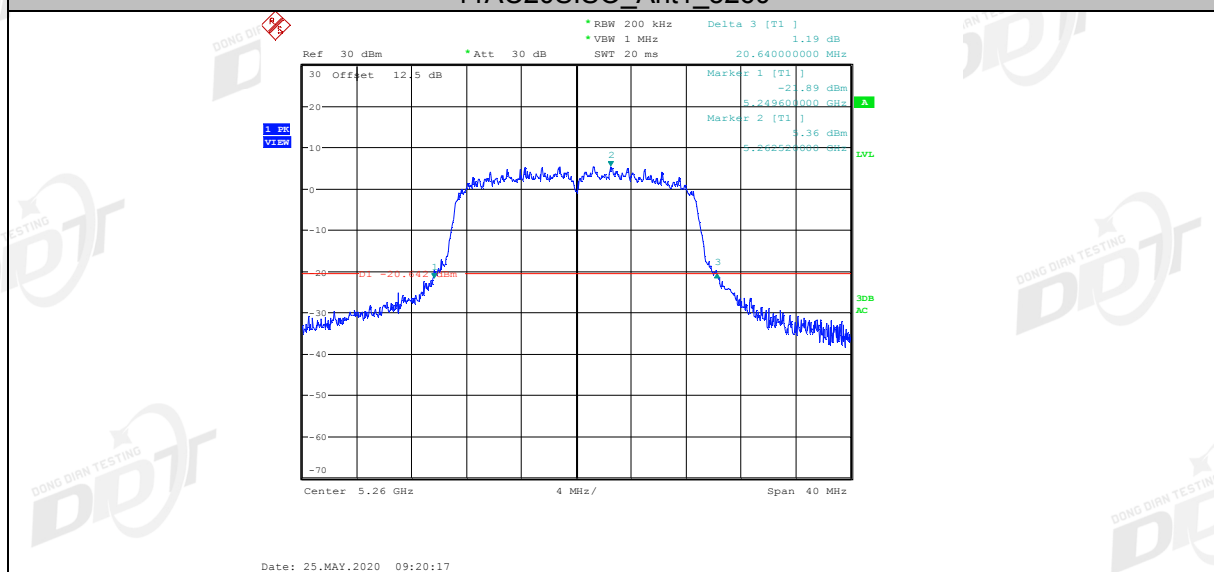
11AC20SISO_Ant1_5200



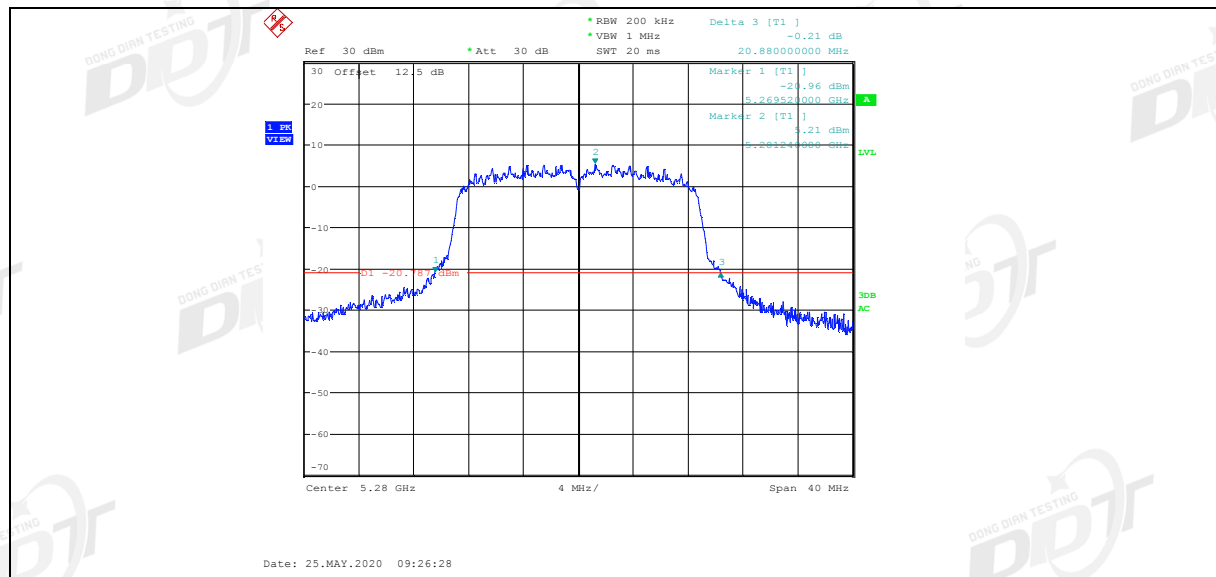
11AC20SISO_Ant1_5240



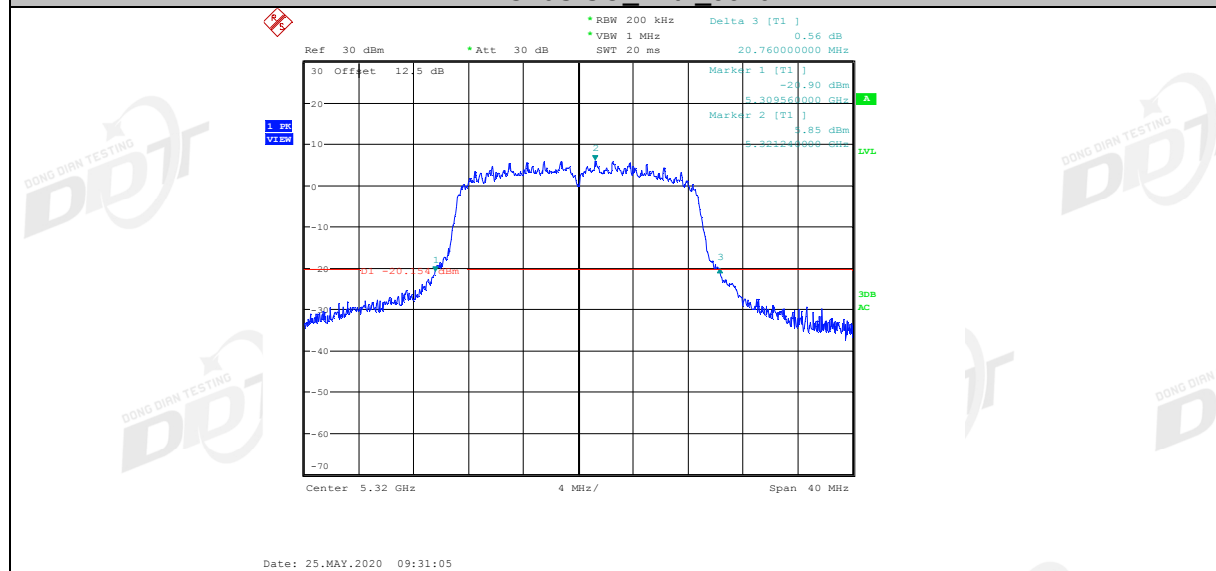
11AC20SISO_Ant1_5260



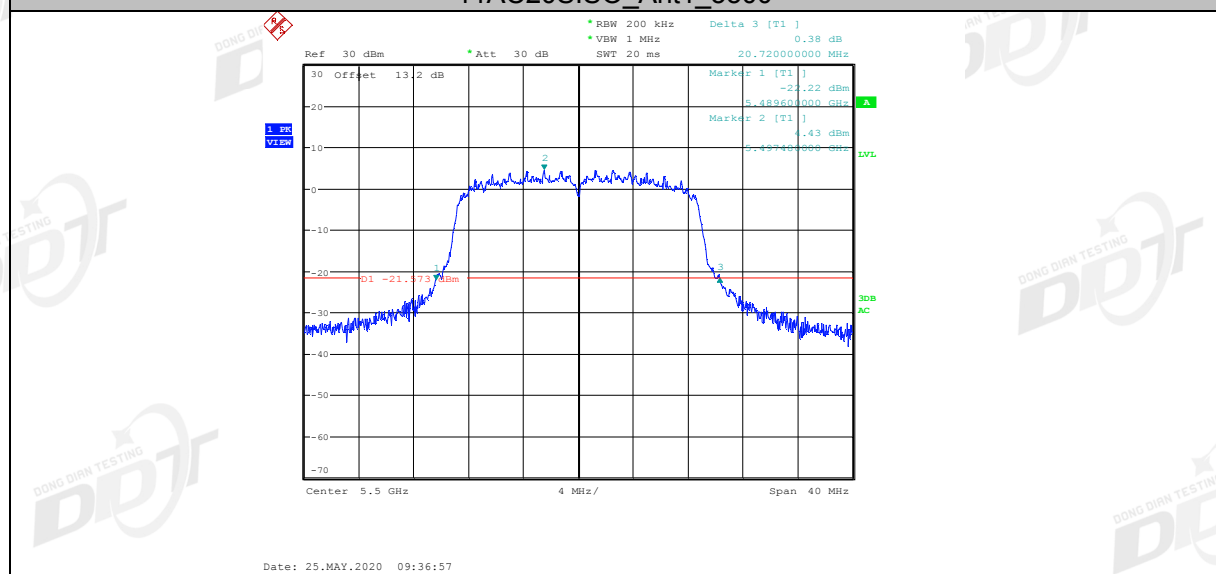
11AC20SISO_Ant1_5280



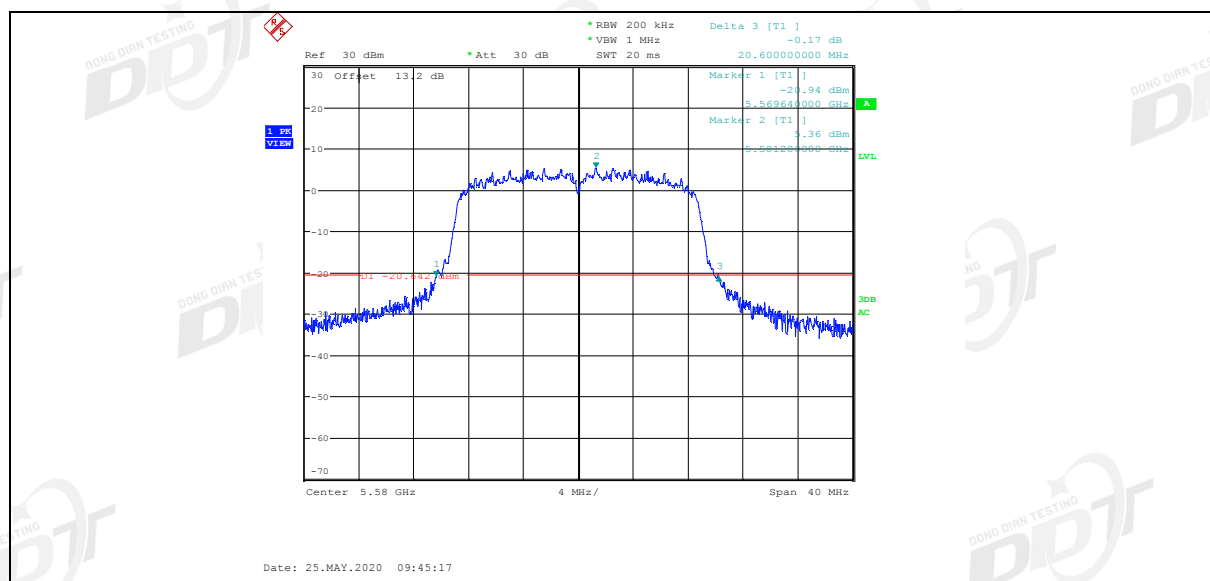
11AC20SISO_Ant1_5320



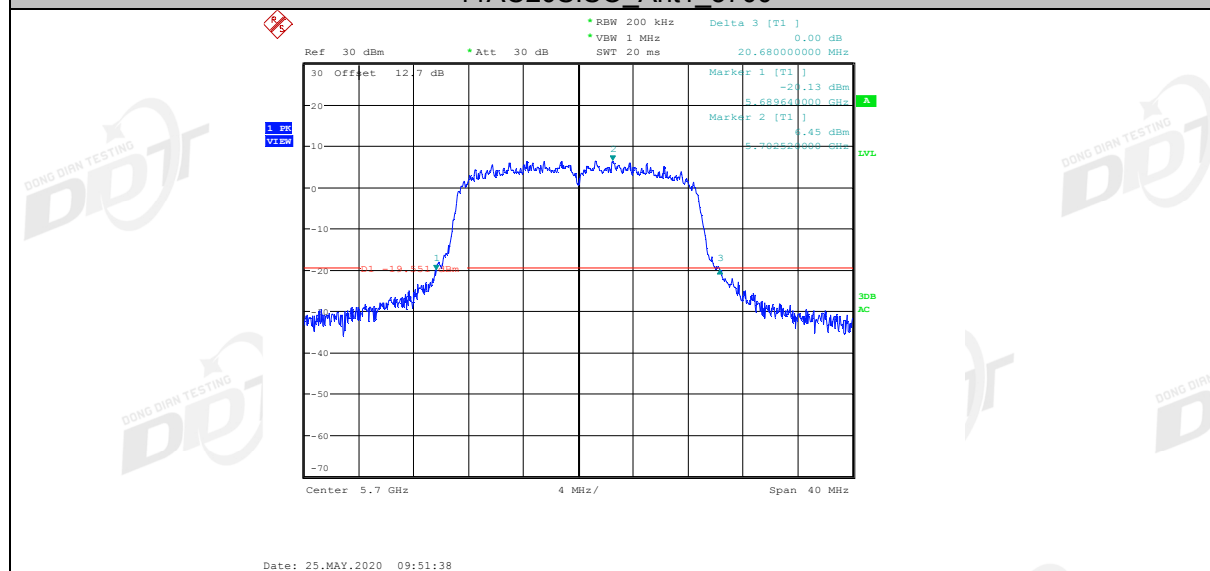
11AC20SISO_Ant1_5500



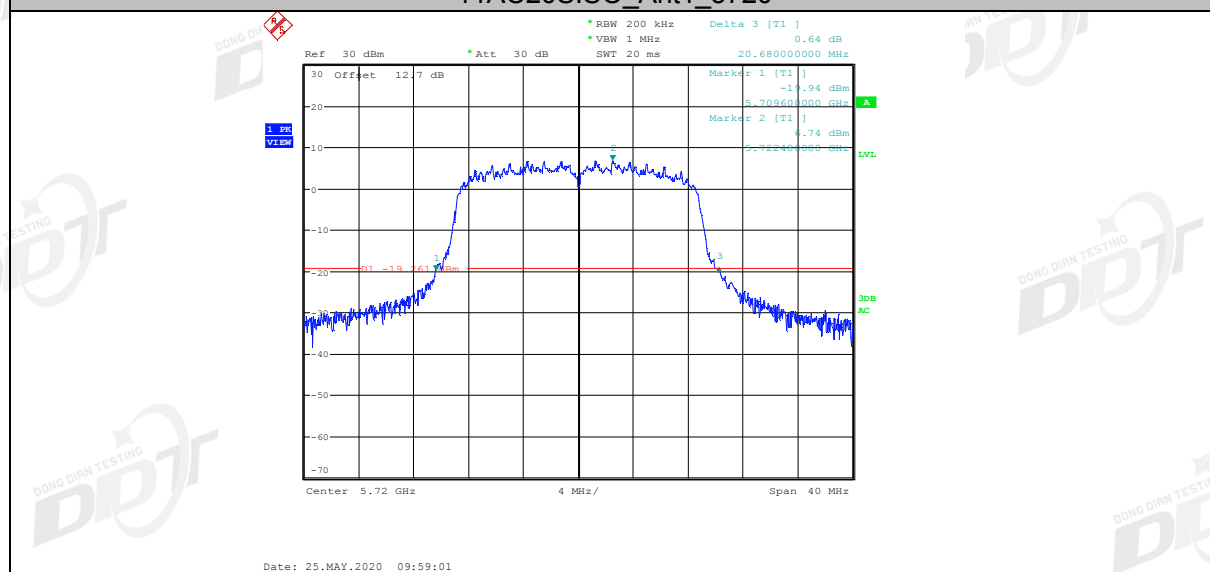
11AC20SISO_Ant1_5580



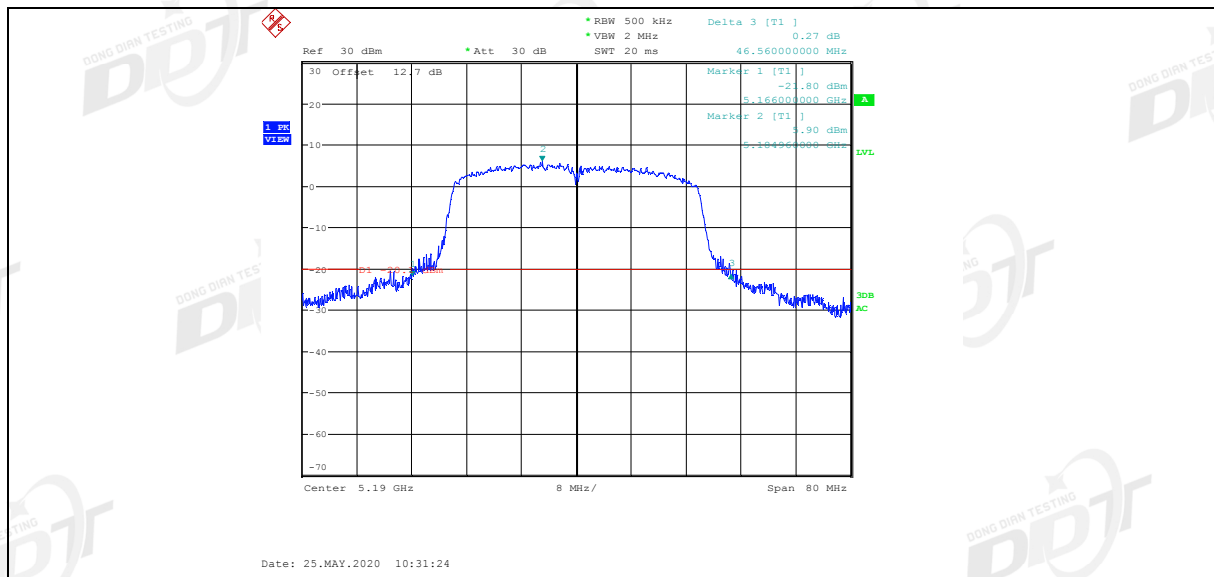
11AC20SISO_Ant1_5700



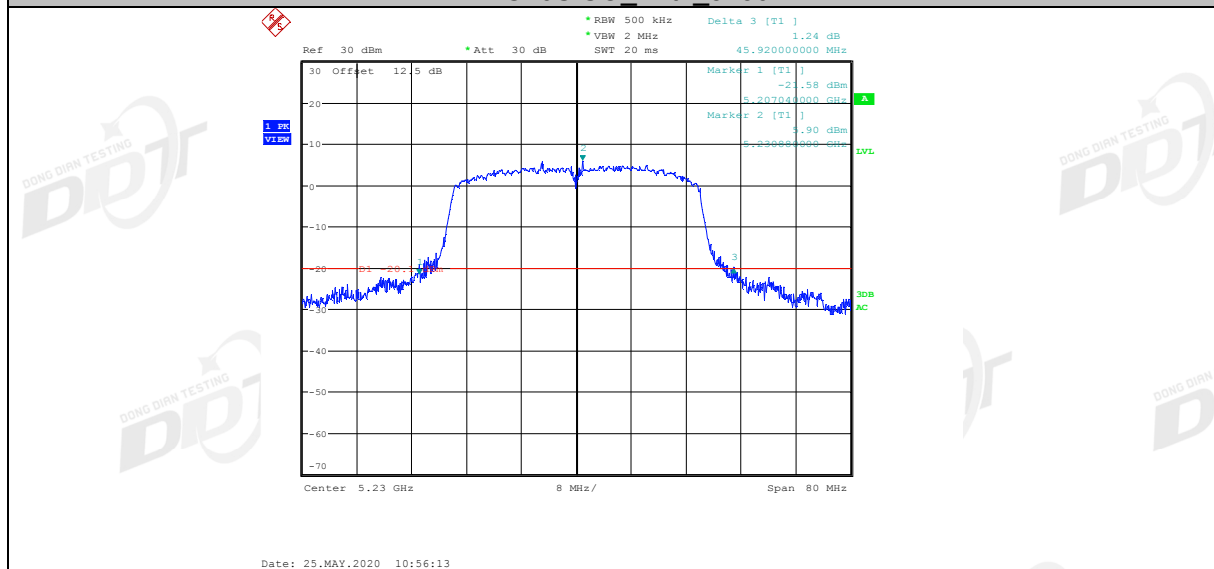
11AC20SISO_Ant1_5720



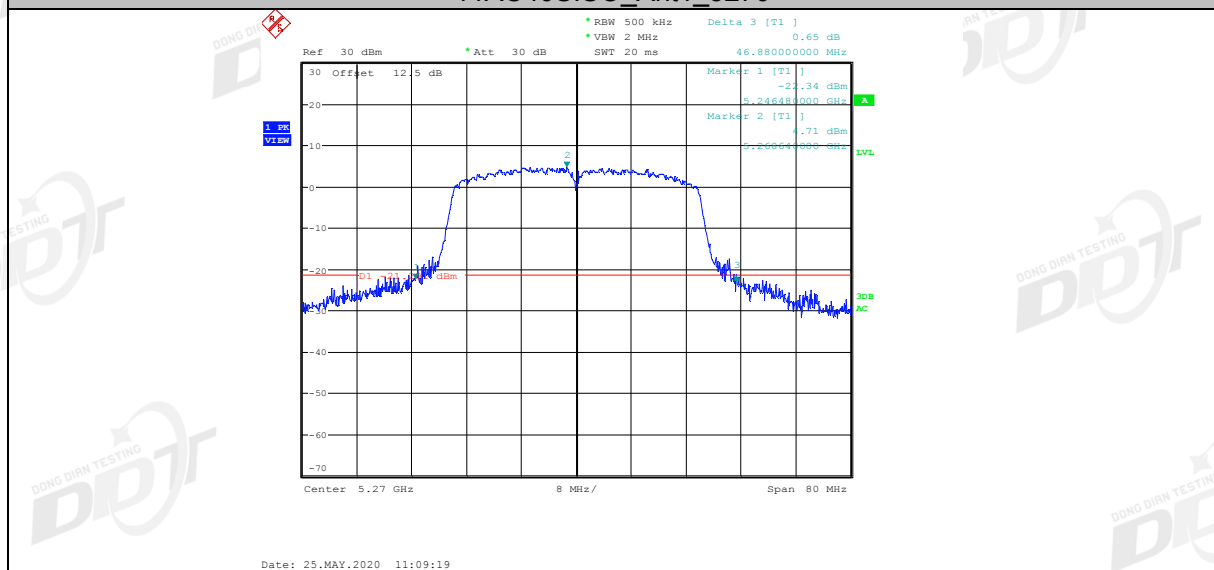
11AC40SISO_Ant1_5190



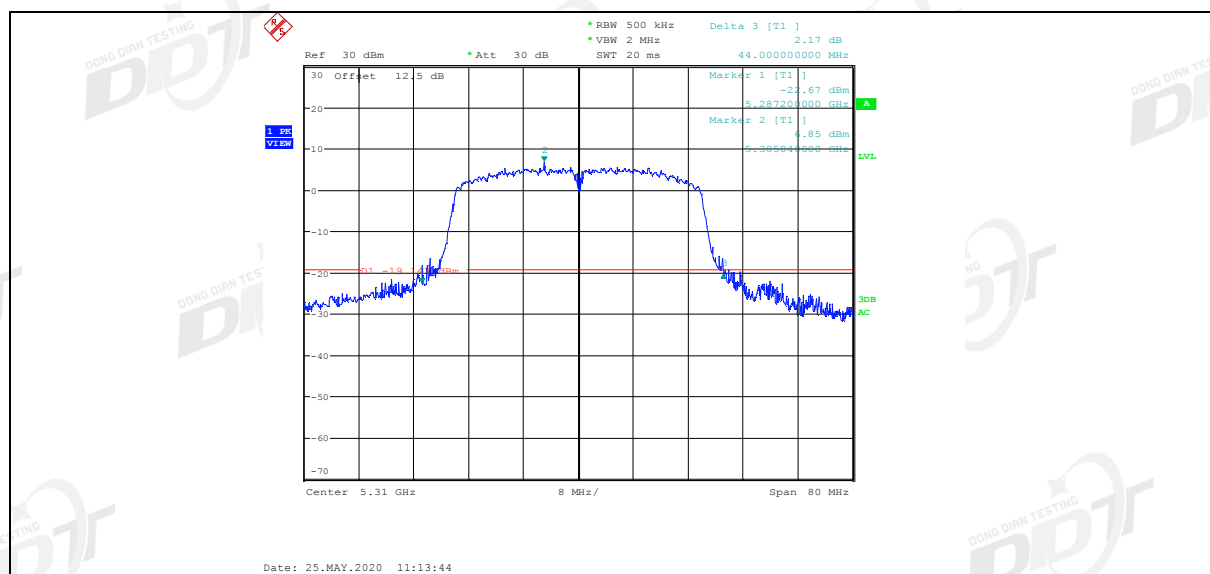
11AC40SISO_Ant1_5230



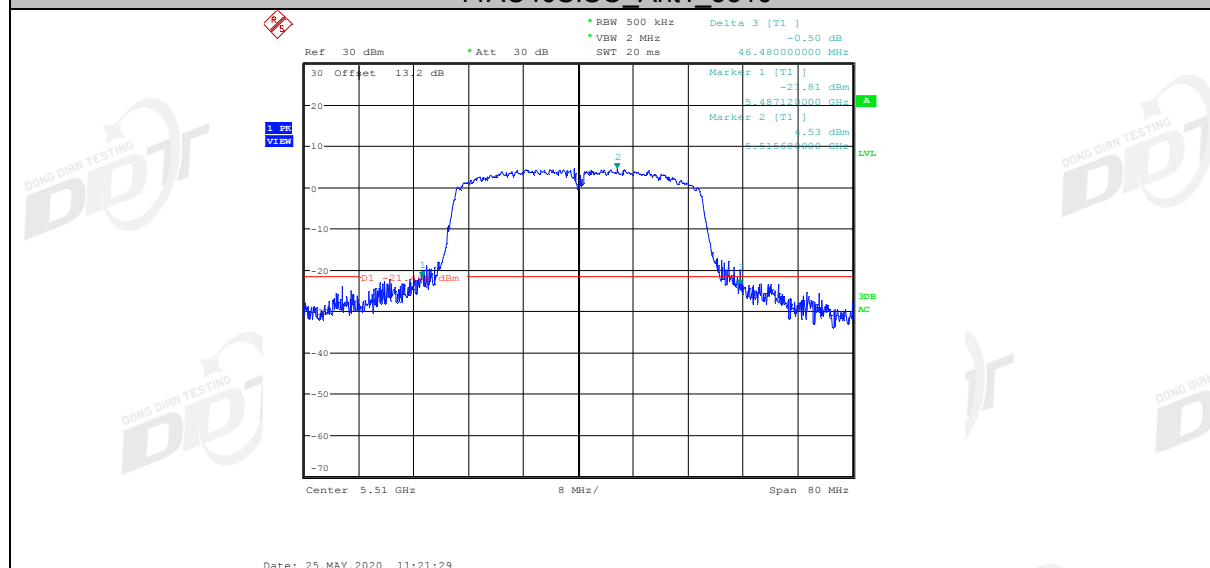
11AC40SISO_Ant1_5270



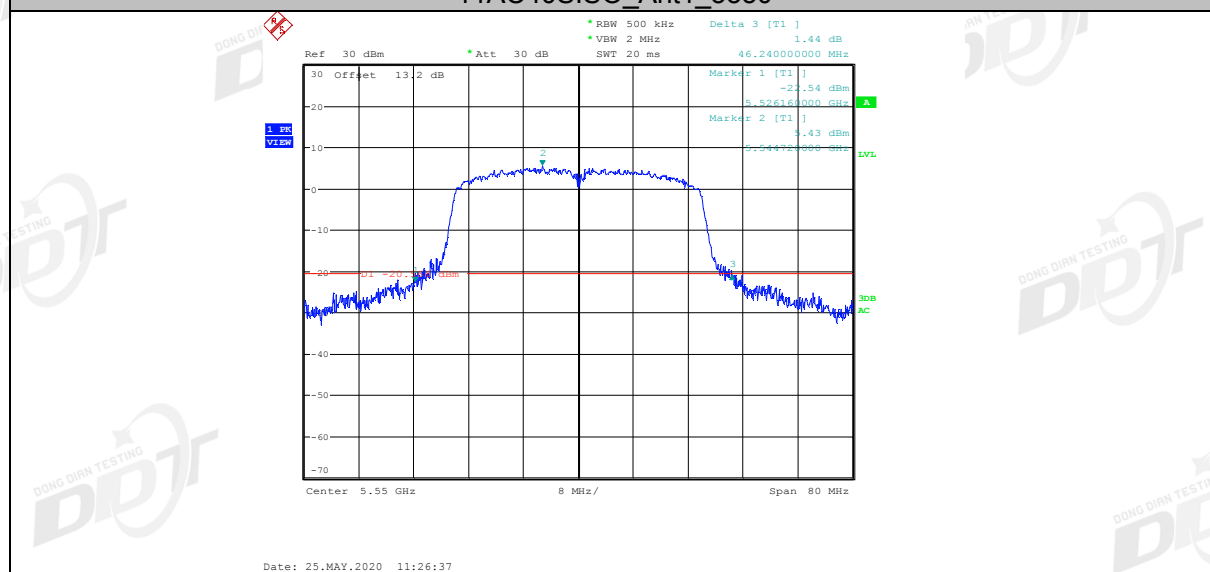
11AC40SISO_Ant1_5310



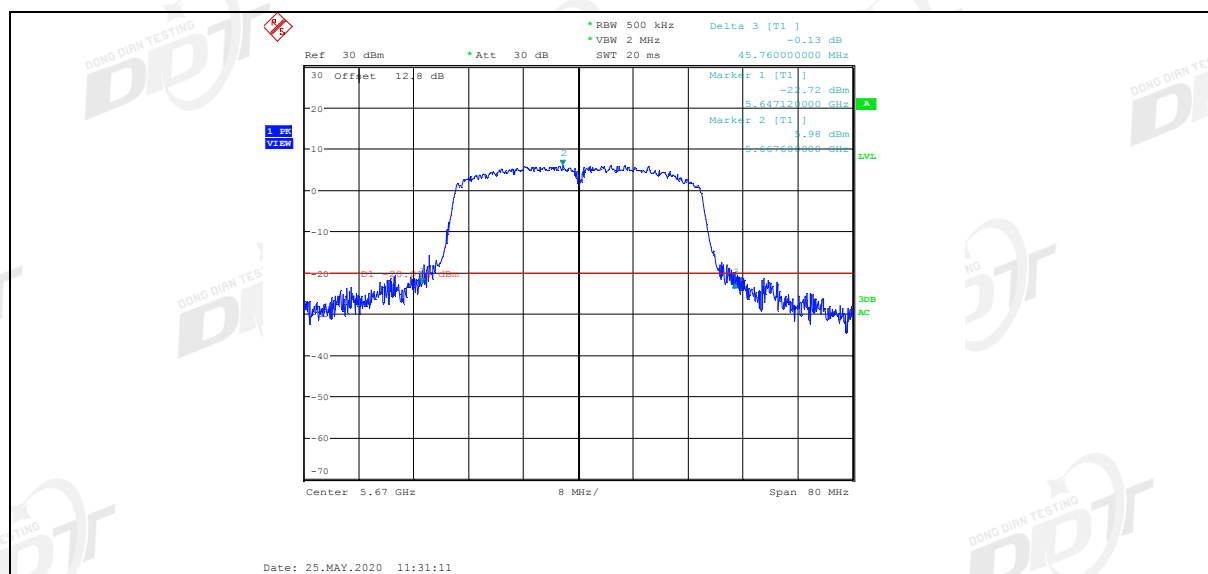
11AC40SISO_Ant1_5510



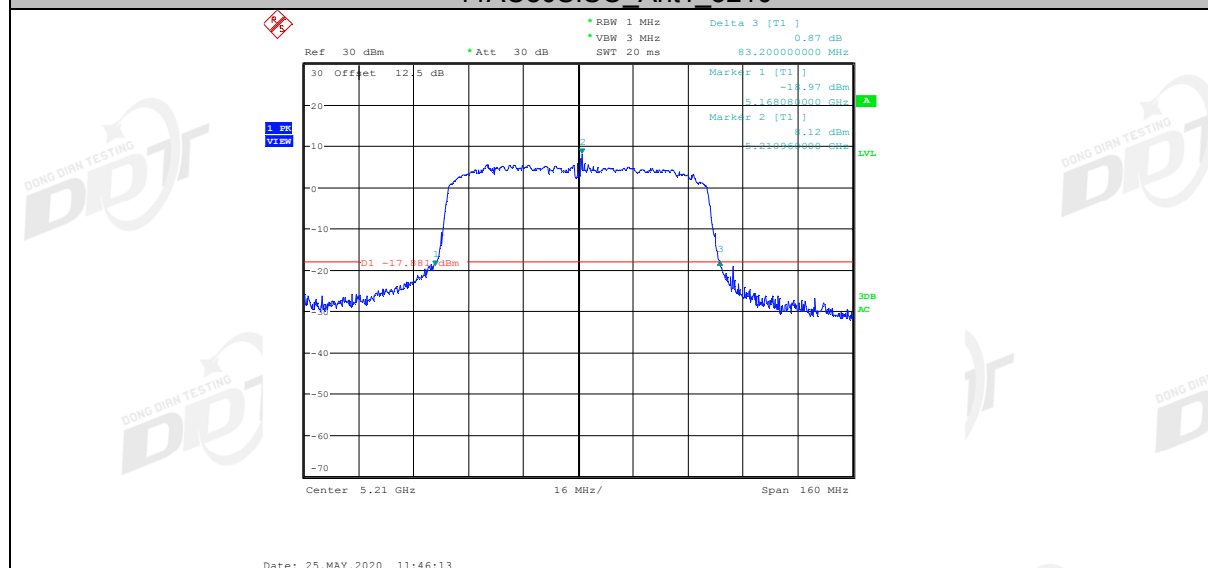
11AC40SISO_Ant1_5550



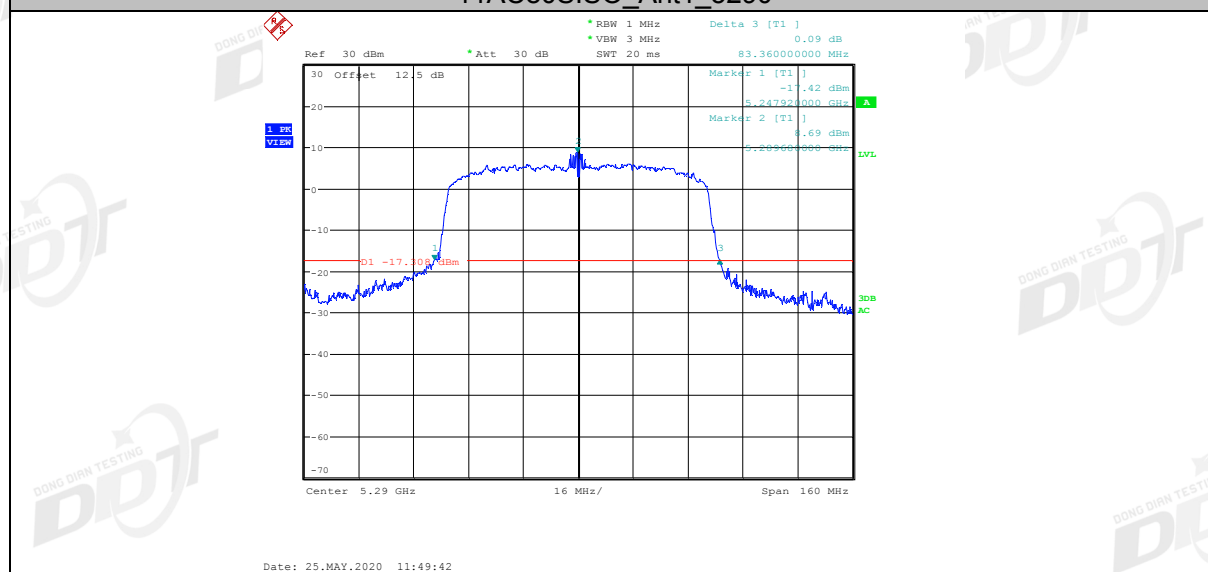
11AC40SISO_Ant1_5670



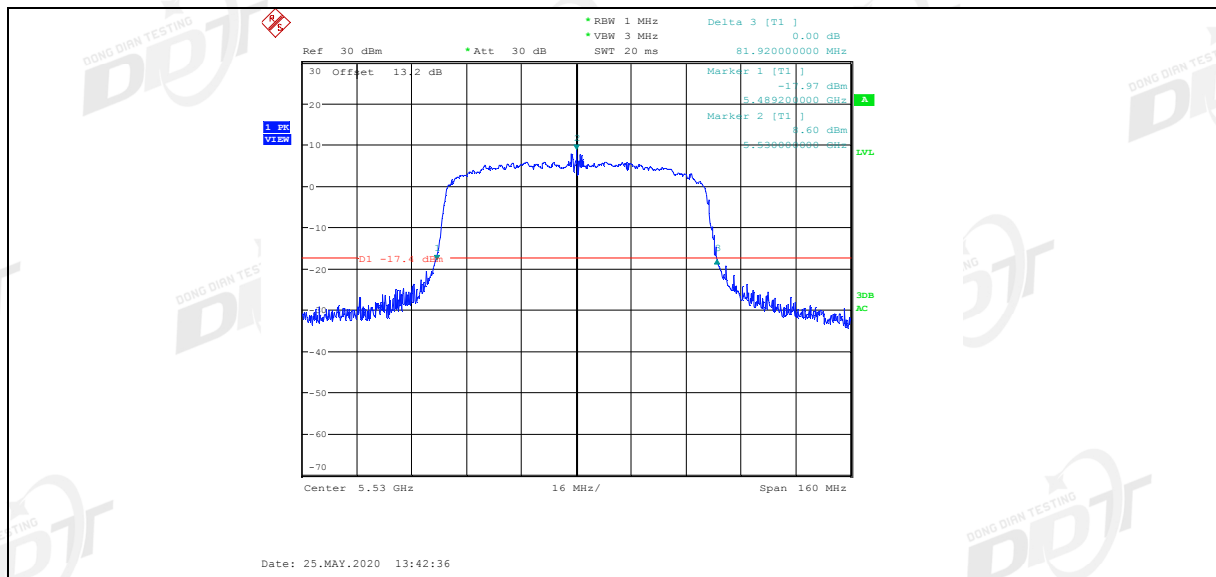
11AC80SISO_Ant1_5210



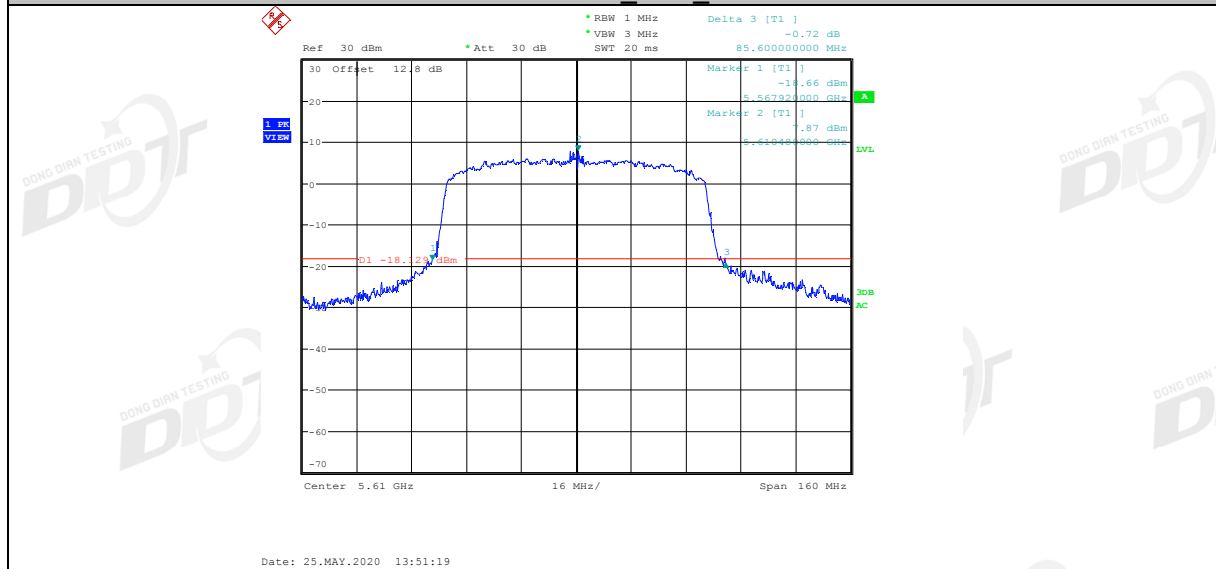
11AC80SISO_Ant1_5290



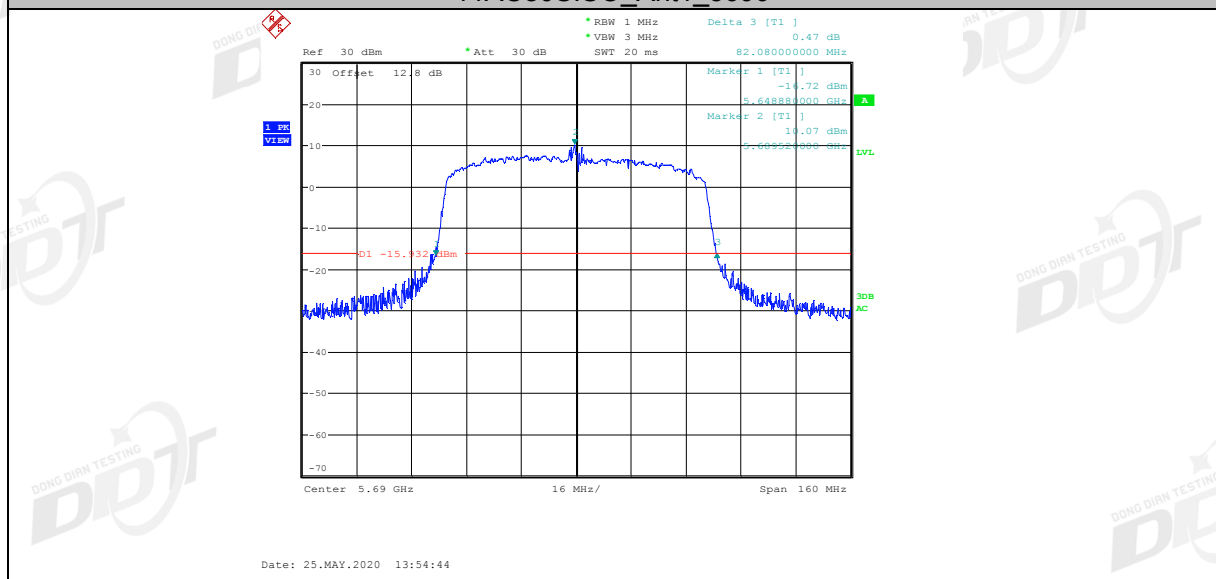
11AC80SISO_Ant1_5530



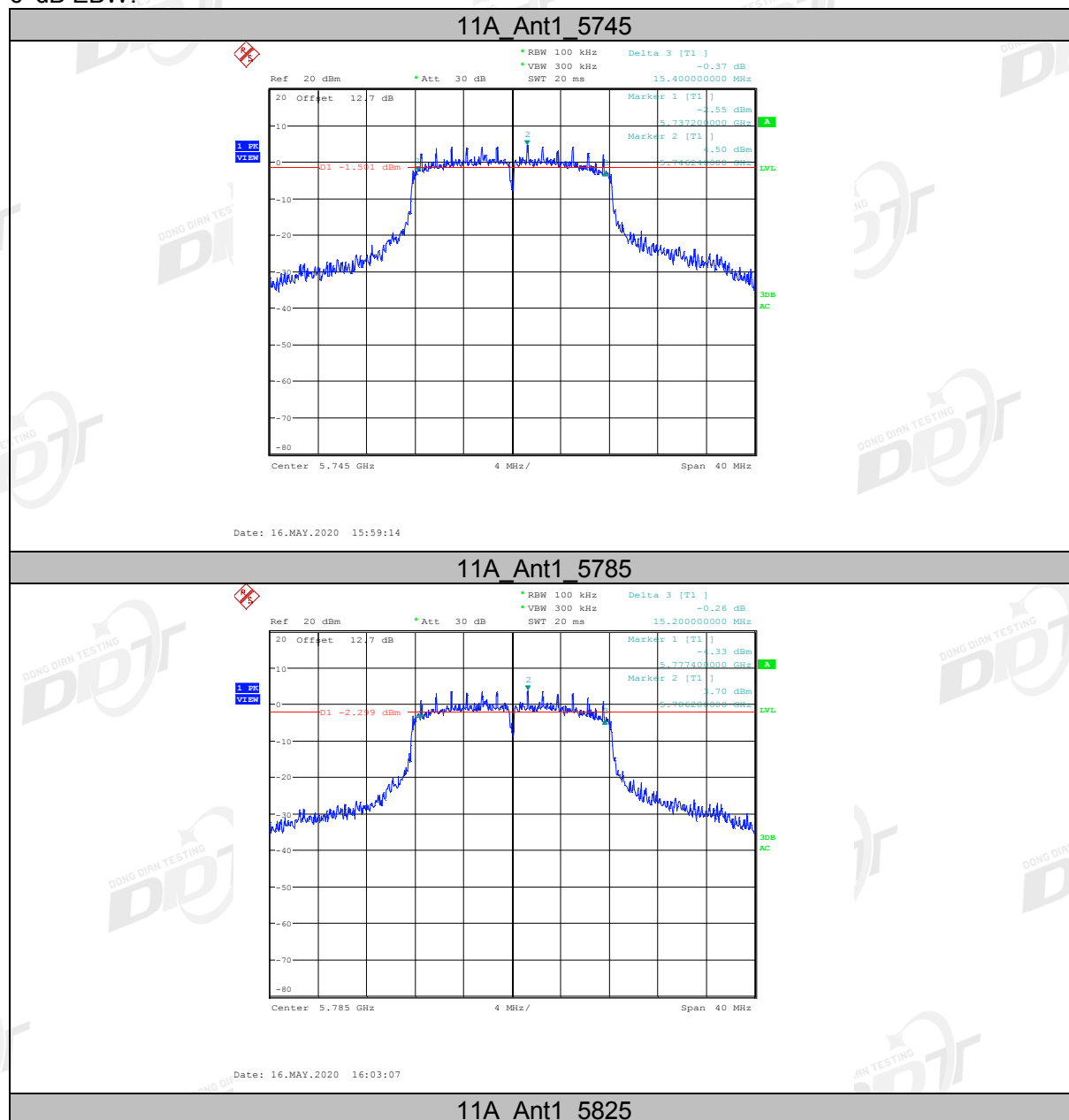
11AC80SISO_Ant1_5610

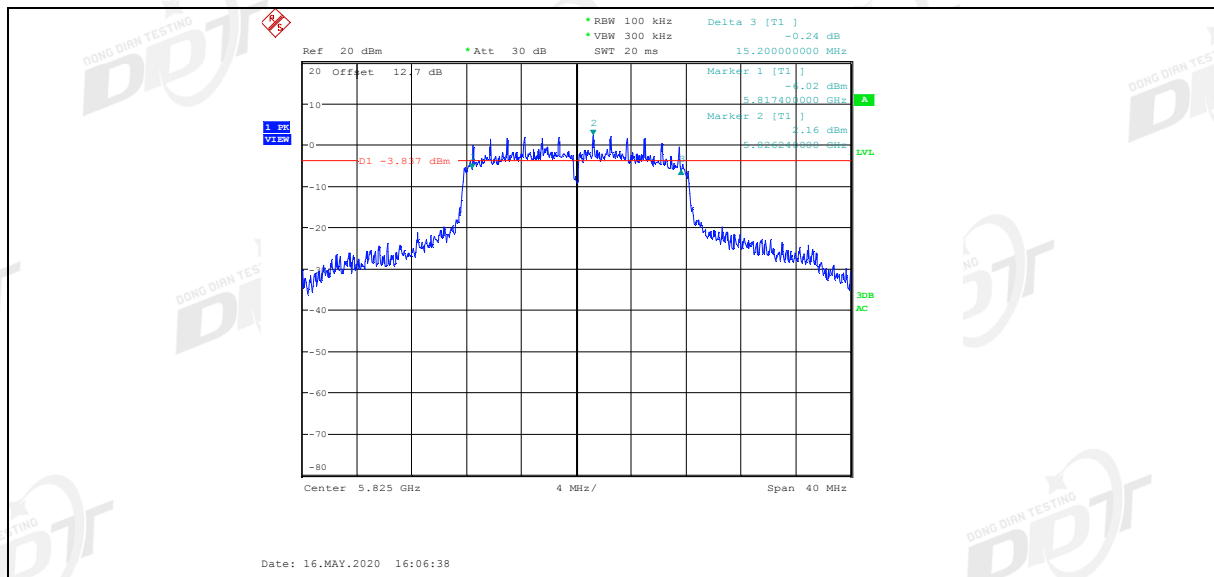


11AC80SISO_Ant1_5690

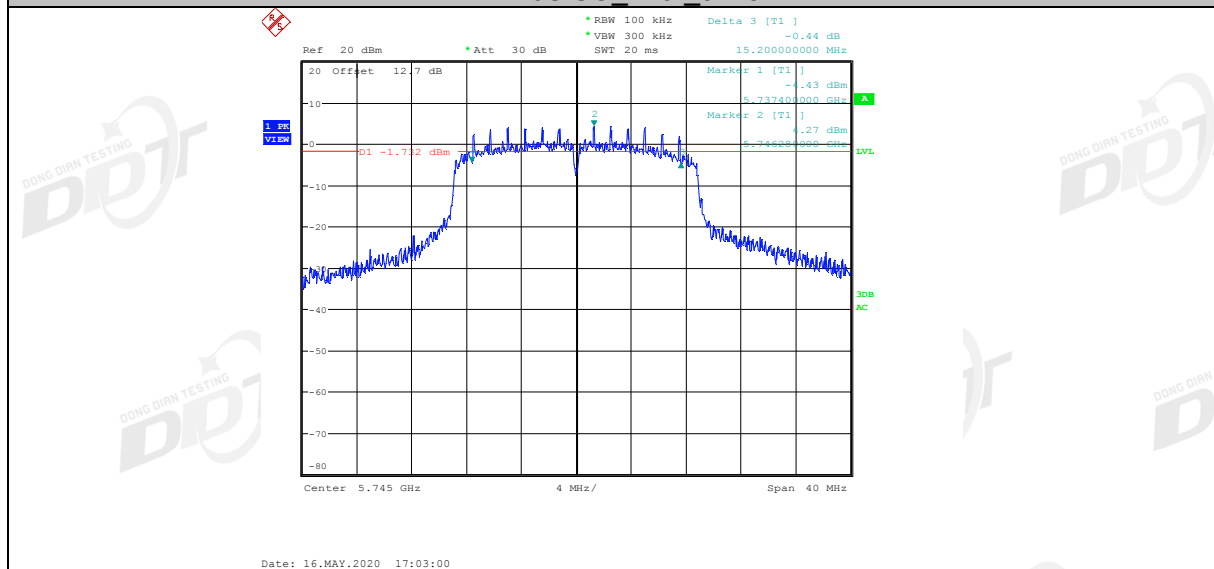


6 dB EBW:

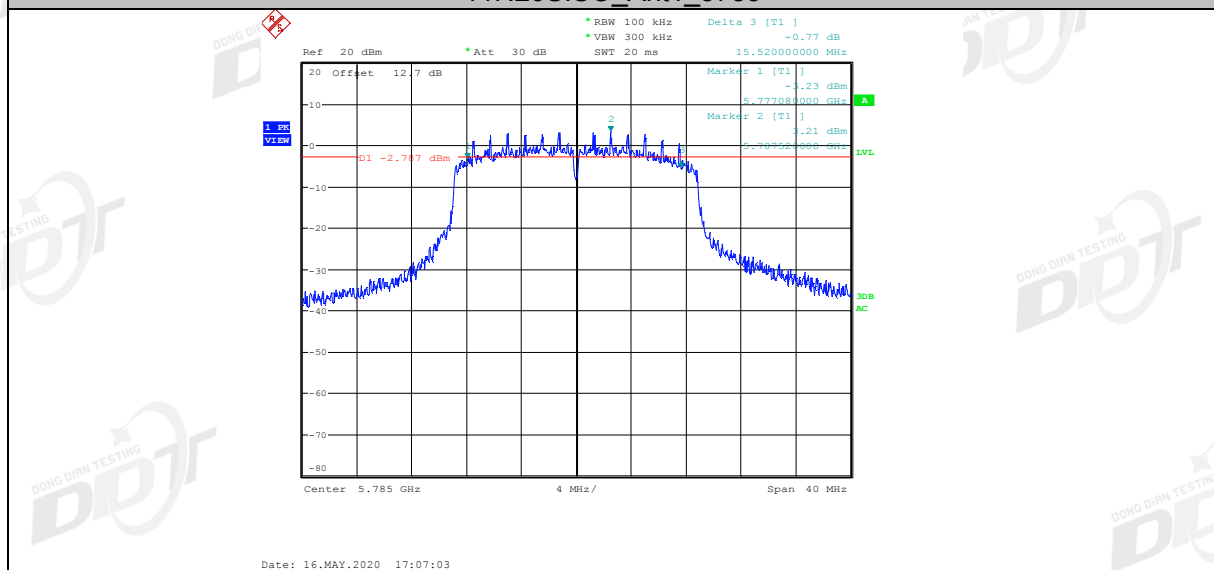




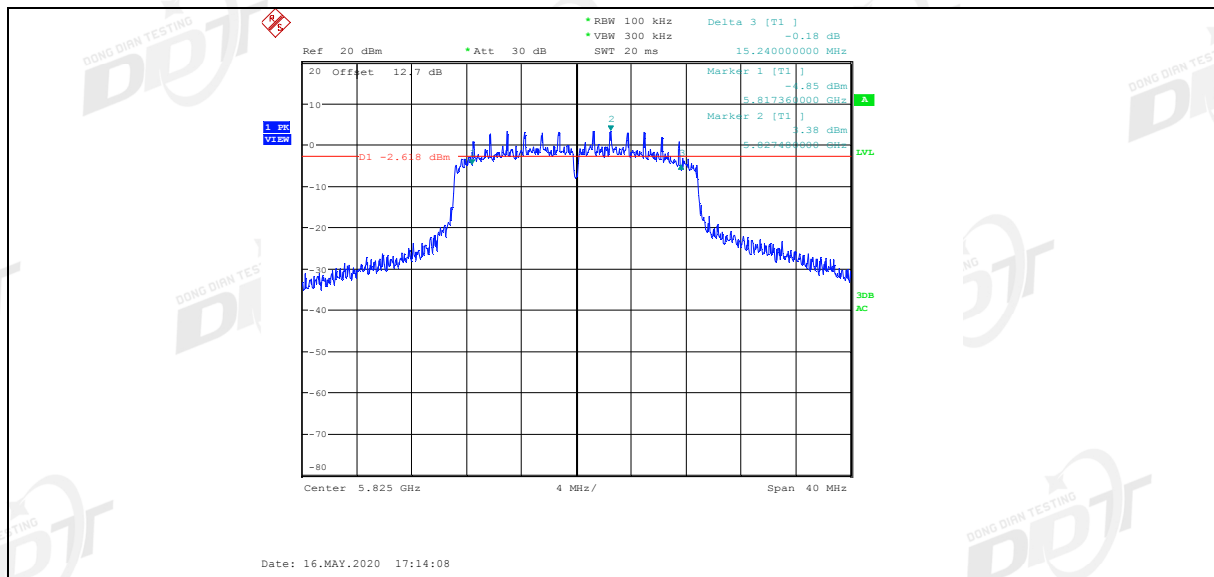
11N20SISO_Ant1_5745



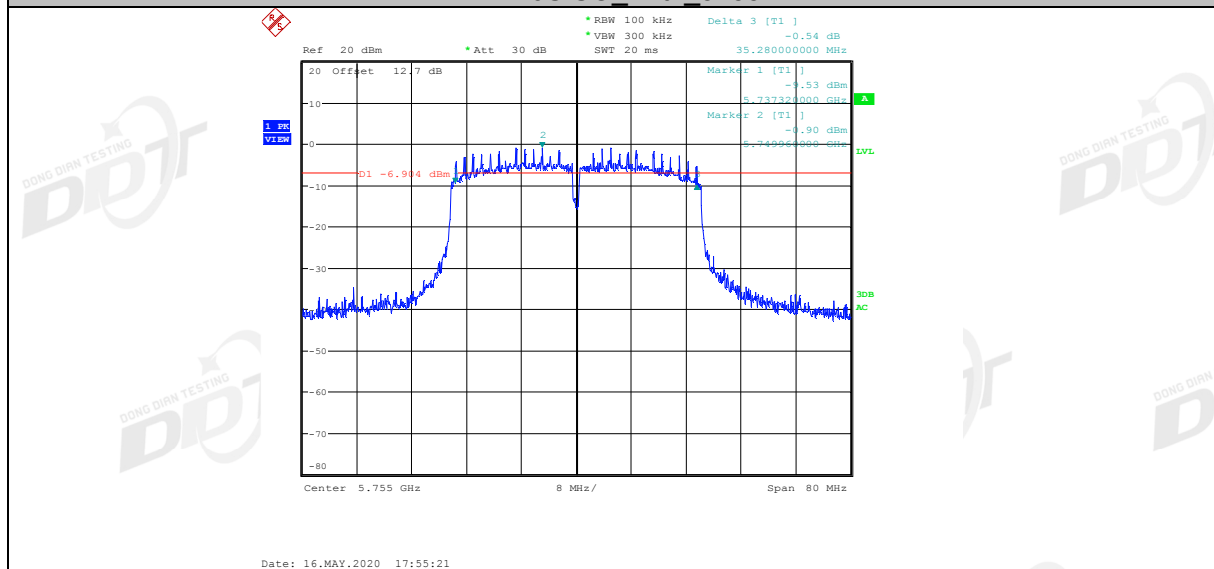
11N20SISO_Ant1_5785



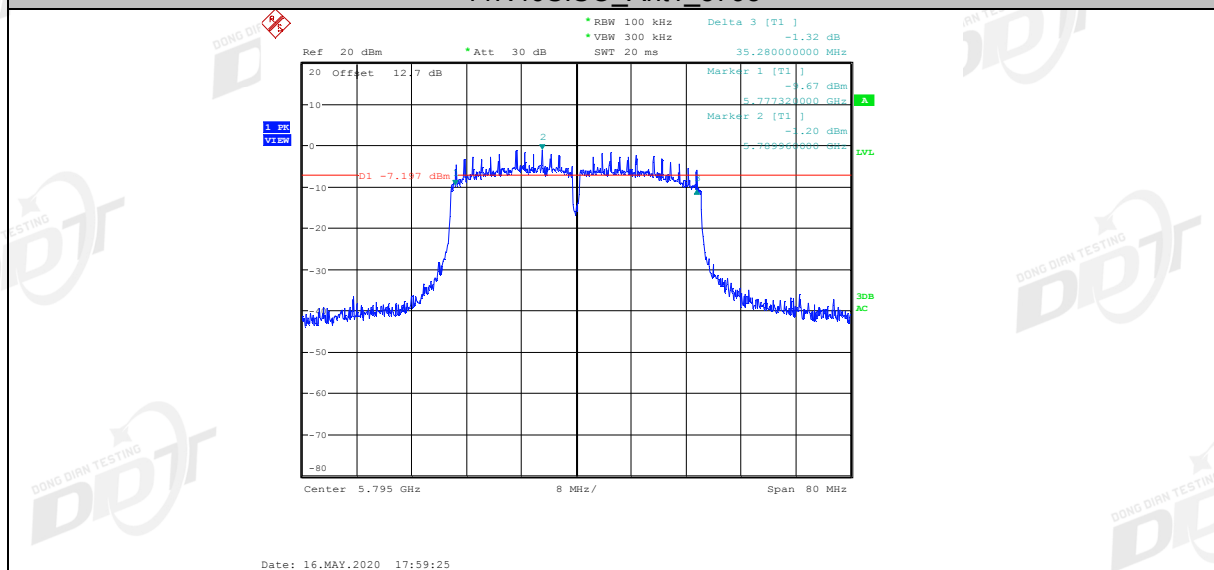
11N20SISO_Ant1_5825



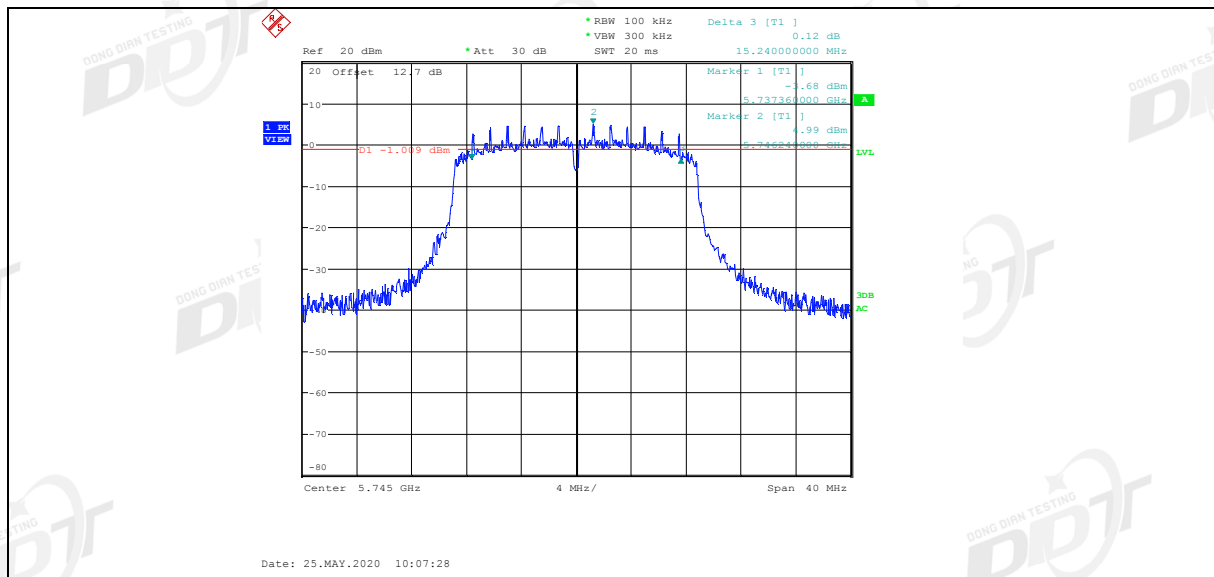
11N40SISO_Ant1_5755



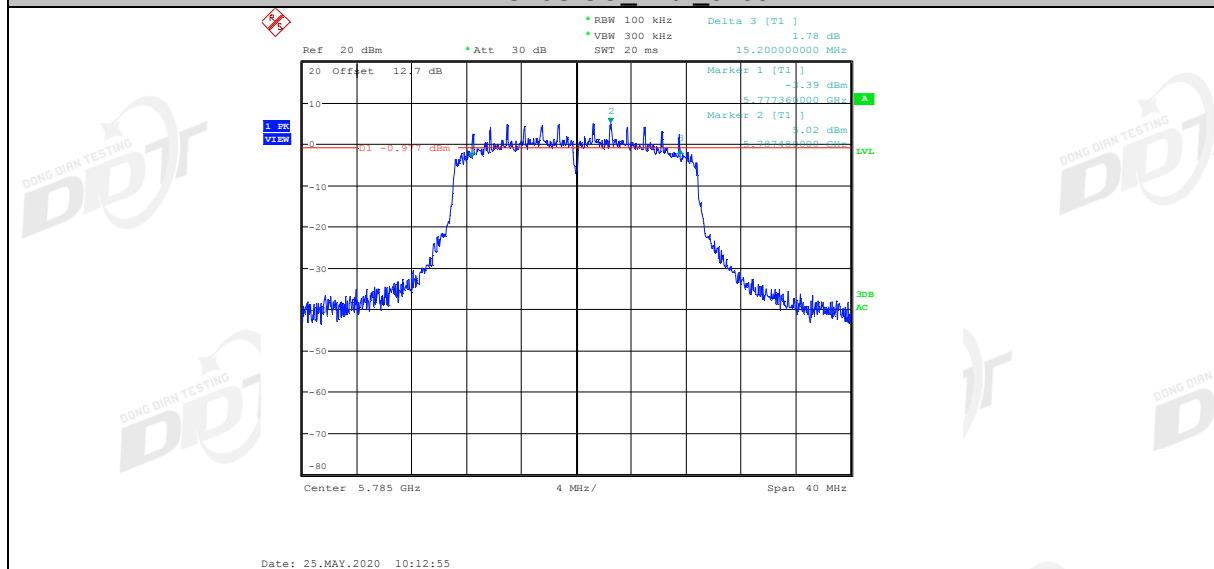
11N40SISO_Ant1_5795



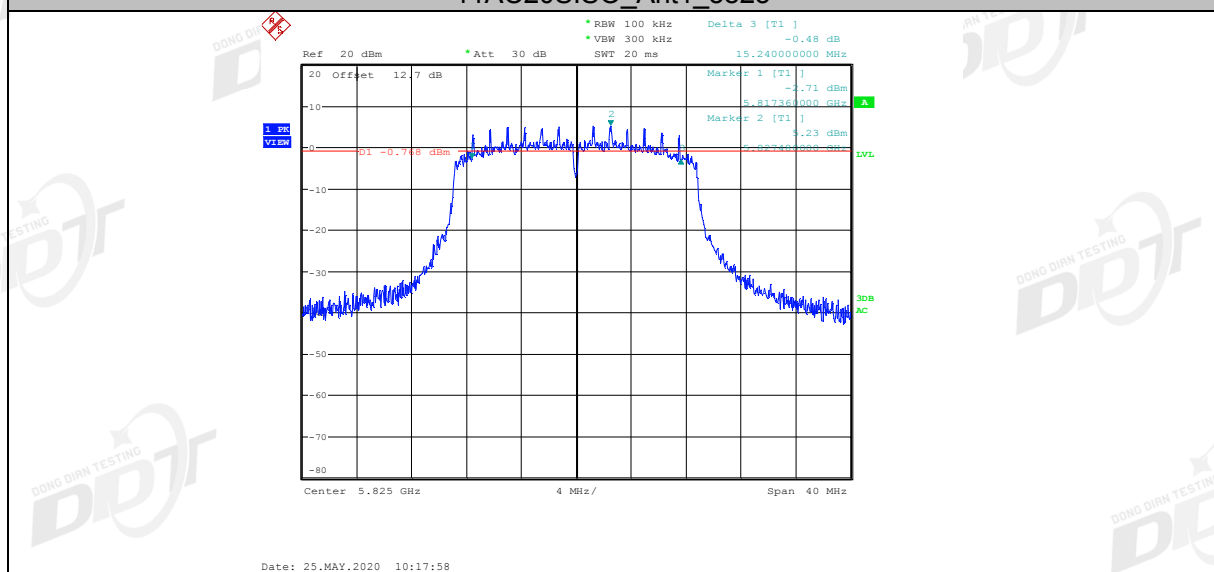
11AC20SISO_Ant1_5745



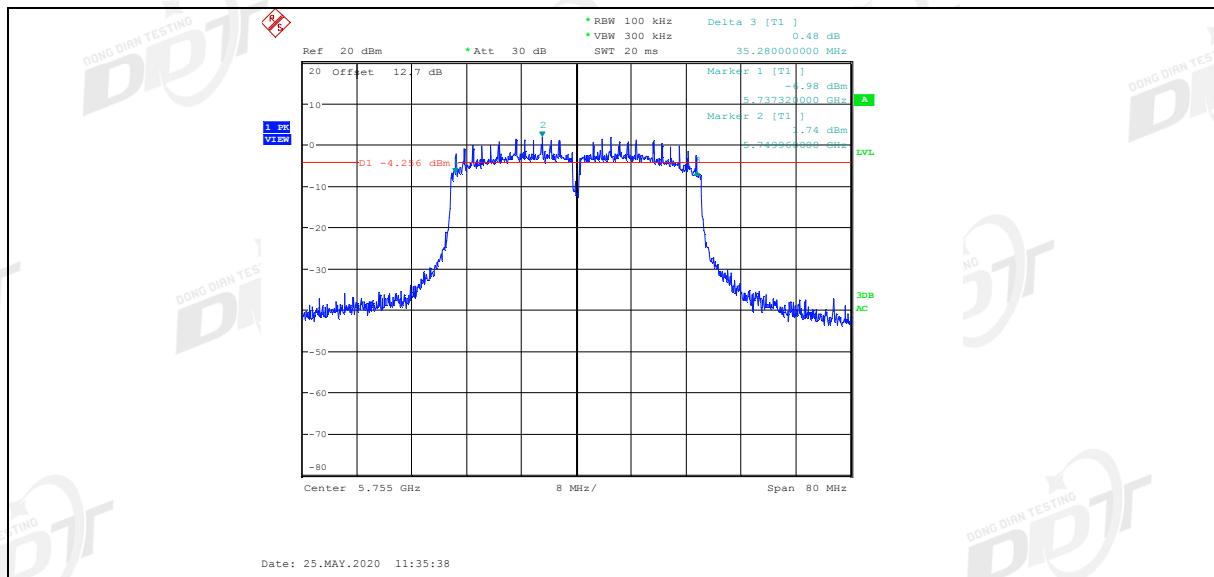
11AC20SISO_Ant1_5785



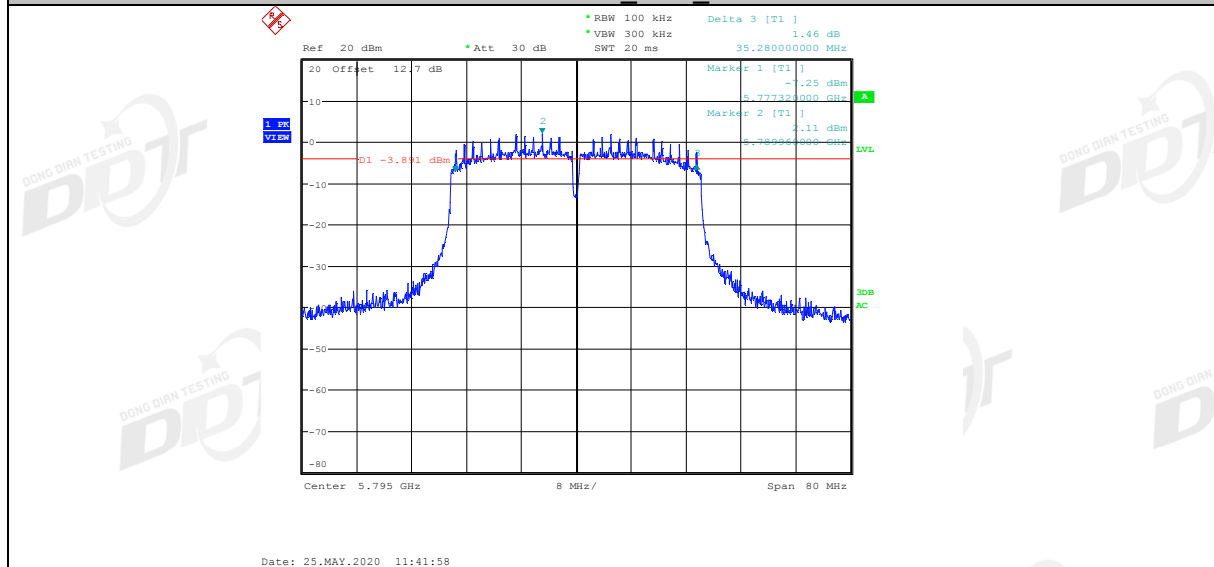
11AC20SISO_Ant1_5825



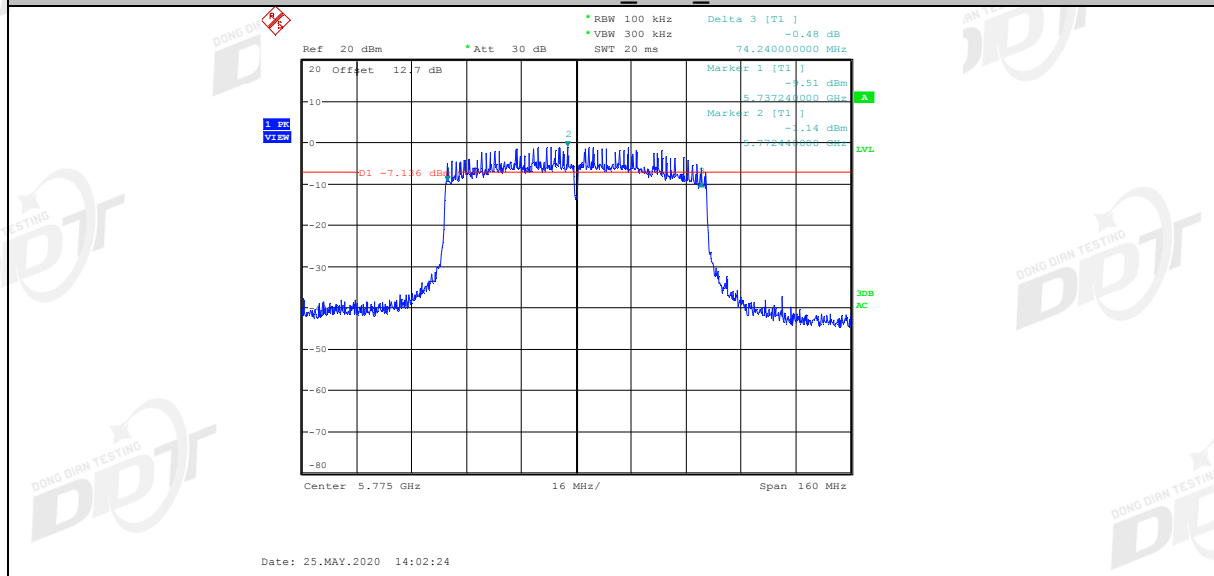
11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775



5. Maximum Output Power

5.1. Block diagram of test setup

Same as section 4.1

5.2. Limits

FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	For FCC client devices: 250 mW (24 dBm)	5150 - 5250
	For FCC: 250 mW (24 dBm) or $11 + 10 \log_{10} B$	5250 - 5350
	For FCC: 250 mW (24 dBm) or $11 + 10 \log_{10} B$	5470 - 5725
	1 Watt (30 dBm)	5725 - 5850
Note: For FCC: B=26 bandwidth.		

5.3. Test procedure

- (1) Connect each EUT's antenna output to Power Sensor by RF cable and attenuator
- (2) Add each antenna port's results to get the total output power of EUT.

5.4. Test result

Test Mode	Antenna	Channel	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	15.24	24	PASS
		5200	15.53	24	PASS
		5240	16.29	24	PASS
		5260	16.33	24	PASS
		5280	16.37	24	PASS
		5320	16.11	24	PASS
		5500	16.94	24	PASS
		5580	15.91	24	PASS
		5700	16.03	24	PASS
		5745	15.43	30	PASS
		5785	15.28	30	PASS
		5825	15.12	30	PASS
11N20SISO	Ant1	5180	15.50	24	PASS
		5200	15.25	24	PASS
		5240	15.35	24	PASS
		5260	16.18	24	PASS

		5280	16.20	24	PASS
		5320	16.04	24	PASS
		5500	16.74	24	PASS
		5580	16.30	24	PASS
		5700	15.69	24	PASS
		5745	15.29	30	PASS
		5785	15.02	30	PASS
		5825	14.28	30	PASS
11N40SISO	Ant1	5190	15.55	24	PASS
		5230	15.59	24	PASS
		5270	15.28	24	PASS
		5310	15.35	24	PASS
		5510	15.98	24	PASS
		5550	15.48	24	PASS
		5670	14.40	24	PASS
		5755	14.44	30	PASS
		5795	14.16	30	PASS
		5180	15.10	24	PASS
		5200	15.28	24	PASS
		5240	16.37	24	PASS
		5260	15.24	24	PASS
		5280	15.36	24	PASS
		5320	15.80	24	PASS
		5500	15.81	24	PASS
11AC20SISO	Ant1	5580	15.52	24	PASS
		5700	14.82	24	PASS
		5745	15.16	30	PASS
		5785	14.58	30	PASS
		5825	15.23	30	PASS
		5190	14.88	24	PASS
		5230	14.36	24	PASS
		5270	15.36	24	PASS
11AC40SISO	Ant1	5310	15.37	24	PASS
		5510	16.12	24	PASS
		5550	15.44	24	PASS
		5670	15.07	24	PASS
		5755	14.49	30	PASS
		5795	14.33	30	PASS
		5210	13.48	24	PASS
		5290	13.49	24	PASS
11AC80SISO	Ant1	5530	14.44	24	PASS
		5610	13.57	24	PASS
		5775	13.76	30	PASS

6. Power Spectral Density

6.1. Block diagram of test setup

Same with 4.1

6.2. Limits

FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	For FCC: Other than Mobile and portable: 17 dBm/MHz Mobile and portable client devices: 11 dBm/MHz	5150 - 5250
	11 dBm/MHz	5250 - 5350
	11 dBm/MHz	5470 - 5725
	30 dBm/500 kHz	5725 - 5850

6.3. Test procedure

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1 MHz RBW and 3 MHz VBW.

Connect the UUT to the spectrum analyser and use the following settings:

5150 MHz ~ 5250 MHz, 5250 MHz ~ 5350 MHz, 5470 MHz ~ 5725 MHz

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	1 MHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

5725 MHz - 5850 MHz

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	500 kHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Note:

1. For UNII-3, according to KDB publication 789033 D02 General U-NII Test Procedures New Rules v02r01, section II.F.5., it is acceptable to set RBW at 1 MHz and VBW at 3 MHz if the

spectrum analyzer does not have 500 kHz RBW.

2. The value measured with RBW=1 MHz is to be added with $10\log(500\text{kHz}/1\text{MHz})$ which is -3dB. For example, if the measured value is +10 dBm using RBW=1 MHz (that is +10 dBm/MHz), then the converted value will be +7 dBm/500 kHz.

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

6.4. Test result

(5150 - 5250)

Test Mode	Ant	Test Channel	PSD [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	ANT1	5180	7.39	11	PASS
11A	ANT1	5200	7.06	11	PASS
11A	ANT1	5240	7.96	11	PASS
11N20SISO	ANT1	5180	7.27	11	PASS
11N20SISO	ANT1	5200	6.97	11	PASS
11N20SISO	ANT1	5240	8.03	11	PASS
11N40SISO	ANT1	5190	2.76	11	PASS
11N40SISO	ANT1	5230	3.24	11	PASS
11AC20SISO	ANT1	5180	7.40	11	PASS
11AC20SISO	ANT1	5200	6.83	11	PASS
11AC20SISO	ANT1	5240	6.98	11	PASS
11AC40SISO	ANT1	5190	2.69	11	PASS
11AC40SISO	ANT1	5230	3.79	11	PASS
11AC80SISO	ANT1	5210	-0.29	11	PASS

(5250 - 5350, 5470 - 5725)

Test Mode	Ant	Test Channel	PSD [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	ANT1	5260	7.62	11	PASS
11A	ANT1	5280	7.80	11	PASS
11A	ANT1	5320	9.10	11	PASS
11A	ANT1	5500	8.85	11	PASS
11A	ANT1	5580	7.69	11	PASS
11A	ANT1	5700	6.99	11	PASS
11N20SISO	ANT1	5260	7.78	11	PASS
11N20SISO	ANT1	5280	7.64	11	PASS
11N20SISO	ANT1	5320	8.80	11	PASS
11N20SISO	ANT1	5500	9.01	11	PASS
11N20SISO	ANT1	5580	7.83	11	PASS
11N20SISO	ANT1	5700	7.03	11	PASS

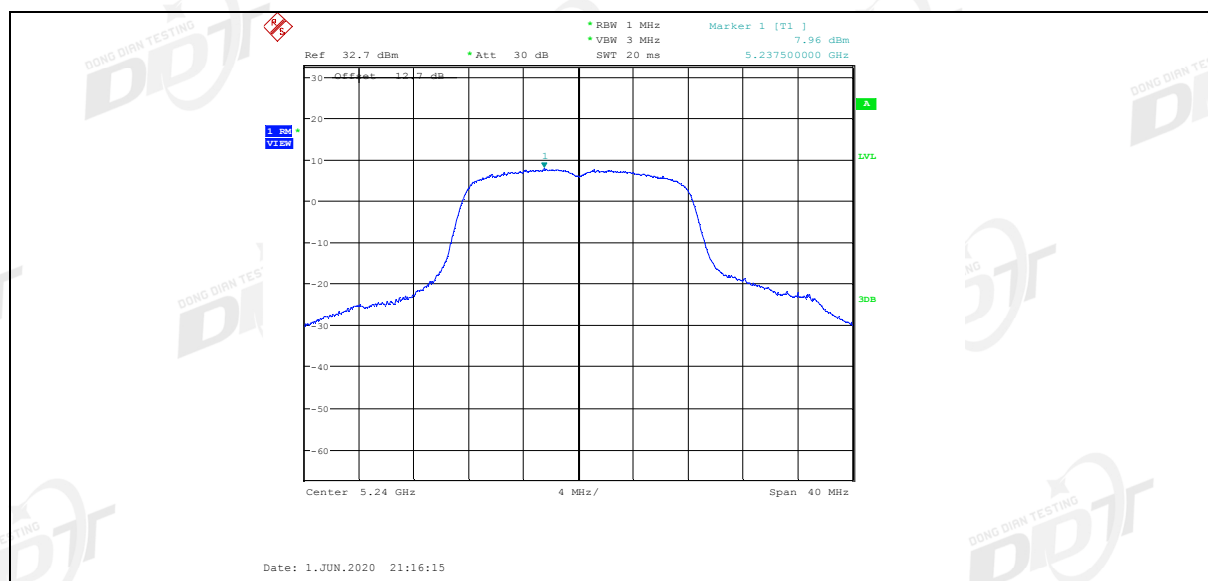
11N40SISO	ANT1	5270	3.34	11	PASS
11N40SISO	ANT1	5310	4.30	11	PASS
11N40SISO	ANT1	5510	4.32	11	PASS
11N40SISO	ANT1	5550	3.68	11	PASS
11N40SISO	ANT1	5670	2.37	11	PASS
11AC20SISO	ANT1	5260	6.82	11	PASS
11AC20SISO	ANT1	5280	7.45	11	PASS
11AC20SISO	ANT1	5320	7.84	11	PASS
11AC20SISO	ANT1	5500	8.00	11	PASS
11AC20SISO	ANT1	5580	6.67	11	PASS
11AC20SISO	ANT1	5700	6.11	11	PASS
11AC40SISO	ANT1	5270	3.46	11	PASS
11AC40SISO	ANT1	5310	4.45	11	PASS
11AC40SISO	ANT1	5510	4.25	11	PASS
11AC40SISO	ANT1	5550	3.76	11	PASS
11AC40SISO	ANT1	5670	2.76	11	PASS
11AC80SISO	ANT1	5290	1.25	11	PASS
11AC80SISO	ANT1	5530	1.57	11	PASS
11AC80SISO	ANT1	5610	0.18	11	PASS

(5725 - 5850)

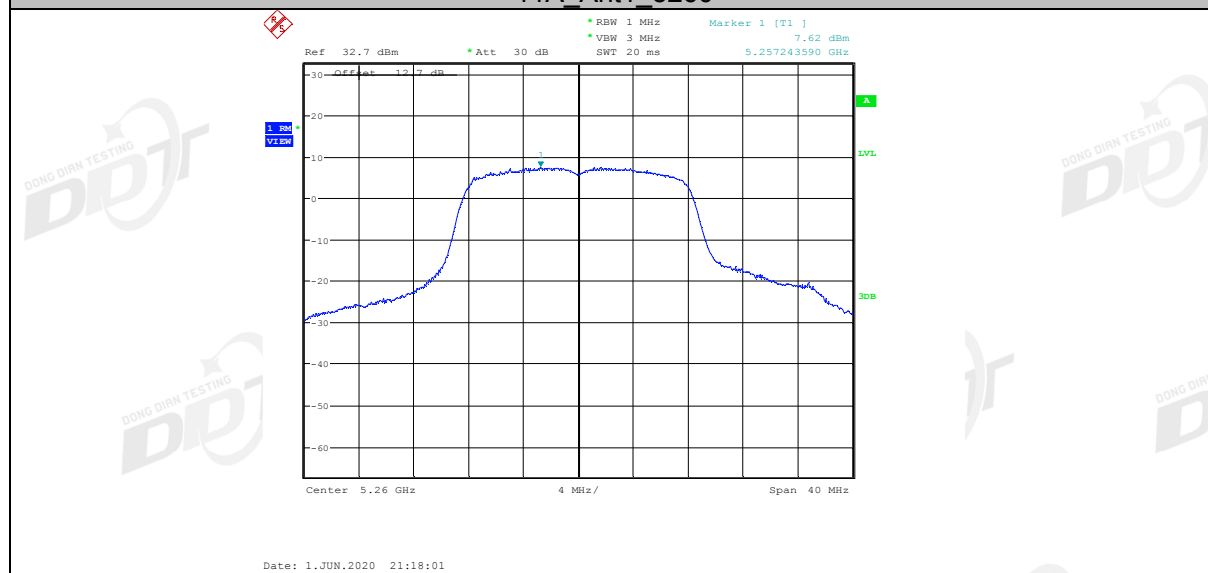
Test Mode	Ant	Test Channel	PSD [dBm/500kHz]	Limit [dBm/500kHz]	Verdict
11A	ANT1	5745	5.00	30	PASS
11A	ANT1	5785	4.96	30	PASS
11A	ANT1	5825	5.13	30	PASS
11N20SISO	ANT1	5745	4.89	30	PASS
11N20SISO	ANT1	5785	5.39	30	PASS
11N20SISO	ANT1	5825	4.88	30	PASS
11N40SISO	ANT1	5755	0.97	30	PASS
11N40SISO	ANT1	5795	1.12	30	PASS
11AC20SISO	ANT1	5745	4.92	30	PASS
11AC20SISO	ANT1	5785	4.96	30	PASS
11AC20SISO	ANT1	5825	4.62	30	PASS
11AC40SISO	ANT1	5755	0.59	30	PASS
11AC40SISO	ANT1	5795	0.87	30	PASS
11AC80SISO	ANT1	5775	-2.45	30	PASS

6.5. Original test data

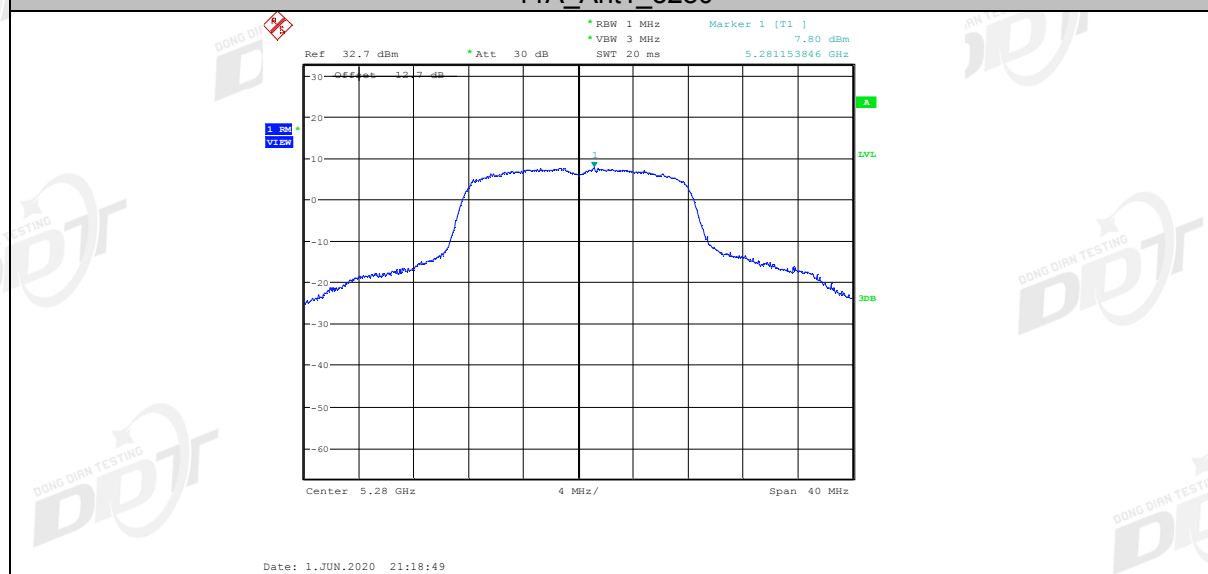




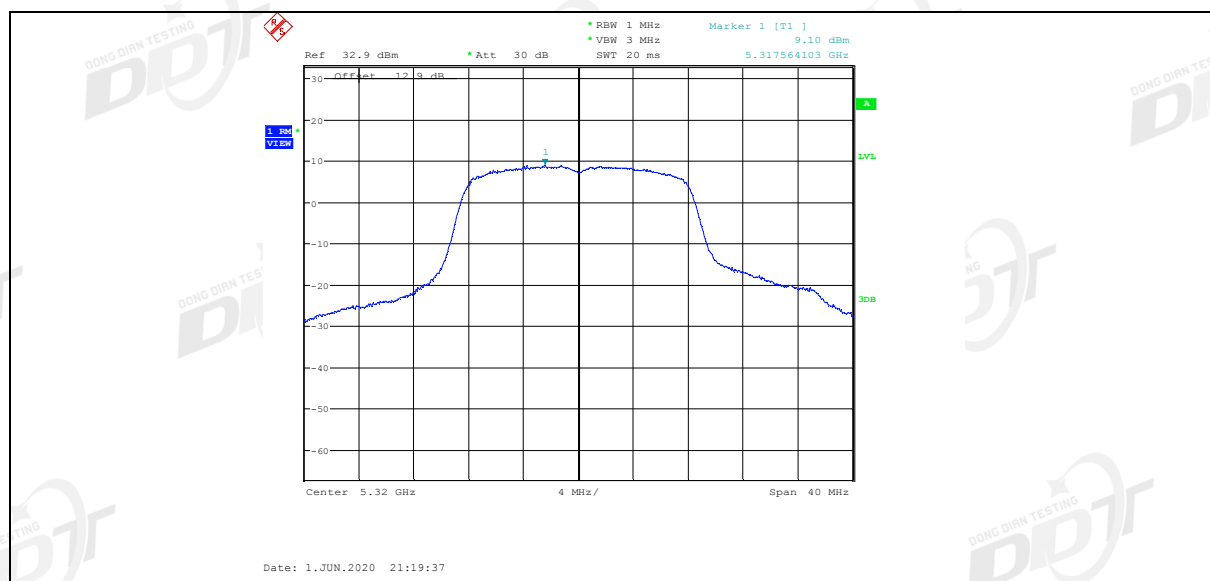
11A_Ant1_5260



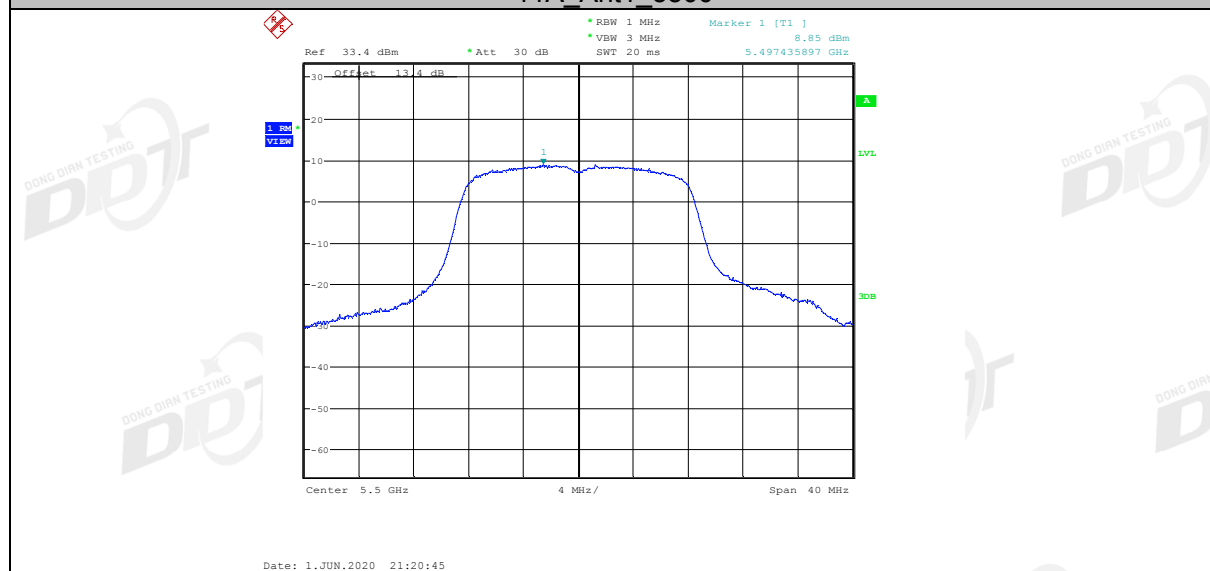
11A_Ant1_5280



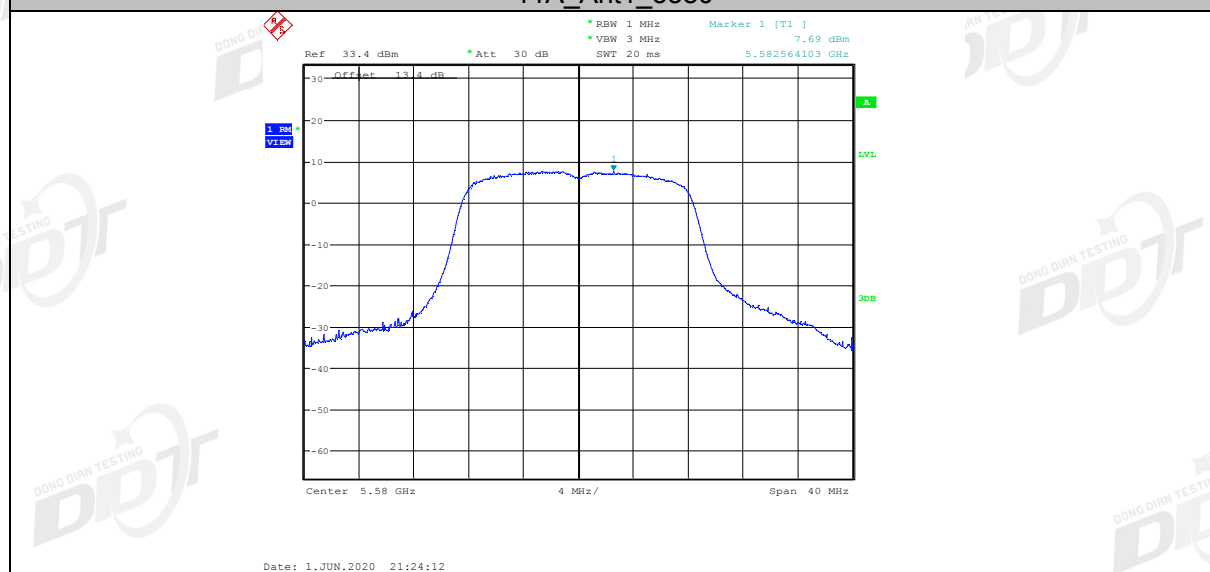
11A_Ant1_5320



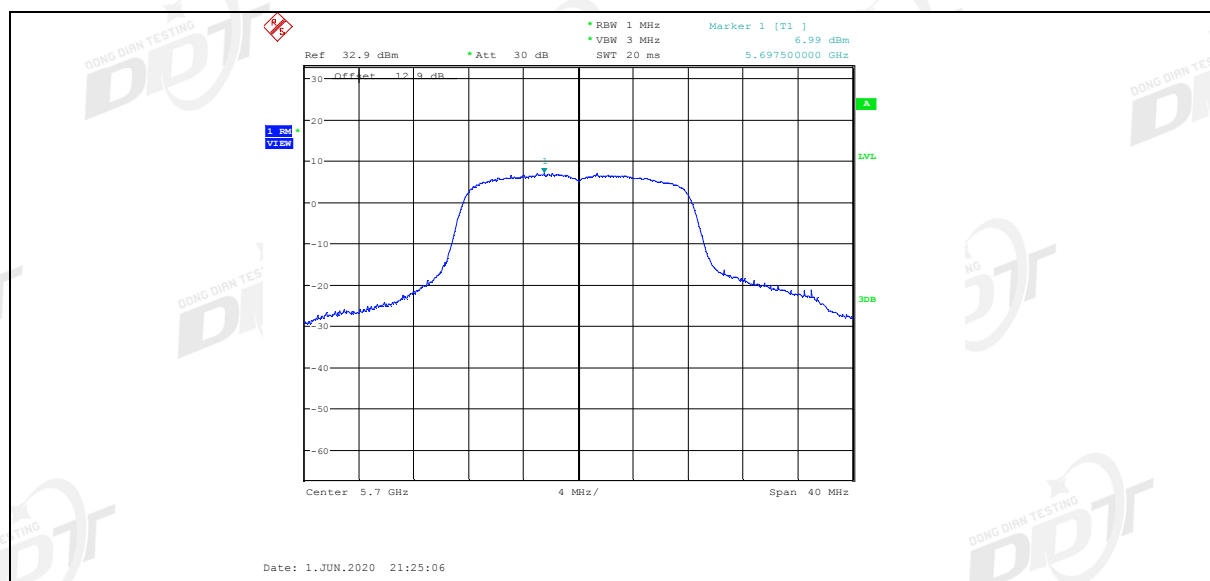
11A_Ant1_5500



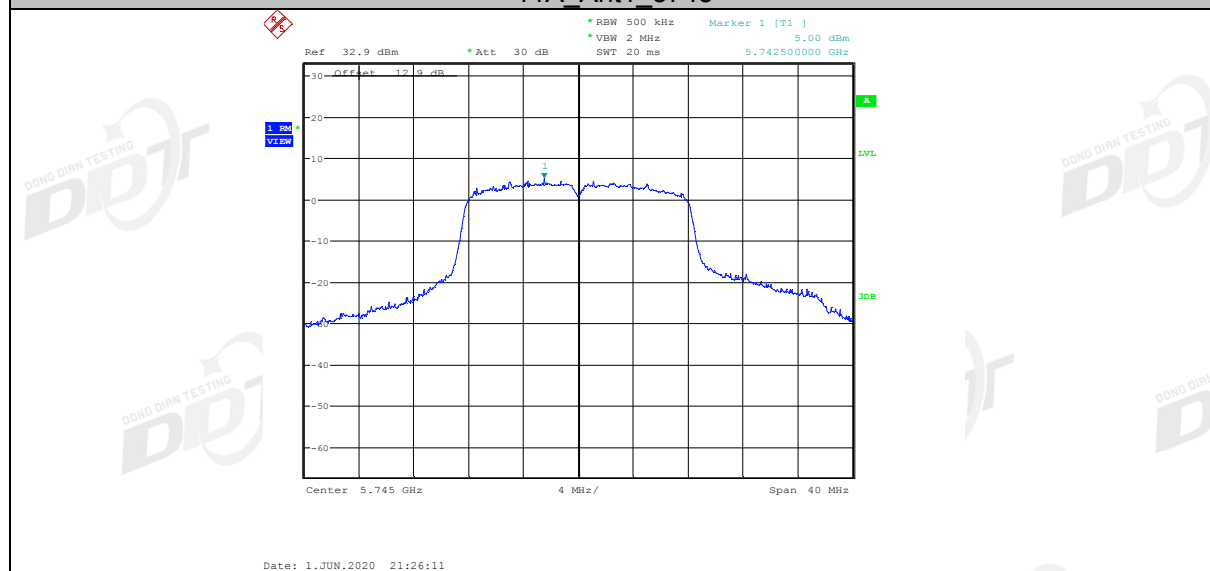
11A_Ant1_5580



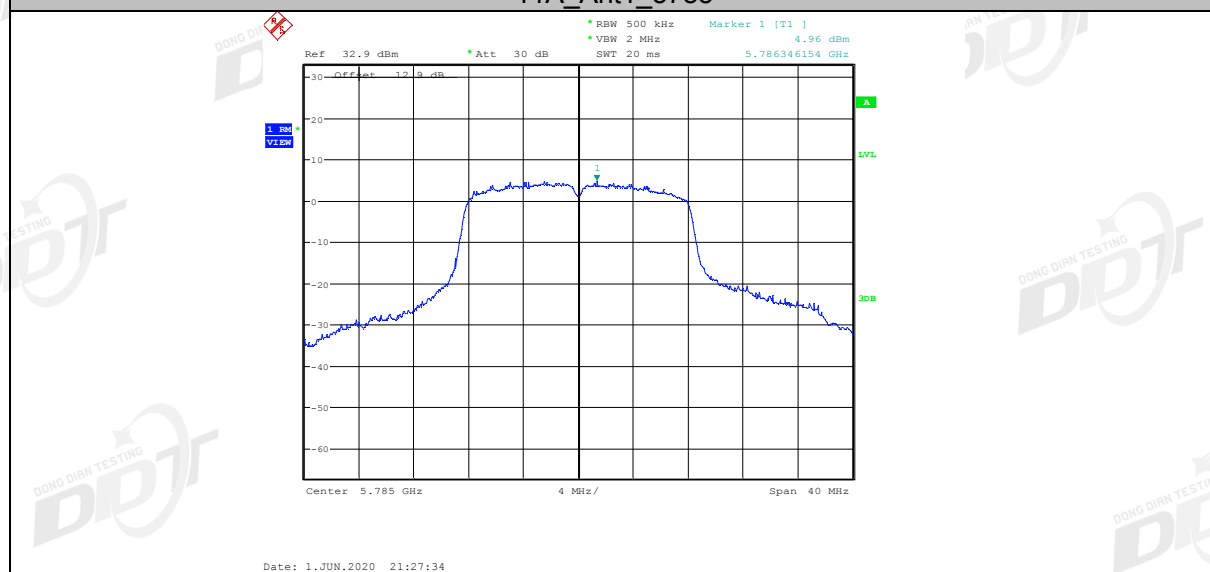
11A_Ant1_5700



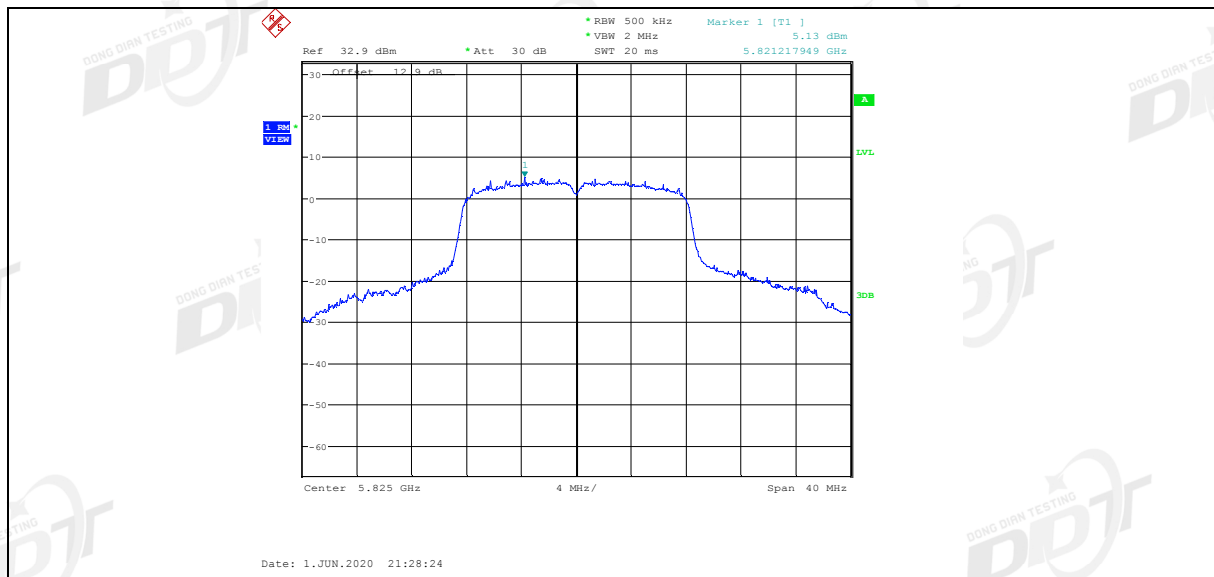
11A_Ant1_5745



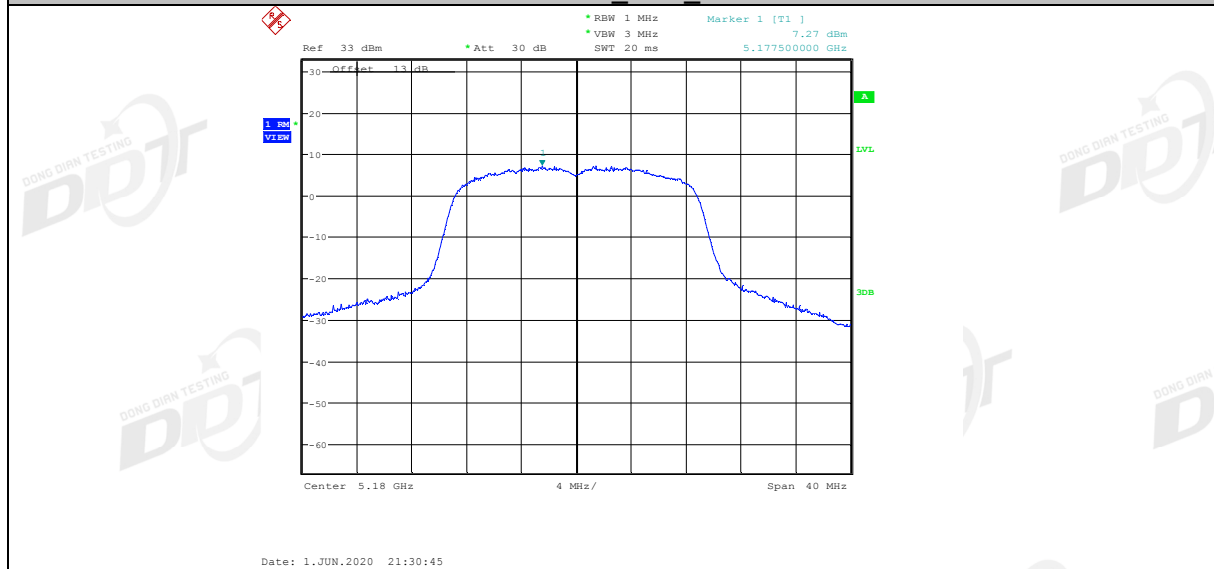
11A_Ant1_5785



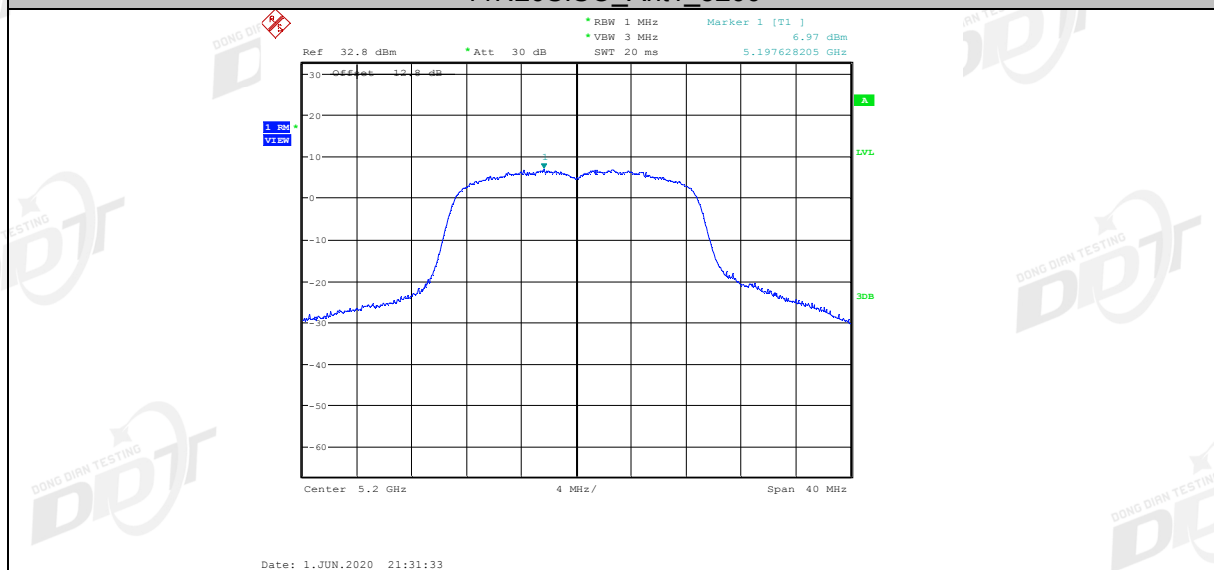
11A_Ant1_5825



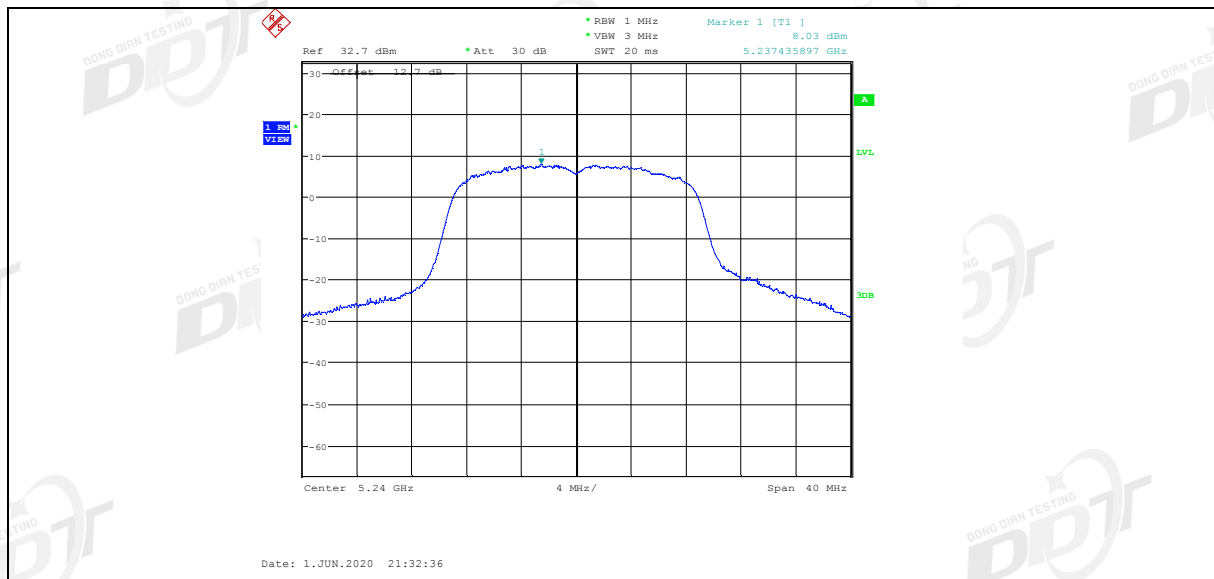
11N20SISO_Ant1_5180



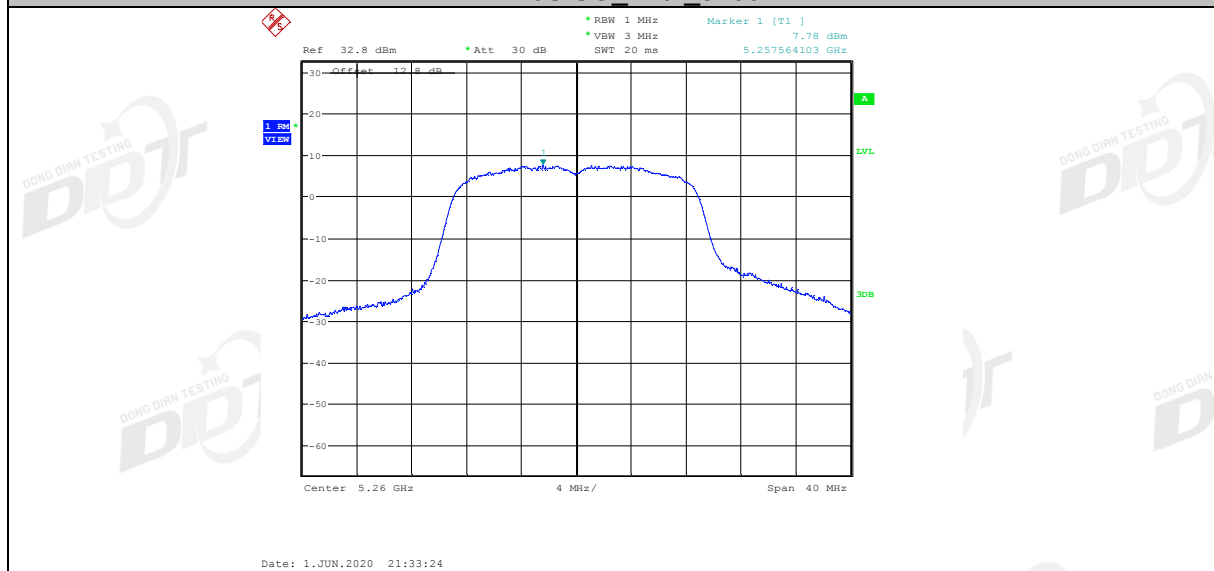
11N20SISO_Ant1_5200



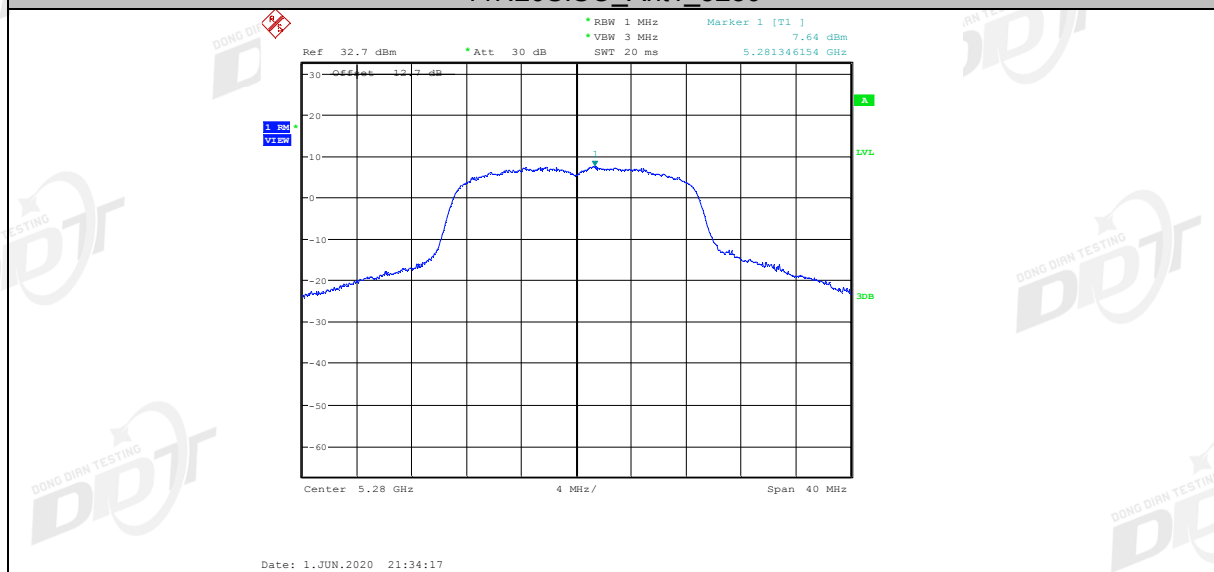
11N20SISO_Ant1_5240



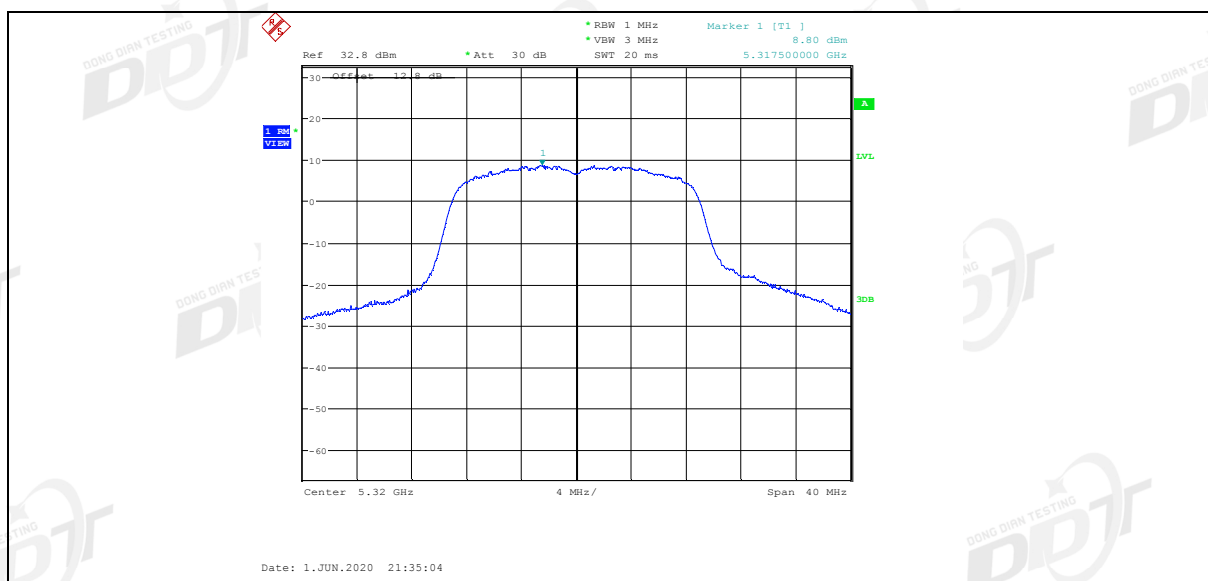
11N20SISO_Ant1_5260



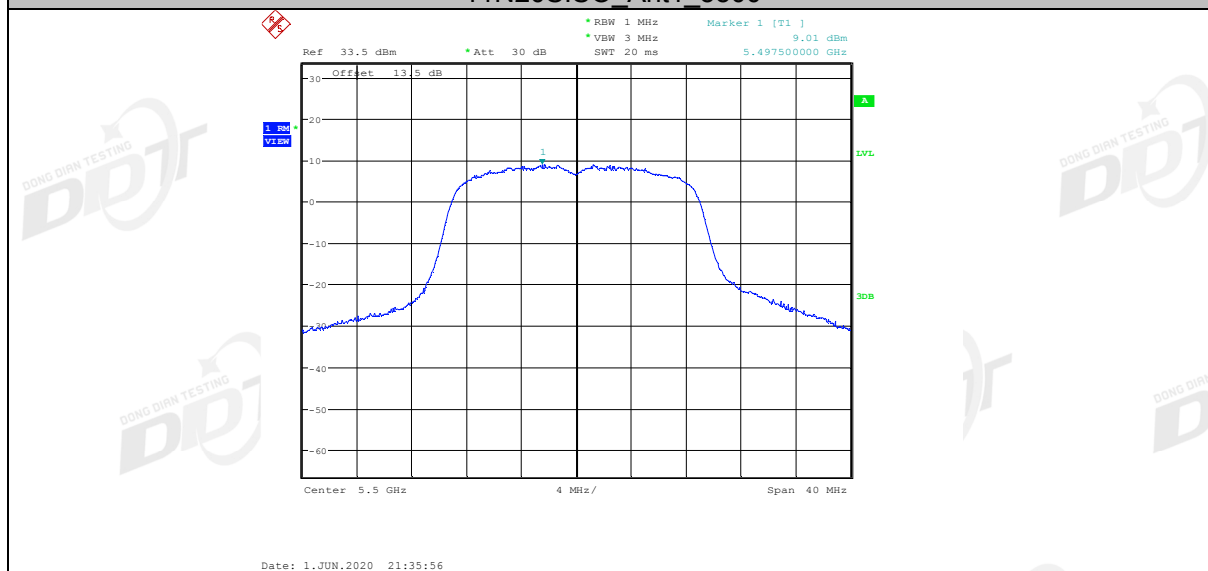
11N20SISO_Ant1_5280



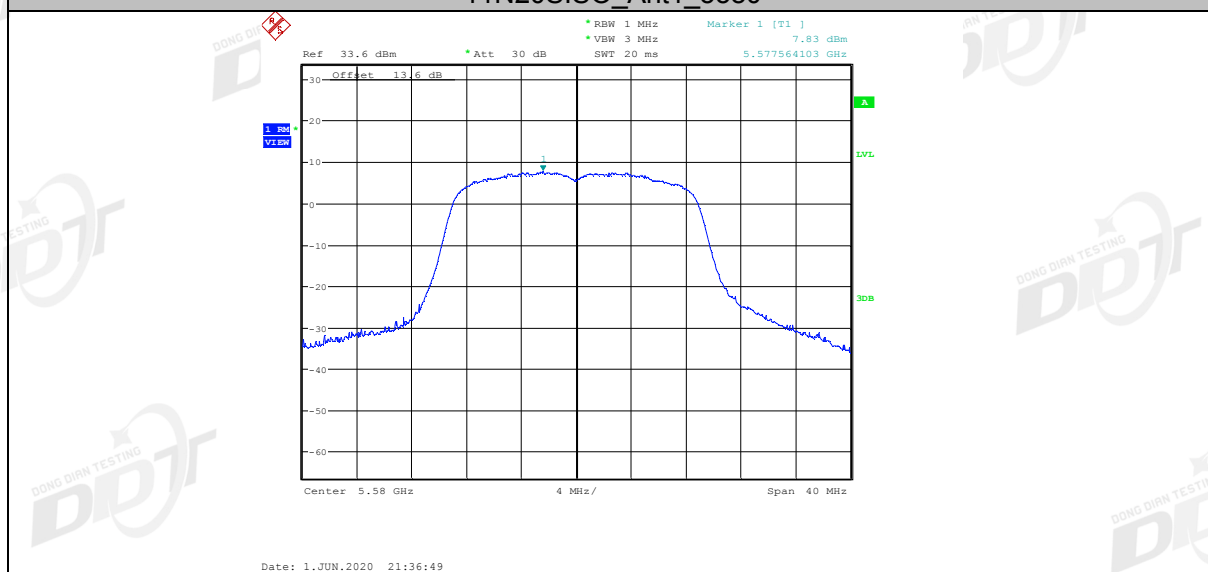
11N20SISO_Ant1_5320



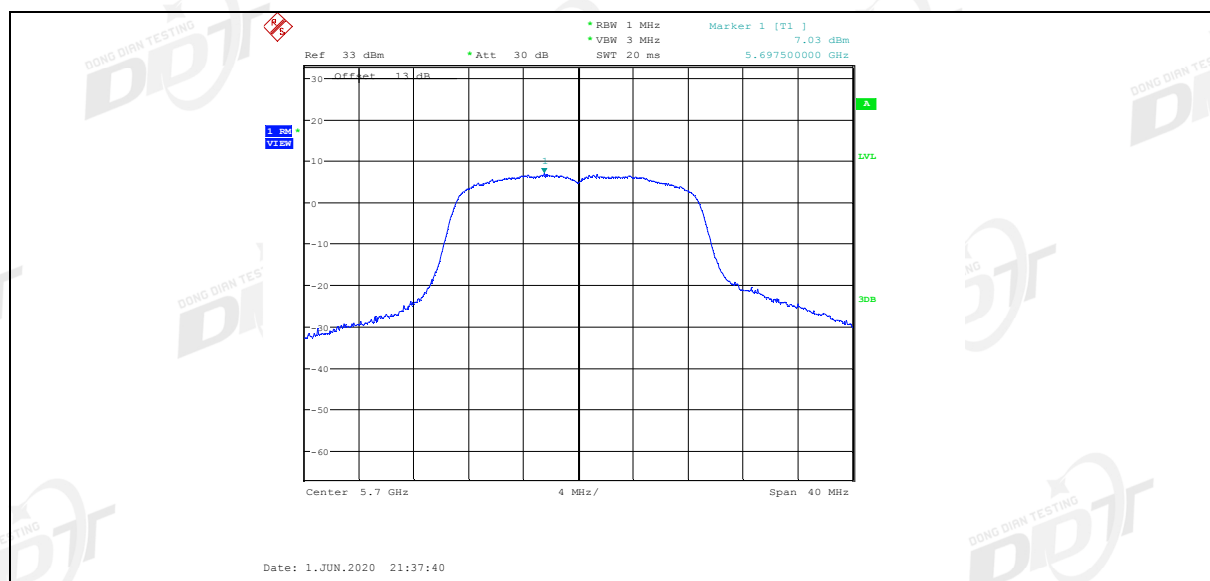
11N20SISO_Ant1_5500



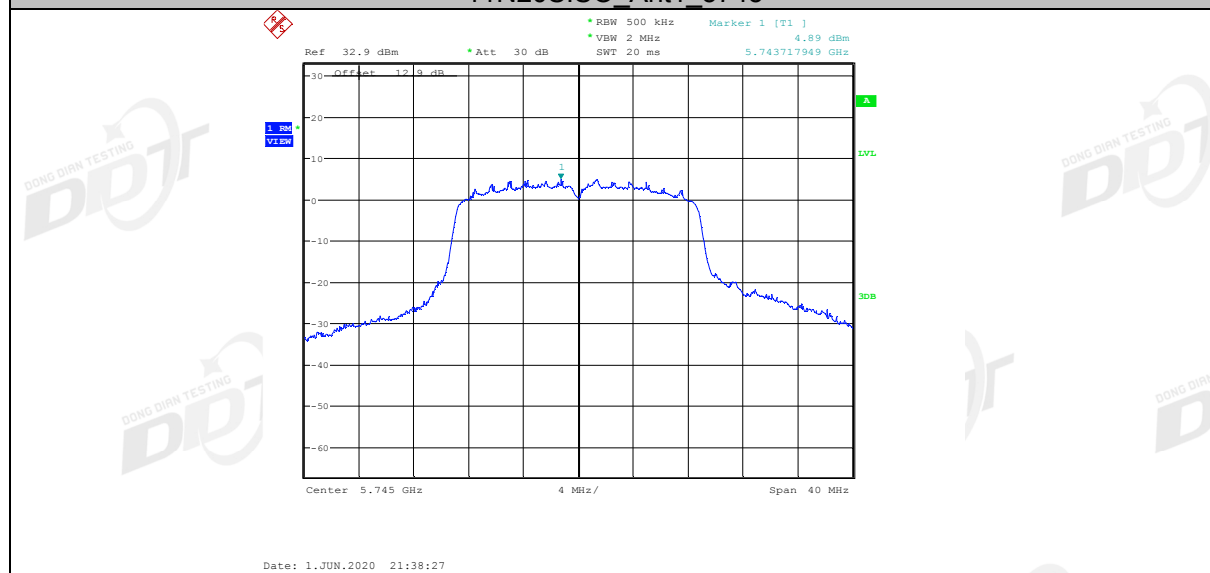
11N20SISO_Ant1_5580



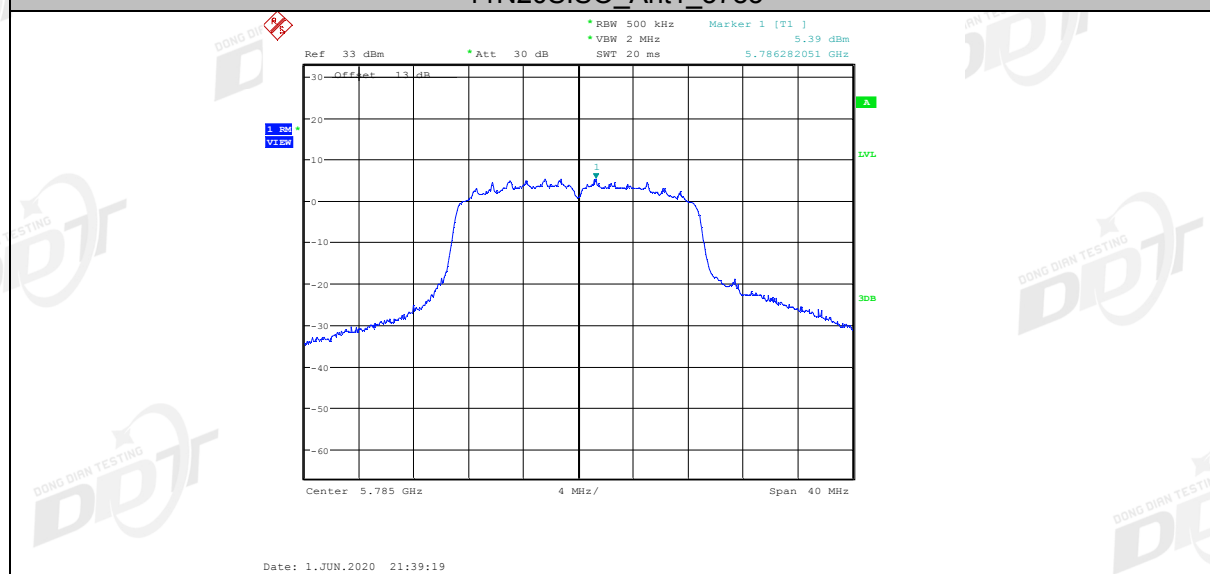
11N20SISO_Ant1_5700



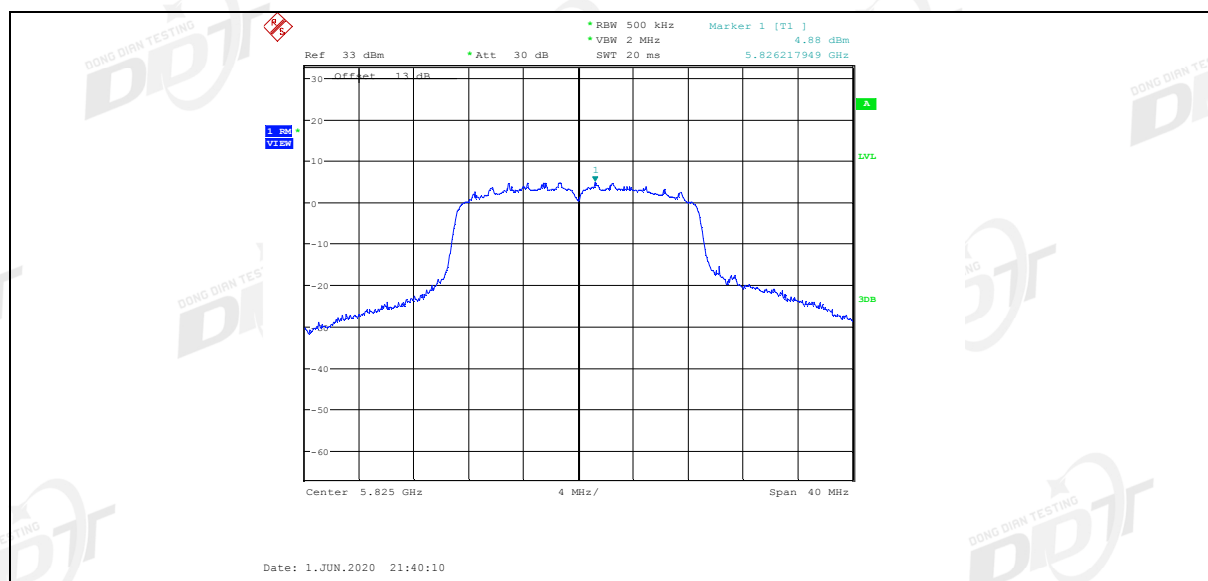
11N20SISO_Ant1_5745



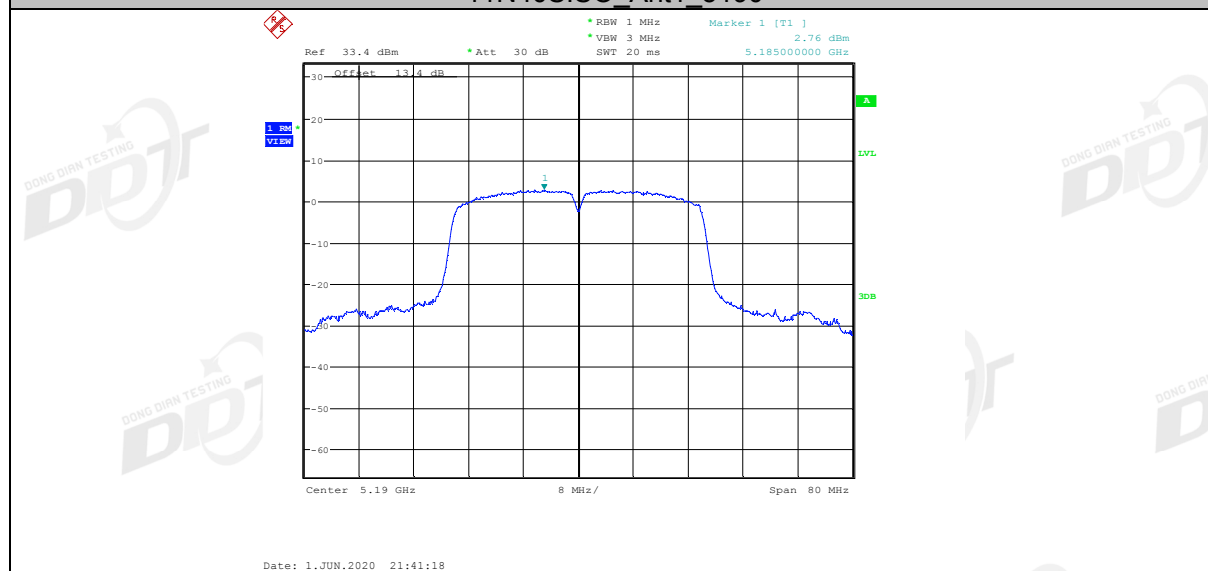
11N20SISO_Ant1_5785



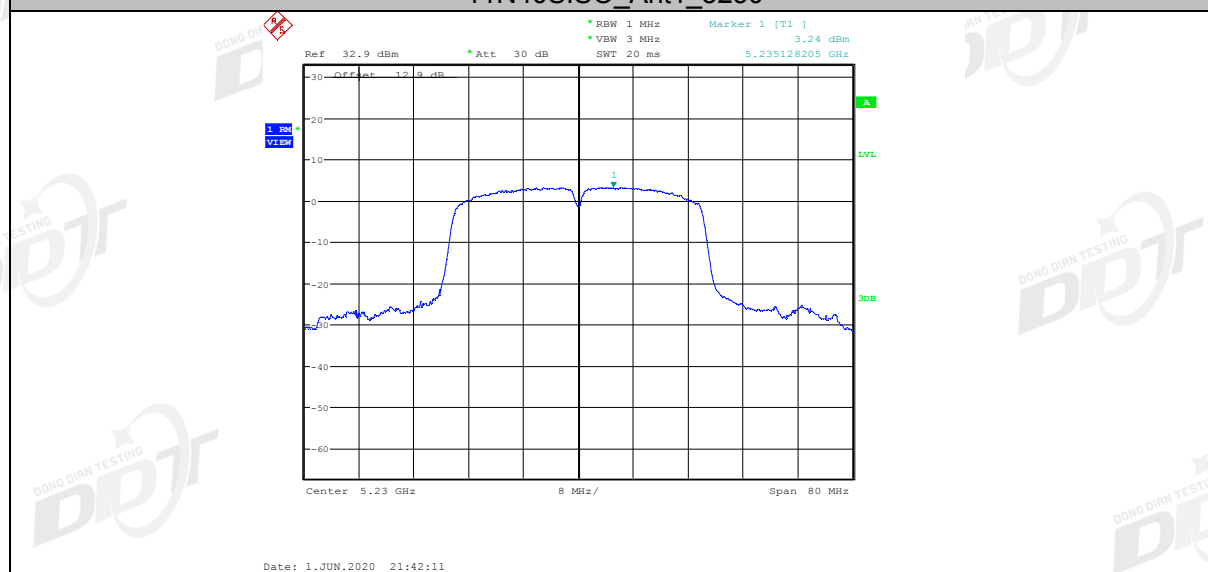
11N20SISO_Ant1_5825



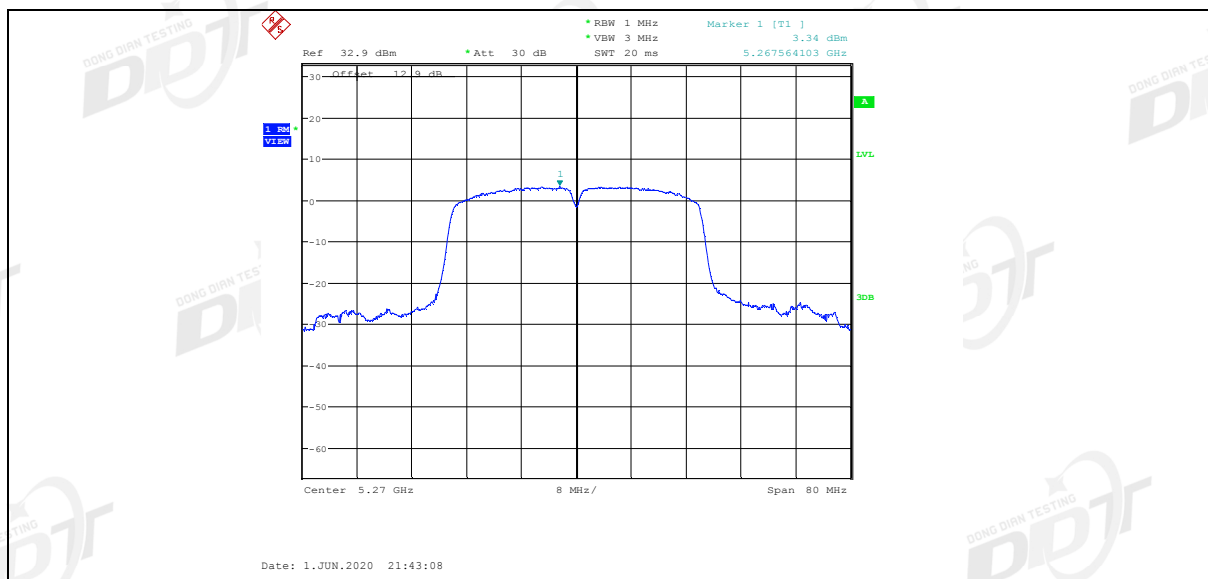
11N40SISO_Ant1_5190



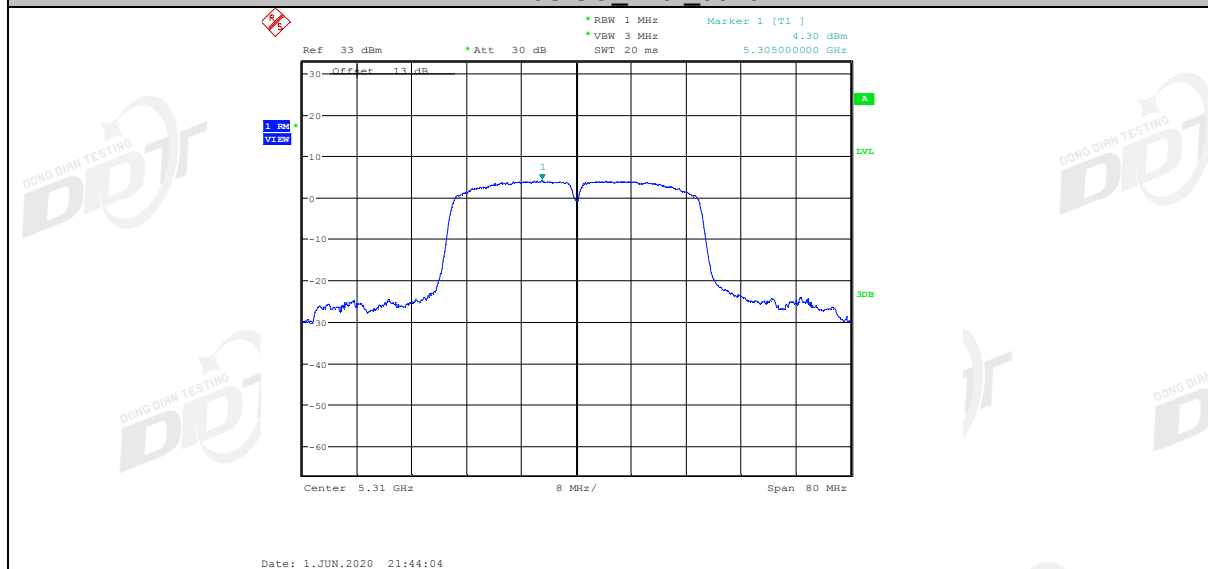
11N40SISO_Ant1_5230



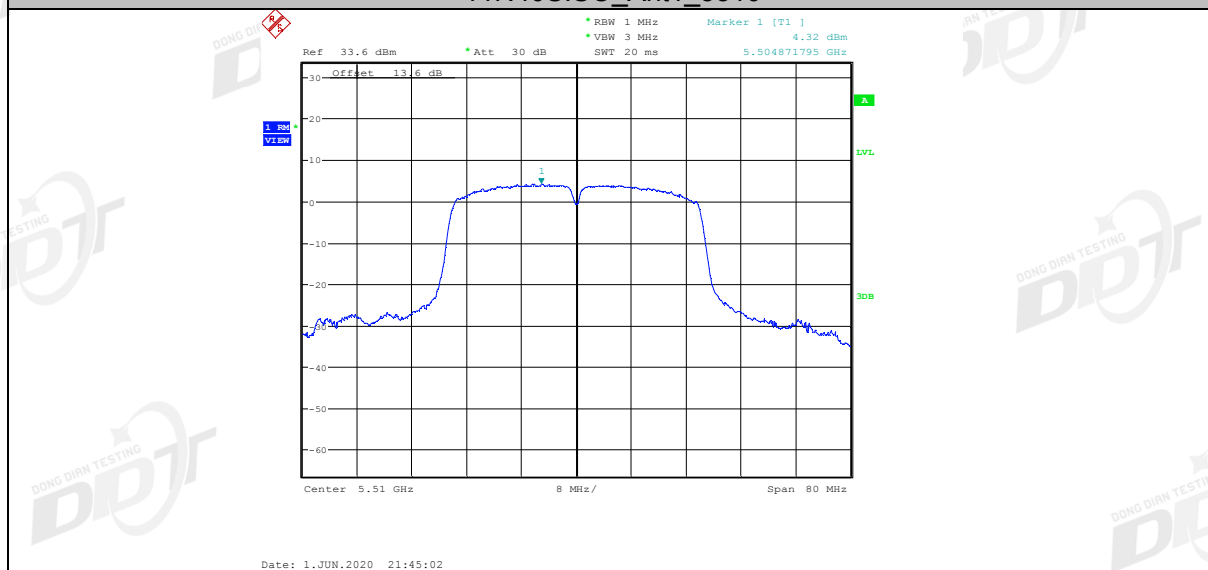
11N40SISO_Ant1_5270



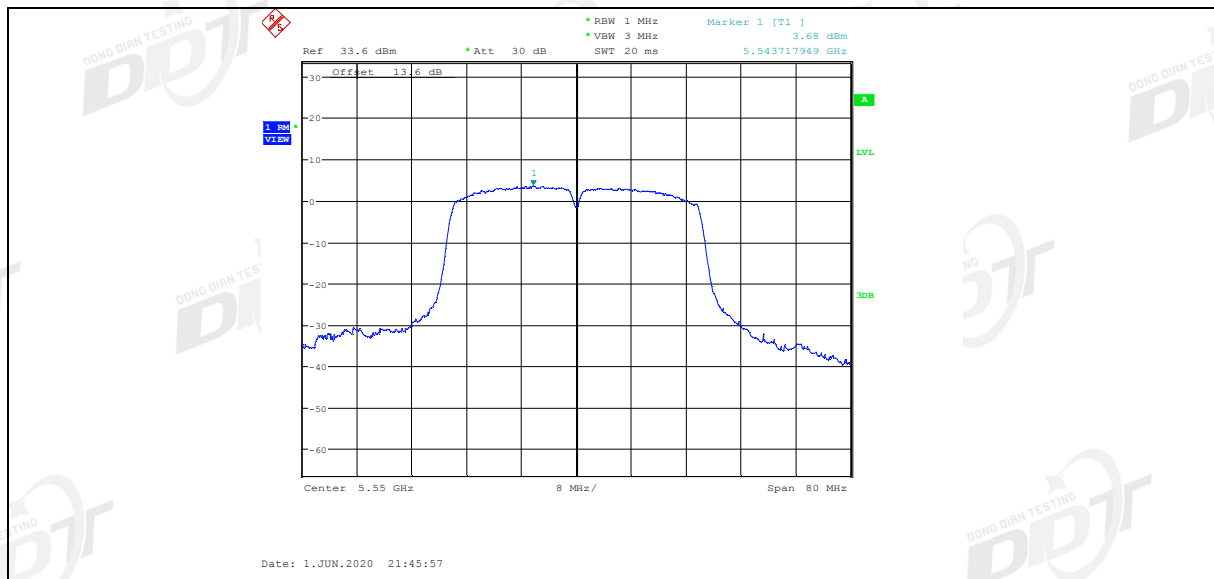
11N40SISO_Ant1_5310



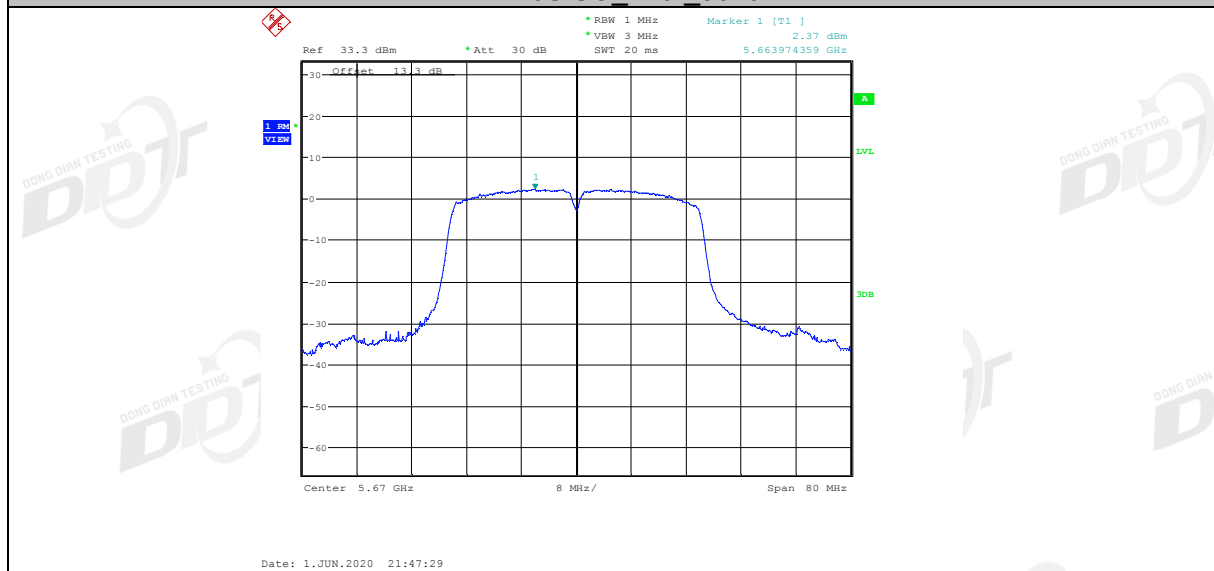
11N40SISO_Ant1_5510



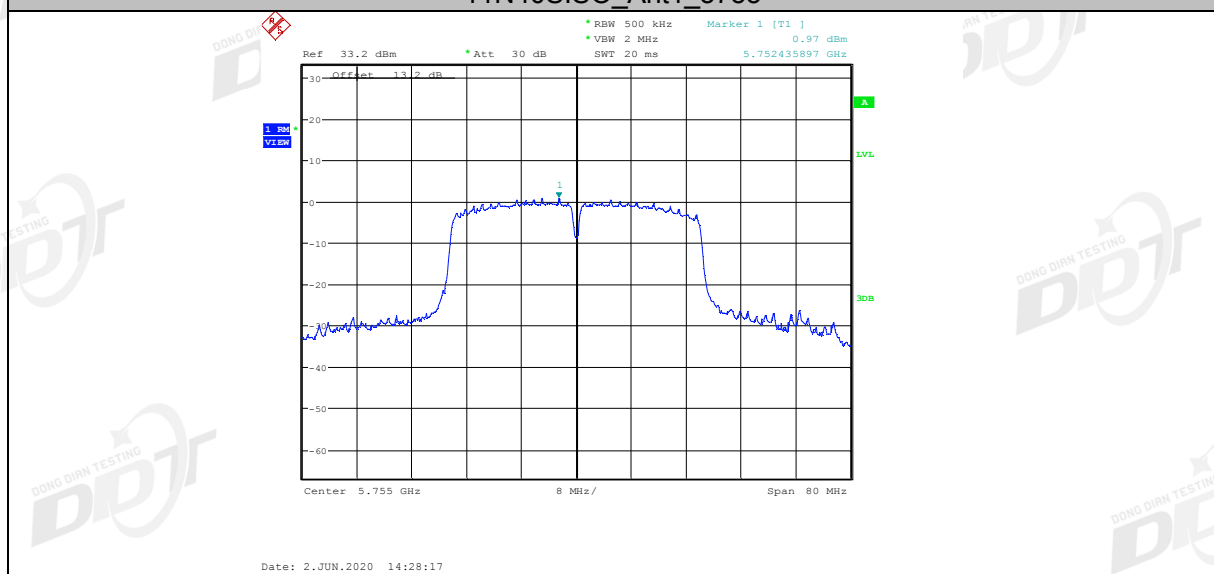
11N40SISO_Ant1_5550



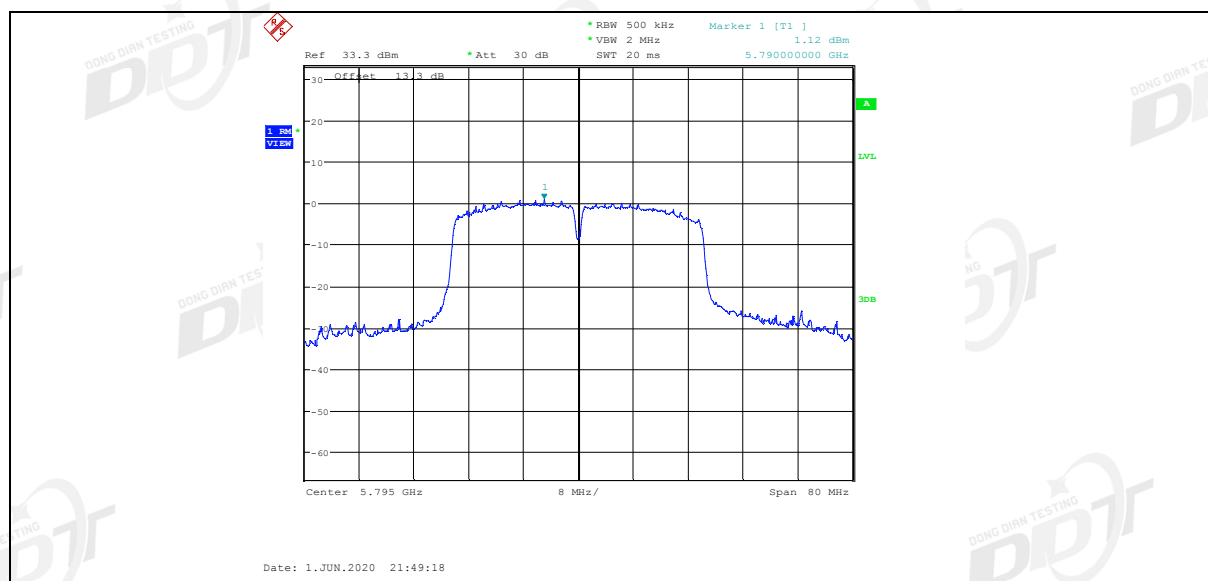
11N40SISO_Ant1_5670



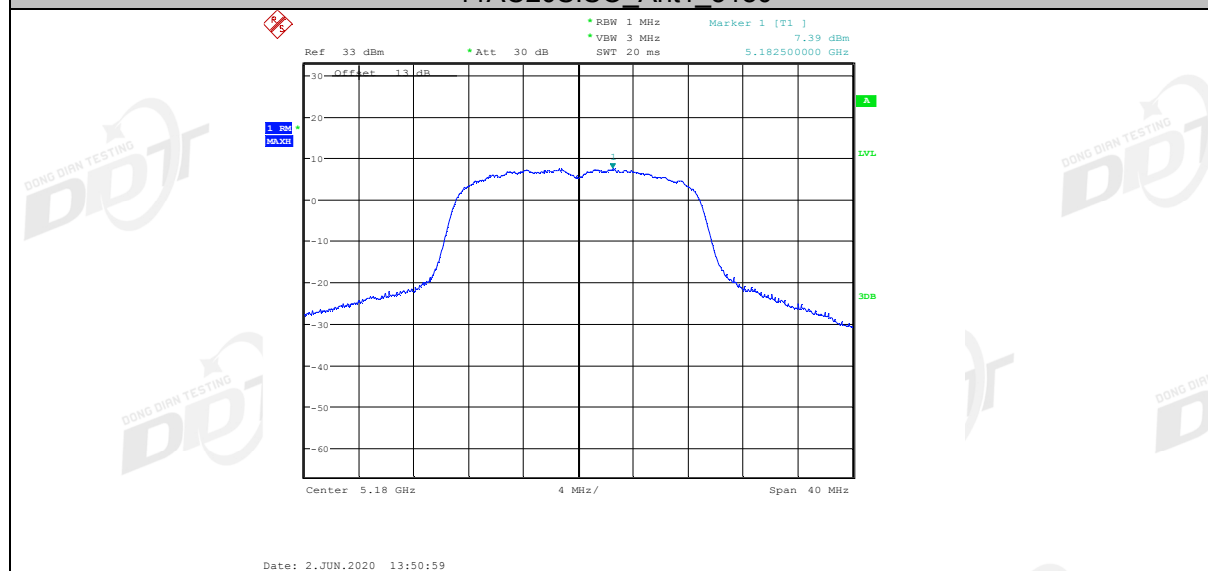
11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



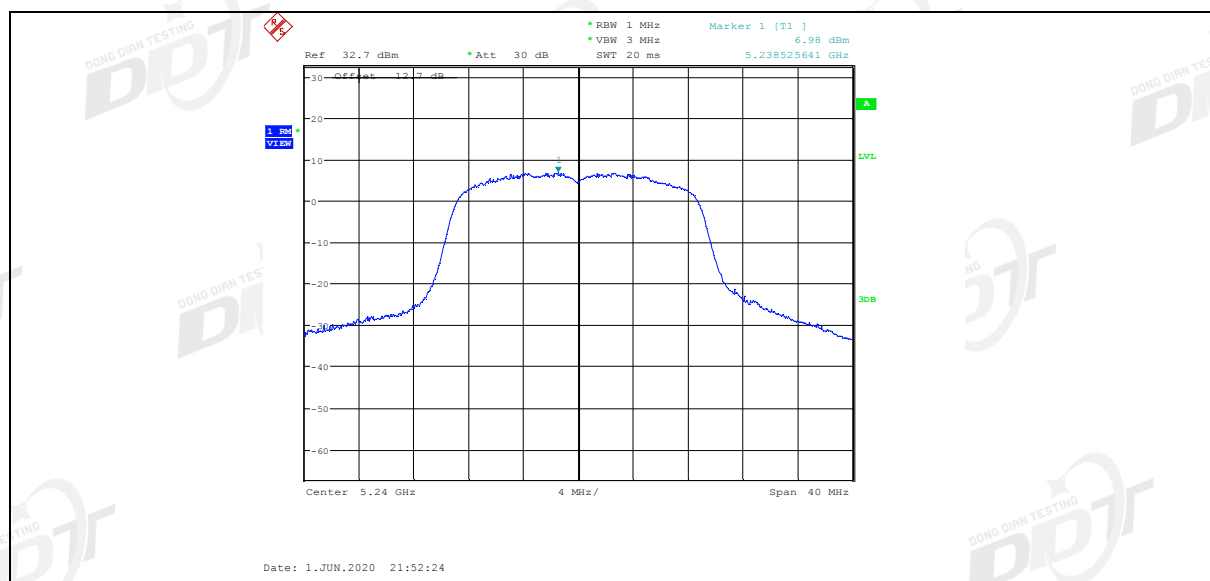
11AC20SISO_Ant1_5180



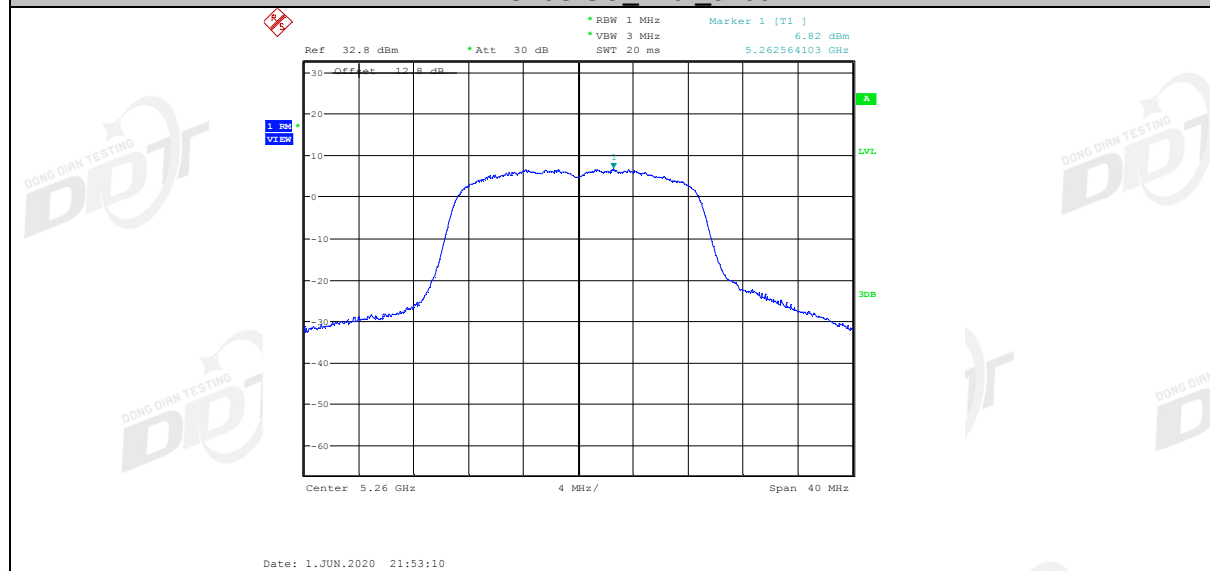
11AC20SISO_Ant1_5200



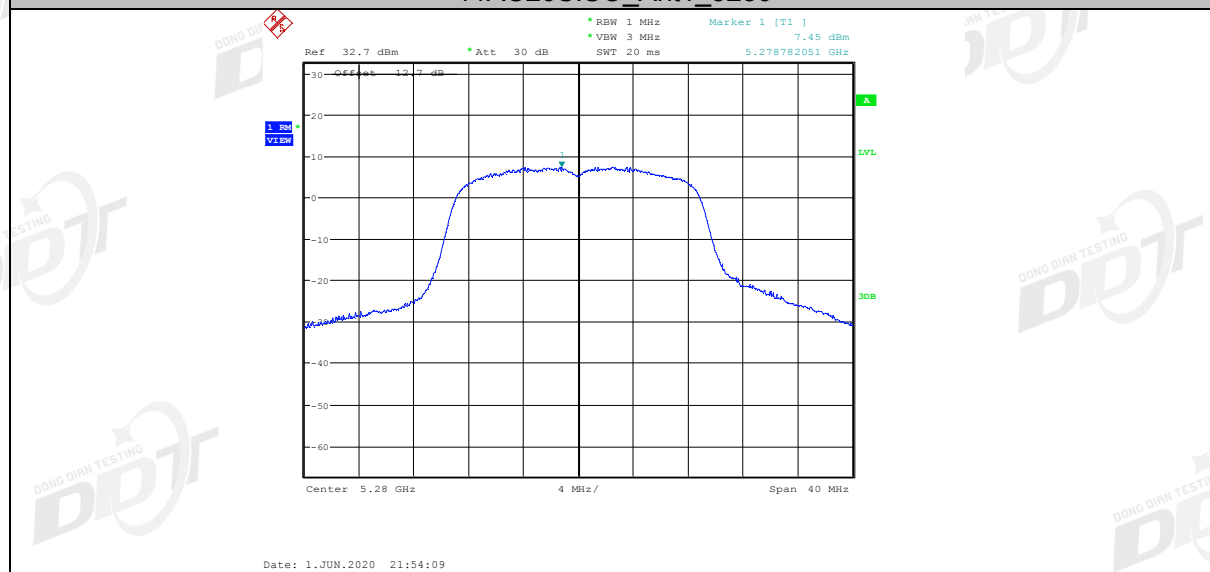
11AC20SISO_Ant1_5240



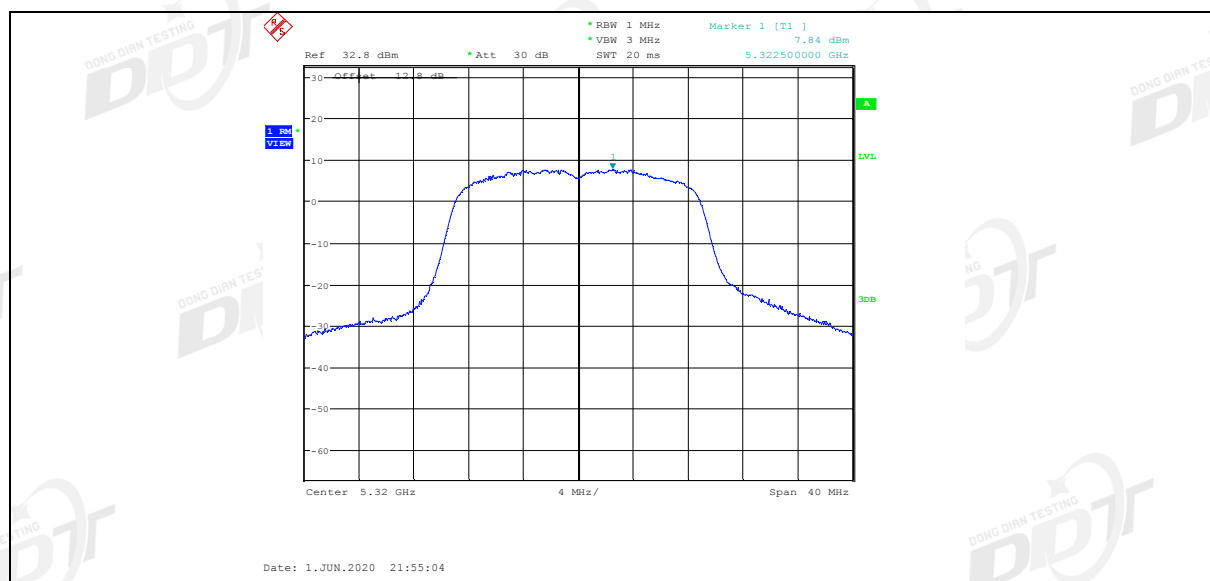
11AC20SISO_Ant1_5260



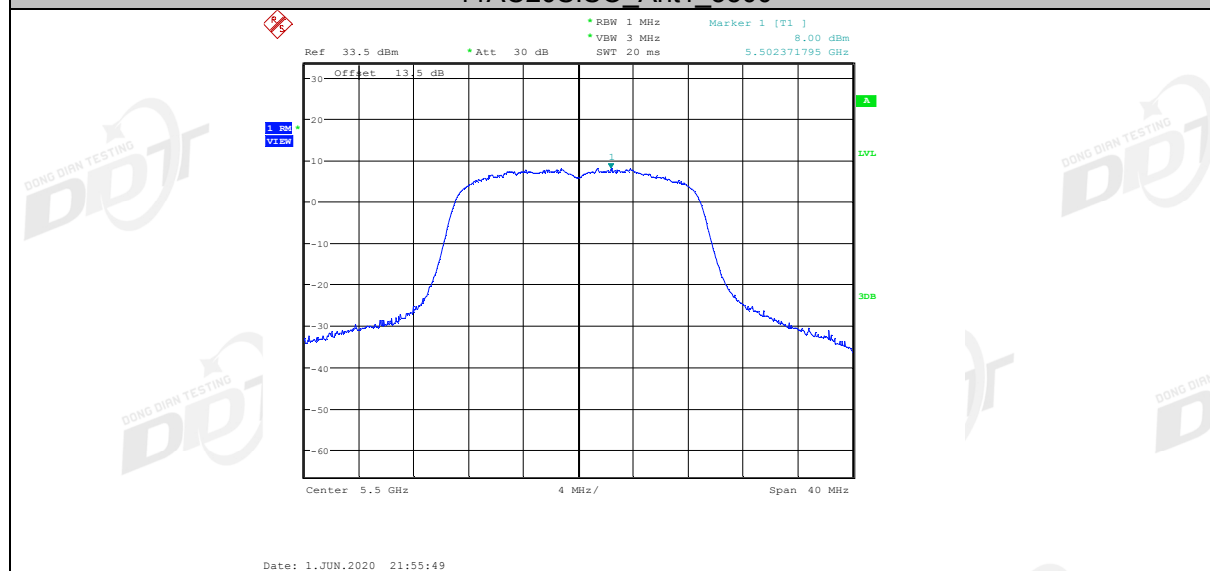
11AC20SISO_Ant1_5280



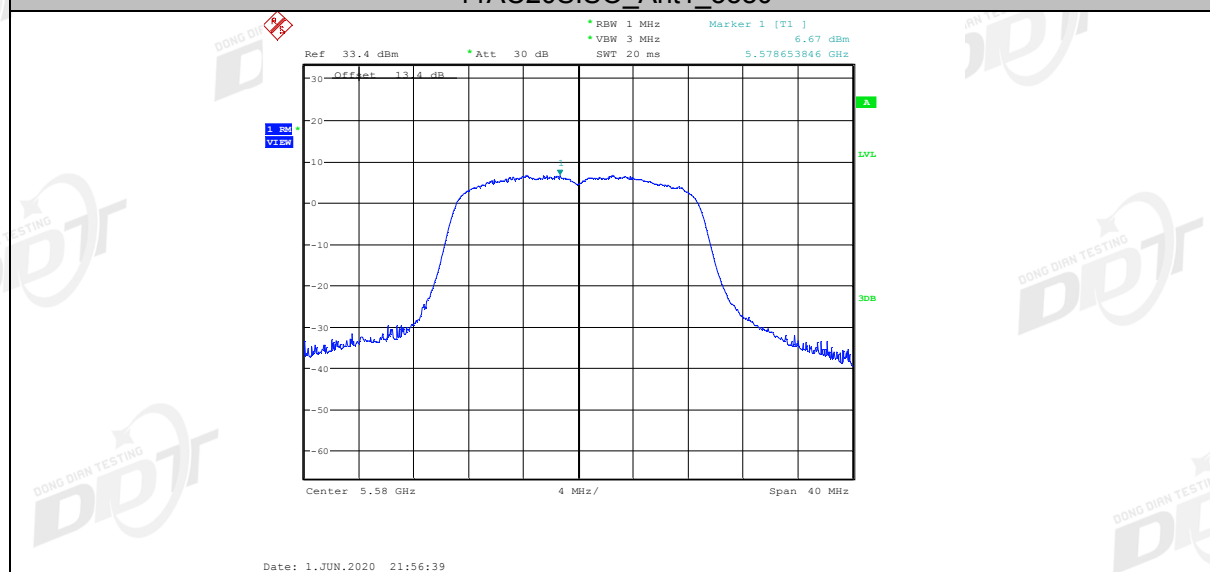
11AC20SISO_Ant1_5320



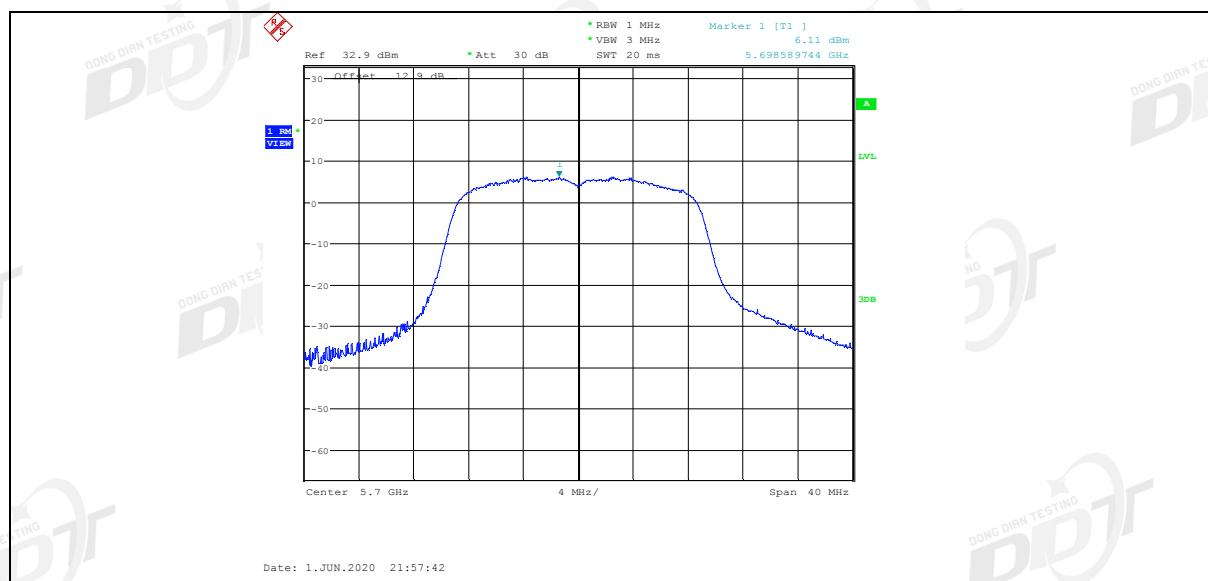
11AC20SISO_Ant1_5500



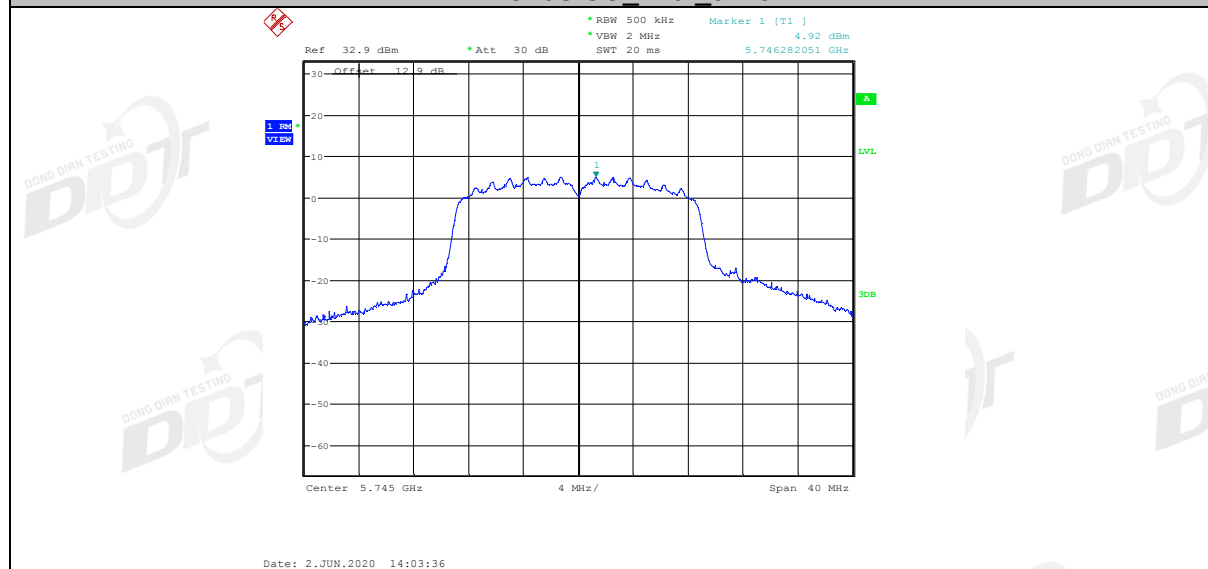
11AC20SISO_Ant1_5580



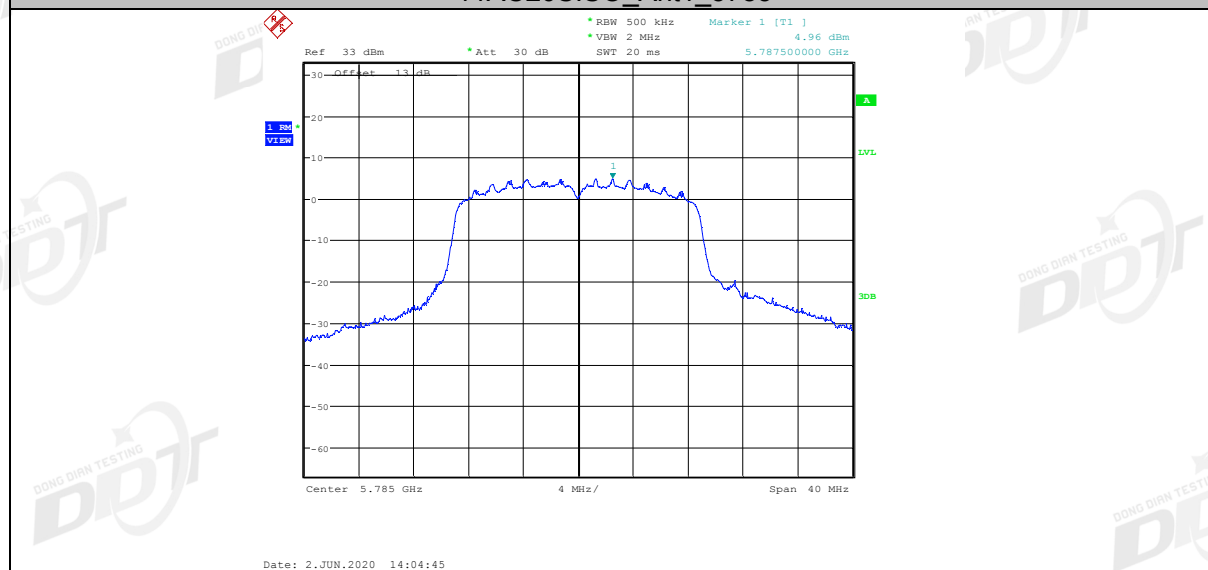
11AC20SISO_Ant1_5700



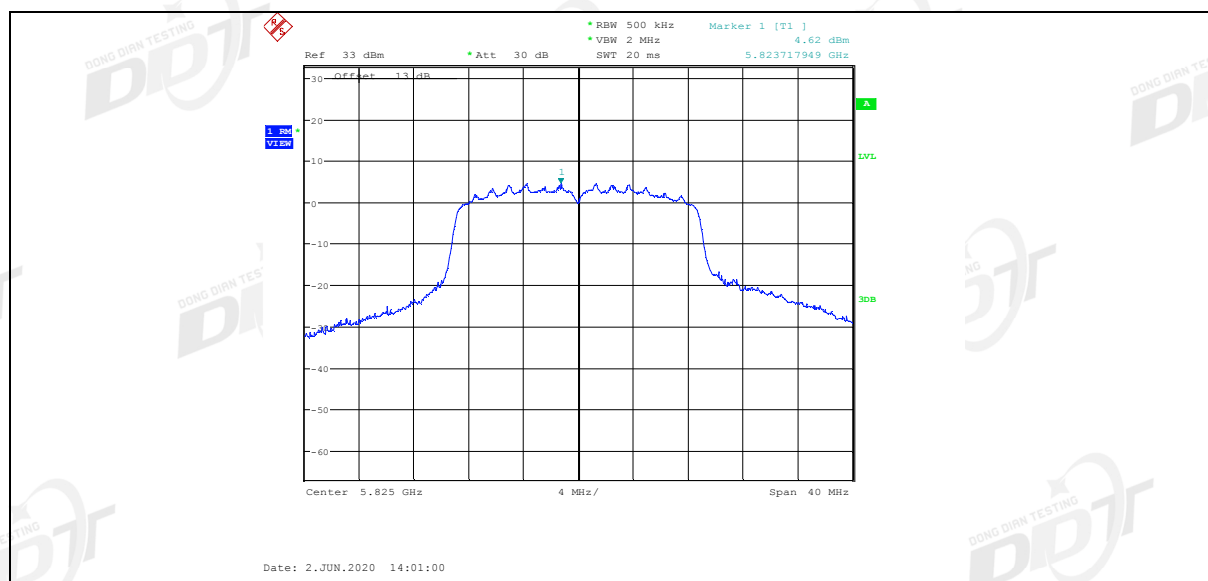
11AC20SISO_Ant1_5745



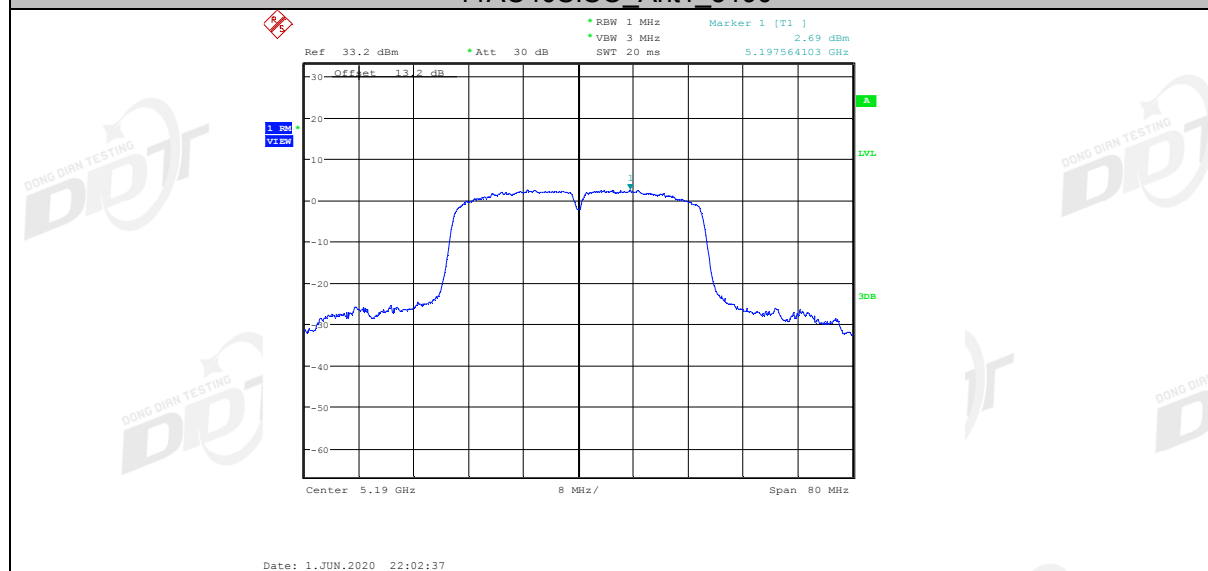
11AC20SISO_Ant1_5785



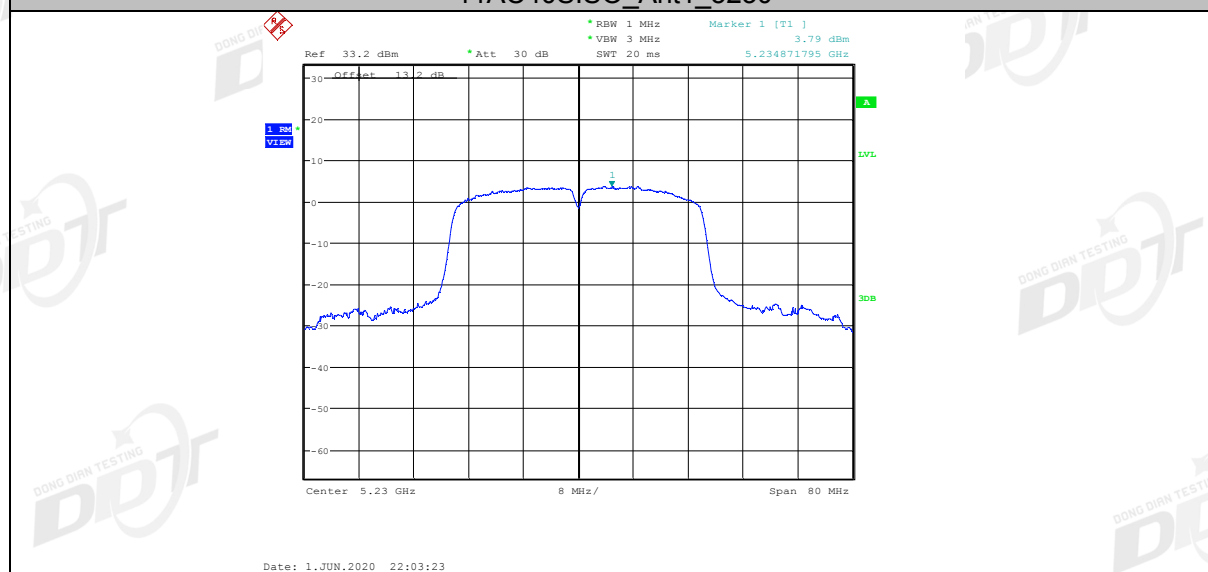
11AC20SISO_Ant1_5825



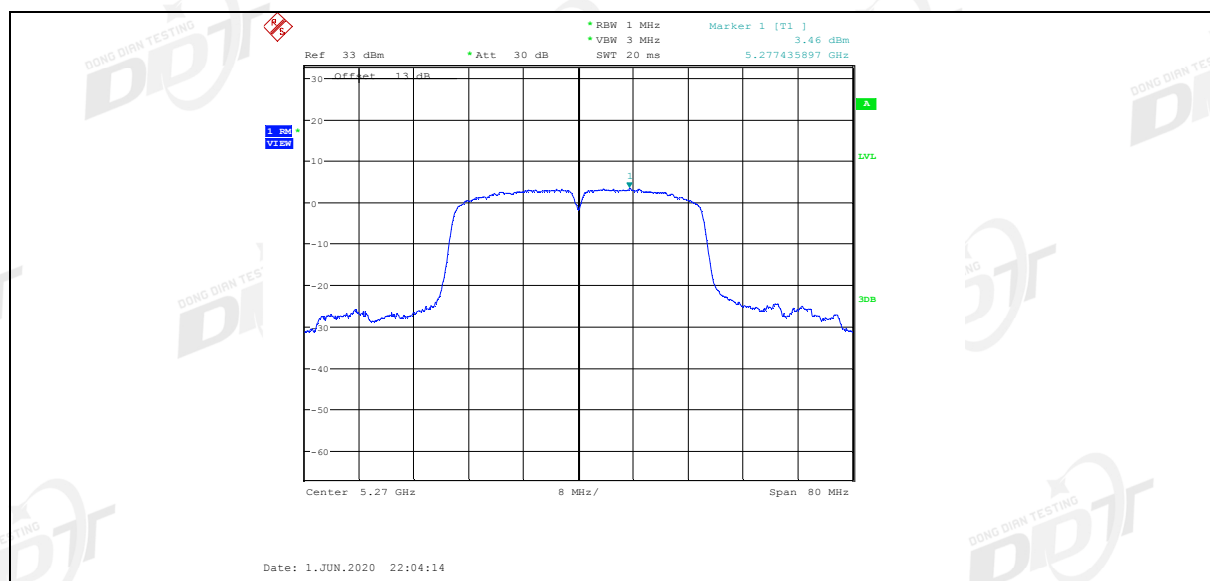
11AC40SISO_Ant1_5190



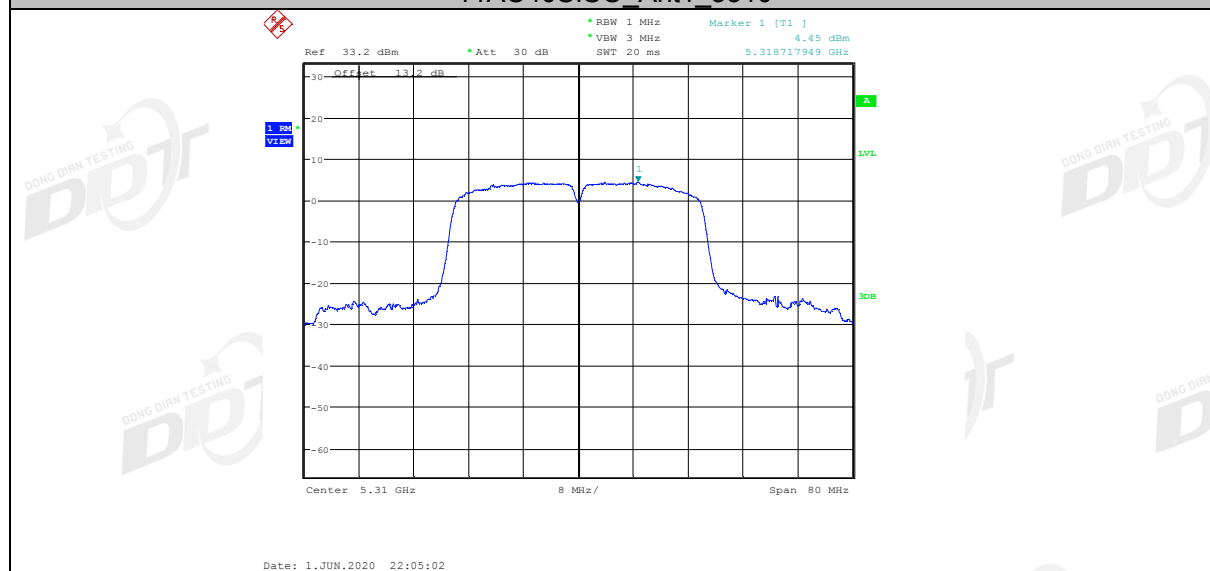
11AC40SISO_Ant1_5230



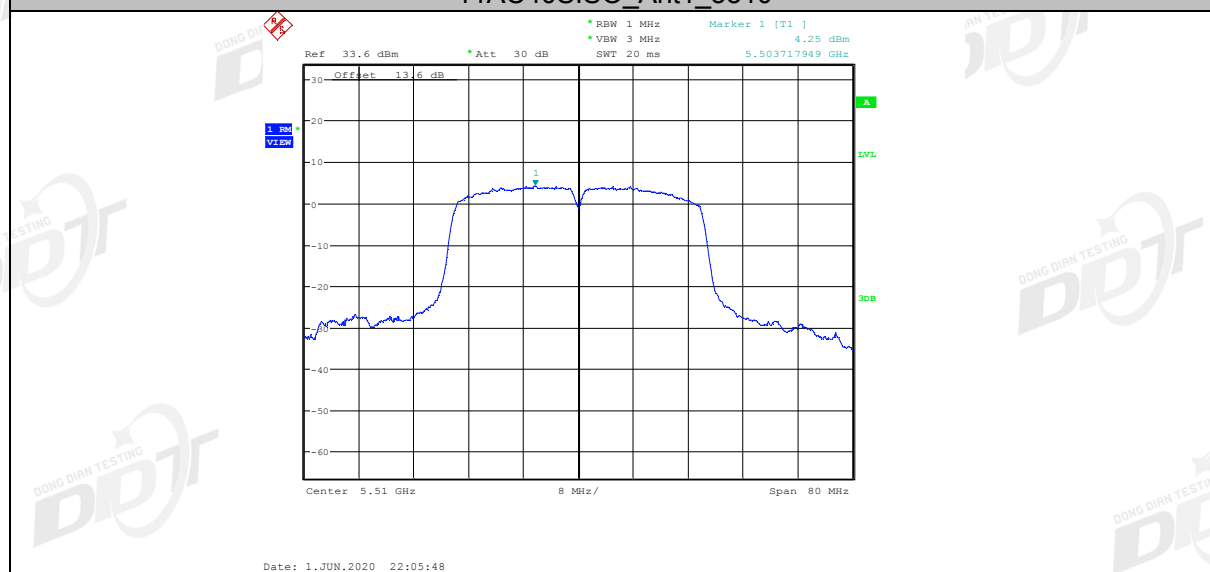
11AC40SISO_Ant1_5270



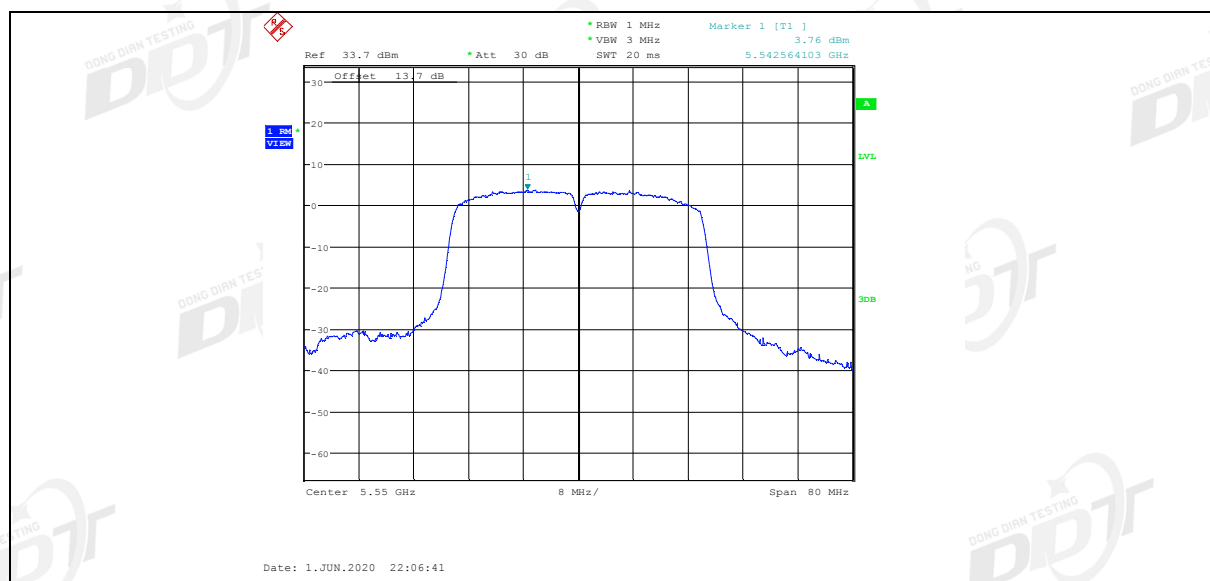
11AC40SISO_Ant1_5310



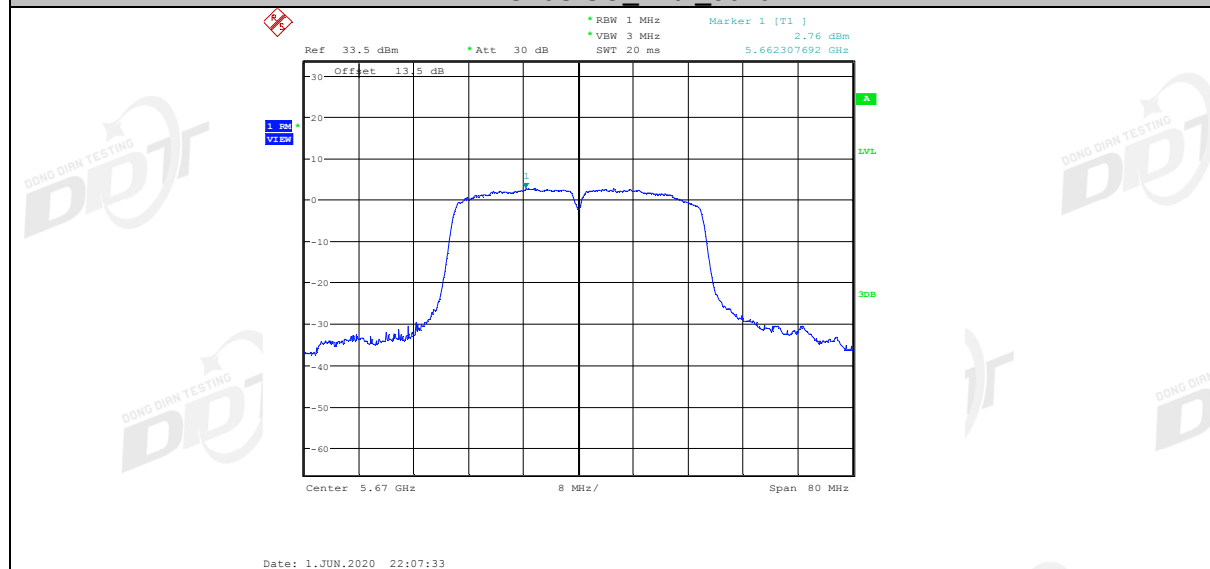
11AC40SISO_Ant1_5510



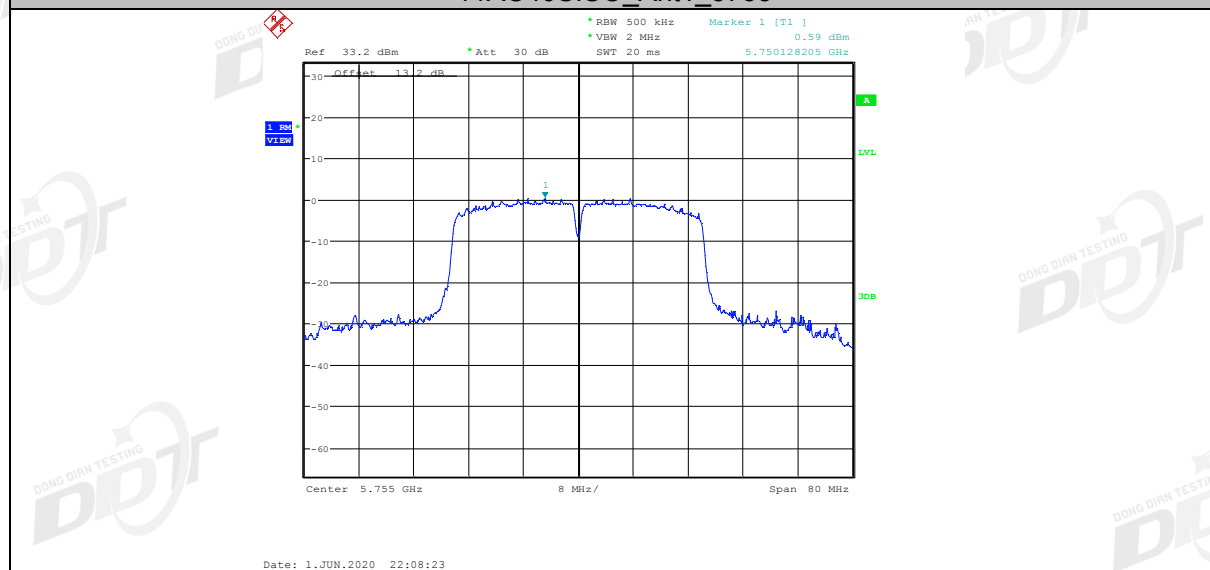
11AC40SISO_Ant1_5550



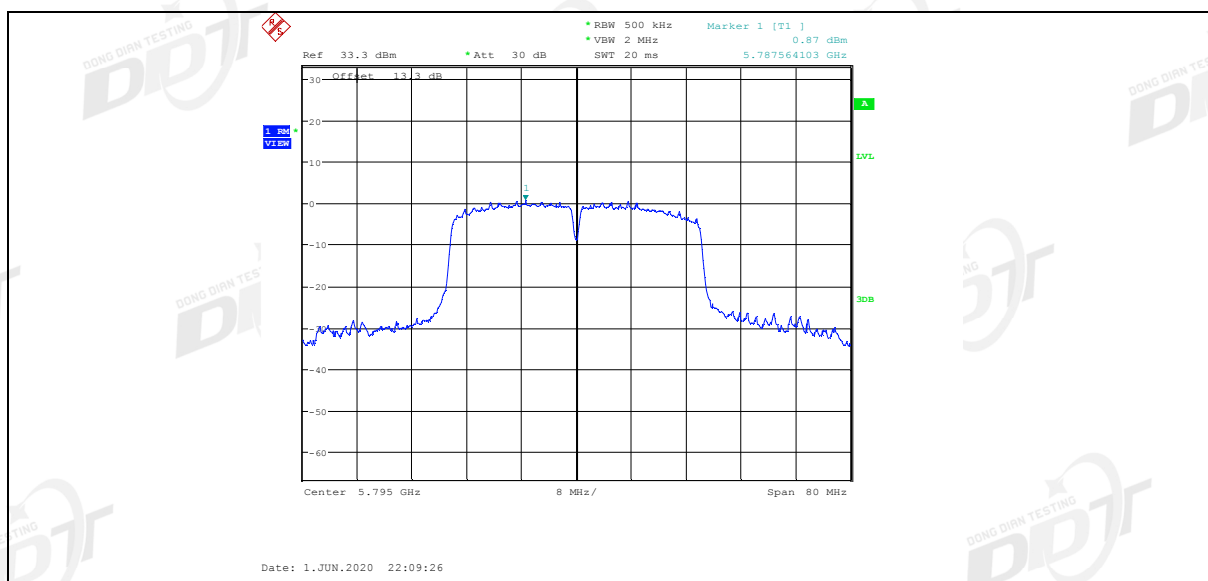
11AC40SISO_Ant1_5670



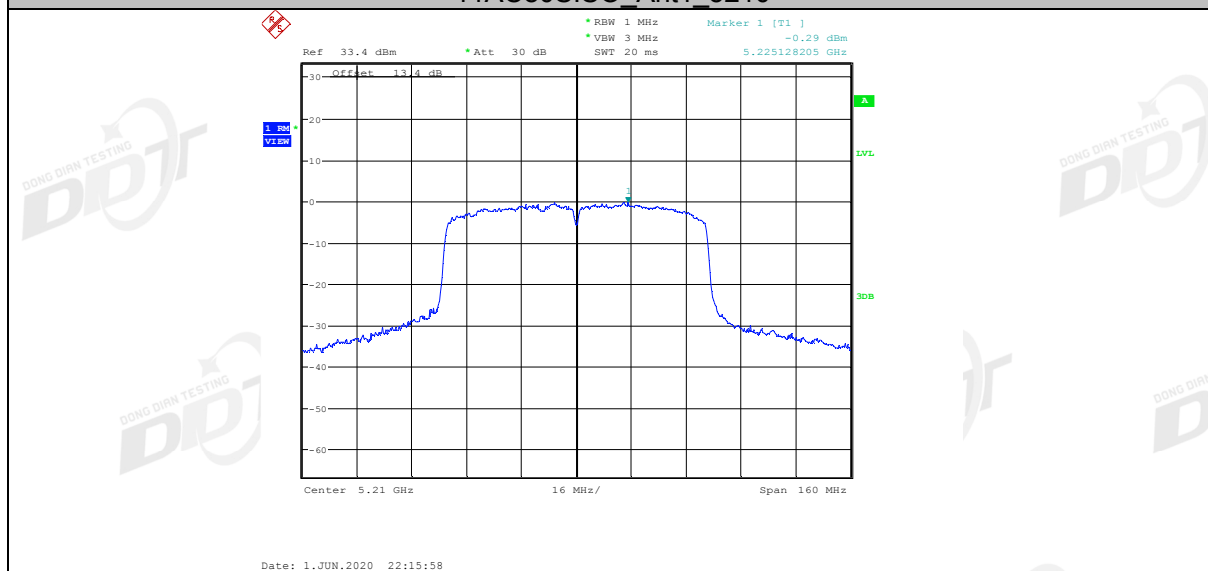
11AC40SISO_Ant1_5755



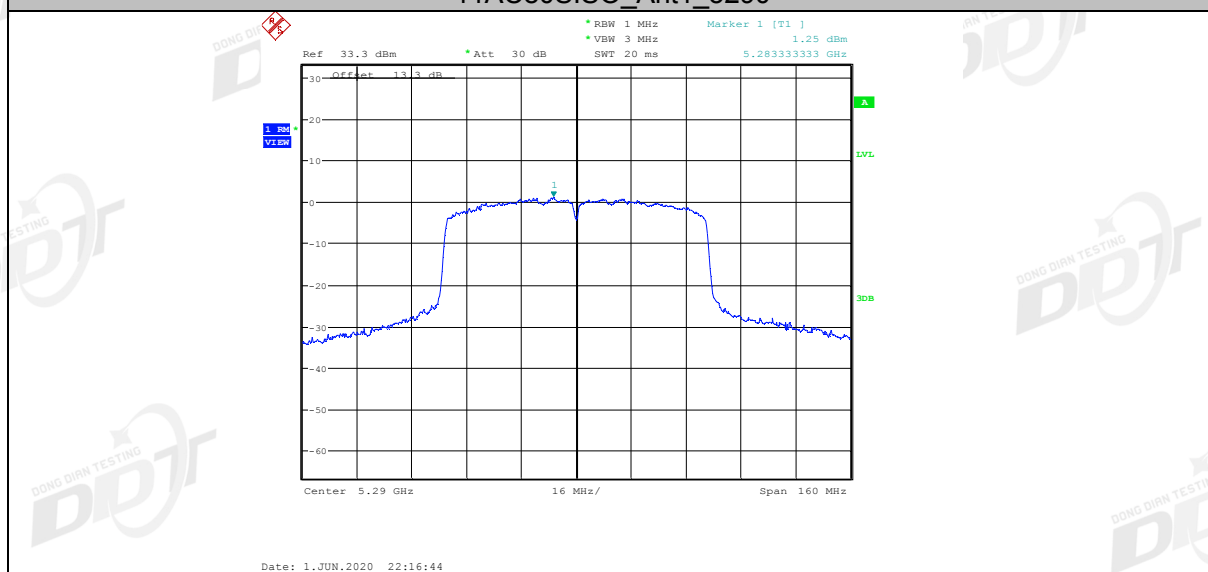
11AC40SISO_Ant1_5795



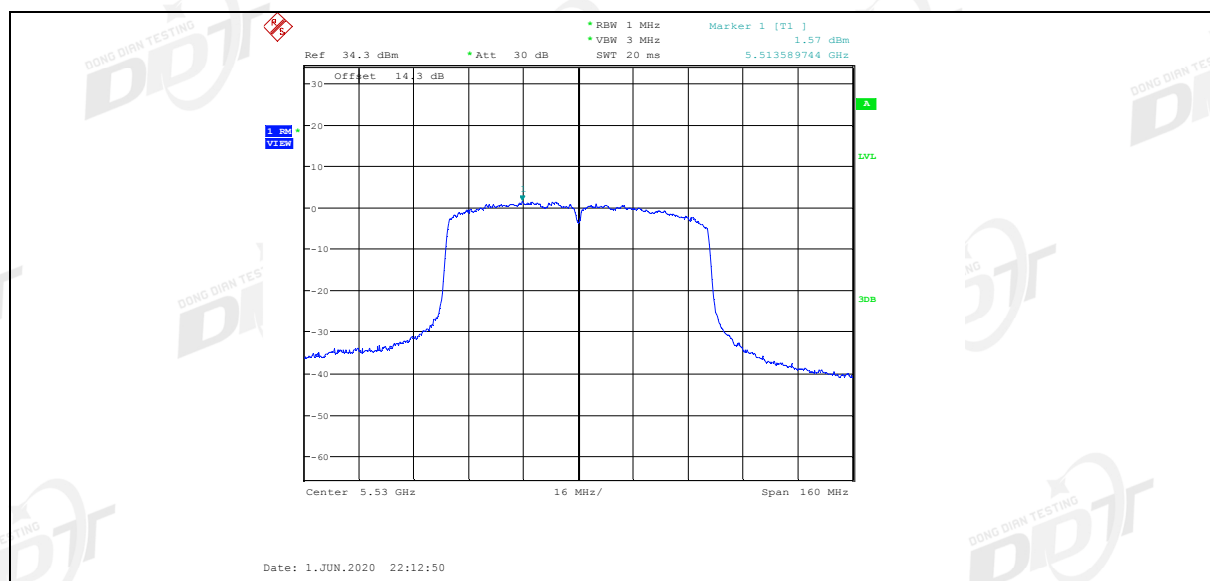
11AC80SISO_Ant1_5210



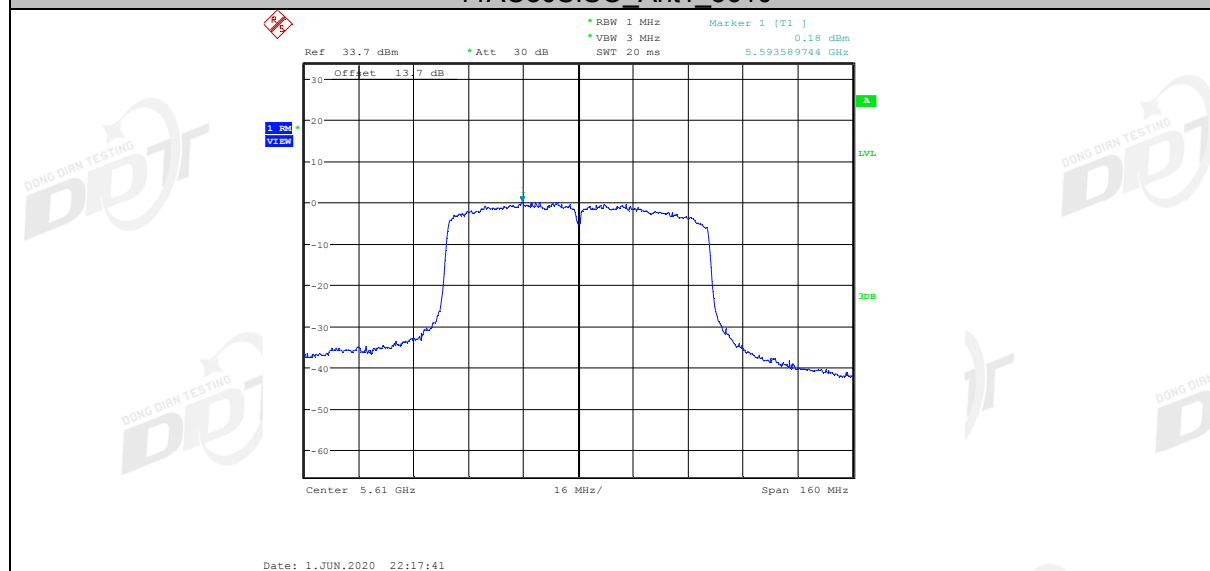
11AC80SISO_Ant1_5290



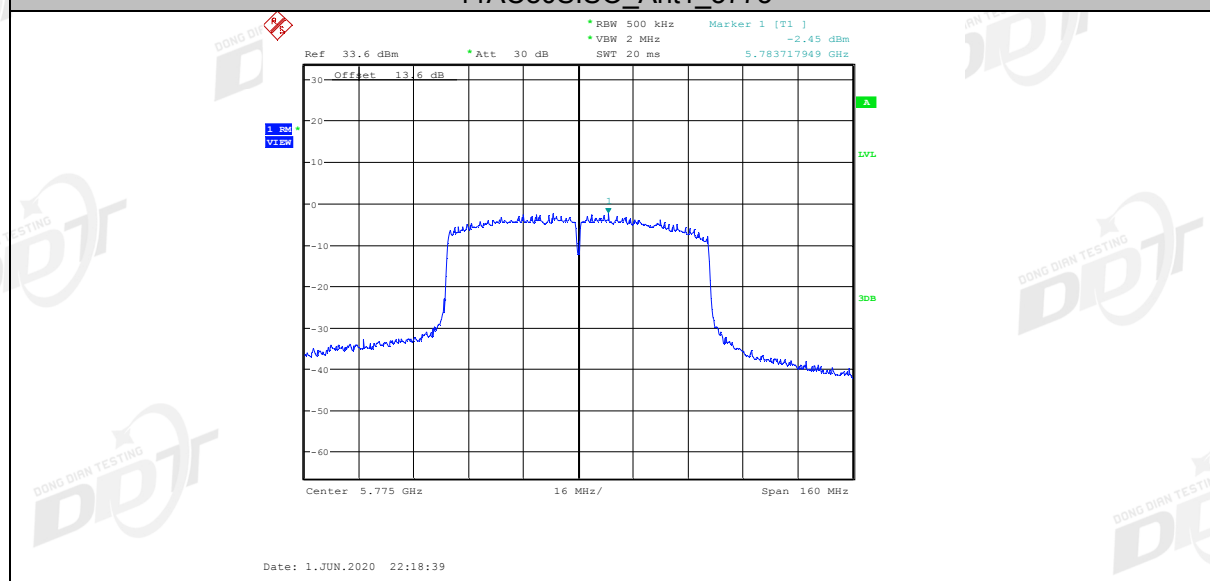
11AC80SISO_Ant1_5530



11AC80SISO_Ant1_5610



11AC80SISO_Ant1_5775



7. Frequency Stability Measurement

7.1. Limit of frequency stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

7.2. Measuring instruments

The measuring equipment is listed in the section 4 of this test report.

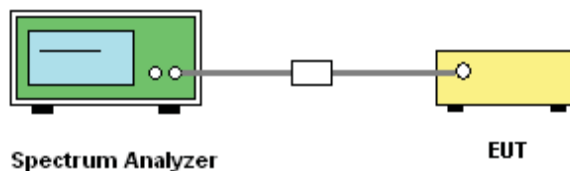
7.3. Test procedures

(1) To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.

(2) The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10 dB lower than the measured peak value.

(3) The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

7.4. Test setup



7.5. Test result

Voltage								
Test Mode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	-13000	-2.509653	20	PASS
			LV	NT	-12000	-2.316602	20	PASS
			HV	NT	-12000	-2.316602	20	PASS
		5200	NV	NT	-21000	-4.038462	20	PASS
			LV	NT	-16000	-3.076923	20	PASS
			HV	NT	-12000	-2.307692	20	PASS
		5240	NV	NT	-23000	-4.389313	20	PASS
			LV	NT	-18000	-3.435115	20	PASS
			HV	NT	-13000	-2.480916	20	PASS
		5260	NV	NT	-10000	-1.901141	20	PASS
			LV	NT	-10000	-1.901141	20	PASS
			HV	NT	-9000	-1.711027	20	PASS
		5280	NV	NT	-23000	-4.356061	20	PASS
			LV	NT	-14000	-2.651515	20	PASS

11N20 SISO	Ant1	5320	HV	NT	-10000	-1.893939	20	PASS
			NV	NT	-17000	-3.195489	20	PASS
			LV	NT	-12000	-2.255639	20	PASS
		5500	HV	NT	-10000	-1.879699	20	PASS
			NV	NT	-12000	-2.181818	20	PASS
			LV	NT	-12000	-2.181818	20	PASS
		5580	HV	NT	-12000	-2.181818	20	PASS
			NV	NT	-27000	-4.83871	20	PASS
			LV	NT	-23000	-4.121864	20	PASS
		5700	HV	NT	-21000	-3.763441	20	PASS
			NV	NT	-25000	-4.385965	20	PASS
			LV	NT	-22000	-3.859649	20	PASS
		5745	HV	NT	-20000	-3.508772	20	PASS
			NV	NT	-25000	-4.35161	20	PASS
			LV	NT	-21000	-3.655352	20	PASS
		5785	HV	NT	-19000	-3.307224	20	PASS
			NV	NT	-27000	-4.667243	20	PASS
			LV	NT	-24000	-4.14866	20	PASS
		5825	HV	NT	-22000	-3.802939	20	PASS
			NV	NT	-18000	-3.090129	20	PASS
			LV	NT	-11000	-1.888412	20	PASS
		5180	HV	NT	-9000	-1.545064	20	PASS
			NV	NT	-9000	-1.737452	20	PASS
			LV	NT	-4000	-0.772201	20	PASS
		5200	HV	NT	-3000	-0.579151	20	PASS
			NV	NT	-9000	-1.730769	20	PASS
			LV	NT	-4000	-0.769231	20	PASS
		5240	HV	NT	-3000	-0.576923	20	PASS
			NV	NT	-8000	-1.526718	20	PASS
			LV	NT	-4000	-0.763359	20	PASS
		5260	HV	NT	-3000	-0.572519	20	PASS
			NV	NT	-13000	-2.471483	20	PASS
			LV	NT	-5000	-0.95057	20	PASS
		5280	HV	NT	-3000	-0.570342	20	PASS
			NV	NT	-10000	-1.893939	20	PASS
			LV	NT	-4000	-0.757576	20	PASS
		5320	HV	NT	-2000	-0.378788	20	PASS
			NV	NT	-7000	-1.315789	20	PASS
			LV	NT	-4000	-0.75188	20	PASS
		5500	HV	NT	-2000	-0.37594	20	PASS
			NV	NT	-24000	-4.363636	20	PASS
			LV	NT	-12000	-2.181818	20	PASS
		5580	HV	NT	-8000	-1.454545	20	PASS
			NV	NT	-18000	-3.225806	20	PASS
			LV	NT	-9000	-1.612903	20	PASS
		5700	HV	NT	-7000	-1.25448	20	PASS
			NV	NT	-17000	-2.982456	20	PASS
			LV	NT	-10000	-1.754386	20	PASS
		5745	HV	NT	-8000	-1.403509	20	PASS
			NV	NT	-21000	-3.655352	20	PASS
		5745	LV	NT	-10000	-1.740644	20	PASS

		5785	HV	NT	-7000	-1.218451	20	PASS
			NV	NT	-23000	-3.975799	20	PASS
			LV	NT	-15000	-2.592913	20	PASS
		5825	HV	NT	-12000	-2.07433	20	PASS
			NV	NT	-17000	-2.918455	20	PASS
			LV	NT	-11000	-1.888412	20	PASS
			HV	NT	-9000	-1.545064	20	PASS
11N40 SISO	Ant1	5190	NV	NT	-21000	-4.046243	20	PASS
			LV	NT	-10000	-1.926782	20	PASS
			HV	NT	-6000	-1.156069	20	PASS
		5230	NV	NT	-26000	-4.971319	20	PASS
			LV	NT	-17000	-3.250478	20	PASS
			HV	NT	-11000	-2.10325	20	PASS
		5270	NV	NT	-23000	-4.364326	20	PASS
			LV	NT	-11000	-2.087287	20	PASS
			HV	NT	-7000	-1.328273	20	PASS
		5310	NV	NT	-22000	-4.143126	20	PASS
			LV	NT	-11000	-2.071563	20	PASS
			HV	NT	-7000	-1.318267	20	PASS
		5510	NV	NT	-25000	-4.537205	20	PASS
			LV	NT	-20000	-3.629764	20	PASS
			HV	NT	-16000	-2.903811	20	PASS
		5550	NV	NT	-28000	-5.045045	20	PASS
			LV	NT	-25000	-4.504505	20	PASS
			HV	NT	-22000	-3.963964	20	PASS
		5670	NV	NT	-28000	-4.938272	20	PASS
			LV	NT	-25000	-4.409171	20	PASS
			HV	NT	-22000	-3.880071	20	PASS
		5755	NV	NT	-28000	-4.865334	20	PASS
			LV	NT	-25000	-4.344049	20	PASS
			HV	NT	-22000	-3.822763	20	PASS
		5795	NV	NT	-28000	-4.831752	20	PASS
			LV	NT	-25000	-4.314064	20	PASS
			HV	NT	-23000	-3.968939	20	PASS
11AC20 SISO	Ant1	5180	NV	NT	-25000	-4.826255	20	PASS
			LV	NT	-24000	-4.633205	20	PASS
			HV	NT	-24000	-4.633205	20	PASS
		5200	NV	NT	-25000	-4.807692	20	PASS
			LV	NT	-25000	-4.807692	20	PASS
			HV	NT	-24000	-4.615385	20	PASS
		5240	NV	NT	-24000	-4.580153	20	PASS
			LV	NT	-23000	-4.389313	20	PASS
			HV	NT	-22000	-4.198473	20	PASS
		5260	NV	NT	-26000	-4.942966	20	PASS
			LV	NT	-25000	-4.752852	20	PASS
			HV	NT	-24000	-4.562738	20	PASS
		5280	NV	NT	-26000	-4.924242	20	PASS
			LV	NT	-24000	-4.545455	20	PASS
			HV	NT	-23000	-4.356061	20	PASS
		5320	NV	NT	-26000	-4.887218	20	PASS
			LV	NT	-25000	-4.699248	20	PASS

11AC40 SISO	Ant1	5500	HV	NT	-23000	-4.323308	20	PASS
			NV	NT	-27000	-4.909091	20	PASS
			LV	NT	-27000	-4.909091	20	PASS
		5580	HV	NT	-26000	-4.727273	20	PASS
			NV	NT	-27000	-4.83871	20	PASS
			LV	NT	-27000	-4.83871	20	PASS
		5700	HV	NT	-27000	-4.83871	20	PASS
			NV	NT	-27000	-4.736842	20	PASS
			LV	NT	-27000	-4.736842	20	PASS
		5720	HV	NT	-27000	-4.736842	20	PASS
			NV	NT	-27000	-4.72028	20	PASS
			LV	NT	-27000	-4.72028	20	PASS
		5745	HV	NT	-27000	-4.72028	20	PASS
			NV	NT	-28000	-4.873803	20	PASS
			LV	NT	-27000	-4.699739	20	PASS
		5785	HV	NT	-27000	-4.699739	20	PASS
			NV	NT	-28000	-4.840104	20	PASS
			LV	NT	-28000	-4.840104	20	PASS
		5825	HV	NT	-28000	-4.840104	20	PASS
			NV	NT	-29000	-4.978541	20	PASS
			LV	NT	-29000	-4.978541	20	PASS
11AC80 SISO	Ant1	5190	HV	NT	-28000	-4.806867	20	PASS
			NV	NT	-25000	-4.816956	20	PASS
			LV	NT	-24000	-4.624277	20	PASS
		5230	HV	NT	-24000	-4.624277	20	PASS
			NV	NT	-25000	-4.780115	20	PASS
			LV	NT	-23000	-4.397706	20	PASS
		5270	HV	NT	-23000	-4.397706	20	PASS
			NV	NT	-26000	-4.933586	20	PASS
			LV	NT	-25000	-4.743833	20	PASS
		5310	HV	NT	-24000	-4.55408	20	PASS
			NV	NT	-22000	-4.143126	20	PASS
			LV	NT	-21000	-3.954802	20	PASS
		5510	HV	NT	-21000	-3.954802	20	PASS
			NV	NT	-27000	-4.900181	20	PASS
			LV	NT	-27000	-4.900181	20	PASS
		5550	HV	NT	-26000	-4.718693	20	PASS
			NV	NT	-27000	-4.864865	20	PASS
			LV	NT	-27000	-4.864865	20	PASS
		5670	HV	NT	-27000	-4.864865	20	PASS
			NV	NT	-27000	-4.761905	20	PASS
			LV	NT	-28000	-4.938272	20	PASS
		5755	HV	NT	-28000	-4.938272	20	PASS
			NV	NT	-28000	-4.865334	20	PASS
			LV	NT	-28000	-4.865334	20	PASS
		5795	HV	NT	-28000	-4.865334	20	PASS
			NV	NT	-29000	-5.004314	20	PASS
			LV	NT	-28000	-4.831752	20	PASS
11AC80 SISO	Ant1	5210	HV	NT	-28000	-4.831752	20	PASS
			NV	NT	-26000	-4.990403	20	PASS
			LV	NT	-25000	-4.798464	20	PASS

		5290	HV	NT	-24000	-4.606526	20	PASS
			NV	NT	-25000	-4.725898	20	PASS
			LV	NT	-25000	-4.725898	20	PASS
			HV	NT	-25000	-4.725898	20	PASS
		5530	NV	NT	-26000	-4.701627	20	PASS
			LV	NT	-26000	-4.701627	20	PASS
			HV	NT	-26000	-4.701627	20	PASS
		5610	NV	NT	-26000	-4.634581	20	PASS
			LV	NT	-27000	-4.812834	20	PASS
			HV	NT	-27000	-4.812834	20	PASS
		5775	NV	NT	-28000	-4.848485	20	PASS
			LV	NT	-28000	-4.848485	20	PASS
			HV	NT	-28000	-4.848485	20	PASS

Temperature								
Test Mode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	-11000	-2.123552	20	PASS
			NV	-20	-10000	-1.930502	20	PASS
			NV	-10	-10000	-1.930502	20	PASS
			NV	0	-9000	-1.737452	20	PASS
			NV	10	-9000	-1.737452	20	PASS
			NV	20	-9000	-1.737452	20	PASS
			NV	30	-8000	-1.544402	20	PASS
			NV	40	-9000	-1.737452	20	PASS
			NV	50	-8000	-1.544402	20	PASS
		5200	NV	-30	-12000	-2.307692	20	PASS
			NV	-20	-10000	-1.923077	20	PASS
			NV	-10	-9000	-1.730769	20	PASS
			NV	0	-8000	-1.538462	20	PASS
			NV	10	-8000	-1.538462	20	PASS
			NV	20	-8000	-1.538462	20	PASS
			NV	30	-8000	-1.538462	20	PASS
			NV	40	-8000	-1.538462	20	PASS
			NV	50	-7000	-1.346154	20	PASS
		5240	NV	-30	-11000	-2.099237	20	PASS
			NV	-20	-9000	-1.717557	20	PASS
			NV	-10	-8000	-1.526718	20	PASS
			NV	0	-8000	-1.526718	20	PASS
			NV	10	-8000	-1.526718	20	PASS
			NV	20	-8000	-1.526718	20	PASS
			NV	30	-7000	-1.335878	20	PASS
			NV	40	-7000	-1.335878	20	PASS
			NV	50	-7000	-1.335878	20	PASS
		5260	NV	-30	-9000	-1.711027	20	PASS
			NV	-20	-8000	-1.520913	20	PASS
			NV	-10	-8000	-1.520913	20	PASS
			NV	0	-8000	-1.520913	20	PASS
			NV	10	-8000	-1.520913	20	PASS
			NV	20	-7000	-1.330798	20	PASS
			NV	30	-7000	-1.330798	20	PASS

			NV	40	-8000	-1.520913	20	PASS
			NV	50	-8000	-1.520913	20	PASS
		5280	NV	-30	-8000	-1.515152	20	PASS
			NV	-20	-8000	-1.515152	20	PASS
			NV	-10	-7000	-1.325758	20	PASS
			NV	0	-7000	-1.325758	20	PASS
			NV	10	-6000	-1.136364	20	PASS
			NV	20	-6000	-1.136364	20	PASS
			NV	30	-6000	-1.136364	20	PASS
			NV	40	-6000	-1.136364	20	PASS
			NV	50	-6000	-1.136364	20	PASS
			NV	-30	-8000	-1.503759	20	PASS
		5320	NV	-20	-7000	-1.315789	20	PASS
			NV	-10	-7000	-1.315789	20	PASS
			NV	0	-7000	-1.315789	20	PASS
			NV	10	-7000	-1.315789	20	PASS
			NV	20	-7000	-1.315789	20	PASS
			NV	30	-6000	-1.12782	20	PASS
			NV	40	-6000	-1.12782	20	PASS
			NV	50	-6000	-1.12782	20	PASS
		5500	NV	-30	-11000	-2	20	PASS
			NV	-20	-11000	-2	20	PASS
			NV	-10	-10000	-1.818182	20	PASS
			NV	0	-10000	-1.818182	20	PASS
			NV	10	-10000	-1.818182	20	PASS
			NV	20	-10000	-1.818182	20	PASS
			NV	30	-10000	-1.818182	20	PASS
			NV	40	-10000	-1.818182	20	PASS
		5580	NV	50	-10000	-1.818182	20	PASS
			NV	-30	-20000	-3.584229	20	PASS
			NV	-20	-19000	-3.405018	20	PASS
			NV	-10	-18000	-3.225806	20	PASS
			NV	0	-18000	-3.225806	20	PASS
			NV	10	-17000	-3.046595	20	PASS
			NV	20	-16000	-2.867384	20	PASS
			NV	30	-16000	-2.867384	20	PASS
		5700	NV	40	-17000	-3.046595	20	PASS
			NV	50	-16000	-2.867384	20	PASS
			NV	-30	-19000	-3.333333	20	PASS
			NV	-20	-18000	-3.157895	20	PASS
			NV	-10	-17000	-2.982456	20	PASS
			NV	0	-17000	-2.982456	20	PASS
			NV	10	-16000	-2.807018	20	PASS
			NV	20	-17000	-2.982456	20	PASS
		5745	NV	30	-16000	-2.807018	20	PASS
			NV	40	-15000	-2.631579	20	PASS
			NV	50	-16000	-2.807018	20	PASS
			NV	-30	-18000	-3.133159	20	PASS
			NV	-20	-17000	-2.959095	20	PASS
			NV	-10	-17000	-2.959095	20	PASS
			NV	0	-16000	-2.78503	20	PASS

		5785	NV	10	-16000	-2.78503	20	PASS			
			NV	20	-17000	-2.959095	20	PASS			
			NV	30	-16000	-2.78503	20	PASS			
			NV	40	-16000	-2.78503	20	PASS			
			NV	50	-16000	-2.78503	20	PASS			
			NV	-30	-21000	-3.630078	20	PASS			
			NV	-20	-20000	-3.457217	20	PASS			
			NV	-10	-19000	-3.284356	20	PASS			
			NV	0	-18000	-3.111495	20	PASS			
			NV	10	-17000	-2.938634	20	PASS			
			NV	20	-16000	-2.765774	20	PASS			
			NV	30	-15000	-2.592913	20	PASS			
			NV	40	-15000	-2.592913	20	PASS			
			NV	50	-15000	-2.592913	20	PASS			
		5825	NV	-30	-8000	-1.373391	20	PASS			
			NV	-20	-8000	-1.373391	20	PASS			
			NV	-10	-8000	-1.373391	20	PASS			
			NV	0	-8000	-1.373391	20	PASS			
			NV	10	-8000	-1.373391	20	PASS			
			NV	20	-8000	-1.373391	20	PASS			
			NV	30	-8000	-1.373391	20	PASS			
			NV	40	-8000	-1.373391	20	PASS			
			NV	50	-8000	-1.373391	20	PASS			
			11N20 SISO	Ant1	5180	NV	-30	-2000	-0.3861	20	PASS
						NV	-20	-2000	-0.3861	20	PASS
						NV	-10	-1000	-0.19305	20	PASS
						NV	0	-1000	-0.19305	20	PASS
						NV	10	-1000	-0.19305	20	PASS
NV	20	-1000				-0.19305	20	PASS			
NV	30	-1000				-0.19305	20	PASS			
NV	40	-1000				-0.19305	20	PASS			
NV	50	0				0	20	PASS			
5200	NV	-30			-3000	-0.576923	20	PASS			
	NV	-20			-2000	-0.384615	20	PASS			
	NV	-10			-2000	-0.384615	20	PASS			
	NV	0			-1000	-0.192308	20	PASS			
	NV	10			-1000	-0.192308	20	PASS			
	NV	20	-1000		-0.192308	20	PASS				
	NV	30	-1000		-0.192308	20	PASS				
	NV	40	-1000		-0.192308	20	PASS				
	NV	50	-1000		-0.192308	20	PASS				
5240	NV	-30	-2000	-0.381679	20	PASS					
	NV	-20	-1000	-0.19084	20	PASS					
	NV	-10	-1000	-0.19084	20	PASS					
	NV	0	-1000	-0.19084	20	PASS					
	NV	10	-1000	-0.19084	20	PASS					
	NV	20	0	0	20	PASS					
	NV	30	0	0	20	PASS					
	NV	40	0	0	20	PASS					
	NV	50	0	0	20	PASS					
5260	NV	-30	-2000	-0.380228	20	PASS					

			NV	-20	-1000	-0.190114	20	PASS
			NV	-10	0	0	20	PASS
			NV	0	0	0	20	PASS
			NV	10	0	0	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	1000	0.190114	20	PASS
			NV	50	0	0	20	PASS
		5280	NV	-30	0	0	20	PASS
			NV	-20	0	0	20	PASS
			NV	-10	1000	0.189394	20	PASS
			NV	0	1000	0.189394	20	PASS
			NV	10	2000	0.378788	20	PASS
			NV	20	2000	0.378788	20	PASS
			NV	30	3000	0.568182	20	PASS
			NV	40	3000	0.568182	20	PASS
			NV	50	3000	0.568182	20	PASS
		5320	NV	-30	-1000	-0.18797	20	PASS
			NV	-20	-1000	-0.18797	20	PASS
			NV	-10	-1000	-0.18797	20	PASS
			NV	0	0	0	20	PASS
			NV	10	-1000	-0.18797	20	PASS
			NV	20	0	0	20	PASS
			NV	30	0	0	20	PASS
			NV	40	0	0	20	PASS
			NV	50	0	0	20	PASS
		5500	NV	-30	-6000	-1.090909	20	PASS
			NV	-20	-6000	-1.090909	20	PASS
			NV	-10	-5000	-0.909091	20	PASS
			NV	0	-5000	-0.909091	20	PASS
			NV	10	-4000	-0.727273	20	PASS
			NV	20	-4000	-0.727273	20	PASS
			NV	30	-4000	-0.727273	20	PASS
			NV	40	-4000	-0.727273	20	PASS
			NV	50	-4000	-0.727273	20	PASS
		5580	NV	-30	-6000	-1.075269	20	PASS
			NV	-20	-6000	-1.075269	20	PASS
			NV	-10	-6000	-1.075269	20	PASS
			NV	0	-6000	-1.075269	20	PASS
			NV	10	-5000	-0.896057	20	PASS
			NV	20	-5000	-0.896057	20	PASS
			NV	30	-5000	-0.896057	20	PASS
			NV	40	-5000	-0.896057	20	PASS
			NV	50	-5000	-0.896057	20	PASS
		5700	NV	-30	-8000	-1.403509	20	PASS
			NV	-20	-7000	-1.22807	20	PASS
			NV	-10	-7000	-1.22807	20	PASS
			NV	0	-7000	-1.22807	20	PASS
			NV	10	-7000	-1.22807	20	PASS
			NV	20	-7000	-1.22807	20	PASS
			NV	30	-7000	-1.22807	20	PASS

			NV	40	-7000	-1.22807	20	PASS
			NV	50	-7000	-1.22807	20	PASS
		5745	NV	-30	-7000	-1.218451	20	PASS
			NV	-20	-7000	-1.218451	20	PASS
			NV	-10	-7000	-1.218451	20	PASS
			NV	0	-7000	-1.218451	20	PASS
			NV	10	-6000	-1.044386	20	PASS
			NV	20	-6000	-1.044386	20	PASS
			NV	30	-6000	-1.044386	20	PASS
			NV	40	-6000	-1.044386	20	PASS
			NV	50	-6000	-1.044386	20	PASS
		5785	NV	-30	-11000	-1.901469	20	PASS
			NV	-20	-10000	-1.728608	20	PASS
			NV	-10	-10000	-1.728608	20	PASS
			NV	0	-9000	-1.555748	20	PASS
			NV	10	-9000	-1.555748	20	PASS
			NV	20	-10000	-1.728608	20	PASS
			NV	30	-9000	-1.555748	20	PASS
			NV	40	-9000	-1.555748	20	PASS
			NV	50	-9000	-1.555748	20	PASS
		5825	NV	-30	-9000	-1.545064	20	PASS
			NV	-20	-9000	-1.545064	20	PASS
			NV	-10	-9000	-1.545064	20	PASS
			NV	0	-9000	-1.545064	20	PASS
			NV	10	-9000	-1.545064	20	PASS
			NV	20	-9000	-1.545064	20	PASS
			NV	30	-10000	-1.716738	20	PASS
			NV	40	-10000	-1.716738	20	PASS
			NV	50	-10000	-1.716738	20	PASS
11N40 SISO	Ant1	5190	NV	-30	-5000	-0.963391	20	PASS
			NV	-20	-4000	-0.770713	20	PASS
			NV	-10	-4000	-0.770713	20	PASS
			NV	0	-3000	-0.578035	20	PASS
			NV	10	-3000	-0.578035	20	PASS
			NV	20	-3000	-0.578035	20	PASS
			NV	30	-3000	-0.578035	20	PASS
			NV	40	-3000	-0.578035	20	PASS
			NV	50	-3000	-0.578035	20	PASS
		5230	NV	-30	-8000	-1.529637	20	PASS
			NV	-20	-6000	-1.147228	20	PASS
			NV	-10	-5000	-0.956023	20	PASS
			NV	0	-5000	-0.956023	20	PASS
			NV	10	-5000	-0.956023	20	PASS
			NV	20	-4000	-0.764818	20	PASS
			NV	30	-4000	-0.764818	20	PASS
			NV	40	-3000	-0.573614	20	PASS
			NV	50	-3000	-0.573614	20	PASS
		5270	NV	-30	-6000	-1.13852	20	PASS
			NV	-20	-5000	-0.948767	20	PASS
			NV	-10	-4000	-0.759013	20	PASS
			NV	0	-4000	-0.759013	20	PASS

			NV	10	-3000	-0.56926	20	PASS
			NV	20	-3000	-0.56926	20	PASS
			NV	30	-3000	-0.56926	20	PASS
			NV	40	-3000	-0.56926	20	PASS
			NV	50	-2000	-0.379507	20	PASS
		5310	NV	-30	-6000	-1.129944	20	PASS
			NV	-20	-5000	-0.94162	20	PASS
			NV	-10	-5000	-0.94162	20	PASS
			NV	0	-4000	-0.753296	20	PASS
			NV	10	-4000	-0.753296	20	PASS
			NV	20	-3000	-0.564972	20	PASS
			NV	30	-3000	-0.564972	20	PASS
			NV	40	-3000	-0.564972	20	PASS
			NV	50	-3000	-0.564972	20	PASS
			NV	-30	-13000	-2.359347	20	PASS
		5510	NV	-20	-11000	-1.99637	20	PASS
			NV	-10	-10000	-1.814882	20	PASS
			NV	0	-9000	-1.633394	20	PASS
			NV	10	-9000	-1.633394	20	PASS
			NV	20	-8000	-1.451906	20	PASS
			NV	30	-8000	-1.451906	20	PASS
			NV	40	-8000	-1.451906	20	PASS
			NV	50	-7000	-1.270417	20	PASS
		5550	NV	-30	-19000	-3.423423	20	PASS
			NV	-20	-17000	-3.063063	20	PASS
			NV	-10	-16000	-2.882883	20	PASS
			NV	0	-14000	-2.522523	20	PASS
			NV	10	-13000	-2.342342	20	PASS
			NV	20	-13000	-2.342342	20	PASS
			NV	30	-13000	-2.342342	20	PASS
			NV	40	-12000	-2.162162	20	PASS
			NV	50	-11000	-1.981982	20	PASS
		5670	NV	-30	-20000	-3.527337	20	PASS
			NV	-20	-19000	-3.35097	20	PASS
			NV	-10	-17000	-2.998236	20	PASS
			NV	0	-17000	-2.998236	20	PASS
			NV	10	-17000	-2.998236	20	PASS
			NV	20	-16000	-2.821869	20	PASS
			NV	30	-15000	-2.645503	20	PASS
			NV	40	-15000	-2.645503	20	PASS
			NV	50	-14000	-2.469136	20	PASS
		5755	NV	-30	-20000	-3.475239	20	PASS
			NV	-20	-18000	-3.127715	20	PASS
			NV	-10	-17000	-2.953953	20	PASS
			NV	0	-16000	-2.780191	20	PASS
			NV	10	-15000	-2.606429	20	PASS
			NV	20	-13000	-2.258905	20	PASS
			NV	30	-13000	-2.258905	20	PASS
			NV	40	-13000	-2.258905	20	PASS
			NV	50	-13000	-2.258905	20	PASS
		5795	NV	-30	-21000	-3.623814	20	PASS

11AC20 SISO	Ant1	5180	NV	-20	-20000	-3.451251	20	PASS
			NV	-10	-19000	-3.278689	20	PASS
			NV	0	-18000	-3.106126	20	PASS
			NV	10	-18000	-3.106126	20	PASS
			NV	20	-17000	-2.933563	20	PASS
			NV	30	-16000	-2.761001	20	PASS
			NV	40	-16000	-2.761001	20	PASS
			NV	50	-16000	-2.761001	20	PASS
		5200	NV	-30	-23000	-4.440154	20	PASS
			NV	-20	-23000	-4.440154	20	PASS
			NV	-10	-23000	-4.440154	20	PASS
			NV	0	-23000	-4.440154	20	PASS
			NV	10	-23000	-4.440154	20	PASS
			NV	20	-23000	-4.440154	20	PASS
			NV	30	-23000	-4.440154	20	PASS
			NV	40	-22000	-4.247104	20	PASS
			NV	50	-22000	-4.247104	20	PASS
		5240	NV	-30	-24000	-4.615385	20	PASS
			NV	-20	-23000	-4.423077	20	PASS
			NV	-10	-22000	-4.230769	20	PASS
			NV	0	-22000	-4.230769	20	PASS
			NV	10	-22000	-4.230769	20	PASS
			NV	20	-21000	-4.038462	20	PASS
			NV	30	-21000	-4.038462	20	PASS
			NV	40	-21000	-4.038462	20	PASS
			NV	50	-21000	-4.038462	20	PASS
		5260	NV	-30	-22000	-4.198473	20	PASS
			NV	-20	-21000	-4.007634	20	PASS
			NV	-10	-21000	-4.007634	20	PASS
			NV	0	-21000	-4.007634	20	PASS
			NV	10	-20000	-3.816794	20	PASS
			NV	20	-20000	-3.816794	20	PASS
			NV	30	-19000	-3.625954	20	PASS
			NV	40	-19000	-3.625954	20	PASS
			NV	50	-19000	-3.625954	20	PASS
		5280	NV	-30	-23000	-4.372624	20	PASS
			NV	-20	-22000	-4.18251	20	PASS
			NV	-10	-22000	-4.18251	20	PASS
			NV	0	-21000	-3.992395	20	PASS
			NV	10	-21000	-3.992395	20	PASS
			NV	20	-21000	-3.992395	20	PASS
			NV	30	-20000	-3.802281	20	PASS
			NV	40	-20000	-3.802281	20	PASS
			NV	50	-19000	-3.612167	20	PASS
		5280	NV	-30	-21000	-3.977273	20	PASS
			NV	-20	-20000	-3.787879	20	PASS
			NV	-10	-19000	-3.598485	20	PASS
			NV	0	-18000	-3.409091	20	PASS
			NV	10	-18000	-3.409091	20	PASS
			NV	20	-17000	-3.219697	20	PASS
			NV	30	-16000	-3.030303	20	PASS

			NV	40	-16000	-3.030303	20	PASS
			NV	50	-15000	-2.840909	20	PASS
		5320	NV	-30	-23000	-4.323308	20	PASS
			NV	-20	-22000	-4.135338	20	PASS
			NV	-10	-22000	-4.135338	20	PASS
			NV	0	-20000	-3.759398	20	PASS
			NV	10	-20000	-3.759398	20	PASS
			NV	20	-19000	-3.571429	20	PASS
			NV	30	-19000	-3.571429	20	PASS
			NV	40	-19000	-3.571429	20	PASS
			NV	50	-19000	-3.571429	20	PASS
			NV	-30	-26000	-4.727273	20	PASS
		5500	NV	-20	-26000	-4.727273	20	PASS
			NV	-10	-26000	-4.727273	20	PASS
			NV	0	-25000	-4.545455	20	PASS
			NV	10	-25000	-4.545455	20	PASS
			NV	20	-25000	-4.545455	20	PASS
			NV	30	-25000	-4.545455	20	PASS
			NV	40	-25000	-4.545455	20	PASS
			NV	50	-25000	-4.545455	20	PASS
		5580	NV	-30	-27000	-4.83871	20	PASS
			NV	-20	-27000	-4.83871	20	PASS
			NV	-10	-27000	-4.83871	20	PASS
			NV	0	-27000	-4.83871	20	PASS
			NV	10	-26000	-4.659498	20	PASS
			NV	20	-26000	-4.659498	20	PASS
			NV	30	-26000	-4.659498	20	PASS
			NV	40	-26000	-4.659498	20	PASS
		5700	NV	50	-26000	-4.659498	20	PASS
			NV	-30	-26000	-4.561404	20	PASS
			NV	-20	-27000	-4.736842	20	PASS
			NV	-10	-27000	-4.736842	20	PASS
			NV	0	-26000	-4.561404	20	PASS
			NV	10	-27000	-4.736842	20	PASS
			NV	20	-27000	-4.736842	20	PASS
			NV	30	-26000	-4.561404	20	PASS
			NV	40	-26000	-4.561404	20	PASS
			NV	50	-26000	-4.561404	20	PASS
		5720	NV	-30	-27000	-4.72028	20	PASS
			NV	-20	-27000	-4.72028	20	PASS
			NV	-10	-27000	-4.72028	20	PASS
			NV	0	-27000	-4.72028	20	PASS
			NV	10	-26000	-4.545455	20	PASS
			NV	20	-26000	-4.545455	20	PASS
			NV	30	-27000	-4.72028	20	PASS
			NV	40	-26000	-4.545455	20	PASS
			NV	50	-27000	-4.72028	20	PASS
			NV	-30	-27000	-4.699739	20	PASS
		5745	NV	-20	-27000	-4.699739	20	PASS
			NV	-10	-27000	-4.699739	20	PASS
			NV	0	-27000	-4.699739	20	PASS

			NV	10	-27000	-4.699739	20	PASS
			NV	20	-27000	-4.699739	20	PASS
			NV	30	-27000	-4.699739	20	PASS
			NV	40	-27000	-4.699739	20	PASS
			NV	50	-27000	-4.699739	20	PASS
			NV	-30	-27000	-4.667243	20	PASS
			NV	-20	-27000	-4.667243	20	PASS
			NV	-10	-27000	-4.667243	20	PASS
			NV	0	-27000	-4.667243	20	PASS
			NV	10	-27000	-4.667243	20	PASS
		5785	NV	20	-27000	-4.667243	20	PASS
			NV	30	-27000	-4.667243	20	PASS
			NV	40	-27000	-4.667243	20	PASS
			NV	50	-27000	-4.667243	20	PASS
			NV	-30	-28000	-4.806867	20	PASS
			NV	-20	-28000	-4.806867	20	PASS
			NV	-10	-28000	-4.806867	20	PASS
			NV	0	-28000	-4.806867	20	PASS
			NV	10	-28000	-4.806867	20	PASS
			NV	20	-28000	-4.806867	20	PASS
		5825	NV	30	-28000	-4.806867	20	PASS
			NV	40	-28000	-4.806867	20	PASS
			NV	50	-28000	-4.806867	20	PASS
			NV	-30	-23000	-4.431599	20	PASS
			NV	-20	-23000	-4.431599	20	PASS
			NV	-10	-22000	-4.238921	20	PASS
			NV	0	-22000	-4.238921	20	PASS
			NV	10	-22000	-4.238921	20	PASS
			NV	20	-21000	-4.046243	20	PASS
			NV	30	-21000	-4.046243	20	PASS
		5190	NV	40	-21000	-4.046243	20	PASS
			NV	50	-21000	-4.046243	20	PASS
			NV	-30	-22000	-4.206501	20	PASS
			NV	-20	-22000	-4.206501	20	PASS
			NV	-10	-21000	-4.015296	20	PASS
			NV	0	-21000	-4.015296	20	PASS
			NV	10	-21000	-4.015296	20	PASS
			NV	20	-21000	-4.015296	20	PASS
			NV	30	-20000	-3.824092	20	PASS
			NV	40	-19000	-3.632887	20	PASS
		5230	NV	50	-19000	-3.632887	20	PASS
			NV	-30	-23000	-4.364326	20	PASS
			NV	-20	-23000	-4.364326	20	PASS
			NV	-10	-22000	-4.174573	20	PASS
			NV	0	-22000	-4.174573	20	PASS
			NV	10	-22000	-4.174573	20	PASS
			NV	20	-21000	-3.98482	20	PASS
			NV	30	-21000	-3.98482	20	PASS
			NV	40	-21000	-3.98482	20	PASS
			NV	50	-21000	-3.98482	20	PASS
		5270	NV	-30	-20000	-3.766478	20	PASS
			NV	-20	-20000	-3.766478	20	PASS
			NV	-10	-20000	-3.766478	20	PASS
			NV	0	-20000	-3.766478	20	PASS
			NV	10	-20000	-3.766478	20	PASS
			NV	20	-20000	-3.766478	20	PASS
			NV	30	-20000	-3.766478	20	PASS
			NV	40	-20000	-3.766478	20	PASS
			NV	50	-20000	-3.766478	20	PASS
			NV	-30	-20000	-3.766478	20	PASS
		5310	NV	-30	-20000	-3.766478	20	PASS

11AC40
SISO

Ant1

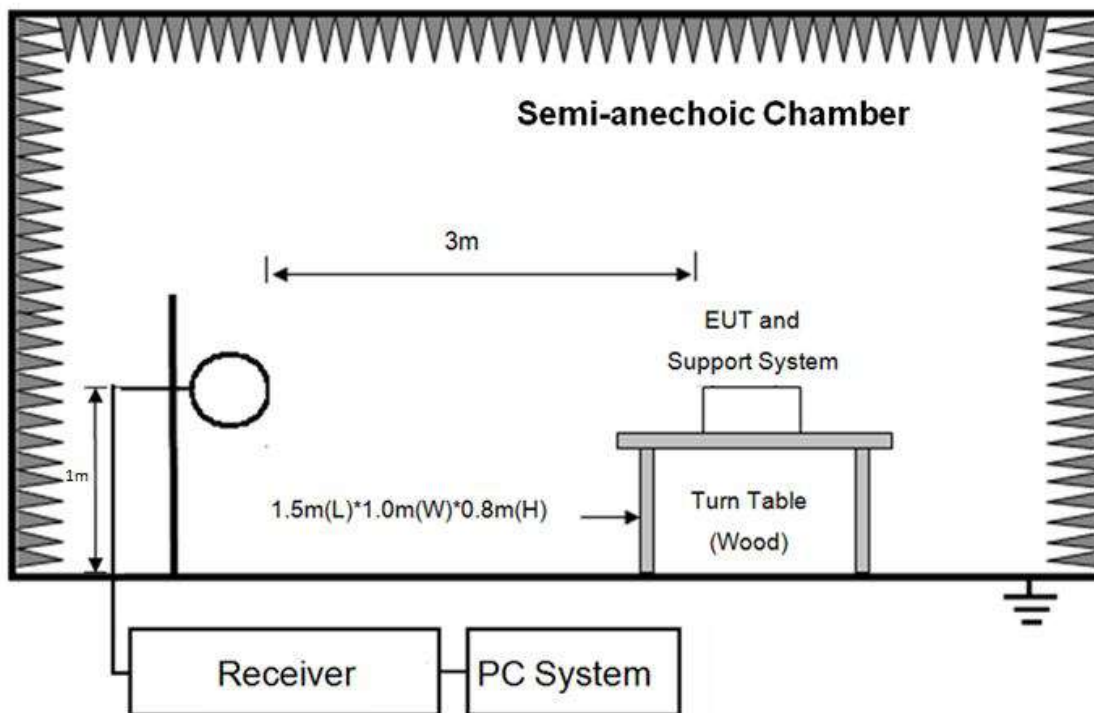
			NV	-20	-20000	-3.766478	20	PASS
			NV	-10	-20000	-3.766478	20	PASS
			NV	0	-19000	-3.578154	20	PASS
			NV	10	-19000	-3.578154	20	PASS
			NV	20	-19000	-3.578154	20	PASS
			NV	30	-19000	-3.578154	20	PASS
			NV	40	-18000	-3.389831	20	PASS
			NV	50	-18000	-3.389831	20	PASS
		5510	NV	-30	-26000	-4.718693	20	PASS
			NV	-20	-26000	-4.718693	20	PASS
			NV	-10	-26000	-4.718693	20	PASS
			NV	0	-26000	-4.718693	20	PASS
			NV	10	-26000	-4.718693	20	PASS
			NV	20	-26000	-4.718693	20	PASS
			NV	30	-26000	-4.718693	20	PASS
			NV	40	-25000	-4.537205	20	PASS
		5550	NV	50	-26000	-4.718693	20	PASS
			NV	-30	-27000	-4.864865	20	PASS
			NV	-20	-27000	-4.864865	20	PASS
			NV	-10	-27000	-4.864865	20	PASS
			NV	0	-27000	-4.864865	20	PASS
			NV	10	-27000	-4.864865	20	PASS
			NV	20	-27000	-4.864865	20	PASS
			NV	30	-27000	-4.864865	20	PASS
		5670	NV	40	-27000	-4.864865	20	PASS
			NV	50	-27000	-4.864865	20	PASS
			NV	-30	-28000	-4.938272	20	PASS
			NV	-20	-28000	-4.938272	20	PASS
			NV	-10	-27000	-4.761905	20	PASS
			NV	0	-27000	-4.761905	20	PASS
			NV	10	-27000	-4.761905	20	PASS
			NV	20	-27000	-4.761905	20	PASS
		5755	NV	30	-27000	-4.761905	20	PASS
			NV	40	-27000	-4.761905	20	PASS
			NV	50	-27000	-4.761905	20	PASS
			NV	-30	-28000	-4.865334	20	PASS
			NV	-20	-28000	-4.865334	20	PASS
			NV	-10	-28000	-4.865334	20	PASS
			NV	0	-28000	-4.865334	20	PASS
			NV	10	-28000	-4.865334	20	PASS
		5795	NV	20	-27000	-4.691573	20	PASS
			NV	30	-28000	-4.865334	20	PASS
			NV	40	-27000	-4.691573	20	PASS
			NV	50	-27000	-4.691573	20	PASS
			NV	-30	-28000	-4.831752	20	PASS
			NV	-20	-28000	-4.831752	20	PASS
			NV	-10	-28000	-4.831752	20	PASS
			NV	0	-28000	-4.831752	20	PASS
			NV	10	-28000	-4.831752	20	PASS
			NV	20	-28000	-4.831752	20	PASS
			NV	30	-28000	-4.831752	20	PASS

11AC80 SISO	Ant1		NV	40	-28000	-4.831752	20	PASS
			NV	50	-27000	-4.659189	20	PASS
		5210	NV	-30	-23000	-4.414587	20	PASS
			NV	-20	-23000	-4.414587	20	PASS
			NV	-10	-23000	-4.414587	20	PASS
			NV	0	-22000	-4.222649	20	PASS
			NV	10	-22000	-4.222649	20	PASS
			NV	20	-21000	-4.03071	20	PASS
			NV	30	-21000	-4.03071	20	PASS
			NV	40	-21000	-4.03071	20	PASS
			NV	50	-21000	-4.03071	20	PASS
			NV	-30	-25000	-4.725898	20	PASS
		5290	NV	-20	-25000	-4.725898	20	PASS
			NV	-10	-25000	-4.725898	20	PASS
			NV	0	-25000	-4.725898	20	PASS
			NV	10	-24000	-4.536862	20	PASS
			NV	20	-25000	-4.725898	20	PASS
			NV	30	-24000	-4.536862	20	PASS
			NV	40	-24000	-4.536862	20	PASS
			NV	50	-24000	-4.536862	20	PASS
		5530	NV	-30	-26000	-4.701627	20	PASS
			NV	-20	-26000	-4.701627	20	PASS
			NV	-10	-26000	-4.701627	20	PASS
			NV	0	-26000	-4.701627	20	PASS
			NV	10	-26000	-4.701627	20	PASS
			NV	20	-26000	-4.701627	20	PASS
			NV	30	-26000	-4.701627	20	PASS
			NV	40	-26000	-4.701627	20	PASS
			NV	50	-26000	-4.701627	20	PASS
			NV	-30	-27000	-4.812834	20	PASS
		5610	NV	-20	-27000	-4.812834	20	PASS
			NV	-10	-27000	-4.812834	20	PASS
			NV	0	-27000	-4.812834	20	PASS
			NV	10	-27000	-4.812834	20	PASS
			NV	20	-27000	-4.812834	20	PASS
			NV	30	-27000	-4.812834	20	PASS
			NV	40	-27000	-4.812834	20	PASS
			NV	50	-27000	-4.812834	20	PASS
		5775	NV	-30	-28000	-4.848485	20	PASS
			NV	-20	-28000	-4.848485	20	PASS
			NV	-10	-28000	-4.848485	20	PASS
			NV	0	-27000	-4.675325	20	PASS
			NV	10	-27000	-4.675325	20	PASS
			NV	20	-27000	-4.675325	20	PASS
			NV	30	-27000	-4.675325	20	PASS
			NV	40	-27000	-4.675325	20	PASS
			NV	50	-27000	-4.675325	20	PASS

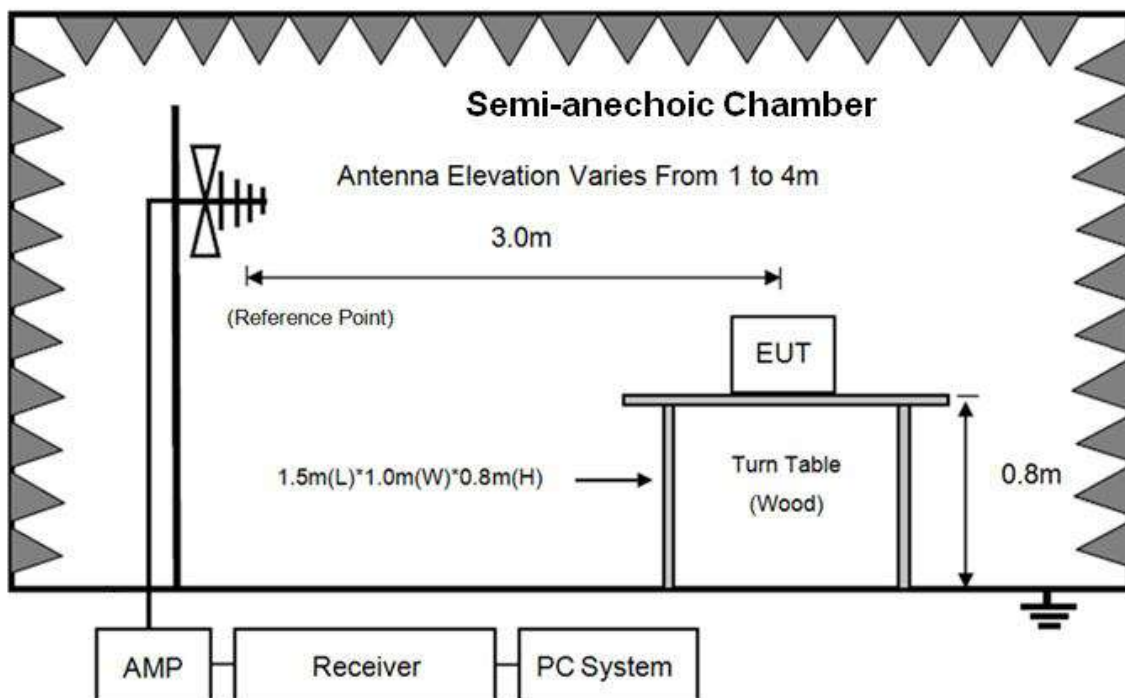
8. Spurious Emissions

8.1. Block diagram of test setup

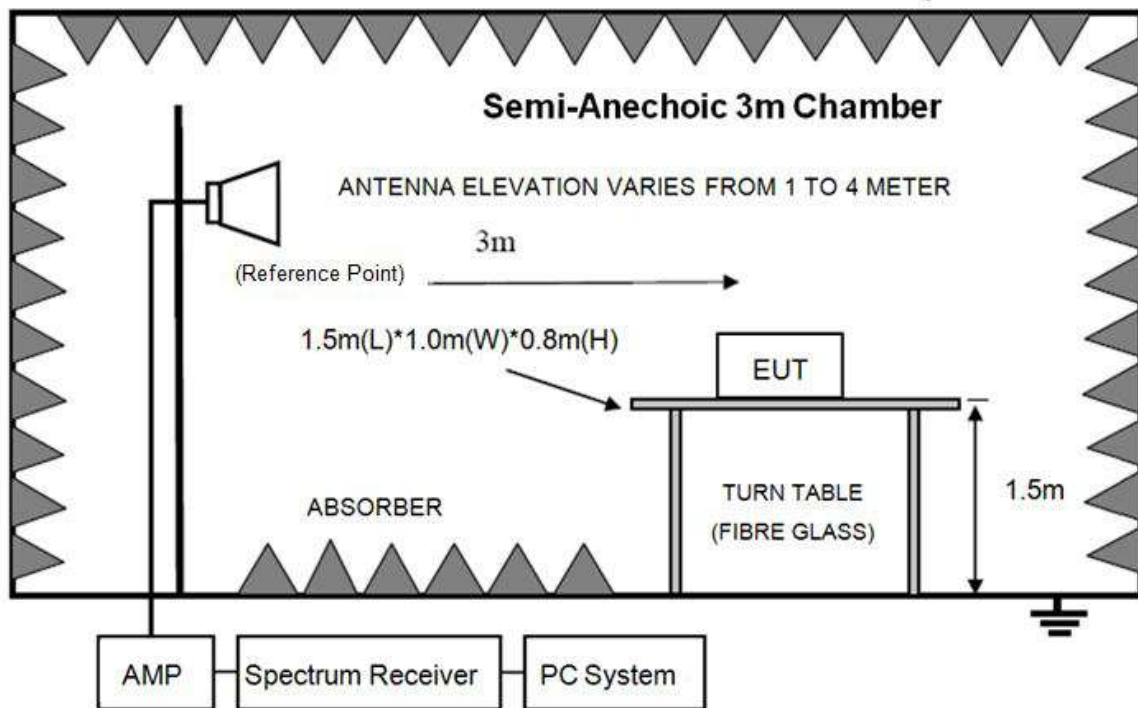
In 3 m Anechoic Chamber Test Setup Diagram for 9 kHz - 30 MHz



In 3 m Anechoic Chamber Test Setup Diagram for 30 MHz - 1 GHz



In 3 m Anechoic Chamber Test Setup Diagram for frequency above 1 GHz



Note: For harmonic emissions test an appropriate high pass filter was inserted in the input port of AMP.

8.2. Limit

8.3.1 FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.2072&4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

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

²Above 38.6

8.3.2 FCC 15.209 Limit.

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Note: (1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30 MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$\text{Limit}_{3m}(\text{dB}\mu\text{V}/\text{m}) = \text{Limit}_{30m}(\text{dB}\mu\text{V}/\text{m}) + 40\text{Log}(30m/3m)$$

8.3.3 Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20 dB below the fundamental emissions or comply with 15.209 limits.

8.3. Test procedure

- (1) EUT height should be 0.8 m for below 1 GHz at a semi - anechoic chamber while EUT height should be 1.5 m for above 1 GHz at full chamber or semi - anechoic chamber ground with absorbers
- (2) Setup EUT and assistant system according clause 2.3 and 8.2
- (3) Test antenna was located 3 m from the EUT on an adjustable mast, and the antenna used as below table.

Test frequency range	Test antenna used	Test distance
9 kHz - 30 MHz	Active Loop antenna	3 m
30 MHz - 1 GHz	Trilog Broadband Antenna	3 m
1 GHz - 18 GHz	Double Ridged Horn Antenna (1 GHz - 18 GHz)	3 m
18 GHz - 40 GHz	Horn Antenna (18 GHz - 40 GHz)	1 m

According ANSI C63.10:2013 clause 6.4.4.2 and 6.5.3, for measurements below 30 MHz, the

loop antenna was positioned with its plane vertical from the EUT and rotated about its vertical axis for maximum response at each azimuth position around the EUT. And the loop antenna also is positioned with its plane horizontal at the specified distance from the EUT. The center of the loop is 1 m above the ground. For measurement above 30 MHz, the Trilog Broadband Antenna or Horn Antenna was located 3 m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

(4) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9 kHz to 40 GHz:

(a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1 m to 4 m (Except loop antenna, it's fixed 1 m above ground.)

(b) Change work frequency or channel of device if practicable.

(c) Change modulation type of device if practicable.

(d) Change power supply range from 85% to 115% of the rated supply voltage

(e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions. Spectrum frequency from 9 kHz to 40 GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 9 kHz to 30 MHz and 18 GHz to 40 GHz, so below final test was performed with frequency range from 30 MHz to 18 GHz.

(5) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1 m and 4 m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10:2013 on Radiated Emission test.

(6) The emissions from 9 kHz to 1 GHz were measured based on CISPR QP detector except for the frequency bands 9 - 90 kHz, 110 - 490 kHz, for emissions from 9 kHz - 90 kHz, 110 kHz - 490 kHz and above 1 GHz were measured based on average detector, for emissions above 1 GHz, peak emissions also be measured and need comply with Peak limit.

(7) The emissions from 9 kHz to 1 GHz, QP or average values were measured with EMI receiver with below RBW

Frequency band	RBW
9 kHz - 150 kHz	200 Hz
150 kHz - 30 MHz	9 kHz
30 MHz - 1 GHz	120 kHz

(8) For emissions above 1 GHz, both Peak and Average level were measured with Spectrum

Analyzer, and the RBW is set at 1 MHz, VBW is set at 3 MHz for Peak measure, according ANSI C63.10:2013 clause 4.1.4.2.2 procedure for average measure.

8.4. Test result

PASS. (See below detailed test result)

All the emissions except fundamental emission from 9 kHz to 40 GHz were comply with 15.209 limit.

Note1: According exploratory test, the emission levels are 20 dB below the limit detected from 9 kHz to 30 MHz and 18 GHz to 40 GHz, so the final test was performed with frequency range from 30 MHz to 18 GHz and recorded in below.

Note2: For emissions below 1 GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1 GHz, the final test was only performed with EUT working in 11a mode.

Note3: For below test data, when the limit tabular marked “/” means this frequency point is the fundamental emission and no need comply with this limit.

Radiated Emission test (below 1 GHz)

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 2#

E:\2020 RE2# Report Data\Q20042710-1E U720AC-D\fcc
below 1g.EM6

Test Date : 2020-05-17

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

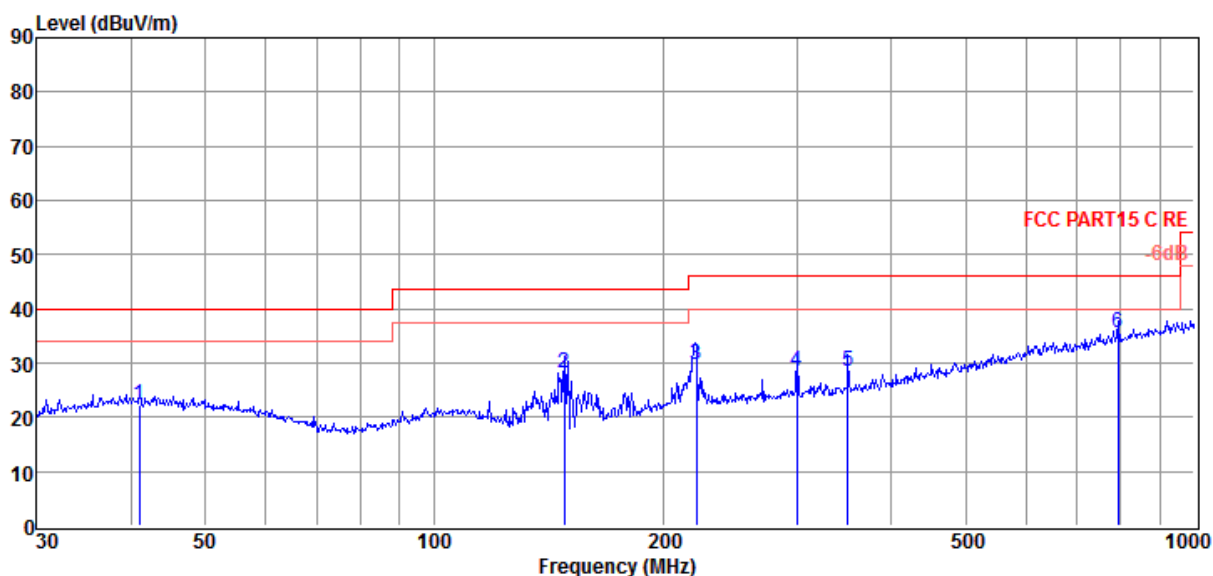
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa Antenna/Distance : 2019 VULB 9163 2#/3m/HORIZONTAL

Memo :

Data: 3



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	40.99	4.13	14.37	3.71	22.21	40.00	-17.79	QP	HORIZONTAL
2	148.44	15.56	8.13	4.53	28.22	43.50	-15.28	QP	HORIZONTAL
3	221.39	12.78	12.05	4.97	29.80	46.00	-16.20	QP	HORIZONTAL
4	300.37	8.96	14.01	5.37	28.34	46.00	-17.66	QP	HORIZONTAL
5	350.48	7.99	14.81	5.62	28.42	46.00	-17.58	QP	HORIZONTAL
6	793.40	6.94	21.12	7.52	35.58	46.00	-10.42	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 2#

E:\2020 RE2# Report Data\Q20042710-1E U720AC-D\fcc
below 1g.EM6

Test Date : 2020-05-17

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

Power Supply : DC 12V

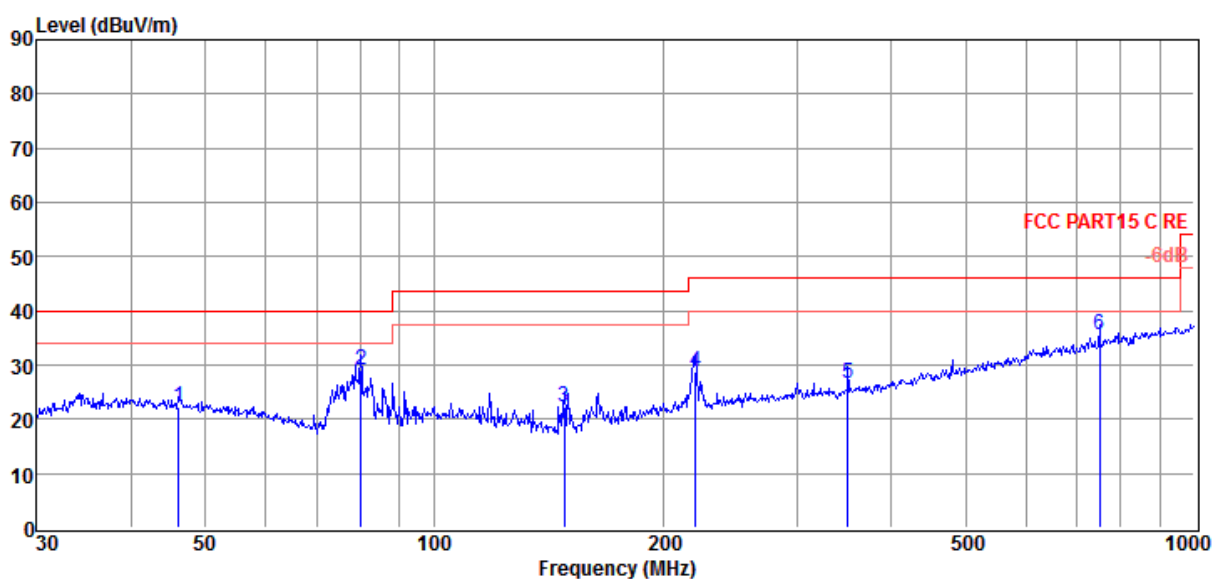
Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa

Antenna/Distance : 2019 VULB 9163 2#/3m/VERTICAL

Memo :

Data: 4



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	46.18	4.72	13.73	3.75	22.20	40.00	-17.80	QP	VERTICAL
2	80.08	16.25	8.71	4.04	29.00	40.00	-11.00	QP	VERTICAL
3	148.44	9.54	8.13	4.53	22.20	43.50	-21.30	QP	VERTICAL
4	220.62	11.70	12.03	4.97	28.70	46.00	-17.30	QP	VERTICAL
5	350.48	6.27	14.81	5.62	26.70	46.00	-19.30	QP	VERTICAL
6	750.11	7.47	20.57	7.37	35.41	46.00	-10.59	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Radiated Emission test (above 1 GHz)

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detect or type	Polarization
11a CH36									
6474.00	45.88	35.58	43.02	7.80	46.24	74.00	-27.76	Peak	HORIZONTAL
8021.00	45.16	36.62	42.80	9.26	48.24	74.00	-25.76	Peak	HORIZONTAL
9755.00	45.44	37.61	42.44	9.08	49.69	74.00	-24.31	Peak	HORIZONTAL
11319.00	44.80	38.16	42.33	9.52	50.15	74.00	-23.85	Peak	HORIZONTAL
12050.00	46.86	38.41	42.25	10.07	53.09	74.00	-20.91	Peak	HORIZONTAL
12662.00	45.11	38.63	41.60	10.92	53.06	74.00	-20.94	Peak	HORIZONTAL
5930.00	45.77	35.15	43.12	6.93	44.73	74.00	-29.27	Peak	VERTICAL
7851.00	45.92	36.51	42.82	9.19	48.80	74.00	-25.20	Peak	VERTICAL
9874.00	45.02	37.70	42.42	9.15	49.45	74.00	-24.55	Peak	VERTICAL
11319.00	44.66	38.16	42.33	9.52	50.01	74.00	-23.99	Peak	VERTICAL
12050.00	47.20	38.41	42.25	10.07	53.43	74.00	-20.57	Peak	VERTICAL
13087.00	44.41	39.04	41.17	11.32	53.60	74.00	-20.40	Peak	VERTICAL
11a CH40									
5080.00	45.81	34.55	43.39	6.59	43.56	74.00	-30.44	Peak	HORIZONTAL
7171.00	45.35	36.04	42.91	8.83	47.31	74.00	-26.69	Peak	HORIZONTAL
9041.00	44.55	37.13	42.58	8.65	47.75	74.00	-26.25	Peak	HORIZONTAL
11200.00	44.56	38.14	42.34	9.44	49.80	74.00	-24.20	Peak	HORIZONTAL
12050.00	47.22	38.41	42.25	10.07	53.45	74.00	-20.55	Peak	HORIZONTAL
12849.00	44.90	38.78	41.41	11.18	53.45	74.00	-20.55	Peak	HORIZONTAL
6355.00	45.85	35.49	43.04	7.59	45.89	74.00	-28.11	Peak	VERTICAL
8055.00	44.75	36.65	42.79	9.23	47.84	74.00	-26.16	Peak	VERTICAL
9755.00	46.78	37.61	42.44	9.08	51.03	74.00	-22.97	Peak	VERTICAL
11115.00	45.12	38.12	42.34	9.38	50.28	74.00	-23.72	Peak	VERTICAL
12050.00	46.29	38.41	42.25	10.07	52.52	74.00	-21.48	Peak	VERTICAL
13308.00	43.73	39.40	40.96	11.13	53.30	74.00	-20.70	Peak	VERTICAL
11a CH48									
6304.00	45.56	35.45	43.05	7.50	45.46	74.00	-28.54	Peak	HORIZONTAL
8004.00	45.40	36.60	42.80	9.27	48.47	74.00	-25.53	Peak	HORIZONTAL
9789.00	45.29	37.63	42.44	9.10	49.58	74.00	-24.42	Peak	HORIZONTAL
11319.00	45.39	38.16	42.33	9.52	50.74	74.00	-23.26	Peak	HORIZONTAL
12050.00	47.51	38.41	42.25	10.07	53.74	74.00	-20.26	Peak	HORIZONTAL
12781.00	44.90	38.73	41.48	11.09	53.24	74.00	-20.76	Peak	HORIZONTAL
5998.00	45.31	35.20	43.10	6.96	44.37	74.00	-29.63	Peak	VERTICAL
7936.00	45.73	36.56	42.81	9.24	48.72	74.00	-25.28	Peak	VERTICAL
9670.00	45.85	37.54	42.46	9.03	49.96	74.00	-24.04	Peak	VERTICAL
12033.00	45.96	38.41	42.26	10.05	52.16	74.00	-21.84	Peak	VERTICAL
12849.00	45.02	38.78	41.41	11.18	53.57	74.00	-20.43	Peak	VERTICAL
14124.00	42.61	40.25	40.29	10.61	53.18	74.00	-20.82	Peak	VERTICAL

Freq (MHz)	Read level (dBμV)	Anten na Facto r (dB/ m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margi n (dB)	Detector type	Polarization
11a CH52									
6576.00	46.26	35.65	43.00	7.99	46.90	74.00	-27.10	Peak	HORIZONTAL
8174.00	44.90	36.74	42.76	9.16	48.04	74.00	-25.96	Peak	HORIZONTAL
9636.00	46.01	37.51	42.47	9.01	50.06	74.00	-23.94	Peak	HORIZONTAL
10571.00	46.18	37.67	42.37	9.27	50.75	74.00	-23.25	Peak	HORIZONTAL
12016.00	46.43	38.40	42.28	10.02	52.57	74.00	-21.43	Peak	HORIZONTAL
12849.00	44.46	38.78	41.41	11.18	53.01	74.00	-20.99	Peak	HORIZONTAL
6899.00	47.24	35.84	42.95	8.56	48.69	74.00	-25.31	Peak	VERTICAL
8140.00	44.19	36.71	42.77	9.18	47.31	74.00	-26.69	Peak	VERTICAL
10299.00	44.87	37.68	42.38	9.25	49.42	74.00	-24.58	Peak	VERTICAL
12016.00	46.23	38.40	42.28	10.02	52.37	74.00	-21.63	Peak	VERTICAL
12679.00	45.26	38.65	41.59	10.94	53.26	74.00	-20.74	Peak	VERTICAL
13580.00	43.35	39.80	40.70	10.90	53.35	74.00	-20.65	Peak	VERTICAL
11a CH56									
5199.00	44.78	34.62	43.35	6.64	42.69	74.00	-31.31	Peak	HORIZONTAL
7205.00	45.11	36.07	42.91	8.85	47.12	74.00	-26.88	Peak	HORIZONTAL
7919.00	46.17	36.55	42.81	9.23	49.14	74.00	-24.86	Peak	HORIZONTAL
9551.00	45.73	37.44	42.48	8.96	49.65	74.00	-24.35	Peak	HORIZONTAL
12101.00	46.58	38.42	42.19	10.14	52.95	74.00	-21.05	Peak	HORIZONTAL
13376.00	44.05	39.50	40.89	11.07	53.73	74.00	-20.27	Peak	HORIZONTAL
5760.00	45.41	35.01	43.17	6.86	44.11	74.00	-29.89	Peak	VERTICAL
8021.00	45.40	36.62	42.80	9.26	48.48	74.00	-25.52	Peak	VERTICAL
9874.00	45.78	37.70	42.42	9.15	50.21	74.00	-23.79	Peak	VERTICAL
11285.00	44.94	38.16	42.33	9.50	50.27	74.00	-23.73	Peak	VERTICAL
12050.00	46.61	38.41	42.25	10.07	52.84	74.00	-21.16	Peak	VERTICAL
12849.00	45.14	38.78	41.41	11.18	53.69	74.00	-20.31	Peak	VERTICAL
11a CH64									
5199.00	45.72	34.62	43.35	6.64	43.63	74.00	-30.37	Peak	HORIZONTAL
7426.00	46.06	36.24	42.88	8.97	48.39	74.00	-25.61	Peak	HORIZONTAL
9874.00	45.68	37.70	42.42	9.15	50.11	74.00	-23.89	Peak	HORIZONTAL
12050.00	46.60	38.41	42.25	10.07	52.83	74.00	-21.17	Peak	HORIZONTAL
13070.00	44.35	39.01	41.19	11.33	53.50	74.00	-20.50	Peak	HORIZONTAL
14719.00	42.14	40.32	40.22	10.92	53.16	74.00	-20.84	Peak	HORIZONTAL
6015.00	45.23	35.21	43.10	6.99	44.33	74.00	-29.67	Peak	VERTICAL
7664.00	45.20	36.40	42.84	9.09	47.85	74.00	-26.15	Peak	VERTICAL
9449.00	45.46	37.37	42.50	8.89	49.22	74.00	-24.78	Peak	VERTICAL
10180.00	45.68	37.73	42.39	9.24	50.26	74.00	-23.74	Peak	VERTICAL
12050.00	46.39	38.41	42.25	10.07	52.62	74.00	-21.38	Peak	VERTICAL
13495.00	42.90	39.69	40.78	10.97	52.78	74.00	-21.22	Peak	VERTICAL
Conclusion: Pass									

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detect or type	Polarization
11a CH100									
5046.00	45.03	34.53	43.40	6.58	42.74	74.00	-31.26	Peak	HORIZONTAL
7086.00	45.16	35.97	42.93	8.79	46.99	74.00	-27.01	Peak	HORIZONTAL
9874.00	44.72	37.70	42.42	9.15	49.15	74.00	-24.85	Peak	HORIZONTAL
12050.00	46.54	38.41	42.25	10.07	52.77	74.00	-21.23	Peak	HORIZONTAL
13019.00	44.58	38.93	41.24	11.37	53.64	74.00	-20.36	Peak	HORIZONTAL
14277.00	42.92	40.19	40.27	10.69	53.53	74.00	-20.47	Peak	HORIZONTAL
5471.00	45.65	34.78	43.26	6.75	43.92	74.00	-30.08	Peak	VERTICAL
6899.00	45.95	35.84	42.95	8.56	47.40	74.00	-26.60	Peak	VERTICAL
8276.00	45.13	36.82	42.74	9.09	48.30	74.00	-25.70	Peak	VERTICAL
9755.00	45.23	37.61	42.44	9.08	49.48	74.00	-24.52	Peak	VERTICAL
12050.00	46.69	38.41	42.25	10.07	52.92	74.00	-21.08	Peak	VERTICAL
12764.00	45.35	38.71	41.50	11.06	53.62	74.00	-20.38	Peak	VERTICAL
11a CH116									
8276.00	45.55	36.82	42.74	9.09	48.72	74.00	-25.28	Peak	HORIZONTAL
9381.00	45.62	37.33	42.51	8.85	49.29	74.00	-24.71	Peak	HORIZONTAL
10486.00	45.04	37.61	42.37	9.26	49.54	74.00	-24.46	Peak	HORIZONTAL
11200.00	44.62	38.14	42.34	9.44	49.86	74.00	-24.14	Peak	HORIZONTAL
12849.00	44.71	38.78	41.41	11.18	53.26	74.00	-20.74	Peak	HORIZONTAL
14277.00	42.92	40.19	40.27	10.69	53.53	74.00	-20.47	Peak	HORIZONTAL
3805.00	46.02	33.10	43.74	5.25	40.63	74.00	-33.37	Peak	VERTICAL
5471.00	45.65	34.78	43.26	6.75	43.92	74.00	-30.08	Peak	VERTICAL
7715.00	45.17	36.43	42.84	9.12	47.88	74.00	-26.12	Peak	VERTICAL
9551.00	45.72	37.44	42.48	8.96	49.64	74.00	-24.36	Peak	VERTICAL
11217.00	44.55	38.14	42.34	9.45	49.80	74.00	-24.20	Peak	VERTICAL
12050.00	46.69	38.41	42.25	10.07	52.92	74.00	-21.08	Peak	VERTICAL
11a CH140									
4944.00	45.68	34.39	43.43	6.49	43.13	74.00	-30.87	Peak	HORIZONTAL
6270.00	45.42	35.42	43.05	7.44	45.23	74.00	-28.77	Peak	HORIZONTAL
7919.00	45.92	36.55	42.81	9.23	48.89	74.00	-25.11	Peak	HORIZONTAL
9194.00	45.02	37.22	42.55	8.74	48.43	74.00	-25.57	Peak	HORIZONTAL
11336.00	44.76	38.17	42.33	9.54	50.14	74.00	-23.86	Peak	HORIZONTAL
12900.00	44.83	38.82	41.36	11.25	53.54	74.00	-20.46	Peak	HORIZONTAL
4774.00	46.03	34.06	43.49	6.28	42.88	74.00	-31.12	Peak	VERTICAL
6270.00	45.56	35.42	43.05	7.44	45.37	74.00	-28.63	Peak	VERTICAL
7749.00	45.62	36.45	42.83	9.14	48.38	74.00	-25.62	Peak	VERTICAL
10129.00	44.59	37.75	42.39	9.24	49.19	74.00	-24.81	Peak	VERTICAL
11744.00	44.89	38.30	42.31	9.82	50.70	74.00	-23.30	Peak	VERTICAL
12730.00	45.36	38.69	41.53	11.01	53.53	74.00	-20.47	Peak	VERTICAL

Freq (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detect or type	Polarization
11a CH149									
5556.00	45.25	34.85	43.23	6.78	43.65	74.00	-30.35	Peak	HORIZONTAL
7239.00	45.02	36.09	42.90	8.87	47.08	74.00	-26.92	Peak	HORIZONTAL
9789.00	45.77	37.63	42.44	9.10	50.06	74.00	-23.94	Peak	HORIZONTAL
11251.00	45.15	38.15	42.34	9.48	50.44	74.00	-23.56	Peak	HORIZONTAL
12050.00	45.94	38.41	42.25	10.07	52.17	74.00	-21.83	Peak	HORIZONTAL
12849.00	44.76	38.78	41.41	11.18	53.31	74.00	-20.69	Peak	HORIZONTAL
4876.00	45.76	34.26	43.46	6.41	42.97	74.00	-31.03	Peak	VERTICAL
7239.00	45.29	36.09	42.90	8.87	47.35	74.00	-26.65	Peak	VERTICAL
9670.00	45.33	37.54	42.46	9.03	49.44	74.00	-24.56	Peak	VERTICAL
11149.00	44.53	38.13	42.34	9.40	49.72	74.00	-24.28	Peak	VERTICAL
12356.00	45.35	38.47	41.92	10.49	52.39	74.00	-21.61	Peak	VERTICAL
12832.00	45.10	38.77	41.43	11.16	53.60	74.00	-20.40	Peak	VERTICAL
11a CH157									
6355.00	45.57	35.49	43.04	7.59	45.61	74.00	-28.39	Peak	HORIZONTAL
7800.00	45.64	36.48	42.83	9.16	48.45	74.00	-25.55	Peak	HORIZONTAL
9874.00	44.75	37.70	42.42	9.15	49.18	74.00	-24.82	Peak	HORIZONTAL
11285.00	44.50	38.16	42.33	9.50	49.83	74.00	-24.17	Peak	HORIZONTAL
12050.00	46.15	38.41	42.25	10.07	52.38	74.00	-21.62	Peak	HORIZONTAL
13291.00	43.98	39.37	40.97	11.15	53.53	74.00	-20.47	Peak	HORIZONTAL
5454.00	45.92	34.77	43.26	6.74	44.17	74.00	-29.83	Peak	VERTICAL
6899.00	46.66	35.84	42.95	8.56	48.11	74.00	-25.89	Peak	VERTICAL
8089.00	45.61	36.67	42.78	9.21	48.71	74.00	-25.29	Peak	VERTICAL
9755.00	45.31	37.61	42.44	9.08	49.56	74.00	-24.44	Peak	VERTICAL
12050.00	45.89	38.41	42.25	10.07	52.12	74.00	-21.88	Peak	VERTICAL
13376.00	44.00	39.50	40.89	11.07	53.68	74.00	-20.32	Peak	VERTICAL
11a CH165									
5539.00	45.15	34.83	43.24	6.78	43.52	74.00	-30.48	Peak	HORIZONTAL
7851.00	45.41	36.51	42.82	9.19	48.29	74.00	-25.71	Peak	HORIZONTAL
9755.00	44.91	37.61	42.44	9.08	49.16	74.00	-24.84	Peak	HORIZONTAL
10435.00	45.57	37.63	42.38	9.26	50.08	74.00	-23.92	Peak	HORIZONTAL
12424.00	45.32	38.49	41.85	10.59	52.55	74.00	-21.45	Peak	HORIZONTAL
12951.00	44.58	38.86	41.31	11.32	53.45	74.00	-20.55	Peak	HORIZONTAL
5131.00	45.90	34.58	43.37	6.61	43.72	74.00	-30.28	Peak	VERTICAL
7290.00	45.56	36.14	42.90	8.89	47.69	74.00	-26.31	Peak	VERTICAL
9755.00	45.19	37.61	42.44	9.08	49.44	74.00	-24.56	Peak	VERTICAL
10401.00	45.59	37.64	42.38	9.26	50.11	74.00	-23.89	Peak	VERTICAL
12050.00	45.84	38.41	42.25	10.07	52.07	74.00	-21.93	Peak	VERTICAL
13376.00	43.70	39.50	40.89	11.07	53.38	74.00	-20.62	Peak	VERTICAL
Conclusion: Pass									
Note: $-27 \text{ dBm/MHz Limit} = 95.2 + \text{EIRP}[\text{dBm}] = 95.2 - 27 = 68.2 \text{ dBμV/m}$ For transmitters operating in the 5150 MHz - 5250 MHz, 5250 MHz - 5350 MHz, 5470 MHz - 5725 MHz, 5725 MHz - 5850 MHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.									

Note: 1. 30 MHz ~ 40 GHz: (11a, 11n20, n40, 11ac20, 11ac40, 11ac80 mode all have been tested, only 11a mode is the worst case and reported.)

2. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

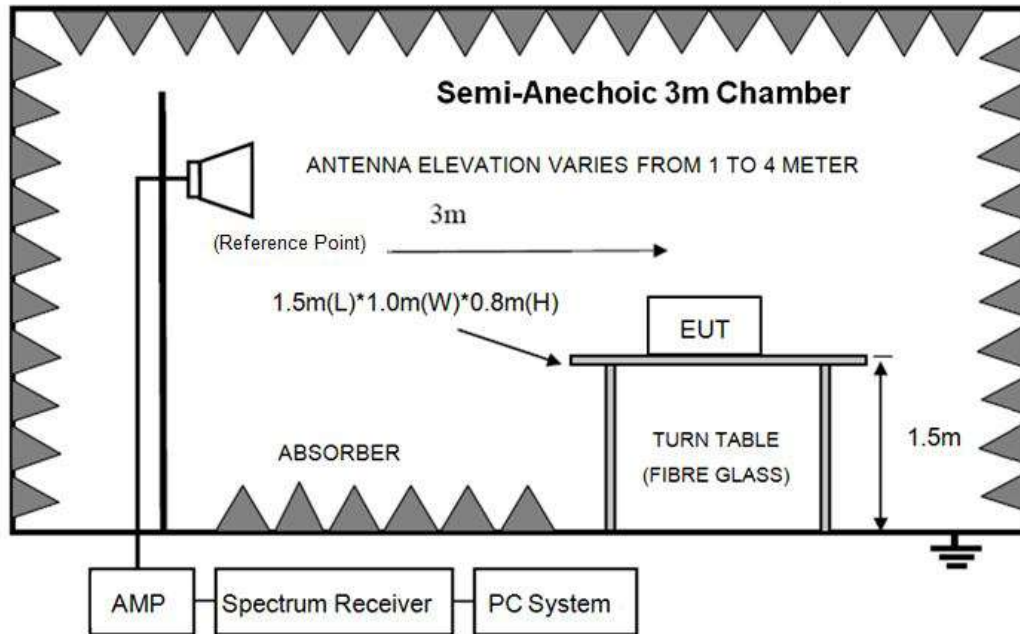
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

4. All the emissions were comply with 54 dB μ V/m for Average value in 15.209, so both for the restricted bands and non-restricted bands, all the emissions were comply with the limit.

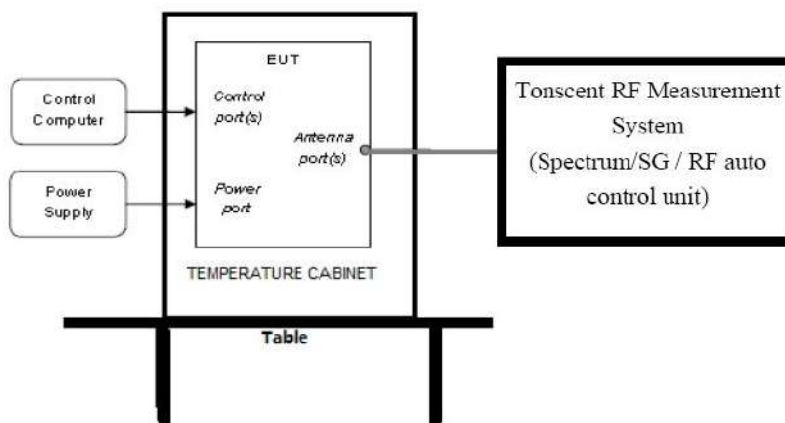
9. Band Edge Compliance

9.1. Block diagram of test setup

Radiated measurement:



Conducted measurement:



9.2. Limit

For transmitters operating in the 5.15 - 5.25 GHz and 5.725 - 5.85 GHz band: all emissions outside of the 5.15 - 5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

$$-27 \text{ dBm/MHz Limit} = 95.2 + \text{EIRP}[\text{dBm}] = 95.2 - 27 = 68.2 \text{ dB}\mu\text{V/m}$$

9.3. Test procedure

Same with clause 8.3 except change investigated frequency range from 5.15 - 5.25 GHz, 5250 - 5350 GHz, 5470 - 5725 GHz, 5.725 - 5.85 GHz.

Remark: All restriction band have been tested, and only the worst case is shown in report.

9.4. Test result

PASS. (See below detailed test result)

Note: As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

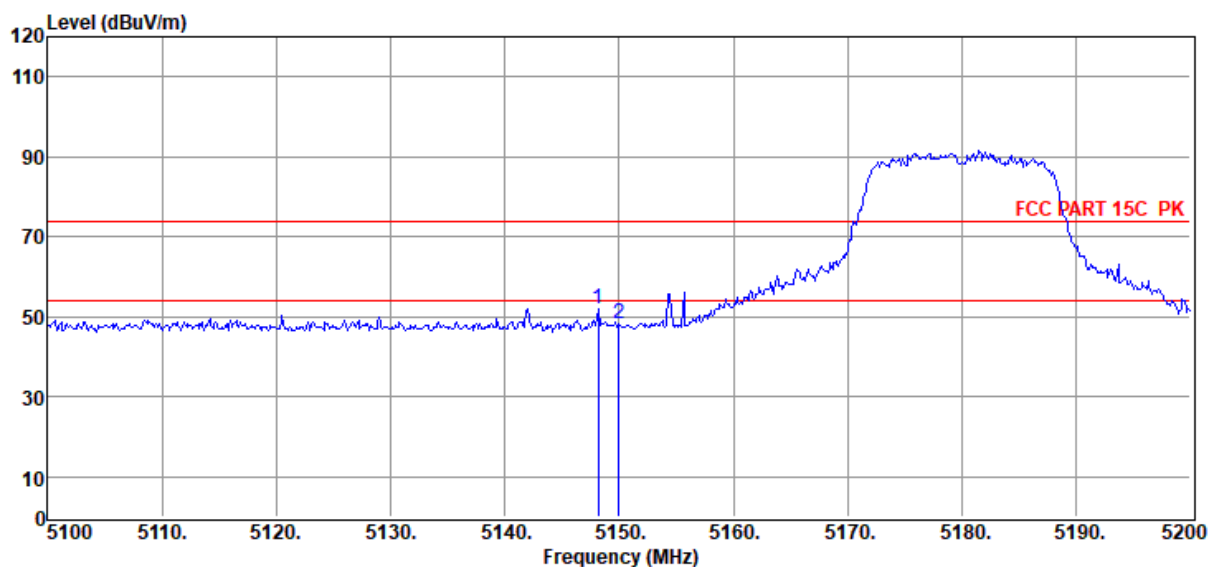
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11A 5180 POWER15

Data: 53



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5148.20	54.12	34.59	43.36	6.62	51.97	74.00	-22.03	Peak	HORIZONTAL
2	5150.00	50.55	34.59	43.36	6.62	48.40	74.00	-25.60	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

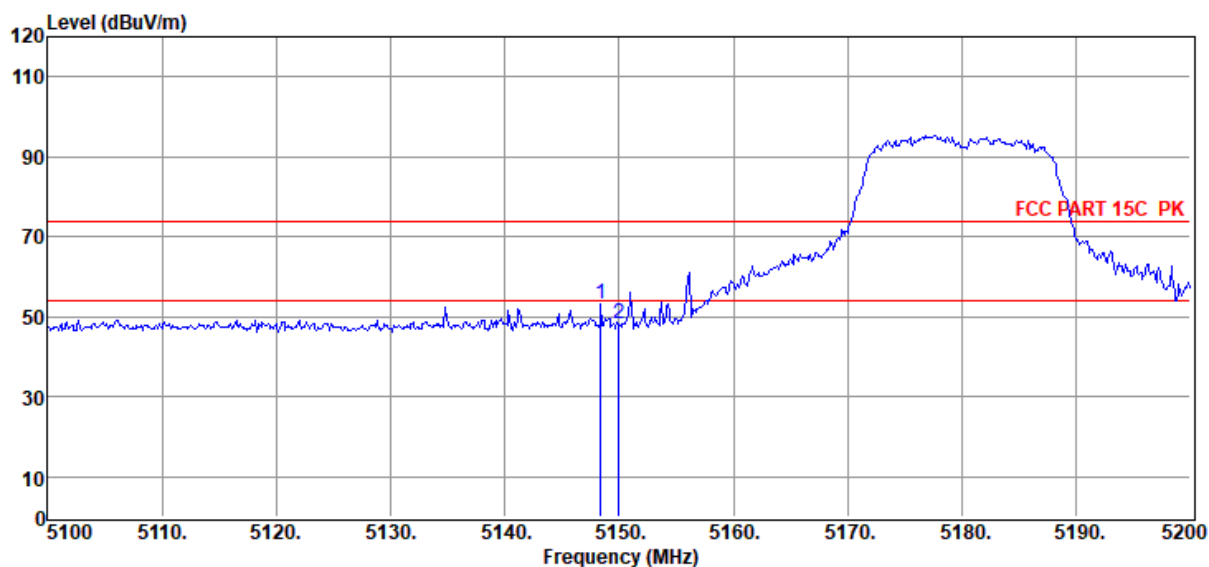
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11A 5180 POWER15

Data: 54



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5148.40	55.19	34.59	43.36	6.62	53.04	74.00	-20.96	Peak	VERTICAL
2	5150.00	50.29	34.59	43.36	6.62	48.14	74.00	-25.86	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

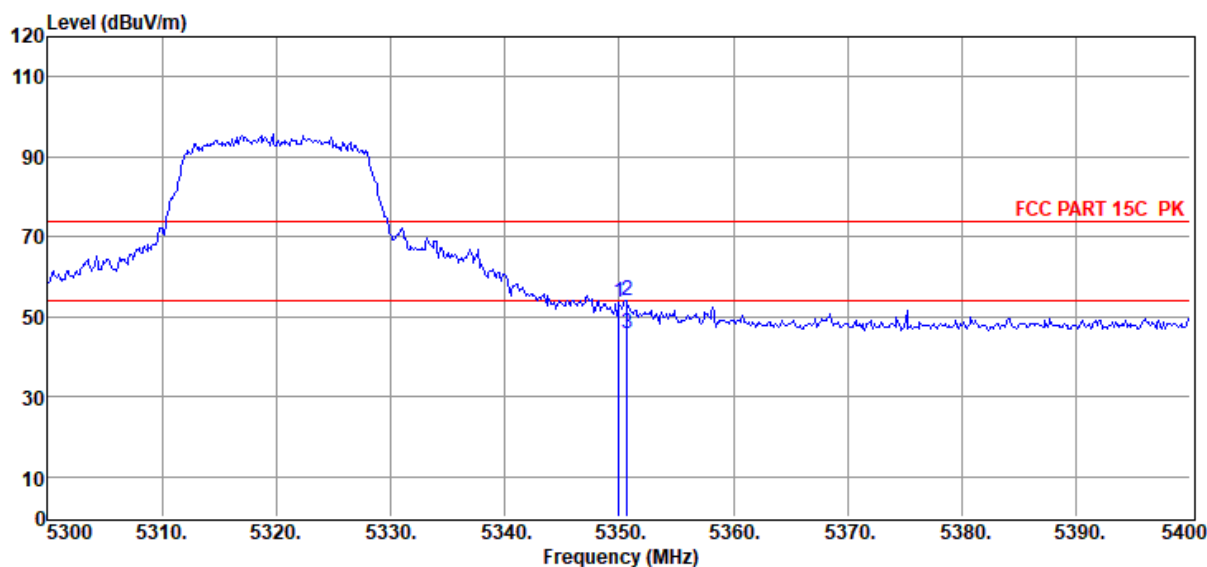
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11A 5320 POWER15

Data: 55



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	55.56	34.71	43.30	6.70	53.67	74.00	-20.33	Peak	VERTICAL
2	5350.70	56.11	34.71	43.30	6.70	54.22	74.00	-19.78	Peak	VERTICAL
3	5350.70	47.64	34.71	43.30	6.70	45.75	54.00	-8.25	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

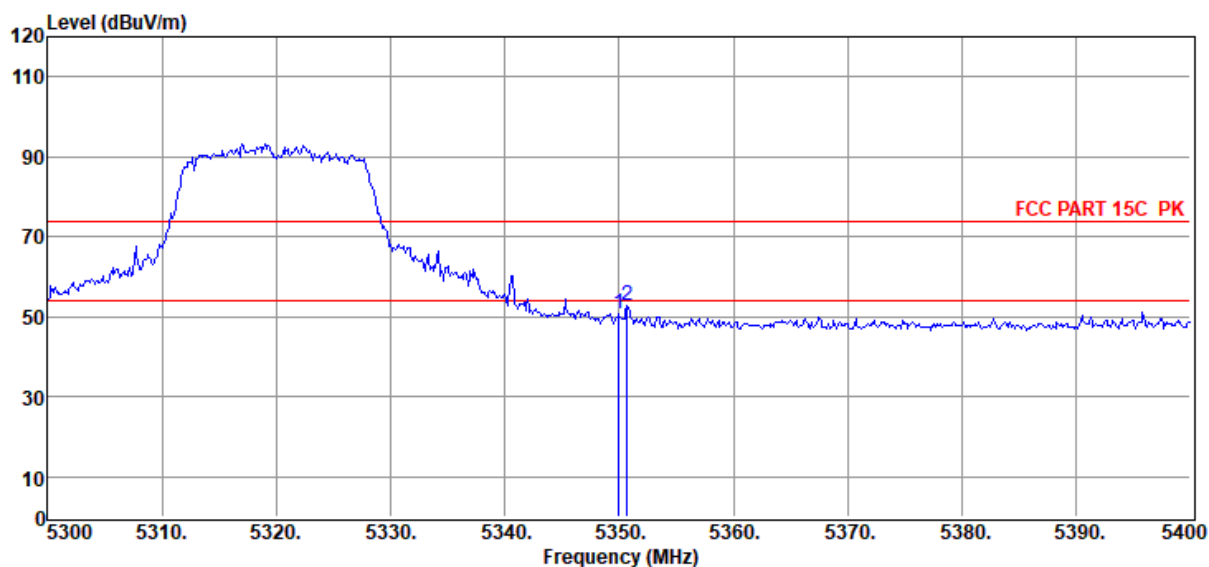
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11A 5320 POWER15

Data: 56



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	52.45	34.71	43.30	6.70	50.56	74.00	-23.44	Peak	HORIZONTAL
2	5350.70	54.80	34.71	43.30	6.70	52.91	74.00	-21.09	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

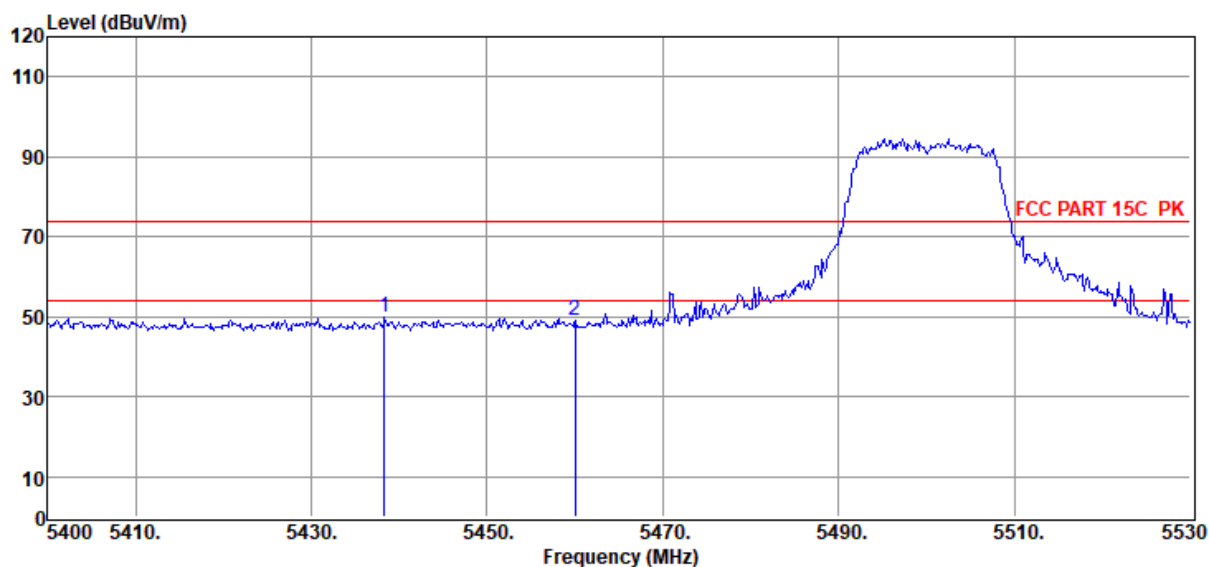
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11A 5500 POWER15

Data: 57



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5438.35	51.83	34.76	43.27	6.74	50.06	74.00	-23.94	Peak	HORIZONTAL
2	5460.00	50.88	34.78	43.26	6.74	49.14	74.00	-24.86	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

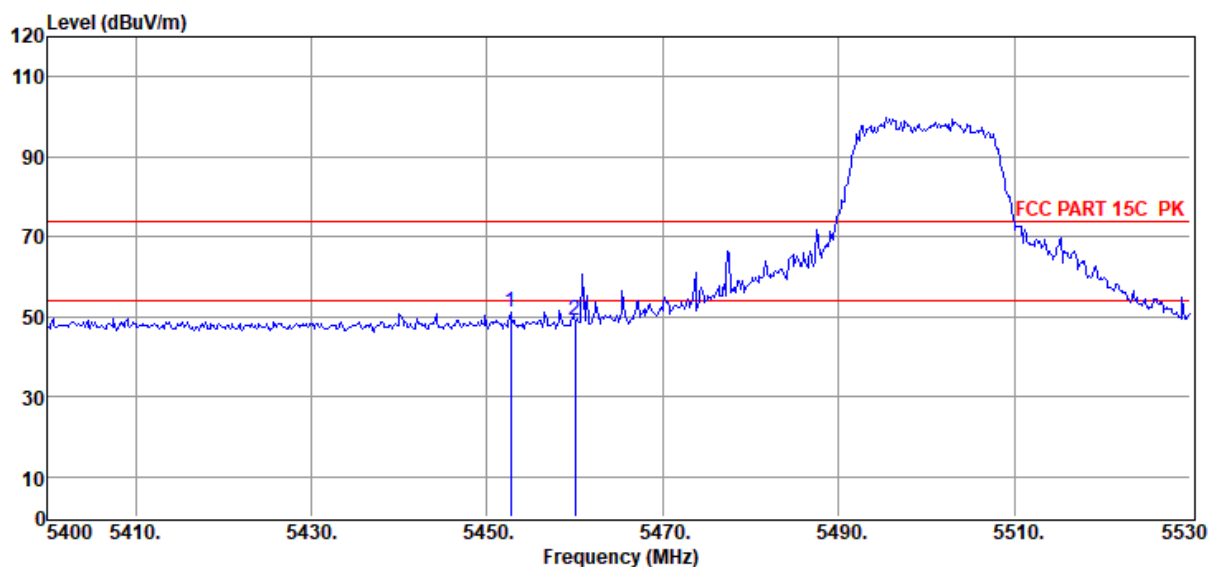
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11A 5500 POWER15

Data: 58



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5452.65	52.97	34.77	43.27	6.74	51.21	74.00	-22.79	Peak	VERTICAL
2	5460.00	50.77	34.78	43.26	6.74	49.03	74.00	-24.97	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

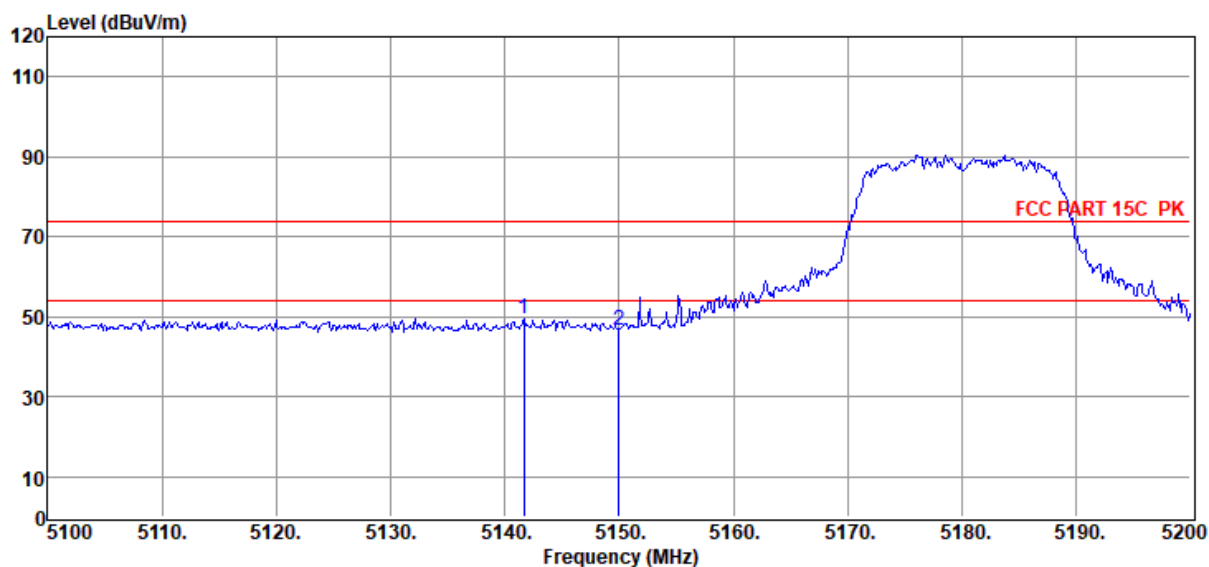
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11N20 5180 POWER15

Data: 59



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5141.70	51.61	34.59	43.37	6.62	49.45	74.00	-24.55	Peak	HORIZONTAL
2	5150.00	48.69	34.59	43.36	6.62	46.54	74.00	-27.46	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

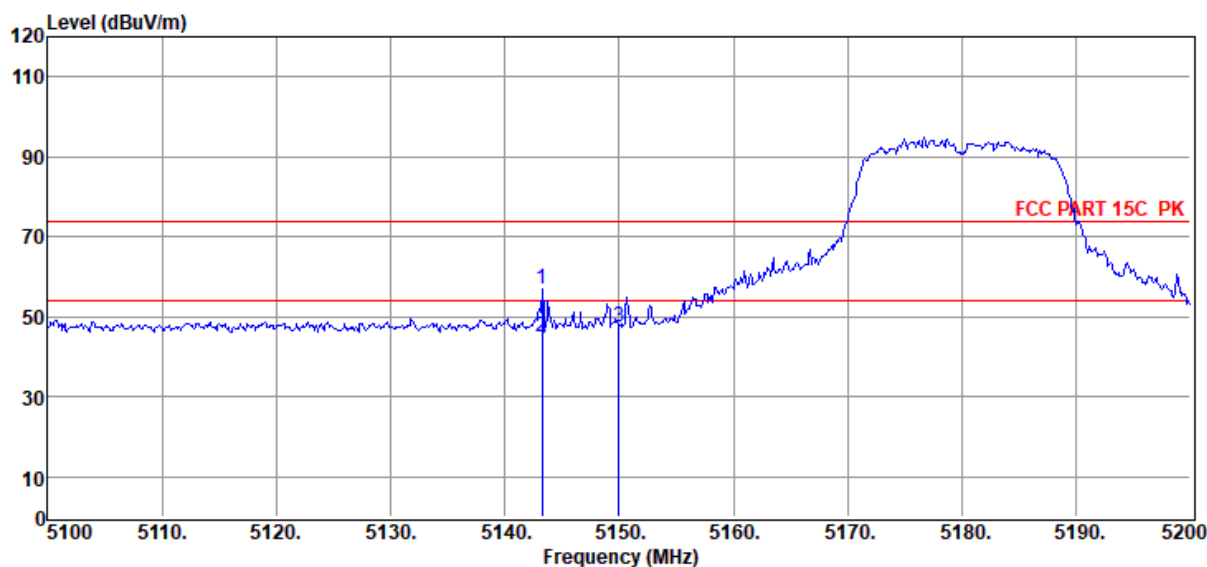
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11N20 5180 POWER15

Data: 60



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5143.30	59.16	34.59	43.37	6.62	57.00	74.00	-17.00	Peak	VERTICAL
2	5143.30	47.30	34.59	43.37	6.62	45.14	54.00	-8.86	Average	VERTICAL
3	5150.00	49.67	34.59	43.36	6.62	47.52	74.00	-26.48	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

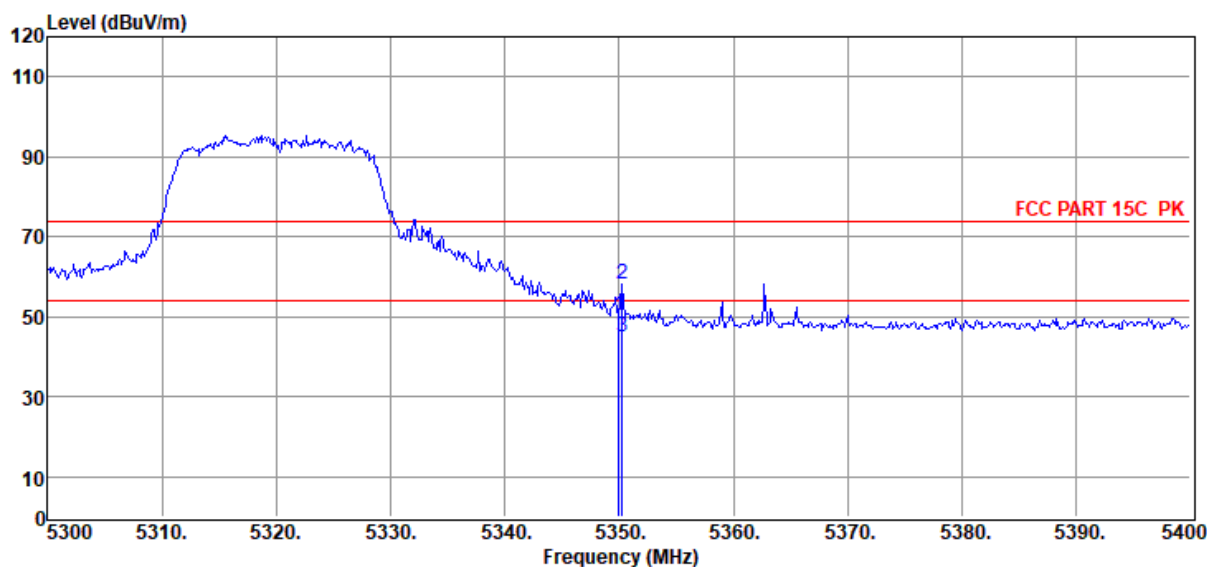
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11N20 5320 POWER15

Data: 61



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	52.36	34.71	43.30	6.70	50.47	74.00	-23.53	Peak	VERTICAL
2	5350.30	60.18	34.71	43.30	6.70	58.29	74.00	-15.71	Peak	VERTICAL
3	5350.30	47.04	34.71	43.30	6.70	45.15	54.00	-8.85	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

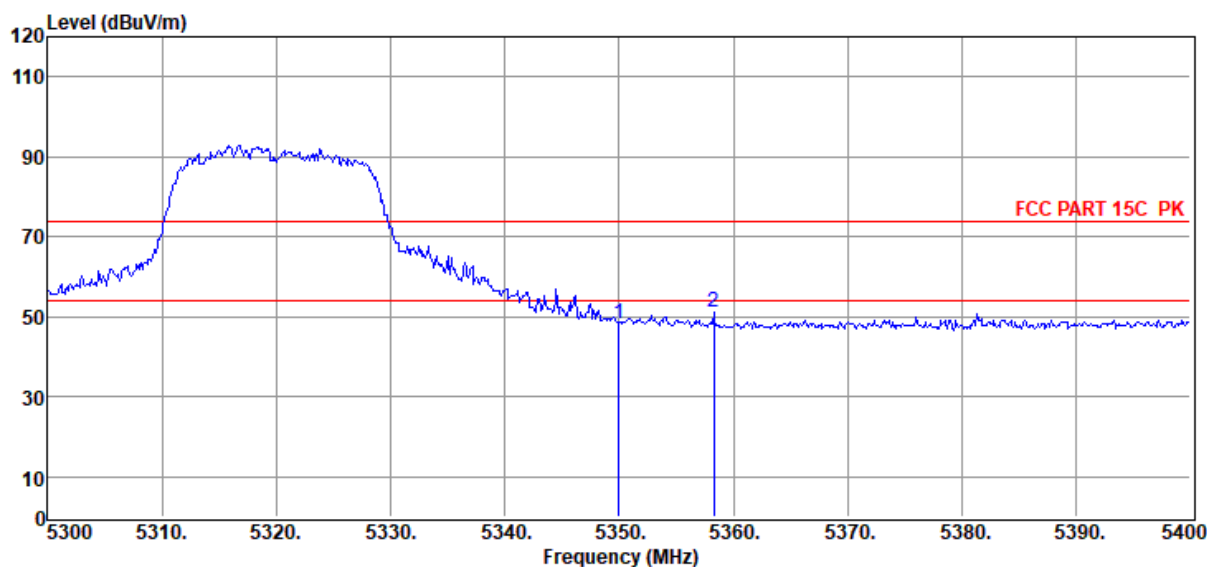
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11N20 5320 POWER15

Data: 62



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	50.33	34.71	43.30	6.70	48.44	74.00	-25.56	Peak	HORIZONTAL
2	5358.30	53.17	34.72	43.30	6.70	51.29	74.00	-22.71	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

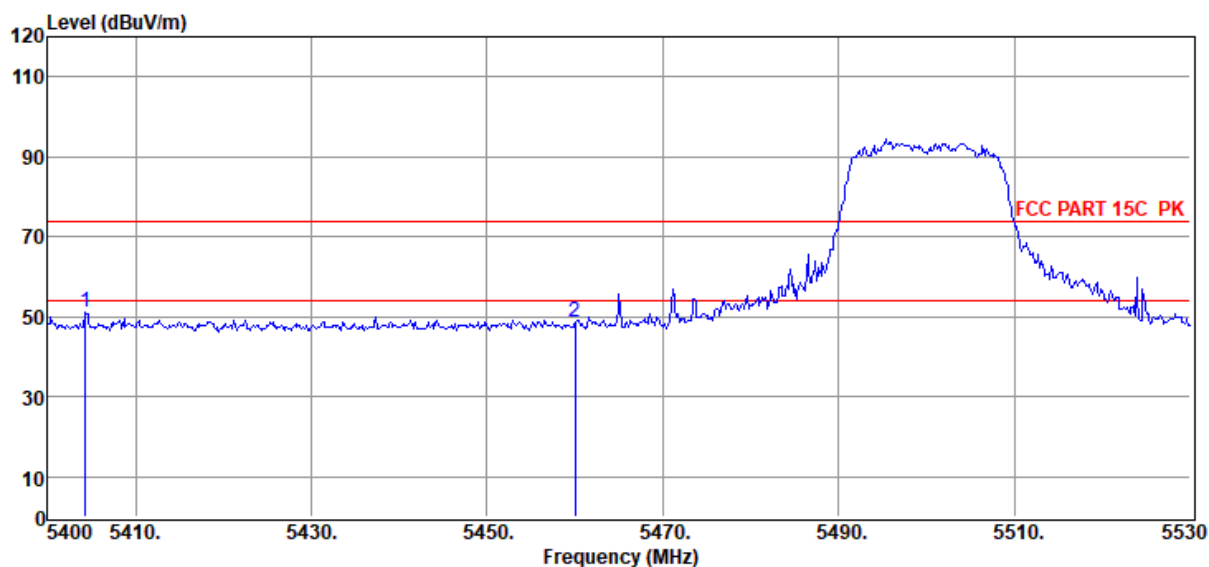
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11N20 5500 POWER15

Data: 63



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5404.29	52.79	34.74	43.28	6.72	50.97	74.00	-23.03	Peak	HORIZONTAL
2	5460.00	50.26	34.78	43.26	6.74	48.52	74.00	-25.48	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

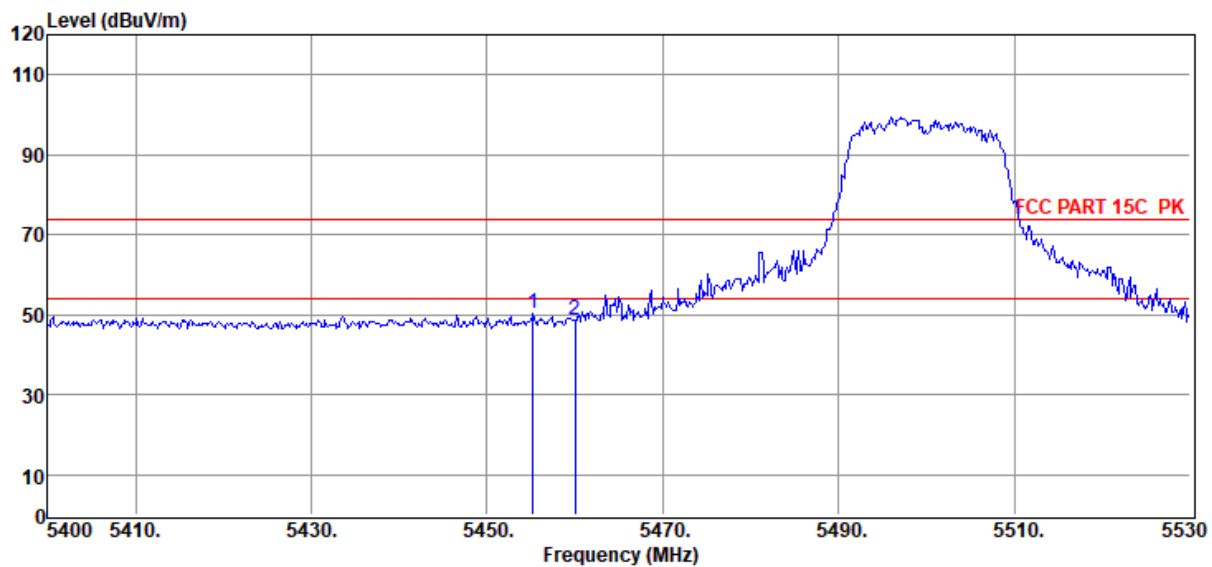
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11N20 5500 POWER15

Data: 64



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5455.25	51.90	34.77	43.26	6.74	50.15	74.00	-23.85	Peak	VERTICAL
2	5460.00	50.22	34.78	43.26	6.74	48.48	74.00	-25.52	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

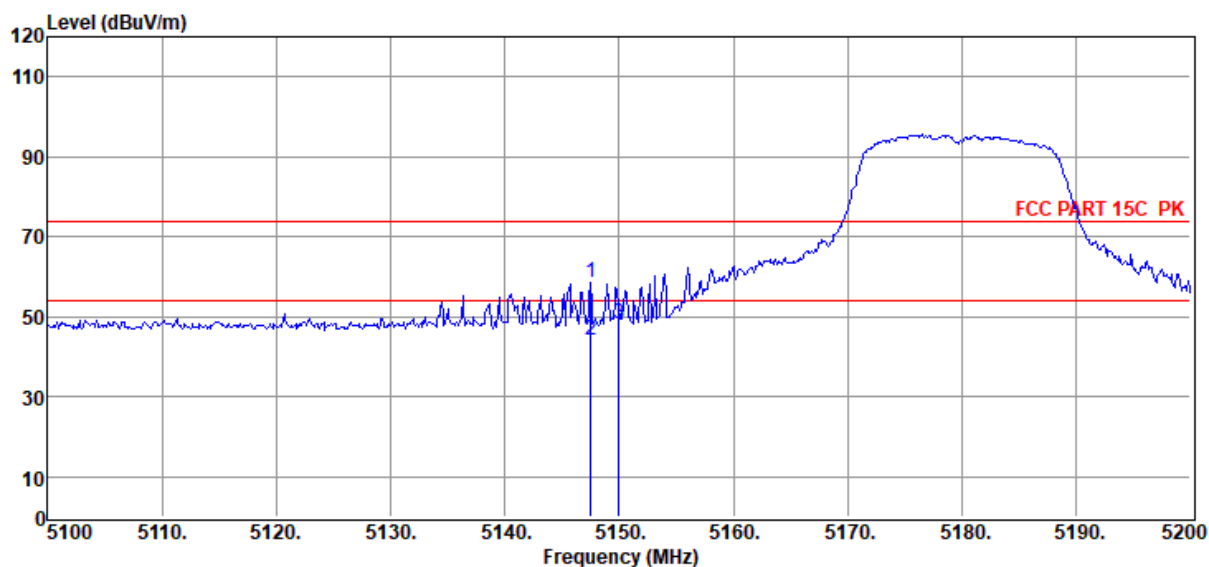
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11AC20 5180 POWER15

Data: 65



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5147.50	60.57	34.59	43.36	6.62	58.42	74.00	-15.58	Peak	VERTICAL
2	5147.50	46.39	34.59	43.36	6.62	44.24	54.00	-9.76	Average	VERTICAL
3	5150.00	50.60	34.59	43.36	6.62	48.45	74.00	-25.55	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

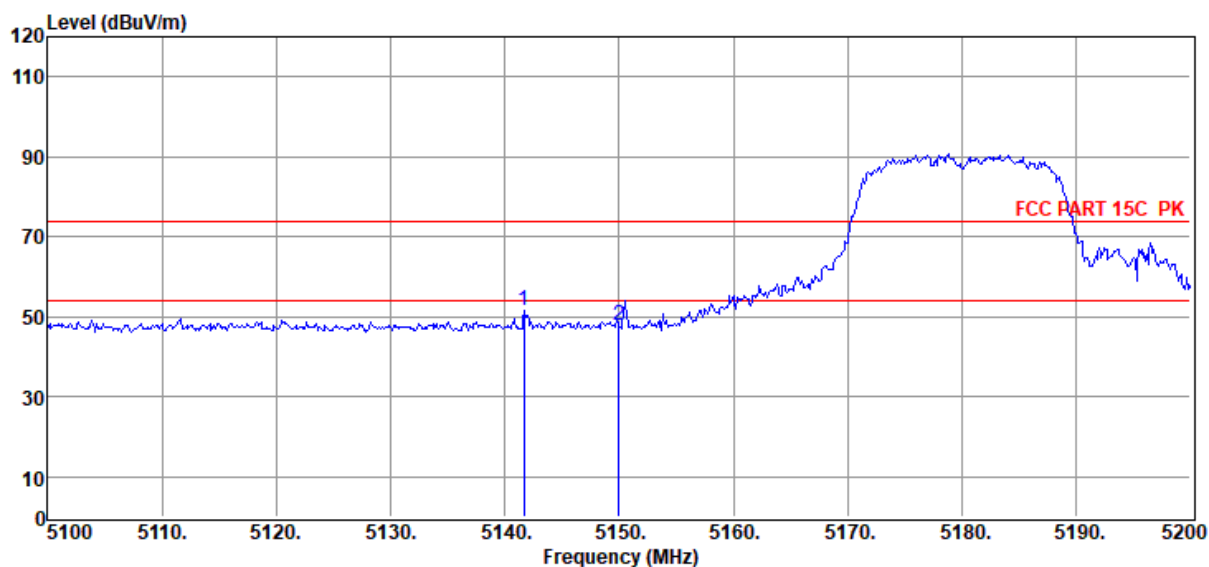
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11AC20 5180 POWER15

Data: 66



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5141.70	53.81	34.59	43.37	6.62	51.65	74.00	-22.35	Peak	HORIZONTAL
2	5150.00	50.07	34.59	43.36	6.62	47.92	74.00	-26.08	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

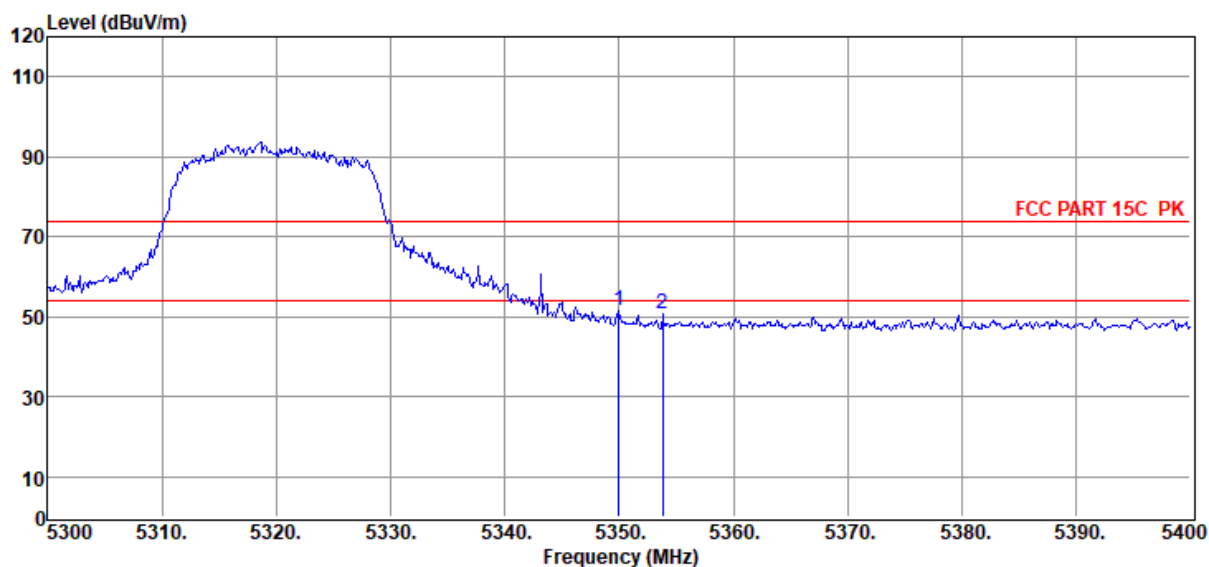
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11AC20 5320 POWER15

Data: 67



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	53.55	34.71	43.30	6.70	51.66	74.00	-22.34	Peak	HORIZONTAL
2	5353.80	52.79	34.72	43.30	6.70	50.91	74.00	-23.09	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

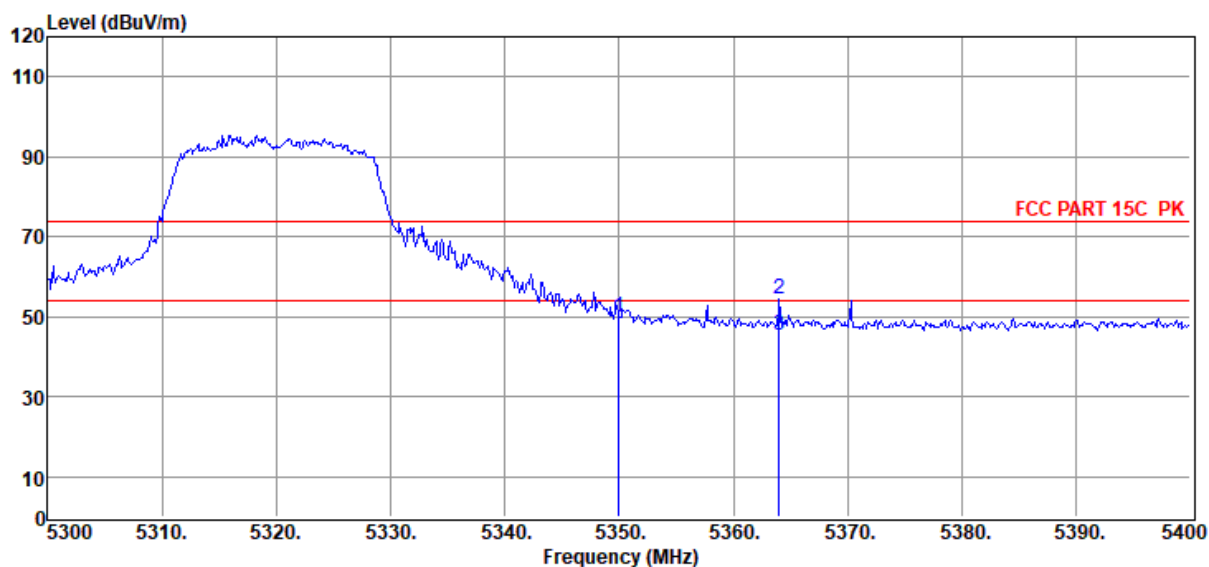
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11AC20 5320 POWER15

Data: 68



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	51.77	34.71	43.30	6.70	49.88	74.00	-24.12	Peak	VERTICAL
2	5364.00	56.29	34.72	43.29	6.71	54.43	74.00	-19.57	Peak	VERTICAL
3	5364.00	47.21	34.72	43.29	6.71	45.35	54.00	-8.65	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

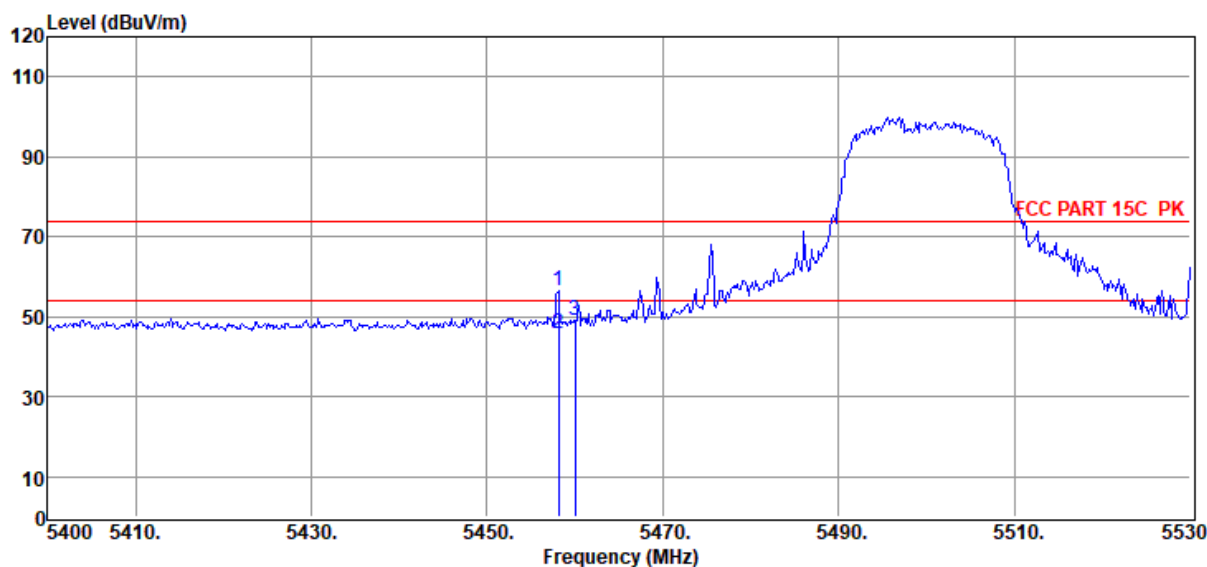
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11AC20 5500 POWER15

Data: 69



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5458.11	58.30	34.78	43.26	6.74	56.56	74.00	-17.44	Peak	VERTICAL
2	5458.11	47.40	34.78	43.26	6.74	45.66	54.00	-8.34	Average	VERTICAL
3	5460.00	50.77	34.78	43.26	6.74	49.03	74.00	-24.97	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

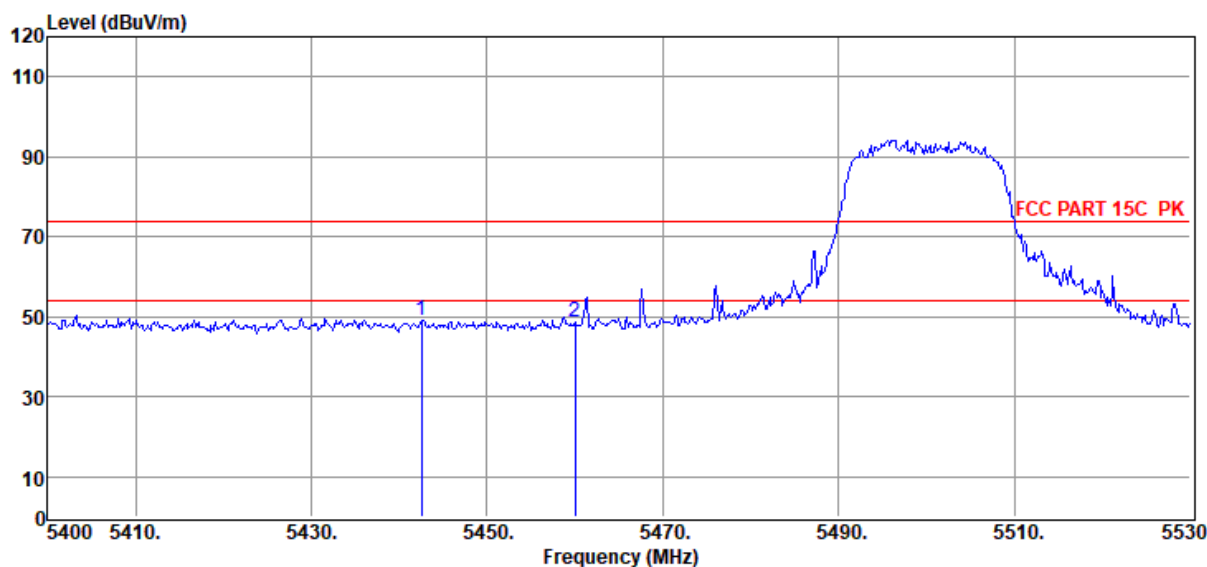
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11AC20 5500 POWER15

Data: 70



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5442.51	51.04	34.77	43.27	6.74	49.28	74.00	-24.72	Peak	HORIZONTAL
2	5460.00	50.53	34.78	43.26	6.74	48.79	74.00	-25.21	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

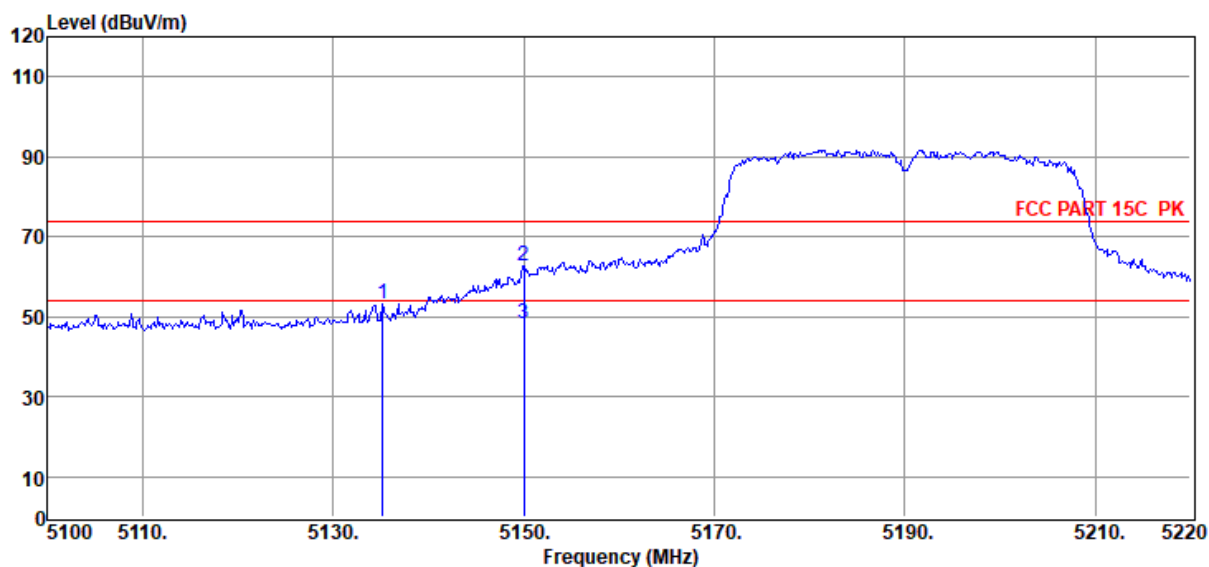
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11N40 5190 POWER14

Data: 71



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5135.16	55.48	34.58	43.37	6.61	53.30	74.00	-20.70	Peak	VERTICAL
2	5150.00	64.91	34.59	43.36	6.62	62.76	74.00	-11.24	Peak	VERTICAL
3	5150.00	50.30	34.59	43.36	6.62	48.15	54.00	-5.85	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

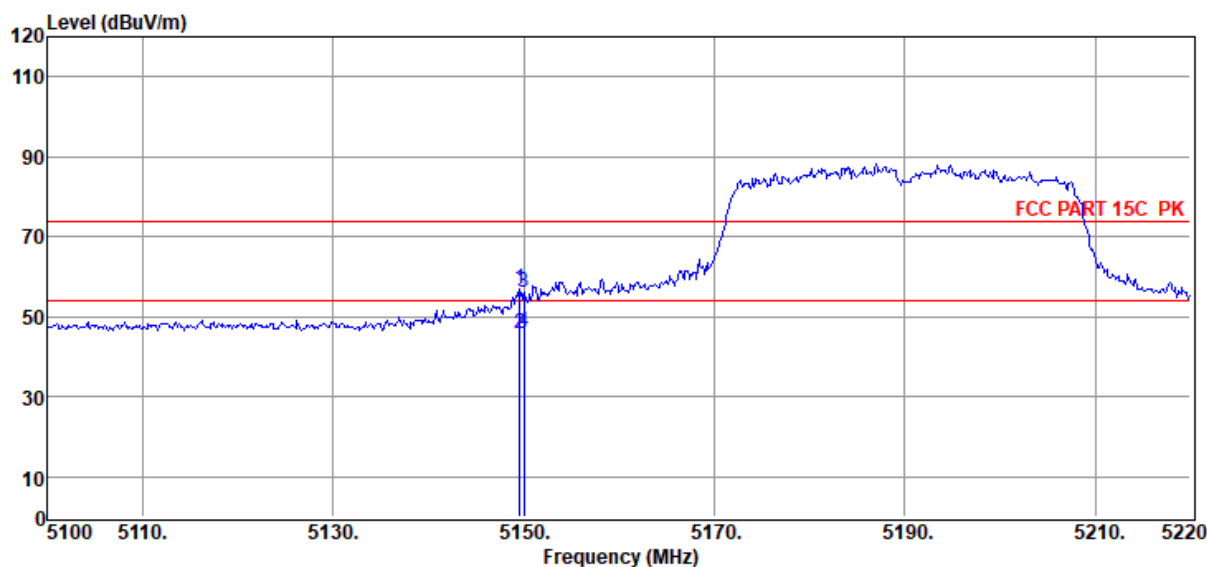
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11N40 5190 POWER14

Data: 72



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5149.56	59.24	34.59	43.36	6.62	57.09	74.00	-16.91	Peak	HORIZONTAL
2	5149.56	48.00	34.59	43.36	6.62	45.85	54.00	-8.15	Average	HORIZONTAL
3	5150.00	58.10	34.59	43.36	6.62	55.95	74.00	-18.05	Peak	HORIZONTAL
4	5150.00	48.30	34.59	43.36	6.62	46.15	54.00	-7.85	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

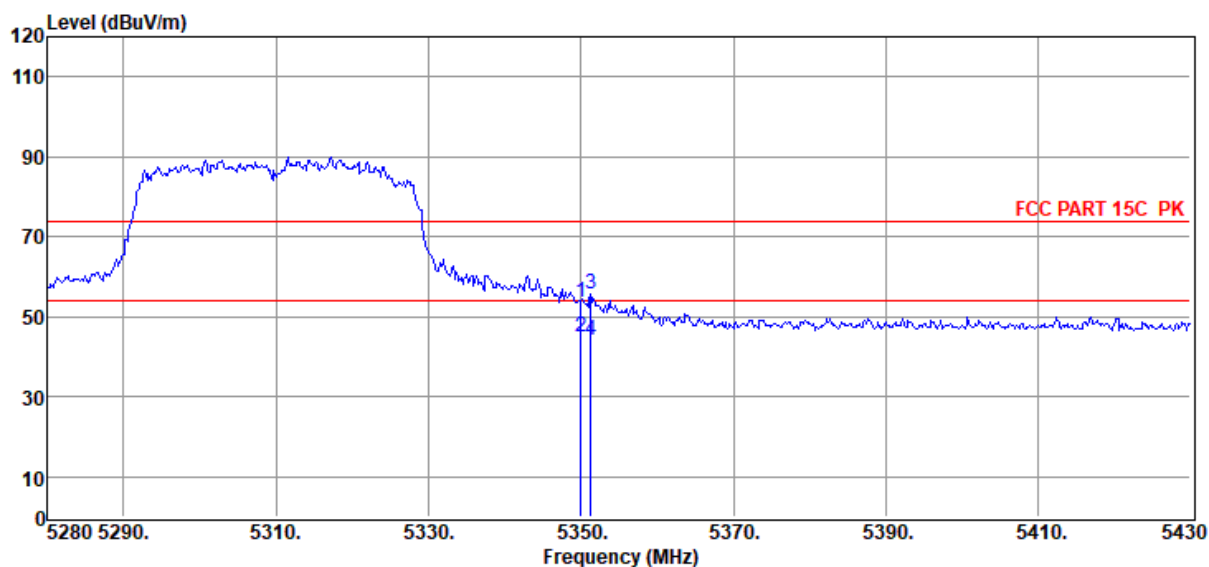
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11N40 5310 POWER14

Data: 73



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	55.45	34.71	43.30	6.70	53.56	74.00	-20.44	Peak	HORIZONTAL
2	5350.00	47.01	34.71	43.30	6.70	45.12	54.00	-8.88	Average	HORIZONTAL
3	5351.25	57.47	34.71	43.30	6.70	55.58	74.00	-18.42	Peak	HORIZONTAL
4	5351.25	46.11	34.71	43.30	6.70	44.22	54.00	-9.78	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

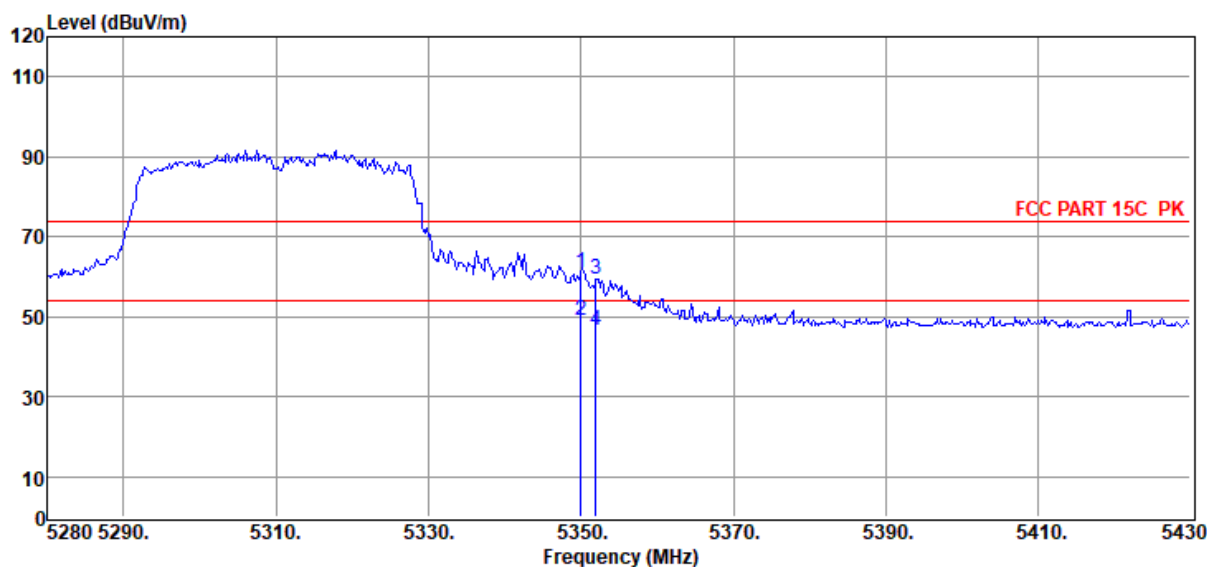
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11N40 5310 POWER14

Data: 74



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	63.08	34.71	43.30	6.70	61.19	74.00	-12.81	Peak	VERTICAL
2	5350.00	50.99	34.71	43.30	6.70	49.10	54.00	-4.90	Average	VERTICAL
3	5352.00	61.43	34.71	43.30	6.70	59.54	74.00	-14.46	Peak	VERTICAL
4	5352.00	48.31	34.71	43.30	6.70	46.42	54.00	-7.58	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

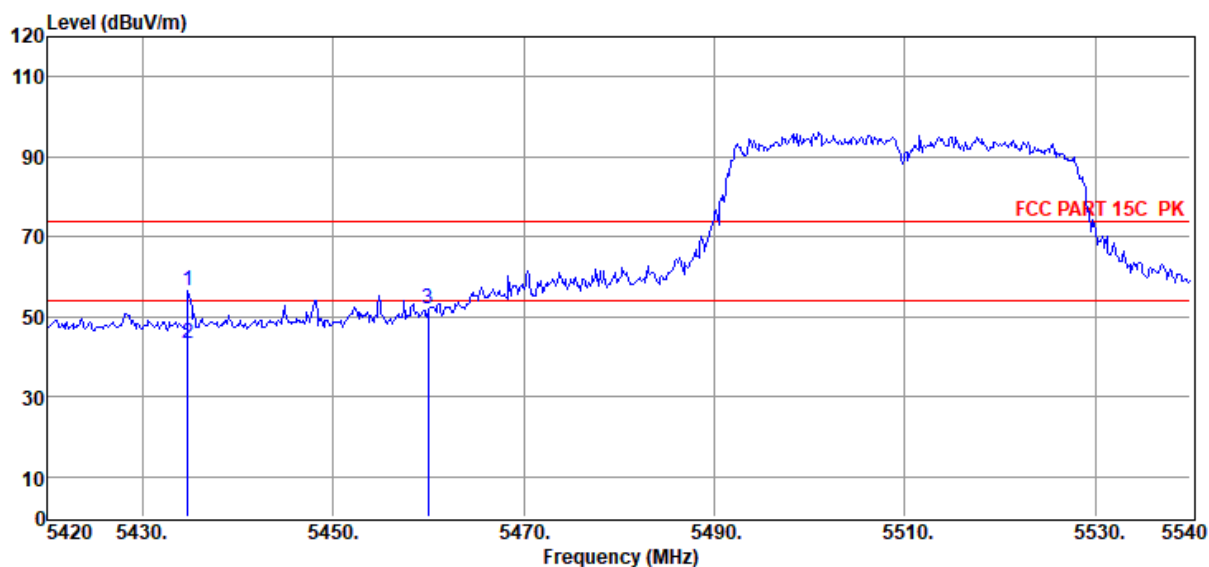
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11N40 5510 POWER14

Data: 75



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5434.76	58.09	34.76	43.27	6.73	56.31	74.00	-17.69	Peak	VERTICAL
2	5434.76	45.21	34.76	43.27	6.73	43.43	54.00	-10.57	Average	VERTICAL
3	5460.00	53.51	34.78	43.26	6.74	51.77	74.00	-22.23	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

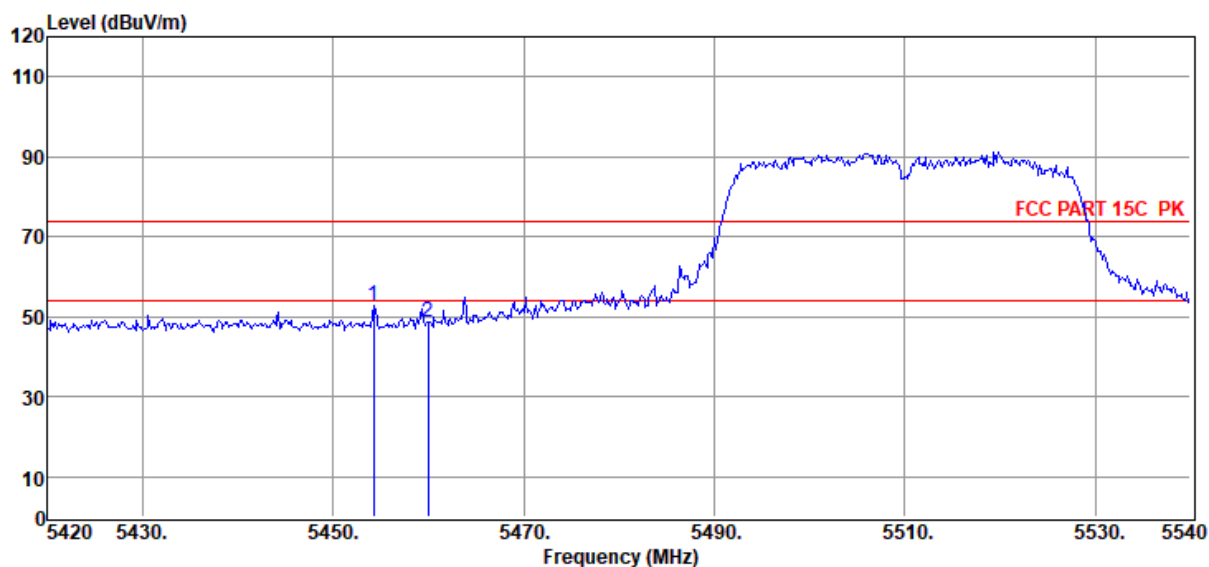
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11N40 5510 POWER14

Data: 76



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5454.20	54.69	34.77	43.26	6.74	52.94	74.00	-21.06	Peak	HORIZONTAL
2	5459.96	50.48	34.78	43.26	6.74	48.74	74.00	-25.26	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

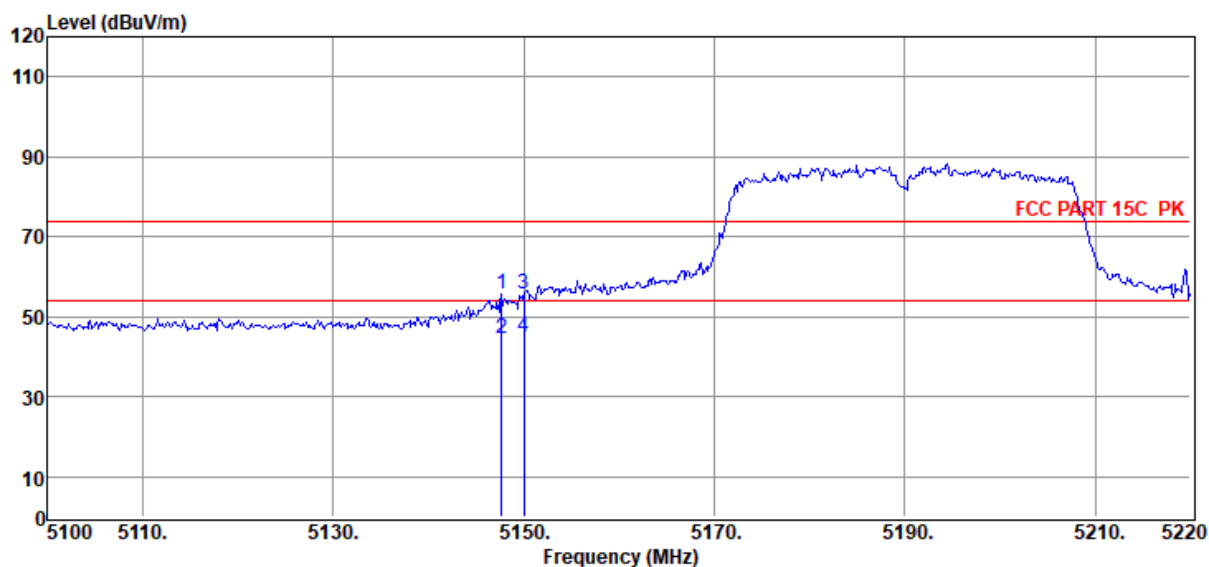
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11AC40 5190 POWER14

Data: 77



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5147.64	57.86	34.59	43.36	6.62	55.71	74.00	-18.29	Peak	HORIZONTAL
2	5147.64	46.60	34.59	43.36	6.62	44.45	54.00	-9.55	Average	HORIZONTAL
3	5150.00	57.65	34.59	43.36	6.62	55.50	74.00	-18.50	Peak	HORIZONTAL
4	5150.00	47.25	34.59	43.36	6.62	45.10	54.00	-8.90	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

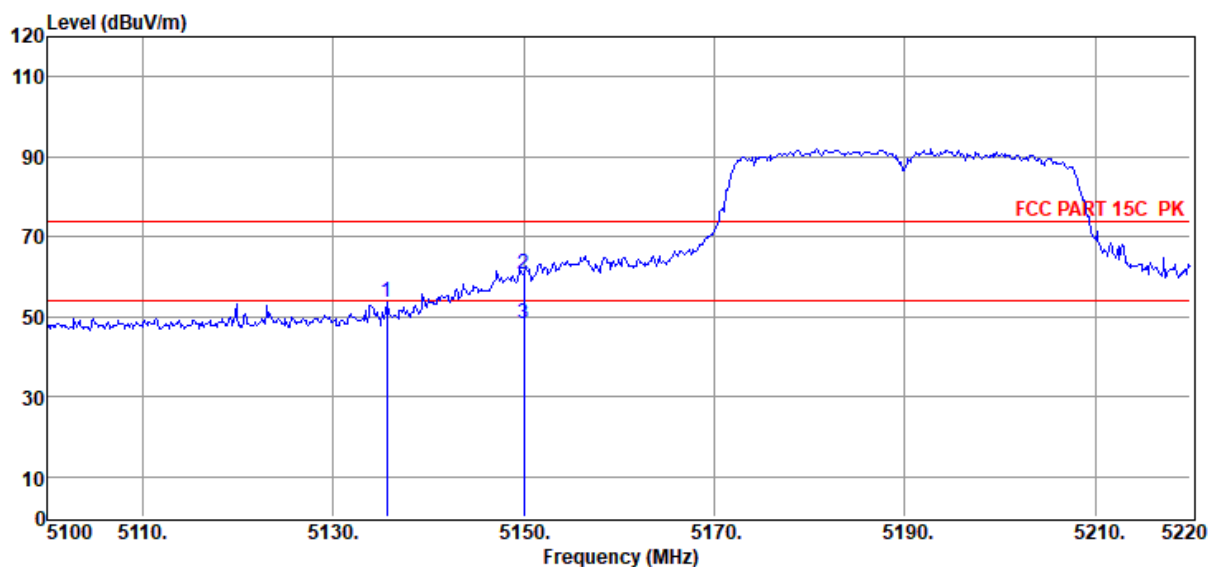
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11AC40 5190 POWER14

Data: 78



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5135.64	55.75	34.58	43.37	6.61	53.57	74.00	-20.43	Peak	VERTICAL
2	5150.00	62.94	34.59	43.36	6.62	60.79	74.00	-13.21	Peak	VERTICAL
3	5150.00	50.34	34.59	43.36	6.62	48.19	54.00	-5.81	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

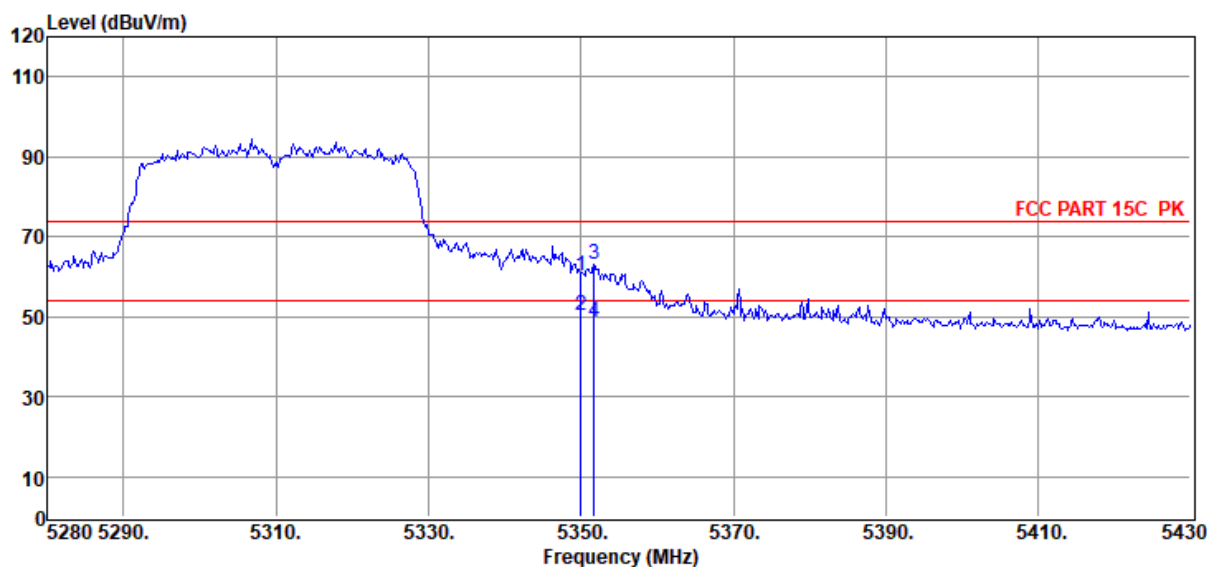
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11AC40 5310 POWER14

Data: 79



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	62.11	34.71	43.30	6.70	60.22	74.00	-13.78	Peak	VERTICAL
2	5350.00	52.31	34.71	43.30	6.70	50.42	54.00	-3.58	Average	VERTICAL
3	5351.70	64.98	34.71	43.30	6.70	63.09	74.00	-10.91	Peak	VERTICAL
4	5351.70	50.61	34.71	43.30	6.70	48.72	54.00	-5.28	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

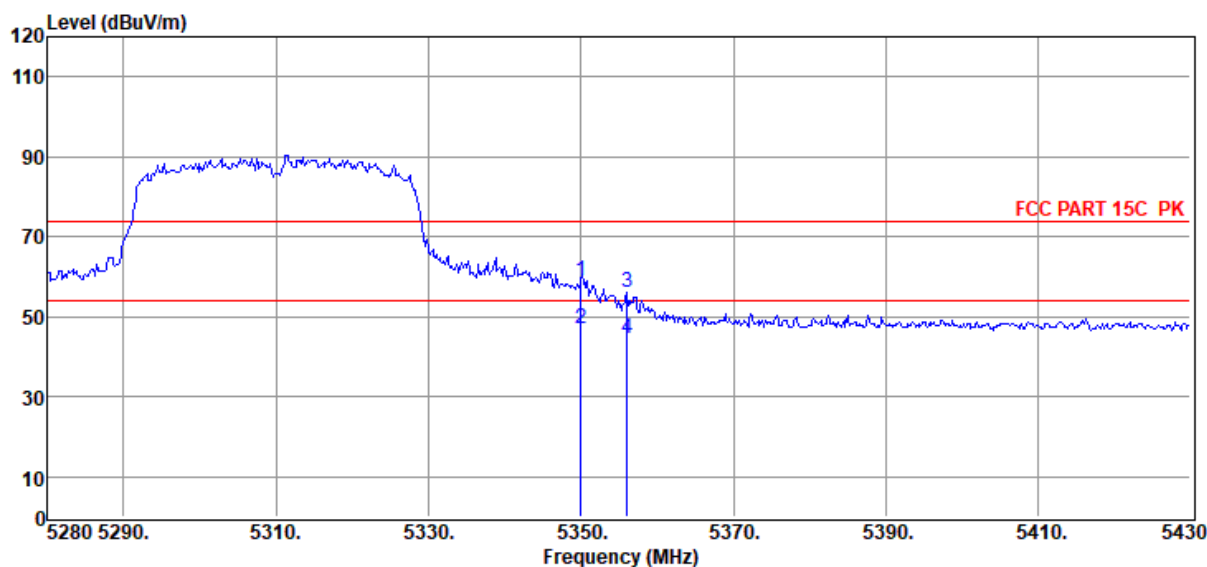
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11AC40 5310 POWER14

Data: 80



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	60.95	34.71	43.30	6.70	59.06	74.00	-14.94	Peak	HORIZONTAL
2	5350.00	49.11	34.71	43.30	6.70	47.22	54.00	-6.78	Average	HORIZONTAL
3	5356.05	58.07	34.72	43.30	6.70	56.19	74.00	-17.81	Peak	HORIZONTAL
4	5356.05	46.37	34.72	43.30	6.70	44.49	54.00	-9.51	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

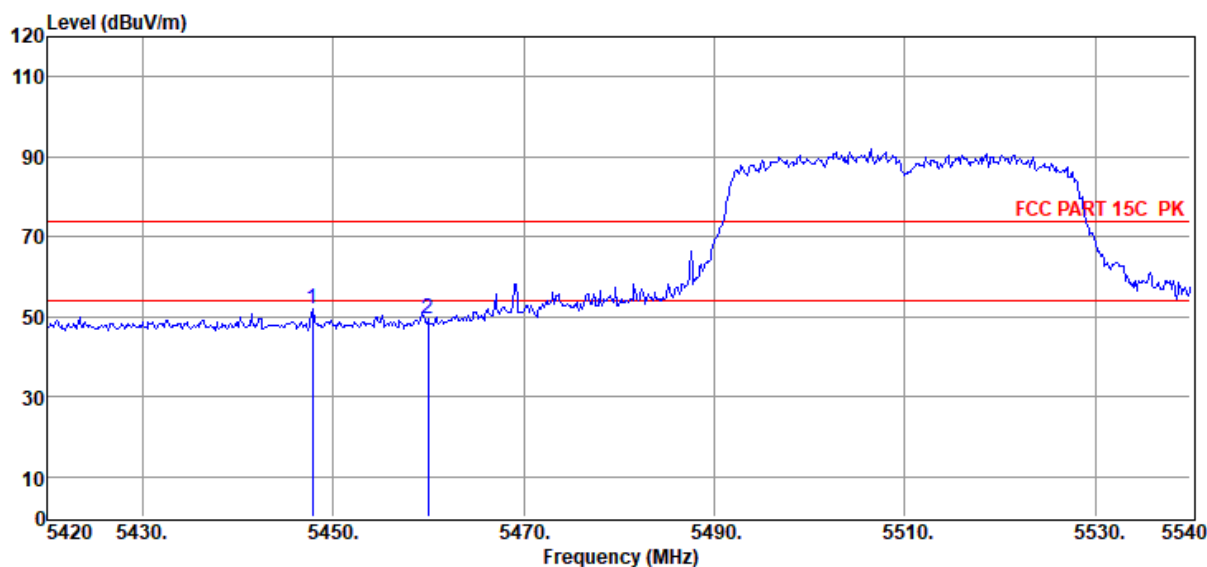
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11AC40 5510 POWER14

Data: 81



Item (Mark)	Freq. (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	5447.84	53.69	34.77	43.27	6.74	51.93	74.00	-22.07	Peak	HORIZONTAL
2	5459.96	51.08	34.78	43.26	6.74	49.34	74.00	-24.66	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

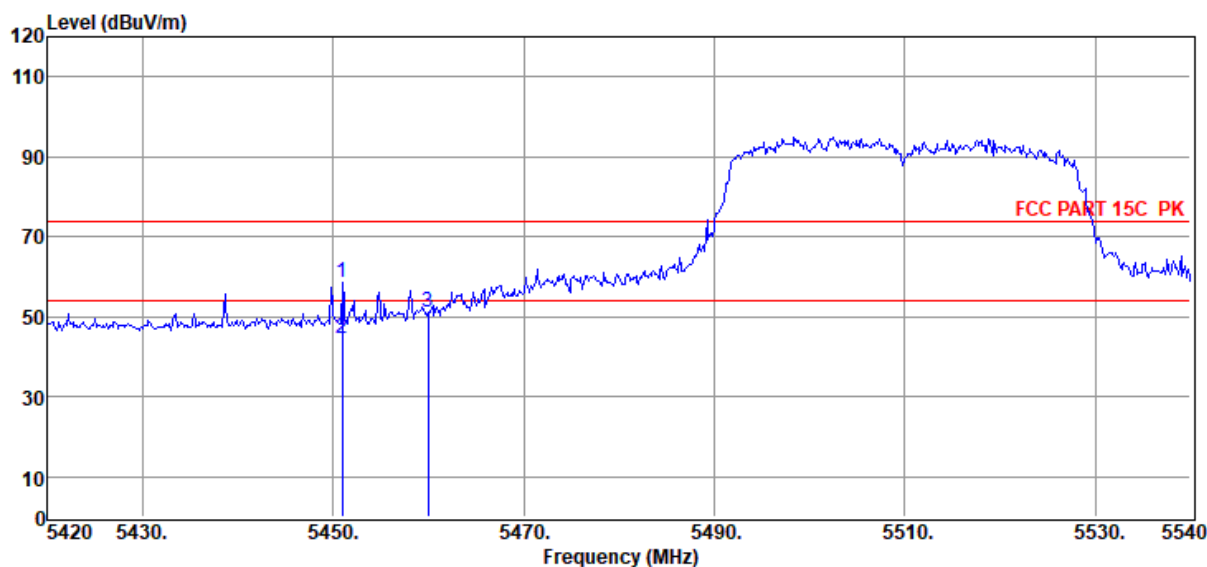
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11AC40 5510 POWER14

Data: 82



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5450.96	60.49	34.77	43.27	6.74	58.73	74.00	-15.27	Peak	VERTICAL
2	5450.96	46.11	34.77	43.27	6.74	44.35	54.00	-9.65	Average	VERTICAL
3	5460.00	52.96	34.78	43.26	6.74	51.22	74.00	-22.78	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

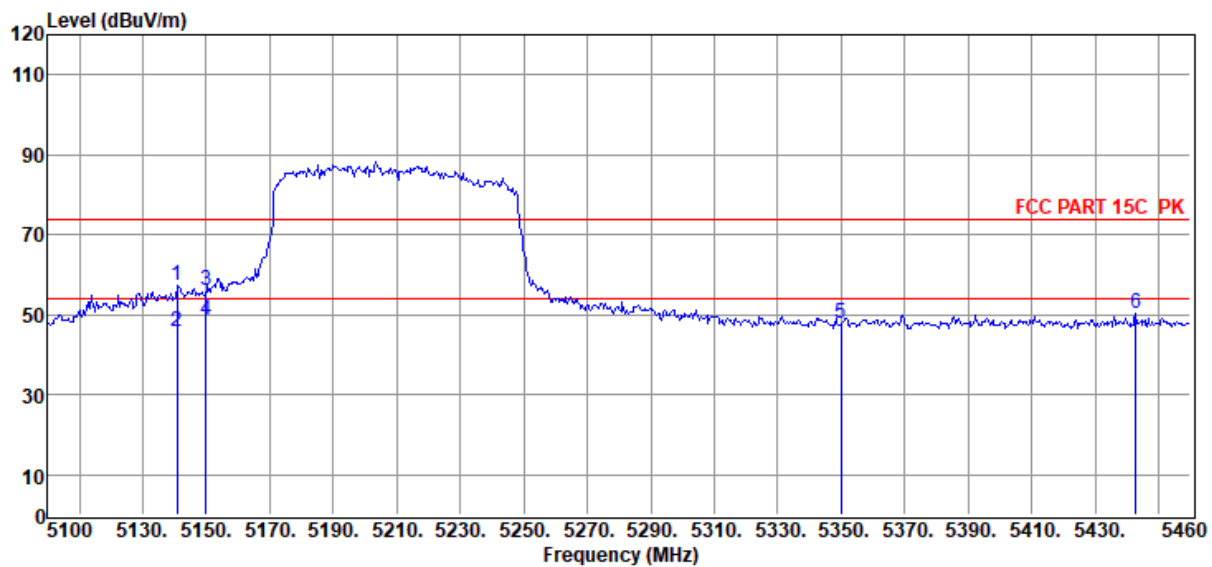
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11AC80 5210 POWER13

Data: 83



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5140.68	59.67	34.59	43.37	6.62	57.51	74.00	-16.49	Peak	VERTICAL
2	5140.68	48.00	34.59	43.37	6.62	45.84	54.00	-8.16	Average	VERTICAL
3	5150.00	58.24	34.59	43.36	6.62	56.09	74.00	-17.91	Peak	VERTICAL
4	5150.00	51.00	34.59	43.36	6.62	48.85	54.00	-5.15	Average	VERTICAL
5	5350.00	49.63	34.71	43.30	6.70	47.74	74.00	-26.26	Peak	VERTICAL
6	5442.72	52.22	34.77	43.27	6.74	50.46	74.00	-23.54	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

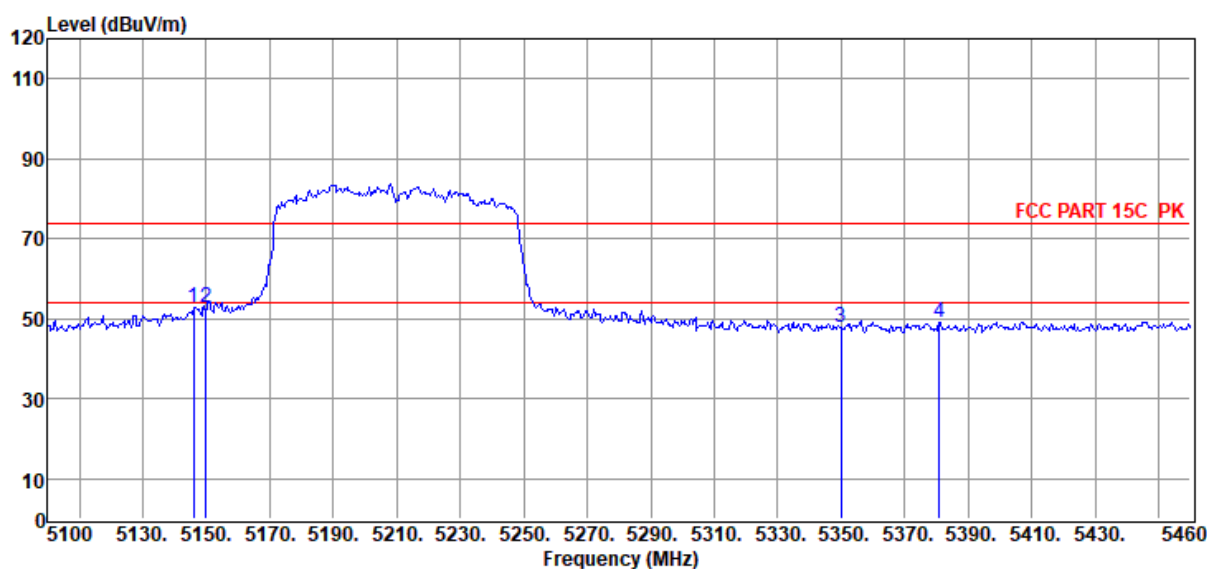
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11AC80 5210 POWER13

Data: 84



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5146.08	55.09	34.59	43.37	6.62	52.93	74.00	-21.07	Peak	HORIZONTAL
2	5150.00	54.86	34.59	43.36	6.62	52.71	74.00	-21.29	Peak	HORIZONTAL
3	5350.00	49.64	34.71	43.30	6.70	47.75	74.00	-26.25	Peak	HORIZONTAL
4	5380.80	50.91	34.73	43.29	6.71	49.06	74.00	-24.94	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

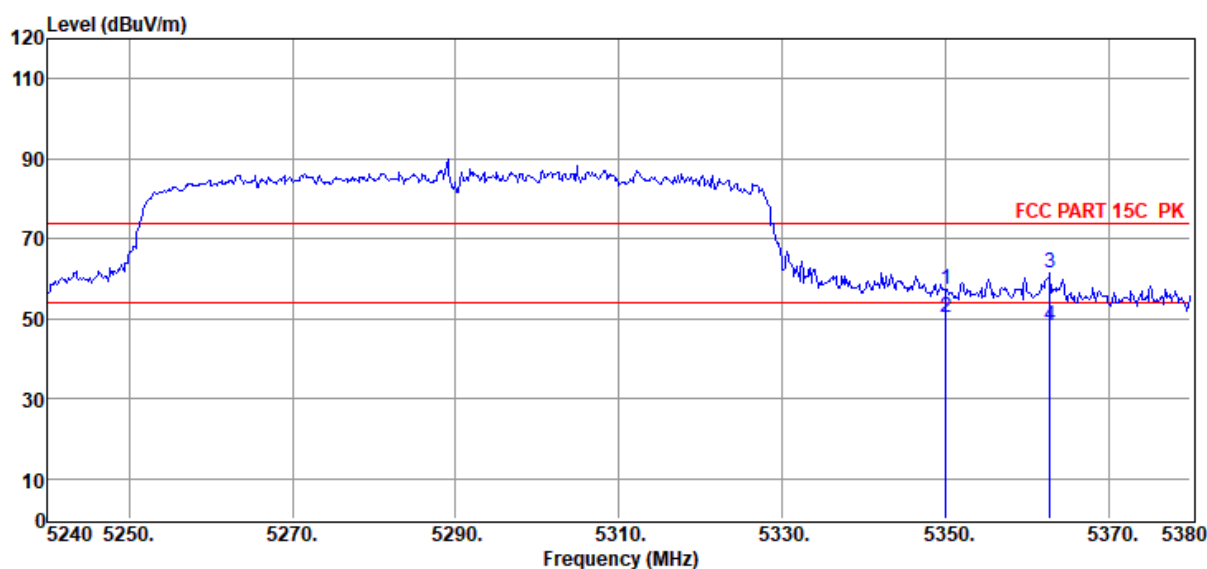
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5'C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11AC80 5290 POWER13

Data: 85



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	59.18	34.71	43.30	6.70	57.29	74.00	-16.71	Peak	VERTICAL
2	5350.00	52.34	34.71	43.30	6.70	50.45	54.00	-3.55	Average	VERTICAL
3	5362.78	63.30	34.72	43.29	6.71	61.44	74.00	-12.56	Peak	VERTICAL
4	5362.78	49.99	34.72	43.29	6.71	48.13	54.00	-5.87	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

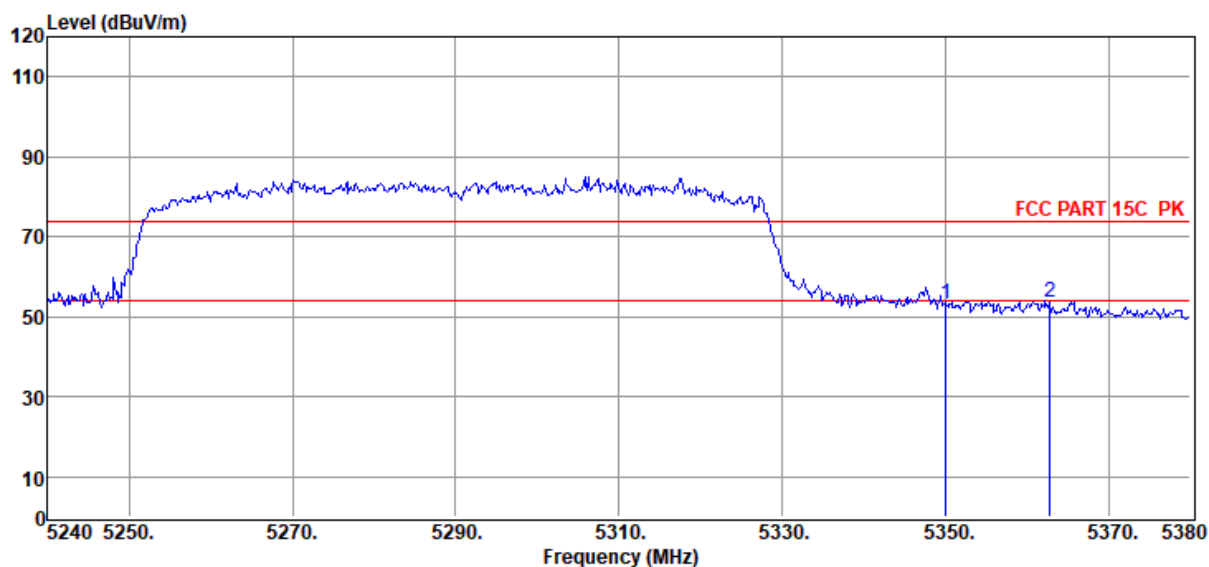
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11AC80 5290 POWER13

Data: 86



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5350.00	55.20	34.71	43.30	6.70	53.31	74.00	-20.69	Peak	HORIZONTAL
2	5362.78	55.28	34.72	43.29	6.71	53.42	74.00	-20.58	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

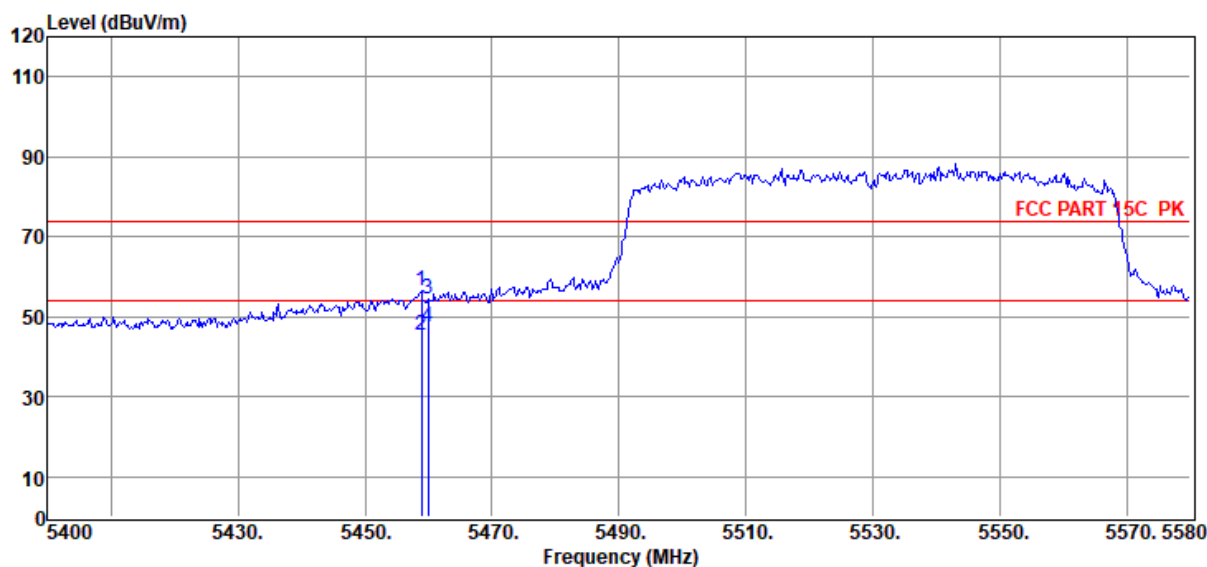
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/HORIZONTAL

Memo : 11AC80 5210 POWER13

Data: 87



Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5458.86	58.42	34.78	43.26	6.74	56.68	74.00	-17.32	Peak	HORIZONTAL
2	5458.86	47.11	34.78	43.26	6.74	45.37	54.00	-8.63	Average	HORIZONTAL
3	5460.00	56.25	34.78	43.26	6.74	54.51	74.00	-19.49	Peak	HORIZONTAL
4	5460.00	49.10	34.78	43.26	6.74	47.36	54.00	-6.64	Average	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site : DDT 3m Chamber 1#

D:\2020 RE 1# Report data\Q20042710-1E U720AC-D\FCC ABOVE1G.EM6

Test Date : 2020-05-26

Tested By : Jacky

EUT : Car audio navigation

Model Number : U720AC-D

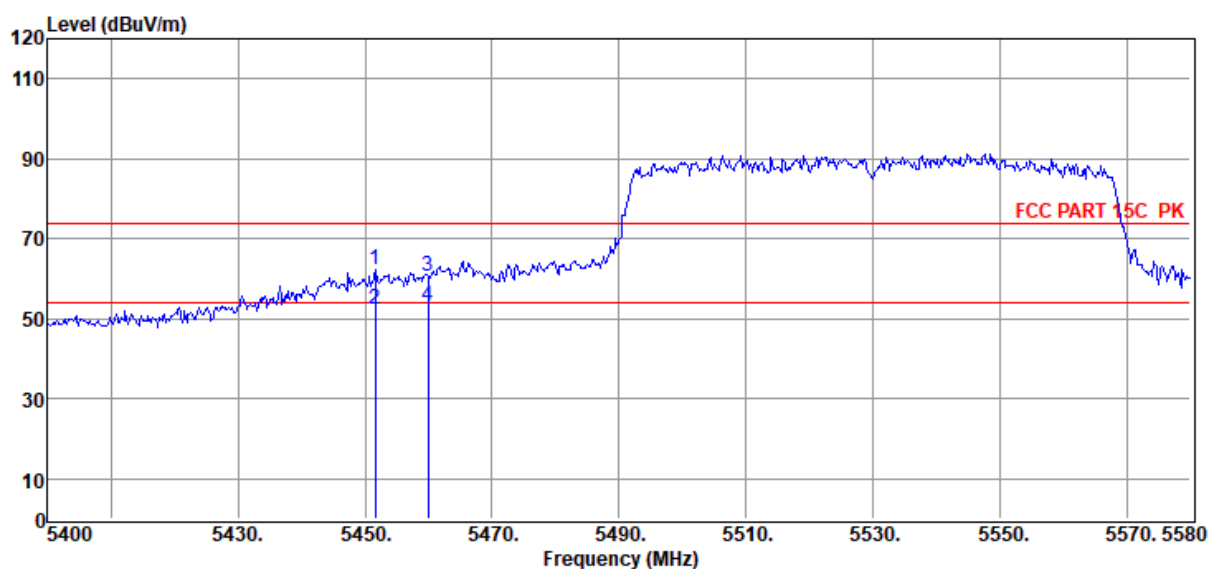
Power Supply : DC 12V

Test Mode : Tx mode

Condition : Temp:24.5°C,Humi:55%,Press:100.1kPa **Antenna/Distance** : 2019 HF 907/3m/VERTICAL

Memo : 11AC80 5210 POWER13

Data: 88



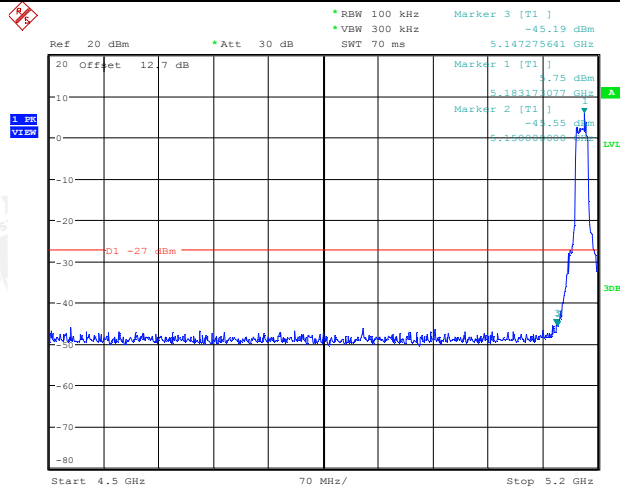
Item (Mark)	Freq. (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	5451.66	63.95	34.77	43.27	6.74	62.19	74.00	-11.81	Peak	VERTICAL
2	5451.66	54.01	34.77	43.27	6.74	52.25	54.00	-1.75	Average	VERTICAL
3	5460.00	62.37	34.78	43.26	6.74	60.63	74.00	-13.37	Peak	VERTICAL
4	5460.00	55.00	34.78	43.26	6.74	53.26	54.00	-0.74	Average	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

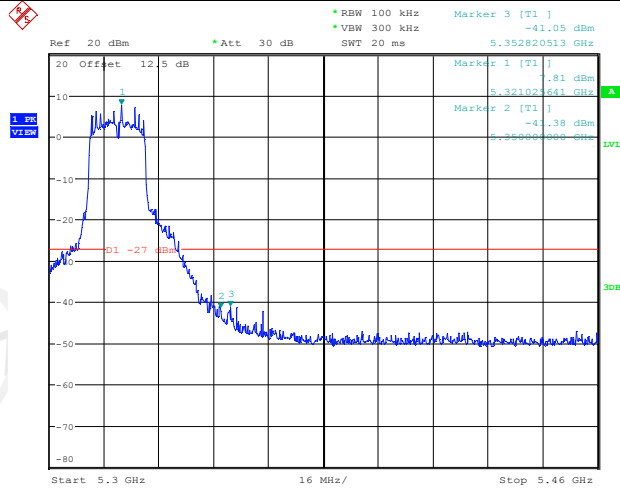
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

11A_Ant1_Low_5180



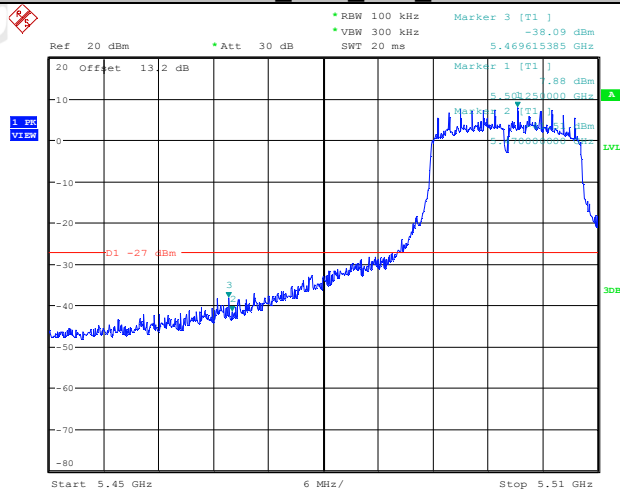
Date: 1.JUN.2020 20:59:11

11A_Ant1_High_5320



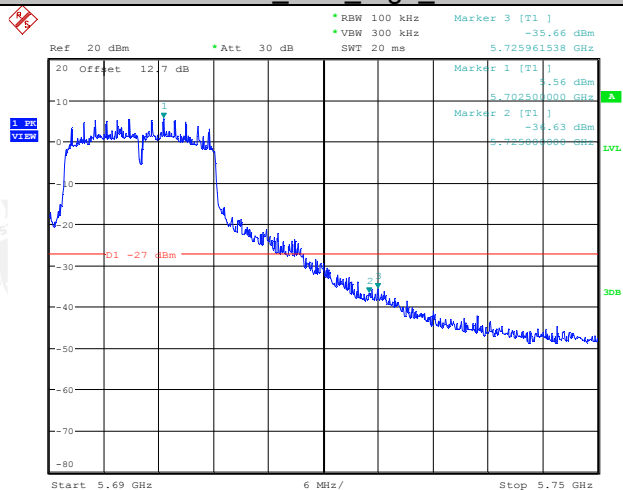
Date: 1.JUN.2020 21:19:56

11A_Ant1_Low_5500



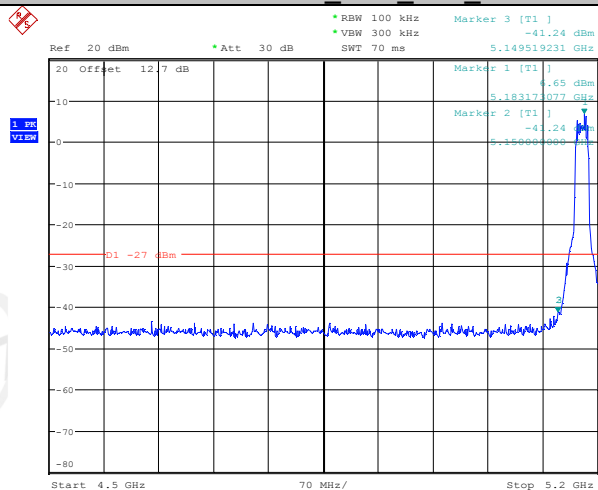
Date: 1.JUN.2020 21:21:04

11A_Ant1_High_5700



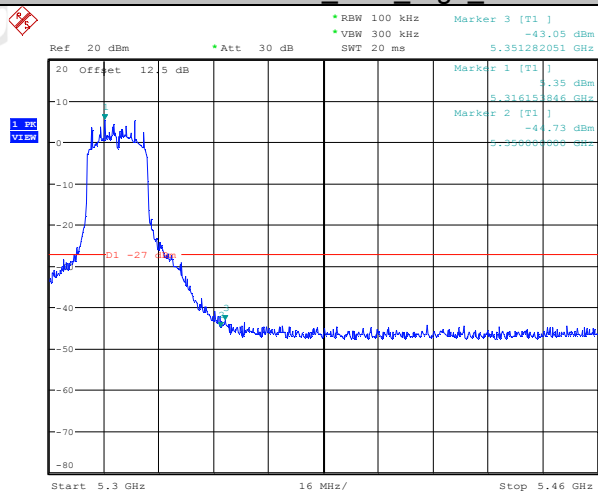
Date: 1.JUN.2020 21:25:24

11N20SISO_Ant1_Low_5180



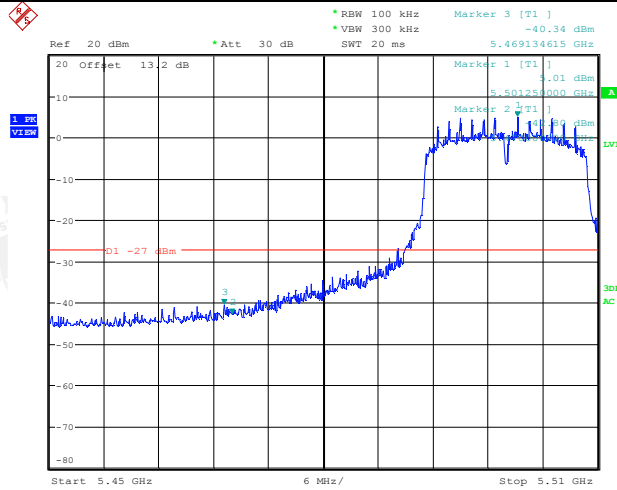
Date: 16.MAY.2020 16:21:40

11N20SISO_Ant1_High_5320



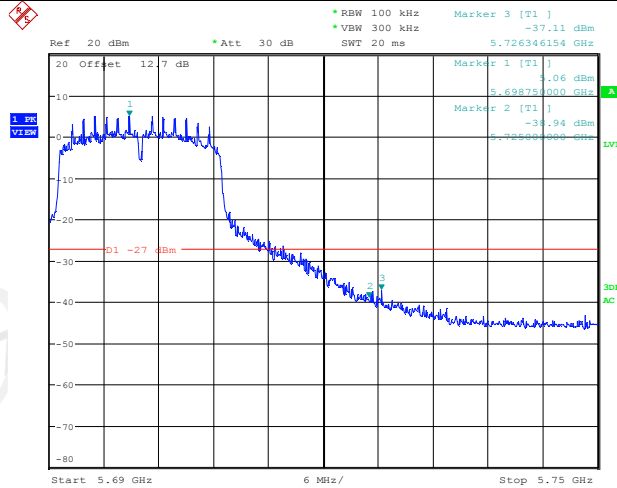
Date: 16.MAY.2020 16:44:09

11N20SISO_Ant1_Low_5500



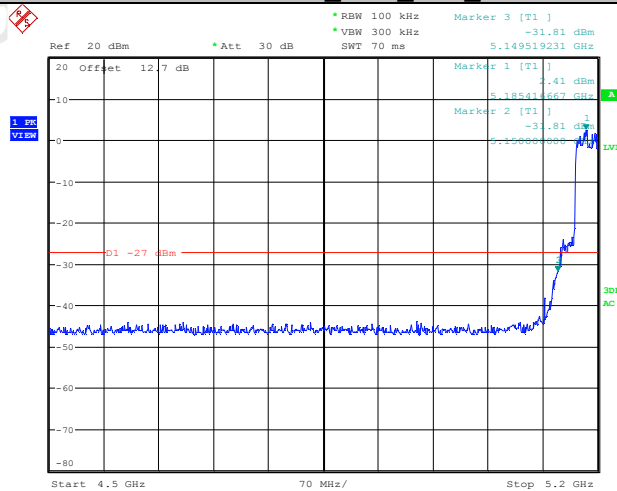
Date: 16.MAY.2020 16:47:37

11N20SISO_Ant1_High_5700



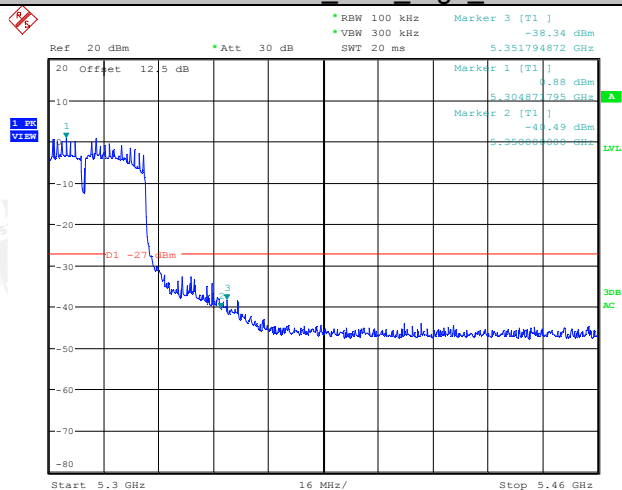
Date: 16.MAY.2020 16:58:02

11N40SISO_Ant1_Low_5190



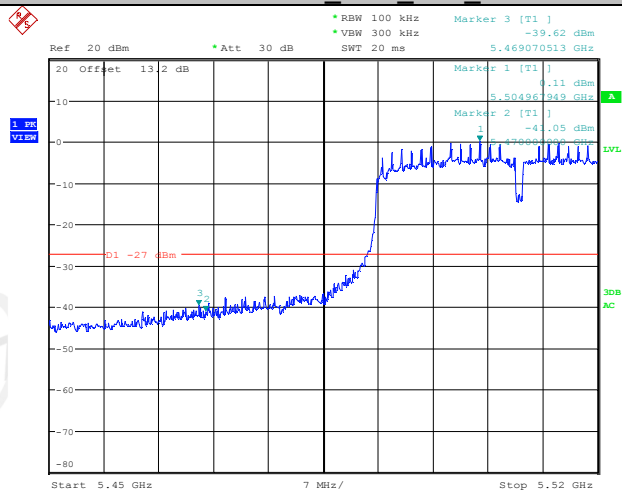
Date: 16.MAY.2020 17:28:33

11N40SISO Ant1 High 5310



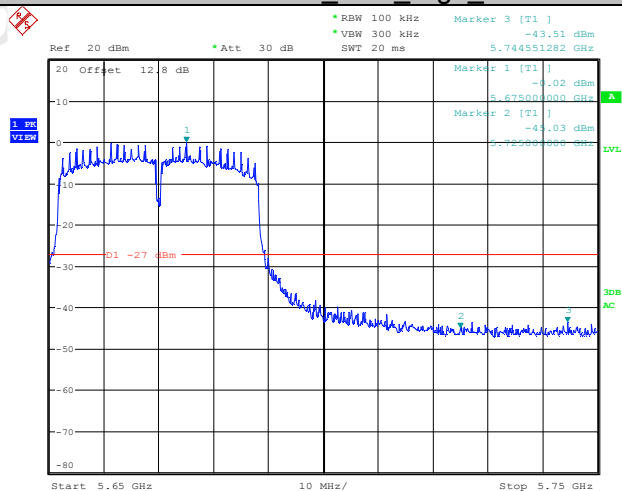
Date: 16.MAY.2020 17:39:36

11N40SISO Ant1 Low 5510



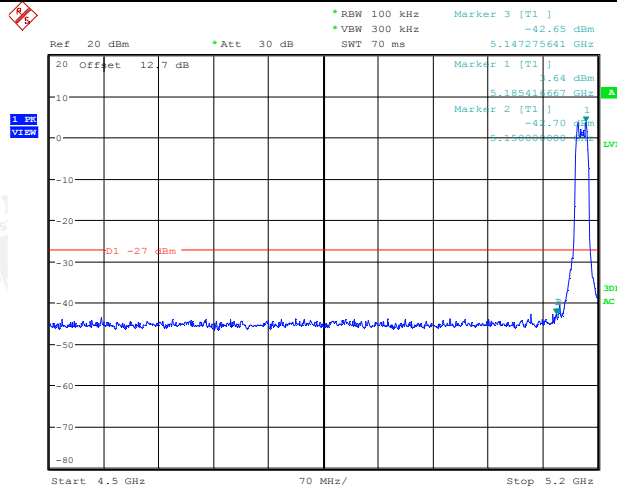
Date: 16.MAY.2020 17:43:41

11N40SISO Ant1 High 5670



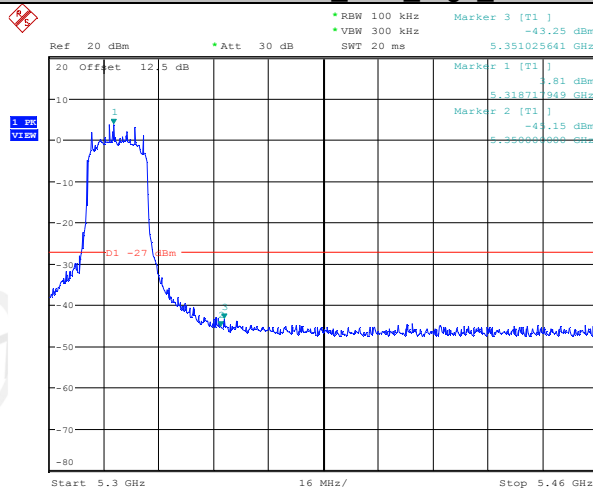
Date: 16.MAY.2020 17:52:57

11AC20SISO Ant1 Low 5180



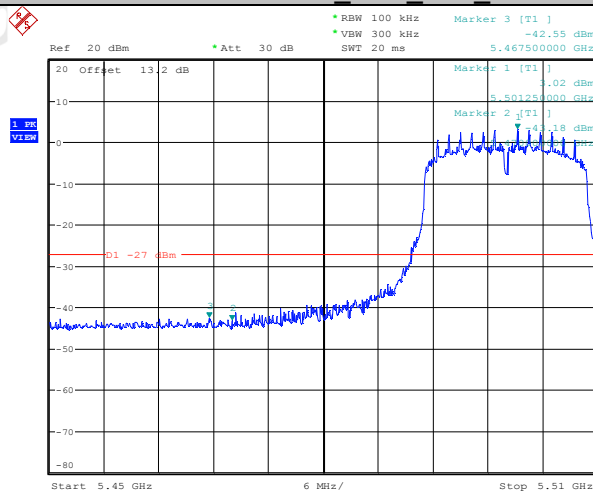
Date: 25.MAY.2020 09:03:05

11AC20SISO Ant1 High 5320



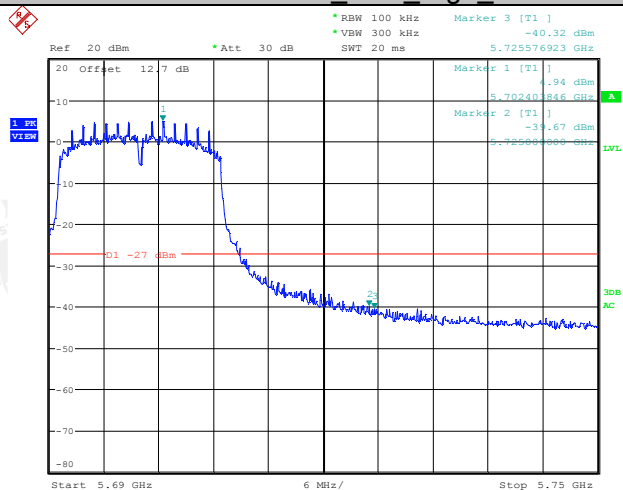
Date: 25.MAY.2020 09:33:24

11AC20SISO Ant1 Low 5500

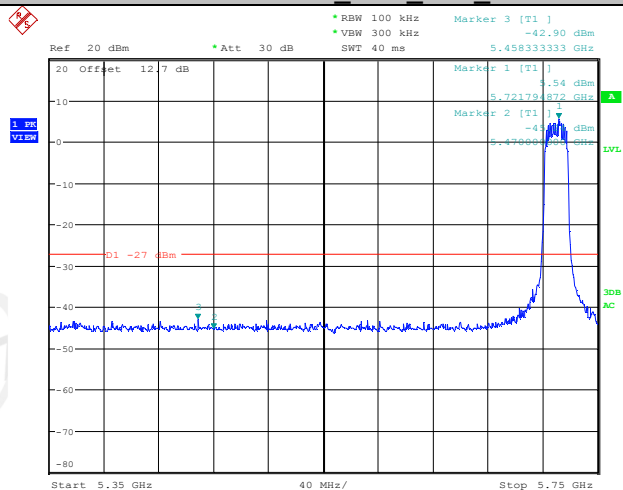


Date: 25.MAY.2020 09:41:43

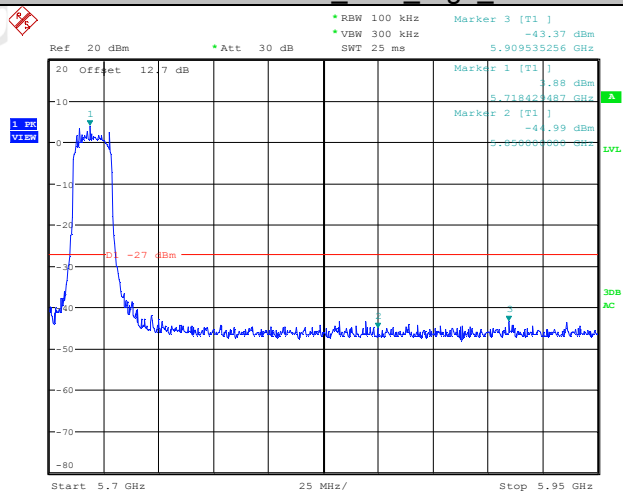
11AC20SISO Ant1 High 5700



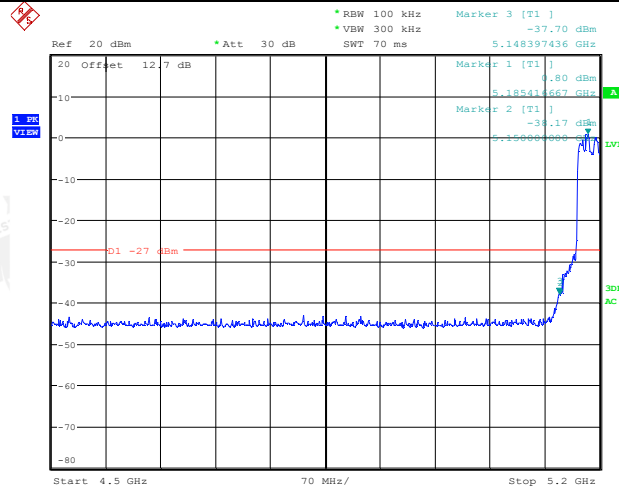
11AC20SISO Ant1 Low 5720



11AC20SISO Ant1 High 5720

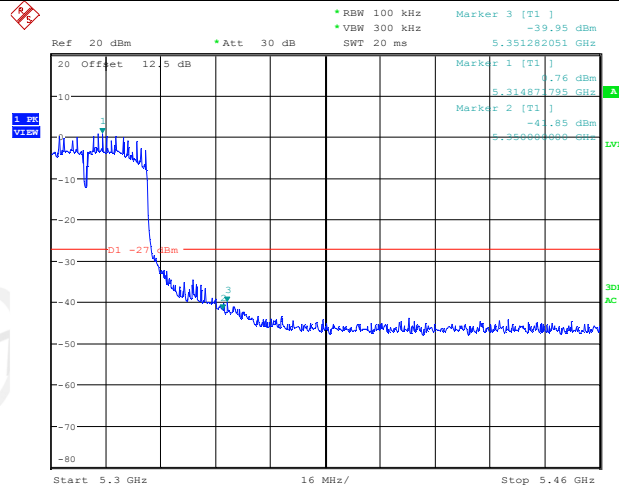


11AC40SISO Ant1 Low 5190



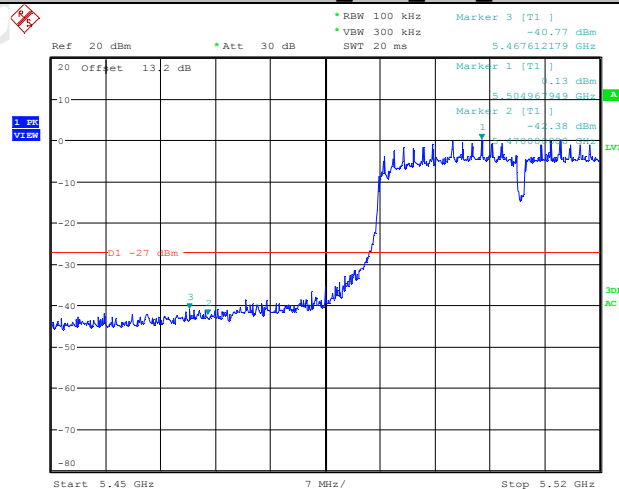
Date: 25.MAY.2020 10:34:43

11AC40SISO Ant1 High 5310



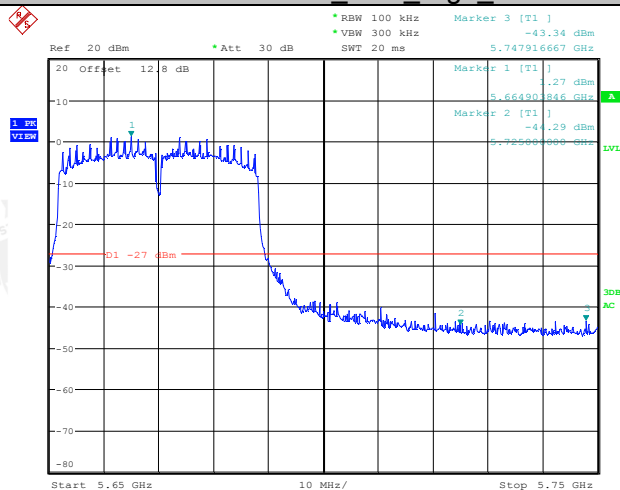
Date: 25.MAY.2020 11:15:55

11AC40SISO Ant1 Low 5510



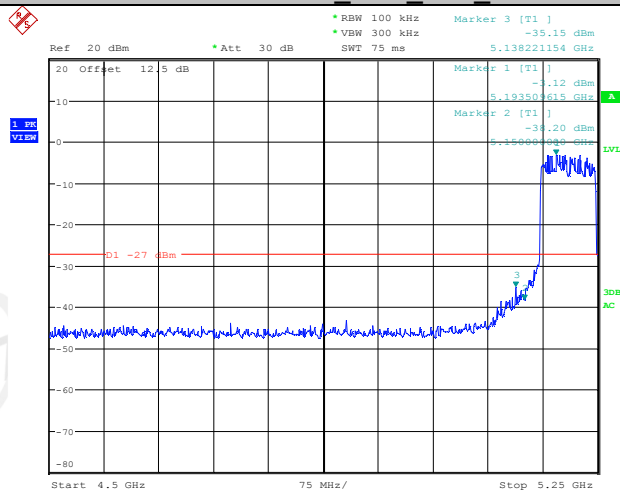
Date: 25.MAY.2020 11:23:27

11AC40SISO Ant1 High 5670



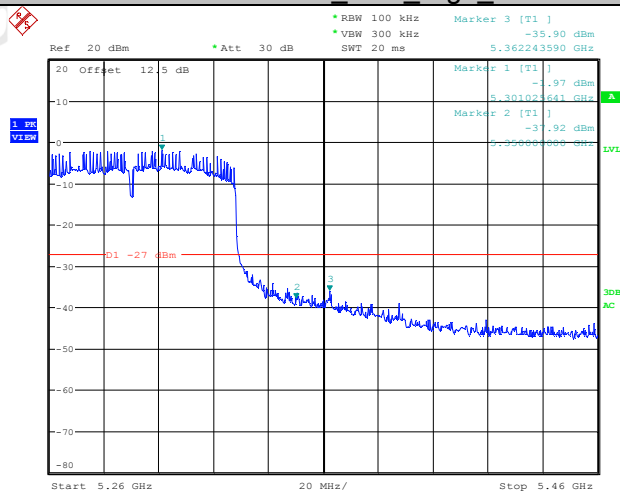
Date: 25.MAY.2020 11:32:59

11AC80SISO Ant1 Low 5210



Date: 25.MAY.2020 11:47:38

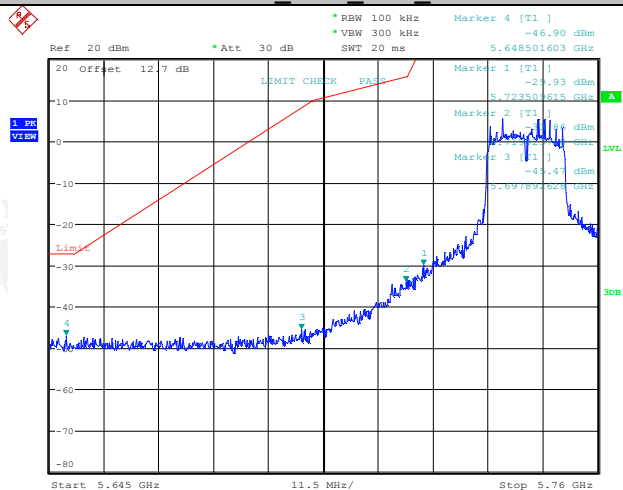
11AC80SISO Ant1 High 5290



Date: 25.MAY.2020 13:40:35

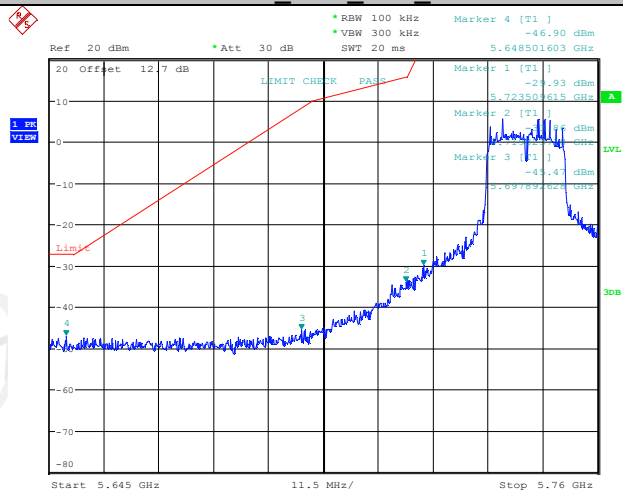


11A_Ant1_Low_5745



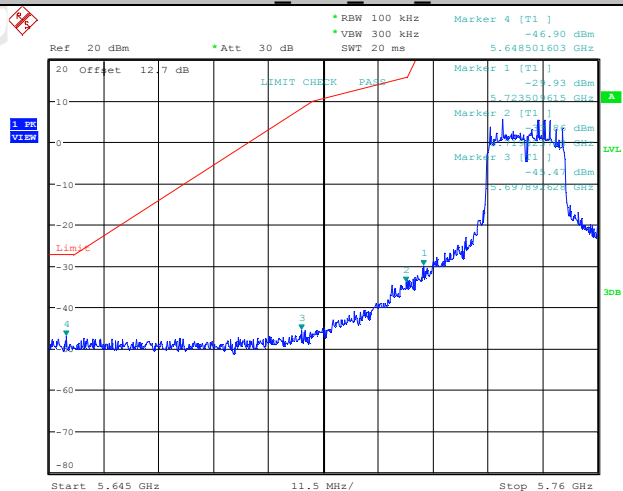
Date: 1.JUN.2020 21:26:30

11A_Ant1_Low_5745



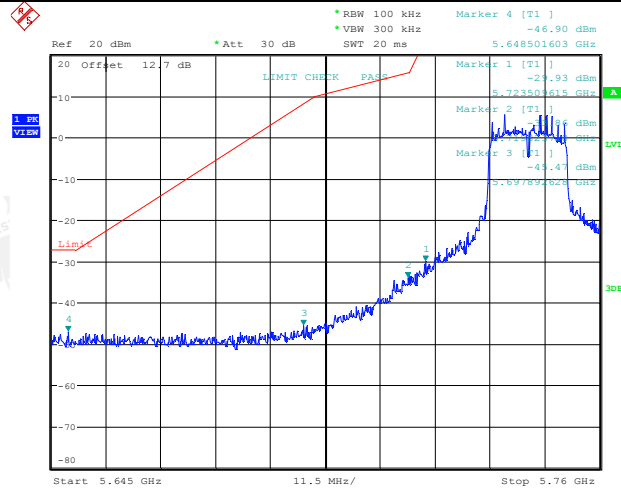
Date: 1.JUN.2020 21:26:30

11A_Ant1_Low_5745



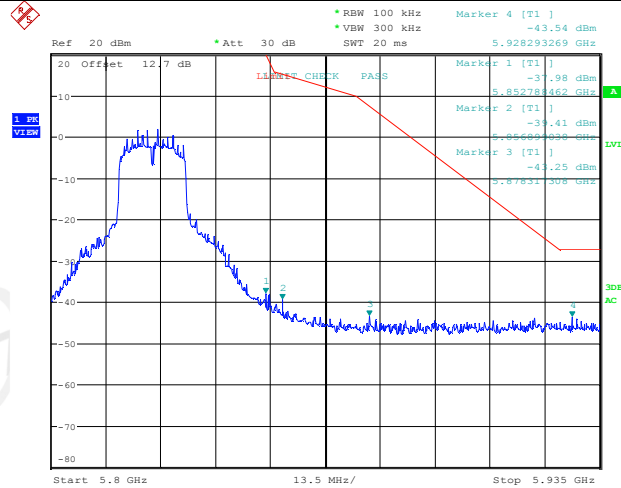
Date: 1.JUN.2020 21:26:30

11A Ant1 Low 5745



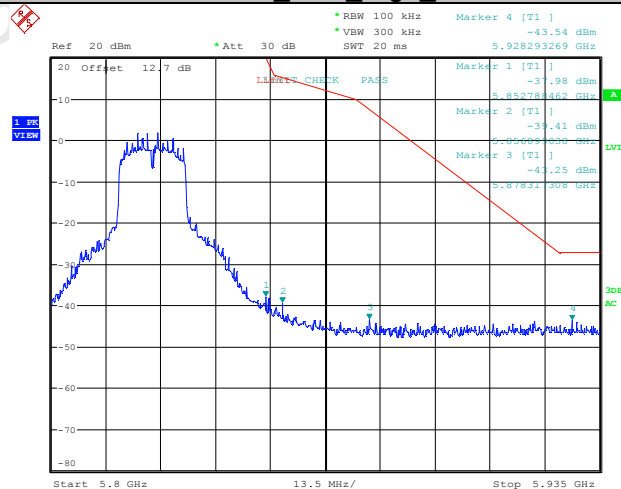
Date: 1.JUN.2020 21:26:30

11A Ant1 High 5825



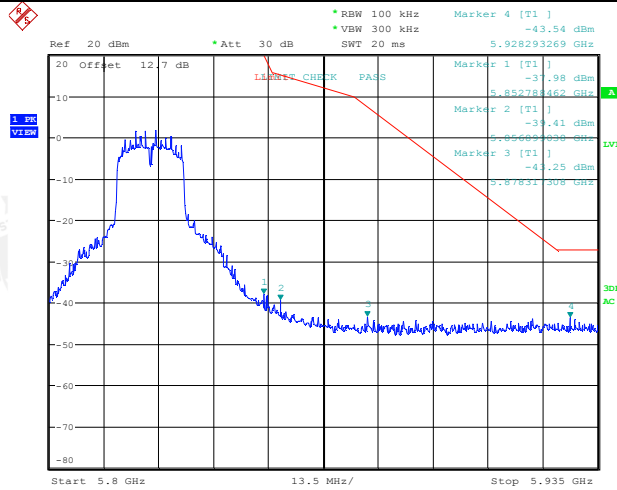
Date: 16.MAY.2020 16:08:03

11A Ant1 High 5825



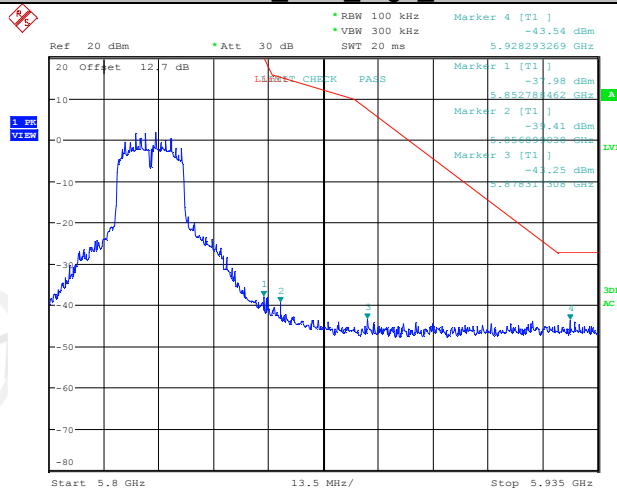
Date: 16.MAY.2020 16:08:03

11A_Ant1_High_5825



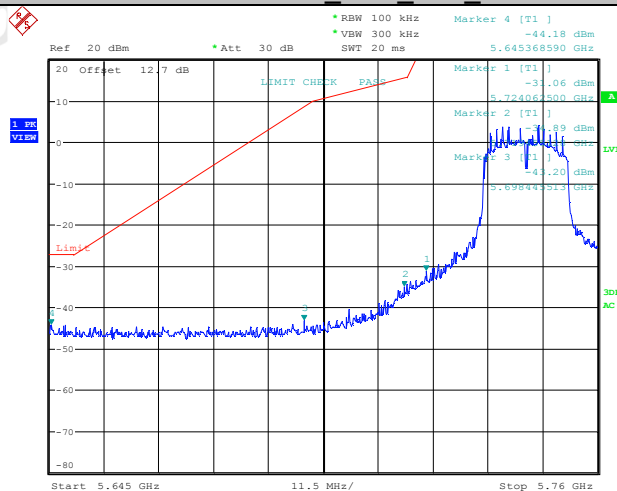
Date: 16.MAY.2020 16:08:03

11A_Ant1_High_5825



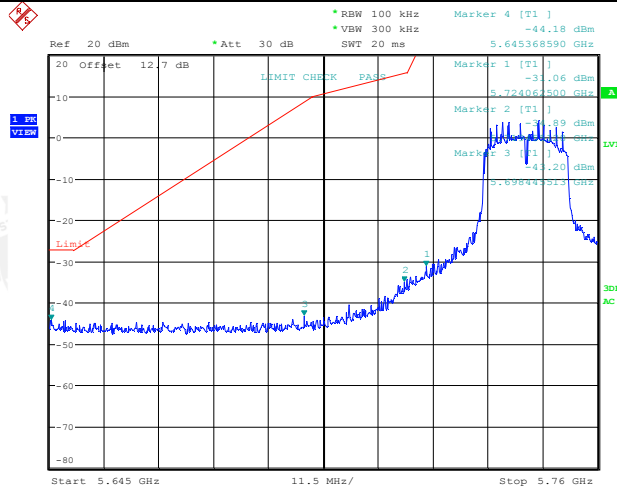
Date: 16.MAY.2020 16:08:03

11N20SISO_Ant1_Low_5745



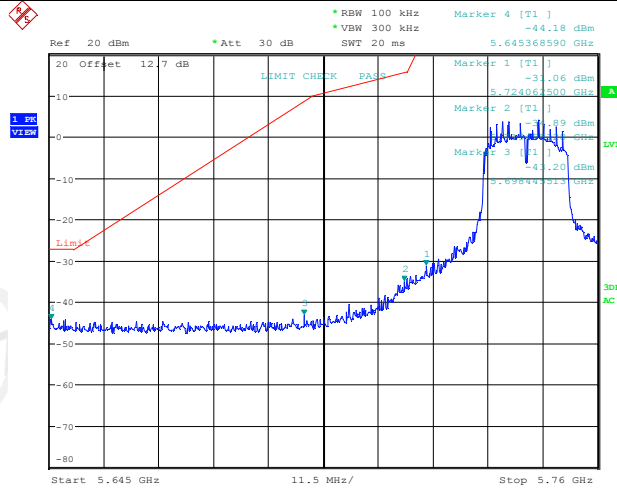
Date: 16.MAY.2020 17:04:33

11N20SISO Ant1 Low 5745



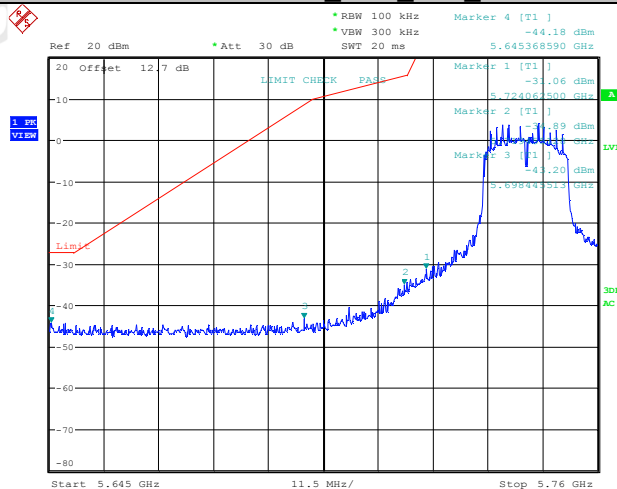
Date: 16.MAY.2020 17:04:33

11N20SISO Ant1 Low 5745



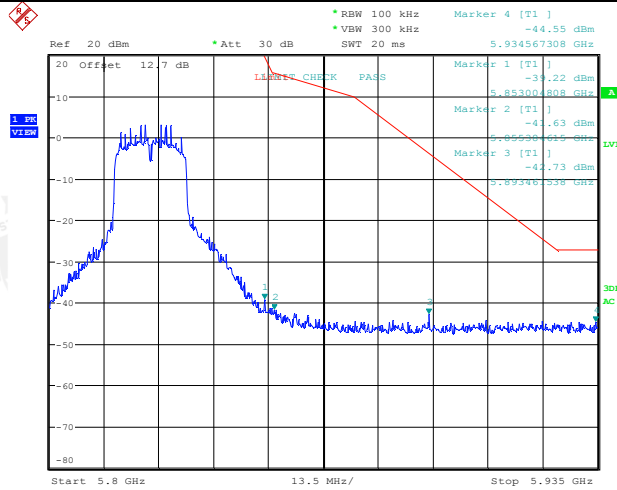
Date: 16.MAY.2020 17:04:33

11N20SISO Ant1 Low 5745



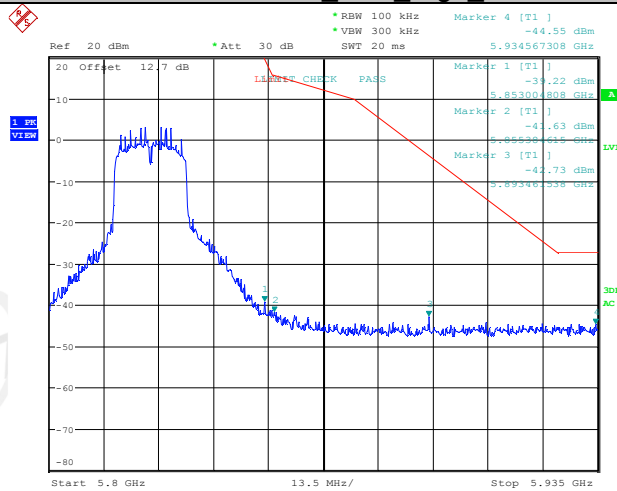
Date: 16.MAY.2020 17:04:33

11N20SISO Ant1_High_5825



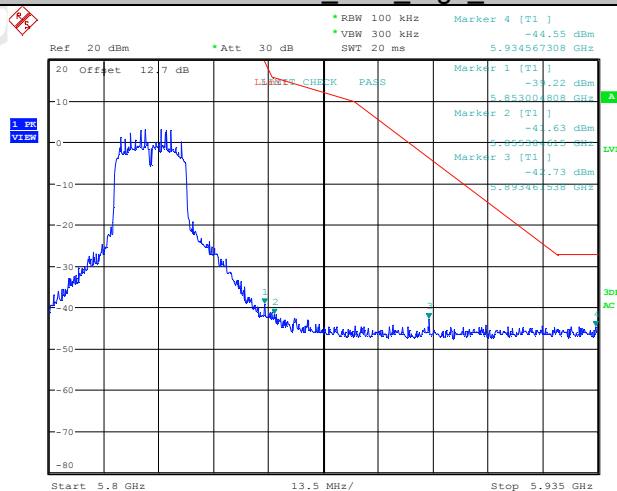
Date: 16.MAY.2020 17:15:33

11N20SISO Ant1_High_5825



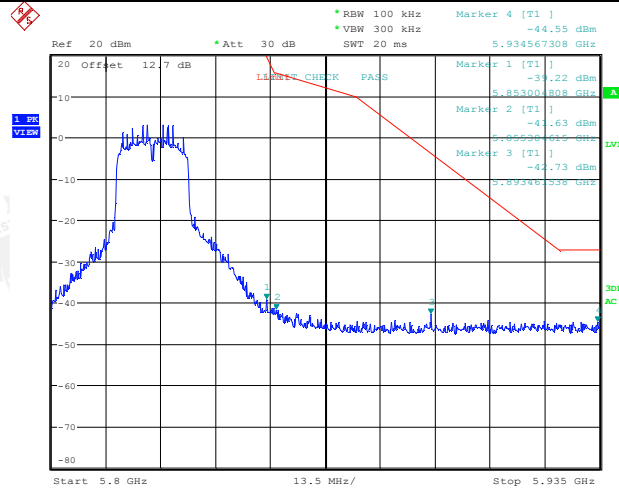
Date: 16.MAY.2020 17:15:33

11N20SISO Ant1_High_5825



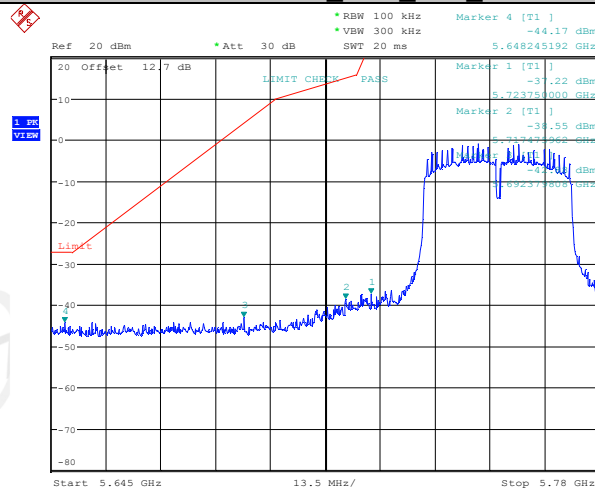
Date: 16.MAY.2020 17:15:33

11N20SISO Ant1 High 5825



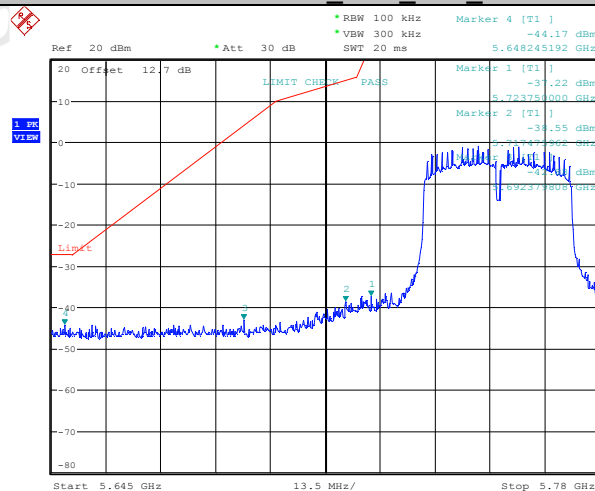
Date: 16.MAY.2020 17:15:33

11N40SISO Ant1 Low 5755



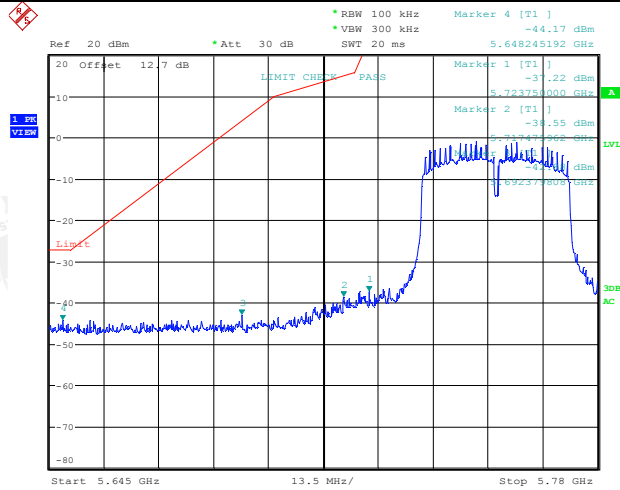
Date: 16.MAY.2020 17:56:47

11N40SISO Ant1 Low 5755

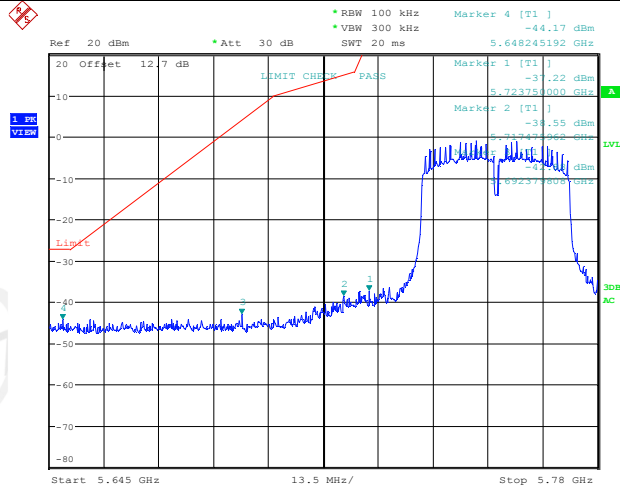


Date: 16.MAY.2020 17:56:47

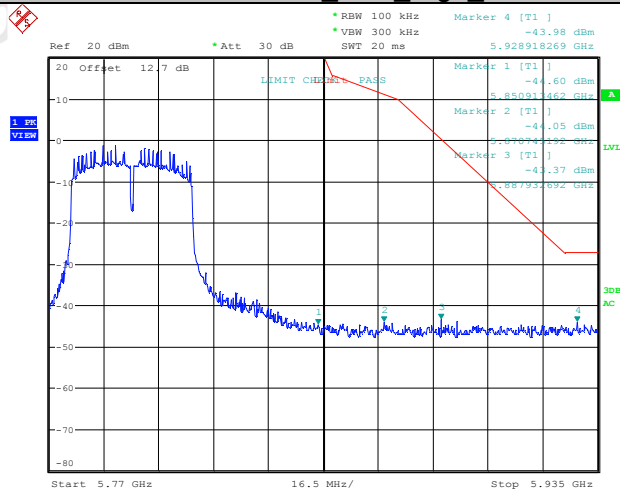
11N40SISO Ant1 Low 5755



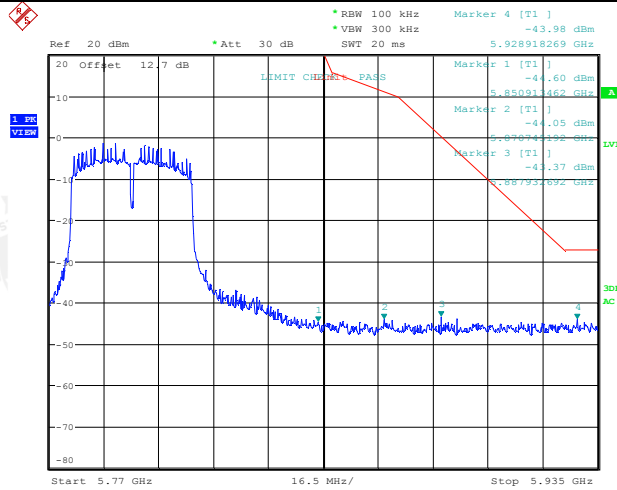
11N40SISO Ant1 Low 5755



11N40SISO Ant1 High 5795

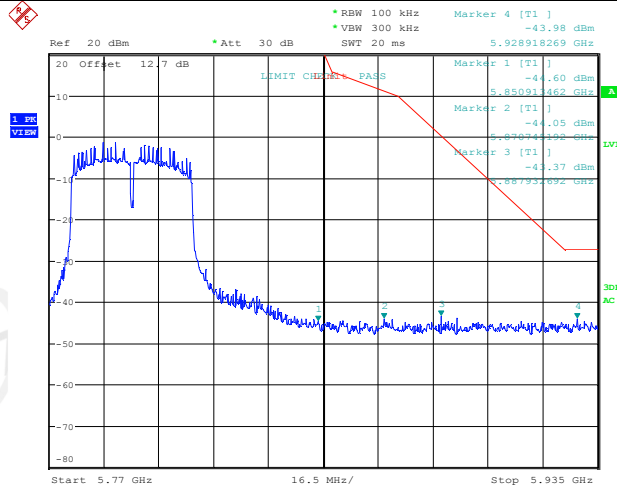


11N40SISO Ant1_High_5795



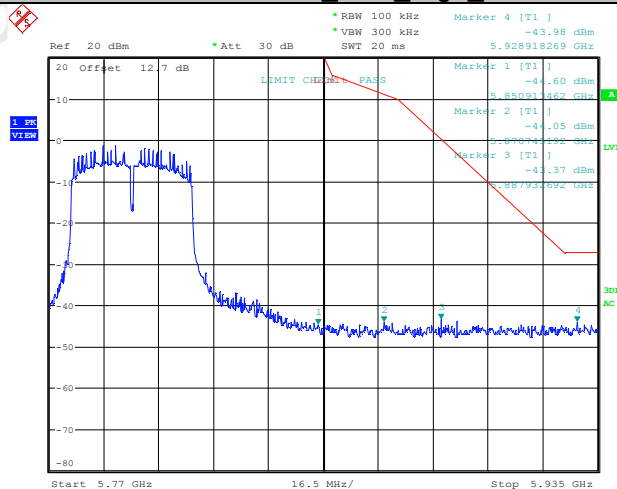
Date: 16.MAY.2020 18:00:51

11N40SISO Ant1_High_5795



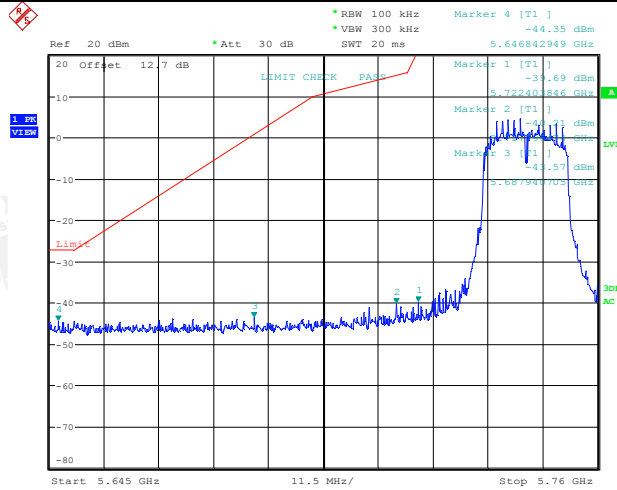
Date: 16.MAY.2020 18:00:51

11N40SISO Ant1_High_5795

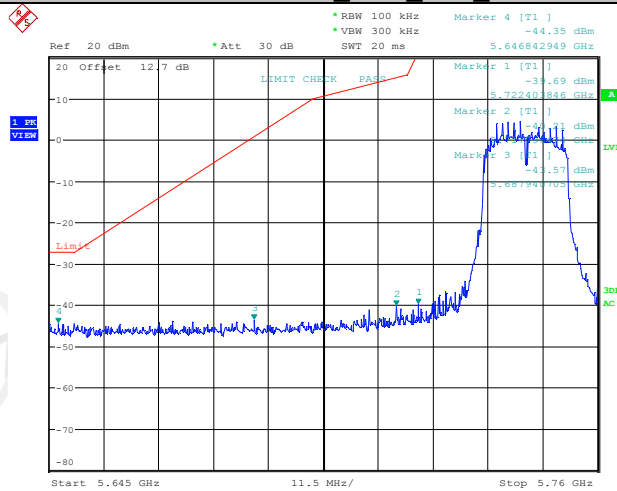


Date: 16.MAY.2020 18:00:51

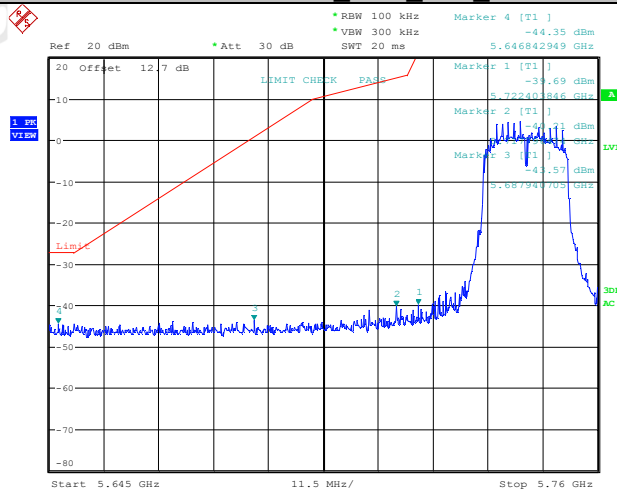
11AC20SISO Ant1 Low 5745



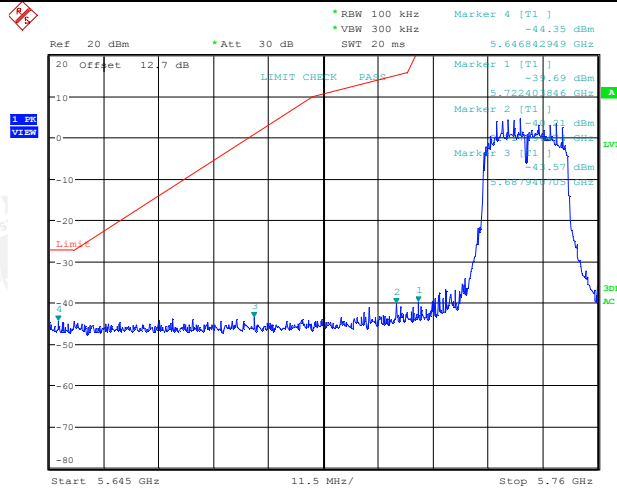
11AC20SISO Ant1 Low 5745



11AC20SISO Ant1 Low 5745

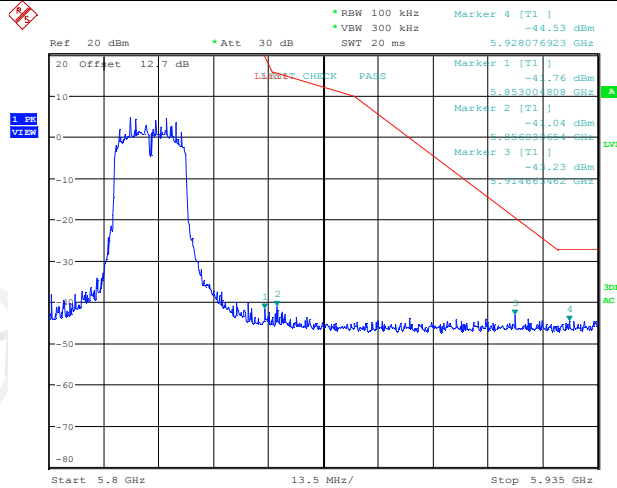


11AC20SISO Ant1 Low 5745



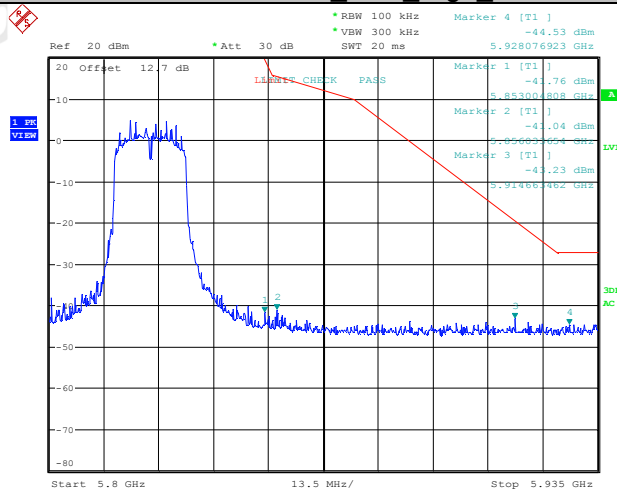
Date: 25.MAY.2020 10:09:42

11AC20SISO Ant1 High 5825



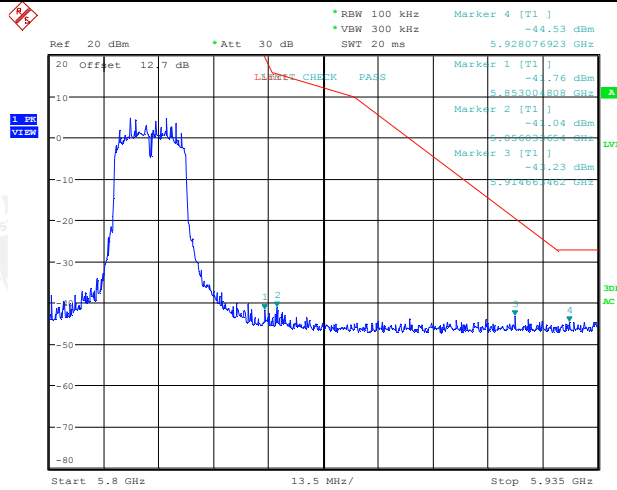
Date: 25.MAY.2020 10:26:46

11AC20SISO Ant1 High 5825



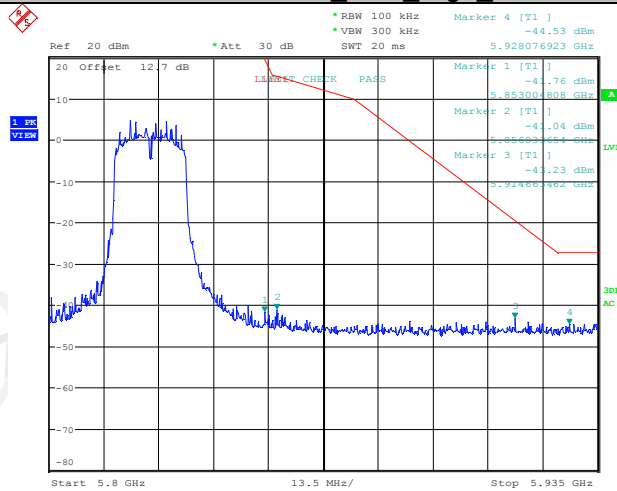
Date: 25.MAY.2020 10:26:46

11AC20SISO Ant1 High 5825



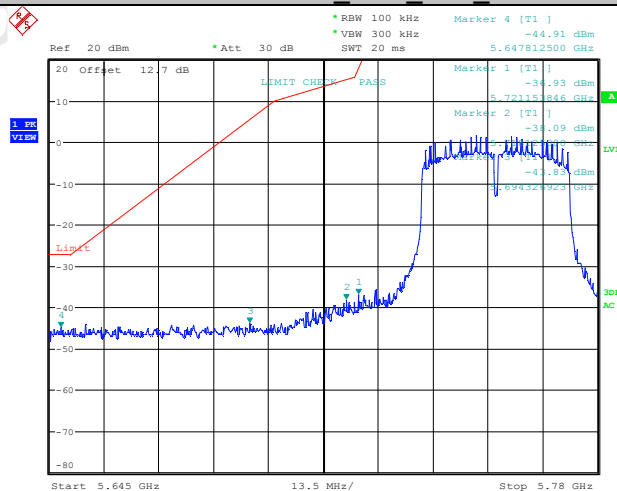
Date: 25.MAY.2020 10:26:46

11AC20SISO Ant1 High 5825



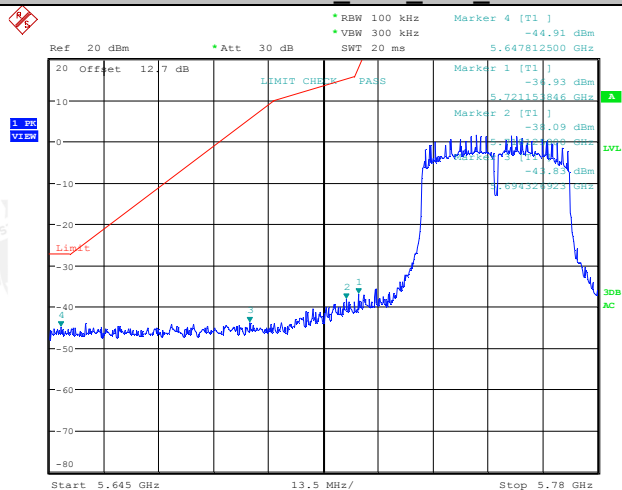
Date: 25.MAY.2020 10:26:46

11AC40SISO Ant1 Low 5755



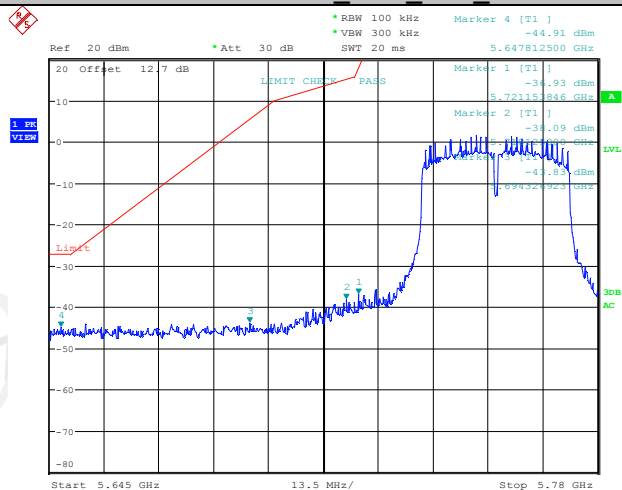
Date: 25.MAY.2020 11:39:11

11AC40SISO Ant1 Low 5755



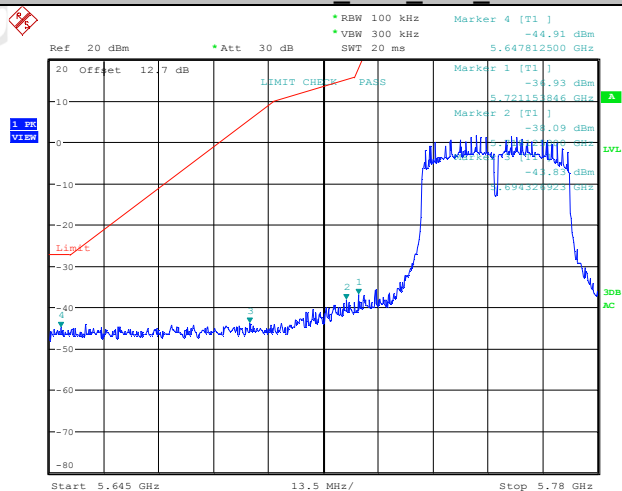
Date: 25.MAY.2020 11:39:11

11AC40SISO Ant1 Low 5755

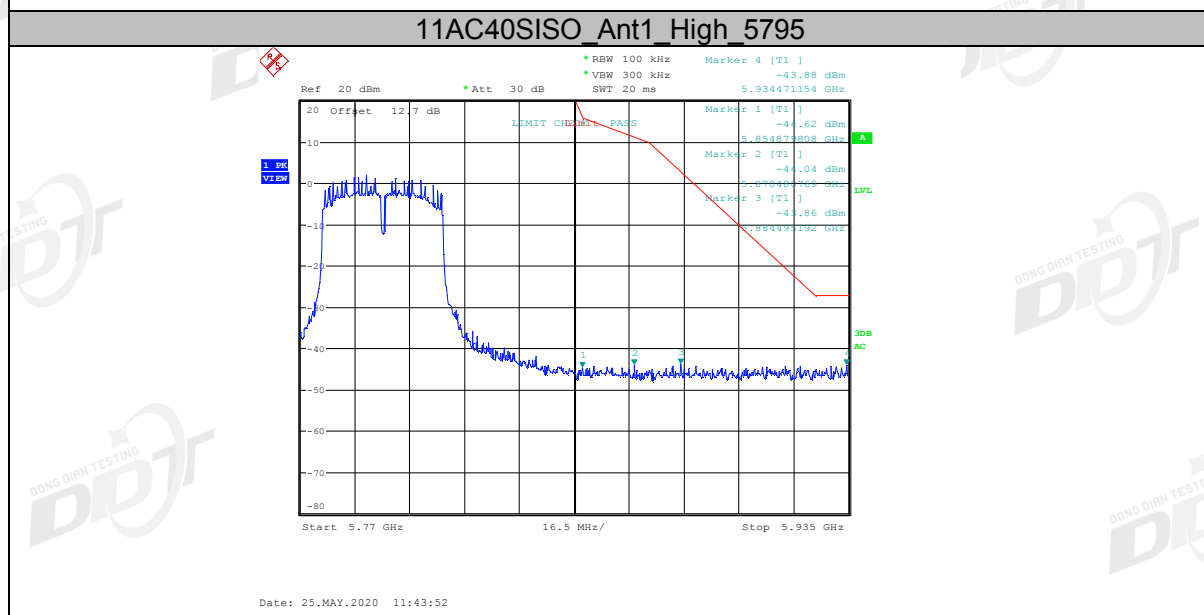


Date: 25.MAY.2020 11:39:11

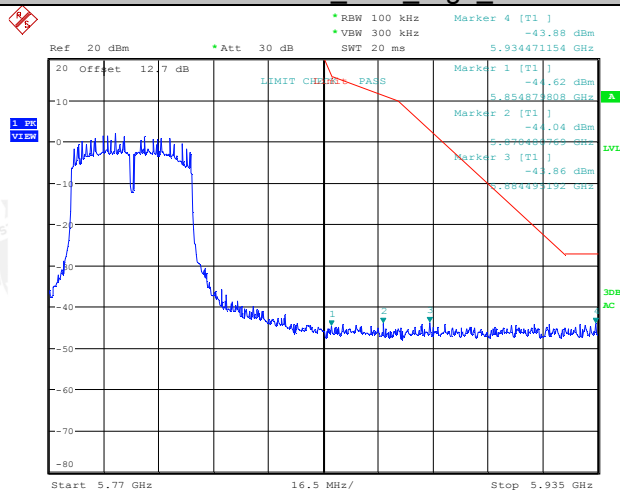
11AC40SISO Ant1 Low 5755



Date: 25.MAY.2020 11:39:11

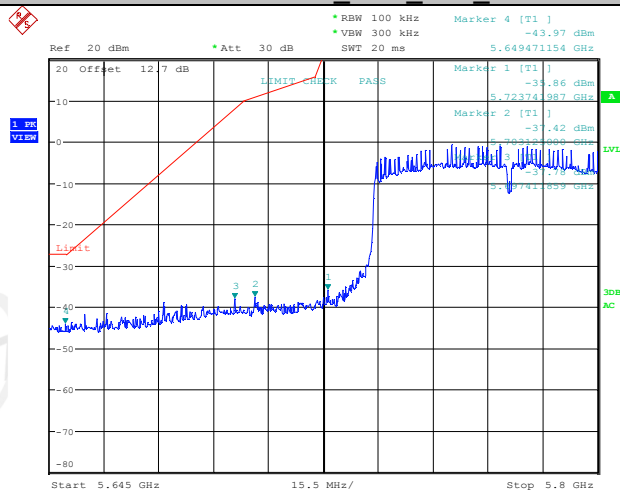


11AC40SISO Ant1 High 5795



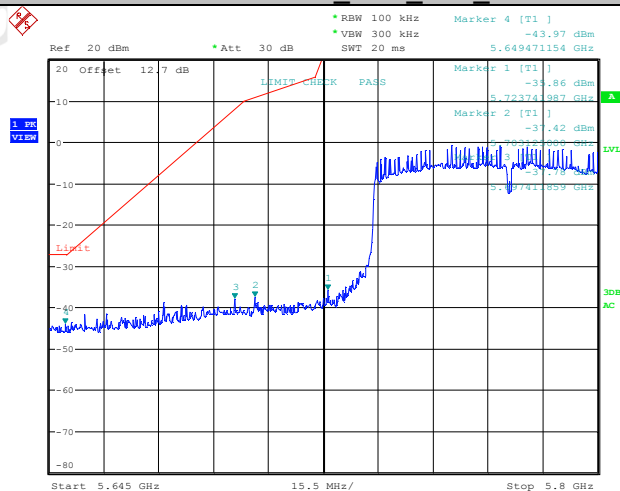
Date: 25.MAY.2020 11:43:52

11AC80SISO Ant1 Low 5775



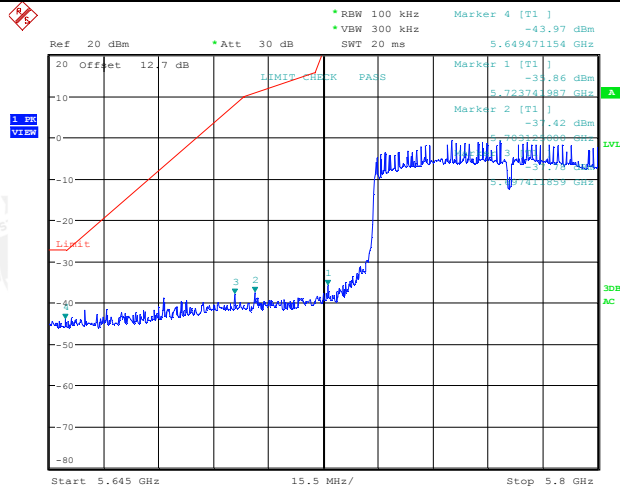
Date: 25.MAY.2020 14:03:49

11AC80SISO Ant1 Low 5775



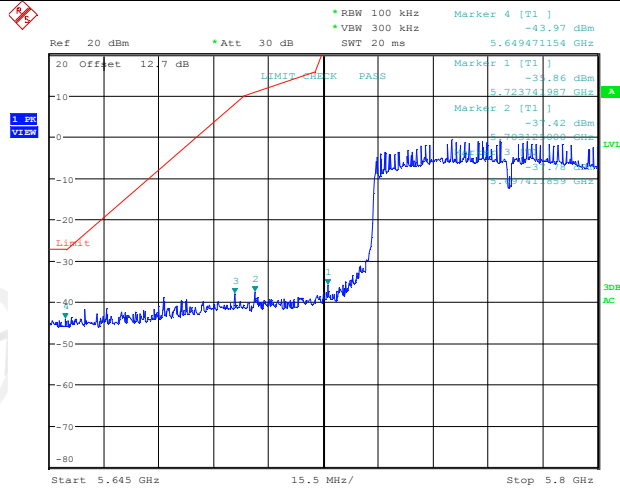
Date: 25.MAY.2020 14:03:49

11AC80SISO Ant1 Low 5775



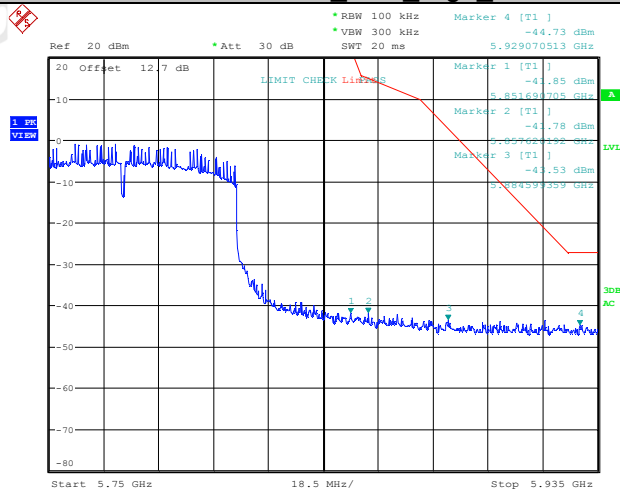
Date: 25.MAY.2020 14:03:49

11AC80SISO Ant1 Low 5775



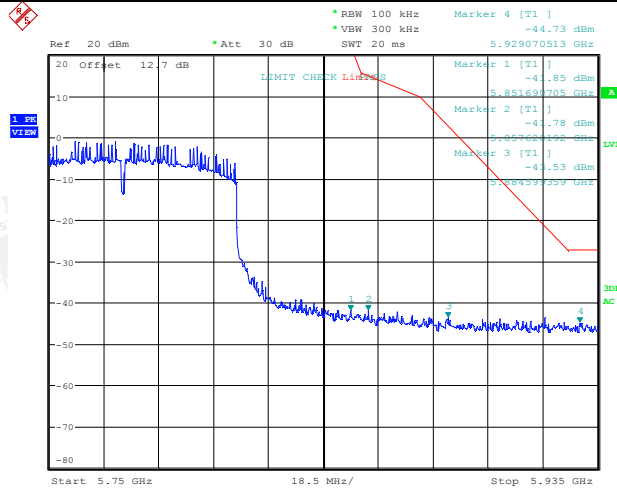
Date: 25.MAY.2020 14:03:49

11AC80SISO Ant1 High 5775

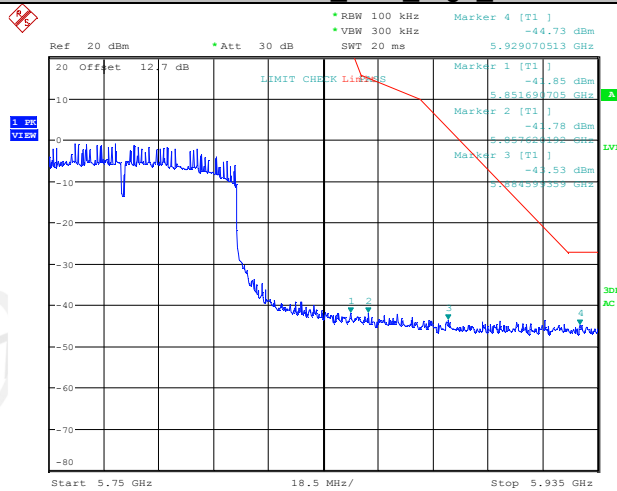


Date: 25.MAY.2020 14:04:11

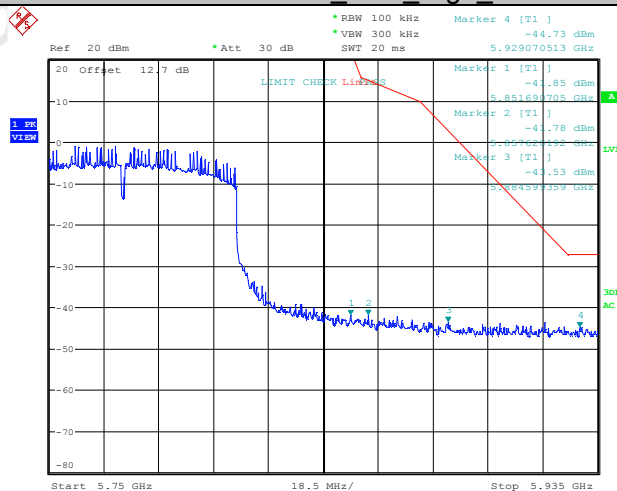
11AC80SISO Ant1 High 5775



11AC80SISO Ant1 High 5775

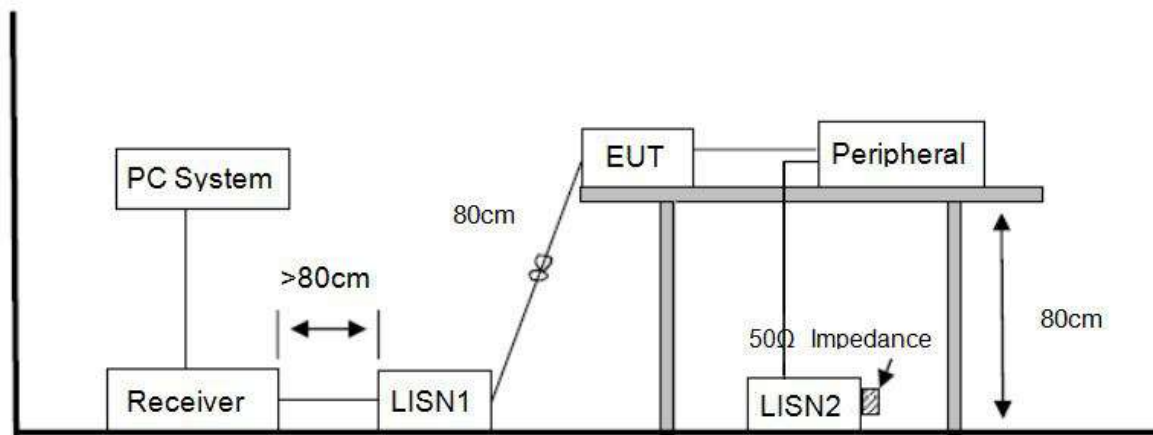


11AC80SISO Ant1 High 5775



10. Power Line Conducted Emission

10.1. Block diagram of test setup



10.2. Power line conducted emission limits (Class B)

Frequency	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150 kHz ~ 500 kHz	66 ~ 56*	56 ~ 46*
500 kHz ~ 5 MHz	56	46
5 MHz ~ 30 MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

10.3. Test procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.3 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.3 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test. EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

10.4. Test result

Not Applicable, since the EUT is not AC-operated device.

11. Antenna Requirements

11.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

11.2. Result

The antenna used for this product is Dedicated FPCB antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain is 0.5 dBi.

12. Dynamic Frequency Selection

12.1. Applicability of DFS requirements

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	☐ Master	☒ Client Without Radar Detection	☐ Client with Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	☐ Master Device or Client with Radar Detection	☒ Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	☐ Master Device or Client with Radar Detection	☒ Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

12.2. Limit

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.

Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

12.3. Parameters of radar test waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A	Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{PRI_{\mu sec}} \right) \right\}$	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30

Table 6 – Long Pulse Radar Test Waveform

Radar Type	Pulse Width (μsec)	Chirp Width (MHz)	PRI (μsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 7 – Frequency Hopping Radar Test Waveform

Radar Type	Pulse Width (μsec)	PRI (μsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Number of Trials
6	1	333	9	0.333	300	70%	30

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4

12.4. Calibration of radar waveform

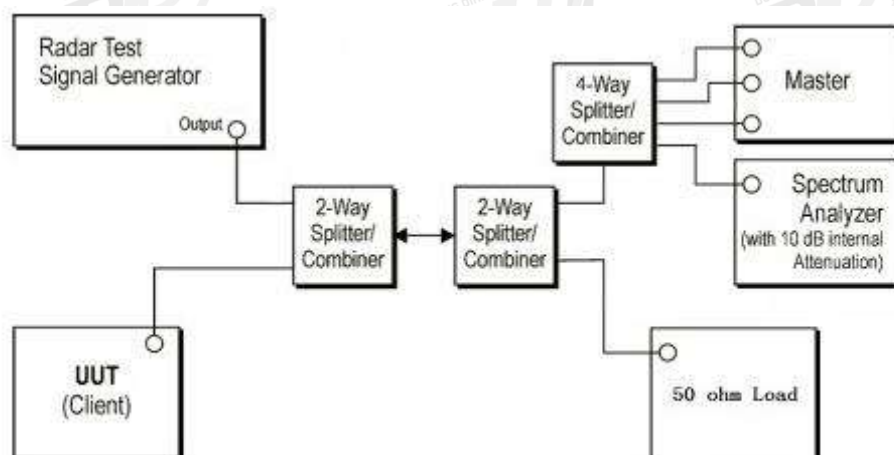
Radar Waveform Calibration Procedure:

- (1) A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master
- (2) The interference Radar Detection Threshold Level is $-62\text{dBm} + 0\text{dBi} + 1\text{dB} = -61\text{dBm}$ that

had been taken into account the output power range and antenna gain.

- (3) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0 dB to compensate RF cable loss 1.0 dB.
- (4) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was $-62 \text{ dBm} + 0 \text{ dBi} + 1 \text{ dB} = -61 \text{ dBm}$. Capture the spectrum analyzer plots on short pulse radar waveform.

Conducted Calibration Setup:

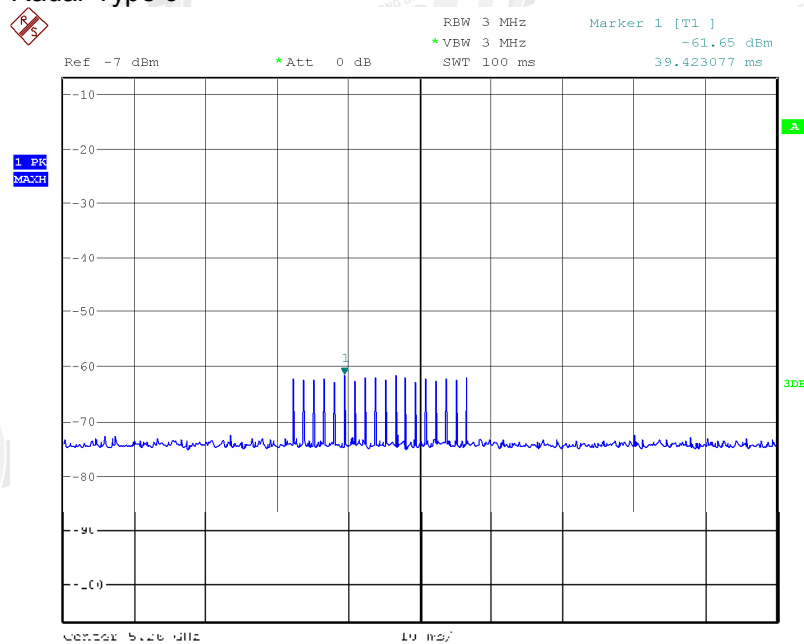


Note: 1. Use the software "Web" to set the frequency channel.

2. EUT is not support TPC and not with Radar detection.

Radar Waveform Calibration Result:

Radar Type 0



Trial List Table - FCC-13-22

Save Load Trigger Download All

Sample Rate 10 MHz

Trial List

	Trial Id	Radar Type	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
Download	0	Type 0	1.0	1428.0	18	25704.0
Download	1	Type 0	1.0	1428.0	18	25704.0
Download	2	Type 0	1.0	1428.0	18	25704.0
Download	3	Type 0	1.0	1428.0	18	25704.0
Download	4	Type 0	1.0	1428.0	18	25704.0
Download	5	Type 0	1.0	1428.0	18	25704.0
Download	6	Type 0	1.0	1428.0	18	25704.0
Download	7	Type 0	1.0	1428.0	18	25704.0
Download	8	Type 0	1.0	1428.0	18	25704.0
Download	9	Type 0	1.0	1428.0	18	25704.0
Download	10	Type 0	1.0	1428.0	18	25704.0
Download	11	Type 0	1.0	1428.0	18	25704.0
Download	12	Type 0	1.0	1428.0	18	25704.0
Download	13	Type 0	1.0	1428.0	18	25704.0
Download	14	Type 0	1.0	1428.0	18	25704.0
Download	15	Type 0	1.0	1428.0	18	25704.0
Download	16	Type 0	1.0	1428.0	18	25704.0
Download	17	Type 0	1.0	1428.0	18	25704.0
Download	18	Type 0	1.0	1428.0	18	25704.0
Download	19	Type 0	1.0	1428.0	18	25704.0
Download	20	Type 0	1.0	1428.0	18	25704.0
Download	21	Type 0	1.0	1428.0	18	25704.0
Download	22	Type 0	1.0	1428.0	18	25704.0
Download	23	Type 0	1.0	1428.0	18	25704.0
Download	24	Type 0	1.0	1428.0	18	25704.0
Download	25	Type 0	1.0	1428.0	18	25704.0
Download	26	Type 0	1.0	1428.0	18	25704.0
Download	27	Type 0	1.0	1428.0	18	25704.0

12.5. Channel closing transmission time, channel move time and non-occupancy period

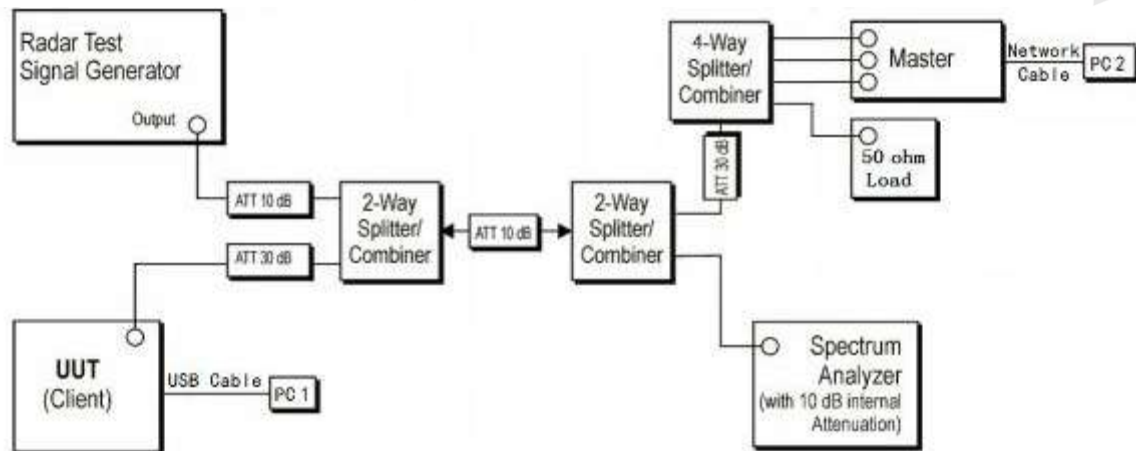
Block diagram of test setup Test Procedure:

- (1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428 us PRI is used for the testing.
- (2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61 dBm at the antenna port of the master device.
- (3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- (4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Test Software in order to properly load the network for the entire period of the test.
- (5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- (6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- (7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the
- (8) spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: $Dwell (0.3 ms) = S (12000 ms) / B (4000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $C (ms) = N \times Dwell (0.3 ms)$; where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

12.6. Test setup

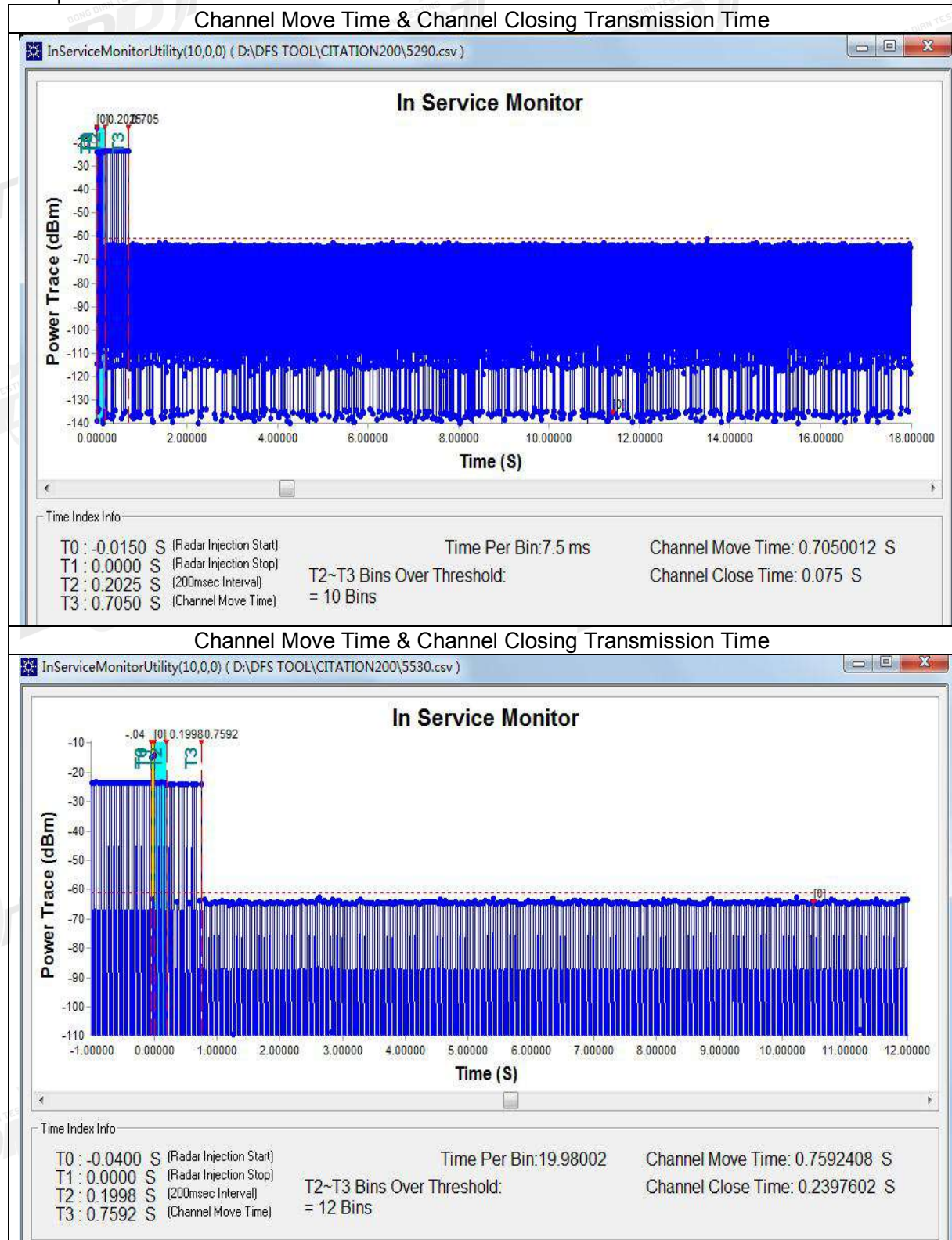
Setup for Client with injection at the Master



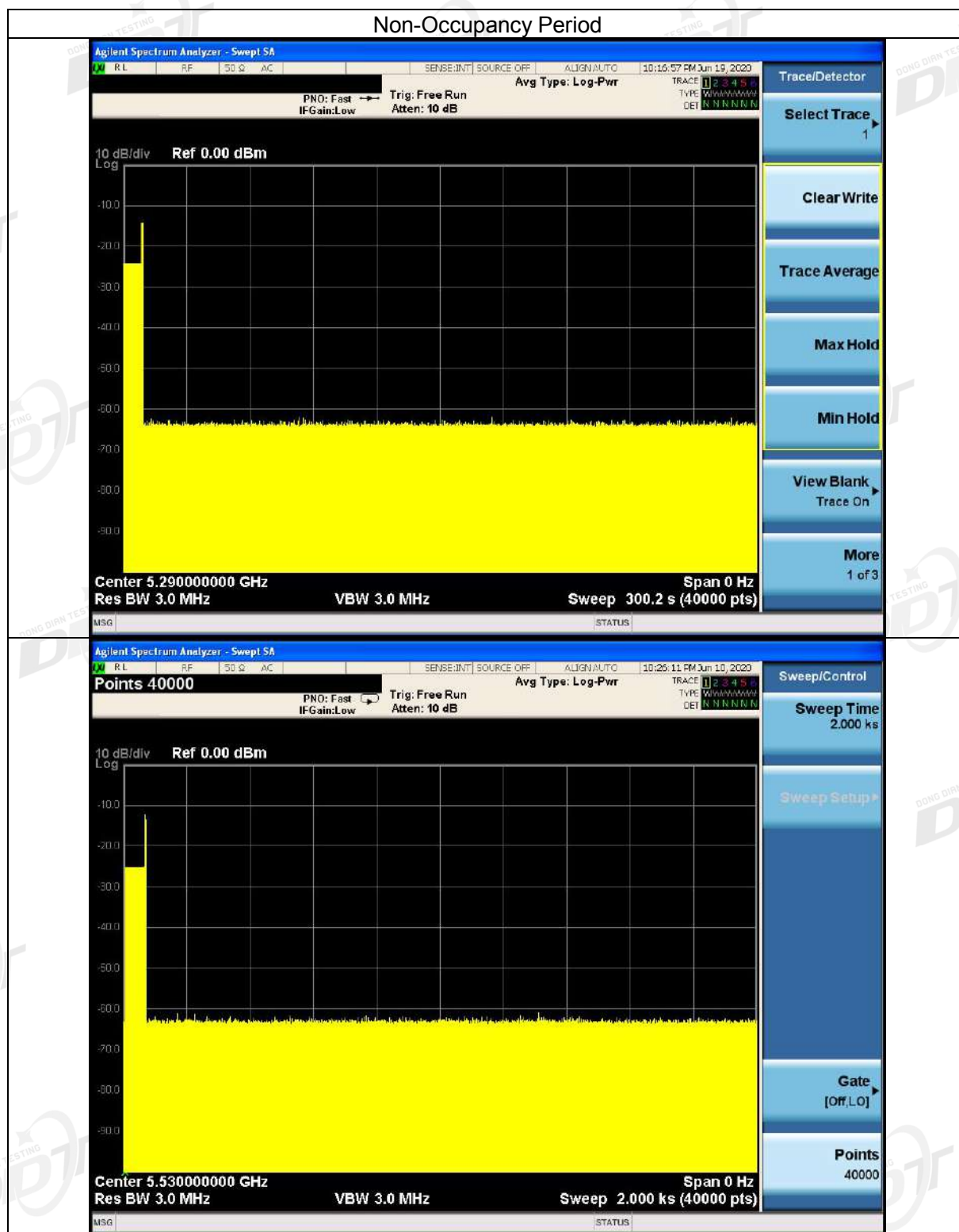
12.7. Test result

BW/Channel	Test Item	Test Result	Limit	Results
80M/5290MHz	Channel Move Time	0.705 s	< 10 s	Pass
	Channel Closing Transmission Time	0.075 s	< 0.26 s	Pass
80M/5530MHz	Channel Move Time	0.759 s	< 10 s	Pass
	Channel Closing Transmission Time	0.240 s	< 0.26 s	Pass

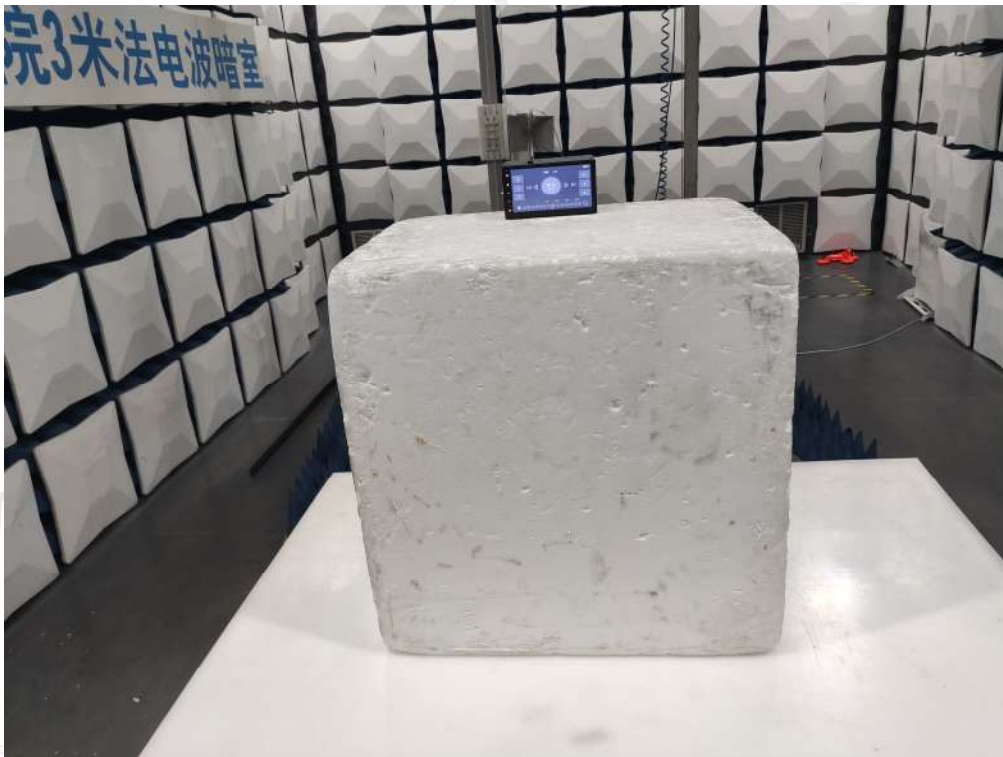
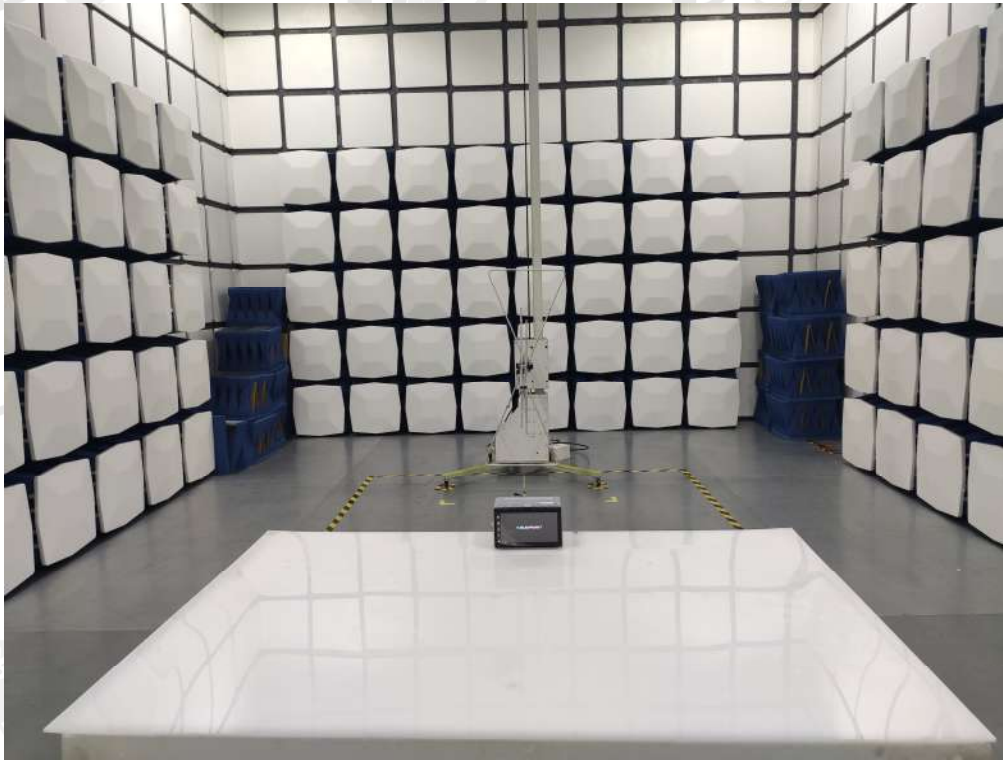
Test plots as follows:



BW/Channel	Test Item	Test Result	Limit	Results
80M/5290MHz	Non-Occupancy Period	> 30 min	30 min	Pass
80M/5530MHz	Non-Occupancy Period	> 30 min	30 min	Pass

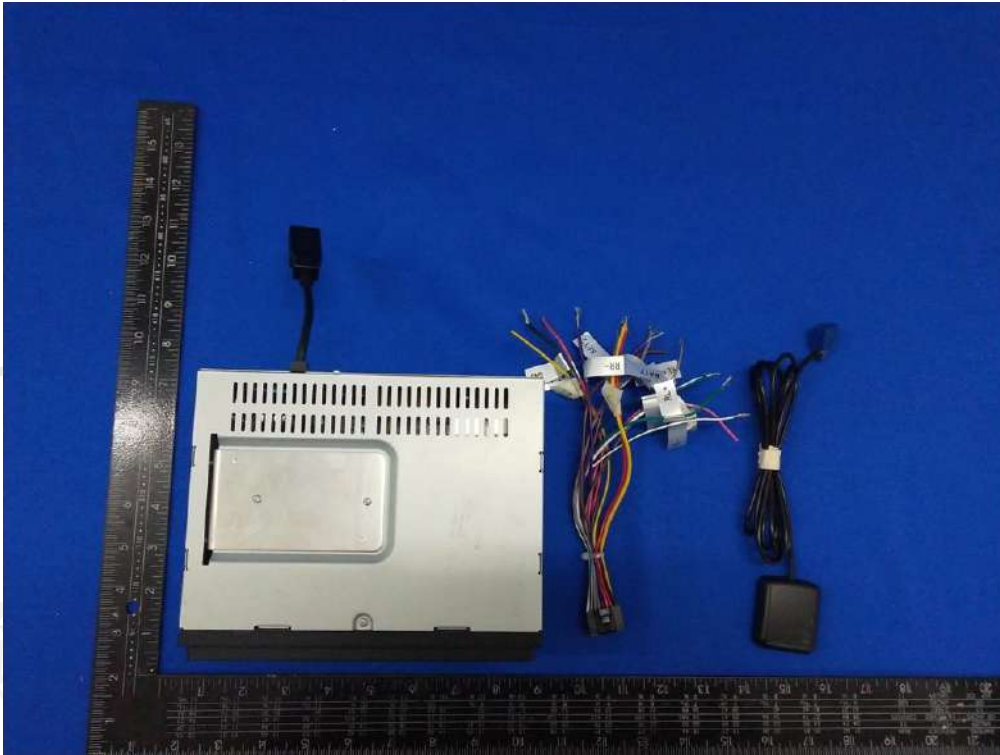


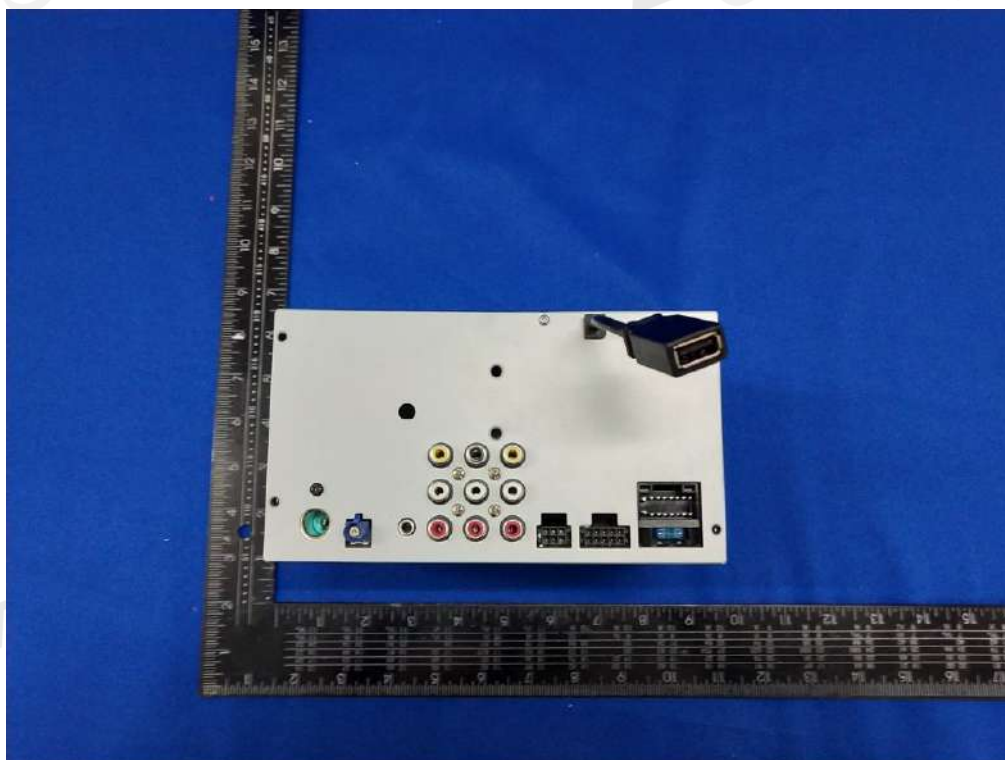
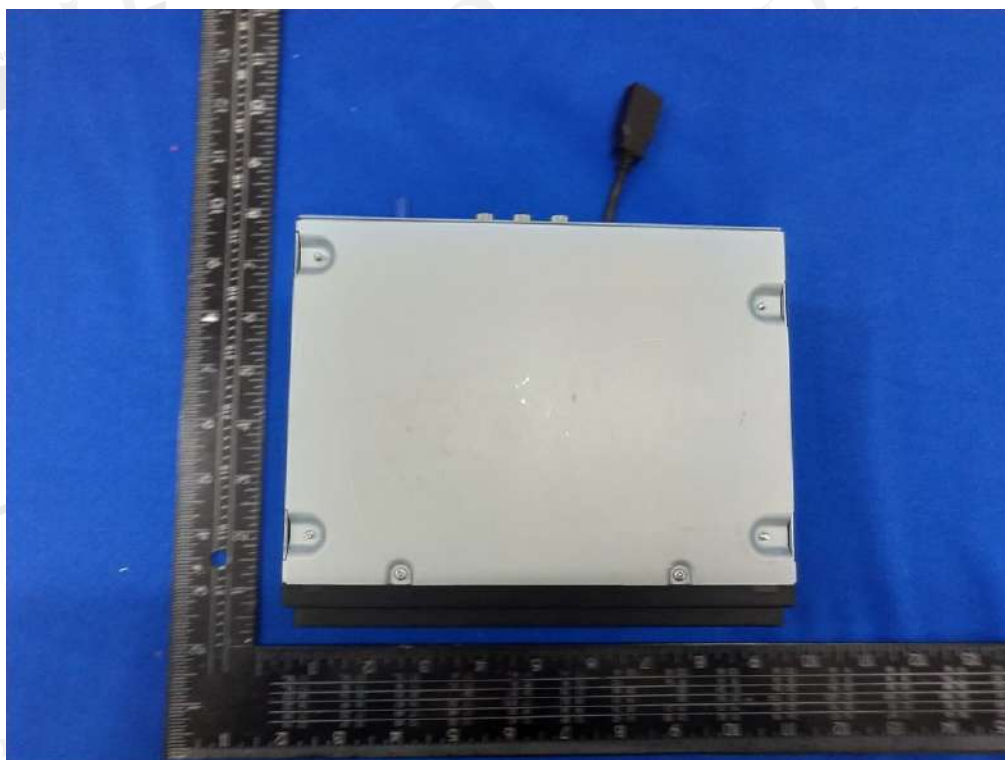
13. Test Setup Photograph

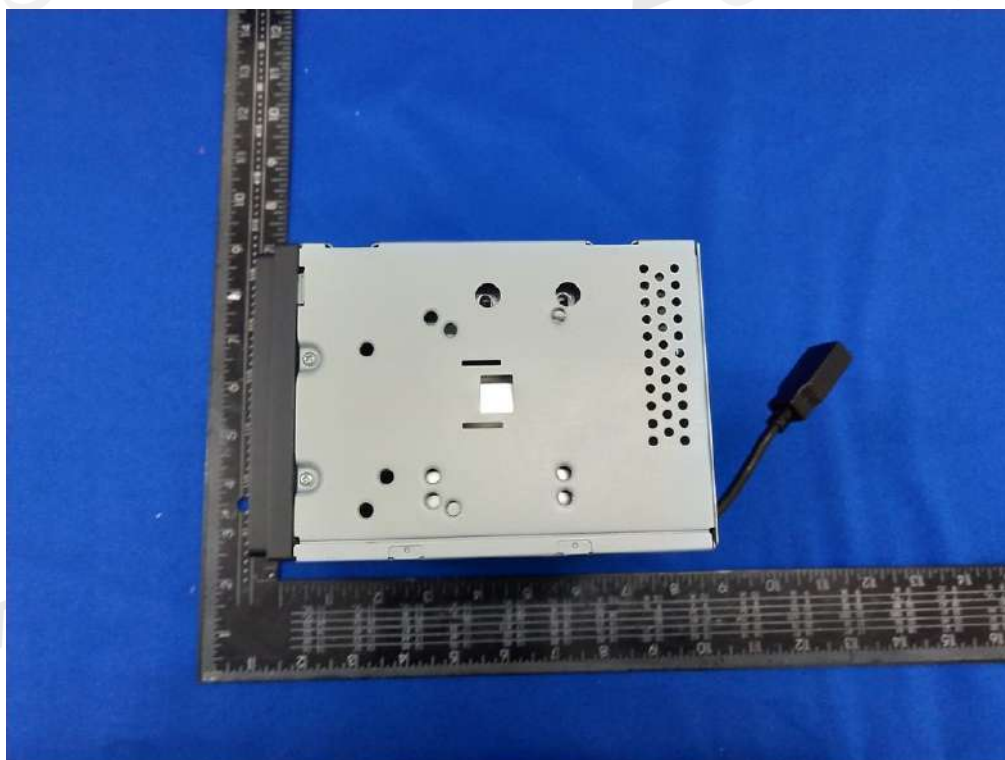


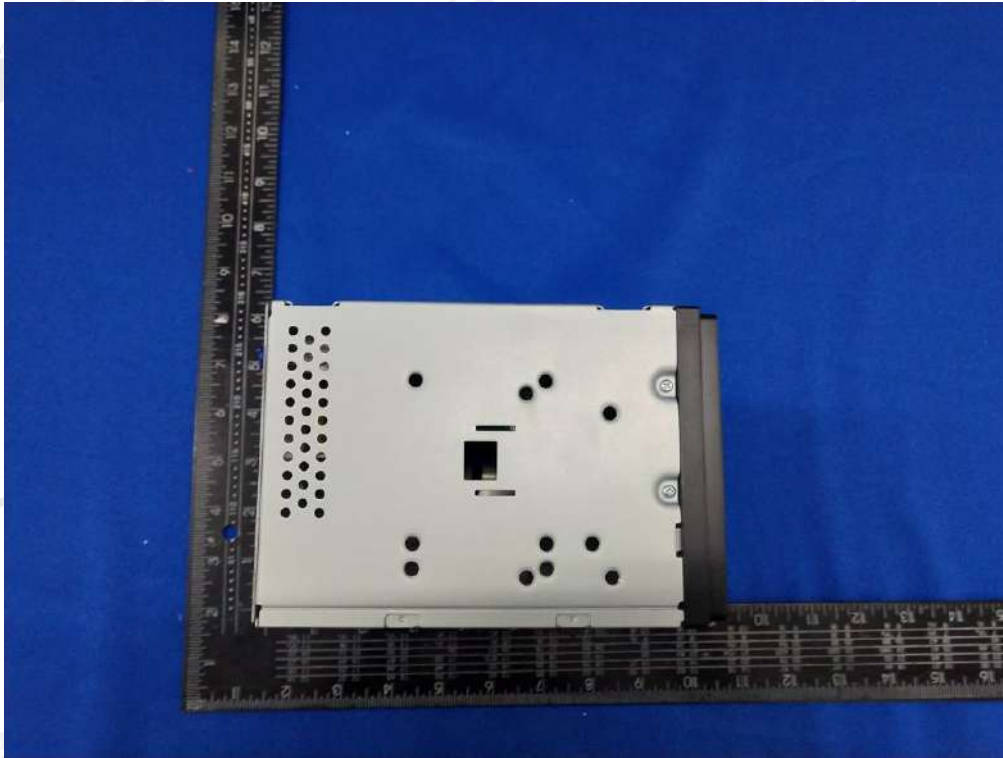
14. Photos of the EUT

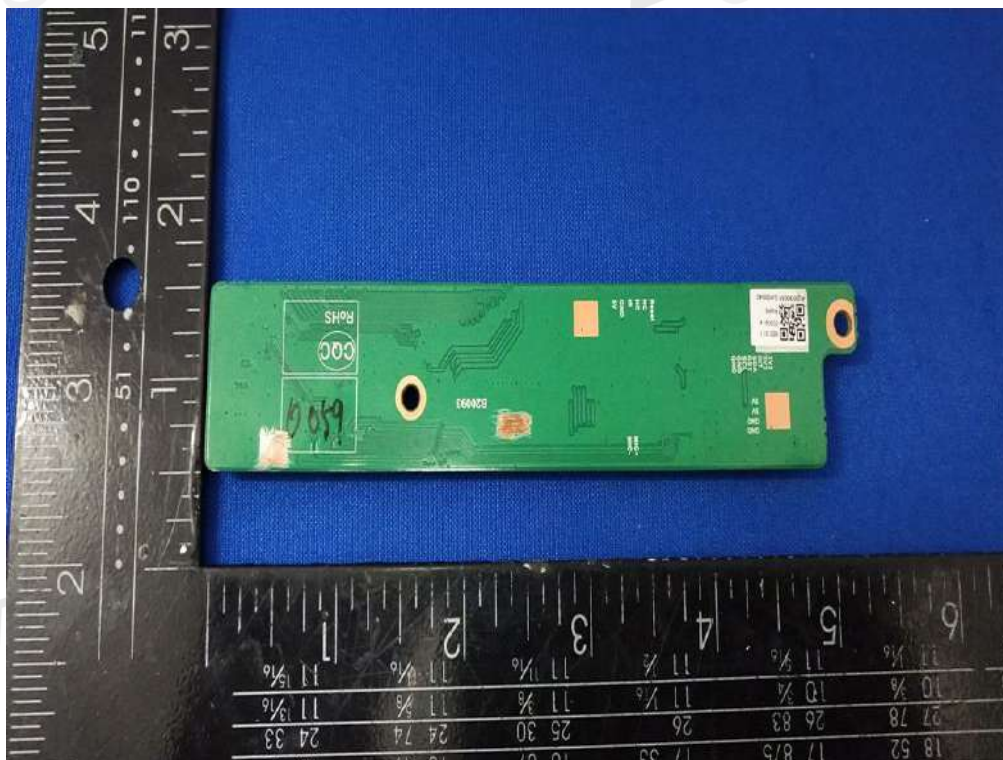
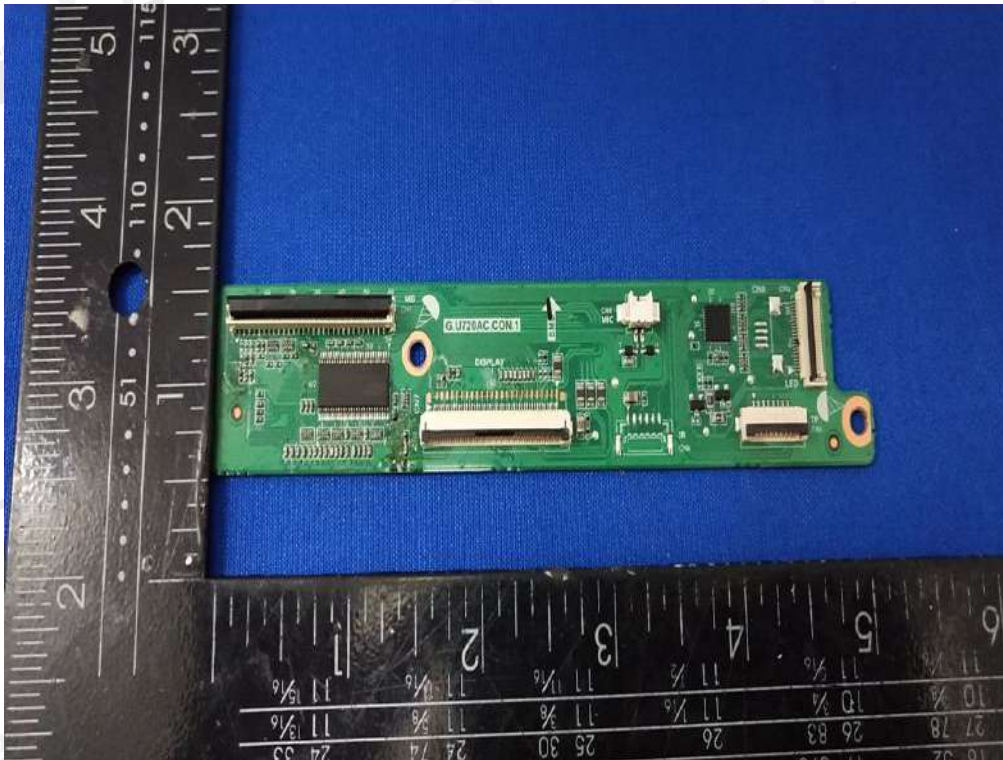
U720AC-D:



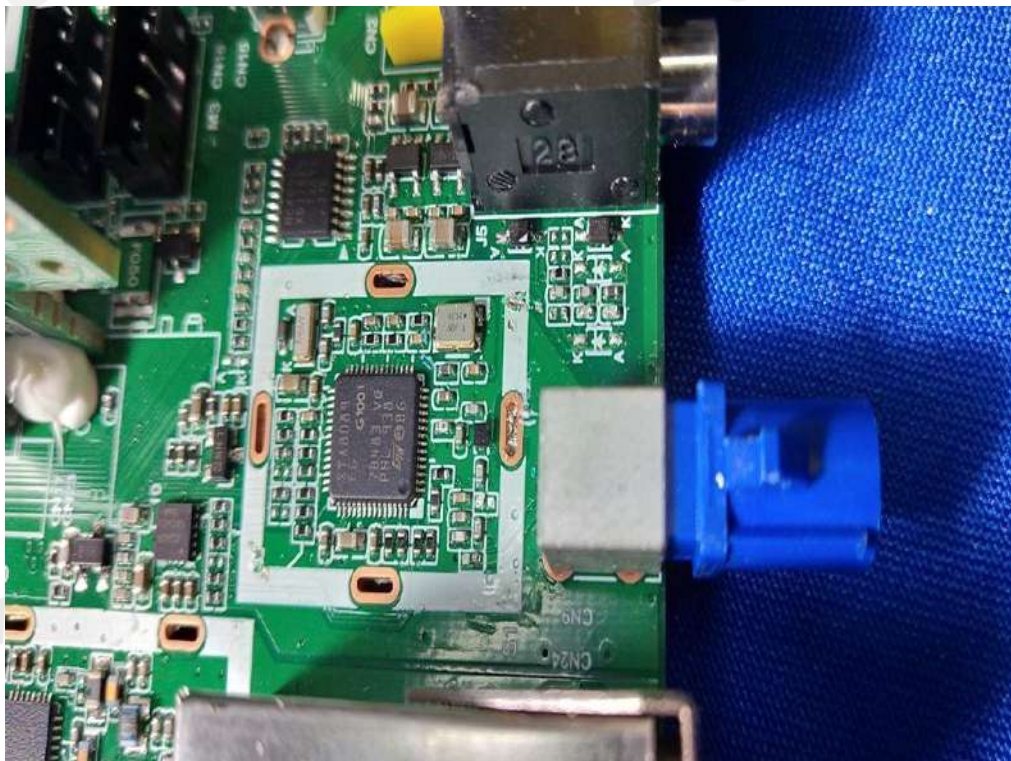




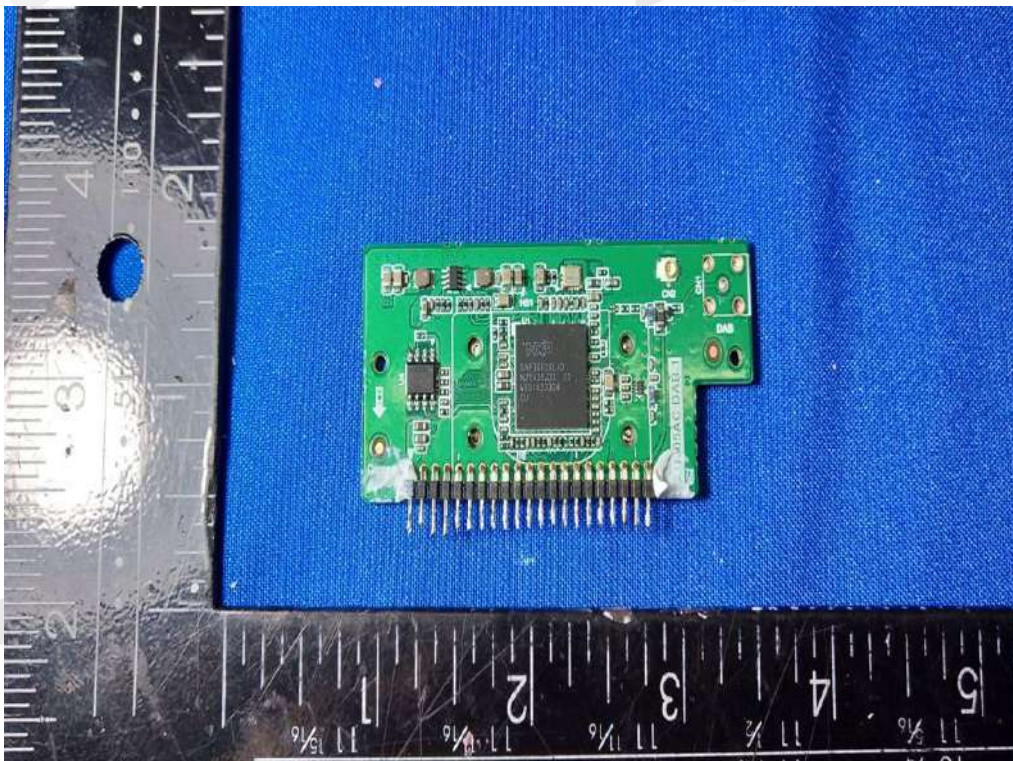
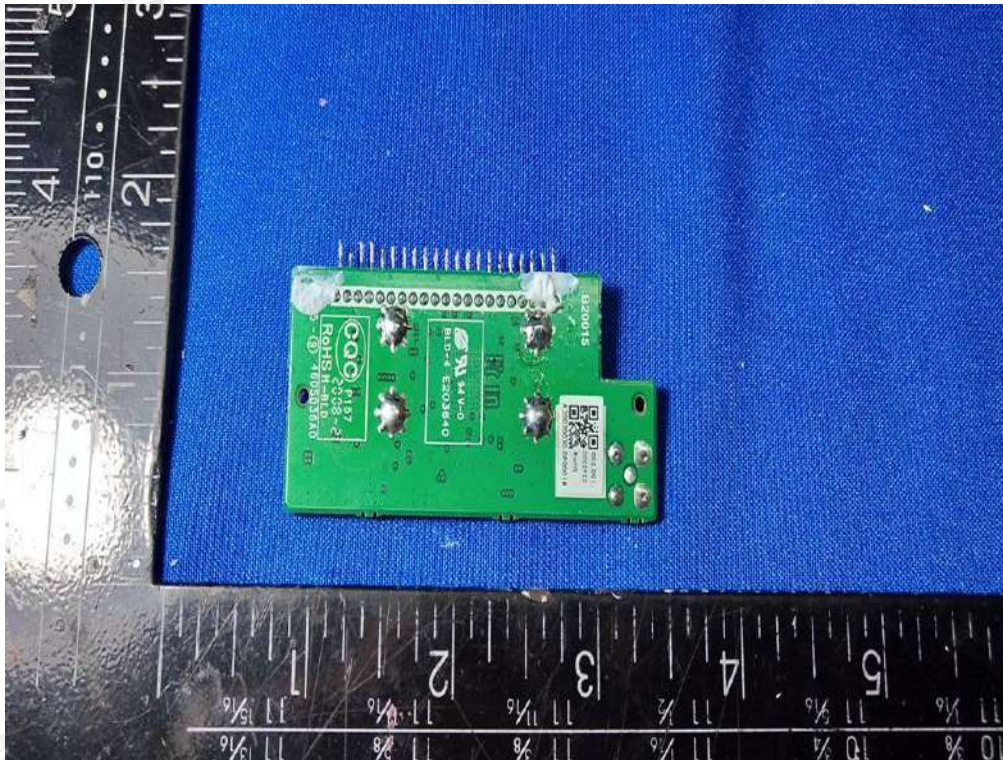


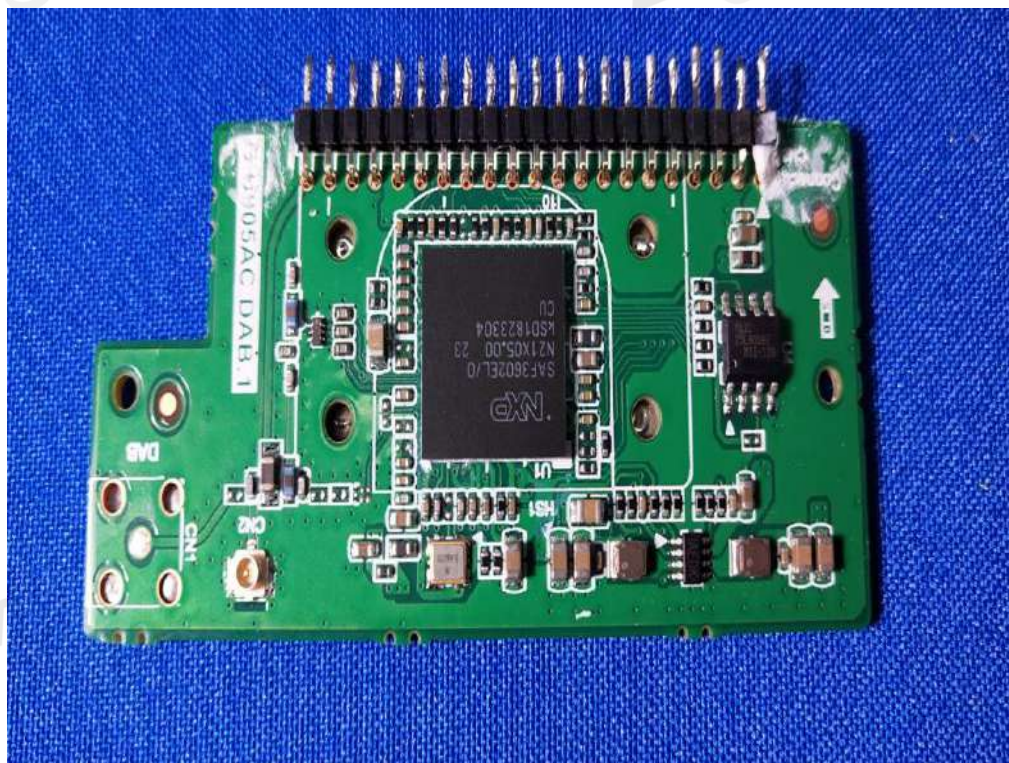






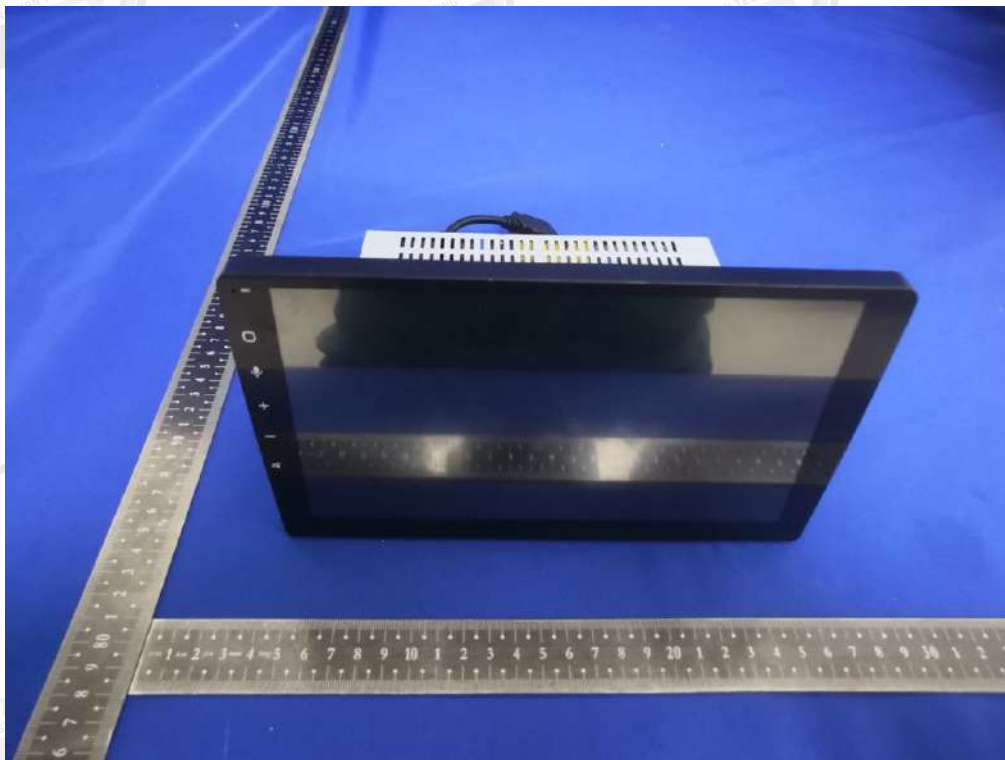




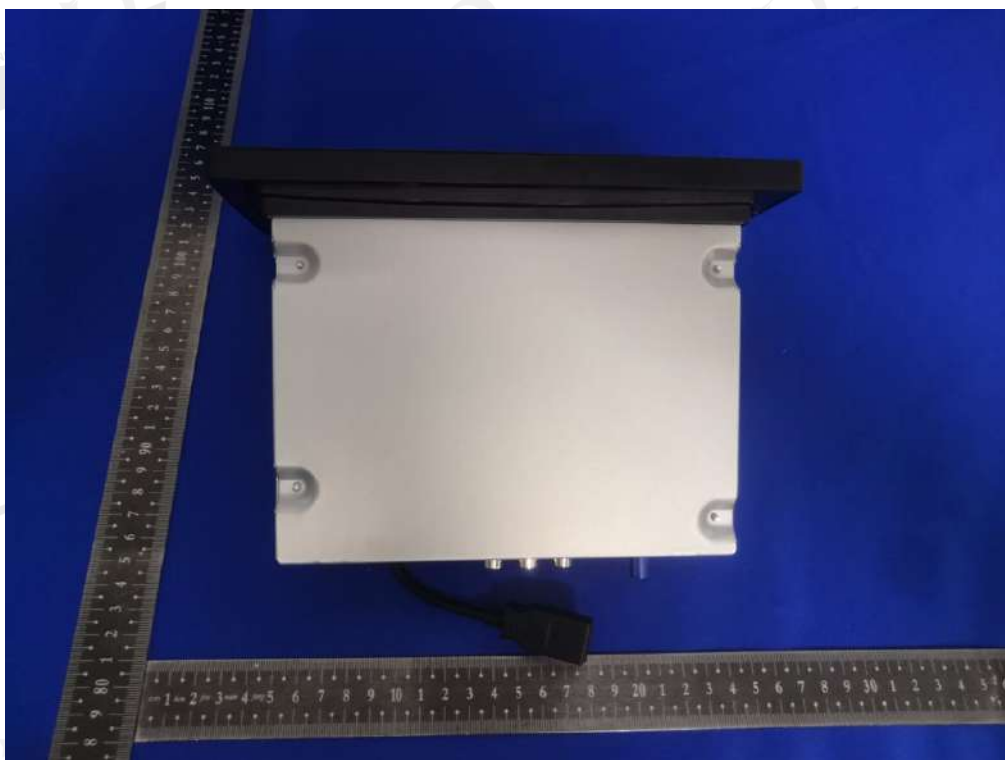




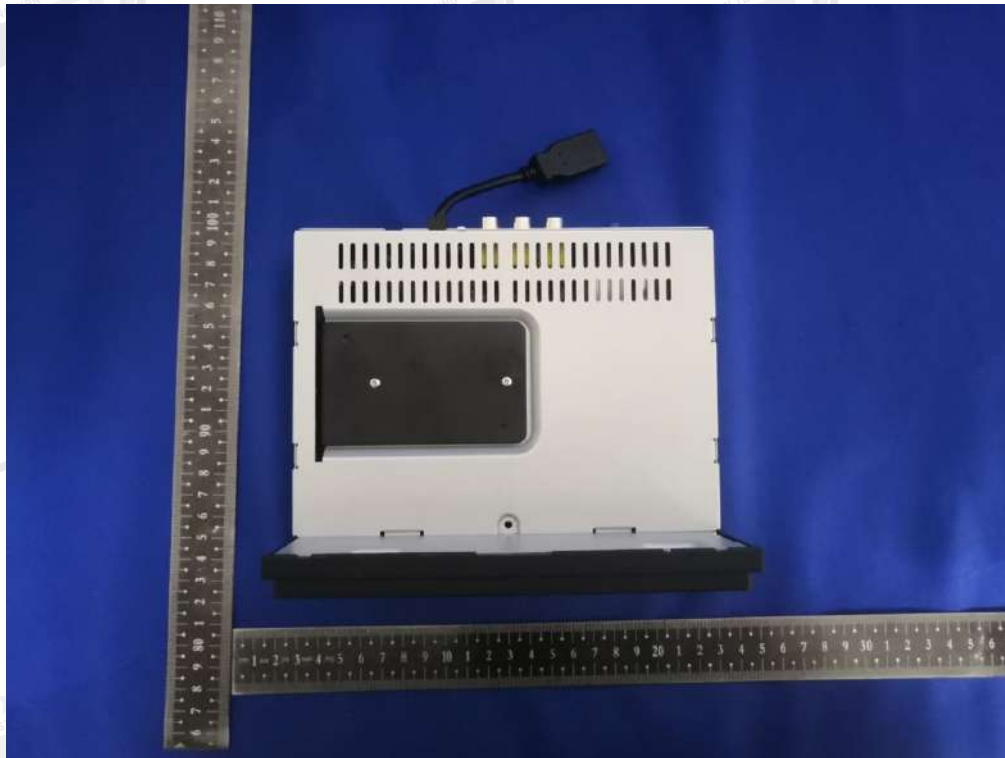
M901PT-C



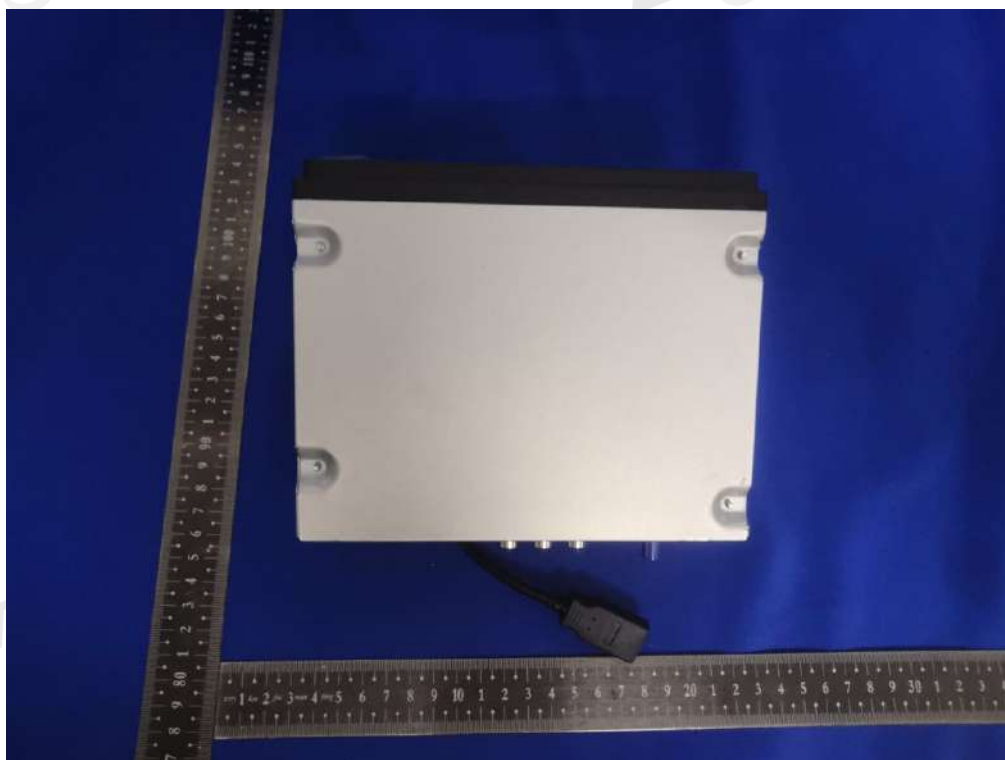




U720AC-C







END OF REPORT