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TEST REPORT

SCOPE OF WORK
EMISSIONS TESTING – RPM-A5A11-B13 with W/ 4G LTE With OneCell® RP5200

REPORT NUMBER
104989879BOX-001a

ISSUE DATE
March 24, 2022

[REVISED DATE]
Original Issue

DOCUMENT CONTROL NUMBER
Non-Specific Radio Report Shell Rev. December 2017

EMISSIONS TEST REPORT

(**FULL COMPLIANCE**)

Report Number: 104989879BOX-001a
Project Number: G104989879

Report Issue Date: March 24, 2022

Model(s) Tested:	RPM-A5A11-B13 with W/ 4G LTE With OneCell® RP5200
Model(s) Partially Tested:	None
Model(s) Not Tested but declared equivalent by the client:	None

Standards: CFR47 FCC Part 27 (03/2022)

Tested by:
Intertek Testing Services NA, Inc.
70 Codman Hill Road
Boxborough, MA 01719
USA

Client:
CommScope Technologies LLC
900 Chelmsford St.
Lowell, MA 01851
USA

Report prepared by

Kouma Sinn / EMC Engineering Supervisor

Report reviewed by

Vathana Ven / EMC Engineering Supervisor

Table of Contents

1 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 4.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested **complies** with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested. Intertek does not make any claims of compliance for samples or variants which were not tested.

2 Test Summary

Section	Test full name	Result
3	Client Information	--
4	Description of Equipment Under Test and Variant Models	--
5	System Setup and Method	--
6	Maximum ERP Output Power CFR47 FCC Part 27.50 (b) (4)	Pass
7	26 dB Bandwidth and Occupied Bandwidth CFR47 FCC Parts 2.1049	Pass
8	Band Edge Compliance CFR47 FCC Parts 2.1051, 2.1053, and 27.53 (c)(1)(5)	Pass
9	Frequency Stability CFR47 FCC Parts 2.1055 and 27.54	Pass
10	Transmitter Spurious Emissions CFR47 FCC Parts 2.1051, 2.1053, 2.1057 and 27.53 (c)(1)(5) and (f)	Pass
11	Revision History	--

3 Client Information

This EUT was tested at the request of:

Client: CommScope Technologies LLC
900 Chelmsford St.
Lowell, MA 01851
USA

Contact: Zac Johnson
Telephone: (978) 250-2678
Fax: None
Email: zac.johnson@commscope.com

4 Description of Equipment Under Test and Variant Models

Manufacturer: CommScope Telecommunications (China) Ltd.
68 Su Hong Xi Lu, Suzhou Industrial Park.
Suzhou, Jiangsu, 215021, China

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
Band 13 Radio Module With OneCell® RP5200 host	CommScope Technologies LLC	RPM-A5A11-B13	21308490130
OneCell® RP5200	CommScope Technologies LLC	RP-A51xxi	16361780004

Receive Date:	03/09/2022
Received Condition:	Good
Type:	Production

Description of Equipment Under Test (provided by client)
The Radio Module is band specific using the Analog devices RF Agile Transceiver IC, AD936x. The device combines an RF front end with a flexible mixed-signal baseband section and integrated frequency synthesizers providing a configurable digital interface to the processor. The Radio Module also contains a band specific front end, band specific antenna and required power rails. All power rails required are derived from the 12 VDC bus supplied by the Baseband card. The reference frequency for the radio IC is 38.4 MHz is derived from the from an OCXO which is disciplined from a 1588 reference clock. It supports bandwidths of 5 and10 MHz with four modulations; TM1.1-QPSK, TM3.2-16QAM, TM3.1-64QAM, and TM3.1a-256QAM. The radio is fixed.

Description of Radio Host (provided by client)
The OneCell® RP5200 family is factory configurable with 2 – 4 Radios Modules mounted to a Baseband card. The same PCB's will be used in both indoor and outdoor version of the radio point. The device is fixed. The baseband card is the host for the modular radios. It contains a two ethernet PHY's with one supporting 100M/1G/2.5G/5G/10G ethernet and the other supporting 100M/1G. The main processor is Zylinx Ultrascale+ MPSoC with 2 GB DDR3 and 4 GB Flash memory. The baseband PCBA converts POE power to +12 VDC bus voltage require as input to the radio modules.

Equipment Under Test Power Configuration			
Rated Voltage	Rated Current	Rated Frequency	Number of Phases
48 VDC	0.960 mA per pair max	DC	N/A

Operating modes of the EUT:

No.	Descriptions of EUT Exercising
1	Pre-programmed to transmit at Low, Mid, and High channels at four different modulations, TM1.1-QPSK, TM3.2-16QAM, TM3.1-64QAM, and TM3.1a-256QAM.

Software used by the EUT:

No.	Descriptions of EUT Exercising
1	RP5200_B13 03/08/2022

Radio/Receiver Characteristics	
Frequency Band(s)	748.5-753.5 MHz
Modulation Type(s)	TM1.1-QPSK, TM3.2-16QAM, TM3.1-64 QAM, TM3.1a-256QAM
Maximum Output Power (conducted):	21.75 dBm, Conducted (worst-case)
Test Channels	Low, Middle, High Channels of 5 MHz and10 MHz Bandwidths, Single channel operation only
Occupied Bandwidth	8.982 MHz (Worst-case)
MIMO Information (# of Transmit and Receive antenna ports)	2x2 MIMO using cross polarized antennas and uncorrelated data streams
Equipment Type	Module in a host
Antenna Type and Gain	Detachable Antenna: +4 dBi (as provided by the client. Intertek takes no responsibility for the accuracy of this information. Actual antenna gain will be determined at the time of licensing)

Variant Models:

The following variant models were not tested as part of this evaluation, but have been identified by the manufacturer as being electrically identical models, depopulated models, or with reasonable similarity to the model(s) tested. Intertek does not make any claims of compliance for samples or variants which were not tested.

None

5 System Setup and Method

Cables					
ID	Description	Length (m)	Shielding	Ferrites	Termination
--	LAN (POE Power Cable)	2.17	None	None	POE P/S
--	LAN (Communication)	9.00	None	None	Laptop

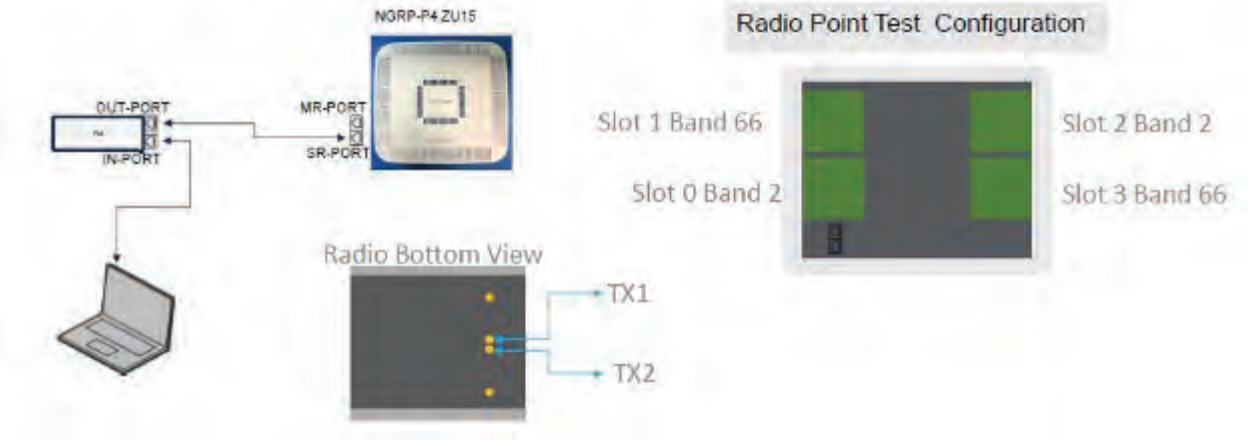
Notes: Longer cables were used to accommodate emission testing in the 10m Chamber.

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
POE Power Supply	Sifos Technologies	PDA-604A	604A0107
Laptop	Dell	Latitude 3520	None

5.1 Method:

Configuration as required by ANSI C63.26-2015, KDB 662911, and CFR47 FCC Part 27 (03/2022).

5.2 EUT Block Diagram:



6 Maximum ERP Output Power

6.1 Method

Tests are performed in accordance with CFR47 FCC Parts 2.1046 and 27, KDB662911, and ANSI C63.26 Section 5.2.4.4.

TEST SITE: EMC Lab

The EMC Lab has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

6.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DS40'	Temp, humidity, pressure gauge	Digi Sense	68000-49	181717625	11/09/2021	11/09/2022
ROS005-1'	Signal and Spectrum Analyzer	Rohde and Shwartz	FSW43	100646	11/02/2021	11/02/2022
CEN001'	DC-40GHz attenuator 20dB	Centric RF	C411-20	CEN001	01/26/2022	01/26/2023
CBLHF2012-2M-2'	2m 9kHz-40GHz Coaxial Cable - SET2	Huber & Suhner	SF102	252675002	02/10/2022	02/10/2023

Software Utilized:

Name	Manufacturer	Version
None	--	--

6.3 Results:

The sample tested was found to Comply as the maximum ERP output power was measured to be 23.60 dBm, which is much less than the ERP limit of:

FCC Part 27.50 (b) (4) – Fixed and base stations transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP in accordance with Table 3 of this section.

Output power from the two antenna ports was not summed since the data streams are uncorrelated and the antennas are cross polarized.

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 5 MHz, Modulation: TM1.1-QPSK

Channel	Frequency (MHz)	Antenna Port	Conducted Output Power (dBm)	ERP (dBm)	ERP Limit (dBm)	ERP Margin (dB)
Low	748.50	ANT0	21.08	22.93	60	-37.07
		ANT1	21.27	23.12	60	-36.88
Mid	751.00	ANT0	20.91	22.76	60	-37.24
		ANT1	21.34	23.19	60	-36.81
High	753.50	ANT0	21.03	22.88	60	-37.12
		ANT1	21.38	23.23	60	-36.77

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 5 MHz, Modulation: TM3.2-16QAM

Channel	Frequency (MHz)	Antenna Port	Conducted Output Power (dBm)	ERP (dBm)	ERP Limit (dBm)	ERP Margin (dB)
Low	748.50	ANT0	21.34	23.19	60	-36.81
		ANT1	21.75	23.60	60	-36.40
Mid	751.00	ANT0	21.17	23.02	60	-36.98
		ANT1	21.39	23.24	60	-36.76
High	753.50	ANT0	21.05	22.90	60	-37.10
		ANT1	21.12	22.97	60	-37.03

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 5 MHz, Modulation: TM3.1-64QAM

Channel	Frequency (MHz)	Antenna Port	Conducted Output Power (dBm)	ERP (dBm)	ERP Limit (dBm)	ERP Margin (dB)
Low	748.50	ANT0	21.43	23.28	60	-36.72
		ANT1	21.62	23.47	60	-36.53
Mid	751.00	ANT0	21.22	23.07	60	-36.93
		ANT1	21.55	23.40	60	-36.60
High	753.50	ANT0	21.05	22.90	60	-37.10
		ANT1	21.15	23.00	60	-37.00

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM

Channel	Frequency (MHz)	Antenna Port	Conducted Output Power (dBm)	ERP (dBm)	ERP Limit (dBm)	ERP Margin (dB)
Low	748.50	ANT0	21.43	23.28	60	-36.72
		ANT1	21.67	23.52	60	-36.48
Mid	751.00	ANT0	21.23	23.08	60	-36.92
		ANT1	21.57	23.42	60	-36.58
High	753.50	ANT0	21.04	22.89	60	-37.11
		ANT1	21.15	23.00	60	-37.00

Notes: ERP = Conducted Power (dBm) + Gain (dBd), where Gain (dBd) = Antenna Gain (dBi)-2.15,
ERP = Conducted Power + (4-2.15) or Conducted Power + 1.85 dBd

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 10 MHz, Modulation: TM1.1-QPSK

Channel	Frequency (MHz)	Antenna Port	Conducted Output Power (dBm)	ERP (dBm)	ERP Limit (dBm)	ERP Margin (dB)
Mid	751.00	ANT0	21.19	23.04	60	-36.96
		ANT1	21.44	23.29	60	-36.71

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 10 MHz, Modulation: TM3.2-16QAM

Channel	Frequency (MHz)	Antenna Port	Conducted Output Power (dBm)	ERP (dBm)	ERP Limit (dBm)	ERP Margin (dB)
Mid	751.00	ANT0	21.19	23.04	60	-36.96
		ANT1	21.46	23.31	60	-36.69

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 10 MHz, Modulation: TM3.1-64QAM

Channel	Frequency (MHz)	Antenna Port	Conducted Output Power (dBm)	ERP (dBm)	ERP Limit (dBm)	ERP Margin (dB)
Mid	751.00	ANT0	21.10	22.95	60	-37.05
		ANT1	21.46	23.31	60	-36.69

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM

Channel	Frequency (MHz)	Antenna Port	Conducted Output Power (dBm)	ERP (dBm)	ERP Limit (dBm)	ERP Margin (dB)
Mid	751.00	ANT0	21.17	23.02	60	-36.98
		ANT1	21.49	23.34	60	-36.66

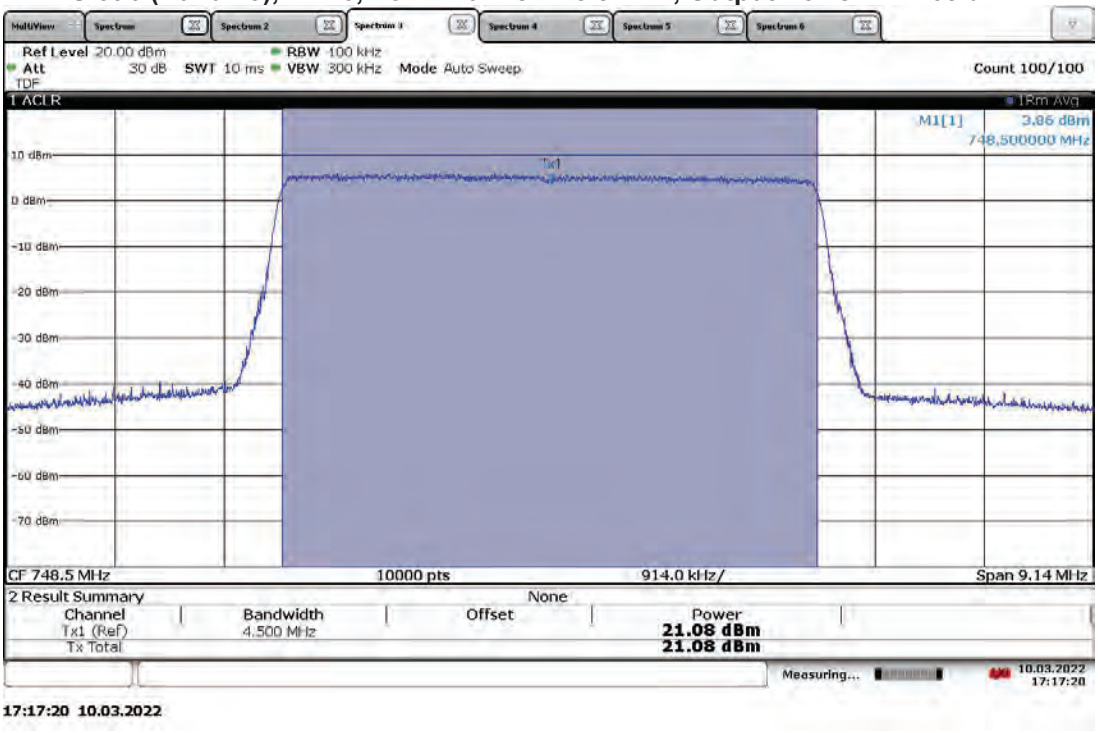
Notes: The radio only transmit at mid channel with10 MHz Bandwidth.

6.4 Setup Photograph:

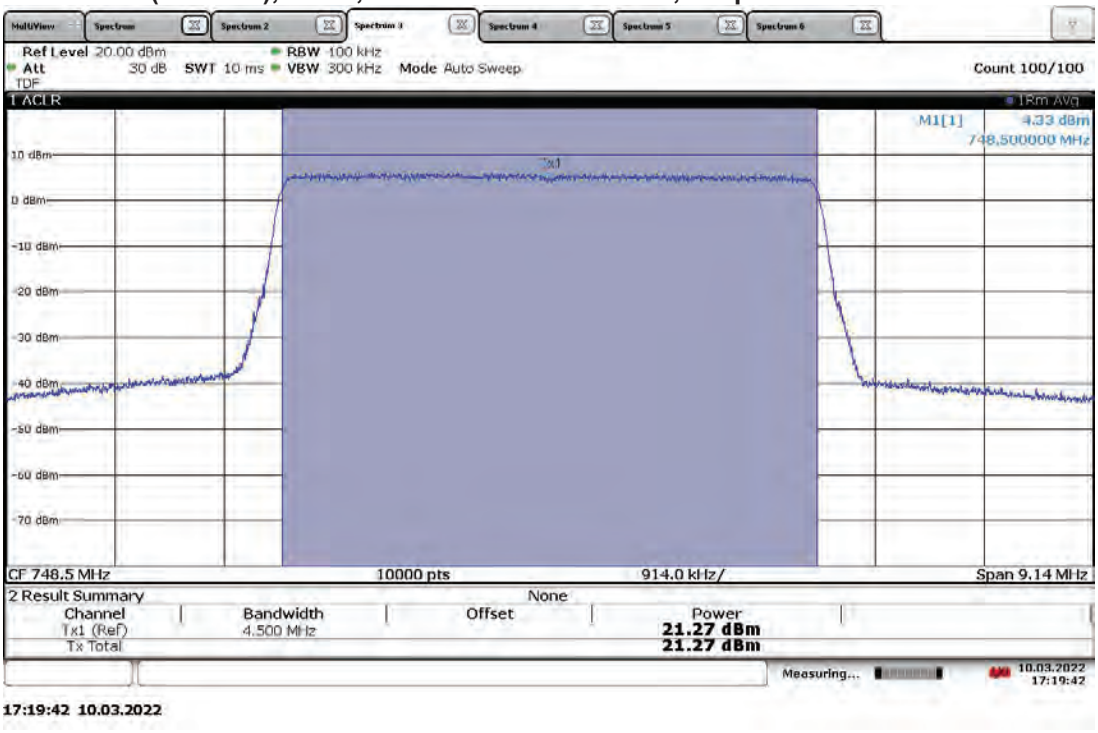
Confidential – Photos not included in this report

6.5 Plots/Data:

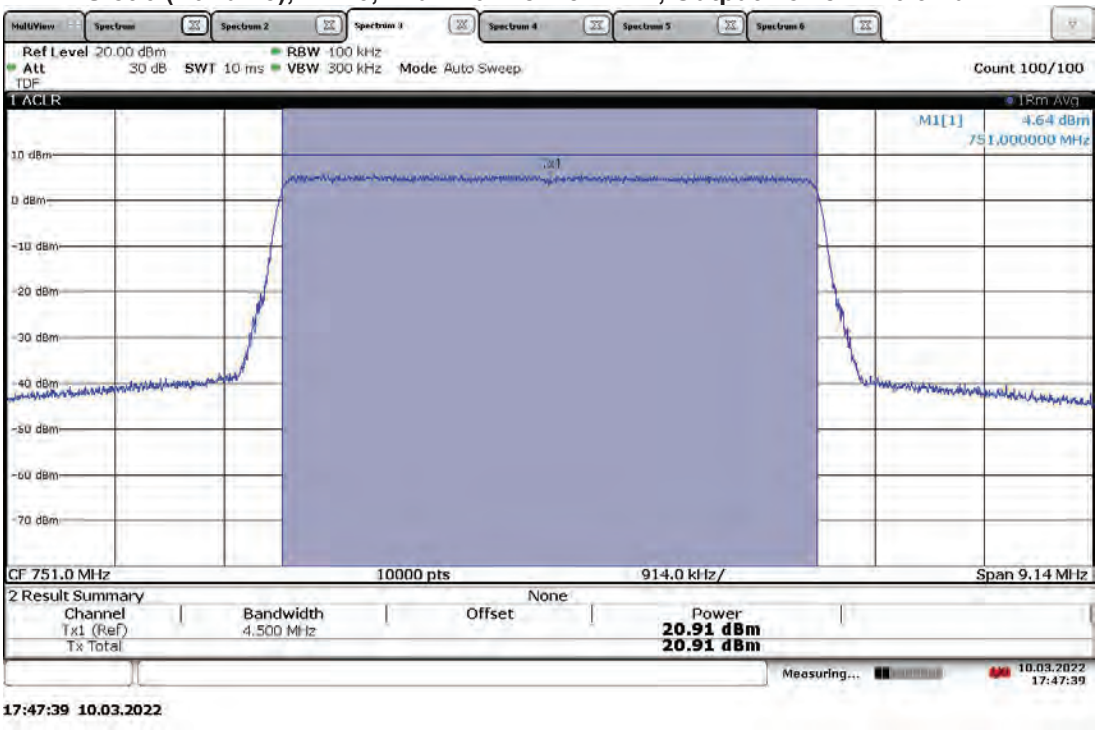
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Low Channel 748.5 MHz, Output Power = 21.08 dBm



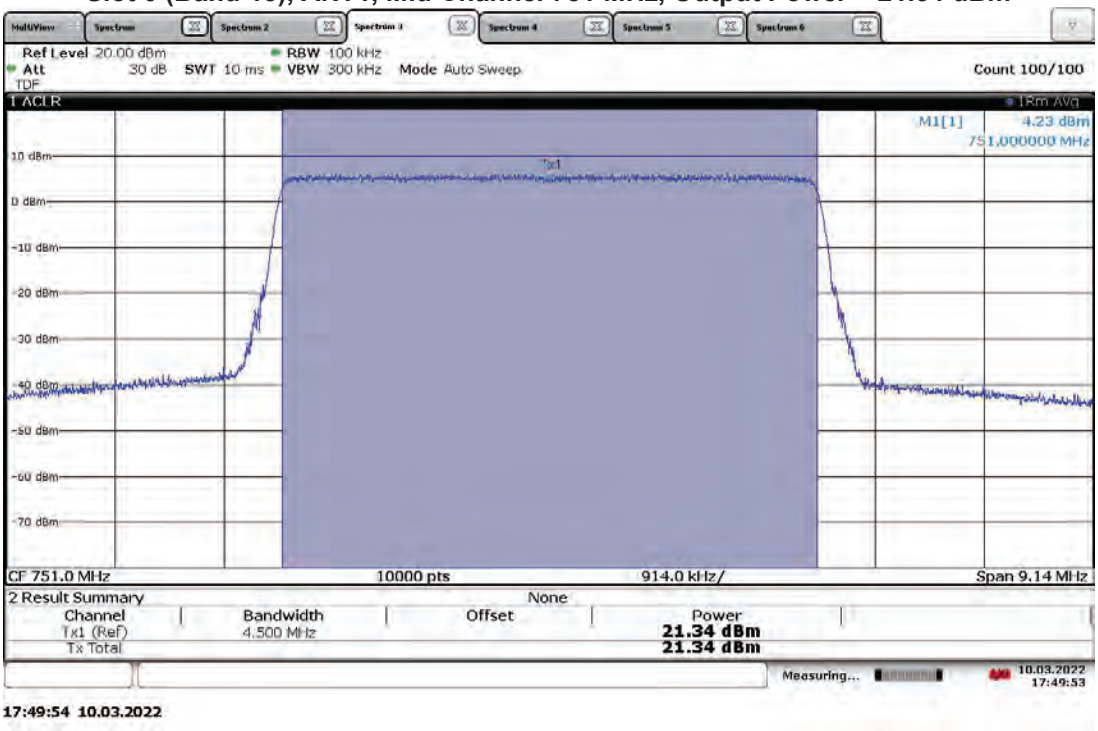
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Low Channel 748.5 MHz, Output Power = 21.27 dBm



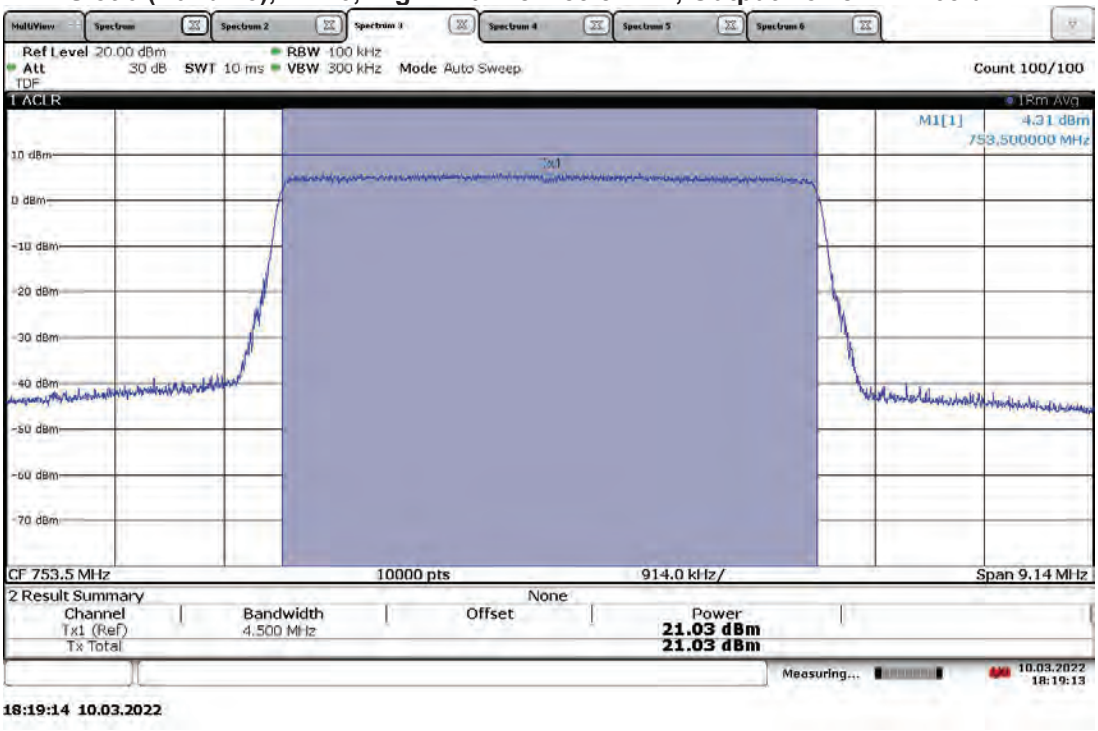
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel 751 MHz, Output Power = 20.91 dBm



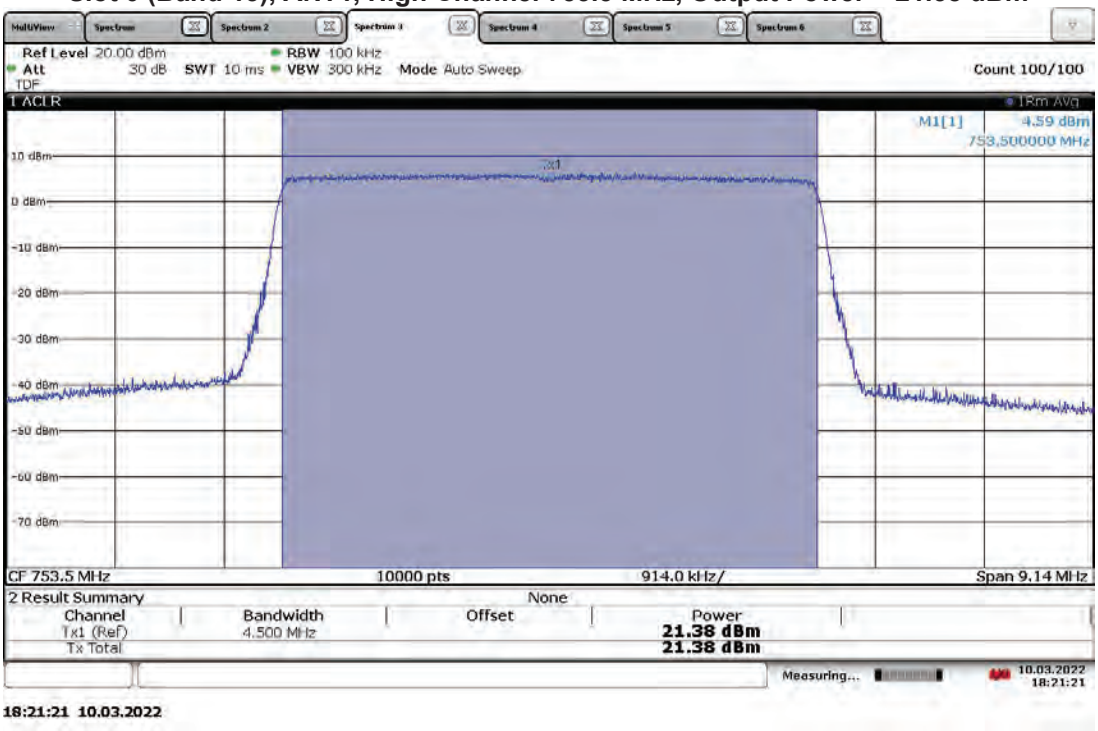
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel 751 MHz, Output Power = 21.34 dBm



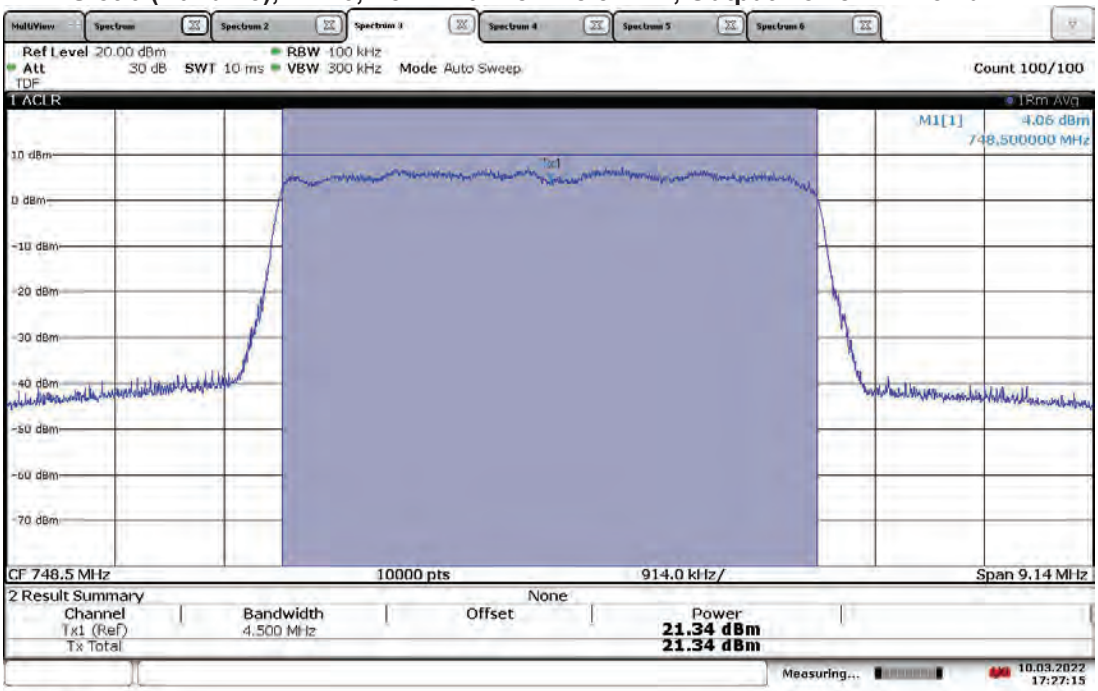
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, High Channel 753.5 MHz, Output Power = 21.03 dBm



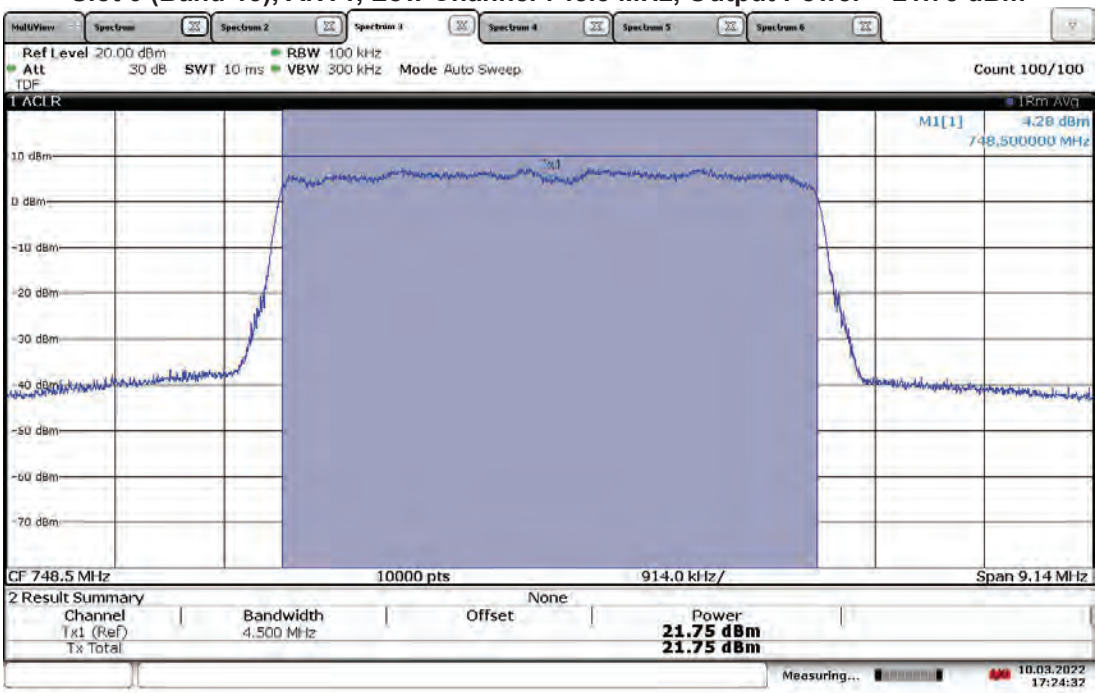
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, High Channel 753.5 MHz, Output Power = 21.38 dBm



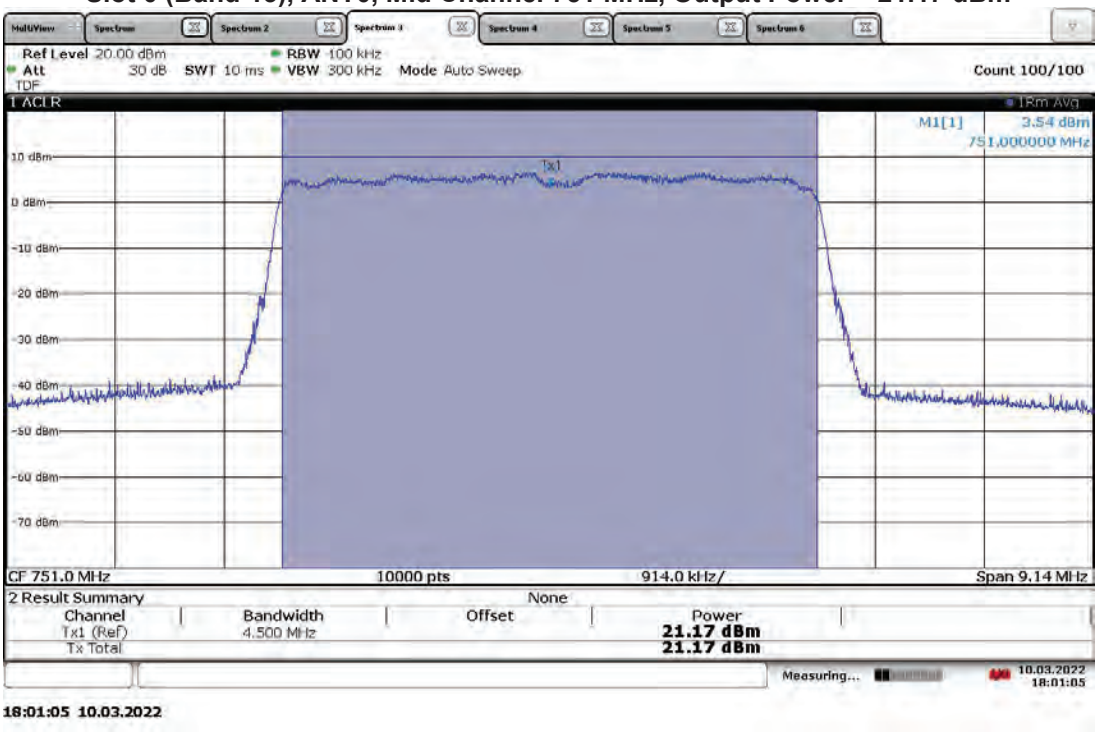
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Low Channel 748.5 MHz, Output Power = 21.34 dBm



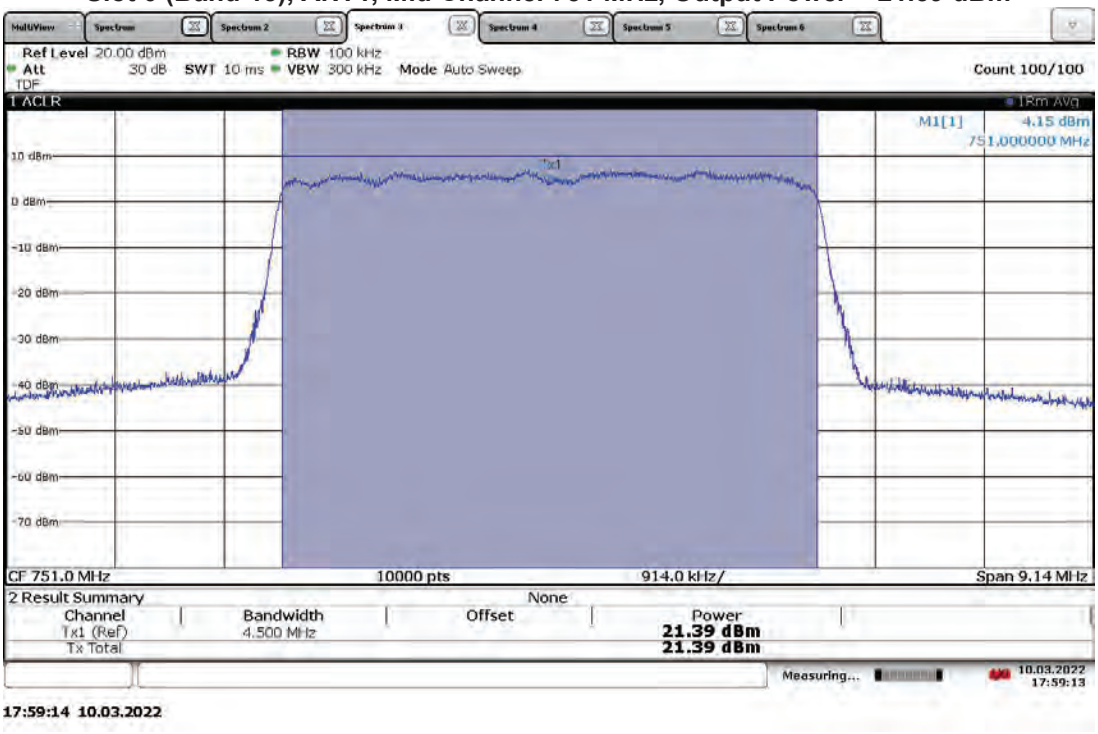
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Low Channel 748.5 MHz, Output Power = 21.75 dBm



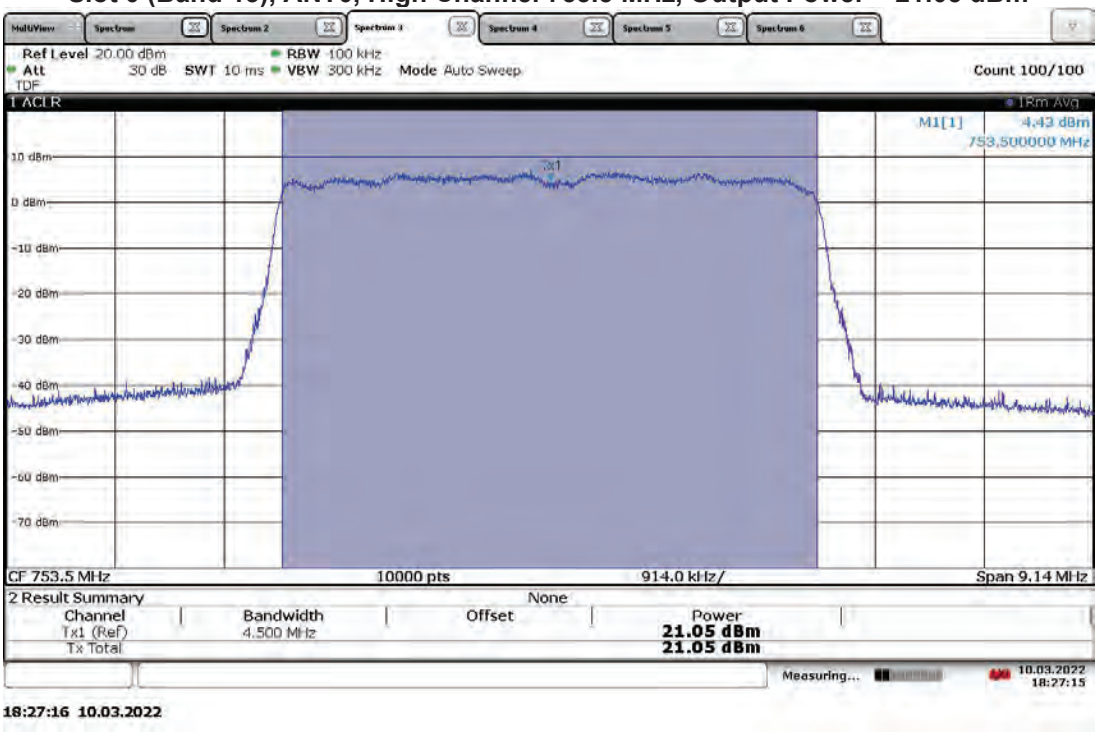
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel 751 MHz, Output Power = 21.17 dBm



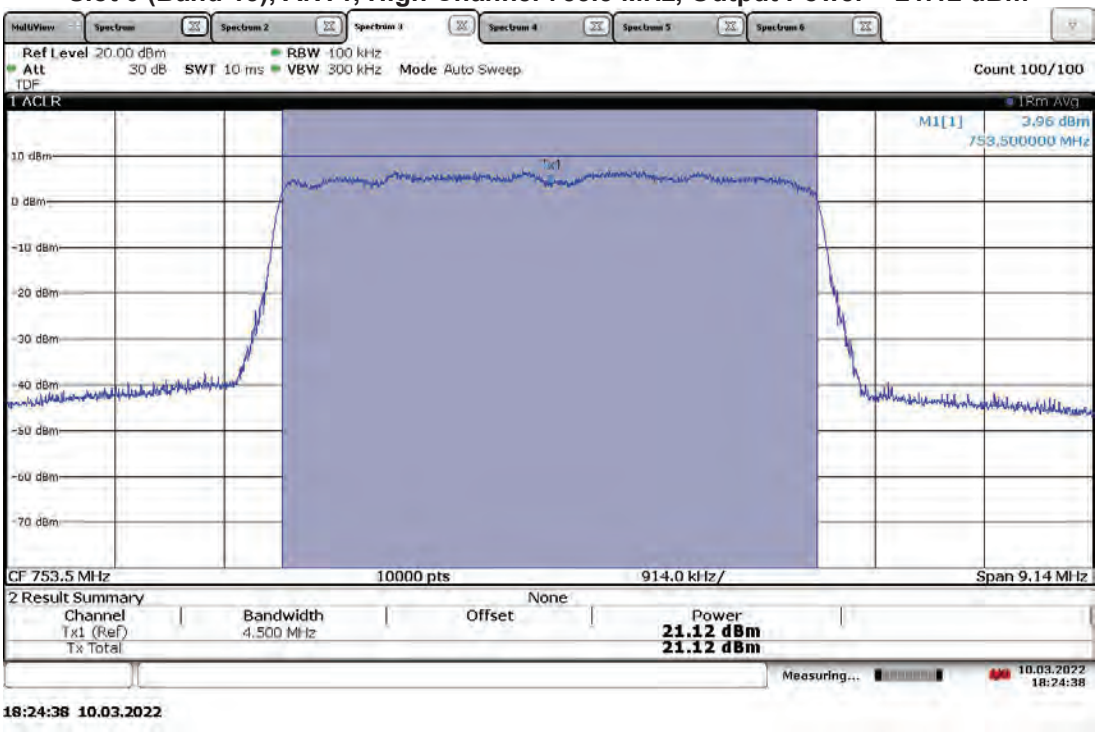
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel 751 MHz, Output Power = 21.39 dBm



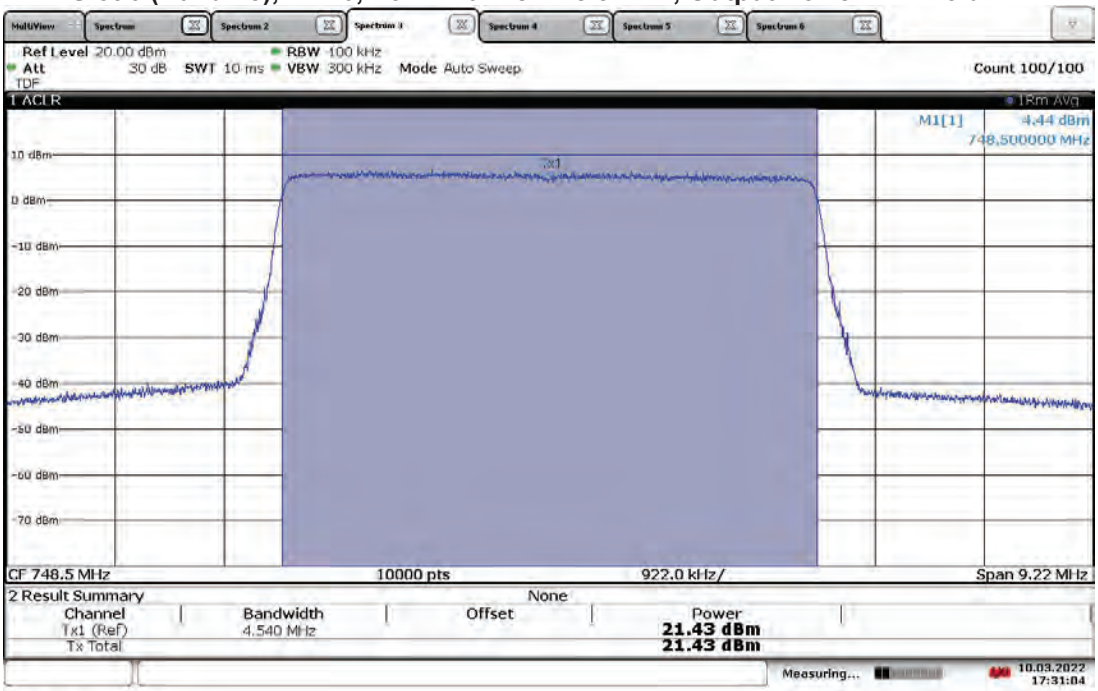
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, High Channel 753.5 MHz, Output Power = 21.05 dBm



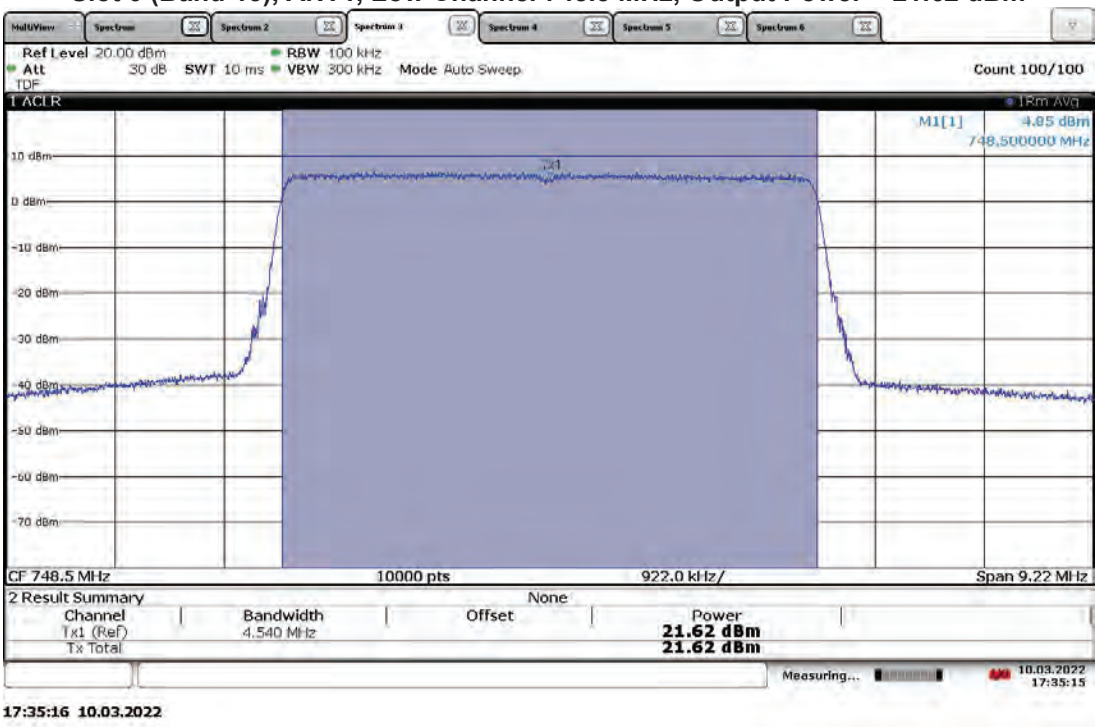
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, High Channel 753.5 MHz, Output Power = 21.12 dBm



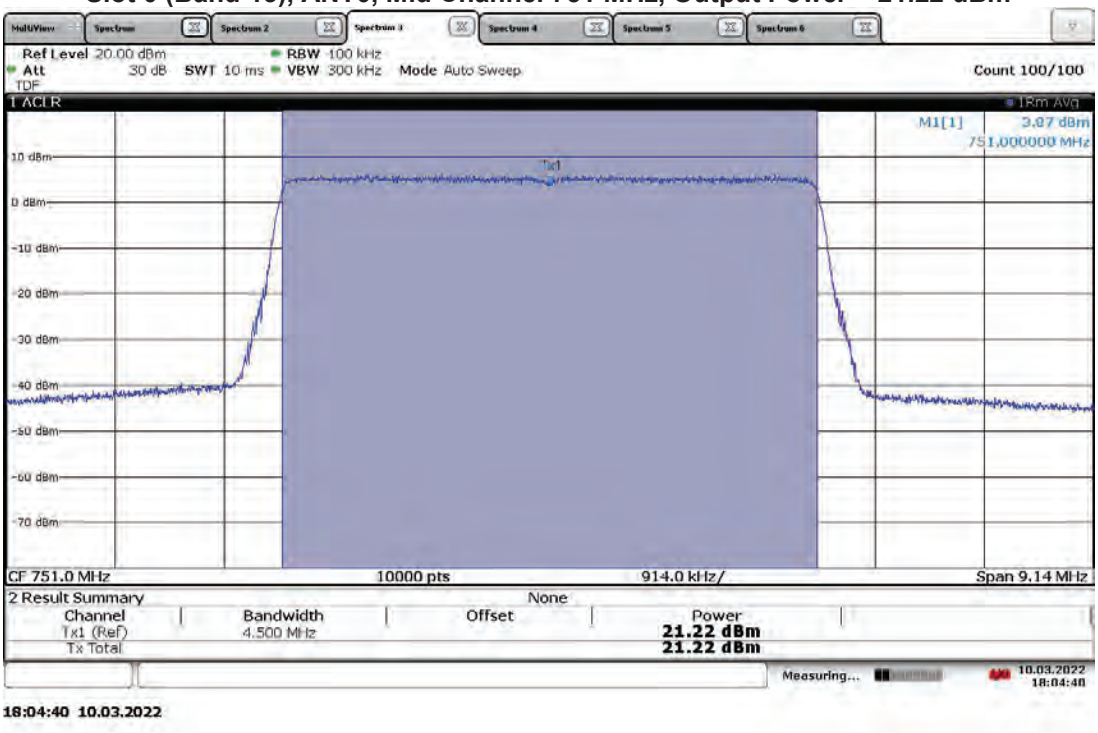
TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Low Channel 748.5 MHz, Output Power = 21.43 dBm



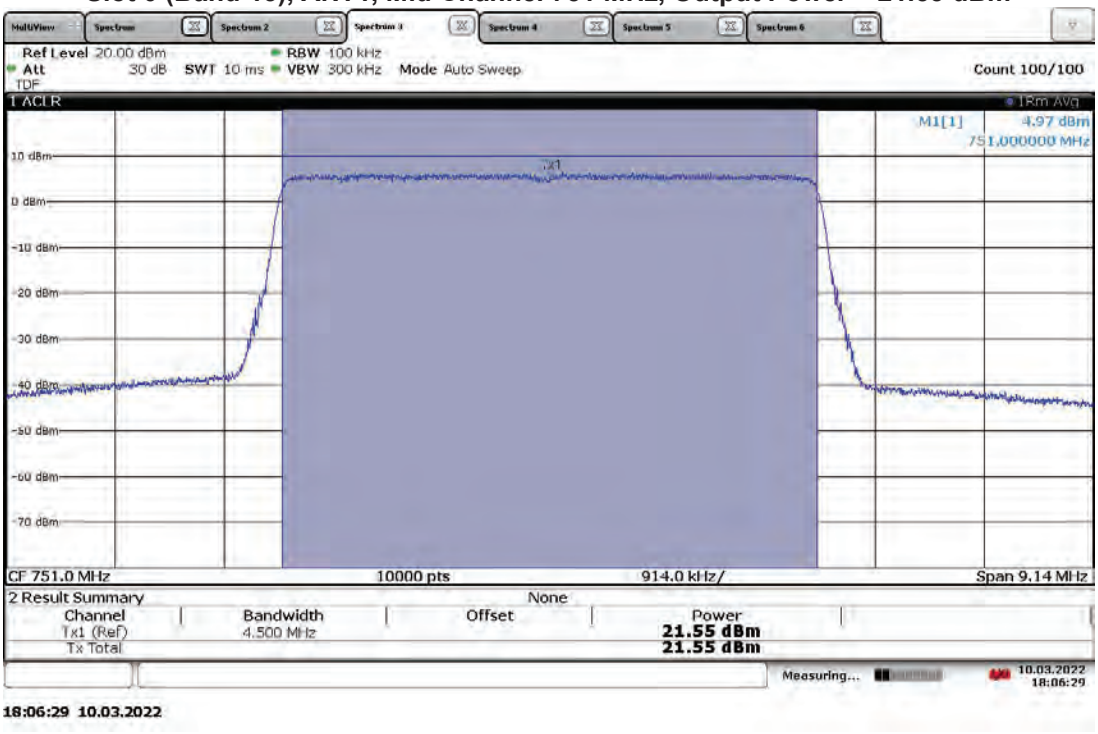
TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Low Channel 748.5 MHz, Output Power = 21.62 dBm



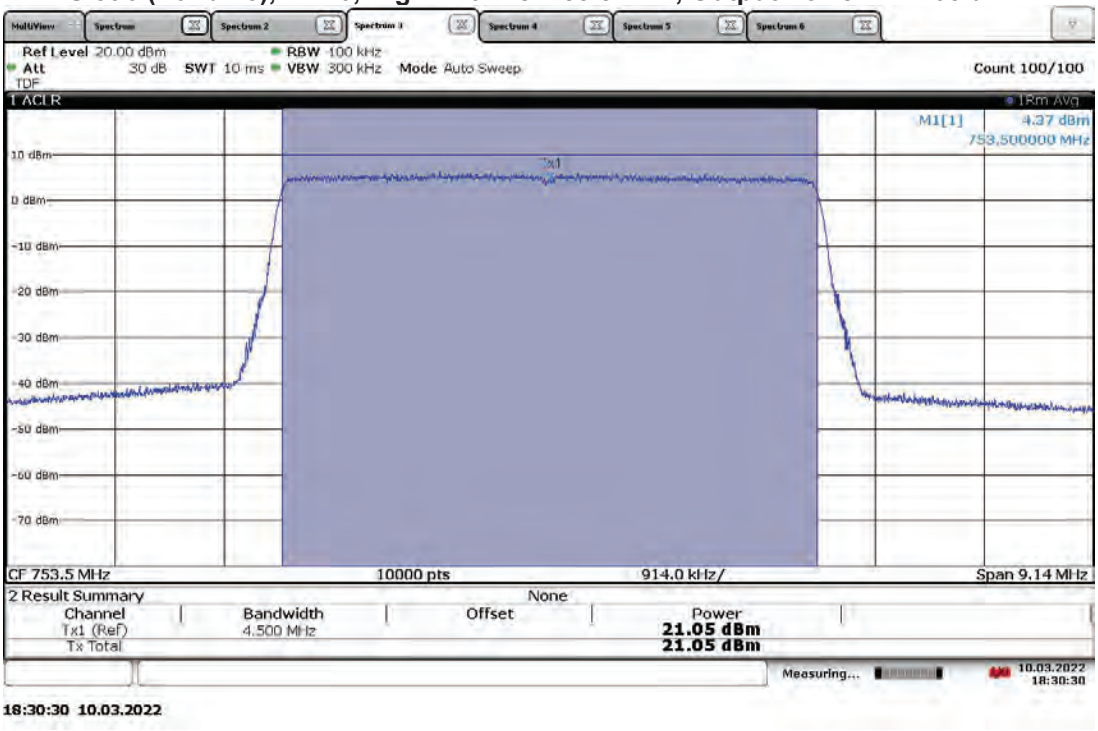
TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel 751 MHz, Output Power = 21.22 dBm



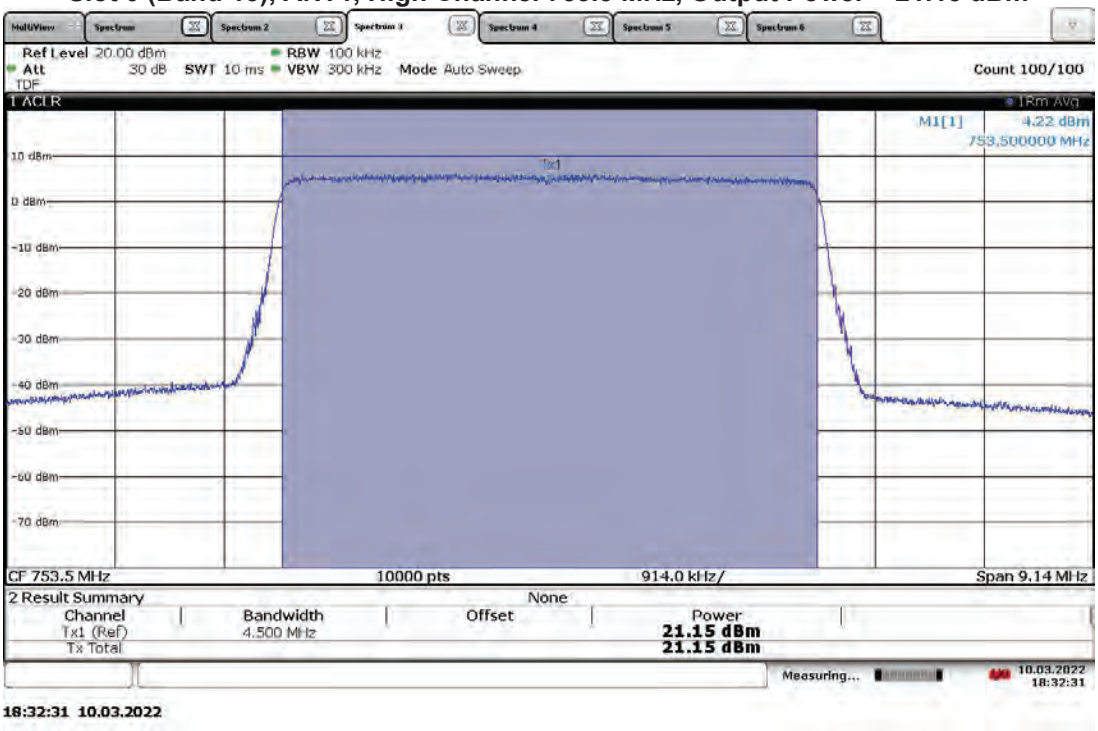
TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel 751 MHz, Output Power = 21.55 dBm



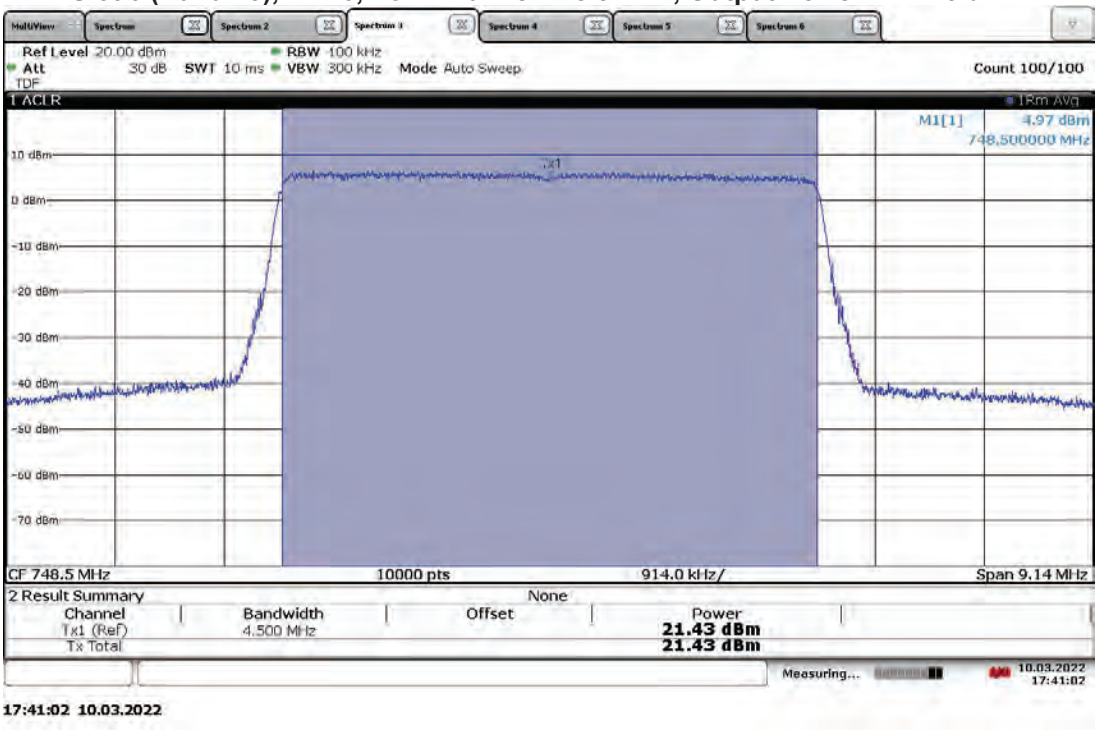
TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, High Channel 753.5 MHz, Output Power = 21.05 dBm



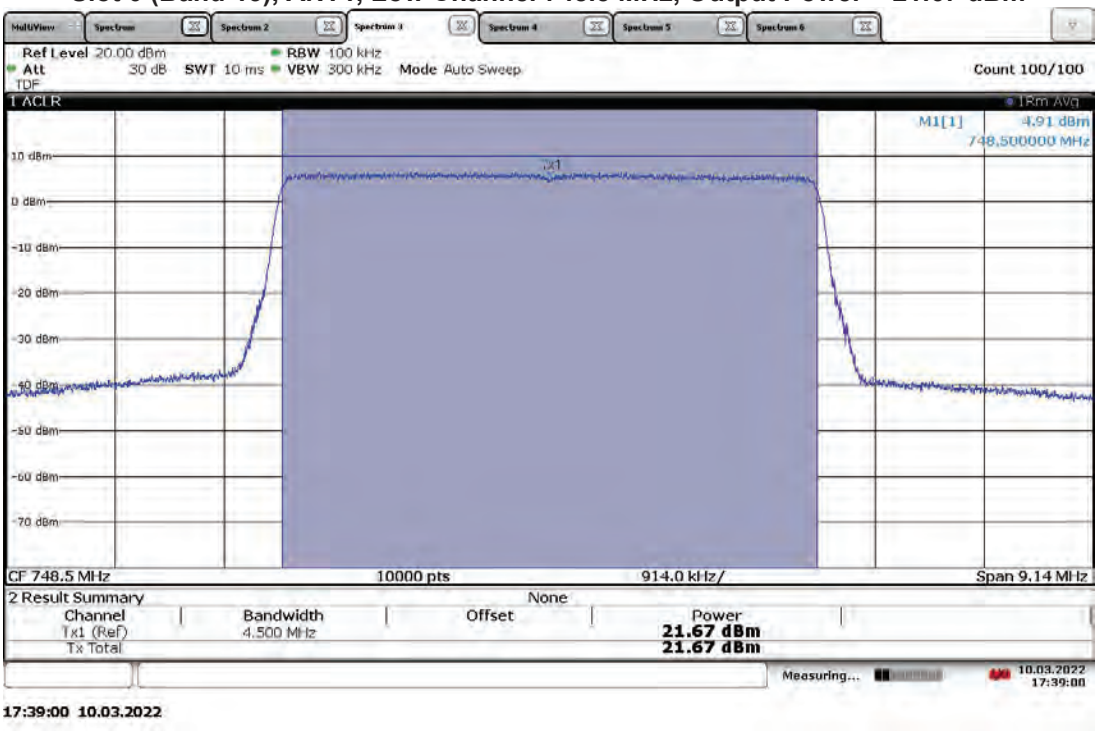
TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, High Channel 753.5 MHz, Output Power = 21.15 dBm



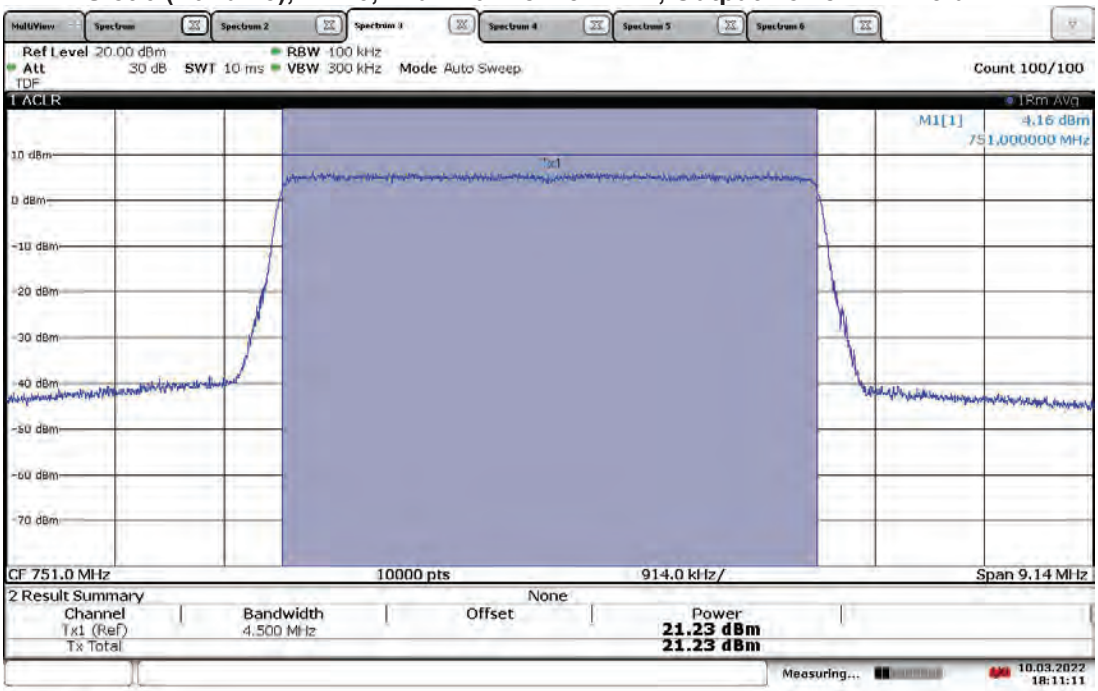
TM3.1a-256QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Low Channel 748.5 MHz, Output Power = 21.43 dBm



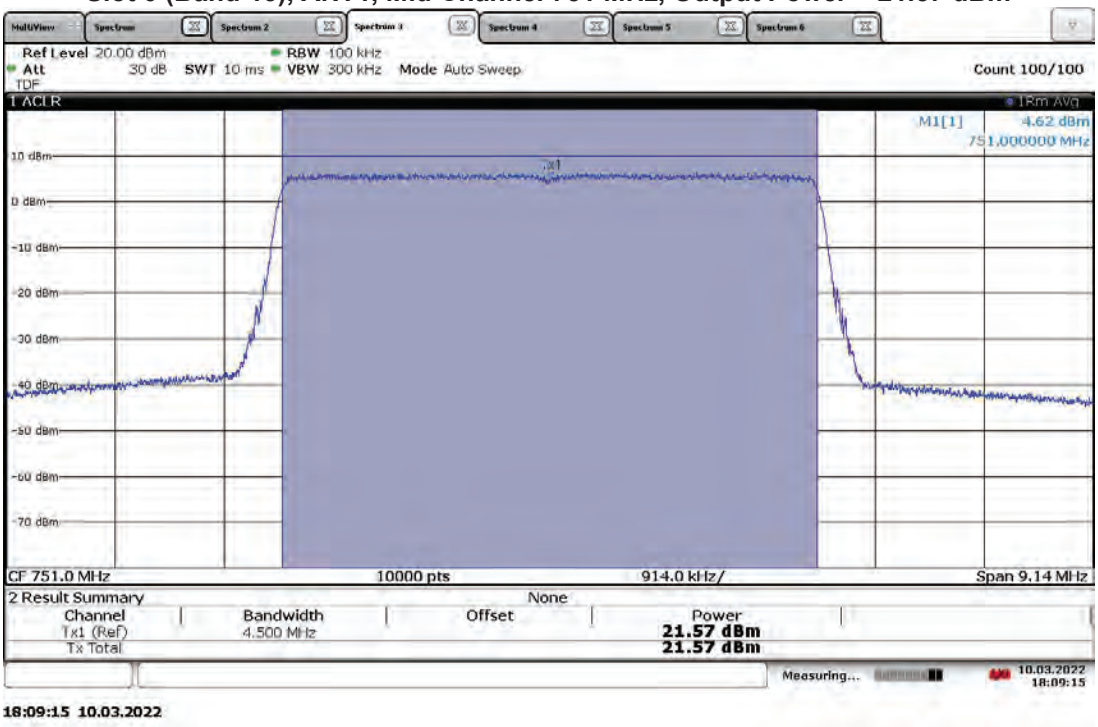
TM3.1a-256QAM _5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Low Channel 748.5 MHz, Output Power = 21.67 dBm



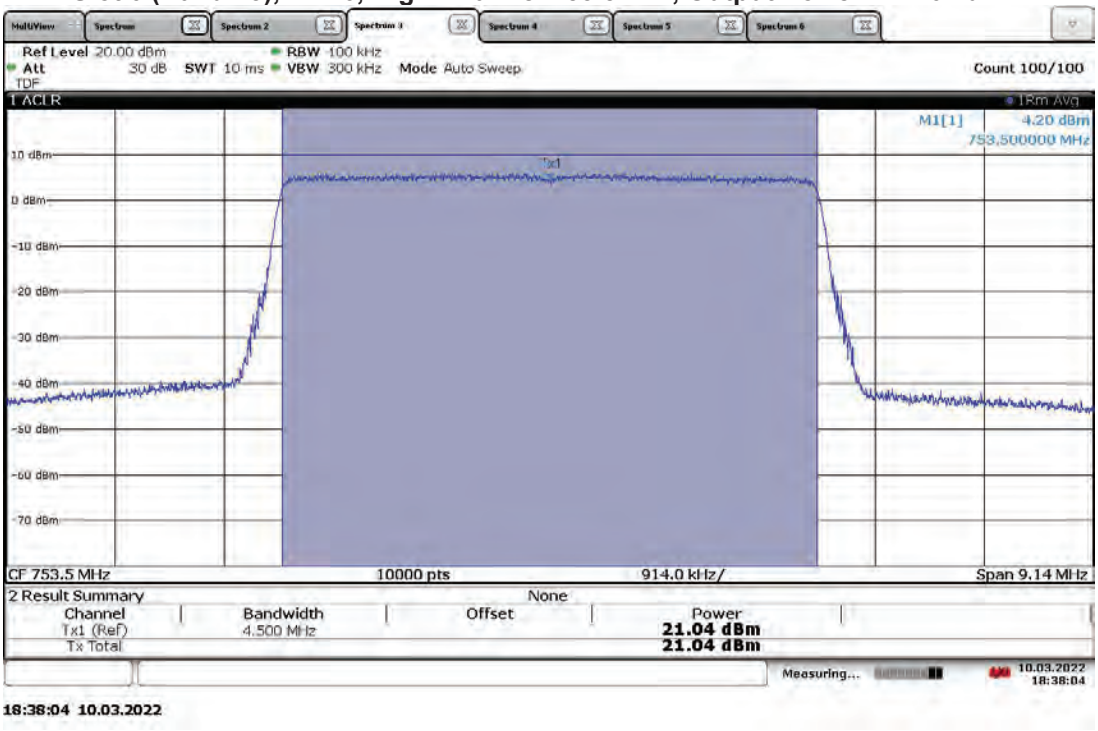
TM3.1a-256QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel 751 MHz, Output Power = 21.23 dBm



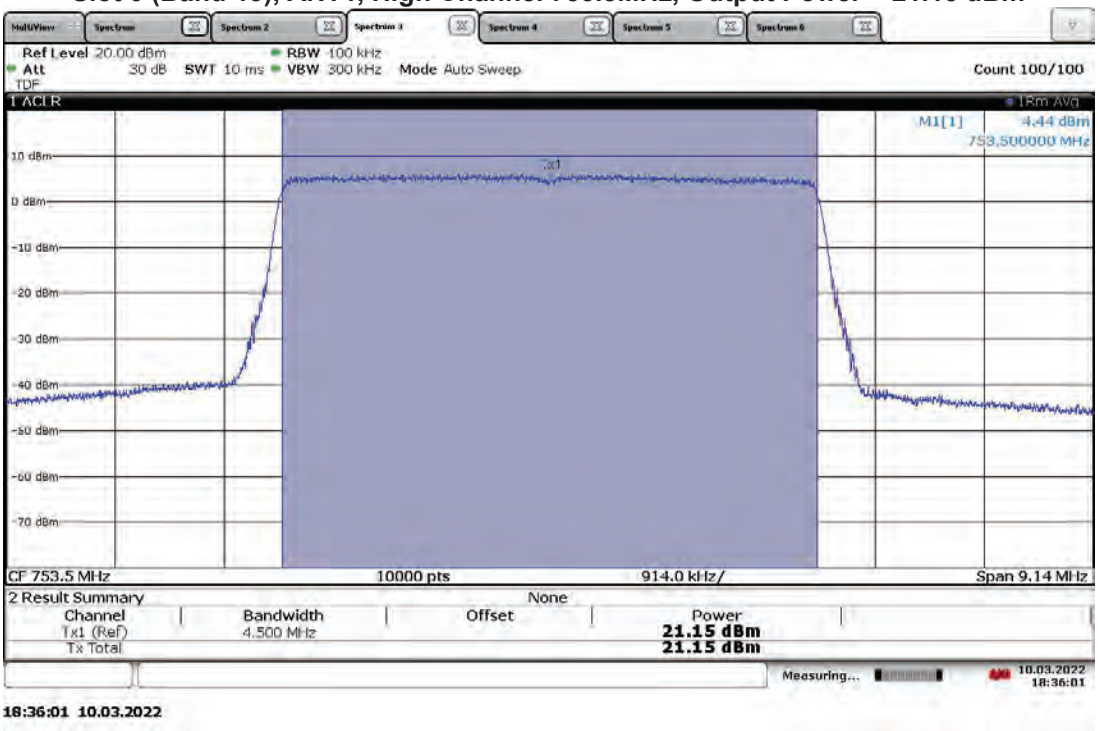
TM3.1a-256QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel 751 MHz, Output Power = 21.57 dBm



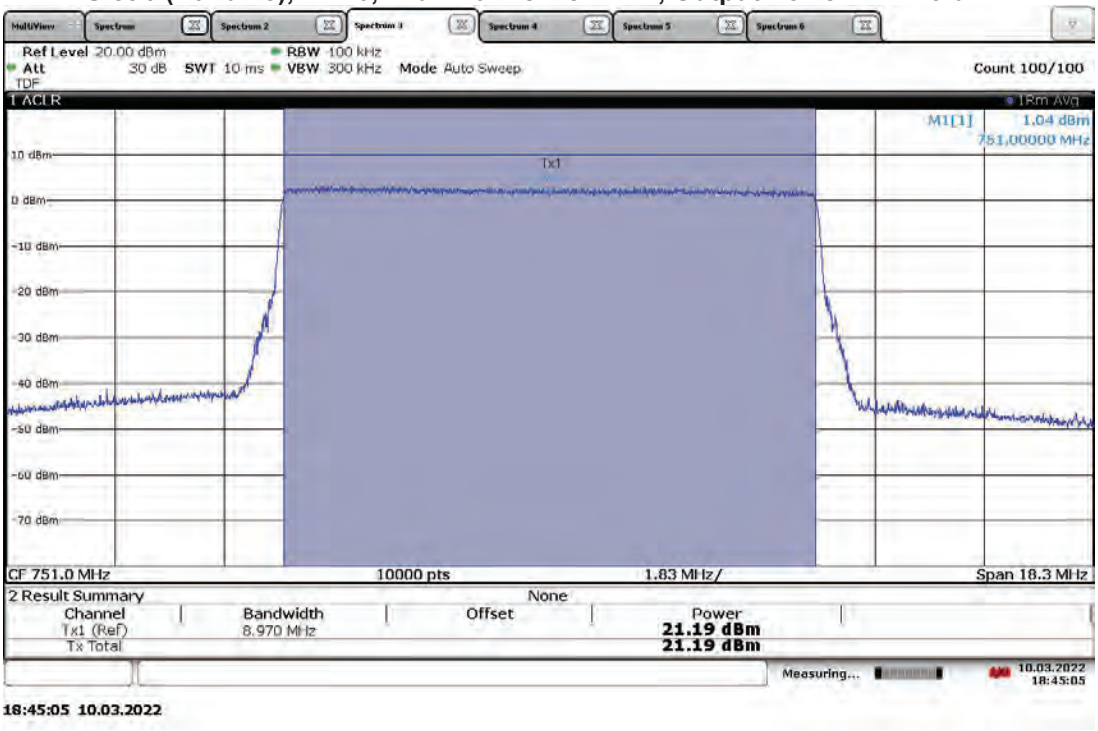
TM3.1a-256QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, High Channel 753.5MHz, Output Power = 21.04 dBm



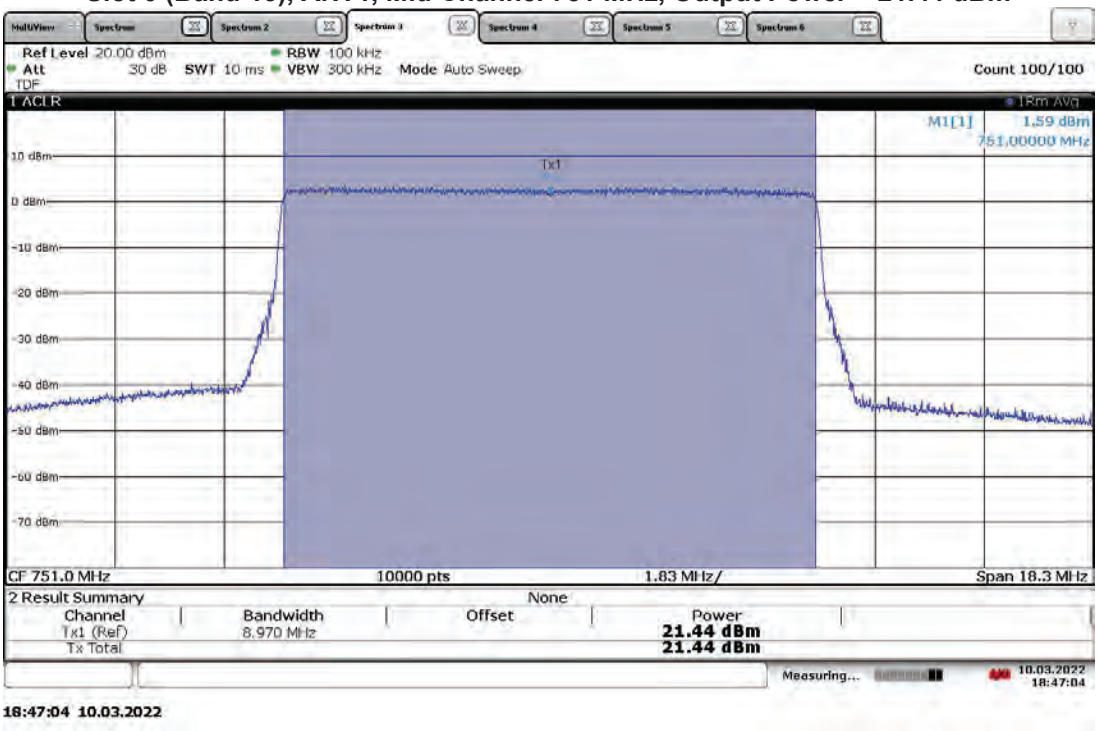
TM3.1a-256QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, High Channel 753.5MHz, Output Power = 21.15 dBm



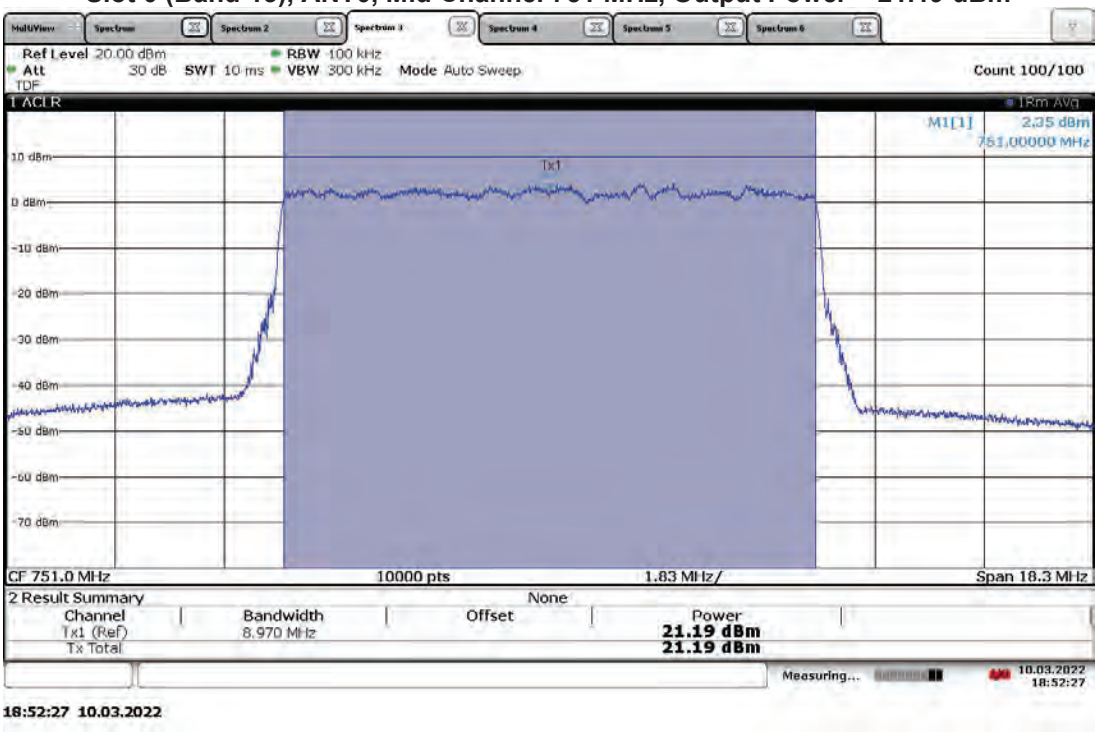
TM1.1-QPSK_10 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel 751 MHz, Output Power = 21.19 dBm



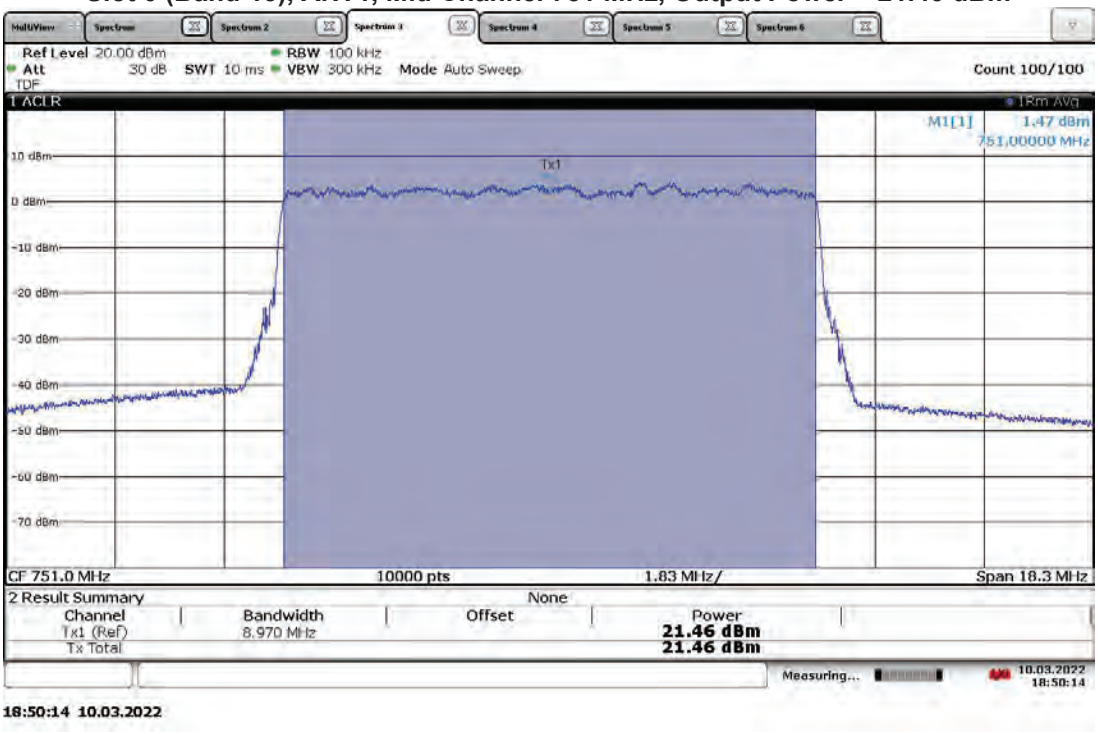
TM1.1-QPSK_10 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel 751 MHz, Output Power = 21.44 dBm



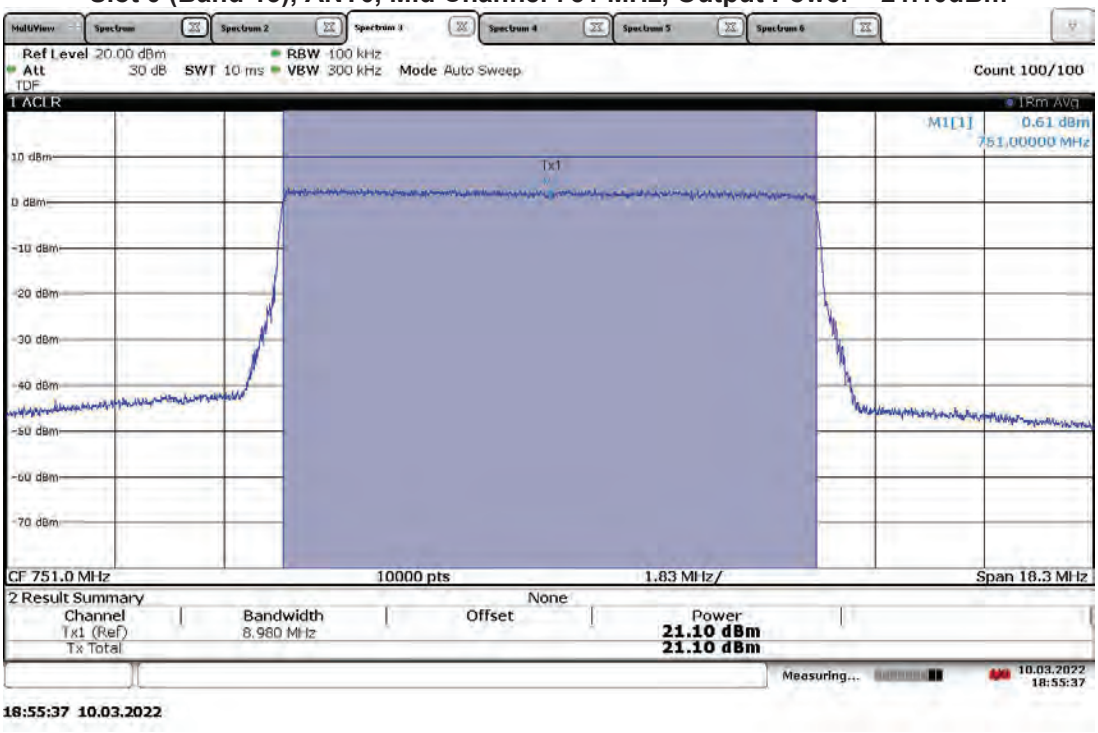
TM3.2-16QAM_10 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel 751 MHz, Output Power = 21.19 dBm



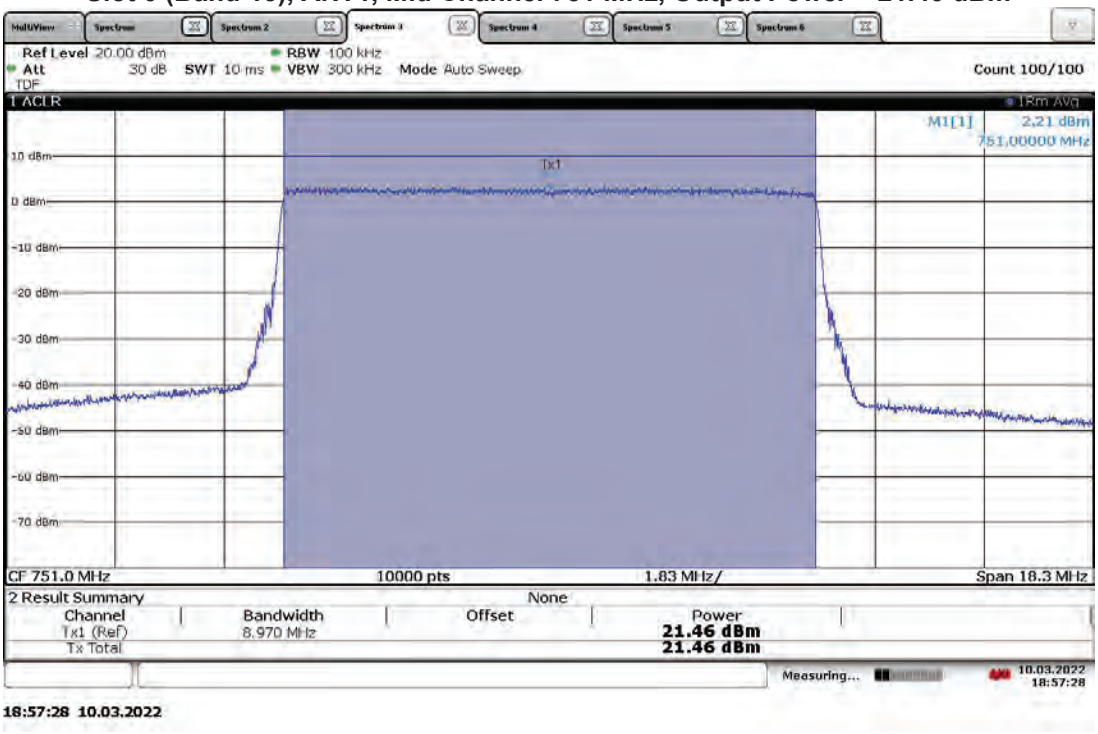
TM3.2-16QAM_10 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel 751 MHz, Output Power = 21.46 dBm



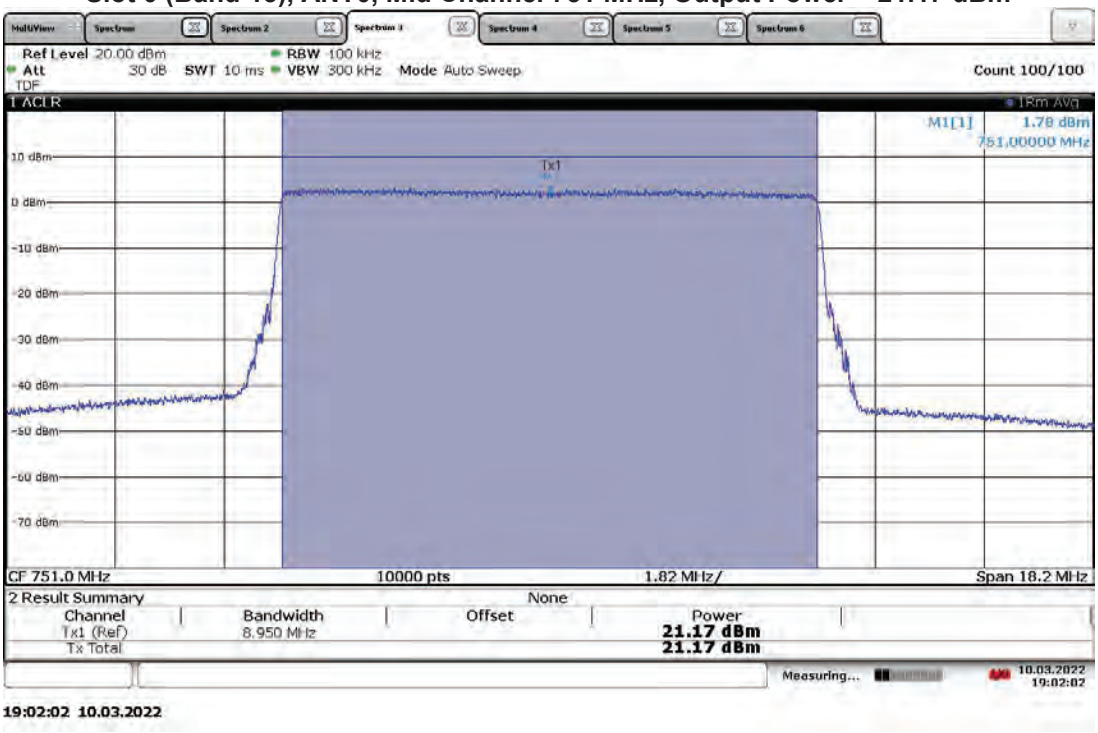
TM3.1-64QAM_10 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel 751 MHz, Output Power = 21.10dBm



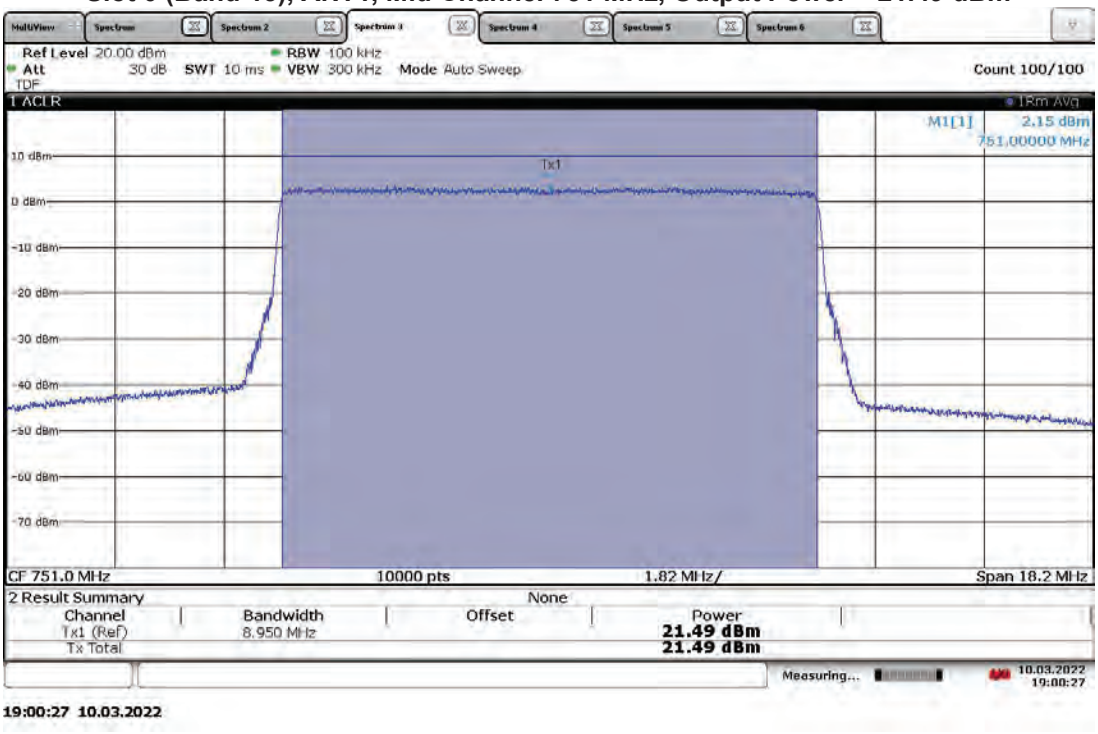
TM3.1-64QAM_10 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel 751 MHz, Output Power = 21.46 dBm



TM3.1a-256QAM_10 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel 751 MHz, Output Power = 21.17 dBm



TM3.1a-256QAM_10 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel 751 MHz, Output Power = 21.49 dBm



Test Personnel:	Kouma Sinn KPS	Test Date:	03/09/2022
Supervising/Reviewing Engineer: (Where Applicable)	Vathana F. Ven VFV		
Product Standard:	FCC Part 27	Limit Applied:	See report section 6.3
Input Voltage:	48 VDC (POE)		
Pretest Verification w/ Ambient Signals or BB Source:	N/A	Ambient Temperature:	22 ºC
		Relative Humidity:	22 %
		Atmospheric Pressure:	1005 mbars

Deviations, Additions, or Exclusions: None

7 26 dB Bandwidth and Occupied Bandwidth

7.1 Method

Tests are performed in accordance with ANSI C63.26 and CFR47 FCC Part 2.1049.

TEST SITE: EMC Lab

The EMC Lab has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

7.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DS40'	Temp, humidity, pressure gauge	Digi Sense	68000-49	181717625	11/09/2021	11/09/2022
ROS005-1'	Signal and Spectrum Analyzer	Rohde and Shwartz	FSW43	100646	11/02/2021	11/02/2022
CEN001'	DC-40GHz attenuator 20dB	Centric RF	C411-20	CEN001	01/26/2022	01/26/2023
CBLHF2012-2M-2'	2m 9kHz-40GHz Coaxial Cable - SET2	Huber & Suhner	SF102	252675002	02/10/2022	02/10/2023

Software Utilized:

Name	Manufacturer	Version
None	--	--

7.3 Results:

The sample tested was found to Comply.

§2.1049: The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission.

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 5 MHz, Modulation: TM1.1-QPSK

Channel	Frequency (MHz)	Antenna Port	Occupied BW (MHz)	26 dB BW (MHz)
Low	748.50	ANT0	4.494	4.99
		ANT1	4.499	5.00
Mid	751.00	ANT0	4.496	5.00
		ANT1	4.497	4.97
High	753.50	ANT0	4.494	5.00
		ANT1	4.493	5.00

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 5 MHz, Modulation: TM3.2-16QAM

Channel	Frequency (MHz)	Antenna Port	Occupied BW (MHz)	26 dB BW (MHz)
Low	748.50	ANT0	4.494	4.95
		ANT1	4.492	4.96
Mid	751.00	ANT0	4.495	4.96
		ANT1	4.496	4.96
High	753.50	ANT0	4.492	4.96
		ANT1	4.481	4.95

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 5 MHz, Modulation: TM3.1-64QAM

Channel	Frequency (MHz)	Antenna Port	Occupied BW (MHz)	26 dB BW (MHz)
Low	748.50	ANT0	4.539	4.99
		ANT1	4.540	5.01
Mid	751.00	ANT0	4.533	5.03
		ANT1	4.534	5.01
High	753.50	ANT0	4.534	5.03
		ANT1	4.512	5.00

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM

Channel	Frequency (MHz)	Antenna Port	Occupied BW (MHz)	26 dB BW (MHz)
Low	748.50	ANT0	4.505	5.00
		ANT1	4.517	5.00
Mid	751.00	ANT0	4.521	4.99
		ANT1	4.517	5.00
High	753.50	ANT0	4.509	5.00
		ANT1	4.510	4.97

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 10 MHz, Modulation: TM1.1-QPSK

Channel	Frequency (MHz)	Antenna Port	Occupied BW (MHz)	26 dB BW (MHz)
Mid	751.00	ANT0	8.973	9.83
		ANT1	8.965	9.83

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 10 MHz, Modulation: TM3.2-16QAM

Channel	Frequency (MHz)	Antenna Port	Occupied BW (MHz)	26 dB BW (MHz)
Mid	751.00	ANT0	8.982	9.83
		ANT1	8.971	9.81

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 10 MHz, Modulation: TM3.1-64QAM

Channel	Frequency (MHz)	Antenna Port	Occupied BW (MHz)	26 dB BW (MHz)
Mid	751.00	ANT0	8.981	9.87
		ANT1	8.975	9.85

Slot 0 (Band 13, 4G LTE) With RP5200 Host, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM

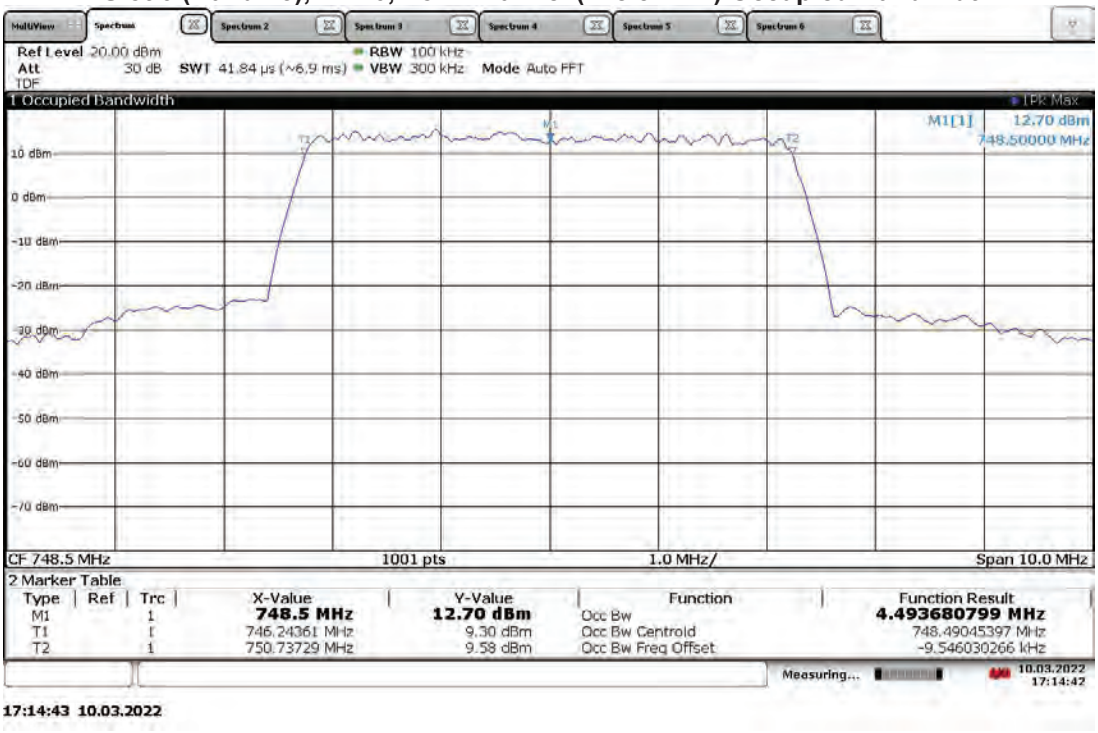
Channel	Frequency (MHz)	Antenna Port	Occupied BW (MHz)	26 dB BW (MHz)
Mid	751.00	ANT0	8.957	9.81
		ANT1	8.954	9.75

7.4 Setup Photograph:

Confidential – Photos not included in this report

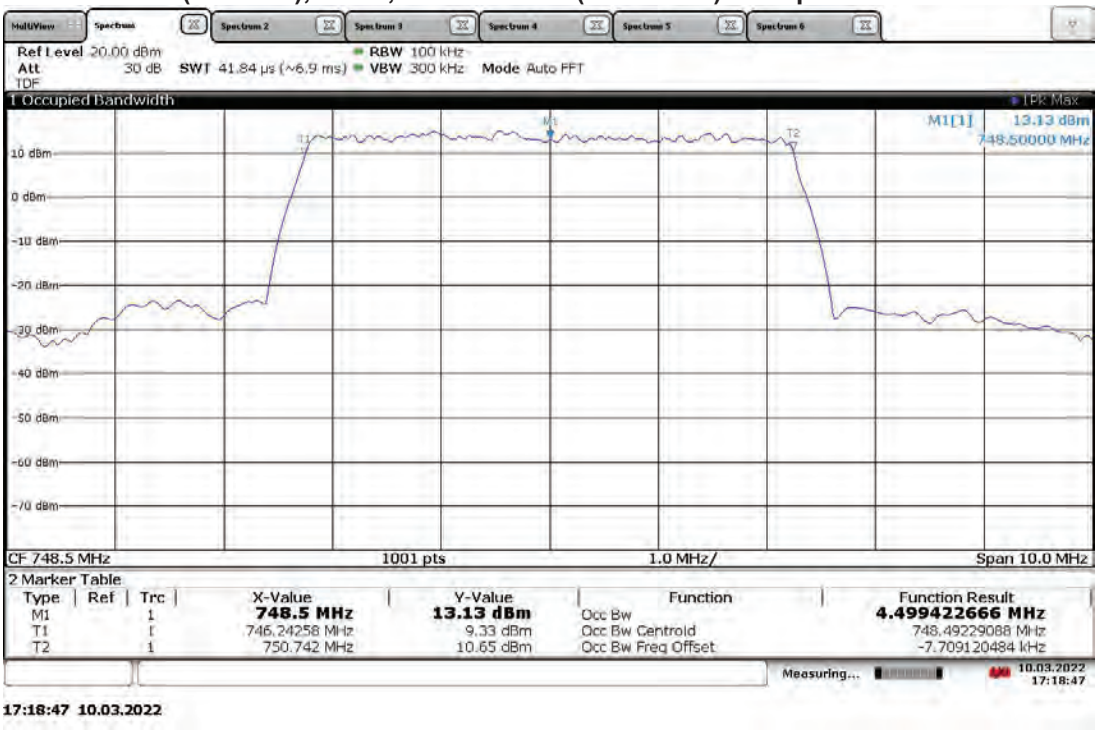
7.5 Plots/Data:

TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Low Channel (748.5 MHz) Occupied Bandwidth



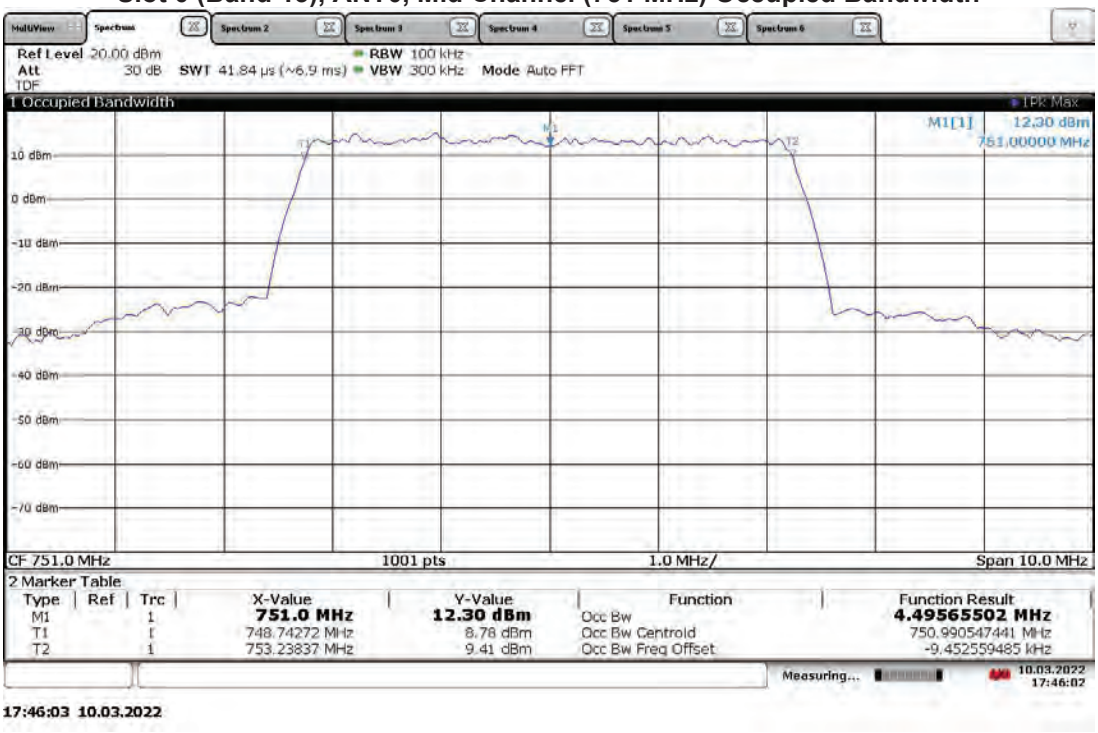
17:14:43 10.03.2022

TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Low Channel (748.5 MHz) Occupied Bandwidth

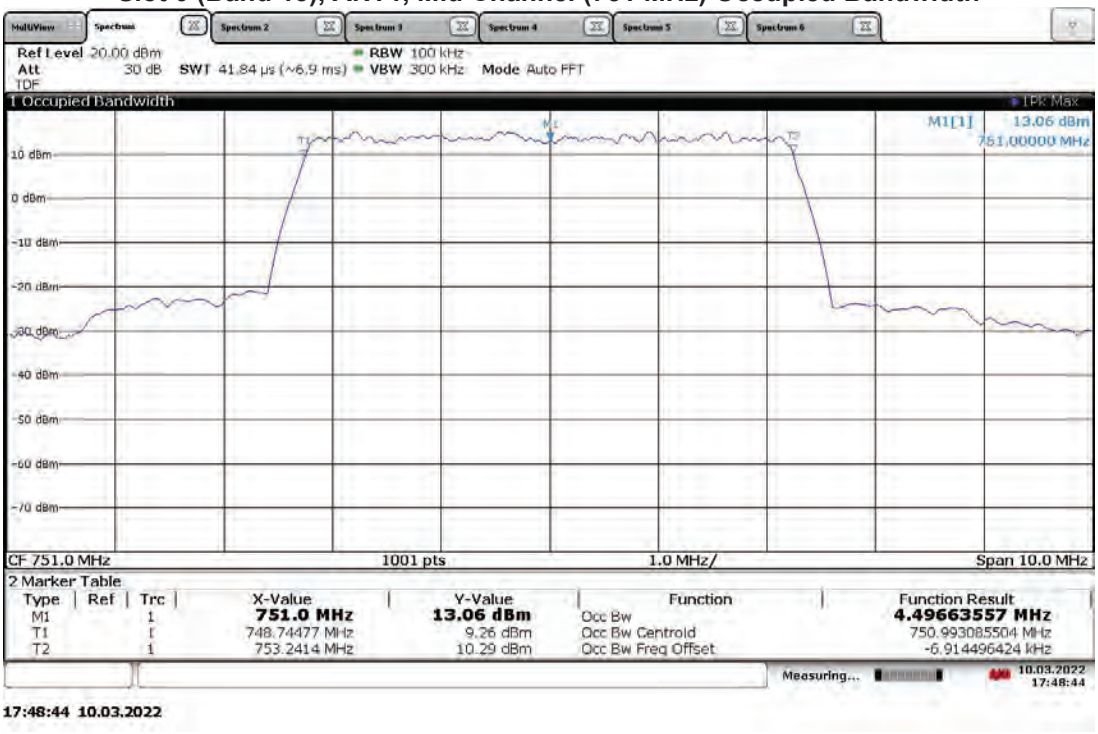


17:18:47 10.03.2022

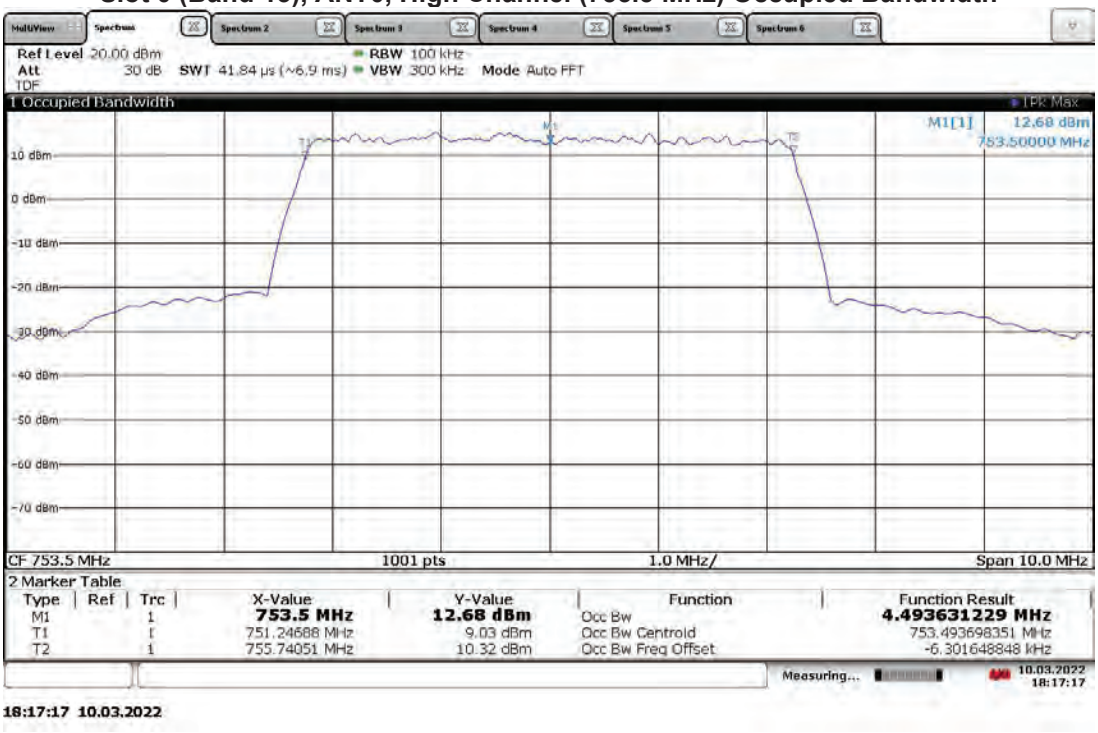
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel (751 MHz) Occupied Bandwidth



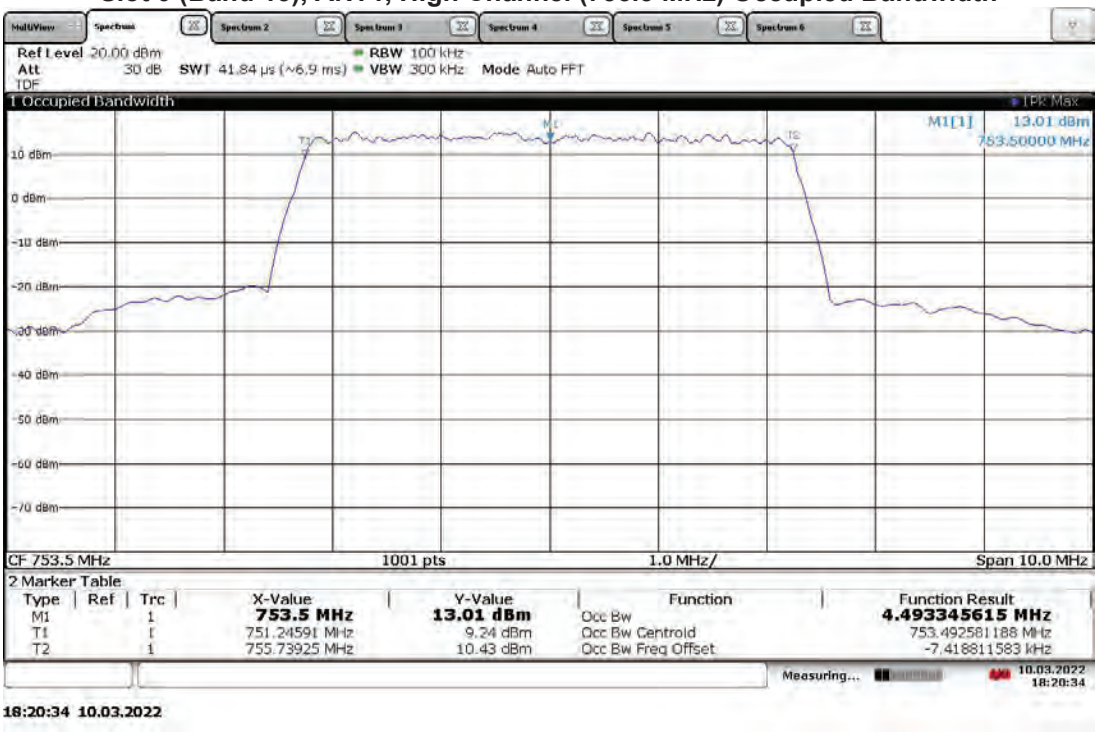
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel (751 MHz) Occupied Bandwidth



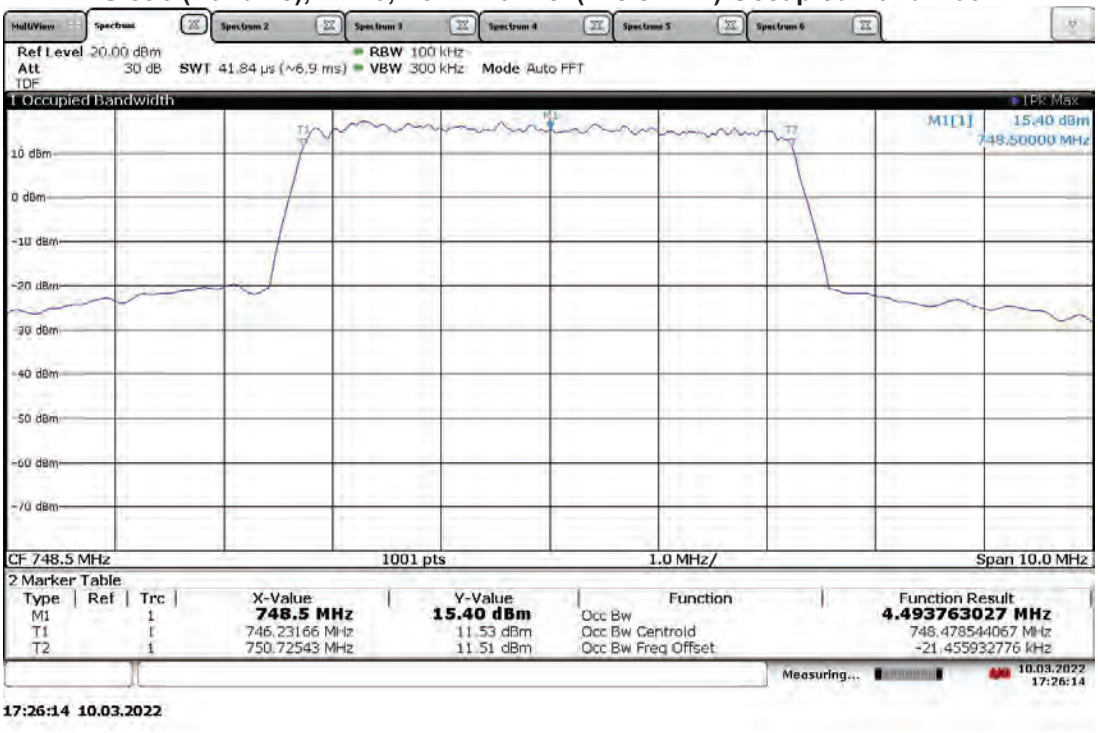
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, High Channel (753.5 MHz) Occupied Bandwidth



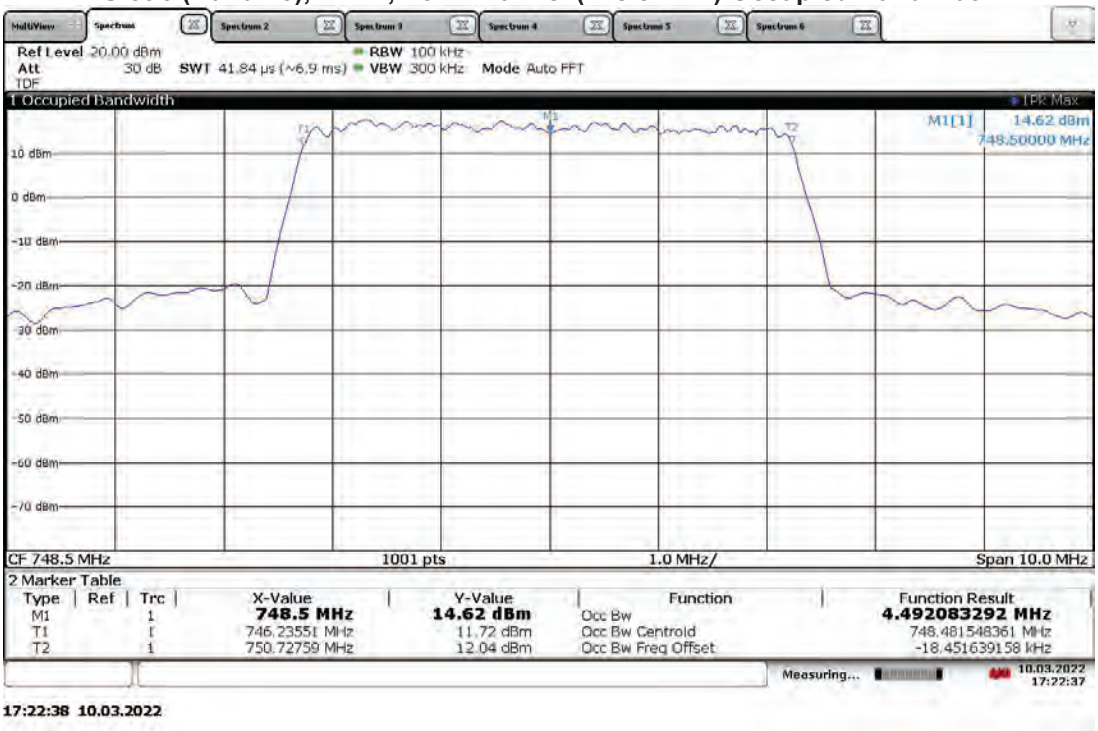
TM1.1-QPSK_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, High Channel (753.5 MHz) Occupied Bandwidth



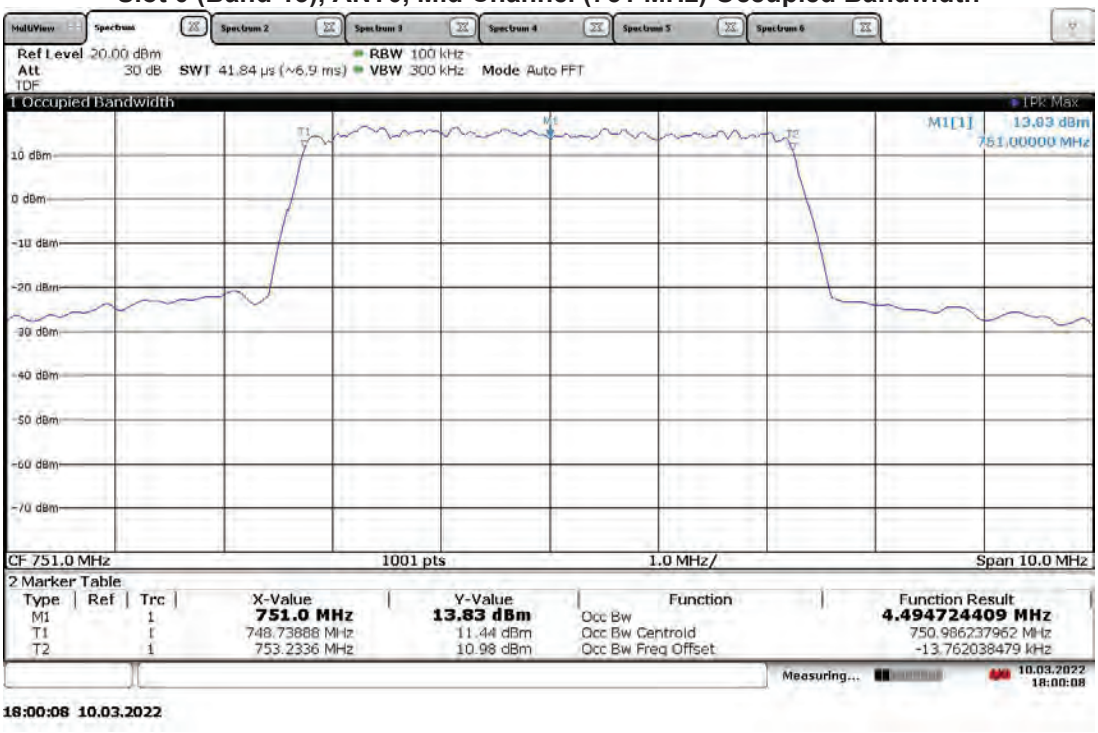
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Low Channel (748.5 MHz) Occupied Bandwidth



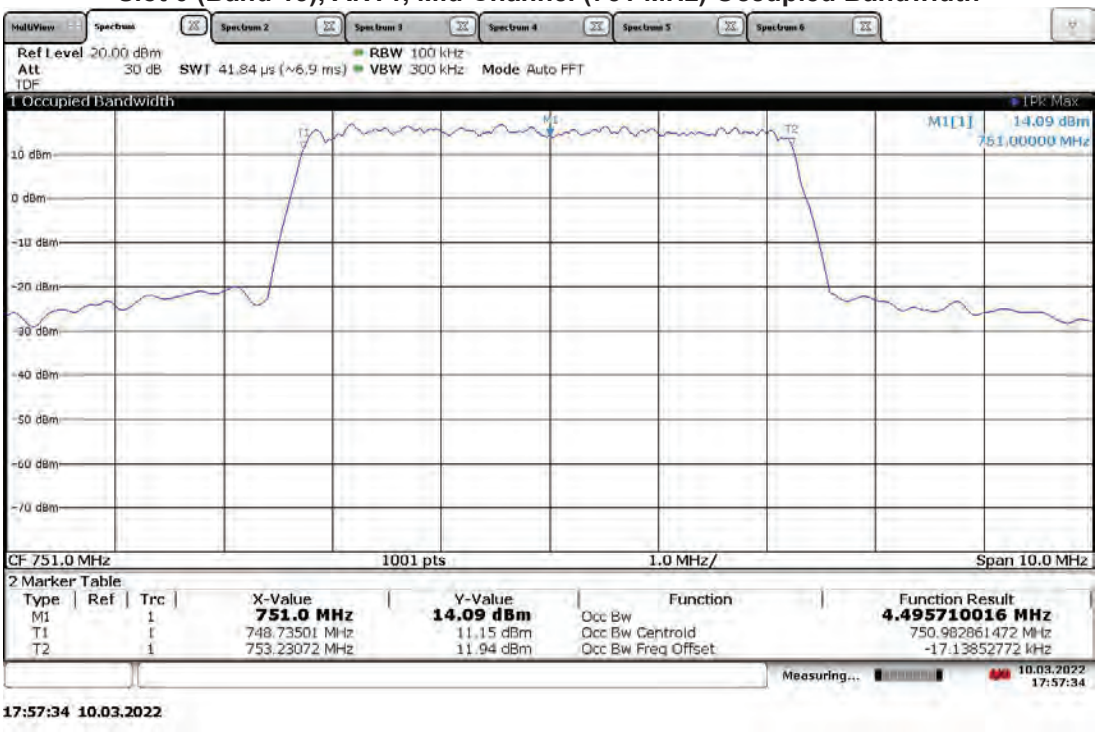
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Low Channel (748.5 MHz) Occupied Bandwidth



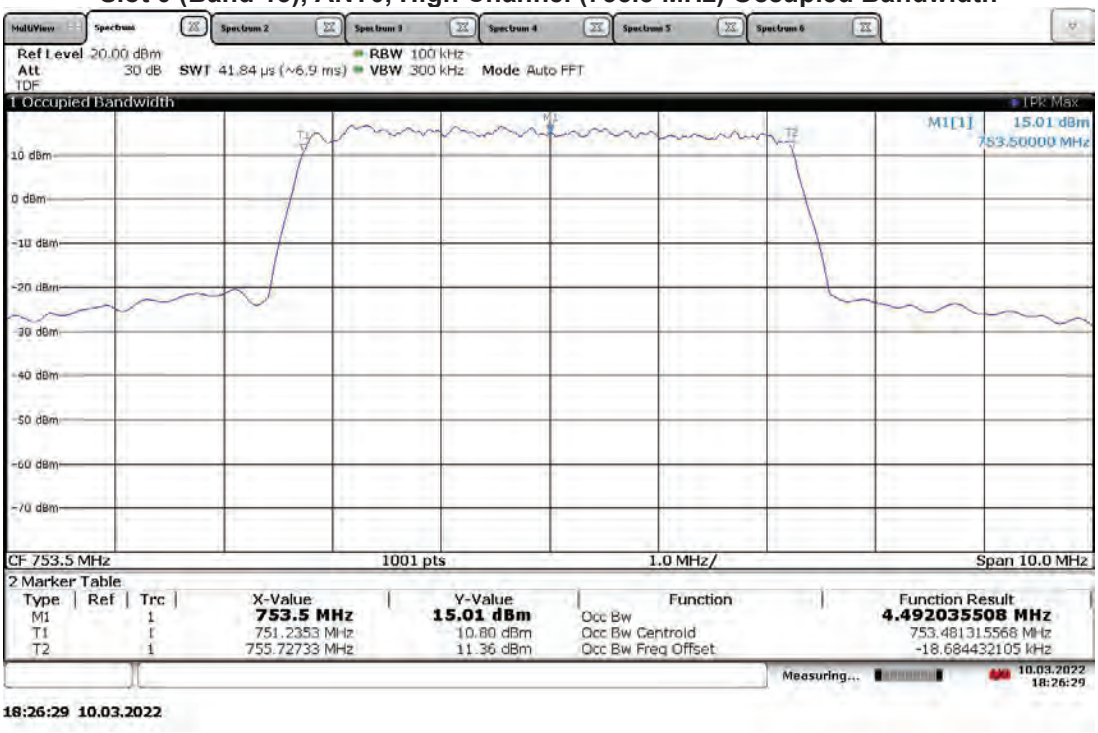
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel (751 MHz) Occupied Bandwidth



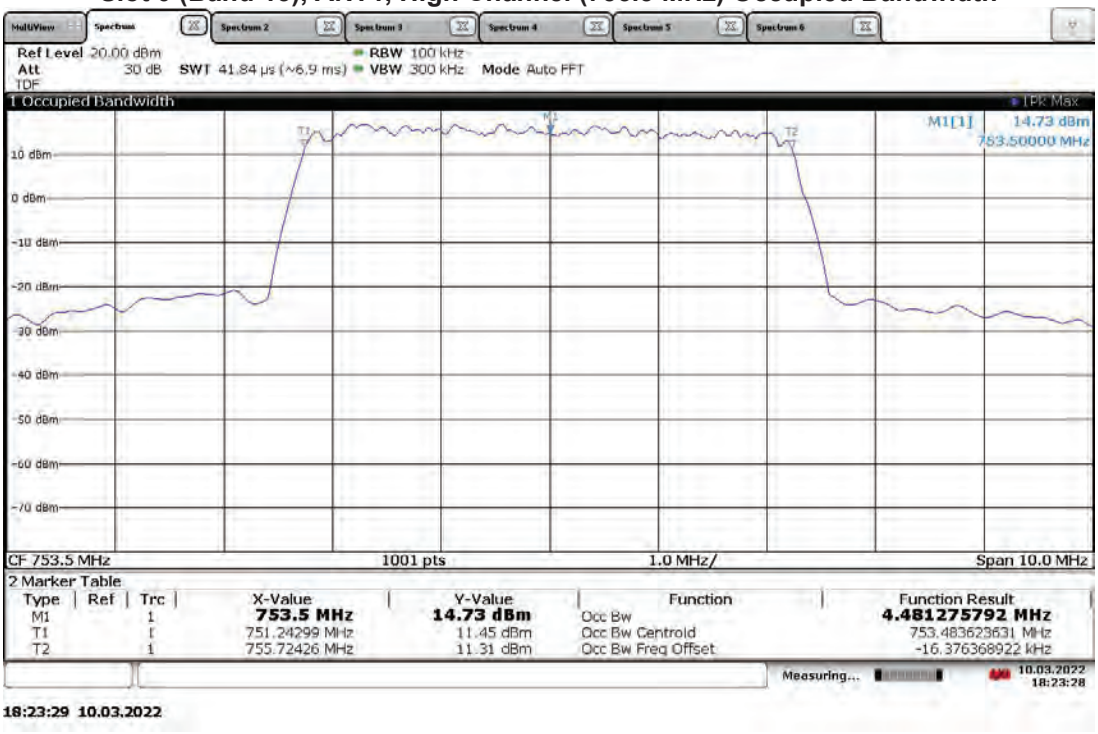
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel (751 MHz) Occupied Bandwidth



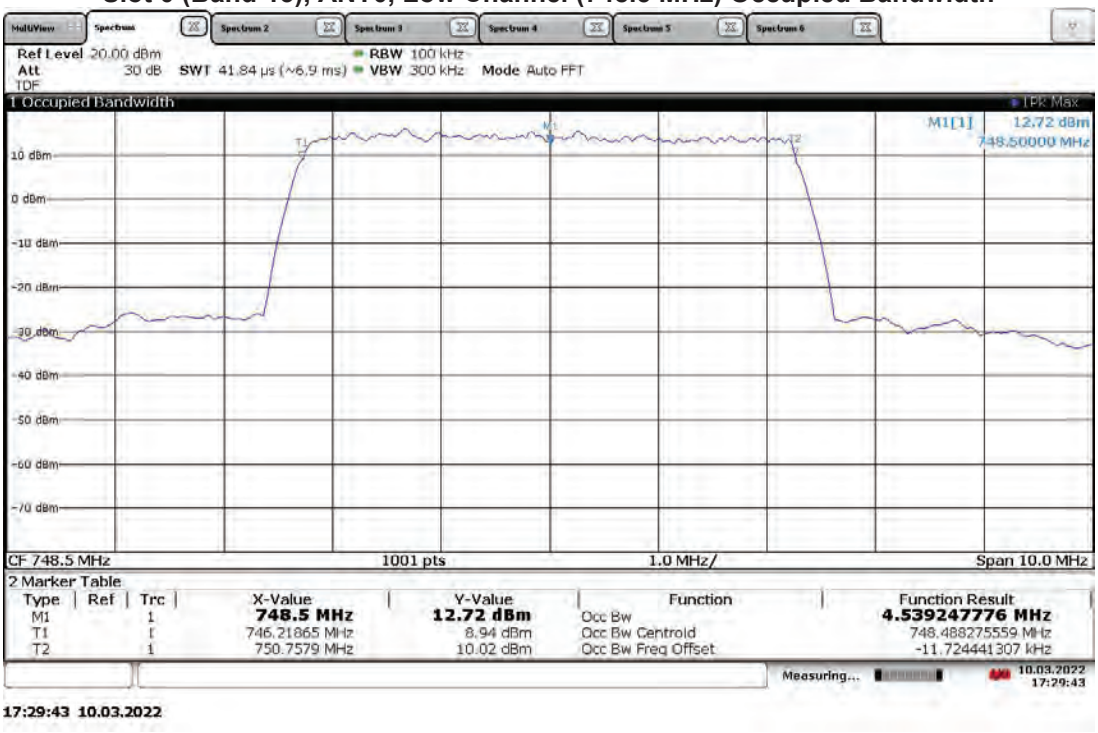
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, High Channel (753.5 MHz) Occupied Bandwidth



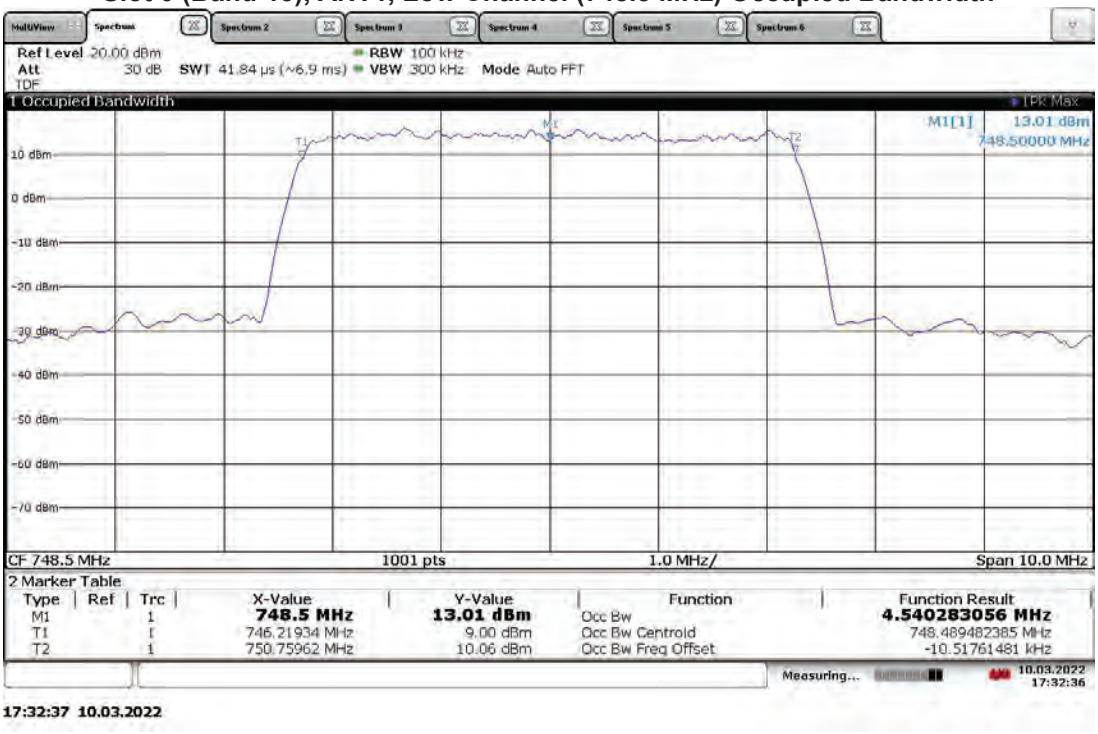
TM3.2-16QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, High Channel (753.5 MHz) Occupied Bandwidth



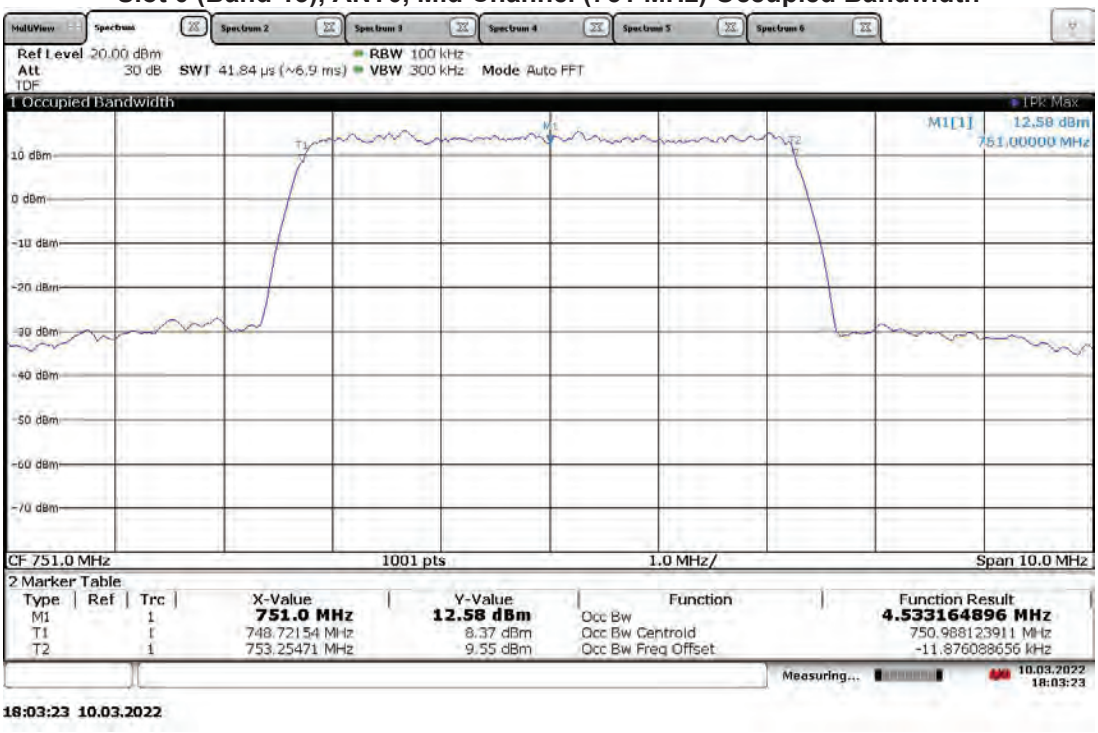
TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Low Channel (748.5 MHz) Occupied Bandwidth



TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Low Channel (748.5 MHz) Occupied Bandwidth



TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT0, Mid Channel (751 MHz) Occupied Bandwidth



TM3.1-64QAM_5 MHz Bandwidth (4G LTE) With RP5200 Host
Slot 0 (Band 13), ANT1, Mid Channel (751 MHz) Occupied Bandwidth