FCC Test Report

Equipment	:	PMP450b
Brand Name	:	Cambium Networks
Model No.	:	PMP450b
FCC ID	:	Z8H89FT0032
Standard	:	47 CFR FCC Part 15.407
Operating Band	:	5150 MHz – 5250 MHz 5725 MHz – 5850 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

The product sample received on May 05, 2017 and completely tested on Aug. 14, 2017. 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	15.207	AC Power-line Conducted Emissions	Complied
3.2	15.407(a)	Emission Bandwidth	Complied
3.3	15.407(a)	Maximum Conducted Output Power	Complied
3.4	15.407(a)	Peak Power Spectral Density	Complied
3.5	15.407(b)	Unwanted Emissions	Complied
3.6	15.407(g)	Frequency Stability	Complied

Revision History

Report No.	Version	Description	Issued Date
FR751045-02	Rev. 01	Initial issue of report	Aug. 29, 2017

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Mode	Ch. Frequency (MHz)	Channel Number
5150-5250	QPSK, 5M	5155	19
		5160	
		5165	
		5170	
		5175	
		5180	
		5185	
		5190	
		5195	
		5200	
		5205	
		5210	
		5215	
		5220	
		5225	
		5230	
		5235	
		5240	
		5245	
5725-5850		5730	24
		5735	
		5740	
		5745	
		5750	
		5755	
		5760	
		5765	
		5770	
		5775	
		5780	
		5785	

		5790	
		5795	
		5800	
		5805	
		5810	
		5815	
		5820	
		5825	
		5830	
		5835	
		5840	
		5845	
5150-5250	QPSK, 40M	5170	16
		5175	
		5180	
		5185	
		5190	
		5195	
		5200	
		5205	
		5210	
		5215	
		5220	
		5225	
		5230	
		5235	
		5240	
		5245	
5725-5850		5725	22
		5730	
		5735	
		5740	
		5745	
		5750	
		5755	
		5760	

		5765	
		5770	
		5775	
		5780	
		5785	
		5790	
		5795	
		5800	
		5805	
		5810	
		5815	
		5820	
		5825	
		5830	

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	QPSK,5M	5	2TX
5.725-5.85GHz	QPSK,5M	5	2TX
5.15-5.25GHz	QPSK,40M	40	2TX
5.25-5.35GHz	QPSK,40M	40	2TX
5.47-5.725GHz	QPSK,40M	40	2TX
5.725-5.85GHz	QPSK,40M	40	2TX

Note:
- 5M 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	-	-	Panel antenna	N/A	17
	2	-	-	Panel antenna	N/A	17
2	1	-	-	Panel antenna	N/A	2
	2	-	-	Panel antenna	N/A	2

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

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
QPSK,5M	0.467	3.307	2.355m	1k
QPSK,40M	0.38	4.202	1.992m	1k

1.1.4 EUT Operational Condition

EUT Power Type	From PoE

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 v01r04
- FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Lucke Hsieh & Eddie Weng	22°C / 54%	May 05, 2017~Aug. 14, 2017
Radiated	03CH01-CB	Mars Lin / Lucke Hsieh	22°C / 54%	Jun. 29, 2017~Jul. 21, 2017
AC Conduction	CO01-CB	Ryo Fan	23°C / 60%	Jul. 04, 2017

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 (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%
Frequency Stability	6.06×10^{-8}	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

For Ant. 1

Mode	Power Setting
QPSK,5M_Nss1_2TX	-
5155MHz	15
5200MHz	13
5245MHz	13
5730MHz	24
5785MHz	24
5845MHz	24
QPSK,40M_Nss1_2TX	-
5170MHz	7
5200MHz	10
5245MHz Straddle 5.15-5.25GHz	10
5245MHz Straddle 5.25-5.35GHz	10
5725MHz Straddle 5.47-5.725GHz	12
5725MHz Straddle 5.725-5.85GHz	12
5785MHz	24
5830MHz	24

For Ant. 2

Mode	Power Setting
QPSK,5M_Nss1_2TX	-
5155MHz	4D/4B
5200MHz	2E/2D
5245MHz	2E/2D
5730MHz	12/07
5785MHz	0C/00
5845MHz	0A/08
QPSK,40M_Nss1_2TX	-
5170MHz	7E/7D
5200MHz	2C/2B
5245MHz Straddle 5.15-5.25GHz	1C/1B
5245MHz Straddle 5.25-5.35GHz	53/52
5725MHz Straddle 5.47-5.725GHz	52/4D
5725MHz Straddle 5.725-5.85GHz	4A/43
5785MHz	0C/00
5830MHz	1A/0E

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	EUT with Ant. 1
Because Ant.1 & Ant.2 are the same type antennas, only the higher gain antenna “Ant.1” was tested.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Peak Power Spectral Density Frequency Stability
Test Condition	Conducted measurement at transmit chains
Because Ant.1 & Ant.2 are the same type antennas, only the higher gain antenna “Ant.1” was tested.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Maximum Conducted Output Power
Test Condition	Conducted measurement at transmit chains
Operating Mode	EUT with Ant. 1
	EUT with Ant. 2

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	EUT with Ant. 1
Operating Mode > 1GHz	CTX with Ant. 1
Because Ant.1 & Ant.2 are the same type antennas, only the higher gain antenna “Ant.1” was tested.	

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

Support Unit	Brand Name	Model Name
PoE	Cambium Networks	G1021-300-0265

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

N/A

2.5 Support Equipment

For Test Site No: CO01-CB

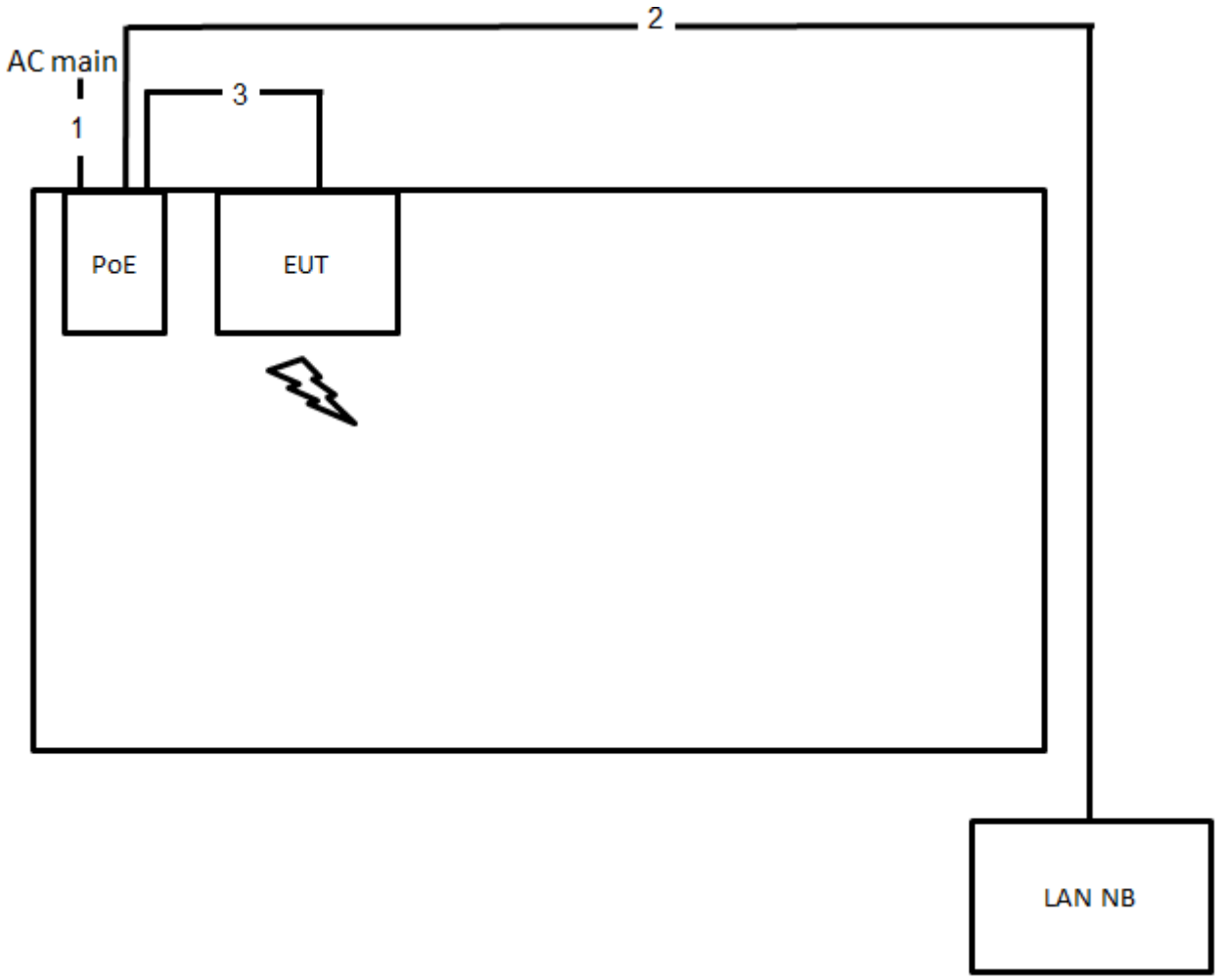
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E6430	DoC
2	PoE	Cambium Networks	G1021-300-0265	DoC

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

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC
2	PoE	Cambium Networks	G1021-300-0265	DoC

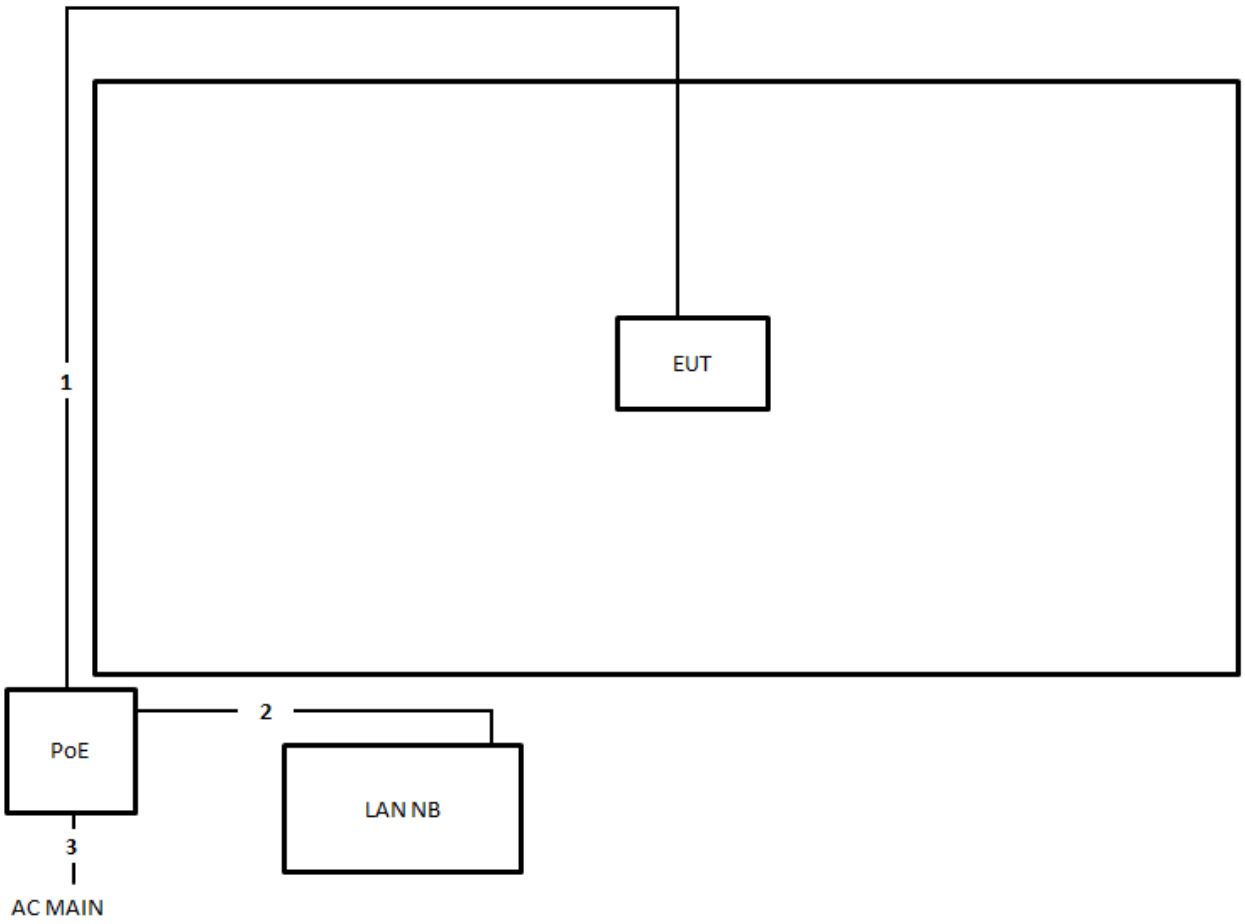
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	Power cable	No	0.7m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1m

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	RJ-45 cable	No	1.5m
3	Power cable	No	0.7m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

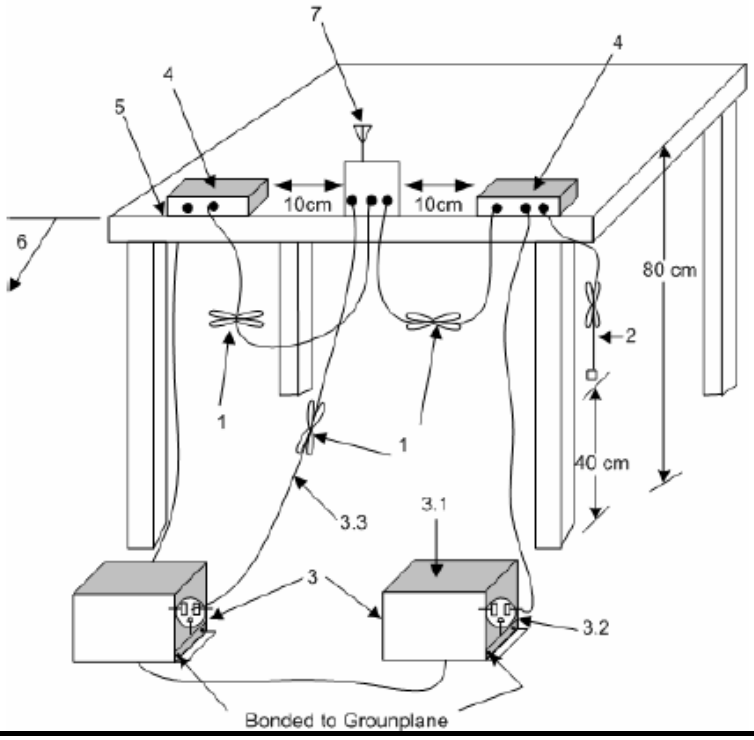
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 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.

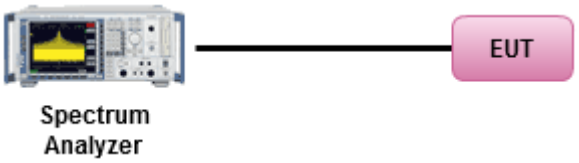
3.2.2 Measuring Instruments

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

3.2.3 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.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 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.	

3.3.2 Measuring Instruments

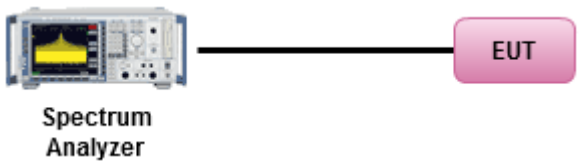
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

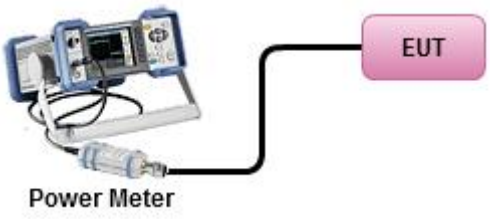
Test Method	
▪ Maximum Conducted Output Power	
	Average over on/off periods with duty factor
	☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over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

3.3.4 Test Setup

For Straddle channel:

RF Output Power (Spectrum Analyzer)


For Other test:

RF Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 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.	

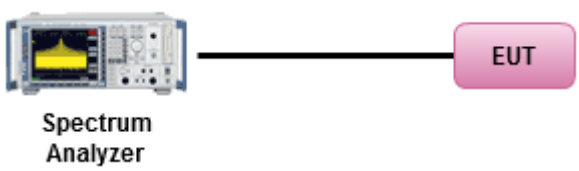
3.4.2 Measuring Instruments

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

3.4.3 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]) $EIRP_{total} = PPSD_{total} + DG$

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 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.

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).

3.5.2 Measuring Instruments

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

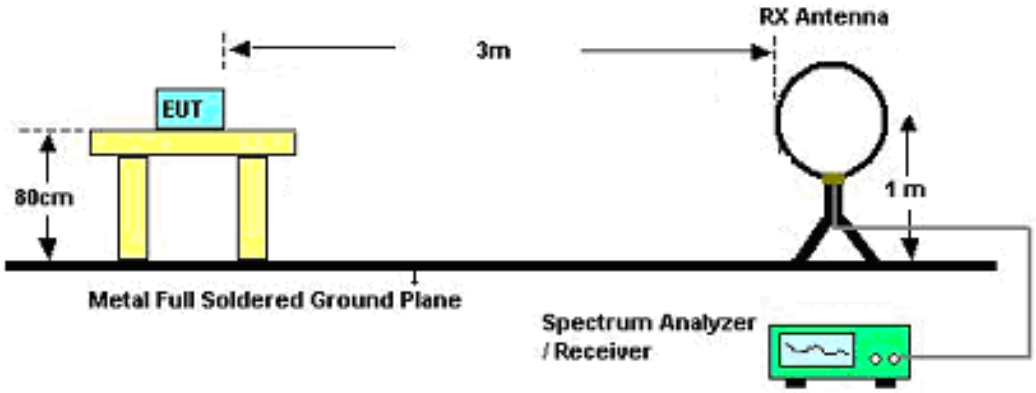
3.5.3 Test Procedures

Test Method		
▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).		
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].		
▪ For the transmitter unwanted emissions shall be measured using following options below:		
	▪ Refer as FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands.	
	▪ Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.	
		☐ Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
		☒ Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
		☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
		☒ Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
▪ For radiated measurement.		
	▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.	
	▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.	
	▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.	
▪ The any unwanted emissions level shall not exceed the fundamental emission level.		
▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.		

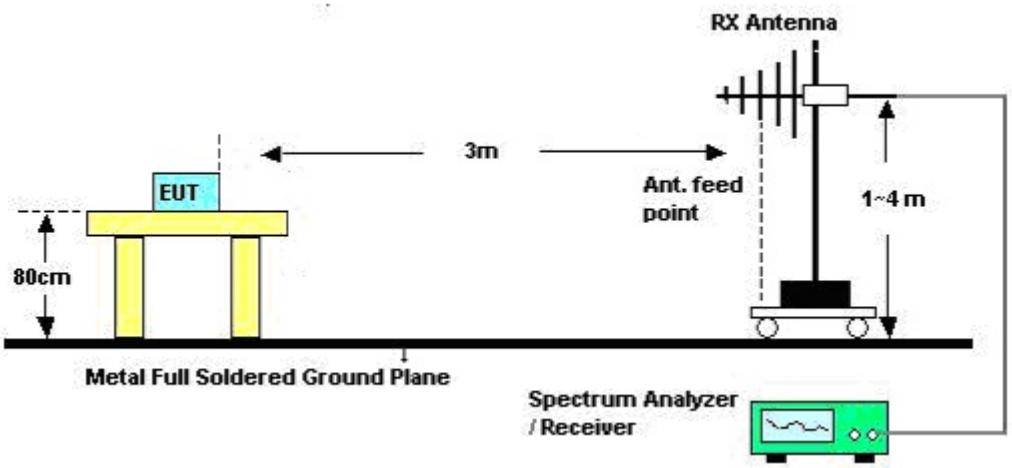
3.5.4 Test Setup

Transmitter Radiated Unwanted Emissions

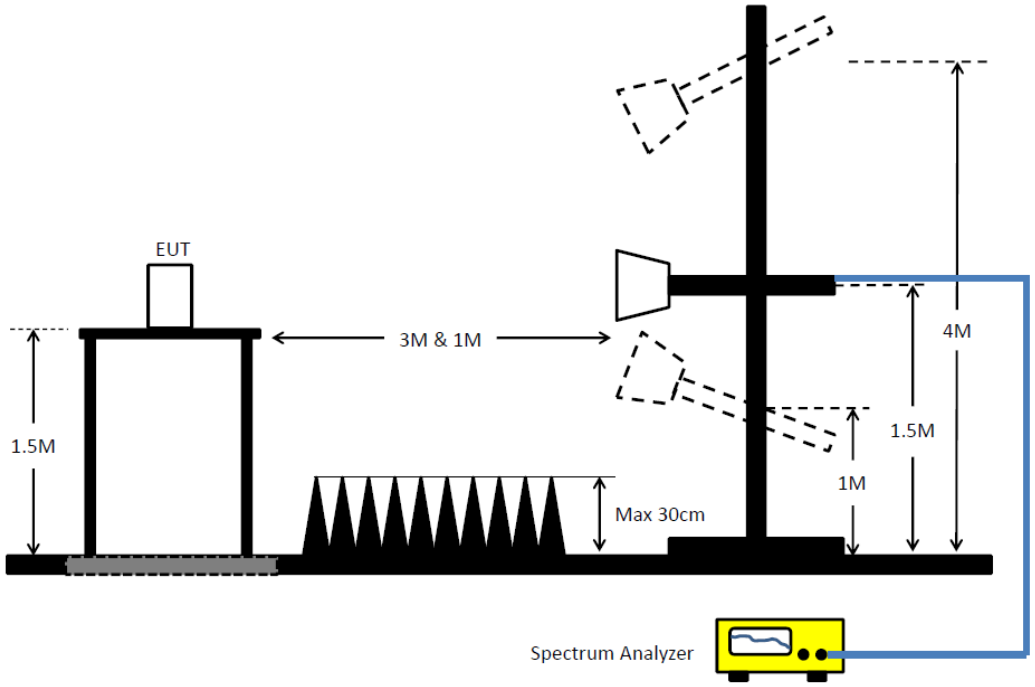
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.5.5 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.

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Frequency Stability

3.6.1 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.

3.6.2 Measuring Instruments

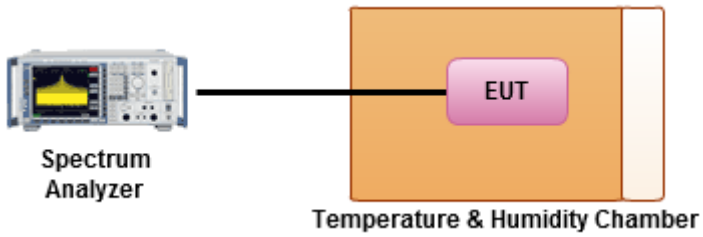
Refer a test equipment and calibration data table in this test report.

3.6.3 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.

3.6.4 Test Setup

Frequency Stability



3.6.5 Test Result of Frequency Stability

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
Log Antenna	Schwarzbeck	VUSLP 9111	247	200MHz ~ 1GHz	May 26, 2017	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Radiation (03CH01-CB)
Amplifier	-	-	TF-130N-R1	26GHz ~ 40GHz	Jun. 20, 2017	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-l0-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Conducted (TH01-CB)
Temp. and Humidity Chamber	Gaint Force	GTH-408-40-CP-AR	MAA1410-011	-40~100 degree	Sep. 20, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)

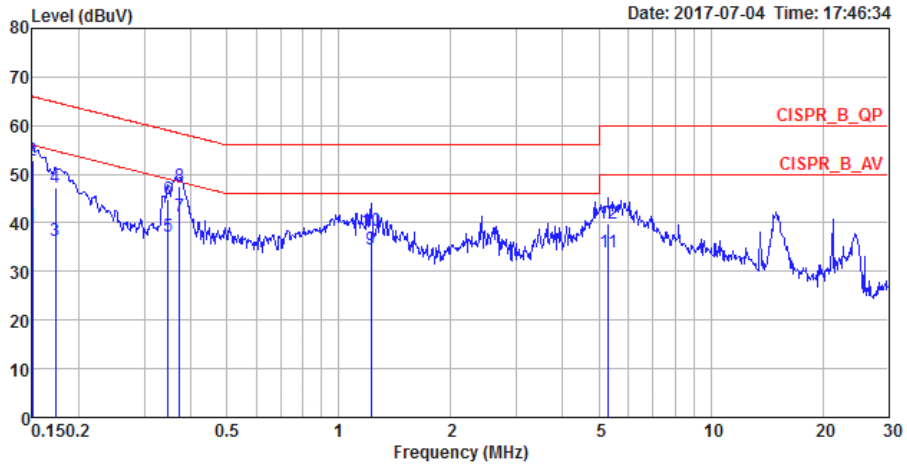
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Conducted (TH01-CB)

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

"*" Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.

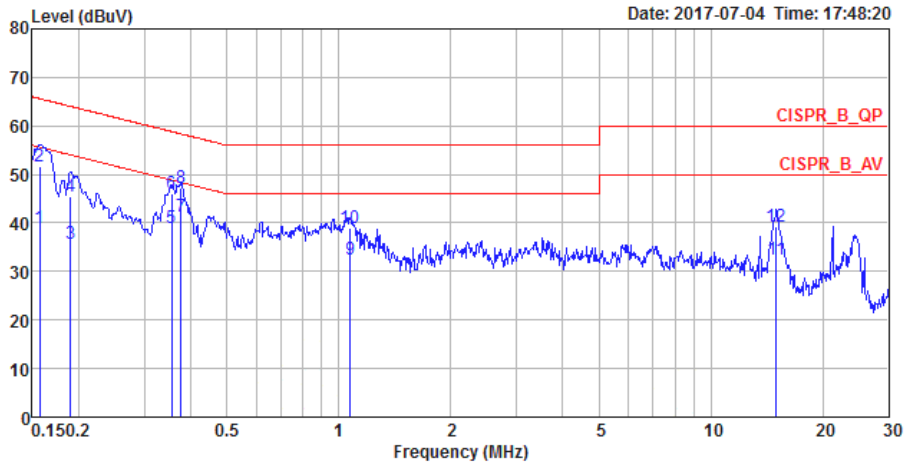
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	CTX		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1500	39.29	-16.71	56.00	29.31	9.94	Average	NEUTRAL
2	0.1500	52.92	-13.08	66.00	42.94	9.94	QP	NEUTRAL
3	0.1731	36.44	-18.37	54.81	26.44	9.96	Average	NEUTRAL
4	0.1731	47.12	-17.69	64.81	37.12	9.96	QP	NEUTRAL
5	0.3483	37.34	-11.66	49.00	27.34	9.96	Average	NEUTRAL
6	0.3483	44.77	-14.23	59.00	34.77	9.96	QP	NEUTRAL
7	0.3731	41.37	-7.06	48.43	31.37	9.96	Average	NEUTRAL
8	0.3731	47.62	-10.81	58.43	37.62	9.96	QP	NEUTRAL
9	1.2226	34.66	-11.34	46.00	24.62	9.98	Average	NEUTRAL
10	1.2226	38.31	-17.69	56.00	28.27	9.98	QP	NEUTRAL
11	5.3050	34.04	-15.96	50.00	23.80	10.10	Average	NEUTRAL
12	5.3050	39.84	-20.16	60.00	29.60	10.10	QP	NEUTRAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	CTX		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1573	38.89	-16.71	55.60	28.90	9.95	Average	LINE
2	0.1573	51.56	-14.04	65.60	41.57	9.95	QP	LINE
3	0.1904	35.57	-18.45	54.02	25.59	9.93	Average	LINE
4	0.1904	45.61	-18.41	64.02	35.63	9.93	QP	LINE
5	0.3558	38.88	-9.95	48.83	28.94	9.90	Average	LINE
6	0.3558	45.95	-12.88	58.83	36.01	9.90	QP	LINE
7	0.3771	41.31	-7.03	48.34	31.38	9.89	Average	LINE
8	0.3771	47.28	-11.06	58.34	37.35	9.89	QP	LINE
9	1.0710	32.61	-13.39	46.00	22.58	9.97	Average	LINE
10	1.0710	38.96	-17.04	56.00	28.93	9.97	QP	LINE
11	14.9860	32.48	-17.52	50.00	22.11	10.15	Average	LINE
12	14.9860	39.21	-20.79	60.00	28.84	10.15	QP	LINE

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
QPSK,5M_Nss1_2TX	-	-	-	-	-
5.15-5.25GHz	4.856M	4.598M	4M60D1D	4.819M	4.579M
5.725-5.85GHz	4.544M	4.629M	4M63D1D	4.481M	4.604M
QPSK,40M_Nss1_2TX	-	-	-	-	-
5.15-5.25GHz	42.95M	36.932M	36M9D1D	26.08M	23.428M
5.25-5.35GHz	16.08M	14.473M	14M5D1D	16M	13.593M
5.47-5.725GHz	21.28M	18.366M	18M4D1D	21.21M	18.331M
5.725-5.85GHz	37.1M	37.231M	37M2D1D	18.56M	18.451M

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;

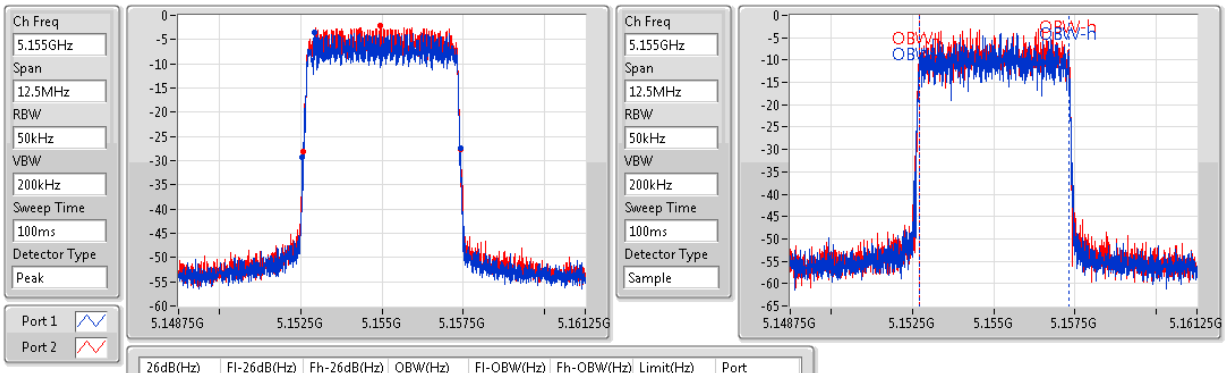
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
QPSK,5M_Nss1_2TX	-	-	-	-	-	-
5155MHz	Pass	Inf	4.856M	4.591M	4.819M	4.591M
5200MHz	Pass	Inf	4.838M	4.598M	4.819M	4.585M
5245MHz	Pass	Inf	4.844M	4.591M	4.856M	4.579M
5730MHz	Pass	500k	4.513M	4.629M	4.531M	4.604M
5785MHz	Pass	500k	4.494M	4.604M	4.513M	4.604M
5845MHz	Pass	500k	4.544M	4.61M	4.481M	4.61M
QPSK,40M_Nss1_2TX	-	-	-	-	-	-
5170MHz	Pass	Inf	42.8M	36.932M	42.8M	36.932M
5200MHz	Pass	Inf	42.85M	36.932M	42.95M	36.932M
5245MHz Straddle 5.15-5.25GHz	Pass	Inf	26.16M	23.428M	26.08M	23.428M
5245MHz Straddle 5.25-5.35GHz	Pass	Inf	16M	14.473M	16.08M	13.593M
5725MHz Straddle 5.47-5.725GHz	Pass	Inf	21.21M	18.331M	21.28M	18.366M
5725MHz Straddle 5.725-5.85GHz	Pass	500k	18.58M	18.471M	18.56M	18.451M
5785MHz	Pass	500k	37.05M	37.181M	37.1M	37.231M
5830MHz	Pass	500k	37.1M	36.882M	37.05M	36.882M

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,5M_Nss1_2TX EBW

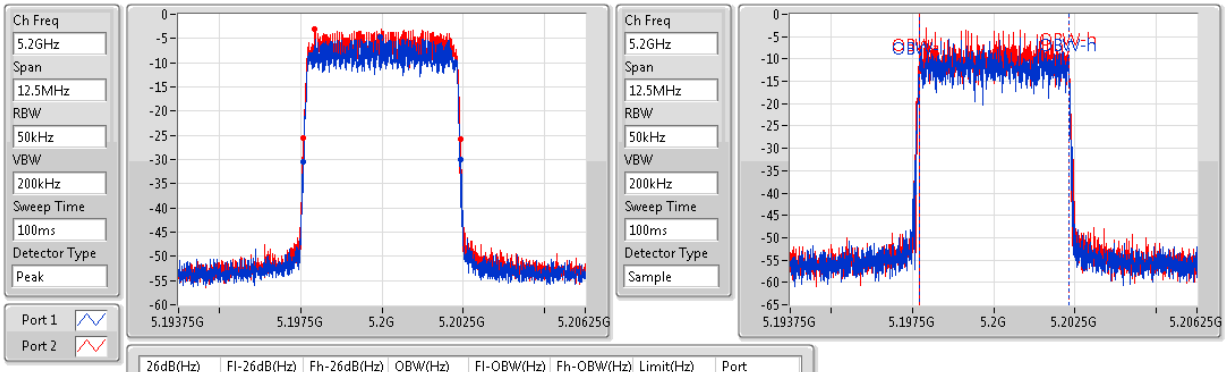
5155MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.856M	5.152563G	5.157419G	4.591M	5.15272G	5.157311G	Inf	1
4.819M	5.152594G	5.157413G	4.591M	5.15272G	5.157311G	Inf	2

QPSK,5M_Nss1_2TX EBW

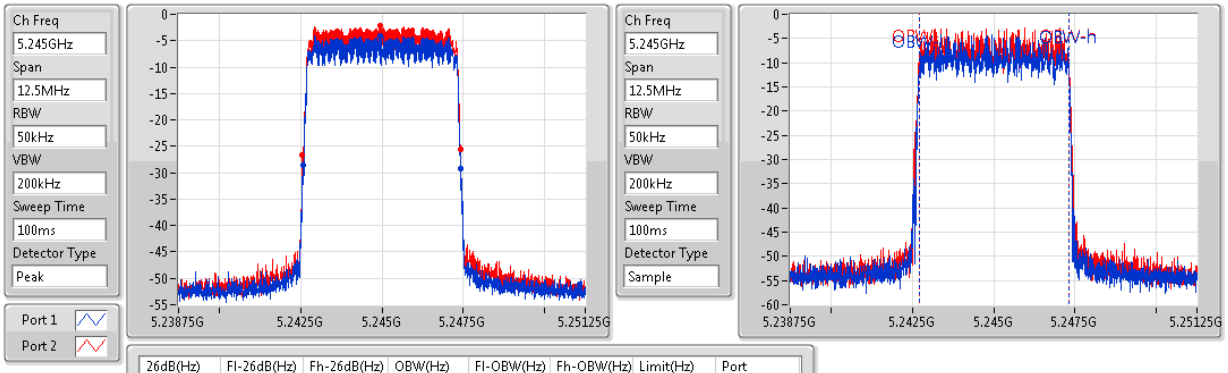
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.838M	5.197575G	5.202413G	4.598M	5.197714G	5.202311G	Inf	1
4.819M	5.197594G	5.202413G	4.585M	5.197714G	5.202299G	Inf	2

QPSK,5M_Nss1_2TX EBW

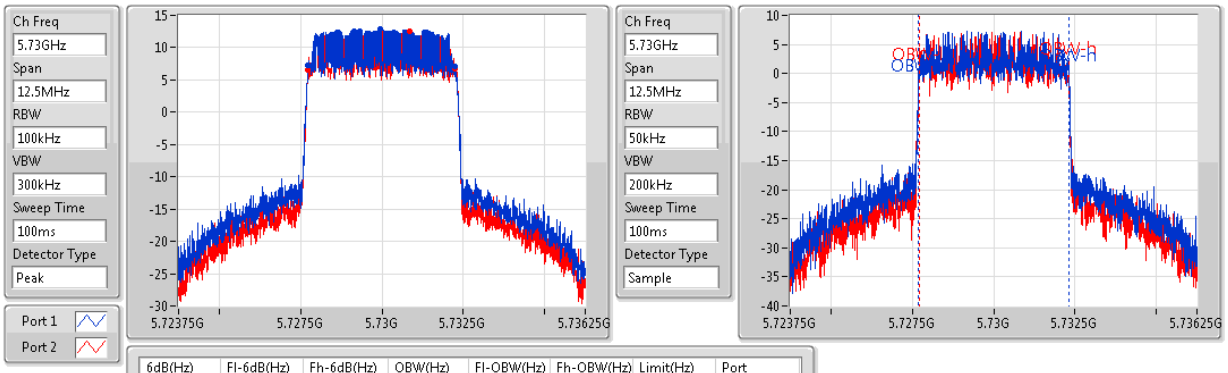
5245MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.844M	5.242581G	5.247425G	4.591M	5.242714G	5.247305G	Inf	1
4.856M	5.242563G	5.247419G	4.579M	5.24272G	5.247299G	Inf	2

QPSK,5M_Nss1_2TX **EBW**

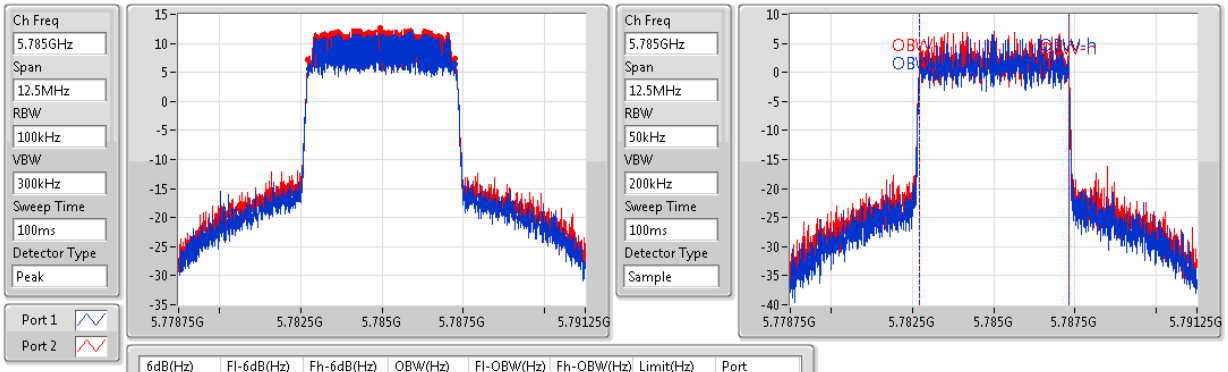
5730MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.513M	5.727731G	5.732244G	4.629M	5.727695G	5.732324G	500k	1
4.531M	5.727725G	5.732256G	4.604M	5.727707G	5.732311G	500k	2

QPSK,5M_Nss1_2TX **EBW**

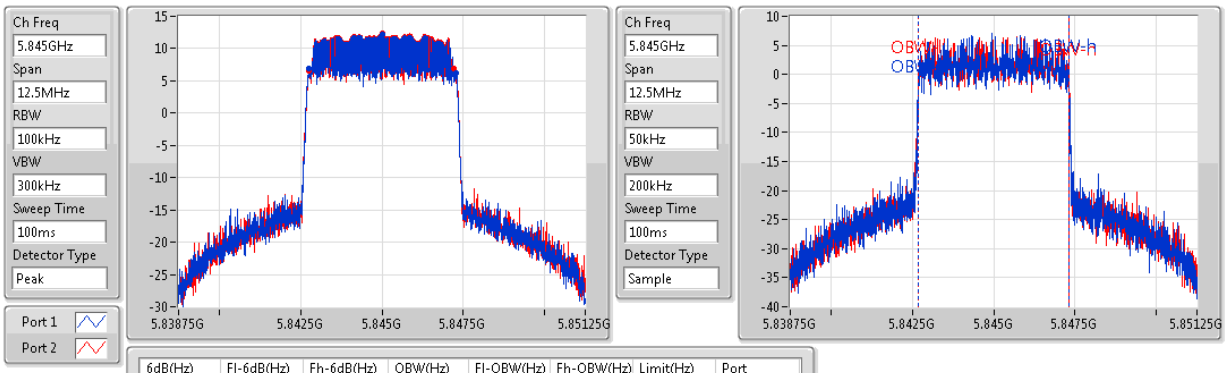
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.494M	5.782756G	5.78725G	4.604M	5.782707G	5.787311G	500k	1
4.513M	5.782731G	5.787244G	4.604M	5.782707G	5.787311G	500k	2

QPSK,5M_Nss1_2TX **EBW**

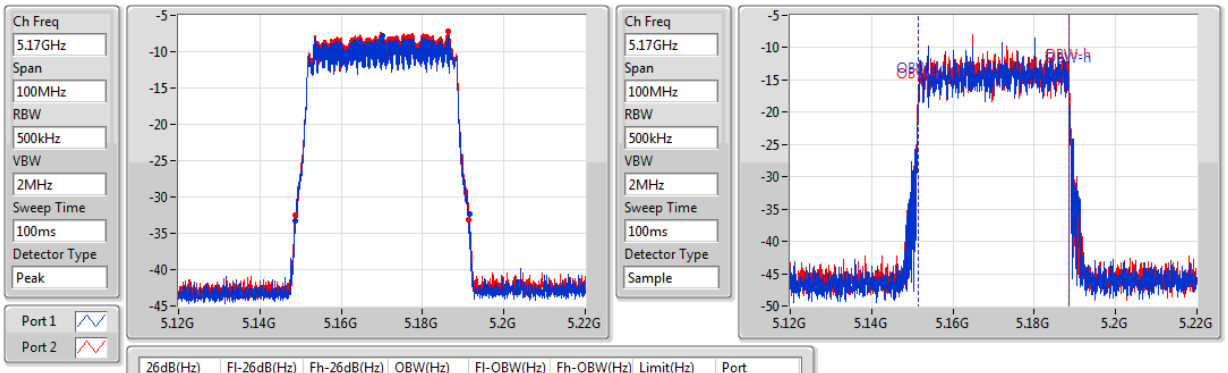
5845MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
4.544M	5.842744G	5.847288G	4.61M	5.842701G	5.847311G	500k	1
4.481M	5.842744G	5.847225G	4.61M	5.842701G	5.847311G	500k	2

QPSK,40M_Nss1_2TX EBW

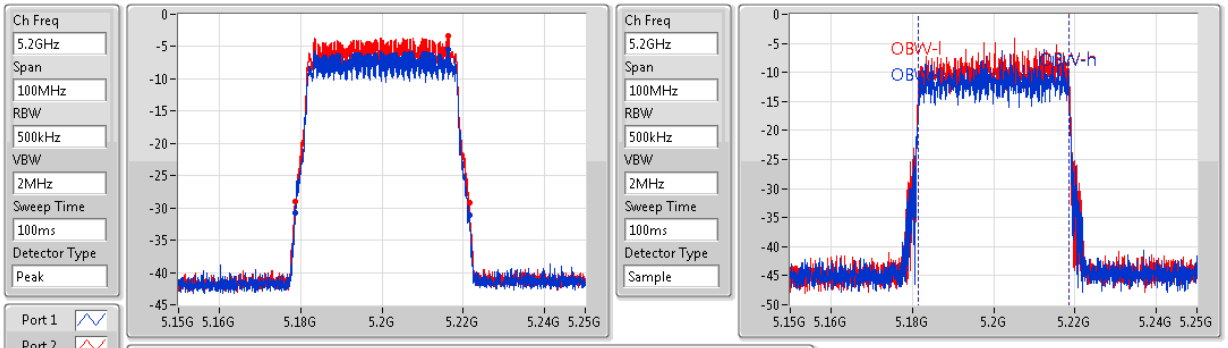
5170MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.8M	5.1487G	5.1915G	36.932M	5.151609G	5.188541G	Inf	1
42.8M	5.1486G	5.1914G	36.932M	5.151609G	5.188541G	Inf	2

QPSK,40M_Nss1_2TX EBW

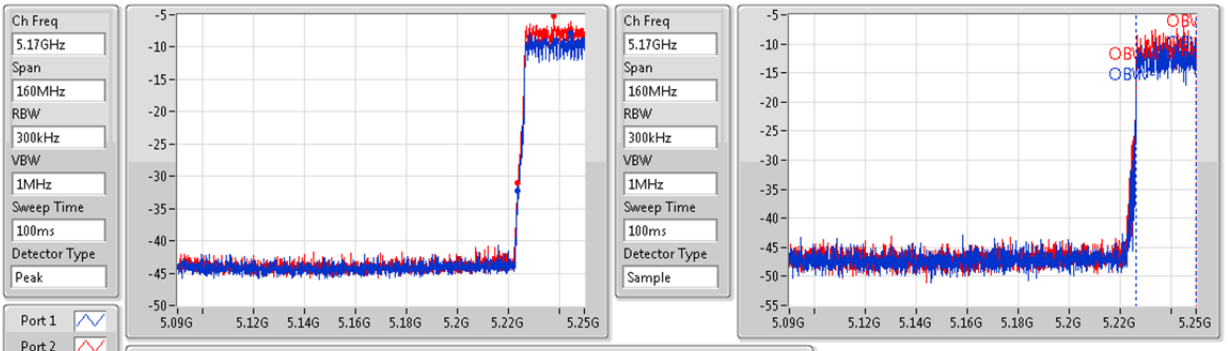
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.85M	5.17865G	5.2215G	36.932M	5.181609G	5.218541G	Inf	1
42.95M	5.1786G	5.22155G	36.932M	5.181609G	5.218541G	Inf	2

QPSK,40M_Nss1_2TX EBW

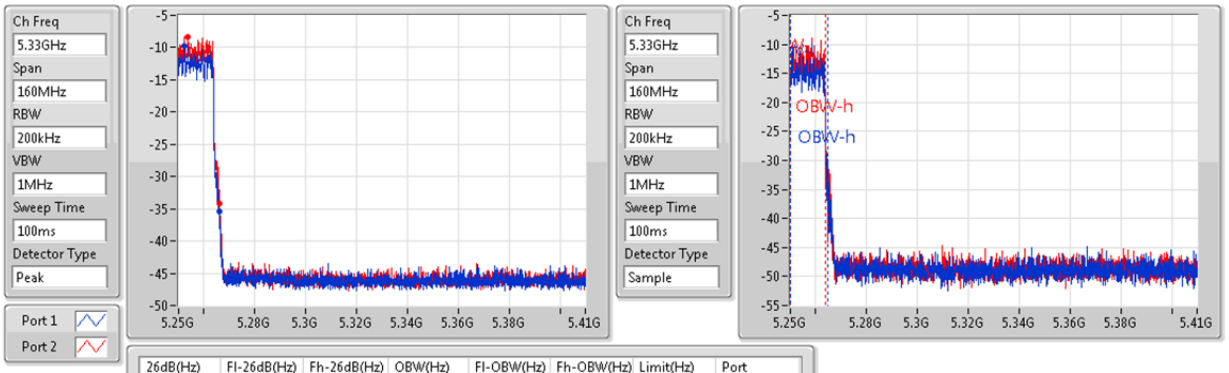
5245MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
26.16M	5.22384G	5.25G	23.428M	5.226372G	5.24988G	Inf	1
26.08M	5.22392G	5.25G	23.428M	5.226452G	5.24988G	Inf	2

QPSK,40M_Nss1_2TX **EBW**

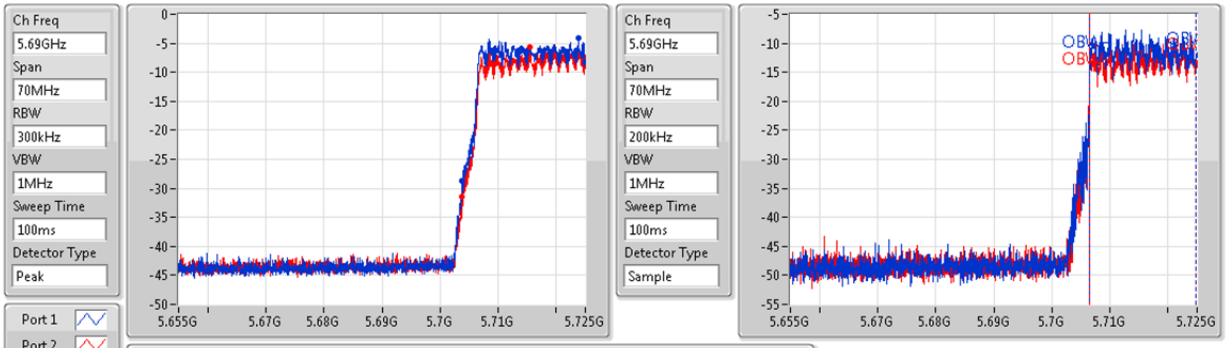
5245MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16M	5.25G	5.266G	14.473M	5.25012G	5.264593G	Inf	1
16.08M	5.25G	5.26608G	13.593M	5.25012G	5.263713G	Inf	2

QPSK,40M_Nss1_2TX **EBW**

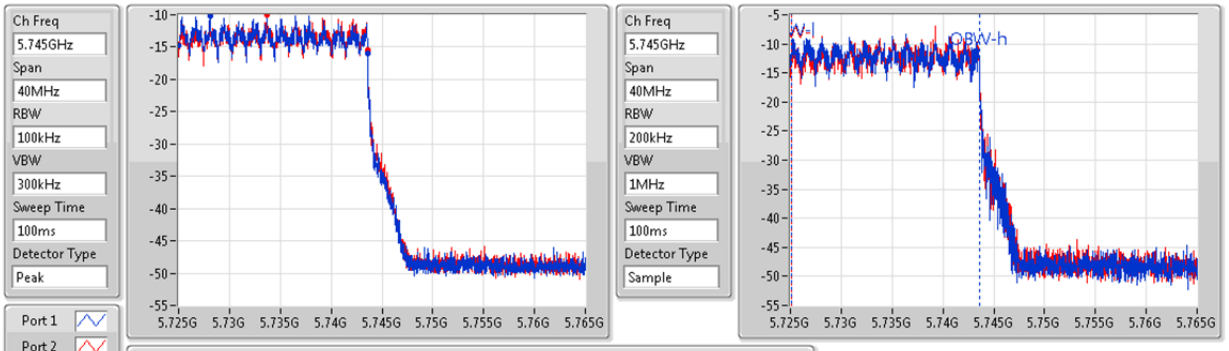
5725MHz Straddle 5.47-5.725GHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.21M	5.70379G	5.725G	18.331M	5.706547G	5.724878G	Inf	1
21.28M	5.70372G	5.725G	18.366M	5.706512G	5.724878G	Inf	2

QPSK,40M_Nss1_2TX **EBW**

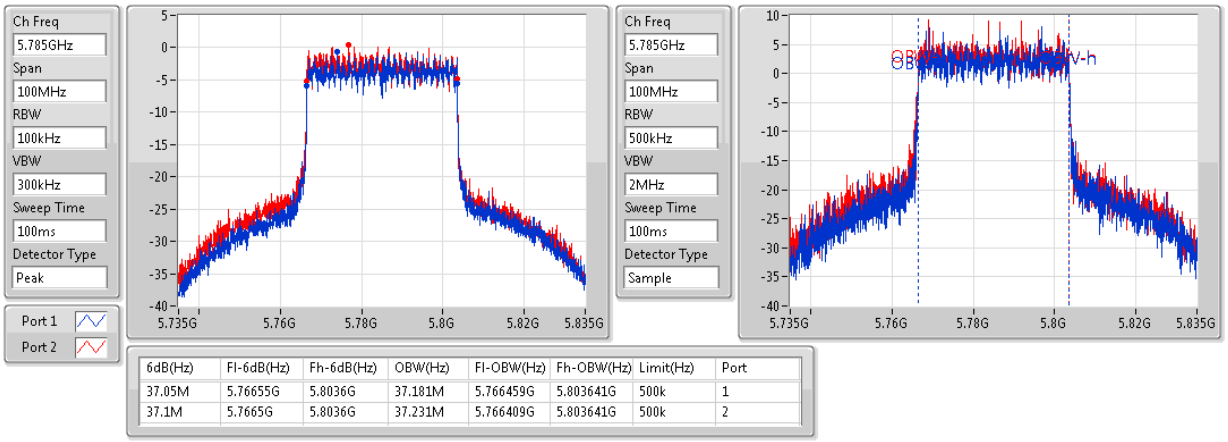
5725MHz Straddle 5.725-5.85GHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.58M	5.725G	5.74358G	18.471M	5.72509G	5.743561G	500k	1
18.56M	5.72502G	5.74358G	18.451M	5.72513G	5.743581G	500k	2

QPSK,40M_Nss1_2TX **EBW**

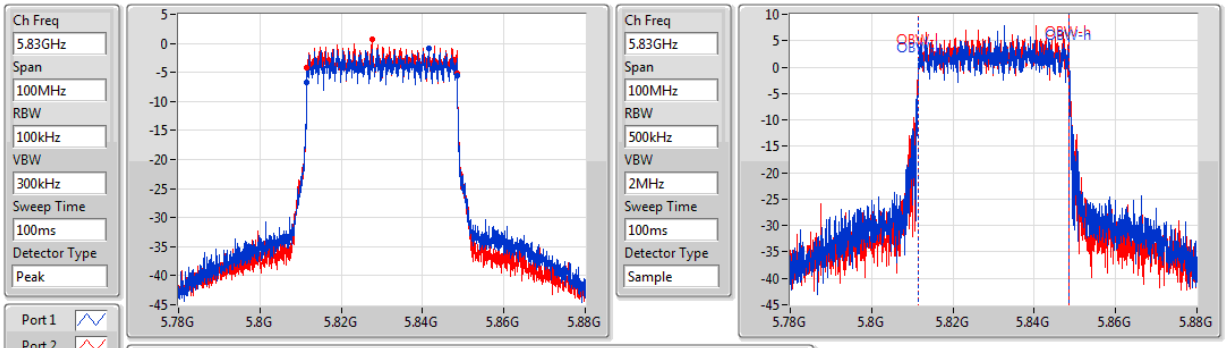
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.05M	5.76655G	5.8036G	37.181M	5.766459G	5.803641G	500k	1
37.1M	5.7665G	5.8036G	37.231M	5.766409G	5.803641G	500k	2

QPSK,40M_Nss1_2TX **EBW**

5830MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.1M	5.8115G	5.8486G	36.882M	5.811609G	5.848491G	500k	1
37.05M	5.81155G	5.8486G	36.882M	5.811609G	5.848491G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
QPSK,5M_Nss1_2TX	-	-	-	-
5.15-5.25GHz	8.58	0.00721	25.58	0.36141
5.725-5.85GHz	18.60	0.07244	35.60	3.63078
QPSK,40M_Nss1_2TX	-	-	-	-
5.15-5.25GHz	5.39	0.00346	22.39	0.17338
5.25-5.35GHz	-1.48	0.00071	15.52	0.03565
5.47-5.725GHz	5.99	0.00397	22.99	0.19907
5.725-5.85GHz	18.61	0.07261	35.61	3.63915

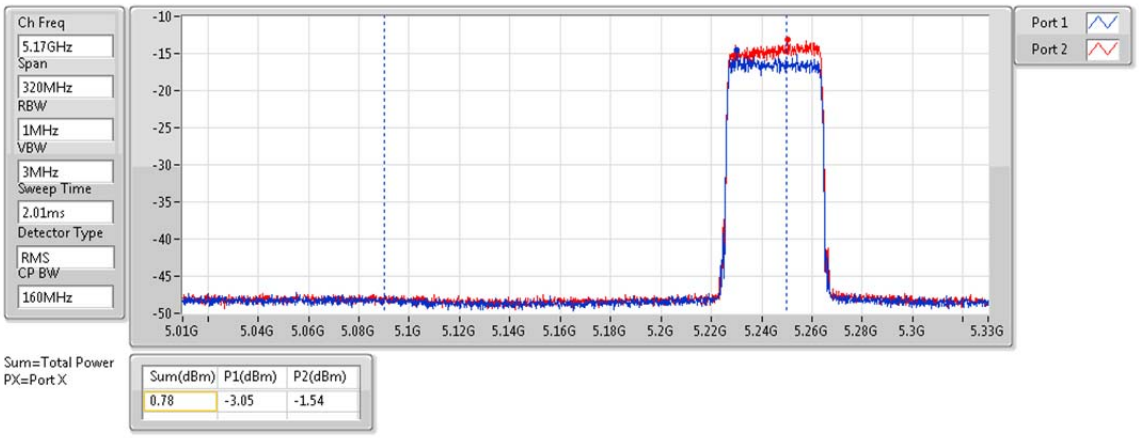
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
QPSK,5M_Nss1_2TX	-	-	-	-	-	-
5155MHz	Pass	17.00	4.97	6.1	8.58	30.00
5200MHz	Pass	17.00	3.51	5.32	7.52	30.00
5245MHz	Pass	17.00	4.41	6.16	8.38	30.00
5730MHz	Pass	17.00	15.67	15.5	18.60	30.00
5785MHz	Pass	17.00	14.61	15.51	18.09	30.00
5845MHz	Pass	17.00	14.93	15.04	18.00	30.00
QPSK,40M_Nss1_2TX	-	-	-	-	-	-
5170MHz	Pass	17.00	-1.14	-0.55	2.18	30.00
5200MHz	Pass	17.00	1.28	3.25	5.39	30.00
5245MHz Straddle 5.15-5.25GHz	Pass	17.00	-3.05	-1.54	0.78	30.00
5245MHz Straddle 5.25-5.35GHz	Pass	17.00	-5.16	-3.91	-1.48	12.04
5725MHz Straddle 5.47-5.725GHz	Pass	17.00	3.75	2.04	5.99	12.98
5725MHz Straddle 5.725-5.85GHz	Pass	17.00	3.07	2.73	5.91	30.00
5785MHz	Pass	17.00	15.18	15.99	18.61	30.00
5830MHz	Pass	17.00	15.03	15.8	18.44	30.00

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

QPSK,40M_Nss1_2TX **AV Power**

5245MHz

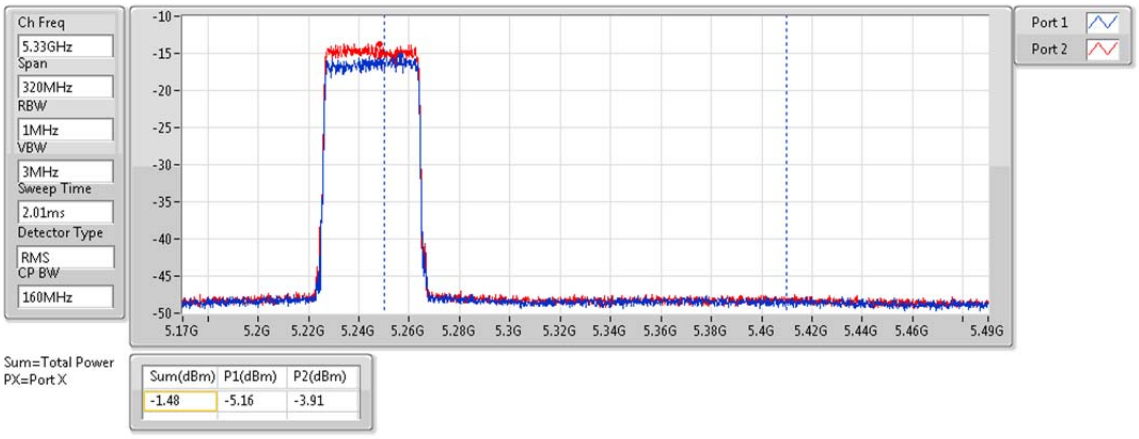


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
0.78	-3.05	-1.54

QPSK,40M_Nss1_2TX **AV Power**

5245MHz

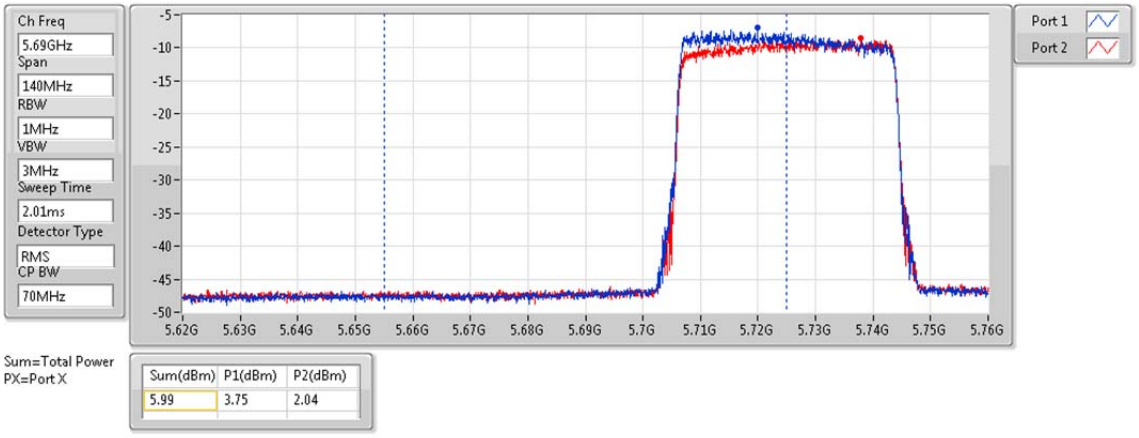


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
-1.48	-5.16	-3.91

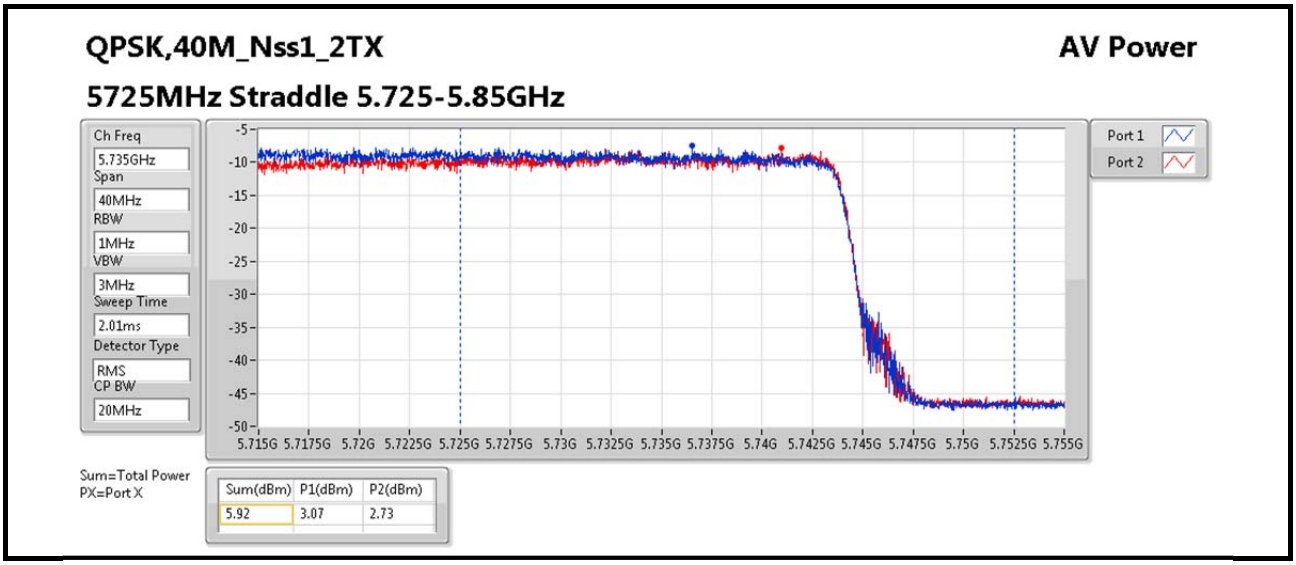
QPSK,40M_Nss1_2TX **AV Power**

5725MHz Straddle 5.47-5.725GHz



Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
5.99	3.75	2.04


QPSK,40M_Nss1_2TX
AV Power
5725MHz Straddle 5.725-5.85GHz
Ch Freq
5.735GHz
Span
40MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.01ms
Detector Type
RMS
CP BW
20MHz
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
5.715G 5.7175G 5.72G 5.7225G 5.725G 5.7275G 5.73G 5.7325G 5.735G 5.7375G 5.74G 5.7425G 5.745G 5.7475G 5.75G 5.7525G 5.755G
Port 1
Port 2
Sum=Total Power
PX=Port X
Sum(dBm) P1(dBm) P2(dBm)
5.92 3.07 2.73

Frequency (MHz)	Modulation	Data Rate	Radiated Pass Setting	Band-edge	Harmonic	Conducted Pass Setting	Test equipment		Anritsu Power Meter Loss Offset (dB) 21.5	BF/Non BF Power Limit dBm
				under	under		-	-	Total	
				dB	dB		73 Port 1	75 Port 2	dBm	
5155	5M	QPSK	4D/4B	-0.18	-6.69	4D/4B	12.48	12.47	15.49	30.00
5200	5M	QPSK	18/17	-5.82	-5.07	2E/2D	21.02	20.98	24.01	30.00
5245	5M	QPSK	1B/1A	-3.27	-2.87	2E/2D	21.26	21.22	24.25	30.00
5730	5M	QPSK	12/07	-6.58	-5.44	12/07	26.81	26.82	29.83	30.00
5785	5M	QPSK	0C/00	-6.13	-5.32	0C/00	26.29	26.24	29.28	30.00
5845	5M	QPSK	0A/08	-6.23	-5.10	0A/08	26.38	26.37	29.39	30.00
5170	40M	QPSK	7E/7D	-0.86	-5.69	7E/7D	0.98	1.06	4.03	30.00
5200	40M	QPSK	2C/2B	-0.25	-6.07	2C/2B	22.28	22.29	25.30	30.00
5245	40M	QPSK	1C/1B	-0.32	-6.01	1C/1B	26.88	26.93	29.92	30.00
5250	40M	QPSK	1E/1D	-0.77	-6.57	53/52	9.46	9.66	12.57	30.00
5720	40M	QPSK	57/52	-5.42	-7.52	52/4D	9.53	9.74	12.65	13.00
5725	40M	QPSK	0B/00	-5.64	-7.61	4A/43	9.47	9.85	12.67	30.00
5785	40M	QPSK	0C/00	-1.97	-8.01	0C/00	25.64	25.48	28.57	30.00
5830	40M	QPSK	1A/0E	-1.03	-8.18	1A/0E	23.35	23.44	26.41	30.00

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
QPSK,5M_Nss1_2TX	-	-
5.15-5.25GHz	1.76	21.77
5.725-5.85GHz	10.65	30.66
QPSK,40M_Nss1_2TX	-	-
5.15-5.25GHz	-10.31	9.70
5.25-5.35GHz	-13.68	6.33
5.47-5.725GHz	-7.35	12.66
5.725-5.85GHz	1.72	21.73

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

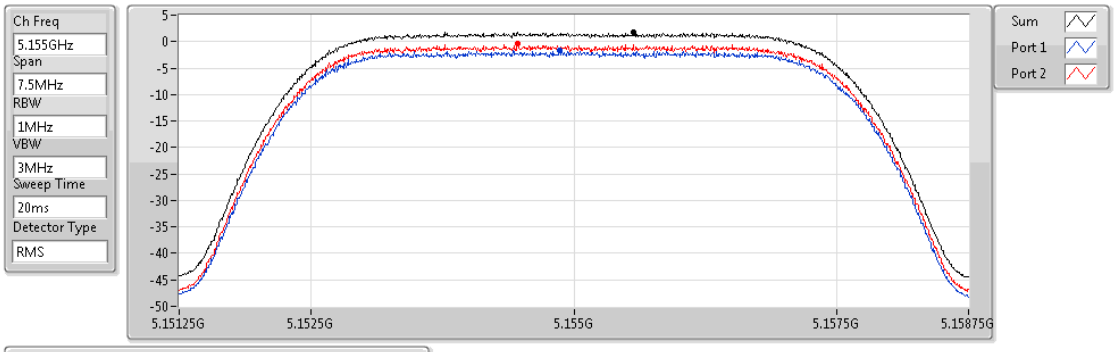
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
QPSK,5M_Nss1_2TX	-	-	-	-	-	-
5155MHz	Pass	20.01	-1.65	-0.41	1.76	17.00
5200MHz	Pass	20.01	-3.04	-1.3	0.55	17.00
5245MHz	Pass	20.01	-2.43	-0.57	1.36	17.00
5730MHz	Pass	20.01	7.27	7.09	10.05	30.00
5785MHz	Pass	20.01	6.32	7.2	9.77	30.00
5845MHz	Pass	20.01	7.63	8.39	10.65	30.00
QPSK,40M_Nss1_2TX	-	-	-	-	-	-
5170MHz	Pass	20.01	-16.7	-15.42	-13.30	17.00
5200MHz	Pass	20.01	-14.29	-12.37	-10.31	17.00
5245MHz Straddle 5.15-5.25GHz	Pass	20.01	-17.14	-15.35	-13.31	17.00
5245MHz Straddle 5.25-5.35GHz	Pass	20.01	-17.58	-15.61	-13.68	-3.01
5725MHz Straddle 5.47-5.725GHz	Pass	20.01	-9.44	-10.57	-7.35	-3.01
5725MHz Straddle 5.725-5.85GHz	Pass	20.01	-11.1	-11.21	-8.34	30.00
5785MHz	Pass	20.01	-1.61	-0.8	1.72	30.00
5830MHz	Pass	20.01	-1.77	-0.91	1.61	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 X power density;

QPSK,5M_Nss1_2TX **PSD**

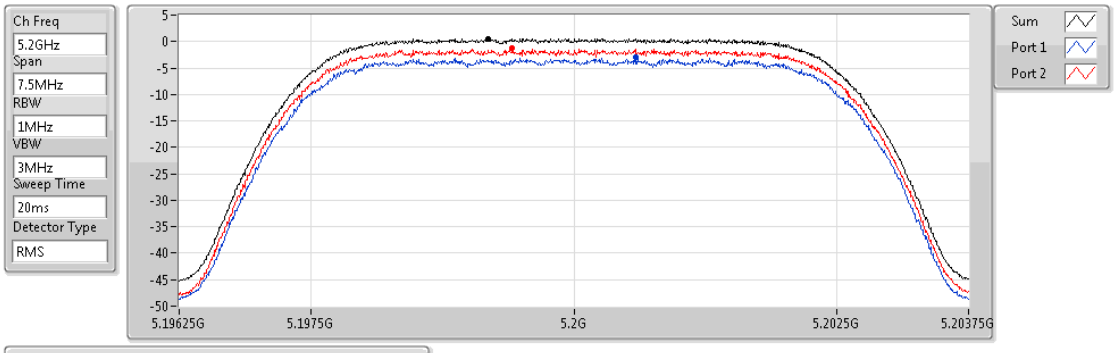
5155MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.76	1.76	-1.65	-0.41

QPSK,5M_Nss1_2TX **PSD**

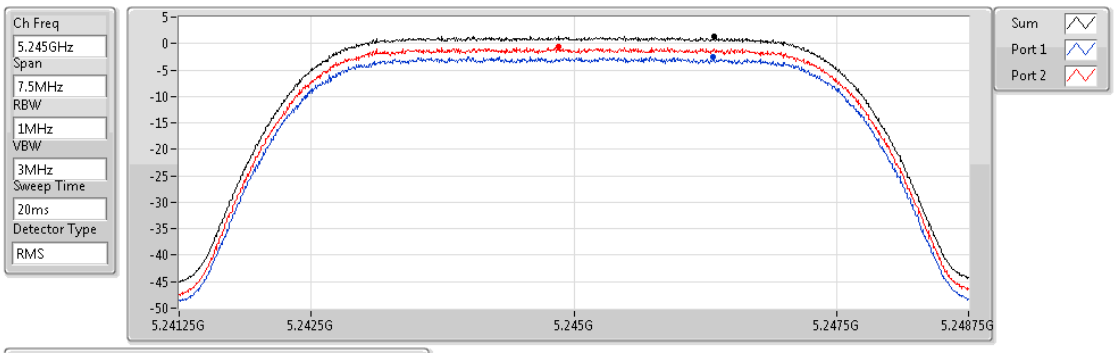
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.55	0.55	-3.04	-1.30

QPSK,5M_Nss1_2TX **PSD**

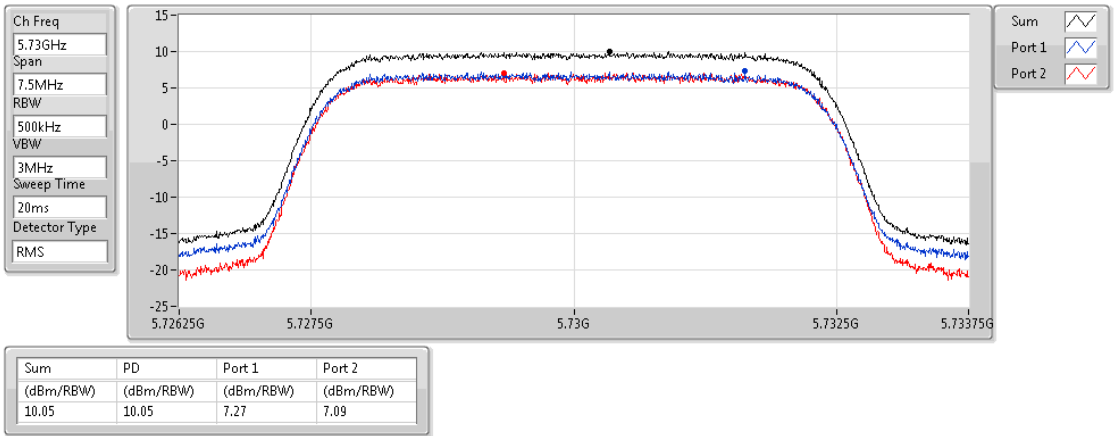
5245MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.36	1.36	-2.43	-0.57

QPSK,5M_Nss1_2TX **PSD**

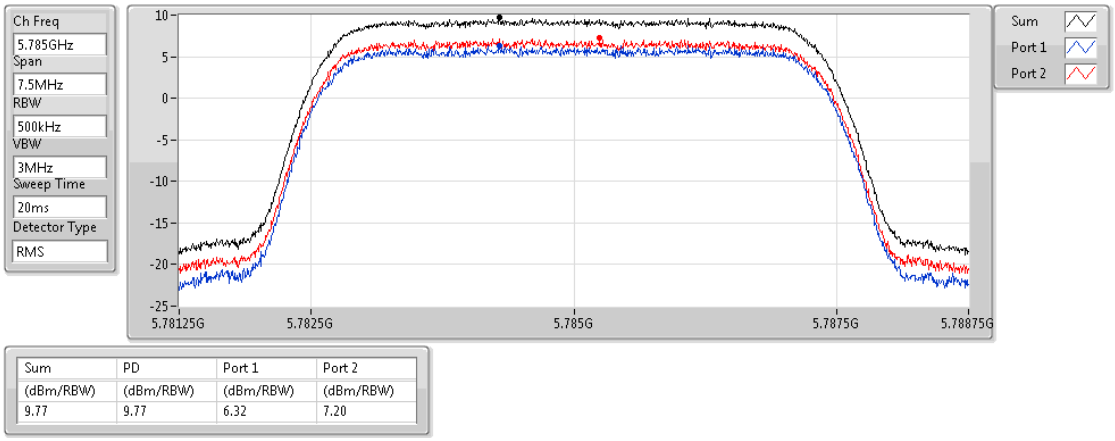
5730MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.05	10.05	7.27	7.09

QPSK,5M_Nss1_2TX **PSD**

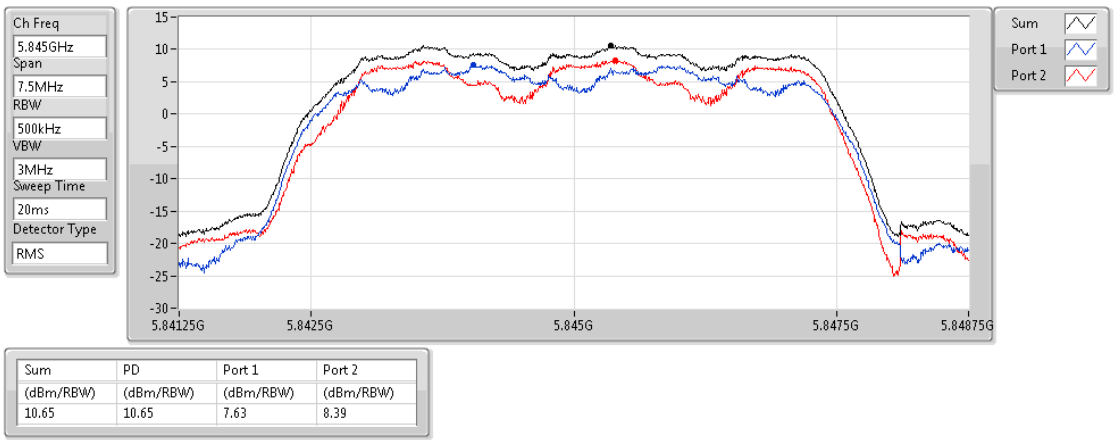
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.77	9.77	6.32	7.20

QPSK,5M_Nss1_2TX **PSD**

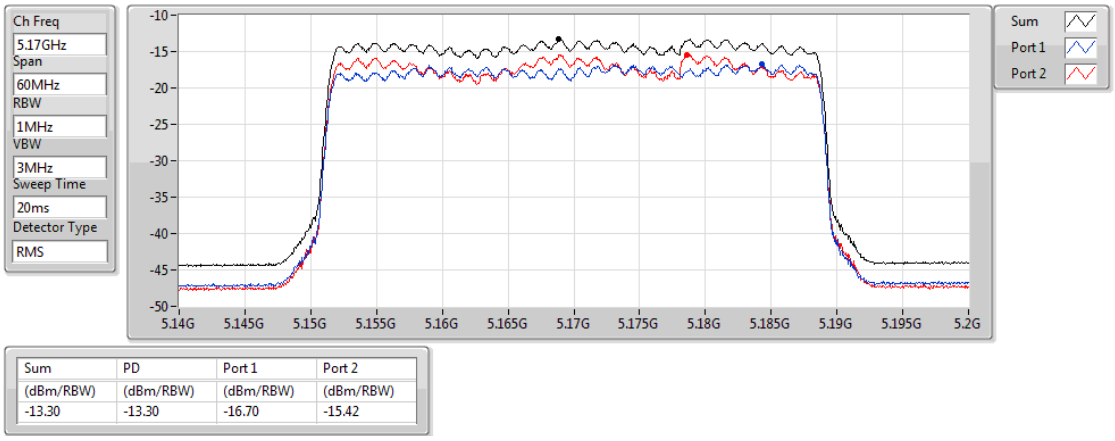
5845MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.65	10.65	7.63	8.39

QPSK,40M_Nss1_2TX **PSD**

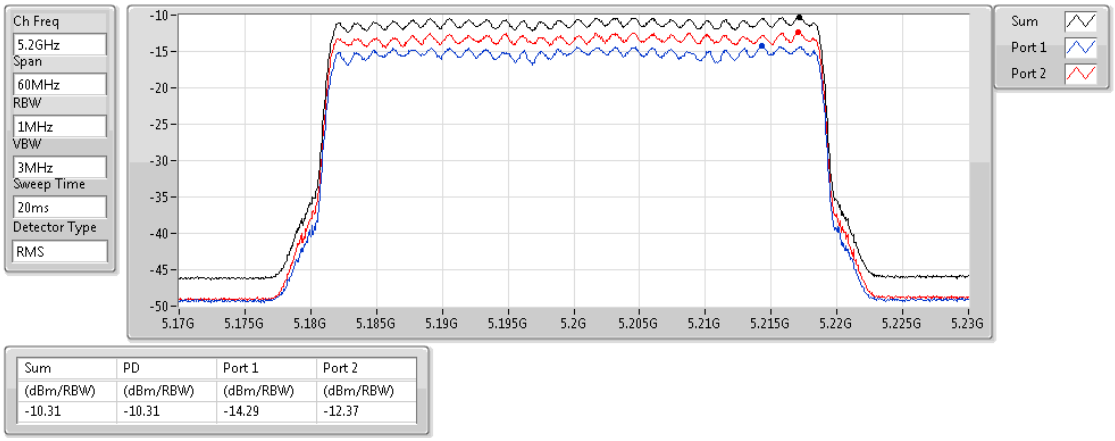
5170MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.30	-13.30	-16.70	-15.42

QPSK,40M_Nss1_2TX **PSD**

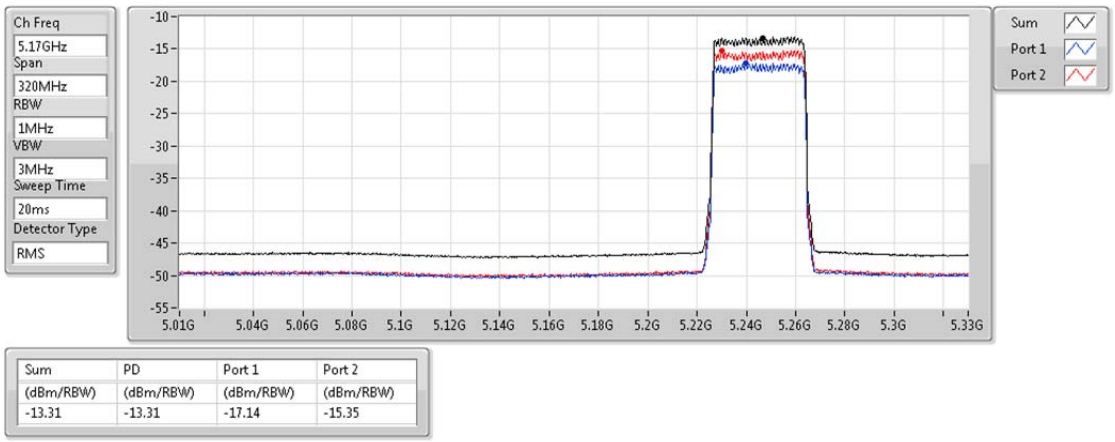
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.31	-10.31	-14.29	-12.37

QPSK,40M_Nss1_2TX **PSD**

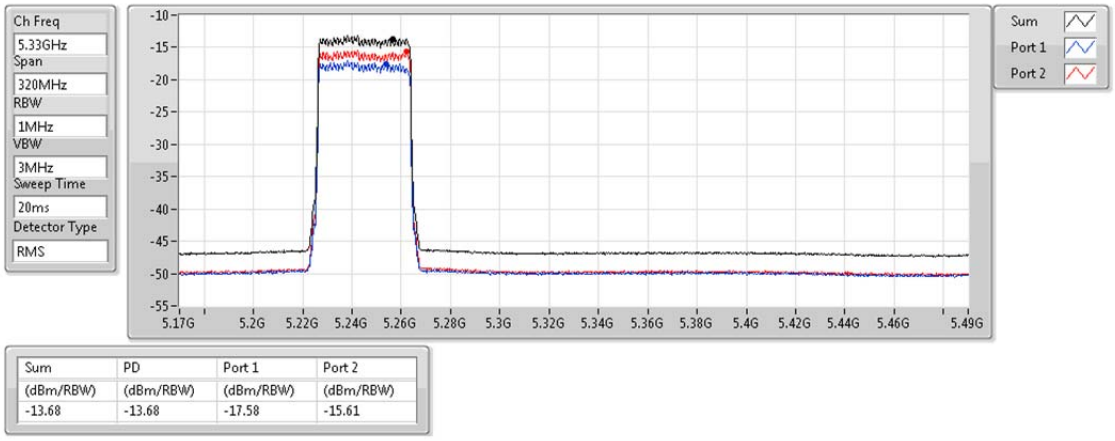
5245MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.31	-13.31	-17.14	-15.35

QPSK,40M_Nss1_2TX **PSD**

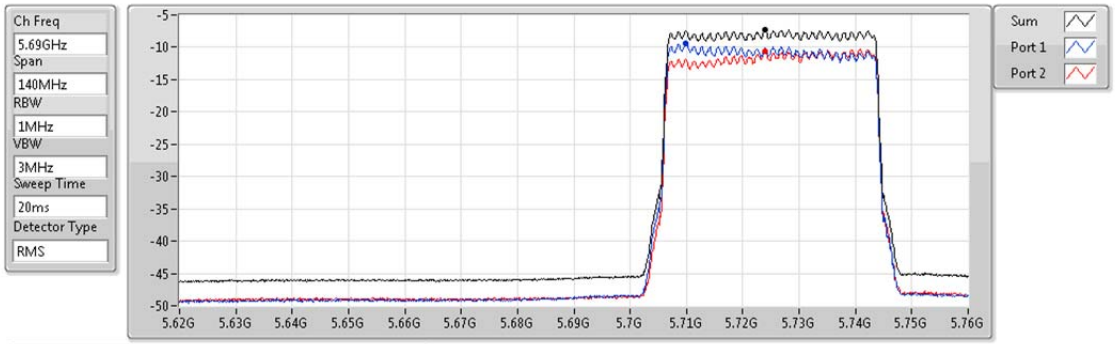
5245MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.68	-13.68	-17.58	-15.61

QPSK,40M_Nss1_2TX **PSD**

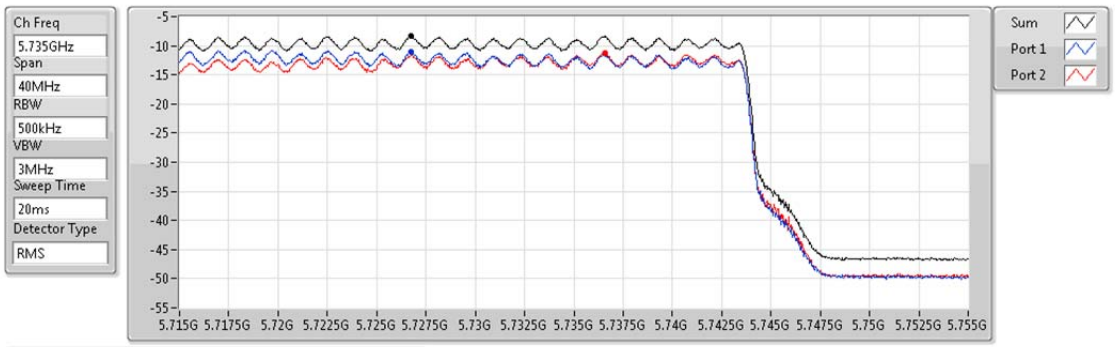
5725MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.35	-7.35	-9.44	-10.57

QPSK,40M_Nss1_2TX **PSD**

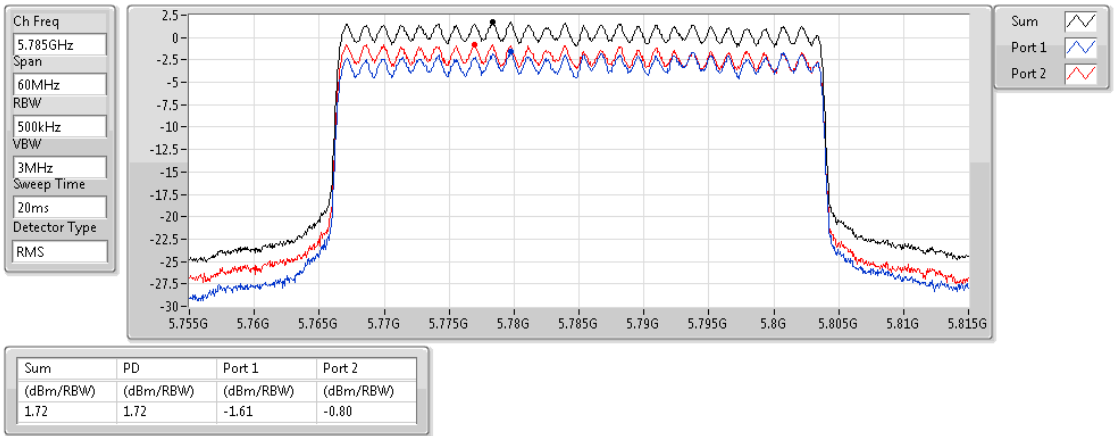
5725MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.34	-8.34	-11.10	-11.21

QPSK,40M_Nss1_2TX **PSD**

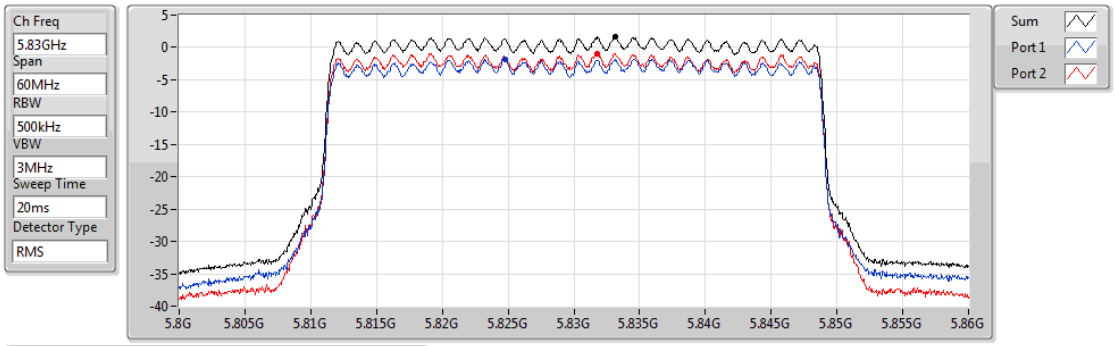
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.72	1.72	-1.61	-0.80

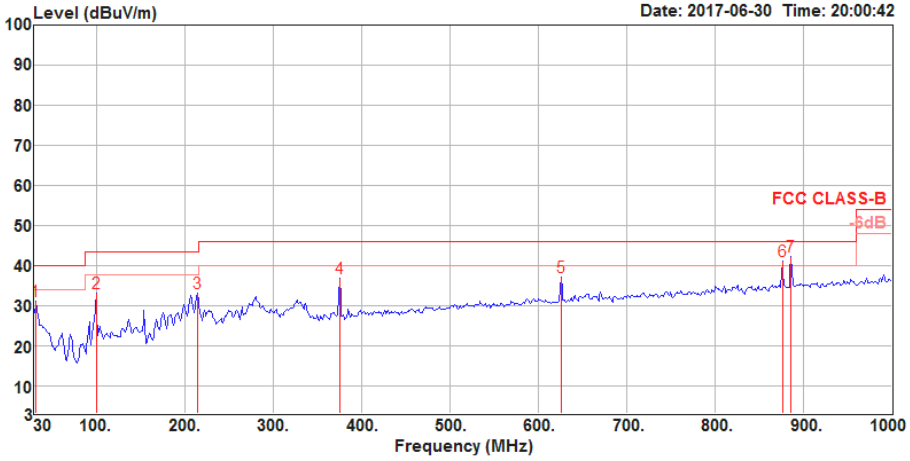
QPSK,40M_Nss1_2TX **PSD**

5830MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.61	1.61	-1.77	-0.91

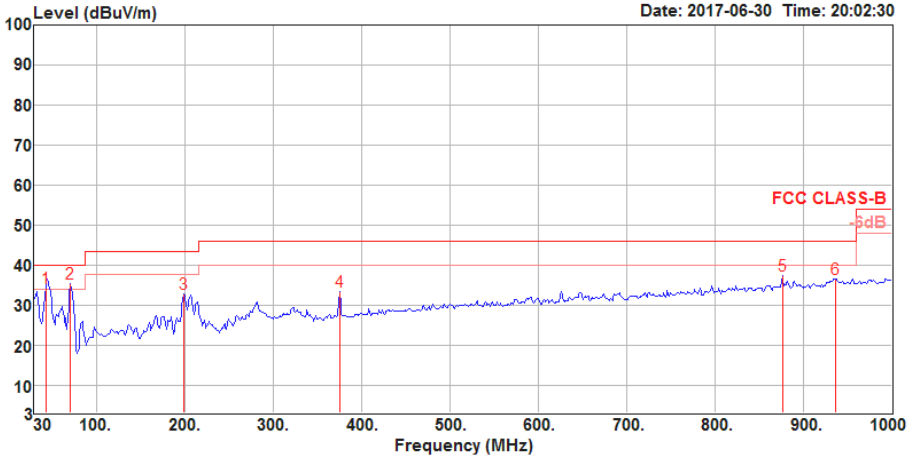
RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	CTX		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	31.94	30.92	40.00	-9.08	37.97	0.91	24.57	32.53	100	360	Peak	HORIZONTAL
2	99.84	33.12	43.50	-10.38	47.00	1.68	17.00	32.56	100	360	Peak	HORIZONTAL
3	214.30	33.06	43.50	-10.44	46.56	2.53	16.45	32.48	100	360	Peak	HORIZONTAL
4	375.32	36.72	46.00	-9.28	43.99	3.40	21.78	32.45	100	360	Peak	HORIZONTAL
5	625.58	37.05	46.00	-8.95	40.00	4.44	25.16	32.55	100	360	Peak	HORIZONTAL
6	875.84	41.18	46.00	-4.82	40.63	5.30	27.20	31.95	100	360	Peak	HORIZONTAL
7	885.54	42.18	46.00	-3.82	41.49	5.34	27.27	31.92	100	360	Peak	HORIZONTAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Vertical
Operating Function	CTX		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	43.58	34.06	40.00	-5.94	47.66	1.09	17.82	32.51	152	68	QP	VERTICAL
2	70.74	35.45	40.00	-4.55	53.92	1.40	12.66	32.53	400	0	Peak	VERTICAL
3	198.78	32.79	43.50	-10.71	46.66	2.43	16.19	32.49	400	0	Peak	VERTICAL
4	375.32	33.43	46.00	-12.57	40.70	3.40	21.78	32.45	400	0	Peak	VERTICAL
5	875.84	37.42	46.00	-8.58	36.87	5.30	27.20	31.95	400	0	Peak	VERTICAL
6	935.98	36.60	46.00	-9.40	35.02	5.49	27.62	31.53	400	0	Peak	VERTICAL

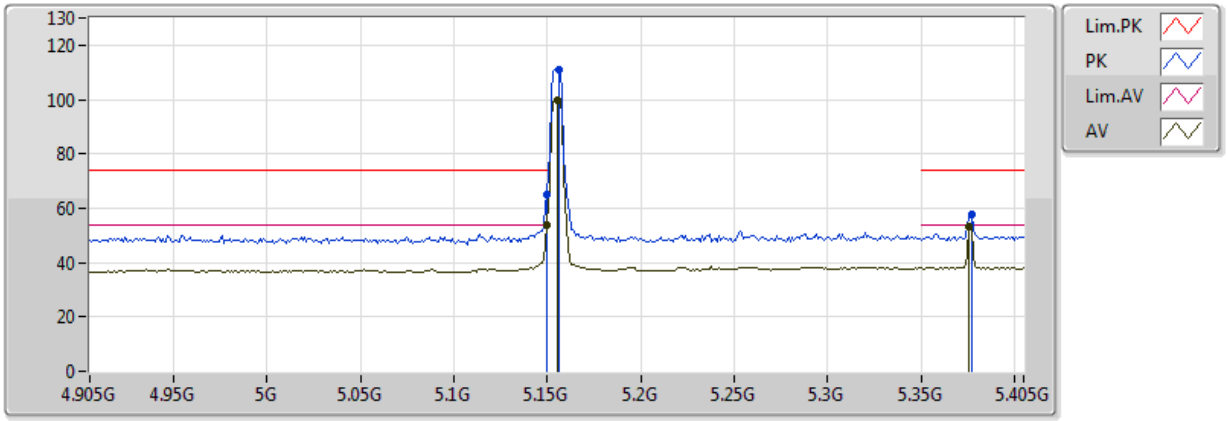
Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
QPSK,5M_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.15-5.25GHz	Pass	AV	5.149995G	53.98	54.00	-0.02	7.24	3	H	91	1.02	-

QPSK,5M_Nss1_2TX

5155MHz_TX

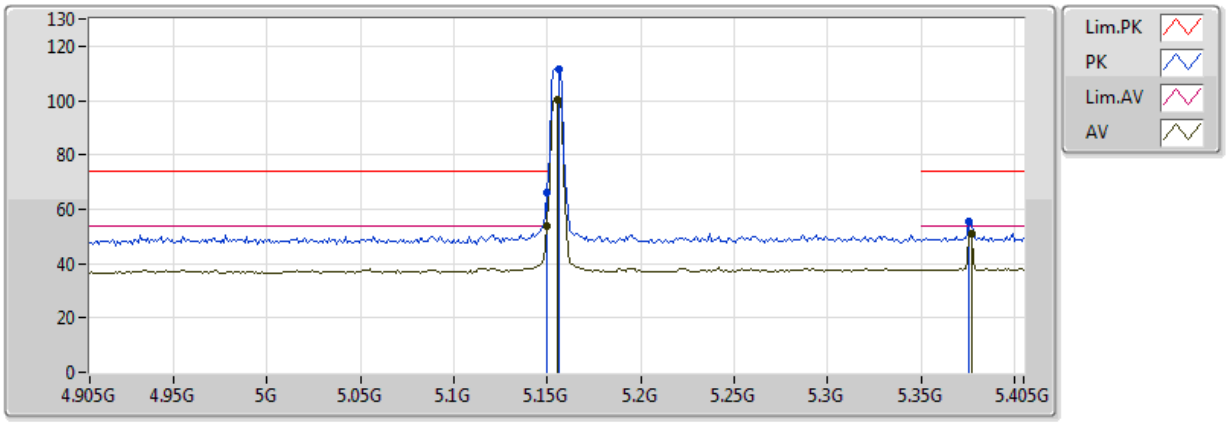


20170628
EUT Y_2TX
Setting 15
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.91	54.00	-0.09	7.24	3	V	91	1.35	-
AV	5.155G	99.48	Inf	-Inf	7.25	3	V	91	1.35	-
AV	5.376G	53.19	54.00	-0.81	7.56	3	V	91	1.35	-
PK	5.149995G	65.17	74.00	-8.83	7.24	3	V	91	1.35	-
PK	5.156G	111.08	Inf	-Inf	7.25	3	V	91	1.35	-
PK	5.377G	57.49	74.00	-16.51	7.57	3	V	91	1.35	-

QPSK,5M_Nss1_2TX

5155MHz_TX

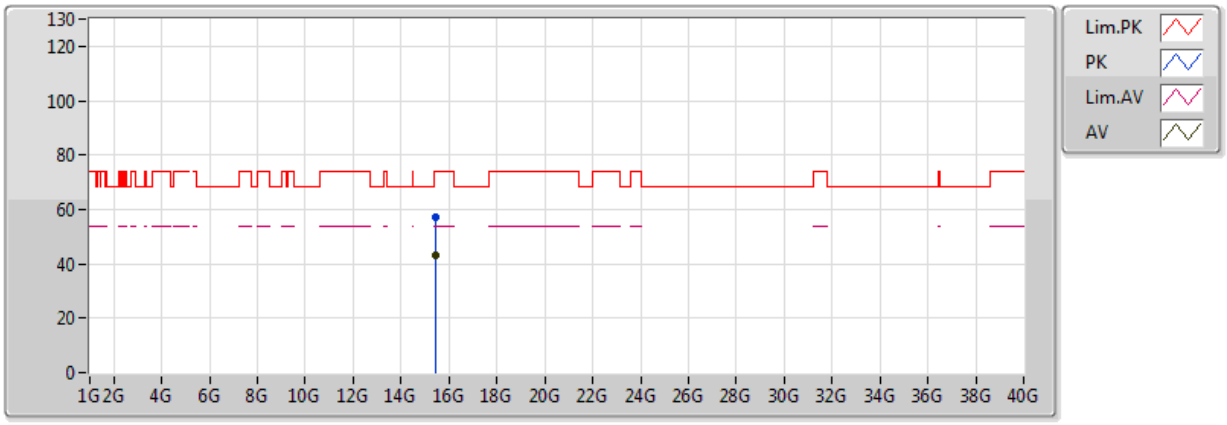


20170628
EUT Y_2TX
Setting 15
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.98	54.00	-0.02	7.24	3	H	91	1.02	-
AV	5.155G	100.53	Inf	-Inf	7.25	3	H	91	1.02	-
AV	5.377G	50.98	54.00	-3.02	7.57	3	H	91	1.02	-
PK	5.149995G	65.89	74.00	-8.11	7.24	3	H	91	1.02	-
PK	5.156G	111.77	Inf	-Inf	7.25	3	H	91	1.02	-
PK	5.376G	55.23	74.00	-18.77	7.56	3	H	91	1.02	-

QPSK,5M_Nss1_2TX

5155MHz_TX

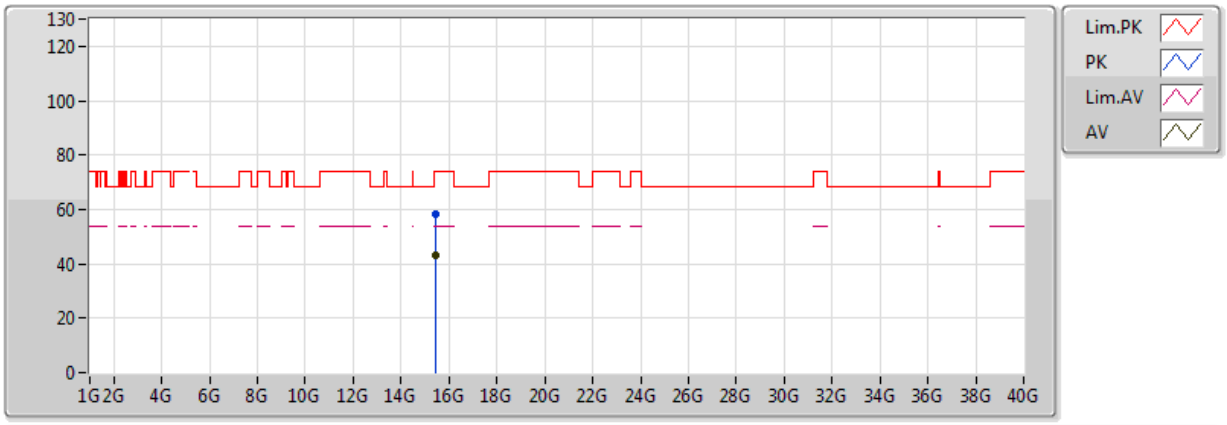


20170628
EUT Y_2TX
Setting 15
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.46553G	43.12	54.00	-10.88	18.13	3	V	315	1.64	-
PK	15.46677G	57.20	74.00	-16.80	18.12	3	V	315	1.64	-

QPSK,5M_Nss1_2TX

5155MHz_TX

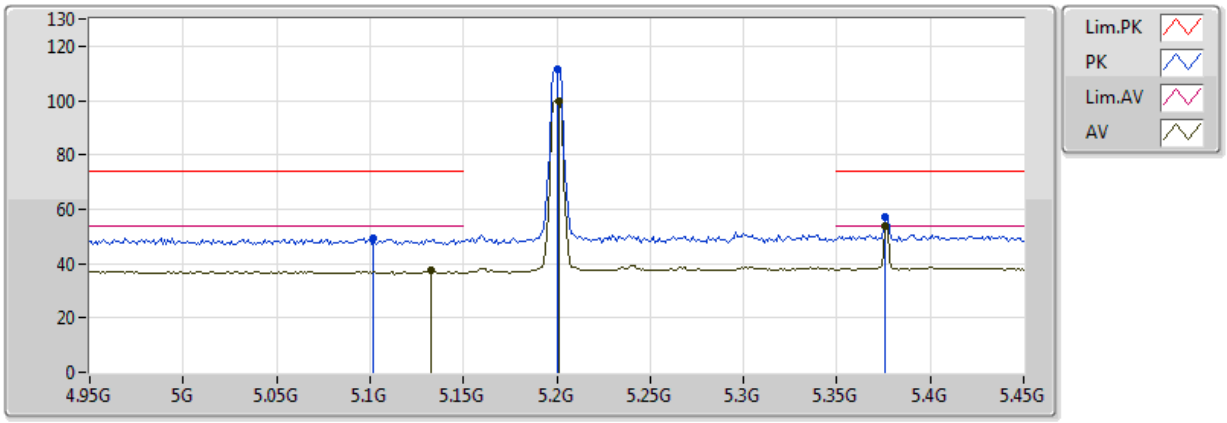


20170628
EUT Y_2TX
Setting 15
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.4628G	43.32	54.00	-10.68	18.14	3	H	298	1.61	-
PK	15.46571G	58.08	74.00	-15.92	18.13	3	H	298	1.61	-

QPSK,5M_Nss1_2TX

5200MHz_TX

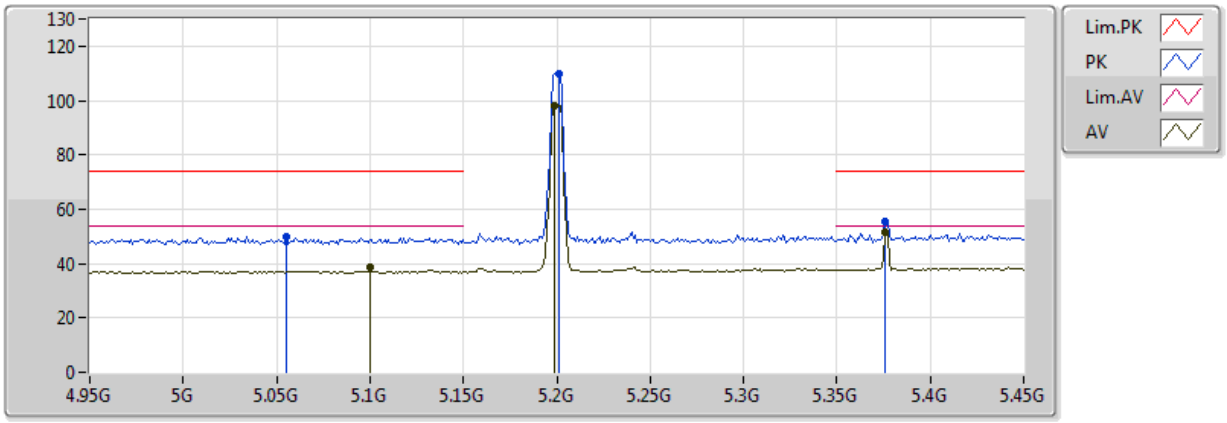


20170628
EUT Y_2TX
Setting 13
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.133G	37.27	54.00	-16.73	7.23	3	V	92	1.05	-
AV	5.201G	99.56	Inf	-Inf	7.29	3	V	92	1.05	-
AV	5.376G	53.84	54.00	-0.16	7.56	3	V	92	1.05	-
PK	5.102G	49.57	74.00	-24.43	7.20	3	V	92	1.05	-
PK	5.2G	111.33	Inf	-Inf	7.29	3	V	92	1.05	-
PK	5.376G	57.13	74.00	-16.87	7.56	3	V	92	1.05	-

QPSK,5M_Nss1_2TX

5200MHz_TX

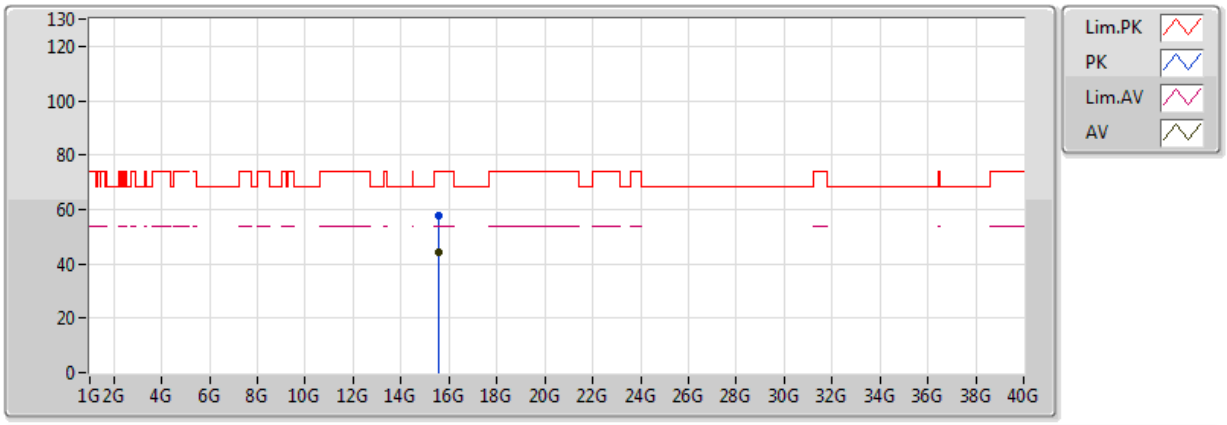


20170628
EUT Y_2TX
Setting 13
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1G	38.43	54.00	-15.57	7.20	3	H	91	1.02	-
AV	5.199G	98.24	Inf	-Inf	7.29	3	H	91	1.02	-
AV	5.376G	51.58	54.00	-2.42	7.56	3	H	91	1.02	-
PK	5.055G	49.69	74.00	-24.31	7.16	3	H	91	1.02	-
PK	5.201G	110.00	Inf	-Inf	7.29	3	H	91	1.02	-
PK	5.376G	55.62	74.00	-18.38	7.56	3	H	91	1.02	-

QPSK,5M_Nss1_2TX

5200MHz_TX

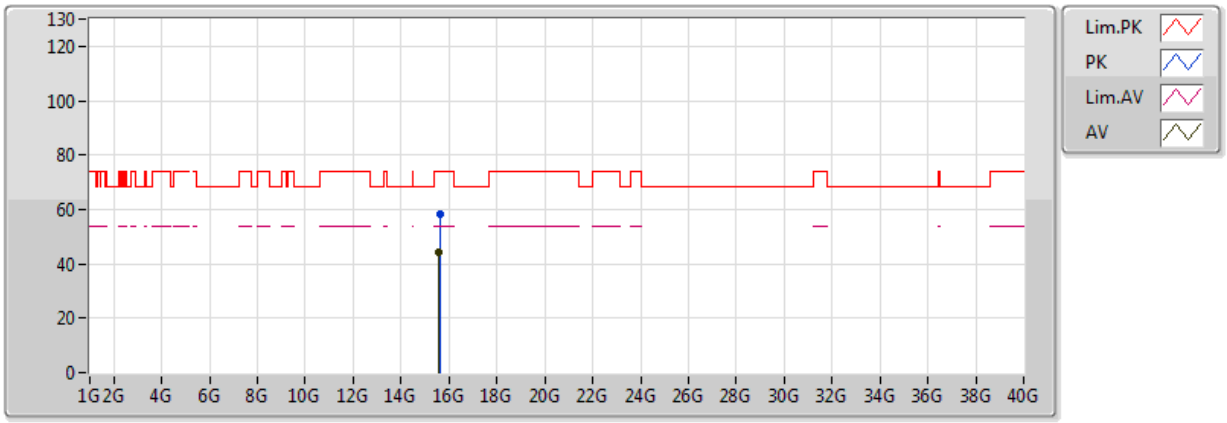


20170628
EUT Y_2TX
Setting 13
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.60017G	44.20	54.00	-9.80	17.75	3	V	220	1.18	-
PK	15.60038G	57.87	74.00	-16.13	17.74	3	V	220	1.18	-

QPSK,5M_Nss1_2TX

5200MHz_TX

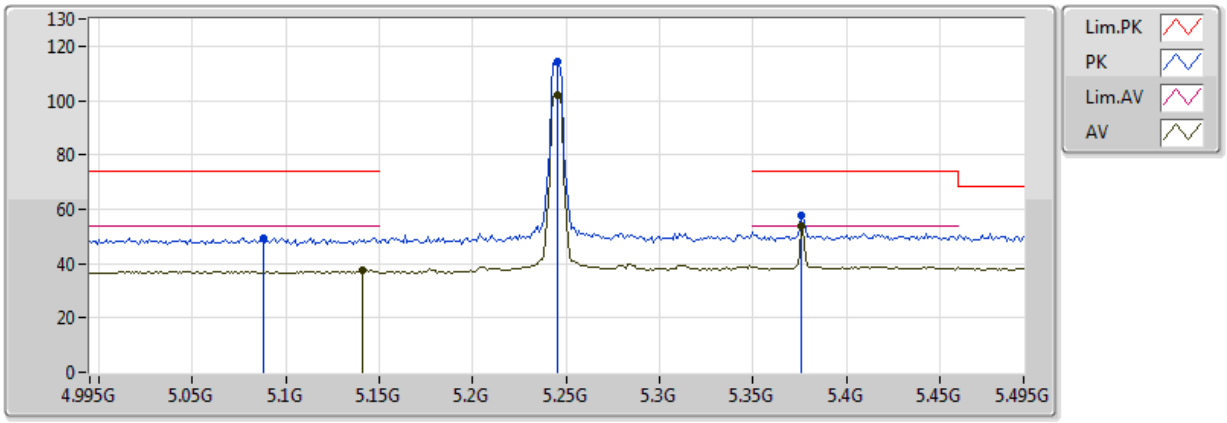


20170628
EUT Y_2TX
Setting 13
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.59848G	44.05	54.00	-9.95	17.75	3	H	145	1.03	-
PK	15.60249G	58.18	74.00	-15.82	17.74	3	H	145	1.03	-

QPSK,5M_Nss1_2TX

5245MHz_TX

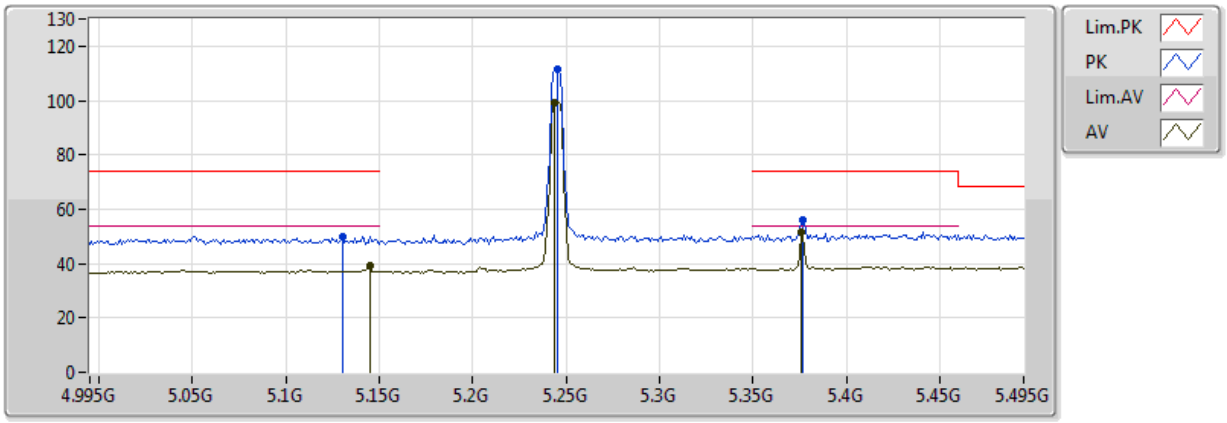


20170628
EUT Y_2TX
Setting 13
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.141G	37.42	54.00	-16.58	7.24	3	V	91	1.04	-
AV	5.245G	102.04	Inf	-Inf	7.36	3	V	91	1.04	-
AV	5.376G	53.81	54.00	-0.19	7.56	3	V	91	1.04	-
PK	5.088G	49.57	74.00	-24.43	7.19	3	V	91	1.04	-
PK	5.245G	114.09	Inf	-Inf	7.36	3	V	91	1.04	-
PK	5.376G	57.94	74.00	-16.06	7.56	3	V	91	1.04	-

QPSK,5M_Nss1_2TX

5245MHz_TX

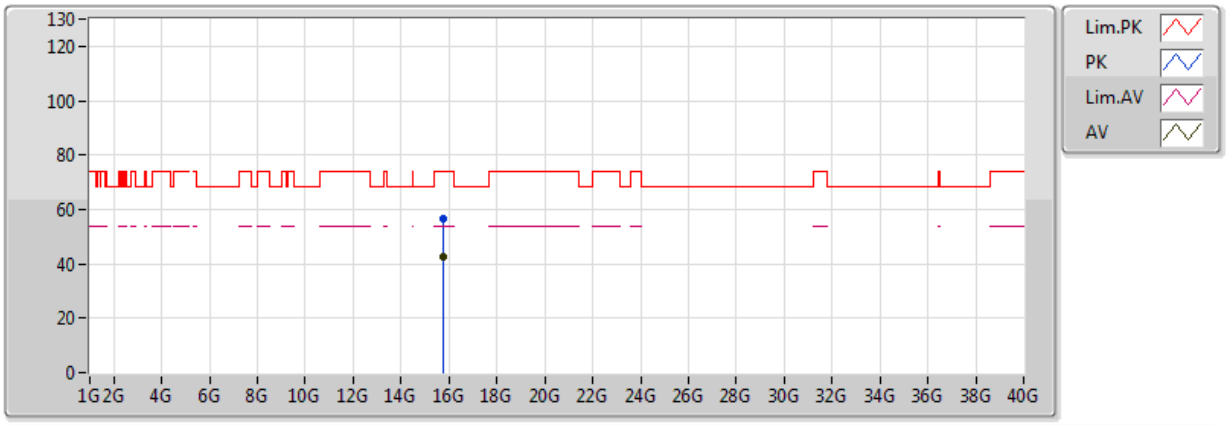


20170628
EUT Y_2TX
Setting 13
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.145G	38.99	54.00	-15.01	7.24	3	H	91	1.00	-
AV	5.244G	99.34	Inf	-Inf	7.36	3	H	91	1.00	-
AV	5.376G	51.60	54.00	-2.40	7.56	3	H	91	1.00	-
PK	5.13G	50.01	74.00	-23.99	7.23	3	H	91	1.00	-
PK	5.245G	111.74	Inf	-Inf	7.36	3	H	91	1.00	-
PK	5.377G	55.94	74.00	-18.06	7.57	3	H	91	1.00	-

QPSK,5M_Nss1_2TX

5245MHz_TX

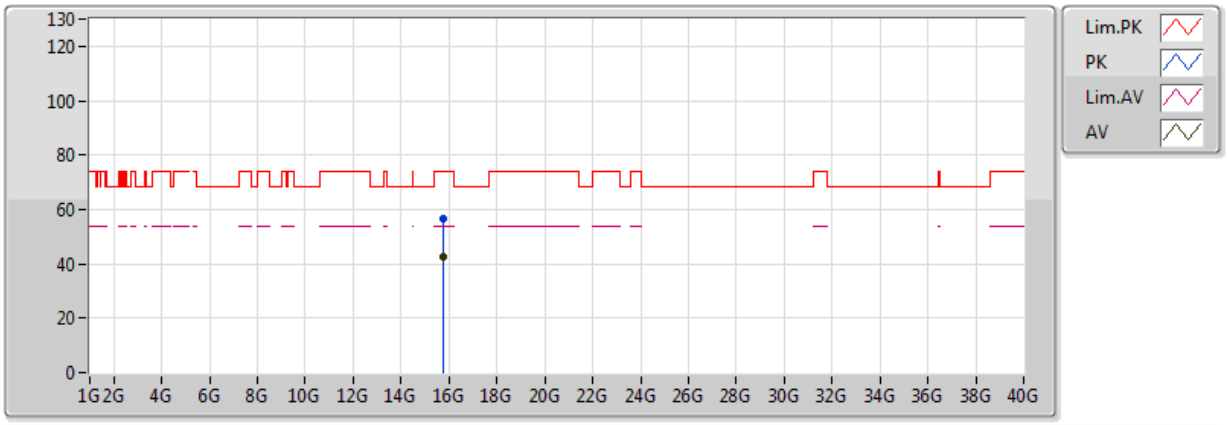


20170628
EUT Y_2TX
Setting 13
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.7369G	42.81	54.00	-11.19	17.36	3	V	230	2.47	-
PK	15.73506G	56.76	74.00	-17.24	17.36	3	V	230	2.47	-

QPSK,5M_Nss1_2TX

5245MHz_TX

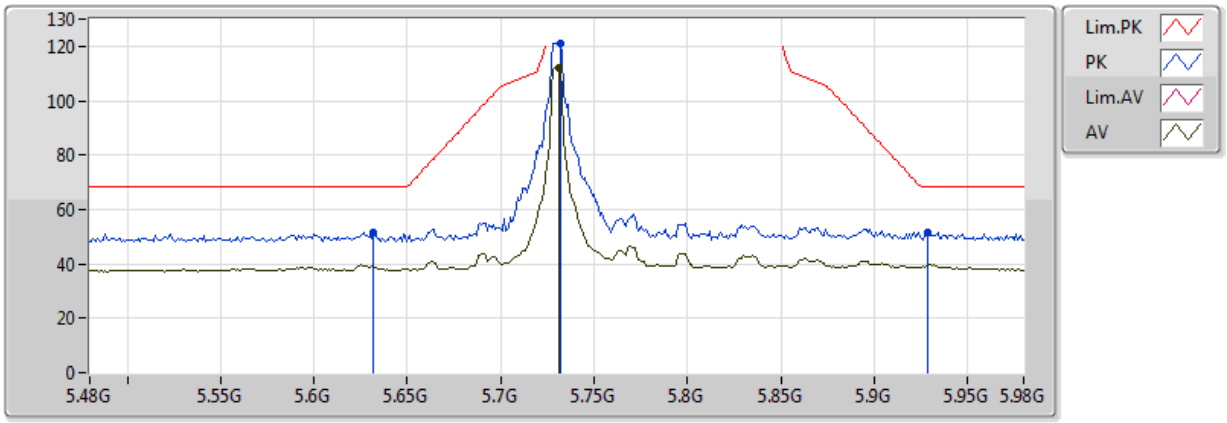


20170628
EUT Y_2TX
Setting 13
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.73387G	42.69	54.00	-11.31	17.37	3	H	135	2.20	-
PK	15.73519G	56.67	74.00	-17.33	17.36	3	H	135	2.20	-

QPSK,5M_Nss1_2TX

5730MHz_TX

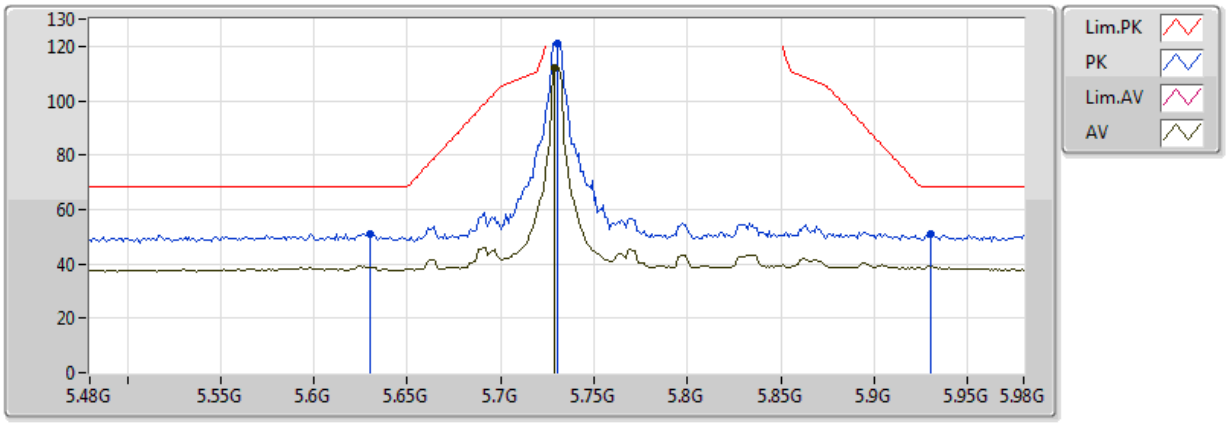


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.731G	112.06	Inf	-Inf	8.21	3	V	91	1.02	-
PK	5.632G	51.69	68.20	-16.51	8.11	3	V	91	1.02	-
PK	5.732G	121.25	Inf	-Inf	8.21	3	V	91	1.02	-
PK	5.929G	51.80	68.20	-16.40	8.55	3	V	91	1.02	-

QPSK,5M_Nss1_2TX

5730MHz_TX

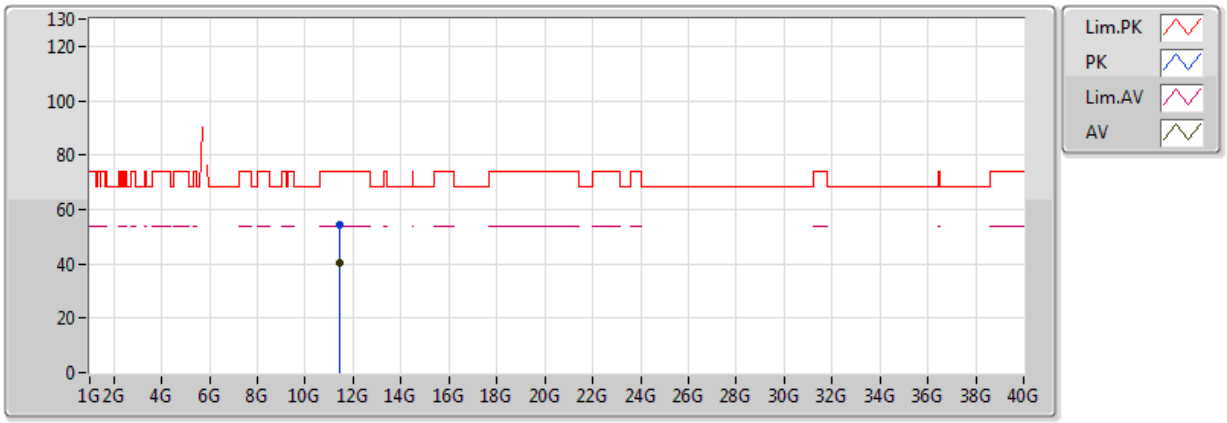


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.729G	112.10	Inf	-Inf	8.21	3	H	91	1.00	-
PK	5.63G	51.22	68.20	-16.98	8.11	3	H	91	1.00	-
PK	5.73G	121.31	Inf	-Inf	8.21	3	H	91	1.00	-
PK	5.93G	51.13	68.20	-17.07	8.56	3	H	91	1.00	-

QPSK,5M_Nss1_2TX

5730MHz_TX

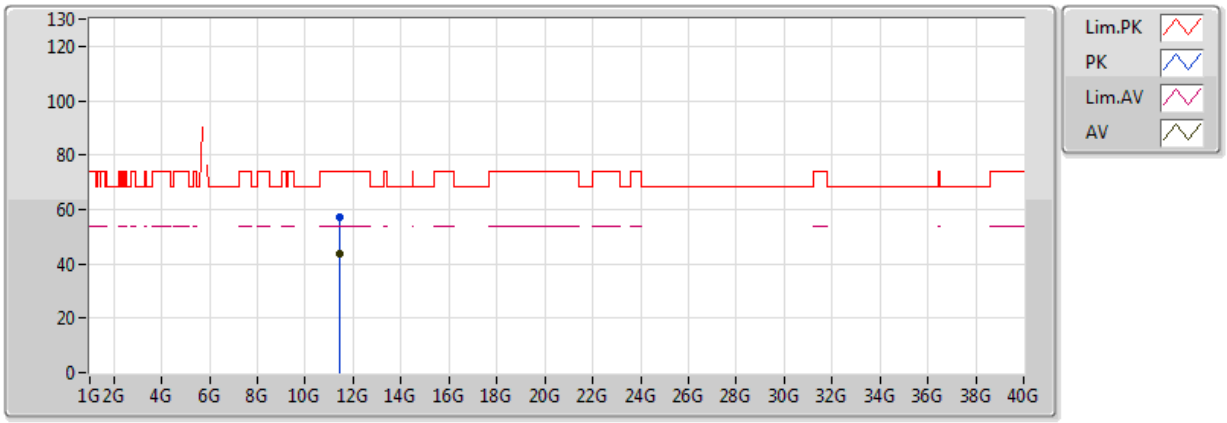


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.46006G	40.56	54.00	-13.44	12.03	3	V	118	1.77	-
PK	11.46034G	54.36	74.00	-19.64	12.03	3	V	118	1.77	-

QPSK,5M_Nss1_2TX

5730MHz_TX

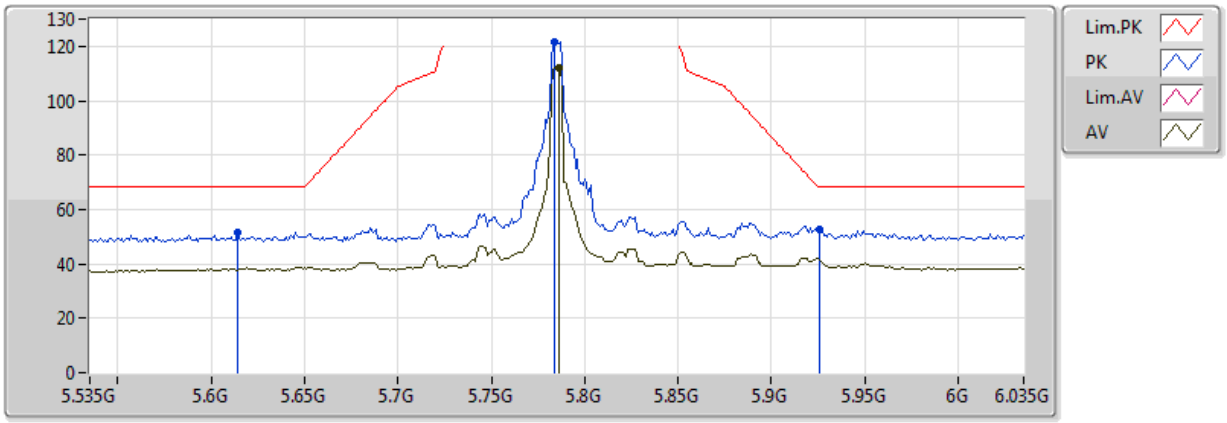


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.46006G	43.56	54.00	-10.44	12.03	3	H	68	1.85	-
PK	11.4603G	56.98	74.00	-17.02	12.03	3	H	68	1.85	-

QPSK,5M_Nss1_2TX

5785MHz_TX

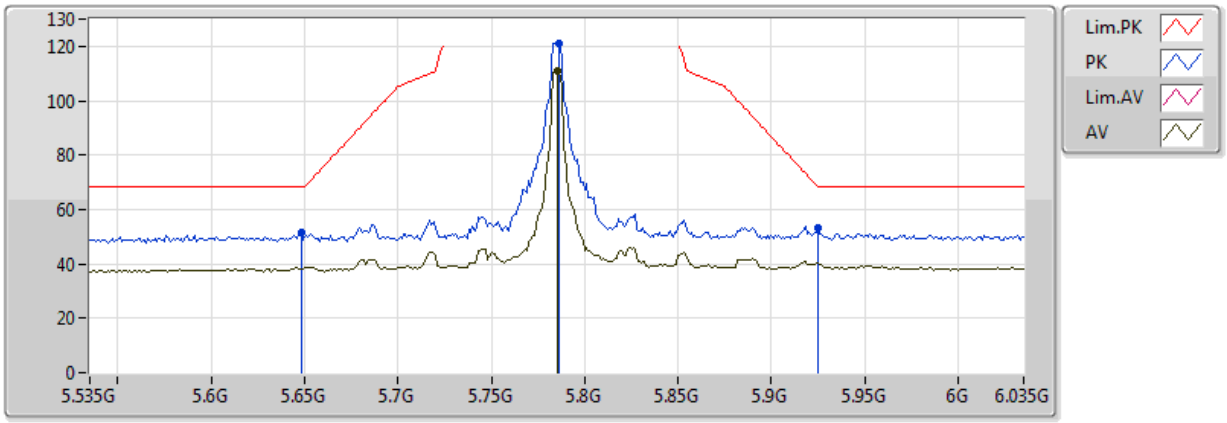


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.786G	111.89	Inf	-Inf	8.26	3	V	91	1.02	-
PK	5.614G	51.44	68.20	-16.76	8.09	3	V	91	1.02	-
PK	5.784G	121.36	Inf	-Inf	8.26	3	V	91	1.02	-
PK	5.926G	52.88	68.20	-15.32	8.55	3	V	91	1.02	-

QPSK,5M_Nss1_2TX

5785MHz_TX

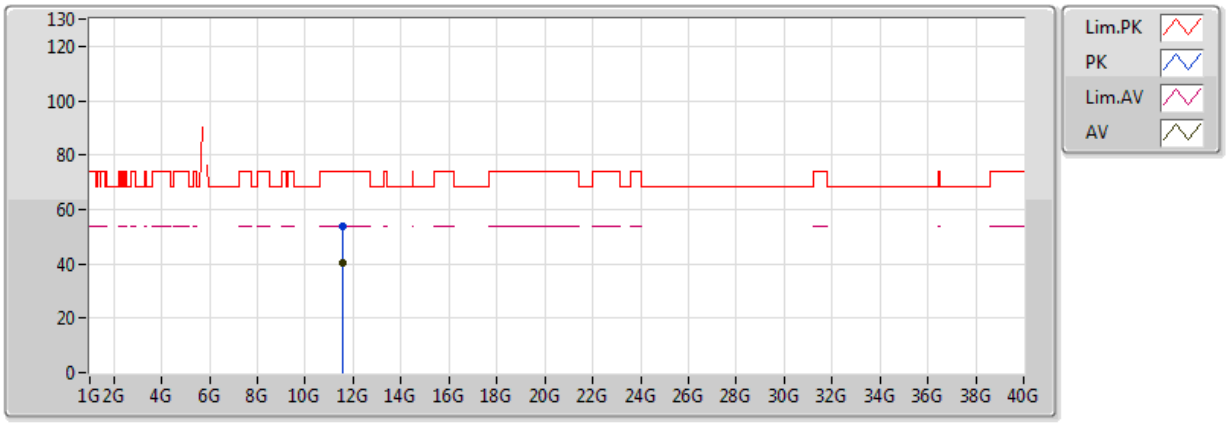


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.785G	110.84	Inf	-Inf	8.26	3	H	91	1.00	-
PK	5.648G	51.59	68.20	-16.61	8.13	3	H	91	1.00	-
PK	5.786G	121.28	Inf	-Inf	8.26	3	H	91	1.00	-
PK	5.925G	53.11	68.20	-15.09	8.55	3	H	91	1.00	-

QPSK,5M_Nss1_2TX

5785MHz_TX

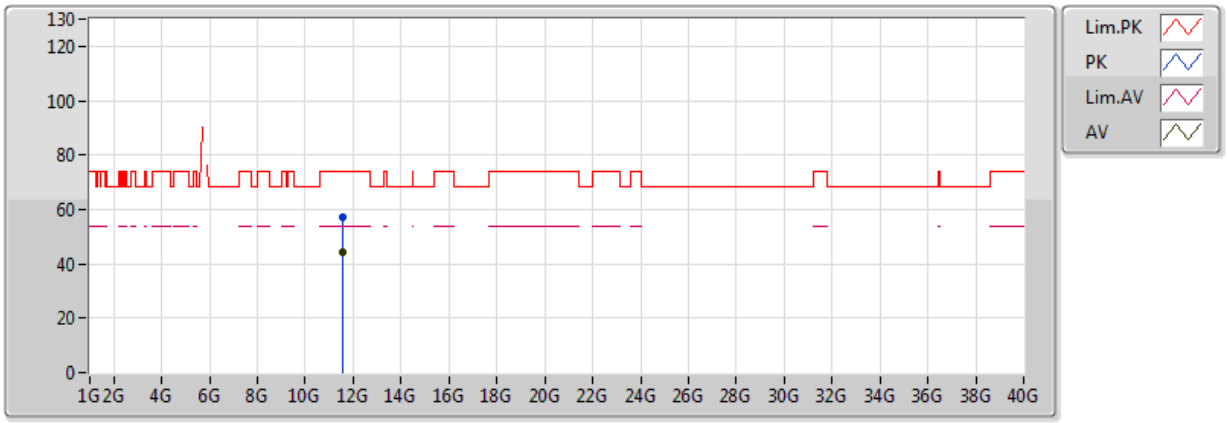


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.56996G	40.50	54.00	-13.50	12.08	3	V	116	1.93	-
PK	11.56744G	53.57	74.00	-20.43	12.08	3	V	116	1.93	-

QPSK,5M_Nss1_2TX

5785MHz_TX

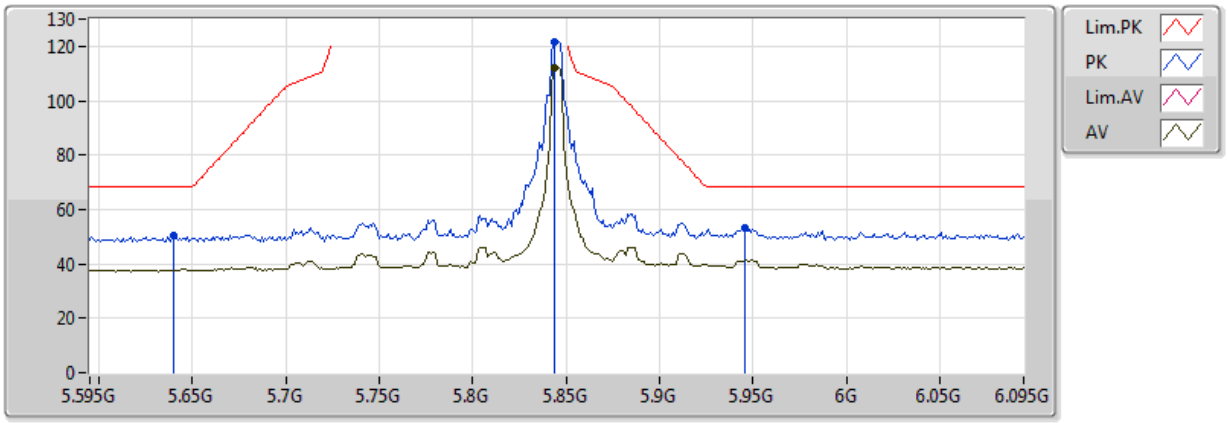


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57008G	44.05	54.00	-9.95	12.08	3	H	69	1.82	-
PK	11.57024G	57.21	74.00	-16.79	12.08	3	H	69	1.82	-

QPSK,5M_Nss1_2TX

5845MHz_TX

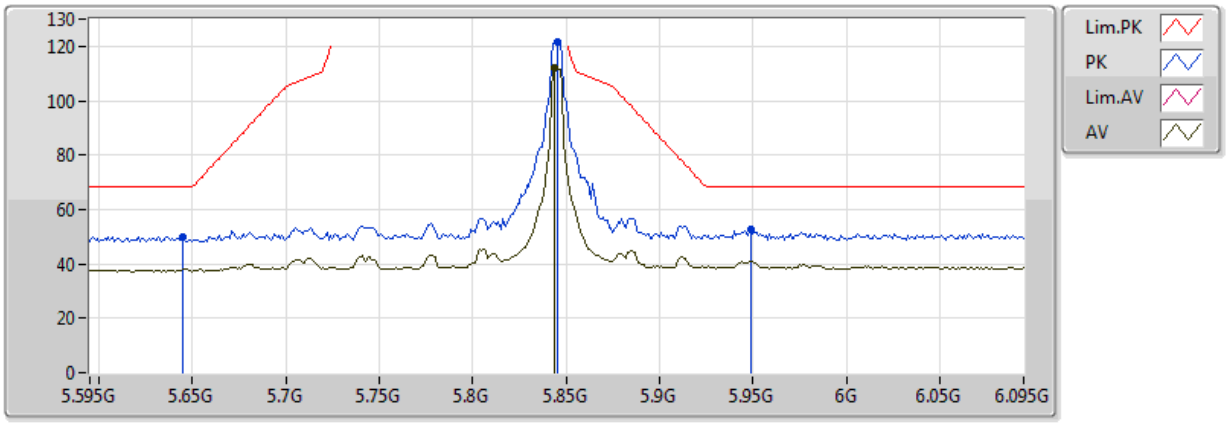


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.844G	111.97	Inf	-Inf	8.37	3	V	91	1.02	-
PK	5.64G	50.19	68.20	-18.01	8.12	3	V	91	1.02	-
PK	5.844G	121.48	Inf	-Inf	8.37	3	V	91	1.02	-
PK	5.946G	53.12	68.20	-15.08	8.59	3	V	91	1.02	-

QPSK,5M_Nss1_2TX

5845MHz_TX

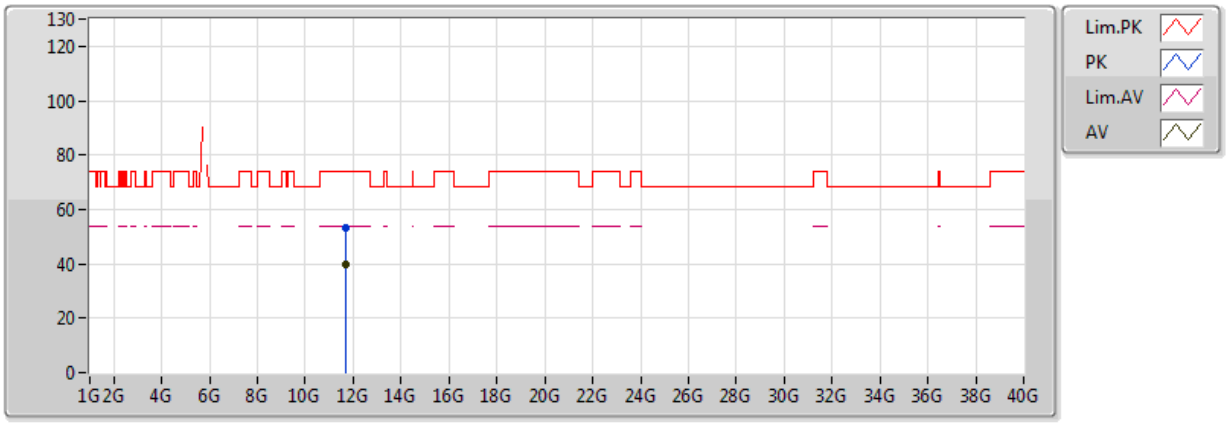


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.844G	111.81	Inf	-Inf	8.37	3	H	91	1.00	-
PK	5.645G	50.13	68.20	-18.07	8.12	3	H	91	1.00	-
PK	5.845G	121.44	Inf	-Inf	8.37	3	H	91	1.00	-
PK	5.949G	52.80	68.20	-15.40	8.60	3	H	91	1.00	-

QPSK,5M_Nss1_2TX

5845MHz_TX

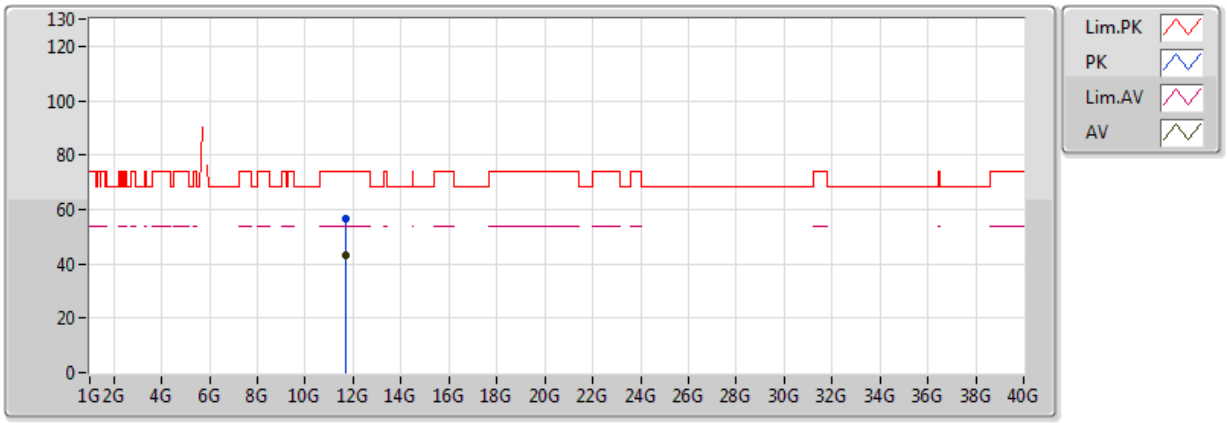


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.68938G	40.06	54.00	-13.94	12.14	3	V	269	2.03	-
PK	11.6906G	53.51	74.00	-20.49	12.14	3	V	269	2.03	-

QPSK,5M_Nss1_2TX

5845MHz_TX

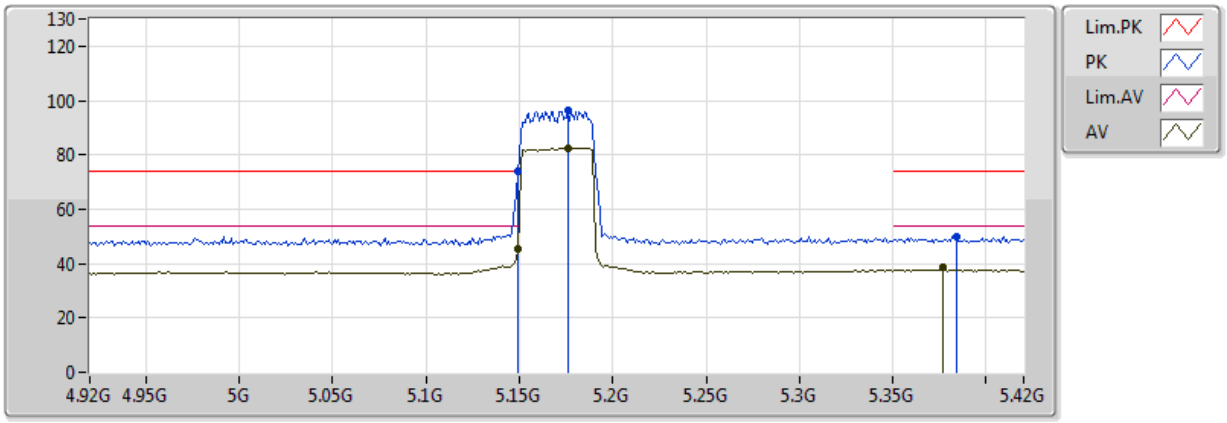


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.69004G	42.87	54.00	-11.13	12.14	3	H	69	1.93	-
PK	11.69026G	56.42	74.00	-17.58	12.14	3	H	69	1.93	-

QPSK,40M_Nss1_2TX

5170MHz_TX

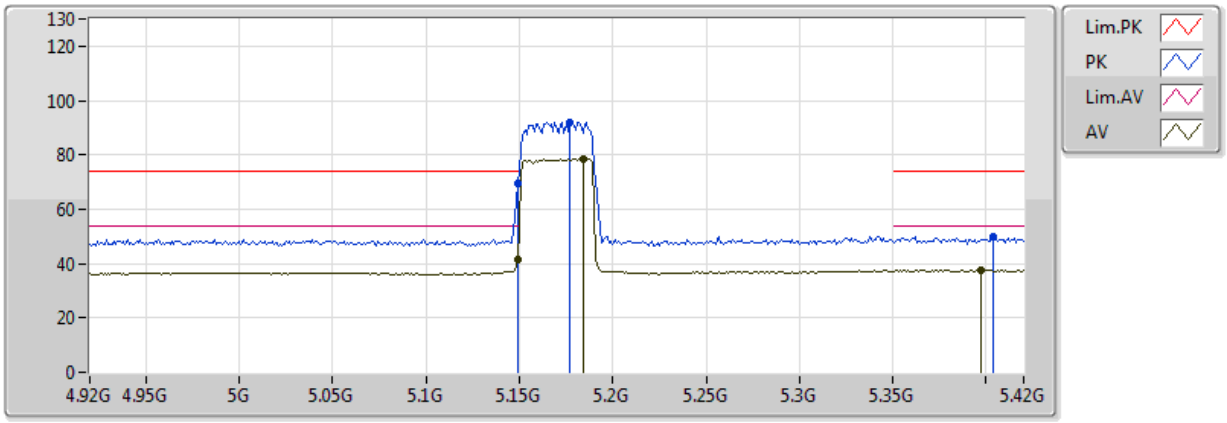


20170713
EUT Y_2TX
Setting 7
06-L-2-10
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149G	45.15	54.00	-8.85	7.24	3	V	179	1.14	-
AV	5.176G	82.61	Inf	-Inf	7.27	3	V	179	1.14	-
AV	5.377G	38.62	54.00	-15.38	7.57	3	V	179	1.14	-
PK	5.149G	73.78	74.00	-0.22	7.24	3	V	179	1.14	-
PK	5.176G	96.11	Inf	-Inf	7.27	3	V	179	1.14	-
PK	5.384G	50.15	74.00	-23.85	7.58	3	V	179	1.14	-

QPSK,40M_Nss1_2TX

5170MHz_TX

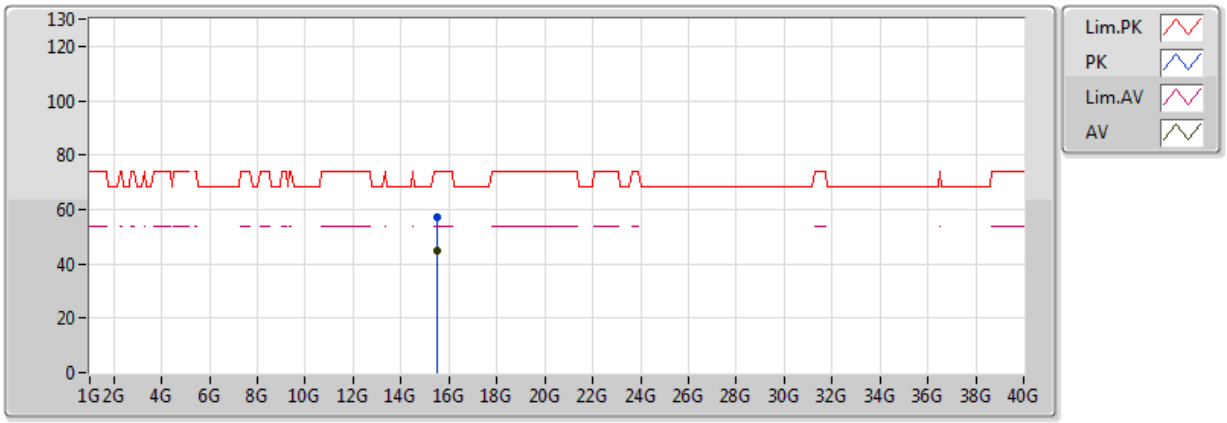


20170713
EUT Y_2TX
Setting 7
06-L-2-10
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149G	41.35	54.00	-12.65	7.24	3	H	182	1.01	-
AV	5.184G	78.47	Inf	-Inf	7.28	3	H	182	1.01	-
AV	5.397G	37.56	54.00	-16.44	7.60	3	H	182	1.01	-
PK	5.149G	69.64	74.00	-4.36	7.24	3	H	182	1.01	-
PK	5.177G	92.08	Inf	-Inf	7.27	3	H	182	1.01	-
PK	5.404G	50.02	74.00	-23.98	7.61	3	H	182	1.01	-

QPSK,40M_Nss1_2TX

5170MHz_TX

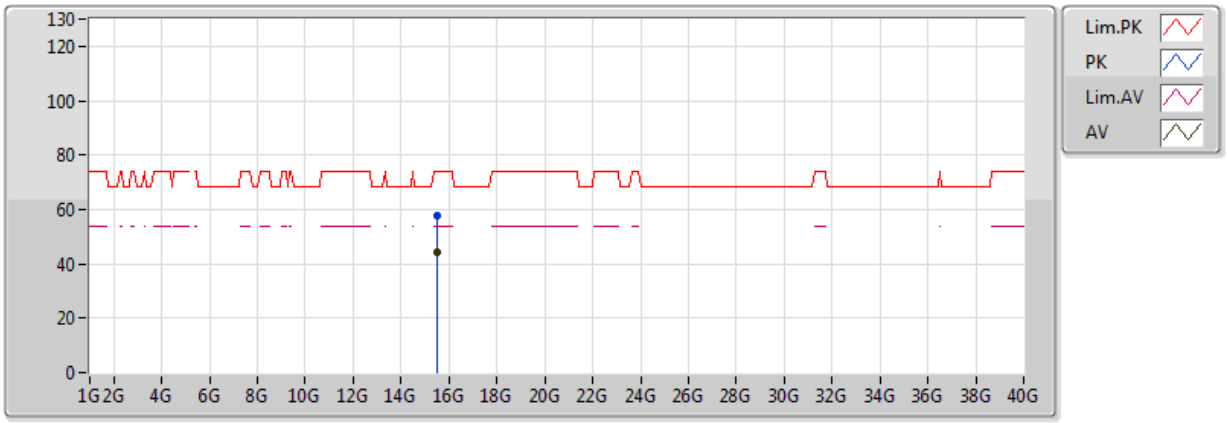


20170713
EUT Y_2TX
Setting 7
06-L-2
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.50878G	44.71	54.00	-9.29	18.01	3	V	200	1.41	-
PK	15.5138G	57.05	74.00	-16.95	17.99	3	V	200	1.41	-

QPSK,40M_Nss1_2TX

5170MHz_TX

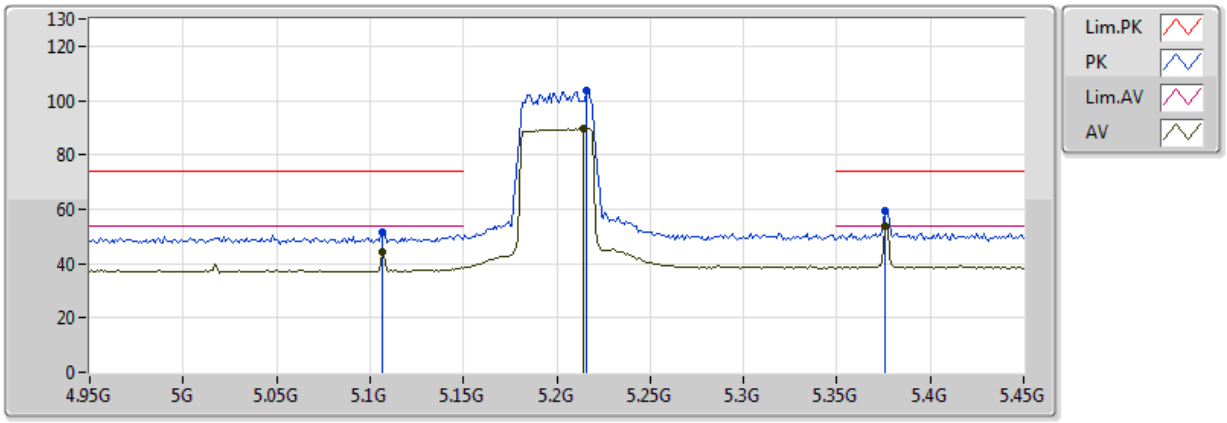


20170713
EUT Y_2TX
Setting 7
06-L-2
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.5116G	44.54	54.00	-9.46	18.00	3	H	67	2.14	-
PK	15.51338G	57.93	74.00	-16.07	17.99	3	H	67	2.14	-

QPSK,40M_Nss1_2TX

5200MHz_TX

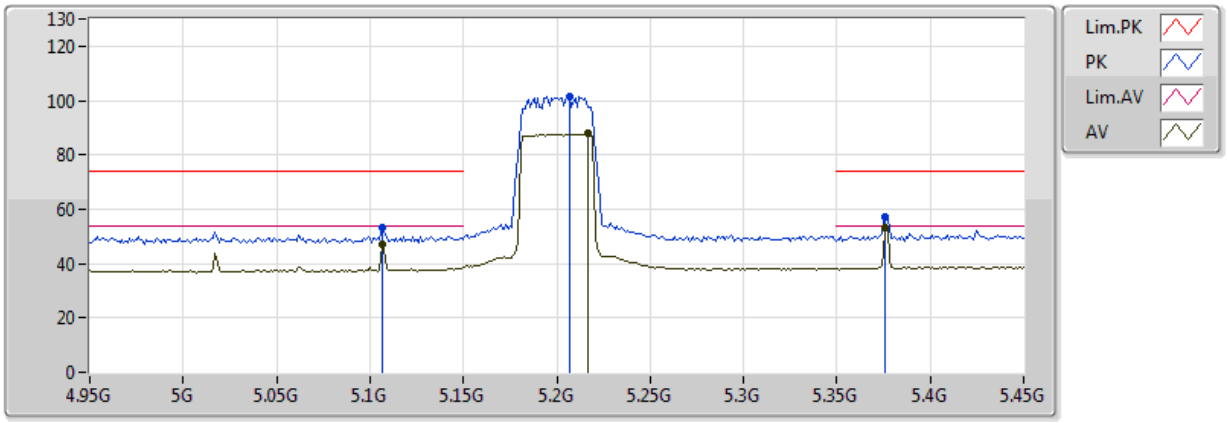


20170628
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.107G	44.29	54.00	-9.71	7.21	3	V	91	1.04	-
AV	5.214G	89.78	Inf	-Inf	7.31	3	V	91	1.04	-
AV	5.376G	53.93	54.00	-0.07	7.56	3	V	91	1.04	-
PK	5.107G	51.60	74.00	-22.40	7.21	3	V	91	1.04	-
PK	5.216G	103.64	Inf	-Inf	7.32	3	V	91	1.04	-
PK	5.376G	59.20	74.00	-14.80	7.56	3	V	91	1.04	-

QPSK,40M_Nss1_2TX

5200MHz_TX

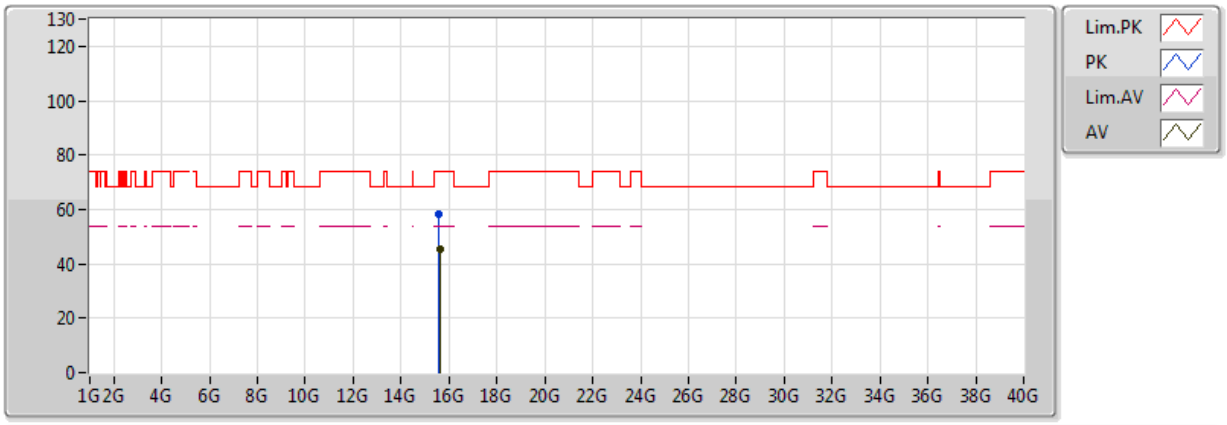


20170628
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.107G	47.18	54.00	-6.82	7.21	3	H	91	1.09	-
AV	5.217G	87.89	Inf	-Inf	7.32	3	H	91	1.09	-
AV	5.376G	53.11	54.00	-0.89	7.56	3	H	91	1.09	-
PK	5.107G	53.42	74.00	-20.58	7.21	3	H	91	1.09	-
PK	5.207G	101.34	Inf	-Inf	7.30	3	H	91	1.09	-
PK	5.376G	56.95	74.00	-17.05	7.56	3	H	91	1.09	-

QPSK,40M_Nss1_2TX

5200MHz_TX

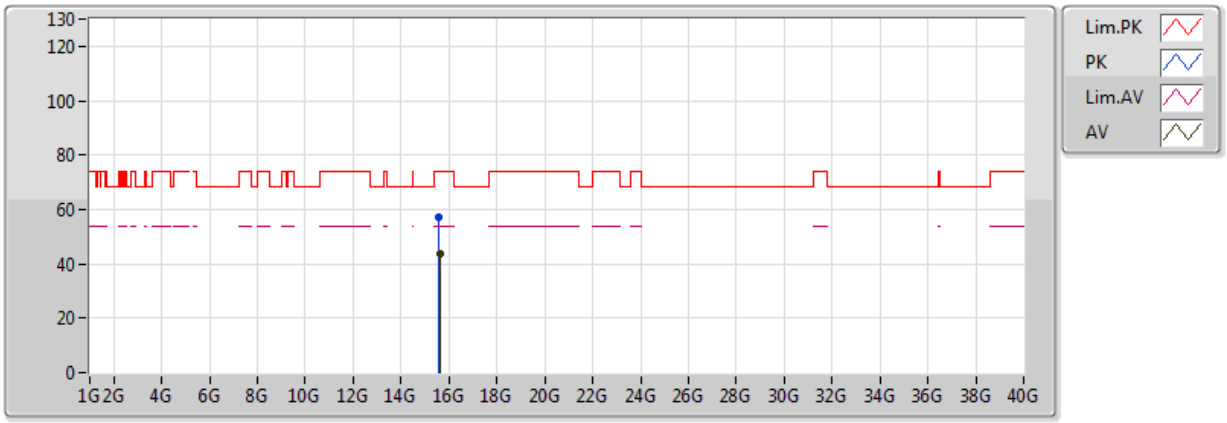


20170628
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.6141G	45.12	54.00	-8.88	19.16	3	V	94	2.07	-
PK	15.59952G	58.37	74.00	-15.63	19.20	3	V	94	2.07	-

QPSK,40M_Nss1_2TX

5200MHz_TX

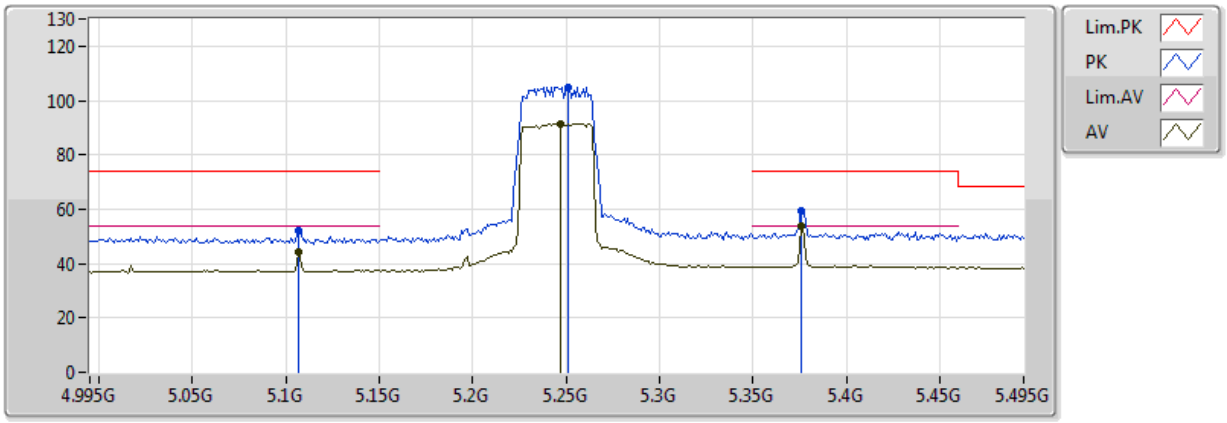


20170628
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.61224G	43.57	54.00	-10.43	17.71	3	H	306	2.10	-
PK	15.59358G	57.05	74.00	-16.95	17.76	3	H	306	2.10	-

QPSK,40M_Nss1_2TX

5245MHz_TX

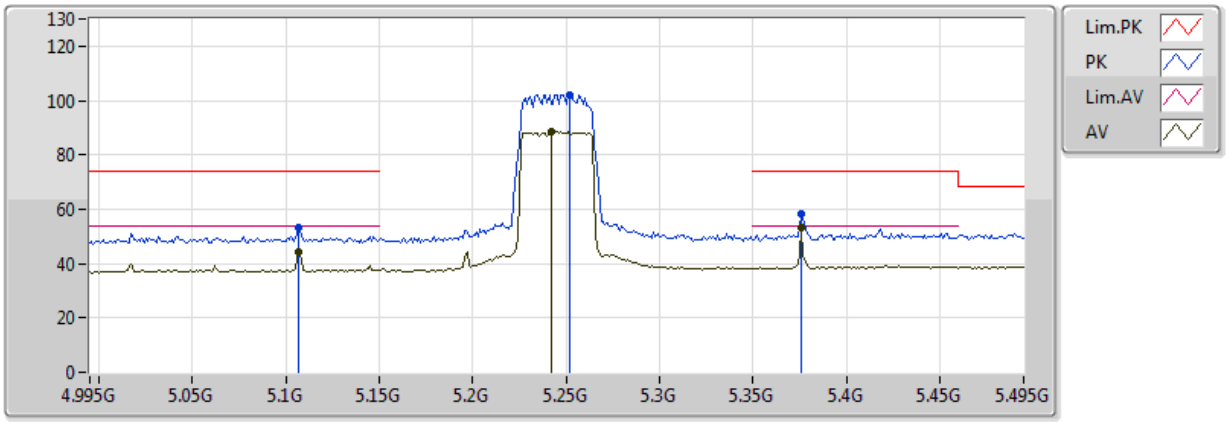


20170628
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.107G	44.39	54.00	-9.61	7.21	3	V	91	1.04	-
AV	5.247G	91.33	Inf	-Inf	7.37	3	V	91	1.04	-
AV	5.376G	53.98	54.00	-0.02	7.56	3	V	91	1.04	-
PK	5.107G	52.04	74.00	-21.96	7.21	3	V	91	1.04	-
PK	5.251G	104.92	Inf	-Inf	7.37	3	V	91	1.04	-
PK	5.376G	59.36	74.00	-14.64	7.56	3	V	91	1.04	-

QPSK,40M_Nss1_2TX

5245MHz_TX

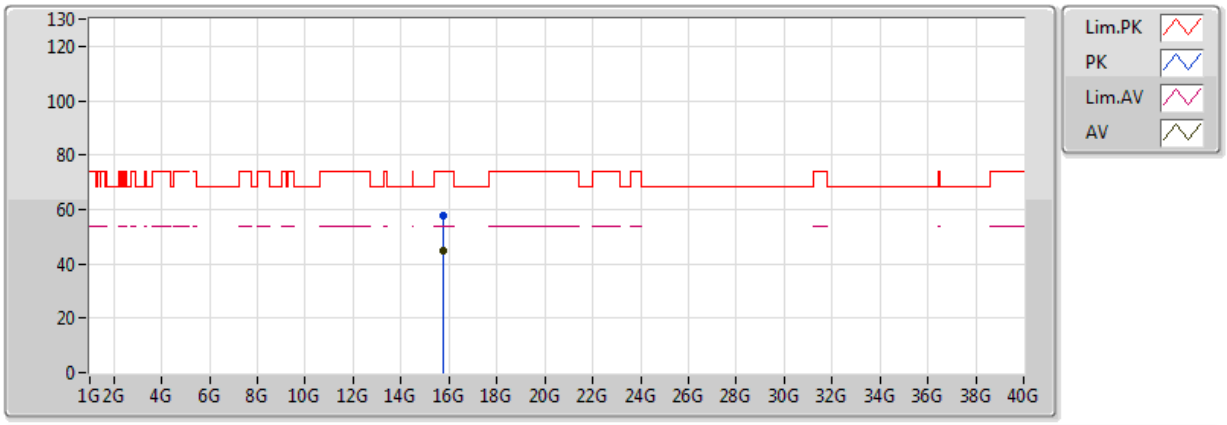


20170628
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.107G	44.08	54.00	-9.92	7.21	3	H	91	1.09	-
AV	5.242G	88.38	Inf	-Inf	7.36	3	H	91	1.09	-
AV	5.376G	53.13	54.00	-0.87	7.56	3	H	91	1.09	-
PK	5.107G	53.30	74.00	-20.70	7.21	3	H	91	1.09	-
PK	5.252G	102.10	Inf	-Inf	7.37	3	H	91	1.09	-
PK	5.376G	58.07	74.00	-15.93	7.56	3	H	91	1.09	-

QPSK,40M_Nss1_2TX

5245MHz_TX

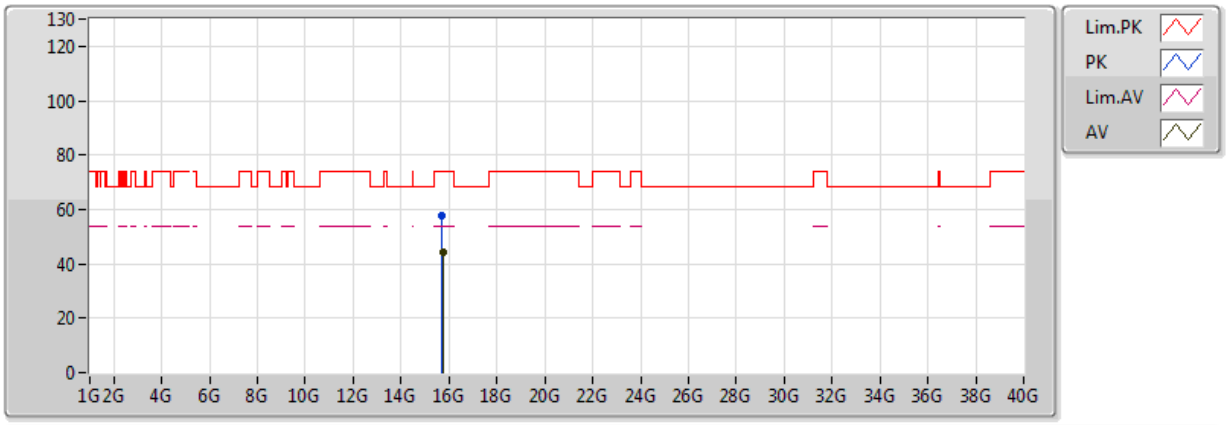


20170628
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.74346G	44.63	54.00	-9.37	17.34	3	V	262	1.64	-
PK	15.7476G	57.89	74.00	-16.11	17.33	3	V	262	1.64	-

QPSK,40M_Nss1_2TX

5245MHz_TX

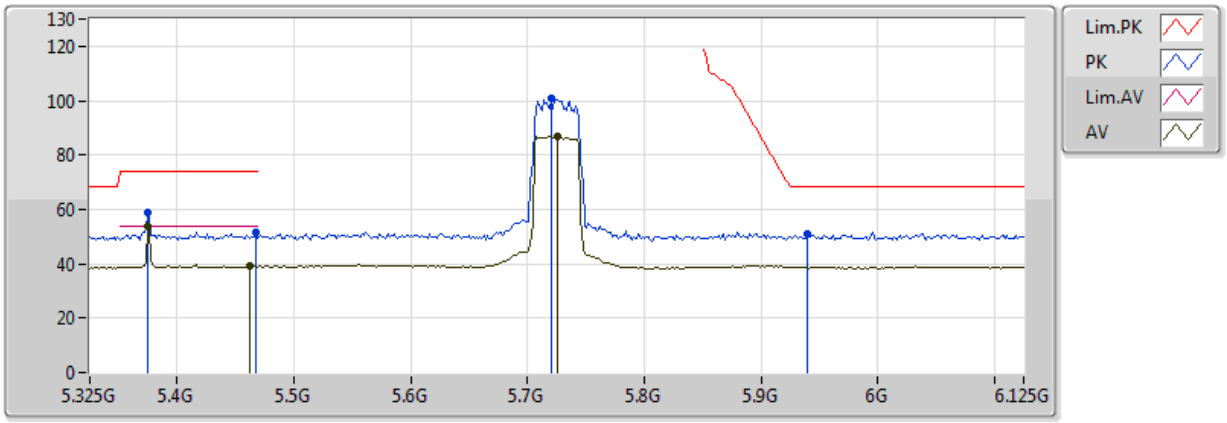


20170628
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.741G	44.40	54.00	-9.60	17.35	3	H	236	1.62	-
PK	15.72606G	57.53	74.00	-16.47	17.39	3	H	236	1.62	-

QPSK,40M_Nss1_2TX

5725MHz Straddle 5.47-5.725GHz_TX

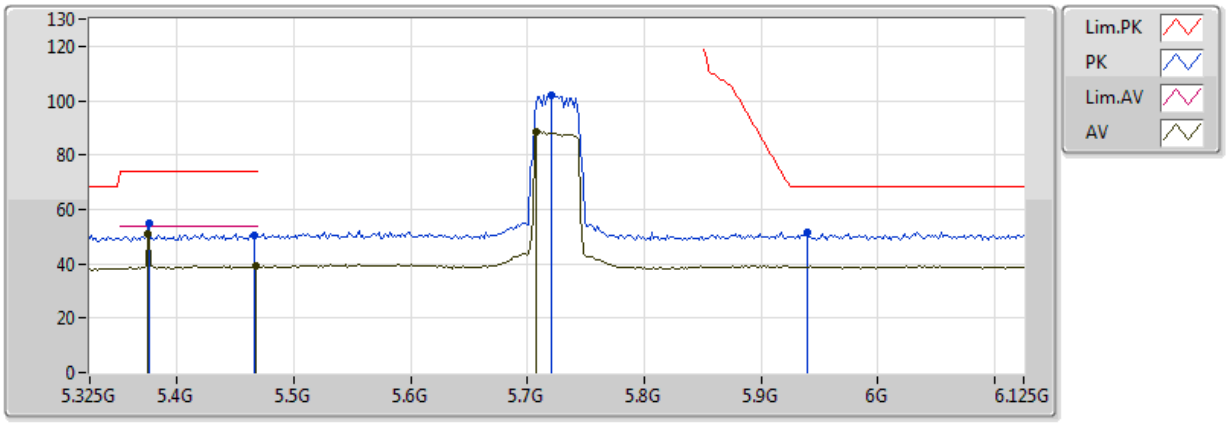


20170721
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.3746G	53.92	54.00	-0.08	7.56	3	V	0	1.00	-
AV	5.4626G	39.18	54.00	-14.82	7.74	3	V	0	1.00	-
AV	5.725G	86.80	Inf	-Inf	8.20	3	V	0	1.00	-
PK	5.3746G	58.93	74.00	-15.07	7.56	3	V	0	1.00	-
PK	5.4674G	51.62	74.00	-22.38	7.76	3	V	0	1.00	-
PK	5.7202G	100.66	Inf	-Inf	8.20	3	V	0	1.00	-
PK	5.9394G	50.90	68.20	-17.30	8.58	3	V	0	1.00	-

QPSK,40M_Nss1_2TX

5725MHz Straddle 5.47-5.725GHz_TX

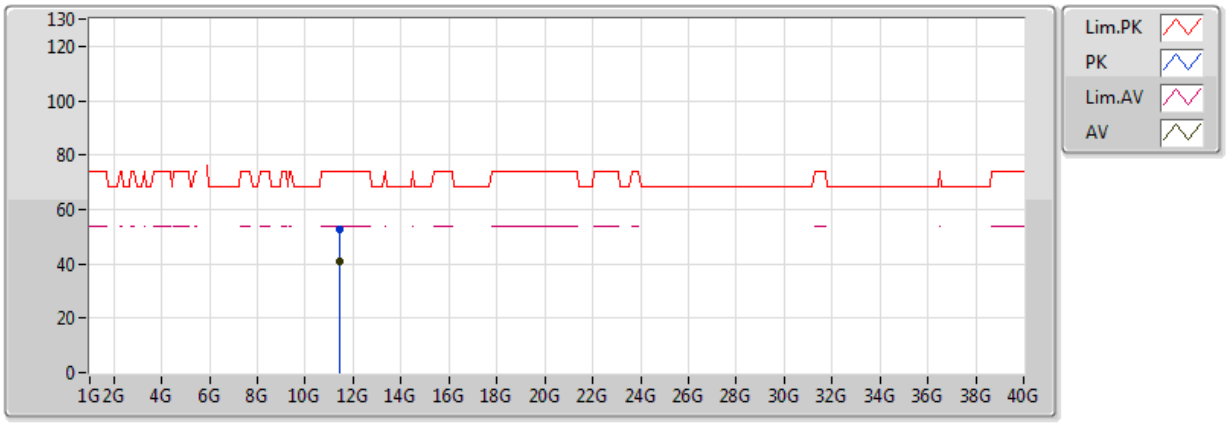


20170721
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.3746G	50.87	54.00	-3.13	7.56	3	H	0	1.04	-
AV	5.4674G	38.96	54.00	-15.04	7.76	3	H	0	1.04	-
AV	5.7074G	88.37	Inf	-Inf	8.19	3	H	0	1.04	-
PK	5.3762G	55.07	74.00	-18.93	7.56	3	H	0	1.04	-
PK	5.4658G	50.60	74.00	-23.40	7.75	3	H	0	1.04	-
PK	5.7202G	101.99	Inf	-Inf	8.20	3	H	0	1.04	-
PK	5.9394G	51.59	68.20	-16.61	8.58	3	H	0	1.04	-

QPSK,40M_Nss1_2TX

5725MHz Straddle 5.47-5.725GHz_TX

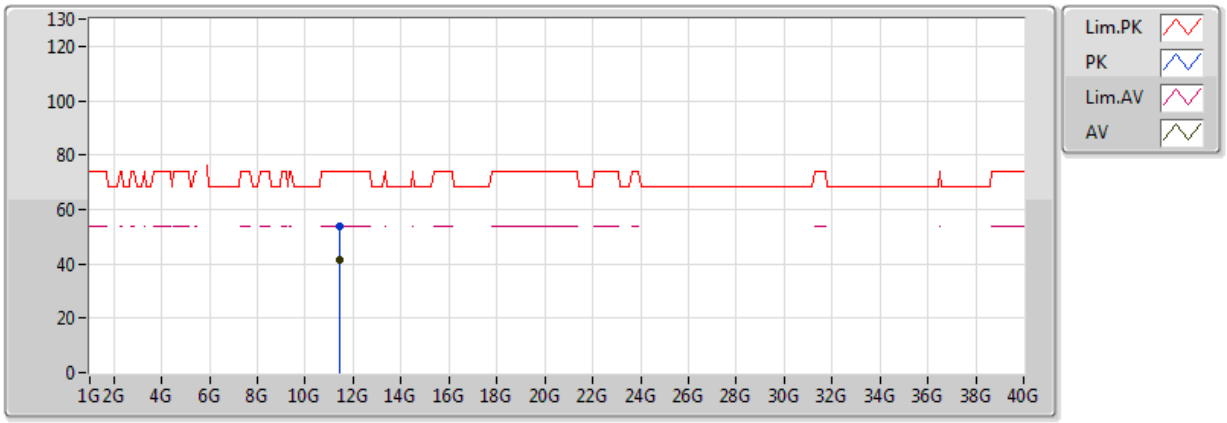


20170721
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.45006G	40.63	54.00	-13.37	12.02	3	V	116	1.83	-
PK	11.44028G	52.42	74.00	-21.58	12.02	3	V	116	1.83	-

QPSK,40M_Nss1_2TX

5725MHz Straddle 5.47-5.725GHz_TX

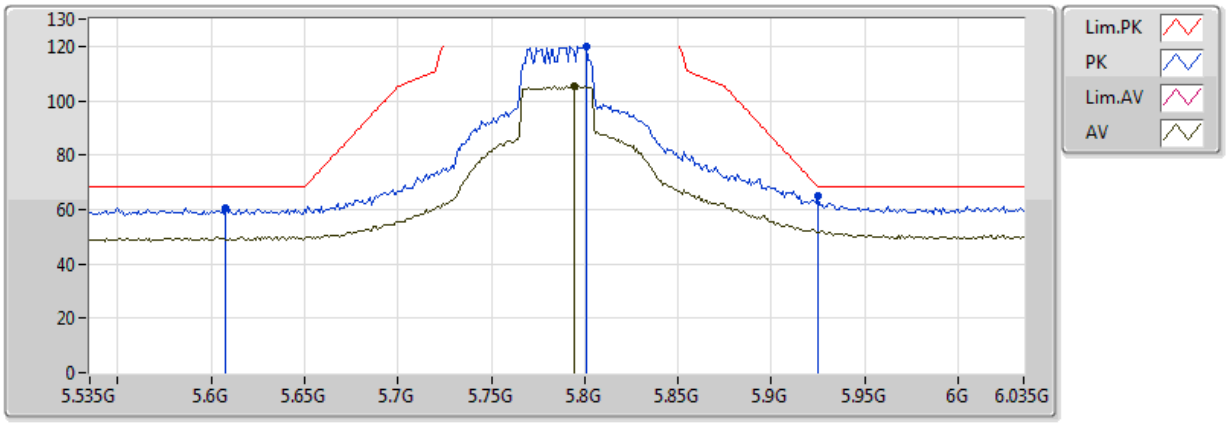


20170721
EUT Y_2TX
Setting 10
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.45G	41.27	54.00	-12.73	12.02	3	H	64	1.87	-
PK	11.46404G	53.80	74.00	-20.20	12.03	3	H	64	1.87	-

QPSK,40M_Nss1_2TX

5785MHz_TX

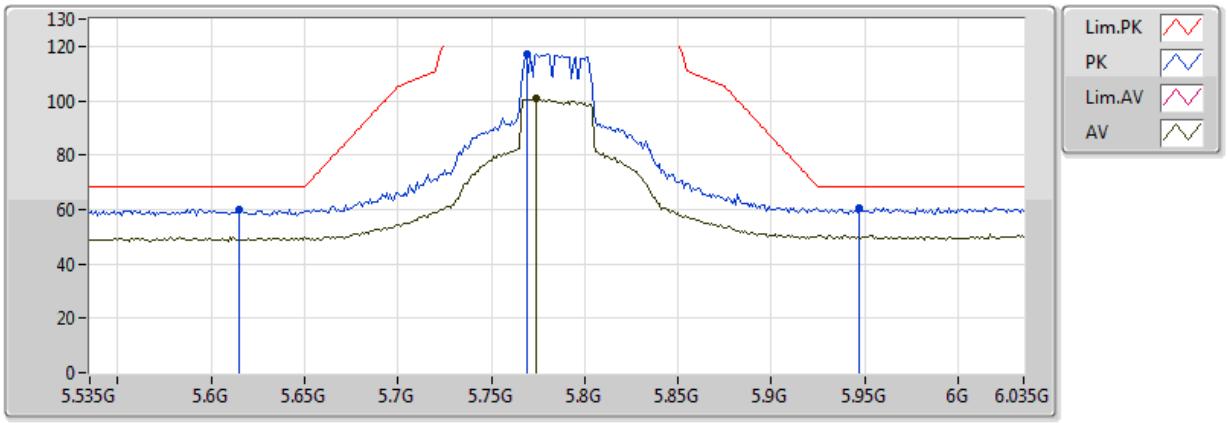


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.794G	105.39	Inf	-Inf	8.26	3	V	92	1.09	-
PK	5.608G	60.46	68.20	-7.74	8.09	3	V	92	1.09	-
PK	5.801G	119.88	Inf	-Inf	8.27	3	V	92	1.09	-
PK	5.925G	64.99	68.20	-3.21	8.55	3	V	92	1.09	-

QPSK,40M_Nss1_2TX

5785MHz_TX

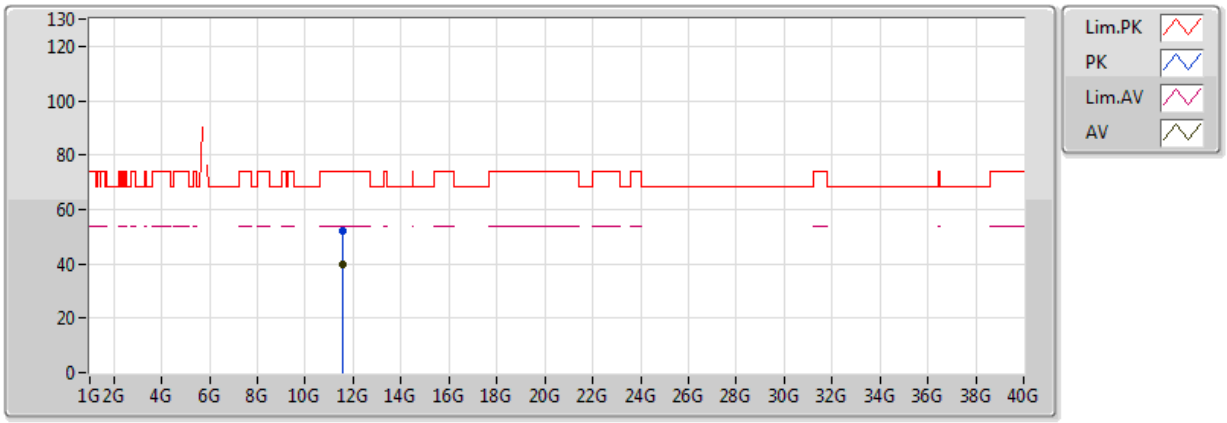


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.774G	100.62	Inf	-Inf	8.25	3	H	91	1.03	-
PK	5.615G	60.23	68.20	-7.97	8.09	3	H	91	1.03	-
PK	5.769G	117.07	Inf	-Inf	8.24	3	H	91	1.03	-
PK	5.947G	60.65	68.20	-7.55	8.59	3	H	91	1.03	-

QPSK,40M_Nss1_2TX

5785MHz_TX

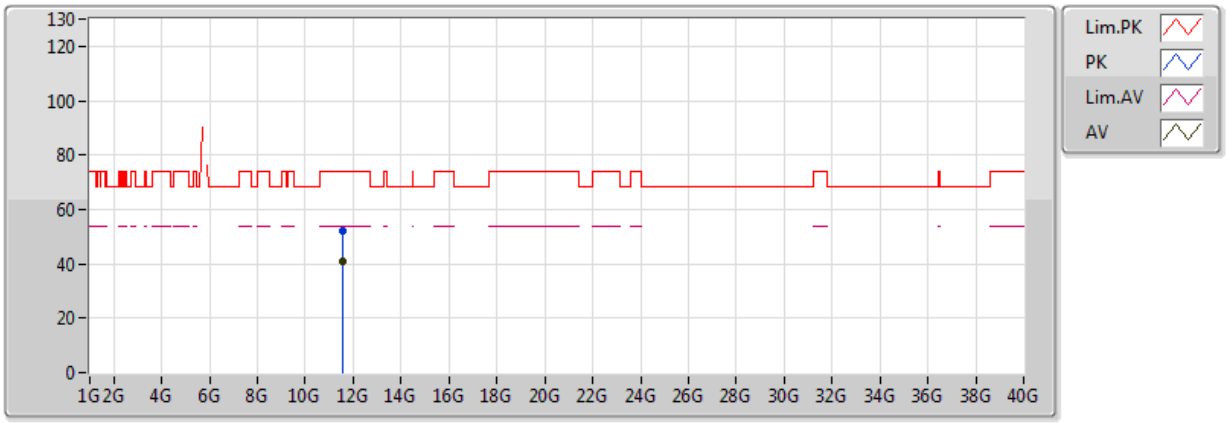


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57008G	39.75	54.00	-14.25	12.08	3	V	114	1.77	-
PK	11.56984G	52.23	74.00	-21.77	12.08	3	V	114	1.77	-

QPSK,40M_Nss1_2TX

5785MHz_TX

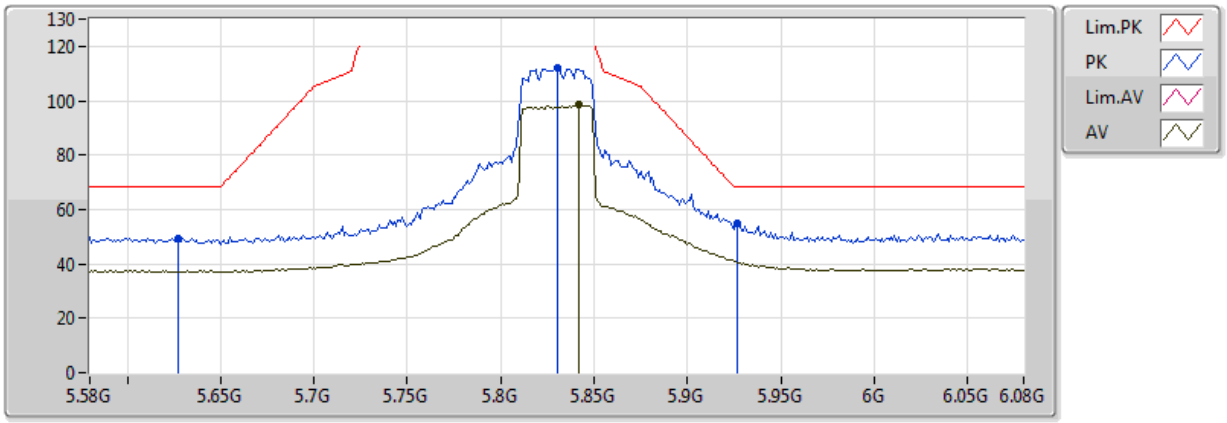


20170628
EUT Y_2TX
Setting 24
06-M-0
FSP(100019)
Offset 0

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57002G	40.76	54.00	-13.24	12.08	3	H	67	2.26	-
PK	11.5697G	52.21	74.00	-21.79	12.08	3	H	67	2.26	-

QPSK,40M_Nss1_2TX

5830MHz_TX

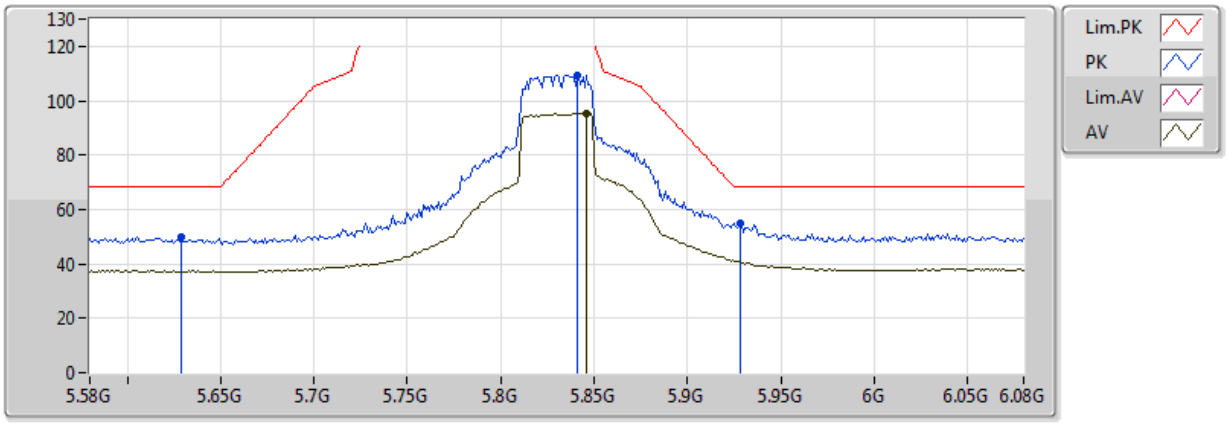


20170713
EUT Y_2TX
Setting 24
06-L-2-10
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.842G	98.45	Inf	-Inf	8.36	3	V	181	1.91	-
PK	5.627G	49.50	68.20	-18.70	8.11	3	V	181	1.91	-
PK	5.83G	111.79	Inf	-Inf	8.34	3	V	181	1.91	-
PK	5.927G	54.71	68.20	-13.49	8.55	3	V	181	1.91	-

QPSK,40M_Nss1_2TX

5830MHz_TX

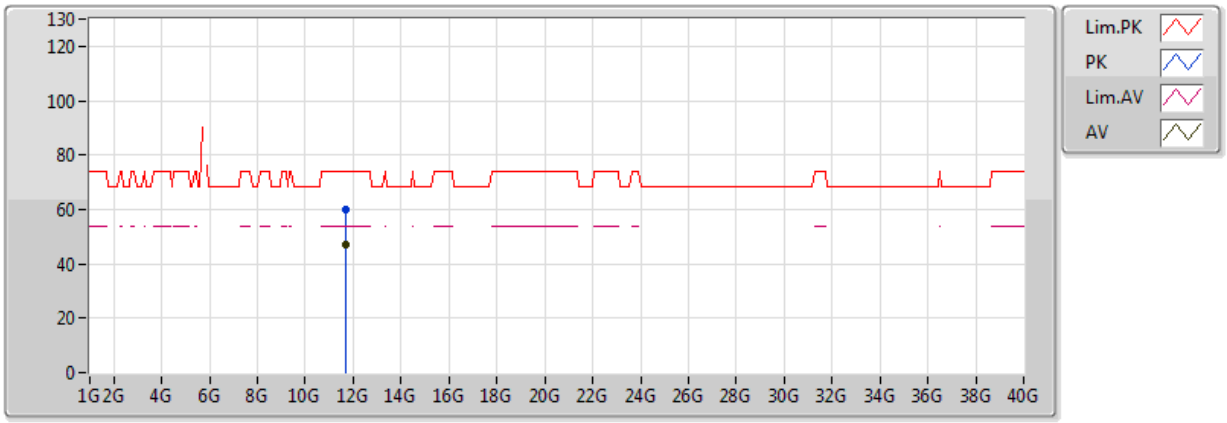


20170713
EUT Y_2TX
Setting 24
06-L-2-10
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.846G	95.53	Inf	-Inf	8.37	3	H	180	2.10	-
PK	5.629G	49.87	68.20	-18.33	8.11	3	H	180	2.10	-
PK	5.841G	109.27	Inf	-Inf	8.36	3	H	180	2.10	-
PK	5.928G	54.87	68.20	-13.33	8.55	3	H	180	2.10	-

QPSK,40M_Nss1_2TX

5830MHz_TX

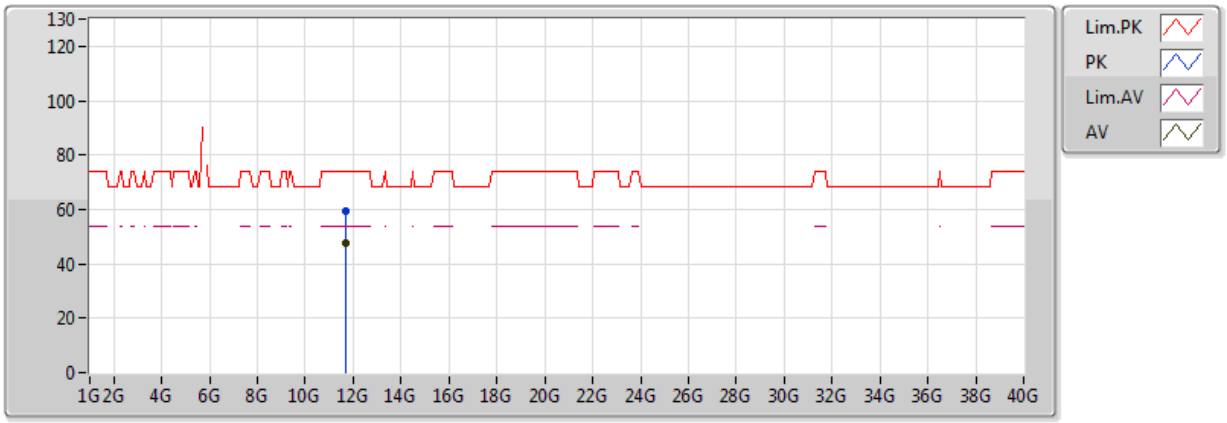


20170713
EUT Y_2TX
Setting 24
06-L-2
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.66004G	46.80	54.00	-7.20	16.78	3	V	33	2.52	-
PK	11.65902G	59.94	74.00	-14.06	16.79	3	V	33	2.52	-

QPSK,40M_Nss1_2TX

5830MHz_TX



20170713
EUT Y_2TX
Setting 24
06-L-2
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.66002G	47.84	54.00	-6.16	16.78	3	H	331	1.77	-
PK	11.65994G	59.16	74.00	-14.84	16.78	3	H	331	1.77	-

Mode: 5, 40 MHz / Port 1

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9947	5199.9938	5199.9935	5199.9927
110.00	5199.9941	5199.9933	5199.9932	5199.9928
93.50	5199.9940	5199.9931	5199.9930	5199.9922
Max. Deviation (MHz)	0.0060	0.0069	0.0070	0.0078
Max. Deviation (ppm)	1.15	1.33	1.35	1.50
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5199.9979	5199.9978	5199.9976	5199.9966
-30	5199.9902	5199.9895	5199.9889	5199.9881
-20	5199.9903	5199.9902	5199.9893	5199.9884
-10	5199.9905	5199.9896	5199.9894	5199.9887
0	5199.9921	5199.9914	5199.9913	5199.9907
10	5199.9937	5199.9932	5199.9924	5199.9921
20	5199.9941	5199.9940	5199.9938	5199.9928
30	5199.9952	5199.9944	5199.9934	5199.9928
40	5199.9958	5199.9950	5199.9940	5199.9939
50	5199.9962	5199.9953	5199.9952	5199.9947
60	5199.9974	5199.9972	5199.9962	5199.9952
70	5199.9973	5199.9970	5199.9968	5199.9966
Max. Deviation (MHz)	0.0098	0.0105	0.0111	0.0119
Max. Deviation (ppm)	1.88	2.02	2.13	2.29
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9949	5784.9945	5784.9935	5784.9934
110.00	5784.9941	5784.9934	5784.9925	5784.9920
93.50	5784.9935	5784.9934	5784.9929	5784.9919
Max. Deviation (MHz)	0.0065	0.0066	0.0075	0.0081
Max. Deviation (ppm)	1.12	1.14	1.30	1.40
Result	Pass			

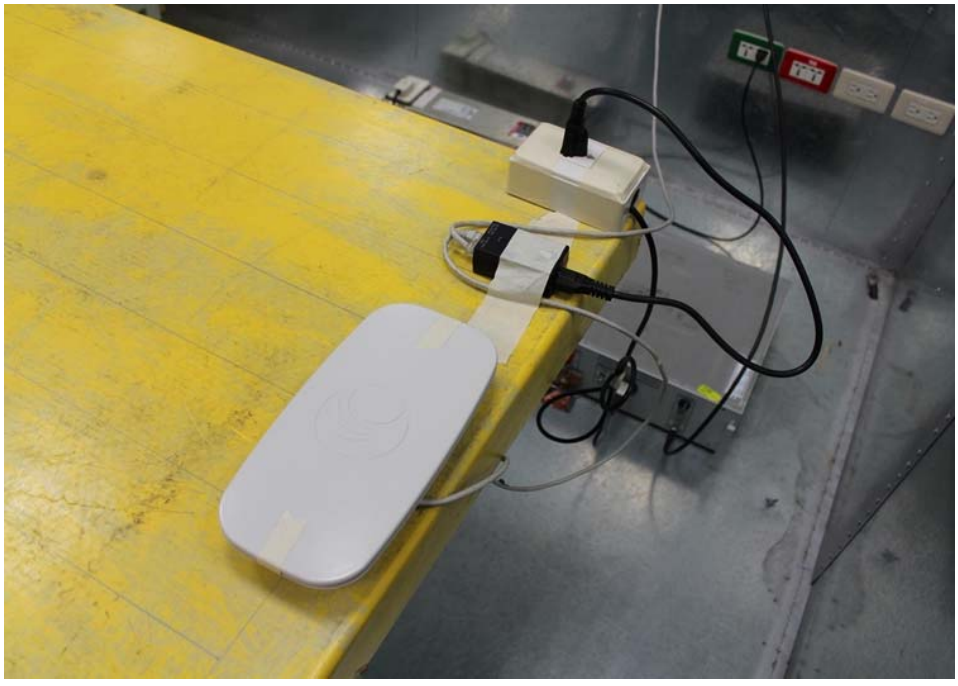
Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5785.0031	5785.0021	5785.0018	5785.0010
-30	5784.9892	5784.9886	5784.9881	5784.9873
-20	5784.9902	5784.9894	5784.9888	5784.9883
-10	5784.9904	5784.9903	5784.9895	5784.9886
0	5784.9908	5784.9906	5784.9900	5784.9892
10	5784.9921	5784.9920	5784.9913	5784.9909
20	5784.9941	5784.9940	5784.9936	5784.9927
30	5784.9952	5784.9945	5784.9940	5784.9933
40	5784.9972	5784.9969	5784.9966	5784.9961
50	5784.9967	5784.9965	5784.9963	5784.9960
60	5784.9964	5784.9956	5784.9953	5784.9948
70	5784.9983	5784.9973	5784.9967	5784.9959
Max. Deviation (MHz)	0.0108	0.0114	0.0119	0.0127
Max. Deviation (ppm)	1.87	1.97	2.06	2.20
Result	Pass			

1. Photographs of Conducted Emissions Test Configuration

FRONT VIEW

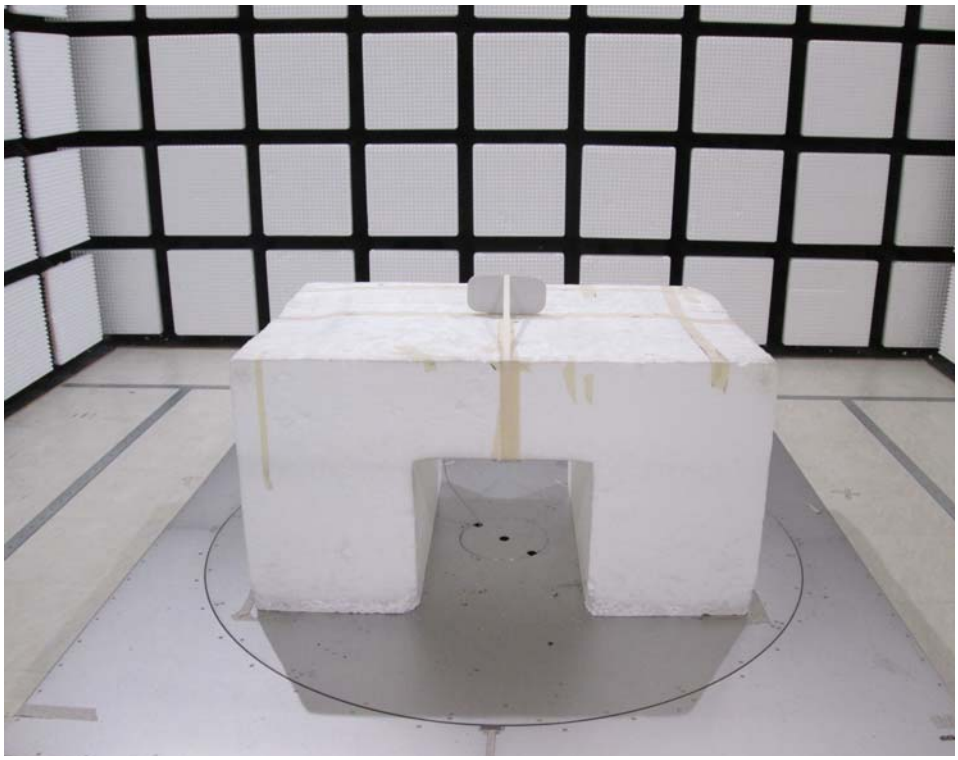
REAR VIEW



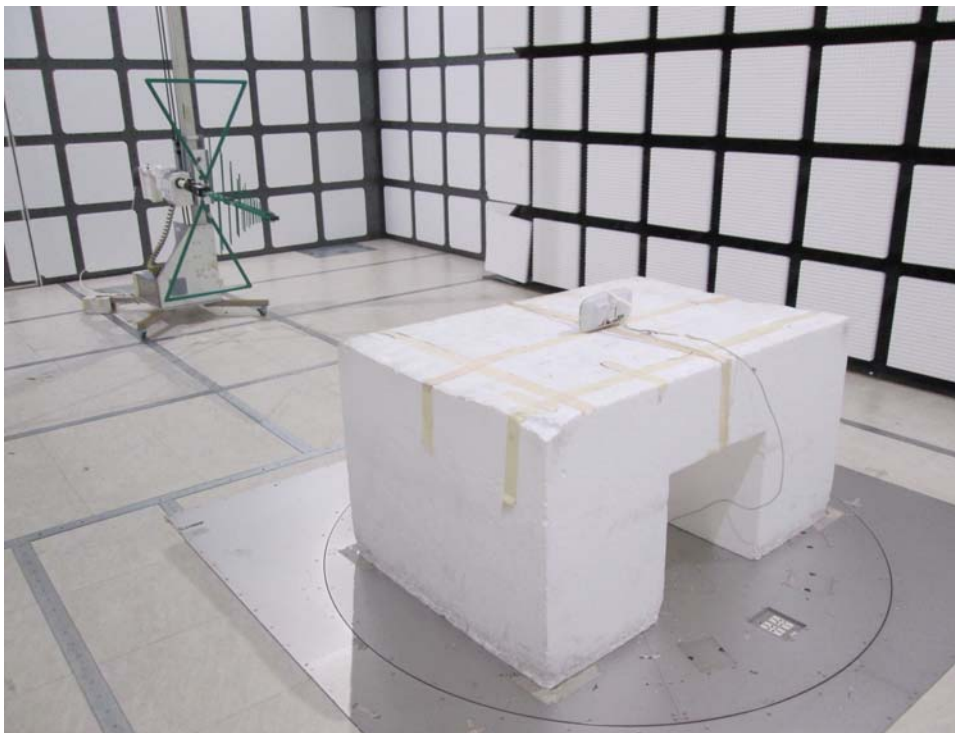
2. Photographs of Radiated Emissions Test Configuration

Test Configuration: 30MHz~1GHz

FRONT VIEW

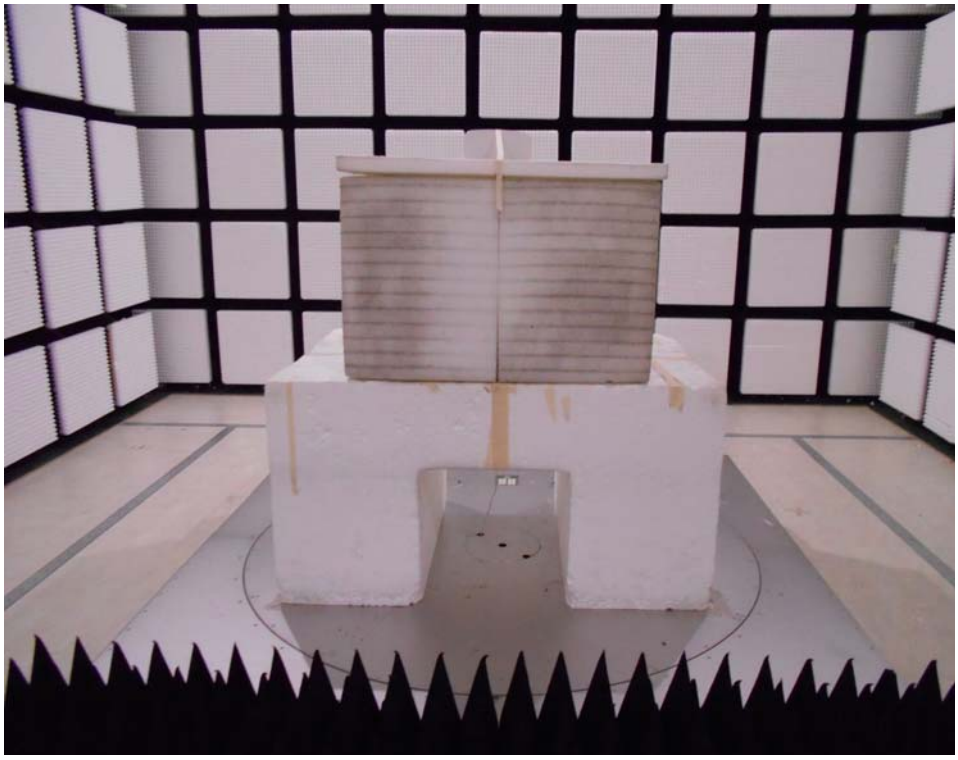


REAR VIEW



Test Configuration: Above 1GHz

FRONT VIEW



REAR VIEW