



FCC RADIO TEST REPORT

FCC ID : Z8H89FT0053
Equipment : PMP450B
Brand Name : Cambium Networks
Model Name : PMP450B
Applicant : Cambium Networks Inc.
3800 Golf Road, Suite 360 Rolling Meadows, IL
60008, USA
Manufacturer : Cambium Networks, Ltd.
Ashburton, TQ13 7UP, UK
Standard : 47 CFR FCC Part 90

The product was received on Aug. 01, 2019, and testing was started from Dec. 19, 2019 and completed on Jan. 15, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI/TIA-603-D-2010 and shown compliance with the applicable technical standards.

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

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

Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	2.1049	Occupied Bandwidth (Maximum for each channel bandwidth)	PASS	-
3.2	90.1321	EIRP Power (Maximum for each channel bandwidth)	PASS	-
3.2	90.1321	EIRP Power Density (Maximum for each channel bandwidth)	PASS	-
3.3	90.1323	Transmitter Radiated Spurious Emissions	PASS	-
3.4	90.1323	Transmitter Conducted Spurious Emissions	PASS	-
3.5	90.210	Spectrum Mask Emissions	PASS	-
3.6	90.213	Frequency Tolerance	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Cindy Peng



1 General Description

1.1 Product Information

1.1.1 Specification Information

RF General Information				
Frequency Range (MHz)	Modulaton	Ch. Frequency (MHz)	Channel Bandwidth (MHz)	Nant
3650-3700	QPSK, 16QAM, 64QAM, 256QAM	3652.5-3697.5	5	2
3650-3700	QPSK, 16QAM, 64QAM, 256QAM	3655-3695	10	2
3650-3700	QPSK, 16QAM, 64QAM, 256QAM	3670-3680	40	2

EUT Contention Protocols

Restricted Contention Protocols:

Restricted contention protocols can prevent co-frequency interference only to radio equipment that uses the same or similar protocols. The IEEE 802.16 standard is an example of a restricted contention protocol.

Equipment incorporating such a protocol relies on scheduling so as to avoid interference among multiple transmitters using the same protocol.

Unrestricted Contention Protocols:

Unrestricted contention protocols can prevent co-frequency interference to radio equipment that uses dissimilar contention protocols. The IEEE 802.11 standard is an example of an unrestricted contention protocol. Equipment incorporating such a protocol listens to the channel before transmitting. If the equipment senses that another radio is operating co-channel, it will not transmit, thereby avoiding co-channel interference to equipment using similar or dissimilar contention-based protocols.



1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Array Gain (dBi)
1	1	-	-	Printed Antenna	N/A	20	0
2	2	-	-	Printed Antenna	N/A	20	0

Note1: The above information was declared by manufacturer.

Note2: The EUT has two antennas. (2TX/2RX)

Both Port 1 and Port 2 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF (dB)
LTE_5MHz	0.897	0.47
LTE_10M	0.936	0.29
LTE_40M	0.797	0.99

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From PoE
Test Software Version	Telnet



1.2 Applicable Standards

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

- ♦ 47 CFR FCC Part 90
- ♦ ANSI/TIA-603-D-2010
- ♦ FCC KDB 552295 D01v03
- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01
- ♦ FCC KDB 971168 D01 v03r01

1.3 Testing Information

Testing Location				
<input type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456 FAX : 886-3-327-0973		
<input checked="" type="checkbox"/>	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	TH02-CB	Ekko Hsieh	25~26°C / 64~65%	Dec. 19, 2019~Jan. 15, 2020
Radiated Emission Below 1GHz	03CH03-CB	KJ Huang	18.2~19.4°C / 67~73%	Jan. 03, 2020
Radiated Emission Above 1GHz	03CH05-CB	KJ Huang	18.2~19.4°C / 67~73%	Jan. 03, 2020

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

Test Items	Uncertainty	Remark
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	2.4 dB	Confidence levels of 95%



2 Test Configuration

2.1 Test Channel Mode

Mode	Power Setting
Band 43_5MHz_QPSK_2TX	-
3652.5MHz	49/49
3675MHz	48/49
3697.5MHz	46/48
Band 43_5MHz_16QAM_2TX	-
3652.5MHz	47/49
3675MHz	47/49
3697.5MHz	46/48
Band 43_5MHz_64QAM_2TX	-
3652.5MHz	47/49
3675MHz	46/49
3697.5MHz	46/48
Band 43_5MHz_256QAM_2TX	-
3652.5MHz	47/49
3675MHz	46/49
3697.5MHz	46/48
Band 43_10MHz_QPSK_2TX	-
3655MHz	43/43
3675MHz	41/42
3695MHz	41/42
Band 43_10MHz_16QAM_2TX	-
3655MHz	42/42
3675MHz	41/42
3695MHz	41/42
Band 43_10MHz_64QAM_2TX	-
3655MHz	42/43
3675MHz	41/42
3695MHz	41/42
Band 43_10MHz_256QAM_2TX	-
3655MHz	42/42
3675MHz	41/42



Mode	Power Setting
3695MHz	41/42
Band 43_40MHz_QPSK_2TX	-
3670MHz	30/32
3675MHz	30/34
3680MHz	30/33
Band 43_40MHz_16QAM_2TX	-
3670MHz	30/32
3675MHz	30/32
3680MHz	30/32
Band 43_40MHz_64QAM_2TX	-
3670MHz	30/31
3675MHz	30/31
3680MHz	30/31
Band 43_40MHz_256QAM_2TX	-
3670MHz	30/31
3675MHz	30/31
3680MHz	30/31



2.2 Worst Case Modulation Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Occupied Bandwidth EIRP Power EIRP Power Density Transmitter Conducted Spurious Emissions Spectrum Mask Emissions (Max power antenna port) Frequency Tolerance
Test Condition	Conducted measurement at transmit chains
Modulation	5MHz: QPSK, 16QAM, 64QAM, 256QAM / 3652.5MHz, 3675MHz, 3697.5MHz 10MHz: QPSK, 16QAM, 64QAM, 256QAM / 3655MHz, 3675MHz, 3695MHz 40MHz: QPSK, 16QAM, 64QAM, 256QAM / 3670MHz , 3675MHz, 3680MHz

The Worst Case Mode for Following Conformance Tests	
Tests Item	Transmitter Radiated Spurious 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 (Cabinet)
Worst Case Modulation	40MHz: QPSK / 3675 MHz
Operating Mode > 1GHz	CTX (Cabinet)
Worst Case Modulation	40MHz: QPSK / 3675 MHz

Note1: The EUT can only be used at Z axis position

Note2: For Spectrum Mask Emissions test, it tests with highest power port only (Port 1).

Note3: It was supplied power by PoE for EUT, and the PoE is for measurement only, would not be marketed.

Equipment	Brand Name	Model Name	FCC ID
PoE	Cambium	NET-P15-30IN	N/A

2.3 EUT Operation during Test

During the test, "Telnet" under WIN 7 was executed the test program to control the EUT continuously transmit RF signal.



2.4 Accessories

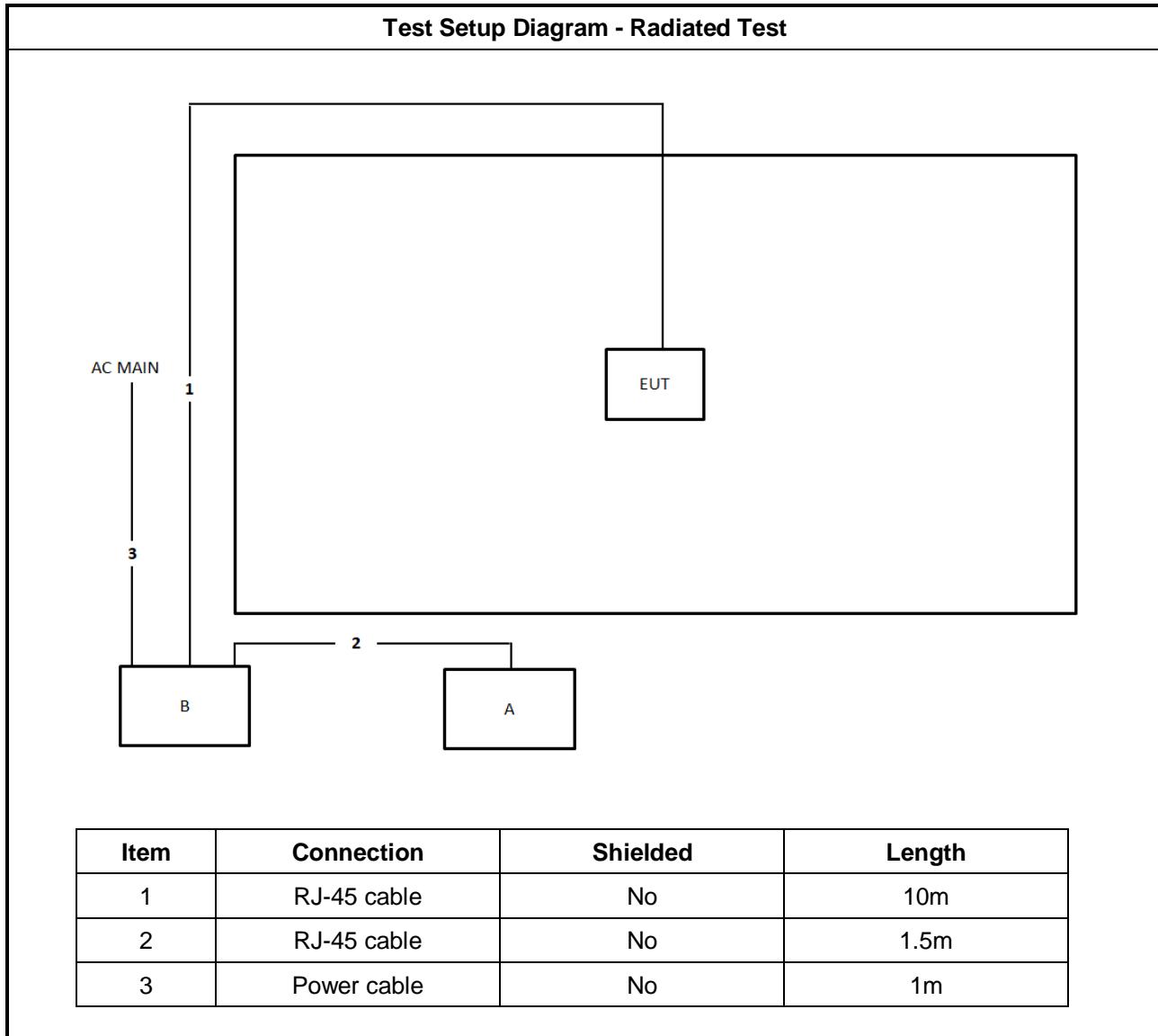
N/A

2.5 Support Equipment

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	PoE	Cambium	NET-P15-30IN	N/A



2.6 Test Setup Diagram





3 Test Result

3.1 Occupied Bandwidth

3.1.1 Limit of Occupied Bandwidth

99% Occupied Bandwidth	None
Note 1: The 99% occupied bandwidth is the frequency bandwidth of the signal power at the 99% channel power of occupied bandwidth when resolution bandwidth should be approximately 1 % to 5 % of the occupied bandwidth (OBW). These measurements shall also be performed at normal test conditions.	

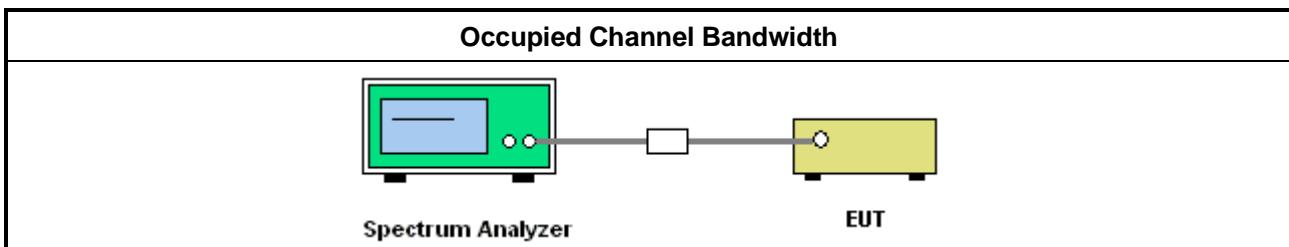
3.1.2 Measuring Instruments

Refer test equipment and calibration data list in test report clause 4.

3.1.3 Test Procedures

Method of measurement: Refer as ANSI/TIA-603-D-2010, clauses 1.3.4.4. In case of conducted measurements on smart antenna systems (equipment with multiple transmits chains) measurements need only to be performed on one of the active transmit chains (antenna outputs).

3.1.4 Test Setup



3.1.5 Test Result of Occupied Bandwidth

Refer as Appendix A



3.2 EIRP Power and EIRP Power Density

3.2.1 Limit of EIRP Power and EIRP Power Density

Frequency Band	Channel Bandwidth	EIRP Power	EIRP Power Density
3650-3700 MHz	5 MHz	5 W (37 dBm)	1 W/MHz (30 dBm/MHz)
3650-3700 MHz	10 MHz	10 W (40 dBm)	1 W/MHz (30 dBm/MHz)
3650-3700 MHz	40 MHz	25 W (43.98dBm)	1 W/MHz (30 dBm/MHz)

Note: For the applicable limit, see FCC 90.1321(a)

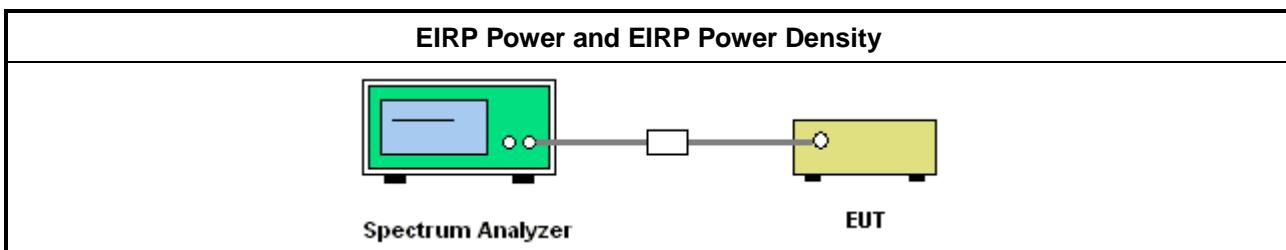
3.2.2 Measuring Instruments

Refer test equipment and calibration data list in test report clause 4.

3.2.3 Test Procedures

Method of measurement:
<input checked="" type="checkbox"/> Refer as FCC KDB 971168 clause 5.2, band power and clause 5.4 power density for spectrum analyzer measurement.
<input checked="" type="checkbox"/> Refer as FCC KDB 412172, EIRP power by conducted power adding the effective antenna gain.
<input checked="" type="checkbox"/> Refer as FCC KDB 662911, In-band power measurements must be tested using techniques that measure and sum the spectra across the transmitter outputs. In-band power and In-band power density measurements must be tested using techniques (1) or (2). (1) Measure and sum the spectra across the transmitter outputs. (2) Measure and add $10 \log(N)$ dB.
<input type="checkbox"/> Refer as ANSI/TIA-603-D-2010, clause 3.2.1 for power meter measurement.

3.2.4 Test Setup



3.2.5 Test Result of EIRP Power

Refer as Appendix B

3.2.6 Test Result of EIRP Power Density

Refer as Appendix B



3.3 Transmitter Radiated Spurious Emissions

3.3.1 Limit of Transmitter Radiated Spurious Emissions

Transmitter Radiated Spurious Emissions

The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB (-13dBm). Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or less, but at least one percent of the emission bandwidth of the fundamental emission of the transmitter, provided the measured energy is integrated over a 1 MHz bandwidth.

Note: For the applicable limit, see FCC 90.1323

3.3.2 Measuring Instruments

Refer test equipment and calibration data list in test report clause 4.

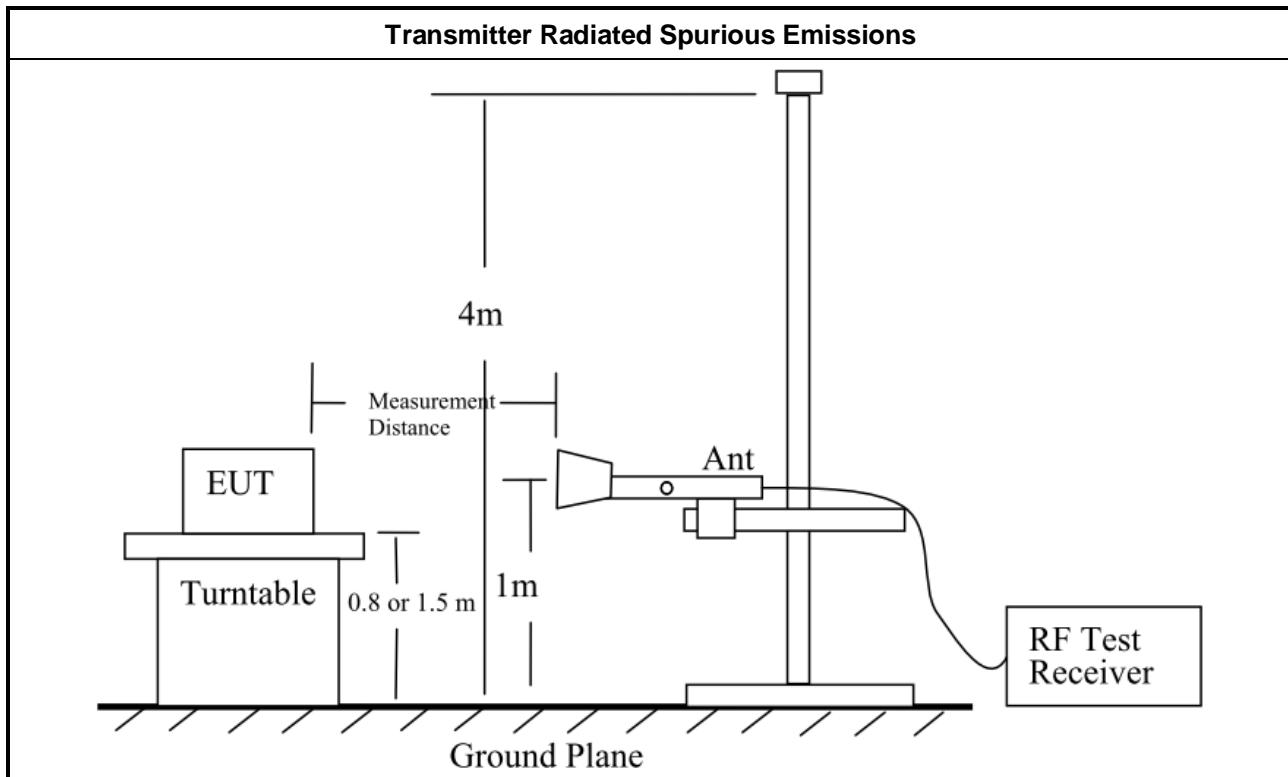
3.3.3 Test Procedures

Method of measurement:

- Refer as ANSI/TIA-603-D-2010, clause 3.2.12 for radiated measurement.
- Refer as FCC KDB 412172, using the equation (1) converted test result from EIRP to E-field strength.
Then $EIRP (\text{dBm}) = \text{E-field strength} (\text{dBuV/m at 3m}) - 95.2 \text{ dB}$
- In case a narrower measurement bandwidth was used, the following conversion formula has to be applied: (e.g. if reference bandwidth 1 MHz and measurement bandwidth 100 kHz, then measurement bandwidth conversion factor is 10 dB)
 $B = A + 10 \log(BW_{\text{ref}} / BW_{\text{measured}})$
 - A is the value at the narrower measurement bandwidth;
 - B is the value referred to the reference bandwidth;



3.3.4 Test Setup



3.3.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

3.3.6 Test Result of Transmitter Radiated Spurious Emissions

Refer as Appendix C



3.4 Transmitter Conducted Spurious Emissions

3.4.1 Limit of Transmitter Conducted Spurious Emissions

Transmitter Conducted Spurious Emissions

The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB (-13dBm). Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or less, but at least one percent of the emission bandwidth of the fundamental emission of the transmitter, provided the measured energy is integrated over a 1 MHz bandwidth.

NOTE: For the applicable limit, see FCC 90.1323

3.4.2 Measuring Instruments

Refer test equipment and calibration data list in test report clause 4.

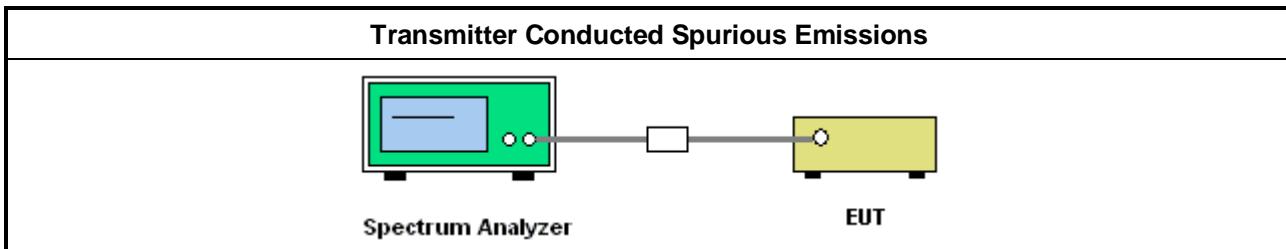
3.4.3 Test Procedures

Method of measurement:

- Refer as ANSI/TIA-603-D-2010, clause 3.2.13 for conducted measurement.
- Refer as FCC KDB 662911, spurious emission measurements is absolute limits. Spurious emissions must be tested against absolute limits using techniques (1) or (2). (1) Measure and sum the spectra across the transmitter outputs. (2) Measure and add $10 \log(N)$ dB.
 - If using techniques (1), then measure and sum the spectra across the transmitter outputs.
 - If using techniques (2) and N transmitter outputs, then spurious emissions limits on each individual output. Measure and add $10 \log(N)$ dB.
- In case a narrower measurement bandwidth was used, the following conversion formula has to be applied: (e.g. if reference bandwidth 1 MHz and measurement bandwidth 100 kHz, then measurement bandwidth conversion factor is 10 dB)
$$B = A + 10 \log(BW_{ref} / BW_{measured})$$
 - A is the value at the narrower measurement bandwidth;
 - B is the value referred to the reference bandwidth;



3.4.4 Test Setup



3.4.5 Test Result of Transmitter Conducted Spurious Emissions

Refer as Appendix D

3.4.6 Test Result of Transmitter Bandedge Emissions

Refer as Appendix D



3.5 Spectrum Mask Emissions

3.5.1 Limit of Spectrum Mask Emissions

Spectrum Mask Emissions (Mask B)

Emission Mask B. For transmitters that are equipped with an audio low-pass filter, the power of any emission must be attenuated below the unmodulated carrier power (P) as follows:

- (1) On any frequency removed from the assigned frequency by more than 50 percent, but not more than 100 percent of the authorized bandwidth: At least 25 dB.
- (2) On any frequency removed from the assigned frequency by more than 100 percent, but not more than 250 percent of the authorized bandwidth: At least 35 dB.
- (3) On any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth: At least $43 + 10 \log (P)$ dB.

Note: For the applicable limit, see FCC 90.210

3.5.2 Measuring Instruments

Refer test equipment and calibration data list in test report clause 4.



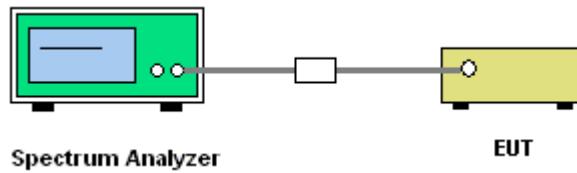
3.5.3 Test Procedures

Method of measurement:

- Refer as ANSI/TIA-603-D-2010, clause 3.2.11 for sideband measurement.
- Refer as FCC KDB 662911, emission mask measurements is absolute limits. Emission mask must be tested against absolute limits using techniques (1) or (2). (1) Measure and sum the spectra across the transmitter outputs. (2) Measure and add 10 log (N) dB.
 - If using techniques (1), then measure and sum the spectra across the transmitter outputs.
 - If using techniques (2) and N transmitter outputs, then emission mask limits on each individual output. Measure and add 10 log (N) dB.
- Refer as FCC KDB 662911, emission mask measurements is relative emission limits. When testing emission mask 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.
- In case a narrower measurement bandwidth was used, the following conversion formula has to be applied: (e.g. if reference bandwidth 1 MHz and measurement bandwidth 100 kHz, then measurement bandwidth conversion factor is 10 dB)
$$B = A + 10 \log (BW_{ref} / BW_{measured})$$
 - A is the value at the narrower measurement bandwidth;
 - B is the value referred to the reference bandwidth;

3.5.4 Test Setup

Spectrum Mask Emissions



3.5.5 Test Result of Spectrum Mask Emissions

Refer as Appendix E



3.6 Frequency Tolerance

3.6.1 Limit of Frequency Tolerance

Frequency Tolerance	Limit
Refer as FCC 90.213	To be specified in the station authorization

Note: These measurements shall also be performed at normal and extreme test conditions.

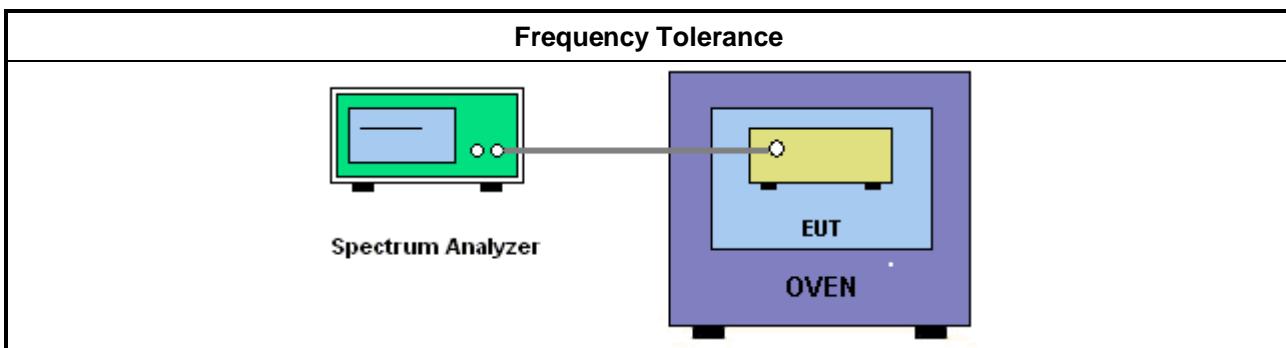
3.6.2 Measuring Instruments

Refer test equipment and calibration data list in test report clause 4.

3.6.3 Test Procedures

Method of measurement: Refer as ANSI/TIA-603-D-2010, clause 3.2.2.

3.6.4 Test Setup



3.6.5 Frequency Tolerance with Varying Supply Voltage

Refer as Appendix F

3.6.6 Frequency Tolerance with Respect to Ambient Temperature

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Bilog Antenna with 6dB Attenuator	Chase & EMCI	CBL6111A &N-06	1543 &AT-N0604	30MHz ~ 1GHz	Apr. 02, 2019	Apr. 01, 2020	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8447D	2944A10259	9kHz ~ 1.3GHz	Jan. 16, 2019	Jan. 15, 2020	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP-40	100019	9kHz ~ 40GHz	Jun. 19, 2019	Jun. 18, 2020	Radiation (03CH03-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH03-CB)
RF Cable-low	Woken	RG402	Low Cable-02+27	25MHz ~ 1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH03-CB)
Horn Antenna	SCHWARZBECK	BBHA9120 D	BBHA 9120D-1291	1GHz~18GHz	Oct. 05, 2019	Oct. 04, 2020	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 12, 2019	Jun. 11, 2020	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630 SE	980287	1GHz – 26.5GHz	Apr. 16, 2019	Apr. 15, 2020	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35 -HG	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Aug. 15, 2019	Aug. 14, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH05-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 02, 2019	Jul. 01, 2020	Conducted (TH02-CB)
Spectrum analyzer	Keysight	N9020A	MY55400138	10 Hz up to 26.5 GHz	Dec. 11, 2019	Dec. 10, 2020	Conducted (TH02-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-C2SP	TBN-1010206	-20~150 degree	Mar. 04. 2019	Mar. 03. 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-3	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)

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Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
Cable	Marvelous Microwave	n/a	Cable-REF-1	9k-1GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-3	1 GHz – 40 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
MW Analog Signal Generator	Keysight	N5183A	MY50142965	100kHz~20GHz	Nov. 17, 2019	Nov. 16, 2020	Conducted (TH02-CB)
Vector Signal generator	R&S	SMU200A	102782	100kHz-6GHz	Jan. 16, 2019	Jan. 15, 2020	Conducted (TH02-CB)

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

**For 5MHz:
Summary**

Mode	Max-NdB (Hz)	Max-OBW (Hz)	ITU-Code	Min-NdB (Hz)	Min-OBW (Hz)
Band 43	-	-	-	-	-
5MHz_OPSK_2TX	4.863M	4.586M	4M59G7D	4.838M	4.578M
5MHz_16QAM_2TX	4.863M	4.592M	4M59W7D	4.819M	4.582M
5MHz_64QAM_2TX	4.875M	4.597M	4M60W7D	4.831M	4.585M
5MHz_256QAM_2TX	4.863M	4.594M	4M59W7D	4.838M	4.585M

Max-N dB = Maximum 26dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;**Min-N dB** = Minimum 26dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;



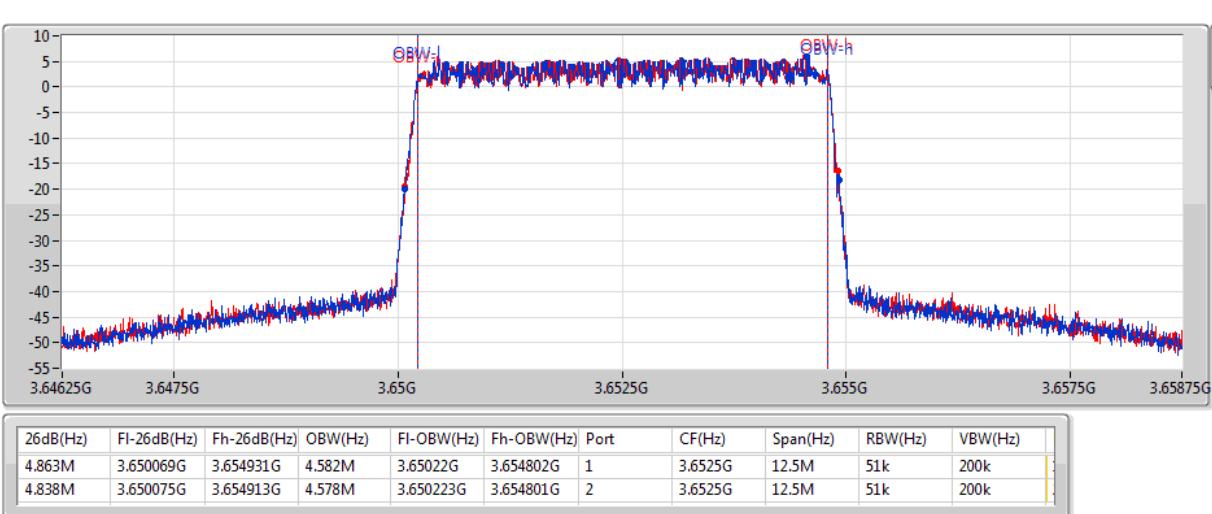
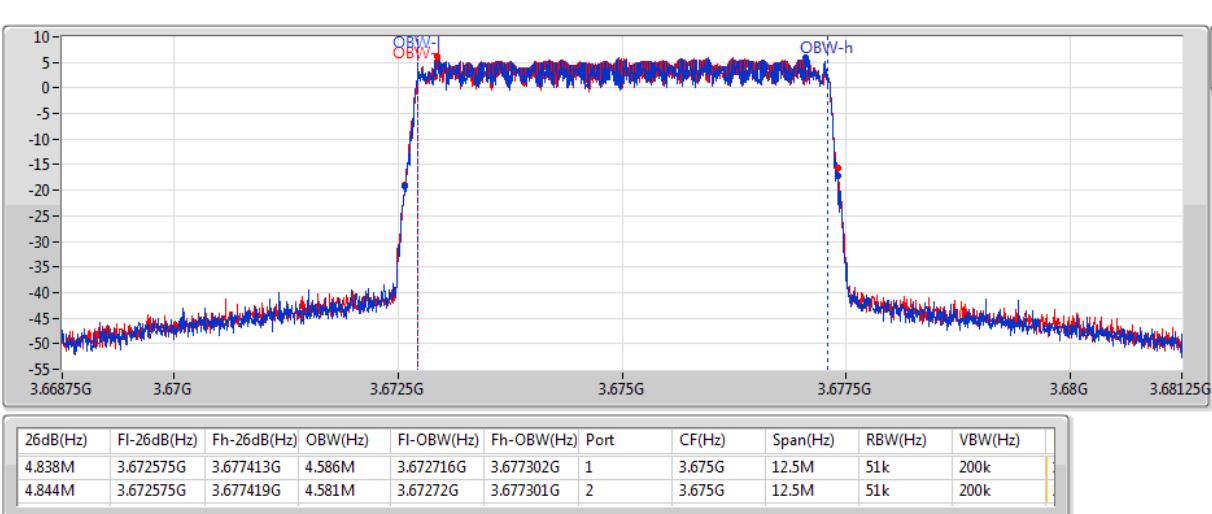
EBW Result

Appendix A

Result

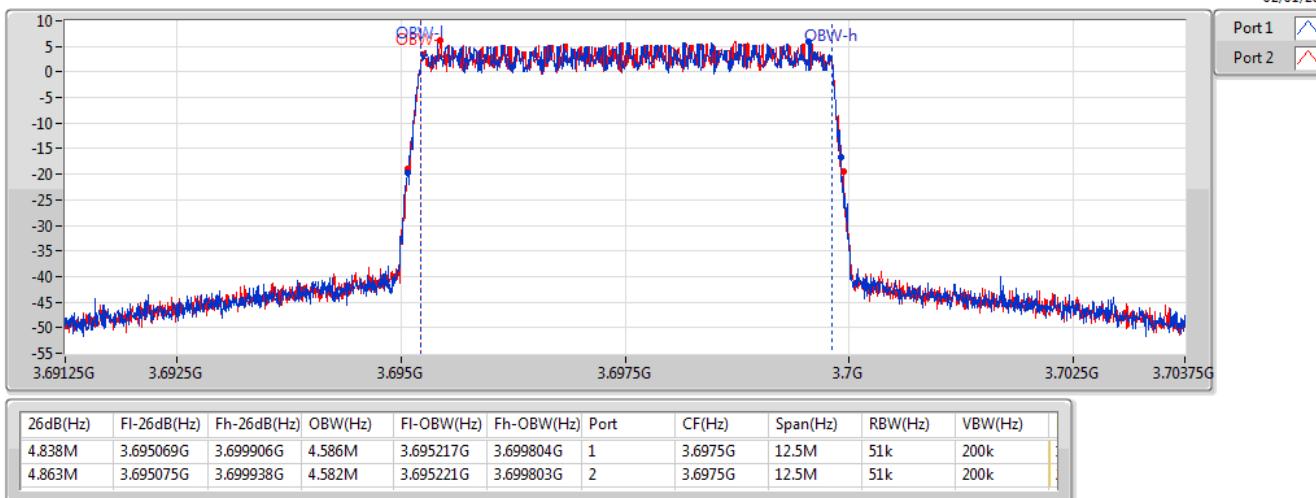
Mode	Result	Limit (Hz)	Port 1-NdB (Hz)	Port 1-OBW (Hz)	Port 2-NdB (Hz)	Port 2-OBW (Hz)
Band 43_5MHz_OPSK_2TX	-	-	-	-	-	-
3652.5MHz	Pass	Inf	4.863M	4.582M	4.838M	4.578M
3675MHz	Pass	Inf	4.838M	4.586M	4.844M	4.581M
3697.5MHz	Pass	Inf	4.838M	4.586M	4.863M	4.582M
Band 43_5MHz_16QAM_2TX	-	-	-	-	-	-
3652.5MHz	Pass	Inf	4.863M	4.583M	4.844M	4.592M
3675MHz	Pass	Inf	4.856M	4.583M	4.85M	4.582M
3697.5MHz	Pass	Inf	4.819M	4.591M	4.838M	4.586M
Band 43_5MHz_64QAM_2TX	-	-	-	-	-	-
3652.5MHz	Pass	Inf	4.844M	4.585M	4.831M	4.586M
3675MHz	Pass	Inf	4.863M	4.589M	4.875M	4.586M
3697.5MHz	Pass	Inf	4.85M	4.597M	4.869M	4.588M
Band 43_5MHz_256QAM_2TX	-	-	-	-	-	-
3652.5MHz	Pass	Inf	4.838M	4.587M	4.844M	4.587M
3675MHz	Pass	Inf	4.863M	4.585M	4.863M	4.585M
3697.5MHz	Pass	Inf	4.85M	4.594M	4.838M	4.588M

Port X-N dB = Port X 26dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;

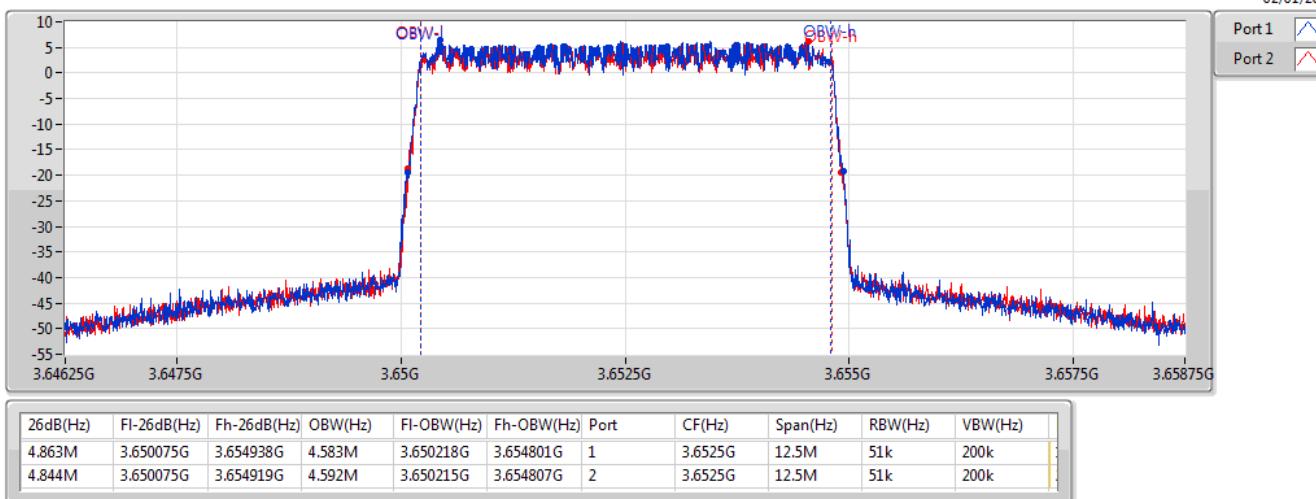
Band 43_5MHz_2TX
EBW
3652.5MHz_QPSK

Band 43_5MHz_2TX
EBW
3675MHz_QPSK


Band 43_5MHz_2TX
EBW
3697.5MHz_QPSK

02/01/2020

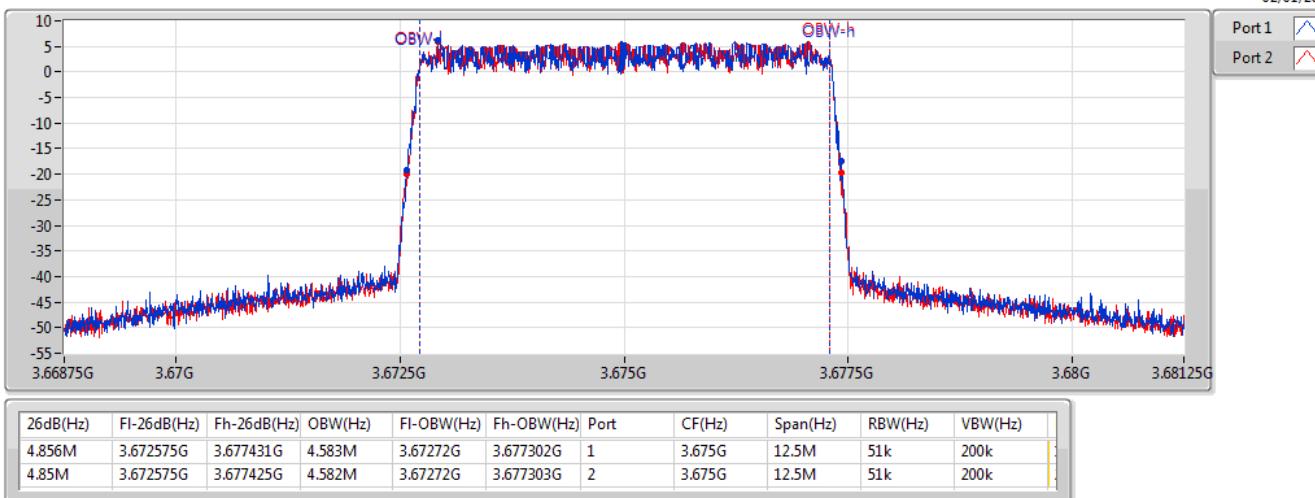

Band 43_5MHz_2TX
EBW
3652.5MHz_16QAM

02/01/2020

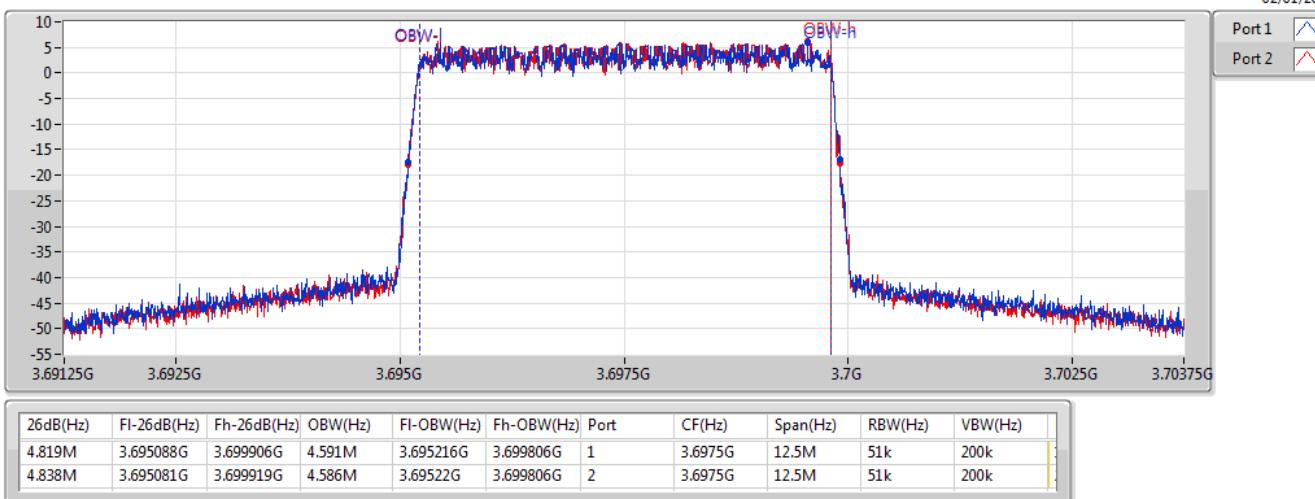


Band 43_5MHz_2TX
EBW
3675MHz_16QAM

02/01/2020

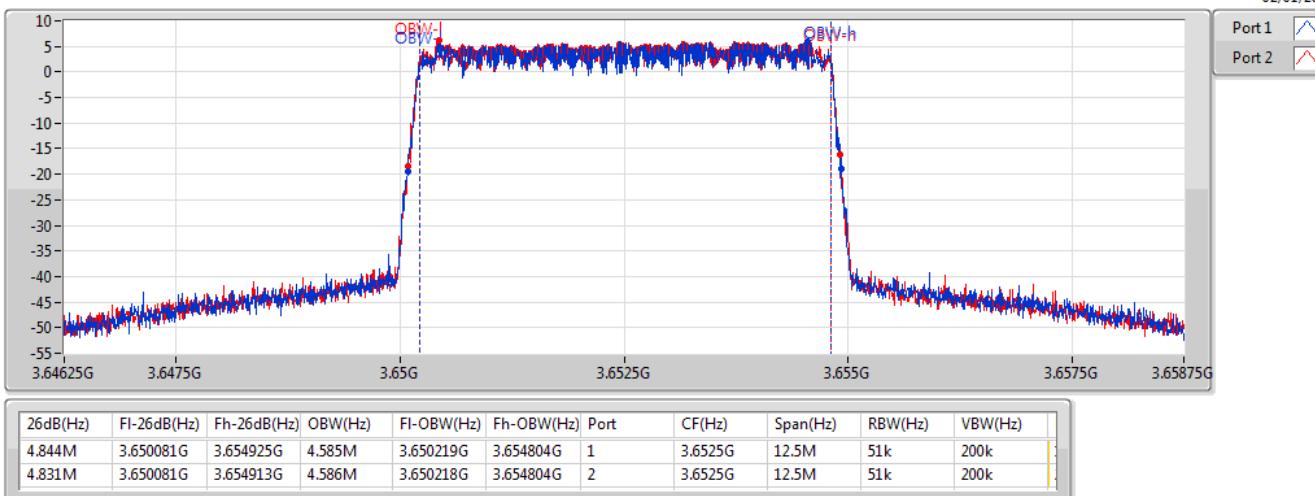

Band 43_5MHz_2TX
EBW
3697.5MHz_16QAM

02/01/2020

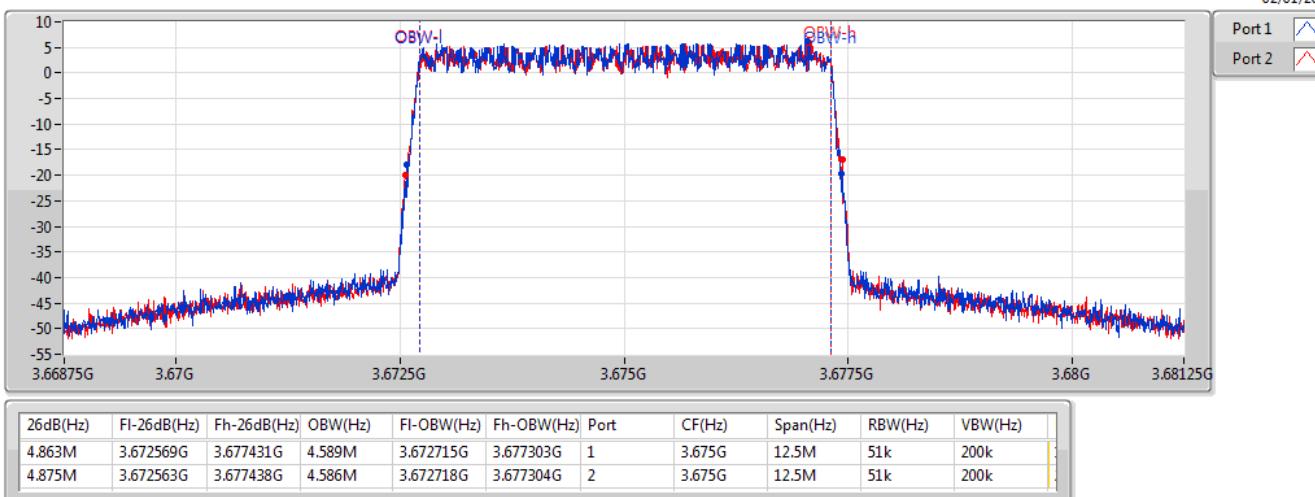


Band 43_5MHz_2TX
EBW
3652.5MHz_64QAM

02/01/2020

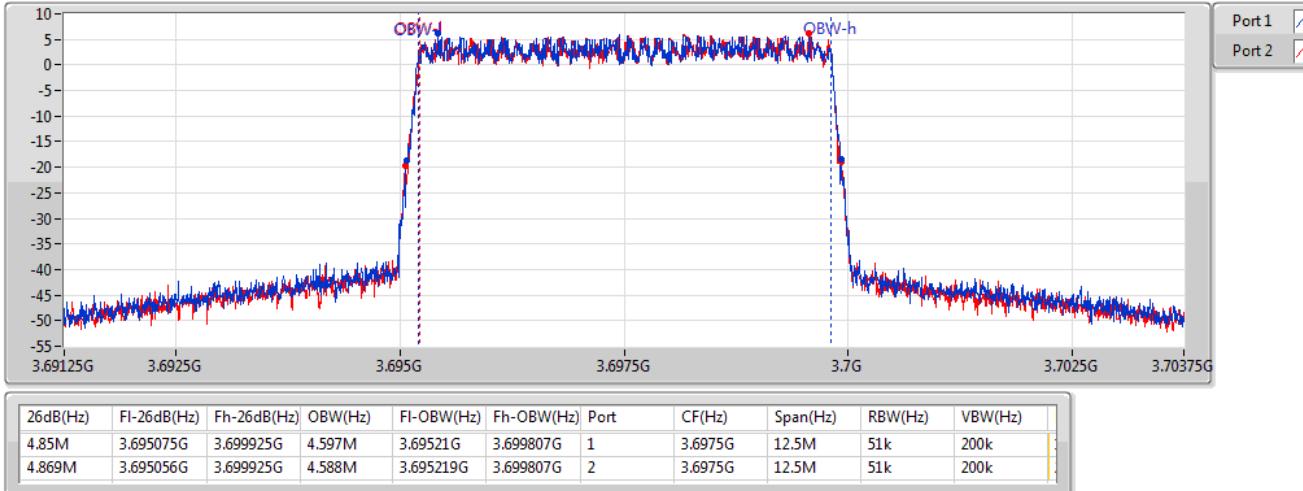

Band 43_5MHz_2TX
EBW
3675MHz_64QAM

02/01/2020

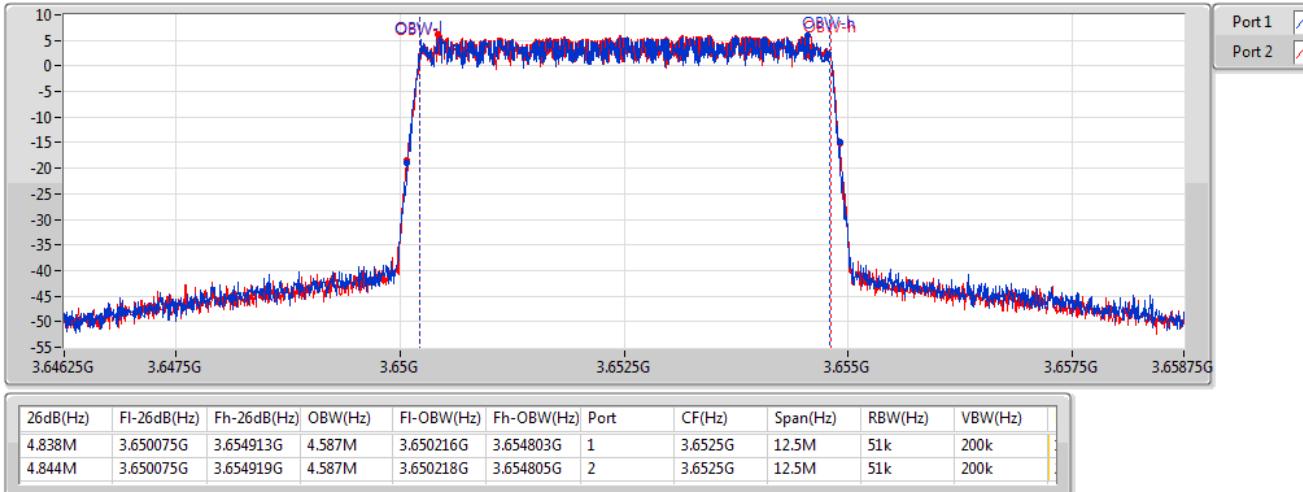


Band 43_5MHz_2TX
EBW
3697.5MHz_64QAM

02/01/2020

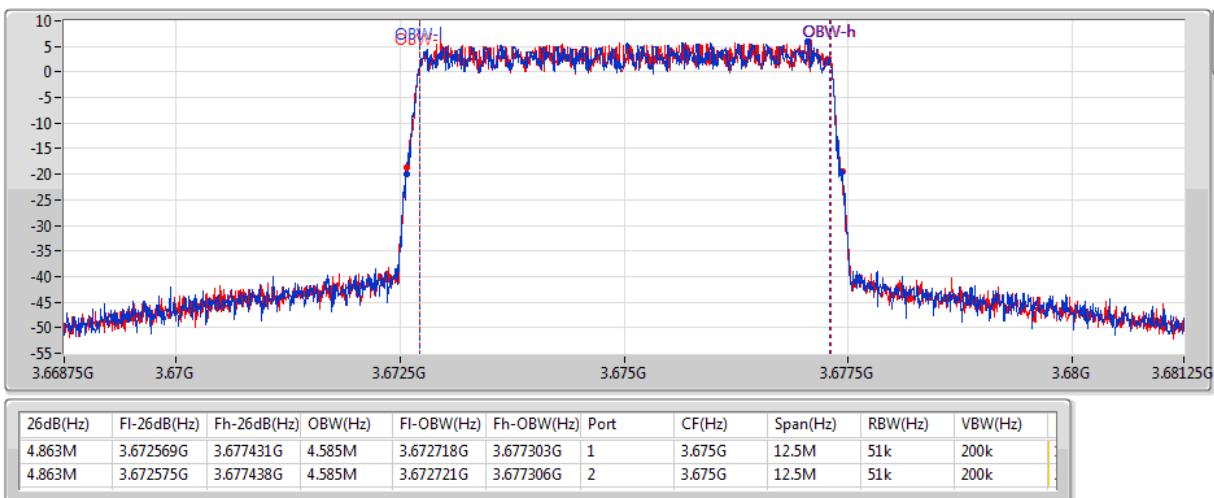

Band 43_5MHz_2TX
EBW
3652.5MHz_256QAM

02/01/2020

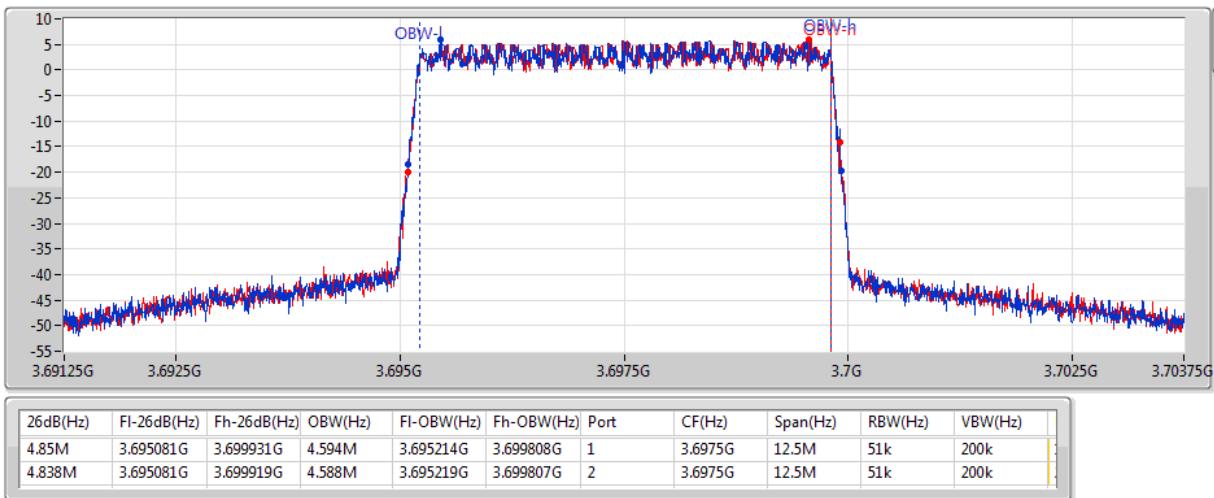


**Band 43_5MHz_2TX
3675MHz_256QAM**
EBW

02/01/2020

Port 1 
Port 2 

**Band 43_5MHz_2TX
3697.5MHz_256QAM**
EBW

02/01/2020

Port 1 
Port 2 


**For 10MHz and 40MHz:
Summary**

Mode	Max-NdB (Hz)	Max-OBW (Hz)	ITU-Code	Min-NdB (Hz)	Min-OBW (Hz)
Band 43	-	-	-	-	-
10MHz_QPSK_2TX	9.75M	9.184M	9M18G7D	9.688M	9.173M
10MHz_16QAM_2TX	9.75M	9.184M	9M18W7D	9.7M	9.174M
10MHz_64QAM_2TX	9.75M	9.191M	9M19W7D	9.7M	9.178M
10MHz_256QAM_2TX	9.75M	9.188M	9M19W7D	9.7M	9.179M
40MHz_QPSK_2TX	42.9M	36.996M	37M0G7D	42.45M	36.947M
40MHz_16QAM_2TX	42.8M	37.033M	37M0W7D	42.55M	36.98M
40MHz_64QAM_2TX	42.7M	37.004M	37M0W7D	42.45M	36.963M
40MHz_256QAM_2TX	43.05M	37.054M	37M1W7D	42.35M	36.979M

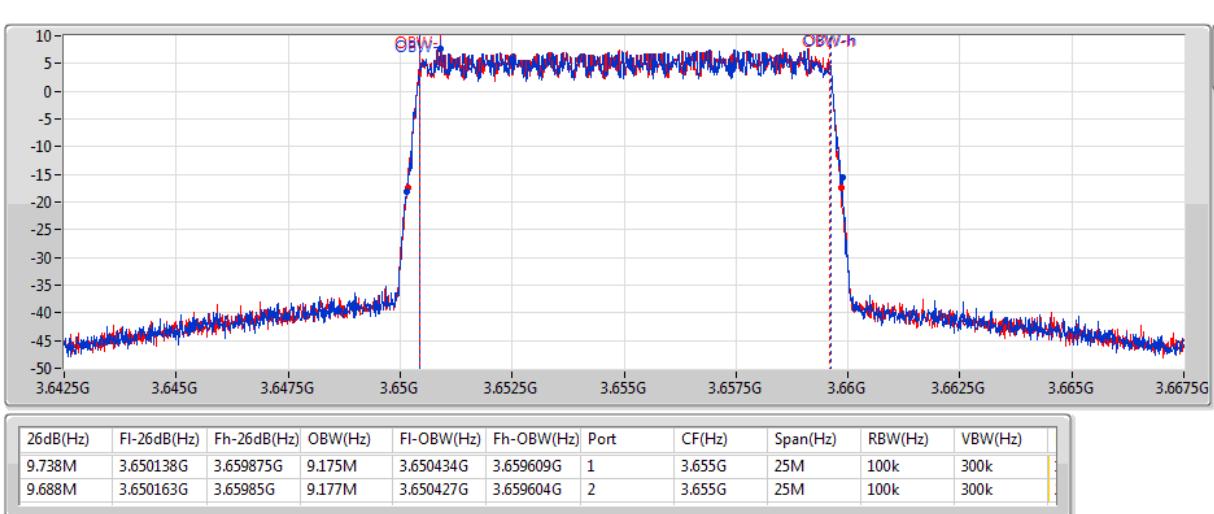
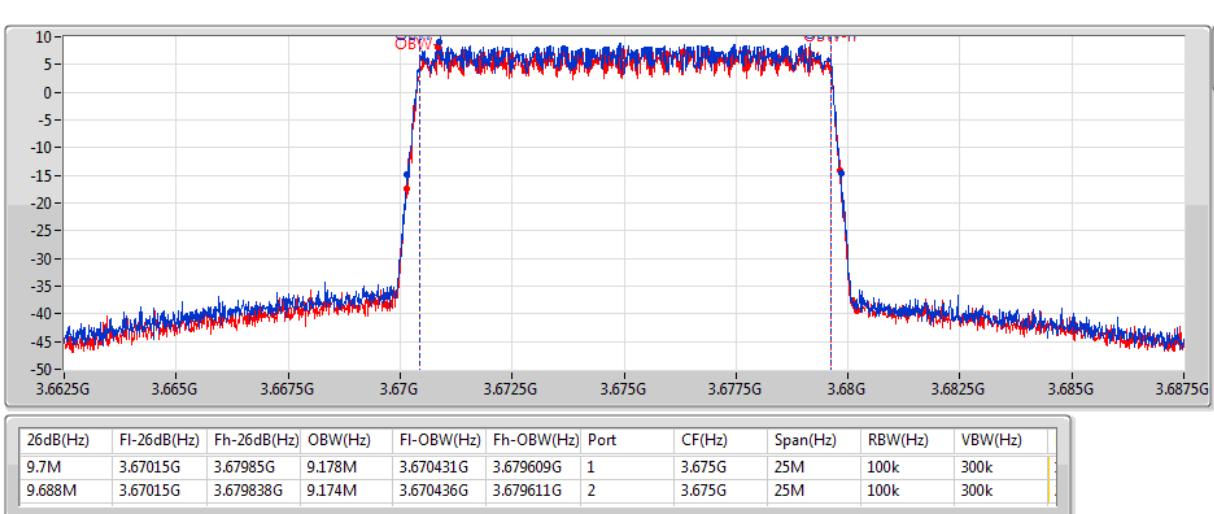
Max-N dB = Maximum 26dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;**Min-N dB** = Minimum 26dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;



Result

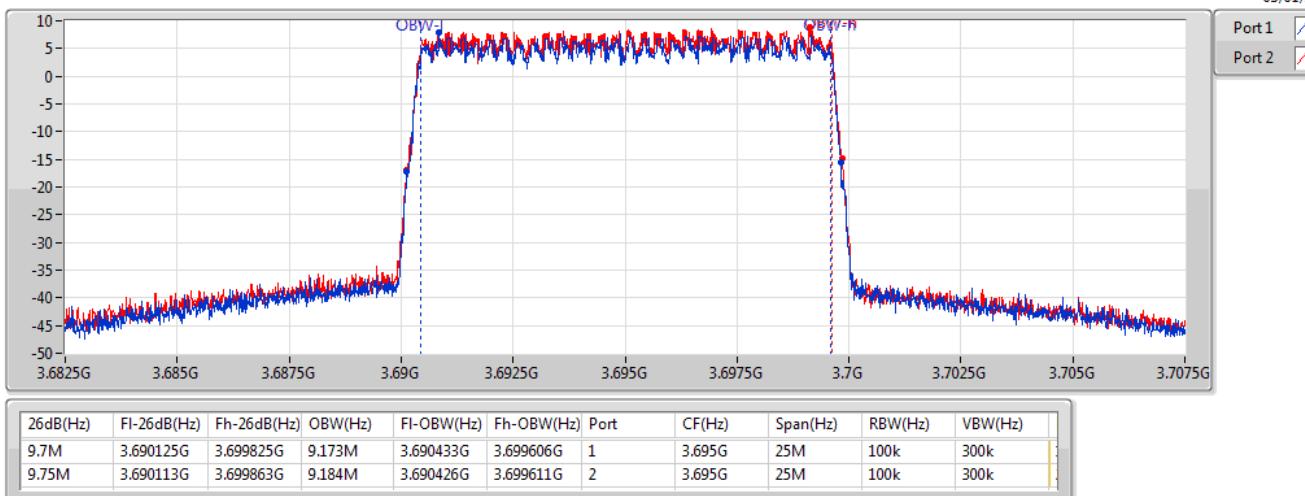
Mode	Result	Limit (Hz)	Port 1-NdB (Hz)	Port 1-OBW (Hz)	Port 2-NdB (Hz)	Port 2-OBW (Hz)
Band 43_10MHz_OPSK_2TX	-	-	-	-	-	-
3655MHz	Pass	Inf	9.738M	9.175M	9.688M	9.177M
3675MHz	Pass	Inf	9.7M	9.178M	9.688M	9.174M
3695MHz	Pass	Inf	9.7M	9.173M	9.75M	9.184M
Band 43_10MHz_16QAM_2TX	-	-	-	-	-	-
3655MHz	Pass	Inf	9.725M	9.182M	9.7M	9.174M
3675MHz	Pass	Inf	9.75M	9.182M	9.725M	9.177M
3695MHz	Pass	Inf	9.725M	9.184M	9.7M	9.181M
Band 43_10MHz_64QAM_2TX	-	-	-	-	-	-
3655MHz	Pass	Inf	9.738M	9.183M	9.738M	9.178M
3675MHz	Pass	Inf	9.75M	9.19M	9.7M	9.182M
3695MHz	Pass	Inf	9.725M	9.191M	9.7M	9.181M
Band 43_10MHz_256QAM_2TX	-	-	-	-	-	-
3655MHz	Pass	Inf	9.713M	9.179M	9.7M	9.188M
3675MHz	Pass	Inf	9.738M	9.184M	9.713M	9.187M
3695MHz	Pass	Inf	9.75M	9.185M	9.713M	9.185M
Band 43_40MHz_OPSK_2TX	-	-	-	-	-	-
3670MHz	Pass	Inf	42.75M	36.953M	42.8M	36.99M
3675MHz	Pass	Inf	42.45M	36.947M	42.9M	36.996M
3680MHz	Pass	Inf	42.75M	36.977M	42.8M	36.989M
Band 43_40MHz_16QAM_2TX	-	-	-	-	-	-
3670MHz	Pass	Inf	42.65M	36.98M	42.7M	37.033M
3675MHz	Pass	Inf	42.8M	37.016M	42.65M	37.022M
3680MHz	Pass	Inf	42.7M	36.983M	42.55M	37.024M
Band 43_40MHz_64QAM_2TX	-	-	-	-	-	-
3670MHz	Pass	Inf	42.7M	36.963M	42.45M	37.004M
3675MHz	Pass	Inf	42.65M	36.965M	42.7M	36.982M
3680MHz	Pass	Inf	42.6M	36.982M	42.65M	36.993M
Band 43_40MHz_256QAM_2TX	-	-	-	-	-	-
3670MHz	Pass	Inf	42.7M	37.034M	42.85M	36.984M
3675MHz	Pass	Inf	42.6M	36.979M	42.35M	37.029M
3680MHz	Pass	Inf	42.75M	37.054M	43.05M	37.006M

Port X-N dB = Port X 26dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;

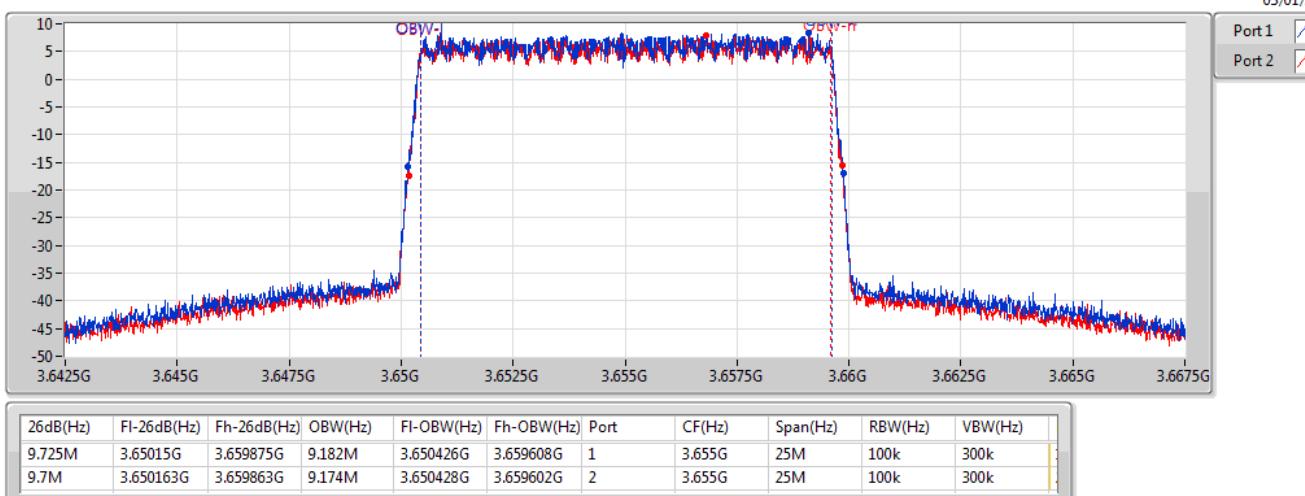
Band 43_10MHz_2TX
EBW
3655MHz_QPSK

Band 43_10MHz_2TX
EBW
3675MHz_QPSK


Band 43_10MHz_2TX
EBW
3695MHz_QPSK

03/01/2020

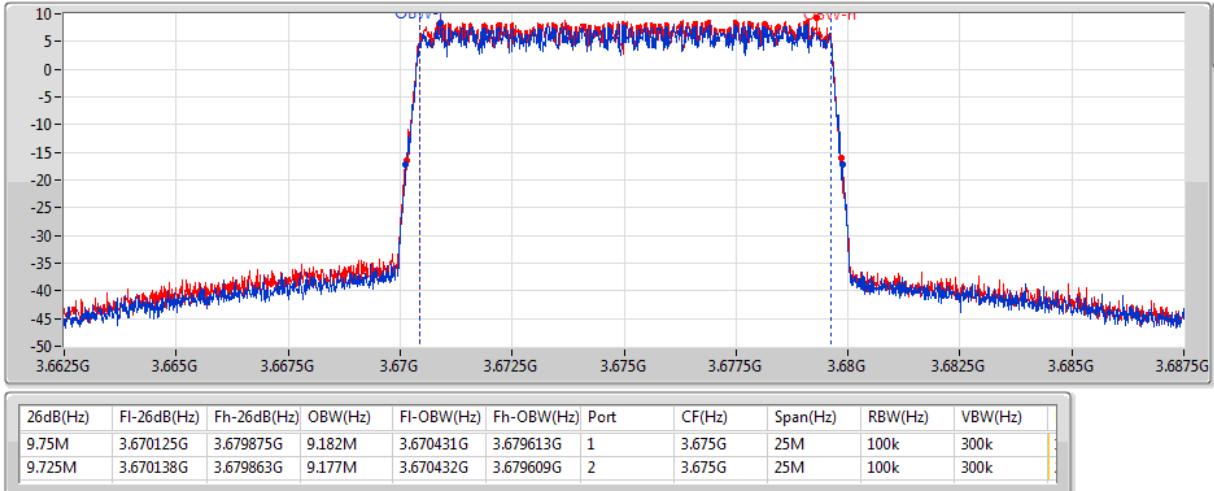

Band 43_10MHz_2TX
EBW
3655MHz_16QAM

03/01/2020

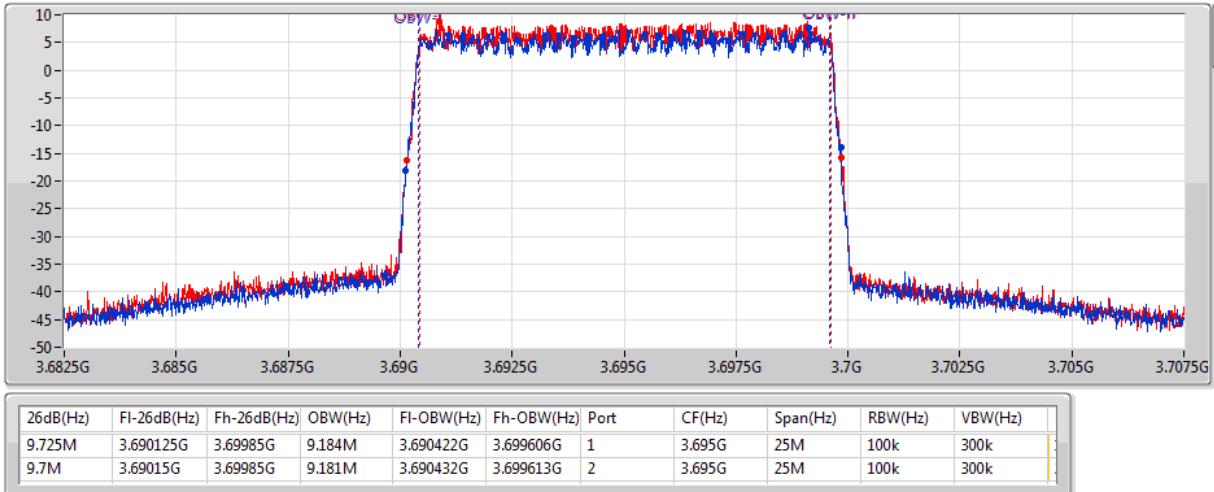


Band 43_10MHz_2TX
EBW
3675MHz_16QAM

03/01/2020

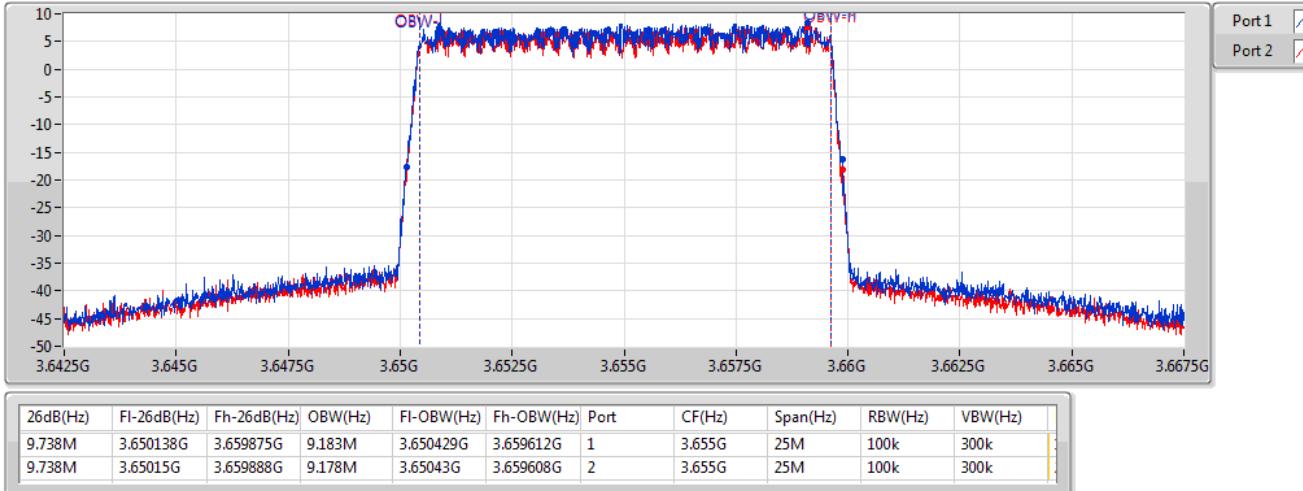

Band 43_10MHz_2TX
EBW
3695MHz_16QAM

03/01/2020

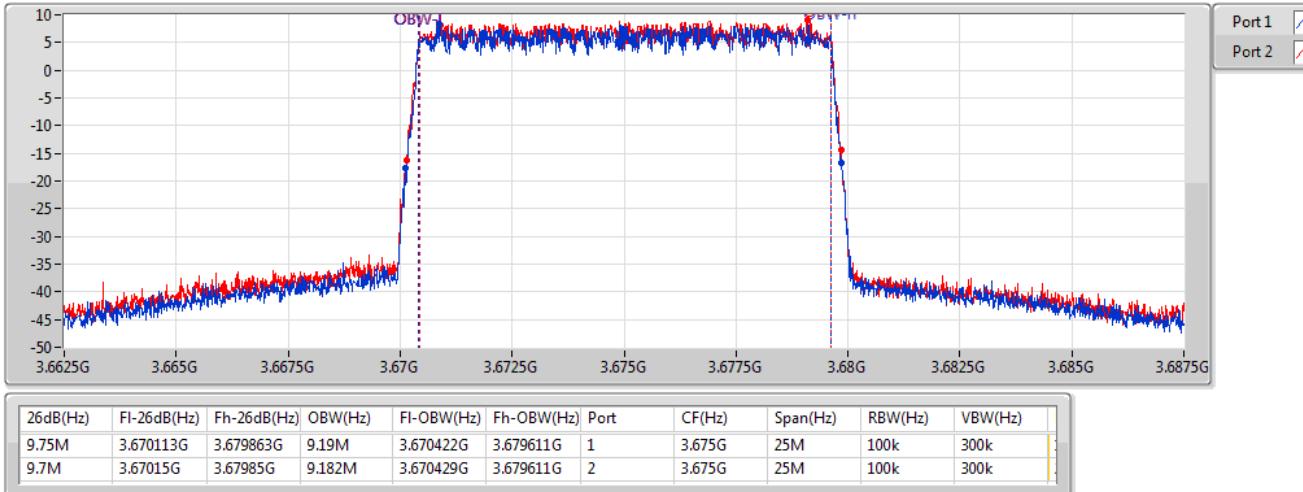


Band 43_10MHz_2TX
EBW
3655MHz_64QAM

03/01/2020

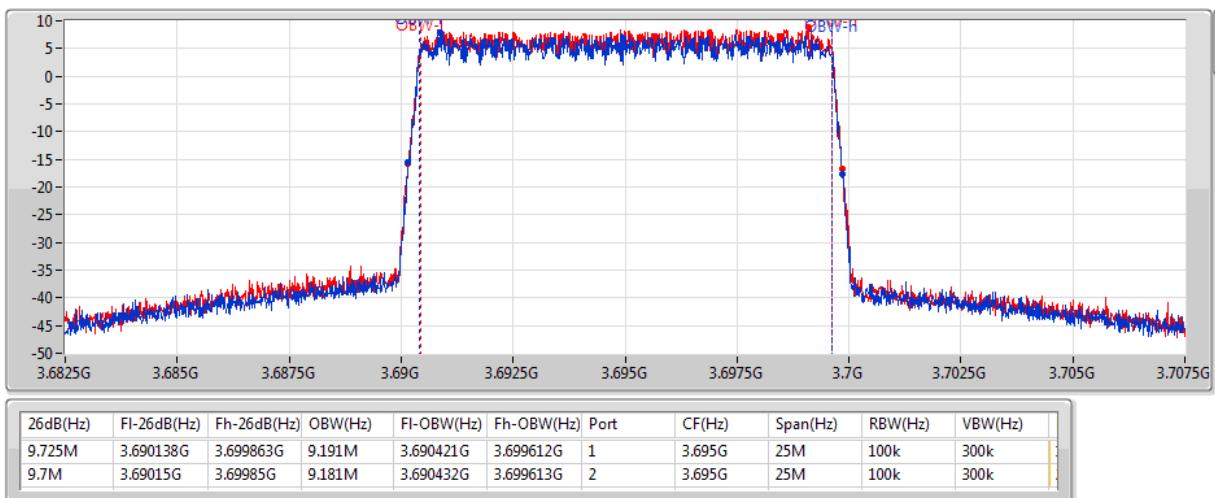

Band 43_10MHz_2TX
EBW
3675MHz_64QAM

03/01/2020

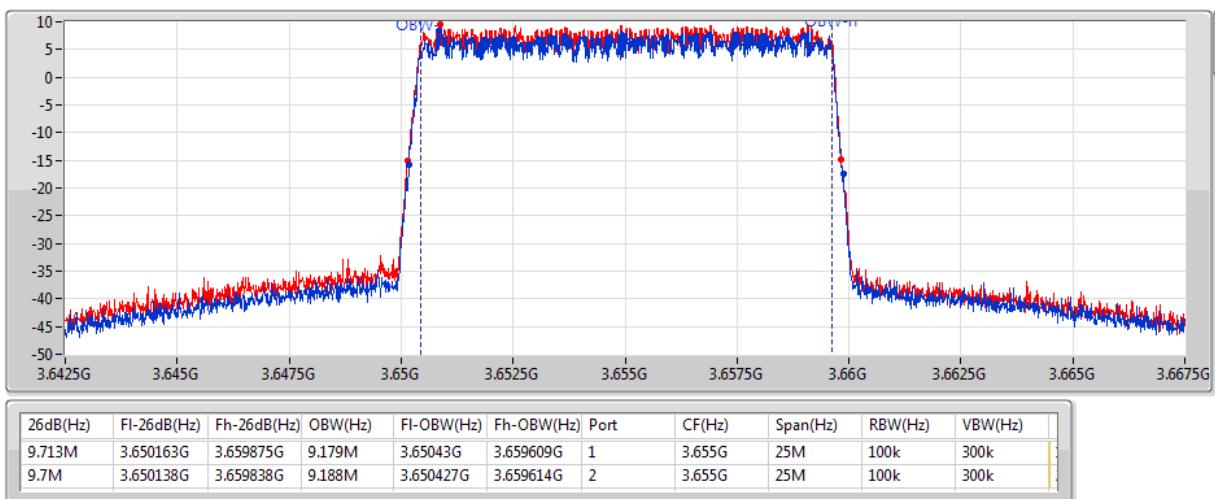


Band 43_10MHz_2TX
3695MHz_64QAM
EBW

03/01/2020

Port 1 
Port 2 

Band 43_10MHz_2TX
3655MHz_256QAM
EBW

03/01/2020

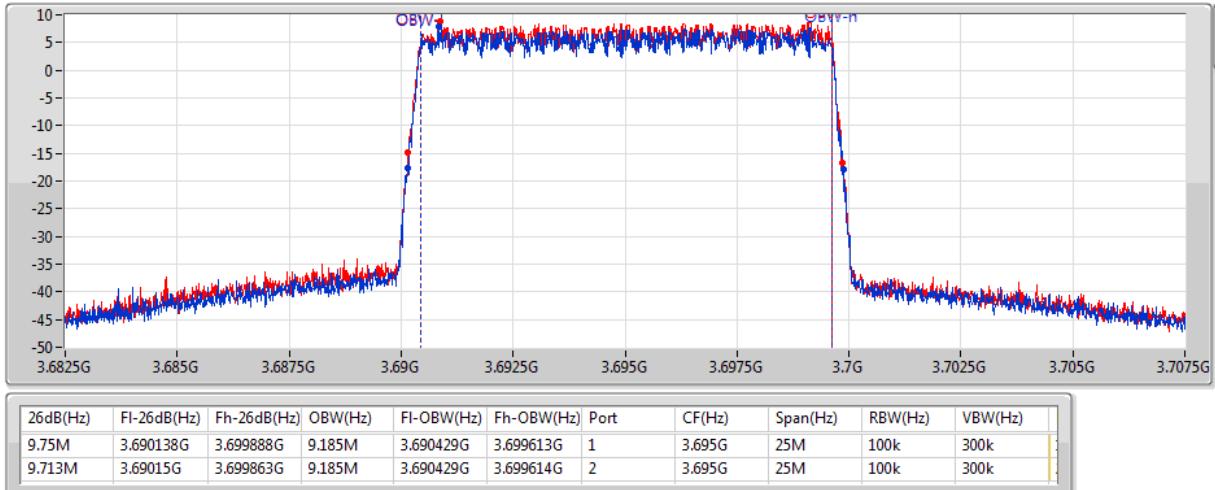
Port 1 
Port 2 


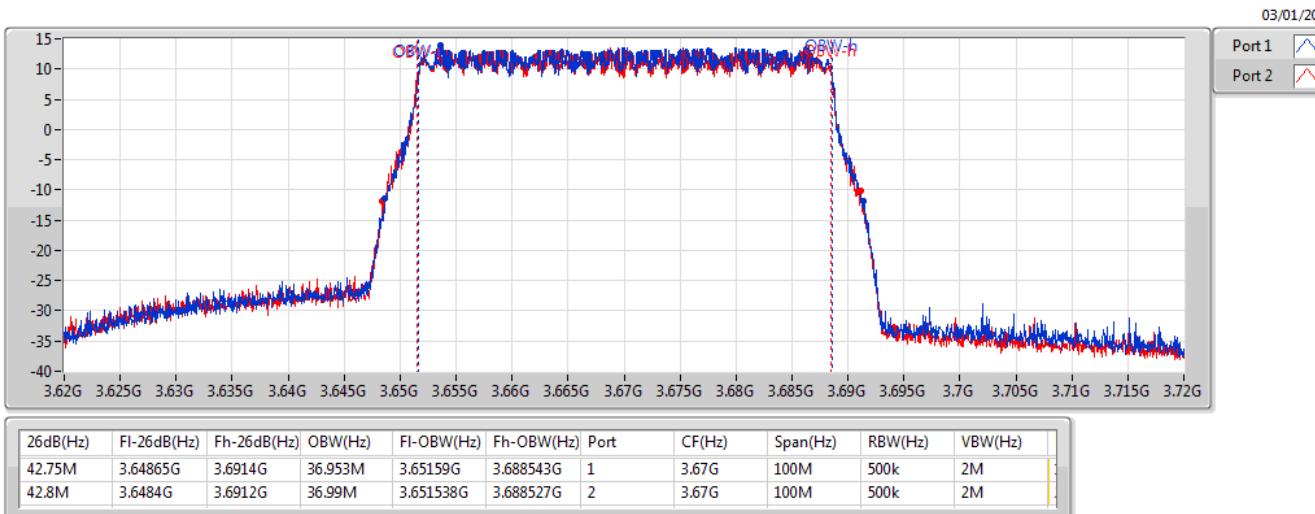
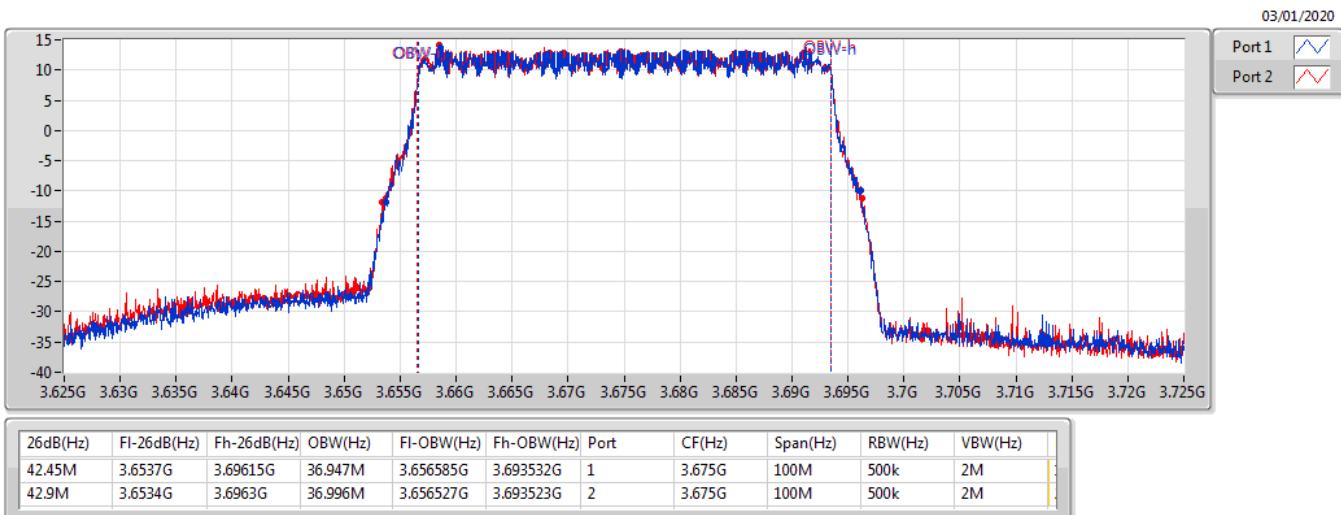
Band 43_10MHz_2TX
EBW
3675MHz_256QAM

03/01/2020


Band 43_10MHz_2TX
EBW
3695MHz_256QAM

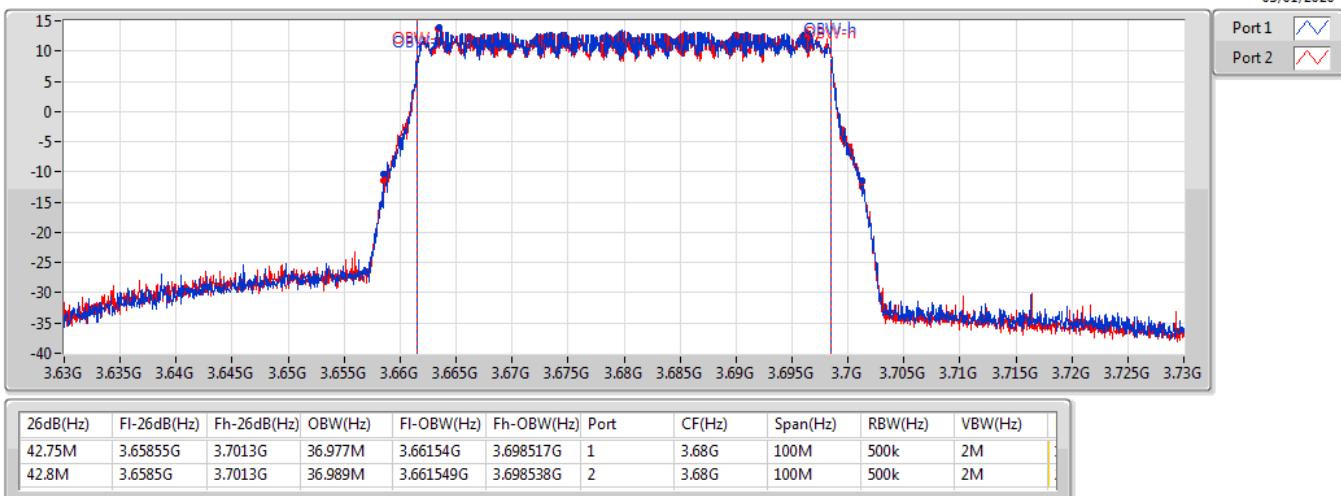
03/01/2020



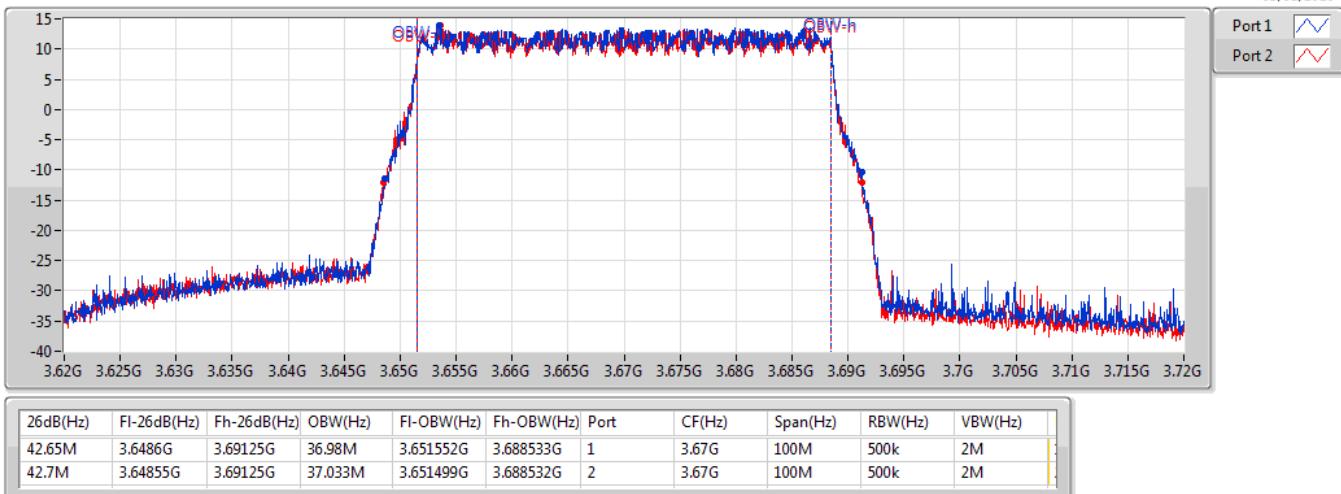
Band 43_40MHz_2TX
EBW
3670MHz_QPSK

Band 43_40MHz_2TX
EBW
3675MHz_QPSK


Band 43_40MHz_2TX
EBW
3680MHz_QPSK

03/01/2020

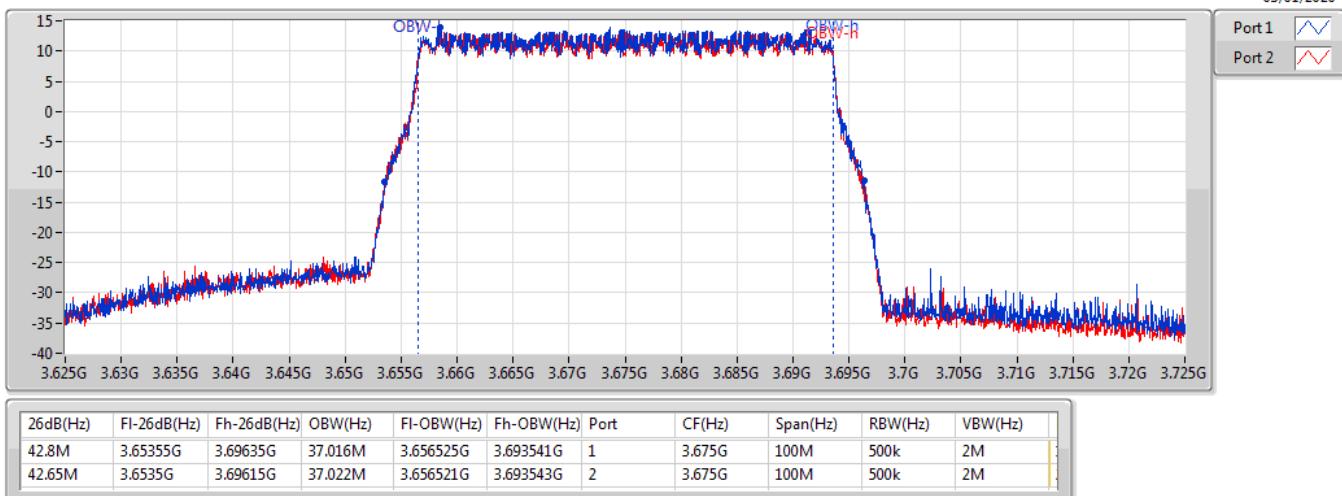

Band 43_40MHz_2TX
EBW
3670MHz_16QAM

03/01/2020

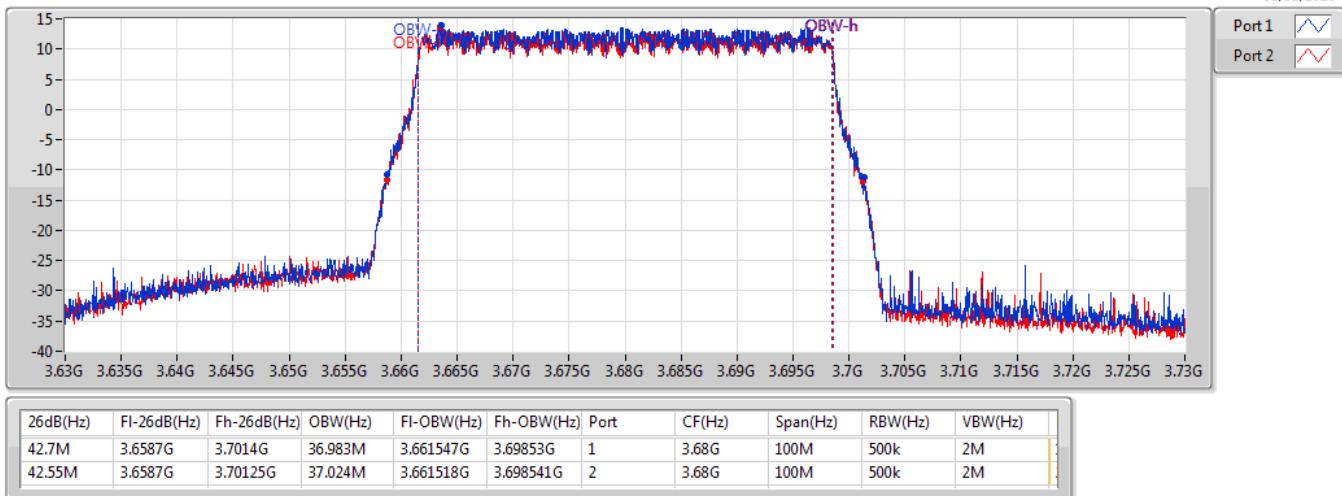


Band 43_40MHz_2TX
EBW
3675MHz_16QAM

03/01/2020

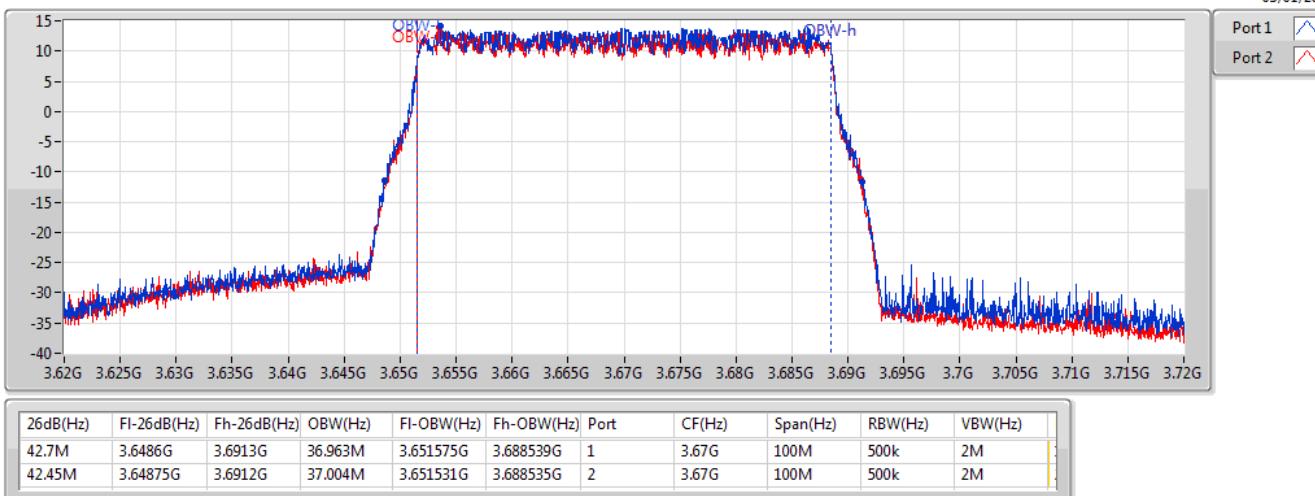

Band 43_40MHz_2TX
EBW
3680MHz_16QAM

03/01/2020

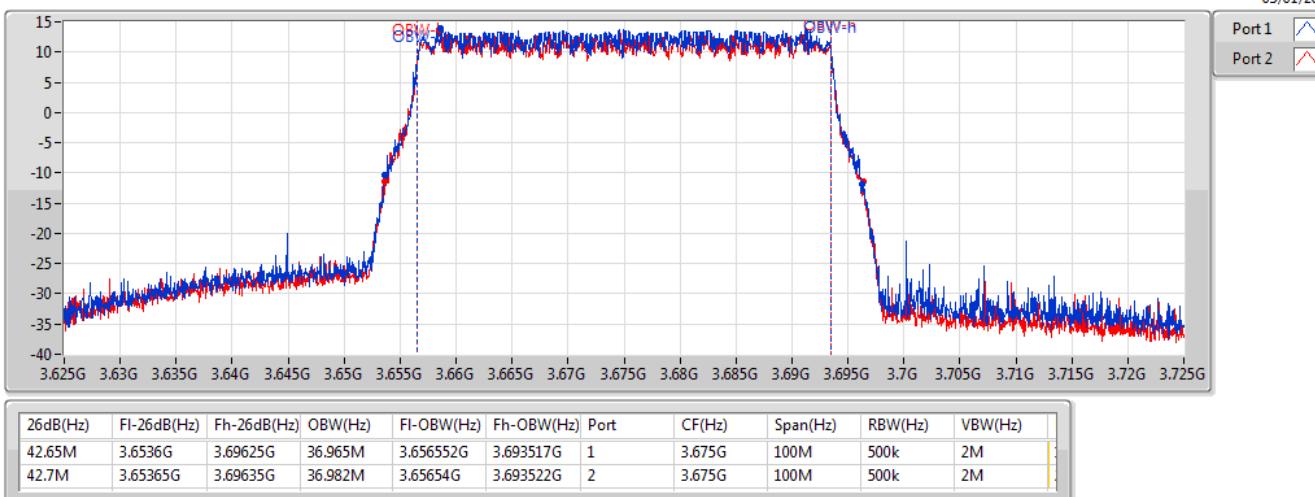


Band 43_40MHz_2TX
EBW
3670MHz_64QAM

03/01/2020

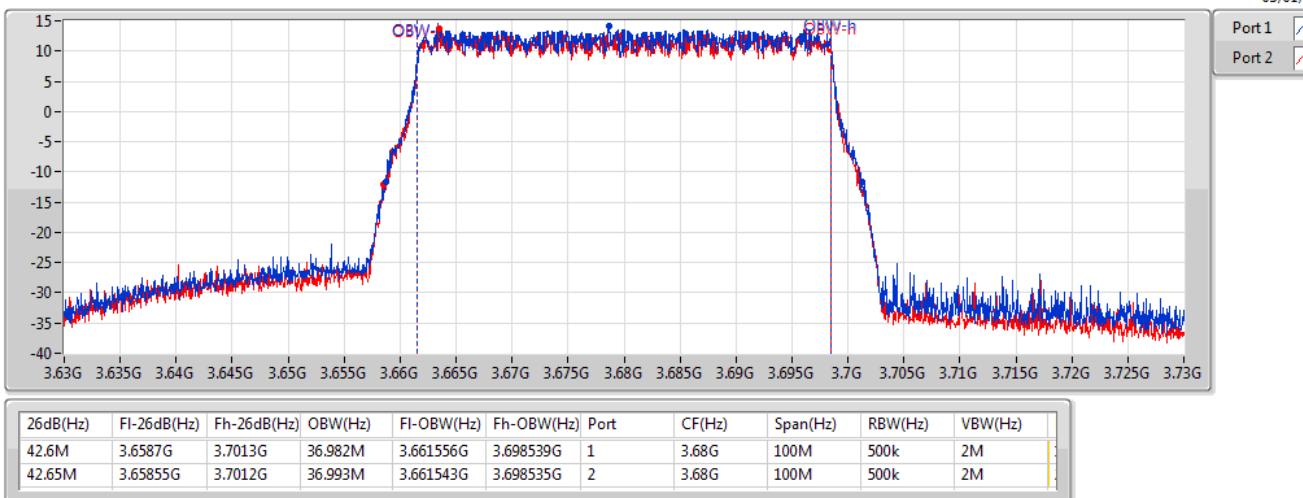

Band 43_40MHz_2TX
EBW
3675MHz_64QAM

03/01/2020

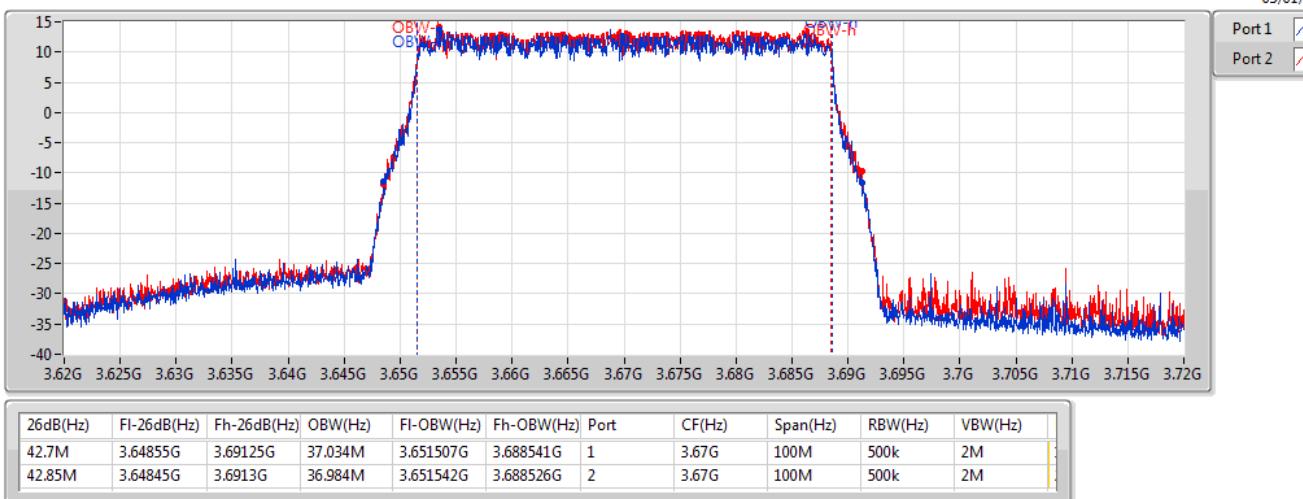


Band 43_40MHz_2TX
EBW
3680MHz_64QAM

03/01/2020

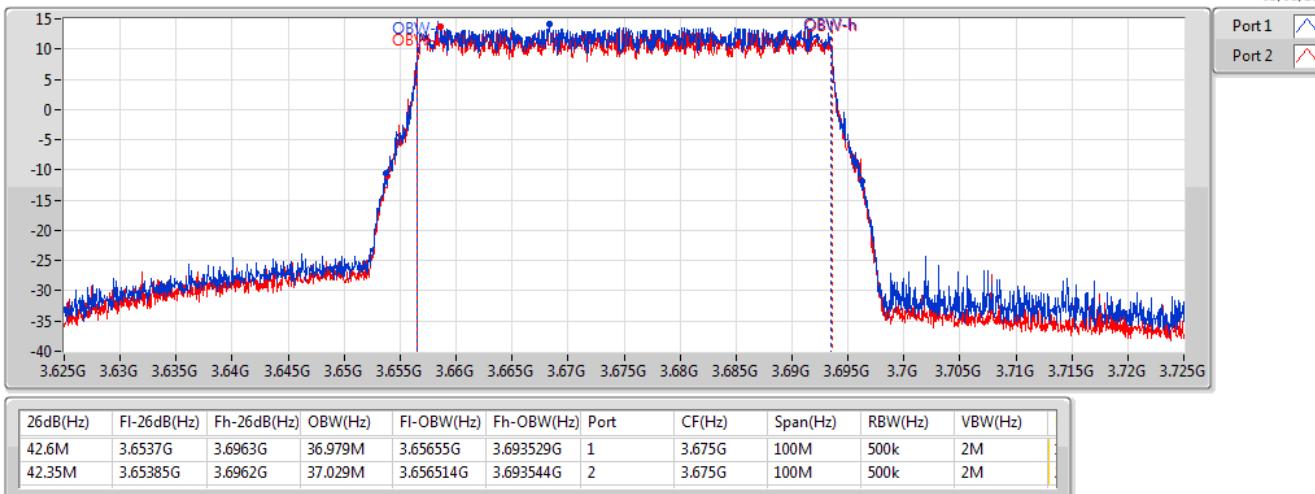

Band 43_40MHz_2TX
EBW
3670MHz_256QAM

03/01/2020

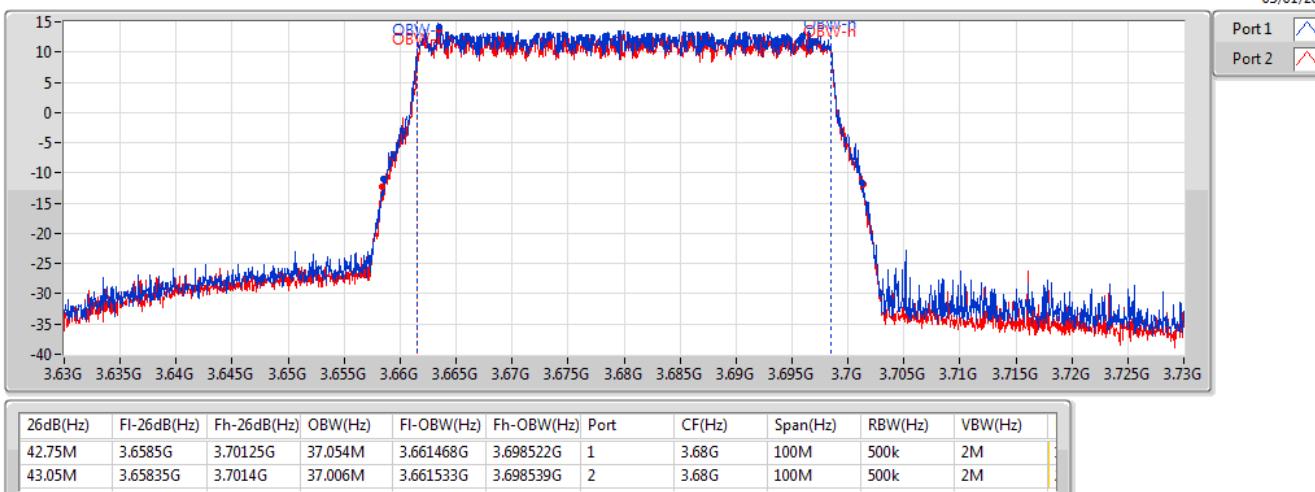


Band 43_40MHz_2TX
EBW
3675MHz_256QAM

03/01/2020


Band 43_40MHz_2TX
EBW
3680MHz_256QAM

03/01/2020





Average Power Result

Appendix B.1

For 5MHz:
Summary

Mode	Power (dBm)	Power (W)	EIRP (dBm)	EIRP (W)
Band 43	-	-	-	-
5MHz_OPSK_2TX	16.94	0.049	36.94	4.943
5MHz_16QAM_2TX	16.96	0.050	36.96	4.966
5MHz_64QAM_2TX	16.97	0.050	36.97	4.977
5MHz_256QAM_2TX	16.98	0.050	36.98	4.989



Average Power Result

Appendix B.1

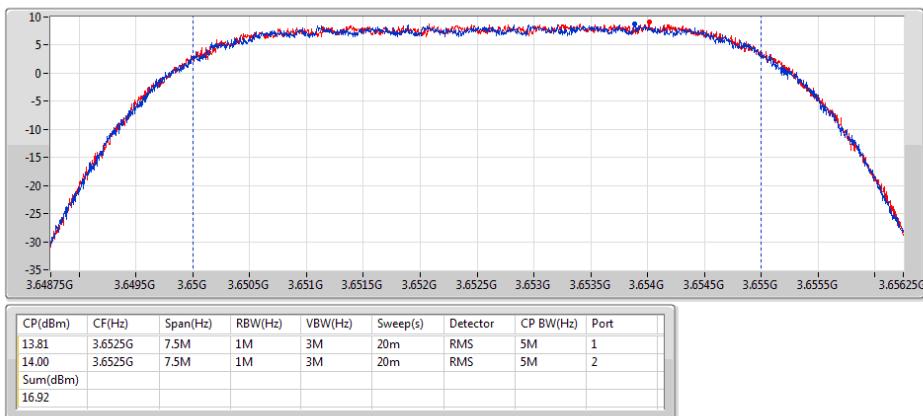
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Power (dBm)	Power (W)	EIRP (dBm)	EIRP (W)	EIRP Lim. (W)
Band 43_5MHz_QPSK_2TX	-	-	-	-	-	-	-	-	-
3652.5MHz	Pass	20.00	13.81	14.00	16.92	0.049	36.92	4.92040	5
3675MHz	Pass	20.00	13.47	14.35	16.94	0.049	36.94	4.943	5
3697.5MHz	Pass	20.00	13.68	14.09	16.90	0.049	36.90	4.898	5
Band 43_5MHz_16QAM_2TX	-	-	-	-	-	-	-	-	-
3652.5MHz	Pass	20.00	13.86	13.92	16.90	0.049	36.90	4.898	5
3675MHz	Pass	20.00	13.89	14.01	16.96	0.050	36.96	4.966	5
3697.5MHz	Pass	20.00	13.70	13.98	16.85	0.048	36.85	4.842	5
Band 43_5MHz_64QAM_2TX	-	-	-	-	-	-	-	-	-
3652.5MHz	Pass	20.00	13.91	13.90	16.92	0.049	36.92	4.920	5
3675MHz	Pass	20.00	14.05	13.86	16.97	0.050	36.97	4.977	5
3697.5MHz	Pass	20.00	13.79	14.07	16.94	0.049	36.94	4.943	5
Band 43_5MHz_256QAM_2TX	-	-	-	-	-	-	-	-	-
3652.5MHz	Pass	20.00	13.91	13.89	16.91	0.049	36.91	4.909	5
3675MHz	Pass	20.00	13.91	13.72	16.83	0.048	36.83	4.819	5
3697.5MHz	Pass	20.00	13.81	14.12	16.98	0.050	36.98	4.989	5

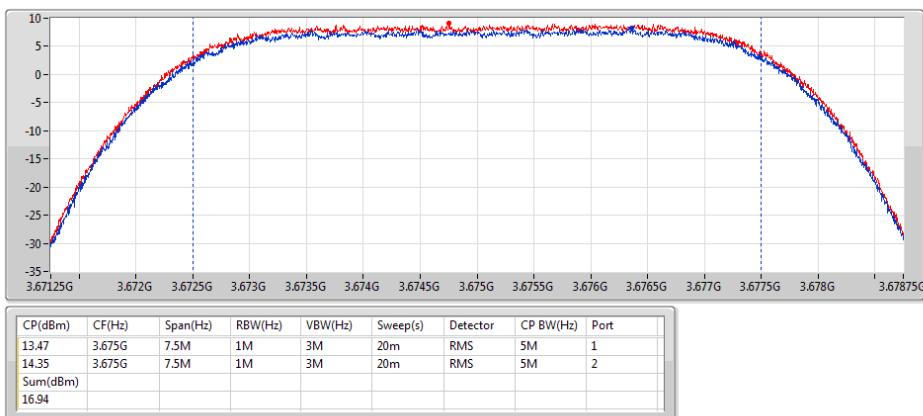
DG = Directional Gain; **Port n** = Port n output power

Band 43_5MHz_2TX
3652.5MHz_QPSK
PowerAV

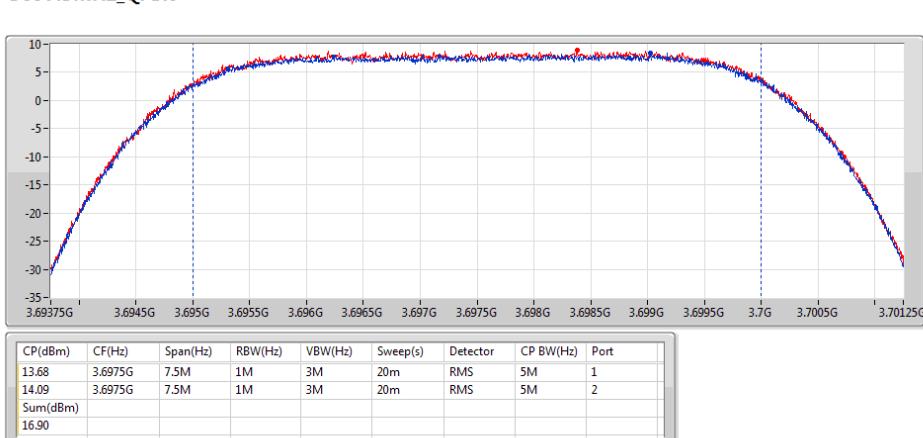
19/12/2019

Port 1 
Port 2 

Band 43_5MHz_2TX
3675MHz_QPSK
PowerAV

15/01/2020

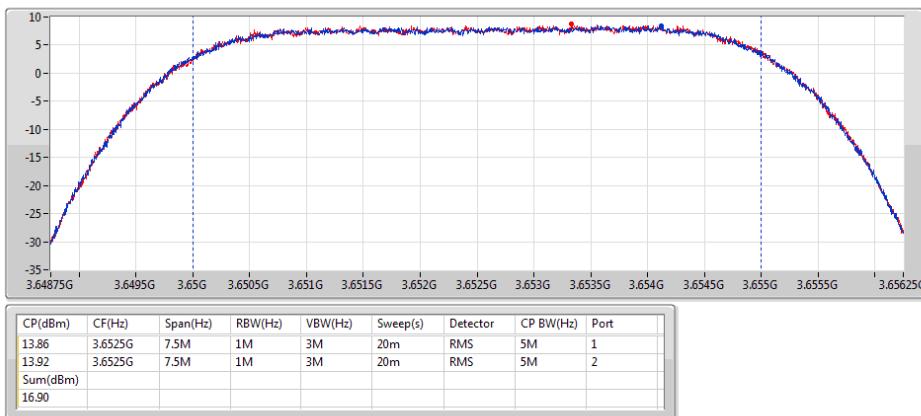
Port 1 
Port 2 

Band 43_5MHz_2TX
3697.5MHz_QPSK
PowerAV

15/01/2020

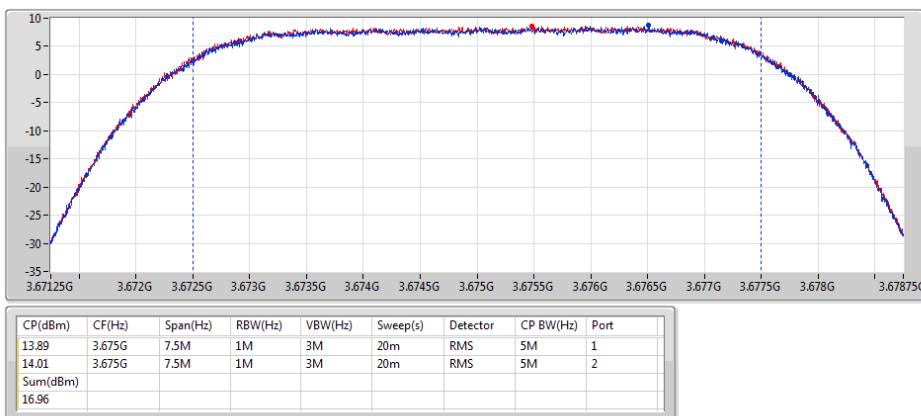
Port 1 
Port 2 


Band 43_5MHz_2TX
3652.5MHz_16QAM
PowerAV

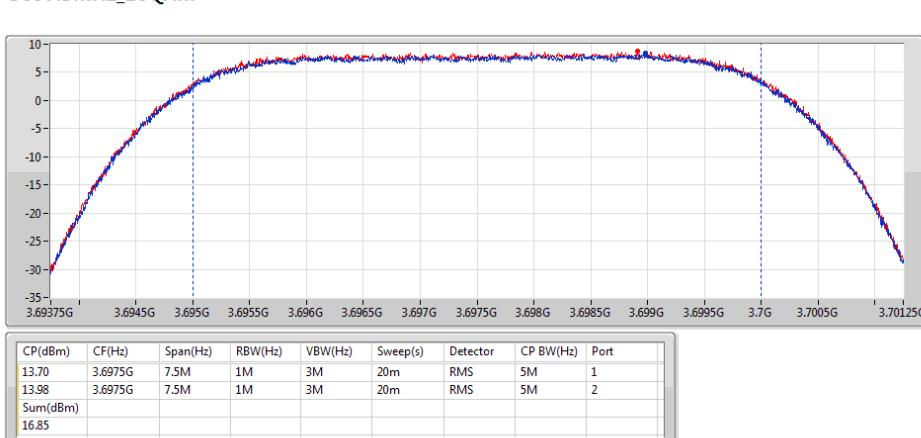
15/01/2020

Port 1 
Port 2 

Band 43_5MHz_2TX
3675MHz_16QAM
PowerAV

15/01/2020

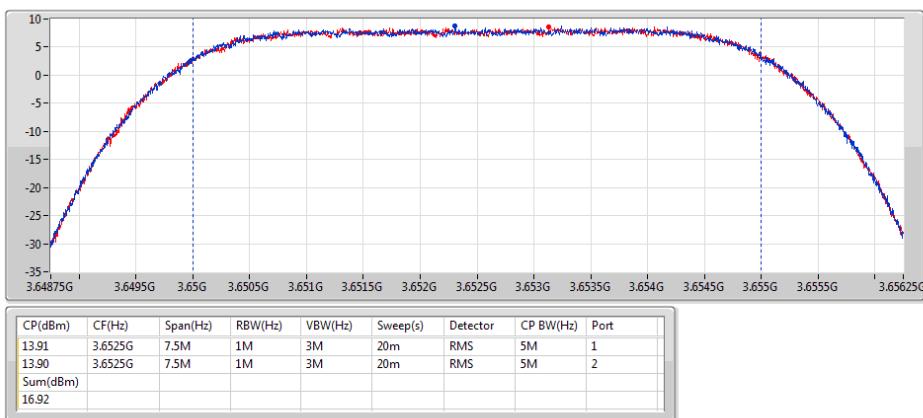
Port 1 
Port 2 

Band 43_5MHz_2TX
3697.5MHz_16QAM
PowerAV

15/01/2020

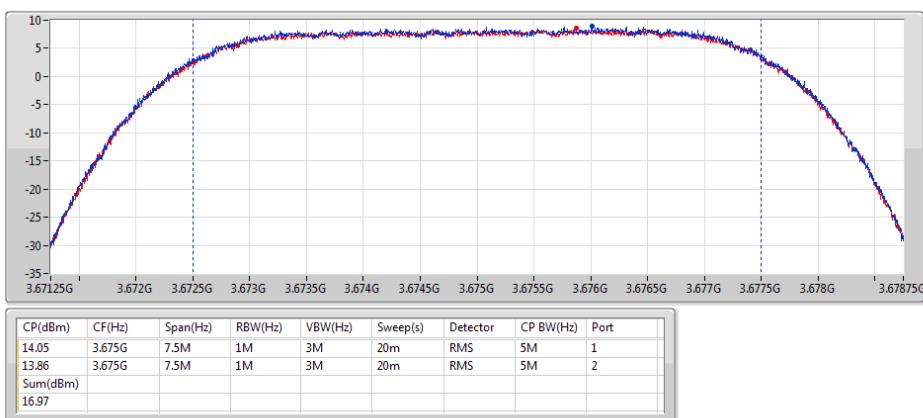
Port 1 
Port 2 


Band 43_5MHz_2TX
3652.5MHz_64QAM
PowerAV

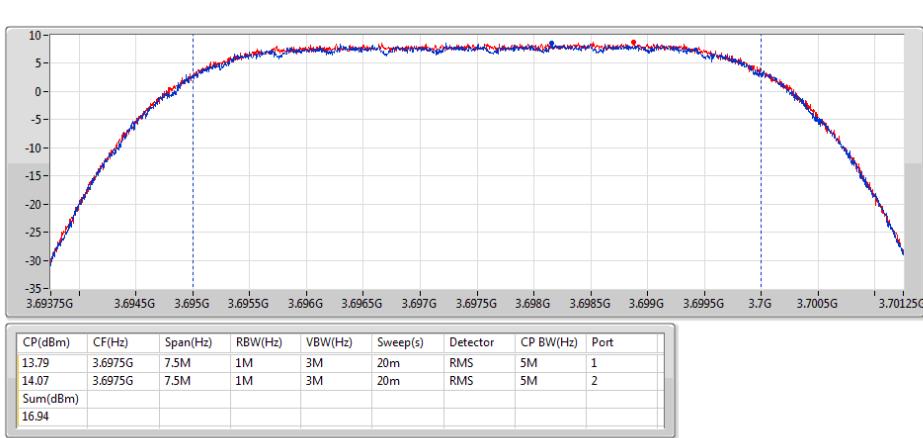
15/01/2020

Port 1 
Port 2 

Band 43_5MHz_2TX
3675MHz_64QAM
PowerAV

15/01/2020

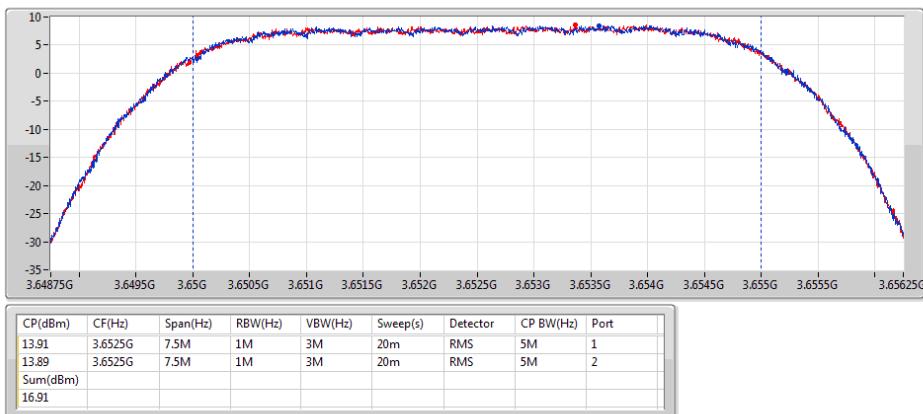
Port 1 
Port 2 

Band 43_5MHz_2TX
3697.5MHz_64QAM
PowerAV

15/01/2020

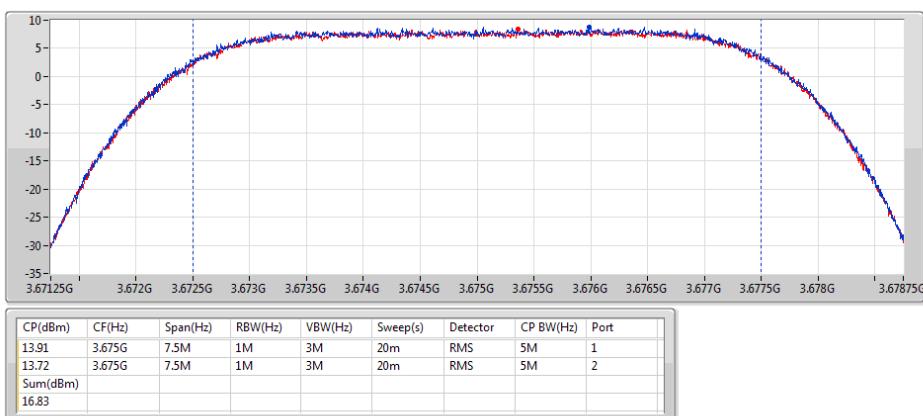
Port 1 
Port 2 


Band 43_5MHz_2TX
3652.5MHz_256QAM
PowerAV

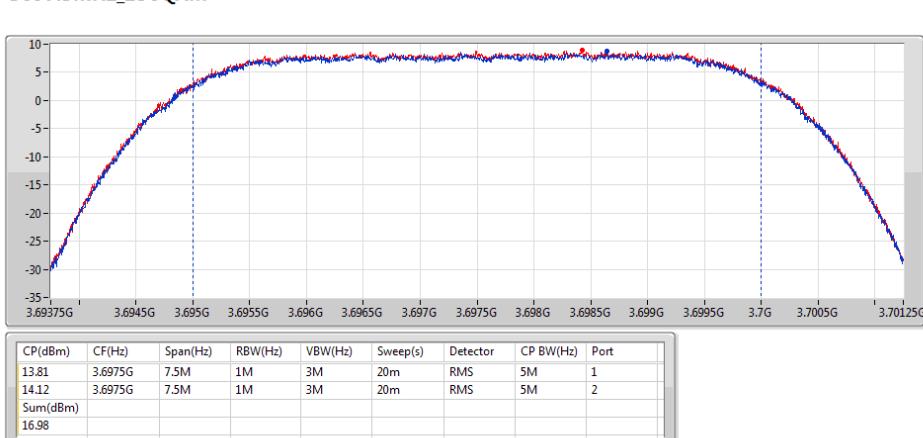
15/01/2020

Port 1 
Port 2 

Band 43_5MHz_2TX
3675MHz_256QAM
PowerAV

15/01/2020

Port 1 
Port 2 

Band 43_5MHz_2TX
3697.5MHz_256QAM
PowerAV

15/01/2020

Port 1 
Port 2 




Average Power Result

Appendix B.1

For 10MHz and 40MHz: Summary

Mode	Power (dBm)	Power (W)	EIRP (dBm)	EIRP (W)
Band 43	-	-	-	-
10MHz_QPSK_2TX	19.84	0.096	39.84	9.638
10MHz_16QAM_2TX	19.96	0.099	39.96	9.908
10MHz_64QAM_2TX	19.93	0.098	39.93	9.840
10MHz_256QAM_2TX	19.88	0.097	39.88	9.727
40MHz_QPSK_2TX	23.96	0.249	43.96	24.889
40MHz_16QAM_2TX	23.83	0.242	43.83	24.155
40MHz_64QAM_2TX	23.94	0.248	43.94	24.774
40MHz_256QAM_2TX	23.84	0.242	43.84	24.210



Average Power Result

Appendix B.1

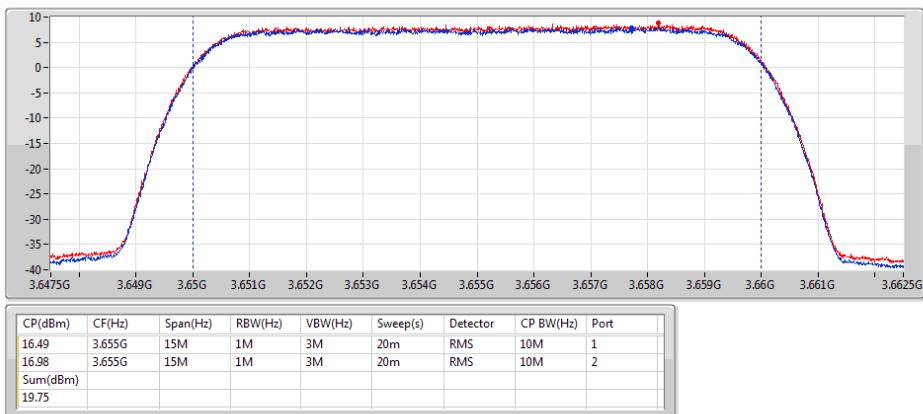
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Power (dBm)	Power (W)	EIRP (dBm)	EIRP (W)	EIRP Lim. (W)
Band 43_10MHz_QPSK_2TX	-	-	-	-	-	-	-	-	-
3655MHz	Pass	20.00	16.49	16.98	19.75	0.094	39.75	9.441	10
3675MHz	Pass	20.00	17.01	16.65	19.84	0.096	39.84	9.638	10
3695MHz	Pass	20.00	16.84	16.33	19.60	0.091	39.60	9.120	10
Band 43_10MHz_16QAM_2TX	-	-	-	-	-	-	-	-	-
3655MHz	Pass	20.00	16.66	17.22	19.96	0.099	39.96	9.908	10
3675MHz	Pass	20.00	16.85	16.64	19.76	0.095	39.76	9.462	10
3695MHz	Pass	20.00	16.73	16.67	19.71	0.094	39.71	9.354	10
Band 43_10MHz_64QAM_2TX	-	-	-	-	-	-	-	-	-
3655MHz	Pass	20.00	16.62	17.20	19.93	0.098	39.93	9.840	10
3675MHz	Pass	20.00	16.88	16.71	19.81	0.096	39.81	9.572	10
3695MHz	Pass	20.00	16.74	16.66	19.71	0.094	39.71	9.354	10
Band 43_10MHz_256QAM_2TX	-	-	-	-	-	-	-	-	-
3655MHz	Pass	20.00	16.56	17.16	19.88	0.097	39.88	9.727	10
3675MHz	Pass	20.00	16.72	16.78	19.76	0.095	39.76	9.462	10
3695MHz	Pass	20.00	16.64	16.73	19.70	0.093	39.70	9.333	10
Band 43_40MHz_QPSK_2TX	-	-	-	-	-	-	-	-	-
3670MHz	Pass	20.00	20.76	21.08	23.93	0.247	43.93	24.717	25
3675MHz	Pass	20.00	21.01	20.88	23.96	0.249	43.96	24.889	25
3680MHz	Pass	20.00	20.72	20.85	23.80	0.240	43.80	23.988	25
Band 43_40MHz_16QAM_2TX	-	-	-	-	-	-	-	-	-
3670MHz	Pass	20.00	20.64	20.99	23.83	0.242	43.83	24.155	25
3675MHz	Pass	20.00	20.60	21.00	23.81	0.240	43.81	24.044	25
3680MHz	Pass	20.00	20.56	20.94	23.76	0.238	43.76	23.768	25
Band 43_40MHz_64QAM_2TX	-	-	-	-	-	-	-	-	-
3670MHz	Pass	20.00	20.62	21.21	23.94	0.248	43.94	24.774	25
3675MHz	Pass	20.00	20.53	21.18	23.88	0.244	43.88	24.434	25
3680MHz	Pass	20.00	20.46	21.11	23.81	0.240	43.81	24.044	25
Band 43_40MHz_256QAM_2TX	-	-	-	-	-	-	-	-	-
3670MHz	Pass	20.00	20.44	21.04	23.76	0.238	43.76	23.768	25
3675MHz	Pass	20.00	20.37	21.19	23.81	0.240	43.81	24.044	25
3680MHz	Pass	20.00	20.49	21.14	23.84	0.242	43.84	24.210	25

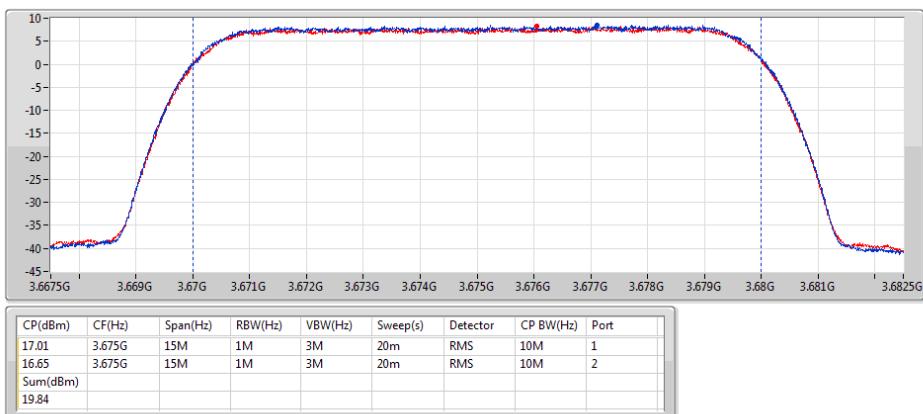
DG = Directional Gain; **Port n** = Port n output power

Band 43_10MHz_2TX
3655MHz_QPSK
PowerAV

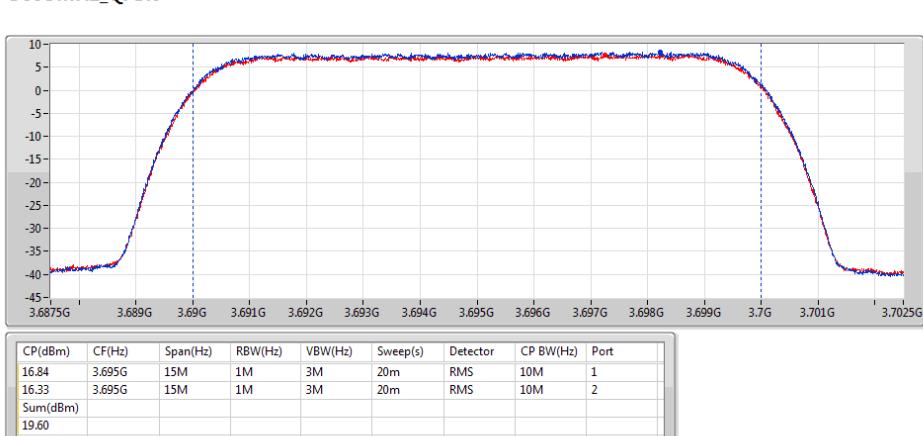
03/01/2020

Port 1 
Port 2 

Band 43_10MHz_2TX
3675MHz_QPSK
PowerAV

15/01/2020

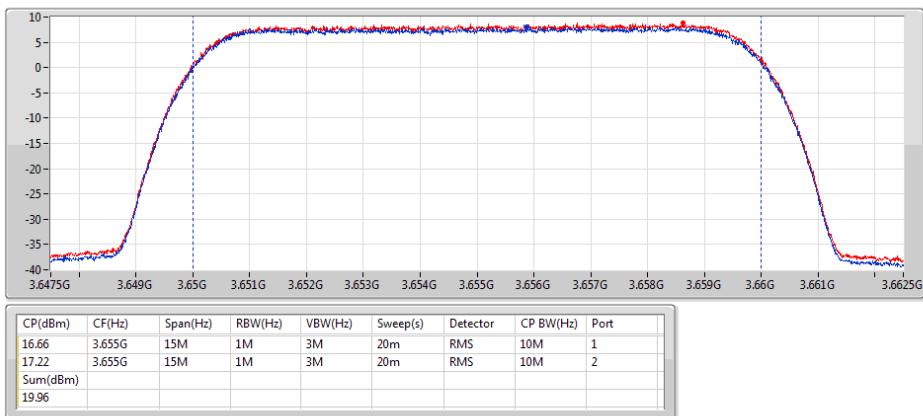
Port 1 
Port 2 

Band 43_10MHz_2TX
3695MHz_QPSK
PowerAV

15/01/2020

Port 1 
Port 2 


Band 43_10MHz_2TX
3655MHz_16QAM
PowerAV

03/01/2020

Port 1 
Port 2 

Band 43_10MHz_2TX
3675MHz_16QAM
PowerAV

15/01/2020

Port 1 
Port 2 

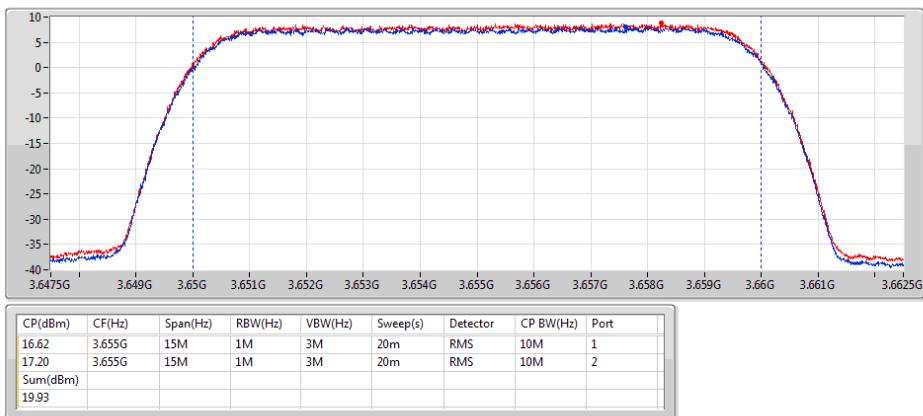
Band 43_10MHz_2TX
3695MHz_16QAM
PowerAV

15/01/2020

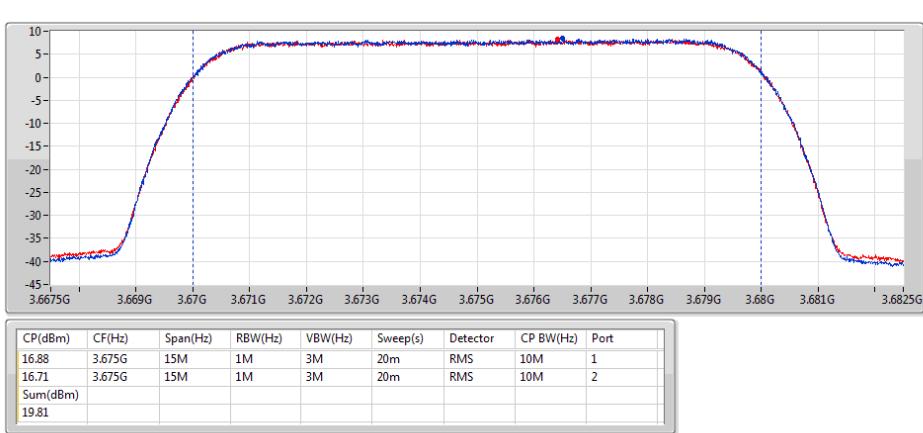
Port 1 
Port 2 


Band 43_10MHz_2TX
3655MHz_64QAM
PowerAV

03/01/2020

Port 1 
Port 2 

Band 43_10MHz_2TX
3675MHz_64QAM
PowerAV

15/01/2020

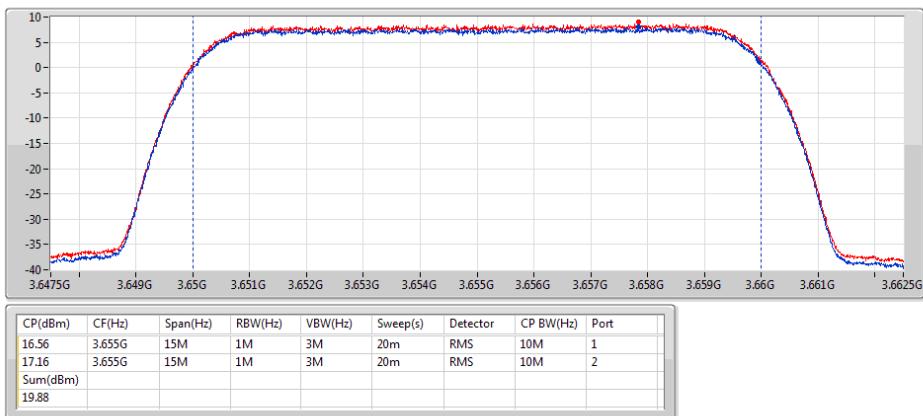
Port 1 
Port 2 

Band 43_10MHz_2TX
3695MHz_64QAM
PowerAV

15/01/2020

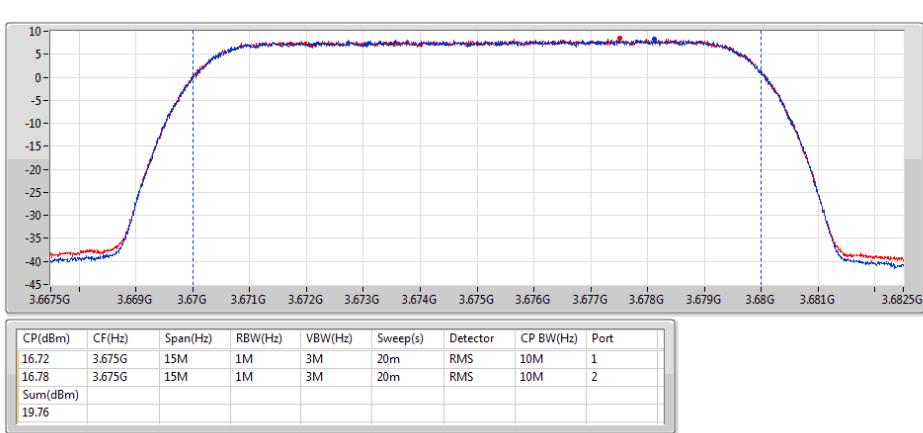
Port 1 
Port 2 


Band 43_10MHz_2TX
3655MHz_256QAM
PowerAV

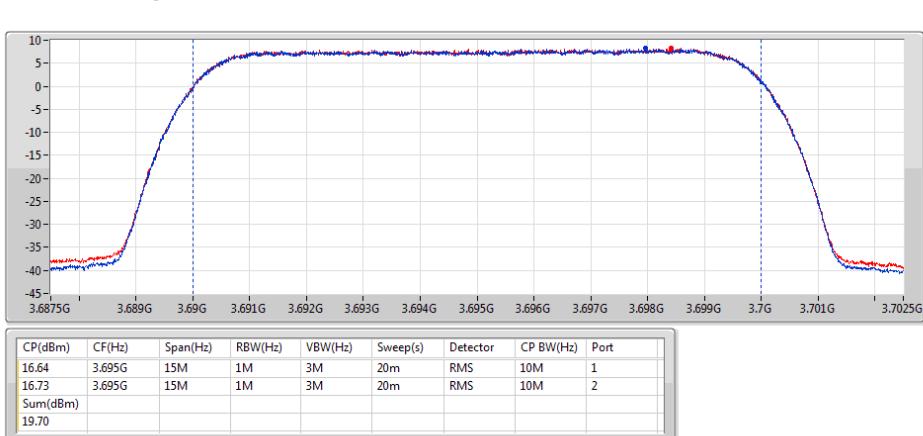
03/01/2020

 Port 1
 Port 2

Band 43_10MHz_2TX
3675MHz_256QAM
PowerAV

15/01/2020

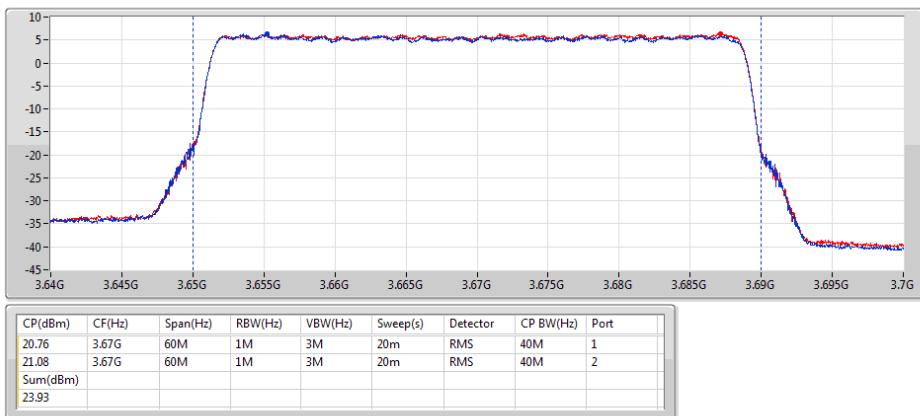
 Port 1
 Port 2

Band 43_10MHz_2TX
3695MHz_256QAM
PowerAV

15/01/2020

 Port 1
 Port 2


Band 43_40MHz_2TX
3670MHz_QPSK
PowerAV

03/01/2020

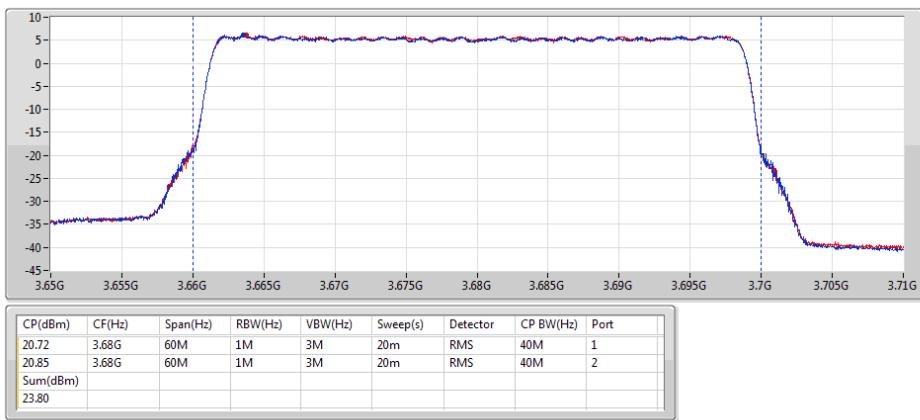
Port 1 
Port 2 

Band 43_40MHz_2TX
3675MHz_QPSK
PowerAV

03/01/2020

Port 1 
Port 2 

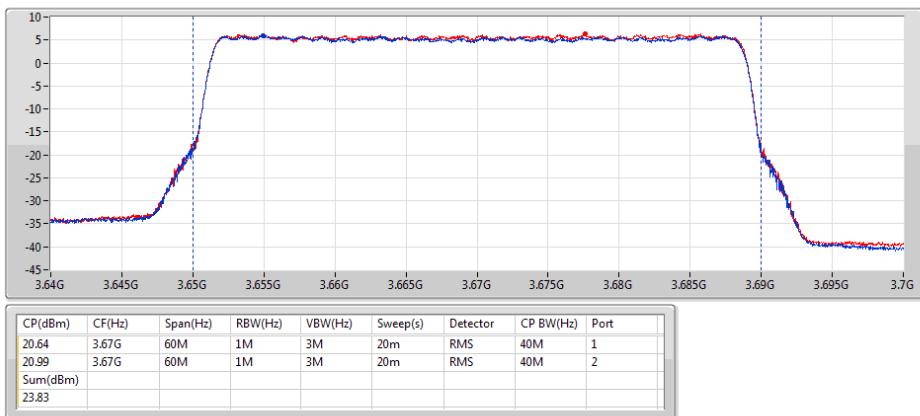
Band 43_40MHz_2TX
3680MHz_QPSK
PowerAV

03/01/2020

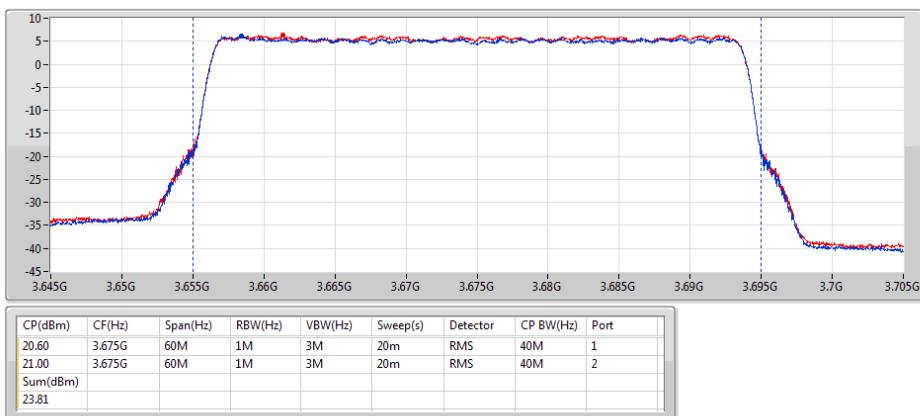
Port 1 
Port 2 


Band 43_40MHz_2TX
3670MHz_16QAM
PowerAV

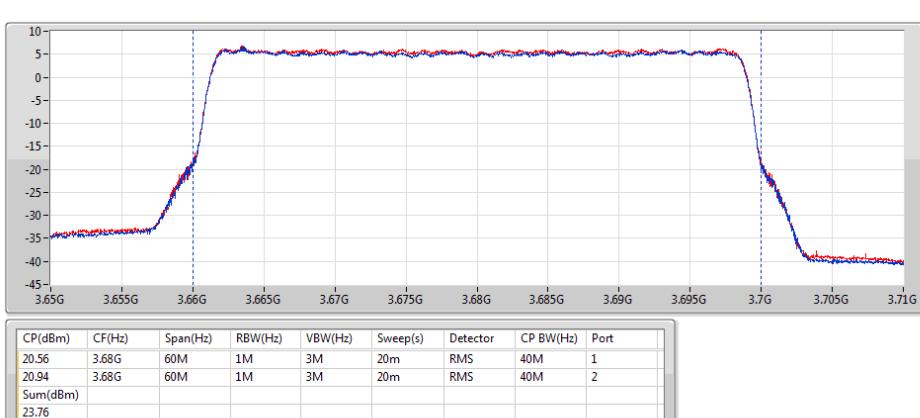
03/01/2020

Port 1 
Port 2 

Band 43_40MHz_2TX
3675MHz_16QAM
PowerAV

03/01/2020

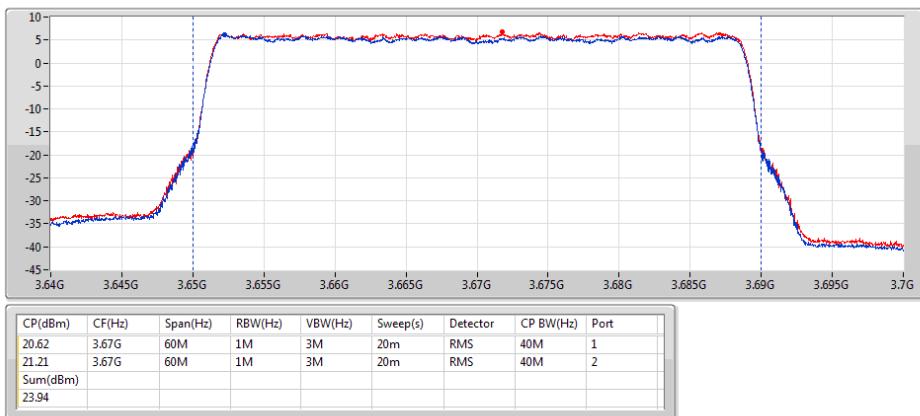
Port 1 
Port 2 

Band 43_40MHz_2TX
3680MHz_16QAM
PowerAV

03/01/2020

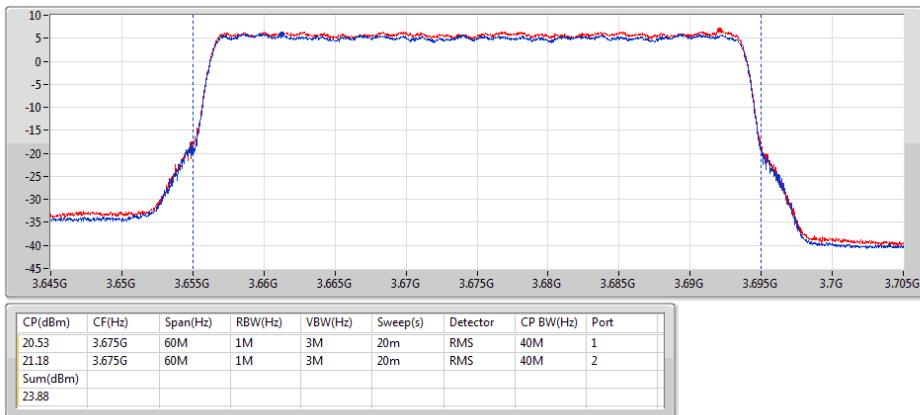
Port 1 
Port 2 


Band 43_40MHz_2TX
3670MHz_64QAM
PowerAV

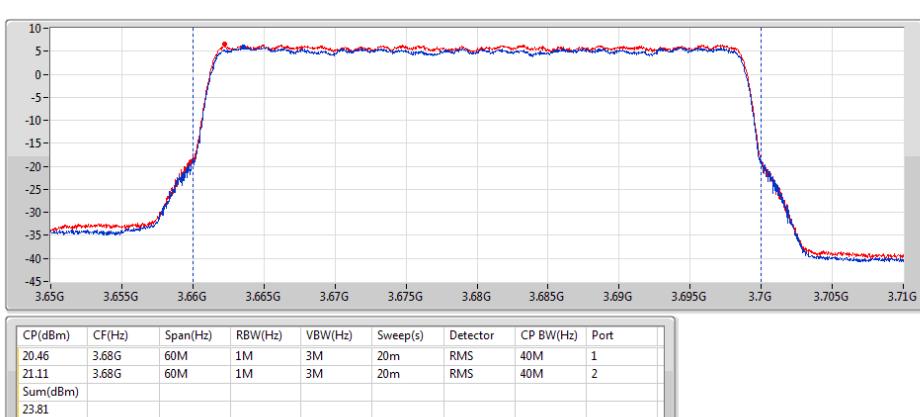
03/01/2020

Port 1 
Port 2 

Band 43_40MHz_2TX
3675MHz_64QAM
PowerAV

03/01/2020

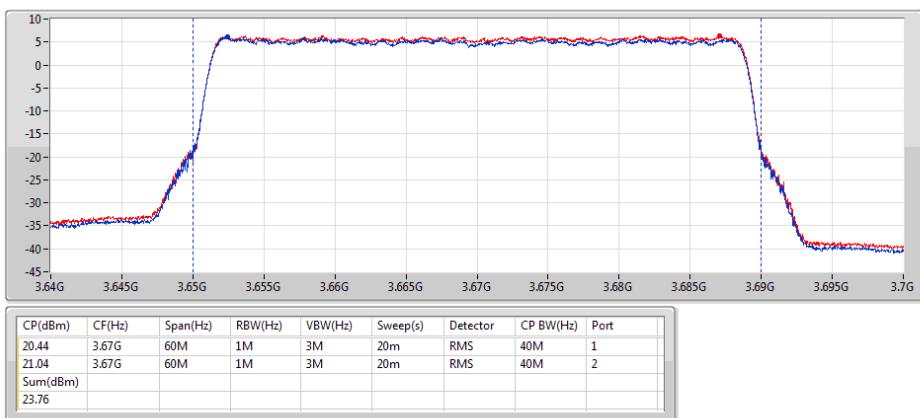
Port 1 
Port 2 

Band 43_40MHz_2TX
3680MHz_64QAM
PowerAV

03/01/2020

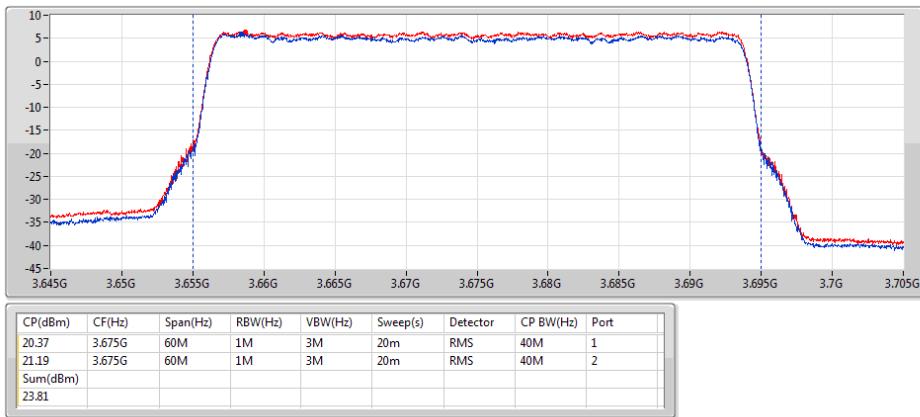
Port 1 
Port 2 


Band 43_40MHz_2TX
3670MHz_256QAM
PowerAV

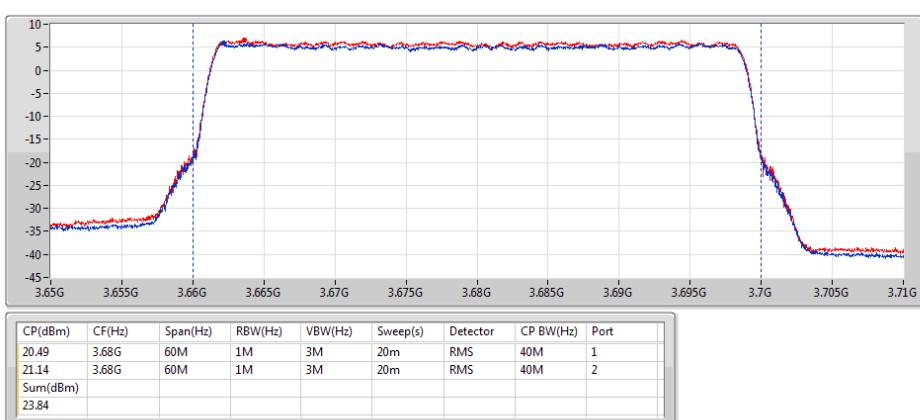
03/01/2020

Port 1 
Port 2 

Band 43_40MHz_2TX
3675MHz_256QAM
PowerAV

03/01/2020

Port 1 
Port 2 

Band 43_40MHz_2TX
3680MHz_256QAM
PowerAV

03/01/2020

Port 1 
Port 2 




Average Power Result

Appendix B.2

Summary

Mode	Power (dBm)	Power (W)	EIRP (dBm)	EIRP (W)
Band 43	-	-	-	-
40MHz_QPSK_2TX	21.67	0.147	41.67	14.689
40MHz_16QAM_2TX	21.61	0.145	41.61	14.488
40MHz_64QAM_2TX	21.72	0.149	41.72	14.859
40MHz_256QAM_2TX	21.54	0.143	41.54	14.256



Average Power Result

Appendix B.2

Result

Mode	Result	DG (dBi)	Port 1 (dBm/25MHz)	Port 2 (dBm/25MHz)	Power (dBm/25MHz)	Power (W)	EIRP (dBm/25MHz)	EIRP (W)	EIRP Lim. (W)
Band 43_40MHz_QPSK_2TX	-	-	-	-	-	-	-	-	-
3670MHz	Pass	20.00	18.48	18.84	21.67	0.147	41.67	14.689	25
3675MHz	Pass	20.00	18.10	17.98	21.05	0.127	41.05	12.735	25
3680MHz	Pass	20.00	17.93	18.03	20.99	0.126	40.99	12.560	25
Band 43_40MHz_16QAM_2TX	-	-	-	-	-	-	-	-	-
3670MHz	Pass	20.00	18.43	18.77	21.61	0.145	41.61	14.488	25
3675MHz	Pass	20.00	18.15	18.50	21.34	0.136	41.34	13.614	25
3680MHz	Pass	20.00	17.93	18.27	21.11	0.129	41.11	12.912	25
Band 43_40MHz_64QAM_2TX	-	-	-	-	-	-	-	-	-
3670MHz	Pass	20.00	18.41	18.99	21.72	0.149	41.72	14.859	25
3675MHz	Pass	20.00	18.16	18.79	21.50	0.141	41.50	14.125	25
3680MHz	Pass	20.00	17.93	18.54	21.26	0.134	41.26	13.366	25
Band 43_40MHz_256QAM_2TX	-	-	-	-	-	-	-	-	-
3670MHz	Pass	20.00	18.21	18.82	21.54	0.143	41.54	14.256	25
3675MHz	Pass	20.00	18.04	18.84	21.47	0.140	41.47	14.028	25
3680MHz	Pass	20.00	17.81	18.62	21.24	0.133	41.24	13.305	25

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

Band 43_40MHz_2TX
3670MHz_QPSK
PowerAV

06/01/2020

Port 1 
Port 2 

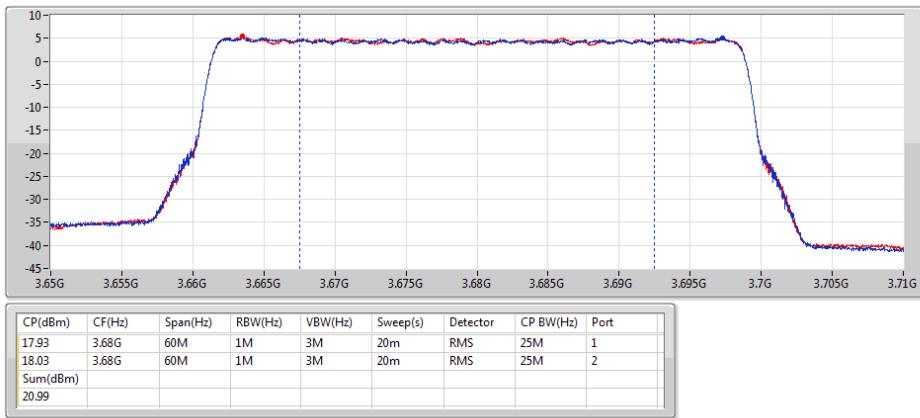
Band 43_40MHz_2TX
3675MHz_QPSK
PowerAV

06/01/2020

Port 1 
Port 2 

Band 43_40MHz_2TX
3680MHz_QPSK
PowerAV

06/01/2020

Port 1 
Port 2 


Band 43_40MHz_2TX
3670MHz_16QAM
PowerAV

06/01/2020

Port 1 
Port 2 

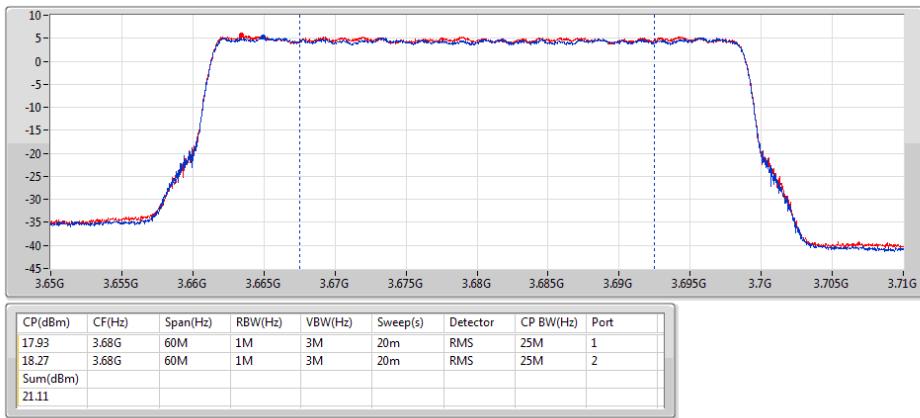
Band 43_40MHz_2TX
3675MHz_16QAM
PowerAV

06/01/2020

Port 1 
Port 2 

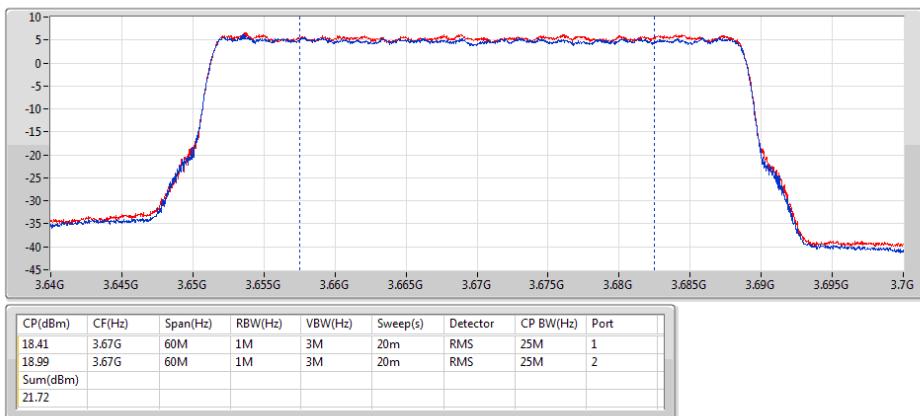
Band 43_40MHz_2TX
3680MHz_16QAM
PowerAV

06/01/2020

Port 1 
Port 2 


Band 43_40MHz_2TX
3670MHz_64QAM
PowerAV

06/01/2020

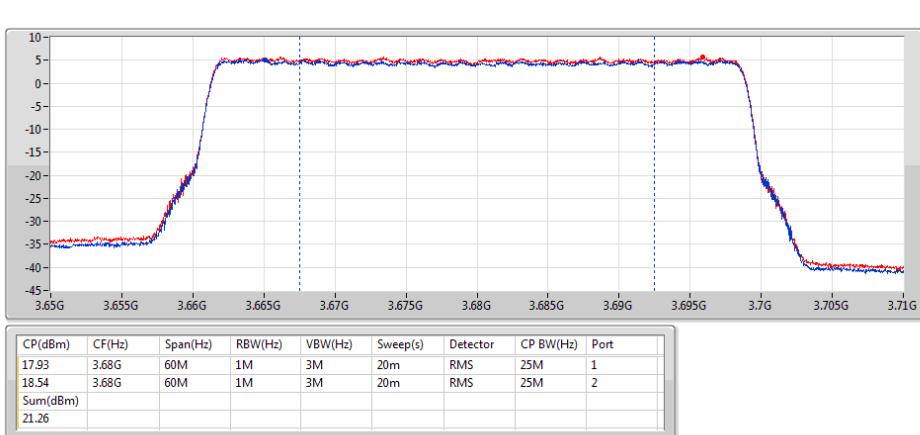
Port 1 
Port 2 

Band 43_40MHz_2TX
3675MHz_64QAM
PowerAV

06/01/2020

Port 1 
Port 2 

Band 43_40MHz_2TX
3680MHz_64QAM
PowerAV

06/01/2020

Port 1 
Port 2 


Band 43_40MHz_2TX
3670MHz_256QAM
PowerAV

06/01/2020

Port 1 
Port 2 

Band 43_40MHz_2TX
3675MHz_256QAM
PowerAV

06/01/2020

Port 1 
Port 2 

Band 43_40MHz_2TX
3680MHz_256QAM
PowerAV

06/01/2020

Port 1 
Port 2 


**For 5MHz:
Summary**

Mode	PD (dBm/MHz)	EIRP PD (dBm/MHz)
Band 43	-	-
5MHz_OPSK_2TX	9.76	29.76
5MHz_16QAM_2TX	9.78	29.78
5MHz_64QAM_2TX	9.78	29.78
5MHz_256QAM_2TX	9.75	29.75



PSD Result

Appendix B.3

Result

Mode	Result	DG (dBi)	Port 1 (dBm/MHz)	Port 2 (dBm/MHz)	PD (dBm/MHz)	EIRP PD (dBm/MHz)	EIRP PD Limit (dBm/MHz)
Band 43_5MHz_QPSK_2TX	-	-	-	-	-	-	-
3652.5MHz	Pass	20.00	6.69	6.82	9.76	29.76	30.00
3675MHz	Pass	20.00	6.28	6.90	9.61	29.61	30.00
3697.5MHz	Pass	20.00	6.71	6.39	9.56	29.56	30.00
Band 43_5MHz_16QAM_2TX	-	-	-	-	-	-	-
3652.5MHz	Pass	20.00	6.84	6.72	9.78	29.78	30.00
3675MHz	Pass	20.00	6.57	6.61	9.60	29.60	30.00
3697.5MHz	Pass	20.00	6.59	6.29	9.45	29.45	30.00
Band 43_5MHz_64QAM_2TX	-	-	-	-	-	-	-
3652.5MHz	Pass	20.00	7.13	6.43	9.78	29.78	30.00
3675MHz	Pass	20.00	6.89	6.44	9.68	29.68	30.00
3697.5MHz	Pass	20.00	6.62	6.70	9.66	29.66	30.00
Band 43_5MHz_256QAM_2TX	-	-	-	-	-	-	-
3652.5MHz	Pass	20.00	7.14	6.29	9.75	29.75	30.00
3675MHz	Pass	20.00	6.66	6.54	9.60	29.60	30.00
3697.5MHz	Pass	20.00	7.10	6.33	9.74	29.74	30.00

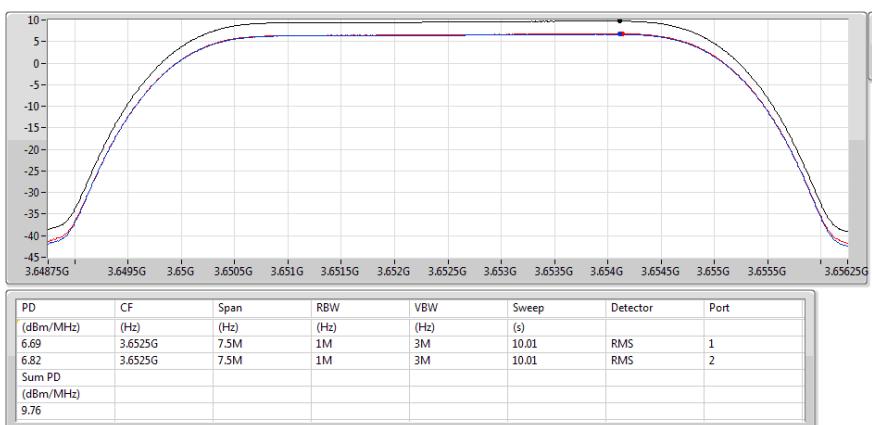
DG = Directional Gain;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

Band 43_5MHz_2TX
3652.5MHz_QPSK
PSD

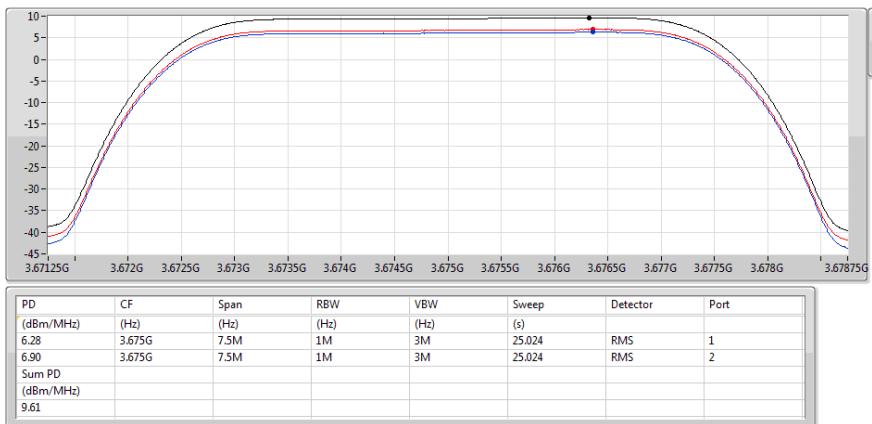
19/12/2019

Sum	<input checked="" type="checkbox"/>
Port 1	<input type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>


Band 43_5MHz_2TX
3675MHz_QPSK
PSD

15/01/2020

Sum	<input checked="" type="checkbox"/>
Port 1	<input type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>


Band 43_5MHz_2TX
3697.5MHz_QPSK
PSD

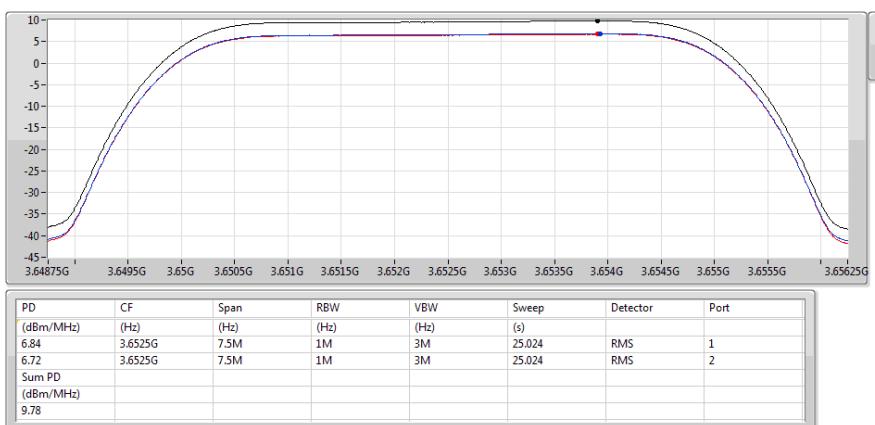
15/01/2020

Sum	<input checked="" type="checkbox"/>
Port 1	<input type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>

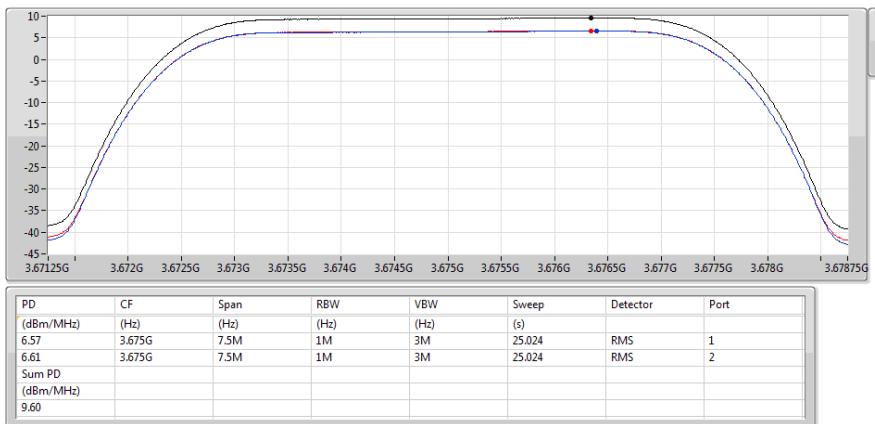


Band 43_5MHz_2TX
3652.5MHz_16QAM
PSD

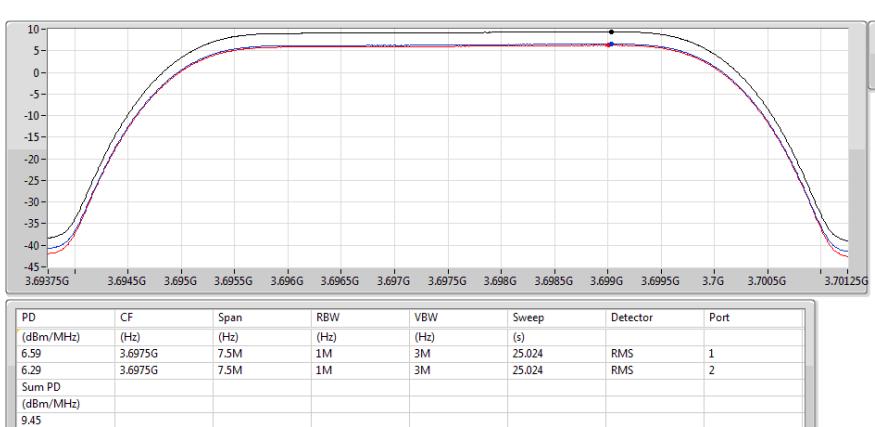
15/01/2020

 Sum
 Port 1
 Port 2

Band 43_5MHz_2TX
3675MHz_16QAM
PSD

15/01/2020

 Sum
 Port 1
 Port 2

Band 43_5MHz_2TX
3697.5MHz_16QAM
PSD

15/01/2020

 Sum
 Port 1
 Port 2


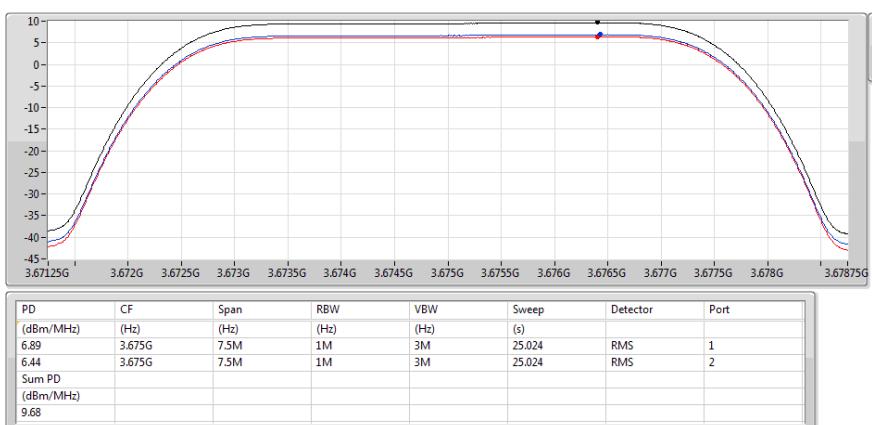
Band 43_5MHz_2TX
3652.5MHz_64QAM
PSD

15/01/2020

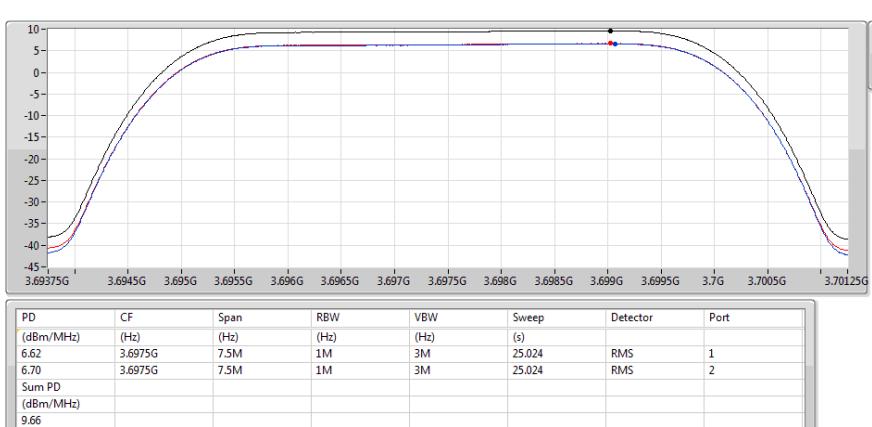
 Sum
 Port 1
 Port 2

Band 43_5MHz_2TX
3675MHz_64QAM
PSD

15/01/2020

 Sum
 Port 1
 Port 2

Band 43_5MHz_2TX
3697.5MHz_64QAM
PSD

15/01/2020

 Sum
 Port 1
 Port 2


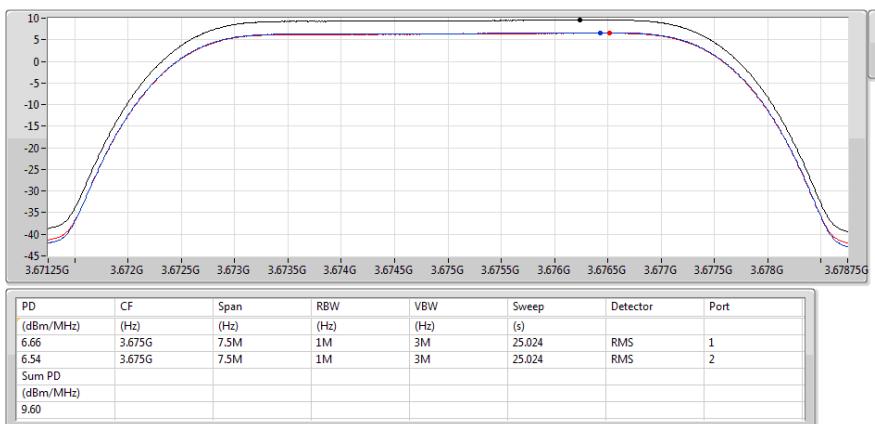
Band 43_5MHz_2TX
3652.5MHz_256QAM
PSD

15/01/2020

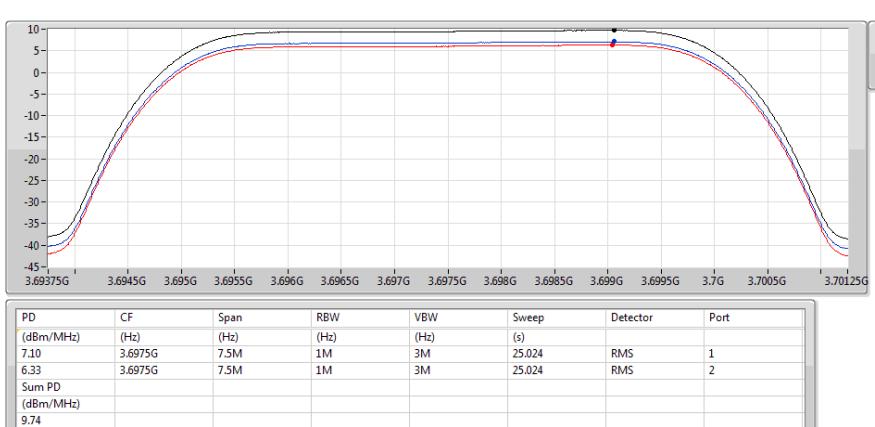
 Sum
 Port 1
 Port 2

Band 43_5MHz_2TX
3675MHz_256QAM
PSD

15/01/2020

 Sum
 Port 1
 Port 2

Band 43_5MHz_2TX
3697.5MHz_256QAM
PSD

15/01/2020

 Sum
 Port 1
 Port 2


**For 10MHz and 40MHz:
Summary**

Mode	PD (dBm/MHz)	EIRP PD (dBm/MHz)
Band 43	-	-
10MHz_OPSK_2TX	9.89	29.89
10MHz_16QAM_2TX	9.32	29.32
10MHz_64QAM_2TX	9.38	29.38
10MHz_256QAM_2TX	9.91	29.91
40MHz_OPSK_2TX	7.69	27.69
40MHz_16QAM_2TX	7.61	27.61
40MHz_64QAM_2TX	7.72	27.72
40MHz_256QAM_2TX	7.61	27.61



Result

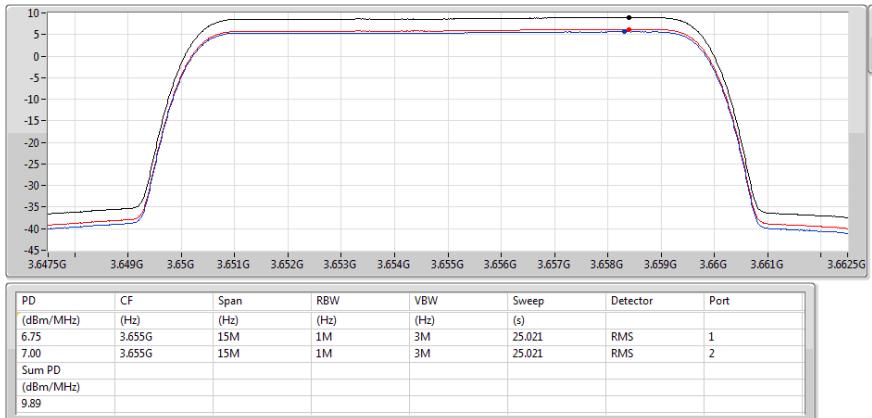
Mode	Result	DG (dBi)	Port 1 (dBm/MHz)	Port 2 (dBm/MHz)	PD (dBm/MHz)	EIRP PD (dBm/MHz)	EIRP PD Limit (dBm/MHz)
Band 43_10MHz_QPSK_2TX	-	-	-	-	-	-	-
3655MHz	Pass	20.00	6.75	7.00	9.89	29.89	30.00
3675MHz	Pass	20.00	6.59	6.13	9.38	29.38	30.00
3695MHz	Pass	20.00	6.44	5.83	9.15	29.15	30.00
Band 43_10MHz_16QAM_2TX	-	-	-	-	-	-	-
3655MHz	Pass	20.00	5.80	6.44	9.14	29.14	30.00
3675MHz	Pass	20.00	6.43	6.20	9.32	29.32	30.00
3695MHz	Pass	20.00	6.30	6.19	9.26	29.26	30.00
Band 43_10MHz_64QAM_2TX	-	-	-	-	-	-	-
3655MHz	Pass	20.00	5.71	6.42	9.08	29.08	30.00
3675MHz	Pass	20.00	6.50	6.23	9.38	29.38	30.00
3695MHz	Pass	20.00	6.35	6.24	9.30	29.30	30.00
Band 43_10MHz_256QAM_2TX	-	-	-	-	-	-	-
3655MHz	Pass	20.00	7.39	6.37	9.91	29.91	30.00
3675MHz	Pass	20.00	6.35	6.53	9.45	29.45	30.00
3695MHz	Pass	20.00	6.28	6.29	9.29	29.29	30.00
Band 43_40MHz_QPSK_2TX	-	-	-	-	-	-	-
3670MHz	Pass	20.00	4.56	4.70	7.61	27.61	30.00
3675MHz	Pass	20.00	4.85	4.51	7.69	27.69	30.00
3680MHz	Pass	20.00	4.53	4.55	7.55	27.55	30.00
Band 43_40MHz_16QAM_2TX	-	-	-	-	-	-	-
3670MHz	Pass	20.00	4.51	4.65	7.56	27.56	30.00
3675MHz	Pass	20.00	4.51	4.69	7.61	27.61	30.00
3680MHz	Pass	20.00	4.43	4.68	7.57	27.57	30.00
Band 43_40MHz_64QAM_2TX	-	-	-	-	-	-	-
3670MHz	Pass	20.00	4.47	4.92	7.67	27.67	30.00
3675MHz	Pass	20.00	4.49	4.92	7.72	27.72	30.00
3680MHz	Pass	20.00	4.26	4.84	7.57	27.57	30.00
Band 43_40MHz_256QAM_2TX	-	-	-	-	-	-	-
3670MHz	Pass	20.00	4.58	4.70	7.61	27.61	30.00
3675MHz	Pass	20.00	4.26	4.83	7.56	27.56	30.00
3680MHz	Pass	20.00	4.33	4.74	7.55	27.55	30.00

DG = Directional Gain;

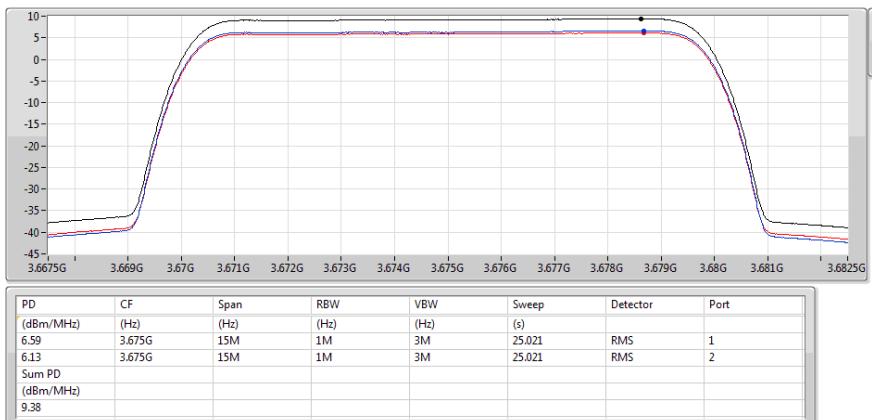
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port Xpower density;

Band 43_10MHz_2TX
3655MHz_QPSK
PSD

03/01/2020

 Sum
 Port 1
 Port 2

Band 43_10MHz_2TX
3675MHz_QPSK
PSD

15/01/2020

 Sum
 Port 1
 Port 2

Band 43_10MHz_2TX
3695MHz_QPSK
PSD

15/01/2020

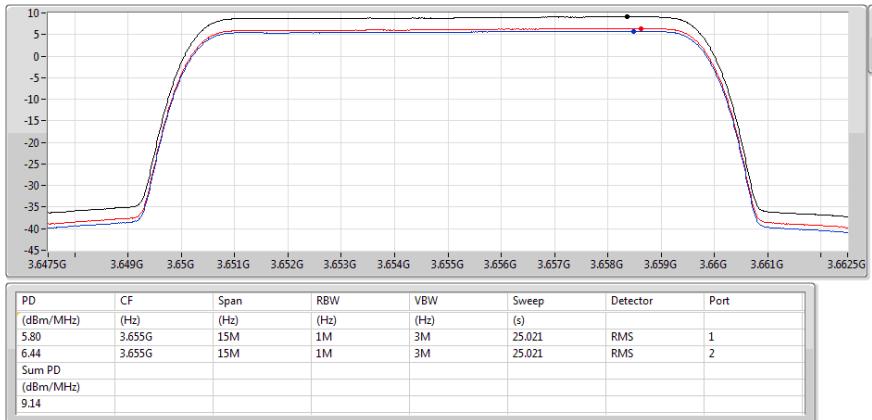
 Sum
 Port 1
 Port 2


Band 43_10MHz_2TX
3655MHz_16QAM
PSD

03/01/2020

 Sum

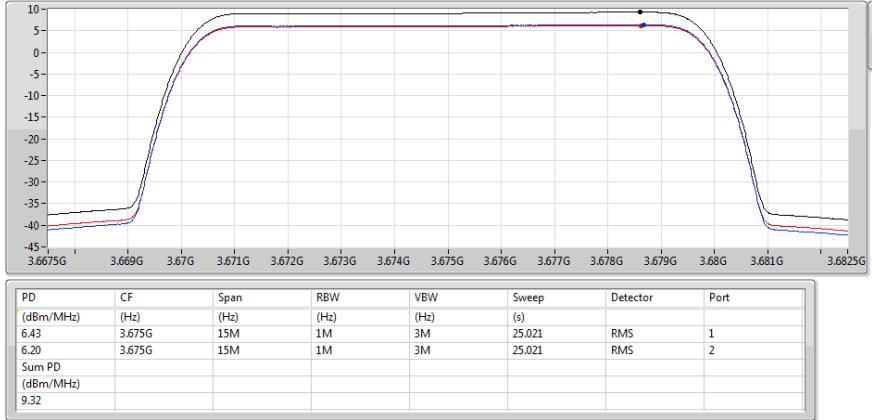
 Port 1

 Port 2

Band 43_10MHz_2TX
3675MHz_16QAM
PSD

15/01/2020

 Sum

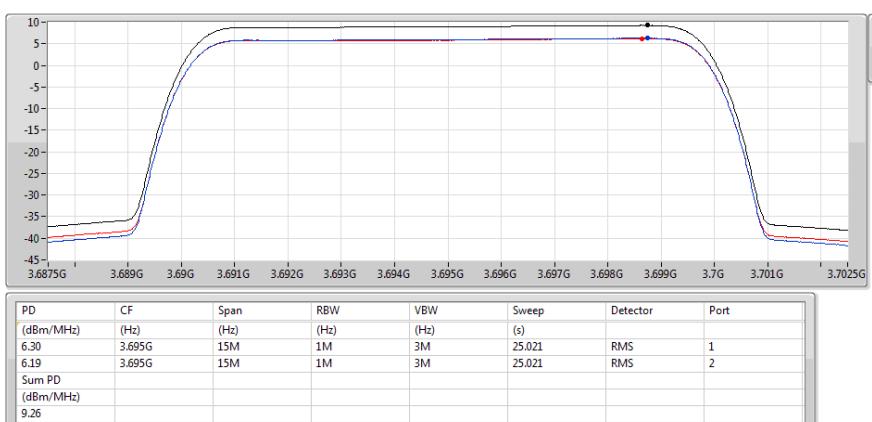
 Port 1

 Port 2

Band 43_10MHz_2TX
3695MHz_16QAM
PSD

15/01/2020

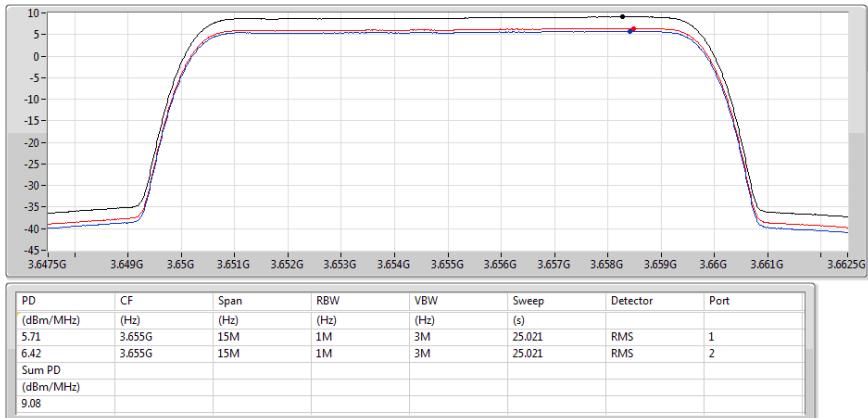
 Sum

 Port 1

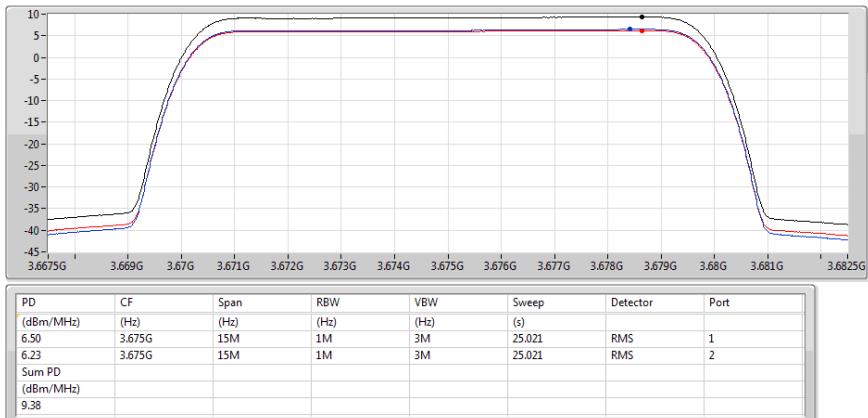
 Port 2


Band 43_10MHz_2TX
3655MHz_64QAM
PSD

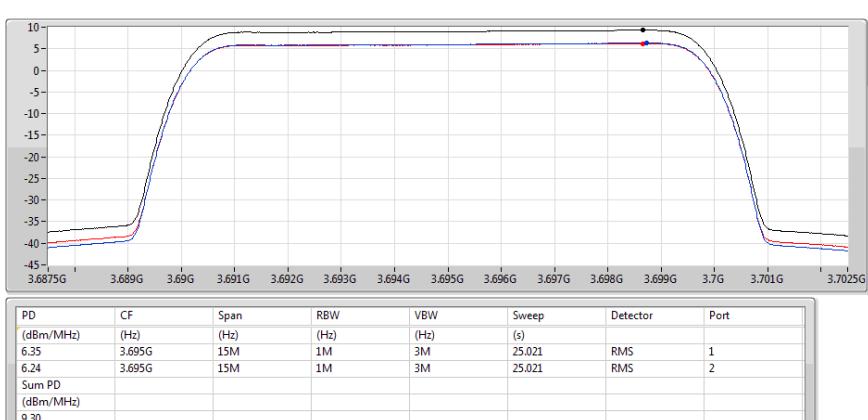
03/01/2020

 Sum
 Port 1
 Port 2

Band 43_10MHz_2TX
3675MHz_64QAM
PSD

15/01/2020

 Sum
 Port 1
 Port 2

Band 43_10MHz_2TX
3695MHz_64QAM
PSD

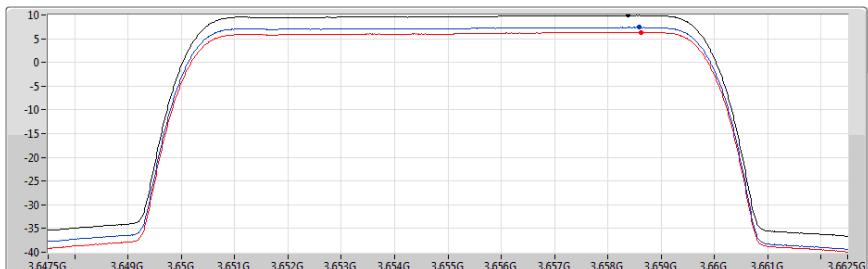
15/01/2020

 Sum
 Port 1
 Port 2


Band 43_10MHz_2TX
3655MHz_256QAM
PSD

03/01/2020

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Port 2	<input checked="" type="checkbox"/>

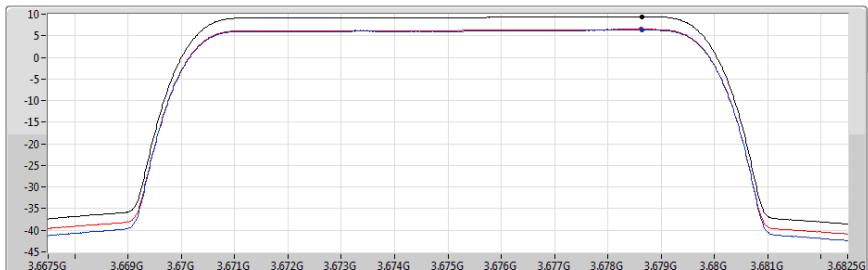


PD	CF	Span	RBW	VBW	Sweep	Detector	Port
(dBm/MHz)	(Hz)	(Hz)	(Hz)	(Hz)	(s)		
7.39	3.655G	15M	1M	3M	25.021	RMS	1
6.37	3.655G	15M	1M	3M	25.021	RMS	2

Band 43_10MHz_2TX
3675MHz_256QAM
PSD

15/01/2020

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Port 2	<input checked="" type="checkbox"/>

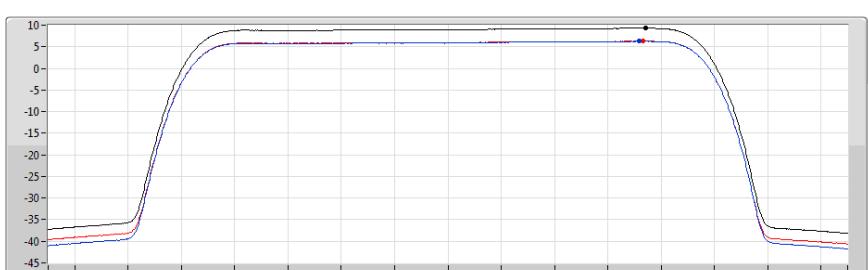


PD	CF	Span	RBW	VBW	Sweep	Detector	Port
(dBm/MHz)	(Hz)	(Hz)	(Hz)	(Hz)	(s)		
6.35	3.675G	15M	1M	3M	25.021	RMS	1
6.53	3.675G	15M	1M	3M	25.021	RMS	2

Band 43_10MHz_2TX
3695MHz_256QAM
PSD

15/01/2020

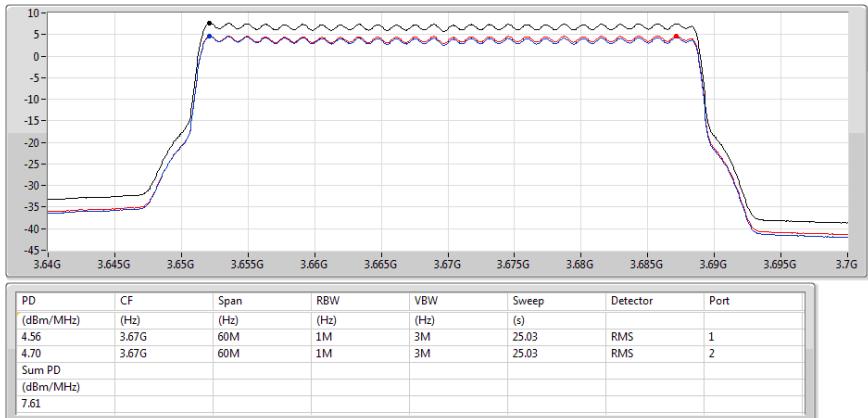
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Port 1	<input checked="" type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>



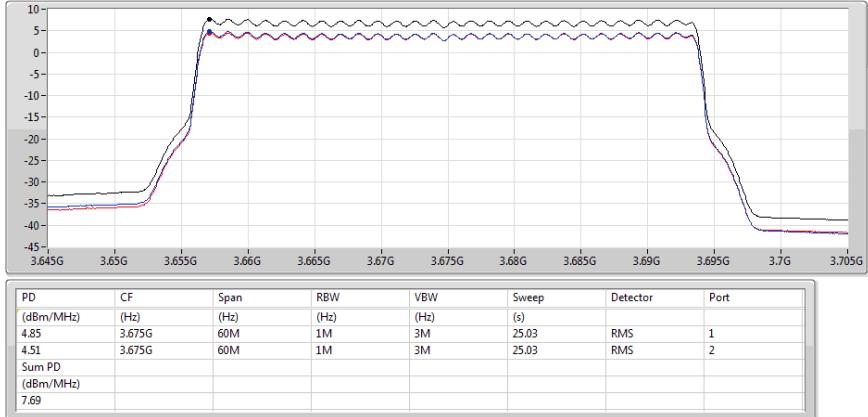
PD	CF	Span	RBW	VBW	Sweep	Detector	Port
(dBm/MHz)	(Hz)	(Hz)	(Hz)	(Hz)	(s)		
6.28	3.695G	15M	1M	3M	25.021	RMS	1
6.29	3.695G	15M	1M	3M	25.021	RMS	2

Band 43_40MHz_2TX
3670MHz_QPSK
PSD

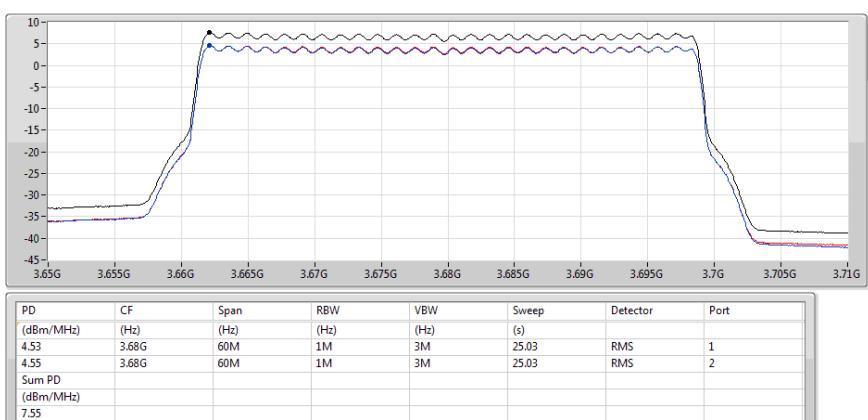
03/01/2020

 Sum
 Port 1
 Port 2

Band 43_40MHz_2TX
3675MHz_QPSK
PSD

03/01/2020

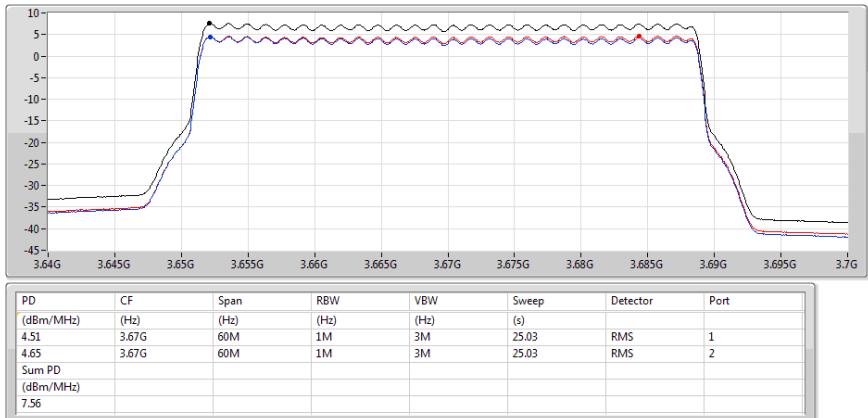
 Sum
 Port 1
 Port 2

Band 43_40MHz_2TX
3680MHz_QPSK
PSD

03/01/2020

 Sum
 Port 1
 Port 2


Band 43_40MHz_2TX
3670MHz_16QAM
PSD

03/01/2020

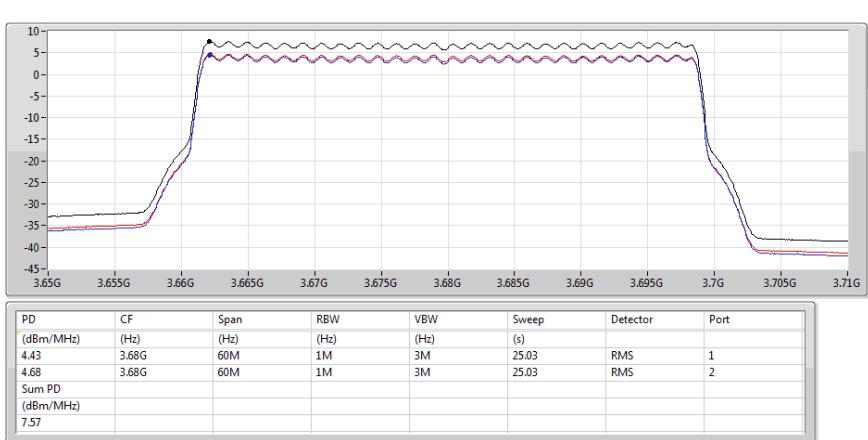
 Sum
 Port 1
 Port 2

Band 43_40MHz_2TX
3675MHz_16QAM
PSD

03/01/2020

 Sum
 Port 1
 Port 2

Band 43_40MHz_2TX
3680MHz_16QAM
PSD

03/01/2020

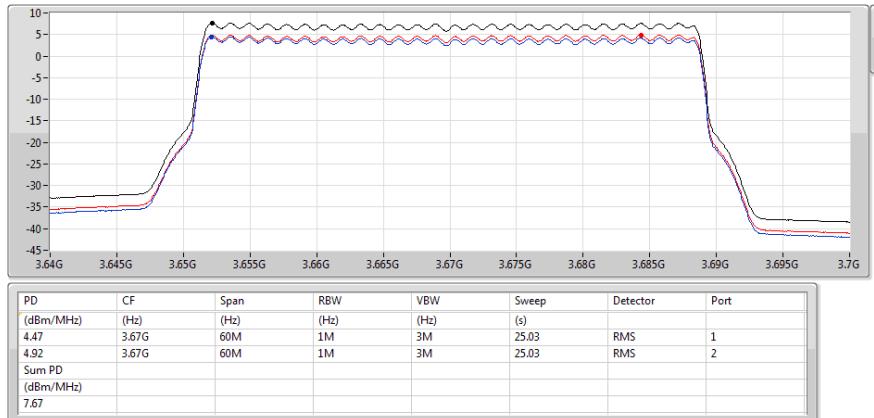
 Sum
 Port 1
 Port 2


Band 43_40MHz_2TX
3670MHz_64QAM
PSD

03/01/2020

 Sum

 Port 1

 Port 2

Band 43_40MHz_2TX
3675MHz_64QAM
PSD

03/01/2020

 Sum

 Port 1

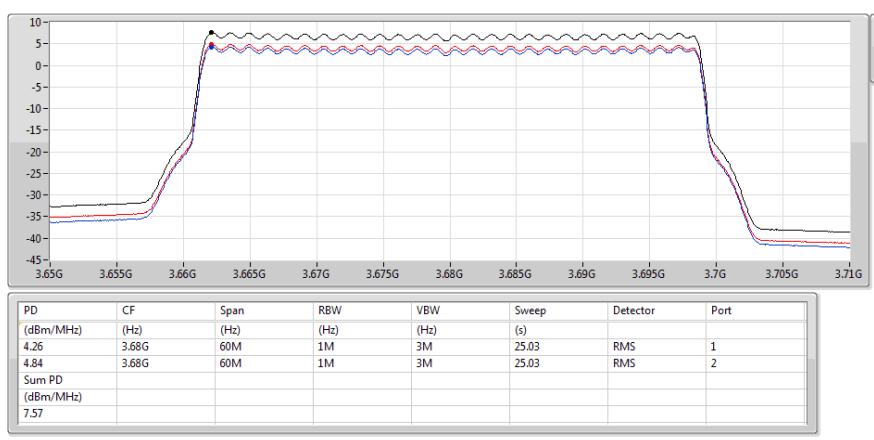
 Port 2

Band 43_40MHz_2TX
3680MHz_64QAM
PSD

03/01/2020

 Sum

 Port 1

 Port 2


Band 43_40MHz_2TX
3670MHz_256QAM
PSD

03/01/2020

 Sum

 Port 1

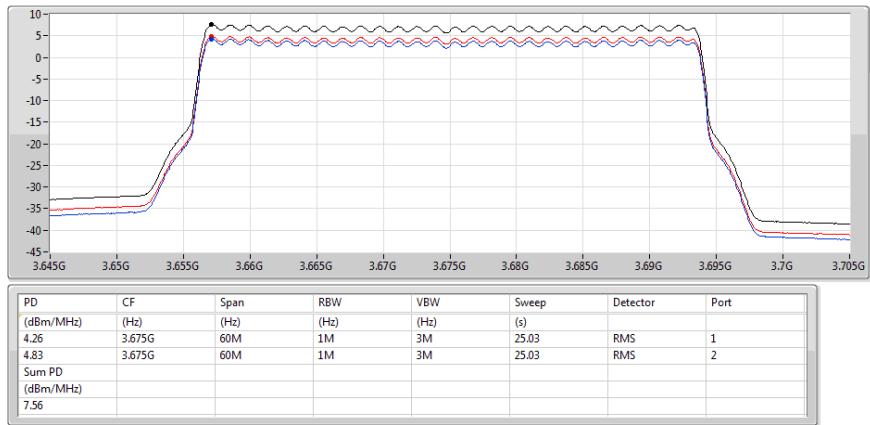
 Port 2

Band 43_40MHz_2TX
3675MHz_256QAM
PSD

03/01/2020

 Sum

 Port 1

 Port 2

Band 43_40MHz_2TX
3680MHz_256QAM
PSD

03/01/2020

 Sum

 Port 1

 Port 2



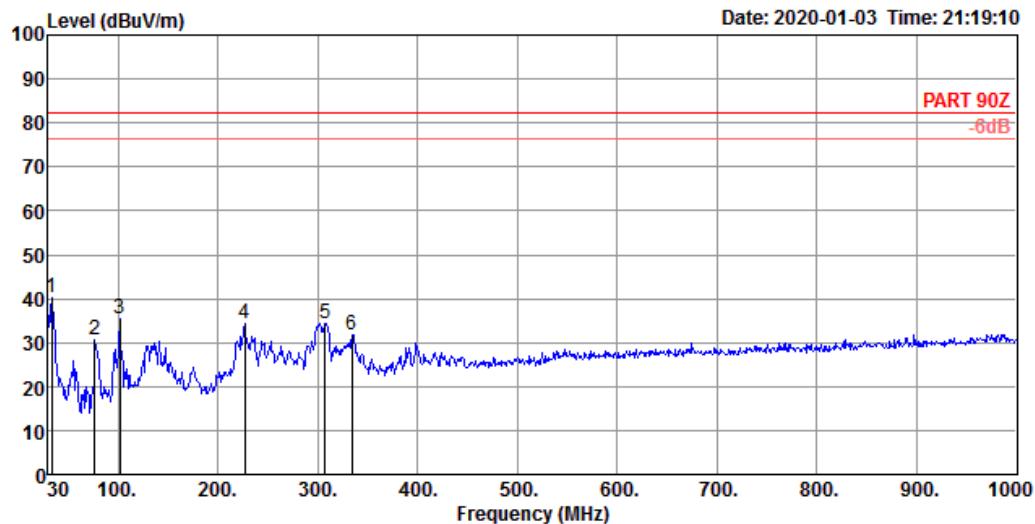

Transmitter Radiated Spurious Emissions Result

Appendix C

Transmitter Radiated Spurious Emissions (30MHz ~ 1GHz)

Configurations	40MHz: QPSK / 3675 MHz
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Horizontal



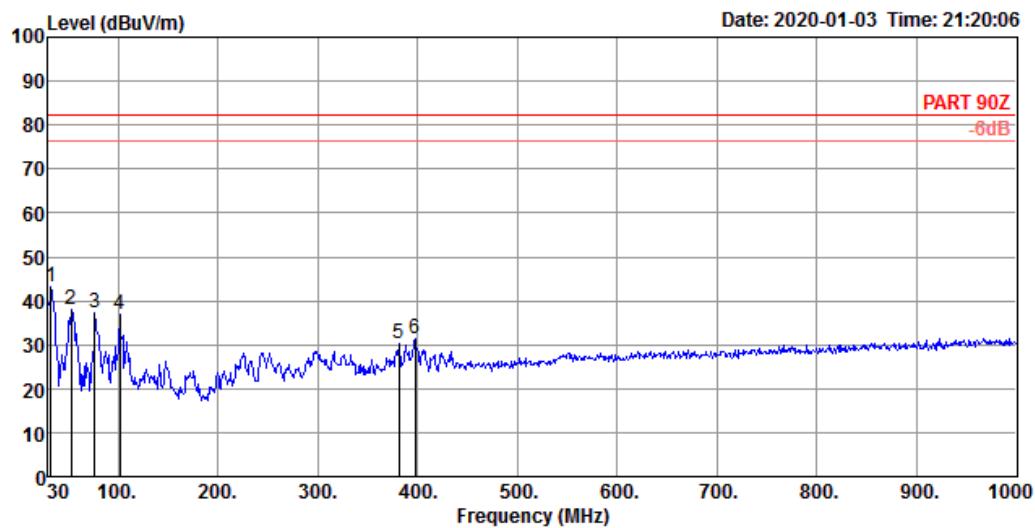
Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
		Line	Limit	Level	Loss	Factor	Factor	cm	deg		
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	33.88	40.33	82.20	-41.87	45.76	0.60	22.54	28.57	200	359 Peak	HORIZONTAL
2	76.56	30.56	82.20	-51.64	45.72	0.70	12.64	28.50	200	288 Peak	HORIZONTAL
3	101.78	35.39	82.20	-46.81	46.14	0.81	16.88	28.44	300	95 Peak	HORIZONTAL
4	226.91	34.46	82.20	-47.74	45.39	1.41	15.69	28.03	100	132 Peak	HORIZONTAL
5	307.42	34.49	82.20	-47.71	41.47	1.72	19.29	27.99	100	225 Peak	HORIZONTAL
6	334.58	31.79	82.20	-50.41	38.52	1.77	19.73	28.23	100	39 Peak	HORIZONTAL



Transmitter Radiated Spurious Emissions Result

Appendix C

Vertical



Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
		Line	Limit	Level	Loss	Factor	Factor	cm	deg		
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	32.91	43.00	82.20	-39.20	48.10	0.60	22.87	28.57	100	359 Peak	VERTICAL
2	53.28	37.88	82.20	-44.32	52.88	0.50	13.05	28.55	100	350 Peak	VERTICAL
3	76.56	37.20	82.20	-45.00	52.36	0.70	12.64	28.50	150	194 Peak	VERTICAL
4	101.78	36.87	82.20	-45.33	47.62	0.81	16.88	28.44	100	90 Peak	VERTICAL
5	381.14	30.09	82.20	-52.11	35.94	1.93	20.85	28.63	100	210 Peak	VERTICAL
6	397.63	31.38	82.20	-50.82	36.58	1.99	21.58	28.77	100	174 Peak	VERTICAL



Transmitter Radiated Spurious Emissions Result

Appendix C

Transmitter Radiated Spurious Emissions – Harmonic

Configurations		40MHz: QPSK / 3675 MHz										
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Horizontal

Freq	Level	Limit		Over Limit	Read Level	Cable Loss		Antenna Factor		Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
		Line	dBuV/m			dB	dBuV	dB	dB/m					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	dB	cm	deg				
1	14684.78	47.84	82.20	-34.36	29.66	10.49	41.70	34.01	151	203	Average	HORIZONTAL		

Vertical

Freq	Level	Limit		Over Limit	Read Level	Cable Loss		Antenna Factor		Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
		Line	dBuV/m			dB	dBuV	dB	dB/m					
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	dB	cm	deg				
1	14683.95	47.72	82.20	-34.48	29.54	10.49	41.70	34.01	152	120	Average	VERTICAL		

**For 5MHz:
Summary**

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
Band 43	-	-	-	-	-	-	-	-	-	-	-	-
5MHz_OPSK_2TX	Pass	3.701G	3.71G	51k	150k	RMS	3.7015G	-38.40	-13.00	-25.40	-	-
5MHz_16QAM_2TX	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-37.76	-13.00	-24.76	-	-
5MHz_64QAM_2TX	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-37.82	-13.00	-24.82	-	-
5MHz_256QAM_2TX	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-38.12	-13.00	-25.12	-	-



Result

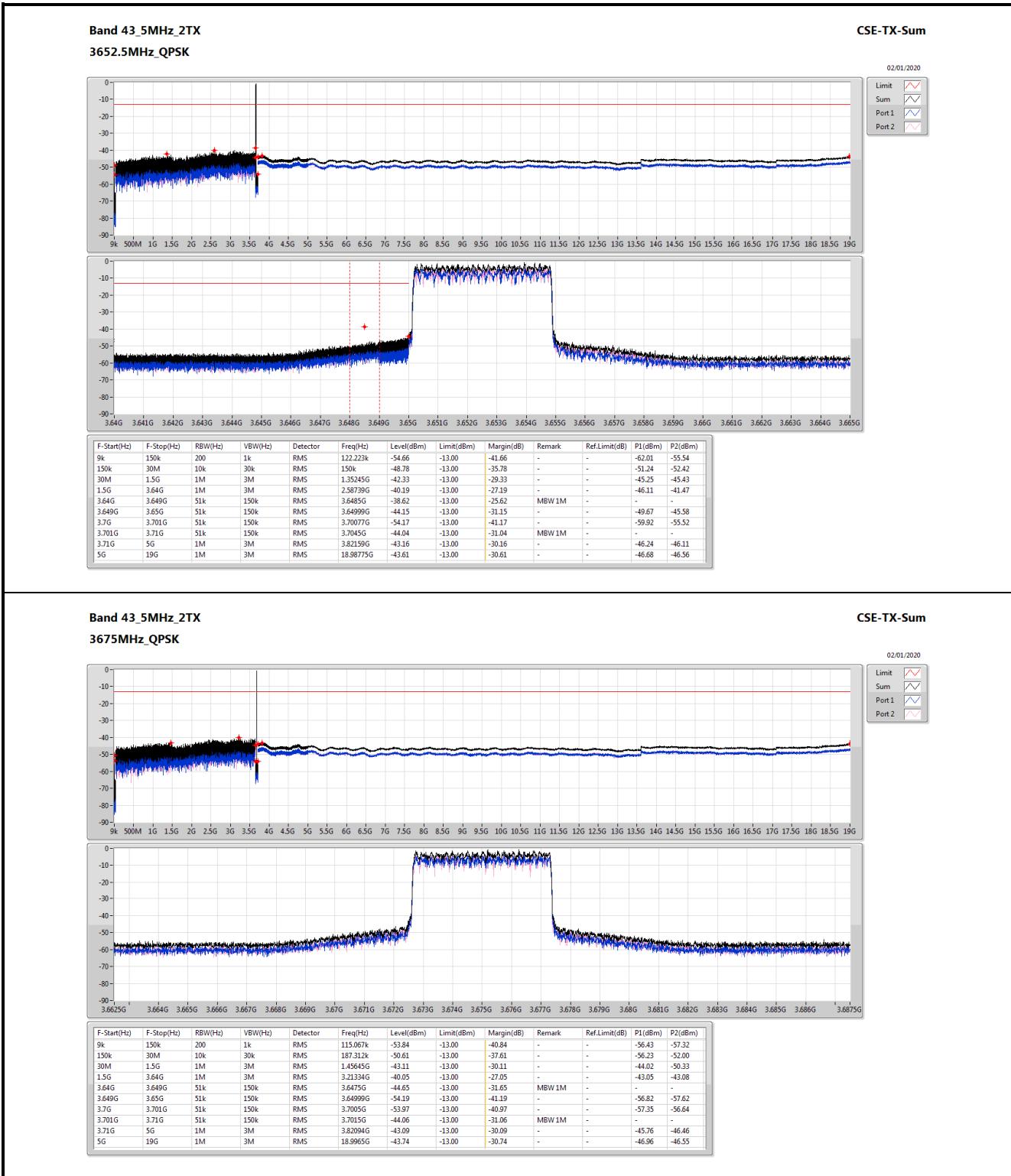
Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
Band 43_5MHz_OPSK_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3652.5MHz	Pass	9k	150k	200	1k	RMS	122.223k	-54.66	-13.00	-41.66	-	-
3652.5MHz	Pass	150k	30M	10k	30k	RMS	150k	-48.78	-13.00	-35.78	-	-
3652.5MHz	Pass	30M	1.5G	1M	3M	RMS	1.35245G	-42.33	-13.00	-29.33	-	-
3652.5MHz	Pass	1.5G	3.64G	1M	3M	RMS	2.58739G	-40.19	-13.00	-27.19	-	-
3652.5MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-38.62	-13.00	-25.62	-	-
3652.5MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64999G	-44.15	-13.00	-31.15	-	-
3652.5MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.70077G	-54.17	-13.00	-41.17	-	-
3652.5MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7045G	-44.04	-13.00	-31.04	-	-
3652.5MHz	Pass	3.71G	5G	1M	3M	RMS	3.82159G	-43.16	-13.00	-30.16	-	-
3652.5MHz	Pass	5G	19G	1M	3M	RMS	18.98775G	-43.61	-13.00	-30.61	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	115.067k	-53.84	-13.00	-40.84	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	187.312k	-50.61	-13.00	-37.61	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	1.45645G	-43.11	-13.00	-30.11	-	-
3675MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.21334G	-40.05	-13.00	-27.05	-	-
3675MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6475G	-44.65	-13.00	-31.65	-	-
3675MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64999G	-54.19	-13.00	-41.19	-	-
3675MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.7005G	-53.97	-13.00	-40.97	-	-
3675MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7015G	-44.06	-13.00	-31.06	-	-
3675MHz	Pass	3.71G	5G	1M	3M	RMS	3.82094G	-43.09	-13.00	-30.09	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.9965G	-43.74	-13.00	-30.74	-	-
3697.5MHz	Pass	9k	150k	200	1k	RMS	115.631k	-52.51	-13.00	-39.51	-	-
3697.5MHz	Pass	150k	30M	10k	30k	RMS	164.925k	-50.27	-13.00	-37.27	-	-
3697.5MHz	Pass	30M	1.5G	1M	3M	RMS	1.40592G	-42.84	-13.00	-29.84	-	-
3697.5MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.60549G	-39.90	-13.00	-26.90	-	-
3697.5MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6475G	-44.74	-13.00	-31.74	-	-
3697.5MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64936G	-54.84	-13.00	-41.84	-	-
3697.5MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.7G	-43.46	-13.00	-30.46	-	-
3697.5MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7015G	-38.40	-13.00	-25.40	-	-
3697.5MHz	Pass	3.71G	5G	1M	3M	RMS	3.834G	-43.28	-13.00	-30.28	-	-
3697.5MHz	Pass	5G	19G	1M	3M	RMS	18.986G	-43.83	-13.00	-30.83	-	-
Band 43_5MHz_16QAM_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3652.5MHz	Pass	9k	150k	200	1k	RMS	122.434k	-52.36	-13.00	-39.36	-	-
3652.5MHz	Pass	150k	30M	10k	30k	RMS	150k	-48.68	-13.00	-35.68	-	-
3652.5MHz	Pass	30M	1.5G	1M	3M	RMS	1.40647G	-42.59	-13.00	-29.59	-	-
3652.5MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.11142G	-40.04	-13.00	-27.04	-	-
3652.5MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-37.76	-13.00	-24.76	-	-
3652.5MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64999G	-43.30	-13.00	-30.30	-	-
3652.5MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.70039G	-54.31	-13.00	-41.31	-	-
3652.5MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7065G	-44.10	-13.00	-31.10	-	-
3652.5MHz	Pass	3.71G	5G	1M	3M	RMS	3.79949G	-43.26	-13.00	-30.26	-	-
3652.5MHz	Pass	5G	19G	1M	3M	RMS	18.93G	-43.81	-13.00	-30.81	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	117.782k	-53.83	-13.00	-40.83	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	150k	-49.32	-13.00	-36.32	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	1.47758G	-42.70	-13.00	-29.70	-	-
3675MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.21066G	-40.54	-13.00	-27.54	-	-
3675MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-44.69	-13.00	-31.69	-	-
3675MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64973G	-54.92	-13.00	-41.92	-	-
3675MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.70032G	-54.32	-13.00	-41.32	-	-
3675MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7065G	-44.04	-13.00	-31.04	-	-
3675MHz	Pass	3.71G	5G	1M	3M	RMS	3.80917G	-43.07	-13.00	-30.07	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.9475G	-43.97	-13.00	-30.97	-	-
3697.5MHz	Pass	9k	150k	200	1k	RMS	115.032k	-52.23	-13.00	-39.23	-	-

**CSE-TX-Sum Result****Appendix D**

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
3697.5MHz	Pass	150k	30M	10k	30k	RMS	164.925k	-47.19	-13.00	-34.19	-	-
3697.5MHz	Pass	30M	1.5G	1M	3M	RMS	1.36237G	-42.33	-13.00	-29.33	-	-
3697.5MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.23206G	-39.92	-13.00	-26.92	-	-
3697.5MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6455G	-44.71	-13.00	-31.71	-	-
3697.5MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64927G	-54.96	-13.00	-41.96	-	-
3697.5MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.7G	-43.40	-13.00	-30.40	-	-
3697.5MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7015G	-38.53	-13.00	-25.53	-	-
3697.5MHz	Pass	3.71G	5G	1M	3M	RMS	3.81417G	-43.06	-13.00	-30.06	-	-
3697.5MHz	Pass	5G	19G	1M	3M	RMS	18.853G	-43.90	-13.00	-30.90	-	-
Band 43_5MHz_64OAM_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3652.5MHz	Pass	9k	150k	200	1k	RMS	122.399k	-53.29	-13.00	-40.29	-	-
3652.5MHz	Pass	150k	30M	10k	30k	RMS	150k	-48.47	-13.00	-35.47	-	-
3652.5MHz	Pass	30M	1.5G	1M	3M	RMS	1.42742G	-42.49	-13.00	-29.49	-	-
3652.5MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.54825G	-39.96	-13.00	-26.96	-	-
3652.5MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-37.82	-13.00	-24.82	-	-
3652.5MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64999G	-43.89	-13.00	-30.89	-	-
3652.5MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.70082G	-53.89	-13.00	-40.89	-	-
3652.5MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7085G	-44.09	-13.00	-31.09	-	-
3652.5MHz	Pass	3.71G	5G	1M	3M	RMS	3.7695G	-43.11	-13.00	-30.11	-	-
3652.5MHz	Pass	5G	19G	1M	3M	RMS	18.99825G	-43.93	-13.00	-30.93	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	122.399k	-52.82	-13.00	-39.82	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	194.775k	-48.78	-13.00	-35.78	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	1.42374G	-42.62	-13.00	-29.62	-	-
3675MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.18365G	-39.65	-13.00	-26.65	-	-
3675MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-44.65	-13.00	-31.65	-	-
3675MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.6497G	-54.74	-13.00	-41.74	-	-
3675MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.7001G	-54.09	-13.00	-41.09	-	-
3675MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7065G	-44.10	-13.00	-31.10	-	-
3675MHz	Pass	3.71G	5G	1M	3M	RMS	3.77418G	-43.11	-13.00	-30.11	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.986G	-43.87	-13.00	-30.87	-	-
3697.5MHz	Pass	9k	150k	200	1k	RMS	120.038k	-53.18	-13.00	-40.18	-	-
3697.5MHz	Pass	150k	30M	10k	30k	RMS	172.388k	-48.88	-13.00	-35.88	-	-
3697.5MHz	Pass	30M	1.5G	1M	3M	RMS	1.31515G	-43.28	-13.00	-30.28	-	-
3697.5MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.19675G	-40.30	-13.00	-27.30	-	-
3697.5MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6455G	-44.72	-13.00	-31.72	-	-
3697.5MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64969G	-54.70	-13.00	-41.70	-	-
3697.5MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.70001G	-43.62	-13.00	-30.62	-	-
3697.5MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7015G	-38.40	-13.00	-25.40	-	-
3697.5MHz	Pass	3.71G	5G	1M	3M	RMS	3.82126G	-43.04	-13.00	-30.04	-	-
3697.5MHz	Pass	5G	19G	1M	3M	RMS	18.97725G	-43.75	-13.00	-30.75	-	-
Band 43_5MHz_256OAM_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3652.5MHz	Pass	9k	150k	200	1k	RMS	120.707k	-53.03	-13.00	-40.03	-	-
3652.5MHz	Pass	150k	30M	10k	30k	RMS	164.925k	-48.85	-13.00	-35.85	-	-
3652.5MHz	Pass	30M	1.5G	1M	3M	RMS	1.30633G	-42.74	-13.00	-29.74	-	-
3652.5MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.17214G	-40.52	-13.00	-27.52	-	-
3652.5MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-38.12	-13.00	-25.12	-	-
3652.5MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.65G	-42.56	-13.00	-29.56	-	-
3652.5MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.70015G	-54.13	-13.00	-41.13	-	-
3652.5MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7085G	-44.08	-13.00	-31.08	-	-
3652.5MHz	Pass	3.71G	5G	1M	3M	RMS	3.82933G	-43.19	-13.00	-30.19	-	-
3652.5MHz	Pass	5G	19G	1M	3M	RMS	18.9405G	-43.75	-13.00	-30.75	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	116.794k	-53.28	-13.00	-40.28	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	150k	-48.68	-13.00	-35.68	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	1.18322G	-42.88	-13.00	-29.88	-	-

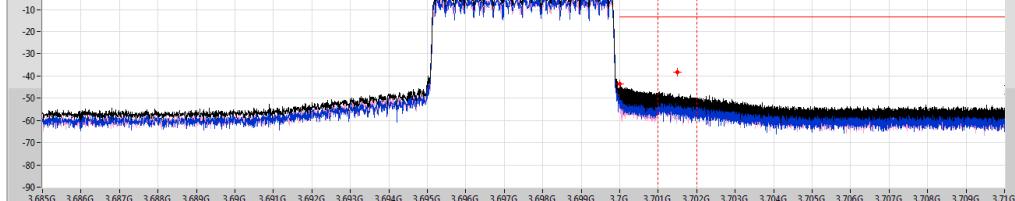
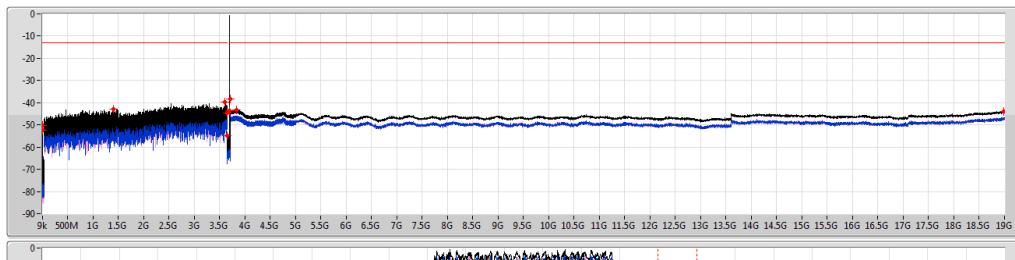
**CSE-TX-Sum Result****Appendix D**

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
3675MHz	Pass	1.5G	3.64G	1M	3M	RMS	3.24945G	-38.67	-13.00	-25.67	-	-
3675MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.64955G	-44.70	-13.00	-31.70	-	-
3675MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64972G	-54.84	-13.00	-41.84	-	-
3675MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.70013G	-53.53	-13.00	-40.53	-	-
3675MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7045G	-44.05	-13.00	-31.05	-	-
3675MHz	Pass	3.71G	5G	1M	3M	RMS	3.77902G	-43.23	-13.00	-30.23	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.9405G	-43.85	-13.00	-30.85	-	-
3697.5MHz	Pass	9k	150k	200	1k	RMS	117.394k	-54.43	-13.00	-41.43	-	-
3697.5MHz	Pass	150k	30M	10k	30k	RMS	157.462k	-47.97	-13.00	-34.97	-	-
3697.5MHz	Pass	30M	1.5G	1M	3M	RMS	1.24992G	-42.65	-13.00	-29.65	-	-
3697.5MHz	Pass	1.5G	3.64G	1M	3M	RMS	2.67245G	-40.03	-13.00	-27.03	-	-
3697.5MHz	Pass	3.64G	3.649G	51k	150k	RMS	3.6485G	-44.72	-13.00	-31.72	-	-
3697.5MHz	Pass	3.649G	3.65G	51k	150k	RMS	3.64948G	-54.65	-13.00	-41.65	-	-
3697.5MHz	Pass	3.7G	3.701G	51k	150k	RMS	3.7G	-44.02	-13.00	-31.02	-	-
3697.5MHz	Pass	3.701G	3.71G	51k	150k	RMS	3.7015G	-38.50	-13.00	-25.50	-	-
3697.5MHz	Pass	3.71G	5G	1M	3M	RMS	3.829G	-43.24	-13.00	-30.24	-	-
3697.5MHz	Pass	5G	19G	1M	3M	RMS	18.881G	-43.77	-13.00	-30.77	-	-



Band 43_5MHz_2TX
3697.5MHz_QPSK
CSE-TX-Sum

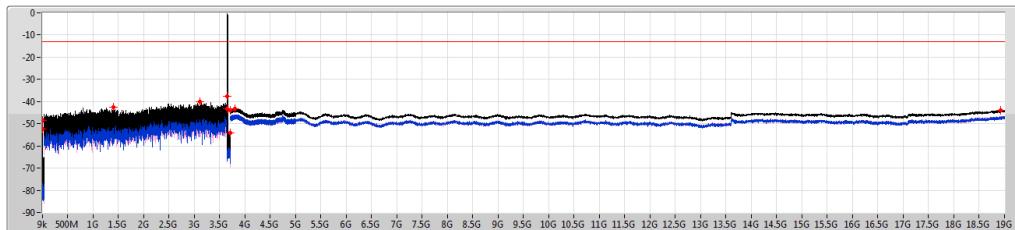
02/01/2020



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	115.631k	-52.51	-13.00	-39.51	-	-55.74	-55.31	
150k	30M	10k	30k	RMS	164.925k	-50.27	-13.00	-37.27	-	-54.27	-52.48	
30M	1.5G	1M	3M	RMS	140952G	-42.84	-13.00	-29.84	-	-44.28	-48.34	
1.5G	3.64G	1M	3M	RMS	360549G	-39.90	-13.00	-26.90	-	-43.00	-42.82	
3.64G	3.649G	51k	150k	RMS	36475G	-44.74	-13.00	-31.74	MBW1M	-	-	
3.649G	3.65G	51k	150k	RMS	364936G	-54.84	-13.00	-41.84	-	-56.30	-60.28	
3.7G	3.701G	51k	150k	RMS	3.7G	-43.46	-13.00	-30.46	-	-44.88	-48.99	
3.701G	3.71G	51k	150k	RMS	3.7015G	-38.40	-13.00	-25.40	MBW1M	-	-	
3.71G	5G	1M	3M	RMS	3.834G	-43.28	-13.00	-30.28	-	-46.22	-46.36	
5G	19G	1M	3M	RMS	18.986G	-43.83	-13.00	-30.83	-	-46.93	-46.75	

Band 43_5MHz_2TX
3652.5MHz_16QAM
CSE-TX-Sum

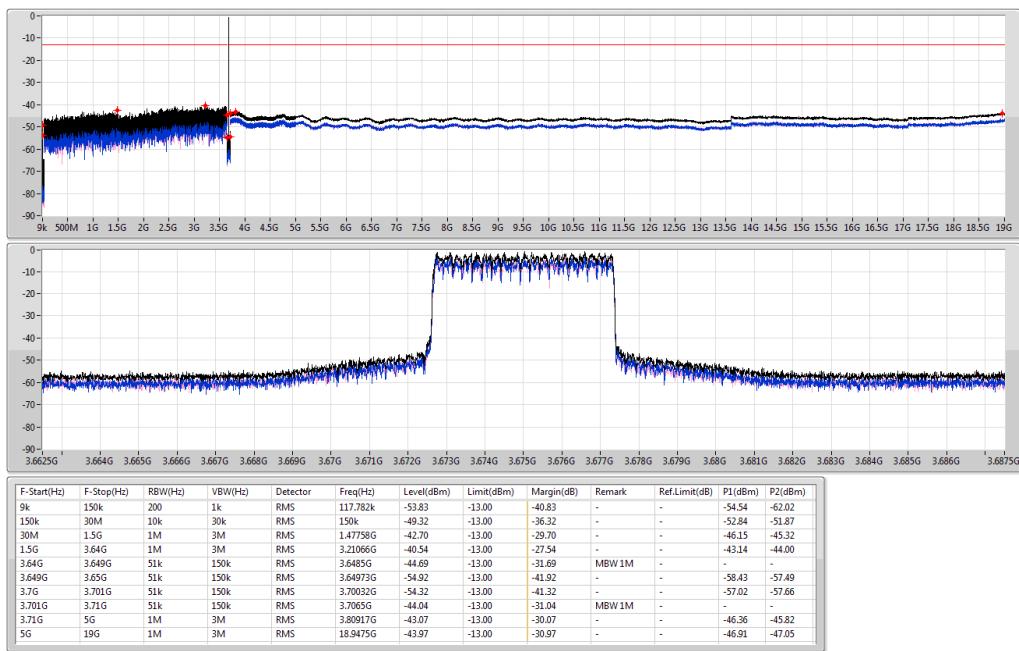
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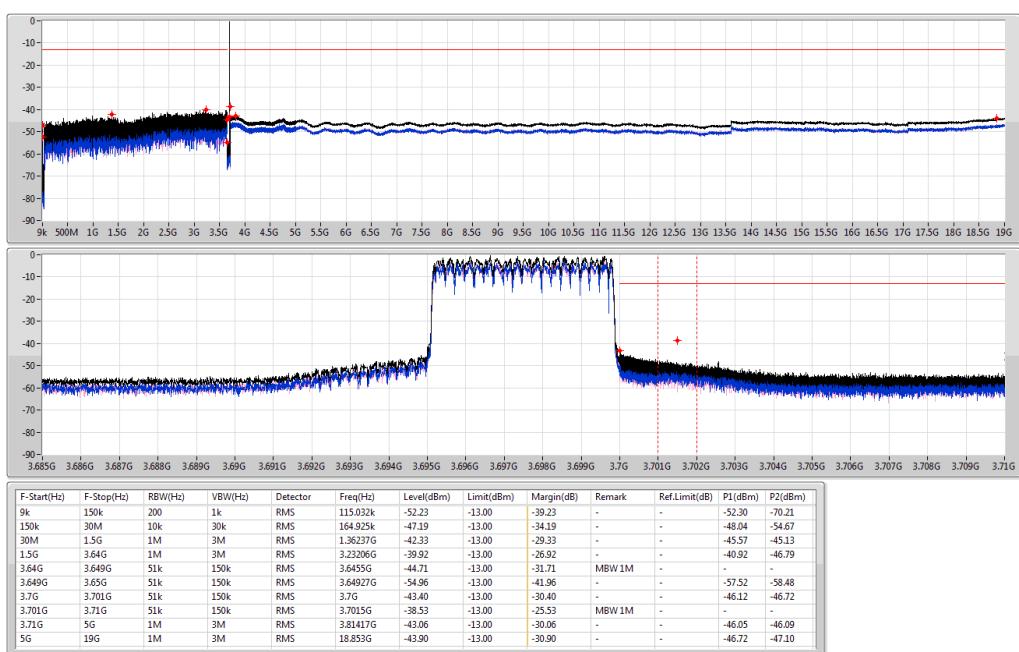
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	122.434k	-52.36	-13.00	-39.36	-	-69.40	-52.45	
150k	30M	10k	30k	RMS	150k	-48.68	-13.00	-35.68	-	-50.69	-53.00	
30M	1.5G	1M	3M	RMS	1.40647G	-42.59	-13.00	-29.59	-	-50.25	-43.41	
1.5G	3.64G	1M	3M	RMS	3.11142G	-40.04	-13.00	-27.04	-	-43.00	-43.11	
3.64G	3.649G	51k	150k	RMS	3.6485G	-37.76	-13.00	-24.76	MBW1M	-	-	
3.649G	3.65G	51k	150k	RMS	3.64999G	-43.30	-13.00	-30.30	-	-45.94	-46.71	
3.7G	3.701G	51k	150k	RMS	3.70039G	-54.31	-13.00	-41.31	-	-58.13	-56.64	
3.701G	3.71G	51k	150k	RMS	3.7065G	-44.10	-13.00	-31.10	MBW1M	-	-	
3.71G	5G	1M	3M	RMS	3.79949G	-43.26	-13.00	-30.26	-	-46.00	-46.56	
5G	19G	1M	3M	RMS	18.934G	-43.81	-13.00	-30.81	-	-47.06	-46.60	

Band 43_5MHz_2TX
3675MHz_16QAM
CSE-TX-Sum

02/01/2020

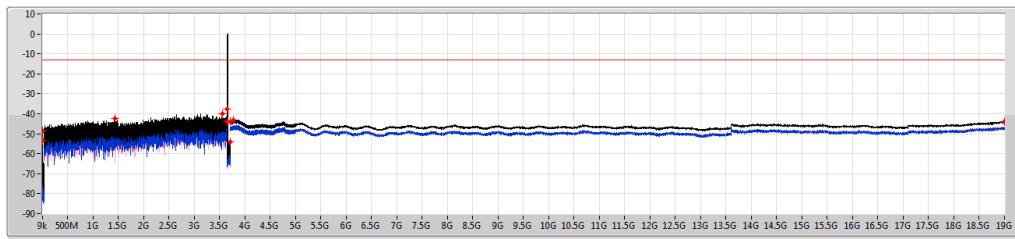

Band 43_5MHz_2TX
3697.5MHz_16QAM
CSE-TX-Sum

02/01/2020

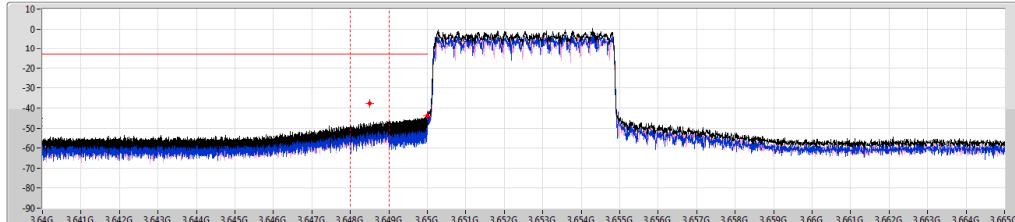


Band 43_5MHz_2TX
3652.5MHz_64QAM
CSE-TX-Sum

02/01/2020



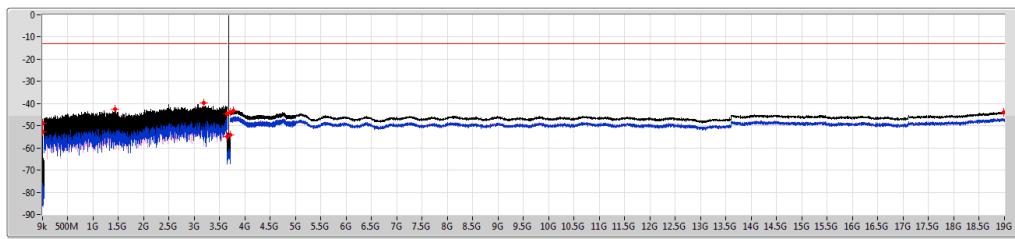
Limit	
Sum	
Port 1	
Port 2	



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	122.399k	-53.29	-13.00	-40.29	-	-53.44	-68.11	
150k	30M	10k	30k	RMS	150k	-48.47	-13.00	-35.47	-	-51.32	-51.64	
30M	1.5G	1M	3M	RMS	1.42742G	-42.49	-13.00	-29.49	-	-45.07	-45.97	
1.5G	3.64G	1M	3M	RMS	3.54825G	-39.96	-13.00	-26.96	-	-42.81	-43.13	
3.64G	3.649G	51k	150k	RMS	3.6485G	-37.82	-13.00	-24.82	MBW1M	-	-	
3.649G	3.65G	51k	150k	RMS	3.64999G	-43.89	-13.00	-30.89	-	-46.75	-47.06	
3.7G	3.701G	51k	150k	RMS	3.70082G	-53.89	-13.00	-40.89	-	-54.91	-60.68	
3.701G	3.71G	51k	150k	RMS	3.7085G	-44.09	-13.00	-31.09	MBW1M	-	-	
3.71G	5G	1M	3M	RMS	3.7695G	-43.11	-13.00	-30.11	-	-46.40	-45.85	
5G	19G	1M	3M	RMS	18.99825G	-43.93	-13.00	-30.93	-	-46.86	-47.02	

Band 43_5MHz_2TX
3675MHz_64QAM
CSE-TX-Sum

02/01/2020



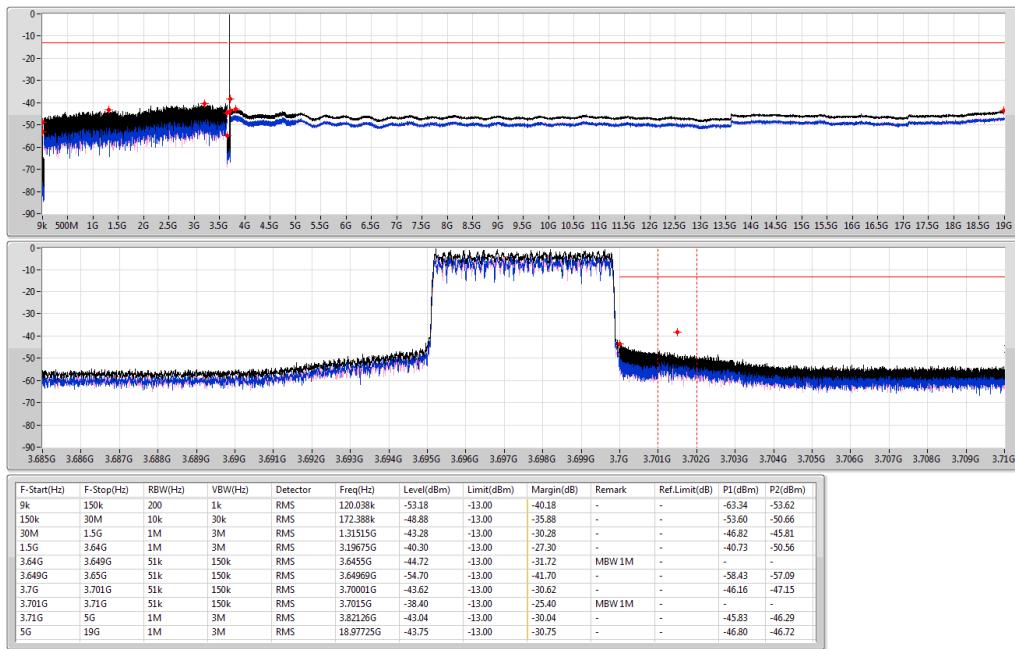
Limit	
Sum	
Port 1	
Port 2	



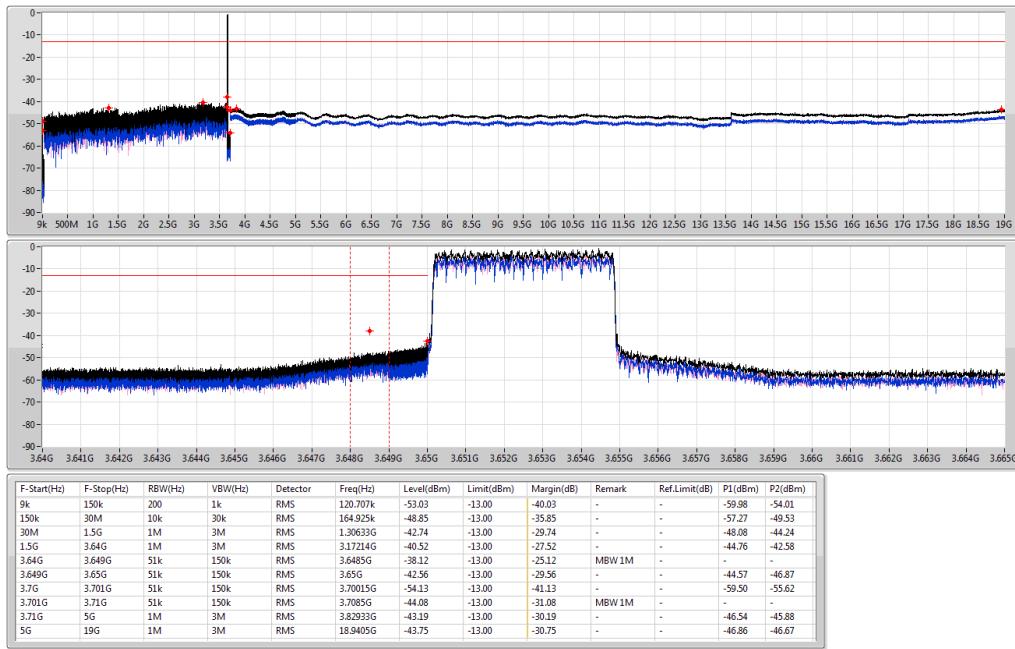
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	122.399k	-52.82	-13.00	-39.82	-	-53.01	-66.56	
150k	30M	10k	30k	RMS	194.775k	-48.78	-13.00	-35.78	-	-51.37	-52.26	
30M	1.5G	1M	3M	RMS	1.42374G	-42.62	-13.00	-29.62	-	-46.57	-44.85	
1.5G	3.64G	1M	3M	RMS	3.18365G	-39.65	-13.00	-26.65	-	-43.83	-41.74	
3.64G	3.649G	51k	150k	RMS	3.6485G	-44.65	-13.00	-31.65	MBW1M	-	-	
3.649G	3.65G	51k	150k	RMS	3.6497G	-54.74	-13.00	-41.74	-	-59.26	-56.63	
3.7G	3.701G	51k	150k	RMS	3.7001G	-54.09	-13.00	-41.09	-	-55.73	-59.12	
3.701G	3.71G	51k	150k	RMS	3.7065G	-44.10	-13.00	-31.10	MBW1M	-	-	
3.71G	5G	1M	3M	RMS	3.77418G	-43.11	-13.00	-30.11	-	-45.89	-46.37	
5G	19G	1M	3M	RMS	18.986G	-43.87	-13.00	-30.87	-	-47.08	-46.68	

Band 43_5MHz_2TX
3697.5MHz_64QAM
CSE-TX-Sum

02/01/2020


Band 43_5MHz_2TX
3652.5MHz_256QAM
CSE-TX-Sum

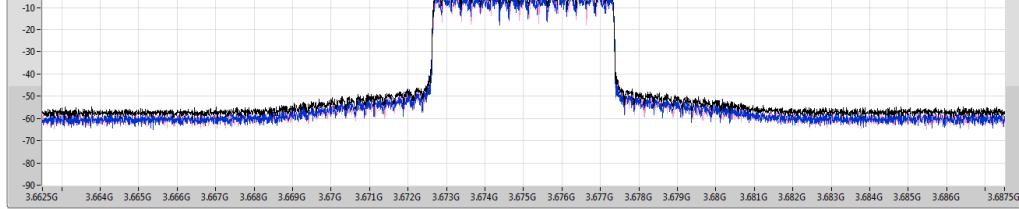
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Band 43_5MHz_2TX
3675MHz_256QAM
CSE-TX-Sum

02/01/2020

Limit	
Sum	
Port 1	
Port 2	

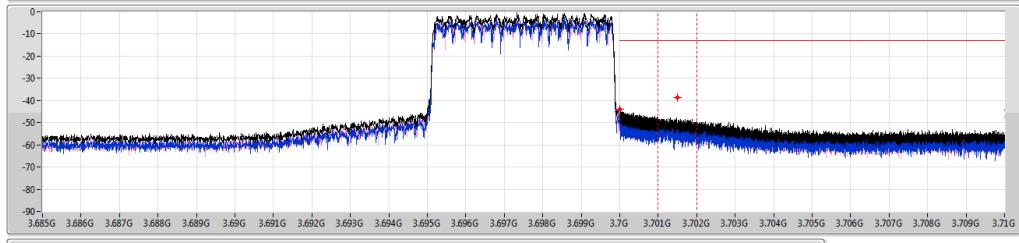
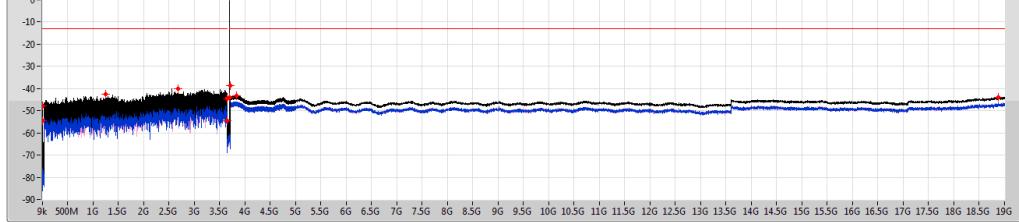


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	116.794k	-53.28	-13.00	-40.28	-	-66.18	-53.51	
150k	30M	10k	30k	RMS	150k	-48.68	-13.00	-35.68	-	-53.04	-50.66	
30M	1.5G	1M	3M	RMS	1.18322G	-42.88	-13.00	-29.88	-	-43.02	-57.85	
1.5G	3.64G	1M	3M	RMS	3.24945G	-38.67	-13.00	-25.67	-	-42.89	-40.73	
3.64G	3.649G	51k	150k	RMS	3.6455G	-44.70	-13.00	-31.70	MBW1M	-	-	
3.649G	3.65G	51k	150k	RMS	3.64972G	-54.84	-13.00	-41.84	-	-56.43	-59.98	
3.7G	3.701G	51k	150k	RMS	3.70013G	-53.53	-13.00	-40.53	-	-58.54	-55.17	
3.701G	3.71G	51k	150k	RMS	3.7045G	-44.05	-13.00	-31.05	MBW1M	-	-	
3.71G	5G	1M	3M	RMS	3.77902G	-43.23	-13.00	-30.23	-	-46.60	-45.90	
5G	19G	1M	3M	RMS	18.9405G	-43.85	-13.00	-30.85	-	-46.58	-47.16	

Band 43_5MHz_2TX
3697.5MHz_256QAM
CSE-TX-Sum

02/01/2020

Limit	
Sum	
Port 1	
Port 2	



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	117.394k	-54.43	-13.00	-41.43	-	-56.64	-58.43	
150k	30M	10k	30k	RMS	157.462k	-47.97	-13.00	-34.97	-	-50.79	-51.17	
30M	1.5G	1M	3M	RMS	1.24992G	-42.65	-13.00	-29.65	-	-46.87	-44.72	
1.5G	3.64G	1M	3M	RMS	2.67245G	-40.03	-13.00	-27.03	-	-42.71	-43.40	
3.64G	3.649G	51k	150k	RMS	3.6485G	-44.72	-13.00	-31.72	MBW1M	-	-	
3.649G	3.65G	51k	150k	RMS	3.64948G	-54.65	-13.00	-41.65	-	-59.94	-56.17	
3.7G	3.701G	51k	150k	RMS	3.7G	-44.02	-13.00	-31.02	-	-48.07	-46.20	
3.701G	3.71G	51k	150k	RMS	3.7015G	-38.50	-13.00	-25.50	MBW1M	-	-	
3.71G	5G	1M	3M	RMS	3.829G	-43.24	-13.00	-30.24	-	-46.18	-46.32	
5G	19G	1M	3M	RMS	18.881G	-43.77	-13.00	-30.77	-	-46.45	-47.13	

**For 10MHz and 40MHz:
Summary**

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
Band 43	-	-	-	-	-	-	-	-	-	-	-	-
10MHz_OPSK_2TX	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-36.63	-13.00	-23.63	-	-
10MHz_16QAM_2TX	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-36.31	-13.00	-23.31	-	-
10MHz_64QAM_2TX	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-36.10	-13.00	-23.10	-	-
10MHz_256QAM_2TX	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-35.08	-13.00	-22.08	-	-
40MHz_OPSK_2TX	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64958G	-30.76	-13.00	-17.76	-	-
40MHz_16QAM_2TX	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-30.69	-13.00	-17.69	-	-
40MHz_64QAM_2TX	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-30.41	-13.00	-17.41	-	-
40MHz_256QAM_2TX	Pass	3.649G	3.65G	430k	1.2M	RMS	3.6498G	-30.65	-13.00	-17.65	-	-



Result

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
Band 43_10MHz_QPSK_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3655MHz	Pass	9k	150k	200	1k	RMS	121.73k	-52.70	-13.00	-39.70	-	-
3655MHz	Pass	150k	30M	10k	30k	RMS	150k	-46.44	-13.00	-33.44	-	-
3655MHz	Pass	30M	1.5G	1M	3M	RMS	1.05845G	-42.28	-13.00	-29.28	-	-
3655MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.63G	-40.27	-13.00	-27.27	-	-
3655MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-36.63	-13.00	-23.63	-	-
3655MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.65G	-41.66	-13.00	-28.66	-	-
3655MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70049G	-51.98	-13.00	-38.98	-	-
3655MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7065G	-44.38	-13.00	-31.38	-	-
3655MHz	Pass	3.72G	5G	1M	3M	RMS	3.84784G	-43.09	-13.00	-30.09	-	-
3655MHz	Pass	5G	19G	1M	3M	RMS	19G	-43.84	-13.00	-30.84	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	114.856k	-54.61	-13.00	-41.61	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	150k	-50.85	-13.00	-37.85	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	1.04981G	-42.69	-13.00	-29.69	-	-
3675MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.21625G	-39.94	-13.00	-26.94	-	-
3675MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-44.77	-13.00	-31.77	-	-
3675MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.6497G	-52.56	-13.00	-39.56	-	-
3675MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70019G	-52.13	-13.00	-39.13	-	-
3675MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7085G	-44.26	-13.00	-31.26	-	-
3675MHz	Pass	3.72G	5G	1M	3M	RMS	3.83248G	-43.05	-13.00	-30.05	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.93175G	-43.73	-13.00	-30.73	-	-
3695MHz	Pass	9k	150k	200	1k	RMS	122.434k	-53.27	-13.00	-40.27	-	-
3695MHz	Pass	150k	30M	10k	30k	RMS	150k	-48.68	-13.00	-35.68	-	-
3695MHz	Pass	30M	1.5G	1M	3M	RMS	1.41621G	-42.73	-13.00	-29.73	-	-
3695MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.62681G	-40.11	-13.00	-27.11	-	-
3695MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6475G	-44.90	-13.00	-31.90	-	-
3695MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.64917G	-52.64	-13.00	-39.64	-	-
3695MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70002G	-42.48	-13.00	-29.48	-	-
3695MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7015G	-37.48	-13.00	-24.48	-	-
3695MHz	Pass	3.72G	5G	1M	3M	RMS	3.85136G	-43.04	-13.00	-30.04	-	-
3695MHz	Pass	5G	19G	1M	3M	RMS	18.902G	-43.81	-13.00	-30.81	-	-
Band 43_10MHz_16QAM_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3655MHz	Pass	9k	150k	200	1k	RMS	117.288k	-54.84	-13.00	-41.84	-	-
3655MHz	Pass	150k	30M	10k	30k	RMS	164.925k	-50.28	-13.00	-37.28	-	-
3655MHz	Pass	30M	1.5G	1M	3M	RMS	1.28391G	-42.62	-13.00	-29.62	-	-
3655MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.06502G	-40.31	-13.00	-27.31	-	-
3655MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-36.31	-13.00	-23.31	-	-
3655MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.65G	-41.42	-13.00	-28.42	-	-
3655MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70025G	-52.29	-13.00	-39.29	-	-
3655MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7175G	-44.35	-13.00	-31.35	-	-
3655MHz	Pass	3.72G	5G	1M	3M	RMS	3.82032G	-43.16	-13.00	-30.16	-	-
3655MHz	Pass	5G	19G	1M	3M	RMS	19G	-43.68	-13.00	-30.68	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	119.861k	-54.88	-13.00	-41.88	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	179.85k	-48.17	-13.00	-35.17	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	1.47042G	-41.97	-13.00	-28.97	-	-
3675MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.14356G	-40.21	-13.00	-27.21	-	-
3675MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-44.84	-13.00	-31.84	-	-
3675MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.6499G	-52.19	-13.00	-39.19	-	-
3675MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70037G	-51.93	-13.00	-38.93	-	-
3675MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7155G	-44.28	-13.00	-31.28	-	-
3675MHz	Pass	3.72G	5G	1M	3M	RMS	3.8288G	-42.92	-13.00	-29.92	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.95625G	-43.66	-13.00	-30.66	-	-
3695MHz	Pass	9k	150k	200	1k	RMS	118.839k	-51.75	-13.00	-38.75	-	-

**CSE-TX-Sum Result****Appendix D**

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
3695MHz	Pass	150k	30M	10k	30k	RMS	150k	-49.12	-13.00	-36.12	-	-
3695MHz	Pass	30M	1.5G	1M	3M	RMS	1.41107G	-42.17	-13.00	-29.17	-	-
3695MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.14303G	-39.44	-13.00	-26.44	-	-
3695MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-44.92	-13.00	-31.92	-	-
3695MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.64934G	-52.51	-13.00	-39.51	-	-
3695MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70002G	-41.69	-13.00	-28.69	-	-
3695MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7015G	-37.45	-13.00	-24.45	-	-
3695MHz	Pass	3.72G	5G	1M	3M	RMS	3.832G	-43.08	-13.00	-30.08	-	-
3695MHz	Pass	5G	19G	1M	3M	RMS	18.9685G	-43.82	-13.00	-30.82	-	-
Band 43_10MHz_640AM_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3655MHz	Pass	9k	150k	200	1k	RMS	115.032k	-54.31	-13.00	-41.31	-	-
3655MHz	Pass	150k	30M	10k	30k	RMS	157.462k	-47.80	-13.00	-34.80	-	-
3655MHz	Pass	30M	1.5G	1M	3M	RMS	1.44543G	-42.52	-13.00	-29.52	-	-
3655MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.60657G	-39.79	-13.00	-26.79	-	-
3655MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-36.10	-13.00	-23.10	-	-
3655MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.65G	-41.32	-13.00	-28.32	-	-
3655MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70092G	-52.01	-13.00	-39.01	-	-
3655MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7185G	-44.31	-13.00	-31.31	-	-
3655MHz	Pass	3.72G	5G	1M	3M	RMS	3.78624G	-43.10	-13.00	-30.10	-	-
3655MHz	Pass	5G	19G	1M	3M	RMS	18.98075G	-43.72	-13.00	-30.72	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	121.765k	-52.93	-13.00	-39.93	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	179.85k	-49.41	-13.00	-36.41	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	820.13M	-42.13	-13.00	-29.13	-	-
3675MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.19814G	-40.61	-13.00	-27.61	-	-
3675MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-44.94	-13.00	-31.94	-	-
3675MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.64928G	-52.43	-13.00	-39.43	-	-
3675MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70083G	-51.83	-13.00	-38.83	-	-
3675MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7025G	-44.24	-13.00	-31.24	-	-
3675MHz	Pass	3.72G	5G	1M	3M	RMS	3.82976G	-42.99	-13.00	-29.99	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.9965G	-43.82	-13.00	-30.82	-	-
3695MHz	Pass	9k	150k	200	1k	RMS	119.544k	-54.40	-13.00	-41.40	-	-
3695MHz	Pass	150k	30M	10k	30k	RMS	172.388k	-50.02	-13.00	-37.02	-	-
3695MHz	Pass	30M	1.5G	1M	3M	RMS	1.49853G	-42.59	-13.00	-29.59	-	-
3695MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.60151G	-39.97	-13.00	-26.97	-	-
3695MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-44.92	-13.00	-31.92	-	-
3695MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.64946G	-52.61	-13.00	-39.61	-	-
3695MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70002G	-42.02	-13.00	-29.02	-	-
3695MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7015G	-37.24	-13.00	-24.24	-	-
3695MHz	Pass	3.72G	5G	1M	3M	RMS	3.83168G	-43.02	-13.00	-30.02	-	-
3695MHz	Pass	5G	19G	1M	3M	RMS	18.8845G	-43.72	-13.00	-30.72	-	-
Band 43_10MHz_2560AM_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3655MHz	Pass	9k	150k	200	1k	RMS	120.566k	-53.61	-13.00	-40.61	-	-
3655MHz	Pass	150k	30M	10k	30k	RMS	164.925k	-50.29	-13.00	-37.29	-	-
3655MHz	Pass	30M	1.5G	1M	3M	RMS	1.48714G	-43.03	-13.00	-30.03	-	-
3655MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.2048G	-40.24	-13.00	-27.24	-	-
3655MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-35.08	-13.00	-22.08	-	-
3655MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.64998G	-40.10	-13.00	-27.10	-	-
3655MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70023G	-52.36	-13.00	-39.36	-	-
3655MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7155G	-44.31	-13.00	-31.31	-	-
3655MHz	Pass	3.72G	5G	1M	3M	RMS	3.82096G	-43.06	-13.00	-30.06	-	-
3655MHz	Pass	5G	19G	1M	3M	RMS	18.97025G	-43.75	-13.00	-30.75	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	116.618k	-53.95	-13.00	-40.95	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	150k	-49.34	-13.00	-36.34	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	1.33279G	-42.88	-13.00	-29.88	-	-

**CSE-TX-Sum Result****Appendix D**

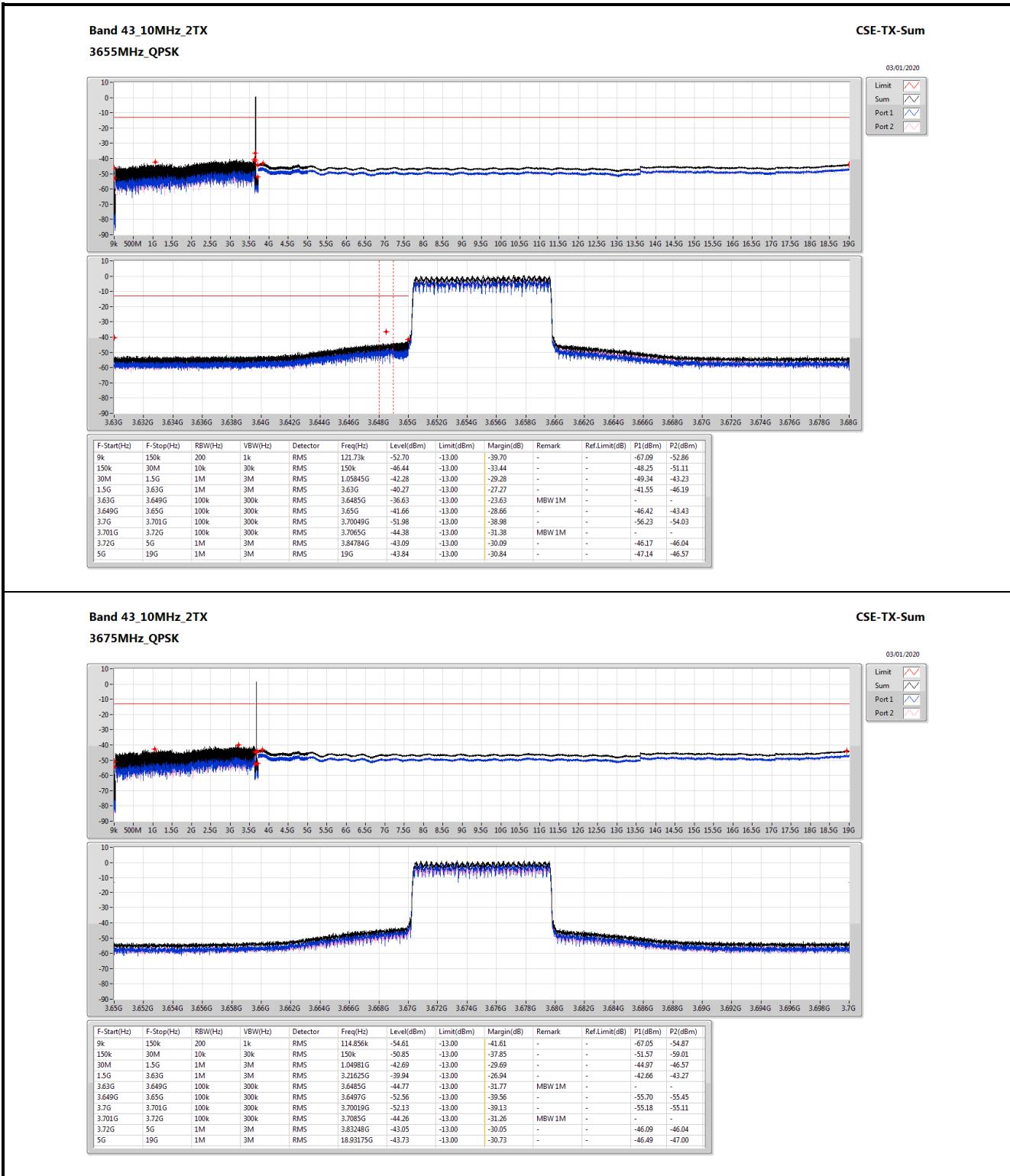
Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
3675MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.23435G	-40.47	-13.00	-27.47	-	-
3675MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6485G	-44.85	-13.00	-31.85	-	-
3675MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.6498G	-52.50	-13.00	-39.50	-	-
3675MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70078G	-51.86	-13.00	-38.86	-	-
3675MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7125G	-44.28	-13.00	-31.28	-	-
3675MHz	Pass	3.72G	5G	1M	3M	RMS	3.78512G	-43.03	-13.00	-30.03	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.98425G	-43.61	-13.00	-30.61	-	-
3695MHz	Pass	9k	150k	200	1k	RMS	120.249k	-54.24	-13.00	-41.24	-	-
3695MHz	Pass	150k	30M	10k	30k	RMS	172.388k	-47.91	-13.00	-34.91	-	-
3695MHz	Pass	30M	1.5G	1M	3M	RMS	1.18616G	-42.68	-13.00	-29.68	-	-
3695MHz	Pass	1.5G	3.63G	1M	3M	RMS	3.51258G	-39.86	-13.00	-26.86	-	-
3695MHz	Pass	3.63G	3.649G	100k	300k	RMS	3.6465G	-44.91	-13.00	-31.91	-	-
3695MHz	Pass	3.649G	3.65G	100k	300k	RMS	3.64939G	-52.59	-13.00	-39.59	-	-
3695MHz	Pass	3.7G	3.701G	100k	300k	RMS	3.70001G	-42.00	-13.00	-29.00	-	-
3695MHz	Pass	3.701G	3.72G	100k	300k	RMS	3.7015G	-37.37	-13.00	-24.37	-	-
3695MHz	Pass	3.72G	5G	1M	3M	RMS	3.83968G	-43.13	-13.00	-30.13	-	-
3695MHz	Pass	5G	19G	1M	3M	RMS	18.9895G	-43.78	-13.00	-30.78	-	-
Band 43_40MHz_OPSK_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3670MHz	Pass	9k	150k	200	1k	RMS	119.227k	-52.98	-13.00	-39.98	-	-
3670MHz	Pass	150k	30M	10k	30k	RMS	164.925k	-48.55	-13.00	-35.55	-	-
3670MHz	Pass	30M	1.5G	1M	3M	RMS	810.02M	-42.14	-13.00	-29.14	-	-
3670MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.21008G	-39.08	-13.00	-26.08	-	-
3670MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-30.89	-13.00	-17.89	-	-
3670MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64958G	-30.76	-13.00	-17.76	-	-
3670MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70067G	-41.43	-13.00	-28.43	-	-
3670MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.95	-13.00	-26.95	-	-
3670MHz	Pass	3.78G	5G	1M	3M	RMS	3.8224G	-42.30	-13.00	-29.30	-	-
3670MHz	Pass	5G	19G	1M	3M	RMS	18.9895G	-43.06	-13.00	-30.06	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	118.134k	-53.72	-13.00	-40.72	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	179.85k	-48.44	-13.00	-35.44	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	1.33113G	-42.04	-13.00	-29.04	-	-
3675MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.20879G	-39.63	-13.00	-26.63	-	-
3675MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-33.96	-13.00	-20.96	-	-
3675MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64951G	-35.54	-13.00	-22.54	-	-
3675MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70063G	-41.33	-13.00	-28.33	-	-
3675MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.34	-13.00	-26.34	-	-
3675MHz	Pass	3.78G	5G	1M	3M	RMS	3.8529G	-42.53	-13.00	-29.53	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.97375G	-43.14	-13.00	-30.14	-	-
3680MHz	Pass	9k	150k	200	1k	RMS	118.169k	-53.48	-13.00	-40.48	-	-
3680MHz	Pass	150k	30M	10k	30k	RMS	150k	-46.40	-13.00	-33.40	-	-
3680MHz	Pass	30M	1.5G	1M	3M	RMS	1.40463G	-41.94	-13.00	-28.94	-	-
3680MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.15833G	-39.63	-13.00	-26.63	-	-
3680MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-34.77	-13.00	-21.77	-	-
3680MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64964G	-35.90	-13.00	-22.90	-	-
3680MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70001G	-34.53	-13.00	-21.53	-	-
3680MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-35.56	-13.00	-22.56	-	-
3680MHz	Pass	3.78G	5G	1M	3M	RMS	3.81935G	-42.28	-13.00	-29.28	-	-
3680MHz	Pass	5G	19G	1M	3M	RMS	18.9755G	-43.04	-13.00	-30.04	-	-
Band 43_40MHz_160AM_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3670MHz	Pass	9k	150k	200	1k	RMS	116.794k	-54.55	-13.00	-41.55	-	-
3670MHz	Pass	150k	30M	10k	30k	RMS	157.462k	-48.32	-13.00	-35.32	-	-
3670MHz	Pass	30M	1.5G	1M	3M	RMS	1.27105G	-41.71	-13.00	-28.71	-	-
3670MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.36843G	-39.88	-13.00	-26.88	-	-
3670MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-30.69	-13.00	-17.69	-	-

**CSE-TX-Sum Result****Appendix D**

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
3670MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64980G	-30.81	-13.00	-17.81	-	-
3670MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70071G	-41.44	-13.00	-28.44	-	-
3670MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.94	-13.00	-26.94	-	-
3670MHz	Pass	3.78G	5G	1M	3M	RMS	3.86433G	-42.33	-13.00	-29.33	-	-
3670MHz	Pass	5G	19G	1M	3M	RMS	18.874G	-43.22	-13.00	-30.22	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	121.166k	-53.67	-13.00	-40.67	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	157.462k	-48.76	-13.00	-35.76	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	1.47611G	-42.54	-13.00	-29.54	-	-
3675MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.22535G	-39.57	-13.00	-26.57	-	-
3675MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-33.64	-13.00	-20.64	-	-
3675MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64989G	-35.19	-13.00	-22.19	-	-
3675MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70009G	-41.00	-13.00	-28.00	-	-
3675MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.29	-13.00	-26.29	-	-
3675MHz	Pass	3.78G	5G	1M	3M	RMS	3.85457G	-42.37	-13.00	-29.37	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.8985G	-42.93	-13.00	-29.93	-	-
3680MHz	Pass	9k	150k	200	1k	RMS	114.891k	-51.59	-13.00	-38.59	-	-
3680MHz	Pass	150k	30M	10k	30k	RMS	150k	-47.77	-13.00	-34.77	-	-
3680MHz	Pass	30M	1.5G	1M	3M	RMS	1.34326G	-42.15	-13.00	-29.15	-	-
3680MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.22793G	-40.19	-13.00	-27.19	-	-
3680MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-34.49	-13.00	-21.49	-	-
3680MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64999G	-35.87	-13.00	-22.87	-	-
3680MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70007G	-34.75	-13.00	-21.75	-	-
3680MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-35.47	-13.00	-22.47	-	-
3680MHz	Pass	3.78G	5G	1M	3M	RMS	3.81172G	-42.25	-13.00	-29.25	-	-
3680MHz	Pass	5G	19G	1M	3M	RMS	18.99825G	-43.09	-13.00	-30.09	-	-
Band 43_40MHz_64QAM_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3670MHz	Pass	9k	150k	200	1k	RMS	115.702k	-52.12	-13.00	-39.12	-	-
3670MHz	Pass	150k	30M	10k	30k	RMS	150k	-46.17	-13.00	-33.17	-	-
3670MHz	Pass	30M	1.5G	1M	3M	RMS	1.46215G	-41.91	-13.00	-28.91	-	-
3670MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.13556G	-39.54	-13.00	-26.54	-	-
3670MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-30.41	-13.00	-17.41	-	-
3670MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.65G	-30.54	-13.00	-17.54	-	-
3670MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70039G	-41.38	-13.00	-28.38	-	-
3670MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.58	-13.00	-26.58	-	-
3670MHz	Pass	3.78G	5G	1M	3M	RMS	3.80699G	-42.32	-13.00	-29.32	-	-
3670MHz	Pass	5G	19G	1M	3M	RMS	18.993G	-43.09	-13.00	-30.09	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	121.694k	-52.76	-13.00	-39.76	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	150k	-46.91	-13.00	-33.91	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	870.11M	-41.63	-13.00	-28.63	-	-
3675MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.21603G	-39.35	-13.00	-26.35	-	-
3675MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-33.55	-13.00	-20.55	-	-
3675MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64969G	-35.04	-13.00	-22.04	-	-
3675MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70064G	-40.85	-13.00	-27.85	-	-
3675MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7025G	-39.21	-13.00	-26.21	-	-
3675MHz	Pass	3.78G	5G	1M	3M	RMS	3.80196G	-42.29	-13.00	-29.29	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.93875G	-43.19	-13.00	-30.19	-	-
3680MHz	Pass	9k	150k	200	1k	RMS	121.377k	-53.79	-13.00	-40.79	-	-
3680MHz	Pass	150k	30M	10k	30k	RMS	150k	-45.62	-13.00	-32.62	-	-
3680MHz	Pass	30M	1.5G	1M	3M	RMS	1.34657G	-42.01	-13.00	-29.01	-	-
3680MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.27968G	-39.41	-13.00	-26.41	-	-
3680MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-34.35	-13.00	-21.35	-	-
3680MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64978G	-35.31	-13.00	-22.31	-	-
3680MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70019G	-34.50	-13.00	-21.50	-	-
3680MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-34.97	-13.00	-21.97	-	-

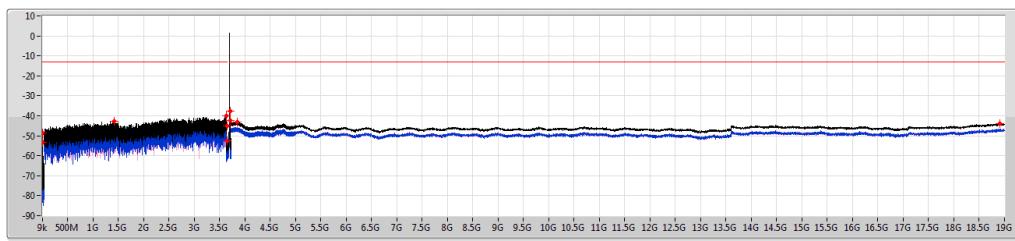
**CSE-TX-Sum Result****Appendix D**

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	VBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Remark	Ref.Limit (dB)
3680MHz	Pass	3.78G	5G	1M	3M	RMS	3.81325G	-42.26	-13.00	-29.26	-	-
3680MHz	Pass	5G	19G	1M	3M	RMS	19G	-43.01	-13.00	-30.01	-	-
Band 43_40MHz_256QAM_2TX	-	-	-	-	-	-	-	-	-	-	-	-
3670MHz	Pass	9k	150k	200	1k	RMS	119.015k	-53.34	-13.00	-40.34	-	-
3670MHz	Pass	150k	30M	10k	30k	RMS	179.85k	-47.63	-13.00	-34.63	-	-
3670MHz	Pass	30M	1.5G	1M	3M	RMS	1.32709G	-41.68	-13.00	-28.68	-	-
3670MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.12366G	-39.72	-13.00	-26.72	-	-
3670MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-30.78	-13.00	-17.78	-	-
3670MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.6498G	-30.65	-13.00	-17.65	-	-
3670MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70005G	-41.48	-13.00	-28.48	-	-
3670MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.85	-13.00	-26.85	-	-
3670MHz	Pass	3.78G	5G	1M	3M	RMS	3.79952G	-42.43	-13.00	-29.43	-	-
3670MHz	Pass	5G	19G	1M	3M	RMS	18.98075G	-43.10	-13.00	-30.10	-	-
3675MHz	Pass	9k	150k	200	1k	RMS	117.852k	-55.09	-13.00	-42.09	-	-
3675MHz	Pass	150k	30M	10k	30k	RMS	150k	-47.41	-13.00	-34.41	-	-
3675MHz	Pass	30M	1.5G	1M	3M	RMS	947.446M	-42.67	-13.00	-29.67	-	-
3675MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.07139G	-40.22	-13.00	-27.22	-	-
3675MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6485G	-33.48	-13.00	-20.48	-	-
3675MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.64963G	-34.72	-13.00	-21.72	-	-
3675MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70061G	-40.84	-13.00	-27.84	-	-
3675MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.23	-13.00	-26.23	-	-
3675MHz	Pass	3.78G	5G	1M	3M	RMS	3.82392G	-42.45	-13.00	-29.45	-	-
3675MHz	Pass	5G	19G	1M	3M	RMS	18.93525G	-43.16	-13.00	-30.16	-	-
3680MHz	Pass	9k	150k	200	1k	RMS	117.464k	-54.16	-13.00	-41.16	-	-
3680MHz	Pass	150k	30M	10k	30k	RMS	150k	-46.22	-13.00	-33.22	-	-
3680MHz	Pass	30M	1.5G	1M	3M	RMS	1.3146G	-42.40	-13.00	-29.40	-	-
3680MHz	Pass	1.5G	3.57G	1M	3M	RMS	3.23285G	-38.64	-13.00	-25.64	-	-
3680MHz	Pass	3.57G	3.649G	430k	1.2M	RMS	3.6475G	-34.60	-13.00	-21.60	-	-
3680MHz	Pass	3.649G	3.65G	430k	1.2M	RMS	3.6497G	-35.76	-13.00	-22.76	-	-
3680MHz	Pass	3.7G	3.701G	430k	1.2M	RMS	3.70008G	-34.80	-13.00	-21.80	-	-
3680MHz	Pass	3.701G	3.78G	430k	1.2M	RMS	3.7015G	-35.39	-13.00	-22.39	-	-
3680MHz	Pass	3.78G	5G	1M	3M	RMS	3.83078G	-42.32	-13.00	-29.32	-	-
3680MHz	Pass	5G	19G	1M	3M	RMS	18.9755G	-42.99	-13.00	-29.99	-	-

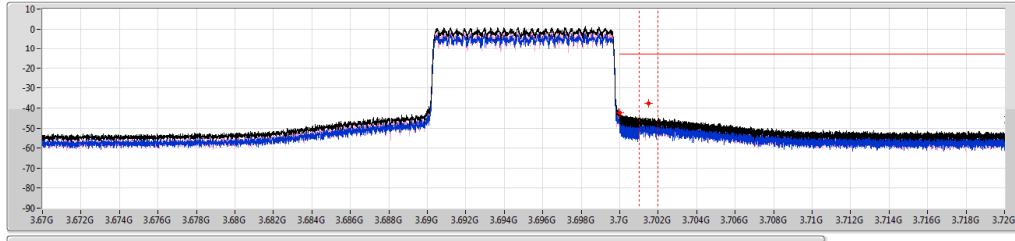


Band 43_10MHz_2TX
3695MHz_QPSK
CSE-TX-Sum

03/01/2020



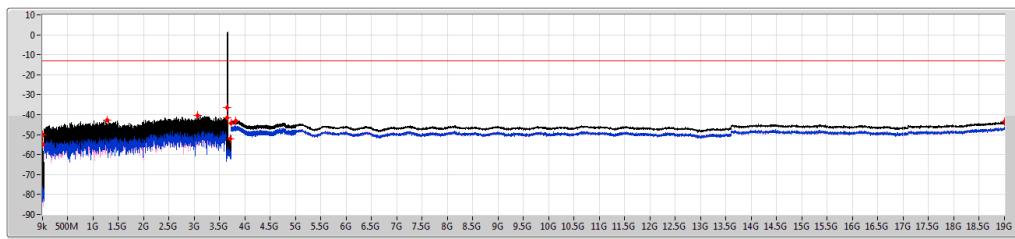
Limit	
Sum	
Port 1	
Port 2	



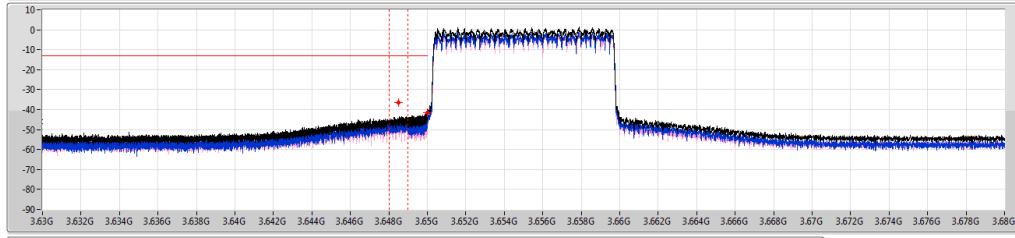
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	122.434k	-53.27	-13.00	-40.27	-	-65.15	-53.56	
150k	30M	10k	30k	RMS	150k	-48.68	-13.00	-35.68	-	-50.38	-53.57	
30M	1.5G	1M	3M	RMS	1416.21G	-42.73	-13.00	-29.73	-	-43.87	-49.10	
1.5G	3.63G	1M	3M	RMS	3.62681G	-40.11	-13.00	-27.11	-	-45.06	-41.79	
3.63G	3.649G	100k	300k	RMS	3.6475G	-44.90	-13.00	-31.90	MBW 1M	-	-	
3.649G	3.65G	100k	300k	RMS	3.64917G	-52.64	-13.00	-39.64	-	-55.48	-55.83	
3.65G	3.701G	100k	300k	RMS	3.70002G	-42.48	-13.00	-29.48	-	-44.98	-46.07	
3.701G	3.72G	100k	300k	RMS	3.7015G	-37.48	-13.00	-24.48	MBW 1M	-	-	
3.72G	5G	1M	3M	RMS	3.85136G	-43.04	-13.00	-30.04	-	-46.32	-45.79	
5G	19G	1M	3M	RMS	18.902G	-43.81	-13.00	-30.81	-	-46.63	-47.02	

Band 43_10MHz_2TX
3655MHz_16QAM
CSE-TX-Sum

03/01/2020



Limit	
Sum	
Port 1	
Port 2	

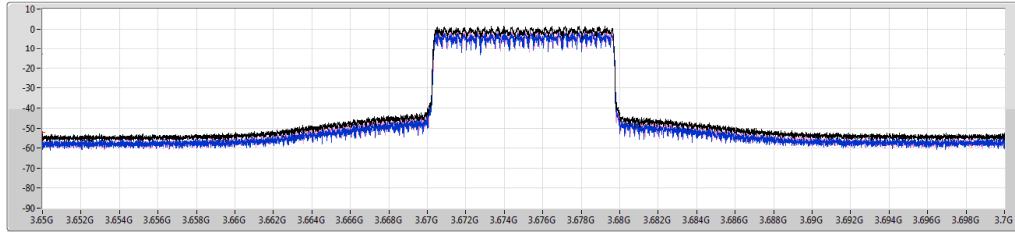
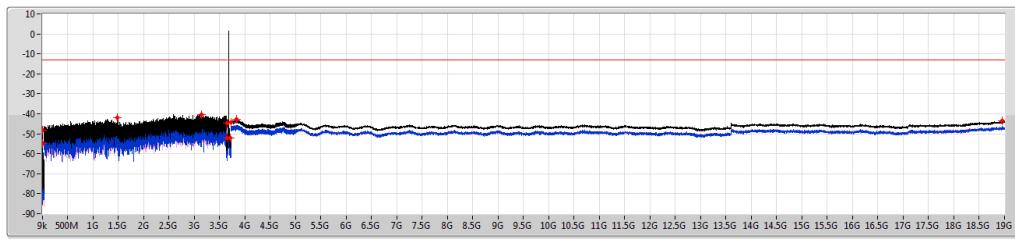


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	117.288k	-54.84	-13.00	-41.84	-	-64.61	-55.32	
150k	30M	10k	30k	RMS	164.925k	-50.28	-13.00	-37.28	-	-53.68	-52.94	
30M	1.5G	1M	3M	RMS	1.28391G	-42.62	-13.00	-29.62	-	-45.80	-45.46	
1.5G	3.63G	1M	3M	RMS	3.06502G	-40.31	-13.00	-27.31	-	-41.70	-45.94	
3.63G	3.649G	100k	300k	RMS	3.6485G	-36.31	-13.00	-23.31	MBW 1M	-	-	
3.649G	3.65G	100k	300k	RMS	3.65G	-41.42	-13.00	-28.42	-	-44.19	-44.69	
3.65G	3.701G	100k	300k	RMS	3.70025G	-52.29	-13.00	-39.29	-	-55.01	-55.61	
3.701G	3.72G	100k	300k	RMS	3.7175G	-44.35	-13.00	-31.35	MBW 1M	-	-	
3.72G	5G	1M	3M	RMS	3.82032G	-43.16	-13.00	-30.16	-	-46.06	-46.28	
5G	19G	1M	3M	RMS	19G	-43.68	-13.00	-30.68	-	-46.32	-47.09	

Band 43_10MHz_2TX
3675MHz_16QAM
CSE-TX-Sum

03/01/2020

Limit	
Sum	
Port 1	
Port 2	

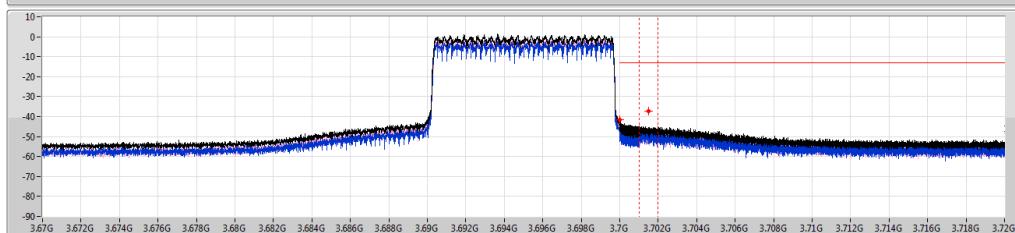
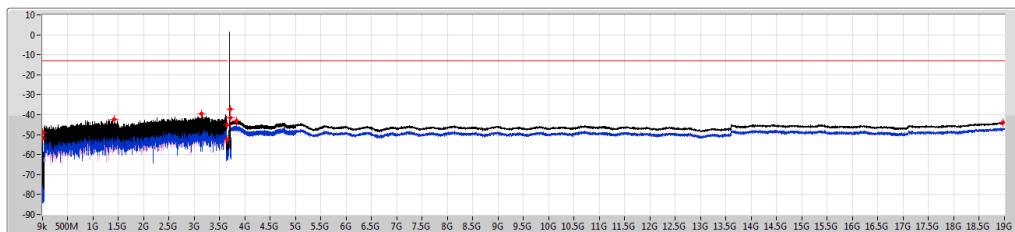


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	119.861k	-54.88	-13.00	-41.88	-	-68.05	-55.09	
150k	30M	10k	30k	RMS	179.85k	-48.17	-13.00	-35.17	-	-49.83	-53.15	
30M	1.5G	1M	3M	RMS	147042G	-41.97	-13.00	-28.97	-	-45.23	-44.75	
1.5G	3.63G	1M	3M	RMS	314356G	-40.21	-13.00	-27.21	-	-46.93	-41.25	
3.63G	3.649G	100k	300k	RMS	3.6485G	-44.84	-13.00	-31.84	MBW 1M	-	-	
3.649G	3.65G	100k	300k	RMS	3.6499G	-52.19	-13.00	-39.19	-	-55.19	-55.21	
3.7G	3.701G	100k	300k	RMS	3.70037G	-51.93	-13.00	-38.93	-	-55.70	-54.30	
3.701G	3.72G	100k	300k	RMS	3.7155G	-44.28	-13.00	-31.28	MBW 1M	-	-	
3.72G	5G	1M	3M	RMS	3.8288G	-42.92	-13.00	-29.92	-	-45.94	-45.92	
5G	19G	1M	3M	RMS	18.95625G	-43.66	-13.00	-30.66	-	-46.41	-46.95	

Band 43_10MHz_2TX
3695MHz_16QAM
CSE-TX-Sum

03/01/2020

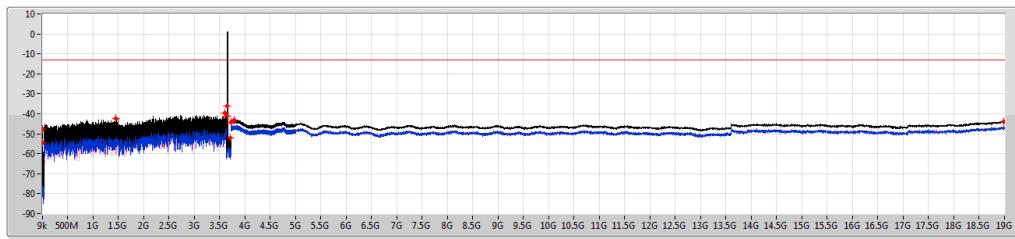
Limit	
Sum	
Port 1	
Port 2	



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	118.839k	-51.75	-13.00	-38.75	-	-55.64	-54.03	
150k	30M	10k	30k	RMS	150k	-49.12	-13.00	-36.12	-	-51.44	-52.94	
30M	1.5G	1M	3M	RMS	1.41107G	-42.17	-13.00	-29.17	-	-45.24	-45.13	
1.5G	3.63G	1M	3M	RMS	3.14303G	-39.44	-13.00	-26.44	-	-42.70	-42.22	
3.63G	3.649G	100k	300k	RMS	3.6485G	-44.92	-13.00	-31.92	MBW 1M	-	-	
3.649G	3.65G	100k	300k	RMS	3.64934G	-52.51	-13.00	-39.51	-	-54.08	-57.70	
3.7G	3.701G	100k	300k	RMS	3.70002G	-41.69	-13.00	-28.69	-	-46.34	-43.51	
3.701G	3.72G	100k	300k	RMS	3.7015G	-37.45	-13.00	-24.45	MBW 1M	-	-	
3.72G	5G	1M	3M	RMS	3.832G	-43.08	-13.00	-30.08	-	-45.33	-47.02	
5G	19G	1M	3M	RMS	18.9685G	-43.82	-13.00	-30.82	-	-46.71	-46.95	

Band 43_10MHz_2TX
3655MHz_64QAM
CSE-TX-Sum

03/01/2020

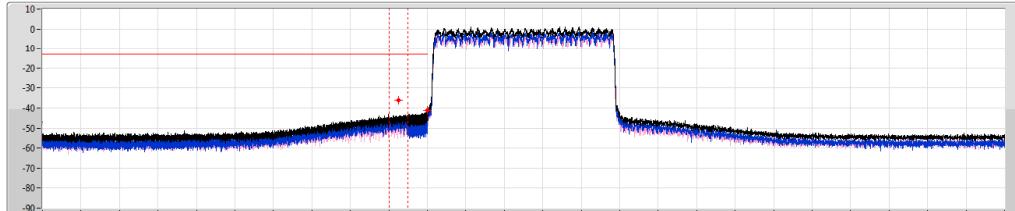


Limit

Sum

Port 1

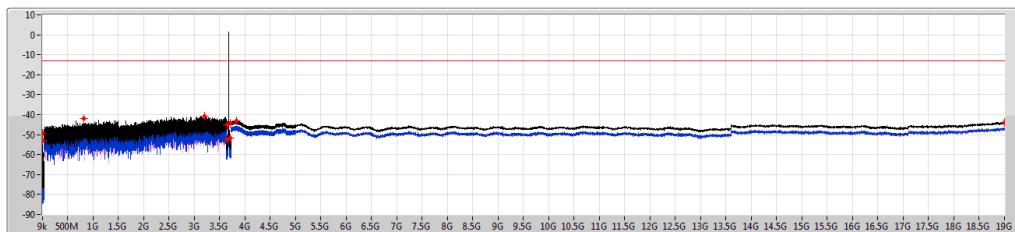
Port 2



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	115.032k	-54.31	-13.00	-41.31	-	-55.87	-54.62	
150k	30M	10k	30k	RMS	151.462k	-47.80	-13.00	-34.80	-	-48.09	-59.71	
30M	1.5G	1M	3M	RMS	144543G	-42.52	-13.00	-29.52	-	-45.98	-45.13	
1.5G	3.63G	1M	3M	RMS	3.60957G	-39.79	-13.00	-26.79	-	-43.59	-42.13	
3.63G	3.649G	100k	300k	RMS	3.6485G	-36.10	-13.00	-23.10	MBW 1M	-	-	
3.649G	3.65G	100k	300k	RMS	3.65G	-41.32	-13.00	-28.32	-	-44.40	-44.27	
3.7G	3.701G	100k	300k	RMS	3.70092G	-52.01	-13.00	-39.01	-	-54.70	-55.37	
3.701G	3.72G	100k	300k	RMS	3.7185G	-44.31	-13.00	-31.31	MBW 1M	-	-	
3.72G	5G	1M	3M	RMS	3.78624G	-43.10	-13.00	-30.10	-	-45.91	-46.32	
5G	19G	1M	3M	RMS	18.98075G	-43.72	-13.00	-30.72	-	-47.15	-46.34	

Band 43_10MHz_2TX
3675MHz_64QAM
CSE-TX-Sum

03/01/2020

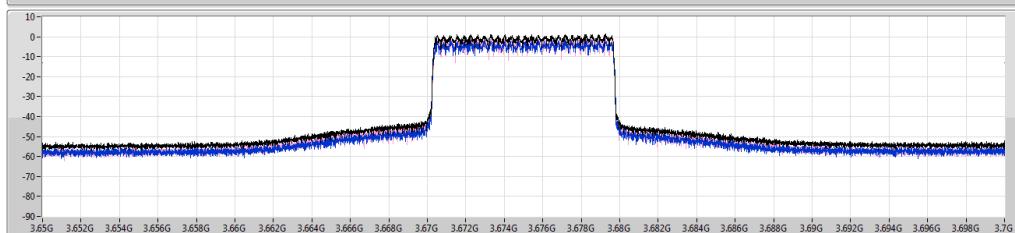


Limit

Sum

Port 1

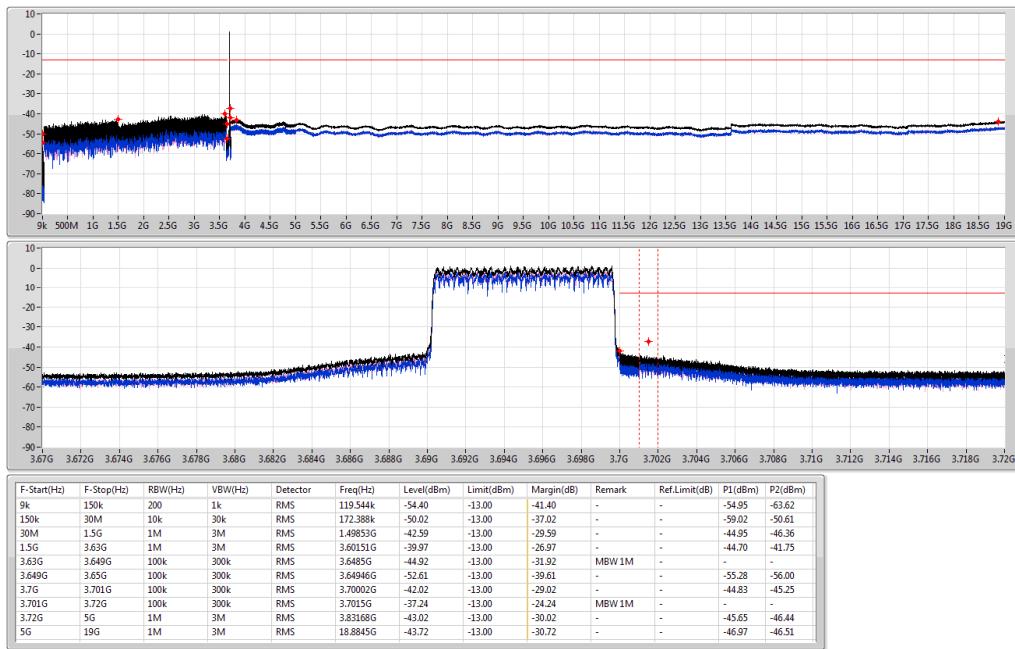
Port 2



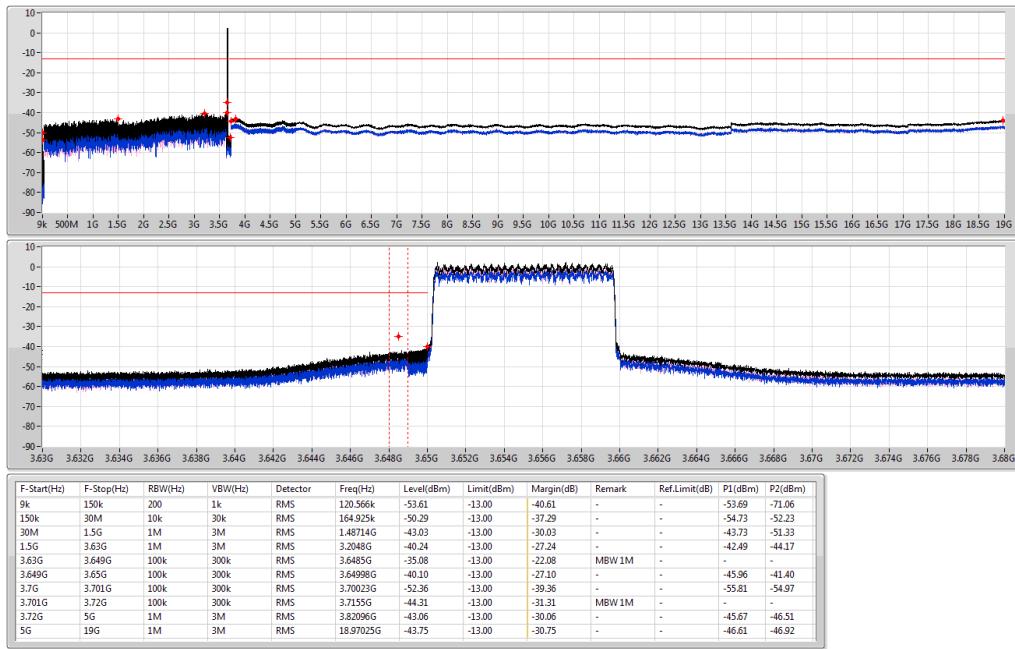
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	121.765k	-52.93	-13.00	-39.93	-	-59.14	-54.12	
150k	30M	10k	30k	RMS	179.85k	-49.41	-13.00	-36.41	-	-52.01	-52.88	
30M	1.5G	1M	3M	RMS	820.13M	-42.13	-13.00	-29.13	-	-45.13	-45.16	
1.5G	3.63G	1M	3M	RMS	3.19814G	-40.61	-13.00	-27.61	-	-48.38	-41.41	
3.63G	3.649G	100k	300k	RMS	3.6485G	-44.94	-13.00	-31.94	MBW 1M	-	-	
3.649G	3.65G	100k	300k	RMS	3.64928G	-52.43	-13.00	-39.43	-	-55.85	-55.07	
3.7G	3.701G	100k	300k	RMS	3.70083G	-51.83	-13.00	-38.83	-	-55.74	-54.10	
3.701G	3.72G	100k	300k	RMS	3.7025G	-44.24	-13.00	-31.24	MBW 1M	-	-	
3.72G	5G	1M	3M	RMS	3.82976G	-42.99	-13.00	-29.99	-	-46.57	-45.49	
5G	19G	1M	3M	RMS	18.9965G	-43.82	-13.00	-30.82	-	-47.01	-46.65	

Band 43_10MHz_2TX
3695MHz_64QAM
CSE-TX-Sum

03/01/2020

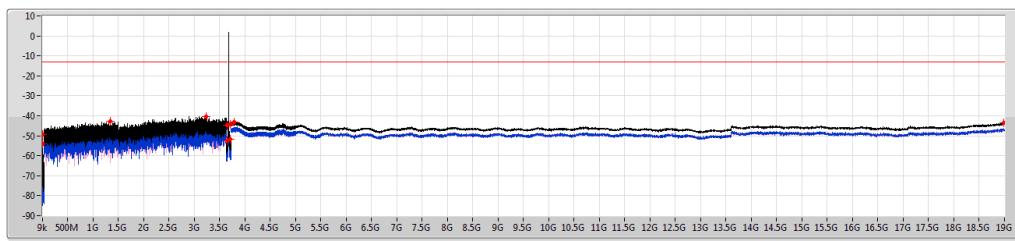

Band 43_10MHz_2TX
3655MHz_256QAM
CSE-TX-Sum

03/01/2020

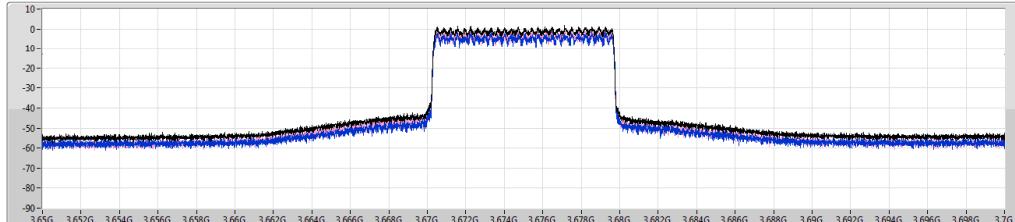


Band 43_10MHz_2TX
3675MHz_256QAM
CSE-TX-Sum

03/01/2020



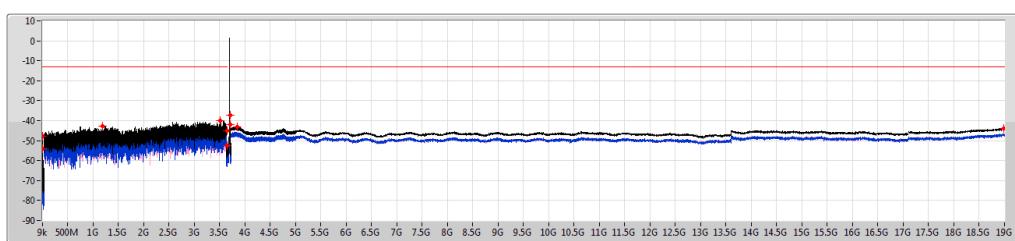
Limit	
Sum	
Port 1	
Port 2	



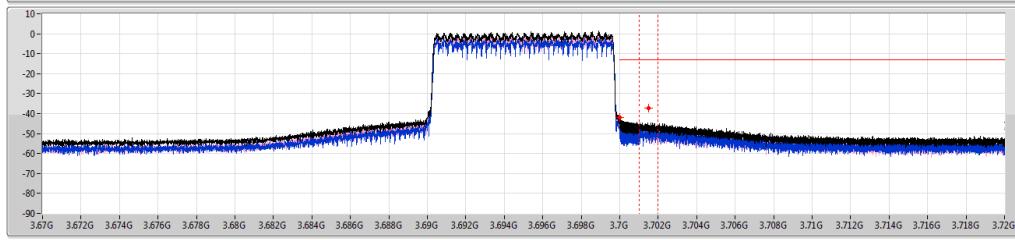
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	116.618k	-53.95	-13.00	-40.95	-	-54.35	-64.55	
150k	30M	10k	30k	RMS	150k	-49.34	-13.00	-36.34	-	-53.98	-51.17	
30M	1.5G	1M	3M	RMS	1.33279G	-42.88	-13.00	-29.88	-	-45.68	-46.12	
1.5G	3.63G	1M	3M	RMS	3.22435G	-40.47	-13.00	-27.47	-	-42.19	-45.32	
3.63G	3.649G	100k	300k	RMS	3.6485G	-44.85	-13.00	-31.85	MBW 1M	-	-	
3.649G	3.65G	100k	300k	RMS	3.6498G	-52.50	-13.00	-39.50	-	-55.92	-55.13	
3.65G	3.701G	100k	300k	RMS	3.70078G	-51.86	-13.00	-38.86	-	-56.10	-53.91	
3.701G	3.72G	100k	300k	RMS	3.7125G	-44.28	-13.00	-31.28	MBW 1M	-	-	
3.72G	5G	1M	3M	RMS	3.78512G	-43.03	-13.00	-30.03	-	-45.84	-46.26	
5G	19G	1M	3M	RMS	18.98425G	-43.61	-13.00	-30.61	-	-46.88	-46.37	

Band 43_10MHz_2TX
3695MHz_256QAM
CSE-TX-Sum

03/01/2020



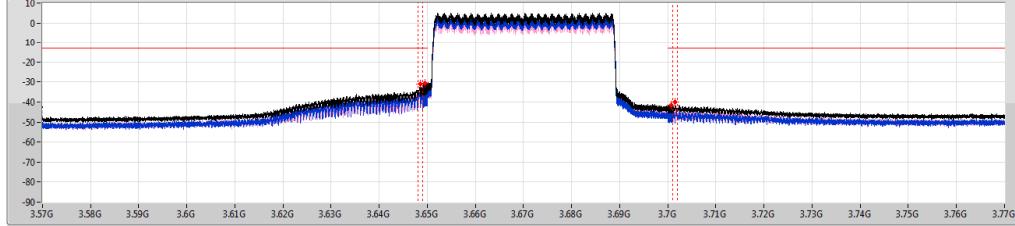
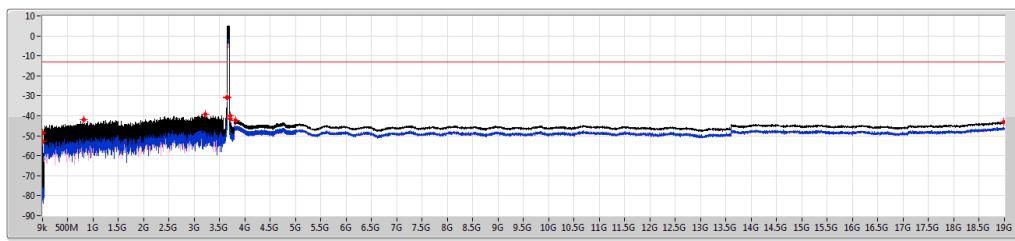
Limit	
Sum	
Port 1	
Port 2	



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	120.249k	-54.24	-13.00	-41.24	-	-70.15	-54.35	
150k	30M	10k	30k	RMS	172.388k	-47.91	-13.00	-34.91	-	-50.32	-51.62	
30M	1.5G	1M	3M	RMS	1.18616G	-42.68	-13.00	-29.68	-	-47.51	-44.41	
1.5G	3.63G	1M	3M	RMS	3.51258G	-39.86	-13.00	-26.86	-	-44.39	-41.74	
3.63G	3.649G	100k	300k	RMS	3.6465G	-44.91	-13.00	-31.91	MBW 1M	-	-	
3.649G	3.65G	100k	300k	RMS	3.64939G	-52.59	-13.00	-39.59	-	-55.44	-55.76	
3.65G	3.701G	100k	300k	RMS	3.70001G	-42.00	-13.00	-29.00	-	-46.81	-43.74	
3.701G	3.72G	100k	300k	RMS	3.7015G	-37.37	-13.00	-24.37	MBW 1M	-	-	
3.72G	5G	1M	3M	RMS	3.83968G	-43.13	-13.00	-30.13	-	-46.24	-46.04	
5G	19G	1M	3M	RMS	18.9895G	-43.78	-13.00	-30.78	-	-46.76	-46.83	

Band 43_40MHz_2TX
3670MHz_QPSK
CSE-TX-Sum

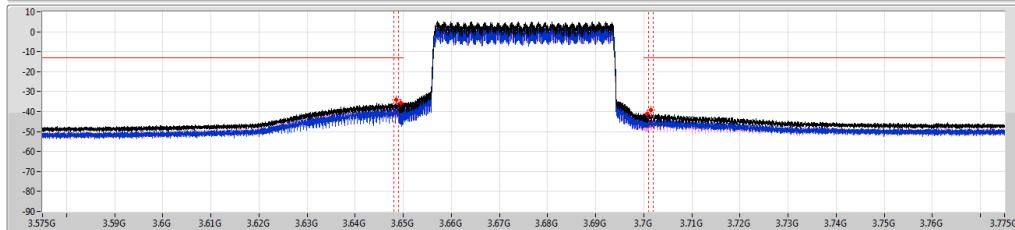
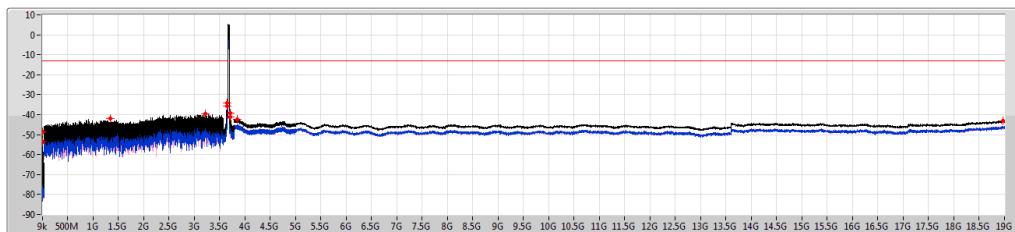
03/01/2020



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	119.227k	-52.98	-13.00	-39.98	-	-53.21	-65.85	
150k	30M	10k	30k	RMS	164.925k	-48.55	-13.00	-35.55	-	-49.24	-56.87	
30M	1.5G	1M	3M	RMS	810.022M	-42.14	-13.00	-29.14	-	-44.89	-45.42	
1.5G	3.57G	1M	3M	RMS	3.21098G	-39.08	-13.00	-26.08	-	-42.06	-42.13	
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-39.89	-13.00	-17.89	MBW 1M	-	-	
3.649G	3.65G	430k	1.2M	RMS	3.64958G	-30.76	-13.00	-17.76	-	-34.22	-33.37	
3.65G	3.7G	430k	1.2M	RMS	3.70067G	-41.43	-13.00	-28.43	-	-44.63	-44.25	
3.7G	3.701G	430k	1.2M	RMS	3.7015G	-39.95	-13.00	-26.95	MBW 1M	-	-	
3.701G	3.78G	430k	1.2M	RMS	3.78G	-42.30	-13.00	-29.30	-	-45.45	-45.17	
3.78G	5G	1M	3M	RMS	3.8224G	-42.30	-13.00	-29.30	-	-45.97	-46.18	
5G	19G	1M	3M	RMS	18.9895G	-43.06	-13.00	-30.06	-	-	-	

Band 43_40MHz_2TX
3675MHz_QPSK
CSE-TX-Sum

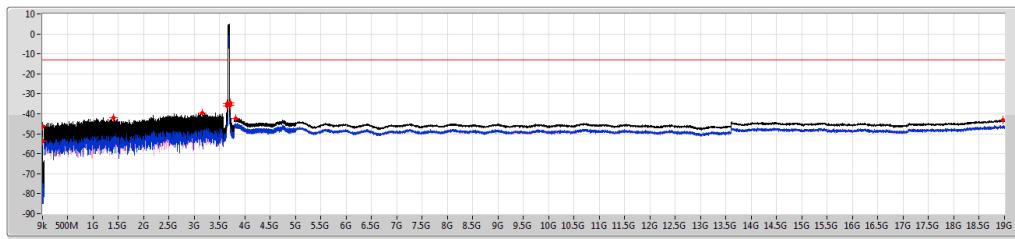
03/01/2020



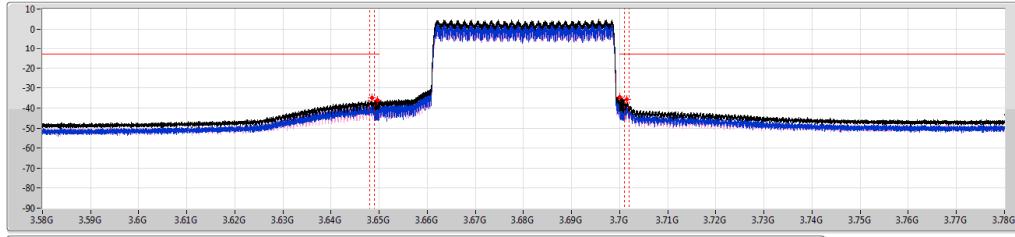
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	118.134k	-53.72	-13.00	-40.72	-	-53.97	-66.32	
150k	30M	10k	30k	RMS	178.85k	-48.44	-13.00	-35.44	-	-51.94	-51.01	
30M	1.5G	1M	3M	RMS	1.33113G	-42.04	-13.00	-29.04	-	-46.13	-44.19	
1.5G	3.57G	1M	3M	RMS	3.20879G	-39.63	-13.00	-26.63	-	-42.25	-43.06	
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-33.96	-13.00	-20.96	MBW 1M	-	-	
3.649G	3.65G	430k	1.2M	RMS	3.64951G	-35.54	-13.00	-22.54	-	-39.10	-38.06	
3.65G	3.7G	430k	1.2M	RMS	3.70063G	-41.33	-13.00	-28.33	-	-43.57	-45.28	
3.7G	3.701G	430k	1.2M	RMS	3.7015G	-39.34	-13.00	-26.34	MBW 1M	-	-	
3.701G	3.78G	430k	1.2M	RMS	3.78G	-42.53	-13.00	-29.53	-	-45.15	-45.96	
3.78G	5G	1M	3M	RMS	3.8224G	-42.53	-13.00	-29.53	-	-45.79	-46.54	
5G	19G	1M	3M	RMS	18.97375G	-43.14	-13.00	-30.14	-	-	-	

Band 43_40MHz_2TX
3680MHz_QPSK
CSE-TX-Sum

03/01/2020



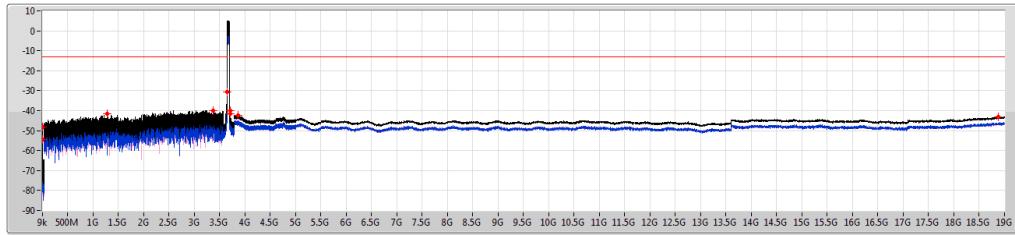
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Sum	
Port 1	
Port 2	



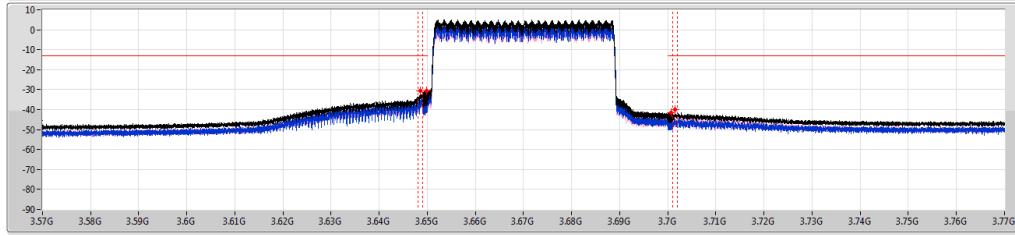
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9k	150k	200	1k	RMS	118.169k	-53.48	-13.00	-40.48	-	-	-54.73	-53.82
150k	30M	10k	30k	RMS	150k	-46.40	-13.00	-33.40	-	-	-49.83	-49.02
30M	1.5G	1M	3M	RMS	1.40463G	-41.94	-13.00	-28.94	-	-	-47.71	-43.27
1.5G	3.57G	1M	3M	RMS	3.15833G	-39.63	-13.00	-26.63	-	-	-40.74	-46.10
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-34.77	-13.00	-21.77	MBW 1M	-	-	-
3.649G	3.65G	430k	1.2M	RMS	3.64964G	-35.90	-13.00	-22.90	-	-	-38.76	-39.07
3.7G	3.701G	430k	1.2M	RMS	3.70001G	-34.53	-13.00	-21.53	-	-	-36.60	-38.73
3.701G	3.78G	430k	1.2M	RMS	3.7015G	-35.56	-13.00	-22.56	MBW 1M	-	-	-
3.78G	5G	1M	3M	RMS	3.81935G	-42.28	-13.00	-29.28	-	-	-45.46	-45.13
5G	19G	1M	3M	RMS	18.9755G	-43.04	-13.00	-30.04	-	-	-46.40	-45.73

Band 43_40MHz_2TX
3670MHz_16QAM
CSE-TX-Sum

03/01/2020



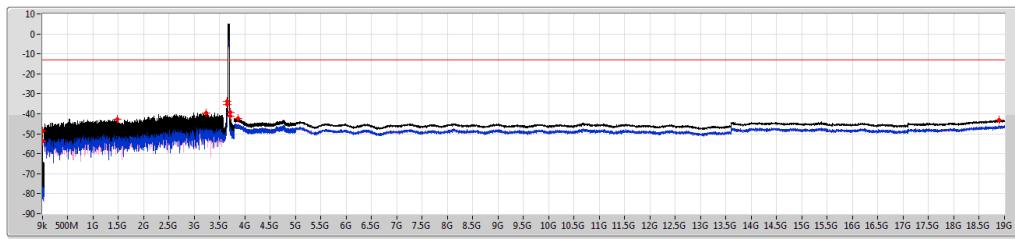
Limit	
Sum	
Port 1	
Port 2	



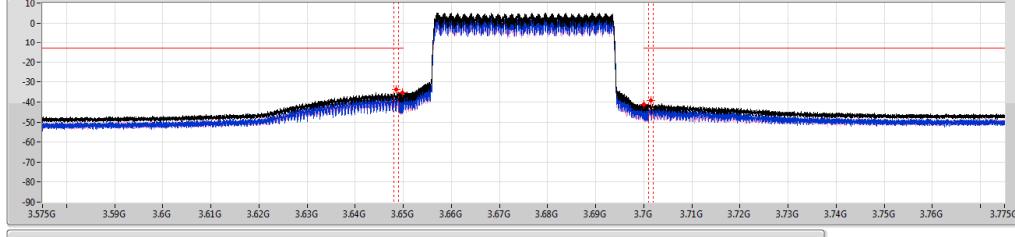
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	116.794k	-54.55	-13.00	-41.55	-	-	-62.43	-55.32
150k	30M	10k	30k	RMS	157.462k	-48.32	-13.00	-35.32	-	-	-50.41	-52.50
30M	1.5G	1M	3M	RMS	1.27105G	-41.71	-13.00	-28.71	-	-	-48.97	-42.61
1.5G	3.57G	1M	3M	RMS	3.36843G	-39.88	-13.00	-26.88	-	-	-45.88	-41.13
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-30.69	-13.00	-17.69	MBW 1M	-	-	-
3.649G	3.65G	430k	1.2M	RMS	3.64988G	-30.81	-13.00	-17.81	-	-	-34.10	-33.56
3.7G	3.701G	430k	1.2M	RMS	3.70071G	-41.44	-13.00	-28.44	-	-	-44.83	-44.10
3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.94	-13.00	-26.94	MBW 1M	-	-	-
3.78G	5G	1M	3M	RMS	3.86433G	-42.33	-13.00	-29.33	-	-	-45.49	-45.19
5G	19G	1M	3M	RMS	18.874G	-43.22	-13.00	-30.22	-	-	-46.22	-46.24

Band 43_40MHz_2TX
3675MHz_16QAM
CSE-TX-Sum

03/01/2020



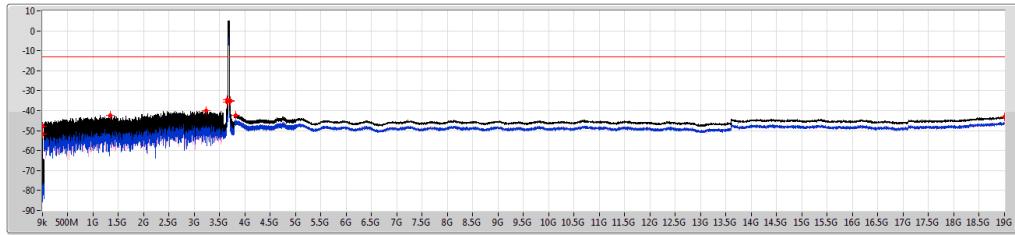
Limit	
Sum	
Port 1	
Port 2	



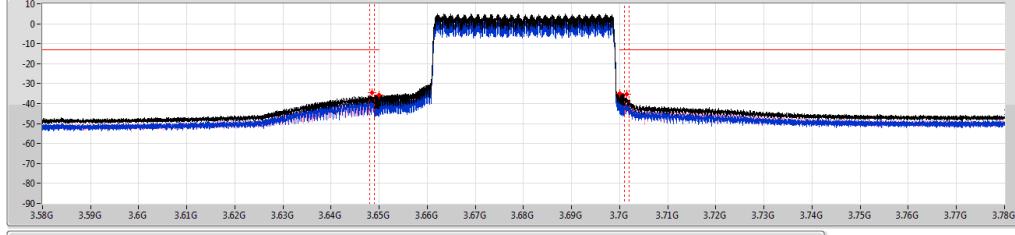
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	121.166k	-53.67	-13.00	-40.67	-	-63.11	-54.20	
150k	30M	10k	30k	RMS	157.462k	-48.76	-13.00	-35.76	-	-54.04	-50.29	
30M	1.5G	1M	3M	RMS	147611G	-42.54	-13.00	-29.54	-	-45.67	-45.43	
1.5G	3.57G	1M	3M	RMS	3.22535G	-39.57	-13.00	-26.57	-	-43.79	-41.64	
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-33.64	-13.00	-20.64	MBW 1M	-	-	
3.649G	3.65G	430k	1.2M	RMS	3.64989G	-35.19	-13.00	-22.19	-	-37.76	-38.68	
3.7G	3.701G	430k	1.2M	RMS	3.70009G	-41.00	-13.00	-28.00	-	-44.40	-43.66	
3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.29	-13.00	-26.29	MBW 1M	-	-	
3.78G	5G	1M	3M	RMS	3.85457G	-42.37	-13.00	-29.37	-	-45.54	-45.22	
5G	19G	1M	3M	RMS	18.8985G	-42.93	-13.00	-29.93	-	-46.14	-45.74	

Band 43_40MHz_2TX
3680MHz_16QAM
CSE-TX-Sum

03/01/2020



Limit	
Sum	
Port 1	
Port 2	

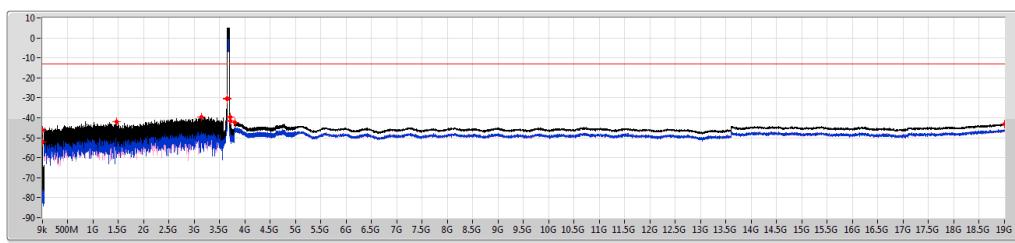


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	114.891k	-51.59	-13.00	-38.59	-	-63.50	-51.88	
150k	30M	10k	30k	RMS	150k	-47.77	-13.00	-34.77	-	-51.96	-49.86	
30M	1.5G	1M	3M	RMS	1.34326G	-42.15	-13.00	-29.15	-	-45.86	-44.55	
1.5G	3.57G	1M	3M	RMS	3.22793G	-40.19	-13.00	-27.19	-	-41.00	-47.89	
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-34.49	-13.00	-21.49	MBW 1M	-	-	
3.649G	3.65G	430k	1.2M	RMS	3.64999G	-35.87	-13.00	-22.87	-	-38.80	-38.97	
3.7G	3.701G	430k	1.2M	RMS	3.70007G	-34.75	-13.00	-21.75	-	-37.90	-37.62	
3.701G	3.78G	430k	1.2M	RMS	3.7015G	-35.47	-13.00	-22.47	MBW 1M	-	-	
3.78G	5G	1M	3M	RMS	3.81172G	-42.25	-13.00	-29.25	-	-45.05	-45.49	
5G	19G	1M	3M	RMS	18.99825G	-43.09	-13.00	-30.09	-	-46.30	-45.90	

Band 43_40MHz_2TX
3670MHz_64QAM
CSE-TX-Sum

03/01/2020

Limit	
Sum	
Port 1	
Port 2	

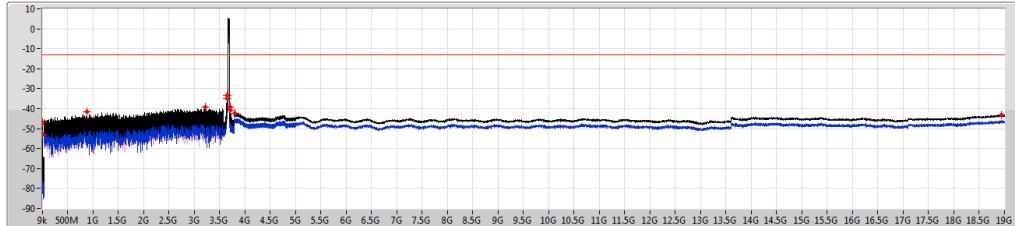


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	115.702k	-52.12	-13.00	-39.12	-	-67.11	-52.26	
150k	30M	10k	30k	RMS	150k	-46.17	-13.00	-33.17	-	-48.41	-50.11	
30M	1.5G	1M	3M	RMS	1.46215G	-41.91	-13.00	-28.91	-	-44.08	-45.96	
1.5G	3.57G	1M	3M	RMS	3.13556G	-39.54	-13.00	-26.54	-	-41.63	-43.73	
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-30.41	-13.00	-17.41	MBW 1M	-	-	
3.649G	3.65G	430k	1.2M	RMS	3.65G	-30.54	-13.00	-17.54	-	-33.16	-33.98	
3.65G	3.7G	430k	1.2M	RMS	3.70039G	-41.38	-13.00	-28.38	-	-44.01	-44.80	
3.7G	3.701G	430k	1.2M	RMS	3.7015G	-39.58	-13.00	-26.58	MBW 1M	-	-	
3.701G	3.78G	430k	1.2M	RMS	3.78G	-42.32	-13.00	-29.32	-	-44.94	-45.76	
3.78G	5G	1M	3M	RMS	3.80999G	-43.09	-13.00	-30.09	-	-46.35	-45.86	
5G	19G	1M	3M	RMS	18.993G	-43.09	-13.00	-30.09	-	-	-	

Band 43_40MHz_2TX
3675MHz_64QAM
CSE-TX-Sum

03/01/2020

Limit	
Sum	
Port 1	
Port 2	



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	121.694k	-52.76	-13.00	-39.76	-	-56.60	-55.07	
150k	30M	10k	30k	RMS	150k	-46.91	-13.00	-33.91	-	-53.98	-47.86	
30M	1.5G	1M	3M	RMS	870.11M	-41.63	-13.00	-28.63	-	-45.98	-43.62	
1.5G	3.57G	1M	3M	RMS	3.21603G	-39.35	-13.00	-26.35	-	-40.31	-46.39	
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-33.55	-13.00	-20.55	MBW 1M	-	-	
3.649G	3.65G	430k	1.2M	RMS	3.65G	-35.04	-13.00	-22.04	-	-37.39	-38.83	
3.65G	3.7G	430k	1.2M	RMS	3.70064G	-40.85	-13.00	-27.85	-	-42.74	-45.37	
3.7G	3.701G	430k	1.2M	RMS	3.7025G	-39.21	-13.00	-26.21	MBW 1M	-	-	
3.701G	3.78G	430k	1.2M	RMS	3.78G	-42.29	-13.00	-29.29	-	-45.09	-45.53	
3.78G	5G	1M	3M	RMS	3.80196G	-42.29	-13.00	-29.29	-	-46.09	-46.31	
5G	19G	1M	3M	RMS	18.93875G	-43.19	-13.00	-30.19	-	-	-	

Band 43_40MHz_2TX
3680MHz_64QAM
CSE-TX-Sum

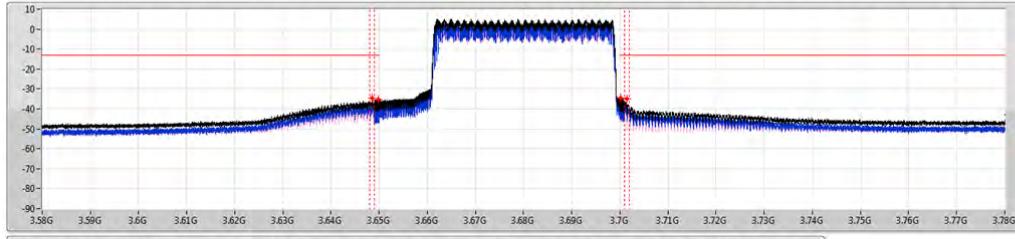
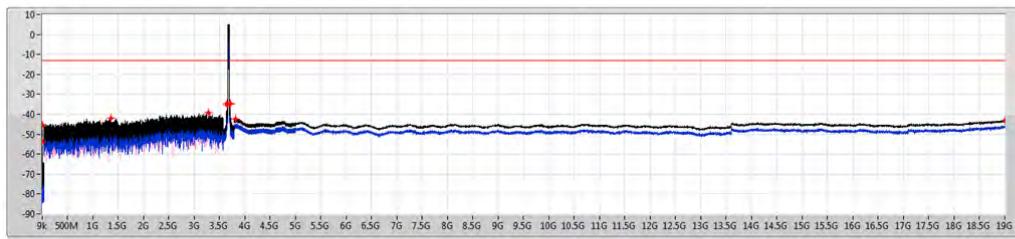
03/01/2020

Limit

Sum

Port 1

Port 2



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	121.377k	-53.79	-13.00	-40.79	-	-54.55	-61.71	
150k	30M	10k	30k	RMS	150k	-45.62	-13.00	-32.62	-	-46.19	-54.72	
30M	1.5G	1M	3M	RMS	1.34657G	-42.01	-13.00	-29.01	-	-46.25	-44.07	
1.5G	3.57G	1M	3M	RMS	3.27968G	-39.41	-13.00	-26.41	-	-44.55	-41.00	
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-34.31	-13.00	-21.35	MBW 1M	-	-	
3.649G	3.65G	430k	1.2M	RMS	3.64978G	-35.31	-13.00	-22.31	-	-37.34	-39.60	
3.7G	3.701G	430k	1.2M	RMS	3.70019G	-34.50	-13.00	-21.50	-	-36.94	-38.16	
3.701G	3.78G	430k	1.2M	RMS	3.7015G	-34.97	-13.00	-21.97	MBW 1M	-	-	
3.78G	5G	1M	3M	RMS	3.8125G	-42.26	-13.00	-29.26	-	-45.16	-45.38	
5G	19G	1M	3M	RMS	19G	-43.01	-13.00	-30.01	-	-46.34	-45.73	

Band 43_40MHz_2TX
3670MHz_256QAM
CSE-TX-Sum

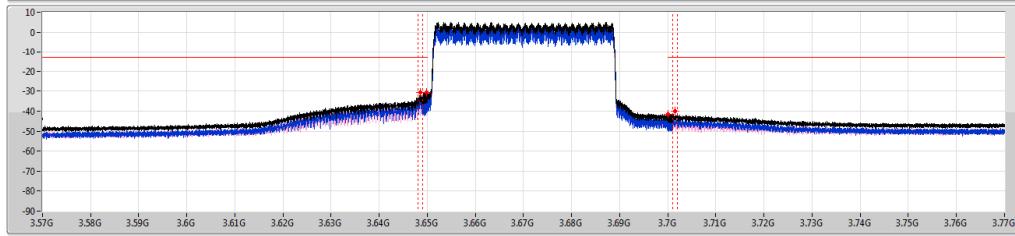
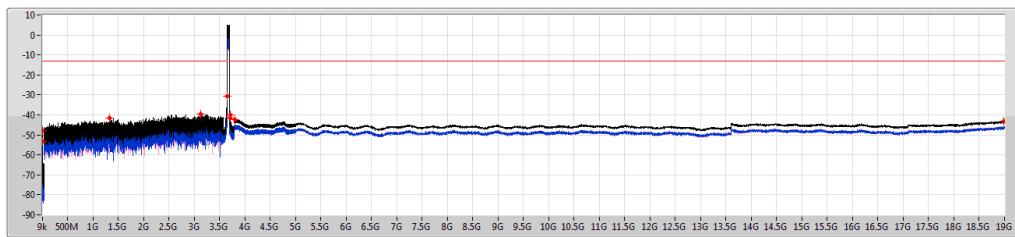
03/01/2020

Limit

Sum

Port 1

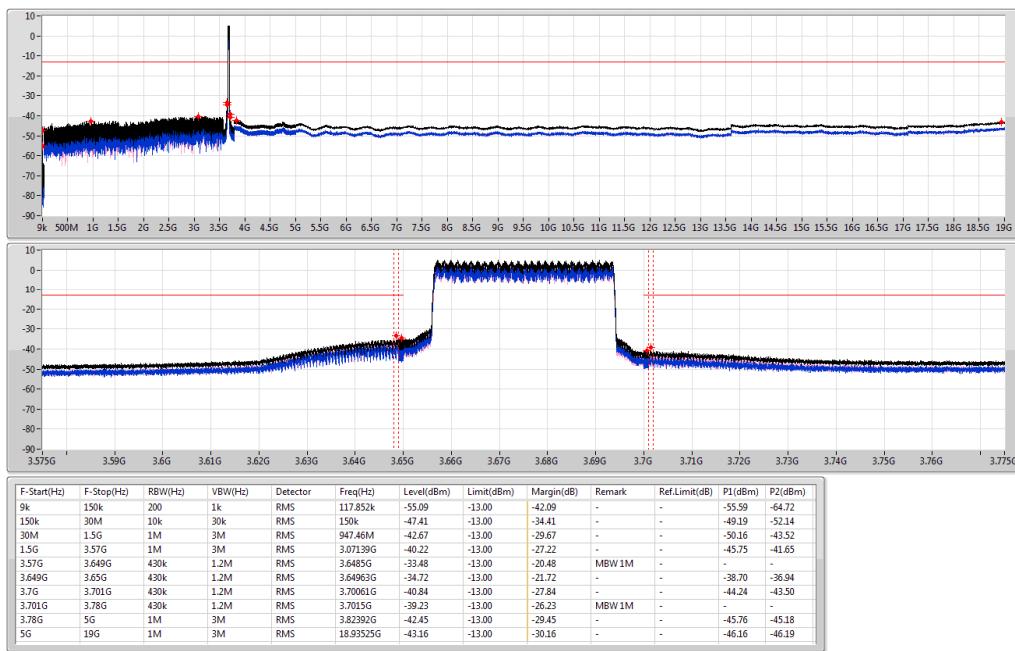
Port 2



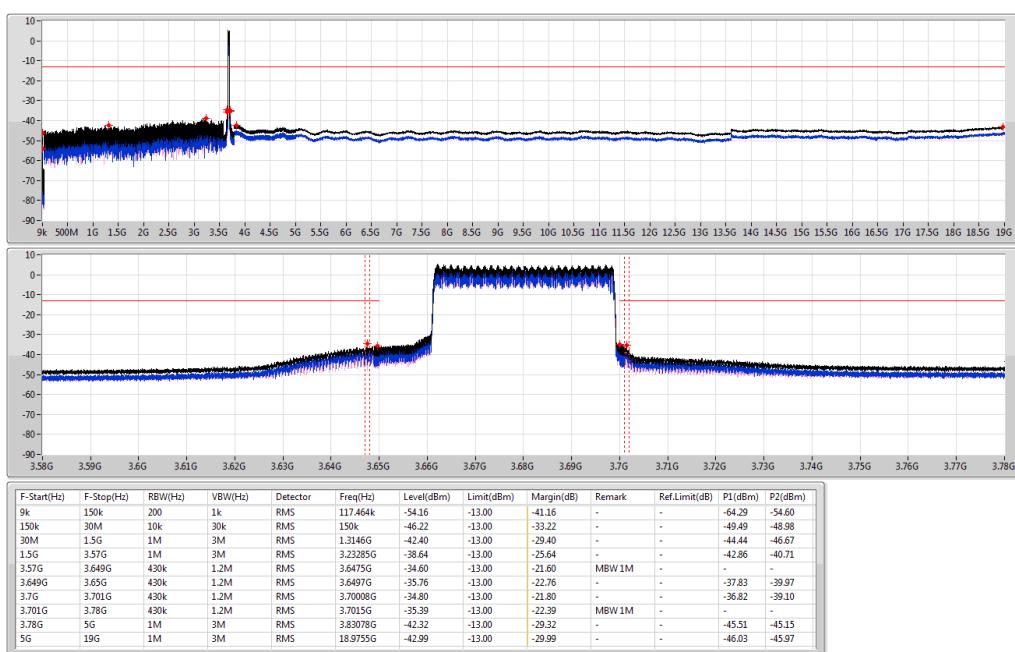
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Remark	Ref.Limit(dB)	P1(dBm)	P2(dBm)
9k	150k	200	1k	RMS	119.015k	-53.34	-13.00	-40.34	-	-64.14	-53.72	
150k	30M	10k	30k	RMS	179.85k	-47.63	-13.00	-34.63	-	-48.50	-55.04	
30M	1.5G	1M	3M	RMS	1.32709G	-41.68	-13.00	-28.68	-	-45.39	-44.08	
1.5G	3.57G	1M	3M	RMS	3.12366G	-39.72	-13.00	-26.72	-	-43.54	-42.05	
3.57G	3.649G	430k	1.2M	RMS	3.6485G	-30.78	-13.00	-17.78	MBW 1M	-	-	
3.649G	3.65G	430k	1.2M	RMS	3.6498G	-30.65	-13.00	-17.65	-	-33.55	-33.77	
3.7G	3.701G	430k	1.2M	RMS	3.70005G	-41.48	-13.00	-28.48	-	-43.82	-45.29	
3.701G	3.78G	430k	1.2M	RMS	3.7015G	-39.85	-13.00	-26.85	MBW 1M	-	-	
3.78G	5G	1M	3M	RMS	3.79952G	-42.43	-13.00	-29.43	-	-45.46	-45.42	
5G	19G	1M	3M	RMS	18.98075G	-43.10	-13.00	-30.10	-	-45.97	-46.25	

Band 43_40MHz_2TX
3675MHz_256QAM
CSE-TX-Sum

03/01/2020


Band 43_40MHz_2TX
3680MHz_256QAM
CSE-TX-Sum

03/01/2020

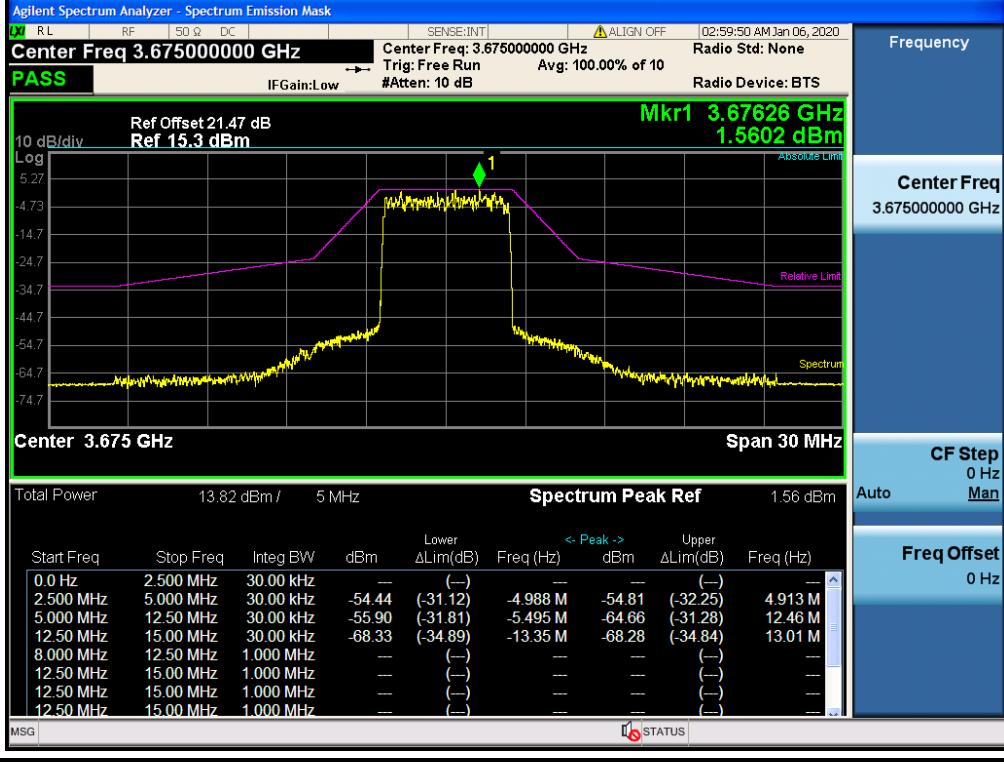




Spectrum Mask Emissions Result

Appendix E

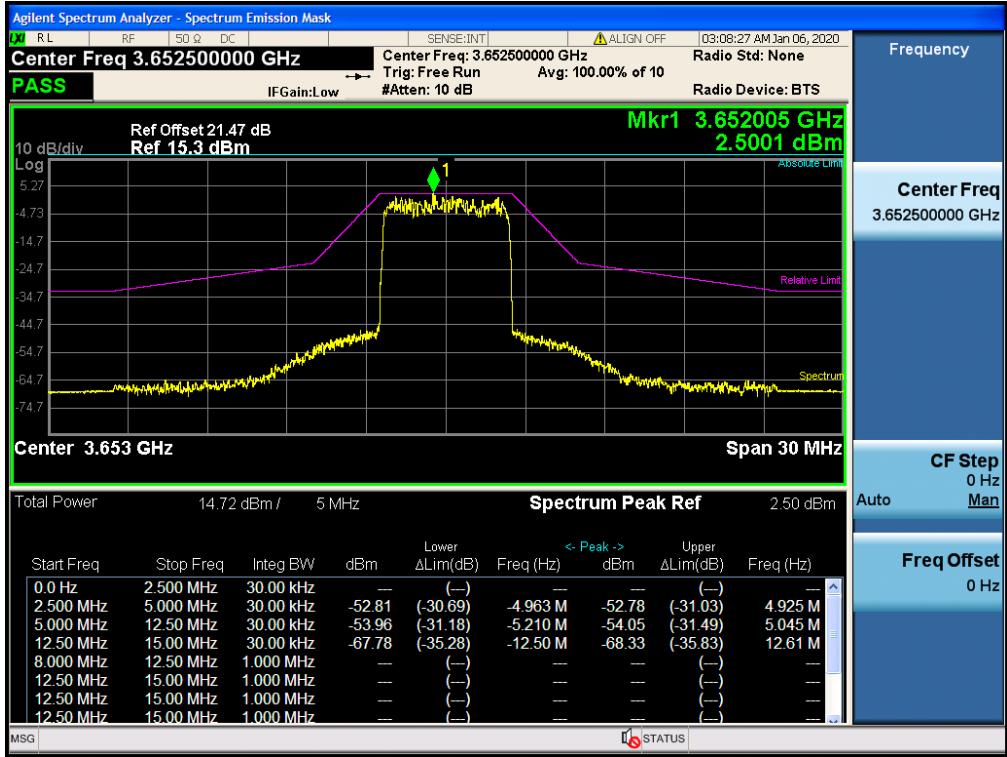
Spectrum Mask Emissions (Max power antenna port) - Port 1

Worst Case Mode	Modulaton	Freq. (MHz)																																																																												
5MHz	QPSK	3652.5																																																																												
																																																																														
<table border="1"><thead><tr><th>Total Power</th><th>14.39 dBm / 5 MHz</th><th>Spectrum Peak Ref</th><th>2.48 dBm</th></tr></thead><tbody><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>< Peak ></th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr><tr><td>0.0 Hz</td><td>2.500 MHz</td><td>30.00 kHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td></tr><tr><td>2.500 MHz</td><td>5.000 MHz</td><td>30.00 kHz</td><td>-53.36</td><td>(-31.09)</td><td>-4.975 M</td><td>-53.87</td><td>(-32.35)</td></tr><tr><td>5.000 MHz</td><td>12.50 MHz</td><td>30.00 kHz</td><td>-54.91</td><td>(-32.13)</td><td>-5.195 M</td><td>-55.54</td><td>(-32.88)</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>30.00 kHz</td><td>-68.22</td><td>(-35.70)</td><td>-12.50 M</td><td>-68.37</td><td>(-35.85)</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td></tr></tbody></table>			Total Power	14.39 dBm / 5 MHz	Spectrum Peak Ref	2.48 dBm	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	< Peak >	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	2.500 MHz	30.00 kHz	—	(—)	—	—	(—)	2.500 MHz	5.000 MHz	30.00 kHz	-53.36	(-31.09)	-4.975 M	-53.87	(-32.35)	5.000 MHz	12.50 MHz	30.00 kHz	-54.91	(-32.13)	-5.195 M	-55.54	(-32.88)	12.50 MHz	15.00 MHz	30.00 kHz	-68.22	(-35.70)	-12.50 M	-68.37	(-35.85)	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)
Total Power	14.39 dBm / 5 MHz	Spectrum Peak Ref	2.48 dBm																																																																											
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Spectrum Mask Emissions Result

Appendix E

Worst Case Mode	Modulaton	Freq. (MHz)
5MHz	QPSK	3697.5
		
Worst Case Mode	Modulaton	Freq. (MHz)
5MHz	16QAM	3652.5
		



Spectrum Mask Emissions Result

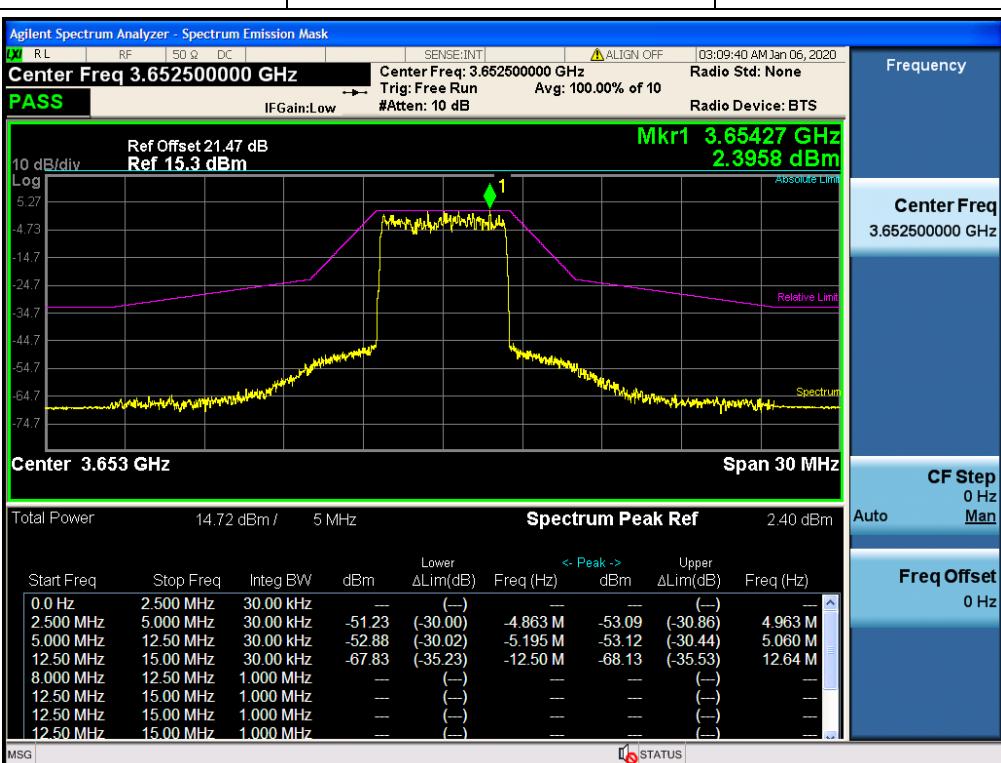
Appendix E

Worst Case Mode	Modulaton	Freq. (MHz)
5MHz	16QAM	3675
Worst Case Mode	Modulaton	Freq. (MHz)
5MHz	16QAM	3697.5



Spectrum Mask Emissions Result

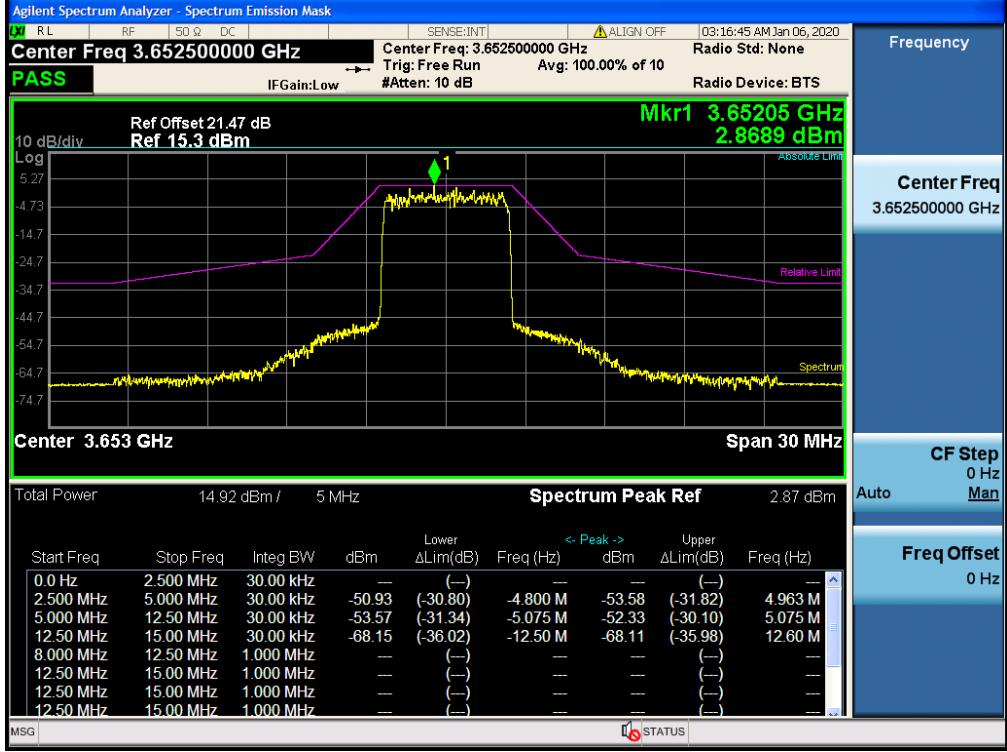
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Spectrum Mask Emissions Result

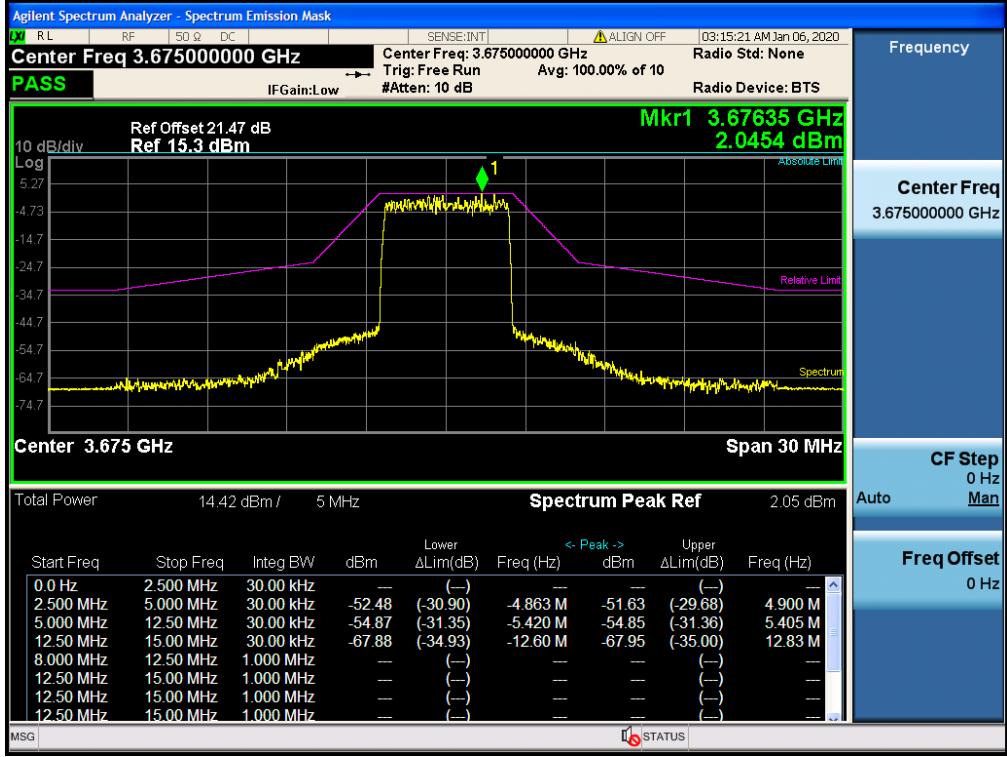
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8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)																																																																					
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)																																																																					
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)																																																																					
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)																																																																					



Spectrum Mask Emissions Result

Appendix E

Worst Case Mode	Modulaton	Freq. (MHz)
5MHz	256QAM	3675
		
Worst Case Mode	Modulaton	Freq. (MHz)
5MHz	256QAM	3697.5
