

XMit 2023.02.14.0

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
Signal Analyzer	Keysight	N9030B	R332	2022-07-28	2023-07-28
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2023-02-09	2024-02-09
Block - DC	Fairview Microwave	SD3235-2148	ANF	2023-05-24	2024-05-24
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17

#### **TEST DESCRIPTION**

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

Because the conducted Output Power was measured using a RMS Average detector, the Peak to Average Power Ratio (PAPR) was measured to show that the maximum peak-max-hold spectrum to the maximum of the average spectrum does not exceed the rule part defined limit.

The PAPR measurement method is described in ANSI C63.26 section 5.2.3.4. The PAPR was measured using the CCDF function of the spectrum analyzer.

Per FCC part 24.232(d), the PAPR limit shall not exceed 13 dB for more than the ANSI described 0.1% of the time.

RF conducted emissions 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 original certification testing) and antenna port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i and 6.4.

Report No. NOKI0053.0

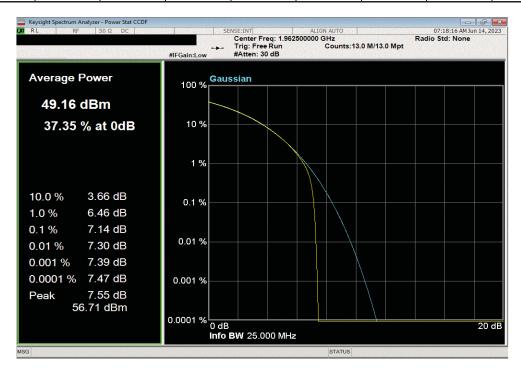


			TbtTx 2022.05.02.0	XMit 2023.
EUT: AHFIG (FCC C2		Work Order:		
Serial Number: See Configurati			06/14/2023	
Customer: Nokia Solutions		Temperature:		
Attendees: John Rattanavo	ng, Mitchell Hill	Humidity:		
Project: None		Barometric Pres.:		
Tested by: Brandon Hobbs		Job Site:	TX07	
ST SPECIFICATIONS	Test Method			
C 24E:2023	ANSI C63.26:2015			
DMMENTS				
measurement path losses were	accounted for in the reference level offest including any attenuators, filters and DC blocks. Ba	and n25 carriers are enabled at maximum powe	er (80 watts/carrier).	
VIATIONS FROM TEST STANDA	RD			
one				
	2 6			
onfiguration # NOKI0053	3-2 Cinnature			
	Signature			
		0.1% PAPR	0.1% PAPR	
		Value (dB)	Limit (dB)	Result
Port 1	All le Des Avidale			
25	MHz Bandwidth  QPSK Modulation			
	Mid Channel 1962.5 MHz	7.14	13	Pass
	16-QAM Modulation	7.14	13	FdSS
	Mid Channel 1962.5 MHz	7.2	13	
	Wild Chariffer 1902.5 Wil iz	1.2		Dace
	64-OAM Modulation		13	Pass
	64-QAM Modulation	7 15		
	Mid Channel 1962.5 MHz	7.15	13	Pass Pass
	Mid Channel 1962.5 MHz 256-QAM Modulation		13	Pass
	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz	7.44	13	Pass Pass
	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz	7.44 7.15	13 13 13	Pass Pass Pass
30	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz High Channel 1982.5 MHz	7.44	13	Pass Pass
30	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz High Channel 1982.5 MHz MHz Bandwidth	7.44 7.15	13 13 13	Pass Pass Pass
30	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz High Channel 1982.5 MHz MHz Bandwidth QPSK Modulation	7.44 7.15 7.18	13 13 13 13	Pass Pass Pass Pass
30	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz High Channel 1982.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 1962.5 MHz	7.44 7.15	13 13 13	Pass Pass Pass
30	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz High Channel 1982.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 1962.5 MHz 16-QAM Modulation	7.44 7.15 7.18 7.69	13 13 13 13 13	Pass Pass Pass Pass Pass
30	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz High Channel 1982.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 1962.5 MHz 16-QAM Modulation Mid Channel 1962.5 MHz	7.44 7.15 7.18	13 13 13 13	Pass Pass Pass Pass
30	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz High Channel 1982.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 1962.5 MHz 16-QAM Modulation Mid Channel 1962.5 MHz 64-QAM Modulation	7.44 7.15 7.18 7.69 7.53	13 13 13 13 13	Pass Pass Pass Pass Pass
30	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz High Channel 1982.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 1962.5 MHz 16-QAM Modulation Mid Channel 1962.5 MHz	7.44 7.15 7.18 7.69	13 13 13 13 13	Pass Pass Pass Pass
301	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz Mid Channel 1982.5 MHz High Channel 1982.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 1962.5 MHz 16-QAM Modulation Mid Channel 1962.5 MHz 64-QAM Modulation Mid Channel 1962.5 MHz	7.44 7.15 7.18 7.69 7.53	13 13 13 13 13 13	Pass Pass Pass Pass Pass
30	Mid Channel 1962.5 MHz 256-QAM Modulation Low Channel 1942.5 MHz Mid Channel 1962.5 MHz High Channel 1982.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 1962.5 MHz 16-QAM Modulation Mid Channel 1962.5 MHz 64-QAM Modulation Mid Channel 1962.5 MHz 65-QAM Modulation Mid Channel 1962.5 MHz	7.44 7.15 7.18 7.69 7.53 7.45	13 13 13 13 13	Pass Pass Pass Pass Pass Pass

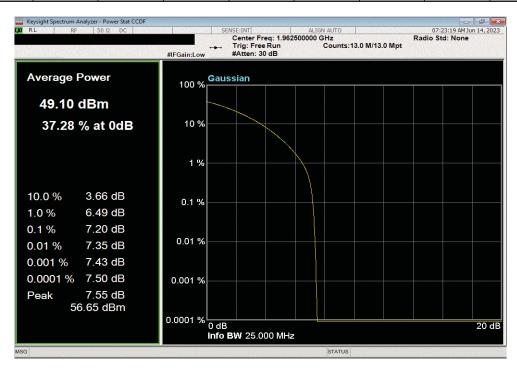
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Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 25 MHz Bandwidth, QPSK Modulation, Mid Channel 1962.5 MHz
0.1% PAPR 0.1% PAPR
Value (dB) Limit (dB) Result
7.14 13 Pass



	Band n25 1930	MHz - 1995 MHz	, 5G NR , Port 1,	25 MHz Bandwid	th, 16-QAM Mod	ulation, Mid Chan	nel 1962.5 MHz
					0.1% PAPR	0.1% PAPR	
					Value (dB)	Limit (dB)	Result
1					7.2	13	Pass



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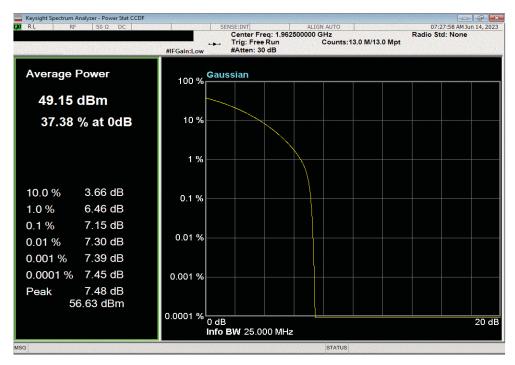


Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 64-QAM Modulation, Mid Channel 1962.5 MHz

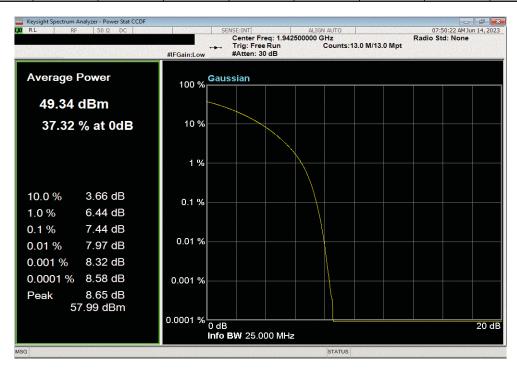
0.1% PAPR

Value (dB) Limit (dB) Result

7 15 13 Pass



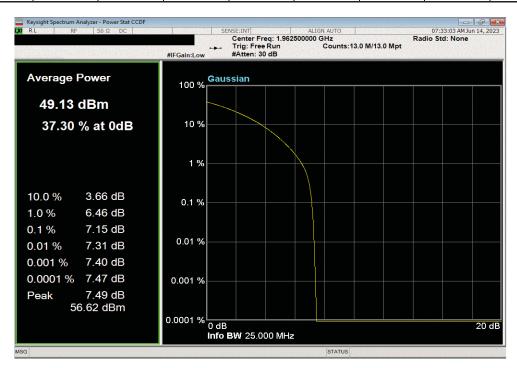
	Band n25 1930 I	MHz - 1995 MHz,	5G NR , Port 1, 2	25 MHz Bandwidt	h, 256-QAM Mod	ulation, Low Cha	nnel 1942.5 MHz
					0.1% PAPR	0.1% PAPR	
					Value (dB)	Limit (dB)	Result
1					7.44	13	Pass



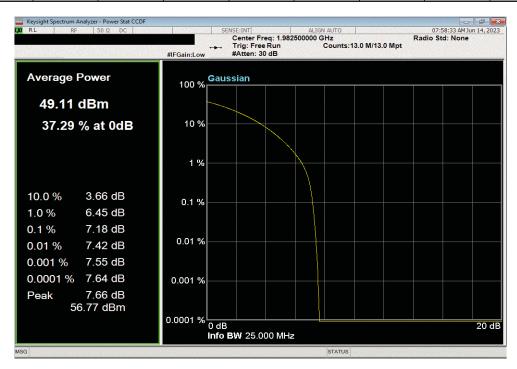
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Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 256-QAM Modulation, Mid Channel 1962.5 MHz
0.1% PAPR
0.1% PAPR
Value (dB) Limit (dB) Result
7.15 13 Pass



Band n25 1930 N	MHz - 1995 MHz,	5G NR, Port 1, 2	25 MHz Bandwidt	h, 256-QAM Mod	ulation, High Cha	nnel 1982.5 MHz
				0.1% PAPR	0.1% PAPR	
				Value (dB)	Limit (dB)	Result
				7.18	13	Pass



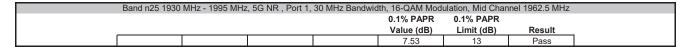
Report No. NOKI0053.0 93/162

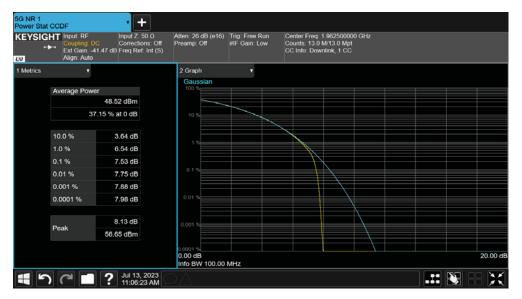


Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 30 MHz Bandwidth, QPSK Modulation, Mid Channel 1962.5 MHz

0.1% PAPR
0.1% PAPR
Value (dB) Limit (dB) Result
7.69 13 Pass

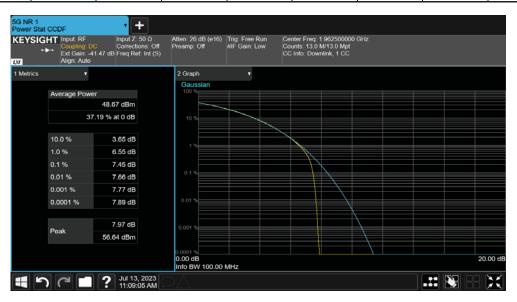


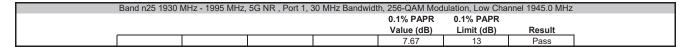




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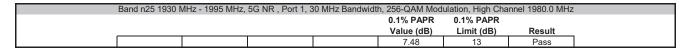
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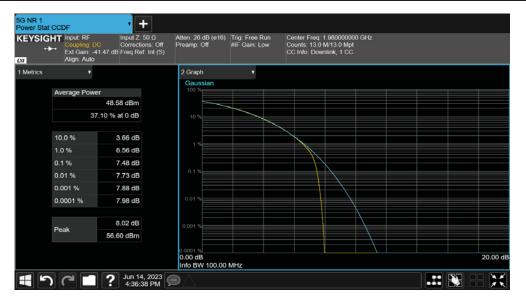


Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Mid Channel 1962.5 MHz

0.1% PAPR
0.1% PAPR
Value (dB) Limit (dB) Result
7.45 13 Pass







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#### **TEST EQUIPMENT**

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Block - DC	Fairview Microwave	SD3235-2148	ANF	2023-05-24	2024-05-24
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2023-02-09	2024-02-09
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Signal Analyzer	Keysight	N9030B	R332	2022-07-28	2023-07-28

#### **TEST DESCRIPTION**

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

Because the conducted Output Power was measured using a RMS Average detector, the Peak to Average Power Ratio (PAPR) was measured to show that the maximum peak-max-hold spectrum to the maximum of the average spectrum does not exceed the rule part defined limit.

The PAPR measurement method is described in ANSI C63.26 section 5.2.3.4. The PAPR was measured using the CCDF function of the spectrum analyzer.

Per FCC part 27.50(d)(5) and RSS-139 section 5.5. the maximum peak-to-average power ratio (PAPR) is 13dB.

RF conducted emissions 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 original certification testing) and antenna port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i and 6.4.

Report No. NOKI0053.0



EUT: AHFIG (FCC C2F			TbtTx 2022.05.02.0	XMit 2023.
		Work Order:		
Serial Number: See Configuration			06/14/2023	
Customer: Nokia Solutions		Temperature:		
Attendees: John Rattanavo	ng, Mitchell Hill	Humidity:		
Project: None		Barometric Pres.:		
Tested by: Brandon Hobbs		Job Site:	TX07	
ST SPECIFICATIONS	Test Method			
C 27:2023	ANSI C63.26:2015			
DMMENTS				
measurement path losses were a	accounted for in the reference level offest including any attenuators, filters and DC blocks. Band	n66 carriers are enabled at maximum powe	er (40 watts/carrier).	
EVIATIONS FROM TEST STANDAR	RD			
ne				
	7 - 6			
onfiguration # NOKI0053	X Total			
	Signature	. 40/ 5455		
		0.1% PAPR Value (dB)	0.1% PAPR Limit (dB)	Result
nd n66 2110 MHz - 2200 MHz, 5G N	-	value (ub)	Lillit (db)	Result
25 M	MHz Bandwidth  QPSK Modulation			
25 M		7.10	13	Pass
25 M	QPSK Modulation	7.10	13	Pass
25 1	QPSK Modulation Mid Channel 2155 MHz	7.10 7.20	13	Pass Pass
25 N	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation			
251	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz			
25 1	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation	7.20	13	Pass
25 1	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz	7.20	13	Pass
251	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation	7.20 7.10	13	Pass Pass
25 1	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz	7.20 7.10 7.21	13 13	Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2155 MHz Mid Channel 2155 MHz	7.20 7.10 7.21 7.14	13 13 13 13	Pass Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2155 MHz Mid Channel 2155 MHz High Channel 2155 MHz	7.20 7.10 7.21 7.14 7.24	13 13 13 13	Pass Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2125.5 MHz High Channel 2155 MHz High Channel 2157.5 MHz MHZ Bandwidth QPSK Modulation Mid Channel 2155 MHz MID CHANNEL 2155 MHZ	7.20 7.10 7.21 7.14	13 13 13 13	Pass Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2155 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz MHz Bandwidth QPSK Modulation	7.20 7.10 7.21 7.14 7.24	13 13 13 13 13	Pass Pass Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2125.5 MHz High Channel 2155 MHz High Channel 2157.5 MHz MHZ Bandwidth QPSK Modulation Mid Channel 2155 MHz MID CHANNEL 2155 MHZ	7.20 7.10 7.21 7.14 7.24	13 13 13 13 13	Pass Pass Pass Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2155 MHz High Channel 2155 MHz High Channel 2155 MHz High Channel 2155 MHz OPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz	7.20 7.10 7.21 7.14 7.24 7.49	13 13 13 13 13	Pass Pass Pass Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2155 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz	7.20 7.10 7.21 7.14 7.24 7.49	13 13 13 13 13	Pass Pass Pass Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2155 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Mid Channel 2155 MHz	7.20 7.10 7.21 7.14 7.24 7.49	13 13 13 13 13 13	Pass Pass Pass Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2155 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz MHZ Bandwidth QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz	7.20 7.10 7.21 7.14 7.24 7.49	13 13 13 13 13 13	Pass Pass Pass Pass Pass Pass Pass
	QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Low Channel 2122.5 MHz Mid Channel 2155 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz MHz Bandwidth QPSK Modulation Mid Channel 2155 MHz 16-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 64-QAM Modulation Mid Channel 2155 MHz 256-QAM Modulation Mid Channel 2155 MHz	7.20 7.10 7.21 7.14 7.24 7.49 7.51	13 13 13 13 13 13 13	Pass Pass Pass Pass Pass Pass Pass Pass

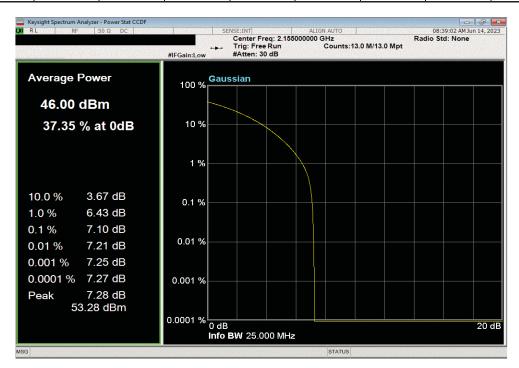
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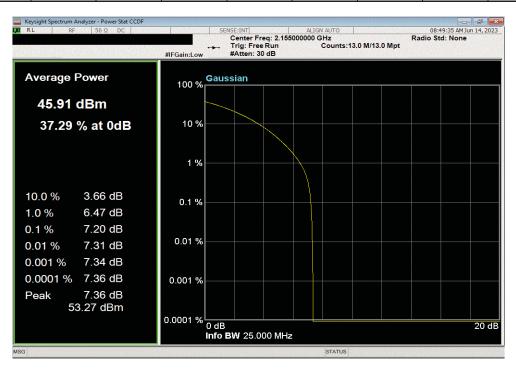
Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 25 MHz Bandwidth, QPSK Modulation, Mid Channel 2155 MHz

0.1% PAPR
0.1% PAPR
Value (dB) Limit (dB) Result

7.1 13 Pass



Band n66 2110	0 MHz - 2200 MH	z, 5G NR , Port 1	, 25 MHz Bandwi	dth, 16-QAM Mod	dulation, Mid Cha	nnel 2155 MHz	
				0.1% PAPR	0.1% PAPR		
				Value (dB)	Limit (dB)	Result	
				7.2	13	Pass	



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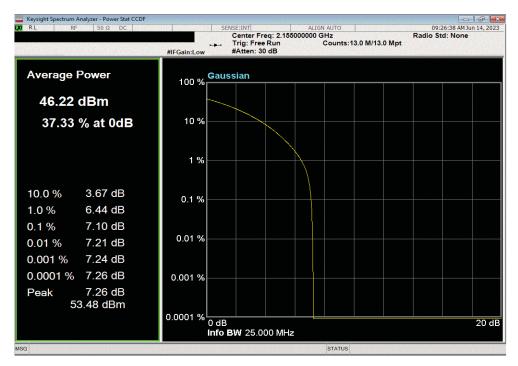


Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 64-QAM Modulation, Mid Channel 2155 MHz

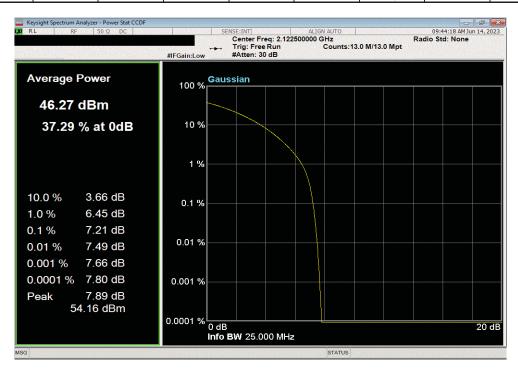
0.1% PAPR

Value (dB) Limit (dB) Result

7.1 13 Pass



Band n66 2110 I	MHz - 2200 MHz,	5G NR , Port 1, 2	25 MHz Bandwidt	h, 256-QAM Mod	ulation, Low Cha	nnel 2122.5 MHz	
				0.1% PAPR	0.1% PAPR		
				Value (dB)	Limit (dB)	Result	
				7.21	13	Pass	



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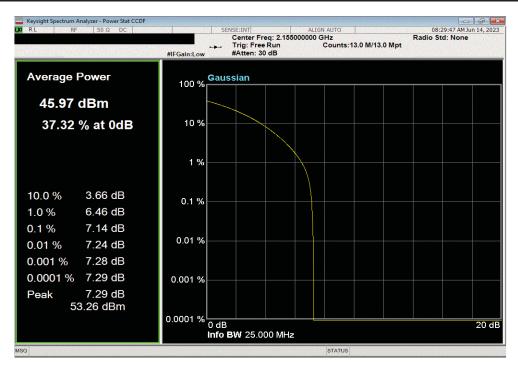


Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 256-QAM Modulation, Mid Channel 2155 MHz

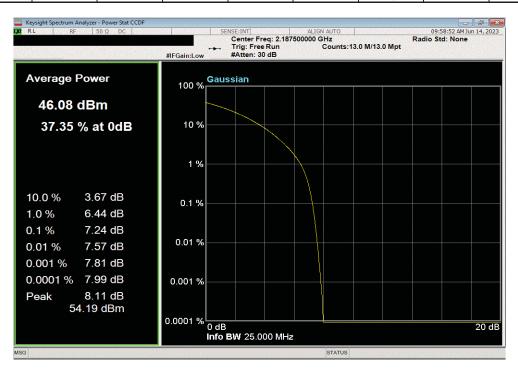
0.1% PAPR

Value (dB) Limit (dB) Result

7.14 13 Pass



Band n66 2110 N	MHz - 2200 MHz,	5G NR, Port 1, 2	25 MHz Bandwidt	h, 256-QAM Mod	ulation, High Cha	nnel 2187.5 MHz	
				0.1% PAPR	0.1% PAPR		
				Value (dB)	Limit (dB)	Result	
				7.24	13	Pass	

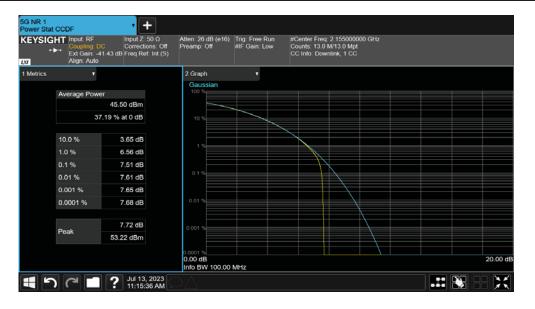


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	Band n66 2110	0 MHz - 2200 MH	lz, 5G NR, Port 1	, 30 MHz Bandwi	dth, 16-QAM Mod	dulation, Mid Cha	nnel 2155 MHz	
					0.1% PAPR	0.1% PAPR		
1					Value (dB)	Limit (dB)	Result	
1					7.51	13	Pass	



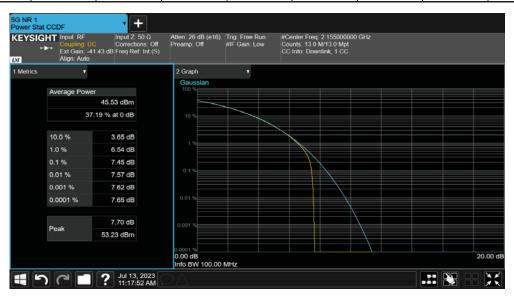
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Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 64-QAM Modulation, Mid Channel 2155 MHz

0.1% PAPR 0.1% PAPR
Value (dB) Limit (dB) Result

7.45 13 Pass



Band n66 2110	MHz - 2200 MHz	, 5G NR , Port 1,	30 MHz Bandwid	lth, 256-QAM Mo	dulation, Low Cha	annel 2125 MHz
				0.1% PAPR	0.1% PAPR	
				Value (dB)	Limit (dB)	Result
				7.52	13	Pass

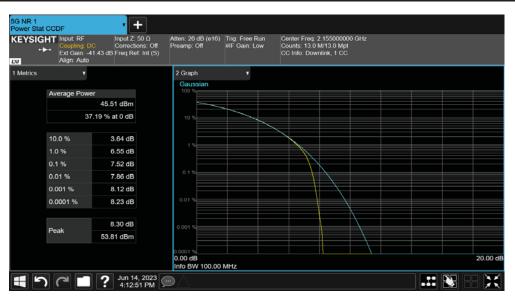


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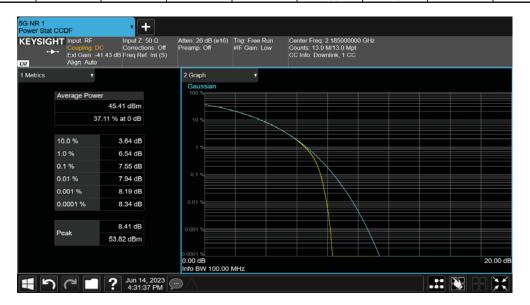


Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Mid Channel 2155 MHz

0.1% PAPR
0.1% PAPR
Value (dB) Limit (dB) Result
7.52 13 Pass



	Band n66 2110	MHz - 2200 MHz	, 5G NR , Port 1,	30 MHz Bandwid	th, 256-QAM Mod	dulation, High Ch	annel 2185 MHz
					0.1% PAPR	0.1% PAPR	
					Value (dB)	Limit (dB)	Result
1					7.55	13	Pass



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#### **TEST EQUIPMENT**

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2023-02-09	2024-02-09
Block - DC	Fairview Microwave	SD3235-2148	ANF	2023-05-24	2024-05-24

#### **TEST DESCRIPTION**

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in the available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

All limits were adjusted by a factor of [-10\*log(4)] dB to account for the device operation as a 4 port MIMO transmitter, as per FCC KDB 622911.

Per section 27.53(h)(1) and 24.238(a), the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -19 dBm [-13 dBm -10 log (4)] per FCC KDB 662911D01 v02r01 because the BTS may operate as a 4 port MIMO transmitter.

Per 27.53(h)(3) and 24.238(b), emissions seen up to 1 MHz outside of authorized operating frequency range band edges shell be measured with a RBW of 1% of the measured emission bandwidth Any emission seen to be > 1 MHz further outside the band edges shall be measured with a RBW of 1 MHz. However, a narrower RBW of at least 1% of the emission bandwidth is still allowed provided that the measured power is integrated over the full reference bandwidth of 1 MHz.

Multicarrier Test Case 1 (PCS Multicarrier LBE): In the PCS band \_Two NR 30MHz carriers (with minimum spacing between carrier frequencies) at the lower band edge (1945 & 1975MHz). In AWS band NR 5MHz carrier is enable at middle channel (2155.0MHz) at full power (40W). The largest channel bandwidth is selected to maximize carrier OBW. The carriers are operated at maximum power (~40W/PCS carrier and 40W/AWS carrier) with a total port power of 120 watts.

Multicarrier Test Case 2 (PCS Multicarrier UBE): In the PCS band \_Two NR 30MHz carriers (with minimum spacing between carrier frequencies) at the upper band edge (1950 & 1980MHz). In AWS band NR 5MHz carrier is enable at middle channel (2155.0MHz) at full power (40W). The largest channel bandwidth is selected to maximize carrier OBW. The carriers are operated at maximum power (~40W/PCS carrier and 40W/AWS carrier) with a total port power of 120 watts.

Multicarrier Test Case 3 (AWS Multicarrier LBE): In the AWS band \_Two NR 30MHz carriers (with minimum spacing between carrier frequencies) at the lower band edge (2125 & 2155MHz). In PCS band NR 5MHz carrier is enable at middle channel (1962.5MHz) at full power (80W). The largest channel bandwidth is selected to maximize carrier OBW. The carriers are operated at maximum power (~20W/AWS carrier and 80W/PCS carrier) with a total port power of 120 watts.

Multicarrier Test Case 4 (AWS Multicarrier UBE): In the AWS band \_Two NR 30MHz carriers (with minimum spacing between carrier frequencies) at the upper band edge (2185 & 2155MHz). In PCS band NR 5MHz carrier is enable at middle channel (1962.5MHz) at full power (80W). The largest channel bandwidth is selected to maximize carrier OBW. The carriers are operated at maximum power (~20W/AWS carrier and 80W/PCS carrier) with a total port power of 120 watts.

Multicarrier Multiband Test Case 5: In the PCS band \_Three NR 5MHz carriers with Two NR 5MHz (minimum spacing between carrier frequencies) at the lower band edge (1932.5 & 1937.5 MHz) and one NR 5MHz carrier (maximum spacing with other two) at the upper band edge (1992.5 MHz). In AWS band\_ Three NR 5MHz carriers with Two NR 5MHz (minimum spacing between carrier frequencies) at the lower band edge (2112.5 & 2117.5 MHz) and one NR 5MHz carrier (maximum spacing with other two) at the upper band edge (2197.5 MHz). The smallest channel bandwidth was selected to maximize carrier power spectral density. The carriers are operated at maximum power (~13.3W/AWS carrier and ~26.6W/PCS carrier) with a total port power of 120 watts.

maximize carrier power spectral density. The carriers are operated at maximum power (~13.3W/AWS carrier and ~26.6W/PCS carrier) with a total port power of 120 watts.

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 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i and 6.4.

The band edge testing was performed using only one modulation type because the Occupied Bandwidth variation between modulation types is small, the average output power variation between modulation types is small, and there was small variation in band edge measurements over modulation types from previous certification testing for other channel bandwidths. (See ANSI C63.26. clause 5.7.2e).

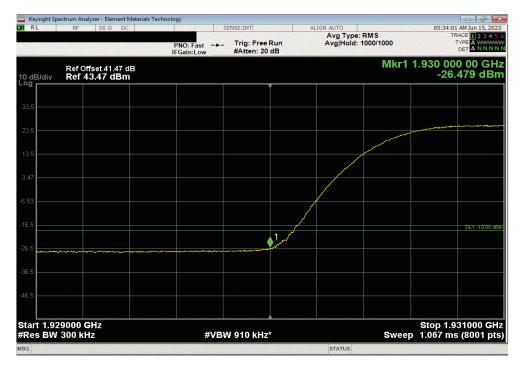
Report No. NOKI0053.0 105/162



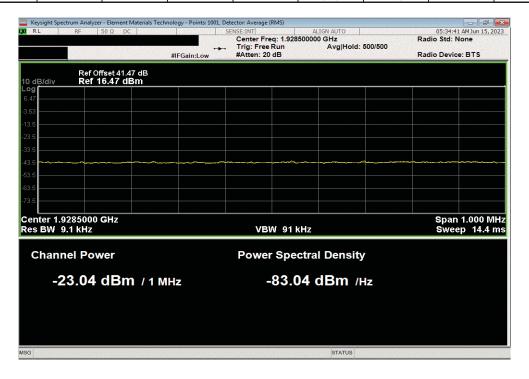
					TbtTx 2022.05.02.0	XMit 202
	AHFIG (FCC C2PC)			Work Order:		
	See Configuration				06/14/2023	
	Nokia Solutions and Ne			Temperature:		
	John Rattanavong, Mito	chell Hill		Humidity:		
Project:				Barometric Pres.:		
	Brandon Hobbs		Power: 54 VDC	Job Site:	TX07	
ST SPECIFICAT	IONS		Test Method			
CC 24E:2023			ANSI C63.26:2015			
C 27:2023			ANSI C63.26:2015			
OMMENTS						
I measurement p	ath losses were accoun	ted for in the reference level offest includir	g any attenuators, filters and DC blocks. Power per carrier is call	ed out in the data below.		
EVIATIONS FROM	M TEST STANDARD					
ліе		1				
onfiguration #	NOKI0053-2		111			
	<u> </u>	Signature	Frequency	Max Value	Limit	
			Range	(dBm)	(dBm)	Result
ort 1, NR, PCS Ba	nd and AWS Band, MultiC QPSK MulitCarrier	Carrier Test Case 1				
	WullCarrier	Low 1945 MHz n25 NR30 40W (PCS)	1	-26.5	-19	Pass
		Low 1945 MHz n25 NR30 40W (PCS)	2	-32.0	-19	Pass
		Low 1945 MHz n25 NR30 40W (PCS)	3	-22.5	-19	Pass
	MulitCarrier	Test Case 2		-22.0	-13	1 433
	Multourier	High 1980 MHz n25 NR30 40W (PCS)	1	-25.3	-19	Pass
		High 1980 MHz n25 NR30 40W (PCS)	2	-21.5	-19	Pass
		High 1980 MHz n25 NR30 40W (PCS)	3	-20.6	-19	Pass
	MulitCarrier	Test Case 3	· ·	20.0		1 400
		Low 2125 MHz n66 NR30 20W (AWS)	1	-31.0	-19	Pass
		Low 2125 MHz n66 NR30 20W (AWS)	2	-28.7	-19	Pass
		Low 2125 MHz n66 NR30 20W (AWS)	3	-28.2	-19	Pass
	MulitCarrier	Test Case 4	•			. 200
		High 2185 MHz n66 NR30 20W (AWS)	1	-30.6	-19	Pass
		High 2185 MHz n66 NR30 20W (AWS)	2	-27.8	-19	Pass
		High 2185 MHz n66 NR30 20W (AWS)	3	-27.4	-19	Pass
	MulitCarrier	Test Case 5				
		Low 1932.5 MHz n25 NR5 26.6W (PCS)	1	-26.4	-19	Pass
		Low 1932.5 MHz n25 NR5 26.6W (PCS)	2	-20.3	-19	Pass
		Low 1932.5 MHz n25 NR5 26.6W (PCS)	3	-20.1	-19	Pass
		High 1992.5 MHz n25 NR5 26.6W (PCS)	1	-25.2	-19	Pass
		High 1992.5 MHz n25 NR5 26.6W (PCS)	2	-19.8	-19	Pass
		High 1992.5 MHz n25 NR5 26.6W (PCS)	3	-20.0	-19	Pass
		Low 2112.5 MHz n66 NR5 13.3W (AWS)	1	-28.7	-19	Pass
		Low 2112.5 MHz n66 NR5 13.3W (AWS)	2	-24.0	-19	Pass
		Low 2112.5 MHz n66 NR5 13.3W (AWS)	3	-23.6	-19	Pass
		High 2197.5 MHz n66 NR5 13.3W (AWS)	4	-27.6	-19	Pass
		HIGH 2 197.3 WHZ 1100 INRS 13.3W (AWS)	l l			
		High 2197.5 MHz n66 NR5 13.3W (AWS)	2	-21.9	-19	Pass

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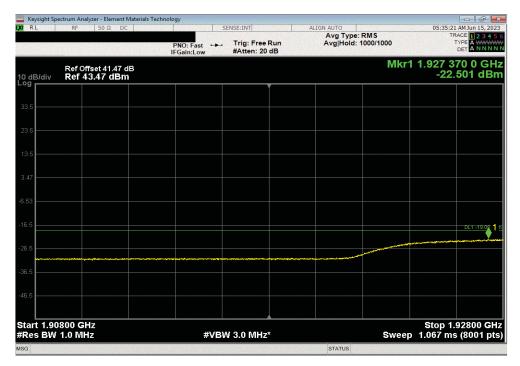


Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 1, Low 1945 MHz n25 NR30 40W (PCS)								
Frequency								
Range					(dBm)	Result		
	2			-32.04	-19	Pass		



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F	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 2, High 1980 MHz n25 NR30 40W (PCS)									
	Frequency									
	Range					(dBm)	Result			
		1			-25.26	-19	Pass			



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Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 2, High 1980 MHz n25 NR30 40W (PCS)

Frequency

Range

(dBm)

(dBm)

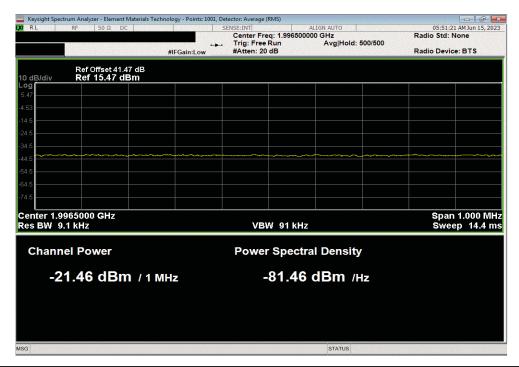
Result

2

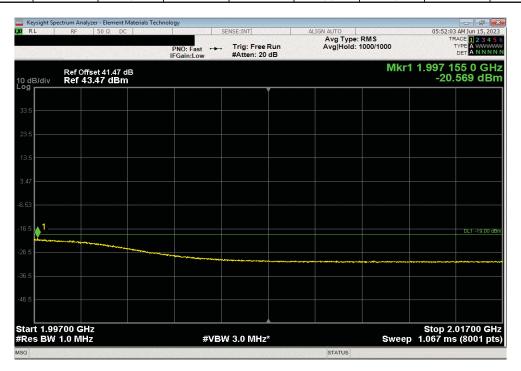
-21.46

-19

Pass



Р	ort 1, NR, PCS Ba	and and AWS Bar	nd, MultiCarrier, C	PSK, MulitCarrie	r Test Case 2, H	igh 1980 MHz n2	5 NR30 40W (PC	S)
		Frequency			Max Value	Limit		
		Range			(dBm)	(dBm)	Result	
1		3			-20.57	-19	Pass	



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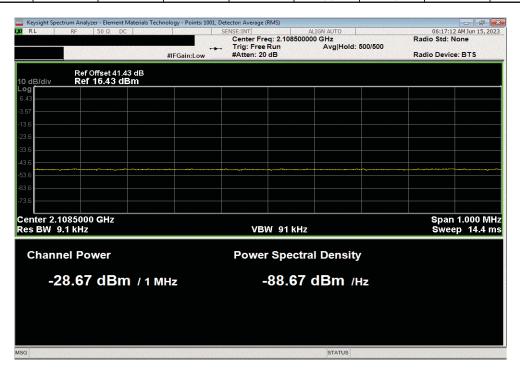


Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 3, Low 2125 MHz n66 NR30 20W (AWS)

Frequency
Max Value
Limit
Range
(dBm)
(dBm)
Result
1
-31.03
-19
Pass



Port 1, NR, PCS Ba	and and AWS Bar	nd, MultiCarrier, C	PSK, MulitCarrie	er Test Case 3, Lo	ow 2125 MHz n66	6 NR30 20W (AW	S)
	Frequency			Max Value	Limit		
	Range			(dBm)	(dBm)	Result	
	2			-28.67	-19	Pass	



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Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 3, Low 2125 MHz n66 NR30 20W (AWS)

Frequency

Range

(dBm)

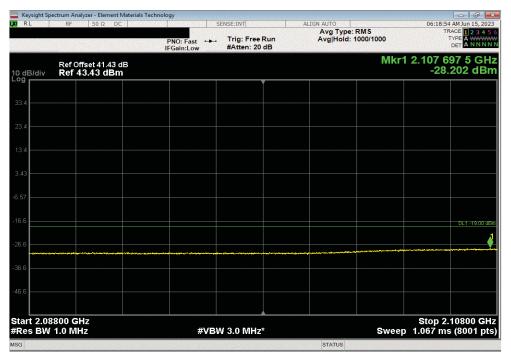
(dBm)

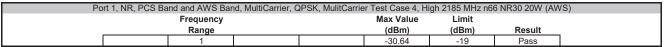
Result

3

-28.20
-19

Pass







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Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 4, High 2185 MHz n66 NR30 20W (AWS)

Frequency

Range

(dBm)

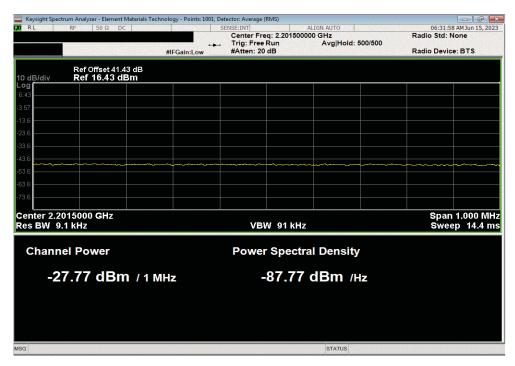
(dBm)

Result

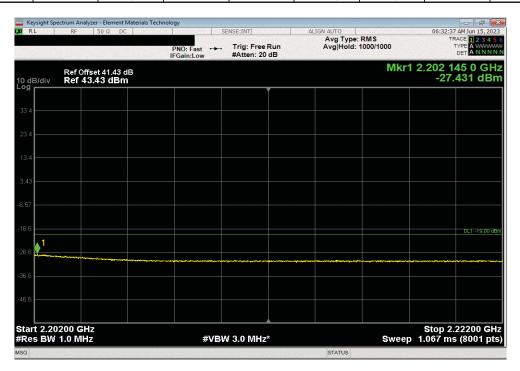
2

-27.77
-19

Pass

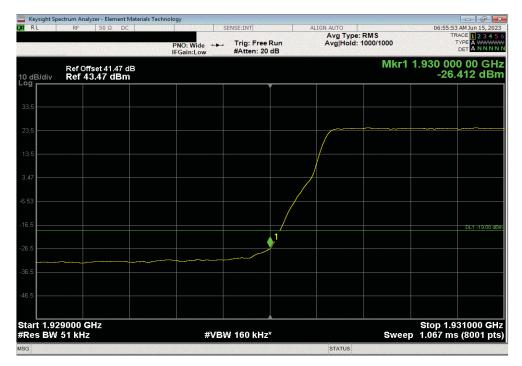


Po	ort 1, NR, PCS Ba	ind and AWS Bar	d, MultiCarrier, C	PSK, MulitCarrie	r Test Case 4, Hi	igh 2185 MHz n60	6 NR30 20W (AW	/S)
	Frequency							
	Range					(dBm)	Result	
		3			-27.43	-19	Pass	

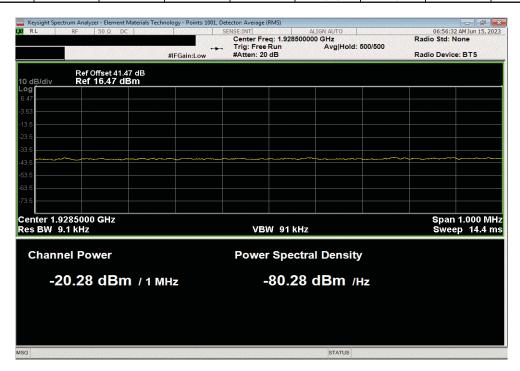


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Por	t 1, NR, PCS Bar	nd and AWS Band	d, MultiCarrier, Q	PSK, MulitCarrie	r Test Case 5, Lo	w 1932.5 MHz n2	5 NR5 26.6W (P	CS)
		Frequency		Max Value	Limit			
		Range			(dBm)	(dBm)	Result	
I		2			-20.28	-19	Pass	



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Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 5, Low 1932.5 MHz n25 NR5 26.6W (PCS)

Frequency

Range

(dBm)

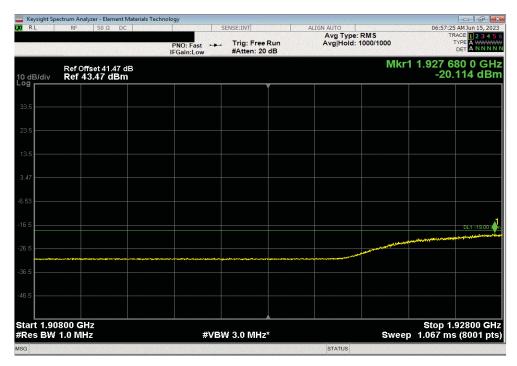
(dBm)

Result

3

-20.11
-19

Pass



Po	rt 1, NR, PCS Bar	nd and AWS Band	l, MultiCarrier, Ql	PSK, MulitCarrier	Test Case 5, Hig	jh 1992.5 MHz n2	25 NR5 26.6W (P	CS)
	Frequency					Limit		
	Range					(dBm)	Result	
i		1			-25.18	-19	Pass	



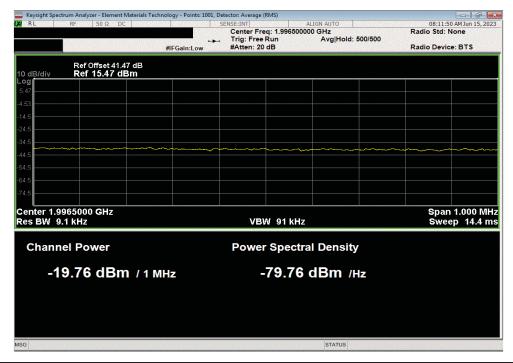
Report No. NOKI0053.0 114/162

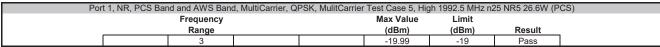


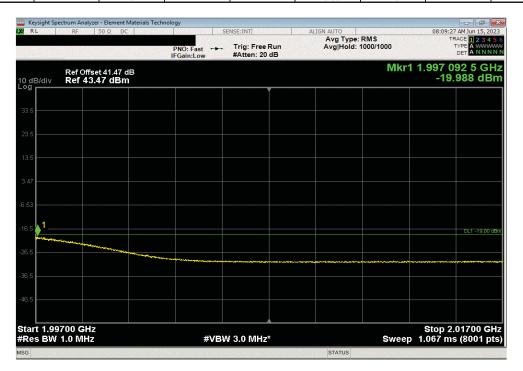
Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 5, High 1992.5 MHz n25 NR5 26.6W (PCS)

Frequency
Max Value
Limit
Range
(dBm)
(dBm)
Result

2
-19.76
-19
Pass







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Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 5, Low 2112.5 MHz n66 NR5 13.3W (AWS)

Frequency

Range

(dBm)

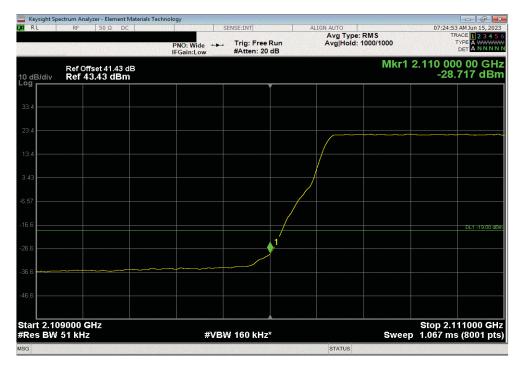
(dBm)

Result

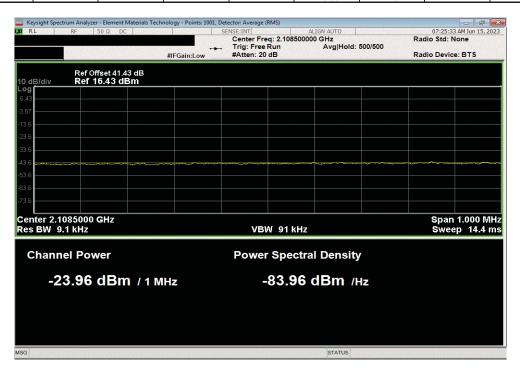
1

-28.72
-19

Pass



Poi	t 1, NR, PCS Bar	id and AWS Band	d, MultiCarrier, Qf	PSK, MulitCarrier	Test Case 5, Lov	v 2112.5 MHz n6	66 NR5 13.3W (A)	NS)	
	Frequency Max Value Limit								
		Range			(dBm)	(dBm)	Result		
		2			-23.96	-19	Pass		



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Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 5, Low 2112.5 MHz n66 NR5 13.3W (AWS)

Frequency

Range

(dBm)

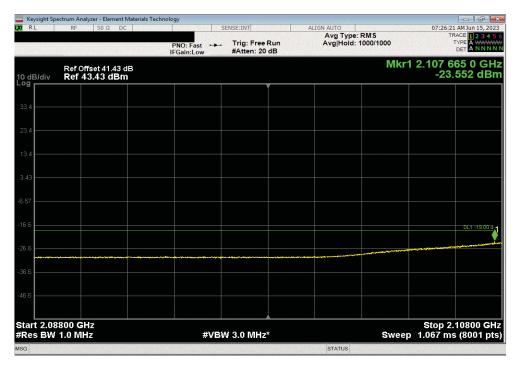
(dBm)

Result

3

-23.55
-19

Pass



Г	Port 1, NR, PCS Band and AWS Band, MultiCarrier, 0	PSK, MulitCarrier	Test Case 5, Hig	jh 2197.5 MHz n6	6 NR5 13.3W (A)	WS)
ı	Frequency	Max Value	Limit			
ı	Range		(dBm)	(dBm)	Result	
ı	1		-27.59	-19	Pass	

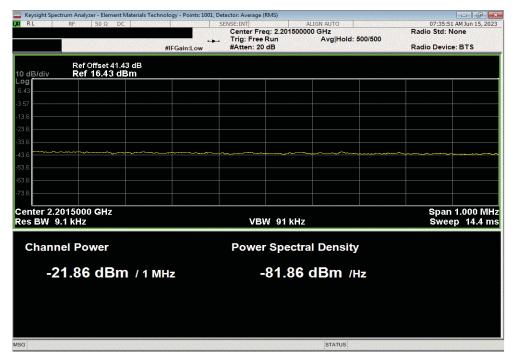


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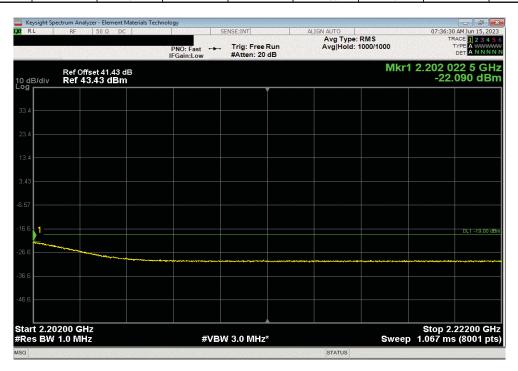


Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, MulitCarrier Test Case 5, High 2197.5 MHz n66 NR5 13.3W (AWS)

Frequency
Range
(dBm)
(dBm)
Result
2
-21.86
-19
Pass



Port	1, NR, PCS Ban	d and AWS Band	, MultiCarrier, QF	PSK, MulitCarrier	Test Case 5, Hig	jh 2197.5 MHz n6	6 NR5 13.3W (A	WS)
		Frequency			Max Value	Limit		
1		Range			(dBm)	(dBm)	Result	
		3			-22.09	-19	Pass	



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XMit 2023.02.14.0

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
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2023-02-09	2024-02-09
Block - DC	Fairview Microwave	SD3235-2148	ANF	2023-05-24	2024-05-24

#### **TEST DESCRIPTION**

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in the available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

All limits were adjusted by a factor of [-10\*log(4)] dB to account for the device operation as a 4 port MIMO transmitter, as per FCC KDB 622911.

Per FCC 24.238(a), the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -19 dBm [-13 dBm -10 log (4)] per FCC KDB 662911D01 v02r01 because the BTS may operate as a 4 port MIMO transmitter.

Per FCC 24.238(b), emissions seen up to 1 MHz outside of authorized operating frequency range band edges shell be measured with a RBW of 1% of the measured emission bandwidth. Any emission seen to be > 1 MHz further outside the band edges shall be measured with a RBW of 1 MHz. However, a narrower RBW of at least 1% of the emission bandwidth is still allowed provided that the measured power is integrated over the full reference bandwidth of 1 MHz.

RF conducted emissions testing was performed 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 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i and 6.4.

The band edge testing was performed using only one modulation type because the Occupied Bandwidth variation between modulation types is small, the average output power variation between modulation types is small, and there was small variation in band edge measurements over modulation types from previous certification testing for other channel bandwidths. (See ANSI C63.26. clause 5.7.2e).

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EUT:						TbtTx 2022.05.02.0	XMit 2023.
	AHFIG (FCC C2PC)				Work Order: N		
	See Configuration		•			6/13/2023	
Customer:	Nokia Solutions and Networks				Temperature: 2		
	John Rattanavong, Mitchell Hill				Humidity: 5		
Project:				Baro	metric Pres.: 1		
	Brandon Hobbs	Power:	54 VDC		Job Site: T	X07	
ST SPECIFICATI	ONS		Test Method				
C 24E:2023			ANSI C63.26:2015				
OMMENTS							
measurement p	ath losses were accounted for in the reference level offes	t including any attenuato	rs, filters and DC blocks. Band r	125 carriers are enabled at ma	ximum power	(80 watts/carrier).	
VIATIONS FROM	I TEST STANDARD						
ne	TEOT OTANDAND						
onfiguration #	NOKI0053-2		1 -1				
, and the second	Signature	7					
	<u> </u>		Frequency	N	/lax Value	Limit	
			Range		(dBm)	(dBm)	Result
	- 1995 MHz, 5G NR		Range		(dBm)	(dBm)	Result
	Port 1		Range		(dBm)	(dBm)	Result
	Port 1 25 MHz Bandwidth		Range		(dBm)	(dBm)	Result
	Port 1  25 MHz Bandwidth  256-QAM Modulation		Range		,	· ·	
	Port 1 25 MHz Bandwidth 256-QAM Modulation Low Channel 1942.5		Range		-27.4	-19	Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5	MHz	Range  1 2		-27.4 -25.2	-19 -19	Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  Low Channel 1942.5	MHz MHz	Range  1 2 3		-27.4 -25.2 -24.8	-19 -19 -19	Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  Low Channel 1942.5  High Channel 1982.	i MHz i MHz i MHz	1 2 3 1 1		-27.4 -25.2 -24.8 -26.0	-19 -19 -19 -19	Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  Low Channel 1942.5  High Channel 1982.  High Channel 1982.	i MHz i MHz i MHz i MHz	1 2 3 1 2		-27.4 -25.2 -24.8 -26.0 -23.5	-19 -19 -19 -19 -19	Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  High Channel 1982.  High Channel 1982.  High Channel 1982.  High Channel 1982.	i MHz i MHz i MHz i MHz	1 2 3 1		-27.4 -25.2 -24.8 -26.0	-19 -19 -19 -19	Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  Low Channel 1942.5  High Channel 1982.  High Channel 1982.  High Channel 1982.  30 MHz Bandwidth	i MHz i MHz i MHz i MHz	1 2 3 1 2		-27.4 -25.2 -24.8 -26.0 -23.5	-19 -19 -19 -19 -19	Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  Low Channel 1942.5  High Channel 1982.  High Channel 1982.  High Channel 1982.  30 MHz Bandwidth  256-QAM Modulation	i MHz i MHz 5 MHz 5 MHz 5 MHz	1 2 3 1 2		-27.4 -25.2 -24.8 -26.0 -23.5 -23.2	-19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.2  Low Channel 1942.2  Low Channel 1942.2  High Channel 1982.  High Channel 1982.  High Channel 1982.  30 MHz Bandwidth  256-QAM Modulation  Low Channel 1945.0	i MHz MHz 5 MHz 5 MHz 5 MHz	1 2 3 1 2 3		-27.4 -25.2 -24.8 -26.0 -23.5 -23.2	-19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  Low Channel 1942.5  High Channel 1982.  High Channel 1982.  High Channel 1982.  July Channel 1982.  30 MHz Bandwidth  256-QAM Modulation  Low Channel 1945.6  Low Channel 1945.6	MHz MHz 5 MHz 5 MHz 5 MHz 9 MHz MHz	1 2 3 1 2		-27.4 -25.2 -24.8 -26.0 -23.5 -23.2	-19 -19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  High Channel 1942.5  High Channel 1982.  High Channel 1982.  High Channel 1982.  One of the channel 1982.  30 MHz Bandwidth  256-QAM Modulation  Low Channel 1945.  Low Channel 1945.  Low Channel 1945.	MHz MHz 5 MHz 5 MHz 6 MHz 6 MHz MHz MHz MHz MHz MHz MHz	1 2 3 1 2 3		-27.4 -25.2 -24.8 -26.0 -23.5 -23.2 -25.8 -24.5 -24.4	-19 -19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  Low Channel 1942.5  High Channel 1982.  High Channel 1982.  High Channel 1982.  July Channel 1982.  30 MHz Bandwidth  256-QAM Modulation  Low Channel 1945.6  Low Channel 1945.6	MHz MHz 5 MHz 5 MHz 6 MHz 6 MHz MHz MHz MHz MHz MHz MHz	1 2 3 1 2 3		-27.4 -25.2 -24.8 -26.0 -23.5 -23.2	-19 -19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 1942.5  Low Channel 1942.5  High Channel 1942.5  High Channel 1982.  High Channel 1982.  High Channel 1982.  One of the channel 1982.  30 MHz Bandwidth  256-QAM Modulation  Low Channel 1945.  Low Channel 1945.  Low Channel 1945.	MHz MHz 5 MHz 5 MHz 6 MHz	1 2 3 1 2 3		-27.4 -25.2 -24.8 -26.0 -23.5 -23.2 -25.8 -24.5 -24.4	-19 -19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass Pass

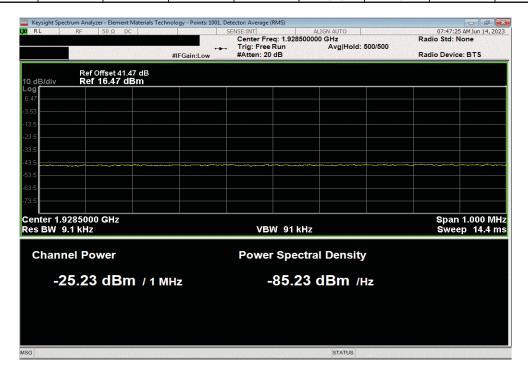
Report No. NOKI0053.0 120/162



Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 256-QAM Modulation, Low Channel 1942.5 MHz
Frequency Max Value Limit
Range (dBm) (dBm) Result
1 -27.42 -19 Pass



	Band n25 1930 N	MHz - 1995 MHz,	5G NR, Port 1, 2	25 MHz Bandwidt	h, 256-QAM Mod	ulation, Low Cha	nnel 1942.5 MHz
		Frequency			Max Value	Limit	
_		Range			(dBm)	(dBm)	Result
i [		2			-25.23	-19	Pass



Report No. NOKI0053.0 121/162

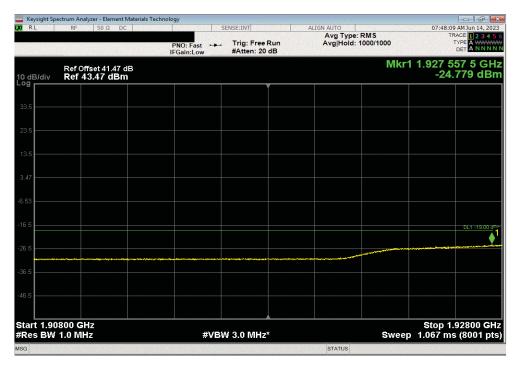


 Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 256-QAM Modulation, Low Channel 1942.5 MHz

 Frequency
 Max Value
 Limit

 Range
 (dBm)
 (dBm)
 Result

 3
 -24.78
 -19
 Pass



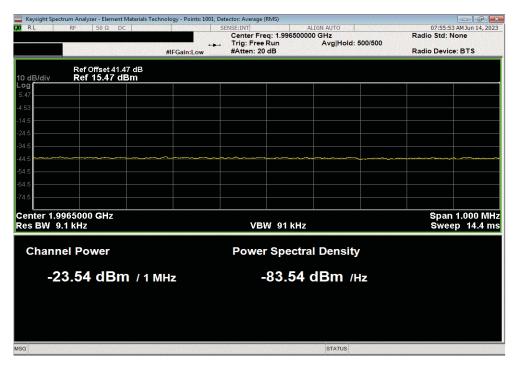
	Band n25 1930 N	//Hz - 1995 MHz,	5G NR , Port 1, 2	5 MHz Bandwidt	h, 256-QAM Mod	ulation, High Cha	nnel 1982.5 MHz	
		Frequency			Max Value	Limit		
		Range			(dBm)	(dBm)	Result	
i		1			-25.97	-19	Pass	



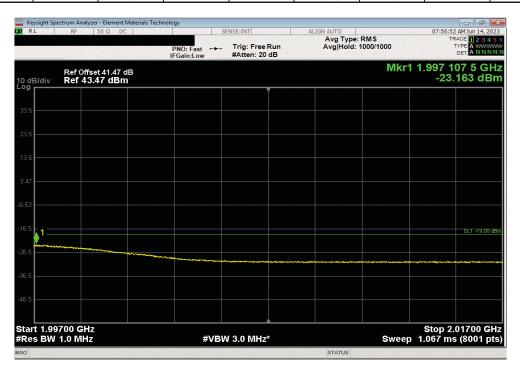
Report No. NOKI0053.0 122/162



Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 256-QAM Modulation, High Channel 1982.5 MHz
Frequency Max Value Limit
Range (dBm) (dBm) Result
2 -23.54 -19 Pass



	Band n25 1930 N	ИНz - 1995 МНz,	5G NR , Port 1, 2	5 MHz Bandwidt	h, 256-QAM Mod	ulation, High Cha	nnel 1982.5 MHz	
		Frequency			Max Value	Limit		
		Range			(dBm)	(dBm)	Result	
l í		3			-23.16	-19	Pass	



Report No. NOKI0053.0 123/162



 Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Low Channel 1945.0 MHz

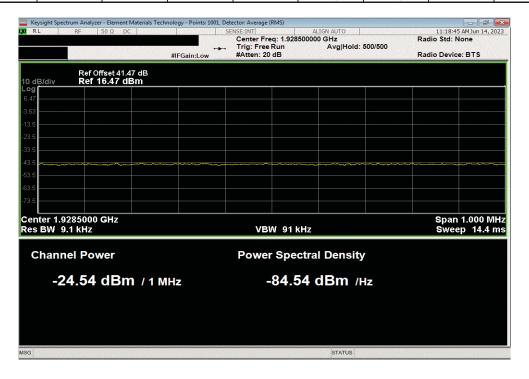
 Frequency
 Max Value
 Limit

 Range
 (dBm)
 (dBm)
 Result

 1
 -25.81
 -19
 Pass



E	Band n25 1930 N	MHz - 1995 MHz,	5G NR , Port 1, 3	30 MHz Bandwidt	h, 256-QAM Mod	lulation, Low Cha	nnel 1945.0 MHz	
		Frequency			Max Value	Limit		
<u> </u>		Range			(dBm)	(dBm)	Result	
i ſ		2			-24.54	-19	Pass	



Report No. NOKI0053.0 124/162

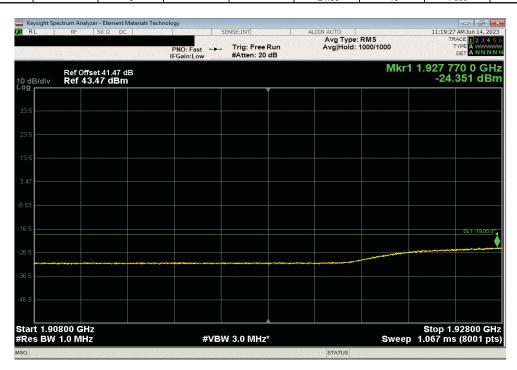


 Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Low Channel 1945.0 MHz

 Frequency
 Max Value
 Limit

 Range
 (dBm)
 (dBm)
 Result

 3
 -24.35
 -19
 Pass



Band n25 1930 N	ИНz - 1995 МНz,	5G NR , Port 1, 3	0 MHz Bandwidt	h, 256-QAM Mod	ulation, High Cha	nnel 1980.0 MHz	
	Frequency			Max Value	Limit		
	Range			(dBm)	(dBm)	Result	
	1			-25.38	-19	Pass	



Report No. NOKI0053.0 125/162

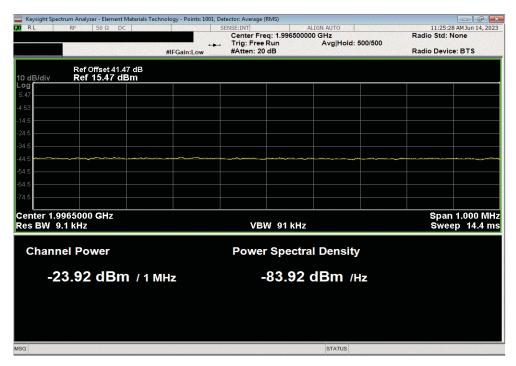


 Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, High Channel 1980.0 MHz

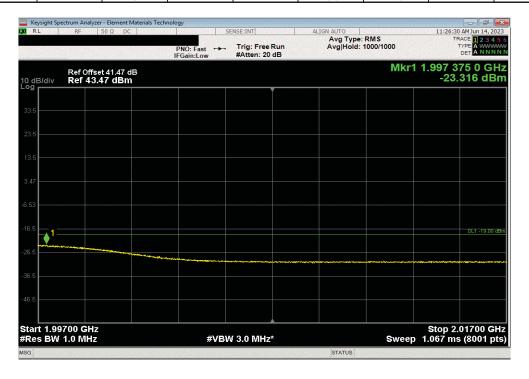
 Frequency
 Max Value
 Limit

 Range
 (dBm)
 (dBm)
 Result

 2
 -23.92
 -19
 Pass



	Band n25 1930 MHz - 1995 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, High Channel 1980.0 MHz							
		Frequency			Max Value	Limit		
_		Range			(dBm)	(dBm)	Result	
1		3			-23.32	-19	Pass	



Report No. NOKI0053.0 126/162



XMit 2023.02.14.0

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
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2023-02-09	2024-02-09
Block - DC	Fairview Microwave	SD3235-2148	ANF	2023-05-24	2024-05-24

#### **TEST DESCRIPTION**

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in the available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

RF conducted emissions 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 original certification testing) and antenna port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i and 6.4.

All limits were adjusted by a factor of [-10\*log(4)] dB to account for the device operation as a 4 port MIMO transmitter, as per FCC KDB 622911

Per section FCC 27.53(h)(1), the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -19 dBm [-13 dBm -10 log (4)] per FCC KDB 662911D01 v02r01 because the BTS may operate as a 4 port MIMO transmitter.

The RBW to be used for these measurements are per 27.53(h)(3). Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The requirements for FCC/IC measurements are detailed in KDB971168 D01 v03r01 and ANSI 63.26.

The band edge testing was performed using only one modulation type because the Occupied Bandwidth variation between modulation types is small, the average output power variation between modulation types is small, and there was small variation in band edge measurements over modulation types from previous certification testing for other channel bandwidths. (See ANSI C63.26. clause 5.7.2e).

Report No. NOKI0053.0 127/162



EUT:				TbtTx 2022.05.02.0	XMit 2023.0
	AHFIG (FCC C2PC)		Work Order: N		
	See Configuration			6/13/2023	·
Customer:	Nokia Solutions and Networks		Temperature: 2		
	John Rattanavong, Mitchell Hill		Humidity: 5		
Project:			Barometric Pres.: 1		
	Brandon Hobbs	Power: 54 VDC	Job Site: T	X07	
EST SPECIFICATION	ONS	Test Method			
CC 27:2023		ANSI C63.26:2015			
OMMENTS					
measurement pa	ath losses were accounted for in the reference level offest inclu	iding any attenuators, filters and DC blocks. Band n66	6 carriers are enabled at maximum power (4	10 watts/carrier).	
THATIONS FROM	TEGT OTANDARD				
EVIATIONS FROM one	TEST STANDARD				
ne					
onfiguration #	NOKI0053-2	2 /1 1			
oilinguration #	Signature Signature	The House of the H			
	Signature	Frequency	Max Value	Limit	
		rrequericy			
		Range	(dBm)	< (dBm)	Result
nd n66 2110 MHz	- 2200 MHz 5G NR	Range	(dBm)	< (dBm)	Result
	- 2200 MHz, 5G NR Port 1	Range	(dBm)	< (dBm)	Result
	Port 1	Range	(dBm)	< (dBm)	Result
		Range	(dBm)	< (dBm)	Result
	Port 1 25 MHz Bandwidth	_	(dBm)	< (dBm)	Result
	Port 1 25 MHz Bandwidth 256-QAM Modulation	1	, ,	· ·	
	Port 1 25 MHz Bandwidth 256-QAM Modulation Low Channel 2122.5 MHz	1 2	-29.9	-19	Pass
	Port 1    25 MHz Bandwidth   256-QAM Modulation   Low Channel 2122.5 MHz   Low Channel 2122.5 MH	1 2 3	-29.9 -28.1	-19 -19	Pass Pass
	Port 1  25 MHz Bandwidth 256-QAM Modulation Low Channel 2122.5 MHz Low Channel 2122.5 MHz Low Channel 2122.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz	1 2 3 1 1 2	-29.9 -28.1 -27.5 -20.4 -27.1	-19 -19 -19	Pass Pass Pass
	Port 1  25 MHz Bandwidth 256-QAM Modulation Low Channel 2122.5 MHz Low Channel 2122.5 MHz Low Channel 2122.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz	1 2 3 1 1 2	-29.9 -28.1 -27.5 -20.4	-19 -19 -19 -19	Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 2122.5 MHz Low Channel 2122.5 MHz Low Channel 2122.5 MHz High Channel 2187.5 MHz	1 2 3 1 1 2	-29.9 -28.1 -27.5 -20.4 -27.1	-19 -19 -19 -19 -19	Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth 256-QAM Modulation Low Channel 2122.5 MHz Low Channel 2122.5 MHz Low Channel 2122.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz 30 MHz Bandwidth 256-QAM Modulation	1 2 3 1 1 2	-29.9 -28.1 -27.5 -20.4 -27.1 -27.1	-19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 2122.5 MHz  Low Channel 2122.5 MHz  Low Channel 2122.5 MHz  High Channel 2187.5 MHz  High Channel 2187.5 MHz  High Channel 2187.5 MHz  High Channel 2187.5 MHz  A	1 2 3 : 1 : 2 : 3	-29.9 -28.1 -27.5 -20.4 -27.1 -27.1	-19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth 256-QAM Modulation Low Channel 2122.5 MHz Low Channel 2122.5 MHz Low Channel 2122.5 MHz Low Channel 2122.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz Wigh Channel 2187.5 MHz Low Channel 2125 MHz Low Channel 2125 MHz Low Channel 2125 MHz	1 2 3 1 1 2	-29.9 -28.1 -27.5 -20.4 -27.1 -27.1	-19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 2122.5 MHz  Low Channel 2122.5 MHz  Low Channel 2122.5 MHz  High Channel 2187.5 MHz  High Channel 2187.5 MHz  High Channel 2187.5 MHz  High Channel 2187.5 MHz  Low Channel 2125 MHz  Low Channel 2125 MHz  Low Channel 2125 MHz  Low Channel 2125 MHz	1 2 3 : 1 : 2 : 3	-29.9 -28.1 -27.5 -20.4 -27.1 -27.1 -29.3 -28.5 -28.2	-19 -19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 2122.5 MHz Low Channel 2122.5 MHz Low Channel 2122.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz High Channel 2187.5 MHz So MHz Bandwidth  256-QAM Modulation  Low Channel 2125 MHz Low Channel 2125 MHz Low Channel 2125 MHz Low Channel 2125 MHz High Channel 2185 MHz	1 2 3 1 2 2 3	-29.9 -28.1 -27.5 -20.4 -27.1 -27.1 -29.3 -28.5 -28.2 -29.3	-19 -19 -19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass Pass Pass
	Port 1  25 MHz Bandwidth  256-QAM Modulation  Low Channel 2122.5 MHz  Low Channel 2122.5 MHz  Low Channel 2122.5 MHz  High Channel 2187.5 MHz  High Channel 2187.5 MHz  High Channel 2187.5 MHz  High Channel 2187.5 MHz  Low Channel 2125 MHz  Low Channel 2125 MHz  Low Channel 2125 MHz  Low Channel 2125 MHz	1 2 3 1 2 2 3	-29.9 -28.1 -27.5 -20.4 -27.1 -27.1 -29.3 -28.5 -28.2	-19 -19 -19 -19 -19 -19 -19	Pass Pass Pass Pass Pass Pass

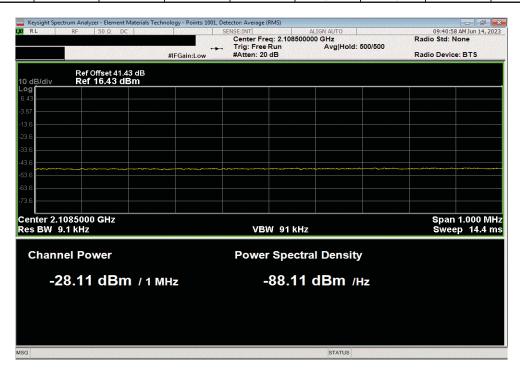
Report No. NOKI0053.0 128/162



Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 256-QAM Modulation, Low Channel 2122.5 MHz
Frequency Max Value Limit
Range (dBm) < (dBm) Result
1 -29.92 -19 Pass



Band n66 2110 MHz - 2200 MHz, 5G NR, Port 1, 25 MHz Bandwidth, 256-QAM Modulation, Low Channel 2122.5 MHz						
	Frequency			Max Value	Limit	
	Range			(dBm)	< (dBm)	Result
	2			-28.11	-19	Pass



Report No. NOKI0053.0 129/162

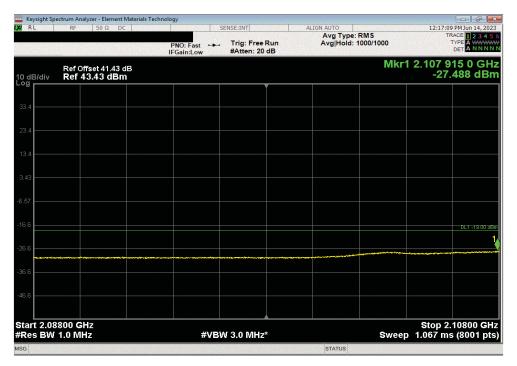


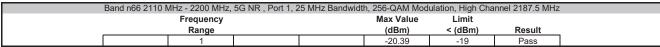
 Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 256-QAM Modulation, Low Channel 2122.5 MHz

 Frequency
 Max Value
 Limit

 Range
 (dBm)
 < (dBm)</th>
 Result

 3
 -32.92
 -19
 Pass





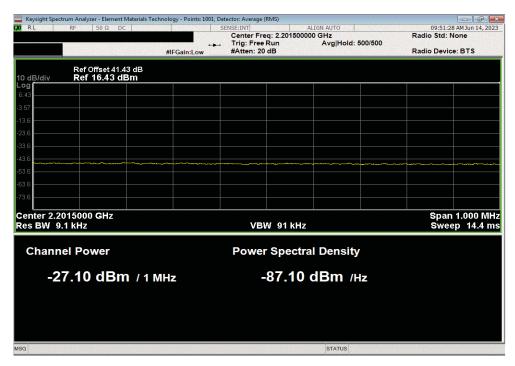


Report No. NOKI0053.0 130/162

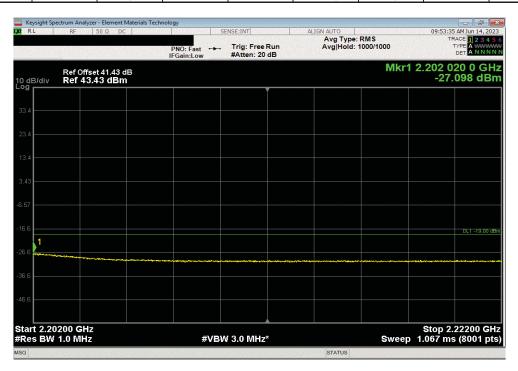


Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 256-QAM Modulation, High Channel 2187.5 MHz

Frequency
Range
(dBm) < (dBm)
Result
2 -27.10 -19 Pass



	Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 25 MHz Bandwidth, 256-QAM Modulation, High Channel 2187.5 MHz						
		Frequency			Max Value	Limit	
		Range			(dBm)	< (dBm)	Result
1 [		3			-27.10	-19	Pass



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Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Low Channel 2125 MHz

Frequency

Range

(dBm)

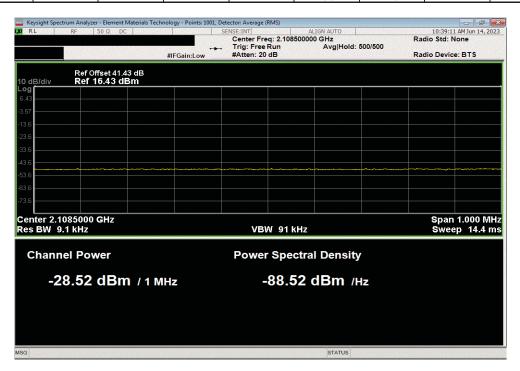
-29.26

-19

Pass

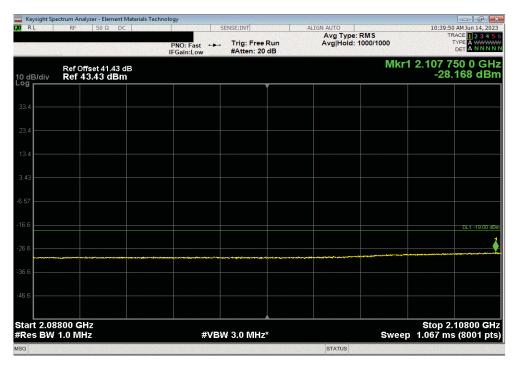


	Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Low Channel 2125 MHz						
		Frequency			Max Value	Limit	
		Range			(dBm)	< (dBm)	Result
1		2			-28.52	-19	Pass



Report No. NOKI0053.0 132/162





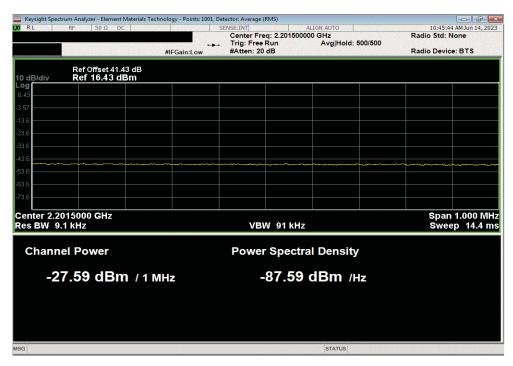
Band n66 2110	MHz - 2200 MHz,	h, 256-QAM Modulation, High Channel 2185 MHz			
	Frequency		Max Value	Limit	
	Range		(dBm)	< (dBm)	Result
	1	_	-29.27	-19	Pass



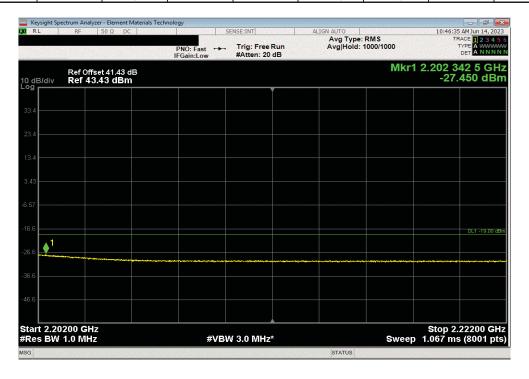
Report No. NOKI0053.0 133/162



Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, High Channel 2185 MHz
Frequency Max Value Limit
Range (dBm) < (dBm) Result
2 -27.59 -19 Pass



Band n66 2110	Band n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 30 MHz Bandwidt				th, 256-QAM Modulation, High Channel 2185 MHz			
	Frequency			Max Value	Limit			
	Range			(dBm)	< (dBm)	Result		
	3			-27.45	-19	Pass		



Report No. NOKI0053.0 134/162



XMit 2023.02.14.0

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	Keysight	N9010A	AFQ	2023-02-09	2024-02-09
Block - DC	Fairview Microwave	SD3379	AMM	2022-09-09	2023-09-09
Block - DC	Fairview Microwave	SD3235-2148	ANF	2023-05-24	2024-05-24
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17

#### **TEST DESCRIPTION**

The antenna port spurious emissions were measured at the RF output terminal of the EUT through 4 different attenuation configurations which continues through to the RF input of the spectrum analyzer. Analyzer plots utilizing a resolution bandwidth called out by the client's test plan were made for each modulation type from 9 KHz to 22 GHz. The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than the limits also called out by the client's test plan shown below.

The measurement methods are detailed in KDB971168 D01v03 section 6 and ANSI C63.26-2015.

Per FCC 2.1057(a)(1), the upper level of measurement is the 10th harmonic of the highest fundamental frequency.

These measurements are for frequency band after the first 1.0 MHz bands immediately outside and adjacent to the frequency block.

Per section FCC 24.238(a) and FCC 27.53 (h) (1), the power of any emission outside of the authorized operating frequency range cannot exceed -13sBm for a 1 MHz measurement bandwidth. The limit is adjusted to -19dBm [-13 dBm -10log (4)] per FCC KDB 662911D01v02r01 because the BTS may operate as a 4 port MIMO.

RF conducted emissions testing was performed on one port. The AHFIG antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in original certification report) and port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i and 6.4.

The limit for the 9kHz to 150kHz frequency range was adjusted to –49dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 1MHz [i.e.: -49dBm = -19dBm -10log(1MHz/1kHz)]. The limit for the 150kHz to 20MHz frequency range was adjusted to –39dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 1MHz [i.e.: -39dBm = -19dBm -10log(1MHz/10kHz)]. The required limit of -19dBm with a RBW of > 1MHz was used for all other frequency ranges.

The spurious emission testing was performed using only one modulation type because the Occupied Bandwidth variation between modulation types is small, the average output power variation between modulation types is small, and there is significant passing. (See ANSI C63.26. clause 5.7.2e).

Report No. NOKI0053.0 135/162

MultiCarrier Test Case 5

MultiCarrier Test Case 5



EUT: AHFIG (FCC C2PC) Work Order: NOKI0053 Serial Number: See Configuration
Customer: Nokia Solutions and Networks Date: 06/14/2023 21.6°C Temperature: Attendees: John Rattanavong, Mitchell Hill Humidity: 61.7% Barometric Pres.: 1006 mba Project: None Tested by: Brandon Hobbs
TEST SPECIFICATIONS Power: 54 VDC
Test Method Job Site: TX07 FCC 24E:2023 COMMENTS All measurement path losses were accounted for in the reference level offest including any attenuators, filters and DC blocks. Multi carrier test case 1 and 2: The carriers are operated at maximum power (40W/PCS carrier and 40W/AWS carrier) with a total port power of 120 watts. Multi carrier test case 3 and 4: The carriers are operated at maximum power (~20W/AWS carrier and 80W/PCS carrier) with a total port power of 120 watts. Multi carrier test case 5: The carriers are operated at maximum power (~13.3W/AWS carrier and ~26.6W/PCS carrier) with a total port power of 120 watts DEVIATIONS FROM TEST STANDARD NOKI0053-1 NOKI0053-2 Configuration # NOKI0053-3 Signature NOKI0053-4 Frequency Measured Max Value Limit (dBm) < (dBm) Result Range Freq (MHz) Port 1, NR, PCS Band and AWS Band, MultiCarrier QPSK 9 kHz - 150 kHz MultiCarrier Test Case 1 0.13 -61.3 -49 Pass MultiCarrier Test Case 150 kHz - 20 MHz Pass MultiCarrier Test Case 1 20 MHz - 3.5 GHz 3117.20 -26.4 -19 Pass MultiCarrier Test Case 1 1900 MHz - 2500 GHz 2201.70 -27.7 -19 Pass MultiCarrier Test Case 1 3.5 GHz - 13 GHz 4037.23 -49.1 -19 Pass MultiCarrier Test Case 13 GHz - 22 GHz -31.9 Pass MultiCarrier Test Case 2 9 kHz - 150 kHz 0.13 -61.5 -49 Pass -39 -19 MultiCarrier Test Case 2 150 kHz - 20 MHz -56.6 Pass MultiCarrier Test Case 2 20 MHz - 3.5 GHz 3139.39 -26.5 Pass MultiCarrier Test Case 2 1900 MHz - 2500 GHz Pass MultiCarrier Test Case 2 3.5 GHz - 13 GHz 4002.08 -49.2 -19 Pass MultiCarrier Test Case 2 13 GHz - 22 GHz 21652.15 -32.0 -19 Pass MultiCarrier Test Case 3 9 kHz - 150 kHz 0.13 -66.3 -49 Pass MultiCarrier Test Case 3 150 kHz - 20 MHz MultiCarrier Test Case 3 20 MHz - 3.5 GHz 3106.30 -26.5 -19 Pass MultiCarrier Test Case 3 1900 MHz - 2500 GHz 2230.44 -28.0 -19 Pass MultiCarrier Test Case 3 3.5 GHz - 13 GHz 5886.40 -39.9 -19 Pass 13 GHz - 22 GHz MultiCarrier Test Case 3 Pass 9 kHz - 150 kHz MultiCarrier Test Case 4 0.13 -60.9 -49 Pass -39 -19 MultiCarrier Test Case 4 150 kHz - 20 MHz Pass MultiCarrier Test Case 4 20 MHz - 3.5 GHz 3175.06 -26.3 Pass MultiCarrier Test Case 4 1900 MHz - 2500 GHz -27.8 Pass MultiCarrier Test Case 4 3.5 GHz - 13 GHz 5887.35 -46.8 -19 Pass 13 GHz - 22 GHz 21990.55 -31.9 -19 Pass MultiCarrier Test Case 5 9 kHz - 150 kHz 0.13 -61.2 -49 Pass MultiCarrier Test Case 5 150 kHz - 20 MHz 8.71 Pass MultiCarrier Test Case 5 20 MHz - 3.5 GHz 3191.59 -26.5 -19 Pass 1900 MHz - 2500 GHz 2230.44 -27.9 -19 MultiCarrier Test Case 5 Pass

3.5 GHz - 13 GHz

4016.80

-49.4

-19

Pass

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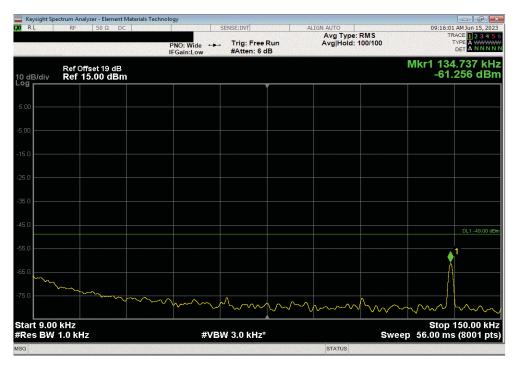


 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 1

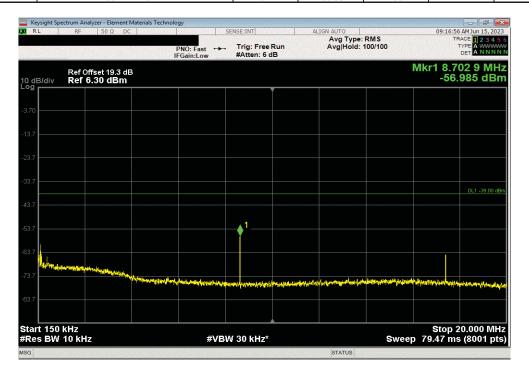
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 9 kHz - 150 kHz
 0.13
 -61.26
 -49
 Pass



	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 1						
	Frequency	Measured	Max Value	Limit			
_	Range	Freq (MHz)	(dBm)	< (dBm)	Result		
. [	150 kHz - 20 MHz	8.7	-56.99	-39	Pass		



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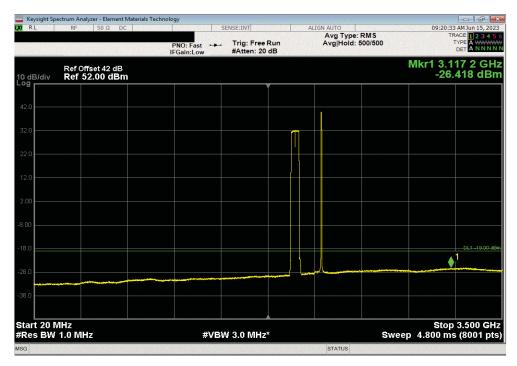


 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 1

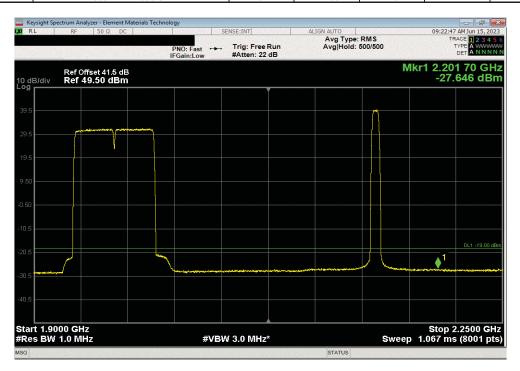
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 20 MHz - 3.5 GHz
 3117.2
 -26.42
 -19
 Pass



Port 1, NR, PCS Band and AWS I	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 1						
Frequency	Measured	Max Value	Limit				
Range	Freq (MHz)	(dBm)	< (dBm)	Result			
1900 MHz - 2500 GHz	2201.7	-27.65	-19	Pass			



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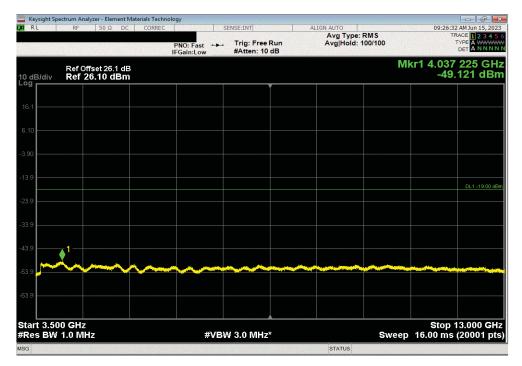


Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 1

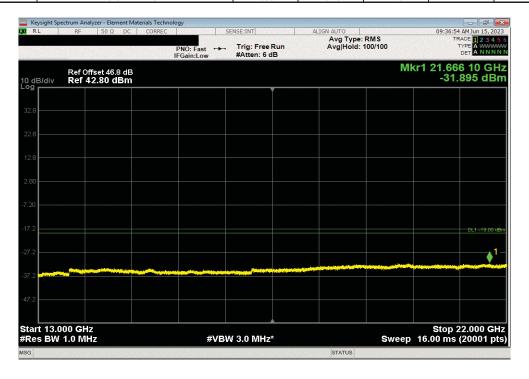
Frequency Measured Max Value Limit

Range Freq (MHz) (dBm) < (dBm) Result

3.5 GHz - 13 GHz 4037.23 -49.12 -19 Pass



	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 1					
	Frequency	Measured	Max Value	Limit		
	Range	Freq (MHz)	(dBm)	< (dBm)	Result	
l – – – – –	13 GHz - 22 GHz	21666.1	-31.9	-19	Pass	



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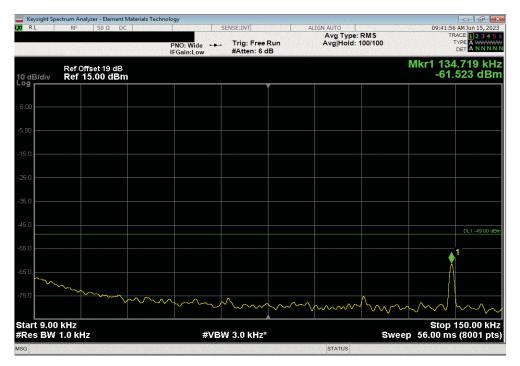


 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 2

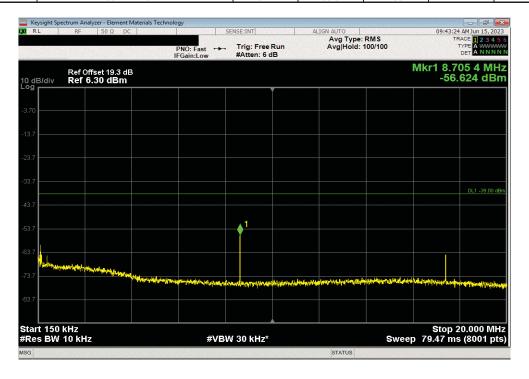
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 9 kHz - 150 kHz
 0.13
 -61.52
 -49
 Pass



	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 2					
	Frequency	Measured	Max Value	Limit		
	Range	Freq (MHz)	(dBm)	< (dBm)	Result	
i	150 kHz - 20 MHz	8.71	-56.62	-39	Pass	



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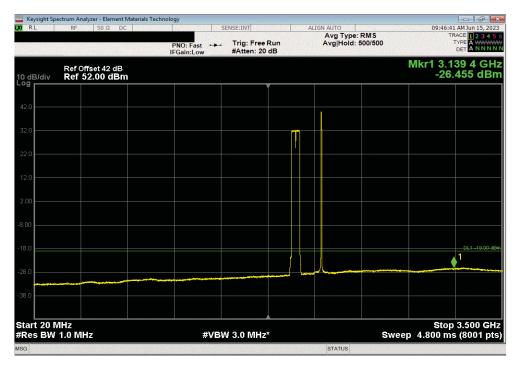


 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 2

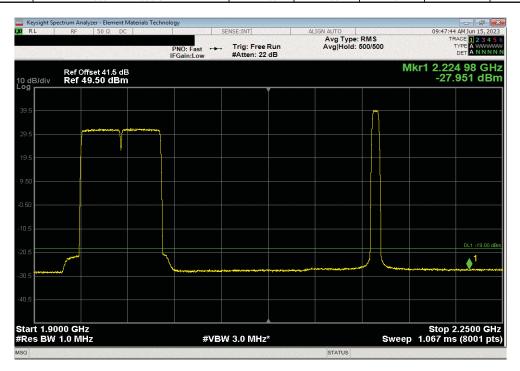
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 20 MHz - 3.5 GHz
 3139.39
 -26.46
 -19
 Pass



Port 1, NR, PCS Band and AWS B	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 2					
Frequency	Measured	Max Value	Limit			
Range	Freq (MHz)	(dBm)	< (dBm)	Result		
1900 MHz - 2500 GHz	2224.98	-27.95	-19	Pass		



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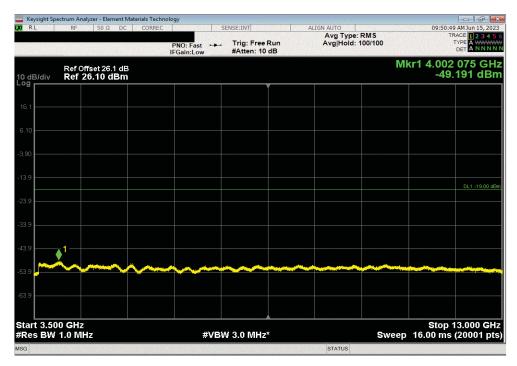


 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 2

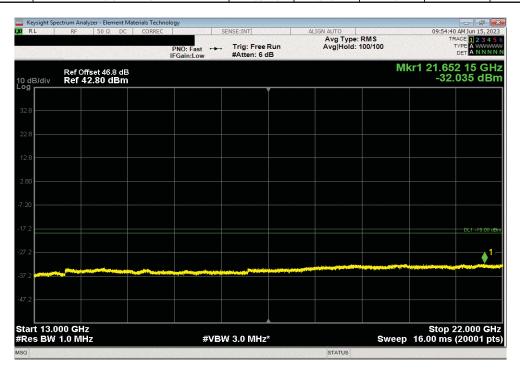
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 3.5 GHz - 13 GHz
 4002.08
 -49.19
 -19
 Pass



Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 2					
Frequency	Measured	Max Value	Limit		
 Range	Freq (MHz)	(dBm)	< (dBm)	Result	
13 GHz - 22 GHz	21652.15	-32.04	-19	Pass	



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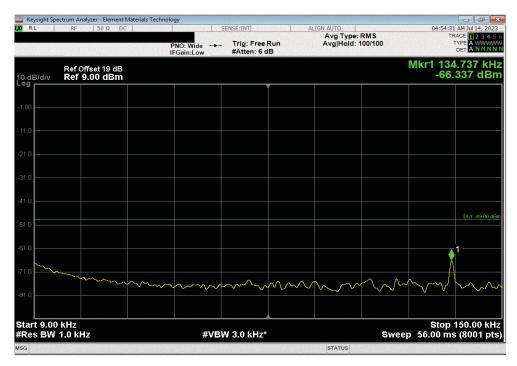


 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 3

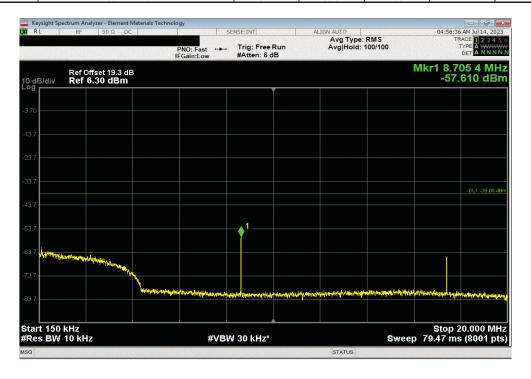
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 9 kHz - 150 kHz
 0.1347
 -66.34
 -49
 Pass



Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 3					
Frequency	Measured	Max Value	Limit		
 Range	Freq (MHz)	(dBm)	< (dBm)	Result	
150 kHz - 20 MHz	8.71	-56.61	-39	Pass	



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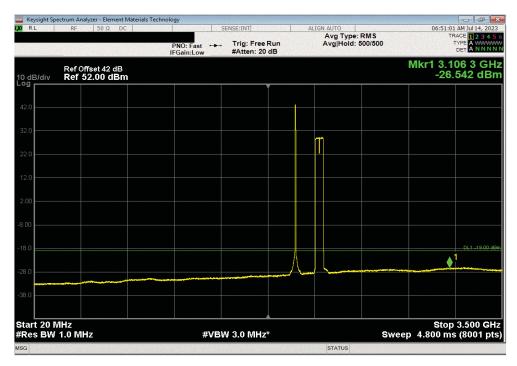


 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 3

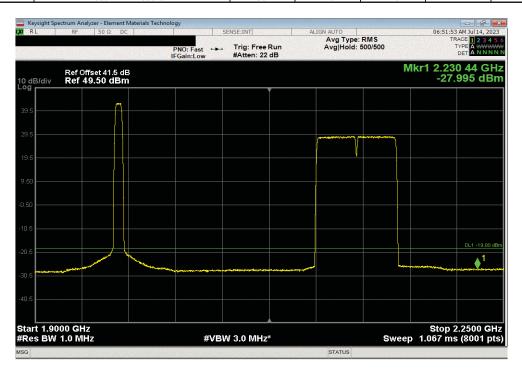
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 20 MHz - 3.5 GHz
 3106.3
 -26.54
 -19
 Pass



Port 1, NR, PCS Band and AWS B	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 3					
Frequency	Measured	Max Value	Limit			
Range	Freq (MHz)	(dBm)	< (dBm)	Result		
1900 MHz - 2500 GHz	2230.44	-28	-19	Pass		



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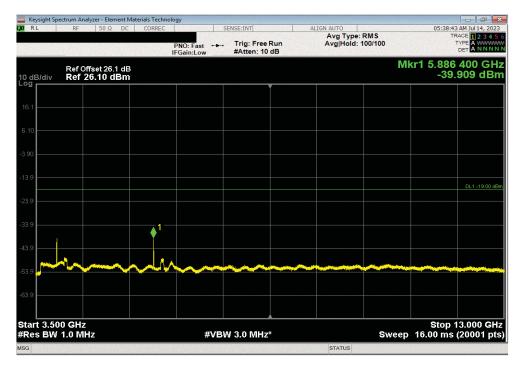


Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 3

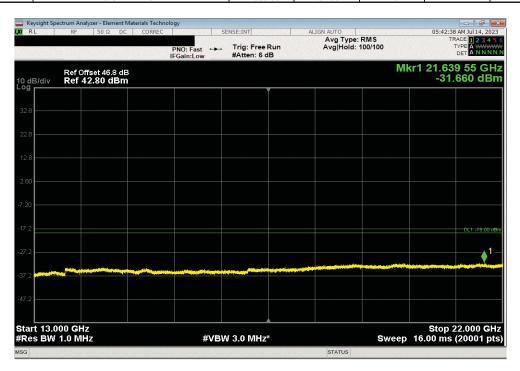
Frequency Measured Max Value Limit

Range Freq (MHz) (dBm) < (dBm) Result

3.5 GHz - 13 GHz 5886.4 -39.91 -19 Pass



Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 3					
Frequency	Measured	Max Value	Limit		
 Range	Freq (MHz)	(dBm)	< (dBm)	Result	
13 GHz - 22 GHz	21639.55	-31.66	-19	Pass	



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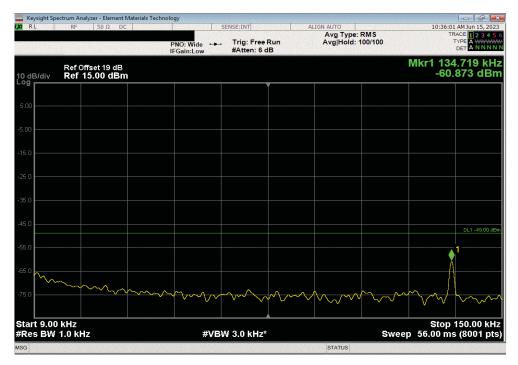


 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 4

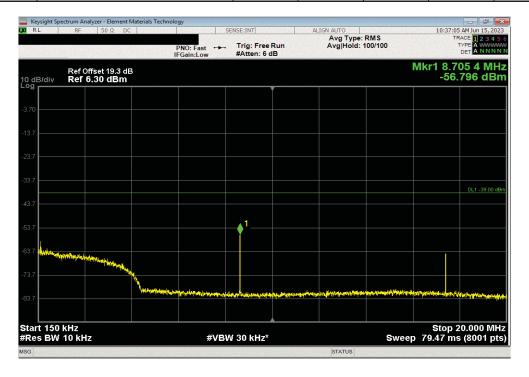
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 9 kHz - 150 kHz
 0.13
 -60.87
 -49
 Pass



	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 4					
	Frequency	Measured	Max Value	Limit		
_	Range	Freq (MHz)	(dBm)	< (dBm)	Result	
ĺ	150 kHz - 20 MHz	8.71	-56.8	-39	Pass	



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 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 4

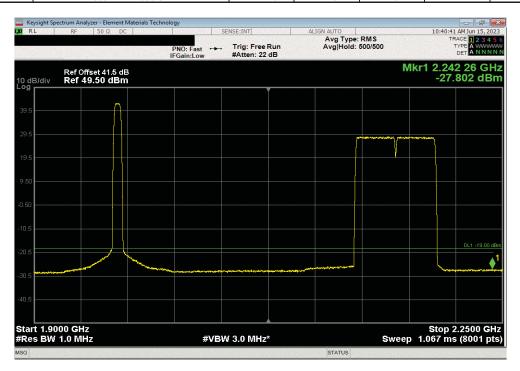
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 20 MHz - 3.5 GHz
 3175.06
 -26.33
 -19
 Pass



Port 1, NR, PCS Band and AWS Ba	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 4					
Frequency	Measured	Max Value	Limit			
Range	Freq (MHz)	(dBm)	< (dBm)	Result		
1900 MHz - 2500 GHz	2242.26	-27.8	-19	Pass		



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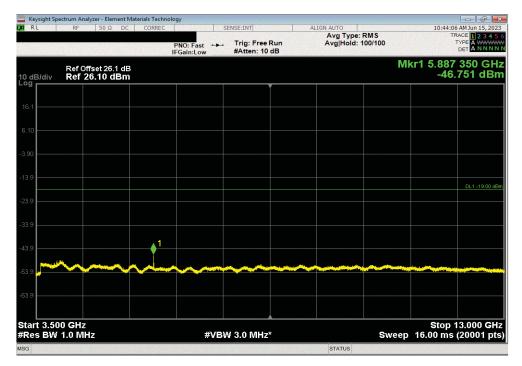


 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 4

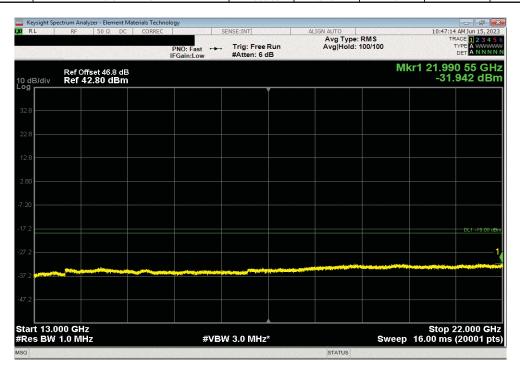
 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 3.5 GHz - 13 GHz
 5887.35
 -46.75
 -19
 Pass



	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 4					
	Frequency	Measured	Max Value	Limit		
_	Range	Freq (MHz)	(dBm)	< (dBm)	Result	
1	13 GHz - 22 GHz	21990.55	-31.94	-19	Pass	



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 Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 5

 Frequency
 Measured
 Max Value
 Limit

 Range
 Freq (MHz)
 (dBm)
 < (dBm)</th>
 Result

 9 kHz - 150 kHz
 0.13
 -61.18
 -49
 Pass



Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 5					
Frequency	Measured	Max Value	Limit		
 Range	Freq (MHz)	(dBm)	< (dBm)	Result	
150 kHz - 20 MHz	8.71	-57.06	-39	Pass	



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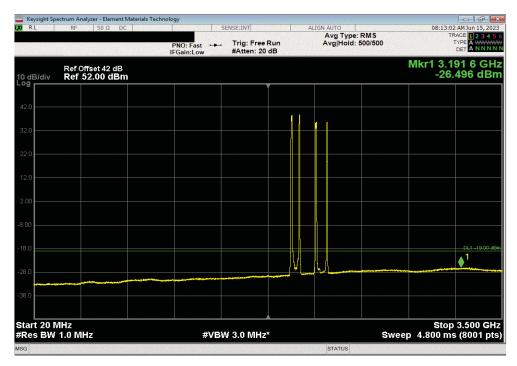


Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 5

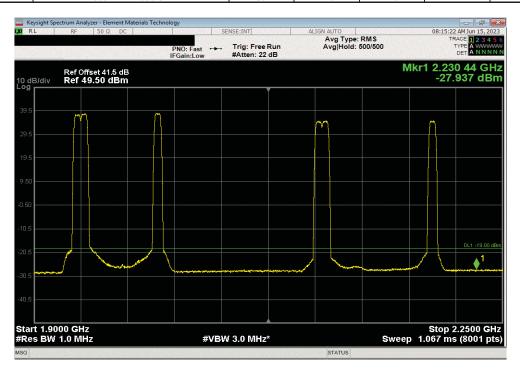
Frequency Measured Max Value Limit

Range Freq (MHz) (dBm) < (dBm) Result

20 MHz - 3.5 GHz 3191.59 -26.5 -19 Pass

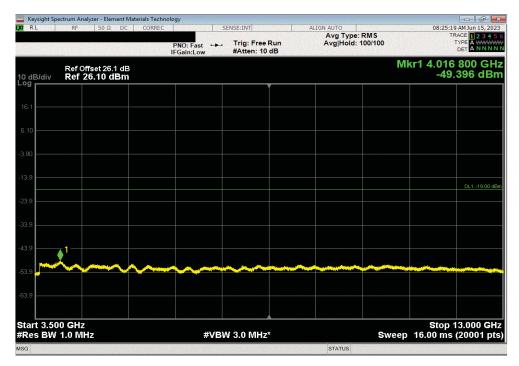


Port 1, NR, PCS Band and AWS Bar	Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 5					
Frequency	Measured	Max Value	Limit			
Range	Freq (MHz)	(dBm)	< (dBm)	Result		
1900 MHz - 2500 GHz	2230.44	-27.94	-19	Pass		

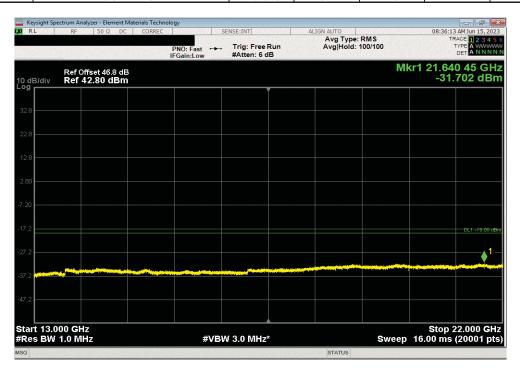


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Port 1, NR, PCS Band and AWS Band, MultiCarrier, QPSK, Mid, MultiCarrier Test Case 5						
Frequency	Measured	Max Value	Limit			
 Range	Freq (MHz)	(dBm)	< (dBm)	Result		
13 GHz - 22 GHz	21640.45	-31.7	-19	Pass		



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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
Block - DC	Fairview Microwave	SD3379	AMM	2022-09-09	2023-09-09
Block - DC	Fairview Microwave	SD3235-2148	ANF	2023-05-24	2024-05-24
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2023-02-09	2024-02-09
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17

#### **TEST DESCRIPTION**

The antenna port spurious emissions were measured at the RF output terminal of the EUT through 4 different attenuation configurations which continues through to the RF input of the spectrum analyzer. Analyzer plots utilizing a resolution bandwidth called out by the client's test plan were made for each modulation type from 9 KHz to 22 GHz. The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than the limits also called out by the client's test plan shown below.

The measurement methods are detailed in KDB971168 D01v03 section 6 and ANSI C63.26-2015.

Per FCC 2.1057(a)(1), the upper level of measurement is the 10th harmonic of the highest fundamental frequency.

These measurements are for frequency band after the first 1.0 MHz bands immediately outside and adjacent to the frequency block.

Per section FCC 24.238(a) and FCC 27.53 (h) (1), the power of any emission outside of the authorized operating frequency range cannot exceed -13sBm for a 1 MHz measurement bandwidth. The limit is adjusted To -19dBm [-13 dBm -10log (4)] per FCC KDB 662911D01v02r01 because the BTS may operate as a 4 port MIMO.

RF conducted emissions testing was performed on one port. The AHFIG antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in original certification report) and port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i and 6.4.

The limit for the 9kHz to 150kHz frequency range was adjusted to -49dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 1MHz [i.e.: -49dBm = -19dBm -10log(1MHz/1kHz)]. The limit for the 150kHz to 20MHz frequency range was adjusted to -39dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 1MHz [i.e.: -39dBm = -19dBm -10log(1MHz/10kHz)]. The required limit of -19dBm with a RBW of > 1MHz was used for all other frequency ranges.

The spurious emission testing was performed using only one modulation type because the Occupied Bandwidth variation between modulation types is small, the average output power variation between modulation types is small, and there is significant passing margin. (See ANSI C63.26. clause 5.7.2e).

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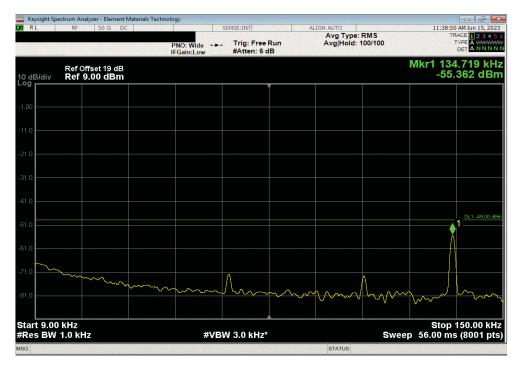
EUT: AHFIG (FCC C2PC) Work Order: NOKI0053 Serial Number: See Configuration
Customer: Nokia Solutions and Networks
Attendees: John Rattanavong, Mitchell Hill Date: 06/14/2023
Temperature: 21.7°C
Humidity: 61.4% Project: None
Tested by: Brandon Hobbs
TEST SPECIFICATIONS Barometric Pres.: 1006 mbar Job Site: TX07 Power: 54 VDC Test Method FCC 24E:2023 ANSI C63.26:2015 COMMENTS NoneAll measurement path losses were accounted for in the reference level offest including any attenuators, filters and DC blocks. The Band n25 carrier was enabled at maximum power (80 watts/carrier). The Band n66 carrier was enabled on the middle channel (2155MHz) at 40 watts with the same channel bandwidth and modulation type as the Band n25 carrier. The port power was set at the maximum level of 120 Watts [Band n25 carrier (80W) and Band n66 carrier (40W)1.
DEVIATIONS FROM TEST STANDARD None NOKI0053-1 NOKI0053-2 NOKI0053-3 Configuration # NOKI0053-4 Signature Frequency Range Measured Max Value Limit < (dBm) Freq (MHz) Result (dBm) Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, 5G NR Port 1 25 MHz Bandwidth 256-QAM Modulation Mid Channels, 1962.5 MHz and 2155 MHz Mid Channels, 1962.5 MHz and 2155 MHz 9 kHz - 150 kHz 150 kHz - 20 MHz 0.13 0.27 -55.4 -54.7 Pass Pass -49 -39 -26.6 -27.9 Mid Channels, 1962.5 MHz and 2155 MHz Mid Channels, 1962.5 MHz and 2155 MHz 20 MHz - 3.5 GHz 3157.66 -19 -19 Pass 1900 MHz - 2500 GHz 2224.36 Pass Mid Channels, 1962.5 MHz and 2155 MHz 3.5 GHz - 13 GHz 4020.60 -49.1 -19 Pass Mid Channels, 1962.5 MHz and 2155 MHz 13 GHz - 22 GHz 21497.80

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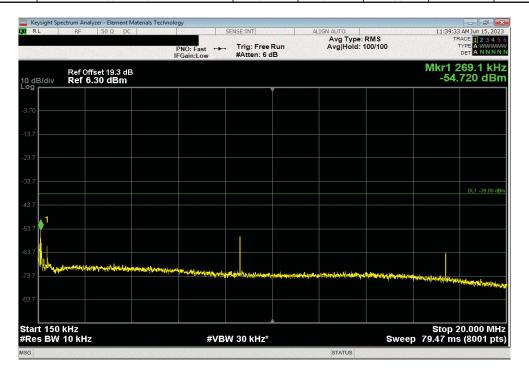


Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, 5G NR, Port 1, 25 MHz Bandwidth, 256-QAM Modulation, Mid Channels, 1962.5 MHz and 2155 MHz

Frequency
Range
Freq (MHz)
9 kHz - 150 kHz
0.13
-55.36
-49
Pass

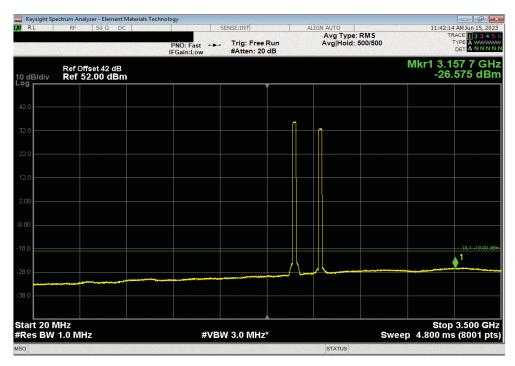


Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, 50	G NR, Port 1, 25 MHz B	andwidth, 256-Q/	AM Modulation,	Mid Channels, 19	962.5 MHz and 2155 MHz
Frequency	Measured	Max Value	Limit		
Range	Freq (MHz)	(dBm)	< (dBm)	Result	
150 kHz - 20 MHz	0.27	-54.72	-39	Pass	

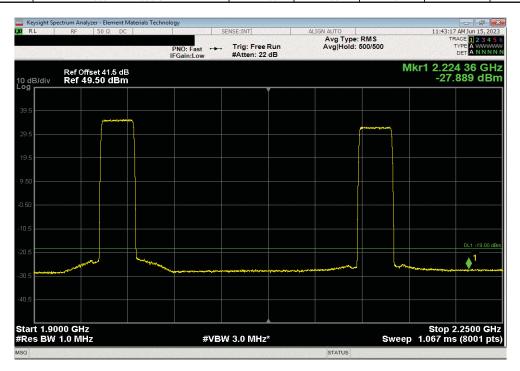


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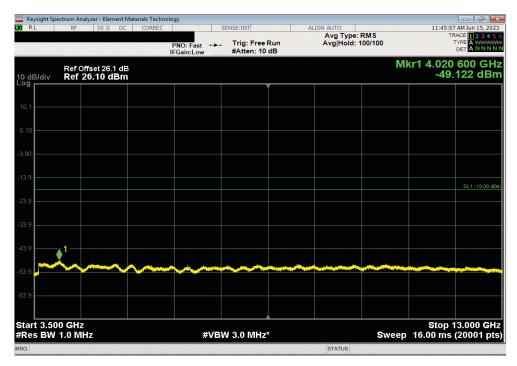


Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, 5	GNR, Port 1, 25 MHz B	andwidth, 256-Q	AM Modulation,	Mid Channels, 19	962.5 MHz and 2155 MHz
Frequency	Measured	Max Value	Limit		
Range	Freq (MHz)	(dBm)	< (dBm)	Result	
1900 MHz - 2500 GHz	2224.36	-27.89	-19	Pass	

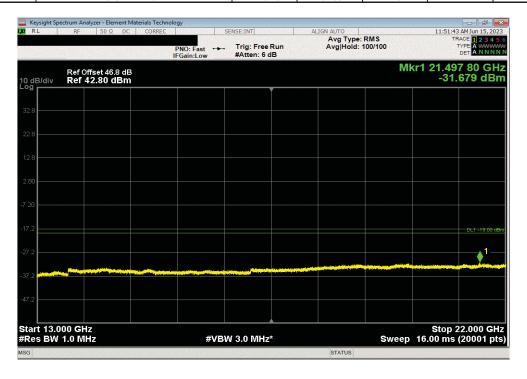


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Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, 50	G NR, Port 1, 25 MHz B	andwidth, 256-Q/	AM Modulation,	Mid Channels, 19	962.5 MHz and 2155 MHz
Frequency	Measured	Max Value	Limit		
Range	Freq (MHz)	(dBm)	< (dBm)	Result	
13 GHz - 22 GHz	21497.8	-31.68	-19	Pass	7



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XMit 2023.02.14.0

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
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2023-02-09	2024-02-09
Block - DC	Fairview Microwave	SD3235-2148	ANF	2023-05-24	2024-05-24
Block - DC	Fairview Microwave	SD3379	AMM	2022-09-09	2023-09-09

#### **TEST DESCRIPTION**

The antenna port spurious emissions were measured at the RF output terminal of the EUT through 4 different attenuation configurations which continues through to the RF input of the spectrum analyzer. Analyzer plots utilizing a resolution bandwidth called out by the client's test plan were made for each modulation type from 9 KHz to 22 GHz. The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than the limits also called out by the client's test plan shown below.

The measurement methods are detailed in KDB971168 D01v03 section 6 and ANSI C63.26-2015.

Per FCC 2.1057(a)(1), the upper level of measurement is the 10th harmonic of the highest fundamental frequency.

These measurements are for frequency band after the first 1.0 MHz bands immediately outside and adjacent to the frequency block.

Per section FCC 24.238(a) and FCC 27.53 (h) (1), the power of any emission outside of the authorized operating frequency range cannot exceed -13sBm for a 1 MHz measurement bandwidth. The limit is adjusted To -19dBm [-13 dBm -10log (4)] per FCC KDB 662911D01v02r01 because the BTS may operate as a 4 port MIMO.

RF conducted emissions testing was performed on one port. The AHFIG antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in original certification report) and port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i and 6.4.

The limit for the 9kHz to 150kHz frequency range was adjusted to -49dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 1MHz [i.e.: -49dBm = -19dBm -10log(1MHz/1kHz)]. The limit for the 150kHz to 20MHz frequency range was adjusted to -39dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 1MHz [i.e.: -39dBm = -19dBm -10log(1MHz/10kHz)]. The required limit of -19dBm with a RBW of > 1MHz was used for all other frequency ranges.

The spurious emission testing was performed using only one modulation type because the Occupied Bandwidth variation between modulation types is small, the average output power variation between modulation types is small, and there is significant passing. (See ANSI C63.26. clause 5.7.2e).

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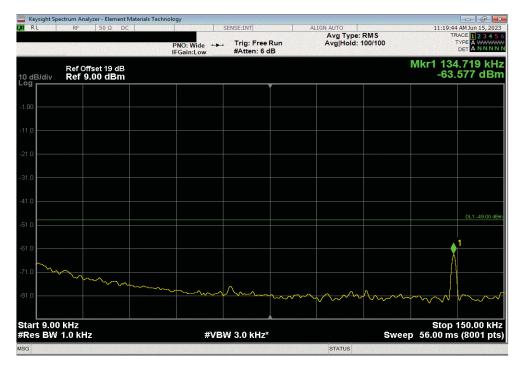
						1bt1x 2022.05.02.0	XMrt 2023.02.1
EUT:	AHFIG (FCC C2PC)				Work Order:	NOKI0053	
Serial Number:	See Configuration					06/14/2023	
Customer:	Nokia Solutions and N	letworks			Temperature:	21.7°C	
Attendees:	John Rattanavong, M	tchell Hill			Humidity:	61.5%	
Project:					Barometric Pres.:	1006 mbar	
	Brandon Hobbs		Power: 54 VDC		Job Site:	TX07	
TEST SPECIFICATI	IONS		Test Method				
FCC 24E:2023			ANSI C63.26:2015				
FCC 27:2023			ANSI C63.26:2015				
COMMENTS							
NoneAll measureme	ent path losses were	accounted for in the reference level offest includ	ing any attenuators, filters and DC blocks. The Band n	25 carrier was enable	d at maximum pov	ver (80 watts/carrie	er). The Band n6
carrier was enabled	d on the middle chann	el (2155MHz) at 40 watts with the same channel	bandwidth and modulation type as the Band n25 carrie	r. The port power was	set at the maximu	ım level of 120 Wat	ts [Band n25
carrier (80W) and B	and n66 carrier (40W)						
	// TEST STANDARD						
None							
	NOKI0053-1		_ /1 .				
Configuration #	NOKI0053-2	1	1-1				
oomigaration #	NOKI0053-3						
	NOKI0053-4	Signature					
			Frequency	Measured	Max Value	Limit	
			Range	Freq (MHz)	(dBm)	< (dBm)	Result
Band n25 1930 MHz	z - 1995 MHz and n66 2	110 MHz - 2200 MHz, 5G NR					
	Port 1						
	30 MHz B						
		256-QAM Modulation					
			9 kHz - 150 kHz	0.13	-63.6	-49	Pass
		Mid Channels, 1962.5 MHz and 2155					
		Mid Channels, 1962.5 MHz and 2155	150 kHz - 20 MHz	8.70	-56.5	-39	Pass
		Mid Channels, 1962.5 MHz and 2155 Mid Channels, 1962.5 MHz and 2155	150 kHz - 20 MHz 20 MHz - 3.5 GHz	8.70 3168.10	-56.5 -26.7	-39 -19	Pass Pass
		Mid Channels, 1962.5 MHz and 2155	150 kHz - 20 MHz 20 MHz - 3.5 GHz	8.70	-56.5	-39	
		Mid Channels, 1962.5 MHz and 2155 Mid Channels, 1962.5 MHz and 2155	150 kHz - 20 MHz 20 MHz - 3.5 GHz 1900 MHz - 2500 GHz	8.70 3168.10	-56.5 -26.7	-39 -19	Pass
		Mid Channels, 1962.5 MHz and 2155 Mid Channels, 1962.5 MHz and 2155 Mid Channels, 1962.5 MHz and 2155	150 kHz - 20 MHz 20 MHz - 3.5 GHz 1900 MHz - 2500 GHz	8.70 3168.10 2228.13	-56.5 -26.7 -28.1	-39 -19 -19	Pass Pass

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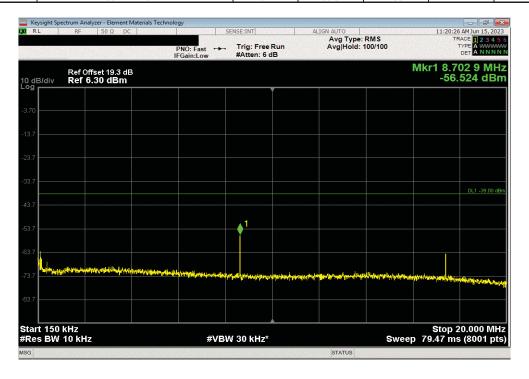


Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, 5G NR, Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Mid Channels, 1962.5 MHz and 2155 MHz

Frequency
Range
Freq (MHz)
9 kHz - 150 kHz
0.13
-63.58
-49
Pass

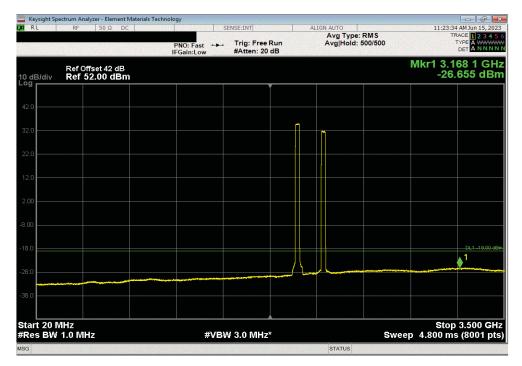


Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, \$	5G NR , Port 1, 30 MHz B	andwidth, 256-Q	AM Modulation,	Mid Channels, 19	62.5 MHz and 2155 MHz
Frequency	Measured	Max Value	Limit		
Range	Freq (MHz)	(dBm)	< (dBm)	Result	
150 kHz - 20 MHz	8.7	-56.52	-39	Pass	

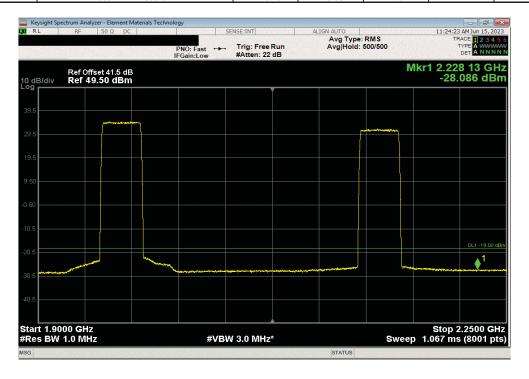


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Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, 5G N	IR, Port 1, 30 MHz B	andwidth, 256-Q	AM Modulation,	Mid Channels, 1	962.5 MHz and 2155 MHz
Frequency	Measured	Max Value	Limit		
Range	Freq (MHz)	(dBm)	< (dBm)	Result	
1900 MHz - 2500 GHz	2228.13	-28.09	-19	Pass	



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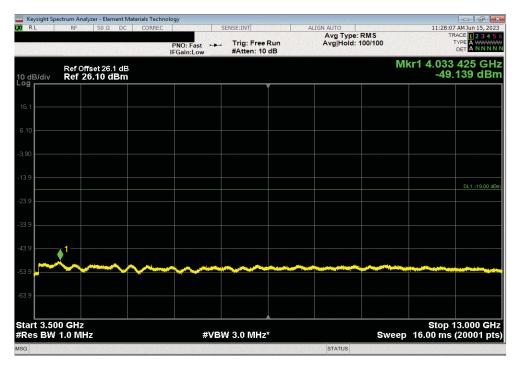


Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, 5G NR , Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Mid Channels, 1962.5 MHz and 2155 MHz

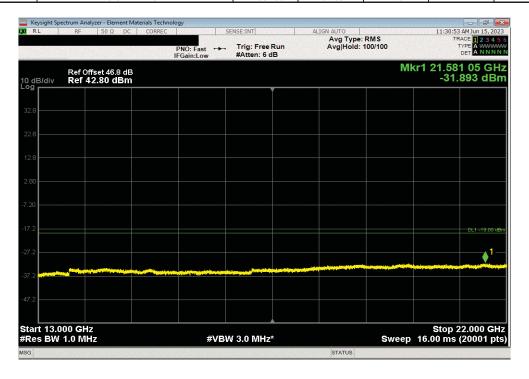
Frequency Measured Max Value Limit

Range Freq (MHz) (dBm) < (dBm) Result

3.5 GHz - 13 GHz 4033.43 -49.14 -19 Pass



ľ	Band n25 1930 MHz - 1995 MHz and n66 2110 MHz - 2200 MHz, 5	5G NR , Port 1, 30 MH	z Bandwidth, 256-Q	AM Modulation,	Mid Channels, 19	62.5 MHz and 2155 MHz
ı	Frequency	Measured	Max Value	Limit		
ı	Range	Freq (MHz	) (dBm)	< (dBm)	Result	_
ı	13 GHz - 22 GHz	21581.05	-31.89	-19	Pass	7



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End of Test Report

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