

CommScope Technologies, LLC TEST REPORT

SCOPE OF WORK

EMISSIONS TESTING – RPM-A5A11-B02 with W/ 5G NR waveform With OneCell® RP5100

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EMISSIONS TEST REPORT

(Class II Permissive Change)

Report Number: 104751739BOX-001 Project Number: G104751739

Report Issue Date: 09/29/2021 Report Issue Date: 02/02/2022

Model(s) Tested: RPM-A5A11-B02 with W/ 5G NR Model(s) Partially Tested: None Model(s) Not Tested but declared equivalent by the client: None

waveform With OneCell® RP5100

Standards: CFR47 FCC Part 24 (09/2021)

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

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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 Peak Output Power and Human RF exposure CFR47 FCC Parts 2.1046 and 24.232(a-b) | Pass |
| 7 | Occupied Bandwidth CFR47 FCC Parts 2.1049 and 24.238(b) | |
| 8 | Band Edge Compliance CFR47 FCC Parts 2.1051, 2.1053, and 24.238(a-b) | Pass |
| 9 | Frequency Stability Due to Voltage Variation CFR47 FCC Parts 2.1055 and 24.235 | Pass |
| 10 | Transmitter Spurious Emissions CFR47 FCC Parts 2.1051, 2.1053, 2.1057 and 24.238(a-b) | 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: | Mr. Kevin Craig |
| Telephone: | (978) 250-2678 |
| Fax: | None |
| Email: | kevin.craig@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 | Serial Number | | | | |
| Band 2 Radio Module With OneCell [®] RP5200 host | Manufacturer Mode CommScope Technologies LLC | | RPM-A5A11-B02 | 19513000008 | |
| OneCell [®] RP5100 | CommScope Techno | ologies LLC | RP-A51xxi | 19198000019 | |

| Receive Date: | 07/30/2021 |
|---------------------|------------|
| Received Condition: | Good |
| Туре: | 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.

The original LTE radio has included the 5G NR capabilities for this Class II Permissive Change.

It supports bandwidths of 5, 10, 15, and 20 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 | RP5100 Diagnostics Ver 1009 |
| | |

| Radio/Receiver Characteristics | | | |
|---|--|--|--|
| Frequency Band(s) | 1930-1990 MHz | | |
| Modulation Type(s) | TM1.1-QPSK, TM3.2-16QAM, TM3.1-64 QAM, TM3.1a- 256QAM | | |
| Maximum Output Power (conducted): | 22.95 dBm (Conducted) | | |
| Test Channels Low, Middle, High Channels of 5 MHz, 10 MHz, 15 MHz, and 20 MHz Bandwidths, Single Channel operation only | | | |
| Occupied Bandwidth 17.9 MHz (Worst-case) | | | |
| MIMO Information (# of Transmit and | 2x2 MIMO using cross polarized antennas and uncorrelated | | |
| Receive antenna ports) | 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 | Shielding | Ferrites | Termination | |
| | | (m) | | | | |
| | LAN (POE Power Cable) | 2.58 | Shielded | None | POE P/S | |
| | LAN (Communication) | 9.00 | Shielded | None | Laptop | |

| Support Equipment | | | | |
|-----------------------|--------------------|--------------|------------------|--|
| Description | Manufacturer | Model Number | Serial Number | |
| Laptop | Dell | LATITUDE | None | |
| Power Device Analzyer | Sifos Technologies | PDA-604A | 604A0033 | |

5.1 Method:

Configuration as required by ANSI C63.26-2015, KDB 662911, and CFR47 FCC Part 24 (09/2021).

5.2 EUT Block Diagram:

Photographs are available in a separate exhibit

6 Maximum Peak Output Power and Human RF exposure

6.1 Method

Tests are performed in accordance with CFR47 FCC Parts 2.1046 and 24, KDB662911, and ANSI C63.26 Section 5.2.4.4.

TEST SITE: EMC Lab

<u>The EMC Lab</u> 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 |
|------------|--|-------------------|----------------|-------------|------------|------------|
| CEN001' | DC-40GHz attenuator 20dB | Centric RF | C411-20 | CEN001 | 01/22/2021 | 01/22/2022 |
| CBLSHF204' | Cable, SMA - SMA, 9kHz -40GHz, (Cable Kit 5) | Huber + Suhner | Sucoflex 102EA | 234714001 | 02/03/2021 | 02/03/2022 |
| ROS005-1' | Signal and Spectrum Analyzer | Rohde and Shwartz | FSW43 | 100646 | 10/27/2020 | 10/27/2021 |
| DAV005' | Weather Station | Davis | 6250 | MS191218083 | 02/07/2021 | 02/07/2022 |

Software Utilized:

| Name | Manufacturer | Version |
|------|--------------|---------|
| None | | |

6.3 Results:

The maximum conducted output power was measured to be 22.95 dBm, which is much less than the EIRP limit of 24.232(a-b). The sample tested was found to Comply. Antenna gain limitations will depend on geographical locations and Height Above Average Terrain (HAAT). Output power from the two antenna ports was not summed since the data streams are uncorrelated and the antennas are cross polarized.

§24.232(a-b):

(a)(1) Base stations with an emission bandwidth of 1 MHz or less are limited to 1640 watts equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below.

(2) Base stations with an emission bandwidth greater than 1 MHz are limited to 1640 watts/MHz equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below.

(3) Base station antenna heights may exceed 300 meters HAAT with a corresponding reduction in power; *see*Tables 1 and 2 of this section.

(4) The service area boundary limit and microwave protection criteria specified in §§24.236 and 24.237 apply.

TABLE 1—REDUCED POWER FOR BASE STATION ANTENNA HEIGHTS OVER 300 METERS, WITH EMISSION BANDWIDTH OF 1 MHz or Less

| HAAT in meters | Maximum EIRP watts |
|----------------|--------------------|
| ≤300 | 1640 |
| ≤500 | 1070 |
| ≤1000 | 490 |
| ≤1500 | 270 |
| ≤2000 | 160 |

 TABLE 2—REDUCED POWER FOR BASE STATION ANTENNA HEIGHTS OVER 300 METERS, WITH

 EMISSION BANDWIDTH GREATER THAN 1 MHz

| HAAT in meters | Maximum EIRP watts/MHz |
|----------------|---------------------------|
| ≤300 | 1640 |
| ≤500 | 1070 |
| ≤1000 | 490 |
| ≤1500 | 270 |
| ≤2000 | 160 |

(b)(1) Base stations that are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census, with an emission bandwidth of 1 MHz or less are limited to 3280 watts equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT.

(2) Base stations that are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census, with an emission bandwidth greater than 1 MHz are limited to 3280 watts/MHz equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT.

(3) Base station antenna heights may exceed 300 meters HAAT with a corresponding reduction in power; *see*Tables 3 and 4 of this section.

(4) The service area boundary limit and microwave protection criteria specified in §§24.236 and 24.237 apply.

(5) Operation under this paragraph (b) at power limits greater than permitted under paragraph (a) of this section must be coordinated in advance with all broadband PCS licensees authorized to operate on adjacent frequency blocks within 120 kilometers (75 miles) of the base station and is limited to base stations located more than 120 kilometers (75 miles) from the Canadian border and more than 75 kilometers (45 miles) from the Mexican border.

TABLE 3—REDUCED POWER FOR BASE STATION ANTENNA HEIGHTS OVER 300 METERS, WITH EMISSION BANDWIDTH OF 1 MHz or Less

| HAAT in meters | Maximum EIRP watts |
|----------------|--------------------|
| ≤300 | 3280 |
| ≤500 | 2140 |
| ≤1000 | 980 |
| ≤1500 | 540 |
| ≤2000 | 320 |

TABLE 4—REDUCED POWER FOR BASE STATION ANTENNA HEIGHTS OVER 300 METERS, WITH EMISSION BANDWIDTH GREATER THAN 1 MHz

| HAAT in meters | Maximum EIRP watts/MHz |
|----------------|---------------------------|
| ≤300 | 3280 |
| ≤500 | 2140 |
| ≤1000 | 980 |
| ≤1500 | 540 |
| ≤2000 | 320 |

| Slot 2 (Band 2), Bandwidth: 5 MHz, Modulation: 1M1.1-QPSK | | | |
|---|-----------------|--------------|--------------------|
| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) |
| Low | 1932.50 | ANT0 | 21.43 |
| | | ANT1 | 21.46 |
| Mid | 1960.00 | ANT0 | 22.53 |
| | | ANT1 | 22.51 |
| High | 1987.50 | ANT0 | 22.65 |
| - | | ANT1 | 22.50 |

Olat O (Dawal O) Dawahariatika C Miller Maalad ... THA A ODOK

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM1.1-QPSK

| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) |
|---------|-----------------|--------------|--------------------|
| Low | 1935.00 | ANT0 | 22.32 |
| | | ANT1 | 22.28 |
| Mid | 1960.00 | ANT0 | 22.46 |
| | | ANT1 | 22.45 |
| High | 1985.00 | ANT0 | 22.65 |
| | | ANT1 | 22.29 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM1.1-QPSK

| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) |
|---------|-----------------|--------------|--------------------|
| Low | 1937.50 | ANT0 | 22.33 |
| | | ANT1 | 22.54 |
| Mid | 1960.00 | ANT0 | 22.48 |
| | | ANT1 | 22.39 |
| High | 1982.50 | ANT0 | 22.54 |
| | | ANT1 | 22.25 |

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM1.1-QPSK

| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) |
|---------|-----------------|--------------|--------------------|
| Low | 1940.00 | ANT0 | 22.45 |
| | | ANT1 | 22.40 |
| Mid | 1960.00 | ANT0 | 22.34 |
| | | ANT1 | 22.28 |
| High | 1980.00 | ANT0 | 22.58 |
| _ | | ANT1 | 22.25 |

Slot 2 (Band 2), Bandwidth: 5 MHz, Modulation: TM3.2-16QAM

| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) |
|---------|-----------------|--------------|--------------------|
| Low | 1932.50 | ANT0 | 21.87 |
| | | ANT1 | 21.93 |
| Mid | 1960.00 | ANT0 | 22.67 |
| | | ANT1 | 22.44 |
| High | 1987.50 | ANT0 | 22.57 |
| _ | | ANT1 | 22.55 |

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM3.2-16QAM

| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) |
|---------|-----------------|--------------|--------------------|
| Low | 1935.00 | ANT0 | 22.52 |
| | | ANT1 | 22.33 |
| Mid | 1960.00 | ANT0 | 22.57 |
| | | ANT1 | 22.64 |
| High | 1985.00 | ANT0 | 22.41 |
| | | ANT1 | 22.55 |

| SIO | Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM3.2-16QAM | | | |
|---------|---|--------------|--------------------|--|
| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) | |
| Low | 1937.50 | ANT0 | 22.33 | |
| | | ANT1 | 22.59 | |
| Mid | 1960.00 | ANT0 | 22.50 | |
| | | ANT1 | 22.32 | |
| High | 1982.50 | ANT0 | 22.45 | |
| _ | | ANT1 | 22.26 | |

Olat O (Danal O) Danahudakhu 45 Mila Maalul TM2 2 460 AM

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM3.2-16QAM

| Channel | Frequency (MHz) | Antenna Port Output Power (| | | |
|---------|-----------------|-----------------------------|-------|--|--|
| Low | 1940.00 | ANT0 | 22.32 | | |
| | | ANT1 | 22.35 | | |
| Mid | 1960.00 | ANT0 | 22.36 | | |
| | | ANT1 | 22.24 | | |
| High | 1980.00 | ANT0 | 22.40 | | |
| | | ANT1 | 22.25 | | |

Slot 2 (Band 2), Bandwidth: 5 MHz, Modulation: TM3.1-64QAM

| Channel | Channel Frequency (MHz) | | Output Power (dBm) |
|---------|-------------------------|------|--------------------|
| Low | 1932.50 | ANT0 | 21.87 |
| | | ANT1 | 21.94 |
| Mid | 1960.00 | ANT0 | 22.64 |
| | | ANT1 | 22.48 |
| High | 1987.50 | ANT0 | 22.55 |
| | | ANT1 | 22.51 |

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM3.1-64QAM

| Channel | Frequency (MHz) | Antenna Port Output Power (d | | | |
|---------|-----------------|------------------------------|-------|--|--|
| Low | 1935.00 | ANT0 | 22.31 | | |
| | | ANT1 | 22.50 | | |
| Mid | Mid 1960.00 | | 22.75 | | |
| | | ANT1 | 22.43 | | |
| High | 1985.00 | ANT0 | 22.40 | | |
| _ | | ANT1 | 22.52 | | |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM3.1-64QAM

| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) | | | | |
|---------|-----------------|--------------|--------------------|--|--|--|--|
| Low | 1937.50 | ANT0 | 22.49 | | | | |
| | | ANT1 | 22.71 | | | | |
| Mid | Mid 1960.00 | | 22.95 | | | | |
| | | ANT1 | 22.74 | | | | |
| High | 1982.50 | ANT0 | 22.38 | | | | |
| - | | ANT1 | 22.29 | | | | |

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM3.1-64QAM

| Channel | Frequency (MHz) | Antenna Port Output Power (d | | | |
|---------|-----------------|------------------------------|-------|--|--|
| Low | 1940.00 | ANT0 | 22.42 | | |
| | | ANT1 | 22.44 | | |
| Mid | 1960.00 | ANT0 | 22.39 | | |
| | | ANT1 | 22.23 | | |
| High | 1980.00 | ANT0 | 22.53 | | |
| | | ANT1 | 22.35 | | |

| Slot 2 (Band 2), Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM_ | | | | | |
|---|-----------------|--------------|--------------------|--|--|
| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) | | |
| Low | 1932.50 | ANT0 | 21.92 | | |
| | | ANT1 | 22.88 | | |
| Mid | 1960.00 | ANT0 | 22.48 | | |
| | | ANT1 | 22.45 | | |
| High | 1987.50 | ANT0 | 22.42 | | |
| | | ANT1 | 22.36 | | |

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM

| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) |
|---------|-----------------|--------------|--------------------|
| Low | 1935.00 | ANT0 | 22.51 |
| | | ANT1 | 22.31 |
| Mid | 1960.00 | ANT0 | 22.55 |
| | | ANT1 | 22.60 |
| High | 1985.00 | ANT0 | 22.69 |
| | | ANT1 | 22.37 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM

| Channel | Frequency (MHz) | Antenna Port | Output Power (dBm) | |
|---------|-----------------|--------------|--------------------|--|
| Low | 1937.500 | ANT0 | 22.49 | |
| | | ANT1 | 22.72 | |
| Mid | 1960.00 | ANT0 | 22.50 | |
| | | ANT1 | 22.40 | |
| High | 1982.50 | ANT0 | 22.54 | |
| | | ANT1 | 22.27 | |

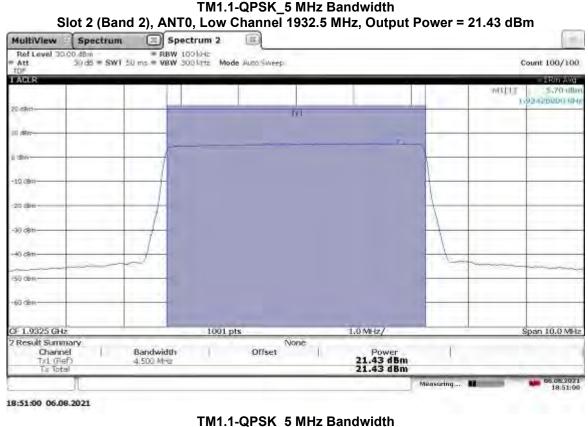
Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM

| Channel | Frequency (MHz) | Antenna Port Output Power (d | | | |
|---------|-----------------|------------------------------|-------|--|--|
| Low | 1940 | ANT0 | 22.51 | | |
| | Γ | ANT1 | 22.44 | | |
| Mid | 1960 | ANT0 | 22.33 | | |
| | Γ | ANT1 | 22.28 | | |
| High | 1980 | ANT0 | 22.58 | | |
| | | ANT1 | 22.26 | | |

6.4 Setup Photograph:

Photographs are available in another exhibit

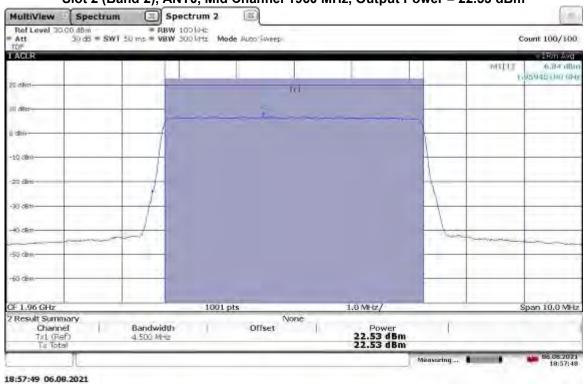
6.5 Plots/Data:



TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1932.5 MHz, Output Power = 21.46 dBm

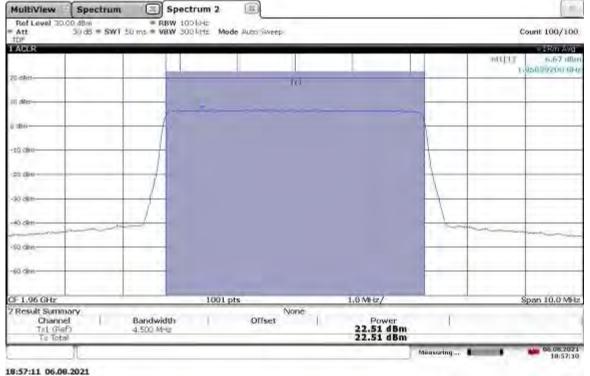
| Ref Level 30.00 dBm Att 30 dB = SW | = RBW 10 50 ms = VBW 30 | Dirtz Mode Au | to Sweep | | | | c | ount 100/100 |
|--|----------------------------|---------------|----------------|---|---------------------------------|---|------|----------------------------|
| TOP I ACLR | - | | | | | | | = 1R/n A//d |
| | | | | | | | with | 5.70 dlbr 93420800 dite |
| 20 dBm | | | D(1 | ļ | | | | |
| 11 den- | | | | | | | _ | |
| U dBro- | | | | | | | _ | |
| -10 dBm- | | | | | | | _ | |
| -20 dbn - | | | | | | + | _ | |
| -30 (81) | | | | | | | | |
| 4/1 cBm | | | | | | 1 | | |
| SD OBM | | | | | | - | | |
| -60 cBm- | | | | | | - | | |
| OF 1.9325 GHz | | 1001 pts | _ | | 1.0 MHz/ | - | 1 | Span 10.0 MHz |
| 2 Result Summary Channel Tx1 (Ref) Tx Total | Bandwidth 4.500 MHz | 1 | Noni Offset | ¢ | Power 21.46 dBm 21.46 dBm | ſ | | |

18:51:48 06.08.2021



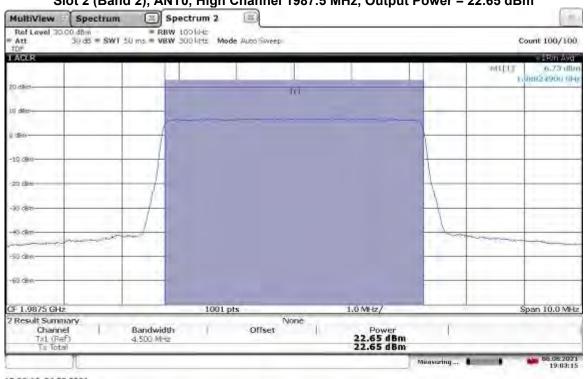
10.37.45 00.00.207

TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.51 dBm



TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.53 dBm

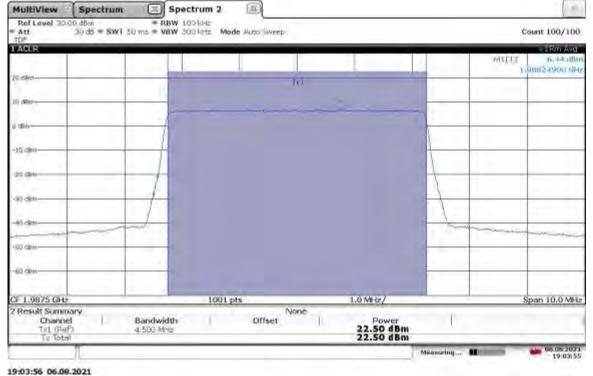
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TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1987.5 MHz, Output Power = 22.65 dBm

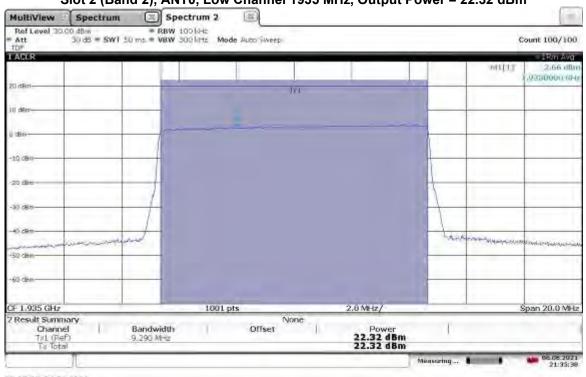
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TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1987.5 MHz, Output Power = 22.50 dBm

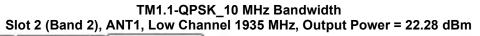


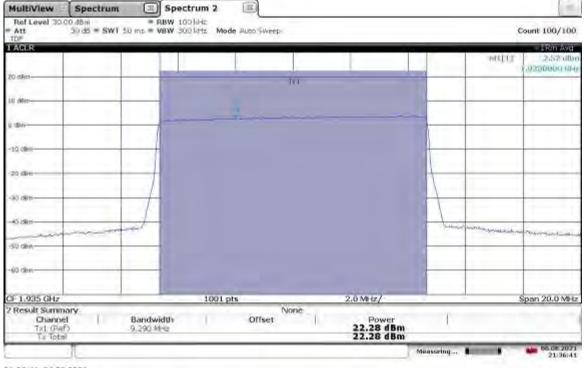
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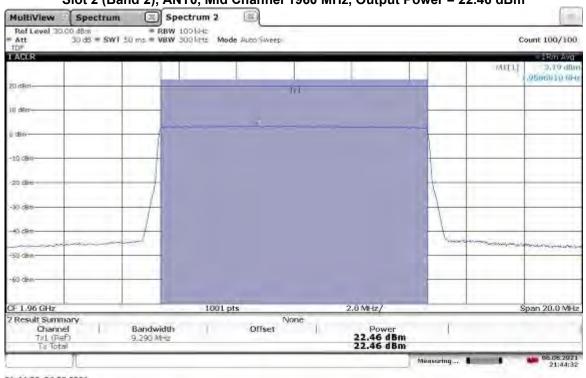




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Non-Specific Radio Report Shell Rev. December 2017

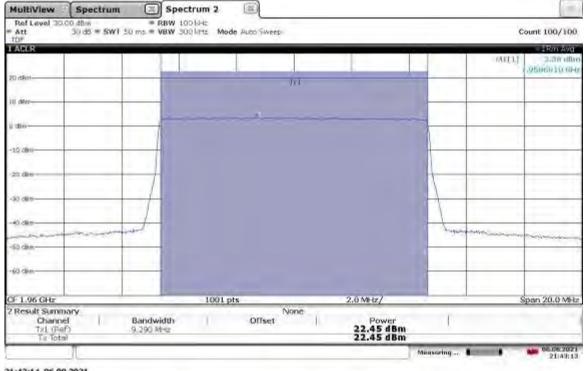
Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell® RP5100



TM1.1-QPSK_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.46 dBm

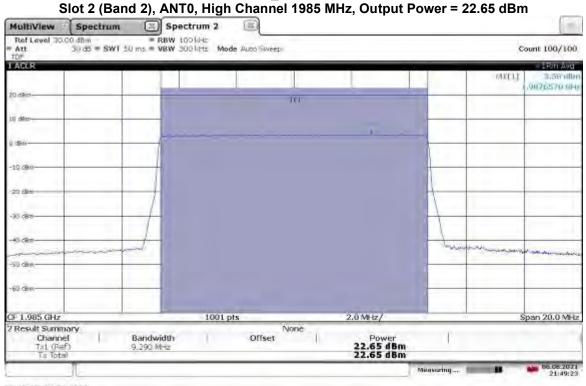
21:44:33 06.08.2021

TM1.1-QPSK_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.45 dBm



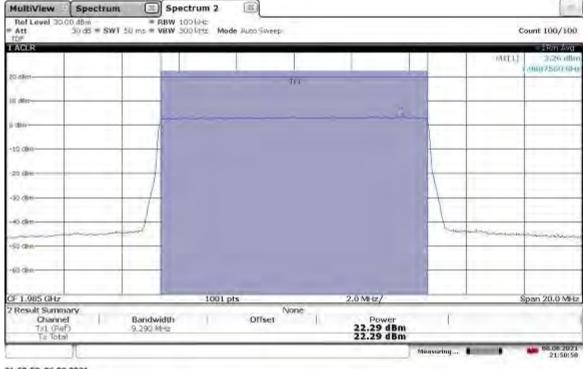
21:43:14 06.08.2021

TM1.1-QPSK_10 MHz Bandwidth

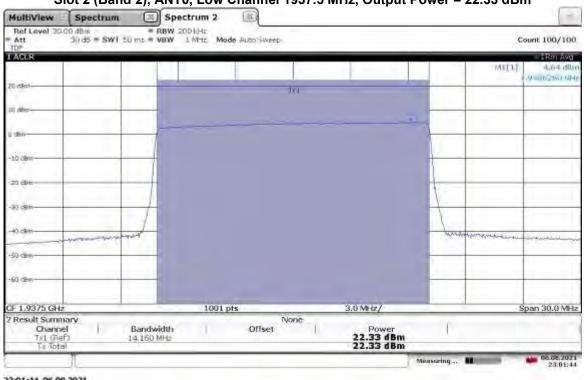


21:49:23 06.08.2021

TM1.1-QPSK_10 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1985 MHz, Output Power = 22.29 dBm



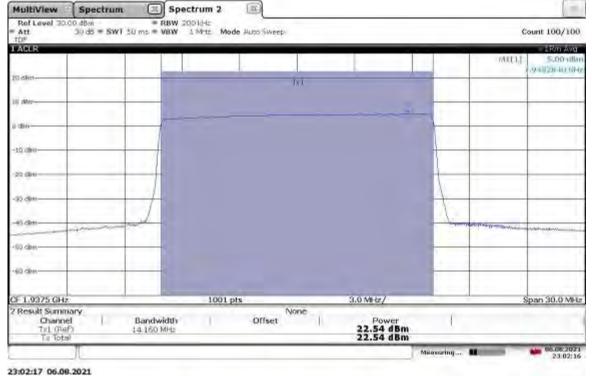
21:50:58 06.08.2021

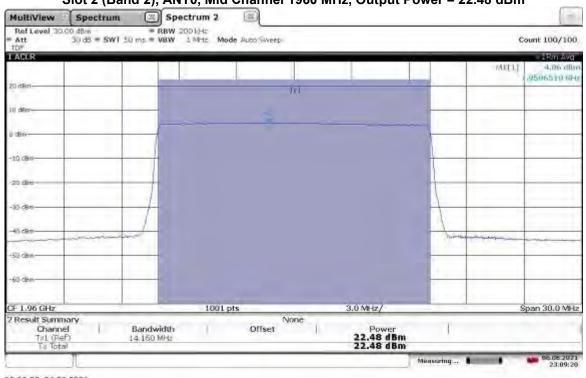


TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1937.5 MHz, Output Power = 22.33 dBm

23:01:44 06.08.2021

TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1937.5 MHz, Output Power = 22.54 dBm

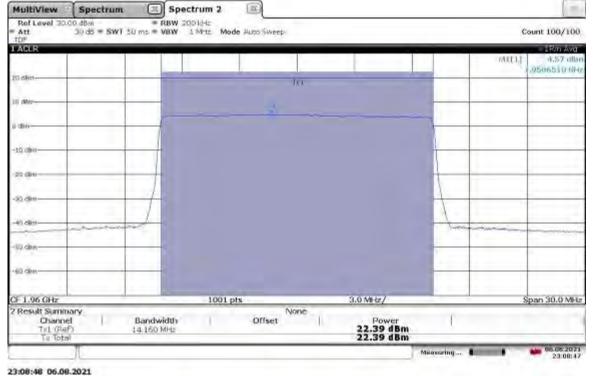




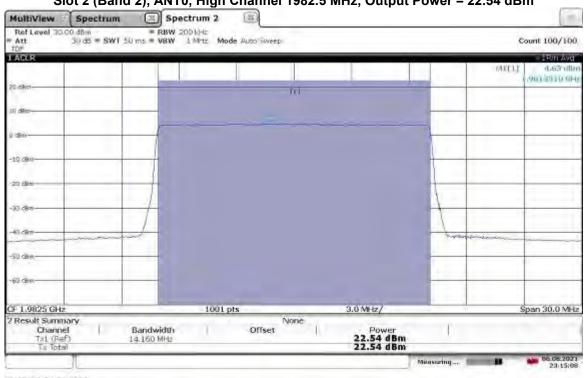
TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.48 dBm

23:09:20 06.08.2021

TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.39 dBm



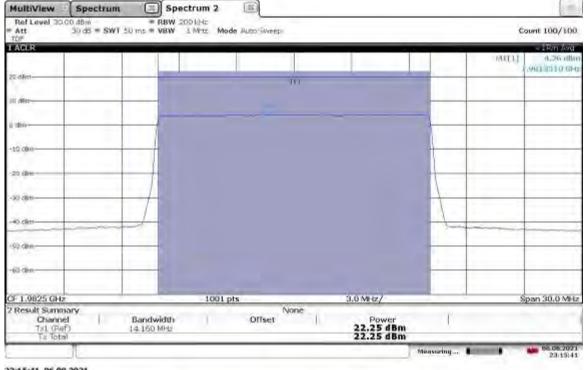
Non-Specific Radio Report Shell Rev. December 2017 Page 22 of 194 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell® RP5100



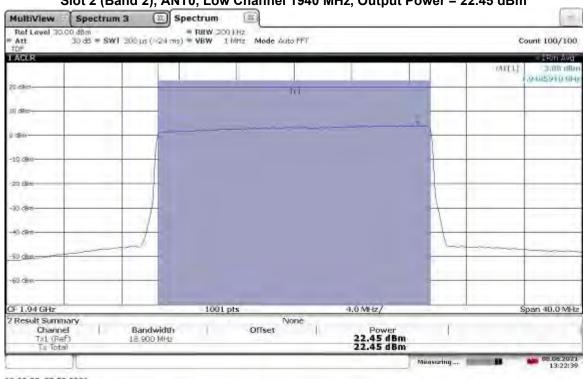
TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1982.5 MHz, Output Power = 22.54 dBm

23:15:09 06.08.2021

TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1982.5 MHz, Output Power = 22.25 dBm



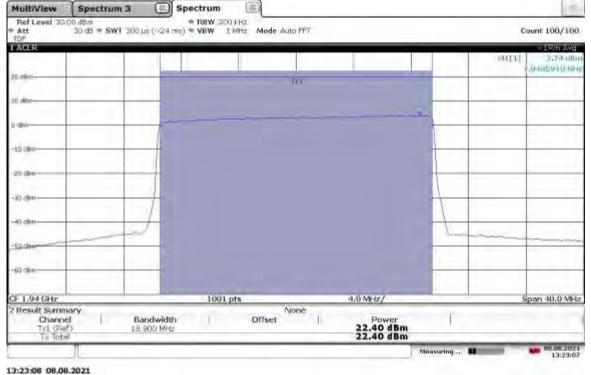
23:15:41 06.08.2021

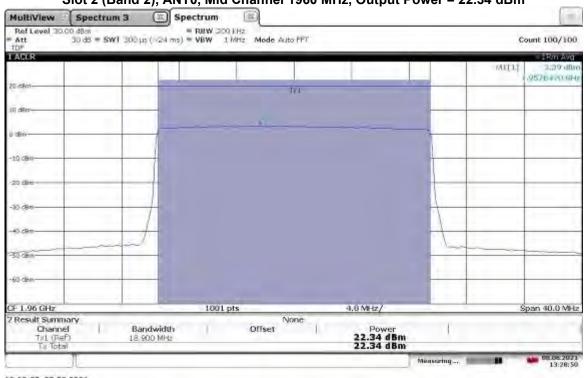


TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1940 MHz, Output Power = 22.45 dBm

13:22:39 08.08.2021

TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1940 MHz, Output Power = 22.40 dBm

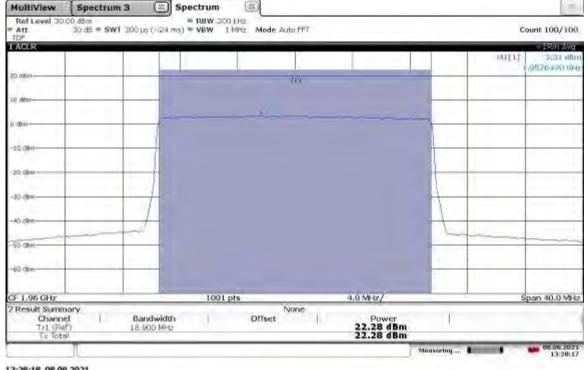




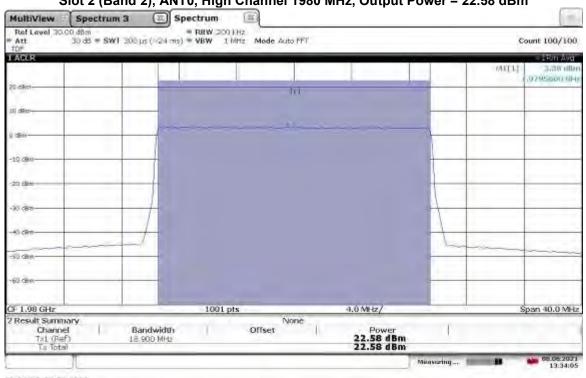
TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.34 dBm

13:28:50 08.08.2021

TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.28 dBm



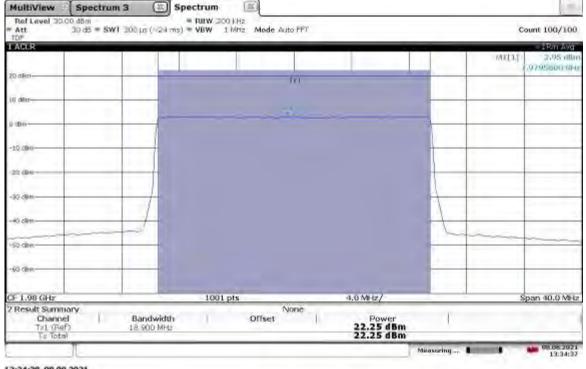
13:28:18 08.08.2021



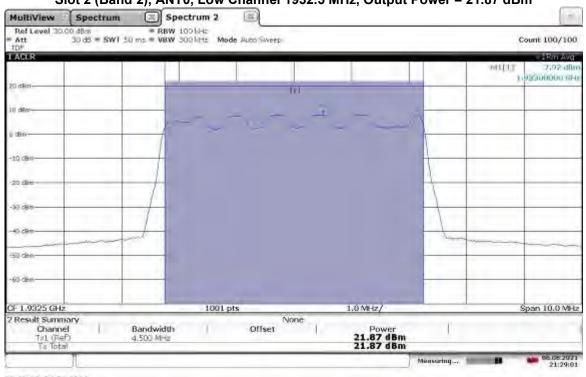
TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1980 MHz, Output Power = 22.58 dBm

13:34:06 08.08.2021

TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1980 MHz, Output Power = 22.25 dBm



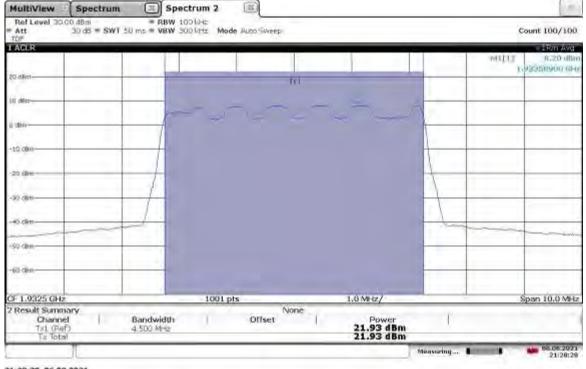
13:34:38 08.08.2021



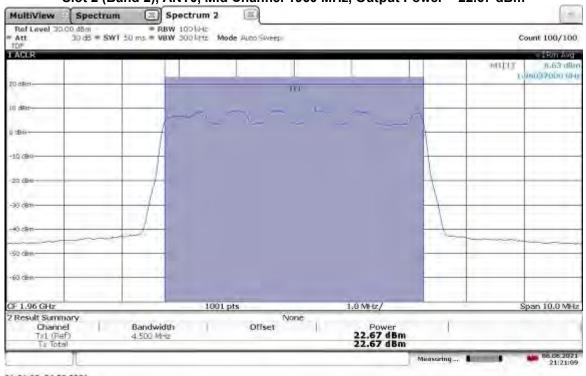
TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1932.5 MHz, Output Power = 21.87 dBm

21:29:02 06.08.2021

TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1932.5 MHz, Output Power = 21.93 dBm



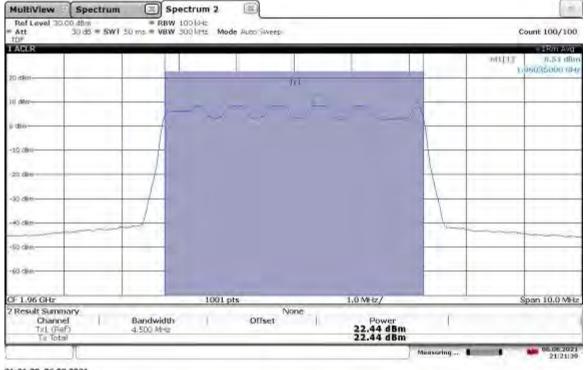
21:28:29 06.08.2021



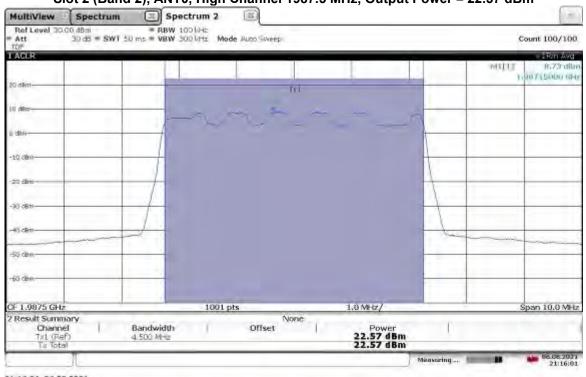
TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.67 dBm

21:21:09 06.08.2021

TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.44 dBm



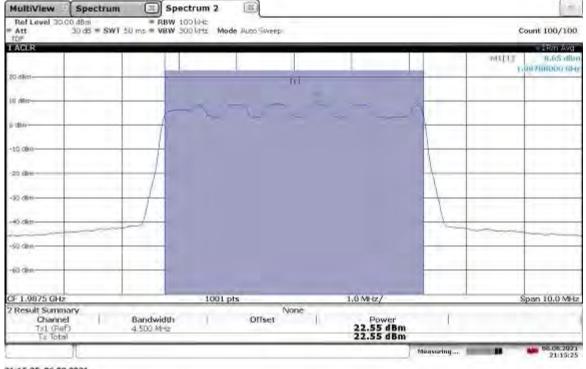
21:21:39 06.08.2021



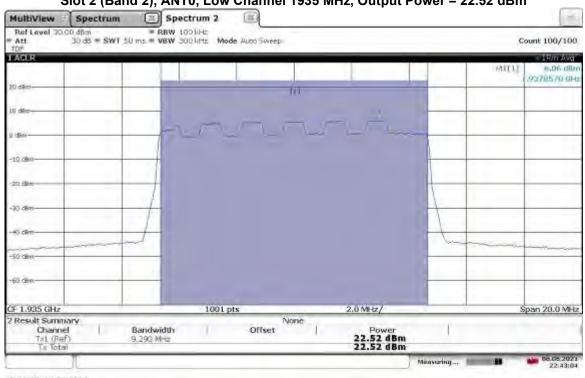
TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1987.5 MHz, Output Power = 22.57 dBm

21:16:01 06.08.2021

TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1987.5MHz, Output Power = 22.55 dBm



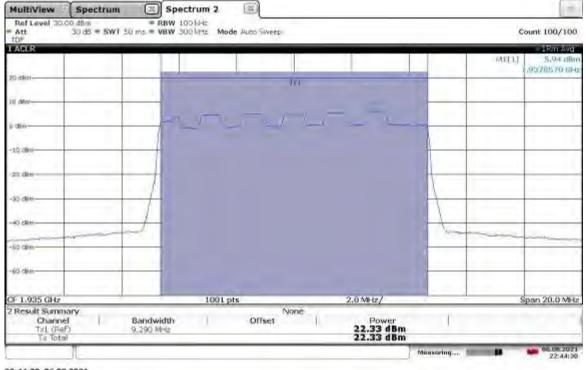
21:15:25 06.08.2021



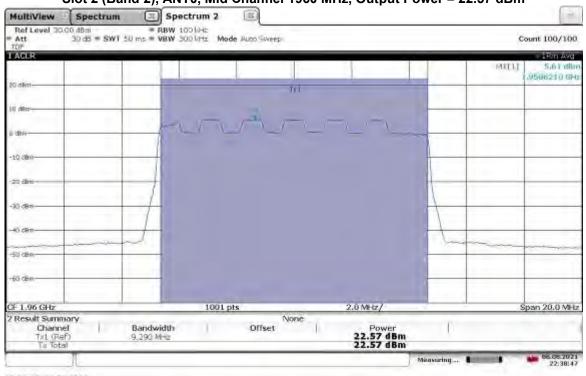
TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1935 MHz, Output Power = 22.52 dBm

22:43:05 06.08.2021

TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1935 MHz, Output Power = 22.33 dBm



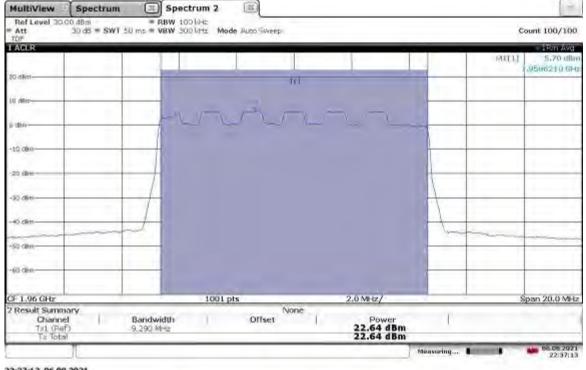
22:44:30 06.08.2021



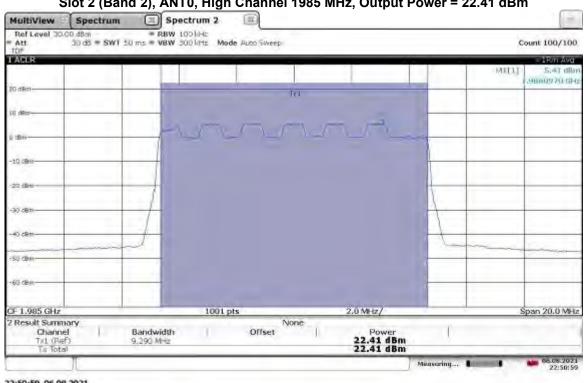
TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.57 dBm

22:38:48 06.08.2021

TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.64 dBm



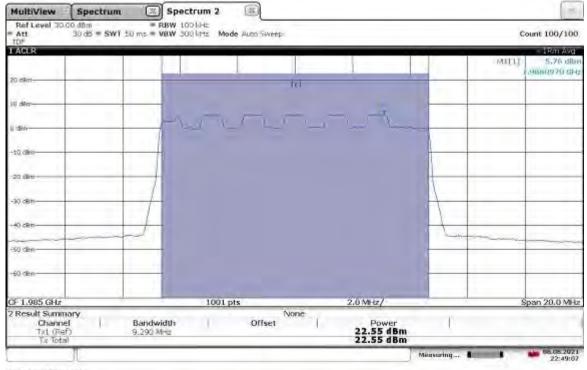
22:37:13 06.08.2021



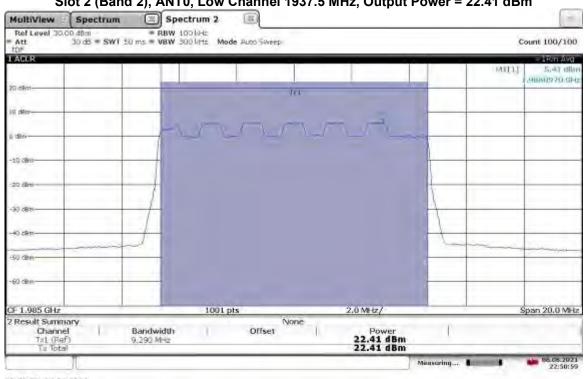
TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1985 MHz, Output Power = 22.41 dBm

22:50:59 06.08.2021

TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1985 MHz, Output Power = 22.55 dBm



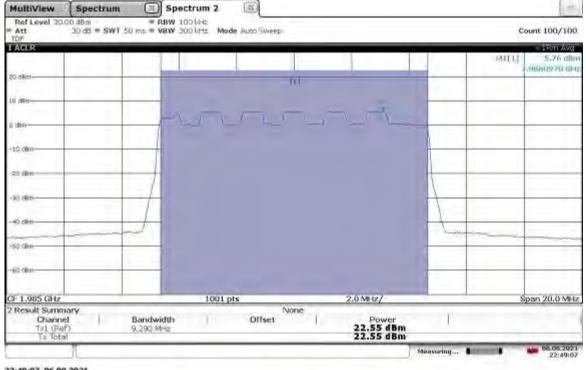
22:49:07 06.08.2021



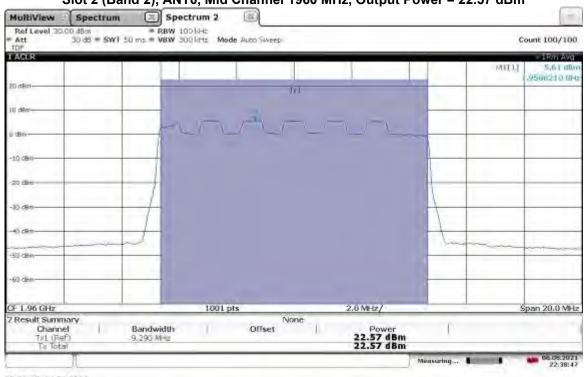
TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1937.5 MHz, Output Power = 22.41 dBm

22:50:59 06.08.2021

TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1937.5 MHz, Output Power = 22.55 dBm



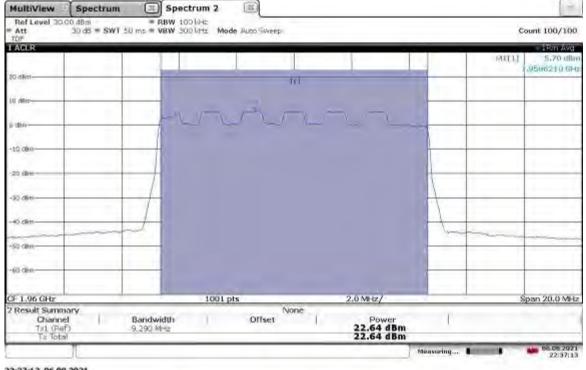
22:49:07 06.08.2021



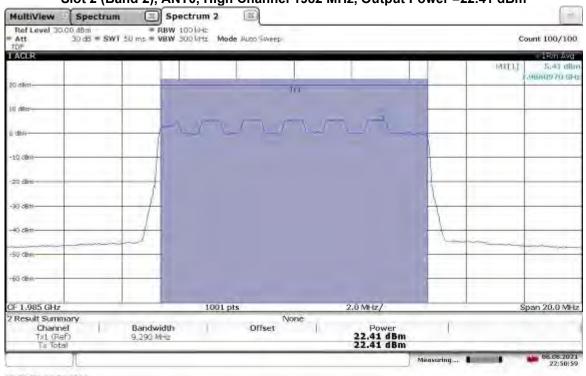
TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.57 dBm

22:38:48 06.08.2021

TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.64 dBm



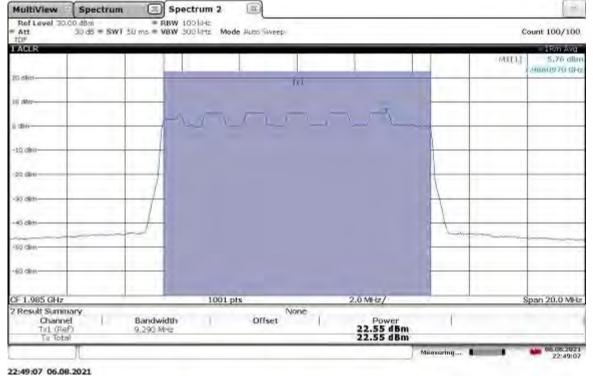
22:37:13 06.08.2021

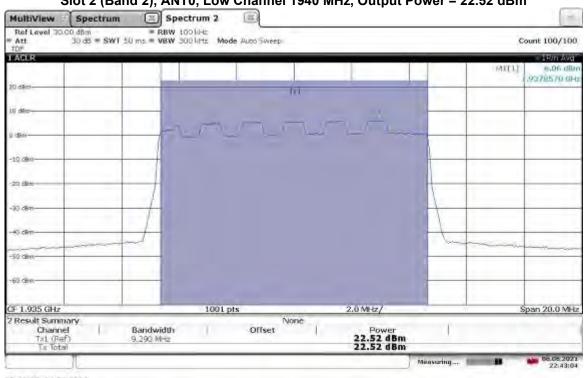


TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1982 MHz, Output Power =22.41 dBm

22:50:59 06.08.2021

TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1982.5 MHz, Output Power = 22.55 dBm

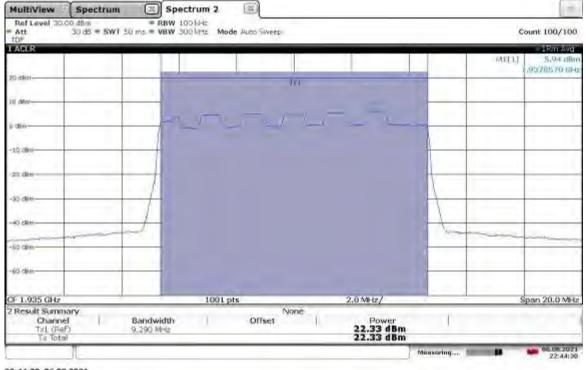




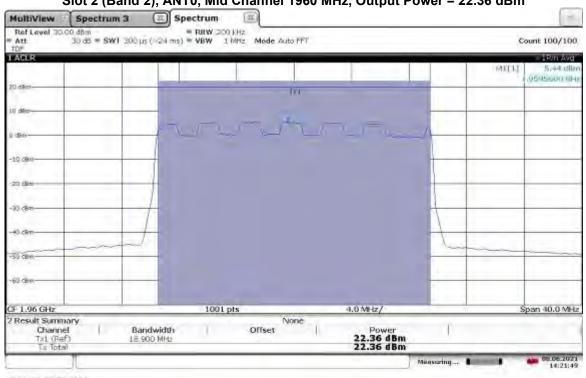
TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1940 MHz, Output Power = 22.52 dBm

22:43:05 06.08.2021

TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1940 MHz, Output Power = 22.93 dBm



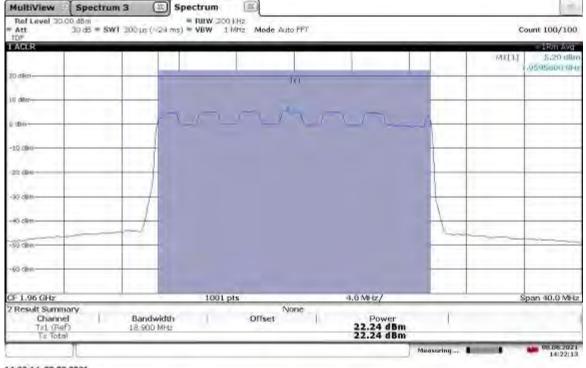
22:44:30 06.08.2021



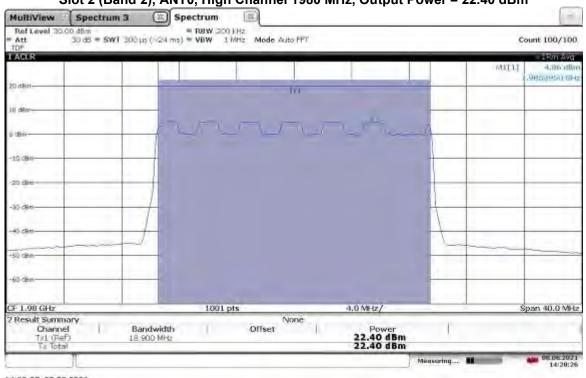
TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.36 dBm

14:21:49 08.08.2021

TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.24 dBm



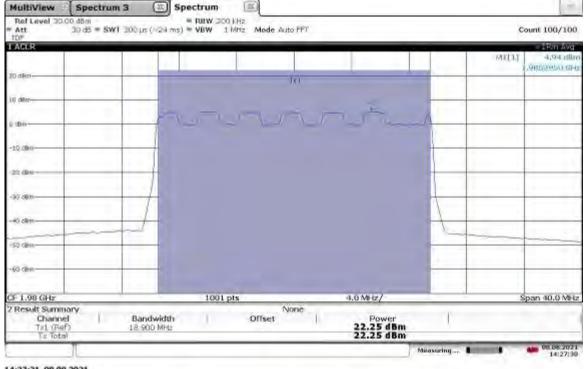
14:22:14 08.08.2021



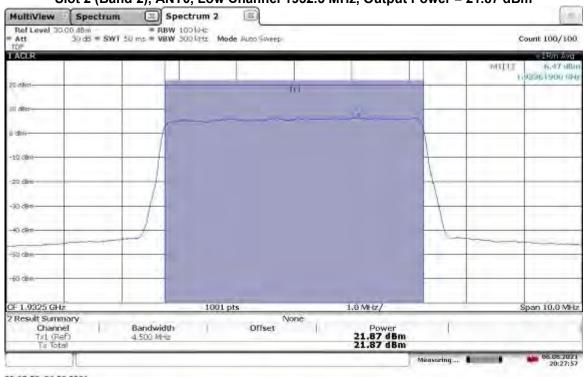
TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1980 MHz, Output Power = 22.40 dBm

14:28:27 08.08.2021

TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1980 MHz, Output Power = 22.25 dBm



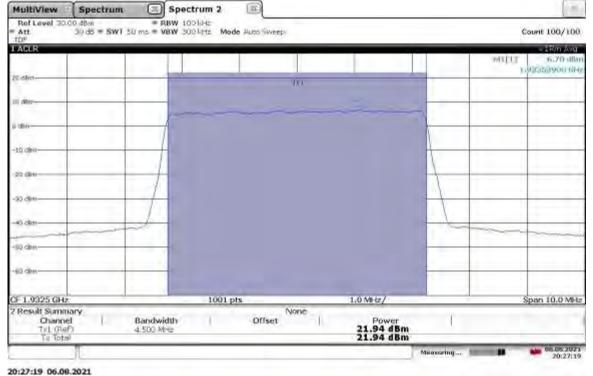
14:27:31 08.08.2021

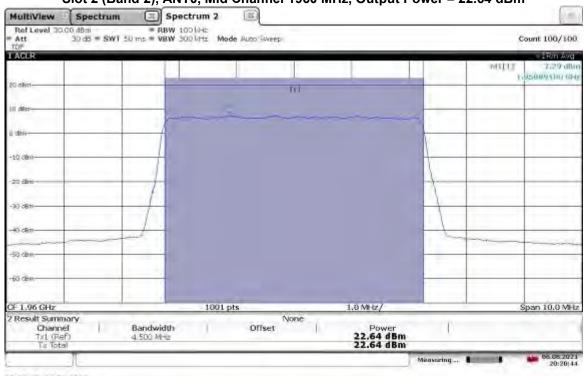


TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1932.5 MHz, Output Power = 21.87 dBm

20:27:58 06.08.2021

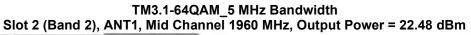
TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1932.5 MHz, Output Power = 21.94 dBm

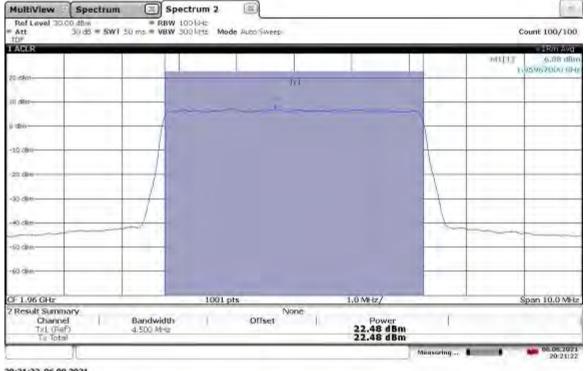




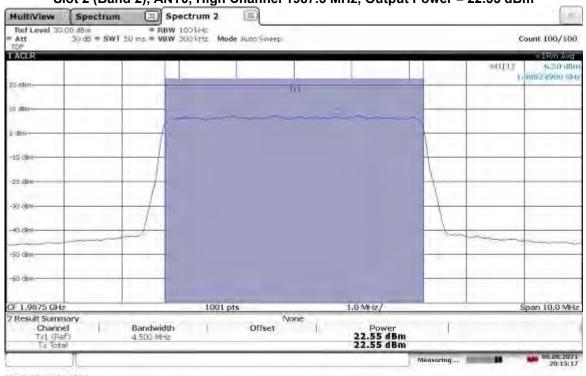
TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.64 dBm

20:20:45 06.08.2021





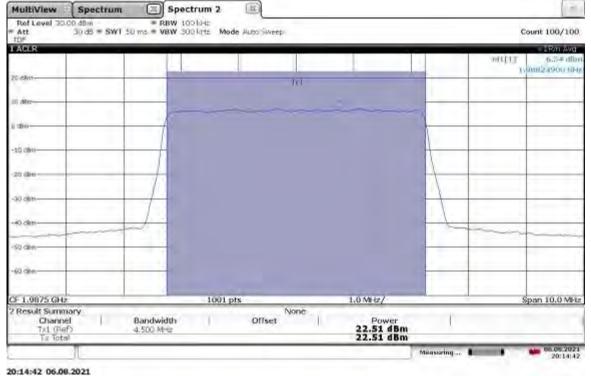
20:21:23 06.08.2021



TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1987.5 MHz, Output Power = 22.55 dBm

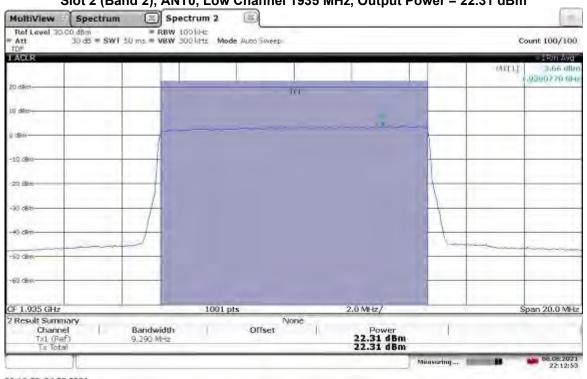
20:15:17 06.08.2021

TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1987.5 MHz, Output Power = 22.51 dBm



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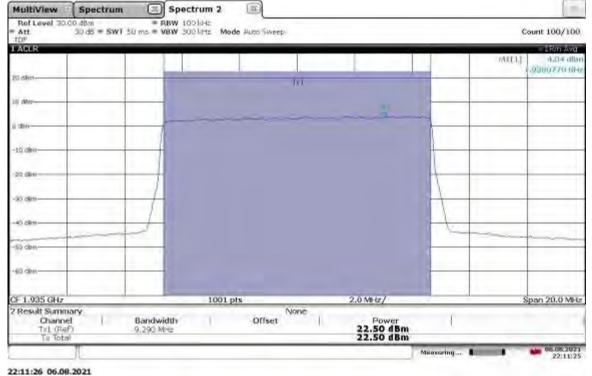
 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell® RP5100
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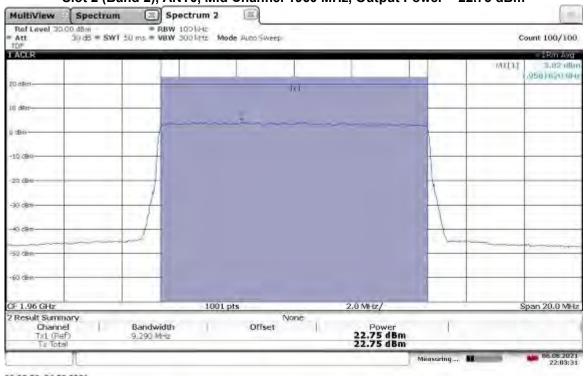


TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1935 MHz, Output Power = 22.31 dBm

22:12:53 06.08.2021

TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1935 MHz, Output Power = 22.50 dBm

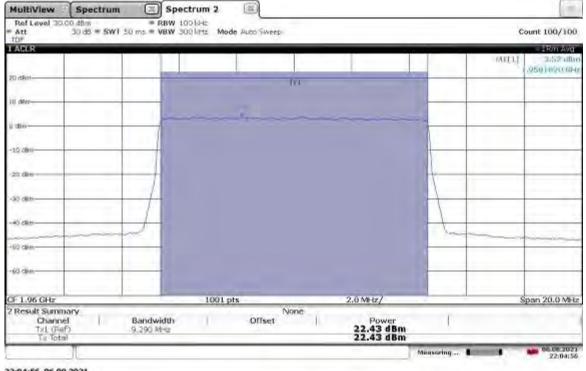




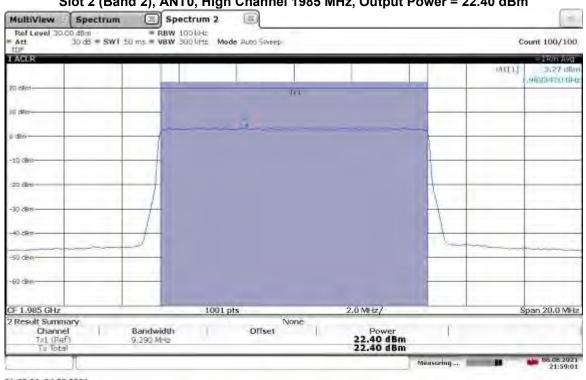
TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.75 dBm

22:03:32 06.08.2021

TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.43 dBm



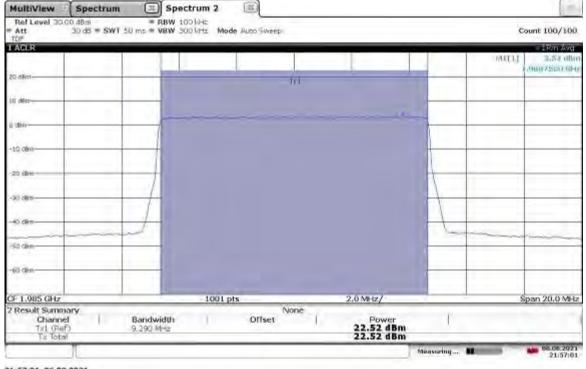
22:04:56 06.08.2021



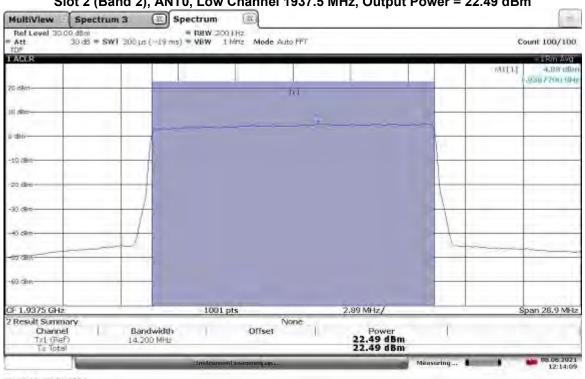
TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1985 MHz, Output Power = 22.40 dBm

21:59:01 06.08.2021

TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1985 MHz, Output Power = 22.52 dBm

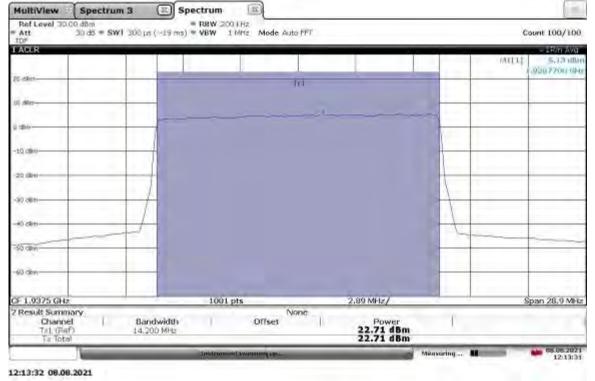


21:57:01 06.08.2021

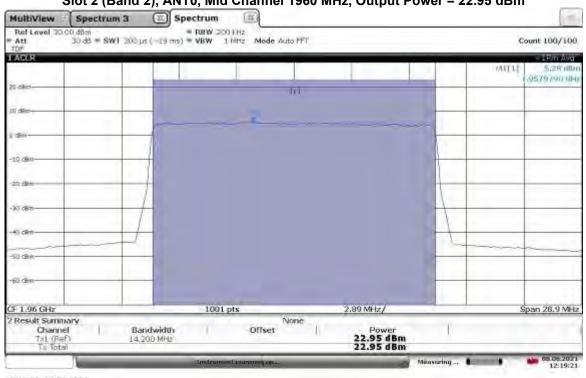


12:14:10 08.08.2021

TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1937.5 MHz, Output Power = 22.71 dBm



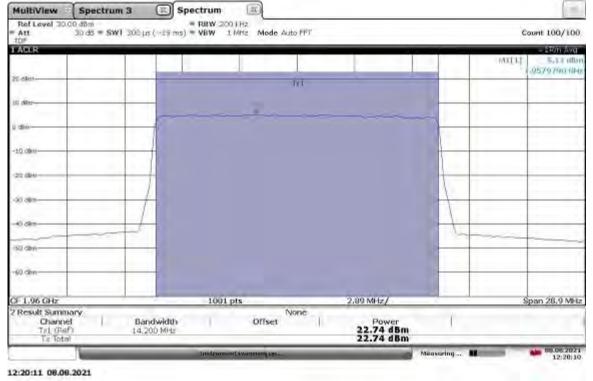
TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1937.5 MHz, Output Power = 22.49 dBm



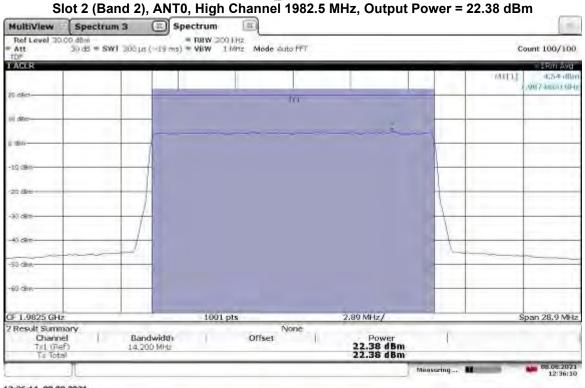
TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.95 dBm

12:19:22 08.08.2021

TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.74 dBm

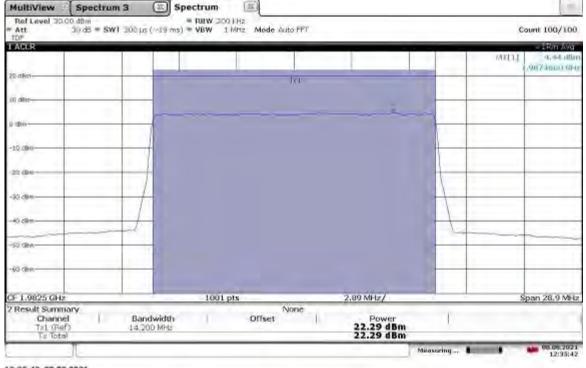


TM3.1-64QAM_15 MHz Bandwidth



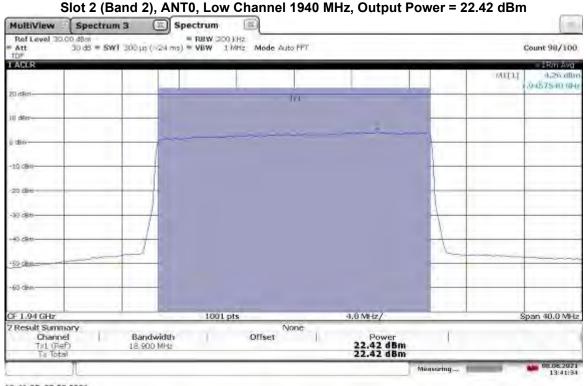
12:36:11 08.08.2021

TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1982.5 MHz, Output Power = 22.29 dBm



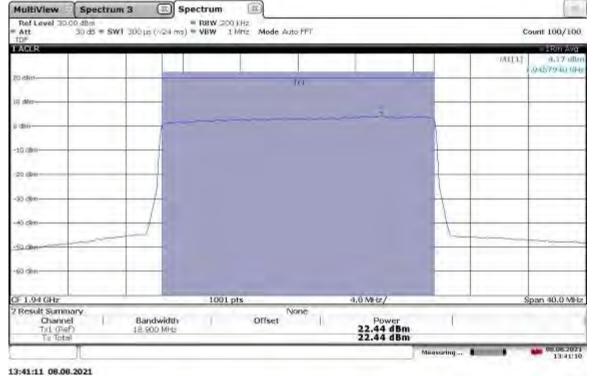
12:35:42 08.08.2021

TM3.1-64QAM_20 MHz Bandwidth

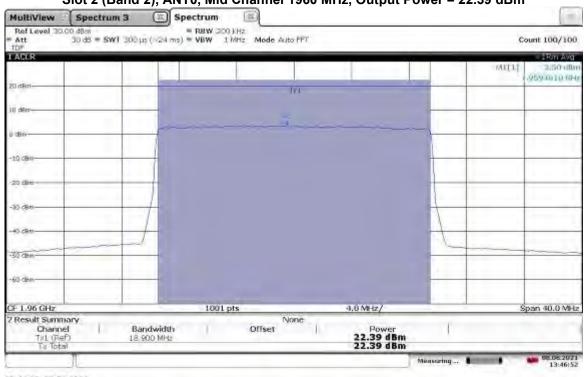


13:41:35 08.08.2021

TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1940 MHz, Output Power = 22.44 dBm



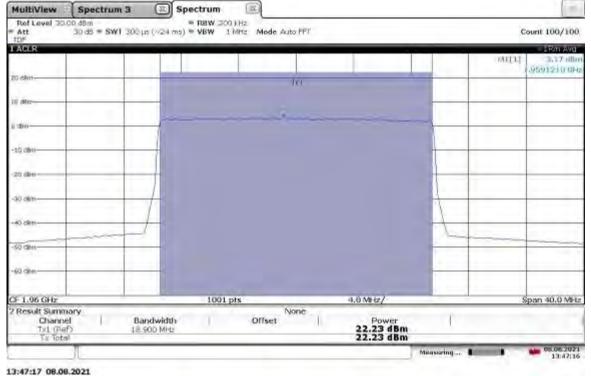
Non-Specific Radio Report Shell Rev. December 2017 Page 48 of 194 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell® RP5100

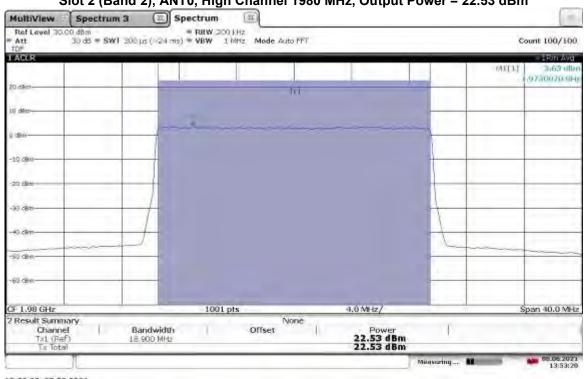


TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.39 dBm

13:46:52 08.08.2021

TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.23 dBm

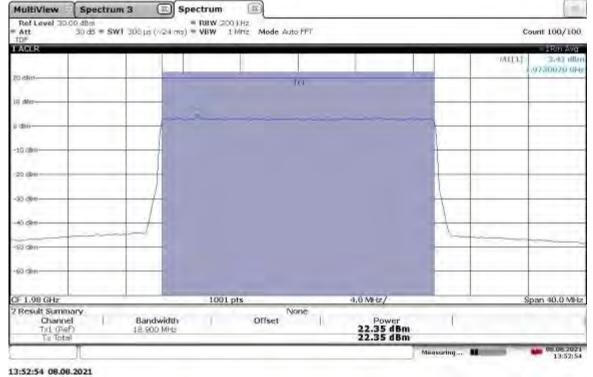


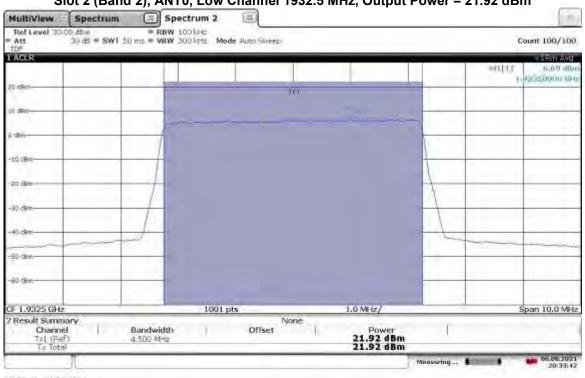


TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1980 MHz, Output Power = 22.53 dBm

13:53:20 08.08.2021

TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1980 MHz, Output Power = 22.35 dBm

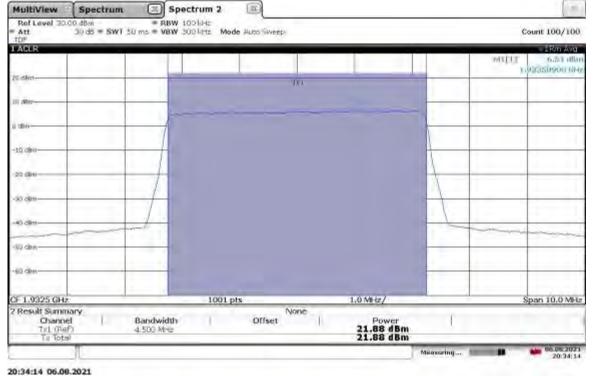




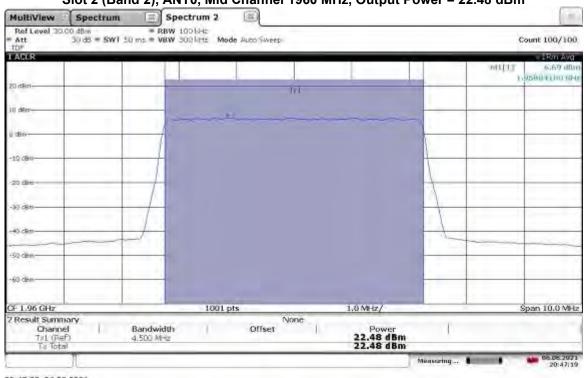
TM3.1a-256QAM _5 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1932.5 MHz, Output Power = 21.92 dBm

20:33:42 06.08.2021

TM3.1a-256QAM _5 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1932.5 MHz, Output Power = 21.88 dBm



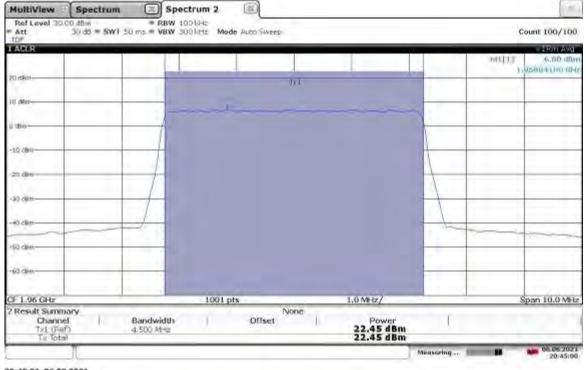
Non-Specific Radio Report Shell Rev. December 2017 Page 51 of 194 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell® RP5100



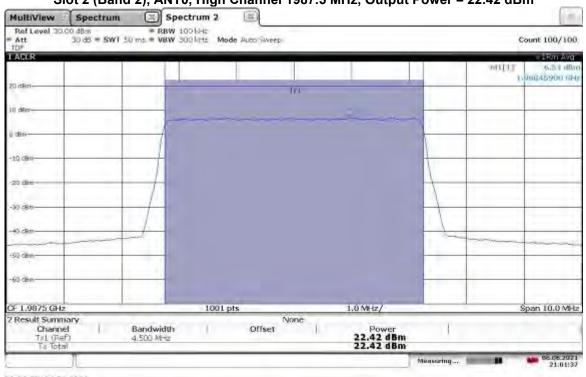
TM3.1a-256QAM _5 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.48 dBm

20:47:20 06.08.2021

TM3.1a-256QAM _5 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.45 dBm



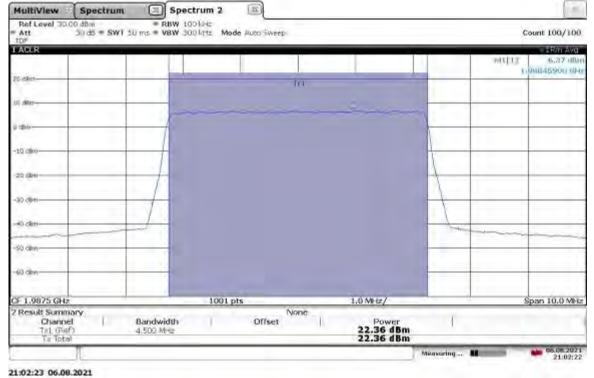
20:45:01 06.08.2021



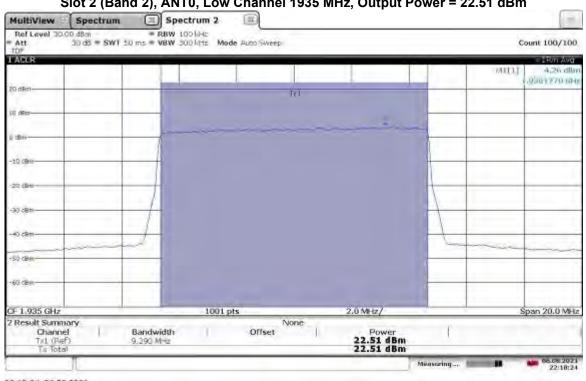
TM3.1a-256QAM _5 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1987.5 MHz, Output Power = 22.42 dBm

21:01:37 06.08.2021

TM3.1a-256QAM _5 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1987.5 MHz, Output Power = 22.36 dBm

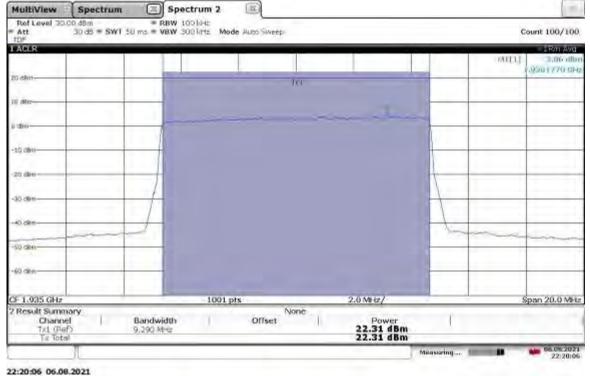


fore offerences in



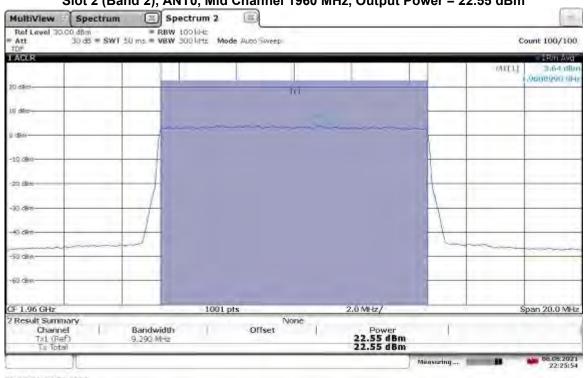
22:18:24 06.08.2021

TM3.1a-256QAM _10 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1935 MHz, Output Power = 22.31 dBm



TM3.1a-256QAM _10 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1935 MHz, Output Power = 22.51 dBm

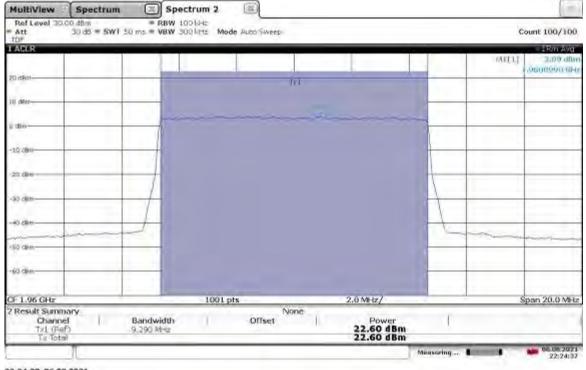
Non-Specific Radio Report Shell Rev. December 2017 Page 54 of 194 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell[®] RP5100



TM3.1a-256QAM _10 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.55 dBm

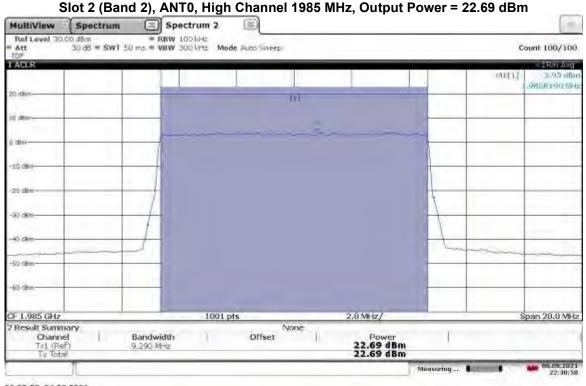
22:25:54 06.08.2021

TM3.1a-256QAM _10 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.60 dBm



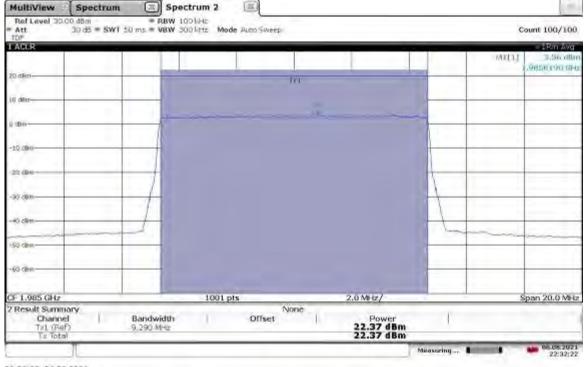
22:24:38 06.08.2021

TM3.1a-256QAM _10 MHz Bandwidth



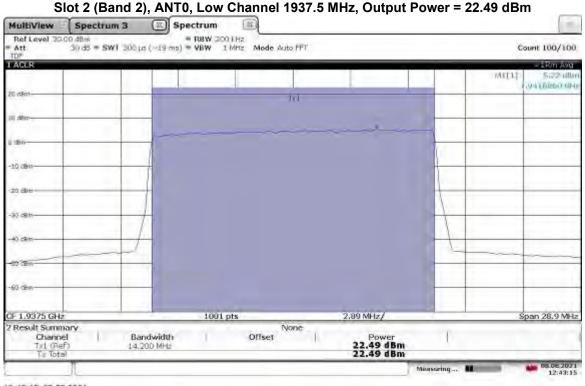
22:30:58 06.08.2021

TM3.1a-256QAM _10 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1985 MHz, Output Power = 22.37 dBm



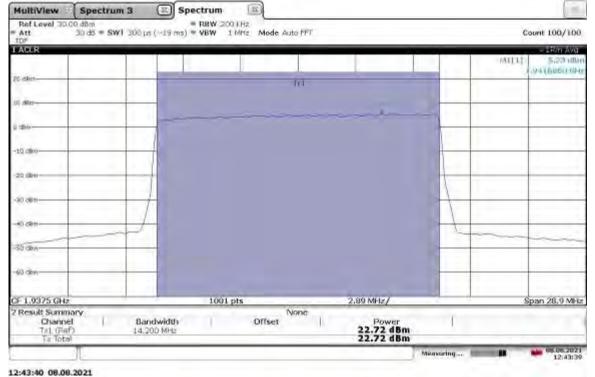
22:32:23 06.08.2021

TM3.1a-256QAM _15 MHz Bandwidth

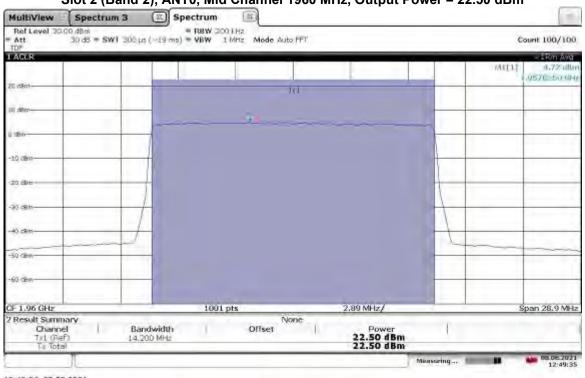


12:43:15 08.08.2021

TM3.1a-256QAM _15 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1937.5 MHz, Output Power = 22.72 dBm

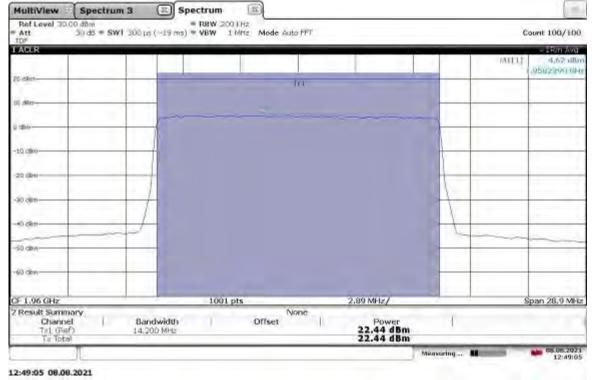


Non-Specific Radio Report Shell Rev. December 2017 Page 57 of 194 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell[®] RP5100



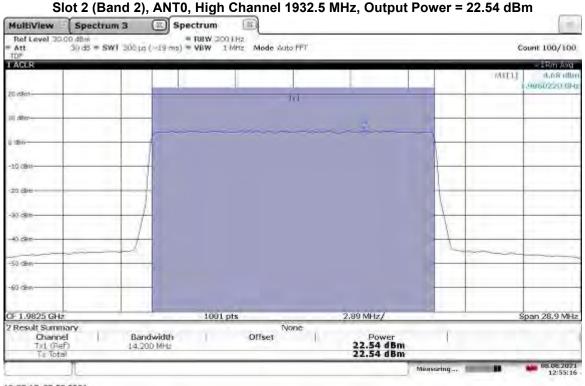
12:49:36 08.08.2021

TM3.1a-256QAM _15 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.44 dBm



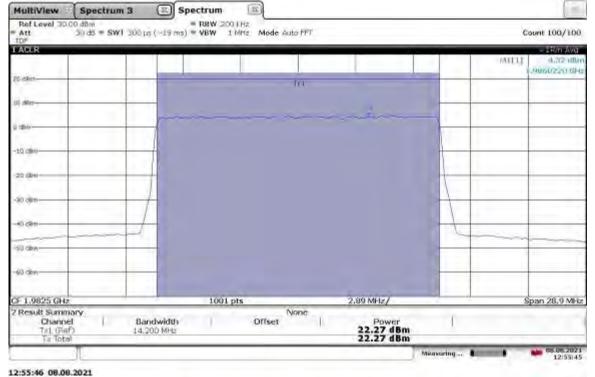
TM3.1a-256QAM _15 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel 1960 MHz, Output Power = 22.50 dBm

TM3.1a-256QAM _15 MHz Bandwidth

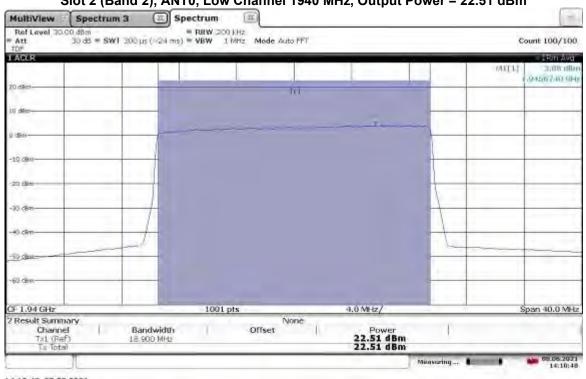


12:55:17 08.08.2021

TM3.1a-256QAM _15 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1982.5 MHz, Output Power = 22.27 dBm



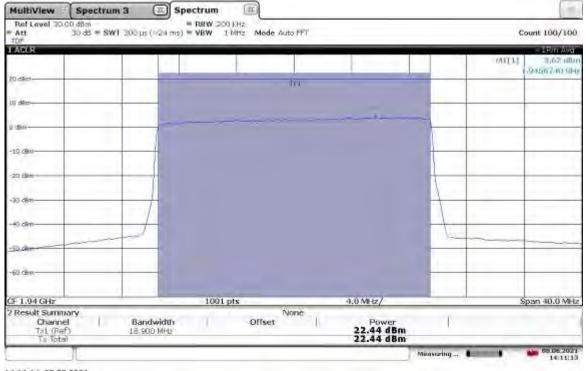
Non-Specific Radio Report Shell Rev. December 2017 Page 59 of 194 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell[®] RP5100



TM3.1a-256QAM _20 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel 1940 MHz, Output Power = 22.51 dBm

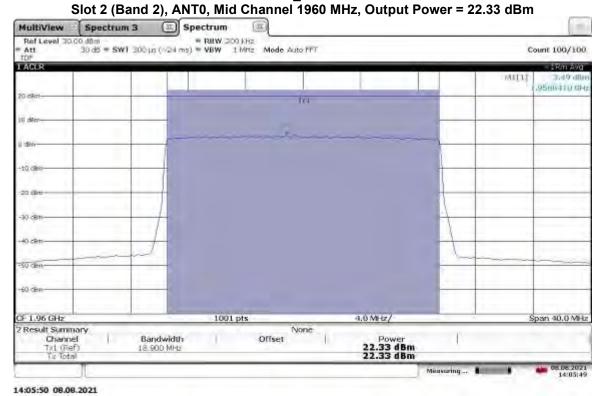
14:10:49 08.08.2021

TM3.1a-256QAM _20 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel 1940 MHz, Output Power = 22.44 dBm



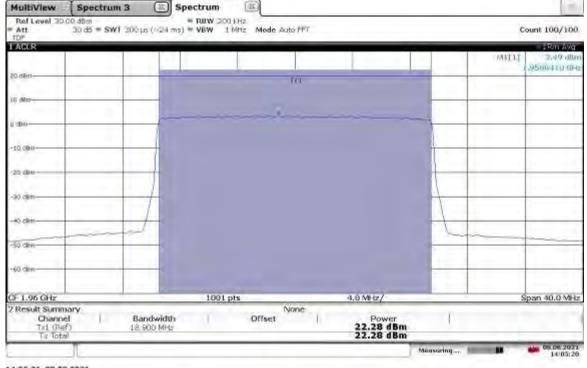
14:11:14 08.08.2021

TM3.1a-256QAM _20 MHz Bandwidth

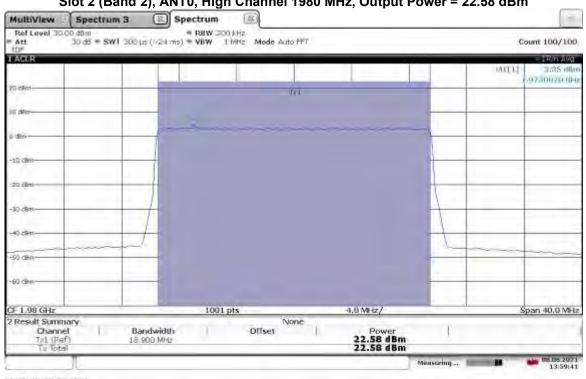


Josef Carlos

TM3.1a-256QAM _20 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel 1960 MHz, Output Power = 22.28 dBm

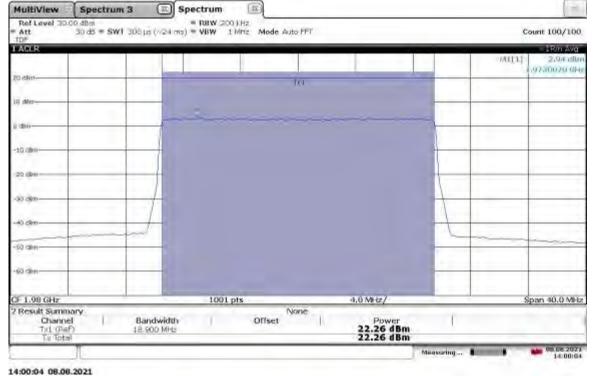


14:05:21 08.08.2021



13:59:42 08.08.2021

TM3.1a-256QAM _20 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel 1980 MHz, Output Power = 22.26 dBm



TM3.1a-256QAM _20 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel 1980 MHz, Output Power = 22.58 dBm

Limit for Maximum Permissible Exposure (MPE)

FCC Human RF Exposure Limits:

The FCC §1.1310 The criteria listed in table 1 was used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices shall be evaluated according to the provisions of §2.1093 of this chapter.

| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) |
|--------------------------|----------------------------------|----------------------------------|--|-----------------------------|
| | (A) Limits for Oc | cupational/Controlled Expos | sure | |
| 0.3-3.0 | 614 | 1.63 | *100 | 6 |
| 3.0-30 | 1842/f | 4.89/f | *900/f ² | E |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1,500 | | | f/300 | 6 |
| 1,500-100,000 | | the second stress if a | 5 | 6 |
| | (B) Limits for Genera | al Population/Uncontrolled E | xposure | |
| 0.3-1.34 | 614 | 1.63 | *100 | 30 |
| 1.34-30 | 824/f | 2.19/f | *180/f ² | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1,500 | | | f/1500 | 30 |
| 1,500-100,000 | (= | | 1.0 | 30 |

Part §1.1310 Limits for Maximum Permissible Exposure (MPE)

f = frequency in MHz * = Plane-wave equivalent power density

(1) Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when a person is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure. The phrase *fully aware* in the context of applying these exposure limits means that an exposed person has received written and/or verbal information fully explaining the potential for RF exposure resulting from his or her employment. With the exception of *transient* persons, this phrase also means that an exposed person has received appropriate training regarding work practices relating to controlling or mitigating his or her exposure. Such training is not required for *transient* persons, but they must receive written and/or verbal information and notification (for example, using signs) concerning their exposure potential and appropriate means available to mitigate their exposure. The phrase *exercise control* means that an exposed person is allowed to and knows how to reduce or avoid exposure by administrative or engineering controls and work practices, such as use of personal protective equipment or time averaging of exposure.

(2) General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Report Number: 104751739BOX-013

Test Procedure

RF exposure for licensed transmitter is handled at the time of licensing, however, an MPE calculation was performed in order to show the distance at which the device is compliant with the limits of §1.1310, assuming antenna gains of 0 dBi and 4 dBi. The highest measured conducted output power was used, adjusted by +3dB to account for two antenna MIMO operation.

FCC Limit For General Population/Uncontrolled Exposure at 1.985 GHz = 1 mW/cm²

Power Density = [EIRP] / $[4\pi x (D_{cm})^2]$

Where EIRP is in milliwatts and D is in centimeters. Setting the power density equal to the limit of 1 mW/cm^2 and solving for D_{cm} yields the following results.

Results:

EUT EIRP = Conducted power + Array Gain + Antenna gain in dBi

```
Power Density Limit = [EIRP] / [4\pi \times (D_{cm})^2]
1 \text{ mW/cm}^2 = [\text{EIRP}] / [4\pi \text{ x} (D_{\text{cm}})^2]
D_{cm} = ([EIRP] / [4\pi])^{1/2}
For Gain = 0 \, dBi.
                  EIRP = 22.95 dBm + 10*LOG(2) + 0 dBi = 22.95 dBm + 3 dB + 0dBi
                  EIRP = 25.95 dBm or 393.55007546 mW
Therefore, the minimum safe distance D_{cm} is D_{cm} = ([393.55007546] / [4\pi])^{1/2}
                  D<sub>cm</sub> = 5.60 cm at 0 dBi gain two antenna MIMO
For Gain = 4 dBi.
                 EIRP = 22.95 dBm + 10*LOG(2) + 4 dBi = 22.95 dBm + 3 dB + 4dBi
                 EIRP = 29.95 dBm or 988.55309466 mW
Therefore, the minimum safe distance D_{cm} is D_{cm} = ([1078.94672] / [4\pi])^{1/2}
                  D<sub>cm</sub> = 8.87 cm at 4 dBi gain two antenna MIMO
For Gain = X dBi,
                 EIRP = 22.95 dBm + 10*LOG(2) + X dBi = 22.95 dBm + 3 dB + XdBi
                 EIRP = 25.95+X dBm or 393.55007546 + 10<sup>(X/10)</sup> mW
Therefore, the minimum safe distance D_{cm} is D_{cm} = ([393.55007546 + 10^{(X/10)}] / [4\pi])^{1/2}
                  D<sub>cm</sub> = 0.282 * (393.55007546 + 10<sup>(X/10)</sup>)<sup>1/2</sup> cm at X dBi gain two antenna MIMO
                                                                       Test Date: 07/28/2021, 07/29/2021, 07/30/2021,
                                    JU
```

| Test Personnel: | Vathana Ven | | 08/03/2021 |
|-------------------------|--------------|-----------------------|-----------------------------|
| Supervising/Reviewing | | | |
| Engineer: | | | |
| (Where Applicable) | N/A | _ | |
| | | | |
| Product Standard: | | _ Limit Applied: | See report section 6.3 |
| Input Voltage: | 48 VDC (POE) | _ | |
| | | | |
| Pretest Verification w/ | | Ambient Temperature: | 22, 23, 23, 23 °C |
| Ambient Signals or | | | 04 45 00 47 % |
| BB Source: | N/A | Relative Humidity: | 21, 15, 26, 47 % |
| | | | |
| | | Atmospheric Pressure: | 1004, 1013, 1004, 980 mbars |

Deviations, Additions, or Exclusions: None

7 Occupied Bandwidth

7.1 Method

Tests are performed in accordance with ANSI C63.26 and CFR47 FCC Parts 2.1049 and 24.

TEST SITE: EMC Lab

<u>The EMC Lab</u> 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 |
|------------|--|-------------------|----------------|-------------|------------|------------|
| CEN001' | DC-40GHz attenuator 20dB | Centric RF | C411-20 | CEN001 | 01/22/2021 | 01/22/2022 |
| CBLSHF204' | Cable, SMA - SMA, 9kHz -40GHz, (Cable Kit 5) | Huber + Suhner | Sucoflex 102EA | 234714001 | 02/03/2021 | 02/03/2022 |
| ROS005-1' | Signal and Spectrum Analyzer | Rohde and Shwartz | FSW43 | 100646 | 10/27/2020 | 10/27/2021 |
| DAV005' | Weather Station | Davis | 6250 | MS191218083 | 02/07/2021 | 02/07/2022 |

Software Utilized:

| Name | Manufacturer | Version |
|------|--------------|---------|
| None | | |

7.3 Results:

The sample tested was found to Comply.

§24.238(b) The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

§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 2 (Band 2), Bandwidth: 5 MHz, Modulation: TM1.1-QPSK

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1932.50 | ANT0 | 4.47 |
| | | ANT1 | 4.47 |
| Mid | 1960.00 | ANT0 | 4.47 |
| | | ANT1 | 4.47 |
| High | 1987.50 | ANT0 | 4.47 |
| | | ANT1 | 4.47 |

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM1.1-QPSK

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1935.00 | ANT0 | 9.29 |
| | | ANT1 | 9.29 |
| Mid | 1960.00 | ANT0 | 9.30 |
| | | ANT1 | 9.30 |
| High | 1985.00 | ANT0 | 9.30 |
| | | ANT1 | 9.30 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM1.1-QPSK

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1937.50 | ANT0 | 14.16 |
| | | ANT1 | 14.16 |
| Mid | 1960.00 | ANT0 | 14.16 |
| | | ANT1 | 14.16 |
| High | 1982.50 | ANT0 | 14.18 |
| | | ANT1 | 14.18 |

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM1.1-QPSK

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1940.00 | ANT0 | 18.89 |
| | | ANT1 | 18.89 |
| Mid | 1960.00 | ANT0 | 18.88 |
| | | ANT1 | 18.89 |
| High | 1980.00 | ANT0 | 18.92 |
| | | ANT1 | 18.93 |

Slot 2 (Band 2), Bandwidth: 5 MHz, Modulation: TM3.2-16QAM

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1932.50 | ANT0 | 4.51 |
| | | ANT1 | 4.51 |
| Mid | 1960.00 | ANT0 | 4.50 |
| | | ANT1 | 4.50 |
| High | 1987.50 | ANT0 | 4.50 |
| | | ANT1 | 4.50 |

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM3.2-16QAM

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1935.00 | ANT0 | 9.23 |
| | | ANT1 | 9.23 |
| Mid | 1960.00 | ANT0 | 9.23 |
| | | ANT1 | 9.23 |
| High | 1985.00 | ANT0 | 9.24 |
| | | ANT1 | 9.24 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM3.2-16QAM

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1937.50 | ANT0 | 14.15 |
| | | ANT1 | 14.15 |
| Mid | 1960.00 | ANT0 | 14.16 |
| | | ANT1 | 14.16 |
| High | 1982.50 | ANT0 | 14.17 |
| | | ANT1 | 14.17 |

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM3.2-16QAM

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1940.00 | ANT0 | 18.95 |
| | | ANT1 | 18.95 |
| Mid | 1960.00 | ANT0 | 18.95 |
| | | ANT1 | 18.93 |
| High | 1980.00 | ANT0 | 18.98 |
| | | ANT1 | 18.98 |

Slot 2 (Band 2), Bandwidth: 5 MHz, Modulation: TM3.1-64QAM

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1932.50 | ANT0 | 4.48 |
| | | ANT1 | 4.48 |
| Mid | 1960.00 | ANT0 | 4.48 |
| | | ANT1 | 4.48 |
| High | 1987.50 | ANT0 | 4.48 |
| | | ANT1 | 4.48 |

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM3.1-64QAM

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1935.00 | ANT0 | 9.30 |
| | | ANT1 | 9.29 |
| Mid | 1960.00 | ANT0 | 9.30 |
| | | ANT1 | 9.30 |
| High | 1985.00 | ANT0 | 9.30 |
| _ | | ANT1 | 9.30 |

| Siot 2 (Banu 2), Banuwiuth. 15 Minz, Modulation. 195.1-64QAW | | | |
|--|-----------------|--------------|-------------------|
| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
| Low | 1937.50 | ANT0 | 14.12 |
| | | ANT1 | 14.12 |
| Mid | 1960.00 | ANT0 | 14.13 |
| | | ANT1 | 14.12 |
| High | 1982.50 | ANT0 | 14.14 |
| | | ANT1 | 14.15 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM3.1-64QAM

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM3.1-64QAM

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1940.00 | ANT0 | 18.88 |
| | | ANT1 | 18.87 |
| Mid | 1960.00 | ANT0 | 18.87 |
| | | ANT1 | 18.89 |
| High | 1980.00 | ANT0 | 18.91 |
| | | ANT1 | 18.92 |

Slot 2 (Band 2), Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM_

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1932.50 | ANT0 | 4.48 |
| | | ANT1 | 4.48 |
| Mid | 1960.00 | ANT0 | 4.48 |
| | | ANT1 | 4.48 |
| High | 1987.50 | ANT0 | 4.48 |
| | | ANT1 | 4.48 |

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM_

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1935.00 | ANT0 | 9.29 |
| | | ANT1 | 9.29 |
| Mid | 1960.00 | ANT0 | 9.29 |
| | | ANT1 | 9.29 |
| High | 1985.00 | ANT0 | 9.30 |
| | | ANT1 | 9.30 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1937.500 | ANT0 | 14.12 |
| | | ANT1 | 14.13 |
| Mid | 1960.00 | ANT0 | 14.12 |
| | | ANT1 | 14.12 |
| High | 1982.50 | ANT0 | 14.11 |
| | | ANT1 | 14.14 |

Report Number: 104751739BOX-013

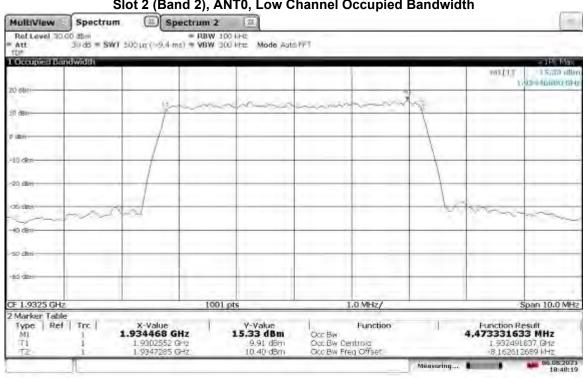
Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM

| Channel | Frequency (MHz) | Antenna Port | Occupied BW (MHz) |
|---------|-----------------|--------------|-------------------|
| Low | 1940 | ANT0 | 18.90 |
| | | ANT1 | 18.92 |
| Mid | 1960 | ANT0 | 18.92 |
| | | ANT1 | 18.92 |
| High | 1980 | ANT0 | 18.96 |
| | | ANT1 | 18.95 |

7.4 Setup Photograph:

Photographs are available in another exhibit

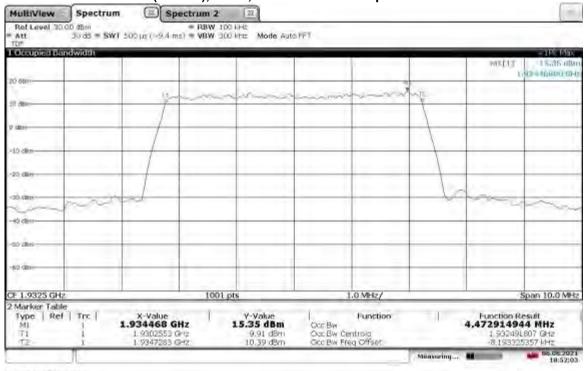
7.5 Plots/Data:



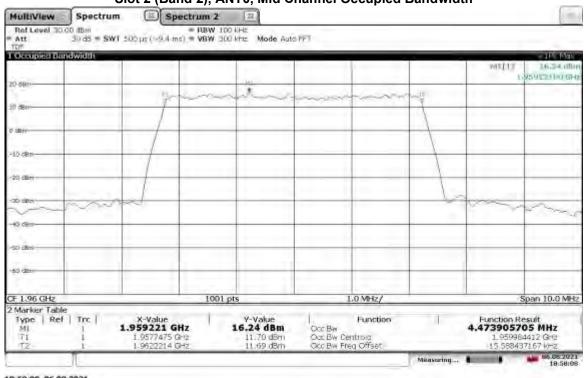
TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

18:48:20 06.08.2021

TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



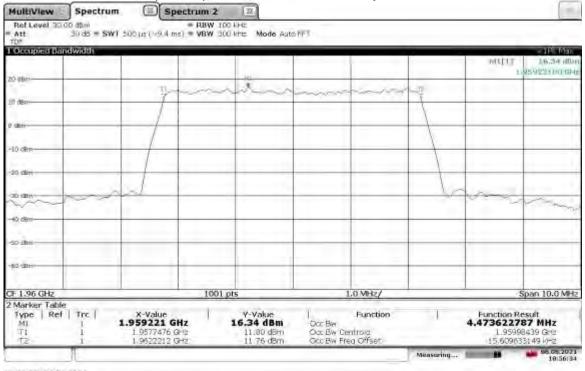
18:52:03 06.08.2021



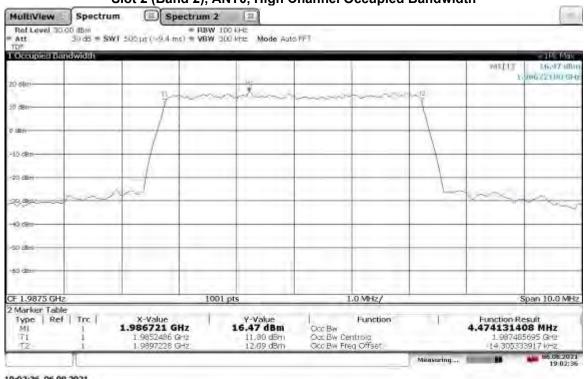
TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

18:58:09 06.08.2021

TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



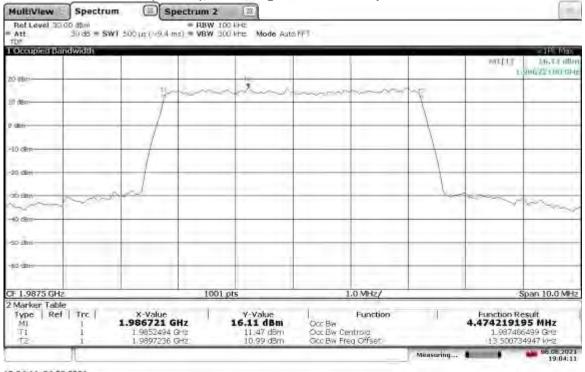
18:56:35 06.08.2021



TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

19:02:36 06.08.2021

TM1.1-QPSK_5 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



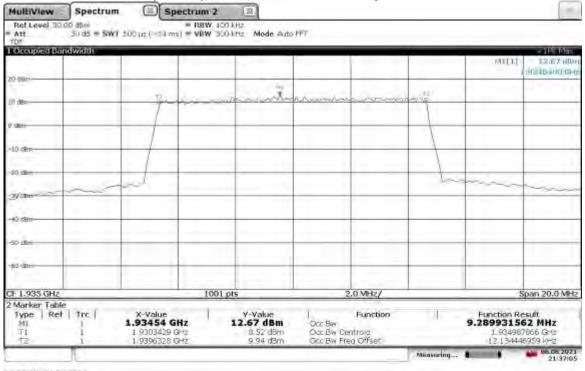
19:04:11 06.08.2021



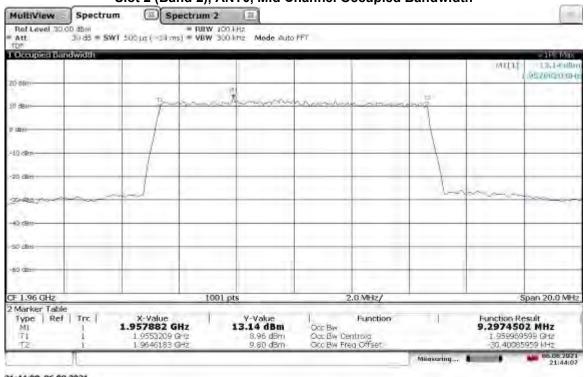
TM1.1-QPSK_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

21:34:19 06.08.2021

TM1.1-QPSK_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



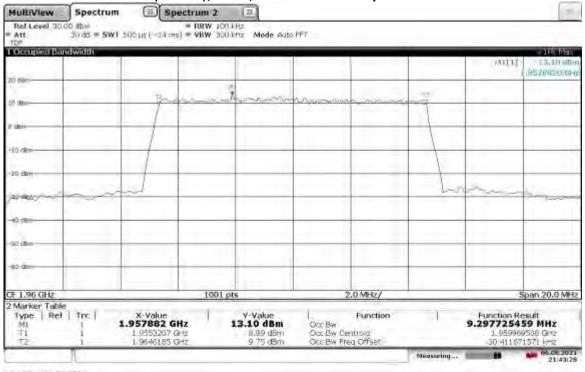
21:37:05 06.08.2021



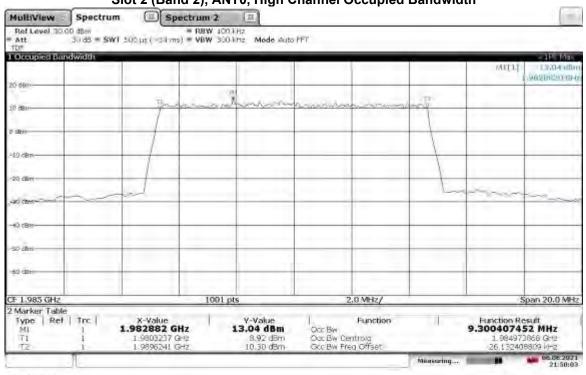
TM1.1-QPSK_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

21:44:08 06.08.2021

TM1.1-QPSK_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



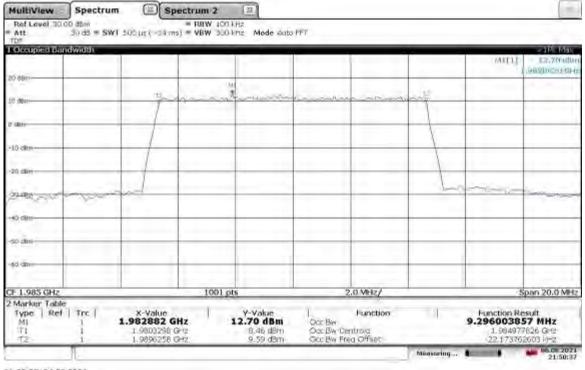
21:43:29 06.08.2021



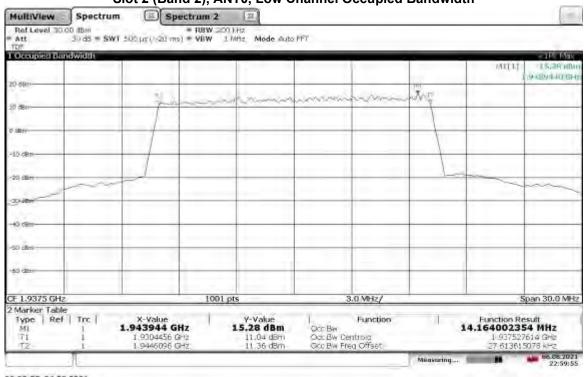
TM1.1-QPSK_10 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

21:50:04 06.08.2021

TM1.1-QPSK_10 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



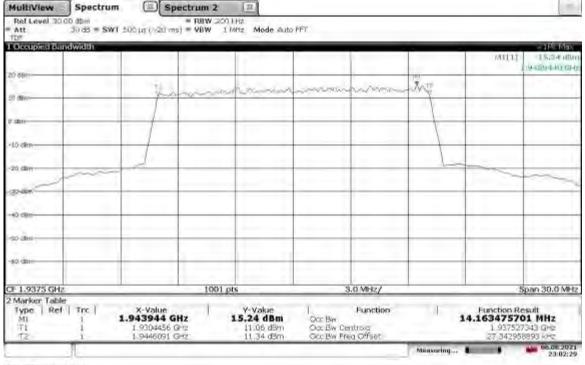
21:50:37 06.08.2021



TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

22:59:55 06.08.2021

TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



23:02:30 06.08.2021

| MultiView | Spectrum | Speci | | 227 | | | | | | |
|--|---|-----------------|------------|---|-----|----------|---------------|------|----------------------------|--|
| Ref Level 30. Att | 00 dBm 30 d8 = SWT 50 | (em (25+) 24 CC | PBW 20 | 0.1Hz 1.MHz Mode Auto | PFT | | | | | |
| Occupied Bar | ndwidth | | | | - | | | - | - 1PL Max | |
| | | | | | | | | with | 14,000 dta (957) 250 GH | |
| 20 dBm- | | 1 | | h-m | | - min - | Eno.T | | | |
| 10 (840- | | | 10-5- 80°. | | | | June 2 | | | |
| D uterie | | | | - | | | 1 1 | | | |
| -10 cBm | | | _ | | | | | | | |
| 1. The second se | | | | | | | | | | |
| -20 cBm | man | 2 | | | | | 1 | ~ | | |
| -aticliw | | | _ | | | | | | | |
| -40 cem- | | | | _ | | _ | | _ | | |
| so alm- | | | | - | | | | _ | | |
| | | | | | | | | | | |
| 50 dini | | | _ | | | | | | | |
| JF 1.96 GHz | 1001 øts | | | pts | - | 3.0 MHz/ | Span 30.0 MHz | | | |
| Marker Table Type Ref MI T1 T2 | Trc. X-Value 1 1.957123 GHz 1 1.9529145 GHz 1 1.9570736 GHz 1 1.9670736 GHz | | | V-Value 14.99 dBm Occ Bw 11.92 dBm Occ Bw Cent 10.58 dBm Occ Bw Freq | | | | | | |

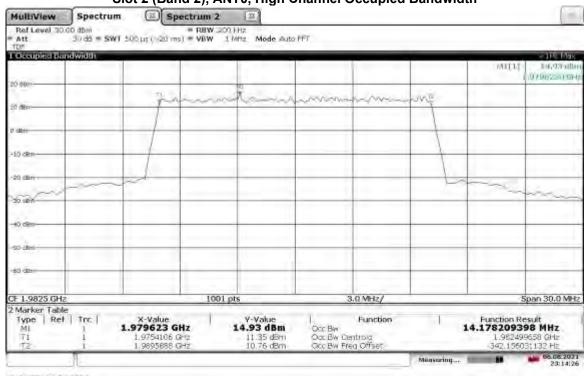
TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

23:09:38 06.08.2021

TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth

| Ref Level 30.0 | | | = RBW 2 | 00.KHz 1 MHz Mode Auto | FFT | | | | | |
|--|--------------|---|------------|---------------------------|---|----------|--|-------|------------|--|
| TUR I Occupied Bar | | add the Viceo I | (12) - 10H | Think Induction | 10 | _ | | | - 1PL Max | |
| Contra prise nen | | | | | | | | witz | 15,00 illu | |
| 20 dBm | | | | 10 | 3 | 1.0.0 | | | | |
| 10 8810- | | T | april 10 | mannes | nomm | norm | -rein | | | |
| | | 1 | | | | | 1 | | | |
| o utere | | 1 | - | | | | + + | | | |
| 10.cm- | | | | | | | | | | |
| | | | | - | | | 1 | | | |
| 20 dim | and - | | | | | | 1 | | | |
| to and | | | - | | | | | | | |
| -m85 CP | | | | | | | | | | |
| | | | _ | | | _ | | | | |
| so alm | | | | | | | | - | | |
| 50 GB+1 | _ | - | - | | - | | | | - | |
| | | | | | | | | - | 1 | |
| F 1.96 GHz | 3Hz 1001 pts | | | | 3 | 3.0 MHz/ | Span 30.0 MHz | | | |
| Marker Table Type Ref MI T1 T2 | | X-Value Y-Value 1.957123 GHz 15.00 dBm 1.9529173 GHz 11.08 dBm 1.9670733 GHz 10.69 dBm | | | l Function Occ:Bw Occ:Bw Occ:Bw Centroid Occ:Bw Freq Offset | | Function Result 14.15601664 MHz 1.95995274 GHz -4.726171332 HHz | | | |
| | 1 | | | | | | Measuring | 10000 | 23:08:14 | |

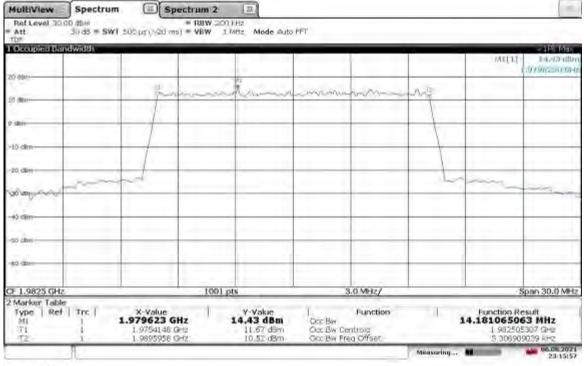
23:08:14 06.08.2021



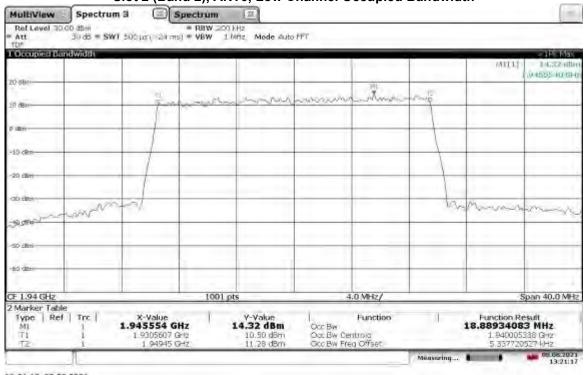
TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

23:14:27 06.08.2021

TM1.1-QPSK_15 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



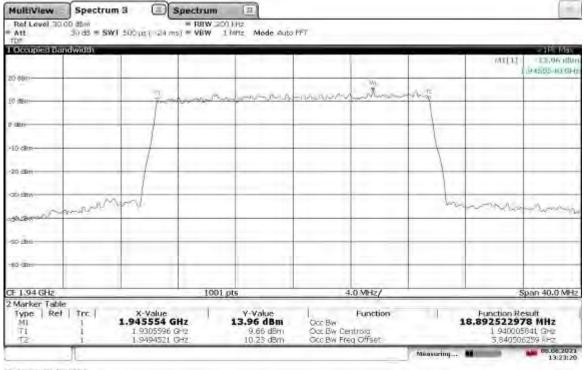
23:15:57 06.08.2021



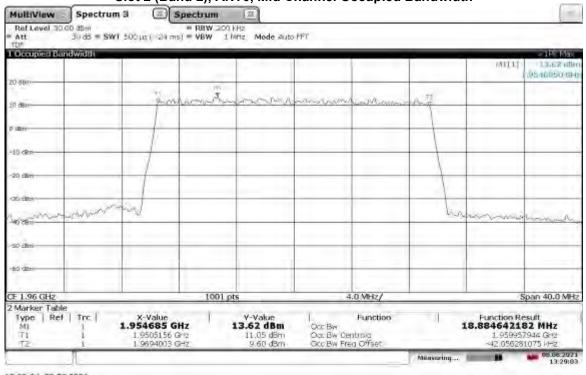
TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

13:21:18 08.08.2021

TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



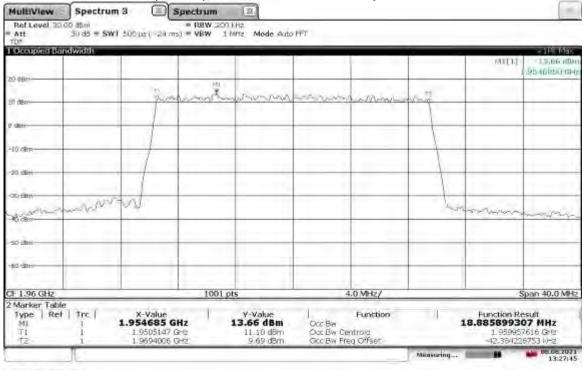
13:23:21 08.08.2021



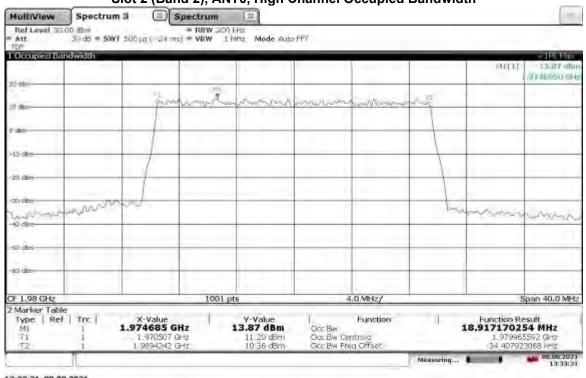
TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

13:29:04 08.08.2021

TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



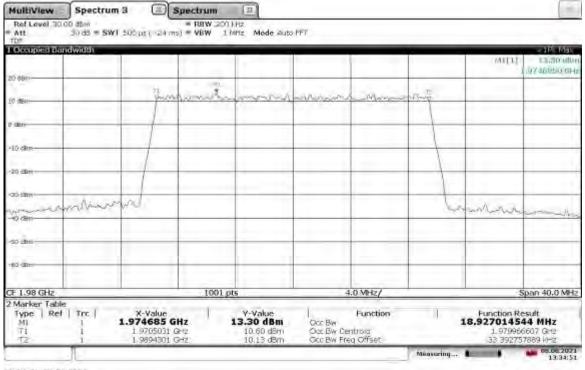
13:27:45 08.08.2021



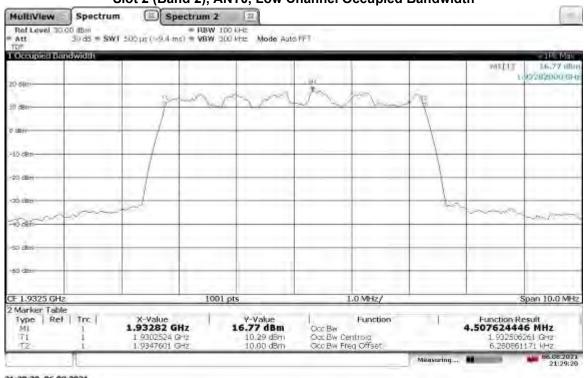
TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

13:33:31 08.08.2021

TM1.1-QPSK_20 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



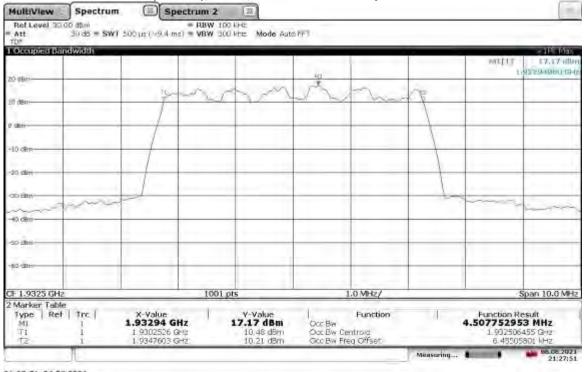
13:34:51 08.08.2021



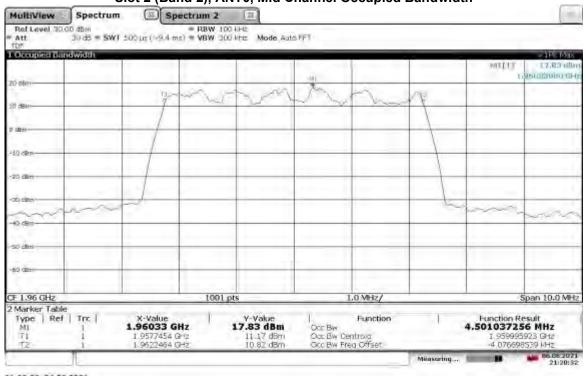
TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

21:29:20 06.08.2021

TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



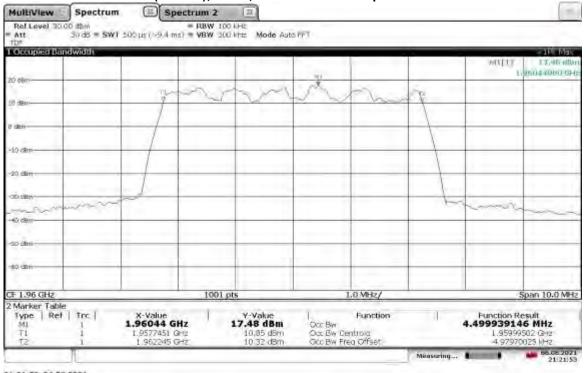
21:27:51 06.08.2021



TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

21:20:32 06.08.2021

TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



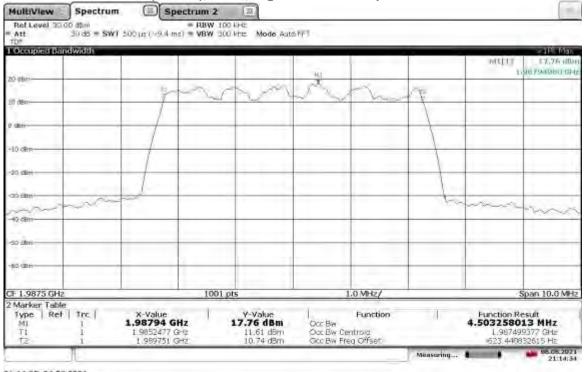
21:21:53 06.08.2021



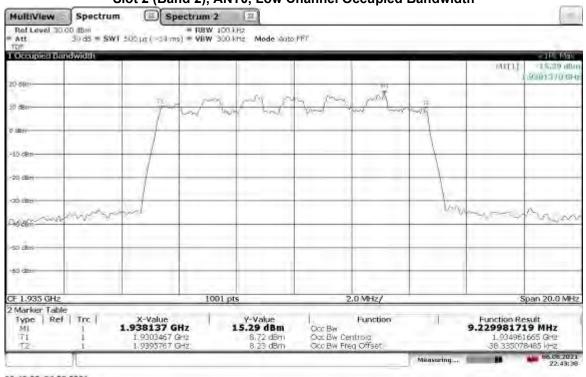
TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

21:16:14 06.08.2021

TM3.2-16QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



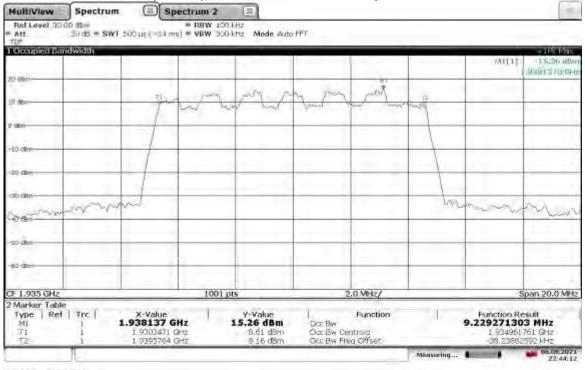
21:14:35 06.08.2021



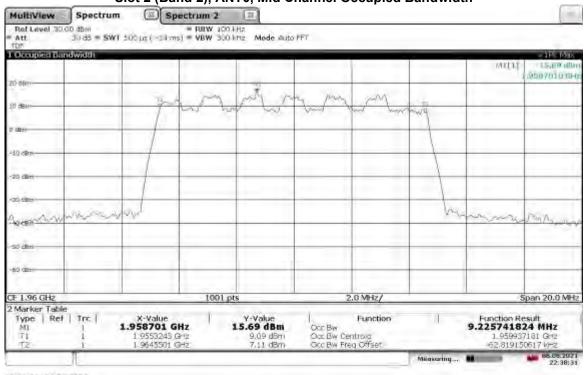
TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

22:43:38 06.08.2021

TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



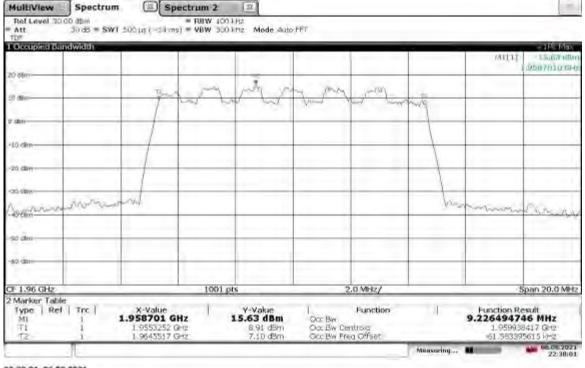
22:44:12 06.08.2021



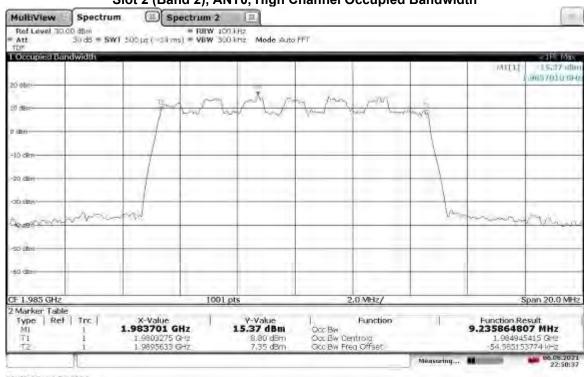
TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

22:38:31 06.08.2021

TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



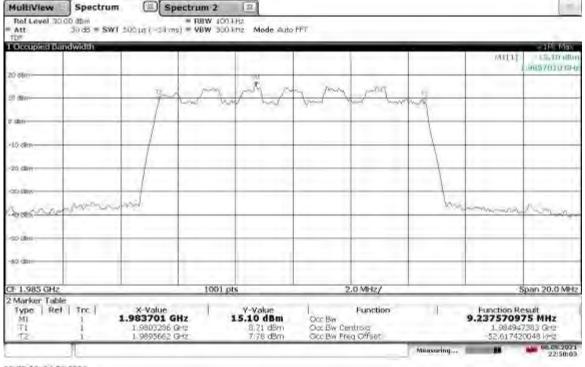
22:38:01 06.08.2021



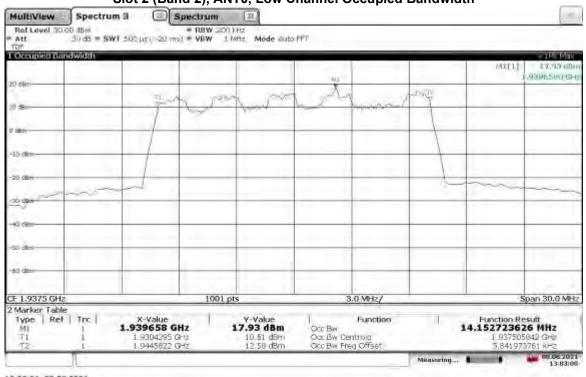
TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

22:50:38 06.08.2021

TM3.2-16QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



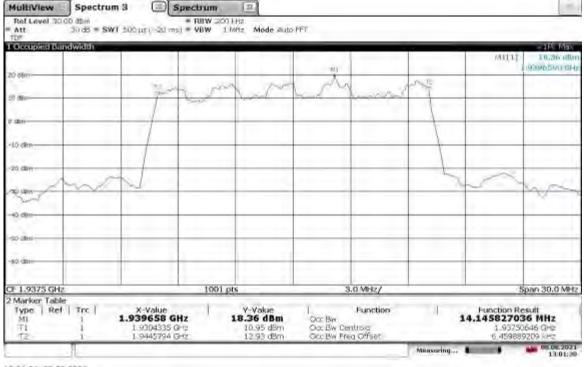
22:50:03 06.08.2021



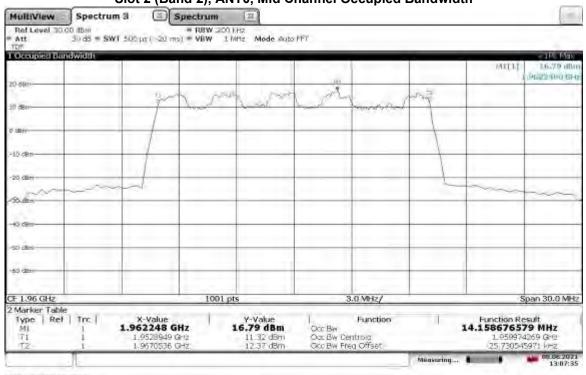
TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

13:03:01 08.08.2021

TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



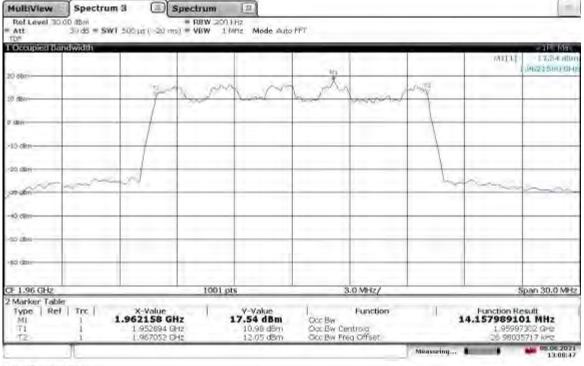
13:01:31 08.08.2021



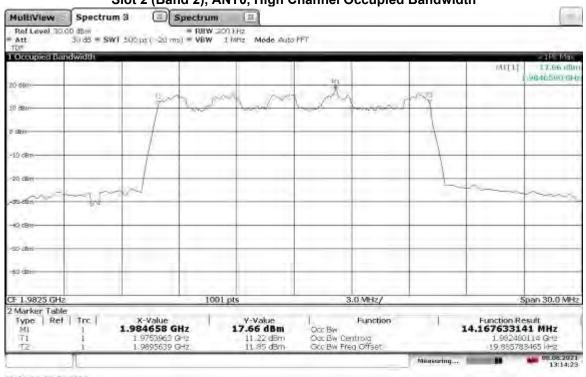
TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

13:07:35 08.08.2021

TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



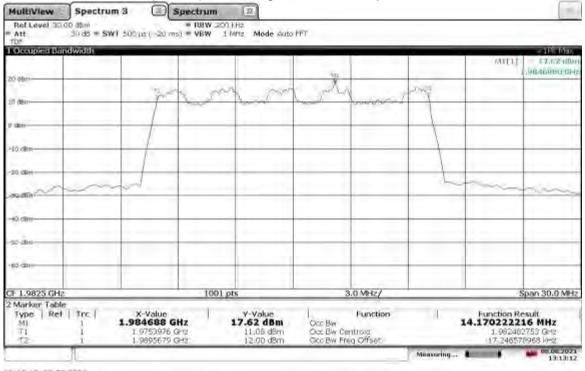
13:08:46 08.08.2021



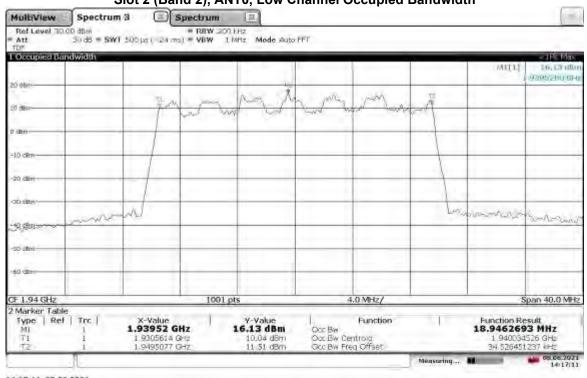
TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

13:14:24 08.08.2021

TM3.2-16QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



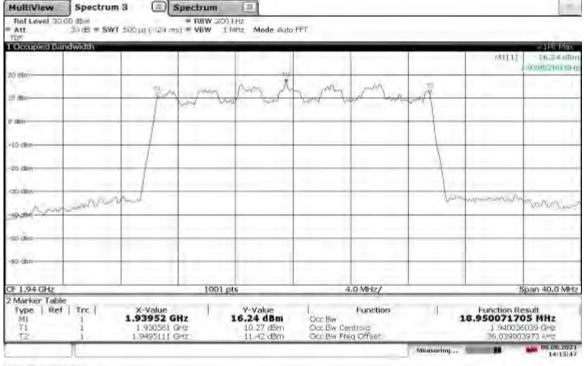
13:13:12 08.06.2021



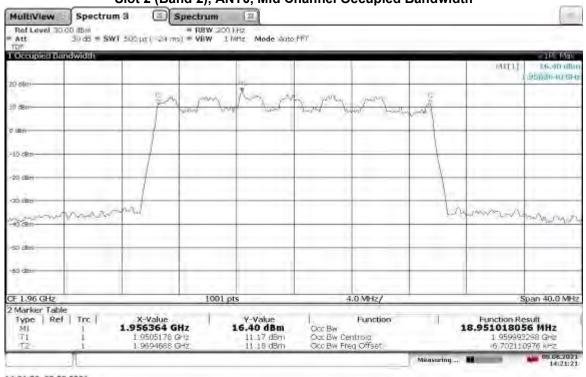
TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

14:17:11 08.08.2021

TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



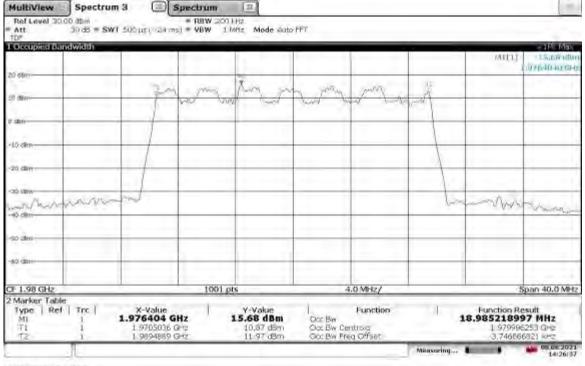
14:15:48 08.08.2021



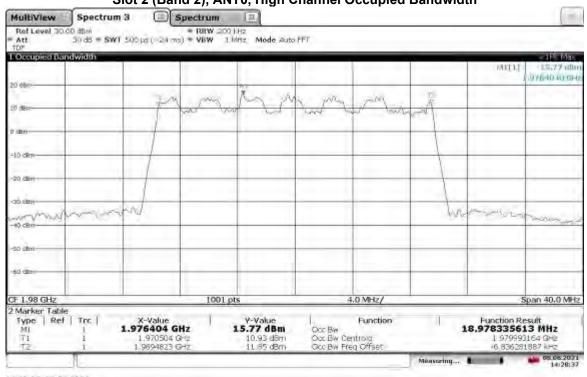
TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

14:21:22 08.08.2021

TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



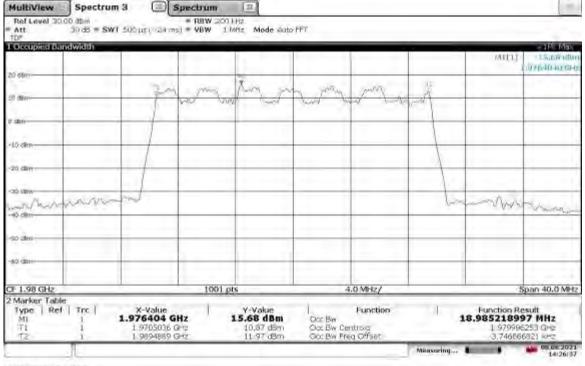
14:26:37 08.08.2021



TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

14:28:38 08.08.2021

TM3.2-16QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



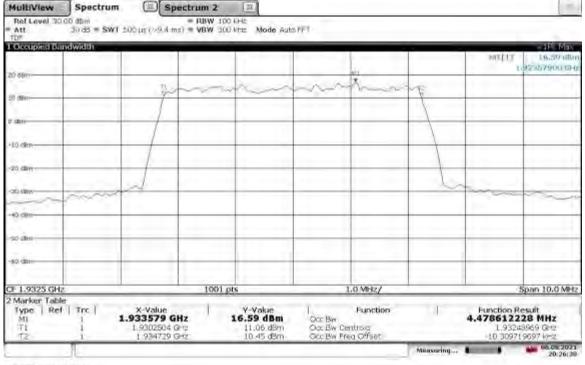
14:26:37 08.08.2021



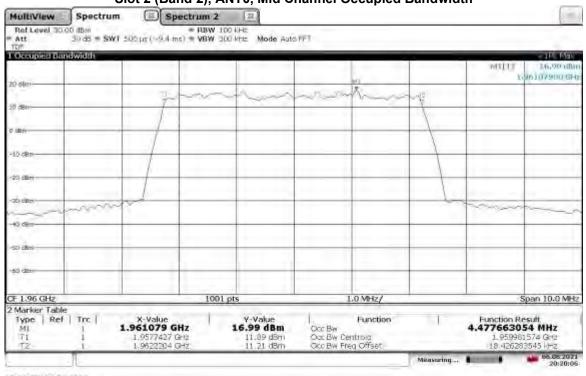
TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

20:28:14 06.08.2021

TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



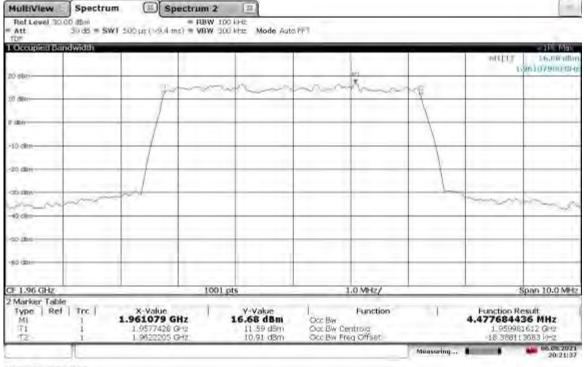
20:26:38 06.08.2021



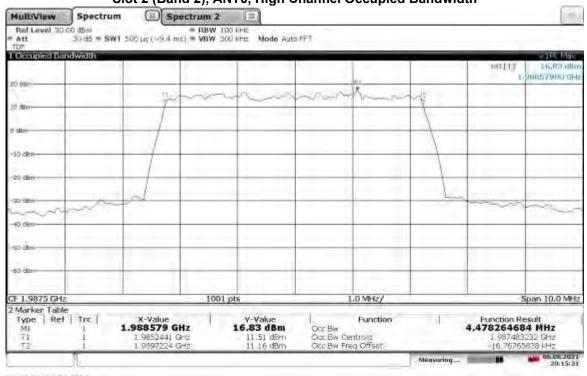
TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

20:20:07 06.08.2021

TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



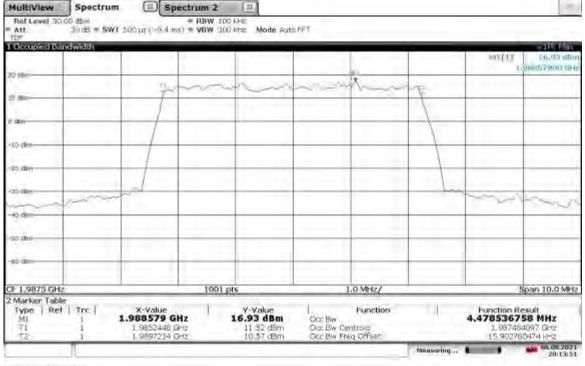
20:21:38 06.08.2021



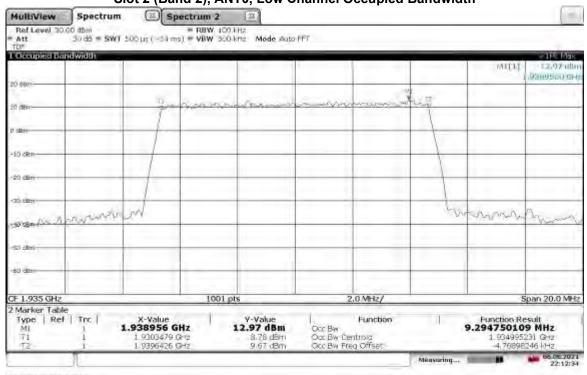
TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

20:15:31 06.08.2021

TM3.1-64QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



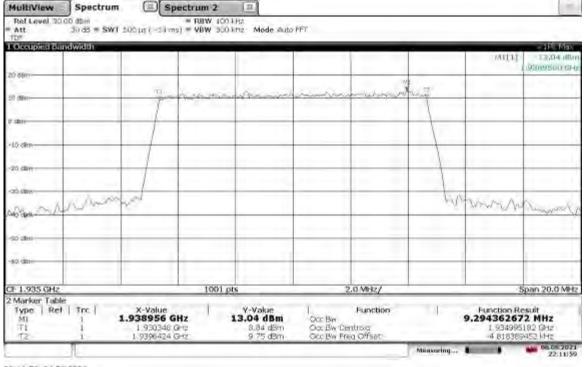
20:13:52 06.08.2021



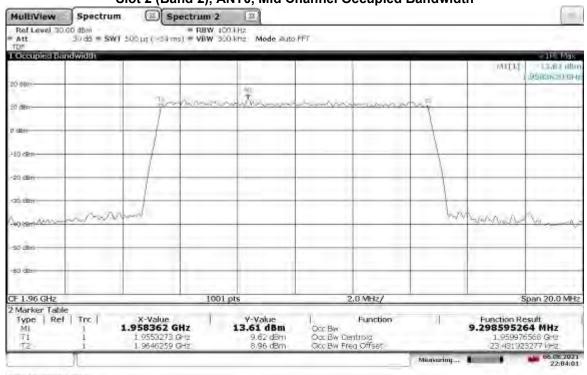
TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

22:12:35 06.08.2021

TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



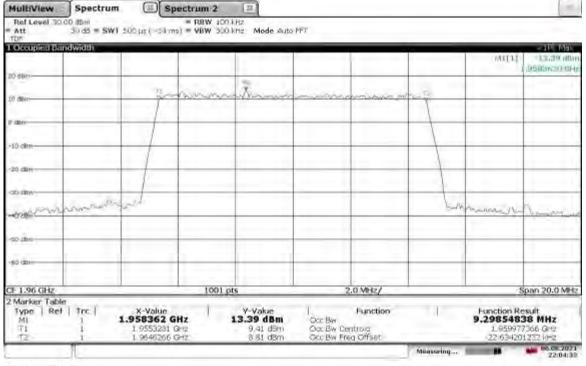
22:11:59 06.08.2021



TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

22:04:01 06.08.2021

TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



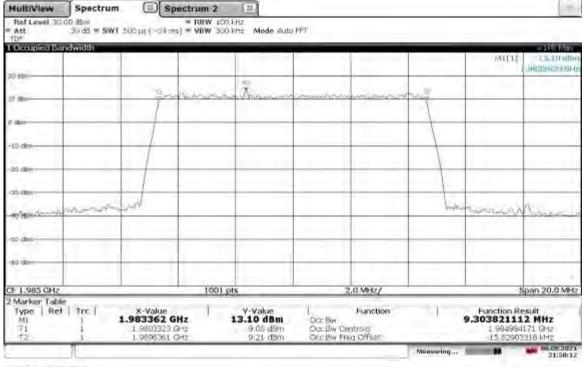
22:04:34 06.08.2021



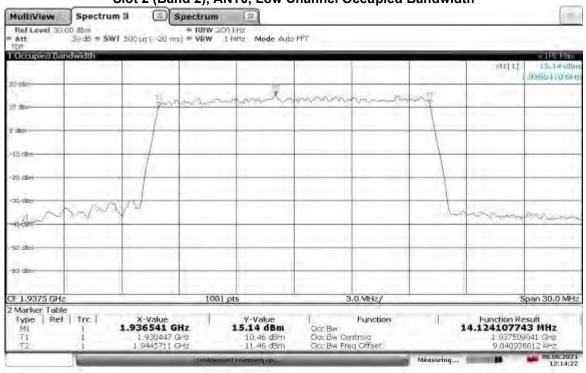
TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

21:58:42 06.08.2021

TM3.1-64QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



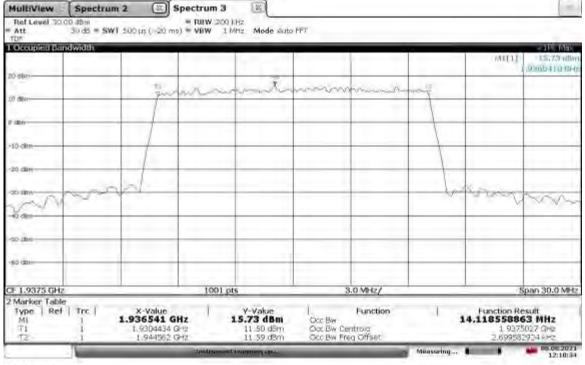
21:58:12 06.08.2021



TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

12:14:22 08.08.2021

TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



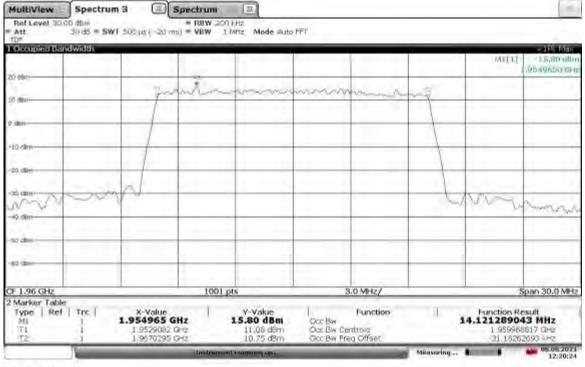
12:10:34 08.08.2021



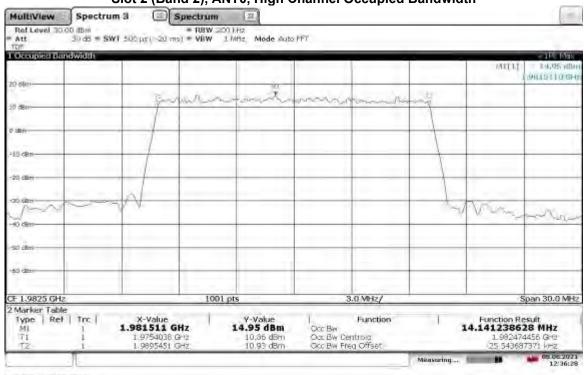
TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

12:18:49 08.08.2021

TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



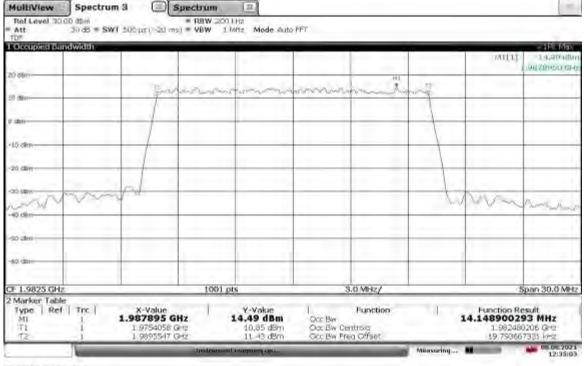
12:20:25 08.08.2021



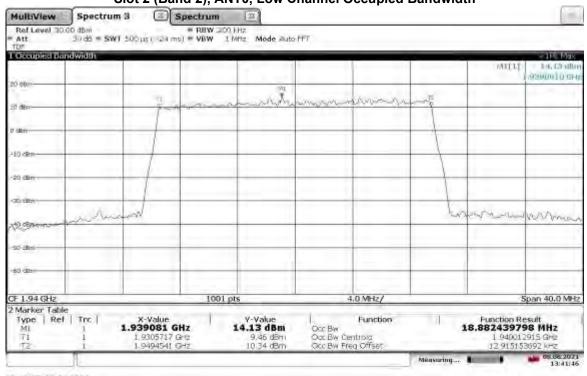
TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

12:36:29 08.08.2021

TM3.1-64QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



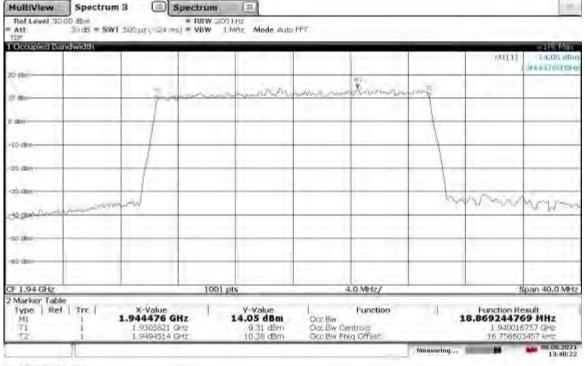
12:35:03 08.08.2021



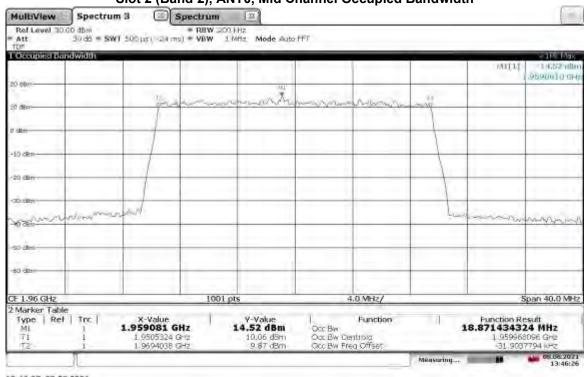
TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

13:41:47 08.08.2021

TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



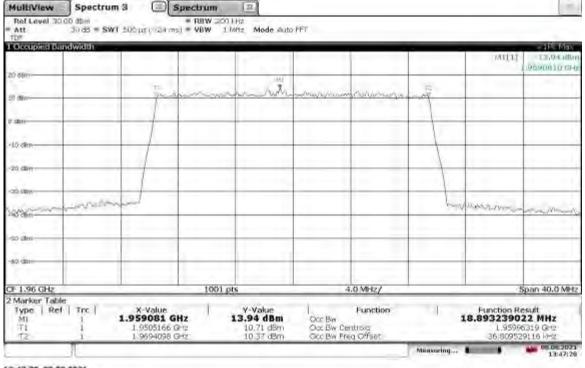
13:40:23 08.08.2021



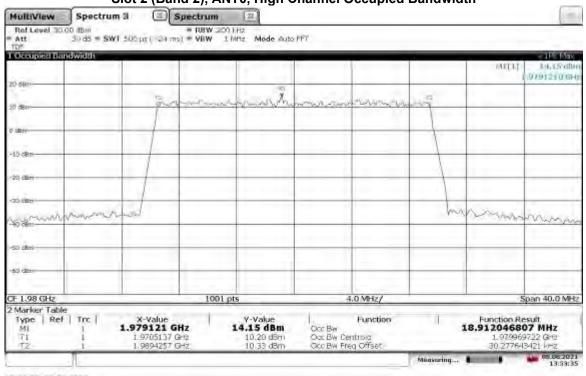
TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

13:46:27 08.08.2021

TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



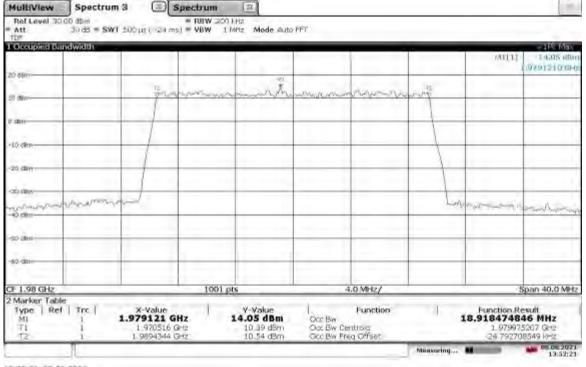
13:47:29 08.08.2021



TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

13:53:35 08.08.2021

TM3.1-64QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



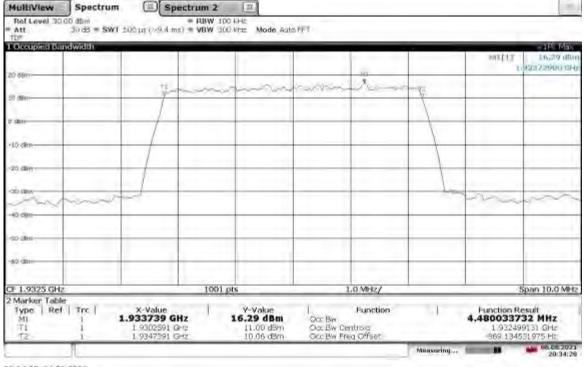
13:52:22 08.08.2021



TM3.1a-256QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

20:32:54 06.08.2021

TM3.1a-256QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



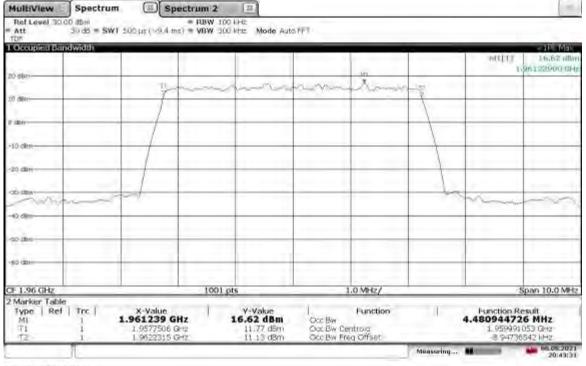
20:34:28 06.08.2021



TM3.1a-256QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

20:48:02 06.08.2021

TM3.1a-256QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



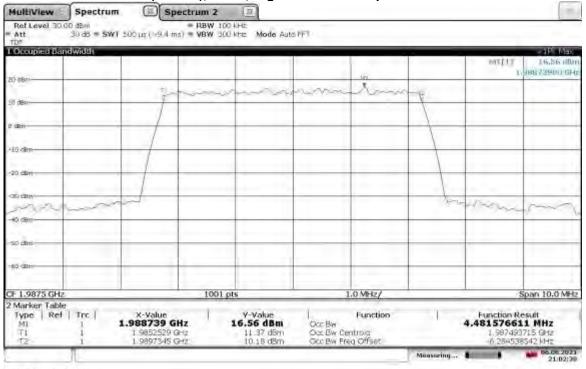
20:43:32 06.08.2021



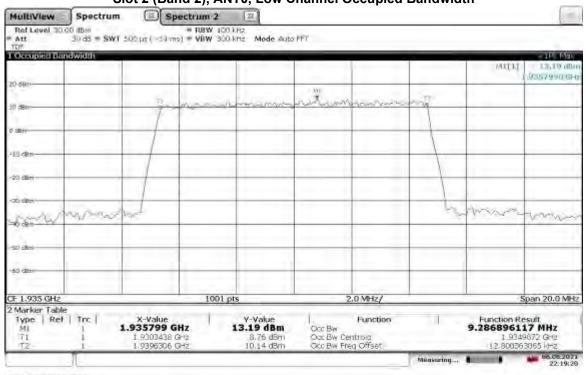
TM3.1a-256QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

21:00:42 06.08.2021

TM3.1a-256QAM_5 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



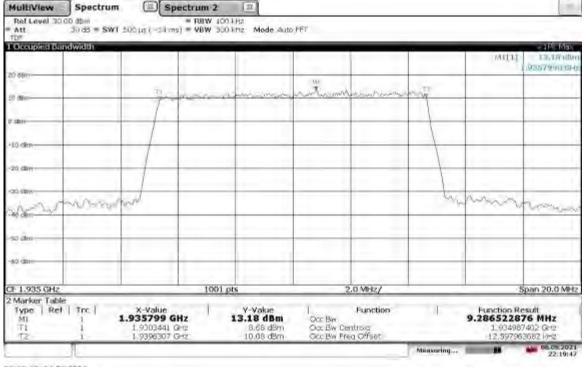
21:02:38 06.08.2021



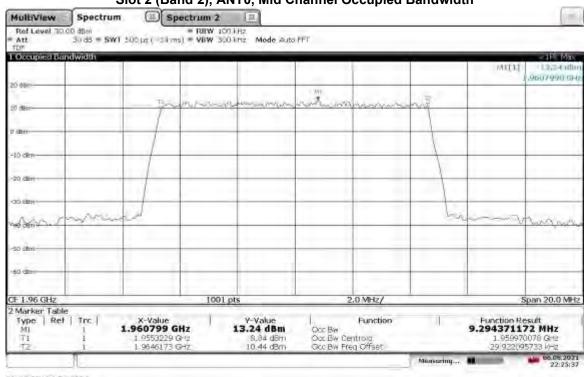
TM3.1a-256QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

22:19:20 06.08.2021

TM3.1a-256QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



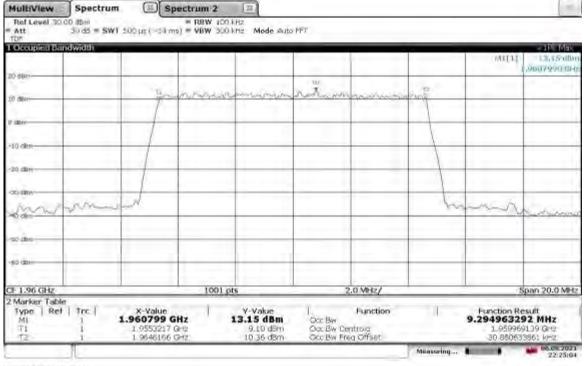
22:19:48 06.08.2021



TM3.1a-256QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

22:25:37 06.08.2021

TM3.1a-256QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



22:25:05 06.08.2021



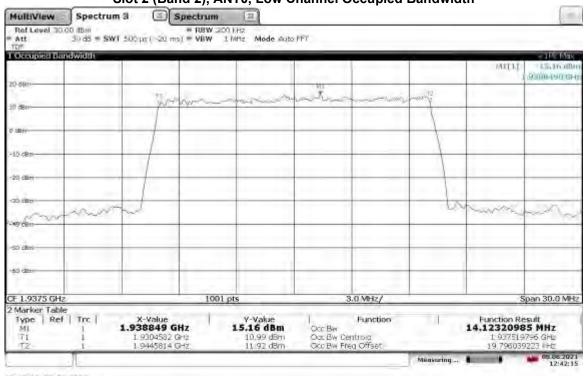
TM3.1a-256QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

22:31:32 06.08.2021

TM3.1a-256QAM_10 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



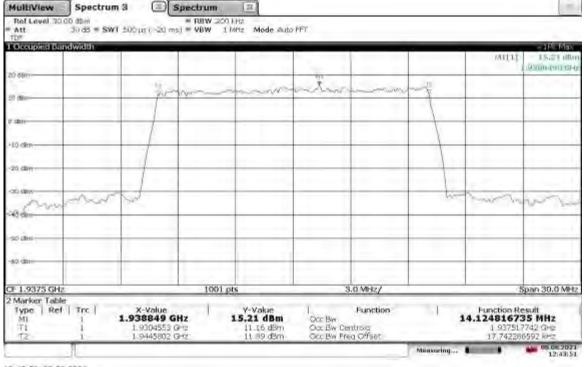
22:32:02 06.08.2021



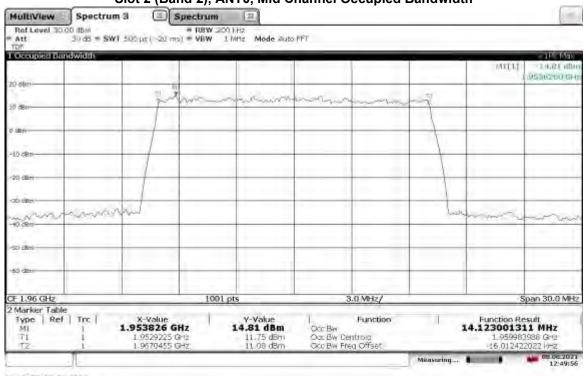
TM3.1a-256QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

12:42:15 08.08.2021

TM3.1a-256QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth



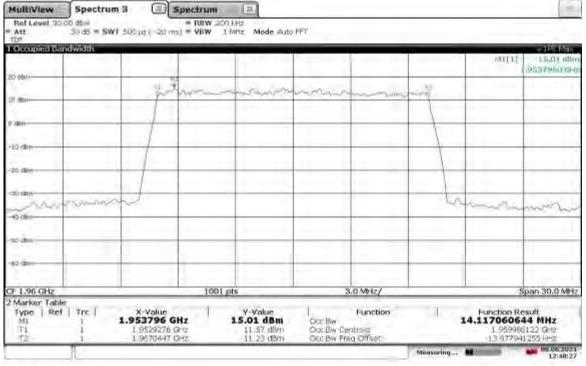
12:43:52 08.08.2021



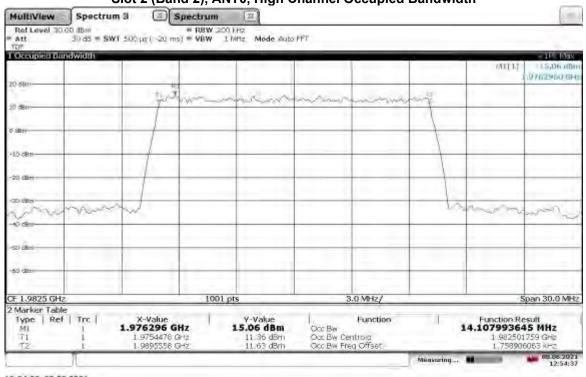
TM3.1a-256QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

12:49:57 08.08.2021

TM3.1a-256QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



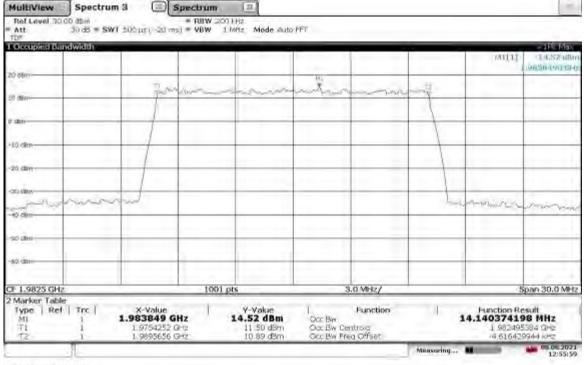
12:48:27 08.08.2021



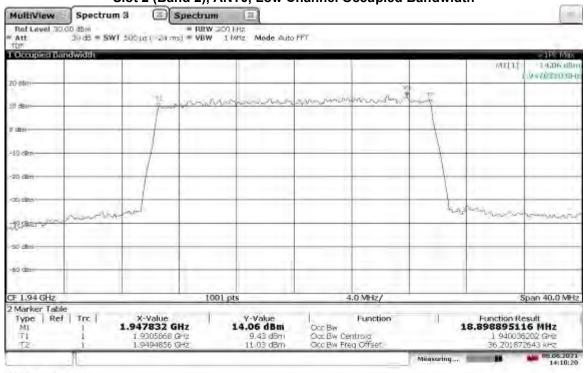
TM3.1a-256QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

12:54:38 08.08.2021

TM3.1a-256QAM_15 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



12:56:01 08.08.2021



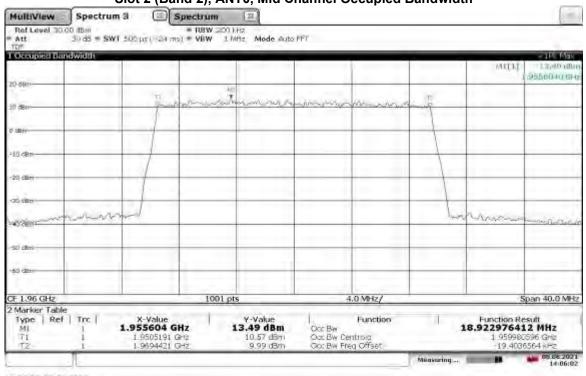
TM3.1a-256QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Low Channel Occupied Bandwidth

14:10:20 08.08.2021

TM3.1a-256QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Low Channel Occupied Bandwidth

| Occupied Bar | ndwidth | | | | | _ | - | | | | - 1P. Max |
|------------------------------|----------|---|----------------|-----------|---|-----------------------------------|-----------|----|--------|--|--------------------|
| 1 | | | | | - | | | | | witri | 13,82 albr |
| 20 dBm | | | | | | | 40 | | | | Conception 0 |
| | | 1 | | - 200 | many | AND BASS PA | marchad | - | | | |
| 0.6810 | | To P | and the second | 05/02/010 | | and that she had a she | - WANTAGE | 1 | _ | | |
| atere | | | - | | | | _ | -1 | _ | | |
| | | 1 | | | | | | 1 | , I.I. | | |
| -10 dBm | | | | | | | | | 1 | | |
| 20 clim | | | - | | | | | | 1 | | |
| . · · · · · | | | 1 | | | | | | 1 | | |
| <00.688m | cart and | and | | | | | | | had | manne | an war |
| Roan-M | www. | 1 | - | | | | - | - | _ | | in contractions |
| -so atmi | | - | _ | | | _ | _ | | _ | | |
| | | | | | | | | | | | |
| 60 GBay | | - | | | | | | - | - | | |
| 7 1.94 GHz | | | | 1001 pt | 5 | 4 | .0 MHz/ | | | 4 | Span 40.0 MHz |
| Marker Table | | | | 4 | | 4 | | | _ | | |
| Type Ref MI T1 T2 | 1 1 | X-Value 1.947832 1.930566 1.949465 | GHZ | 1 9 | V-Value 13.82 dBm 9.49 dBm 10.74 dBm | Occ Bw Occ Bw Ce Occ Bw Fre | | | 3 | Function R 8.9191403 1 94002 26 21390 | 63 MHz 6214 GHz |

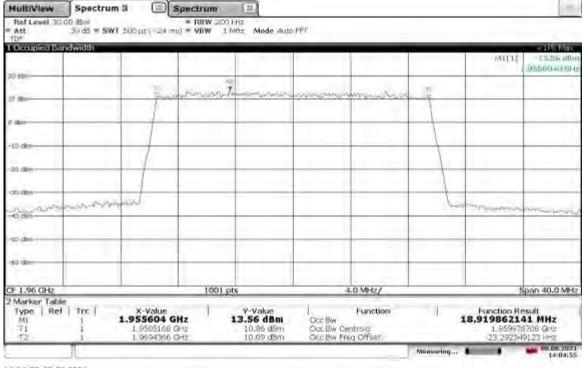
14:11:28 08.08.2021



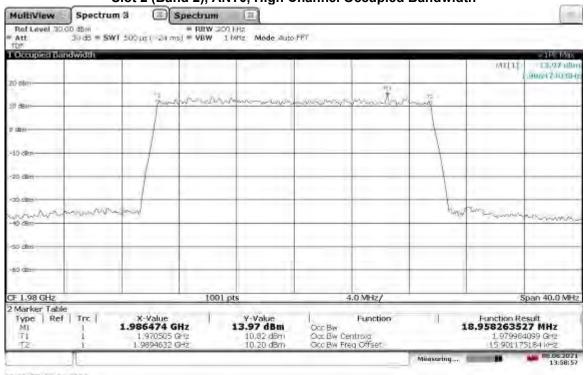
TM3.1a-256QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, Mid Channel Occupied Bandwidth

14:06:03 08.08.2021

TM3.1a-256QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, Mid Channel Occupied Bandwidth



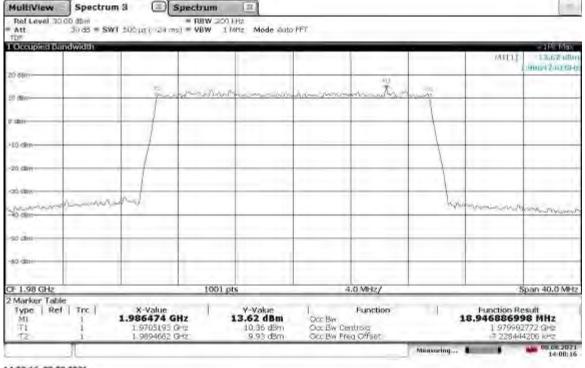
14:04:55 08.08.2021



TM3.1a-256QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT0, High Channel Occupied Bandwidth

13:58:57 08.08.2021

TM3.1a-256QAM_20 MHz Bandwidth Slot 2 (Band 2), ANT1, High Channel Occupied Bandwidth



14:00:16 08.08.2021

| Intertek | | | | | |
|--|----------------|-----------------------|---|--|--|
| Report Number: 104 | 4751739BOX-013 | | Issued: 09/29/2021 | | |
| | | | Revised: 02/02/2022 | | |
| Test Personnel: | Vathana Ven | Test Date: | 07/28/2021, 07/29/2021, 07/30/2021, 08/03/2021 | | |
| Supervising/Reviewing Engineer: (Where Applicable) | | | | | |
| Product Standard: | FCC Part 24 | Limit Applied: | See report section 7.3 | | |
| Input Voltage: | 48 VDC (POE) | • | | | |
| Pretest Verification w/ | | Ambient Temperature: | 22, 23, 23, 23 °C | | |
| Ambient Signals or BB Source: | N/A | Relative Humidity: | 21, 15, 26, 47, 20, 22 % | | |
| | | Atmospheric Pressure: | 1004, 1013, 1004, 980 mbars | | |

Deviations, Additions, or Exclusions: None

8 Band Edge Compliance

8.1 Method

Tests are performed in accordance with ANSI C63.26 and CFR47 FCC Parts 2.1051, 2.1053, and 24.

TEST SITE: EMC Lab & 10m ALSE

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.

8.2 Test Equipment Used:

| Asset | Description | Manufacturer | Model | Serial | Cal Date | Cal Due |
|------------|--|-------------------|----------------|-------------|------------|------------|
| CEN001' | DC-40GHz attenuator 20dB | Centric RF | C411-20 | CEN001 | 01/22/2021 | 01/22/2022 |
| CBLSHF204' | Cable, SMA - SMA, 9kHz -40GHz, (Cable Kit 5) | Huber + Suhner | Sucoflex 102EA | 234714001 | 02/03/2021 | 02/03/2022 |
| ROS005-1' | Signal and Spectrum Analyzer | Rohde and Shwartz | FSW43 | 100646 | 10/27/2020 | 10/27/2021 |
| DAV005' | Weather Station | Davis | 6250 | MS191218083 | 02/07/2021 | 02/07/2022 |

Software Utilized:

| Name | Manufacturer | Version |
|------|--------------|---------|
| None | | |

8.3 Results:

The sample tested was found to Comply.

\$24.238(a)(b) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

Report Number: 104751739BOX-013

| Slot 2 (Band 2), Bandwidth: 5 MHZ, Modulation: 1M1.1-QPSK | | | | | |
|---|-----------------|--------------|---------------|--|--|
| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) | | |
| Low | 1932.50 | ANT0 | -30.38 | | |
| | | ANT1 | -29.60 | | |
| High | 1987.50 | ANT0 | -28.84 | | |
| _ | | ANT1 | -12.75 | | |

Olat O (David O) Davidusidth, 5 Mile Madulatian, TM4.4 ODOK

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM1.1-QPSK

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1935.00 | ANT0 | -26.89 |
| | | ANT1 | -27.03 |
| High | 1985.00 | ANT0 | -26.66 |
| | | ANT1 | -28.43 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM1.1-QPSK

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1937.50 | ANT0 | -27.25 |
| | | ANT1 | -27.18 |
| High | 1982.50 | ANT0 | -26.24 |
| | | ANT1 | -27.90 |

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM1.1-QPSK

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1940 | ANT0 | -31.30 |
| | | ANT1 | -30.06 |
| High | 1980 | ANT0 | -30.68 |
| | | ANT1 | -29.48 |

Slot 2 (Band 2), Bandwidth: 5 MHz, Modulation: TM3.2-16QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1932.50 | ANT0 | -31.42 |
| | | ANT1 | -27.59 |
| High | 1987.50 | ANT0 | -28.16 |
| | | ANT1 | -31.05 |

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM3.2-16QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1935.00 | ANT0 | -28.98 |
| | | ANT1 | -26.75 |
| High | 1985.00 | ANT0 | -32.10 |
| | | ANT1 | -29.80 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM3.2-16QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1937.50 | ANT0 | -28.03 |
| | | ANT1 | -27.43 |
| High | 1982.50 | ANT0 | -29.18 |
| | | ANT1 | -28.24 |

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM3.2-16QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1940.00 | ANT0 | -30.90 |
| | | ANT1 | -29.69 |
| High | 1980.00 | ANT0 | -14.62 |
| _ | | ANT1 | -14.98 |

Report Number: 104751739BOX-013

| Slot 2 | Slot 2 (Band 2), Bandwidth: 5 MHZ, Modulation: 1M3.1-64QAM | | | | | | | | | | |
|-----------|--|--------------|---------------|--|--|--|--|--|--|--|--|
| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) | | | | | | | | |
| Low | 1932.50 | ANT0 | -31.71 | | | | | | | | |
| | | ANT1 | -30.28 | | | | | | | | |
| High | 1987.50 | ANT0 | -29.72 | | | | | | | | |
| | | ANT1 | -30.24 | | | | | | | | |

Olat O (David O) Davidski dtha E Mill- Madalat TNA0 4 040 ANA

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM3.1-64QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1935.00 | ANT0 | -30.40 |
| | | ANT1 | -27.84 |
| High | 1985.00 | ANT0 | -30.01 |
| | | ANT1 | -28.41 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM3.1-64QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | Low 1937.50 | | -27.25 |
| | | ANT1 | -29.92 |
| High | 1982.50 | ANT0 | -29.83 |
| | | ANT1 | -28.65 |

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM3.1-64QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) | | |
|-----------|-----------------|--------------|---------------|--|--|
| Low | 1940.00 | ANT0 | -31.30 | | |
| | | ANT1 | -30.06 | | |
| High | 1980.00 | ANT0 | -29.56 | | |
| _ | | ANT1 | -29.92 | | |

Slot 2 (Band 2), Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1932.50 | ANT0 | -28.58 |
| | | ANT1 | -30.66 |
| High | 1987.50 | ANT0 | -26.76 |
| | | ANT1 | -26.76 |

Slot 2 (Band 2), Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1935.00 | ANT0 | -27.11 |
| | | ANT1 | -28.84 |
| High | 1985.00 | ANT0 | -27.58 |
| _ | | ANT1 | -21.79 |

Slot 2 (Band 2), Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|------------------|--------------|---------------|
| Low | Low 1937.00 ANTO | | -30.13 |
| | | ANT1 | -31.13 |
| High | 1982.50 | ANT0 | -27.70 |
| | | ANT1 | -28.58 |

Slot 2 (Band 2), Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM

| Band Edge | Frequency (MHz) | Antenna Port | Reading (dBm) |
|-----------|-----------------|--------------|---------------|
| Low | 1940.50 | ANT0 | -29.58 |
| | | ANT1 | -30.78 |
| High | 1980.00 | ANT0 | -28.09 |
| _ | | ANT1 | -27.53 |

8.4 Setup Photograph:

Photographs are available in another exhibit

-28.84 dBm

Measuring...

15:39:59

8.5 Plots/Data:



15:40:00 08.08.2021

MI

M2

M

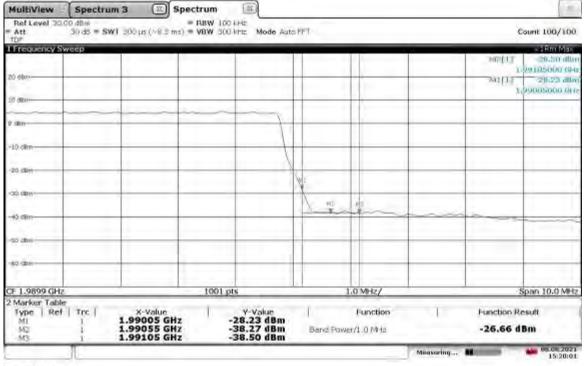
Band Power/1.0 MHz

Report Number: 104751739BOX-013

| MultiView | Spectru | m 3 🖾 | Spectrum | EX. | | | | | 1.00 |
|--------------------------|---------|------------------------|----------------------|------------------------------|---------|---------------------------------------|---|-------------|--------------|
| Ref Level 30. Att | | (1 300 µs (~8.3 | = FLBW (ms) = VBW | 100 KHz 300 kHz Mode Auto | FFT | | | c | ount 100/100 |
| Frequency St | weep | | | | | | | | - 1Rm Max |
| | | | | | | | | MULT | -27.42 albr |
| en dem- | _ | | | | | 1.0 | | | -39,30 dBw |
| | | | 1.1 | | | | | 243 1 | -39,30 dBM |
| 0 (810- | | - | _ | | | - | | | 2030000 011 |
| | | | | | 1. | | | | in |
| stere | _ | - | | | - 1- | - | | | |
| | | | | | 1 | | | | |
| 10 cBm- | | - | - | | + + - | | | | |
| | | | | | 1 | | | | |
| 20 dim | | - | | | 1/ | | | | |
| 1 | | 1.1.1.1 | - | | 4 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | |
| ap eine | | - | - | | A | - | | | |
| 100 | | | | 12 12 1 | | | | | |
| 40 cBm | ~~~ | | | | 1 | - | - | | |
| | | | | | | | | | |
| so alm- | | | | | | | | | |
| 10.00 | | | | | | | | | |
| 60 dBer | | | | | | | | | |
| | | | - | | | - | | | |
| F 1.92985 GH | - | | 100 | 1 pts | | 1.0 MHz/ | | 5 | pan 10.0 MHz |
| Marker Table Type Ref | | X-Value | 1 | Y-Value | 1 | Function | 1 | Function Re | eatt |
| MI | 1 | 1.92895 0 | SHz | -39.30 dBm | | 1 | | | |
| M2 M3 | 1 | 1.92945 0 | | -38.77 dBm -27.42 dBm | Band Pr | swer/1.0 MHz | | -26.89 di | Bm |

22:31:10 10.08.2021

Band Edge Compliant, Upper Edge, 1985 MHz Slot 2 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM1.1-QPSK



15:20:02 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum | n3 🖾 | Spectrum | (III) | | | | 1.00 |
|-----------------------|----------|----------------------|----------|--------------------------|---------|-------------|------------|---------------|
| Ref Level 30.0 Att | | T 300 µs (~10.0 | | 200 KHz I MHz Mode Au | to FFT | | | Court 100/100 |
| Frequency Sv | weep | | | | | - | | - 1Rht Max |
| | | | | | | | MULT | -20,38 albr |
| 20 d8m- | | | | - | - | - | 742[3] | -29,50 dBw |
| 1.1 | | | | | | | | 92890000 004 |
| 10 0810- | | - | - | | | - | - | - |
| 1.1 | | | | | 1 | | | |
| D siltere | | - | | - | 7 | | | |
| | | | | | | | | |
| -10 dBm- | | 1 | - | | 1 | | | |
| | | | | | | | | |
| -20 clim | | | | | 1 | | | |
| -ab eiter | | _ | - | | 1. K. | | | |
| | | | | 1 m / | | | | |
| -40 cBm- | | - | | 12-2- | | _ | | - |
| | | | | | | | | |
| -so alm | | - | | | | | | |
| | | | | | | | | |
| -50 (BH) | | - | - | | - | - | - | - |
| | | | | | | _ | | |
| CF 1.92985 GH | z | - | 100 | 1 pts | | 1.0 MHz/ | | Span 10.0 MHz |
| 2 Marker Table | | | 1 | | | | | |
| Type Ref | Trc | X-Value 1.9289 GH | IZ | -39.50 dBm | 11 | Function | Function R | result |
| M2 M3 | î | 1.9294 GH | z | -39.07 dBm -29.38 dBm | Band Po | wer/1.0 MHz | -30.13 d | Bm |

23:02:16 10.08.2021

Band Edge Compliant, Upper Band Edge, 1982.5 MHz Slot 2 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM1.1-QPSK

| Ref Level 30. Att | | v1 300 µs (~10.0 | = RBW 20 (ms) = VBW | | IN FFT | | | c | ount 100/100 |
|--|------|--|------------------------|--|---------------|----------|-----|-------------------------|---|
| I Frequency Sy | weep | - | | | | | | | - 1Rtn Max |
| 20 dBm | - | | | | | | | 242[3] | -15,29 illu 99060000 GH -25,27 dBn 99010000 GH |
| 10 800- | | - | | | - | | - | | |
| D silers | | - | | | - | | | | |
| -10 dBm | | | - | | | | | | |
| -20 clim | | - | | 1 | 100 | | | | |
| -ató eiten | | - | | | N. WE | 15 | | | |
| -40 cBm- | | | | | | | | | |
| -so almi | | | | | | | | | |
| -50 (30-5) | | | | | | | | | |
| CF 1.9899 GHz | | | 1001 p | ts | 1 | .0 MHz/ | | 4 | Span 10.0 MHz |
| 2 Marker Table Type Ref MI M2 M3 | | X-Value 1.9901 GH 1.9906 GH 1.9911 GH | | Y-Value 25.27 dBm -35.29 dBm -35.20 dBm | Band Pawe | Function | 111 | Function Re -26.24 d | esult |

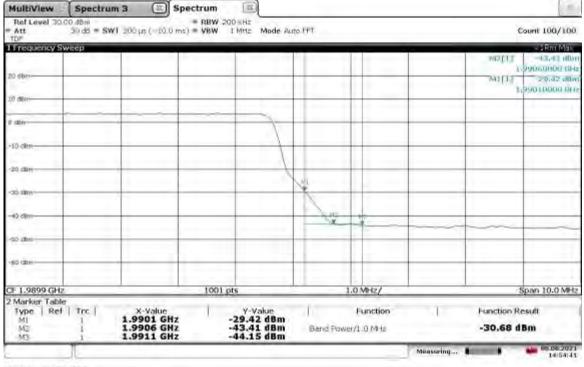
14:59:12 08.08.2021

Report Number: 104751739BOX-013



23:20:53 10.08.2021

Band Edge Compliant, Upper Band Edge, 1980 MHz Slot 2 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM1.1-QPSK



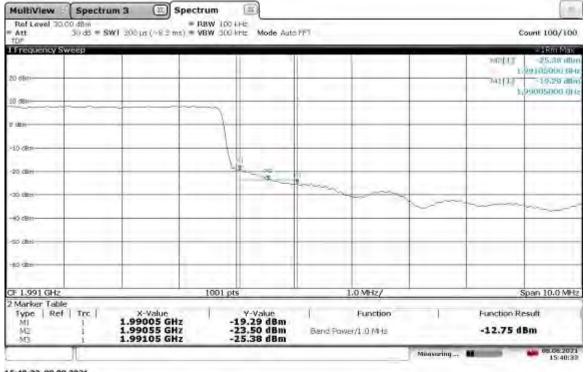
14:54:41 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum 3 | Spectrum | (IX) | | | | | 1.00 |
|--|------------------------------|---------------------------|--------------------------|----------|-------------|---|------------|-----------------------------|
| Ref Level 30.0 Att | 00 dBm 30 dB = SW1 300 µs | = RBW (/+8.7 ms) = VBW | | SFFT | | | | Court 100/100 |
| I Frequency Sy | weep | | | | | | - | - 1Rm Max |
| | | | | | | - | NULL | 20,73 illur 92995000 GHz |
| 20 d8m- | | | | | | | 742[3] | -42,08 dBm |
| 1.1 | | | | | | | | 92895000 00 |
| 10 (840- | | | | | | | | |
| 1. | | | | 1 | | | | |
| D dbre | | | | / | | | | |
| -10 cBm | | | | | | | | |
| -10 OBIN | | | | 1 | | | | |
| -20 clim | | | | 1 | | | | |
| | | | | | | | | |
| -min da- | | | _ | 7 | | | | |
| | | | 102 - 30 | 1 | | | | |
| -40 cBm- | | | - | 61 | | - | + | |
| | | | | | | | | |
| -so alm | | | | | | | | |
| -60 (Br) | | | | | | | | |
| and deal | | | | | - | | | |
| CF 1.92985 GH | 2 | 100 | 01 ots | | 00.0 kHz/ | | | Span 5.0 MHz |
| 2 Marker Table | - | | 1 P.11 | | Service and | | | - cpoint bronnene |
| Type Ref | | Value | Y-Value | 1 | Function | | Function R | esult |
| MI M2 | | 95 GHz 45 GHz | -42.08 dBm -39.28 dBm | Band Pow | er/1.0 MHz | | -29.60 d | Bm |

22:10:40 10.08.2021

Band Edge Compliant, Lower Band Edge, 1987.5 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM1.1-QPSK



15:40:33 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrur | n 3 🖾 | Spectrur | n 💷 | | | | | 1.00 |
|----------------------|----------|----------------------|----------|----------------------------|---------|--------------|-------|------------|-----------------|
| Ref Level 30. Att | | 1 300 µs (~83 | | 100 kHz 300 kHz Mode Au | its FFT | | | | Court 100/100 |
| I Frequency Sv | weep | | | | | | | | - SRht Max |
| | | | | | | | | MULT | -27.73 ullar |
| 20 dBm- | | | | | | 1 10 10 | | | -39,64 dBm |
| | | | 1.1 | | | 1 (| | 24111 | 92895000 DH |
| 10 0810- | | | _ | | | | | | 1920320100 1113 |
| 1 | | | | | | 100 C | 10000 | | |
| 0 sten | | - | | | 1-1- | | | | |
| II | | | | | 1 | | | | 11.1.1 |
| -10 cBm- | | | - | | 1 1 | | | | |
| | | | | | 1 | | | | |
| -20 clim | | - | | | 1 | | | | |
| 1000 | | | - | | 17 | | | | |
| -up eine | | | - | | 1 | - | | - | |
| 100 | | | | 1) +IE | 2 | | | | |
| -40 GBIT- | | | | | | | | - | |
| | | | | | - | | | | |
| -so alm- | | | | | | | | | |
| 150 (SII) | | 1 | | | | | | | |
| (BU GER) | | | | | | | | | |
| CF 1.92985 GH | 2 | | 10 | 01 pts | | 1.0 MHz/ | | 1 | Span 10.0 MHz |
| 2 Marker Table | | A | | 100 Mar 100 | 6 | | | | |
| Type Ref | Trc | X-Value 1.92895 0 | Hz | -39.64 dBm | | Function | | Function R | lesult |
| M2 M3 | 1 | 1.92945 0 | Hz | -38.84 dBm -27.73 dBm | Band P | ower/1.0 MHz | | -27.03 d | Bm |

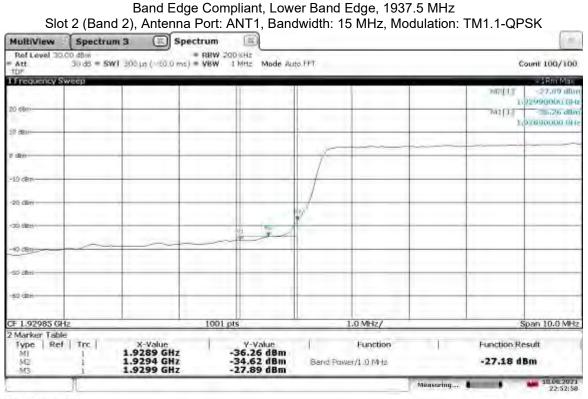
22:32:05 10.08.2021

Band Edge Compliant, Upper Band Edge, 1985 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM1.1-QPSK

| Ref Level 3 | Spectri | | | V IDD LHE | | | | | | E |
|------------------------------|-----------|---------------|--------------|----------------------|------------|----------|------------|-----------|--|---------------------------|
| Att | 30 d8 = S | WT 300 µs (~) | (2 ms) = VBV | V 300 kmz Mor | le Auto PP | τ | | | c | ount 100/100 |
| I Frequency | Sweep | | | | - | | | | | - 1Rm Max |
| | | | | | | | 1 | | MULT | 42,01 illu 99105000 GH |
| 20 d8m- | | | | | | | | | 742[3] | 28,79 dBr |
| | | | | | | | | | | 99005000 00 |
| 10 (810- | - | - | | _ | | | | | | |
| | | | | | 50 | | | | | |
| 0 dbn | - | | | | 111 | | | | | |
| -10 cBm | | _ | | | 11 | | | | | |
| -10 (Bit- | | | | | | | | | | |
| -20 clim | | | | | V | | | | | |
| | | | _ | | No. | | | | | |
| -minime | - | - | _ | | 1 | | | | | |
| | | | | | 1 | 100 | 1.4 | | | |
| -40 cBm- | | | - | | | L.F. | - | | | |
| | - | | - | _ | | | | | | |
| -so alm- | | | | | | | | | | |
| -60 (Bri | | | | | | | | | | _ |
| (BD CELI) | - | | | | | - | | | | |
| | | | | | | | | | | |
| CF 1.9899 GH 2 Marker Tab | | | | 001 pts | | | 1.0 MHz/ | | 3 | span 10.0 MH |
| | f Trc | X-Val | ie I | Y-Valu | e | 1 | Function | 11 | Function Re | sult |
| MI | 1 | 1.99005 | | -28.79 d -40.78 d | | - | | | -28.43 d | Parts |
| M2 M3 | 1 | 1.99105 | | -42.01 d | | band Pow | er/1.0 MHz | | -28.43 0 | Dill |
| | 31 | | | | _ | | | Magsuring | Report of the local division of the local di | 65.08 2021 15:20:38 |

15:20:39 08.08.2021

Report Number: 104751739BOX-013



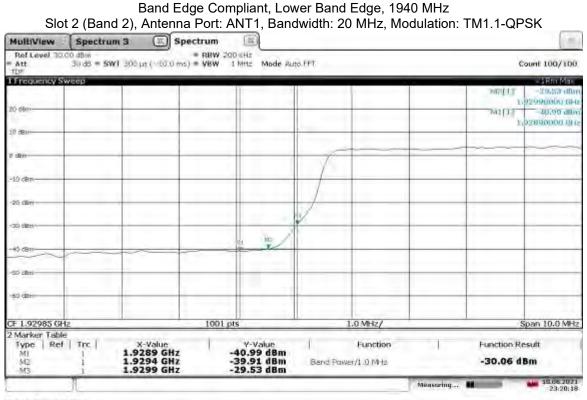
22:52:59 10.08.2021

Band Edge Compliant, Upper Band Edge, 1982.5 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM1.1-QPSK

| TDP Att | 30 d8 = \$W | 41 300 hz (~10.0 | ms) = VBW | I MHZ Mode Au | to FFT | | | c | ount 100/100 |
|--|-------------|--|-----------|---|--------|------------------------|----|-------------------------|--|
| Frequency Sy | weep | _ | - | | | | | | - 1Rhi Max |
| 20 dBm | | | | | | | | 742[1] | 28,93 rittin 99060000 GH -25,83 dBn 99010000 0H |
| 10 0840- | | | - | | | | | | |
| D siltre | | | | | - | | | | |
| -10 cBm | | | | | | | | | |
| -20 clim | | - | |) | Non. | | | | |
| -ati diter | | - | | | A. w | ús. | | | |
| -40 dBm- | | | | - | C.u. | + | | | |
| -so atmi- | | | | | | | | - | |
| -50 (Bri | | - | | | | | | | |
| CF 1.9899 GHz | 2 | | 1001 c | its | | 1.0 MHz/ | | | Span 10.0 MH |
| 2 Marker Table Type Ref MI M2 M3 | | X-Value 1.9901 GH 1.9906 GH 1.9911 GH | 2 | Y-Value -25.83 dBm -38.93 dBm -38.16 dBm | ſ | Function er/1.0 MHz | .1 | Function Re -27.90 d | esult |

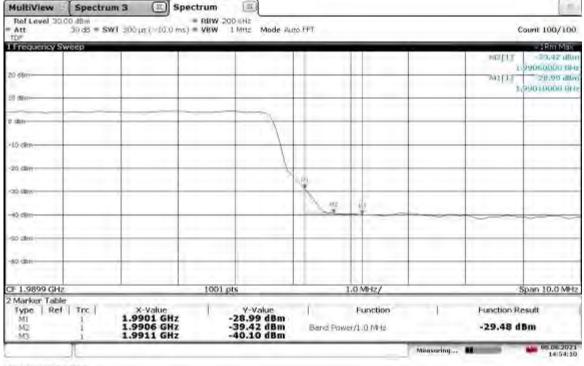
15:00:23 08.08.2021

Report Number: 104751739BOX-013



23:20:18 10.08.2021

Band Edge Compliant, Upper Band Edge, 1980 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM1.1-QPSK



14:54:11 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum 3 | 🖾 Sp | ectrum | (BX) | | | | | 1.00 |
|--|--------------------------|--|----------------------|---|---------------|------------------------|----|------------|--|
| Ref Level 30. Att | 00 dBm 30 dB = SW1 30 | © µs (/+8.7 ms) | = RBW 10 = VBW 30 | | SFFT | | | | Count 100/100 |
| Frequency S | weep | _ | - | | | | | | - 1Rhn Max |
| 20 dBm | | - | | | | | | wall1 | 3 1.37 illin 1.92995000 GH -43,58 dBn 1.92895000 GH |
| 10 1810- | | | - | | | | | ~ | - |
| D sibn | | | | | | | | - | |
| -10 cBm | | | | - | | | | | |
| 20 dbn | | | - | | 1 | | | | |
| ab atte | | | | | Y | _ | | | |
| -40 cBm | | | - | H1 | 4 | | | | |
| so atm | | | - | | | | | _ | |
| 50 (Bh) | | | - | | | | - | _ | - |
| CF 1.92985 GF | - | | 1001 | pts | 50 | 00.0 kHz/ | | | Span 5.0 MHz |
| 2 Marker Table Type Ref M1 M2 M3 | Trc 1 12 1 13 | X-Value 92895 GHz 92945 GHz 92995 GHz | 1 | V-Value -43.58 dBm -42.74 dBm -31.37 dBm | Band Powe | Function er/1.0 MHz | -1 | Function R | |

22:25:43 10.08.2021

Band Edge Compliant, Upper Band Edge, 1987.5 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 5 MHz, Modulation: TM3.2-16QAM

| TOP | | | | | | | | |
|--|--------|---|------|----------------|------------|--------------|-------------|---------------|
| Frequency Sv | /eep | | - | | | | | - SRhit Max |
| | | | | | | | NUTLI | ==9.02 alla |
| 20 dBm- | | | | | | | | 99105000 GH |
| | | | | | | | 24311 | -32.67 dBr |
| 10 08/0 | | and a street out of the | | | | - | X | 99005000 NH |
| in deale | | T A | 1 | | | | | |
| ~ ~~ | \sim | | 1 | | | | | |
| 0 stars | | | 1 | | | | | |
| | | | 1 | | | | | |
| 10 cBm- | | | 1 1 | | | | - | |
| | | | | | | | | |
| 20 clim | | | | VI | | | - | |
| 10000 | | | | 1 | | | | 1 |
| - mile de- | | | | 1 | | | | |
| | | | | 1 | 2 | | | |
| -10 cBm- | | | | 1000 | 1 | | | |
| | | | | | | tion | | |
| so atmi- | | _ | | | | | | |
| the state of the s | | | | | | | - | |
| 50 (BR) | | | | | | | | |
| and canal | | - C - C - C - C - C - C - C - C - C - C | | | | | | 1 |
| and the second data | | 1 | | | | | | |
| 7 1.991 GHz | | | 1001 | ots | | 1.0 MHz/ | 4 | span 10.0 MH: |
| 2 Marker Table | | A 44 4 | | and the second | | | | |
| Type Ref | Trc | X-Value 1.99005 GH | | -32.67 dBm | | Function | Function Re | esult |
| M1 M2 | 1 | 1.99005 GH | | -32.67 dBm | Sarut Dou | er/1.0 MHz | -28.16 d | Bm |
| M3 | | 1.99105 GH | | -39.02 dBm | Delive Fun | entand (wite | | |

15:54:45 08.08.2021

Report Number: 104751739BOX-013

Band Edge Compliant, Lower Band Edge, 1935 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 10 MHz, Modulation: TM3.2-16QAM MultiView Spectrum 3 Spectrum EX. -= RBW 1004Hz = VBW 300.kHz Ref Level 10.00 dB 30 d8 = SWI 300 us (48.2 ms) Mode Auto FFT Count 100/100. Att TIME I Frequency Sweep - LRm Max N71111 20.511 (80) 92995000 GHz -15.74 dBr 7411 2895000 000 'n, 10.08 20 d 60. G 1001 pts Span 10.0 MHz JF 1.92985 GHz 1.0 MHz/ Marker Table X-Value 1.92895 GHz 1.92945 GHz 1.92995 GHz V-Value -45.74 dBm -45.32 dBm -29.51 dBm Type | Ref | Trc | Function Result Function T M2 Band Power/1.0 MHz -30.40 dBm M3 Measuring ... 22:38:24

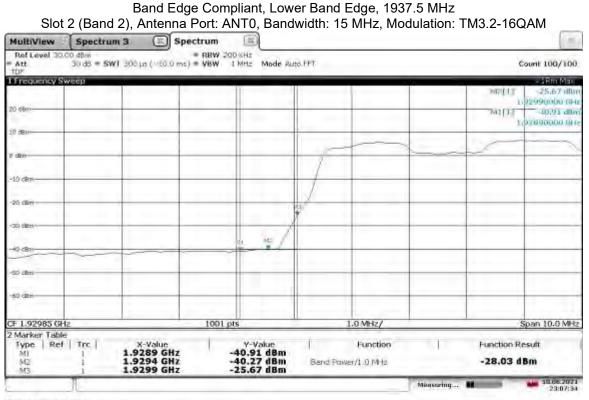
22:38:25 10.08.2021

Band Edge Compliant, Upper Band Edge, 1985 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 10 MHz, Modulation: TM3.2-16QAM

| MultiView | Spectru | m 3 🖾 | | | | | | | 1 |
|--|---------|--|----------------------|---|--------------|-------------------------|-----------|-------------|-----------------------------|
| Ref Level 30.0 Att | | w1 200 µs (~8. | = PBW 2 ms) = VBW | | to FFT | | | c | ount 100/100 |
| I Frequency Sv | weep | | | | | | | | - 1Rht Max |
| | | | | | | | | - MULT | 654 illin 99105000 GH |
| 20 dBm- | | | | | | | | 243[1] | -32,75 dBn 99005000 014 |
| 10 0810- | | | | | | | | | |
| D stars | 1 | 1 | - | | | | | | |
| -10 dBm | | _ | _ | | - | | | | |
| 20 dby | | - | _ | | | | | | |
| -ab day- | | - | - | - | T | | | | |
| -40 dBm- | | | | | 12 | | | | |
| -so almi | | | | - | | | | | |
| 50 (B.9) | | - | - | - | | | | - | |
| CF 1.9899 GHz | 2 | | 100 | 1 pts | | 1.0 MHz/ | | 5 | pan 10.0 MHz |
| 2 Marker Table Type Ref MI M2 M3 | | x-Value 1.99005 1.99055 1.99105 | GHZ GHZ | V-Value -32.75 dBm -44.42 dBm -44.54 dBm | Band Poy | Function wer/1.0 MHz | 1 | Function Re | |
| | 1 | | | | | | Measuring | | ···· 05.08.2071 15:35:28 |

15:35:28 08.08.2021

Report Number: 104751739BOX-013



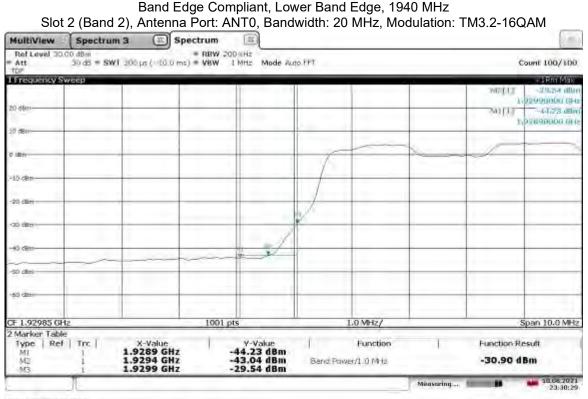
23:07:35 10.08.2021

Band Edge Compliant, Upper Band Edge, 1982.5 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 15 MHz, Modulation: TM3.2-16QAM

| TDF | | an an internet war | - C - CZ-5 | - e.e. (arc. 610) | | | | | 101 010 0000 |
|---------------------------------------|-------|--|------------|--|--------------|----------|----|-------------|----------------------------|
| I Frequency | Sweep | | | | | | | | - 1Rm Max |
| 20 dBm | | | | | | | | | 20,00 alta 99060000 GH |
| | 1.1 | | | | 1 2 1 | | | 243[1] | -27.73 dBn 99010000 000 |
| 10 (8810- | | | - | | | | | | |
| D albre | | - | - | 1 | | | | | |
| -10 cBm | - | - | | 1 | - | | · | | |
| -20 cBm | - | - | | | | | | | |
| -ab eiter | - | - | - | | Nor. | 1 | | | |
| -40 cBm | - | | | | ALL NO | 112 | | | |
| -so atm | - | | - | | | | | | |
| | | | | | | | - | | |
| -50 (BB) | | | | | | | | | |
| F 1.9899 GH | z | | 1001 p | ts | | 1.0 MHz/ | | | Span 10.0 MHz |
| 2 Marker Tab Type Re MI M2 | | X-Value 1.9901 GH 1.9906 GH 1.9911 GH | Z . | V-Value 27.73 dBm 39.90 dBm 40.68 dBm | Bend Pow | Function | .1 | Function Re | |

15:15:25 08.08.2021

Report Number: 104751739BOX-013



23:30:30 10.08.2021

Band Edge Compliant, Upper Band Edge, 1980 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 20 MHz, Modulation: TM3.2-16QAM



14:36:06 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum 3 | | Spectrum | (IX) | | | | | 1 |
|--------------------------|---------------|--------------------|--------------------------|--------------------------|----------|------------|---|------------|---------------|
| Ref Level 30. Att | 30 dB = SW1 3 | 00 µs (~8.7 | = RBW 16 ms) = VBW 30 | | SPFT | | | | Count 100/100 |
| TOP Frequency Sv | weep | _ | | | | | | | - 1Rm Max |
| | | | | | | | | 202011 | 20.04 rith |
| 20 dBm- | | | | | | | | MILI | -39,51 dB/ |
| | | | | | 1.0 | 1 | 1 | | 92895000 00 |
| 0 (810- | | | | - | | | | | |
| 1.1 | | | | | r | | | ~ | - |
| D siltery | | | | - | | | | | |
| | | | | | 1 | | | | |
| -10 dBm- | | | | | 1 | | | | |
| 20 clim | | | | | 1 | | | | |
| an chij | | | | | 15 | | | | |
| and sime | | | - | _ | 11.5 | | | | |
| | | | | 10 ···· | 1 | | | | |
| 40 cBm- | | | 1 | - march | | | | | |
| | | | | | | | | | |
| -so almi | | | | | | | | _ | |
| | | | | - | | | | | |
| 50 (Bb) | | | | | | - | | | |
| | | | | - | 1 | the second | | _ | Same and |
| ∓ 1.92985 GH | | | 1001 | pts | 5 | 00.0 kHz/ | | | Span 5.0 MH |
| Marker Table Type Ref | Trc | X-Value | - 1 | Y-Value | 1 | Function | 1 | Function R | esult |
| MI | 1 1. | 92895 G | | -39.57 dBm | 1 | 1 | | | |
| M2 M3 | | 92945 G 92995 G | | -37.79 dBm -30.04 dBm | Band Pow | er/1.0 MHz | | -27.59 d | Bm |

22:25:09 10.08.2021

Band Edge Compliant, Upper Band Edge, 1987.5 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM3.2-16QAM

| TDP | | 100 ALS 10 | 0. 0. 0 | 1. | | | | |
|---------------------------------------|------|-----------------------|---------|--|----------|--|--------------|---------------|
| I Frequency Sv | weep | | | | | | | - 1Rm Max |
| | | | | | | 1. | M0111 | 42.63 (10) |
| 20 dBm- | | - | | 1 | | | 243[3. | 99105000 GH |
| 10 C 10 C | | | | | | 1.0 | | 99005000 00 |
| 10 08/0 | ~ | - | ~ | | - | | - | |
| 14 | 2 | 141 | 1 | | | | | |
| D stars | | - | 1 | | | - | | |
| | | | 1 1 | | | | | |
| -10 cBm | | - | 1 1 | - | | | | |
| 1 | | | | | | | | |
| 20 cBm | | - | | Al I | | | | |
| | | | | 1. | | | | 1 |
| -ap data | - | - | | 1 | | | | |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | 1 | | | | |
| -40 CB11- | | - | | 1 million | | - | | |
| | | | | | | | 1.000 | |
| -so almi- | | | | | | | | |
| in the second | | | | | | | | |
| 50 (BB) | | | | | | | | |
| | | 1.1 | | | | 1 | | |
| F 1.991 GHz | | | 1001 g | its | | 1.0 MHz/ | 5 | span 10.0 MHz |
| 2 Marker Table | | 0.00 | 4 | | | | 67.00 CM | |
| Type Ref | Trc | X-Value 1.99005 GH | 7 | -32.39 dBm | 1 | Function | Function Re | sult |
| M2 | î. | 1.99055 GH | Z | 42.11 dBm 42.63 dBm | Band Pow | er/1.0 Mits | -31.05 di | Bm |

15:55:19 08.08.2021

Report Number: 104751739BOX-013

| MultiView . | Spectrum 3 | Spectrum | 122 | | | 1.0 |
|---|------------|-----------------------------|------------|----------|-------------|--|
| Ref Level 30. Att | | = RBW µs (~8.3 ms) = VBW | | FF1 | | Count 100/100 |
| Frequency Sy | weep | | | | | - SRhit Max |
| | | | | 1 | | 107/11 27.66 illur |
| dem | | | | | | 1/92995000 GHz 7/12 -40.27 dBir |
| | | | | | | 1,92895000 80 |
| 0 (810- | | | | | - | |
| | | | | | the state | For F |
| sten | | | | 1 | | - |
| | | | | | | |
| 10 cBm- | | | | 11 | | |
| | | | | 1 | | |
| 20 clim | | | | 1 | | |
| 30 sites | | | | 1 | | |
| ap aton | | | | | | |
| -mes 0+ | | | 15 mil | | | |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | | | | |
| so dhn | | | | | | |
| | | | | | | |
| 60 (3B1) | | | | | - | |
| | | | | | | |
| F 1.92985 GH | z | 100 | 1 ots | | 1.0 MHz/ | Span 10.0 MHz |
| Marker Table | | | | | | |
| Type Ref | | X-Value 2895 GHz | -40.27 dBm | 1 | Function | Function Result |
| MI M2 | | 2945 GHZ | -38.97 dBm | Band Pos | ver/1.0 MHz | -26.75 dBm |

22:47:27 10.08.2021

Band Edge Compliant, Upper Band Edge, 1985 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.2-16QAM

| MultiView | Spectru | m 3 🔅 | | | | | | | | 100 |
|------------------------------|---------|-----------------|------------------------|--------------------------|----------|----------|------------|-----------|------------|-----------------------------|
| Ref Level 30. Att | | w1 300 µs (/48 | = PLBW (2 ms) = VBW | | Auto FFT | - | | | c | ount 100/100 |
| TOP I Frequency Sv | weed | - | | | - | _ | | _ | _ | - 1Rm Max |
| 20 d8m- | | | | | | | | | | -40,80 ultr Hit 00040169 |
| | | | | | | | 10 | | 243[1] | -32.34 dBn 99005000 0H |
| 10 (810 | 5 | 1.1 | | | | - | | | | |
| D siltre | | | | | | | | | | |
| -10 cBm | | | | | | - | | | | |
| 20 cBm | | - | - | _ | V | _ | | | | |
| -ab einer | | - | | | 1 | - | | | | |
| -40, dBm- | | | | | 1 | 1 | - | | | |
| -so almi | | - | _ | _ | | _ | | | | |
| -50 (BH | | _ | | _ | - | | | | | |
| CF 1.9899 GHz | | | 100 | 1 pts | | _ | 1.0 MHz/ | | | span 10.0 MHz |
| 2 Marker Table Type Ref | | X-Valu | e l | Y-Value | | | Function | 1 | Function R | |
| M2 M3 | 1 | 1.99055 1.99105 | GHZ | -40.43 dBr -40.80 dBr | 1 1 | Band Pow | er/1.0 MHz | | -29.80 d | Bm |
| | 1 | | | | | | | Measuring | | ···· 05.08.2021 15:35:00 |

15:35:01 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum 3 | 3 🖂 | Spectrum | EX. | | | | | 1 |
|---------------------------------|-------------------------|---------------|----------------------|--------------------------|----------|--------------|---|---|----------------|
| Ref Level 30. Att | 30 dBm 30 dB = SW1 . | 800 µs (~10.0 | = RBW : ms) = VBW | 1 MHz Mode Aut | 6.EPT | | | | ount 100/100 |
| Frequency St | weep | _ | | | | | | | - JRm Max |
| | | | | | 1 | | | NULL | 25,24 illur |
| 20 d8m- | | _ | | - | - | | | 20101 | -37.77 dBw |
| 10 million (1990) | | | | | | | | | 92890000 FH |
| 10 0840- | | | | | | | | | |
| 9-1 I | | | | | - | | | | |
| D stere | | | | | 1 | | | | |
| 10.00 | | | | | | | | _ | |
| -10 cBm | - | | | | 1 | | | | |
| -20 clim | | | | | 1 | | | | 1 |
| | | | | | 24 | | | | |
| -ciò eitra- | - | | | 1 1 | | | | | |
| | | | | 11 2 | | | | | |
| | | | | | | - | | | |
| 1.10 | | | | | | | | | |
| -so alm | | | | | | | | - | |
| 10.000 | | | | | | | | | |
| -50 GBm | | _ | | | | | | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) | |
| TE 1 00005 (1) | | | 1001 | | | 1.0 MHz/ | | | Span 10.0 MHz |
| CF 1.92985 GH 2 Marker Table | - | | 1001 | pts | | 1.0 Mine/ | | | span 10.0 Minz |
| Type Ref | Trc | X-Value | 1 | V-Value | 1 | Function | 1 | Function R | esult |
| MI M2 | | 1.9289 GH | | -37.77 dBm -36.93 dBm | Garat De | wer/1.0 Mite | | -27.43 d | Rm |
| M3 | | .9299 GH | | -26.24 dBm | Darie Fu | NET TT UNITE | | -27.45 1 | Dim |

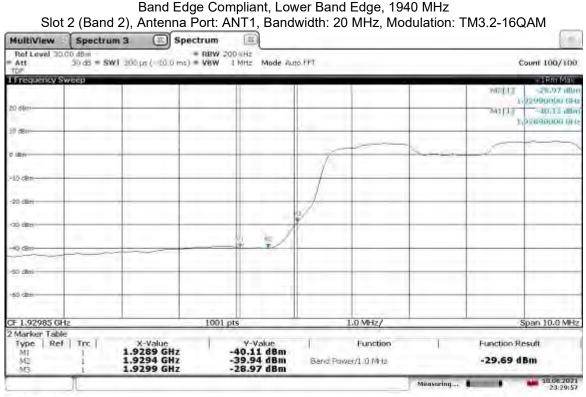
23:07:00 10.08.2021

Band Edge Compliant, Upper Band Edge, 1982.5 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.2-16QAM

|) dBm 30 dB = SW | | | | | | | | |
|----------------------------|-------------------|--|----------------|--|--|--|--|--|
| and the second | 1 200 µs (~10.0) | = RBW 200 ms) = VBW 1 | | to FFT | | | c | ount 100/100 |
| eep | | | | | | | | - 1Rtri Max |
| _ | | | | | | | 742[3] | 26.88 dBn 99060000 GH 26.88 dBn 99010000 RH |
| | | | | - | | | | |
| | | 1 | 1 | | | | | |
| | | | / | | | | | |
| | - | | 1 | | | | | |
| | | | 1 | Set. | | | | |
| | | | | 1 | ur. | | | |
| | | | | | 1 | | | |
| | | | | | | | | |
| _ | | | | - | | | | |
| - | | 1001 pt | s | | 1.0 MHz/ | | | Span 10.0 MHz |
| Trc 1 1 | 1.9906 GH | | 38.30 dBm | Band Powe | Function er/1.0 MHz | 1 | Function Re -28.24 d | |
| | | Trc. X-Value 1 1.9901 GH: 1 1.9901 GH: | Trc. X-Value | Image: | 1 1.9901 GHz -26.83 dBm Berd Pow | 1 1.9901 GHz -26.88 dBm Berd Power/1.0 MHz | Image: | Image: Second |

15:14:54 08.08.2021

Report Number: 104751739BOX-013



23:29:57 10.08.2021

Band Edge Compliant, Upper Band Edge, 1980 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.2-16QAM



14:37:25 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum 3 | 🖾 Spe | ctrum | (III) | | | | | 1.00 |
|--|---------------------------|---|------------------------|---|---------------|-----------------------|------|------------------------|---|
| Ref Level 30. Att | 00 dBm 30 dB = SW1 300 | | RBW 10044 VBW 30044 | | SFFT | | | 1 | Court 100/100 |
| I Frequency St | weep | - | | _ | | | | | - SRhn Max |
| 20 dBm | | | | | | | | 242[1] | 91,54 illin 02995000 64 -44,02 dBn 02895000 00 |
| 10 6810- | | | | | 1 | | | | |
| D silter | - | | | | | | | | |
| -10 cBm | | | | | | | | | |
| -20 clbm | | | | | | | | | |
| -ab eiten- | | | | | 1 | | | _ | |
| -40 dBm- | | | - | 80 9 | | | | | |
| -ső dim | | | | | - | | | | |
| 50 (Br) | | | | | - | | | | - |
| CF 1.92985 GH | - | | 1001.pts | | 50 | 00.0 kHz/ | | | Span 5.0 MHz |
| 2 Marker Table Type Ref MI M2 M3 | Trc 1 1.9 1 1.9 | X-Value 2895 GHz 2945 GHz 2995 GHz | -4 | Y-Value 4.02 dBm 2.70 dBm 1.54 dBm | Band Powe | Function r/1.0 MHz | 1.11 | Function R -31.71 d | |

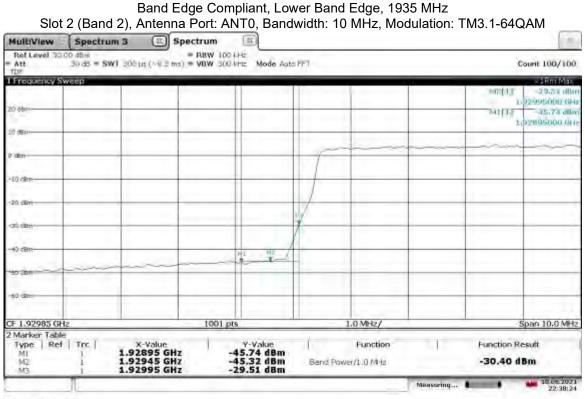
22:15:37 10.08.2021

Band Edge Compliant, Upper Band Edge, 1987.5 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 5 MHz, Modulation: TM3.1-64QAM

| TOP | | | | | | | | |
|---------------|------|---------|----|--------------------------|-----------|--------------|---------------|-------------|
| I Frequency S | weep | | | | | | | - SRm Max |
| | | | | | | | | -42,40 ullu |
| 20 dBm- | | | | | - | | | 30,45 dBr |
| | | | - | | | | | onshor ne |
| 10 d8to- | | | | | | | Alph | Josopo de |
| | | | | | 1 | | | |
| 0 ubre | | | _ | | | | | |
| - | - | | | 1 | | | | |
| -10 cm | | _ | | 1 | | | | |
| -10 (b)/ | | | | 1 | | | | |
| 60 mil | | | | AL. | | | | |
| -20 clim | - | | | 1 | | | | |
| 1.1 | | | | Nº. | | | | |
| -up etter | | | | 1 | | | | |
| | | | | 1.2 | 1 | | | |
| -40 dBm- | - | | | 10000 | | | | |
| | | | | | | | | |
| -so altri | | | | | | | | |
| | _ | | | | | | | |
| -50 GB# | | - | - | | | | | |
| | | | | | | | | |
| CF 1.991 GHz | | | 10 | 01 pts | 11 | 1.0 MHz/ | Sor | in 10.0 MHz |
| 2 Marker Tabl | e | | | | | | | |
| Type Ref | Trc | X-Value | | Y-Value | 1 | Function | Function Resu | it. |
| MI | 1 | 1.99005 | | -30.45 dBm -40.62 dBm | | A lo an L | -29.72 dBn | |
| M2 M3 | 1 | 1.99105 | | -42.40 dBm | Bark2 Pak | ver/1.0 Mite | -29.72 000 | |

15:45:56 08.08.2021

Report Number: 104751739BOX-013



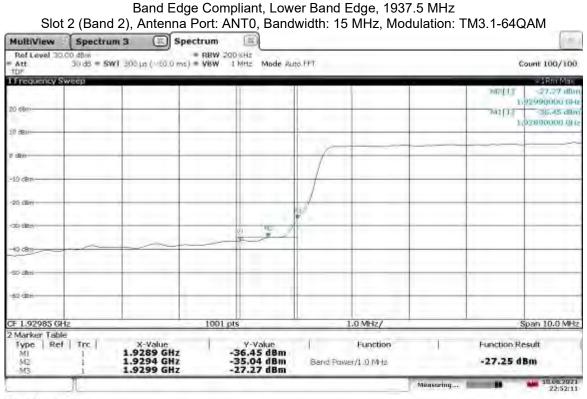
22:38:25 10.08.2021

Band Edge Compliant, Upper Band Edge, 1985 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 10 MHz, Modulation: TM3.1-64QAM

| TDP | 5 4 M | WT 300 µs (~8.34 | and the states | and the state of the | | | | | Count 100/100 |
|--|-------|---|----------------|---|--------------|-------------------------|--------|------------|---------------|
| I Frequency Sy | weep | | | | | | | | - LRm Max |
| 20 dBm | _ | | | | | | | 742[3] | |
| 10 0810- | - | - | | - | | | | X | 99005000 00 |
| 0 stere | | | | 1 | | | | - | |
| -10 dBm | | - | | | | - | | | |
| -20 clim | | - | | 1 | | | | | |
| ab day | | - | - | | 1 the | | | | |
| -40 cBm | | | | | AT | 112 | | | |
| -so atm | | | | | | | ~~~~~~ | | |
| 150 (Ba) | _ | - | - | - | | | _ | | |
| CF 1.9899 GHz | | | 100 | 1 pts | | 1.0 MHz/ | | | Span 10.0 MHz |
| 2 Marker Table Type Ref MI M2 M3 | | X-Value 1.99005 GI 1.99055 GI 1.99105 GI | Hz | Y-Value -28.99 dBm -44.67 dBm -44.82 dBm | Band Por | Function ver/1.0 MHz | .1 | Function R | |

15:25:27 08.08.2021

Report Number: 104751739BOX-013



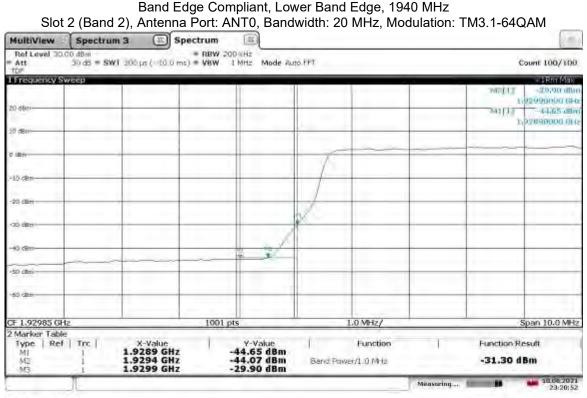
22:52:12 10.08.2021

Band Edge Compliant, Upper Band Edge, 1982.5 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM

| TDP | 30 db = 51 | VT 200 µs (~10.0 ms) | = vew | I MHZ Mode A | LITO. FFT | | | c | ount 100/100 |
|--|------------|---|-------|---|-----------|------------------------|-----|-------------------------|--|
| I Frequency Sy | weep | | | | | | | | - 1Rht Max |
| 20 dBm | | | | | | | | M2[1] | -13:07 illu 99060000 GH -27:28 dBn |
| | | | | | 11.1 | 1.1.2 | | | 99010000 011 |
| 10 d8m | | | | | | | | | |
| 0 ubre | | - | | | | | | - | |
| -10 dBm | | | | + | | | | | |
| -20 clim | | | | - | No. | | | | |
| -ab day | | | | | X | 1 | | | |
| -40 cBm | | | | | Jac | | | | |
| -so atm | | - | _ | | | | ~~~ | | |
| 50 (Br) | | - | | - | | | | | |
| CF 1.9899 GHz | | | 1001 | pts | | 1.0 MHz/ | | 4 | Span 10.0 MHz |
| 2 Marker Table Type Ref MI M2 M3 | | X-Value 1.9901 GHz 1.9906 GHz 1.9911 GHz | 1 | Y-Value -27.28 dBm -43.07 dBm -43.76 dBm | Band Pow | Function er/1.0 MHz | 1 | Function Re -29.83 d | |

15:05:36 08.08.2021

Report Number: 104751739BOX-013



23:20:53 10.08.2021

Band Edge Compliant, Upper Band Edge, 1980 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



14:49:01 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum 3 | 3 🖾 | Spectrum | (BX) | | | | | 1.00 |
|---|--|---------------|--------------------------|--------------------------|------------|------------|--------|------------|---------------|
| Ref Level 30.0 Att | 30 dBm 30 dB = SW1 . | 300 µş (7-8.7 | = RBW 16 ms) = VBW 30 | | OFFT | | | | Count 100/100 |
| Frequency Sv | veep | | | | | - | | | - 1Rht Max |
| | | | | | | | | NULL | -31.47 alta |
| 20 d8m- | - | | | | | | | | 19566000 (#H |
| | | | | | 1000 | | | 243[1] | -42.46 dBm |
| 10 0810- | | | | | | | | | 192030000 011 |
| 1.000 | | | | | 1 1 | | | | |
| 0 sitem | | | | | 1 / | | | | |
| | | | | | | | | | |
| -10 cBm | | - | | - | 1 | | | - | - |
| | | | | - | 1 | | | | |
| -20 clim | | | | | 100 | | | | |
| 1.1 | | | | | 11.0 | | | | |
| -30 clim | | - | | | 1 | | | | |
| 100 | | | 247 | 15 | 4 | | | | |
| -40 CBm- | | | | | - | | | | |
| so dhro | | | | | | | | | |
| -so ann | | | | | | | | | |
| 50 (D.9) | | | | | | | | | - |
| | | | | | | - | | | |
| TE 1 02085 (1H | 2 | _ | 1001 | ote | | 00.0 kHz/ | | - | Span 5.0 MHz |
| | | | 1001 | 200 | | 00.010.027 | | | Open ore twee |
| Type Ref | Trc | X-Value | - I | Y-Value | - f | Function | 1 | Function F | lesult |
| MI M2 | | .92895 G | | -42.46 dBm -41.15 dBm | Grant Dawn | er/1.0 MHz | | -30.28 | Ren |
| CF 1.92985 GH 2 Marker Table Type Ref MI | e Trc X-Value Y-Value 1 1.92895 GHz -42.46 dBm | | ſ | 1 | 1 | | lesult | | |

22:15:02 10.08.2021

Band Edge Compliant, Upper Band Edge, 1987.5 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM3.1-64QAM

| TDF | | | | | | | | |
|---------------|---------|------------|------|--------------------------|-----------|-----------|-------------|---------------------------|
| 1 Frequency 5 | Sweep | | | | | | | - SRm Max |
| | | | | | | | NULL | -42.94 alla |
| 20 d8m- | - | | - | | | | | 29105000 GH |
| | | | | | | | 245[1] | -30,45 dBr 99005000 00 |
| 10 dBtr | | | - | | | | 11 | gaonsaibo an |
| to sen | ~~ | | | | | | | |
| | | | 1 | | | | | |
| 0 sibre | - | | - | | | | | |
| | | | | | | | | |
| -10 cBm | - | | - | 11 | | | | |
| | | | | A. | | | | |
| 20 clim | - | | | W. | | | | |
| | | | | l. | | | | |
| cito eltera | - | - | | | | | | |
| | | | | 1 | | | | |
| -40 cBm- | | | | | a | | | |
| | | | | | | | 1.000 | |
| -so atm | | | | | | | inter | Common and |
| SO LAN | | | | | | | | |
| de la c | - | | | | | | | |
| -60 (Bb) | | | | | | | | |
| | | | | | | | | |
| F 1.991 GHz | - | 1 | 1001 | pts | | .0 MHz/ | | span 10.0 MH |
| 2 Marker Tab | le | | | | | | | |
| Type Re | f Trc | X-Value | | Y-Value | 1 | Function | Function Re | esult |
| MI | 1 | 1.99005 GH | | -30.45 dBm | A 10. | A STATE | -30.24 di | |
| M2 M3 | 1 | 1.99055 G | | -40.84 dBm -42.91 dBm | Band Powe | 5/1.0 MHz | -30.24 1 | om |

15:45:22 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum 3 | 🖾 Sp | ectrum | (IX) | | | | 1.00 |
|----------------------|---------------------------|----------------------|----------------------|--------------------------|---------|--------------|------------|---------------|
| Ref Level 30. Att | 00 dBm 30 d8 = SW1 300 | µs (~8.3 ms) | = RBW 10 = VBW 30 | | sHF1 | | | Count 100/100 |
| Frequency Sv | weep | | | | | | | - 1Phn Max |
| | | | | | | | MULT | 28,63 (III) |
| en dem- | | | | | | | 741[3] | 92995000 GH |
| | | | | | | | | 92895000 001 |
| 0 1810- | | | | | | - | - | |
| | | | | | - | | | |
| dan | | | | | 1 | - | | |
| | | | | | | | | |
| 10 cBm- | | | | | 11 | | | |
| | | | | | 1 | | | |
| 20 clim | | | | | 1 | | | |
| an ener | | | | | Y. | | | |
| all start | | | | | N | | | |
| 40 cBm- | | | | 1 10 | | | | |
| | m | ~~~ | | | | | | |
| so dhn | | | | | - | | | |
| | | | | | | | | |
| 50 GB11 | | | | | | | - | |
| | | | | | | | | |
| ∓ 1.92985 GH | 2 | - | 1001 | pts | | 1.0 MHz/ | | Span 10.0 MHz |
| Marker Table | | | 4 | | | | | |
| Type Ref | | X-Value 2895 GHz | | -40.12 dBm | 11 | Function | Function R | esult |
| M2 | 1 1.9 | 2945 GHZ 2995 GHZ | | -40.24 dBm -28.63 dBm | Band Po | wer/1.0 Mite | -27.84 d | Bm |

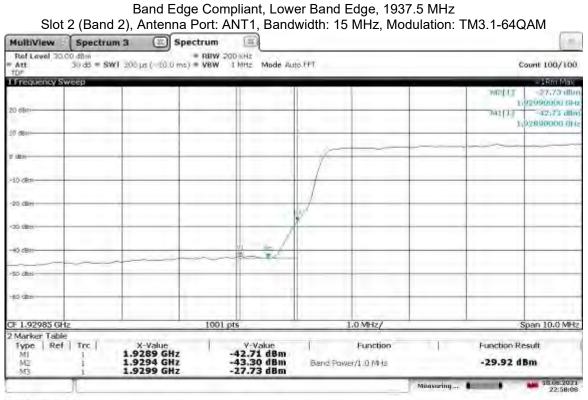
22:36:17 10.08.2021

Band Edge Compliant, Upper Band Edge, 1985 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.1-64QAM

| MultiView | Spectru | im 3 🖾 | Spectrum | | | | | | 1.0 |
|------------------------------|---------|--|----------------------|---|---------|-------------------------|-----------|----------------------------|--------------------------|
| Ref Level 30 Att | | w1 300 µs (~8.3 | = PABW (ms) = VBW | | its FFT | | | Cou | mt 100/100 |
| I Frequency S | weep | | | | | | - | | - 1Rm Max |
| | | | | | | | | M0[1] | -11,09 illi 105000 GH |
| 20 dBm | | | | | | | | 24111 | -28.41 dB |
| 10 dBto- | | | | | | | | | 000000 |
| 0 ubre | | | | 1 | | | | | |
| -10 cBm | - | | | | | | | | |
| 20 clim | | - | - | - | ¥. | - | | | _ |
| aò eiun | | - | - | | * | | | | |
| 40 cBm | | _ | _ | _ | 1 -420- | 10 | | | |
| so almi- | | - | - | _ | | | | | |
| 50 (Br) | | - | - | - | | _ | | | |
| 7 1.9899 GH: | | | 100 | 1 pts | | 1.0 MHz/ | | - Sn | an 10.0 MH |
| 2 Marker Tabl | | | 100 | n pis | | 1.0 MIN2/ | | op | an 10.0 Mm |
| Type Rel MI M2 M3 | | X-Value 1.99005 0 1.99055 0 1.99105 0 | Hz | V-Value -28.41 dBm -41.46 dBm -41.09 dBm | Band Po | Function wer/1.0 MHz | 1 | Function Res -28.41 dBr | |
| 913 | 1 | 1.99105 | 1112 | -41.09 0811 | | | Measuring | - | 65.08.207 |

15:24:57 08.08.2021

Report Number: 104751739BOX-013



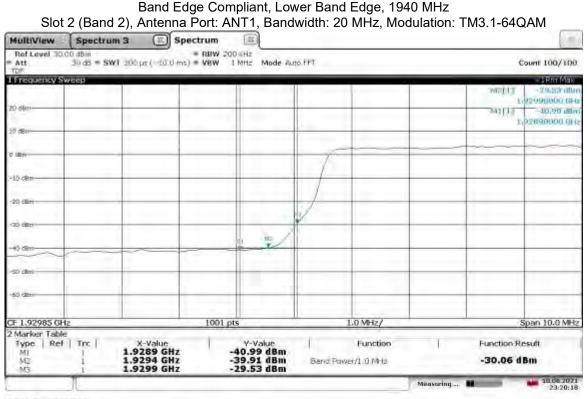
22:58:09 10.08.2021

Band Edge Compliant, Upper Band Edge, 1982.5 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM

| MultiView | Spectru | m 3 🖾 Spi | ectrum 🔳 | 1 | | | | | 1 |
|--|---------|---|--------------------------------|-------------------------------------|--------------|------------------------|-----------|------------------------|--|
| Ref Level 30. Att | | VI 300 µs (~10.0 ms) | = RBW 200 KHz) = VBW I MHz | | to.FFT | | | c | ount 100/100 |
| Frequency Sv | weep | | | | | | | | - 1Rhn Max |
| 20 dBm | _ | | | | | | | 2412[3] | 20, 14 alba 29060000 GH 26,78 dBn 29010000 0H |
| 10 dBar- | | | | | | | - | | |
| D silen | _ | - | | | - | | | | |
| -10 dBm | | | | | | | | - | |
| -20 clim | | - | | | 1 | | | | |
| -ap eine | | | | | 1 100 | 103 | | | |
| -40 cBm | | | | | 1 | | | | |
| -so almi | | | | | | | | | |
| -60 (BR) | | | | - | - | | - | - | |
| CF 1.9899 GHz | 2 | | 1001 pts | - | | 1.0 MHz/ | | | Span 10.0 MHz |
| 2 Marker Table Type Ref MI M2 M3 | | X-Value 1.9901 GHz 1.9906 GHz 1.9911 GHz | -26.7 | Value 78 dBm 14 dBm 29 dBm | Band Pow | Function er/1.0 MHz | .T | Function R -28,65 d | Bm |
| | T. | | | | | _ | Measuring | - | 65.08.20 |

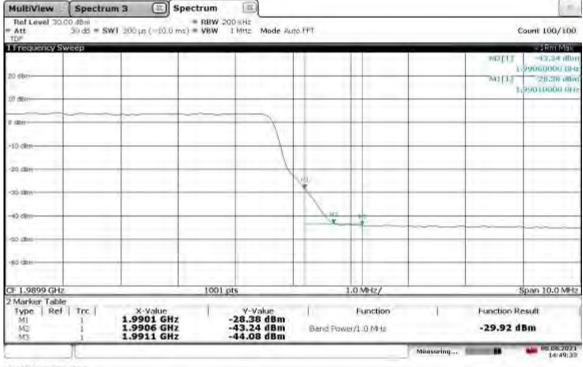
15:05:02 08.08.2021

Report Number: 104751739BOX-013



23:20:18 10.08.2021

Band Edge Compliant, Upper Band Edge, 1980 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



14:49:34 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum | 3 🖾 | Spectrum | (III) | | | | | 1 |
|--|-----------------------|--|------------------------|---|-----------|------------------------|---|------------------------|--|
| Ref Level 30. Att | 00 dBm 30 dB = SW1 | 300 µs (~8.7 | = RBW 1 ms) = VBW 3 | | FFT | | | | Court 100/100 |
| I Frequency St | weep | | | | _ | | | | - 1Rh1 Max |
| 20 dBm | | | | | | | _ | 2412[3] | 20,18 illu 192995000 GH -40,13 dBw |
| 10 dBto | | _ | | | - | | | 1 | 92895000 00 |
| D silter | | _ | | - | 1 | | | | |
| -10 cBm | | - | - | | | | | | |
| 20 dby | | - | - | - | | | | | |
| ab atten | | | | 44 | 1 | | | | |
| 40 cBm- | | | - | - | 4 | | | | |
| -so alm | | | | - | - | - | | | |
| -60 (30s)) | | - | - | | - | | | | |
| CF 1.92985 GH | - | | 1001 | ots | 5(| 00.0 kHz/ | | | Span 5.0 MHz |
| 2 Marker Table Type Ref M1 M2 M3 | Trc 1 | X-Value 1.92895 G 1.92945 G 1.92995 G | Hz | V-Value -40,13 dBm -38,41 dBm -30,18 dBm | Band Powe | Function er/1.0 MHz | 1 | Function R -28.58 d | |

22:20:20 10.08.2021

Band Edge Compliant, Upper Band Edge, 1987.5 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM

| Spectrum | n3 🖾 ! | Spectrum | 122 | | | | | 1.00 |
|------------------------|------------------------------|---|---|--|---|--|--|---|
| 00 dBm 30 dB = SW | 1 300 µs (~8.3 h | | | PF1 | | | | Count 100/100 |
| weep | _ | | _ | _ | | | _ | - 1Rm Max |
| | | | | | | | 242[1] | 36,25 illin 99105000 GH -31,23 dBn |
| | | | | - | - | | 3 | 99005000 014 |
| | | + | | | | | | |
| | - | + - { | | | | | - | |
| | - | | (| | - | | - | |
| | - | | the second | 3 | | | | |
| _ | | | | | an | | | |
| | | | | | | | | |
| | | | | - | | | | |
| | | 1001 pt | 5 | | 1.0 MHz/ | | 1 | Span 10.0 MHz |
| e Trc 1 1 | 1.99055 GH | | Y-Value 31.23 dBm 37.13 dBm 38.25 dBm | Band Po | Function wer/1.0 MHz | 1 | | |
| | 00 dBm 30 d3 = SW weep | 00 dBm 30 dB = SW1 200 µs (+8.3 n weep Trc X-Value 1 1.99005 GH | 00.85m PBW 100 30.45 = SW1 300 µs (~8.3 ms) = VBW 300 weep 1001 pt 1 Trc X-Value 1.99005 GHz | 00 dBm = BBW 100 HHz 30 dB = SW1 200 LIS (+8.3 ms) = VBW 300 HHz Mode Auto WEEP 1001 pts 1 Trc X-Value Y-Value 1 1.99005 GHz -31.23 dBm 1.99005 GHz -37.13 dBm | 00 dBm # BBW 100 H-E 30 dB = SWI 300 µs (+83 ms) = VBW 500 kmc Mode Auto FFT WEED | 00 dBm = RBW 100 H+c 30 dB = SWI 300 µs (+8 3 ms) = VBW 500 kmc Mode Auto FFT WEED | 00 dBm = PBW 100 Hz 30 dB = SWI 300 µs (+8.3 ms) = VBW 500 kmz Mode Auto FF1 WEEP 1001 pts 1.0 MHz/ 1 1.99005 GHz -31.23 dBm | 00 dBm * PBW 100 HHz 30 dB = SW1 300 µs (~8.3 ms) * VBW 300 HHz Mode Auts FF1 weep ************************************ |

15:50:09 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum 3 | 🖾 Sp | ectrum | EX. | | | | | 1.00 |
|-----------------------------|------------|------------------------|----------------------|--------------------------|-------|--------------|---|-------------|---------------|
| Ref Level 30 Att | | 00 µs (~8.3 ms) | = RBW 10 = VBW 30 | 0 kHz 0 kHz Mode Auto | SHET | | | č | Count 100/100 |
| Frequency S | weep | _ | _ | | | | | | - 1Rm Max |
| | | | | | | | | M0[1] | 27.40 ullar |
| 20 d8m- | | | | | - | _ | | 741[1] | -40,20 dBm |
| | | | | | | | | | 92895000 000 |
| 0 0810- | | | | | | | | | |
| | | | | | - | | | | |
| den | - | | | | 1 | - | | | |
| 15 10- | | | | | | _ | | | |
| 10 cBm- | | | | | 1 | | | | |
| 20 clim | | | | | 1/ | | | | |
| | | | | | ing . | | | | |
| and eiters | | | | | 1 | | | | |
| | | | | 112 411 | t l | | | | |
| -40 cBm- | | | - 10 | 1 101 | 1 | | | | |
| | | | | | | | | | |
| -50 dim | | | | | | | | | |
| 50 (Bhi) | I | | | | | | | | |
| (BO GATE) | | | | | | | | | |
| T L ODOOF (III | | | 10051 | | | 1.0 MHz/ | | L | |
| ∓ 1.92985 Gł Marker Tabl | - | | 1001 | pts | _ | 1.0 MH2/ | | 3 | Span 10.0 MHz |
| Type Ref | Trc | X-Value | 1 | Y-Value | 1 | Function | 1 | Function Re | esult |
| MI M2 | | 92895 GHz 92945 GHz | 1 | -40.20 dBm -39.66 dBm | A 12. | wer/1.0 Mitz | | -27.11 d | |

22:42:51 10.08.2021

Band Edge Compliant, Upper Band Edge, 1985 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM

| MultiView | Spectru | im 3 🖾 9 | pectrum | <u></u> | | | | | |
|------------------------------|---------|-------------------------|-----------------------|------------|----------|------------------|-----------|-----------------|----------------------------|
| Ref Level 30 Att | | w1 200 µs (∼8.3 m | = PBW 1 s) = VBW 3 | | to FFT | | | c | ount 100/100 |
| I Frequency S | weep | | _ | | | | | | - 1Rm Max |
| | | | | | | | | N07[11] | 29.63 illu |
| 20 d8m- | - | | | | | 1.1.1 | | | 99105000 GH |
| | | 11 10 10 10 10 10 10 10 | | | | i di incontra di | | 243[3] | -28,99 dBw 99005000 000 |
| | | | | | | | - | - | 2000,000 00111 |
| | | - | | | | | | | |
| D upre | - | - | | 1 | | | | - | |
| | | | | 1 | | | | | |
| -10 cBm | - | | | + + | - | | | | |
| | | | | 1 | | | | | |
| 20 dBn | - | - | | | | | | | |
| | | | | | And a | | | | |
| -ap etta | - | 1 | | | 1 | | | | |
| | | | | | 1 10 | 14 | | | |
| 40 cBm- | - | | | | | 100000 | | | |
| | | | | | | | | | |
| -so atm | | | | | | | | | |
| 50 (3B) | | | | | | | | | |
| BU GERI | | | | | | | | | |
| | | | 1 | | | | | | |
| ∓ 1.9899 GH | | | 1001 | l pts | | 1.0 MHz/ | - | 5 | ipan 10.0 MHz |
| 2 Marker Table Type Ref | | X-Value | - 1 | Y-Value | - 1 | Function | 1 | Function Re | |
| MI NI | 1 nc 1 | 1.99005 GH | z | -28.99 dBm | 1 | FUNCTION | | Pusscoors Re | son |
| MZ | 1 | 1.99055 GH | | -38.98 dBm | Band Por | wer/1.0 Miltz | | -27.58 di | 8m |
| M3 | 1 | 1.99105 GH | z | -39.63 dBm | | | | | |
| | 1 | | | | | | Measuring | A CONTRACTOR OF | 68.08.2021 15:29:46 |

15:29:47 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum | 13 🖾 | Spectrum | (BX) | | | |
|----------------------|----------|----------------------|---------------------|------------|----------|--------------|---------------------------------|
| Ref Level 30. Att | | 1 300 µs (~10.0 | = RBW (ms) = VBW | | to.FFT | | Count 100/1 |
| Frequency St | weep | | | | _ | | - URtri M |
| | | | | | | | MULT -20,381 |
| dem- | | | | | | | 1/55680000 |
| | | | | | | | M1[] -39.50 d 1,52890000 |
| 0 0810- | | | 1 | | | | 1928-00000 |
| | | - | - | | | - | |
| sen- | | _ | | _ | 1 | | |
| | | | | | | | |
| 10 cBm- | | - | _ | - | 1 | | |
| | | | | | 1 | | |
| 20 clim | | | | | 1 | | |
| | | | | | al l | | |
| an ens | | | | | φ | | |
| | | | | 1 = 1 | | | |
| -40 cBm | | | | 12 | | - | |
| | | | | | | | |
| so almi- | | - | - | | | - | |
| | | | | | | | |
| 50 GBN | | - | - | - | - | | |
| C (CC), | | | | | | _ | |
| F 1.92985 GH | 2 | 1 | 1001 | pts | | 1.0 MHz/ | Span 10.0 M |
| Marker Table | | | | | | | |
| Type Ref | Trc | X-Value 1.9289 GH | - | -39.50 dBm | T | Function | Function Result |
| MI | 1 | 1.9294 GH | | -39.07 dBm | Barut Do | wer/1.0 Mits | -30.13 dBm |

23:02:16 10.08.2021

Band Edge Compliant, Upper Band Edge, 1982.5 MHz Slot 2 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM

| Ref Level 30 Att TDF | | WT 300 µs (~10.0 m | = RBW : s) = VBW | | uto FFT | | | c | ount 100/100 |
|----------------------------|---------|--------------------------|---------------------|--------------------------|----------|------------|---|-------------|--|
| I Frequency S | Sweep | | _ | | | | - | | - 1Rm Max |
| 20 dBm | | | | | | | | M2[1] | 26,73 dla 99060000 GH -25,61 dBn |
| 10 0810- | | | | | | | | | 99010000 RH |
| | | | | | | | | | |
| 0 ubre | - | - | | 1 | | | | | |
| -10 dBm | - | - | | + - \ | - | | | - | |
| 20 clim | - | - | _ | - | No. | | | | |
| -atb eiten | | - | | _ | 1 | | | | |
| -40 cBm- | | | | | 14 | 4 | | | |
| | | | | - | 1 | 11 | | | |
| -so almi- | | | | | | | | | |
| 50 (30.5) | | - | | | | | | | |
| JF 1.9899 GH | 2 | 1 | 1001 | ots | | 1.0 MHz/ | | | Span 10.0 MH |
| 2 Marker Tab | le | | | | | | | | |
| Type Re MI | f Trc | X-Value 1.9901 GHz | 1 | -25.61 dBm | | Function | | Function Re | |
| M2 M3 | 1 | 1.9906 GHz 1.9911 GHz | | -38.73 dBm -38.64 dBm | Band Pow | er/1.0 MHz | | -27.70 d | Bm |

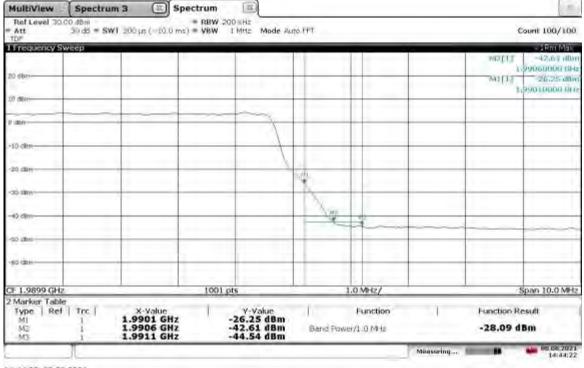
15:09:53 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrum 3 | 1 🖾 SI | pectrum | EE. | | | | | 1 |
|--|------------|---|---------------------|---|--------------|------------------------|---|------------------------|---------------|
| Ref Level 30. Att | | 00 µs (~10.0 m | = RBW ; =) = VBW | I MHZ Mode Au | to FFT | | | | Count 100/100 |
| Frequency St | weep | _ | _ | | | | | _ | - JBm Max |
| | | | | | | | | MULT | 28,92 ullur |
| 20 dBm- | | | | | | 1.00 | | 245[3] | -41,20 dBw |
| 10 dBto | | _ | | | | | | | |
| 0 ubri | - | | | - | F | | | | |
| -10 @m | | | | - | | | | | |
| -20 clim | | | | | | - | | | |
| -and enter- | - | _ | | - | 0/ | - | | | |
| -40 cBm | | | | 11 10 | - | | | | |
| -so atm | | | _ | _ | | | | | |
| -50 (Berr | | | | | | | | | |
| 7F 1.92985 GH | z | | 1001 | pts | | 1.0 MHz/ | | 4 | Span 10.0 MHz |
| Marker Table Type Ref MI M2 M3 | Trc | X-Value 1.9289 GHz 1.9294 GHz 1.9299 GHz | I | V-Value -41.20 dBm -39.43 dBm -28.92 dBm | Band Pow | Function en/1.0 MHz | Т | Function R -29,58 d | |

23:25:13 10.08.2021

Band Edge Compliant, Upper Band Edge, 1980 MHz Slot 2 (Band 2), Antenna Port: ANTO, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



14:44:23 08.08.2021

Report Number: 104751739BOX-013

| | Spectrum 3 | | | | | | | | |
|--|--|---|---------------------------|---|--------------------------|------------|-----------|-------------------|--------------------------|
| Ref Level 30.) Att | 00 dBm 30 dB = SW1 3 | 00 µs (/+8.7 m | = RBW 100 s) = VBW 300 | | to FFT | | | | ount 100/10 |
| requency Sy | weep | _ | - | _ | - | _ | | _ | - 1Rm Ma |
| 1.1.1 | 1.1.1.1 | | | | | | | MULT | 20,88 mb 92995000 G |
| dBm | | | 1.000 | | | | | 243[1] | -42,52 de 92895000 fi |
| 1810 | | | | | | | | | |
| Bri | | _ | | | 1 F | | - | | |
| dBm | _ | | | | | | | | |
| (delite | | | | | 1.1 | | | | |
| dbn | | | | | | | | | |
| dan | | | - | | 1 | | | | |
| cBm- | | | NY. | 45 | 1 | | | | |
| | | | | | | | | | |
| dm | | | | | | | | | |
| GDSH | | | | | | - | | - | - |
| L ODOOF CIL | | | 1001 pt | | | 00.01/1-1 | | | Corres P. A.L |
| 1.92985 GH tanker Table | | | Toorpe | 15 | | 00.0 kHz/ | | | Span 5.0 M |
| MI M2 M3 | 1 1. 1 1. | X-Value 92895 GH 92945 GH 92995 GH | z - | Y-Value 42.52 dBm 41.32 dBm 30.89 dBm | | er/1.0 MHz | Measuring | -30.66 d | |
| MI M2 M3 20:58 10.09 | 1 1. 1 1. | 92895 GH 92945 GH 92995 GH Band E | dge Comp | 42.52 dBm 41.32 dBm 30.89 dBm oliant, Upp | ber Band I | Edge, 198 | 7.5 MHz | | 10.05.20 22.20 |
| MI M3 20:58 10.09 Slot 2 ultiView | 1 1, 1, 2021 2 (Band 2), Spectrum 3 | Band E | dge Comp | 42.52 dBm 41.32 dBm 30.89 dBm oliant, Upp JT1, Band | ber Band I | Edge, 198 | 7.5 MHz | | 10.05.20 22.20 |
| M3 M3 20:58 10.09 Slot 2 ultiView set Level 30.4 tt | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | 42.52 dBm 41.32 dBm 30.89 dBm bliant, Upp IT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | и л а-2560 | 18.05 20 22.20 |
| ype Ref MI M2 M3 20:58 10.06 Slot 2 ultiView = tet Level 30.4 tt | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | 42.52 dBm 41.32 dBm 30.89 dBm bliant, Upp IT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | и л а-2560 | 22:20 QAM |
| MI M2 M3 20:58 10.09 Slot 2 ultiView P ref Level 30.0 tt F reconnector | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | 42.52 dBm 41.32 dBm 30.89 dBm bliant, Upp IT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | QAM |
| MI M2 M3 20:58 10.09 Slot 2 altiView ref Level 30.4 tt reconnection | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | 42.52 dBm 41.32 dBm 30.89 dBm bliant, Upp IT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | 22220 22220 QAM |
| MI M2 M3 20:58 10.09 Slot 2 altiView ref Level 30.4 tt reconnection | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | 42.52 dBm 41.32 dBm 30.89 dBm bliant, Upp IT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | 10.05.20 22:20: |
| MI M2 M3 20:58 10.09 Slot 2 altiView ef Level 30.4 tt researce yes | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | 42.52 dBm 41.32 dBm 30.89 dBm bliant, Upp IT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | ART 100/11 |
| MI M2 M3 20:58 10.09 Slot 2 altiView ef Level 30. tt Free stores (S) Stores (| 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | 42.52 dBm 41.32 dBm 30.89 dBm bliant, Upp IT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | 22220 22220 QAM |
| MI M2 M3 20:58 10.09 Slot 2 altiView ref Level 30.4 tt reconstruction set | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | 42.52 dBm 41.32 dBm 30.89 dBm bliant, Upp IT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | ART 100/11 |
| MI M2 M3 20:58 10.09 Slot 2 altiView ef Level 30.0 tt resources St resources St res | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | 42.52 dBm 41.32 dBm 30.89 dBm bliant, Upp IT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | 22220 22220 QAM |
| MI M2 M3 20:58 10.09 Slot 2 altiView ef Level 30.0 tt resources St resources St res | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | bliant, Upp TT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | 22220 22220 QAM |
| MI M2 M3 20:58 10.09 Slot 2 altiView ef Level 30.0 tt fer second control of the second c | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | bliant, Upp TT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | ART 100/11 |
| MI M2 M3 20:58 10.09 Slot 2 attiView ef Level 30.4 tt F Recently St Ban Ban dan dan | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | bliant, Upp TT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | ART 100/11 |
| M1 M2 M3 20:58 10.09 Slot 2 UIEV/ew tof Level 30.0 UIEV/ew dbm dbm dbm dbm dbm dbm dbm dbm | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | bliant, Upp TT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | ART 100/11 |
| MI M2 M3 20:58 10.09 Slot 2 attiView ef Level 30.4 tt F Recently St Ban Ban dan dan | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | bliant, Upp TT1, Band | per Band I width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | ART 100/11 |
| MI M2 M3 20:58 10.09 Slot 2 altiView ef Level 30.0 tt resources St resources St res | 1 1, 1 1, 1 2, 2 (Band 2), Spectrum 3 30 d8 = SW1 3 | Band Ed Antenna | dge Comp a Port: AN | bliant, Upp TT1, Band | ber Band F width: 5 M | Edge, 198 | 7.5 MHz | A3.1a-2560 | 22220 22220 QAM |

15:50:37 08.08.2021

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| MultiView | Spectrum 3 | Spec | ctrum | (IX) | | | | |
|----------------------|--------------------------|----------------------|--------------------|------------------------|---------|---------------|---|---------------------------|
| Ref Level 30. Att | 00 dBm 30 dB = SW1 30 | | RBW 100 VBW 300 | | SHET | | | Count 100/ |
| Frequency Sy | weep | _ | - | | | - | | - 1Rm N |
| | | | | | | | | NET11 -27.94 192995000 |
| to dem- | | | | | | | | 741[1] -43.20 |
| 1.1 | | | | | | | | 1,92895000 |
| 0 (840- | | | _ | | | | | |
| | | | | | - | | | |
| dan | | | | | 1 | | | |
| 10 cBm- | | | | | | | | |
| LO OBIN | | | | | | | | |
| 20 clim | | | | | | | | |
| | | | | | 1 | | | |
| ab eiten | | | | | 1 | | | |
| | | | | | ť | | | |
| 40 cBm- | | | | 1 10 | 1 | - | - | |
| | | | ~~~ | | | | | |
| sõ dim | | | | | | | | |
| 50 (III) | | | | 1 | | | | |
| and service | | | | | | | | |
| ∓ 1.92985 GH | 2 | | 1001 ø | ts | | 1.0 MHz/ | | Span 10.0 |
| Marker Table | - | | | | | and the state | | Septer Loro (|
| Type Ref | | X-Value | 1 | V-Value | 1 | Function | | Function Result |
| MI M2 | | 2895 GHz 2945 GHz | | 43.20 dBm 43.57 dBm | Band Po | wer/1.0 MHz | | -28.84 dBm |

22:43:16 10.08.2021

Band Edge Compliant, Upper Band Edge, 1985 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM

| Ref Level 30. | | - | = RBW | SOO KHZ | 7. A. | | | | 1 |
|--|------------|---|---------------|---|-----------|---------------------------|---|------------------------|--|
| Att | 30 dB = SV | 80) at 101: TV | 3 ms) = VBW 1 | 300 kH2 Mode A | ito FFT | | | | ount 100/100 |
| I Frequency S | weep | | | | | | _ | - | = 1R/n Max |
| 2) d§m | | - | | | - | | | MILTI | 34,35 (10) 39105000 (8) -29.01 (8) 390(500) (1) |
| -m8b 0 | | | - | | | | | - | |
| D plater | | - | | 1 | | | | | |
| tő sen | | | | | | | | - | |
| 20 (8)(1 | | - | - | - | 1 m | - | | | |
| an alter an | | | | - | 1 | | | | |
| +10 dem- | | | | | | | | | |
| sp ann | | | _ | - | | - | | | - |
| 60 times | - | - | _ | - | | | | | - |
| 7F 1.9899 GHz | 2 | | 100 | 1 pts | | 1.0 MHz/ | | | Span 10.0 MH |
| Marker Table Type Ref MI M2 M3 | | X-Valu 1.99005 1.99055 1.99105 | GHZ | V-Value -28.01 dBm -32.06 dBm -34.35 dBm |) Bend | Function Power/1.0 MHz | 1 | Function R -21.79 d | |

15:30:28 08.08.2021

Report Number: 104751739BOX-013

| MultiView | Spectrur | n3 🗵 | Spectrum | EX. | | | | | 1.00 |
|----------------------------|----------|-----------------|----------|--------------------------|----------|-----------------|----|------------|-------------------------------|
| Ref Level 30. Att | | rt 300 µs (~10. | | 200 KHz I MHz Mode Pu | to.FFT | | | | Court 100/100 |
| Frequency Sv | weep | | | | | | | | - 1Pm Max |
| | | | | | | | | MULT | -20,50 allar -92990000 GHz |
| 20 dBm- | | | - | - | - | | | 742[3] | -42.36 dBm |
| | | | | | | | | | 92890000 014 |
| 10 0810- | | - | - | | | | | - | |
| | | | | | - | | | | |
| den- | - | - | | | 1 | | | | - |
| | | | | | | _ | | | |
| 10 cBm- | | | | | 1 | | | | |
| 20 clim | | | | | | | | | 1 |
| | | | | | J. | | | | |
| an ener | | | - | | * | | | | |
| | | | | 1 mil | | | | | |
| 40.0Bm- | | | | | | | | | |
| | | | | | | | | | |
| so alm | | | - | | | - | | | |
| | | | | | - | | | | |
| 50 (Ba) | | | | | | | | | |
| | | | | | | | | | |
| ∓ 1.92985 GH | | | 100 | 1 pts | | 1.0 MHz/ | | | Span 10.0 MHz |
| Marker Table Type Ref | | X-Value | 1 | Y-Value | 1 | Function | 11 | Function R | esult |
| MI | 1 | 1.9289 G | | -42.36 dBm | 1 | 1 - Contraction | | | |
| M2 M3 | 1 | 1.9294 G | | -41.78 dBm -29.50 dBm | Band Pay | ver/1.0 MHz | | -31.13 d | Bm |

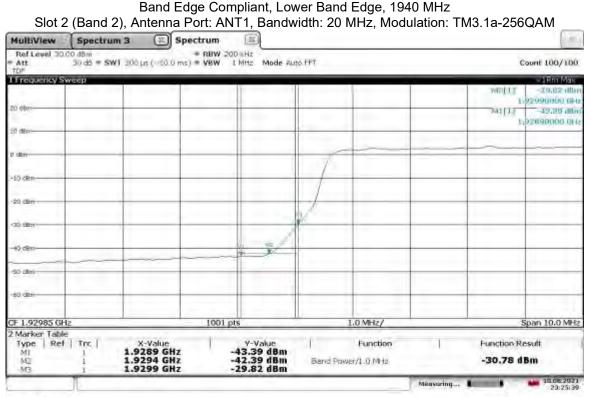
23:02:48 10.08.2021

Band Edge Compliant, Upper Band Edge, 1982.5 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM

| 18m) d8 = \$W1 99 | 300 µs (~10.0) | = RBW 20 ms) = VBW | ID KHZ I MHZ Mode Aut | Ø.FFT | | | c | |
|--------------------------|-----------------|--------------------------|---|--|---|--|--|--|
| :p | | | | | | | | ount 100/100 |
| | | | | | | | | - SRnt Max |
| | | | | | | _ | 243[3] | 42.01 illur 99060000 GH -25.52 dBw 99010000 0H |
| | | | | - | | | | |
| | | | 1 | - | | | | |
| | | | | - | | | | |
| | | | | - | | | | |
| | | | | N | | | | |
| | | | | 14 | 4 | | | |
| | | | | - | | | | |
| | | | | - | | | | |
| | | 1001 g | its | 1 | .0 MHz/ | | 5 | span 10.0 MHz |
| Trc 1 1 | 1.9906 GHz | | -42.91 dBm | Band Powe | Function er/1.0 MHz | 1 | | |
| | 1 | 1.9901 GHz 1.9906 GHz | Trc X-Value 1 1.9901 GHz 1 1.9906 GHz | 1 1.9901 GHz -25.52 dBm 1 1.9906 GHz -42.91 dBm | 1001 pts 1001 pts 1 1.9901 GHz -25.52 dBm 1 1.9901 GHz -42.91 dBm | Image: | Image: Non-State Y | Image: Non-State Image: Non-State< |

15:10:21 08.08.2021

Report Number: 104751739BOX-013



23:25:40 10.08.2021

Band Edge Compliant, Upper Band Edge, 1980 MHz Slot 2 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



14:43:49 08.08.2021

| | | Intertek | |
|--|----------------|-----------------------|---|
| Report Number: 104 | 4751739BOX-013 | | Issued: 09/29/2021 |
| | | | Revised: 02/02/2022 |
| Test Personnel: | Vathana Ven | Test Date: | 07/28/2021, 07/29/2021, 07/30/2021, 08/03/2021 |
| Supervising/Reviewing Engineer: (Where Applicable) | | | |
| Product Standard: | FCC Part 24 | Limit Applied: | See report section 8.3 |
| Input Voltage: | 48 VDC (POE) | • | |
| Pretest Verification w/ | | Ambient Temperature: | 22, 23, 23, 23 °C |
| Ambient Signals or BB Source: | N/A | Relative Humidity: | 21, 15, 26, 47, 20, 22 % |
| | | Atmospheric Pressure: | 1004, 1013, 1004, 980 mbars |

Deviations, Additions, or Exclusions: None

9 Frequency Stability Due Voltage Variation

9.1 Method

Tests are performed in accordance with ANSI C63.26 and CFR47 FCC Parts 2.1055 and 24.

TEST SITE: Safety Lab

9.2 Test Equipment Used:

| Asset | Description | Manufacturer | Model | Serial | Cal Date | Cal Due |
|-----------------|--------------------------------------|---------------------|-----------------|-------------|------------|------------|
| CEN001' | DC-40GHz attenuator 20dB | Centric RF | C411-20 | CEN001 | 01/22/2021 | 01/22/2022 |
| CBLHF2012-5M-2' | 5m 9kHz-40GHz Coaxial Cable - SET2 | Huber & Suhner | SF102 | 252676002 | 02/19/2021 | 02/19/2022 |
| ROS005-1' | Signal and Spectrum Analyzer | Rohde and Shwartz | FSW43 | 100646 | 10/27/2020 | 10/27/2021 |
| DAV005' | Weather Station | Davis | 6250 | MS191218083 | 02/07/2021 | 02/07/2022 |
| | Freezing Rain\Icing\Temp\Humidity\ - | | | | | |
| | 73deg C to +190deg C, 95% humidity, | | CTH-(FR)64-6-6- | | | |
| SAF1153' | Ice Freezing Rain | Cincinnati Sub-Zero | SC/AC | 12-CT15628 | 11/18/2020 | 11/18/2021 |

Software Utilized:

| Name | Manufacturer | Version |
|------|--------------|---------|
| None | | |

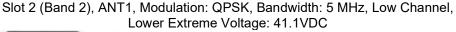
9.3 Results:

The sample tested was found to Comply.

§24.235 Frequency stability – The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The occupied bandwidth measurement was used to make sure the lower and upper frequencies of the occupied bandwidth remains within the assigned band of 1930-1990 MHz MHz.

9.4 Setup Photographs:

9.5 Plots/Data:



MultiView Spectrum -Att 30.00 = RBW 100 kHz SWT 4184 ps(16.9 ms) = VBW 300 kHz Mode Auto FFT I Occupied Bandwidth 1PL Mar MILLI 17,36 ill STOMADO GH 10 08 20 clin **1**6 a 50 dł CF 1.9325 GHz 1001 pts 1.0 MHz/ Span 10.0 MHz Marker Table Type | Ref | Trc | Value V-Value 17.36 dBm Function T Function Result 518013982 MHz 1.93284 GHz Occ Bw Occ Bw Centrola Occ Bw Freq Offset MI 1 9302613 G-0 1.9347793 GHz 10.66 dBm 11.20 dBm 1 932520337 GHz 20.337498357 kHz 12.08 2021 Measuring... 15:15:48

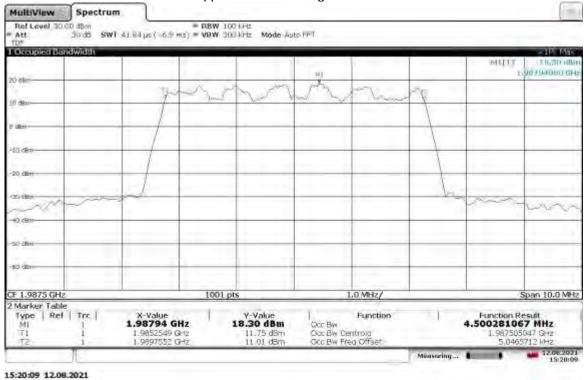
15:15:49 12.08.2021

Slot 2 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 5 MHz, High Channel, Lower Extreme Voltage: 41.1VDC

| I Occupied Ba | andwidth | | | | _ | - | | | | - 1PL 13as |
|---------------|----------|-----------|--------|------------------------|---------------------|---|-----|-----|---|---------------------------|
| | | | | | | | | | WELL | 17,98 illu 9670/000 GH |
| ao dem | | | | | -ML | | | | 1 | ale / million Fee |
| | | 13- | and P | 15 m | 1 | 2 | 175 | _ | | |
| 0 (810- | | 1 | N~-1 | Lev. | 200 | and a | 1 | - | | |
| | | 1 | | | | | | | | |
| sten | - | | | | | | | - | | |
| | | | | | | | | | | |
| 10 dBm | 1 | 1 | 1 | | | | 1 1 | | | |
| | | 1 | | | | | 1 | | | |
| 20 clim | | | | | | | 1 | | | |
| ni site | | 1 | | | | | 1 | | | |
| COLORIN . | - m | 100 | | | | | 1 | - | | |
| TO ADA | ~ | | | | | | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | mon |
| in order | | | | | | | | | | |
| so atm | | - | - | - | | | - | _ | | |
| | | | | | | | | | | |
| 50 GB1 | | - | | | | | | | _ | |
| | _ | | | | | | | | | |
| F 1.9875 GH | 7 | | 1001 p | te | | .0 MHz/ | | | 3 | Span 10.0 MHz |
| Marker Tab | | | | 58. | | ing the start | | | | April 1 Did Hell |
| Type Re | | X-Value | | Y-Value | - have | Function | | | Function R | |
| MI T1 | 1 | 1.98784 0 | | 17.98 dBm 11.09 dBm | Occ Be Occ Be Ce | and | | 4.5 | 1.967507 | |
| TZ | 1 | 1.9897585 | | 10.93 dBm | Occ BW Fre | | | | 7 541932 | |

Non-Specific Radio Report Shell Rev. December 2017 Page 159 of 194 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell[®] RP5100



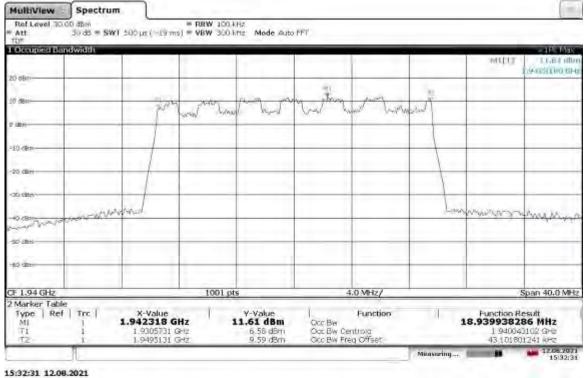


Slot 2 (Band 2), ANT1, Modulation: QPSK, Bandwidth: 5 MHz, High Channel, Upper Extreme Voltage: 57.0VDC



15:20:54 12.08.2021





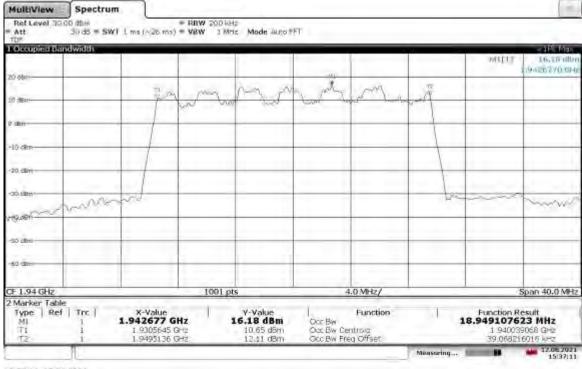
Slot 2 (Band 2), ANT0, Modulation: QPSK, Bandwidth: 20 MHz, High Channel,

| , | | , | , |
|-------|---------|------------------|---|
| Lower | Extreme | Voltage: 41.1VDC | |

| TOR L'Occupied Ba | andwidth | | _ | - | _ | _ | | | | | _ | < 1P. Max |
|-------------------------|------------------|-------|--|-----|--------|----------------------|------------------------|---------------------|--------|-------|------------|-----------------------|
| | | 1 | | | | | - | | - | - | 24([1] | La,78 afflar |
| 20 d8m- | | - | | - | | - | | | _ | _ | _ | 1376-10-10 51-0 |
| | | | Terror | | | 10 7 | | 1000 | TT | - 11 | | |
| 10 (810- | | | N | 1 | 3. | bould be | have burn | 1 day | TY | - | | |
| 0 sen | | | 1 | min | | (hard | tion? 8 | wood their | Marine | | | |
| D Salir | | | 1 | | | | 1.1 | | 1 1 | | | |
| -10 cBm | - | - | <u>} </u> | - | | | | | + + | | | |
| | | | l | | _ | | | | 1 1 | | | |
| -20 dbm | | 1 | | | | | | | 11 | | | |
| -mienter- | _ | 1 | | | _ | | _ | | 1 | _ | | _ |
| | comette | wind | | | | | | | | a hi | | |
| ing alteria | a manuful marile | | | | | | | - | - | WELME | - An | worksouth our |
| so dm | | 1.1 | | | | | | | | | | 1 |
| So cam | | | | | | | | | | | | |
| -60 (Bh) | | - | | | - | | | | - | | | + |
| | | - | | | | | | | | | | |
| CF 1.98 GHz | | | | 10 | 01 pts | | | 4.0 MHz/ | 1 | | | Span 40.0 MHz |
| 2 Marker Tab Type Re | | | alue | 1 | | V-Value | 1 | Function | 1 | _ | Function R | 1 |
| MI | | 1.976 | 404 G | | 1 | 1.78 dBm | Occ Bw | 1 4 1 4 4 4 4 4 4 4 | | 18. | 9741547 | 14 MHz |
| T1 T2 | 1 | | 05235 (94977 (| | | 8.05 dBm 8.29 dBm | Occ Bw Cr Occ Bw Fr | | | | | 0575 GH2 97072 kHz |

15:30:48 12.08.2021





15:37:11 12.08.2021



| TOR 1 Occupied Bar | dwiatth | | | | | | | | - 1PL Max |
|--|------------|-----------------------|------|-----------------------------------|--------------------------|----------|-------|--------------------------|----------------------------|
| r otsuplear bar | id widding | | | 1.000 | | | | weith | 16.10 illu 19/636-10 GH |
| 20 dBm- | _ | 18 - L | | X n | - | - 54 | a. | | |
| 10 6810- | _ | 200 | 4 | mfun | 1 Jack | and had | 124 | | - |
| 0 slbre | | | _ | | | | ++ | | - |
| -10 dBm | | | | | | | + | | - |
| -20 clim | | | | | | | + + | | |
| oti sitta | andre | had | - | | | | to be | - Ann | |
| -40 c8m- | | | | - | | | | en sin høl | manu |
| so alm | | - | | | _ | | | - | |
| -60 (Bhi) | - | | | - | - | - | - | - | |
| CF 1.98 GHz | | | 1001 | øts | | 4.0 MHz/ | | | Span 40.0 MHz |
| 2 Marker Table Type Ref MI T1 | Trc | X-Value 1.976364 G | iHz | V-Value 16.19 dBm 11.65 dBm | l Occ Bw Occ Bw Cr | Function | П., | Function R 18.9794932 | esult |

15:35:31 12.08.2021

| | | Intertek | |
|---|----------------|-----------------------|---|
| Report Number: 104 | 4751739BOX-013 | | Issued: 09/29/2021 |
| | | | Revised: 02/02/2022 |
| Test Personnel [.] | Vathana Ven | Test Date: | 08/12/202021, 08/19/2021, 08/16/2021, 08/19/2021 |
| Supervising/Reviewing Engineer: | | - | |
| (Where Applicable) | N/A | | |
| Product Standard: | FCC Part 24 | Limit Applied: | See report section 9.3 |
| Input Voltage: | 48VDC (POE) | | |
| Pretest Verification w/ Ambient Signals or | | Ambient Temperature: | 22, 22, 23, 24 °C |
| BB Source: | N/A | Relative Humidity: | 41, 44,34,68 % |
| | | Atmospheric Pressure: | 1011, 1002, 1005,1008 mbars |

Deviations, Additions, or Exclusions: None

10 Transmitter spurious emissions

10.1 Method

Tests are performed in accordance with ANSI C63.26 and CFR47 FCC Parts 2.1051, 2.1053, 2.1057, and 24

TEST SITE: EMC Lab & 10m ALSE

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.

The 10m ALSE is 13m (Length) x 21m (Depth) x 10m (Height) with the effective size in terms of space from the tips of the absorber is 12m (Length) x 20m (Depth) x 8.5m (Height). This chamber achieves broadband performance using a unique arrangement of hybrid and ferrite tile absorber. This chamber has a built in 3m diameter turntable (Embedded type). The metal structure of the table makes electrical connection around the entire circumference of the turntable to the ground plane with a metal brush type connection. The turntable is located on one end of the chamber and the antennas are mounted 3 and 10 meters away at the other end of the chamber on the adjustable an Antenna Mast. The antenna mast is a non-conductive bore sighted type with remote control of antenna height and polarization. The Antenna Mast and the turntable can be remotely controlled through the controller located in the adjacent Control room. A Styrofoam table 80 cm high is used for table-top equipment.

Measurement Uncertainty

| Measurement | Frequency Range | Expanded Uncertainty (k=2) | Ucispr |
|-------------------------|--------------------|----------------------------------|--------|
| Radiated Emissions, 10m | 30-1000 MHz | 4.6dB | 6.3 dB |
| Radiated Emissions, 3m | 30-1000 MHz | 5.3 dB | 6.3 dB |
| Radiated Emissions, 3m | 1-6 GHz | 4.5 dB | 5.2 dB |
| Radiated Emissions, 3m | 6-15 GHz | 5.2 dB | 5.5 dB |
| Radiated Emissions, 3m | 15-18 GHz | 5.0 dB | 5.5 dB |
| Radiated Emissions, 3m | 18-40 GHz | 5.0 dB | 5.5 dB |

As shown in the table above our radiated emissions U_{lab} is less than the corresponding U_{CISPR} reference value in CISPR 16-4-2 Table 1, hence the compliance of the product is only based on the measured value, and no measurement uncertainty correction is required, based on CISPR 22 and CISPR 11 (for 2006 and later revisions) Clause 11.

Sample Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

| CF - AG |
|---|
| FS = Field Strength in $dB\mu V/m$ |
| RA = Receiver Amplitude (including preamplifier) in $dB\mu V$ |
| CF = Cable Attenuation Factor in dB |
| AF = Antenna Factor in dB |
| AG = Amplifier Gain in dB |
| |

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows.

Assume a receiver reading of 52.0 dB μ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving a field strength of 32 dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

 $\label{eq:result} \begin{array}{l} {\sf RA} = 52.0 \ {\sf dB}\mu {\sf V} \\ {\sf AF} = \ 7.4 \ {\sf dB}/{\sf m} \\ {\sf CF} = \ 1.6 \ {\sf dB} \\ {\sf AG} = 29.0 \ {\sf dB} \\ {\sf FS} = 32 \ {\sf dB}\mu {\sf V}/{\sf m} \end{array}$

To convert from $dB\mu V$ to μV or mV the following was used:

UF = $10^{(NF/20)}$ where UF = Net Reading in μ V NF = Net Reading in dB μ V

Example:

FS = RA + AF + CF - AG = 52.0 + 7.4 + 1.6 - 29.0 = 32.0 UF = $10^{(32 \text{ dB}\mu\text{V}/20)}$ = 39.8 $\mu\text{V/m}$

Alternately, when BAT-EMC Emission Software is used, the "Level" includes all losses and gains and is compared directly in the "Margin" column to the "Limit". The "Correction" includes Antenna Factor, Preamp, and Cable Loss. These are already accounted for in the "Level" column.

10.2 Test Equipment Used:

Test equipment used for antenna port conducted test

| Asset | Description | Manufacturer | Model | Serial | Cal Date | Cal Due |
|------------|--|-------------------|----------------|-------------|------------|------------|
| CEN001' | DC-40GHz attenuator 20dB | Centric RF | C411-20 | CEN001 | 01/22/2021 | 01/22/2022 |
| CBLSHF204' | Cable, SMA - SMA, 9kHz -40GHz, (Cable Kit 5) | Huber + Suhner | Sucoflex 102EA | 234714001 | 02/03/2021 | 02/03/2022 |
| ROS005-1' | Signal and Spectrum Analyzer | Rohde and Shwartz | FSW43 | 100646 | 10/27/2020 | 10/27/2021 |
| DAV005' | Weather Station | Davis | 6250 | MS191218083 | 02/07/2021 | 02/07/2022 |

Software Utilized:

| Name | Manufacturer | Version |
|------|--------------|---------|
| None | | |

Test equipment used for Radiated emissions

| Asset | Description | Manufacturer | Model | Serial | Cal Date | Cal Due |
|------------|--|-----------------|----------------|------------|------------|------------|
| IW001` | 2 meter cable | Insulated Wire | 2801-NPS | 001 | 10/07/2020 | 10/07/2021 |
| HS003' | 10m under floor cable | Huber-Schuner | 10m-1 | HS003 | 02/17/2021 | 02/17/2022 |
| HS002` | DC-18GHz cable 1.4m long | Huber & Suhner | SucoFlex 106A | HS002 | 11/25/2020 | 11/25/2021 |
| PRE11` | 50dB gain preamp | Pasternack | PRE11 | PRE11 | 09/11/2020 | 09/11/2021 |
| IW006` | DC-18GHz cable 8.4m long | Insulated Wire | 2800-NPS | IW006 | 11/25/2020 | 11/25/2021 |
| PRE12' | Pre-amplifier | Com Power | PAM-118A | 18040117 | 12/07/2020 | 12/07/2021 |
| 145106 | Bilog Antenna (30MHz - 5GHz) | Sunol Sciences | JB5 | A111003 | 06/16/2020 | 06/16/2021 |
| EMC04' | ANTENNA, RIDGED GUIDE, 18-40 GHZ | EMCO | 3116 | 2090 | 01/28/2021 | 01/28/2022 |
| CBLSHF204' | Cable, SMA - SMA, 9kHz -40GHz, (Cable Kit 5) | Huber + Suhner | Sucoflex 102EA | 234714001 | 02/03/2021 | 02/03/2022 |
| 145108` | EMI Test Receiver (20Hz – 40GHz) | Rohde & Schwarz | ESIB40 | 100209 | 06/22/2021 | 06/22/2022 |
| PRE8' | PREAMPLFIER 1- 40 GHz | MITEQ | NSP4000-NF | 507145 | 11/25/2020 | 11/25/2021 |
| | | | | MS19121200 | | |
| DAV007` | Weather Station Vantage Vue | Davis | 6250 | 3 | 03/22/2021 | 03/22/2022 |
| ETS005' | 1-18GHz horn antenna | ETS-Lindgren | 3117 | 00218279 | 09/28/2020 | 09/28/2021 |

Software Utilized:

| Name | Manufacturer | Version |
|---------|--------------|-----------|
| BAT-EMC | Nexio | 3.18.0.16 |

10.3 Results:

The sample tested was found to Comply. Where a resolution bandwidth of less than 1 MHz was used (in some cases, 120 kHz or 100 kHz), more than 10 dB margin to the limit is shown. Since the two antenna ports transmit uncorrelated data streams and use cross polarized antennas, no adjustments to the test results were applied due to MIMO operation, per KDB 662911.

§24.238(a): The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.
(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Note: All spurious emissions were tested with narrowest bandwidth and QPSK modulation settings. Since there were no emissions within 30dB of limit, and settings had ~1dB effect on peak readings, other settings were not tested and EUT was considered compliant.

10.4 Setup Photographs:

9kHz – 30 MHz

30-1000 MHz Test Setup

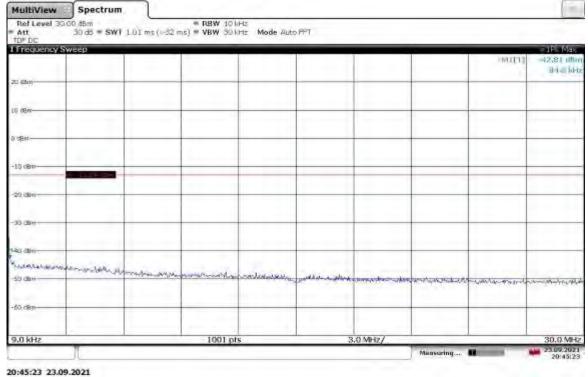
1-18 GHz Test Setup

18-22 GHz

Antenna Port Conducted Test Setup

10.5 Plots/Data:

Slot 2 (Band 2), ANT0, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Low Channel 1932.5 MHz 9KHz-30MHz



Slot 2 (Band 2), ANT0, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Low Channel 1932.5 MHz 30MHz-1GHz

| Ref Level 30 Att | 30 dB = SWT 10 m | = RBW 100kHz | Mode Auto Sweet | | | | | |
|---------------------|---------------------------|----------------|-------------------------|-------------|--------------|--------------|---|--------------------------|
| TOP Frequency S | | | | | | _ | | ≓1Pk Max |
| IT I CONCINUY | | | | | | | WILL | 36,57 dftn 540,190 MH |
| 20 dbm | | | | | | | | |
| LÜ dêm | | | - | | | | | |
| 0 1911 | | | | | | | | |
| -10 dBm | | | _ | | | | | |
| -20 dbm | | | | - | - | | | |
| -30 (BM | | | - | in1 | | | | |
| R. R. Linger | And the man the water and | my ware worked | a beneral total provide | a parameter | Alemintheory | tradesmodule | an an the party of the second s | - |
| 50 dbm | | _ | | | | | | |
| -60 cBm | | | _ | - | | | | |
| 30.0 MHz | | 100 | 11 pts | 9 | 7.0 MHz/ | | | 1.0 GH |
| | 1 | | | | | Misosuring | | 25.09.2021 |

20:48:38 23.09.2021

Slot 2 (Band 2), ANT0, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Low Channel 1932.5 MHz 1-22 GHz

| MultiView | Spectrum | | | | | | | |
|---------------------|--|---------------------|-------------------|-------|------------|-----------------|-------------|--------------|
| Ref Level 30 Att | 30 d8 = SWT 100 ms = | RBW 1 MHz Made | Auto Owner | | | | | |
| TDF | 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | VEW DIMITE MIDDLE | Moto Sweep | | | | | |
| I Frequency S | weep | | | | | | 1111 | 24,92 dfts |
| T | | | | 1 | | | and a start | 1.93-10 646 |
| 20 dbm | | _ | | | | | - | |
| | | - | | | | | | |
| 10 d8m | | _ | | | - | | | |
| 0.1811- | | | | | | | | |
| | | | | | - | | | |
| -10 dBi | HI - TLIDU dim | | | | | | | |
| -20 (8) | C Trans and | | | | | | | |
| | and many manufactured | nother man with the | and and | mound | horsonhown | and and another | menoning | - Mahalminer |
| -30 dBm | NAME AND | Andre and | Charlen and an an | | | | | · · |
| | | _ | | | _ | | | |
| r40.00m | | _ | | | | | | |
| dia man | | | | | | | | |
| -50 (III-9) | | | | | | | | |
| -60 cBm | | | | | | | - | |
| | · · · · · · | | | | | | | 1 |
| 1.0 GHz | | 1001 pt | 5 | | 2.1 GHz/ | 1 | 1 | 22.0 GHz |
| | 1 | | | | | Magsuring | | 25.09.2021 |

20:49:30 23.09.2021

Slot 2 (Band 2), ANT0, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Mid Channel 1960 MHz 9kHz-30MHz

| Ref Level 30.00 df Att 30 TDP DC I Trevency Sweet | d8 = SWT 100 ms = V | BW 10 kHz BW 30 kHz Mode | Auto Sweep | | | | | |
|--|---|-----------------------------|----------------------|------------|-------------------|---------------|-------------------------|---------------------------|
| | and the second se | | | | | | | |
| | - Bet. | | | | | | | =1PS Max |
| | | | | 1 | 1 march 1 | . 1 | and a | -45.42 dftm B-1 dt kHz |
| 20 dbm | | | | | | | - | |
| 10 d8m | _ | - | | | | | | |
| 0 :18m | | _ | | | - | | | |
| -10 dBm | | _ | - | | | | | |
| -20 (8)(1 | | - | | | | | | - |
| -30 (BH- | | | | | | | | |
| -40 dbn | | | | | | | | |
| Josephen Marken | Mechanika and | Marchell Antolia | handstandingstanting | weltherity | Ala-JA Ardinaka | and al way | and have been as the to | wheel yes-resources for |
| -60 cBm | | | | | of a straight sea | an estates de | La ser L. Medicold | eve Loostenhat, a |
| 9.0 kHz | | 1001 pt | 5 | | .0 MHz/ | | | 30.0 MHz |
| T | | | | | | Measuring | Second Second | A 23.09.2021 20.58:53 |

Slot 2 (Band 2), ANT0, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Mid Channel 1960 MHz 30MHz-1GHz

| TDF I Frequency S | weep | _ | _ | | | | | | = 1Ps Max |
|----------------------|-----------------|-----------------|--------------|--------|--------------------|-------------------|---------------------|--|--------------------------|
| | | | | | 1 | 12-0 | ň | afri | -37,14 dfb 111,350 MH |
| 20 dbm | | | | | | - | | | |
| ų dem | - | - | | | | - | | | |
|) (Bri | | | | | | | | | |
| -10 dBm | | | | | | | | | |
| -20 dbm | | | | | | | | | |
| 30 (BH | | | | Gen | | | | | |
| and the second | al advisor when | when palmost be | State Martin | Mikewa | ale with the grant | antigene part-and | hu dependent of the | and the state of t | with seasons with |
| 50 dam | | | ne ser | | | | | 1 | |
| 60 dBm | | | | | | | | _ | |
| 30.0 MHz | | | 1001 pl | | 0 | 7.0 MHz/ | | | 1.0 GH |

^{20:58:53 23.09.2021}

Slot 2 (Band 2), ANT0, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Mid Channel 1960 MHz 1-22GHz

| MultiView | Spectrum | | | | | | | | |
|----------------|----------------|------------------------------|--------------|--------------------------|----------------------------------|-------------|----------------|-----------|-------------------------|
| Ref Level 30. | 00 dBm | = PB | W 1 MHz | - | | | | | |
| TOP | 30 d8 = SWT 1 | 00 ms = VBV | W 3 MHz Mode | e Auto Sweep | | | | | |
| I Frequency Sy | weep | | - | | | | - | | = 1Pk Max |
| | | | | | 1 | - | | eifi) | 28.77 dlbr 1.9550 GH |
| 20 dbm | | | | | | | | | |
| 10 dBm | _ | _ | | - | | - | | | |
| 0.1811- | | | | | - | | | | |
| -10 dBn | | | | _ | | - | | | |
| -20 (Be | | | | | | | | | |
| -30 (Bin | a white and it | wished with the state of the | and question | an second representation | المحاوير والاجران معران معران من | Microphysic | Jacket Version | anany man | winduman |
| | | | | | 1 | | | | |
| -45 dBm | | | | | | | | | |
| -53 dam | | | | | | | | | |
| -60 c@m | | | - | | | | | | |
| | 1 | | | | | | | 1 | |
| 1.0 GHz | | | 1001 p | ts | | 1 GHz/ | - | - | 22.0 GHz |
| | 1 | | | | | _ | Measuring | | 25.09.2021 20:56:19 |

20:56:20 23.09.2021

Slot 2 (Band 2), ANT0, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, High Channel 1987.5 MHz 9kHz-30Hz

| MultiView | Spectrum | 1 | | | | | | - |
|--|---|-----------------------------|-----------------------|----------------------------|--------------------------------------|----------------|-------------------|-------------------------|
| Ref Level 30. | | · PBW 1014 | | | | | | |
| TDP DC | 53.00 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - | 0 ms = VBW 30 kHz | Mode Auto Sweep | ¢ | | | | 100 |
| I Frequency S | weep | | | | | | | ≓1Pk Max |
| 1 N 1 | | | | | 1 march 1 | | WILL | -43,72 dfln 473-0 kH |
| 20 dbm | | | | - | - | | - | |
| 10 d8m- | | | | | - | | - | - |
| 0.18# | | | | | | | | |
| -10 dBin- | | | | | - | | | |
| | | | | | - | | | |
| -20 dbn | | | - | | | | | |
| -30 (BH) | | | | | | | | |
| -90 cum | | | | | | - | - | |
| Water Water | Warmarch Manny | urrhand - million and an an | of a first the market | total to the second second | and the second of | a standard sea | K | |
| the second s | | | | of the star house | theory and a final final first first | Manahautanas | where where where | legen an an an an |
| -60 cBm | | | | | - | | | |
| 9.0 kHz | - | | 001 pts | - | 3.0 MHz/ | - | | 30.0 MHz |
| | 1 | | | | | Measuring | Second Second | 23.09.2021 |

Slot 2 (Band 2), ANT0, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, High Channel 1987.5 MHz 30MHz-1GHz

| Frequency Sv | weep | | | | | | | | = 1Pk Max |
|-----------------------|-----------------------|-------------|---------|-------------------|-------------------|------------|--------------------|-----------------------|---------------------------|
| | | | | | | | Ň | airt. | -37.22 dfbr 505.280 MH |
| 20 dbm | | | | | | | | | 5005200 MH |
| lü dêm | _ | | | | | | | | |
| 0.584 | | | | | | - | | | |
| -10 dBin | | | | | | | | | |
| -20 dbm | | | | | - | | | | |
| -30 (BH | _ | | | | | | | | |
| An all and an address | white telephysocial a | miguitiante | - | at more ware will | ubullin abrailana | mananation | another providents | NAME AND A DECEMPTION | www.staden |
| -50 (80++ | | | | | | - | | - | |
| -60 dim- | | | | | | | | | - |
| 30.0 MHz | _ | - | 1001 pl | e | 0 | 7.0 MHz/ | | | 1.0 GHz |

Slot 2 (Band 2), ANT0, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, High Channel 1987.5 MHz 1-22GHz

| MultiView | Spectrum | | | | | | | | |
|----------------------|---------------|----------------|------------------------|--------------------------|-------------------|-----------|--------------|--|------------------------|
| Ref Level 30 Att | 30 dB = SWT 1 | P PE | W 1 MHz W 3 MHz Mov | e Auto Sweep | | | | | |
| TOP I Frequency S | | 45 MG - 45 | the second solution | a toric analy | | | _ | | ≓1Pk Max |
| ML I | | | - | | | | | MILLI | 25,32 dfb 1,9970 GH |
| 20 4641 | | | | | | | | | |
| 10 d8 <i>n</i> | - | _ | | | | - | | - | |
| D:d8m | | | | | | - | | | |
| -10 dBm | | | | | | | | | |
| -20 (84 | | | | | | | | | |
| handling wantput | manentality | and man filled | Marson Harman Har | what we are a set of the | a perfect and per | Manusiner | Almer Lusine | or would be a construction of the second | a statestantes |
| -40 cbm | | _ | | | | - | _ | | |
| -50 cBm | | | | | | | | | |
| | | | | | | | | | |
| -60 cBm | | | | | | 1 | | | |
| 1.0 GHz | | | 1001 | pts | | 2.1 GHz/ | | | 22.0 GHz |
| | 1 | | | | | | Measuring | | 23.09.2021 |

21:07:02 23.09.2021

Slot 2 (Band 2), ANT1, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Low Channel 1932.5 MHz 9kHz-30MHz

| MultiView | Spectrum | | | | | | | - |
|----------------|---------------------------------|--|------------------------------|----------------|----------------------|-----------------|-------------------------------|--------------------------|
| Ref Level 30. | 00 dBm 30 dB = SWT 1.01 ms (| = RSW 101 | | 21 | | | | |
| TDP DC | 5 T. M | voz msj = vew our | UTZ MODE AUCO FT | | | | | - |
| I Frequency Sv | weep | | | _ | | - | | = 1Pis Max |
| | | | | | | | HALLI | -14,34 dftm 1-14-0 kH |
| 20 dbm | | | | | | | | |
| 10 d8m | | | | | | | | |
| | | | | | | | | |
| 0.4811 | | | | | | | | |
| -10 dBin- | | _ | | | | | | _ |
| 5.00 | U + TLADU dbm | | | | | | | |
| -20 dBm- | | | | | | | | |
| -30 (3BH) | | - | | | | | | |
| 740 GB-1 | | | | | | | | |
| honoristation | hownownyteriopherioansk | | | · | _ | | | |
| -55 dbm | | and the state of the first of t | and an and the second second | Warren war and | hand the second days | alexander and a | entre half-mathematical parts | +lipstrations |
| -60 cBm | | | | _ | | | | |
| | | | | | | | | |
| 9,0 kHz | | 1001 pt | 5 | 3.0 | MHz/ | _ | | 30.0 MHz |
| | 1 | | | | | Measuring | | 23.09.2021 20:46:56 |

Slot 2 (Band 2), ANT1, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Low Channel 1932.5 MHz 30MHz-1GHz

| TEP | | | | 0.00 | | | | | = 1Ps Max |
|--------------------|----------------|---|---------|-------------|-----------------------|--------------------|----------|------------------|-------------------------|
| l Frequency S | weep | | 1 | | 1 | | | WILL | 36,36 dlu 193,060 MH |
| 20 dbm | | | | | | | | | |
| lü dêm | - | | | | | | | | |
| 0.0811 | | | | | | | | | |
| -10 dBm | | | | | | | | | |
| 20 dBm | _ | - | | | | | | | |
| 30 (BH | | | | ML | | | | | |
| We start white and | Complete Marth | | | yearston An | herein and the second | allow of the house | manyment | Herterer Helevel | and the second second |
| 50 clim | | | | | | | | | |
| -60 citra | | | | | | | - | | - |
| 30.0 MHz | | | 1001 pt | 5 | 9 | 7.0 MHz/ | | | 1.0 GH |

^{20:46:56 23.09.2021}

Slot 2 (Band 2), ANT1, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Low Channel 1932.5 MHz 1-22GHz

| MultiView | Spectrum | | | | | | | - |
|---------------|-------------------------------|-----------------------|----------------------|----------------------|---------------|--------------|---------------|------------------------|
| Ref Level 30 | 100 dBm | PBW 1 MHz | and the second | | | | | |
| TOP Att | 30 dB = SWT 100 ms | WBW 3 MHz Mod | le Auto Sweep | | | | | |
| I Frequency S | Sweep | | <u> </u> | | | | | 21PS Max |
| MI I | | | | | | 1 | 111 | 24,68 dib 1.9340 GH |
| 20 dbm | | | | | | | | |
| 10 d8m | | | | _ | | | | |
| 0.08/ | | | | - | | | | |
| -10 dBn | | | | | | | | |
| -20 (Bi) | | | | | | 45 | | |
| -30 com | and a property and the second | under header had with | war we specify which | enormal and a server | ownershappend | Water Marine | weeken moders | at a character was the |
| -40,080 | | _ | | _ | _ | | _ | |
| -50 (Bm | | | | | | | | |
| | | | | | | | | |
| -60 cBm | | | | | | | | |
| 1.0 GHz | | 1001 g | ots | 2 | 1 GHz/ | - | | 22.0 GHz |
| | TT | | | | | Measuring | 10000 | 25.09.2023 |

20:50:16 23.09.2021

Slot 2 (Band 2), ANT1, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Mid Channel 1960 MHz 9kHz-30MHz

| MultiView | Spectrum | | 100 | | | | | | - |
|--|-----------------------|---|-------------------------|-----------------------|----------------------|--|---------------|--------------|--------------------------|
| Ref Level 30. Att TDF DC | 00 dBm 30 dB = SW1 | | V 10 MHz V 30 MHz Mo | de Auto Sweep | - | | | | |
| Effrequency St | weep | _ | | | | | | | =1Ps Max |
| | | 1 | | | | | 1 | MILLI | -45,43 dft/ 81 g kH |
| 20 dbm | | | | + | | - | | - | |
| 10 d8m | _ | _ | | | | - | | - | - |
| 0 :1811 | | | | | | | _ | | |
| -10 dBm | - | | | | | | | | _ |
| -20 dB-n | | | | | | | | | |
| -30 (BH | | - | _ | | _ | _ | | _ | _ |
| -40 clim- | | _ | | | | | | | |
| Was how whether whethe | menu | N. 10-1 | - | | | | | 1 | 1000 |
| 52 (Bin | | example and a straight of the | alex marker ? | and the second second | her of his marker of | the state of the s | approximation | manuli-unima | rentrum den webs |
| -60 cBm | | - | | | | | | | |
| 9.0 kHz | - | | 1001 s | ots | | 3.0 MHz/ | - | _ | 30.0 MH |
| | 1 | | | | | | Measuring | | A 23.09.2021 20.58:10 |

Slot 2 (Band 2), ANT1, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Mid Channel 1960 MHz 30MHz-1GHz

| TOP I Frequency | Conser | | | | | | _ | | ≓1Ps Max |
|--------------------|--------------|-----------------|---------------------------|---------|-----------------|-----------------|-------|-------------------|--------------------------|
| Trequency | 20669 | | | | 1 | | | utit 1 | -36,43 dla 452,010 MH |
| 20 dbm | | | | | | | | | |
| LÜ dêm- | | | | | | | | | |
| 0 1911 | | | | | | | | | |
| -10 dBm | | | | | | | | | |
| -20 dbm | | | | | | | | | |
| -30 (BH) | | | | - 011 | | | | | |
| as an and have | munnskalling | which which the | and a start of the second | Antonio | and had adopted | enalty in marts | anti- | <i>isoscenter</i> | ul gran grand |
| -50 dilm | | | | | | | | | |
| -80 cBm | | | | | | | | | |
| 30.0 MHz | - | | 1001 pt | s | 9 | 7.0 MHz/ | - | | 1.0 GH |

^{20:58:10 23.09.2021}

Slot 2 (Band 2), ANT1, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, Mid Channel 1960 MHz 1-22GHz

| MultiView | Spectrum | | | | | | | | 1.00 |
|----------------|-----------------------------------|-----------------|-------------|----------------|--------------------------|-----------|--------------------|-----------------|-------------------------|
| Ref Level 30. | | | W 1 MHz | and the second | | | | | |
| TOP Att | 30 d8 = SW1 | 100 ms # VB | W 3 MHz Mod | e auto Sweep | | | | | - |
| I Frequency St | weep | | | | | | | | = 1Pk Max |
| T T | | | | | 1 | | | affil | 25,17 dfbr 1,9550 GH |
| 20 dBm | | | | | | | | | |
| 10 08/0 | | - | | | | | | | |
| 0.18m | | | | - | | - | | | |
| -10 dBn | u - rijanu dim | _ | | | | | | | |
| -20 (86 | _ | | | | | | WI | No. do to to to | |
| Malan - Solar | Magy and the second second second | Anatolic Stream | mus handle | abelerations | Colorindodomini-colorida | Mattensen | culture "Viakhtrud | understand | (Annothing |
| -40 cBro- | _ | | | | _ | | | _ | |
| -50 (80) | | | | | | | | | |
| | | | | | | | | | |
| -60 dBm | | | | | | | | | - |
| 1.0 GHz | - | | 1001 0 | ots | - | 2.1 GHz/ | - | 1 | 22.0 GHz |
| | 1 | | | | | | Minosuring | | 23.09.2023 |

20:55:32 23.09.2021

Slot 2 (Band 2), ANT1, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, High Channel 1987.5 MHz 9kHz-30MHz

| MultiView | Spectrum | | | | | | | - |
|----------------------|-----------------------------|-------------------|---------------------|------------|---------------|-------------------------|--|-------------------------------|
| Ref Level 30. Att | 00 dBm 30 dB = SWT 100 m | PREW 10 MHz | Ande Auto Sweep | | | | | |
| TOP DC | COM CONTRACTOR | is = the JUNITZ N | none where sweep. | | | | | |
| I Frequency S | weep | | | | | | 1 | 21Ps Max |
| 1 | | | | | | | ALCI. | -45.21 dfln 650-0 kH |
| 20 dbm | | | | | | | | |
| 10 dên- | - | | | | | | - | - |
| 0.0811 | | | _ | _ | - | | | |
| -10 dBin | | | | | | | | |
| -20 dBm | | | | _ | | | - | |
| -30 (BH) | | | | | _ | | | |
| -40 CBro | | _ | | - | - | | | |
| Mayintherow | a some the spelptime. | Antonin Wood JA | When the man of the | Annanapali | tapopphillips | where where we want the | hand designed | all all and the second of the |
| -60 cBm | | | | _ | | | | |
| 9.0 kHz | | 100 | 1 pts | 3. | 0 MHz/ | | | 30.0 MHz |
| | 1 | | | | | Measuring | Concession in the local division of the loca | 25.09.2021 21.04:29 |

Slot 2 (Band 2), ANT1, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, High Channel 1987.5 MHz 30MHz-1GHz

| TOP I Frequency S | Sweep | | | | | | | ≓1Pk Max |
|----------------------|------------------|------------------|---------------------|-----------------|--------------------------|------------------|---------------------------------|---------------------------|
| | | | | 1 | 12.4 | | utit | -37,32 dft/ 542,330 MH |
| 20 dbm | | | | | | | | |
| LŲ dêm | - | | | | | | | |
| 0 1811 | | | | | - | | | |
| -10 dBin | -01+21300 dbm | | | | | | | |
| -20 dBm | AT + T TYPE UPA | | | | | | | |
| -30 (BM | | | | - | | | | |
| -da dha | harmonisten ben | | | Telemen | a set a set | | 1.u.s. & | |
| -50 CBM | hy with the work | Maxing Anarophan | Addition and the an | 2 To de de sera | Control of Marcon Markey | and house of the | and a standard and a standard a | the dama and a la |
| | _ | | | | | | | |
| -60 cBm- | | | _ | | | | | |
| 30.0 MHz | - | | 1001 pt | | 7.0 MHz/ | - | | 1.0 GH |

Non-Specific Radio Report Shell Rev. December 2017 Page 182 of 194 Client: CommScope Technologies LLC / Model: RPM-A5A11-B02 with W/ 5G NR waveform With OneCell® RP5100

Slot 2 (Band 2), ANT1, Modulation: TM1.1-QPSK, Bandwidth: 5 MHz, High Channel 1987.5 MHz 1-22GHz

| MultiView | Spectrum | the second second | | | | | |
|----------------------|--------------------------------|----------------------------------|-----------------------------|------------------|-------------------------|----------------------|------------------------|
| Ref Level 30 Att | 00 dBm 30 dB = SWT 100 ms = | RBW 1 MHz VBW 3 MHz Mode Auto | Sweep | | | | |
| TOP Effectuency S | weep | | | | | | = 1Pk Max |
| I. | | | | - | 1 | MILLI | 25,11 dfb 1,9970 GH |
| 20 dbm | | | | | | | |
| 10 68/1 | - | | | - | - | | |
| 0.48/ | | | | | | | |
| -10 dBm | (U +T13DU dB/s | | | | | | |
| -20 (Be | | markened un | and in the man in the party | with the second | | antine March at 1941 | weber |
| Con All Langer | miner and parental work | Jay Marshillow | and and the second second | ne constructions | Participant Contraction | | War |
| -40 dbo- | | | | | | - | |
| -50 CBm | | | | _ | | | |
| -60 cBm | | _ | | | - | | |
| 1.0.GHz | | 1001 pts | | 2.1 GHz/ | | | 22.0 GHz |
| | A | | | | Measuring | | 25.09.2021 21:06:23 |

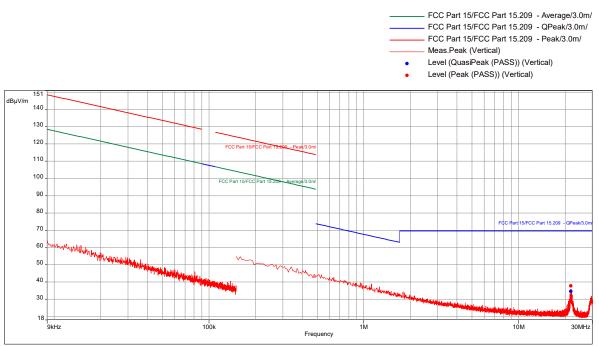
21:06:23 23.09.2021

Radiated Emissions, 9kHz-30 MHz

Slot 2 (Band 2), Modulation: TM1.1-QPSK, Bandwidth 5 MHz, Transmit @ Low Channel Test Information:

| Date and Time | 8/27/2021 9:55:37 PM |
|---------------------------|---|
| Client and Project Number | CommScope_G104751739 |
| Engineer | Vathana Ven |
| Temperature | 31 deg C |
| Humidity | 39% |
| Atmospheric Pressure | 1007 mB |
| Comments | RE 9kHz-30MHz POE Band 2 5MHz BW TM1.1 (worst-case) Tx Low CH |
| | 1932.5MHz_RP5100 host |

Graph:



Results:

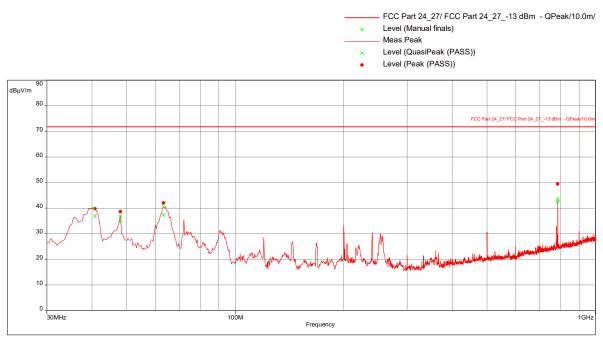
| Peak (PASS) | (1) | | | | | | | |
|--------------------|-------------------|-------------------|----------------|---------------------|--------------------|--------------|-------------|--------------------|
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Azimuth (°) (dB) | Height (m) (dB) | Pol. (dB) | RBW (dB) | Correction (dB) |
| 21.7365 | 37.75 | 69.54 | -31.79 | 342.00 | 1.00 | Vertical | 9000.00 | 11.04 |
| QuasiPeak (P | PASS) (1) | | | | | | | |
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Azimuth (°) (dB) | Height (m) (dB) | Pol. (dB) | RBW (dB) | Correction (dB) |
| 21.7365 | 34.63 | 69.54 | -34.91 | 342.00 | 1.00 | Vertical | 9000.00 | 11.04 |

Radiated Emissions, 30-1000 MHz

Slot 2 (Band 2), Modulation: TM1.1-QPSK, Bandwidth 5 MHz, Transmit @ Low Channel Test Information:

| Date and Time | 9/12/2021 12:29:50 PM |
|---------------------------|--|
| Client and Project Number | CommScope_G104751739 |
| Engineer | Vathana Ven |
| Temperature | 31 deg C |
| Humidity | 39% |
| Atmospheric Pressure | 1007 mB |
| Comments | RE 30-1000MHz_POE_Band 2 5MHz BW_TM1.1 _Tx Low CH 1932.5MHz_RP5100 |
| | host |

Graph:



Results:

| Peak (PASS) (| 4) | | | | | | | | |
|---------------|----------|--------|--------|--------|----------|----------|-----------|-----------|------------|
| Frequency | Level | Level | Limit | Margin | Azimuth | Height | Pol. (dB) | RBW (dB) | Correction |
| (MHz) | (dBµV/m) | (dBm) | (dBm) | (dB) | (°) (dB) | (m) (dB) | | | (dB) |
| 40.93684211 | 39.77 | -45.03 | -13.00 | -32.03 | 17.00 | 2.07 | Vertical | 120000.00 | -20.23 |
| 48 | 38.55 | -46.25 | -13.00 | -33.25 | 358.00 | 3.22 | Vertical | 120000.00 | -24.48 |
| 63.26315789 | 42.02 | -42.78 | -13.00 | -29.78 | 83.00 | 2.53 | Vertical | 120000.00 | -25.27 |
| 785.6 | 49.44 | -35.36 | -13.00 | -22.36 | 226.00 | 2.92 | Vertical | 120000.00 | -7.96 |

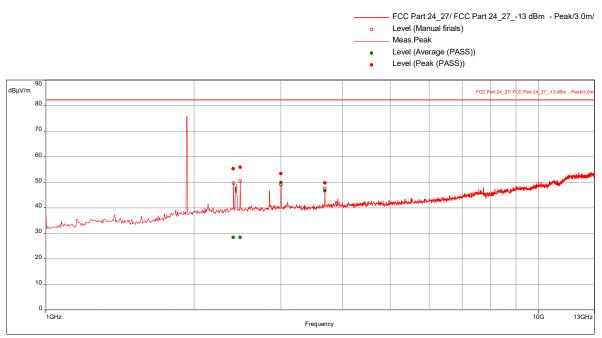
Level EIRP (dBm) = Level Peak (dBuV/m) - 84.8

Radiated Emissions, 1-22 GHz

Slot 2 (Band 2), Modulation: TM1.1-QPSK, Bandwidth 5 MHz, Transmit @ Low Channel <u>Test Information</u>:

| Date and Time | 9/19/2021 10:48:26 AM |
|---------------------------|--|
| Client and Project Number | CommScope_G104751739 |
| Engineer | Vathana Ven |
| Temperature | 31 deg C |
| Humidity | 39% |
| Atmospheric Pressure | 1007 mB |
| Comments | RE 1 to 13 GHz POE Band 2 5MHz BW TM1.1 Tx Low CH 1932.5MHz RP5100 |
| | host |

Graph:



Results:

| Peak (PASS) (| 4) | | | | | | | | |
|--------------------|-------------------|----------------|----------------|----------------|---------------------|--------------------|------------|------------|--------------------|
| Frequency (MHz) | Level (dBµV/m) | Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (°) (dB) | Height (m) (dB) | Pol. (dB) | RBW (dB) | Correction (dB) |
| 2402.105263 | 55.29 | -39.97 | -13.0 | -26.97 | 220.00 | 1.75 | Horizontal | 1000000.00 | -3.15 |
| 2480.263158 | 55.88 | -39.38 | -13.0 | -26.38 | 322.00 | 1.85 | Horizontal | 1000000.00 | -3.26 |
| 3000 | 53.37 | -41.89 | -13.0 | -28.89 | 134.00 | 1.65 | Horizontal | 1000000.00 | -2.35 |
| 3686.315789 | 49.71 | -45.55 | -13.0 | -32.55 | 176.00 | 1.05 | Horizontal | 1000000.00 | -1.29 |

Level EIRP (dBm) = Level Peak (dBuV/m) - 95.30

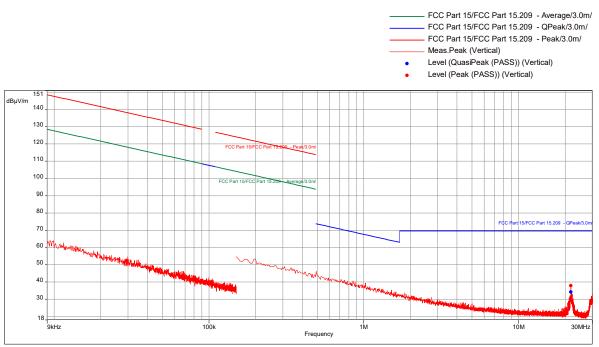
Big peak was from the fundamental frequency. Manual scan was performed from 13 to 22GHz. No emissions were detected above the measuring equipment noise floor.

Radiated Emissions, 9kHz-30 MHz

Slot 2 (Band 2), Modulation: TM1.1-QPSK, Bandwidth 5 MHz, Transmit @ Mid Channel Test Information:

| Date and Time | 8/27/2021 10:31:43 PM |
|---------------------------|---|
| Client and Project Number | CommScope_G104751739 |
| Engineer | Vathana Ven |
| Temperature | 31 deg C |
| Humidity | 39% |
| Atmospheric Pressure | 1007 mB |
| Comments | RE 9kHz-30MHz_POE_Band 2 5MHz BW_TM1.1 (worst-case)_Tx Mid CH |
| | 1960MHz RP5100 host |

Graph:



Results:

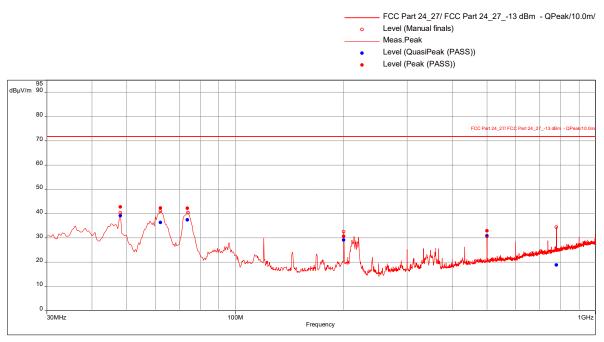
| Peak (PASS) (| 1) | | | | | | | |
|--------------------|-------------------|-------------------|----------------|---------------------|--------------------|--------------|-------------|--------------------|
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Azimuth (°) (dB) | Height (m) (dB) | Pol. (dB) | RBW (dB) | Correction (dB) |
| 21.73413158 | 37.83 | 69.54 | -31.71 | 0.00 | 1.00 | Vertical | 9000.00 | 11.04 |
| QuasiPeak (PA | ASS) (1) | | | | | | | |
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Azimuth (°) (dB) | Height (m) (dB) | Pol. (dB) | RBW (dB) | Correction (dB) |
| 21.73413158 | 34.16 | 69.54 | -35.38 | 0.00 | 1.00 | Vertical | 9000.00 | 11.04 |

Radiated Emissions, 30-1000 MHz

Slot 2 (Band 2), Modulation: TM1.1-QPSK, Bandwidth 5 MHz, Transmit @ Mid Channel Test Information:

| Date and Time | 8/28/2021 12:39:48 AM |
|---------------------------|---|
| Client and Project Number | CommScope_G104751739 |
| Engineer | Vathana Ven |
| Temperature | 31 deg C |
| Humidity | 39% |
| Atmospheric Pressure | 1007 mB |
| Comments | RE 30-1000MHz_POE_Band 2 5MHz BW_TM1.1 (worst-case)_Tx Mid CH |
| | 1960MHz RP5100 host |

Graph:



Results:

| Peak (PASS) (| 6) | | | | | | | | |
|---------------|----------|--------|--------|--------|----------|----------|------------|-----------|------------|
| Frequency | Level | Level | Limit | Margin | Azimuth | Height | Pol. (dB) | RBW (dB) | Correction |
| (MHz) | (dBµV/m) | (dBm) | (dBm) | (dB) | (°) (dB) | (m) (dB) | | | (dB) |
| 48 | 42.76 | -42.04 | -13.00 | -29.04 | 291.00 | 1.00 | Vertical | 120000.00 | -24.52 |
| 61.90526316 | 42.26 | -42.54 | -13.00 | -29.54 | 0.00 | 2.08 | Vertical | 120000.00 | -25.46 |
| 73.74736842 | 42.22 | -42.58 | -13.00 | -29.58 | 144.00 | 2.01 | Vertical | 120000.00 | -24.90 |
| 200 | 30.62 | -54.18 | -13.00 | -41.18 | 359.00 | 2.25 | Vertical | 120000.00 | -19.48 |
| 500 | 32.85 | -51.95 | -13.00 | -38.95 | 55.00 | 1.69 | Horizontal | 120000.00 | -13.40 |
| 778.9578947 | 24.88 | -59.92 | -13.00 | -46.92 | 235.00 | 2.35 | Vertical | 120000.00 | -8.44 |

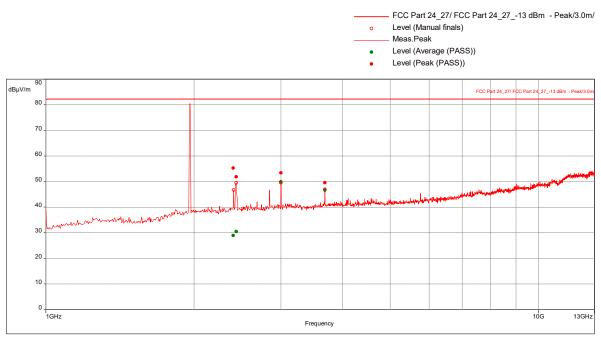
Level EIRP (dBm) = Level Peak (dBuV/m) -84.8

Radiated Emissions, 1-22 GHz

Slot 2 (Band 2), Modulation: TM1.1-QPSK, Bandwidth 5 MHz, Transmit @ Mid Channel Test Information:

| Date and Time | 9/19/2021 11:15:23 AM |
|---------------------------|--|
| Client and Project Number | CommScope_G104751739 |
| Engineer | Vathana Ven |
| Temperature | 31 deg C |
| Humidity | 39% |
| Atmospheric Pressure | 1007 mB |
| Comments | RE 1 to 13 GHz_POE_Band 2 5MHz BW_TM1.1_Tx Mid CH 1960MHz_RP5100 |
| | host |

Graph:



Results:

| Peak (PASS) (| 4) | | | | | | | | |
|---------------|----------|--------|-------|--------|----------|----------|------------|------------|------------|
| Frequency | Level | Level | Limit | Margin | Azimuth | Height | Pol. (dB) | RBW (dB) | Correction |
| (MHz) | (dBµV/m) | (dBm) | (dBm) | (dB) | (°) (dB) | (m) (dB) | | | (dB) |
| 2401.842105 | 55.29 | -39.97 | -13.0 | -26.97 | 97.00 | 3.25 | Horizontal | 1000000.00 | -3.15 |
| 2434.473684 | 51.87 | -43.39 | -13.0 | -30.39 | 104.00 | 1.01 | Horizontal | 1000000.00 | -3.32 |
| 3000 | 53.37 | -41.89 | -13.0 | -28.89 | 133.00 | 1.71 | Horizontal | 1000000.00 | -2.35 |
| 3686.315789 | 49.56 | -45.70 | -13.0 | -32.70 | 175.00 | 1.00 | Horizontal | 1000000.00 | -1.29 |

Level EIRP (dBm) = Level Peak (dBuV/m) - 95.30

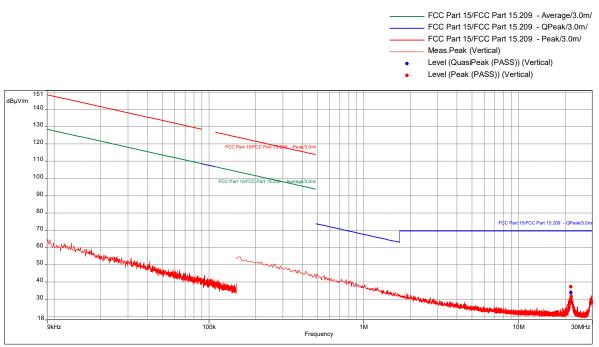
Big peak was from the fundamental frequency. Manual scan was performed from 13 to 22GHz. No emissions were detected above the measuring equipment noise floor.

Radiated Emissions, 9kHz-30 MHz

Slot 2 (Band 2), Modulation: TM1.1-QPSK, Bandwidth 5 MHz, Transmit @ High Channel Test Information:

| Date and Time | 8/27/2021 11:07:41 PM |
|---------------------------|--|
| Client and Project Number | CommScope_G104751739 |
| Engineer | Vathana Ven |
| Temperature | 31 deg C |
| Humidity | 39% |
| Atmospheric Pressure | 1007 mB |
| Comments | RE 9kHz-30MHz POE Band 2 5MHz BW TM1.1 (worst-case) Tx High CH |
| | 1987.5MHz_RP5100 host |

Graph:



Results:

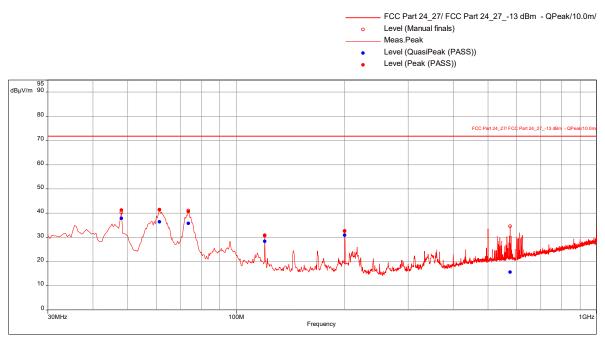
| Peak (PASS) (| [1] | | | | | | | |
|--------------------|-------------------|-------------------|----------------|---------------------|--------------------|--------------|-------------|--------------------|
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Azimuth (°) (dB) | Height (m) (dB) | Pol. (dB) | RBW (dB) | Correction (dB) |
| 21.73626316 | 37.25 | 69.54 | -32.29 | 265.00 | 1.00 | Vertical | 9000.00 | 11.04 |
| QuasiPeak (PA | ASS) (1) | | | | | | | |
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Azimuth (°) (dB) | Height (m) (dB) | Pol. (dB) | RBW (dB) | Correction (dB) |
| 21.73626316 | 33.84 | 69.54 | -35.70 | 265.00 | 1.00 | Vertical | 9000.00 | 11.04 |

Radiated Emissions, 30-1000 MHz

Slot 2 (Band 2), Modulation: TM1.1-QPSK, Bandwidth 5 MHz, Transmit @ High Channel Test Information:

| Date and Time | 8/27/2021 11:46:42 PM |
|---------------------------|--|
| Client and Project Number | CommScope_G104751739 |
| Engineer | Vathana Ven |
| Temperature | 31 deg C |
| Humidity | 39% |
| Atmospheric Pressure | 1007 mB |
| Comments | RE 30-1000MHz POE Band 2 5MHz BW TM1.1 (worst-case) Tx High CH |
| | 1987.5MHz_RP5100 host |

Graph:



Results:

| Peak (PASS) (6) | | | | | | | | | |
|--------------------|-------------------|----------------|----------------|----------------|---------------------|--------------------|------------|-----------|--------------------|
| Frequency (MHz) | Level (dBµV/m) | Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (°) (dB) | Height (m) (dB) | Pol. (dB) | RBW (dB) | Correction (dB) |
| 48 | 41.25 | -43.55 | -13.00 | -30.55 | 259.00 | 1.46 | Vertical | 120000.00 | -24.52 |
| 61.23157895 | 41.50 | -43.30 | -13.00 | -30.30 | 189.00 | 1.90 | Vertical | 120000.00 | -25.46 |
| 73.75789474 | 40.69 | -44.11 | -13.00 | -31.11 | 214.00 | 1.93 | Vertical | 120000.00 | -24.91 |
| 120.0315789 | 30.85 | -53.95 | -13.00 | -40.95 | 176.00 | 1.47 | Vertical | 120000.00 | -18.77 |
| 200 | 32.69 | -52.11 | -13.00 | -39.11 | 359.00 | 1.58 | Vertical | 120000.00 | -19.48 |
| 575.6947368 | 21.96 | -62.84 | -13.00 | -49.84 | 239.00 | 2.05 | Horizontal | 120000.00 | -12.02 |

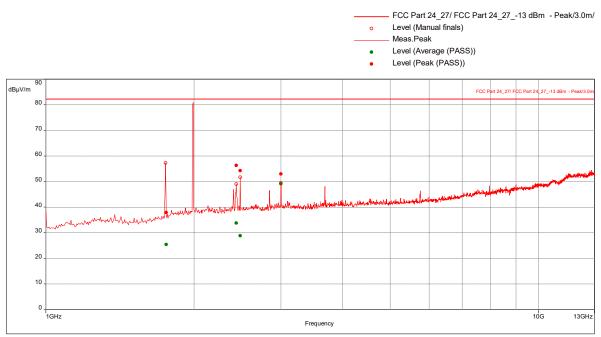
Level EIRP (dBm) = Level Peak (dBuV/m) -84.8

Radiated Emissions, 1-22 GHz

Slot 2 (Band 2), Modulation: TM1.1-QPSK, Bandwidth 5 MHz, Transmit @ High Channel Test Information:

| Date and Time | 9/19/2021 11:42:08 AM |
|---------------------------|---|
| Client and Project Number | CommScope_G104751739 |
| Engineer | Vathana Ven |
| Temperature | 31 deg C |
| Humidity | 39% |
| Atmospheric Pressure | 1007 mB |
| Comments | RE 1 to 13 GHz_POE_Band 2 5MHz BW_TM1.1_Tx High CH 1987.5MHz_RP5100 |
| | host |

Graph:



Results:

Peak (PASS) (4) Level Level Limit Margin Azimuth Height Pol. (dB) RBW (dB) Correction Frequency (MHz) (dBm) (m) (dB) (dBµV/m) (dBm) (dB) (°) (dB) (dB) 1752.894737 37.90 -57.36 -44.36 17.00 1000000.00 -13.0 1.85 Horizontal -6.15 2435.789474 56.28 -38.98 -13.0 -25.98 125.00 1.20 Horizontal 1000000.00 -3.33 2480.263158 -13.0 1.00 54.25 -41.01 -28.01 177.00 100000.00 Horizontal -3.26 3000 52.97 -42.29 -13.0 -29.29 132.00 2.10 Horizontal 100000.00 -2.35

Level EIRP (dBm) = Level Peak (dBuV/m) - 95.30

Big peak was from the fundamental frequency. Manual scan was performed from 13 to 22GHz. No emissions were detected above the measuring equipment noise floor.

| | Intertek | | | | | | | |
|---|-----------------------------|-----------------------|---|--|--|--|--|--|
| Report Number: 104 | 4751739BOX-013 | | Issued: 09/29/2021 Revised: 02/02/2022 | | | | | |
| Test Personnel: Supervising/Reviewing Engineer: (Where Applicable) | Vathana Ven | Test Date: | _09/19/2021, 09/23/2021 | | | | | |
| Product Standard: Input Voltage: | FCC Part 24 48 VDC (POE) | Limit Applied: | See report section 10.3 | | | | | |
| Pretest Verification w/ Ambient Signals or | | Ambient Temperature: | 31, 23 ℃ | | | | | |
| BB Source: | N/A | Relative Humidity: | | | | | | |
| | | Atmospheric Pressure: | 1007, 1008 mbars | | | | | |

Deviations, Additions, or Exclusions: None

11 Revision History

| Revision Level | Date | Report Number | Prepared By | Reviewed By | Notes |
|-------------------|------------|------------------|------------------|----------------|--|
| 0 | 09/29/2021 | 104751739BOX-013 | VFVV | KPS 4 | Original Issue |
| 1 | 01/12/2022 | 104751739BOX-013 | VFV ^V | KPS 43 | Removed test setup photos, added frequency stability vs. voltage test results tables, referenced the original LTE and new 5G NR capabilities of this device in product description |
| 2 | 02/02/2022 | 104751739BOX-013 | VFV | KPS 43 | Added justification for worst case for spurious emissions on page 166 |
| | | | | | |
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