

Report On

FCC Testing of the Ericsson LPRU 4410 B5B13, NR, LTE + NR, KRC 161 887/1 (700 MHz) Base Station in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 27

COMMERCIAL-IN-CONFIDENCE

FCC: TA8AKRC161887-1

PREPARED BY APPROVED BY DATED

With Expanse 11 August 2021

Glen Westwell Scott Drysdale
Senior Test Eng. Scott Drysdale
Authorised Signatory

Document 7169009740.3 Report 01 Issue 1

August 2021



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SECTION 1

REPORT INFORMATION



1.1 REPORT DETAILS

Manufacturer Ericsson

Address Torshamnsgatan 23

Kista SE-16480 Stockholm Sweden

Product Name & Product Number LPRU 441 B5B13 - KRC 161 887/1

Serial Number(s) TD3F062325

Software Version CXP 203 0045/17 R9A99

Hardware Version R1B

Test Specification/Issue/Date FCC CFR 47 Part 2: 2019

FCC CFR 47 Part 27: 2020

Test Plan LPRU 4410 B5B13_RA_testplan with B13NR Update

Start of Test 09 June 2021

Finish of Test 10 June 2021

Name of Engineer(s) Glen Westwell

Related Document(s) KDB 971168 D01 v02r02

KDB 662911 D01 v02r01

ANSI C63.26-2015

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate compliance with FCC CFR 47 Part 2: 2019, FCC CFR 47 Part 27: 2020. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);

Glen Westwell



1.2 BRIEF SUMMARY OF RESULTS

A brief summary of results for each configuration, in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 27 is shown below.

	Specification Clause			
Section	FCC CFR 47 Part 2	FCC CFR 47 Part 27	Test Description	Result
2.1	2.1046	27.50	Maximum Peak Output Power and Peak to Average Ratio - Conducted	Pass
2.2	2.1049	27.53	Occupied Bandwidth	Pass
2.3	2.1051	27.53	Band Edge	Pass
2.4	2.1051	27.53	Transmitter Spurious Emissions	Pass

Testing in this Report covers only B13 (700 MHz)

For additional configurations and test cases not contained within this test report, refer to the following reports:

75947902 Report 01 Issue 1 - LPRU 4410 B5B13 - LTE, NR, LTE and NB-IoT



1.3 TEST RATIONALE

The tests that have been selected are detailed in the customer Test Plan as defined in section 1.1 of this report



1.4 CONFIGURATION DESCRIPTION

Configuration	RAT No. Of		Carrier Bandwidth	Carrier Frequency Configuration (MHz)		
Configuration	KAI	carriers	Carrier Baridwidth	Bottom	Middle	Тор
A NR 1		ND 4	5 MHz	748.5	-	753.5
		10 MHz	-	751.0	-	
В	NR + LTE	2	5 MHz + 5 MHz - SCS 15kHz	-	748.5+753.5	-

Note: Authorized BW for this variant is 10MHz.



1.5 DECLARATION OF BUILD STATUS

MAIN EUT			
MANUFACTURING DESCRIPTION	LPRU 4410 B5B13		
MANUFACTURER	Ericsson		
TYPE	Remote Radio Base Station		
PART NUMBER	KRC 161 887/1		
SERIAL NUMBER	TD3F062325		
HARDWARE VERSION	R1B		
SOFTWARE VERSION	CXP 203 0045/17 R9A99		
TRANSMITTER OPERATING RANGE	B5: 889-894 MHz, B13: 746-756MHz		
RECEIVER OPERATING RANGE	B5: 824-849 MHz, B13: 777-787MHz		
COUNTRY OF ORIGIN	China		
INTERMEDIATE FREQUENCIES	None		
	B5 and B13 LTE: 5M00W7D, 10M0W7D		
EMISSION DESIGNATOR(S): (i.e. G1D, GXW)	B5 and B13 NBIoT Guardband: 10M0W7D B5 NR: 5M00F9W, 10M0F9W, 15M0F9W, 20M0F9W		
	B13 NR: 5M00F9W, 10M0F9W		
MODULATION TYPES: (i.e. GMSK, QPSK)	LTE: QPSK, 16QAM, 64QAM, 256QAM NR: QPSK, 16QAM, 64QAM, 256QAM		
HIGHEST INTERNALLY GENERATED FREQUENCY	0.894 GHz		
OUTPUT POWER (W or dBm)	B5: 4 x 0.05W (17dBm) B13: 4 x 0.05W (17dBm)		
FCC ID	TA8AKRC161887-1		
INDUSTRY CANADA ID	NA NA		
TECHNICAL DESCRIPTION (a brief description of the intended use and operation)	LPRU 4410 B5B13 (KRC 161 887/1) is a Remote Radio Unit forming part of the Ericsson Radio Base Station (RBS) equipment. The LPRU provides radio access for mobile and fixed devices and is intended for the indoor environment. The radio operates over 8 Transmit ports in MRO (LTE, NBIoT, and NR); Single, and Multi-Carrier transmission with a maximum rated RF Output of 0.05W per port over an operational temperature of 0°C to +50°C. The unit is designed to be rack mounted.		

Signature:

Date: 3 August 2021

Declaration of Build Status Serial Number: TD3F062325

No responsibility will be accepted by TÜV SÜD UK Limited as to the accuracy of the information declared in this document by the manufacturer.

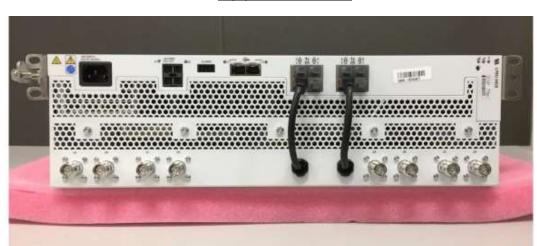


1.6 PRODUCT INFORMATION

1.6.1 Technical Description

The Equipment Under Test (EUT) LPRU 4410 B5 B13 is an Ericsson AB Radio Unit working in the public mobile service (700 and 850 MHz) bands which provides communication connections to (700 and 850 MHz) network. The LPRU 4410 B5 B13 operates from a -48V DC supply.

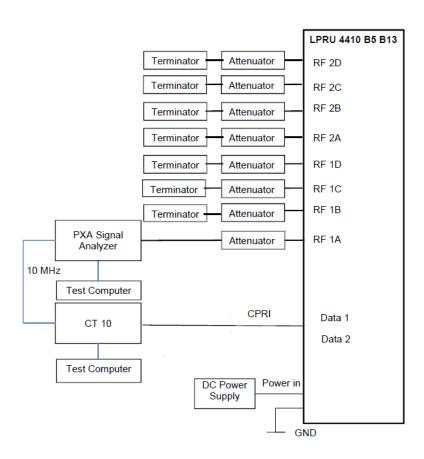
The Equipment Under Test (EUT) is shown in the photograph below. A full technical description can be found in the Manufacturer's documentation.



Equipment Under Test



1.7 TEST SETUP





1.8 TEST CONDITIONS

For all tests the EUT was set up in accordance with the relevant test standard and to represent typical operating conditions. Tests were applied with the EUT situated as described in the Test Method for each Test.

The EUT was powered from a -48V DC supply.

FCC Measurement Facility Registration Number CA4810 TUV SUD Ottawa, Canada

ISED Accreditation IC#24015 TUV SUD Ottawa, Canada

Under our A2LA Accreditation, TÜV SÜD Canada conducted the following tests at Ericsson's, Ottawa Laboratory: 349 Terry Fox Dr, Kanata, ON.

Test Name	Name of Engineer(s)
Maximum Peak Output Power and Peak to Average Ratio - Conducted	Glen Westwell
Occupied Bandwidth	Glen Westwell
Band Edge	Glen Westwell
Transceiver Spurious Emissions	Glen Westwell

1.9 DEVIATION FROM THE STANDARD

No deviations from the applicable test standards or test plan were made during testing.

1.10 MODIFICATION RECORD

No modifications were made to the EUT during testing.

1.11 ADDITIONAL INFORMATION

1. This filing is for a Class II Permissive Change to add NR modulation to this previously certified device for band 13 under the following ID's:

FCC ID: TA8AKRC161887-1

2. Transmitter performance was measured for top, mid & bottom channels, where aplicable, accross all antenna ports as presented in the average power measurement tables. Typical performance is presented.



SECTION 2

TEST DETAILS



2.1 MAXIMUM PEAK OUTPUT POWER AND PEAK TO AVERAGE RATIO - CONDUCTED

2.1.1 Specification Reference

FCC CFR 47 Part 27, Clause 27.50 FCC CFR 47 Part 2, Clause 2.1046

2.1.2 Date of Test and Modification State

09 and 10 June 2021 - Modification State 0

2.1.3 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.4 Environmental Conditions

Ambient Temperature 24.9 - 25.2°C Relative Humidity 29.4 - 29.8%

2.1.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, clause 5.2.1 and summed in accordance with FCC KDB 662911 D01.

2.1.6 Test Results



Configuration A

Maximum Output Power 17.00 dBm / Port

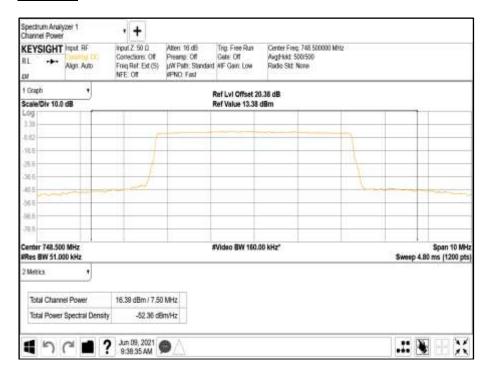
Antenna Type			Peak to Ave	erage Ratio (PAR) / 0	Output Power
External	Modulation	Carrier Bandwidth	Channel Position B		
Antenna Port	iviodulation	Carrier Bandwidth	PAR (dB)	Average Power	
Antenna Port			PAR (ub)	dBm	dBm/MHz
Α	NR: QPSK	5.0 MHz	9.06	16.36	10.88
В	NR: QPSK	5.0 MHz	-	16.39	10.88
С	NR: QPSK	5.0 MHz	=	16.31	10.88
D	NR: QPSK	5.0 MHz	-	16.39	10.88
	Total		=	22.38	13.89
Antenna Gain (dBd)			Peak to Ave	erage Ratio (PAR) / 0	Output Power
0.00	Modulation	Carrier Bandwidth		Channel Position M	
Antenna Port	Modulation	Carrier Dariuwiutii	PAR (dB)	Average	Power
Antenna Port			PAR (ub)	dBm	dBm/MHz
Α	NR: QPSK	5.0 MHz	8.93	16.33	10.98
В	NR: QPSK	5.0 MHz	=	16.24	10.98
С	NR: QPSK	5.0 MHz	=	16.35	10.98
D	NR: QPSK	5.0 MHz	=	16.43	10.98
Total		-	22.36	13.99	
Antenna Gain (dBd)			Peak to Ave	erage Ratio (PAR) / 0	Output Power
0.00	Modulation		Channel Position T		
Antenna Port			PAR (dB)	Average Power	
Antenna Port				dBm	dBm/MHz
Α	NR: QPSK	5.0 MHz	9.07	16.38	11.35
В	NR: QPSK	5.0 MHz	=	16.21	11.35
С	NR: QPSK	5.0 MHz	=	16.42	11.35
D	NR: QPSK	5.0 MHz	-	16.40	11.35
	Total		-	22.37	14.36
Antenna Gain (dBd)			Peak to Ave	erage Ratio (PAR) / 0	Output Power
0.00	Modulation	Carrier Bandwidth	C	Channel Position B/M/T	
Antenna Port	Modulation	Carrier Bandwidth	D V D (4D)	Average	Power
Antenna Port			PAR (dB)	dBm	dBm/MHz
A	NR: QPSK	10.0 MHz	9.14	16.79	8.28
В	NR: QPSK	10.0 MHz		16.62	8.28
С	NR: QPSK	10.0 MHz	=	16.36	8.28
D	NR: QPSK	10.0 MHz	-	16.88	8.28
	Total		-	22.69	11.29

Remarks

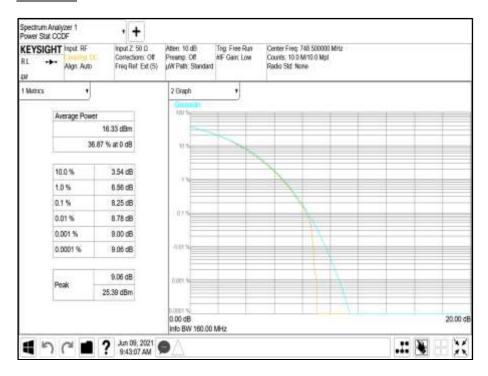
- 1. Transmitter performance has been presented for top, mid, bottom channels accross all antenna ports as represented in the following tables.
- 2. Typical performance and measurement plot data has been presented for reference.
- 3. B13 has 10 MHz of authorized spectrum, therfeore the 10 MHz or 5+5 MHz carrier performance represents B/M/T as present in the tables.
- 4. All plot data is on file and available upon request.



<u>Antenna Port A Carrier Power - Modulation NR: QPSK - Carrier Bandwidth 5.0 MHz - Channel Position B</u>

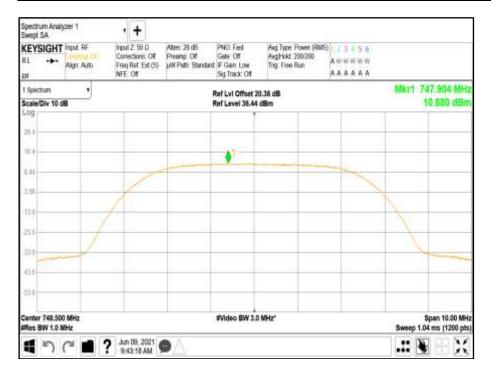


<u>Antenna Port A Pk-Av Ratio - Modulation NR: QPSK - Carrier Bandwidth 5.0 MHz - Channel Position B</u>

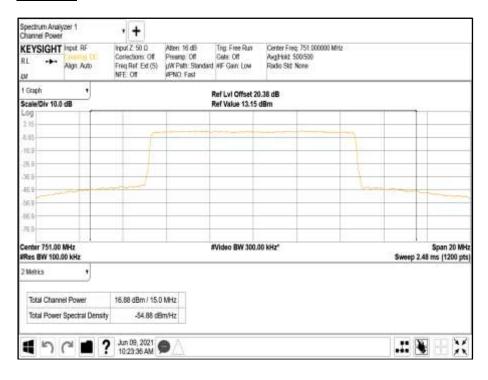




Antenna Port A PSD - Modulation NR: QPSK - Carrier Bandwidth 5.0 MHz - Channel Position B

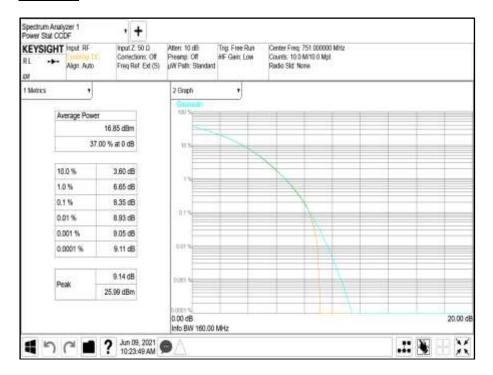


Antenna Port A Carrier Power - Modulation NR: QPSK - Carrier Bandwidth 10.0 MHz - Channel Position B

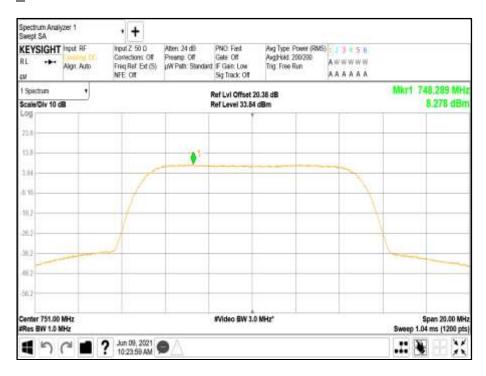




Antenna Port A Pk-Av Ratio - Modulation NR: QPSK - Carrier Bandwidth 10.0 MHz - Channel Position B



Antenna Port A PSD - Modulation NR: QPSK - Carrier Bandwidth 10.0 MHz - Channel Position B





Configuration B

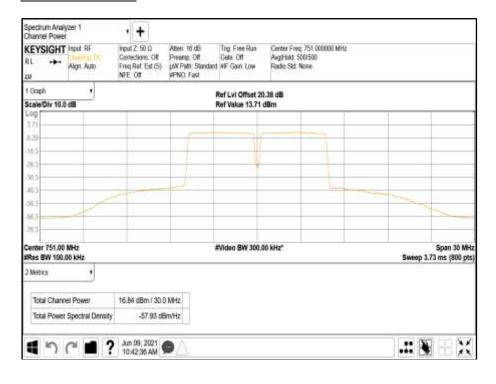
Maximum Output Power 17.00 dBm / Port

Antenna Type					
External	Modulation	Carrier Bandwidth			
Antenna Port		Carrier Baridwidtri	Average Power		
Antenna Port			dBm		
Α	NR+NR: QPSK	5.0+5.0 MHz	16.84		
В	NR+NR: QPSK	5.0+5.0 MHz	16.66		
С	NR+NR: QPSK	5.0+5.0 MHz	16.12		
D	NR+NR: QPSK	5.0+5.0 MHz	16.82		
	22.64				
Antenna Gain (dBd)		ation Carrier Bandwidth			
0.00	Modulation				
Antenna Port			Average Power		
Antenna Port			dBm		
Α	NR+LTE: QPSK	5.0+5.0 MHz	16.50		
В	NR+LTE: QPSK	5.0+5.0 MHz	16.54		
С	NR+LTE: QPSK	5.0+5.0 MHz	16.54		
D	NR+LTE: QPSK	5.0+5.0 MHz	16.73		
	Total				

Remarks

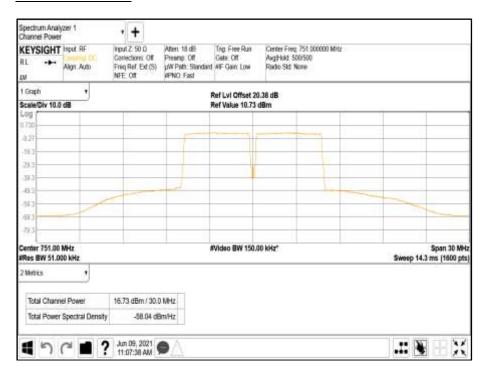
- 1. The table results are measured at all antenna ports, worst-case presented.
- 2. Plot data performance for all transmitter ports and channels are available on request.

<u>Antenna Port A Carrier Power - Modulation NR+NR: QPSK - Carrier Bandwidth 5.0+50 MHz - Channel Position M</u>





<u>Antenna Port A Carrier Power - Modulation NR+LTE: QPSK - Carrier Bandwidth 5.0+50 MHz - Channel Position M</u>



Limit	
Maximum rated output power (Non-Rural)	≤ 1640 W/MHz or ≤+62.15 dBm/MHz
Maximum rated output power (Rural)	≤ 3280 W/MHz or ≤+65.15 dBm/MHz
Peak to Average Ratio	13 dB

The radio unit was tested with maximum output power and without an antenna. ERP/EIRP compliance is addressed at the time of licensing, as required by the responsible FCC/ISED Bureau(s). Licensees are required to take into account maximum allowed antenna gain used in combination with the applicable power settings to prevent the radiated output power exceeding the limits.



2.2 OCCUPIED BANDWIDTH

2.2.1 Specification Reference

FCC CFR 47 Part 27, Clause 27.53 FCC CFR 47 Part 2, Clause 2.1049

2.2.2 Date of Test and Modification State

09 June 2021 - Modification State 0

2.2.3 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.2.4 Environmental Conditions

Ambient Temperature 24.9°C Relative Humidity 29.8%

2.2.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, Clause 4.3. The Spectrum Analyser RBW was configured to be at least 1% of the channel bandwidth of the carrier to be measured.

For 26 dB Bandwidth, in accordance with KDB 971168 D01, a peak detector and a trace setting of Max Hold were used. The trace was allowed to stabilise. Using the Spectrum Analyser function, the 26dB measurement result was obtained.

4.3 Occupied bandwidth – power bandwidth (99 %) measurement procedure Subclause 5.4.4 of ANSI C63.26-2015 is applicable (wherein the recommendation is to use the 99 % power bandwidth function of a spectrum analyzer).

2.2.6 Test Results

Configuration A

Maximum Output Power 17.00 dBm / Port

		Result	t (MHz)
Modulation	Carrier Bandwidth	Channel	Bandwidth
		Occupied Bandwidth	-26 dB Bandwidth
NR: QPSK	NR: 5.0 MHz	4.45	4.72
NR: QPSK	NR: 10.0 MHz	9.27	9.64

Remarks

Representative occupied banwitdth performance results presented. Plot data performance for all transmitter ports and channel positions are on file and available on request.



2.3 BAND EDGE

2.3.1 Specification Reference

FCC CFR 47 Part 27, Clause 27.53 FCC CFR 47 Part 2, Clause 2.1051

2.3.2 Date of Test and Modification State

10 June 2021 - Modification State 0

2.3.3 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.3.4 Environmental Conditions

Ambient Temperature 25.2°C Relative Humidity 29.4%

2.3.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, Clause 6.0.

Band Edge measurements were used an Integration Bandwidth of at least 1% of the measured 26dB Bandwidth.

Each antenna port has been declared as being equivalent, therefore measurements were made on one antenna port only. To account for this, the limit was tightened by 10 * Log(N), where N is equal to the number of MIMO antenna ports.

For single carrier, the limit was calculated as being -13 dBm - 10 * Log (4) = -19 dBm.

2.3.6 Test Results

Configuration A

Maximum Output Power 17.00 dBm

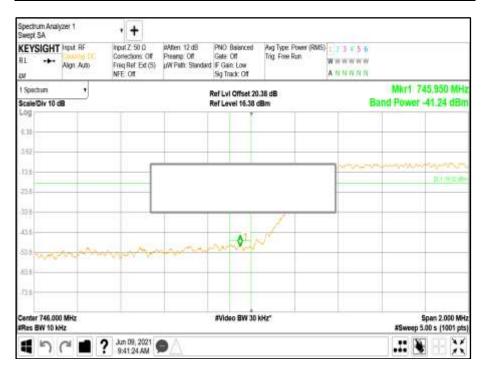
Modulation	lation Carrier Bandwidth Band Edge (MHz)		lge (MHz)
iviodulation	Carrier Baridwidth	Channel Position B	Channel Position T
NR: QPSK	NR: 5.0 MHz	748.5	753.5
NR: QPSK	NR: 10.0 MHz	751.0	751.0

Remarks

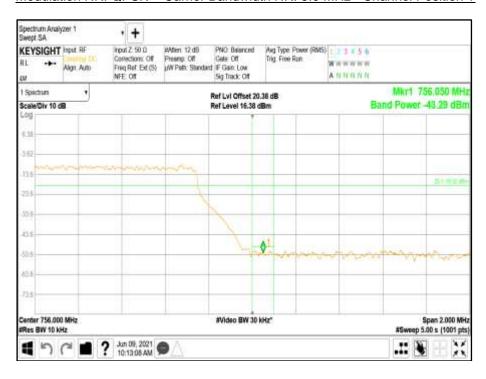
- 1. Bandedge data was captured from the transmit port with maximum measured power.
- 2. Worst case bandedge data presented.



Modulation NR: QPSK - Carrier Bandwidth NR: 5.0 MHz - Channel Position B

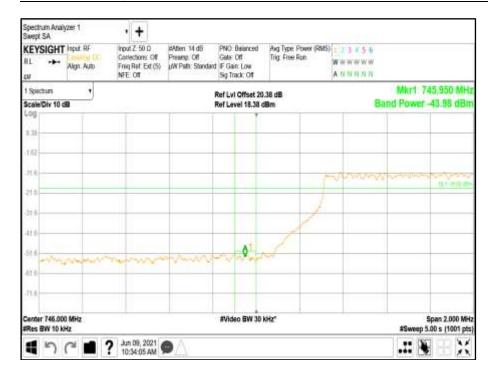


Modulation NR: QPSK - Carrier Bandwidth NR: 5.0 MHz - Channel Position T

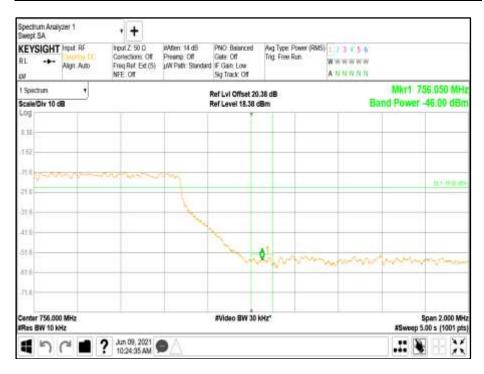




Modulation NR: QPSK - Carrier Bandwidth NR: 10.0 MHz - Channel Position B



Modulation NR: QPSK - Carrier Bandwidth NR: 10.0 MHz - Channel Position T





Configuration B

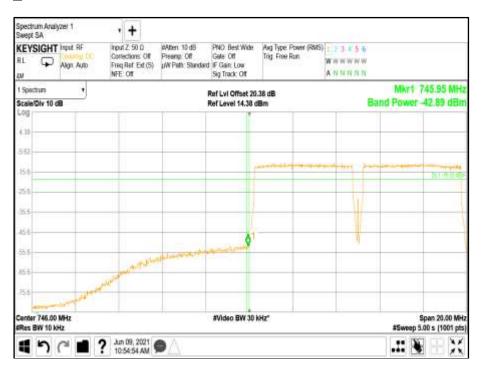
Maximum Output Power 17.00 dBm / Port

Antonno	Modulation	Carrier Bandwidth	Band Edge (MHz)	
Antenna	Modulation	Carrier Baridwidth	Channel Position B	Channel Position T
Α	NR + NR: QPSK	5.0+5.0 MHz	748.5+753.5	748.5+753.5
Α	LTE + NR: QPSK	5.0+5.0 MHz	748.5+753.5	748.5+753.5

Remarks

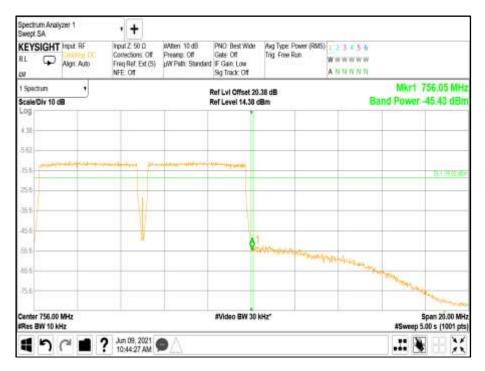
The plot results represent typical radio performace.

<u>Antenna A - Modulation NR + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position B</u>





 $\frac{\text{Antenna A - Modulation NR + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position}}{\underline{T}}$

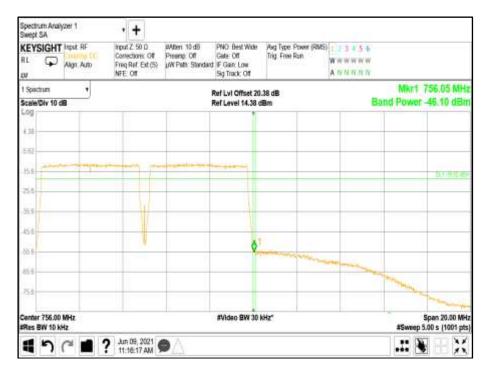


<u>Antenna A - Modulation LTE + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position B</u>





Antenna A - Modulation LTE + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position \underline{T}



Limit	-19 dBm
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2.4 TRANSMITTER SPURIOUS EMISSIONS

2.4.1 Specification Reference

FCC CFR 47 Part 27, Clause 27.53 ISED RSS-130, Clause 4.7 FCC CFR 47 Part 2, Clause 2.1051

2.4.2 Date of Test and Modification State

10 June 2021 - Modification State 0

2.4.3 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.4.4 Environmental Conditions

Ambient Temperature 25.2°C Relative Humidity 29.4%

2.4.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, Clause 6.1.

Each antenna port has been declared as being equivalent, therefore measurements were made on one antenna port only. To account for this, the limit was tightened by 10 * Log(N), where N is equal to the number of MIMO antenna ports.

For single carrier, the limit was calculated as being -13 dBm - 10 * Log (4) = -19 dBm.

2.4.6 Test Results

Configuration A

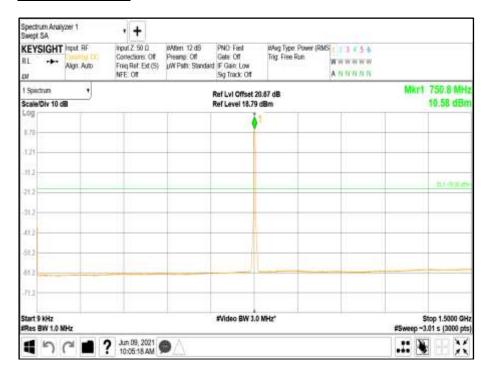
Maximum Output Power 17.00 dBm / Port

Remarks

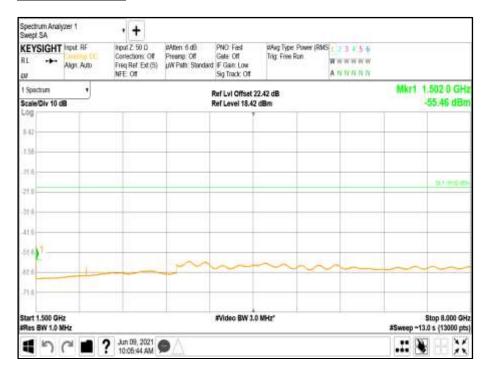
- 1. Transceiver spurious emssions have been searched for all channel bandwidths and antenna ports.
- 2. Representative spurious emissions performance has been presented for all modulations.
- 3. Plot data performance for all transmitter ports, channel bandwidths, and channel positions are on file and available on request.



Modulation NR: QPSK - Carrier Bandwidth 5.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1500 MHz

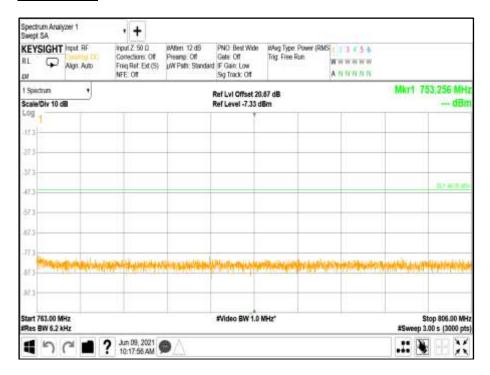


Modulation NR: QPSK - Carrier Bandwidth 5.0 MHz - Channel Position M - Band 2 - Range 1500 to 8000 MHz

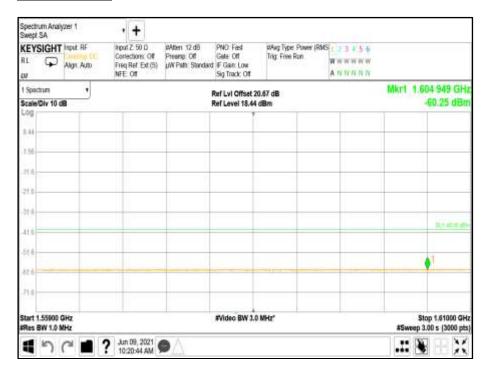




Modulation NR: QPSK - Carrier Bandwidth 5.0 MHz - Channel Position M - Band 3 - Range 763-806 MHz

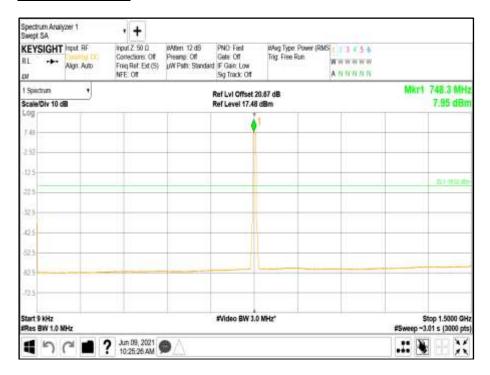


<u>Modulation NR: QPSK - Carrier Bandwidth 5.0 MHz - Channel Position M - Band 4 - Range 1599-1610 MHz</u>

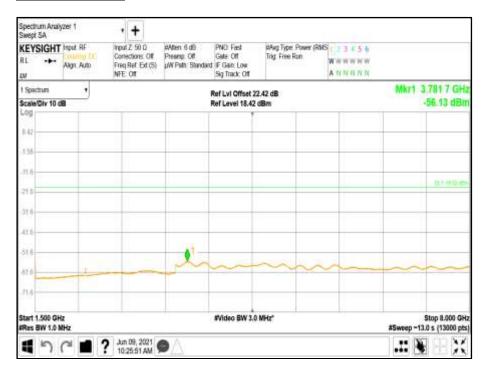




Modulation NR: QPSK - Carrier Bandwidth 10.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1500 MHz

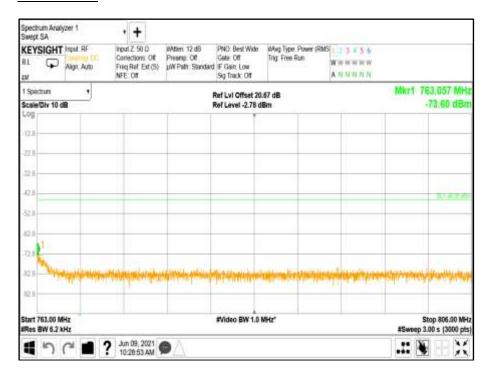


Modulation NR: QPSK - Carrier Bandwidth 10.0 MHz - Channel Position M - Band 2 - Range 1500 to 8000 MHz

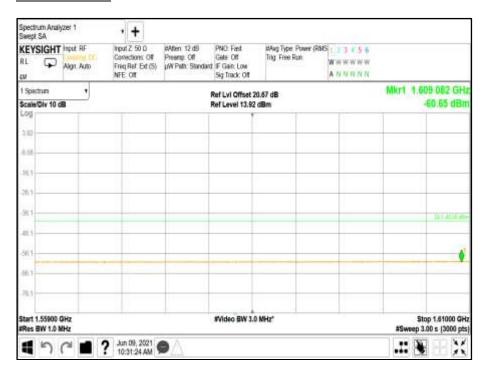




Modulation NR: QPSK - Carrier Bandwidth 10.0 MHz - Channel Position M - Band 3 - Range 763-806 MHz



Modulation NR: QPSK - Carrier Bandwidth 10.0 MHz - Channel Position M - Band 4 - Range 1599-1610 MHz





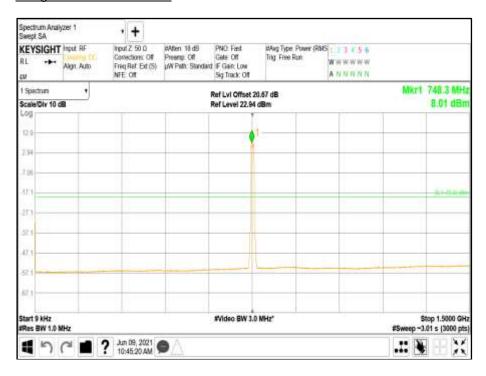
Configuration B

Maximum Output Power 17.00 dBm

Remarks

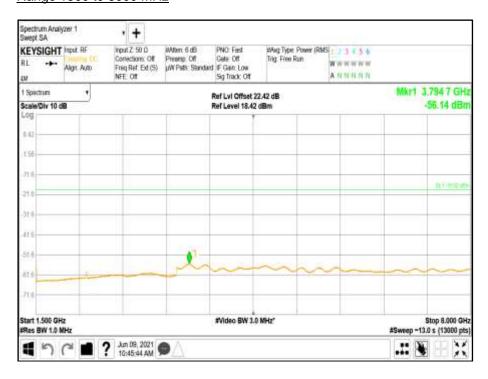
- 1. Representavie spurious emissions performance has been presented for all modulations.
- 2. Typical worst-case performance presented.

Modulation NR + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1500 MHz

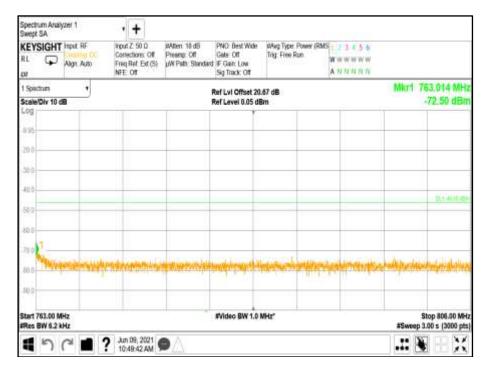




Modulation NR + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position M - Band 2 - Range 1500 to 8000 MHz

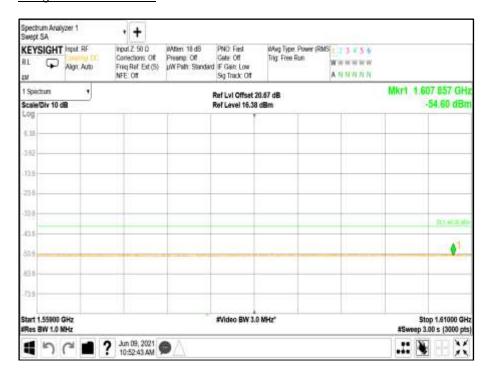


$\underline{\text{Modulation NR} + \text{NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position M - Band 3 - Range 763-806 MHz}$





Modulation NR + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position M - Band 4 - Range 1599-1610 MHz

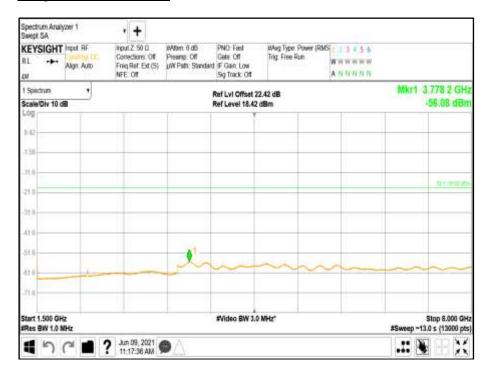


<u>Modulation LTE + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1500 MHz</u>

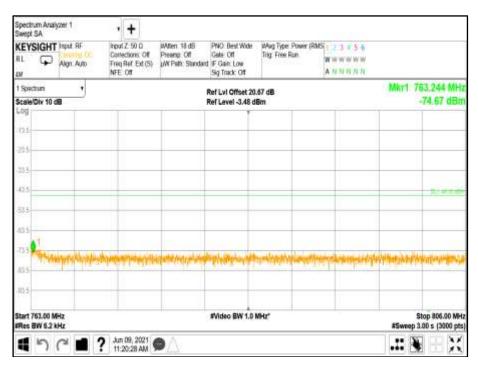




Modulation LTE + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position M - Band 2 - Range 1500 to 8000 MHz

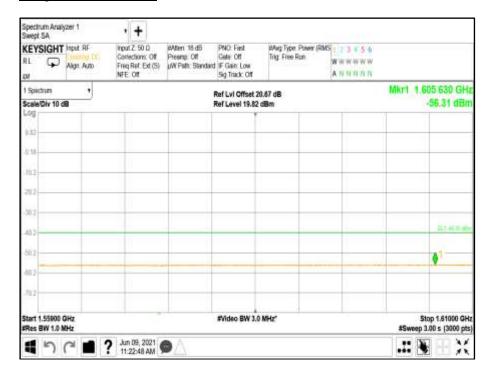


<u>Modulation LTE + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position M - Band 3 - Range 763-806 MHz</u>





Modulation LTE + NR: QPSK - Carrier Bandwidth 5.0+5.0 MHz - Channel Position M - Band 4 - Range 1599-1610 MHz



	< -19 dBm : outside the 746-758 MHz	
Limit	< -46 dBm/6.25 kHz : 763-775 MHz and 793-805 MHz	
	< -40dBm/MHz : 1559-1610 MHz	



SECTION 3

TEST EQUIPMENT USED



3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Spectrum Analyzer	Keysight	PXA N9030B	MY57144347	24	24-Apr-2022
Thermometer	VWR	61161-364	192595396.00	24	25-Oct-2021
PSU	Xantrex	XKW60-50	E00109862	=	O/P Mon
Attenuator (20dB)	Mini-Circuits	BW-K10-2W44+	-	-	O/P Mon
Climate Chamber	Burnsco	RTC-37P-3-3	-07-07	-	O/P Mon

N/A-Not Applicable O/P Mon – Output Monitored with Calibrated Equipment



3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:-

Test Discipline	Frequency / Parameter	MU	
Conducted Maximum Peak Output Power	30 MHz to 20 GHz Amplitu	± 0.7 dB	
Conducted Emissions	30 MHz to 20 GHz Amplitude		± 2.1 dB
Frequency Stability	30 MHz to 2 GHz		± 5.0 Hz
Occupied Bandwidth	Up to 20 MHz Bandwidth	5 MHz Bandwidth	± 11547 Hz
		10 MHz Bandwidth	± 23094 Hz
		15 MHz Bandwidth	± 34641 Hz
		20 MHz Bandwidth	± 46188 Hz
Band Edge	30 MHz to 20 GHz Amplitude		±0.8 dB
Radiated Spurious Emissions	30 MHz to 1 GHz		± 5.2 dB
	1 GHz to 40GHz	± 6.3 dB	

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2007, clause 4.4.3 and 4.5.1.



SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT



4.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT



This report relates only to the actual item/items tested.

This report does not imply product endorsement by any government, accreditation agency, or TÜV SÜD Canada Inc.

Opinions or interpretations expressed in this report, if any, are outside the scope of TÜV SÜD Canada Inc. accreditations. Any opinions expressed do not necessarily reflect the opinions of TÜV SÜD Canada Inc., unless otherwise stated.

This report relates only to the actual item/items tested

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ANNEX A

MODULE LIST

Configuration A						
Product	Product No	R-State	Serial No			
CT11	LPC 102 494/1	R2A	T01G495060			
LPRU 4410 B5B13 (EUT)	KRC 161 887/1	R1B	TD3F062325			
Software Version:	CXP2030045/17	Revision:	R9A99			