




# FCC RADIO TEST REPORT

**FCC ID** : XIA-221  
**Equipment** : Vodafone MachineLink 4G Lite  
**Brand Name** :  NetCommWireless,  
Vodafone  
**Model Name** : NWL-221  
**Applicant** : NetComm Wireless Limited  
18-20 Orion Road Lane Cove NSW 2066 Australia  
**Manufacturer** : NetComm Wireless Limited  
18-20 Orion Road Lane Cove NSW 2066 Australia  
**Standard** : 47 CFR Part2, 22(H)

The product was received on Sep. 19, 2018, and testing was started from Oct. 02, 2018 and completed on Oct. 18, 2018. 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-E (2016), ANSI C63.26-2015 and shown compliance with the applicable technical standards.

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

  
Approved by: Cliff Chang

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



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**Photographs of EUT v01**



### History of this test report

Report No.	Version	Description	Issued Date
FG891369-06AB	01	Initial issue of report	Sep. 28, 2020



### Summary of Test Result

Report Clause	Ref Std. Clause (FCC Rule)	Test Items	Result (PASS/FAIL)	Remark
3.1	2.1046	Conducted Output Power	PASS	-
	22.913(a)(2)	Effective Radiated Power	PASS	-
3.2	22.913(d)	Peak-to-Average Ratio	PASS	-
3.3	2.1049	Occupied Bandwidth	PASS	-
3.5	2.1051	Conducted Emission	PASS	-
	22.917(a)			
3.6	2.1053	Field Strength of Spurious Radiation	PASS	-
	22.917(a)			
3.7	2.1055	Frequency Stability for Temperature & Voltage	PASS	-
	22.355			

Note: Reference to Sporton Project No.: 891369-02.

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and Explanations:</b>
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: Wendy Pan



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Items	Description			
EUT Power Type	From power adapter Note:The EUT was tested with a 12V power adapter and the device supports 8-40V.			
EUT Type	<input type="checkbox"/> Base Station <input checked="" type="checkbox"/> Mobile Station <input type="checkbox"/> Fixed Subscriber Station			
Operating Frequency	Band	Bandwidth (MHz)	TX Frequency (MHz)	RX Frequency (MHz)
	LTE Band 5	1.4	824.7 ~ 848.3	869.7 ~ 893.3
		3	825.5 ~ 847.5	870.5 ~ 892.5
		5	826.5 ~ 846.5	871.5 ~ 891.5
10		829.0 ~ 844.0	874.0 ~ 889.0	
Maximum Output Power to Antenna (dBm)	LTE Band 5: 23.87			
99% Occupied Bandwidth (MHz)	LTE Band 5: 8.958			
Type of Modulation	QPSK / 16QAM			

### 1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	NetCommWireless	NANT-00006	Dipole Ant.	SMA	0.40

Note: The EUT support 1TX, 2RX functions:

Only Main port can be used as transmitting functions.

Main port and Aux port could receive simultaneously.




**1.1.3 Maximum ERP Power, Frequency Tolerance, and Emission Designator**

LTE Band 5					
FCC Rule	Bandwidth	Type of Modulation	Maximum ERP (W)	Frequency Tolerance (ppm)	Emission Designator
Part 22	1.4 MHz	QPSK	0.163	0.009	1M09G7D
		16QAM	0.117	0.007	1M09W7D
Part 22	3 MHz	QPSK	0.140	0.006	2M68G7D
		16QAM	0.104	0.007	2M69W7D
Part 22	5 MHz	QPSK	0.139	0.005	4M47G7D
		16QAM	0.099	0.006	4M47W7D
Part 22	10 MHz	QPSK	0.109	0.005	8M96G7D
		16QAM	0.102	0.007	4M50W7D

**1.1.4 Table for Multiple Listing**

The difference for brand name is shown as below:

Brand Name	Equipment Name	Model Name	Description
 <b>NetComm Wireless,</b> Vodafone	Vodafone MachineLink 4G Lite	NWL-221	All the brand name are identical; different brand names serve as marketing strategy.



### 1.2 Applicable Standards

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

- 47 CFR Part2, 22(H)
- ANSI/TIA-603-E (2016)
- ANSI C63.26-2015
- FCC KDB 971168 D01 v03r01

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 412172 D01 v01r01
- FCC KDB 414788 D01 v01r01

**Remark:** All test items were verified and recorded according to the standards and without any deviation during the test.

### 1.3 Testing Location

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	TH01-CB	Lucke Hsieh	25°C / 60%	Oct. 02, 2018 ~ Oct. 17, 2018
Radiated	03CH01-CB	Jay Luo	25°C / 60%	Oct. 03, 2018 ~ Oct. 18, 2018

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)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%



## 2 Test Configuration of Equipment Under Test

### 2.1 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Conducted Output Power ERP Peak-to-Average Ratio 99% OBW and 26dB Bandwidth Conducted Band Edge Conducted Spurious Emission Frequency Stability
<b>Test Condition</b>	Conducted measurement at transmit chains
<b>Test Mode</b>	1   EUT LTE Band 5

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Field Strength of Spurious Radiation
<b>Test Condition</b>	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.
<b>Operating Mode &gt; 1GHz</b>	Normal Link
The EUT was performed at Y axis and Z axis position and the worst case was found at Z axis. So the measurement will follow this same test configuration.	
1	EUT in Z axis – LTE Band 5





## 2.2 Accessories

RJ-45\*1: Non-shielded 1.5m

DIN rail mounting bracket\*1

## 2.3 Support Equipment

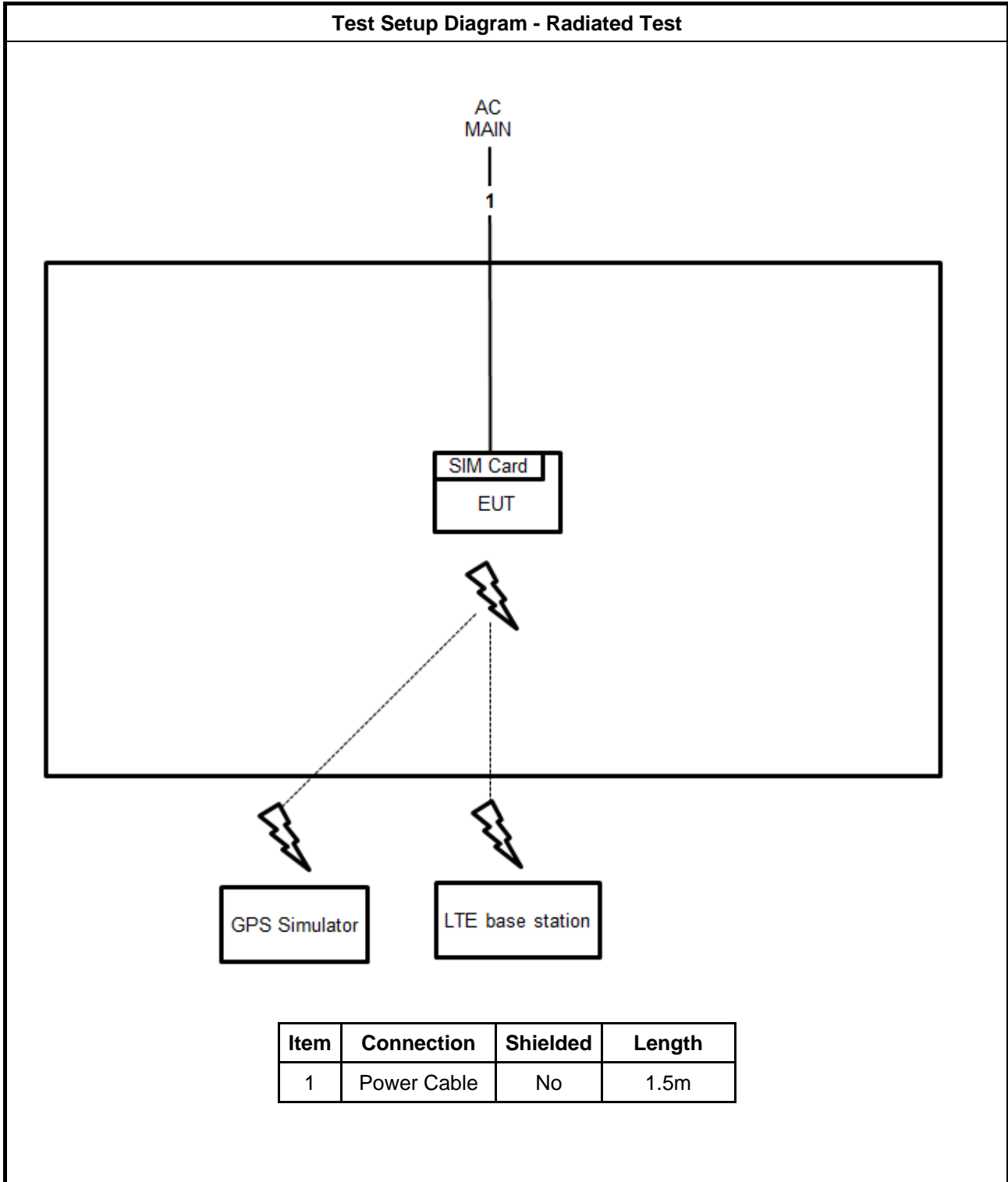
For test site: 03CH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	LTE base station	Anritsu	MT8820C	N/A
2	SIM Card	Anritsu	N/A	N/A
3	GPS Simulator	WELNAVIGATE	GS-100	N/A
4	Adapter	Tenpao	S018BAM1200150	N/A

For test site: TH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	N/A
2	LTE base station	Anritsu	MT8820C	N/A
3	SIM Card	Anritsu	N/A	N/A
4	Adapter	Tenpao	S018BAM1200150	N/A

## 2.4 Test Setup Diagram





## **2.5 Measurement Results Explanation Example**

### **For all conducted test items:**

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

The following shows an offset computation example with RF cable loss 1 dB and a 20dB attenuator.

Example:

Offset (dB) = RF cable loss (dB) + attenuator factor (dB).

$$= 1 + 20 = 21 \text{ (dB)}$$



### 3 Test Result

#### 3.1 Conducted Output Power and ERP Measurement

##### 3.1.1 Description of the Conducted Output Power and ERP Measurement

Conducted Output Power Limit	
<input checked="" type="checkbox"/> Band 5	N/A
Effective Radiated Power (ERP) Limit	
<input checked="" type="checkbox"/> Band 5	Base Station: 500 Watts or 400Watts (PSD) Mobile Station: 7 Watts

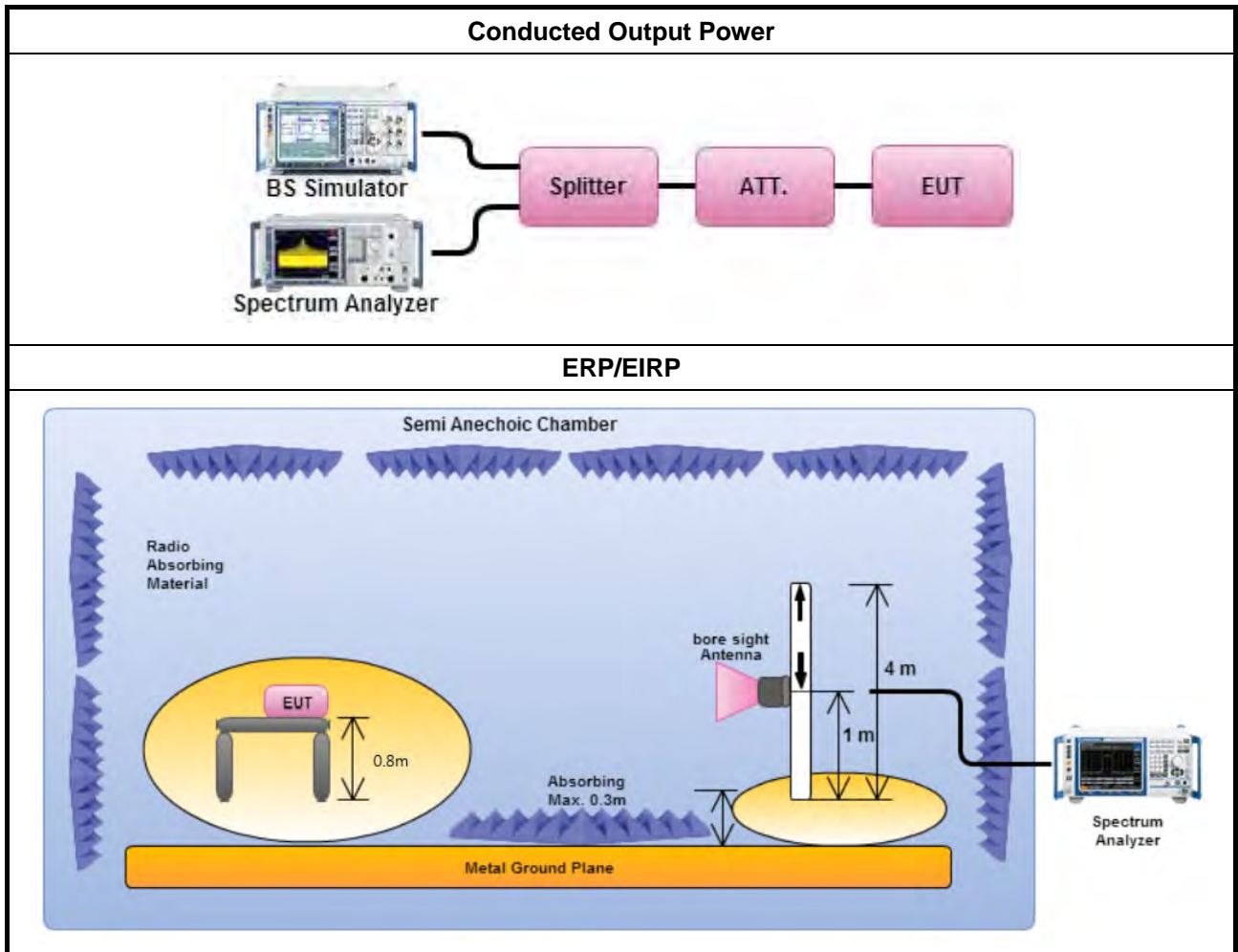
##### 3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

##### 3.1.3 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

### 3.1.4 Test Setup



### 3.1.5 Test Result of Conducted Output Power

Refer as Appendix A

## 3.2 Peak-to-Average Ratio Measurement

### 3.2.1 Description of the PAR Measurement

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

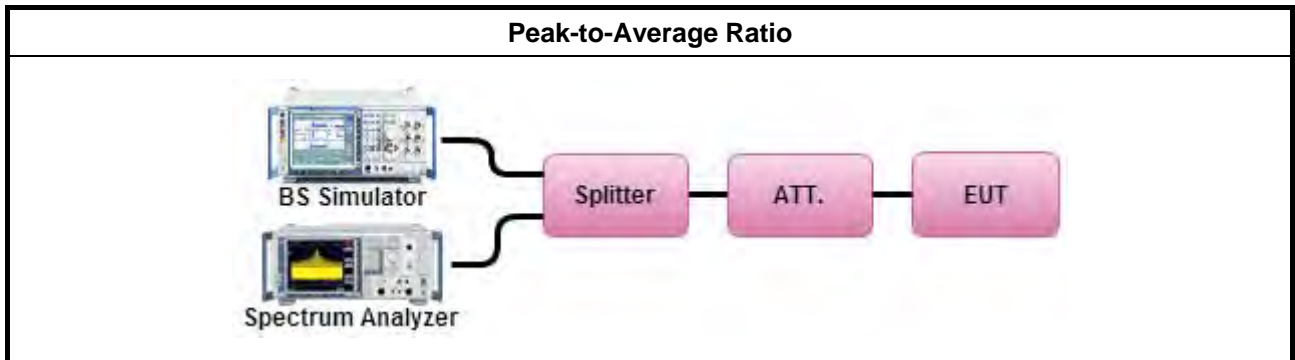
### 3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

### 3.2.3 Test Procedures

1. The EUT was connected to spectrum and system simulator via a power divider.
2. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
3. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
4. Record the deviation as Peak to Average Ratio.

### 3.2.4 Test Setup



### 3.2.5 Test Result of Peak-to-Average Ratio

Refer as Appendix B



### **3.3 Occupied Bandwidth Measurement**

#### **3.3.1 Description of Occupied Bandwidth Measurement**

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

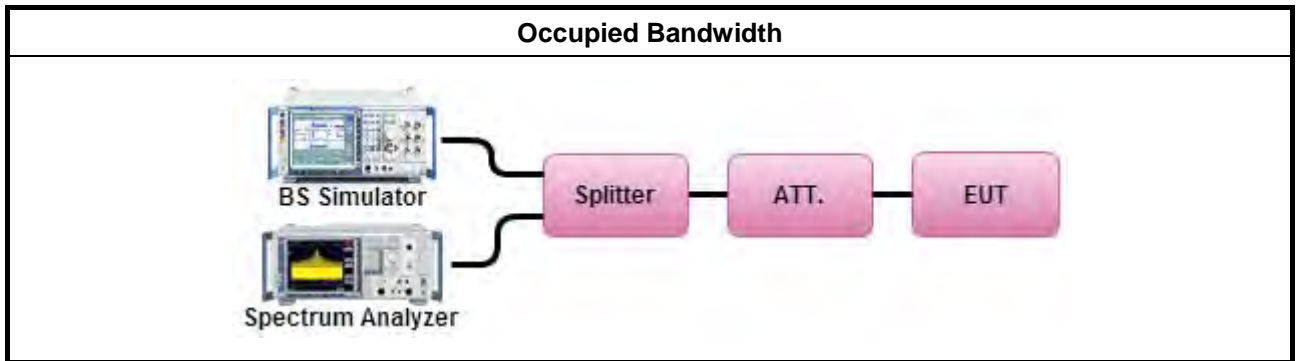
#### **3.3.2 Measuring Instruments**

The measuring equipment is listed in the section 4 of this test report.

#### **3.3.3 Test Procedures**

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency.  
The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
3. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
4. Set the detection mode to peak, and the trace mode to max hold.
5. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace. (this is the reference value)
6. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
7. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
8. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

### 3.3.4 Test Setup



### 3.3.5 Test Result of Occupied Bandwidth

Refer as Appendix C



### 3.4 Conducted Band Edge Measurement

#### 3.4.1 Description of Conducted Band Edge Measurement

Conducted Band Edge	
<input checked="" type="checkbox"/> Band 5	43 + 10log <sub>10</sub> (P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

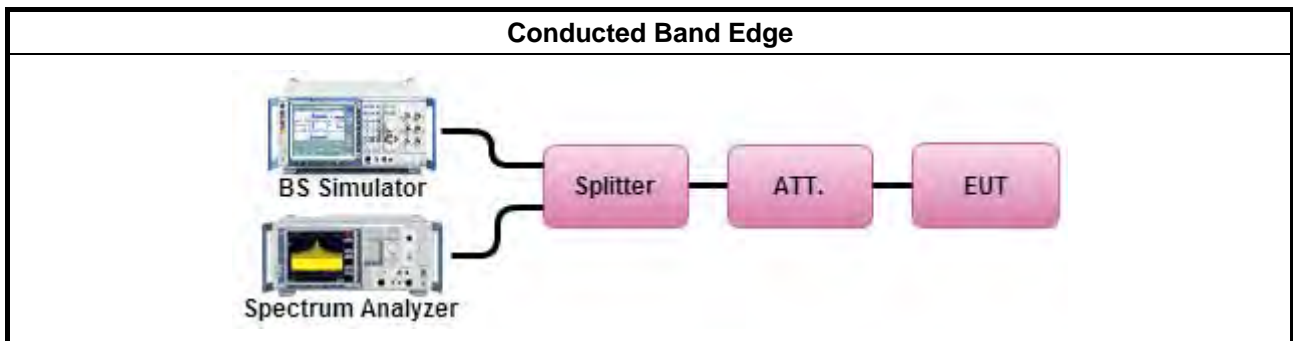
#### 3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

#### 3.4.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured.
3. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
5. Set spectrum analyzer with RMS detector.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. Checked that all the results comply with the emission limit line.

#### 3.4.4 Test Setup



#### 3.4.5 Test Result of Conducted Band Edge

Refer as Appendix D

### 3.5 Conducted Spurious Emission Measurement

#### 3.5.1 Description of Conducted Spurious Emission Measurement

Conducted Band Edge	
<input checked="" type="checkbox"/> Band 5	The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

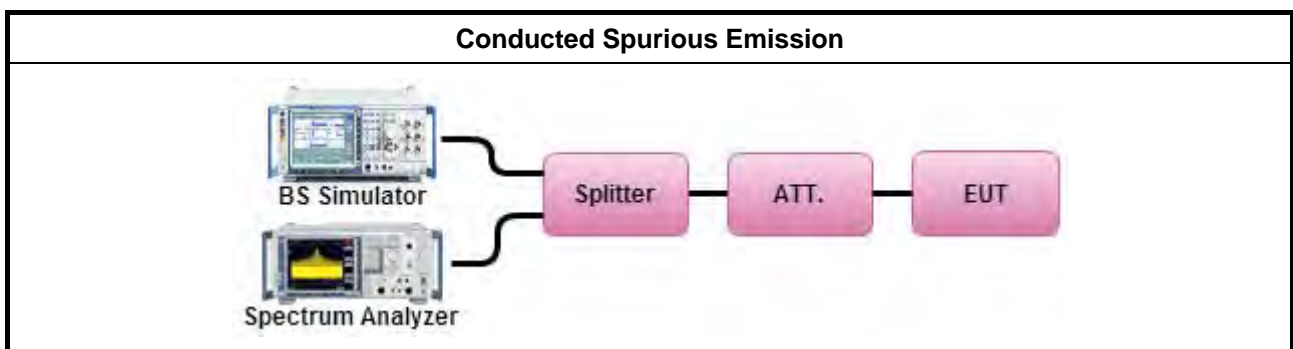
#### 3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

#### 3.5.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.  
The path loss was compensated to the results for each measurement.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
6. Set spectrum analyzer with RMS detector.
7. Taking the record of maximum spurious emission.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

#### 3.5.4 Test Setup



#### 3.5.5 Test Result of Conducted Spurious Emission

Refer as Appendix D



### 3.6 Field Strength of Spurious Radiation Measurement

#### 3.6.1 Description of Field Strength of Spurious Radiated Measurement

Field Strength of Spurious Radiated
The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

#### 3.6.2 Measuring Instruments

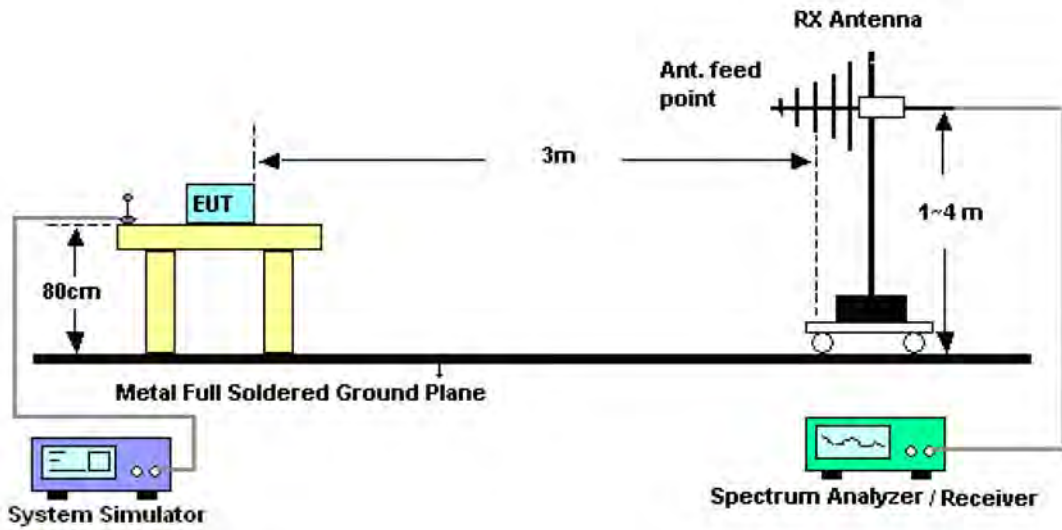
The measuring equipment is listed in the section 4 of this test report.

#### 3.6.3 Test Procedures

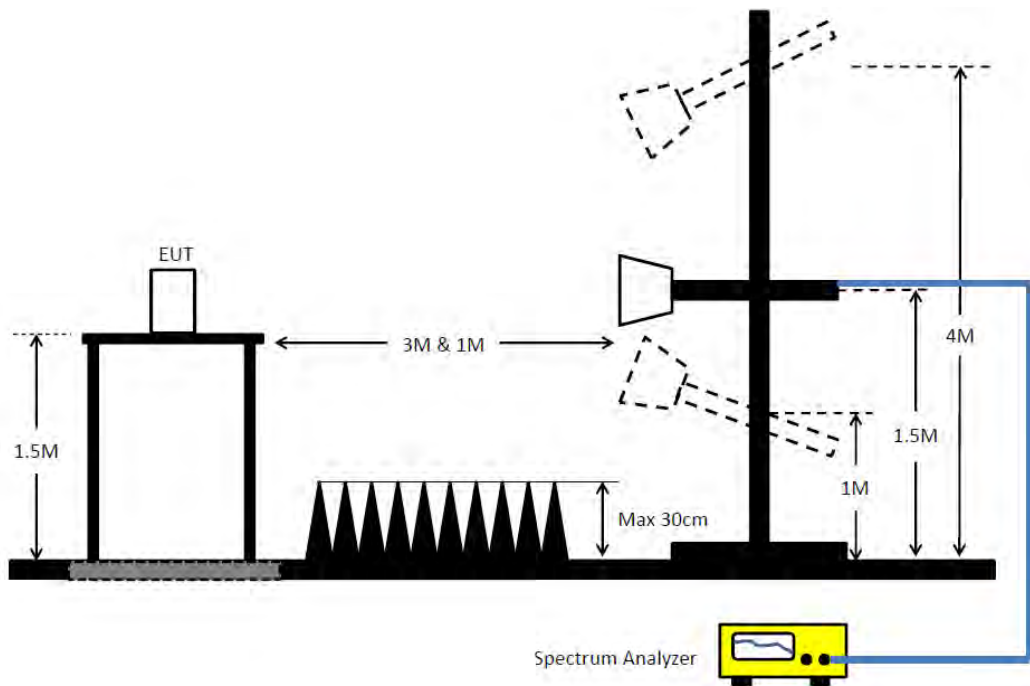
1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

### 3.6.4 Test Setup

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





### **3.6.5 Measurement Results Calculation**

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

### **3.6.6 Test Result of Field Strength of Spurious Radiated (Below 1GHz)**

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

### **3.6.7 Test Result of Field Strength of Spurious Radiated (Above 1GHz)**

Refer as Appendix E

### 3.7 Frequency Stability Measurement

#### 3.7.1 Description of Frequency Stability Measurement

Frequency Stability	
<input checked="" type="checkbox"/> Band 5	Base Station: $\pm 1.5\text{ppm}$ Mobile Station: $\pm 2.5\text{ppm}$
Note: The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.	

#### 3.7.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

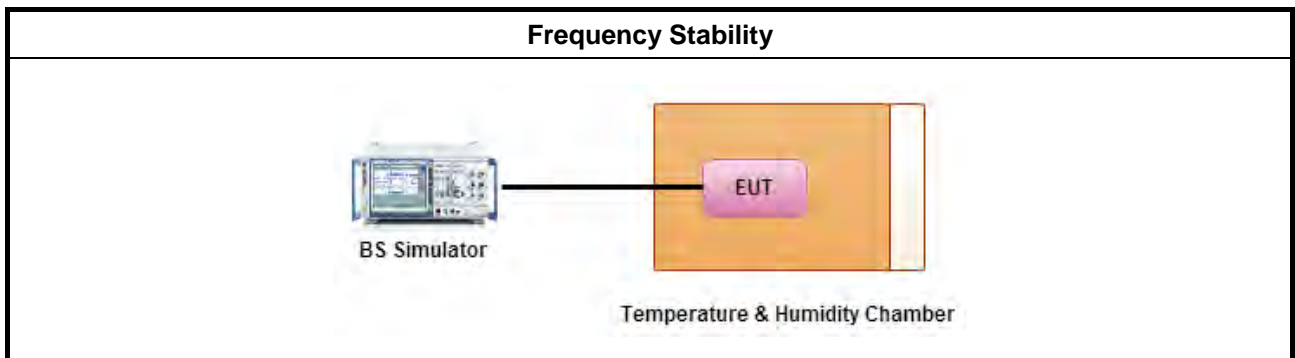
#### 3.7.3 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to  $-40^{\circ}\text{C}$  and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in  $-40^{\circ}\text{C}$  steps up to  $70^{\circ}\text{C}$ . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

#### 3.7.4 Test Procedures for Voltage Variation

1. The EUT was placed in a temperature chamber at  $25\pm 5^{\circ}\text{C}$  and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85 to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

#### 3.7.5 Test Setup



#### 3.7.6 Test Result of Temperature and Voltage Variation

Refer as Appendix G



## 4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum analyzer	Keysight	N9020A	MY55400138	10 Hz up to 26.5 GHz	Jan. 02, 2018	Jan. 01, 2019	Conducted (TH01-CB)
MW Analog Signal Generator	Keysight	N5183A	MY50142965	100kHz~20GHz	Nov. 24, 2017	Nov. 23, 2018	Conducted (TH01-CB)
Vector Signal Generator	Keysight	N5182B	MY53052408	9kHz~6GHz	Jan. 02, 2018	Jan. 01, 2019	Conducted (TH01-CB)
Temp. and Humidity Chamber	Gaint Force	GTH-408-40-C P-AR	MAA1410-011	-40~100 degree	Sep. 14, 2018	Sep. 13, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 20, 2017	Nov. 19, 2018	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)
BILOG ANTENNA with 6 dB attenuator	SCHAFFNER / Woken	CBL 6112B / N-6-06-06	2888 / AT-N0609	30MHz~1GHz	Jan. 03, 2018	Jan. 02, 2019	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 20, 2017	Nov. 19, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2018	May 01, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 09, 2018	Jan. 08, 2019	Radiation (03CH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100354	9kHz ~ 2.75GHz	Dec. 08, 2017	Dec. 07, 2018	Radiation (03CH01-CB)
Low Cable	Woken	RG402	Low Cable-16+17	30MHz~1GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Low Cable	Woken	RG402	Low Cable-16+17	30MHz~1GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
High Cable	Woken	RG402	High Cable-16	1GHz~18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
High Cable	Woken	RG402	High Cable-16	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH01-CB)
High Cable	Woken	RG402	High Cable-16+17	1GHz~18GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
High Cable	Woken	RG402	High Cable-16+17	1GHz~18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)

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





Summary

Mode	Power (dBm)	Power (W)	ERP (dBm)	ERP (W)
Band 5	-	-	-	-
Band 5_LTE_1.4MHz_Nss1,(QPSK)_1TX	23.87	0.244	22.12	0.163
Band 5_LTE_1.4MHz_Nss1,(16QAM)_1TX	22.45	0.176	20.7	0.117
Band 5_LTE_3MHz_Nss1,(QPSK)_1TX	23.20	0.209	21.45	0.140
Band 5_LTE_3MHz_Nss1,(16QAM)_1TX	21.90	0.155	20.15	0.104
Band 5_LTE_5MHz_Nss1,(QPSK)_1TX	23.19	0.208	21.44	0.139
Band 5_LTE_5MHz_Nss1,(16QAM)_1TX	21.69	0.148	19.94	0.099
Band 5_LTE_10MHz_Nss1,(QPSK)_1TX	22.11	0.163	20.36	0.109
Band 5_LTE_10MHz_Nss1,(16QAM)_1TX	21.82	0.152	20.07	0.102

Result

Mode	Result	RB	RB Start	Power (dBm)	Power (W)	Power Lim. (W)	DG (dBi)	ERP (dBm)	ERP (W)	ERP Lim. (W)	P1 (dBm)
LTE_1.4MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-
824.7MHz	Pass	1	0	23.61	0.230	Inf	0.4	21.86	0.153	7	23.61
824.7MHz	Pass	1	3	23.51	0.224	Inf	0.4	21.76	0.150	7	23.51
824.7MHz	Pass	1	5	23.40	0.219	Inf	0.4	21.65	0.146	7	23.40
824.7MHz	Pass	3	0	23.46	0.222	Inf	0.4	21.71	0.148	7	23.46
824.7MHz	Pass	3	2	23.59	0.229	Inf	0.4	21.84	0.153	7	23.59
824.7MHz	Pass	3	3	23.49	0.223	Inf	0.4	21.74	0.149	7	23.49
824.7MHz	Pass	6	0	22.58	0.181	Inf	0.4	20.83	0.121	7	22.58
836.5MHz	Pass	1	0	23.68	0.233	Inf	0.4	21.93	0.156	7	23.68
836.5MHz	Pass	1	3	23.87	0.244	Inf	0.4	22.12	0.163	7	23.87
836.5MHz	Pass	1	5	23.38	0.218	Inf	0.4	21.63	0.146	7	23.38
836.5MHz	Pass	3	0	23.58	0.228	Inf	0.4	21.83	0.152	7	23.58
836.5MHz	Pass	3	2	23.63	0.231	Inf	0.4	21.88	0.154	7	23.63
836.5MHz	Pass	3	3	23.56	0.227	Inf	0.4	21.81	0.152	7	23.56
836.5MHz	Pass	6	0	22.57	0.181	Inf	0.4	20.82	0.121	7	22.57
848.3MHz	Pass	1	0	23.46	0.222	Inf	0.4	21.71	0.148	7	23.46
848.3MHz	Pass	1	3	23.66	0.232	Inf	0.4	21.91	0.155	7	23.66
848.3MHz	Pass	1	5	23.50	0.224	Inf	0.4	21.75	0.150	7	23.50
848.3MHz	Pass	3	0	23.42	0.220	Inf	0.4	21.67	0.147	7	23.42
848.3MHz	Pass	3	2	23.46	0.222	Inf	0.4	21.71	0.148	7	23.46
848.3MHz	Pass	3	3	23.45	0.221	Inf	0.4	21.7	0.148	7	23.45
848.3MHz	Pass	6	0	22.47	0.177	Inf	0.4	20.72	0.118	7	22.47
LTE_1.4MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-
824.7MHz	Pass	1	0	22.04	0.160	Inf	0.4	20.29	0.107	7	22.04
824.7MHz	Pass	1	3	22.17	0.165	Inf	0.4	20.42	0.110	7	22.17
824.7MHz	Pass	1	5	22.21	0.166	Inf	0.4	20.46	0.111	7	22.21
824.7MHz	Pass	3	0	22.16	0.164	Inf	0.4	20.41	0.110	7	22.16
824.7MHz	Pass	3	2	22.18	0.165	Inf	0.4	20.43	0.110	7	22.18
824.7MHz	Pass	3	3	22.15	0.164	Inf	0.4	20.4	0.110	7	22.15
824.7MHz	Pass	6	0	21.06	0.128	Inf	0.4	19.31	0.085	7	21.06
836.5MHz	Pass	1	0	22.20	0.166	Inf	0.4	20.45	0.111	7	22.20
836.5MHz	Pass	1	3	22.16	0.164	Inf	0.4	20.41	0.110	7	22.16
836.5MHz	Pass	1	5	22.06	0.161	Inf	0.4	20.31	0.107	7	22.06



Mode	Result	RB	RB Start	Power (dBm)	Power (W)	Power Lim. (W)	DG (dBi)	ERP (dBm)	ERP (W)	ERP Lim. (W)	P1 (dBm)
836.5MHz	Pass	3	0	22.39	0.173	Inf	0.4	20.64	0.116	7	22.39
836.5MHz	Pass	3	2	22.40	0.174	Inf	0.4	20.65	0.116	7	22.40
836.5MHz	Pass	3	3	22.45	0.176	Inf	0.4	20.7	0.117	7	22.45
836.5MHz	Pass	6	0	21.30	0.135	Inf	0.4	19.55	0.090	7	21.30
848.3MHz	Pass	1	0	22.20	0.166	Inf	0.4	20.45	0.111	7	22.20
848.3MHz	Pass	1	3	22.10	0.162	Inf	0.4	20.35	0.108	7	22.10
848.3MHz	Pass	1	5	22.15	0.164	Inf	0.4	20.4	0.110	7	22.15
848.3MHz	Pass	3	0	22.19	0.166	Inf	0.4	20.44	0.111	7	22.19
848.3MHz	Pass	3	2	22.14	0.164	Inf	0.4	20.39	0.109	7	22.14
848.3MHz	Pass	3	3	22.20	0.166	Inf	0.4	20.45	0.111	7	22.20
848.3MHz	Pass	6	0	20.95	0.124	Inf	0.4	19.20	0.083	7	20.95
LTE_3MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-
825.5MHz	Pass	1	0	23.09	0.204	Inf	0.4	21.34	0.136	7	23.09
825.5MHz	Pass	1	8	22.83	0.192	Inf	0.4	21.08	0.128	7	22.83
825.5MHz	Pass	1	14	23.16	0.207	Inf	0.4	21.41	0.138	7	23.16
825.5MHz	Pass	8	0	22.06	0.161	Inf	0.4	20.31	0.107	7	22.06
825.5MHz	Pass	8	4	22.05	0.160	Inf	0.4	20.3	0.107	7	22.05
825.5MHz	Pass	8	7	21.96	0.157	Inf	0.4	20.21	0.105	7	21.96
825.5MHz	Pass	15	0	22.00	0.158	Inf	0.4	20.25	0.106	7	22.00
836.5MHz	Pass	1	0	22.96	0.198	Inf	0.4	21.21	0.132	7	22.96
836.5MHz	Pass	1	8	23.18	0.208	Inf	0.4	21.43	0.139	7	23.18
836.5MHz	Pass	1	14	22.92	0.196	Inf	0.4	21.17	0.131	7	22.92
836.5MHz	Pass	8	0	22.13	0.163	Inf	0.4	20.38	0.109	7	22.13
836.5MHz	Pass	8	4	22.15	0.164	Inf	0.4	20.4	0.110	7	22.15
836.5MHz	Pass	8	7	22.08	0.161	Inf	0.4	20.33	0.108	7	22.08
836.5MHz	Pass	15	0	22.16	0.164	Inf	0.4	20.41	0.110	7	22.16
847.5MHz	Pass	1	0	23.20	0.209	Inf	0.4	21.45	0.140	7	23.20
847.5MHz	Pass	1	8	23.03	0.201	Inf	0.4	21.28	0.134	7	23.03
847.5MHz	Pass	1	14	23.03	0.201	Inf	0.4	21.28	0.134	7	23.03
847.5MHz	Pass	8	0	22.00	0.158	Inf	0.4	20.25	0.106	7	22.00
847.5MHz	Pass	8	4	22.14	0.164	Inf	0.4	20.39	0.109	7	22.14
847.5MHz	Pass	8	7	21.92	0.156	Inf	0.4	20.17	0.104	7	21.92
847.5MHz	Pass	15	0	21.92	0.156	Inf	0.4	20.17	0.104	7	21.92
LTE_3MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-
825.5MHz	Pass	1	0	21.71	0.148	Inf	0.4	19.96	0.099	7	21.71
825.5MHz	Pass	1	8	21.63	0.146	Inf	0.4	19.88	0.097	7	21.63
825.5MHz	Pass	1	14	21.70	0.148	Inf	0.4	19.95	0.099	7	21.70
825.5MHz	Pass	8	0	20.99	0.126	Inf	0.4	19.24	0.084	7	20.99
825.5MHz	Pass	8	4	21.02	0.126	Inf	0.4	19.27	0.085	7	21.02
825.5MHz	Pass	8	7	21.00	0.126	Inf	0.4	19.25	0.084	7	21.00
825.5MHz	Pass	15	0	20.91	0.123	Inf	0.4	19.16	0.082	7	20.91
836.5MHz	Pass	1	0	21.80	0.151	Inf	0.4	20.05	0.101	7	21.80
836.5MHz	Pass	1	8	21.80	0.151	Inf	0.4	20.05	0.101	7	21.80
836.5MHz	Pass	1	14	21.78	0.151	Inf	0.4	20.03	0.101	7	21.78
836.5MHz	Pass	8	0	21.14	0.130	Inf	0.4	19.39	0.087	7	21.14
836.5MHz	Pass	8	4	21.04	0.127	Inf	0.4	19.29	0.085	7	21.04



# AV Power Result

Mode	Result	RB	RB Start	Power (dBm)	Power (W)	Power Lim. (W)	DG (dBi)	ERP (dBm)	ERP (W)	ERP Lim. (W)	P1 (dBm)
836.5MHz	Pass	8	7	21.07	0.128	Inf	0.4	19.32	0.086	7	21.07
836.5MHz	Pass	15	0	20.99	0.126	Inf	0.4	19.24	0.084	7	20.99
847.5MHz	Pass	1	0	21.76	0.150	Inf	0.4	20.01	0.100	7	21.76
847.5MHz	Pass	1	8	21.90	0.155	Inf	0.4	20.15	0.104	7	21.90
847.5MHz	Pass	1	14	21.72	0.149	Inf	0.4	19.97	0.099	7	21.72
847.5MHz	Pass	8	0	20.93	0.124	Inf	0.4	19.18	0.083	7	20.93
847.5MHz	Pass	8	4	21.02	0.126	Inf	0.4	19.27	0.085	7	21.02
847.5MHz	Pass	8	7	21.06	0.128	Inf	0.4	19.31	0.085	7	21.06
847.5MHz	Pass	15	0	21.01	0.126	Inf	0.4	19.26	0.084	7	21.01
LTE_5MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-
826.5MHz	Pass	1	0	23.18	0.208	Inf	0.4	21.43	0.139	7	23.18
826.5MHz	Pass	1	12	23.15	0.207	Inf	0.4	21.4	0.138	7	23.15
826.5MHz	Pass	1	24	23.19	0.208	Inf	0.4	21.44	0.139	7	23.19
826.5MHz	Pass	12	0	22.03	0.160	Inf	0.4	20.28	0.107	7	22.03
826.5MHz	Pass	12	7	21.97	0.157	Inf	0.4	20.22	0.105	7	21.97
826.5MHz	Pass	12	12	21.88	0.154	Inf	0.4	20.13	0.103	7	21.88
826.5MHz	Pass	25	0	21.85	0.153	Inf	0.4	20.1	0.102	7	21.85
836.5MHz	Pass	1	0	22.83	0.192	Inf	0.4	21.08	0.128	7	22.83
836.5MHz	Pass	1	12	23.03	0.201	Inf	0.4	21.28	0.134	7	23.03
836.5MHz	Pass	1	24	22.95	0.197	Inf	0.4	21.2	0.132	7	22.95
836.5MHz	Pass	12	0	21.95	0.157	Inf	0.4	20.2	0.105	7	21.95
836.5MHz	Pass	12	7	21.95	0.157	Inf	0.4	20.2	0.105	7	21.95
836.5MHz	Pass	12	12	21.89	0.155	Inf	0.4	20.14	0.103	7	21.89
836.5MHz	Pass	25	0	21.95	0.157	Inf	0.4	20.2	0.105	7	21.95
846.5MHz	Pass	1	0	22.57	0.181	Inf	0.4	20.82	0.121	7	22.57
846.5MHz	Pass	1	12	23.03	0.201	Inf	0.4	21.28	0.134	7	23.03
846.5MHz	Pass	1	24	23.02	0.200	Inf	0.4	21.27	0.134	7	23.02
846.5MHz	Pass	12	0	21.59	0.144	Inf	0.4	19.84	0.096	7	21.59
846.5MHz	Pass	12	7	21.89	0.155	Inf	0.4	20.14	0.103	7	21.89
846.5MHz	Pass	12	12	21.94	0.156	Inf	0.4	20.19	0.104	7	21.94
846.5MHz	Pass	25	0	21.78	0.151	Inf	0.4	20.03	0.101	7	21.78
LTE_5MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-
826.5MHz	Pass	1	0	21.65	0.146	Inf	0.4	19.9	0.098	7	21.65
826.5MHz	Pass	1	12	21.43	0.139	Inf	0.4	19.68	0.093	7	21.43
826.5MHz	Pass	1	24	21.69	0.148	Inf	0.4	19.94	0.099	7	21.69
826.5MHz	Pass	12	0	20.73	0.118	Inf	0.4	18.98	0.079	7	20.73
826.5MHz	Pass	12	7	20.94	0.124	Inf	0.4	19.19	0.083	7	20.94
826.5MHz	Pass	12	12	20.91	0.123	Inf	0.4	19.16	0.082	7	20.91
826.5MHz	Pass	25	0	20.91	0.123	Inf	0.4	19.16	0.082	7	20.91
836.5MHz	Pass	1	0	21.51	0.142	Inf	0.4	19.76	0.095	7	21.51
836.5MHz	Pass	1	12	21.62	0.145	Inf	0.4	19.87	0.097	7	21.62
836.5MHz	Pass	1	24	21.20	0.132	Inf	0.4	19.45	0.088	7	21.20
836.5MHz	Pass	12	0	20.79	0.120	Inf	0.4	19.04	0.080	7	20.79
836.5MHz	Pass	12	7	20.85	0.122	Inf	0.4	19.1	0.081	7	20.85
836.5MHz	Pass	12	12	20.90	0.123	Inf	0.4	19.15	0.082	7	20.90
836.5MHz	Pass	25	0	20.93	0.124	Inf	0.4	19.18	0.083	7	20.93



# AV Power Result

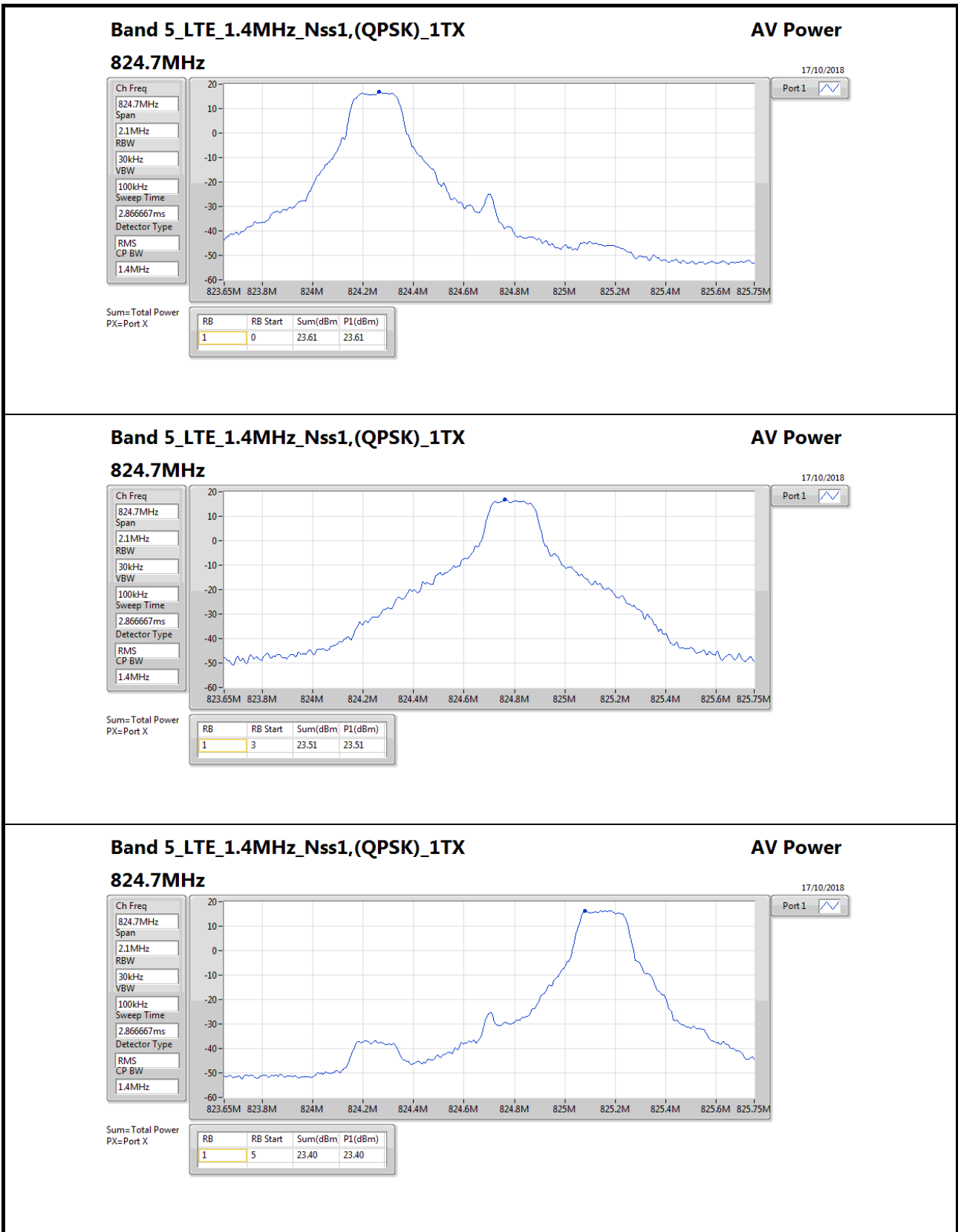
Mode	Result	RB	RB Start	Power (dBm)	Power (W)	Power Lim. (W)	DG (dBi)	ERP (dBm)	ERP (W)	ERP Lim. (W)	P1 (dBm)
846.5MHz	Pass	1	0	21.45	0.140	Inf	0.4	19.7	0.093	7	21.45
846.5MHz	Pass	1	12	21.51	0.142	Inf	0.4	19.76	0.095	7	21.51
846.5MHz	Pass	1	24	21.42	0.139	Inf	0.4	19.67	0.093	7	21.42
846.5MHz	Pass	12	0	20.63	0.116	Inf	0.4	18.88	0.077	7	20.63
846.5MHz	Pass	12	7	20.90	0.123	Inf	0.4	19.15	0.082	7	20.90
846.5MHz	Pass	12	12	20.76	0.119	Inf	0.4	19.01	0.080	7	20.76
846.5MHz	Pass	25	0	20.70	0.117	Inf	0.4	18.95	0.079	7	20.70
LTE_10MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-
829MHz	Pass	1	0	21.98	0.158	Inf	0.4	20.23	0.105	7	21.98
829MHz	Pass	1	25	21.58	0.144	Inf	0.4	19.83	0.096	7	21.58
829MHz	Pass	1	49	21.94	0.156	Inf	0.4	20.19	0.104	7	21.94
829MHz	Pass	25	0	21.89	0.155	Inf	0.4	20.14	0.103	7	21.89
829MHz	Pass	25	12	22.11	0.163	Inf	0.4	20.36	0.109	7	22.11
829MHz	Pass	25	25	21.45	0.140	Inf	0.4	19.7	0.093	7	21.45
829MHz	Pass	50	0	22.02	0.159	Inf	0.4	20.27	0.106	7	22.02
836.5MHz	Pass	1	0	21.94	0.156	Inf	0.4	20.19	0.104	7	21.94
836.5MHz	Pass	1	25	21.79	0.151	Inf	0.4	20.04	0.101	7	21.79
836.5MHz	Pass	1	49	21.93	0.156	Inf	0.4	20.18	0.104	7	21.93
836.5MHz	Pass	25	0	22.00	0.158	Inf	0.4	20.25	0.106	7	22.00
836.5MHz	Pass	25	12	21.85	0.153	Inf	0.4	20.1	0.102	7	21.85
836.5MHz	Pass	25	25	21.79	0.151	Inf	0.4	20.04	0.101	7	21.79
836.5MHz	Pass	50	0	21.72	0.149	Inf	0.4	19.97	0.099	7	21.72
844MHz	Pass	1	0	22.11	0.163	Inf	0.4	20.36	0.109	7	22.11
844MHz	Pass	1	25	21.73	0.149	Inf	0.4	19.98	0.100	7	21.73
844MHz	Pass	1	49	21.84	0.153	Inf	0.4	20.09	0.102	7	21.84
844MHz	Pass	25	0	21.89	0.155	Inf	0.4	20.14	0.103	7	21.89
844MHz	Pass	25	12	21.92	0.156	Inf	0.4	20.17	0.104	7	21.92
844MHz	Pass	25	25	21.80	0.151	Inf	0.4	20.05	0.101	7	21.80
844MHz	Pass	50	0	21.83	0.152	Inf	0.4	20.08	0.102	7	21.83
LTE_10MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-
829MHz	Pass	1	0	21.54	0.143	Inf	0.4	19.79	0.095	7	21.54
829MHz	Pass	1	25	21.41	0.138	Inf	0.4	19.66	0.092	7	21.41
829MHz	Pass	1	49	21.30	0.135	Inf	0.4	19.55	0.090	7	21.30
829MHz	Pass	25	0	20.75	0.119	Inf	0.4	19	0.079	7	20.75
829MHz	Pass	25	12	20.94	0.124	Inf	0.4	19.19	0.083	7	20.94
829MHz	Pass	25	25	20.77	0.119	Inf	0.4	19.02	0.080	7	20.77
836.5MHz	Pass	1	0	21.27	0.134	Inf	0.4	19.52	0.090	7	21.27
836.5MHz	Pass	1	25	21.32	0.136	Inf	0.4	19.57	0.091	7	21.32
836.5MHz	Pass	1	49	21.16	0.131	Inf	0.4	19.41	0.087	7	21.16
836.5MHz	Pass	25	0	20.90	0.123	Inf	0.4	19.15	0.082	7	20.90
836.5MHz	Pass	25	12	20.82	0.121	Inf	0.4	19.07	0.081	7	20.82
836.5MHz	Pass	25	25	20.82	0.121	Inf	0.4	19.07	0.081	7	20.82
844MHz	Pass	1	0	21.05	0.127	Inf	0.4	19.3	0.085	7	21.05
844MHz	Pass	1	25	21.82	0.152	Inf	0.4	20.07	0.102	7	21.82
844MHz	Pass	1	49	21.22	0.132	Inf	0.4	19.47	0.089	7	21.22
844MHz	Pass	25	0	20.77	0.119	Inf	0.4	19.02	0.080	7	20.77

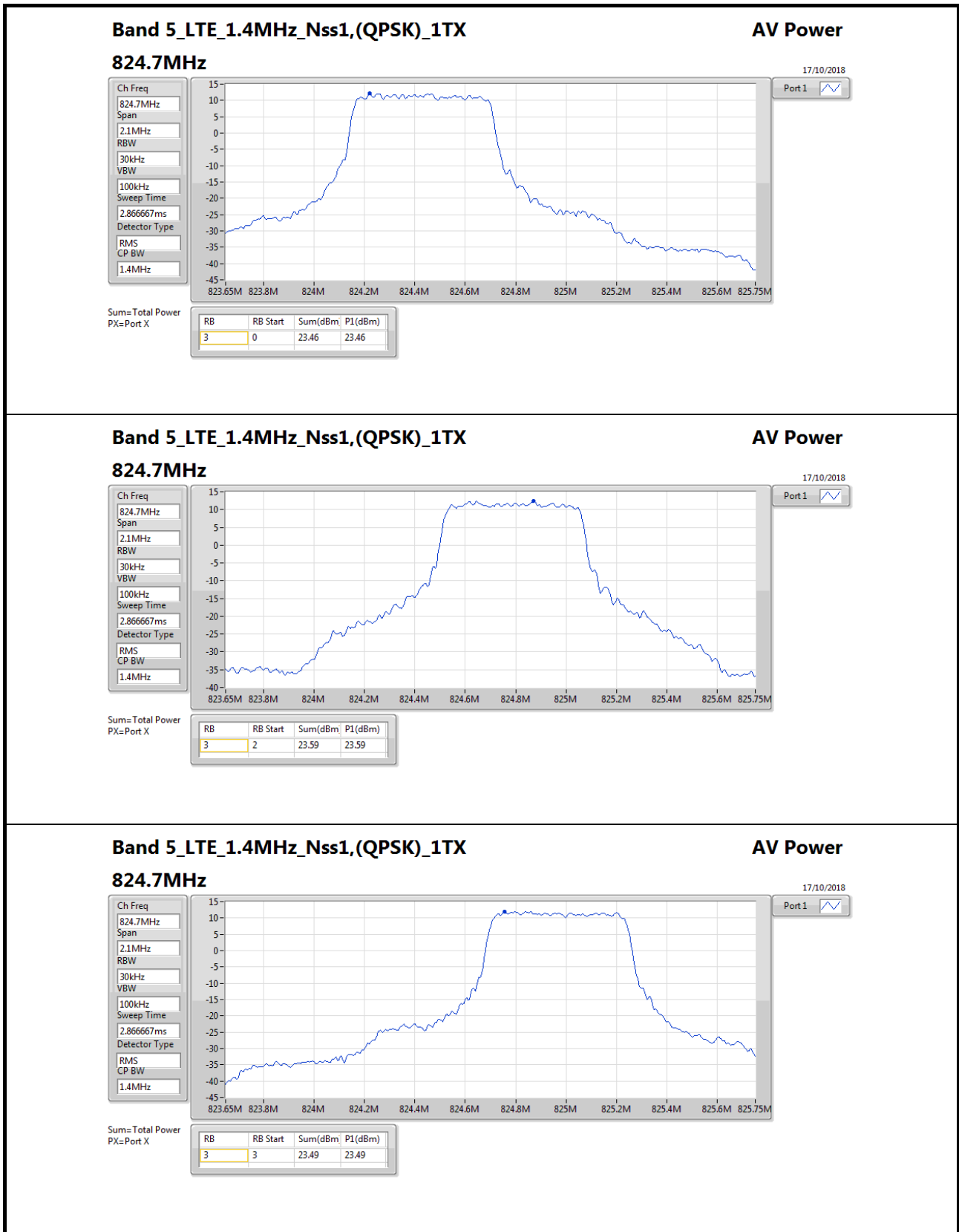


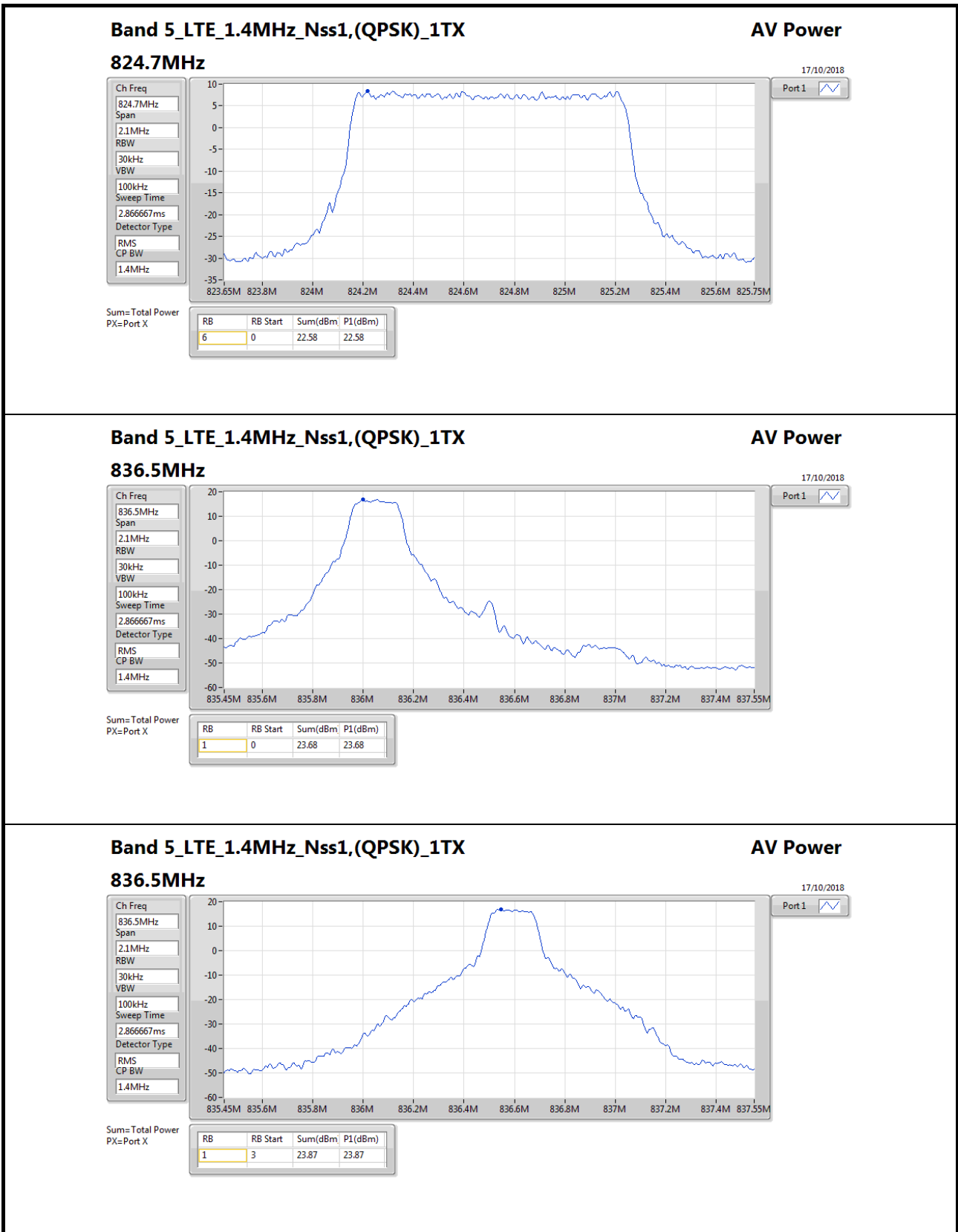
**AV Power Result**

Mode	Result	RB	RB Start	Power (dBm)	Power (W)	Power Lim. (W)	DG (dBi)	ERP (dBm)	ERP (W)	ERP Lim. (W)	P1 (dBm)
844MHz	Pass	25	12	20.82	0.121	Inf	0.4	19.07	0.081	7	20.82
844MHz	Pass	25	25	20.88	0.122	Inf	0.4	19.13	0.082	7	20.88

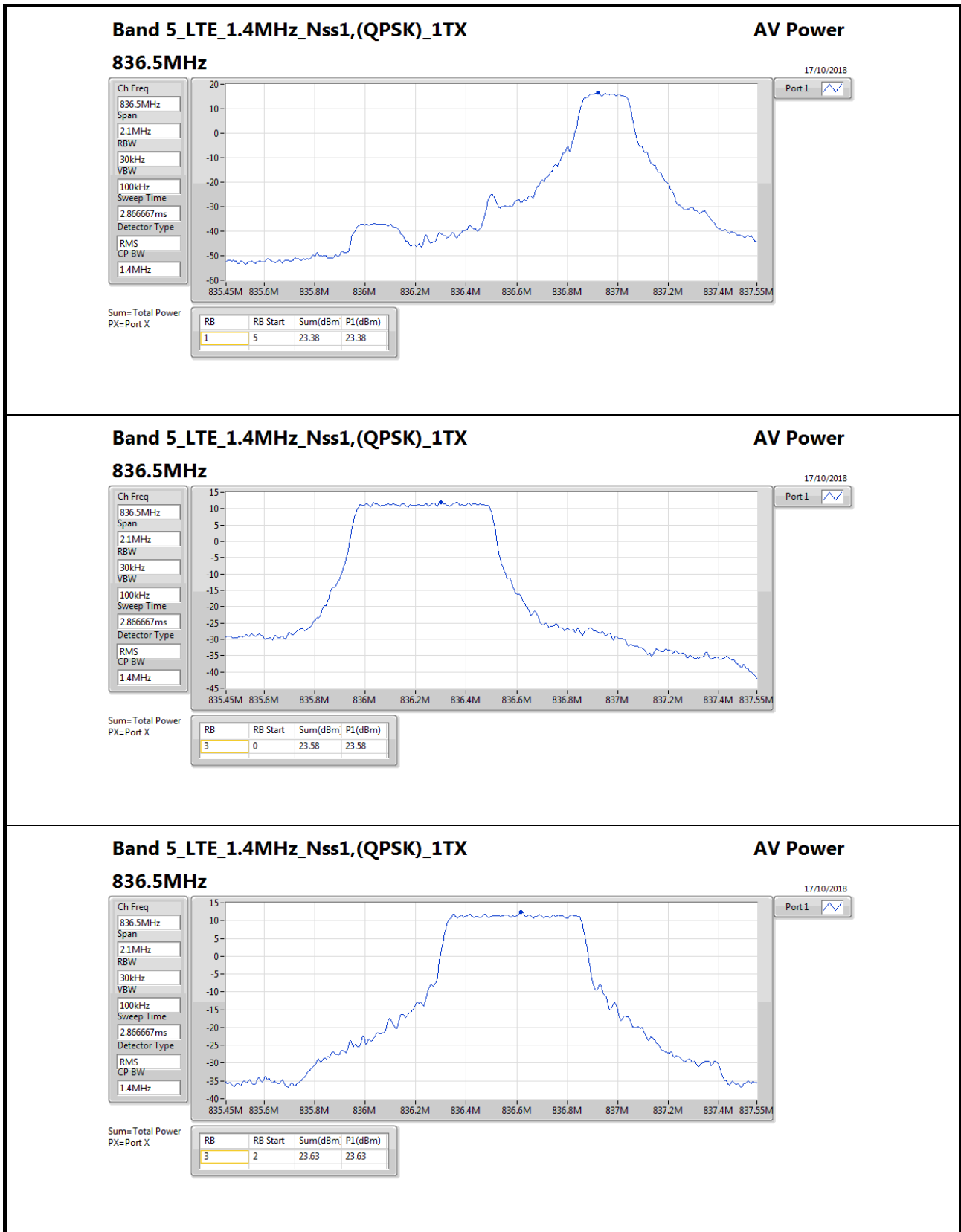
**DG** = Directional Gain; **Port X** = Port X output power

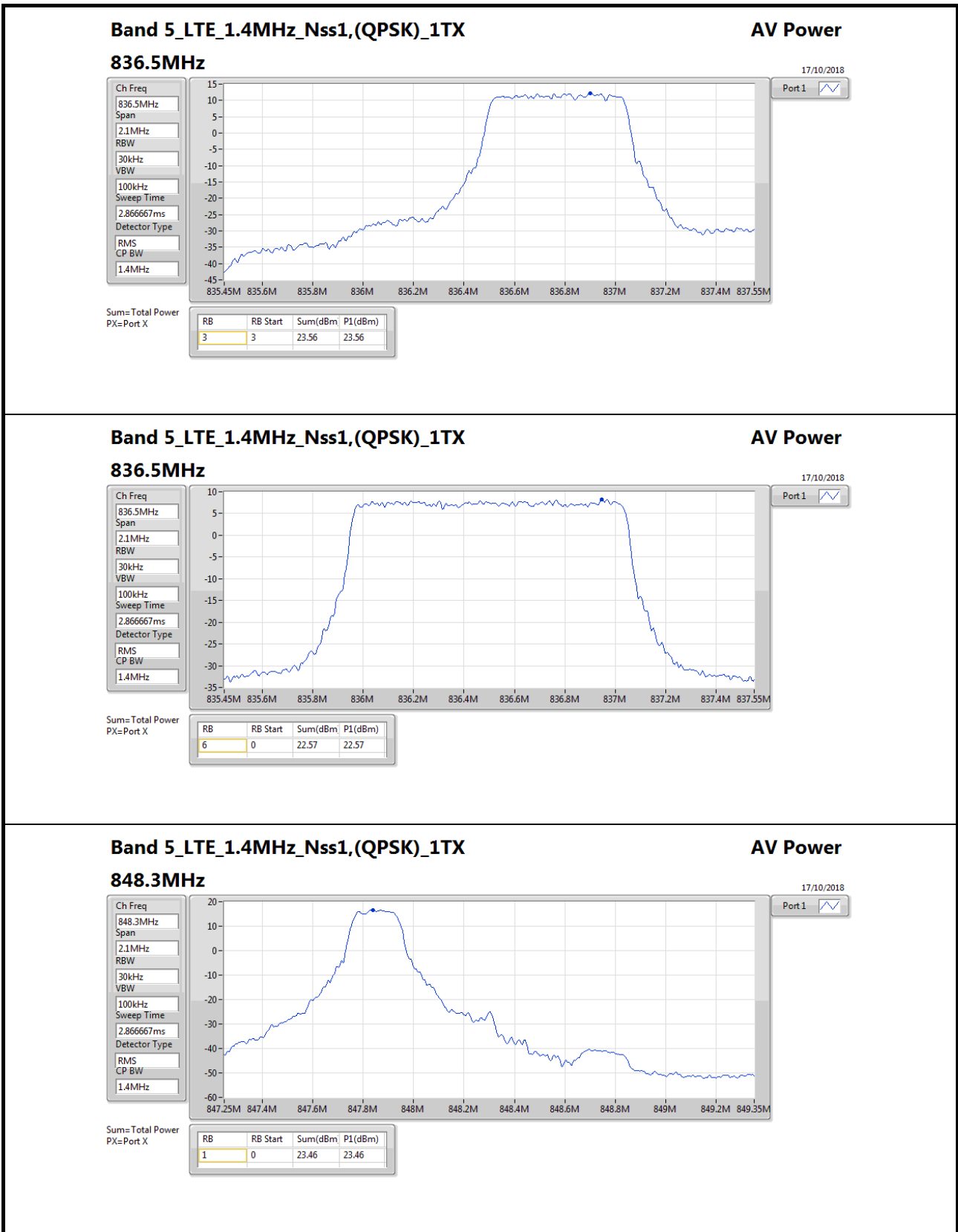


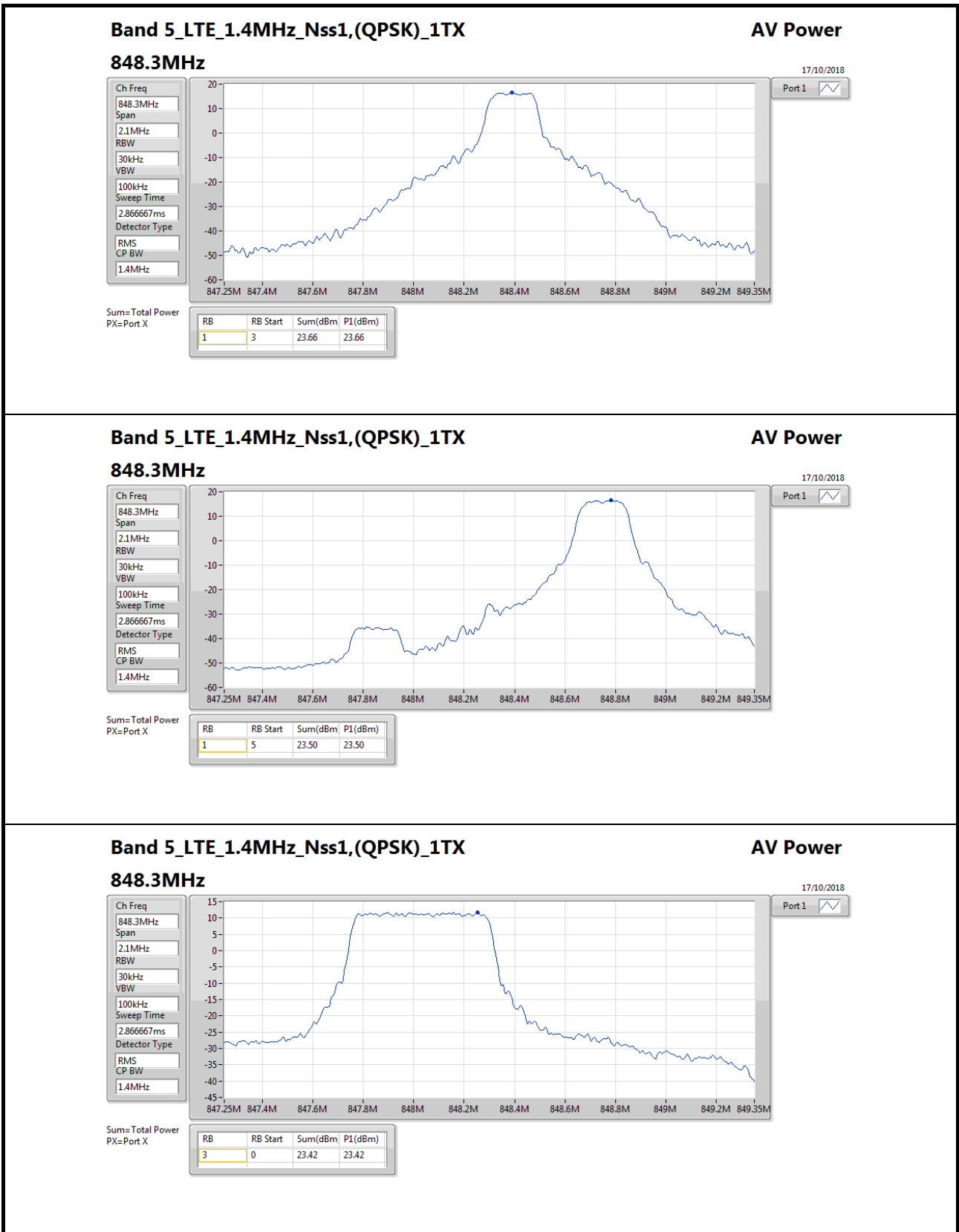


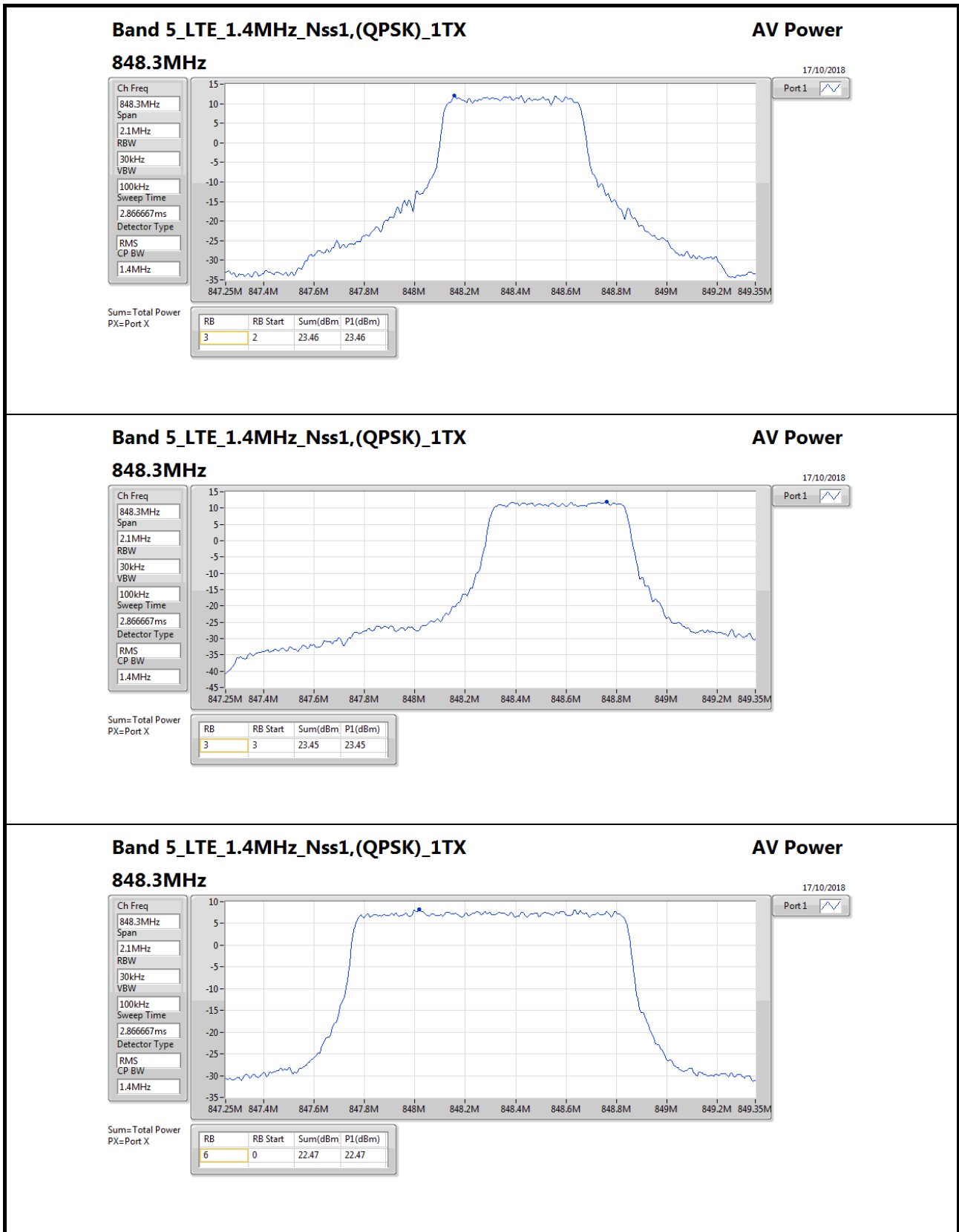


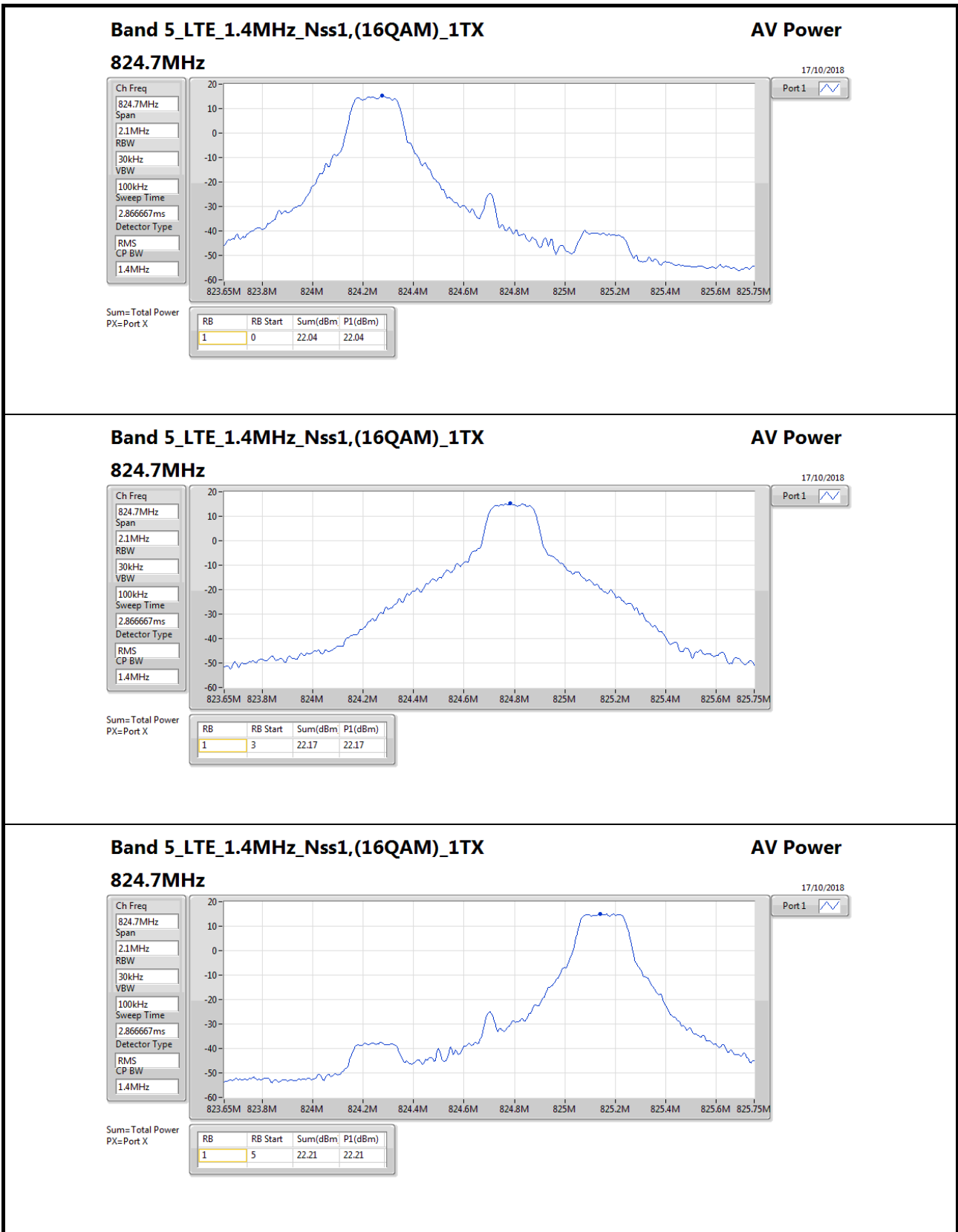


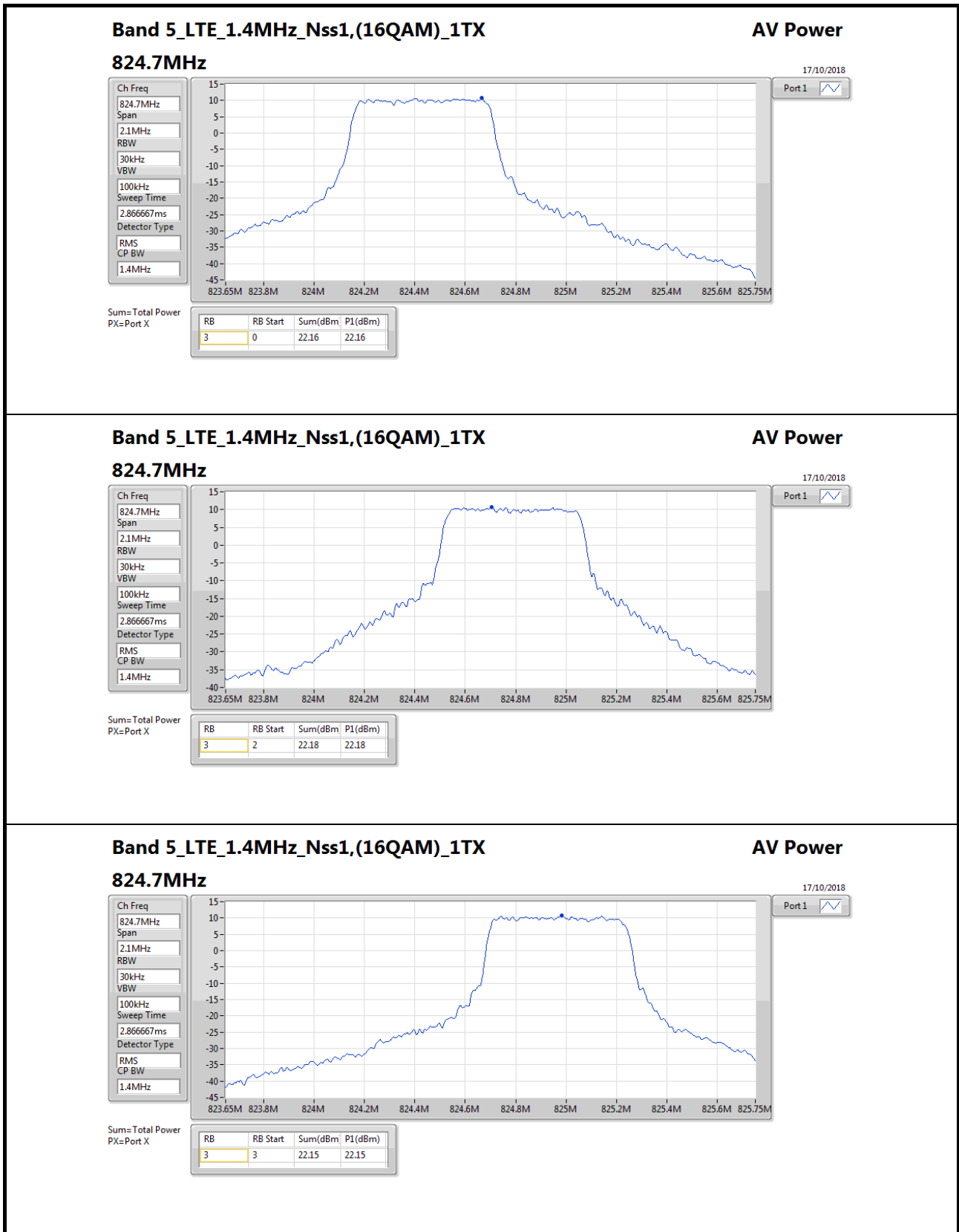


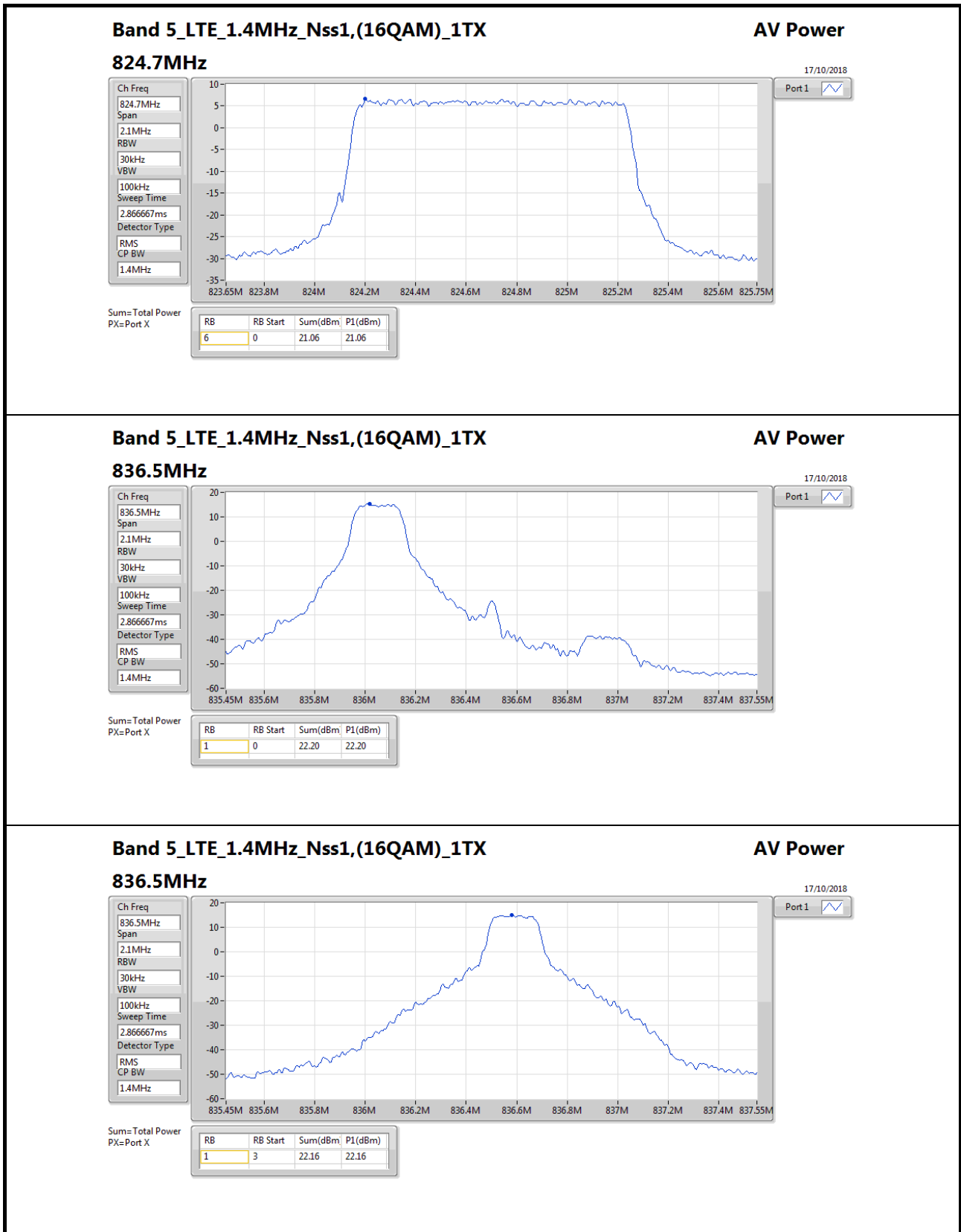


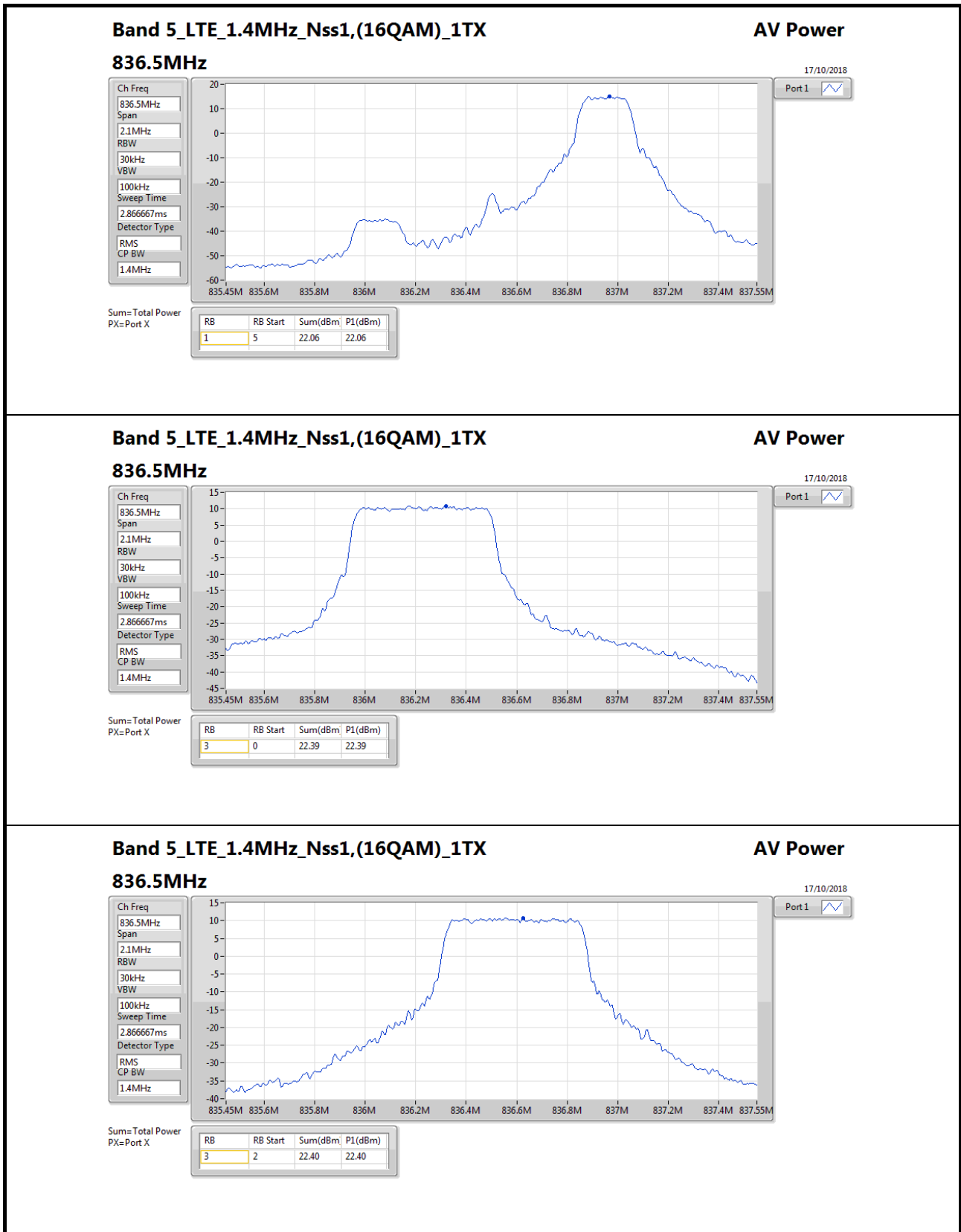




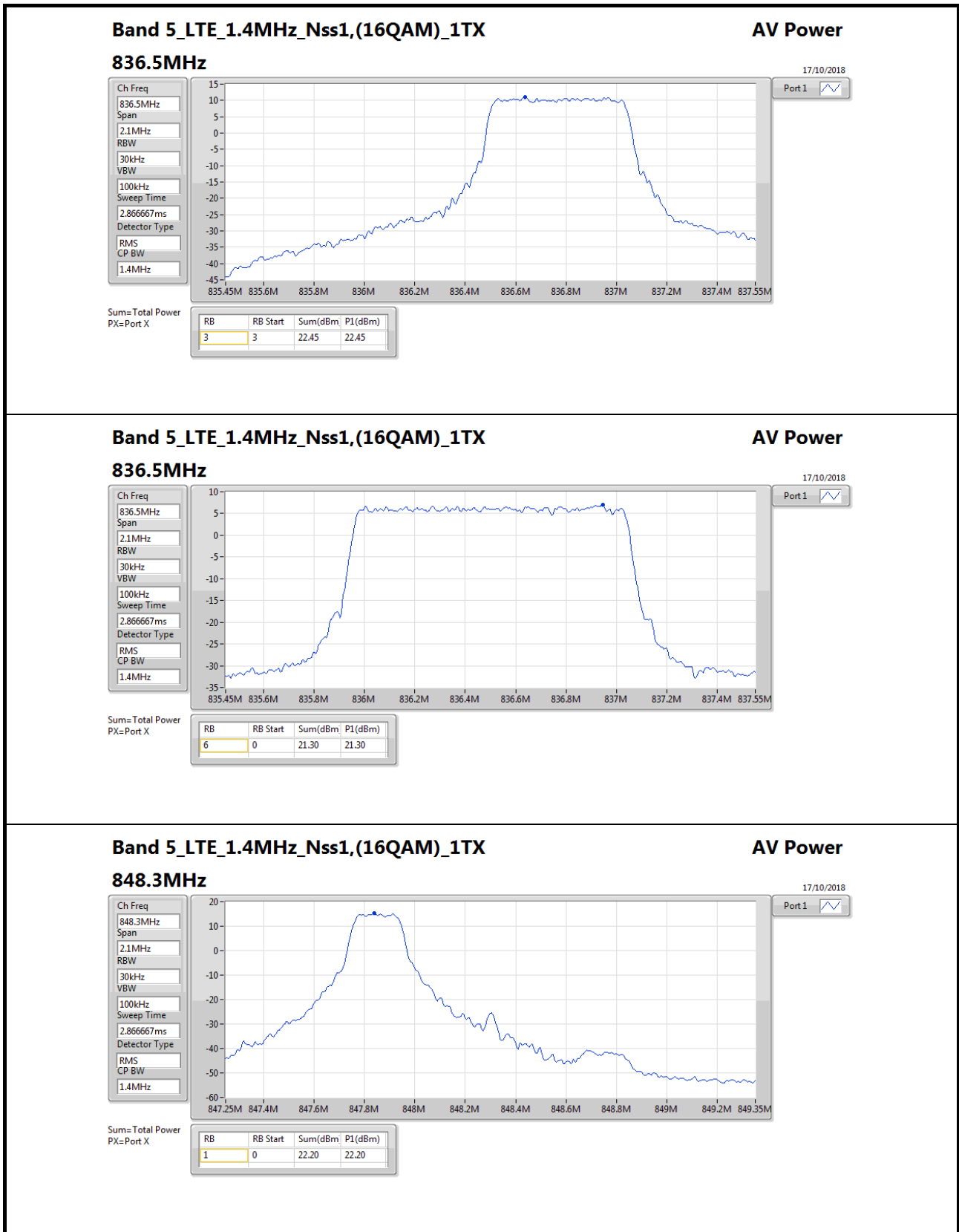


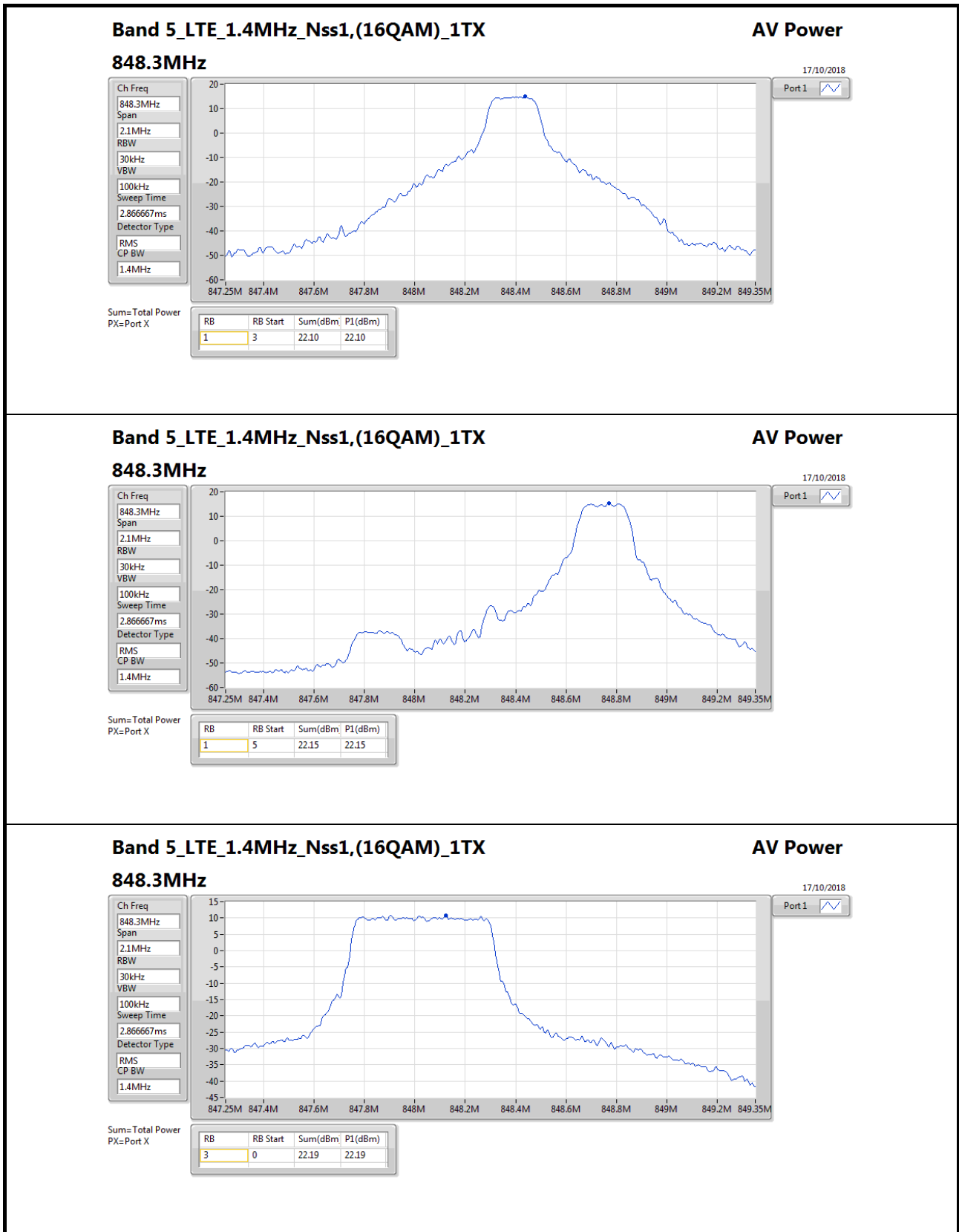


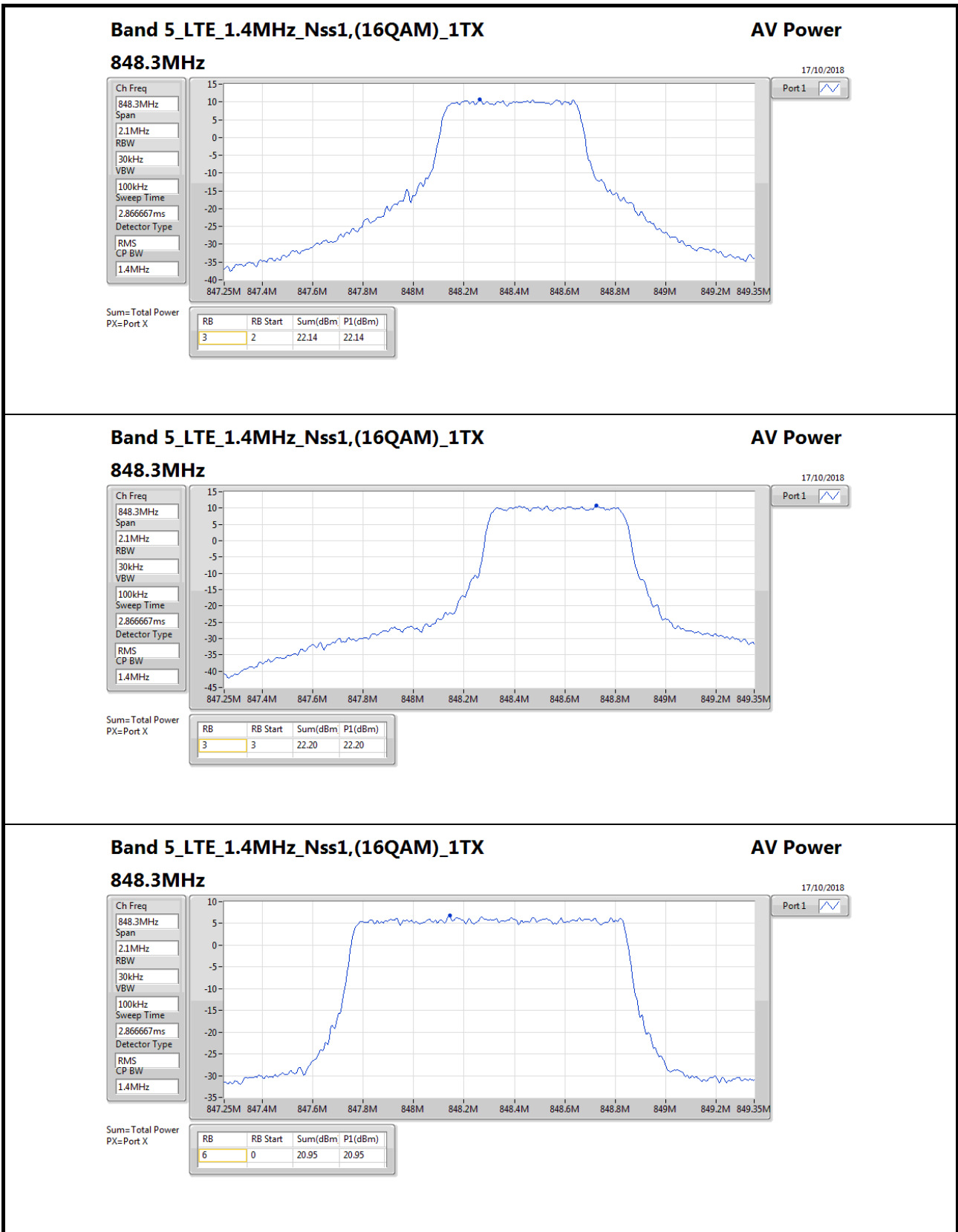


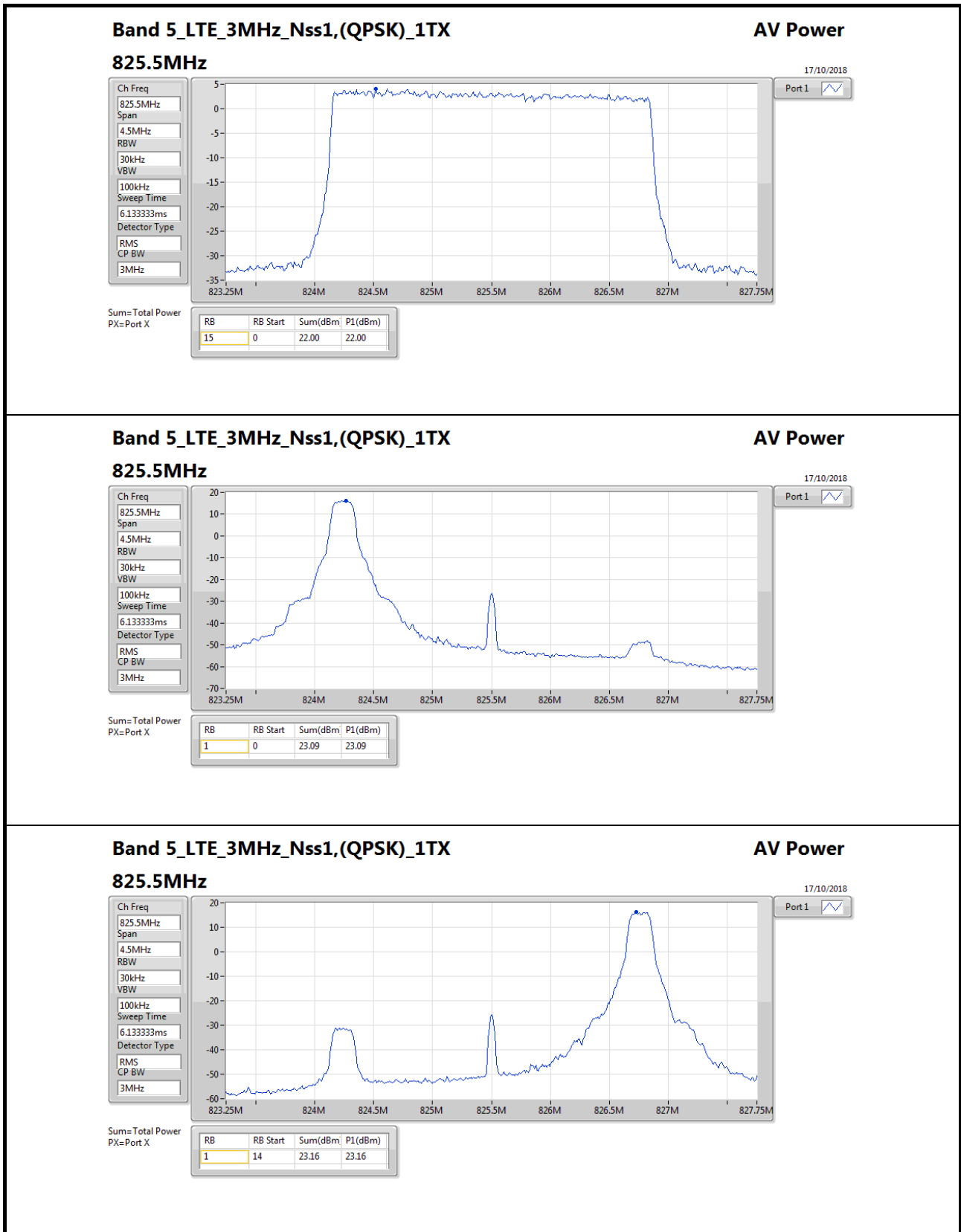


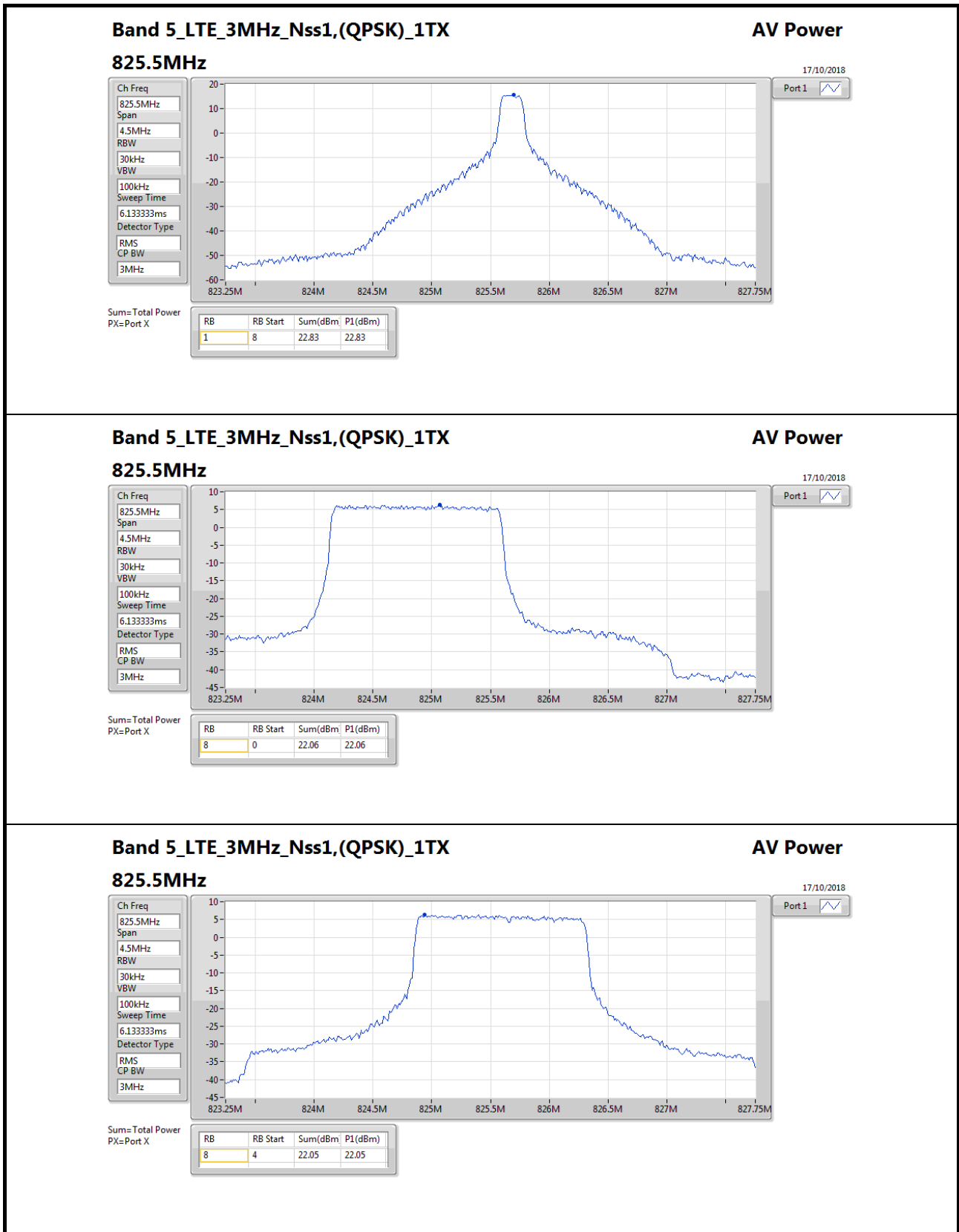


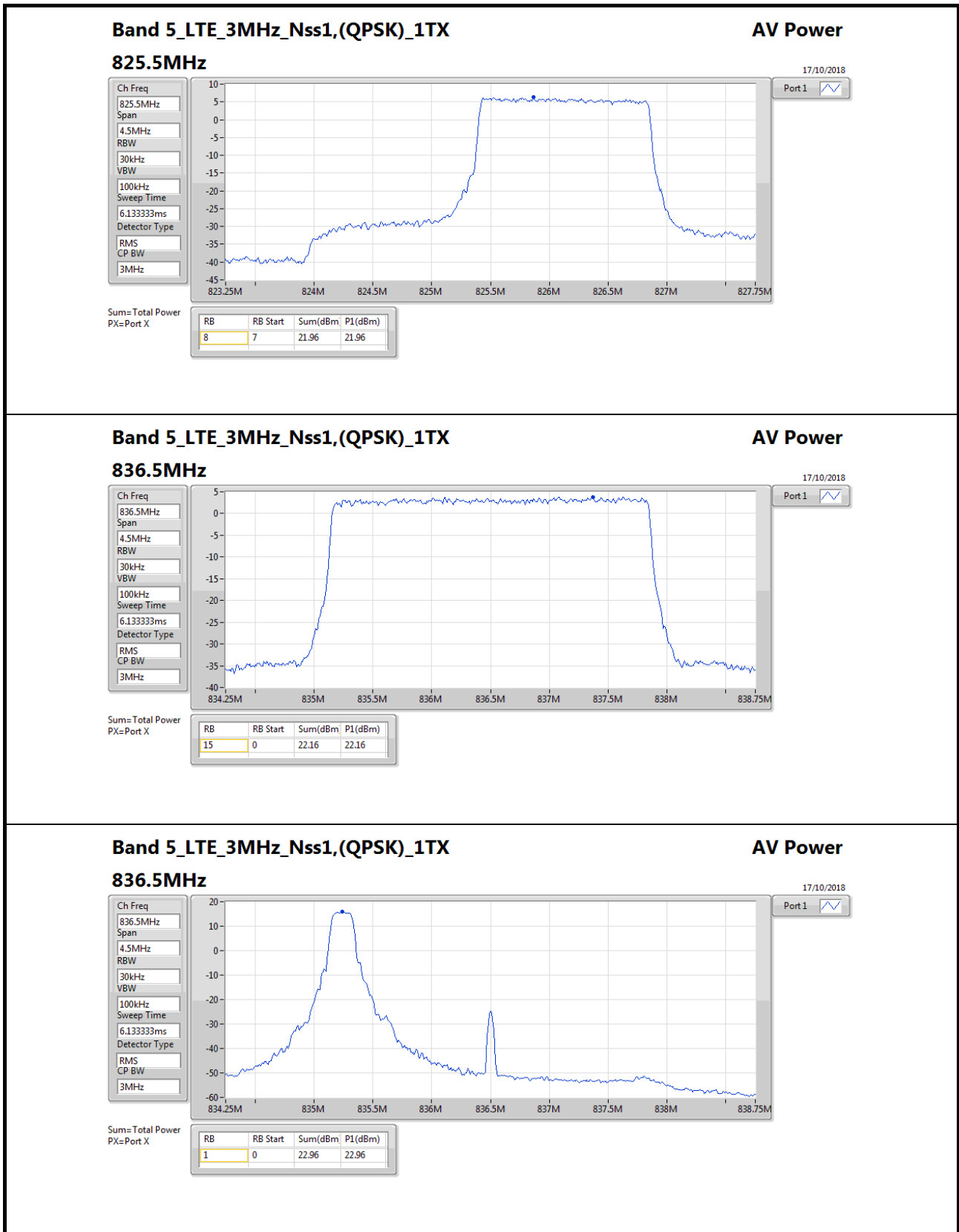


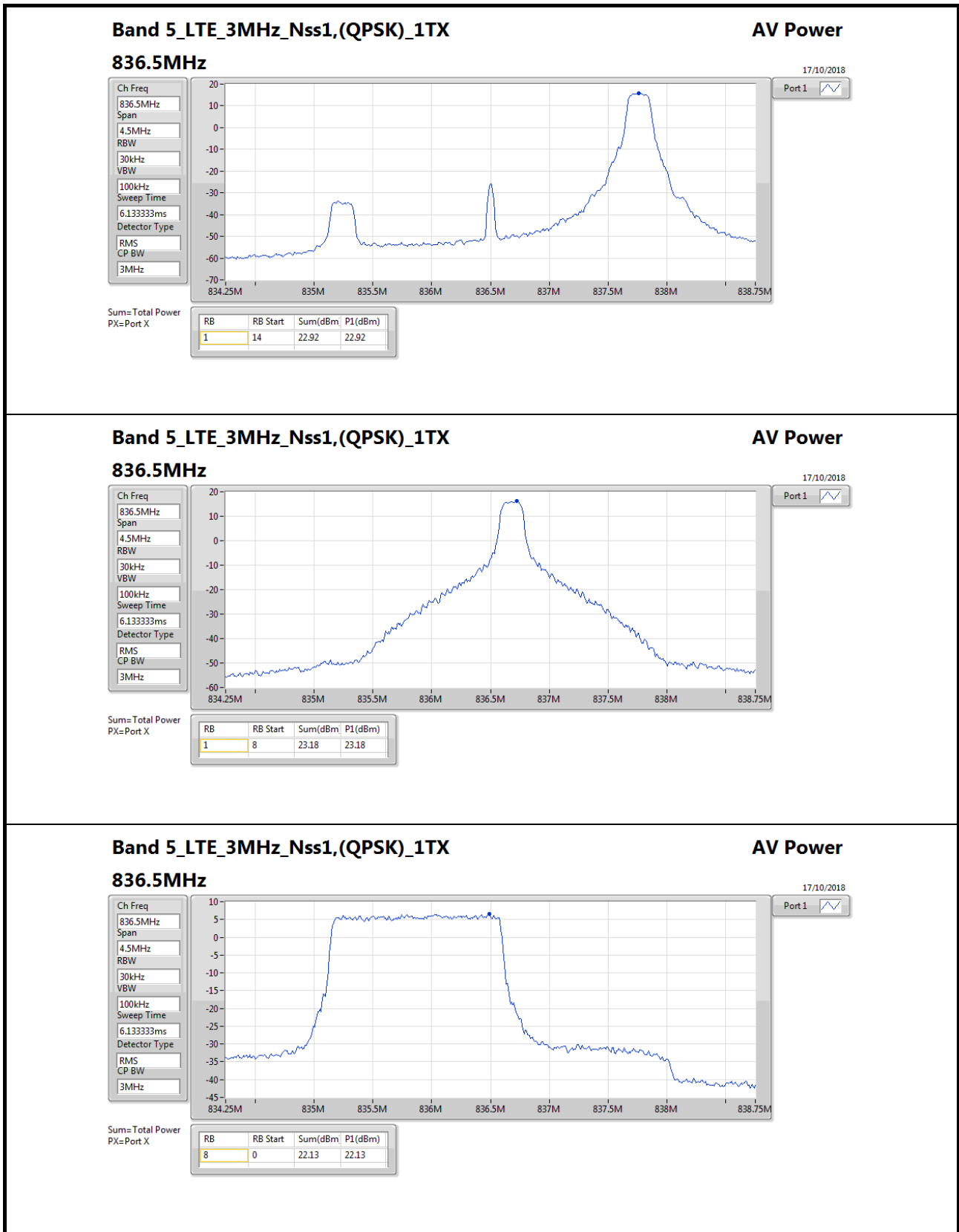


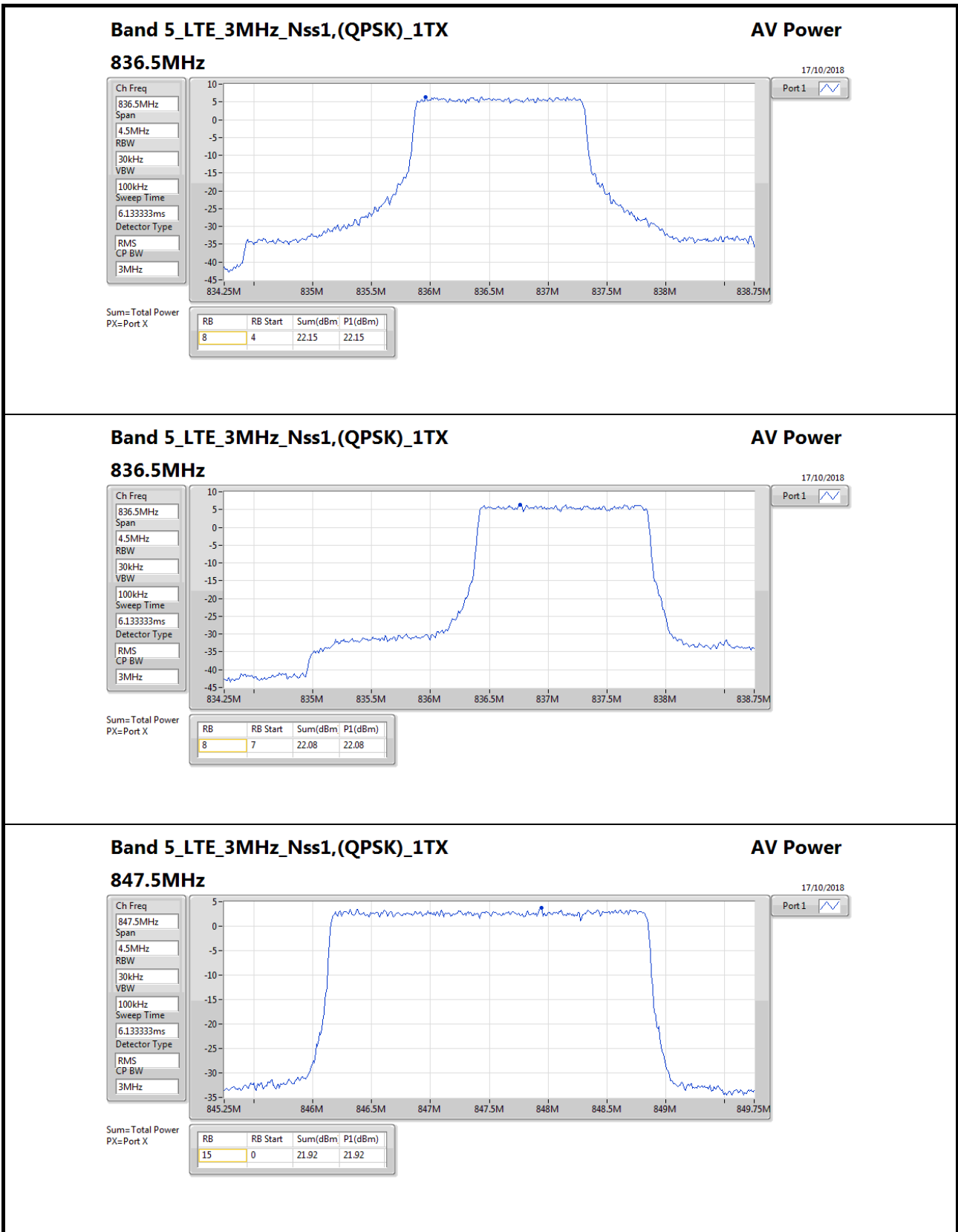




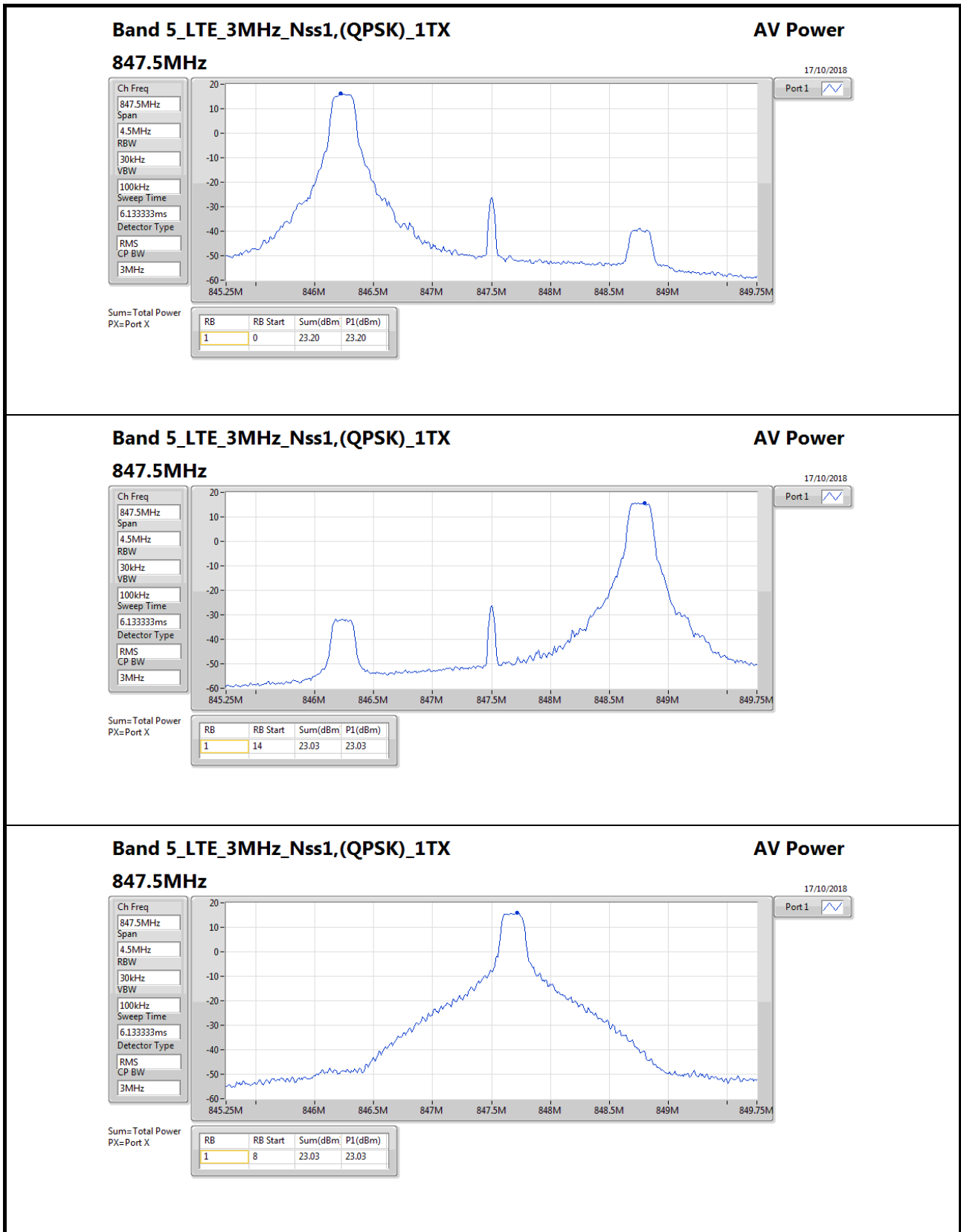


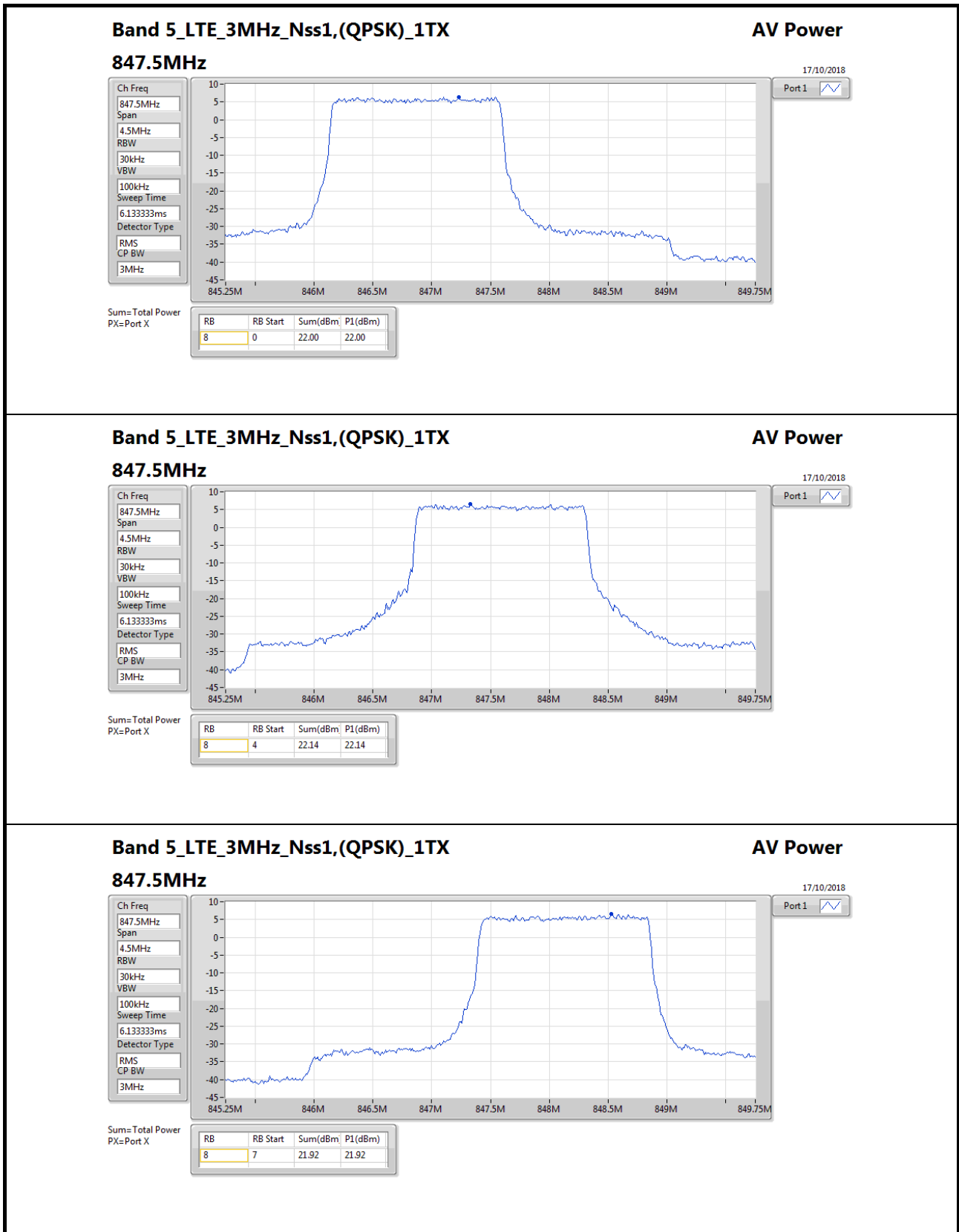


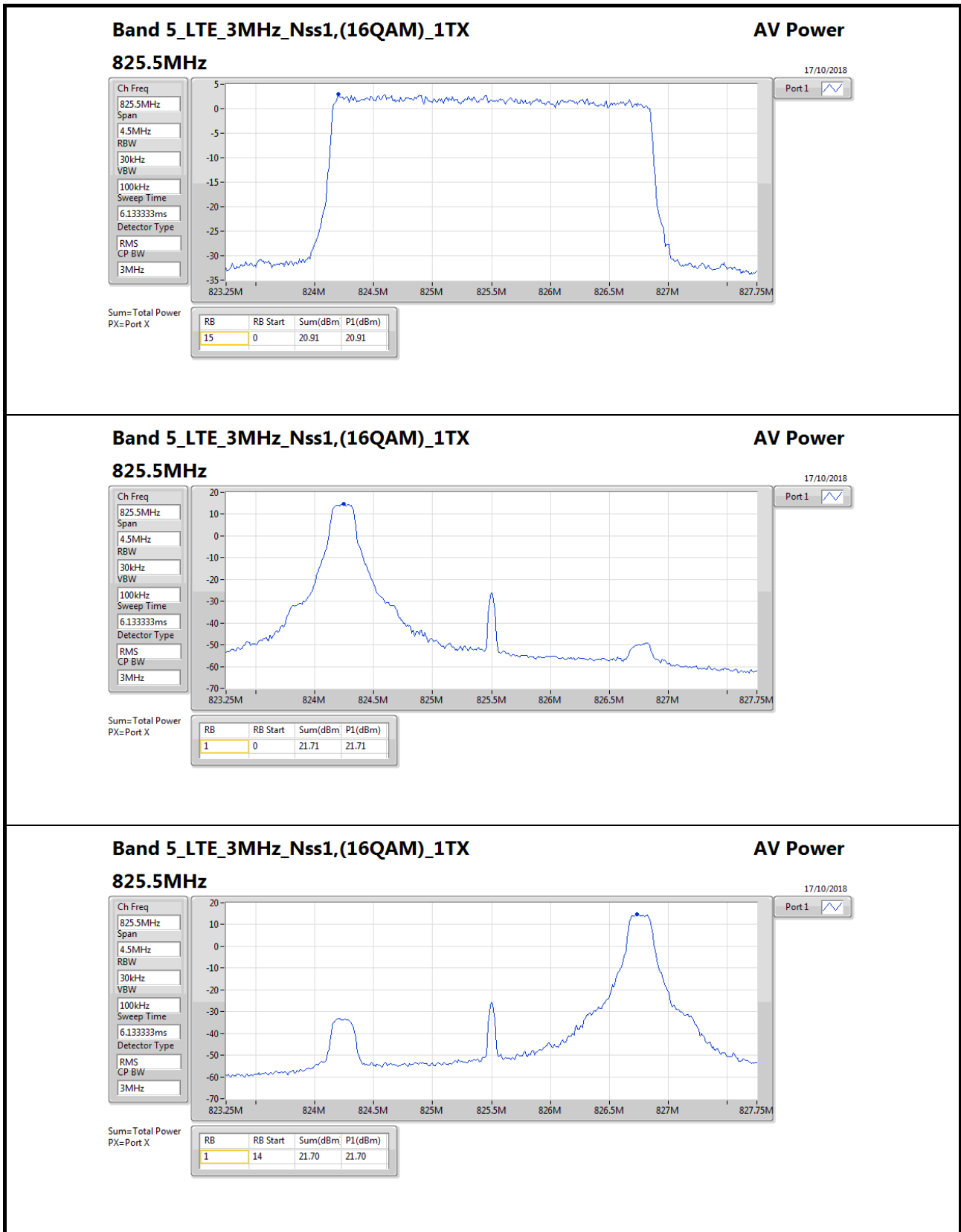


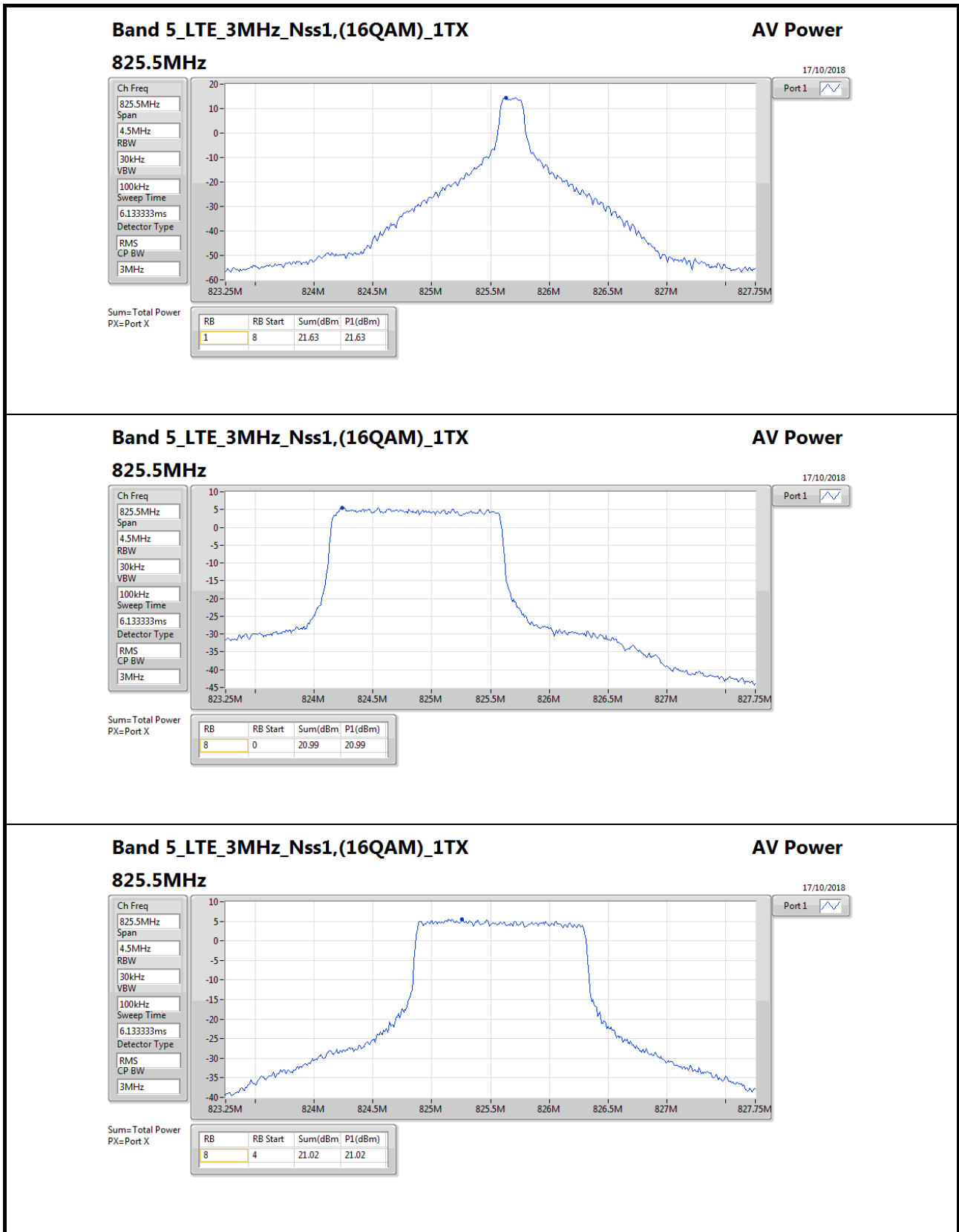


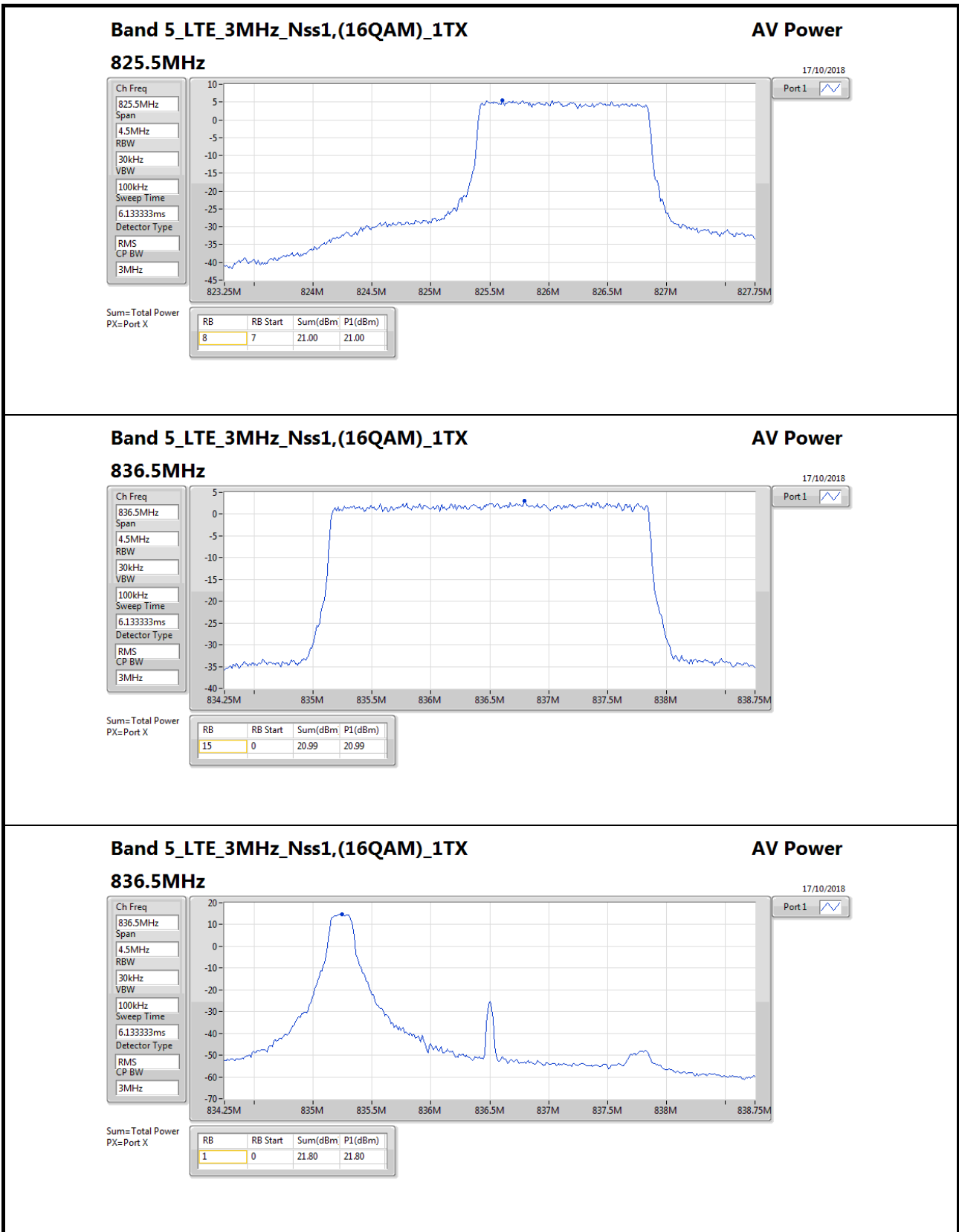


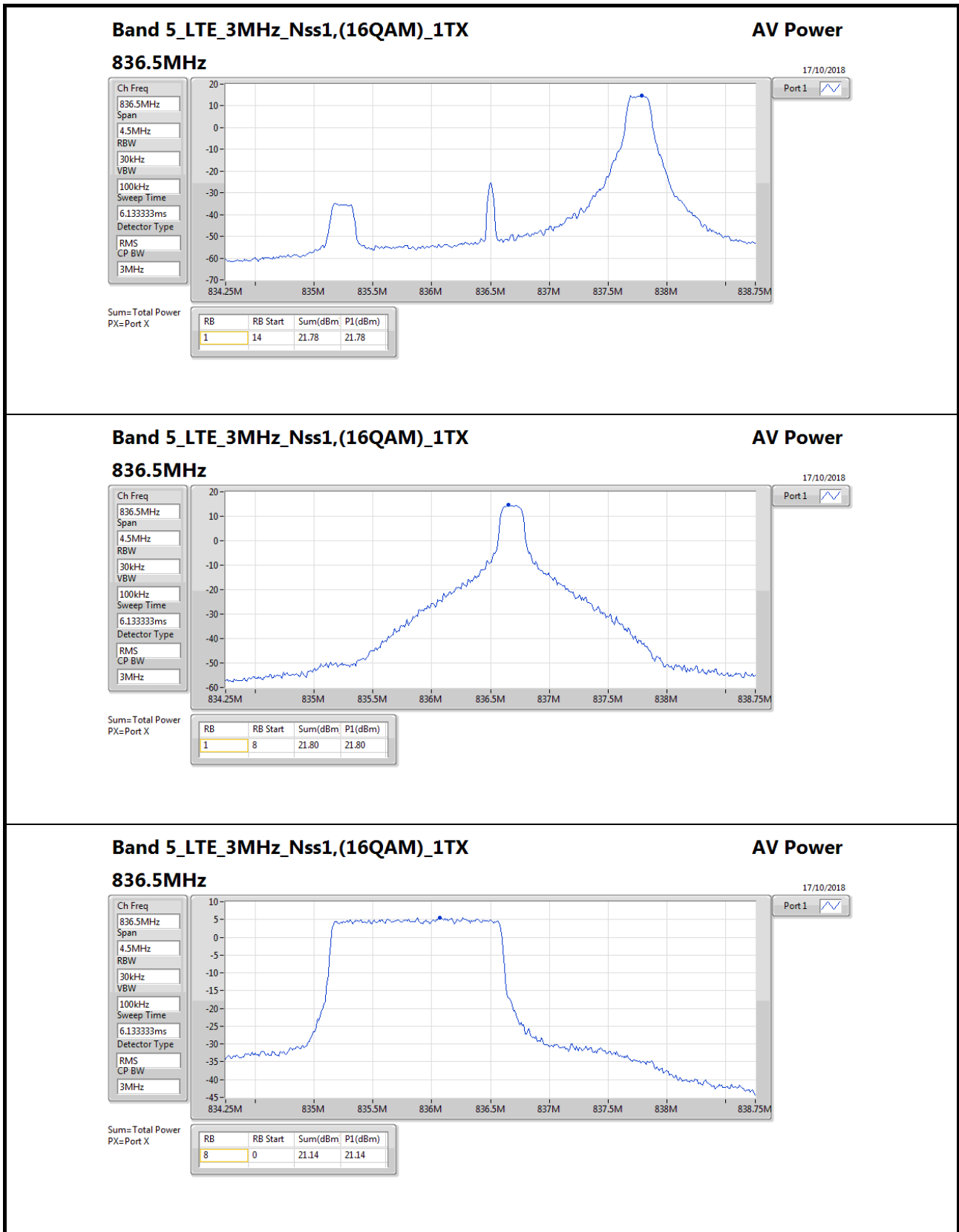


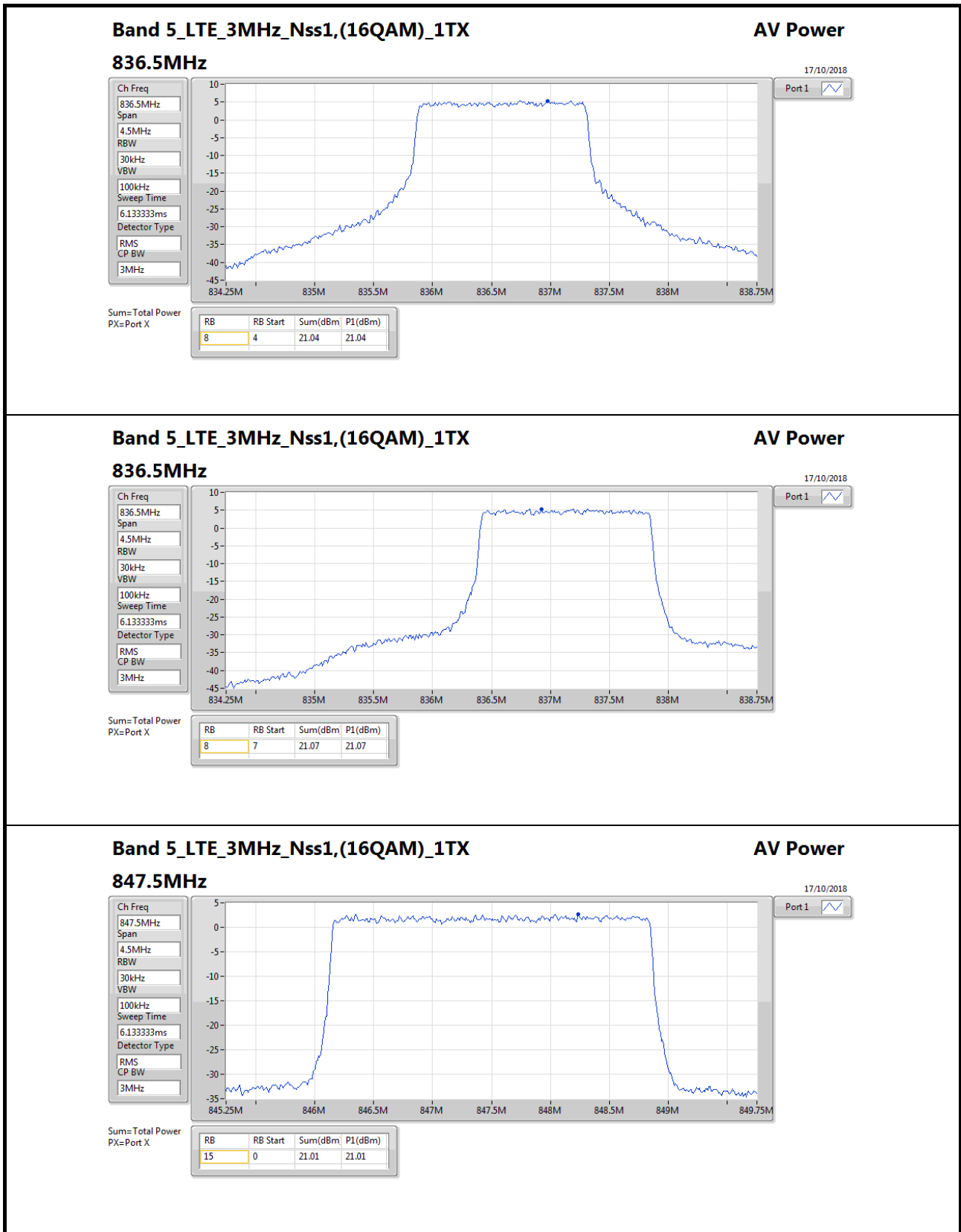


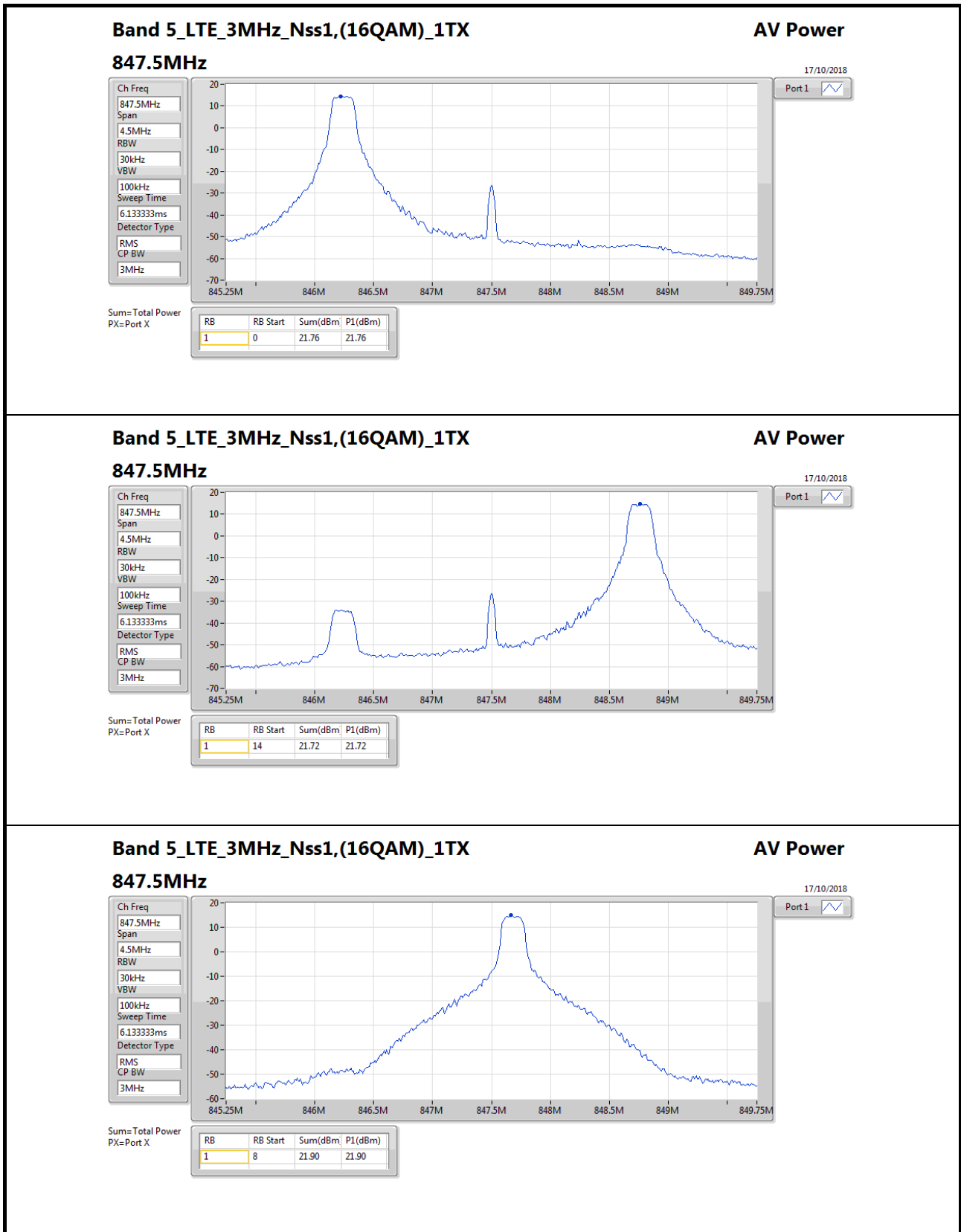




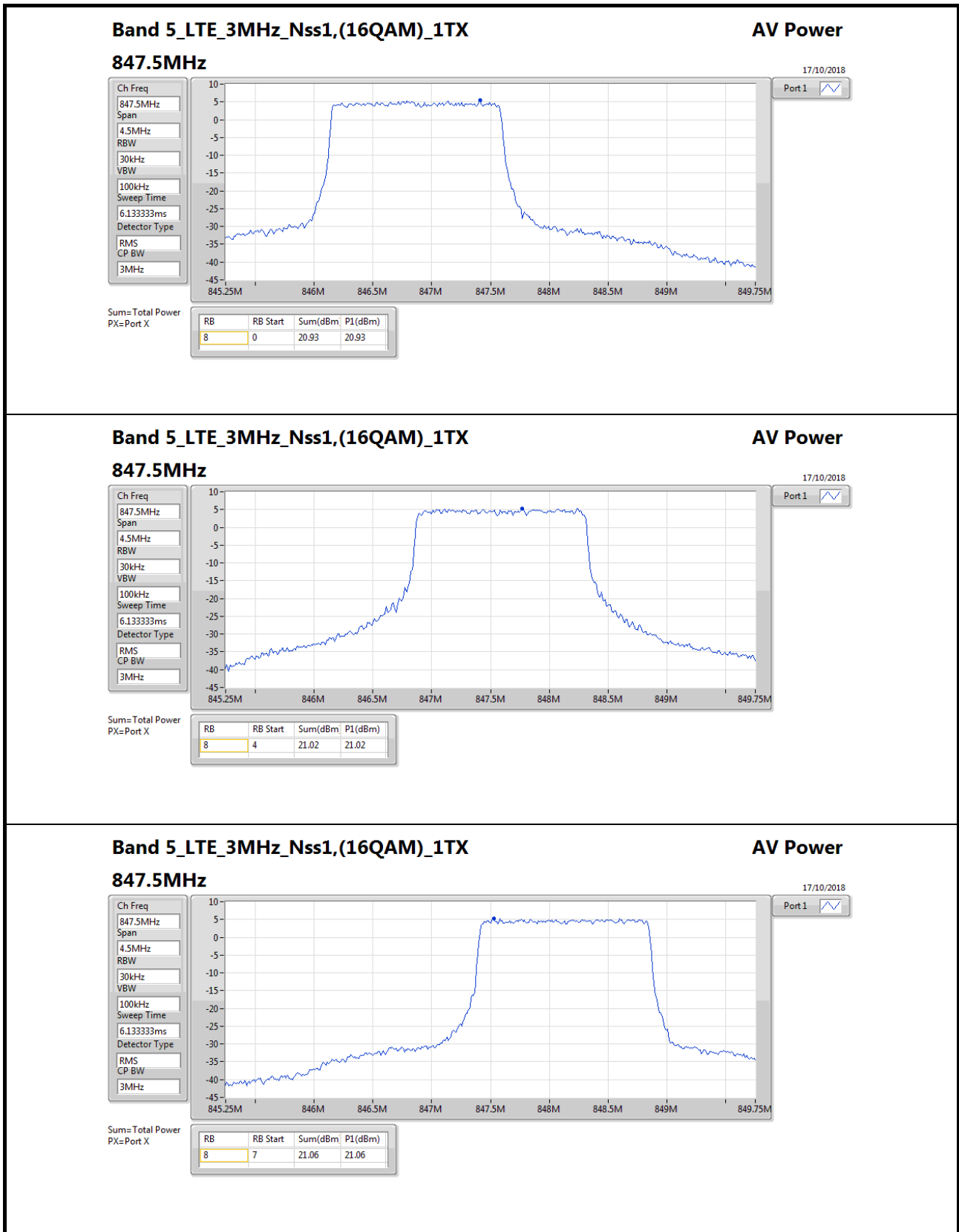


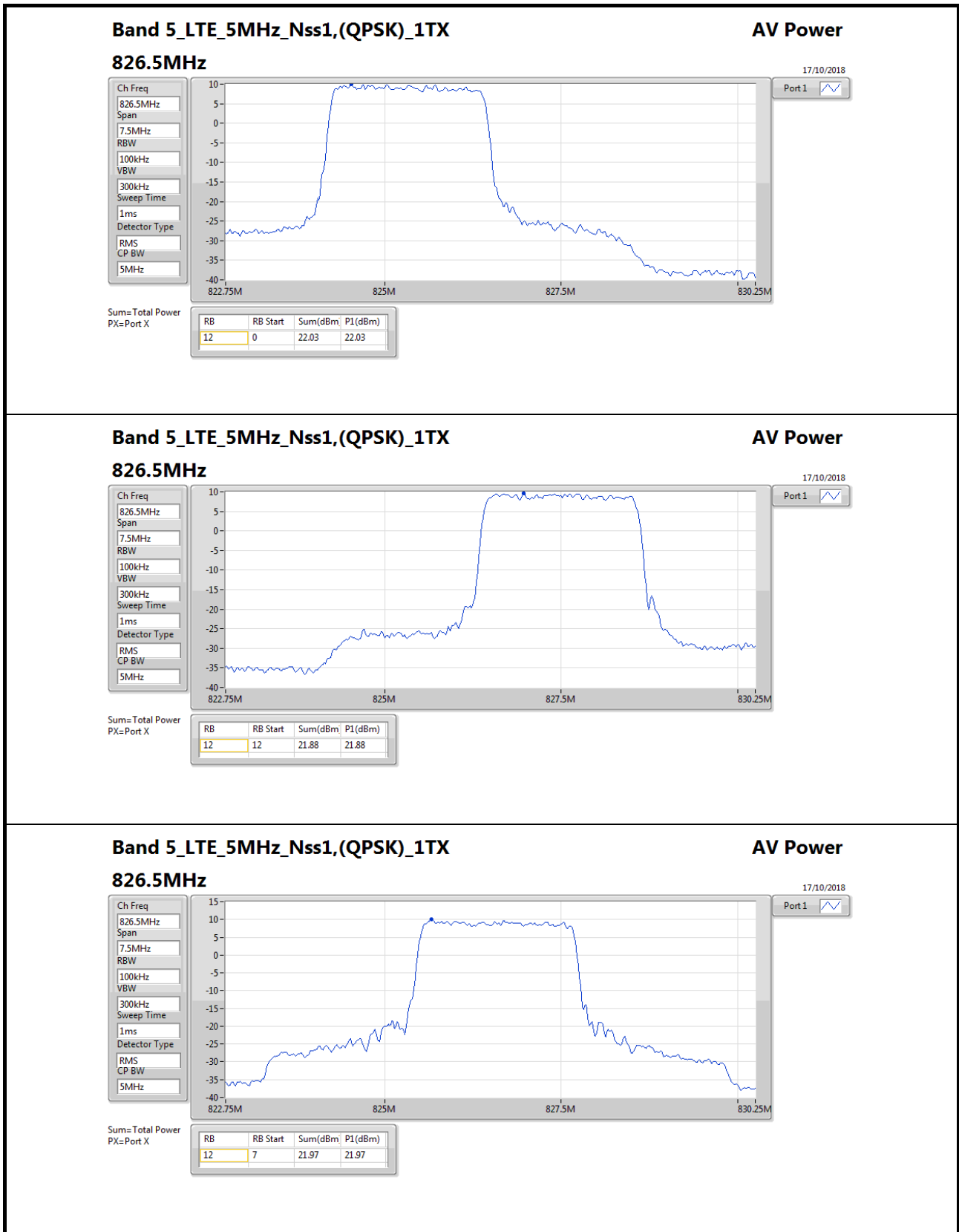


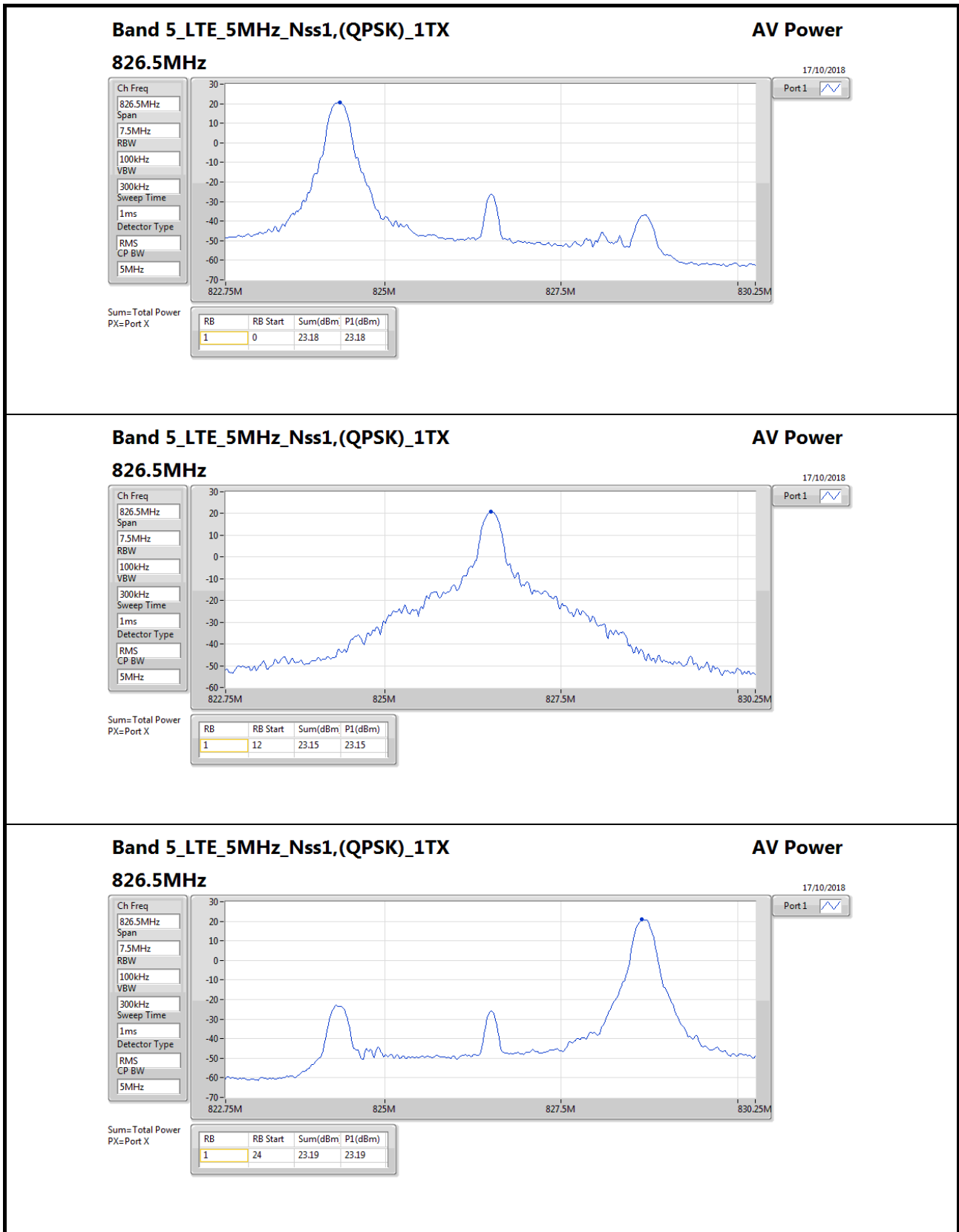


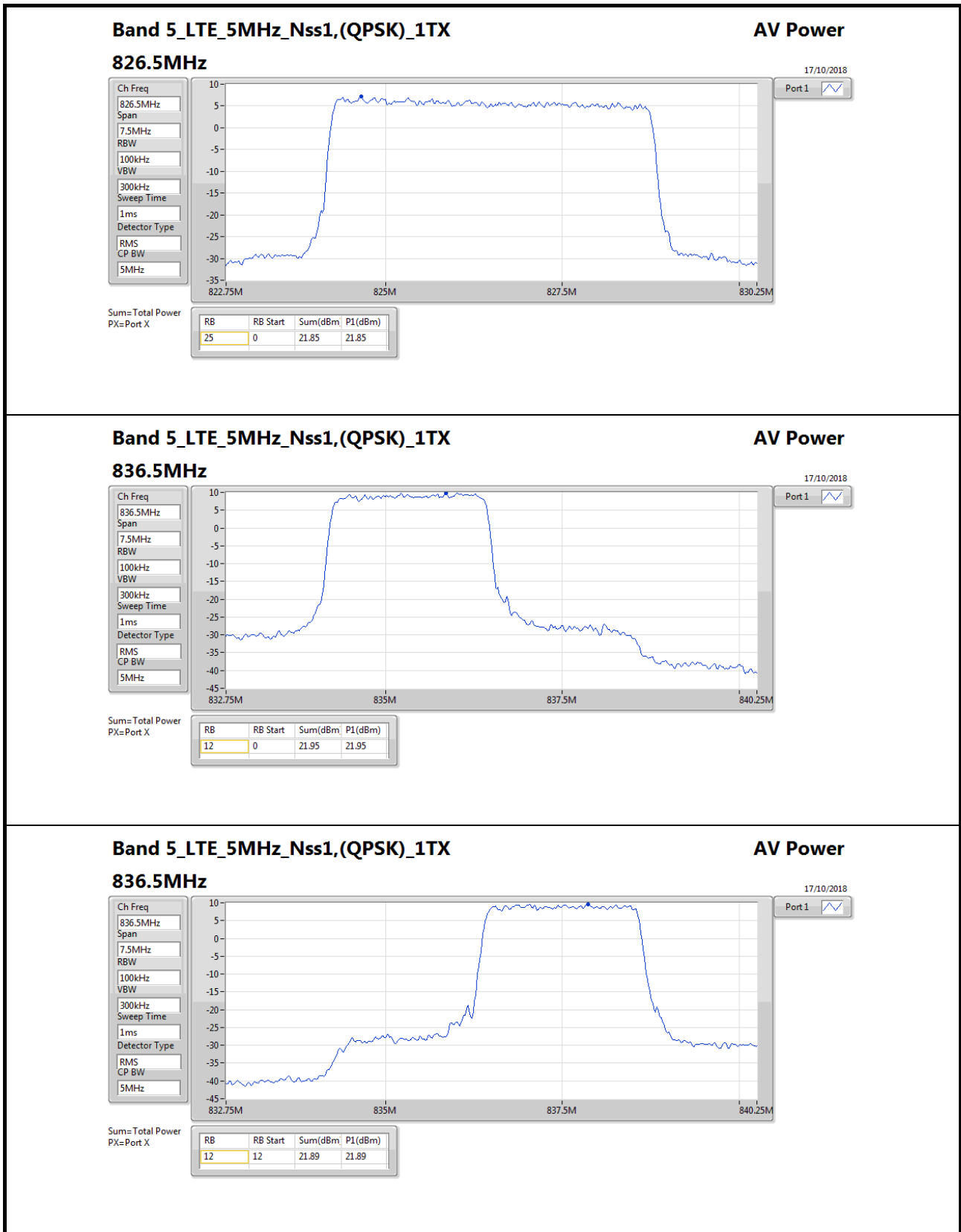


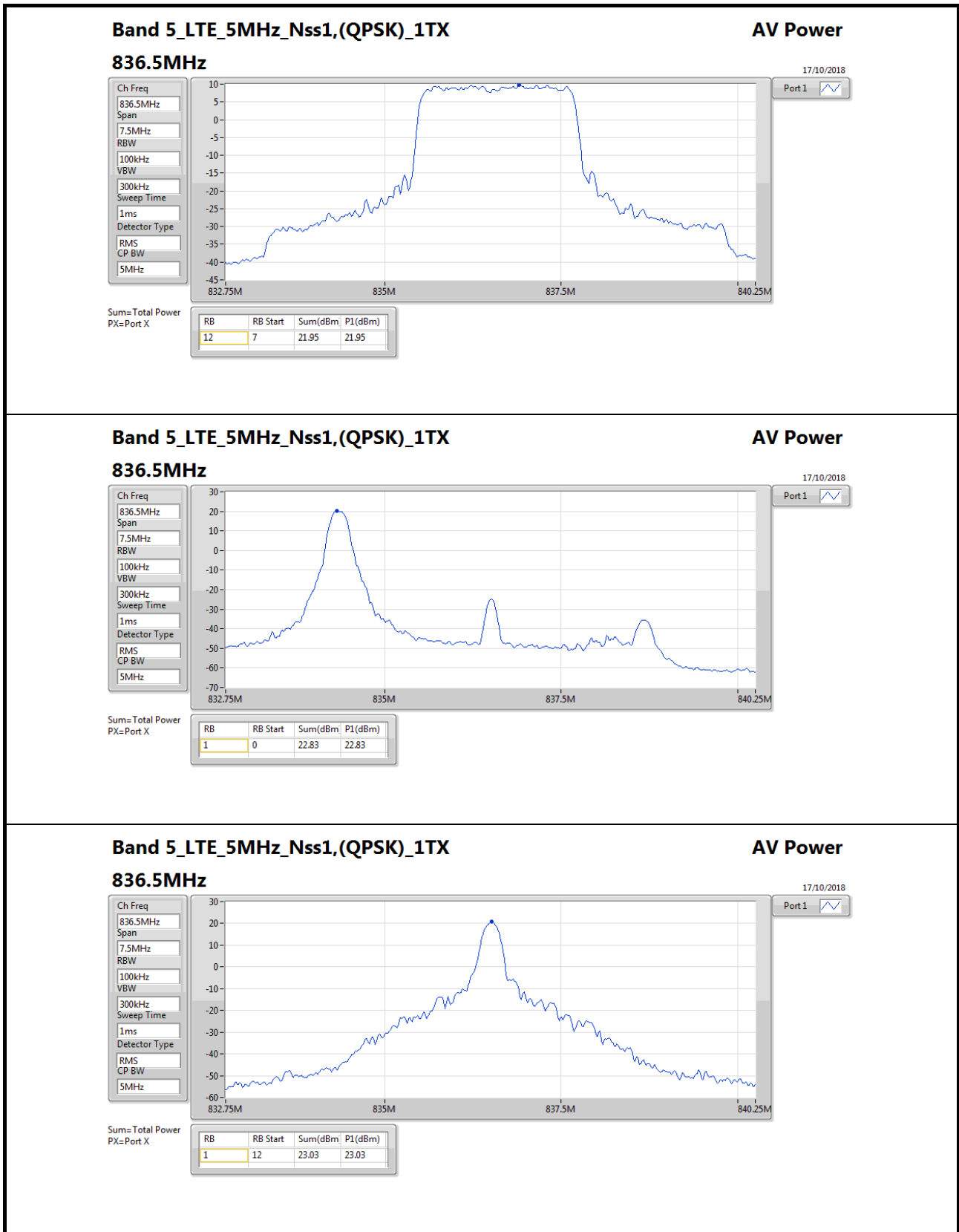


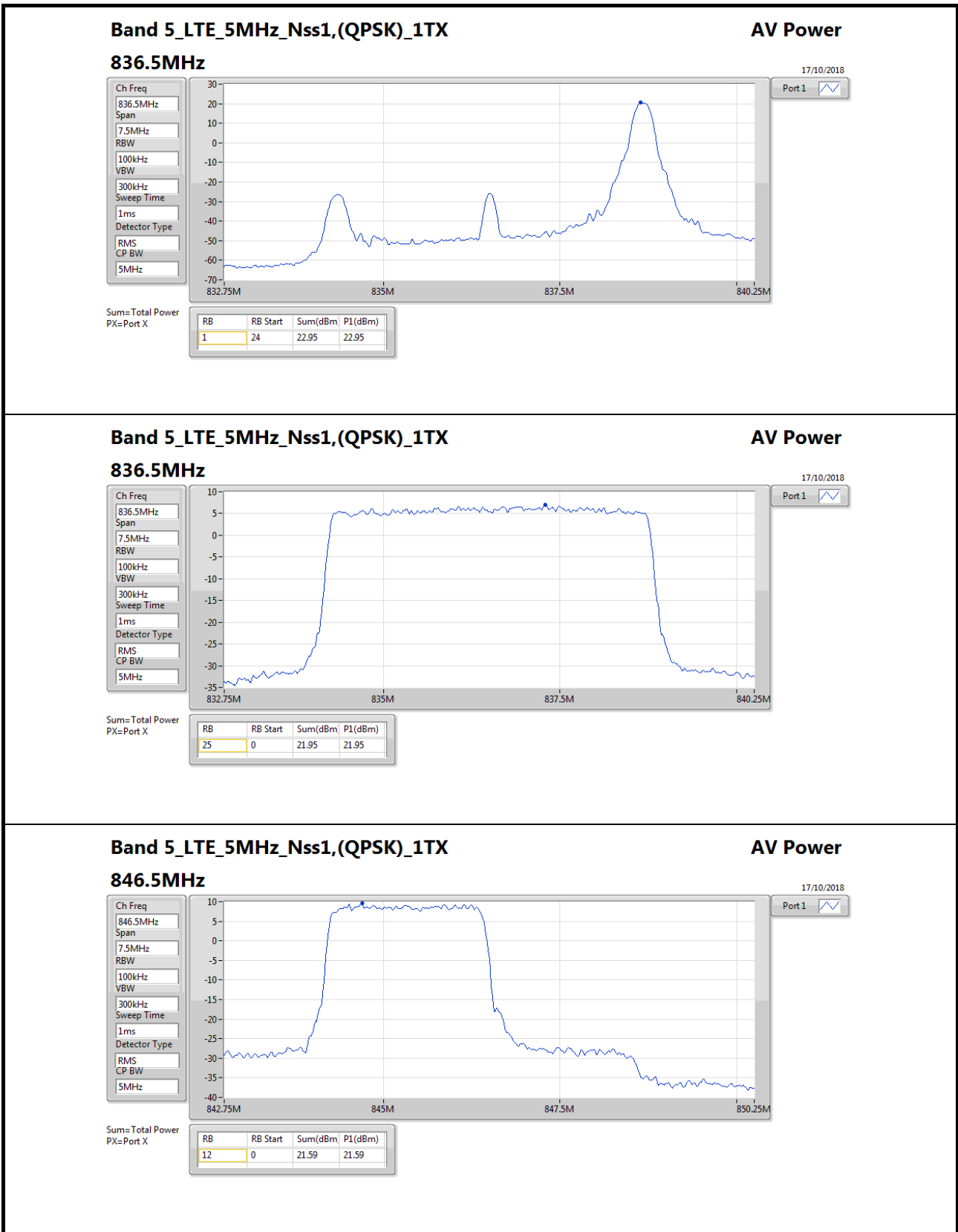


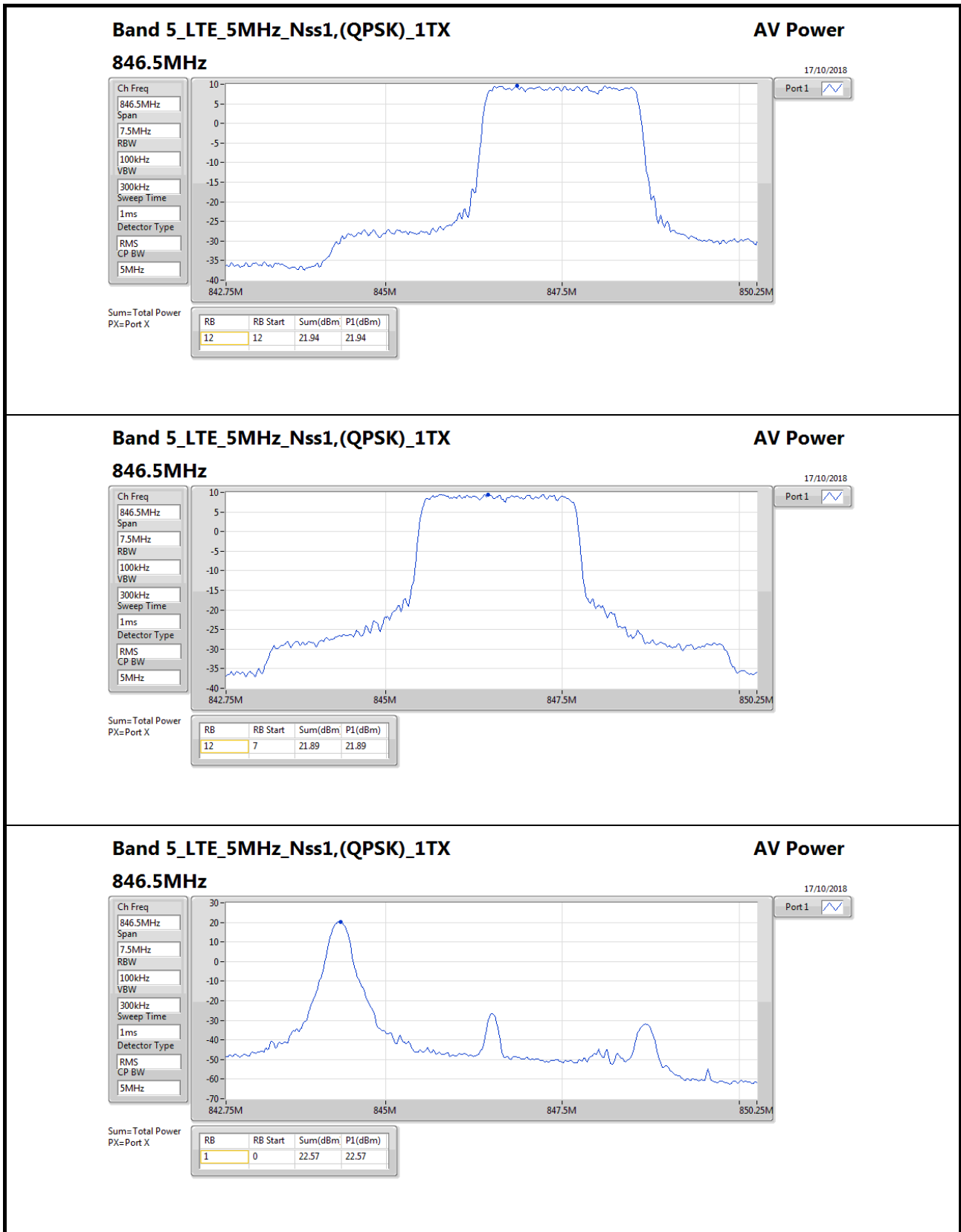


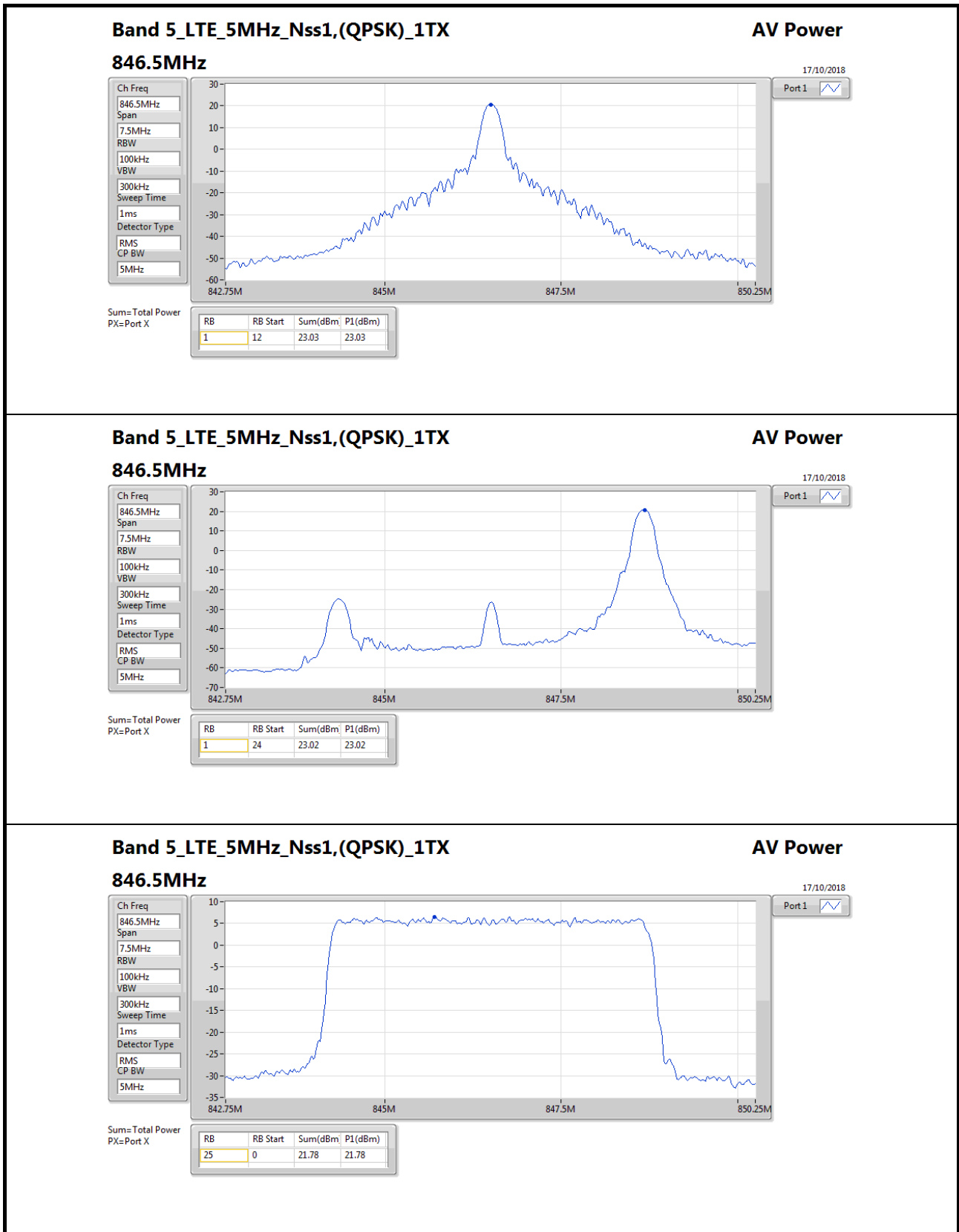




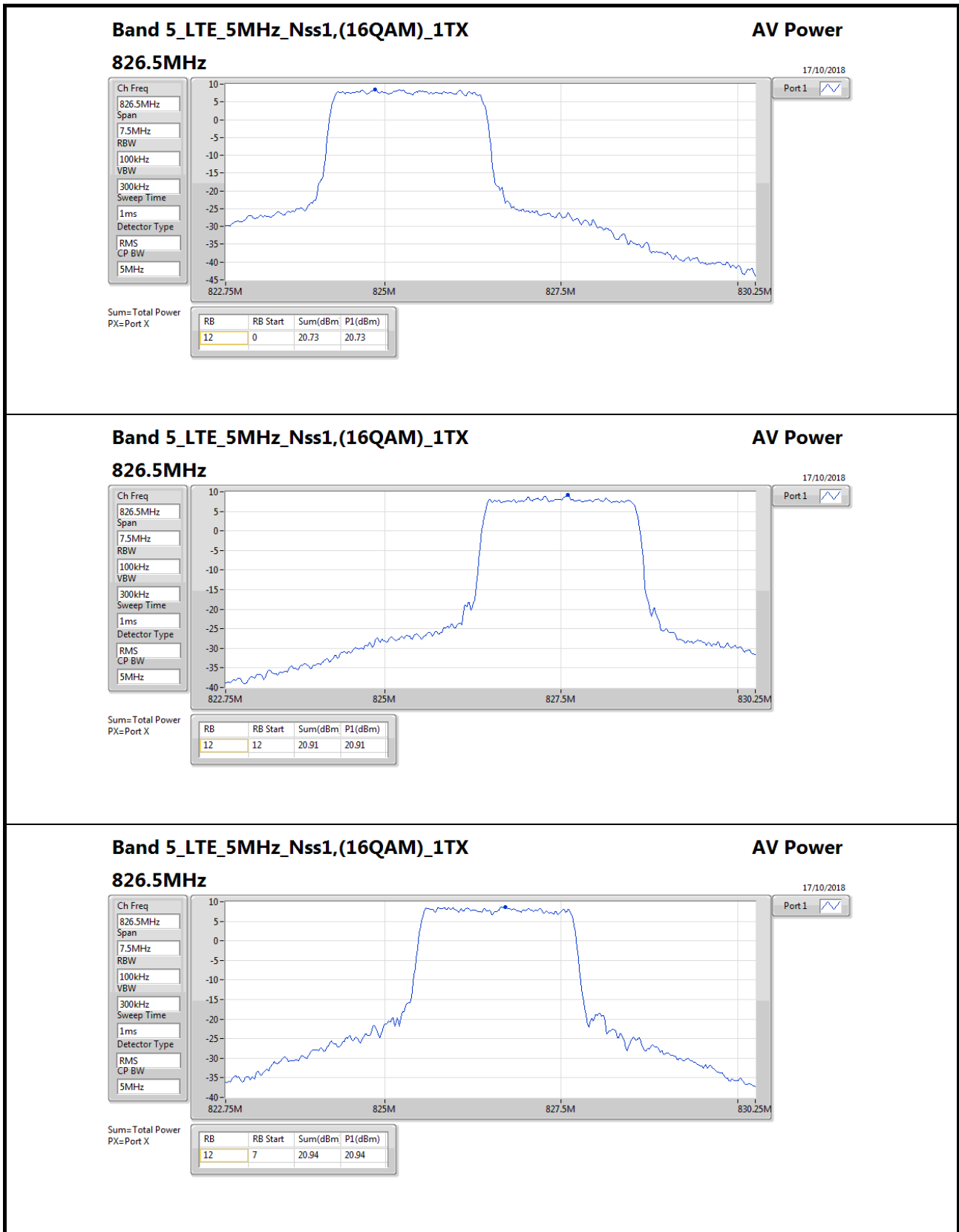


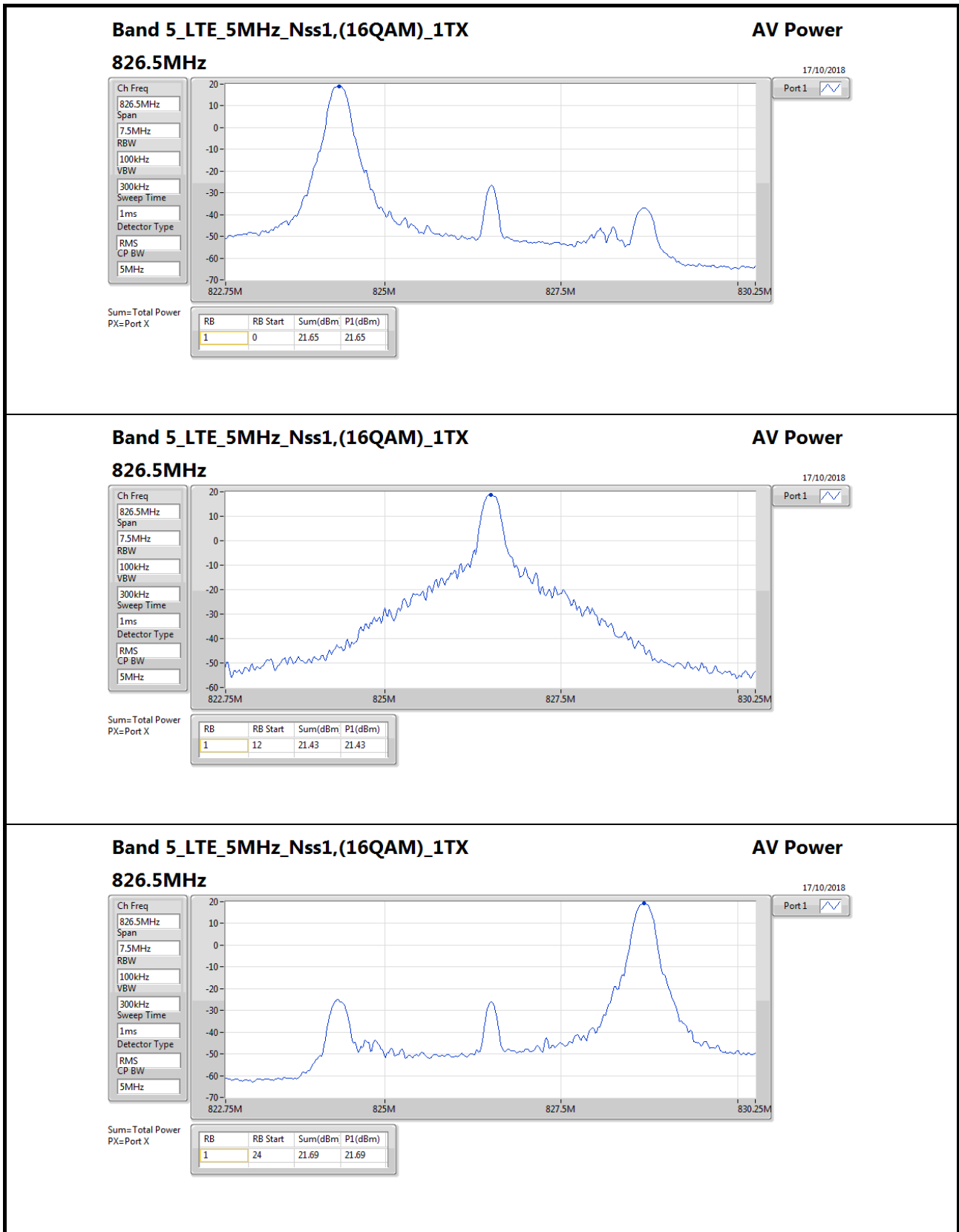


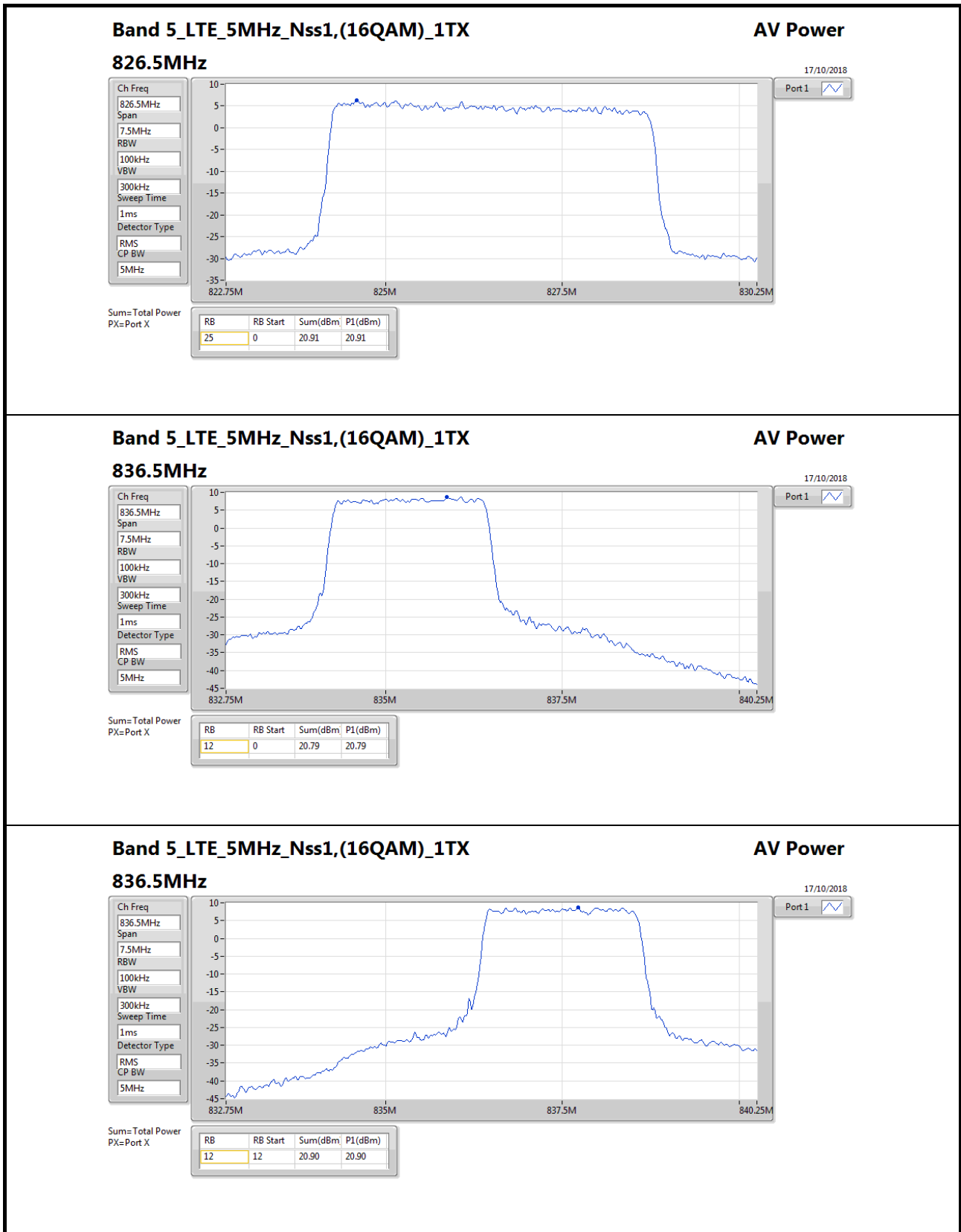


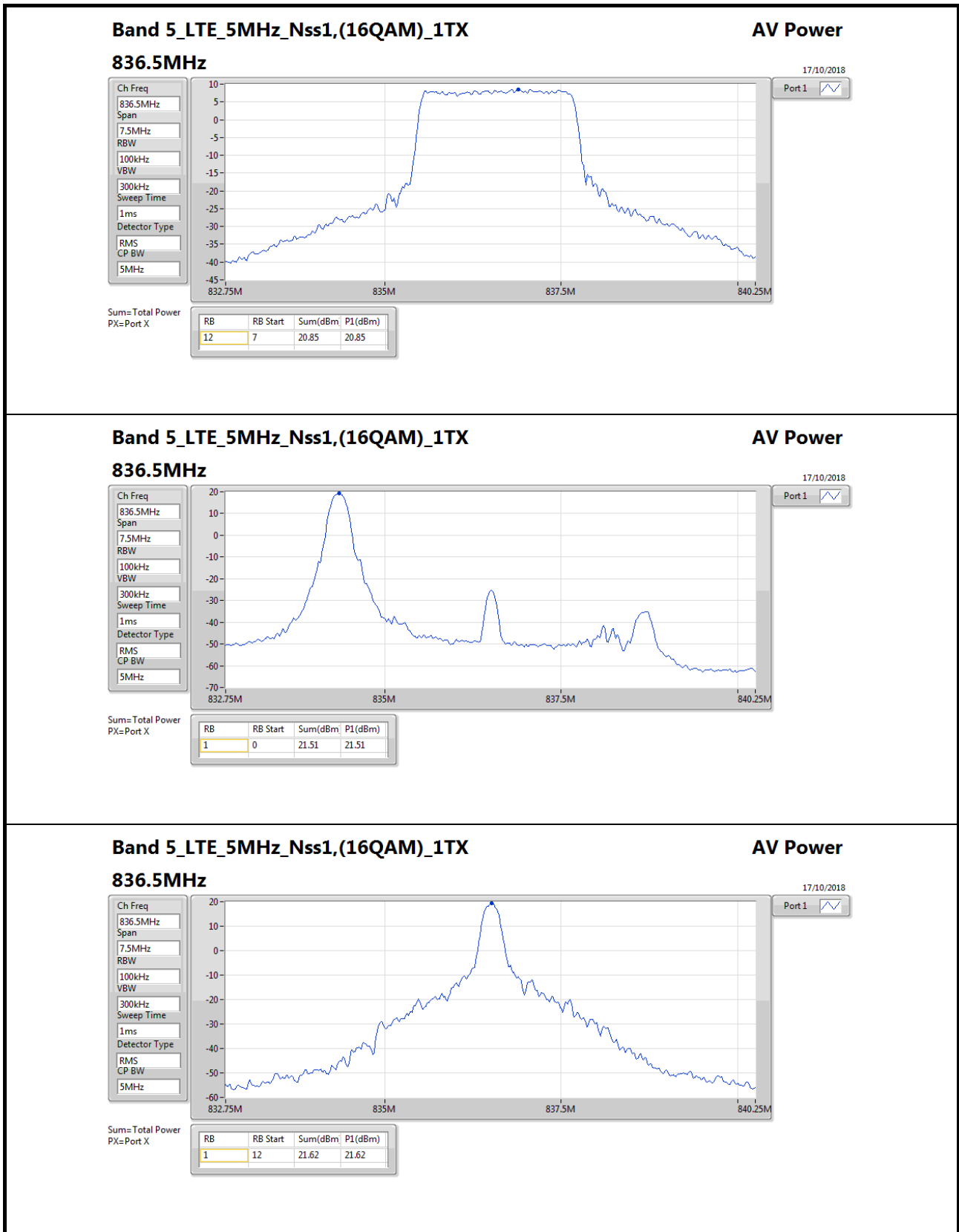


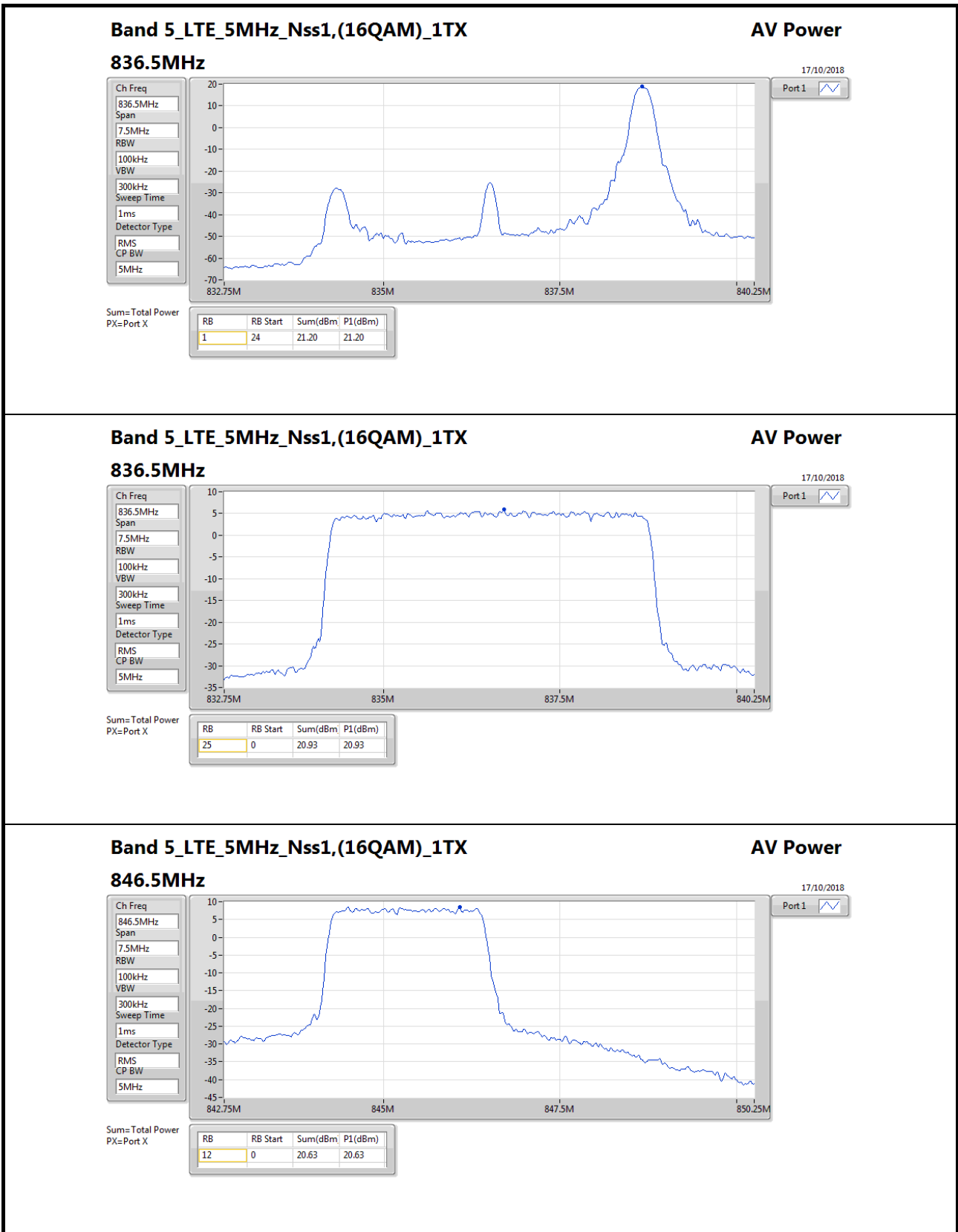


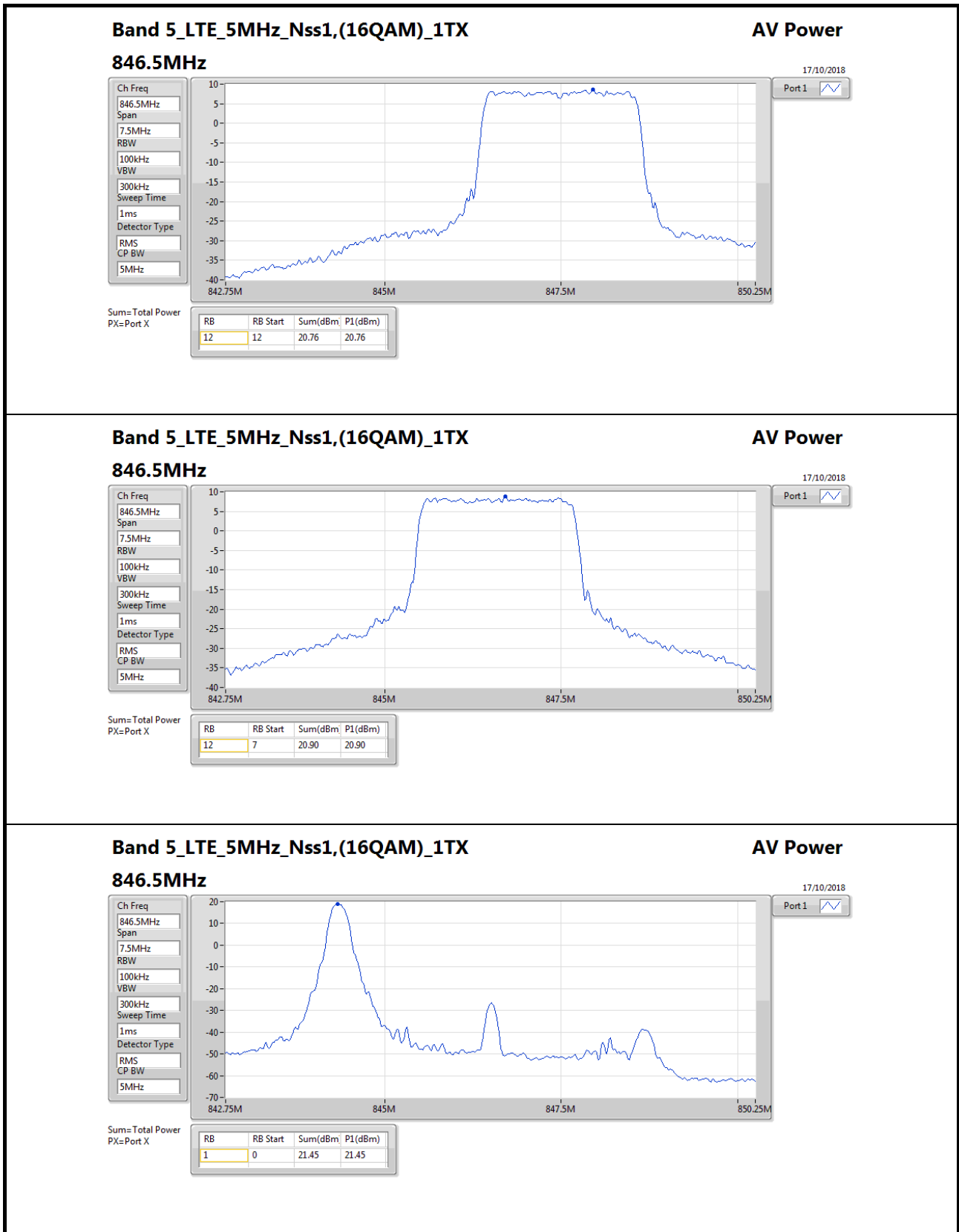


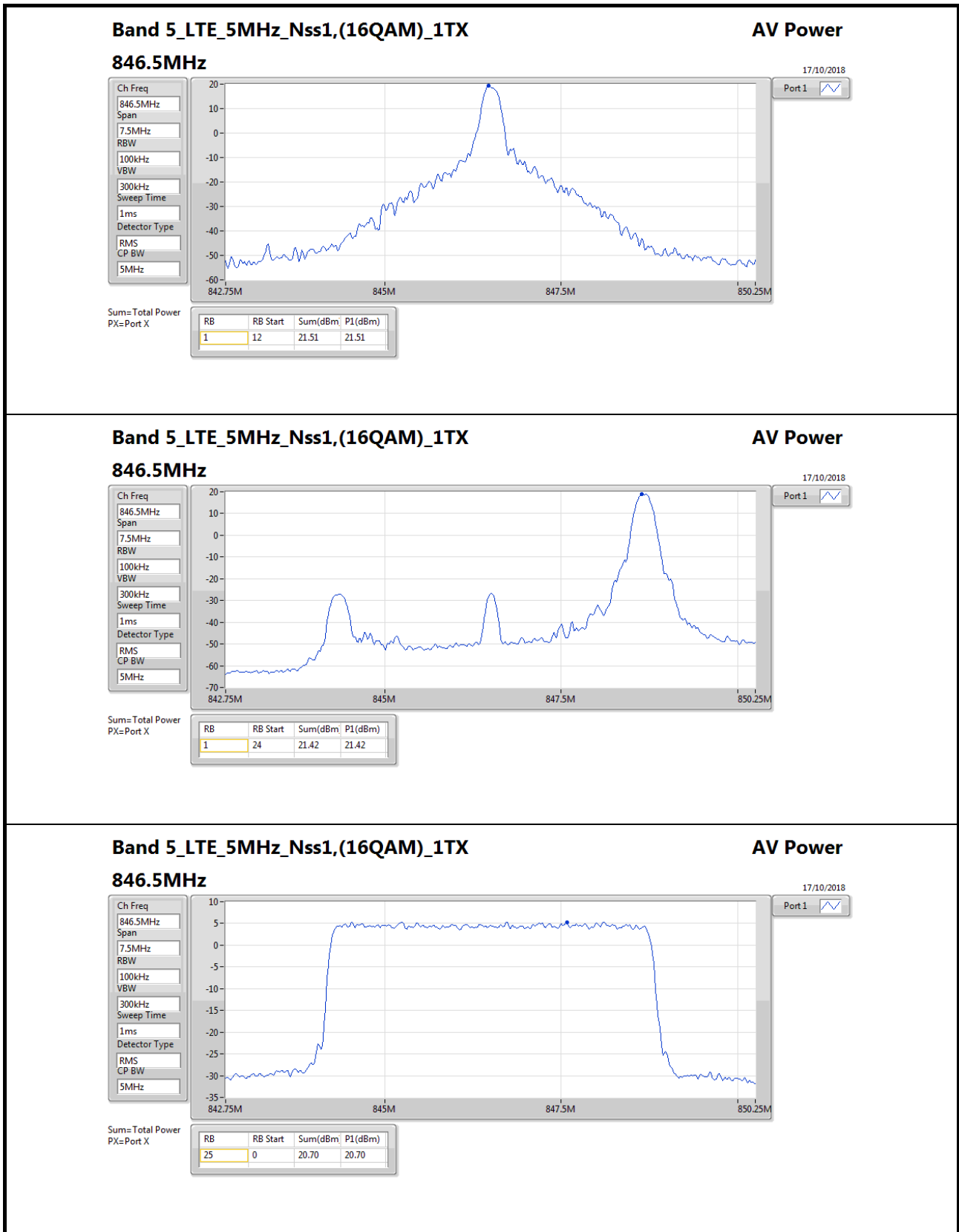


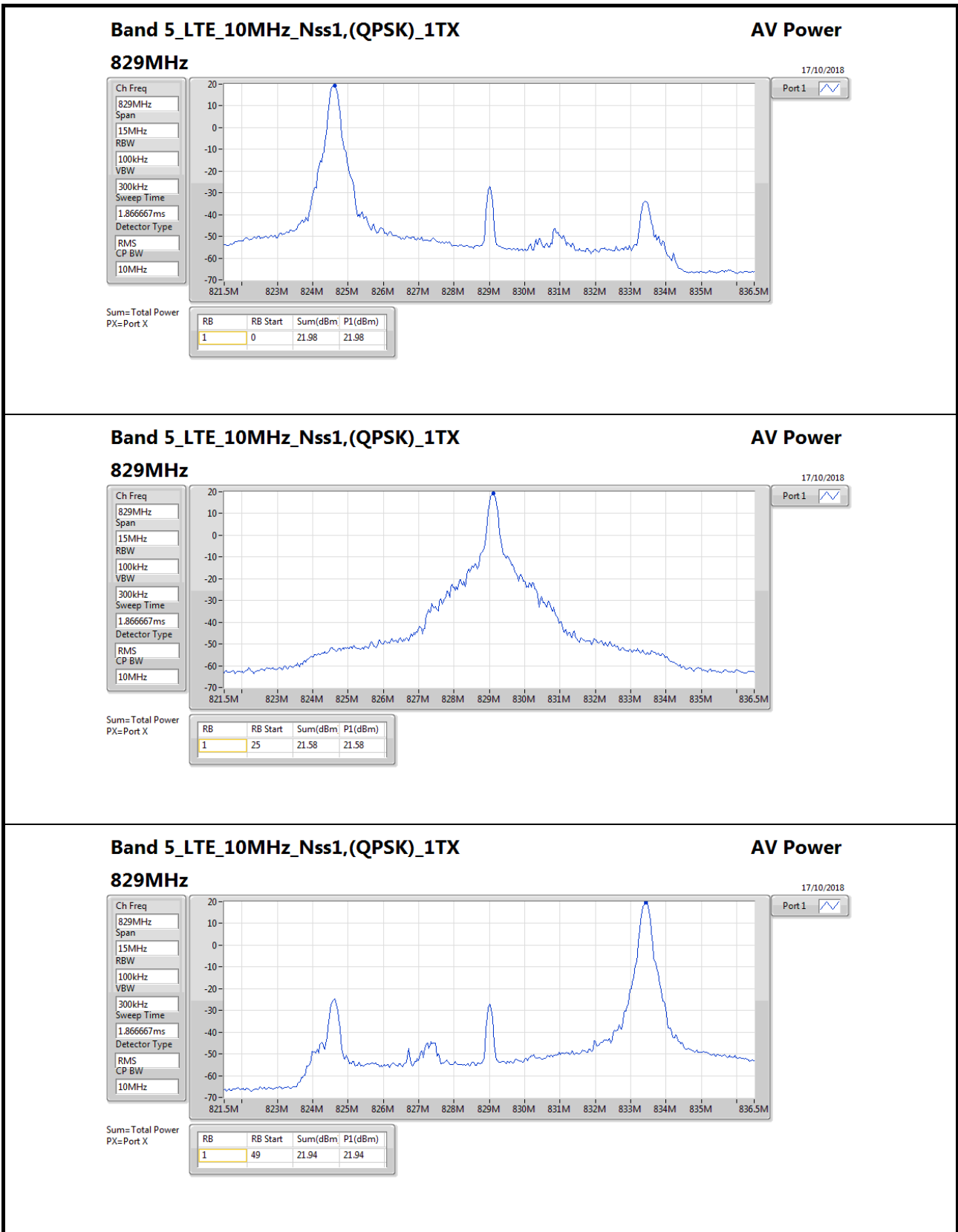




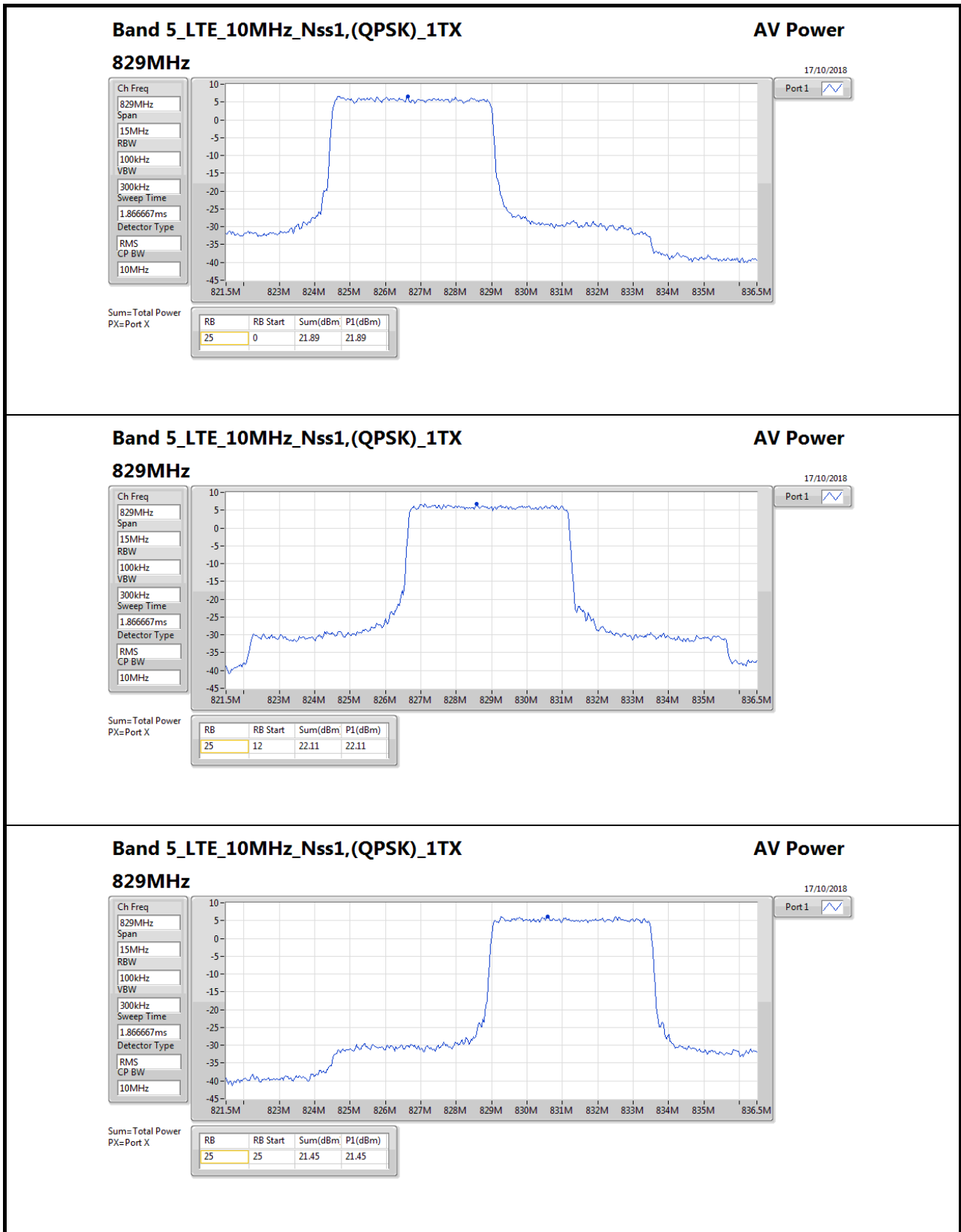


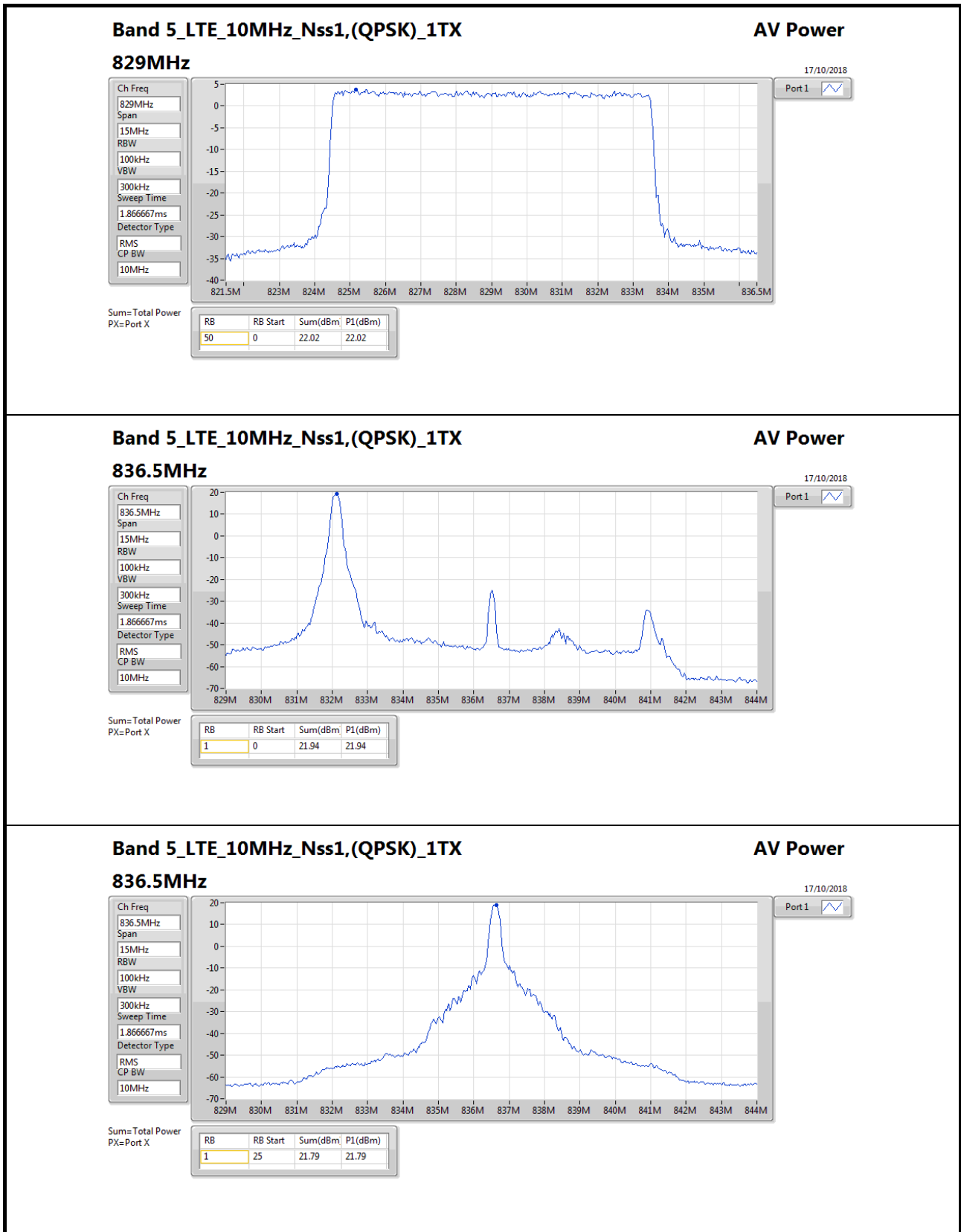











**Band 5\_LTE\_10MHz\_Nss1,(QPSK)\_1TX**
**AV Power**

Ch Freq  
836.5MHz

Span  
15MHz

RBW  
100kHz

VBW  
300kHz

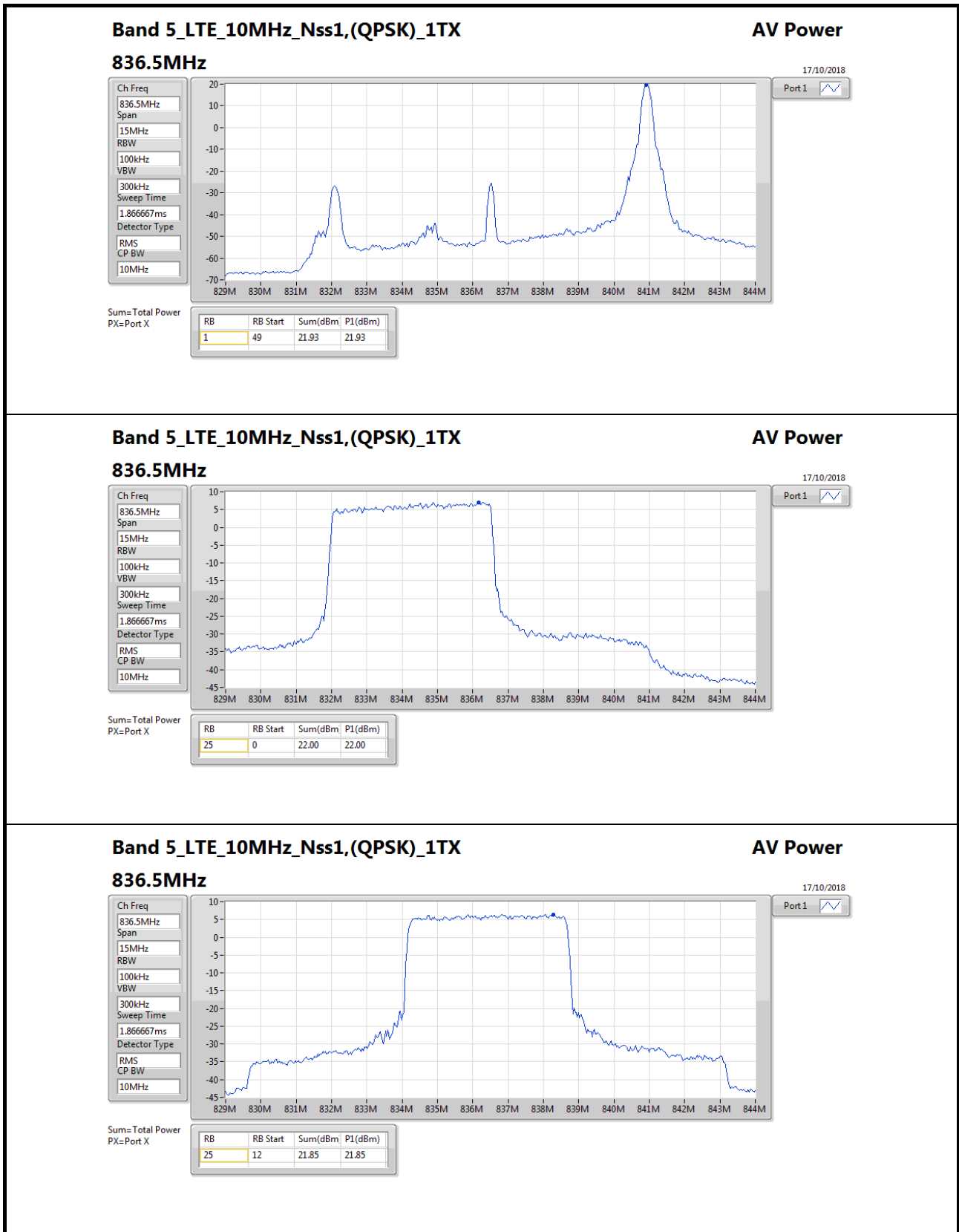
Sweep Time  
1.866667ms

Detector Type  
RMS

CP BW  
10MHz

17/10/2018

Port1


**Band 5\_LTE\_10MHz\_Nss1,(QPSK)\_1TX**
**AV Power**

Ch Freq  
836.5MHz

Span  
15MHz

RBW  
100kHz

VBW  
300kHz

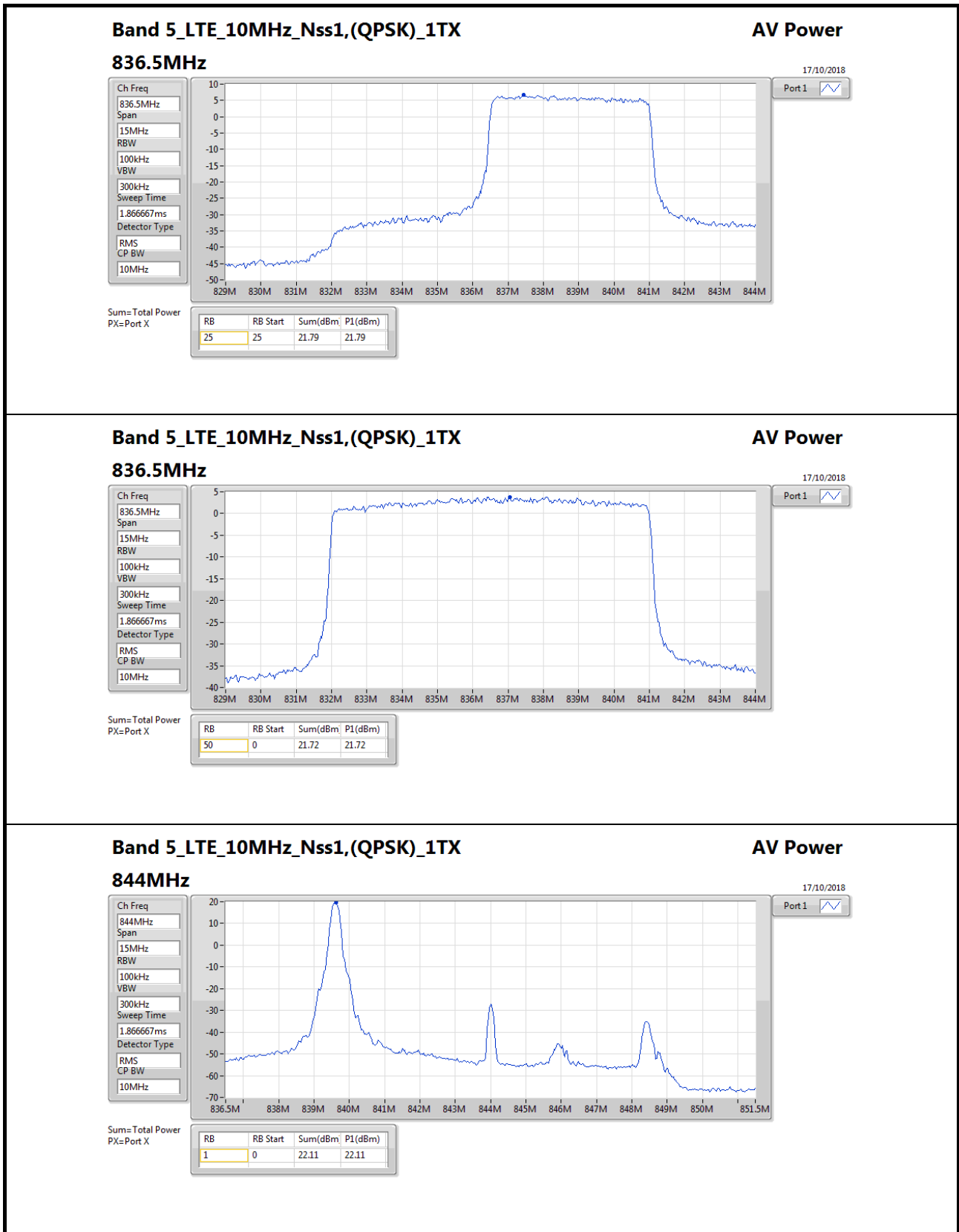
Sweep Time  
1.866667ms

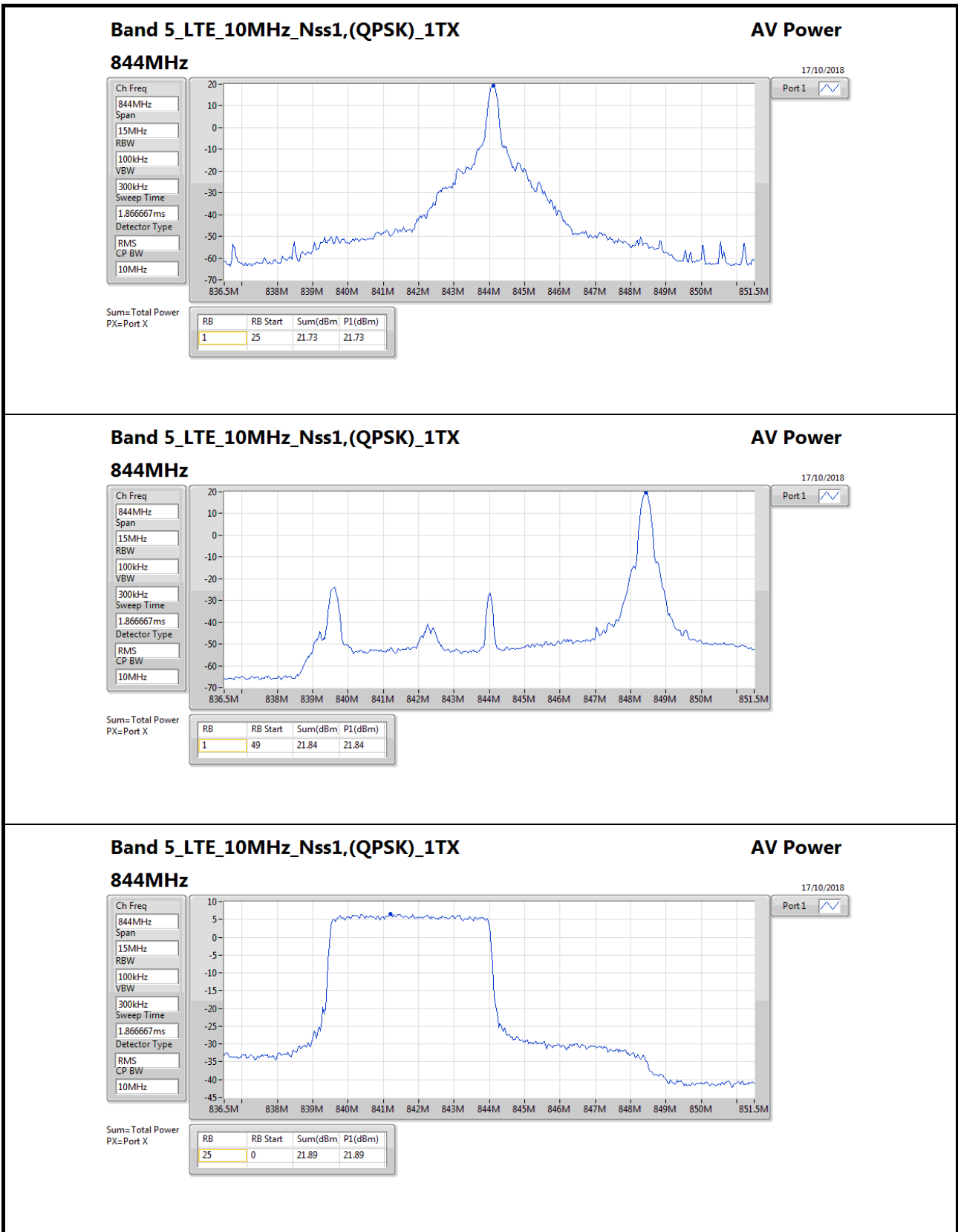
Detector Type  
RMS

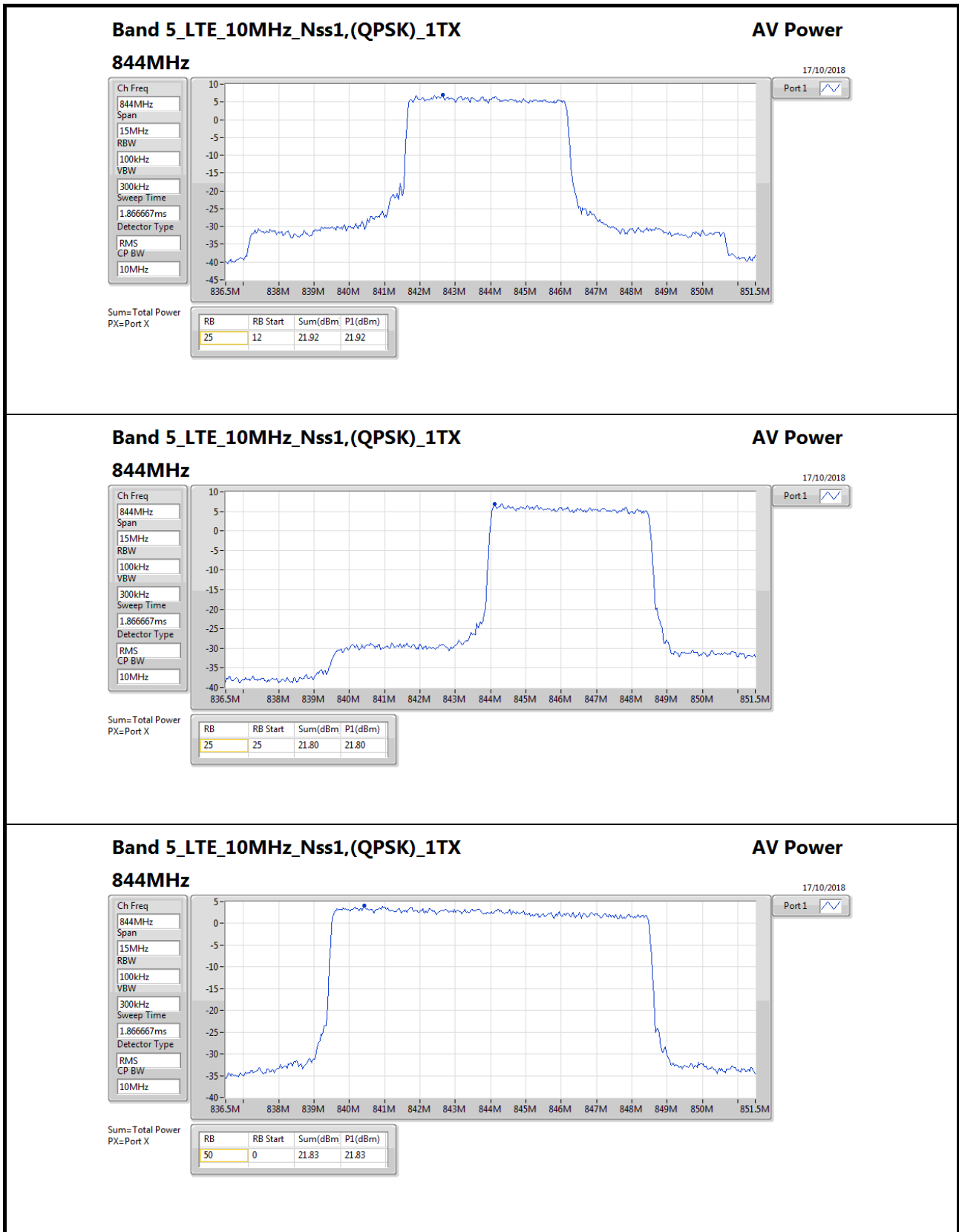
CP BW  
10MHz

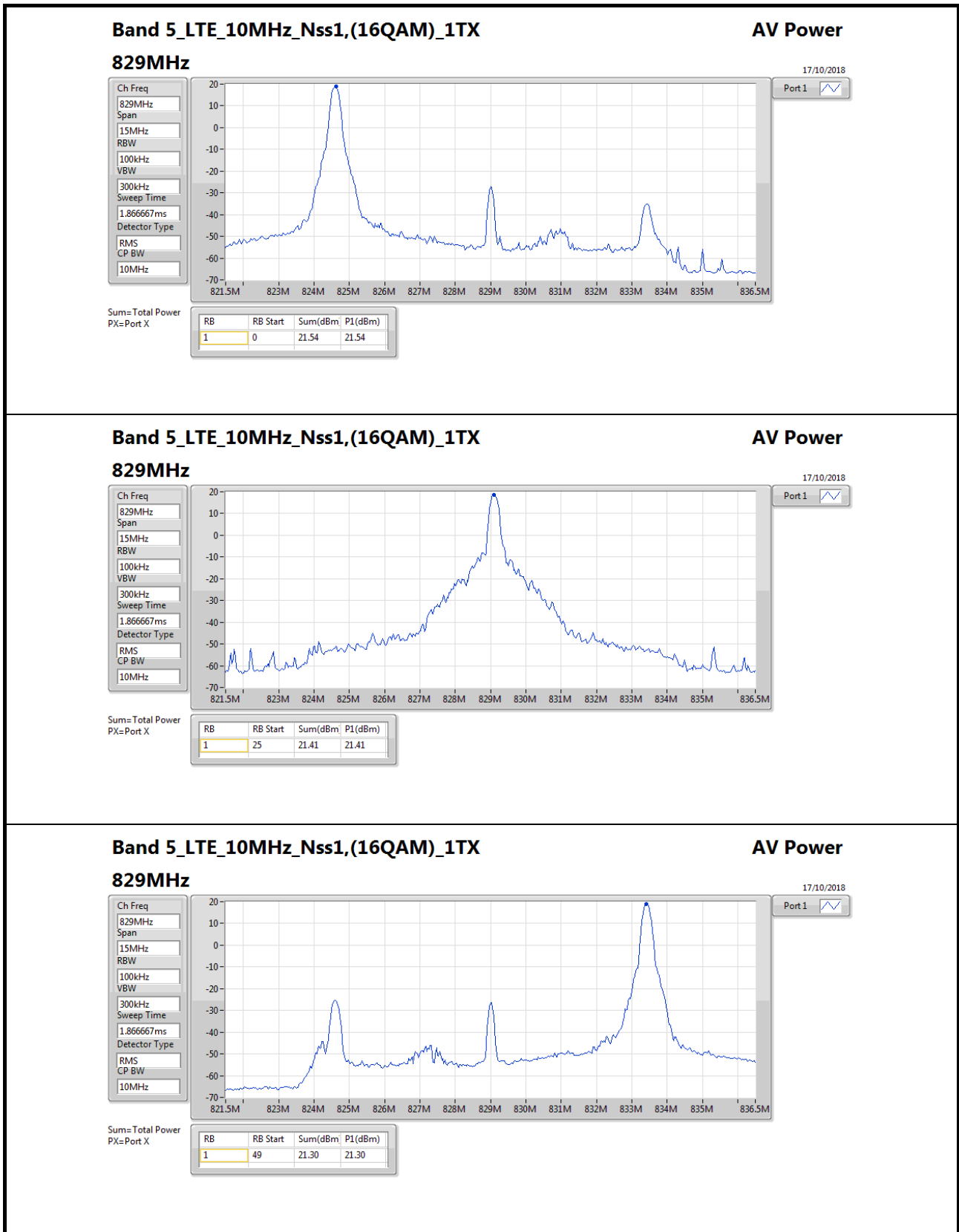
17/10/2018

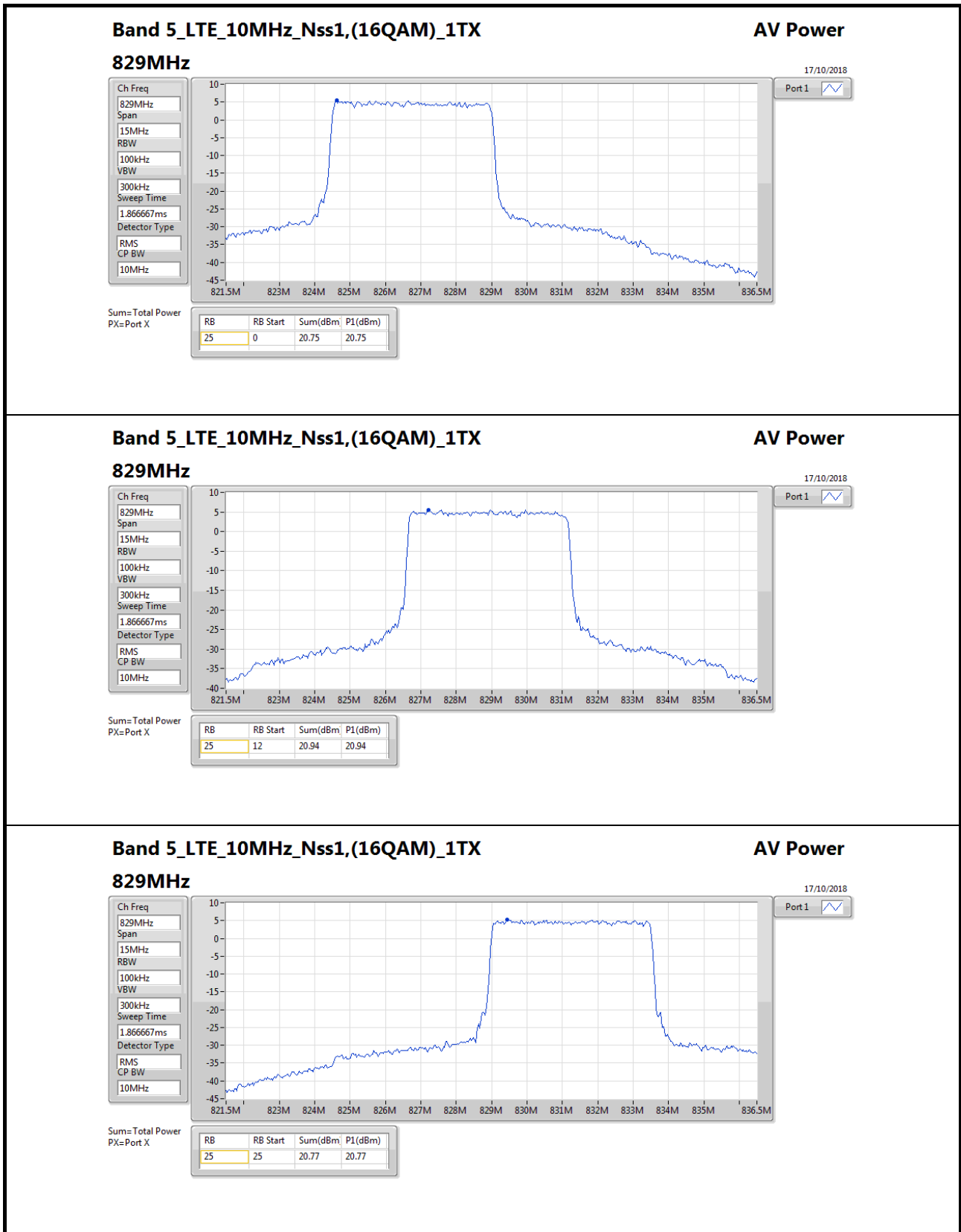
Port1



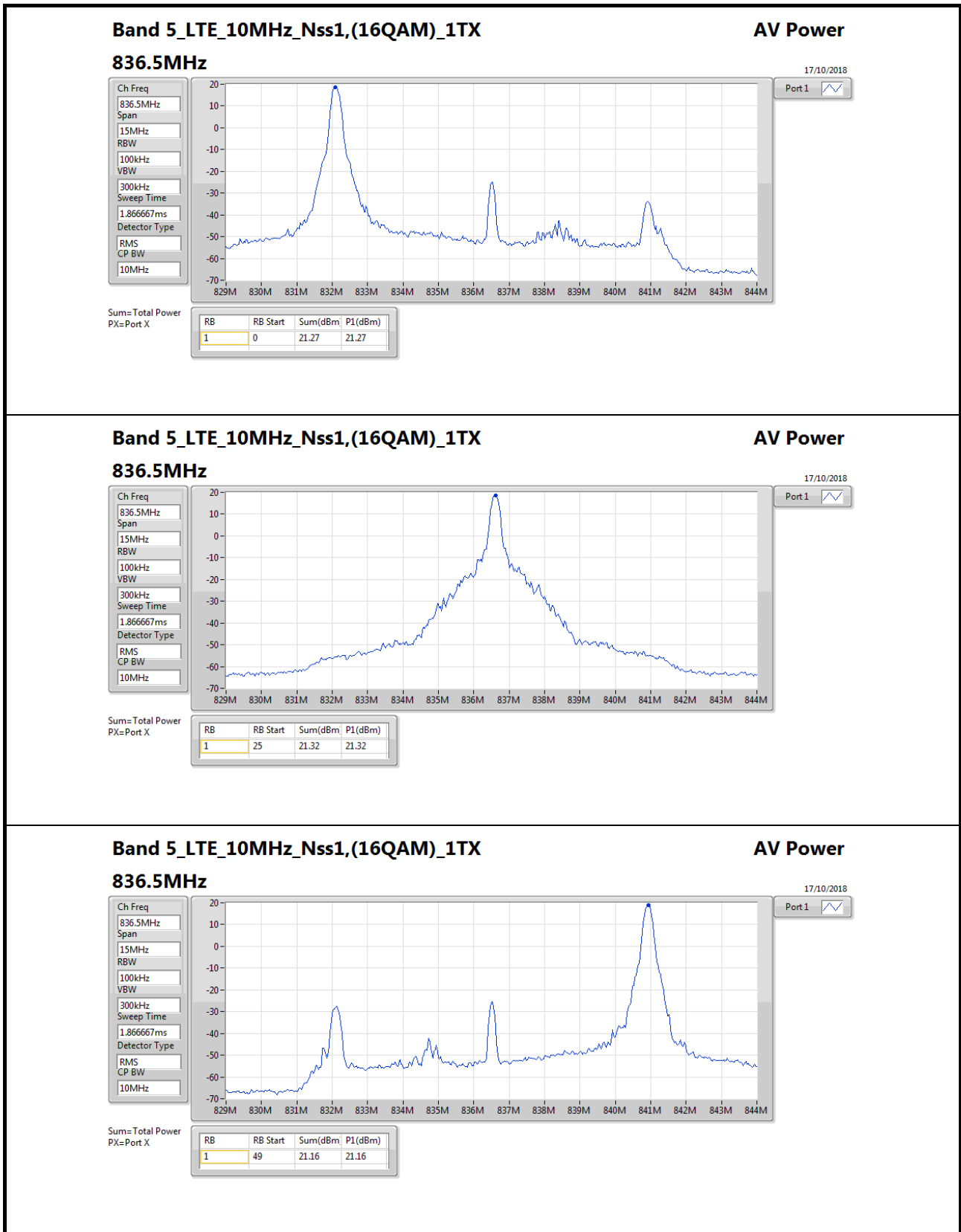


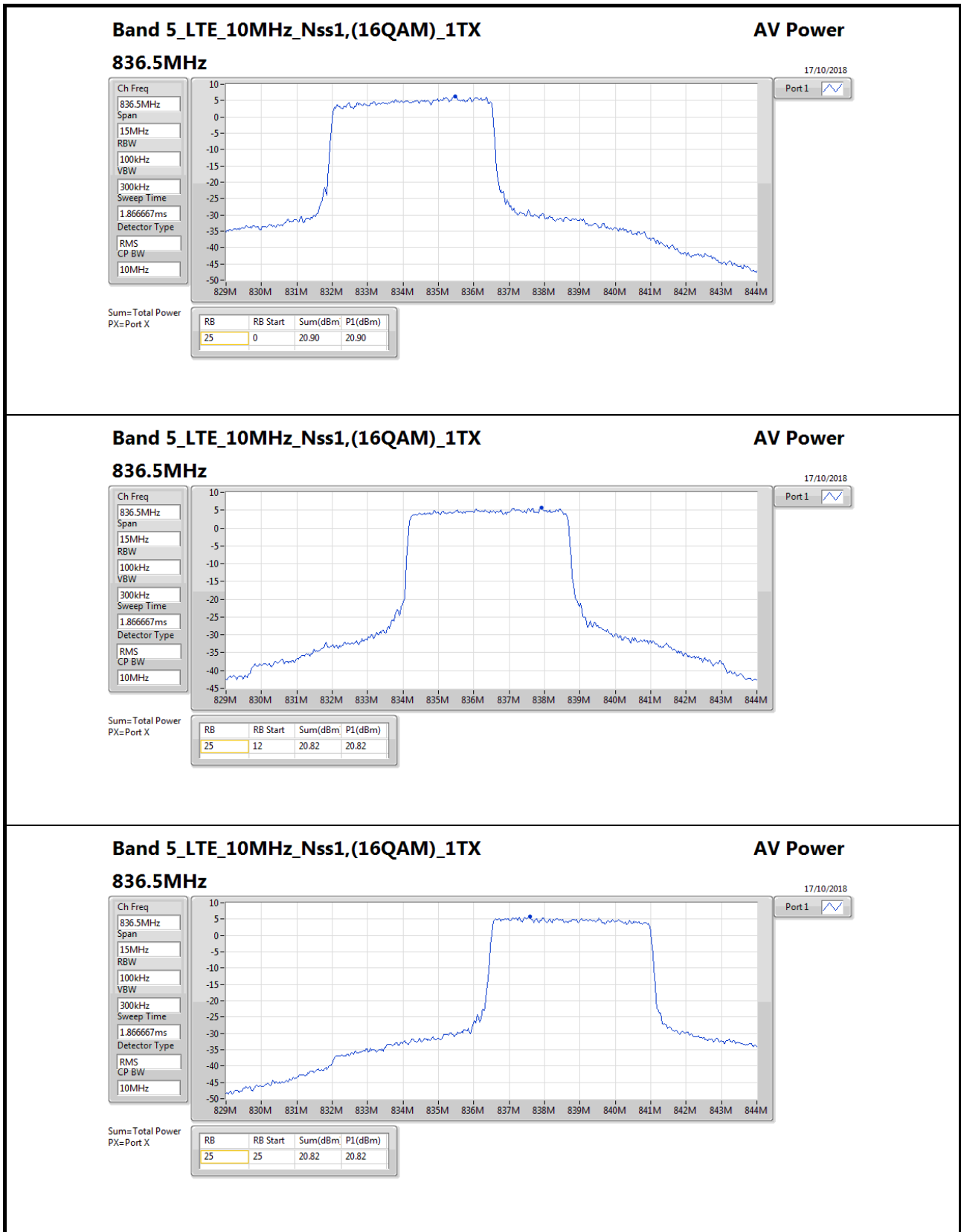


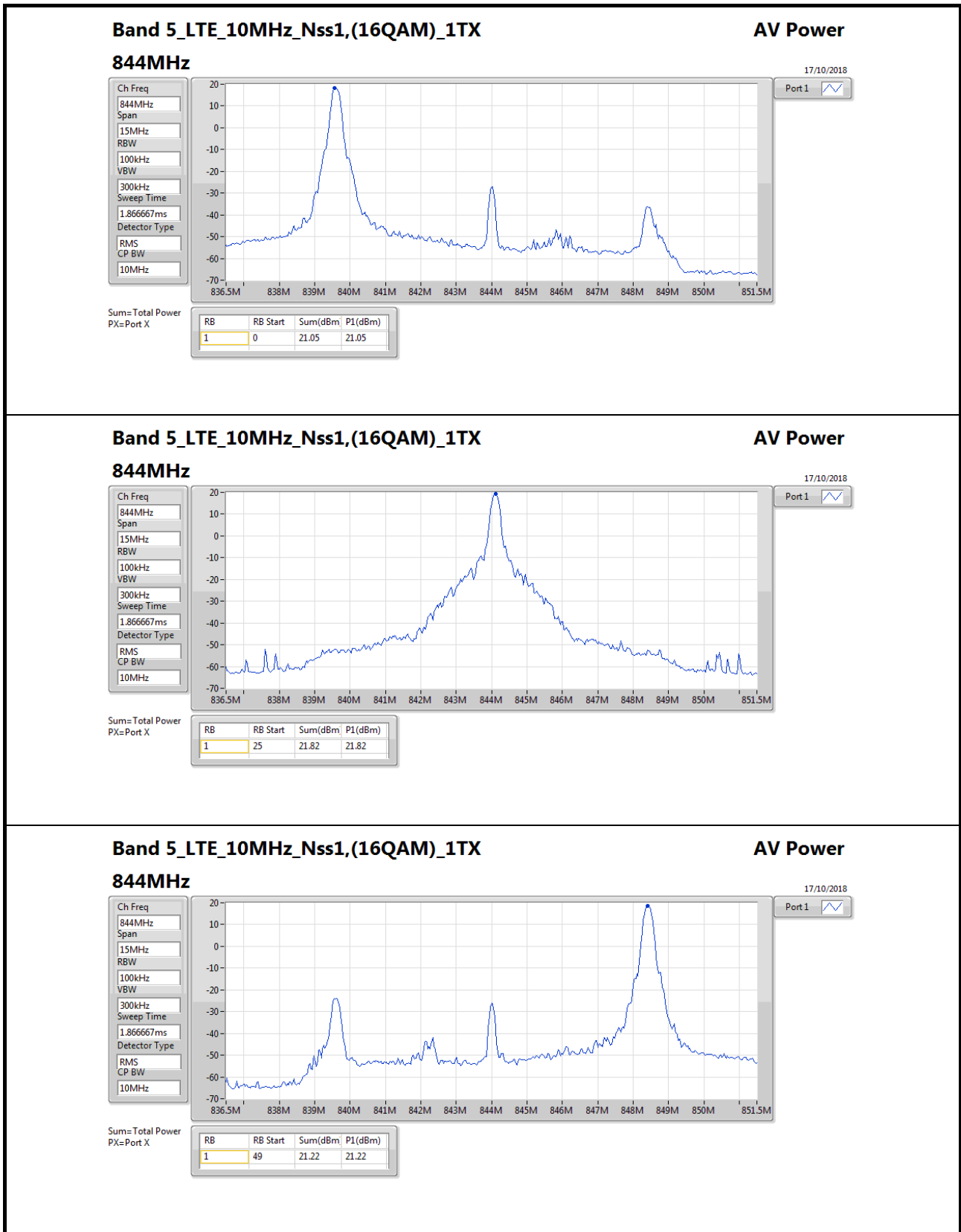


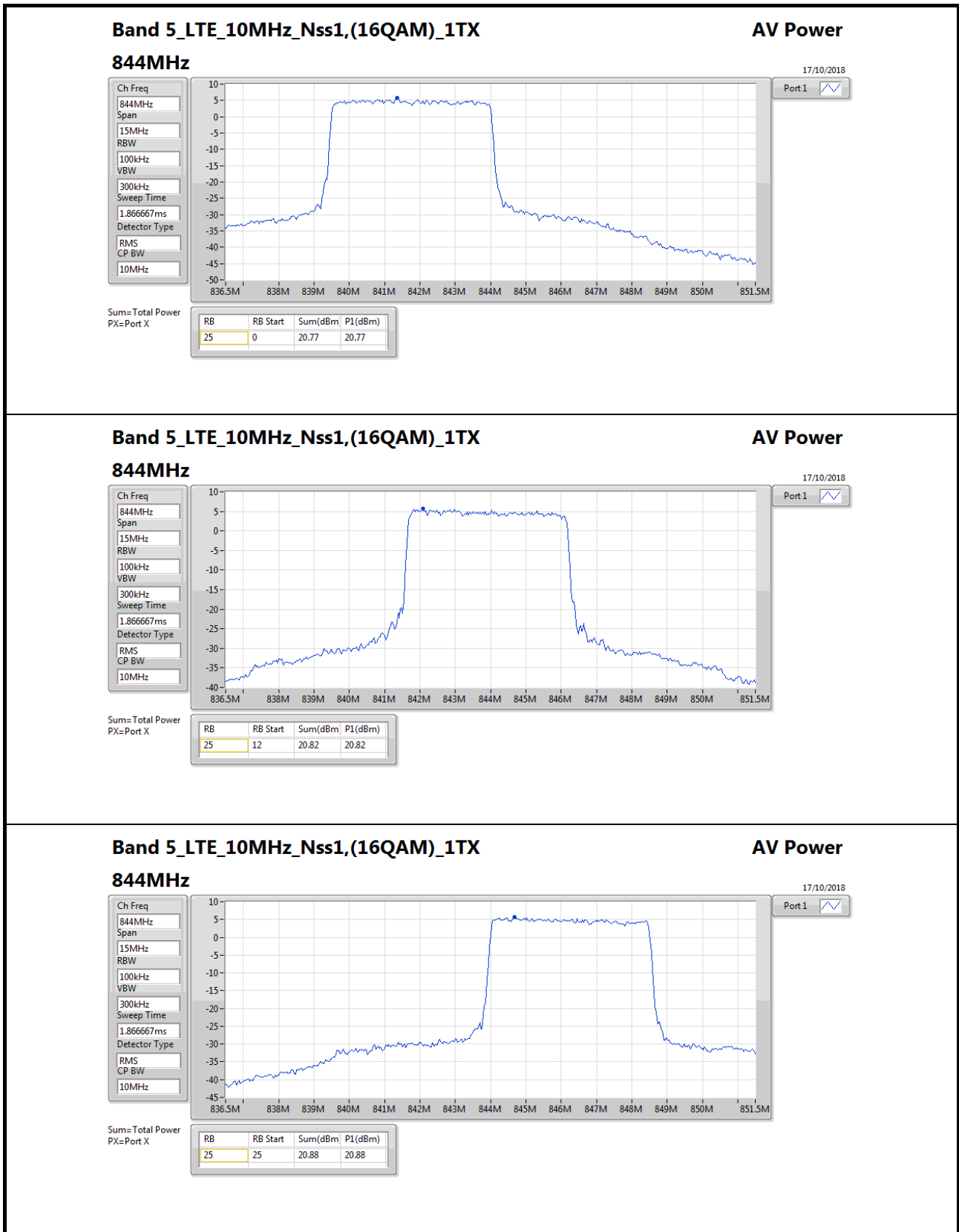












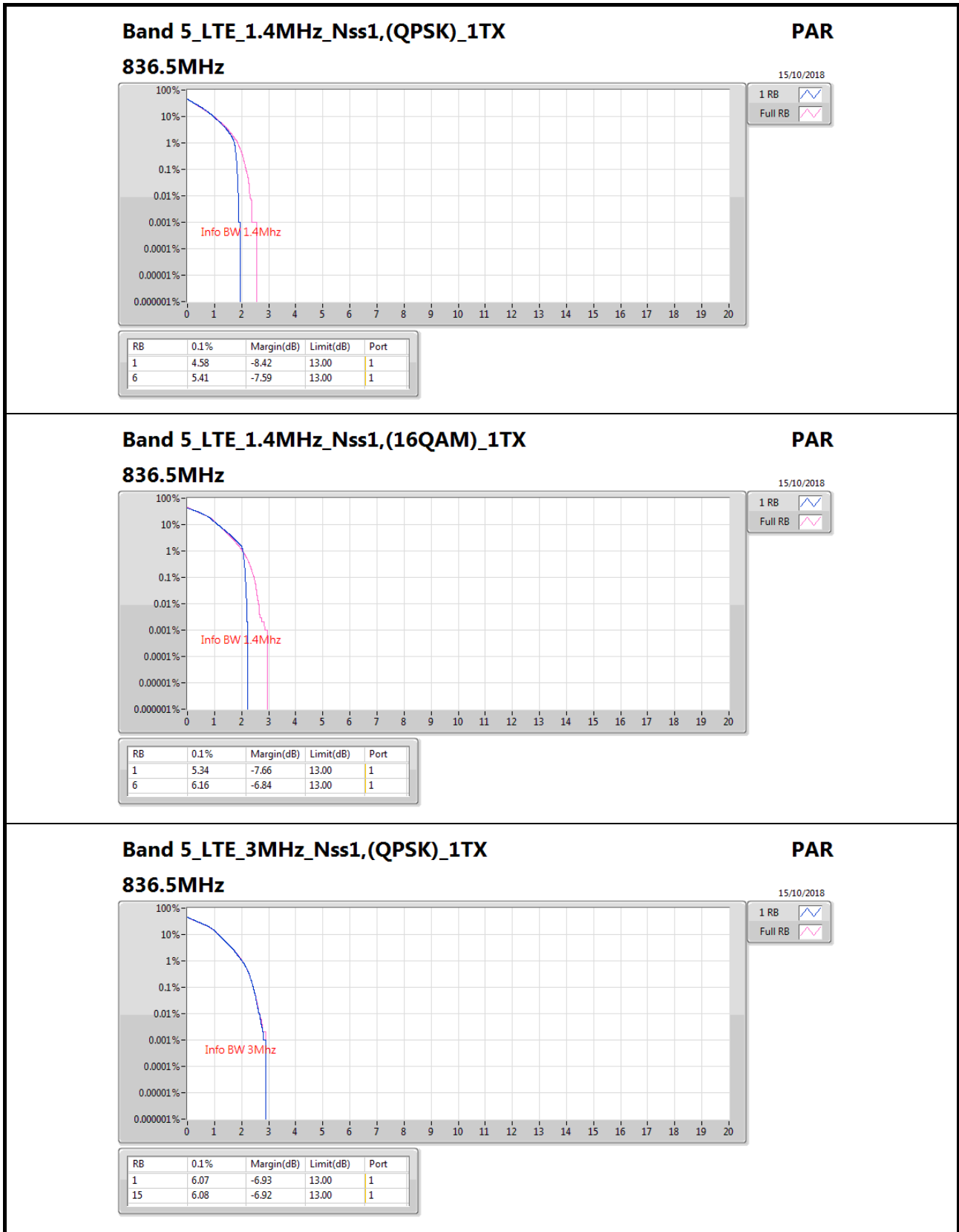


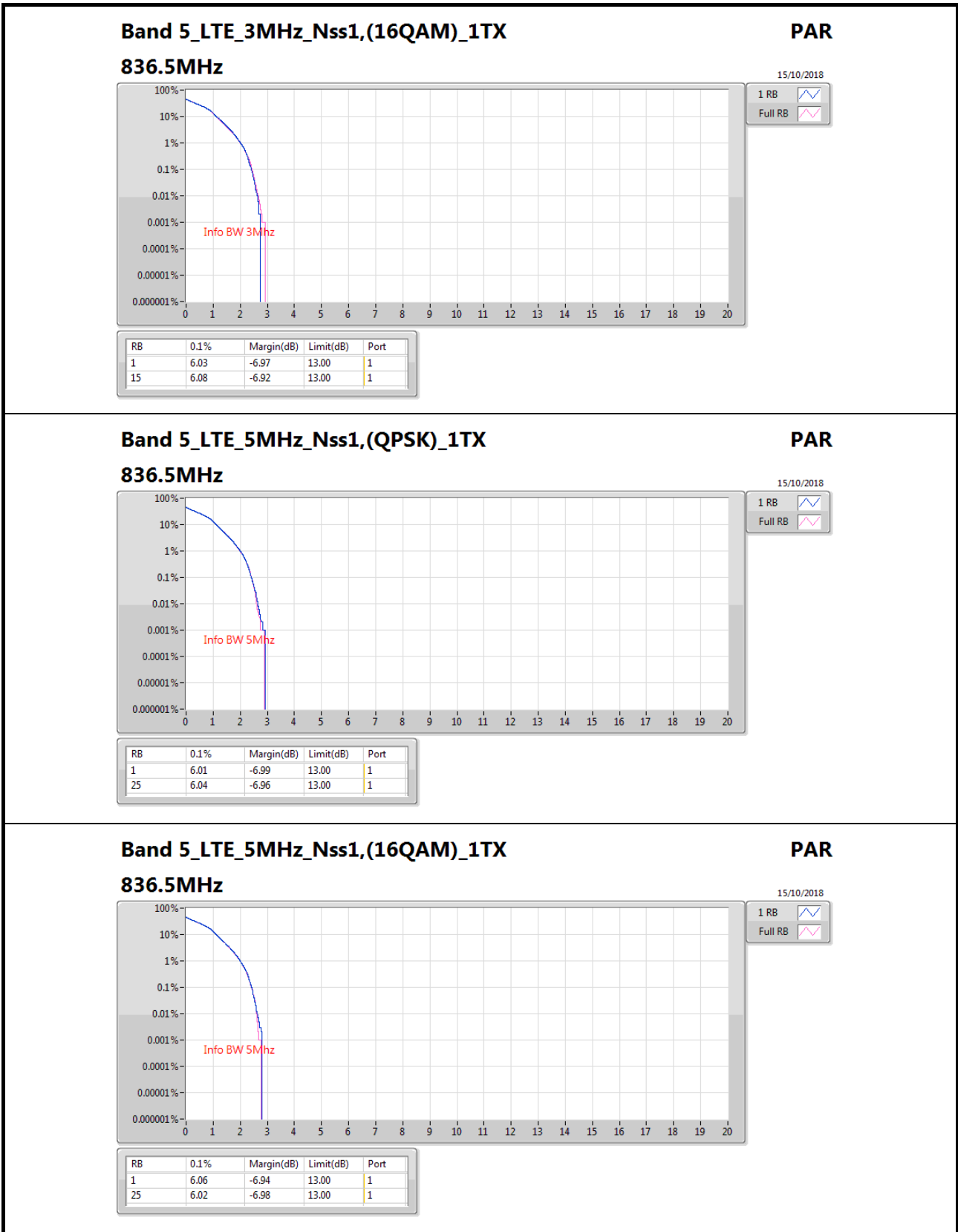
**Summary**

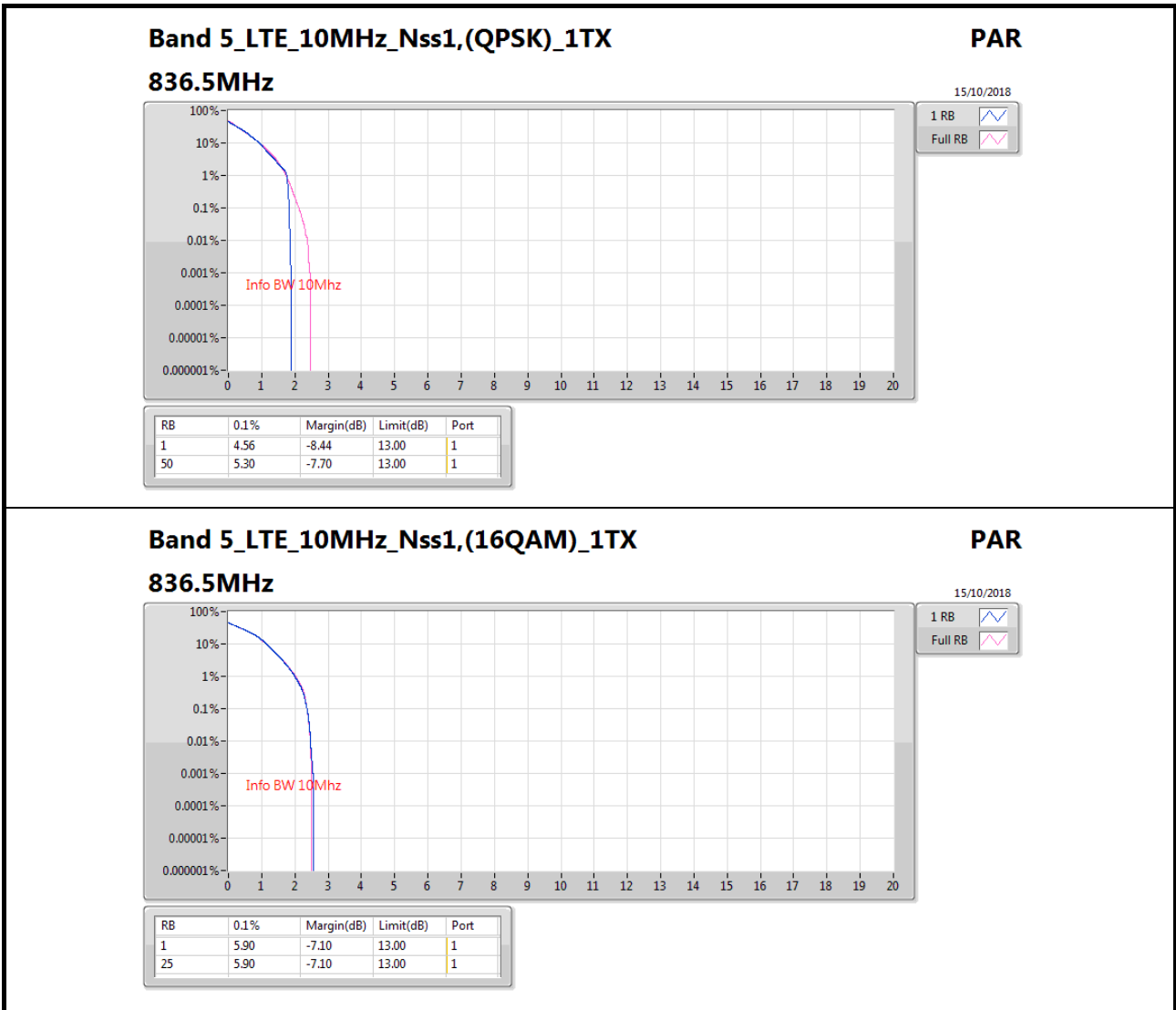
Mode	Result	RB	0.1%	Margin (dB)	Limit (dB)	Port
Band 5	-	-	-	-	-	-
Band 5_LTE_1.4MHz_Nss1,(QPSK)_1TX	Pass	6	5.41	-7.59	13.00	1
Band 5_LTE_1.4MHz_Nss1,(16QAM)_1TX	Pass	6	6.16	-6.84	13.00	1
Band 5_LTE_3MHz_Nss1,(QPSK)_1TX	Pass	15	6.08	-6.92	13.00	1
Band 5_LTE_3MHz_Nss1,(16QAM)_1TX	Pass	15	6.08	-6.92	13.00	1
Band 5_LTE_5MHz_Nss1,(QPSK)_1TX	Pass	25	6.04	-6.96	13.00	1
Band 5_LTE_5MHz_Nss1,(16QAM)_1TX	Pass	1	6.06	-6.94	13.00	1
Band 5_LTE_10MHz_Nss1,(QPSK)_1TX	Pass	50	5.30	-7.70	13.00	1
Band 5_LTE_10MHz_Nss1,(16QAM)_1TX	Pass	1	5.90	-7.10	13.00	1

**Result**

Mode	Result	RB	0.1%	Margin (dB)	Limit (dB)	Port
LTE_1.4MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-
836.5MHz	Pass	1	4.58	-8.42	13.00	1
836.5MHz	Pass	6	5.41	-7.59	13.00	1
LTE_1.4MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-
836.5MHz	Pass	1	5.34	-7.66	13.00	1
836.5MHz	Pass	6	6.16	-6.84	13.00	1
LTE_3MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-
836.5MHz	Pass	1	6.07	-6.93	13.00	1
836.5MHz	Pass	15	6.08	-6.92	13.00	1
LTE_3MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-
836.5MHz	Pass	1	6.03	-6.97	13.00	1
836.5MHz	Pass	15	6.08	-6.92	13.00	1
LTE_5MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-
836.5MHz	Pass	1	6.01	-6.99	13.00	1
836.5MHz	Pass	25	6.04	-6.96	13.00	1
LTE_5MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-
836.5MHz	Pass	1	6.06	-6.94	13.00	1
836.5MHz	Pass	25	6.02	-6.98	13.00	1
LTE_10MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-
836.5MHz	Pass	1	4.56	-8.44	13.00	1
836.5MHz	Pass	50	5.30	-7.70	13.00	1
LTE_10MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-
836.5MHz	Pass	1	5.90	-7.10	13.00	1
836.5MHz	Pass	25	5.90	-7.10	13.00	1









**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
Band 5	-	-	-	-	-
Band 5_LTE_1.4MHz_Nss1,(QPSK)_1TX	1.271M	1.085M	1M09G7D	1.253M	1.081M
Band 5_LTE_1.4MHz_Nss1,(16QAM)_1TX	1.285M	1.088M	1M09W7D	1.269M	1.08M
Band 5_LTE_3MHz_Nss1,(QPSK)_1TX	2.925M	2.683M	2M68G7D	2.895M	2.68M
Band 5_LTE_3MHz_Nss1,(16QAM)_1TX	2.933M	2.692M	2M69W7D	2.888M	2.678M
Band 5_LTE_5MHz_Nss1,(QPSK)_1TX	4.894M	4.47M	4M47G7D	4.875M	4.46M
Band 5_LTE_5MHz_Nss1,(16QAM)_1TX	4.9M	4.469M	4M47W7D	4.856M	4.465M
Band 5_LTE_10MHz_Nss1,(QPSK)_1TX	9.7M	8.958M	8M96G7D	9.6M	8.901M
Band 5_LTE_10MHz_Nss1,(16QAM)_1TX	4.975M	4.498M	4M50W7D	4.95M	4.493M

**Max-N dB** = Maximum26dB downbandwidth;**Max-OBW** = Maximum99% occupied bandwidth;  
**Min-N dB** = Minimum26dB downbandwidth;**Min-OBW** = Minimum99% occupied bandwidth;

**Result**

Mode	Result	RB	RB Start	Limit	P1-N dB (Hz)	P1-OBW (Hz)
LTE_1.4MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-
824.7MHz	Pass	6	0	Inf	1.271M	1.083M
836.5MHz	Pass	6	0	Inf	1.262M	1.085M
848.3MHz	Pass	6	0	Inf	1.253M	1.081M
LTE_1.4MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-
824.7MHz	Pass	6	0	Inf	1.285M	1.084M
836.5MHz	Pass	6	0	Inf	1.276M	1.08M
848.3MHz	Pass	6	0	Inf	1.269M	1.088M
LTE_3MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-
825.5MHz	Pass	15	0	Inf	2.895M	2.683M
836.5MHz	Pass	15	0	Inf	2.91M	2.681M
847.5MHz	Pass	15	0	Inf	2.925M	2.68M
LTE_3MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-
825.5MHz	Pass	15	0	Inf	2.933M	2.681M
836.5MHz	Pass	15	0	Inf	2.888M	2.678M
847.5MHz	Pass	15	0	Inf	2.918M	2.692M
LTE_5MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-
826.5MHz	Pass	25	0	Inf	4.875M	4.47M
836.5MHz	Pass	25	0	Inf	4.875M	4.46M
846.5MHz	Pass	25	0	Inf	4.894M	4.463M
LTE_5MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-
826.5MHz	Pass	25	0	Inf	4.9M	4.469M
836.5MHz	Pass	25	0	Inf	4.856M	4.465M
846.5MHz	Pass	25	0	Inf	4.894M	4.469M
LTE_10MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-
829MHz	Pass	50	0	Inf	9.7M	8.958M
836.5MHz	Pass	50	0	Inf	9.6M	8.901M
844MHz	Pass	50	0	Inf	9.7M	8.928M
LTE_10MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-
829MHz	Pass	25	0	Inf	4.95M	4.498M



Mode	Result	RB	RB Start	Limit	P1-N dB (Hz)	P1-OBW (Hz)
836.5MHz	Pass	25	12	Inf	4.975M	4.493M
844MHz	Pass	25	24	Inf	4.963M	4.495M

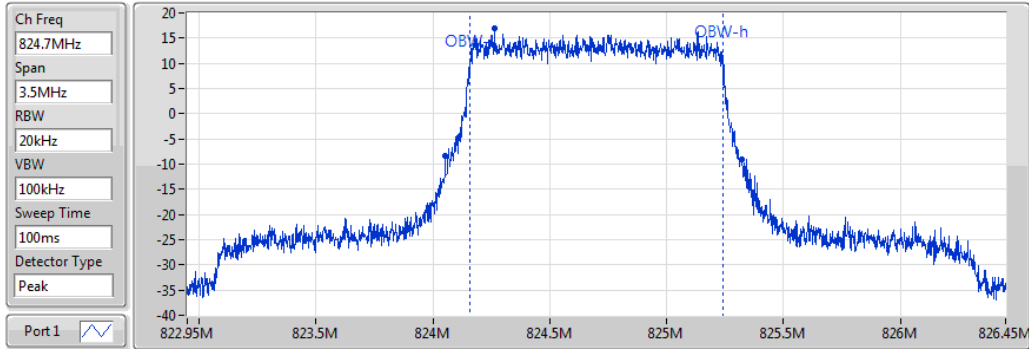
**Port X-N dB** = Port X26dB downbandwidth; **Port X-OBW** = Port X99% occupied bandwidth;

**Band 5\_LTE\_1.4MHz\_Nss1,(QPSK)\_1TX**

**EBW**

**824.7MHz**

15/10/2018



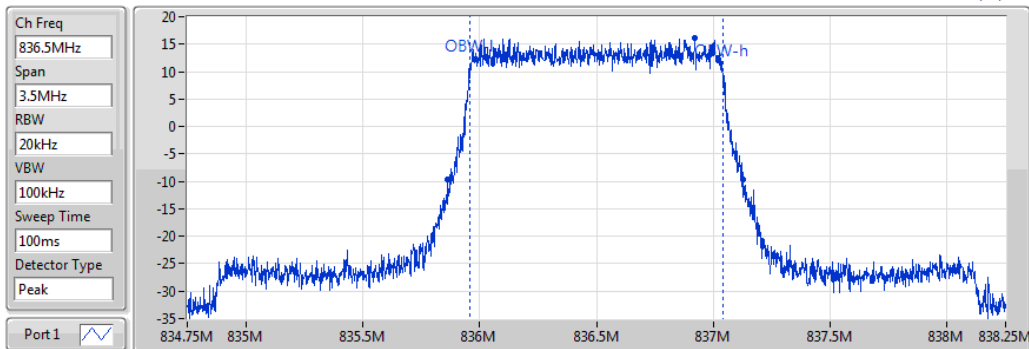
RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6	0	1.271M	824.0525M	825.323M	1.083M	824.157583M	825.240858M	Inf	1

**Band 5\_LTE\_1.4MHz\_Nss1,(QPSK)\_1TX**

**EBW**

**836.5MHz**

15/10/2018



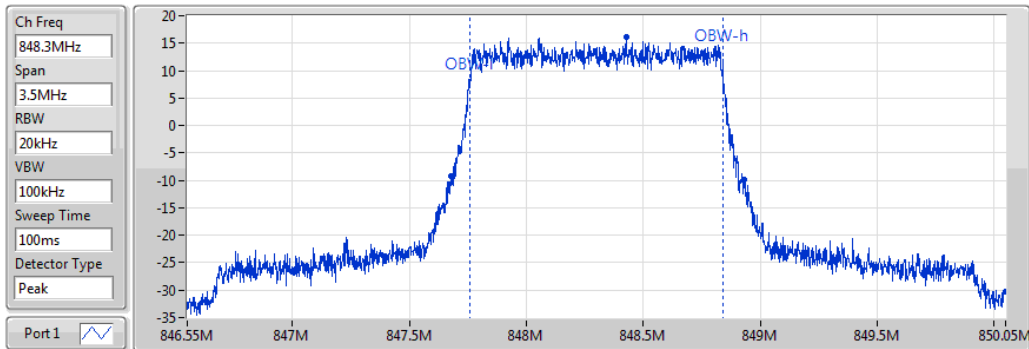
RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6	0	1.262M	835.86475M	837.1265M	1.085M	835.956779M	837.04199M	Inf	1

**Band 5\_LTE\_1.4MHz\_Nss1,(QPSK)\_1TX**

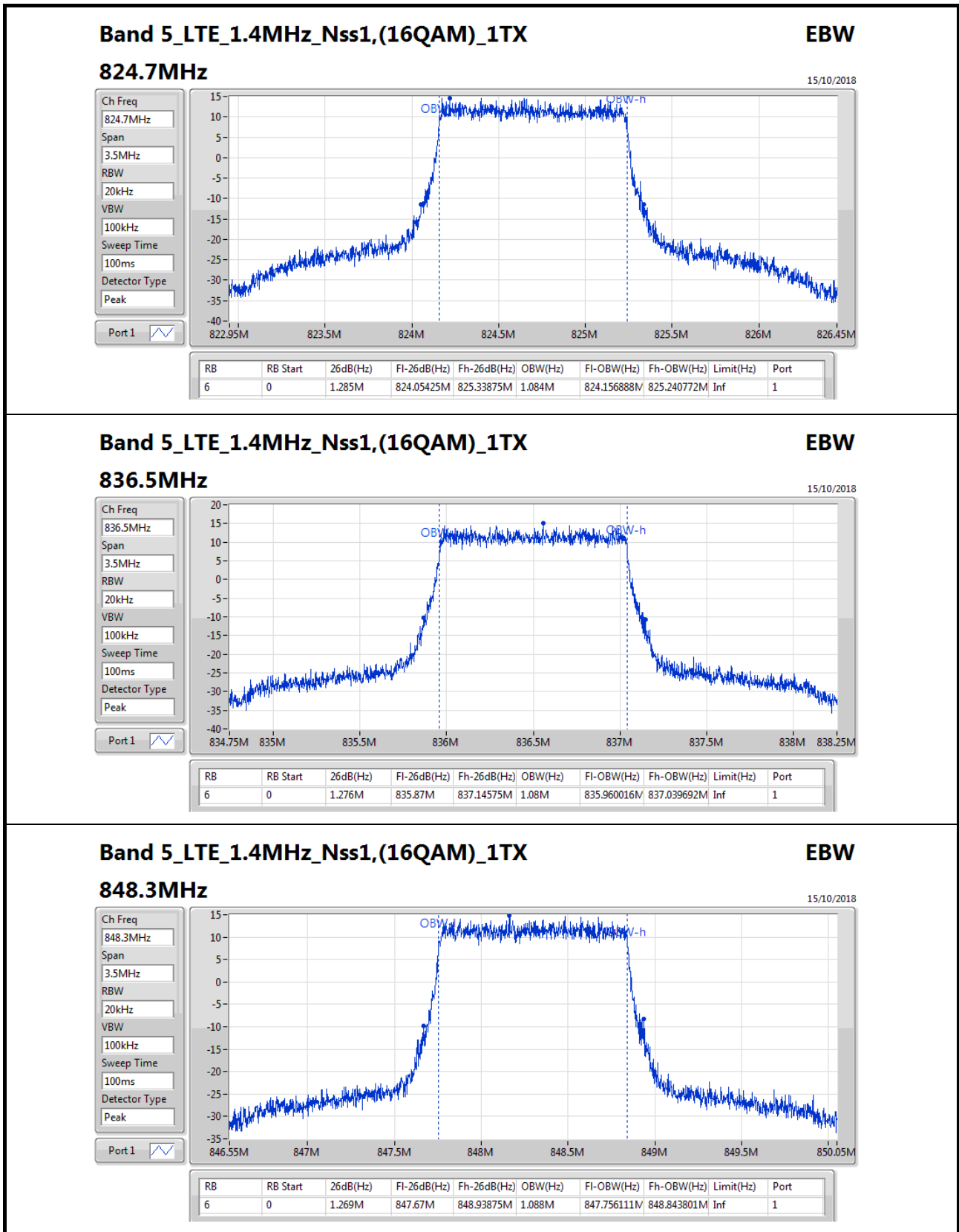
**EBW**

**848.3MHz**

15/10/2018



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6	0	1.253M	847.6805M	848.9335M	1.081M	847.759868M	848.840901M	Inf	1


**Band 5\_LTE\_1.4MHz\_Nss1,(16QAM)\_1TX**
**EBW**

### 848.3MHz

15/10/2018

Ch Freq  
848.3MHz

Span  
3.5MHz

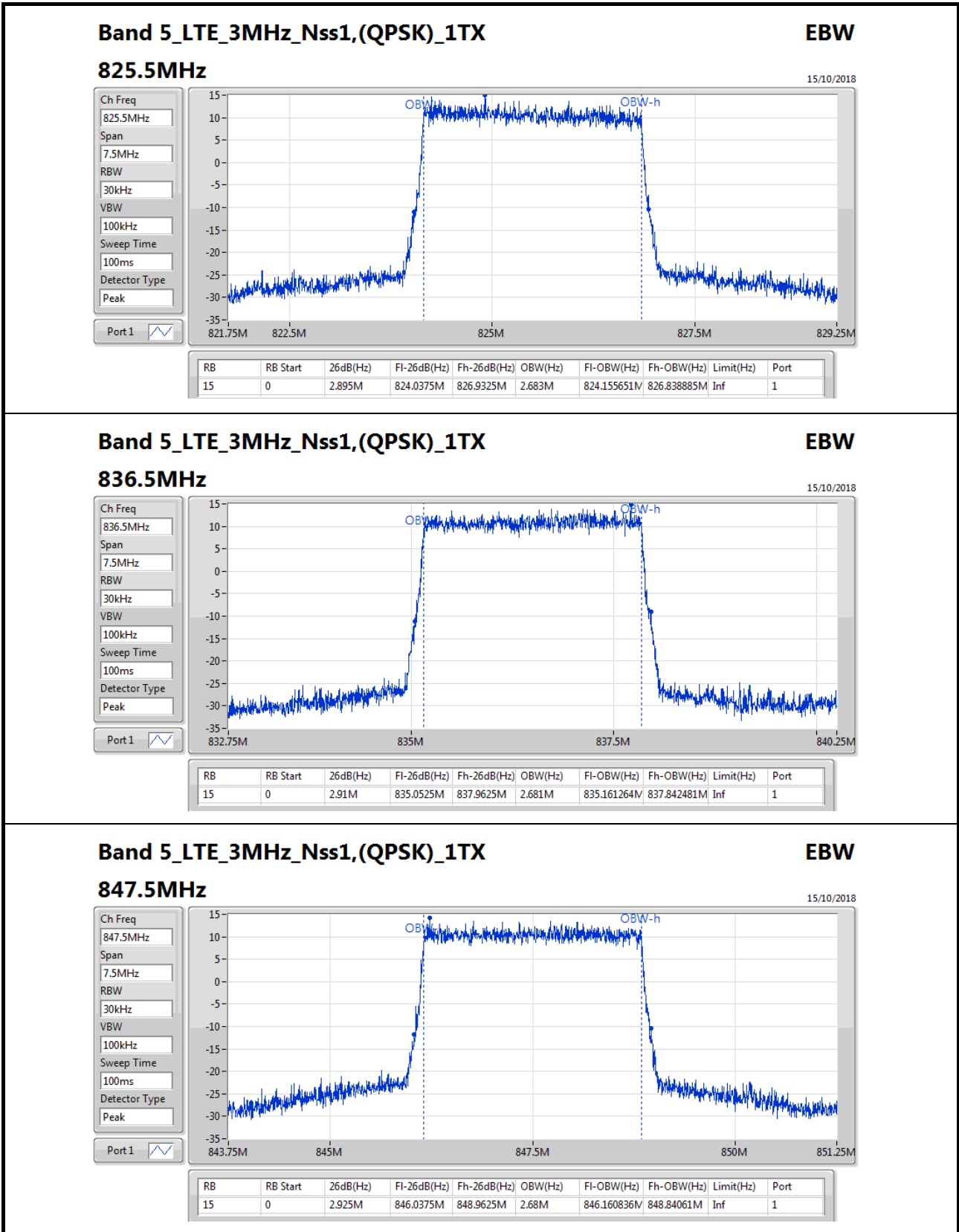
RBW  
20kHz

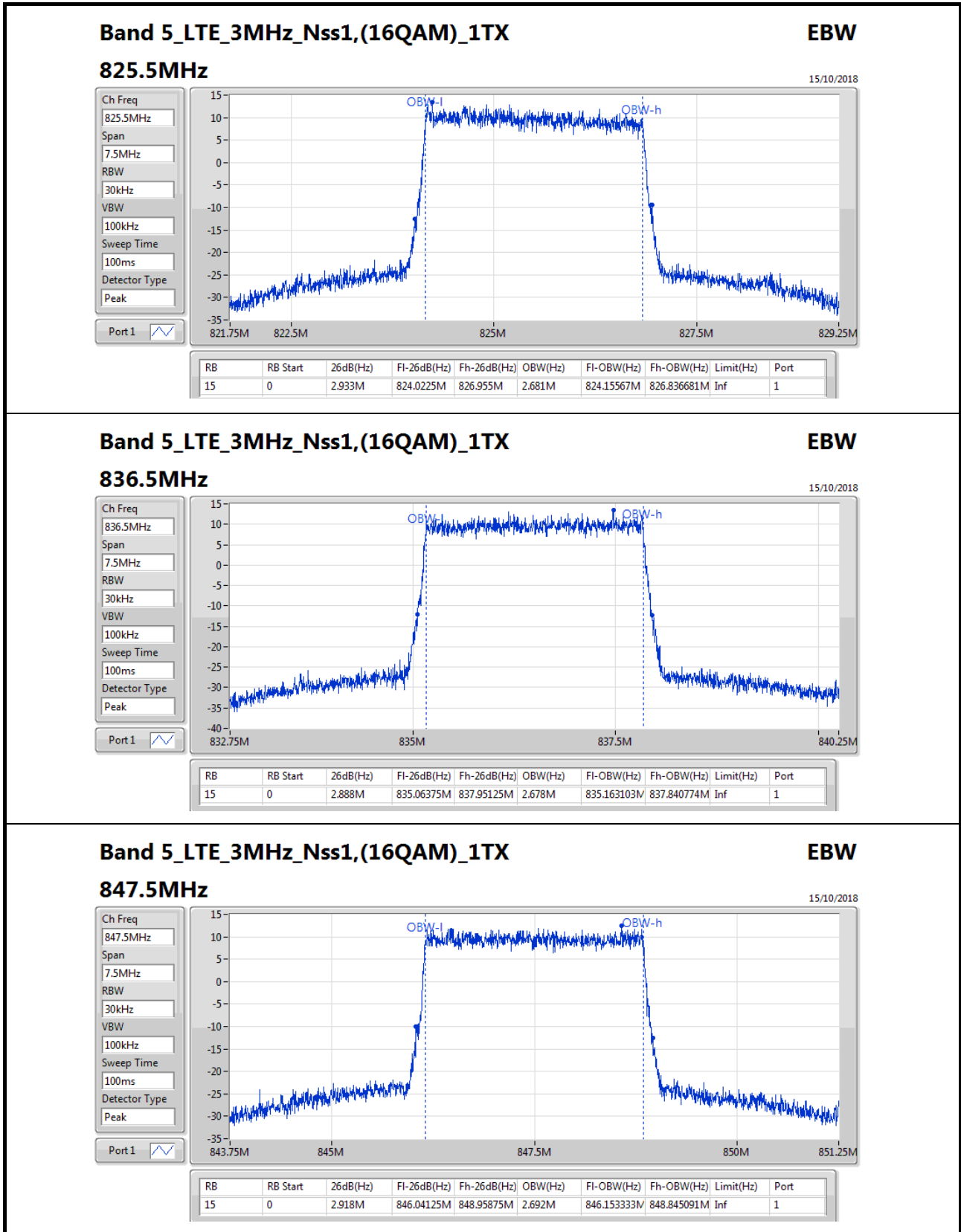
VBW  
100kHz

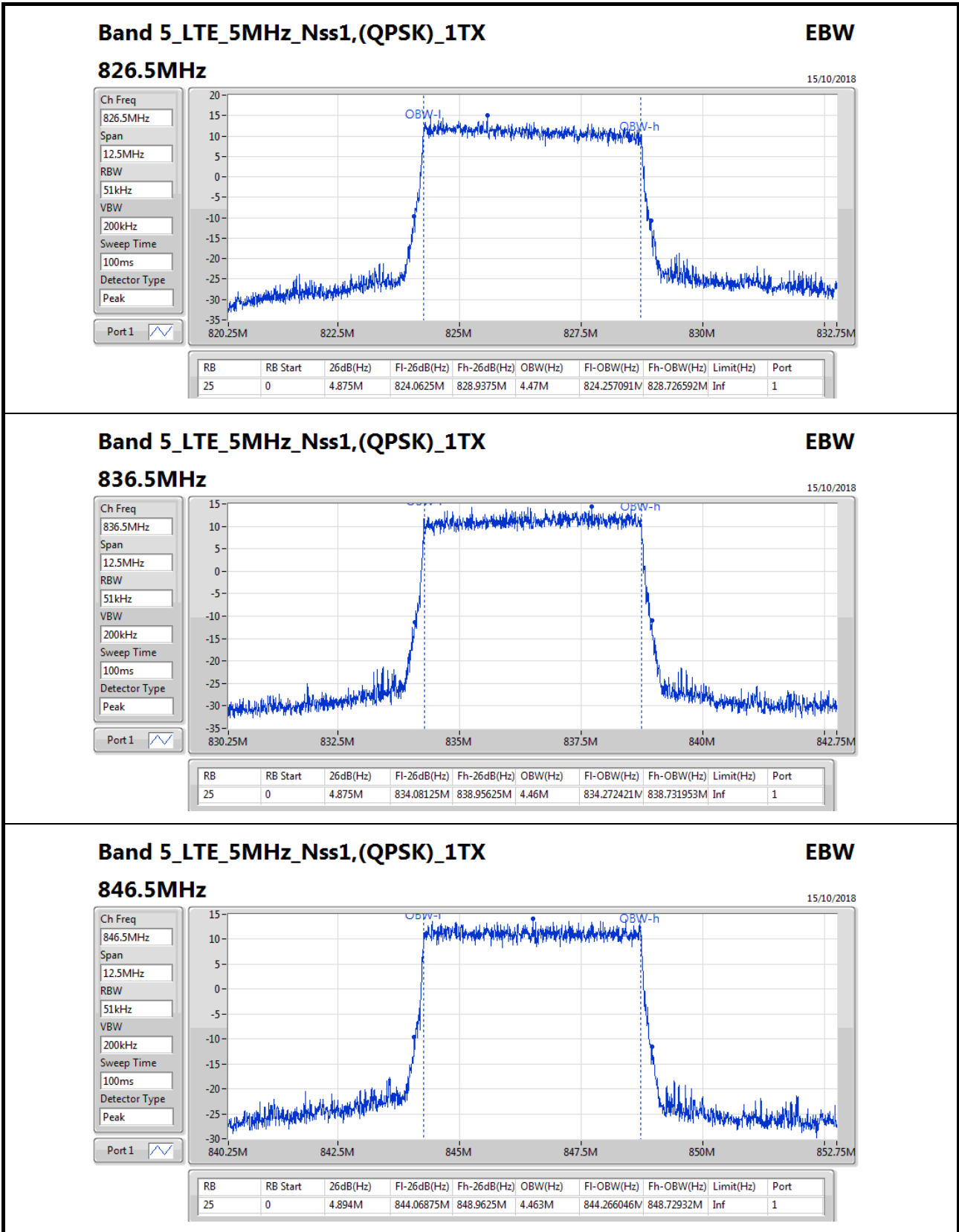
Sweep Time  
100ms

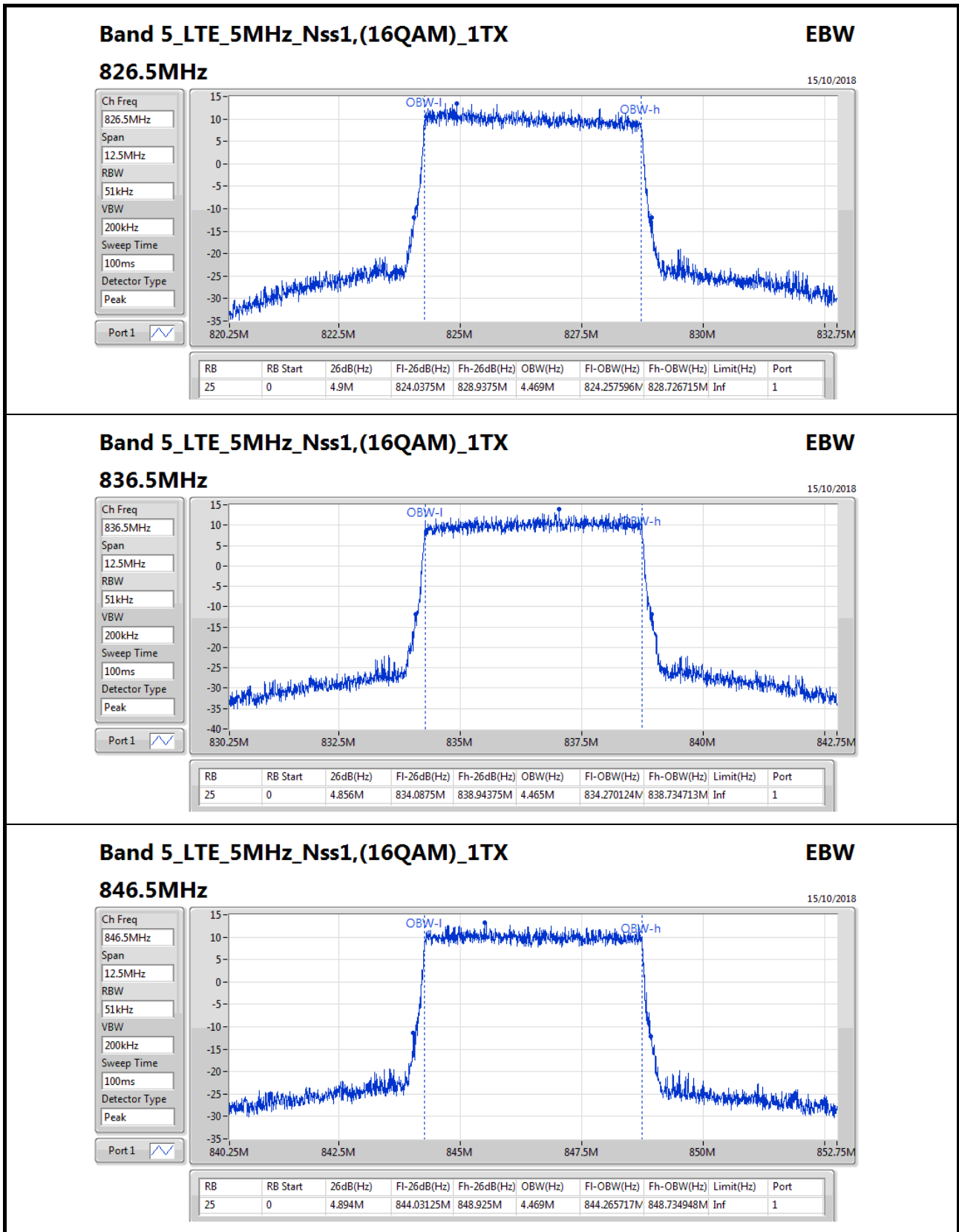
Detector Type  
Peak

Port 1

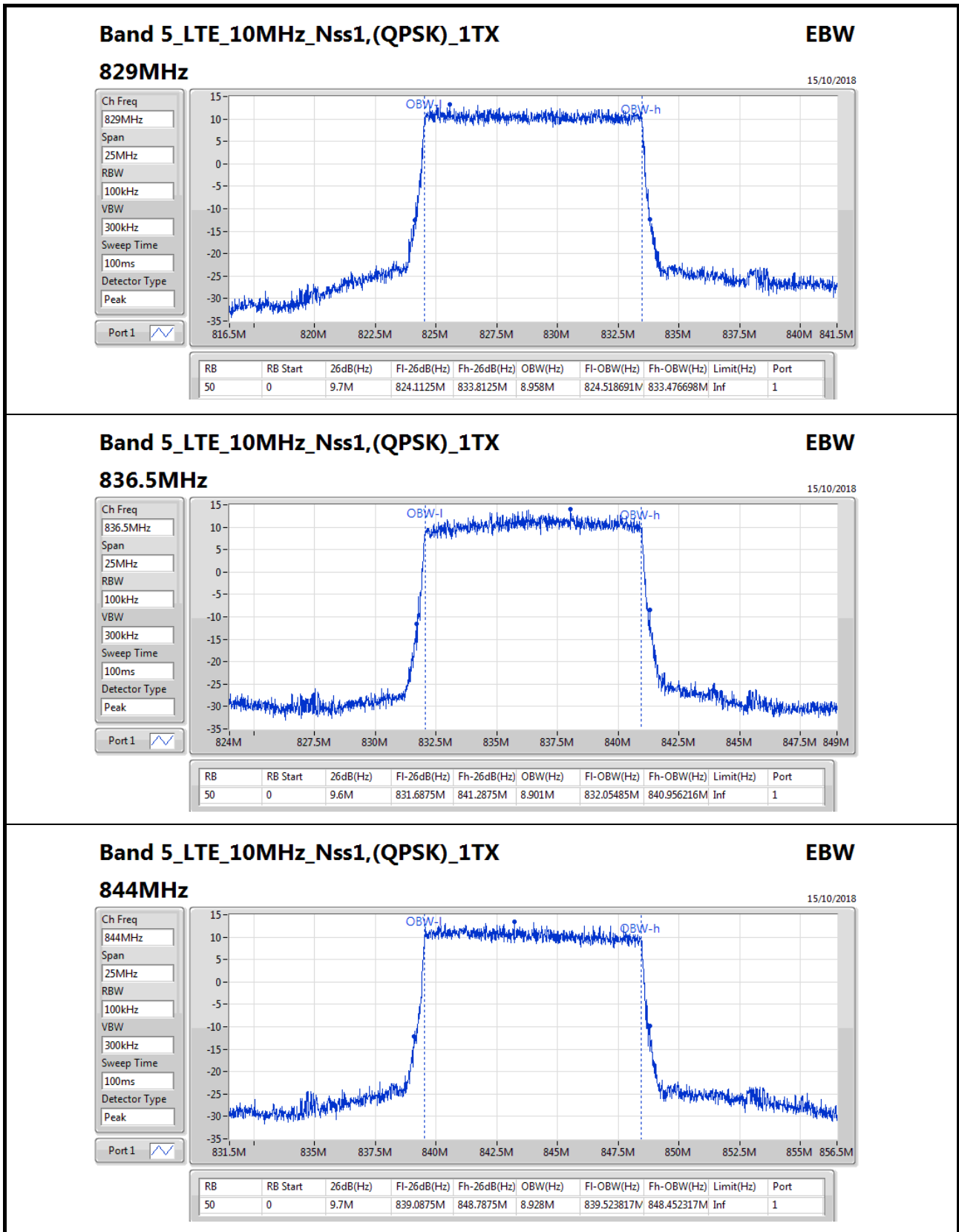


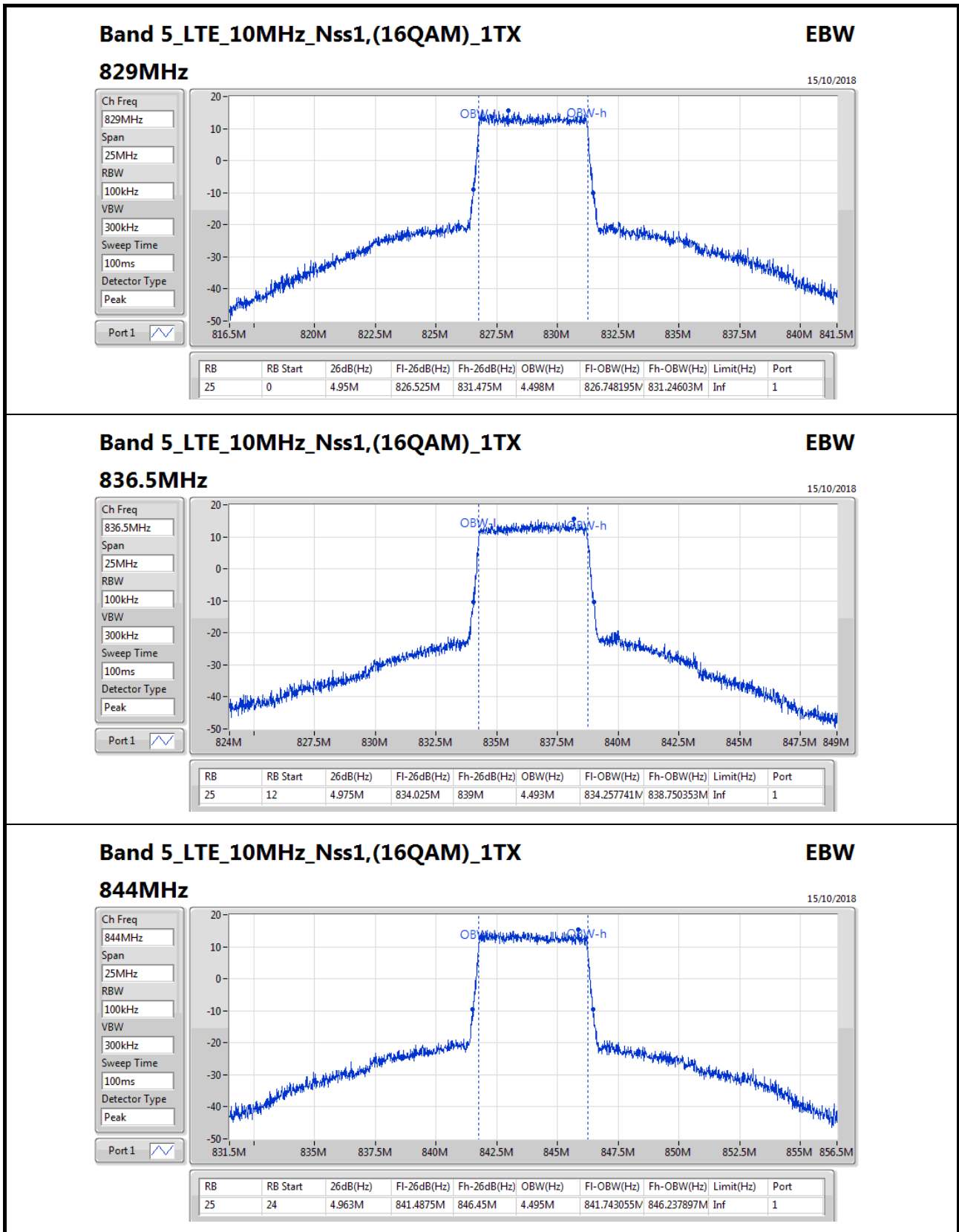












### Band 5\_LTE\_10MHz\_Nss1,(16QAM)\_1TX

#### 844MHz

EBW

15/10/2018

Ch Freq  
844MHz

Span  
25MHz

RBW  
100kHz

VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak

Port 1



Summary

Mode	Result	RB	RB Start	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port	Remark
Band 5	-	-	-	-	-	-	-	-	-	-	-	-	-
Band 5_LTE_5MHz_Nss1,(16QAM)_1TX	Pass	25	0	823M	824M	50k	RMS	823.996M	-16.41	-13.00	-3.41	1	-

DG = Directional Gain;

Result

Mode	Result	RB	RB Start	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port	Remark
LTE_1.4MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
824.7MHz	Pass	1	0	30M	823M	100k	RMS	821.0175M	-41.79	-13.00	-28.79	1	-
824.7MHz	Pass	1	0	823M	824M	6k	RMS	823.994M	-26.81	-13.00	-13.81	1	-
824.7MHz	Pass	1	0	849M	850M	6k	RMS	849.888M	-54.18	-13.00	-41.18	1	-
824.7MHz	Pass	1	0	850M	1G	100k	RMS	911.29375M	-41.29	-13.00	-28.29	1	-
824.7MHz	Pass	1	0	1G	10G	1M	RMS	9.389125G	-38.06	-13.00	-25.06	1	-
824.7MHz	Pass	6	0	30M	823M	100k	RMS	822.306125M	-31.32	-13.00	-18.32	1	-
824.7MHz	Pass	6	0	823M	824M	14k	RMS	823.718M	-24.04	-13.00	-11.04	1	-
824.7MHz	Pass	6	0	849M	850M	14k	RMS	849.396M	-51.47	-13.00	-38.47	1	-
824.7MHz	Pass	6	0	850M	1G	100k	RMS	924.64375M	-40.67	-13.00	-27.67	1	-
824.7MHz	Pass	6	0	1G	10G	1M	RMS	7.474375G	-38.62	-13.00	-25.62	1	-
836.5MHz	Pass	1	3	30M	823M	100k	RMS	508.972M	-41.48	-13.00	-28.48	1	-
836.5MHz	Pass	1	3	823M	824M	6k	RMS	823.072M	-55.57	-13.00	-42.57	1	-
836.5MHz	Pass	1	3	849M	850M	6k	RMS	849.684M	-54.42	-13.00	-41.42	1	-
836.5MHz	Pass	1	3	850M	1G	100k	RMS	974.0875M	-40.65	-13.00	-27.65	1	-
836.5MHz	Pass	1	3	1G	10G	1M	RMS	9.5905G	-38.81	-13.00	-25.81	1	-
836.5MHz	Pass	6	0	30M	823M	100k	RMS	703.157875M	-42.73	-13.00	-29.73	1	-
836.5MHz	Pass	6	0	823M	824M	14k	RMS	823.608M	-50.06	-13.00	-37.06	1	-
836.5MHz	Pass	6	0	849M	850M	14k	RMS	849.98M	-52.23	-13.00	-39.23	1	-
836.5MHz	Pass	6	0	850M	1G	100k	RMS	945.23125M	-41.85	-13.00	-28.85	1	-
836.5MHz	Pass	6	0	1G	10G	1M	RMS	9.99775G	-37.49	-13.00	-24.49	1	-
848.3MHz	Pass	1	5	30M	823M	100k	RMS	783.052625M	-41.91	-13.00	-28.91	1	-
848.3MHz	Pass	1	5	823M	824M	6k	RMS	823.368M	-54.93	-13.00	-41.93	1	-
848.3MHz	Pass	1	5	849M	850M	6k	RMS	849.008M	-26.67	-13.00	-13.67	1	-
848.3MHz	Pass	1	5	850M	1G	100k	RMS	851.0125M	-38.82	-13.00	-25.82	1	-
848.3MHz	Pass	1	5	1G	10G	1M	RMS	6.792625G	-37.62	-13.00	-24.62	1	-
848.3MHz	Pass	6	0	30M	823M	100k	RMS	429.771125M	-42.07	-13.00	-29.07	1	-
848.3MHz	Pass	6	0	823M	824M	14k	RMS	823.974M	-51.92	-13.00	-38.92	1	-
848.3MHz	Pass	6	0	849M	850M	14k	RMS	849.002M	-25.25	-13.00	-12.25	1	-
848.3MHz	Pass	6	0	850M	1G	100k	RMS	850.31875M	-31.23	-13.00	-18.23	1	-
848.3MHz	Pass	6	0	1G	10G	1M	RMS	9.746875G	-38.65	-13.00	-25.65	1	-
LTE_1.4MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
824.7MHz	Pass	1	0	30M	823M	100k	RMS	820.918375M	-41.03	-13.00	-28.03	1	-
824.7MHz	Pass	1	0	823M	824M	6k	RMS	823.952M	-25.96	-13.00	-12.96	1	-
824.7MHz	Pass	1	0	849M	850M	6k	RMS	849.794M	-56.11	-13.00	-43.11	1	-
824.7MHz	Pass	1	0	850M	1G	100k	RMS	977.36875M	-40.49	-13.00	-27.49	1	-
824.7MHz	Pass	1	0	1G	10G	1M	RMS	9.362125G	-37.99	-13.00	-24.99	1	-
824.7MHz	Pass	6	0	30M	823M	100k	RMS	822.207M	-33.87	-13.00	-20.87	1	-
824.7MHz	Pass	6	0	823M	824M	14k	RMS	823.99M	-24.91	-13.00	-11.91	1	-
824.7MHz	Pass	6	0	849M	850M	14k	RMS	849.822M	-50.79	-13.00	-37.79	1	-
824.7MHz	Pass	6	0	850M	1G	100k	RMS	894.8125M	-41.63	-13.00	-28.63	1	-
824.7MHz	Pass	6	0	1G	10G	1M	RMS	9.683875G	-38.03	-13.00	-25.03	1	-
836.5MHz	Pass	1	3	30M	823M	100k	RMS	261.853375M	-41.90	-13.00	-28.90	1	-
836.5MHz	Pass	1	3	823M	824M	6k	RMS	823.664M	-55.74	-13.00	-42.74	1	-
836.5MHz	Pass	1	3	849M	850M	6k	RMS	849.892M	-54.71	-13.00	-41.71	1	-
836.5MHz	Pass	1	3	850M	1G	100k	RMS	933.6625M	-41.33	-13.00	-28.33	1	-
836.5MHz	Pass	1	3	1G	10G	1M	RMS	9.98875G	-38.79	-13.00	-25.79	1	-



Mode	Result	RB	RB Start	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port	Remark
836.5MHz	Pass	6	0	30M	823M	100k	RMS	787.90975M	-41.52	-13.00	-28.52	1	-
836.5MHz	Pass	6	0	823M	824M	14k	RMS	823.656M	-50.28	-13.00	-37.28	1	-
836.5MHz	Pass	6	0	849M	850M	14k	RMS	849.626M	-52.81	-13.00	-39.81	1	-
836.5MHz	Pass	6	0	850M	1G	100k	RMS	988.375M	-41.79	-13.00	-28.79	1	-
836.5MHz	Pass	6	0	1G	10G	1M	RMS	7.72075G	-37.57	-13.00	-24.57	1	-
848.3MHz	Pass	1	5	30M	823M	100k	RMS	427.788625M	-41.30	-13.00	-28.30	1	-
848.3MHz	Pass	1	5	823M	824M	6k	RMS	823.028M	-54.52	-13.00	-41.52	1	-
848.3MHz	Pass	1	5	849M	850M	6k	RMS	849.042M	-29.12	-13.00	-16.12	1	-
848.3MHz	Pass	1	5	850M	1G	100k	RMS	949.8625M	-41.75	-13.00	-28.75	1	-
848.3MHz	Pass	1	5	1G	10G	1M	RMS	6.49675G	-39.09	-13.00	-26.09	1	-
848.3MHz	Pass	6	0	30M	823M	100k	RMS	814.47525M	-41.14	-13.00	-28.14	1	-
848.3MHz	Pass	6	0	823M	824M	14k	RMS	823.674M	-50.21	-13.00	-37.21	1	-
848.3MHz	Pass	6	0	849M	850M	14k	RMS	849.042M	-24.91	-13.00	-11.91	1	-
848.3MHz	Pass	6	0	850M	1G	100k	RMS	850.975M	-32.82	-13.00	-19.82	1	-
848.3MHz	Pass	6	0	1G	10G	1M	RMS	9.074125G	-38.20	-13.00	-25.20	1	-
LTE_3MHz_Nss1,(OPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
825.5MHz	Pass	1	0	30M	823M	100k	RMS	821.8105M	-41.20	-13.00	-28.20	1	-
825.5MHz	Pass	1	0	823M	824M	6k	RMS	823.968M	-27.02	-13.00	-14.02	1	-
825.5MHz	Pass	1	0	849M	850M	6k	RMS	849.942M	-55.53	-13.00	-42.53	1	-
825.5MHz	Pass	1	0	850M	1G	100k	RMS	938.4625M	-41.75	-13.00	-28.75	1	-
825.5MHz	Pass	1	0	1G	10G	1M	RMS	9.994375G	-37.36	-13.00	-24.36	1	-
825.5MHz	Pass	15	0	30M	823M	100k	RMS	822.207M	-23.87	-13.00	-10.87	1	-
825.5MHz	Pass	15	0	823M	824M	30k	RMS	823.966M	-20.52	-13.00	-7.52	1	-
825.5MHz	Pass	15	0	849M	850M	30k	RMS	849.802M	-48.18	-13.00	-35.18	1	-
825.5MHz	Pass	15	0	850M	1G	100k	RMS	911.29375M	-41.22	-13.00	-28.22	1	-
825.5MHz	Pass	15	0	1G	10G	1M	RMS	7.469875G	-38.49	-13.00	-25.49	1	-
836.5MHz	Pass	1	8	30M	823M	100k	RMS	417.97525M	-43.08	-13.00	-30.08	1	-
836.5MHz	Pass	1	8	823M	824M	6k	RMS	823.954M	-54.37	-13.00	-41.37	1	-
836.5MHz	Pass	1	8	849M	850M	6k	RMS	849.272M	-54.80	-13.00	-41.80	1	-
836.5MHz	Pass	1	8	850M	1G	100k	RMS	929.29375M	-40.47	-13.00	-27.47	1	-
836.5MHz	Pass	1	8	1G	10G	1M	RMS	9.9775G	-36.59	-13.00	-23.59	1	-
836.5MHz	Pass	15	0	30M	823M	100k	RMS	429.87025M	-41.75	-13.00	-28.75	1	-
836.5MHz	Pass	15	0	823M	824M	30k	RMS	823.44M	-47.74	-13.00	-34.74	1	-
836.5MHz	Pass	15	0	849M	850M	30k	RMS	849.568M	-49.69	-13.00	-36.69	1	-
836.5MHz	Pass	15	0	850M	1G	100k	RMS	886.375M	-40.55	-13.00	-27.55	1	-
836.5MHz	Pass	15	0	1G	10G	1M	RMS	9.159625G	-37.87	-13.00	-24.87	1	-
847.5MHz	Pass	1	14	30M	823M	100k	RMS	561.7065M	-40.87	-13.00	-27.87	1	-
847.5MHz	Pass	1	14	823M	824M	6k	RMS	823.258M	-54.73	-13.00	-41.73	1	-
847.5MHz	Pass	1	14	849M	850M	6k	RMS	849.016M	-25.09	-13.00	-12.09	1	-
847.5MHz	Pass	1	14	850M	1G	100k	RMS	850.4875M	-40.33	-13.00	-27.33	1	-
847.5MHz	Pass	1	14	1G	10G	1M	RMS	5.885875G	-38.57	-13.00	-25.57	1	-
847.5MHz	Pass	15	0	30M	823M	100k	RMS	145.3815M	-42.27	-13.00	-29.27	1	-
847.5MHz	Pass	15	0	823M	824M	30k	RMS	823.558M	-47.63	-13.00	-34.63	1	-
847.5MHz	Pass	15	0	849M	850M	30k	RMS	849.544M	-24.18	-13.00	-11.18	1	-
847.5MHz	Pass	15	0	850M	1G	100k	RMS	851.2M	-23.12	-13.00	-10.12	1	-
847.5MHz	Pass	15	0	1G	10G	1M	RMS	7.557625G	-38.35	-13.00	-25.35	1	-
LTE_3MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
825.5MHz	Pass	1	0	30M	823M	100k	RMS	821.314875M	-39.26	-13.00	-26.26	1	-
825.5MHz	Pass	1	0	823M	824M	6k	RMS	823.964M	-29.55	-13.00	-16.55	1	-
825.5MHz	Pass	1	0	849M	850M	6k	RMS	849.566M	-56.13	-13.00	-43.13	1	-
825.5MHz	Pass	1	0	850M	1G	100k	RMS	867.45625M	-40.31	-13.00	-27.31	1	-
825.5MHz	Pass	1	0	1G	10G	1M	RMS	5.793625G	-38.99	-13.00	-25.99	1	-
825.5MHz	Pass	15	0	30M	823M	100k	RMS	822.6035M	-22.21	-13.00	-9.21	1	-
825.5MHz	Pass	15	0	823M	824M	30k	RMS	823.568M	-25.61	-13.00	-12.61	1	-
825.5MHz	Pass	15	0	849M	850M	30k	RMS	849.78M	-47.86	-13.00	-34.86	1	-
825.5MHz	Pass	15	0	850M	1G	100k	RMS	925.45M	-40.91	-13.00	-27.91	1	-



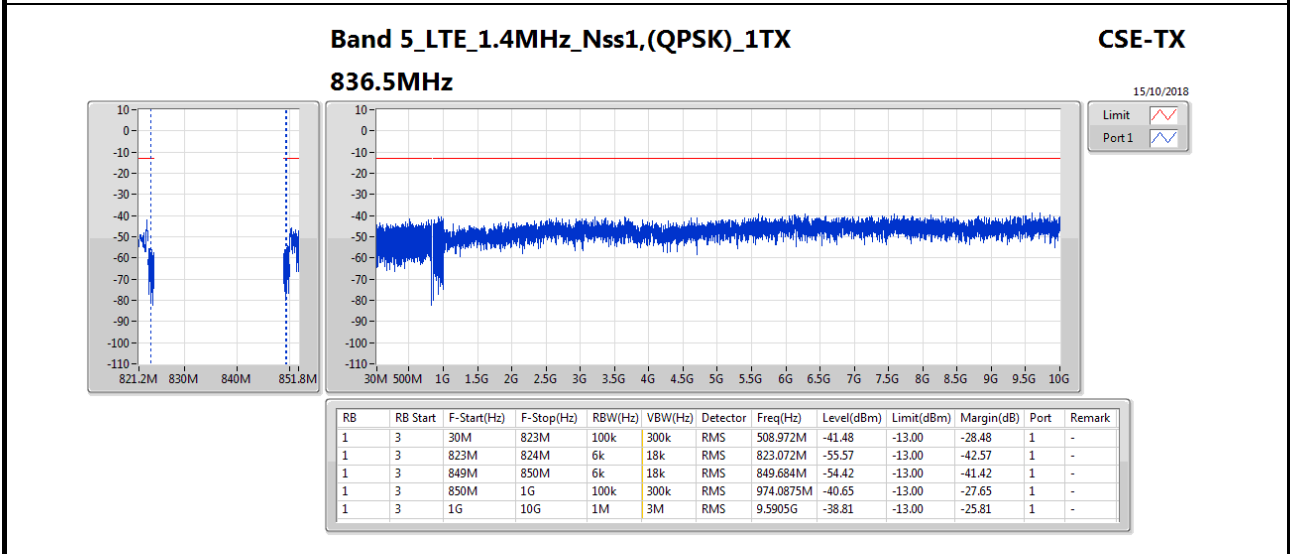
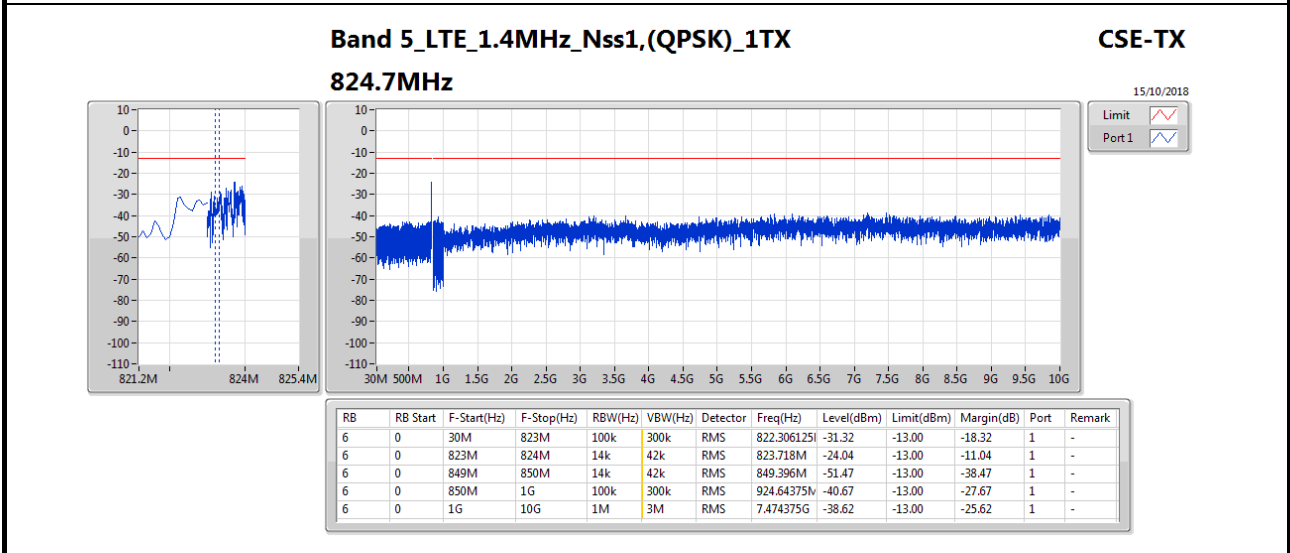
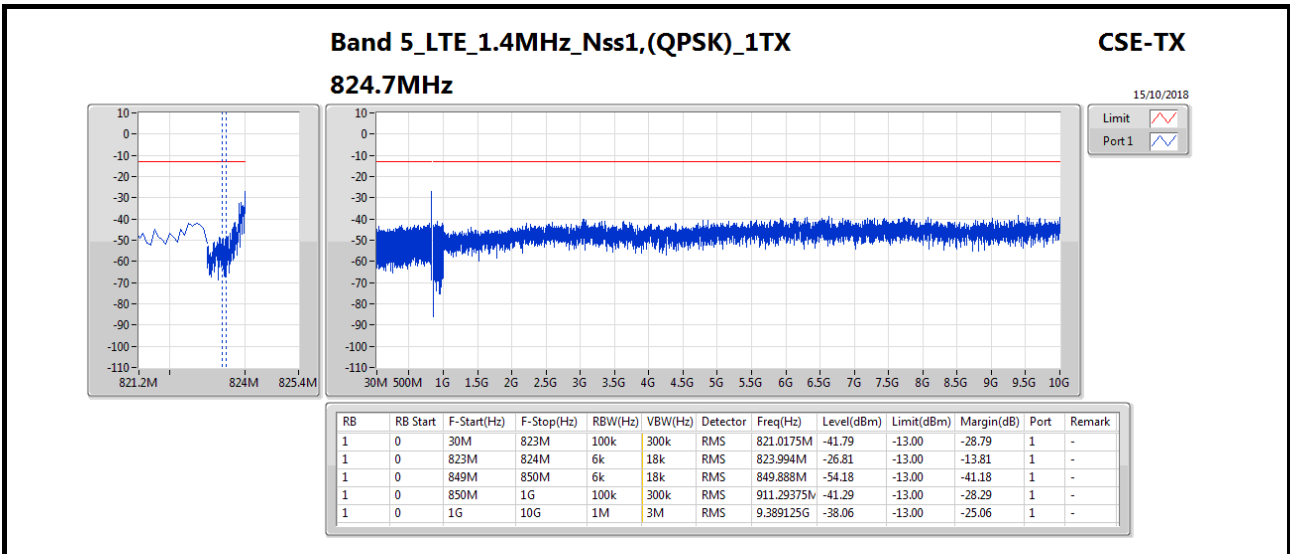
Mode	Result	RB	RB Start	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port	Remark
825.5MHz	Pass	15	0	1G	10G	1M	RMS	7.15825G	-37.47	-13.00	-24.47	1	-
836.5MHz	Pass	1	8	30M	823M	100k	RMS	396.7625M	-43.01	-13.00	-30.01	1	-
836.5MHz	Pass	1	8	823M	824M	6k	RMS	823.012M	-55.96	-13.00	-42.96	1	-
836.5MHz	Pass	1	8	849M	850M	6k	RMS	849.748M	-54.60	-13.00	-41.60	1	-
836.5MHz	Pass	1	8	850M	1G	100k	RMS	861.55M	-41.26	-13.00	-28.26	1	-
836.5MHz	Pass	1	8	1G	10G	1M	RMS	9.431875G	-39.10	-13.00	-26.10	1	-
836.5MHz	Pass	15	0	30M	823M	100k	RMS	788.5045M	-42.06	-13.00	-29.06	1	-
836.5MHz	Pass	15	0	823M	824M	30k	RMS	823.674M	-48.99	-13.00	-35.99	1	-
836.5MHz	Pass	15	0	849M	850M	30k	RMS	849.6M	-49.22	-13.00	-36.22	1	-
836.5MHz	Pass	15	0	850M	1G	100k	RMS	906.56875M	-40.95	-13.00	-27.95	1	-
836.5MHz	Pass	15	0	1G	10G	1M	RMS	7.184125G	-38.86	-13.00	-25.86	1	-
847.5MHz	Pass	1	14	30M	823M	100k	RMS	716.044125M	-41.39	-13.00	-28.39	1	-
847.5MHz	Pass	1	14	823M	824M	6k	RMS	823.124M	-56.22	-13.00	-43.22	1	-
847.5MHz	Pass	1	14	849M	850M	6k	RMS	849.012M	-23.99	-13.00	-10.99	1	-
847.5MHz	Pass	1	14	850M	1G	100k	RMS	851.125M	-33.21	-13.00	-20.21	1	-
847.5MHz	Pass	1	14	1G	10G	1M	RMS	6.207625G	-39.07	-13.00	-26.07	1	-
847.5MHz	Pass	15	0	30M	823M	100k	RMS	491.625125M	-42.89	-13.00	-29.89	1	-
847.5MHz	Pass	15	0	823M	824M	30k	RMS	823.724M	-46.68	-13.00	-33.68	1	-
847.5MHz	Pass	15	0	849M	850M	30k	RMS	849.936M	-25.01	-13.00	-12.01	1	-
847.5MHz	Pass	15	0	850M	1G	100k	RMS	850.05625M	-25.47	-13.00	-12.47	1	-
847.5MHz	Pass	15	0	1G	10G	1M	RMS	6.51025G	-38.23	-13.00	-25.23	1	-
LTE_5MHz_Nss1,(OPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
826.5MHz	Pass	1	0	30M	823M	100k	RMS	821.61225M	-42.53	-13.00	-29.53	1	-
826.5MHz	Pass	1	0	823M	824M	6k	RMS	823.954M	-26.53	-13.00	-13.53	1	-
826.5MHz	Pass	1	0	849M	850M	6k	RMS	849.034M	-56.37	-13.00	-43.37	1	-
826.5MHz	Pass	1	0	850M	1G	100k	RMS	893.575M	-40.16	-13.00	-27.16	1	-
826.5MHz	Pass	1	0	1G	10G	1M	RMS	9.407125G	-38.65	-13.00	-25.65	1	-
826.5MHz	Pass	25	0	30M	823M	100k	RMS	822.107875M	-27.96	-13.00	-14.96	1	-
826.5MHz	Pass	25	0	823M	824M	50k	RMS	823.948M	-22.62	-13.00	-9.62	1	-
826.5MHz	Pass	25	0	849M	850M	50k	RMS	849.56M	-44.87	-13.00	-31.87	1	-
826.5MHz	Pass	25	0	850M	1G	100k	RMS	989.48125M	-41.07	-13.00	-28.07	1	-
826.5MHz	Pass	25	0	1G	10G	1M	RMS	6.268375G	-38.27	-13.00	-25.27	1	-
836.5MHz	Pass	1	12	30M	823M	100k	RMS	704.545625M	-42.21	-13.00	-29.21	1	-
836.5MHz	Pass	1	12	823M	824M	6k	RMS	823.856M	-54.88	-13.00	-41.88	1	-
836.5MHz	Pass	1	12	849M	850M	6k	RMS	849.012M	-31.29	-13.00	-18.29	1	-
836.5MHz	Pass	1	12	850M	1G	100k	RMS	851.05M	-24.24	-13.00	-11.24	1	-
836.5MHz	Pass	1	12	1G	10G	1M	RMS	8.956G	-38.55	-13.00	-25.55	1	-
836.5MHz	Pass	25	0	30M	823M	100k	RMS	525.922375M	-42.66	-13.00	-29.66	1	-
836.5MHz	Pass	25	0	823M	824M	50k	RMS	823.176M	-47.39	-13.00	-34.39	1	-
836.5MHz	Pass	25	0	849M	850M	50k	RMS	849.574M	-24.58	-13.00	-11.58	1	-
836.5MHz	Pass	25	0	850M	1G	100k	RMS	850.35625M	-23.30	-13.00	-10.30	1	-
836.5MHz	Pass	25	0	1G	10G	1M	RMS	7.4485G	-38.51	-13.00	-25.51	1	-
846.5MHz	Pass	1	24	30M	823M	100k	RMS	815.169125M	-40.93	-13.00	-27.93	1	-
846.5MHz	Pass	1	24	823M	824M	6k	RMS	823.388M	-55.85	-13.00	-42.85	1	-
846.5MHz	Pass	1	24	849M	850M	6k	RMS	849.038M	-26.73	-13.00	-13.73	1	-
846.5MHz	Pass	1	24	850M	1G	100k	RMS	850.05625M	-39.97	-13.00	-26.97	1	-
846.5MHz	Pass	1	24	1G	10G	1M	RMS	9.931375G	-38.53	-13.00	-25.53	1	-
846.5MHz	Pass	25	0	30M	823M	100k	RMS	785.53075M	-42.82	-13.00	-29.82	1	-
846.5MHz	Pass	25	0	823M	824M	50k	RMS	823.4M	-46.94	-13.00	-33.94	1	-
846.5MHz	Pass	25	0	849M	850M	50k	RMS	849.004M	-19.18	-13.00	-6.18	1	-
846.5MHz	Pass	25	0	850M	1G	100k	RMS	851.14375M	-23.20	-13.00	-10.20	1	-
846.5MHz	Pass	25	0	1G	10G	1M	RMS	5.97025G	-38.63	-13.00	-25.63	1	-
LTE_5MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
826.5MHz	Pass	1	0	30M	823M	100k	RMS	715.647625M	-42.53	-13.00	-29.53	1	-
826.5MHz	Pass	1	0	823M	824M	6k	RMS	823.996M	-33.85	-13.00	-20.85	1	-
826.5MHz	Pass	1	0	849M	850M	6k	RMS	849.728M	-55.21	-13.00	-42.21	1	-



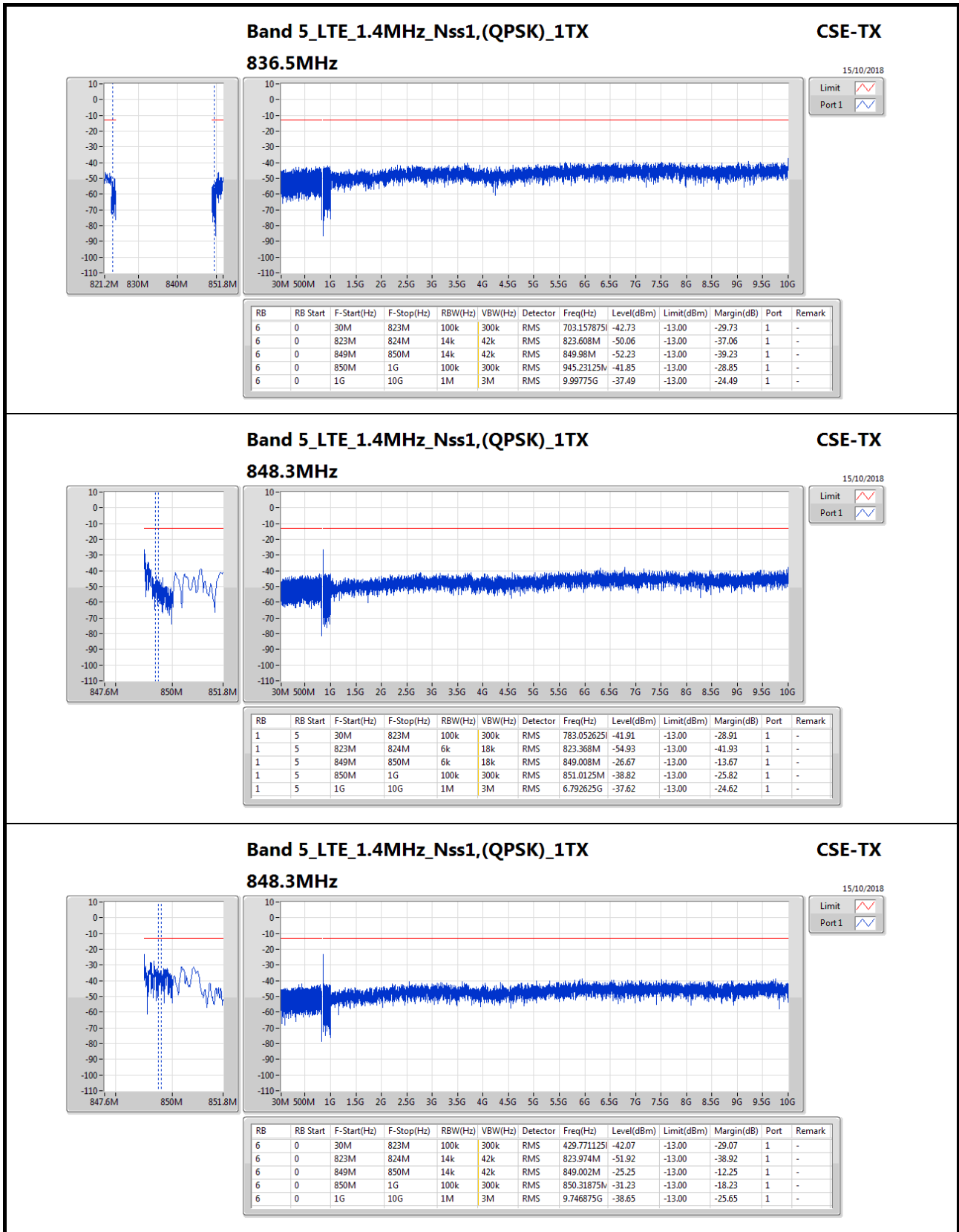
Mode	Result	RB	RB Start	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port	Remark
826.5MHz	Pass	1	0	850M	1G	100k	RMS	872.66875M	-41.11	-13.00	-28.11	1	-
826.5MHz	Pass	1	0	1G	10G	1M	RMS	6.841G	-39.01	-13.00	-26.01	1	-
826.5MHz	Pass	25	0	30M	823M	100k	RMS	822.80175M	-22.92	-13.00	-9.92	1	-
826.5MHz	Pass	25	0	823M	824M	50k	RMS	823.996M	-16.41	-13.00	-3.41	1	-
826.5MHz	Pass	25	0	849M	850M	50k	RMS	849.392M	-44.35	-13.00	-31.35	1	-
826.5MHz	Pass	25	0	850M	1G	100k	RMS	966.1M	-41.07	-13.00	-28.07	1	-
826.5MHz	Pass	25	0	1G	10G	1M	RMS	7.163875G	-38.90	-13.00	-25.90	1	-
836.5MHz	Pass	1	12	30M	823M	100k	RMS	534.050625M	-42.52	-13.00	-29.52	1	-
836.5MHz	Pass	1	12	823M	824M	6k	RMS	823.516M	-54.36	-13.00	-41.36	1	-
836.5MHz	Pass	1	12	849M	850M	6k	RMS	849.014M	-29.10	-13.00	-16.10	1	-
836.5MHz	Pass	1	12	850M	1G	100k	RMS	851.65M	-23.81	-13.00	-10.81	1	-
836.5MHz	Pass	1	12	1G	10G	1M	RMS	5.363875G	-37.84	-13.00	-24.84	1	-
836.5MHz	Pass	25	0	30M	823M	100k	RMS	347.00175M	-41.16	-13.00	-28.16	1	-
836.5MHz	Pass	25	0	823M	824M	50k	RMS	823.08M	-46.14	-13.00	-33.14	1	-
836.5MHz	Pass	25	0	849M	850M	50k	RMS	849.11M	-25.30	-13.00	-12.30	1	-
836.5MHz	Pass	25	0	850M	1G	100k	RMS	851.63125M	-24.56	-13.00	-11.56	1	-
836.5MHz	Pass	25	0	1G	10G	1M	RMS	7.55425G	-38.36	-13.00	-25.36	1	-
846.5MHz	Pass	1	24	30M	823M	100k	RMS	781.863125M	-40.96	-13.00	-27.96	1	-
846.5MHz	Pass	1	24	823M	824M	6k	RMS	823.658M	-54.10	-13.00	-41.10	1	-
846.5MHz	Pass	1	24	849M	850M	6k	RMS	849.022M	-29.34	-13.00	-16.34	1	-
846.5MHz	Pass	1	24	850M	1G	100k	RMS	853.01875M	-40.41	-13.00	-27.41	1	-
846.5MHz	Pass	1	24	1G	10G	1M	RMS	8.35975G	-38.79	-13.00	-25.79	1	-
846.5MHz	Pass	25	0	30M	823M	100k	RMS	754.4055M	-42.52	-13.00	-29.52	1	-
846.5MHz	Pass	25	0	823M	824M	50k	RMS	823.794M	-46.66	-13.00	-33.66	1	-
846.5MHz	Pass	25	0	849M	850M	50k	RMS	849.684M	-25.38	-13.00	-12.38	1	-
846.5MHz	Pass	25	0	850M	1G	100k	RMS	850.7125M	-25.42	-13.00	-12.42	1	-
846.5MHz	Pass	25	0	1G	10G	1M	RMS	6.2245G	-38.84	-13.00	-25.84	1	-
LTE_10MHz_Nss1,(QPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
829MHz	Pass	1	0	30M	823M	100k	RMS	732.498875M	-41.99	-13.00	-28.99	1	-
829MHz	Pass	1	0	823M	824M	6k	RMS	823.992M	-43.20	-13.00	-30.20	1	-
829MHz	Pass	1	0	849M	850M	6k	RMS	849.6M	-53.67	-13.00	-40.67	1	-
829MHz	Pass	1	0	850M	1G	100k	RMS	985.99375M	-41.36	-13.00	-28.36	1	-
829MHz	Pass	1	0	1G	10G	1M	RMS	9.6715G	-38.07	-13.00	-25.07	1	-
829MHz	Pass	50	0	30M	823M	100k	RMS	822.207M	-30.36	-13.00	-17.36	1	-
829MHz	Pass	50	0	823M	824M	100k	RMS	823.846M	-21.99	-13.00	-8.99	1	-
829MHz	Pass	50	0	849M	850M	100k	RMS	849.354M	-38.10	-13.00	-25.10	1	-
829MHz	Pass	50	0	850M	1G	100k	RMS	918.60625M	-40.33	-13.00	-27.33	1	-
829MHz	Pass	50	0	1G	10G	1M	RMS	6.84325G	-37.69	-13.00	-24.69	1	-
836.5MHz	Pass	1	25	30M	823M	100k	RMS	627.129M	-42.55	-13.00	-29.55	1	-
836.5MHz	Pass	1	25	823M	824M	6k	RMS	823.486M	-55.34	-13.00	-42.34	1	-
836.5MHz	Pass	1	25	849M	850M	6k	RMS	849.566M	-55.27	-13.00	-42.27	1	-
836.5MHz	Pass	1	25	850M	1G	100k	RMS	852.19375M	-41.85	-13.00	-28.85	1	-
836.5MHz	Pass	1	25	1G	10G	1M	RMS	9.316G	-38.87	-13.00	-25.87	1	-
836.5MHz	Pass	50	0	30M	823M	100k	RMS	821.8105M	-38.86	-13.00	-25.86	1	-
836.5MHz	Pass	50	0	823M	824M	100k	RMS	823.266M	-28.79	-13.00	-15.79	1	-
836.5MHz	Pass	50	0	849M	850M	100k	RMS	849.136M	-30.36	-13.00	-17.36	1	-
836.5MHz	Pass	50	0	850M	1G	100k	RMS	850.05625M	-37.80	-13.00	-24.80	1	-
836.5MHz	Pass	50	0	1G	10G	1M	RMS	7.264G	-37.70	-13.00	-24.70	1	-
844MHz	Pass	1	49	30M	823M	100k	RMS	746.27725M	-41.91	-13.00	-28.91	1	-
844MHz	Pass	1	49	823M	824M	6k	RMS	823.214M	-54.91	-13.00	-41.91	1	-
844MHz	Pass	1	49	849M	850M	6k	RMS	849.064M	-40.78	-13.00	-27.78	1	-
844MHz	Pass	1	49	850M	1G	100k	RMS	852.85M	-40.93	-13.00	-27.93	1	-
844MHz	Pass	1	49	1G	10G	1M	RMS	7.16725G	-38.37	-13.00	-25.37	1	-
844MHz	Pass	50	0	30M	823M	100k	RMS	822.80175M	-40.76	-13.00	-27.76	1	-
844MHz	Pass	50	0	823M	824M	100k	RMS	823.48M	-35.40	-13.00	-22.40	1	-
844MHz	Pass	50	0	849M	850M	100k	RMS	849.034M	-20.84	-13.00	-7.84	1	-

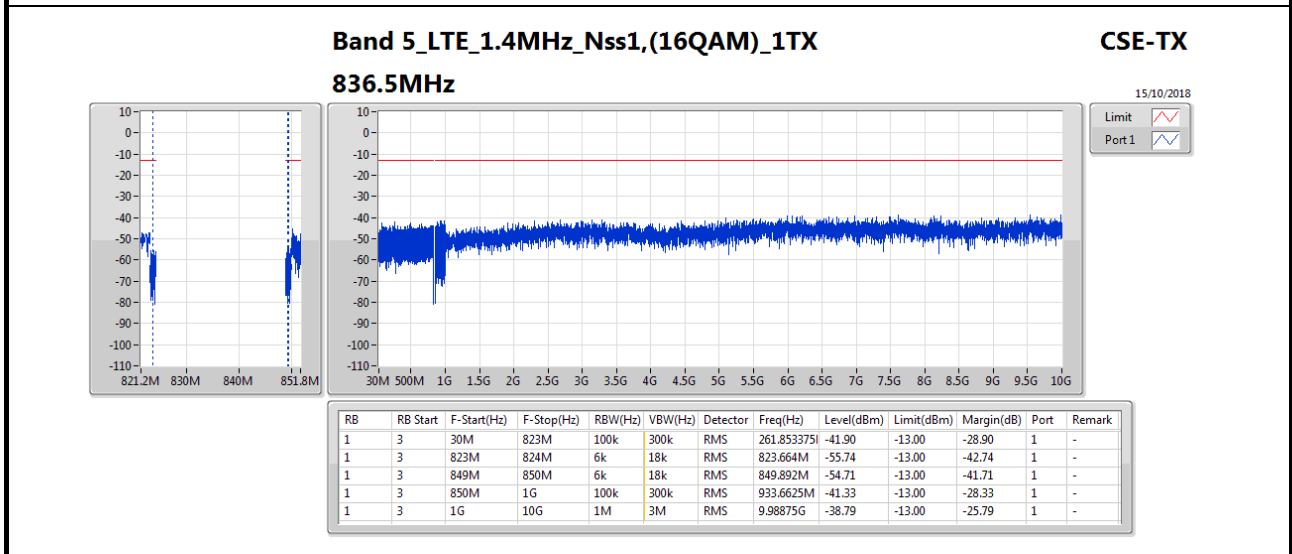
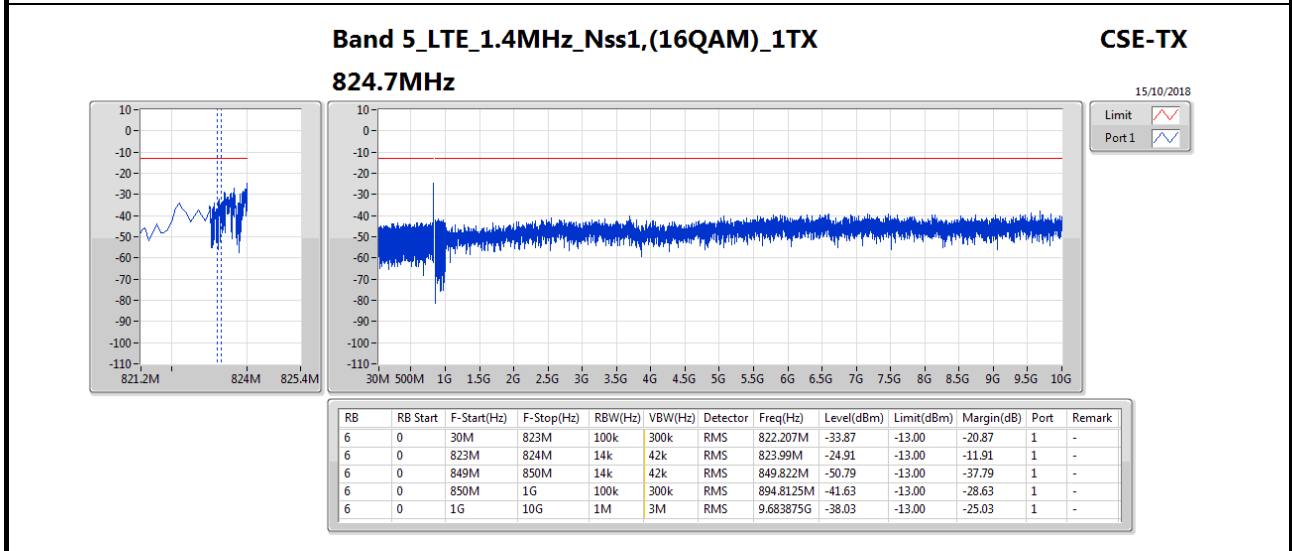
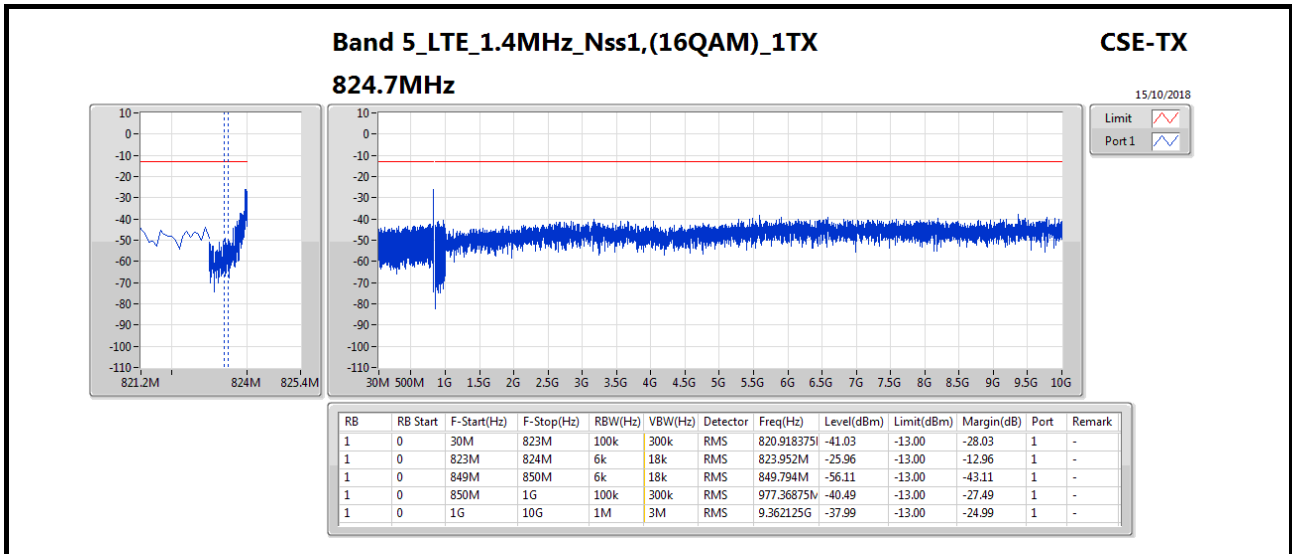


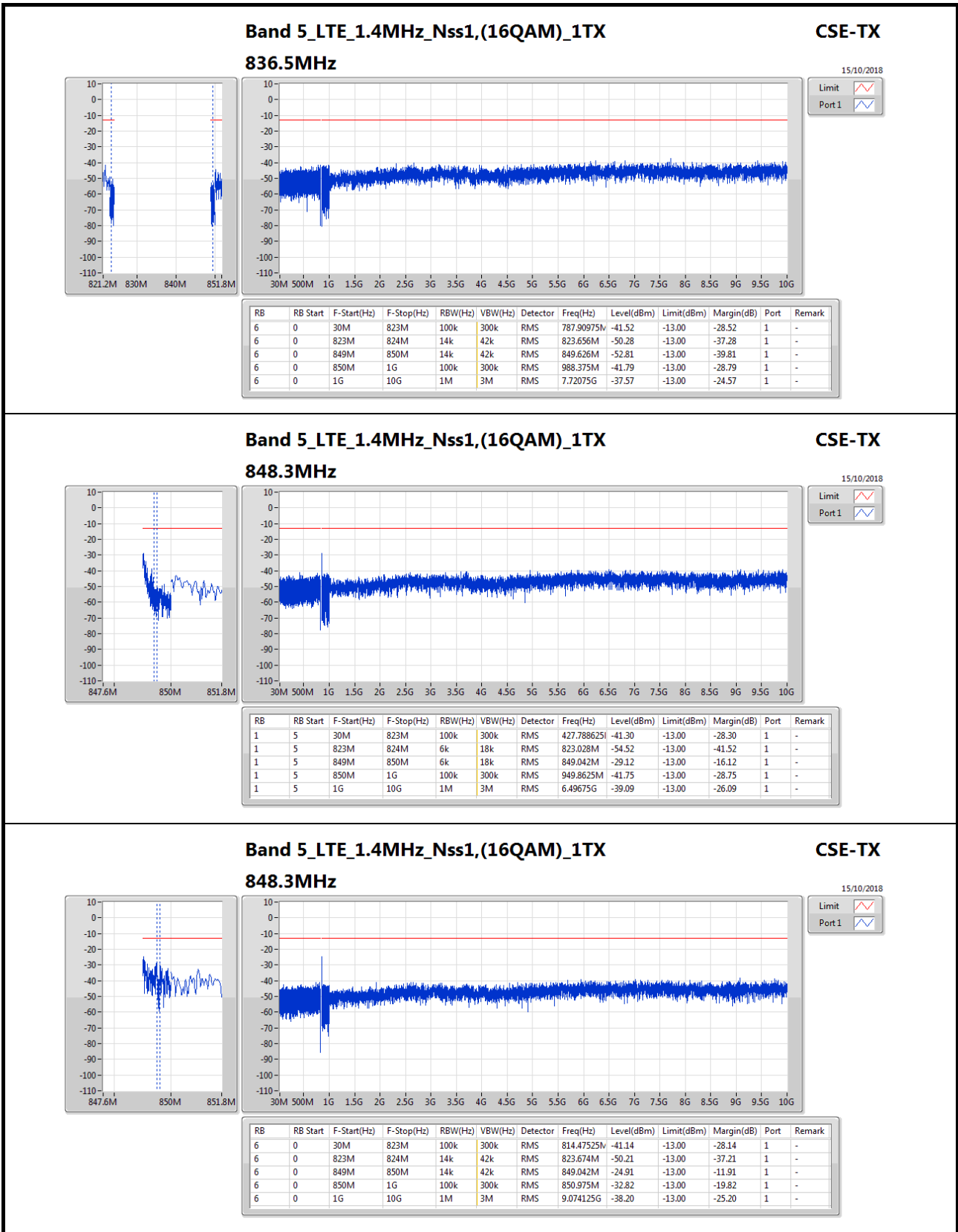
Mode	Result	RB	RB Start	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Detector	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Port	Remark
844MHz	Pass	50	0	850M	1G	100k	RMS	855.71875M	-27.78	-13.00	-14.78	1	-
844MHz	Pass	50	0	1G	10G	1M	RMS	6.124375G	-38.60	-13.00	-25.60	1	-
LTE_10MHz_Nss1_(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
829MHz	Pass	1	0	30M	823M	100k	RMS	822.900875M	-39.03	-13.00	-26.03	1	-
829MHz	Pass	1	0	823M	824M	6k	RMS	823.842M	-47.75	-13.00	-34.75	1	-
829MHz	Pass	1	0	849M	850M	6k	RMS	849.788M	-35.20	-13.00	-22.20	1	-
829MHz	Pass	1	0	850M	1G	100k	RMS	851.575M	-23.79	-13.00	-10.79	1	-
829MHz	Pass	1	0	1G	10G	1M	RMS	6.155875G	-38.64	-13.00	-25.64	1	-
829MHz	Pass	25	0	30M	823M	100k	RMS	821.21575M	-42.04	-13.00	-29.04	1	-
829MHz	Pass	25	0	823M	824M	100k	RMS	823.366M	-33.98	-13.00	-20.98	1	-
829MHz	Pass	25	0	849M	850M	100k	RMS	849.056M	-21.64	-13.00	-8.64	1	-
829MHz	Pass	25	0	850M	1G	100k	RMS	851.21875M	-25.56	-13.00	-12.56	1	-
829MHz	Pass	25	0	1G	10G	1M	RMS	7.888375G	-38.26	-13.00	-25.26	1	-
836.5MHz	Pass	1	12	30M	823M	100k	RMS	768.183875M	-41.13	-13.00	-28.13	1	-
836.5MHz	Pass	1	12	823M	824M	6k	RMS	823.852M	-47.69	-13.00	-34.69	1	-
836.5MHz	Pass	1	12	849M	850M	6k	RMS	849.568M	-37.73	-13.00	-24.73	1	-
836.5MHz	Pass	1	12	850M	1G	100k	RMS	850M	-24.89	-13.00	-11.89	1	-
836.5MHz	Pass	1	12	1G	10G	1M	RMS	6.4765G	-38.33	-13.00	-25.33	1	-
836.5MHz	Pass	25	0	30M	823M	100k	RMS	820.2245M	-41.52	-13.00	-28.52	1	-
836.5MHz	Pass	25	0	823M	824M	100k	RMS	823.93M	-34.60	-13.00	-21.60	1	-
836.5MHz	Pass	25	0	849M	850M	100k	RMS	849.962M	-22.44	-13.00	-9.44	1	-
836.5MHz	Pass	25	0	850M	1G	100k	RMS	851.95M	-26.76	-13.00	-13.76	1	-
836.5MHz	Pass	25	0	1G	10G	1M	RMS	6.254875G	-38.13	-13.00	-25.13	1	-
844MHz	Pass	1	24	30M	823M	100k	RMS	818.83675M	-40.80	-13.00	-27.80	1	-
844MHz	Pass	1	24	823M	824M	6k	RMS	823.234M	-46.86	-13.00	-33.86	1	-
844MHz	Pass	1	24	849M	850M	6k	RMS	849.162M	-35.47	-13.00	-22.47	1	-
844MHz	Pass	1	24	850M	1G	100k	RMS	850.01875M	-25.83	-13.00	-12.83	1	-
844MHz	Pass	1	24	1G	10G	1M	RMS	7.23475G	-37.90	-13.00	-24.90	1	-
844MHz	Pass	25	0	30M	823M	100k	RMS	776.312125M	-41.58	-13.00	-28.58	1	-
844MHz	Pass	25	0	823M	824M	100k	RMS	823.782M	-34.28	-13.00	-21.28	1	-
844MHz	Pass	25	0	849M	850M	100k	RMS	849.11M	-22.19	-13.00	-9.19	1	-
844MHz	Pass	25	0	850M	1G	100k	RMS	851.29375M	-25.64	-13.00	-12.64	1	-
844MHz	Pass	25	0	1G	10G	1M	RMS	7.580125G	-38.74	-13.00	-25.74	1	-

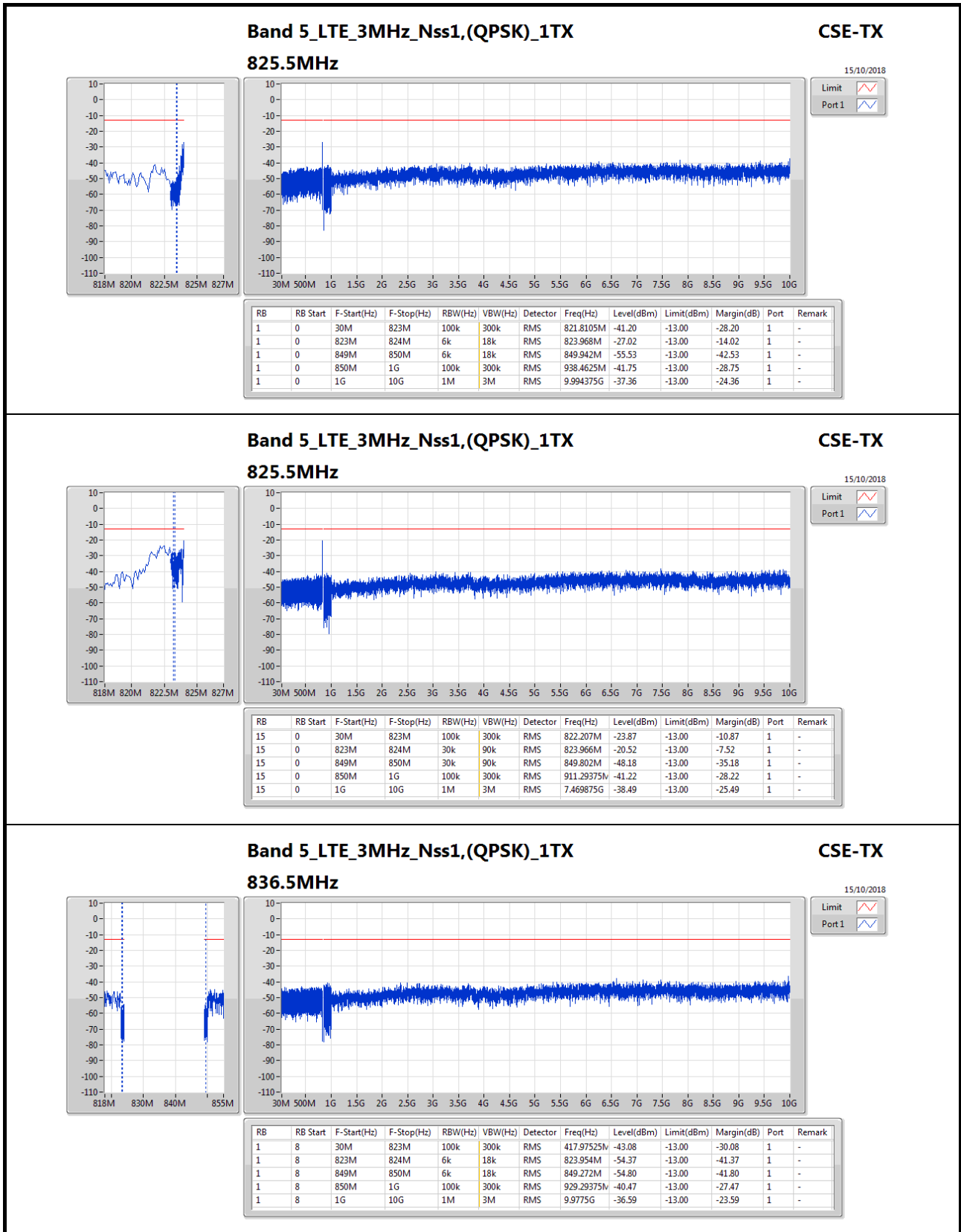


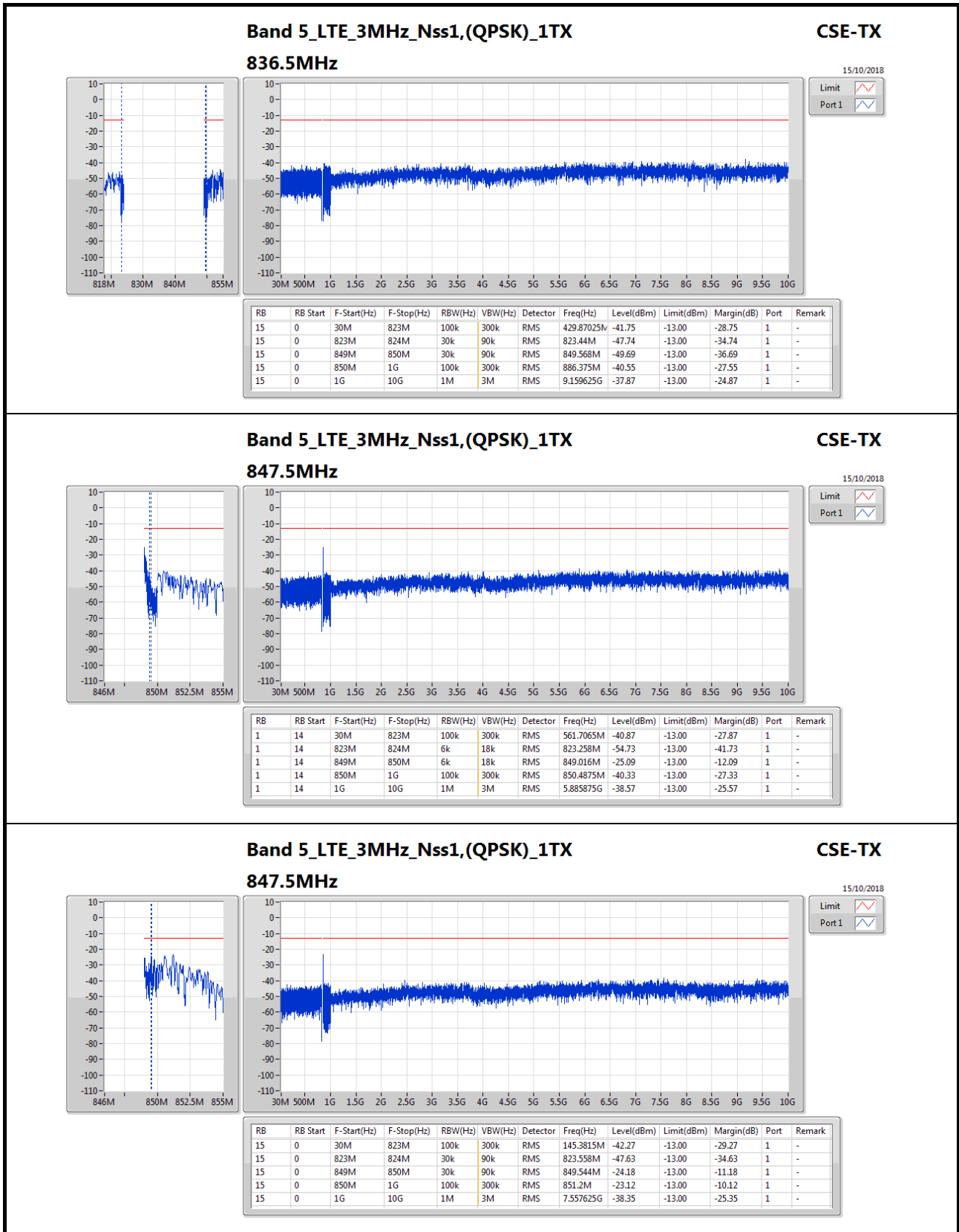


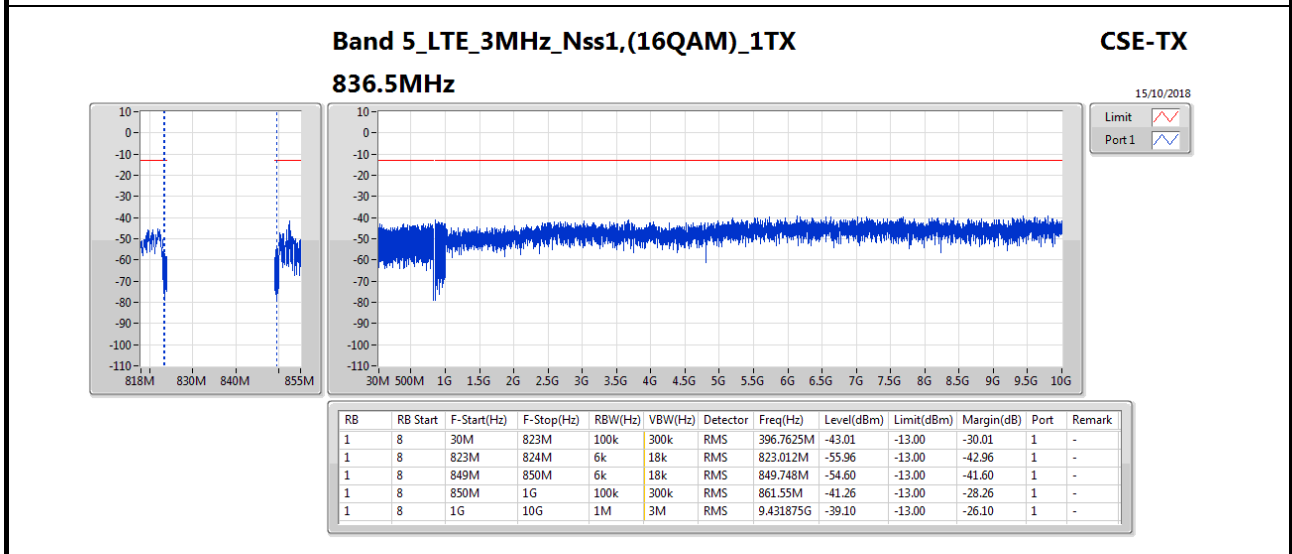
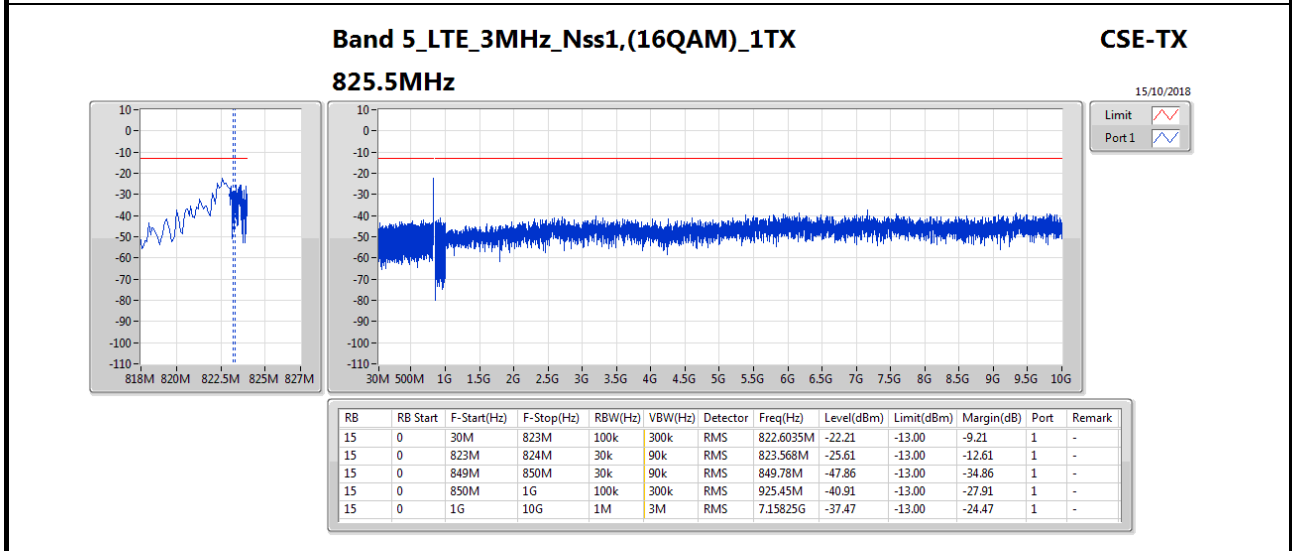
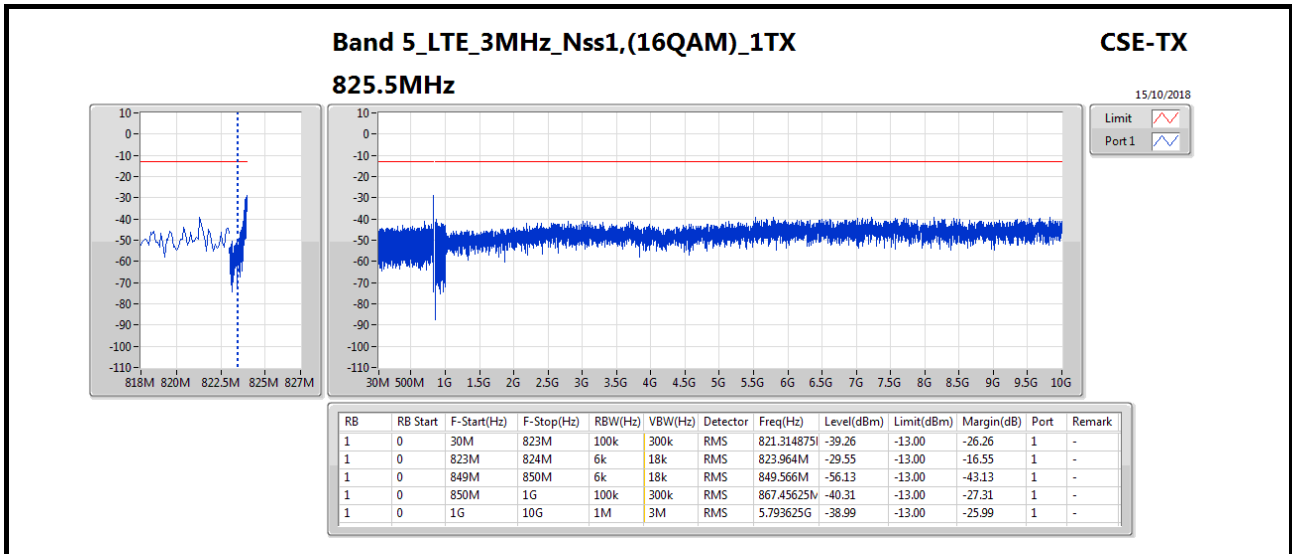


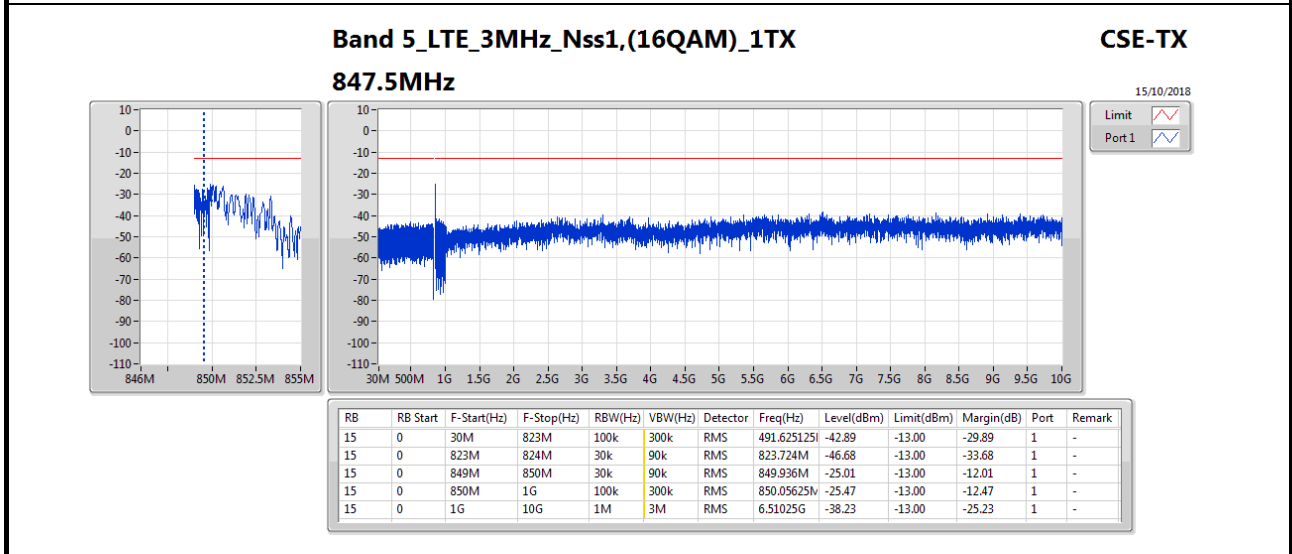
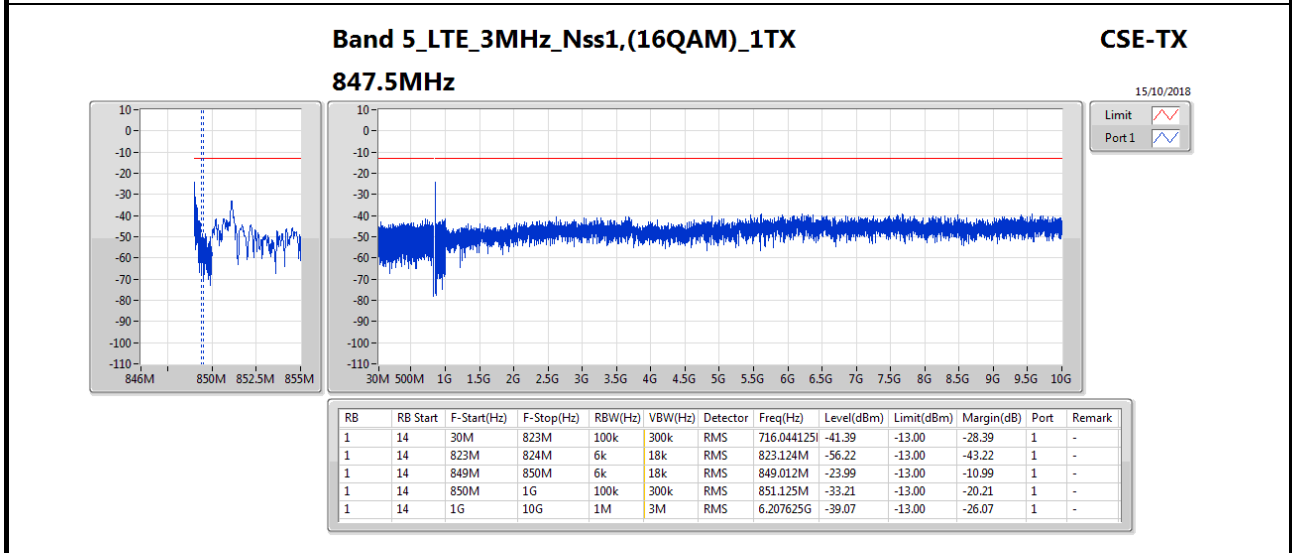
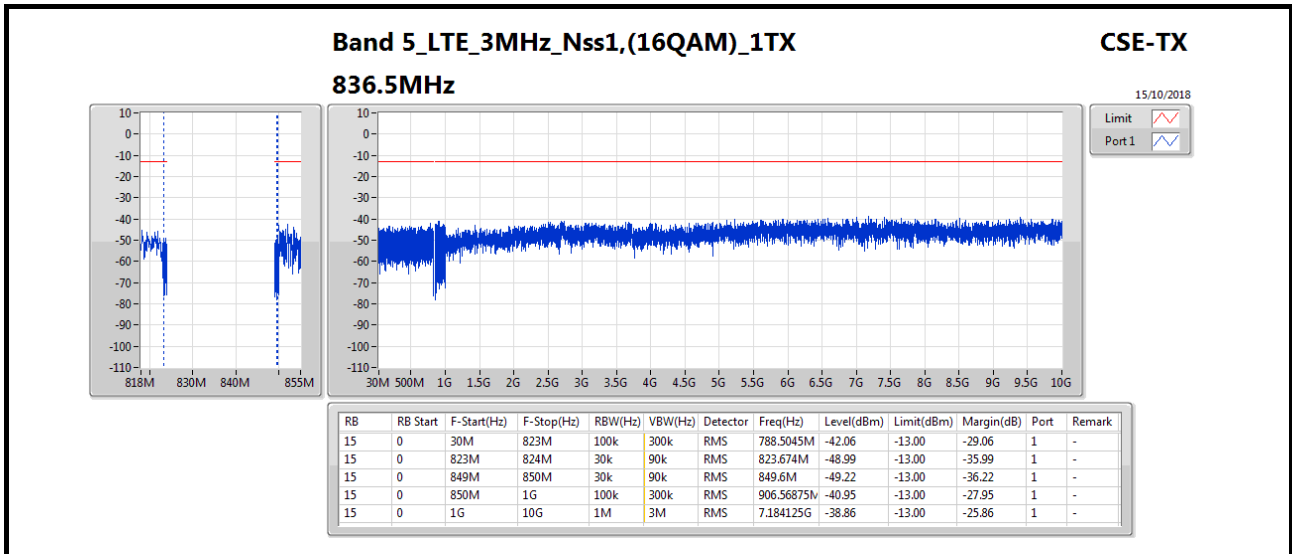


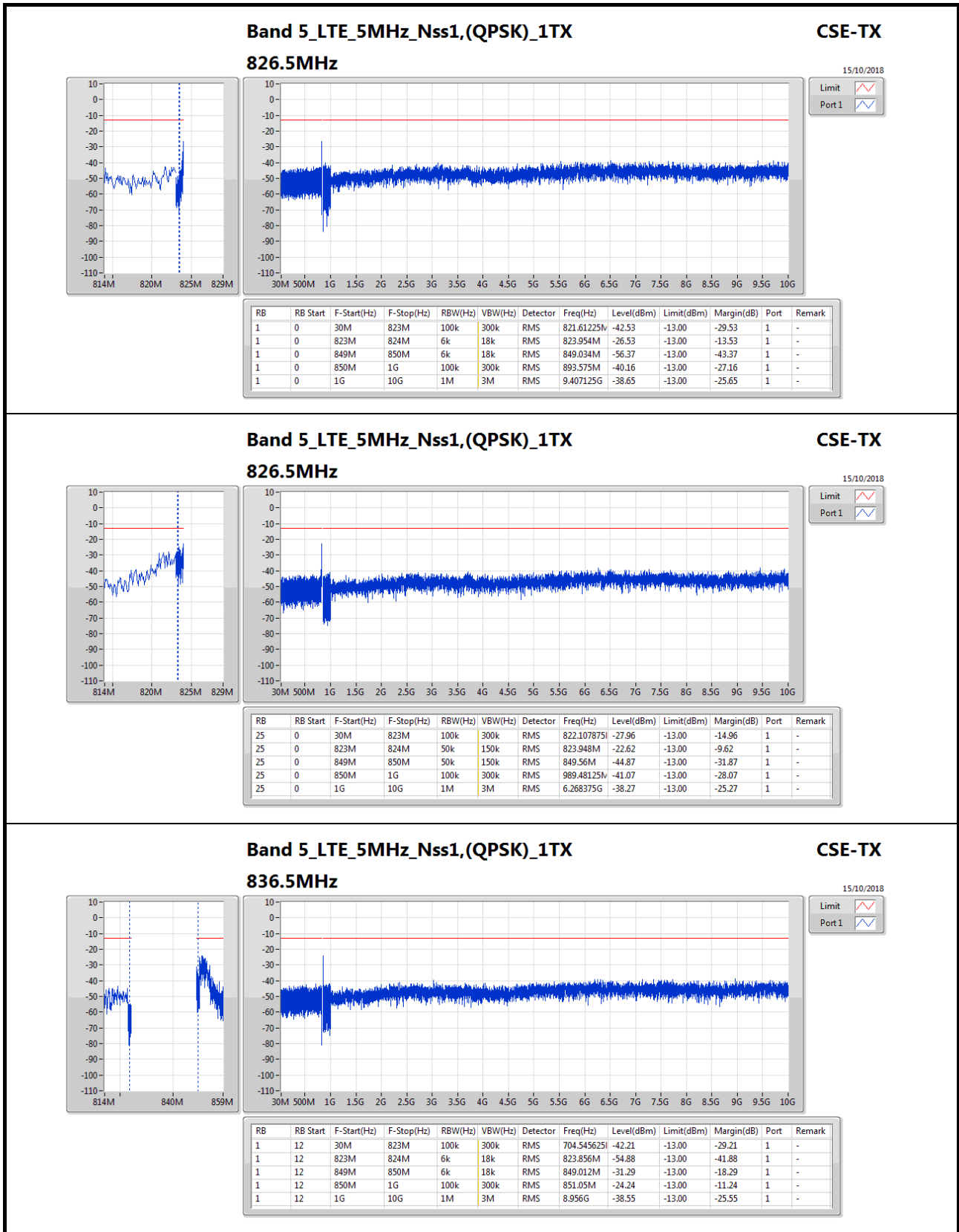




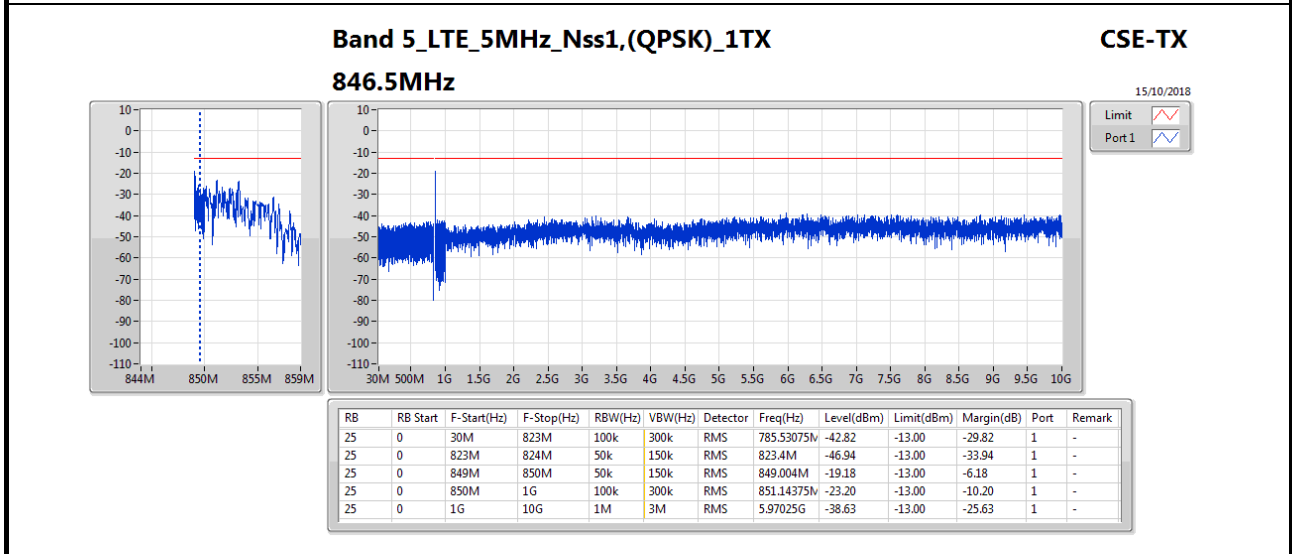
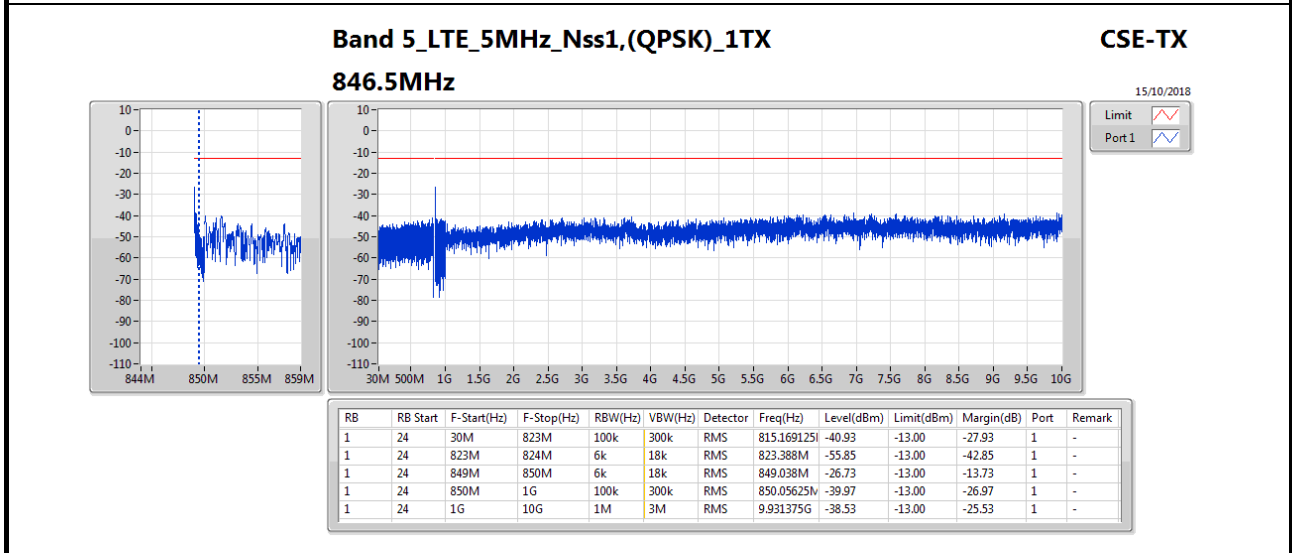
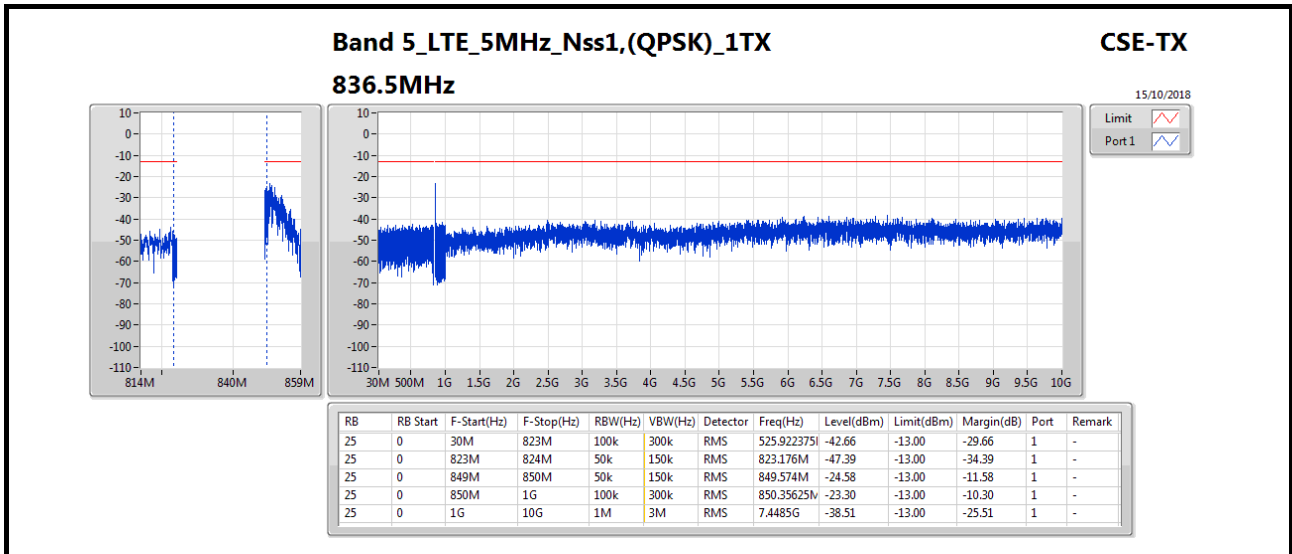


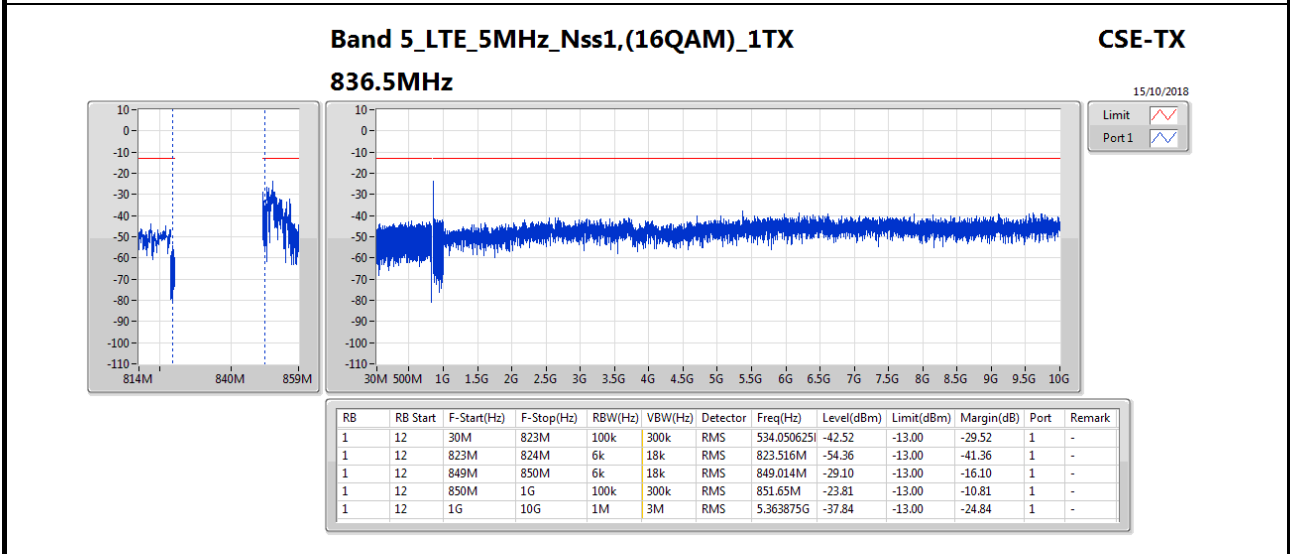
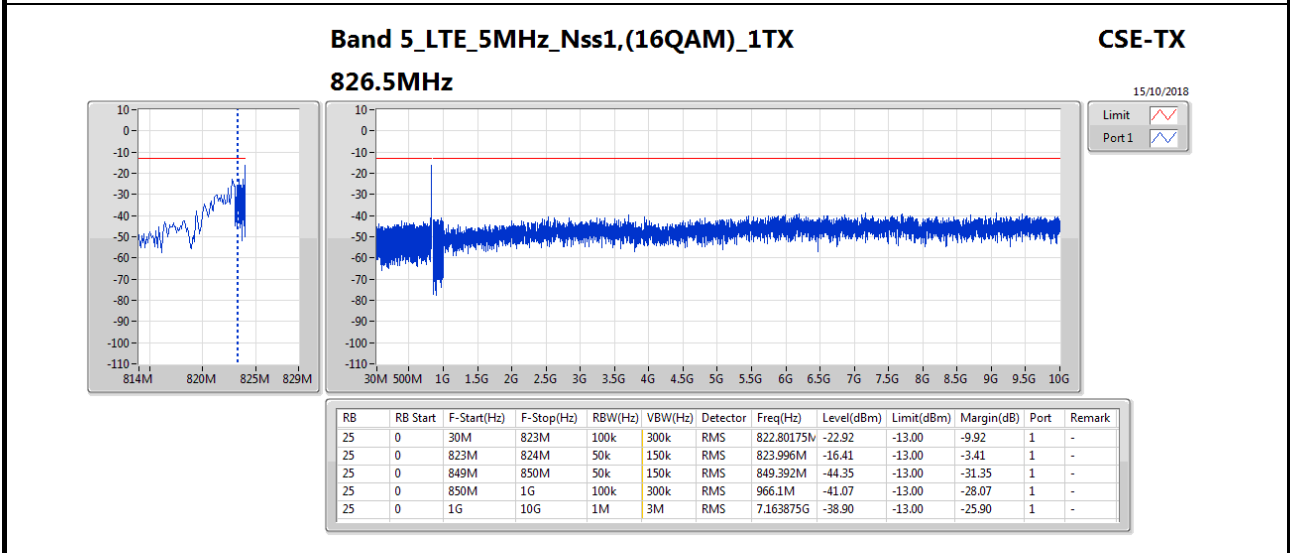
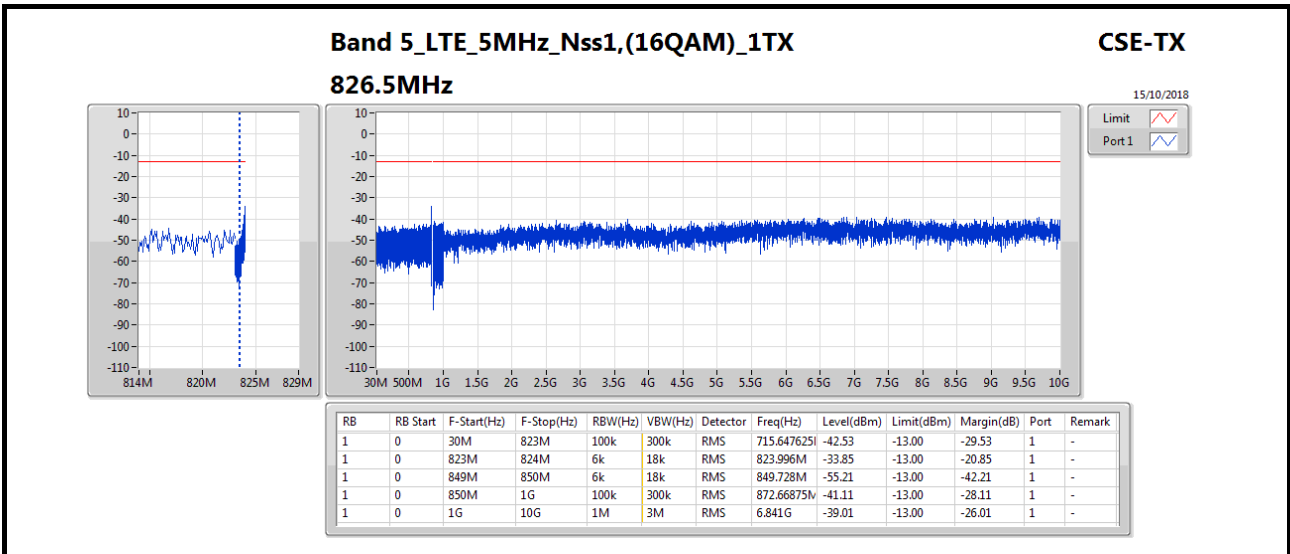


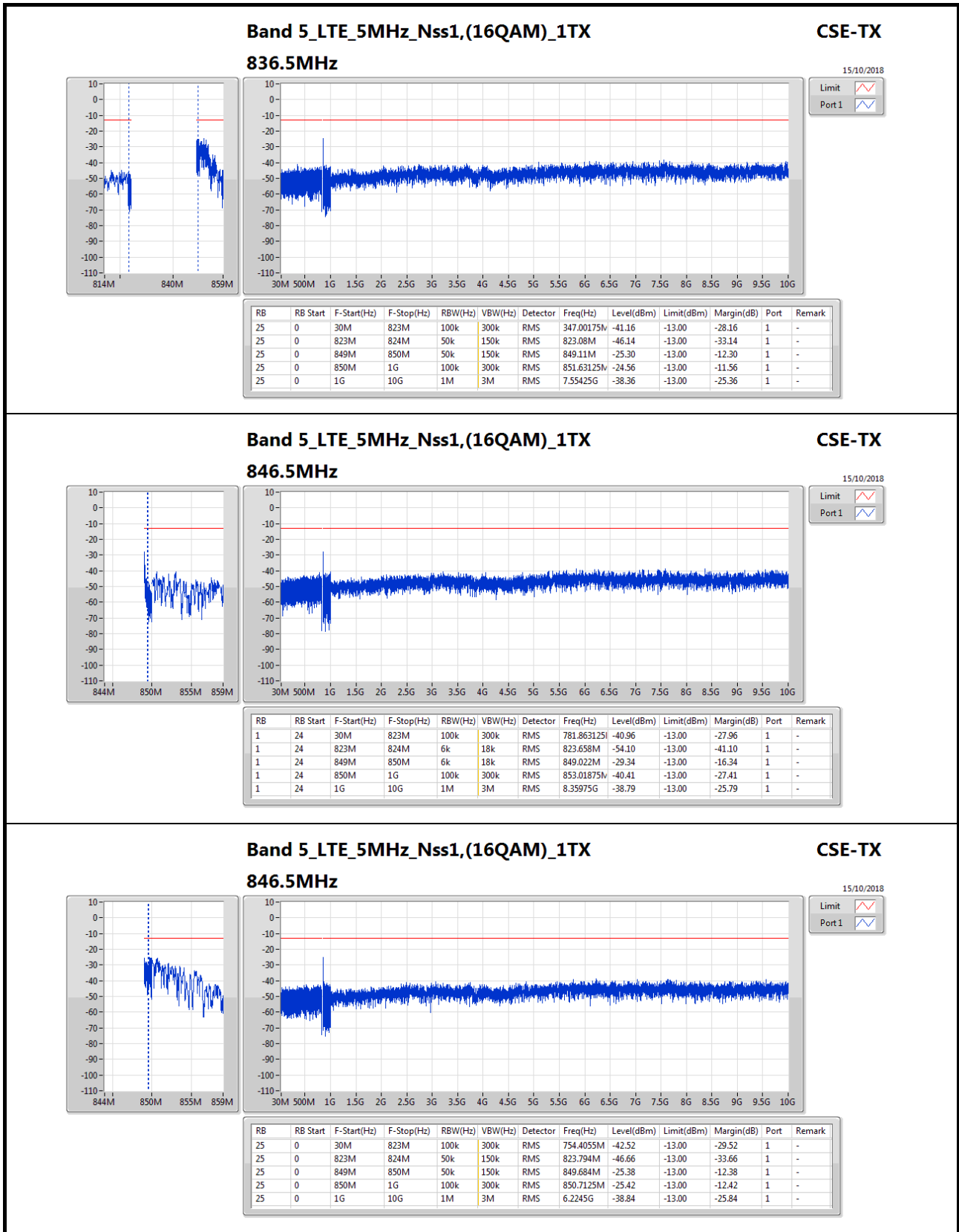


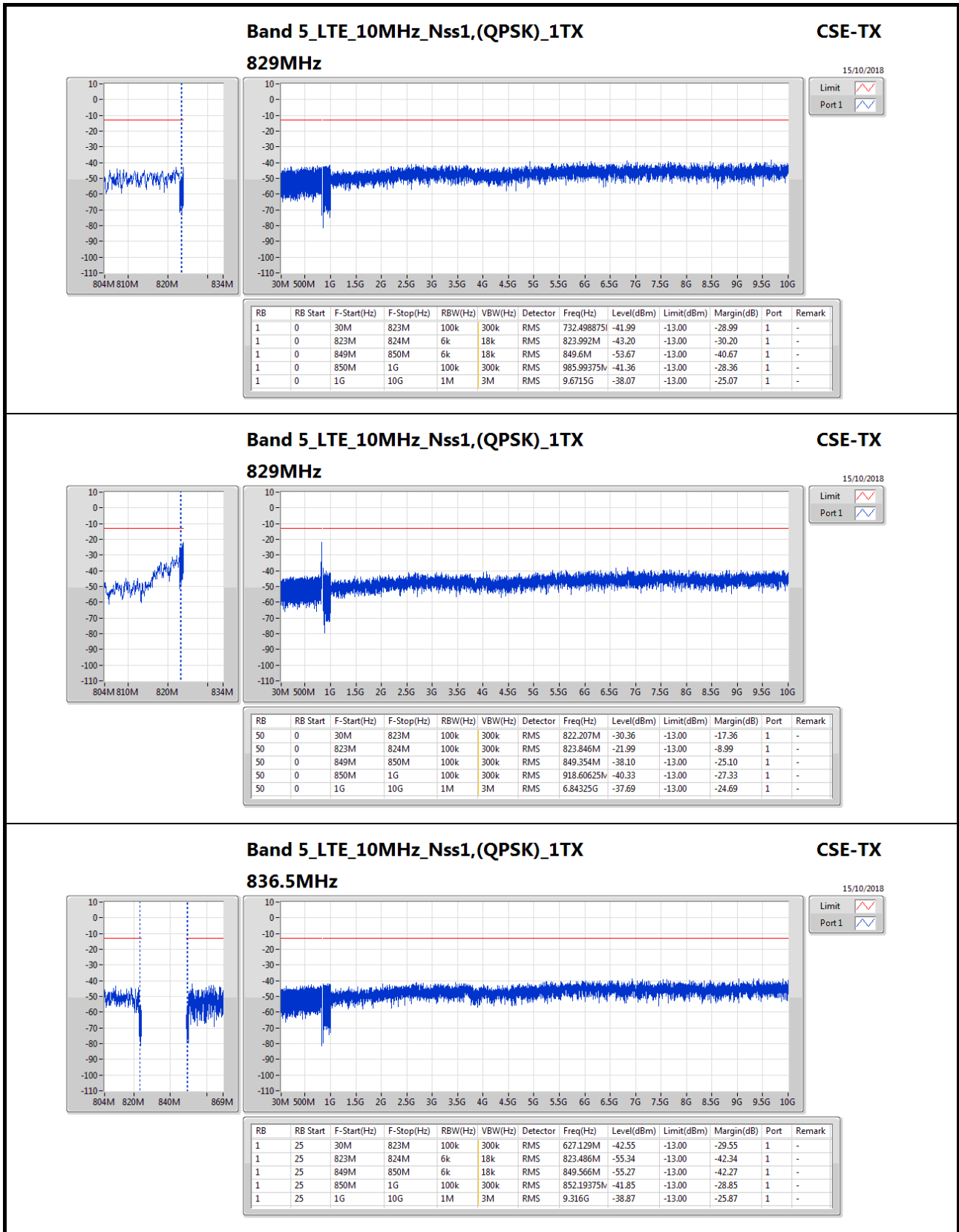


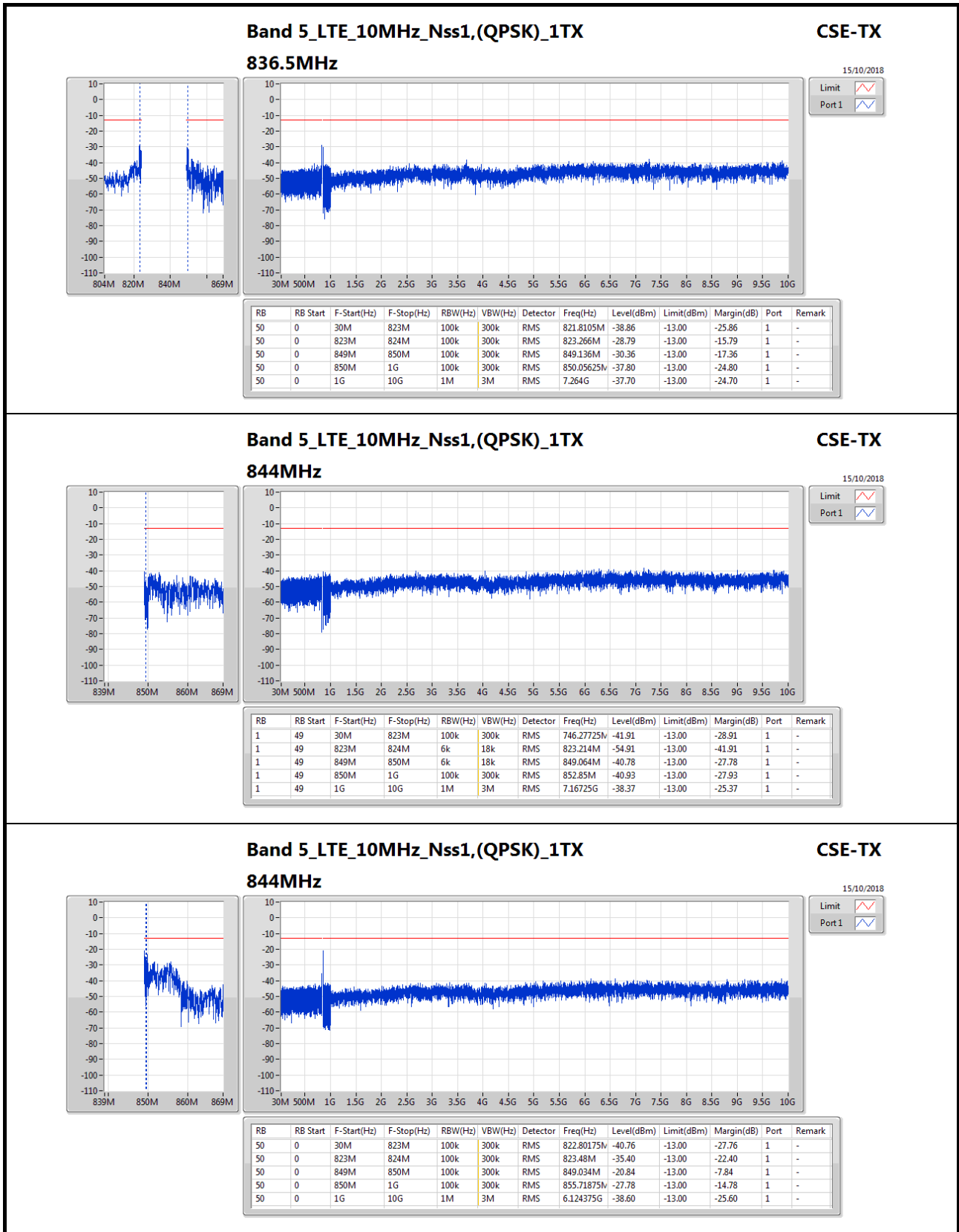


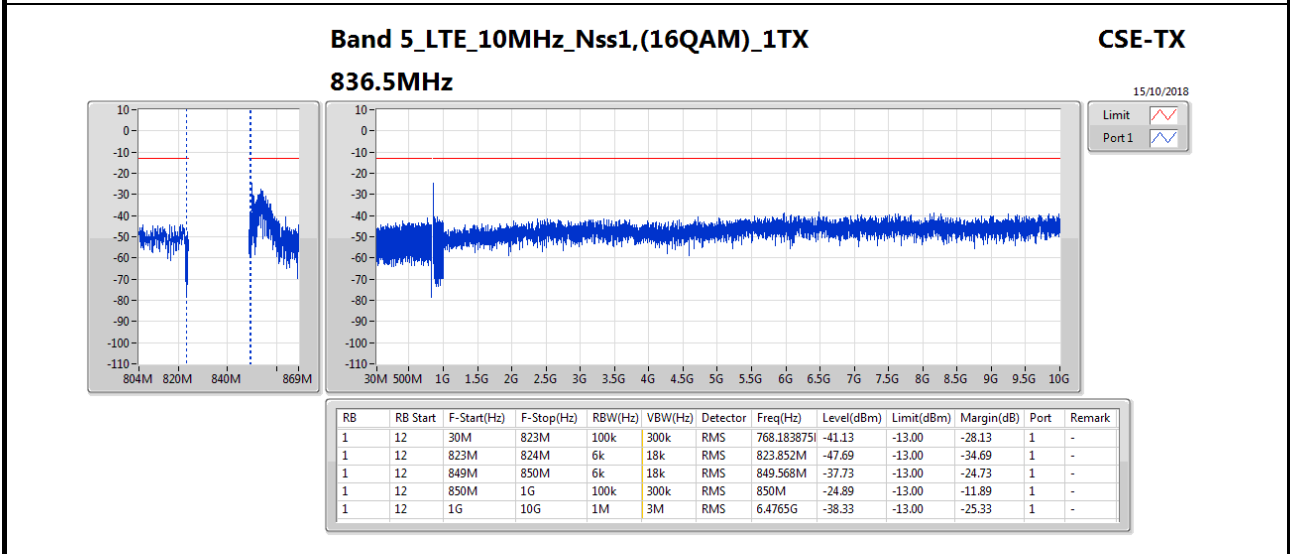
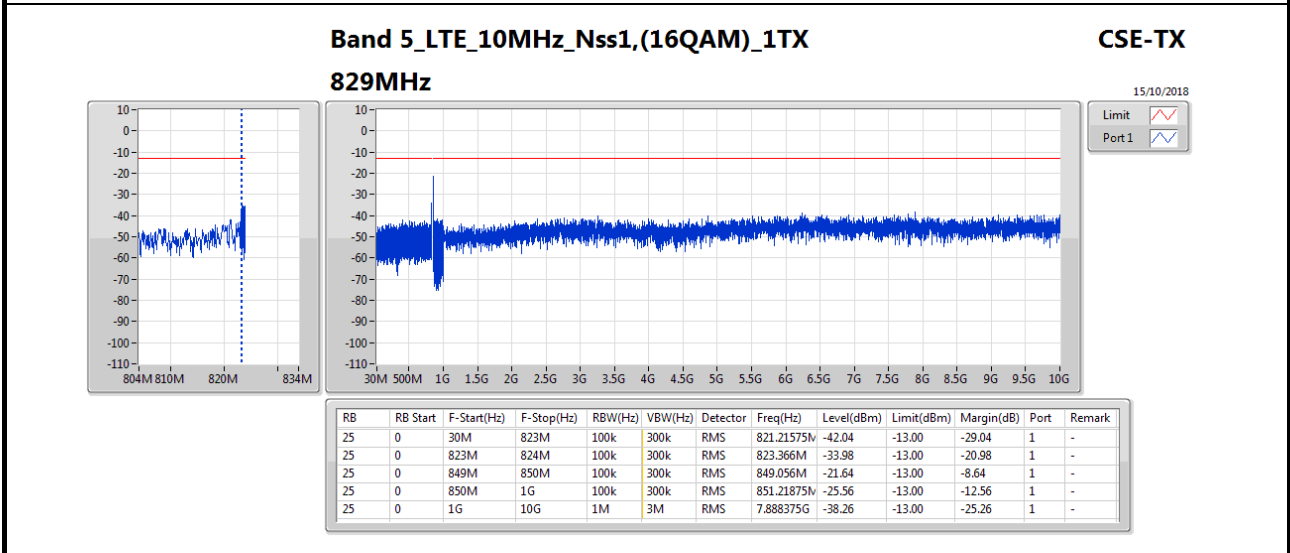
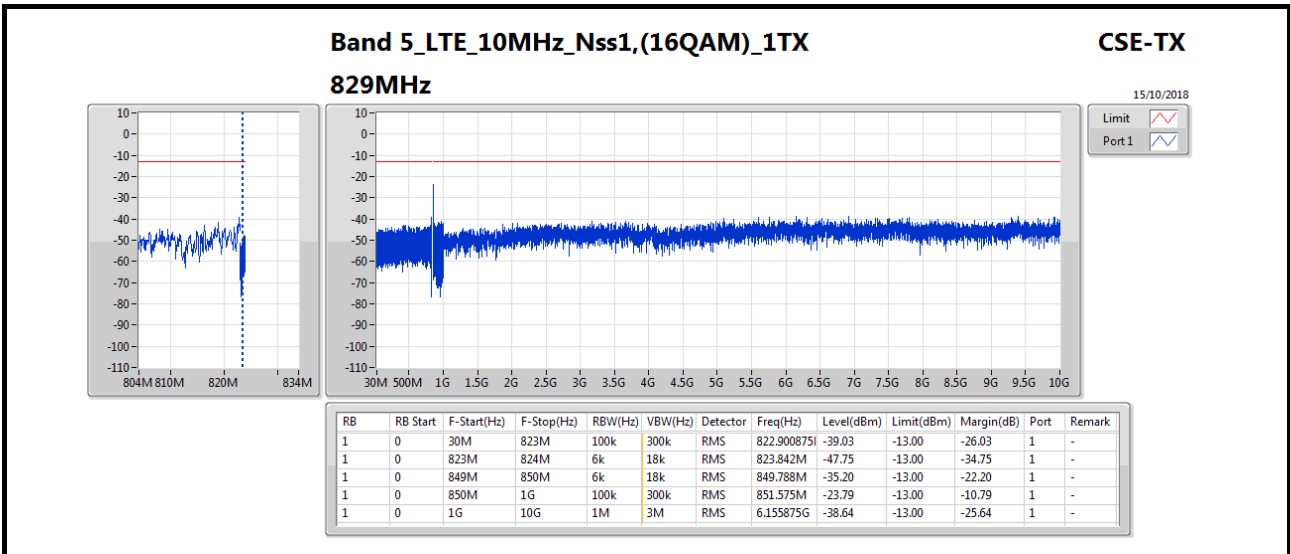


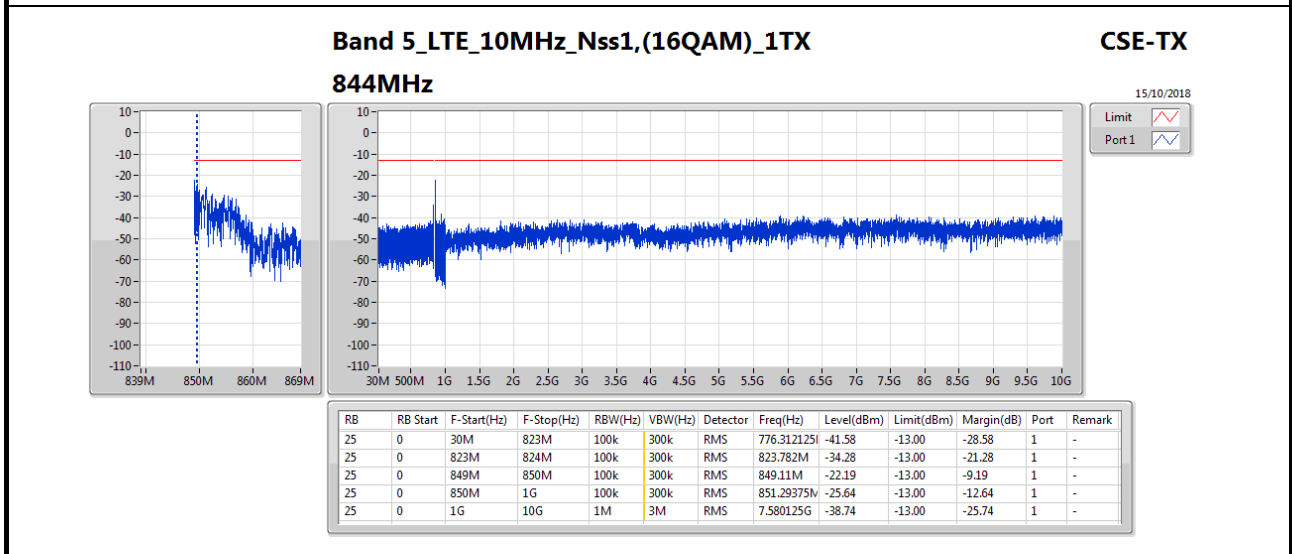
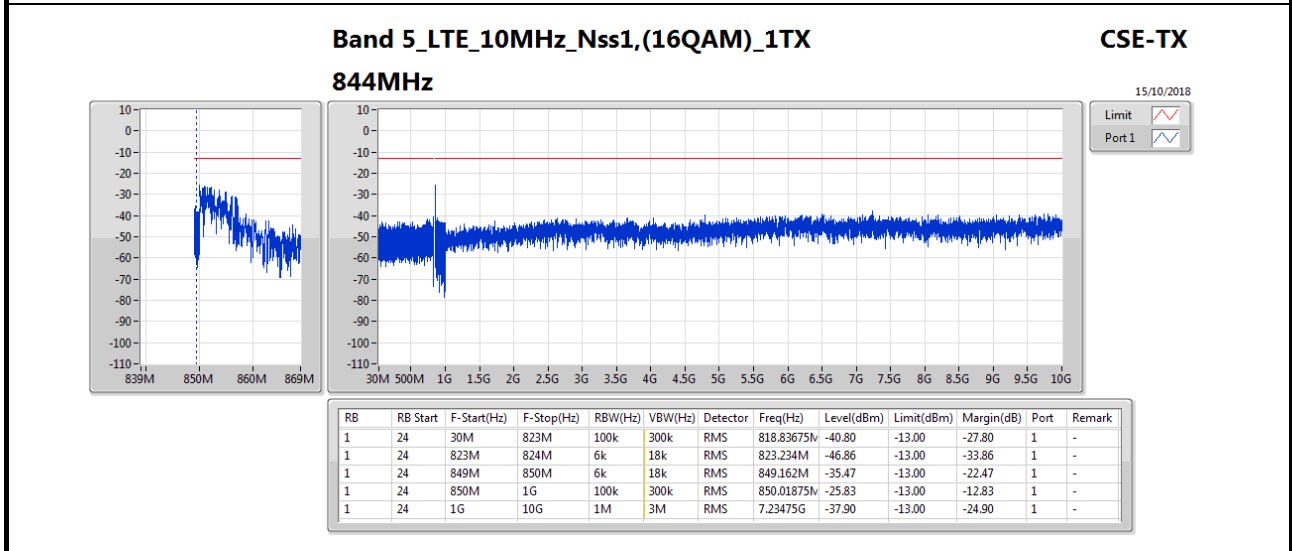
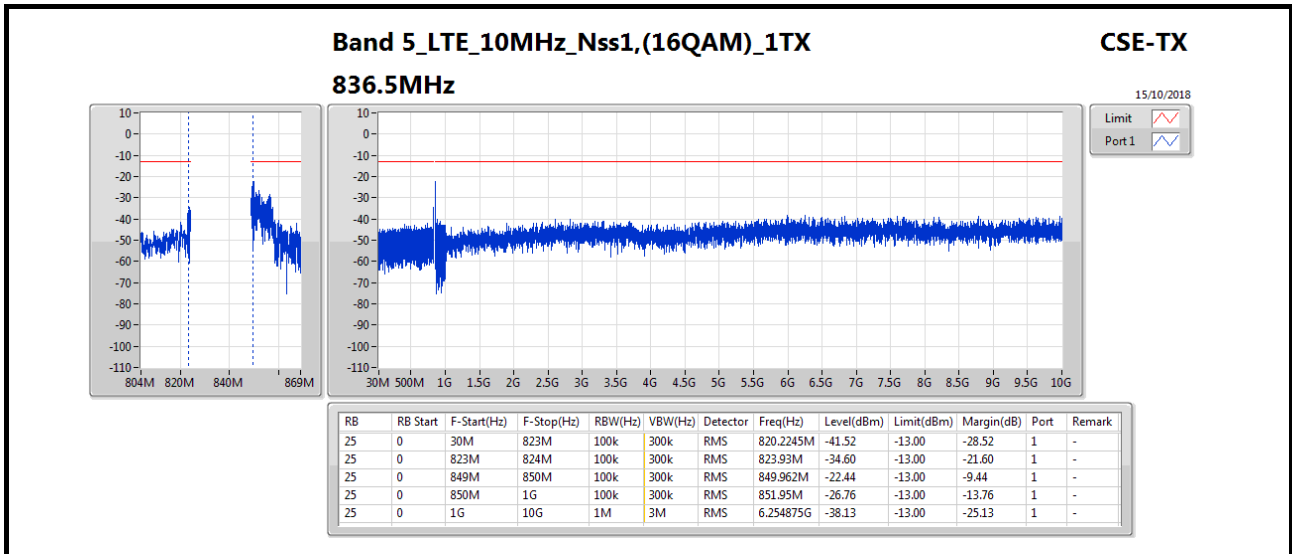














**RSE above 1GHz Result**

<b>Band</b>	LTE Band 5	<b>Test Mode</b>	QPSK / 1.4MHz
<b>Test Channel</b>	20407 (824.7MHz)		

**Horizontal**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1649.03	30.14	82.20	-52.06	33.54	3.86	27.69	34.95	268	205	Average	HORIZONTAL

**Vertical**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1650.00	36.01	82.20	-46.19	39.41	3.86	27.69	34.95	215	158	Average	VERTICAL





**RSE above 1GHz Result**

<b>Band</b>	LTE Band 5	<b>Test Mode</b>	QPSK / 1.4MHz
<b>Test Channel</b>	20525 (836.5 MHz)		

**Horizontal**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1673.02	30.92	82.20	-51.28	34.05	3.89	27.90	34.92	271	211	Average	HORIZONTAL

**Vertical**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1672.87	37.10	82.20	-45.10	40.23	3.89	27.90	34.92	219	161	Average	VERTICAL



**RSE above 1GHz Result**

<b>Band</b>	LTE Band 5	<b>Test Mode</b>	QPSK / 1.4MHz
<b>Test Channel</b>	20643 (848.3MHz)		

**Horizontal**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1696.84	29.13	82.20	-53.07	31.98	3.93	28.11	34.89	258	207	Average	HORIZONTAL

**Vertical**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1696.75	36.23	82.20	-45.97	39.08	3.93	28.11	34.89	265	163	Average	VERTICAL



**Summary**

Mode	Result	Ch (Hz)	Center (Hz)	Fl (Hz)	Fh (Hz)	Fl Limit (Hz)	Fh Limit (Hz)	ppm	Limit (ppm)	Port	Remark
Band 5	-	-	-	-	-	-	-	-	-	-	-
Band 5_LTE_1.4MHz_Nss1 ,(QPSK)_1TX	Pass	836.5M	836.499937M	836.401309M	836.598565M	824M	849M	0.009	2.5	1	-



**Result**

Mode	Voltage (V)	Temp (°C)	Ch (Hz)	Center (Hz)	Fl (Hz)	Fh (Hz)	Fl Limit (Hz)	Fh Limit (Hz)	ppm	Limit (ppm)	Port	Remark
LTE_1.4MHz_Nss1,(OPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
836.5MHz	110	-40	836.5M	836.500106M	836.400979M	836.599232M	824M	849M	0.007	2.5	1	-
836.5MHz	110	-30	836.5M	836.499813M	836.401702M	836.597925M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-20	836.5M	836.500832M	836.402601M	836.599064M	824M	849M	0.006	2.5	1	-
836.5MHz	110	-10	836.5M	836.500321M	836.401174M	836.599469M	824M	849M	0.004	2.5	1	-
836.5MHz	110	0	836.5M	836.499752M	836.401337M	836.598166M	824M	849M	0.008	2.5	1	-
836.5MHz	110	10	836.5M	836.499446M	836.401041M	836.597852M	824M	849M	0.006	2.5	1	-
836.5MHz	93.5	20	836.5M	836.50049M	836.40174M	836.599241M	824M	849M	0.004	2.5	1	-
836.5MHz	110	20	836.5M	836.500273M	836.401045M	836.599501M	824M	849M	0.003	2.5	1	-
836.5MHz	126.5	20	836.5M	836.499509M	836.400561M	836.598458M	824M	849M	0.005	2.5	1	-
836.5MHz	110	30	836.5M	836.49951M	836.400843M	836.598177M	824M	849M	0.007	2.5	1	-
836.5MHz	110	40	836.5M	836.500168M	836.401104M	836.599231M	824M	849M	0.006	2.5	1	-
836.5MHz	110	50	836.5M	836.499499M	836.400293M	836.598706M	824M	849M	0.005	2.5	1	-
836.5MHz	110	60	836.5M	836.500221M	836.401863M	836.598579M	824M	849M	0.004	2.5	1	-
836.5MHz	110	70	836.5M	836.499937M	836.401309M	836.598565M	824M	849M	0.009	2.5	1	-
LTE_1.4MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
836.5MHz	110	-40	836.5M	836.500183M	836.401126M	836.599241M	824M	849M	0.005	2.5	1	-
836.5MHz	110	-30	836.5M	836.49972M	836.400217M	836.599223M	824M	849M	0.007	2.5	1	-
836.5MHz	110	-20	836.5M	836.500517M	836.401773M	836.59926M	824M	849M	0.005	2.5	1	-
836.5MHz	110	-10	836.5M	836.499607M	836.400716M	836.598498M	824M	849M	0.003	2.5	1	-
836.5MHz	110	0	836.5M	836.499805M	836.400637M	836.598972M	824M	849M	0.004	2.5	1	-
836.5MHz	110	10	836.5M	836.499508M	836.400491M	836.598525M	824M	849M	0.007	2.5	1	-
836.5MHz	93.5	20	836.5M	836.500332M	836.401469M	836.599196M	824M	849M	0.005	2.5	1	-
836.5MHz	110	20	836.5M	836.499819M	836.400747M	836.59889M	824M	849M	0.006	2.5	1	-
836.5MHz	126.5	20	836.5M	836.500341M	836.401402M	836.599279M	824M	849M	0.005	2.5	1	-
836.5MHz	110	30	836.5M	836.500189M	836.401345M	836.599032M	824M	849M	0.004	2.5	1	-
836.5MHz	110	40	836.5M	836.500245M	836.401327M	836.599162M	824M	849M	0.007	2.5	1	-
836.5MHz	110	50	836.5M	836.500359M	836.401694M	836.599023M	824M	849M	0.005	2.5	1	-
836.5MHz	110	60	836.5M	836.500046M	836.401644M	836.598448M	824M	849M	0.004	2.5	1	-
836.5MHz	110	70	836.5M	836.499227M	836.400914M	836.59754M	824M	849M	0.005	2.5	1	-
LTE_3MHz_Nss1,(OPSK)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
836.5MHz	110	-40	836.5M	836.500129M	836.400593M	836.599666M	824M	849M	0.006	2.5	1	-
836.5MHz	110	-30	836.5M	836.500551M	836.401824M	836.599278M	824M	849M	0.006	2.5	1	-
836.5MHz	110	-20	836.5M	836.500286M	836.401087M	836.599485M	824M	849M	0.005	2.5	1	-
836.5MHz	110	-10	836.5M	836.500482M	836.401819M	836.599145M	824M	849M	0.006	2.5	1	-
836.5MHz	110	0	836.5M	836.500227M	836.401253M	836.599201M	824M	849M	0.004	2.5	1	-
836.5MHz	110	10	836.5M	836.499922M	836.400569M	836.599274M	824M	849M	0.003	2.5	1	-
836.5MHz	93.5	20	836.5M	836.499625M	836.400336M	836.598913M	824M	849M	0.005	2.5	1	-
836.5MHz	110	20	836.5M	836.499442M	836.400786M	836.598097M	824M	849M	0.006	2.5	1	-
836.5MHz	126.5	20	836.5M	836.500263M	836.401104M	836.599422M	824M	849M	0.005	2.5	1	-
836.5MHz	110	30	836.5M	836.4999M	836.4012M	836.598601M	824M	849M	0.006	2.5	1	-
836.5MHz	110	40	836.5M	836.500375M	836.40118M	836.59957M	824M	849M	0.006	2.5	1	-



# Frequency Stability Result

# Appendix F

Mode	Voltage (V)	Temp (°C)	Ch (Hz)	Center (Hz)	Fl (Hz)	Fh (Hz)	Fl Limit (Hz)	Fh Limit (Hz)	ppm	Limit (ppm)	Port	Remark
836.5MHz	110	50	836.5M	836.50018M	836.400883M	836.599477M	824M	849M	0.005	2.5	1	-
836.5MHz	110	60	836.5M	836.499623M	836.400787M	836.598459M	824M	849M	0.003	2.5	1	-
836.5MHz	110	70	836.5M	836.499945M	836.400659M	836.59923M	824M	849M	0.005	2.5	1	-
LTE_3MHz_Nss1,(16 OAM)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
836.5MHz	110	-40	836.5M	836.499508M	836.400606M	836.598409M	824M	849M	0.005	2.5	1	-
836.5MHz	110	-30	836.5M	836.500087M	836.40147M	836.598704M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-20	836.5M	836.499603M	836.400721M	836.598486M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-10	836.5M	836.500407M	836.401626M	836.599188M	824M	849M	0.006	2.5	1	-
836.5MHz	110	0	836.5M	836.500239M	836.401185M	836.599293M	824M	849M	0.006	2.5	1	-
836.5MHz	110	10	836.5M	836.500733M	836.401897M	836.59957M	824M	849M	0.007	2.5	1	-
836.5MHz	93.5	20	836.5M	836.500707M	836.401723M	836.599691M	824M	849M	0.006	2.5	1	-
836.5MHz	110	20	836.5M	836.499498M	836.400449M	836.598548M	824M	849M	0.003	2.5	1	-
836.5MHz	126.5	20	836.5M	836.499691M	836.40096M	836.598422M	824M	849M	0.007	2.5	1	-
836.5MHz	110	30	836.5M	836.499501M	836.401448M	836.597553M	824M	849M	0.004	2.5	1	-
836.5MHz	110	40	836.5M	836.500602M	836.401597M	836.599607M	824M	849M	0.004	2.5	1	-
836.5MHz	110	50	836.5M	836.499849M	836.400802M	836.598896M	824M	849M	0.005	2.5	1	-
836.5MHz	110	60	836.5M	836.49906M	836.400772M	836.597348M	824M	849M	0.004	2.5	1	-
836.5MHz	110	70	836.5M	836.499273M	836.40091M	836.597636M	824M	849M	0.005	2.5	1	-
LTE_5MHz_Nss1,(OP SK)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
836.5MHz	110	-40	836.5M	836.499646M	836.400629M	836.598662M	824M	849M	0.005	2.5	1	-
836.5MHz	110	-30	836.5M	836.499649M	836.400323M	836.598975M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-20	836.5M	836.500304M	836.401147M	836.599461M	824M	849M	0.005	2.5	1	-
836.5MHz	110	-10	836.5M	836.500109M	836.401197M	836.59902M	824M	849M	0.004	2.5	1	-
836.5MHz	110	0	836.5M	836.500756M	836.401916M	836.599596M	824M	849M	0.004	2.5	1	-
836.5MHz	110	10	836.5M	836.500076M	836.401594M	836.598559M	824M	849M	0.004	2.5	1	-
836.5MHz	93.5	20	836.5M	836.50091M	836.40234M	836.59948M	824M	849M	0.004	2.5	1	-
836.5MHz	110	20	836.5M	836.499242M	836.40079M	836.597693M	824M	849M	0.003	2.5	1	-
836.5MHz	126.5	20	836.5M	836.50019M	836.400676M	836.599704M	824M	849M	0.005	2.5	1	-
836.5MHz	110	30	836.5M	836.499087M	836.401124M	836.597051M	824M	849M	0.003	2.5	1	-
836.5MHz	110	40	836.5M	836.499607M	836.400642M	836.598572M	824M	849M	0.004	2.5	1	-
836.5MHz	110	50	836.5M	836.499939M	836.400911M	836.598967M	824M	849M	0.005	2.5	1	-
836.5MHz	110	60	836.5M	836.499697M	836.400343M	836.599051M	824M	849M	0.004	2.5	1	-
836.5MHz	110	70	836.5M	836.500161M	836.401772M	836.598551M	824M	849M	0.004	2.5	1	-
LTE_5MHz_Nss1,(16 OAM)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
836.5MHz	110	-40	836.5M	836.499643M	836.401125M	836.598162M	824M	849M	0.006	2.5	1	-
836.5MHz	110	-30	836.5M	836.500027M	836.401576M	836.598477M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-20	836.5M	836.499573M	836.400781M	836.598366M	824M	849M	0.003	2.5	1	-
836.5MHz	110	-10	836.5M	836.499043M	836.400956M	836.597129M	824M	849M	0.004	2.5	1	-
836.5MHz	110	0	836.5M	836.499658M	836.401415M	836.597901M	824M	849M	0.004	2.5	1	-
836.5MHz	110	10	836.5M	836.499741M	836.401521M	836.597961M	824M	849M	0.004	2.5	1	-
836.5MHz	93.5	20	836.5M	836.499197M	836.401156M	836.597239M	824M	849M	0.004	2.5	1	-
836.5MHz	110	20	836.5M	836.499945M	836.400649M	836.599241M	824M	849M	0.006	2.5	1	-
836.5MHz	126.5	20	836.5M	836.500075M	836.401339M	836.598811M	824M	849M	0.003	2.5	1	-
836.5MHz	110	30	836.5M	836.500483M	836.401324M	836.599643M	824M	849M	0.005	2.5	1	-



# Frequency Stability Result

# Appendix F

Mode	Voltage (V)	Temp (°C)	Ch (Hz)	Center (Hz)	Fl (Hz)	Fh (Hz)	Fl Limit (Hz)	Fh Limit (Hz)	ppm	Limit (ppm)	Port	Remark
836.5MHz	110	40	836.5M	836.499536M	836.400921M	836.59815M	824M	849M	0.003	2.5	1	-
836.5MHz	110	50	836.5M	836.499083M	836.401126M	836.597041M	824M	849M	0.004	2.5	1	-
836.5MHz	110	60	836.5M	836.49975M	836.400227M	836.599273M	824M	849M	0.004	2.5	1	-
836.5MHz	110	70	836.5M	836.499662M	836.400716M	836.598608M	824M	849M	0.005	2.5	1	-
LTE_10MHz_Nss1,(Q PSK)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
836.5MHz	110	-40	836.5M	836.499743M	836.401031M	836.598454M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-30	836.5M	836.500112M	836.401212M	836.599012M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-20	836.5M	836.499828M	836.40076M	836.598896M	824M	849M	0.003	2.5	1	-
836.5MHz	110	-10	836.5M	836.500149M	836.400825M	836.599474M	824M	849M	0.005	2.5	1	-
836.5MHz	110	0	836.5M	836.499173M	836.400607M	836.597739M	824M	849M	0.004	2.5	1	-
836.5MHz	110	10	836.5M	836.500224M	836.401298M	836.599151M	824M	849M	0.005	2.5	1	-
836.5MHz	93.5	20	836.5M	836.499752M	836.400953M	836.598551M	824M	849M	0.003	2.5	1	-
836.5MHz	110	20	836.5M	836.50002M	836.401659M	836.598381M	824M	849M	0.005	2.5	1	-
836.5MHz	126.5	20	836.5M	836.499087M	836.40059M	836.597585M	824M	849M	0.003	2.5	1	-
836.5MHz	110	30	836.5M	836.498925M	836.400752M	836.597098M	824M	849M	0.005	2.5	1	-
836.5MHz	110	40	836.5M	836.499739M	836.400443M	836.599035M	824M	849M	0.005	2.5	1	-
836.5MHz	110	50	836.5M	836.499866M	836.401774M	836.597958M	824M	849M	0.003	2.5	1	-
836.5MHz	110	60	836.5M	836.49947M	836.400748M	836.598193M	824M	849M	0.003	2.5	1	-
836.5MHz	110	70	836.5M	836.500419M	836.401706M	836.599132M	824M	849M	0.003	2.5	1	-
LTE_10MHz_Nss1,(16QAM)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
836.5MHz	110	-40	836.5M	836.499962M	836.401072M	836.598852M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-30	836.5M	836.499758M	836.400337M	836.599179M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-20	836.5M	836.500353M	836.401479M	836.599226M	824M	849M	0.004	2.5	1	-
836.5MHz	110	-10	836.5M	836.499842M	836.400938M	836.598746M	824M	849M	0.004	2.5	1	-
836.5MHz	110	0	836.5M	836.499203M	836.400172M	836.598235M	824M	849M	0.003	2.5	1	-
836.5MHz	110	10	836.5M	836.500574M	836.401777M	836.599371M	824M	849M	0.004	2.5	1	-
836.5MHz	93.5	20	836.5M	836.500544M	836.401447M	836.599641M	824M	849M	0.004	2.5	1	-
836.5MHz	110	20	836.5M	836.499589M	836.400366M	836.598812M	824M	849M	0.004	2.5	1	-
836.5MHz	126.5	20	836.5M	836.499823M	836.400256M	836.599391M	824M	849M	0.004	2.5	1	-
836.5MHz	110	30	836.5M	836.500601M	836.402003M	836.5992M	824M	849M	0.007	2.5	1	-
836.5MHz	110	40	836.5M	836.500495M	836.402437M	836.598552M	824M	849M	0.004	2.5	1	-
836.5MHz	110	50	836.5M	836.499969M	836.400958M	836.59898M	824M	849M	0.006	2.5	1	-
836.5MHz	110	60	836.5M	836.500731M	836.40219M	836.599273M	824M	849M	0.003	2.5	1	-
836.5MHz	110	70	836.5M	836.500418M	836.401962M	836.598875M	824M	849M	0.005	2.5	1	-