

<b>Prüfbericht-Nr.:</b> <i>Test report no.:</i>	<b>CN23UBM9 001</b>	<b>Auftrags-Nr.:</b> <i>Order no.:</i>	<b>168450098</b> <b>P01226673</b>	<b>Seite 1 von 23</b> <i>Page 1 of 23</i>
<b>Kunden-Referenz-Nr.:</b> <i>Client reference no.:</i>	N/A	<b>Auftragsdatum:</b> <i>Order date:</i>	2023-09-22	
<b>Auftraggeber:</b> <i>Client:</i>	<b>Mavenir Systems Inc</b> 1700 International Pkwy Suite 200, Richardson, TX 75081 USA			
<b>Prüfgegenstand:</b> <i>Test item:</i>	Remote Radio Unit			
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type no.:</i>	MR44MOA			
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	Test Report			
<b>Prüfgrundlage:</b> <i>Test specification:</i>	47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart C 47 CFR Part 2 Subpart J		RSS-133 Issue 6, January 2018 RSS-139 Issue 4, October 2022 RSS-Gen Issue 5, April 2018	
<b>Wareneingangsdatum:</b> <i>Date of sample receipt:</i>	2023-10-30		Refer to Photo Documentation	
<b>Prüfmuster-Nr.:</b> <i>Test sample no.:</i>	A003591764-001			
<b>Prüfzeitraum:</b> <i>Testing period:</i>	2023-11-01 – 2023-11-10			
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass			
<b>geprüft von:</b> <i>tested by:</i>	<input checked="" type="checkbox"/> <u>Bell Hu</u>		<b>genehmigt von:</b> <i>authorized by:</i>	<input checked="" type="checkbox"/> <u>Lin Lin</u>
<b>Datum:</b> <i>Date:</i>	2024-02-19		<b>Ausstellungsdatum:</b> <i>Issue date:</i>	2024-02-19
<b>Stellung / Position:</b>	<b>Sachverständige(r)/Expert</b>		<b>Stellung / Position:</b>	<b>Sachverständige(r)/Expert</b>
<b>Sonstiges / Other:</b>	FCC ID: 2AWAS-901-00094B			
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	
* Legend:	P(ass) = passed a.m. test specification(s)		F(ail) = failed a.m. test specification(s)	
		N/A = nicht anwendbar		N/T = nicht getestet
		N/A = not applicable		N/T = not tested
<b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b> <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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## Anmerkungen

Remarks

<b>1</b>	<p>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system.</p> <p>Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</p> <p><i>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</i></p> <p><i>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i></p>
<b>2</b>	<p>As contractually agreed, this document has been signed digitally only. TÜV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TÜV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.</p> <p><i>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.</i></p>
<b>3</b>	<p>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</p> <p><i>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</i></p>
<b>4</b>	<p>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</p> <p><i>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</i></p>

## TEST SUMMARY

### 5.1.1 MODULATION CHARACTERISTICS

RESULT: Pass

### 5.1.2 FREQUENCY STABILITY

RESULT: Pass

### 5.1.3 TRANSMITTER POWER

RESULT: Pass

### 5.1.4 PEAK TO AVERAGE POWER RATIO (PAPR)

RESULT: Pass

### 5.1.5 OCCUPIED BANDWIDTH AND 26DB BANDWIDTH

RESULT: Pass

### 5.1.6 TRANSMITTER UNWANTED EMISSIONS AT ANTENNA TERMINALS

RESULT: Pass

### 5.1.7 TRANSMITTER UNWANTED EMISSIONS AT ANTENNA TERMINALS – BAND EDGE

RESULT: Pass

### 5.1.8 RECEIVER SPURIOUS EMISSIONS

RESULT: Pass

### 5.1.9 FIELD STRENGTH OF SPURIOUS RADIATION

RESULT: Pass

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## 1. General Remarks

### 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results

Appendix B: Test Results of Field Strength of Spurious Radiation

Appendix C: Photographs of the Test Set-Up

### 1.2 Test Standard(s)

Applied Rules: 47 CFR Part 24 Subpart E  
47 CFR Part 27 Subpart C  
47 CFR Part 2 Subpart J  
RSS-133 Issue 6, January 2018  
RSS-139 Issue 4, October 2022  
RSS-Gen Issue 5, April 2018

Test Method: ANSI C63.26-2015  
KDB 971168 D01 v03r01 Power Meas License Digital Systems  
KDB 662911 D01 v02r01 Multiple Transmitter Output

### 1.3 List of Document Change

No.	Report No.	Description
1	CN23UBM9 001	First release.

## 2. Test Sites

### 2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

(FCC Registration No.: 694916 & IC Registration Number: 25069)

Address: No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, P.R. China

### 2.2 Test Date

Date of test: 2023-11-01 to 2023-11-10

### 2.3 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

<input checked="" type="checkbox"/> Radio Spectrum Testing				
Description	Manufacturer	Model	Serial No.	Calibrated until (DD.MM.YYYY)
MXA Signal Analyzer	Keysight	N9020B	MY60112371	27.05.2024
Signal Analyzer	Rohde & Schwarz	FSV 40	101475	25.07.2024
MXG Vector Signal Generator	Keysight	N5182B	MY62220506	06.04.2024
MXG Vector Signal Generator	Keysight	N5182B	MY61252887	16.05.2024
Temp.&Humidity Chamber	GIANT FORCE	ITH-150-40-CP-AR	IAA1406-004	31.10.2024
<input checked="" type="checkbox"/> Unwanted Emission Testing (TS9975)				
Description	Manufacturer	Model	Serial No.	Calibrated until (DD.MM.YYYY)
EMI Test Receiver	R&S	ESR 7	102021	25.07.2024
Signal Analyzer	R&S	FSV 40	101439	25.07.2024
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	25.07.2024
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	25.07.2024
Amplifier	R&S	SCU-18F	180070	25.07.2024
Amplifier	R&S	SCU40A	100475	25.07.2024
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	06.08.2024

Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	06.08.2024
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	27.08.2024
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	06.08.2024
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	22.06.2024

## 2.4 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

## 2.5 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. facility located at No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

## 3. General Product Information

### 3.1 General Description

The EUT is an outdoor remote radio unit. It's the radio frequency (RF) part of a distributed base station. For details refer to the User Manual, Technical Description and Circuit Diagram.

### 3.2 Rating and System details

**Table 2: Rating of EUT**

General Information of EUT	Description
Kind of Equipment:	Remote Radio Unit
Type Designation:	MR44MOA
Trademark:	Mavenir
FCC ID:	2AWAS-901-00094B
Type of Equipment:	Cellular Network – Base Station
Operating Voltage:	DC -48V
Extreme Voltage:	DC -38.5V ~ -57.5V
Operating Temperature Range:	-40 °C - +55 °C

**Table 3: Technical Specification of EUT**

Characteristic	Description
Operated Modes:	LTE
Operational Frequency Band(s):	Band 25; Band 66
Operating Frequency Range:	Band 25: Downlink: 1930-1995 MHz / Uplink: 1850-1915 MHz Band 66: Downlink: 2110-2200 MHz / Uplink: 1710-1780 MHz
Testing Frequency Range:	Band 25: Downlink: 1950-1970 MHz / Uplink: 1870-1890 MHz Band 66: Downlink: 2140-2155 MHz / Uplink: 1740-1755 MHz
Type of Base Station:	Non-AAS Base Station
Rated RF Output Power:	46.0 dBm per port
Modulation Type:	QPSK, 16QAM, 64QAM, 256QAM
Antenna Ports:	4 TRX ports
Antenna Type:	External Antenna
Antenna Gain:	No dedicated antenna, Maximum allowed Gain against to ERP/EIRP limit and MPE evaluation.
Supported Channel Bandwidth:	Band 25: 20 MHz Band 66: 15 MHz
Supported Carriers	1 carrier



Maximum Occupied Bandwidth:	Band 25: 20 MHz Band 66: 15 MHz
Maximum RF Bandwidth:	Band 25: 20 MHz Band 66: 15 MHz

### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Transmitting
  - 1) Bottom channel (B)
  - 2) Middle channel (M)
  - 3) Top channel (T)
- B. On, Receiving
  - 1) Bottom channel (B)
  - 2) Middle channel (M)
  - 3) Top channel (T)
- C. Idle
- D. Off

### 3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

### 3.5 Submitted Documents

- User Manual
- Circuit Diagram
- Block Diagram
- Schematics
- Model Difference Letter
- Rating Label
- PCB Layout
- Photo Document
- Parts List

## 4. Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

**Radio Spectrum:** The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedure in KDB 971168 D01 and ANSI C63.26.

**Table 4: List of Frequencies under Test**

Operation Band	Channel Bandwidth (MHz)	Frequency (MHz)		
		B	M	T
Band 25	20	1960	1960	1960
Band 66	15	2147.5	2147.5	2147.5

Note: Only Middle channel was selected for final measurement because the frequencies of Bottom, Middle and Top channel have the same frequency and bandwidth.

**Table 5: Test Environments**

Environment Parameter	Selected Values During Tests		
	Temperature (°C)	Voltage (V) DC	Relative Humidity (%)
Normal (NTNV)	20	-48	50%
HTHV	55 °C	-57.5	---
LTHV	-40 °C	-57.5	---
HTLV	55 °C	-38.5	---
LTLV	-40 °C	-38.5	---

### 4.3 Special Accessories and Auxiliary Equipment

**Table 6: Cables used during testing**

Port	Quantity	Length (m)	Type of Cable
SPF Port	1	10	Optical fiber cable

**Table 7: Auxiliary Equipment used during testing**

Name	Model	Manufacturer	S/N
Laptop PC	Dell P98G	DELL	P98G007
DELL EMC	PowerEdge R740 6230R	DELL	3L9PWC3
DU	LTE_L1_FDD_4_10_1_70	Mavenir	N/A
GNSS Antenna	QG2 Qulsar Grand Master	Coolshark	N/A
Power Unit	W1500-26S48M	ShenZhen DCTEC	N/A
Programmable DC power supply	ADG-L-330-75-12	Preen	N/A

### 4.4 Countermeasures to achieve Radio Spectrum Compliance

The test sample, which has been tested, contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

### 4.5 Test Setup Diagram

Diagram of Measurement Equipment Configuration for Transmitter Conducted Measurement



Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

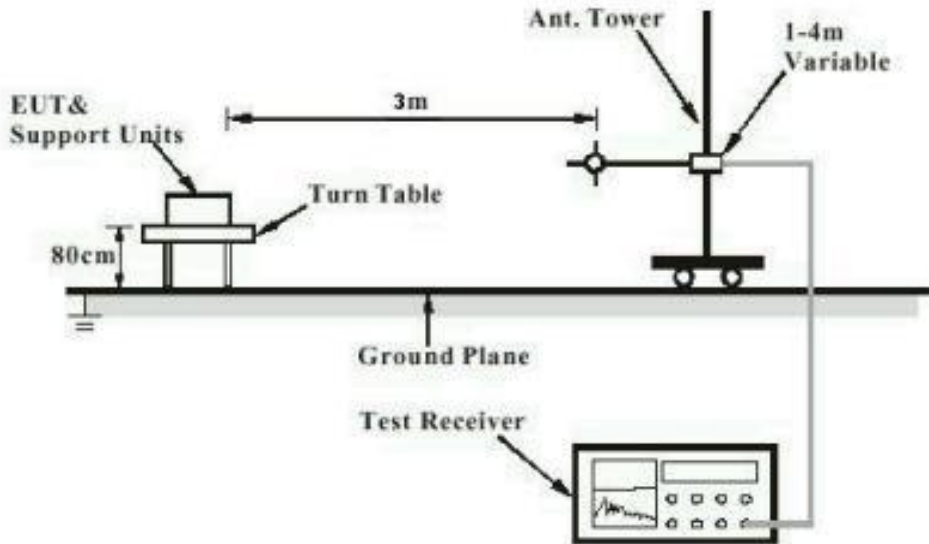
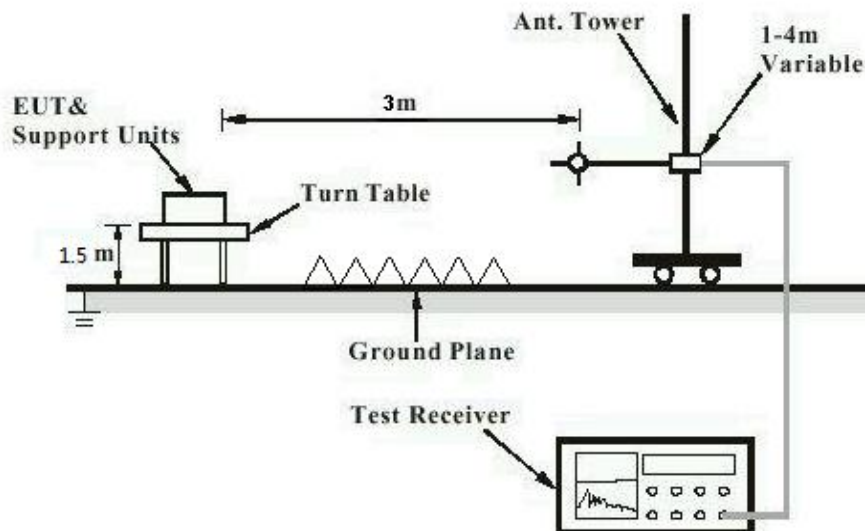


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)



## 5. Test Results

### 5.1 Essential Requirements

#### 5.1.1 Modulation Characteristics

**RESULT:****Pass**

Test standard	:	47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart C 47 CFR Part 2 Subpart J RSS-133 Issue 6, January 2018 RSS-139 Issue 4, October 2022 RSS-Gen Issue 5, April 2018
Limits	:	Section 2.1047(d) of 47 CFR Part 2 Subpart J Clause 6.2 of RSS-133 Issue 6, January 2018 Clause 5.3 of RSS-139 Issue 4, October 2022 <i>The modulation used shall be digital.</i>
Test procedure	:	Clause 5.3 of ANSI C63.26-2015 Clause 3 of KDB 971168 D01 v03r01
Kind of test site	:	Shielding Room

**TEST SETUP**

Date of testing	:	2023-11-01 to 2023-11-10
Input voltage	:	DC -48V
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input type="checkbox"/> Extreme test conditions
Operation mode	:	A
Ambient temperature	:	20 °C
Relative humidity	:	50%
Atmospheric pressure	:	101.0 kPa

**Note:**

The device implements digital modulation such as QPSK and higher order modulations (e.g. 16QAM, 64QAM and 256QAM), hence the EUT is deemed to comply with this requirement without additional testing.

## 5.1.2 Frequency Stability

**RESULT:****Pass**

Test standard	:	47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart C 47 CFR Part 2 Subpart J RSS-133 Issue 6, January 2018 RSS-139 Issue 4, October 2022 RSS-Gen Issue 5, April 2018
Limits	:	Section 24.235 of 47 CFR Part 24 Subpart E Section 27.54 of 47 CFR Part 27 Subpart C Section 2.1055 of 47 CFR Part 2 Subpart J Clause 6.3 of RSS-133 Issue 6, January 2018 Clause 5.4 of RSS-139 Issue 4, October 2022 <i>The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation. The carrier frequency shall not depart from the reference frequency, in excess of ±1.0 ppm for base stations. The frequency stability shall be sufficient to ensure that the occupied bandwidth stays within the operating frequency block or frequency block group when tested to the temperature and supply voltage variations specified in RSS-Gen.</i>
Test procedure	:	Clause 5.6 of ANSI C63.26-2015 Clause 9 of KDB 971168 D01 v03r01 Clause 6.11 of RSS-Gen Issue 5, April 2018
Kind of test site	:	Shielding Room

**TEST SETUP**

Date of testing	:	2023-11-01 to 2023-11-10
Input voltage	:	DC -48V
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input checked="" type="checkbox"/> Extreme test conditions
Operation mode	:	A
Ambient temperature	:	20 °C
Relative humidity	:	50%
Atmospheric pressure	:	101.0 kPa

Note:  
N/A

Refer to attached Appendix A for details of test results.

### 5.1.3 Transmitter Power

**RESULT:**
**Pass**

Test standard	:	47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart C 47 CFR Part 2 Subpart J RSS-133 Issue 6, January 2018 RSS-139 Issue 4, October 2022 RSS-Gen Issue 5, April 2018
Limits	:	Section 24.232(a)(2) of 47 CFR Part 24 Subpart E Section 27.50(d)(2)(ii) of 47 CFR Part 27 Subpart C Section 2.1046 of 47 CFR Part 2 Subpart J Clause 6.4 of RSS-133 Issue 6, January 2018 Clause 5.5 of RSS-139 Issue 4, October 2022 <i>Band 25: For 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.</i>  <i>Band 66: An EIRP of 1640 watts/MHz when transmitting with an emission bandwidth greater than 1 MHz. For fixed and base stations operating in the band 2110-2180 MHz with a channel bandwidth greater than 1 MHz, the maximum permissible e.i.r.p. is 62 dBm/MHz, with an antenna HAAT of up to 300 m.</i>
Test procedure	:	Clause 5.2.4.4 & 5.2.4.5 & 5.2.5.3 & 5.2.5.5 of ANSI C63.26-2015 Clause 5.2.2 & 5.4 & 5.5 & 5.6 of KDB 971168 D01 v03r01 Clause E) of KDB 662911 D01 Multiple Transmitter Output v02r01
Kind of test site	:	Shielding Room

**TEST SETUP**

Date of testing	:	2023-11-01 to 2023-11-10
Input voltage	:	DC -48V
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input type="checkbox"/> Extreme test conditions
Operation mode	:	A
Ambient temperature	:	20 °C
Relative humidity	:	50%
Atmospheric pressure	:	101.0 kPa

Note:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_{\text{T}}$$

Where:

ERP or EIRP: effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as  $P_{\text{Meas}}$ , e.g. dBm or dBW)

$P_{\text{Meas}}$ : measured transmitter output power, in dBm

$G_{\text{T}}$ : gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

Refer to attached Appendix A for details of test results.



### 5.1.4 Peak to Average Power Ratio (PAPR)

**RESULT:****Pass**

Test standard	:	47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart C 47 CFR Part 2 Subpart J RSS-133 Issue 6, January 2018 RSS-139 Issue 4, October 2022 RSS-Gen Issue 5, April 2018
Limits	:	Section 24.232(d) of 47 CFR Part 24 Subpart E Section 27.50(d)(5) of 47 CFR Part 27 Subpart C Clause 6.4 of RSS-133 Issue 6, January 2018 Clause 5.5 of RSS-139 Issue 4, October 2022 <i>the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.</i>
Test procedure	:	Clause 5.2.3.4 of ANSI C63.26-2015 Clause 5.7.2 of KDB 971168 D01 v03r01
Kind of test site	:	Shielding Room

**TEST SETUP**

Date of testing	:	2023-11-01 to 2023-11-10
Input voltage	:	DC -48V
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input type="checkbox"/> Extreme test conditions
Operation mode	:	A
Ambient temperature	:	20 °C
Relative humidity	:	50%
Atmospheric pressure	:	101.0 kPa

## Note:

N/A

Refer to attached Appendix A for details of test results.

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## 5.1.5 Occupied Bandwidth and 26dB Bandwidth

**RESULT:****Pass**

Test standard	:	47 CFR Part 2 Subpart J RSS-Gen Issue 5, April 2018
Test requirement	:	Section 2.1049 of 47 CFR Part 2 Subpart J Clause 6.7 of RSS-Gen Issue 5, April 2018
Limits	:	The occupied bandwidth for each E-UTRA carrier shall be less than the channel bandwidth.
Test procedure	:	Clause 5.4.3 & 5.4.4 of ANSI C63.26-2015 Clause 4.2 & 4.3 of KDB 971168 D01 v03r01 <input checked="" type="checkbox"/> Conducted measurements <input type="checkbox"/> Radiated measurements
Kind of test site	:	Shielding Room

**TEST SETUP**

Date of testing	:	2023-11-01 to 2023-11-10
Input voltage	:	DC -48V
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input type="checkbox"/> Extreme test conditions
Operation mode	:	A
Ambient temperature	:	20 °C
Relative humidity	:	50%
Atmospheric pressure	:	101.0 kPa

Note:

N/A

Refer to attached Appendix A for details of test results.

## 5.1.6 Transmitter Unwanted Emissions at Antenna Terminals

**RESULT:**
**Pass**

Test standard	:	47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart C 47 CFR Part 2 Subpart J RSS-133 Issue 6, January 2018 RSS-139 Issue 4, October 2022 RSS-Gen Issue 5, April 2018
Limits	:	Section 24.238(a) of 47 CFR Part 24 Subpart E Section 27.53(h) of 47 CFR Part 27 Subpart C Section 2.1051 of 47 CFR Part 2 Subpart J Clause 6.5 of RSS-133 Issue 6, January 2018 Clause 5.6 of RSS-139 Issue 4, October 2022 Clause 6.13 of RSS-Gen Issue 5, April 2018 <i>the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least <math>43 + 10 \log_{10}(P)</math> dB [-13 dBm/MHz]</i>
Test procedure	:	Clause 6.13 of RSS-Gen Issue 5, April 2018 Clause 5.7 of ANSI C63.26-2015 Clause 6.1 of KDB 971168 D01 v03r01
Kind of test site	:	Shielding Room

**TEST SETUP**

Date of testing	:	2023-11-01 to 2023-11-10
Input voltage	:	DC -48V
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input type="checkbox"/> Extreme test conditions
Operation mode	:	A.1
Ambient temperature	:	20 °C
Relative humidity	:	50%
Atmospheric pressure	:	101.0 kPa

Note:

N/A

Refer to attached Appendix A for details of test results.

### 5.1.7 Transmitter Unwanted Emissions at Antenna Terminals – Band Edge

**RESULT:** **Pass**

Test standard	:	47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart C 47 CFR Part 2 Subpart J RSS-133 Issue 6, January 2018 RSS-139 Issue 4, October 2022 RSS-Gen Issue 5, April 2018
Limits	:	Section 24.238(a) of 47 CFR Part 24 Subpart E Section 27.53(h) of 47 CFR Part 27 Subpart C Section 2.1051 of 47 CFR Part 2 Subpart J Clause 6.5 of RSS-133 Issue 6, January 2018 Clause 5.6 of RSS-139 Issue 4, October 2022 Clause 6.13 of RSS-Gen Issue 5, April 2018 <i>Band 25: In the 1.0 MHz bands immediately outside and adjacent to the equipment's operating frequency block, the emission power per any 1% of the emission bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least <math>43 + 10 \log_{10}(P(\text{watts}))</math>.</i> <i>Band 66: -13 dBm/(1% of OB) within 1 MHz immediately outside and adjacent to the equipment's operating frequency block</i>
Test procedure	:	Clause 6.13 of RSS-Gen Issue 5, April 2018 Clause 5.7 of ANSI C63.26-2015 Clause 6.1 of KDB 971168 D01 v03r01
Kind of test site	:	Shielding Room

**TEST SETUP**

Date of testing	:	2023-11-01 to 2023-11-10
Input voltage	:	DC -48V
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input type="checkbox"/> Extreme test conditions
Operation mode	:	A
Ambient temperature	:	20 °C
Relative humidity	:	50%
Atmospheric pressure	:	101.0 kPa

Note:  
N/A

Refer to attached Appendix A for details of test results.

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## 5.1.8 Receiver Spurious Emissions

**RESULT:****Pass**

Test standard	:	RSS-133 Issue 6, January 2018 RSS-Gen Issue 5, April 2018
Limits	:	Clause 6.6 of RSS-133 Issue 6, January 2018 Clause 7.4 of RSS-Gen Issue 5, April 2018 <i>Band 25: The spurious emissions from the receiver at any discrete frequency, measured at the antenna port by the antenna-conducted method, shall not exceed 2 nW (-57 dBm) in the frequency range 30-1000 MHz and 5 nW (-53 dBm) above 1 GHz.</i>
Test procedure	:	Clause 7.4 of RSS-Gen Issue 5, April 2018
Kind of test site	:	Shielding Room

**TEST SETUP**

Date of testing	:	2023-11-01 to 2023-11-10
Input voltage	:	DC -48V
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input type="checkbox"/> Extreme test conditions
Operation mode	:	B
Ambient temperature	:	20 °C
Relative humidity	:	50%
Atmospheric pressure	:	101.0 kPa

Note:

N/A

Refer to attached Appendix A for details of test results.

### 5.1.9 Field Strength of Spurious Radiation

**RESULT:**
**Pass**

Test standard	:	47 CFR Part 24 Subpart E 47 CFR Part 27 Subpart C 47 CFR Part 2 Subpart J RSS-133 Issue 6, January 2018 RSS-139 Issue 4, October 2022 RSS-Gen Issue 5, April 2018
Limits	:	Section 24.238(a) of 47 CFR Part 24 Subpart E Section 27.53(h) of 47 CFR Part 27 Subpart C Section 2.1053 of 47 CFR Part 2 Subpart J Clause 6.5 & 6.6 of RSS-133 Issue 6, January 2018 Clause 5.6 of RSS-139 Issue 4, October 2022 Clause 6.13 of RSS-Gen Issue 5, April 2018 <i>the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least <math>43 + 10 \log_{10}(P)</math> dB [-13 dBm/MHz]</i>
Test procedure	:	Clause 6.13 of RSS-Gen Issue 5, April 2018 Clause 5.5 of ANSI C63.26-2015 Clause 7 of KDB 971168 D01 v03r01
Kind of test site	:	Shielding Room

**TEST SETUP**

Date of testing	:	2023-11-01 to 2023-11-10
Input voltage	:	DC -48V
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input type="checkbox"/> Extreme test conditions
Operation mode	:	A
Ambient temperature	:	20 °C
Relative humidity	:	50%
Atmospheric pressure	:	101.0 kPa

**Note:**

Sweep the whole frequency band through the range from 9 kHz to the 10<sup>th</sup> harmonic of the carrier, the emissions below the applicable limit are not required and not to be reported in this report. The measurement is performed for all operational modes and both antenna polarization, only the data of the worst mode is recorded in this report.

Refer to attached Appendix B for details of test results.

## 6. System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

**Table 8: System Measurement Uncertainty**

	Items	Extended Uncertainty
Radiated Spurious Emissions	Radiated, 9 kHz - 30 MHz	±3.97 dB
	Radiated, 30 MHz - 1 GHz	±4.17 dB
	Radiated, above 1 GHz	±4.30 dB
Remark: 95% Confidence Levels, k=2.		

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===== END OF REPORT =====

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## APPENDIX A.1: FREQUENCY STABILITY

### Frequency Stability versus Temperature

Band	CBW	Channel	Test Frequencies (MHz)	Input Voltage (V)	Temperature (°C)	Measured Frequency drift (Hz)	Frequency Error (ppm)	Limit (ppm)	Verdict
B25	20	M	1960	DC -48V	50	132.869	0.068	± 1.0	Pass
B25	20	M	1960	DC -48V	40	-229.306	-0.117	± 1.0	Pass
B25	20	M	1960	DC -48V	30	229.592	0.117	± 1.0	Pass
B25	20	M	1960	DC -48V	20	-237.184	-0.121	± 1.0	Pass
B25	20	M	1960	DC -48V	10	-333.786	-0.170	± 1.0	Pass
B25	20	M	1960	DC -48V	0	135.321	0.069	± 1.0	Pass
B25	20	M	1960	DC -48V	-10	335.978	0.171	± 1.0	Pass
B25	20	M	1960	DC -48V	-20	-234.08	-0.119	± 1.0	Pass
B25	20	M	1960	DC -48V	-30	136.037	0.069	± 1.0	Pass
B66	15	M	2147.5	DC -48V	50	154.233	0.072	± 1.0	Pass
B66	15	M	2147.5	DC -48V	40	-253.755	-0.118	± 1.0	Pass
B66	15	M	2147.5	DC -48V	30	242.845	0.113	± 1.0	Pass
B66	15	M	2147.5	DC -48V	20	151.72	0.071	± 1.0	Pass
B66	15	M	2147.5	DC -48V	10	-239.565	-0.112	± 1.0	Pass
B66	15	M	2147.5	DC -48V	0	143.541	0.067	± 1.0	Pass
B66	15	M	2147.5	DC -48V	-10	-349.981	-0.163	± 1.0	Pass
B66	15	M	2147.5	DC -48V	-20	222.776	0.104	± 1.0	Pass
B66	15	M	2147.5	DC -48V	-30	311.643	0.145	± 1.0	Pass

**Conclusion: Pass**

The maximum frequency drift is 336.0 Hz, the frequency is drift within the frequency block. The occupied bandwidth stays within the operating frequency block or frequency block group when tested to the temperature and supply voltage variations.

### Frequency Stability versus Voltage

Band	CBW	Channel	Test Frequencies (MHz)	Input Voltage (V)	Temperature (°C)	Measured Frequency drift (Hz)	Frequency Error (ppm)	Limit (ppm)	Verdict
B25	20	M	1960	DC -48V	20	337.184	0.172	± 1.0	Pass
B25	20	M	1960	DC -40.8V	20	438.257	0.224	± 1.0	Pass
B25	20	M	1960	DC -55.2V	20	-138.507	-0.071	± 1.0	Pass
B66	15	M	1960	DC -48V	20	151.720	0.071	± 1.0	Pass
B66	15	M	1960	DC -40.8V	20	-237.939	-0.111	± 1.0	Pass
B66	15	M	1960	DC -55.2V	20	238.117	0.111	± 1.0	Pass

**Conclusion: Pass**

The maximum frequency drift is 438.3 Hz, the frequency is drift within the frequency block. The occupied bandwidth stays within the operating frequency block or frequency block group when tested to the temperature and supply voltage variations.

## APPENDIX A.2: TRANSMITTER POWER

### Single Carrier Operation

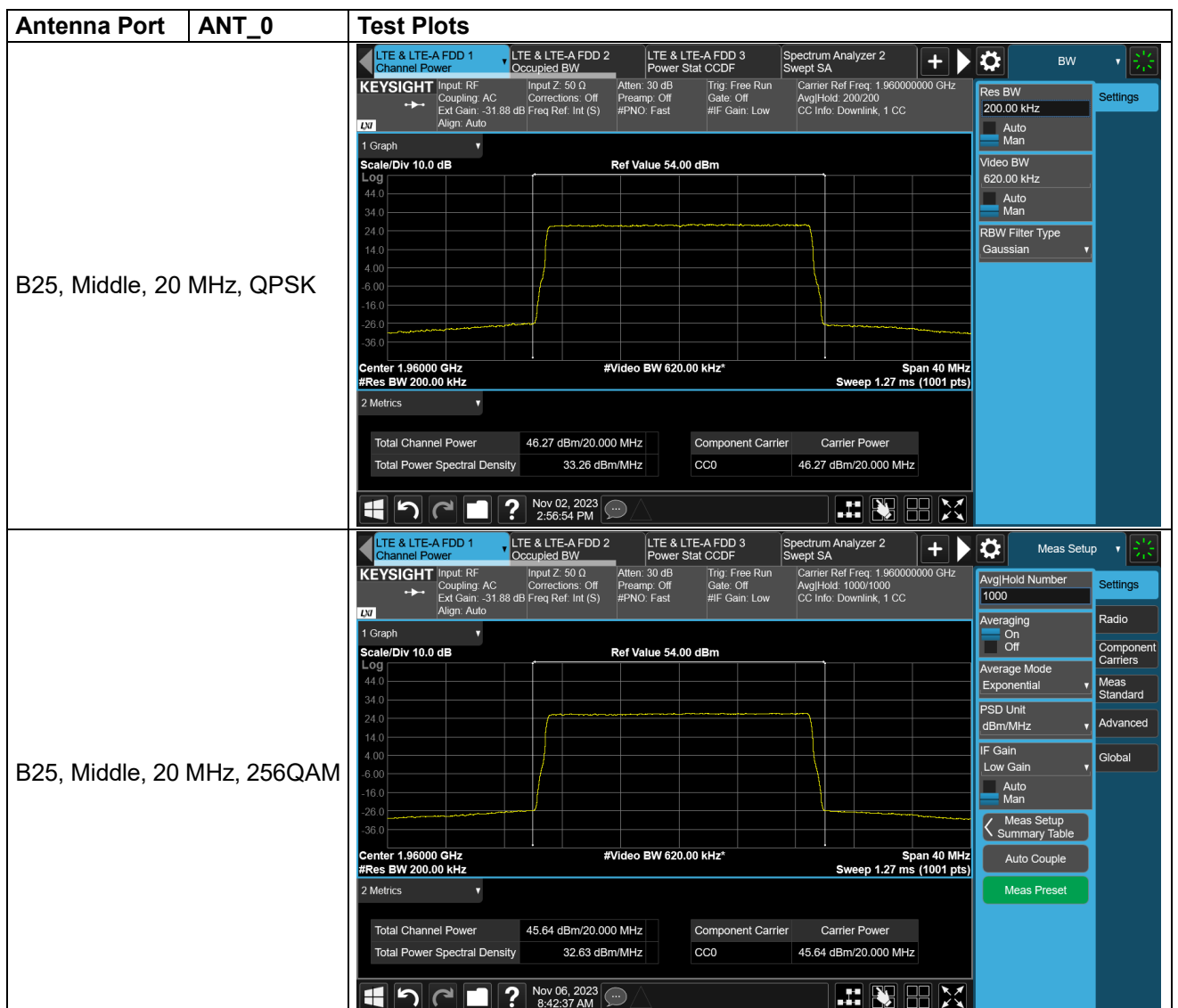
#### Test Datas

Band	Test CH	Carrier(s)	Frequency (MHz)	Modulation	CBW (MHz)	Measured RF Power (dBm)				Measured PSD (dBm/MHz)				Total Power (dBm)	Total PSD (dBm/MHz)	Total Power in e.i.r.p. (W/MHz)	Limit e.i.r.p. (W/MHz)	Max. allowed Antenna Gain against e.i.r.p. Limit (dBi)	Verdict
						ANT_0	ANT_1	ANT_2	ANT_3	ANT_0	ANT_1	ANT_2	ANT_3						
B25	M	1	1960	QPSK	20	46.27	46.03	45.94	45.96	33.26	33.02	32.93	32.95	52.07	39.06	1277.20	1640	23	Pass
B25	M	1	1960	256QAM	20	45.64	45.64	45.67	45.70	32.63	32.63	32.66	32.69	51.68	38.67	1167.66	1640	23	Pass
B66	M	1	2147.5	QPSK	15	45.62	45.47	45.54	45.53	33.86	33.71	33.78	33.77	51.56	39.80	1513.88	1640	22	Pass
B66	M	1	2147.5	256QAM	15	45.78	45.21	45.25	45.22	34.02	33.44	33.49	33.46	51.39	39.63	1455.45	1640	22	Pass

Note:

- Total Power is the sum of the 4 antenna ports of RF output power in dBm.
- Total PSD is the sum of the 4 antenna ports of power spectral density in dBm/MHz.
- Total Power in e.i.r.p. is calculated from following equation: Total e.i.r.p. (W) =  $10^{(Total\ PSD\ (dBm/MHz) + ANT\ Gain\ (dBi))/10} / 1000$ .
- The e.i.r.p. calculation is based upon the applicant's declared maximum allowed antenna gain. The typical max. antenna gain value is 22 dBi.
- The antenna gain must be less than max. gain listed above when put into service.

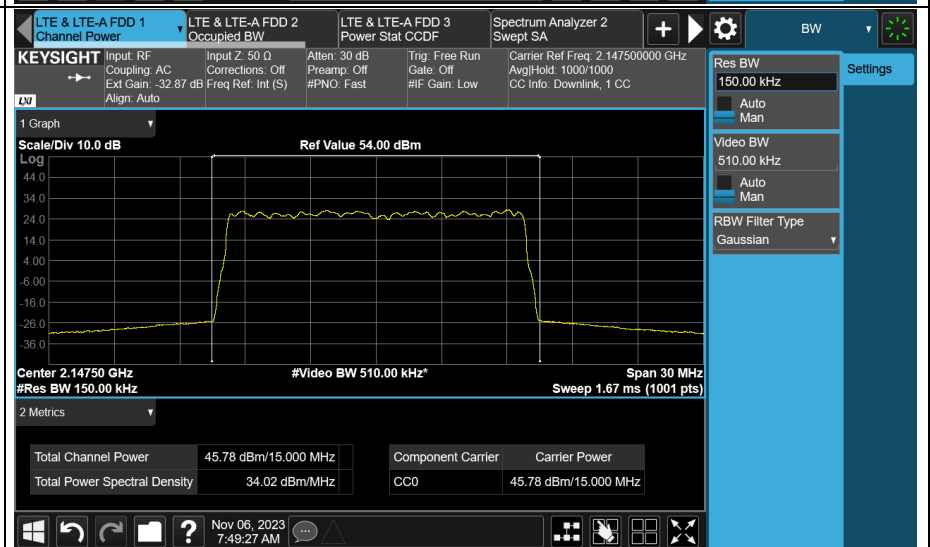
#### Test Plots



B66, Middle, 15 MHz, QPSK



B66, Middle, 15 MHz, 256QAM



Antenna Port ANT\_1

Test Plots

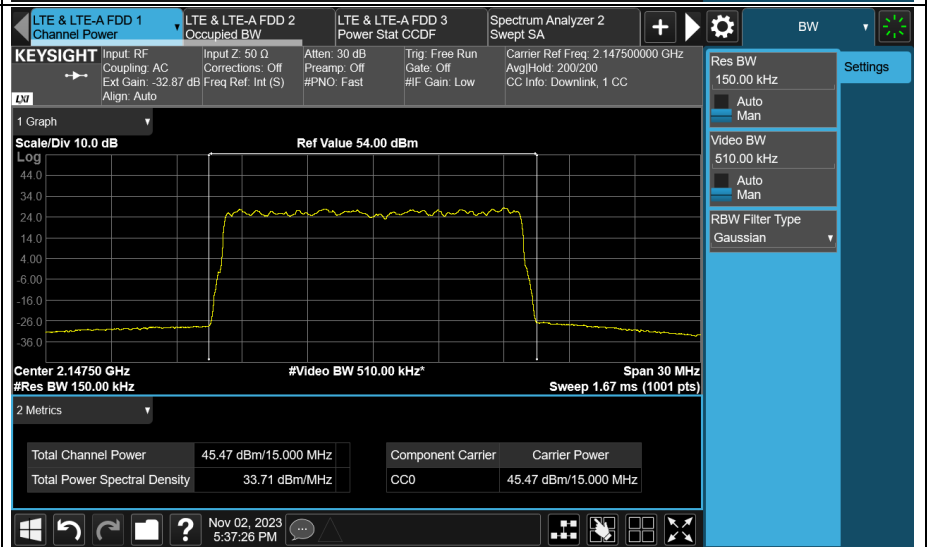
B25, Middle, 20 MHz, QPSK



B25, Middle, 20 MHz, 256QAM



B66, Middle, 15 MHz, QPSK



B66, Middle, 15 MHz, 256QAM



Antenna Port ANT\_2

Test Plots

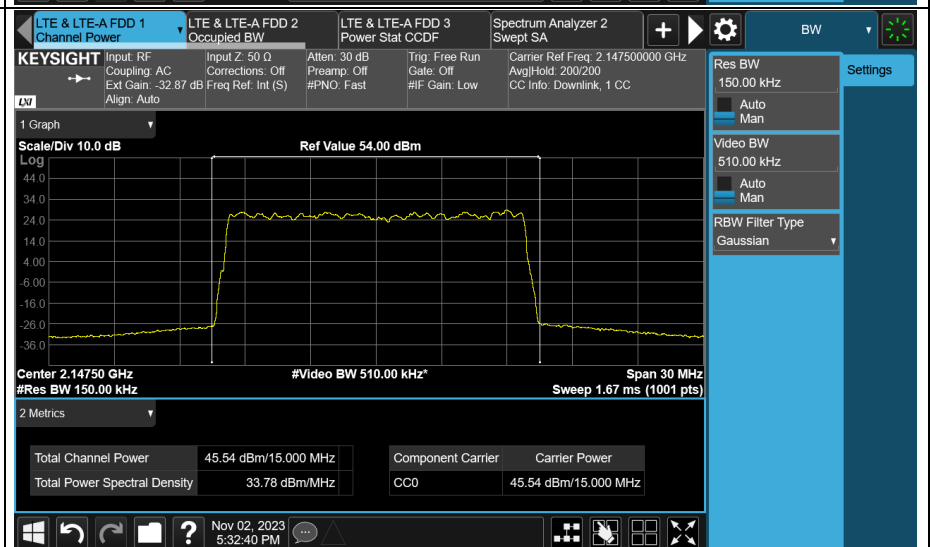
B25, Middle, 20 MHz, QPSK



B25, Middle, 20 MHz, 256QAM



B66, Middle, 15 MHz, QPSK



B66, Middle, 15 MHz, 256QAM



Antenna Port ANT\_3

Test Plots

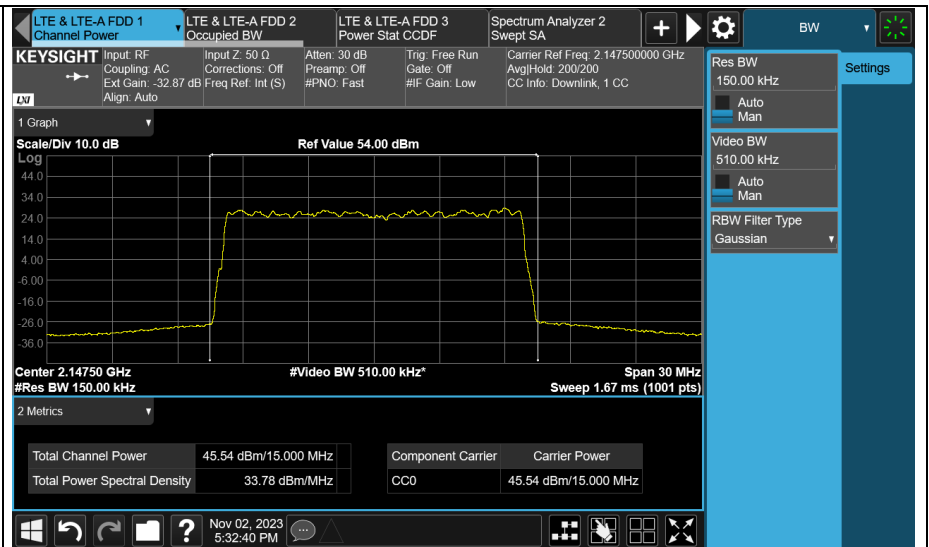
B25, Middle, 20 MHz, QPSK



B25, Middle, 20 MHz, 256QAM



B66, Middle, 15 MHz, QPSK



B66, Middle, 15 MHz, 256QAM



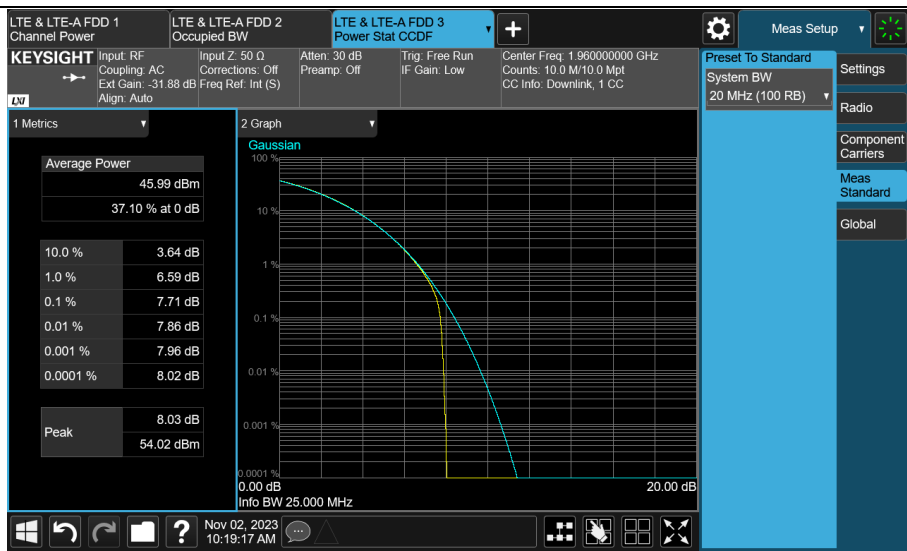
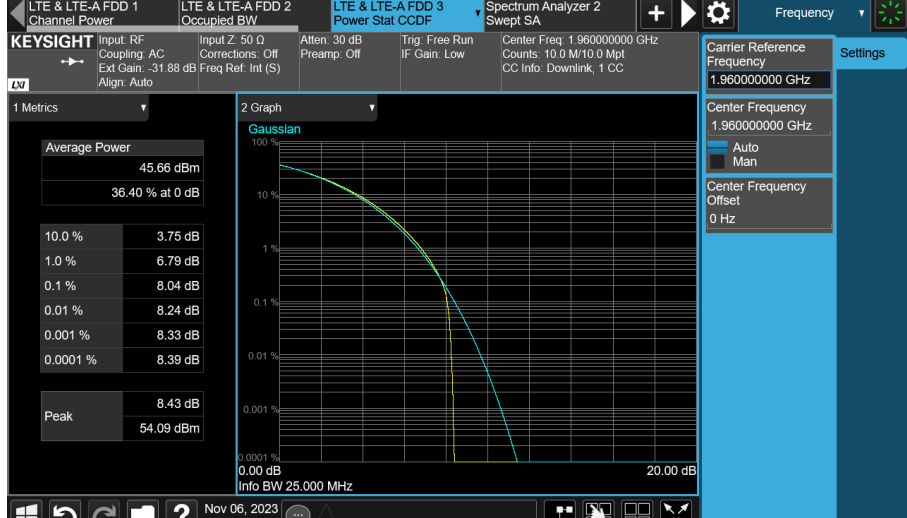
### APPENDIX A.3: PEAK TO AVERAGE POWER RATIO (PAPR)

Single Carrier Operation

Test Data

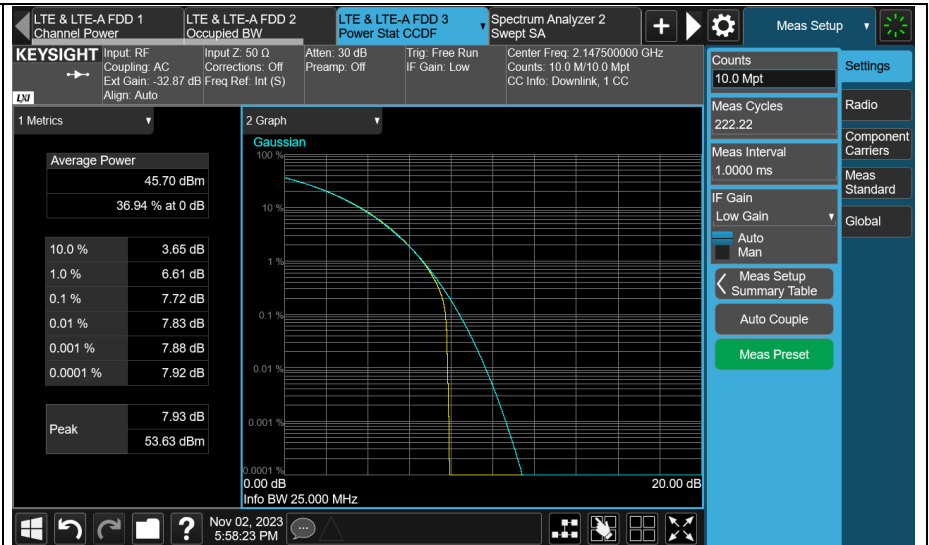
Band	Test Channel	Carrier(s)	Frequency (MHz)	Modulation	CBW (MHz)	Measured Value PAPR (dB) @ 0.1% ANT_0	Limit (dB)	Verdict
B25	M	1	1960	QPSK	20	7.71	≤ 13	Pass
B25	M	1	1960	256QAM	20	8.04	≤ 13	Pass
B66	M	1	2147.5	QPSK	15	7.72	≤ 13	Pass
B66	M	1	2147.5	256QAM	15	7.73	≤ 13	Pass

Test Plots

Antenna Port	ANT_0	Test Plots
B25, Middle, 20 MHz, QPSK		 <p> <b>1 Metrics</b>                      Average Power: 45.99 dBm                      37.10 % at 0 dB                      10.0 %: 3.64 dB                      1.0 %: 6.59 dB                      0.1 %: 7.71 dB                      0.01 %: 7.86 dB                      0.001 %: 7.96 dB                      0.0001 %: 8.02 dB                      Peak: 8.03 dB                      54.02 dBm                 </p> <p> <b>2 Graph</b>                      Gaussian                      100 %                      10 %                      1 %                      0.1 %                      0.01 %                      0.001 %                      0.0001 %                      0.00 dB                      Info BW 25.000 MHz                 </p>
B25, Middle, 20 MHz, 256QAM		 <p> <b>1 Metrics</b>                      Average Power: 45.66 dBm                      36.40 % at 0 dB                      10.0 %: 3.75 dB                      1.0 %: 6.79 dB                      0.1 %: 8.04 dB                      0.01 %: 8.24 dB                      0.001 %: 8.33 dB                      0.0001 %: 8.39 dB                      Peak: 8.43 dB                      54.09 dBm                 </p> <p> <b>2 Graph</b>                      Gaussian                      100 %                      10 %                      1 %                      0.1 %                      0.01 %                      0.001 %                      0.0001 %                      0.00 dB                      Info BW 25.000 MHz                 </p>



B66, Middle, 15 MHz, QPSK



B66, Middle, 15 MHz, 256QAM

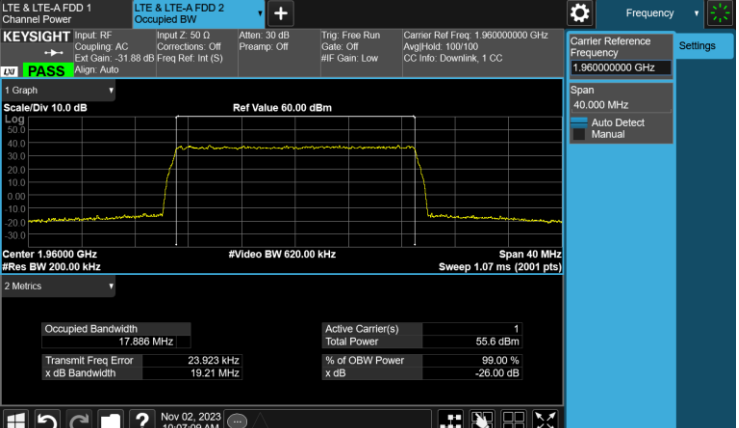
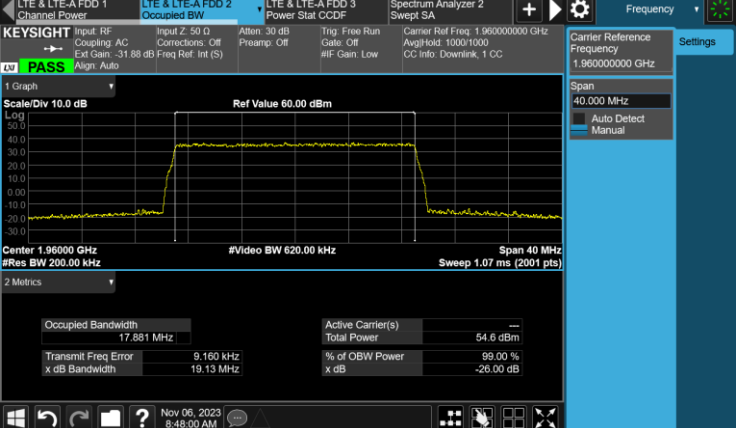


### APPENDIX A.4: OCCUPIED BANDWIDTH AND 26dB BANDWIDTH

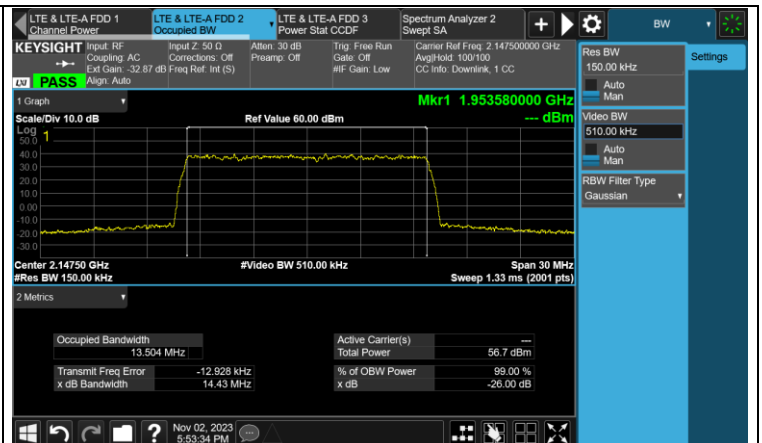
Single Carrier Operation  
Test Data

Band	ANT Port	Carrier(s)	Modulation	CBW (MHz)	Bandwidth (99% Power and 26 dB) (MHz)					
					Channel B		Channel M		Channel T	
					99% Power	26 dB	99% Power	26 dB	99% Power	26 dB
B25	0	1	QPSK	20	--	--	17.886	19.21	--	--
B25	0	1	256QAM	20	--	--	17.881	19.13	--	--
B66	0	1	QPSK	15	--	--	13.504	14.43	--	--
B66	0	1	256QAM	15	--	--	13.512	14.41	--	--

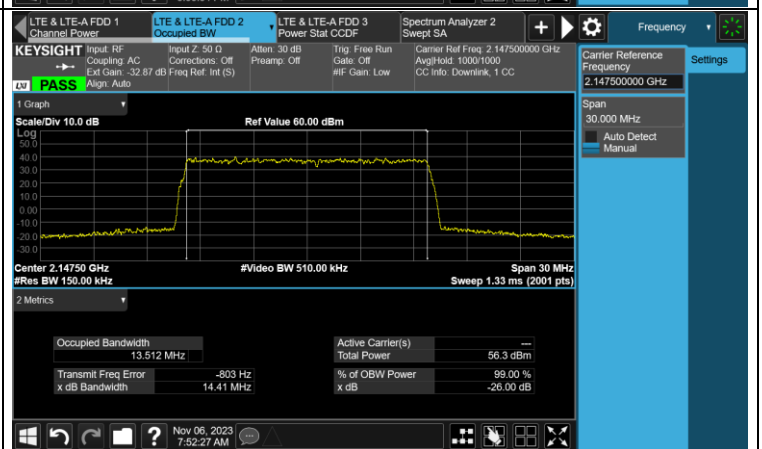
Test Plots

Antenna Port	ANT_0	Test Plots
B25, Middle, 20 MHz, QPSK		
B25, Middle, 20 MHz, 256QAM		

B66, Middle, 15 MHz, QPSK



B66, Middle, 15 MHz, 256QAM



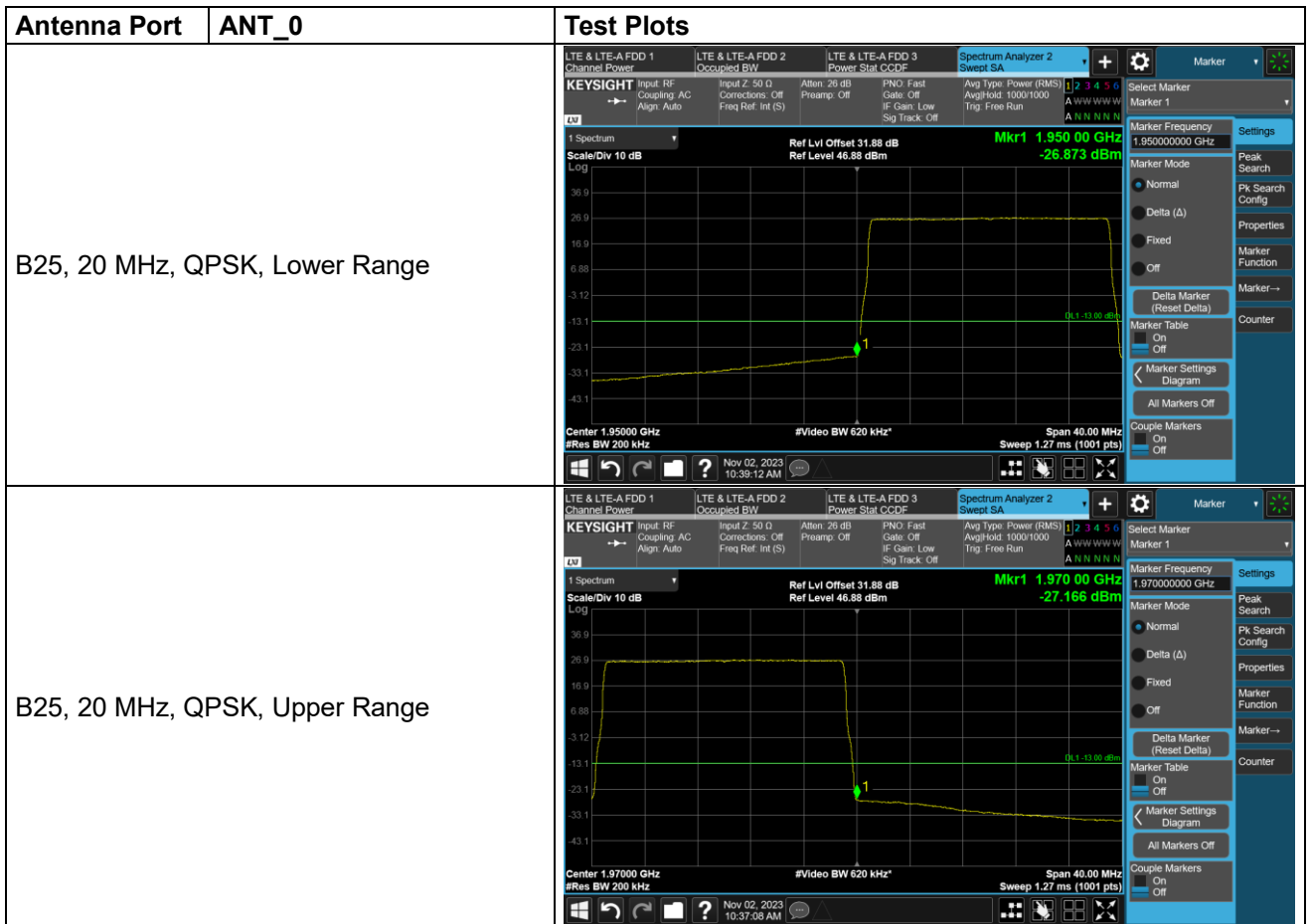
### APPENDIX A.5: TRANSMITTER UNWANTED EMISSIONS AT ANTENNA TERMINALS

Unwanted Emissions in the 1 MHz band immediately outside and adjacent to the frequency block – Band Edge conducted measurement

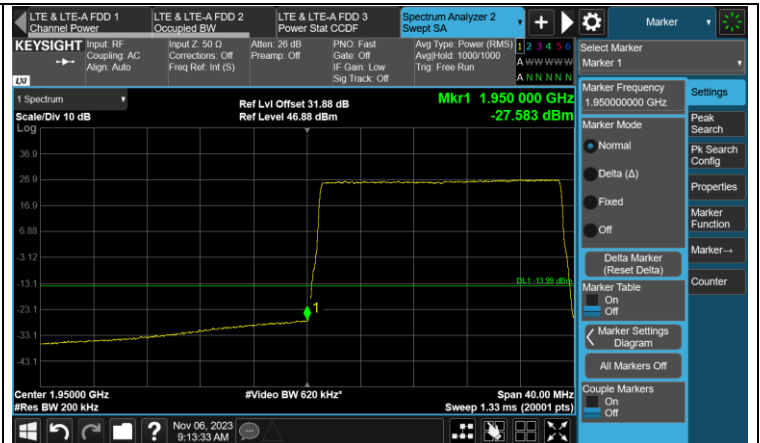
Test Data

Band	CBW (MHz)	Modulation	Bandwidth (MHz)	Measured Results (dBm)		Limit (dBm)	Verdict
				Lower Range	Upper Range		
B25	20	QPSK	20	-26.873	-27.166	-13	Pass
B25	20	256QAM	20	-27.583	-26.656	-13	Pass
B66	15	QPSK	15	-25.783	-24.935	-13	Pass
B66	15	256QAM	15	-25.53	-25.173	-13	Pass

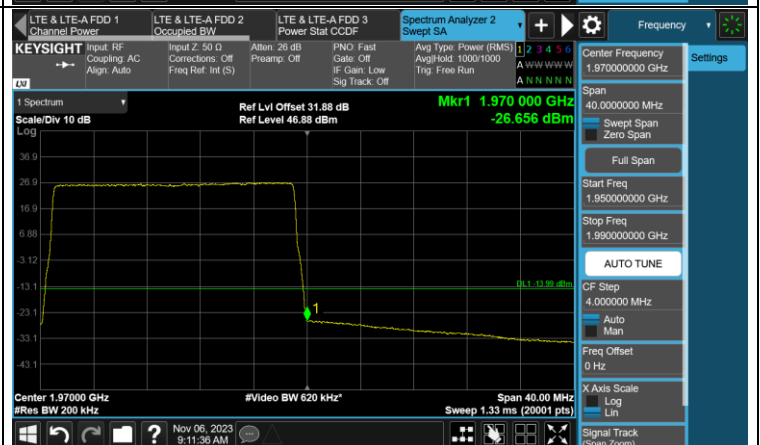
Test Plots



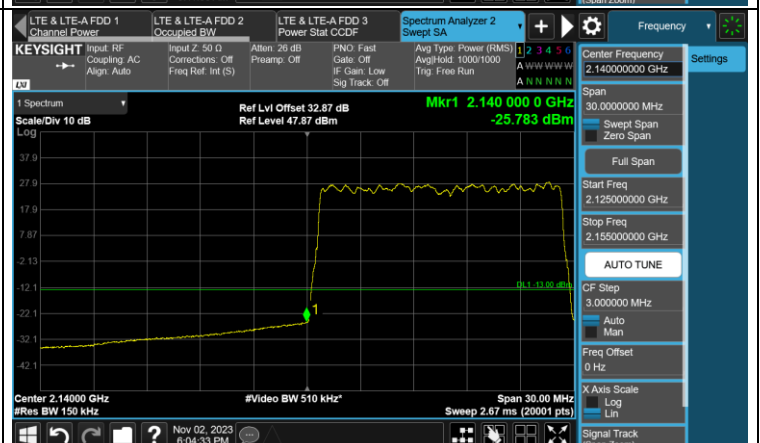
B25, 20 MHz, 256QAM, Lower Range



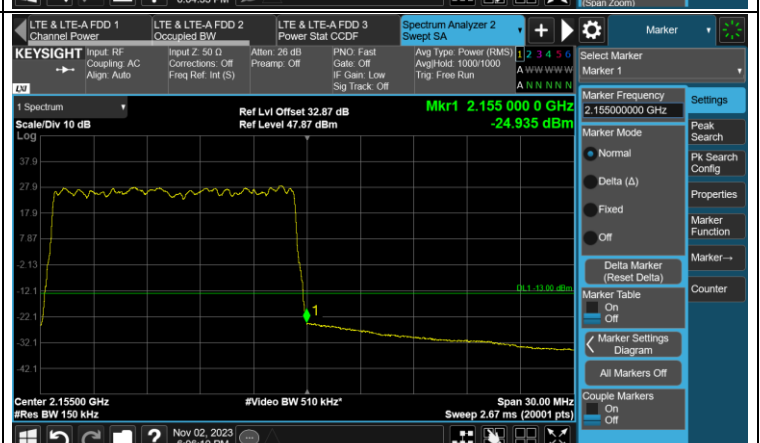
B25, 20 MHz, 256QAM, Upper Range



B66, 15 MHz, QPSK, Lower Range



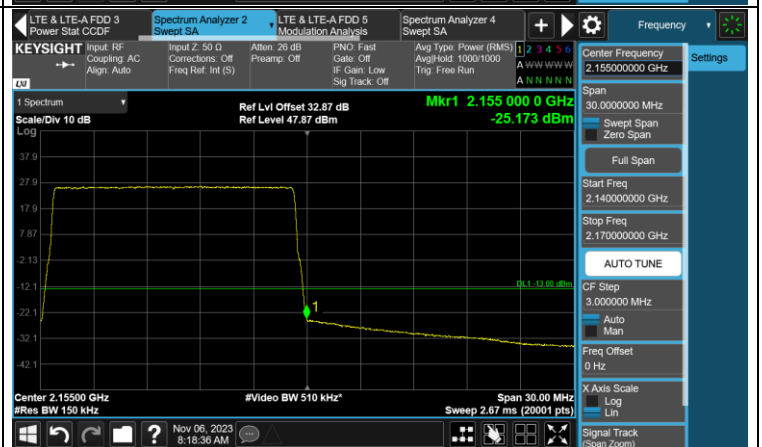
B66, 15 MHz, QPSK, Upper Range



B66, 15 MHz, 256QAM, Lower Range



B66, 15 MHz, 256QAM, Upper Range



Unwanted Emissions – Conducted measurement

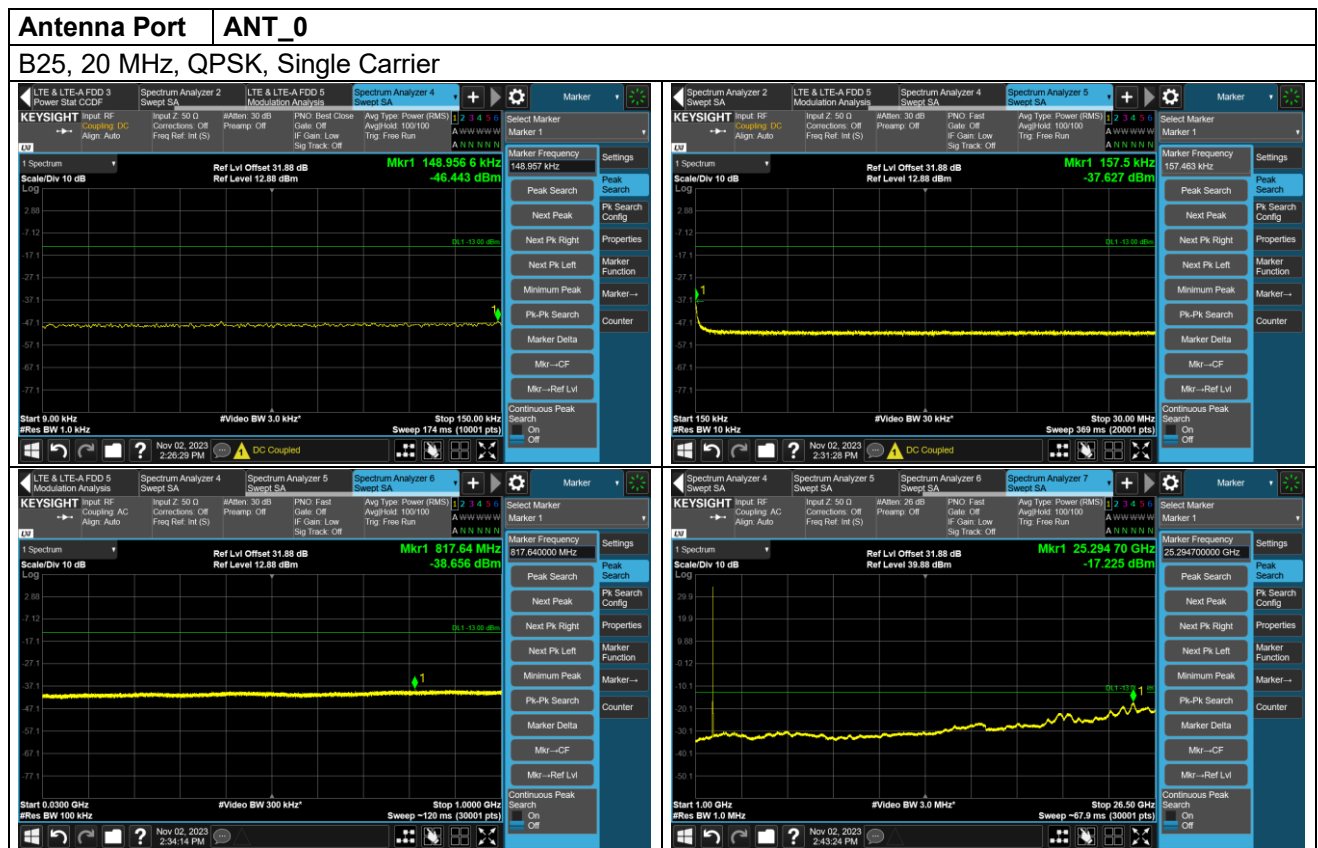
Test Data

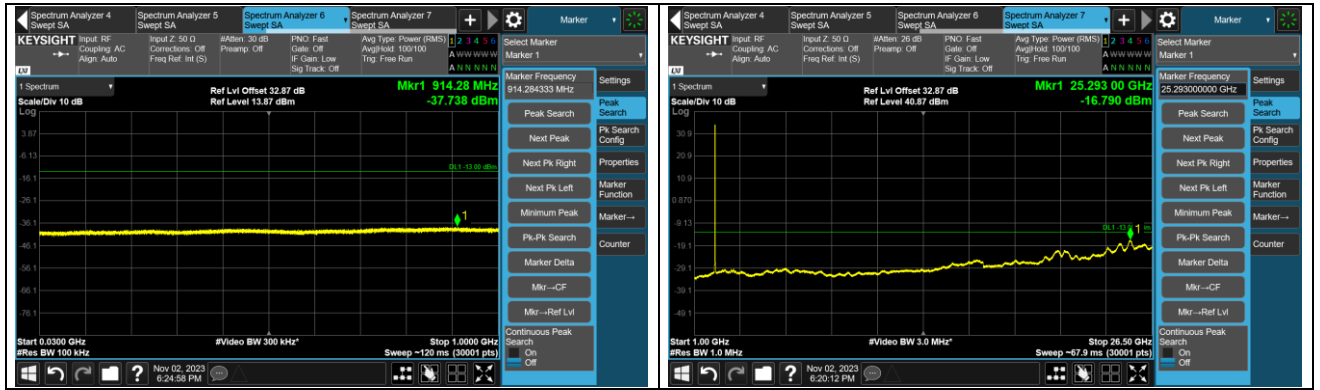
Band	CBW (MHz)	Modulation	Channel	Test Frequencies (MHz)	Measured Results (dBm)				Limit (dBm)	Verdict
					Range 1	Range 2	Range 3	Range 4		
B25	20	QPSK	M	1960	-46.443	-37.627	-38.656	-17.225	-13	Pass
B66	15	QPSK	M	2147.5	-45.17	-36.426	-37.738	-16.79	-13	Pass

Note:

1. The frequency range of Rang 1 is from 9 kHz to 150 kHz, the frequency range of Rang 2 is from 150 kHz to 30 MHz, the frequency range of Rang 3 is from 30 MHz to 1 GHz, the frequency range of Rang 4 is from 1 GHz to 26.5 GHz.

Test Plots







## APPENDIX A.6: RECEIVER SPURIOUS EMISSIONS

### Receiver Spurious Emissions – Conducted measurement

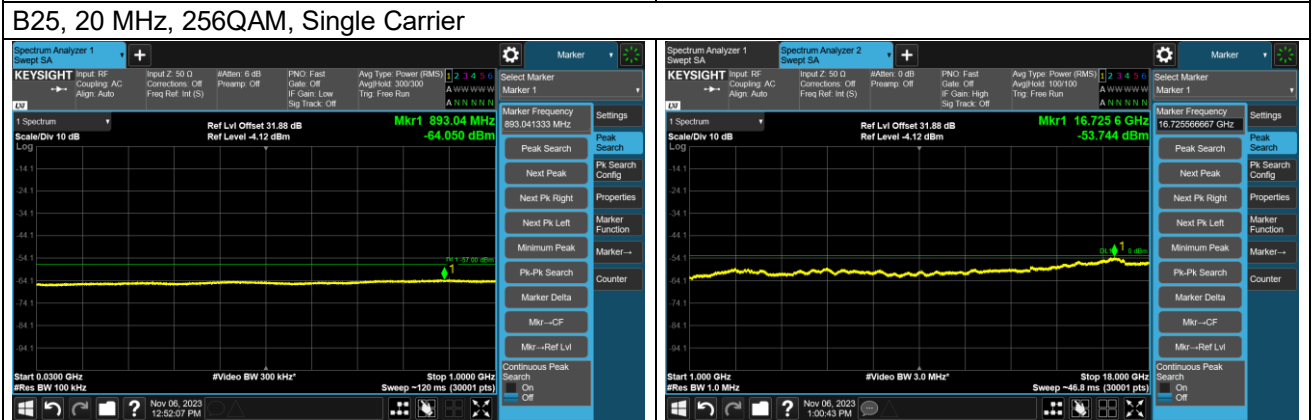
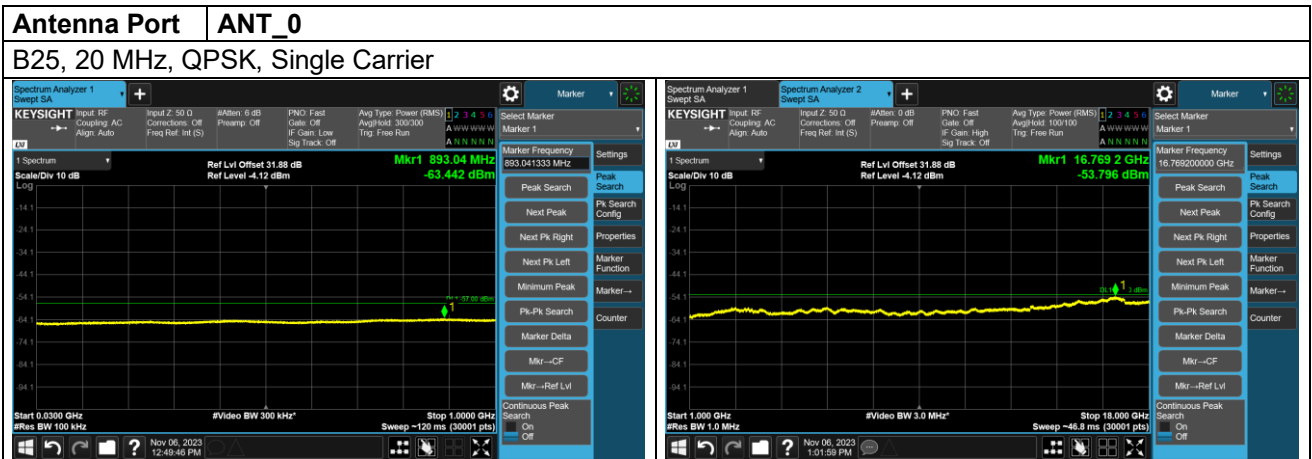
#### Test Data

Band	CBW (MHz)	Modulation	Channel	Test Frequencies (MHz)	Measured Results (dBm)		Limit (dBm)	Verdict
					Range 1	Range 2		
B25	20	QPSK	M	1960	-63.442	-53.796	-57 below 1 GHz -54 above 1 GHz	Pass
B25	20	256QAM	M	1960	-64.050	-53.744	-57 below 1 GHz -54 above 1 GHz	Pass

Note:

2. The frequency range of Rang 1 is from 30 MHz to 1 GHz, the frequency range of Rang 2 is from 1 GHz to 18 GHz.

#### Test Plots



===== END OF APPENDIX =====

# APPENDIX B: TEST RESULTS OF FIELD STRENGTH OF SPURIOUS RADIATION

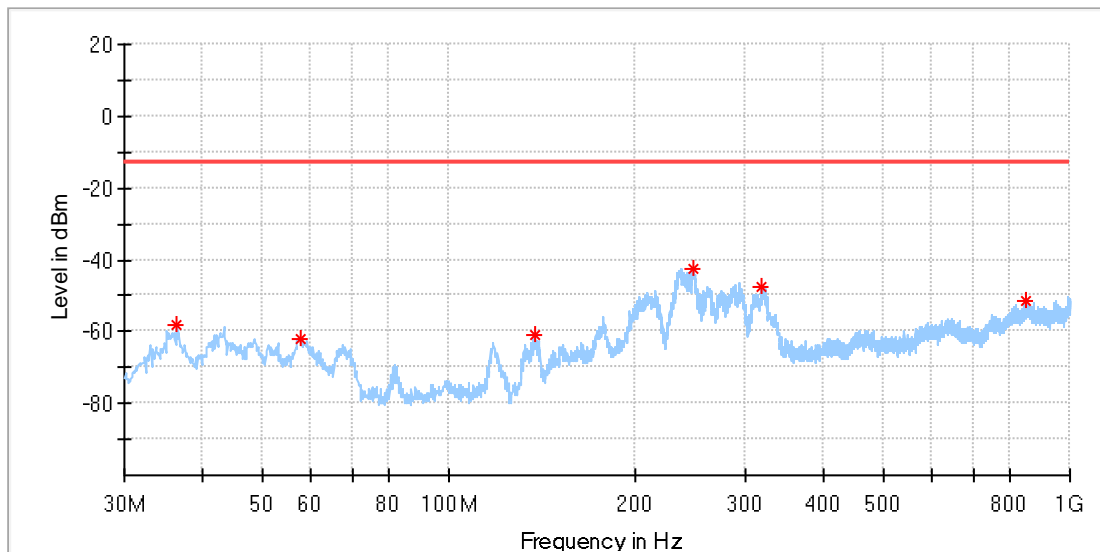
<b>APPENDIX B: TEST RESULTS OF FIELD STRENGTH OF SPURIOUS RADIATION .....</b>	<b>1</b>
<b>APPENDIX B.1: FIELD STRENGTH OF SPURIOUS RADIATION .....</b>	<b>2</b>
Transmitting mode.....	2
<i>Band 25</i> .....	2
Below 1 GHz .....	2
Above 1 GHz.....	4
<i>Band 66</i> .....	8
Below 1 GHz .....	8
Above 1 GHz.....	10

## APPENDIX B.1: FIELD STRENGTH OF SPURIOUS RADIATION

Transmitting mode  
Band 25  
Below 1 GHz  
Middle Channel

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 25, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed by	Terry Yin

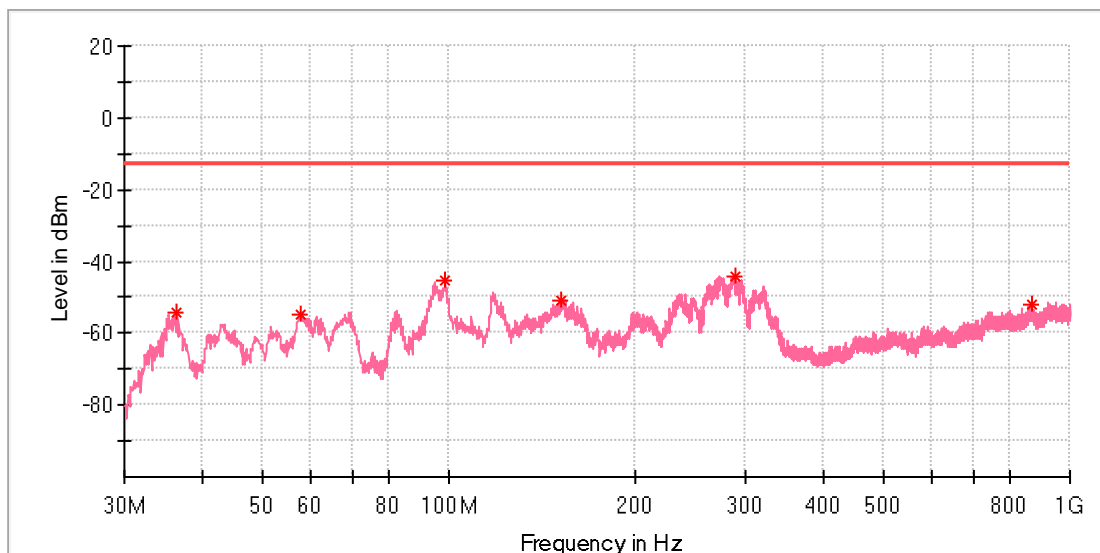


### Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
36.426250	-58.24	-13.00	45.24	100.0	H	64.0	-113.2
57.887500	-62.15	-13.00	49.15	100.0	H	354.0	-116.6
137.548750	-61.08	-13.00	48.08	100.0	H	174.0	-123.5
246.916250	-42.50	-13.00	29.50	100.0	H	154.0	-110.0
319.666250	-47.48	-13.00	34.48	100.0	H	9.0	-114.2
848.558750	-51.53	-13.00	38.53	100.0	H	243.0	-100.2

## EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 25, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed by	Terry Yin



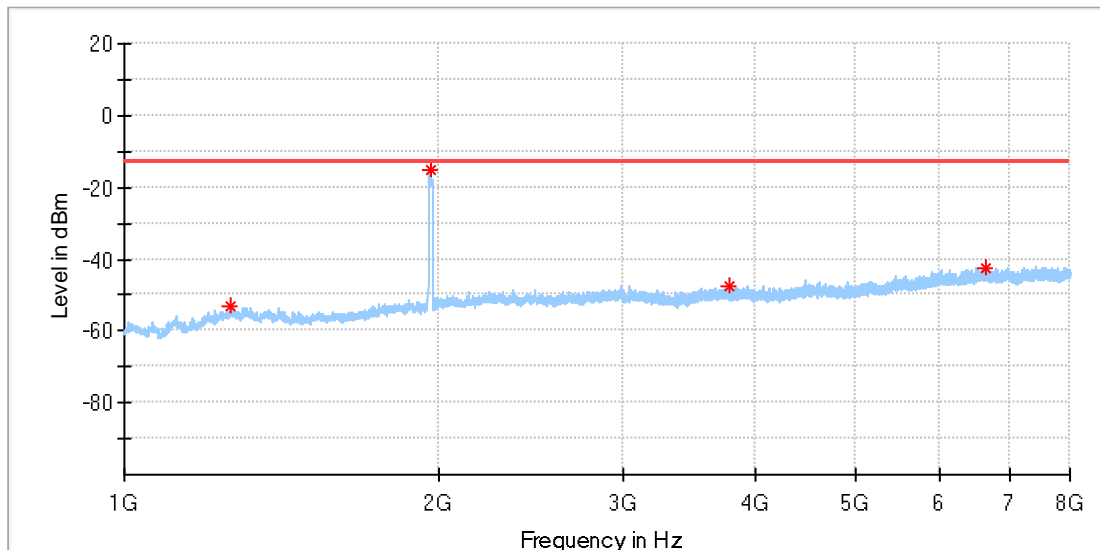
## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
36.426250	-54.22	-13.00	41.22	100.0	V	136.0	-125.5
57.766250	-54.51	-13.00	41.51	100.0	V	284.0	-121.4
98.748750	-45.07	-13.00	32.07	100.0	V	252.0	-103.8
151.128750	-50.65	-13.00	37.65	100.0	V	52.0	-120.5
288.990000	-43.94	-13.00	30.94	100.0	V	21.0	-112.8
868.201250	-52.12	-13.00	39.12	100.0	V	166.0	-101.0

Above 1 GHz  
Middle Channel

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 25, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed by:	Terry Yin

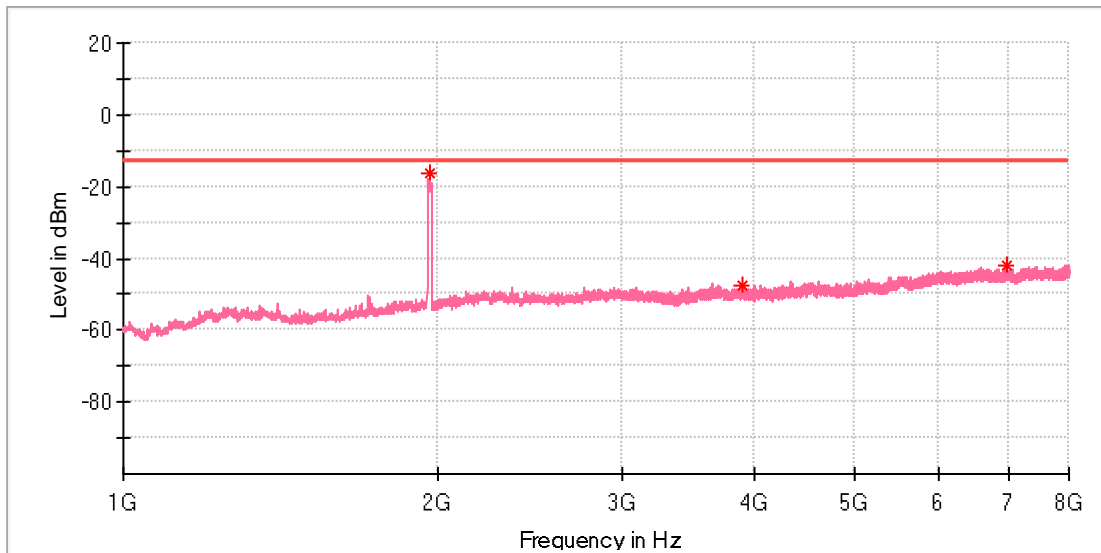


### Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1265.000000	-53.23	-13.00	40.23	150.0	H	32.0	-92.1
1963.500000	-15.24	-13.00	2.24	150.0	H	174.0	-89.6
3781.500000	-47.38	-13.00	34.38	150.0	H	213.0	-86.6
6640.000000	-42.56	-13.00	29.56	150.0	H	19.0	-81.2

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 25, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed by	Terry Yin

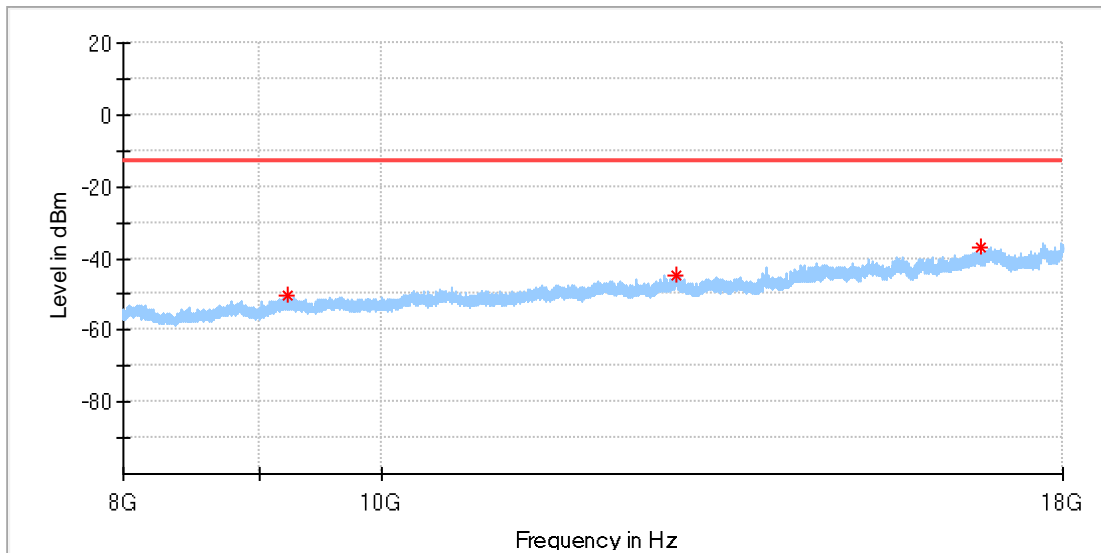


### Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1963.000000	-16.01	-13.00	3.01	150.0	V	350.0	-89.6
3903.000000	-47.30	-13.00	34.30	150.0	V	45.0	-86.6
6972.000000	-42.04	-13.00	29.04	150.0	V	124.0	-80.9

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 25, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed by	Terry Yin

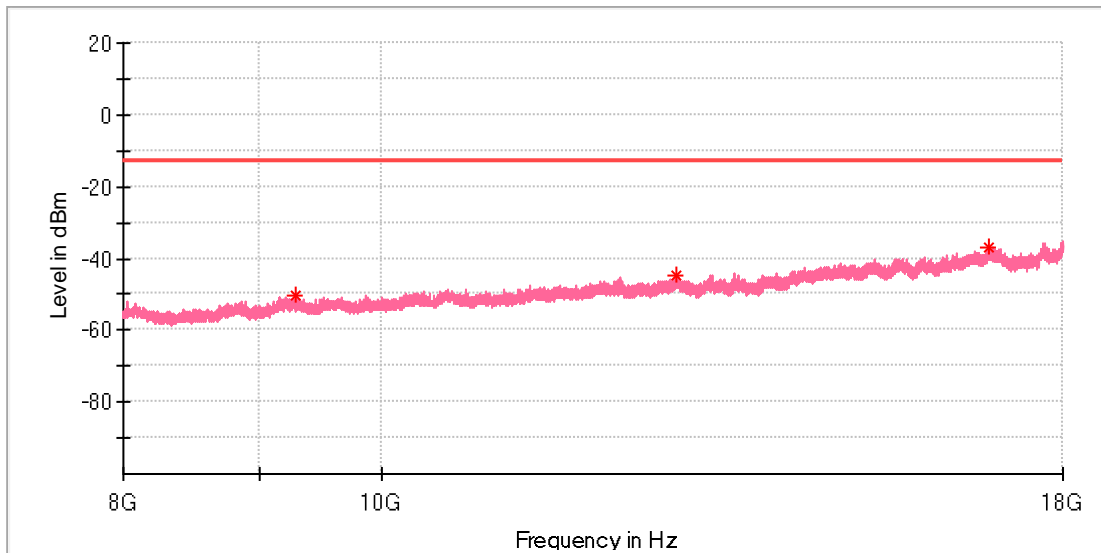


### Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9215.500000	-50.56	-13.00	37.56	150.0	H	29.0	-84.1
12899.500000	-44.78	-13.00	31.78	150.0	H	84.0	-78.3
16775.000000	-37.15	-13.00	24.15	150.0	H	20.0	-74.3

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 25, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed by	Terry Yin



### Critical Freqs

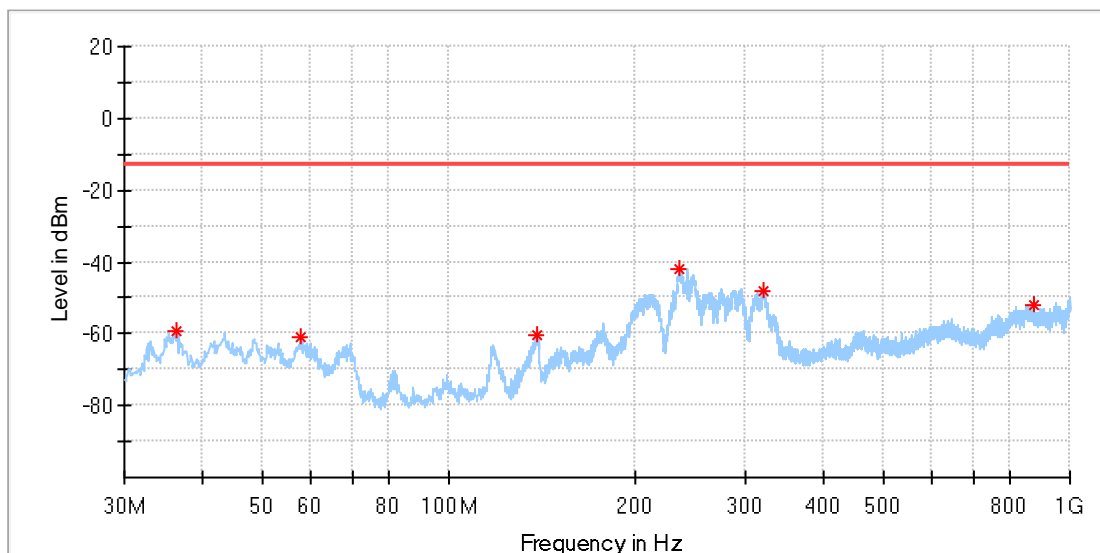
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9280.000000	-50.27	-13.00	37.27	150.0	V	254.0	-84.1
12893.000000	-44.82	-13.00	31.82	150.0	V	271.0	-78.4
16885.500000	-37.14	-13.00	24.14	150.0	V	158.0	-73.1



Band 66  
Below 1 GHz  
Middle Channel

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 66, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed by	Terry Yin

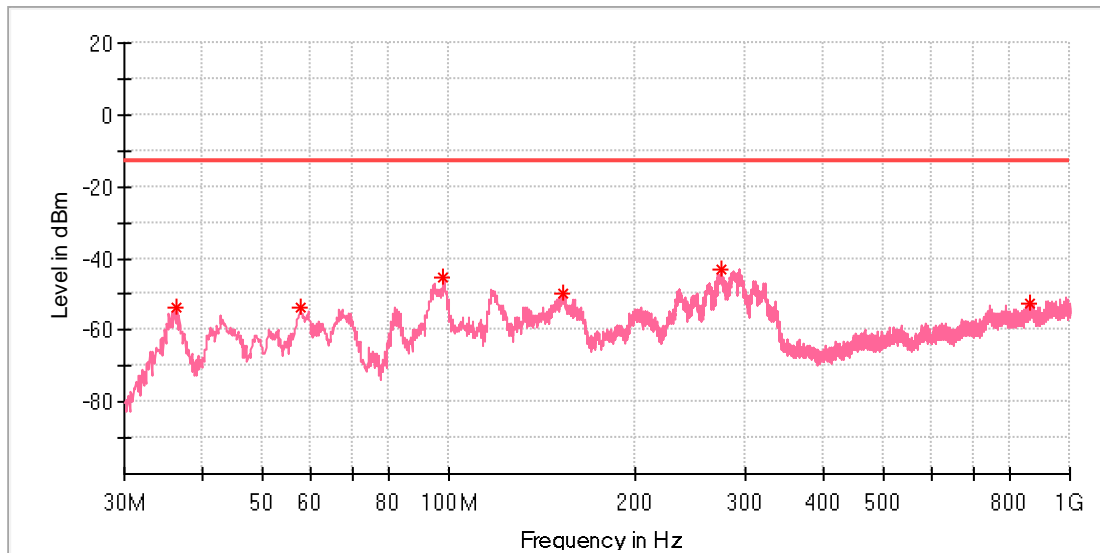


### Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
36.426250	-59.13	-13.00	46.13	100.0	H	292.0	-113.2
57.766250	-61.17	-13.00	48.17	100.0	H	209.0	-116.7
138.761250	-60.27	-13.00	47.27	100.0	H	357.0	-123.2
235.276250	-42.05	-13.00	29.05	100.0	H	188.0	-111.4
321.970000	-47.98	-13.00	34.98	100.0	H	0.0	-114.2
872.202500	-51.91	-13.00	38.91	100.0	H	100.0	-101.8

## EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 66, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed by	Terry Yin



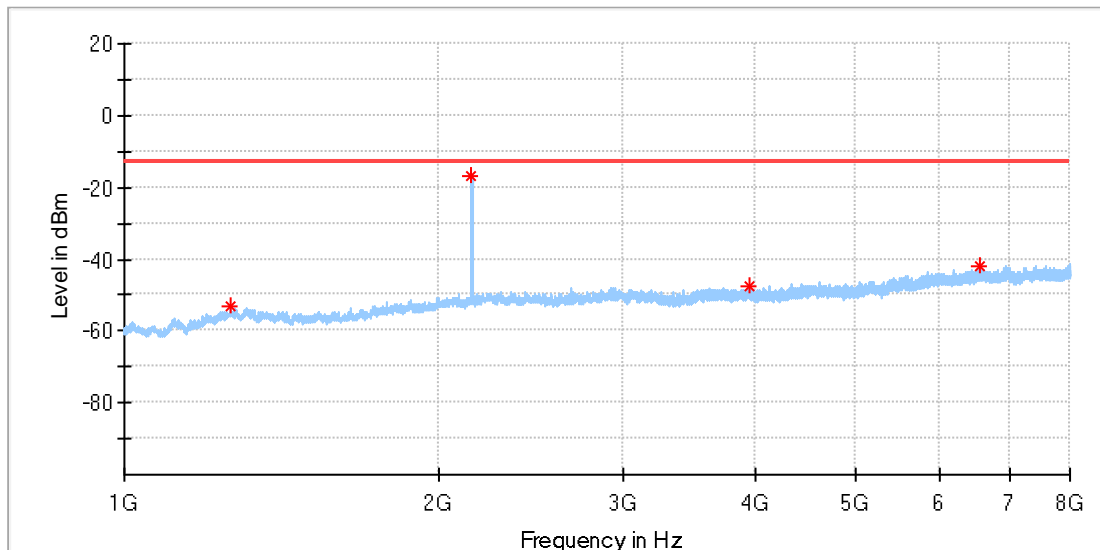
## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
36.426250	-53.46	-13.00	40.46	100.0	V	138.0	-125.5
57.766250	-53.69	-13.00	40.69	100.0	V	215.0	-121.4
98.021250	-45.26	-13.00	32.26	100.0	V	263.0	-103.3
152.098750	-49.98	-13.00	36.98	100.0	V	54.0	-120.3
274.803750	-42.83	-13.00	29.83	100.0	V	239.0	-114.6
864.685000	-52.34	-13.00	39.34	100.0	V	205.0	-100.8

Above 1 GHz  
Middle Channel

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 66, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed by:	Terry Yin

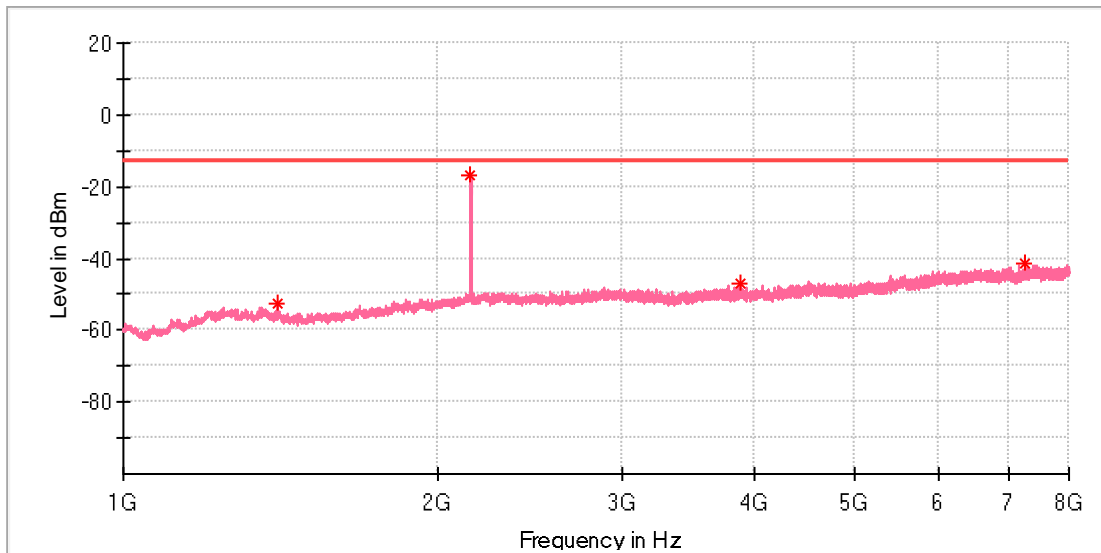


### Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1263.500000	-53.16	-13.00	40.16	150.0	H	24.0	-92.2
2146.500000	-16.96	-13.00	3.96	150.0	H	255.0	-88.6
3954.000000	-47.62	-13.00	34.62	150.0	H	351.0	-86.4
6553.500000	-42.04	-13.00	29.04	150.0	H	24.0	-80.9

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
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Test Mode:	Band 66, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed by	Terry Yin

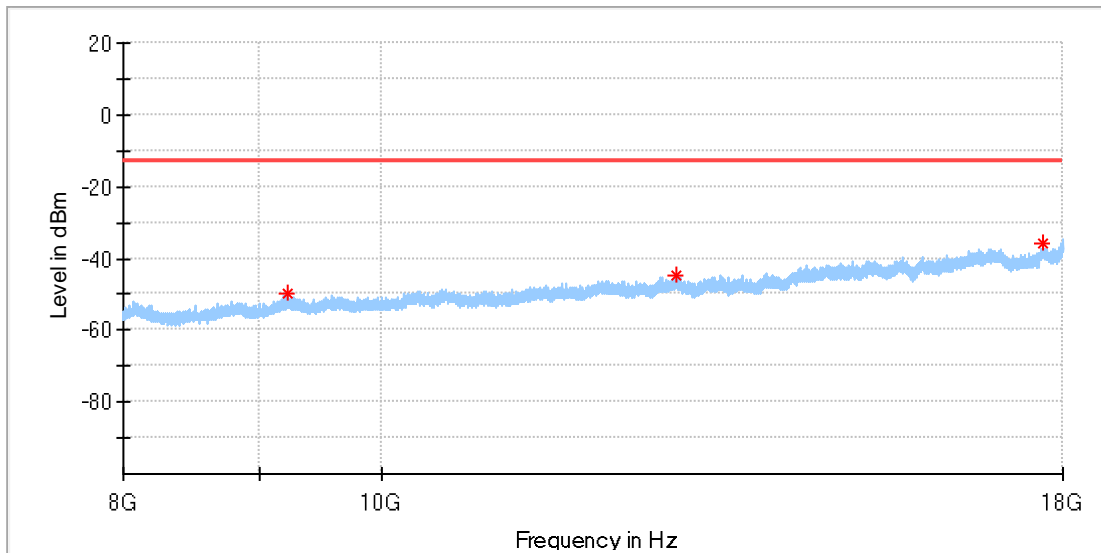


### Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1404.000000	-52.66	-13.00	39.66	150.0	V	125.0	-92.7
2145.500000	-16.70	-13.00	3.70	150.0	V	89.0	-88.0
3876.500000	-47.09	-13.00	34.09	150.0	V	317.0	-86.5
7266.000000	-41.64	-13.00	28.64	150.0	V	282.0	-79.8

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
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Test Mode:	Band 66, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed by	Terry Yin

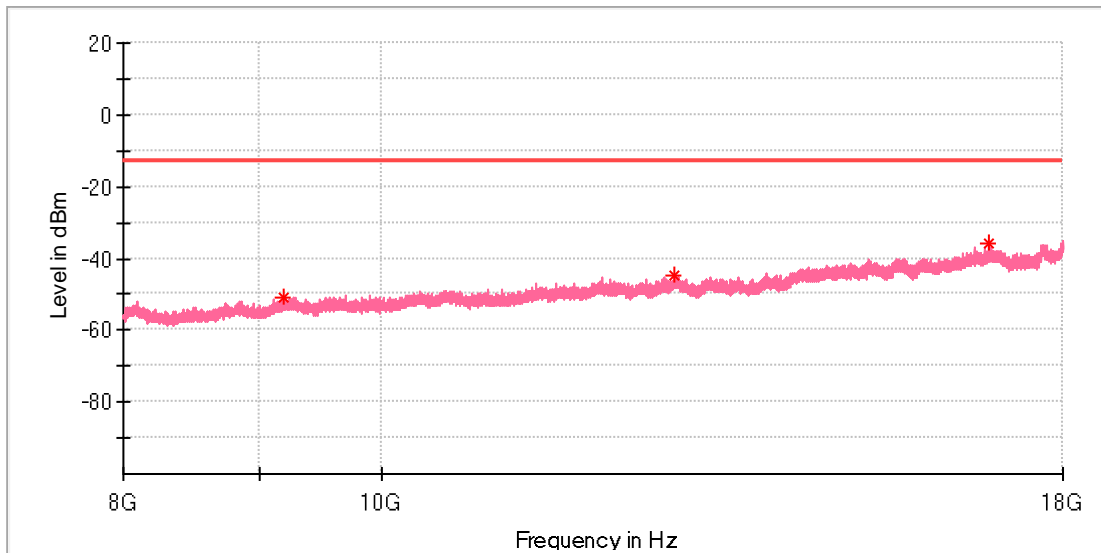


### Critical\_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9224.500000	-50.00	-13.00	37.00	150.0	H	298.0	-84.1
12900.000000	-44.61	-13.00	31.61	150.0	H	340.0	-78.3
17687.000000	-35.91	-13.00	22.91	150.0	H	315.0	-73.0

### EUT Information

EUT Name:	Remote Radio Unit
Model:	MR44MOA
Sample No:	A003591764-001
Test Mode:	Band 66, Transmitting at Max. RF power, 4x4TX
Test Voltage:	DC 48V
Remark:	Temp 22 Humi:55%
Test standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed by	Terry Yin



### Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9193.000000	-50.86	-13.00	37.86	150.0	V	197.0	-84.4
12879.500000	-44.61	-13.00	31.61	150.0	V	178.0	-78.7
16882.000000	-35.86	-13.00	22.86	150.0	V	242.0	-73.1

===== END OF APPENDIX =====