FCC RADIO TEST REPORT

FCC ID	:	Z8H89FT0024
Equipment	:	ePMP3000
Brand Name	:	Cambium Networks
Model Name	:	ePMP3000
Applicant	:	Cambium Networks Inc. 3800 Golf Road, Suite 360 Rolling Meadows, IL 60008, USA
Manufacturer	:	Cambium Networks Inc. 3800 Golf Road, Suite 360 Rolling Meadows, IL 60008, USA
Standard	:	47 CFR FCC Part 15.407

The product was received on Mar. 21, 2018, and testing was started from Mar. 21, 2018 and completed on Sep. 04, 2018. We, SPORTON INTERTIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERTIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Cliff Chang

SPORTON INTERTIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR7N2420-06	01	Initial issue of report	Apr. 18, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.407(a)	Emission Bandwidth	PASS	-
3.2	15.407(a)	Maximum Conducted Output Power	PASS	-
3.3	15.407(a)	Peak Power Spectral Density	PASS	-
3.4	15.407(b)	Unwanted Emissions	PASS	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Cliff Chang

Report Producer: Wendy Pan

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5250-5350	ac (VHT20)	5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5250-5350	ac (VHT40)	5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5250-5350	ac (VHT80)	5290	58 [1]
5470-5725		5530-5690	106-138 [3]

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11ac VHT20	20	4TX
5.25-5.35GHz	802.11ac VHT40	40	4TX
5.25-5.35GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX

Note:
- VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	Cambium	ePMP3000	Array	Reversed-SMA	18
	2	Cambium	ePMP3000	Array	Reversed-SMA	18
2	3	Cambium	ePMP3000	Array	Reversed-SMA	18
	4	Cambium	ePMP3000	Array	Reversed-SMA	18

Note: 1.The above information was declared by manufacturer.

2.The EUT has two antennas, and the array gain is 0dBi.

For IEEE 802.11ac mode (4TX/4RX)

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ac VHT20	0.988	0.052	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40	0.978	0.097	10.014m	100
802.11ac VHT80	0.951	0.218	5.007m	300

1.1.4 EUT Operational Condition

EUT Power Type	From PoE			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Weather Band	☒	With 5600~5650MHz	☐	Without 5600~5650MHz
Function	☒	Outdoor P2M	☐	Indoor P2M
	☐	Fixed P2P	☐	Client
TPC Function	☒	With TPC	☐	Without TPC
Test Software Version	QCARCT Version: 3.0.264.0			

Note: The above information was declared by manufacturer.

1.1.5 Table for Class III Change

This product is an extension of original one reported under Sporton project number: FR7N2420-04

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Adding Band 2 and Band 3 (5250~5350 MHz, 5470~5725 MHz) for this device.	1. Emission Bandwidth 2. Maximum Conducted Output Power 3. Peak Power Spectral Density 4. Unwanted Emissions <Above 1GHz>

1.2 Testing Applied Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 789033 D02 v02r01
- FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location			
☐	HWA YA	ADD :	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
		TEL :	886-3-327-3456 FAX : 886-3-318-0055
☒	JHUBEI	ADD :	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
		TEL :	886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Serway Li	22°C / 54%	Mar. 21, 2018~Apr. 07, 2018
Radiated (Others test)	03CH01-CB	Ekko Hsieh, Benson Su	22°C / 54%	Apr. 17, 2018~Apr. 25, 2018
Radiated (Cabinet test)	03CH01-CB	KJ Chang	22°C / 54%	Sep. 04, 2018

Test site Designation No. TW0006 with FCC
Test site registered number IC 4086B with Industry Canada.

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5260MHz	6
5300MHz	6
5320MHz	6
5500MHz	6.5
5580MHz	6.5
5700MHz	6
5720MHz Straddle 5.47-5.725GHz	6
5720MHz Straddle 5.725-5.85GHz	6
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5270MHz	6
5310MHz	6
5510MHz	6.5
5550MHz	6
5670MHz	6.5
5710MHz Straddle 5.47-5.725GHz	6.5
5710MHz Straddle 5.725-5.85GHz	6.5
802.11ac VHT80_Nss1,(MCS0)_4TX	-
5290MHz	6
5530MHz	6
5610MHz	5.5
5690MHz Straddle 5.47-5.725GHz	6
5690MHz Straddle 5.725-5.85GHz	6

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density Unwanted Emissions
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode > 1GHz	CTX

Note 1: The EUT can only be used in Y axis position.
Note 2: PoE information as below:
The EUT was powered by PoE, and the PoE was for measurement only, would not be marked.

Support Unit	Brand Name	Model Name
PoE	Cambium Networks	NET-P30-56IN

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

N/A

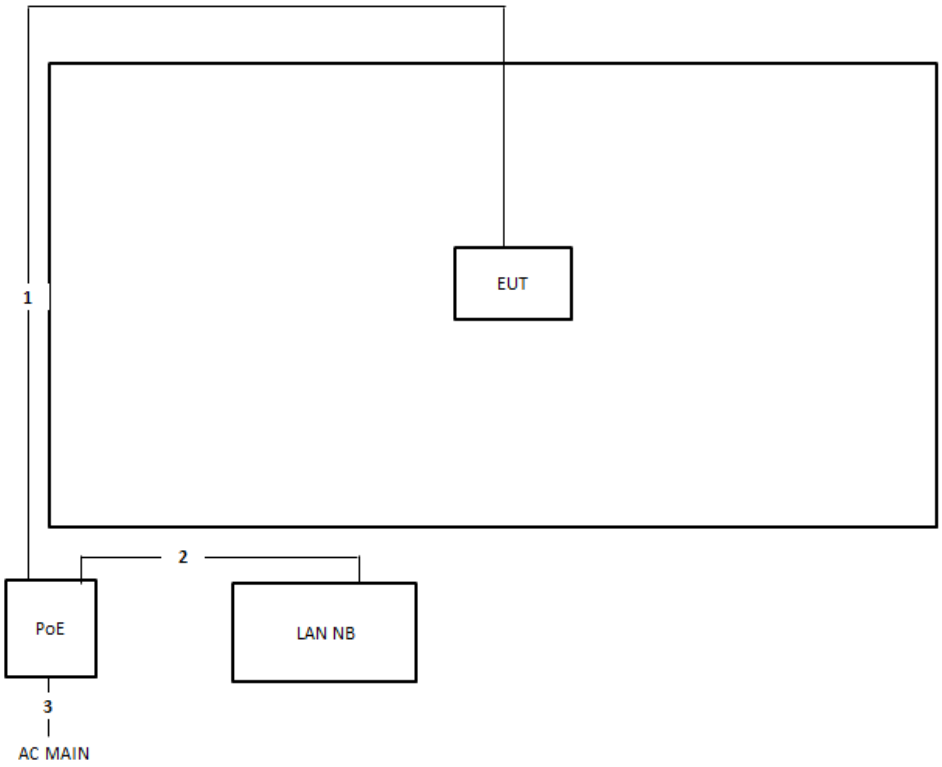
2.5 Support Equipment

For Test Site No: 03CH01-CB / TH01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC
2	PoE	Cambium Networks	NET-P30-56IN	DoC

2.6 Test Setup Diagram

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	RJ-45 cable	No	1.5m
3	Power cable	No	0.8m

3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☐	For the 5.15-5.25 GHz band, N/A
☒	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.
LE-LAN Devices	
☐	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

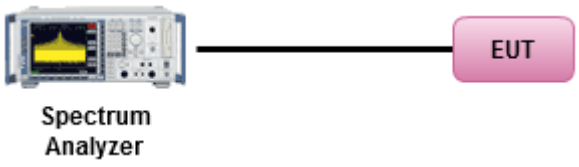
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method		
▪	For the emission bandwidth shall be measured using one of the options below:	
	☒	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
	☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
	☐	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.1.4 Test Setup

Emission Bandwidth


3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.2 Maximum Conducted Output Power

3.2.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☐	For the 5.15-5.25 GHz band:
	▪ Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6). e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm]
	▪ Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
	▪ Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W If G_{TX} > 23 dBi, then P_{Out} = 30 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☒	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☒	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☒	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
LE-LAN Devices	
☐	For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

3.2.2 Measuring Instruments

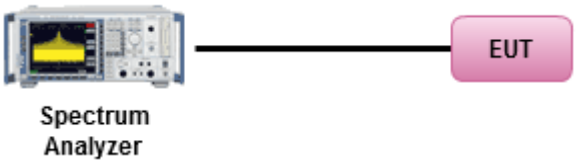
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

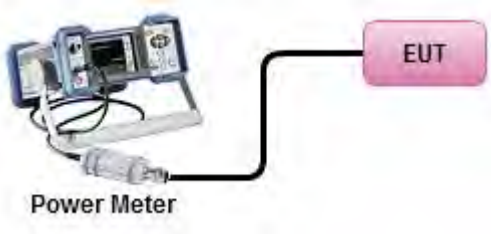
Test Method	
▪ Maximum Conducted Output Power	
	Average over on/off periods with duty factor
	☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
	☒ Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.2.4 Test Setup

For Straddle Channel test:

RF Output Power (Spectrum Analyzer)


For Other test:

RF Output Power (Power Meter)


3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

3.3 Peak Power Spectral Density

3.3.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☐	For the 5.15-5.25 GHz band:
	▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 23 dBi, then P_{Out} = 17 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6)..
☒	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).
☒	For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).
☒	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
LE-LAN Devices	
☐	For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) ≤ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.
☐	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.
	▪ e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for 0° ≤ θ < 8° ; -13 − 0.716 (θ-8) dBW/MHz for 8° ≤ θ < 40° -35.9 − 1.22 (θ-40) dBW/MHz for 40° ≤ θ ≤ 45° ; -42 dBW/MHz for θ > 45°
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.
☐	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

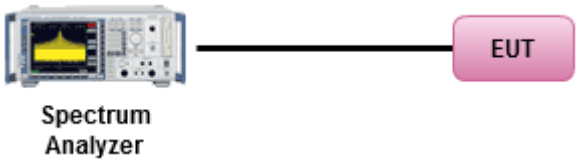
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:		
	☐ Refer as FCC KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth	
	[duty cycle ≥ 98% or external video / power trigger]	
	☒ Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).	
	☐ Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)	
	duty cycle < 98% and average over on/off periods with duty factor	
	☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).	
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
▪ For conducted measurement.		
	▪ If the EUT supports multiple transmit chains using options given below:	
		☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
		☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
		☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
	▪	If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \ldots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

3.3.4 Test Setup

Power Spectral Density


3.3.5 Test Result of Peak Power Spectral Density

Refer as Appendix C

3.4 Unwanted Emissions

3.4.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

Un-restricted band emissions above 1GHz Limit	
Operating Band	**Limit**
☐ 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
☒ 5.725 - 5.85 GHz	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 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	

3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

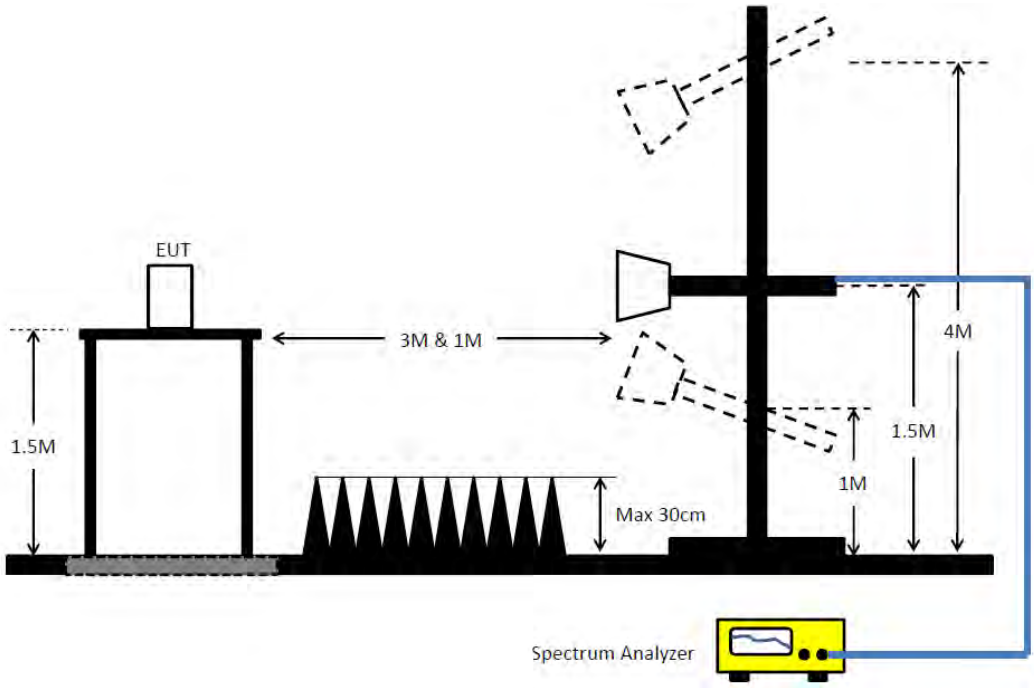
Test Method		
▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).		
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].		
▪ For the transmitter unwanted emissions shall be measured using following options below:		
	▪ Refer as FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands.	
	▪ Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.	
		☐ Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
		☒ Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
		☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
		☒ Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
▪ For radiated measurement.		

Test Method	
	▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
▪ The any unwanted emissions level shall not exceed the fundamental emission level.	
▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	

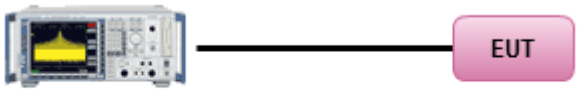
Test Method	
▪ For conducted and cabinet radiation measurement, refer as FCC KDB 789033, clause H)3).	
	▪ For conducted unwanted emissions into non-restricted bands (relative emission limits). Devices with multiple transmit chains: Refer as FCC KDB 662911, when testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding 10 log(N) if the measurements are made relative to the in-band emissions on the individual outputs.
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.4.4 Test Setup

Above 1GHz



Transmitter Conducted Unwanted Emissions



Spectrum Analyzer

3.4.5 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 20, 2017	Nov. 19, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 09, 2018	Jan. 08, 2019	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 20, 2017	Nov. 19, 2018	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20_Nss1,(MCS0)_4TX	20.8M	17.691M	17M7D1D	19.675M	17.491M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.15M	36.032M	36M0D1D	39.2M	35.782M
802.11ac VHT80_Nss1,(MCS0)_4TX	84M	75.962M	76M0D1D	83.1M	75.562M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20_Nss1,(MCS0)_4TX	20.825M	17.641M	17M6D1D	15.075M	13.778M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.15M	36.132M	36M1D1D	34.545M	32.814M
802.11ac VHT80_Nss1,(MCS0)_4TX	84.3M	75.962M	76M0D1D	76.35M	72.489M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20_Nss1,(MCS0)_4TX	3.86M	4.058M	4M06D1D	3.72M	4.018M
802.11ac VHT40_Nss1,(MCS0)_4TX	3.14M	4.018M	4M02D1D	3.1M	3.858M
802.11ac VHT80_Nss1,(MCS0)_4TX	3.16M	13.193M	13M2D1D	3.12M	7.996M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	20.775M	17.616M	19.95M	17.541M	20.475M	17.616M	19.725M	17.516M
5300MHz	Pass	Inf	20.55M	17.616M	20.3M	17.541M	20.8M	17.666M	19.675M	17.491M
5320MHz	Pass	Inf	20.325M	17.591M	20.4M	17.591M	20.525M	17.691M	19.95M	17.516M
5500MHz	Pass	Inf	20.825M	17.641M	20.575M	17.641M	20.5M	17.591M	20.4M	17.591M
5580MHz	Pass	Inf	20.625M	17.641M	20.525M	17.566M	20.275M	17.566M	20.4M	17.641M
5700MHz	Pass	Inf	20.7M	17.591M	20.325M	17.591M	20.275M	17.566M	20.375M	17.641M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.075M	13.823M	15.075M	13.823M	15.165M	13.778M	15.075M	13.808M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.86M	4.058M	3.72M	4.038M	3.78M	4.018M	3.76M	4.058M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	39.6M	35.932M	40.05M	36.032M	39.8M	35.982M	39.3M	35.982M
5310MHz	Pass	Inf	40.15M	36.032M	39.8M	36.032M	39.2M	35.782M	39.35M	36.032M
5510MHz	Pass	Inf	39.85M	35.982M	39.85M	35.932M	39.85M	36.082M	39.4M	35.932M
5550MHz	Pass	Inf	39.95M	35.982M	40.15M	35.832M	39.85M	36.032M	39.25M	35.882M
5670MHz	Pass	Inf	39.55M	35.982M	40.1M	36.132M	39.95M	36.082M	39.25M	35.932M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.755M	32.849M	35.07M	32.919M	34.895M	32.849M	34.545M	32.814M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	3.978M	3.14M	4.018M	3.12M	3.898M	3.12M	3.858M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	84M	75.862M	83.5M	75.962M	83.1M	75.562M	83.3M	75.962M
5530MHz	Pass	Inf	84M	75.962M	83.8M	75.662M	84.3M	75.962M	82.8M	75.462M
5610MHz	Pass	Inf	84M	75.862M	83.5M	75.862M	84.2M	75.962M	84.2M	75.762M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.35M	72.489M	76.8M	72.789M	76.725M	72.639M	76.95M	72.489M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	7.996M	3.14M	13.193M	3.16M	9.495M	3.12M	9.675M

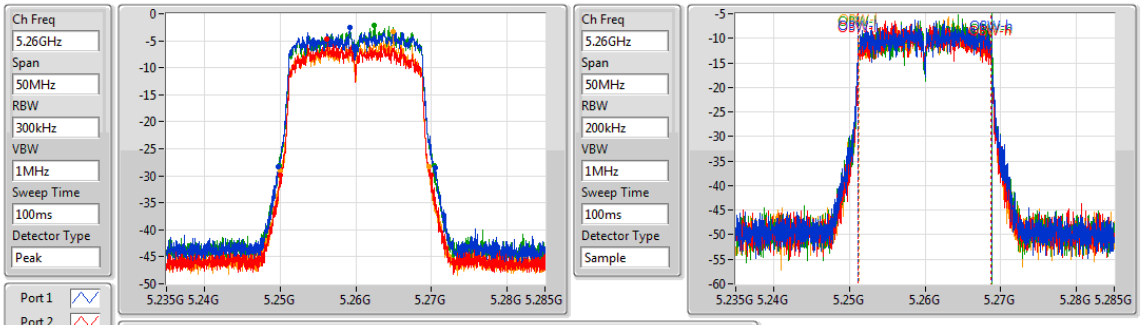
Port X-N dB = Port **X** 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port **X** 99% occupied bandwidth;

802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5260MHz

02/04/2018



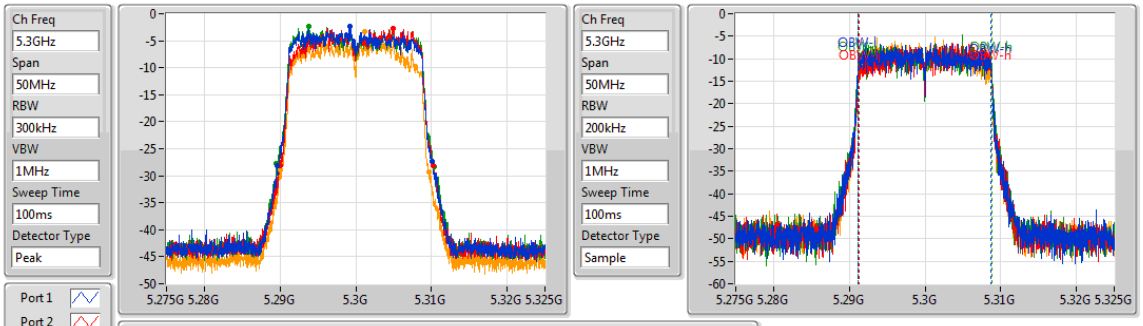
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.775M	5.24975G	5.270525G	17.616M	5.251179G	5.268796G	Inf	1
19.95M	5.250075G	5.270025G	17.541M	5.251204G	5.268746G	Inf	2
20.475M	5.24985G	5.270325G	17.616M	5.251204G	5.268821G	Inf	3
19.725M	5.25G	5.269725G	17.516M	5.251229G	5.268746G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5300MHz

02/04/2018



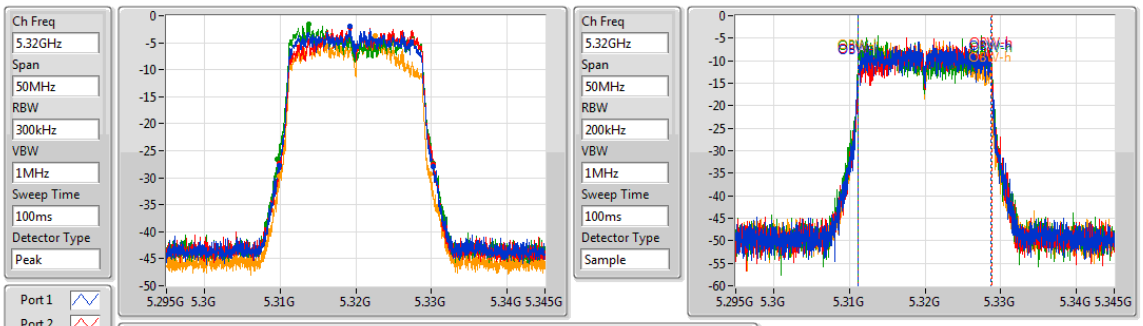
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.55M	5.2896G	5.31015G	17.616M	5.291154G	5.308771G	Inf	1
20.3M	5.29G	5.3103G	17.541M	5.291229G	5.308771G	Inf	2
20.8M	5.28955G	5.31035G	17.666M	5.291129G	5.308796G	Inf	3
19.675M	5.29G	5.309675G	17.491M	5.291204G	5.308696G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

5320MHz

02/04/2018

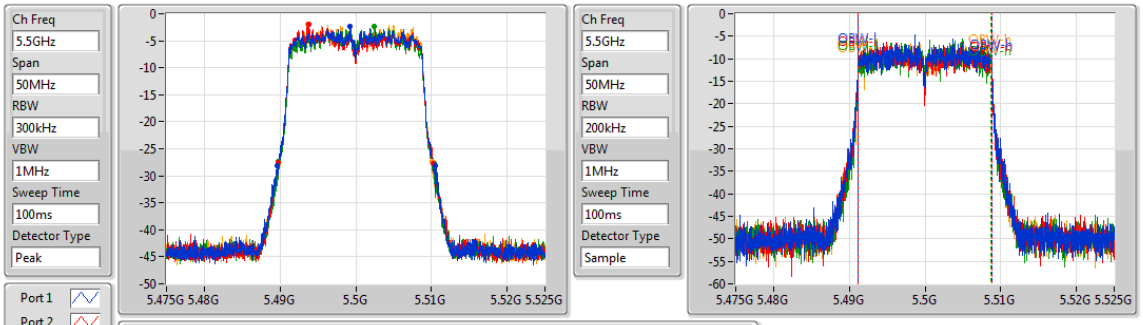


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.325M	5.30985G	5.330175G	17.591M	5.311154G	5.328746G	Inf	1
20.4M	5.309875G	5.330275G	17.591M	5.311204G	5.328796G	Inf	2
20.525M	5.309675G	5.3302G	17.691M	5.311129G	5.328821G	Inf	3
19.95M	5.309925G	5.329875G	17.516M	5.311179G	5.328696G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX EBW

5500MHz

02/04/2018

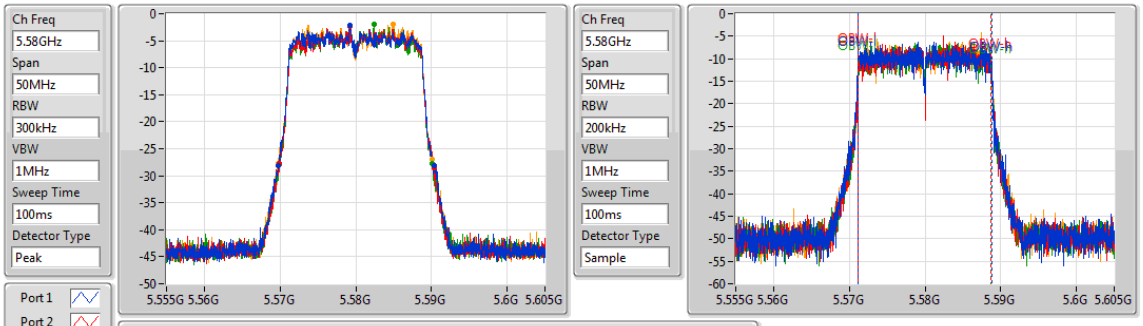


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.825M	5.48965G	5.510475G	17.641M	5.491154G	5.508796G	Inf	1
20.575M	5.489725G	5.5103G	17.641M	5.491154G	5.508796G	Inf	2
20.5M	5.489825G	5.510325G	17.591M	5.491179G	5.508771G	Inf	3
20.4M	5.48975G	5.51015G	17.591M	5.491179G	5.508771G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX EBW

5580MHz

02/04/2018

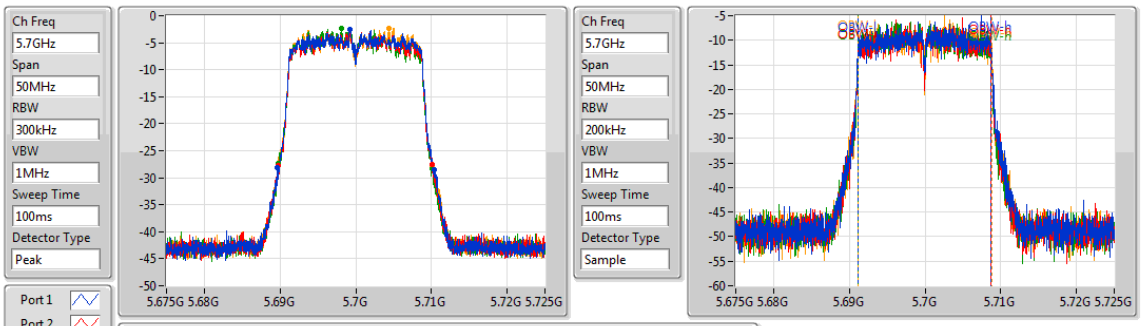


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.625M	5.569725G	5.59035G	17.641M	5.571154G	5.588796G	Inf	1
20.525M	5.569875G	5.5904G	17.566M	5.571204G	5.588771G	Inf	2
20.275M	5.569875G	5.59015G	17.566M	5.571204G	5.588771G	Inf	3
20.4M	5.569725G	5.590125G	17.641M	5.571154G	5.588796G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX EBW

5700MHz

02/04/2018

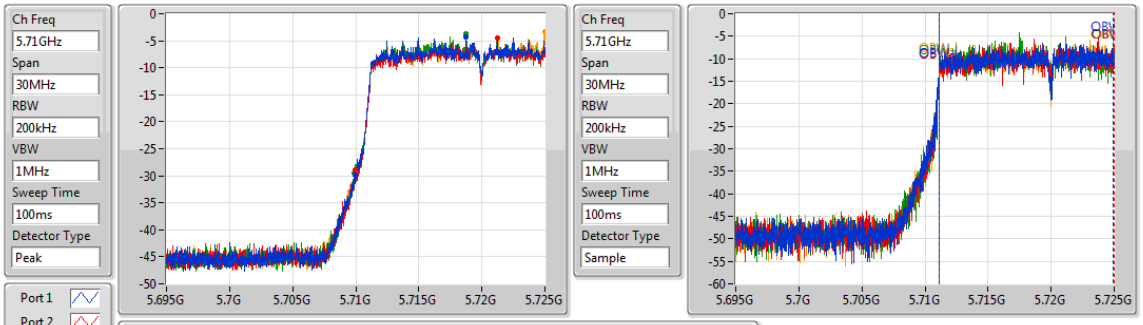


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.7M	5.68965G	5.71035G	17.591M	5.691179G	5.708771G	Inf	1
20.325M	5.689825G	5.71015G	17.591M	5.691179G	5.708771G	Inf	2
20.275M	5.6898G	5.710075G	17.566M	5.691179G	5.708746G	Inf	3
20.375M	5.689775G	5.71015G	17.641M	5.691154G	5.708796G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX EBW

5720MHz Straddle 5.47-5.725GHz

02/04/2018

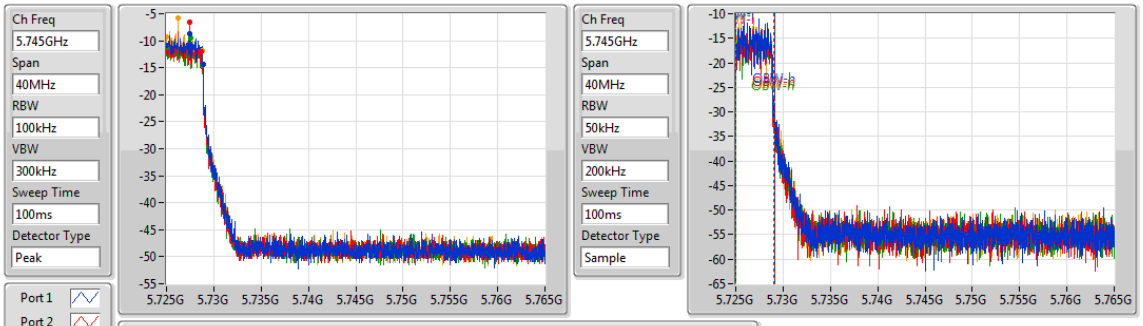


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.075M	5.709925G	5.725G	13.823M	5.711124G	5.724948G	Inf	1
15.075M	5.709925G	5.725G	13.823M	5.711139G	5.724963G	Inf	2
15.165M	5.709835G	5.725G	13.778M	5.711139G	5.724918G	Inf	3
15.075M	5.709925G	5.725G	13.808M	5.711139G	5.724948G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX EBW

5720MHz Straddle 5.725-5.85GHz

02/04/2018

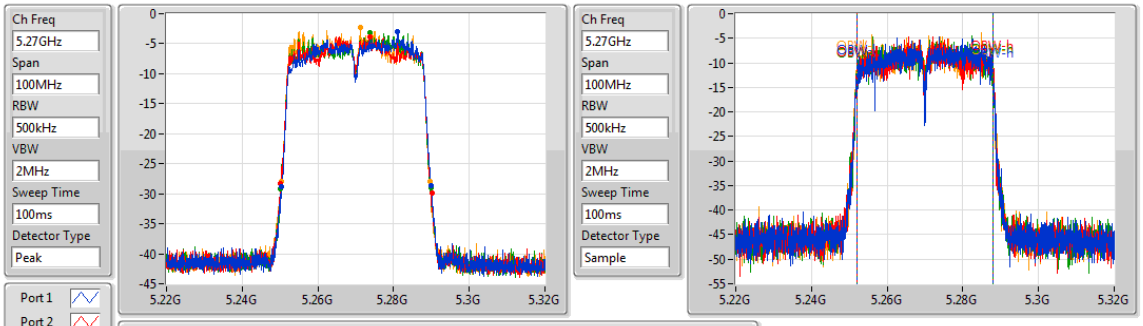


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.86M	5.725G	5.72886G	4.058M	5.72501G	5.729068G	500k	1
3.72M	5.725G	5.72872G	4.038M	5.72503G	5.729068G	500k	2
3.78M	5.725G	5.72878G	4.018M	5.72503G	5.729048G	500k	3
3.76M	5.725G	5.72876G	4.058M	5.72501G	5.729068G	500k	4

802.11ac VHT40_Nss1,(MCS0)_4TX EBW

5270MHz

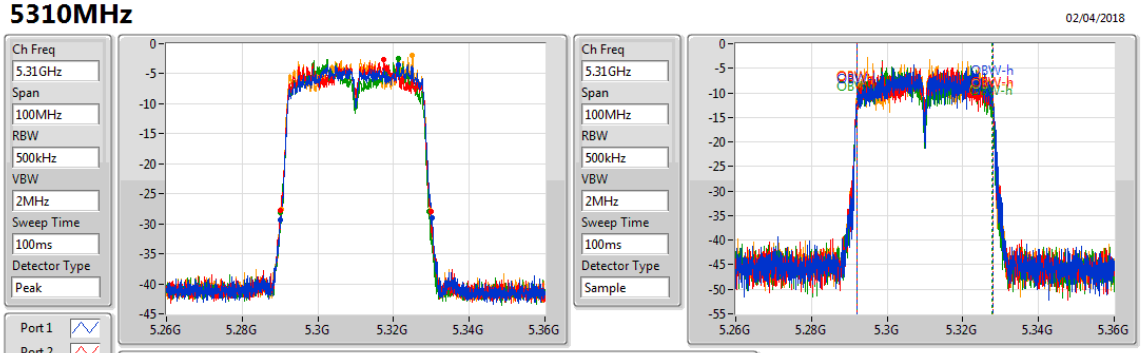
02/04/2018



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
39.6M	5.25025G	5.28985G	35.932M	5.252059G	5.287991G	Inf	1
40.05M	5.2501G	5.29015G	36.032M	5.251959G	5.287991G	Inf	2
39.8M	5.25015G	5.28995G	35.982M	5.251959G	5.287941G	Inf	3
39.3M	5.25025G	5.28955G	35.982M	5.251909G	5.287891G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX EBW

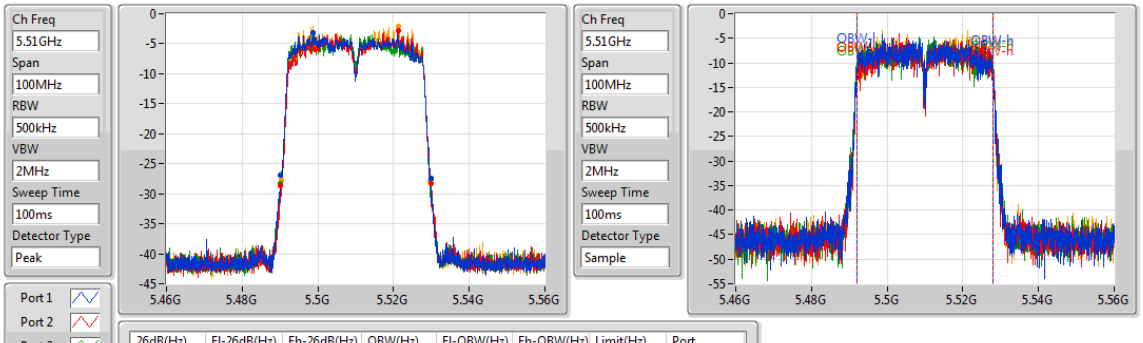
5310MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.15M	5.2901G	5.33025G	36.032M	5.292009G	5.328041G	Inf	1
39.8M	5.2901G	5.3299G	36.032M	5.291959G	5.327991G	Inf	2
39.2M	5.2902G	5.3294G	35.782M	5.292009G	5.327791G	Inf	3
39.35M	5.2903G	5.32965G	36.032M	5.291909G	5.327941G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX EBW

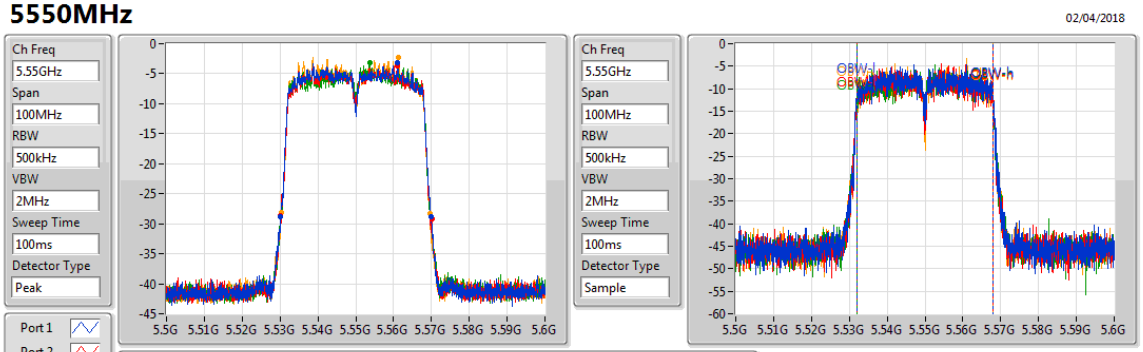
5510MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
39.85M	5.49015G	5.53G	35.982M	5.491959G	5.527941G	Inf	1
39.85M	5.49005G	5.5299G	35.932M	5.492059G	5.527991G	Inf	2
39.85M	5.4901G	5.52995G	36.082M	5.491909G	5.527991G	Inf	3
39.4M	5.4903G	5.5297G	35.932M	5.492009G	5.527941G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX EBW

5550MHz

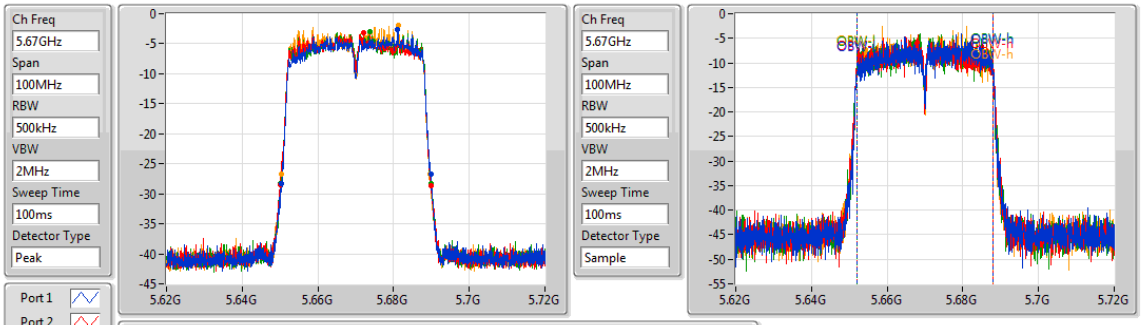


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
39.95M	5.5301G	5.57005G	35.982M	5.531959G	5.567941G	Inf	1
40.15M	5.53G	5.57015G	35.832M	5.532109G	5.567941G	Inf	2
39.85M	5.53015G	5.57G	36.032M	5.531959G	5.567991G	Inf	3
39.25M	5.5304G	5.56965G	35.882M	5.532009G	5.567891G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX EBW

5670MHz

02/04/2018

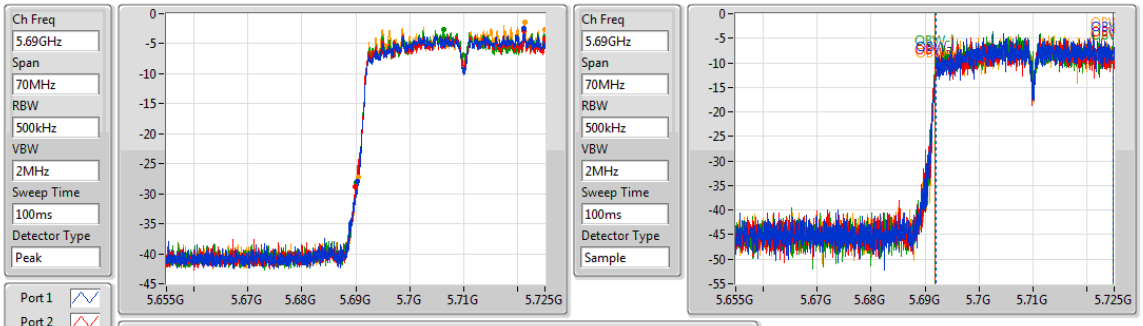


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
39.55M	5.65035G	5.6899G	35.982M	5.652009G	5.687991G	Inf	1
40.1M	5.64995G	5.69005G	36.132M	5.651909G	5.688041G	Inf	2
39.95M	5.6501G	5.69005G	36.082M	5.651959G	5.688041G	Inf	3
39.25M	5.6504G	5.68965G	35.932M	5.652009G	5.687941G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX EBW

5710MHz Straddle 5.47-5.725GHz

02/04/2018

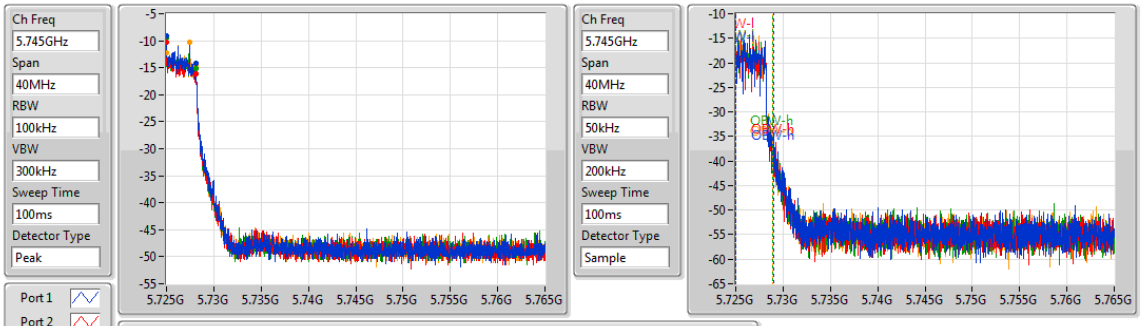


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.755M	5.690245G	5.725G	32.849M	5.691994G	5.724843G	Inf	1
35.07M	5.68993G	5.725G	32.919M	5.691889G	5.724808G	Inf	2
34.895M	5.690105G	5.725G	32.849M	5.691924G	5.724773G	Inf	3
34.545M	5.690455G	5.725G	32.814M	5.691994G	5.724808G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX EBW

5710MHz Straddle 5.725-5.85GHz

02/04/2018

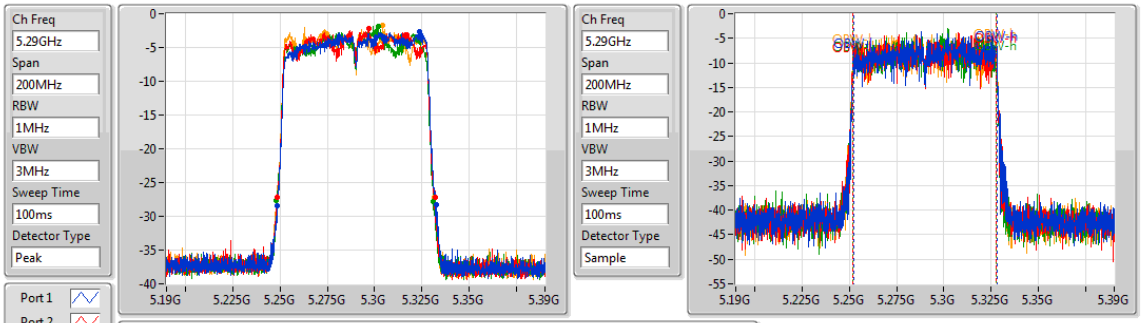


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.1M	5.725G	5.7281G	3.978M	5.72501G	5.728988G	500k	1
3.14M	5.725G	5.72814G	4.018M	5.72501G	5.729028G	500k	2
3.12M	5.725G	5.72812G	3.898M	5.72501G	5.728908G	500k	3
3.12M	5.725G	5.72812G	3.858M	5.72501G	5.728868G	500k	4

802.11ac VHT80_Nss1,(MCS0)_4TX EBW

5290MHz

02/04/2018

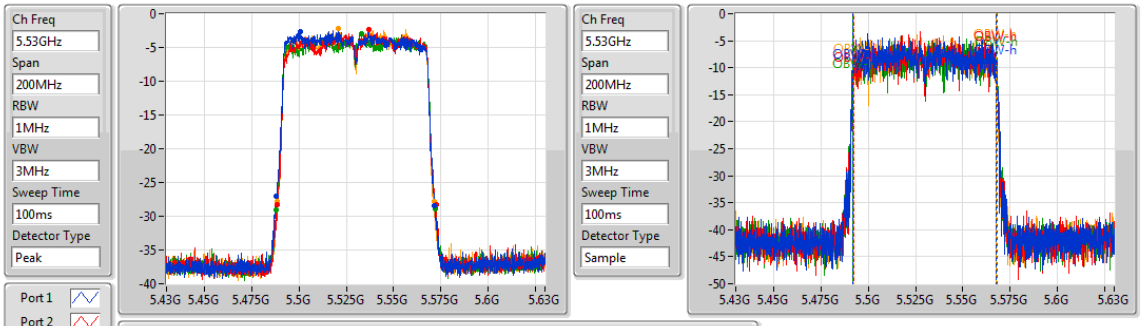


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
84M	5.2485G	5.3325G	75.862M	5.252219G	5.328081G	Inf	1
83.5M	5.2484G	5.3319G	75.962M	5.251919G	5.327881G	Inf	2
83.1M	5.2481G	5.3312G	75.562M	5.252019G	5.327581G	Inf	3
83.3M	5.2481G	5.3314G	75.962M	5.251919G	5.327881G	Inf	4

802.11ac VHT80_Nss1,(MCS0)_4TX EBW

5530MHz

02/04/2018

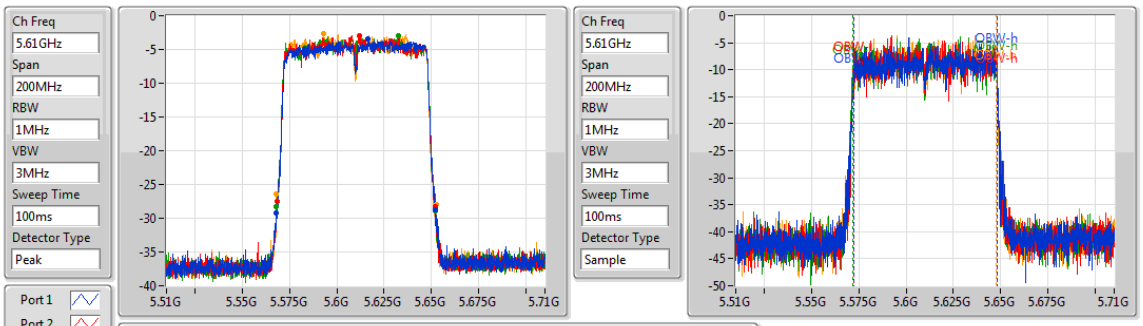


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
84M	5.4877G	5.5717G	75.962M	5.491919G	5.567881G	Inf	1
83.8M	5.4886G	5.5724G	75.662M	5.492219G	5.567881G	Inf	2
84.3M	5.488G	5.5723G	75.962M	5.492019G	5.567981G	Inf	3
82.8M	5.4886G	5.5714G	75.462M	5.492319G	5.567781G	Inf	4

802.11ac VHT80_Nss1,(MCS0)_4TX EBW

5610MHz

02/04/2018

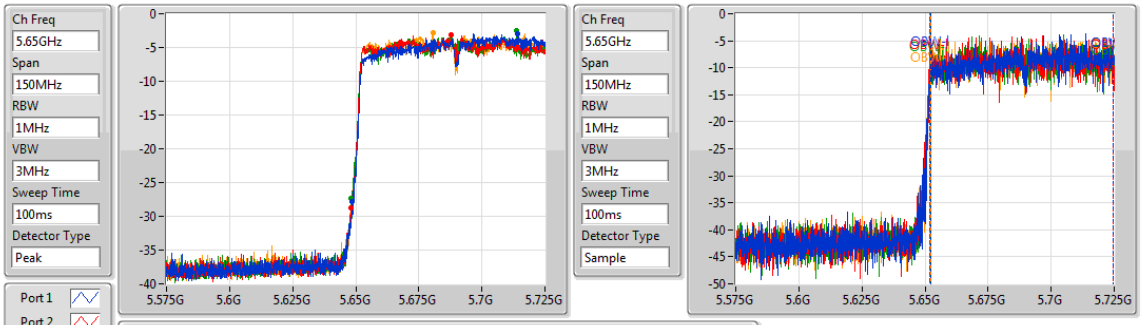


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
84M	5.5681G	5.6521G	75.862M	5.572119G	5.647981G	Inf	1
83.5M	5.5686G	5.6521G	75.862M	5.572119G	5.647981G	Inf	2
84.2M	5.5681G	5.6523G	75.962M	5.572019G	5.647981G	Inf	3
84.2M	5.5682G	5.6524G	75.762M	5.572119G	5.647881G	Inf	4

802.11ac VHT80_Nss1,(MCS0)_4TX **EBW**

5690MHz Straddle 5.47-5.725GHz

02/04/2018

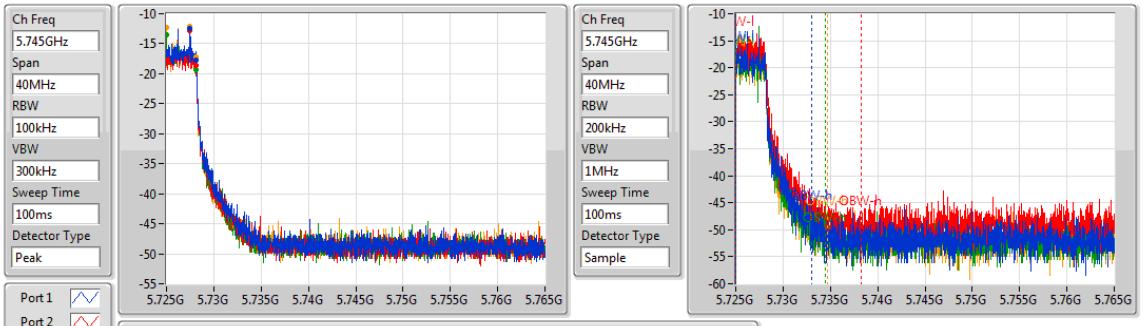


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
76.35M	5.64865G	5.725G	72.489M	5.652174G	5.724663G	Inf	1
76.8M	5.6482G	5.725G	72.789M	5.651799G	5.724588G	Inf	2
76.725M	5.648275G	5.725G	72.639M	5.651949G	5.724588G	Inf	3
76.95M	5.64805G	5.725G	72.489M	5.652099G	5.724588G	Inf	4

802.11ac VHT80_Nss1,(MCS0)_4TX **EBW**

5690MHz Straddle 5.725-5.85GHz

02/04/2018



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.14M	5.725G	5.72814G	7.996M	5.72501G	5.733006G	500k	1
3.14M	5.725G	5.72814G	13.193M	5.72501G	5.738203G	500k	2
3.16M	5.725G	5.72816G	9.495M	5.72501G	5.734505G	500k	3
3.12M	5.725G	5.72812G	9.675M	5.72501G	5.734685G	500k	4

Summary

Mode	Total Power (dBm)	Total Power (W)
5.25-5.35GHz	-	-
802.11ac VHT20_Nss1,(MCS0)_4TX	11.76	0.01500
802.11ac VHT40_Nss1,(MCS0)_4TX	11.76	0.01500
802.11ac VHT80_Nss1,(MCS0)_4TX	11.96	0.01570
5.47-5.725GHz	-	-
802.11ac VHT20_Nss1,(MCS0)_4TX	11.97	0.01574
802.11ac VHT40_Nss1,(MCS0)_4TX	11.97	0.01574
802.11ac VHT80_Nss1,(MCS0)_4TX	11.80	0.01514
5.725-5.85GHz	-	-
802.11ac VHT20_Nss1,(MCS0)_4TX	4.39	0.00275
802.11ac VHT40_Nss1,(MCS0)_4TX	0.80	0.00120
802.11ac VHT80_Nss1,(MCS0)_4TX	-1.82	0.00066

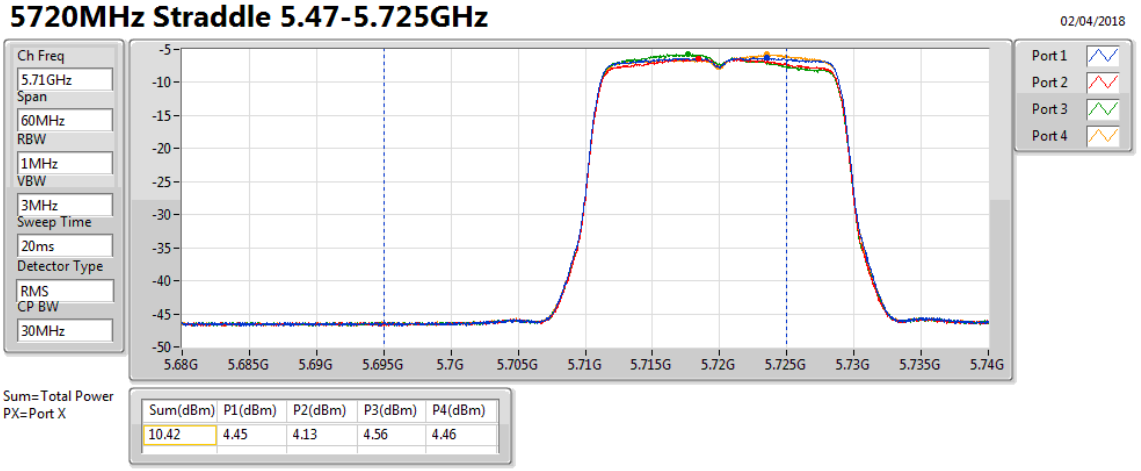
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	18.00	5.78	5.59	5.75	5.72	11.73	11.95
5300MHz	Pass	18.00	5.65	5.57	5.90	5.64	11.71	11.94
5320MHz	Pass	18.00	5.62	5.76	5.83	5.74	11.76	11.98
5500MHz	Pass	18.00	6.09	5.98	5.67	6.02	11.96	11.98
5580MHz	Pass	18.00	6.06	5.90	5.81	6.04	11.97	11.98
5700MHz	Pass	18.00	5.82	5.55	5.67	5.77	11.72	11.98
5720MHz Straddle 5.47-5.725GHz	Pass	18.00	4.45	4.13	4.56	4.46	10.42	10.78
5720MHz Straddle 5.725-5.85GHz	Pass	18.00	-1.16	-2.15	-2.46	-0.94	4.39	18.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	18.00	5.62	5.58	5.67	5.70	11.66	11.98
5310MHz	Pass	18.00	5.89	5.72	5.35	5.98	11.76	11.98
5510MHz	Pass	18.00	5.97	5.88	5.81	6.08	11.96	11.98
5550MHz	Pass	18.00	5.95	5.65	5.38	5.73	11.70	11.98
5670MHz	Pass	18.00	5.88	5.80	6.02	6.08	11.97	11.98
5710MHz Straddle 5.47-5.725GHz	Pass	18.00	5.73	5.40	5.53	5.74	11.62	11.98
5710MHz Straddle 5.725-5.85GHz	Pass	18.00	-5.01	-5.52	-5.18	-5.18	0.80	18.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	18.00	5.93	5.86	5.89	6.07	11.96	11.98
5530MHz	Pass	18.00	5.91	5.77	5.74	5.71	11.80	11.98
5610MHz	Pass	18.00	5.16	5.32	5.38	5.43	11.34	11.98
5690MHz Straddle 5.47-5.725GHz	Pass	18.00	5.34	5.14	5.11	5.33	11.25	11.98
5690MHz Straddle 5.725-5.85GHz	Pass	18.00	-7.33	-8.26	-8.02	-7.82	-1.82	18.00

DG = Directional Gain;**Port X** = Port X output power

802.11ac VHT20_Nss1,(MCS0)_4TX — AV Power

5720MHz Straddle 5.47-5.725GHz

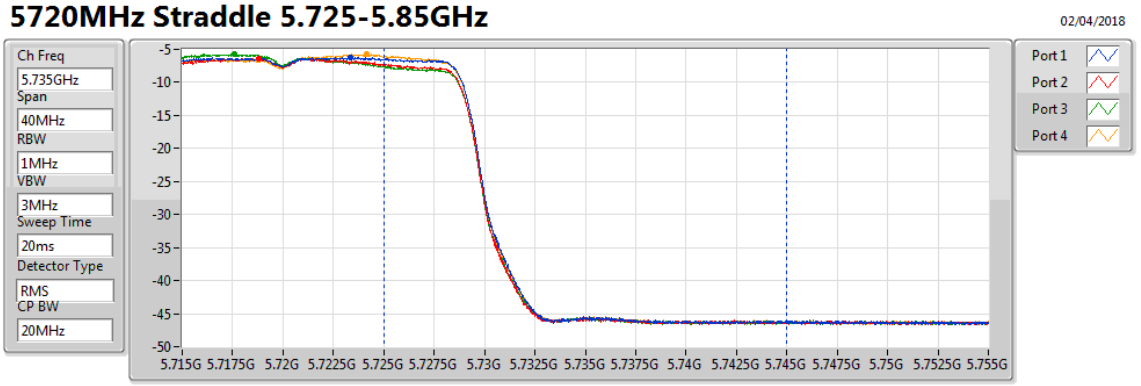


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
10.42	4.45	4.13	4.56	4.46

802.11ac VHT20_Nss1,(MCS0)_4TX — AV Power

5720MHz Straddle 5.725-5.85GHz

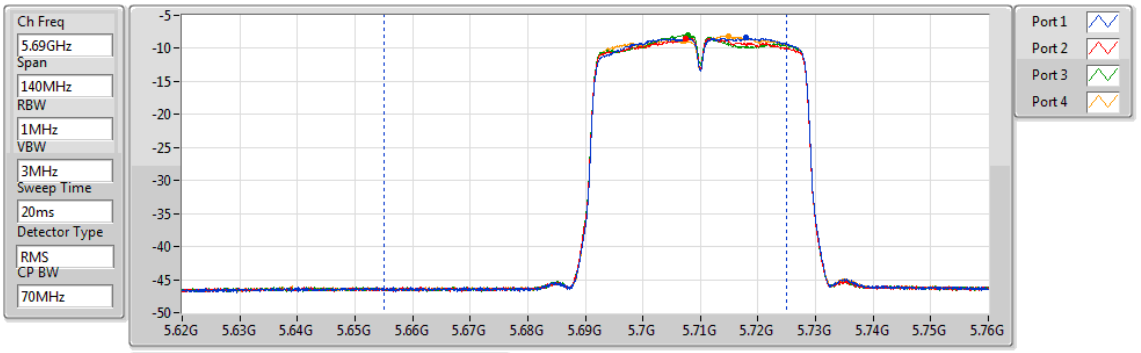


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
4.39	-1.16	-2.15	-2.46	-0.94

802.11ac VHT40_Nss1,(MCS0)_4TX — AV Power

5710MHz Straddle 5.47-5.725GHz

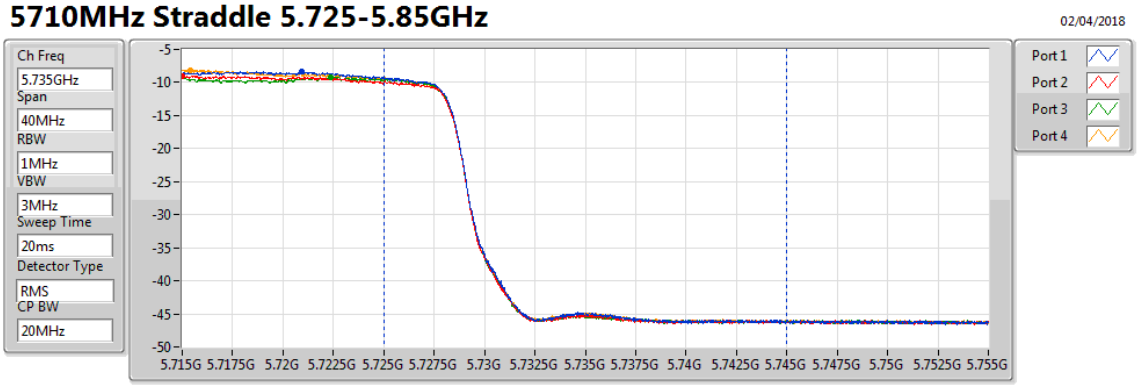


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
11.62	5.73	5.40	5.53	5.74

802.11ac VHT40_Nss1,(MCS0)_4TX — AV Power

5710MHz Straddle 5.725-5.85GHz

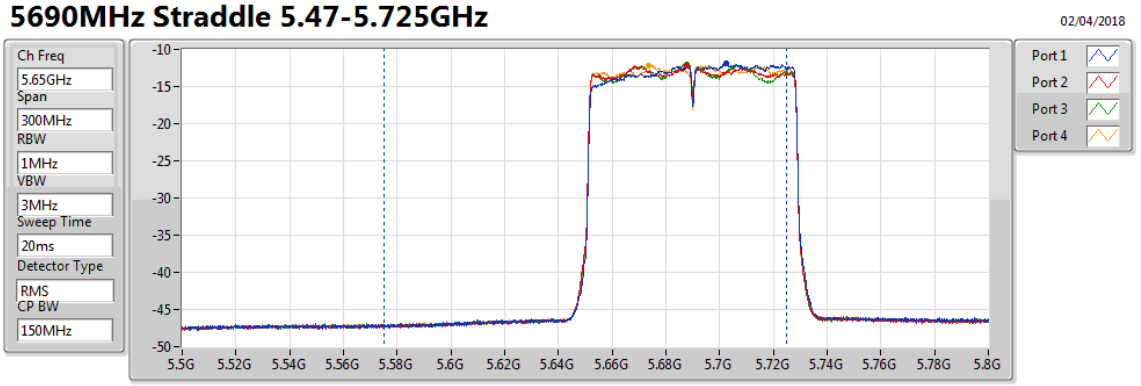


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
0.80	-5.01	-5.52	-5.18	-5.18

802.11ac VHT80_Nss1,(MCS0)_4TX — AV Power

5690MHz Straddle 5.47-5.725GHz

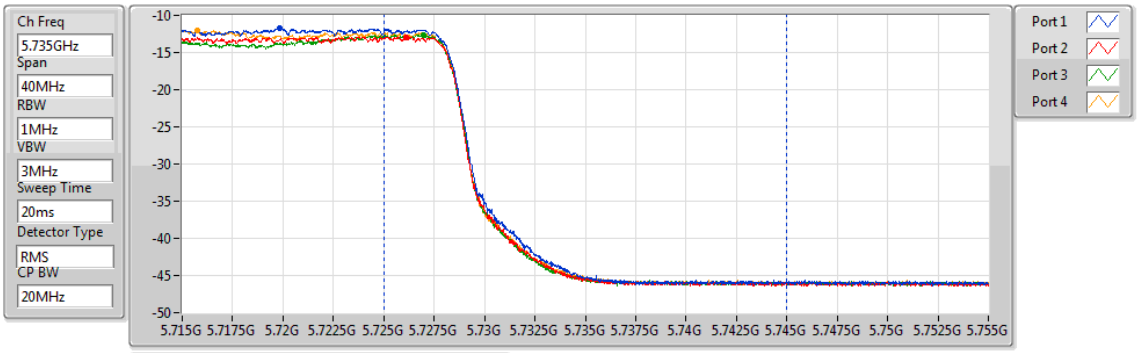


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
11.25	5.34	5.14	5.11	5.33

802.11ac VHT80_Nss1,(MCS0)_4TX — AV Power

5690MHz Straddle 5.725-5.85GHz



Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
-1.82	-7.33	-8.26	-8.02	-7.82

Summary

Mode	PD (dBm/RBW)
5.25-5.35GHz	-
802.11ac VHT20_Nss1,(MCS0)_4TX	-1.28
802.11ac VHT40_Nss1,(MCS0)_4TX	-4.31
802.11ac VHT80_Nss1,(MCS0)_4TX	-7.21
5.47-5.725GHz	-
802.11ac VHT20_Nss1,(MCS0)_4TX	-1.35
802.11ac VHT40_Nss1,(MCS0)_4TX	-3.97
802.11ac VHT80_Nss1,(MCS0)_4TX	-7.31
5.725-5.85GHz	-
802.11ac VHT20_Nss1,(MCS0)_4TX	-3.79
802.11ac VHT40_Nss1,(MCS0)_4TX	-6.59
802.11ac VHT80_Nss1,(MCS0)_4TX	-9.53

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

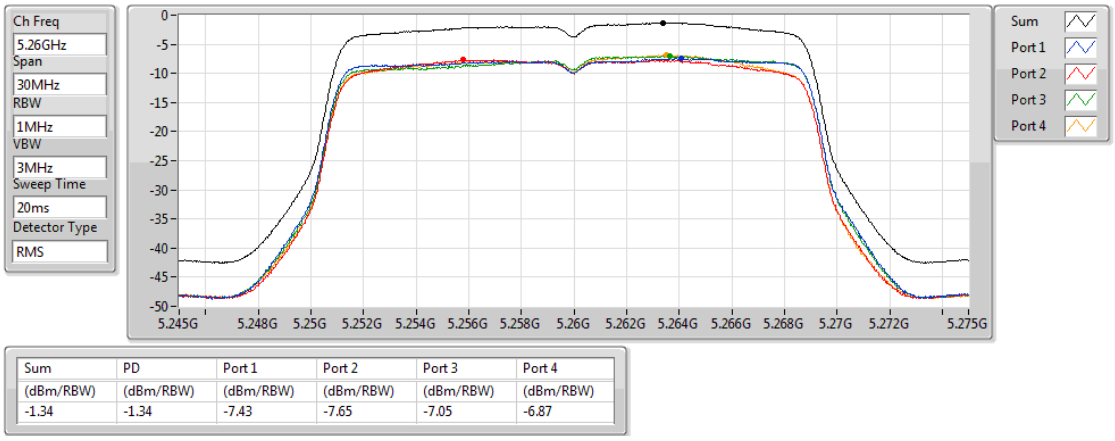
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	18.00	-7.43	-7.65	-7.05	-6.87	-1.34	-1.00
5300MHz	Pass	18.00	-7.30	-7.19	-7.37	-6.69	-1.49	-1.00
5320MHz	Pass	18.00	-7.13	-7.00	-6.48	-6.56	-1.28	-1.00
5500MHz	Pass	18.00	-7.23	-7.06	-7.14	-6.91	-1.37	-1.00
5580MHz	Pass	18.00	-7.52	-7.27	-7.07	-7.03	-1.35	-1.00
5700MHz	Pass	18.00	-7.51	-7.48	-7.08	-7.24	-1.60	-1.00
5720MHz Straddle 5.47-5.725GHz	Pass	18.00	-7.71	-7.83	-7.21	-7.23	-1.81	-1.00
5720MHz Straddle 5.725-5.85GHz	Pass	18.00	-9.42	-10.19	-10.60	-9.02	-3.79	18.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	18.00	-10.34	-10.44	-10.28	-9.74	-4.35	-1.00
5310MHz	Pass	18.00	-9.88	-9.31	-9.82	-9.36	-4.31	-1.00
5510MHz	Pass	18.00	-9.97	-9.91	-9.90	-9.47	-4.13	-1.00
5550MHz	Pass	18.00	-10.18	-10.38	-10.33	-10.05	-4.41	-1.00
5670MHz	Pass	18.00	-10.12	-9.69	-9.75	-9.46	-4.08	-1.00
5710MHz Straddle 5.47-5.725GHz	Pass	18.00	-9.92	-9.98	-9.45	-9.58	-3.97	-1.00
5710MHz Straddle 5.725-5.85GHz	Pass	18.00	-12.33	-12.89	-12.48	-12.40	-6.59	18.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	18.00	-12.53	-12.77	-12.55	-12.45	-7.21	-1.00
5530MHz	Pass	18.00	-12.97	-13.03	-13.38	-12.80	-7.31	-1.00
5610MHz	Pass	18.00	-13.68	-13.41	-13.24	-13.28	-7.73	-1.00
5690MHz Straddle 5.47-5.725GHz	Pass	18.00	-13.37	-13.70	-13.49	-13.56	-7.91	-1.00
5690MHz Straddle 5.725-5.85GHz	Pass	18.00	-14.93	-15.98	-15.58	-15.41	-9.53	18.00

DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

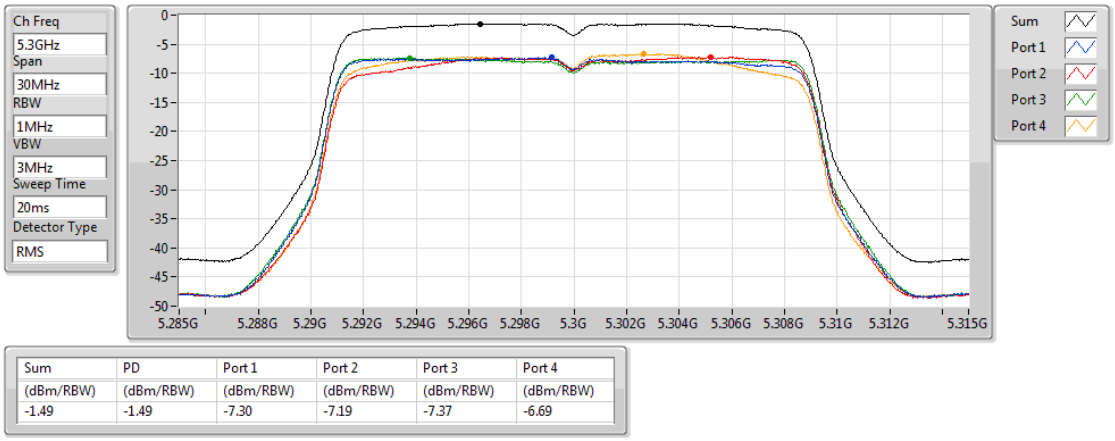
5260MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.34	-1.34	-7.43	-7.65	-7.05	-6.87

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

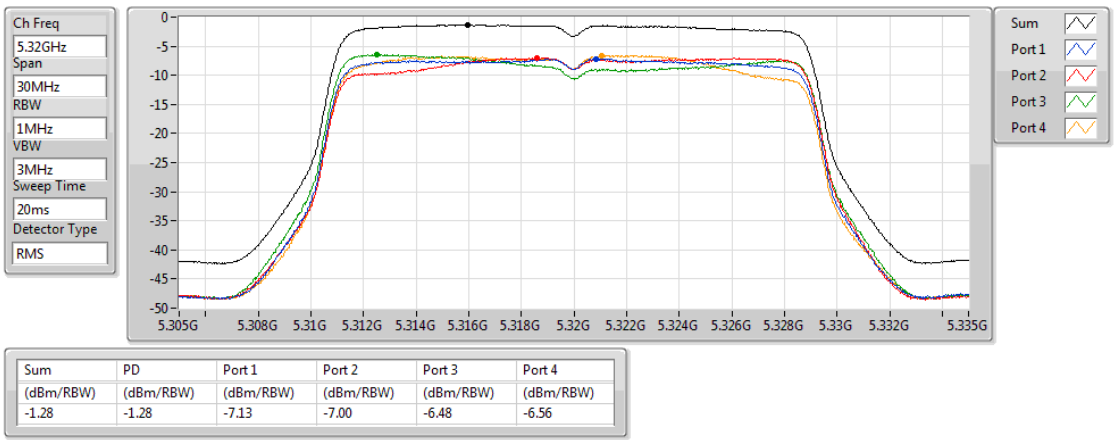
5300MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.49	-1.49	-7.30	-7.19	-7.37	-6.69

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

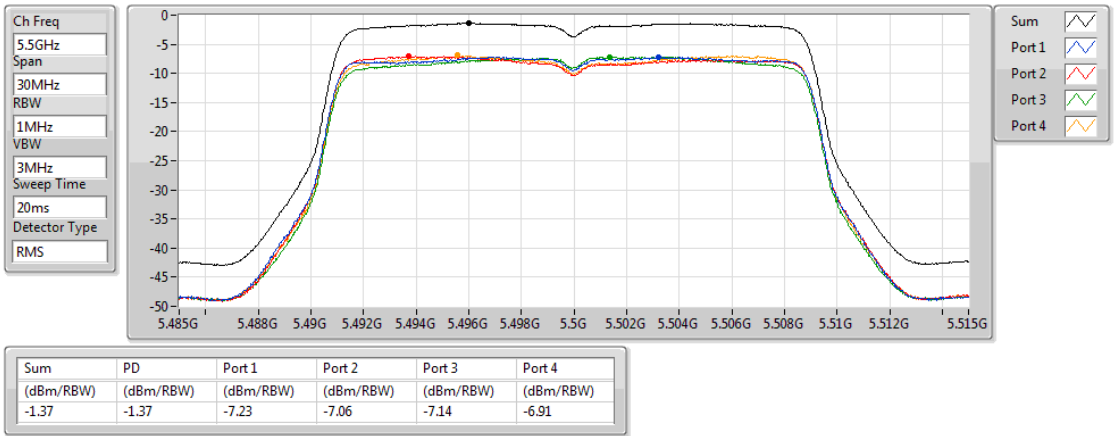
5320MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.28	-1.28	-7.13	-7.00	-6.48	-6.56

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

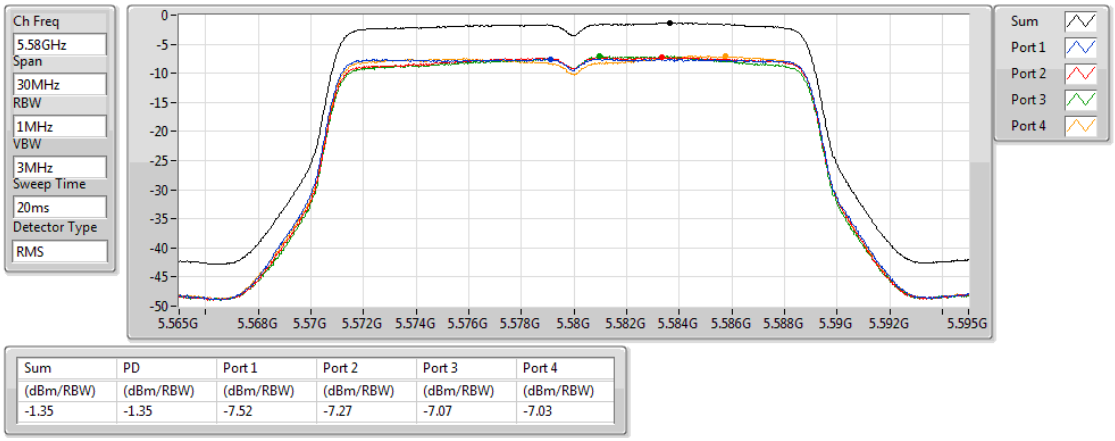
5500MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.37	-1.37	-7.23	-7.06	-7.14	-6.91

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

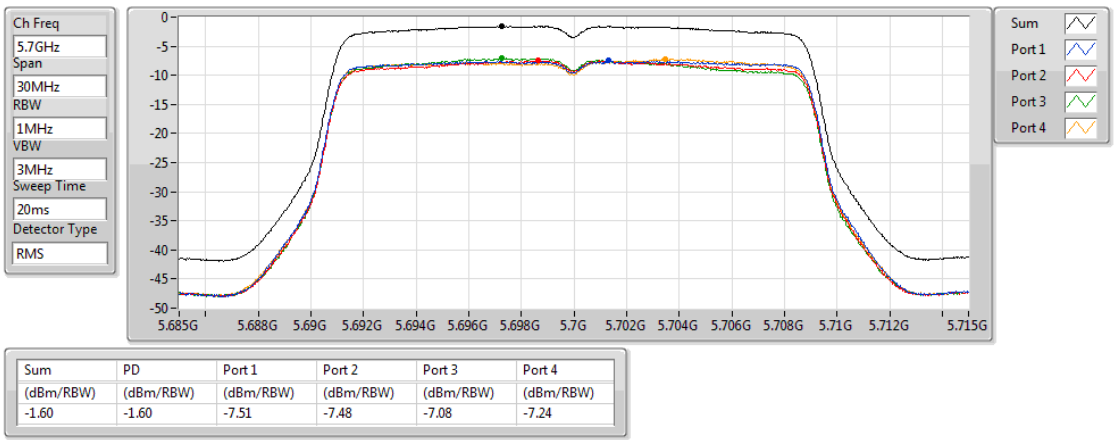
5580MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.35	-1.35	-7.52	-7.27	-7.07	-7.03

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

5700MHz

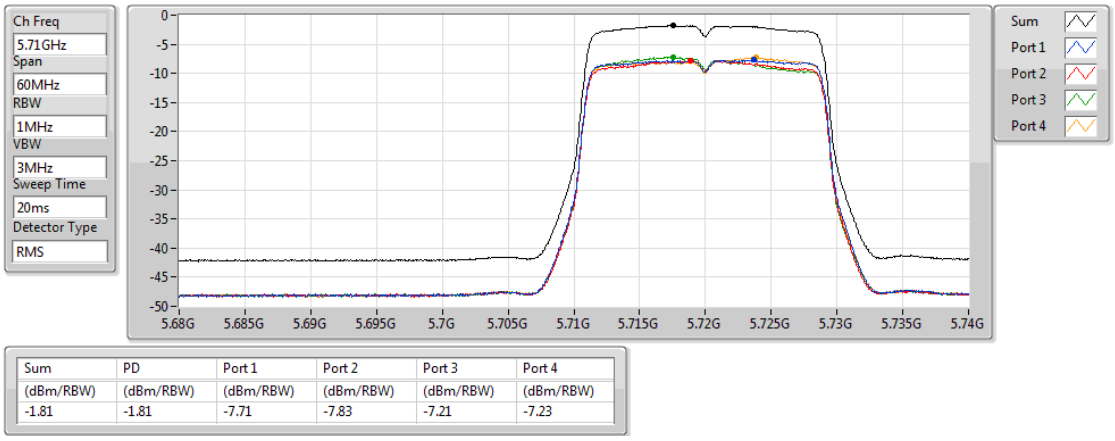


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.60	-1.60	-7.51	-7.48	-7.08	-7.24

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

5720MHz Straddle 5.47-5.725GHz

02/04/2018

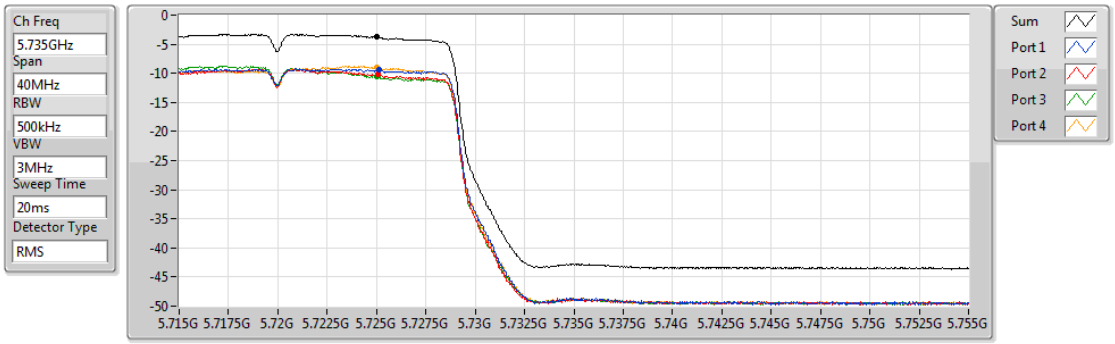


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.81	-1.81	-7.71	-7.83	-7.21	-7.23

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

5720MHz Straddle 5.725-5.85GHz

02/04/2018

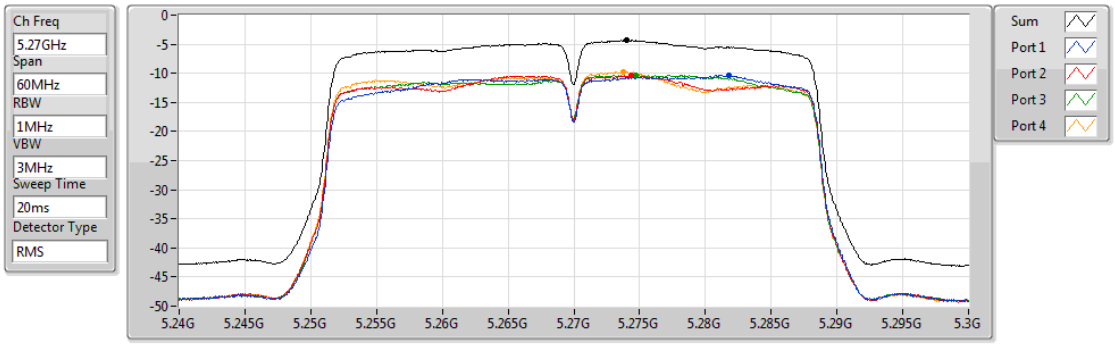


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.79	-3.79	-9.42	-10.19	-10.60	-9.02

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

5270MHz

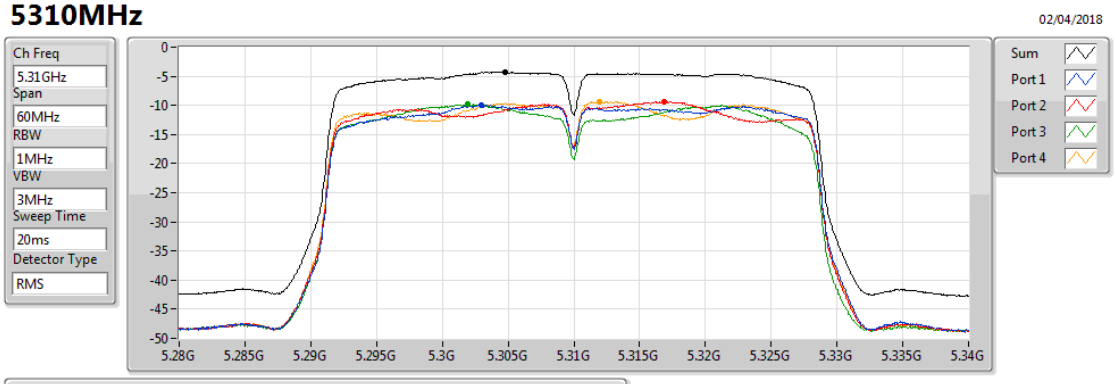
02/04/2018



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.35	-4.35	-10.34	-10.44	-10.28	-9.74

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

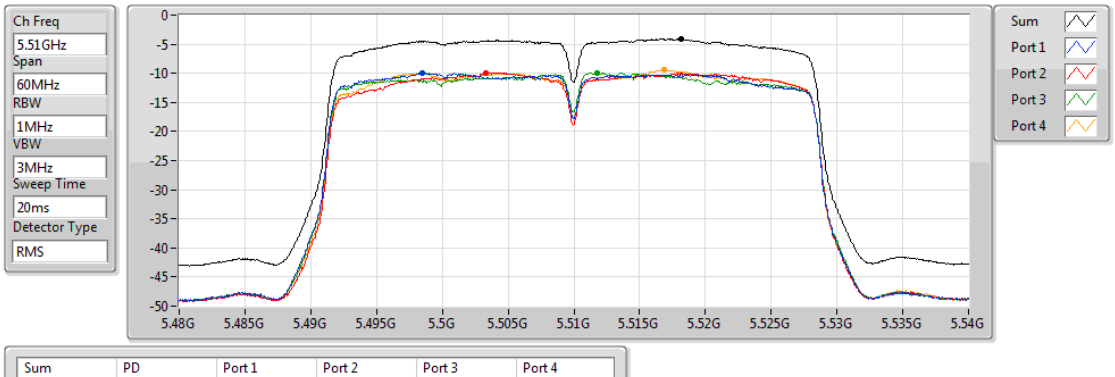
5310MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.31	-4.31	-9.88	-9.31	-9.82	-9.36

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

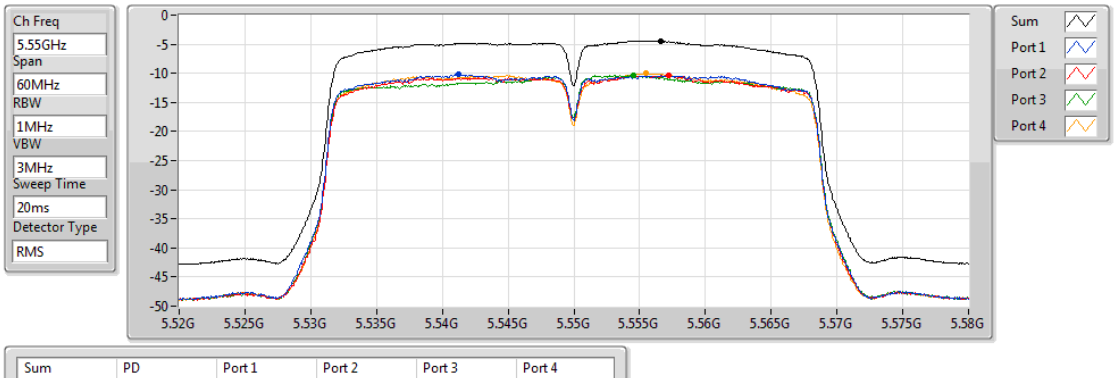
5510MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.13	-4.13	-9.97	-9.91	-9.90	-9.47

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

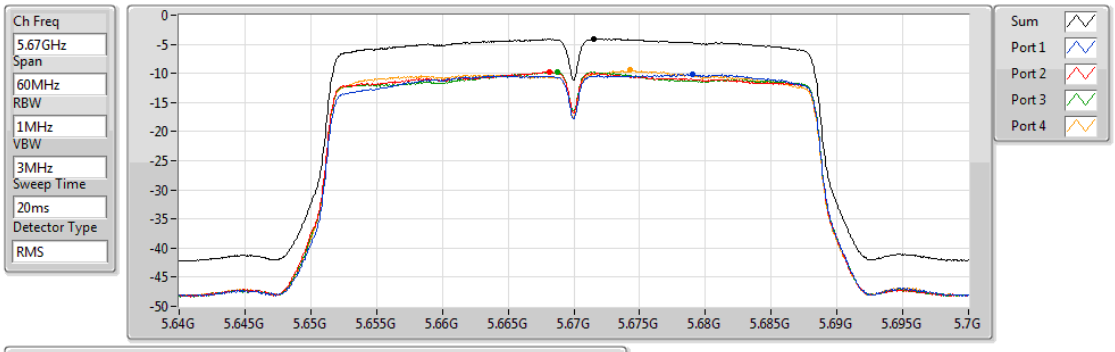
5550MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.41	-4.41	-10.18	-10.38	-10.33	-10.05

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

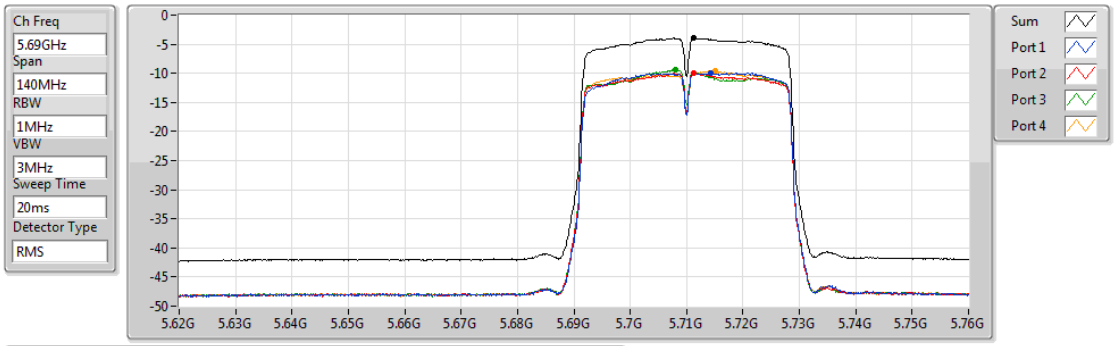
5670MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.08	-4.08	-10.12	-9.69	-9.75	-9.46

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

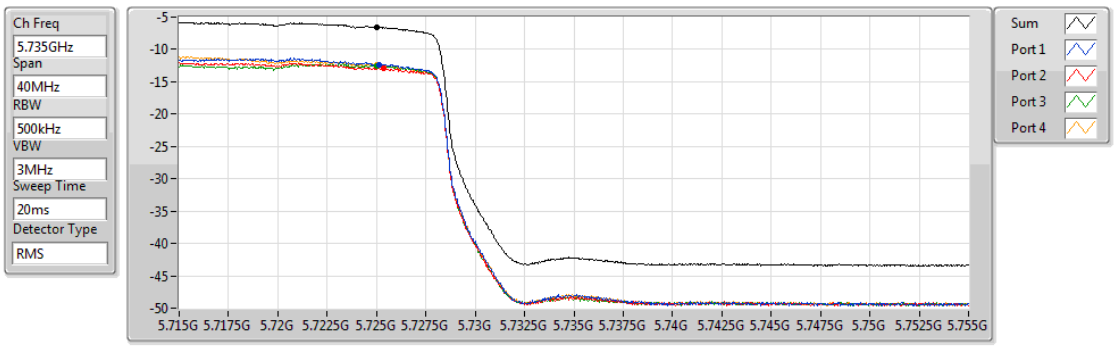
5710MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.97	-3.97	-9.92	-9.98	-9.45	-9.58

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

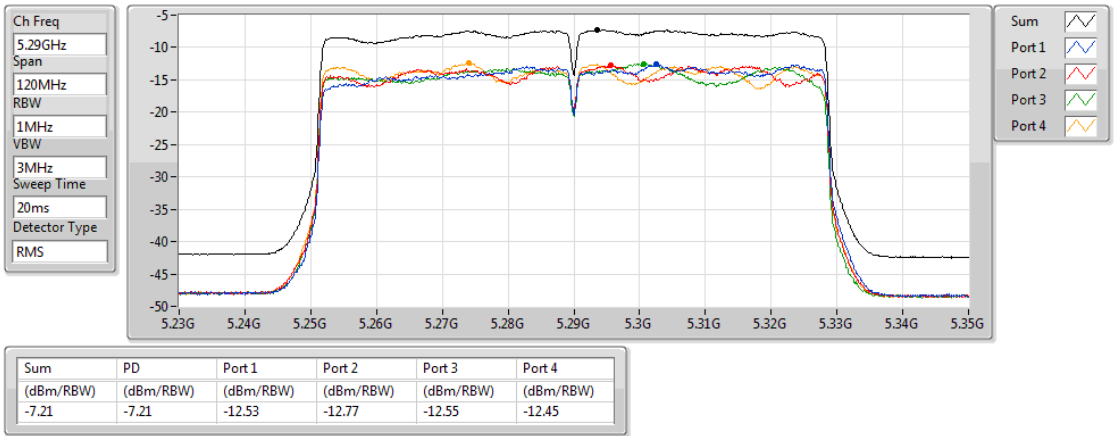
5710MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.59	-6.59	-12.33	-12.89	-12.48	-12.40

802.11ac VHT80_Nss1,(MCS0)_4TX PSD

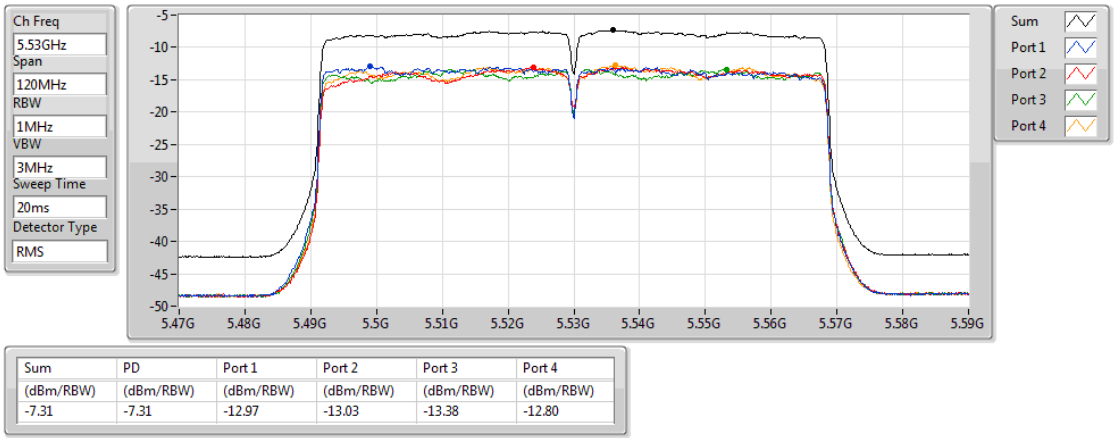
5290MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.21	-7.21	-12.53	-12.77	-12.55	-12.45

802.11ac VHT80_Nss1,(MCS0)_4TX PSD

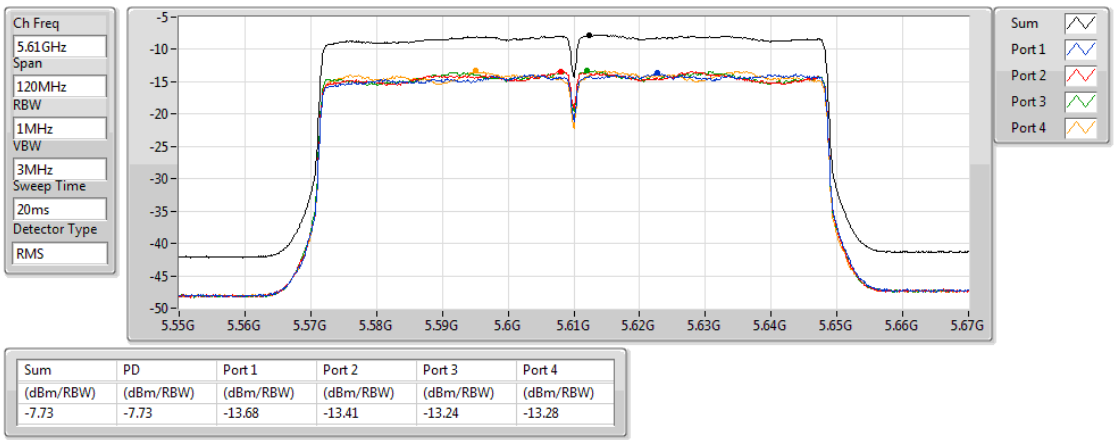
5530MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.31	-7.31	-12.97	-13.03	-13.38	-12.80

802.11ac VHT80_Nss1,(MCS0)_4TX PSD

5610MHz

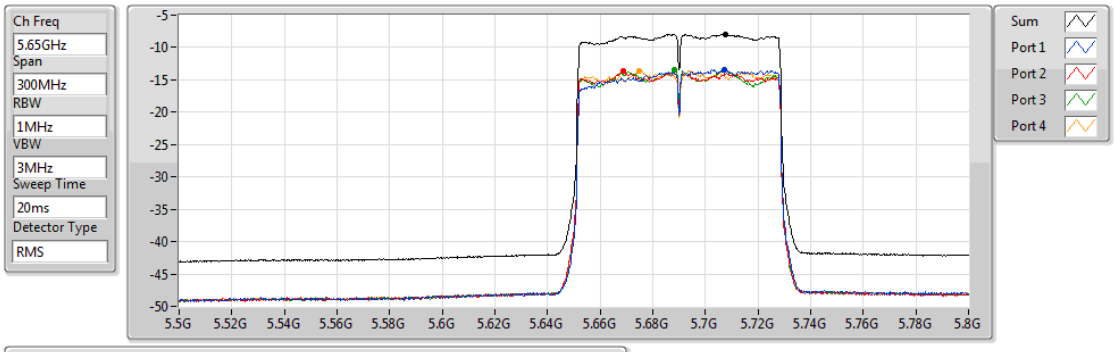


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.73	-7.73	-13.68	-13.41	-13.24	-13.28

802.11ac VHT80_Nss1,(MCS0)_4TX **PSD**

5690MHz Straddle 5.47-5.725GHz

02/04/2018

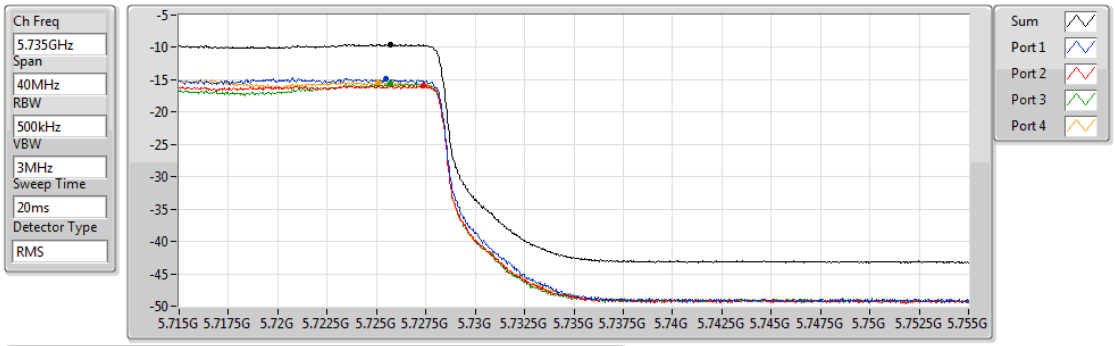


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.91	-7.91	-13.37	-13.70	-13.49	-13.56

802.11ac VHT80_Nss1,(MCS0)_4TX **PSD**

5690MHz Straddle 5.725-5.85GHz

02/04/2018

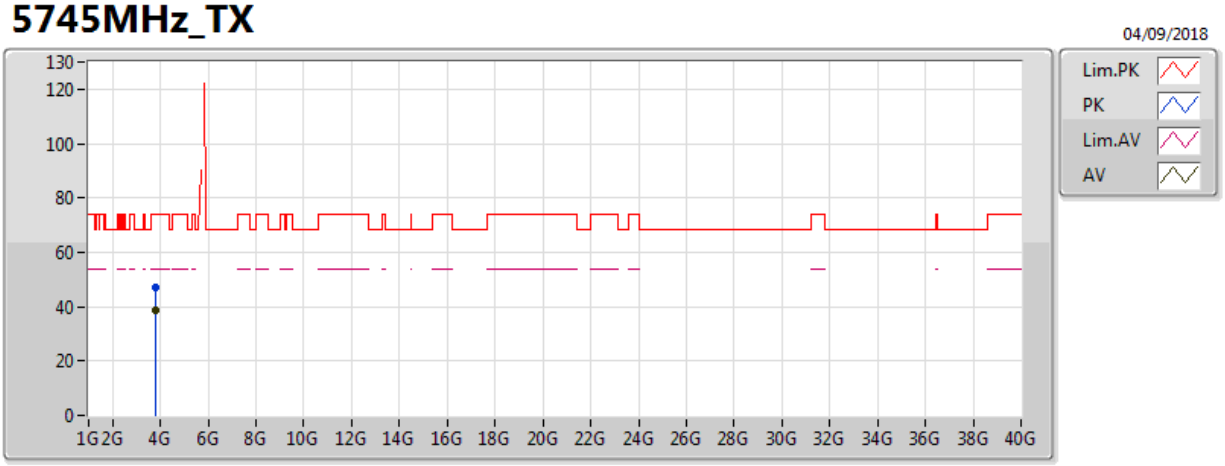


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.53	-9.53	-14.93	-15.98	-15.58	-15.41

For Cabinet:

802.11ac VHT20_Nss1,(MCS0)_4TX

5745MHz_TX

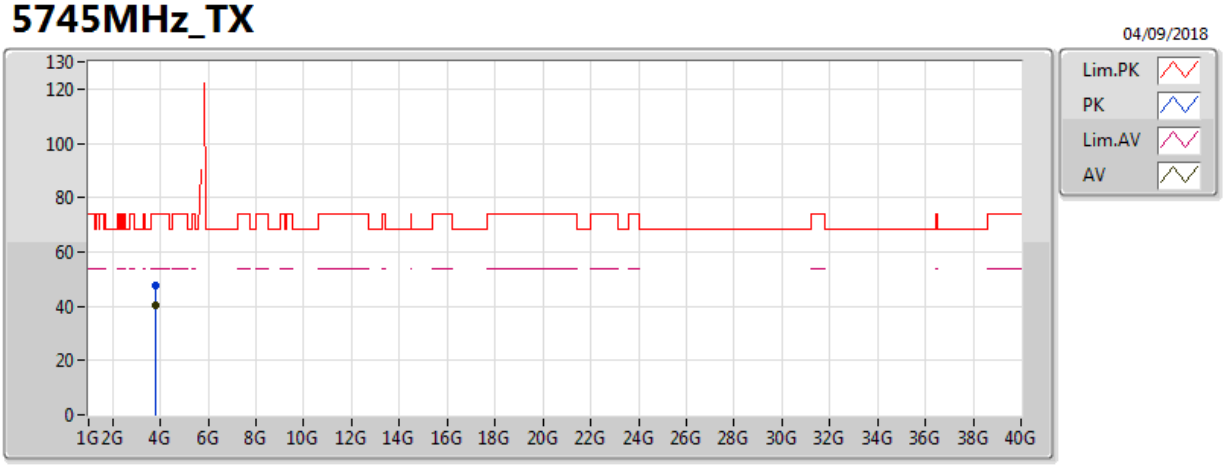


EUT Y_4TX
Setting 12
01-E-2
FSP(100056)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	3.83009G	46.90	74.00	-27.10	2.14	3	Vertical	187	1.53	-
AV	3.82998G	38.70	54.00	-15.30	2.14	3	Vertical	187	1.53	-

802.11ac VHT20_Nss1,(MCS0)_4TX

5745MHz_TX



EUT Y_4TX
Setting 12
01-E-2
FSP(100056)

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	3.82992G	47.62	74.00	-26.38	2.14	3	Horizontal	124	1.59	-
AV	3.82999G	40.27	54.00	-13.73	2.14	3	Horizontal	124	1.59	-

For Conducted Spurious Emission

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Serway Li	**Configurations**	VHT20 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 1GHz~3GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-89.43	-89.21	-89.34	-89.33	-65.31	-41.25	24.06
5300	-89.47	-89.22	-89.44	-89.31	-65.34	-41.25	24.09
5320	-89.34	-89.45	-89.33	-89.27	-65.33	-41.25	24.08
5500	-89.80	-89.90	-89.86	-89.87	-65.84	-41.25	24.59
5580	-89.82	-89.83	-89.90	-89.89	-65.84	-41.25	24.59
5700	-89.76	-89.97	-89.75	-89.93	-65.83	-41.25	24.58
5720 (Straddle Channel)	-89.95	-89.84	-89.85	-89.83	-65.85	-41.25	24.60

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Serway Li	**Configurations**	VHT20 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 1GHz~3GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-76.30	-75.87	-76.51	-76.29	-52.22	-21.25	30.97
5300	-76.49	-75.77	-75.96	-76.11	-52.05	-21.25	30.80
5320	-76.27	-76.37	-76.15	-76.48	-52.30	-21.25	31.05
5500	-76.59	-77.05	-76.45	-76.53	-52.63	-21.25	31.38
5580	-77.33	-77.14	-76.32	-76.96	-52.90	-21.25	31.65
5700	-76.08	-76.74	-76.57	-76.56	-52.46	-21.25	31.21
5720 (Straddle Channel)	-76.57	-76.76	-76.59	-76.54	-52.59	-21.25	31.34

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT40 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 1GHz~3GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-89.33	-89.37	-89.41	-89.37	-65.35	-41.25	24.10
5310	-89.39	-89.36	-89.43	-89.49	-65.40	-41.25	24.15
5510	-89.25	-89.22	-89.35	-89.27	-65.25	-41.25	24.00
5550	-89.18	-89.24	-89.26	-89.33	-65.23	-41.25	23.98
5670	-89.35	-89.28	-89.33	-89.35	-65.31	-41.25	24.06
5710 (Straddle Channel)	-89.47	-89.31	-89.38	-89.33	-65.35	-41.25	24.10

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT40 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 1GHz~3GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-76.46	-75.73	-76.03	-76.12	-52.06	-21.25	30.81
5310	-75.92	-76.03	-76.64	-75.39	-51.95	-21.25	30.70
5510	-75.94	-76.32	-75.72	-76.33	-52.05	-21.25	30.80
5550	-75.95	-76.49	-75.74	-76.27	-52.08	-21.25	30.83
5670	-76.40	-76.10	-76.48	-76.44	-52.33	-21.25	31.08
5710 (Straddle Channel)	-76.23	-75.61	-76.20	-76.36	-52.07	-21.25	30.82

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Serway Li	**Configurations**	VHT80 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 1GHz~3GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-89.29	-89.19	-89.16	-89.08	-65.16	-41.25	23.91
5530	-89.16	-89.45	-89.37	-89.30	-65.30	-41.25	24.05
5610	-89.36	-89.22	-89.26	-89.27	-65.26	-41.25	24.01
5690 (Straddle Channel)	-89.38	-89.29	-89.40	-89.11	-65.27	-41.25	24.02

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Serway Li	**Configurations**	VHT80 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 1GHz~3GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-76.51	-75.78	-75.85	-75.71	-51.93	-21.25	30.68
5530	-76.13	-75.68	-76.40	-76.17	-52.07	-21.25	30.82
5610	-76.38	-76.13	-76.24	-75.84	-52.12	-21.25	30.87
5690 (Straddle Channel)	-76.25	-76.64	-75.92	-75.52	-52.04	-21.25	30.79

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT20 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 3GHz~6GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-66.62	-64.89	-68.82	-70.78	-43.21	-41.25	1.96
5300	-66.75	-65.44	-69.17	-70.98	-43.56	-41.25	2.31
5320	-64.10	-65.66	-69.21	-71.75	-42.72	-41.25	1.47
5500	-67.53	-67.56	-66.45	-72.47	-43.97	-41.25	2.72
5580	-66.02	-67.25	-66.60	-69.74	-43.17	-41.25	1.92
5700	-66.35	-69.67	-66.59	-68.45	-43.54	-41.25	2.29
5720 (Straddle Channel)	-65.78	-68.81	-66.54	-66.85	-42.84	-41.25	1.59

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT20 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 3GHz~6GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-57.41	-58.66	-59.66	-58.47	-34.46	-21.25	13.21
5300	-58.00	-59.73	-58.70	-59.11	-34.82	-21.25	13.57
5320	-56.42	-60.77	-59.18	-59.85	-34.71	-21.25	13.46
5500	-59.22	-58.74	-56.76	-59.75	-34.44	-21.25	13.19
5580	-57.23	-58.05	-58.19	-56.17	-33.31	-21.25	12.06
5700	-54.82	-59.79	-56.72	-55.96	-32.45	-21.25	11.20
5720 (Straddle Channel)	-54.98	-55.31	-55.29	-55.21	-31.17	-21.25	9.92

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT40 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 3GHz~6GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-63.79	-65.87	-69.49	-70.64	-42.58	-41.25	1.33
5310	-67.08	-65.48	-69.38	-70.80	-43.69	-41.25	2.44
5510	-65.74	-66.43	-66.40	-71.95	-43.04	-41.25	1.79
5550	-64.27	-67.51	-66.92	-72.96	-42.94	-41.25	1.69
5670	-65.26	-66.52	-66.28	-68.28	-42.43	-41.25	1.18
5710 (Straddle Channel)	-65.03	-67.45	-65.21	-64.36	-41.35	-41.25	0.10

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT40 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 3GHz~6GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-55.07	-59.77	-57.35	-57.55	-33.10	-21.25	11.85
5310	-57.16	-60.33	-60.77	-58.01	-34.78	-21.25	13.53
5510	-57.59	-58.16	-58.38	-59.06	-34.25	-21.25	13.00
5550	-55.51	-59.57	-58.94	-59.90	-34.07	-21.25	12.82
5670	-54.07	-55.95	-57.11	-55.53	-31.51	-21.25	10.26
5710 (Straddle Channel)	-53.38	-54.38	-52.93	-52.05	-29.08	-21.25	7.83

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT80 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 3GHz~6GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-68.74	-64.78	-70.59	-70.61	-43.93	-41.25	2.68
5530	-66.77	-66.81	-66.92	-69.14	-43.28	-41.25	2.03
5610	-64.61	-66.94	-66.32	-70.03	-42.55	-41.25	1.30
5690 (Straddle Channel)	-66.21	-68.52	-66.01	-63.99	-41.87	-41.25	0.62

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT80 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 3GHz~6GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-57.56	-58.08	-58.63	-57.67	-33.94	-21.25	12.69
5530	-55.70	-56.05	-56.43	-56.91	-32.23	-21.25	10.98
5610	-54.96	-57.17	-59.80	-57.16	-32.93	-21.25	11.68
5690 (Straddle Channel)	-51.13	-54.88	-53.51	-50.89	-28.28	-21.25	7.03

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT20 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 6GHz~9GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-81.24	-81.27	-81.12	-81.40	-57.24	-41.25	15.99
5300	-81.31	-81.45	-81.08	-81.60	-57.34	-41.25	16.09
5320	-81.24	-81.22	-81.05	-81.57	-57.25	-41.25	16.00
5500	-76.54	-74.99	-75.63	-75.90	-51.71	-41.25	10.46
5580	-74.10	-73.99	-73.39	-73.91	-49.82	-41.25	8.57
5700	-67.13	-69.32	-71.34	-72.41	-45.55	-41.25	4.30
5720 (Straddle Channel)	-67.18	-67.29	-70.92	-72.12	-44.84	-41.25	3.59

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT20 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 6GHz~9GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-68.54	-67.81	-68.52	-69.38	-44.51	-21.25	23.26
5300	-68.28	-68.76	-68.41	-68.57	-44.48	-21.25	23.23
5320	-68.57	-68.75	-68.60	-68.32	-44.54	-21.25	23.29
5500	-64.84	-63.07	-63.50	-65.06	-40.01	-21.25	18.76
5580	-61.12	-62.42	-61.29	-61.09	-37.43	-21.25	16.18
5700	-59.84	-60.03	-58.72	-59.88	-35.56	-21.25	14.31
5720 (Straddle Channel)	-59.70	-57.32	-57.94	-60.11	-34.59	-21.25	13.34

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT40 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 6GHz~9GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-81.30	-81.40	-81.19	-81.46	-57.32	-41.25	16.07
5310	-81.26	-81.27	-81.24	-81.60	-57.32	-41.25	16.07
5510	-75.29	-74.09	-74.60	-75.97	-50.91	-41.25	9.66
5550	-73.66	-74.25	-74.62	-76.03	-50.54	-41.25	9.29
5670	-64.73	-64.27	-71.19	-72.69	-42.75	-41.25	1.50
5710 (Straddle Channel)	-66.40	-66.10	-68.86	-70.77	-43.62	-41.25	2.37

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT40 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 6GHz~9GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-69.24	-68.17	-68.39	-69.20	-44.70	-21.25	23.45
5310	-68.59	-68.77	-68.46	-68.77	-44.62	-21.25	23.37
5510	-63.58	-61.91	-62.38	-63.59	-38.78	-21.25	17.53
5550	-61.35	-62.03	-62.80	-63.89	-38.40	-21.25	17.15
5670	-58.25	-57.95	-58.56	-60.31	-34.66	-21.25	13.41
5710 (Straddle Channel)	-58.61	-57.91	-56.94	-58.43	-33.90	-21.25	12.65

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT80 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 6GHz~9GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-80.75	-81.06	-80.86	-80.87	-56.86	-41.25	15.61
5530	-75.63	-74.19	-74.62	-76.24	-51.07	-41.25	9.82
5610	-72.90	-72.98	-74.23	-74.85	-49.64	-41.25	8.39
5690 (Straddle Channel)	-66.59	-68.68	-71.11	-72.47	-45.11	-41.25	3.86

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT80 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 6GHz~9GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-68.35	-68.81	-68.47	-68.32	-44.46	-21.25	23.21
5530	-62.56	-62.06	-61.86	-63.68	-38.46	-21.25	17.21
5610	-61.11	-60.66	-61.76	-62.78	-37.49	-21.25	16.24
5690 (Straddle Channel)	-59.87	-61.09	-59.34	-60.07	-36.03	-21.25	14.78

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT20 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 9GHz~18GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-80.73	-80.51	-80.67	-80.44	-56.57	-41.25	15.32
5300	-80.62	-80.58	-80.52	-80.65	-56.57	-41.25	15.32
5320	-80.58	-80.70	-80.65	-80.46	-56.58	-41.25	15.33
5500	-80.67	-80.71	-80.55	-80.51	-56.59	-41.25	15.34
5580	-80.73	-80.61	-80.50	-80.63	-56.60	-41.25	15.35
5700	-80.51	-80.63	-80.68	-80.61	-56.59	-41.25	15.34
5720 (Straddle Channel)	-80.48	-80.45	-80.52	-80.72	-56.52	-41.25	15.27

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT20 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 9GHz~18GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-68.57	-68.37	-68.54	-68.25	-44.41	-21.25	23.16
5300	-68.02	-67.90	-67.83	-68.57	-44.05	-21.25	22.80
5320	-68.23	-68.68	-68.35	-68.14	-44.32	-21.25	23.07
5500	-68.61	-68.58	-68.18	-68.36	-44.41	-21.25	23.16
5580	-68.51	-68.06	-68.73	-68.43	-44.41	-21.25	23.16
5700	-68.48	-68.47	-68.53	-68.95	-44.58	-21.25	23.33
5720 (Straddle Channel)	-68.28	-68.74	-68.27	-68.21	-44.35	-21.25	23.10

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT40 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 9GHz~18GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-80.61	-80.56	-80.55	-80.53	-56.54	-41.25	15.29
5310	-80.71	-80.44	-80.50	-80.57	-56.53	-41.25	15.28
5510	-81.62	-81.57	-81.66	-81.86	-57.66	-41.25	16.41
5550	-81.63	-81.73	-81.74	-81.70	-57.68	-41.25	16.43
5670	-81.72	-81.76	-81.58	-81.69	-57.67	-41.25	16.42
5710 (Straddle Channel)	-81.76	-81.61	-81.86	-81.67	-57.70	-41.25	16.45

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT40 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 9GHz~18GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-68.12	-68.41	-68.26	-68.73	-44.35	-21.25	23.10
5310	-68.59	-68.43	-68.32	-68.03	-44.32	-21.25	23.07
5510	-69.30	-69.92	-69.42	-69.20	-45.43	-21.25	24.18
5550	-69.60	-69.43	-69.51	-69.49	-45.49	-21.25	24.24
5670	-69.40	-69.30	-69.45	-69.85	-45.47	-21.25	24.22
5710 (Straddle Channel)	-69.91	-69.48	-69.43	-69.89	-45.65	-21.25	24.40

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT80 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 9GHz~18GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-80.53	-80.57	-80.63	-80.65	-56.57	-41.25	15.32
5530	-81.67	-81.60	-81.64	-81.76	-57.65	-41.25	16.40
5610	-81.51	-81.68	-81.56	-81.72	-57.60	-41.25	16.35
5690 (Straddle Channel)	-81.65	-81.73	-81.68	-81.59	-57.64	-41.25	16.39

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT80 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 9GHz~18GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-68.35	-68.89	-68.37	-68.67	-44.54	-21.25	23.29
5530	-69.73	-70.11	-69.15	-69.30	-45.54	-21.25	24.29
5610	-69.05	-69.72	-68.93	-69.22	-45.20	-21.25	23.95
5690 (Straddle Channel)	-69.42	-69.28	-69.48	-69.55	-45.41	-21.25	24.16

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT20 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 18GHz~40GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-75.16	-75.05	-75.22	-75.13	-51.12	-41.25	9.87
5300	-75.12	-75.33	-75.10	-75.19	-51.16	-41.25	9.91
5320	-75.17	-75.30	-75.27	-75.24	-51.22	-41.25	9.97
5500	-75.30	-75.19	-75.26	-75.22	-51.22	-41.25	9.97
5580	-75.22	-75.23	-75.39	-75.20	-51.24	-41.25	9.99
5700	-75.18	-75.13	-75.20	-75.28	-51.18	-41.25	9.93
5720 (Straddle Channel)	-75.24	-75.15	-75.12	-75.32	-51.19	-41.25	9.94

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT20 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 18GHz~40GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5260	-62.26	-62.59	-63.07	-62.68	-38.62	-21.25	17.37
5300	-62.06	-62.54	-63.09	-62.12	-38.41	-21.25	17.16
5320	-63.19	-62.76	-62.29	-63.11	-38.80	-21.25	17.55
5500	-63.15	-63.54	-62.52	-63.28	-39.09	-21.25	17.84
5580	-62.94	-62.97	-62.46	-63.08	-38.84	-21.25	17.59
5700	-62.90	-62.64	-62.11	-63.27	-38.69	-21.25	17.44
5720 (Straddle Channel)	-62.47	-62.89	-62.62	-62.58	-38.62	-21.25	17.37

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Serway Li	**Configurations**	VHT40 / Average / Port 1 + Port 2 + Port 3 + Port 4 /18GHz~40GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-75.14	-75.31	-75.29	-75.30	-51.24	-41.25	9.99
5310	-75.25	-75.17	-75.26	-75.32	-51.23	-41.25	9.98
5510	-76.51	-76.54	-76.66	-76.60	-52.56	-41.25	11.31
5550	-76.60	-76.59	-76.44	-76.58	-52.53	-41.25	11.28
5670	-76.69	-76.43	-76.61	-76.40	-52.51	-41.25	11.26
5710 (Straddle Channel)	-76.63	-76.41	-76.58	-76.59	-52.53	-41.25	11.28

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Serway Li	**Configurations**	VHT40 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 18GHz~40GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-62.94	-62.93	-62.60	-62.46	-38.71	-21.25	17.46
5310	-62.58	-63.41	-62.48	-63.03	-38.84	-21.25	17.59
5510	-63.97	-63.76	-64.12	-63.90	-39.91	-21.25	18.66
5550	-63.46	-64.29	-64.02	-63.61	-39.81	-21.25	18.56
5670	-63.98	-64.45	-64.26	-64.05	-40.16	-21.25	18.91
5710 (Straddle Channel)	-63.85	-64.07	-63.81	-63.74	-39.85	-21.25	18.60

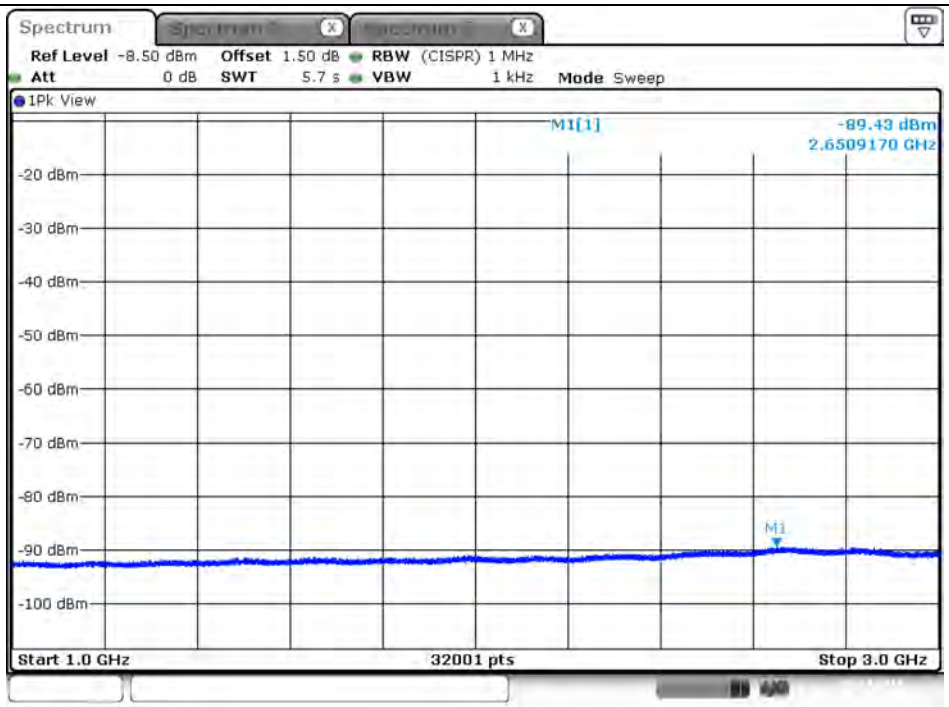
Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT80 / Average / Port 1 + Port 2 + Port 3 + Port 4 / 18GHz~40GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-75.26	-75.34	-75.27	-75.33	-51.28	-41.25	10.03
5530	-76.47	-76.52	-76.60	-76.58	-52.52	-41.25	11.27
5610	-76.51	-76.54	-76.47	-76.67	-52.53	-41.25	11.28
5690 (Straddle Channel)	-76.58	-76.62	-76.56	-76.48	-52.54	-41.25	11.29

Temperature	22 ℃	Humidity	54%
Test Engineer	Serway Li	Configurations	VHT80 / Peak / Port 1 + Port 2 + Port 3 + Port 4 / 18GHz~40GHz

Frequency (MHz)	Port 1 (TX 1) Spurious Level (dBm)	Port 2 (TX2) Spurious Level (dBm)	Port 3 (TX3) Spurious Level (dBm)	Port 4 (TX4) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5290	-62.51	-62.17	-62.73	-63.35	-38.65	-21.25	17.40
5530	-64.10	-64.25	-64.30	-63.65	-40.05	-21.25	18.80
5610	-64.13	-63.53	-63.85	-64.45	-39.96	-21.25	18.71
5690 (Straddle Channel)	-64.01	-64.19	-63.88	-64.17	-40.04	-21.25	18.79

Plot on Configuration VHT20 / 5260 MHz / Average / Port 1 / 1GHz~3GHz



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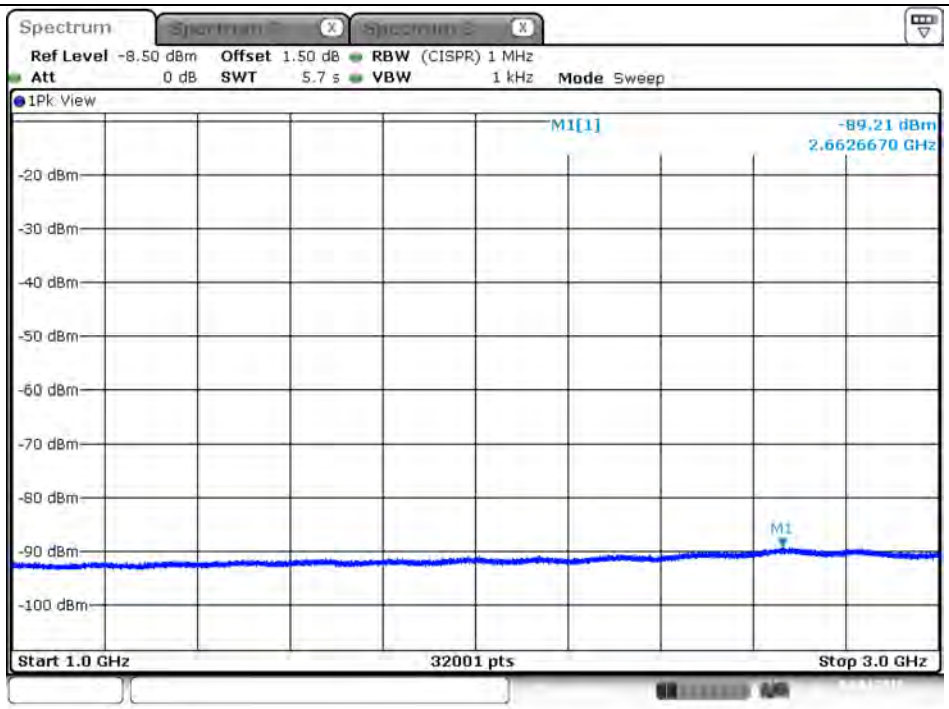
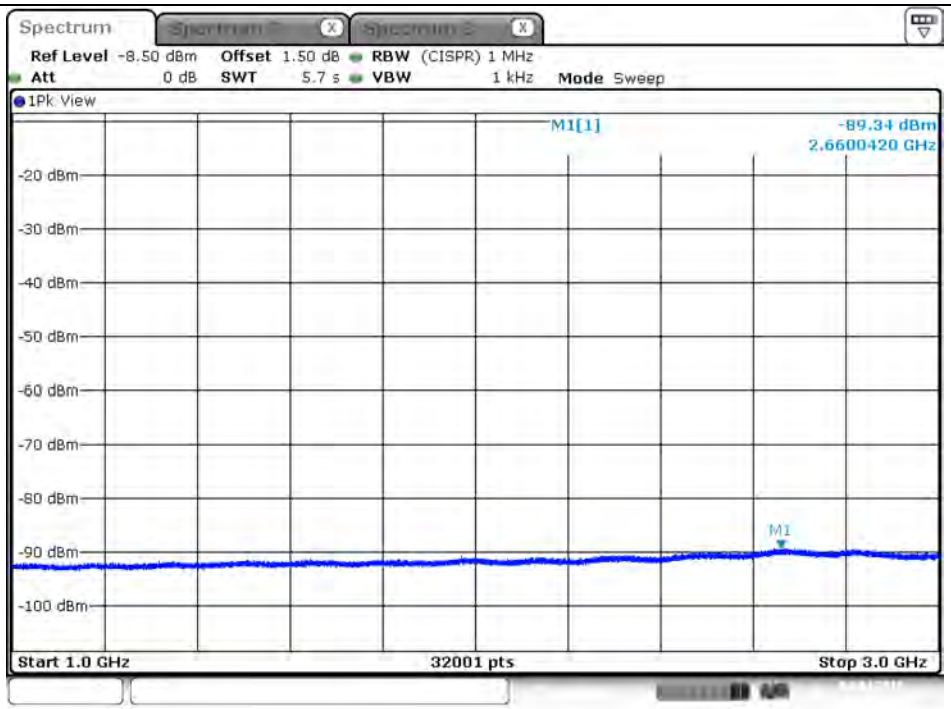
Plot on Configuration VHT20 / 5260 MHz / Average / Port 2 / 1GHz~3GHz



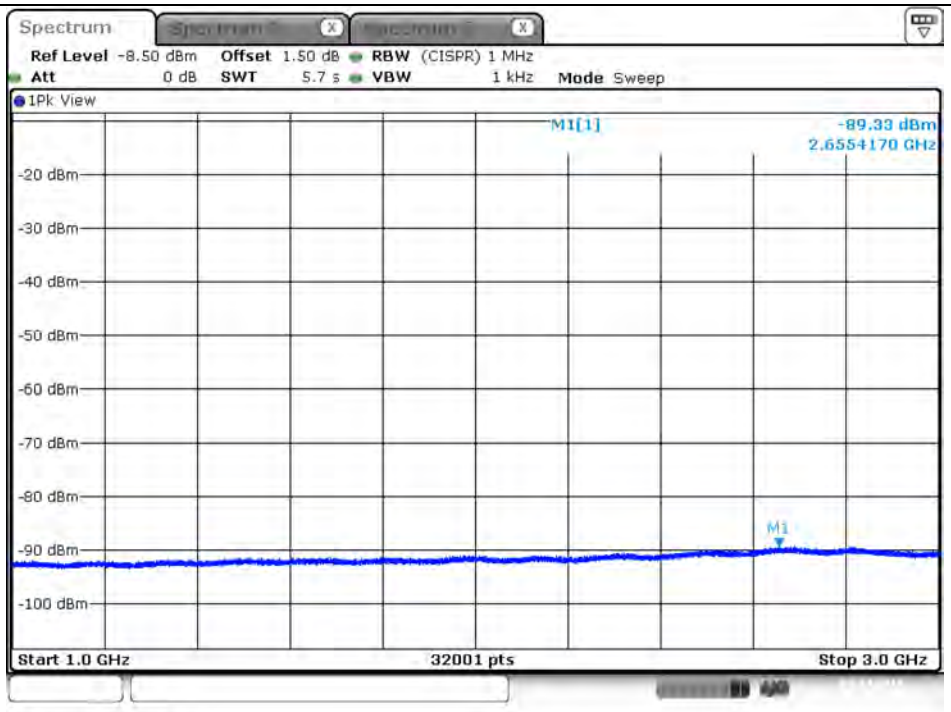
Date: 4.APR.2018 00:37:42

Plot on Configuration VHT20 / 5260 MHz / Average / Port 3 / 1GHz~3GHz



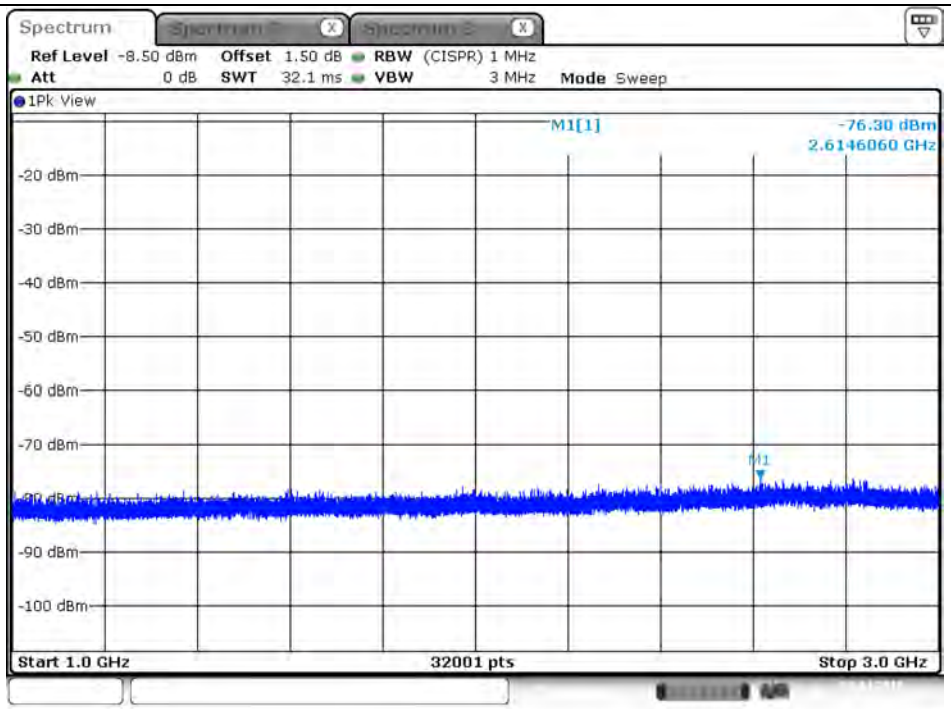
Date: 4.APR.2018 00:40:51

Plot on Configuration VHT20 / 5260 MHz / Average / Port 4 / 1GHz~3GHz



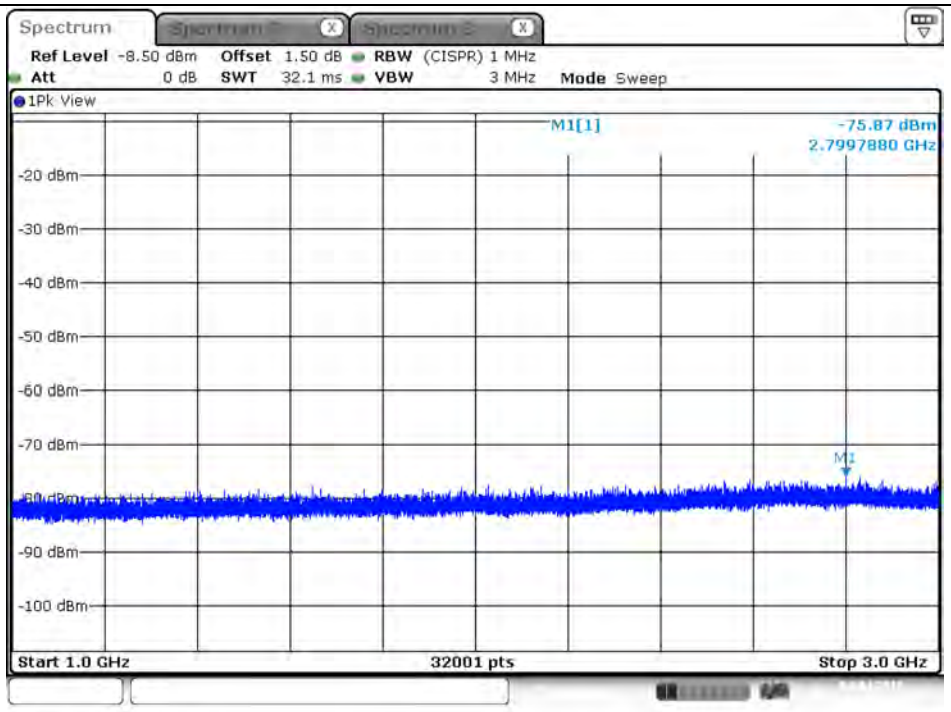
Date: 4.APR.2018 00:55:12

Plot on Configuration VHT20 / 5260 MHz / Peak / Port 1 / 1GHz~3GHz



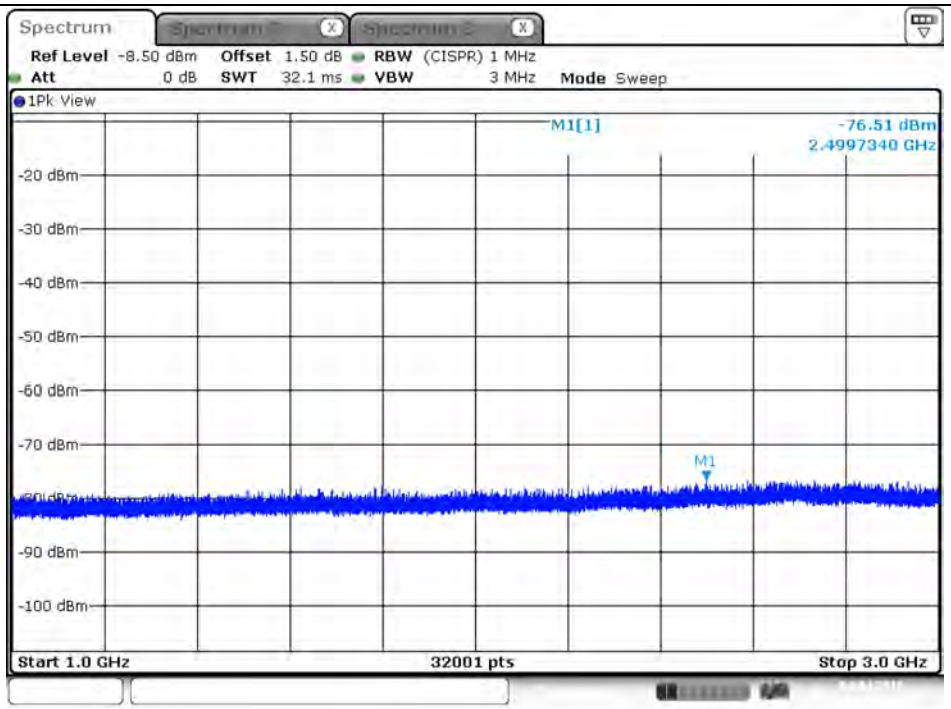
Date: 3.APR.2018 23:57:51

Plot on Configuration VHT20 / 5260 MHz / Peak / Port 2 / 1GHz~3GHz



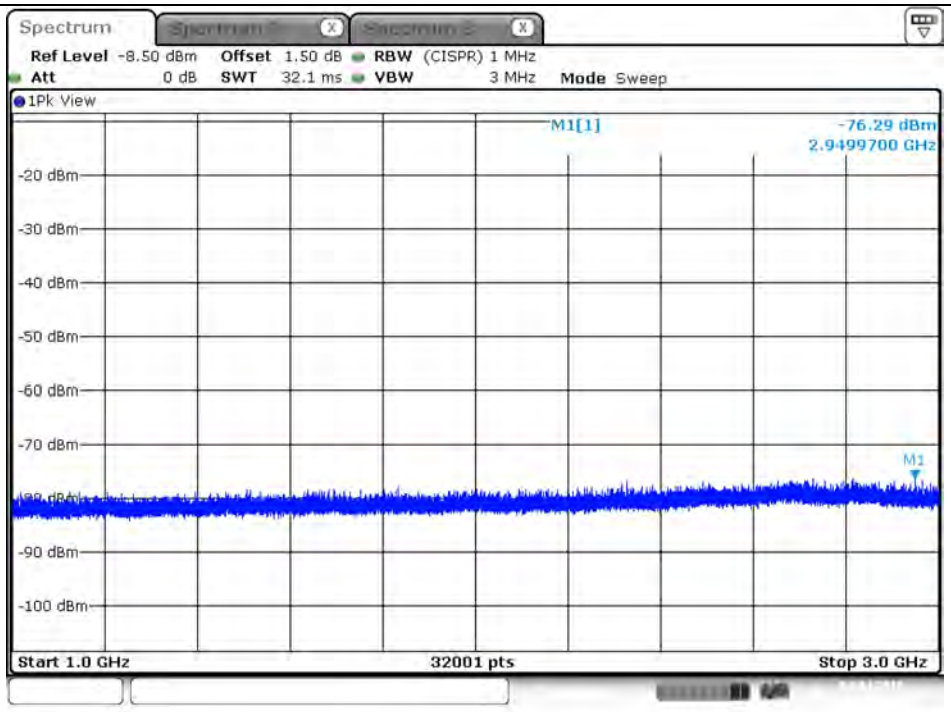
Date: 4.APR.2018 00:38:32

Plot on Configuration VHT20 / 5260 MHz / Peak / Port 3 / 1GHz~3GHz



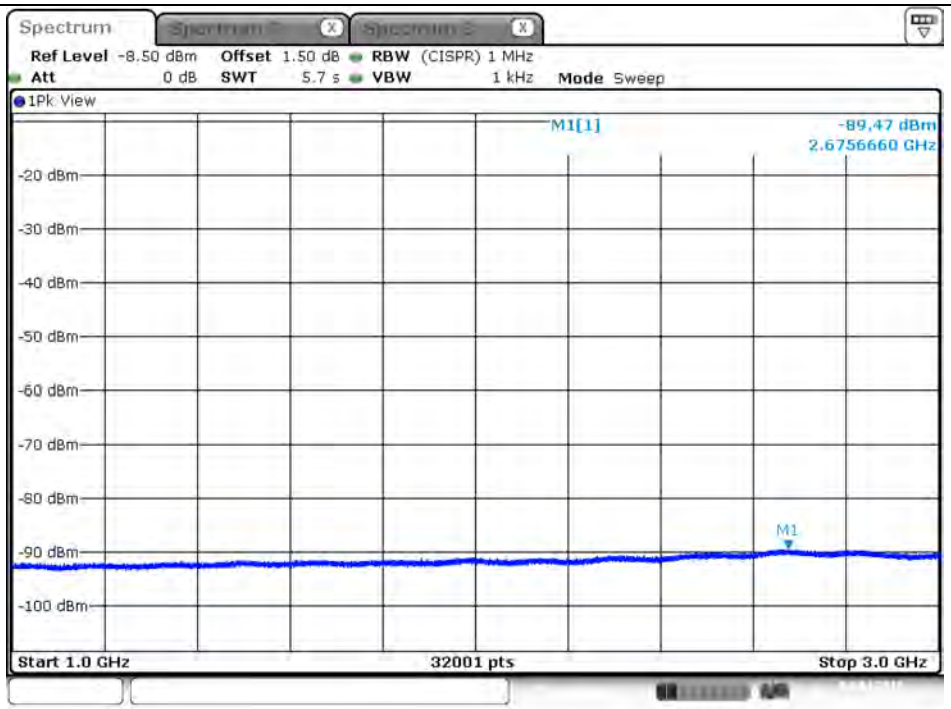
Date: 4.APR.2018 00:41:46

Plot on Configuration VHT20 / 5260 MHz / Peak / Port 4 / 1GHz~3GHz



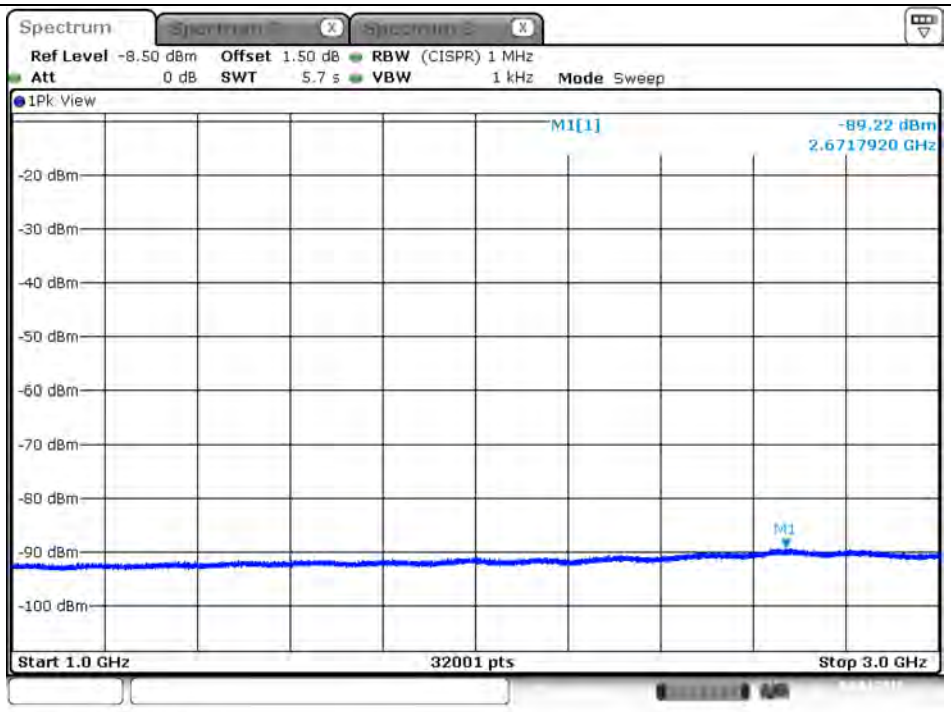
Date: 4.APR.2018 00:56:01

Plot on Configuration VHT20 / 5300 MHz / Average / Port 1 / 1GHz~3GHz



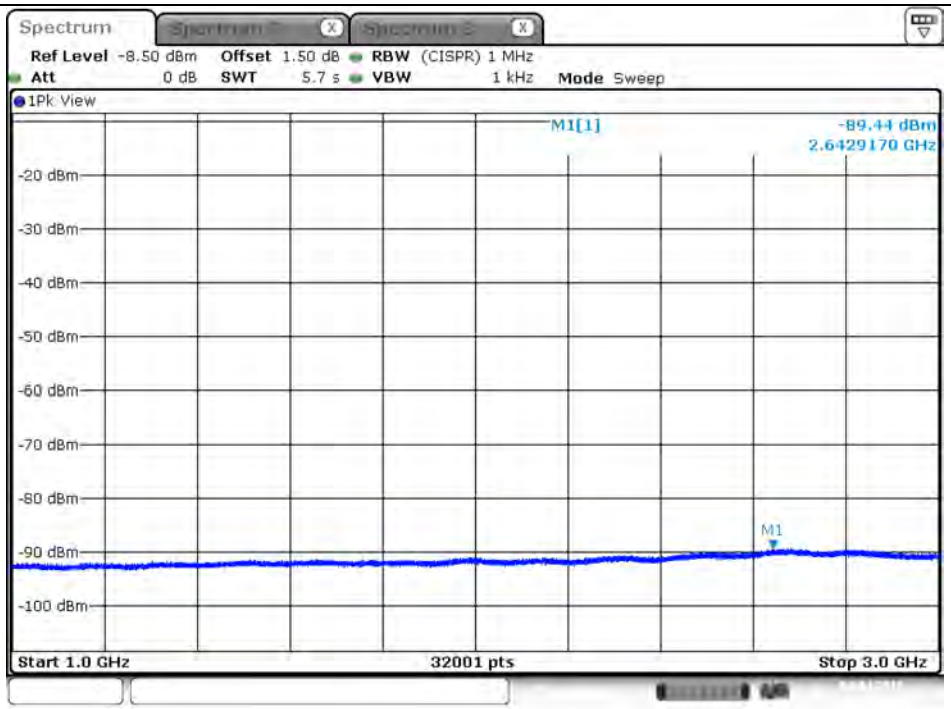
Date: 4.APR.2018 00:57:55

Plot on Configuration VHT20 / 5300 MHz / Average / Port 2 / 1GHz~3GHz



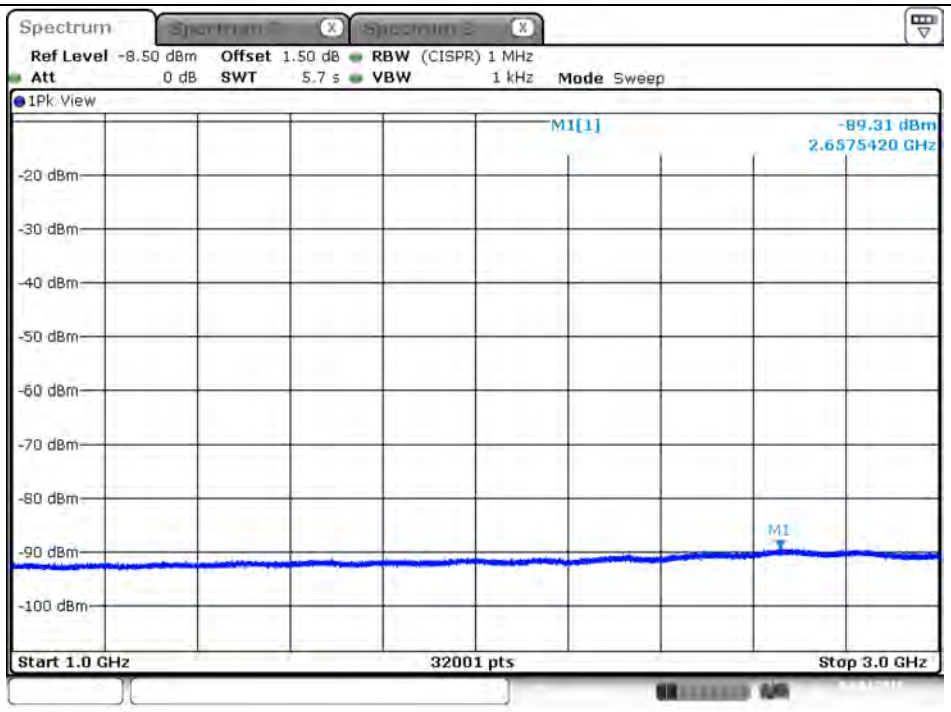
Date: 4.APR.2018 01:09:34

Plot on Configuration VHT20 / 5300 MHz / Average / Port 3 / 1GHz~3GHz



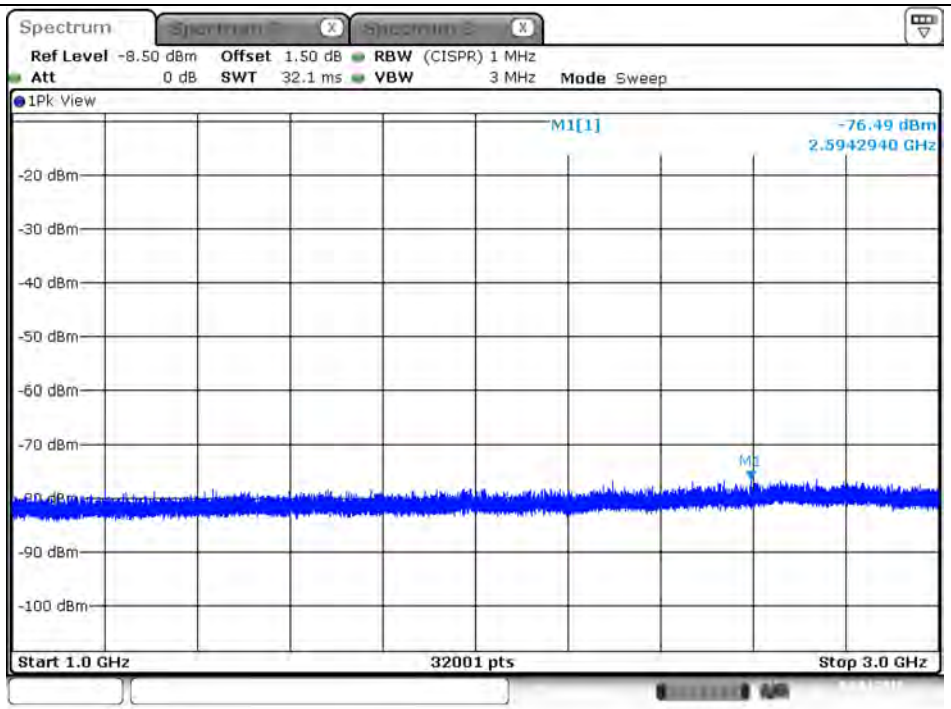
Date: 4.APR.2018 01:11:48

Plot on Configuration VHT20 / 5300 MHz / Average / Port 4 / 1GHz~3GHz



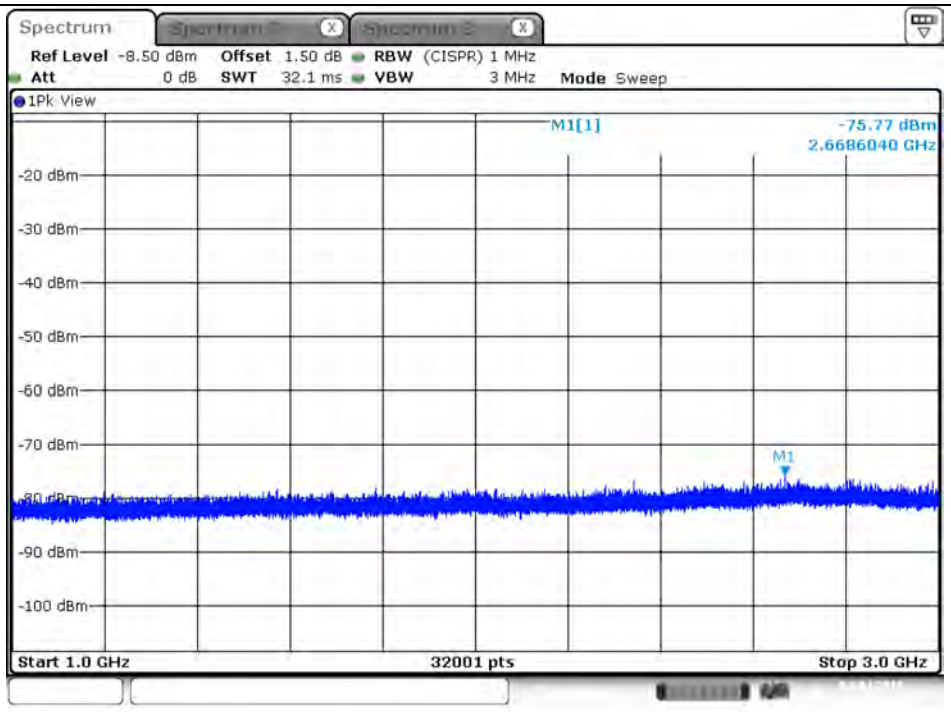
Date: 4.APR.2018 01:25:48

Plot on Configuration VHT20 / 5300 MHz / Peak / Port 1 / 1GHz~3GHz



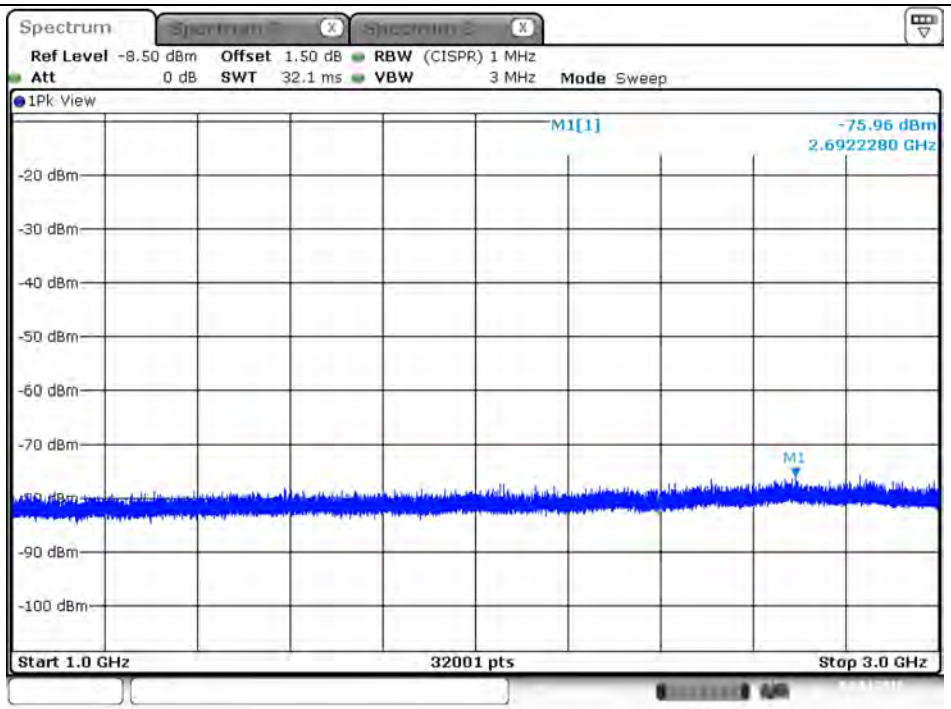
Date: 4.APR.2018 00:58:45

Plot on Configuration VHT20 / 5300 MHz / Peak / Port 2 / 1GHz~3GHz



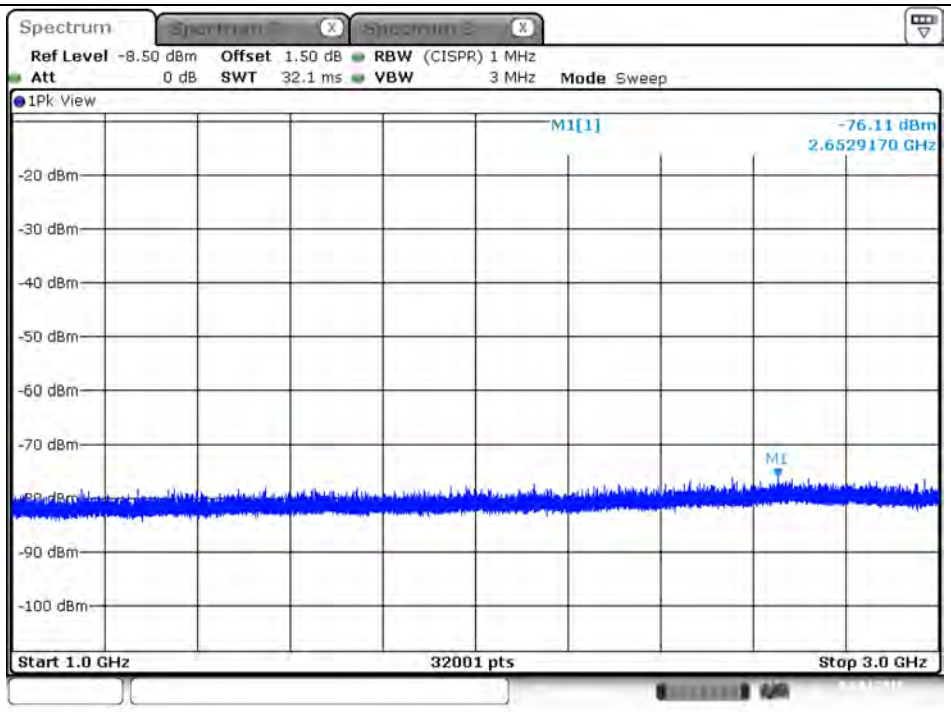
Date: 4.APR.2018 01:10:13

Plot on Configuration VHT20 / 5300 MHz / Peak / Port 3 / 1GHz~3GHz



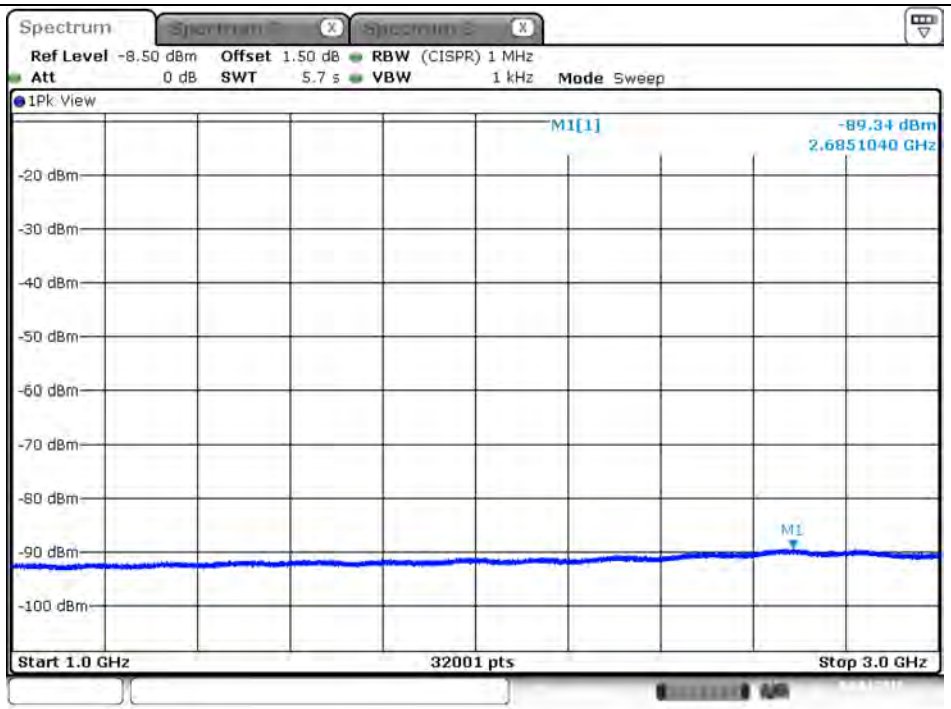
Date: 4.APR.2018 01:12:26

Plot on Configuration VHT20 / 5300 MHz / Peak / Port 4 / 1GHz~3GHz



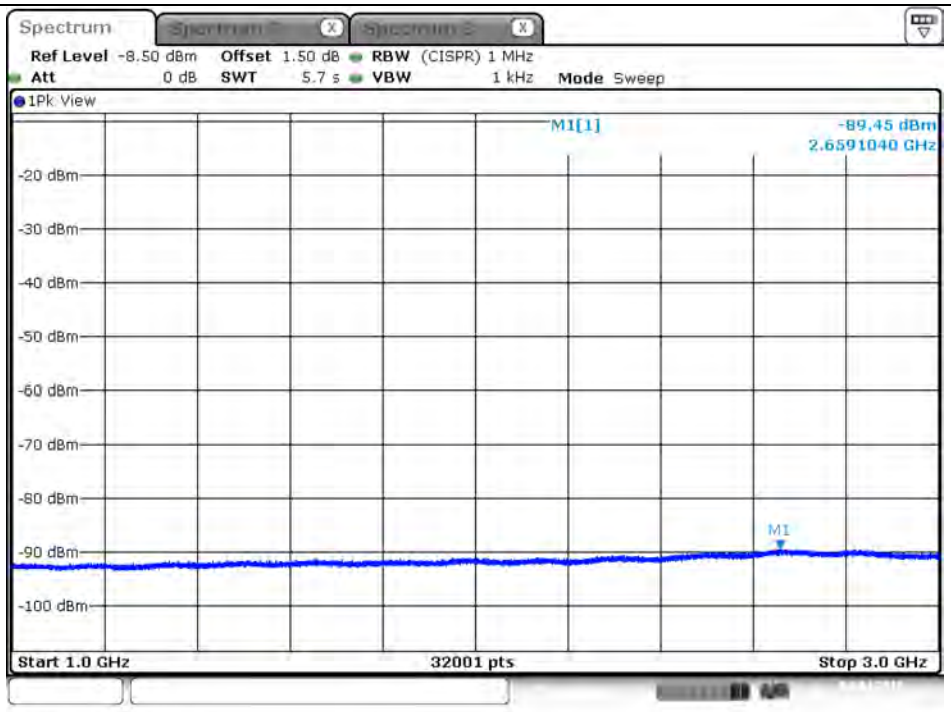
Date: 4.APR.2018 01:26:33

Plot on Configuration VHT20 / 5320 MHz / Average / Port 1 / 1GHz~3GHz



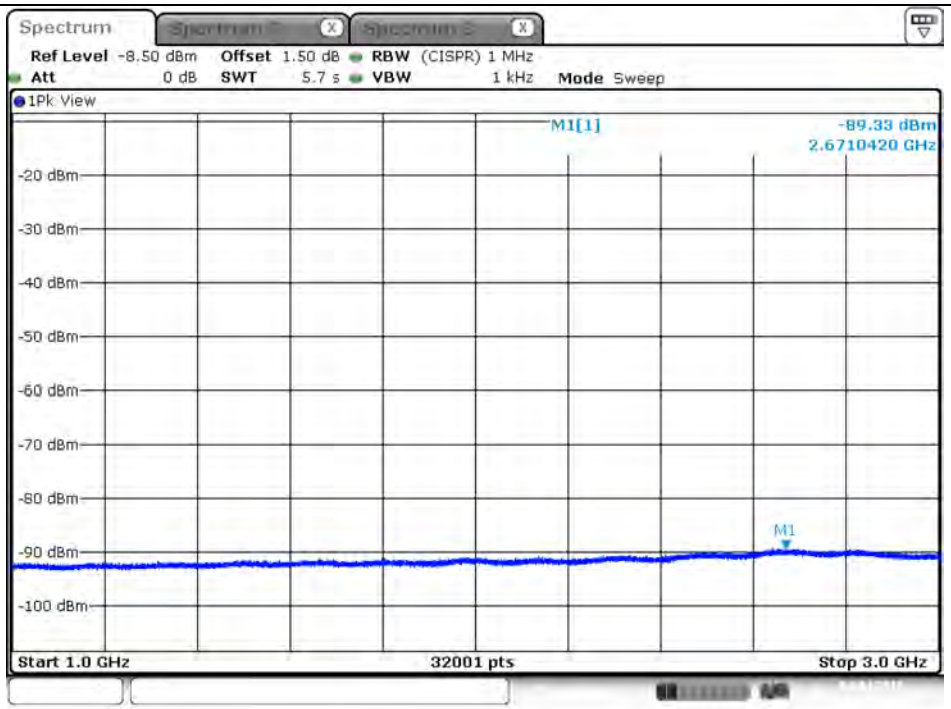
Date: 4.APR.2018 01:28:41

Plot on Configuration VHT20 / 5320 MHz / Average / Port 2 / 1GHz~3GHz



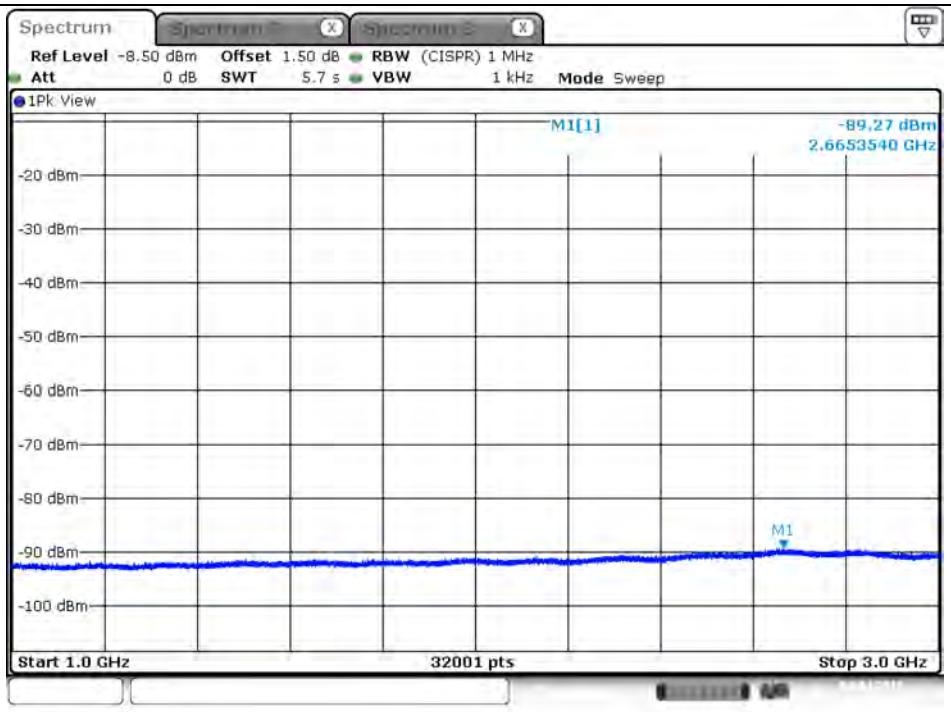
Date: 4.APR.2018 01:39:39

Plot on Configuration VHT20 / 5320 MHz / Average / Port 3 / 1GHz~3GHz



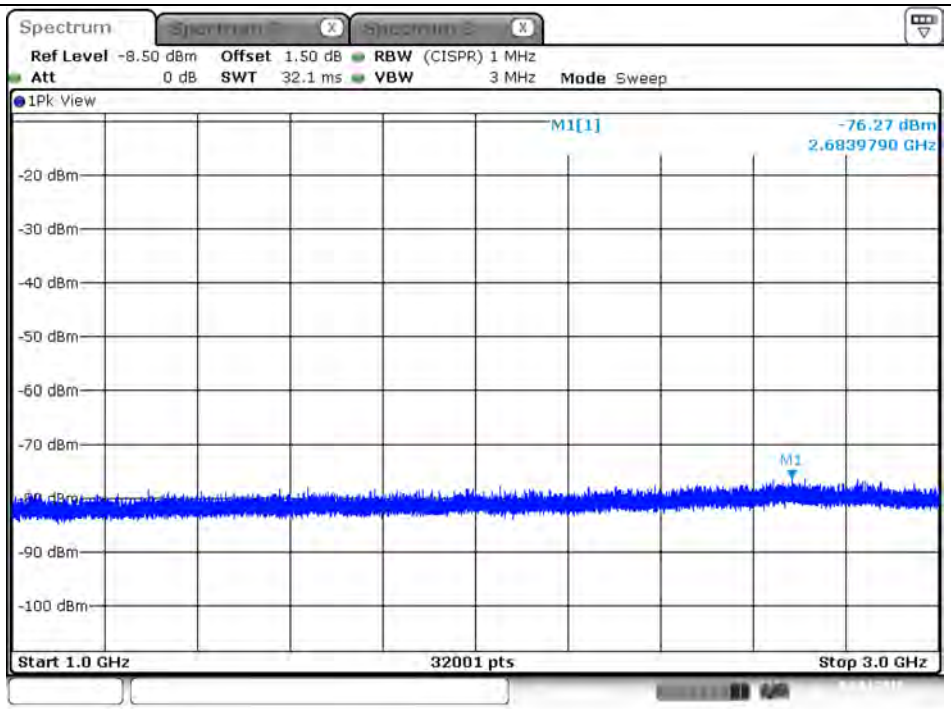
Date: 4.APR.2018 01:42:35

Plot on Configuration VHT20 / 5320 MHz / Average / Port 4 / 1GHz~3GHz



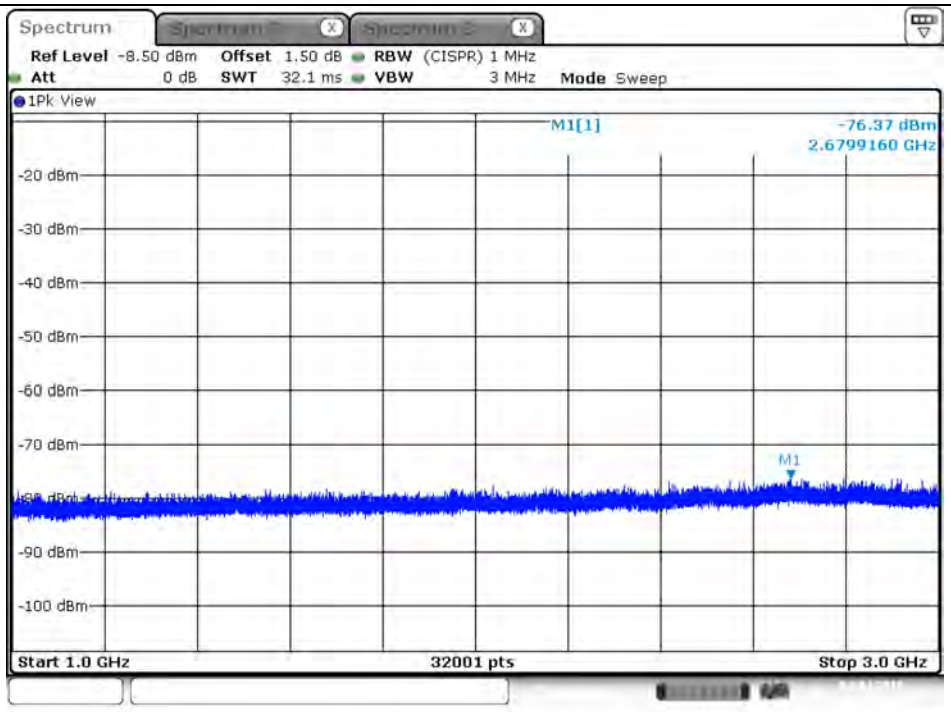
Date: 4.APR.2018 01:55:22

Plot on Configuration VHT20 / 5320 MHz / Peak / Port 1 / 1GHz~3GHz



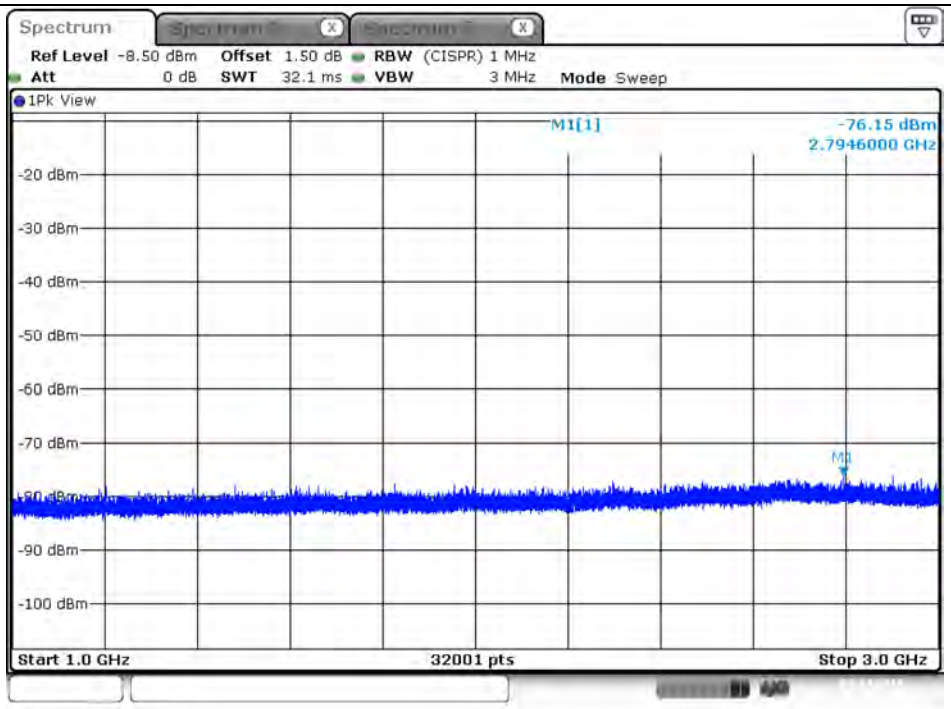
Date: 4.APR.2018 01:29:23

Plot on Configuration VHT20 / 5320 MHz / Peak / Port 2 / 1GHz~3GHz



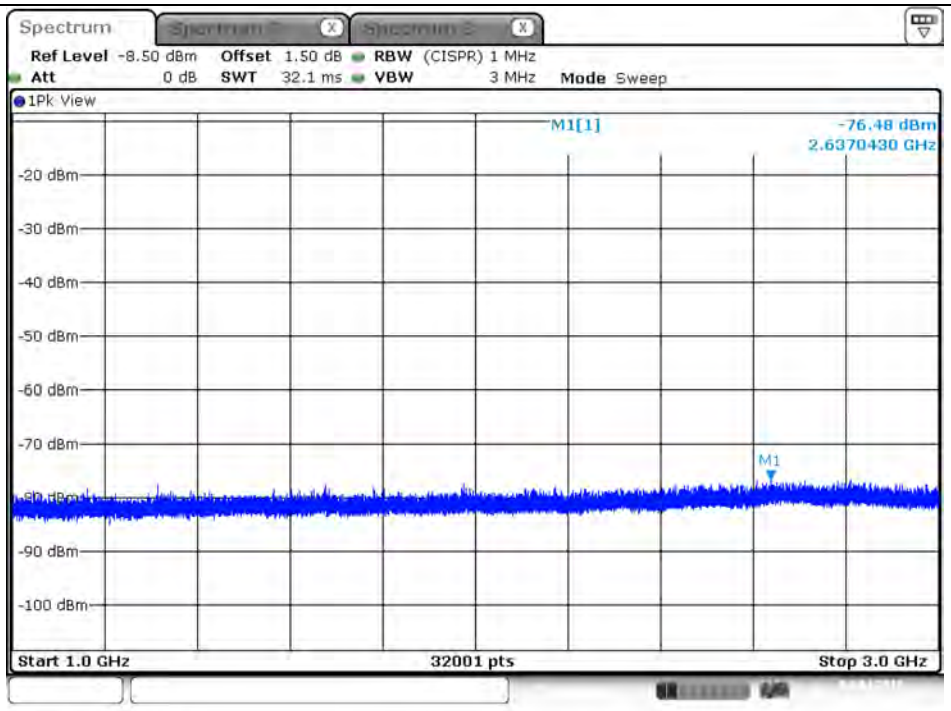
Date: 4.APR.2018 01:40:34

Plot on Configuration VHT20 / 5320 MHz / Peak / Port 3 / 1GHz~3GHz



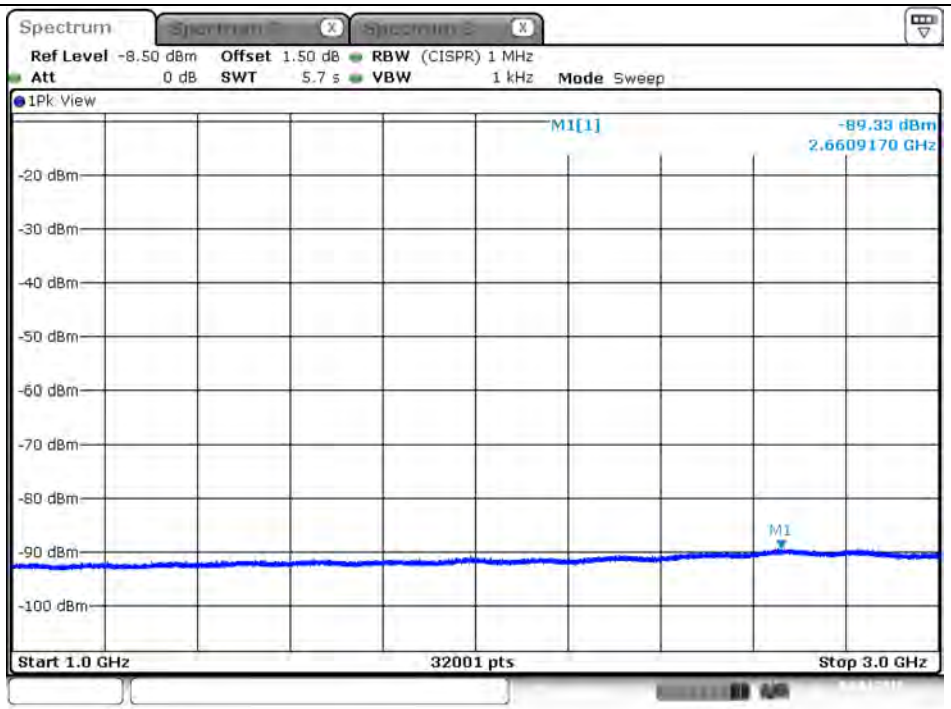
Date: 4.APR.2018 01:43:20

Plot on Configuration VHT20 / 5320 MHz / Peak / Port 4 / 1GHz~3GHz



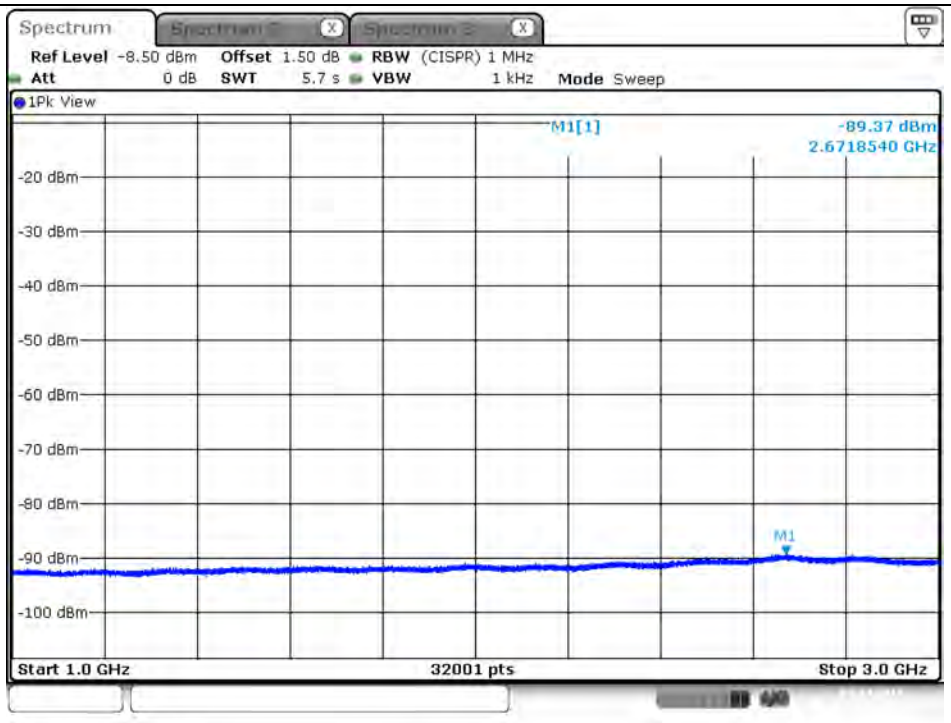
Date: 4.APR.2018 01:56:00

Plot on Configuration VHT40 / 5270 MHz / Average / Port 1 / 1GHz~3GHz



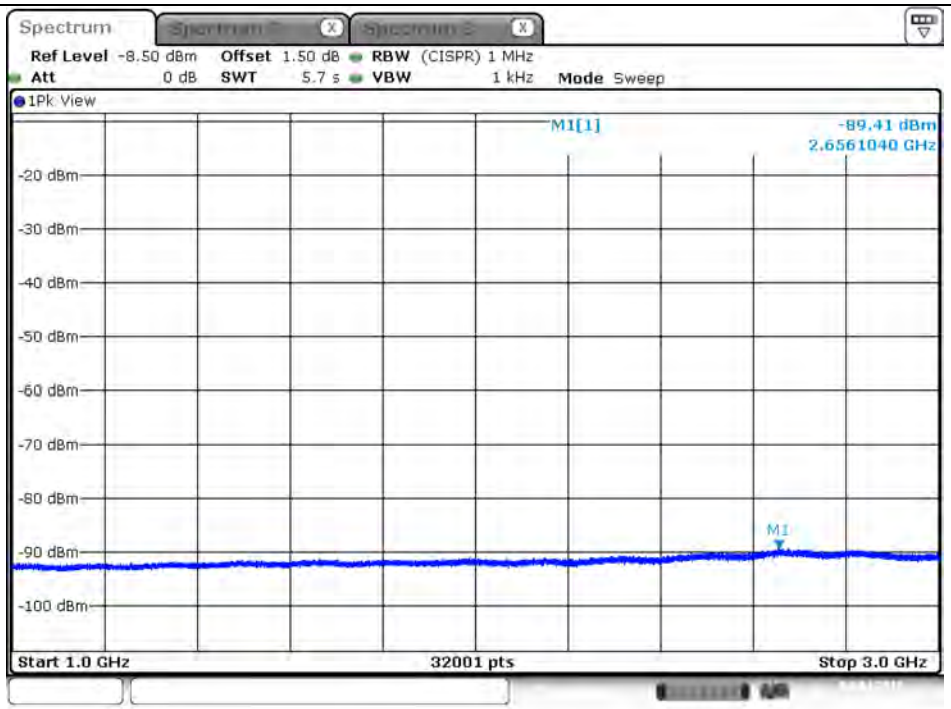
Date: 4.APR.2018 01:57:46

Plot on Configuration VHT40 / 5270 MHz / Average / Port 2 / 1GHz~3GHz



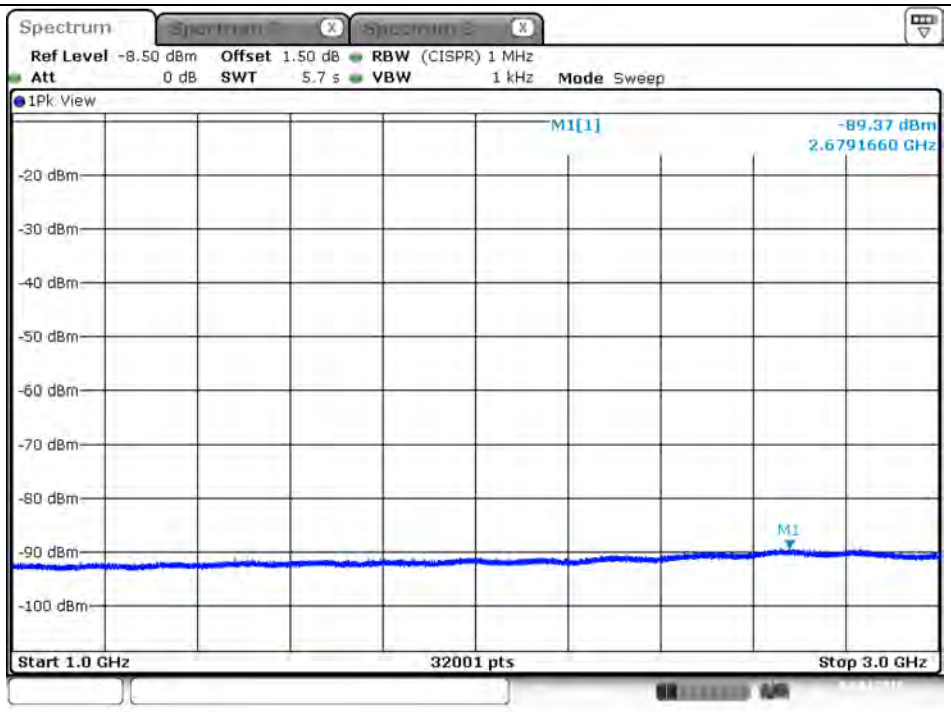
Date: 4.APR.2018 02:10:31

Plot on Configuration VHT40 / 5270 MHz / Average / Port 3 / 1GHz~3GHz



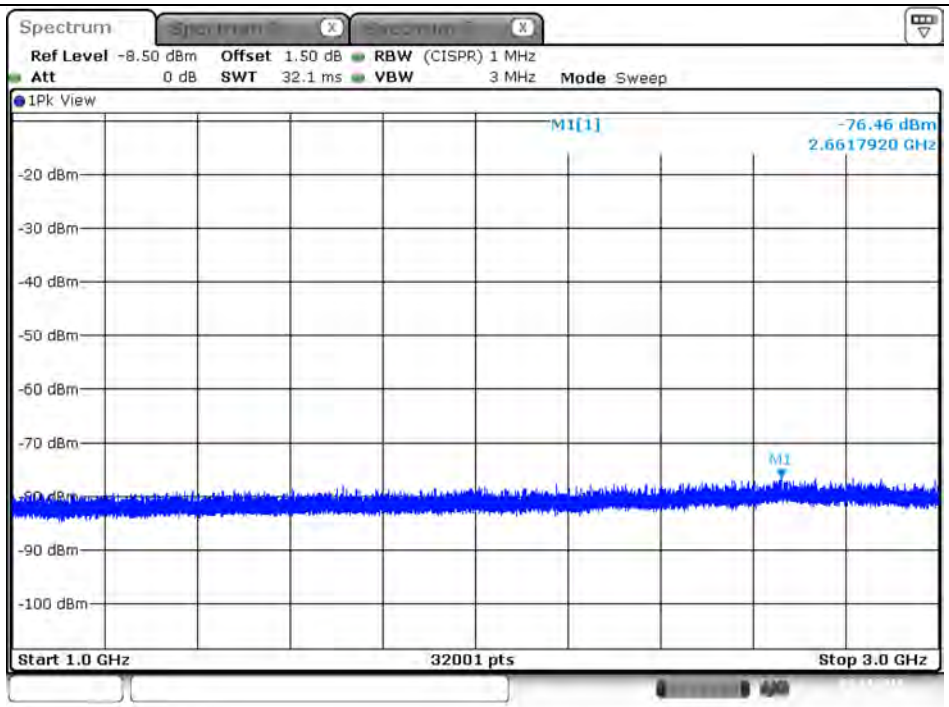
Date: 4.APR.2018 02:12:44

Plot on Configuration VHT40 / 5270 MHz / Average / Port 4 / 1GHz~3GHz



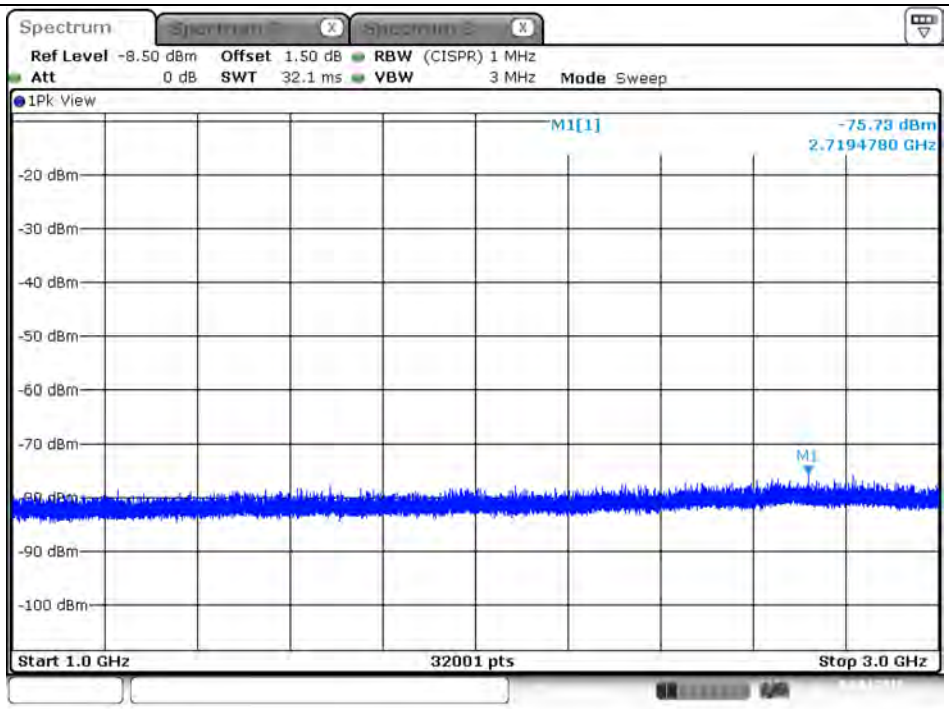
Date: 4.APR.2018 02:26:25

Plot on Configuration VHT40 / 5270 MHz / Peak / Port 1 / 1GHz~3GHz



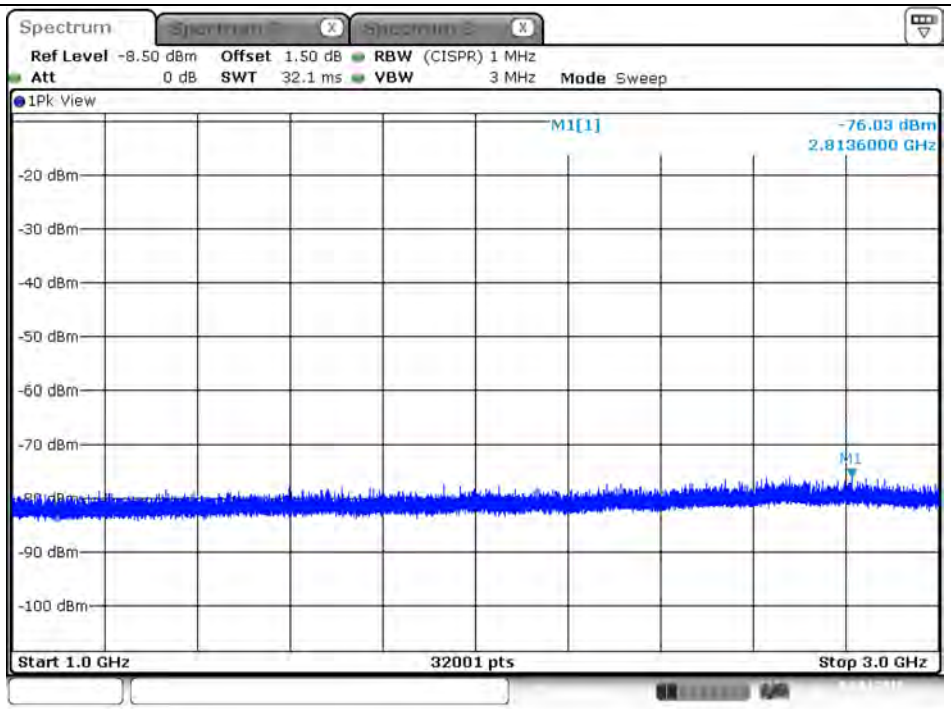
Date: 4.APR.2018 01:58:31

Plot on Configuration VHT40 / 5270 MHz / Peak / Port 2 / 1GHz~3GHz



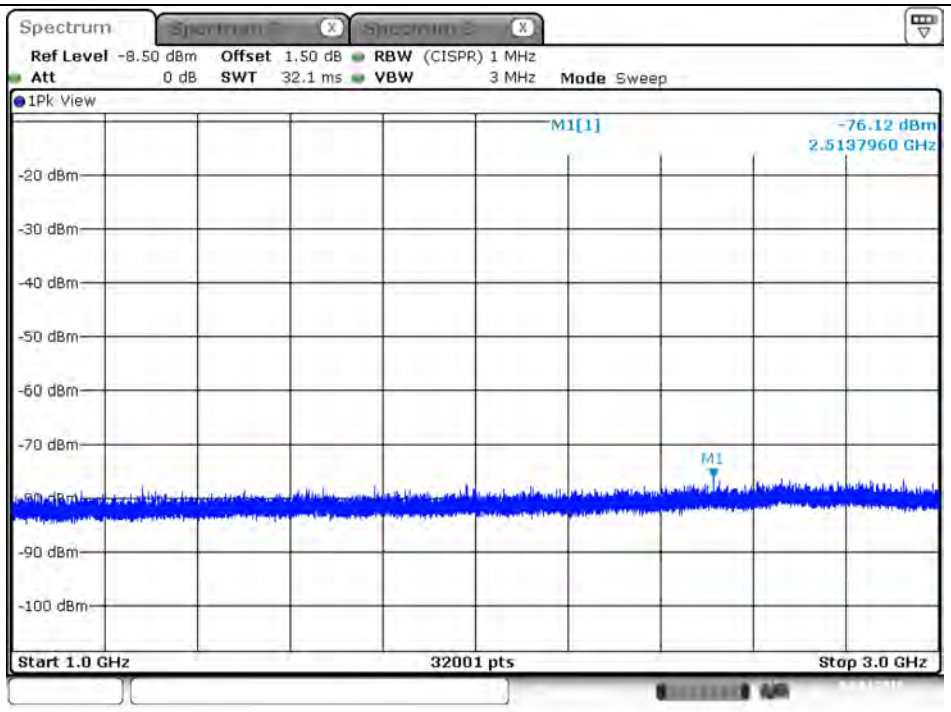
Date: 4.APR.2018 02:11:13

Plot on Configuration VHT40 / 5270 MHz / Peak / Port 3 / 1GHz~3GHz



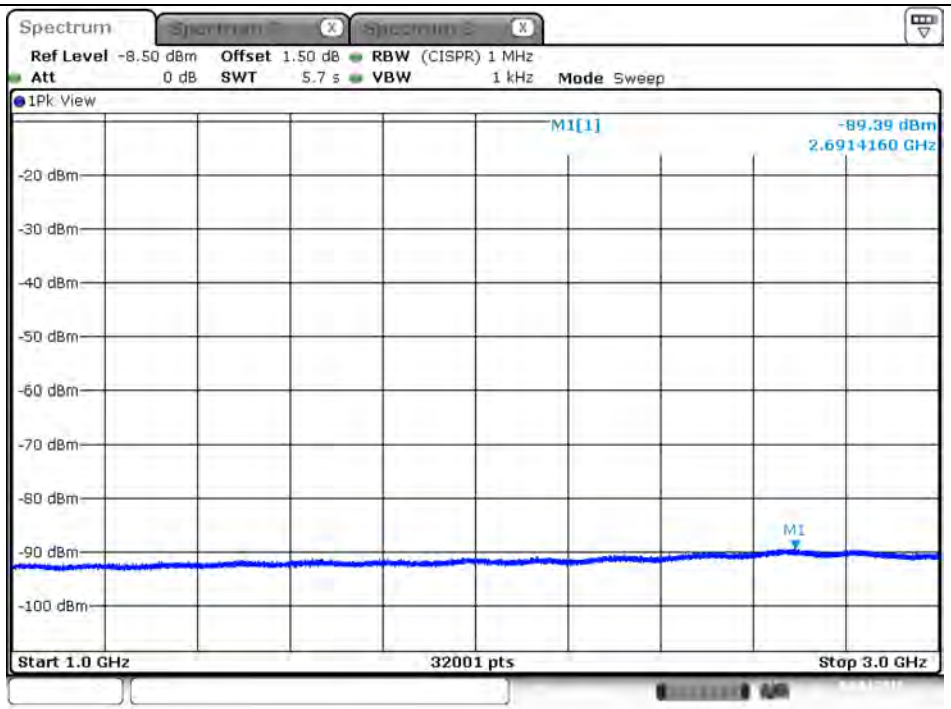
Date: 4.APR.2018 02:13:28

Plot on Configuration VHT40 / 5270 MHz / Peak / Port 4 / 1GHz~3GHz



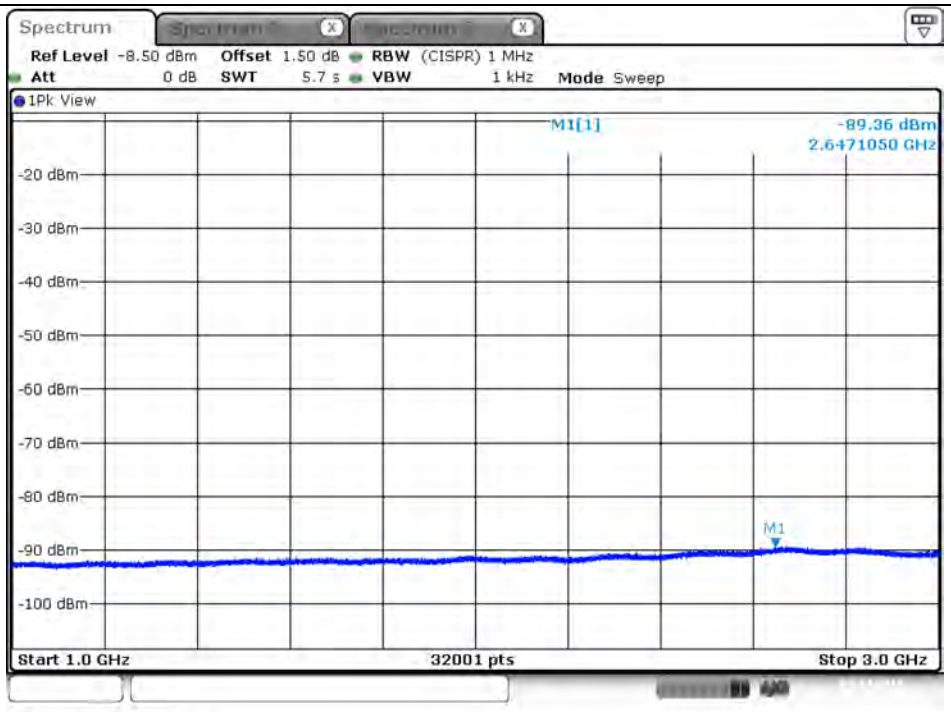
Date: 4.APR.2018 02:27:11

Plot on Configuration VHT40 / 5310 MHz / Average / Port 1 / 1GHz~3GHz



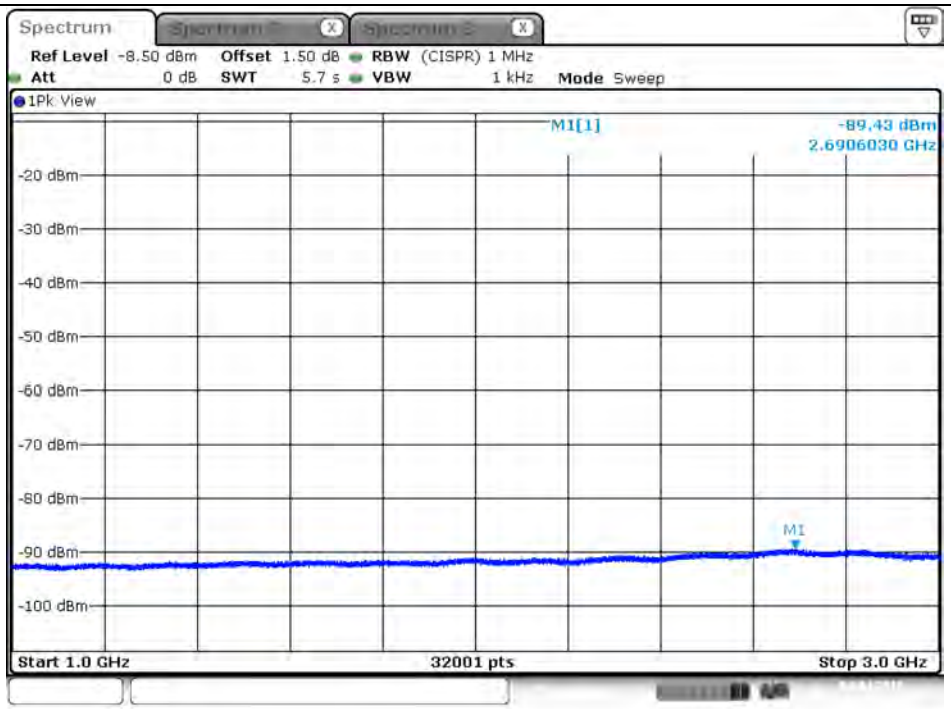
Date: 4.APR.2018 02:28:51

Plot on Configuration VHT40 / 5310 MHz / Average / Port 2 / 1GHz~3GHz



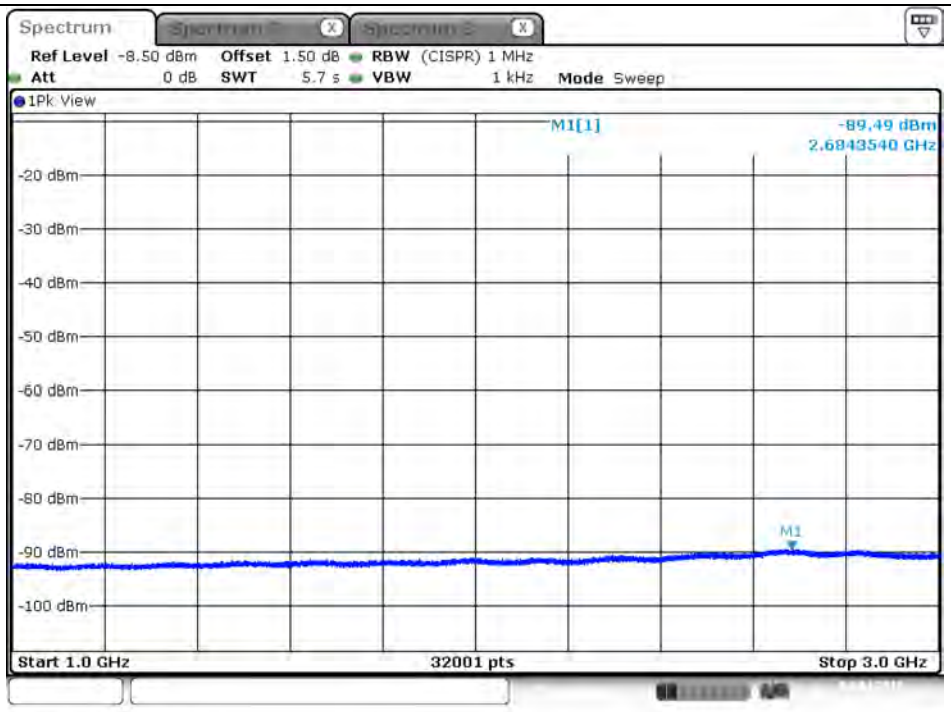
Date: 4.APR.2018 02:37:30

Plot on Configuration VHT40 / 5310 MHz / Average / Port 3 / 1GHz~3GHz



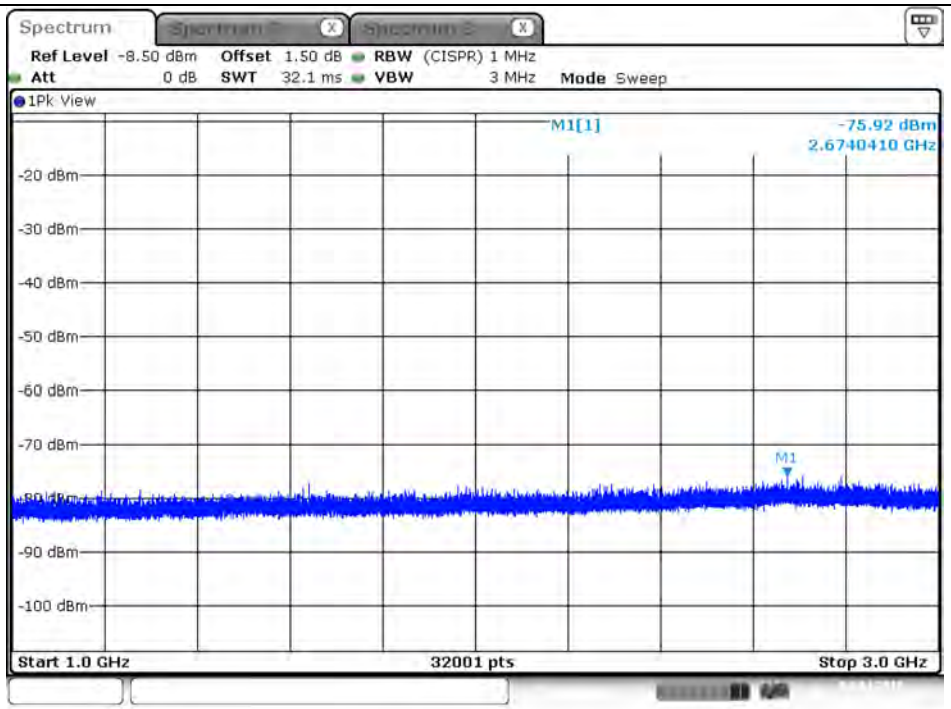
Date: 4.APR.2018 02:39:26

Plot on Configuration VHT40 / 5310 MHz / Average / Port 4 / 1GHz~3GHz



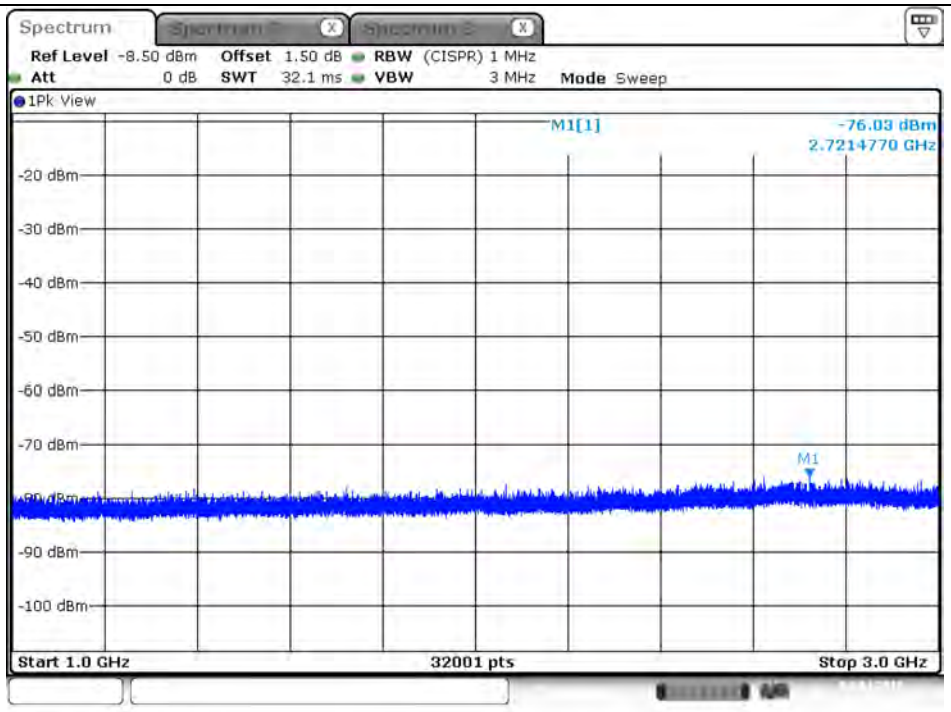
Date: 4.APR.2018 02:49:15

Plot on Configuration VHT40 / 5310 MHz / Peak / Port 1 / 1GHz~3GHz



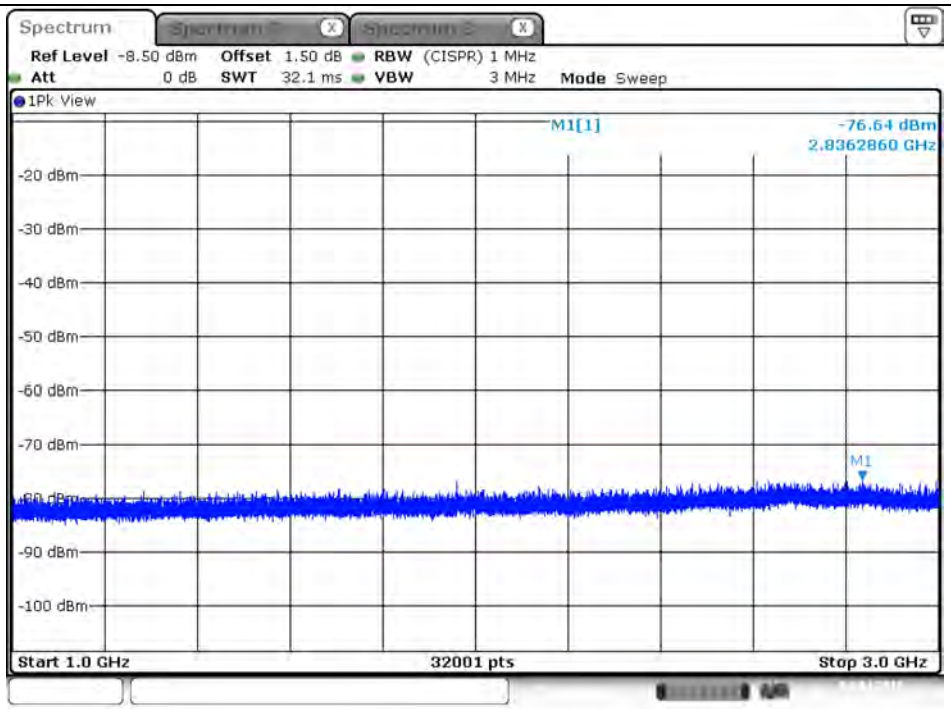
Date: 4.APR.2018 02:29:28

Plot on Configuration VHT40 / 5310 MHz / Peak / Port 2 / 1GHz~3GHz



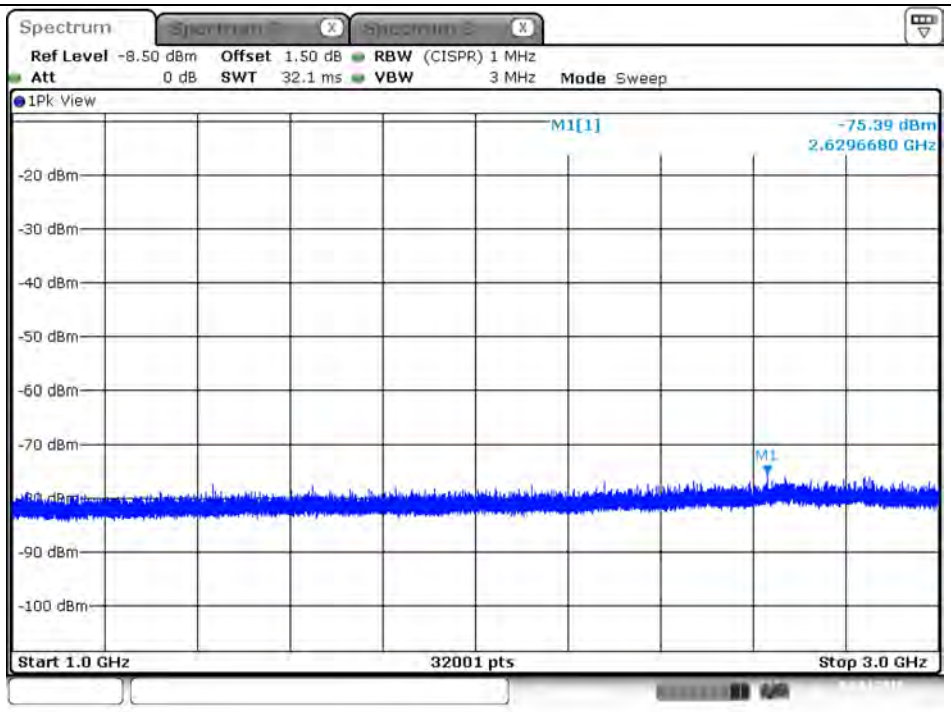
Date: 4.APR.2018 02:38:10

Plot on Configuration VHT40 / 5310 MHz / Peak / Port 3 / 1GHz~3GHz



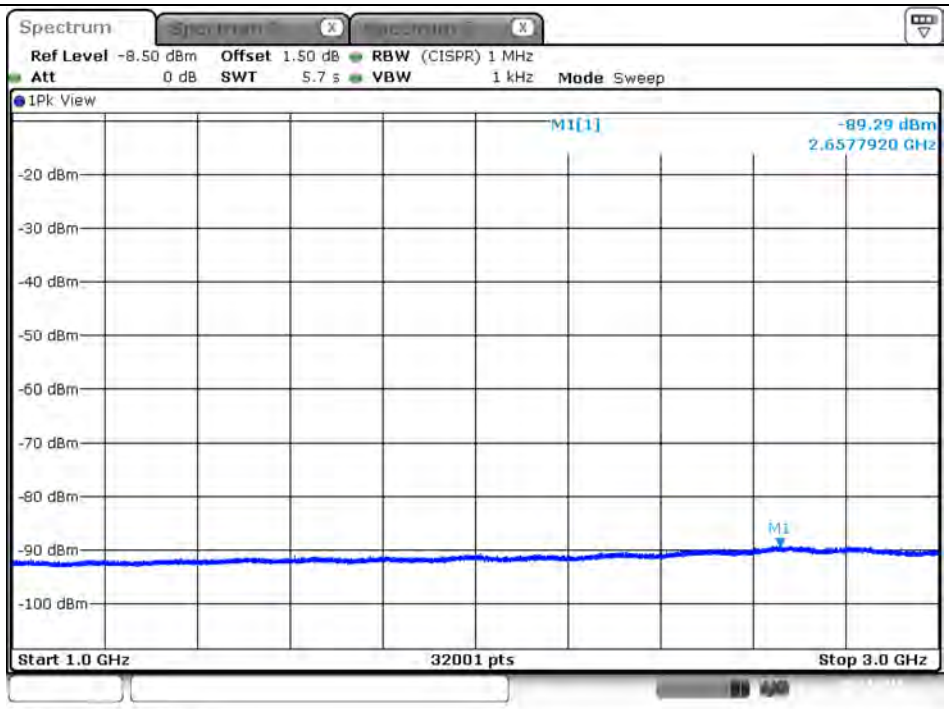
Date: 4.APR.2018 02:40:07

Plot on Configuration VHT40 / 5310 MHz / Peak / Port 4 / 1GHz~3GHz



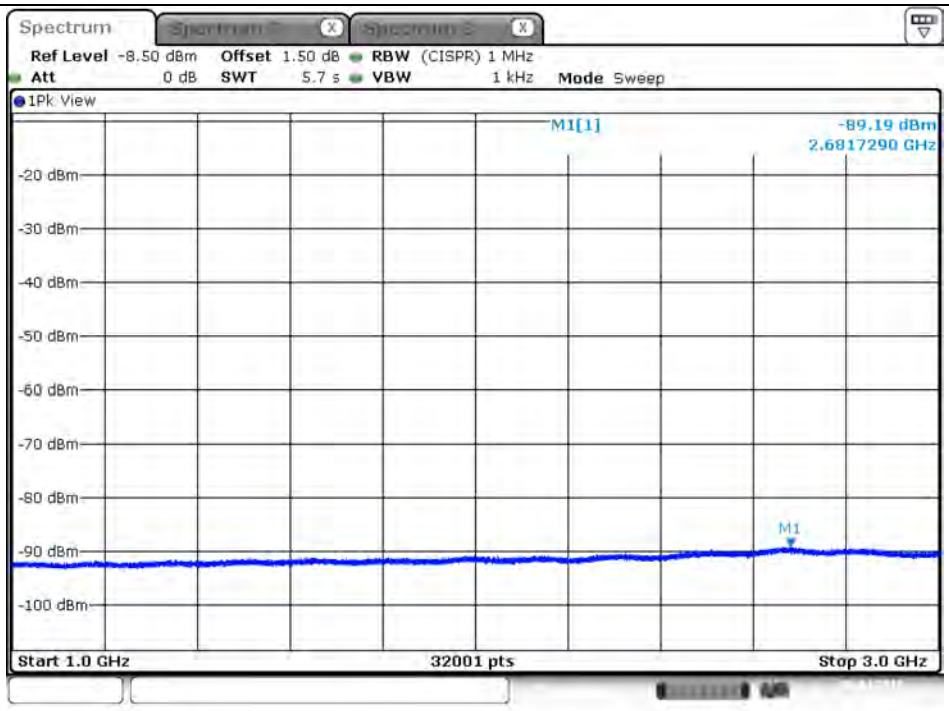
Date: 4.APR.2018 02:50:33

Plot on Configuration VHT80 / 5290 MHz / Average / Port 1 / 1GHz~3GHz



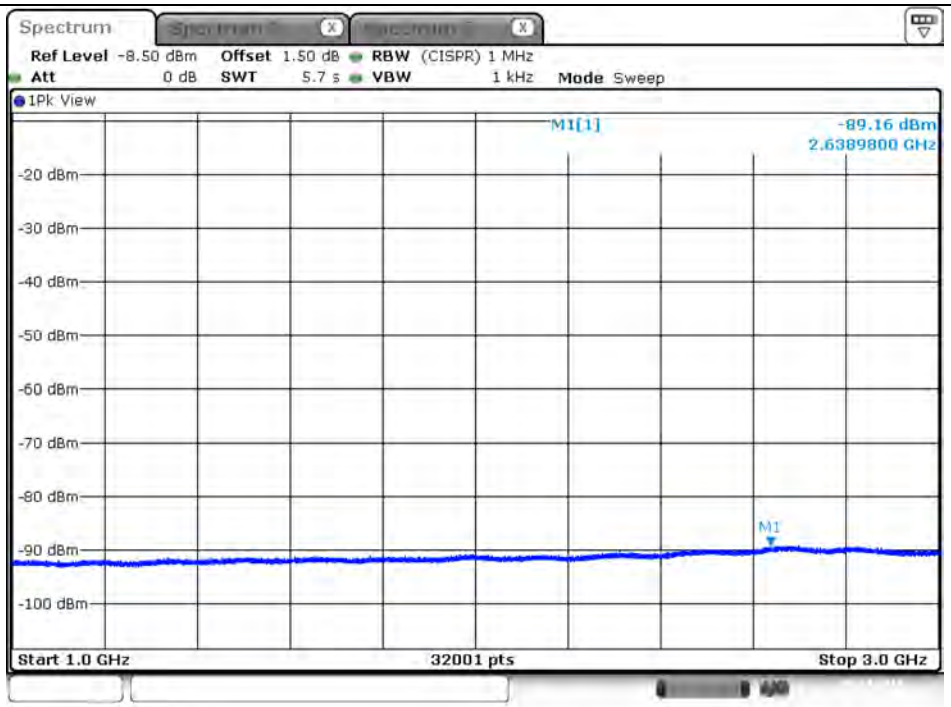
Date: 6.APR.2018 20:12:08

Plot on Configuration VHT80 / 5290 MHz / Average / Port 2 / 1GHz~3GHz



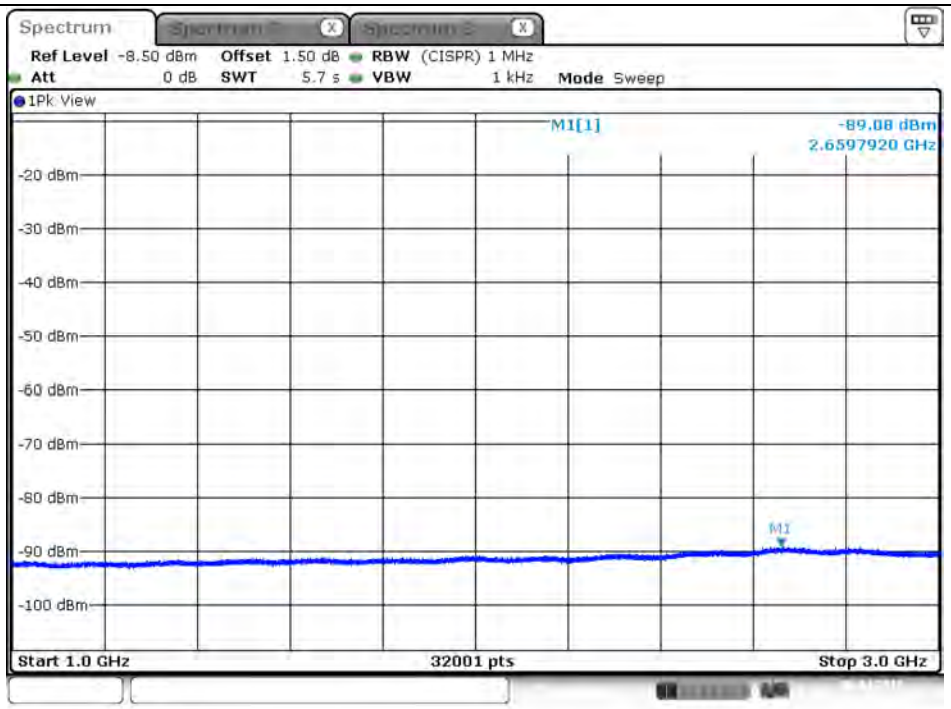
Date: 6.APR.2018 20:26:40

Plot on Configuration VHT80 / 5290 MHz / Average / Port 3 / 1GHz~3GHz



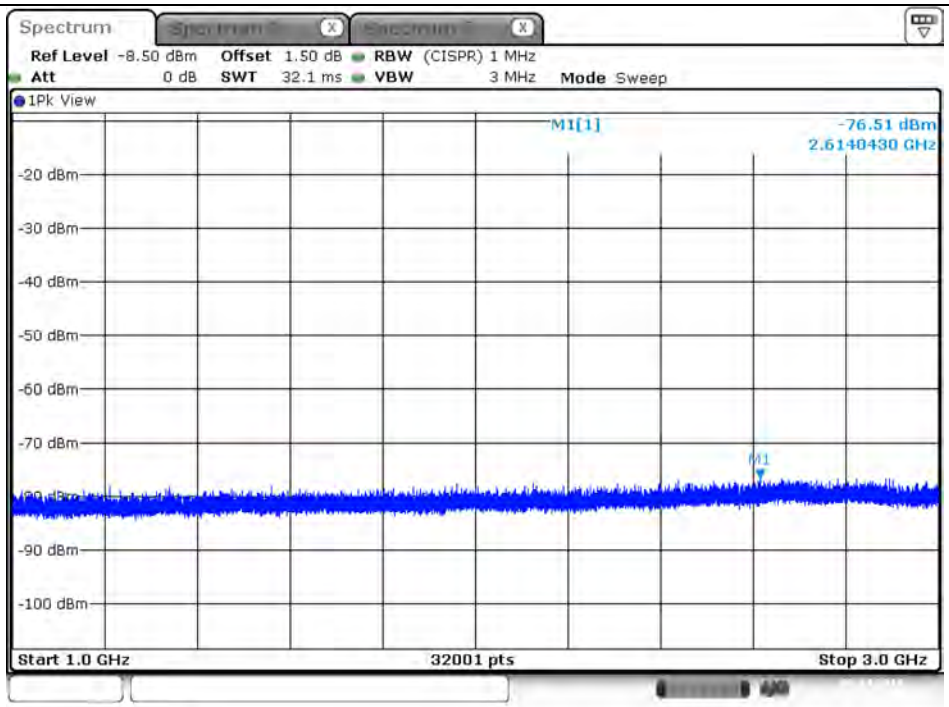
Date: 6.APR.2018 20:30:00

Plot on Configuration VHT80 / 5290 MHz / Average / Port 4 / 1GHz~3GHz



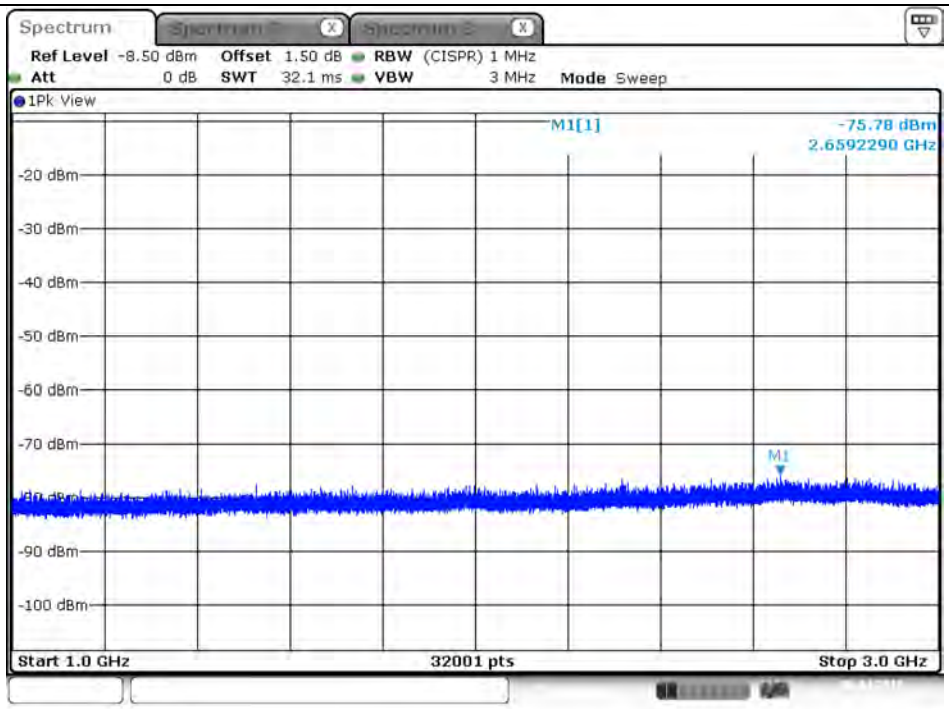
Date: 6.APR.2018 20:47:07

Plot on Configuration VHT80 / 5290 MHz / Peak / Port 1 / 1GHz~3GHz



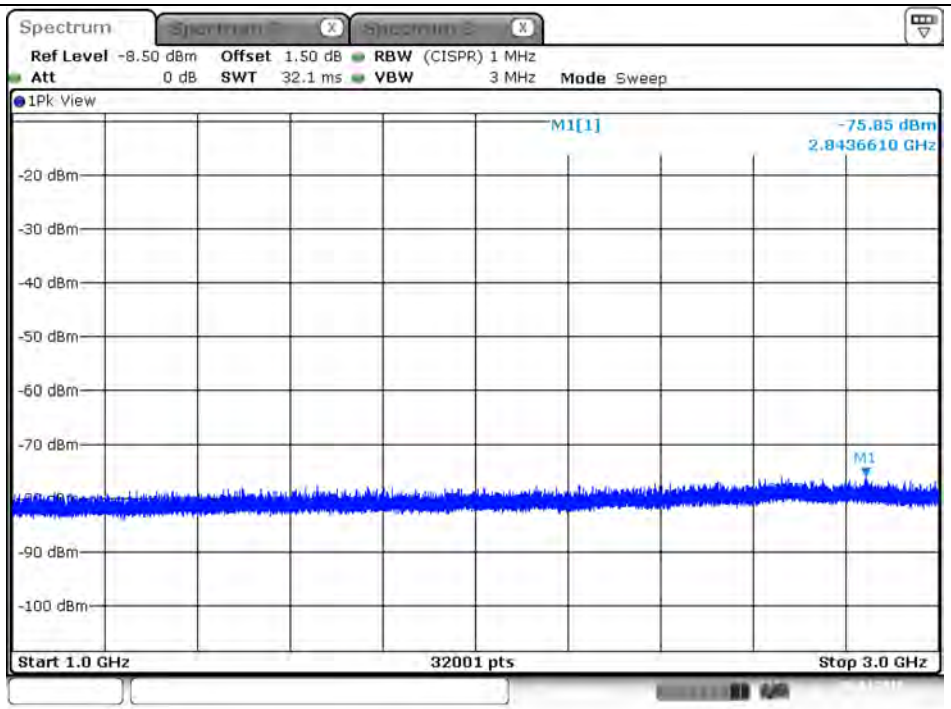
Date: 6.APR.2018 20:13:39

Plot on Configuration VHT80 / 5290 MHz / Peak / Port 2 / 1GHz~3GHz



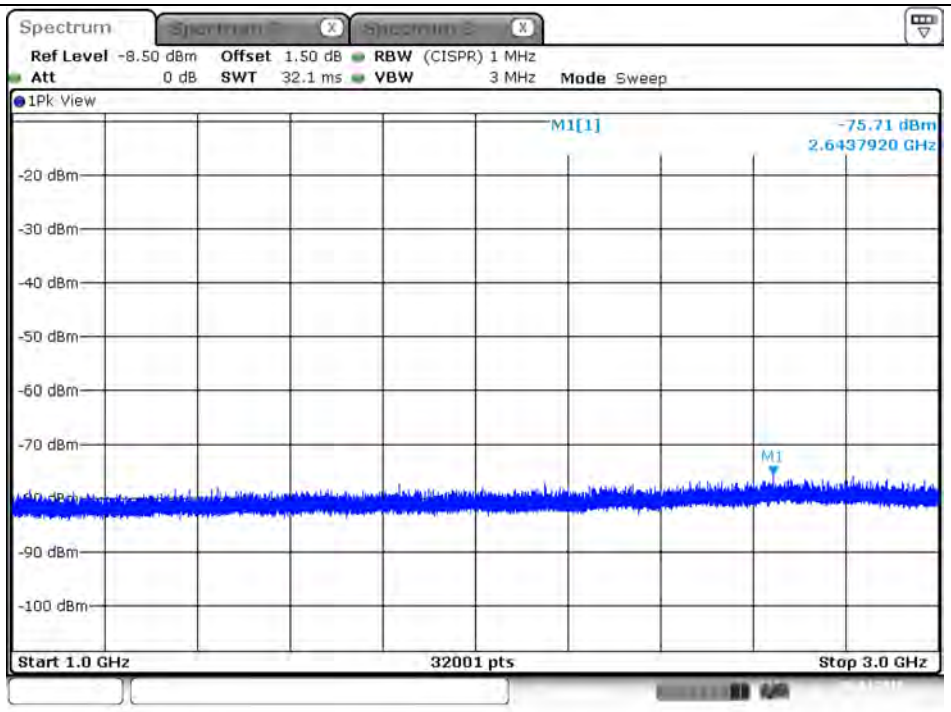
Date: 6.APR.2018 20:27:42

Plot on Configuration VHT80 / 5290 MHz / Peak / Port 3 / 1GHz~3GHz



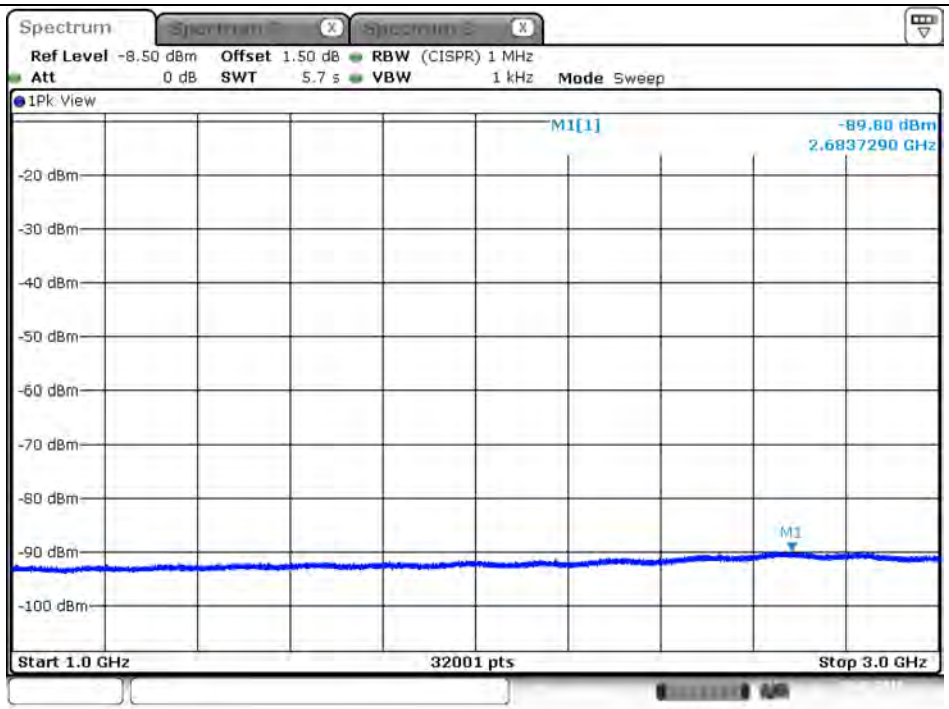
Date: 6.APR.2018 20:31:08

Plot on Configuration VHT80 / 5290 MHz / Peak / Port 4 / 1GHz~3GHz



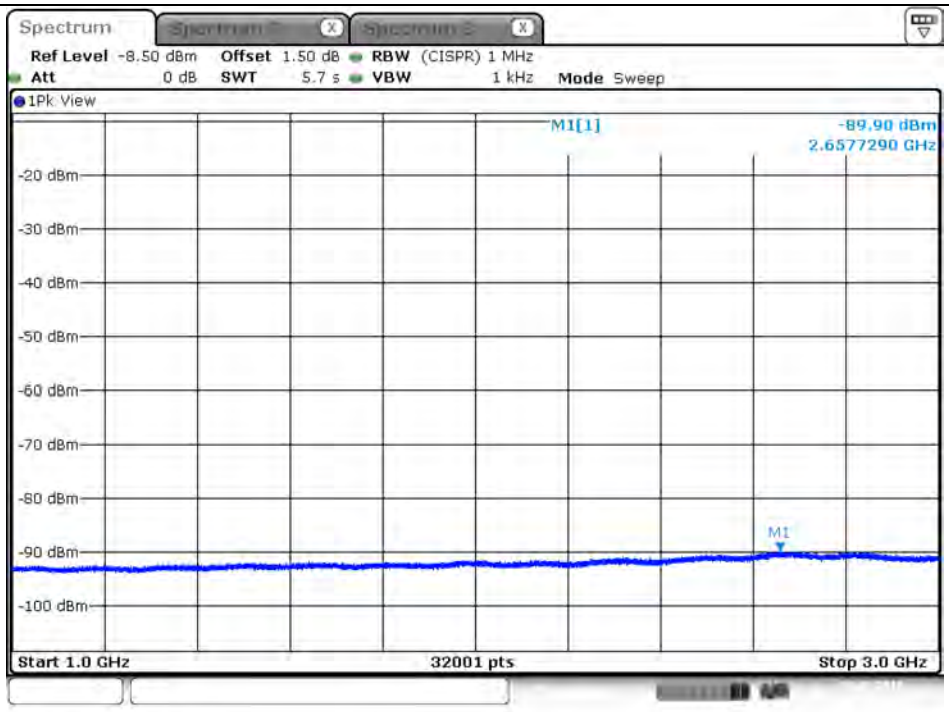
Date: 6.APR.2018 20:48:15

Plot on Configuration VHT20 / 5500 MHz / Average / Port 1 / 1GHz~3GHz



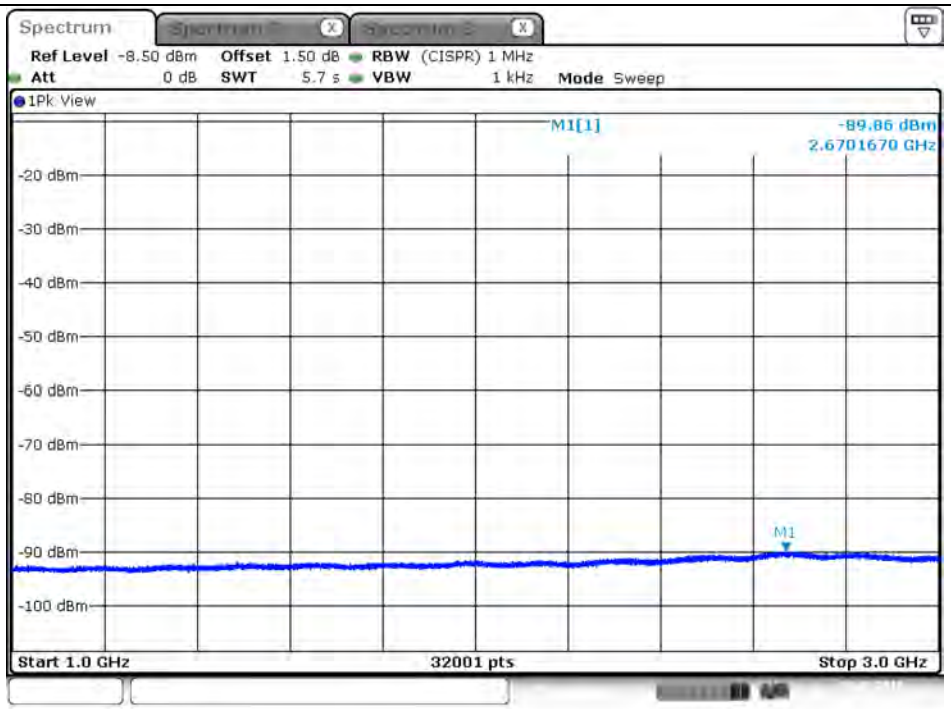
Date: 31.MAR.2018 22:23:25

Plot on Configuration VHT20 / 5500 MHz / Average / Port 2 / 1GHz~3GHz



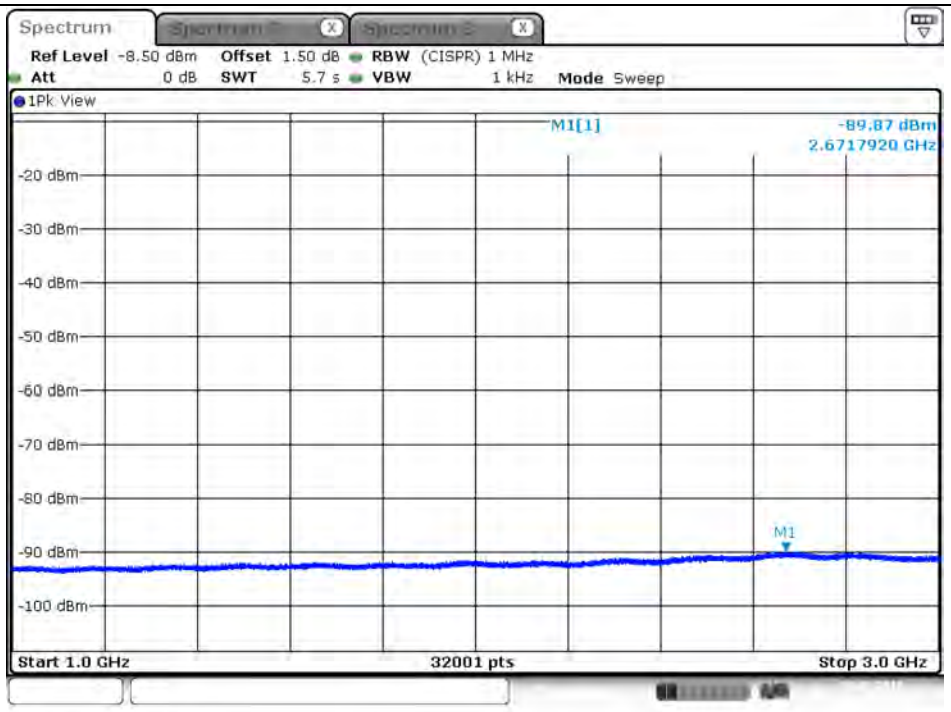
Date: 31.MAR.2018 22:39:44

Plot on Configuration VHT20 / 5500 MHz / Average / Port 3 / 1GHz~3GHz



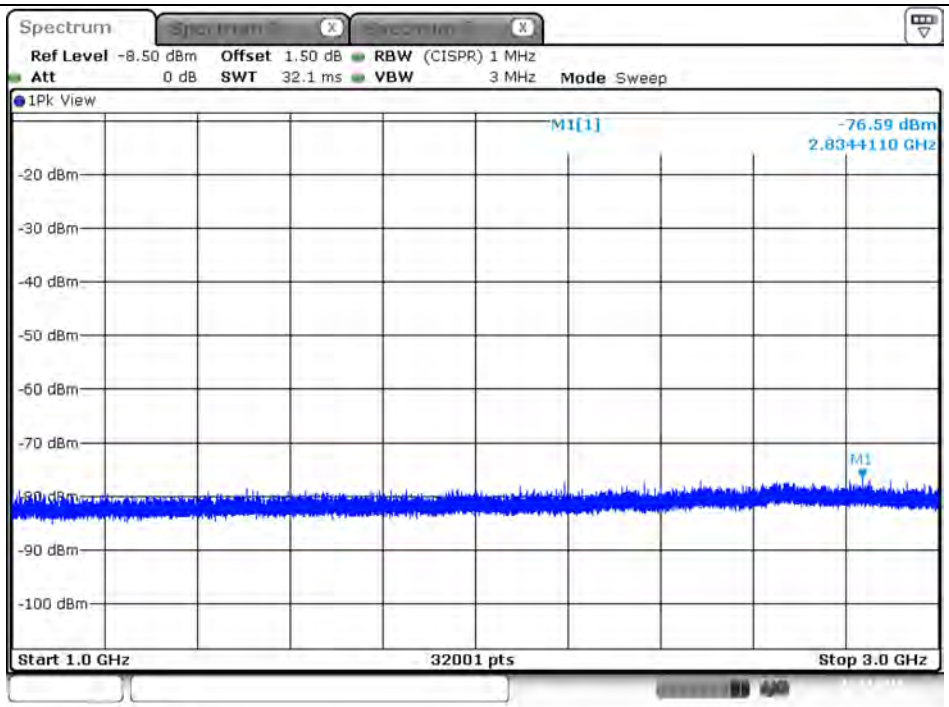
Date: 31.MAR.2018 22:42:15

Plot on Configuration VHT20 / 5500 MHz / Average / Port 4 / 1GHz~3GHz



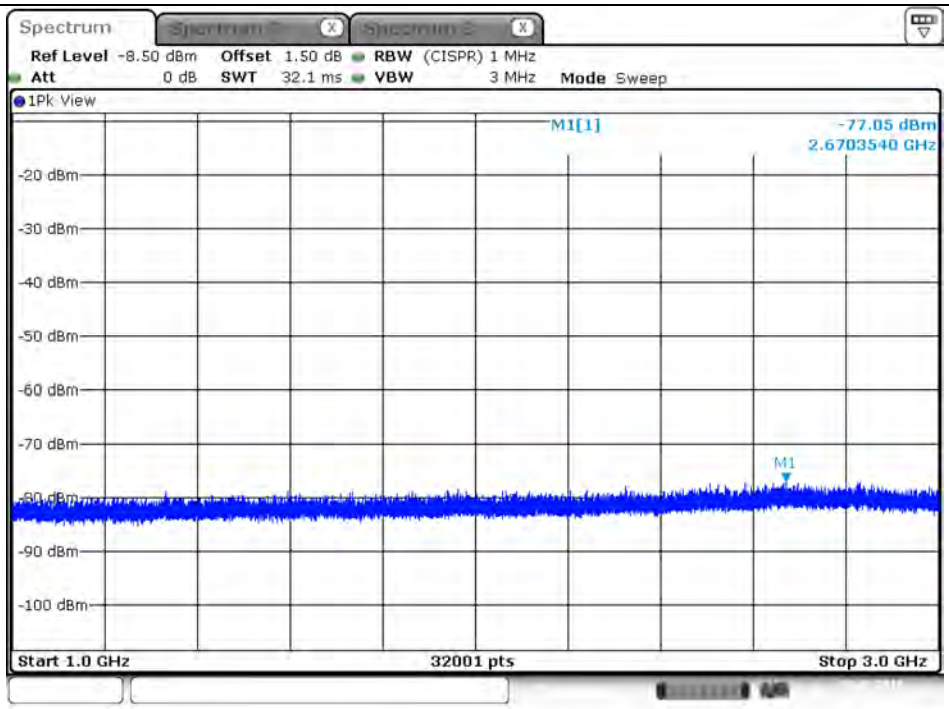
Date: 31.MAR.2018 22:58:30

Plot on Configuration VHT20 / 5500 MHz / Peak / Port 1 / 1GHz~3GHz



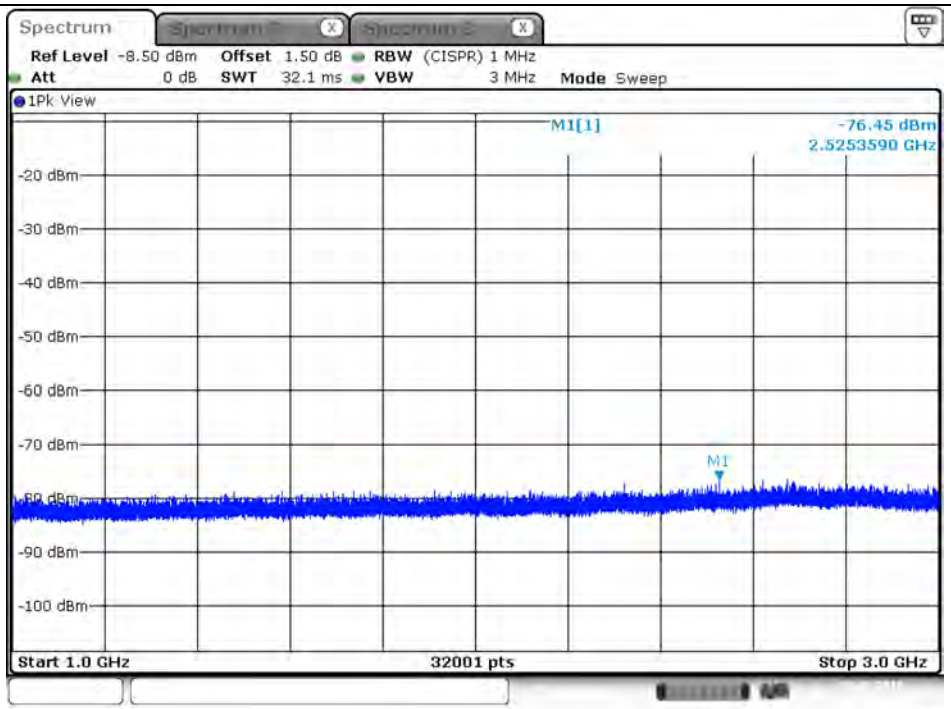
Date: 31.MAR.2018 22:24:07

Plot on Configuration VHT20 / 5500 MHz / Peak / Port 2 / 1GHz~3GHz



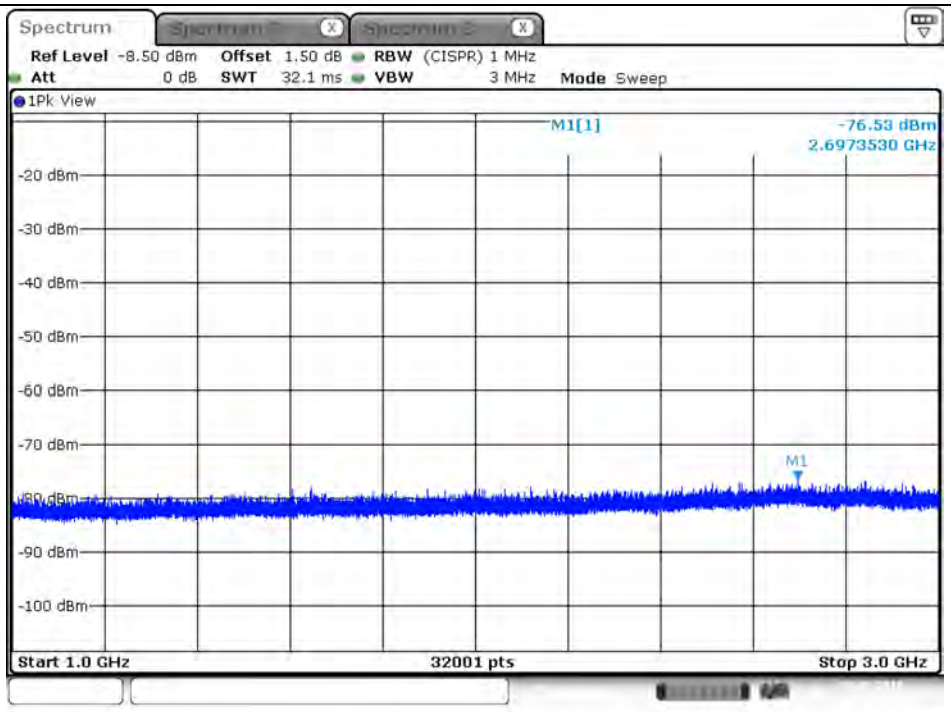
Date: 31.MAR.2018 22:40:25

Plot on Configuration VHT20 / 5500 MHz / Peak / Port 3 / 1GHz~3GHz



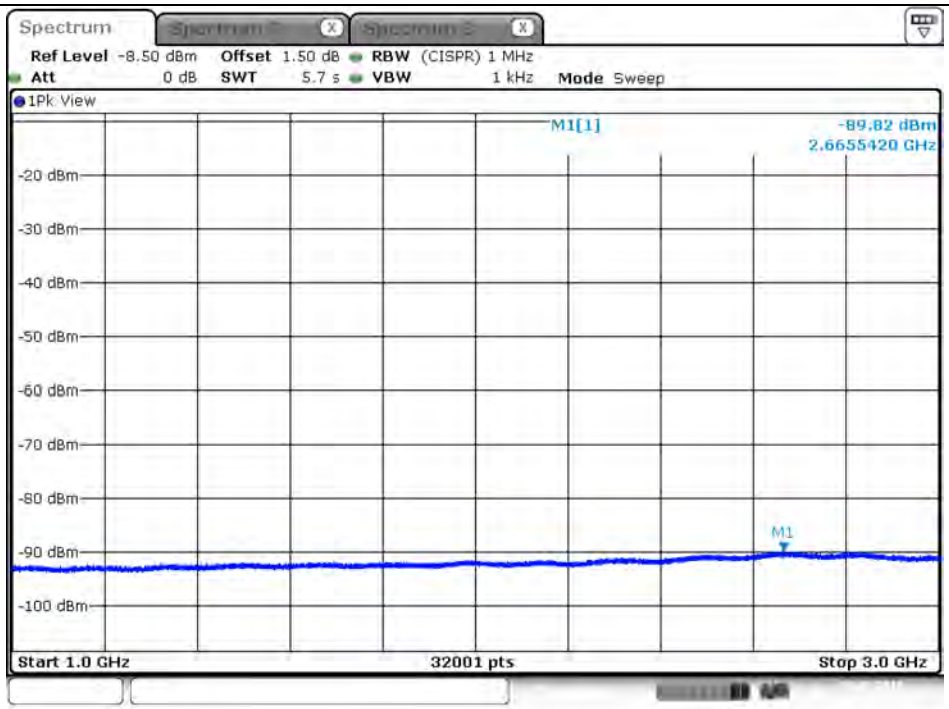
Date: 31.MAR.2018 22:43:25

Plot on Configuration VHT20 / 5500 MHz / Peak / Port 4 / 1GHz~3GHz



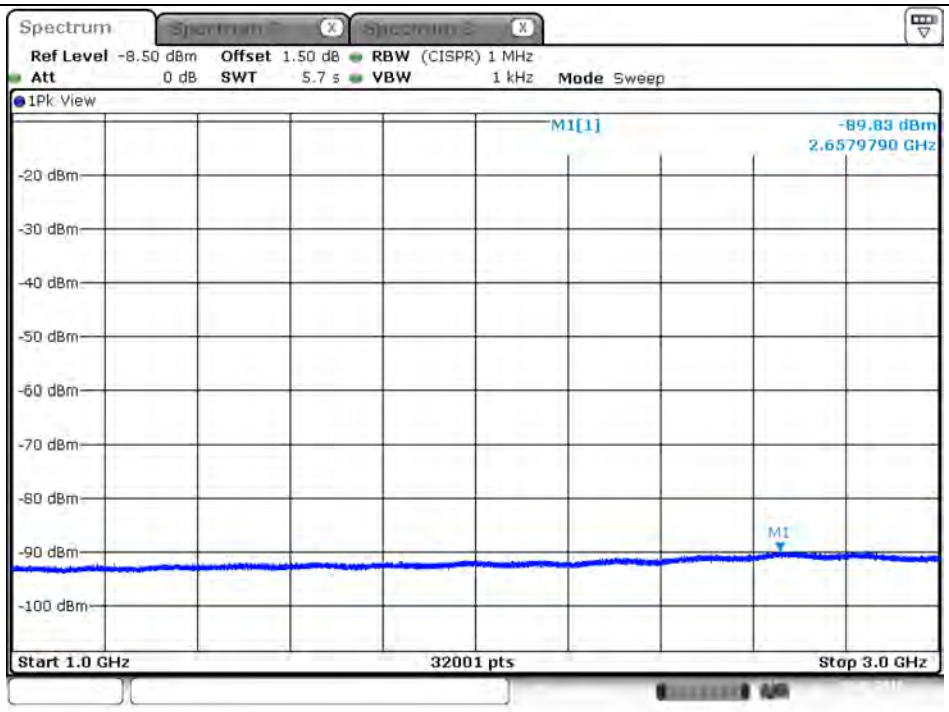
Date: 31.MAR.2018 22:59:39

Plot on Configuration VHT20 / 5580 MHz / Average / Port 1 / 1GHz~3GHz



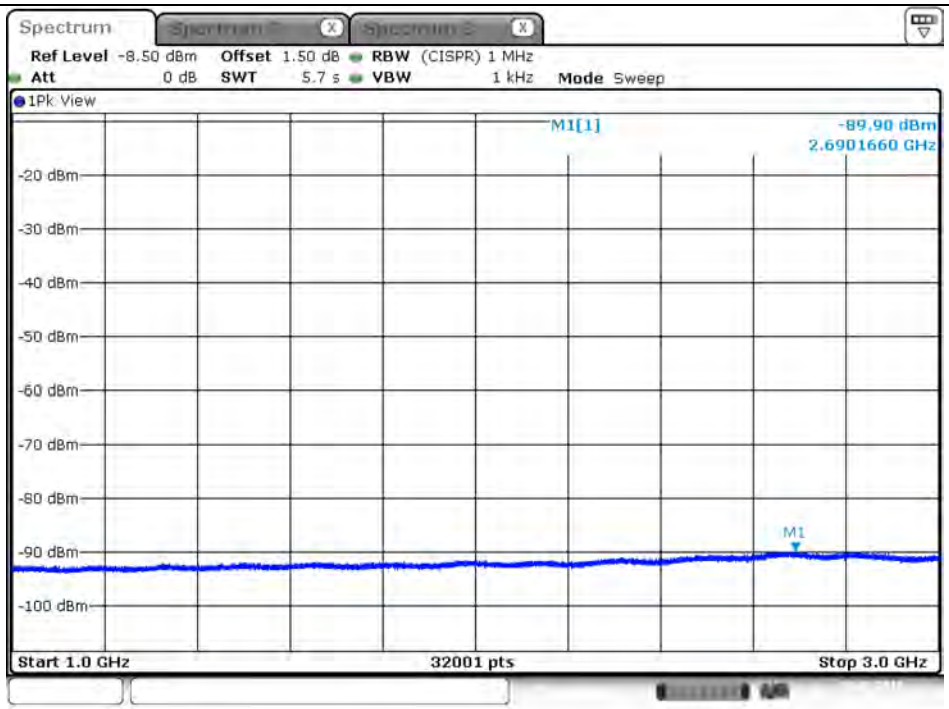
Date: 31.MAR.2018 23:03:55

Plot on Configuration VHT20 / 5580 MHz / Average / Port 2 / 1GHz~3GHz



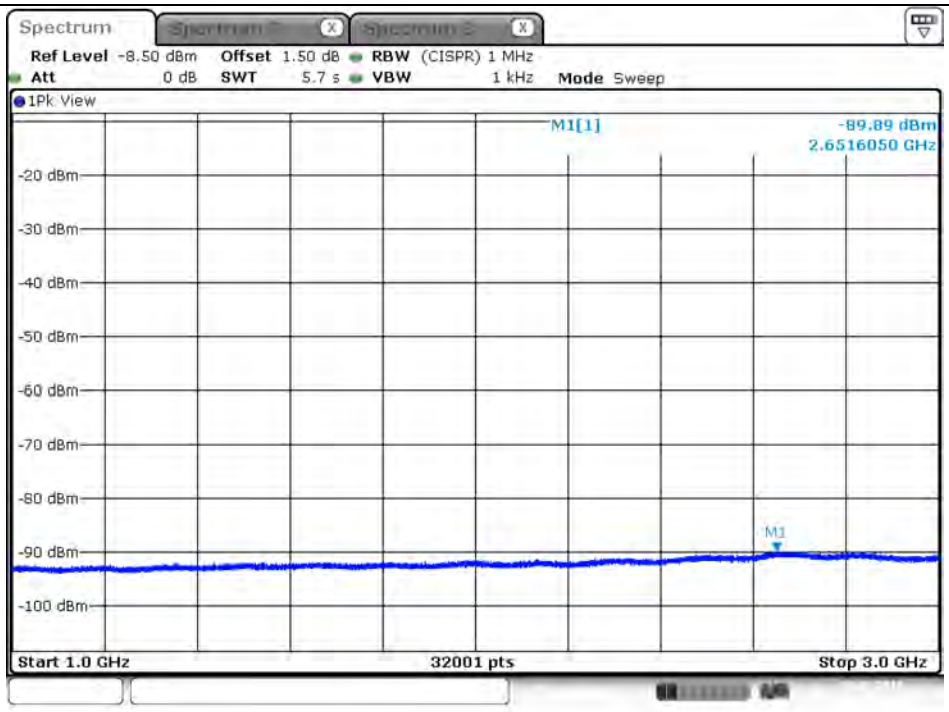
Date: 31.MAR.2018 23:20:18

Plot on Configuration VHT20 / 5580 MHz / Average / Port 3 / 1GHz~3GHz



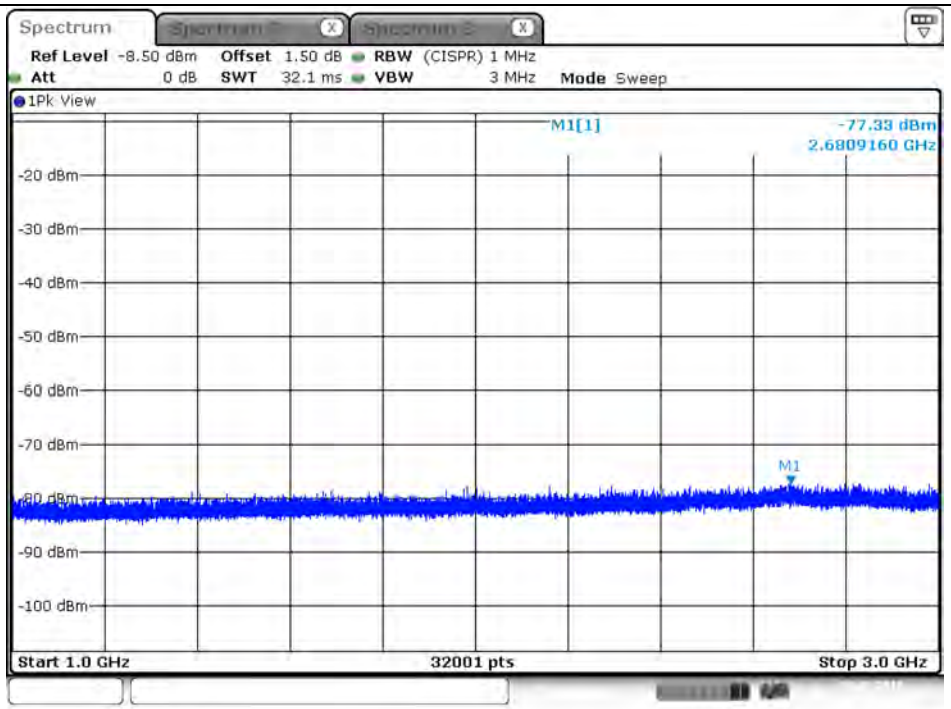
Date: 31.MAR.2018 23:22:44

Plot on Configuration VHT20 / 5580 MHz / Average / Port 4 / 1GHz~3GHz



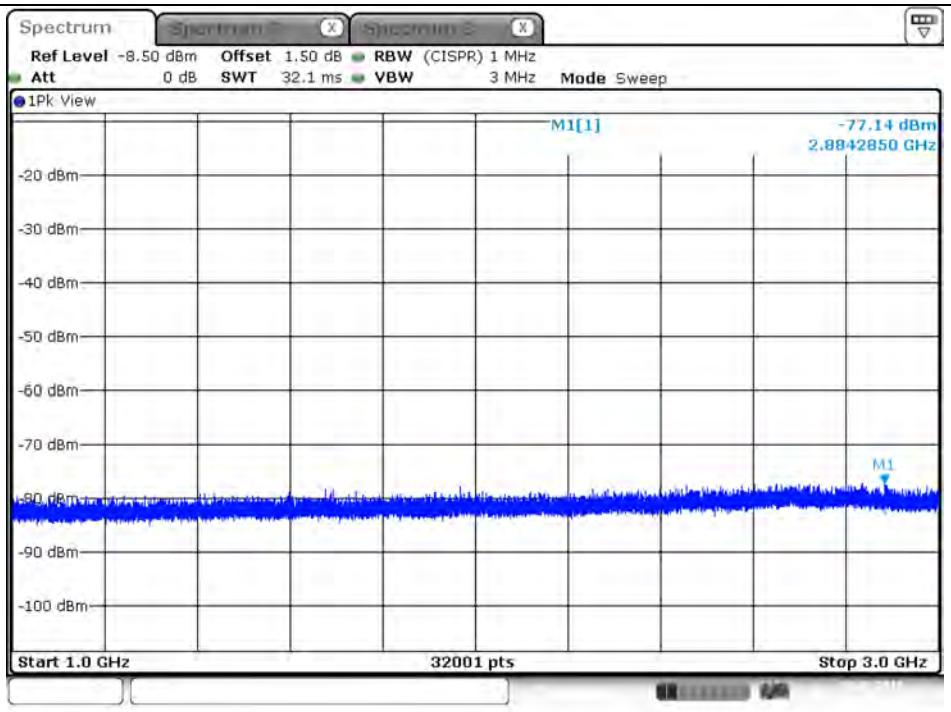
Date: 31.MAR.2018 23:36:17

Plot on Configuration VHT20 / 5580 MHz / Peak / Port 1 / 1GHz~3GHz



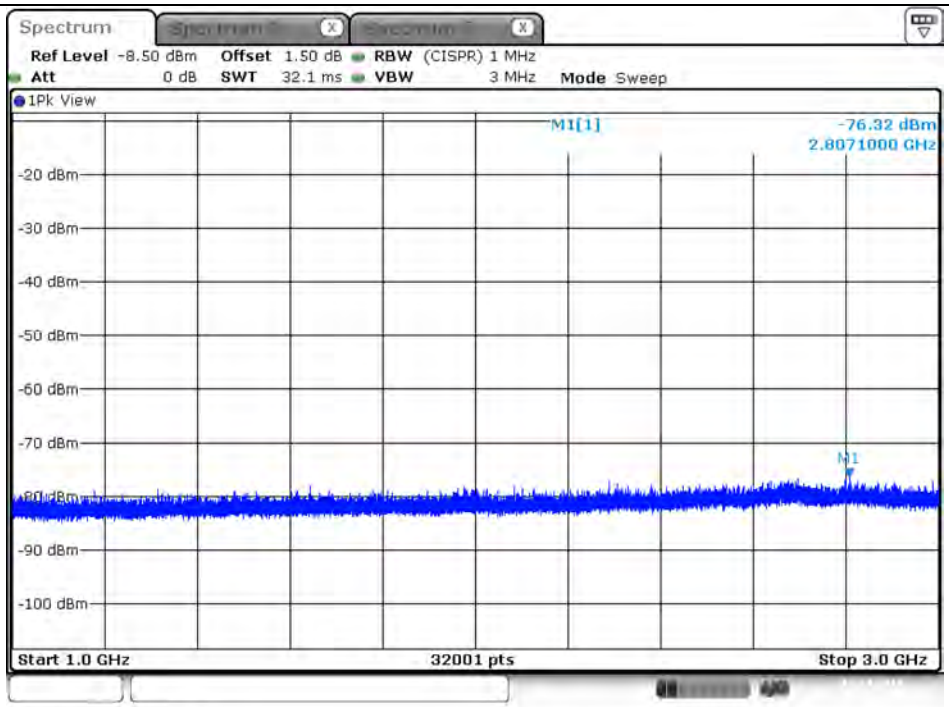
Date: 31.MAR.2018 23:04:46

Plot on Configuration VHT20 / 5580 MHz / Peak / Port 2 / 1GHz~3GHz



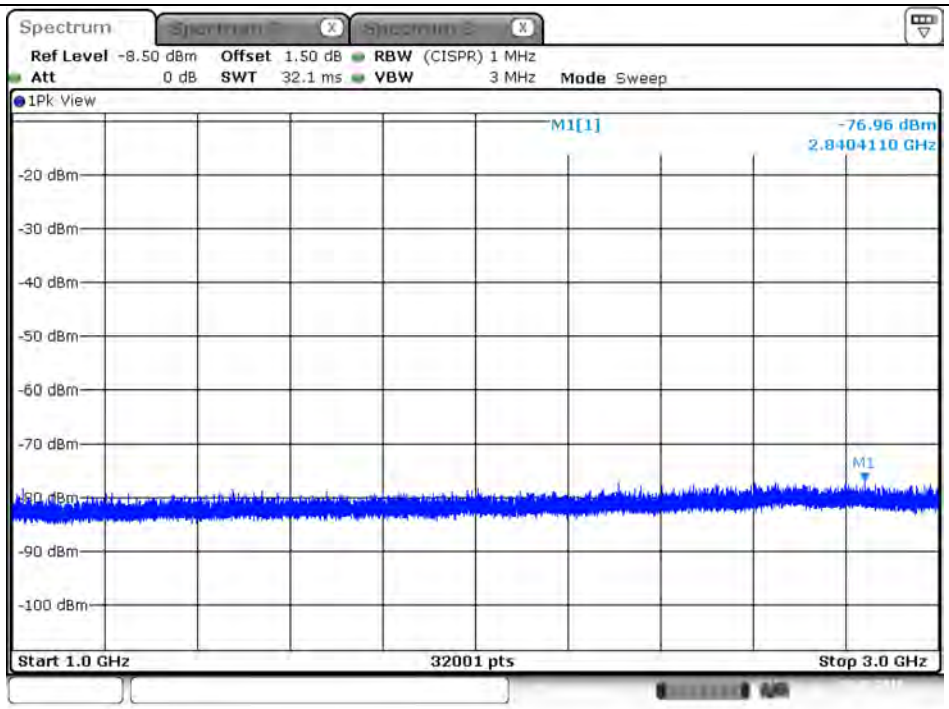
Date: 31.MAR.2018 23:21:10

Plot on Configuration VHT20 / 5580 MHz / Peak / Port 3 / 1GHz~3GHz



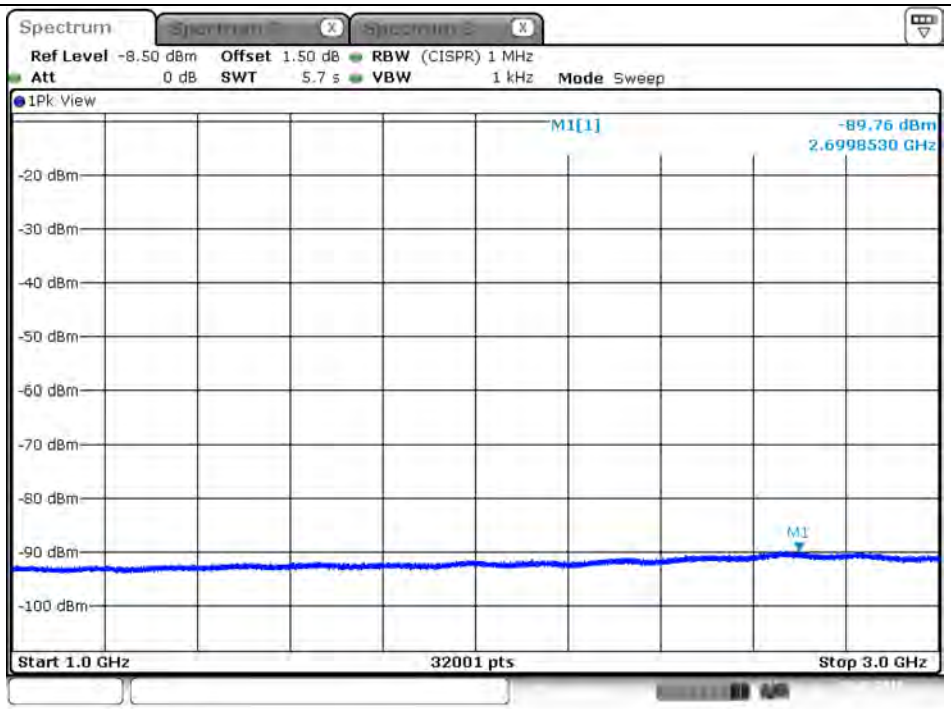
Date: 31.MAR.2018 23:23:45

Plot on Configuration VHT20 / 5580 MHz / Peak / Port 4 / 1GHz~3GHz



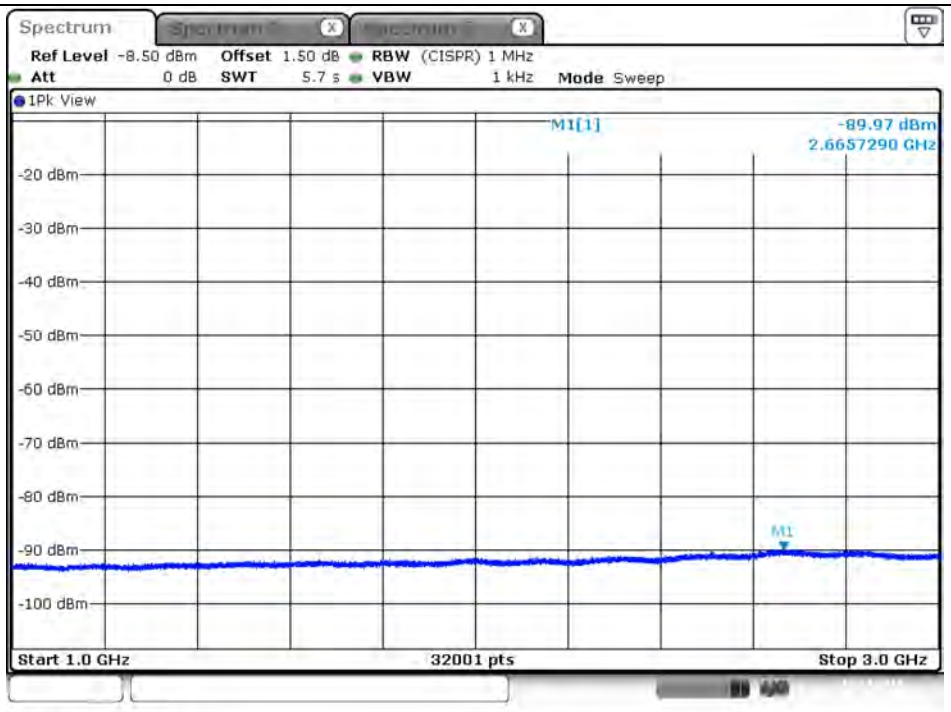
Date: 31.MAR.2018 23:37:14

Plot on Configuration VHT20 / 5700 MHz / Average / Port 1 / 1GHz~3GHz



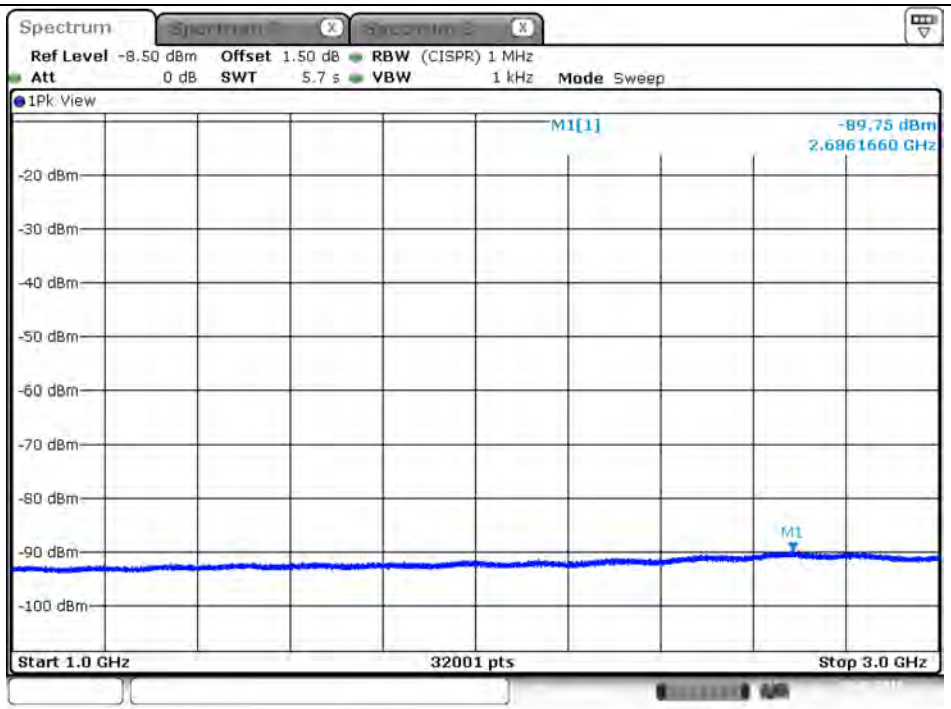
Date: 31.MAR.2018 23:39:29

Plot on Configuration VHT20 / 5700 MHz / Average / Port 2 / 1GHz~3GHz



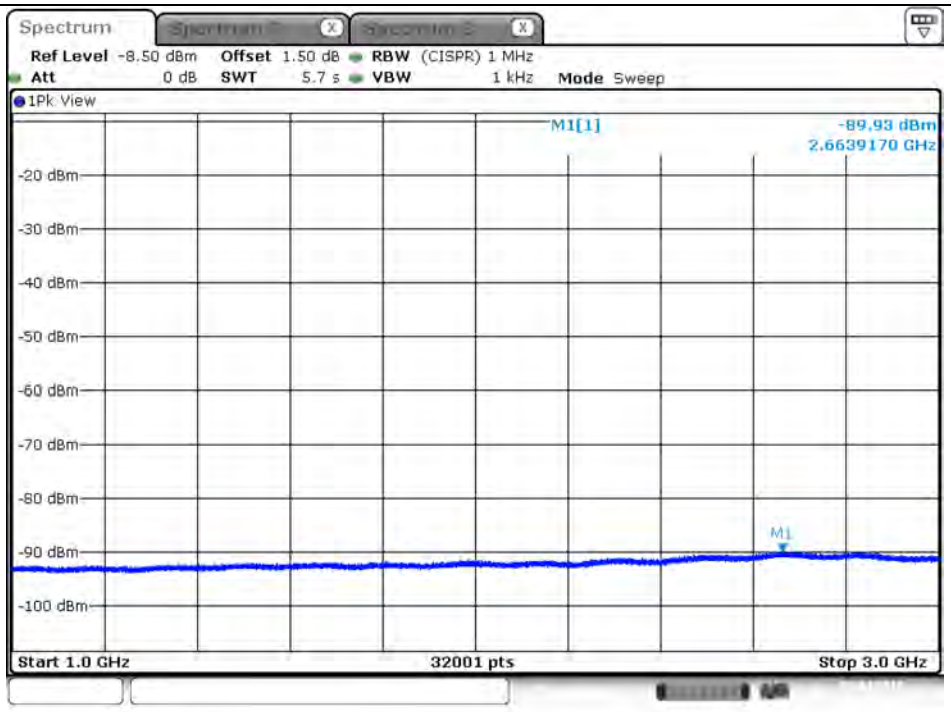
Date: 31.MAR.2018 23:49:40

Plot on Configuration VHT20 / 5700 MHz / Average / Port 3 / 1GHz~3GHz



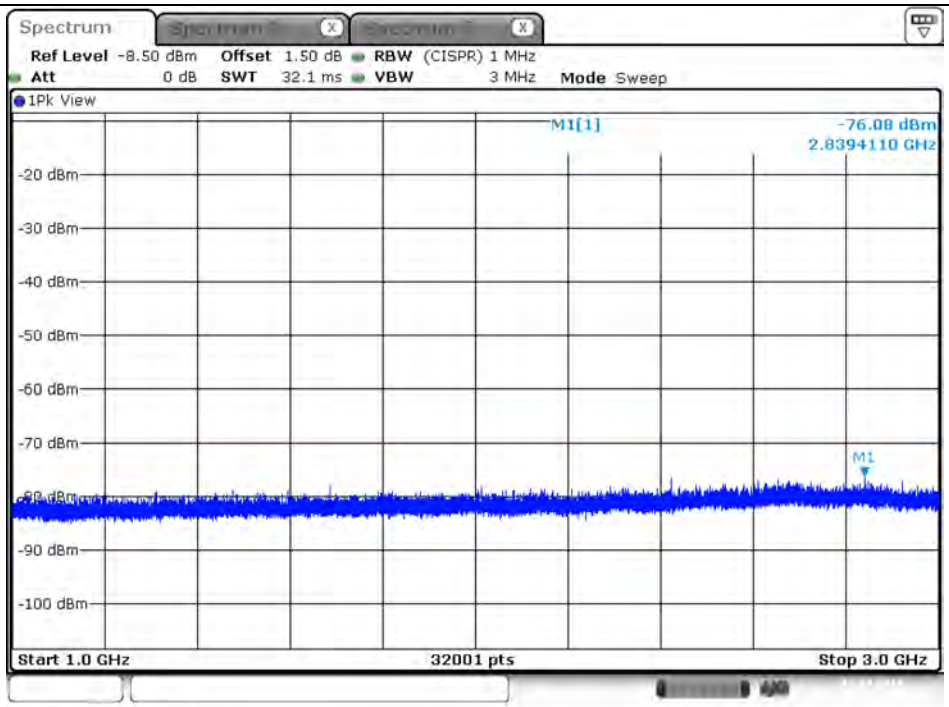
Date: 31.MAR.2018 23:52:10

Plot on Configuration VHT20 / 5700 MHz / Average / Port 4 / 1GHz~3GHz



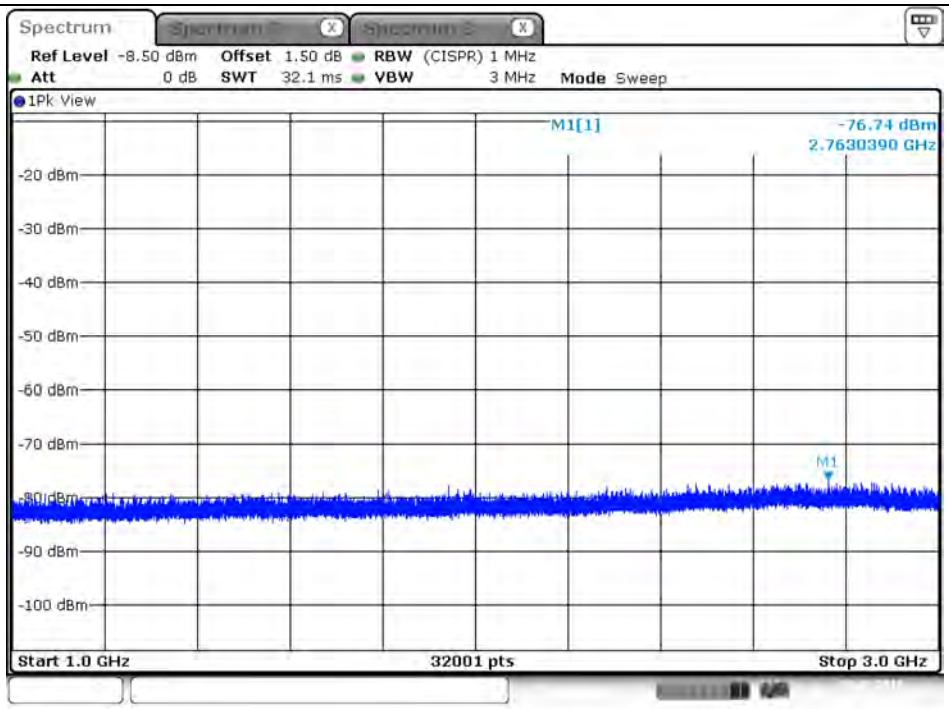
Date: 1.APR.2018 00:02:53

Plot on Configuration VHT20 / 5700 MHz / Peak / Port 1 / 1GHz~3GHz



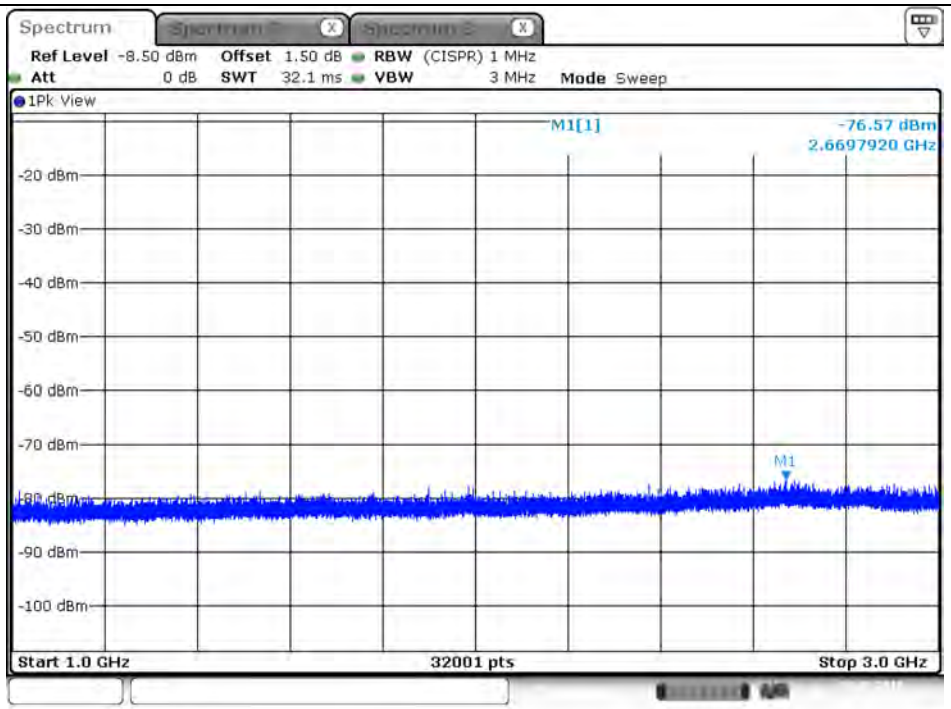
Date: 31.MAR.2018 23:40:36

Plot on Configuration VHT20 / 5700 MHz / Peak / Port 2 / 1GHz~3GHz



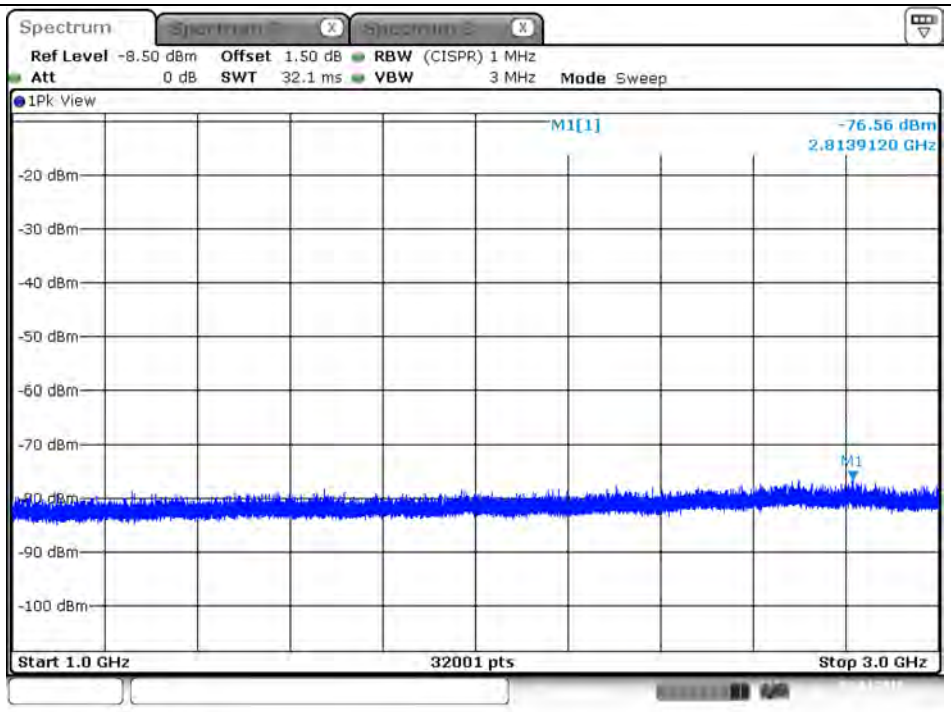
Date: 31.MAR.2018 23:50:33

Plot on Configuration VHT20 / 5700 MHz / Peak / Port 3 / 1GHz~3GHz



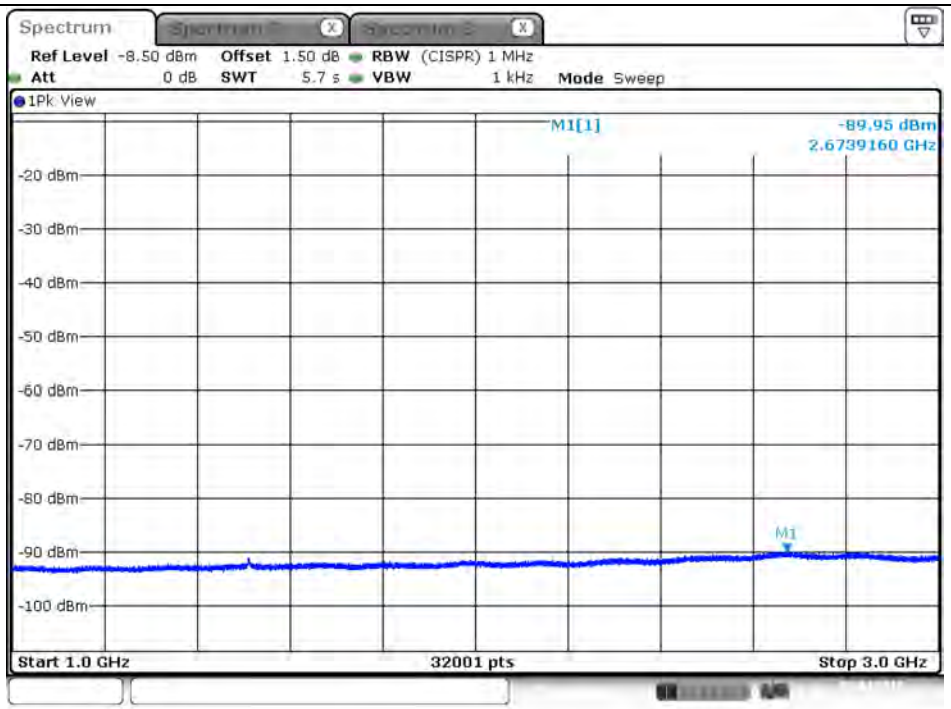
Date: 31.MAR.2018 23:53:00

Plot on Configuration VHT20 / 5700 MHz / Peak / Port 4 / 1GHz~3GHz



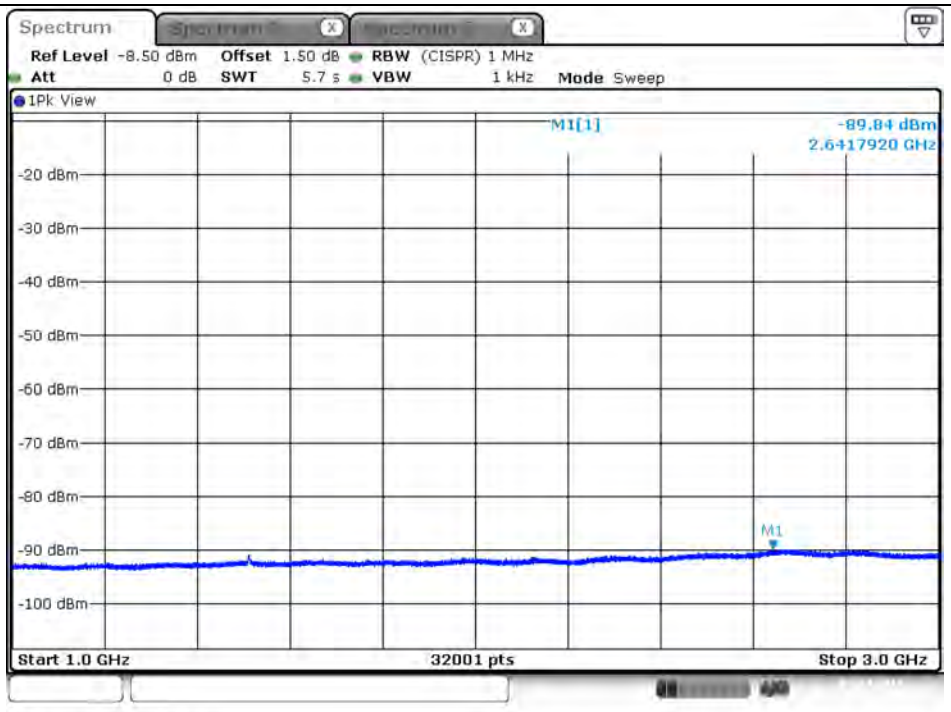
Date: 1.APR.2018 00:03:53

Plot on Configuration VHT20 / 5720 MHz / Average / Port 1 / 1GHz~3GHz



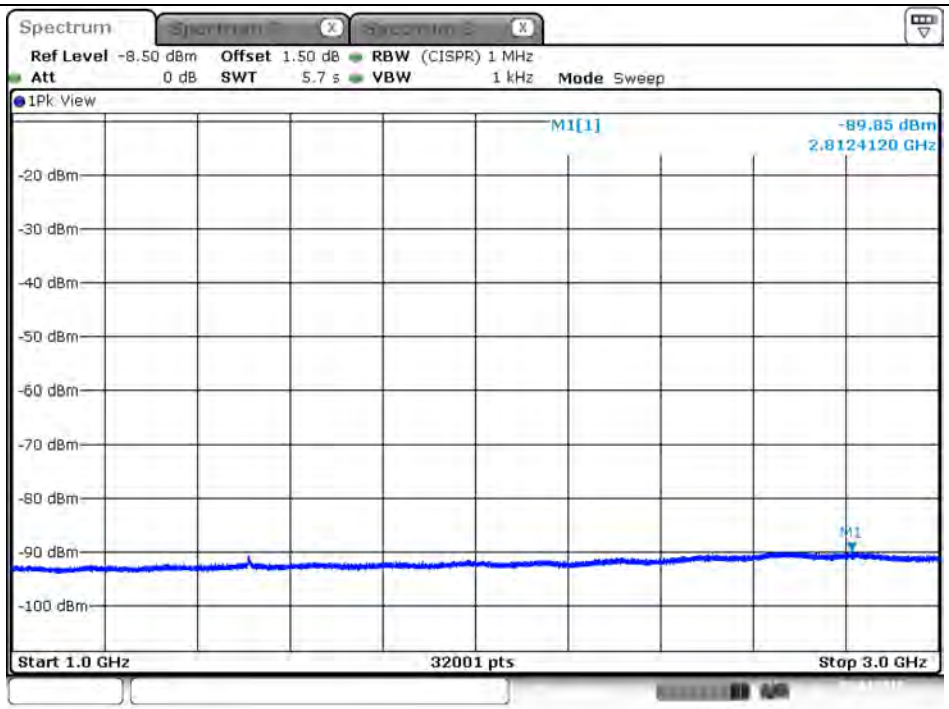
Date: 1.APR.2018 00:06:10

Plot on Configuration VHT20 / 5720 MHz / Average / Port 2 / 1GHz~3GHz

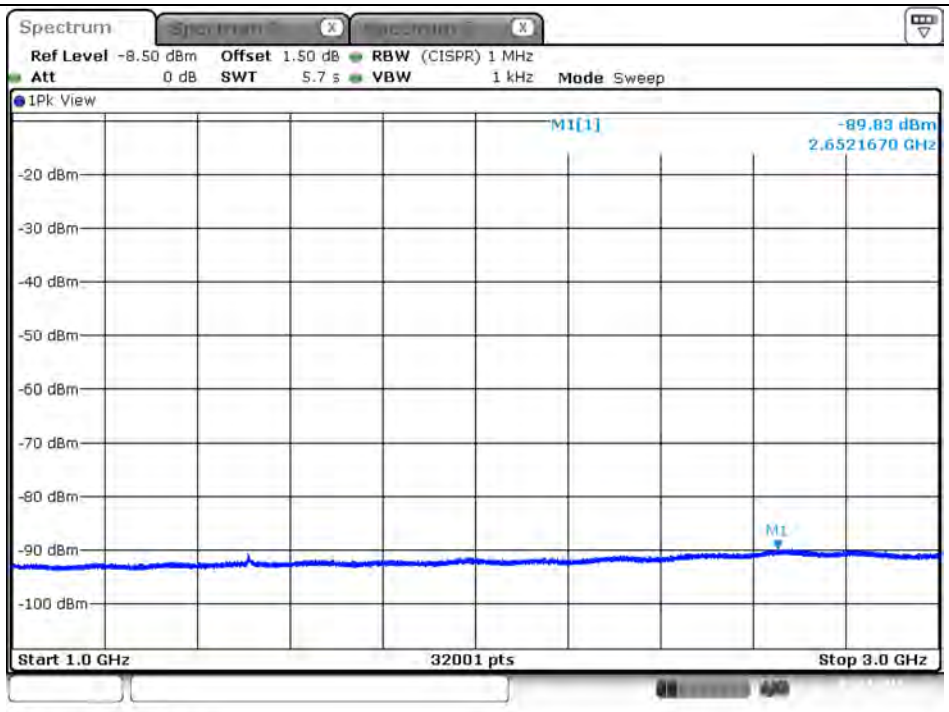


Date: 1.APR.2018 00:18:22

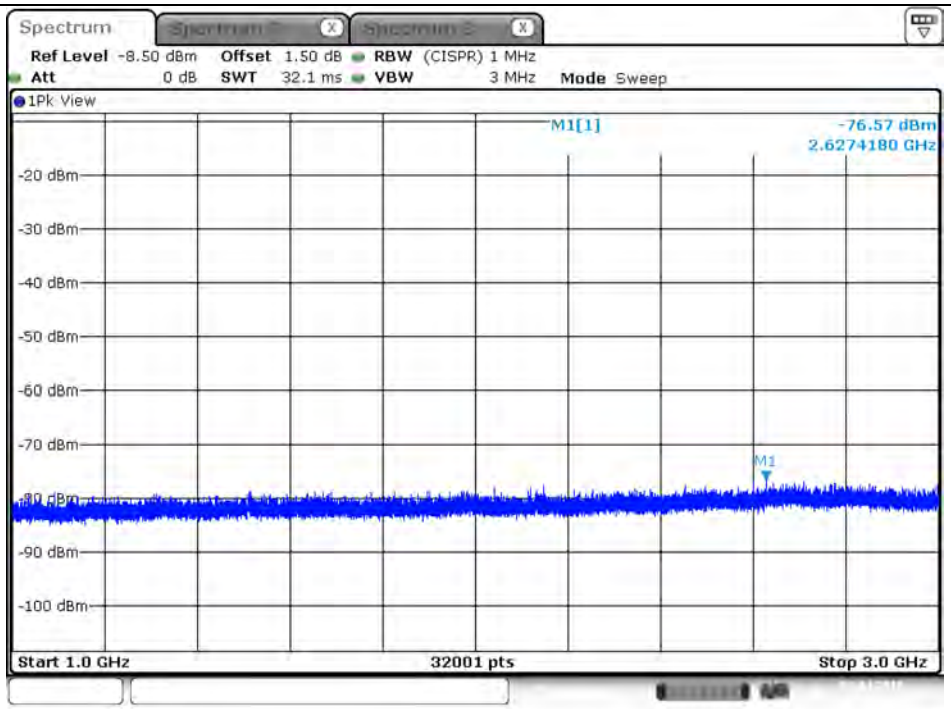
Plot on Configuration VHT20 / 5720 MHz / Average / Port 3 / 1GHz~3GHz



Plot on Configuration VHT20 / 5720 MHz / Average / Port 4 / 1GHz~3GHz

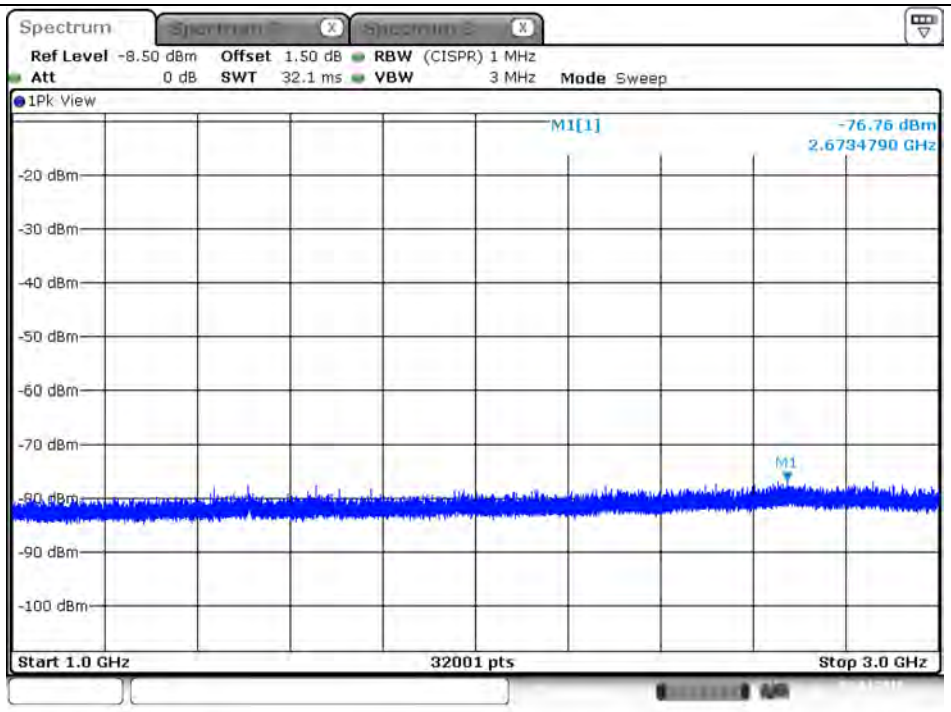


Plot on Configuration VHT20 / 5720 MHz / Peak / Port 1 / 1GHz~3GHz



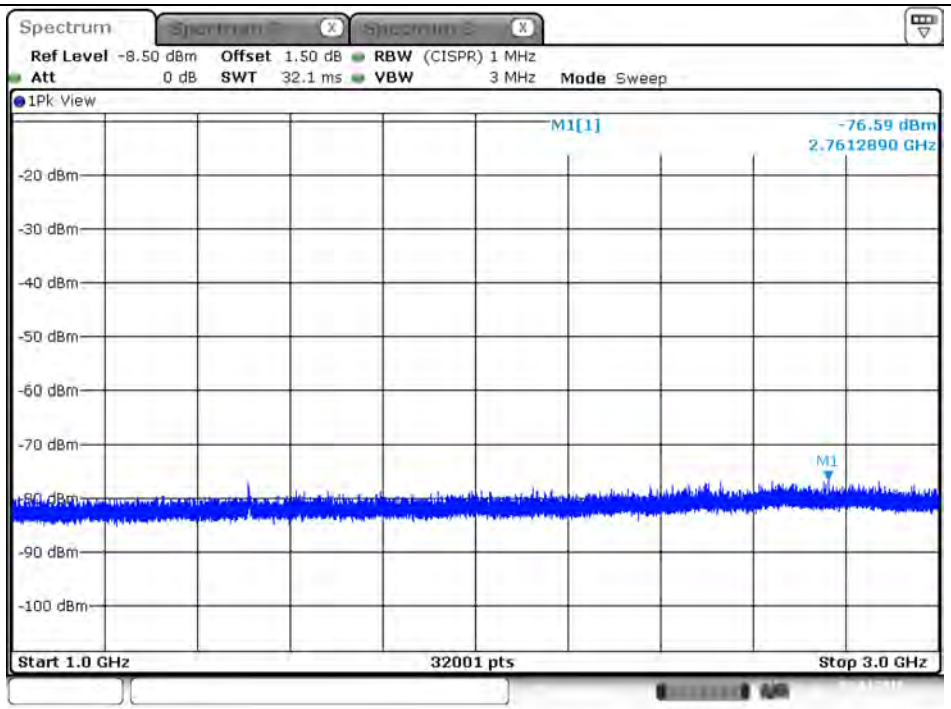
Date: 1.APR.2018 00:07:28

Plot on Configuration VHT20 / 5720 MHz / Peak / Port 2 / 1GHz~3GHz



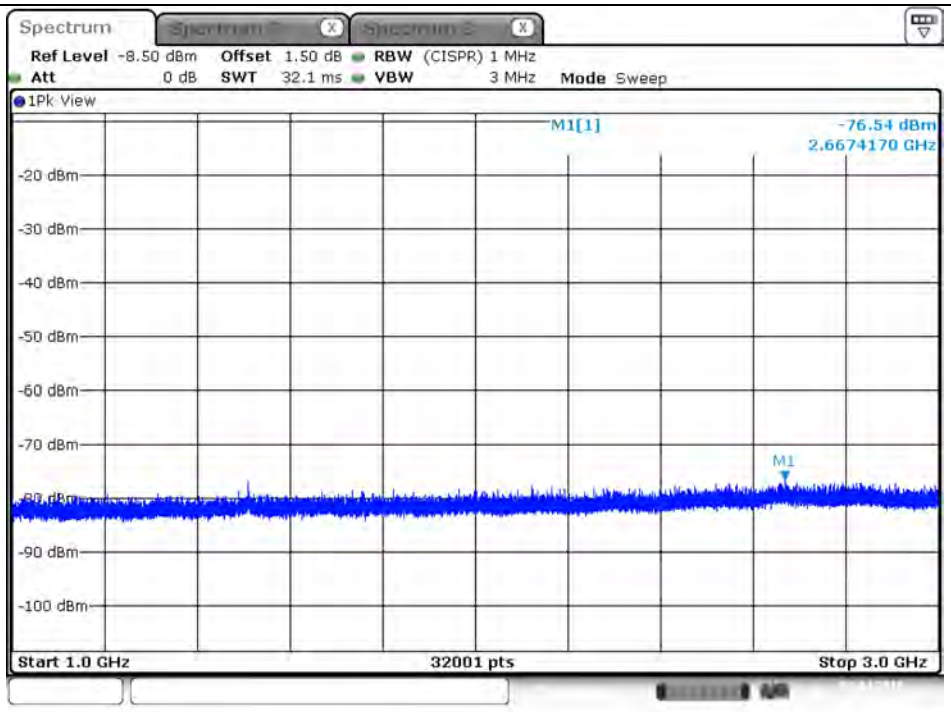
Date: 1.APR.2018 00:19:32

Plot on Configuration VHT20 / 5720 MHz / Peak / Port 3 / 1GHz~3GHz



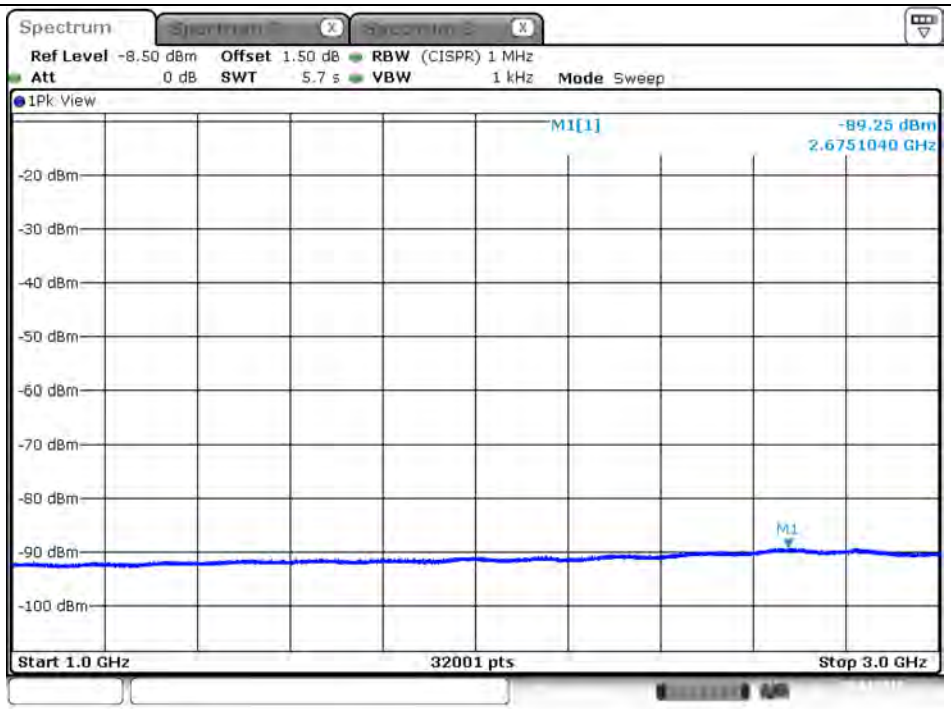
Date: 1.APR.2018 00:21:44

Plot on Configuration VHT20 / 5720 MHz / Peak / Port 4 / 1GHz~3GHz



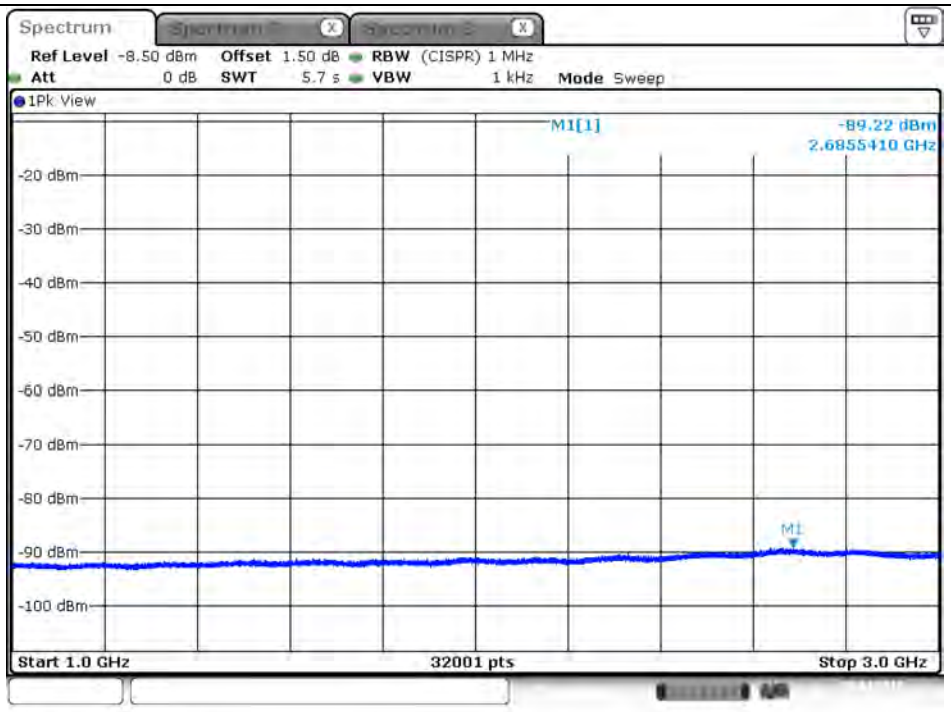
Date: 1.APR.2018 00:32:29

Plot on Configuration VHT40 / 5510 MHz / Average / Port 1 / 1GHz~3GHz



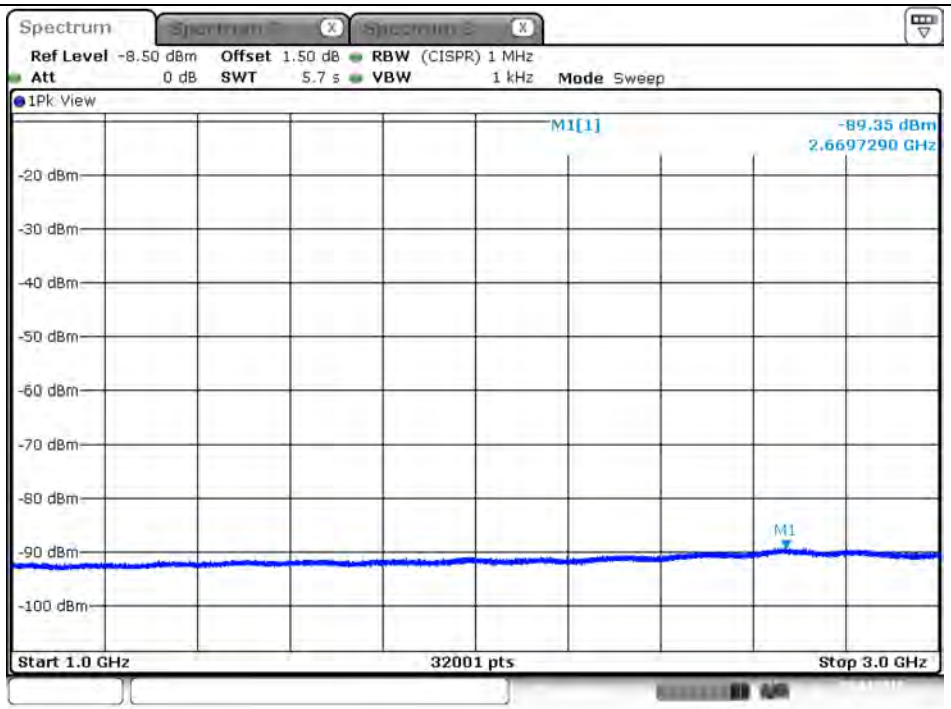
Date: 3.APR.2018 01:46:14

Plot on Configuration VHT40 / 5510 MHz / Average / Port 2 / 1GHz~3GHz



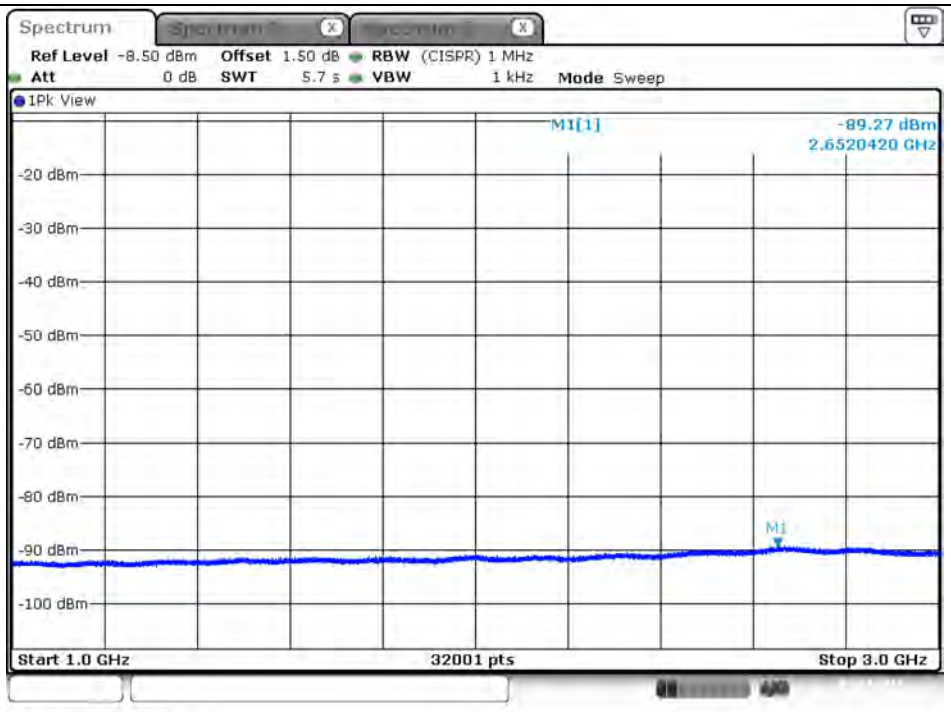
Date: 3.APR.2018 01:56:45

Plot on Configuration VHT40 / 5510 MHz / Average / Port 3 / 1GHz~3GHz



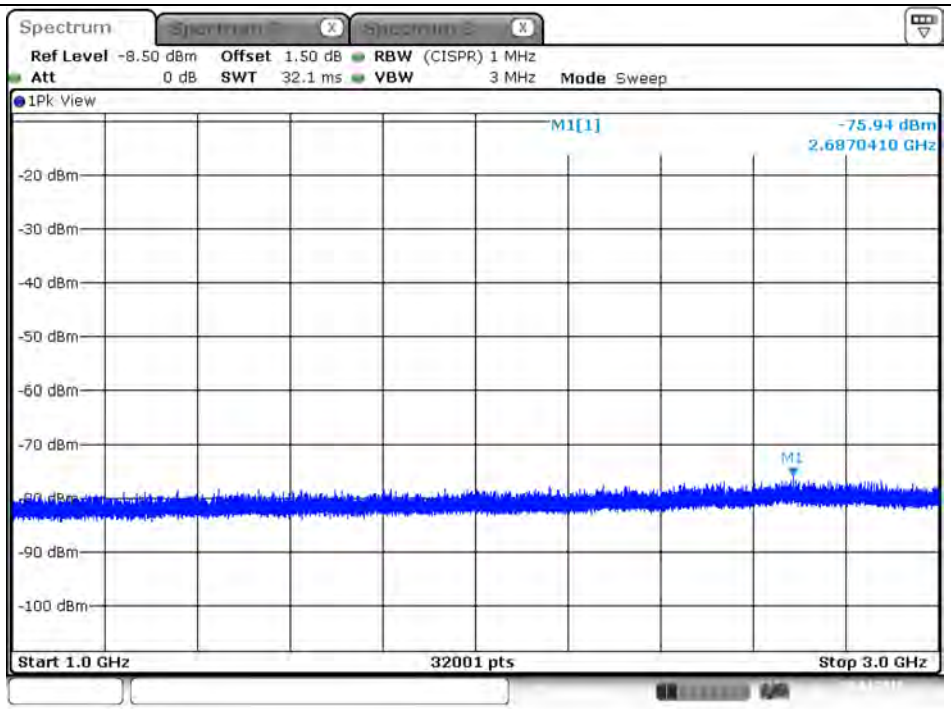
Date: 3.APR.2018 01:59:06

Plot on Configuration VHT40 / 5510 MHz / Average / Port 4 / 1GHz~3GHz



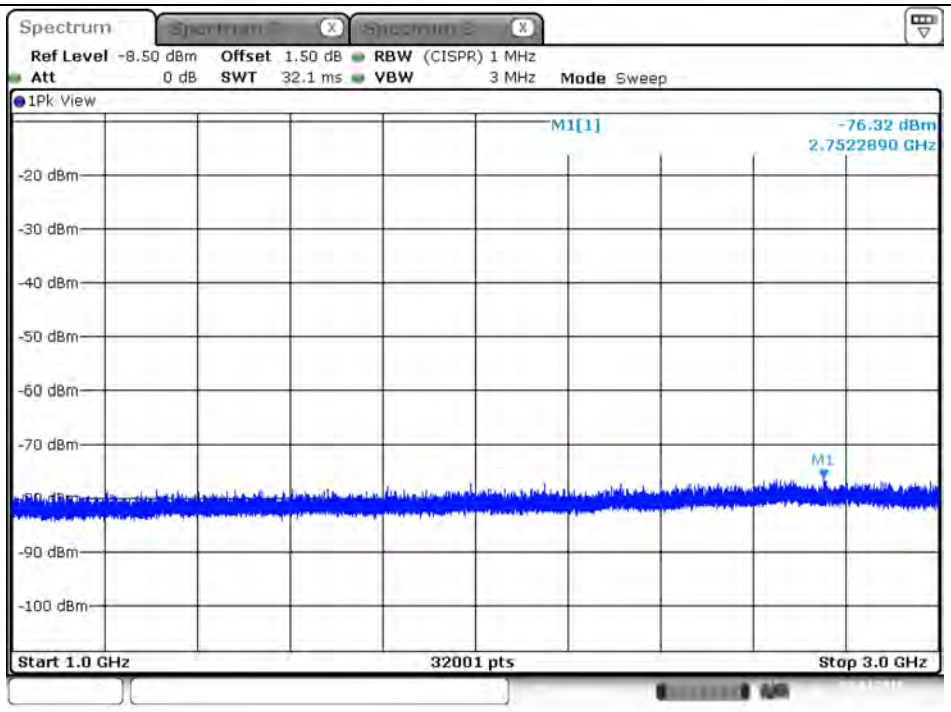
Date: 3.APR.2018 02:19:48

Plot on Configuration VHT40 / 5510 MHz / Peak / Port 1 / 1GHz~3GHz



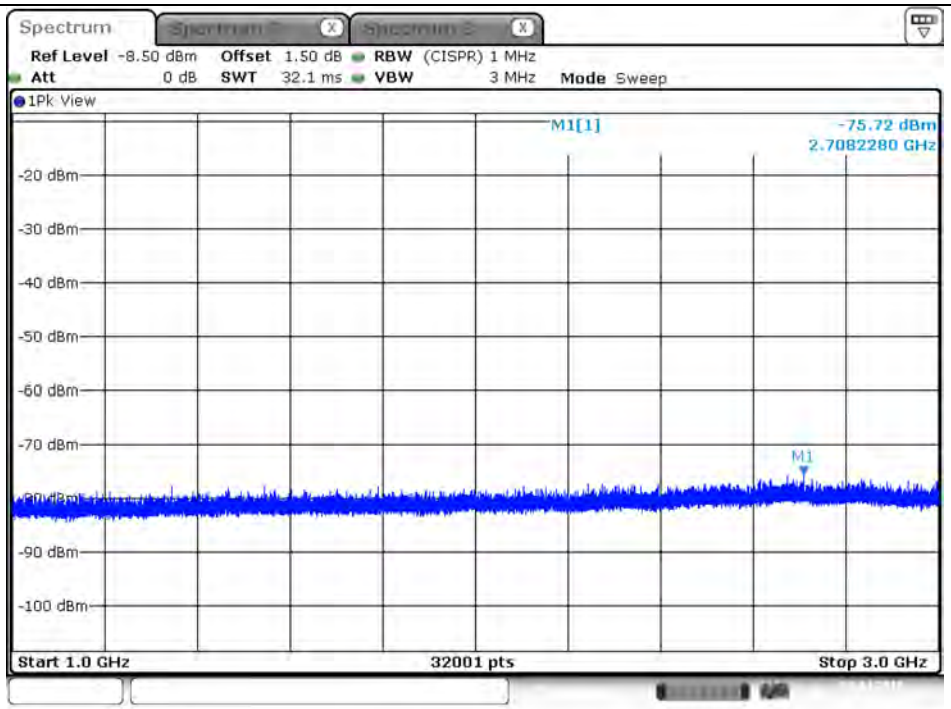
Date: 3.APR.2018 01:47:26

Plot on Configuration VHT40 / 5510 MHz / Peak / Port 2 / 1GHz~3GHz



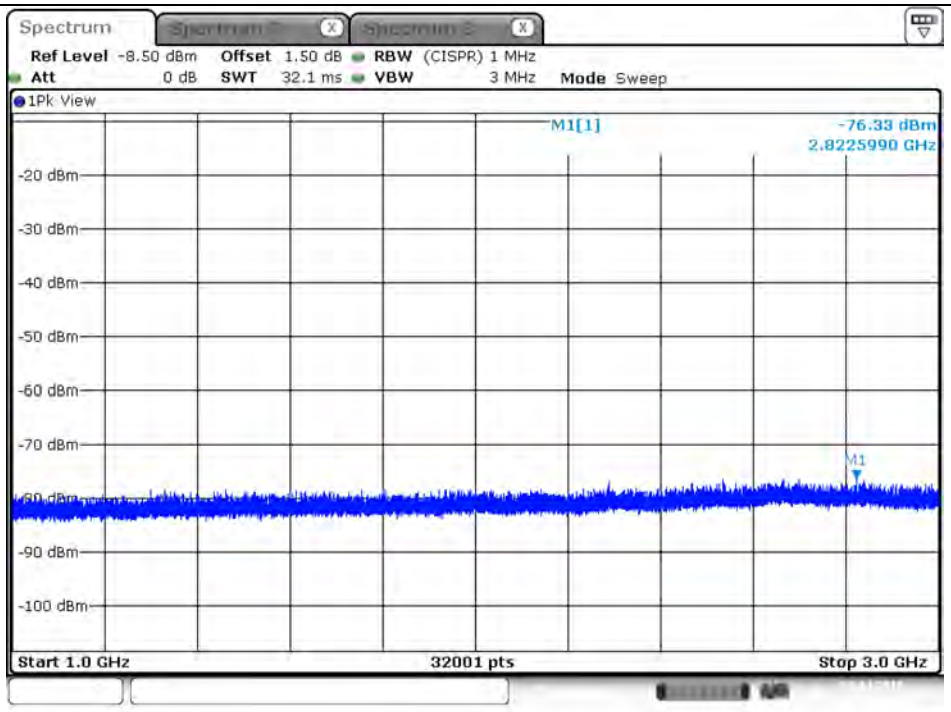
Date: 3.APR.2018 01:57:32

Plot on Configuration VHT40 / 5510 MHz / Peak / Port 3 / 1GHz~3GHz



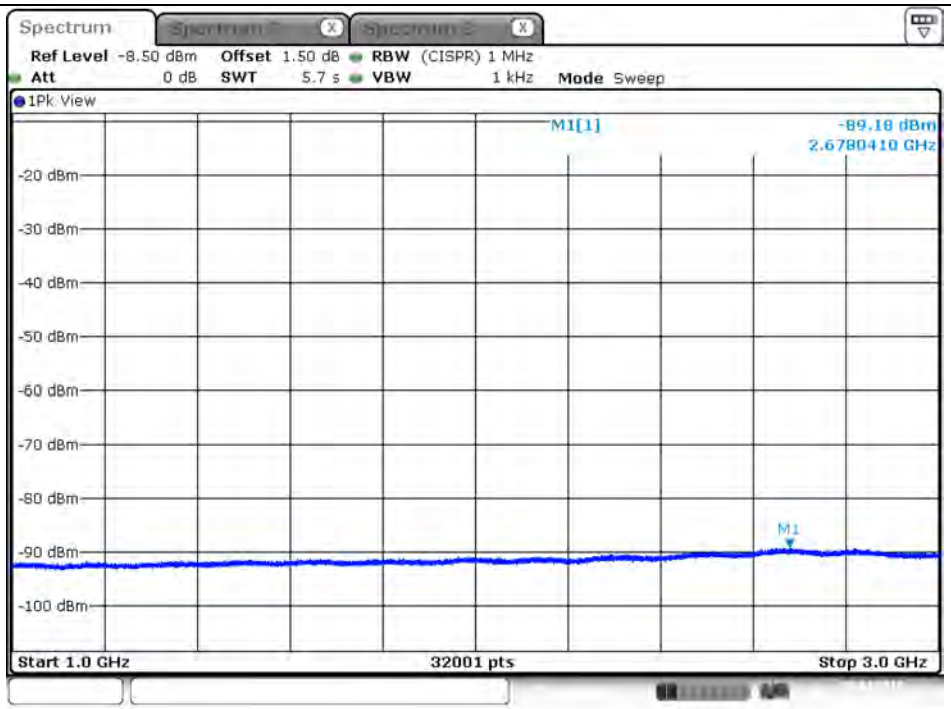
Date: 3.APR.2018 01:59:49

Plot on Configuration VHT40 / 5510 MHz / Peak / Port 4 / 1GHz~3GHz



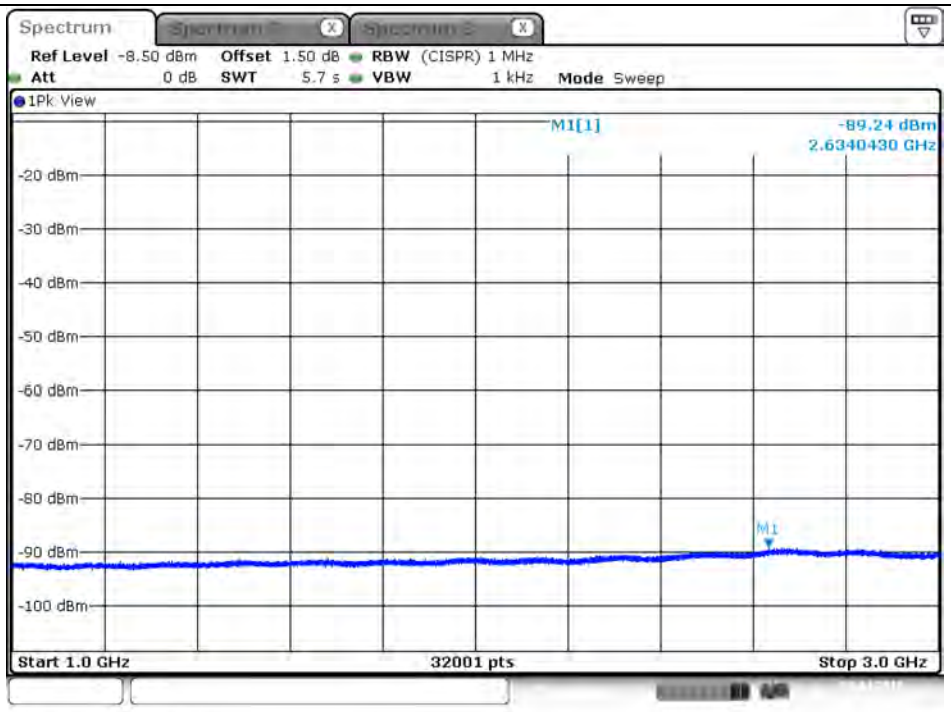
Date: 3.APR.2018 02:22:50

Plot on Configuration VHT40 / 5550 MHz / Average / Port 1 / 1GHz~3GHz



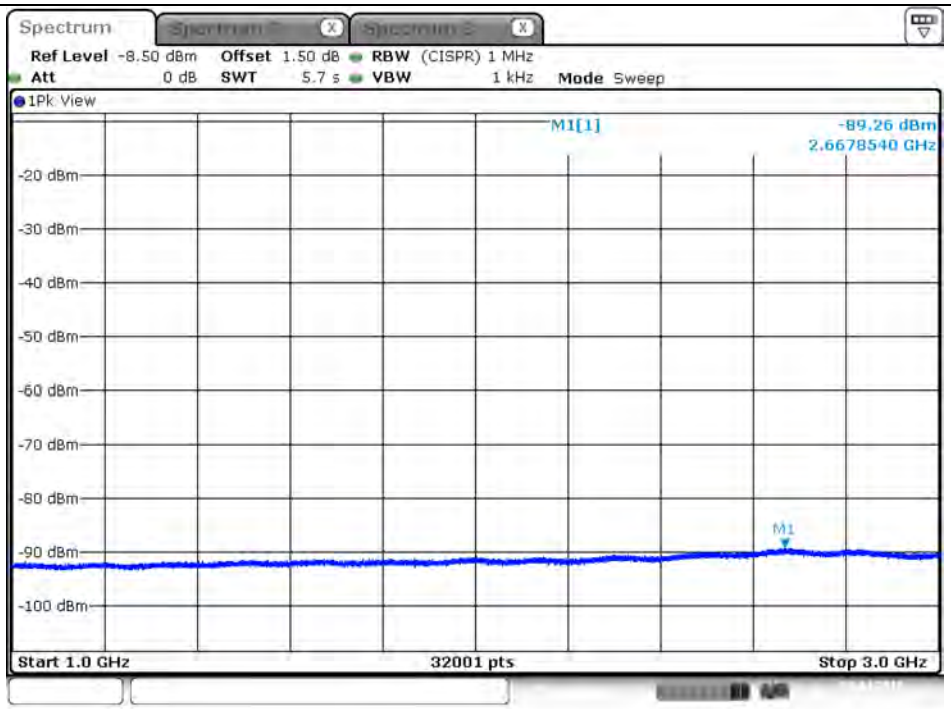
Date: 3.APR.2018 02:25:44

Plot on Configuration VHT40 / 5550 MHz / Average / Port 2 / 1GHz~3GHz



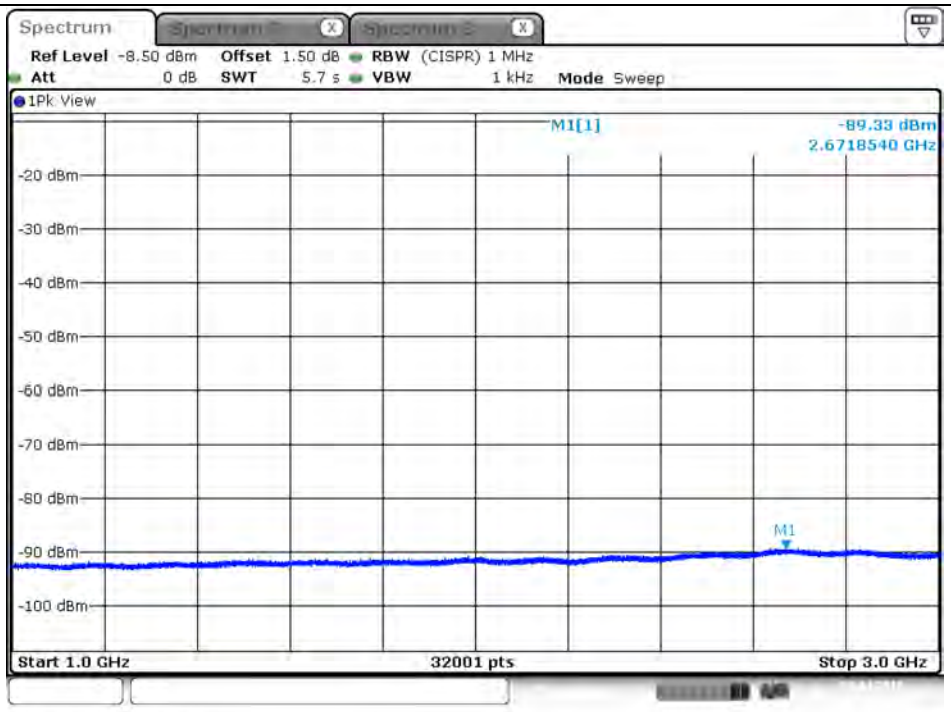
Date: 3.APR.2018 02:37:46

Plot on Configuration VHT40 / 5550 MHz / Average / Port 3 / 1GHz~3GHz



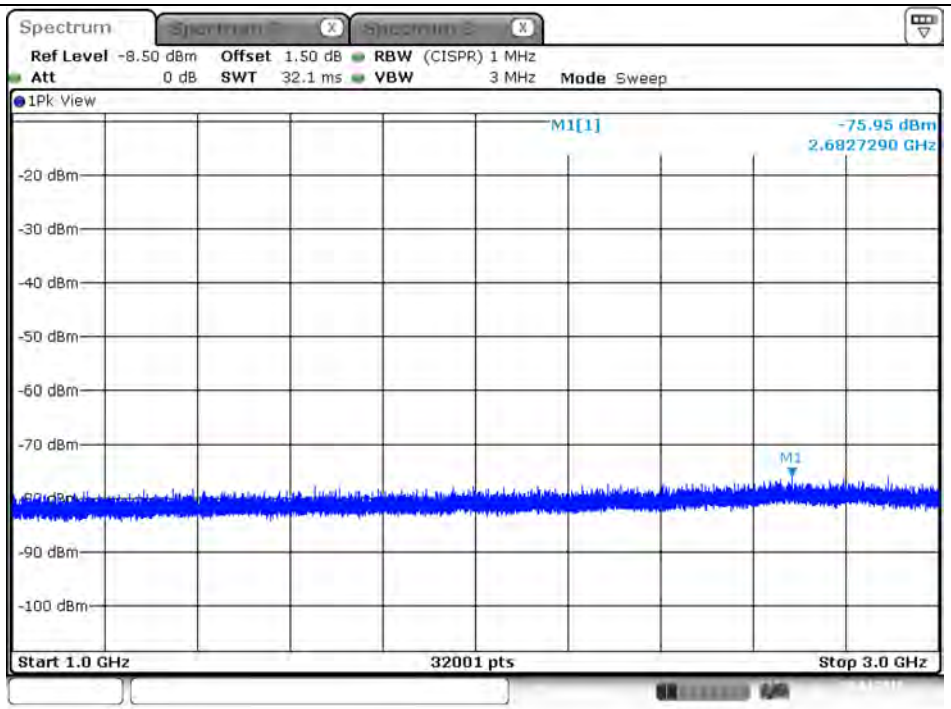
Date: 3.APR.2018 02:39:41

Plot on Configuration VHT40 / 5550 MHz / Average / Port 4 / 1GHz~3GHz



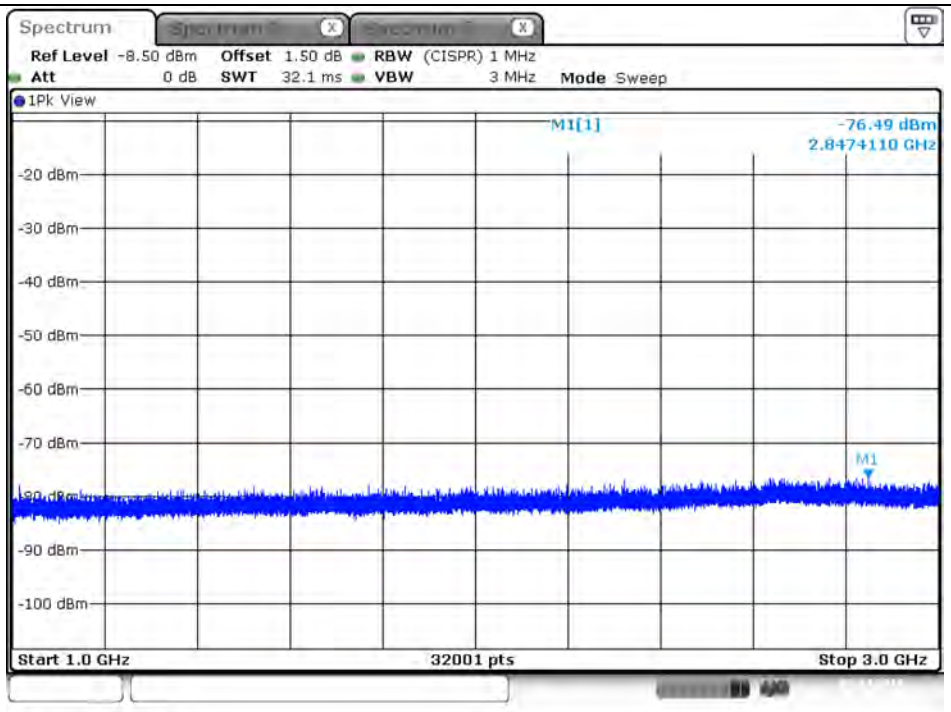
Date: 3.APR.2018 02:54:24

Plot on Configuration VHT40 / 5550 MHz / Peak / Port 1 / 1GHz~3GHz



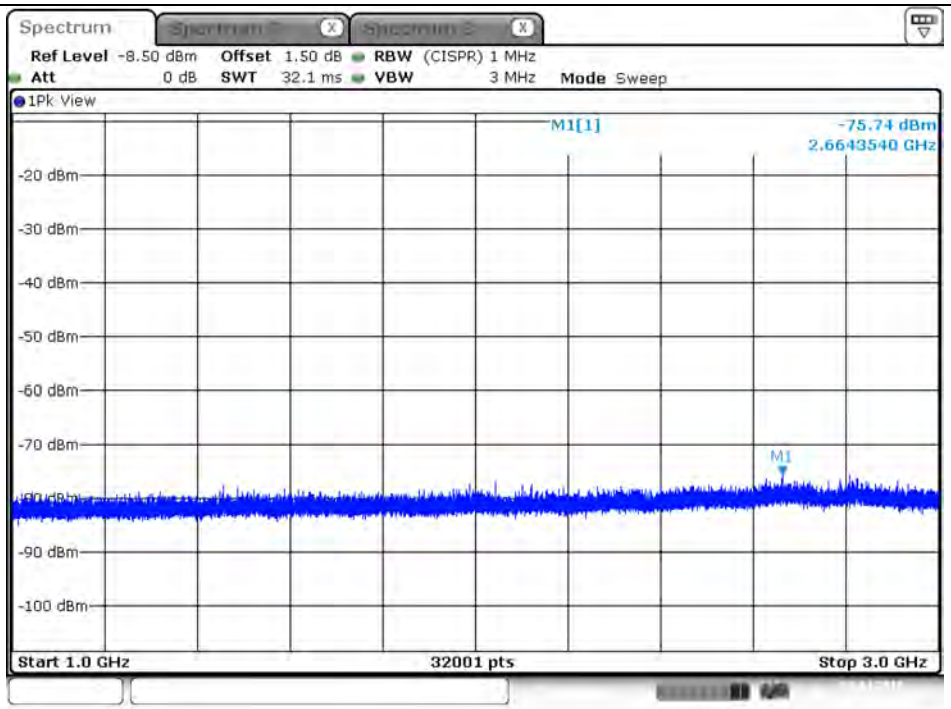
Date: 3.APR.2018 02:26:34

Plot on Configuration VHT40 / 5550 MHz / Peak / Port 2 / 1GHz~3GHz



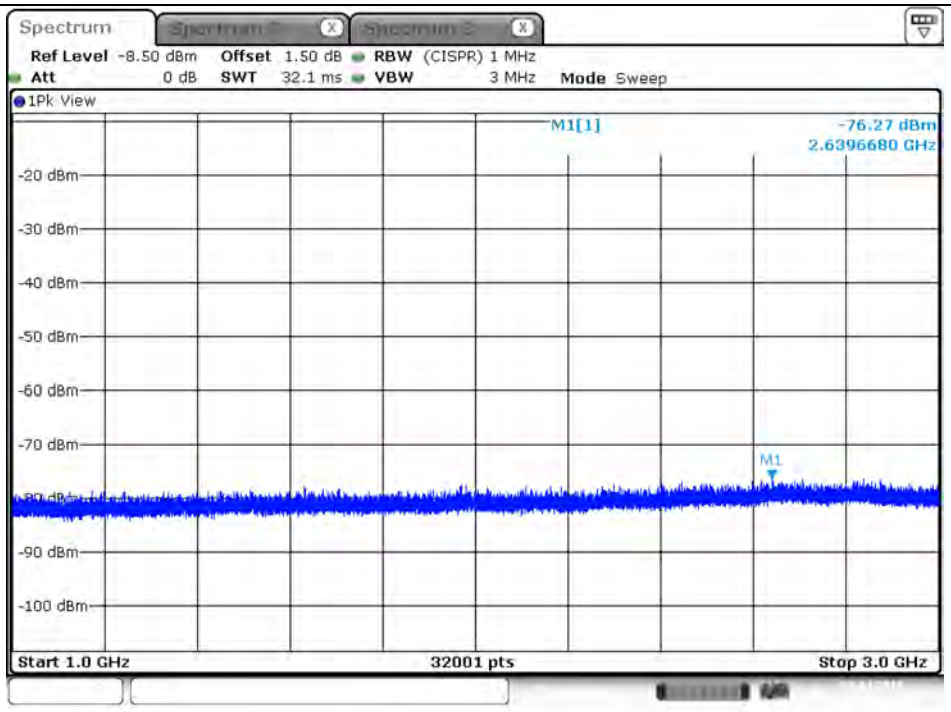
Date: 3.APR.2018 02:38:22

Plot on Configuration VHT40 / 5550 MHz / Peak / Port 3 / 1GHz~3GHz



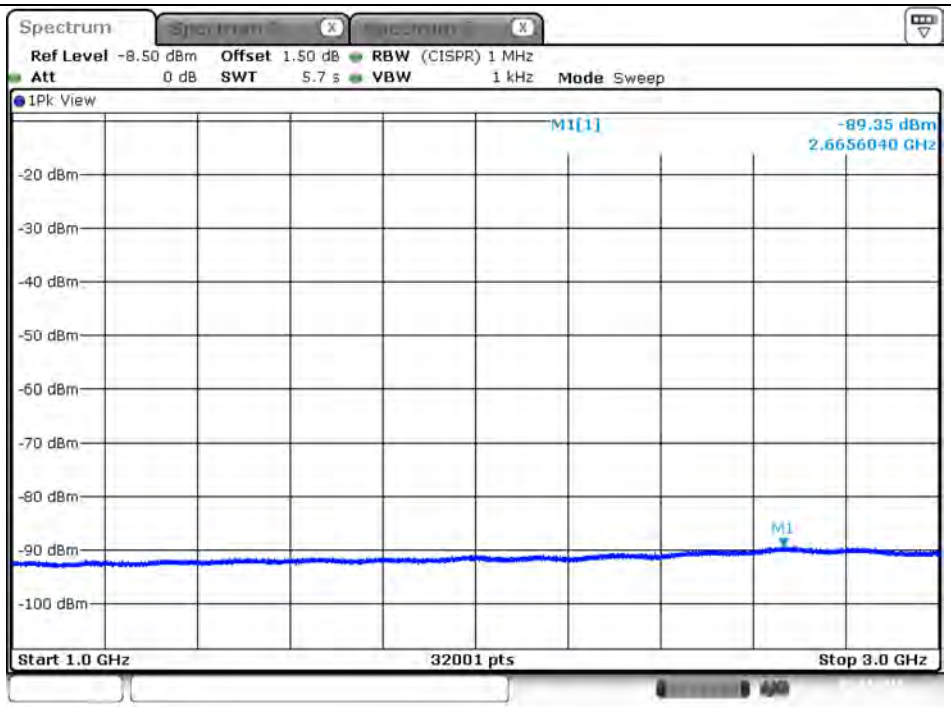
Date: 3.APR.2018 02:40:34

Plot on Configuration VHT40 / 5550 MHz / Peak / Port 4 / 1GHz~3GHz



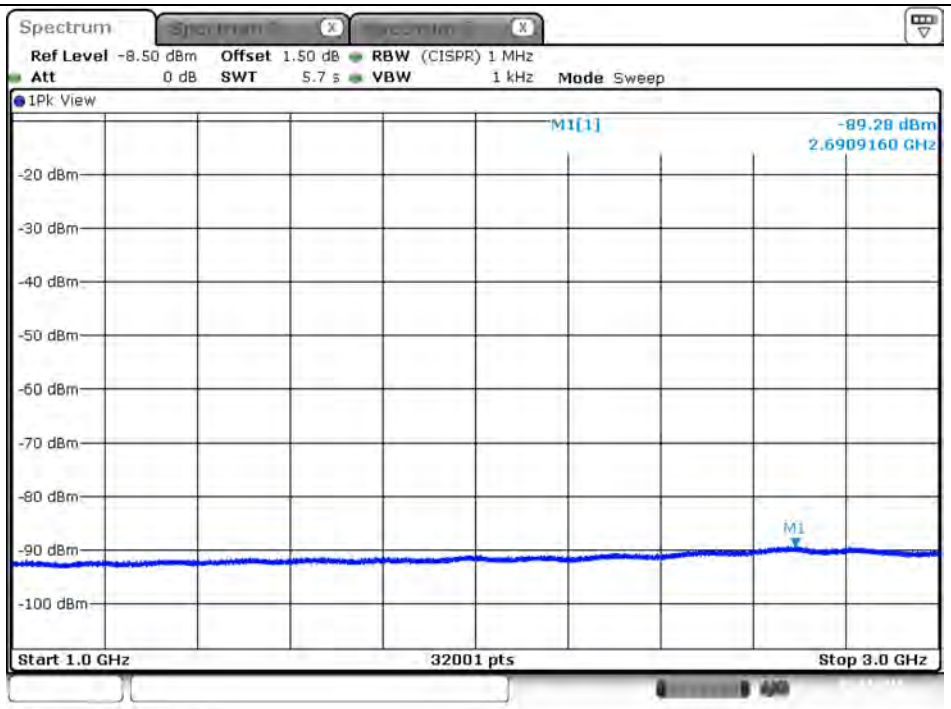
Date: 3.APR.2018 02:55:21

Plot on Configuration VHT40 / 5670 MHz / Average / Port 1 / 1GHz~3GHz



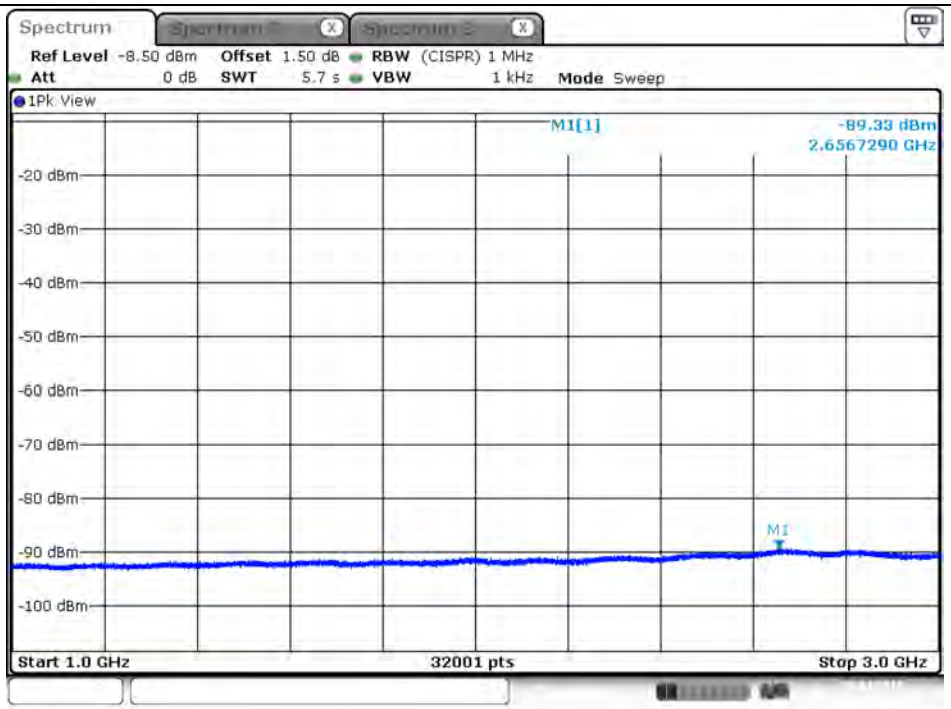
Date: 3.APR.2018 20:08:18

Plot on Configuration VHT40 / 5670 MHz / Average / Port 2 / 1GHz~3GHz



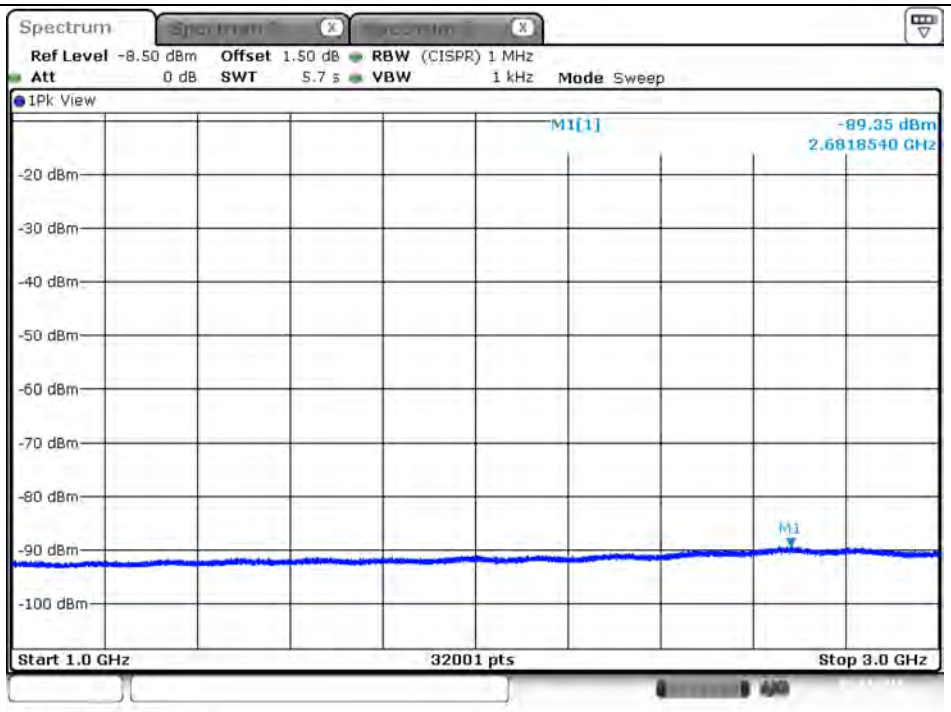
Date: 3.APR.2018 20:28:56

Plot on Configuration VHT40 / 5670 MHz / Average / Port 3 / 1GHz~3GHz



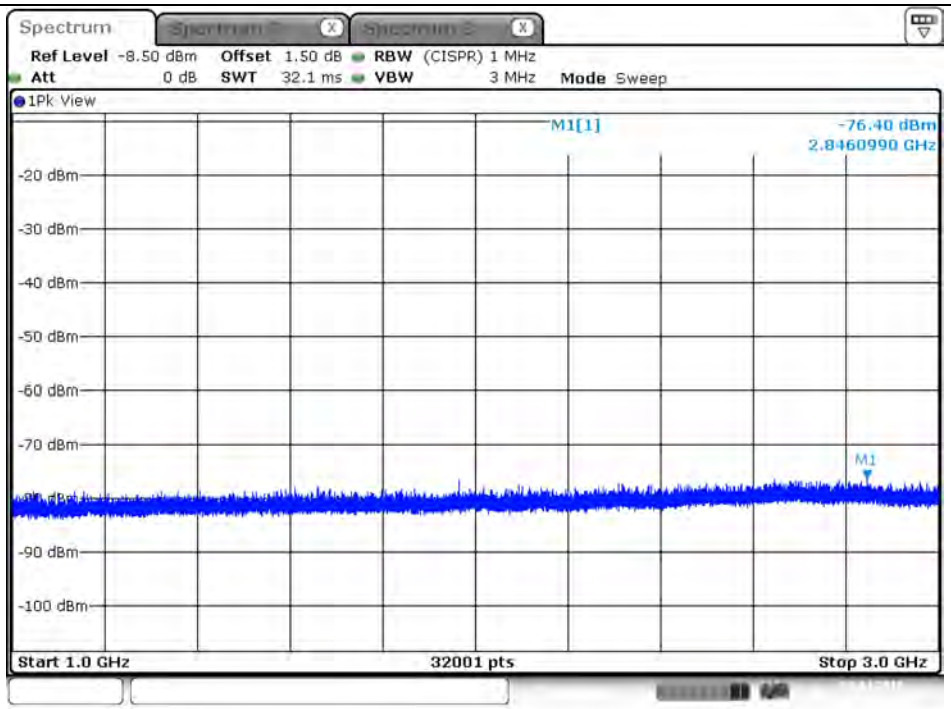
Date: 3.APR.2018 20:31:54

Plot on Configuration VHT40 / 5670 MHz / Average / Port 4 / 1GHz~3GHz



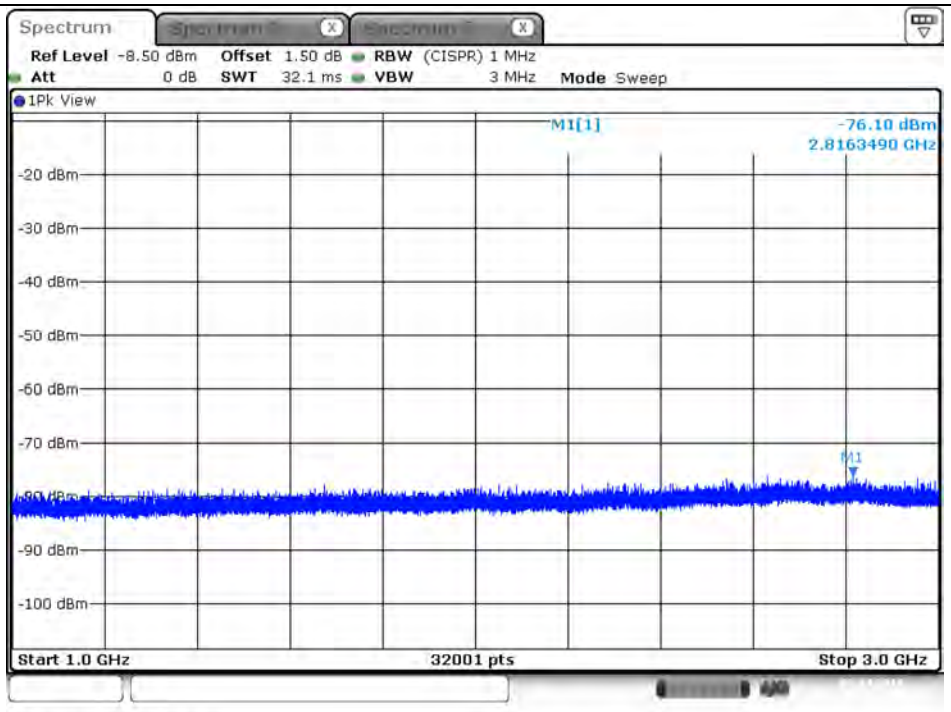
Date: 3.APR.2018 20:51:30

Plot on Configuration VHT40 / 5670 MHz / Peak / Port 1 / 1GHz~3GHz



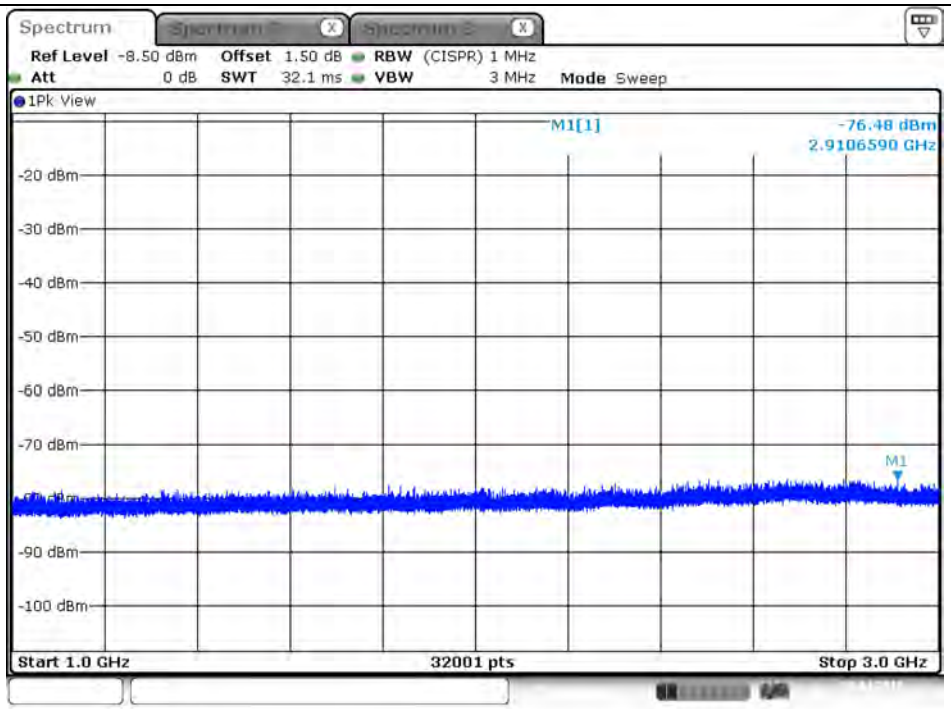
Date: 3.APR.2018 20:10:25

Plot on Configuration VHT40 / 5670 MHz / Peak / Port 2 / 1GHz~3GHz



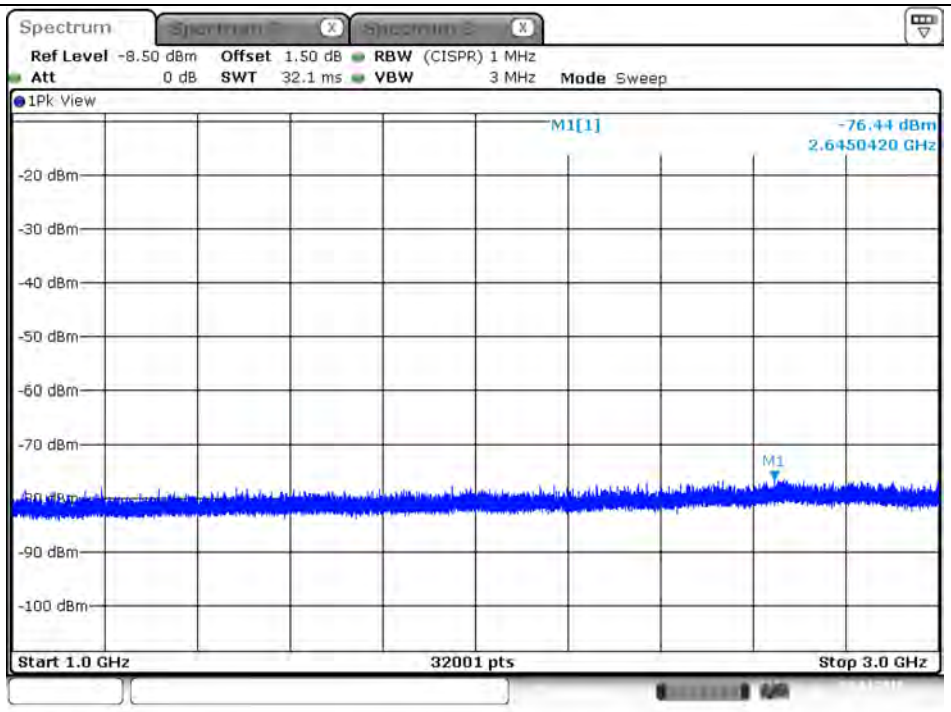
Date: 3.APR.2018 20:29:59

Plot on Configuration VHT40 / 5670 MHz / Peak / Port 3 / 1GHz~3GHz



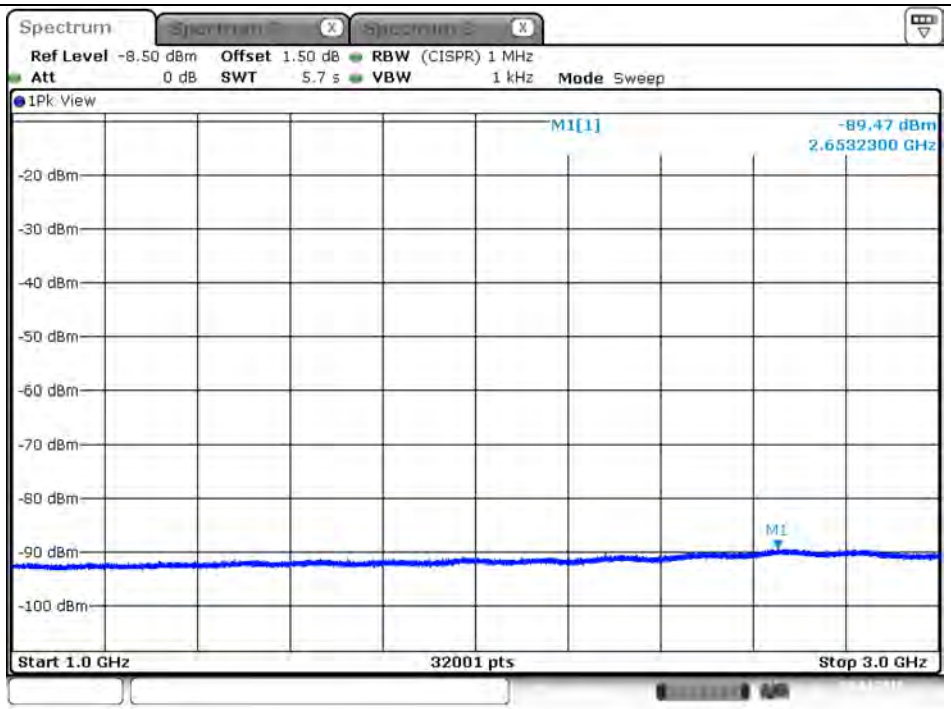
Date: 3.APR.2018 20:32:57

Plot on Configuration VHT40 / 5670 MHz / Peak / Port 4 / 1GHz~3GHz



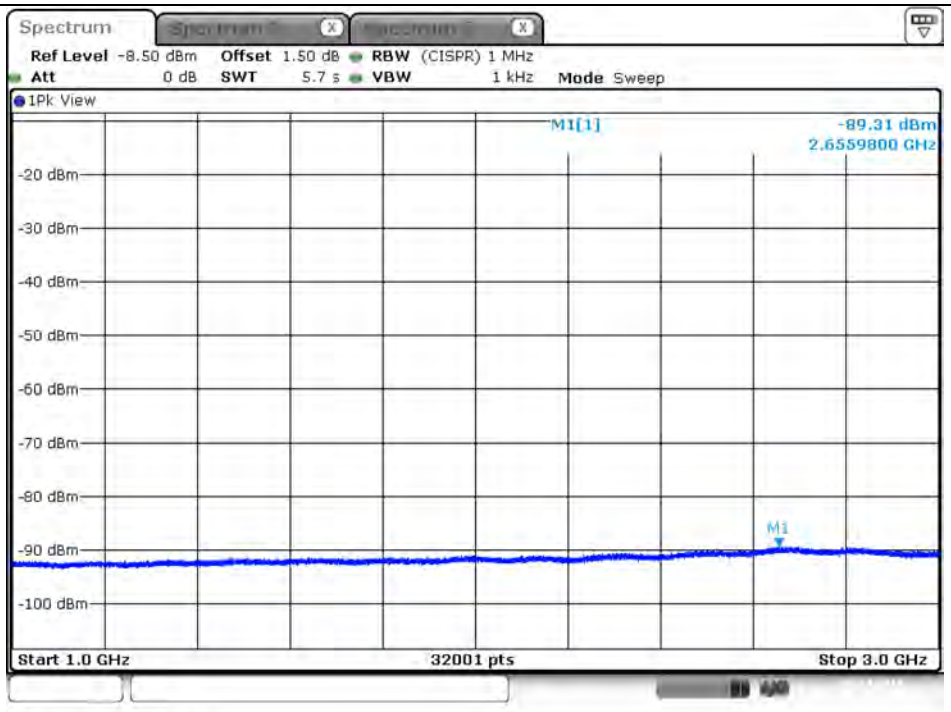
Date: 3.APR.2018 20:52:18

Plot on Configuration VHT40 / 5710 MHz / Average / Port 1 / 1GHz~3GHz



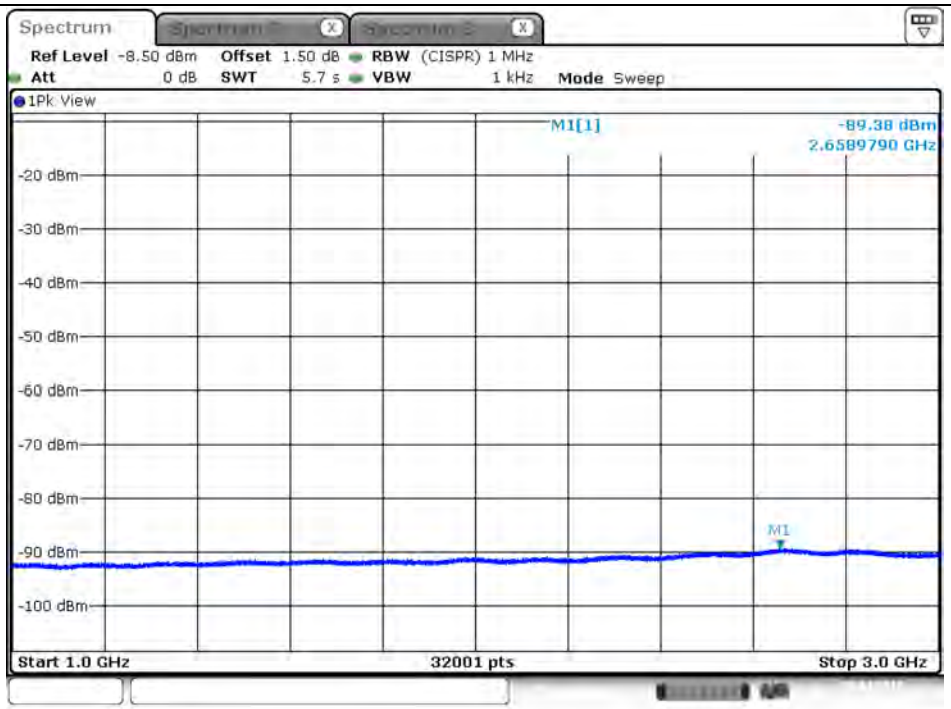
Date: 3.APR.2018 20:54:34

Plot on Configuration VHT40 / 5710 MHz / Average / Port 2 / 1GHz~3GHz



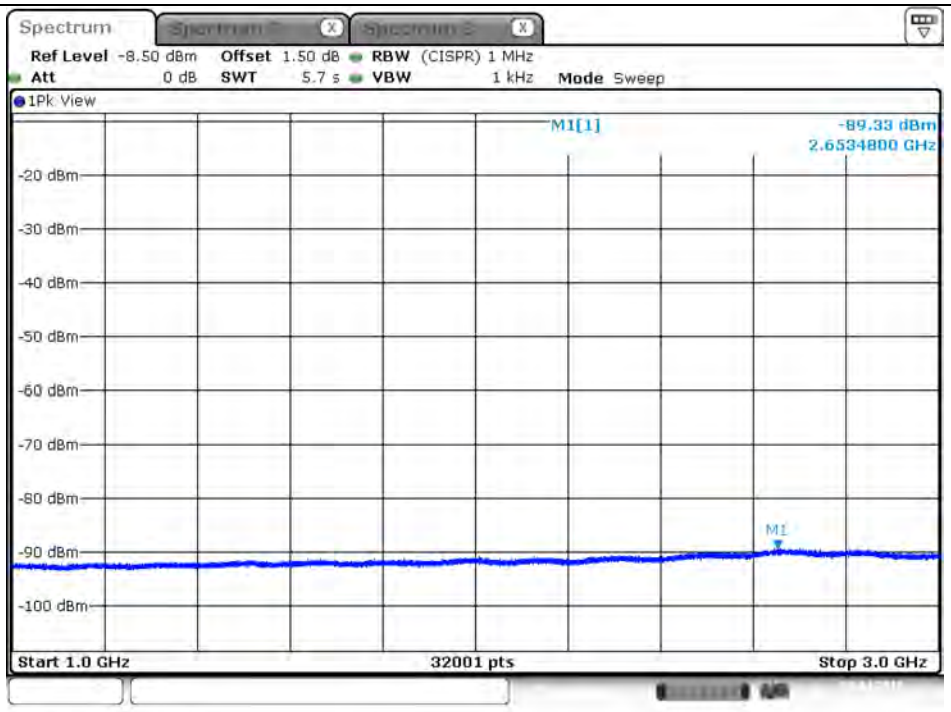
Date: 3.APR.2018 21:08:58

Plot on Configuration VHT40 / 5710 MHz / Average / Port 3 / 1GHz~3GHz



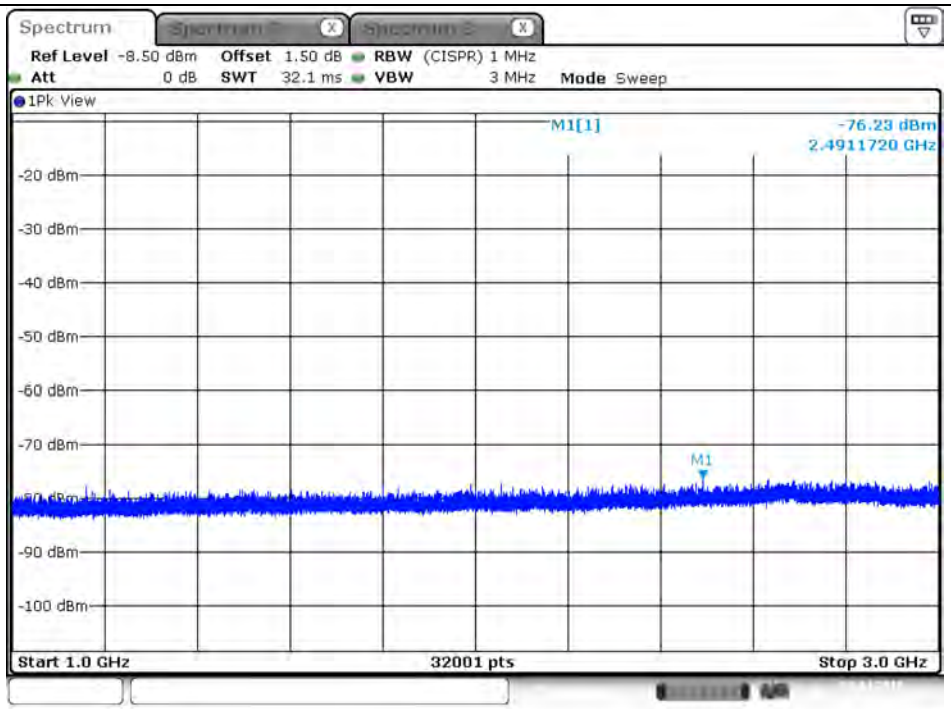
Date: 3.APR.2018 21:16:30

Plot on Configuration VHT40 / 5710 MHz / Average / Port 4 / 1GHz~3GHz



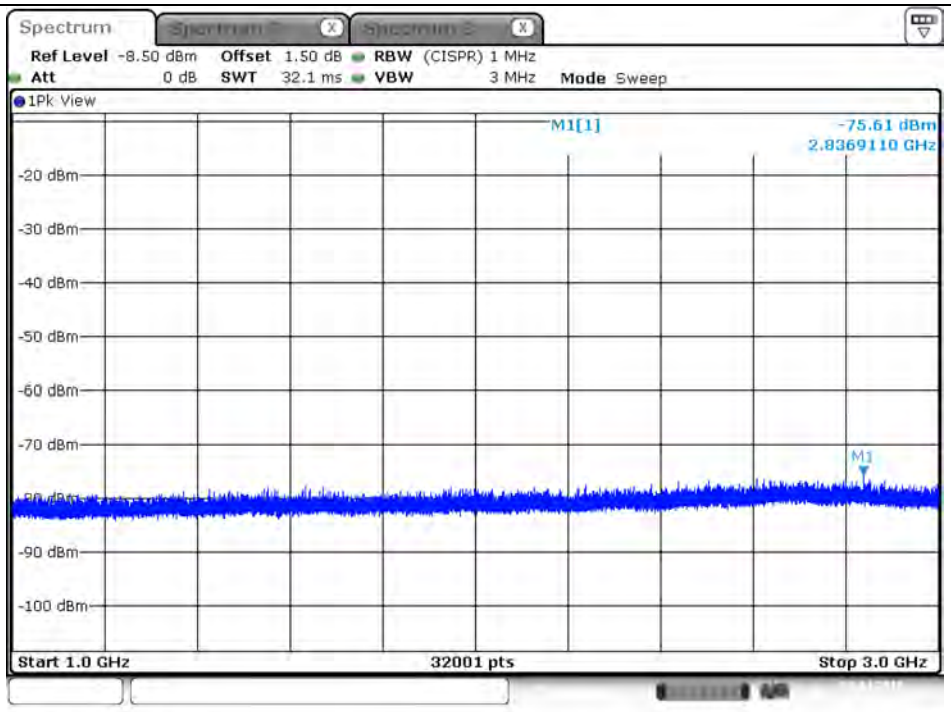
Date: 3.APR.2018 21:31:43

Plot on Configuration VHT40 / 5710 MHz / Peak / Port 1 / 1GHz~3GHz



Date: 3.APR.2018 20:55:38

Plot on Configuration VHT40 / 5710 MHz / Peak / Port 2 / 1GHz~3GHz



Date: 3.APR.2018 21:09:41