OCCUPIED BANDWIDTH - BAND n66

XMit 2020.03.25.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The method in section 5.4 of ANSI C63.26 was used to make this measurement. The spectrum analyzer settings were as follows:

- RBW is 1% - 5% of the occupied bandwidth
- VBW is ≥ 3x the RBW
- Peak Detector was used
- Trace max hold was used

RF conducted emissions testing was performed only on one port. The testing was performed on the same version of hardware (AHFIG) as the original certification test. The AHFIG antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the original certification testing) and antenna port 4 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraph 5.7.2i.

5G NR carrier bandwidths of 5MHz, 10MHz, 15MHz, and 20MHz with QPSK, 16QAM, 64QAM and 256QAM modulation types were verified under this effort. The 5G NR carriers/modulation types for this testing are set up according to 3GPP TS 38.141-1 Test Models and are NR-FR1-TM 1.1 (QPSK modulation type), NR-FR1-TM 3.1 (16QAM modulation type), NR-FR1-TM 3.1 (64QAM modulation type), and NR-FR1-TM 3.1a (256QAM modulation type).

The occupied bandwidth was measured with the EUT configured in the modes called out in the data sheets.
FCC 27.53(h)(3) defines he 26dB emission bandwidth requirement.
RSS GEN Section 6.7 defines the 99% emission bandwidth requirement.

Band n66 Emissions Designators:

Band n66 (2110MHz to 2200MHz) Emission Designators									
Channel Bandwidth	Radio Channel	5G-NR: QPSK		5G-NR: 16-QAM		5G-NR: 64-QAM		5G-NR: 256-QAM	
		FCC	IC	FCC	IC	FCC	IC	FCC	IC
5 MHz	Mid	4M86G7W	4M49G7W	4M84G7W	4M50G7W	4M83G7W	4M50G7W	4M83G7W	4M47G7W
10 MHz	Mid	9M90G7W	9M32G7W	9M82G7W	9M23G7W	9M88G7W	9M33G7W	9M89G7W	9M29G7W
15 MHz	Mid	14M85G7W	14M13G7W	14M85G7W	14M17G7W	14M84G7W	14M13G7W	14M84G7W	14M11G7W
20 MHz	Mid	19M93G7W	18M93G7W	19M90G7W	19M03G7W	19M97G7W	18M94G7W	19M97G7W	18M96G7W
Note: FCC based on 26db emission bandwidth; IC based on 99% emission bandwidth									

OCCUPIED BANDWIDTH - BAND n66

element

TbtTx 2020.06.08.0 BETA XMit 2020.03.25.0

EUT:	AHFIG			**Work Order:**	NOKI0016
Serial Number:	K9191322351			**Date:**	18-Jun-20
Customer:	Nokia Solutions and Networks			**Temperature:**	22.3 °C
Attendees:	Mitchell Hill, John Rattanavong			**Humidity:**	52.4% RH
Project:	None			**Barometric Pres.:**	1015 mbar
Tested by:	Brandon Hobbs	**Power:**	54 VDC	**Job Site:**	TX05

TEST SPECIFICATIONS	**Test Method**
FCC 27:2020	ANSI C63.26:2015

COMMENTS

All measurement path losses were accounted for in the reference level offest including any attenuators, filters and DC blocks. The carrier was set to maximum for all testing.

DEVIATIONS FROM TEST STANDARD

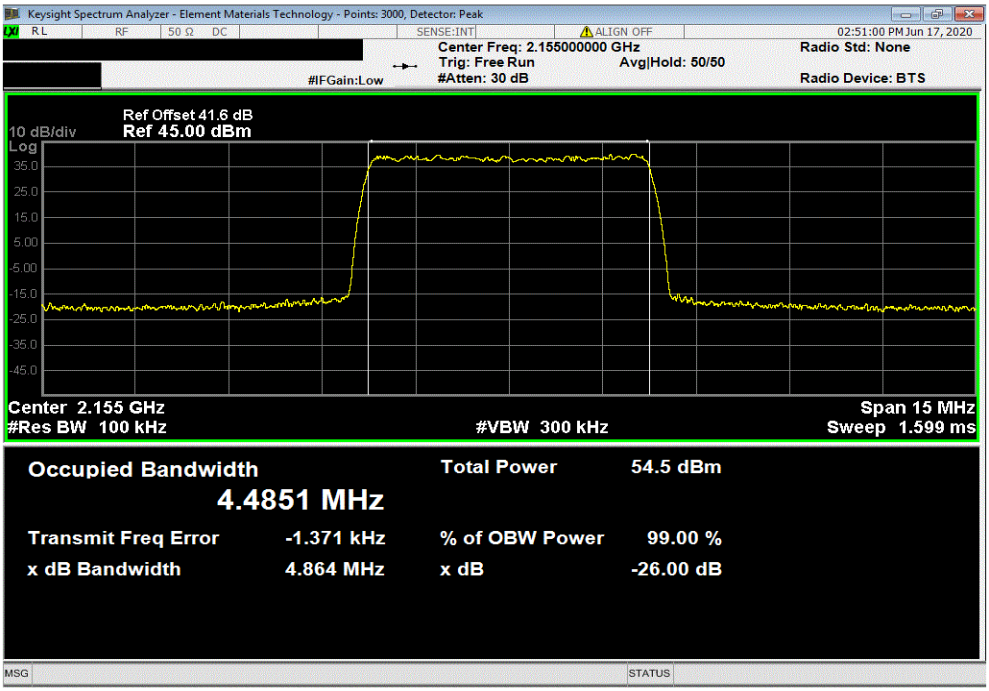
None

Configuration #	2	*Signature*

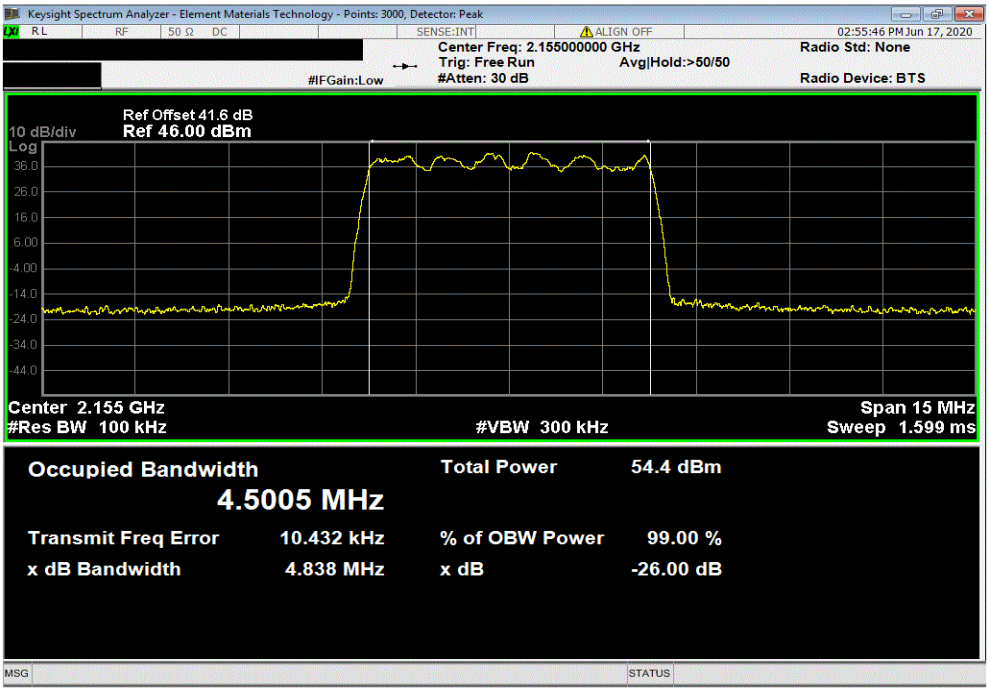
	Value 99%	Value 26dB	Limit	Result
Port 4, Band n66, 2110 MHz - 2200 MHz				
5 MHz Bandwidth				
QPSK Modulation				
Mid Channel 2155 MHz	4.485 MHz	4.864 MHz	Within Band	Pass
16-QAM Modulation				
Mid Channel 2155 MHz	4.501 MHz	4.838 MHz	Within Band	Pass
64-QAM Modulation				
Mid Channel 2155 MHz	4.496 MHz	4.834 MHz	Within Band	Pass
256-QAM Modulation				
Mid Channel 2155 MHz	4.473 MHz	4.829 MHz	Within Band	Pass
10 MHz Bandwidth				
QPSK Modulation				
Mid Channel 2155 MHz	9.315 MHz	9.898 MHz	Within Band	Pass
16-QAM Modulation				
Mid Channel 2155 MHz	9.229 MHz	9.822 MHz	Within Band	Pass
64-QAM Modulation				
Mid Channel 2155 MHz	9.328 MHz	9.881 MHz	Within Band	Pass
256-QAM Modulation				
Mid Channel 2155 MHz	9.285 MHz	9.886 MHz	Within Band	Pass
15 MHz Bandwidth				
QPSK Modulation				
Mid Channel 2155 MHz	14.126 MHz	14.851 MHz	Within Band	Pass
16-QAM Modulation				
Mid Channel 2155 MHz	14.166 MHz	14.847 MHz	Within Band	Pass
64-QAM Modulation				
Mid Channel 2155 MHz	14.127 MHz	14.843 MHz	Within Band	Pass
256-QAM Modulation				
Mid Channel 2155 MHz	14.108 MHz	14.837 MHz	Within Band	Pass
20 MHz Bandwidth				
QPSK Modulation				
Mid Channel 2155 MHz	18.925 MHz	19.933 MHz	Within Band	Pass
16-QAM Modulation				
Mid Channel 2155 MHz	19.028 MHz	19.904 MHz	Within Band	Pass
64-QAM Modulation				
Mid Channel 2155 MHz	18.943 MHz	19.966 MHz	Within Band	Pass
256-QAM Modulation				
Mid Channel 2155 MHz	18.958 MHz	19.972 MHz	Within Band	Pass

OCCUPIED BANDWIDTH - BAND n66

Port 4, Band n66, 2110 MHz - 2200 MHz, 5 MHz Bandwidth , QPSK Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			4.485 MHz	4.864 MHz	Within Band	Pass

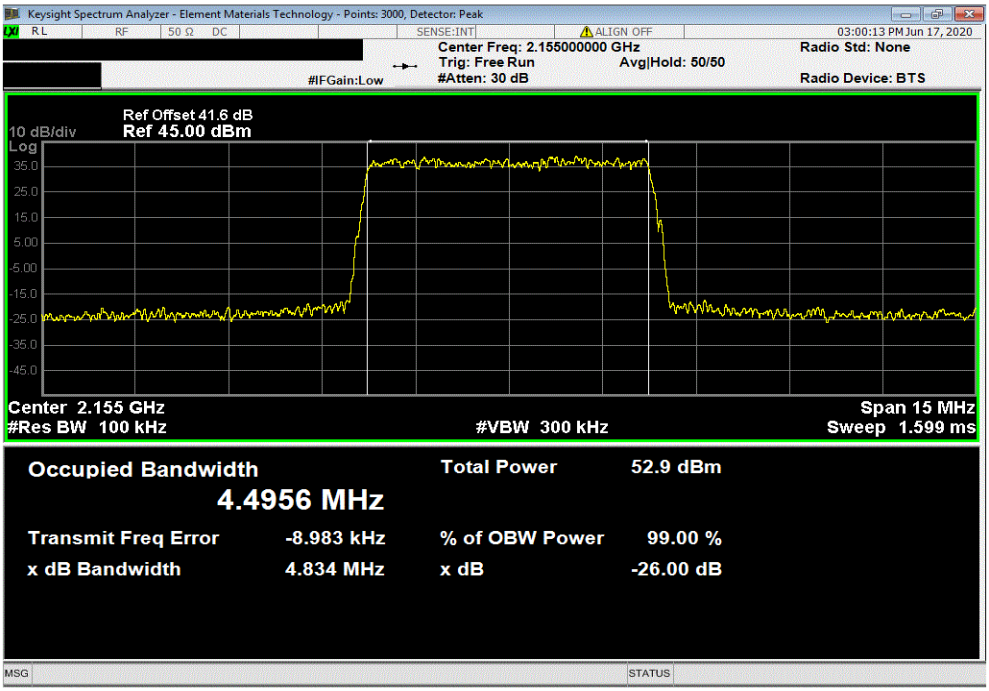


Port 4, Band n66, 2110 MHz - 2200 MHz, 5 MHz Bandwidth , 16-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			4.501 MHz	4.838 MHz	Within Band	Pass

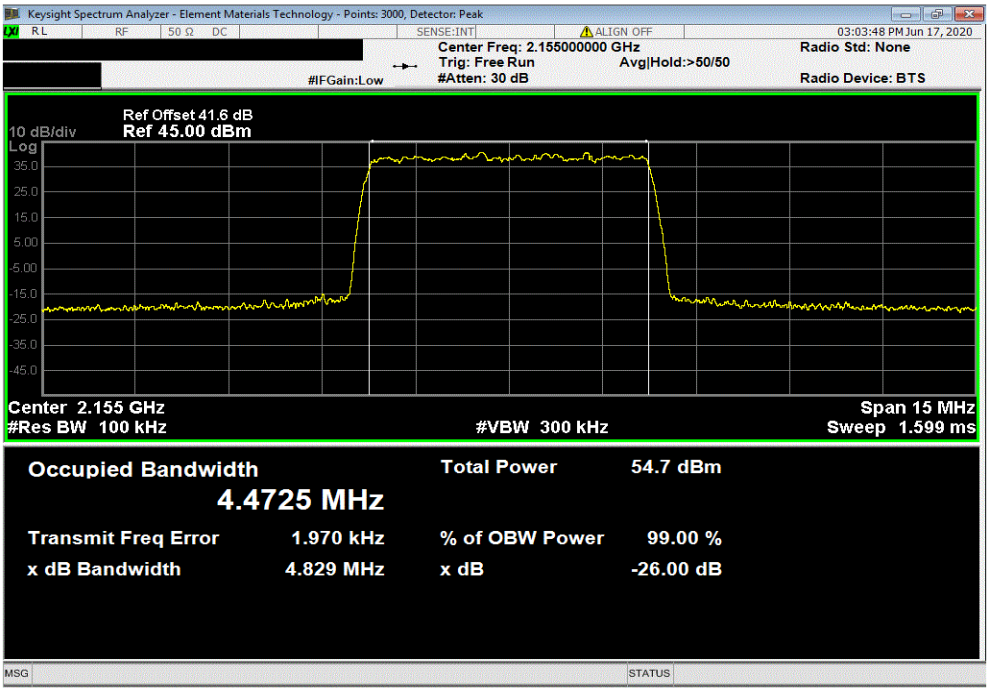


OCCUPIED BANDWIDTH - BAND n66

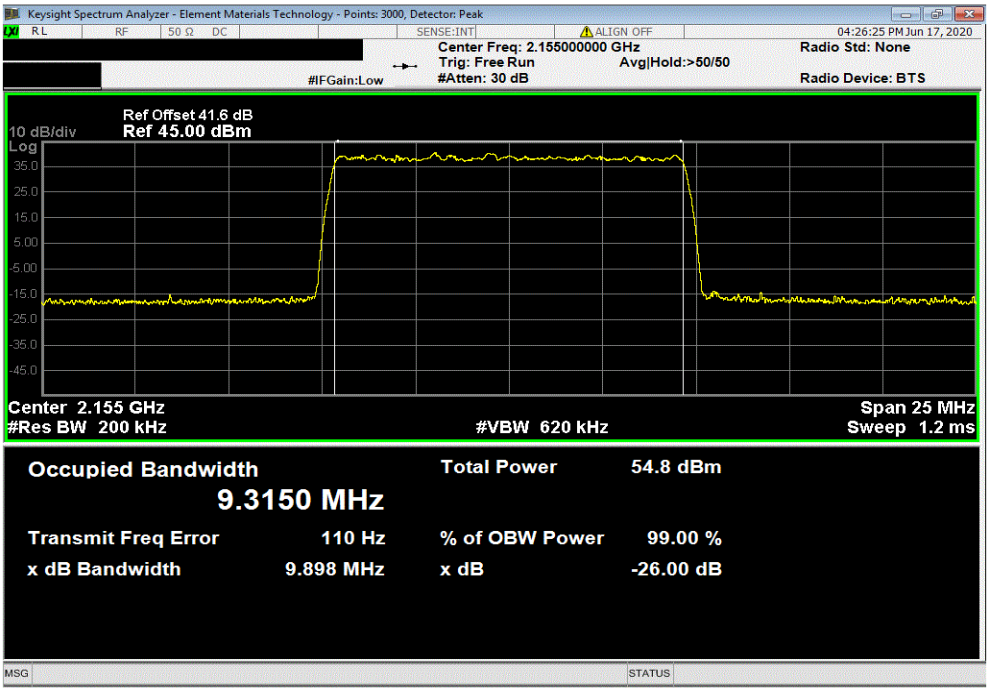
Port 4, Band n66, 2110 MHz - 2200 MHz, 5 MHz Bandwidth , 64-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			4.496 MHz	4.834 MHz	Within Band	Pass



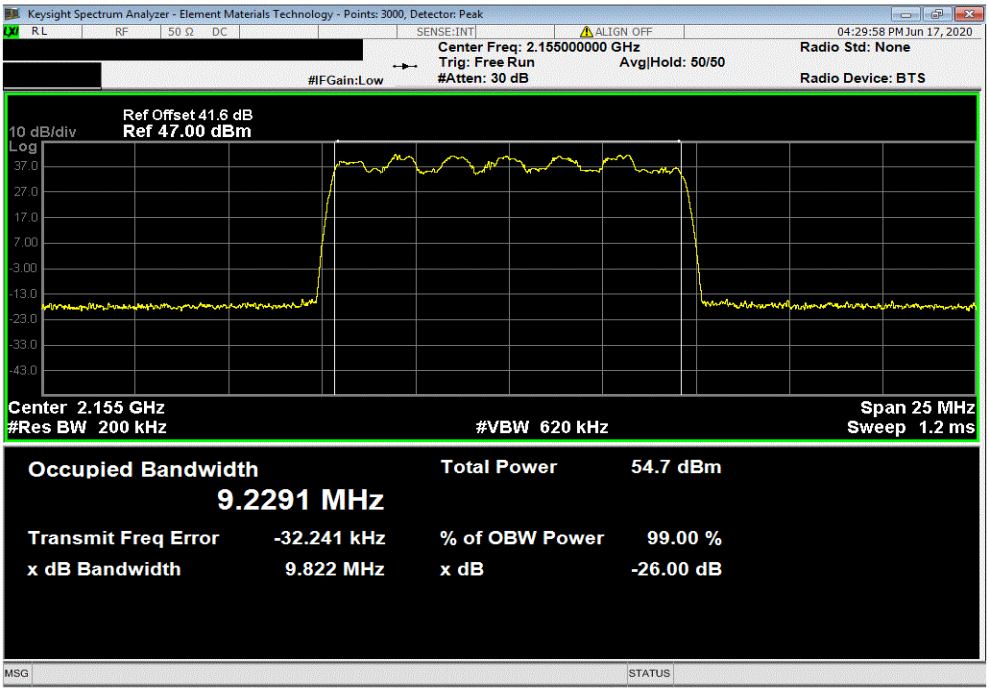
Port 4, Band n66, 2110 MHz - 2200 MHz, 5 MHz Bandwidth , 256-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			4.473 MHz	4.829 MHz	Within Band	Pass



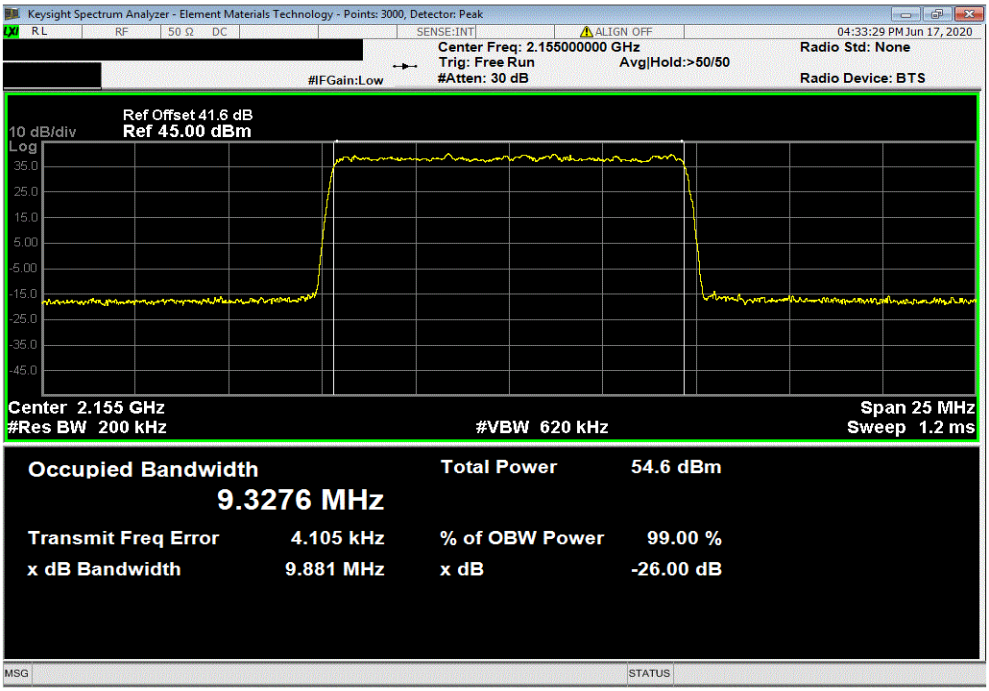
Port 4, Band n66, 2110 MHz - 2200 MHz, 10 MHz Bandwidth , QPSK Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			9.315 MHz	9.898 MHz	Within Band	Pass



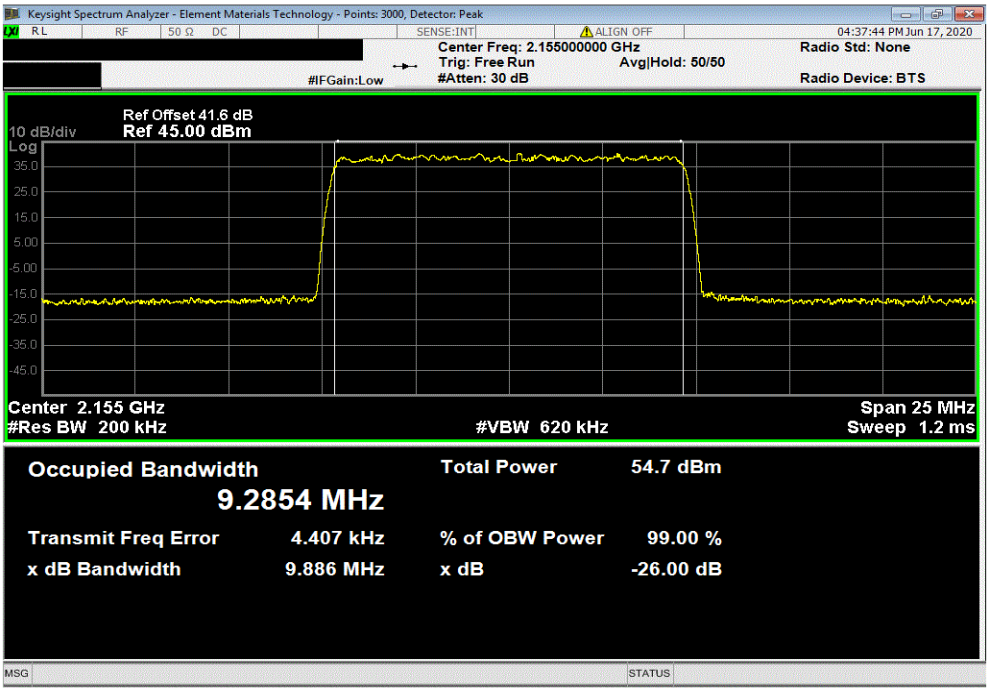
Port 4, Band n66, 2110 MHz - 2200 MHz, 10 MHz Bandwidth , 16-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			9.229 MHz	9.822 MHz	Within Band	Pass



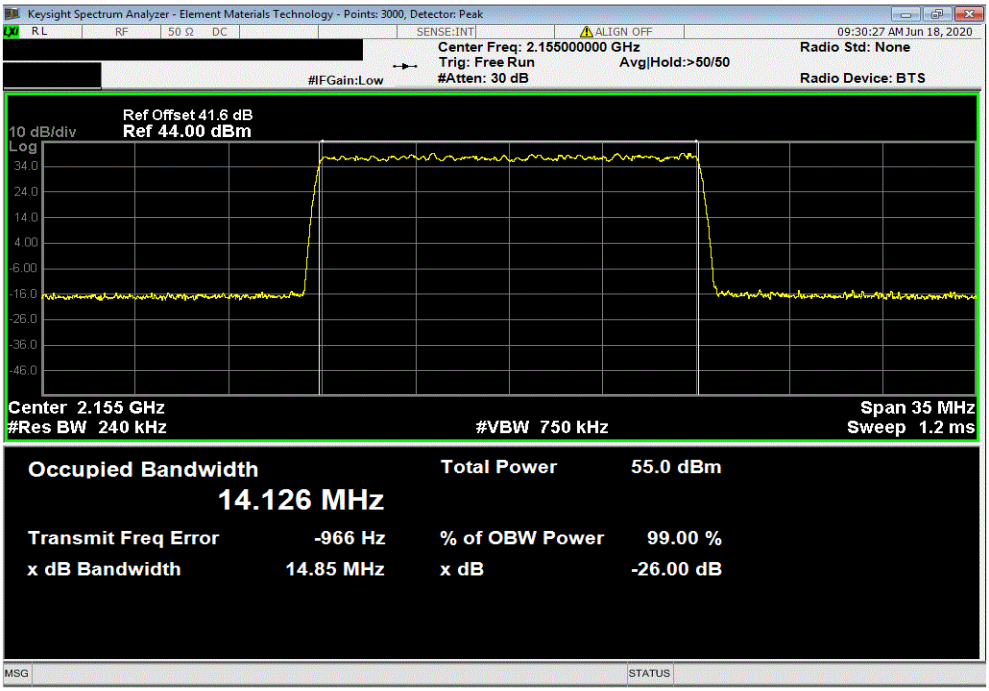
Port 4, Band n66, 2110 MHz - 2200 MHz, 10 MHz Bandwidth , 64-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			9.328 MHz	9.881 MHz	Within Band	Pass



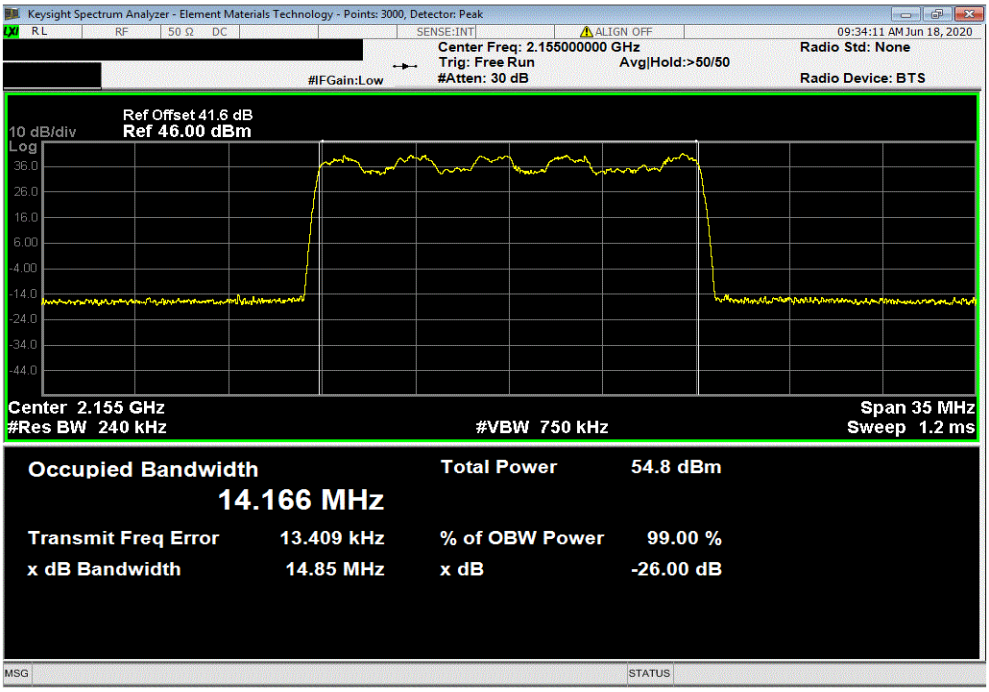
Port 4, Band n66, 2110 MHz - 2200 MHz, 10 MHz Bandwidth , 256-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			9.285 MHz	9.886 MHz	Within Band	Pass



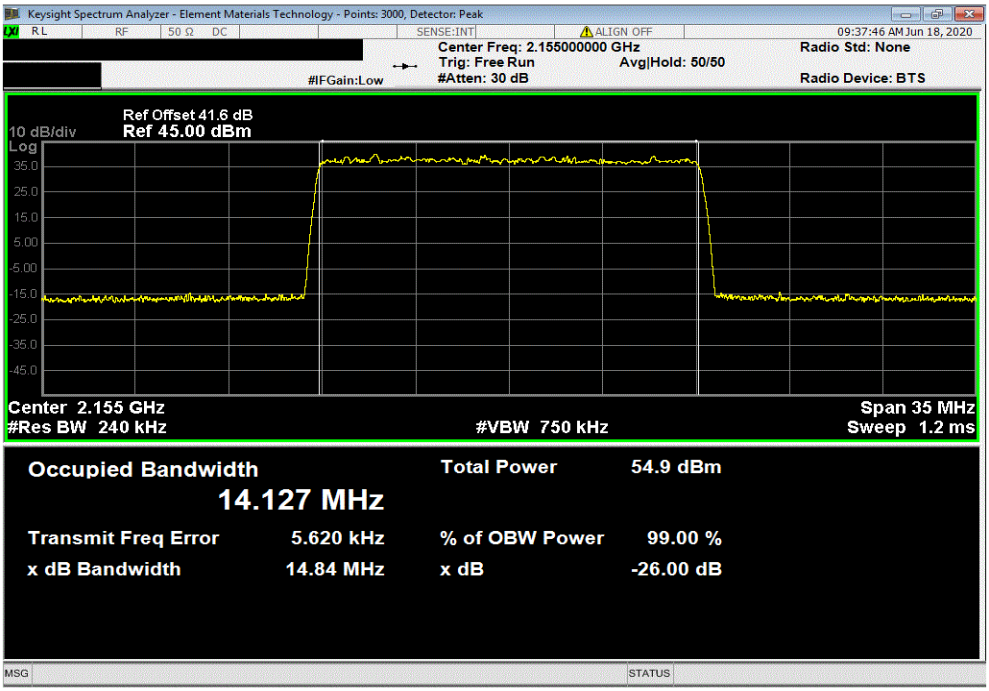
Port 4, Band n66, 2110 MHz - 2200 MHz, 15 MHz Bandwidth , QPSK Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			14.126 MHz	14.851 MHz	Within Band	Pass



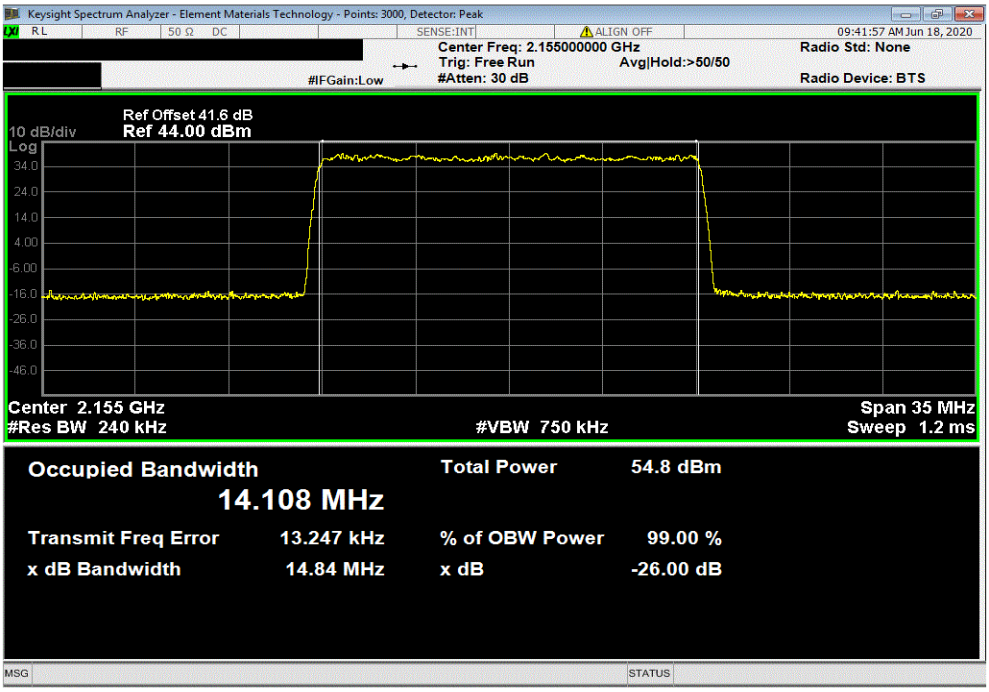
Port 4, Band n66, 2110 MHz - 2200 MHz, 15 MHz Bandwidth , 16-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			14.166 MHz	14.847 MHz	Within Band	Pass



Port 4, Band n66, 2110 MHz - 2200 MHz, 15 MHz Bandwidth , 64-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			14.127 MHz	14.843 MHz	Within Band	Pass

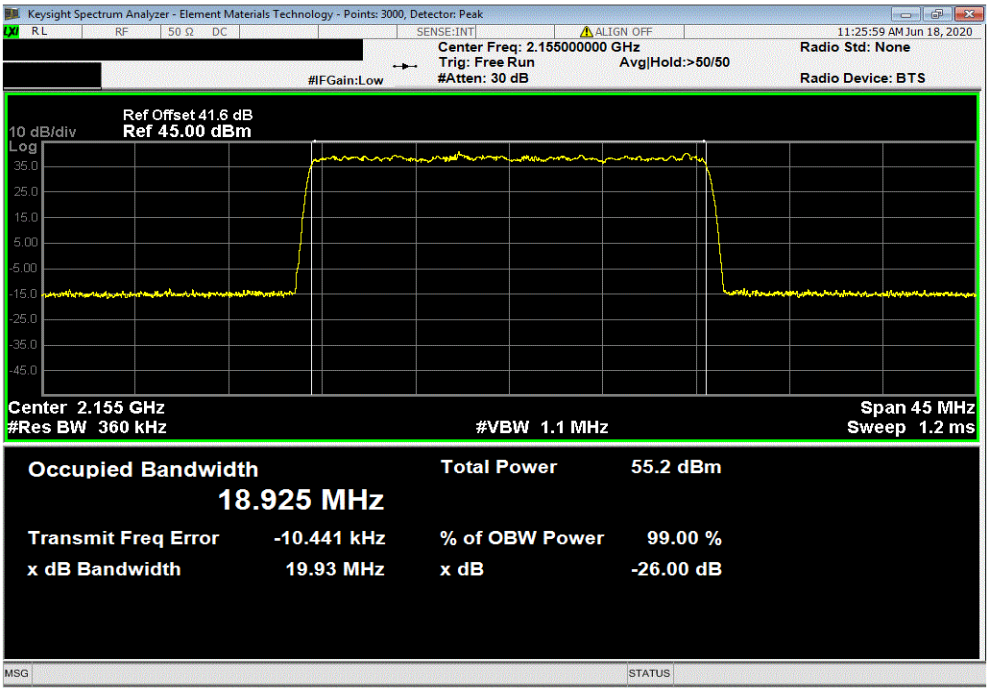


Port 4, Band n66, 2110 MHz - 2200 MHz, 15 MHz Bandwidth , 256-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			14.108 MHz	14.837 MHz	Within Band	Pass

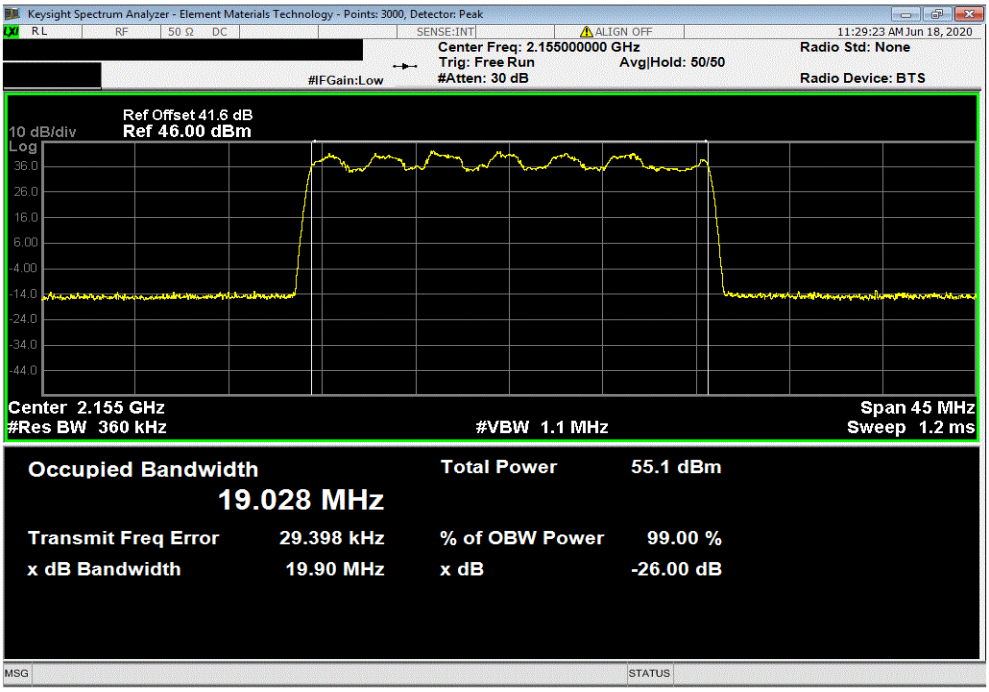


OCCUPIED BANDWIDTH - BAND n66

Port 4, Band n66, 2110 MHz - 2200 MHz, 20 MHz Bandwidth, QPSK Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			18.925 MHz	19.933 MHz	Within Band	Pass

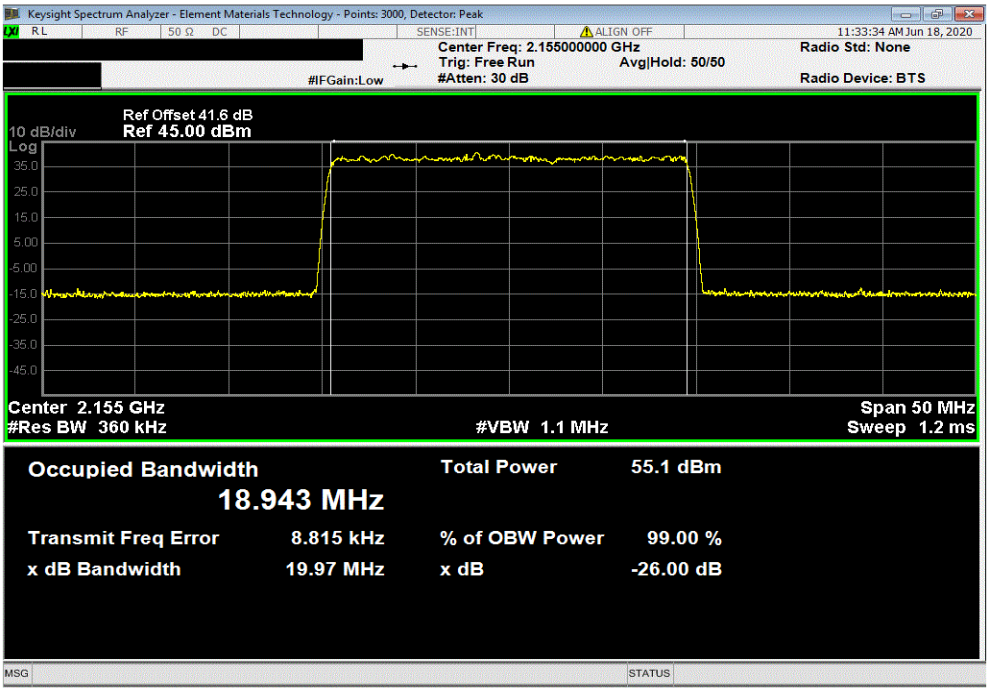


Port 4, Band n66, 2110 MHz - 2200 MHz, 20 MHz Bandwidth, 16-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			19.028 MHz	19.904 MHz	Within Band	Pass

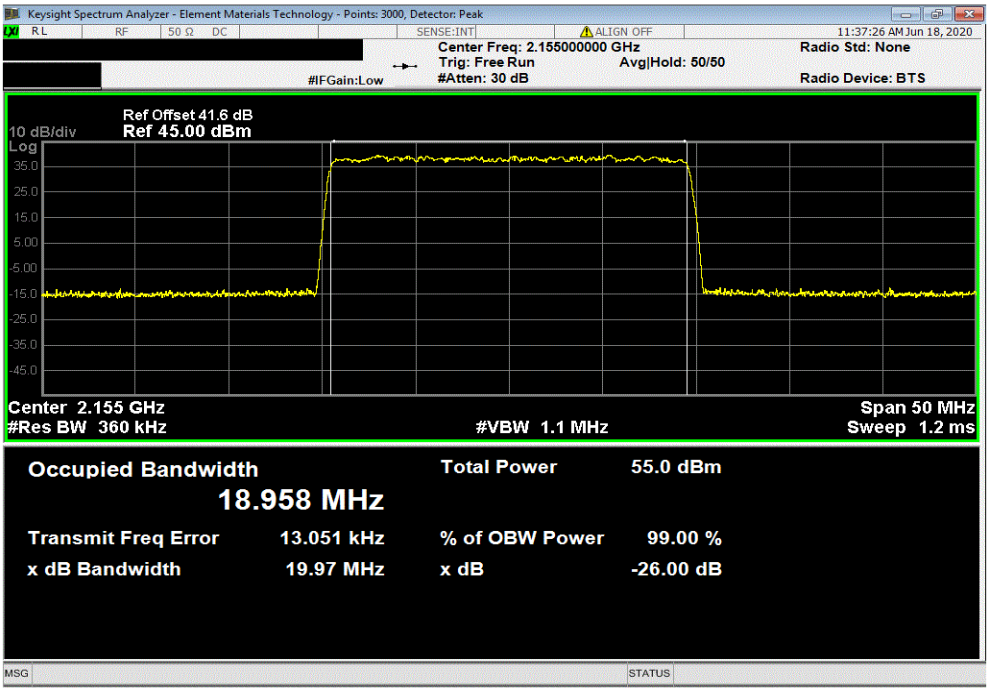


OCCUPIED BANDWIDTH - BAND n66

Port 4, Band n66, 2110 MHz - 2200 MHz, 20 MHz Bandwidth, 64-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			18.943 MHz	19.966 MHz	Within Band	Pass



Port 4, Band n66, 2110 MHz - 2200 MHz, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel 2155 MHz						
			Value 99%	Value 26dB	Limit	Result
			18.958 MHz	19.972 MHz	Within Band	Pass



OUTPUT POWER - BAND 25

XMit 2020.03.25.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

The method in section 5.2.4.4 of ANSI C63.26 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Per FCC section 24.232(a), the Equivalent Isotopically radiated Power (EIRP) of the transceiver cannot exceed 1640 Watts/MHz.

RF conducted emissions testing was performed only on one port. The testing was performed on the same version of hardware (AHFIG) as the original certification test. The AHFIG antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the original certification testing) and antenna port 4 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraph 5.7.2i.

Carrier bandwidths of 10, 15, & 20MHz were verified using NB IoT GB carriers under this effort. The LTE modulation type for this testing was set up according to 3GPP TS 36.141 E-UTRA Test Models and is “E-TM 1.1 (QPSK modulation type) with N-TM (narrow band IoT)”.

OUTPUT POWER - BAND 25

element

TbtTx 2020.06.08.0 BETA XMit 2020.03.25.0

EUT:	AHFIG			Work Order:	NOKI0016
Serial Number:	K9191322351			Date:	23-Jun-20
Customer:	Nokia Solutions and Networks			Temperature:	22.6 °C
Attendees:	Mitchell Hill, John Rattanavong			Humidity:	51.5% RH
Project:	None			Barometric Pres.:	1016 mbar
Tested by:	Brandon Hobbs	Power:	54 VDC	Job Site:	TX05

TEST SPECIFICATIONS	Test Method
FCC 24E:2020	ANSI C63.26:2015

COMMENTS

All measurement path losses were accounted for in the reference level offest including any attenuators, filters and DC blocks. The carrier was set to maximum for all testing.

DEVIATIONS FROM TEST STANDARD

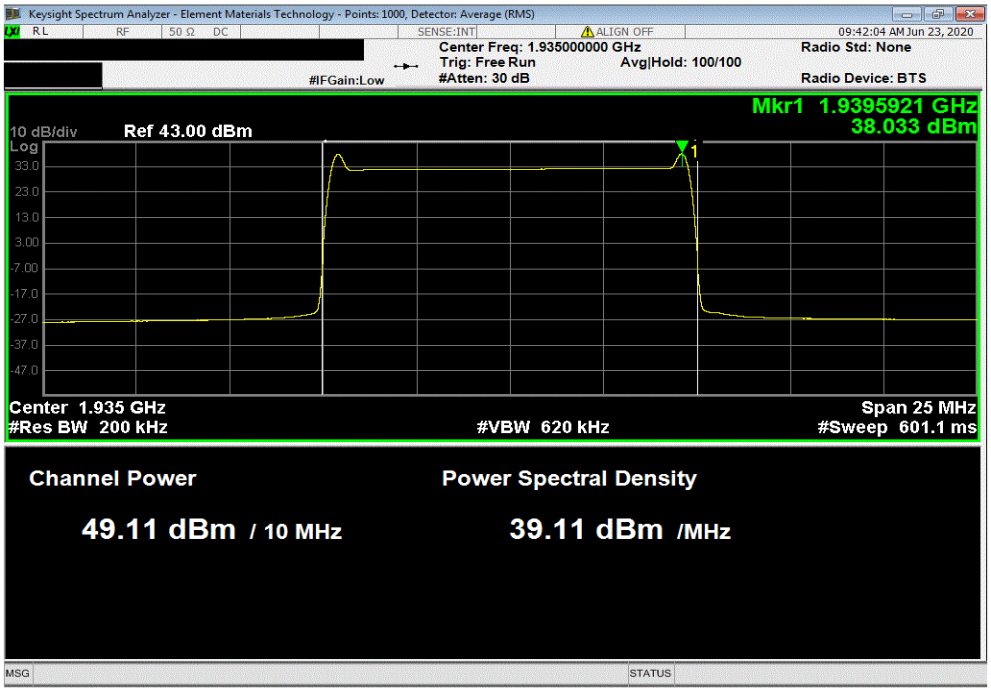
None

Configuration #	6	Signature

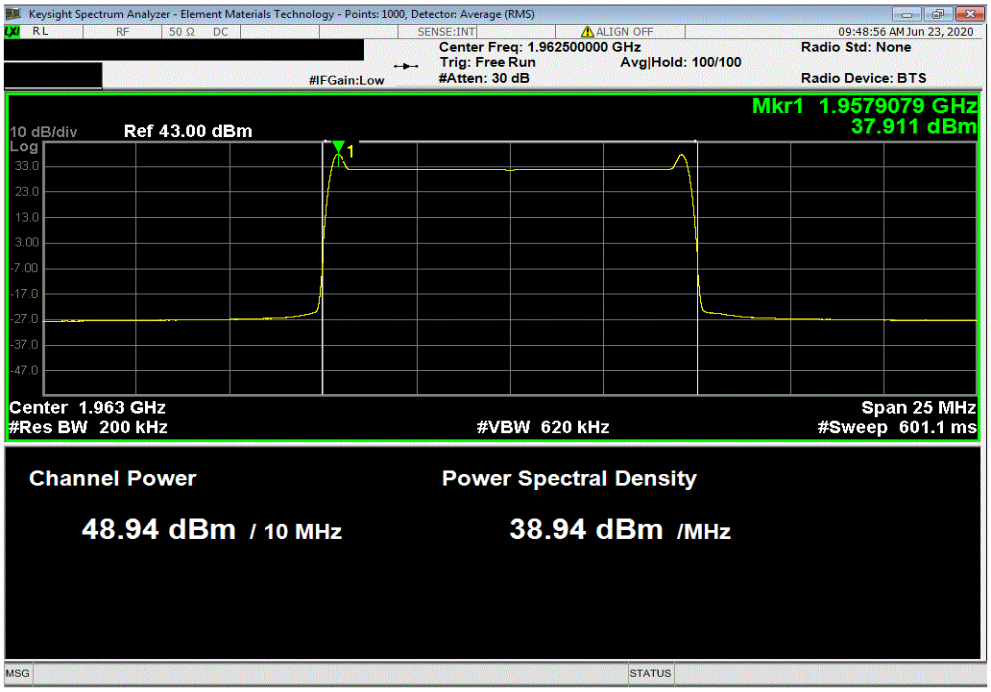
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz						
10 MHz Bandwidth						
QPSK Modulation						
Low Channel 1935 MHz	49.109	0	Not Provided	49.11	62.15	N/A
Mid Channel 1962.5 MHz	48.935	0	Not Provided	48.94	62.15	N/A
High Channel 1990 MHz	48.964	0	Not Provided	48.96	62.15	N/A
15 MHz Bandwidth						
QPSK Modulation						
Low Channel 1937.5 MHz	49.183	0	Not Provided	49.18	62.15	N/A
Mid Channel 1962.5 MHz	48.910	0	Not Provided	48.91	62.15	N/A
High Channel 1987.5 MHz	48.987	0	Not Provided	48.99	62.15	N/A
20 MHz Bandwidth						
QPSK Modulation						
Low Channel 1940 MHz	49.132	0	Not Provided	49.13	62.15	N/A
Mid Channel 1962.5 MHz	48.948	0	Not Provided	48.95	62.15	N/A
High Channel 1985 MHz	48.985	0	Not Provided	48.99	62.15	N/A

OUTPUT POWER - BAND 25

Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz , 10 MHz Bandwidth, QPSK Modulation, Low Channel 1935 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	49.109	0	Not Provided	49.1	62.15	N/A

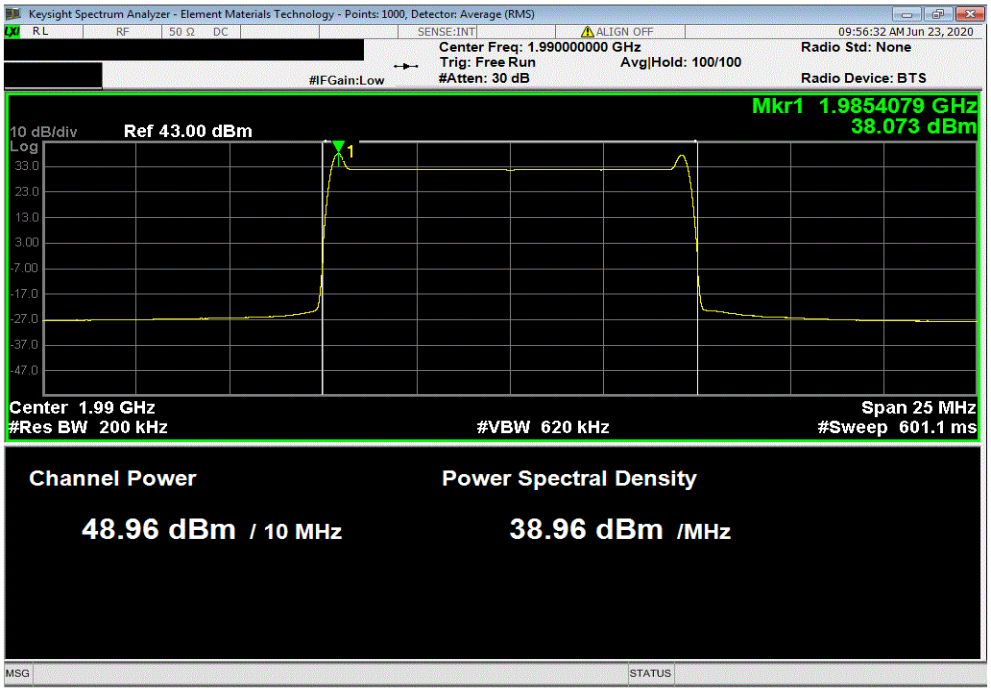


Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz , 10 MHz Bandwidth, QPSK Modulation, Mid Channel 1962.5 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	48.935	0	Not Provided	48.9	62.15	N/A

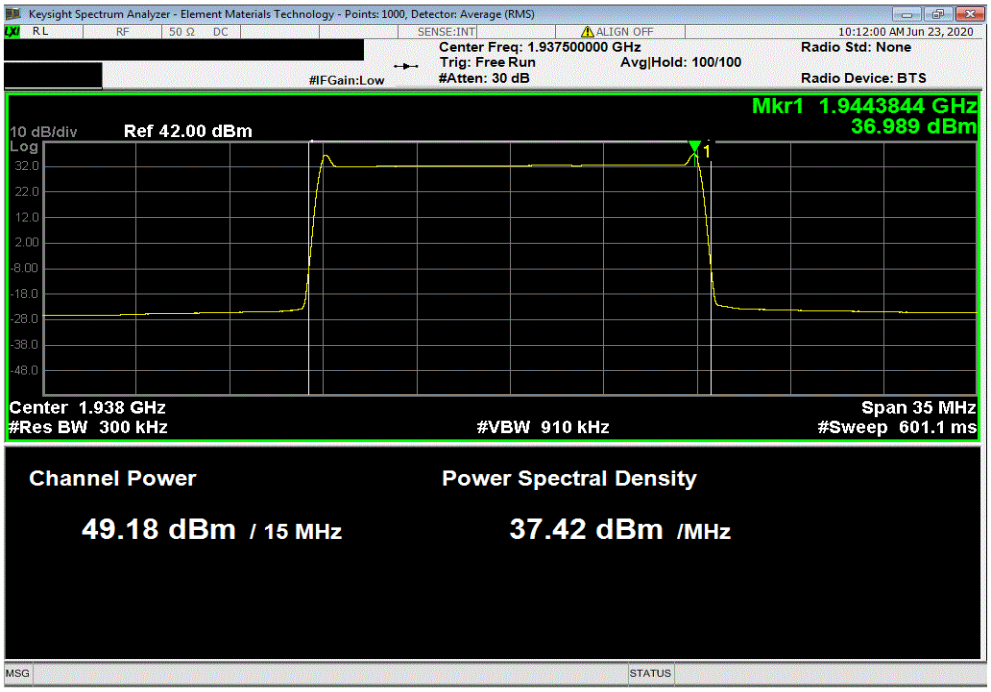


OUTPUT POWER - BAND 25

Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz , 10 MHz Bandwidth, QPSK Modulation, High Channel 1990 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	48.964	0	Not Provided	49.0	62.15	N/A

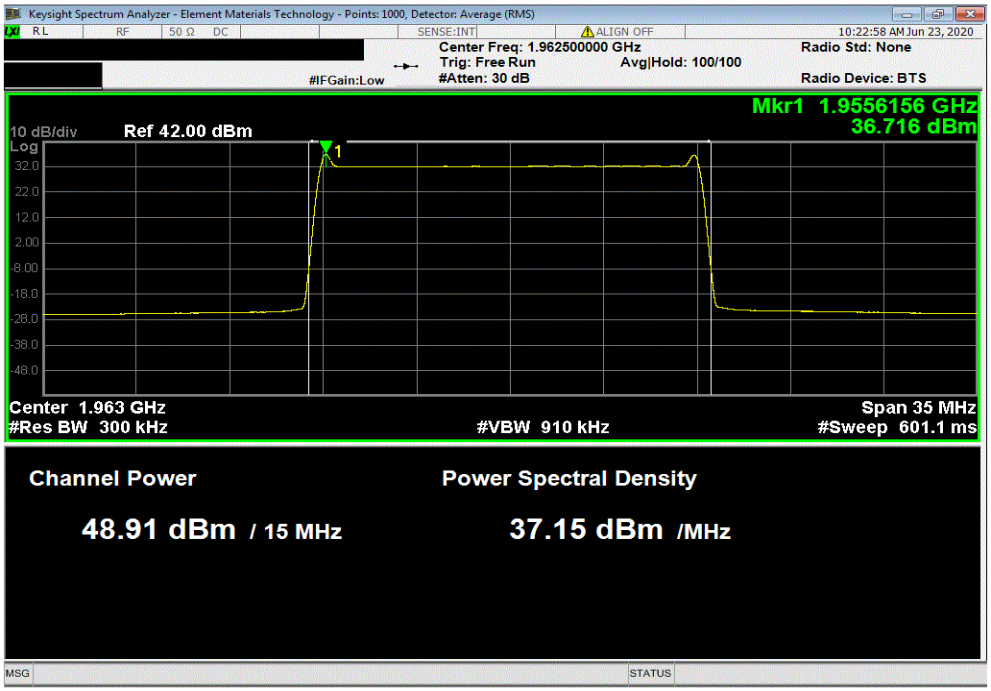


Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz , 15 MHz Bandwidth, QPSK Modulation, Low Channel 1937.5 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	49.183	0	Not Provided	49.2	62.15	N/A

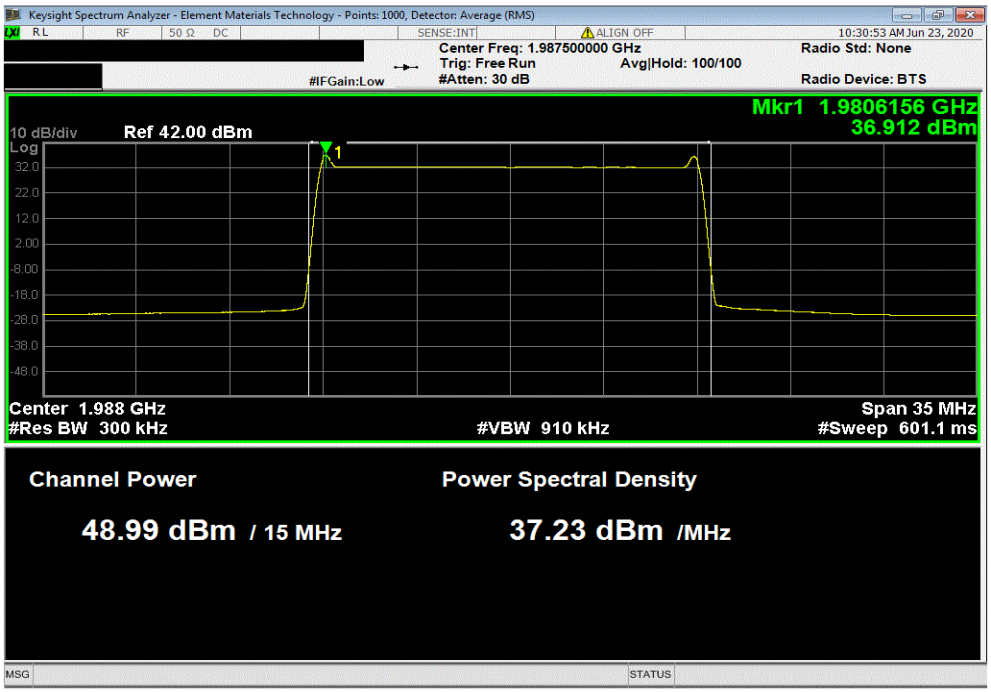


OUTPUT POWER - BAND 25

Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz , 15 MHz Bandwidth, QPSK Modulation, Mid Channel 1962.5 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	48.91	0	Not Provided	48.9	62.15	N/A

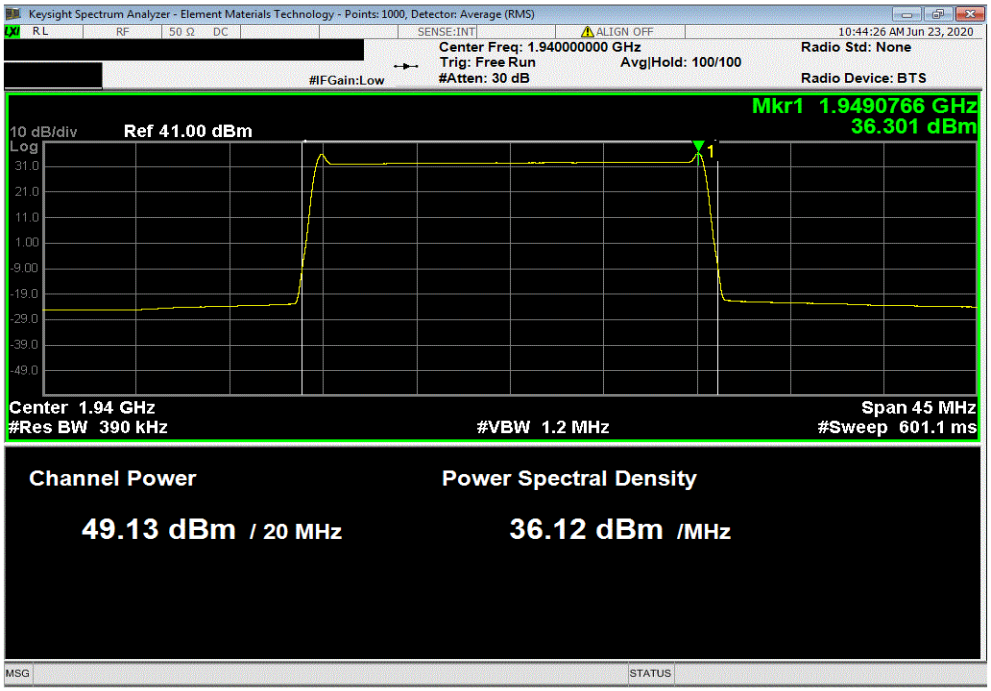


Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz , 15 MHz Bandwidth, QPSK Modulation, High Channel 1987.5 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	48.987	0	Not Provided	49.0	62.15	N/A

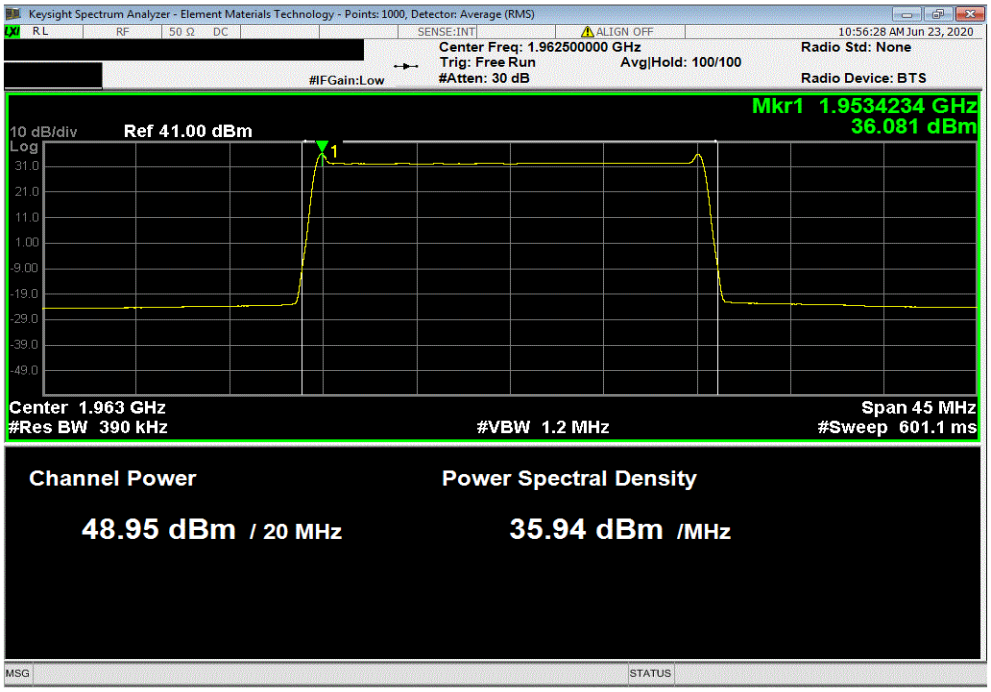


OUTPUT POWER - BAND 25

Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz , 20 MHz Bandwidth, QPSK Modulation, Low Channel 1940 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	49.132	0	Not Provided	49.1	62.15	N/A

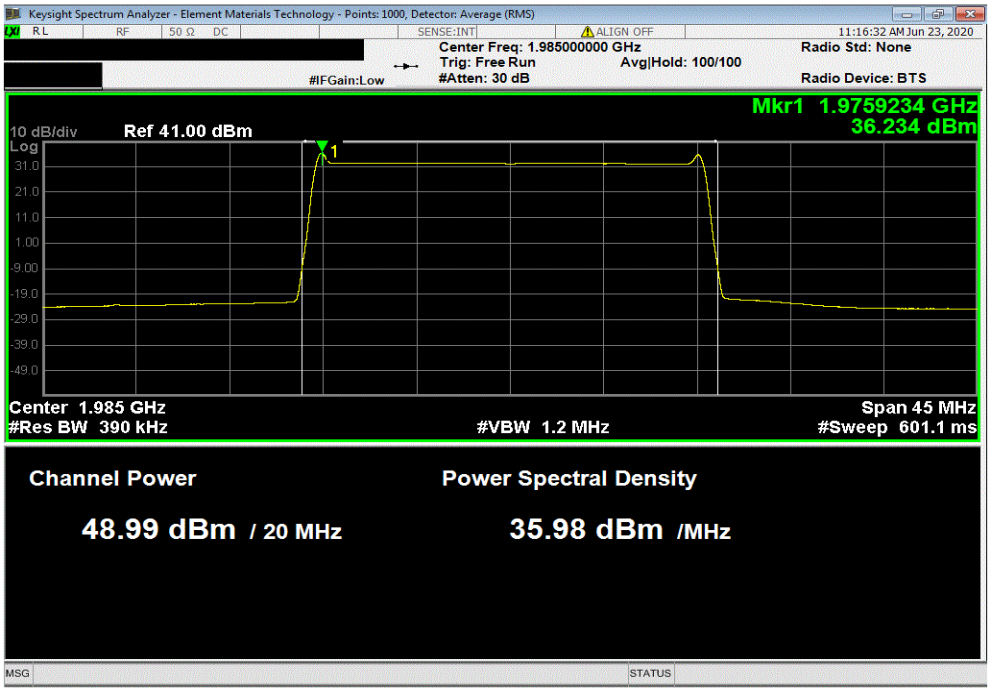


Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz , 20 MHz Bandwidth, QPSK Modulation, Mid Channel 1962.5 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	48.948	0	Not Provided	48.9	62.15	N/A



OUTPUT POWER - BAND 25

Port 4, Band 25 NB IoT, 1930 MHz - 1995 MHz , 20 MHz Bandwidth, QPSK Modulation, High Channel 1985 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	48.985	0	Not Provided	49.0	62.15	N/A



OUTPUT POWER - BAND 66

XMit 2020.03.25.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

The method in section 5.2.4.4 of ANSI C63.26 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Per section 27.50(d)(2)(ii), the Equivalent Isotropically Radiated Power (EIRP) of the transceiver cannot exceed 1640 W/MHz. EIRP as defined by the FCC is the total power output from the cell site antenna.

RF conducted emissions testing was performed only on one port. The testing was performed on the same version of hardware (AHFIG) as the original certification test. The AHFIG antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the original certification testing) and antenna port 4 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraph 5.7.2i.

Carrier bandwidths of 10, 15, & 20MHz were verified using NB IoT GB carriers under this effort. The LTE modulation type for this testing was set up according to 3GPP TS 36.141 E-UTRA Test Models and is “E-TM 1.1 (QPSK modulation type) with N-TM (narrow band IoT)”.

OUTPUT POWER - BAND 66

element

TbtTx 2020.06.08.0 BETA XMit 2020.03.25.0

EUT:	AHFIG			Work Order:	NOKI0016
Serial Number:	K9191322351			Date:	23-Jun-20
Customer:	Nokia Solutions and Networks			Temperature:	22.5 °C
Attendees:	Mitchell Hill, John Rattanavong			Humidity:	51.4% RH
Project:	None			Barometric Pres.:	1016 mbar
Tested by:	Brandon Hobbs	Power:	54 VDC	Job Site:	TX05

TEST SPECIFICATIONS	Test Method
FCC 27:2020	ANSI C63.26:2015

COMMENTS

All measurement path losses were accounted for in the reference level offest including any attenuators, filters and DC blocks. The carrier was set to maximum for all testing.

DEVIATIONS FROM TEST STANDARD

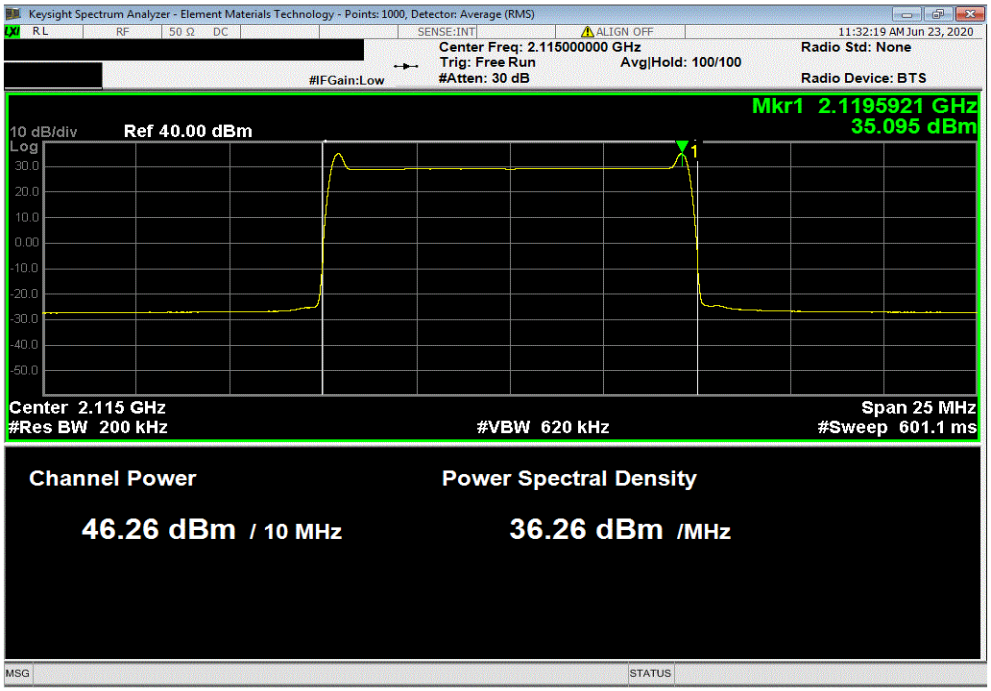
None

Configuration #	6	Signature

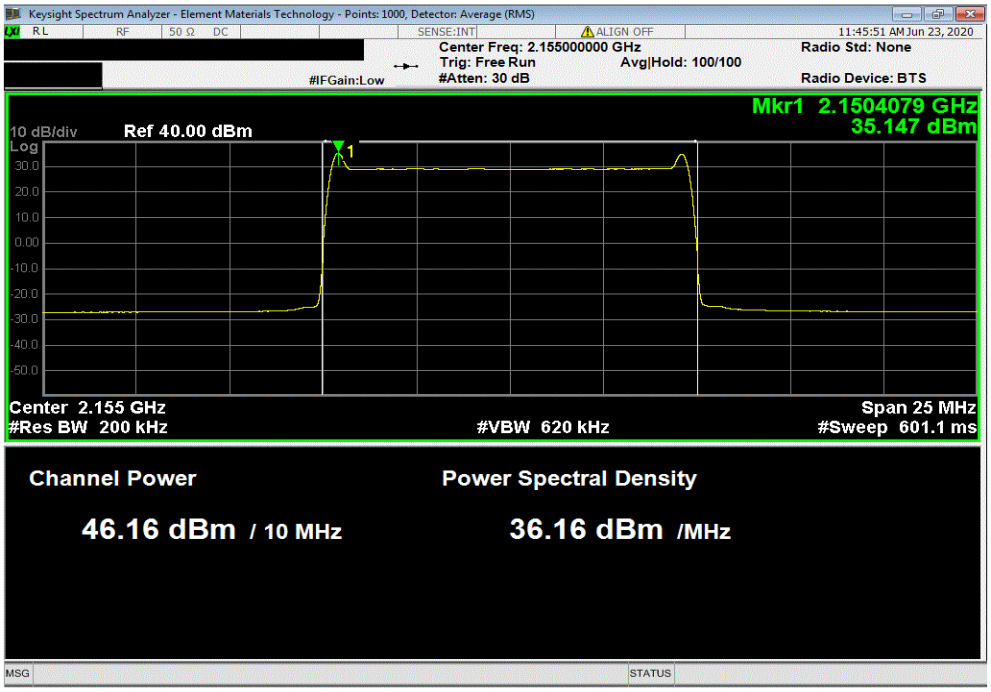
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz						
10 MHz Bandwidth						
QPSK Modulation						
Low Channel 2115 MHz	46.265	0	Not Provided	46.27	62.15	N/A
Mid Channel 2155 MHz	46.156	0	Not Provided	46.16	62.15	N/A
High Channel 2195 MHz	46.216	0	Not Provided	46.22	62.15	N/A
15 MHz Bandwidth						
QPSK Modulation						
Low Channel 2117.5 MHz	46.302	0	Not Provided	46.30	62.15	N/A
Mid Channel 2155 MHz	46.136	0	Not Provided	46.14	62.15	N/A
High Channel 2192.5 MHz	46.258	0	Not Provided	46.26	62.15	N/A
20 MHz Bandwidth						
QPSK Modulation						
Low Channel 2120 MHz	46.361	0	Not Provided	46.36	62.15	N/A
Mid Channel 2155 MHz	46.128	0	Not Provided	46.13	62.15	N/A
High Channel 2190 MHz	46.205	0	Not Provided	46.21	62.15	N/A

OUTPUT POWER - BAND 66

Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz, 10 MHz Bandwidth , QPSK Modulation, Low Channel 2115 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	46.265	0	Not Provided	46.3	62.15	N/A

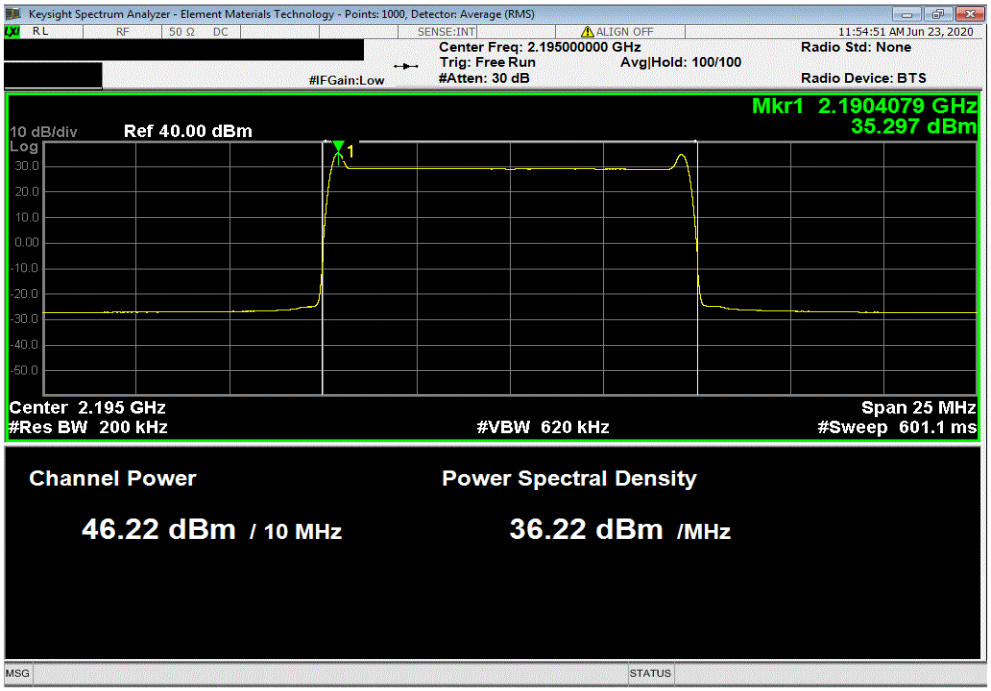


Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz, 10 MHz Bandwidth , QPSK Modulation, Mid Channel 2155 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	46.156	0	Not Provided	46.2	62.15	N/A

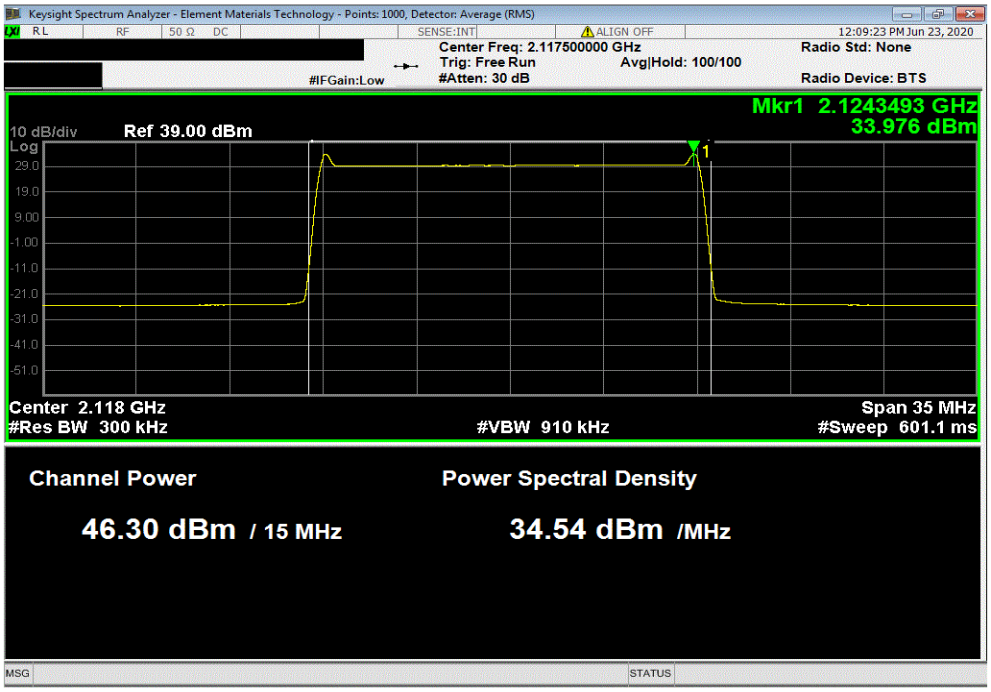


OUTPUT POWER - BAND 66

Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz, 10 MHz Bandwidth , QPSK Modulation, High Channel 2195 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	46.216	0	Not Provided	46.2	62.15	N/A

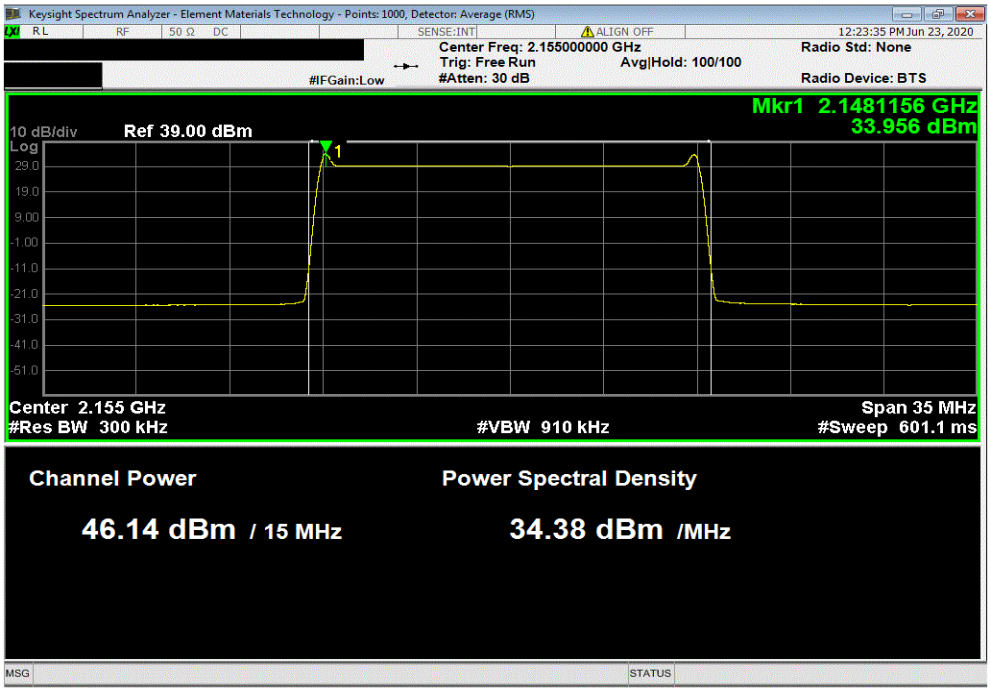


Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz, 15 MHz Bandwidth , QPSK Modulation, Low Channel 2117.5 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	46.302	0	Not Provided	46.3	62.15	N/A

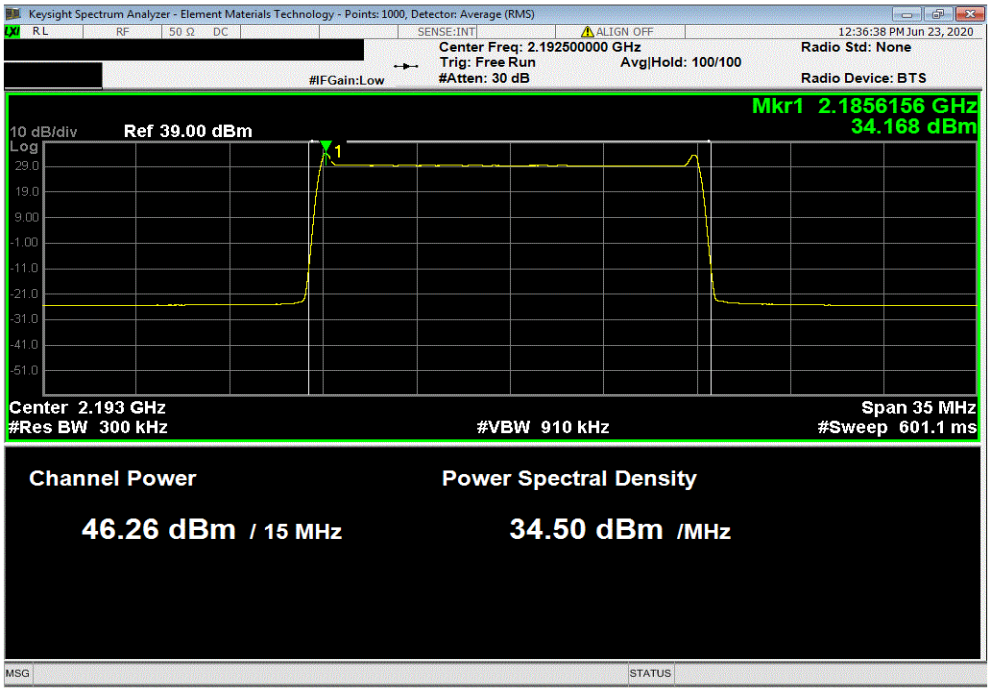


OUTPUT POWER - BAND 66

Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz, 15 MHz Bandwidth , QPSK Modulation, Mid Channel 2155 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	46.136	0	Not Provided	46.1	62.15	N/A

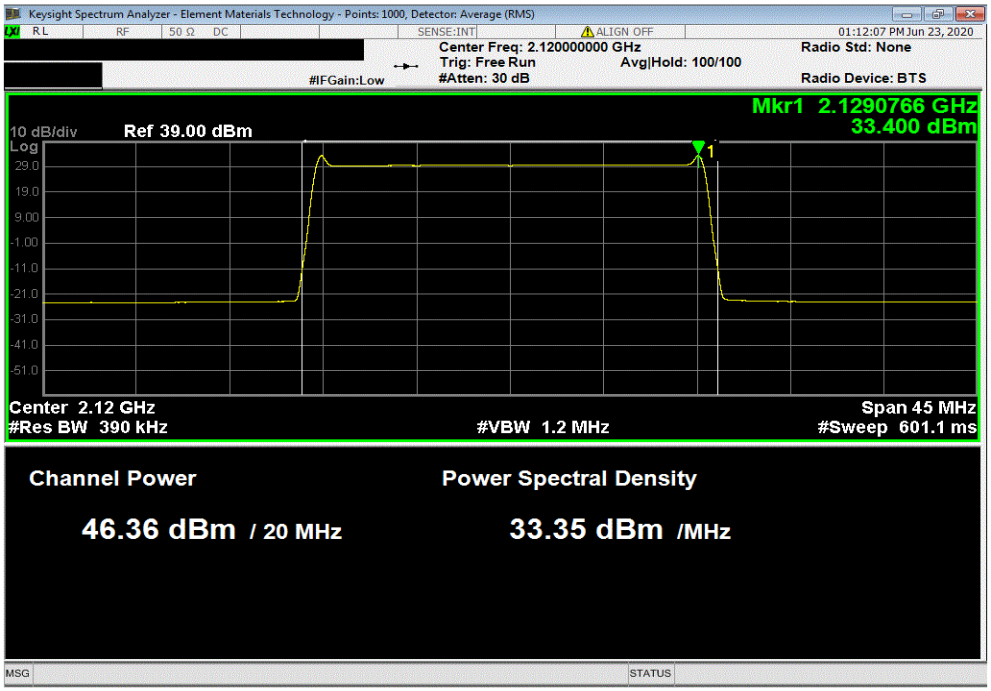


Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz, 15 MHz Bandwidth , QPSK Modulation, High Channel 2192.5 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	46.258	0	Not Provided	46.3	62.15	N/A

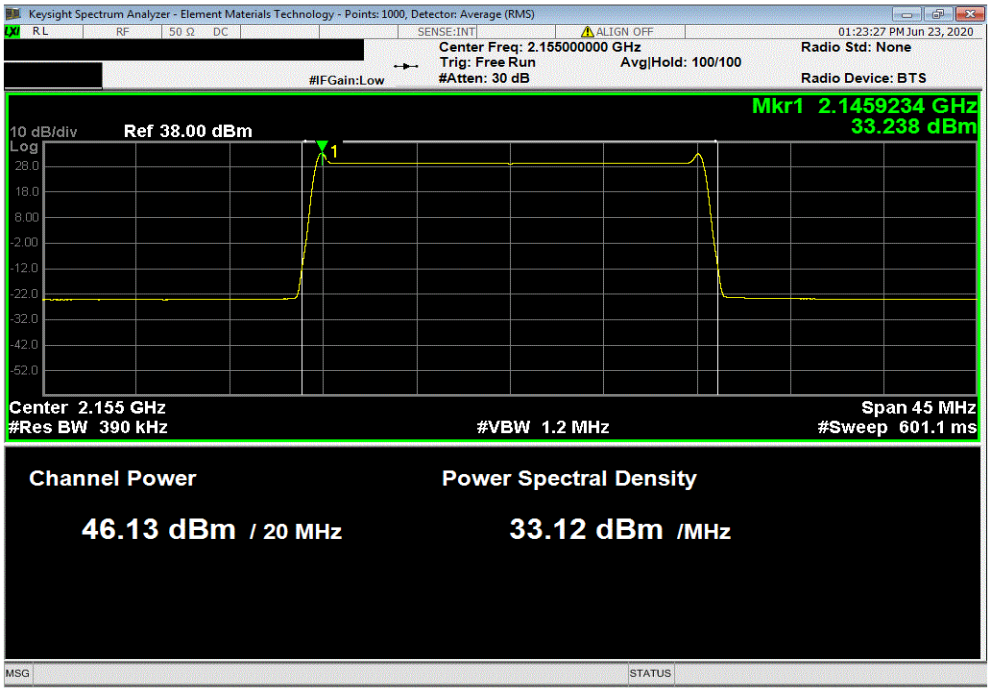


OUTPUT POWER - BAND 66

Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz, 20 MHz Bandwidth, QPSK Modulation, Low Channel 2120 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	46.361	0	Not Provided	46.4	62.15	N/A



Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz, 20 MHz Bandwidth, QPSK Modulation, Mid Channel 2155 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	46.128	0	Not Provided	46.1	62.15	N/A



OUTPUT POWER - BAND 66

Port 4, Band 66 NB IoT, 2110 MHz - 2200 MHz, 20 MHz Bandwidth, QPSK Modulation, High Channel 2190 MHz						
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	EIRP Limit (dBm/OBW)	Results
	46.205	0	Not Provided	46.2	62.15	N/A