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Report On

FCC Testing of the
Ericsson NR KRC 161 756/1 Radio 4449 B71 B85A (600 MHz) Base
Station in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 27.

COMMERCIAL-IN-CONFIDENCE

FCC ID: TA8AKRC161756-1

PREPARED BY

APPROVED BY

DATED

A handwritten signature in black ink, appearing to read 'D. Fiedorowicz'.

Daria Fiedorowicz
Senior Administrator
(Technical)

A handwritten signature in black ink, appearing to read 'Steve Scarfe'.

Steve Scarfe
Authorised Signatory

26 March 2019

Document 75945338 Report 02 Issue 1

March 2019



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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	Radio 4449 B71 B85A & KRC 161756/1
Serial Number(s)	B441858913
Software Version	CXP9013268/15
Hardware Version	R78AT
Test Specification/Issue/Date	FCC CFR 47 Part 2: 2017 FCC CFR 47 Part 27: 2017
Start of Test	07 March 2019
Finish of Test	07 March 2019
Name of Engineer(s)	Neil Rousell
Related Document(s)	KDB 971168 D01 v02r02 KDB 662911 D01 v02r01

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 27. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);

Neil Rousell

Although FCC CFR 47 Part 27; 2018 was not on our UKAS scope of accreditation at the time of testing, subsequent comparison has shown that no additional testing is required and therefore this product can be considered compliant with FCC CFR 47 Part 27; 2018.



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.

Section	Specification Clause		Test Description	Result
	FCC CFR 47 Part 2	FCC CFR 47 Part 27		
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 (h)	Band Edge	Pass
2.4	2.1051	27.53 (h)	Transmitter Spurious Emissions	Pass

Measurement Uncertainty Decision Statement

Determination of conformity with the specification limits is based on the results of the compliance measurement and does not take into account measurement instrumentation uncertainty as defined in ANSI C63.26:2015 Clause 1.3.

1.3 CONFIGURATION DESCRIPTION

Configuration	RAT	No. Of carriers	Carrier Bandwidth	Carrier Frequency Configuration (MHz)		
				Bottom	Middle	Top
A	NR	1	5MHz, SCS 15 kHz	619.5	-	649.5
B	NR	1	10MHz, SCS 15 kHz	622.0	-	647.0
C	NR	1	15MHz, SCS 15 kHz	624.5	-	644.5
D	NR	1	20MHz, SCS 15 kHz	627.0	-	642.0
E	NR	1	20MHz, SCS 30 kHz	627.0	-	642.0

1.4 DECLARATION OF BUILD STATUS

DECLARATION OF BUILD STATUS

MAIN EUT	
MANUFACTURING DESCRIPTION	Radio Unit
MANUFACTURER	Ericsson AB
PRODUCT NAME	Radio 4449 B71 B85A
PART NUMBER	KRC 161 756/1
IC Model Name	N/A
SERIAL NUMBER	B441858913
HARDWARE VERSION	R1C
SOFTWARE VERSION	CXP9013268_15 R78AT
TRANSMITTER OPERATING RANGE	617-652 MHz
MODULATIONS	LTE & NR: QPSK 16QAM 64QAM 256QAM NB IoT SA: QPSK
ITU DESIGNATION OF EMISSION	LTE B71, 5 MHz BW channel: 5M00W7D
	LTE B71, 10 MHz BW channel: 10M0W7D
	LTE B71, 15 MHz BW channel: 15M0W7D
	LTE B71, 20 MHz BW channel: 20M0W7D
	LTE B85A, 5 MHz BW channel: 5M00W7D
	LTE B85A, 10 MHz BW channel: 10M0W7D
	NB IoT SA B85A, 180 kHz BW channel: 200KW7D
	NR n71, 5 MHz BW channel: 4M47W7D
	NR n71, 10 MHz BW channel: 9M29W7D
	NR n71, 15 MHz BW channel: 14M1W7D
	NR n71, 20 MHz BW channel: 18M9W7D
OUTPUT POWER (RMS) (W or dBm)	4 ports, 40W per port
	NB IoT SA 20W per port
FCC ID	TA8AKRC161756-1
IC ID	N/A
TECHNICAL DESCRIPTION (a brief description of the intended use and operation)	Base station radio

¹LTE carriers 10MHz and above supports NB IoT

Signature

Audun B Helle
Audun Helle

Date

2019-03-14

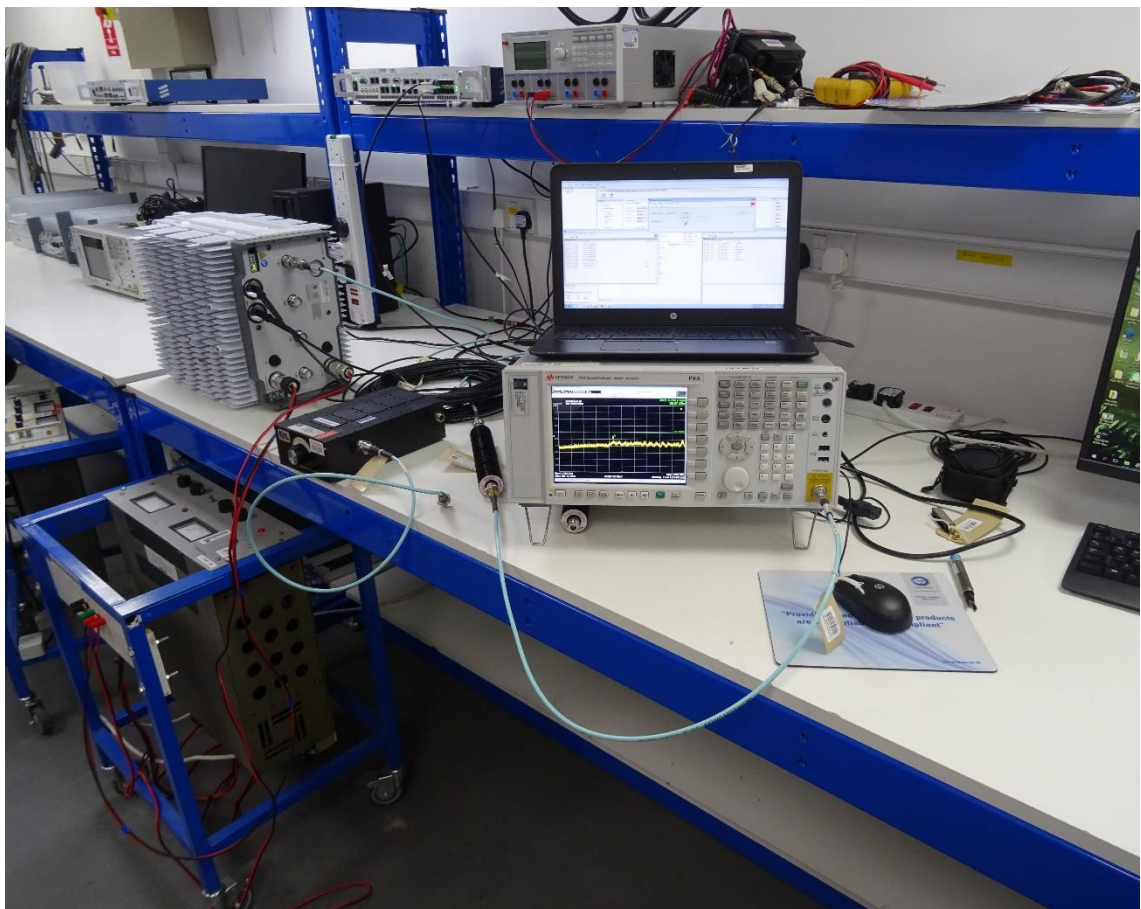
No responsibility will be accepted by TÜV SÜD Product Service UK Limited as to the accuracy of the information declared in this document by the manufacturer.

1.5 PRODUCT INFORMATION

1.5.1 Technical Description

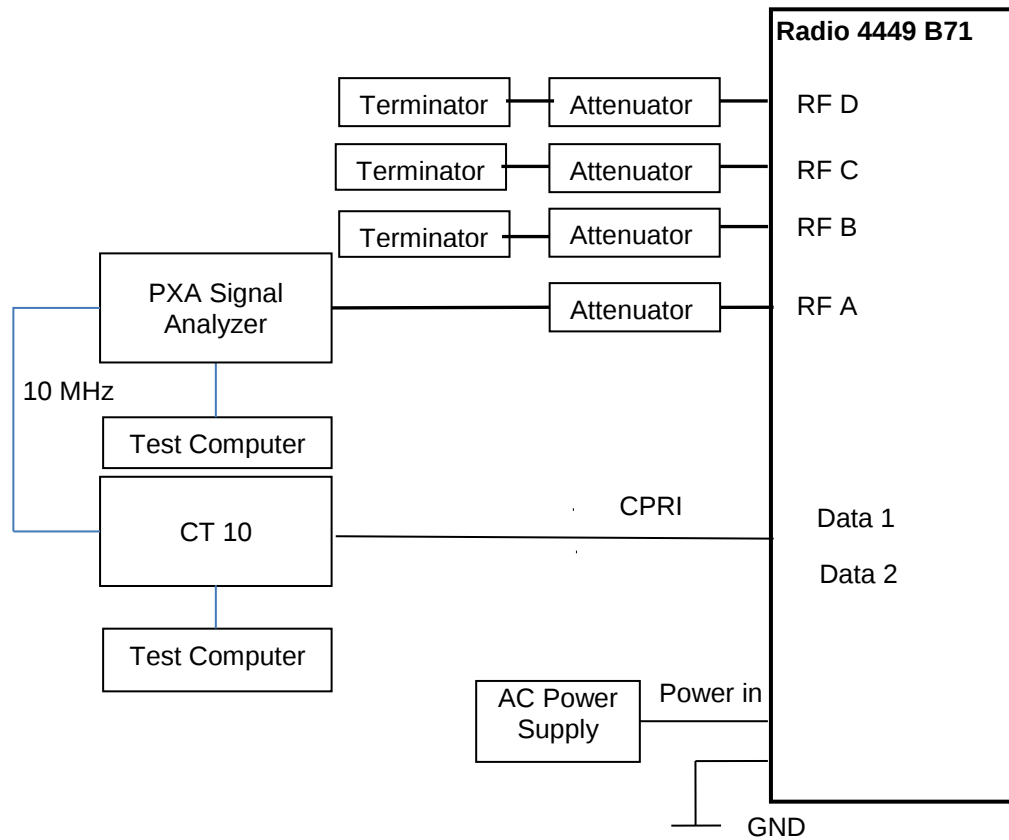
The Equipment Under Test (EUT) Radio B85A is an Ericsson AB Radio Unit working in the public mobile service 600 MHz band which provides communication connections to 600 MHz network. The Radio 4449 B71 B85 Aoperates from a -48V DC supply.

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

1.6 TEST SETUP





1.7 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 in a shielded enclosure, test laboratories or a chamber as appropriate.

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

FCC Measurement Facility Registration Number
90987 Octagon House, Fareham Test Laboratory

1.8 DEVIATION FROM THE STANDARD

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

1.9 MODIFICATION RECORD

No modifications were made to the EUT during testing.



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

2.1.2 Date of Test and Modification State

07 March 2019 - 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 23.5°C
Relative Humidity 35.9%

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.

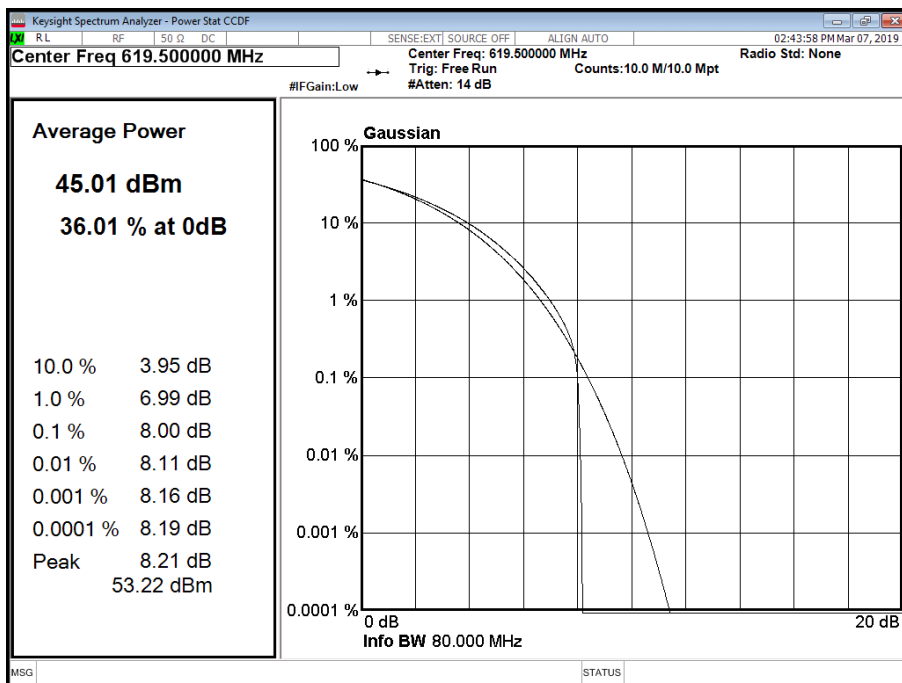
2.1.6 Test Results

Configuration A

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position B		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	5.0 MHz 15 kHz SCS	8.00	44.97	39.16

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B

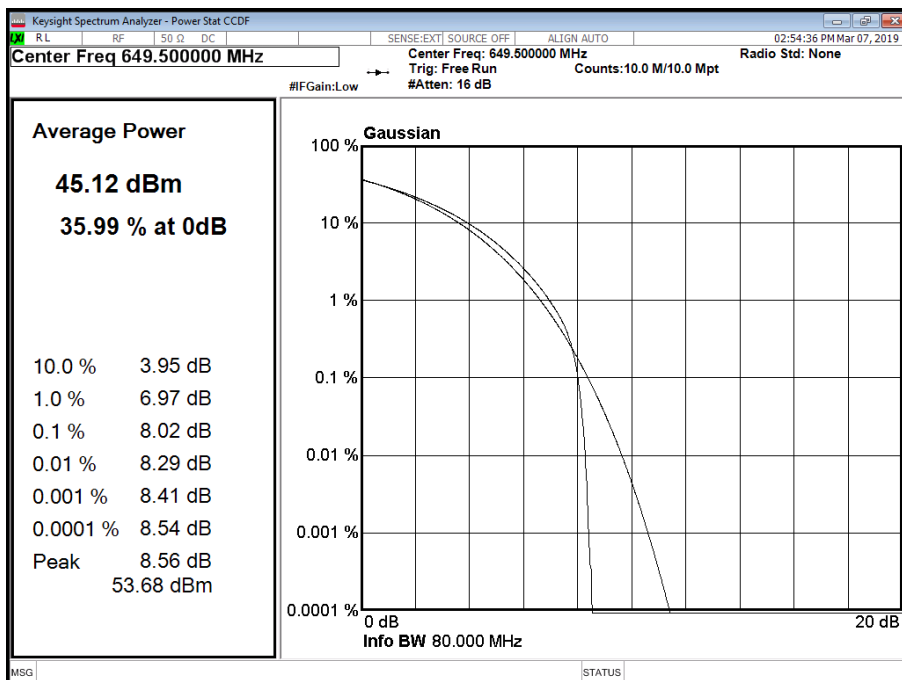


Configuration A

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position T		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	5.0 MHz 15 kHz SCS	8.02	45.12	39.30

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T



Configuration B

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position B		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	10.0 MHz 15 kHz SCS	-	45.40	-

Configuration B

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position T		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	10.0 MHz 15 kHz SCS	-	45.46	-



Configuration C

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position B		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	15.0 MHz 15 kHz SCS	-	45.10	-

Configuration C

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position T		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	15.0 MHz 15 kHz SCS	-	44.93	-

Configuration D

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position B		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	20.0 MHz 15 kHz SCS	-	44.95	-

Configuration D

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position T		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	20.0 MHz 15 kHz SCS	-	44.92	-



Configuration E

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position B		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	20.0 MHz 30 kHz SCS	-	44.99	-

Configuration E

Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power		
			Channel Position T		
			PAR (dB)	Average Power	
				dBm	dBm/MHz
A	QPSK	20.0 MHz 30 kHz SCS	-	44.94	-

Limit	
Peak Power	≤500 W or ≤+57 dBm
Peak to Average Ratio	13 dB



2.2 OCCUPIED BANDWIDTH

2.2.1 Specification Reference

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

2.2.2 Date of Test and Modification State

07 March 2019 - 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 23.5°C
Relative Humidity 35.9%

2.2.5 Test Method

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

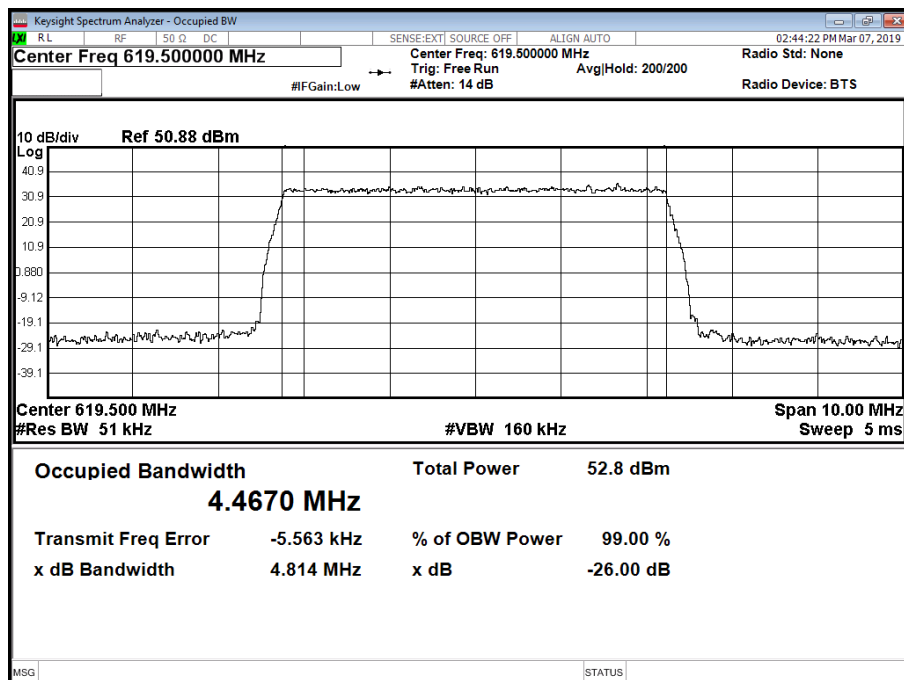
2.2.6 Test Results

Configuration A

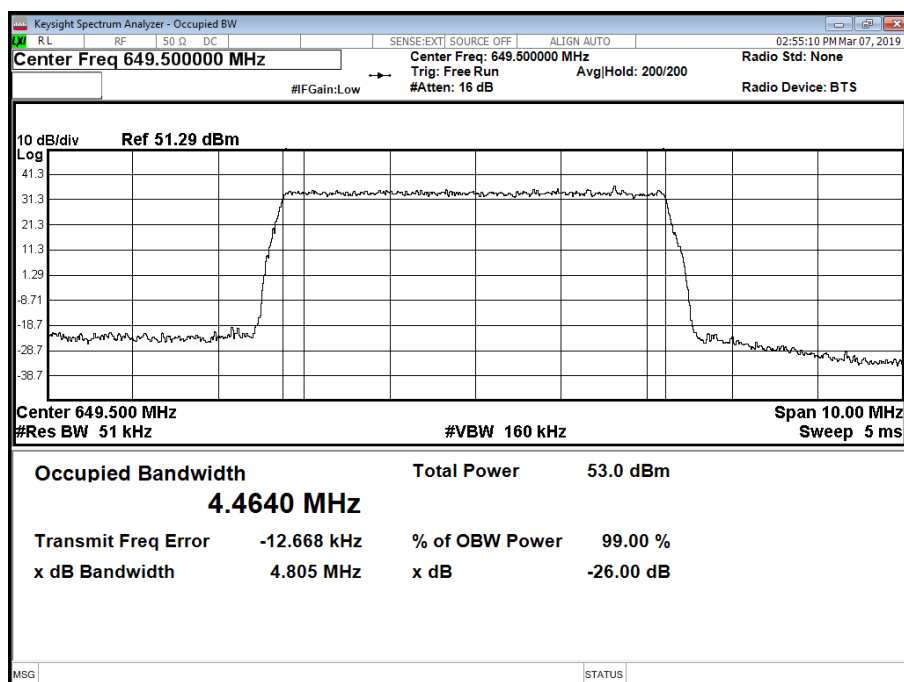
Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (KHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
A	QPSK	5.0 MHz 15 kHz SCS	4,466.98	4,813.51	-	-	4,463.97	4,804.67

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T

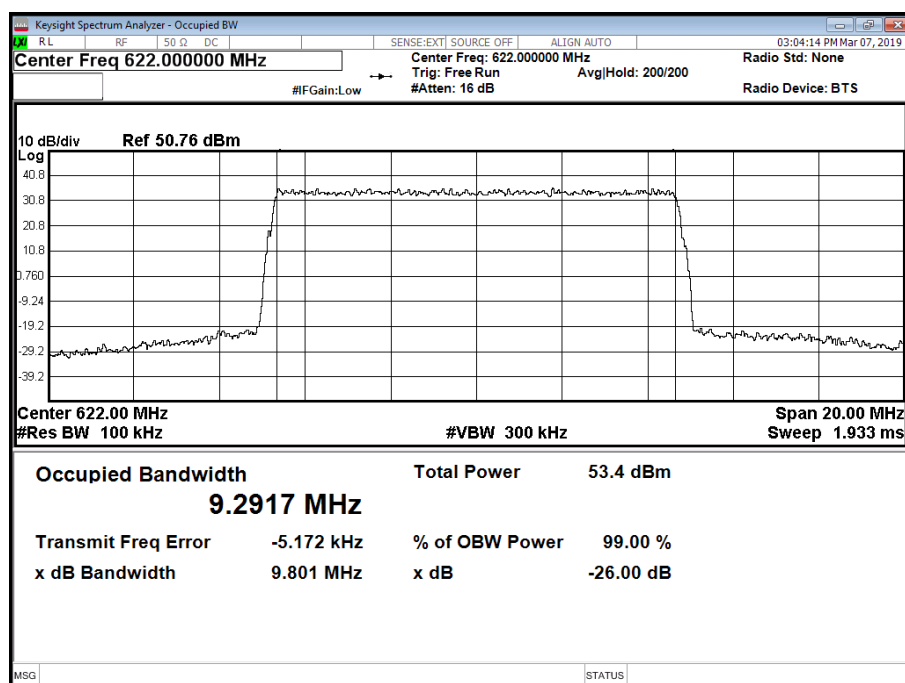


Configuration B

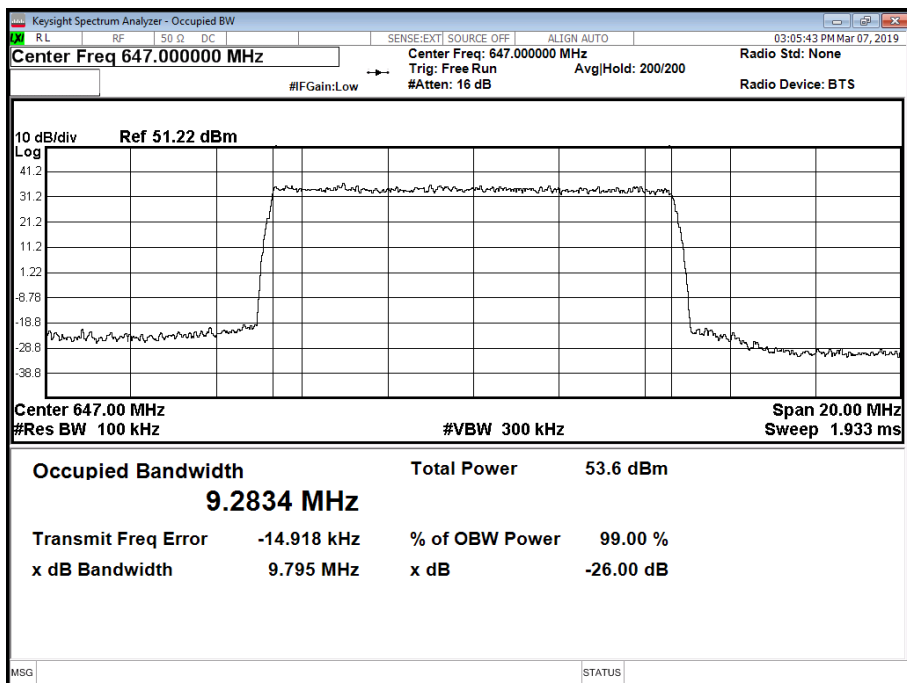
Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (KHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
A	QPSK	10.0 MHz 15 kHz SCS	9,291.66	9,801.18	-	-	9,283.39	9,794.73

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position B



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position T

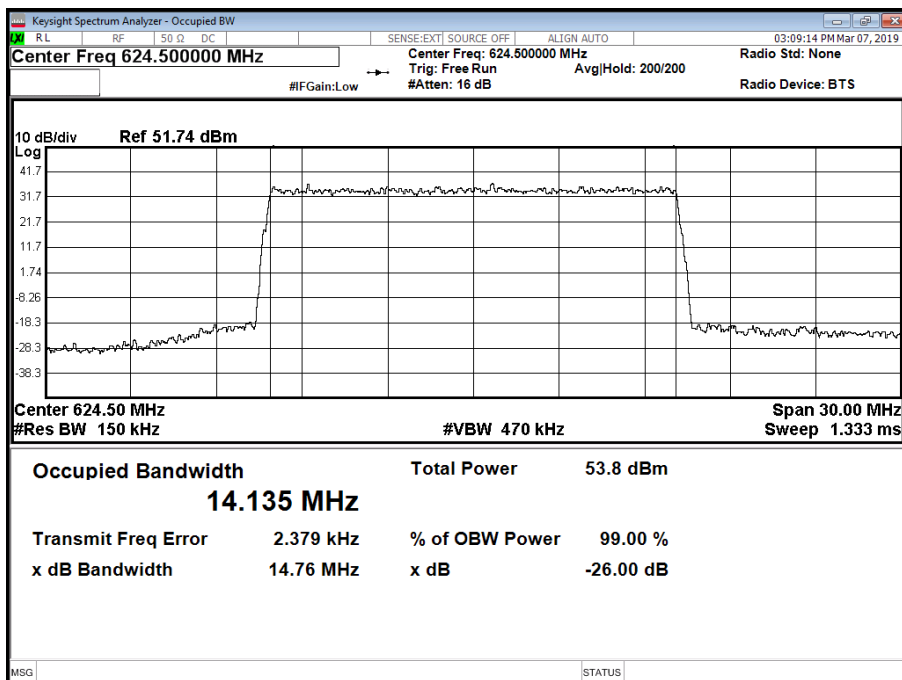


Configuration C

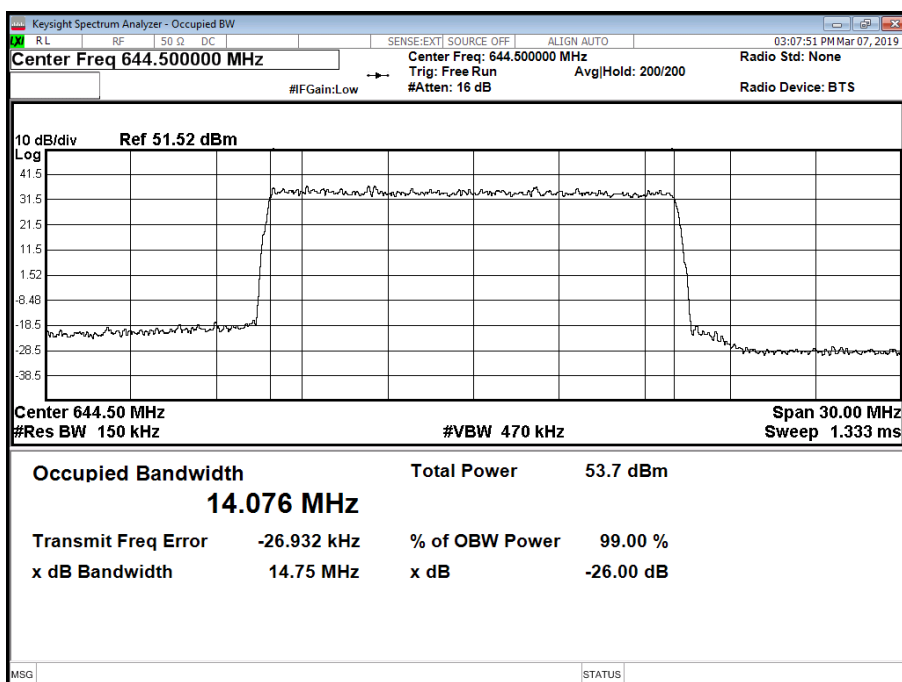
Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (KHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
A	QPSK	15.0 MHz 15 kHz SCS	14,135.39	14,760.79	-	-	14,076.03	14,753.70

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 15.0 MHz 15 kHz SCS - Channel Position B



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 15.0 MHz 15 kHz SCS - Channel Position T

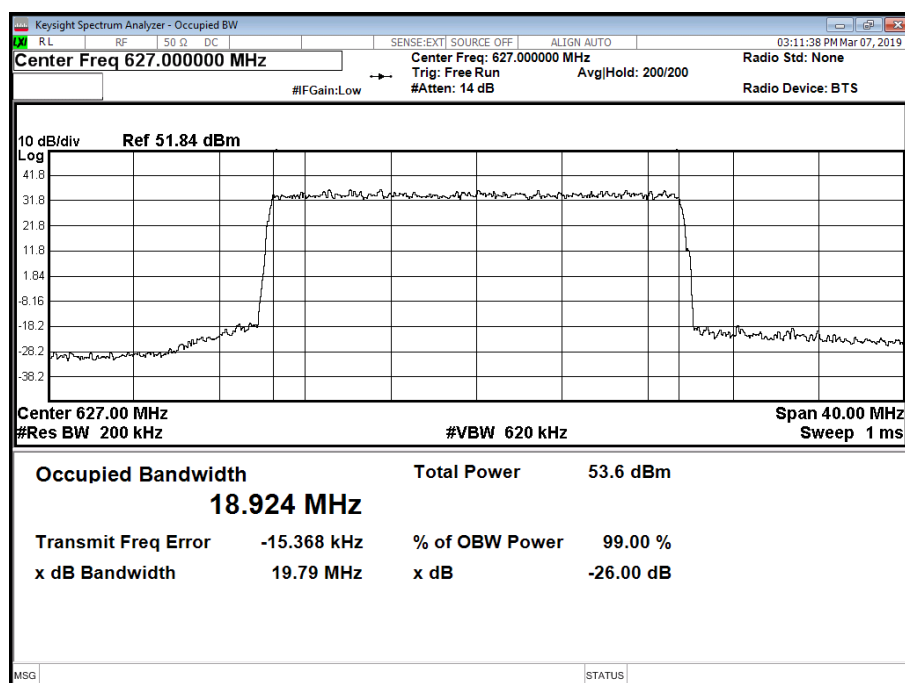


Configuration D

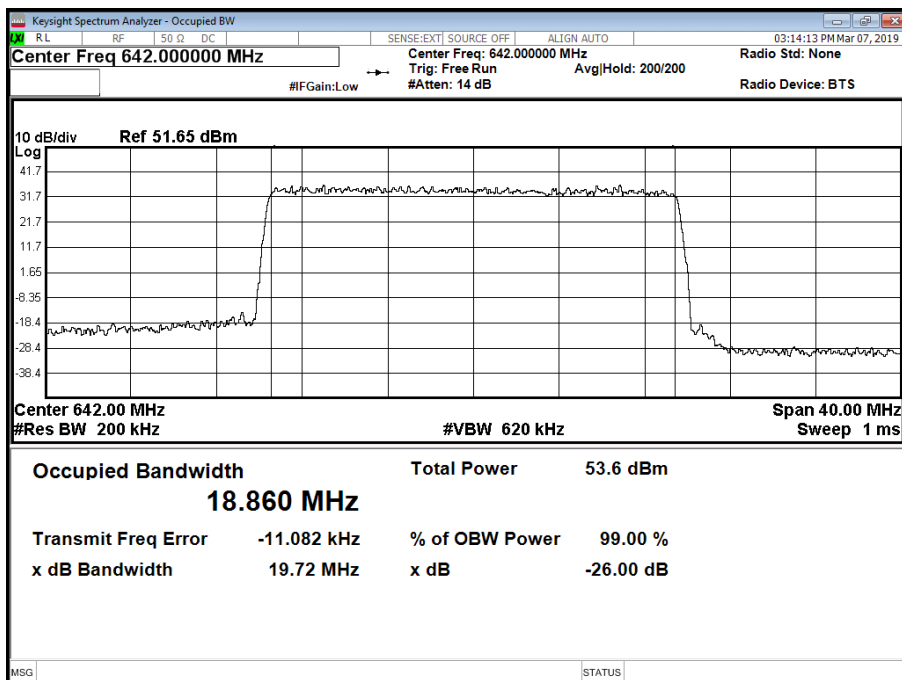
Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (KHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
A	QPSK	20.0 MHz 15 kHz SCS	18,923.57	19,786.96	-	-	18,860.03	19,717.54

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position B



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position T

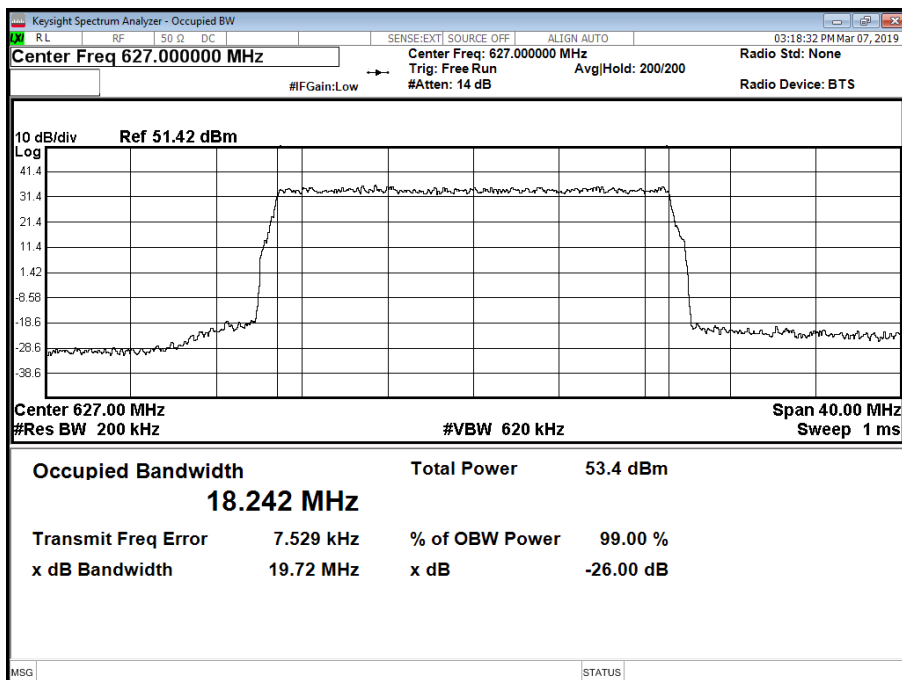


Configuration E

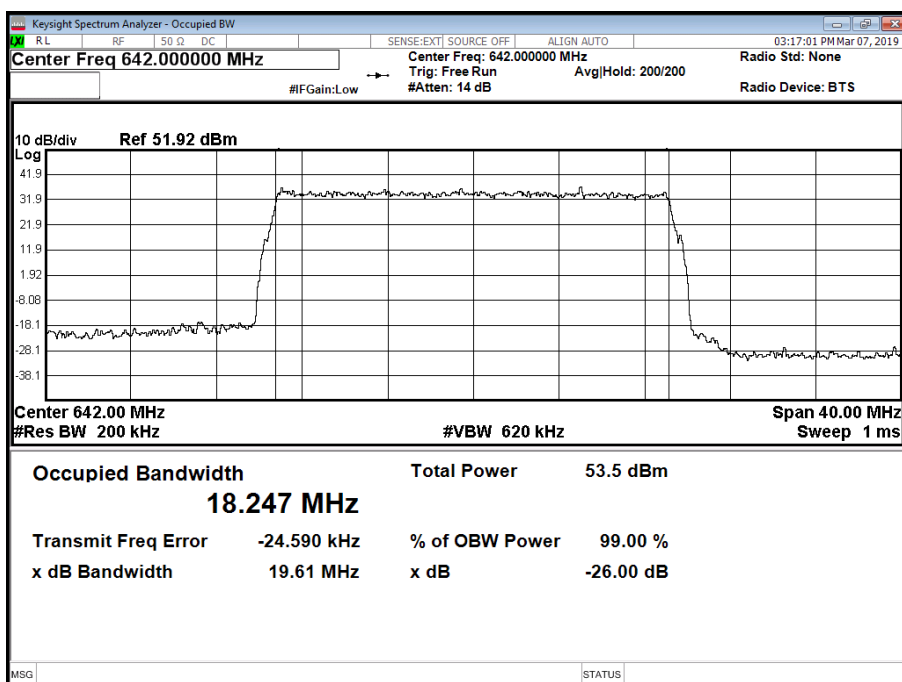
Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (KHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
A	QPSK	20.0 MHz 30 kHz SCS	18,242.19	19,720.48	-	-	18,246.56	19,611.38

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position B



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position T





2.3 BAND EDGE

2.3.1 Specification Reference

FCC CFR 47 Part 2, Clause 2.1051
FCC CFR 47 Part 27, Clause 27.53 (h)

2.3.2 Date of Test and Modification State

07 March 2019 - 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 23.5°C
Relative Humidity 35.9%

2.3.5 Test Method

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

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 dual ports, the limit was calculated as being $-13 \text{ dBm} - 10 * \log(2) = -16 \text{ dBm}$.

For four ports, the limit was calculated as being $-13 \text{ dBm} - 10 * \log(4) = -19 \text{ dBm}$.

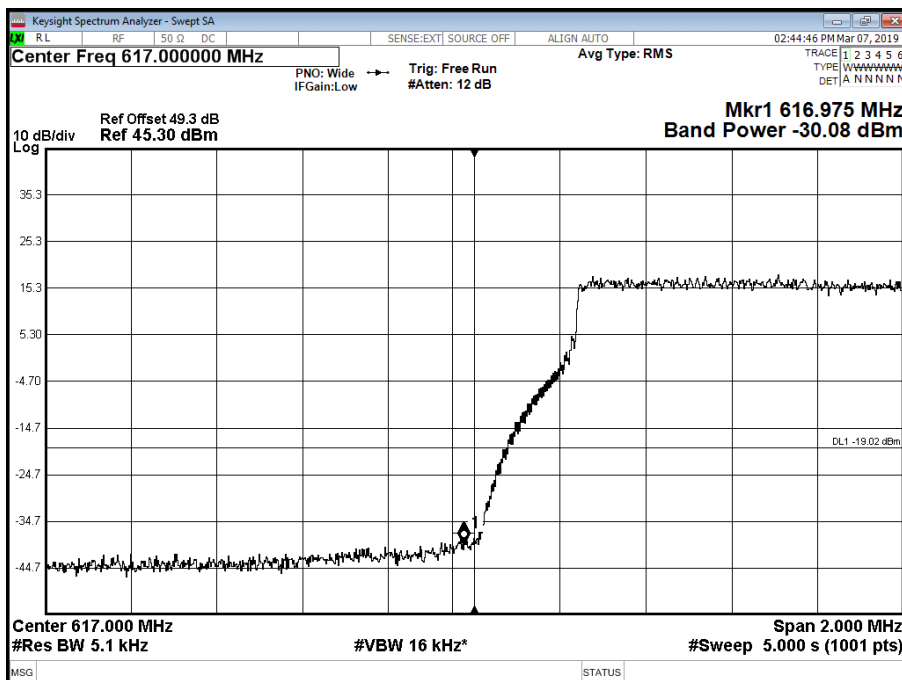
2.3.6 Test Results

Configuration A

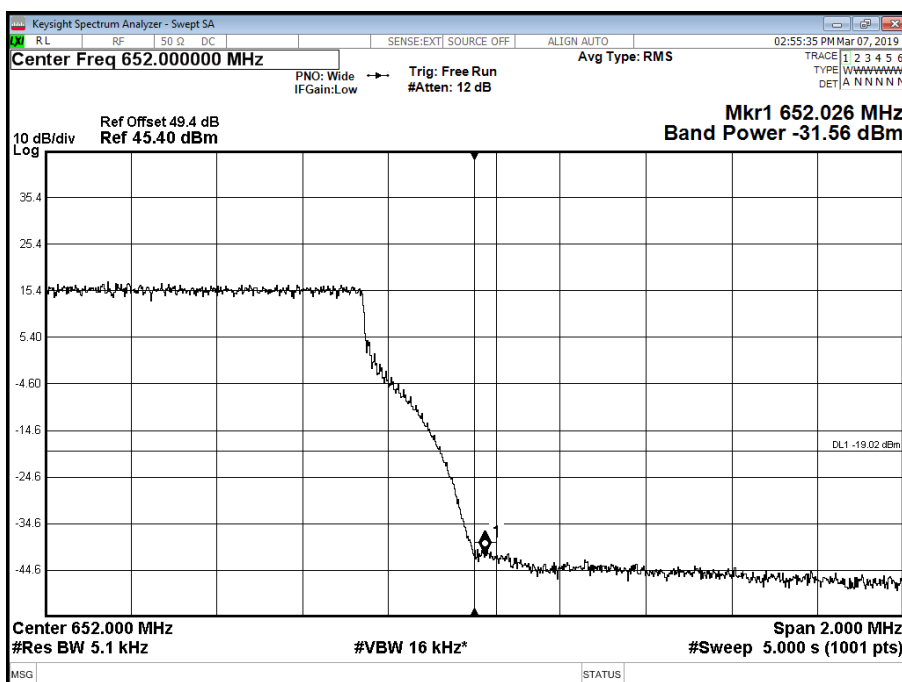
Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	QPSK	5.0 MHz 15 kHz SCS	617.0	652.0

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T

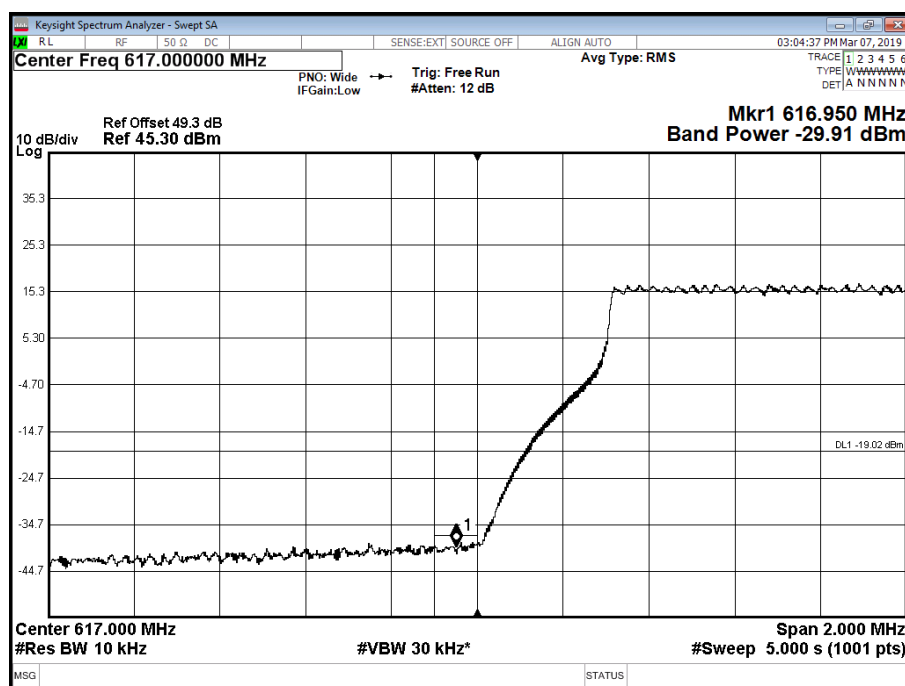


Configuration B

Maximum Output Power 46.0 dBm

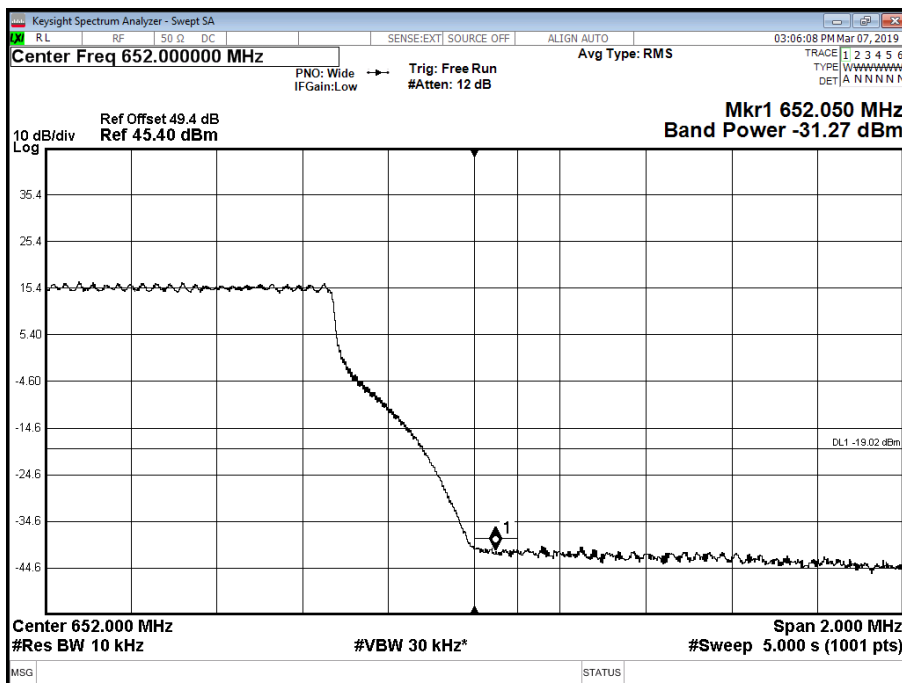
Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	QPSK	10.0 MHz 15 kHz SCS	617.0	652.0

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position B





Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position T

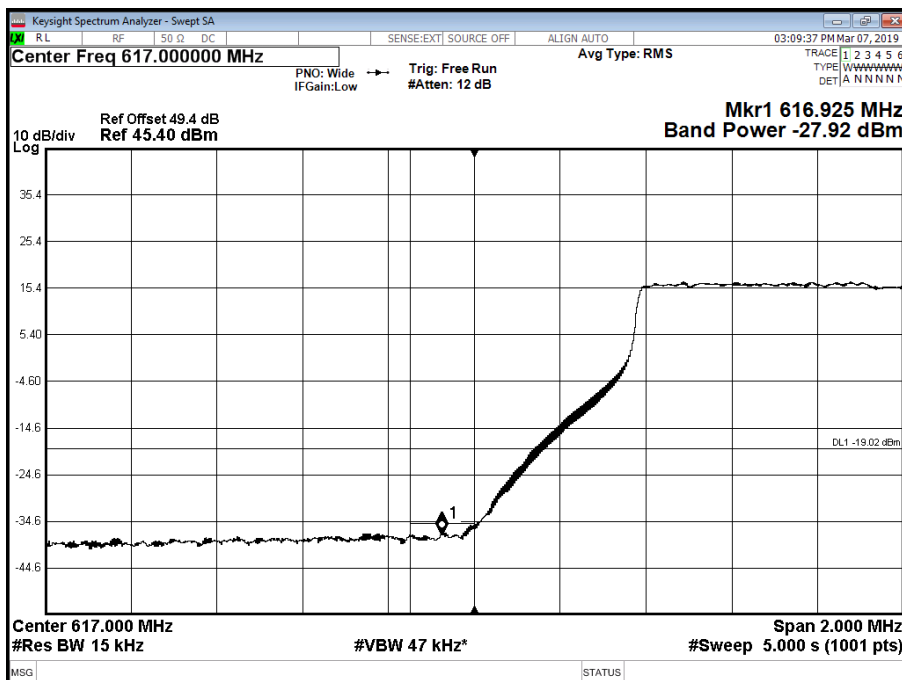


Configuration C

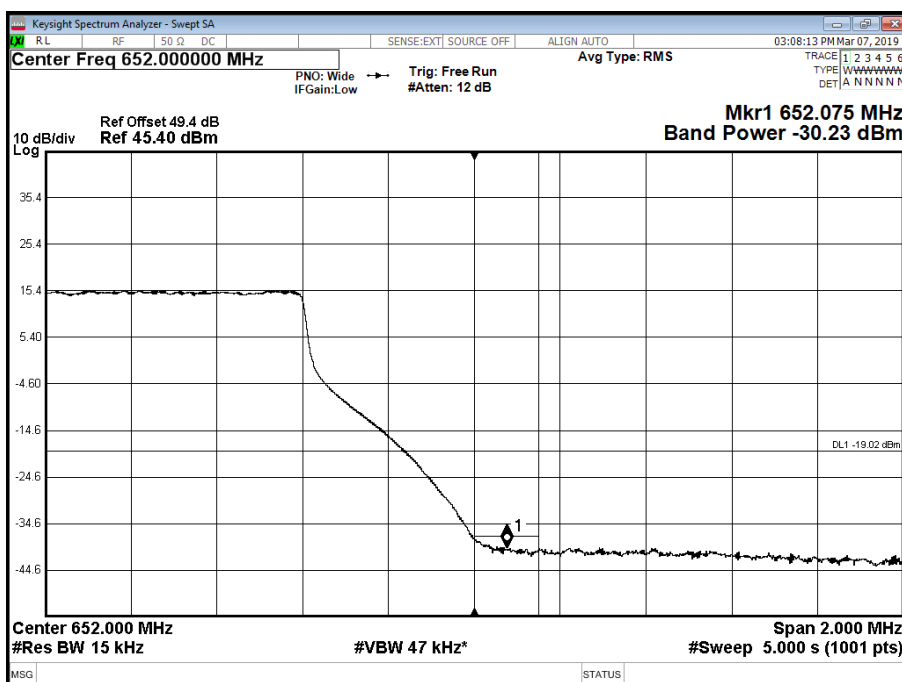
Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	QPSK	15.0 MHz 15 kHz SCS	617.0	652.0

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 15.0 MHz 15 kHz SCS - Channel Position B



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 15.0 MHz 15 kHz SCS - Channel Position T

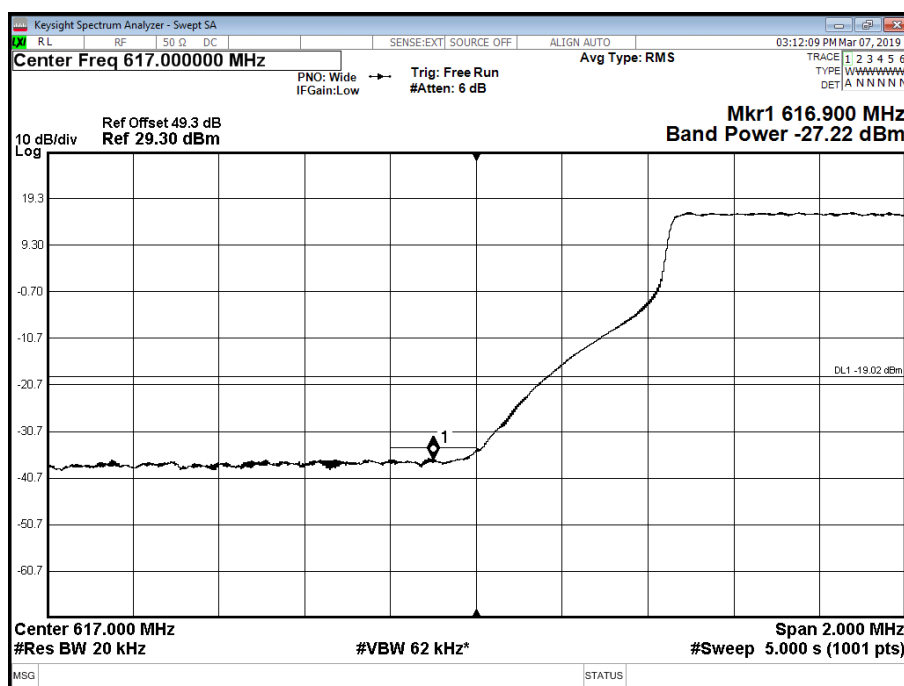


Configuration D

Maximum Output Power 46.0 dBm

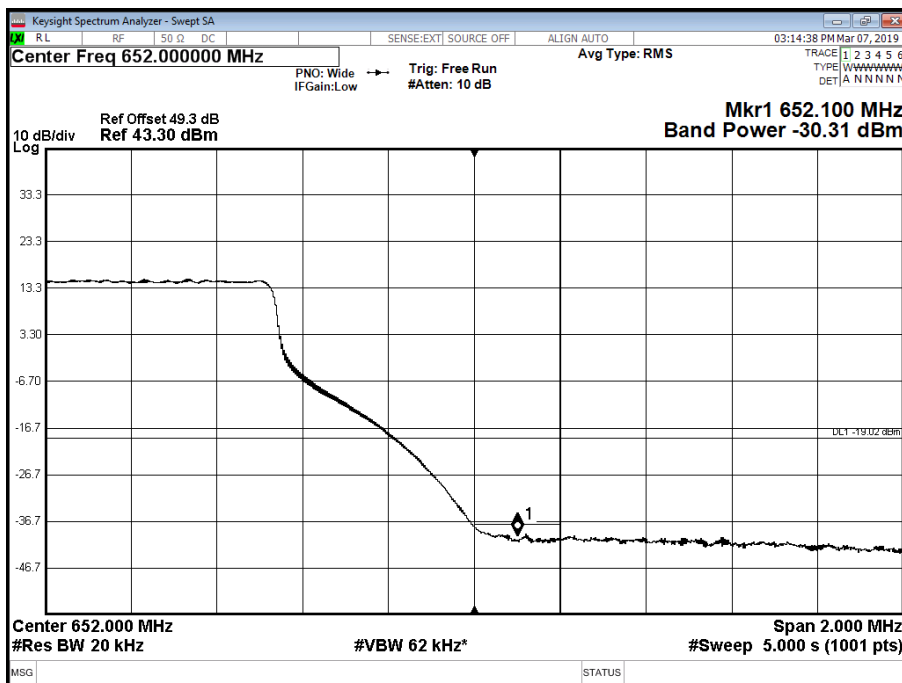
Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	QPSK	20.0 MHz 15 kHz SCS	617.0	652.0

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position B





Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position T

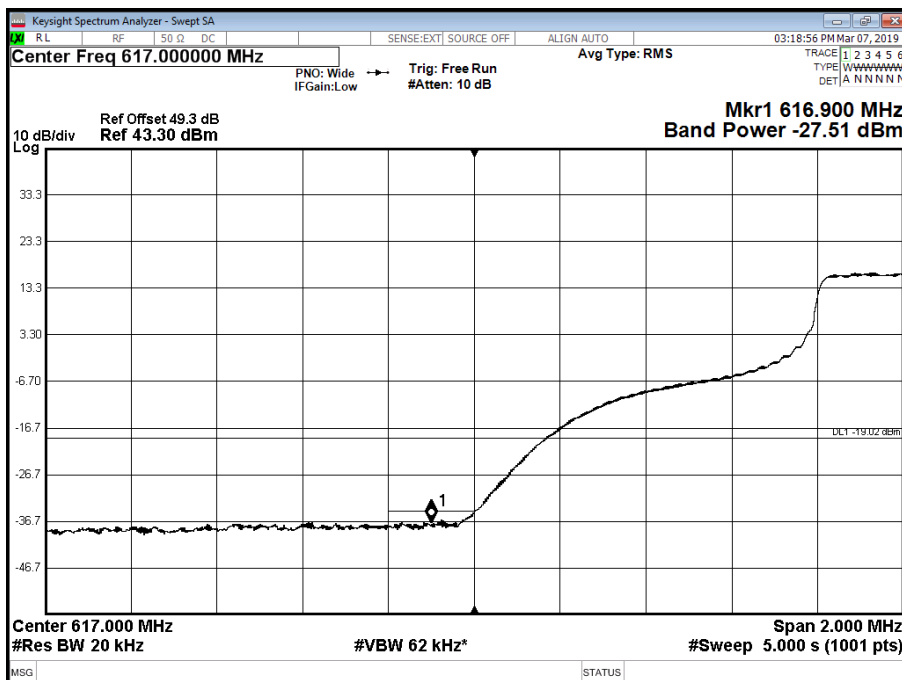


Configuration E

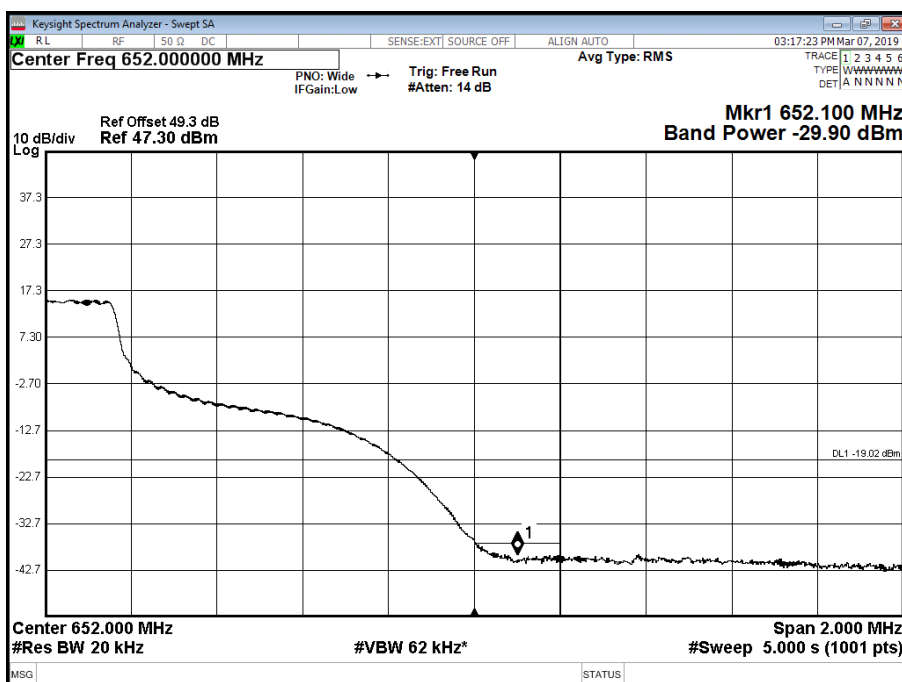
Maximum Output Power 46.0 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	QPSK	20.0 MHz 30 kHz SCS	617.0	652.0

Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position B



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position T



Limit	-19 dBm
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2.4 TRANSMITTER SPURIOUS EMISSIONS

2.4.1 Specification Reference

FCC CFR 47 Part 2, Clause 2.1051
FCC CFR 47 Part 27, Clause 27.53 (h)

2.4.2 Date of Test and Modification State

07 March 2019 - 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	23.5°C
Relative Humidity	35.9%

2.4.5 Test Method

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

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 dual port, the limit was calculated as being $-13 \text{ dBm} - 10 * \log(2) = -16 \text{ dBm}$.

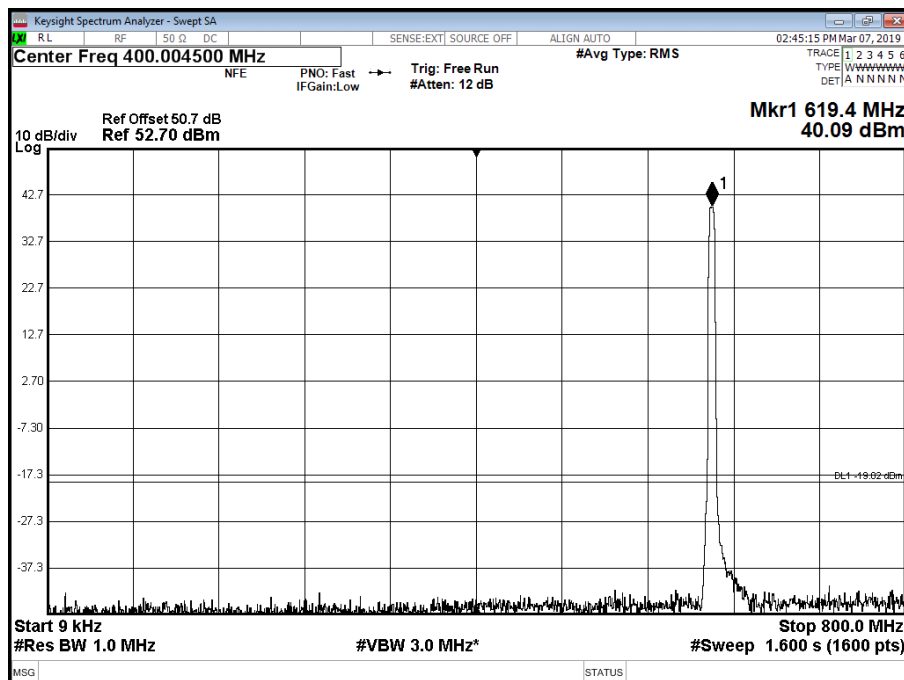
For four ports, the limit was calculated as being $-13 \text{ dBm} - 10 * \log(4) = -19 \text{ dBm}$.

2.4.6 Test Results

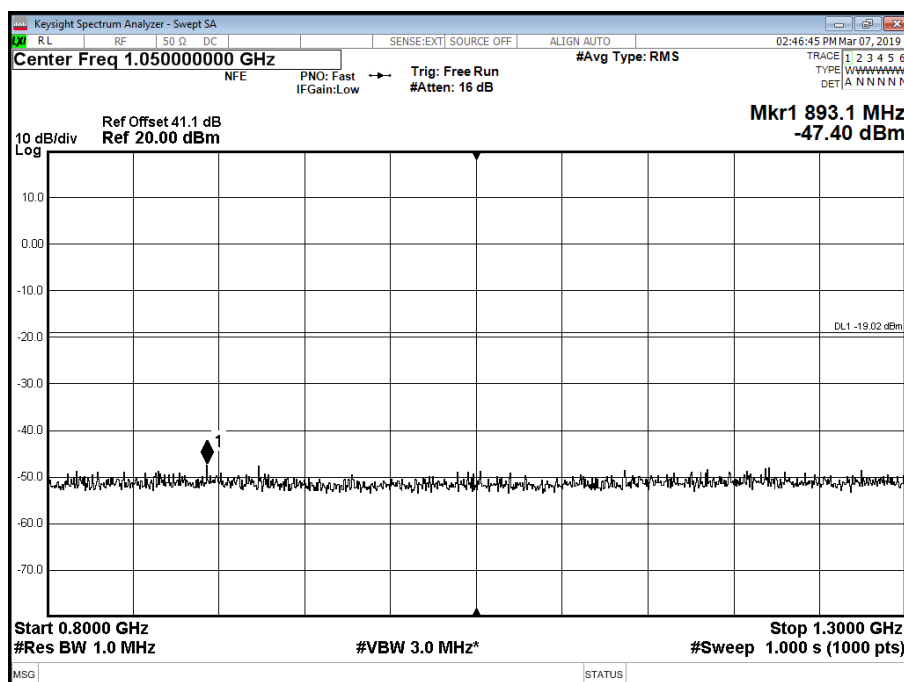
Configuration A

Maximum Output Power 46.0 dBm

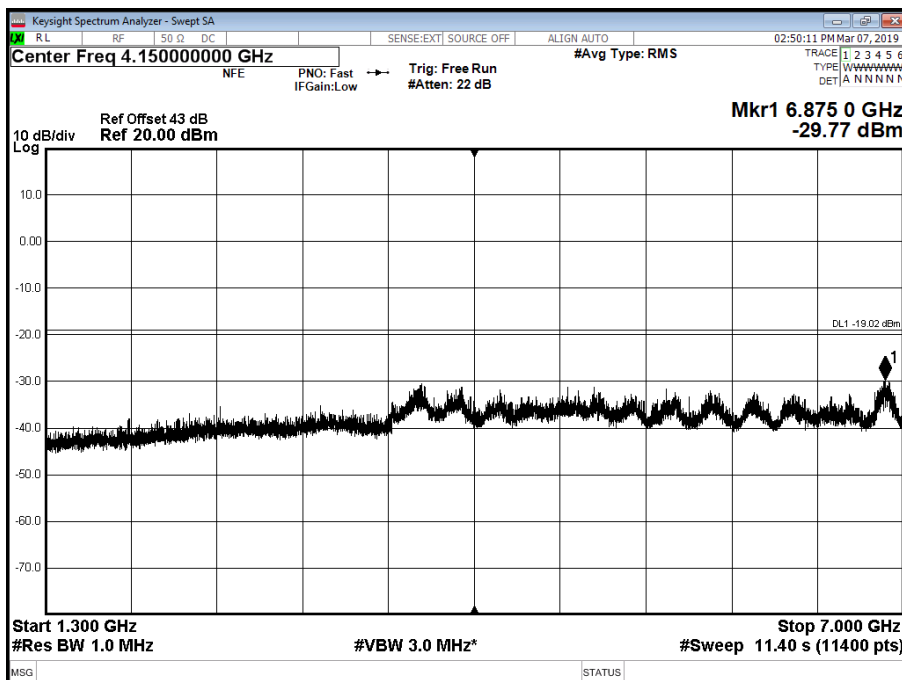
Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B - Band 1 - Range 0.009 to 800 MHz



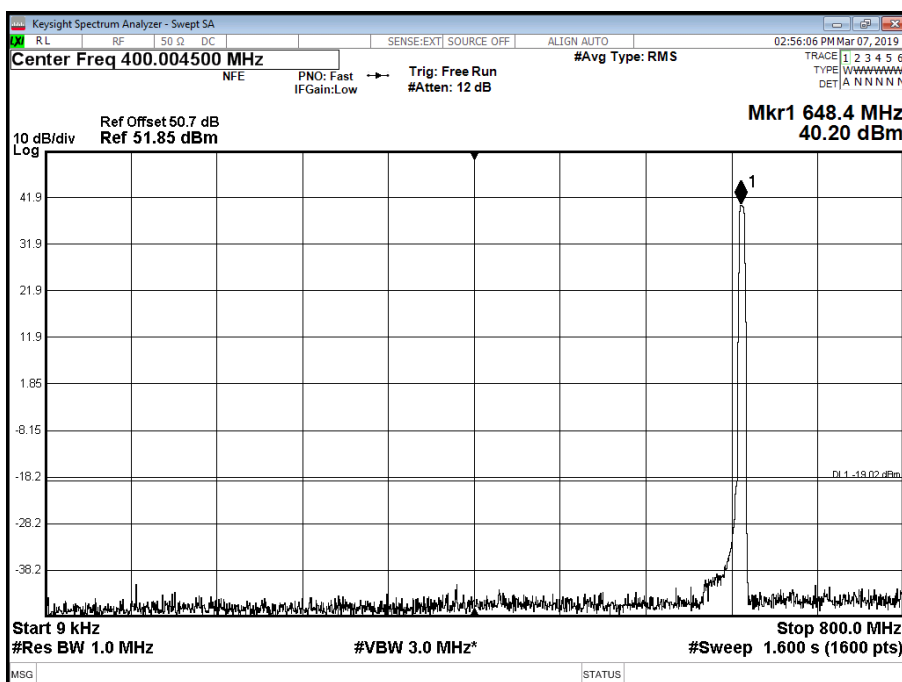
Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B - Band 2 - Range 800 to 1300 MHz



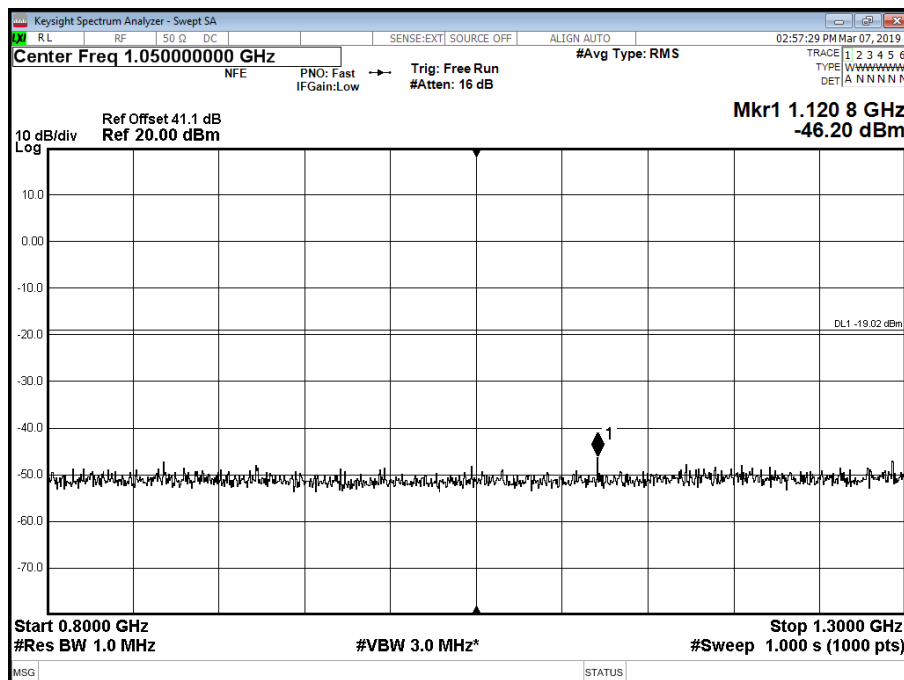
Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B - Band 3 - Range 1300 to 7000 MHz



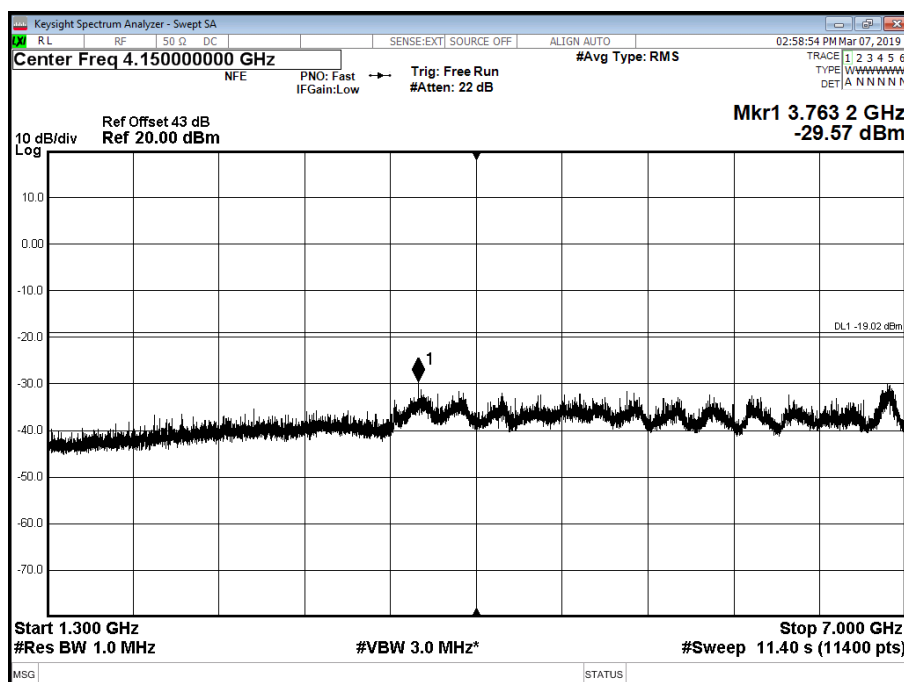
Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T - Band 1 - Range 0.009 to 800 MHz



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T - Band 2 - Range 800 to 1300 MHz



Antenna A - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T - Band 3 - Range 1300 to 7000 MHz



Limit	-19dBm
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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
Maximum Peak Output Power and Peak to Average Ratio - Conducted					
Hygrometer	Rotronic	HP21	4740	12	17-Jan-2020
Analyser	Keysight	N9030A	4654	12	06-Oct-2019
Attenuator	Weinschel	48-10-43	4867	12	06-Nov-2019
Attenuator	Weinschel	48-40-43-LIM	5134	12	07-Nov-2019
Cable	Rosenberger	LU7-036-2000	5038	-	O/P MON
Cable	Rosenberger	LU7-071-1000	5100	12	04-Oct-2019
PSU	Farnell	H60/25	1092	-	O/P MON
DVM	Fluke	79	0611	12	07-Sep-2019
Analyser	R&S	ZVA 40	3548	12	17-Oct-2019
Cal kit	R&S	ZV-Z54	4368	12	22-Oct-2019
-	-	-	-	-	-
Occupied Bandwidth					
Hygrometer	Rotronic	HP21	4740	12	17-Jan-2020
Analyser	Keysight	N9030A	4654	12	06-Oct-2019
Attenuator	Weinschel	48-10-43	4867	12	06-Nov-2019
Attenuator	Weinschel	48-40-43-LIM	5134	12	07-Nov-2019
Cable	Rosenberger	LU7-036-2000	5038	-	O/P MON
Cable	Rosenberger	LU7-071-1000	5100	12	04-Oct-2019
PSU	Farnell	H60/25	1092	-	O/P MON
DVM	Fluke	79	0611	12	07-Sep-2019
Analyser	R&S	ZVA 40	3548	12	17-Oct-2019
Cal kit	R&S	ZV-Z54	4368	12	22-Oct-2019
-	-	-	-	-	-
Band Edge					
Hygrometer	Rotronic	HP21	4740	12	17-Jan-2020
Analyser	Keysight	N9030A	4654	12	06-Oct-2019
Attenuator	Weinschel	48-10-43	4867	12	06-Nov-2019
Attenuator	Weinschel	48-40-43-LIM	5134	12	07-Nov-2019
Cable	Rosenberger	LU7-036-2000	5038	-	O/P MON
Cable	Rosenberger	LU7-071-1000	5100	12	04-Oct-2019
PSU	Farnell	H60/25	1092	-	O/P MON
DVM	Fluke	79	0611	12	07-Sep-2019
Analyser	R&S	ZVA 40	3548	12	17-Oct-2019
Cal kit	R&S	ZV-Z54	4368	12	22-Oct-2019
-	-	-	-	-	-
Transmitter Spurious Emissions					
Hygrometer	Rotronic	HP21	4740	12	17-Jan-2020
Analyser	Keysight	N9030A	4654	12	06-Oct-2019
Attenuator	Weinschel	48-10-43	4867	12	06-Nov-2019



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Attenuator	Weinschel	48-40-43-LIM	5134	12	07-Nov-2019
Cable	Rosenberger	LU7-036-2000	5038	-	O/P MON
Cable	Rosenberger	LU7-071-1000	5100	12	04-Oct-2019
PSU	Farnell	H60/25	1092	-	O/P MON
DVM	Fluke	79	0611	12	07-Sep-2019
Analyser	R&S	ZVA 40	3548	12	17-Oct-2019
Cal kit	R&S	ZV-Z54	4368	12	22-Oct-2019
Notch filter	K&L	5TNF-500/1000-N/N	0439	-	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 Amplitude	± 0.1 dB
Conducted Emissions	30 MHz to 20 GHz Amplitude	± 2.3 dB
Frequency Stability	30 MHz to 2 GHz	± 5.0 Hz
Occupied Bandwidth	Up to 20 MHz Bandwidth	± 1.1 Hz
Band Edge	30 MHz to 20 GHz Amplitude	± 2.3 dB



SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT



4.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT



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

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation.

Results of tests not covered by our UKAS Accreditation Schedule are marked NUA
(Not UKAS Accredited).

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ANNEX A

MODULE LIST



Configurations A-E			
Product	Product No	R-State	Serial No
Radio 4449 B71 B85A	KRC 161756/1	R1C	B441858913
Software Version:	CXP9013268/15	Revision:	R78AT