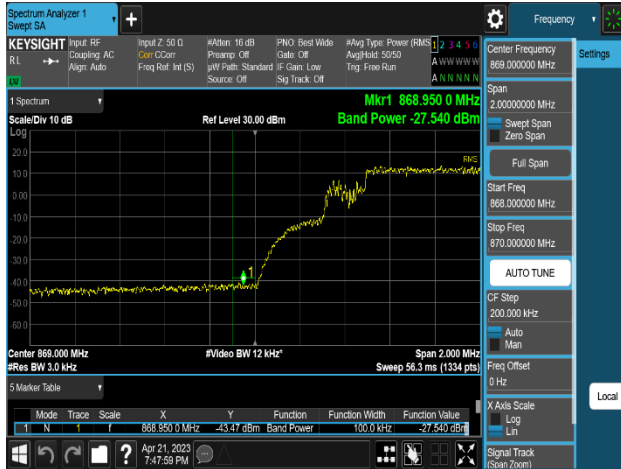
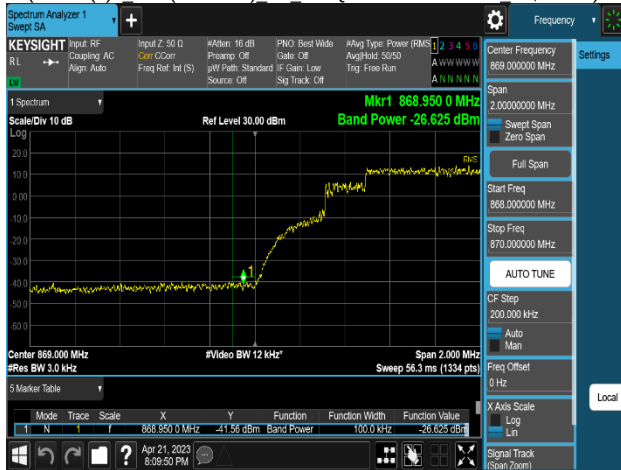
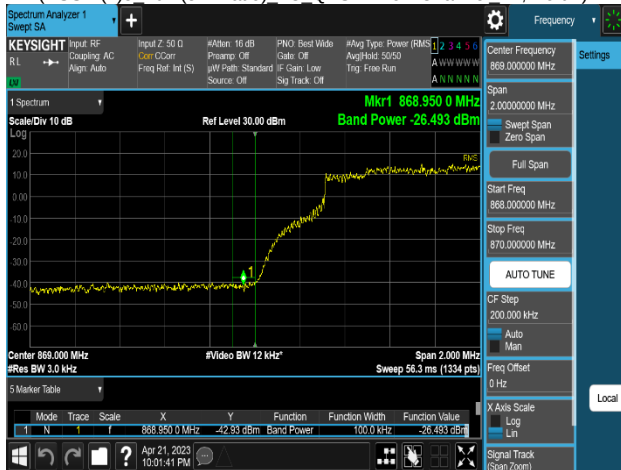




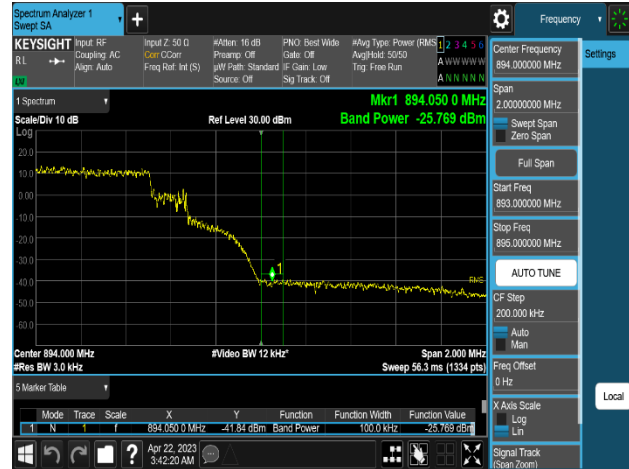
Plot 8-367. Band Edge Emission Summary Data Plot
(DSS B(n)5_10M(9:1 Ratio)_1C_256QAM - Low Channel_4T, Port 2)



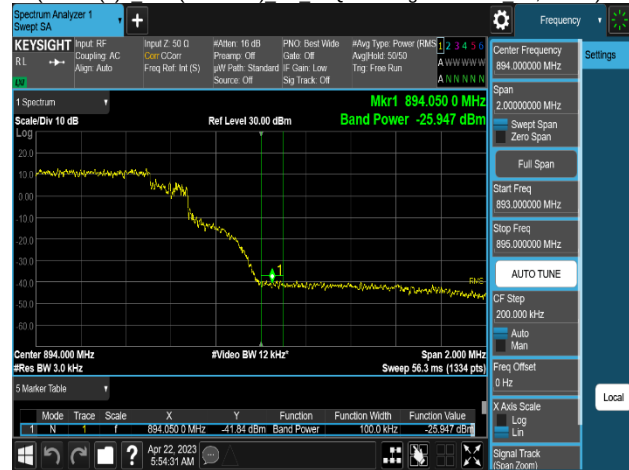
Plot 8-369. Band Edge Emission Summary Data Plot
(DSS B(n)5_10M(8:2 Ratio)_1C_QPSK - Low Channel_4T, Port 2)



Plot 8-371. Band Edge Emission Summary Data Plot
(DSS B(n)5_10M(4:6 Ratio)_1C_16QAM - Low Channel_4T, Port 2)



Plot 8-368. Band Edge Emission Summary Data Plot
(DSS B(n)5_10M(9:1 Ratio)_1C_16QAM - High Channel_4T, Port 1)

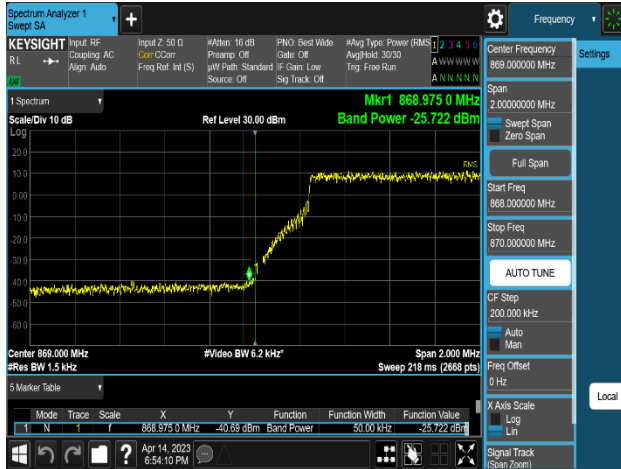


Plot 8-370. Band Edge Emission Summary Data Plot
(DSS B(n)5_10M(8:2 Ratio)_1C_256QAM - High Channel_4T, Port 1)

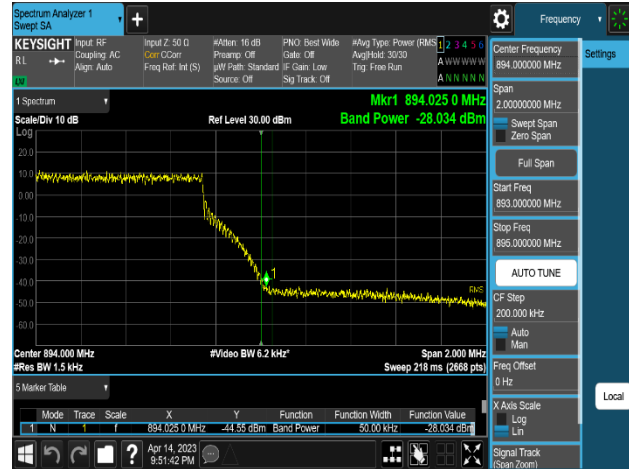


Plot 8-372. Band Edge Emission Summary Data Plot
(DSS B(n)5_10M(4:6 Ratio)_1C_256QAM - High Channel_4T, Port 0)

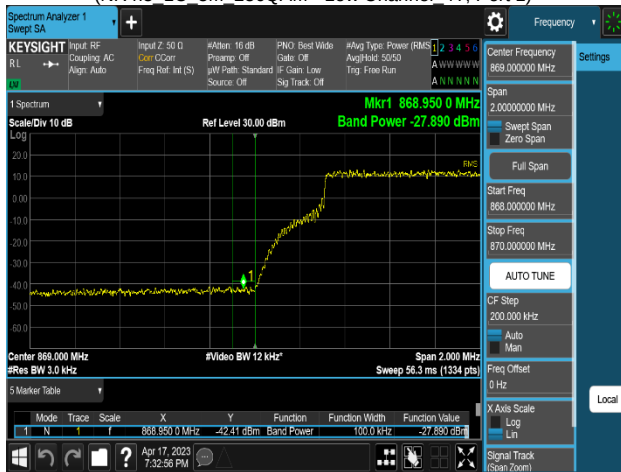
FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 8-373. Band Edge Emission Summary Data Plot
(NR n5_1C_5M_256QAM - Low Channel_4T, Port 1)



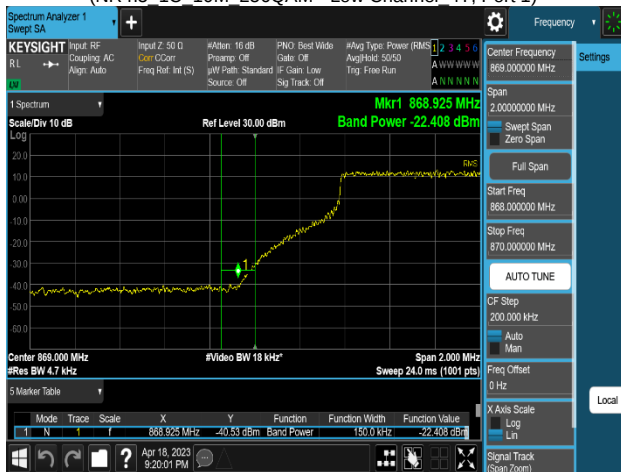
Plot 8-374. Band Edge Emission Summary Data Plot
(NR n5_1C_5M_256QAM - High Channel_4T, Port 1)



Plot 8-375. Band Edge Emission Summary Data Plot
(NR n5_1C_10M_256QAM - Low Channel_4T, Port 1)



Plot 8-376. Band Edge Emission Summary Data Plot
(NR n5_1C_10M_256QAM - High Channel_4T, Port 1)

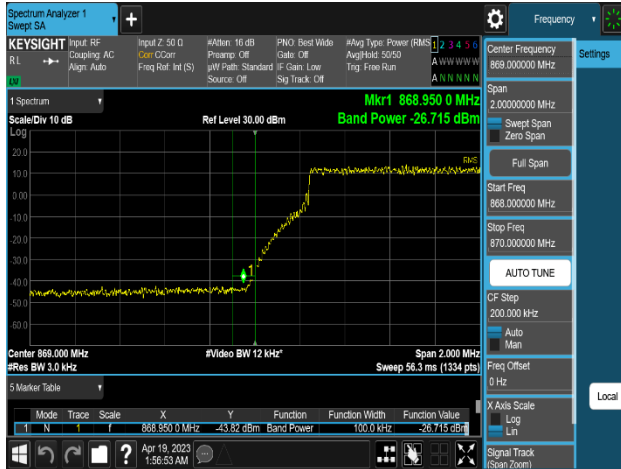


Plot 8-377. Band Edge Emission Summary Data Plot
(NR n5_1C_15M_QPSK - Low Channel_4T, Port 2)

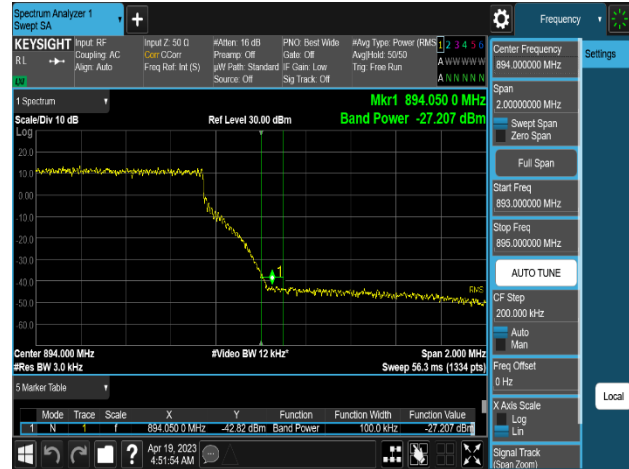


Plot 8-378. Band Edge Emission Summary Data Plot
(NR n5_1C_15M_16QAM - High Channel_4T, Port 0)

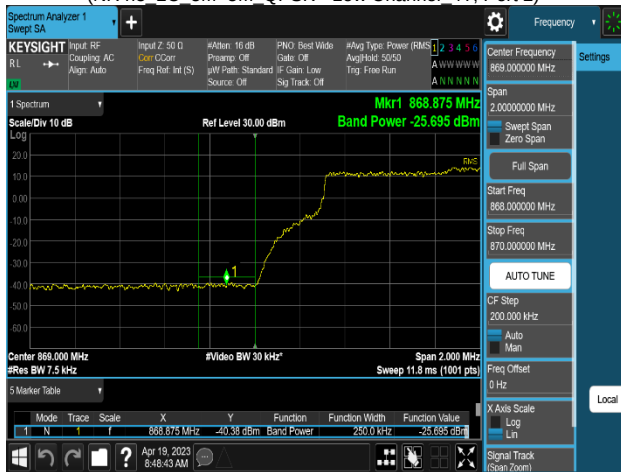
FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 8-379. Band Edge Emission Summary Data Plot
(NR n5_2C_5M+5M_QPSK - Low Channel 4T, Port 2)



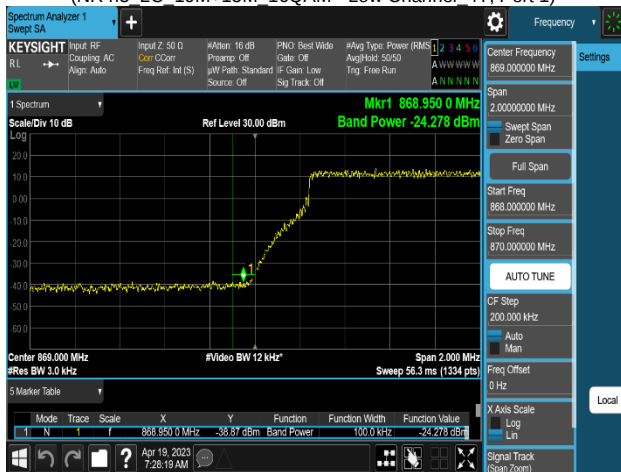
Plot 8-380. Band Edge Emission Summary Data Plot
(NR n5_2C_5M+5M_QPSK - High Channel 4T, Port 2)



Plot 8-381. Band Edge Emission Summary Data Plot
(NR n5_2C_10M+15M_16QAM - Low Channel 4T, Port 1)



Plot 8-382. Band Edge Emission Summary Data Plot
(NR n5_2C_10M+15M_16QAM - High Channel 4T, Port 2)



Plot 8-383. Band Edge Emission Summary Data Plot
(NR n5_2NC_10M+15M_QPSK - Low Channel 4T, Port 1)

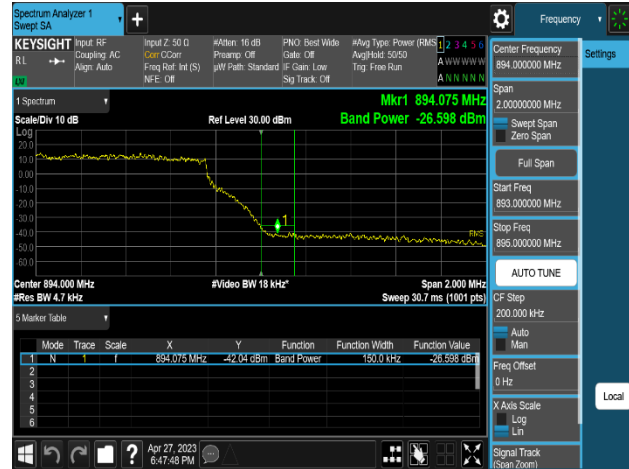


Plot 8-384. Band Edge Emission Summary Data Plot
(NR n5_2NC_10M+15M_QPSK - High Channel 4T, Port 2)

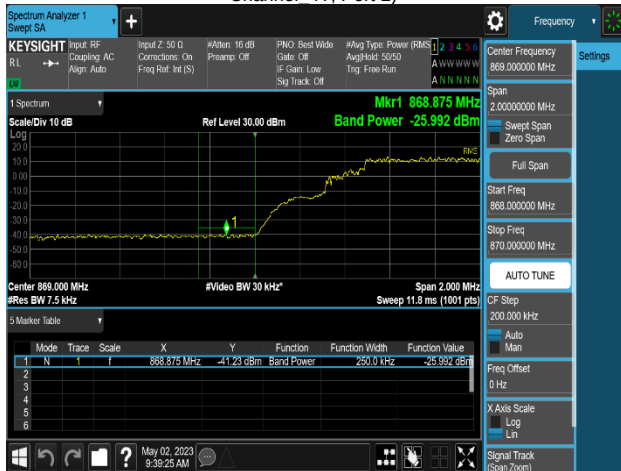
FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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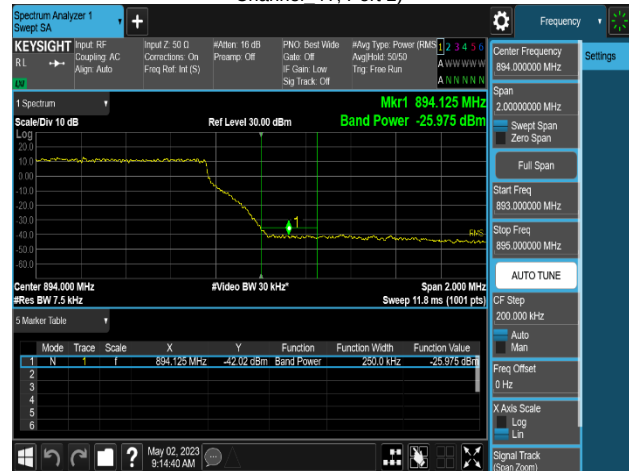
Plot 8-385. Band Edge Emission Summary Data Plot
(MSR 2C_DSS B(n)5_1C_10M+LTE B5_1C_5M_16QAM - Low Channel 4T, Port 2)



Plot 8-386. Band Edge Emission Summary Data Plot
(MSR 2C_DSS B(n)5_1C_10M+LTE B5_1C_5M_16QAM - High Channel 4T, Port 2)



Plot 8-387. Band Edge Emission Summary Data Plot
(MSR 3C_DSS B(n)5_2C_10M+10M+LTE B5_1C_5M_16QAM - Low Channel 4T, Port 1)



Plot 8-388. Band Edge Emission Summary Data Plot
(MSR 3C_DSS B(n)5_2C_10M+10M+LTE B5_1C_5M_QPSK - High Channel 4T, Port 3)

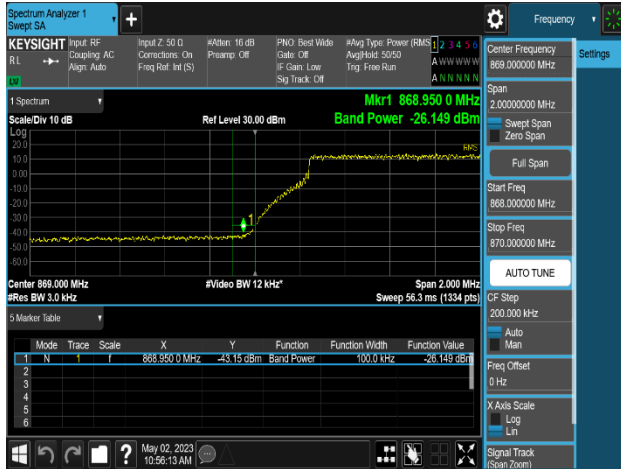


Plot 8-389. Band Edge Emission Summary Data Plot
(MSR 2NC_DSS B(n)5_1C_10M+LTE B5_1C_5M_QPSK - Low Channel 4T, Port 0)

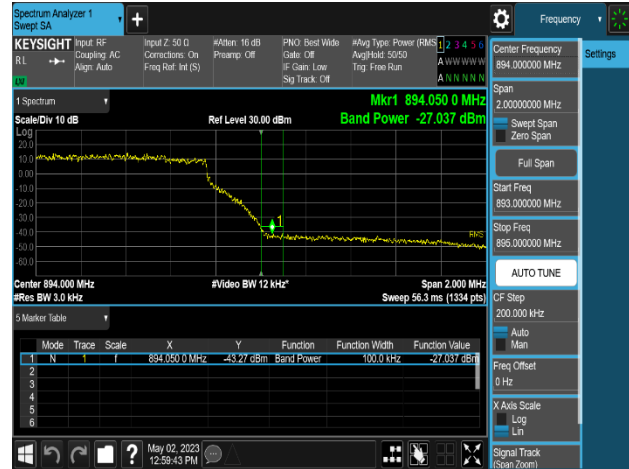


Plot 8-390. Band Edge Emission Summary Data Plot
(MSR 2NC_DSS B(n)5_1C_10M+LTE B5_1C_5M_QPSK - High Channel 4T, Port 2)

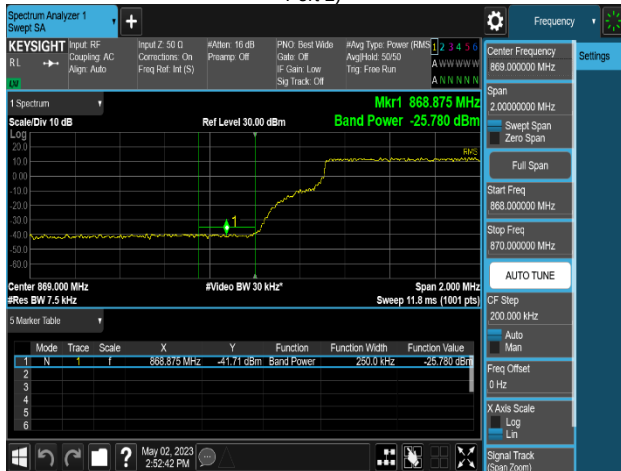
FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 8-391. Band Edge Emission Summary Data Plot
(MSR 2C_NR n5_1C_5M+LTE B5_1C_5M_QPSK - Low Channel_4T, Port 2)



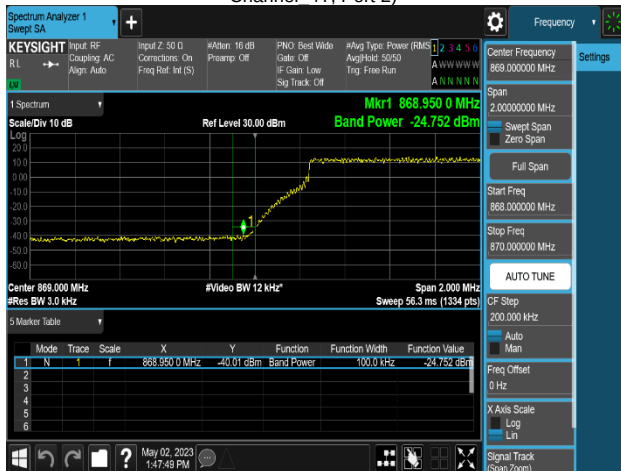
Plot 8-392. Band Edge Emission Summary Data Plot
(MSR 2C_NR n5_1C_5M+LTE B5_1C_5M_16QAM - High Channel_4T, Port 2)



Plot 8-393. Band Edge Emission Summary Data Plot
(MSR 3C_NR n5_2C_10M+10M+LTE B5_1C_5M_QPSK - Low Channel_4T, Port 2)



Plot 8-394. Band Edge Emission Summary Data Plot
(MSR 3C_NR n5_2C_10M+10M+LTE B5_1C_5M_QPSK - High Channel_4T, Port 2)

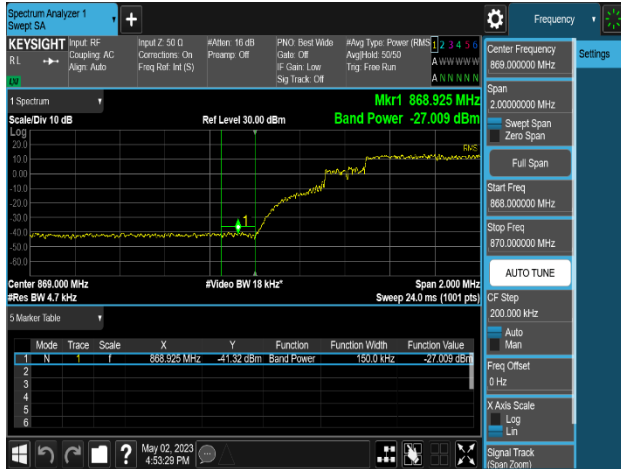


Plot 8-395. Band Edge Emission Summary Data Plot
(MSR 2NC_NR n5_1C_5M+LTE B5_1C_5M_QPSK - Low Channel_4T, Port 1)

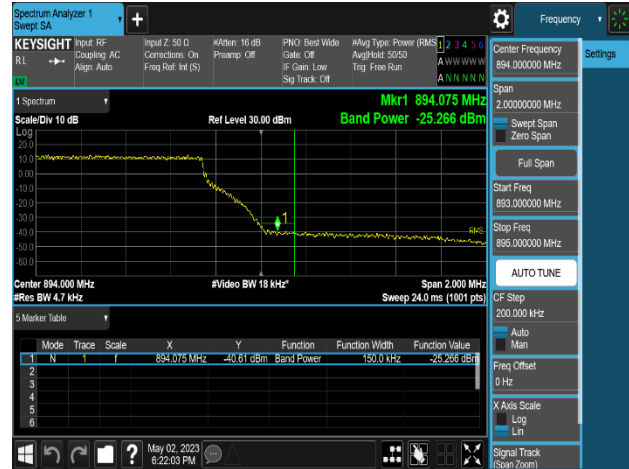


Plot 8-396. Band Edge Emission Summary Data Plot
(MSR 2NC_NR n5_1C_5M+LTE B5_1C_5M_QPSK - High Channel_4T, Port 3)

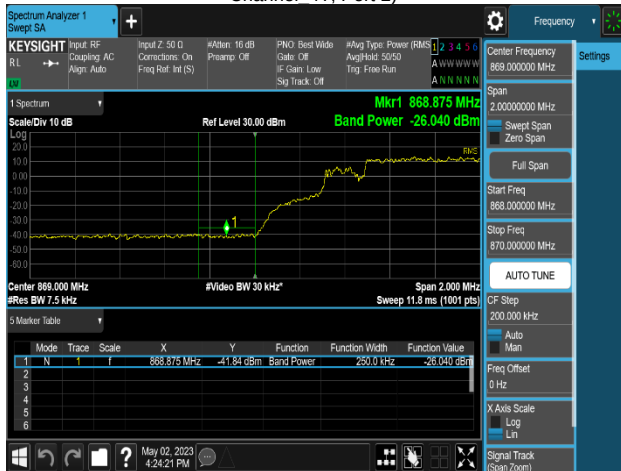
FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 8-397. Band Edge Emission Summary Data Plot
(MSR 2C_DSS B(n)5_1C_10M+NR n5_1C_5M_QPSK - Low Channel 4T, Port 2)



Plot 8-398. Band Edge Emission Summary Data Plot
(MSR 2C_DSS B(n)5_1C_10M+NR n5_1C_5M_QPSK - High Channel 4T, Port 2)



Plot 8-399. Band Edge Emission Summary Data Plot
(MSR 2C_DSS B(n)5_1C_10M+NR n5_1C_15M_16QAM - Low Channel 4T, Port 1)



Plot 8-400. Band Edge Emission Summary Data Plot
(MSR 2C_DSS B(n)5_1C_10M+NR n5_1C_15M_16QAM - High Channel 4T, Port 1)

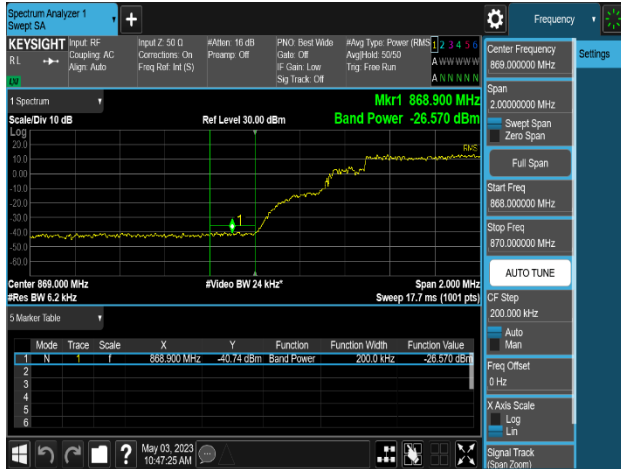


Plot 8-401. Band Edge Emission Summary Data Plot
(MSR 2NC_DSS B(n)5_1C_10M+NR n5_1C_5M_QPSK - Low Channel 4T, Port 1)

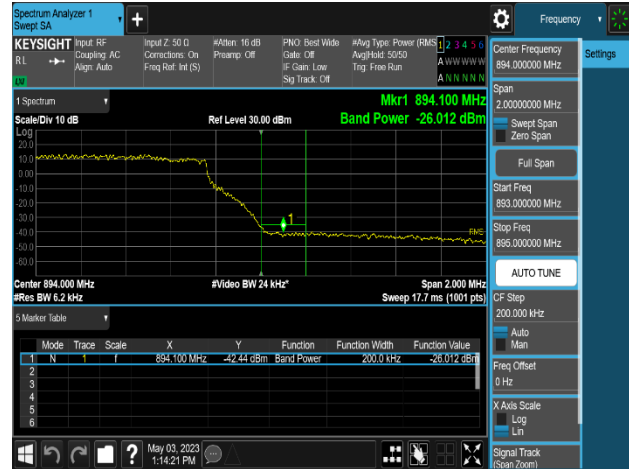


Plot 8-402. Band Edge Emission Summary Data Plot
(MSR 2NC_DSS B(n)5_1C_10M+NR n5_1C_5M_QPSK - High Channel 4T, Port 2)

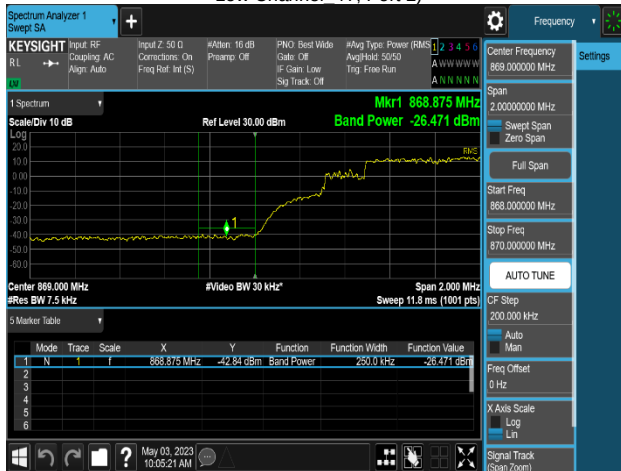
FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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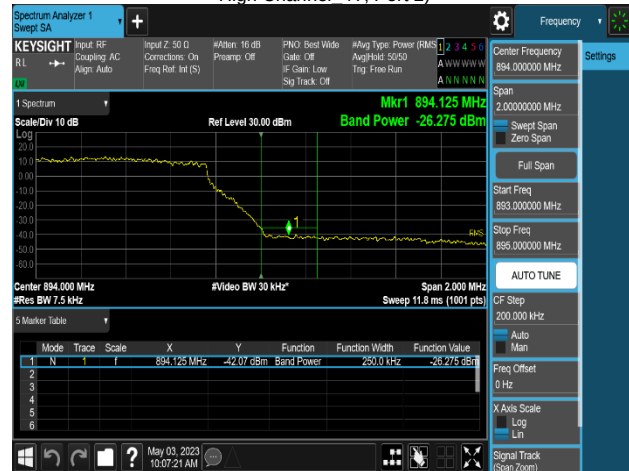
Plot 8-403. Band Edge Emission Summary Data Plot
(MSR 3C_DSS B(n)5_1C_10M+NR n5_1C_5M+LTE B5_1C_5M_16QAM
- Low Channel 4T, Port 2)



Plot 8-404. Band Edge Emission Summary Data Plot
(MSR 3C_DSS B(n)5_1C_10M+NR n5_1C_5M+LTE B5_1C_5M_16QAM
- High Channel 4T, Port 2)



Plot 8-405. Band Edge Emission Summary Data Plot
(MSR 3C_DSS B(n)5_1C_10M+NR n5_1C_10M+LTE
B5_1C_5M_16QAM - Low Channel 4T, Port 2)



Plot 8-406. Band Edge Emission Summary Data Plot
(MSR 3C_DSS B(n)5_2C_10M+10M+LTE B5_1C_5M_16QAM - High
Channel 4T, Port 2)

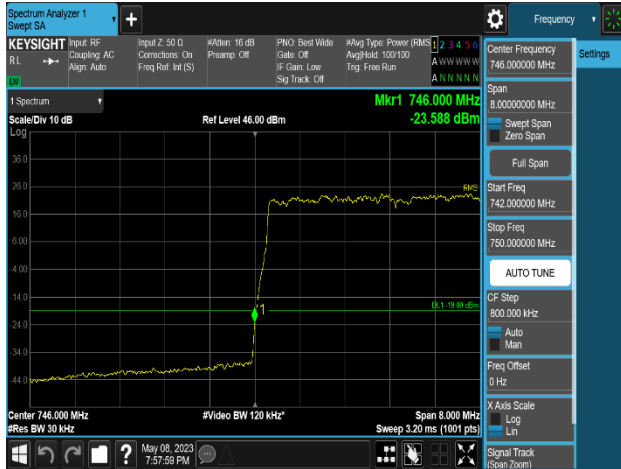


Plot 8-407. Band Edge Emission Summary Data Plot
(MSR 3NC_DSS B(n)5_1C_10M+NR n5_1C_5M+LTE B5_1C_5M_QPSK
- Low Channel 4T, Port 1)

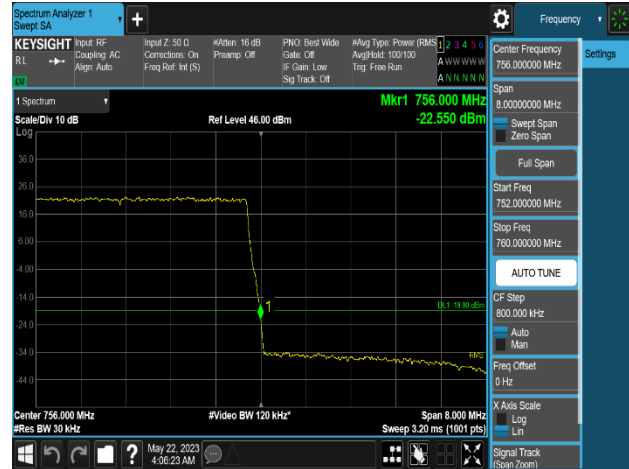


Plot 8-408. Band Edge Emission Summary Data Plot
(MSR 3NC_DSS B(n)5_1C_10M+NR n5_1C_5M+LTE B5_1C_5M_QPSK
- High Channel 4T, Port 2)

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Plot 8-409. Band Edge Emission Summary Data Plot
(LTE B13 1C 5M 16QAM - Low Channel 4T, Port 1)



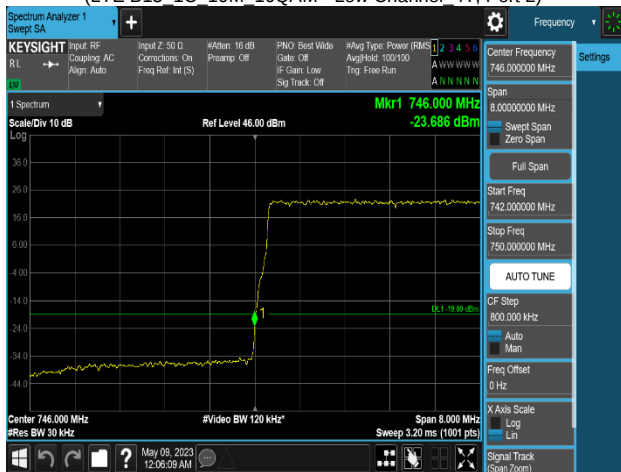
Plot 8-410. Band Edge Emission Summary Data Plot
(LTE B13 1C 5M QPSK - High Channel 4T, Port 2)



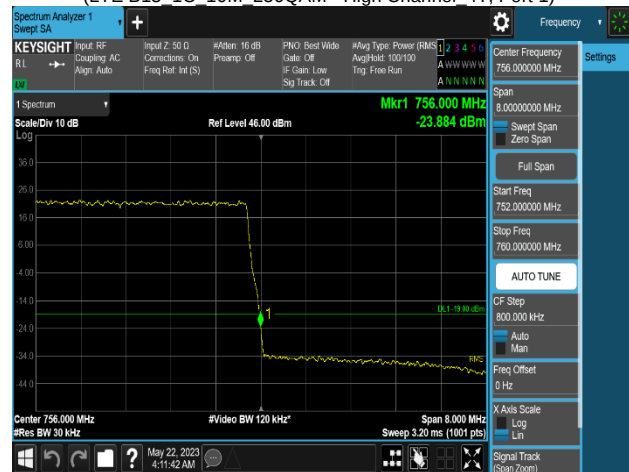
Plot 8-411. Band Edge Emission Summary Data Plot
(LTE B13 1C 10M 16QAM - Low Channel 4T, Port 2)



Plot 8-412. Band Edge Emission Summary Data Plot
(LTE B13 1C 10M 256QAM - High Channel 4T, Port 1)

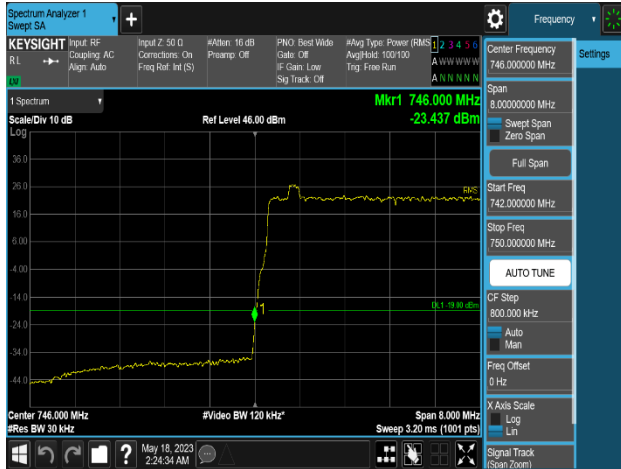


Plot 8-413. Band Edge Emission Summary Data Plot
(LTE B13 2C 5M+5M QPSK - Low Channel 4T, Port 1)

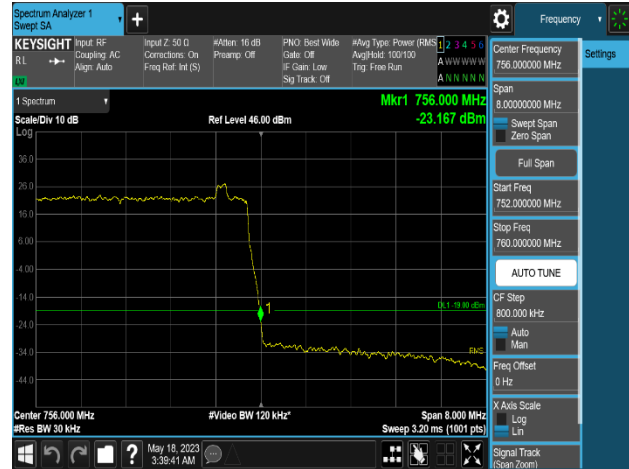


Plot 8-414. Band Edge Emission Summary Data Plot
(LTE B13 2C 5M+5M QPSK - High Channel 4T, Port 1)

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Plot 8-415. Band Edge Emission Summary Data Plot
(LTE B13 1C 5M+NB-IoT(1IB) QPSK - Low Channel 4T, Port 3)



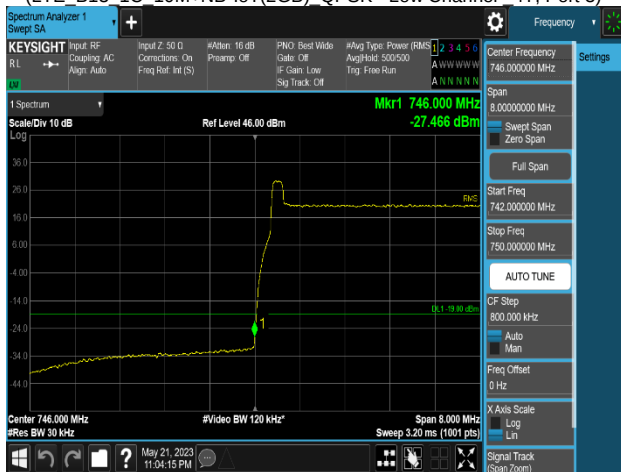
Plot 8-416. Band Edge Emission Summary Data Plot
(LTE B13 1C 5M+NB-IoT(1IB) QPSK - High Channel 4T, Port 3)



Plot 8-417. Band Edge Emission Summary Data Plot
(LTE B13 1C 10M+NB-IoT(2GB) QPSK - Low Channel 4T, Port 3)



Plot 8-418. Band Edge Emission Summary Data Plot
(LTE B13 1C 10M+NB-IoT(2GB) QPSK - High Channel 4T, Port 3)



Plot 8-419. Band Edge Emission Summary Data Plot
(Multi-Band_LTE B13_1C_10M+B5_1C_10M_QPSK - Low Channel 4T, Port 3)

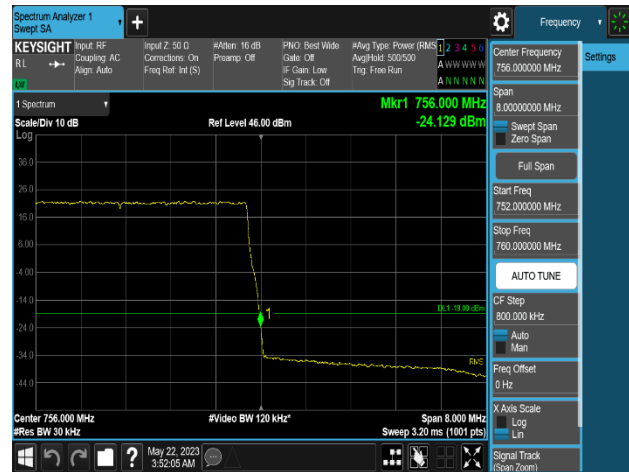


Plot 8-420. Band Edge Emission Summary Data Plot
(Multi-Band_LTE B13_1C_10M+B5_1C_10M_QPSK - High Channel 4T, Port 3)

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Plot 8-421. Band Edge Emission Summary Data Plot
(Multi-Band_LTE B13_2C_5M+5M+DSS B(n)5_1C_10M+NR
n5_1C_10M+LTE B5_1C_5M_QPSK – Low Channel _4T, Port 3)



Plot 8-422. Band Edge Emission Summary Data Plot
(Multi-Band_LTE B13_2C_5M+5M+DSS B(n)5_1C_10M+NR
n5_1C_10M+LTE B5_1C_5M_QPSK – High Channel _4T, Port 0)

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8.6 Spurious and Harmonic Emissions at Antenna Terminal

Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6

KDB 662911 D01 v02r01 – Section E)3) Out-of-Band and Spurious Emission Measurements

a) Absolute Emission Limits

iii) Measure and add $10 \log(N_{ANT})$ dB

ANSI C63.26-2015 – Section 5.7

Test Setting

1. Start frequency was set to 9 kHz and stop frequency was set to at least $10 \times$ the fundamental frequency excluding the frequency range of the band edge measurement.
2. RBW: Please see test notes below.
3. $VBW \geq 3 \times RBW$
4. Detector = RMS
5. Number of sweep points $\geq 2 \times \text{Span}/RBW$
6. Trace mode = trace average
7. Sweep time = auto couple
8. The trace was allowed to stabilize

Limit

Band(n) 13 operation under Part 27

The power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm.

The power of any emission Frequency range 1559MHz to 1610MHz cannot exceed -70dBW/MHz for wideband signals and -80dBW for discrete emissions of bandwidths less than 700Hz.

Band(n) 5 operation under Part 22

The power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm.

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Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

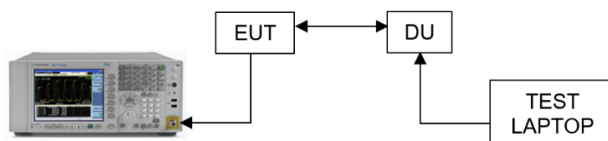


Figure 8-5. Test Instrument & Measurement Setup

Test Notes

1. Per Part 27, The power of any emission outside the licensee's frequency band(s) of operation is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
2. Per Part 22, In the spectrum below 1 GHz, instrumentation should employ a reference bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the 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 that the measured power is integrated over the full required reference bandwidth (i.e., 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
Above 1 GHz, instrumentation should employ a reference bandwidth of 1 MHz.
3. 1559 MHz to 1610 MHz Frequency Range Limit equates to an EIRP of -40dBm/MHz for wideband emissions and -50dBm/MHz for discrete emissions. And the limit is adjusted to -46 dBm [-40 dBm -10 log (4)] for wideband signals and -56dBm [-50 dBm -10 log (4)] for discrete emissions.
4. All modes of operation were investigated and the worst configuration result plots are reported in each operating frequency band.

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5. The limits were adjusted by a factor of $[-10 \cdot \log(2)]$ dB to account for the device operation as a 2 port MIMO transmitter, as per FCC KDB 622911. MIMO Factor calculation as below:
 $\text{MIMO Factor} = 10 \cdot \log(2) = 3.01$ dB
6. Narrower RBW parameter is applied according to Section 5.7 of ANSI C63.26-2015 for some edge channels due to improving measurement accuracy. RBW Factor calculation as below:
- $\text{RBW Factor} = 10 \cdot \log(0.1/0.001) = 20$ dB
 - $\text{RBW Factor} = 10 \cdot \log(0.1/0.01) = 10$ dB

Frequency range	Basic Limit (dBm/MHz)	MIMO Factor (dB)	References RBW (MHz)	Measurement RBW (MHz)	RBW Factor (dB)	Adjusted limit (dBm)
9 kHz to 150 kHz	-13.00	3.01	0.1	0.001	20	-36.01
150 kHz to 30 MHz				0.01	10	-26.01
30 MHz to 1 GHz				0.1	0	-16.01
1 GHz to 10 GHz				1		
1.559 GHz to 1.610 GHz	-50.00	3.01	1	1	0	-53.01

Note: Adjusted limit (dBm/MHz) = Basic limit (dBm/1MHz) - MIMO Factor - RBW Factor

7. The limits were adjusted by a factor of $[-10 \cdot \log(4)]$ dB to account for the device operation as a 4 port MIMO transmitter, as per FCC KDB 622911. MIMO Factor calculation as below:
 $\text{MIMO Factor} = 10 \cdot \log(4) = 6.02$ dB
8. Narrower RBW parameter is applied according to Section 5.7 of ANSI C63.26-2015 for some edge channels due to improving measurement accuracy. RBW Factor calculation as below:
- $\text{RBW Factor} = 10 \cdot \log(0.1/0.001) = 20$ dB
 - $\text{RBW Factor} = 10 \cdot \log(0.1/0.01) = 10$ dB

Frequency range	Basic Limit (dBm/MHz)	MIMO Factor (dB)	References RBW (MHz)	Measurement RBW (MHz)	RBW Factor (dB)	Adjusted limit (dBm)
9 kHz to 150 kHz	-13.00	6.02	0.1	0.001	20	-39.02
150 kHz to 30 MHz				0.01	10	-29.02
30 MHz to 1 GHz				0.1	0	-19.02
1 GHz to 10 GHz				1		
1.559 GHz to 1.610 GHz	-50.00	6.02	1	1	0	-56.02

Note: Adjusted limit (dBm/MHz) = Basic limit (dBm/1MHz) - MIMO Factor - RBW Factor

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Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
			QPSK	16QAM	64QAM	256QAM		
Low	0	9 kHz to 150 kHz	-58.59	-58.39	-58.40	-58.98	-36.01	-22.38
		150 kHz to 30 MHz	-51.36	-51.08	-51.25	-51.21	-26.01	-25.07
		30 MHz to 858 MHz	-49.16	-49.17	-49.08	-48.66	-16.01	-32.65
		858 MHz to 868 MHz	-24.49	-30.86	-29.94	-28.90	-16.01	-8.47
		895 MHz to 1 GHz	-46.13	-45.62	-44.70	-47.41	-16.01	-28.69
		1 GHz to 10 GHz	-23.23	-23.34	-23.60	-23.23	-16.01	-7.22
	1	9 kHz to 150 kHz	-58.84	-58.58	-58.67	-58.65	-36.01	-22.57
		150 kHz to 30 MHz	-50.73	-50.95	-50.39	-51.36	-26.01	-24.38
		30 MHz to 858 MHz	-49.14	-48.20	-48.77	-48.28	-16.01	-32.19
		858 MHz to 868 MHz	-24.70	-28.60	-28.54	-28.24	-16.01	-8.69
		895 MHz to 1 GHz	-42.11	-41.67	-41.77	-41.33	-16.01	-25.32
		1 GHz to 10 GHz	-23.75	-23.81	-24.06	-24.14	-16.01	-7.74
Middle	0	9 kHz to 150 kHz	-59.08	-58.60	-58.63	-59.27	-36.01	-22.59
		150 kHz to 30 MHz	-51.15	-51.28	-51.04	-51.49	-26.01	-25.03
		30 MHz to 858 MHz	-49.75	-49.56	-48.56	-49.92	-16.01	-32.55
		858 MHz to 868 MHz	-37.08	-37.23	-36.32	-36.88	-16.01	-20.31
		895 MHz to 1 GHz	-44.00	-44.14	-40.70	-43.09	-16.01	-24.69
		1 GHz to 10 GHz	-23.58	-23.47	-23.08	-23.39	-16.01	-7.07
	1	9 kHz to 150 kHz	-58.91	-57.95	-58.40	-58.42	-36.01	-21.94
		150 kHz to 30 MHz	-51.01	-50.66	-50.67	-51.47	-26.01	-24.65
		30 MHz to 858 MHz	-49.31	-48.85	-48.96	-48.53	-16.01	-32.52
		858 MHz to 868 MHz	-34.83	-34.10	-34.74	-34.32	-16.01	-18.09
		895 MHz to 1 GHz	-41.55	-38.90	-39.14	-39.62	-16.01	-22.89
		1 GHz to 10 GHz	-23.55	-23.71	-23.63	-24.01	-16.01	-7.54
High	0	9 kHz to 150 kHz	-59.25	-58.57	-59.35	-59.30	-36.01	-22.56
		150 kHz to 30 MHz	-51.21	-51.53	-50.55	-51.74	-26.01	-24.54
		30 MHz to 858 MHz	-49.36	-50.11	-49.81	-48.66	-16.01	-32.65
		858 MHz to 868 MHz	-37.51	-37.37	-37.76	-37.98	-16.01	-21.36
		895 MHz to 1 GHz	-37.87	-35.49	-38.27	-40.01	-16.01	-19.48
		1 GHz to 10 GHz	-23.28	-23.30	-23.44	-23.80	-16.01	-7.26
	1	9 kHz to 150 kHz	-59.48	-58.73	-58.73	-58.54	-36.01	-22.53
		150 kHz to 30 MHz	-51.05	-51.22	-50.68	-51.17	-26.01	-24.66
		30 MHz to 858 MHz	-49.13	-49.29	-49.69	-49.04	-16.01	-33.03
		858 MHz to 868 MHz	-35.54	-34.61	-35.50	-34.31	-16.01	-18.30
		895 MHz to 1 GHz	-32.32	-30.34	-35.40	-31.01	-16.01	-14.33
		1 GHz to 10 GHz	-23.70	-23.80	-23.98	-23.93	-16.01	-7.69

Table 8-230. Conducted Spurious Emission Summary Data (LTE B5_1C_5M_2T)

FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K23040701-00-R2.A3L	Test Dates: 04/12/2023 - 05/26/2023	EUT Type: RRU(RF4461d)		Page 203 of 394

Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
			QPSK	16QAM	64QAM	256QAM		
Low	0	9 kHz to 150 kHz	-55.81	-55.72	-57.44	-57.70	-36.01	-19.71
		150 kHz to 30 MHz	-49.52	-48.71	-48.99	-48.91	-26.01	-22.70
		30 MHz to 858 MHz	-47.79	-47.72	-48.05	-48.22	-16.01	-31.71
		858 MHz to 868 MHz	-27.48	-28.94	-29.14	-29.53	-16.01	-11.47
		895 MHz to 1 GHz	-44.30	-43.47	-44.76	-43.79	-16.01	-27.46
		1 GHz to 10 GHz	-23.29	-23.31	-23.31	-23.26	-16.01	-7.25
	1	9 kHz to 150 kHz	-55.46	-55.46	-56.42	-57.72	-36.01	-19.45
		150 kHz to 30 MHz	-48.80	-48.90	-48.75	-48.79	-26.01	-22.74
		30 MHz to 858 MHz	-48.37	-48.53	-48.09	-48.40	-16.01	-32.08
		858 MHz to 868 MHz	-27.36	-28.15	-27.86	-28.60	-16.01	-11.35
		895 MHz to 1 GHz	-42.39	-42.31	-40.32	-41.88	-16.01	-24.31
		1 GHz to 10 GHz	-24.02	-23.40	-23.83	-23.69	-16.01	-7.39
Middle	0	9 kHz to 150 kHz	-56.57	-56.32	-57.37	-57.62	-36.01	-20.31
		150 kHz to 30 MHz	-49.10	-49.36	-49.06	-49.11	-26.01	-23.05
		30 MHz to 858 MHz	-48.81	-48.35	-48.00	-48.36	-16.01	-31.99
		858 MHz to 868 MHz	-35.53	-35.17	-35.50	-36.34	-16.01	-19.16
		895 MHz to 1 GHz	-42.23	-42.89	-43.71	-43.19	-16.01	-26.21
		1 GHz to 10 GHz	-23.43	-23.27	-23.49	-23.45	-16.01	-7.26
	1	9 kHz to 150 kHz	-55.70	-55.84	-56.81	-57.32	-36.01	-19.69
		150 kHz to 30 MHz	-48.98	-49.12	-49.35	-49.23	-26.01	-22.97
		30 MHz to 858 MHz	-47.88	-48.45	-48.07	-47.81	-16.01	-31.80
		858 MHz to 868 MHz	-34.28	-34.06	-33.92	-34.32	-16.01	-17.91
		895 MHz to 1 GHz	-39.81	-40.78	-41.18	-40.50	-16.01	-23.80
		1 GHz to 10 GHz	-23.89	-23.88	-23.78	-23.67	-16.01	-7.65
High	0	9 kHz to 150 kHz	-55.99	-56.52	-57.35	-57.89	-36.01	-19.98
		150 kHz to 30 MHz	-48.97	-49.53	-48.89	-48.99	-26.01	-22.88
		30 MHz to 858 MHz	-47.47	-48.67	-48.68	-47.79	-16.01	-31.46
		858 MHz to 868 MHz	-36.29	-35.70	-35.73	-35.98	-16.01	-19.69
		895 MHz to 1 GHz	-37.62	-35.91	-37.88	-37.61	-16.01	-19.90
		1 GHz to 10 GHz	-23.38	-23.14	-23.20	-23.38	-16.01	-7.13
	1	9 kHz to 150 kHz	-56.43	-56.01	-56.89	-57.10	-36.01	-20.00
		150 kHz to 30 MHz	-48.95	-48.38	-48.86	-49.06	-26.01	-22.36
		30 MHz to 858 MHz	-48.21	-48.17	-47.53	-49.06	-16.01	-31.52
		858 MHz to 868 MHz	-33.95	-34.53	-34.27	-35.13	-16.01	-17.94
		895 MHz to 1 GHz	-34.20	-34.95	-34.94	-34.17	-16.01	-18.16
		1 GHz to 10 GHz	-23.46	-23.86	-23.78	-23.53	-16.01	-7.44

Table 8-231. Conducted Spurious Emission Summary Data (LTE B5_1C_10M_2T)

FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K23040701-00-R2.A3L	Test Dates: 04/12/2023 - 05/26/2023	EUT Type: RRU(RF4461d)		Page 204 of 394

Channel	Port	Measurement Range	Level (dBm)		Limit (dBm)	Worst Margin (dB)
			QPSK	16QAM		
Low	0	9 kHz to 150 kHz	-56.73	-55.64	-36.01	-19.63
		150 kHz to 30 MHz	-48.24	-47.15	-26.01	-21.14
		30 MHz to 858 MHz	-43.23	-43.17	-16.01	-27.16
		858 MHz to 868 MHz	-29.25	-28.85	-16.01	-12.84
		895 MHz to 1 GHz	-41.91	-41.73	-16.01	-25.72
		1 GHz to 10 GHz	-23.38	-23.41	-16.01	-7.37
	1	9 kHz to 150 kHz	-56.38	-55.87	-36.01	-19.86
		150 kHz to 30 MHz	-48.78	-46.76	-26.01	-20.75
		30 MHz to 858 MHz	-42.71	-42.69	-16.01	-26.68
		858 MHz to 868 MHz	-26.06	-26.38	-16.01	-10.05
		895 MHz to 1 GHz	-38.89	-39.33	-16.01	-22.88
		1 GHz to 10 GHz	-23.83	-23.98	-16.01	-7.82
Middle	0	9 kHz to 150 kHz	-57.20	-56.24	-36.01	-20.23
		150 kHz to 30 MHz	-48.36	-47.40	-26.01	-21.39
		30 MHz to 858 MHz	-43.05	-42.90	-16.01	-26.89
		858 MHz to 868 MHz	-31.38	-34.42	-16.01	-15.37
		895 MHz to 1 GHz	-40.79	-41.91	-16.01	-24.78
		1 GHz to 10 GHz	-23.32	-23.56	-16.01	-7.31
	1	9 kHz to 150 kHz	-54.42	-55.81	-36.01	-18.41
		150 kHz to 30 MHz	-48.11	-48.37	-26.01	-22.10
		30 MHz to 858 MHz	-42.67	-42.68	-16.01	-26.66
		858 MHz to 868 MHz	-32.61	-33.09	-16.01	-16.60
		895 MHz to 1 GHz	-38.12	-37.92	-16.01	-21.91
		1 GHz to 10 GHz	-24.03	-23.89	-16.01	-7.88
High	0	9 kHz to 150 kHz	-57.15	-56.22	-36.01	-20.21
		150 kHz to 30 MHz	-48.87	-48.02	-26.01	-22.01
		30 MHz to 858 MHz	-42.92	-43.05	-16.01	-26.91
		858 MHz to 868 MHz	-34.77	-35.45	-16.01	-18.76
		895 MHz to 1 GHz	-36.95	-36.57	-16.01	-20.56
		1 GHz to 10 GHz	-23.55	-23.30	-16.01	-7.29
	1	9 kHz to 150 kHz	-56.37	-56.56	-36.01	-20.36
		150 kHz to 30 MHz	-48.72	-48.31	-26.01	-22.30
		30 MHz to 858 MHz	-42.70	-42.60	-16.01	-26.59
		858 MHz to 868 MHz	-34.07	-33.38	-16.01	-17.37
		895 MHz to 1 GHz	-33.87	-33.59	-16.01	-17.58
		1 GHz to 10 GHz	-23.81	-23.72	-16.01	-7.71

Table 8-232. Conducted Spurious Emission Summary Data (LTE B5_2C_5M+5M_2T)

FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K23040701-00-R2.A3L	Test Dates: 04/12/2023 - 05/26/2023	EUT Type: RRU(RF4461d)		Page 205 of 394

Channel	Port	Measurement Range	Level (dBm)		Limit (dBm)	Worst Margin (dB)
			QPSK	16QAM		
Middle	0	9 kHz to 150 kHz	-57.18	-56.62	-36.01	-20.61
		150 kHz to 30 MHz	-51.59	-51.83	-26.01	-25.58
		30 MHz to 858 MHz	-42.34	-42.60	-16.01	-26.33
		858 MHz to 868 MHz	-29.89	-29.65	-16.01	-13.64
		895 MHz to 1 GHz	-37.18	-36.74	-16.01	-20.73
		1 GHz to 10 GHz	-23.11	-22.65	-16.01	-6.64
	1	9 kHz to 150 kHz	-57.15	-56.43	-36.01	-20.42
		150 kHz to 30 MHz	-52.05	-52.48	-26.01	-26.04
		30 MHz to 858 MHz	-42.50	-42.67	-16.01	-26.49
		858 MHz to 868 MHz	-27.96	-27.47	-16.01	-11.46
		895 MHz to 1 GHz	-33.79	-33.52	-16.01	-17.51
		1 GHz to 10 GHz	-23.59	-23.44	-16.01	-7.43

Table 8-233. Conducted Spurious Emission Summary Data (LTE B5_3C_5M+10M+10M_2T)

Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst Margin (dB)
			QPSK		
Middle	0	9 kHz to 150 kHz	-53.38	-36.01	-17.37
		150 kHz to 30 MHz	-48.78	-26.01	-22.77
		30 MHz to 858 MHz	-41.18	-16.01	-25.17
		858 MHz to 868 MHz	-26.72	-16.01	-10.71
		895 MHz to 1 GHz	-35.38	-16.01	-19.37
		1 GHz to 10 GHz	-22.99	-16.01	-6.98
	1	9 kHz to 150 kHz	-52.59	-36.01	-16.58
		150 kHz to 30 MHz	-48.42	-26.01	-22.41
		30 MHz to 858 MHz	-42.33	-16.01	-26.32
		858 MHz to 868 MHz	-24.02	-16.01	-8.01
		895 MHz to 1 GHz	-31.92	-16.01	-15.91
		1 GHz to 10 GHz	-23.64	-16.01	-7.63

Table 8-234. Conducted Spurious Emission Summary Data (LTE B5_2NC_5M+5M_2T)

FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 8K23040701-00-R2.A3L	Test Dates: 04/12/2023 - 05/26/2023	EUT Type: RRU(RF4461d)			Page 206 of 394

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 9 : NR 1	Low	0	9 kHz to 150 kHz	-57.03	-53.47	-54.96	-55.07	-36.01	-17.46
			150 kHz to 30 MHz	-48.73	-48.71	-48.50	-49.21	-26.01	-22.49
			30 MHz to 858 MHz	-42.68	-43.04	-43.07	-43.11	-16.01	-26.67
			858 MHz to 868 MHz	-25.80	-27.28	-25.63	-25.36	-16.01	-9.35
			895 MHz to 1 GHz	-40.05	-40.35	-39.99	-40.36	-16.01	-23.98
			1 GHz to 10 GHz	-23.53	-22.79	-23.06	-23.36	-16.01	-6.78
		1	9 kHz to 150 kHz	-55.86	-55.51	-54.51	-54.90	-36.01	-18.50
			150 kHz to 30 MHz	-48.22	-48.20	-48.74	-48.48	-26.01	-22.19
			30 MHz to 858 MHz	-42.65	-42.63	-42.61	-42.66	-16.01	-26.60
			858 MHz to 868 MHz	-25.62	-25.25	-25.53	-24.43	-16.01	-8.42
			895 MHz to 1 GHz	-38.41	-36.89	-38.17	-39.03	-16.01	-20.88
			1 GHz to 10 GHz	-23.92	-23.56	-23.99	-24.01	-16.01	-7.55
	Middle	0	9 kHz to 150 kHz	-56.79	-54.50	-55.50	-56.45	-36.01	-18.49
			150 kHz to 30 MHz	-48.99	-48.89	-48.61	-48.78	-26.01	-22.59
			30 MHz to 858 MHz	-43.24	-43.10	-43.07	-42.90	-16.01	-26.89
			858 MHz to 868 MHz	-32.50	-32.76	-34.32	-33.10	-16.01	-16.49
			895 MHz to 1 GHz	-40.51	-40.33	-40.56	-39.48	-16.01	-23.47
			1 GHz to 10 GHz	-23.01	-23.35	-23.20	-23.20	-16.01	-7.00
		1	9 kHz to 150 kHz	-55.42	-54.68	-55.76	-55.65	-36.01	-18.67
			150 kHz to 30 MHz	-48.63	-48.33	-48.28	-48.41	-26.01	-22.27
			30 MHz to 858 MHz	-42.66	-42.90	-42.73	-42.61	-16.01	-26.60
			858 MHz to 868 MHz	-30.40	-32.86	-31.71	-30.49	-16.01	-14.39
			895 MHz to 1 GHz	-37.31	-38.63	-36.53	-38.31	-16.01	-20.52
			1 GHz to 10 GHz	-23.96	-24.05	-23.84	-23.91	-16.01	-7.83
	High	0	9 kHz to 150 kHz	-56.10	-55.50	-56.17	-56.76	-36.01	-19.49
			150 kHz to 30 MHz	-48.94	-49.18	-48.71	-48.81	-26.01	-22.70
			30 MHz to 858 MHz	-43.29	-43.34	-43.19	-43.20	-16.01	-27.18
			858 MHz to 868 MHz	-34.25	-35.19	-33.63	-33.60	-16.01	-17.58
			895 MHz to 1 GHz	-34.32	-37.60	-33.13	-32.06	-16.01	-16.05
			1 GHz to 10 GHz	-23.39	-23.31	-23.32	-23.59	-16.01	-7.30
		1	9 kHz to 150 kHz	-56.39	-53.36	-54.92	-56.29	-36.01	-17.35
			150 kHz to 30 MHz	-48.54	-48.24	-48.91	-48.63	-26.01	-22.23
			30 MHz to 858 MHz	-42.61	-42.66	-42.83	-42.95	-16.01	-26.60
			858 MHz to 868 MHz	-32.28	-33.18	-29.63	-32.30	-16.01	-13.62
			895 MHz to 1 GHz	-30.93	-32.73	-30.22	-30.56	-16.01	-14.21
			1 GHz to 10 GHz	-23.31	-23.73	-23.69	-23.72	-16.01	-7.30

Table 8-235. Conducted Spurious Emission Summary Data (DSS B(n)5_1C_10M(9:1 Ratio)_2T)

FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 8K23040701-00-R2.A3L	Test Dates: 04/12/2023 - 05/26/2023	EUT Type: RRU(RF4461d)			Page 207 of 394

DSS Ratio	Channel	Port	Measurement Range	Level (dBm)				Limit (dBm)	Worst Margin (dB)
				QPSK	16QAM	64QAM	256QAM		
LTE 8 : NR 2	Low	0	9 kHz to 150 kHz	-51.78	-51.93	-53.86	-53.95	-36.01	-15.77
			150 kHz to 30 MHz	-49.11	-48.76	-48.22	-48.70	-26.01	-22.20
			30 MHz to 858 MHz	-42.91	-43.06	-43.05	-42.85	-16.01	-26.84
			858 MHz to 868 MHz	-26.66	-26.79	-27.49	-25.78	-16.01	-9.76
			895 MHz to 1 GHz	-39.34	-39.55	-40.83	-40.76	-16.01	-23.33
			1 GHz to 10 GHz	-23.33	-23.45	-23.13	-23.17	-16.01	-7.12
		1	9 kHz to 150 kHz	-52.75	-51.69	-51.48	-51.42	-36.01	-15.41
			150 kHz to 30 MHz	-48.81	-48.56	-48.31	-48.47	-26.01	-22.30
			30 MHz to 858 MHz	-42.77	-42.43	-42.73	-42.85	-16.01	-26.42
			858 MHz to 868 MHz	-25.91	-25.02	-26.21	-24.65	-16.01	-8.64
			895 MHz to 1 GHz	-39.01	-38.47	-35.83	-39.35	-16.01	-19.82
			1 GHz to 10 GHz	-23.41	-23.56	-23.50	-23.65	-16.01	-7.40
	Middle	0	9 kHz to 150 kHz	-53.12	-52.93	-54.54	-53.40	-36.01	-16.92
			150 kHz to 30 MHz	-49.17	-49.11	-47.92	-48.75	-26.01	-21.91
			30 MHz to 858 MHz	-43.20	-42.99	-43.13	-42.98	-16.01	-26.97
			858 MHz to 868 MHz	-33.04	-32.71	-30.55	-33.91	-16.01	-14.53
			895 MHz to 1 GHz	-39.64	-40.18	-39.84	-40.64	-16.01	-23.63
			1 GHz to 10 GHz	-23.17	-23.49	-22.98	-23.31	-16.01	-6.97
		1	9 kHz to 150 kHz	-55.30	-53.50	-53.94	-52.77	-36.01	-16.76
			150 kHz to 30 MHz	-48.77	-48.49	-47.82	-48.82	-26.01	-21.81
			30 MHz to 858 MHz	-42.77	-42.84	-42.85	-42.91	-16.01	-26.76
			858 MHz to 868 MHz	-30.53	-32.06	-32.93	-31.64	-16.01	-14.52
			895 MHz to 1 GHz	-36.63	-38.36	-36.76	-37.69	-16.01	-20.62
			1 GHz to 10 GHz	-23.72	-23.67	-23.81	-23.99	-16.01	-7.66
	High	0	9 kHz to 150 kHz	-53.37	-53.99	-53.93	-52.36	-36.01	-16.35
			150 kHz to 30 MHz	-49.14	-48.35	-48.81	-49.28	-26.01	-22.34
			30 MHz to 858 MHz	-43.27	-42.90	-43.14	-42.87	-16.01	-26.86
			858 MHz to 868 MHz	-34.21	-36.30	-33.75	-34.01	-16.01	-17.74
			895 MHz to 1 GHz	-33.95	-36.98	-34.58	-32.87	-16.01	-16.86
			1 GHz to 10 GHz	-23.24	-23.51	-23.41	-23.35	-16.01	-7.23
		1	9 kHz to 150 kHz	-52.41	-50.95	-52.81	-53.17	-36.01	-14.94
			150 kHz to 30 MHz	-48.59	-48.51	-48.15	-48.33	-26.01	-22.14
			30 MHz to 858 MHz	-42.73	-42.91	-42.65	-42.79	-16.01	-26.64
			858 MHz to 868 MHz	-31.97	-33.70	-32.10	-30.06	-16.01	-14.04
			895 MHz to 1 GHz	-30.91	-32.69	-31.50	-28.55	-16.01	-12.54
			1 GHz to 10 GHz	-23.97	-23.54	-23.68	-23.66	-16.01	-7.53

Table 8-236. Conducted Spurious Emission Summary Data (DSS B(n)5_1C_10M(8:2 Ratio)_2T)

FCC ID: A3LRF4461D-13A		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 8K23040701-00-R2.A3L	Test Dates: 04/12/2023 - 05/26/2023	EUT Type: RRU(RF4461d)		Page 208 of 394