FCC Test Report

Equipment	:	PTP450B
Brand Name	:	Cambium Networks
Model No.	:	PTP450B
FCC ID	:	Z8H89FT0042
Standard	:	47 CFR FCC Part 15.407
Operating Band	:	5250 MHz – 5350 MHz 5470 MHz – 5725 MHz
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
Function	:	☐ Outdoor; ☐ Indoor; ☒ Fixed P2P ☐ Client
TPC Function	:	☒ With TPC ☐ Without TPC

The product sample received on Jan. 17, 2018 and completely tested on Feb. 13, 2018. We, SPORTON, 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 test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Cliff Chang
SPORTON INTERNATIONAL INC.

Testing Laboratory
1190

Table of Contents

Summary of Test Result

Conformance Test Specifications			
Report Clause	**Ref. Std. Clause**	**Description**	**Result**
1.1.2	15.203	Antenna Requirement	Complied
3.1	15.407(a)	Emission Bandwidth	Complied
3.2	15.407(a)	Maximum Conducted Output Power	Complied
3.3	15.407(a)	Peak Power Spectral Density	Complied
3.4	15.407(b)	Unwanted Emissions	Complied
3.5	15.407(g)	Frequency Stability	Complied

Revision History

Report No.	Version	Description	Issued Date
FR812401-01AB	Rev. 01	Initial issue of report	Mar. 01, 2018

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	QPSK, 10M	5250 / 5255 / 5260 / 5265 / 5270 / 5275 / 5280 / 5285 / 5290 / 5295 / 5300 / 5305 / 5310 / 5315 / 5320 / 5325 / 5330 / 5335 / 5340	19
5470-5725		5480 / 5485 / 5490 / 5495 / 5500 / 5505 / 5510 / 5515 / 5520 / 5525 / 5530 / 5535 / 5540 / 5545 / 5550 / 5555 / 5560 / 5565 / 5570 / 5575 / 5580 / 5585 / 5590 / 5595 / 5655 / 5660 / 5665 / 5670 / 5675 / 5680 / 5685 / 5690 / 5695 / 5700 / 5705 / 5710 / 5715 / 5725	38
5250-5350	QPSK, 40M	5250 / 5270 / 5275 / 5280 / 5285 / 5290 / 5295 / 5300 / 5305 / 5310 / 5315 / 5320 / 5325	13
5470-5725		5495 / 5500 / 5505 / 5510 / 5515 / 5520 / 5525 / 5530 / 5535 / 5540 / 5545 / 5550 / 5555 / 5560 / 5565 / 5570 / 5575 / 5580 / 5675 / 5680 / 5685 / 5690 / 5695 / 5700 / 5720	25

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	QPSK,10M	10	2TX
5.25-5.35GHz	QPSK,40M	40	2TX
5.47-5.725GHz	QPSK,10M	10	2TX
5.47-5.725GHz	QPSK,40M	40	2TX

Note:
- 10M and 40M use QPSK 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	PTP450B	Printed Antenna	N/A	2
	2	Cambium	PTP450B	Printed Antenna	N/A	2
2	1	Cambium	PTP450B	Printed Antenna	N/A	24
	2	Cambium	PTP450B	Printed Antenna	N/A	24

Note: The EUT has two antennas.

For 5GHz function (2TX/2RX):

Ant.1 and Ant.2 has been tested and recorded in the test report.

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

Port 1 and Port 2 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

For Antenna 1:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
QPSK,10M	0.441	3.556	2.419m	1k
QPSK,40M	0.347	4.597	1.992m	1k

For Antenna 2:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
QPSK,10M	0.678	1.68	3.392m	1K
QPSK,40M	0.793	1.01	1.952m	1K

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
Test Software Version	telnet			

1.1.5 Table for Class III Change

This product is an extension of original one reported under Sporton project number: FR812401AA

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

Description	Performance Checking
1. Adding 5G Band 2 Band 3 only for 10M and 40M. (Please refer to section 1.1.1 for detail frequency.)	1. Emission Bandwidth 2. Maximum Conducted Output Power 3. Peak Power Spectral Density 4. Unwanted Emissions 5. Frequency Stability
2. Adding gasket.	Do not effect the test results.

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
- FCC KDB 412172 D01 v01r01

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	Ron Huang / Serway Li	22°C / 54%	Jan. 18, 2018~Feb. 13, 2018

Test site Designation No. TW0006 with FCC
Test site registered number IC 4086D 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
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%
Frequency Stability	6.06×10^{-8}	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

For Antenna 1:

Mode	Power Setting
QPSK,10M_Nss1,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	42/40
5250MHz Straddle 5.25-5.35GHz	42/40
5255MHz	42/40
5295MHz	44/42
5340MHz	45/43
5480MHz	48/47
5575MHz	45/46
5715MHz	43/43
5725MHz Straddle 5.47-5.725GHz	38/34
5725MHz Straddle 5.725-5.85GHz	38/34
QPSK,40M_Nss1,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	2b/29
5250MHz Straddle 5.25-5.35GHz	2b/29
5270MHz	37/35
5300MHz	38/36
5325MHz	49/47
5495MHz	4b/49
5550MHz	3a/39
5700MHz	48/49
5720MHz Straddle 5.47-5.725GHz	2c/2f
5720MHz Straddle 5.725-5.85GHz	2c/2f

For Antenna 2:

Mode	Power Setting
QPSK,10M_Nss1,(MCS0)_2TX	-
5250MHz Straddle 5.15-5.25GHz	20
5250MHz Straddle 5.25-5.35GHz	20
5255MHz	20
5295MHz	19
5340MHz	19
5480MHz	18
5575MHz	19
5715MHz	18
5725MHz Straddle 5.47-5.725GHz	19
5725MHz Straddle 5.725-5.85GHz	19
QPSK,40M_Nss1,(MCS0)_2TX	-

Mode	Power Setting
5250MHz Straddle 5.15-5.25GHz	26
5250MHz Straddle 5.25-5.35GHz	26
5270MHz	23
5300MHz	21
5325MHz	14
5495MHz	13
5550MHz	23
5700MHz	12
5720MHz Straddle 5.47-5.725GHz	23
5720MHz Straddle 5.725-5.85GHz	23

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 Frequency Stability Unwanted Emissions
Test Condition	Conducted measurement at transmit chains

Note 1: The EUT can only be used in Z axis
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	Phihong	PSA15M-300

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

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC
2	PoE	Phihong	PSA15M-300	DoC

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.

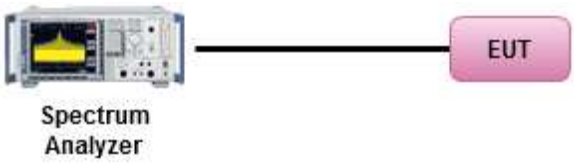
3.1.2 Measuring Instruments

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

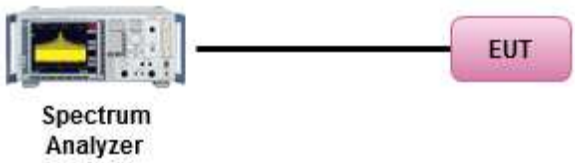
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

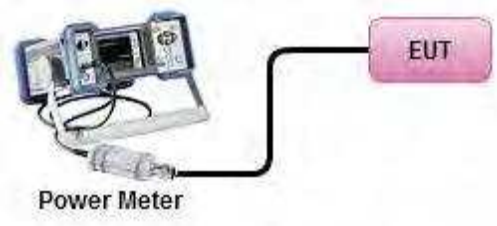
Test Method	
▪ Maximum Conducted Output Power	
	Average over on/off periods with duty factor
	☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over 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.	

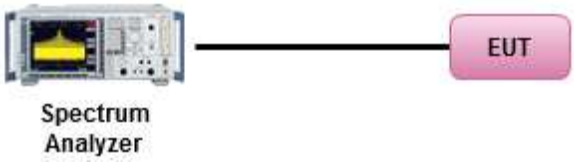
3.3.2 Measuring Instruments

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

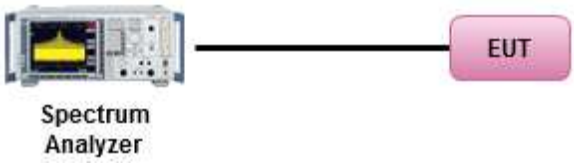
Refer a test equipment and calibration data table in this test report.

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.
▪ 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 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

Transmitter Conducted Unwanted Emissions


3.4.5 Transmitter Unwanted Emissions (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.4.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D

3.5 Frequency Stability

3.5.1 Frequency Stability Limit

Frequency Stability Limit
UNII Devices
▪ In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
LE-LAN Devices
▪ N/A
IEEE Std. 802.11
▪ The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25 ppm maximum for the 2.4 GHz band.

3.5.2 Measuring Instruments

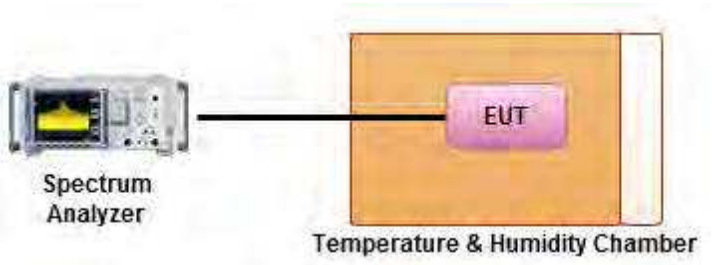
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
▪ Refer as ANSI C63.10, clause 6.8 for frequency stability tests	
	▪ Frequency stability with respect to ambient temperature
	▪ Frequency stability when varying supply voltage
	▪ Extreme temperature is -40˚C~70˚C.

3.5.4 Test Setup

Frequency Stability



3.5.5 Test Result of Frequency Stability

Refer as Appendix E

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
Temp. and Humidity Chamber	Gaint Force	GTH-408-40-CP-AR	MAA1410-011	-40~100 degree	Sep. 15, 2017	Sep. 14, 2018	Conducted (TH03-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.

For Antenna 1:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
QPSK,10M_Nss1,(MCS0)_2TX	4.825M	4.573M	4M57G7D	4.825M	4.568M
QPSK,40M_Nss1,(MCS0)_2TX	21.28M	18.391M	18M4G7D	21.2M	18.351M
5.25-5.35GHz	-	-	-	-	-
QPSK,10M_Nss1,(MCS0)_2TX	9.738M	9.183M	9M18G7D	4.82M	4.603M
QPSK,40M_Nss1,(MCS0)_2TX	43M	36.982M	37M0G7D	21.18M	18.431M
5.47-5.725GHz	-	-	-	-	-
QPSK,10M_Nss1,(MCS0)_2TX	9.763M	9.195M	9M20G7D	4.835M	4.563M
QPSK,40M_Nss1,(MCS0)_2TX	43M	36.982M	37M0G7D	26.18M	23.368M
5.725-5.85GHz	-	-	-	-	-
QPSK,10M_Nss1,(MCS0)_2TX	4.655M	4.613M	4M61G7D	4.65M	4.608M
QPSK,40M_Nss1,(MCS0)_2TX	13.56M	13.523M	13M5G7D	13.56M	13.523M

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)
QPSK,10M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	4.825M	4.568M	4.825M	4.573M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	4.82M	4.603M	4.85M	4.603M
5255MHz	Pass	Inf	9.738M	9.183M	9.725M	9.183M
5295MHz	Pass	Inf	9.713M	9.183M	9.738M	9.183M
5340MHz	Pass	Inf	9.738M	9.17M	9.725M	9.183M
5480MHz	Pass	Inf	9.738M	9.183M	9.763M	9.158M
5575MHz	Pass	Inf	9.713M	9.17M	9.738M	9.195M
5715MHz	Pass	Inf	9.713M	9.183M	9.75M	9.183M
5725MHz Straddle 5.47-5.725GHz	Pass	Inf	4.835M	4.563M	4.84M	4.568M
5725MHz Straddle 5.725-5.85GHz	Pass	500k	4.655M	4.608M	4.65M	4.613M
QPSK,40M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	21.28M	18.351M	21.2M	18.391M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	21.18M	18.451M	21.26M	18.431M
5270MHz	Pass	Inf	42.75M	36.982M	42.65M	36.882M
5300MHz	Pass	Inf	42.75M	36.932M	42.9M	36.882M
5325MHz	Pass	Inf	42.85M	36.932M	43M	36.932M
5495MHz	Pass	Inf	42.75M	36.882M	42.75M	36.882M
5550MHz	Pass	Inf	43M	36.982M	42.8M	36.982M
5700MHz	Pass	Inf	42.85M	36.982M	42.8M	36.882M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	26.355M	23.368M	26.18M	23.368M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	13.56M	13.523M	13.56M	13.523M

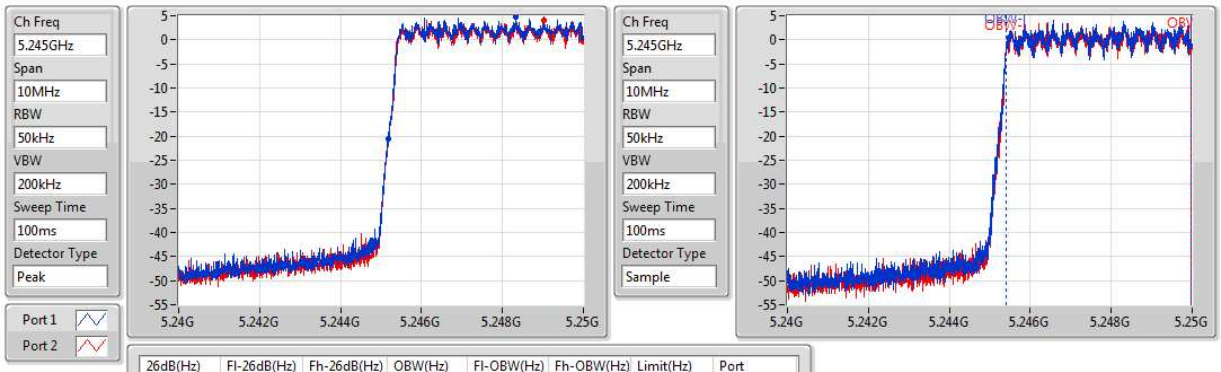
Port X-N dB = Port **X** 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port **X** 99% occupied bandwidth;

QPSK,10M_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.15-5.25GHz

25/01/2018



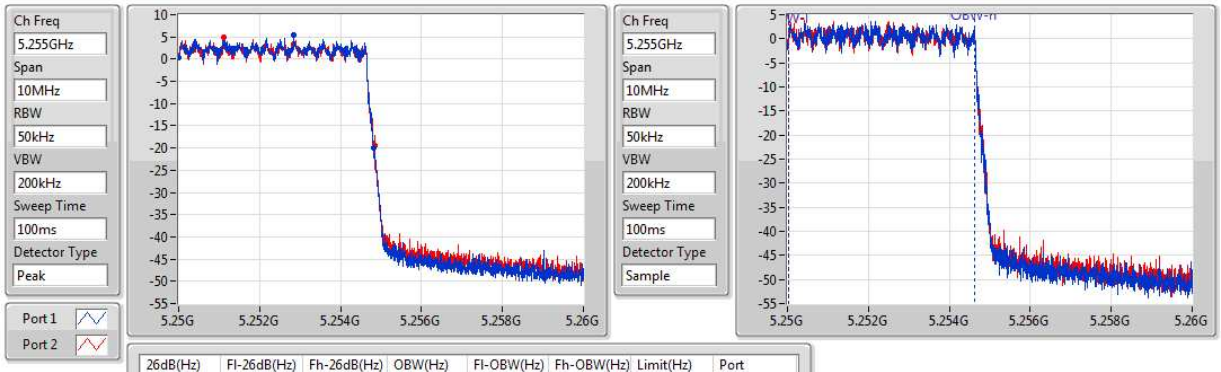
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.825M	5.245175G	5.25G	4.568M	5.2454G	5.249968G	Inf	1
4.825M	5.245175G	5.25G	4.573M	5.2454G	5.249973G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.25-5.35GHz

25/01/2018



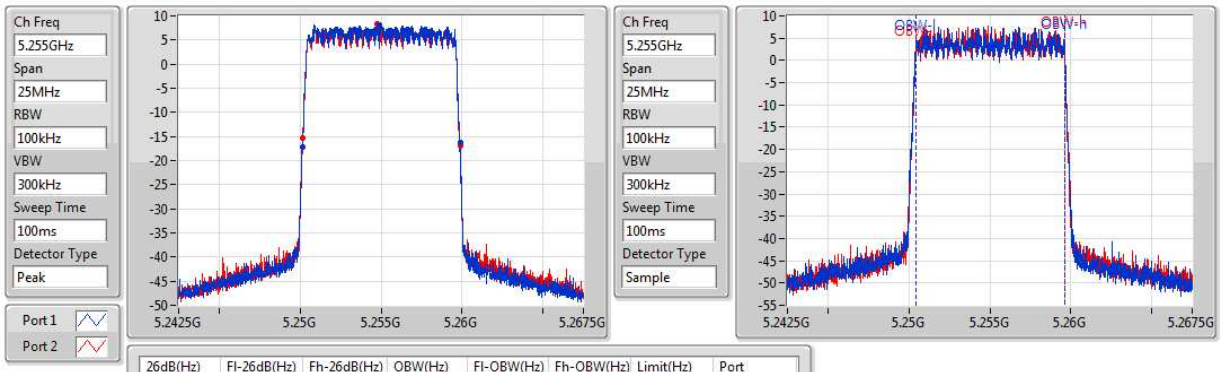
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.82M	5.25G	5.25482G	4.603M	5.250032G	5.254635G	Inf	1
4.85M	5.25G	5.25485G	4.603M	5.250032G	5.254635G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX

EBW

5255MHz

25/01/2018

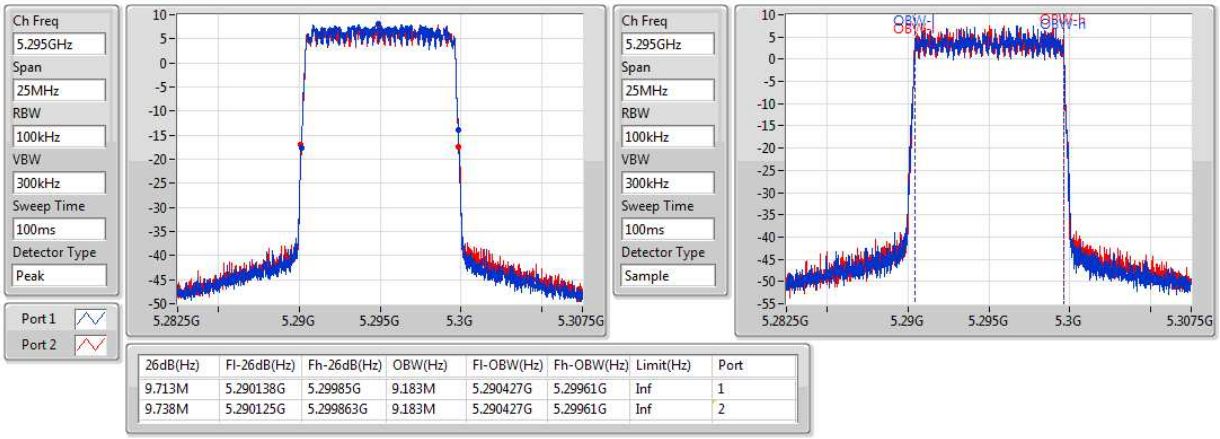


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.738M	5.250138G	5.259875G	9.183M	5.250427G	5.25961G	Inf	1
9.725M	5.25015G	5.259875G	9.183M	5.250427G	5.25961G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5295MHz

25/01/2018

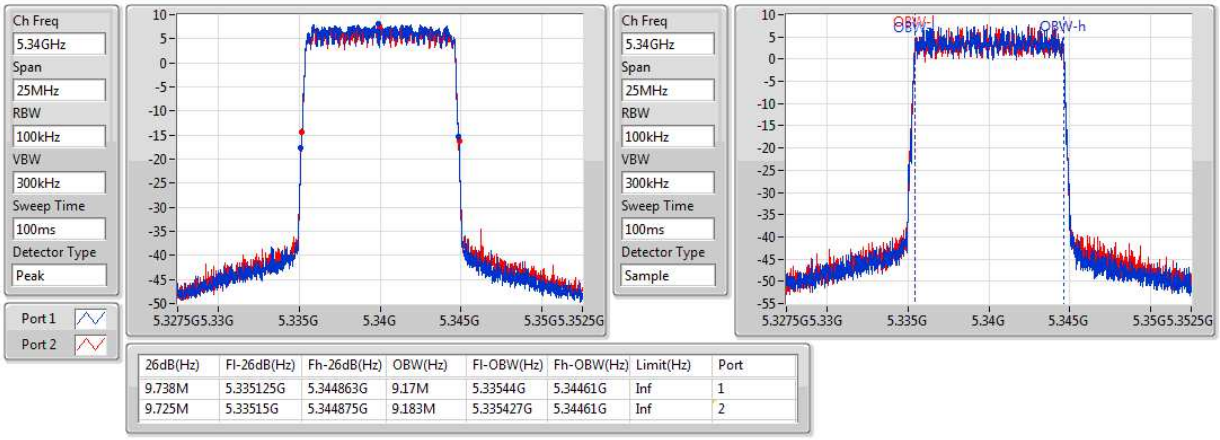


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.713M	5.290138G	5.29985G	9.183M	5.290427G	5.29961G	Inf	1
9.738M	5.290125G	5.299863G	9.183M	5.290427G	5.29961G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5340MHz

25/01/2018

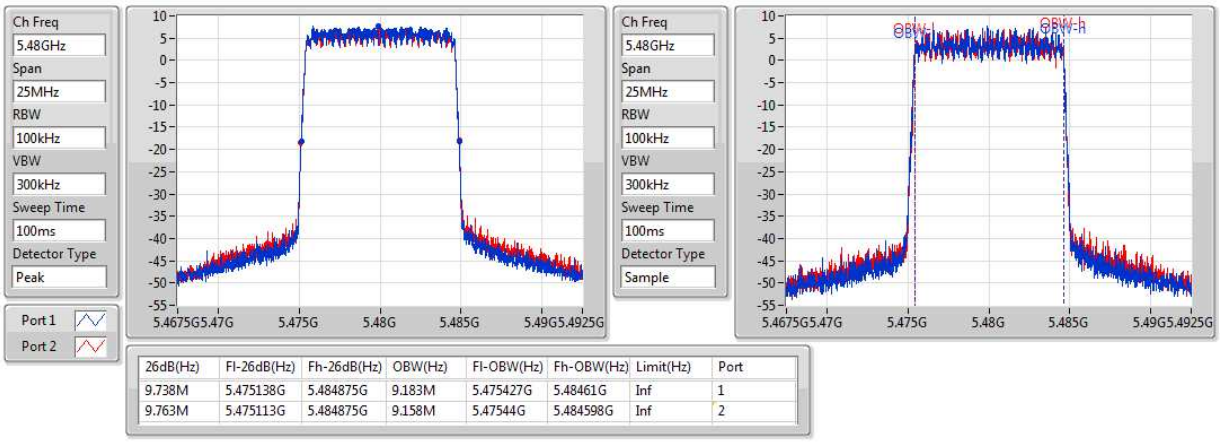


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.738M	5.335125G	5.344863G	9.17M	5.33544G	5.34461G	Inf	1
9.725M	5.33515G	5.344875G	9.183M	5.335427G	5.34461G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5480MHz

25/01/2018

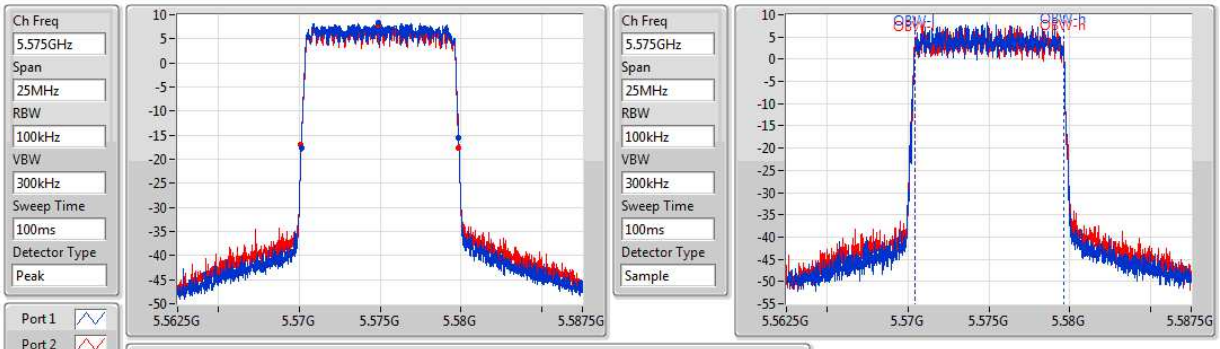


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.738M	5.475138G	5.484875G	9.183M	5.475427G	5.48461G	Inf	1
9.763M	5.475113G	5.484875G	9.158M	5.47544G	5.484598G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5575MHz

25/01/2018

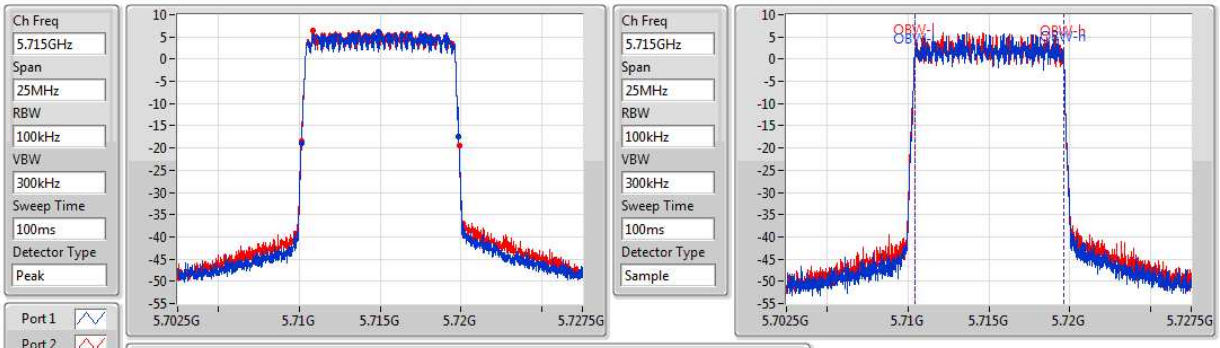


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.713M	5.57015G	5.579863G	9.17M	5.57044G	5.57961G	Inf	1
9.738M	5.570125G	5.579863G	9.195M	5.570415G	5.57961G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5715MHz

25/01/2018

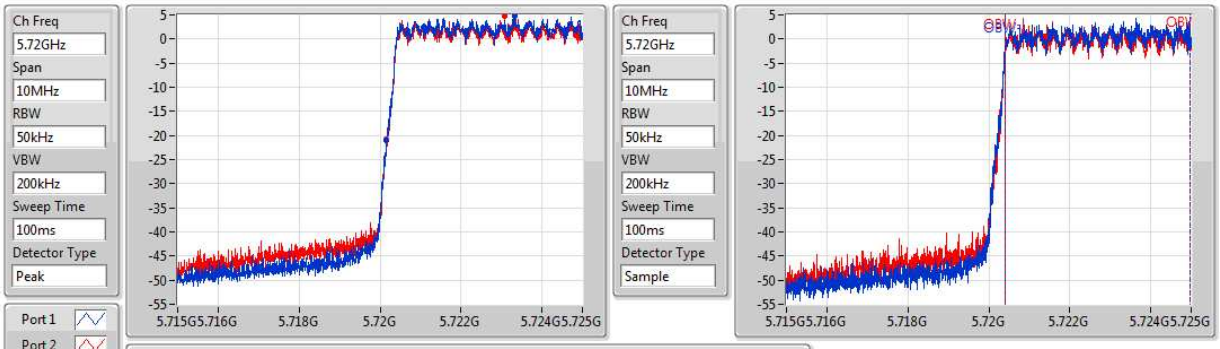


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.713M	5.71015G	5.719863G	9.183M	5.710427G	5.71961G	Inf	1
9.75M	5.710138G	5.719888G	9.183M	5.710427G	5.71961G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5725MHz Straddle 5.47-5.725GHz

25/01/2018



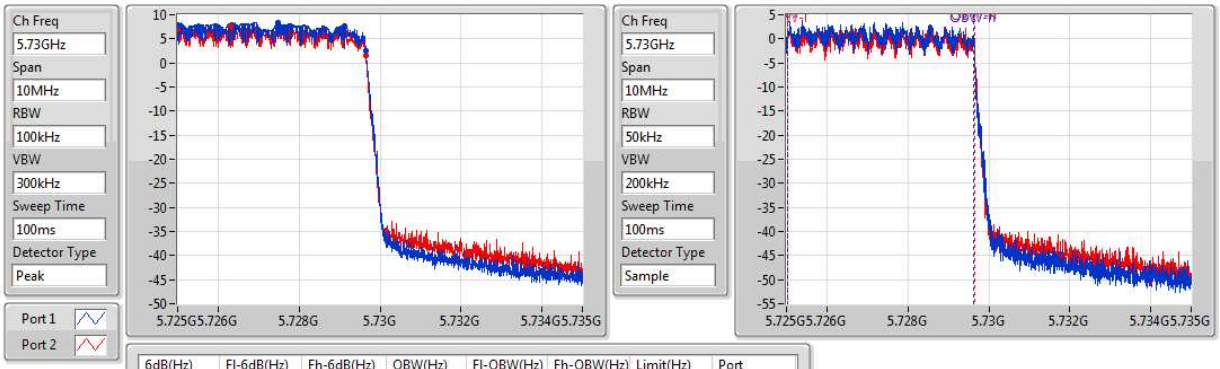
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.835M	5.720165G	5.725G	4.563M	5.720405G	5.724968G	Inf	1
4.84M	5.72016G	5.725G	4.568M	5.7204G	5.724968G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX

EBW

5725MHz Straddle 5.725-5.85GHz

25/01/2018



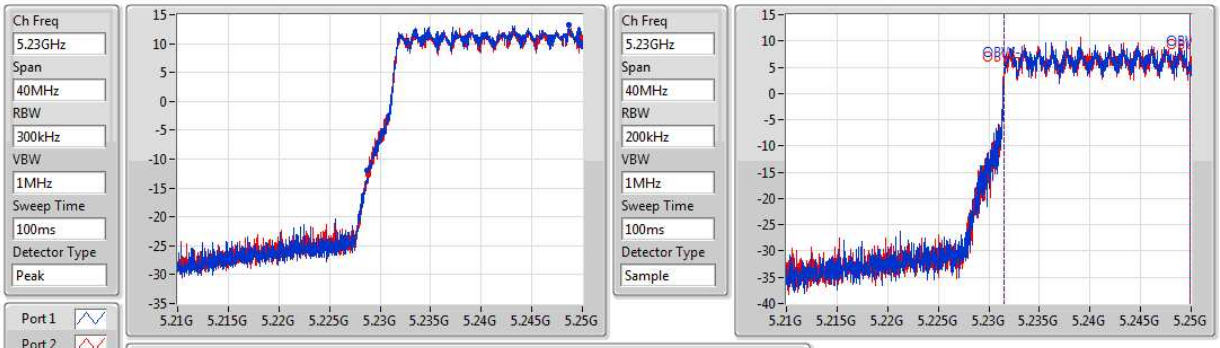
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.655M	5.725G	5.729655G	4.608M	5.725027G	5.729635G	500k	1
4.65M	5.725G	5.72965G	4.613M	5.725027G	5.72964G	500k	2

QPSK,40M_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.15-5.25GHz

25/01/2018



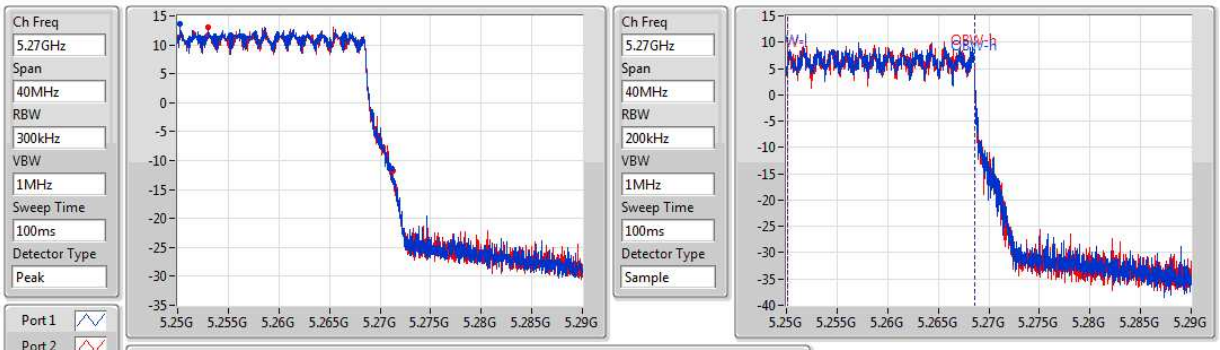
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.28M	5.22872G	5.25G	18.351M	5.231519G	5.24987G	Inf	1
21.2M	5.2288G	5.25G	18.391M	5.231519G	5.24991G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.25-5.35GHz

25/01/2018



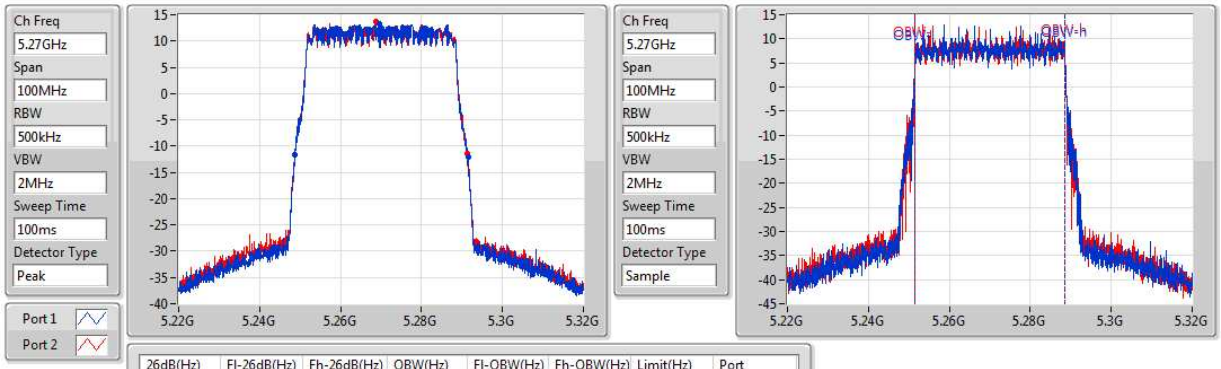
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.18M	5.25G	5.27118G	18.451M	5.25013G	5.268581G	Inf	1
21.26M	5.25G	5.27126G	18.431M	5.25013G	5.268561G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX

EBW

5270MHz

24/01/2018



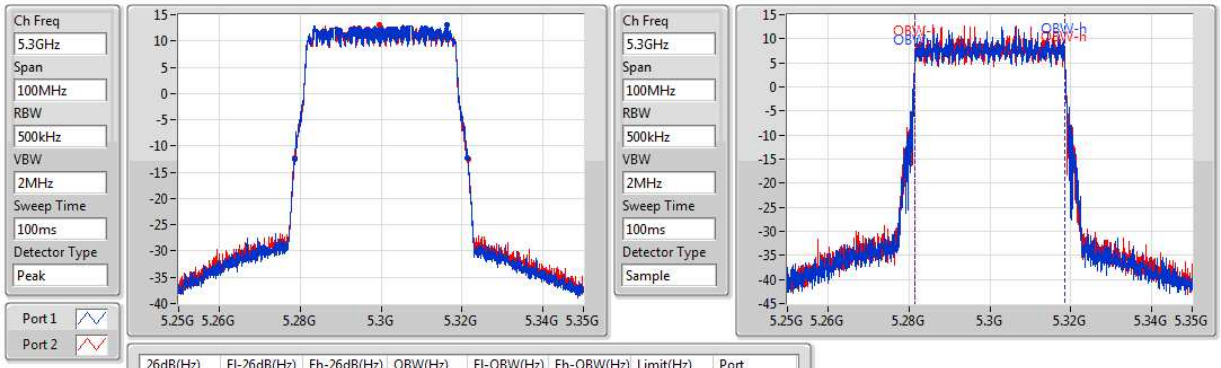
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.75M	5.2487G	5.29145G	36.982M	5.251559G	5.288541G	Inf	1
42.65M	5.2487G	5.29135G	36.882M	5.251609G	5.288491G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX

EBW

5300MHz

24/01/2018



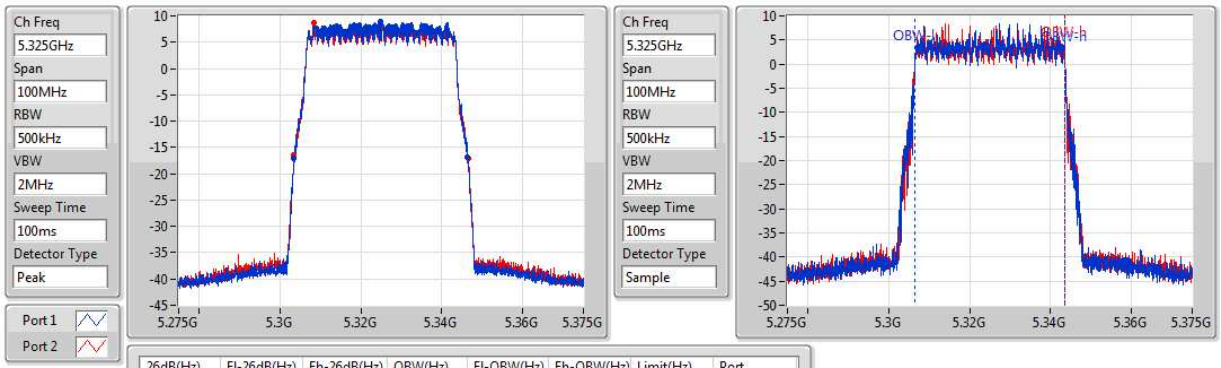
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.75M	5.27865G	5.3214G	36.932M	5.281559G	5.318491G	Inf	1
42.9M	5.2786G	5.3215G	36.882M	5.281609G	5.318491G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX

EBW

5325MHz

24/01/2018

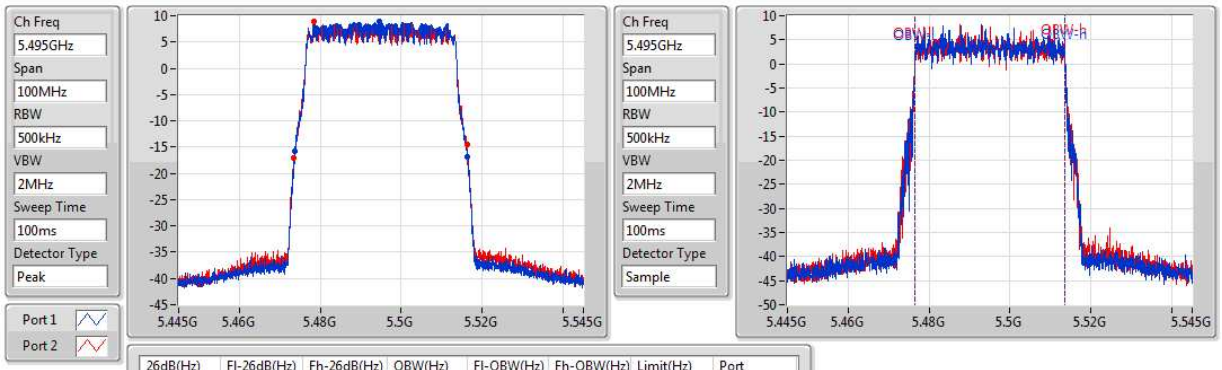


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.85M	5.30345G	5.3463G	36.932M	5.306559G	5.343491G	Inf	1
43M	5.30355G	5.34655G	36.932M	5.306559G	5.343491G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX EBW

5495MHz

25/01/2018

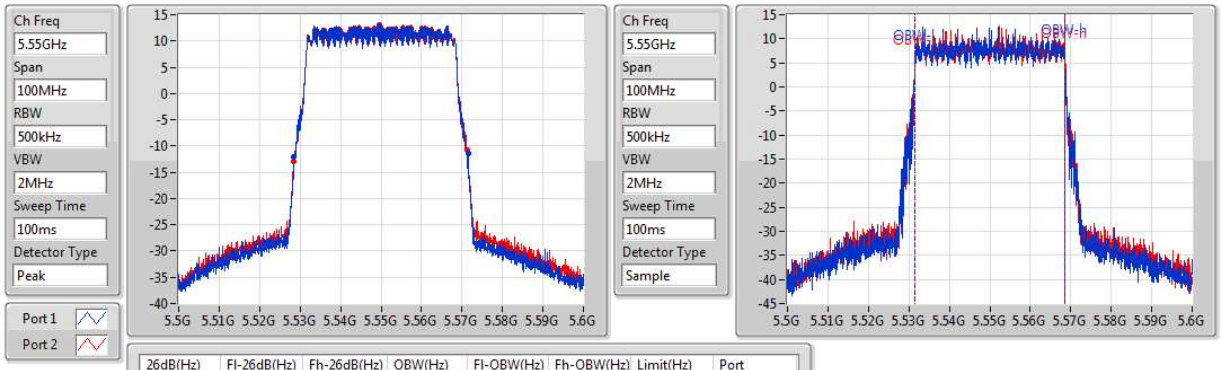


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.75M	5.47365G	5.5164G	36.882M	5.476609G	5.513491G	Inf	1
42.75M	5.47355G	5.5163G	36.882M	5.476609G	5.513491G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX EBW

5550MHz

25/01/2018

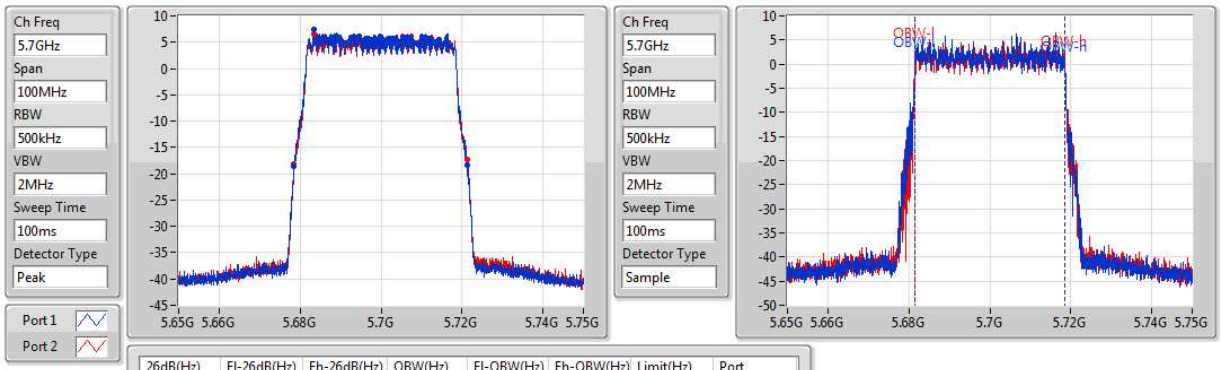


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43M	5.52845G	5.57145G	36.982M	5.531559G	5.568541G	Inf	1
42.8M	5.52845G	5.57125G	36.982M	5.531559G	5.568541G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX EBW

5700MHz

25/01/2018

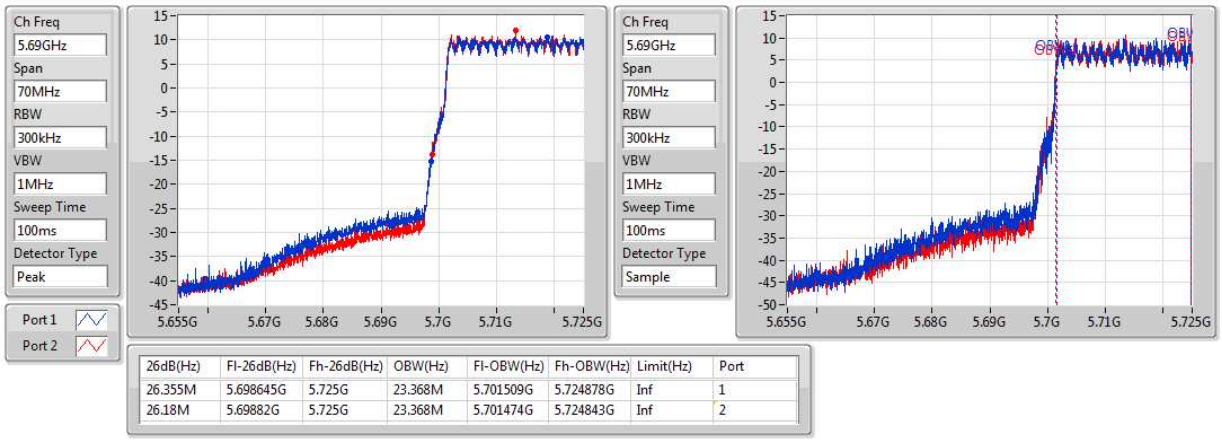


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.85M	5.6785G	5.72135G	36.982M	5.681559G	5.718541G	Inf	1
42.8M	5.67855G	5.72135G	36.882M	5.681609G	5.718491G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX **EBW**

5720MHz Straddle 5.47-5.725GHz

09/02/2018

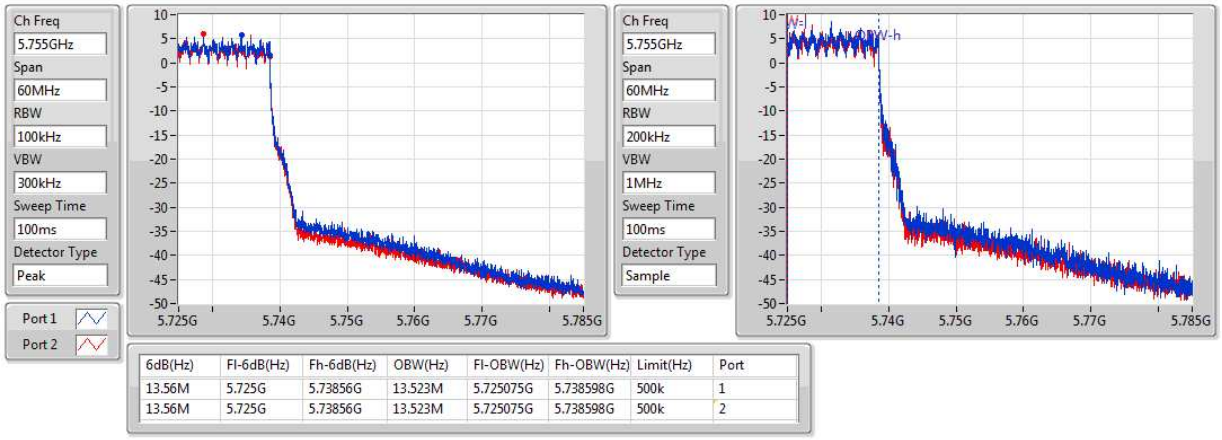


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
26.355M	5.698645G	5.725G	23.368M	5.701509G	5.724878G	Inf	1
26.18M	5.69882G	5.725G	23.368M	5.701474G	5.724843G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX **EBW**

5720MHz Straddle 5.725-5.85GHz

09/02/2018



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
13.56M	5.725G	5.73856G	13.523M	5.725075G	5.738598G	500k	1
13.56M	5.725G	5.73856G	13.523M	5.725075G	5.738598G	500k	2

For Antenna 2:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
QPSK,10M_Nss1,(MCS0)_2TX	4.855M	4.578M	4M58G7D	4.84M	4.578M
QPSK,40M_Nss1,(MCS0)_2TX	21.3M	18.391M	18M4G7D	21.26M	18.371M
5.25-5.35GHz	-	-	-	-	-
QPSK,10M_Nss1,(MCS0)_2TX	9.788M	9.195M	9M20G7D	4.84M	4.603M
QPSK,40M_Nss1,(MCS0)_2TX	43.4M	37.081M	37M1G7D	21.24M	18.451M
5.47-5.725GHz	-	-	-	-	-
QPSK,10M_Nss1,(MCS0)_2TX	9.75M	9.183M	9M18G7D	4.83M	4.573M
QPSK,40M_Nss1,(MCS0)_2TX	43M	36.982M	37M0G7D	26.18M	23.368M
5.725-5.85GHz	-	-	-	-	-
QPSK,10M_Nss1,(MCS0)_2TX	4.65M	4.603M	4M60G7D	4.645M	4.603M
QPSK,40M_Nss1,(MCS0)_2TX	13.56M	13.523M	13M5G7D	13.56M	13.523M

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

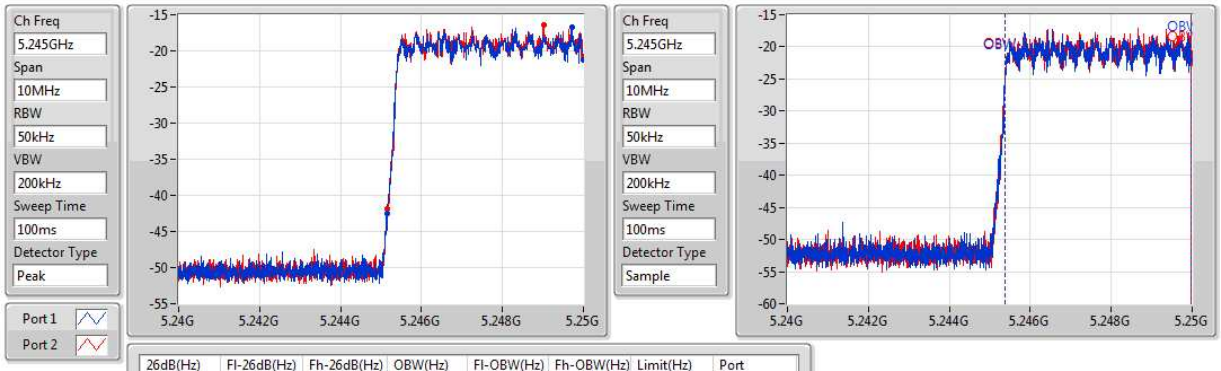
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
QPSK,10M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	4.855M	4.578M	4.84M	4.578M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	4.845M	4.603M	4.84M	4.608M
5255MHz	Pass	Inf	9.738M	9.195M	9.788M	9.195M
5295MHz	Pass	Inf	9.725M	9.17M	9.763M	9.183M
5340MHz	Pass	Inf	9.725M	9.195M	9.763M	9.195M
5480MHz	Pass	Inf	9.75M	9.17M	9.725M	9.17M
5575MHz	Pass	Inf	9.713M	9.183M	9.725M	9.183M
5715MHz	Pass	Inf	9.725M	9.17M	9.725M	9.17M
5725MHz Straddle 5.47-5.725GHz	Pass	Inf	4.83M	4.573M	4.83M	4.573M
5725MHz Straddle 5.725-5.85GHz	Pass	500k	4.645M	4.603M	4.65M	4.603M
QPSK,40M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	21.3M	18.371M	21.26M	18.391M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	21.32M	18.451M	21.24M	18.451M
5270MHz	Pass	Inf	43.3M	37.081M	43.3M	37.031M
5300MHz	Pass	Inf	43.1M	37.081M	43.4M	37.081M
5325MHz	Pass	Inf	42.8M	36.932M	43M	36.932M
5495MHz	Pass	Inf	42.75M	36.982M	42.65M	36.932M
5550MHz	Pass	Inf	42.8M	36.982M	42.8M	36.932M
5700MHz	Pass	Inf	42.85M	36.932M	43M	36.932M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	26.18M	23.368M	26.215M	23.368M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	13.56M	13.523M	13.56M	13.523M

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;

QPSK,10M_Nss1,(MCS0)_2TX **EBW**

5250MHz Straddle 5.15-5.25GHz

10/02/2018

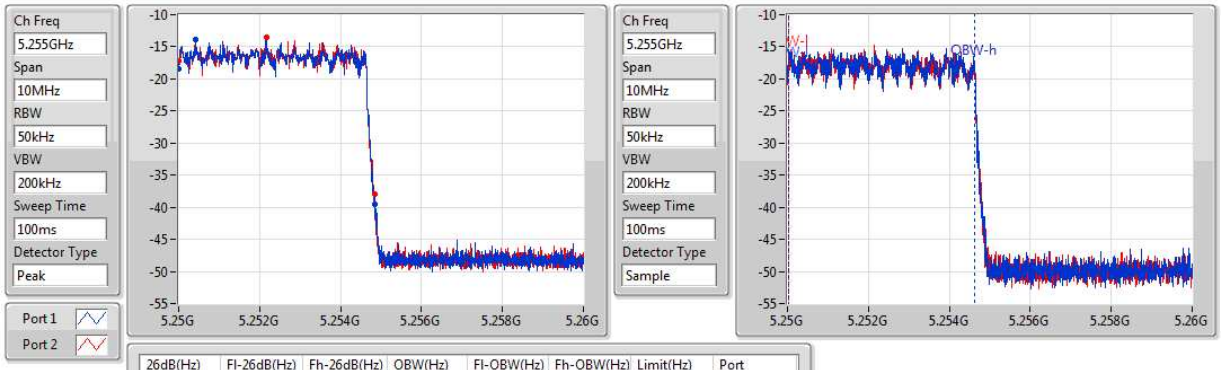


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.855M	5.245145G	5.25G	4.578M	5.24539G	5.249968G	Inf	1
4.84M	5.24516G	5.25G	4.578M	5.24539G	5.249968G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX **EBW**

5250MHz Straddle 5.25-5.35GHz

10/02/2018

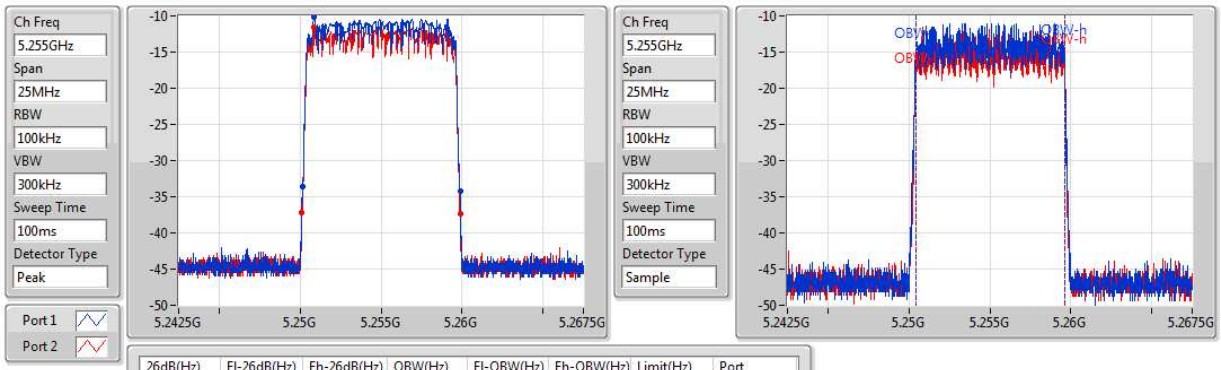


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.845M	5.25G	5.254845G	4.603M	5.250027G	5.25463G	Inf	1
4.84M	5.25G	5.25484G	4.608M	5.250027G	5.254635G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX **EBW**

5255MHz

10/02/2018

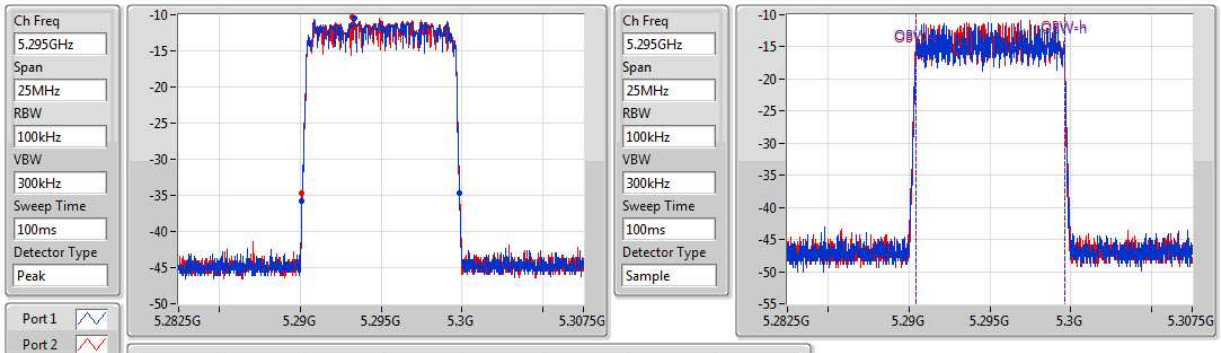


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.738M	5.250138G	5.259875G	9.195M	5.250415G	5.25961G	Inf	1
9.788M	5.2501G	5.259888G	9.195M	5.250415G	5.25961G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5295MHz

10/02/2018

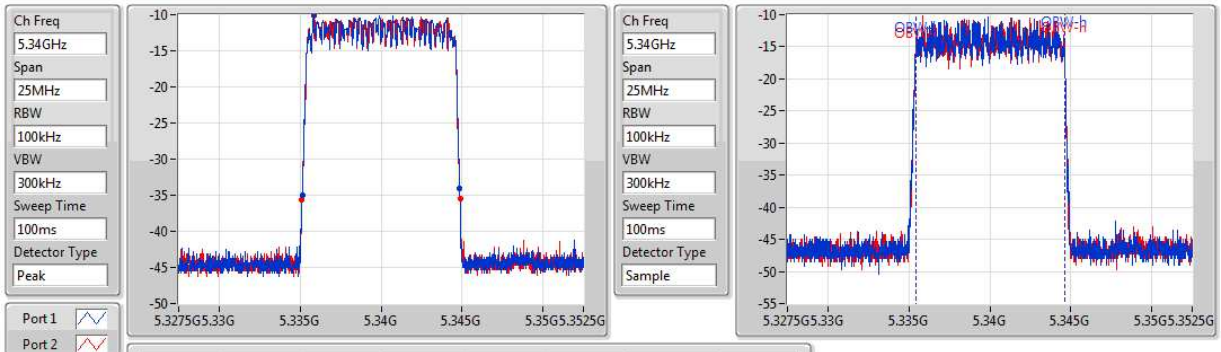


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.725M	5.290125G	5.29985G	9.17M	5.290427G	5.299598G	Inf	1
9.763M	5.2901G	5.299863G	9.183M	5.290415G	5.299598G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5340MHz

10/02/2018

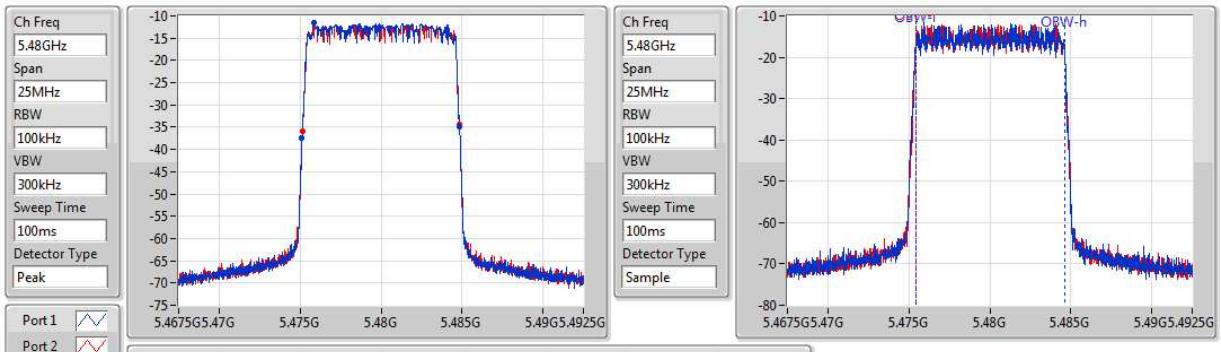


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.725M	5.335138G	5.344863G	9.195M	5.335415G	5.34461G	Inf	1
9.763M	5.335125G	5.344888G	9.195M	5.335415G	5.34461G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5480MHz

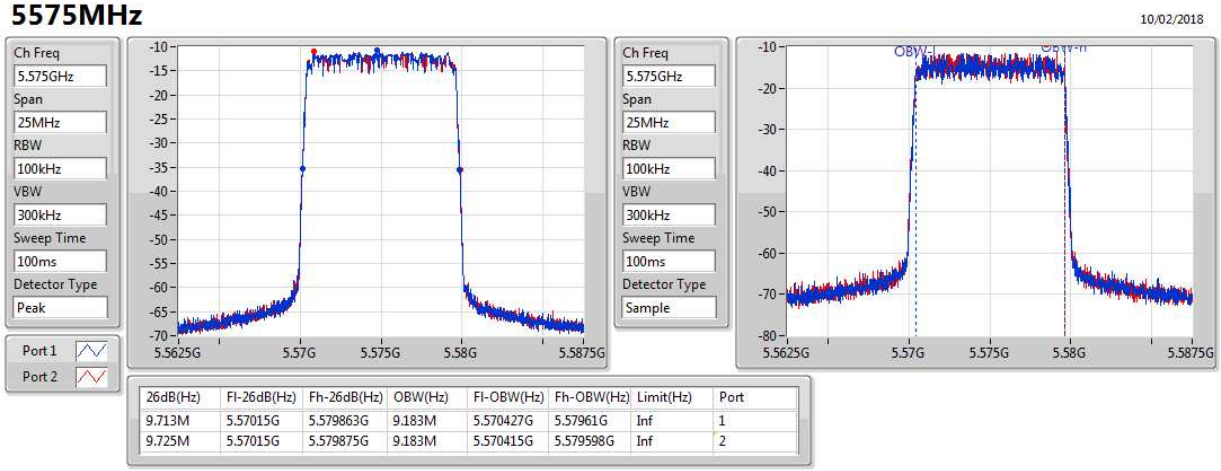
10/02/2018



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.75M	5.475113G	5.484863G	9.17M	5.475427G	5.484598G	Inf	1
9.725M	5.475138G	5.484863G	9.17M	5.475427G	5.484598G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

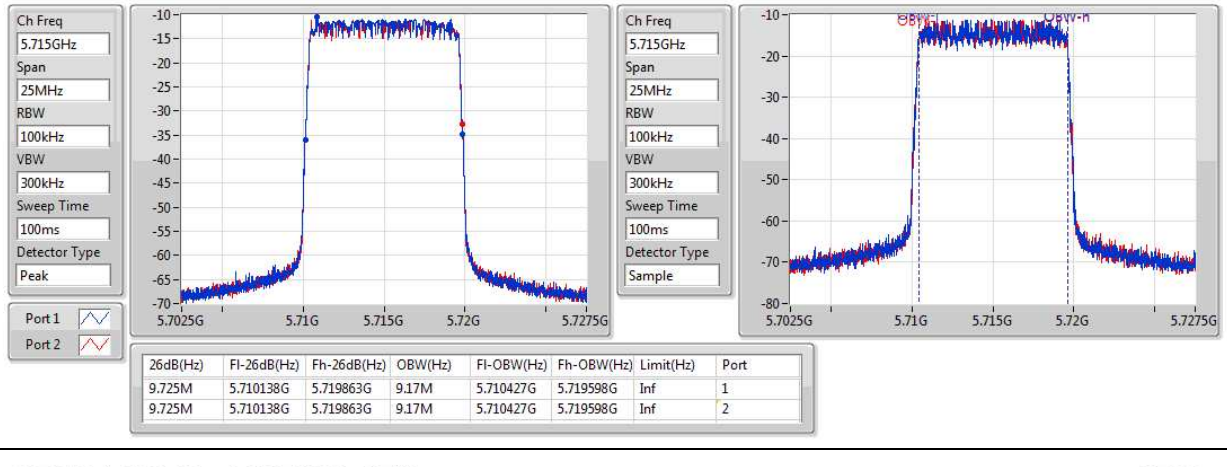
5575MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.713M	5.57015G	5.579863G	9.183M	5.570427G	5.57961G	Inf	1
9.725M	5.57015G	5.579875G	9.183M	5.570415G	5.579598G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

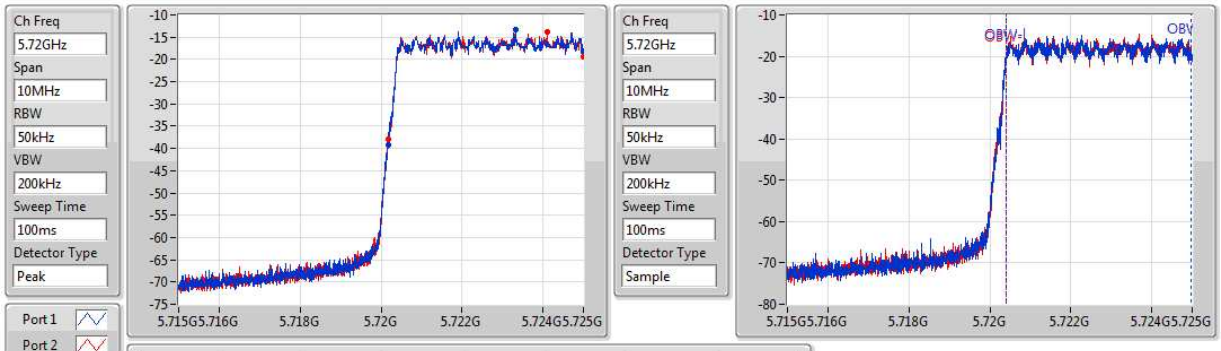
5715MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.725M	5.710138G	5.719863G	9.17M	5.710427G	5.719598G	Inf	1
9.725M	5.710138G	5.719863G	9.17M	5.710427G	5.719598G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX EBW

5725MHz Straddle 5.47-5.725GHz



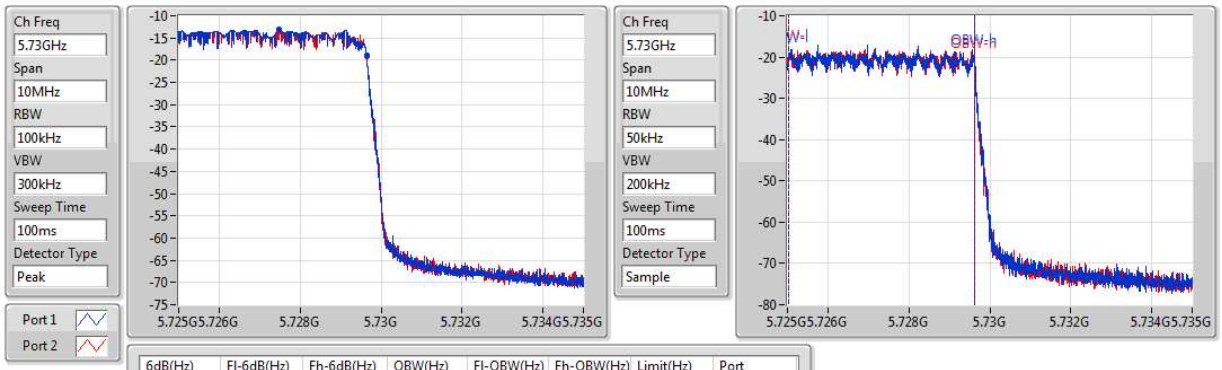
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.83M	5.72017G	5.725G	4.573M	5.720395G	5.724968G	Inf	1
4.83M	5.72017G	5.725G	4.573M	5.720395G	5.724968G	Inf	2

QPSK,10M_Nss1,(MCS0)_2TX

EBW

5725MHz Straddle 5.725-5.85GHz

10/02/2018



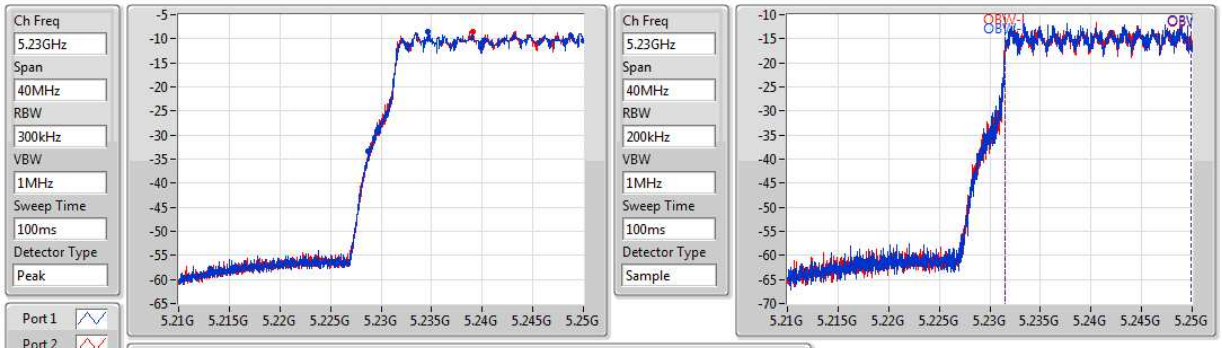
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.645M	5.725G	5.729645G	4.603M	5.725027G	5.72963G	500k	1
4.65M	5.725G	5.72965G	4.603M	5.725027G	5.72963G	500k	2

QPSK,40M_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.15-5.25GHz

10/02/2018



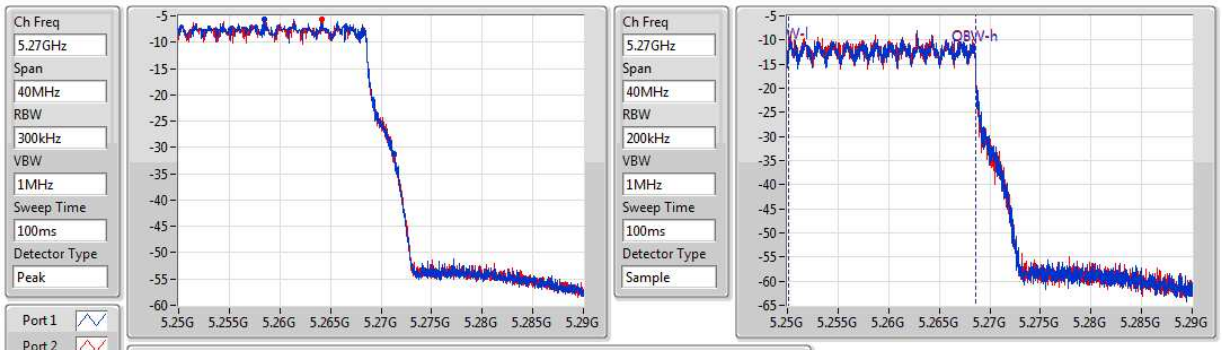
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.3M	5.2287G	5.25G	18.371M	5.231499G	5.24987G	Inf	1
21.26M	5.22874G	5.25G	18.391M	5.231499G	5.24989G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.25-5.35GHz

10/02/2018

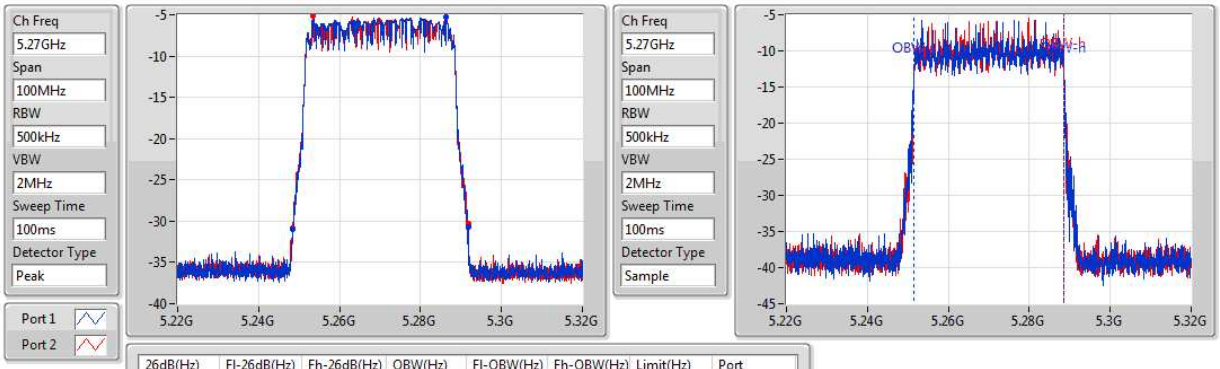


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.32M	5.25G	5.27132G	18.451M	5.25013G	5.268581G	Inf	1
21.24M	5.25G	5.27124G	18.451M	5.25011G	5.268561G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX EBW

5270MHz

10/02/2018

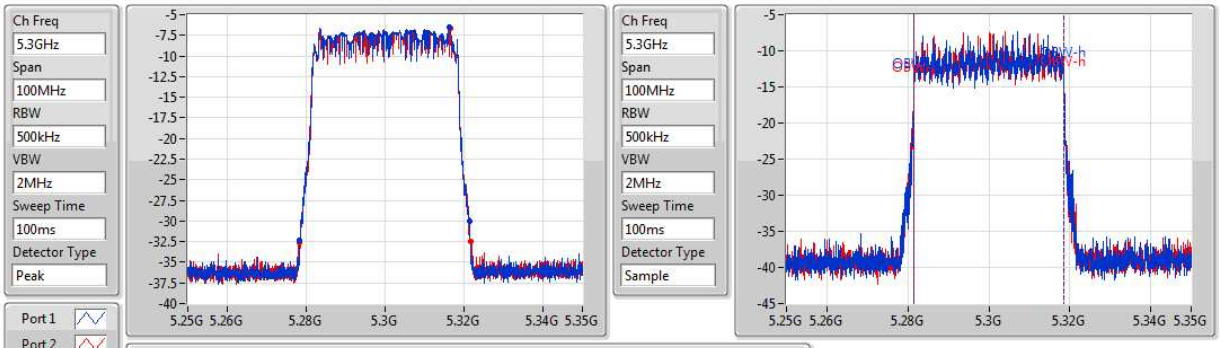


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43.3M	5.2485G	5.2918G	37.081M	5.251509G	5.288591G	Inf	1
43.3M	5.24845G	5.29175G	37.031M	5.251509G	5.288541G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX EBW

5300MHz

10/02/2018

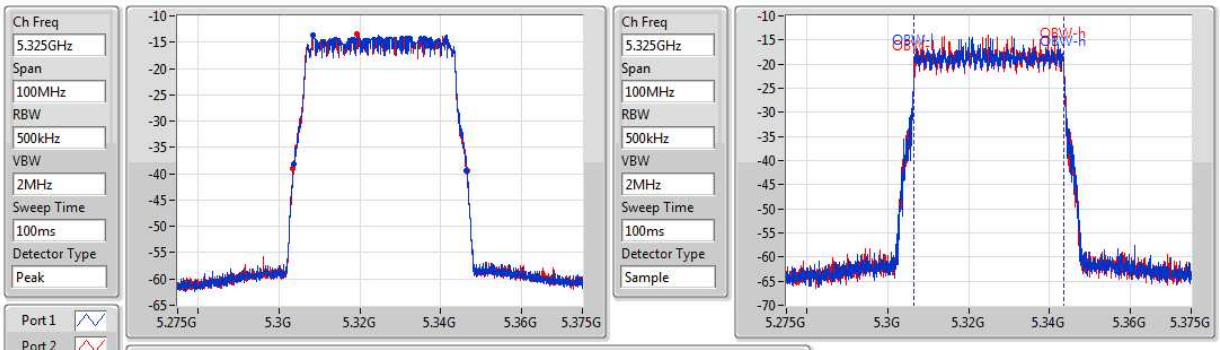


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43.1M	5.2784G	5.3215G	37.081M	5.281509G	5.318591G	Inf	1
43.4M	5.2782G	5.3216G	37.081M	5.281509G	5.318591G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX EBW

5325MHz

10/02/2018

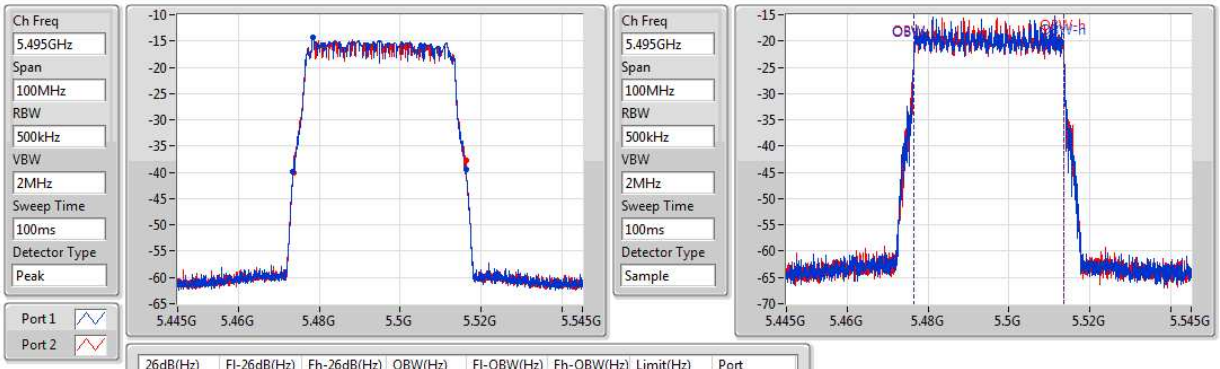


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.8M	5.3036G	5.3464G	36.932M	5.306559G	5.343491G	Inf	1
43M	5.30355G	5.34655G	36.932M	5.306609G	5.343541G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX EBW

5495MHz

10/02/2018

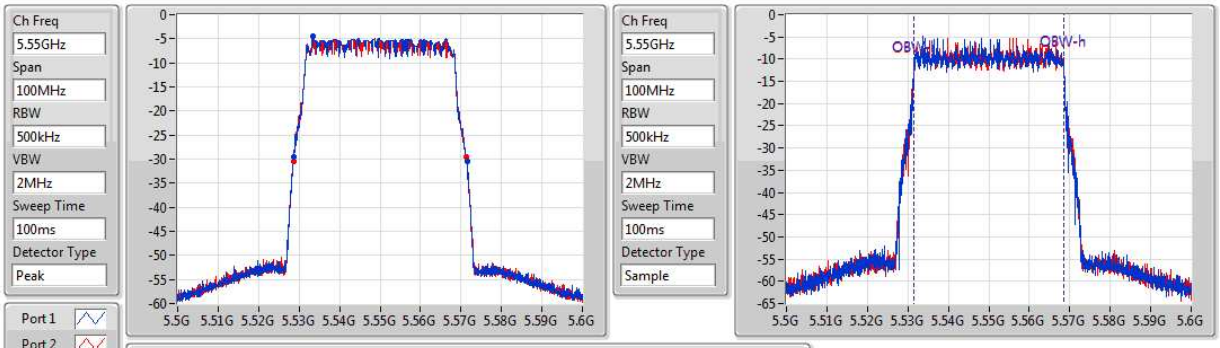


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.75M	5.47355G	5.5163G	36.982M	5.476509G	5.513491G	Inf	1
42.65M	5.4736G	5.51625G	36.932M	5.476559G	5.513491G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX EBW

5550MHz

10/02/2018

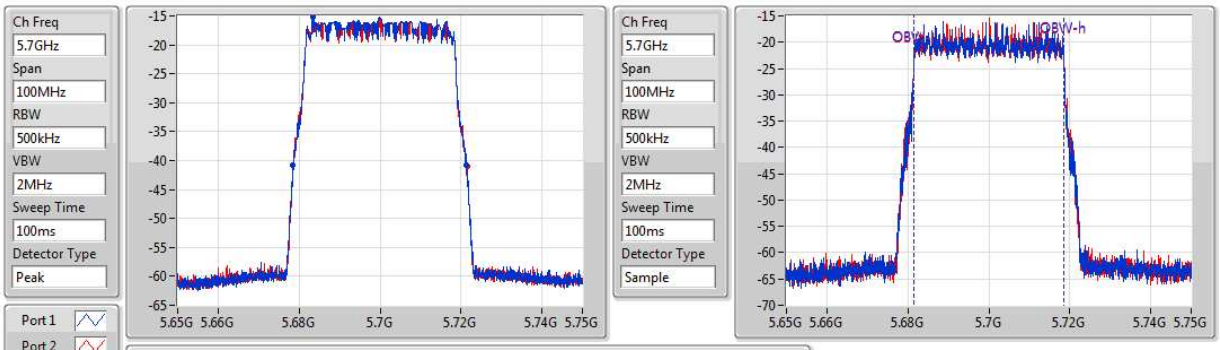


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.8M	5.52865G	5.57145G	36.982M	5.531509G	5.568491G	Inf	1
42.8M	5.5286G	5.5714G	36.932M	5.531559G	5.568491G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX EBW

5700MHz

10/02/2018

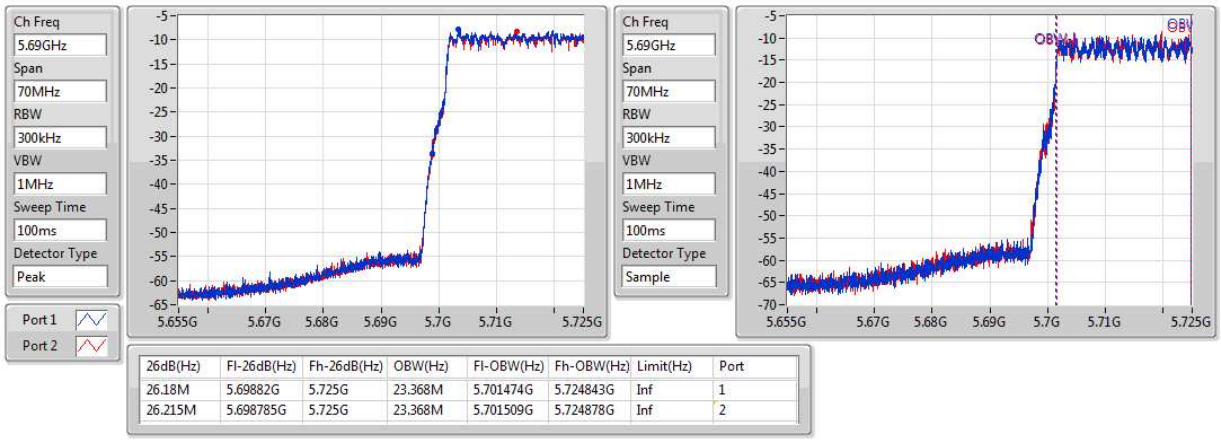


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.85M	5.67855G	5.7214G	36.932M	5.681559G	5.718491G	Inf	1
43M	5.67855G	5.72155G	36.932M	5.681559G	5.718491G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX **EBW**

5720MHz Straddle 5.47-5.725GHz

10/02/2018

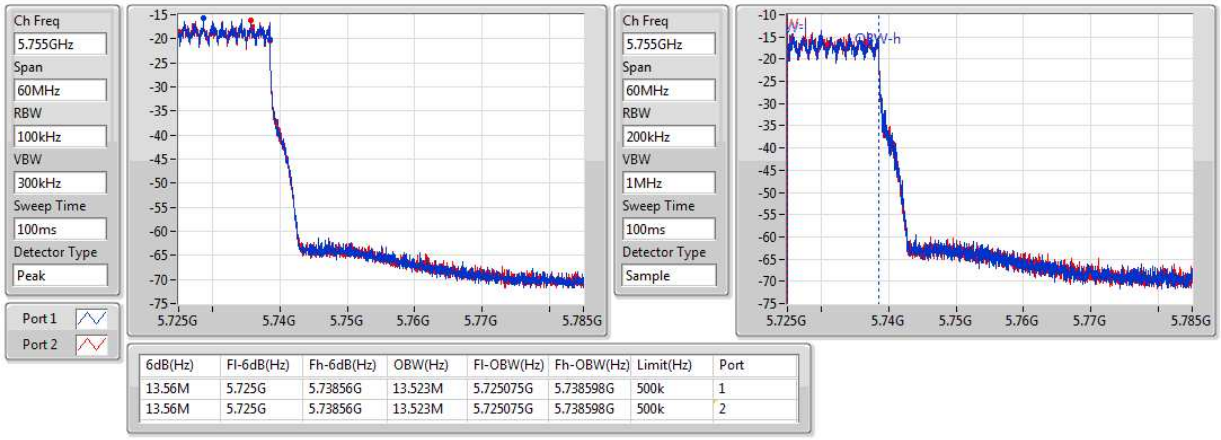


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
26.18M	5.69882G	5.725G	23.368M	5.701474G	5.724843G	Inf	1
26.215M	5.698785G	5.725G	23.368M	5.701509G	5.724878G	Inf	2

QPSK,40M_Nss1,(MCS0)_2TX **EBW**

5720MHz Straddle 5.725-5.85GHz

10/02/2018



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
13.56M	5.725G	5.73856G	13.523M	5.725075G	5.738598G	500k	1
13.56M	5.725G	5.73856G	13.523M	5.725075G	5.738598G	500k	2

For Antenna 1:
Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
QPSK,10M_Nss1,(MCS0)_2TX	17.69	0.05875
QPSK,40M_Nss1,(MCS0)_2TX	23.85	0.24266
5.25-5.35GHz	-	-
QPSK,10M_Nss1,(MCS0)_2TX	20.83	0.12106
QPSK,40M_Nss1,(MCS0)_2TX	23.85	0.24266
5.47-5.725GHz	-	-
QPSK,10M_Nss1,(MCS0)_2TX	20.78	0.11967
QPSK,40M_Nss1,(MCS0)_2TX	23.85	0.24266
5.725-5.85GHz	-	-
QPSK,10M_Nss1,(MCS0)_2TX	17.73	0.05929
QPSK,40M_Nss1,(MCS0)_2TX	13.57	0.02275

Result

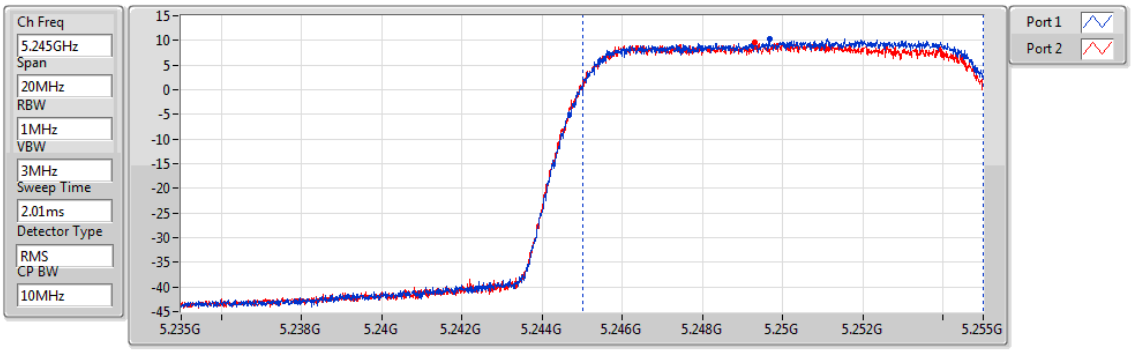
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
QPSK,10M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	2.00	14.78	14.57	17.69	30.00
5250MHz Straddle 5.25-5.35GHz	Pass	2.00	14.63	14.57	17.61	17.83
5255MHz	Pass	2.00	17.92	17.72	20.83	20.88
5295MHz	Pass	2.00	17.73	17.56	20.66	20.87
5340MHz	Pass	2.00	17.65	17.53	20.60	20.88
5480MHz	Pass	2.00	17.23	17.04	20.15	20.88
5575MHz	Pass	2.00	17.66	17.88	20.78	20.87
5715MHz	Pass	2.00	16.25	16.37	19.32	20.87
5725MHz Straddle 5.47-5.725GHz	Pass	2.00	14.53	14.52	17.54	17.84
5725MHz Straddle 5.725-5.85GHz	Pass	2.00	14.82	14.61	17.73	30.00
QPSK,40M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	2.00	20.83	20.85	23.85	30.00
5250MHz Straddle 5.25-5.35GHz	Pass	2.00	20.76	20.69	23.74	23.98
5270MHz	Pass	2.00	20.82	20.85	23.85	23.98
5300MHz	Pass	2.00	20.74	20.81	23.79	23.98
5325MHz	Pass	2.00	16.57	16.45	19.52	23.98
5495MHz	Pass	2.00	16.34	16.47	19.42	23.98
5550MHz	Pass	2.00	20.78	20.83	23.82	23.98
5700MHz	Pass	2.00	14.57	14.41	17.50	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	2.00	20.95	20.73	23.85	23.98
5720MHz Straddle 5.725-5.85GHz	Pass	2.00	10.47	10.65	13.57	30.00

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

QPSK,10M_Nss1,(MCS0)_2TX **AV Power**

5250MHz Straddle 5.15-5.25GHz

25/01/2018



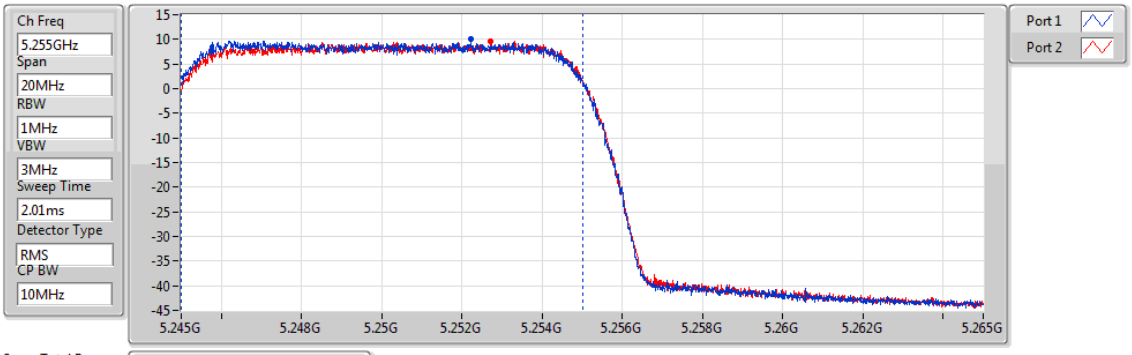
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
17.69	14.78	14.57

QPSK,10M_Nss1,(MCS0)_2TX **AV Power**

5250MHz Straddle 5.25-5.35GHz

25/01/2018



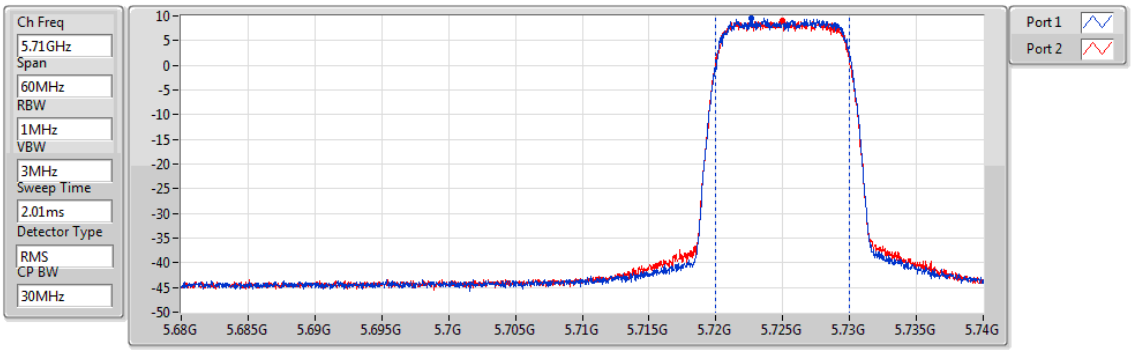
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
17.61	14.63	14.57

QPSK,10M_Nss1,(MCS0)_2TX **AV Power**

5725MHz Straddle 5.47-5.725GHz

25/01/2018

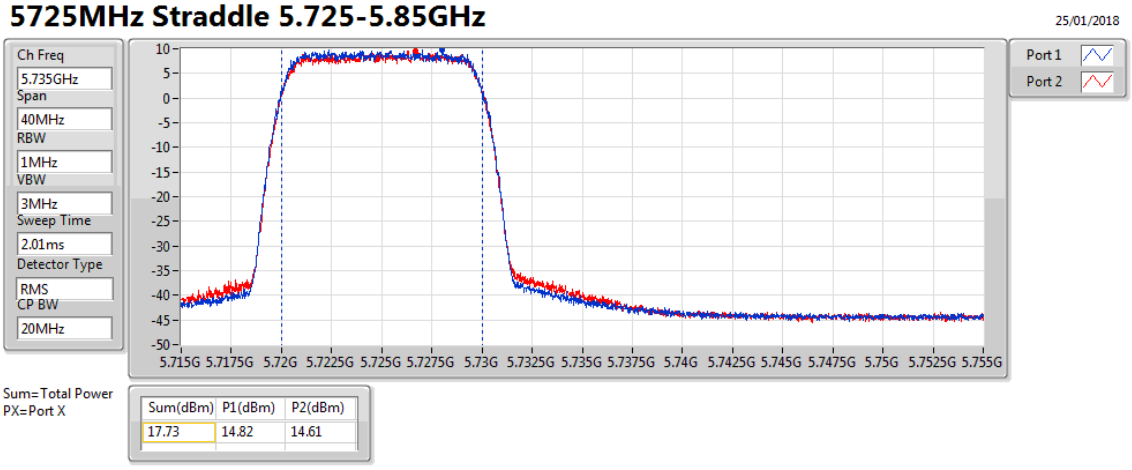


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
17.54	14.53	14.52

QPSK,10M_Nss1,(MCS0)_2TX **AV Power**

5725MHz Straddle 5.725-5.85GHz

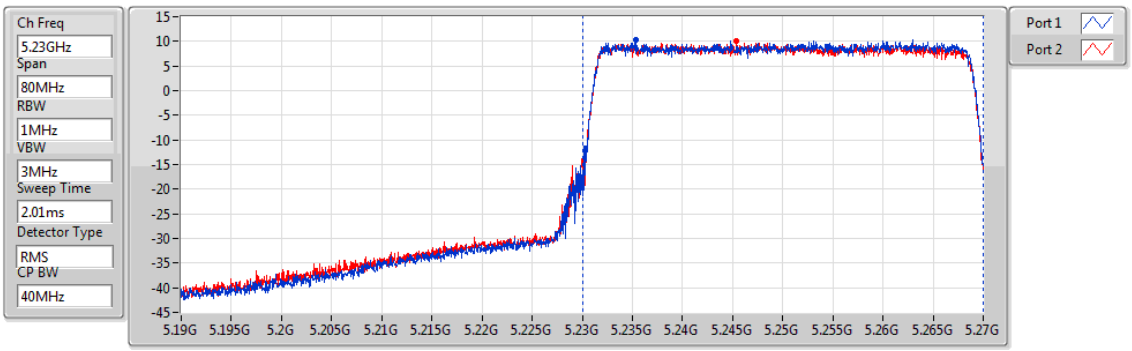


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
17.73	14.82	14.61

QPSK,40M_Nss1,(MCS0)_2TX **AV Power**

5250MHz Straddle 5.15-5.25GHz

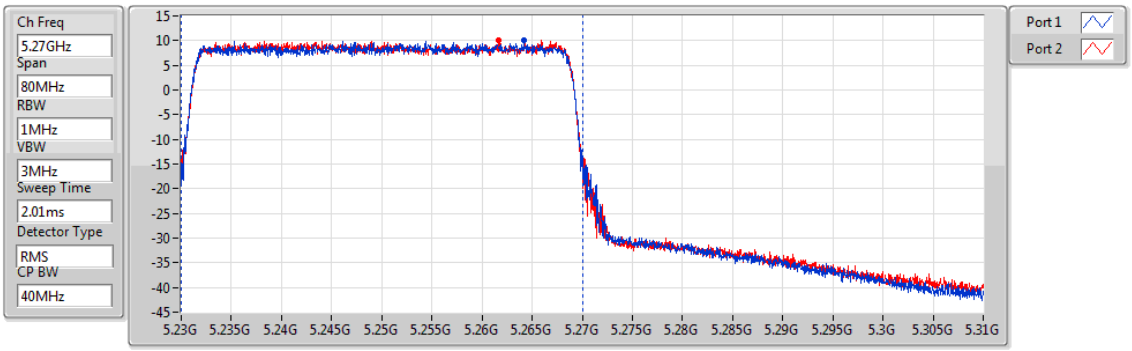


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
23.85	20.83	20.85

QPSK,40M_Nss1,(MCS0)_2TX **AV Power**

5250MHz Straddle 5.25-5.35GHz



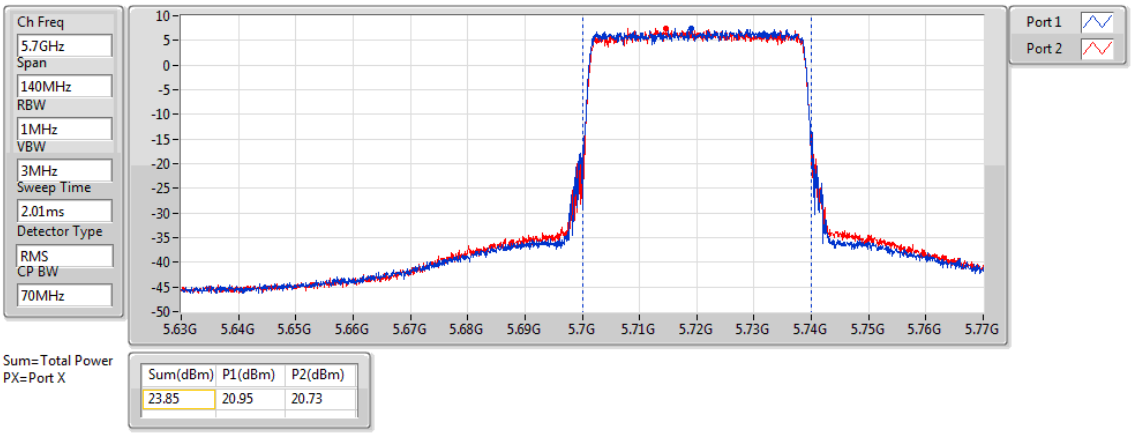
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
23.74	20.76	20.69

QPSK,40M_Nss1,(MCS0)_2TX **AV Power**

5720MHz Straddle 5.47-5.725GHz

25/01/2018



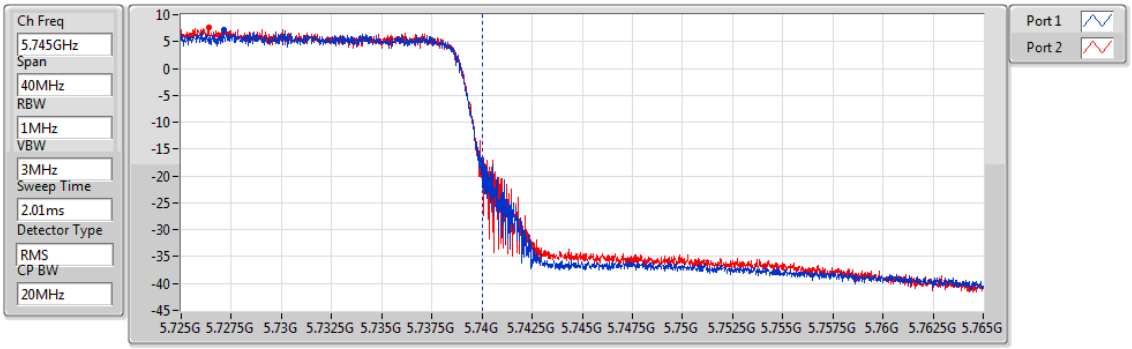
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
23.85	20.95	20.73

QPSK,40M_Nss1,(MCS0)_2TX **AV Power**

5720MHz Straddle 5.725-5.85GHz

25/01/2018



Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
13.57	10.47	10.65

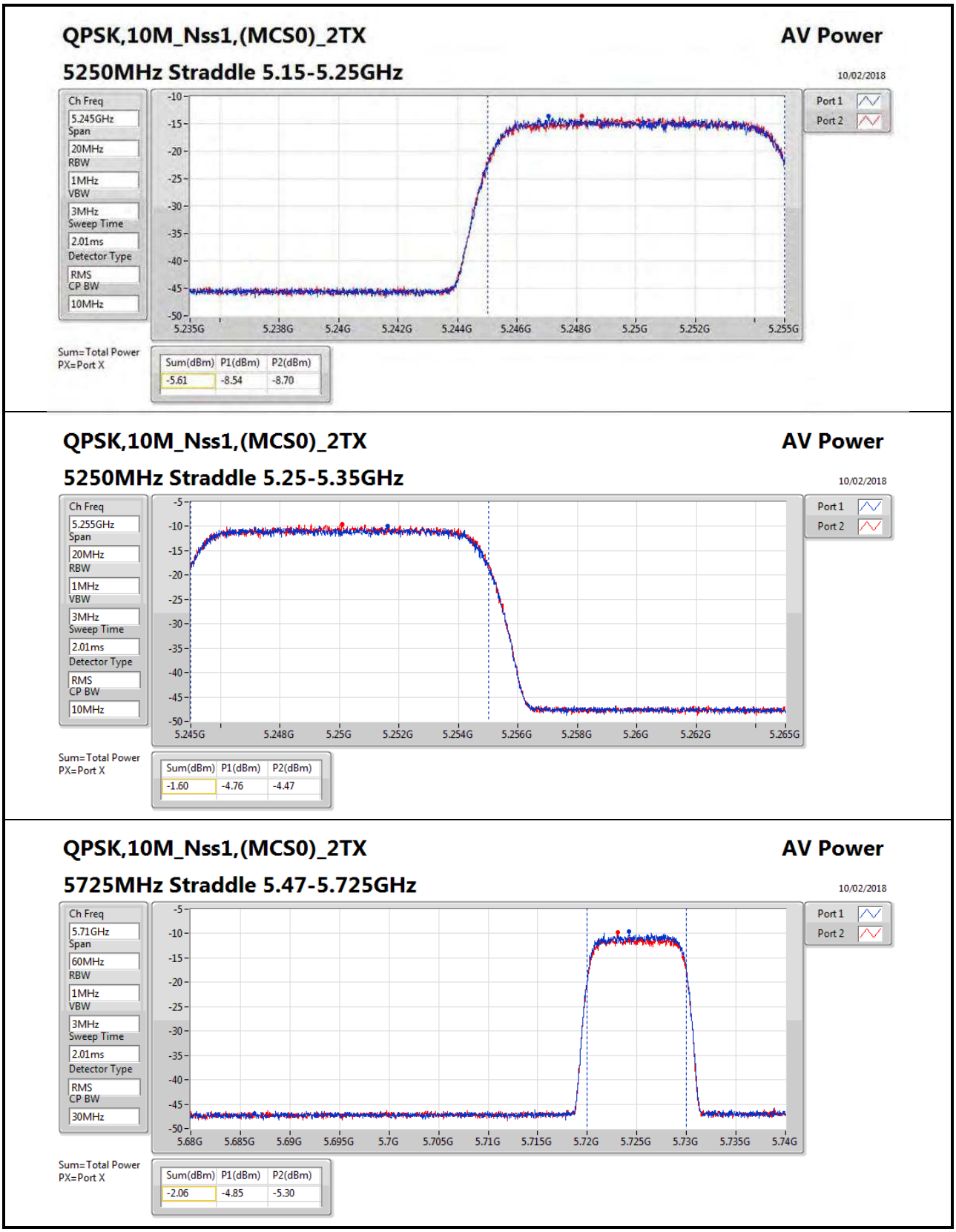
For Antenna 2:
Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
QPSK,10M_Nss1,(MCS0)_2TX	-5.61	0.00027
QPSK,40M_Nss1,(MCS0)_2TX	0.80	0.00120
5.25-5.35GHz	-	-
QPSK,10M_Nss1,(MCS0)_2TX	1.90	0.00155
QPSK,40M_Nss1,(MCS0)_2TX	5.11	0.00324
5.47-5.725GHz	-	-
QPSK,10M_Nss1,(MCS0)_2TX	2.51	0.00178
QPSK,40M_Nss1,(MCS0)_2TX	5.81	0.00381
5.725-5.85GHz	-	-
QPSK,10M_Nss1,(MCS0)_2TX	-6.14	0.00024
QPSK,40M_Nss1,(MCS0)_2TX	-8.03	0.00016

Result

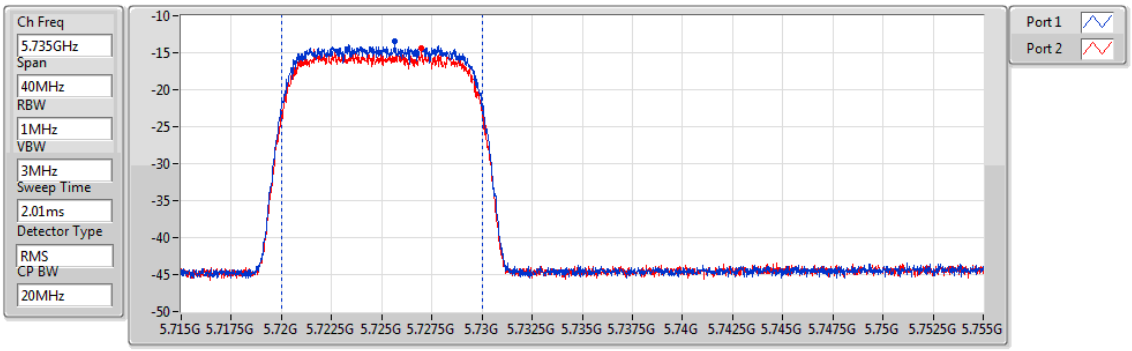
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
QPSK,10M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	24.00	-8.54	-8.70	-5.61	12.00
5250MHz Straddle 5.25-5.35GHz	Pass	24.00	-4.76	-4.47	-1.60	-0.15
5255MHz	Pass	24.00	-1.16	-1.07	1.90	2.88
5295MHz	Pass	24.00	-1.94	-1.72	1.18	2.88
5340MHz	Pass	24.00	-1.28	-1.67	1.54	2.88
5480MHz	Pass	24.00	-1.87	-1.71	1.22	2.88
5575MHz	Pass	24.00	-0.58	-0.42	2.51	2.87
5715MHz	Pass	24.00	-1.94	-1.86	1.11	2.88
5725MHz Straddle 5.47-5.725GHz	Pass	24.00	-4.85	-5.30	-2.06	-0.16
5725MHz Straddle 5.725-5.85GHz	Pass	24.00	-8.64	-9.74	-6.14	12.00
QPSK,40M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	24.00	-2.32	-2.11	0.80	12.00
5250MHz Straddle 5.25-5.35GHz	Pass	24.00	0.51	1.47	4.03	5.98
5270MHz	Pass	24.00	2.06	2.13	5.11	5.98
5300MHz	Pass	24.00	-0.12	0.08	2.99	5.98
5325MHz	Pass	24.00	-6.15	-6.07	-3.10	5.98
5495MHz	Pass	24.00	-5.73	-5.65	-2.68	5.98
5550MHz	Pass	24.00	2.76	2.83	5.81	5.98
5700MHz	Pass	24.00	-6.84	-6.72	-3.77	5.98
5720MHz Straddle 5.47-5.725GHz	Pass	24.00	2.42	2.18	5.31	5.98
5720MHz Straddle 5.725-5.85GHz	Pass	24.00	-11.26	-10.84	-8.03	12.00

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


QPSK,10M_Nss1,(MCS0)_2TX
AV Power
5250MHz Straddle 5.15-5.25GHz
10/02/2018
Ch Freq
5.245GHz
Span
20MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.01ms
Detector Type
RMS
CP BW
10MHz
Port 1
Port 2
-10
-15
-20
-25
-30
-35
-40
-45
-50
5.235G
5.238G
5.24G
5.242G
5.244G
5.246G
5.248G
5.25G
5.252G
5.255G
Sum=Total Power
PX=Port X
Sum(dBm) P1(dBm) P2(dBm)
-5.61 -8.54 -8.70
QPSK,10M_Nss1,(MCS0)_2TX
AV Power
5250MHz Straddle 5.25-5.35GHz
10/02/2018
Ch Freq
5.255GHz
Span
20MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.01ms
Detector Type
RMS
CP BW
10MHz
Port 1
Port 2
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
5.245G
5.248G
5.25G
5.252G
5.254G
5.256G
5.258G
5.26G
5.262G
5.265G
Sum=Total Power
PX=Port X
Sum(dBm) P1(dBm) P2(dBm)
-1.60 -4.76 -4.47
QPSK,10M_Nss1,(MCS0)_2TX
AV Power
5725MHz Straddle 5.47-5.725GHz
10/02/2018
Ch Freq
5.71GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.01ms
Detector Type
RMS
CP BW
30MHz
Port 1
Port 2
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
5.68G
5.685G
5.69G
5.695G
5.7G
5.705G
5.71G
5.715G
5.72G
5.725G
5.73G
5.735G
5.74G
Sum=Total Power
PX=Port X
Sum(dBm) P1(dBm) P2(dBm)
-2.06 -4.85 -5.30

QPSK,10M_Nss1,(MCS0)_2TX **AV Power**

5725MHz Straddle 5.725-5.85GHz

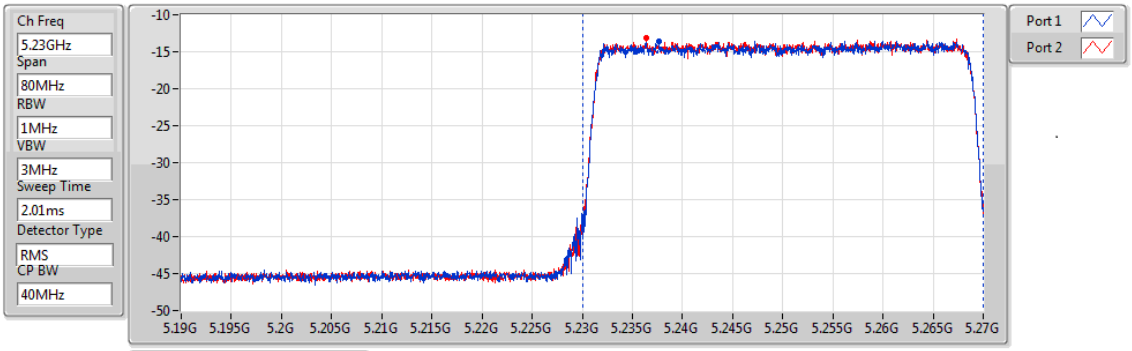


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
-6.14	-8.64	-9.74

QPSK,40M_Nss1,(MCS0)_2TX **AV Power**

5250MHz Straddle 5.15-5.25GHz

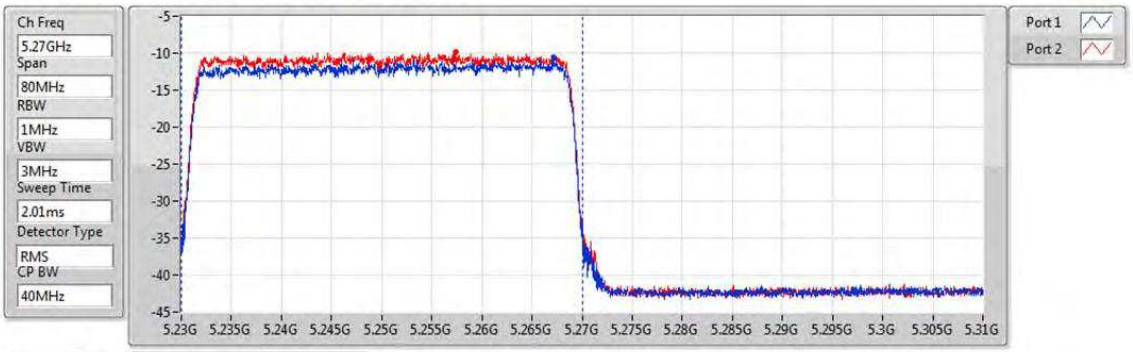


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
0.80	-2.32	-2.11

QPSK,40M_Nss1,(MCS0)_2TX **AV Power**

5250MHz Straddle 5.25-5.35GHz



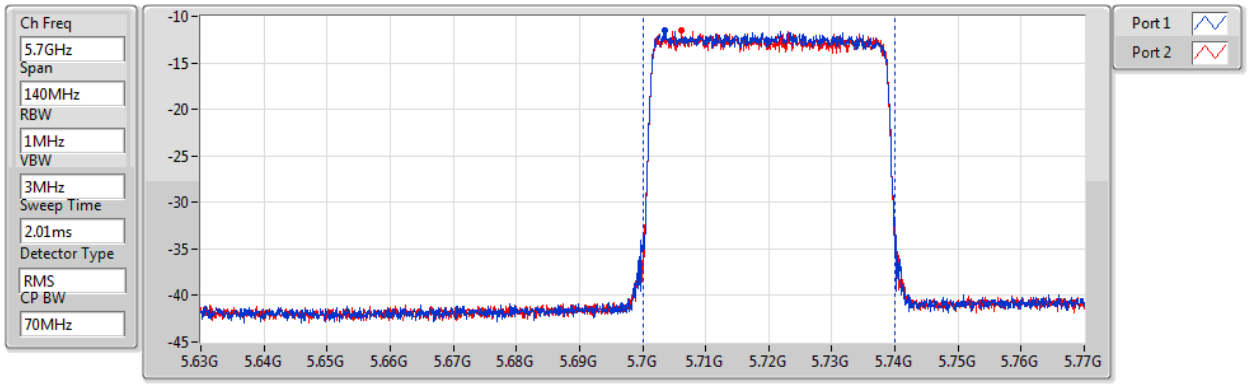
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
4.03	0.51	1.47

QPSK,40M_Nss1,(MCS0)_2TX — AV Power

5720MHz Straddle 5.47-5.725GHz

10/02/2018



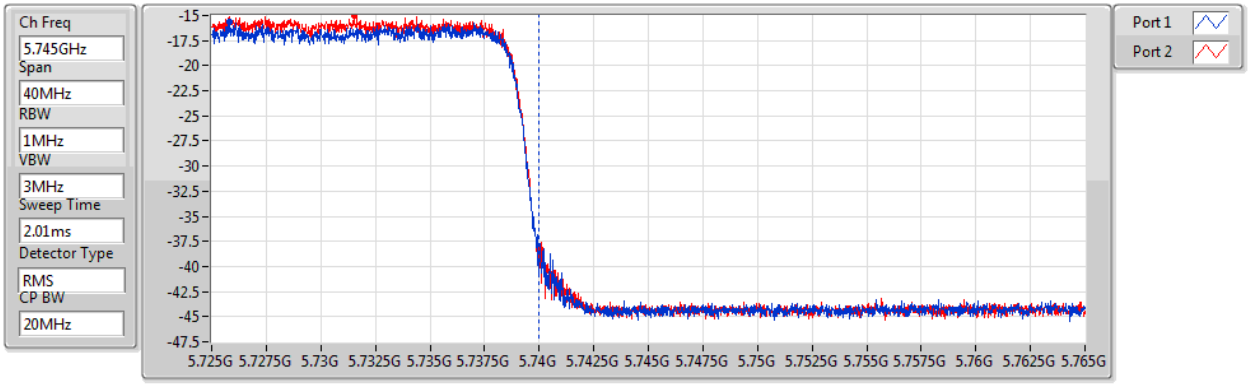
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
5.31	2.42	2.18

QPSK,40M_Nss1,(MCS0)_2TX — AV Power

5720MHz Straddle 5.725-5.85GHz

10/02/2018



Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
-8.03	-11.26	-10.84

For Antenna 1:
Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
QPSK,10M_Nss1,(MCS0)_2TX	9.87
QPSK,40M_Nss1,(MCS0)_2TX	10.44
5.25-5.35GHz	-
QPSK,10M_Nss1,(MCS0)_2TX	9.91
QPSK,40M_Nss1,(MCS0)_2TX	10.42
5.47-5.725GHz	-
QPSK,10M_Nss1,(MCS0)_2TX	9.97
QPSK,40M_Nss1,(MCS0)_2TX	8.41
5.725-5.85GHz	-
QPSK,10M_Nss1,(MCS0)_2TX	8.32
QPSK,40M_Nss1,(MCS0)_2TX	7.32

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

Result

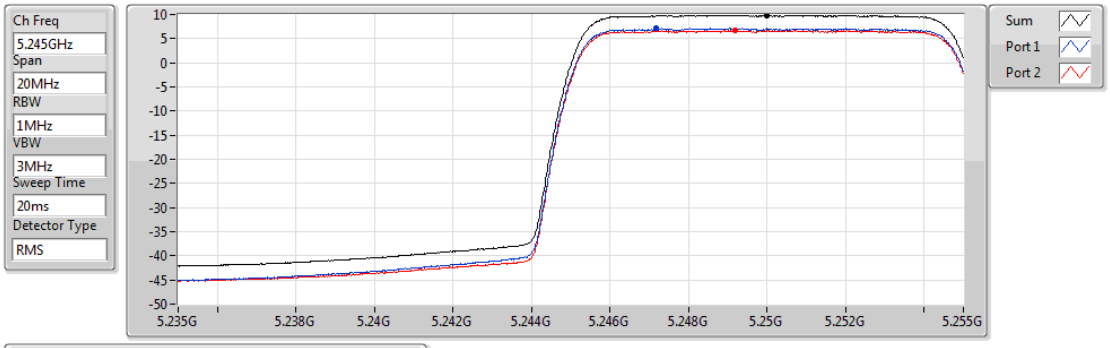
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
QPSK,10M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	2.00	7.10	6.74	9.87	17.00
5250MHz Straddle 5.25-5.35GHz	Pass	2.00	7.14	6.74	9.91	11.00
5255MHz	Pass	2.00	6.89	6.70	9.74	11.00
5295MHz	Pass	2.00	6.70	6.64	9.62	11.00
5340MHz	Pass	2.00	6.75	6.45	9.53	11.00
5480MHz	Pass	2.00	6.48	6.21	9.28	11.00
5575MHz	Pass	2.00	7.10	6.63	9.83	11.00
5715MHz	Pass	2.00	4.92	5.34	8.07	11.00
5725MHz Straddle 5.47-5.725GHz	Pass	2.00	7.34	6.64	9.97	11.00
5725MHz Straddle 5.725-5.85GHz	Pass	2.00	5.76	4.88	8.32	30.00
QPSK,40M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	2.00	7.43	7.45	10.44	17.00
5250MHz Straddle 5.25-5.35GHz	Pass	2.00	7.38	7.47	10.42	11.00
5270MHz	Pass	2.00	4.75	4.88	7.78	11.00
5300MHz	Pass	2.00	4.72	4.70	7.57	11.00
5325MHz	Pass	2.00	0.37	0.27	3.31	11.00
5495MHz	Pass	2.00	0.99	0.85	3.79	11.00
5550MHz	Pass	2.00	4.79	5.00	7.59	11.00
5700MHz	Pass	2.00	-1.47	-1.72	1.17	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	2.00	5.39	5.41	8.41	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	2.00	4.25	4.37	7.32	30.00

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;

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5250MHz Straddle 5.15-5.25GHz

25/01/2018

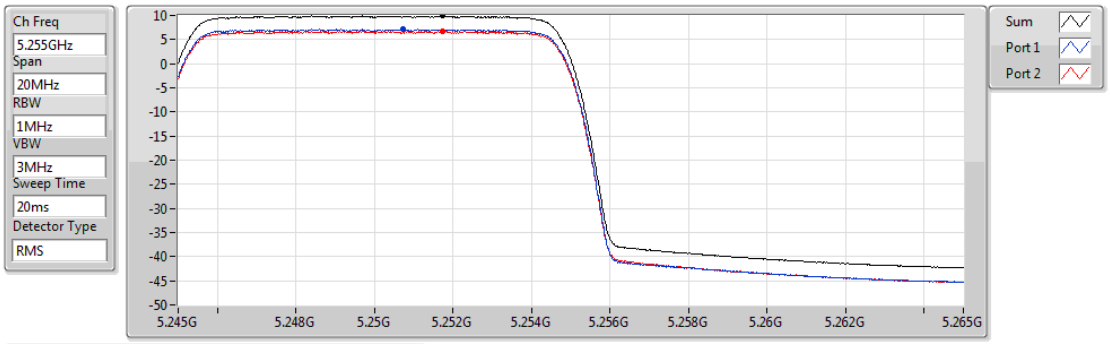


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.87	9.87	7.10	6.74

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5250MHz Straddle 5.25-5.35GHz

25/01/2018

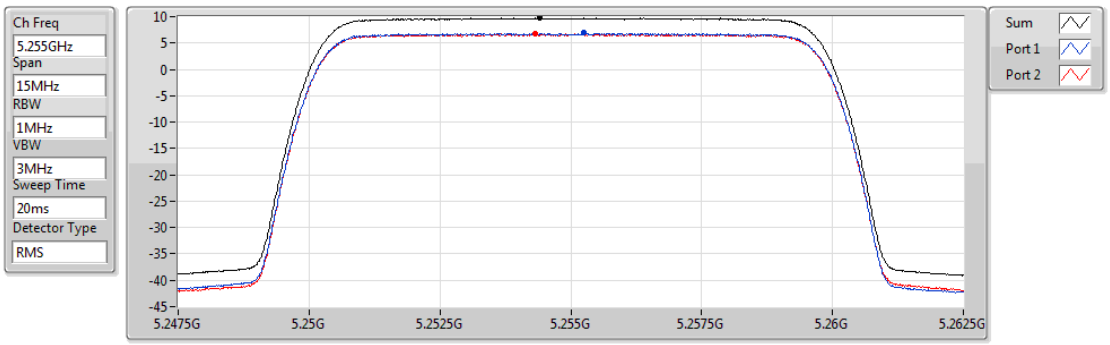


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.91	9.91	7.14	6.74

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5255MHz

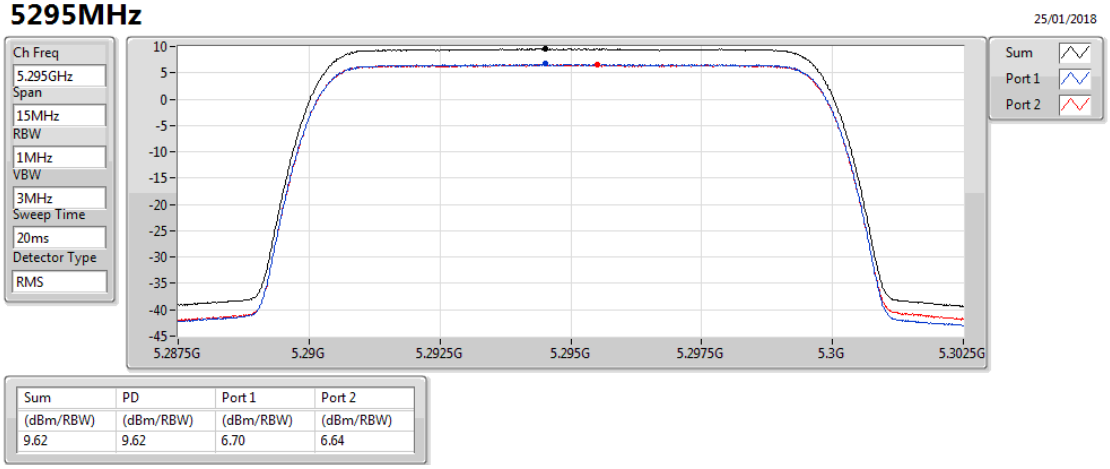
25/01/2018



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.74	9.74	6.89	6.70

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

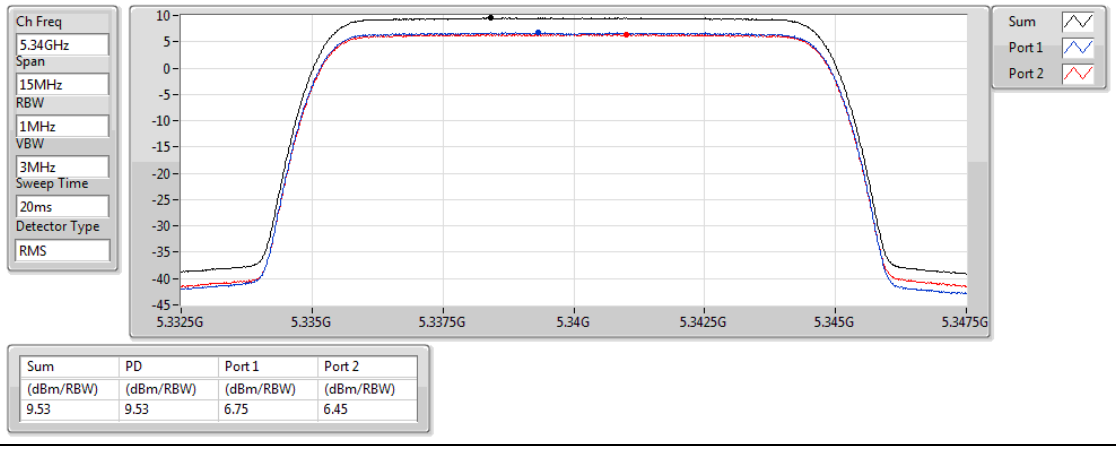
5295MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.62	9.62	6.70	6.64

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

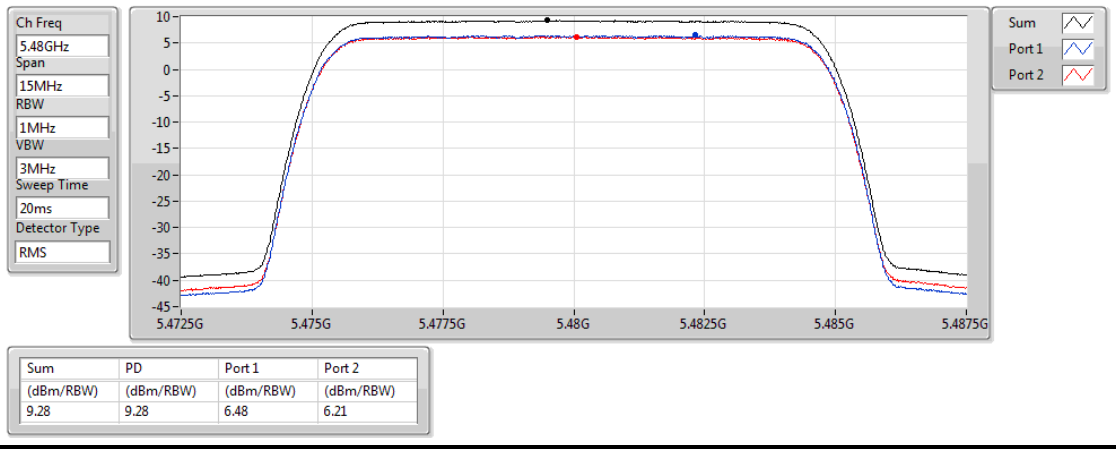
5340MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.53	9.53	6.75	6.45

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

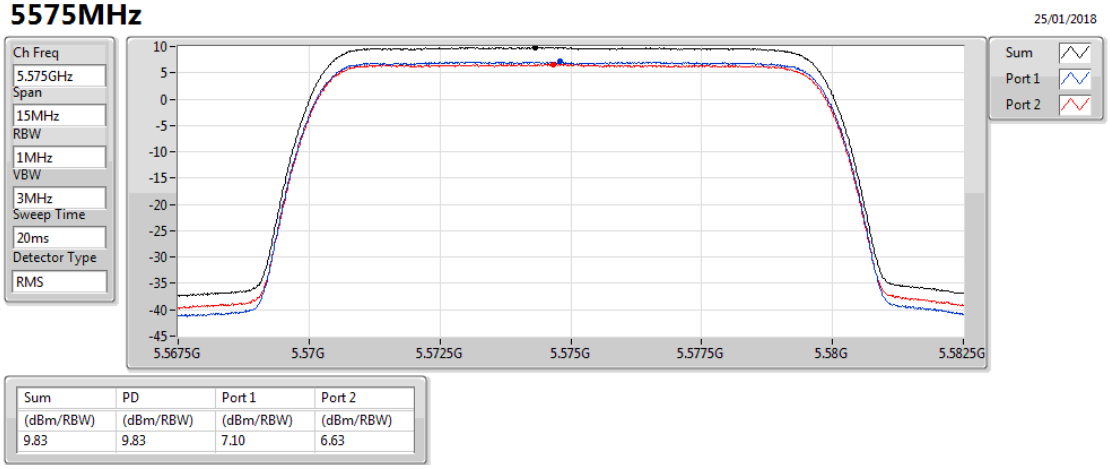
5480MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.28	9.28	6.48	6.21

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

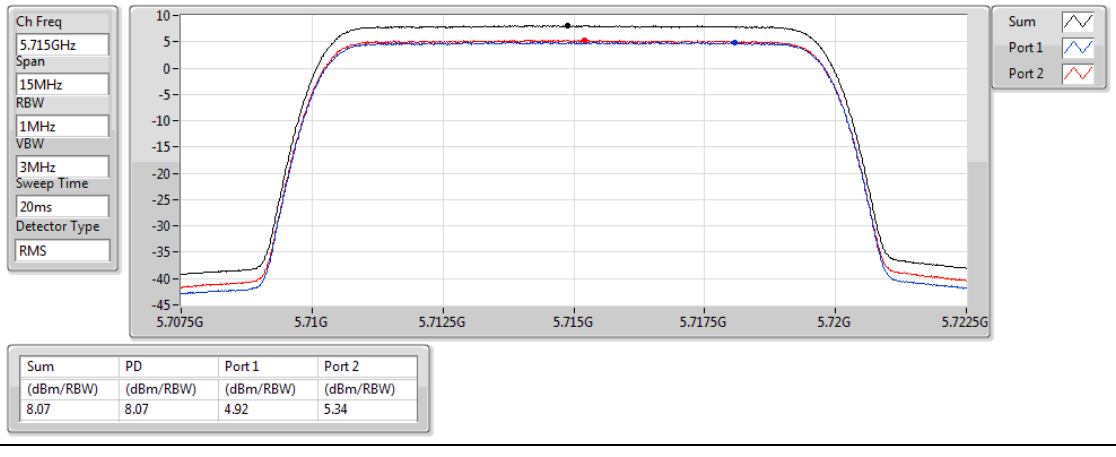
5575MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.83	9.83	7.10	6.63

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

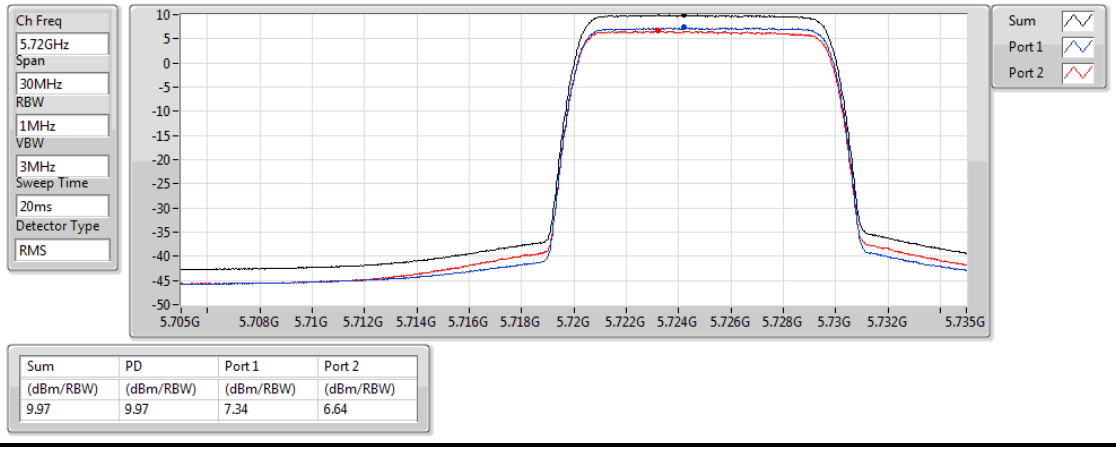
5715MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.07	8.07	4.92	5.34

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5725MHz Straddle 5.47-5.725GHz

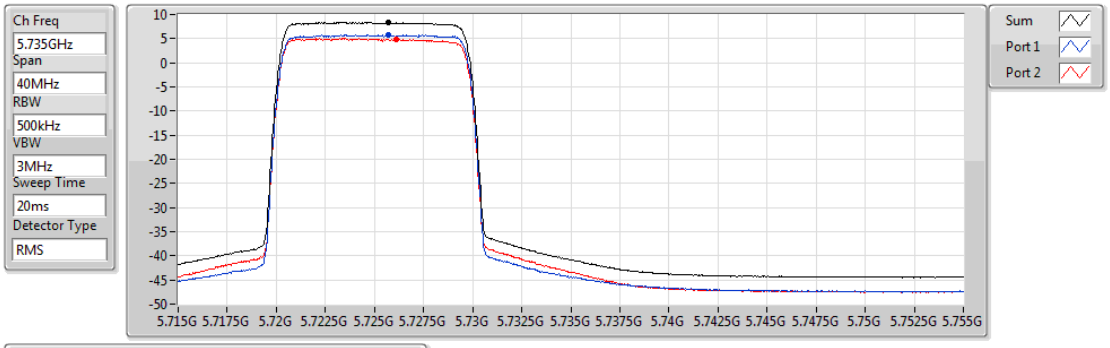


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.97	9.97	7.34	6.64

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5725MHz Straddle 5.725-5.85GHz

25/01/2018

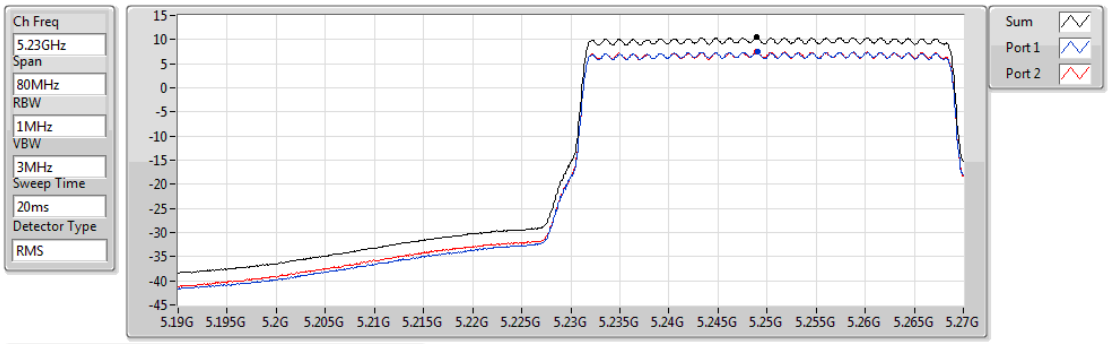


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.32	8.32	5.76	4.88

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5250MHz Straddle 5.15-5.25GHz

25/01/2018

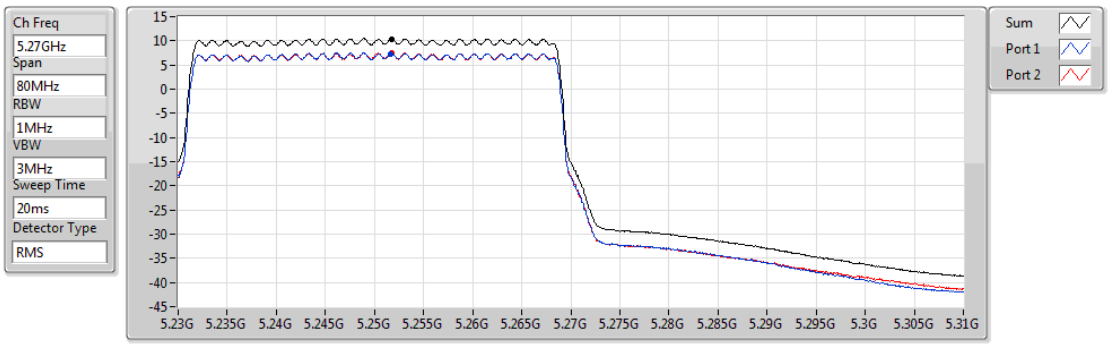


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.44	10.44	7.43	7.45

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5250MHz Straddle 5.25-5.35GHz

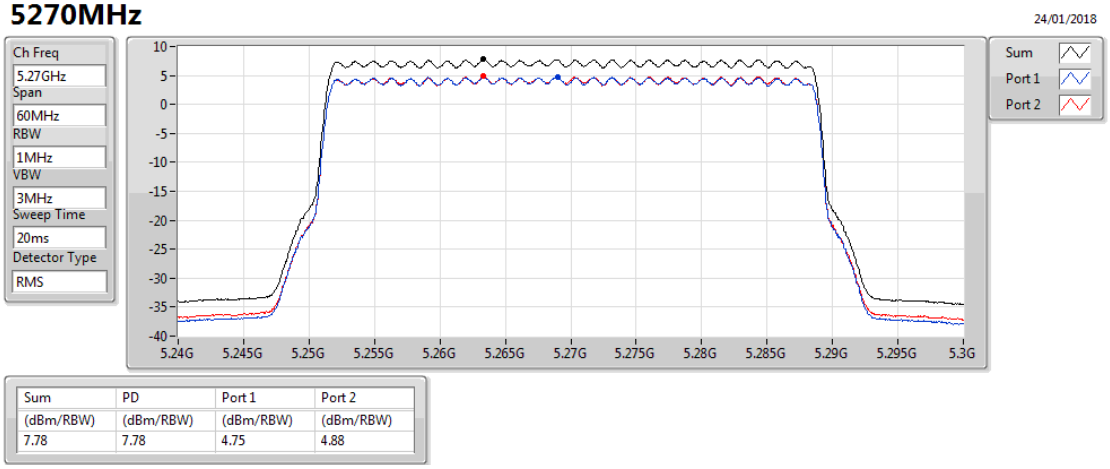
25/01/2018



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.42	10.42	7.38	7.47

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

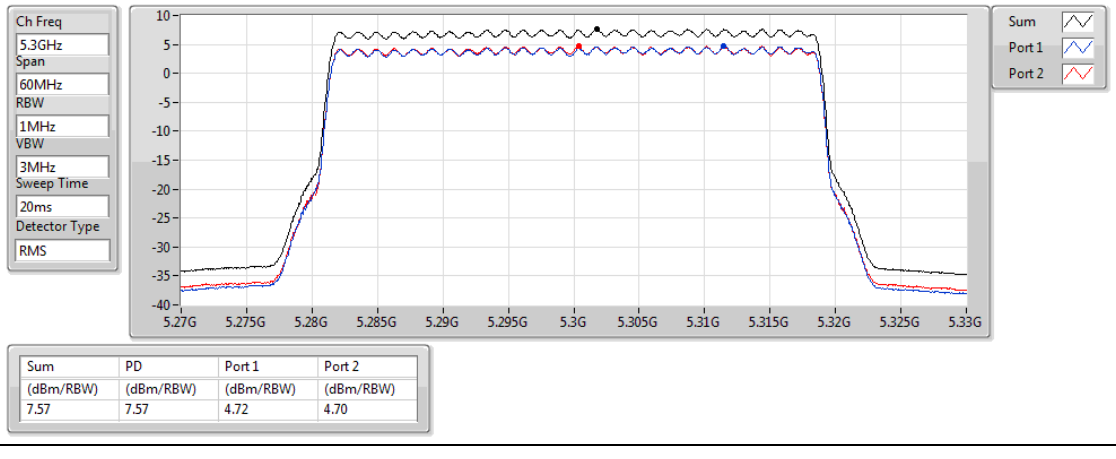
5270MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.78	7.78	4.75	4.88

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

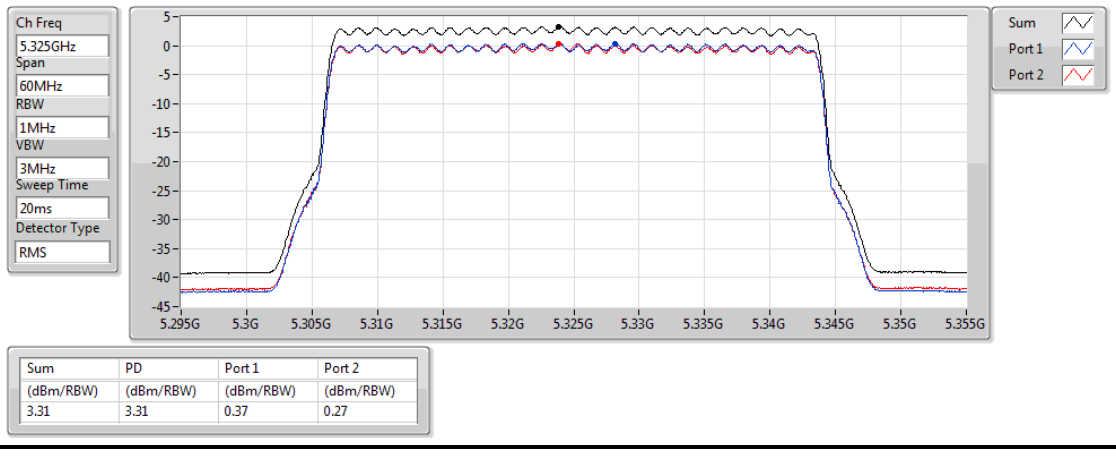
5300MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.57	7.57	4.72	4.70

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

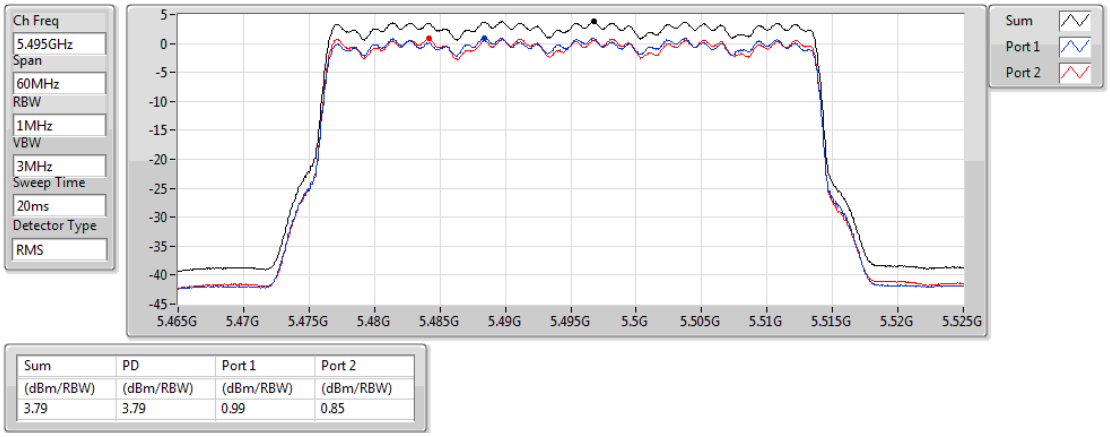
5325MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.31	3.31	0.37	0.27

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

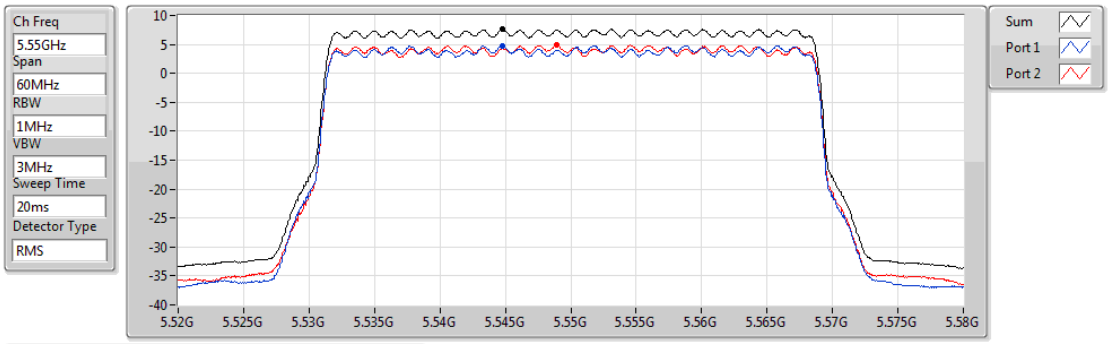
5495MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.79	3.79	0.99	0.85

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

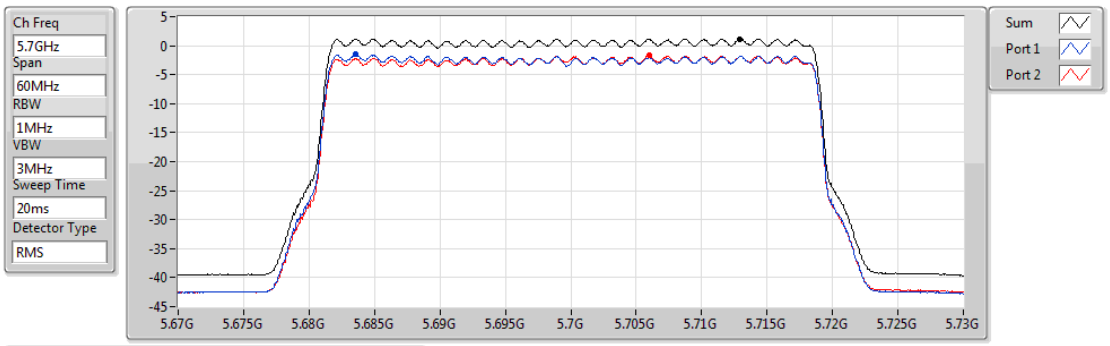
5550MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.59	7.59	4.79	5.00

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5700MHz

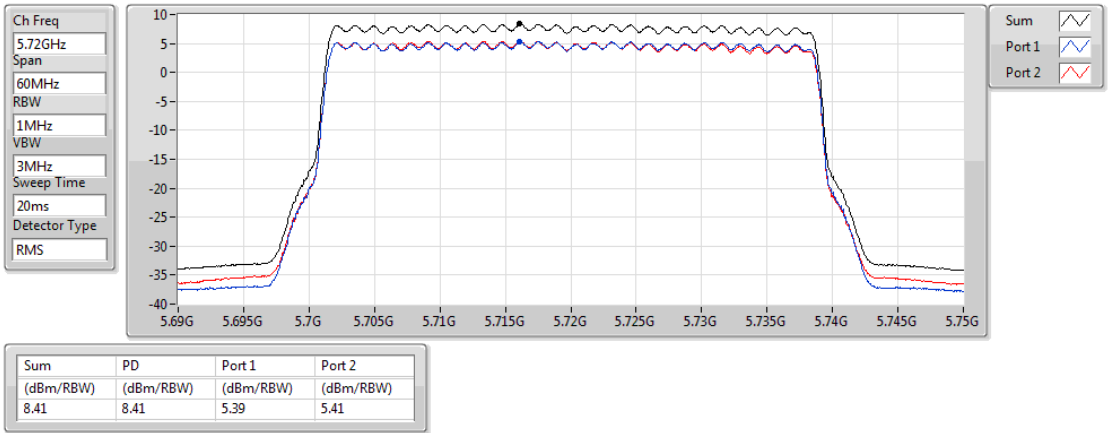


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.17	1.17	-1.47	-1.72

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5720MHz Straddle 5.47-5.725GHz

25/01/2018

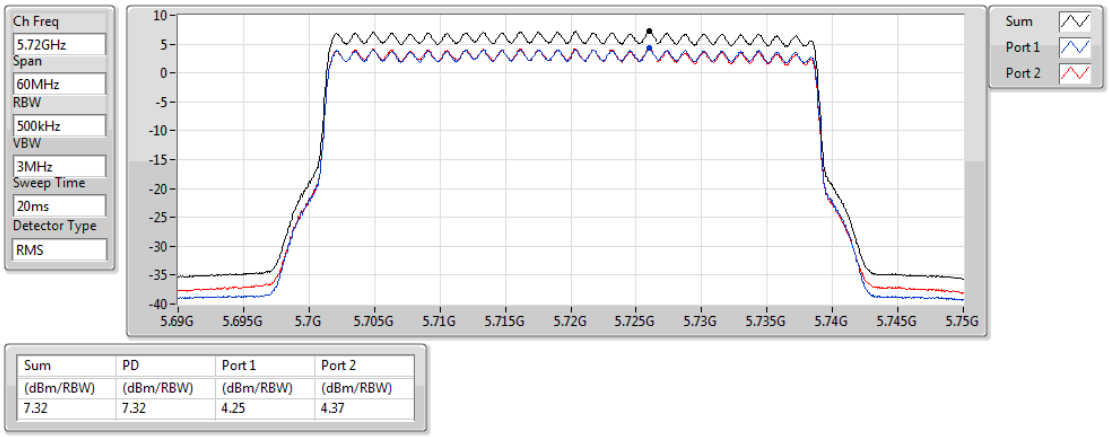


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.41	8.41	5.39	5.41

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5720MHz Straddle 5.725-5.85GHz

25/01/2018



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.32	7.32	4.25	4.37

For Antenna 2:
Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
QPSK,10M_Nss1,(MCS0)_2TX	-12.03
QPSK,40M_Nss1,(MCS0)_2TX	-11.29
5.25-5.35GHz	-
QPSK,10M_Nss1,(MCS0)_2TX	-7.37
QPSK,40M_Nss1,(MCS0)_2TX	-7.61
5.47-5.725GHz	-
QPSK,10M_Nss1,(MCS0)_2TX	-7.91
QPSK,40M_Nss1,(MCS0)_2TX	-9.69
5.725-5.85GHz	-
QPSK,10M_Nss1,(MCS0)_2TX	-15.30
QPSK,40M_Nss1,(MCS0)_2TX	-16.09

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

Result

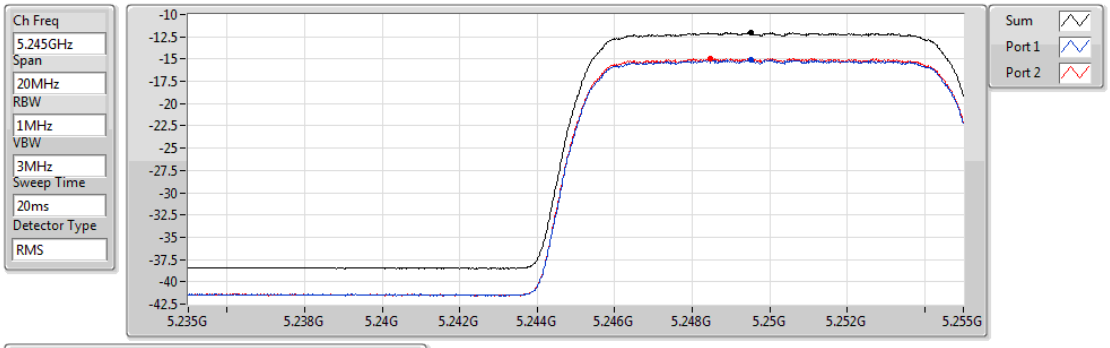
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
QPSK,10M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	24.00	-15.08	-14.97	-12.03	-1.00
5250MHz Straddle 5.25-5.35GHz	Pass	24.00	-10.24	-10.29	-7.40	-7.00
5255MHz	Pass	24.00	-10.48	-10.22	-7.37	-7.00
5295MHz	Pass	24.00	-10.71	-9.92	-7.56	-7.00
5340MHz	Pass	24.00	-10.36	-10.69	-7.54	-7.00
5480MHz	Pass	24.00	-11.80	-11.71	-8.78	-7.00
5575MHz	Pass	24.00	-11.10	-11.12	-8.15	-7.00
5715MHz	Pass	24.00	-10.86	-10.80	-7.91	-7.00
5725MHz Straddle 5.47-5.725GHz	Pass	24.00	-10.63	-11.16	-7.93	-7.00
5725MHz Straddle 5.725-5.85GHz	Pass	24.00	-18.25	-18.26	-15.30	12.00
QPSK,40M_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	24.00	-14.27	-14.30	-11.29	-1.00
5250MHz Straddle 5.25-5.35GHz	Pass	24.00	-10.62	-10.59	-7.61	-7.00
5270MHz	Pass	24.00	-13.48	-13.40	-10.44	-7.00
5300MHz	Pass	24.00	-14.73	-14.63	-11.72	-7.00
5325MHz	Pass	24.00	-21.64	-21.68	-18.69	-7.00
5495MHz	Pass	24.00	-22.85	-22.88	-19.90	-7.00
5550MHz	Pass	24.00	-13.52	-12.65	-10.09	-7.00
5700MHz	Pass	24.00	-23.47	-23.50	-20.50	-7.00
5720MHz Straddle 5.47-5.725GHz	Pass	24.00	-12.73	-12.67	-9.69	-7.00
5720MHz Straddle 5.725-5.85GHz	Pass	24.00	-19.06	-19.11	-16.09	12.00

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;

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5250MHz Straddle 5.15-5.25GHz

10/02/2018

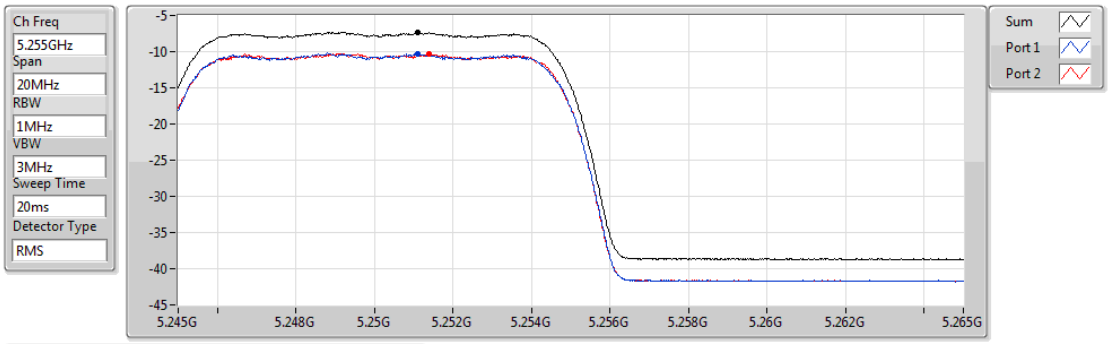


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-12.03	-12.03	-15.08	-14.97

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5250MHz Straddle 5.25-5.35GHz

10/02/2018

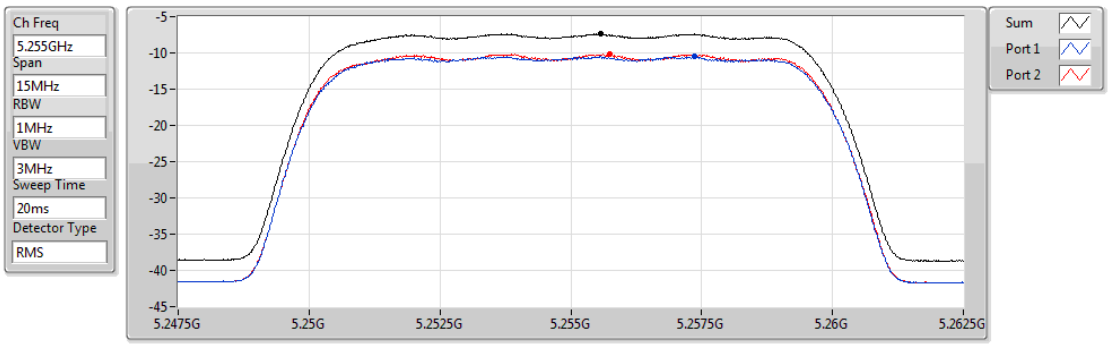


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.40	-7.40	-10.24	-10.29

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5255MHz

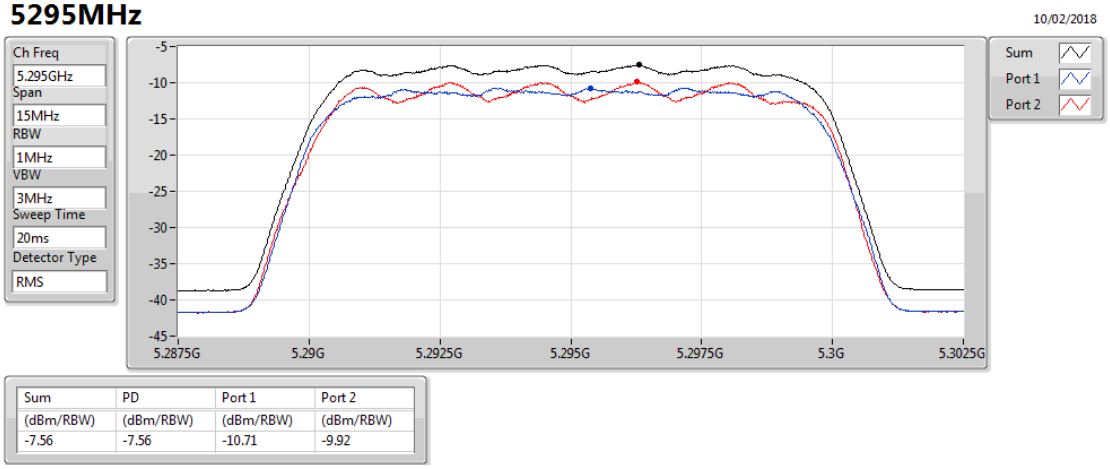
10/02/2018



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.37	-7.37	-10.48	-10.22

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

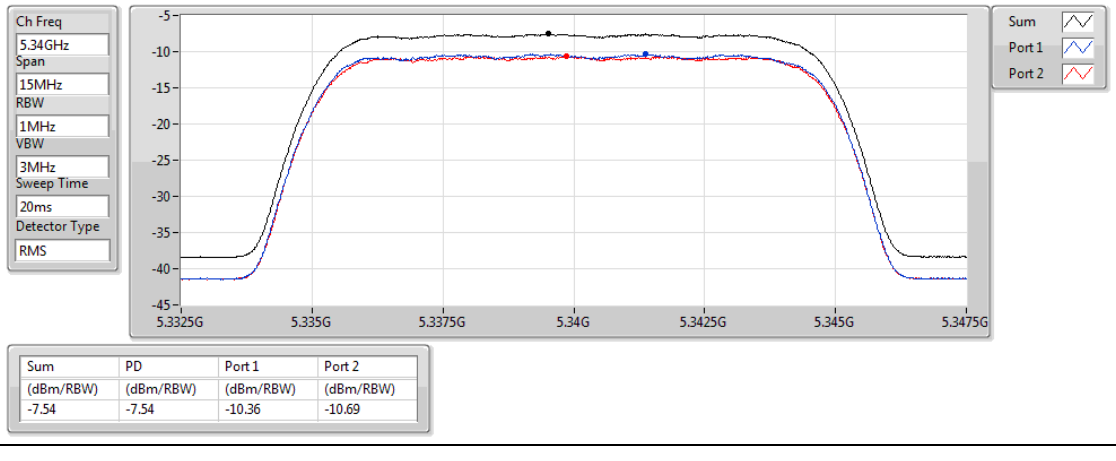
5295MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.56	-7.56	-10.71	-9.92

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

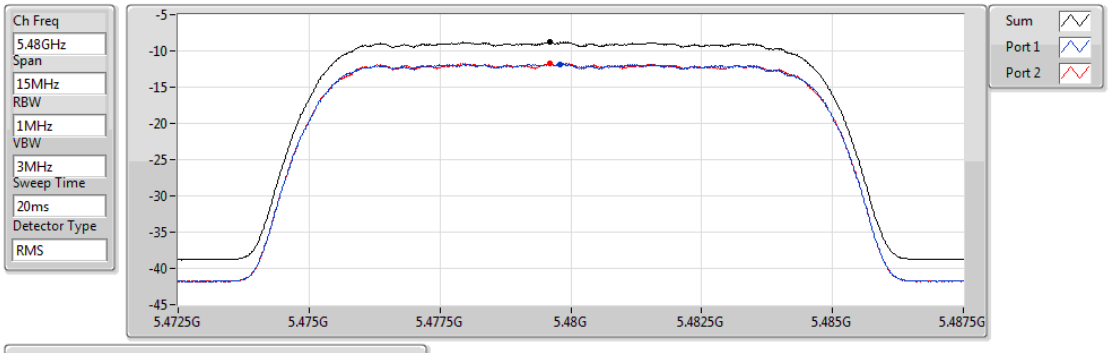
5340MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.54	-7.54	-10.36	-10.69

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

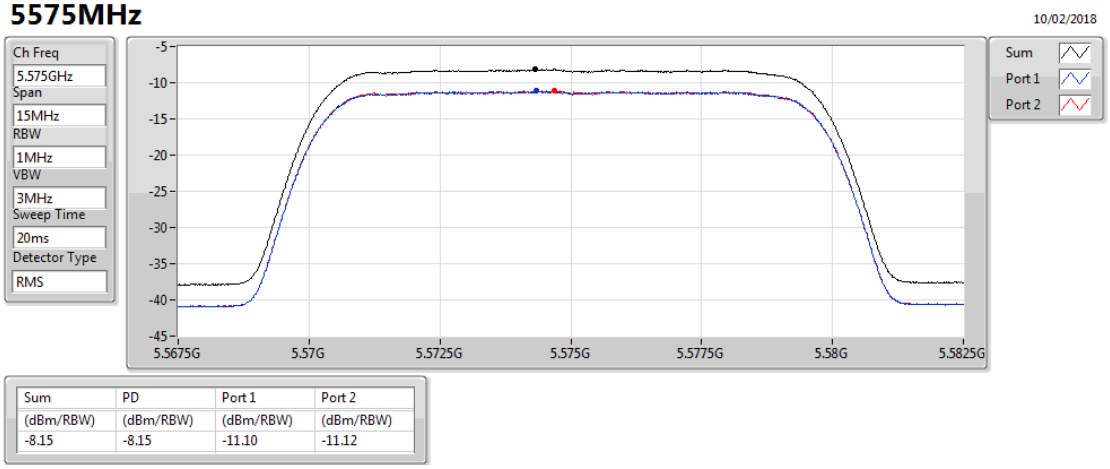
5480MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.78	-8.78	-11.80	-11.71

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

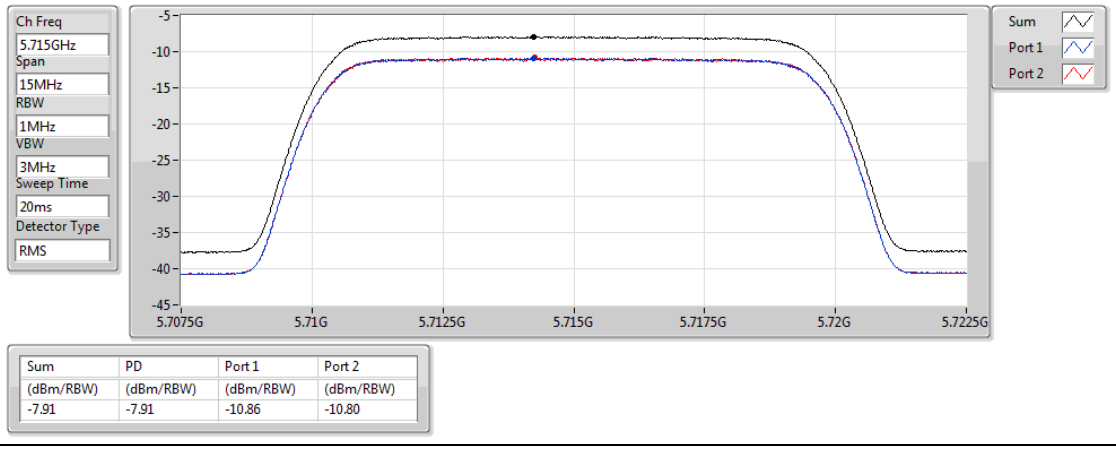
5575MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.15	-8.15	-11.10	-11.12

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

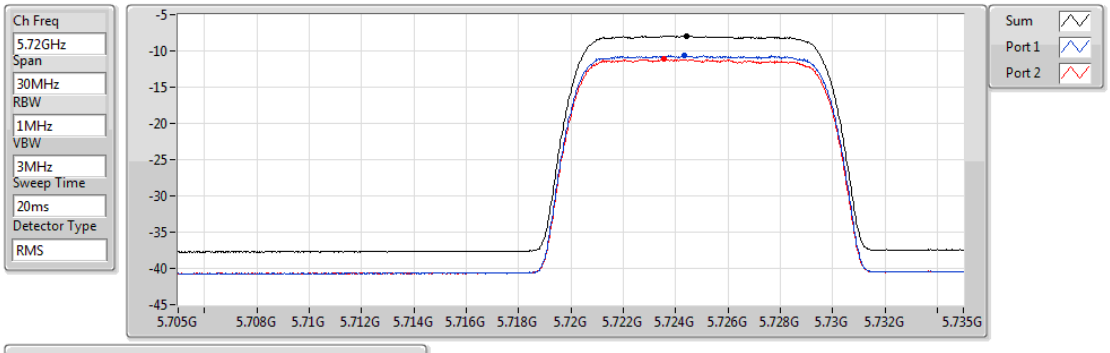
5715MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.91	-7.91	-10.86	-10.80

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5725MHz Straddle 5.47-5.725GHz

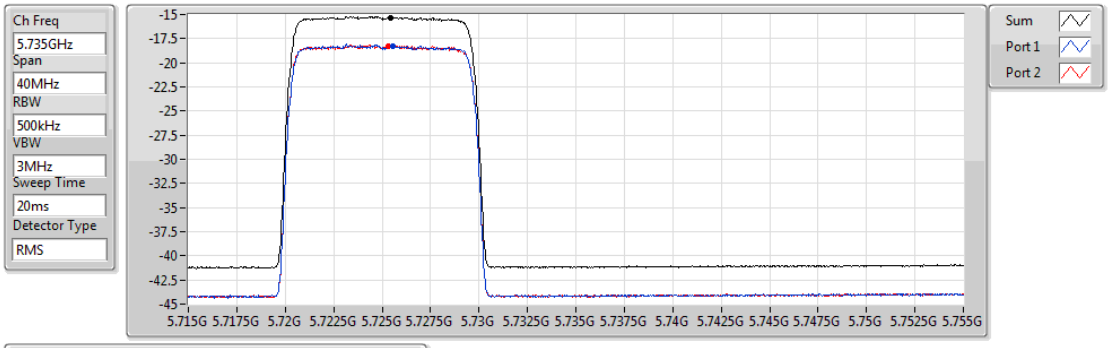


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.93	-7.93	-10.63	-11.16

QPSK,10M_Nss1,(MCS0)_2TX **PSD**

5725MHz Straddle 5.725-5.85GHz

10/02/2018

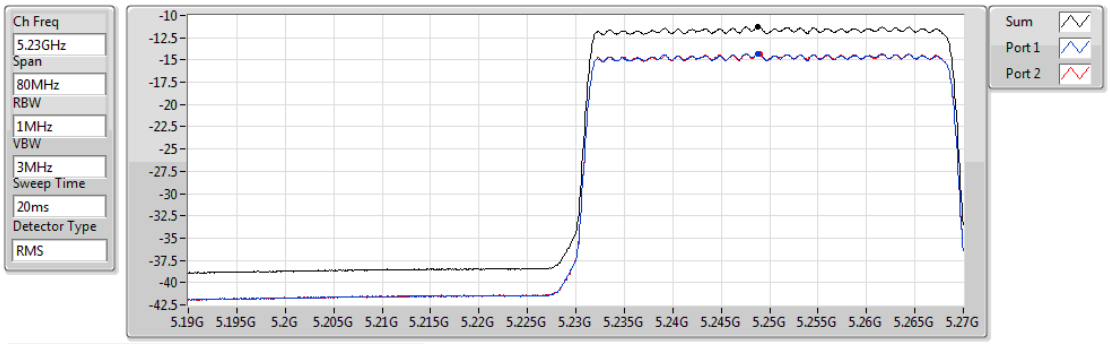


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-15.30	-15.30	-18.25	-18.26

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5250MHz Straddle 5.15-5.25GHz

10/02/2018

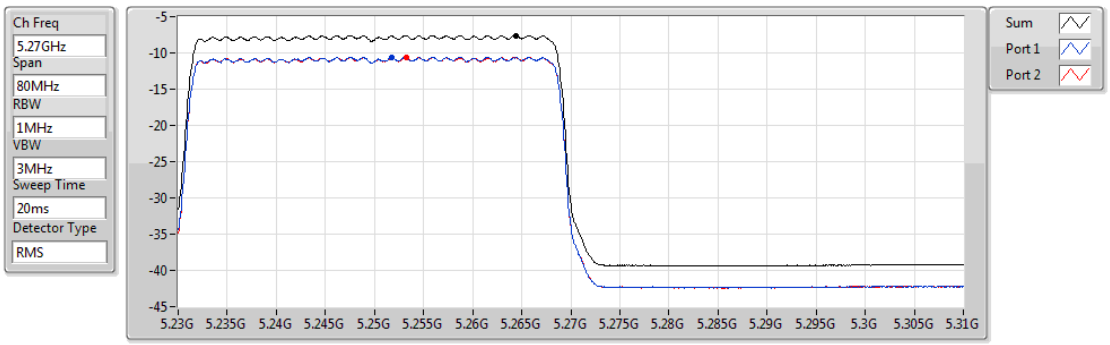


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.29	-11.29	-14.27	-14.30

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5250MHz Straddle 5.25-5.35GHz

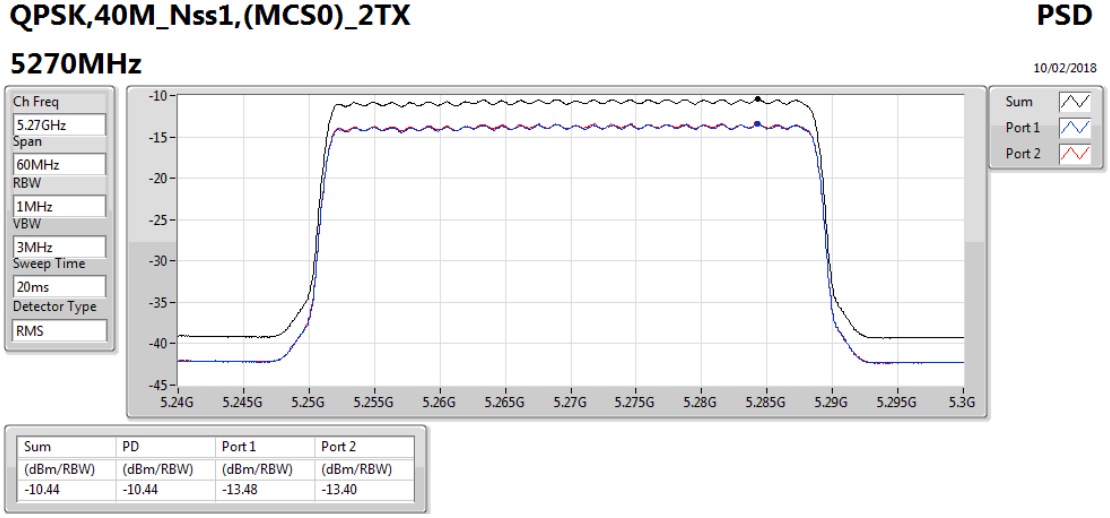
10/02/2018



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.61	-7.61	-10.62	-10.59

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5270MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.44	-10.44	-13.48	-13.40

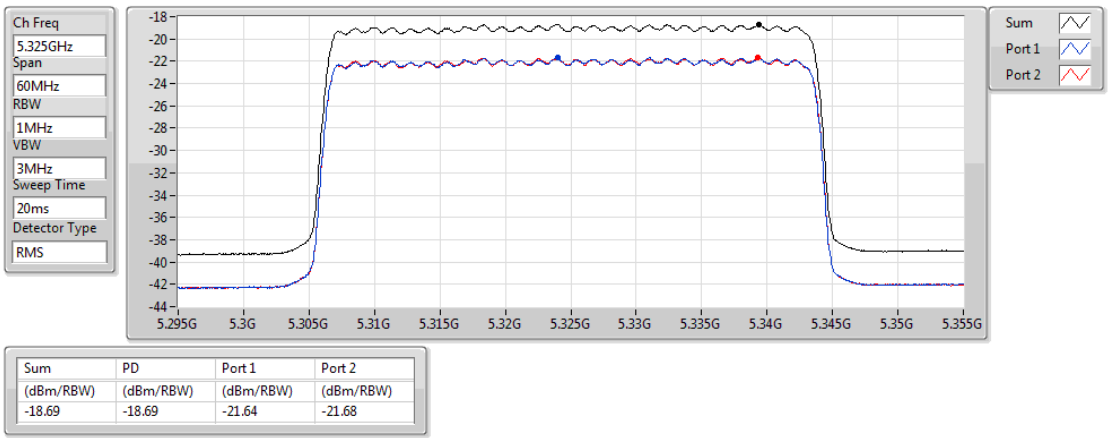
QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5300MHz

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.72	-11.72	-14.73	-14.63

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

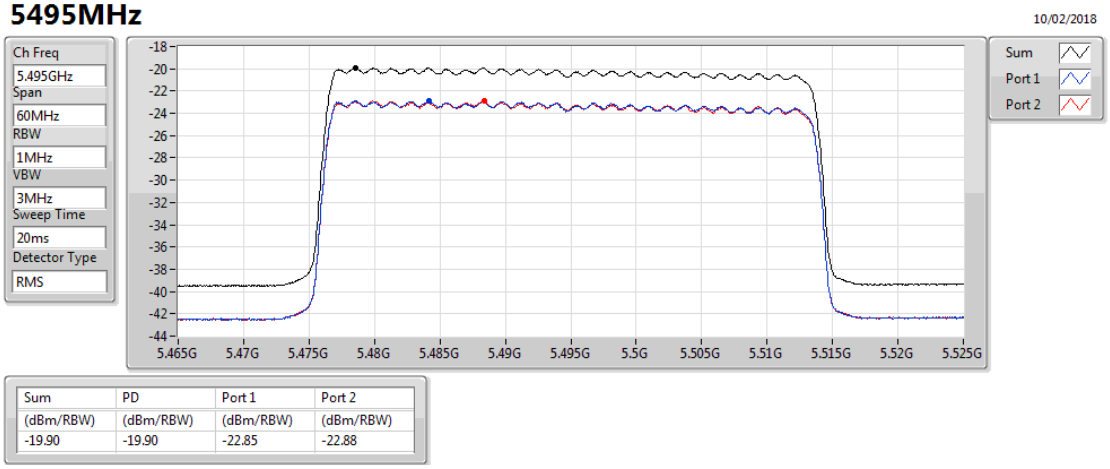
5325MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-18.69	-18.69	-21.64	-21.68

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

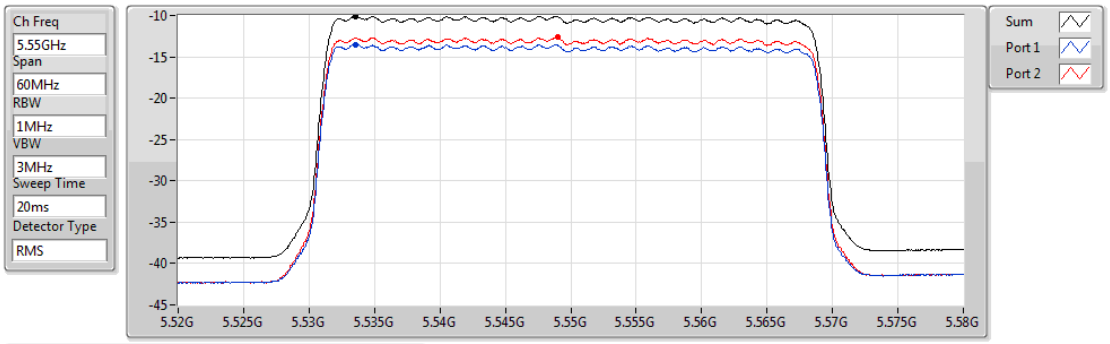
5495MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-19.90	-19.90	-22.85	-22.88

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

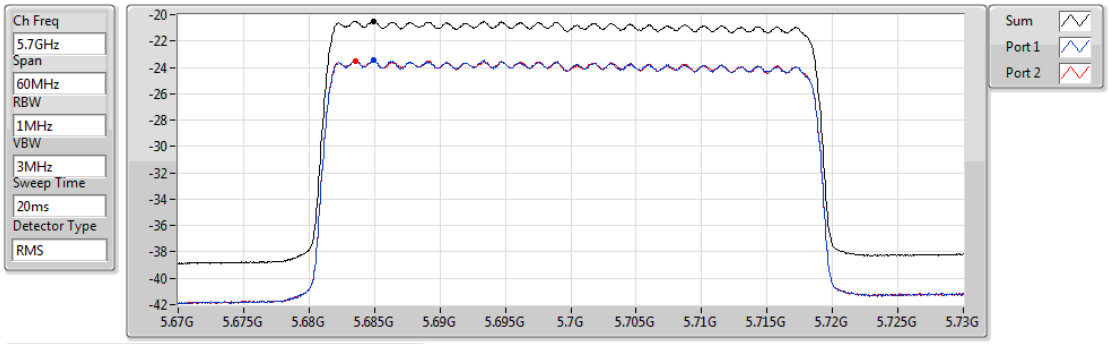
5550MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.09	-10.09	-13.52	-12.65

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5700MHz

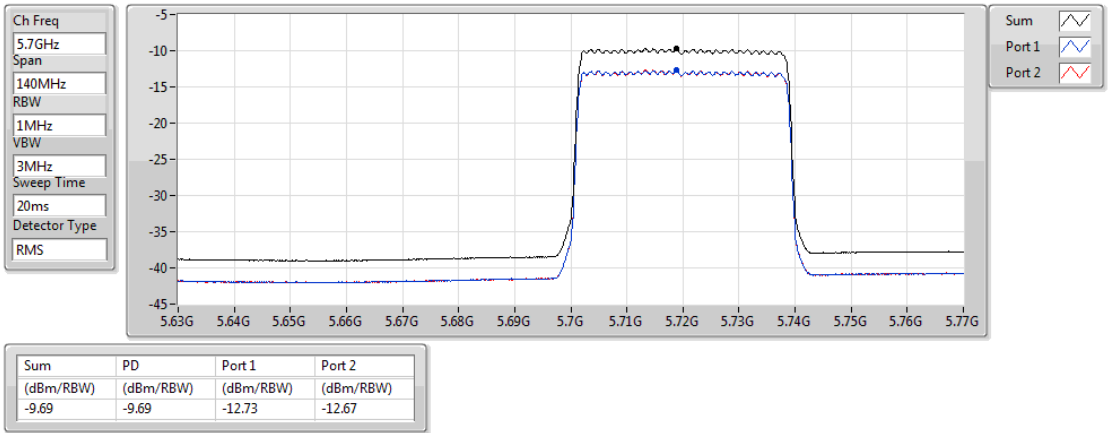


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-20.50	-20.50	-23.47	-23.50

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5720MHz Straddle 5.47-5.725GHz

10/02/2018

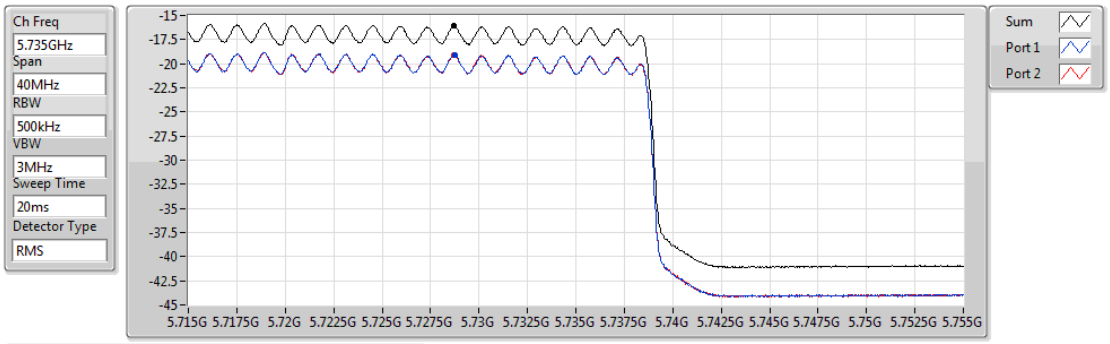


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.69	-9.69	-12.73	-12.67

QPSK,40M_Nss1,(MCS0)_2TX **PSD**

5720MHz Straddle 5.725-5.85GHz

10/02/2018



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-16.09	-16.09	-19.06	-19.11

For Conducted Spurious Emission

For Antenna 1:

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-83.33	-83.37	-78.34	-41.25	37.09
5295	-83.15	-83.26	-78.19	-41.25	36.94
5340	-83.49	-83.40	-78.43	-41.25	37.18
5250 (Straddle Channel)	-83.38	-83.55	-78.45	-41.25	37.20

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-70.27	-69.36	-64.78	-21.25	43.53
5295	-69.62	-70.43	-65.00	-21.25	43.75
5340	-70.40	-69.90	-65.13	-21.25	43.88
5250 (Straddle Channel)	-70.57	-69.70	-65.10	-21.25	43.85

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-83.35	-83.49	-78.41	-41.25	37.16
5300	-83.38	-83.34	-78.35	-41.25	37.10
5325	-83.43	-83.36	-78.38	-41.25	37.13
5250 (Straddle Channel)	-83.25	-83.32	-78.27	-41.25	37.02

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-70.59	-70.16	-65.36	-21.25	44.11
5300	-70.27	-70.32	-65.28	-21.25	44.03
5325	-69.43	-70.50	-64.92	-21.25	43.67
5250 (Straddle Channel)	-70.20	-69.65	-64.91	-21.25	43.66

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-59.25	-59.65	-54.44	-41.25	13.19
5295	-58.93	-58.82	-53.86	-41.25	12.61
5340	-60.65	-59.22	-54.87	-41.25	13.62
5250 (Straddle Channel)	-57.09	-57.16	-52.11	-41.25	10.86

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-48.86	-48.96	-43.90	-21.25	22.65
5295	-48.08	-46.42	-42.16	-21.25	20.91
5340	-48.72	-49.98	-44.29	-21.25	23.04
5250 (Straddle Channel)	-45.60	-45.09	-40.33	-21.25	19.08

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5270	-60.10	-58.15	-54.01	-41.25	12.76
5300	-58.83	-57.01	-52.82	-41.25	11.57
5325	-57.40	-56.46	-51.89	-41.25	10.64
5250 (Straddle Channel)	-58.66	-58.10	-53.36	-41.25	12.11

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5270	-48.99	-49.21	-44.09	-21.25	22.84
5300	-46.08	-43.43	-39.55	-21.25	18.30
5325	-46.26	-44.06	-40.01	-21.25	18.76
5250 (Straddle Channel)	-46.88	-46.76	-41.81	-21.25	20.56

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-68.51	-68.68	-63.58	-41.25	22.33
5295	-69.15	-68.62	-63.87	-41.25	22.62
5340	-69.85	-69.46	-64.64	-41.25	23.39
5250 (Straddle Channel)	-67.18	-66.55	-61.84	-41.25	20.59

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-56.81	-56.12	-51.44	-21.25	30.19
5295	-57.11	-56.57	-51.82	-21.25	30.57
5340	-58.09	-57.53	-52.79	-21.25	31.54
5250 (Straddle Channel)	-55.72	-54.24	-49.91	-21.25	28.66

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-68.50	-66.86	-62.59	-41.25	21.34
5300	-68.34	-66.13	-62.09	-41.25	20.84
5325	-69.99	-68.10	-63.93	-41.25	22.68
5250 (Straddle Channel)	-67.15	-66.24	-61.66	-41.25	20.41

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-56.32	-55.07	-50.64	-21.25	29.39
5300	-56.22	-55.05	-50.59	-21.25	29.34
5325	-58.27	-57.32	-52.76	-21.25	31.51
5250 (Straddle Channel)	-55.43	-54.73	-50.06	-21.25	28.81

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 10M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-76.86	-77.10	-71.97	-41.25	30.72
5295	-76.87	-74.94	-70.79	-41.25	29.54
5340	-76.40	-76.78	-71.58	-41.25	30.33
5250 (Straddle Channel)	-73.98	-71.59	-67.61	-41.25	26.36

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 10M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-52.58	-55.52	-48.80	-21.25	27.55
5295	-63.85	-51.17	-48.94	-21.25	27.69
5340	-60.31	-62.32	-56.19	-21.25	34.94
5250 (Straddle Channel)	-52.11	-43.45	-40.90	-21.25	19.65

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5270	-76.97	-77.11	-72.03	-41.25	30.78
5300	-76.86	-75.96	-71.38	-41.25	30.13
5325	-76.90	-76.83	-71.85	-41.25	30.60
5250 (Straddle Channel)	-76.92	-77.03	-71.96	-41.25	30.71

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5270	-64.04	-63.59	-58.80	-21.25	37.55
5300	-64.41	-59.51	-56.29	-21.25	35.04
5325	-64.24	-64.11	-59.16	-21.25	37.91
5250 (Straddle Channel)	-64.45	-63.77	-59.09	-21.25	37.84

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 10M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-71.84	-71.86	-66.84	-41.25	25.59
5295	-71.98	-71.74	-66.85	-41.25	25.60
5340	-71.91	-71.97	-66.93	-41.25	25.68
5250 (Straddle Channel)	-71.89	-71.87	-66.87	-41.25	25.62

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 10M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-59.01	-58.82	-53.90	-21.25	32.65
5295	-59.14	-58.65	-53.88	-21.25	32.63
5340	-59.48	-59.44	-54.45	-21.25	33.20
5250 (Straddle Channel)	-59.39	-58.87	-54.11	-21.25	32.86

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-71.78	-71.86	-66.81	-41.25	25.56
5300	-71.94	-71.87	-66.89	-41.25	25.64
5325	-71.71	-71.91	-66.80	-41.25	25.55
5250 (Straddle Channel)	-71.90	-71.85	-66.86	-41.25	25.61

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-59.41	-58.98	-54.18	-21.25	32.93
5300	-58.94	-58.54	-53.73	-21.25	32.48
5325	-58.45	-59.14	-53.77	-21.25	32.52
5250 (Straddle Channel)	-59.48	-58.68	-54.05	-21.25	32.80

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 10M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5480	-82.66	-82.67	-77.65	-41.25	36.40
5575	-82.71	-82.91	-77.80	-41.25	36.55
5715	-76.92	-76.61	-71.75	-41.25	30.50
5725 (Straddle Channel)	-82.65	-82.60	-77.61	-41.25	36.36

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 10M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5480	-69.38	-68.91	-64.13	-21.25	42.88
5575	-69.23	-69.22	-64.21	-21.25	42.96
5715	-62.35	-60.53	-56.34	-21.25	35.09
5725 (Straddle Channel)	-69.47	-69.43	-64.44	-21.25	43.19

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5495	-82.55	-82.70	-77.61	-41.25	36.36
5550	-82.56	-82.74	-77.64	-41.25	36.39
5700	-82.67	-82.53	-77.59	-41.25	36.34
5720 (Straddle Channel)	-82.66	-82.78	-77.71	-41.25	36.46

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5495	-69.84	-69.14	-64.47	-21.25	43.22
5550	-69.01	-68.93	-63.96	-21.25	42.71
5700	-70.12	-69.76	-64.93	-21.25	43.68
5720 (Straddle Channel)	-69.29	-68.96	-64.11	-21.25	42.86

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5480	-57.47	-56.42	-51.90	-41.25	10.65
5575	-58.12	-57.00	-52.51	-41.25	11.26
5715	-59.09	-57.88	-53.43	-41.25	12.18
5725 (Straddle Channel)	-62.31	-63.07	-57.66	-41.25	16.41

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5480	-49.73	-49.61	-44.66	-21.25	23.41
5575	-49.81	-49.92	-44.85	-21.25	23.60
5715	-51.66	-51.51	-46.57	-21.25	25.32
5725 (Straddle Channel)	-49.55	-50.06	-44.79	-21.25	23.54

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Average / Port 1 + Port 2 / 3GHz~6GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5495	-58.94	-55.13	-51.62	-41.25	10.37
5550	-57.86	-55.25	-51.35	-41.25	10.10
5700	-58.84	-55.30	-51.71	-41.25	10.46
5720 (Straddle Channel)	-57.11	-58.44	-52.71	-41.25	11.46

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Peak / Port 1 + Port 2 / 3GHz~6GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5495	-50.20	-48.89	-44.49	-21.25	23.24
5550	-49.09	-47.85	-43.42	-21.25	22.17
5700	-51.30	-48.40	-44.60	-21.25	23.35
5720 (Straddle Channel)	-42.13	-45.38	-38.45	-21.25	17.20

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5480	-66.14	-66.60	-61.35	-41.25	20.10
5575	-64.91	-65.54	-60.20	-41.25	18.95
5715	-70.26	-69.45	-64.83	-41.25	23.58
5725 (Straddle Channel)	-68.11	-69.18	-63.60	-41.25	22.35

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5480	-52.31	-54.16	-48.13	-21.25	26.88
5575	-50.18	-52.51	-46.18	-21.25	24.93
5715	-57.11	-57.46	-52.27	-21.25	31.02
5725 (Straddle Channel)	-55.68	-54.99	-50.31	-21.25	29.06

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 40M / Average / Port 1 + Port 2 / 6GHz~9GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5495	-66.37	-66.65	-61.50	-41.25	20.25
5550	-64.04	-63.51	-58.76	-41.25	17.51
5700	-70.16	-67.27	-63.47	-41.25	22.22
5720 (Straddle Channel)	-61.75	-62.02	-56.87	-41.25	15.62

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 40M / Peak / Port 1 + Port 2 / 6GHz~9GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5495	-54.77	-54.37	-49.56	-21.25	28.31
5550	-51.65	-51.71	-46.67	-21.25	25.42
5700	-57.25	-56.92	-52.07	-21.25	30.82
5720 (Straddle Channel)	-50.39	-48.33	-44.23	-21.25	22.98

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5480	-76.36	-76.28	-71.31	-41.25	30.06
5575	-68.56	-74.01	-65.47	-41.25	24.22
5715	-76.75	-76.90	-71.81	-41.25	30.56
5725 (Straddle Channel)	-76.10	-76.20	-71.14	-41.25	29.89

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency (MHz)	**Chain(TX1) Spurious Level (dBm)**	**Chain(TX2) Spurious Level (dBm)**	**Total Spurious Level (dBm)**	**Limit (dBm)**	**Margin (dBm)**
5480	-62.70	-62.76	-57.72	-21.25	36.47
5575	-49.39	-56.08	-46.55	-21.25	25.30
5715	-64.48	-63.75	-59.09	-21.25	37.84
5725 (Straddle Channel)	-63.72	-51.51	-49.26	-21.25	28.01

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Average / Port 1 + Port 2 / 9GHz~18GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5495	-76.06	-76.15	-71.09	-41.25	29.84
5550	-74.05	-76.13	-69.96	-41.25	28.71
5700	-76.23	-76.14	-71.17	-41.25	29.92
5720 (Straddle Channel)	-71.55	-75.66	-68.13	-41.25	26.88

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 40M / Peak / Port 1 + Port 2 / 9GHz~18GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5495	-62.99	-63.05	-58.01	-21.25	36.76
5550	-59.48	-62.66	-55.77	-21.25	34.52
5700	-62.68	-63.55	-58.08	-21.25	36.83
5720 (Straddle Channel)	-47.63	-55.32	-44.95	-21.25	23.70

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5480	-71.15	-71.07	-66.10	-41.25	24.85
5575	-71.06	-71.27	-66.15	-41.25	24.90
5715	-71.82	-71.77	-66.78	-41.25	25.53
5725 (Straddle Channel)	-71.23	-71.29	-66.25	-41.25	25.00

Temperature	22 ℃	**Humidity**	54%
Test Engineer	Ron Huang / Serway Li	**Configurations**	QPSK, 10M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5480	-58.78	-58.49	-53.62	-21.25	32.37
5575	-57.80	-58.84	-53.28	-21.25	32.03
5715	-58.97	-58.85	-53.90	-21.25	32.65
5725 (Straddle Channel)	-59.26	-58.91	-54.07	-21.25	32.82

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 40M / Average / Port 1 + Port 2 / 18GHz~40GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5495	-71.32	-71.13	-66.21	-41.25	24.96
5550	-71.26	-71.25	-66.24	-41.25	24.99
5700	-71.28	-71.29	-66.27	-41.25	25.02
5720 (Straddle Channel)	-71.27	-71.22	-66.23	-41.25	24.98

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 40M / Peak / Port 1 + Port 2 / 18GHz~40GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5495	-58.72	-57.43	-53.02	-21.25	31.77
5550	-58.84	-58.88	-53.85	-21.25	32.60
5700	-57.66	-58.68	-53.13	-21.25	31.88
5720 (Straddle Channel)	-58.56	-58.14	-53.33	-21.25	32.08

For Antenna 2:

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 10M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-87.02	-86.90	-59.95	-41.25	18.70
5295	-86.73	-86.96	-59.83	-41.25	18.58
5340	-86.98	-86.92	-59.94	-41.25	18.69
5250 (Straddle Channel)	-86.89	-86.84	-59.85	-41.25	18.60

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 10M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5255	-74.69	-74.51	-47.59	-21.25	26.34
5295	-72.84	-74.37	-46.53	-21.25	25.28
5340	-74.53	-70.08	-44.75	-21.25	23.50
5250 (Straddle Channel)	-74.39	-74.37	-47.37	-21.25	26.12

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 40M / Average / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-86.70	-86.98	-59.83	-41.25	18.58
5300	-86.95	-86.91	-59.92	-41.25	18.67
5325	-86.92	-86.76	-59.83	-41.25	18.58
5250 (Straddle Channel)	-86.86	-86.89	-59.86	-41.25	18.61

Temperature	22 ℃	Humidity	54%
Test Engineer	Ron Huang / Serway Li	Configurations	QPSK, 40M / Peak / Port 1 + Port 2 / 1GHz~3GHz

Frequency (MHz)	Chain(TX1) Spurious Level (dBm)	Chain(TX2) Spurious Level (dBm)	Total Spurious Level (dBm)	Limit (dBm)	Margin (dBm)
5270	-74.34	-74.17	-47.24	-21.25	25.99
5300	-74.53	-73.91	-47.20	-21.25	25.95
5325	-74.46	-74.40	-47.42	-21.25	26.17
5250 (Straddle Channel)	-73.40	-72.92	-46.14	-21.25	24.89