RF TEST REPORT

Product Name: Smartphone

Model Name: A170, A171

FCC ID: 2A9SN-A170

Issued For : INOI Limited

Office 302, Dominion Centre 43-59, Queens Road, East Wanchai, Hong Kong, China

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Chen Hsong Industrial Park, No.177 Renmin West Road, Jinsha Community, Kengzi Street, Pingshan New District, Shenzhen, China

Report Number:	LGT22L054RF15
Sample Received Date:	Dec. 13, 2022
Date of Test:	Dec. 23, 2022 – Mar. 01, 2023
Date of Issue:	Mar. 01, 2023

TEST REPORT CERTIFICATION

Applicant	INOI Limited
Address	Office 302, Dominion Centre 43-59, Queens Road, East Wanchai, Hong Kong, China
Manufacturer	INOI Limited
Address	Office 302, Dominion Centre 43-59, Queens Road, East Wanchai, Hong Kong, China
Product Name	Smartphone
Trademark	INOI
Model Name	A170, A171
Sample Status:	Normal

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC Part 15.407, Subpart E ANSI C63.10-2013	PASS

Prepared by:

Zane Shan

Zane Shan
Engineer

Approved by:

Vita Li
Technical Director

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Revision History

Rev.	Issue Date	Contents
00	Mar. 01, 2023	Initial Issue

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:
Part 15.407,KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

FCC Part 15.407		
FCC standard	Test Item	Results
15.207	AC Conducted Emission	PASS
15.407 (a) /15.407 (e)	26dB/6dB &99% Bandwidth	PASS
15.407(a)	Maximum Conducted Output Power	PASS
15.407(b)/15.205/15.209	Radiated Emission And (bandedge Emissions) Measurement	PASS
15.407(a)	Power Spectral Density	PASS
15.407(c)	Automatically Discontinue Transmission	PASS
15.203/15.204	Antenna Requirement	PASS

NOTE:

(1) 'N/A' denotes test is not applicable in this Test Report.

(2) All tests are according to ANSI C63.10-2013.

1.1 TEST FACTORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Chen Hsong Industrial Park, No.177 Renmin West Road, Jinsha Community, Kengzi Street, Pingshan New District, Shenzhen, China
Accreditation Certificate:	A2LA Certificate No.: 6727.01
	FCC Registration No.: 746540
	CAB ID: CN0136

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.68dB
2	Unwanted Emissions, conducted	±2.988dB
3	All emissions, radiated 9K-30MHz	±2.84dB
4	All emissions, radiated 30M-1GHz	±4.39dB
5	All emissions, radiated 1G-6GHz	±5.10dB
6	All emissions, radiated>6G	±5.48dB
7	Conducted Emission (9KHz-150KHz)	±2.79dB
8	Conducted Emission (150KHz-30MHz)	±2.80dB

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

<table>
<tr><td>Product Name</td><td>Smartphone</td></tr>
<tr><td>Trademark</td><td>INOI</td></tr>
<tr><td>Model Name</td><td>A170</td></tr>
<tr><td>Series Model</td><td>A171</td></tr>
<tr><td>Model Difference</td><td>Model A170 have two memory capacity:4G+ 128GB,4G+ 64GB, and model A171 have one memory capacity: 2G+ 32GB</td></tr>
<tr><td>Product Description</td><td>The EUT is a Smartphone
<table>
<tr><td rowspan="4">Operation Frequency:</td><td>IEEE 802.11a/n(HT20)/ac(VHT20): 5.180GHz-5.240GHz
IEEE 802.11n(HT40)/ac(VHT40): 5.190GHz-5.230GHz
IEEE 802.11ac(VHT80): 5.210GHz</td></tr>
<tr><td>IEEE 802.11a/n(HT20)/ac(VHT20): 5.260GHz-5.320GHz
IEEE 802.11n(HT40)/ac(VHT40): 5.270GHz-5.310GHz
IEEE 802.11ac(VHT80): 5.290GHz</td></tr>
<tr><td>IEEE 802.11a/n(HT20)/ac(VHT20): 5.500GHz-5.700GHz
IEEE 802.11 n(HT40)/ac(VHT40): 5.510GHz-5.670GHz
IEEE 802.11ac(VHT80): 5.530GHz-5610GHz</td></tr>
<tr><td>I IEEE 802.11a/n(HT20)/ac(VHT20): 5.745GHz-5.825GHz
IEEE 802.11a/n(HT40)/ac(VHT40): 5.755GHz-5.795GHz
IEEE 802.11ac(VHT80): 5.775GHz</td></tr>
<tr><td>Modulation Type:</td><td>802.11a(OFDM): BPSK, QPSK, 16-QAM, 64-QAM
802.11n(OFDM): BPSK, QPSK, 16-QAM, 64-QAM
802.11ac (OFDM): BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM</td></tr>
<tr><td>Antenna Designation:</td><td>Please refer to the Note 3.</td></tr>
<tr><td>Antenna Gain(dBi)</td><td>0.46</td></tr>
</table>
More details of EUT technical specification, please refer to the User Manual.</td></tr>
<tr><td>Test Channel</td><td>Please refer to the Note 2.</td></tr>
<tr><td>Adapter</td><td>Input: AC 100-240V, 50/60Hz, 0.25A
Output: DC 5V, 2A</td></tr>
<tr><td>Battery</td><td>Capacity: 5000mAh
Rated Voltage: DC 3.85V</td></tr>
<tr><td>Hardware Version</td><td>J535_T610A_310_MB_D3FT_V1.0</td></tr>
<tr><td>Software Version</td><td>INOI_A170_Plus_V04_20230211</td></tr>
<tr><td>Connecting I/O Port(s)</td><td>Please refer to the Note 1.</td></tr>
</table>

Note

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.

2.

Operation Frequency of channel			
5.180GHz-5.240GHz		5.500GHz-5.720GHz	
Channel	Frequency	Channel	Frequency
36	5180	100	5500
38	5190	102	5510
40	5200	104	5520
42	5210	106	5530
44	5220	108	5540
46	5230	110	5550
48	5240	112	5560
		116	5580
5.260GHz-5.320GHz		118	5590
Channel	Frequency	120	5600
52	5260	122	5610
54	5270	124	5620
56	5280	126	5630
58	5290	128	5640
60	5300	132	5660
62	5310	134	5670
64	5320	136	5680
		140	5700
5.745GHz-5.825GHz			
Channel	Frequency		
149	5745		
151	5755		
153	5765		
157	5785		
159	5795		
161	5805		
165	5825		

Note:
In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:
Carrier Frequency Channel

Channel List for 802.11a/n/ac(20MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	40	5200	42	5210
44	5220	46	5230	48	5240	52	5260
54	5270	56	5280	58	5290	60	5300
62	5310	64	5320	100	5500	102	5510
104	5520	106	5530	108	5540	110	5550
149	5745	151	5755	153	5765	157	5785
159	5795	161	5805	165	5825		

Channel List for 802.11n/ac(40MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230	54	5270	62	5310
151	5755	159	5795	--	--	--	--

Channel List for 802.11ac(80MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	58	5290	155	5775		

3KDB 662911 D01 Multiple Transmitter Output v02r01

. 2) Directional Gain Calculations for In-Band Measurements

a) Basic methodology with NANT transmit antennas, each with the same directional gain GANT d Bi, being driven by NANT transmitter outputs of equal power. Directional gain is to be computed

Ant	Brand	Model Name	Ant Type	Connector	Gain (dBi)	NOTE
1	INOI	A170	PIFA antenna	N/A	0.46	WLAN Ant

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Worst Mode	Description	Data Rate
Mode 1	TX IEEE 802.11a HT20 CH36&CH40&CH48	6 Mbps
Mode 2	TX IEEE 802.11a HT20 CH52&CH60&CH64	6 Mbps
Mode 3	TX IEEE 802.11a HT20 CH149&CH157&CH165	6 Mbps
Mode 4	TX IEEE 802.11n HT20 CH36&CH40&CH48	MCS 0
Mode 5	TX IEEE 802.11ac HT20 CH36&CH40&CH48	NSS1 MCS0
Mode 6	TX IEEE 802.11n HT20 CH52&CH60&CH64	MCS 0
Mode 7	TX IEEE 802.11ac HT20 CH52&CH60&CH64	NSS1 MCS0
Mode 8	TX IEEE 802.11n HT20 CH149&CH157&CH165	MCS 0
Mode 9	TX IEEE 802.11ac HT20 CH149&CH157&CH165	NSS1 MCS0
Mode 10	TX IEEE 802.11n HT40 CH38&CH46	MCS 0
Mode 11	TX IEEE 802.11ac HT40 CH38&CH46	NSS1 MCS0
Mode 12	TX IEEE 802.11n HT40 CH54 &CH62	MCS 0
Mode 13	TX IEEE 802.11ac HT40 CH54 &CH62	NSS1 MCS0
Mode 14	TX IEEE 802.11n HT40 CH151&CH159	MCS 0
Mode 15	TX IEEE 802.11ac HT40 CH151&CH159	NSS1 MCS0
Mode 16	TX IEEE 802.11ac HT80 CH42	NSS1 MCS0
Mode 17	TX IEEE 802.11ac HT80 CH58	NSS1 MCS0
Mode 18	TX IEEE 802.11ac HT80 CH155	NSS1 MCS0

Note: (1) The measurements are performed at the highest, middle, lowest available channels.

(2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.

(3) We have be tested for all avaiable U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation.

(4) The battery is fully-charged during the radited and RF conducted test.

AC Conducted Emission

Test Case	
AC Conducted Emission	Mode 19: TX Mode

2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

Test software Version	Test program: 5G WIFI B1	
engineering mode	a	18
	ac20	18
	ac40	18
	ac80	18
Test software Version	Test program: 5G WIFI B2	
engineering mode	a	18
	ac20	18
	ac40	18
	ac80	18
Test software Version	Test program: 5G WIFI B3	
engineering mode	a	18
	ac20	18
	ac40	18
	ac80	18
Test software Version	Test program: 5G WIFI B4	
engineering mode	a	18
	ac20	18
	ac40	18
	ac80	18

2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Accessories Equipment

Description	Manufacturer	Model	S/N	Rating
Adapter	INOI Limited	IN-C01/19	N/A	Input:100-240V ~ 50/60Hz 0.25A Output:5V, 2A
USB-A to USB-C Cable	INOI Limited	N/A	N/A	1m, shielded, without ferrite core

Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Earphone	N/A	39630078	N/A	N/A
Laptop	HUAWEI	HKF-16	N/A	N/A

Note:

(1) For detachable type I/O cable should be specified the length in cm in『Length』column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Conducted Emission

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESU	100372	2022.04.12	2023.04.11
LISN	COM-POWER	LI-115	02032	2022.04.13	2023.04.12
LISN	SCHWARZBECK	NNLK 8121	00847	2022.08.19	2023.08.18
CE Cable	N.A	C01	N.A	2022.05.05	2023.05.04
Transient Limiter	CYBERTEK	EM5010A	E2250100049	2022.08.19	2023.08.18
Temperature & Humidity	KTJ	TA218B	N.A	2022.05.05	2023.05.04
Testing Software	EMC-I_V1.4.0.3_SKET				

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESU	100372	2022.04.12	2023.04.11
Spectrum Analyzer	Keysight	N9010B	MY60242508	2022.04.29	2023.04.28
Bilog Antenna	SCHWARZBECK	VULB 9168	01447	2022.12.12	2025.12.11
Horn Antenna(18GHz)	SCHWARZBECK	3115	10SL0060	2022.06.02	2025.06.01
Horn Antenna(40 GHz)	A-INFO	LB-180400-KF	J211060273	2022.03.28	2025.03.27
Pre-amplifier(3GHz)	HP	8447D	2727A05655	2022.04.11	2023.04.10
Pre-amplifier(26.5G)	Agilent	8449B	3008A4722	2022.04.12	2023.04.11
Pre-amplifier(40 GHz)	com-mw	LNPA_18-40-01	18050001	2022.06.08	2023.06.07
RE Cable (9K-1G)	N.A	R01	N.A	2022.05.05	2023.05.04
RE Cable (1-26G)	N.A	R02	N.A	2022.05.05	2023.05.04
Temperature & Humidity	KTJ	TA218B	N.A	2022.05.05	2023.05.04
Testing Software	EMC-I_V1.4.0.3_SKET				

RF Connected Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Signal Generator	Keysight	N5182B	MY59100717	2022.04.30	2023.04.29
Signal Analyzer	Keysight	N9010B	MY60242508	2022.04.29	2023.04.28
Temperature & Humidity	KTJ	TA218B	N/A	2022.05.05	2023.05.04
Temperature& Humidity test chamber	AISRY	LX-1000L	171200018	2022.05.10	2023.05.09
Attenuator	eastsheep	90db	N/A	2022.04.29	2023.04.28
Testing Software	MTS 8310_2.0.0.0_MWRF-TEST				

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class B (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	56.00	46.00	CISPR
5.0 -30.0	60.00	50.00	CISPR

0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

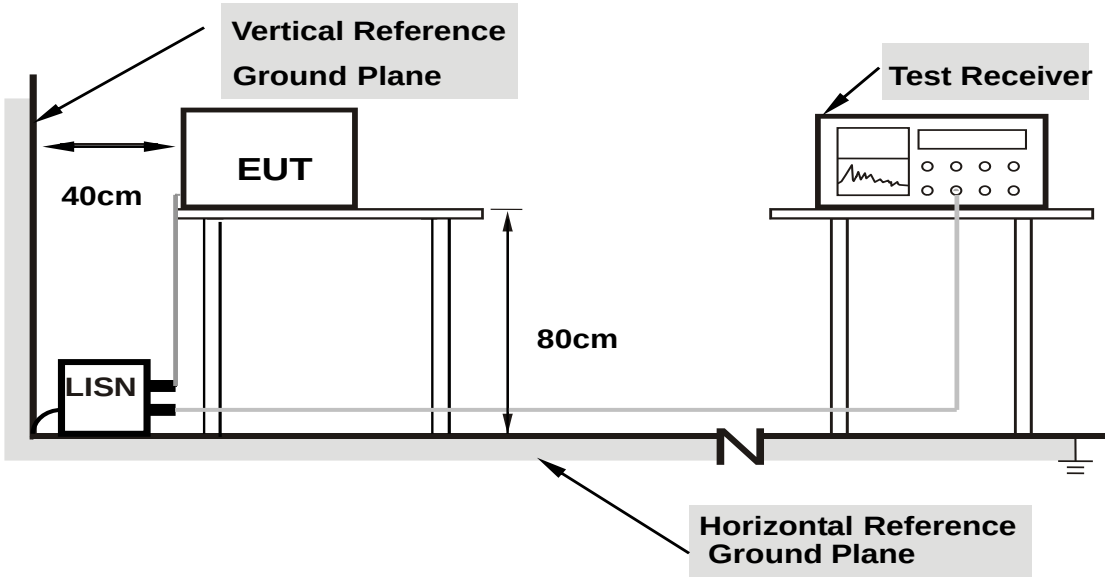
3.1.2 TEST PROCEDURE

a. The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN is at least 80 cm from the nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



Note: 1. Support units were connected to second LISN.

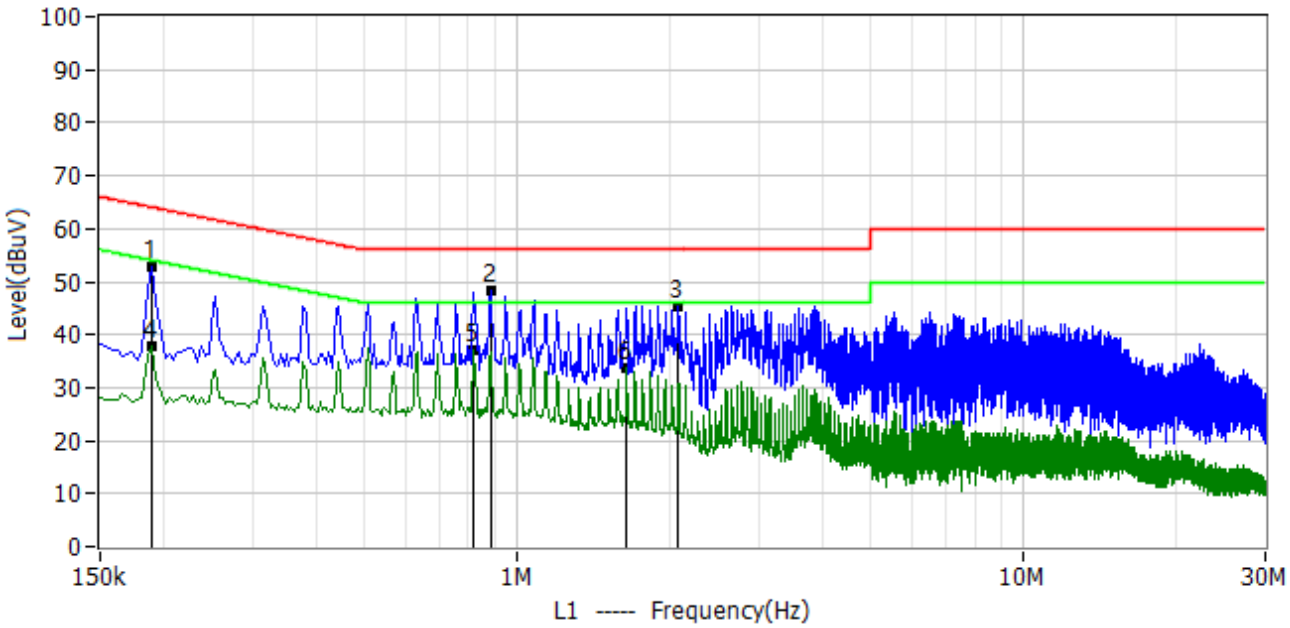
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

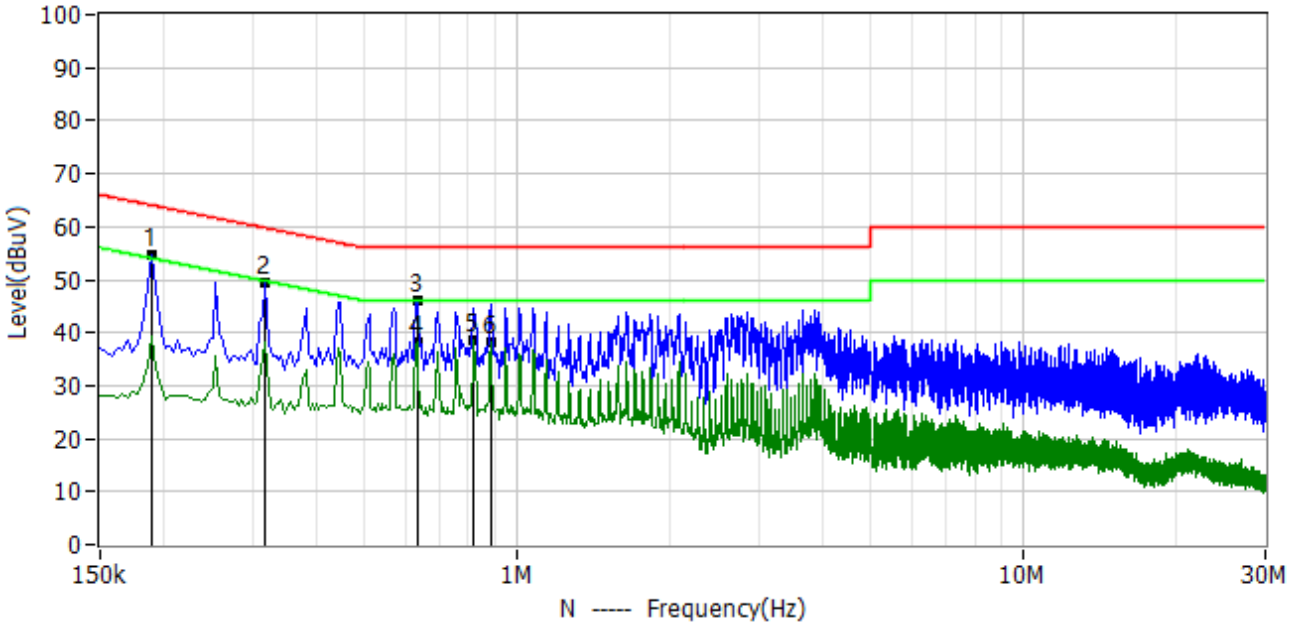
3.1.6 TEST RESULTS

Project: LGT23L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 21.8℃
M/N: A170	Humidity: 61%RH
Test Voltage: AC 120V/60Hz	Test Data: 2023-02-13
Test Mode: TX 5G WIFI	
Note:	



No.	Frequency	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	190.000kHz	42.47	10.50	52.97	64.04	-11.07	PK	L1
2*	886.000kHz	37.80	10.52	48.32	56.00	-7.68	PK	L1
3*	2.082MHz	34.74	10.74	45.48	56.00	-10.52	PK	L1
4*	190.000kHz	27.23	10.50	37.73	54.04	-16.31	AV	L1
5*	822.000kHz	26.69	10.52	37.21	46.00	-8.79	AV	L1
6*	1.642MHz	22.93	10.66	33.59	46.00	-12.41	AV	L1

Project: LGT23L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 21.8℃
M/N: A170	Humidity: 61%RH
Test Voltage: AC 120V/60Hz	Test Data: 2023-02-13
Test Mode: TX 5G WIFI	
Note:	



No.	Frequency	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	190.000kHz	44.02	10.50	54.52	64.04	-9.51	PK	N
2*	318.000kHz	39.11	10.50	49.61	59.76	-10.15	PK	N
3*	634.000kHz	35.48	10.51	45.99	56.00	-10.01	PK	N
4*	634.000kHz	27.73	10.51	38.24	46.00	-7.76	AV	N
5*	822.000kHz	27.98	10.52	38.50	46.00	-7.50	AV	N
6*	886.000kHz	27.72	10.52	38.24	46.00	-7.76	AV	N

3.2 RADIATED EMISSION AND (BANDEDGE) MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

In case the emission fall within the restricted band specified on 15.407(b)7&15.205/209(a), then the limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	68.2	54

Notes:

(1) The limit for radiated test was performed according to FCC PART 15E.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
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
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	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	Above 38.6
13.36-13.41			

Note: In case the emission radiated emission above 1000MHz fall within the restricted band the restricted frequency bands, the peak limit is 74 dBuV/m.

LIMITS OF EMISSIONS OUTSIDE OF THE FREQUENCY BANDS

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note: dBuV/m(at 3M) = EIRP(dBm) + 95.3.

Peak Limit = -27dBm/MHz + 95.3 = 68.3 dBuV/m.

Spectrum Parameter	**Setting**
Attenuation	Auto
Detector	Peak
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier harmonic (Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 1 MHz, AV=1 MHz /3 MHz

For Band edge

Spectrum Parameter	Setting
Detector	Peak
RB / VB (emission in restricted band)	1 MHz / 1 MHz, AV=1 MHz /3 MHz

Receiver Parameter	**Setting**
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
c. The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

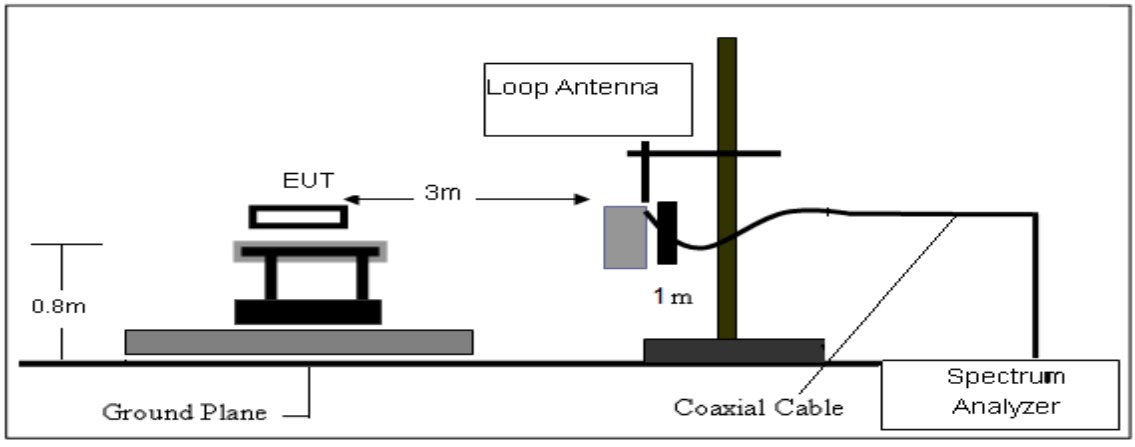
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.2 DEVIATION FROM TEST STANDARD

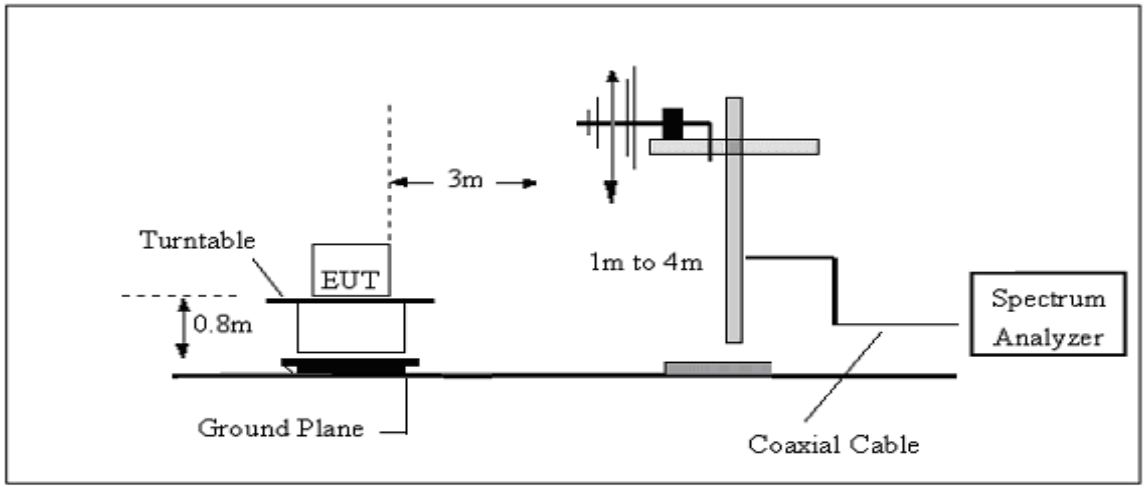
No deviation

3.2.3 TEST SETUP

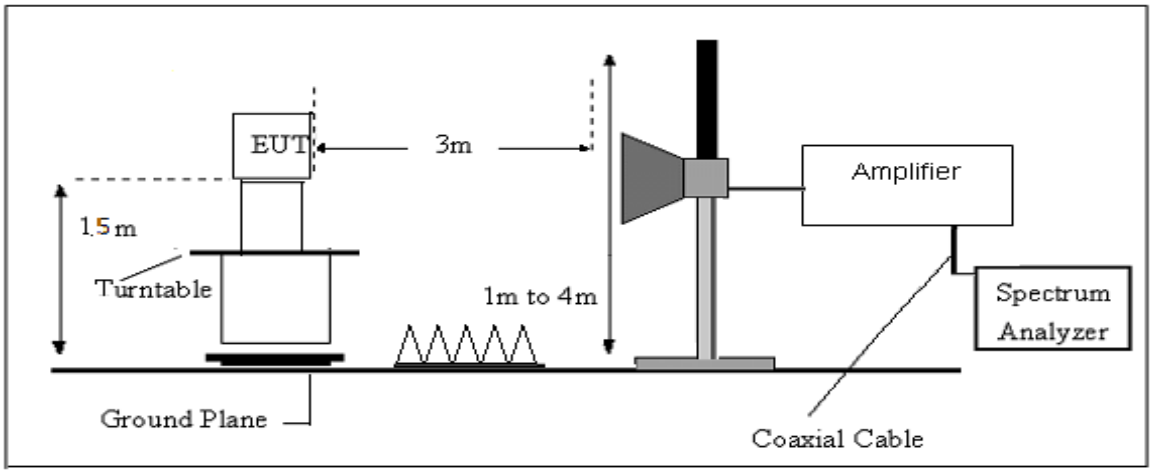
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.5 FIELD STRENGTH CALCULATION

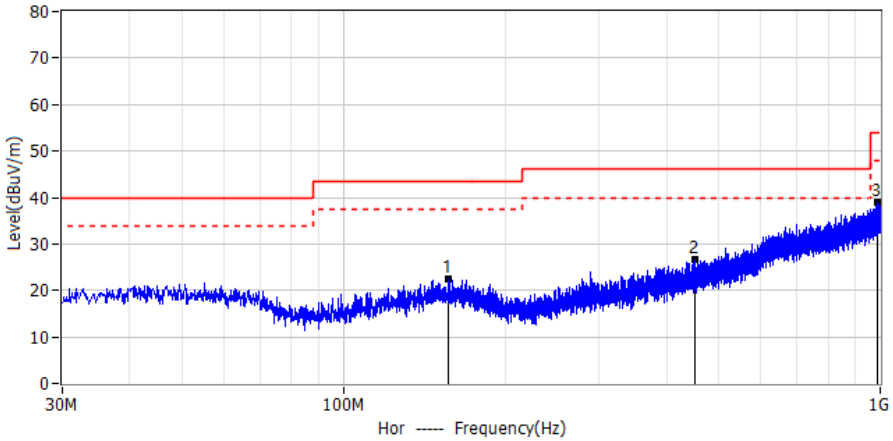
The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:
FS = RA + AF + CL - AG
Where
FS = Field Strength
CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude
AG = Amplifier Gain
AF = Antenna Factor
For example

Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

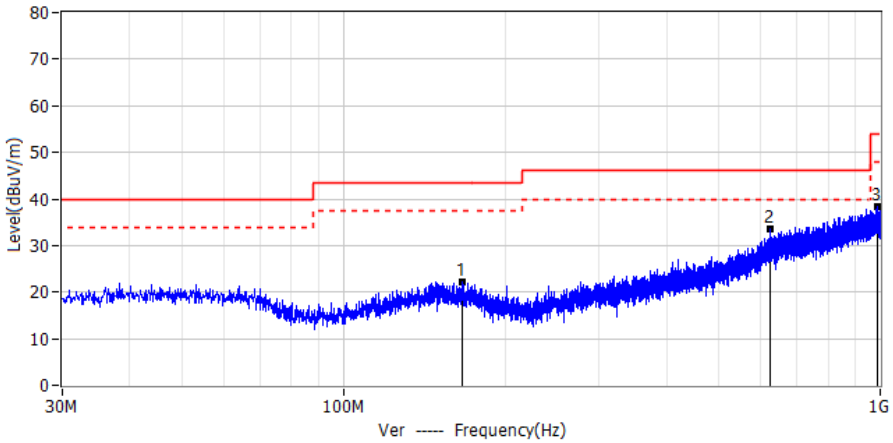
Factor=AF+CL-AG

3.2.6 TEST RESULTS

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 20.4℃
M/N: A170	Humidity: 49%RH
Test Voltage: Battery	Test Data: 2023-02-13
Test Mode: TX 5G WIFI	
Note:	

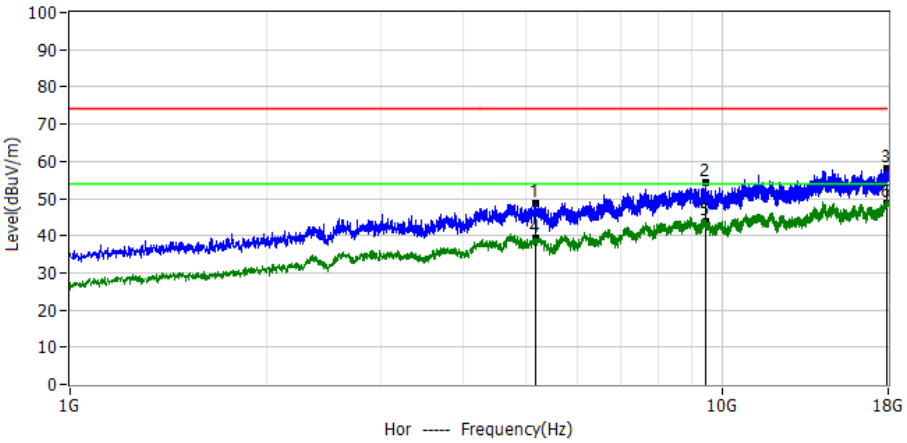


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	157.070MHz	2.53	19.88	22.41	43.50	-21.09	PK	Hor
2*	451.708MHz	2.89	23.84	26.73	46.00	-19.27	PK	Hor
3*	988.603MHz	4.39	34.52	38.91	54.00	-15.09	PK	Hor

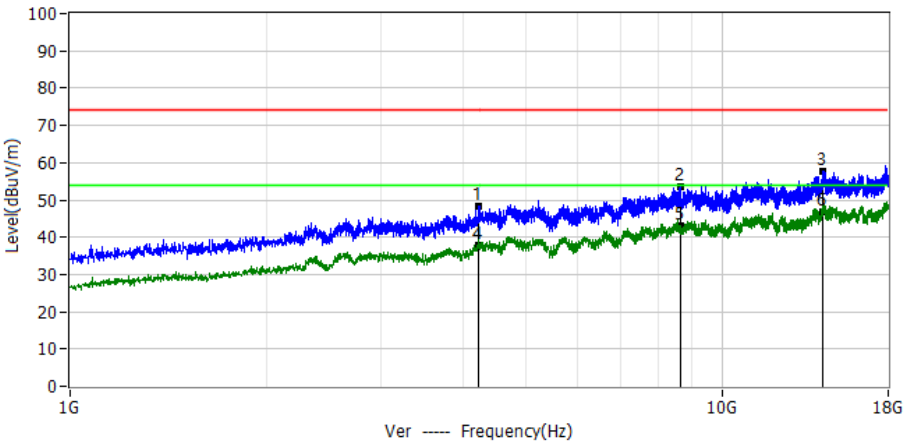


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	166.770MHz	2.43	19.80	22.23	43.50	-21.27	PK	Ver
2*	624.731MHz	4.97	28.58	33.55	46.00	-12.45	PK	Ver
3*	985.208MHz	3.81	34.50	38.31	54.00	-15.69	PK	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5180	
Note:	

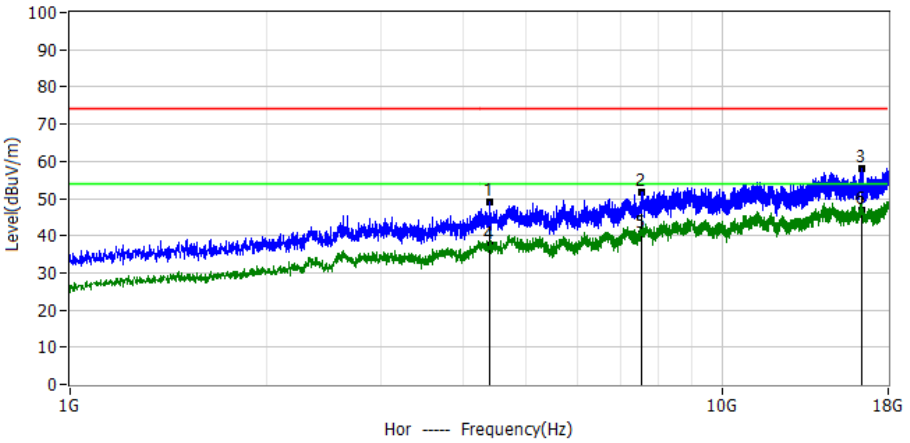


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	5.186GHz	55.26	-6.74	48.52	74.00	-25.48	PK	Hor
2*	9.443GHz	55.47	-1.17	54.30	74.00	-19.70	PK	Hor
3*	17.945GHz	49.41	8.48	57.89	74.00	-16.11	PK	Hor
4*	5.186GHz	45.94	-6.74	39.20	54.00	-14.80	AV	Hor
5*	9.443GHz	44.87	-1.17	43.70	54.00	-10.30	AV	Hor
6*	17.945GHz	40.12	8.48	48.60	54.00	-5.40	AV	Hor

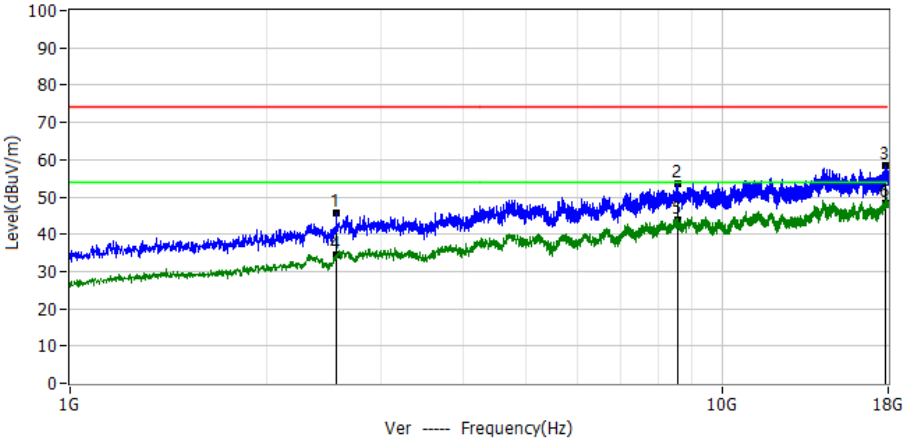


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.239GHz	55.21	-6.86	48.35	74.00	-25.65	PK	Ver
2*	8.656GHz	55.73	-2.14	53.59	74.00	-20.41	PK	Ver
3*	14.252GHz	51.78	5.89	57.67	74.00	-16.33	PK	Ver
4*	4.239GHz	44.86	-6.86	38.00	54.00	-16.00	AV	Ver
5*	8.656GHz	45.04	-2.14	42.90	54.00	-11.10	AV	Ver
6*	14.252GHz	41.11	5.89	47.00	54.00	-7.00	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5200	
Note:	

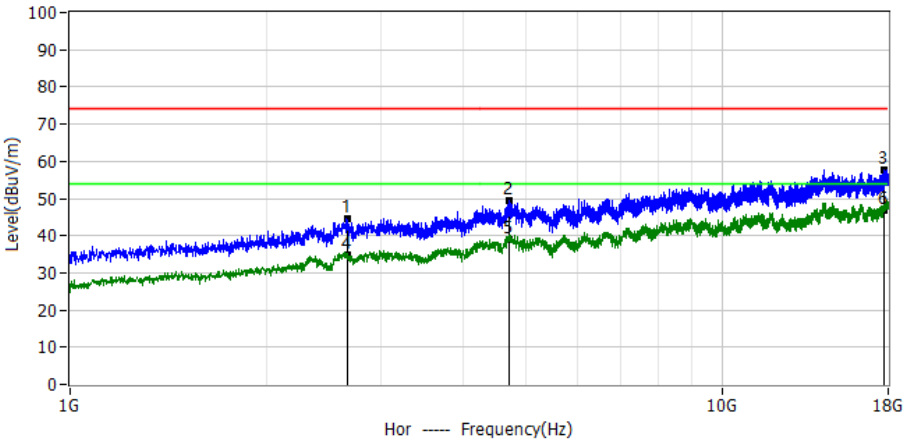


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.398GHz	55.12	-6.19	48.93	74.00	-25.07	PK	Hor
2*	7.515GHz	56.12	-4.29	51.83	74.00	-22.17	PK	Hor
3*	16.428GHz	51.00	6.93	57.93	74.00	-16.07	PK	Hor
4*	4.398GHz	43.59	-6.19	37.40	54.00	-16.60	AV	Hor
5*	7.515GHz	44.79	-4.29	40.50	54.00	-13.50	AV	Hor
6*	16.428GHz	39.97	6.93	46.90	54.00	-7.10	AV	Hor

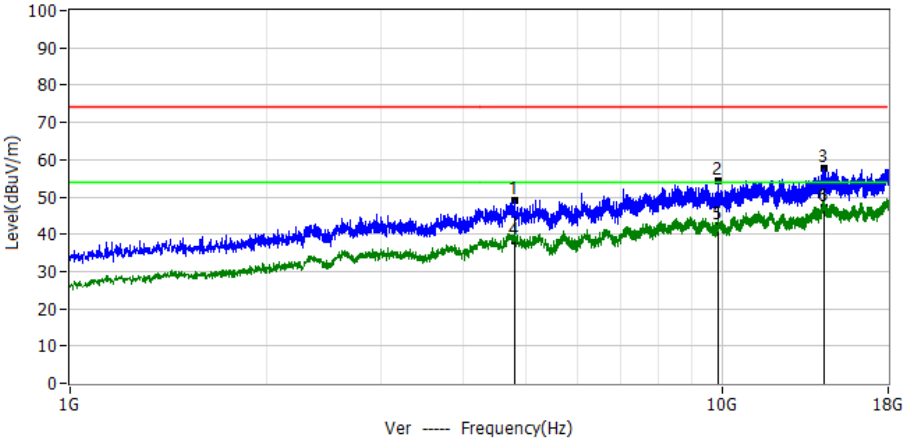


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2.564GHz	56.39	-10.65	45.74	74.00	-28.26	PK	Ver
2*	8.540GHz	56.04	-2.47	53.57	74.00	-20.43	PK	Ver
3*	17.788GHz	50.04	8.37	58.41	74.00	-15.59	PK	Ver
4*	2.564GHz	44.95	-10.65	34.30	54.00	-19.70	AV	Ver
5*	8.540GHz	46.47	-2.47	44.00	54.00	-10.00	AV	Ver
6*	17.788GHz	39.83	8.37	48.20	54.00	-5.80	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5240	
Note:	

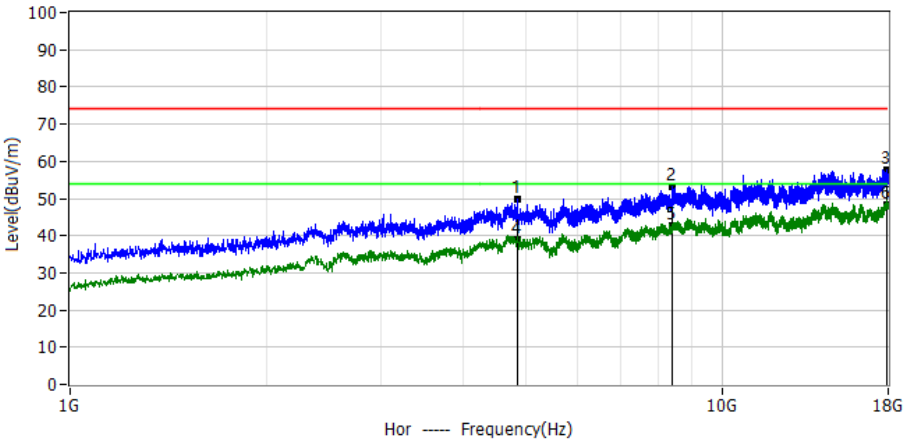


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2.658GHz	54.61	-10.15	44.46	74.00	-29.54	PK	Hor
2*	4.715GHz	55.37	-5.92	49.45	74.00	-24.55	PK	Hor
3*	17.732GHz	49.49	8.33	57.82	74.00	-16.18	PK	Hor
4*	2.658GHz	44.85	-10.15	34.70	54.00	-19.30	AV	Hor
5*	4.715GHz	44.72	-5.92	38.80	54.00	-15.20	AV	Hor
6*	17.732GHz	38.47	8.33	46.80	54.00	-7.20	AV	Hor

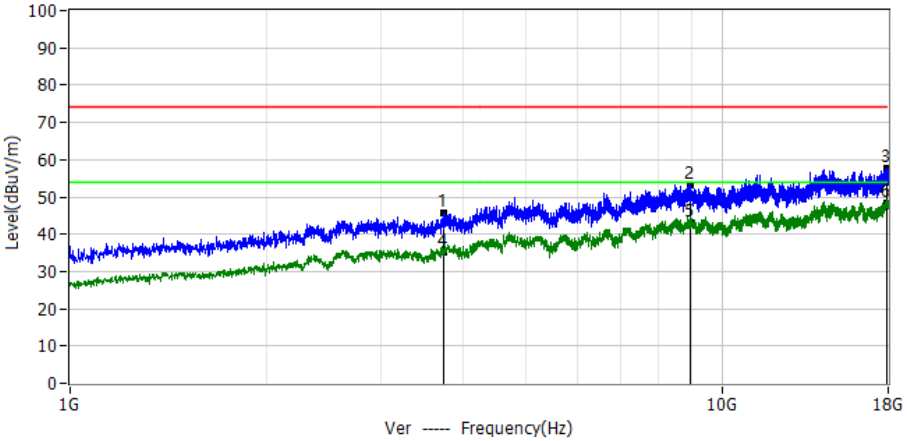


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.814GHz	55.04	-6.00	49.04	74.00	-24.96	PK	Ver
2*	9.891GHz	55.58	-1.18	54.40	74.00	-19.60	PK	Ver
3*	14.326GHz	51.95	5.90	57.85	74.00	-16.15	PK	Ver
4*	4.814GHz	44.20	-6.00	38.20	54.00	-15.80	AV	Ver
5*	9.891GHz	43.68	-1.18	42.50	54.00	-11.50	AV	Ver
6*	14.326GHz	41.30	5.90	47.20	54.00	-6.80	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5260	
Note:	

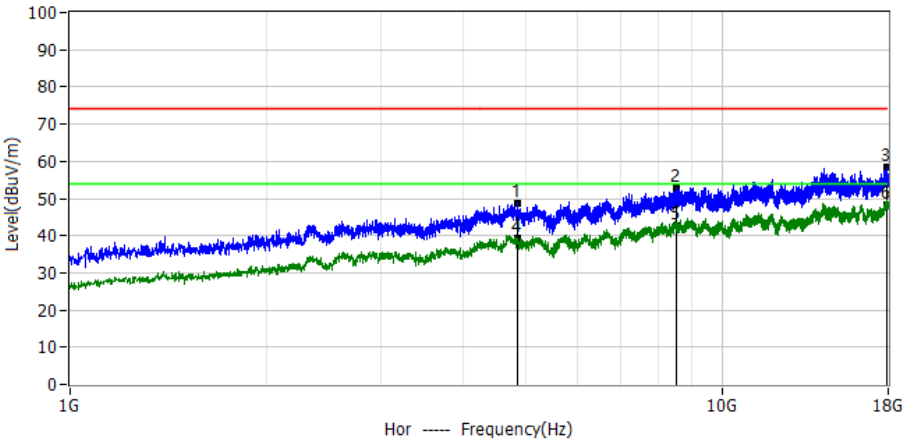


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.861GHz	55.95	-6.03	49.92	74.00	-24.08	PK	Hor
2*	8.410GHz	55.98	-2.84	53.14	74.00	-20.86	PK	Hor
3*	17.928GHz	49.30	8.47	57.77	74.00	-16.23	PK	Hor
4*	4.861GHz	44.93	-6.03	38.90	54.00	-15.10	AV	Hor
5*	8.410GHz	45.64	-2.84	42.80	54.00	-11.20	AV	Hor
6*	17.928GHz	39.73	8.47	48.20	54.00	-5.80	AV	Hor

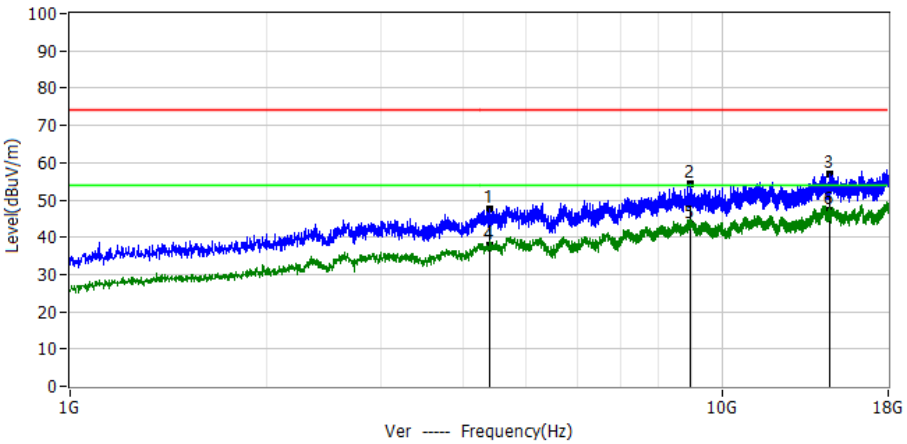


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	3.743GHz	53.95	-8.20	45.75	74.00	-28.25	PK	Ver
2*	8.939GHz	54.48	-1.34	53.14	74.00	-20.86	PK	Ver
3*	17.934GHz	49.15	8.47	57.62	74.00	-16.38	PK	Ver
4*	3.743GHz	43.40	-8.20	35.20	54.00	-18.80	AV	Ver
5*	8.939GHz	44.44	-1.34	43.10	54.00	-10.90	AV	Ver
6*	17.934GHz	39.73	8.47	48.20	54.00	-5.80	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5300	
Note:	

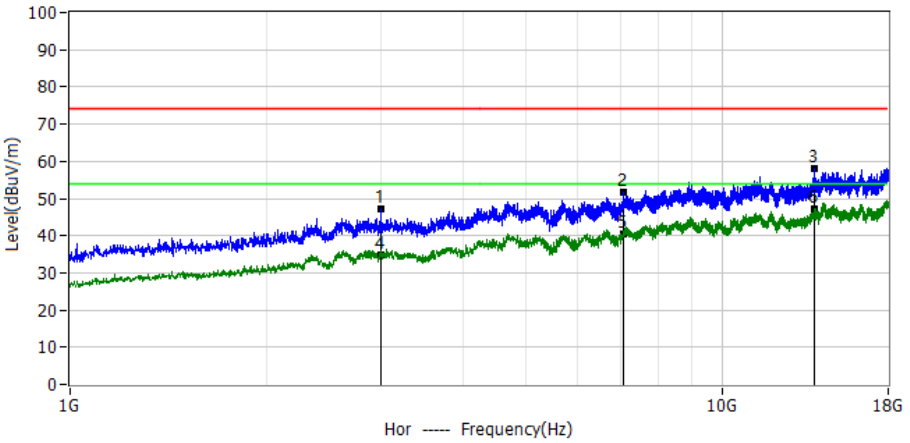


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.855GHz	54.86	-6.03	48.83	74.00	-25.17	PK	Hor
2*	8.525GHz	55.44	-2.52	52.92	74.00	-21.08	PK	Hor
3*	17.943GHz	49.90	8.48	58.38	74.00	-15.62	PK	Hor
4*	4.855GHz	45.33	-6.03	39.30	54.00	-14.70	AV	Hor
5*	8.525GHz	45.12	-2.52	42.60	54.00	-11.40	AV	Hor
6*	17.943GHz	40.02	8.48	48.50	54.00	-5.50	AV	Hor

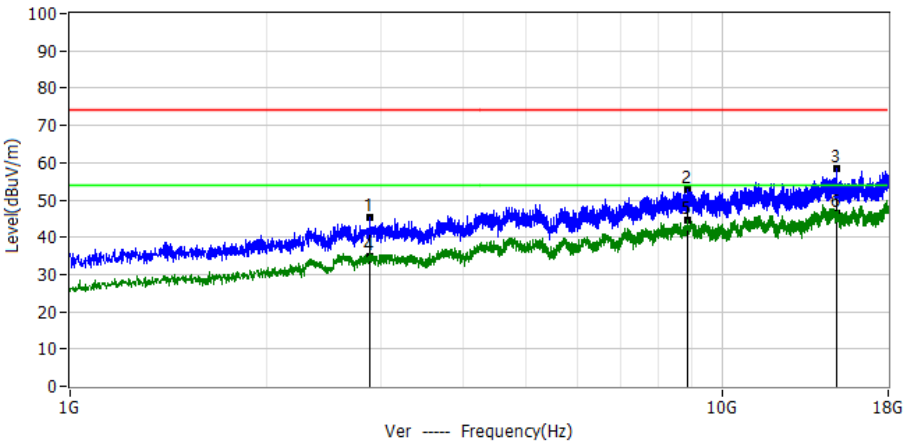


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.400GHz	53.65	-6.18	47.47	74.00	-26.53	PK	Ver
2*	8.937GHz	55.53	-1.35	54.18	74.00	-19.82	PK	Ver
3*	14.645GHz	50.95	5.93	56.88	74.00	-17.12	PK	Ver
4*	4.400GHz	43.98	-6.18	37.80	54.00	-16.20	AV	Ver
5*	8.937GHz	44.75	-1.35	43.40	54.00	-10.60	AV	Ver
6*	14.645GHz	41.17	5.93	47.10	54.00	-6.90	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5320	
Note:	

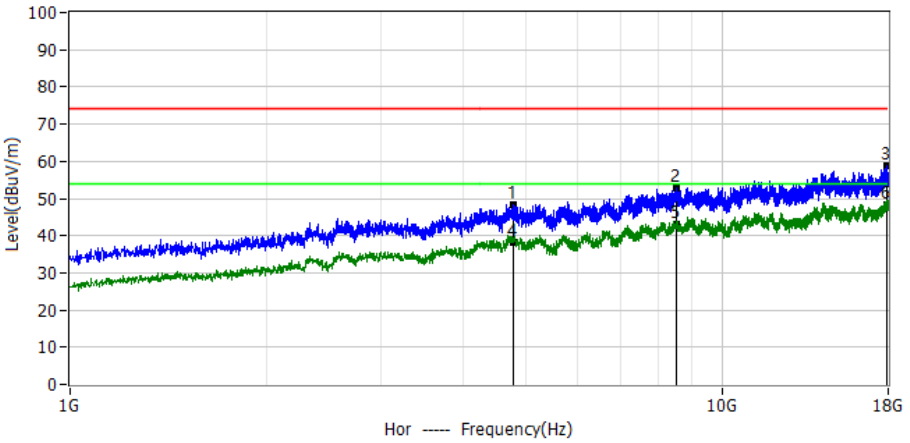


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2.995GHz	55.39	-8.36	47.03	74.00	-26.97	PK	Hor
2*	7.058GHz	57.18	-5.53	51.65	74.00	-22.35	PK	Hor
3*	13.861GHz	52.48	5.39	57.87	74.00	-16.13	PK	Hor
4*	2.995GHz	43.26	-8.36	34.90	54.00	-19.10	AV	Hor
5*	7.058GHz	46.03	-5.53	40.50	54.00	-13.50	AV	Hor
6*	13.861GHz	41.71	5.39	47.10	54.00	-6.90	AV	Hor

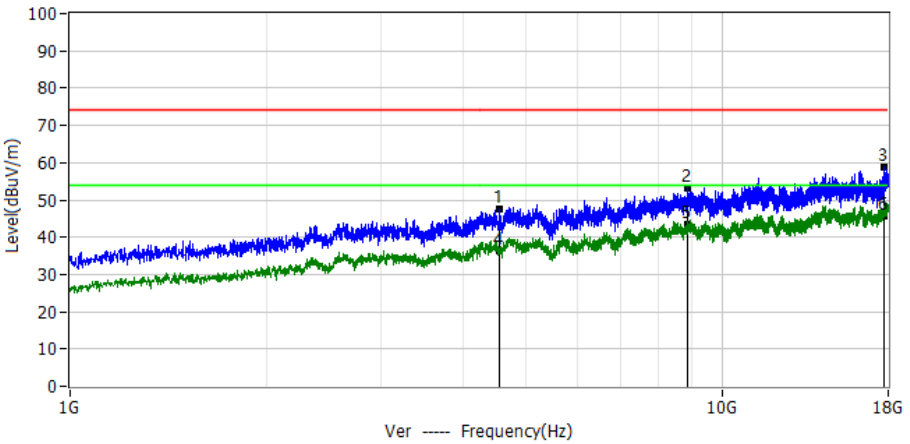


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2.879GHz	54.38	-8.98	45.40	74.00	-28.60	PK	Ver
2*	8.873GHz	54.45	-1.53	52.92	74.00	-21.08	PK	Ver
3*	14.993GHz	52.28	5.96	58.24	74.00	-15.76	PK	Ver
4*	2.879GHz	43.78	-8.98	34.80	54.00	-19.20	AV	Ver
5*	8.873GHz	45.93	-1.53	44.40	54.00	-9.60	AV	Ver
6*	14.993GHz	40.34	5.96	46.30	54.00	-7.70	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5500	
Note:	

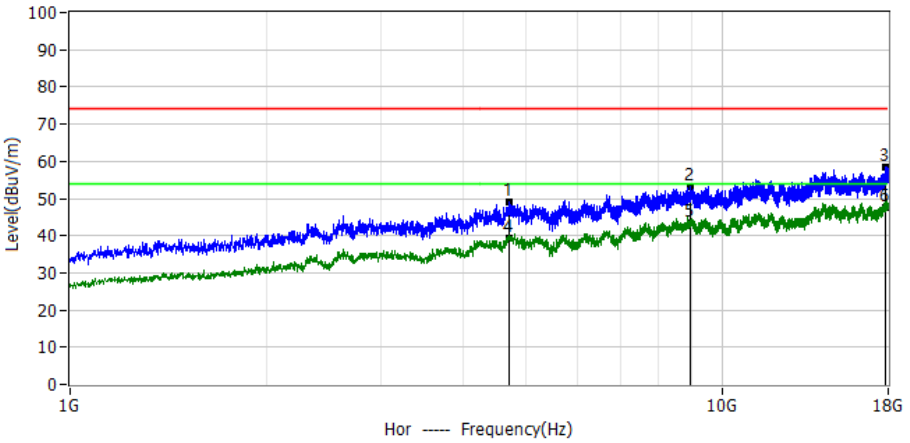


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.793GHz	54.31	-5.98	48.33	74.00	-25.67	PK	Hor
2*	8.508GHz	55.24	-2.56	52.68	74.00	-21.32	PK	Hor
3*	17.938GHz	50.14	8.48	58.62	74.00	-15.38	PK	Hor
4*	4.793GHz	44.08	-5.98	38.10	54.00	-15.90	AV	Hor
5*	8.508GHz	45.76	-2.56	43.20	54.00	-10.80	AV	Hor
6*	17.938GHz	39.72	8.48	48.20	54.00	-5.80	AV	Hor

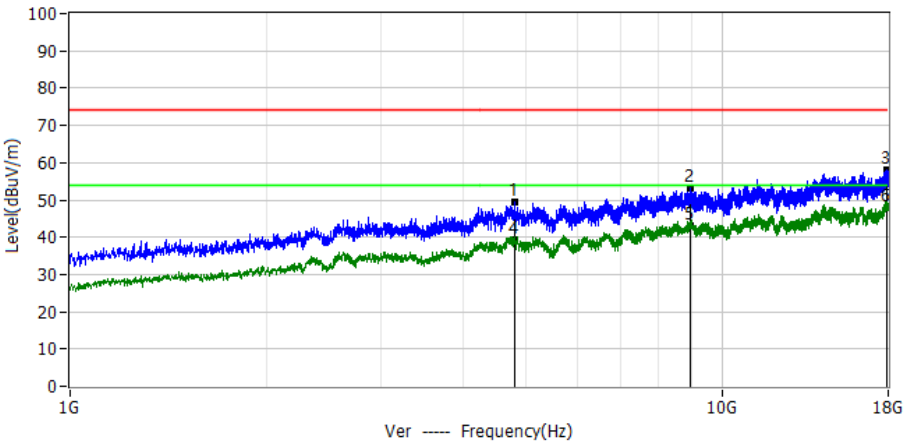


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.566GHz	53.32	-5.81	47.51	74.00	-26.49	PK	Ver
2*	8.863GHz	54.83	-1.56	53.27	74.00	-20.73	PK	Ver
3*	17.734GHz	50.29	8.33	58.62	74.00	-15.38	PK	Ver
4*	4.566GHz	42.01	-5.81	36.20	54.00	-17.80	AV	Ver
5*	8.863GHz	45.06	-1.56	43.50	54.00	-10.50	AV	Ver
6*	17.734GHz	37.37	8.33	45.70	54.00	-8.30	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5580	
Note:	

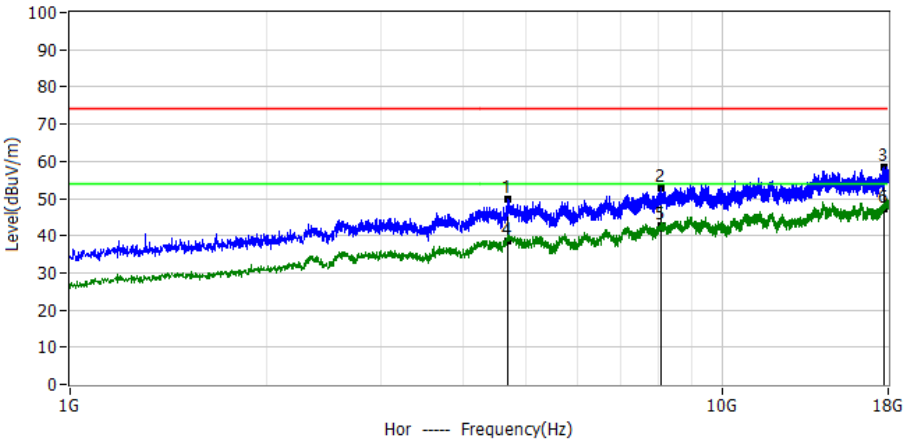


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.719GHz	54.98	-5.92	49.06	74.00	-24.94	PK	Hor
2*	8.933GHz	54.71	-1.36	53.35	74.00	-20.65	PK	Hor
3*	17.832GHz	50.19	8.40	58.59	74.00	-15.41	PK	Hor
4*	4.719GHz	45.12	-5.92	39.20	54.00	-14.80	AV	Hor
5*	8.933GHz	44.76	-1.36	43.40	54.00	-10.60	AV	Hor
6*	17.832GHz	39.10	8.40	47.50	54.00	-6.50	AV	Hor

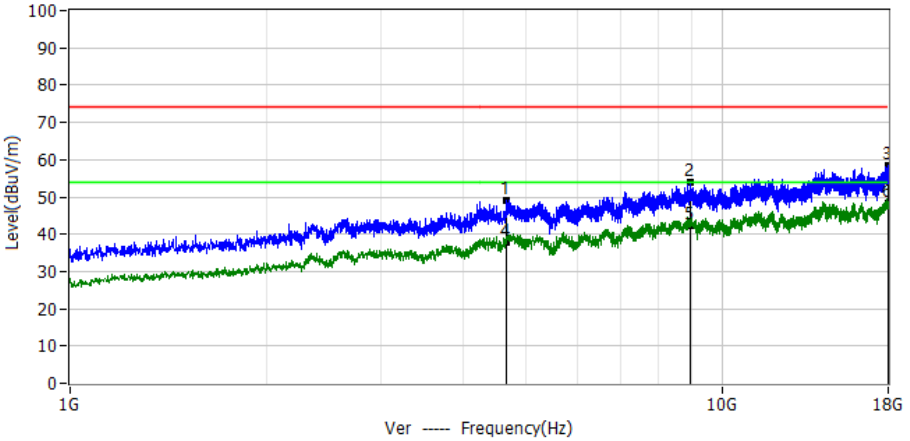


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.804GHz	55.61	-5.99	49.62	74.00	-24.38	PK	Ver
2*	8.954GHz	54.63	-1.30	53.33	74.00	-20.67	PK	Ver
3*	17.870GHz	49.56	8.43	57.99	74.00	-16.01	PK	Ver
4*	4.804GHz	45.39	-5.99	39.40	54.00	-14.60	AV	Ver
5*	8.954GHz	44.20	-1.30	42.90	54.00	-11.10	AV	Ver
6*	17.870GHz	39.57	8.43	48.00	54.00	-6.00	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5700	
Note:	

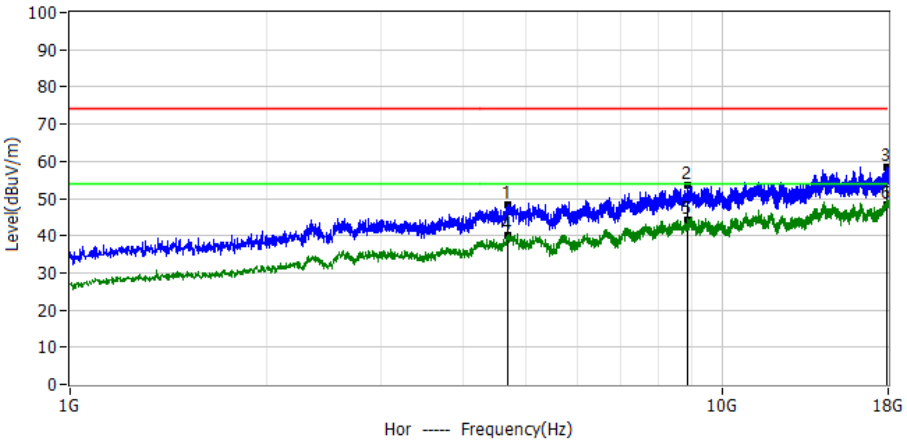


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.702GHz	55.57	-5.91	49.66	74.00	-24.34	PK	Hor
2*	8.085GHz	56.44	-3.76	52.68	74.00	-21.32	PK	Hor
3*	17.711GHz	50.17	8.32	58.49	74.00	-15.51	PK	Hor
4*	4.702GHz	44.61	-5.91	38.70	54.00	-15.30	AV	Hor
5*	8.085GHz	46.56	-3.76	42.80	54.00	-11.20	AV	Hor
6*	17.711GHz	38.88	8.32	47.20	54.00	-6.80	AV	Hor

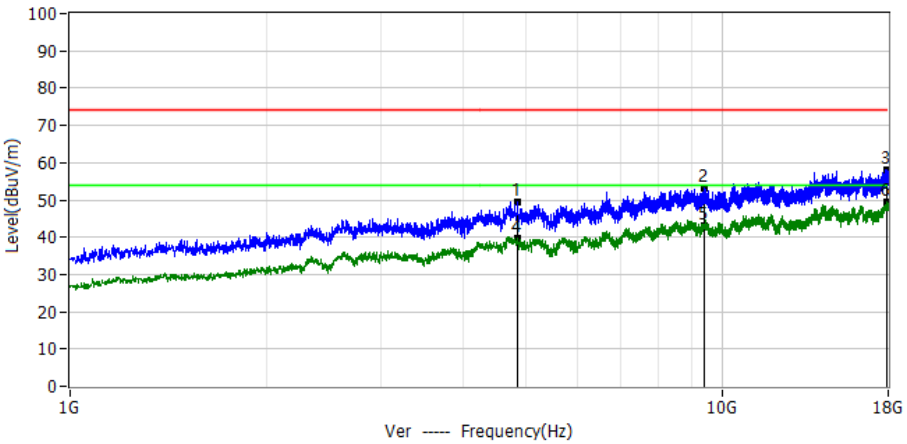


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.664GHz	55.06	-5.88	49.18	74.00	-24.82	PK	Ver
2*	8.962GHz	55.35	-1.28	54.07	74.00	-19.93	PK	Ver
3*	17.962GHz	49.86	8.49	58.35	74.00	-15.65	PK	Ver
4*	4.664GHz	43.88	-5.88	38.00	54.00	-16.00	AV	Ver
5*	8.962GHz	43.58	-1.28	42.30	54.00	-11.70	AV	Ver
6*	17.962GHz	39.71	8.49	48.20	54.00	-5.80	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5745	
Note:	

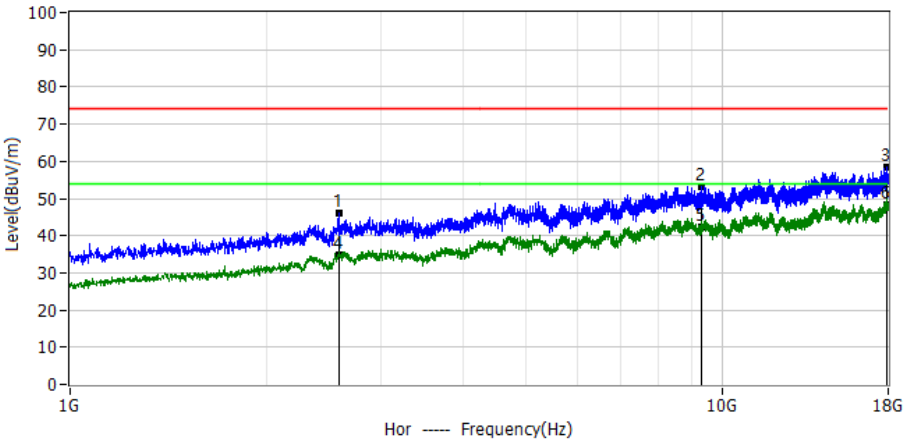


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.689GHz	54.33	-5.90	48.43	74.00	-25.57	PK	Hor
2*	8.865GHz	55.00	-1.55	53.45	74.00	-20.55	PK	Hor
3*	17.896GHz	49.91	8.45	58.36	74.00	-15.64	PK	Hor
4*	4.689GHz	45.80	-5.90	39.90	54.00	-14.10	AV	Hor
5*	8.865GHz	45.75	-1.55	44.20	54.00	-9.80	AV	Hor
6*	17.896GHz	39.75	8.45	48.20	54.00	-5.80	AV	Hor

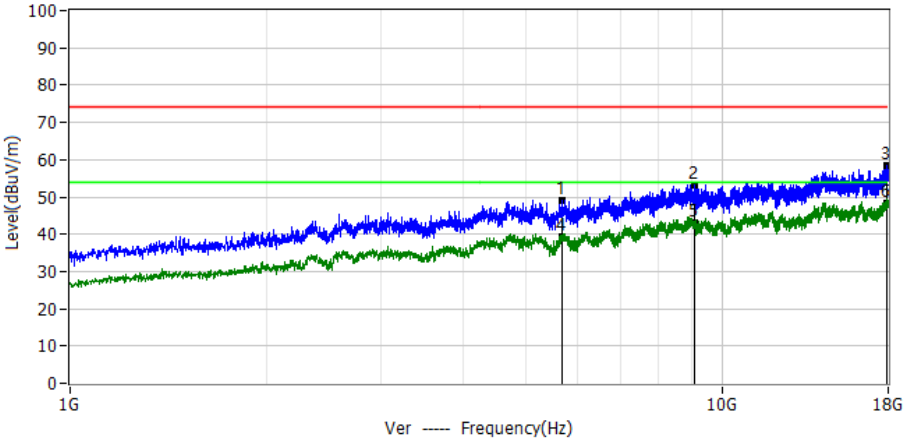


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.857GHz	55.49	-6.03	49.46	74.00	-24.54	PK	Ver
2*	9.396GHz	54.23	-1.17	53.06	74.00	-20.94	PK	Ver
3*	17.890GHz	49.71	8.44	58.15	74.00	-15.85	PK	Ver
4*	4.857GHz	45.83	-6.03	39.80	54.00	-14.20	AV	Ver
5*	9.396GHz	44.37	-1.17	43.20	54.00	-10.80	AV	Ver
6*	17.890GHz	40.86	8.44	49.30	54.00	-4.70	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5785	
Note:	

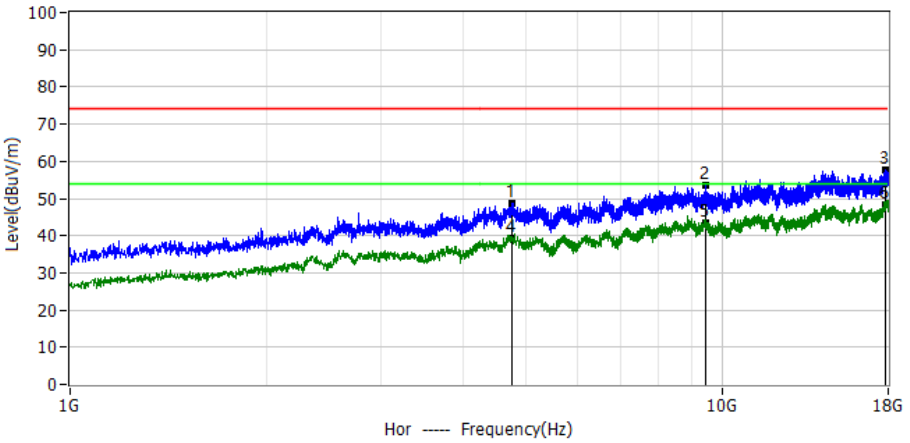


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2.585GHz	56.42	-10.53	45.89	74.00	-28.11	PK	Hor
2*	9.319GHz	54.51	-1.17	53.34	74.00	-20.66	PK	Hor
3*	17.900GHz	49.84	8.45	58.29	74.00	-15.71	PK	Hor
4*	2.585GHz	45.33	-10.53	34.80	54.00	-19.20	AV	Hor
5*	9.319GHz	43.37	-1.17	42.20	54.00	-11.80	AV	Hor
6*	17.900GHz	39.75	8.45	48.20	54.00	-5.80	AV	Hor

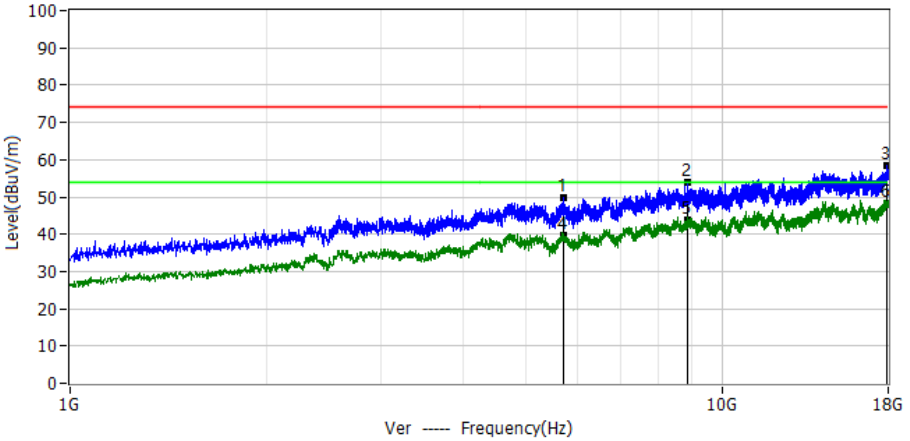


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	5.684GHz	56.57	-7.67	48.90	74.00	-25.10	PK	Ver
2*	9.090GHz	54.38	-1.17	53.21	74.00	-20.79	PK	Ver
3*	17.877GHz	49.83	8.43	58.26	74.00	-15.74	PK	Ver
4*	5.684GHz	46.97	-7.67	39.30	54.00	-14.70	AV	Ver
5*	9.090GHz	44.07	-1.17	42.90	54.00	-11.10	AV	Ver
6*	17.877GHz	39.97	8.43	48.40	54.00	-5.60	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 27.4℃
M/N: A170	Humidity: 65%RH
Test Voltage: Battery	Test Data: 2023-01-14
Test Mode: 802.11ac20 5825	
Note:	



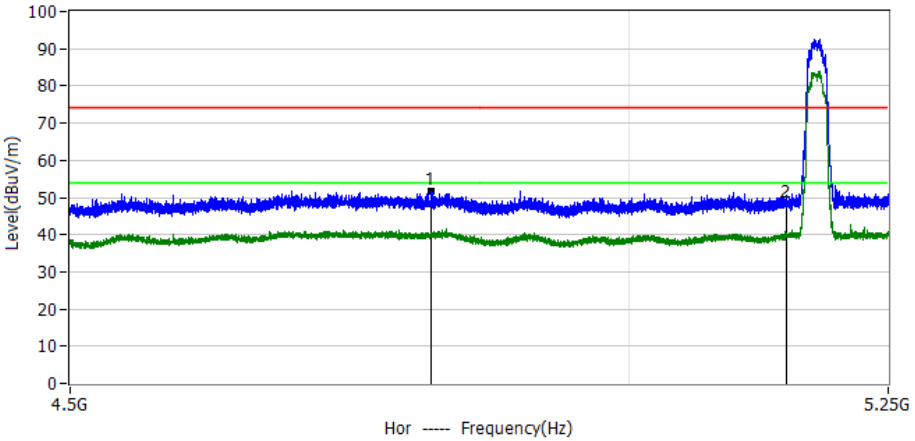
No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.759GHz	54.73	-5.95	48.78	74.00	-25.22	PK	Hor
2*	9.436GHz	54.88	-1.17	53.71	74.00	-20.29	PK	Hor
3*	17.824GHz	49.10	8.40	57.50	74.00	-16.50	PK	Hor
4*	4.759GHz	45.35	-5.95	39.40	54.00	-14.60	AV	Hor
5*	9.436GHz	44.77	-1.17	43.60	54.00	-10.40	AV	Hor
6*	17.824GHz	40.00	8.40	48.40	54.00	-5.60	AV	Hor



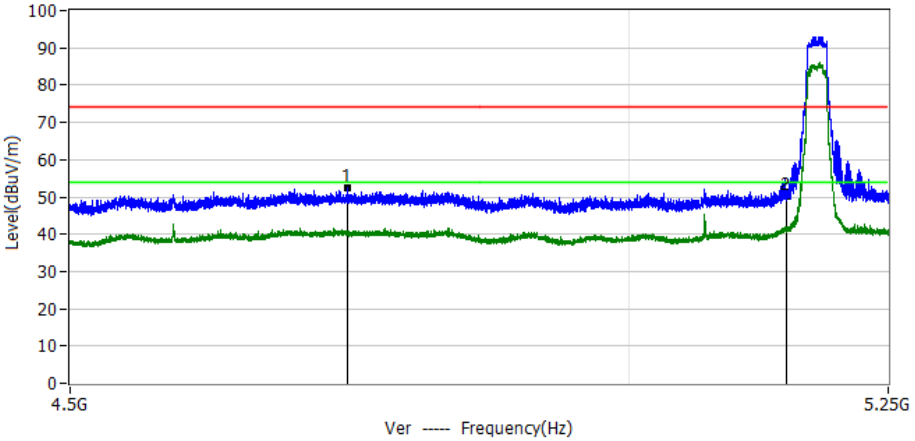
No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	5.711GHz	57.59	-7.66	49.93	74.00	-24.07	PK	Ver
2*	8.875GHz	55.27	-1.52	53.75	74.00	-20.25	PK	Ver
3*	17.887GHz	49.89	8.44	58.33	74.00	-15.67	PK	Ver
4*	5.711GHz	47.26	-7.66	39.60	54.00	-14.40	AV	Ver
5*	8.875GHz	45.42	-1.52	43.90	54.00	-10.10	AV	Ver
6*	17.887GHz	39.96	8.44	48.40	54.00	-5.60	AV	Ver

3.2.7 TEST RESULTS(Band edge Requirements)

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 20.4℃
M/N: A170	Humidity: 49%RH
Test Voltage: Battery	Test Data: 2023-03-01
Test Mode: 802.11ac20 5180	
Note:	

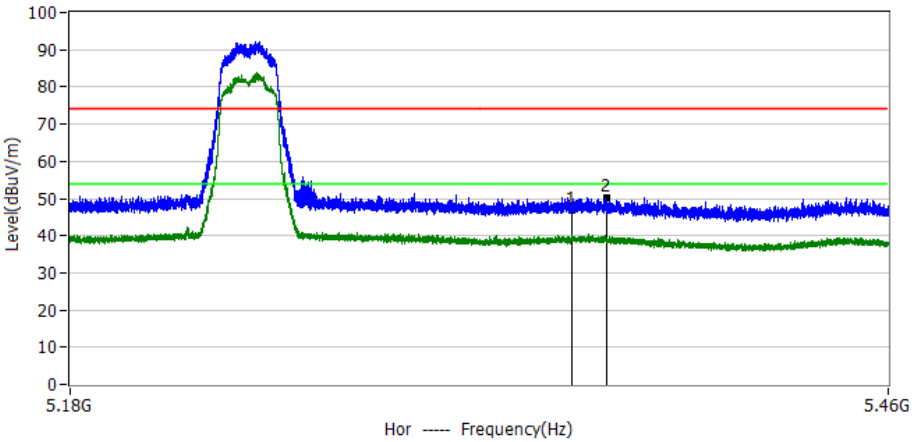


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.817GHz	57.63	-6.00	51.63	74.00	-22.37	PK	Hor
2*	5.150GHz	55.12	-6.62	48.50	74.00	-25.50	PK	Hor

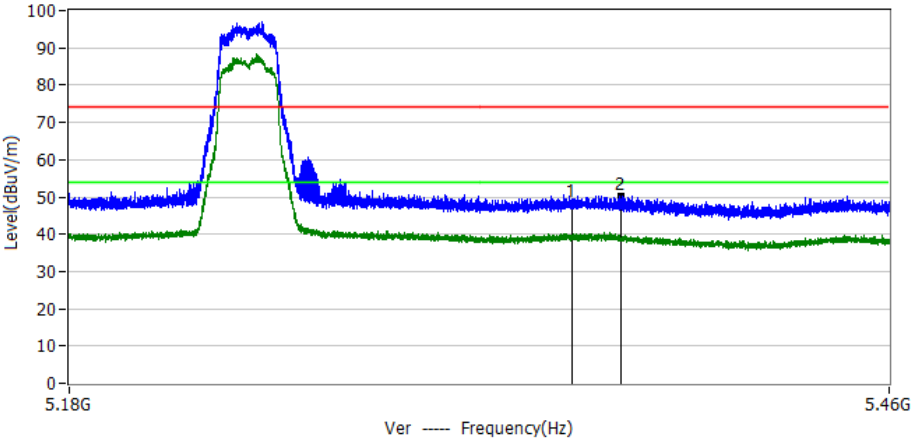


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.742GHz	58.24	-5.94	52.30	74.00	-21.70	PK	Ver
2*	5.150GHz	56.92	-6.62	50.30	74.00	-23.70	PK	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 20.4℃
M/N: A170	Humidity: 49%RH
Test Voltage: Battery	Test Data: 2023-03-01
Test Mode: 802.11ac20 5240	
Note:	

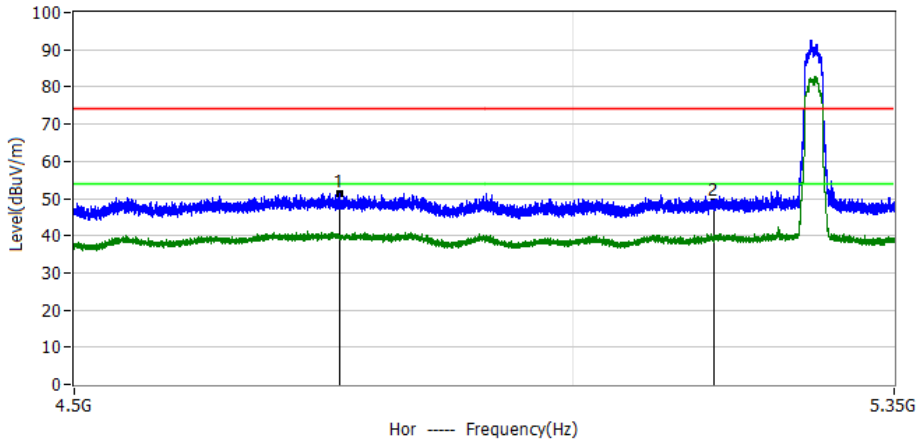


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	5.350GHz	53.96	-7.26	46.70	74.00	-27.30	PK	Hor
2*	5.362GHz	57.49	-7.30	50.19	74.00	-23.81	PK	Hor

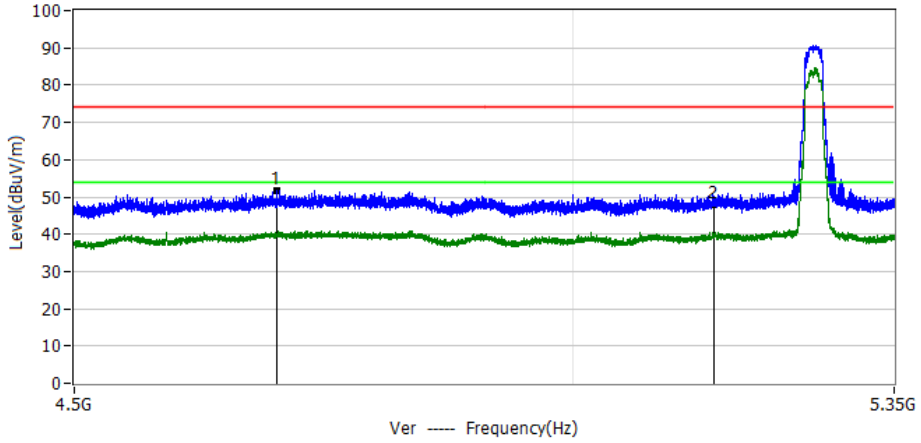


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	5.350GHz	55.46	-7.26	48.20	74.00	-25.80	PK	Ver
2*	5.367GHz	57.68	-7.31	50.37	74.00	-23.63	PK	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 20.4℃
M/N: A170	Humidity: 49%RH
Test Voltage: Battery	Test Data: 2023-03-01
Test Mode: 802.11ac20 5260	
Note:	

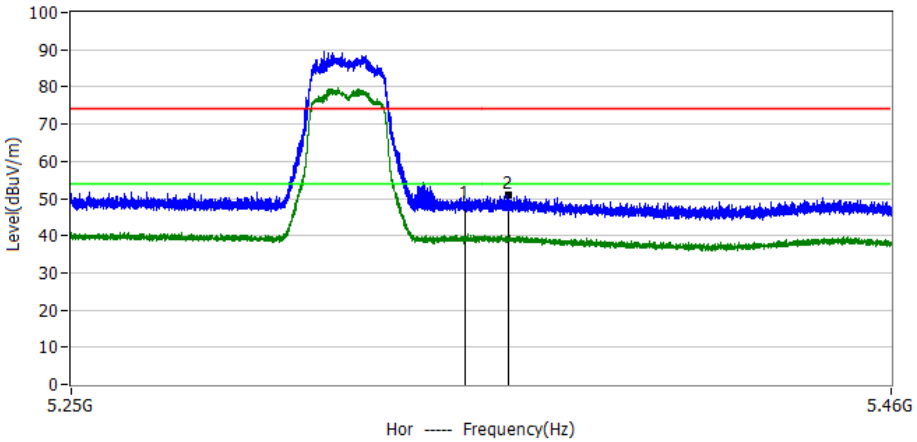


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.759GHz	57.44	-5.95	51.49	74.00	-22.51	PK	Hor
2*	5.150GHz	55.52	-6.62	48.90	74.00	-25.10	PK	Hor

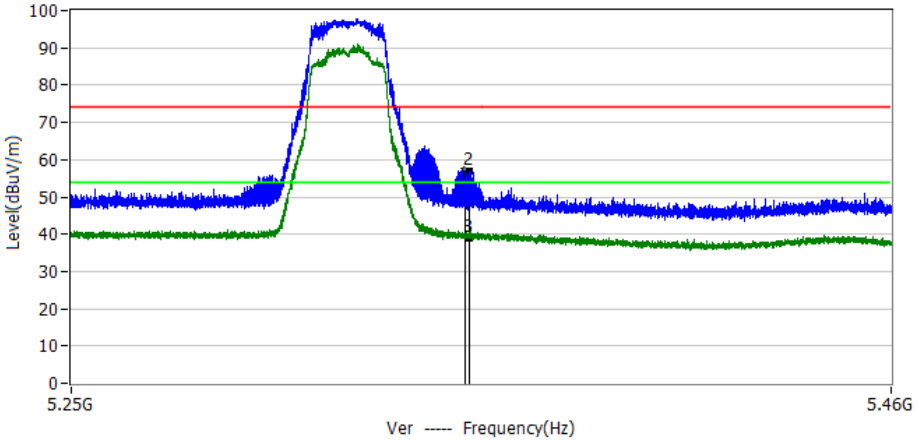


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	4.697GHz	57.65	-5.91	51.74	74.00	-22.26	PK	Ver
2*	5.150GHz	54.42	-6.62	47.80	74.00	-26.20	PK	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 20.4℃
M/N: A170	Humidity: 49%RH
Test Voltage: Battery	Test Data: 2023-03-01
Test Mode: 802.11ac20 5320	
Note:	

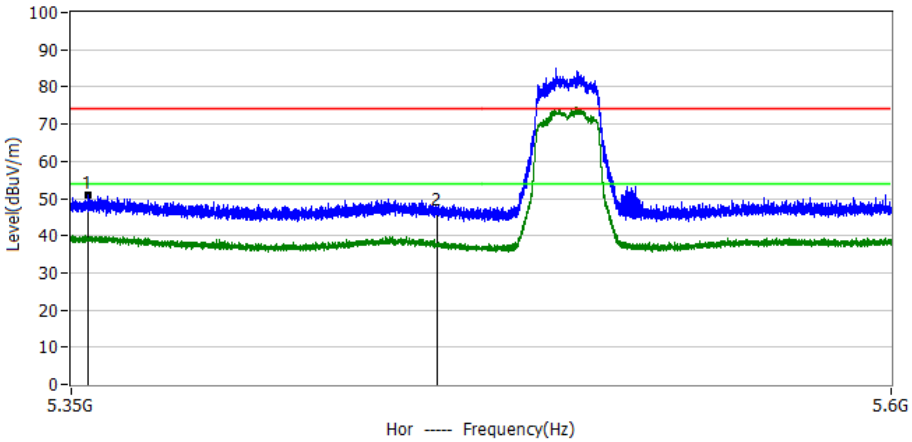


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	5.350GHz	55.66	-7.26	48.40	74.00	-25.60	PK	Hor
2*	5.361GHz	58.07	-7.29	50.78	74.00	-23.22	PK	Hor

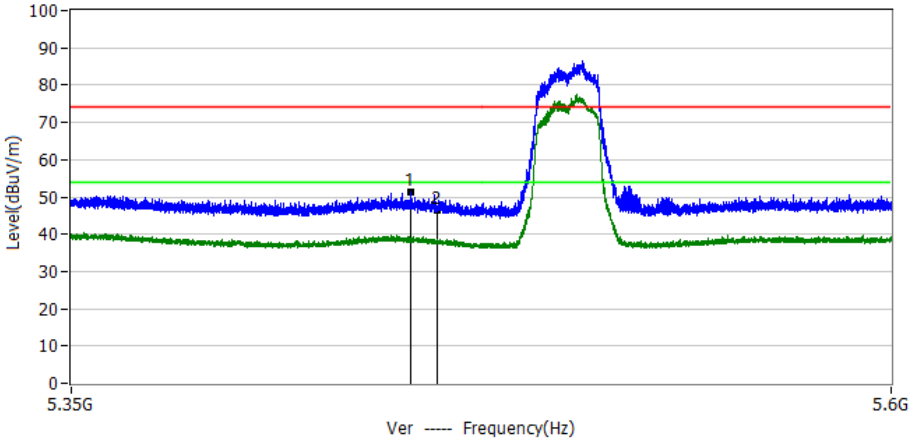


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	5.350GHz	60.26	-7.26	53.00	74.00	-21.00	PK	Ver
2*	5.351GHz	64.28	-7.26	57.02	74.00	-16.98	PK	Ver
3*	5.351GHz	46.26	-7.26	39.00	54.00	-15.00	AV	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 20.4℃
M/N: A170	Humidity: 49%RH
Test Voltage: Battery	Test Data: 2023-03-01
Test Mode: 802.11ac20 5500	
Note:	

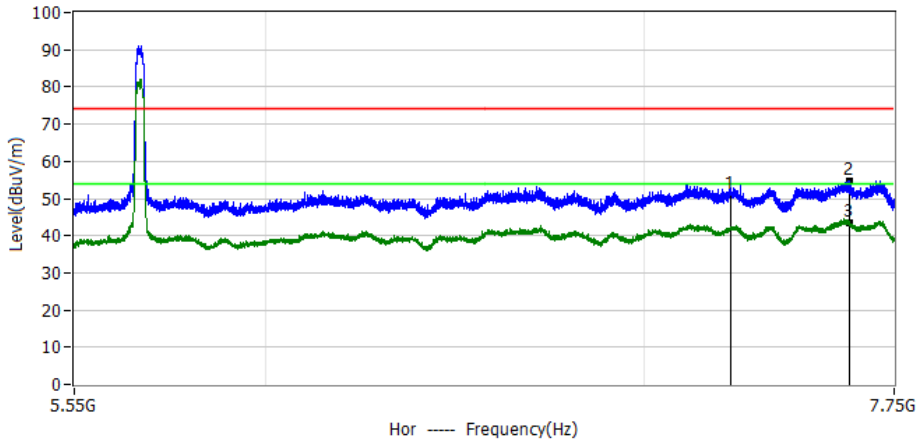


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	5.355GHz	58.07	-7.28	50.79	74.00	-23.21	PK	Hor
2*	5.460GHz	54.11	-7.61	46.50	74.00	-27.50	PK	Hor

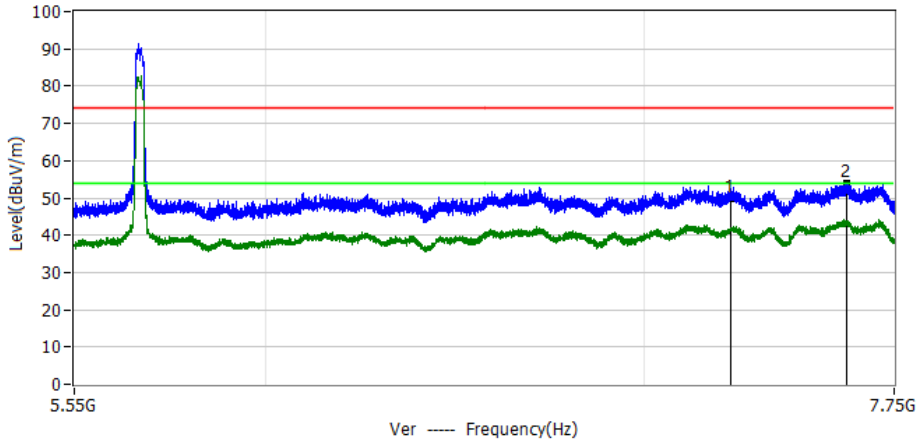


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	5.452GHz	58.72	-7.59	51.13	74.00	-22.87	PK	Ver
2*	5.460GHz	54.21	-7.61	46.60	74.00	-27.40	PK	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 20.4℃
M/N: A170	Humidity: 49%RH
Test Voltage: Battery	Test Data: 2023-03-01
Test Mode: 802.11ac20 5700	
Note:	

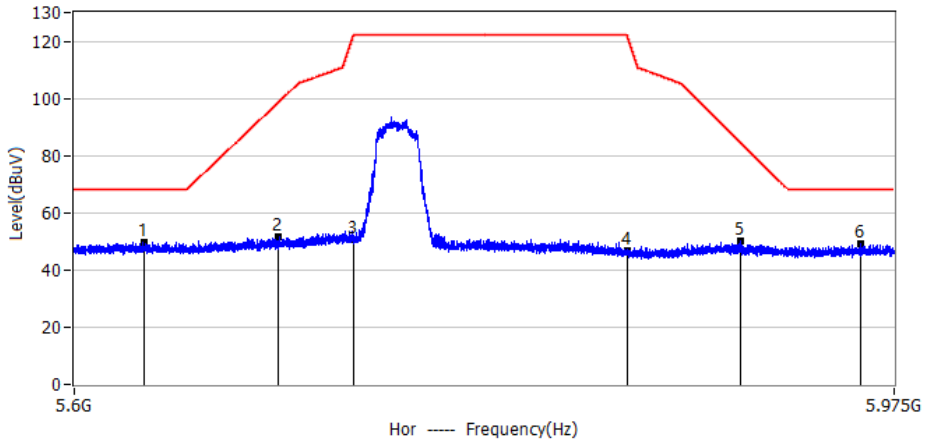


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	7.250GHz	55.89	-4.99	50.90	74.00	-23.10	PK	Hor
2*	7.609GHz	59.08	-4.23	54.85	74.00	-19.15	PK	Hor
3*	7.609GHz	47.53	-4.23	43.30	54.00	-10.70	AV	Hor

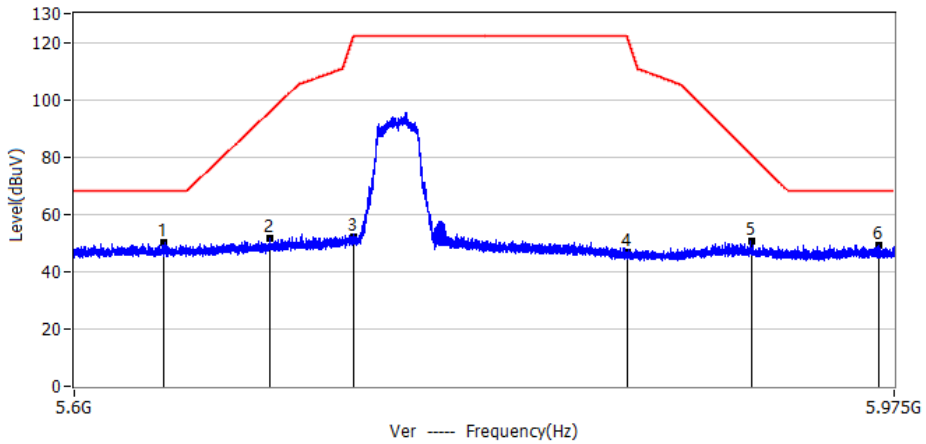


No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	7.250GHz	54.99	-4.99	50.00	74.00	-24.00	PK	Ver
2*	7.600GHz	58.07	-4.24	53.83	74.00	-20.17	PK	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 20.4℃
M/N: A170	Humidity: 49%RH
Test Voltage: Battery	Test Data: 2023-03-01
Test Mode: 802.11ac20 5745	
Note:	

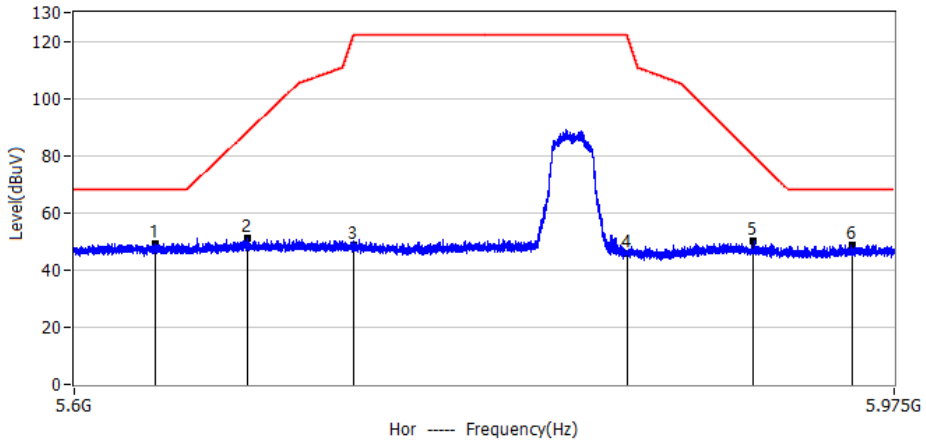


No.	Frequency	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	5.631GHz	57.54	-7.69	49.85	68.20	-18.35	PK	Hor
2*	5.691GHz	59.16	-7.66	51.50	98.86	-47.37	PK	Hor
3*	5.725GHz	58.35	-7.65	50.70	122.20	-71.50	PK	Hor
4*	5.850GHz	54.40	-7.60	46.80	122.20	-75.40	PK	Hor
5*	5.903GHz	57.64	-7.58	50.06	84.51	-34.45	PK	Hor
6*	5.959GHz	56.52	-7.56	48.96	68.20	-19.24	PK	Hor

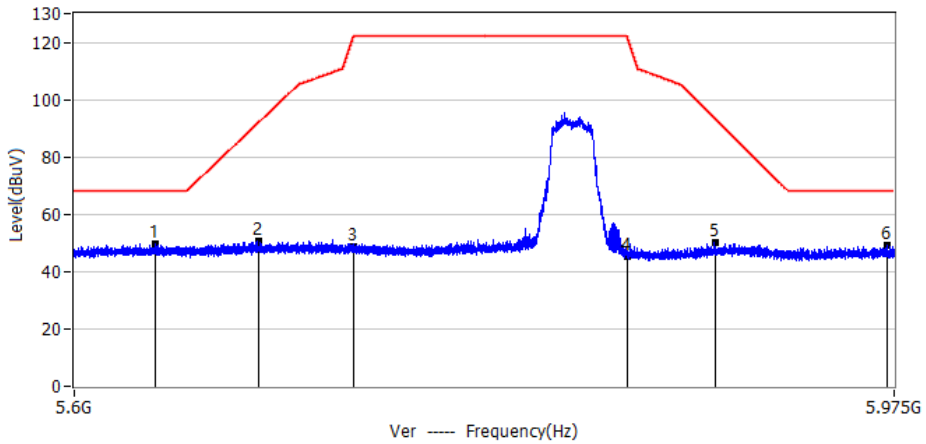


No.	Frequency	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	5.640GHz	57.61	-7.68	49.93	68.20	-18.27	PK	Ver
2*	5.687GHz	59.17	-7.67	51.50	95.68	-44.18	PK	Ver
3*	5.725GHz	59.75	-7.65	52.10	122.20	-70.10	PK	Ver
4*	5.850GHz	54.20	-7.60	46.60	122.20	-75.60	PK	Ver
5*	5.908GHz	58.18	-7.58	50.60	81.08	-30.48	PK	Ver
6*	5.968GHz	56.86	-7.55	49.31	68.20	-18.89	PK	Ver

Project: LGT22L054	Test Engineer: Dylan.shi
EUT: Smartphone	Temperature: 20.4℃
M/N: A170	Humidity: 49%RH
Test Voltage: Battery	Test Data: 2023-03-01
Test Mode: 802.11ac20 5825	
Note:	



No.	Frequency	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	5.636GHz	57.05	-7.69	49.36	68.20	-18.84	PK	Hor
2*	5.677GHz	58.66	-7.67	50.99	88.44	-37.45	PK	Hor
3*	5.725GHz	56.25	-7.65	48.60	122.20	-73.60	PK	Hor
4*	5.850GHz	53.40	-7.60	45.80	122.20	-76.40	PK	Hor
5*	5.909GHz	57.65	-7.58	50.07	79.90	-29.83	PK	Hor
6*	5.955GHz	56.45	-7.56	48.89	68.20	-19.31	PK	Hor



No.	Frequency	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	5.636GHz	57.33	-7.69	49.64	68.20	-18.56	PK	Ver
2*	5.682GHz	58.37	-7.67	50.70	91.77	-41.07	PK	Ver
3*	5.725GHz	56.45	-7.65	48.80	122.20	-73.30	PK	Ver
4*	5.850GHz	52.80	-7.60	45.20	122.20	-77.00	PK	Ver
5*	5.891GHz	57.63	-7.58	50.05	93.67	-43.62	PK	Ver
6*	5.972GHz	56.70	-7.55	49.15	68.20	-19.05	PK	Ver

4. POWER SPECTRAL DENSITY TEST

4.1 LIMIT

1. For mobile and portable client devices in the 5.15-5.25 GHz band, , the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
3. For the band 5.725-5.850 GHz, the peak power spectral density shall not exceed 30 dBm in any 500KHz band. If transmitting antenna directional gain is greater than 6 dBi, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.2 TEST PROCEDURE

1. The setting follows Method SA-1 of FCC KDB 789033 D02 General U-NII Test Procedures New Rules v02r01.

For devices operating in the band, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (*i.e.,* 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

a) Set RBW ≥ 1/*T*, where *T* is defined in section II.B.I.a).

b) Set VBW ≥ 3 RBW.

c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10 log (500kHz/RBW) to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10 log (1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.

e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the sections5.c) and 5.d) above, since RBW=100 KHZ is available on nearly all spectrum analyzers.

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP

4.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

4.6 TEST RESULTS

For the measurement records，refer to the appendix I.

5. BANDWIDTH MEASUREMENT

5.1 EMISSION BANDWIDTH (EBW) 26 BANDWID PROCEDURES / LIMIT

The following procedure shall be used for measuring 26 bandwidth.

5.1.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > =RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP

5.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 TEST RESULTS

For the measurement records，refer to the appendix I.

5.2 OCCUPIED BANDWIDTH (99%) TEST APPLIED PROCEDURES / LIMIT

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

5.2.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures v02r01.
The following procedure shall be used for measuring (99 %) power bandwidth:
1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

5.2.2 DEVIATION FROM STANDARD

No deviation.

5.2.3 TEST SETUP

5.2.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.2.5 TEST RESULTS

For the measurement records，refer to the appendix I.

5.3 MINIMUM EMISSION BANDWIDTH(6 DB) PROCEDURES / LIMIT

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth.

5.3.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures v02r01.
a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 × RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.3.2 DEVIATION FROM STANDARD

No deviation.

5.3.3 TEST SETUP

5.3.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.3.5 TEST RESULTS

For the measurement records，refer to the appendix I.

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 LIMIT

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz,If transmitting antennas of directional gain greater than 6 dBi are used.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used.

FCC Part15 (15.407) , Subpart E				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.407(a) (1) (iv)	Peak Output Power	0.25 watt	5150-5250	PASS
		The lesser of 250 mW or 11 dBm + 10 log (26 dB emission bandwidth)	5250-5350 5470-5725	
15.407(a) (3)		1 watt	5725-5825	

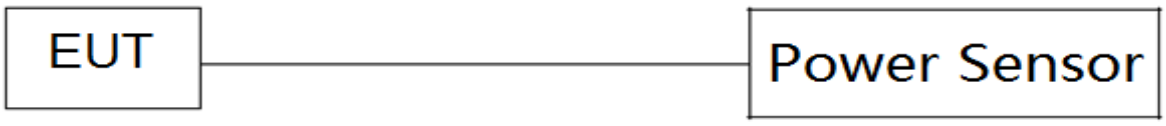
6.2 TEST PROCEDURE

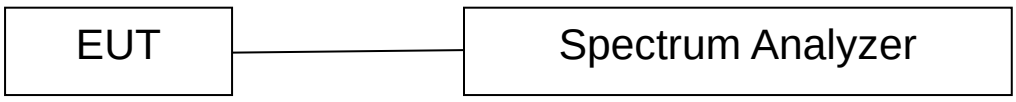
The EUT was directly connected to the Power Sensor&PC

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP





6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 5 Unless otherwise a special operating condition is specified in the follows during the testing.

6.6 TEST RESULTS

For the measurement records，refer to the appendix I.

7. AUTOMATICALLY DISCONTINUE TRANSMISSION

7.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

7.2 TEST RESULT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission

8. ANTENNA REQUIREMENT

8.1 STANDARD REQUIREMENT

Part 15.203 requirement: For intentional device, according to 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.

8.2 EUT ANTENNA

The EUT antenna is PIFA Antenna with RP-SMA connector. It comply with the standard requirement.

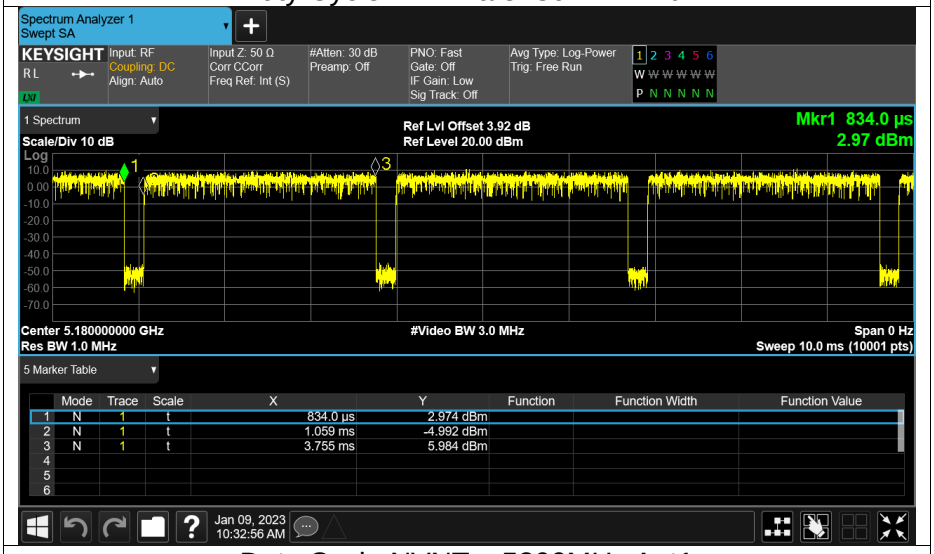
APPENDIX I:TEST RESULTS

Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	92.3	0.35	0.37
NVNT	a	5200	Ant1	92.3	0.35	0.37
NVNT	a	5240	Ant1	92.33	0.35	0.37
NVNT	a	5260	Ant1	92.33	0.35	0.37
NVNT	a	5300	Ant1	92.33	0.35	0.37
NVNT	a	5320	Ant1	92.33	0.35	0.37
NVNT	a	5500	Ant1	92.33	0.35	0.37
NVNT	a	5580	Ant1	92.33	0.35	0.37
NVNT	a	5700	Ant1	92.33	0.35	0.37
NVNT	a	5745	Ant1	92.33	0.35	0.37
NVNT	a	5785	Ant1	92.33	0.35	0.37
NVNT	a	5825	Ant1	92.33	0.35	0.37
NVNT	ac20	5180	Ant1	91.05	0.41	0.44
NVNT	ac20	5200	Ant1	91.01	0.41	0.44
NVNT	ac20	5240	Ant1	91.01	0.41	0.44
NVNT	ac20	5260	Ant1	91.01	0.41	0.44
NVNT	ac20	5300	Ant1	91.01	0.41	0.44
NVNT	ac20	5320	Ant1	91.01	0.41	0.44
NVNT	ac20	5500	Ant1	91.01	0.41	0.44
NVNT	ac20	5580	Ant1	91.01	0.41	0.44
NVNT	ac20	5700	Ant1	91.01	0.41	0.44
NVNT	ac20	5745	Ant1	91.05	0.41	0.44
NVNT	ac20	5785	Ant1	91.01	0.41	0.44
NVNT	ac20	5825	Ant1	91.05	0.41	0.44
NVNT	ac40	5190	Ant1	83.32	0.79	0.9
NVNT	ac40	5230	Ant1	83.32	0.79	0.9
NVNT	ac40	5270	Ant1	83.31	0.79	0.9
NVNT	ac40	5310	Ant1	83.32	0.79	0.9
NVNT	ac40	5510	Ant1	83.32	0.79	0.9
NVNT	ac40	5550	Ant1	83.32	0.79	0.9
NVNT	ac40	5670	Ant1	83.32	0.79	0.9
NVNT	ac40	5755	Ant1	83.32	0.79	0.9
NVNT	ac40	5795	Ant1	83.32	0.79	0.9
NVNT	ac80	5210	Ant1	70.7	1.51	1.86
NVNT	ac80	5290	Ant1	70.57	1.51	1.86
NVNT	ac80	5530	Ant1	70.57	1.51	1.86
NVNT	ac80	5610	Ant1	70.7	1.51	1.86
NVNT	ac80	5775	Ant1	70.7	1.51	1.86

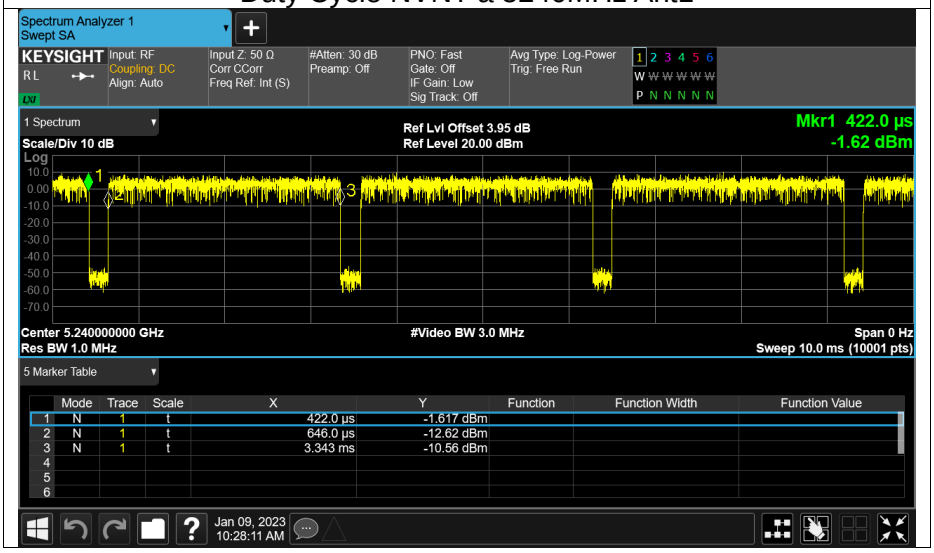
Test Graphs

Duty Cycle NVNT a 5180MHz Ant1

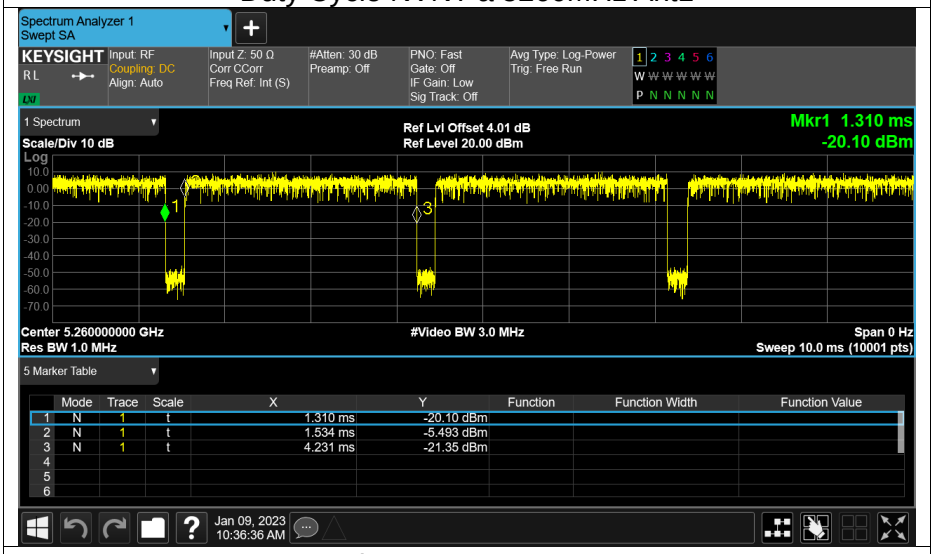


Duty Cycle NVNT a 5200MHz Ant1

Duty Cycle NVNT a 5240MHz Ant1

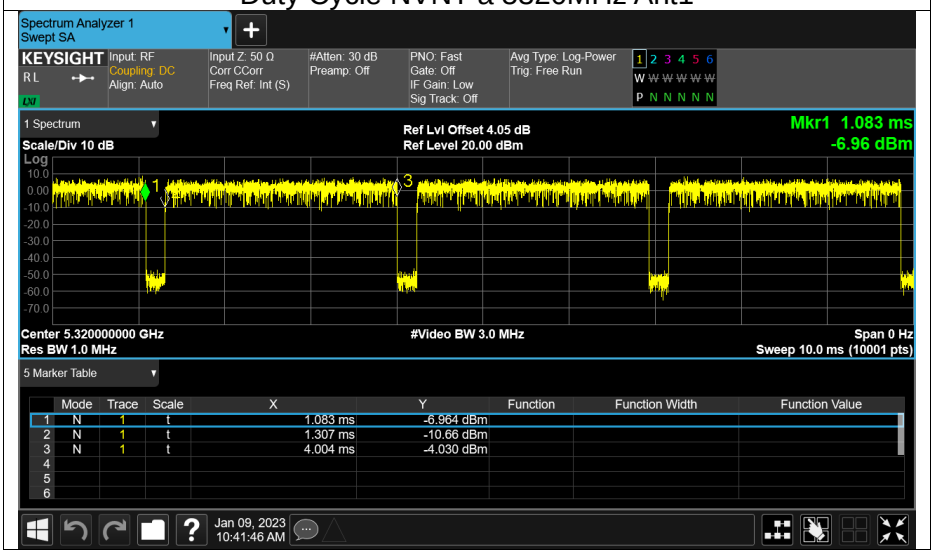


Duty Cycle NVNT a 5260MHz Ant1



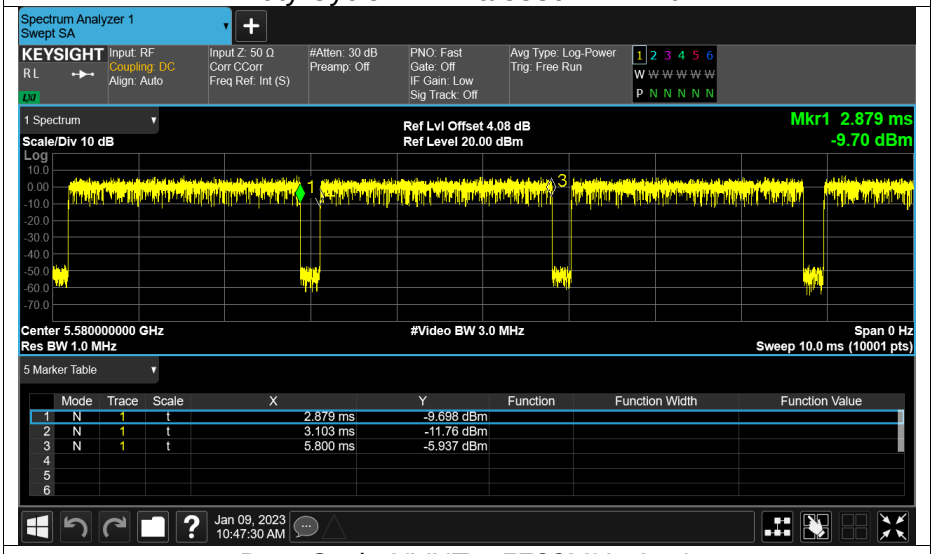
Duty Cycle NVNT a 5300MHz Ant1

Duty Cycle NVNT a 5320MHz Ant1



Duty Cycle NVNT a 5500MHz Ant1

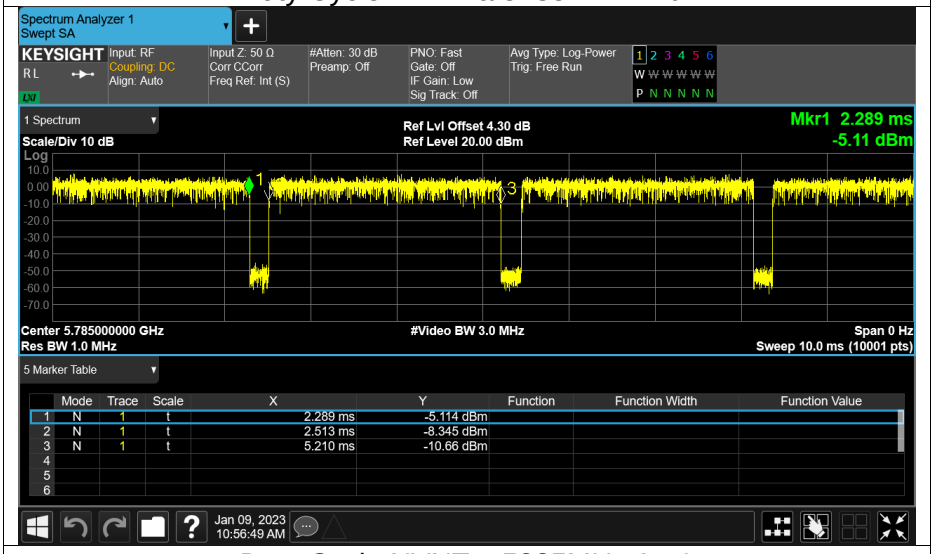
Duty Cycle NVNT a 5580MHz Ant1



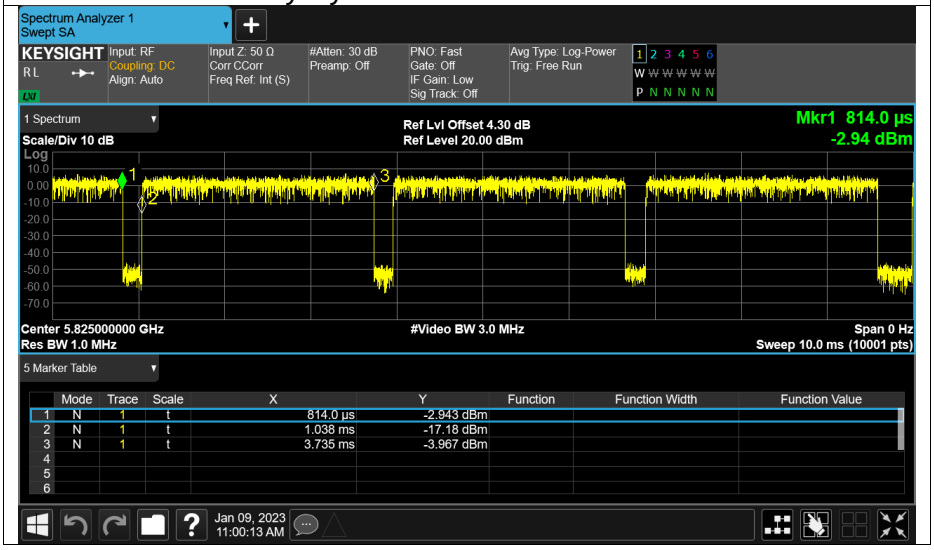
Duty Cycle NVNT a 5700MHz Ant1

Duty Cycle NVNT a 5745MHz Ant1

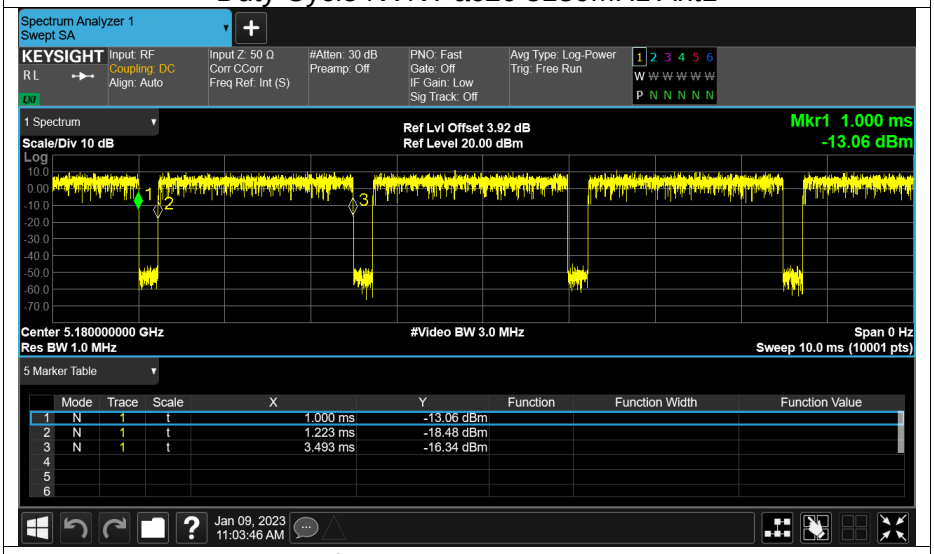
Duty Cycle NVNT a 5785MHz Ant1



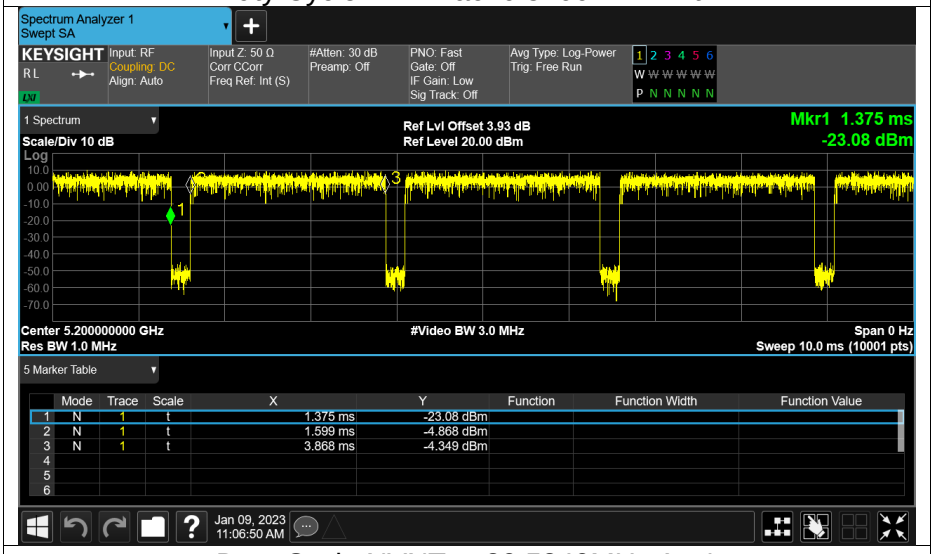
Duty Cycle NVNT a 5825MHz Ant1



Duty Cycle NVNT ac20 5180MHz Ant1

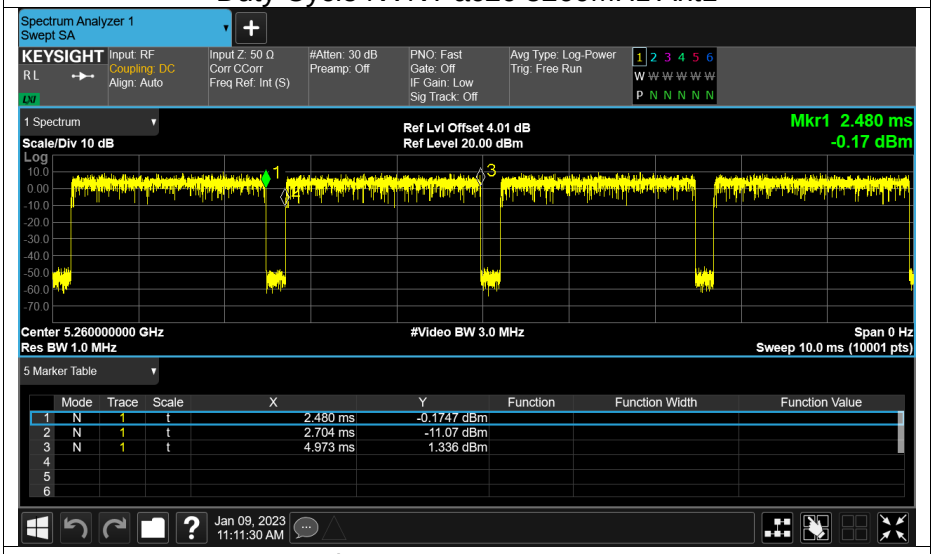


Duty Cycle NVNT ac20 5200MHz Ant1



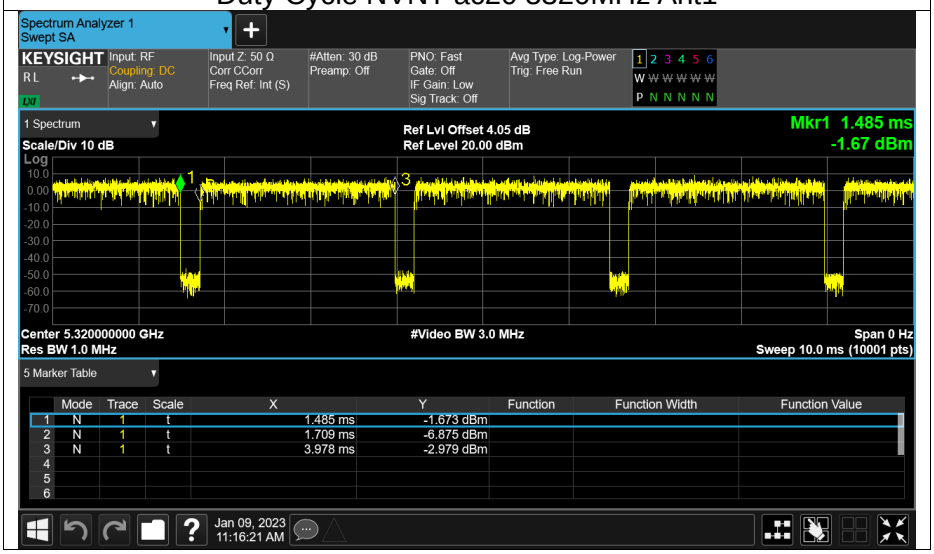
Duty Cycle NVNT ac20 5240MHz Ant1

Duty Cycle NVNT ac20 5260MHz Ant1

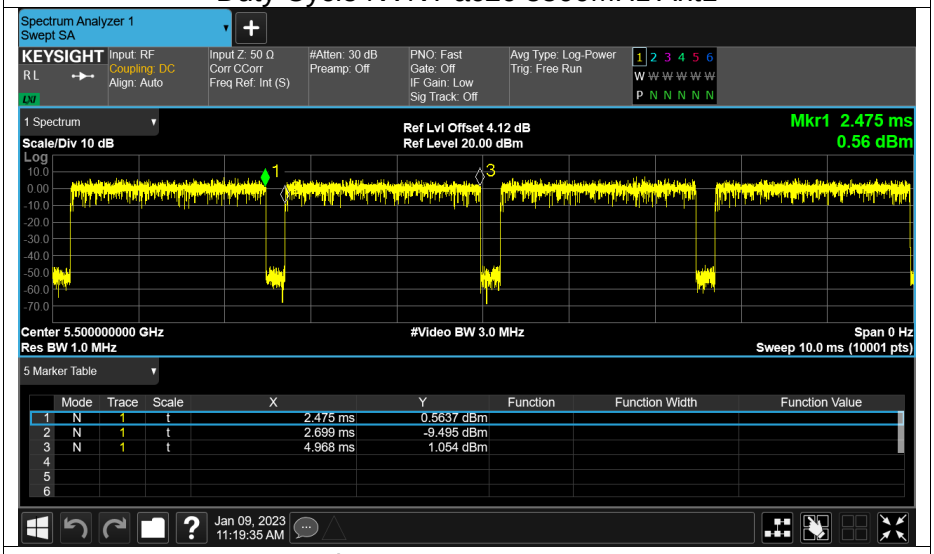


Duty Cycle NVNT ac20 5300MHz Ant1

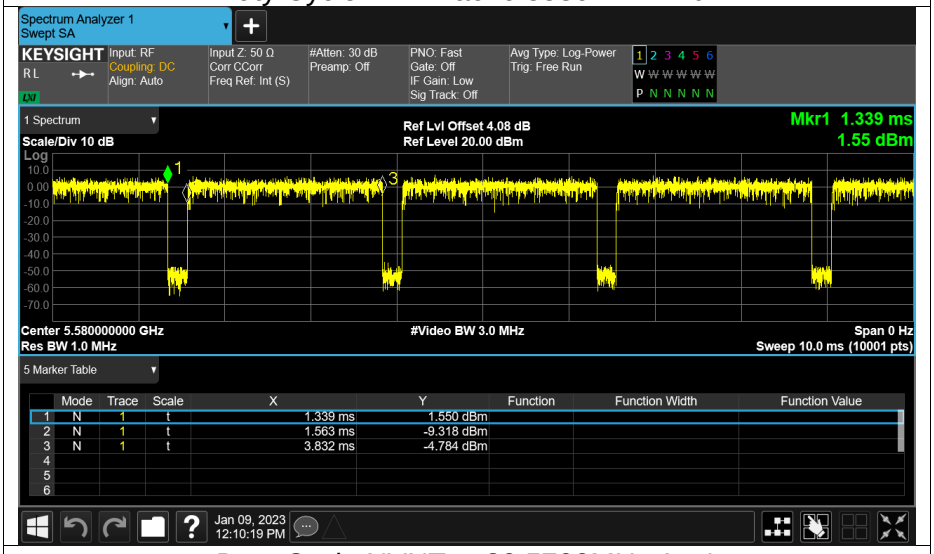
Duty Cycle NVNT ac20 5320MHz Ant1



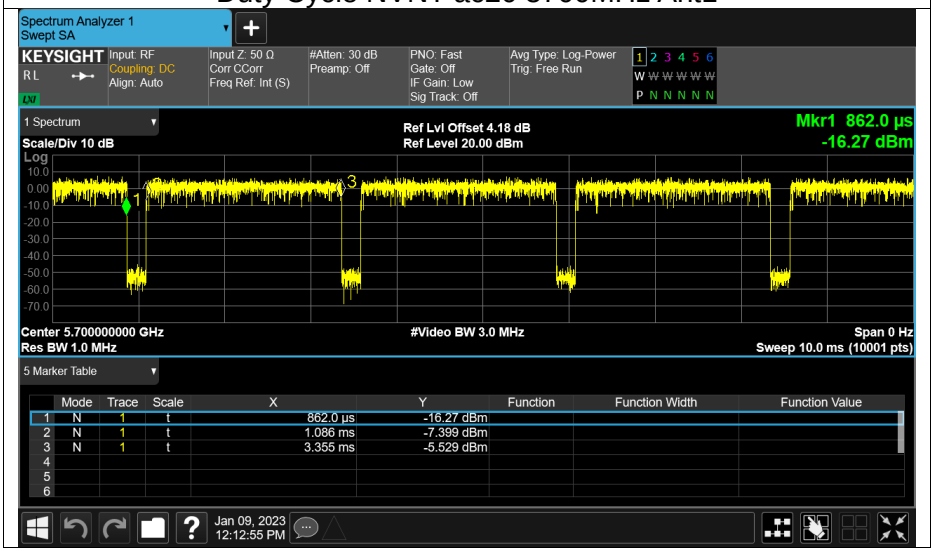
Duty Cycle NVNT ac20 5500MHz Ant1



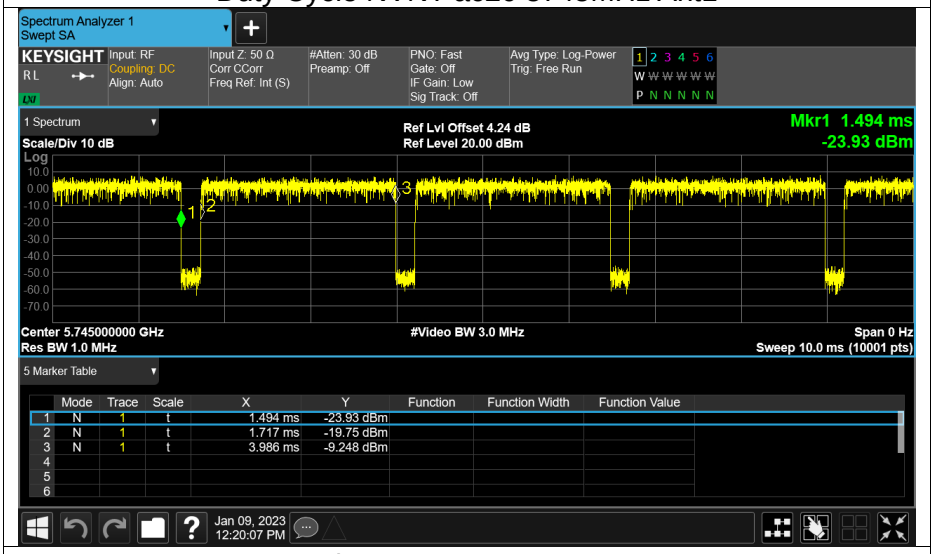
Duty Cycle NVNT ac20 5580MHz Ant1



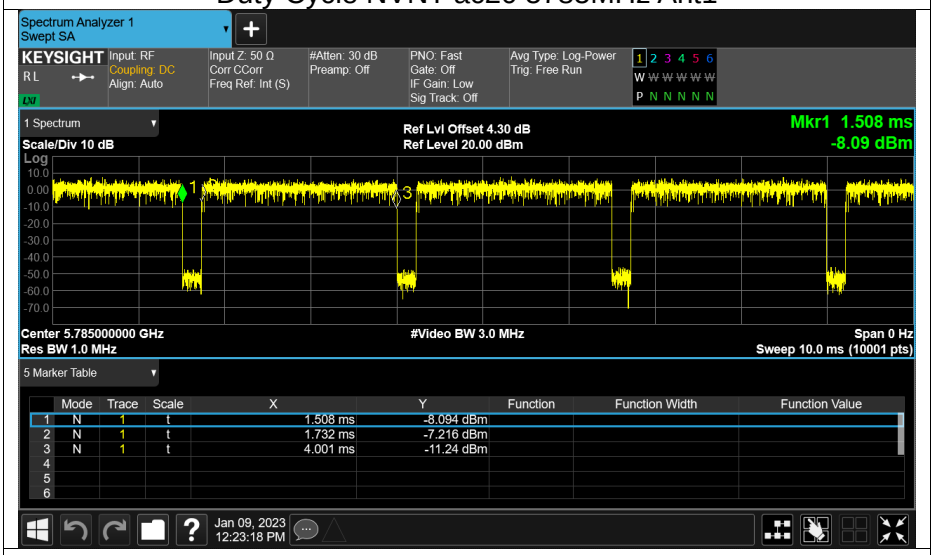
Duty Cycle NVNT ac20 5700MHz Ant1



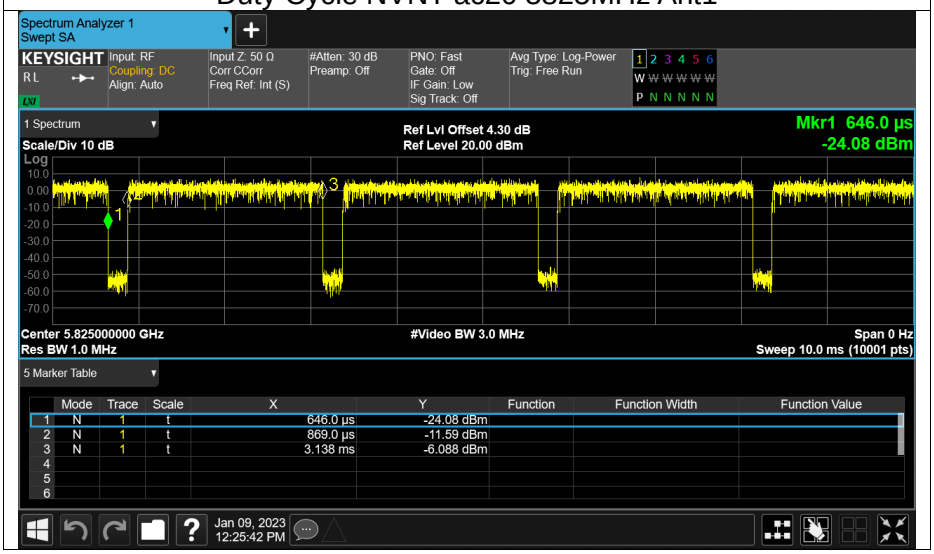
Duty Cycle NVNT ac20 5745MHz Ant1



Duty Cycle NVNT ac20 5785MHz Ant1

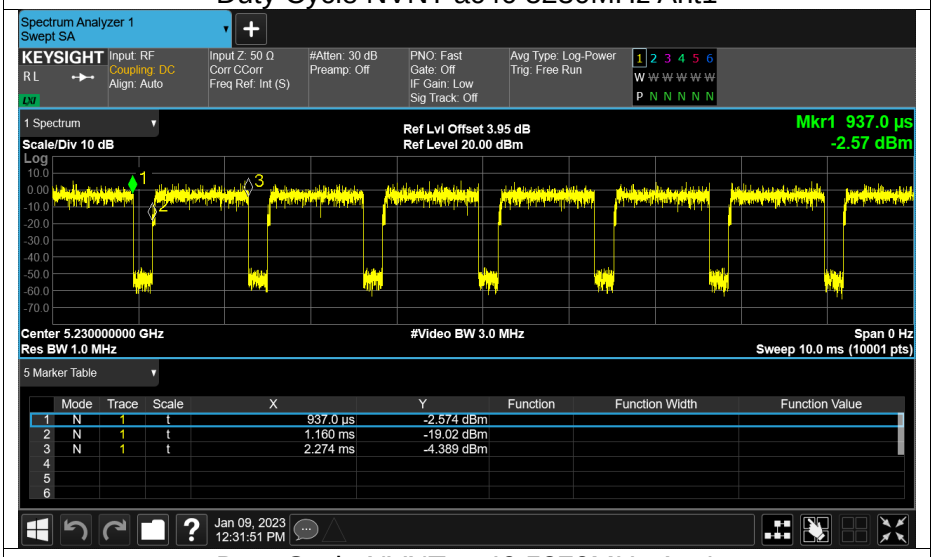


Duty Cycle NVNT ac20 5825MHz Ant1

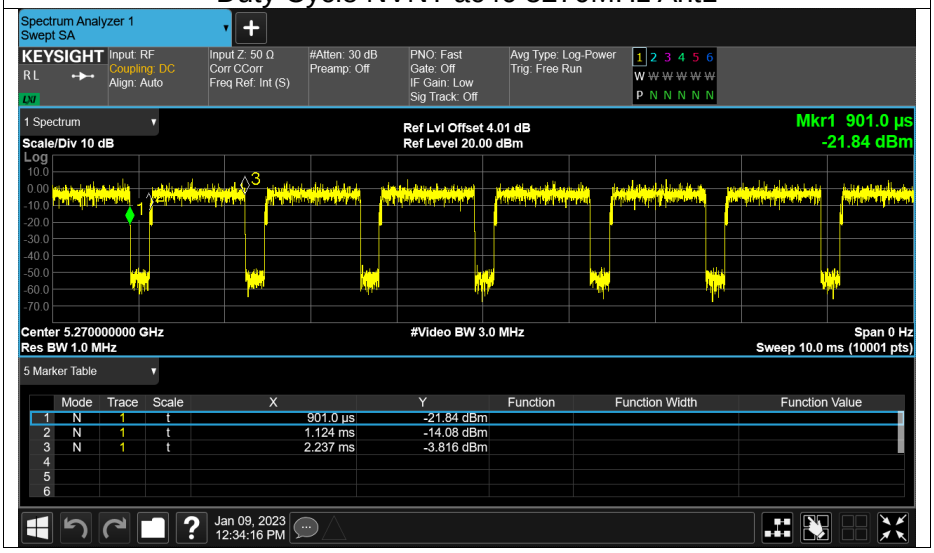


Duty Cycle NVNT ac40 5190MHz Ant1

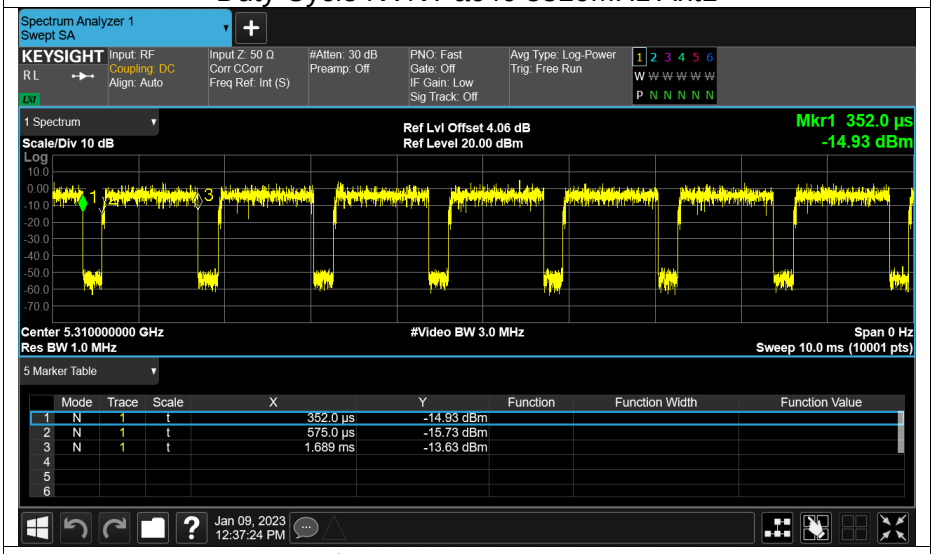
Duty Cycle NVNT ac40 5230MHz Ant1



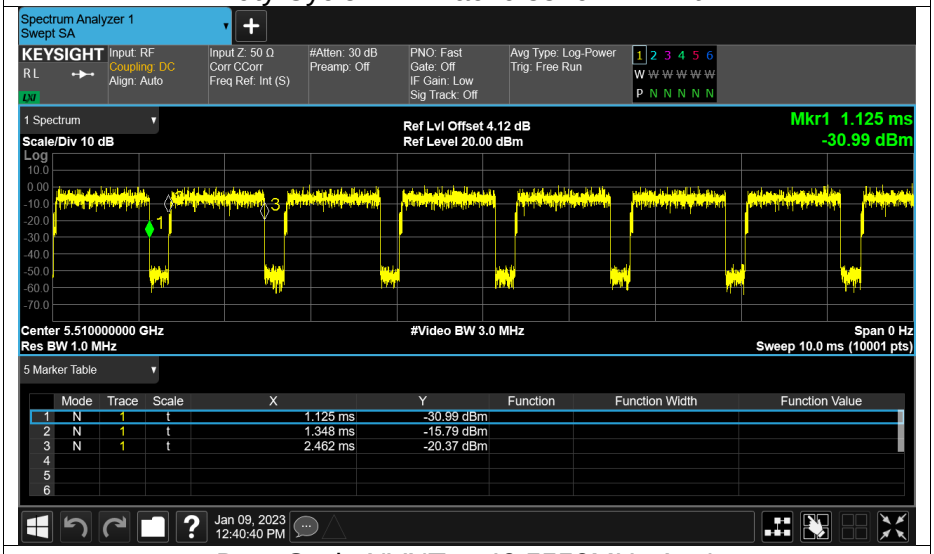
Duty Cycle NVNT ac40 5270MHz Ant1



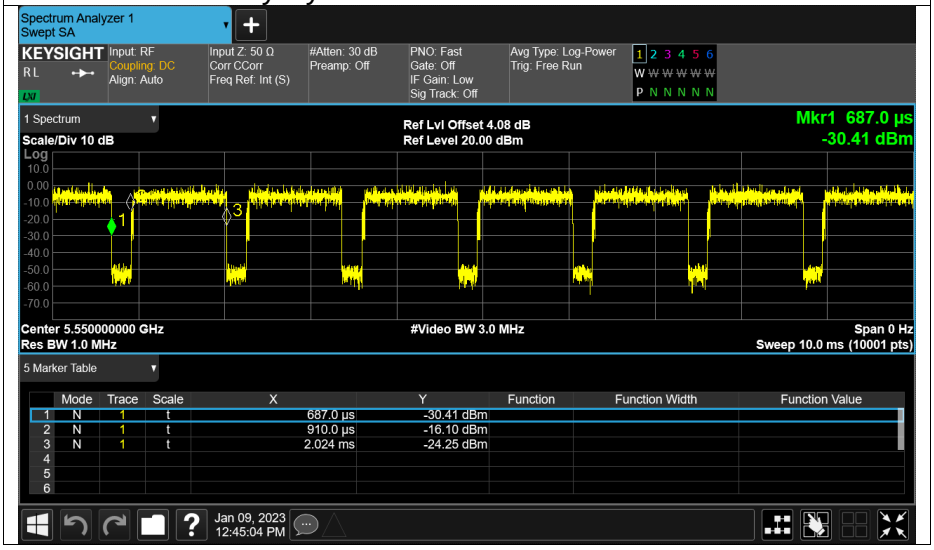
Duty Cycle NVNT ac40 5310MHz Ant1



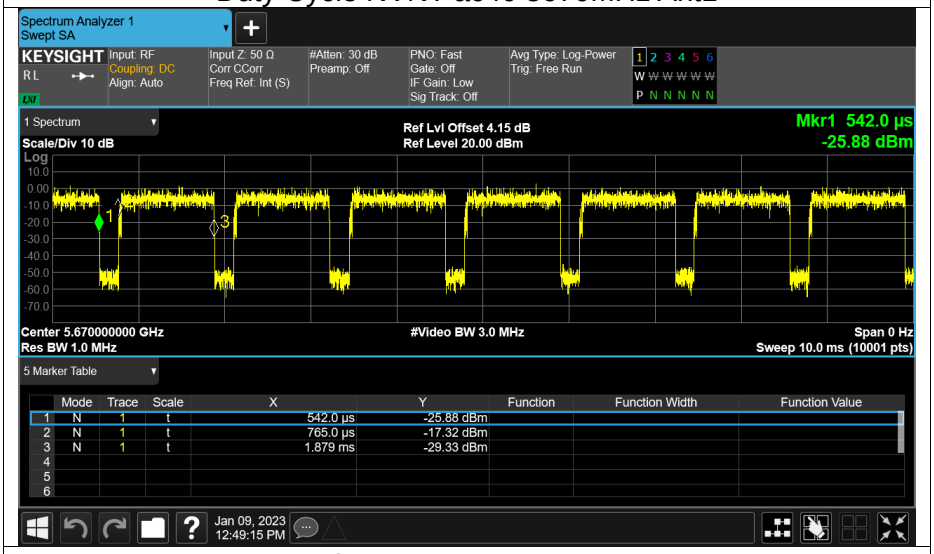
Duty Cycle NVNT ac40 5510MHz Ant1



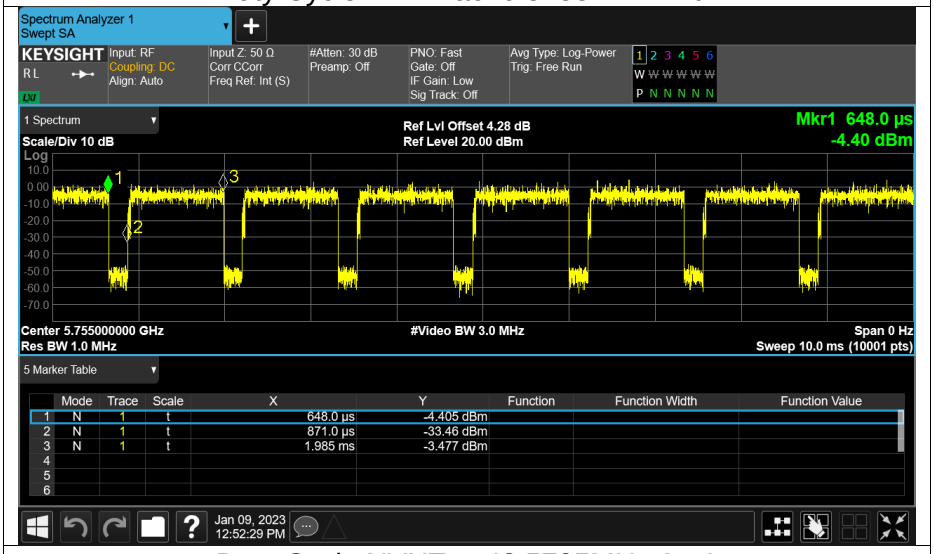
Duty Cycle NVNT ac40 5550MHz Ant1



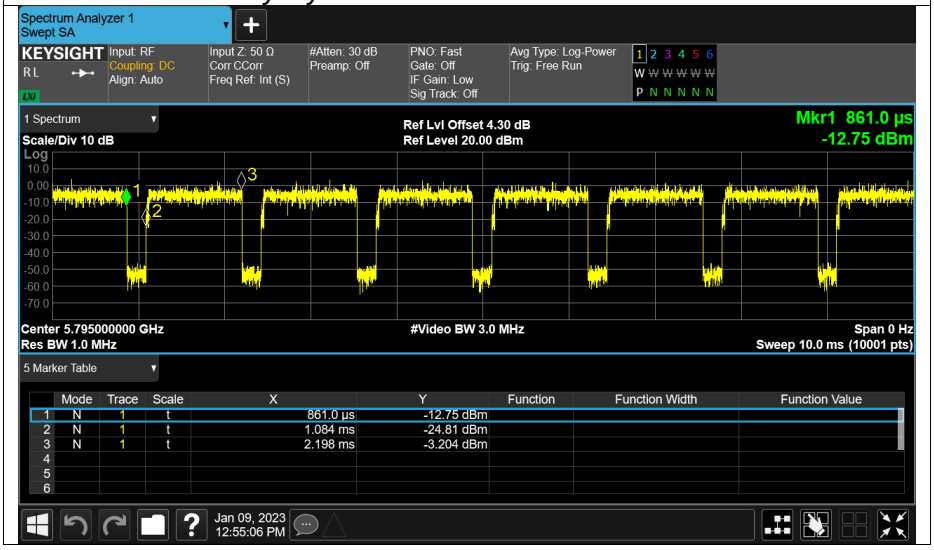
Duty Cycle NVNT ac40 5670MHz Ant1



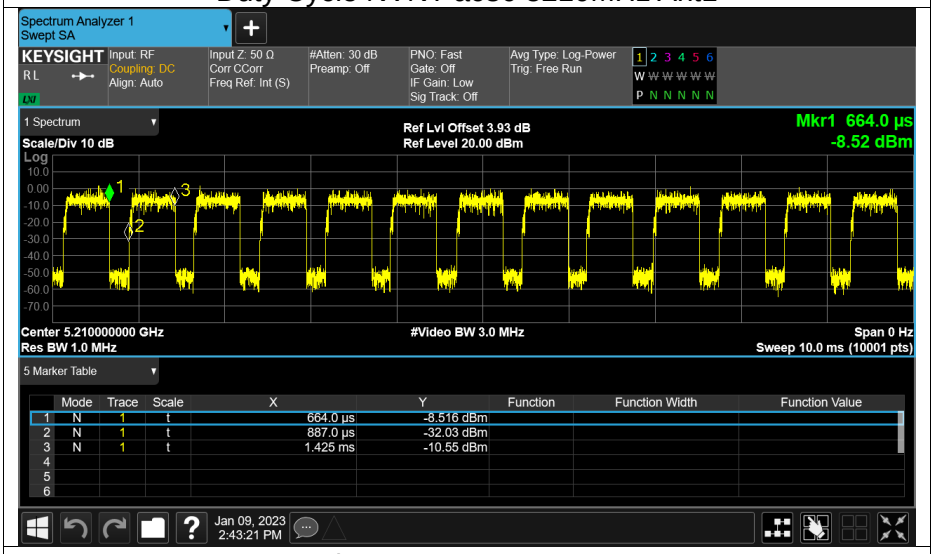
Duty Cycle NVNT ac40 5755MHz Ant1



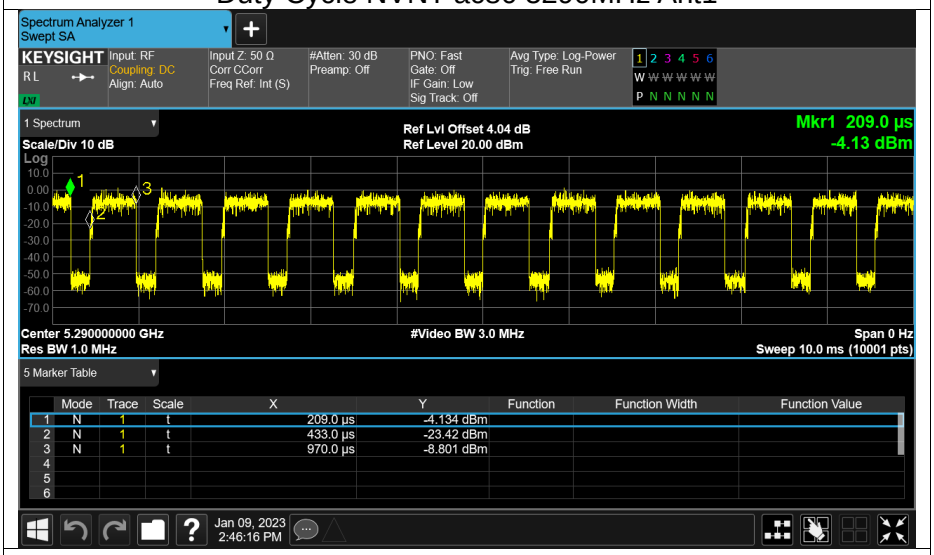
Duty Cycle NVNT ac40 5795MHz Ant1



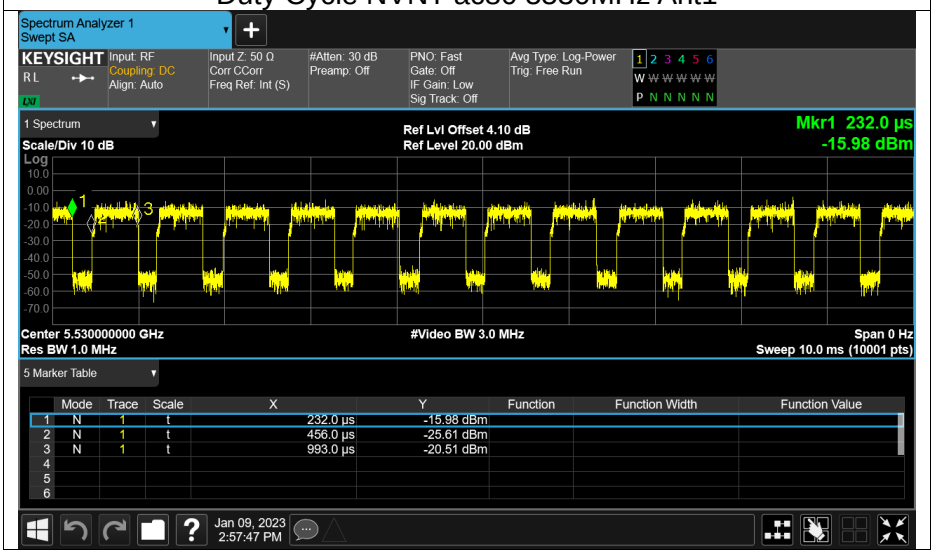
Duty Cycle NVNT ac80 5210MHz Ant1



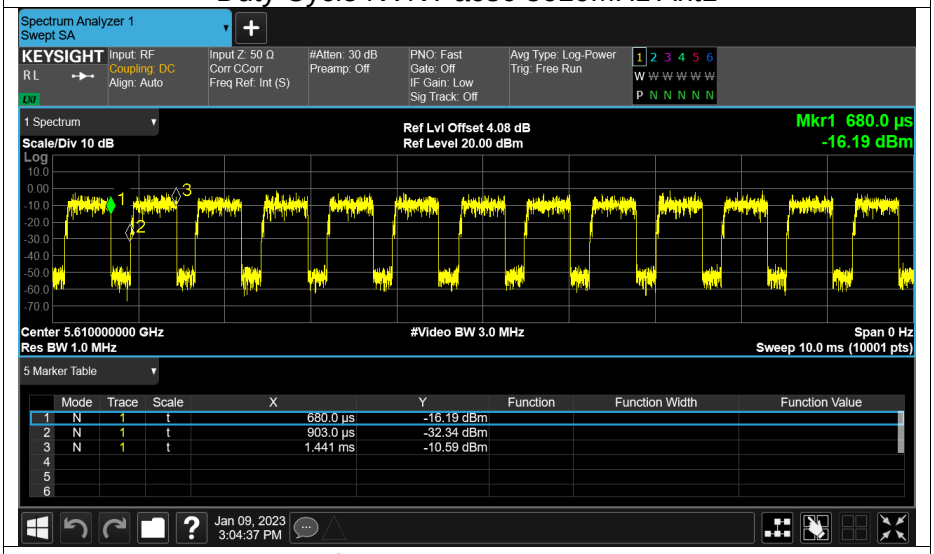
Duty Cycle NVNT ac80 5290MHz Ant1



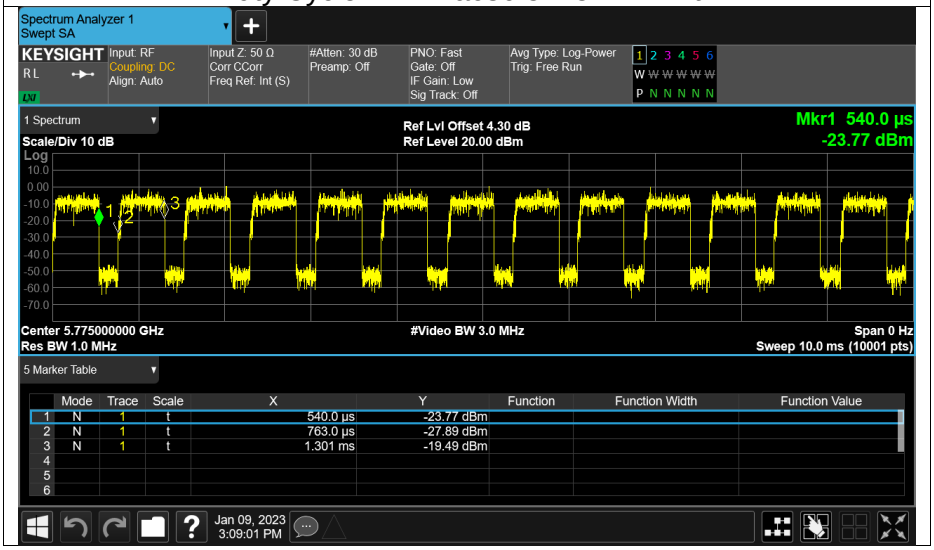
Duty Cycle NVNT ac80 5530MHz Ant1



Duty Cycle NVNT ac80 5610MHz Ant1



Duty Cycle NVNT ac80 5775MHz Ant1



Maximum Conducted Output Power

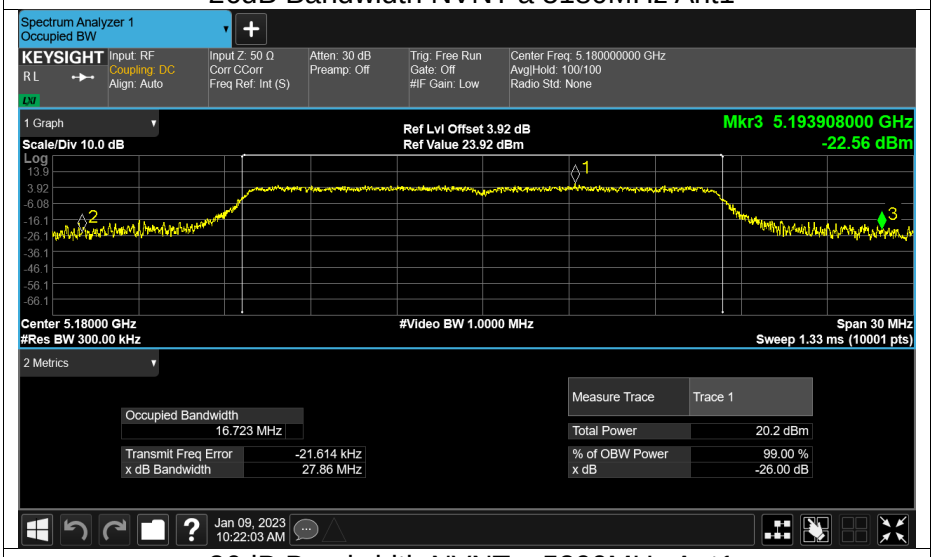
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	14.38	0.35	14.73	24	Pass
NVNT	a	5200	Ant1	13.91	0.35	14.26	24	Pass
NVNT	a	5240	Ant1	13.45	0.35	13.8	24	Pass
NVNT	a	5260	Ant1	13.63	0.35	13.98	24	Pass
NVNT	a	5300	Ant1	12.92	0.35	13.27	24	Pass
NVNT	a	5320	Ant1	12.37	0.35	12.72	24	Pass
NVNT	a	5500	Ant1	10.4	0.35	10.75	24	Pass
NVNT	a	5580	Ant1	10.81	0.35	11.16	24	Pass
NVNT	a	5700	Ant1	10.91	0.35	11.26	24	Pass
NVNT	a	5745	Ant1	11.65	0.35	12	30	Pass
NVNT	a	5785	Ant1	11.54	0.35	11.89	30	Pass
NVNT	a	5825	Ant1	11.64	0.35	11.99	30	Pass
NVNT	ac20	5180	Ant1	14.73	0.41	15.14	24	Pass
NVNT	ac20	5200	Ant1	14.11	0.41	14.52	24	Pass
NVNT	ac20	5240	Ant1	13.71	0.41	14.12	24	Pass
NVNT	ac20	5260	Ant1	13.95	0.41	14.36	24	Pass
NVNT	ac20	5300	Ant1	13.08	0.41	13.49	24	Pass
NVNT	ac20	5320	Ant1	12.32	0.41	12.73	24	Pass
NVNT	ac20	5500	Ant1	10.38	0.41	10.79	24	Pass
NVNT	ac20	5580	Ant1	10.74	0.41	11.15	24	Pass
NVNT	ac20	5700	Ant1	11.78	0.41	12.19	24	Pass
NVNT	ac20	5745	Ant1	12.63	0.41	13.04	30	Pass
NVNT	ac20	5785	Ant1	12.04	0.41	12.45	30	Pass
NVNT	ac20	5825	Ant1	12.24	0.41	12.65	30	Pass
NVNT	ac40	5190	Ant1	14.01	0.79	14.8	24	Pass
NVNT	ac40	5230	Ant1	13.27	0.79	14.06	24	Pass
NVNT	ac40	5270	Ant1	12.94	0.79	13.73	24	Pass
NVNT	ac40	5310	Ant1	12.01	0.79	12.8	24	Pass
NVNT	ac40	5510	Ant1	5.47	0.79	6.26	24	Pass
NVNT	ac40	5550	Ant1	9.51	0.79	10.3	24	Pass
NVNT	ac40	5670	Ant1	10.35	0.79	11.14	24	Pass
NVNT	ac40	5755	Ant1	11.51	0.79	12.3	30	Pass
NVNT	ac40	5795	Ant1	10.95	0.79	11.74	30	Pass
NVNT	ac80	5210	Ant1	12.67	1.51	14.18	24	Pass
NVNT	ac80	5290	Ant1	12.45	1.51	13.96	24	Pass
NVNT	ac80	5530	Ant1	9.06	1.51	10.57	24	Pass
NVNT	ac80	5610	Ant1	9.75	1.51	11.26	24	Pass
NVNT	ac80	5775	Ant1	10.92	1.51	12.43	30	Pass

-26dB Bandwidth

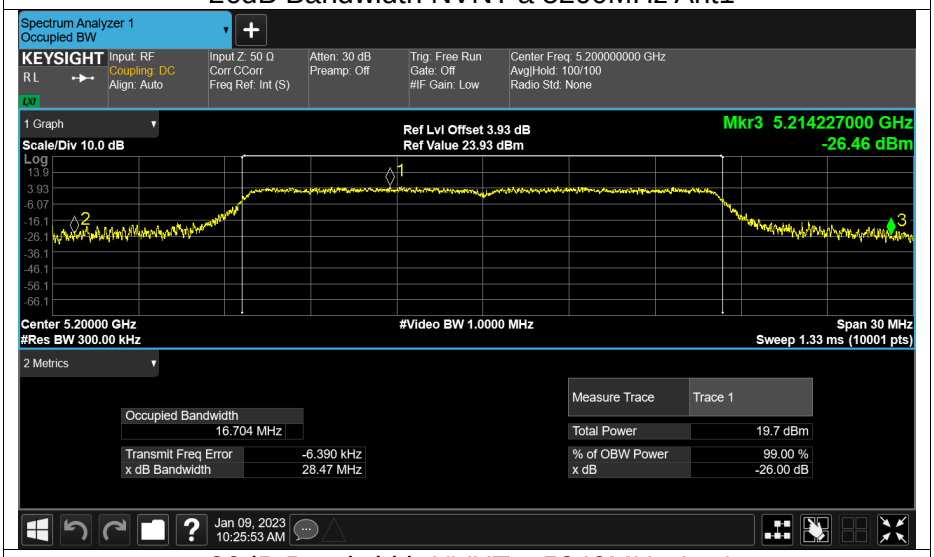
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	27.858	0.5	Pass
NVNT	a	5200	Ant1	28.466	0.5	Pass
NVNT	a	5240	Ant1	26.365	0.5	Pass
NVNT	a	5260	Ant1	25.704	0.5	Pass
NVNT	a	5300	Ant1	27.497	0.5	Pass
NVNT	a	5320	Ant1	27.817	0.5	Pass
NVNT	a	5500	Ant1	28.159	0.5	Pass
NVNT	a	5580	Ant1	28.342	0.5	Pass
NVNT	a	5700	Ant1	29.748	0.5	Pass
NVNT	ac20	5180	Ant1	29.009	0.5	Pass
NVNT	ac20	5200	Ant1	28.266	0.5	Pass
NVNT	ac20	5240	Ant1	28.26	0.5	Pass
NVNT	ac20	5260	Ant1	28.919	0.5	Pass
NVNT	ac20	5300	Ant1	28.519	0.5	Pass
NVNT	ac20	5320	Ant1	29.037	0.5	Pass
NVNT	ac20	5500	Ant1	27.623	0.5	Pass
NVNT	ac20	5580	Ant1	28.319	0.5	Pass
NVNT	ac20	5700	Ant1	30	0.5	Pass
NVNT	ac40	5190	Ant1	49.793	0.5	Pass
NVNT	ac40	5230	Ant1	43.886	0.5	Pass
NVNT	ac40	5270	Ant1	41.785	0.5	Pass
NVNT	ac40	5310	Ant1	40.302	0.5	Pass
NVNT	ac40	5510	Ant1	44.921	0.5	Pass
NVNT	ac40	5550	Ant1	44.01	0.5	Pass
NVNT	ac40	5670	Ant1	57.558	0.5	Pass
NVNT	ac80	5210	Ant1	85.673	0.5	Pass
NVNT	ac80	5290	Ant1	80.663	0.5	Pass
NVNT	ac80	5530	Ant1	82.97	0.5	Pass
NVNT	ac80	5610	Ant1	82.282	0.5	Pass

Test Graphs

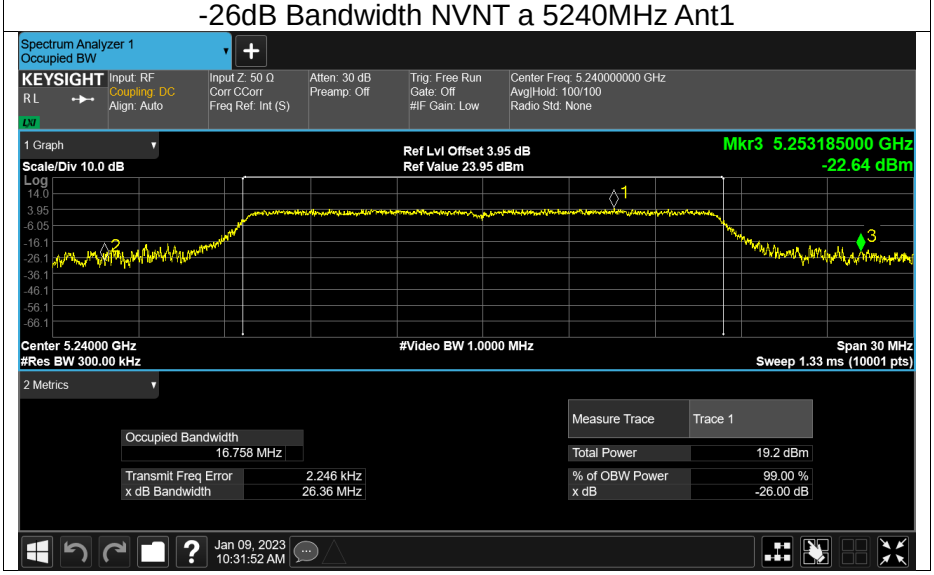
-26dB Bandwidth NVNT a 5180MHz Ant1



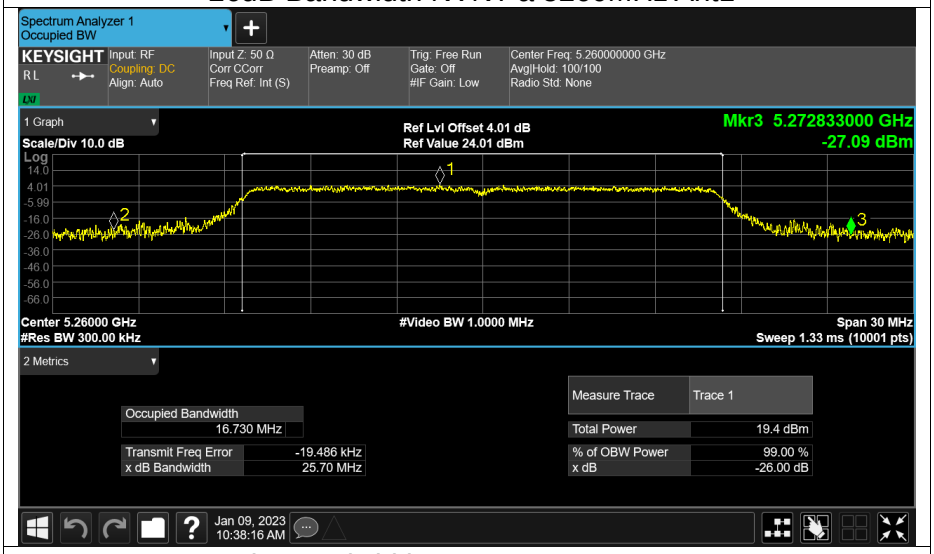
-26dB Bandwidth NVNT a 5200MHz Ant1



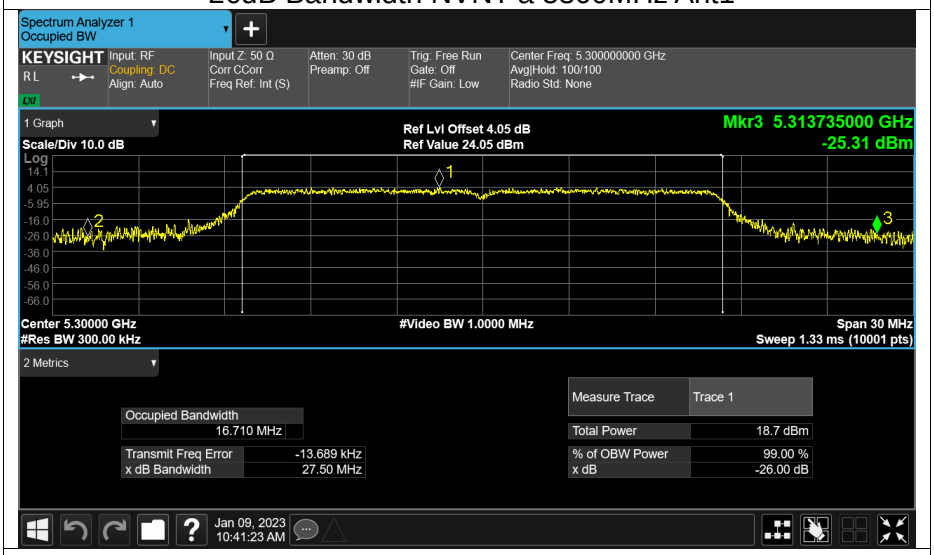
-26dB Bandwidth NVNT a 5240MHz Ant1



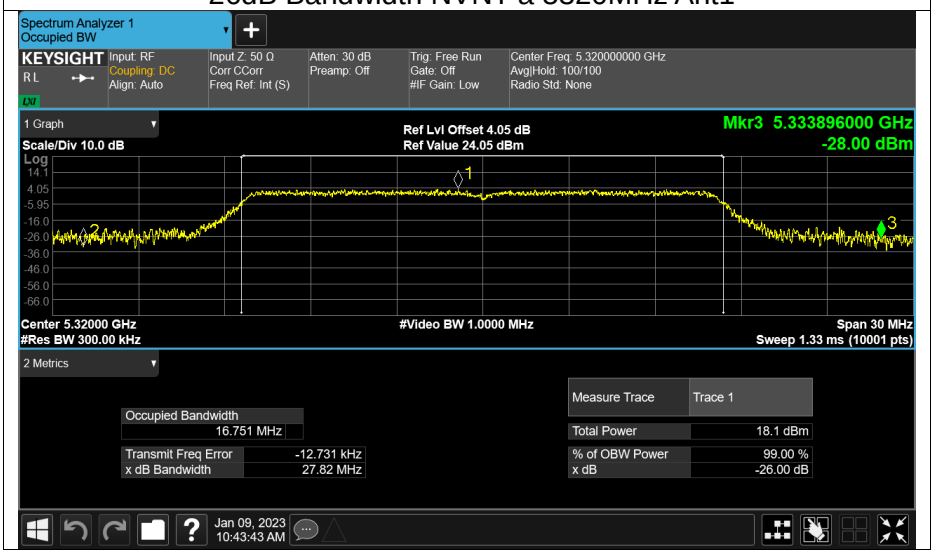
-26dB Bandwidth NVNT a 5260MHz Ant1



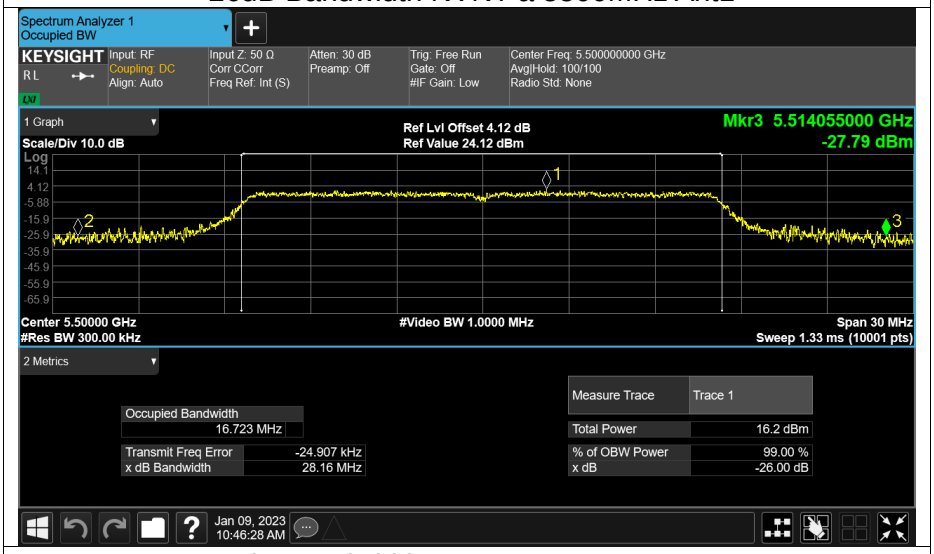
-26dB Bandwidth NVNT a 5300MHz Ant1



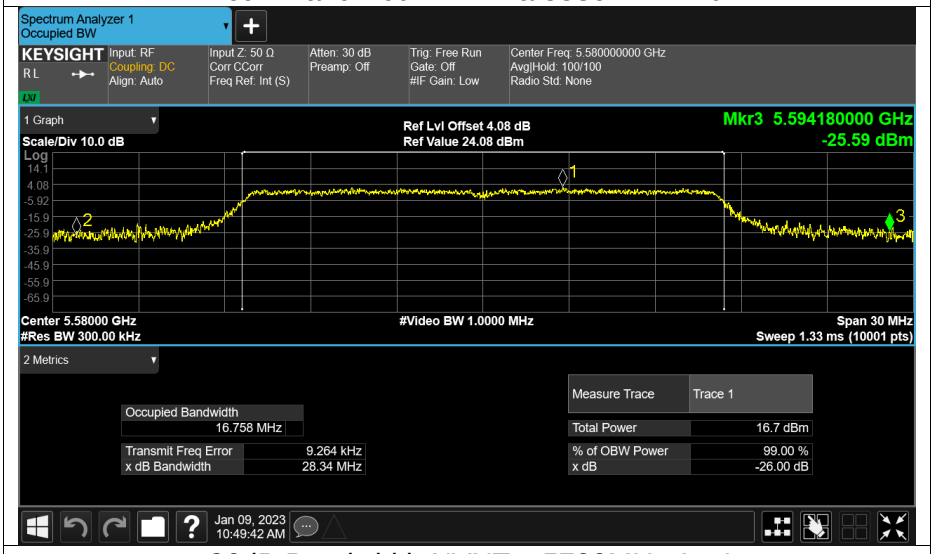
-26dB Bandwidth NVNT a 5320MHz Ant1



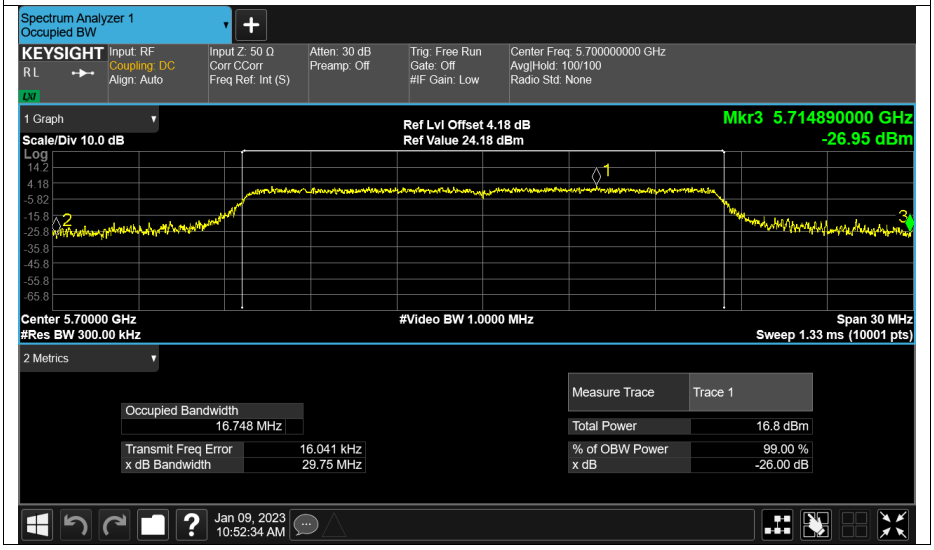
-26dB Bandwidth NVNT a 5500MHz Ant1



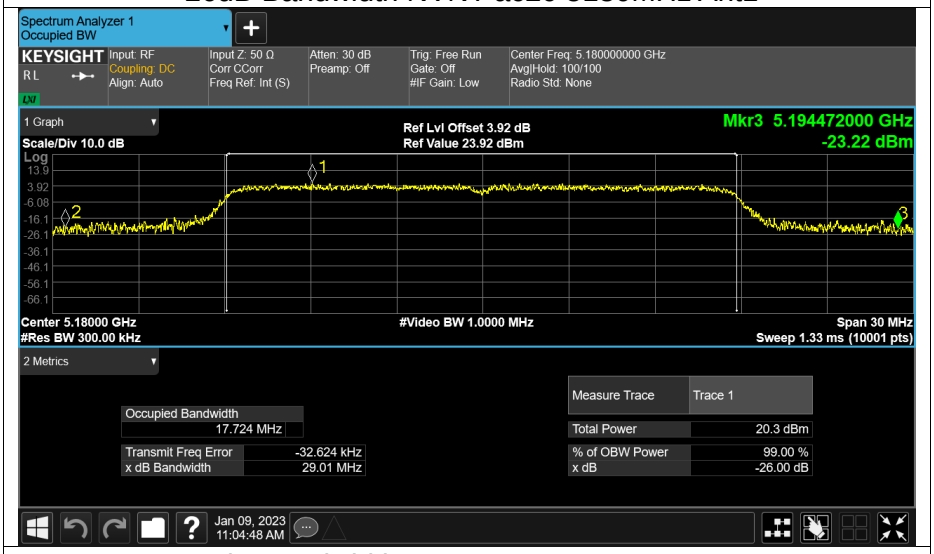
-26dB Bandwidth NVNT a 5580MHz Ant1



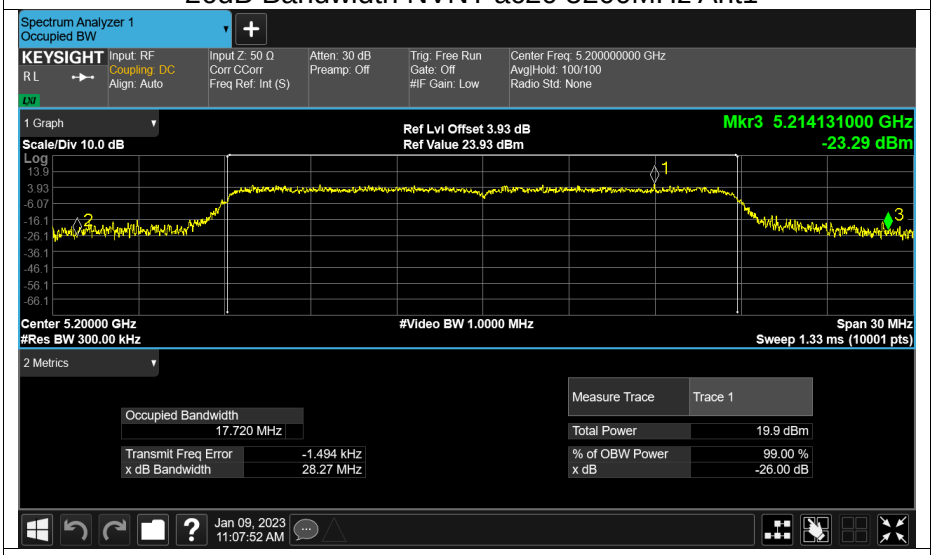
-26dB Bandwidth NVNT a 5700MHz Ant1



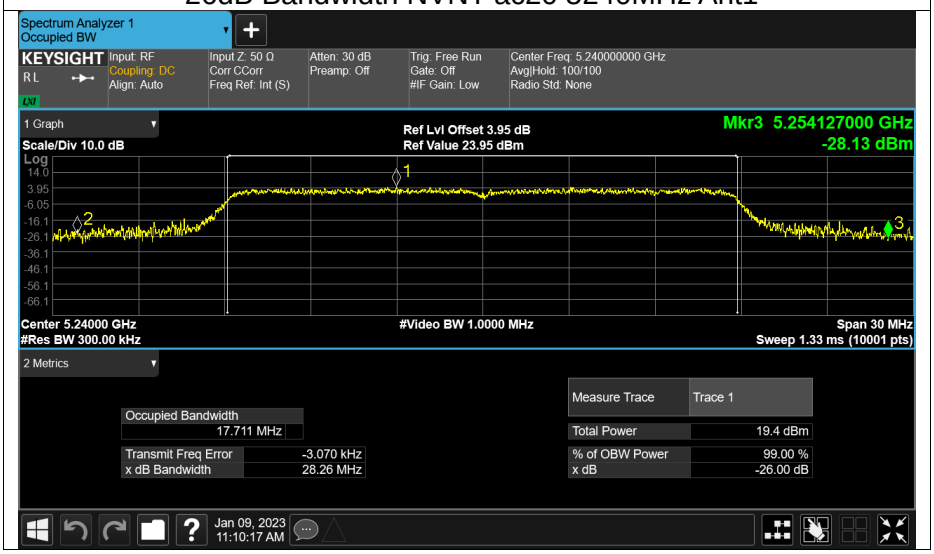
-26dB Bandwidth NVNT ac20 5180MHz Ant1



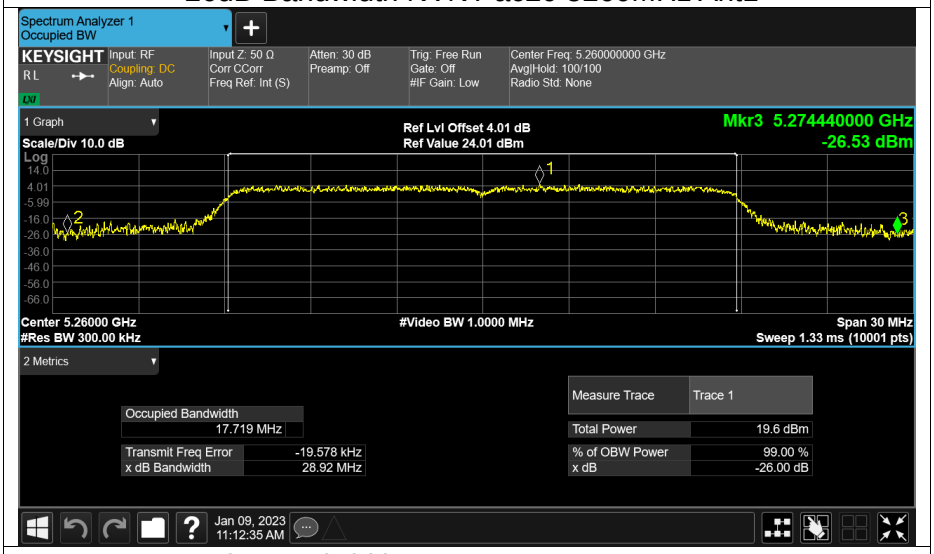
-26dB Bandwidth NVNT ac20 5200MHz Ant1



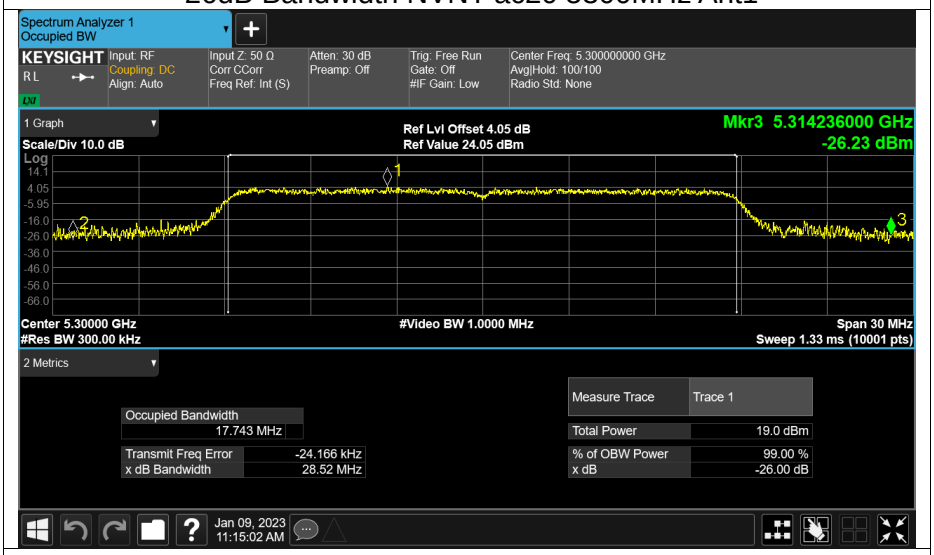
-26dB Bandwidth NVNT ac20 5240MHz Ant1



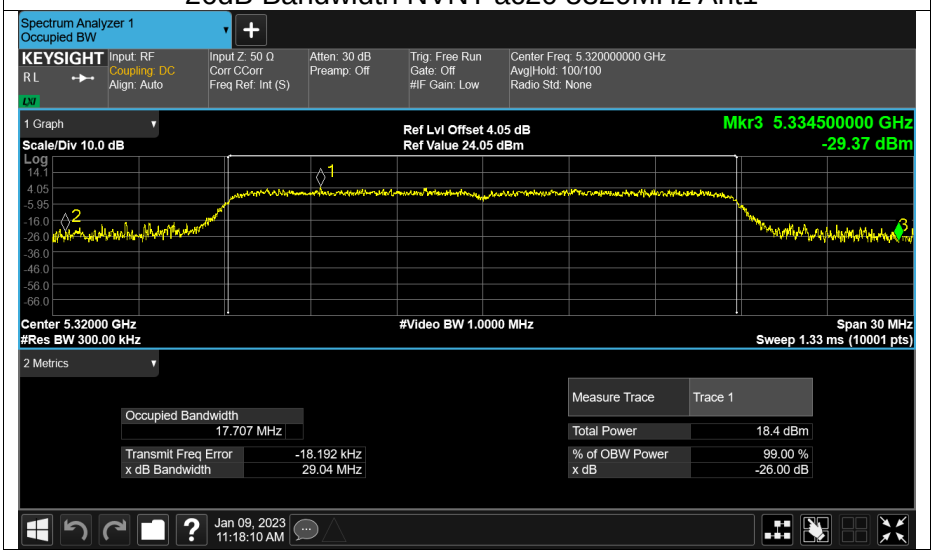
-26dB Bandwidth NVNT ac20 5260MHz Ant1



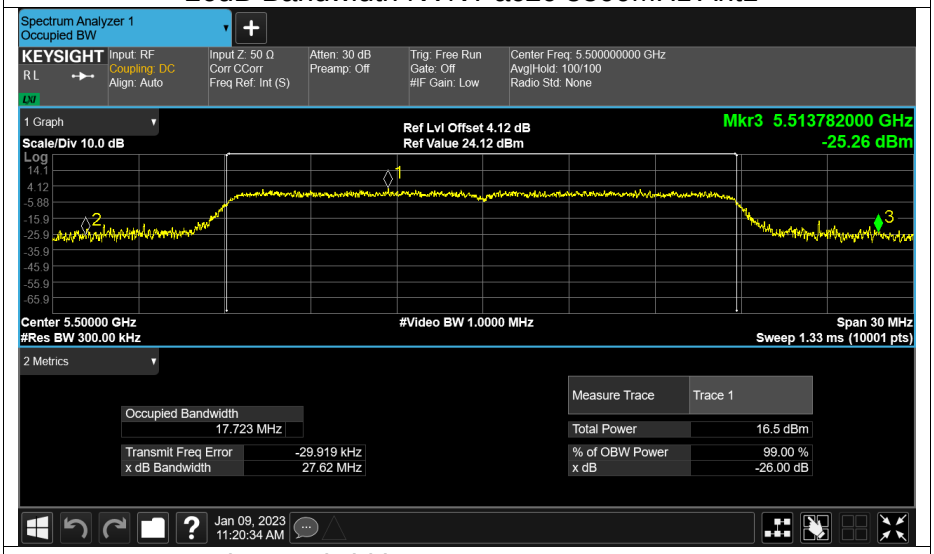
-26dB Bandwidth NVNT ac20 5300MHz Ant1



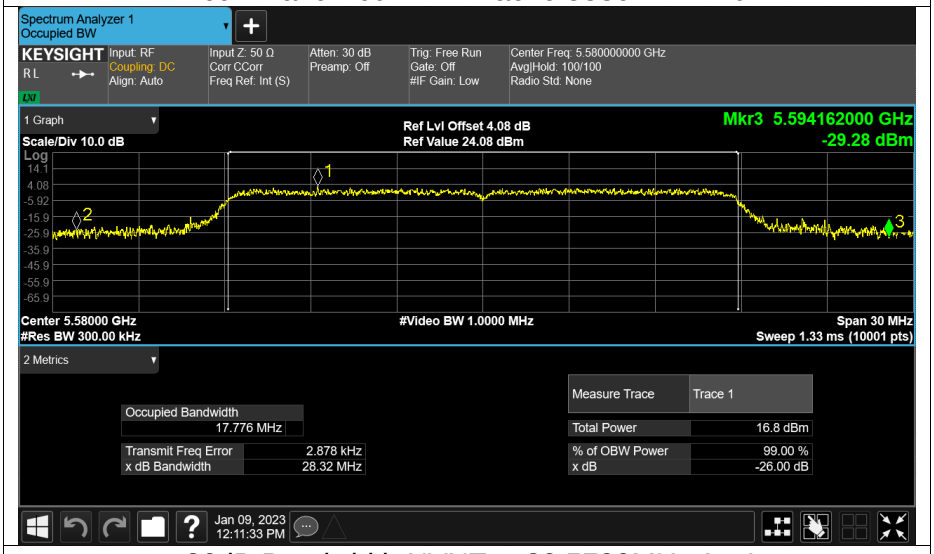
-26dB Bandwidth NVNT ac20 5320MHz Ant1



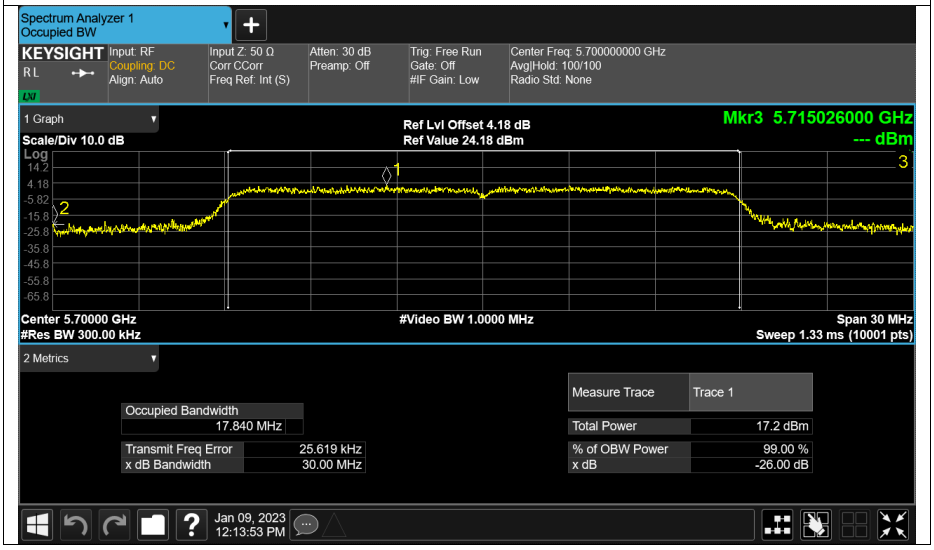
-26dB Bandwidth NVNT ac20 5500MHz Ant1



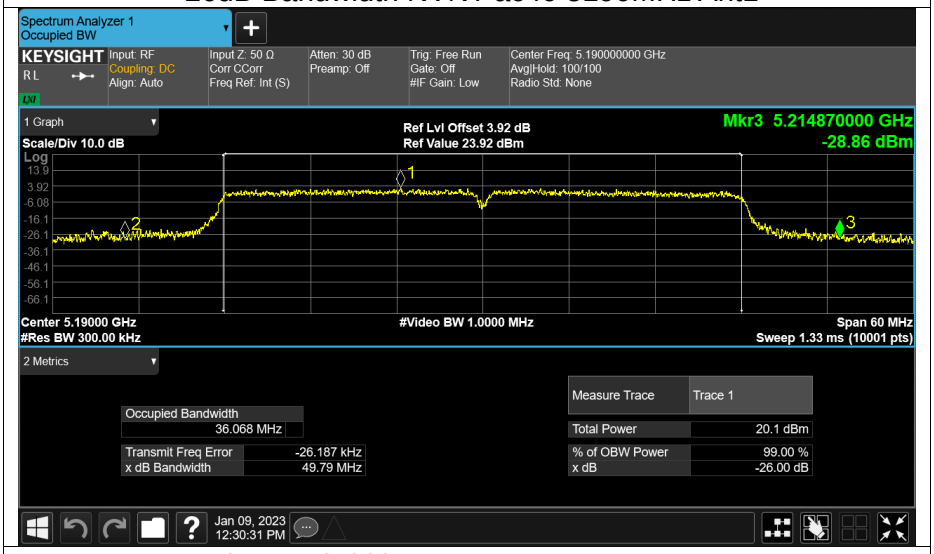
-26dB Bandwidth NVNT ac20 5580MHz Ant1



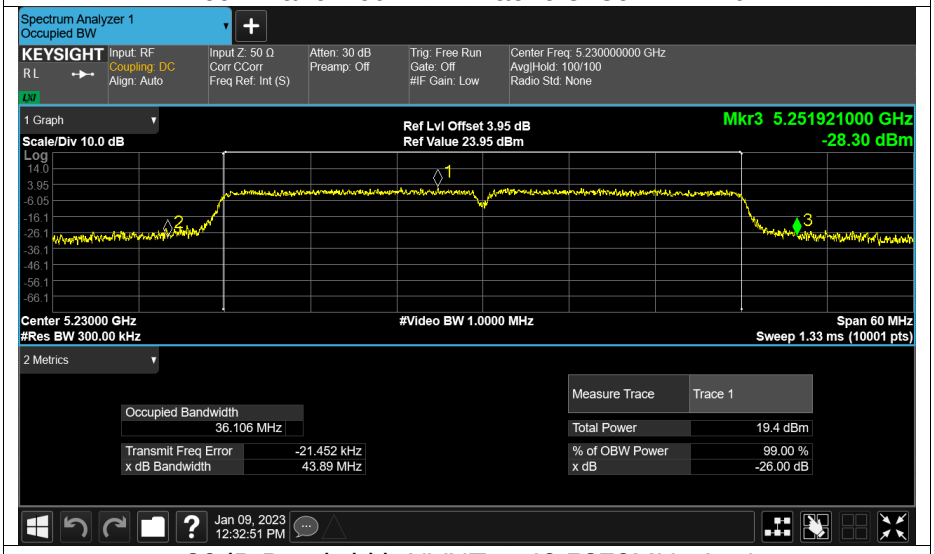
-26dB Bandwidth NVNT ac20 5700MHz Ant1



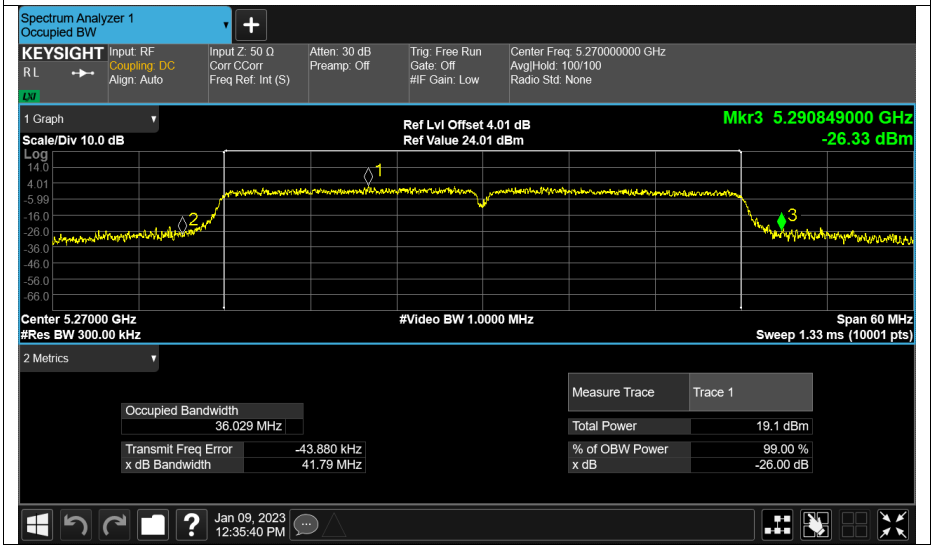
-26dB Bandwidth NVNT ac40 5190MHz Ant1



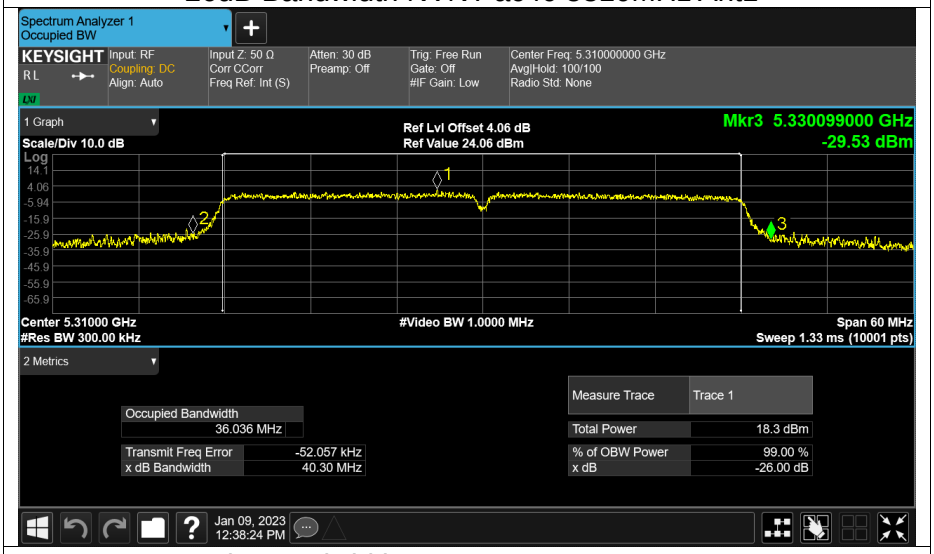
-26dB Bandwidth NVNT ac40 5230MHz Ant1



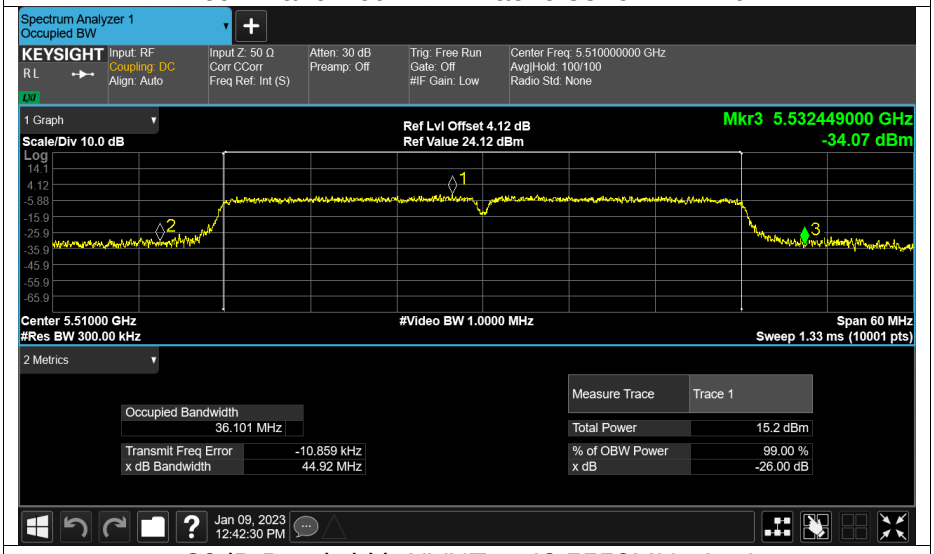
-26dB Bandwidth NVNT ac40 5270MHz Ant1



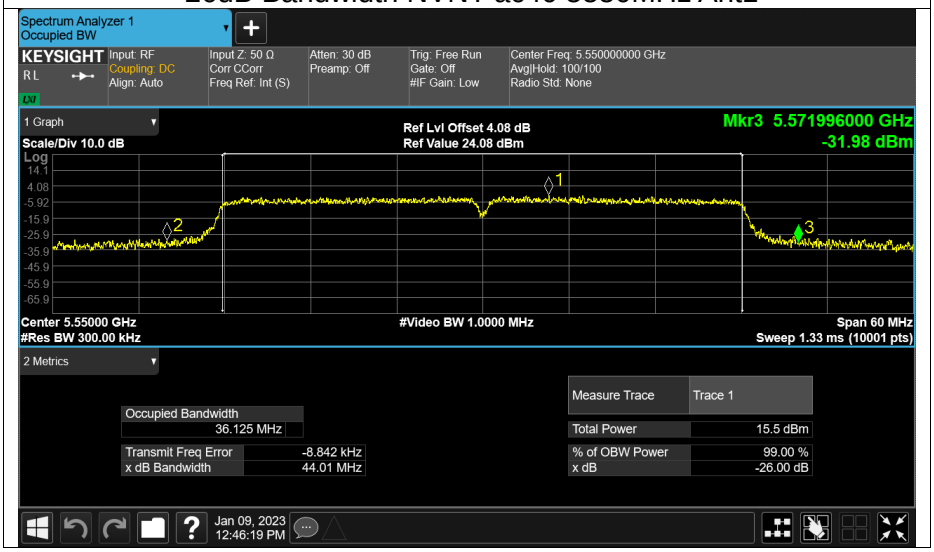
-26dB Bandwidth NVNT ac40 5310MHz Ant1



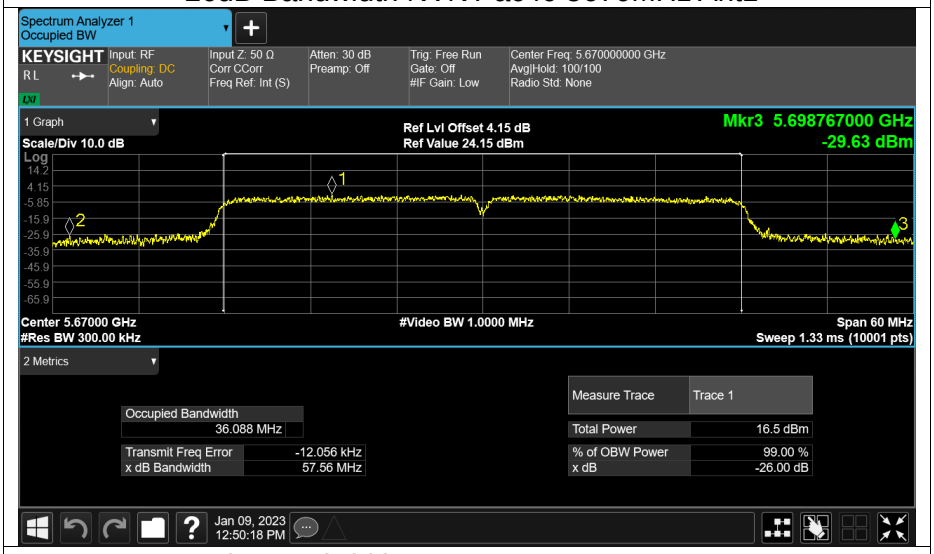
-26dB Bandwidth NVNT ac40 5510MHz Ant1



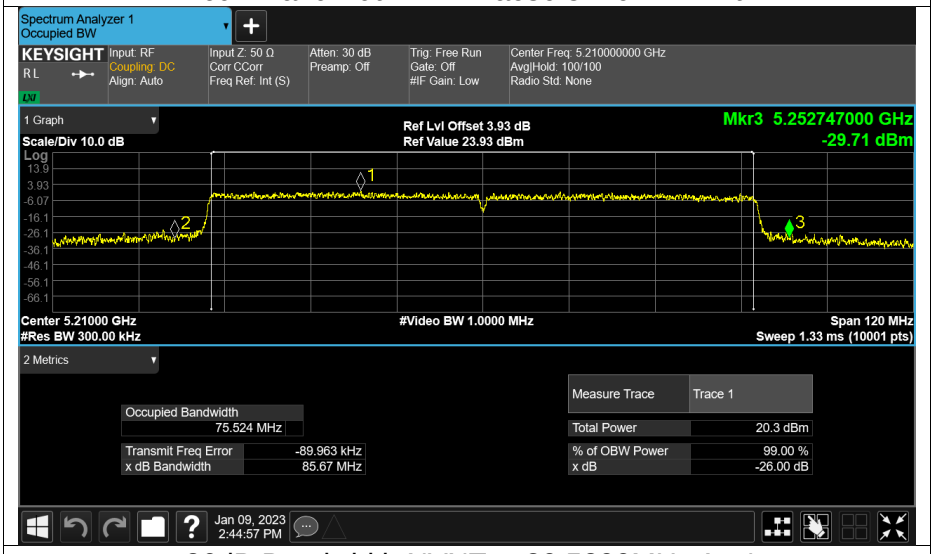
-26dB Bandwidth NVNT ac40 5550MHz Ant1



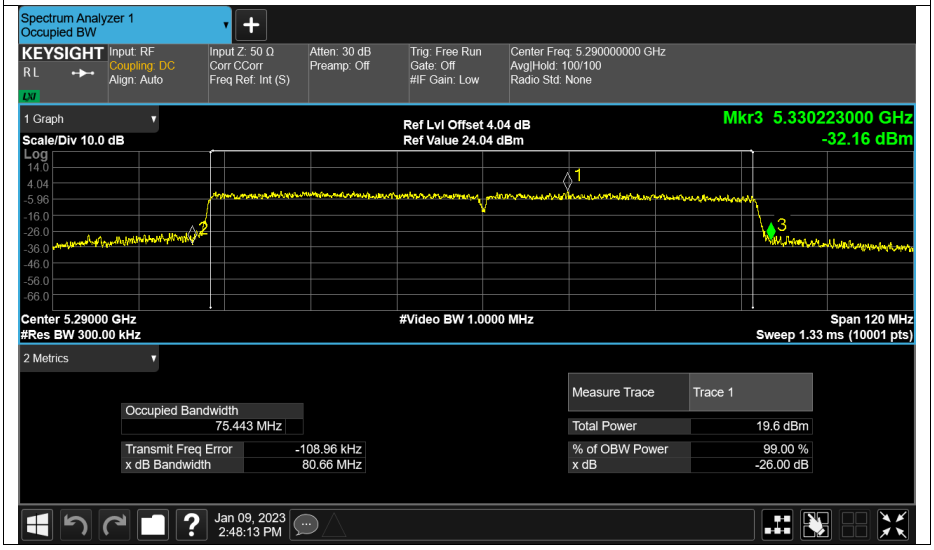
-26dB Bandwidth NVNT ac40 5670MHz Ant1



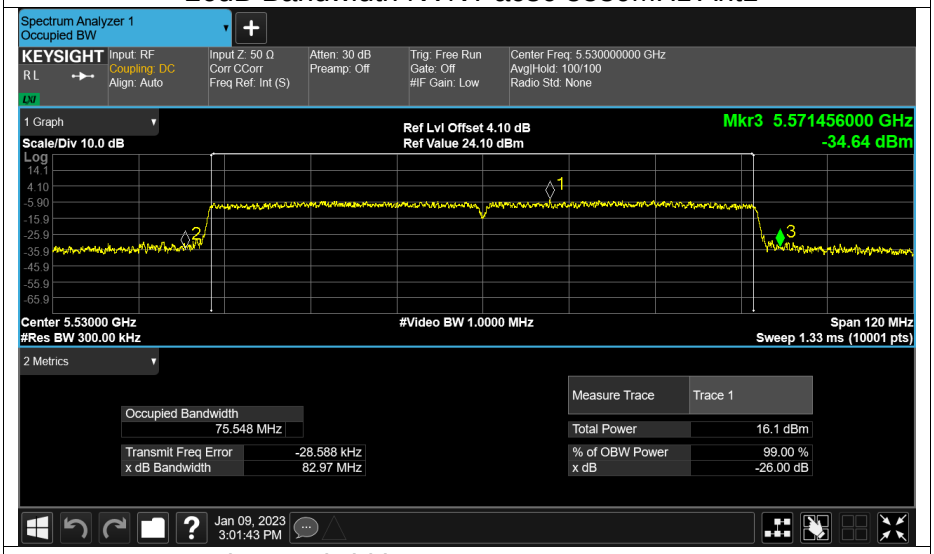
-26dB Bandwidth NVNT ac80 5210MHz Ant1



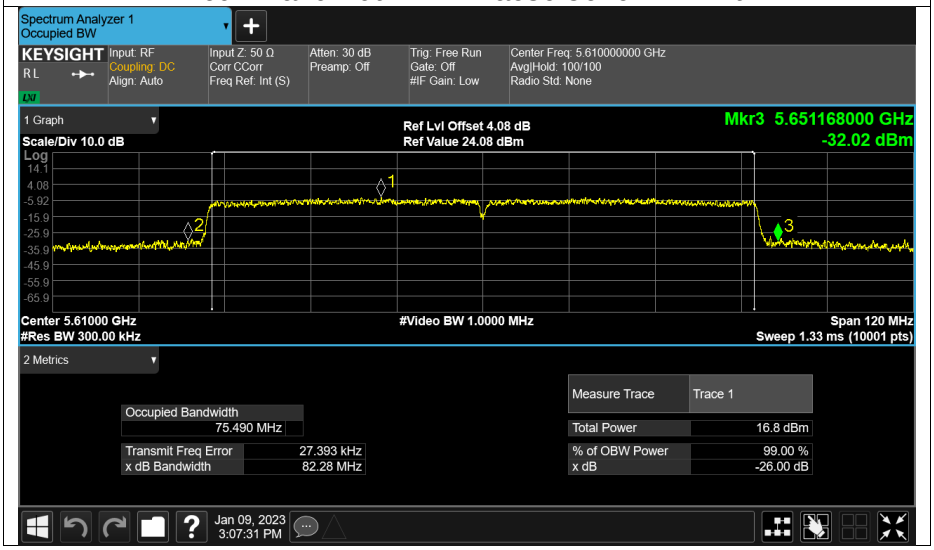
-26dB Bandwidth NVNT ac80 5290MHz Ant1



-26dB Bandwidth NVNT ac80 5530MHz Ant1



-26dB Bandwidth NVNT ac80 5610MHz Ant1

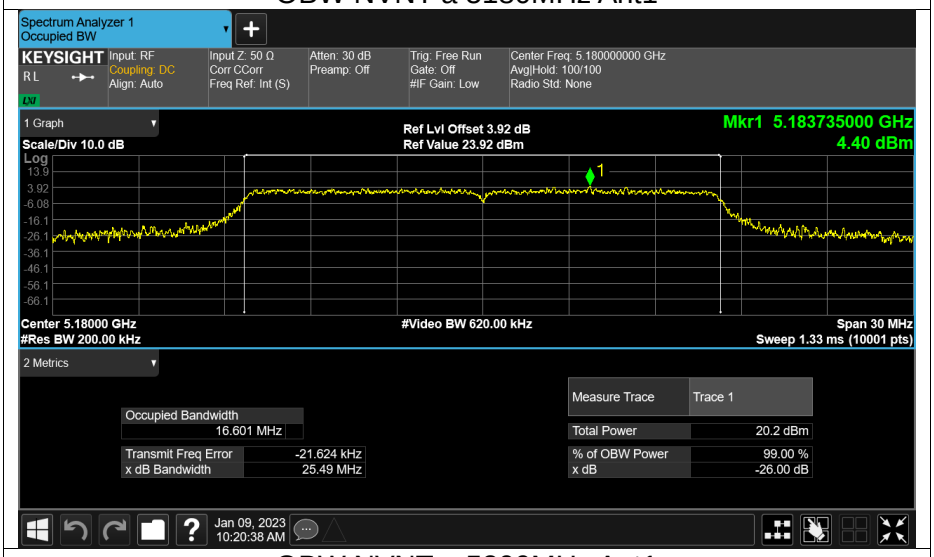


Occupied Channel Bandwidth

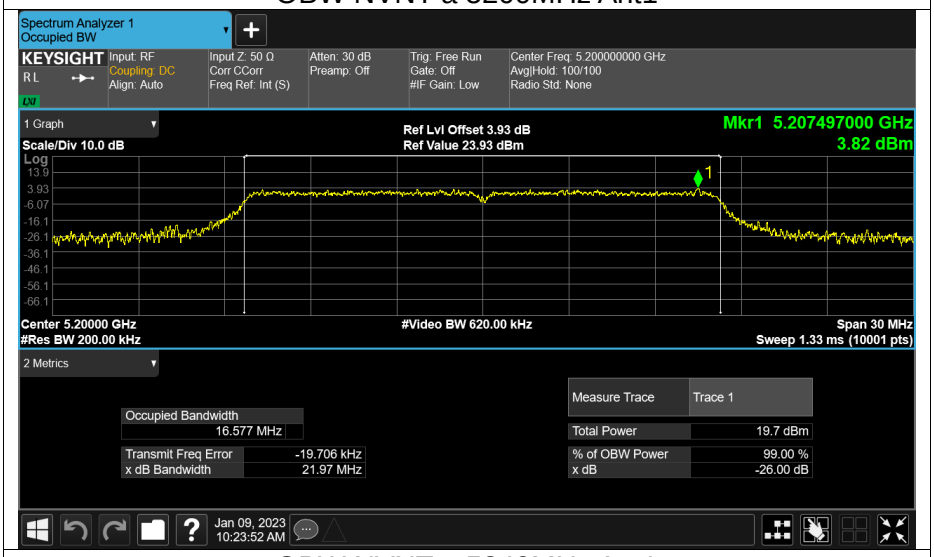
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.601
NVNT	a	5200	Ant1	16.577
NVNT	a	5240	Ant1	16.595
NVNT	a	5260	Ant1	16.561
NVNT	a	5300	Ant1	16.545
NVNT	a	5320	Ant1	16.518
NVNT	a	5500	Ant1	16.596
NVNT	a	5580	Ant1	16.59
NVNT	a	5700	Ant1	16.65
NVNT	a	5745	Ant1	16.673
NVNT	a	5785	Ant1	16.641
NVNT	a	5825	Ant1	16.627
NVNT	ac20	5180	Ant1	17.671
NVNT	ac20	5200	Ant1	17.643
NVNT	ac20	5240	Ant1	17.667
NVNT	ac20	5260	Ant1	17.63
NVNT	ac20	5300	Ant1	17.655
NVNT	ac20	5320	Ant1	17.635
NVNT	ac20	5500	Ant1	17.647
NVNT	ac20	5580	Ant1	17.656
NVNT	ac20	5700	Ant1	17.665
NVNT	ac20	5745	Ant1	17.695
NVNT	ac20	5785	Ant1	17.742
NVNT	ac20	5825	Ant1	17.739
NVNT	ac40	5190	Ant1	36.11
NVNT	ac40	5230	Ant1	36.091
NVNT	ac40	5270	Ant1	36.085
NVNT	ac40	5310	Ant1	36.122
NVNT	ac40	5510	Ant1	36.168
NVNT	ac40	5550	Ant1	36.139
NVNT	ac40	5670	Ant1	36.16
NVNT	ac40	5755	Ant1	36.182
NVNT	ac40	5795	Ant1	36.299
NVNT	ac80	5210	Ant1	75.623
NVNT	ac80	5290	Ant1	75.499
NVNT	ac80	5530	Ant1	75.584
NVNT	ac80	5610	Ant1	75.53
NVNT	ac80	5775	Ant1	75.721

Test Graphs

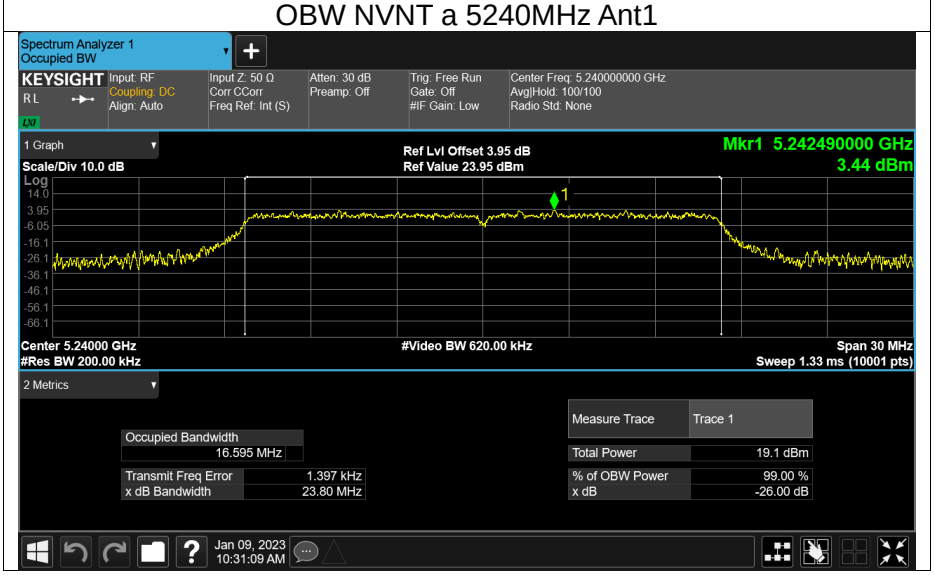
OBW NVNT a 5180MHz Ant1



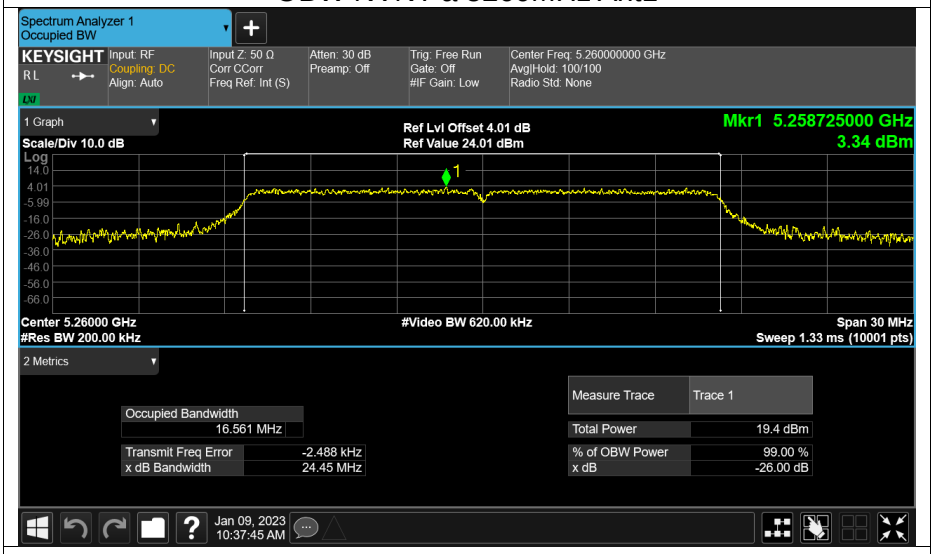
OBW NVNT a 5200MHz Ant1



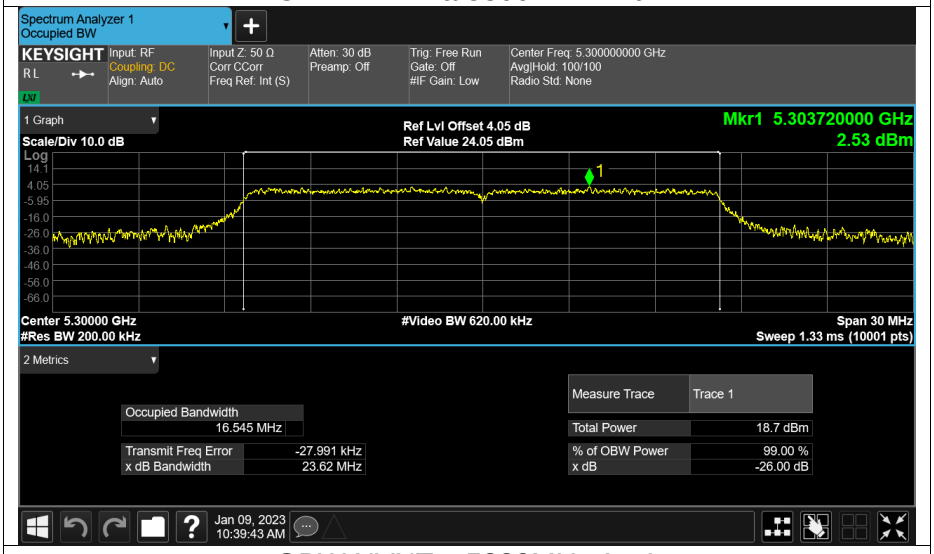
OBW NVNT a 5240MHz Ant1



OBW NVNT a 5260MHz Ant1



OBW NVNT a 5300MHz Ant1



OBW NVNT a 5320MHz Ant1