



427 West 12800 South
Draper, UT 84020

Test Report Certification

FCC ID	SWX-WAVEAM
ISED ID	6545A-WAVEAM
Equipment Under Test	WAVE-AP-MICRO
Test Report Serial Number	TR7567_01
Date of Test(s)	August 12, through September 12, 2022,
Report Issue Date	October 27, 2022

Test Specification	Applicant
47 CFR FCC Part 15, Subpart E RSS-GEN Issue 5	Ubiquiti Inc. 685 Third Avenue New York, NY 10019 U.S.A.



NVLAP LAB CODE 600241-0

Certification of Engineering Report

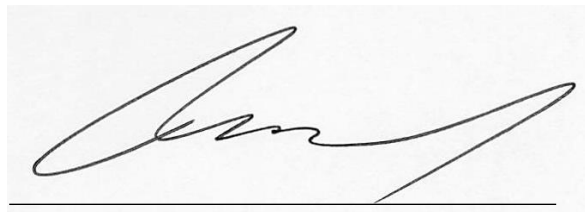
This report has been prepared by Unified Compliance Laboratory (UCL) to document compliance of the device described below with the requirement of Federal Communication Commissions (FCC) Part 15, Subpart E. This report may be reproduced in full. Partial reproduction of this report may only be made with the written consent of the laboratory. The results in this report apply only to the sample tested.

Applicant	Ubiquiti Inc.
Manufacturer	Ubiquiti Inc.
Brand Name	UniFi
Model Number	WAVE-AP-MICRO
FCC ID	SWX-WAVEAM
ISED ID	6545A-WAVEAM

On this 27th day of October 2022, I individually and for Unified Compliance Laboratory certify that the statements made in this engineering report are true, complete and correct to the best of my knowledge and are made in good faith.

Although NVLAP has accredited the Unified Compliance Laboratory testing facilities, this report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. federal government.

Unified Compliance Laboratory



Written By: Clay Allred



Reviewed By:

Revision History		
Revision	Description	Date
01	Original Report Release	October 27, 2022

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1 Client Information

1.1 Applicant

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance Manager

1.2 Manufacturer

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance Manager

2 Equipment Under Test (EUT)

2.1 Identification of EUT

Brand Name	Wave
Model Number	Wave-AP-Micro
Serial Number	0418D6A28CB3
Dimensions (cm)	28.4 x 15.6 x 7.6

2.2 Description of EUT

The Wave-AP-Micro is 60 GHz point-to-multipoint customer premise equipment that features wave technology with a 1.5+ Gbps throughput rate. The Wave-AP-Micro is also equipped with a 5 GHz WiFi 6 backup radio to sustain connectivity during a 60 GHz link disruption caused by inclement weather conditions. A Bluetooth LE transceiver is included for device management. The Wave-AP-Micro is an outdoor device and has an Ethernet port which is used for data transfer and to provide power using an Ubiquiti U-POE-at 48-volt PoE power adapter.

The table below show the channels used within the different modulation bandwidths.

Band	WiFi Mode	Modulation Bandwidth	Modulation Type	Frequency (MHz)
UNII-3	ax	20 MHz	HE	5740, 5750, 5760, 5770 5780, 5790, 5800, 5810, 5820 5835
	ax	40 MHz	HE	5750, 5770, 5790, 5810, 5825
	ax	80 MHz	HE	5770, 5790, 5805

This report covers the circuitry of the device subject to FCC Part 15, Subpart E. The circuitry of the device subject to FCC Part 15 Subpart B was found to be compliant and is covered under a separate Unified Compliance Laboratory test report.

2.3 EUT and Support Equipment

The EUT and support equipment used during the test are listed below.

Brand Name Model Number Serial Number	Description	Name of Interface Ports / Interface Cables
BN: Wave MN: Wave-AP-Micro (Note 1) SN: 0418D6A28CB3	Wireless P-P/P-MP Radio	See Section 2.4
BN: Ubiquiti MN: U-POE-at SN: N/A	PoE Power Adapter	Shielded or Un-shielded cat 5e cable
BN: Dell MN: XPS 13 SN: N/A	Laptop Computer	Shielded or Un-shielded cat 5e cable

Notes: (1) EUT

(2) Interface port connected to EUT (See Section 2.4)

The support equipment listed above was not modified in order to achieve compliance with this standard.

2.4 Interface Ports on EUT

Name of Ports	No. of Ports Fitted to EUT	Cable Description/Length
PoE	1	Shielded or Un-Shielded Cat 5e Cable/ 7 meters

2.5 Operating Environment

Power Supply	120 Volts AC to 48 Volts PoE
AC Mains Frequency	60 Hz
Temperature	22.1-22.8 °C
Humidity	19.3-23.9 %
Barometric Pressure	1009 mBar

2.6 Operating Modes

The WAVE-AP-MICRO was tested using test software in order to enable a constant transmission. The measurements within this report are corrected to reference a 100% duty cycle.

2.7 EUT Exercise Software

EUT firmware version 1.0 was used to operate the transmitter using a constant transmit mode.

2.8 Block Diagram of Test Configuration

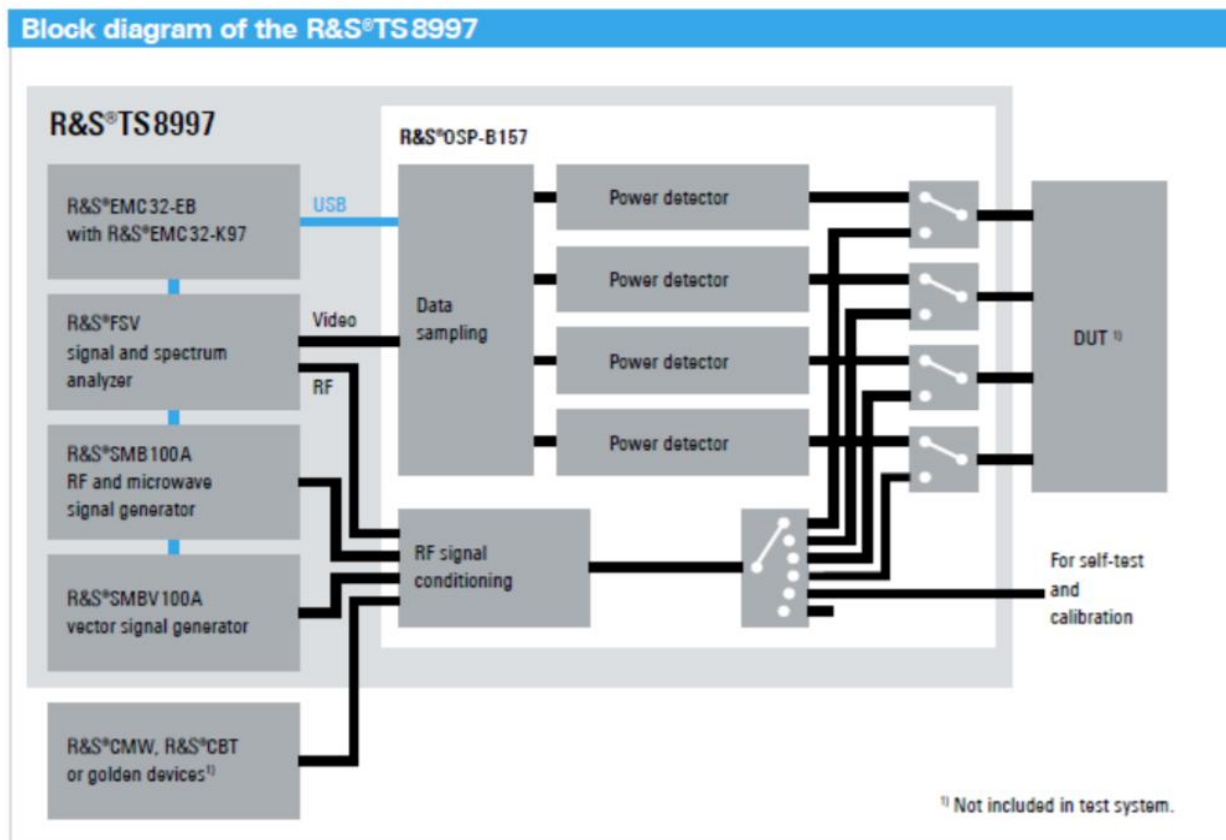


Diagram 1: Test Configuration Block Diagram

2.9 Modification Incorporated/Special Accessories on EUT

There were no modifications made to the EUT during testing to comply with the specification.

2.10 Deviation, Opinions Additional Information or Interpretations from Test Standard

There were no deviations, opinions, additional information or interpretations from the test specification.

3 Test Specification, Method and Procedures

3.1 Test Specification

Title	-47 CFR FCC Part 15, Subpart E, Section 15.407 Limits and methods of measurement of radio interference characteristics of Unlicensed National Information Infrastructure Devices -RSS-Gen, issue 5, General Requirements for Compliance of Radio Apparatus -RSS-247, Issue Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices
Purpose of Test	The tests were performed to demonstrate initial compliance

3.2 Methods & Procedures

3.2.1 47 CFR FCC Part 15 Section 15.407 / RSS-247 Section 5

See test standard for details.

3.3 FCC Part 15, Subpart E / RSS-GEN / RSS-247

3.3.1 Summary of Tests

FCC Section	ISED Section	Environmental Phenomena	Frequency Range (MHZ)	Result
15.407(a)	N/A	Antenna requirements	Structural Requirement	Compliant
15.407(b)	RSS-Gen	Conducted Disturbance at Mains Port	0.15 to 30	N/A
15.407(c)	RSS-247 §6.2.2, §6.2.3	Bandwidth Requirement	5745 to 5825	Compliant
15.407(e)	RSS-247 §6.2.2, §6.2.3	Peak Output Power	5745 to 5825	Compliant
15.407(f)	RSS-247 §6.2.2, §6.2.3	Antenna Conducted Spurious Emissions	0.009 to 40000	N/A
15.407(g)	RSS-247 §6.2.2, §6.2.3	Radiated Spurious Emissions	0.009 to 40000	Compliant
15.407(h)	RSS-247 §6.2.2, §6.2.3	Peak Power Spectral Density	5745 to 5825	Compliant

The testing was performed according to the procedures in ANSI C63.10-2013, KDB 789033 and 47 CFR Part 15. Where applicable, KDB 662911 was followed to sum required measurements.

3.4 Results

In the configuration tested, the EUT complied with the requirements of the specification.

3.5 Test Location

Testing was performed at the Unified Compliance Laboratory 3-Meter and 10-Meter chambers located at 427 West 12800 South, Draper, UT 84020. Unified Compliance Laboratory is accredited by National Voluntary Laboratory Accreditation Program (NVLAP); NVLAP Code 600241-0 which is effective until 30 June 2023. This site has also been registered with Innovations, Science and Economic Development (ISED) department as was accepted under Appendix B, Phase 1 procedures of the APEC Tel MRA for Canadian recognition. ISED No.: 25346. Unified Compliance Laboratory has been assigned Conformity Assessment Number US0223 by ISED and has registered MRA Test Site number US5037.

4 Test Equipment

4.1 Direct Connect at the Antenna Port Tests

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
Spectrum Analyzer	R&S	FSV40	UCL-2861	1/03/2022	1/03/2023
Signal Generator	R&S	SMB100A	UCL-2864	N/A	N/A
Vector Signal Generator	R&S	SMBV100A	UCL-2873	N/A	N/A
Switch Extension	R&S	OSP-B157WX	UCL-2867	1/03/2022	1/03/2023
Switch Extension	R&S	OSP-150W	UCL-2870	1/03/2022	1/03/2023

Table 1:List of equipment used for Direct Connect at the Antenna Port

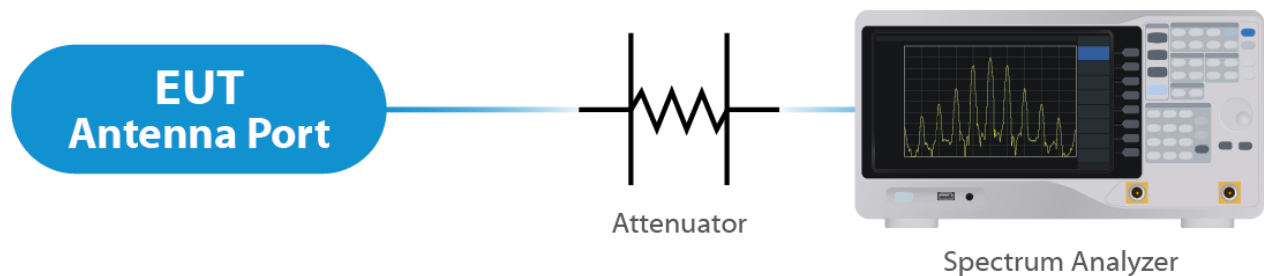


Figure 1: Direct Connect at the Antenna Port Test



Figure 2: Output Power Measurement

4.2 Radiated Emissions

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
EMI Receiver	Keysight	N9038A	UCL-2778	1/4/2022	1/4/2023
Pre-Amplifier 9 kHz – 1 GHz	Sonoma Instruments	310N	UCL-2889	10/7/2021	11/7/2022
Broadband Antenna	Scwarzbeck	VULB 9163	UCL-3062	9/13/2022	9/13/2024
Broadband Antenna	Scwarzbeck	VULB 9163	UCL-3071	6/08/2022	6/22/2024
Double Ridge Horn Antenna	Scwarzbeck	BBHA 9120D	UCL-3065	9/22/2022	9/22/2024
Log Periodic	Scwarzbeck	STLP 9129	UCL-3068	11/16/2020	11/16/2022
15 - 40 GHz Horn Antenna	Scwarzbeck	BBHA 9170	UCL-2487	6/09/2022	6/09/2024
1 – 18 GHz Amplifier	Com-Power	PAM 118A	UCL-3833	10/7/2021	11/7/2022
Test Software	UCL	Revision 1	UCL-3108	N/A	N/A

Table 2: List of equipment used for Radiated Emissions

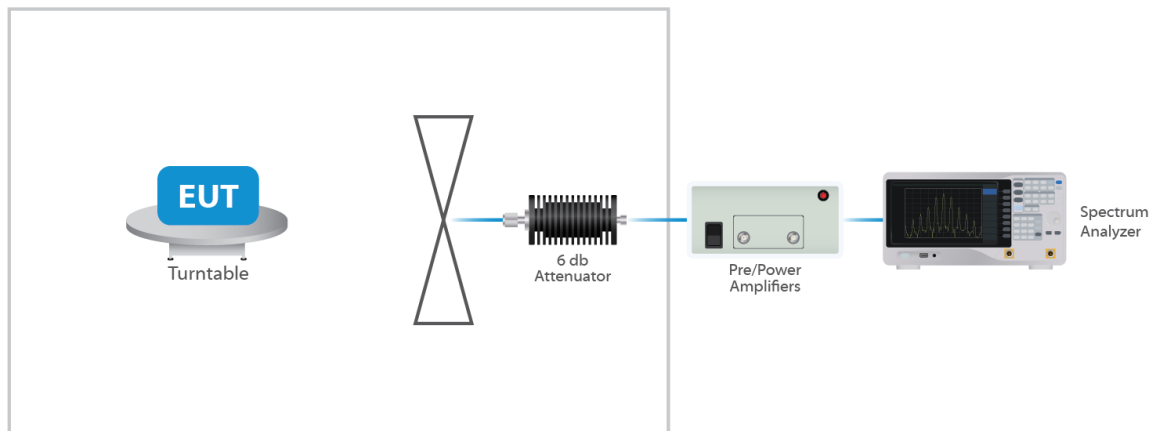


Figure 3: Radiated Emissions Test

4.3 Equipment Calibration

All applicable equipment is calibrated using either an independent calibration laboratory or Unified Compliance Laboratory personnel at intervals defined in ANSI C63.4:2014 following outlined calibration procedures. All measurement instrumentation is traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and is available for examination upon request.

4.4 Measurement Uncertainty

Test	Uncertainty (\pm dB)	Confidence (%)
Conducted Emissions	1.44	95
Radiated Emissions (9 kHz to 30 MHz)	2.50	95
Radiated Emissions (30 MHz to 1 GHz)	4.38	95
Radiated Emissions (1 GHz to 18 GHz)	4.37	95
Radiated Emissions (18 GHz to 40 GHz)	3.93	95
Direct Connect Tests	K Factor	Value
Emissions Bandwidth	2	2.0%
Output Power	2	1.0 dB
Peak Power Spectral Density	2	1.3 dB
Band Edge	2	0.8 dB
Transmitter Spurious Emissions	2	1.8 dB

5 Test Results

5.1 §15.203 Antenna Requirements

The EUT uses a single integral antenna structure. The maximum gain of the antenna per chain is 13.5 dBi. This is an 802.11 device and utilizes MIMO modes as described in KDB 662911 D01. The antenna is not user replaceable and is cross polarized therefore KDB 662911 D01 Multiple Transmitter Output v02r01 section F) paragraph 2) c) (i) is considered.

CFR 47 Part 15.407 limits shall account for beamforming techniques; therefore, for RF Power and PSD measurements Directional Gain shall be 13.5 per the following:

The device is considered “Correlated” with a single antenna therefore equation (i) of KDB 662911 D01 Multiple Transmitter Output v02r01 section F) paragraph 2), or $\text{Directional Gain} = G_{\text{ant}} + 10 \text{Log}(N_{\text{ant}})$

$G_{\text{ant}} = 13.5$ (Max gain form Antenna Dataset)

$N_{\text{ant}} = 1$ (Single Antenna)

$$13.5 + 10 \text{Log}(1) = 13.5$$

Results

The EUT complied with the specification

5.2 §15.403(i) 26 dB & 99% Emissions Bandwidth

All chains were measured under the guidance of KDB 789033 Section II.C. and KDB 66291 D01. Please see associated annex for details on instrument settings.

Modulation	Nominal BW (MHz)	Frequency (MHz)	99% Bandwidth (MHz)	Emissions 26 dB Bandwidth (MHz)
HE	20	5740	19.1	21.7
HE	20	5790	19.1	22.1
HE	20	5835	19.2	21.9
HE	40	5750	37.8	40.2
HE	40	5790	37.8	40.2
HE	40	5825	37.8	40.4
HE	80	5770	77.5	83.5
HE	80	5790	77.5	83.0
HE	80	5805	77.5	83.5

Result

All chains were tested and the highest bandwidth per chain is reported above.

The 26 dB bandwidths are reported for information purposes. Please see Annex for all bandwidth measurements.

5.3 §15.403(a)(3) Maximum Average Output Power

All chains were measured and summed under the guidance of KDB 789033 Section II. E.2. and KDB 66291 D01. Please see associated annex for details on instrument settings.

The maximum average RF conducted output power measured for this device was 22.4 dBm or 174 mW. The limit is 30 dBm, or 1 Watts. If transmitting antennas that have a 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. The antenna has a gain of 13.5 dBi, therefore the limit is to be reduced to 22.5 dBm, or 0.178 Watts (7.5dB)

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power *
HE 20	5740	MCS0	43	22.4
HE 20	5790	MCS0	43	22.2
HE 20	5835	MCS0	43	22.3
HE 40	5750	MCS0	43	22.3
HE 40	5790	MCS0	43	22.3
HE 40	5825	MCS0	43	22.4
HE 80	5770	MCS0	43	22.4
HE 80	5790	MCS0	43	22.2
HE 80	5805	MCS0	43	22.3

Result

In the configuration tested, the maximum summed average RF output power was less than 0.178 watt; therefore, the EUT complied with the requirements of the specification (see example in attached Annex).

* Gated EIRP shown in the Annex is the conducted measurement

5.4 §15.407(b)(7) Spurious Emissions

5.4.1 Conducted Spurious Emissions

The frequency range from the lowest frequency generated or used in the device to the tenth harmonic of the highest fundamental frequency was investigated to measure any antenna-conducted emissions. The graphs show the measurement data from spurious emissions noted across the frequency range when transmitting at the lowest frequency, middle frequency and upper frequency. Shown within the annex are plots with the EUT turned to the upper and lower channels with the antenna gain of 3 dBi accounted for. These demonstrate compliance with the provisions of this section at the band edges.

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.

Result

Conducted spurious emissions were attenuated below the limit; therefore, the EUT complies with the specification. The plots contained at the end of the annex are to show the measurement settings utilized for Tx Spurious Emission throughout the test report. For example: the mask seen on page 9 of 86 in the annex is superimposed on the plot seen on page 59 of 86.

5.4.2 Radiated Spurious Emissions in the Restricted Bands of § 15.205

The EUT uses various power settings based on the channel in use. In order to reduce test time, the radiated spurious emissions at the lowest, middle, and highest channel were measured at the maximum power of TP49.

Correction Factor = Antenna Factor + Cable Loss - Pre-amp Gain, and is added to the Receiver Reading

Result

All emissions in the restricted bands of § 15.205 met the limits specified in § 15.209; therefore, the EUT complies with the specification. See Annex for Conducted Band edge plots.

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. Time (s)	RBW (Hz)	Detector	Correction (dB)
11.659 GHz	52.034	74	-21.966	2	3.307	Vertical	5	1000000	Peak	3.41
16.761 GHz	52.166	74	-21.834	195	1.5	Vertical	5	1000000	Peak	9.061
11.659 GHz	37.638	54	-16.362	2	3.307	Vertical	5	1000000	Average	3.41
16.761 GHz	39.714	54	-14.286	195	1.5	Vertical	5	1000000	Average	9.061
11.662 GHz	49.888	74	-24.112	9	3.307	Horizontal	5	1000000	Peak	3.414
16.876 GHz	52.515	74	-21.485	20	1.5	Horizontal	5	1000000	Peak	9.79
11.662 GHz	36.348	54	-17.652	9	3.307	Horizontal	5	1000000	Average	3.414
16.876 GHz	39.955	54	-14.045	20	1.5	Horizontal	5	1000000	Average	9.79
11.494 GHz	52.358	74	-21.642	359	2.142	Vertical	5	1000000	Peak	3.115

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. Time (s)	RBW (Hz)	Detector	Correction (dB)
14.997 GHz	50.942	74	-23.058	256	1.643	Vertical	5	1000000	Peak	6.916
16.772 GHz	50.131	74	-23.869	219	2.645	Vertical	5	1000000	Peak	9.074
11.494 GHz	37.548	54	-16.452	359	2.142	Vertical	5	1000000	Average	3.115
14.997 GHz	37.383	54	-16.617	256	1.643	Vertical	5	1000000	Average	6.916
16.772 GHz	37.289	54	-16.711	219	2.645	Vertical	5	1000000	Average	9.074
11.584 GHz	54.35	74	-19.65	355	2.142	Vertical	5	1000000	Peak	3.376
14.902 GHz	52.459	74	-21.541	354	1.638	Vertical	5	1000000	Peak	7.118
16.902 GHz	52.459	74	-21.541	259	4	Vertical	5	1000000	Peak	9.366
11.584 GHz	40.701	54	-13.299	355	2.142	Vertical	5	1000000	Average	3.376
14.902 GHz	38.275	54	-15.725	354	1.638	Vertical	5	1000000	Average	7.118
16.902 GHz	38.948	54	-15.052	259	4	Vertical	5	1000000	Average	9.366
17.511 GHz	52.997	74	-21.003	11	1.500	Vertical	5	1000000	Peak	-5.447
23.354 GHz	56.469	74	-17.531	289	1.500	Vertical	5	1000000	Peak	-4.709
24.168 GHz	46.771	74	-27.229	146	1.500	Vertical	5	1000000	Peak	-5.042
39.312 GHz	55.118	74	-18.882	295	1.500	Vertical	5	1000000	Peak	3.863
17.511 GHz	37.888	54	-16.112	11	1.500	Vertical	5	1000000	Average	-5.447
23.354 GHz	39.725	54	-14.275	289	1.500	Vertical	5	1000000	Average	-4.709
24.168 GHz	32.443	54	-21.557	146	1.500	Vertical	5	1000000	Average	-5.042
39.312 GHz	39.364	54	-14.636	295	1.500	Vertical	5	1000000	Average	3.863
17.205 GHz	57.819	74	-16.181	241	1.500	Vertical	5	1000000	Peak	-5.063
22.964 GHz	51.148	74	-22.852	341	1.500	Vertical	5	1000000	Peak	-4.726
39.214 GHz	55.382	74	-18.618	14	1.500	Vertical	5	1000000	Peak	4.042
17.205 GHz	41.052	54	-12.948	241	1.500	Vertical	5	1000000	Average	-5.063
22.964 GHz	36.167	54	-17.833	341	1.500	Vertical	5	1000000	Average	-4.726
39.214 GHz	38.678	54	-15.322	14	1.500	Vertical	5	1000000	Average	4.042
17.375 GHz	60.166	74	-13.834	24	1.500	Vertical	5	1000000	Peak	-5.219
23.166 GHz	52.793	74	-21.207	13	1.500	Vertical	5	1000000	Peak	-4.875
39.86 GHz	54.423	74	-19.577	178	1.500	Vertical	5	1000000	Peak	4.038
17.375 GHz	45.02	54	-8.98	24	1.500	Vertical	5	1000000	Average	-5.219
23.166 GHz	37.783	54	-16.217	13	1.500	Vertical	5	1000000	Average	-4.875
39.86 GHz	38.049	54	-15.951	178	1.500	Vertical	5	1000000	Average	4.038
17.366 GHz	60.957	74	-13.043	359	1.500	Horizontal	5	1000000	Peak	-5.219
23.154 GHz	54.508	74	-19.492	327	1.500	Horizontal	5	1000000	Peak	-4.942
39.295 GHz	54.453	74	-19.547	243	1.500	Horizontal	5	1000000	Peak	3.879
17.366 GHz	45.388	54	-8.612	359	1.500	Horizontal	5	1000000	Average	-5.219
23.154 GHz	39.875	54	-14.125	327	1.500	Horizontal	5	1000000	Average	-4.942
39.295 GHz	39.052	54	-14.948	243	1.500	Horizontal	5	1000000	Average	3.879
17.216 GHz	53.233	74	-20.767	359	1.500	Horizontal	5	1000000	Peak	-5.083
22.955 GHz	58.439	74	-15.561	290	1.500	Horizontal	5	1000000	Peak	-4.8
38.996 GHz	55.952	74	-18.048	15	1.500	Horizontal	5	1000000	Peak	4.019
17.216 GHz	38.347	54	-15.653	359	1.500	Horizontal	5	1000000	Average	-5.083
22.955 GHz	43.34	54	-10.66	290	1.500	Horizontal	5	1000000	Average	-4.8
38.996 GHz	39.273	54	-14.727	15	1.500	Horizontal	5	1000000	Average	4.019
17.501 GHz	59.304	74	-14.696	359	1.500	Horizontal	5	1000000	Peak	-5.433
23.319 GHz	50.732	74	-23.268	351	1.500	Horizontal	5	1000000	Peak	-4.656

Frequency	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. Time (s)	RBW (Hz)	Detector	Correction (dB)
39.002 GHz	54.586	74	-19.414	2	1.500	Horizontal	5	1000000	Peak	4.032
17.501 GHz	43.868	54	-10.132	359	1.500	Horizontal	5	1000000	Average	-5.433
23.319 GHz	33.799	54	-20.201	351	1.500	Horizontal	5	1000000	Average	-4.656
39.002 GHz	39.079	54	-14.921	2	1.500	Horizontal	5	1000000	Average	4.032

5.5 §15.407(a) Maximum Power Spectral Density

All chains were measured and summed under the guidance of KDB 789033 Section II. F. and KDB 66291 D01. Please see associated annex for details on instrument settings.

The maximum average power spectral density conducted from the intentional radiator of the antenna shall not be greater than 30 dBm in any 500 kHz band during any time interval of continuous transmission. As per KDB 662911, When the EUT is using spatial-multiplexing in HE modes, there is not additional array gain to accommodate. When the EUT uses Nss=1 data rates, the antenna gain is 13.5 dBi therefore the limit is reduced by 7.5 dB.

Results of this testing are summarized.

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Measured PSD
HE 20	5740	MCS0	43	4.4
HE 20	5790	MCS0	43	4.0
HE 20	5835	MCS0	43	3.9
HE 40	5750	MCS0	43	1.3
HE 40	5790	MCS0	43	1.3
HE 40	5825	MCS0	43	1.0
HE 80	5770	MCS0	43	-1.7
HE 80	5790	MCS0	43	-1.7
HE 80	5805	MCS0	43	-1.8

Result

The maximum summed average power spectral density was less than the limit of 22.5 dBm while in Nss1 mode.

Test Results AX mode

FCC 15.407 2018

DUT Information

Frequencies

5155 MHz (5155 MHz)	5160 MHz (5160 MHz)	5165 MHz (5165 MHz)
5170 MHz (5170 MHz)	5175 MHz (5175 MHz)	5180 MHz (5180 MHz)
5185 MHz (5185 MHz)	5190 MHz (5190 MHz)	5195 MHz (5195 MHz)
5200 MHz (5200 MHz)	5205 MHz (5205 MHz)	5210 MHz (5210 MHz)
5215 MHz (5215 MHz)	5220 MHz (5220 MHz)	5225 MHz (5225 MHz)
5230 MHz (5230 MHz)	5235 MHz (5235 MHz)	5240 MHz (5240 MHz)
5245 MHz (5245 MHz)	5250 MHz (5250 MHz)	5255 MHz (5255 MHz)
5260 MHz (5260 MHz)	5265 MHz (5265 MHz)	5270 MHz (5270 MHz)
5275 MHz (5275 MHz)	5280 MHz (5280 MHz)	5285 MHz (5285 MHz)
5290 MHz (5290 MHz)	5295 MHz (5295 MHz)	5300 MHz (5300 MHz)
5305 MHz (5305 MHz)	5310 MHz (5310 MHz)	5315 MHz (5315 MHz)
5320 MHz (5320 MHz)	5325 MHz (5325 MHz)	5330 MHz (5330 MHz)
5335 MHz (5335 MHz)	5340 MHz (5340 MHz)	5345 MHz (5345 MHz)
5350 MHz (5350 MHz)	5470 MHz (5470 MHz)	5475 MHz (5475 MHz)
5480 MHz (5480 MHz)	5485 MHz (5485 MHz)	5490 MHz (5490 MHz)
5495 MHz (5495 MHz)	5500 MHz (5500 MHz)	5505 MHz (5505 MHz)
5510 MHz (5510 MHz)	5515 MHz (5515 MHz)	5520 MHz (5520 MHz)
5525 MHz (5525 MHz)	5530 MHz (5530 MHz)	5535 MHz (5535 MHz)
5540 MHz (5540 MHz)	5545 MHz (5545 MHz)	5550 MHz (5550 MHz)
5555 MHz (5555 MHz)	5560 MHz (5560 MHz)	5565 MHz (5565 MHz)
5570 MHz (5570 MHz)	5575 MHz (5575 MHz)	5580 MHz (5580 MHz)
5585 MHz (5585 MHz)	5590 MHz (5590 MHz)	5595 MHz (5595 MHz)
5600 MHz (5600 MHz)	5605 MHz (5605 MHz)	5610 MHz (5610 MHz)
5615 MHz (5615 MHz)	5620 MHz (5620 MHz)	5625 MHz (5625 MHz)
5630 MHz (5630 MHz)	5635 MHz (5635 MHz)	5640 MHz (5640 MHz)
5645 MHz (5645 MHz)	5650 MHz (5650 MHz)	5655 MHz (5655 MHz)
5660 MHz (5660 MHz)	5665 MHz (5665 MHz)	5670 MHz (5670 MHz)
5675 MHz (5675 MHz)	5680 MHz (5680 MHz)	5685 MHz (5685 MHz)
5690 MHz (5690 MHz)	5695 MHz (5695 MHz)	5700 MHz (5700 MHz)
5705 MHz (5705 MHz)	5710 MHz (5710 MHz)	5715 MHz (5715 MHz)
5720 MHz (5720 MHz)	5725 MHz (5725 MHz)	5730 MHz (5730 MHz)
5735 MHz (5735 MHz)	5740 MHz (5740 MHz)	5745 MHz (5745 MHz)
5750 MHz (5750 MHz)	5755 MHz (5755 MHz)	5760 MHz (5760 MHz)
5765 MHz (5765 MHz)	5770 MHz (5770 MHz)	5775 MHz (5775 MHz)
5780 MHz (5780 MHz)	5785 MHz (5785 MHz)	5790 MHz (5790 MHz)
5795 MHz (5795 MHz)	5800 MHz (5800 MHz)	5805 MHz (5805 MHz)
5810 MHz (5810 MHz)	5815 MHz (5815 MHz)	5820 MHz (5820 MHz)
5825 MHz (5825 MHz)	5830 MHz (5830 MHz)	5835 MHz (5835 MHz)
5840 MHz (5840 MHz)	5845 MHz (5845 MHz)	5850 MHz (5850 MHz)

Bandwidths

10 MHz (10 MHz)	20 MHz (20 MHz)	30 MHz (30 MHz)
40 MHz (40 MHz)	80 MHz (80 MHz)	50 MHz (50 MHz)
60 MHz (60 MHz)	160 MHz (160 MHz)	

Power

24.000 dBm (24 dBm)

Beamforming Gain

 Powerstep name (value)
 24.000 dBm (24 dBm)

 Beamforming gain table names

Gain Tables

 Powerstep name (value)
 24.000 dBm (24 dBm)

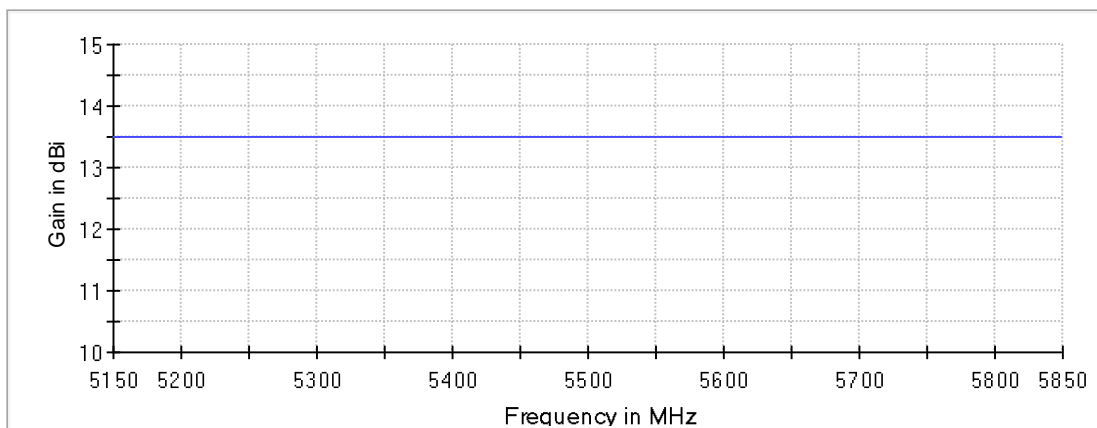
 Gain table names
 Port 1: Nom. Ant.; Port 2: Nom. Ant.;

DUT Settings

 No. of transmission chains
 DFS capability
 DFS Mode
 Equipment Type
 TPC

 2
 Yes
 Client with radar detection
 Outdoor AP
 No

Gaintable Nom. Ant.



— Gaintable: Nom. Ant

Hardware Setup: WMS Measurements\TS8997 Hardware SetupJB

Spectrum Analyzer:	SA FSW 43 (SA FSW 43) @ VISA (ADR TCPIP::192.168.48.119::inst0::instr), SN 1331.5003K43/101245, FW 5.10SP1
Vector Generator:	VG SMW200A (VG SMW200A) @ VISA (ADR TCPIP0::A-N5182B-301471::inst0::INSTR), SN 101752, FW 3.70
Generator:	SMB100A (SMB100A) @ VISA (ADR TCPIP::---:---:---:---:inst0::instr)
OSP:	OSP-B157W8PLUS (OSP-B157W8PLUS) @ VISA (ADR TCPIP::192.168.48.157::inst0::instr), SN 1527.1144.06 / 100955, FW 2.00.1.0

Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5740.000	24.0	20.000000	PASS
RF output power	5740.000	24.0	20.000000	PASS
Power Spectral Density	5740.000	24.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5740.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5740.000	24.0	20.000000	PASS
Tx Spurious Emission	5740.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5790.000	24.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5790.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5790.000	24.0	20.000000	PASS
Tx Spurious Emission	5790.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5835.000	24.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	5835.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5835.000	24.0	20.000000	PASS
Tx Spurious Emission	5835.000	24.0	20.000000	PASS
Emission Bandwidth 26 dB	5750.000	24.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	5750.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5750.000	24.0	40.000000	PASS
Tx Spurious Emission	5750.000	24.0	40.000000	PASS
Emission Bandwidth 26 dB	5790.000	24.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	5790.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5790.000	24.0	40.000000	PASS
Tx Spurious Emission	5790.000	24.0	40.000000	PASS
Emission Bandwidth 26 dB	5825.000	24.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	5825.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5825.000	24.0	40.000000	PASS
Tx Spurious Emission	5825.000	24.0	40.000000	PASS
Emission Bandwidth 26 dB	5770.000	24.0	80.000000	PASS
Minimum Emission Bandwidth 6 dB	5770.000	24.0	80.000000	PASS
Occupied Channel Bandwidth 99%	5770.000	24.0	80.000000	PASS
Tx Spurious Emission	5770.000	24.0	80.000000	PASS
Emission Bandwidth 26 dB	5790.000	24.0	80.000000	PASS
Minimum Emission Bandwidth 6 dB	5790.000	24.0	80.000000	PASS
Occupied Channel Bandwidth 99%	5790.000	24.0	80.000000	PASS
Tx Spurious Emission	5790.000	24.0	80.000000	PASS
Emission Bandwidth 26 dB	5805.000	24.0	80.000000	PASS
Minimum Emission Bandwidth 6 dB	5805.000	24.0	80.000000	PASS
Occupied Channel Bandwidth 99%	5805.000	24.0	80.000000	PASS
Tx Spurious Emission	5805.000	24.0	80.000000	PASS

Emission Bandwidth 26 dB (5740 MHz; 24.000 dBm; 20 MHz)

Customized settings.

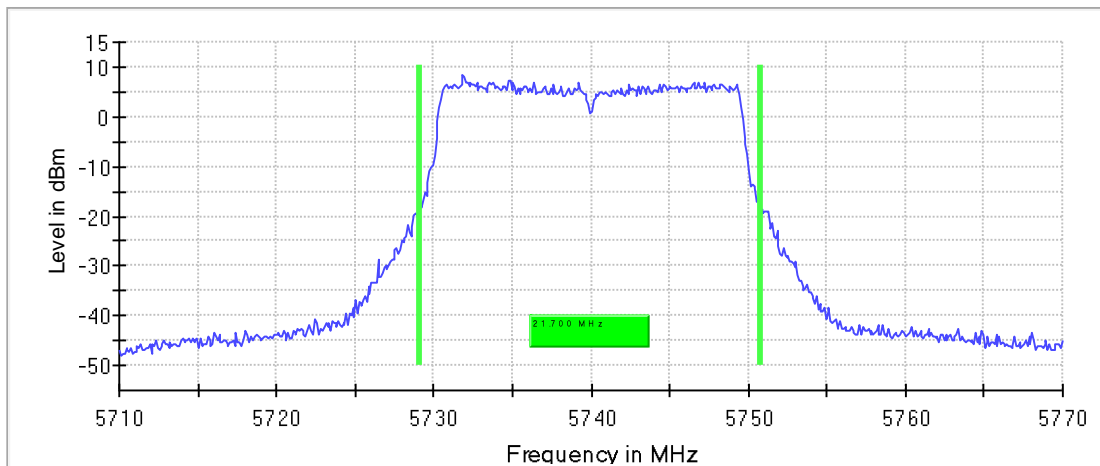
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5740.000000	21.700000	---	---	5729.050000	5750.750000

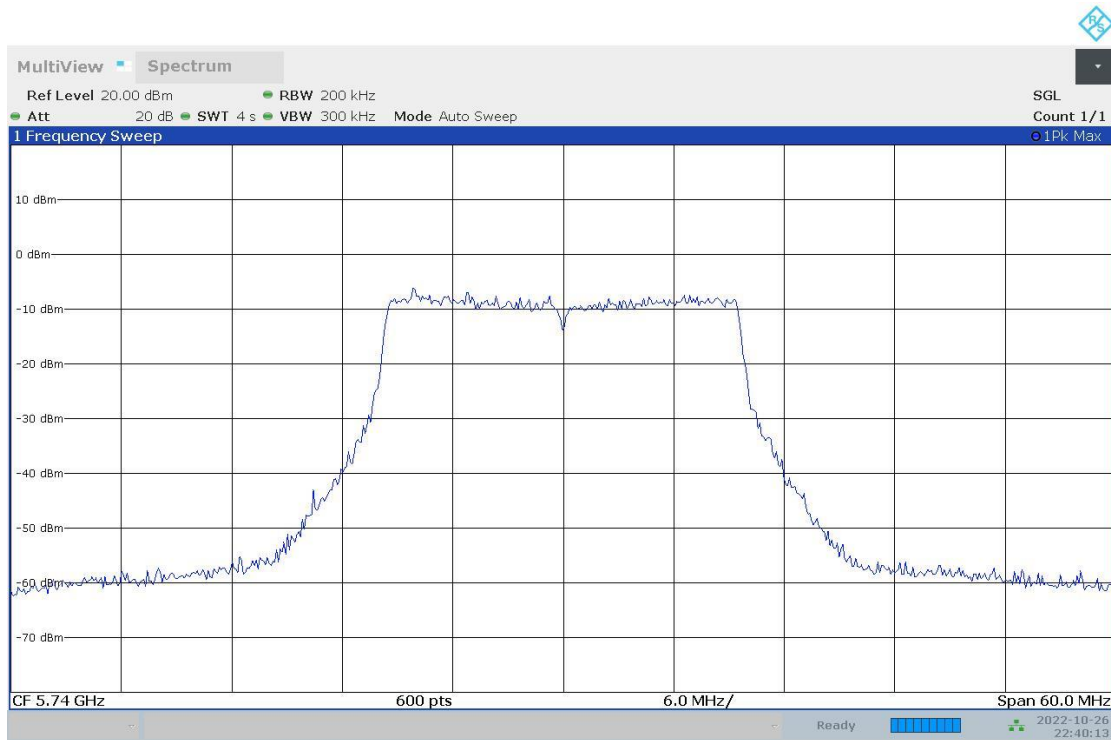
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5740.000000	8.3	PASS

26 dB Bandwidth



Bandwidth



10:40:14 PM 10/26/2022

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.71000 GHz	5.71000 GHz
Stop Frequency	5.77000 GHz	5.77000 GHz
Span	60.000 MHz	60.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	300.000 kHz	>= 240.000 kHz
SweepPoints	600	~ 600
SweepTime	4.000 s	4.000 s
Reference Level	20.000 dBm	AUTO
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	1	1
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off

RF output power (5740 MHz; 24.000 dBm; 20 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5740.000000	22.4	30.0	22.4	85.938	PASS

OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000 μ s	1.000 μ s

Power Spectral Density (5740 MHz; 24.000 dBm; 20 MHz)

Customized settings.

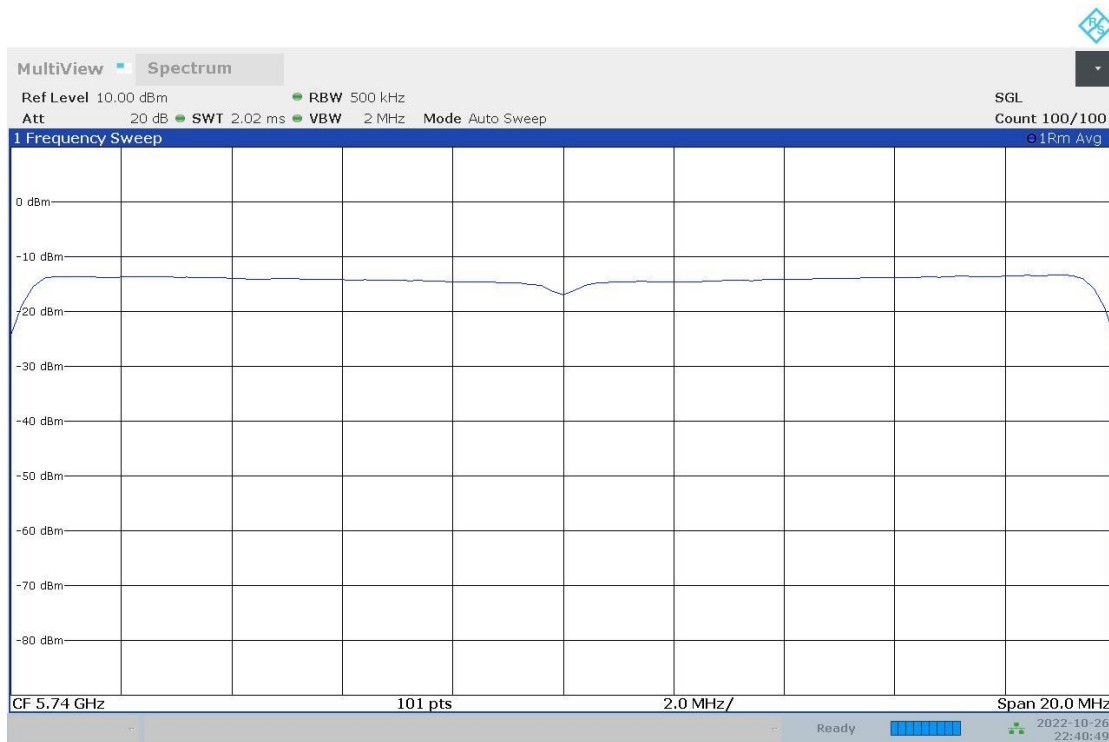
Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5740.000000	5747.128713	4.391	30.0	PASS

Ports

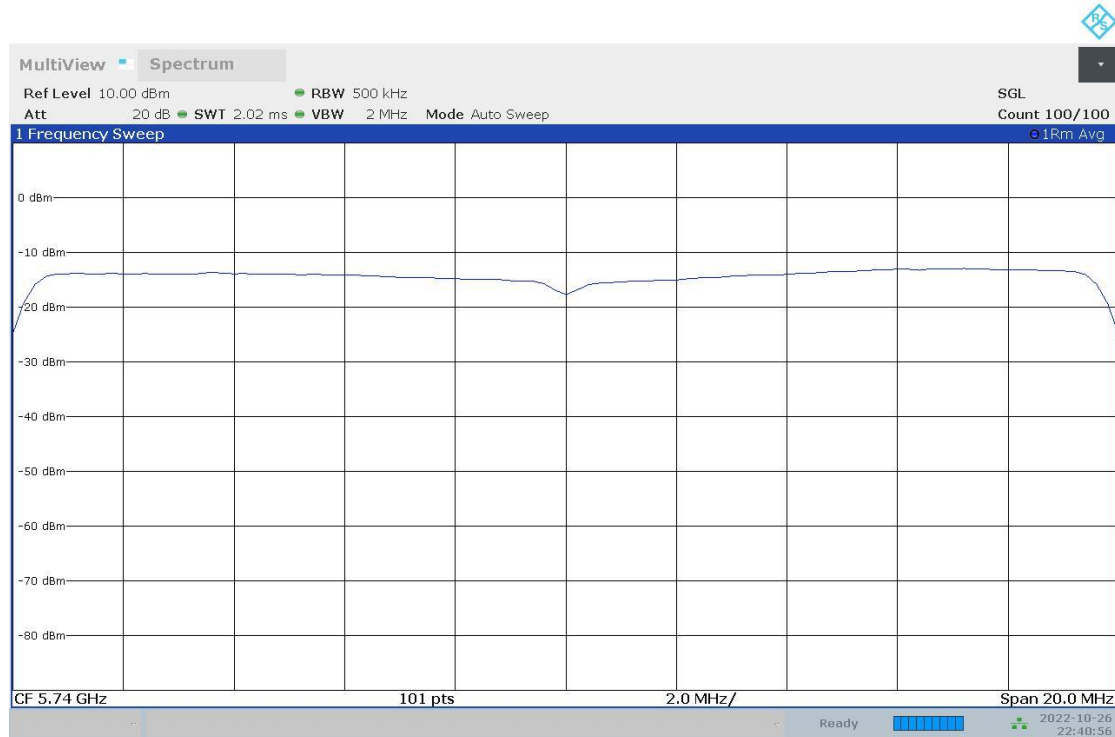
Port	State
1	used
2	used

PSD Connector 1



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PSD Connector 2



10:40:57 PM 10/26/2022

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.73000 GHz	5.73000 GHz
Stop Frequency	5.75000 GHz	5.75000 GHz
Span	20.000 MHz	20.000 MHz
RBW	500.000 kHz	<= 500.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	101	~ 80
SweepTime	2.020 ms	2.020 ms
Reference Level	10.000 dBm	10.000 dBm
Attenuation	20.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Average Power	Average Power
SweepType	Sweep	AUTO
Preamp	off	off

Minimum Emission Bandwidth 6 dB (5740 MHz; 24.000 dBm; 20 MHz)

Customized settings.

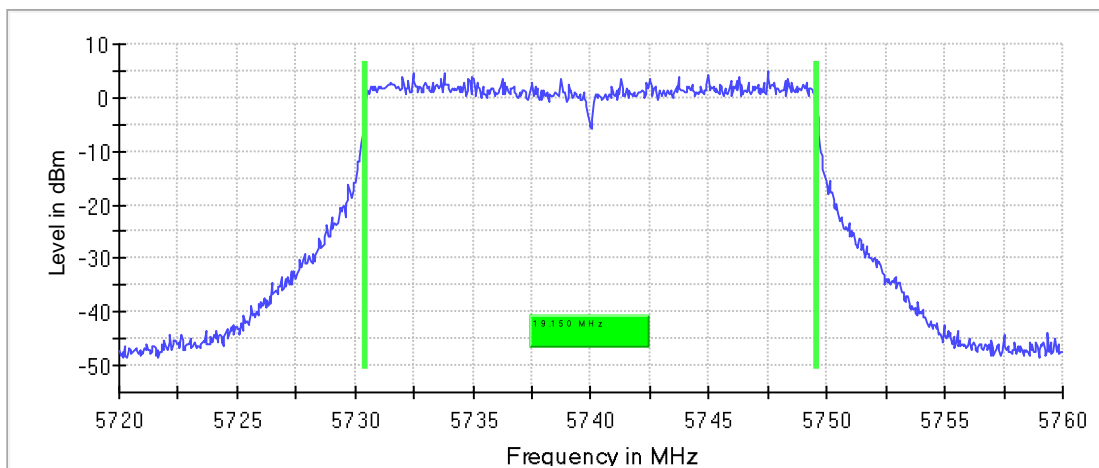
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5740.000000	19.150000	0.500000	---	5730.425000	5749.575000

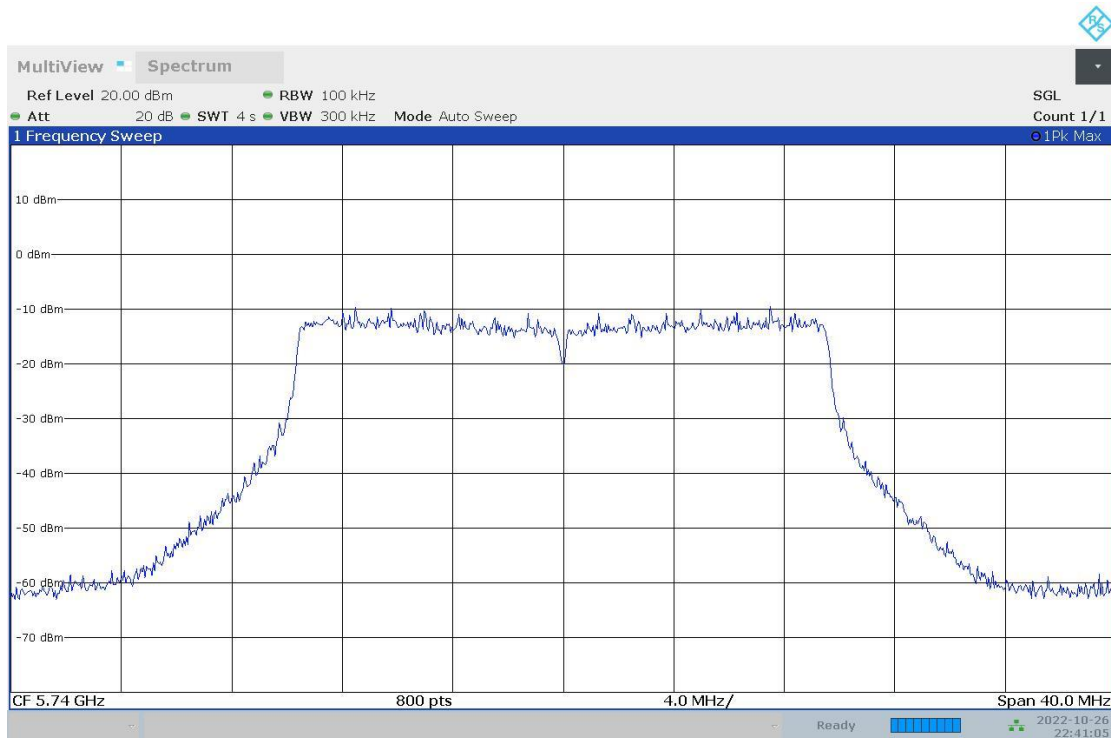
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5740.000000	4.9	PASS

6 dB Bandwidth



Bandwidth



10:41:06 PM 10/26/2022

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.72000 GHz	5.72000 GHz
Stop Frequency	5.76000 GHz	5.76000 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	800	~ 800
SweepTime	4.000 s	4.000 s
Reference Level	20.000 dBm	AUTO
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	1	1
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off

Occupied Channel Bandwidth 99% (5740 MHz; 24.000 dBm; 20 MHz)

Customized settings.

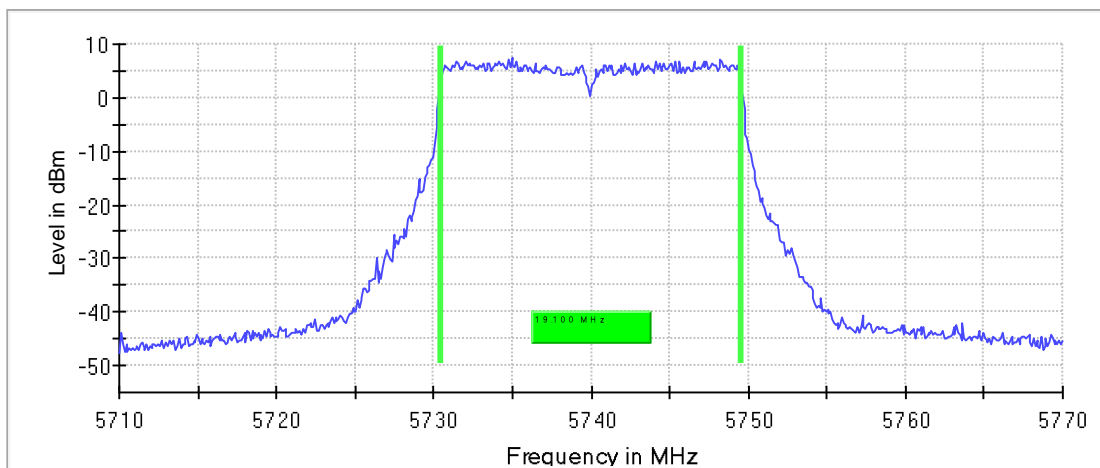
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5740.000000	19.100000	---	---	5730.450000	5749.550000

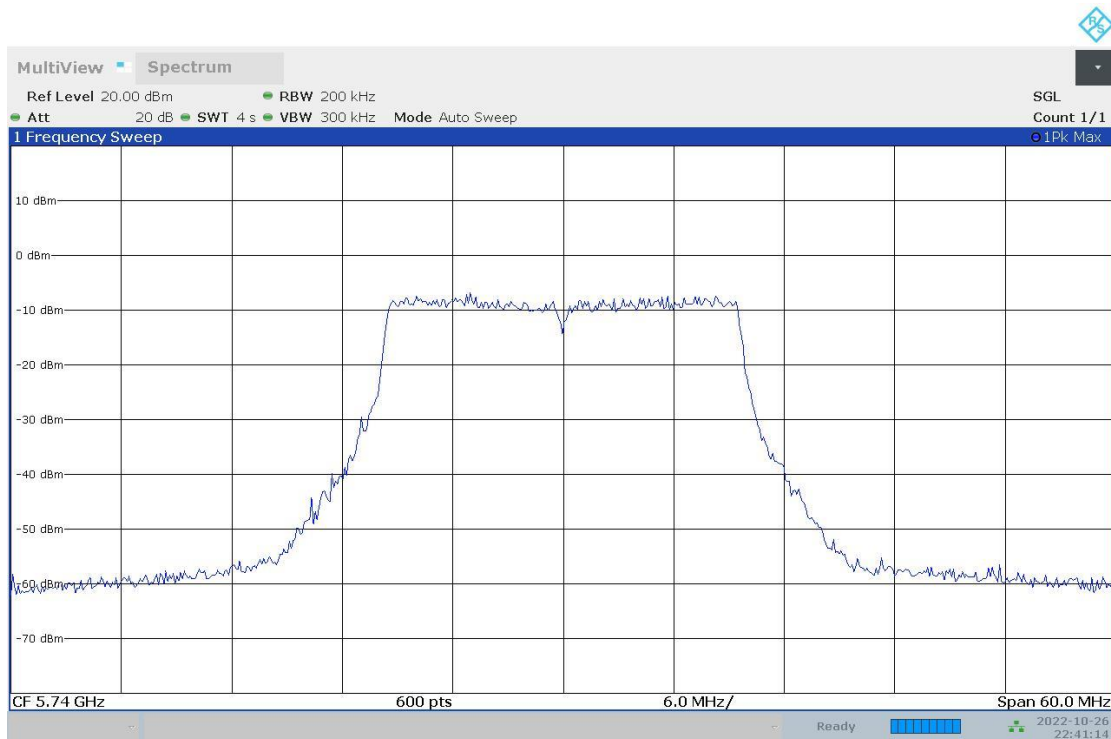
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5740.000000	PASS

99 % Bandwidth



Bandwidth



10:41:15 PM 10/26/2022

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.71000 GHz	5.71000 GHz
Stop Frequency	5.77000 GHz	5.77000 GHz
Span	60.000 MHz	60.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	300.000 kHz	>= 240.000 kHz
SweepPoints	600	~ 600
Sweeptime	4.000 s	4.000 s
Reference Level	20.000 dBm	AUTO
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	1	1
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off

Tx Spurious Emission (5740 MHz; 24.000 dBm; 20 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Result
5740.000000	PASS

Final measurements

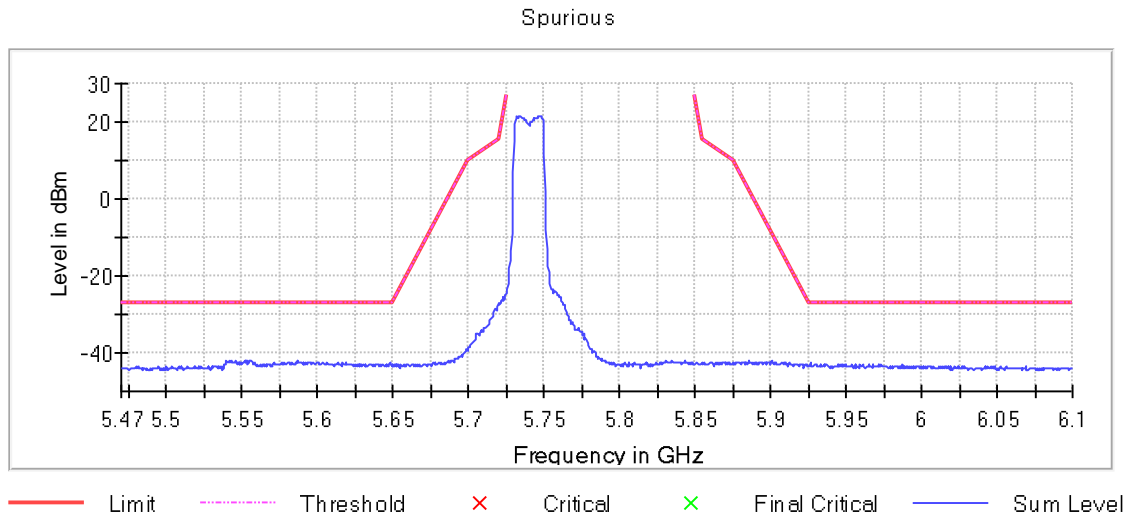
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

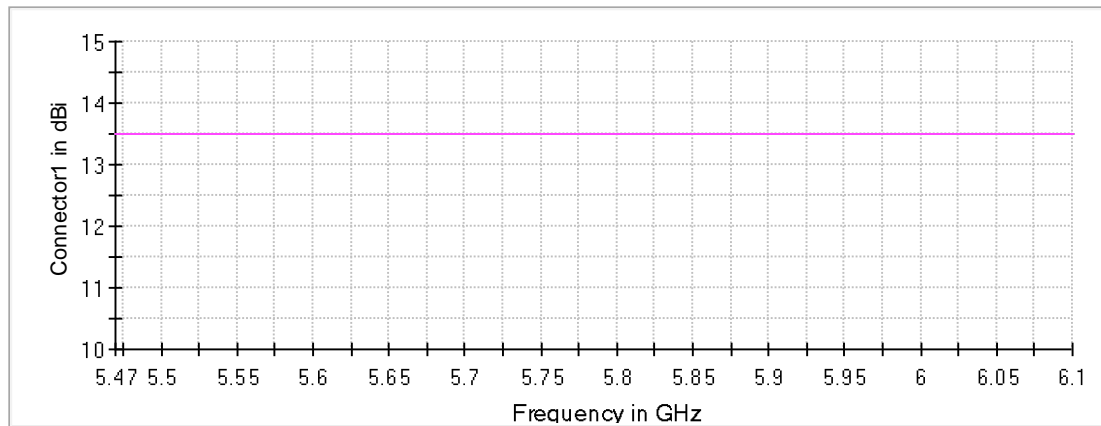
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5586.750000	-41.9	14.9	-27.0
5552.750000	-42.0	15.0	-27.0
5556.250000	-42.0	15.0	-27.0
5555.750000	-42.1	15.1	-27.0
5539.750000	-42.1	15.1	-27.0
5553.250000	-42.1	15.1	-27.0
5551.750000	-42.2	15.2	-27.0
5546.250000	-42.2	15.2	-27.0
5541.250000	-42.2	15.2	-27.0
5555.250000	-42.2	15.2	-27.0
5542.750000	-42.2	15.2	-27.0
5543.250000	-42.2	15.2	-27.0
5541.750000	-42.3	15.3	-27.0
5581.250000	-42.3	15.3	-27.0
5587.750000	-42.3	15.3	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
5470.000000	6100.000000	2	2

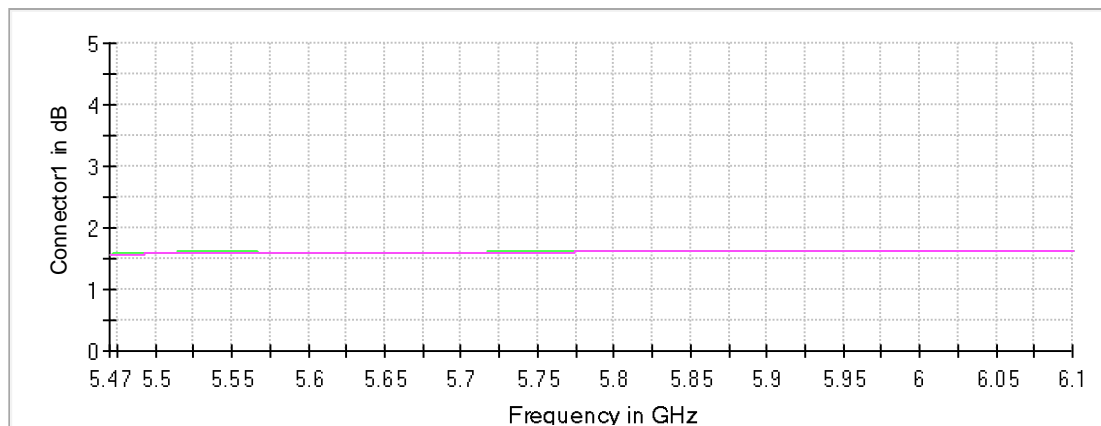


Gain



Connector1 Connector2

Attenuation



Connector1 Connector2

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	≤ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	1260	~ 1260
SweepTime	1.260 ms	AUTO
Reference Level	20.000 dBm	10.000 dBm
Attenuation	30.000 dB	30.000 dB
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Average Power	Average Power
Sweeptype	Sweep	AUTO
Preamp	off	off

Emission Bandwidth 26 dB (5790 MHz; 24.000 dBm; 20 MHz)

Customized settings.

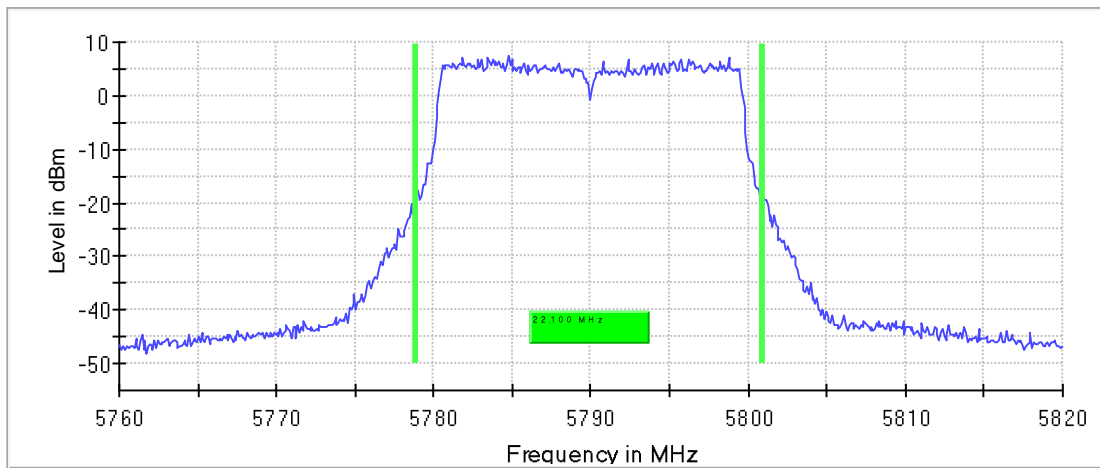
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5790.000000	22.100000	---	---	5778.850000	5800.950000

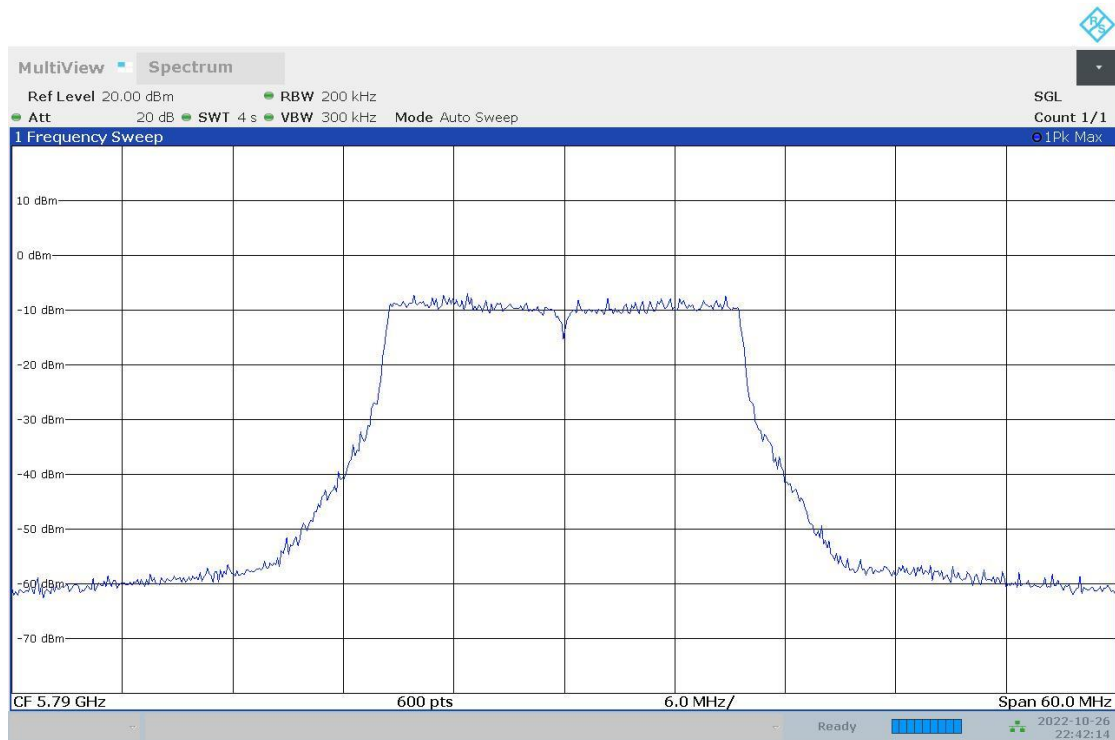
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5790.000000	7.6	PASS

26 dB Bandwidth



Bandwidth



10:42:14 PM 10/26/2022

Minimum Emission Bandwidth 6 dB (5790 MHz; 24.000 dBm; 20 MHz)

Customized settings.

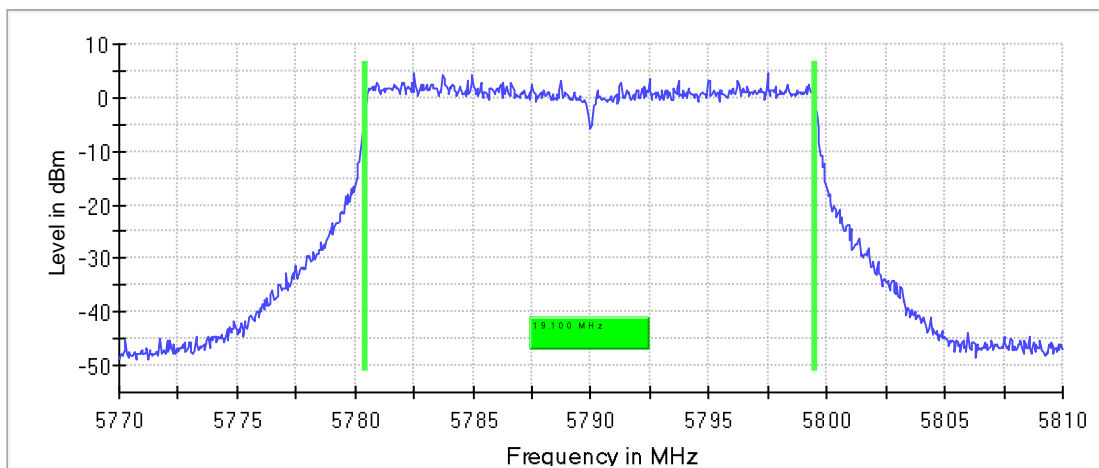
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5790.000000	19.100000	0.500000	---	5780.425000	5799.525000

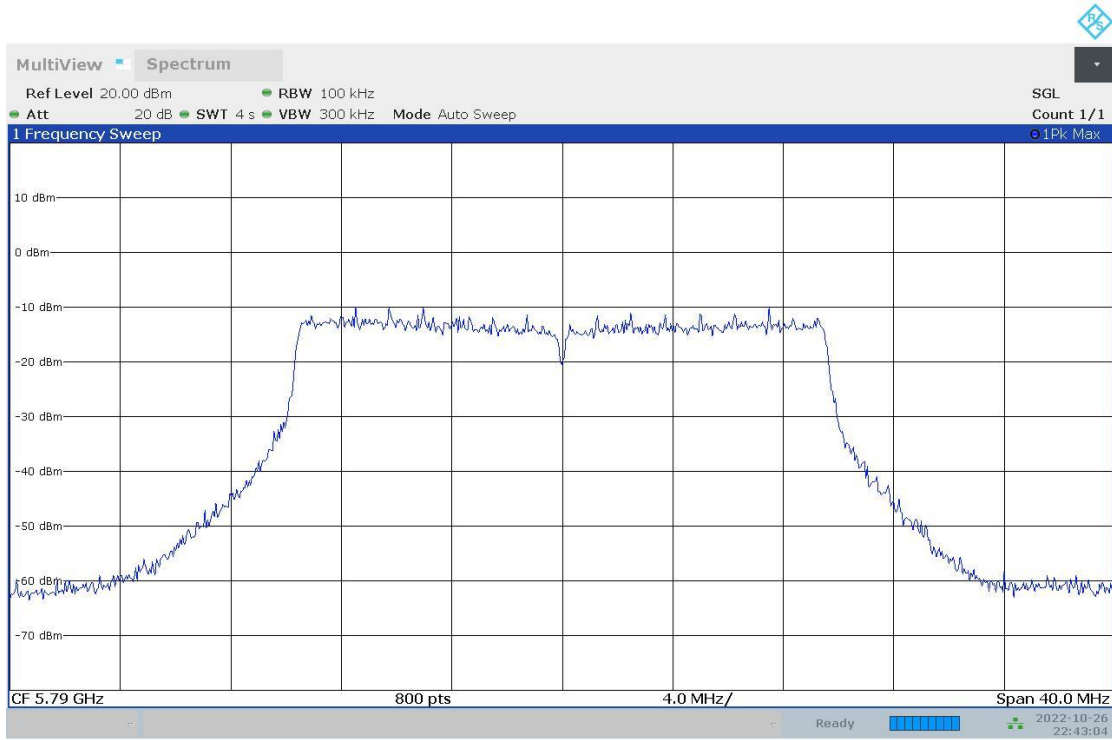
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5790.000000	4.6	PASS

6 dB Bandwidth



Bandwidth



10:43:04 PM 10/26/2022

Occupied Channel Bandwidth 99% (5790 MHz; 24.000 dBm; 20 MHz)

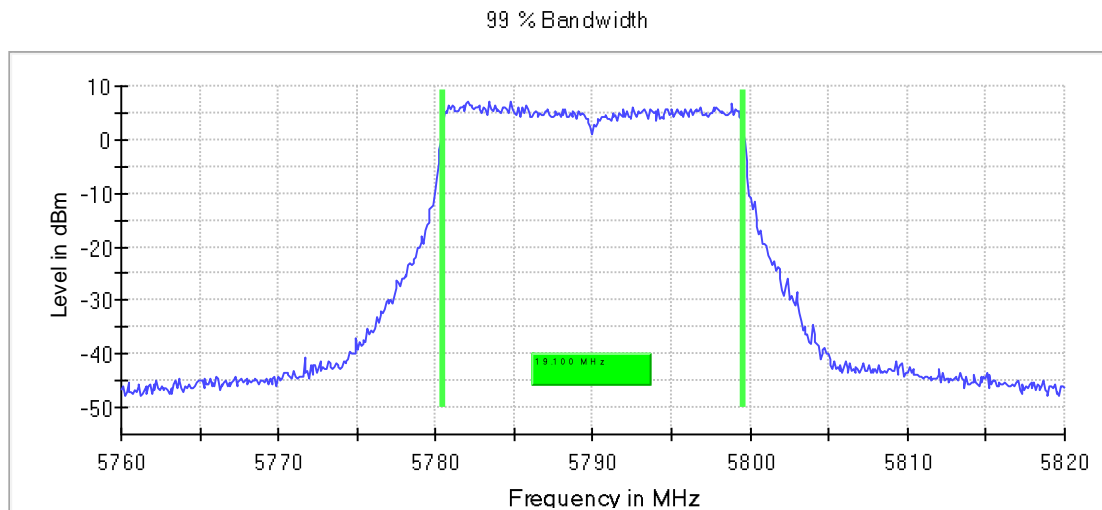
Customized settings.

99 % Bandwidth

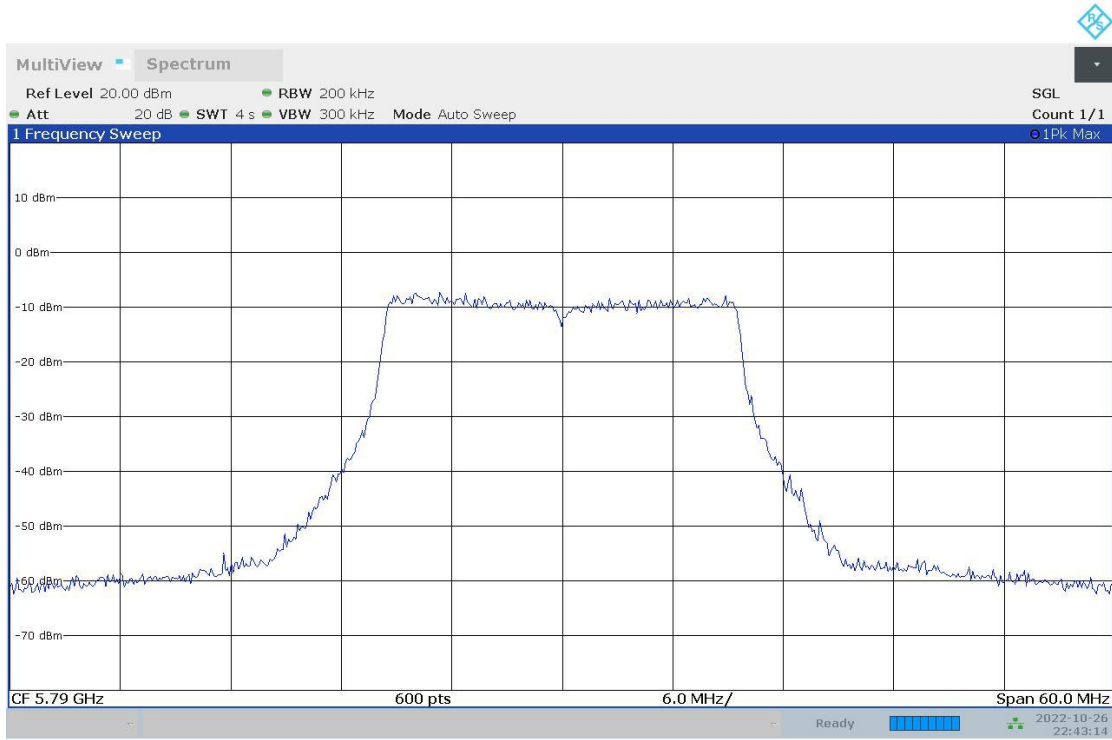
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5790.000000	19.100000	---	---	5780.450000	5799.550000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5790.000000	PASS



Bandwidth



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Tx Spurious Emission (5790 MHz; 24.000 dBm; 20 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Result
5790.000000	PASS

Final measurements

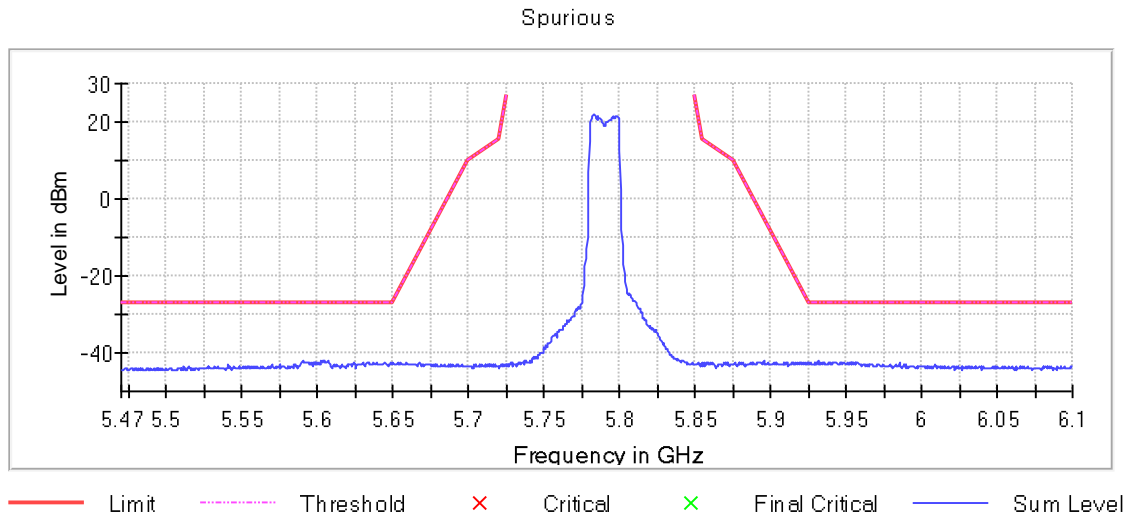
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

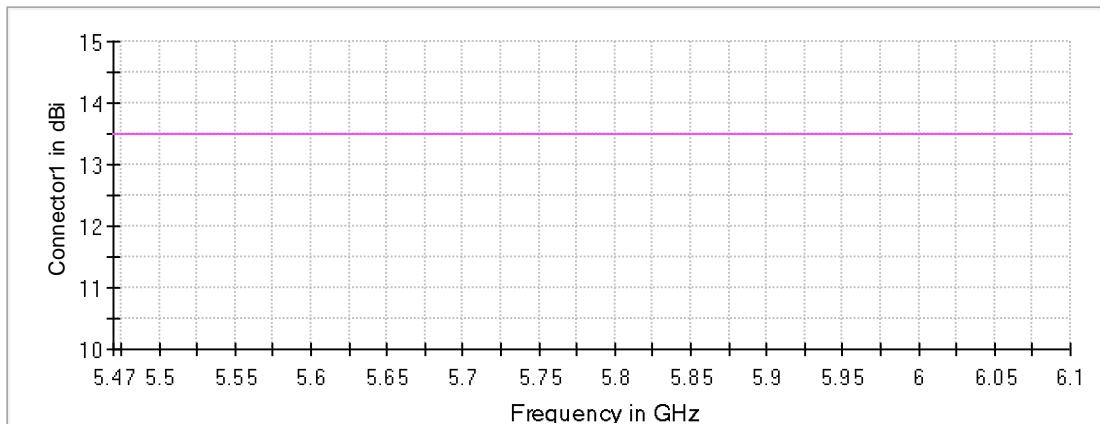
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5606.750000	-41.9	14.9	-27.0
5603.750000	-42.0	15.0	-27.0
5607.250000	-42.0	15.0	-27.0
5604.250000	-42.1	15.1	-27.0
5931.750000	-42.2	15.2	-27.0
5602.750000	-42.2	15.2	-27.0
5590.250000	-42.2	15.2	-27.0
5606.250000	-42.3	15.3	-27.0
5605.750000	-42.3	15.3	-27.0
5597.250000	-42.3	15.3	-27.0
5942.250000	-42.3	15.3	-27.0
5943.750000	-42.3	15.3	-27.0
5590.750000	-42.4	15.4	-27.0
5591.250000	-42.4	15.4	-27.0
5604.750000	-42.4	15.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
5470.000000	6100.000000	2	2

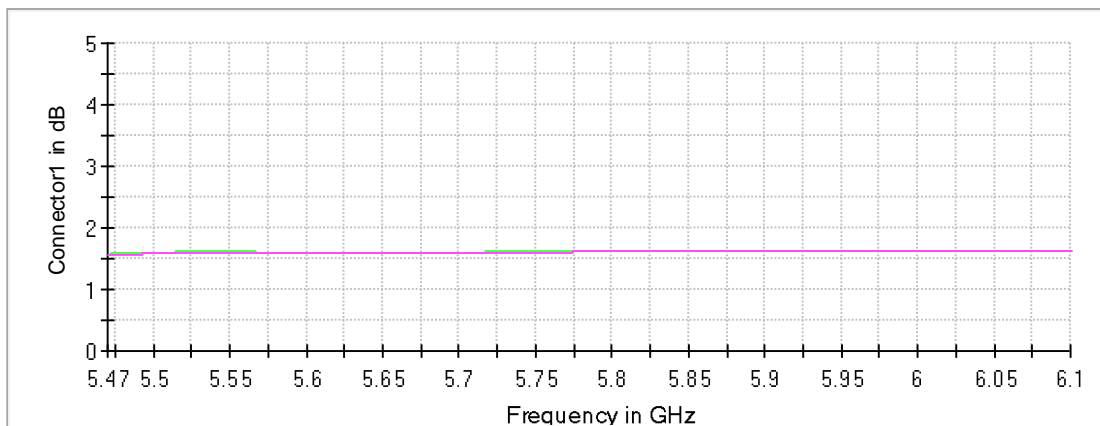


Gain



Connector1 Connector2

Attenuation



Connector1 Connector2

Emission Bandwidth 26 dB (5835 MHz; 24.000 dBm; 20 MHz)

Customized settings.

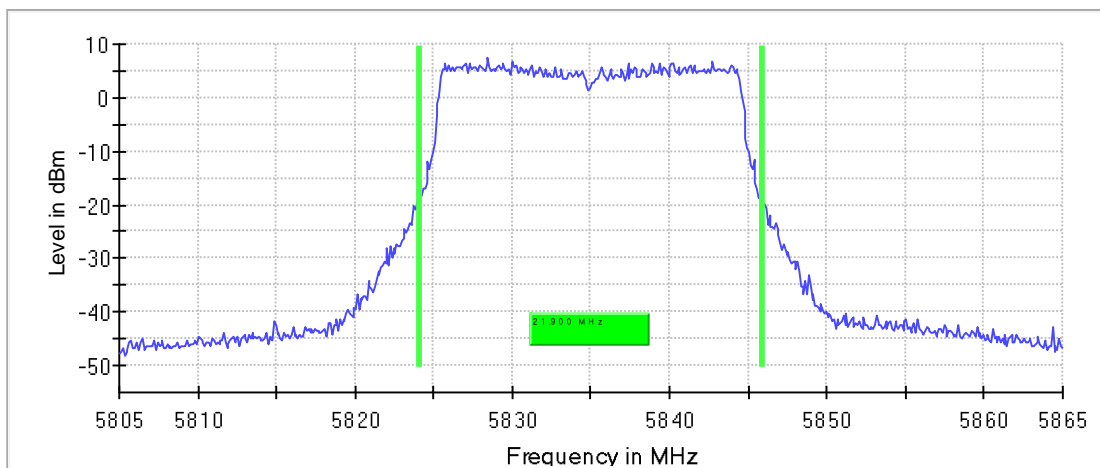
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5835.000000	21.900000	---	---	5824.050000	5845.950000

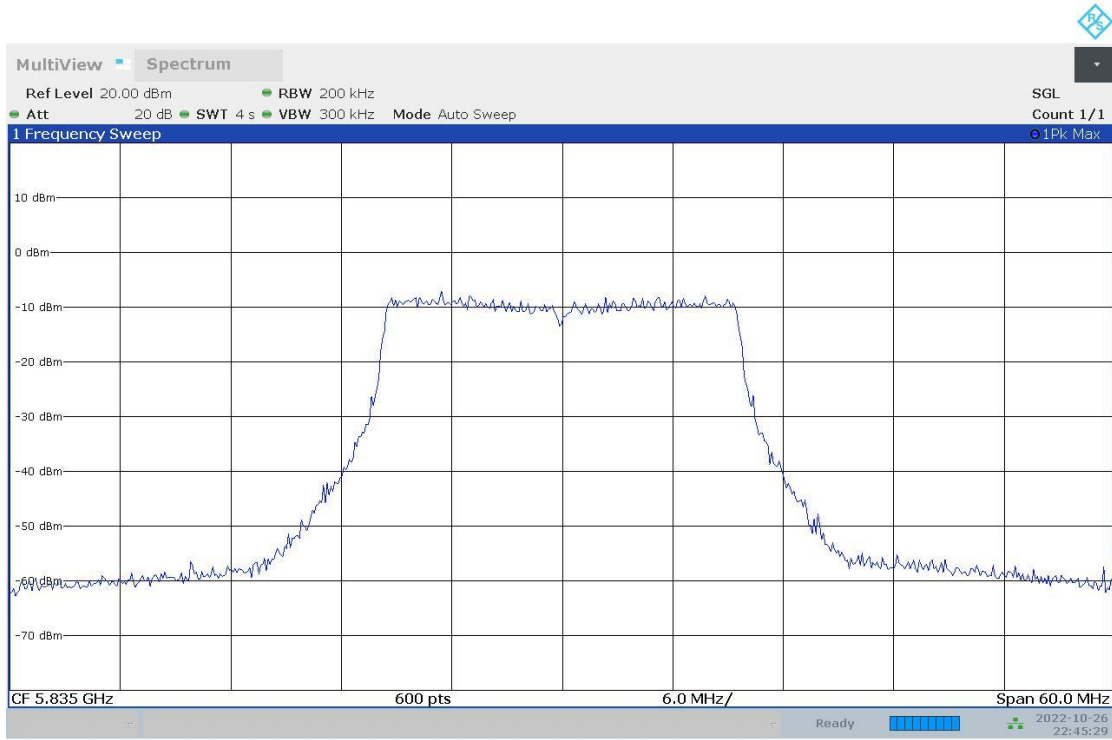
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5835.000000	7.5	PASS

26 dB Bandwidth



Bandwidth



10:45:29 PM 10/26/2022

Minimum Emission Bandwidth 6 dB (5835 MHz; 24.000 dBm; 20 MHz)

Customized settings.

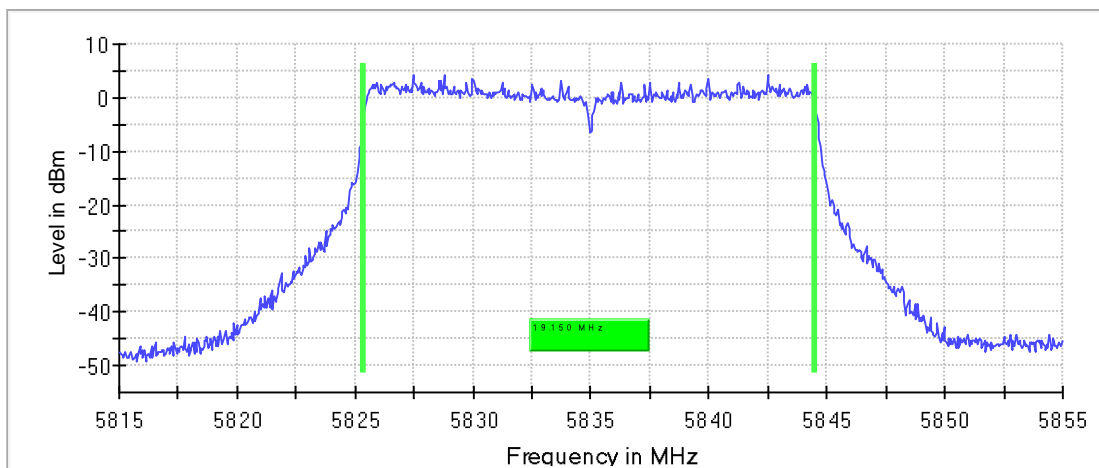
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5835.000000	19.150000	0.500000	---	5825.375000	5844.525000

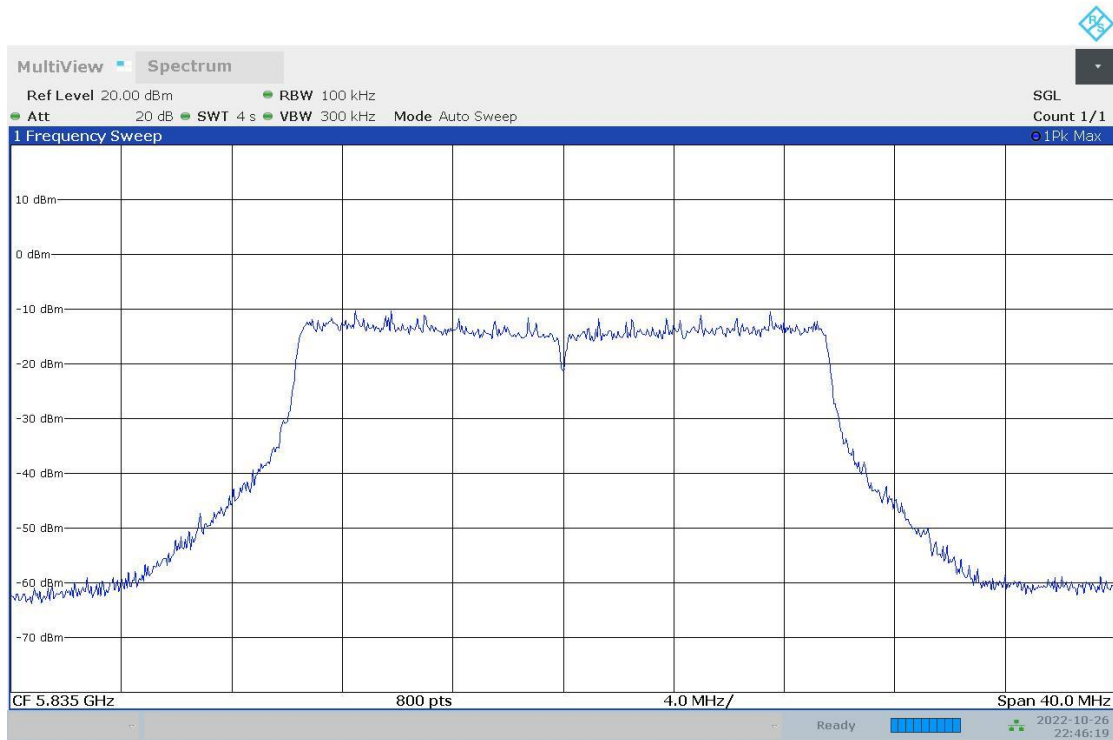
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5835.000000	4.4	PASS

6 dB Bandwidth



Bandwidth



10:46:20 PM 10/26/2022

Occupied Channel Bandwidth 99% (5835 MHz; 24.000 dBm; 20 MHz)

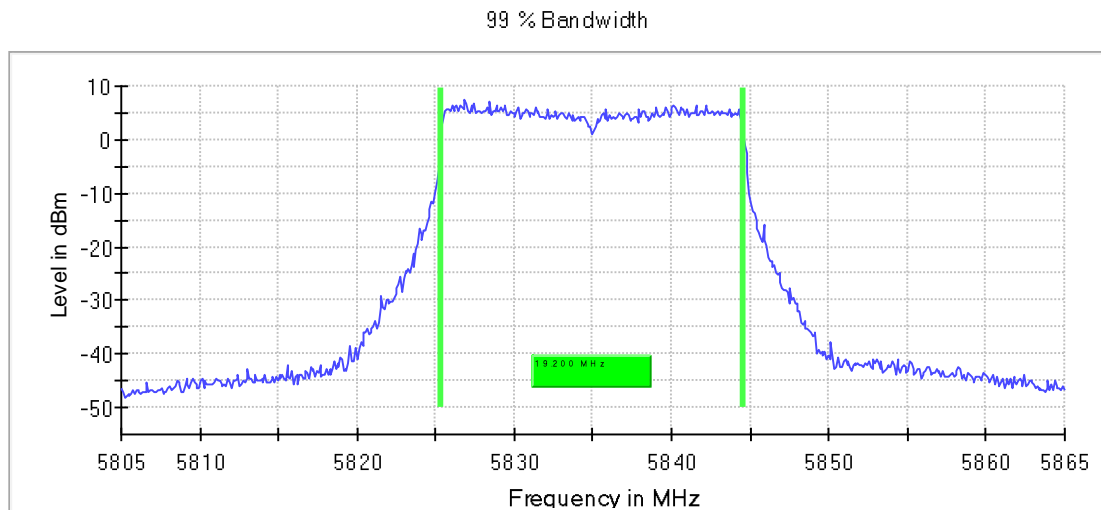
Customized settings.

99 % Bandwidth

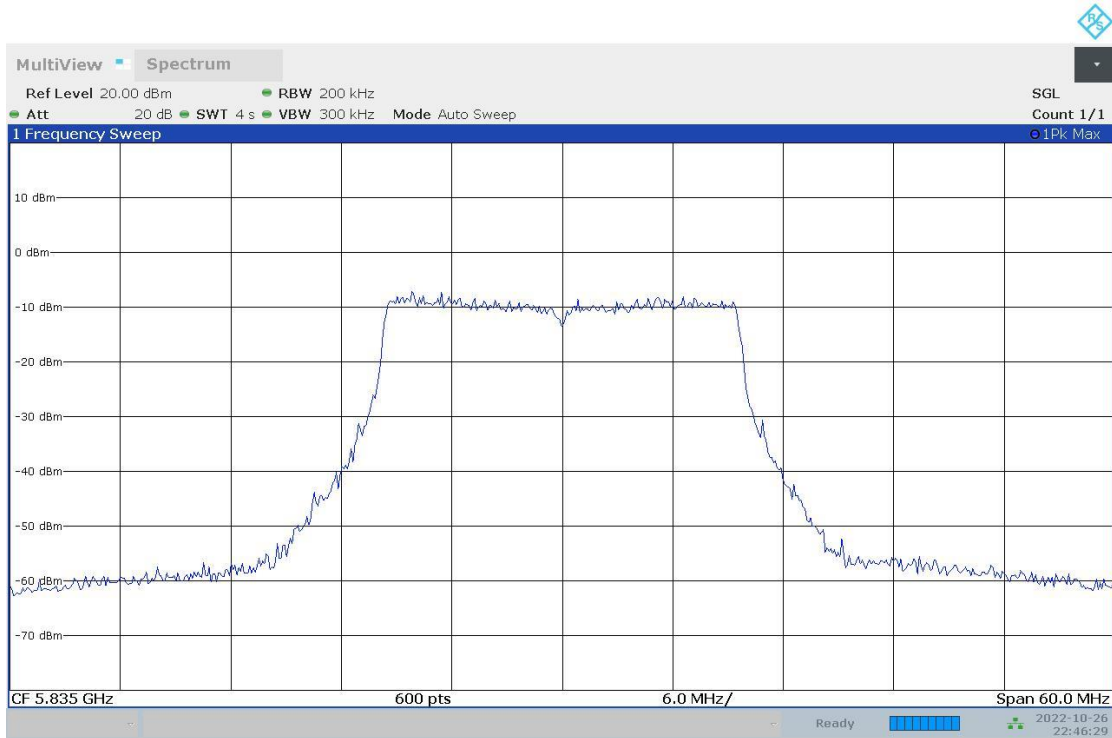
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5835.000000	19.200000	---	---	5825.350000	5844.550000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5835.000000	PASS



Bandwidth



10:46:29 PM 10/26/2022

Tx Spurious Emission (5835 MHz; 24.000 dBm; 20 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Result
5835.000000	PASS

Final measurements

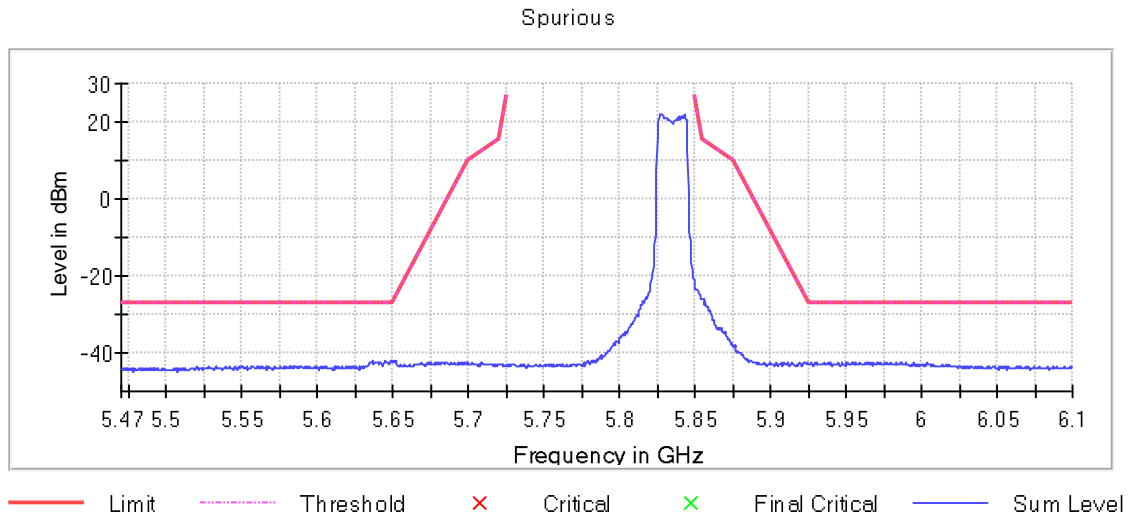
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

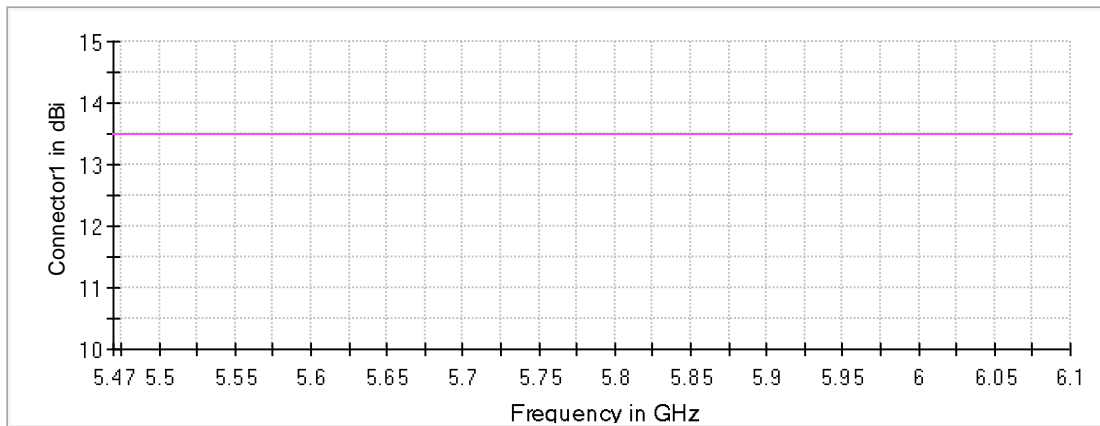
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5636.250000	-41.9	14.9	-27.0
5649.250000	-42.2	15.2	-27.0
5649.750000	-42.2	15.2	-27.0
5648.750000	-42.2	15.2	-27.0
5644.750000	-42.2	15.2	-27.0
5935.250000	-42.3	15.3	-27.0
5648.250000	-42.3	15.3	-27.0
5640.250000	-42.3	15.3	-27.0
5635.750000	-42.3	15.3	-27.0
5959.250000	-42.4	15.4	-27.0
5647.750000	-42.4	15.4	-27.0
5635.250000	-42.4	15.4	-27.0
5947.250000	-42.4	15.4	-27.0
5634.750000	-42.4	15.4	-27.0
5929.750000	-42.4	15.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
5470.000000	6100.000000	2	2

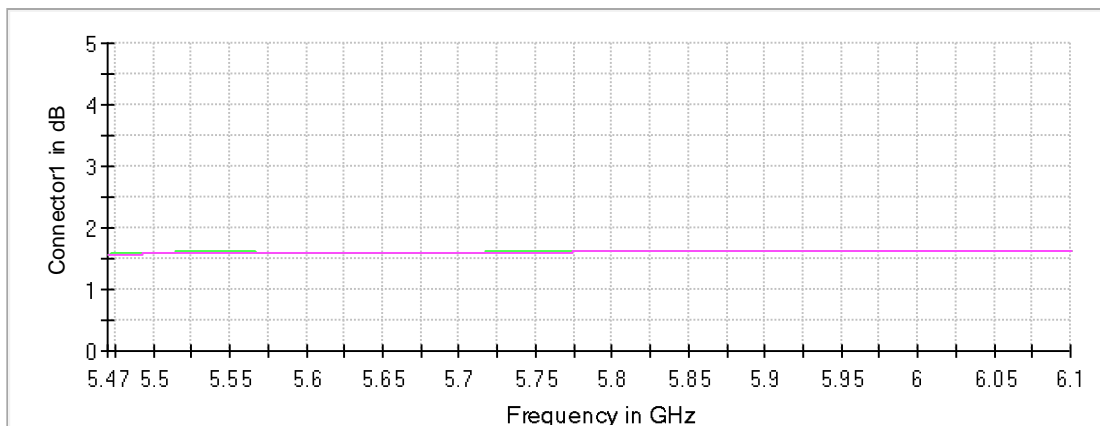


Gain



Connector1 Connector2

Attenuation



Connector1 Connector2

Emission Bandwidth 26 dB (5750 MHz; 24.000 dBm; 40 MHz)

Customized settings.

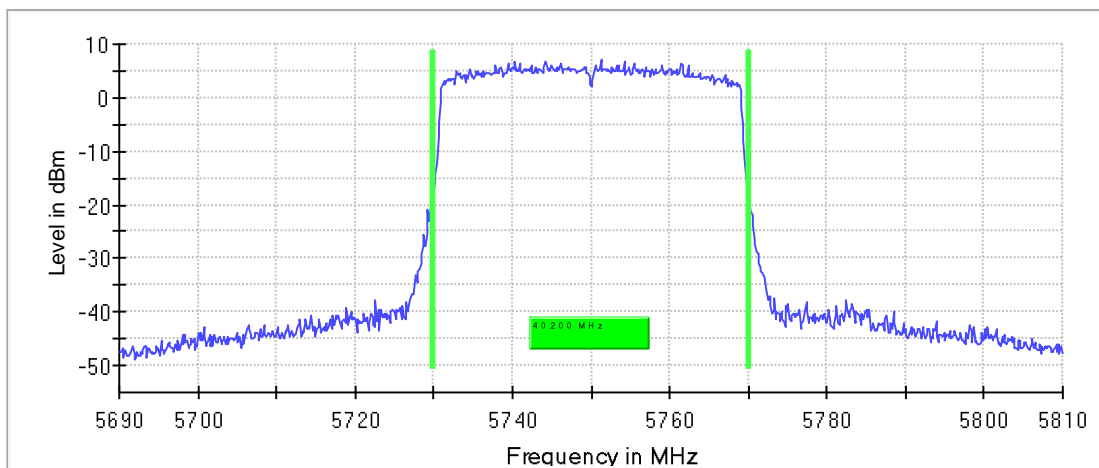
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5750.000000	40.200000	---	---	5729.825000	5770.025000

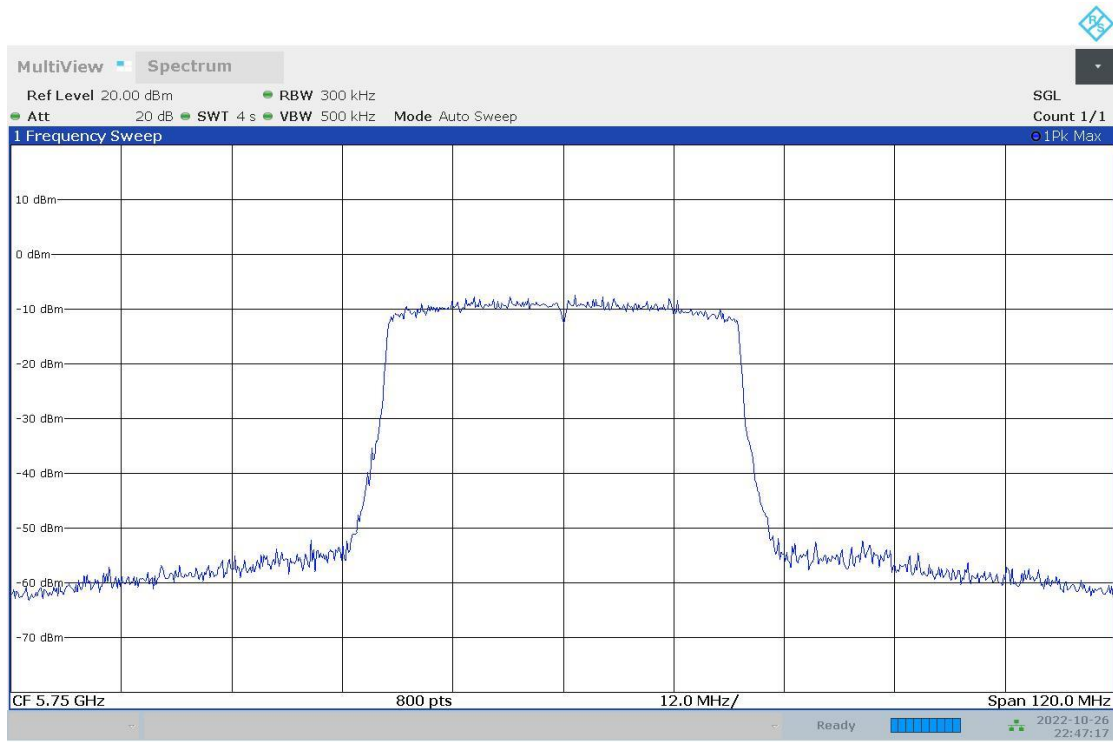
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5750.000000	7.0	PASS

26 dB Bandwidth



Bandwidth



10:47:17 PM 10/26/2022

Minimum Emission Bandwidth 6 dB (5750 MHz; 24.000 dBm; 40 MHz)

Customized settings.

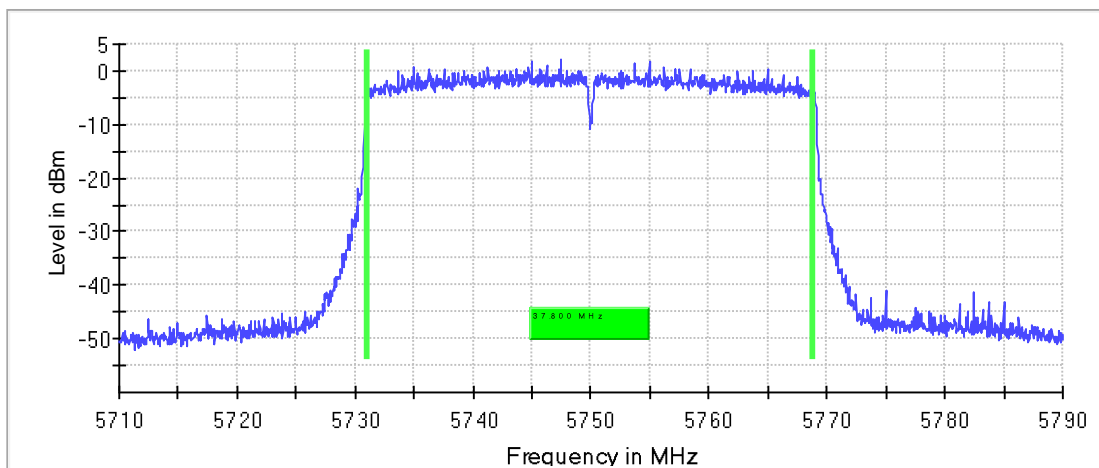
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5750.000000	37.800000	0.500000	---	5731.025000	5768.825000

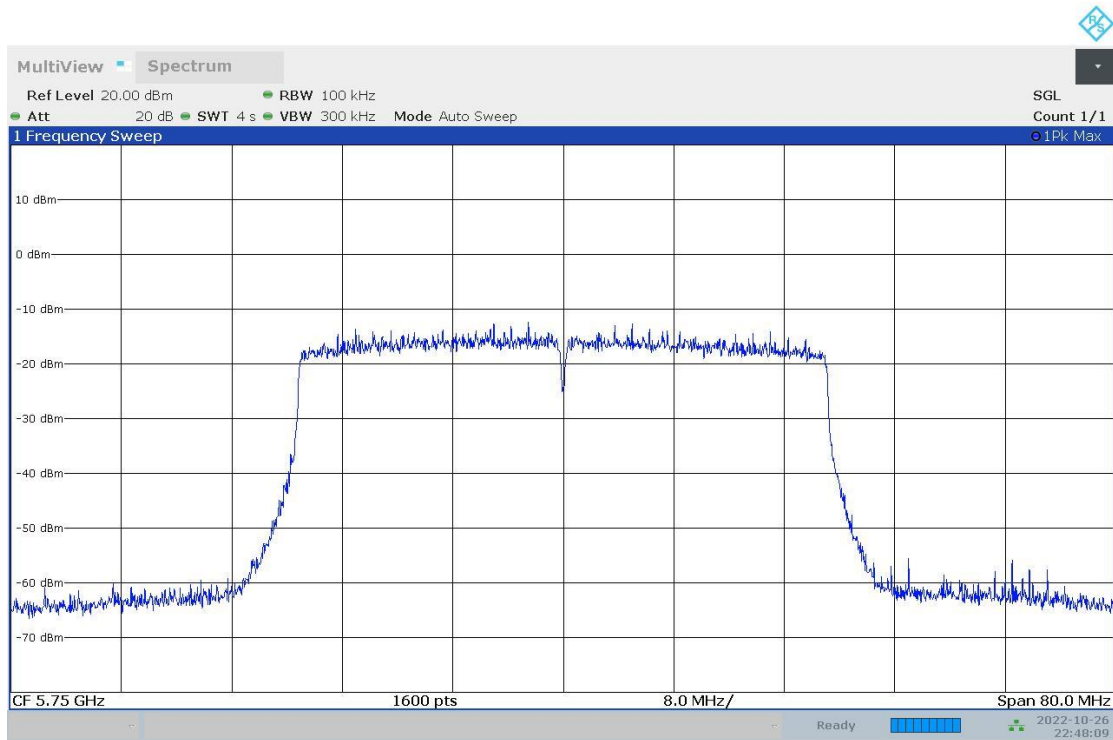
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5750.000000	2.0	PASS

6 dB Bandwidth



Bandwidth



10:48:09 PM 10/26/2022

Occupied Channel Bandwidth 99% (5750 MHz; 24.000 dBm; 40 MHz)

Customized settings.

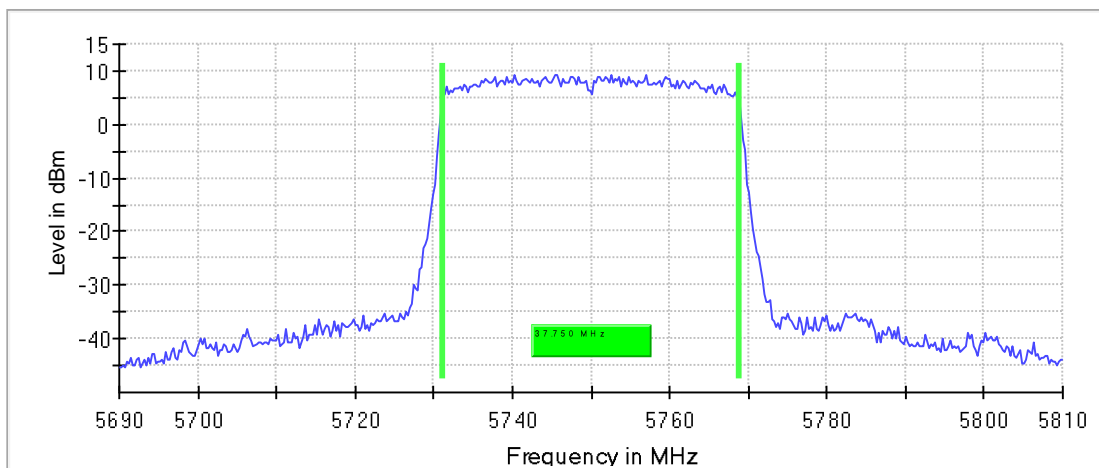
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5750.000000	37.750000	---	---	5731.125000	5768.875000

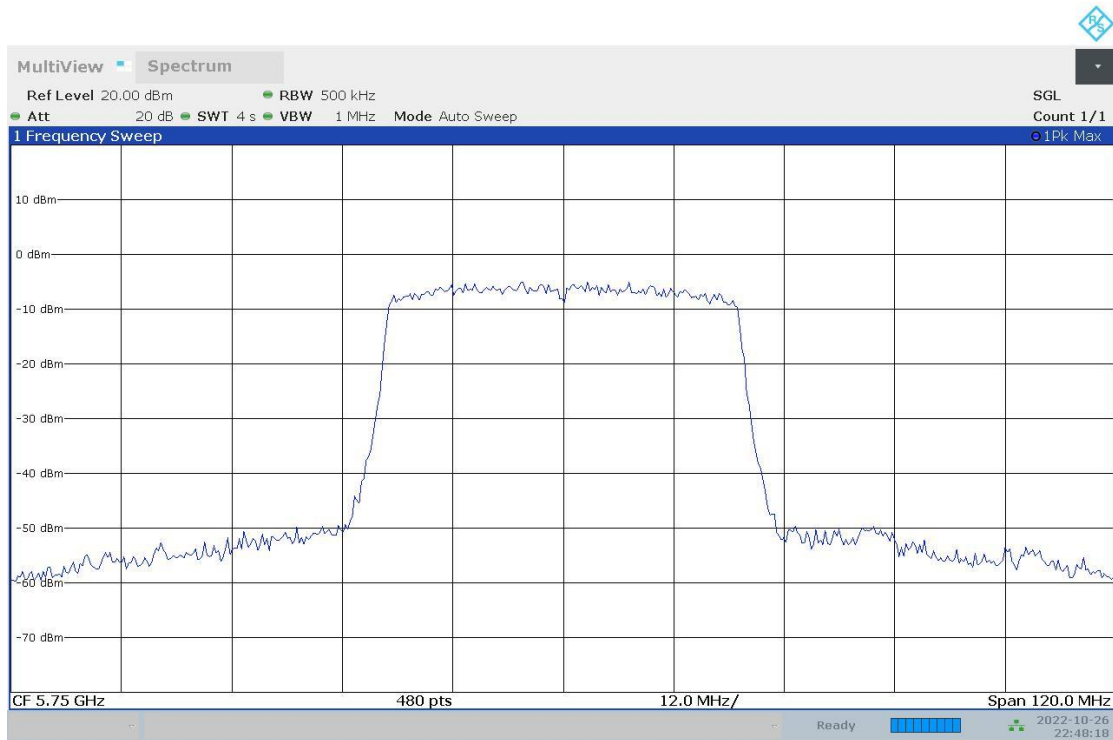
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5750.000000	PASS

99 % Bandwidth



Bandwidth



10:48:18 PM 10/26/2022

Tx Spurious Emission (5750 MHz; 24.000 dBm; 40 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Result
5750.000000	PASS

Final measurements

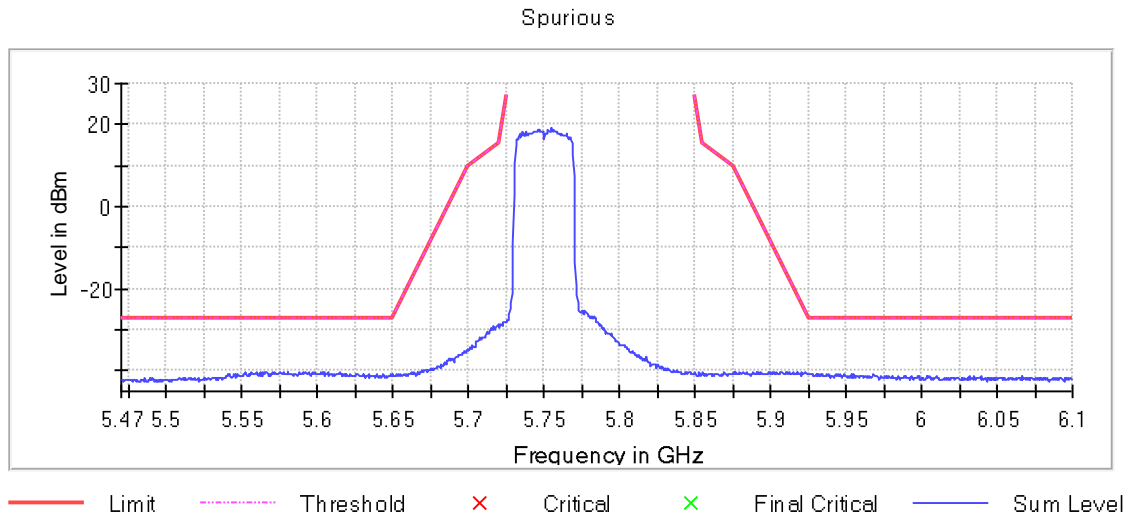
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

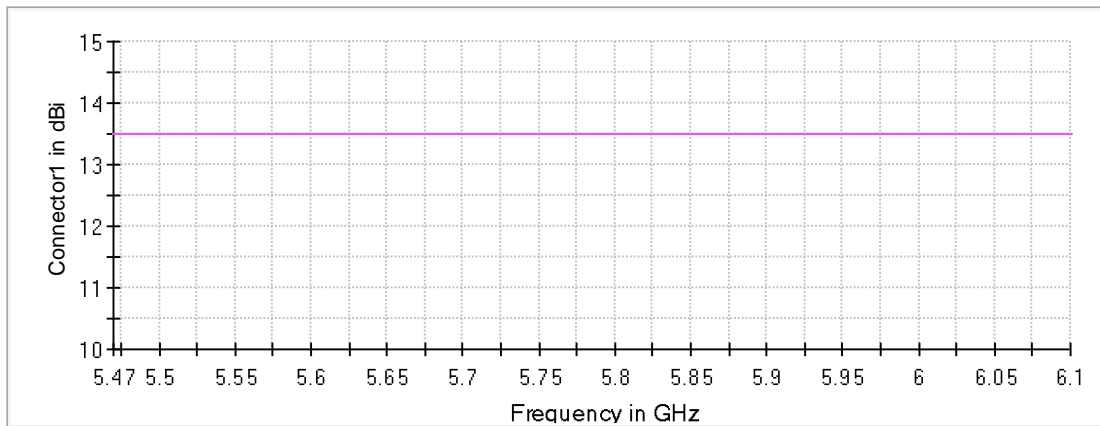
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5597.750000	-40.3	13.3	-27.0
5606.750000	-40.3	13.3	-27.0
5565.750000	-40.3	13.3	-27.0
5575.750000	-40.3	13.3	-27.0
5592.250000	-40.3	13.3	-27.0
5561.750000	-40.4	13.4	-27.0
5566.750000	-40.4	13.4	-27.0
5577.250000	-40.4	13.4	-27.0
5604.250000	-40.4	13.4	-27.0
5614.750000	-40.4	13.4	-27.0
5590.250000	-40.4	13.4	-27.0
5596.750000	-40.4	13.4	-27.0
5556.250000	-40.4	13.4	-27.0
5602.250000	-40.4	13.4	-27.0
5564.250000	-40.4	13.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
5470.000000	6100.000000	2	2

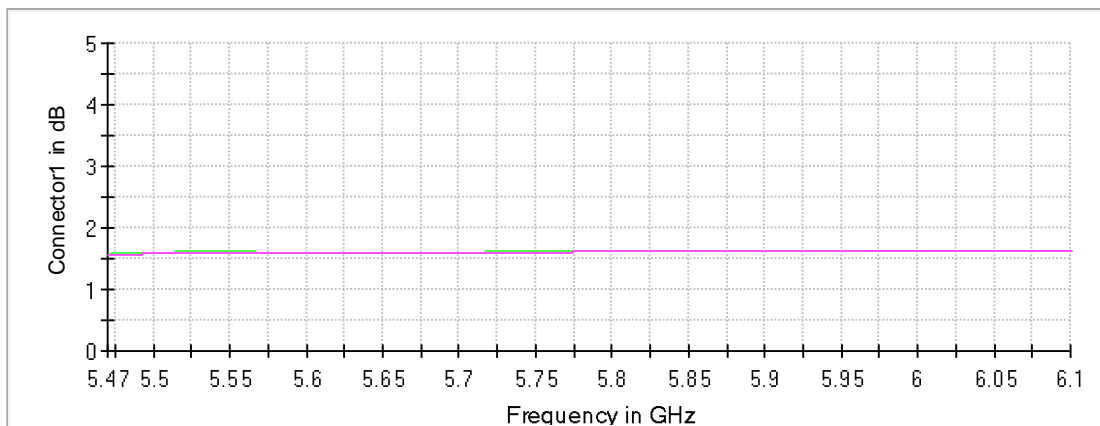


Gain



Connector1 Connector2

Attenuation



Connector1 Connector2

Emission Bandwidth 26 dB (5790 MHz; 24.000 dBm; 40 MHz)

Customized settings.

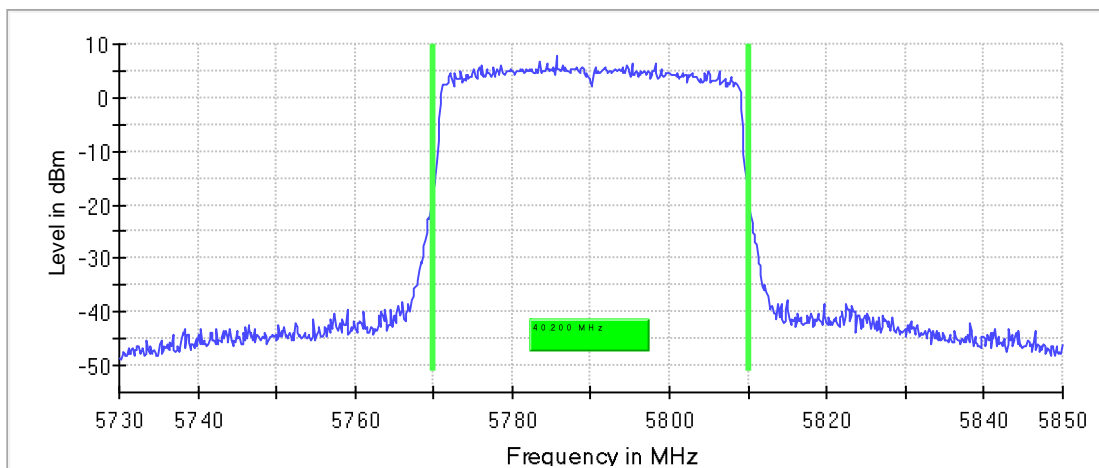
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5790.000000	40.200000	---	---	5769.825000	5810.025000

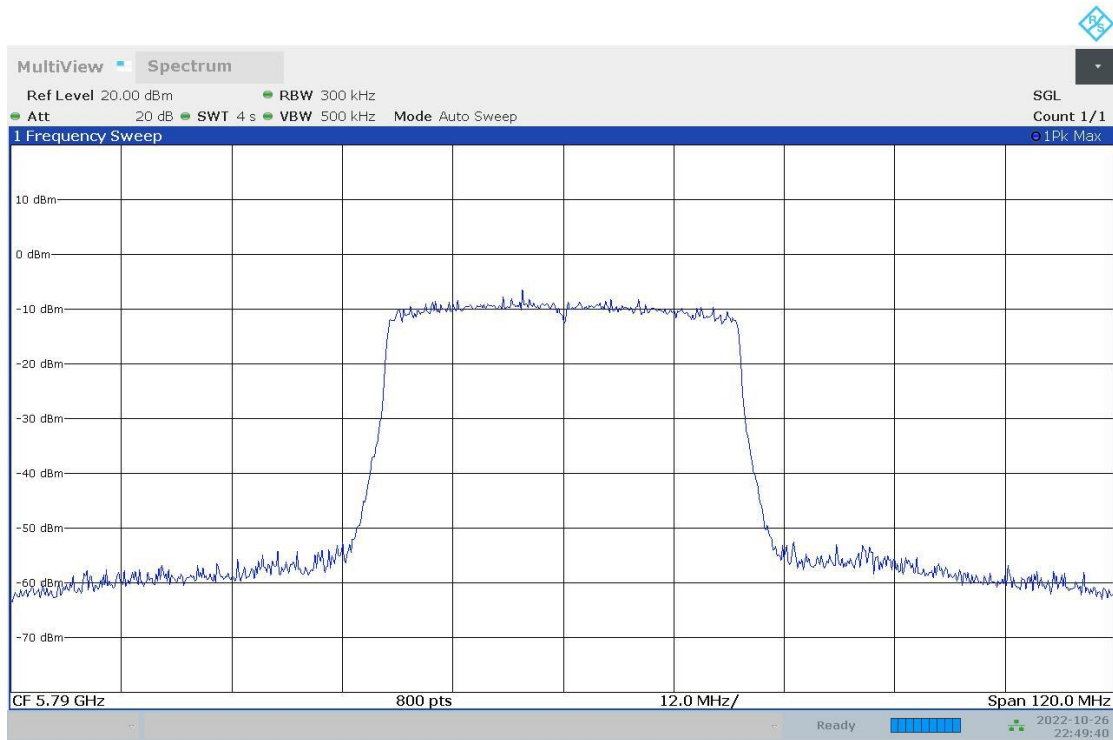
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5790.000000	7.9	PASS

26 dB Bandwidth



Bandwidth



10:49:40 PM 10/26/2022

Minimum Emission Bandwidth 6 dB (5790 MHz; 24.000 dBm; 40 MHz)

Customized settings.

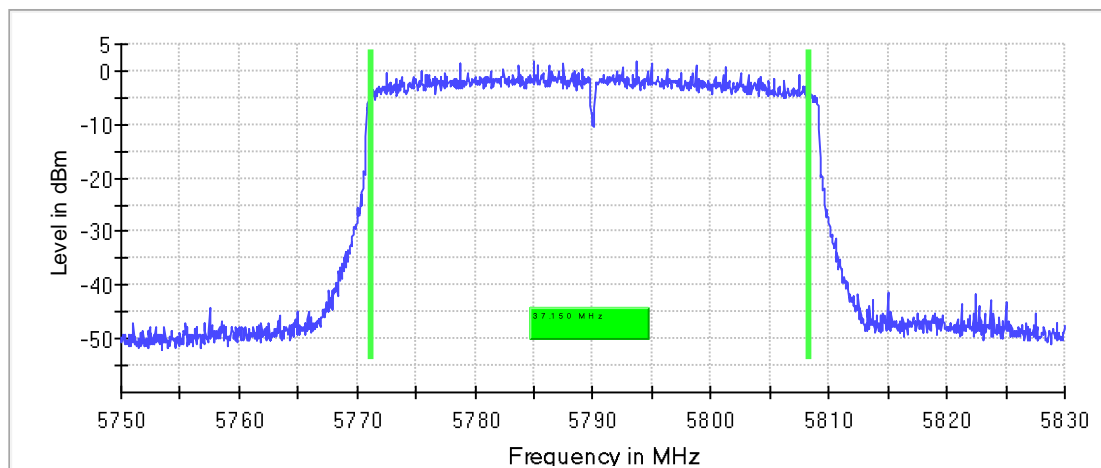
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5790.000000	37.150000	0.500000	---	5771.175000	5808.325000

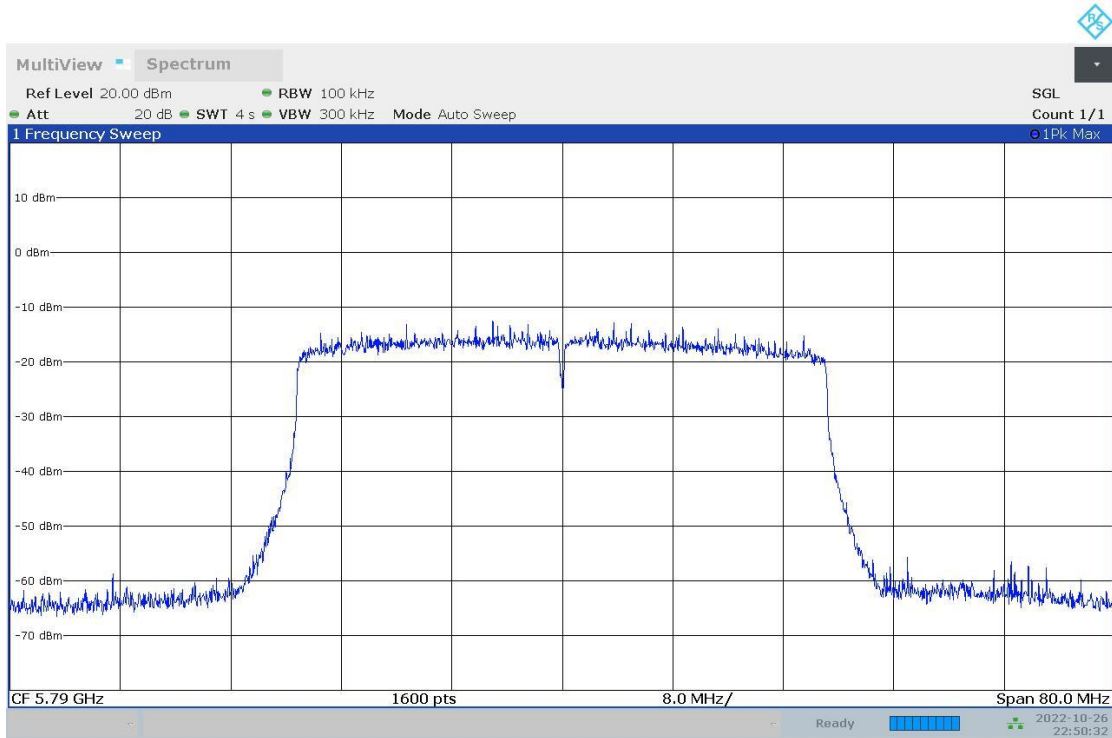
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5790.000000	1.9	PASS

6 dB Bandwidth



Bandwidth



10:50:32 PM 10/26/2022

Occupied Channel Bandwidth 99% (5790 MHz; 24.000 dBm; 40 MHz)

Customized settings.

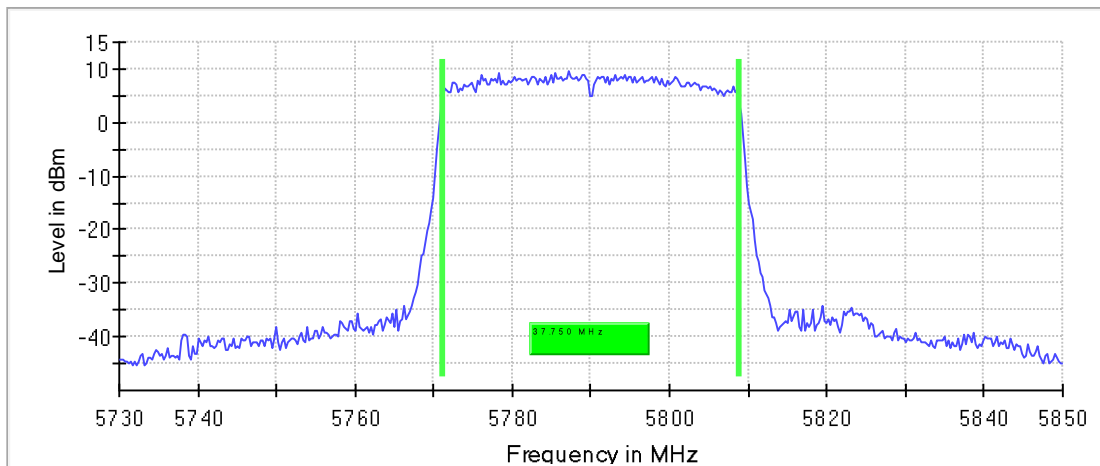
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5790.000000	37.750000	---	---	5771.125000	5808.875000

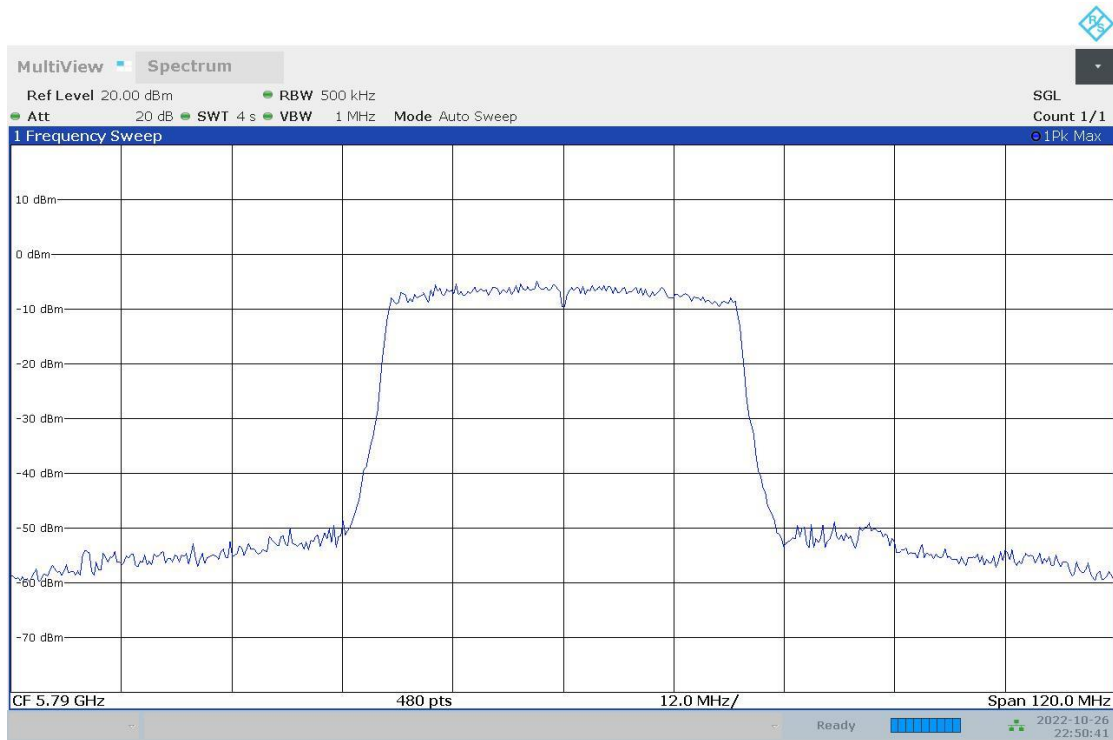
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5790.000000	PASS

99 % Bandwidth



Bandwidth



10:50:41 PM 10/26/2022

Tx Spurious Emission (5790 MHz; 24.000 dBm; 40 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Result
5790.000000	PASS

Final measurements

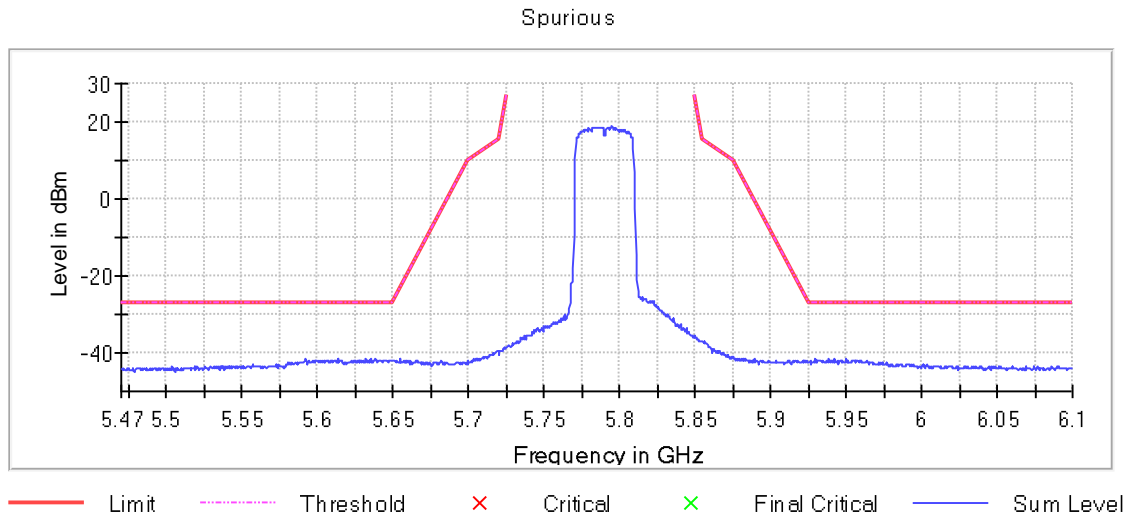
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

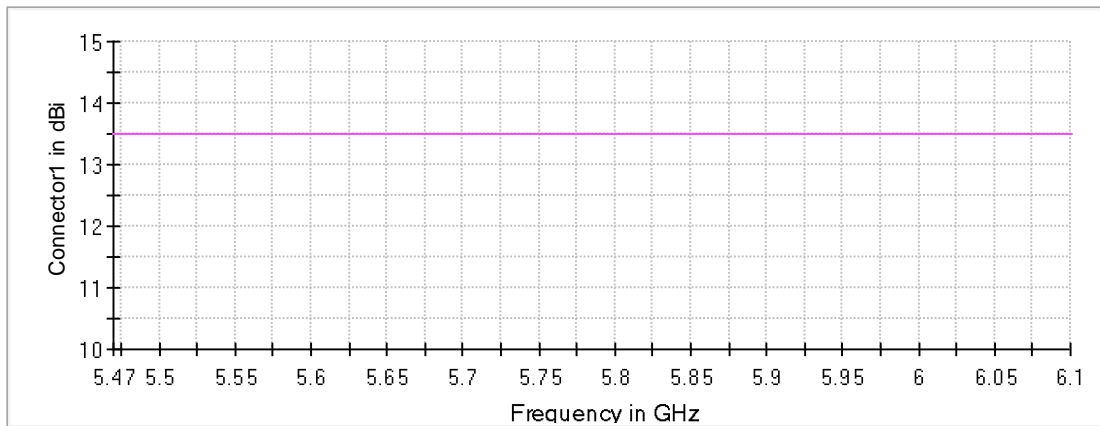
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5950.250000	-41.5	14.5	-27.0
5638.250000	-41.5	14.5	-27.0
5592.250000	-41.6	14.6	-27.0
5632.250000	-41.6	14.6	-27.0
5635.250000	-41.7	14.7	-27.0
5613.750000	-41.7	14.7	-27.0
5942.750000	-41.7	14.7	-27.0
5938.750000	-41.7	14.7	-27.0
5929.750000	-41.7	14.7	-27.0
5649.750000	-41.8	14.8	-27.0
5605.750000	-41.8	14.8	-27.0
5639.250000	-41.8	14.8	-27.0
5648.750000	-41.8	14.8	-27.0
5944.750000	-41.8	14.8	-27.0
5642.250000	-41.8	14.8	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
5470.000000	6100.000000	2	2

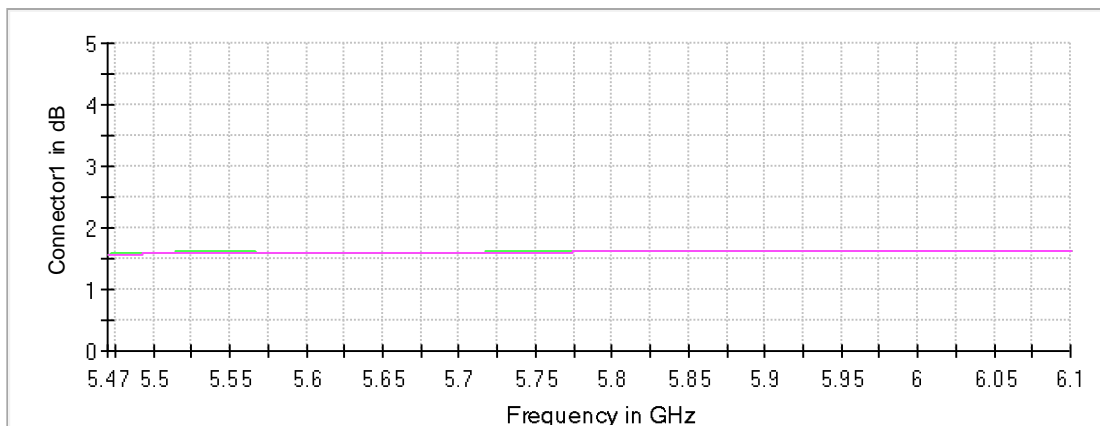


Gain



Connector1 Connector2

Attenuation



Connector1 Connector2

Emission Bandwidth 26 dB (5825 MHz; 24.000 dBm; 40 MHz)

Customized settings.

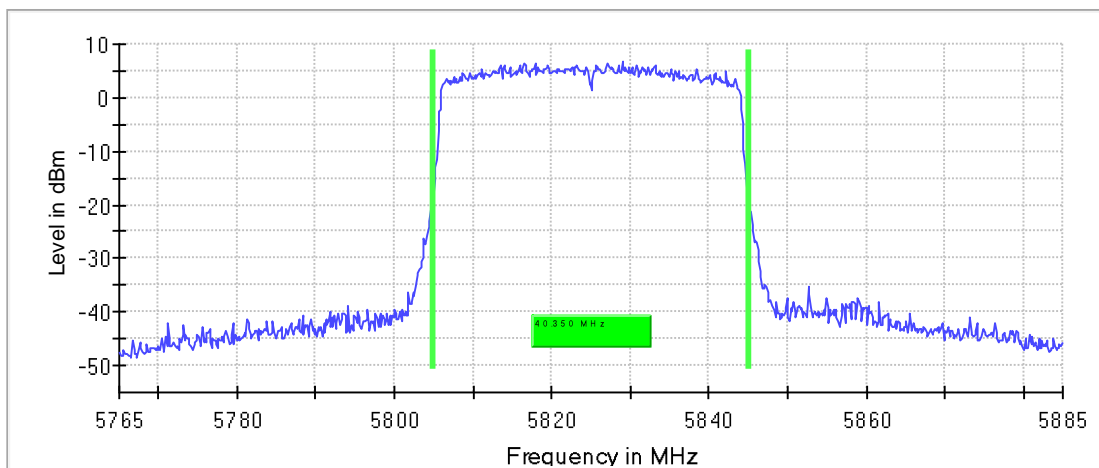
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	40.350000	---	---	5804.825000	5845.175000

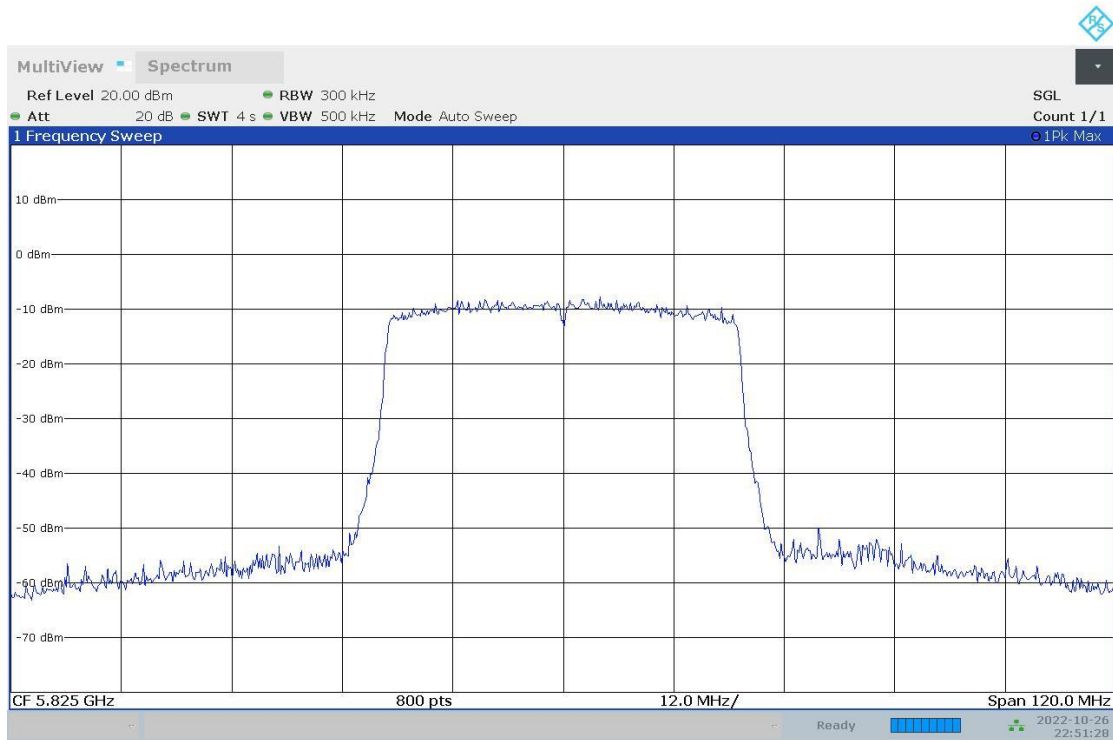
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	6.8	PASS

26 dB Bandwidth



Bandwidth



10:51:28 PM 10/26/2022

Minimum Emission Bandwidth 6 dB (5825 MHz; 24.000 dBm; 40 MHz)

Customized settings.

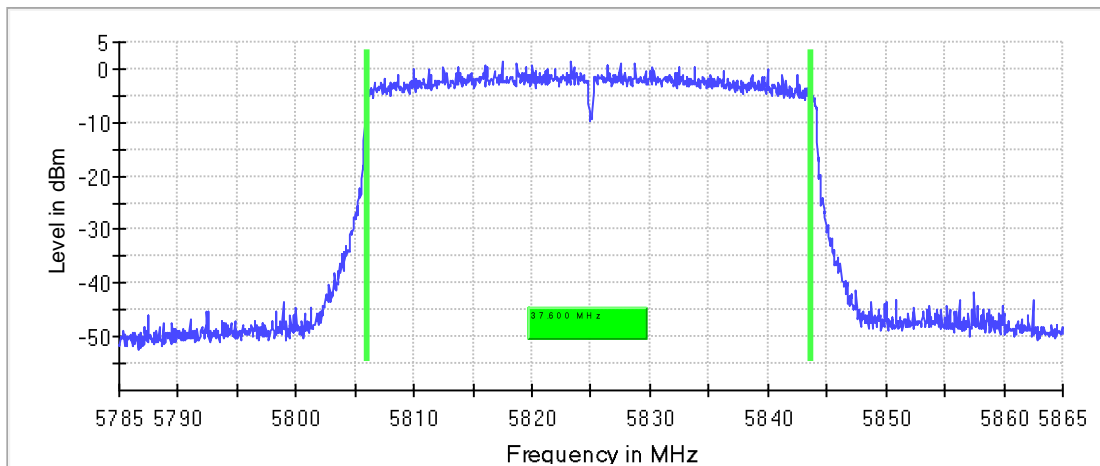
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	37.600000	0.500000	---	5805.975000	5843.575000

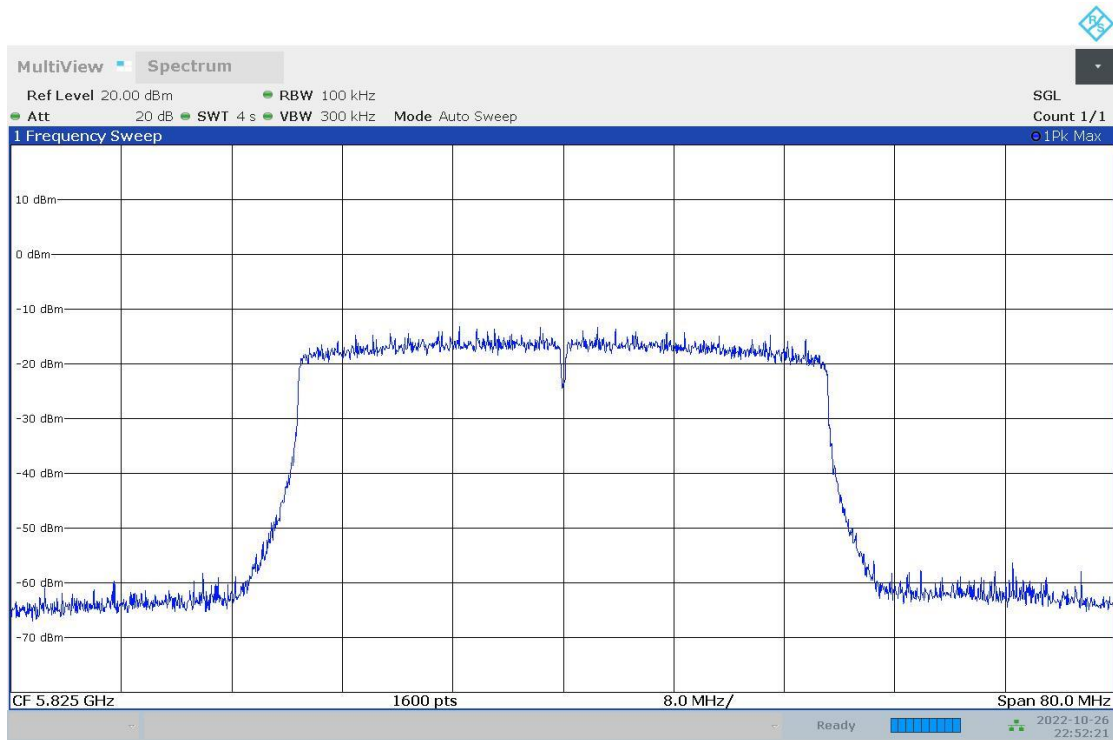
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5825.000000	1.4	PASS

6 dB Bandwidth



Bandwidth



10:52:21 PM 10/26/2022

Occupied Channel Bandwidth 99% (5825 MHz; 24.000 dBm; 40 MHz)

Customized settings.

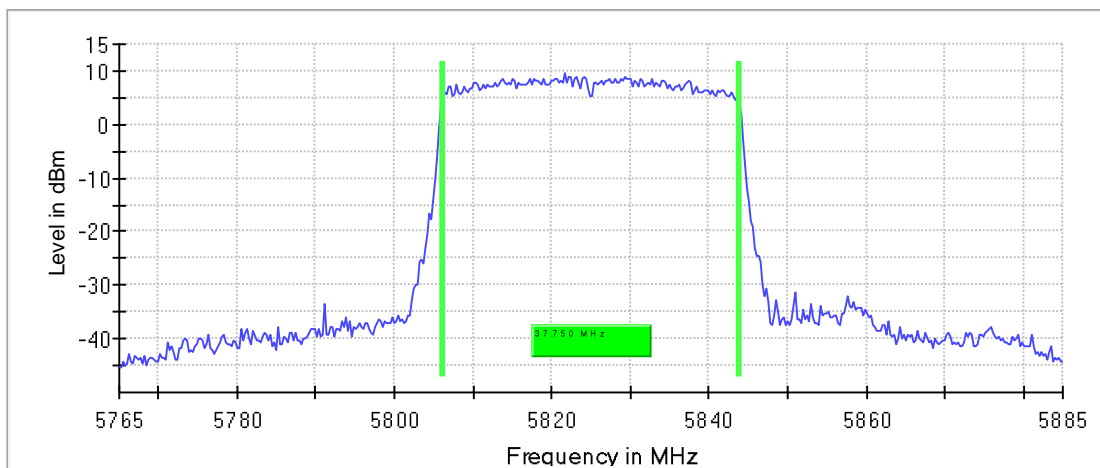
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5825.000000	37.750000	---	---	5806.125000	5843.875000

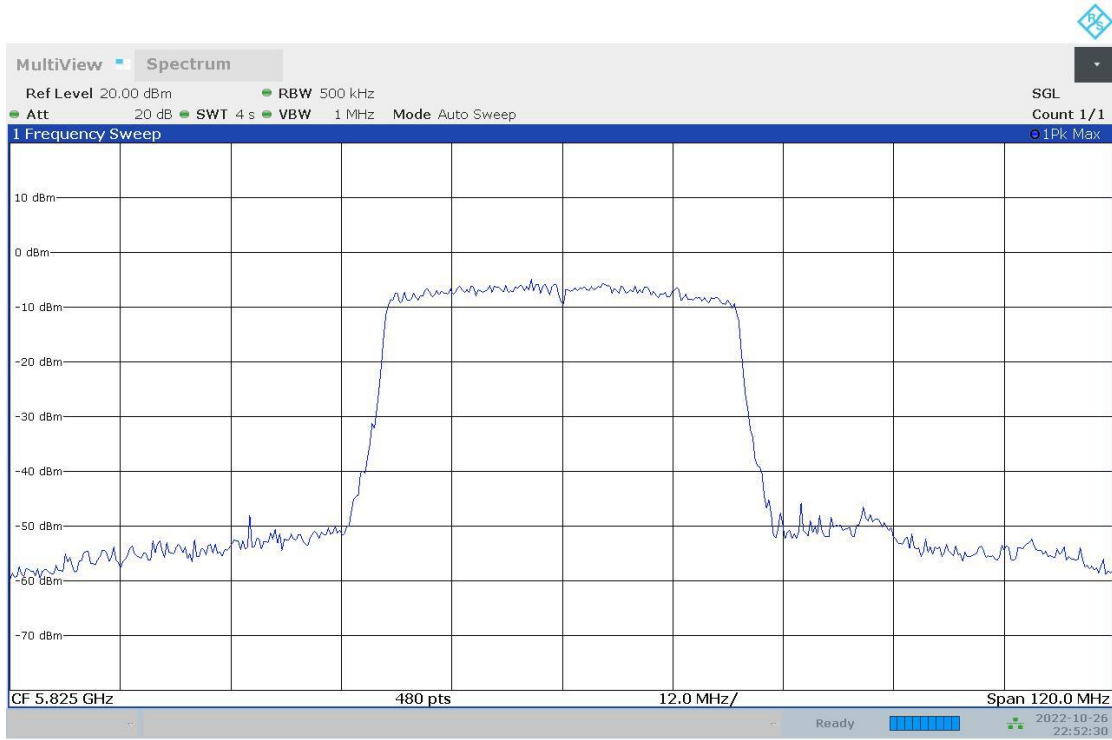
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5825.000000	PASS

99 % Bandwidth



Bandwidth



10:52:31 PM 10/26/2022

Tx Spurious Emission (5825 MHz; 24.000 dBm; 40 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Result
5825.000000	PASS

Final measurements

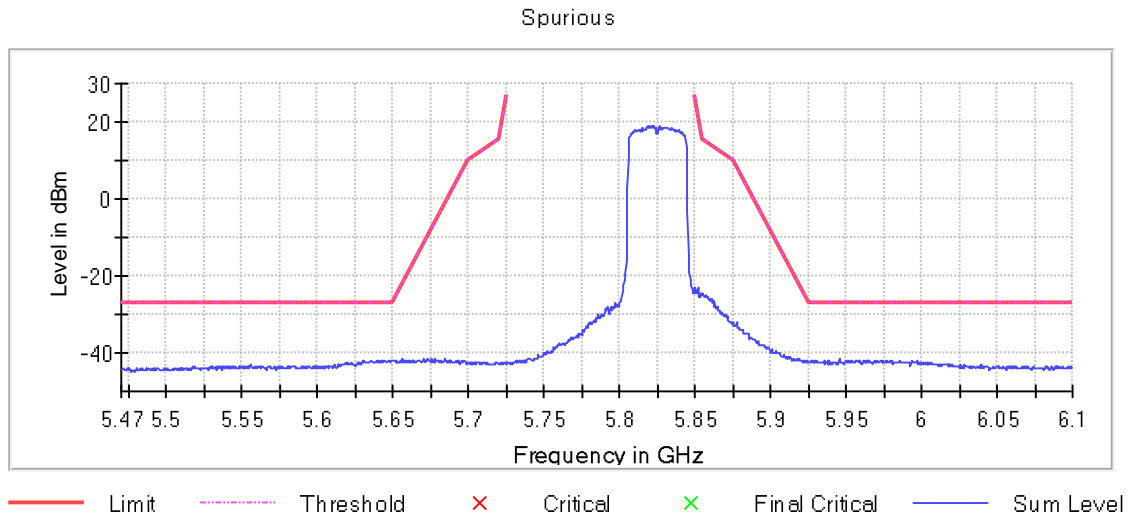
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

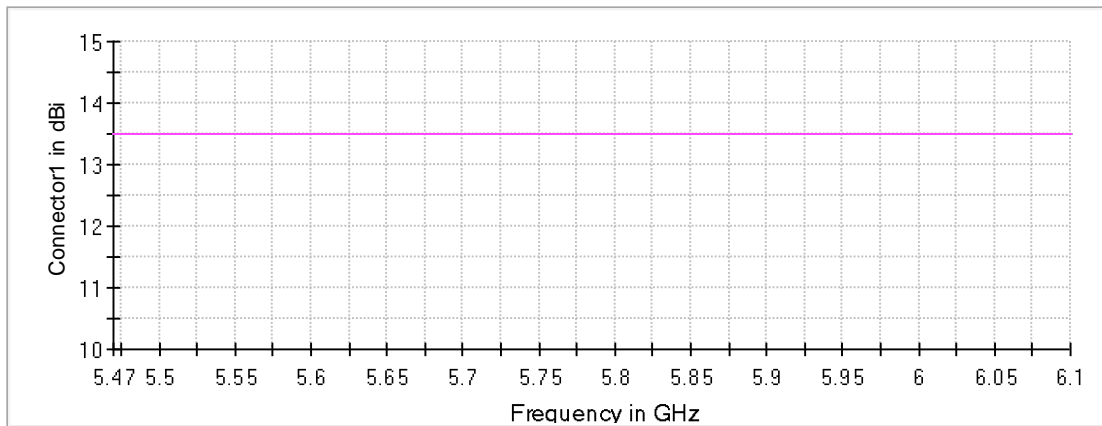
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5945.750000	-41.7	14.7	-27.0
5648.750000	-41.8	14.8	-27.0
5644.250000	-41.8	14.8	-27.0
5647.250000	-41.8	14.8	-27.0
5985.250000	-41.9	14.9	-27.0
5642.750000	-41.9	14.9	-27.0
5950.250000	-41.9	14.9	-27.0
5649.250000	-41.9	14.9	-27.0
5952.250000	-42.0	15.0	-27.0
5937.750000	-42.0	15.0	-27.0
5638.750000	-42.0	15.0	-27.0
5644.750000	-42.0	15.0	-27.0
5642.250000	-42.0	15.0	-27.0
5958.750000	-42.0	15.0	-27.0
5635.750000	-42.0	15.0	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
5470.000000	6100.000000	2	2

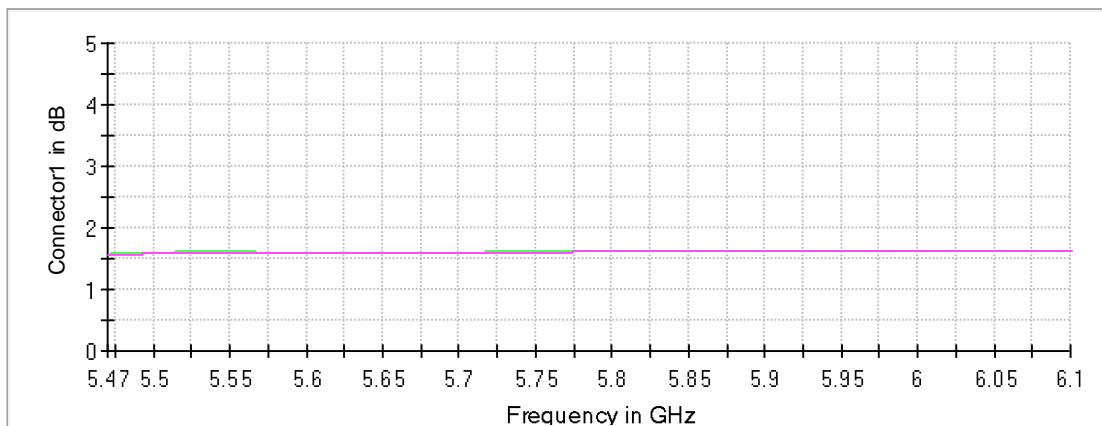


Gain



Connector1 Connector2

Attenuation



Connector1 Connector2

Emission Bandwidth 26 dB (5770 MHz; 24.000 dBm; 80 MHz)

Customized settings.

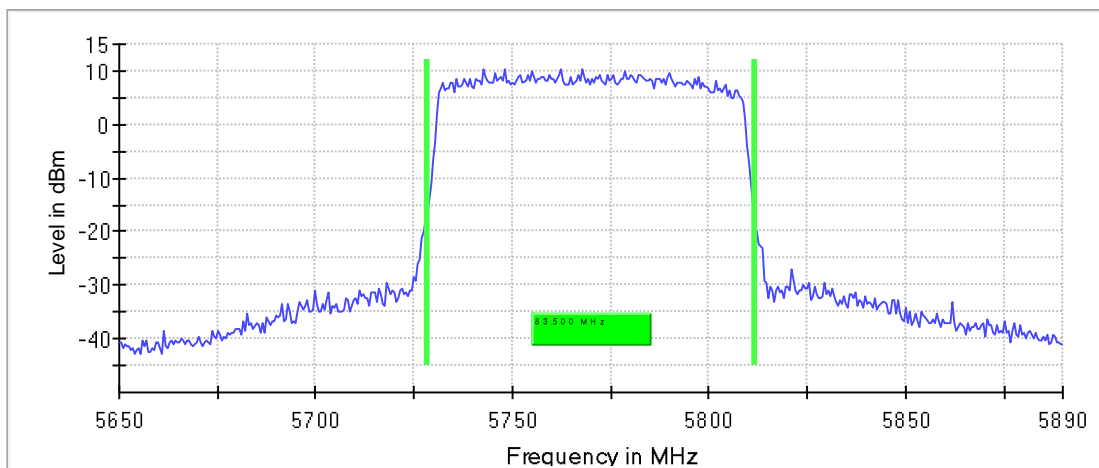
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5770.000000	83.500000	---	---	5728.250000	5811.750000

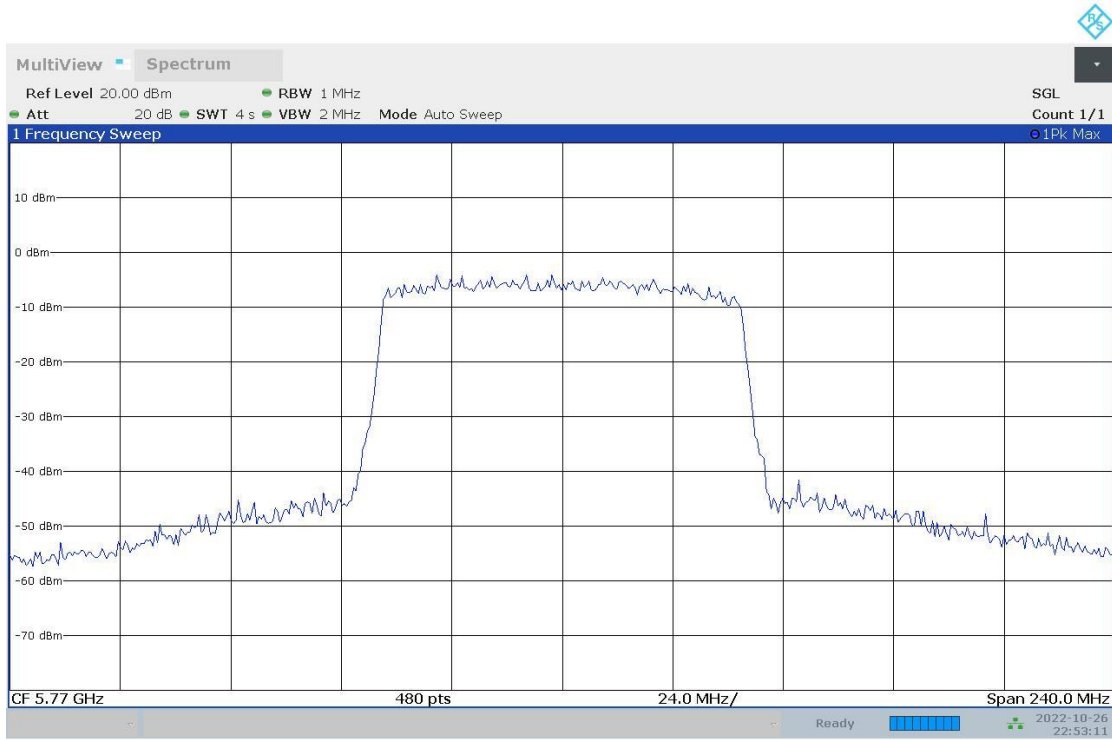
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5770.000000	10.3	PASS

26 dB Bandwidth



Bandwidth



10:53:11 PM 10/26/2022

Minimum Emission Bandwidth 6 dB (5770 MHz; 24.000 dBm; 80 MHz)

Customized settings.

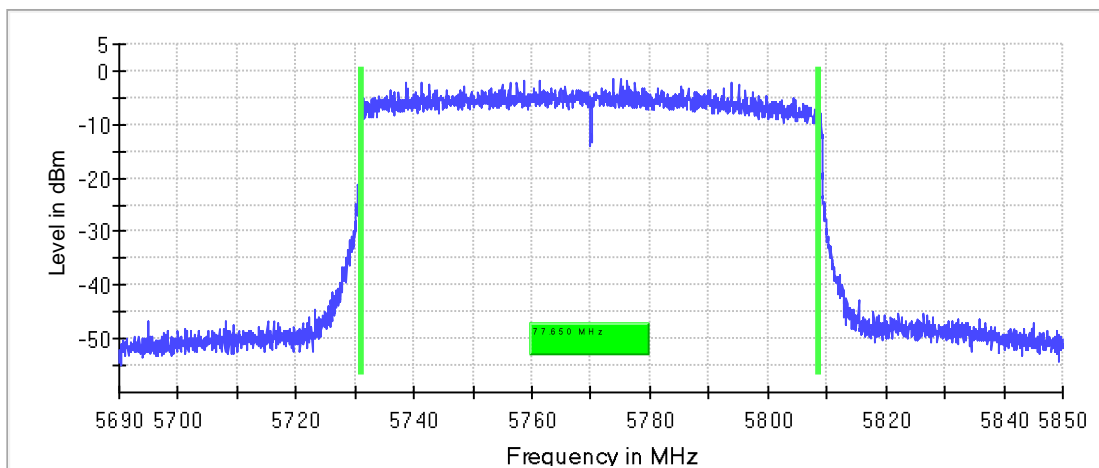
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5770.000000	77.650000	0.500000	---	5730.975000	5808.625000

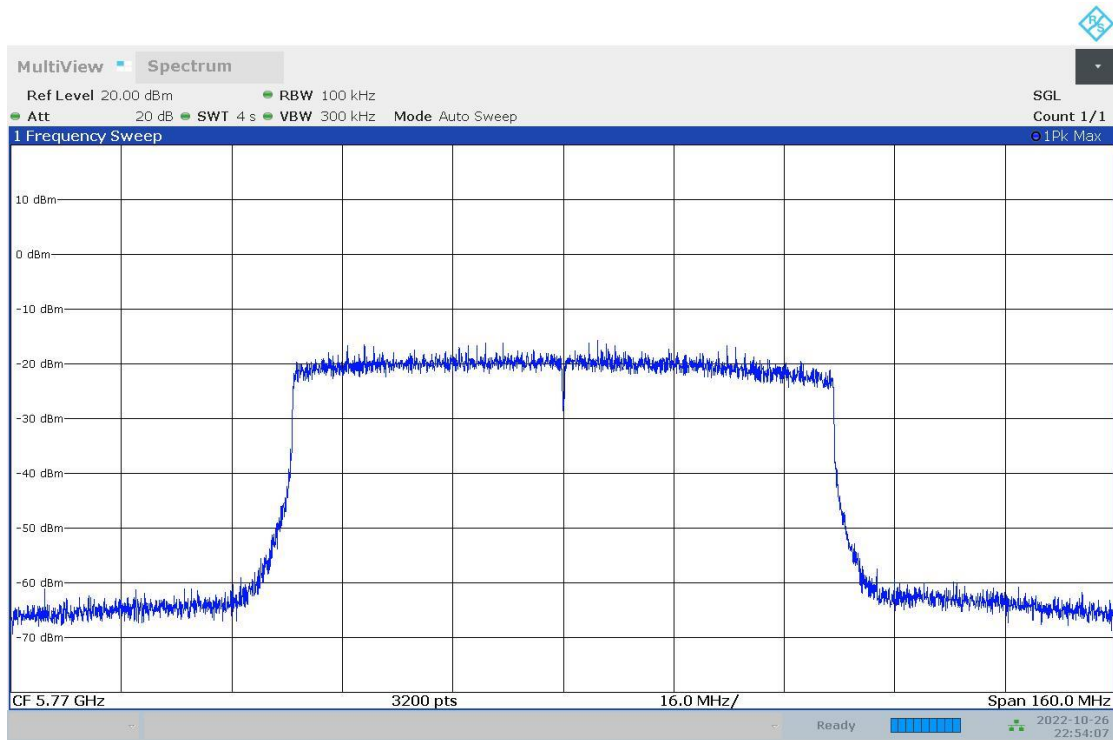
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5770.000000	-1.3	PASS

6 dB Bandwidth



Bandwidth



10:54:08 PM 10/26/2022

Occupied Channel Bandwidth 99% (5770 MHz; 24.000 dBm; 80 MHz)

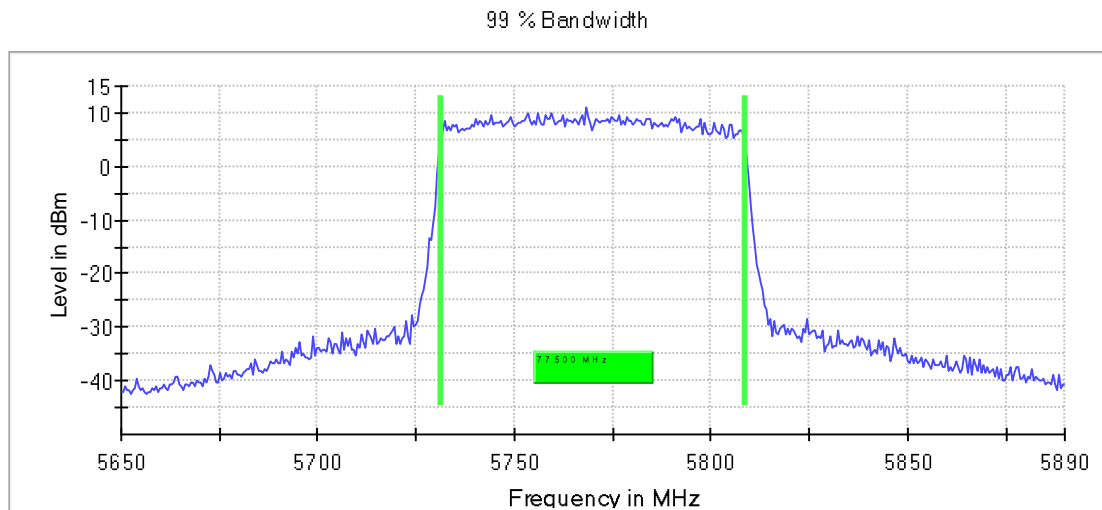
Customized settings.

99 % Bandwidth

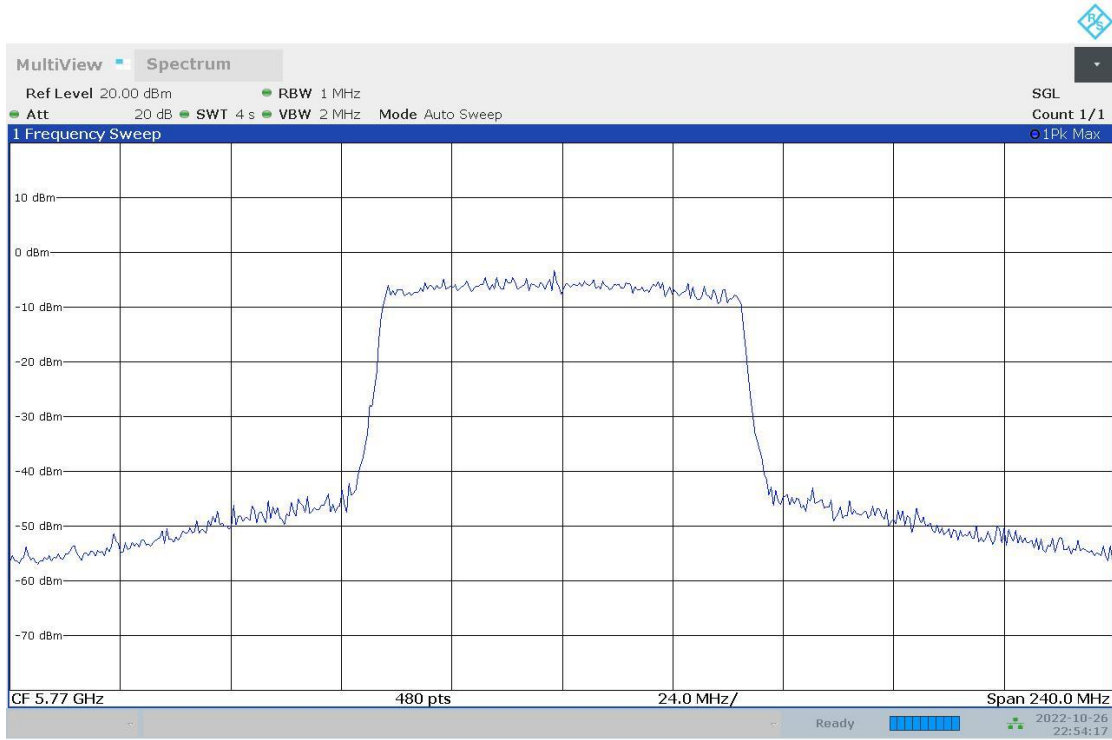
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5770.000000	77.500000	---	---	5731.250000	5808.750000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5770.000000	PASS



Bandwidth



10:54:17 PM 10/26/2022

Tx Spurious Emission (5770 MHz; 24.000 dBm; 80 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Result
5770.000000	PASS

Final measurements

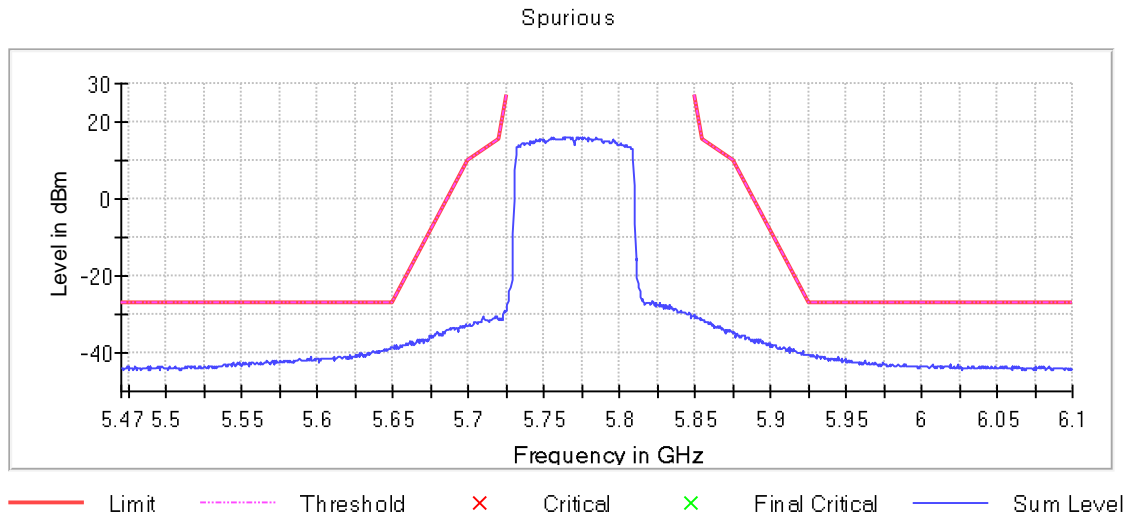
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

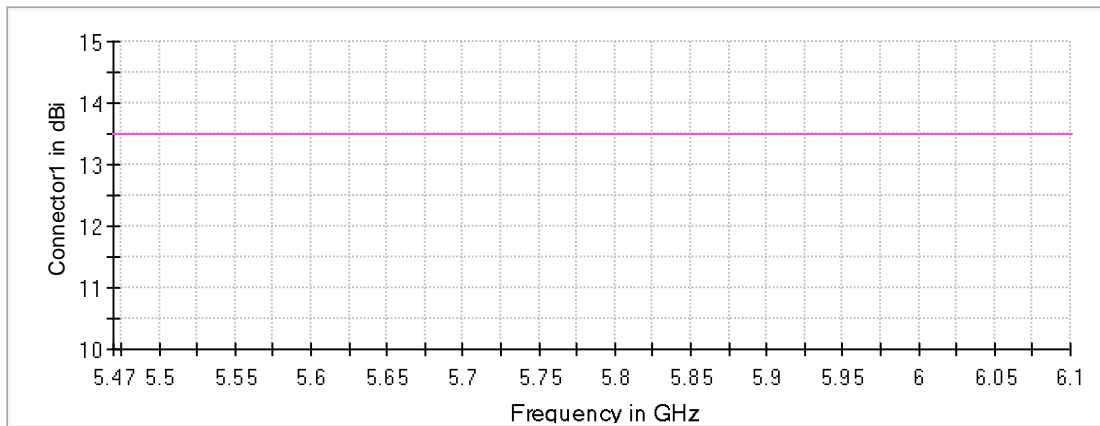
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5649.750000	-38.3	11.3	-27.0
5649.250000	-38.7	11.7	-27.0
5648.750000	-38.7	11.7	-27.0
5650.250000	-38.7	11.8	-26.8
5648.250000	-38.9	11.9	-27.0
5645.250000	-38.9	11.9	-27.0
5644.250000	-38.9	11.9	-27.0
5647.750000	-39.0	12.0	-27.0
5646.750000	-39.0	12.0	-27.0
5645.750000	-39.1	12.1	-27.0
5651.250000	-38.2	12.2	-26.1
5647.250000	-39.2	12.2	-27.0
5641.750000	-39.3	12.3	-27.0
5637.250000	-39.3	12.3	-27.0
5642.750000	-39.4	12.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
5470.000000	6100.000000	2	2

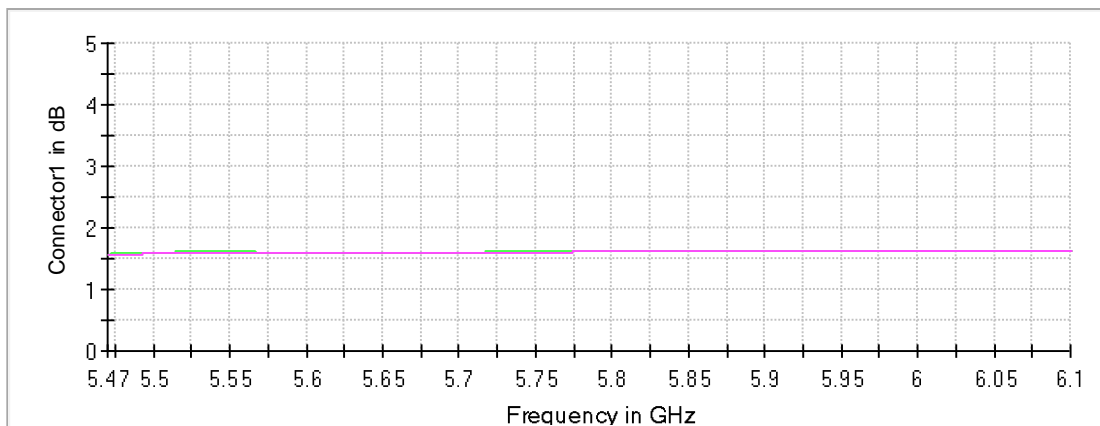


Gain



Connector1 Connector2

Attenuation



Connector1 Connector2

Emission Bandwidth 26 dB (5790 MHz; 24.000 dBm; 80 MHz)

Customized settings.

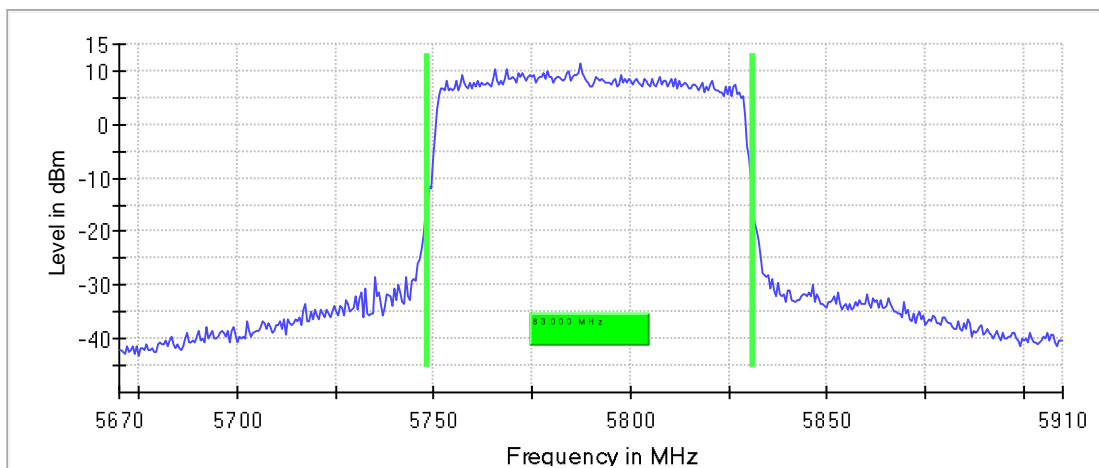
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5790.000000	83.000000	---	---	5748.250000	5831.250000

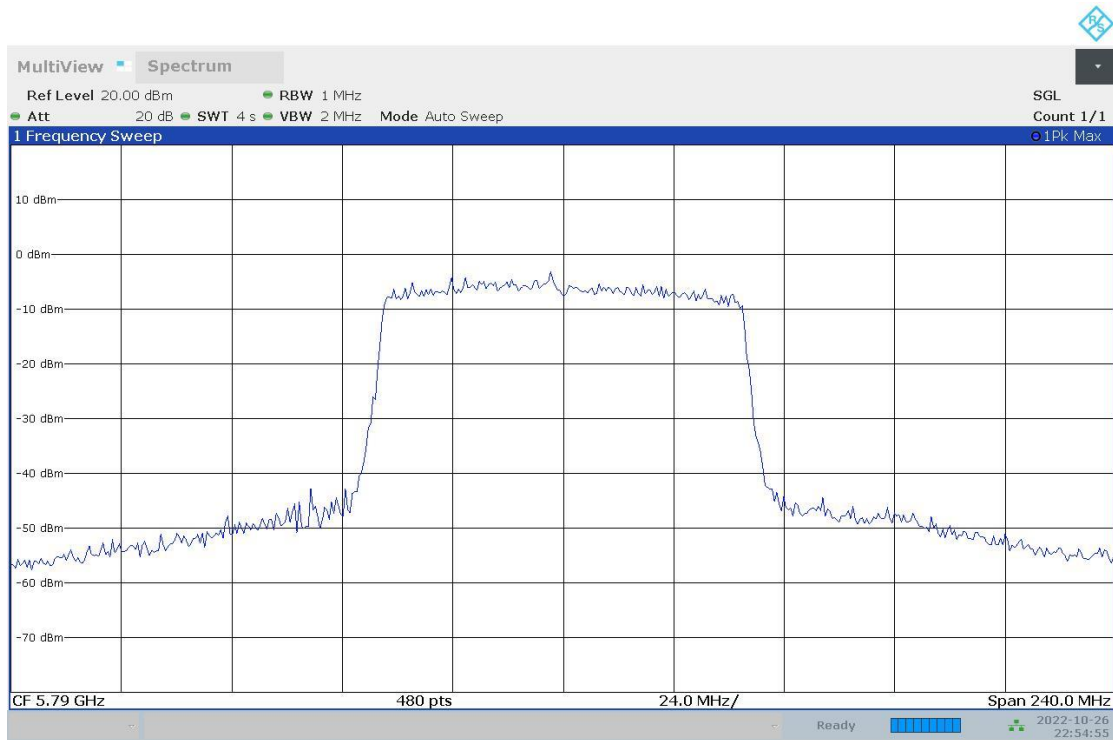
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5790.000000	11.4	PASS

26 dB Bandwidth



Bandwidth



10:54:56 PM 10/26/2022

Minimum Emission Bandwidth 6 dB (5790 MHz; 24.000 dBm; 80 MHz)

Customized settings.

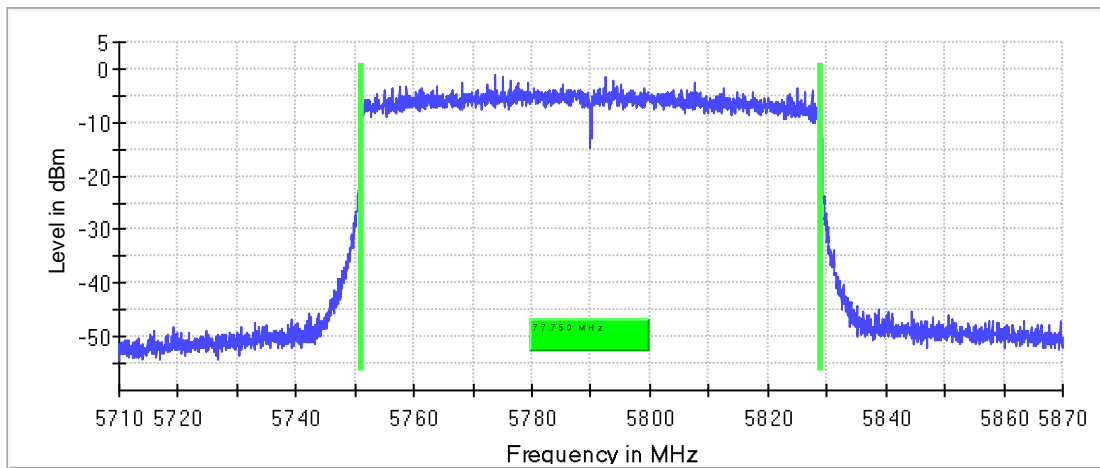
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5790.000000	77.750000	0.500000	---	5751.025000	5828.775000

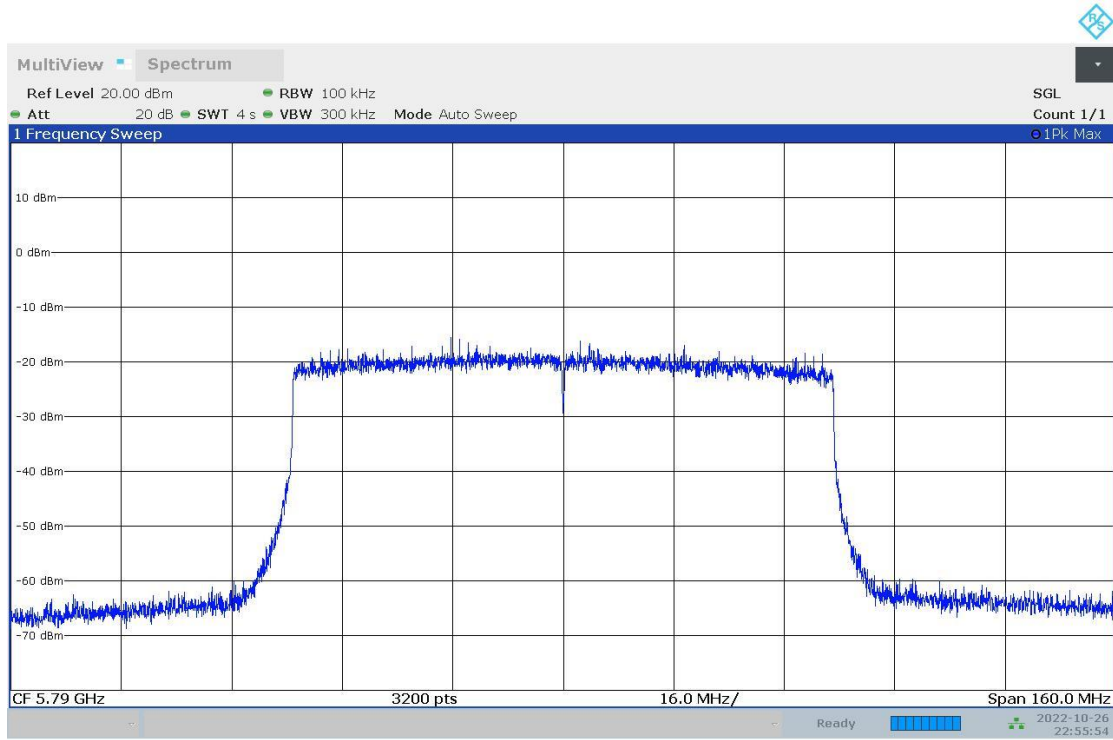
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5790.000000	-1.1	PASS

6 dB Bandwidth



Bandwidth



10:55:54 PM 10/26/2022

Occupied Channel Bandwidth 99% (5790 MHz; 24.000 dBm; 80 MHz)

Customized settings.

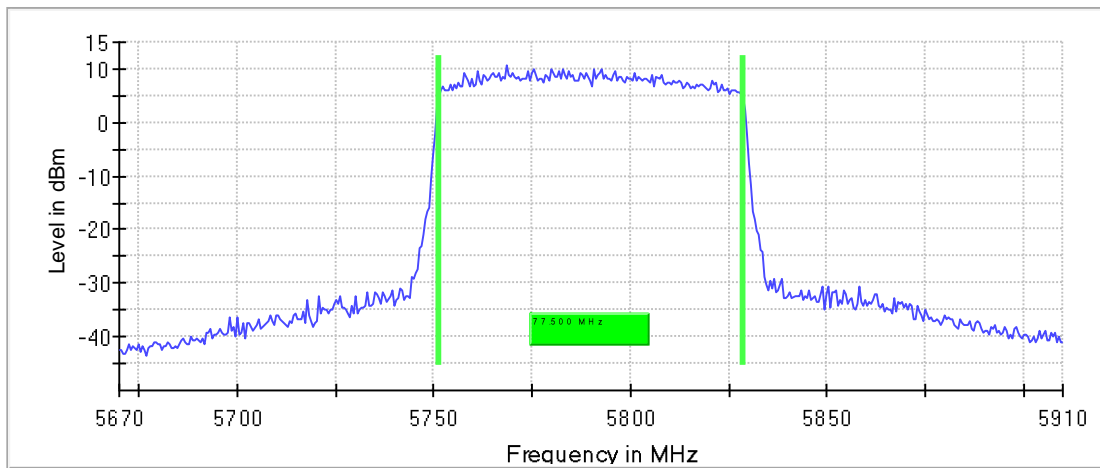
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5790.000000	77.500000	---	---	5751.250000	5828.750000

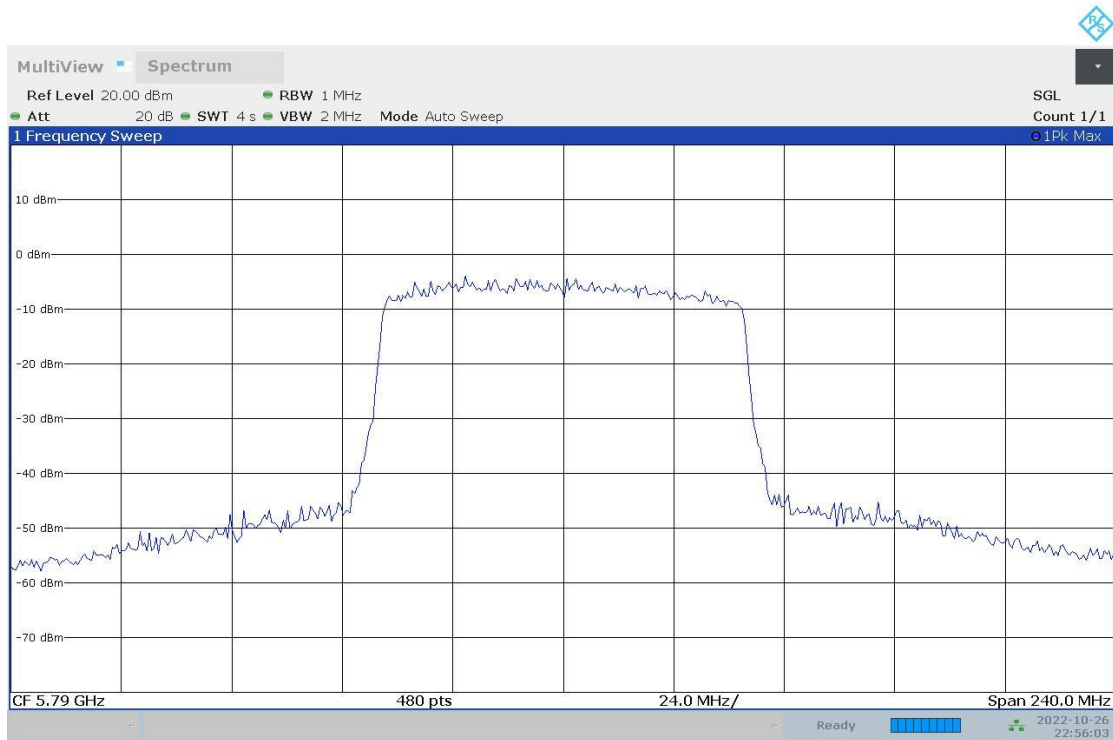
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5790.000000	PASS

99 % Bandwidth



Bandwidth



10:56:03 PM 10/26/2022

Tx Spurious Emission (5790 MHz; 24.000 dBm; 80 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Result
5790.000000	PASS

Final measurements

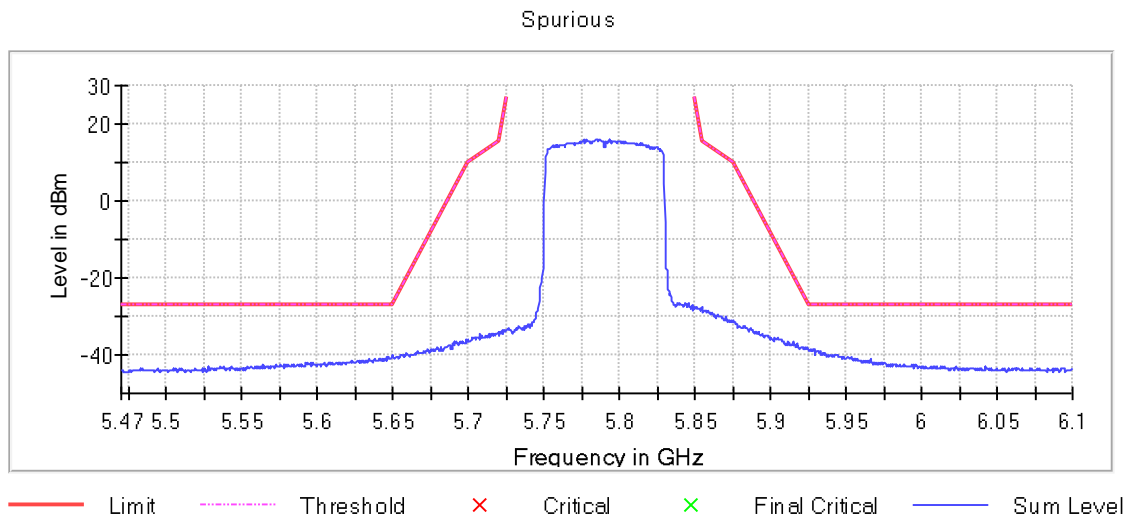
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

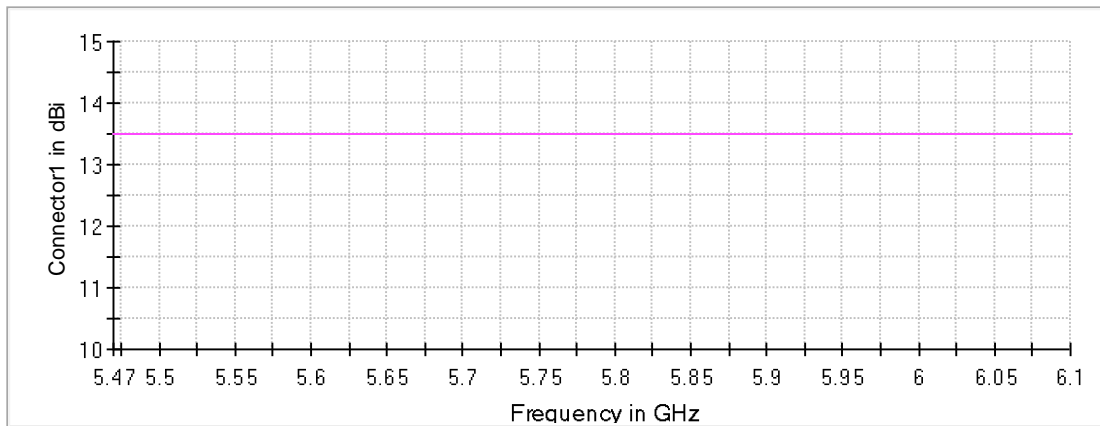
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5924.750000	-38.0	11.2	-26.8
5928.250000	-38.7	11.7	-27.0
5926.250000	-38.7	11.7	-27.0
5928.750000	-38.7	11.7	-27.0
5924.250000	-38.3	11.9	-26.4
5925.750000	-38.9	11.9	-27.0
5927.250000	-38.9	11.9	-27.0
5931.250000	-38.9	11.9	-27.0
5925.250000	-39.0	12.0	-27.0
5927.750000	-39.0	12.0	-27.0
5932.750000	-39.0	12.0	-27.0
5931.750000	-39.2	12.2	-27.0
5930.250000	-39.2	12.2	-27.0
5926.750000	-39.2	12.2	-27.0
5930.750000	-39.2	12.2	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
5470.000000	6100.000000	2	2

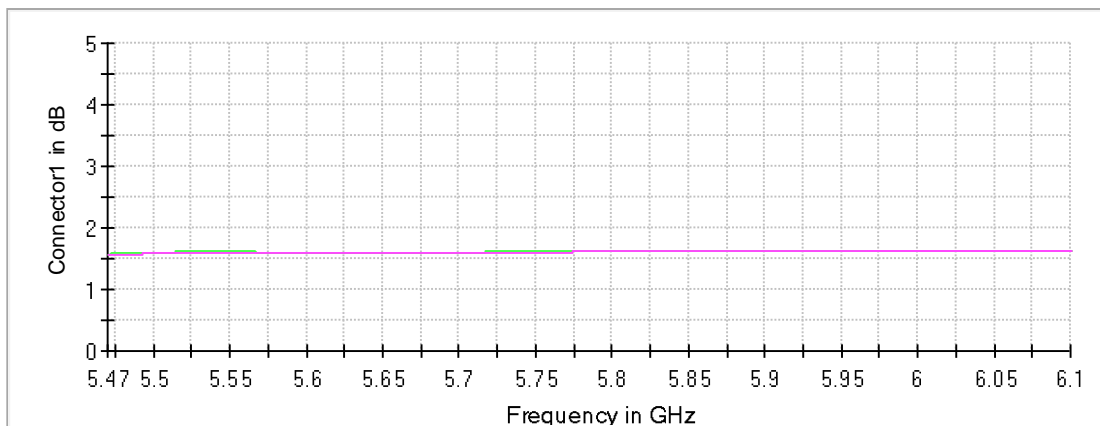


Gain



Connector1 Connector2

Attenuation



Connector1 Connector2

Emission Bandwidth 26 dB (5805 MHz; 24.000 dBm; 80 MHz)

Customized settings.

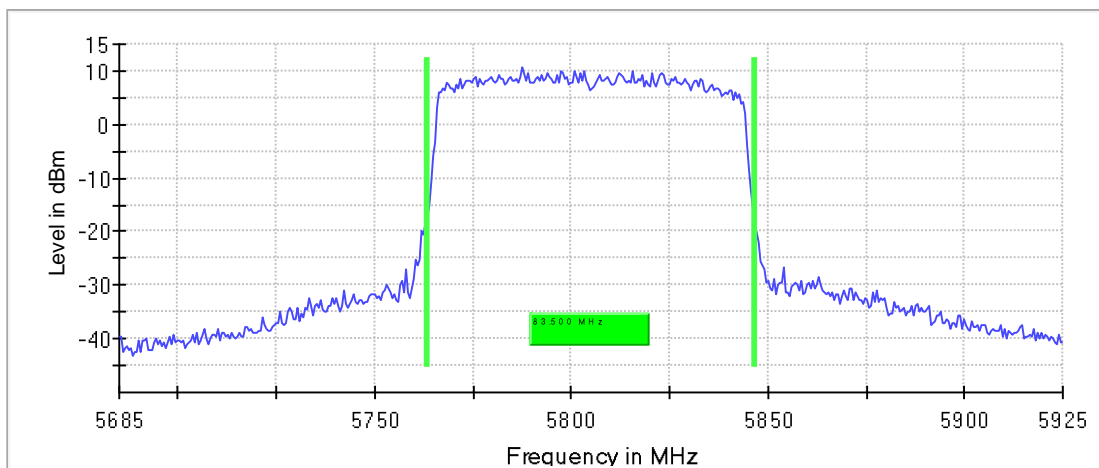
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5805.000000	83.500000	---	---	5763.250000	5846.750000

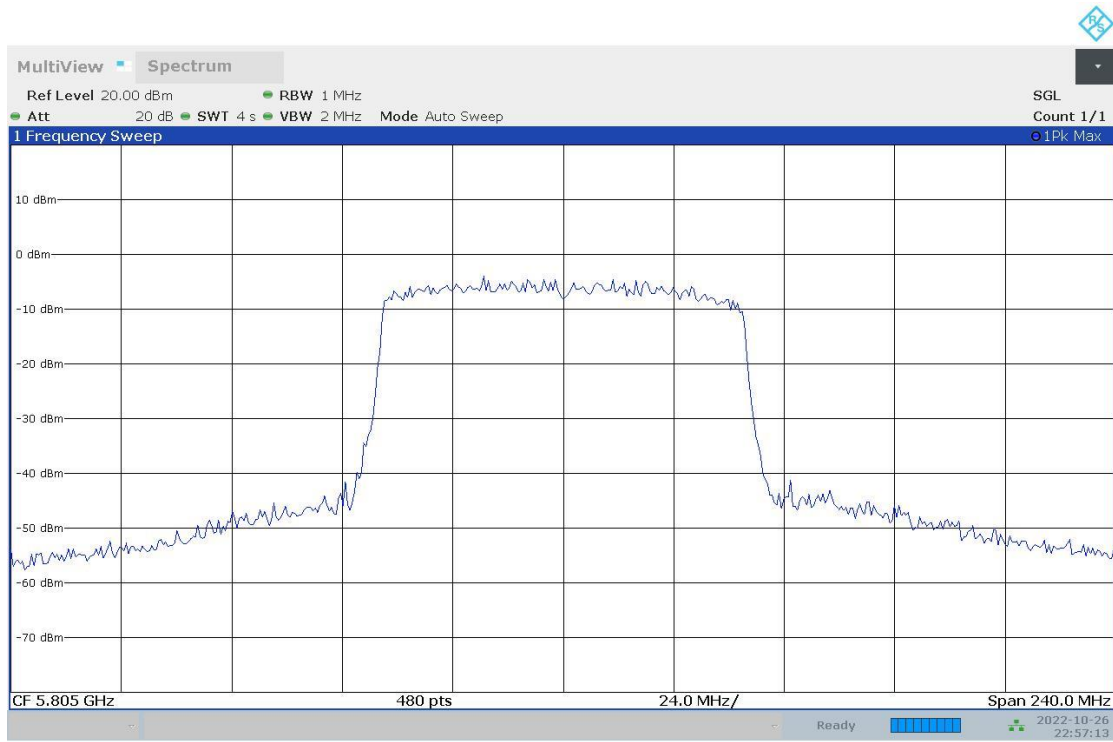
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5805.000000	10.5	PASS

26 dB Bandwidth



Bandwidth



10:57:13 PM 10/26/2022

Minimum Emission Bandwidth 6 dB (5805 MHz; 24.000 dBm; 80 MHz)

Customized settings.

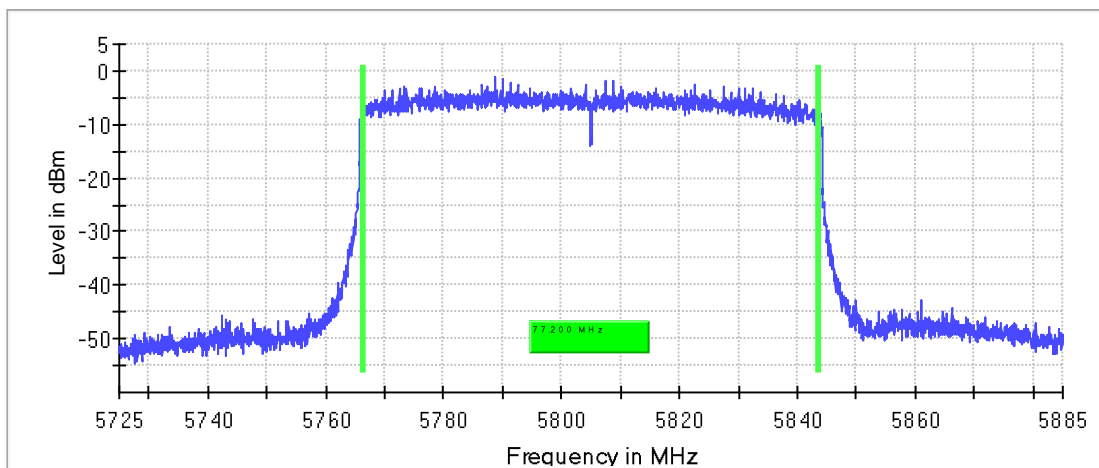
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5805.000000	77.200000	0.500000	---	5766.375000	5843.575000

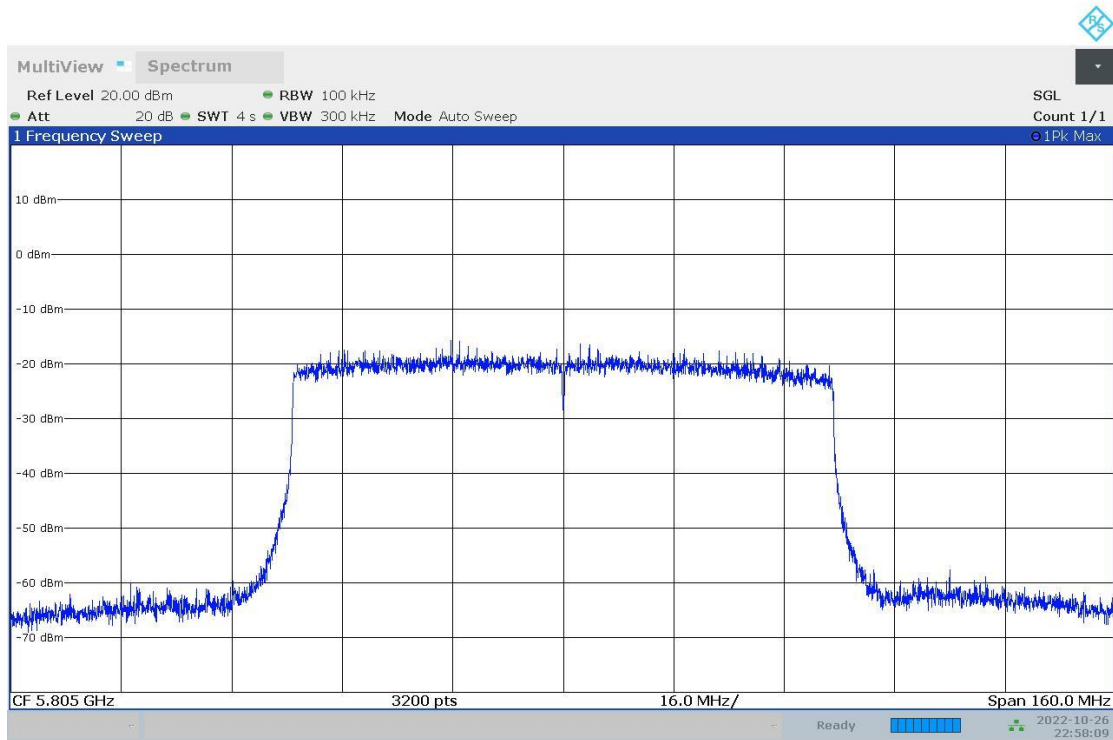
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5805.000000	-1.1	PASS

6 dB Bandwidth



Bandwidth



10:58:09 PM 10/26/2022

Occupied Channel Bandwidth 99% (5805 MHz; 24.000 dBm; 80 MHz)

Customized settings.

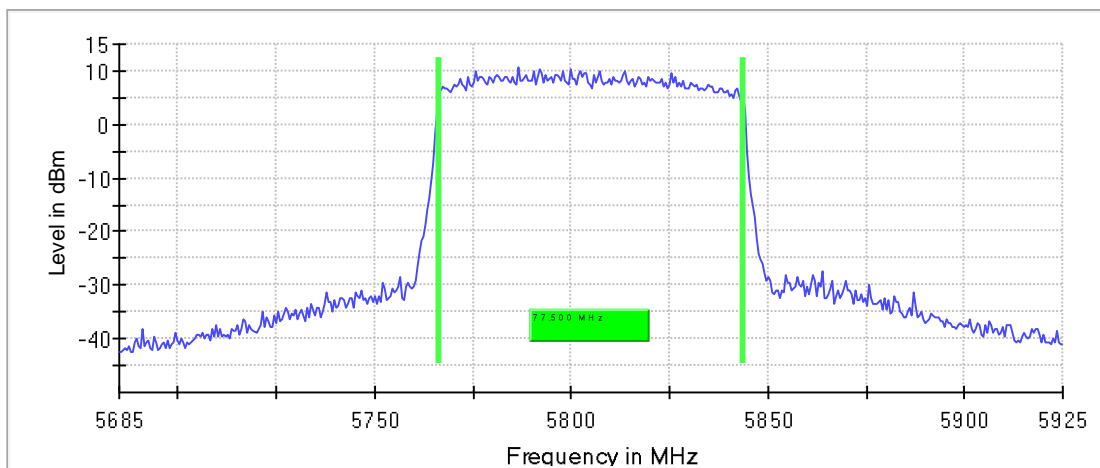
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5805.000000	77.500000	---	---	5766.250000	5843.750000

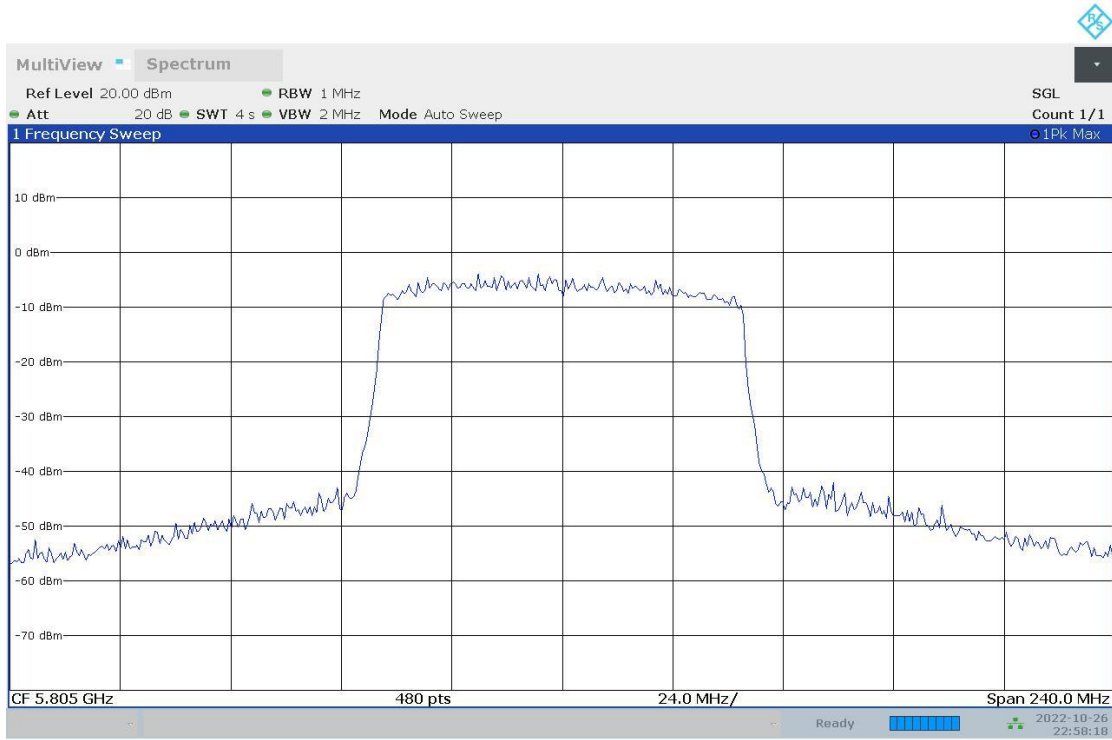
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5805.000000	PASS

99 % Bandwidth



Bandwidth



10:58:18 PM 10/26/2022

Tx Spurious Emission (5805 MHz; 24.000 dBm; 80 MHz)

Customized settings.

Result

DUT Frequency (MHz)	Result
5805.000000	PASS

Final measurements

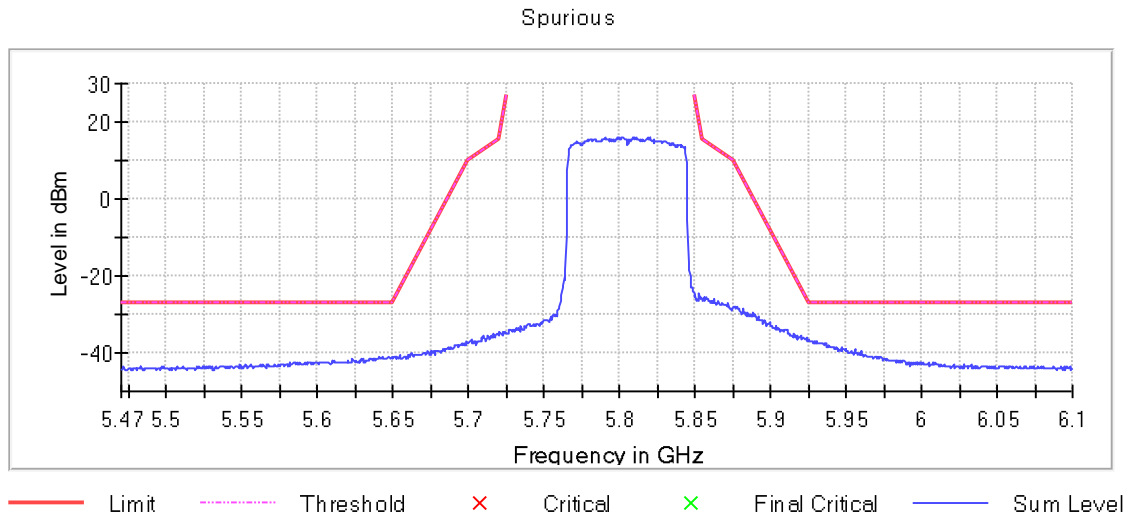
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

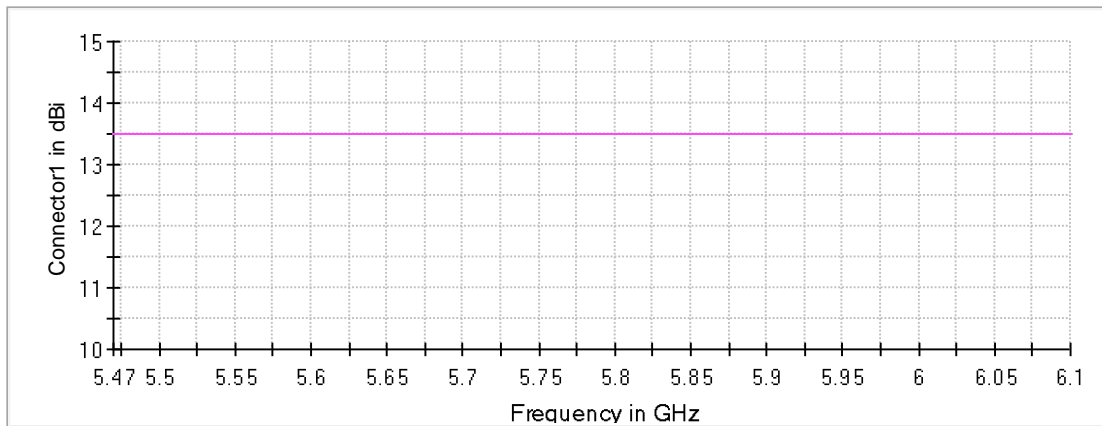
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5925.250000	-36.7	9.7	-27.0
5926.750000	-36.8	9.8	-27.0
5926.250000	-36.9	9.9	-27.0
5927.750000	-36.9	9.9	-27.0
5925.750000	-37.0	10.0	-27.0
5923.750000	-36.2	10.1	-26.1
5929.250000	-37.1	10.1	-27.0
5927.250000	-37.2	10.2	-27.0
5930.750000	-37.2	10.2	-27.0
5924.750000	-37.0	10.2	-26.8
5936.750000	-37.3	10.3	-27.0
5930.250000	-37.3	10.3	-27.0
5928.750000	-37.3	10.3	-27.0
5932.250000	-37.4	10.4	-27.0
5924.250000	-36.9	10.4	-26.4

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
5470.000000	6100.000000	2	2

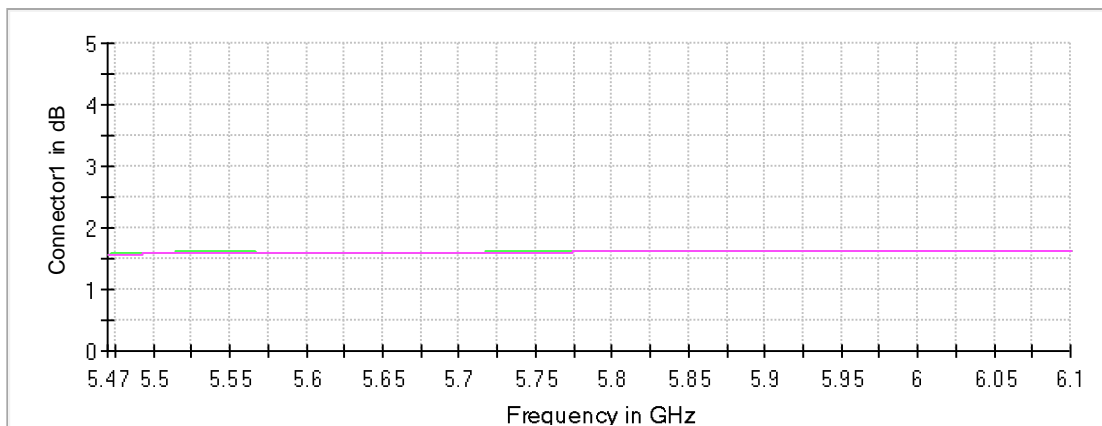


Gain



Connector1 Connector2

Attenuation



Connector1 Connector2

-- End of Test Report --