

Test Notes

1. For channel edge emission, the signal analyzer's "ACP" measurement capability is used.
2. Per 22.917(b) 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 to demonstrate compliance with the out-of-band emissions limit. 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 emission are attenuated at least 26 dB below the transmitter power.
3. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) 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.

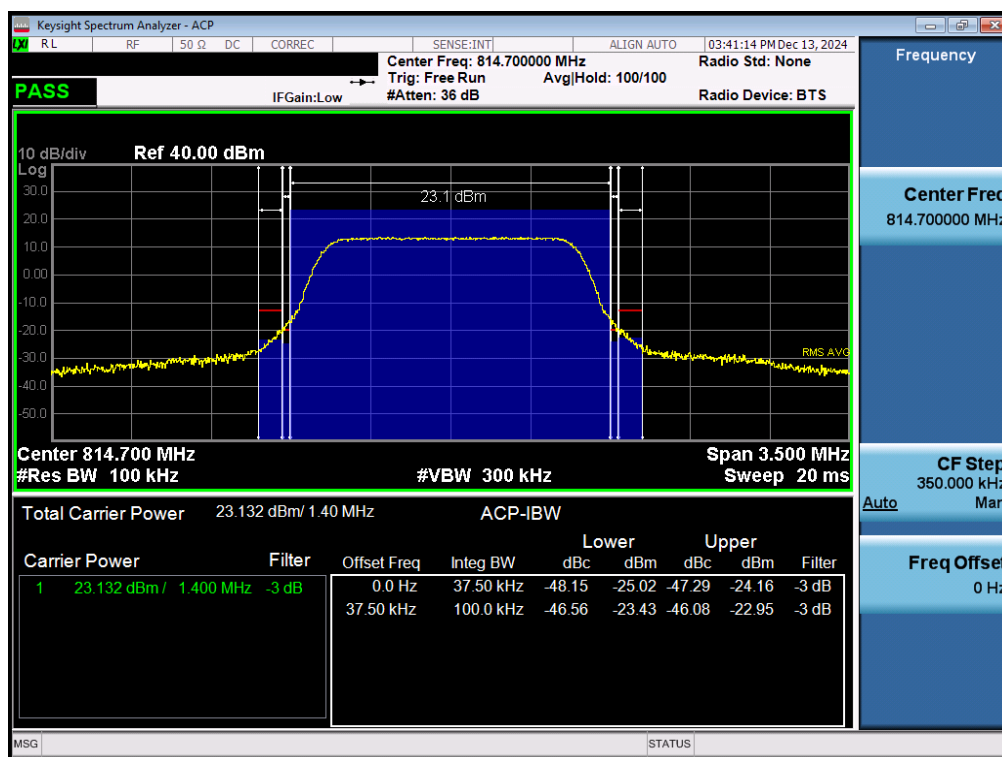
FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 81 of 120

Mode	Bandwidth	Channel	Test Case	Level [dBm]	Limit [dBm]	Margin [dB]
LTE-B14	10 MHz	Low	Band Edge	-30.95	-13	-17.95
		Low EmMask	Band Edge	-68.31	-35	-33.31
		High	Band Edge	-31.51	-13	-18.51
		High EmMask	Band Edge	-44.41	-35	-9.41
	5 MHz	Low	Band Edge	-23.84	-13	-10.84
		Low EmMask	Band Edge	-71.64	-35	-36.64
		High	Band Edge	-22.01	-13	-9.01
		High EmMask	Band Edge	-43.02	-35	-8.02
LTE-B26	15 MHz	Mid	Band Edge	-33.81	-15	-18.47
	10 MHz	Mid	Band Edge	-30.06	-17	-12.80
	5 MHz	Low	Band Edge	-25.65	-20	-5.65
		High	Band Edge	-25.99	-20	-5.99
	3 MHz	Low	Band Edge	-21.97	-20	-1.97
		High	Band Edge	-22.67	-20	-2.67
	1.4 MHz	Low	Band Edge	-22.95	-20	-2.95
		High	Band Edge	-23.01	-20	-3.01
NR-n14	10 MHz	Low	Band Edge	-26.49	-13	-13.49
		Low EmMask	Band Edge	-62.84	-35	-27.84
		High	Band Edge	-26.18	-13	-13.18
		High EmMask	Band Edge	-44.12	-35	-9.12
	5 MHz	Low	Band Edge	-22.58	-13	-9.58
		Low EmMask	Band Edge	-68.36	-35	-33.36
		High	Band Edge	-18.88	-13	-5.88
		High EmMask	Band Edge	-45.20	-35	-10.20
NR-n26	20 MHz	Mid	Band Edge	-32.60	-20	-12.60
	15 MHz	Mid	Band Edge	-33.07	-20	-13.07
	10 MHz	Mid	Band Edge	-29.77	-20	-9.77
	5 MHz	Low	Band Edge	-24.93	-20	-4.93
		High	Band Edge	-23.99	-20	-3.99

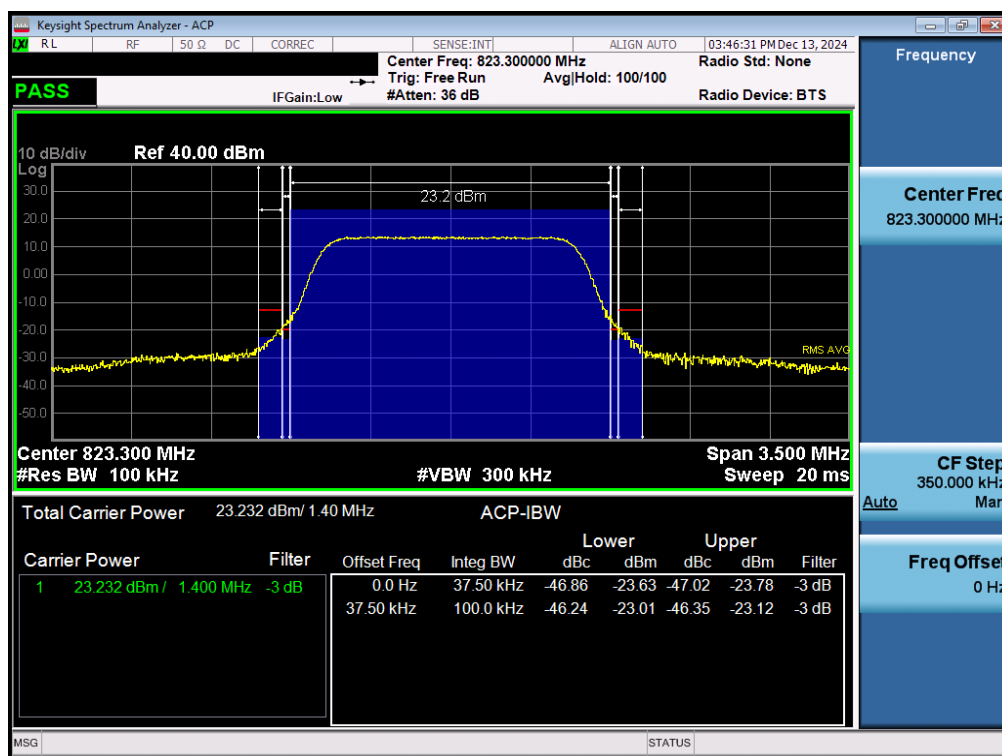
Table 7-14. Conducted Band Edge Test Results– Ant5

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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LTE Band 26 – Ant5



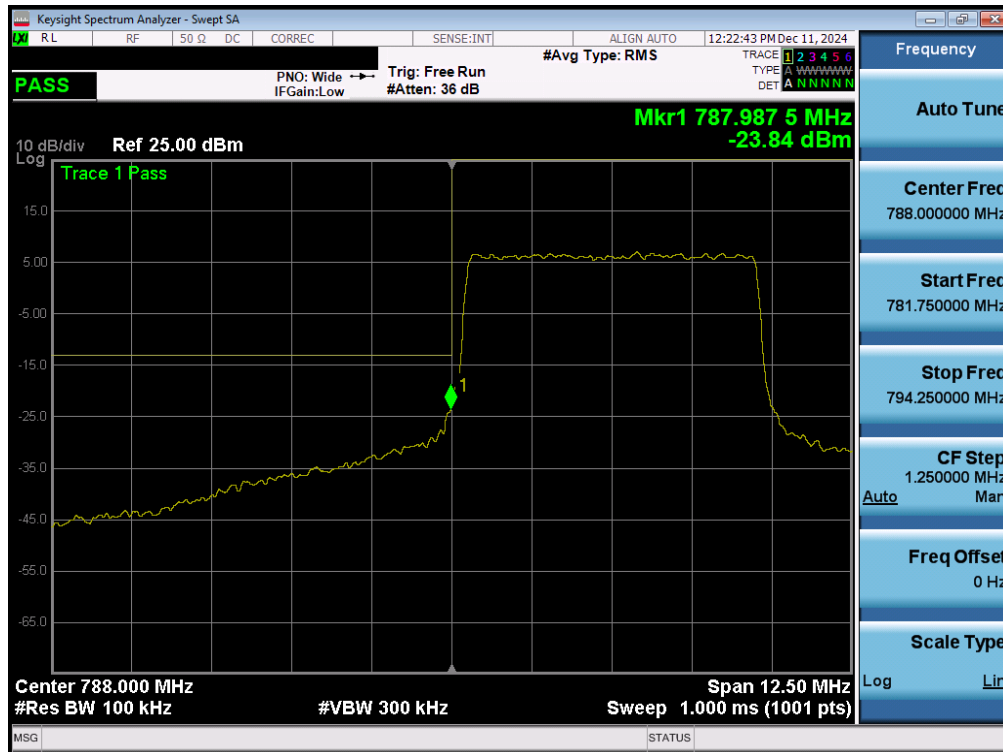
Plot 7-107. Channel Edge Plot (LTE Band 26 - 1.4MHz QPSK - Low Channel - Ant5)



Plot 7-108. Channel Edge Plot (LTE Band 26 - 1.4MHz QPSK - High Channel - Ant5)

LTE Band 14 – Ant5

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 7-109. Lower Band Edge Plot (LTE Band 14, 5MHz QPSK - RB Size 25 – Ant5)



Plot 7-110. Lower Emission Mask Plot (LTE Band 14, 5MHz QPSK - RB Size 25 – Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 84 of 120



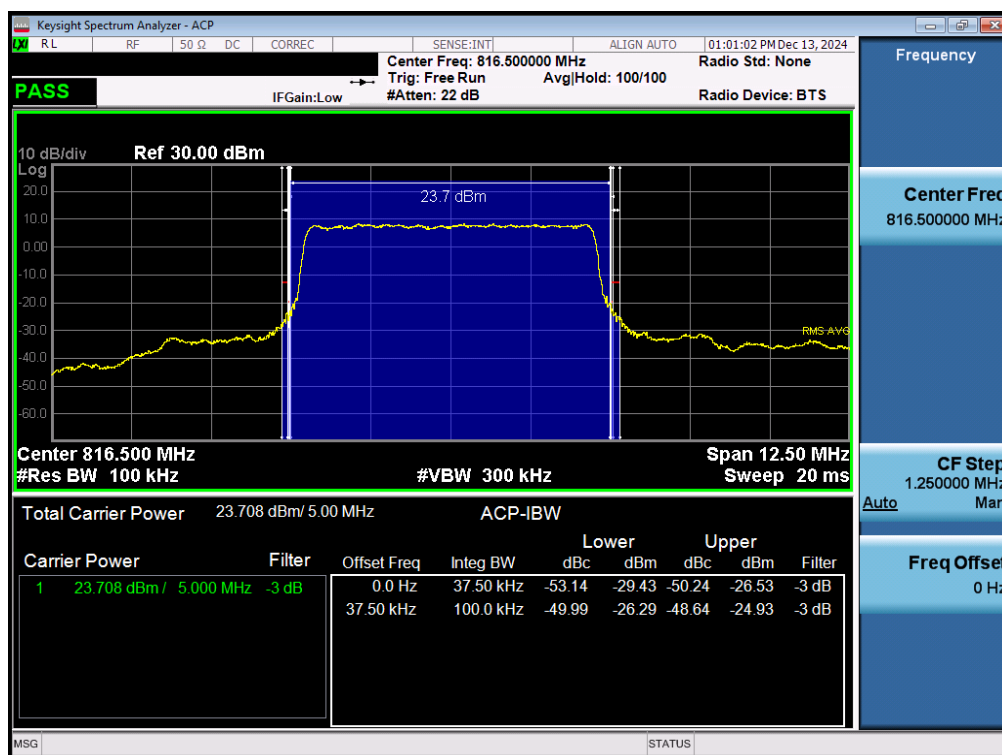
Plot 7-111. Upper Band Edge Plot (LTE Band 14, 5MHz QPSK - RB Size 25 – Ant5)



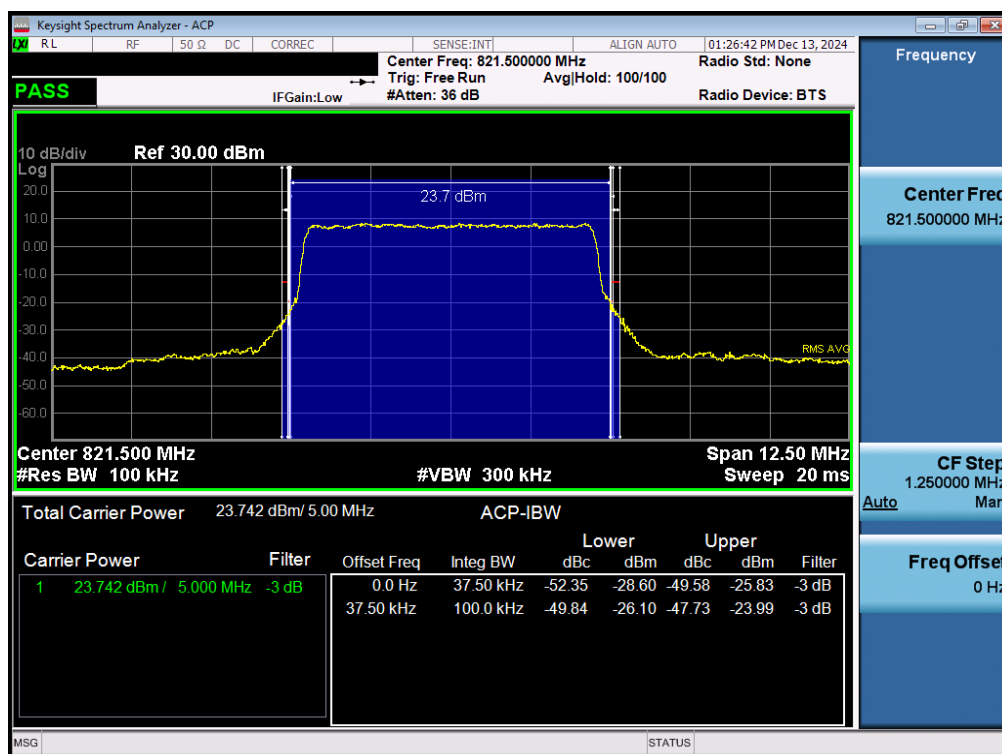
Plot 7-112. Upper Emission Mask Plot (LTE Band 14, 5MHz QPSK - RB Size 25 – Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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NR Band n26 – Ant5



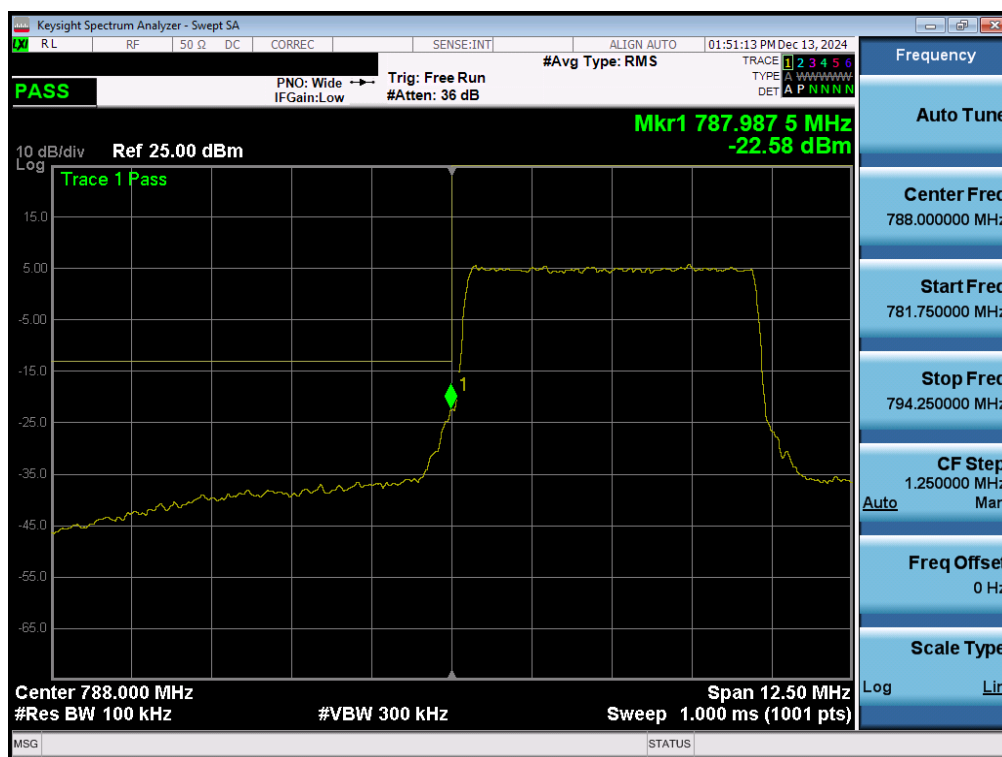
Plot 7-113. Channel Edge Plot (NR Band n26 - 5MHz QPSK - Low Channel - Ant5)



Plot 7-114. Channel Edge Plot (NR Band n26 - 5MHz QPSK - High Channel - Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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NR Band n14 – Ant5



Plot 7-115. Lower Band Edge Plot (NR Band n14, 5MHz QPSK - RB Size 25 – Ant5)

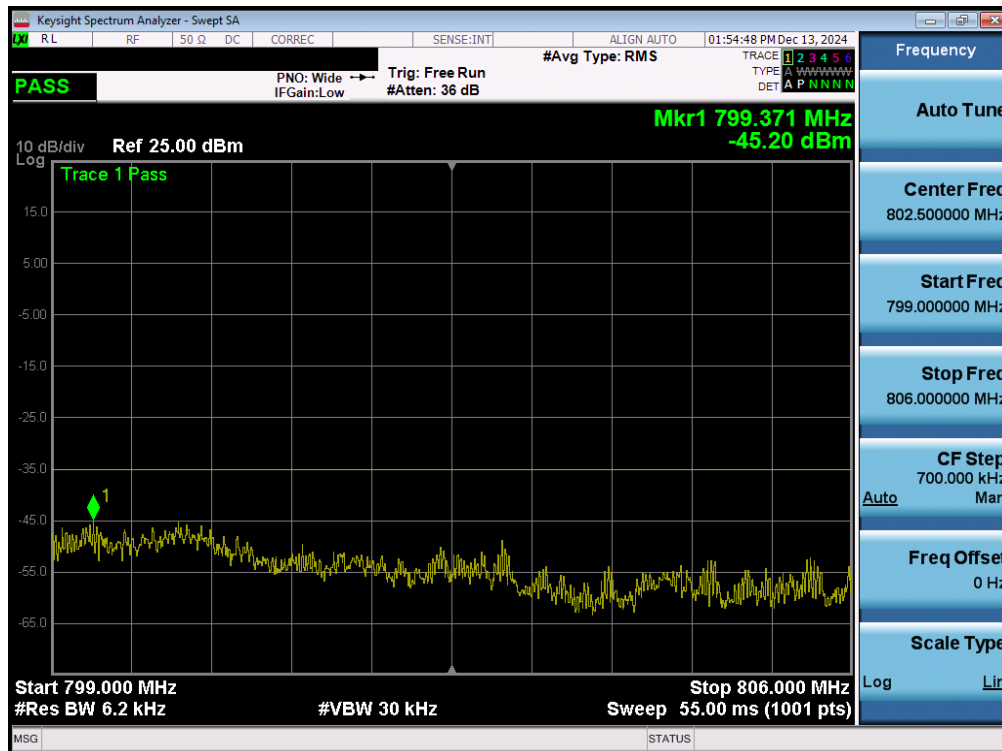


Plot 7-116. Lower Emission Mask Plot (NR Band n14, 5MHz QPSK - RB Size 25 – Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 7-117. Upper Band Edge Plot (NR Band n14, 5MHz QPSK - RB Size 25 – Ant5)



Plot 7-118. Upper Emission Mask Plot (NR Band n14, 5MHz QPSK - RB Size 25 – Ant5)

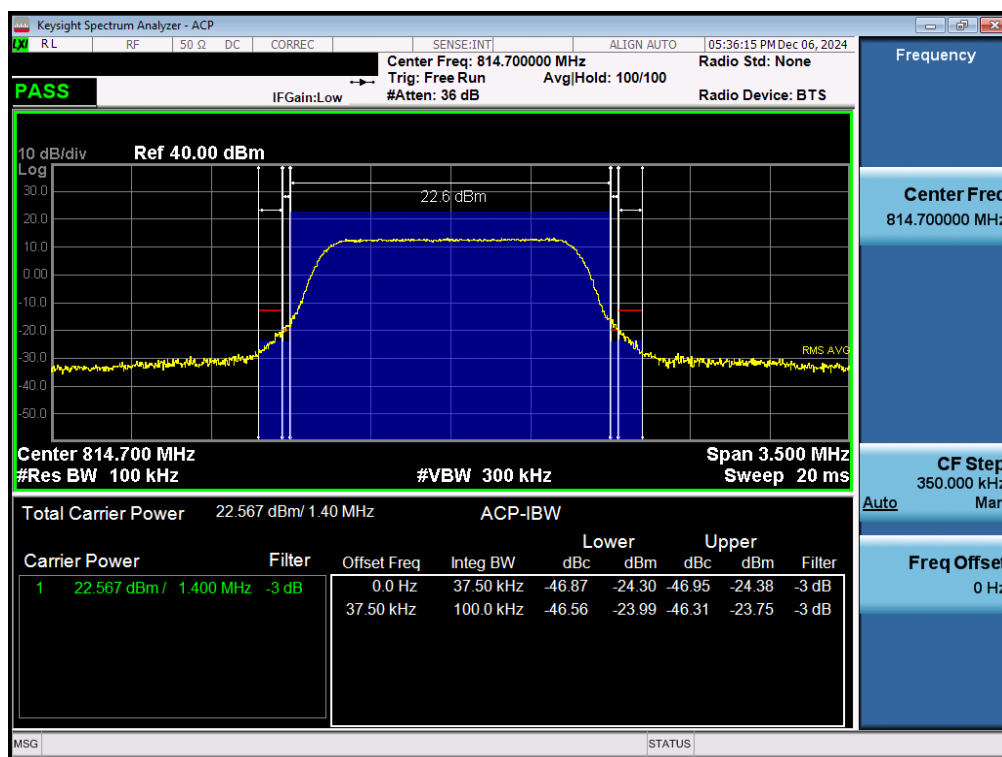
FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 88 of 120

Mode	Bandwidth	Channel	Test Case	Level [dBm]	Limit [dBm]	Margin [dB]
LTE-B14	10 MHz	Low	Band Edge	-30.50	-13	-17.50
		Low EmMask	Band Edge	-67.76	-35	-32.76
		High	Band Edge	-31.51	-13	-18.51
		High EmMask	Band Edge	-43.62	-35	-8.62
	5 MHz	Low	Band Edge	-21.89	-13	-8.89
		Low EmMask	Band Edge	-71.37	-35	-36.37
		High	Band Edge	-22.42	-13	-9.42
		High EmMask	Band Edge	-43.61	-35	-8.61
LTE-B26	15 MHz	Mid	Band Edge	-33.85	-20	-13.85
	10 MHz	Mid	Band Edge	-30.56	-20	-10.56
	5 MHz	Low	Band Edge	-26.36	-20	-6.36
		High	Band Edge	26.93	-20	46.93
	3 MHz	Low	Band Edge	-23.03	-20	-3.03
		High	Band Edge	-23.60	-20	-3.60
	1.4 MHz	Low	Band Edge	-23.75	-20	-3.75
		High	Band Edge	-23.77	-20	-3.77
NR-n14	10 MHz	Low	Band Edge	-27.71	-13	-14.71
		Low EmMask	Band Edge	-62.32	-35	-27.32
		High	Band Edge	-28.12	-13	-15.12
		High EmMask	Band Edge	-42.29	-35	-7.29
	5 MHz	Low	Band Edge	-23.74	-13	-10.74
		Low EmMask	Band Edge	-67.17	-35	-32.17
		High	Band Edge	-20.39	-13	-7.39
		High EmMask	Band Edge	-47.73	-35	-12.73
NR-n26	20 MHz	Mid	Band Edge	-32.49	-20	-12.49
	15 MHz	Mid	Band Edge	-33.59	-20	-13.59
	10 MHz	Mid	Band Edge	-30.17	-20	-10.17
	5 MHz	Low	Band Edge	-25.18	-20	-5.18
		High	Band Edge	-24.27	-20	-4.27

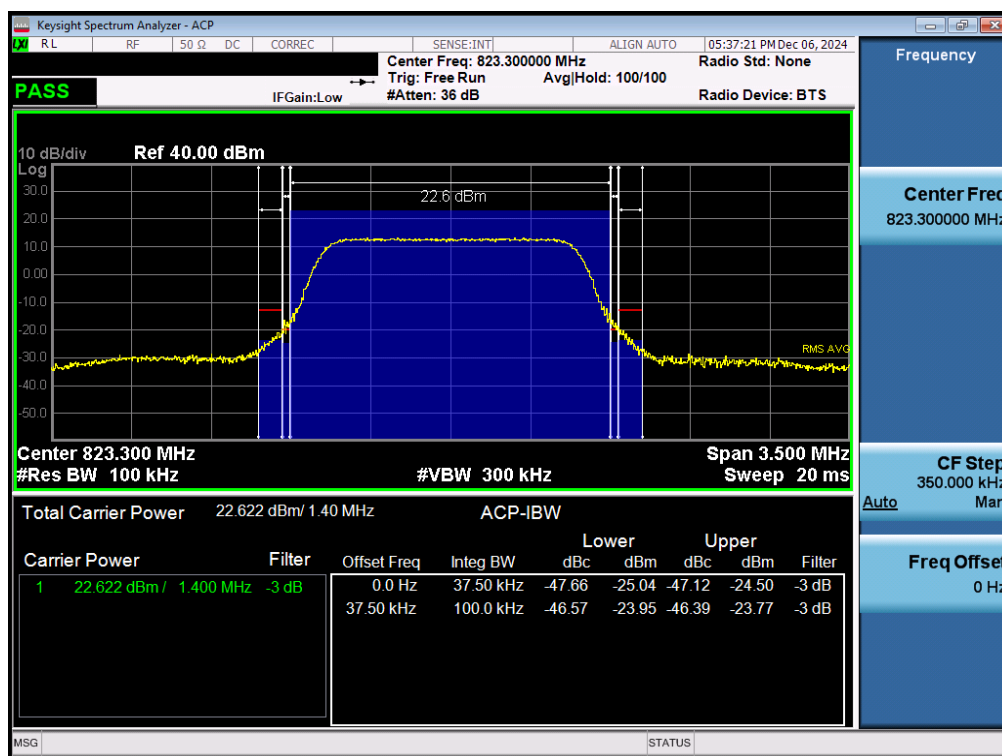
Table 7-15. Conducted Band Edge Test Results– Ant2

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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LTE Band 26 – Ant2



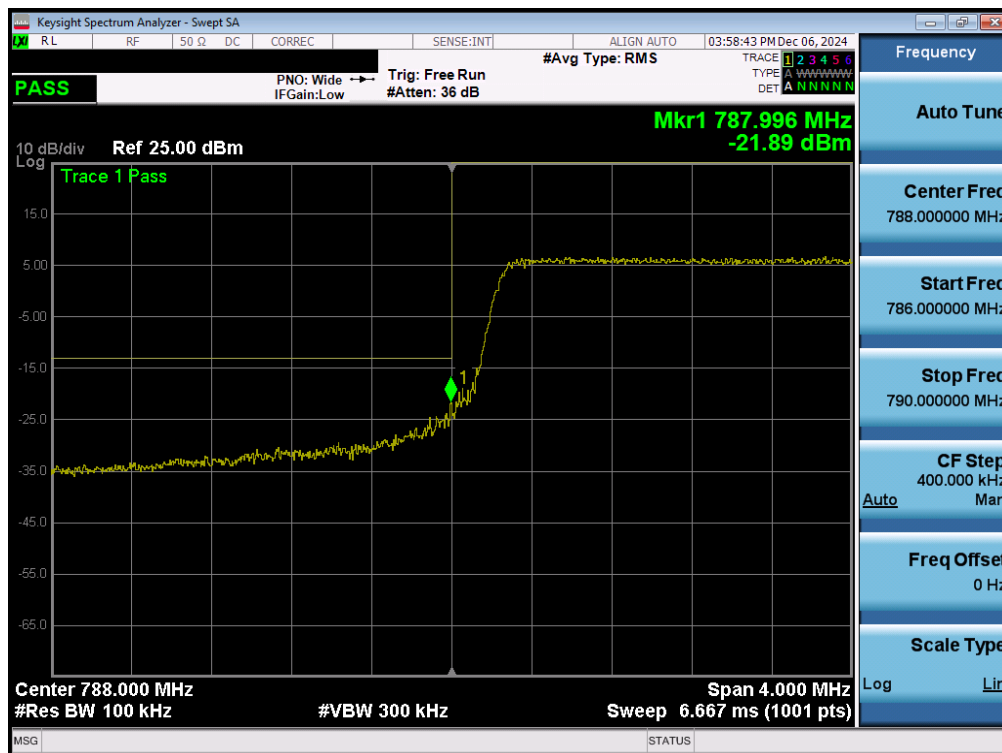
Plot 7-119. Channel Edge Plot (LTE Band 26 - 1.4MHz QPSK - Low Channel - Ant2)



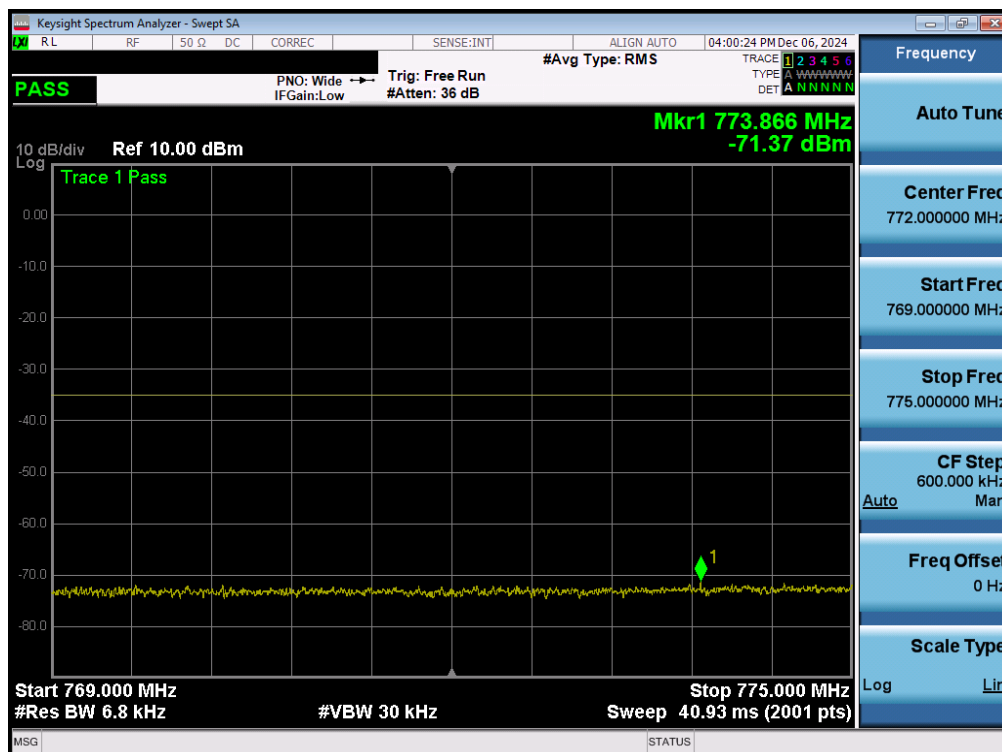
Plot 7-120. Channel Edge Plot (LTE Band 26 - 1.4MHz QPSK - High Channel - Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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LTE Band 14 – Ant2

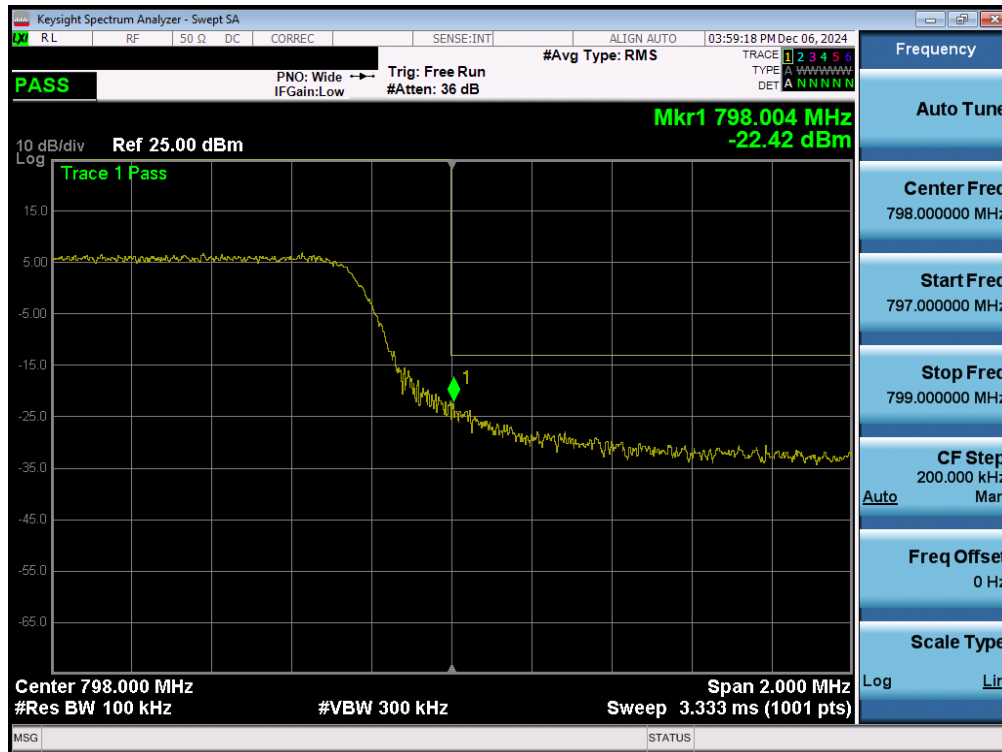


Plot 7-121. Lower Band Edge Plot (LTE Band 14, 5MHz QPSK - RB Size 25 – Ant2)



Plot 7-122. Lower Emission Mask Plot (LTE Band 14, 5MHz QPSK - RB Size 25 – Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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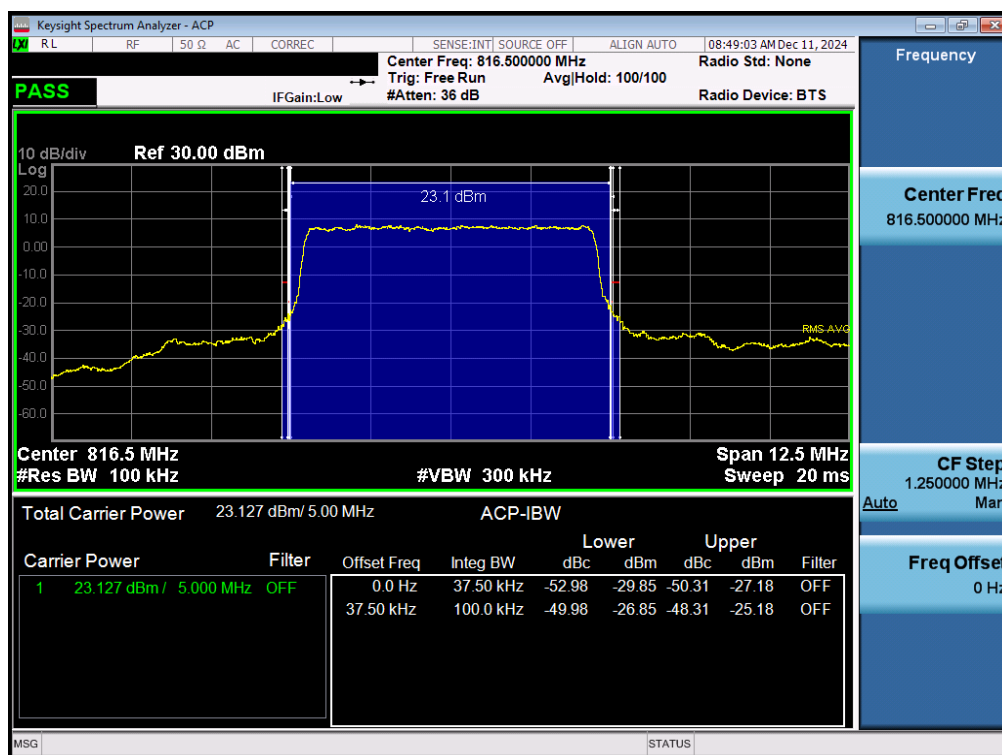
Plot 7-123. Upper Band Edge Plot (LTE Band 14, 5MHz QPSK - RB Size 25 – Ant2)



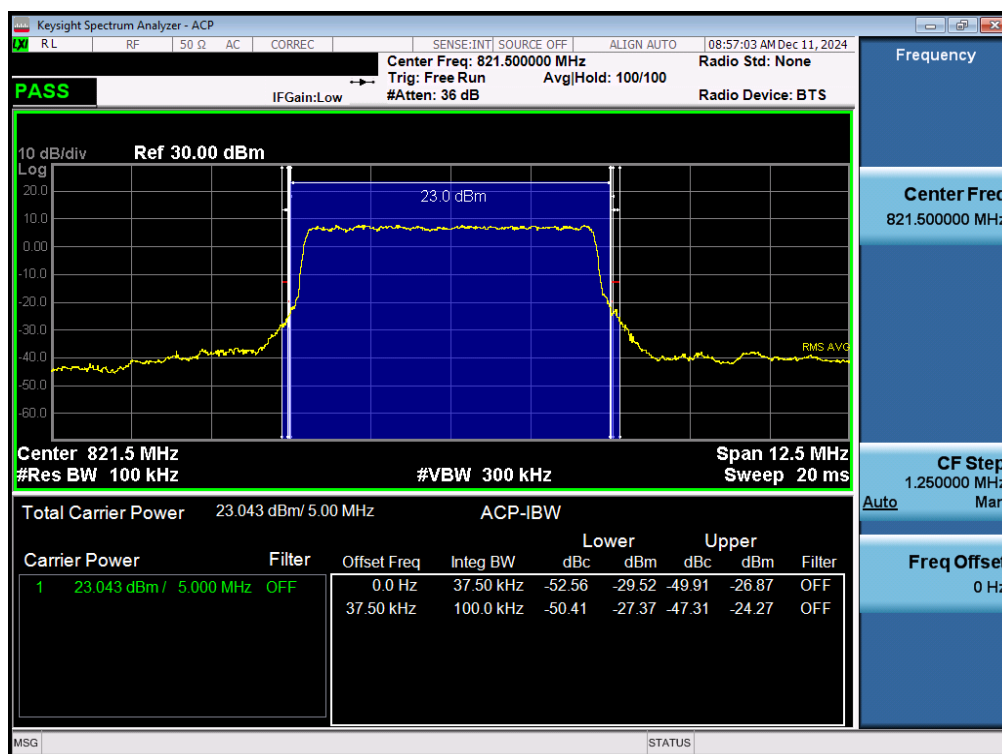
Plot 7-124. Upper Emission Mask Plot (LTE Band 14, 5MHz QPSK - RB Size 25 – Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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NR Band n26 – Ant2



Plot 7-125. Channel Edge Plot (NR Band n26 - 5MHz QPSK - Low Channel - Ant2)



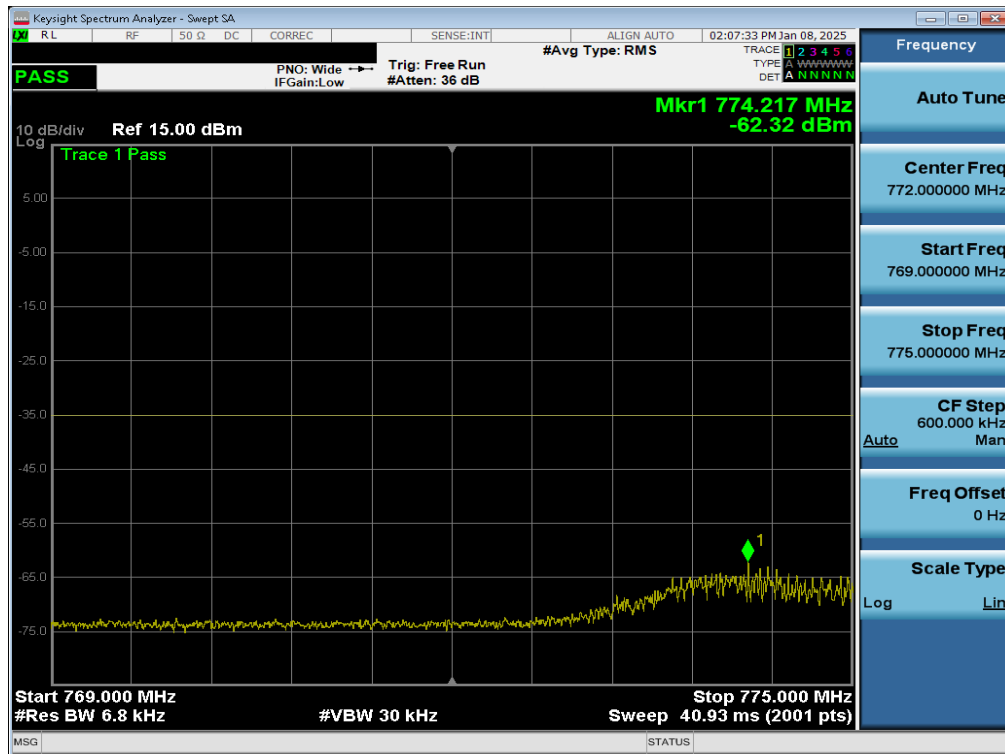
Plot 7-126. Channel Edge Plot (NR Band n26 - 5MHz QPSK - High Channel - Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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NR Band n14 – Ant2

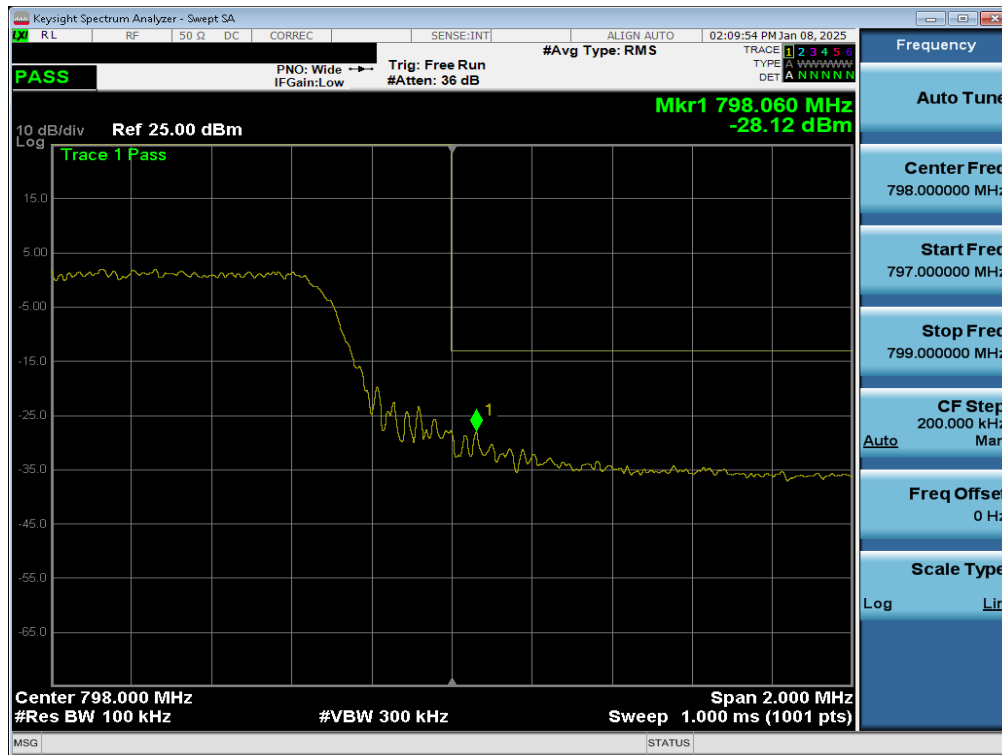


Plot 7-127. Lower Band Edge Plot (NR Band n14, 10MHz QPSK - RB Size 50 – Ant2)

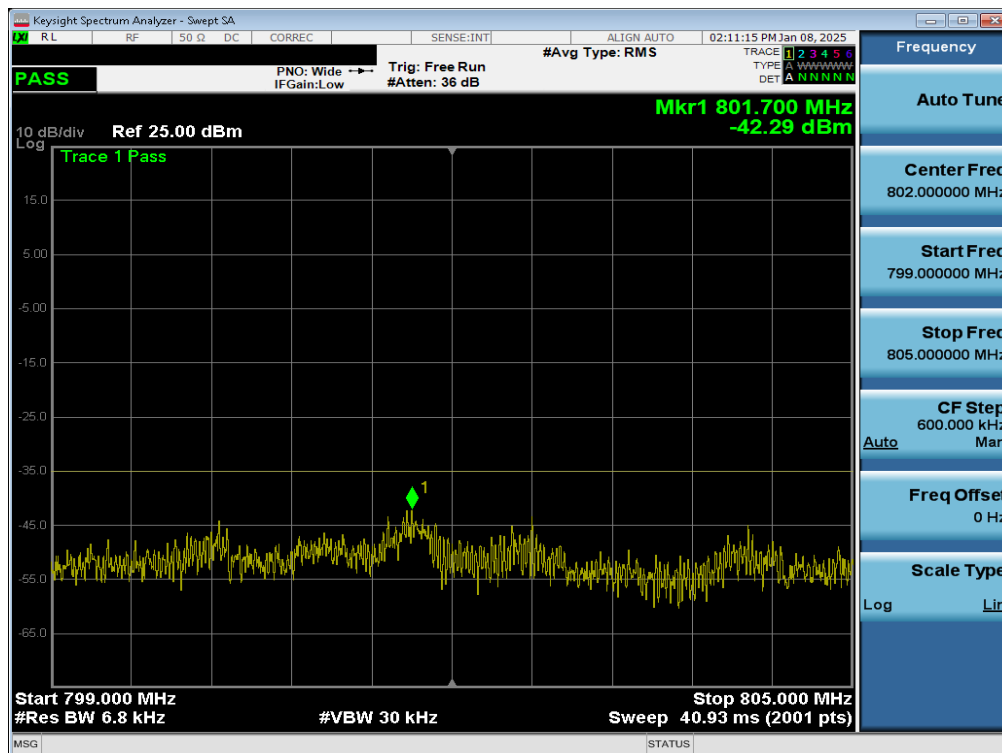


Plot 7-128. Lower Emission Mask Plot (NR Band n14, 10MHz QPSK - RB Size 50 – Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 7-129. Upper Band Edge Plot (NR Band n14, 10MHz QPSK - RB Size 50 – Ant2)



Plot 7-130. Upper Emission Mask Plot (NR Band n14, 10MHz QPSK - RB Size 50 – Ant2)

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7.6 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using hybrid (biconical/log) antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 – Section 5.5.4

Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW $\geq 3 \times$ RBW
3. Span = 1.5 times the OBW
4. No. of sweep points $\geq 2 \times$ span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

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Test Setup

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

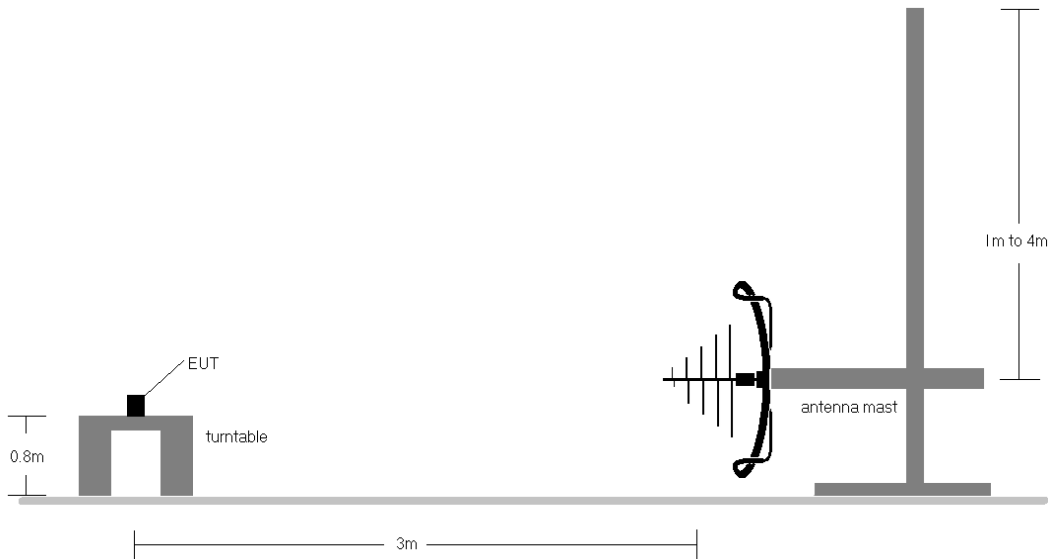


Figure 7-5. Test Instrument & Measurement Setup < 1GHz

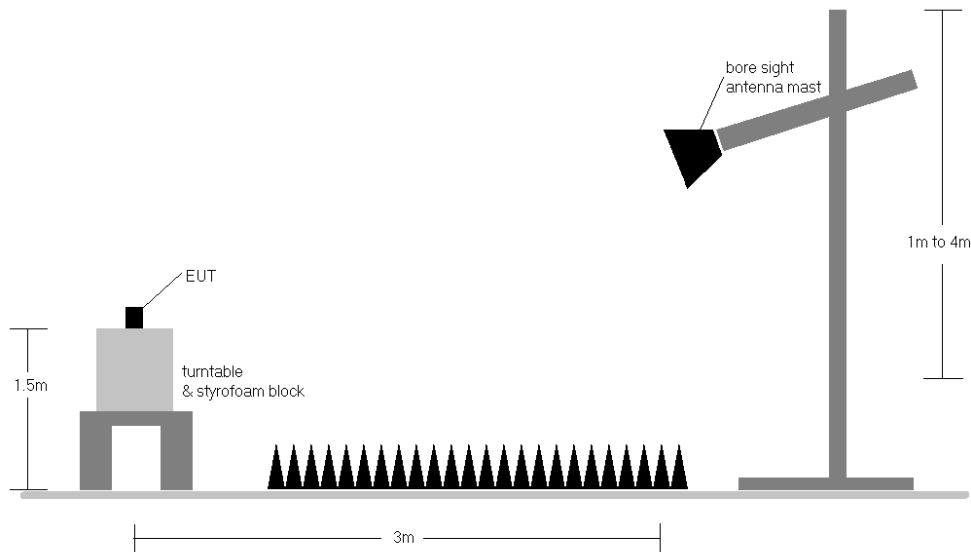


Figure 7-6. Test Instrument & Measurement Setup >1 GHz

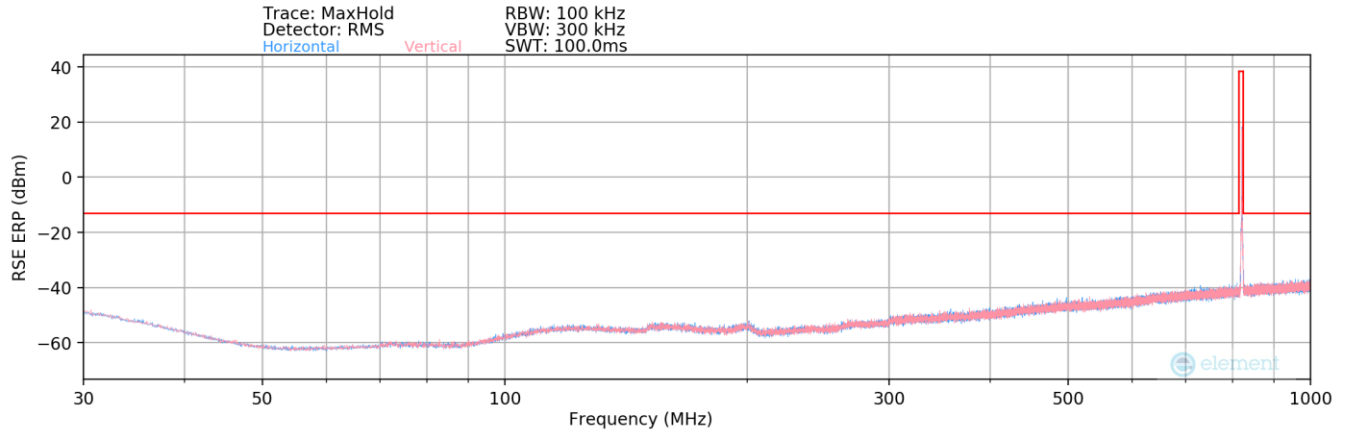
FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Test Notes

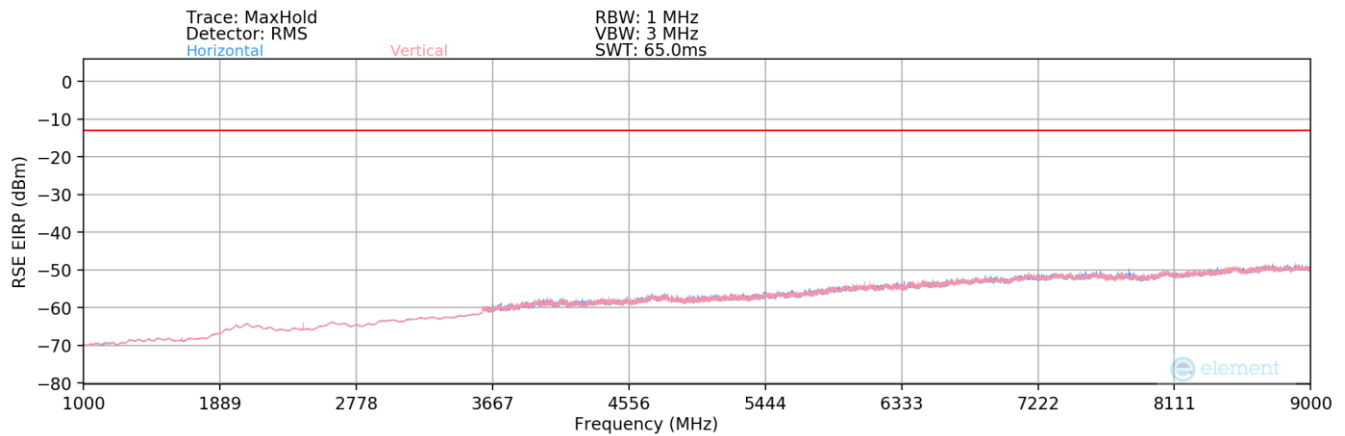
- 1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
 - a) $E(\text{dB}\mu\text{V/m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
 - b) $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V/m}) + 20\log D - 104.8$; where D is the measurement distance in meters.
- 2) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst-case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 3) This unit was tested using a power supply.
- 4) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 5) Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1-meter test distance with the application of a distance correction factor.
- 6) The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 7) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) 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.
- 8) Spurious emission in EN-DC Operating mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor) has been checked and was found to not to be the worst case. Spurious emissions from the NR carrier device are subject to the rules under which the NR carrier operates. Spurious emissions caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

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LTE Band 26 – Ant2



Plot 7-131. Radiated Spurious Plot Below 1GHz (LTE Band 26 – Ant2)



Plot 7-132. Radiated Spurious Plot Above 1GHz (LTE Band 26 – Ant2)

Bandwidth (MHz):	15
Frequency (MHz):	821.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
717.00	H	-	-	-108.16	29.18	28.02	-69.38	-13.00	-56.38

Table 7-16. Radiated Spurious Data (LTE Band 26 – Mid Channel - Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)				Approved by: Technical Manager
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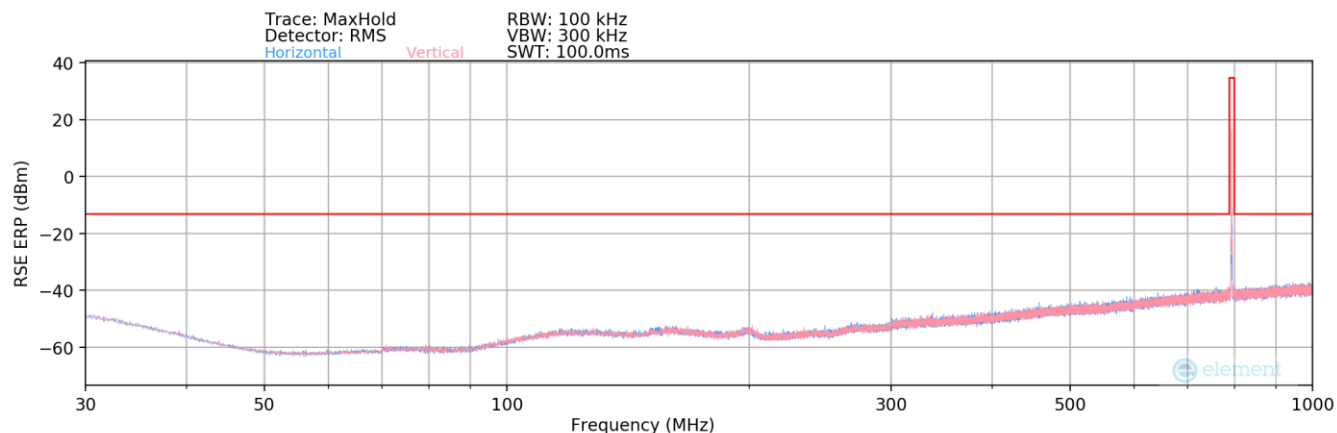
Bandwidth (MHz):	15
Frequency (MHz):	821.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1643.00	H	286	303	-74.01	-7.26	25.73	-69.52	-13.00	-56.52
2464.50	H	294	318	-76.08	-4.38	26.54	-68.72	-13.00	-55.72
3286.00	H	-	-	-77.25	-1.01	28.74	-66.52	-13.00	-53.52
4107.50	H	-	-	-77.78	1.69	30.91	-64.35	-13.00	-51.35
4929.00	H	-	-	-77.89	2.41	31.52	-63.74	-13.00	-50.74

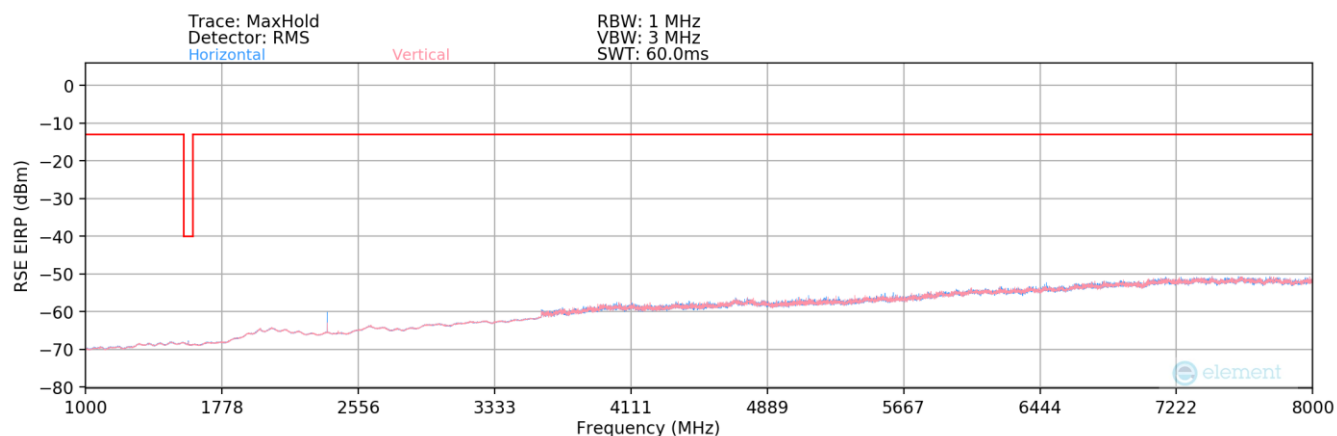
Table 7-17. Radiated Spurious Data (LTE Band 26 – Mid Channel - Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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LTE Band 14 – Ant2



Plot 7-133. Radiated Spurious Plot Below 1GHz (LTE Band 14 – Ant2)



Plot 7-134. Radiated Spurious Plot Above 1GHz (LTE Band 14 – Ant2)

Bandwidth (MHz):	10
Frequency (MHz):	793
Modulation Signal:	0
RB Config (Size / Offset):	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
457.00	H	-	-	-108.54	25.07	23.53	-73.88	-13.00	-60.88

Table 7-18. Radiated Spurious Data (LTE Band 14 – Mid Channel – Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)				Approved by: Technical Manager	
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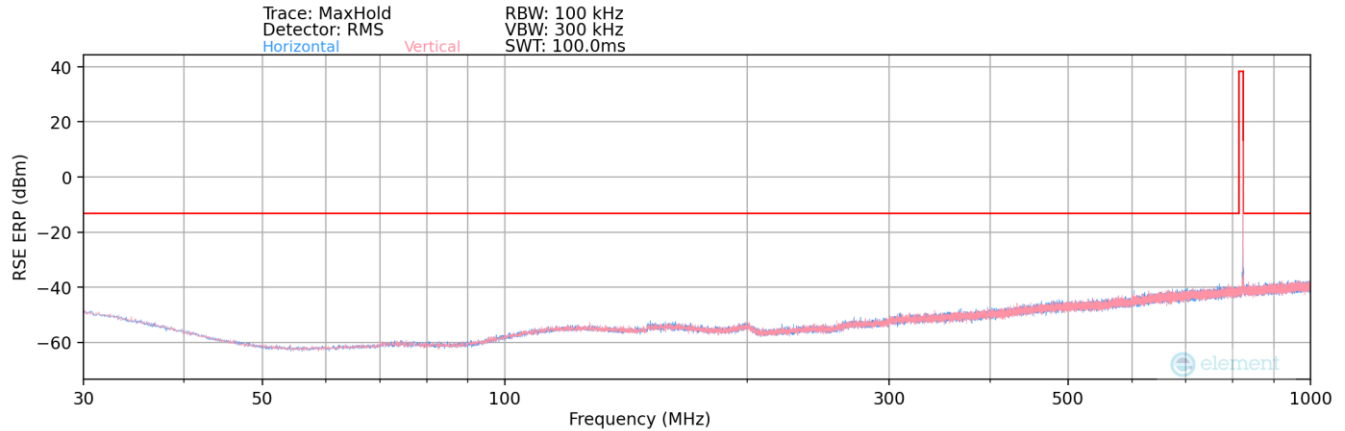
Bandwidth (MHz):	10
Frequency (MHz):	793
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1586.00	H	159	309	-72.54	-7.02	27.44	-67.81	-40.00	-27.81
2379.00	H	155	309	-70.90	-3.92	32.18	-63.08	-13.00	-50.08
3172.00	H	-	-	-77.62	-1.28	28.10	-67.16	-13.00	-54.16
3965.00	H	-	-	-77.67	1.57	30.90	-64.36	-13.00	-51.36
4758.00	H	-	-	-78.48	2.96	31.48	-63.78	-13.00	-50.78

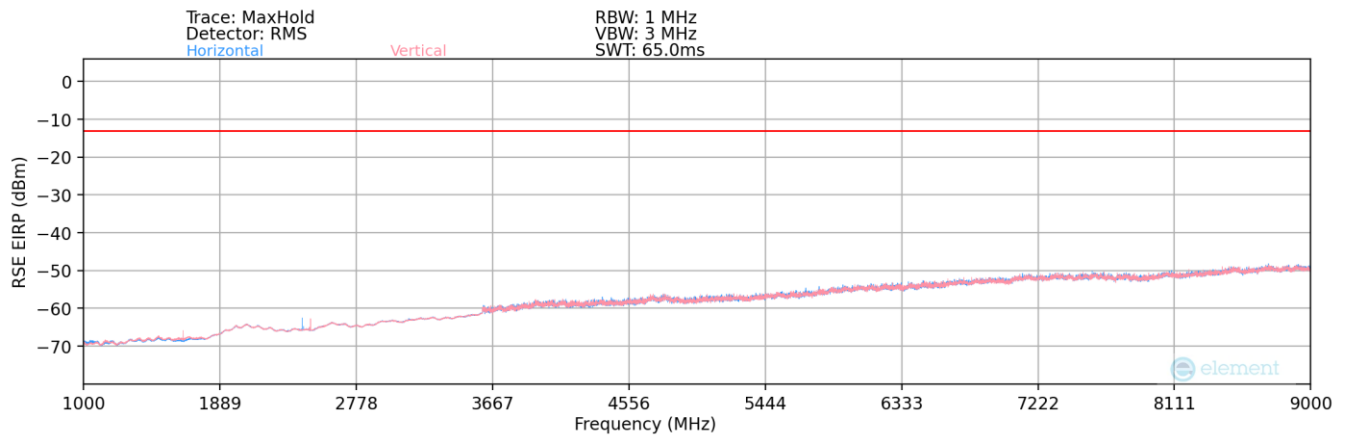
Table 7-19. Radiated Spurious Data (LTE Band 14 – Mid Channel - Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 102 of 120

NR Band n26 – Ant2



Plot 7-135. Radiated Spurious Plot Below 1GHz (NR Band n26 – Ant2)



Plot 7-136. Radiated Spurious Plot Above 1GHz (NR Band n26 – Ant2)

Bandwidth (MHz):	20
Frequency (MHz):	824
Modulation Signal:	QPSK
RB / Offset:	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
400.00	H	-	-	-75.54	23.40	54.86	-42.55	-13.00	-29.55

Table 7-20. Radiated Spurious Data (NR Band n26 – Mid Channel - Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)				Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular			Page 103 of 120

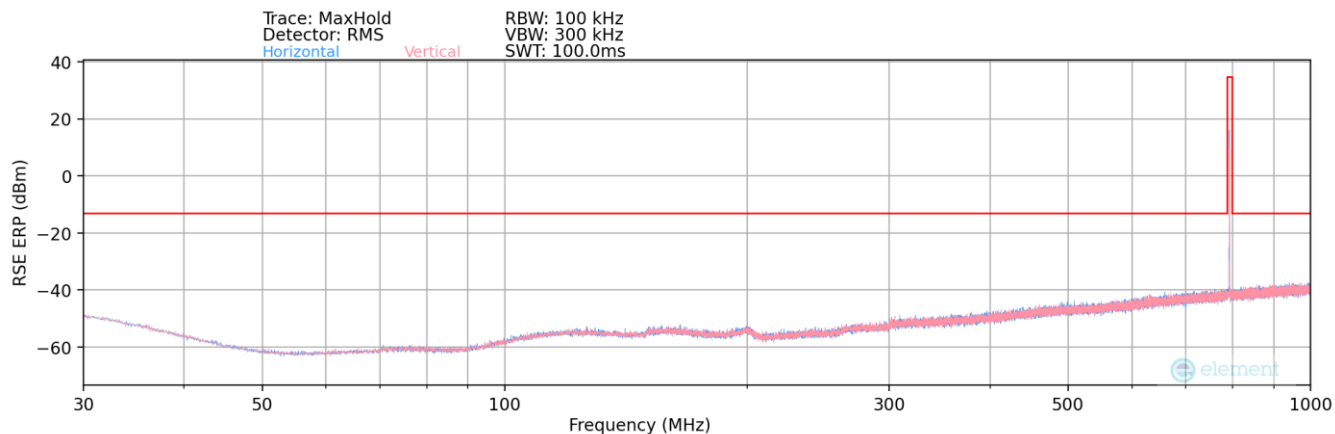
Bandwidth (MHz):	20
Frequency (MHz):	824
Modulation Signal:	QPSK
RB / Offset:	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1648.00	H	136	225	-72.18	-7.23	27.59	-67.67	-13.00	-54.67
2472.00	H	312	258	-76.49	-4.43	26.08	-69.18	-13.00	-56.18
3296.00	H	-	-	-77.59	-1.18	28.23	-67.03	-13.00	-54.03
4120.00	H	-	-	-77.67	1.61	30.94	-64.32	-13.00	-51.32
4944.00	H	-	-	-78.39	2.53	31.14	-64.12	-13.00	-51.12

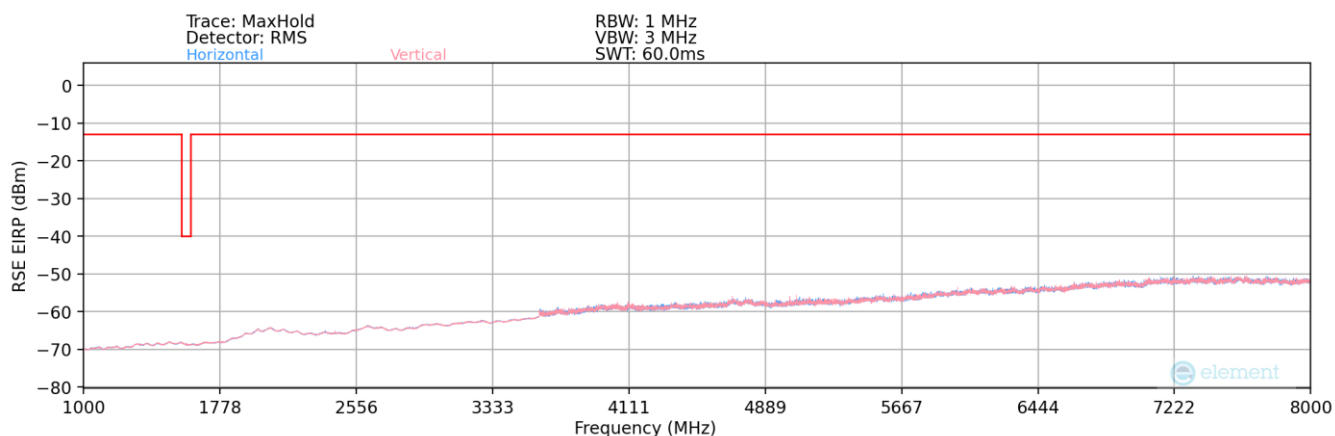
Table 7-21. Radiated Spurious Data (NR Band n26 – Mid Channel - Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 104 of 120

NR Band n14 – Ant2



Plot 7-137. Radiated Spurious Plot Below 1GHz (NR Band n14 – Ant2)



Plot 7-138. Radiated Spurious Plot Above 1GHz (NR Band n14 – Ant2)

Bandwidth (MHz):	10
Frequency (MHz):	793
Modulation Signal:	QPSK
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
400.00	H	-	-	-99.35	23.40	31.05	-66.36	-13.00	-53.36

Table 7-22. Radiated Spurious Data (NR Band n14 – Mid Channel – Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)				Approved by: Technical Manager	
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular			Page 105 of 120	

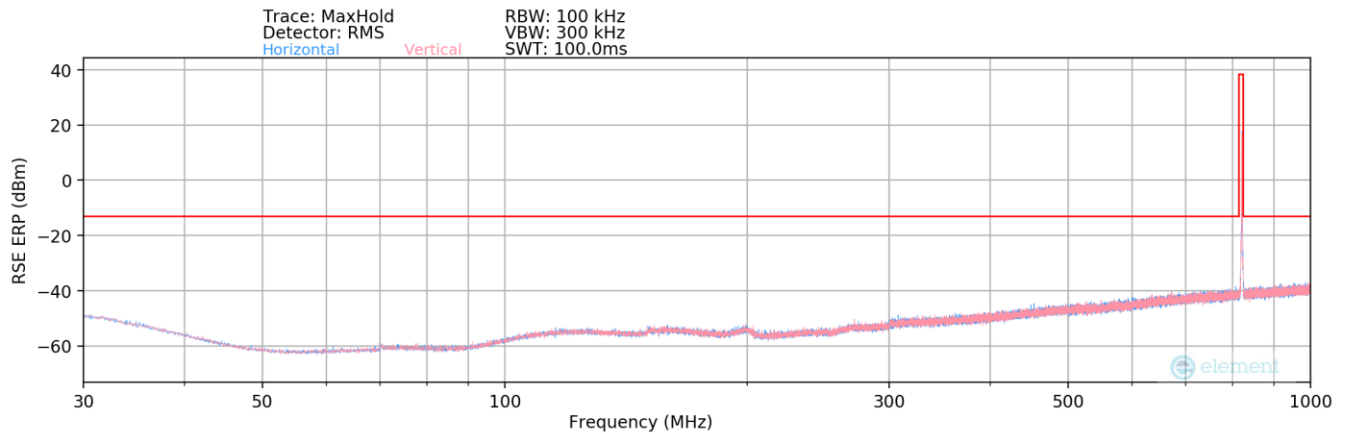
Bandwidth (MHz):	10
Frequency (MHz):	793
Modulation Signal:	QPSK
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1586.00	H	286	30	-75.09	-7.02	24.89	-70.36	-40.00	-30.36
2379.00	H	121	53	-75.34	-3.92	27.74	-67.52	-13.00	-54.52
3172.00	H	-	-	-78.10	-1.28	27.62	-67.64	-13.00	-54.64
3965.00	H	-	-	-78.10	1.57	30.47	-64.79	-13.00	-51.79
4758.00	H	-	-	-79.01	2.96	30.95	-64.31	-13.00	-51.31

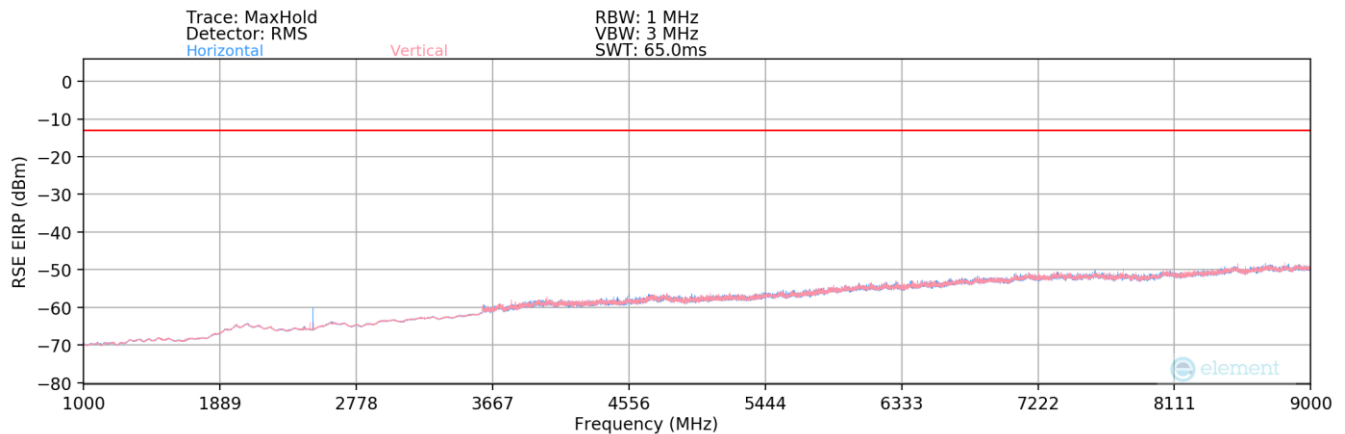
Table 7-23. Radiated Spurious Data (NR Band n14 – Mid Channel - Ant2)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 106 of 120

LTE Band 26 – Ant5



Plot 7-139. Radiated Spurious Plot Below 1GHz (LTE Band 26 – Ant5)



Plot 7-140. Radiated Spurious Plot Above 1GHz (LTE Band 26 – Ant5)

Bandwidth (MHz):	15
Frequency (MHz):	821.5
Modulation Signal:	0
RB Config (Size / Offset):	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
452.00	H	-	-	-108.54	24.94	23.40	-74.00	-13.00	-61.00

Table 7-24. Radiated Spurious Data (LTE Band 26 – Mid Channel – Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular		Page 107 of 120

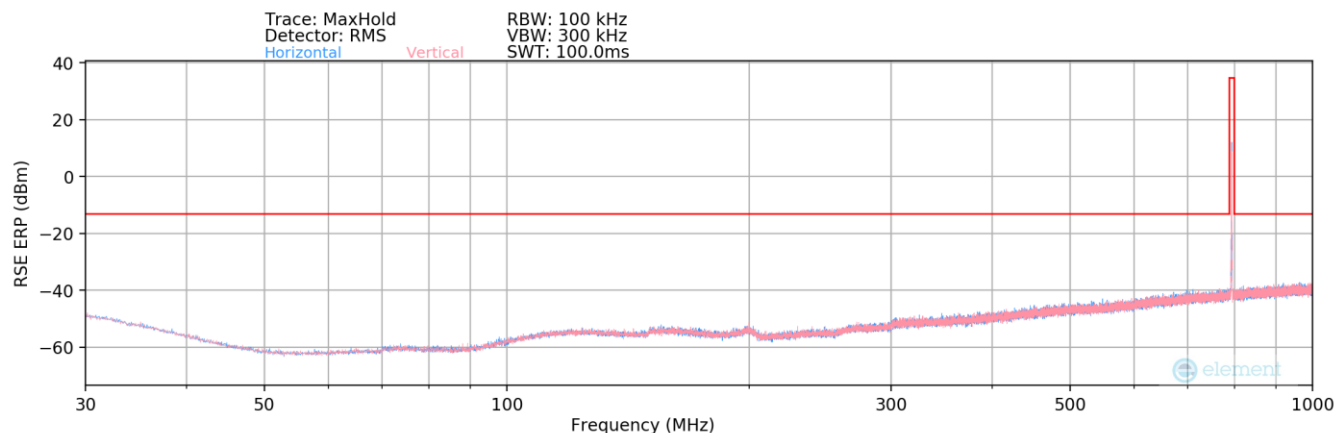
Bandwidth (MHz):	15
Frequency (MHz):	821.5
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1643.00	H	143	328	-73.34	-7.26	26.40	-68.85	-13.00	-55.85
2464.50	H	-	-	-75.13	-4.38	27.49	-67.77	-13.00	-54.77
3286.00	H	-	-	-76.92	-1.01	29.07	-66.19	-13.00	-53.19
4107.50	H	-	-	-77.77	1.69	30.92	-64.34	-13.00	-51.34

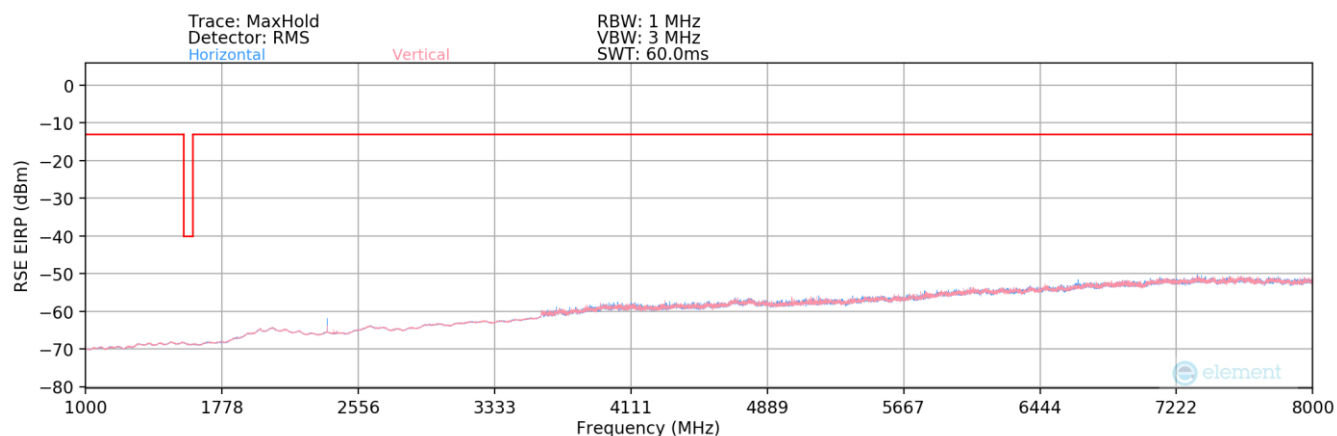
Table 7-25. Radiated Spurious Data (LTE Band 26 – Mid Channel - Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 108 of 120

LTE Band 14 – Ant5



Plot 7-141. Radiated Spurious Plot Below 1GHz(LTE Band 14 – Ant5)



Plot 7-142. Radiated Spurious Plot Above 1GHz(LTE Band 14 – Ant5)

Bandwidth (MHz):	10
Frequency (MHz):	793
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
353.00	H	-	-	-108.80	22.18	20.38	-77.02	-13.00	-64.02

Table 7-26. Radiated Spurious Data (LTE Band 14 – Mid Channel – Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular		Page 109 of 120

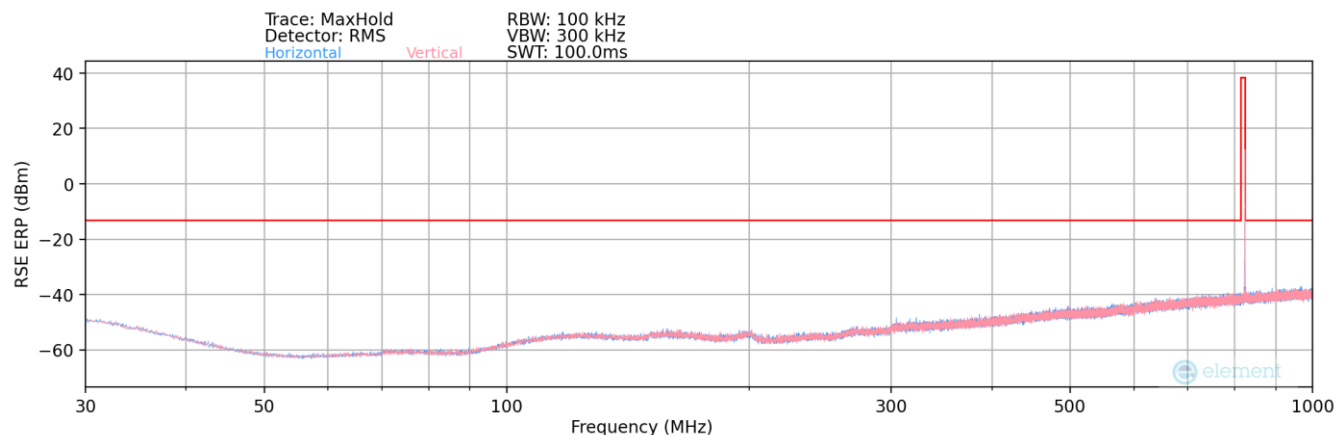
Bandwidth (MHz):	10
Frequency (MHz):	793
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1586.00	H	313	36	-75.30	-7.02	24.68	-70.57	-40.00	-30.57
2379.00	H	314	324	-72.97	-3.92	30.11	-65.15	-13.00	-52.15
3172.00	H	-	-	-77.22	-1.28	28.50	-66.76	-13.00	-53.76
3965.00	H	-	-	-77.65	1.57	30.92	-64.34	-13.00	-51.34
4758.00	H	-	-	-78.46	2.96	31.50	-63.76	-13.00	-50.76

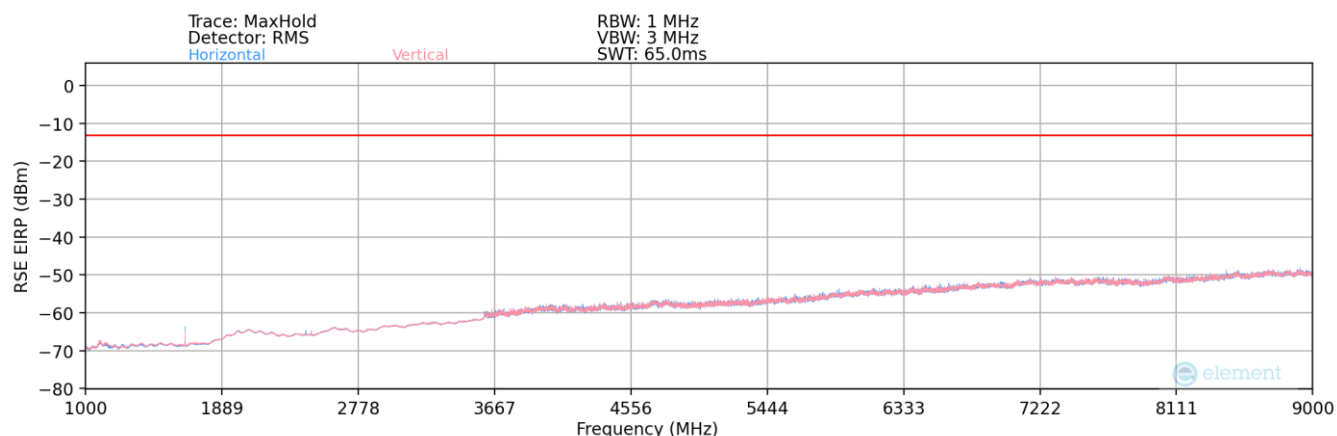
Table 7-27. Radiated Spurious Data (LTE Band 14 – Mid Channel - Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 110 of 120

NR Band n26 – Ant5



Plot 7-143. Radiated Spurious Plot Below 1GHz(NR Band n26 – Ant5)



Plot 7-144. Radiated Spurious Plot Above 1GHz(NR Band n26 – Ant5)

Bandwidth (MHz):	20
Frequency (MHz):	824
Modulation Signal:	QPSK
RB / Offset:	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
400.00	H	-	-	-87.09	23.40	43.31	-54.10	-13.00	-41.10

Table 7-28. Radiated Spurious Data (NR Band n26 – Mid Channel – Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular		Page 111 of 120

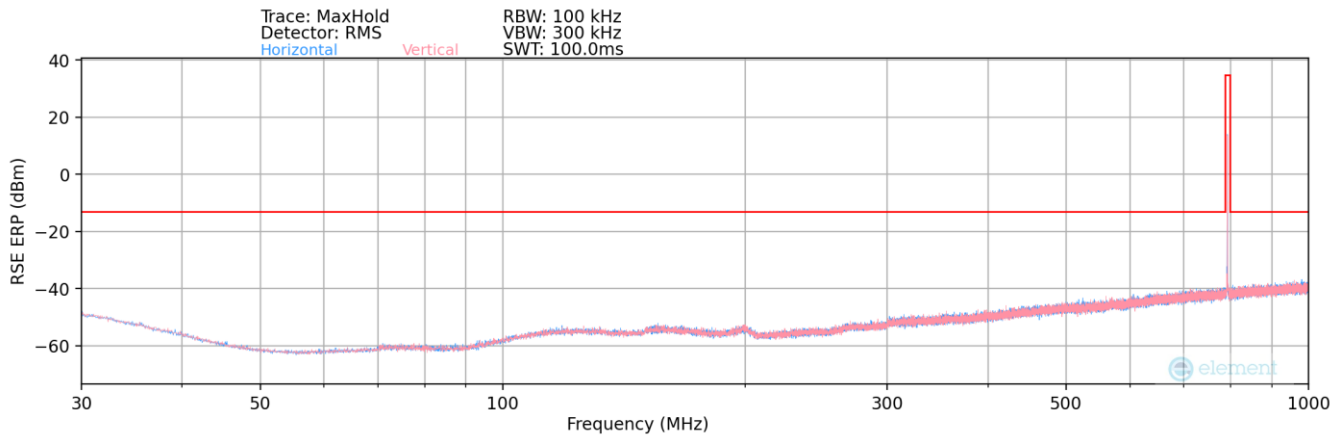
Bandwidth (MHz):	20
Frequency (MHz):	824
Modulation Signal:	QPSK
RB / Offset:	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1648.00	H	145	238	-67.43	-7.23	32.34	-62.92	-13.00	-49.92
2472.00	H	-	-	-76.98	-4.43	25.59	-69.67	-13.00	-56.67
3296.00	H	-	-	-77.63	-1.18	28.19	-67.07	-13.00	-54.07
4120.00	H	-	-	-77.71	1.61	30.90	-64.36	-13.00	-51.36

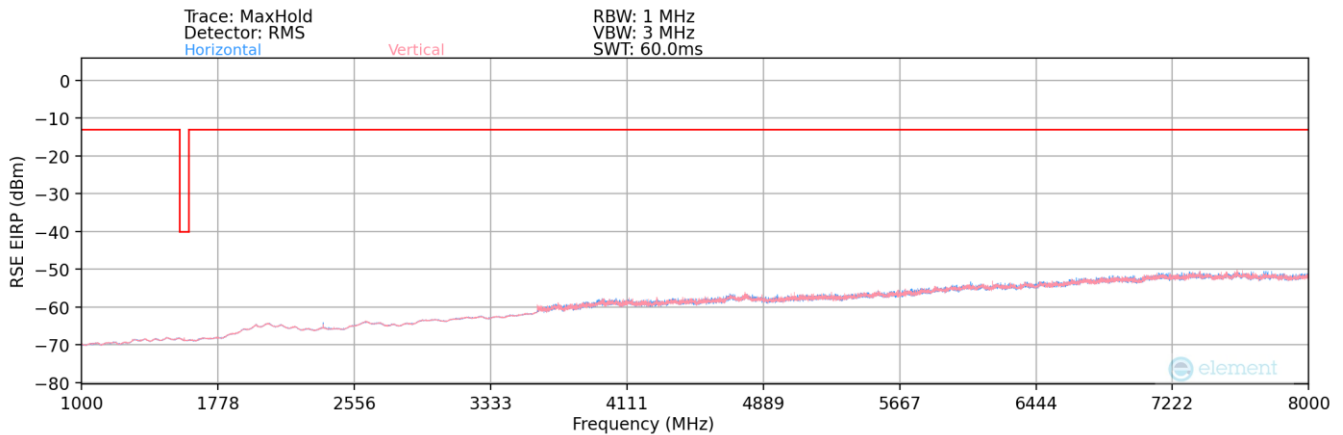
Table 7-29. Radiated Spurious Data (NR Band n26 – Mid Channel – Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 112 of 120

NR Band n14 – Ant5



Plot 7-145. Radiated Spurious Plot Below 1GHz(NR Band n14 – Ant5)



Plot 7-146. Radiated Spurious Plot Above 1GHz(NR Band n14 – Ant5)

Bandwidth (MHz):	10
Frequency (MHz):	793
Modulation Signal:	QPSK
RB / Offset:	1/25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
400.00	H	-	-	-87.07	23.40	43.33	-54.08	-13.00	-41.08

Table 7-30. Radiated Spurious Data (NR Band n14 – Mid Channel – Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)				Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular			Page 113 of 120

Bandwidth (MHz):	10
Frequency (MHz):	793
Modulation Signal:	QPSK
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1586.00	H	145	63	-74.74	-7.02	25.24	-70.01	-40.00	-30.01
2379.00	H	142	215	-73.39	-3.92	29.69	-65.57	-13.00	-52.57
3172.00	H	-	-	-78.10	-1.28	27.62	-67.64	-13.00	-54.64
3965.00	H	-	-	-78.13	1.57	30.44	-64.82	-13.00	-51.82
4758.00	H	-	-	-79.07	2.96	30.89	-64.37	-13.00	-51.37

Table 7-31. Radiated Spurious Data (NR Band n14 – Mid Channel - Ant5)

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 114 of 120

7.7 Frequency Stability / Temperature Variation

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015. The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency.

Test Procedure Used

ANSI C63.26-2015 – Section 5.6

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

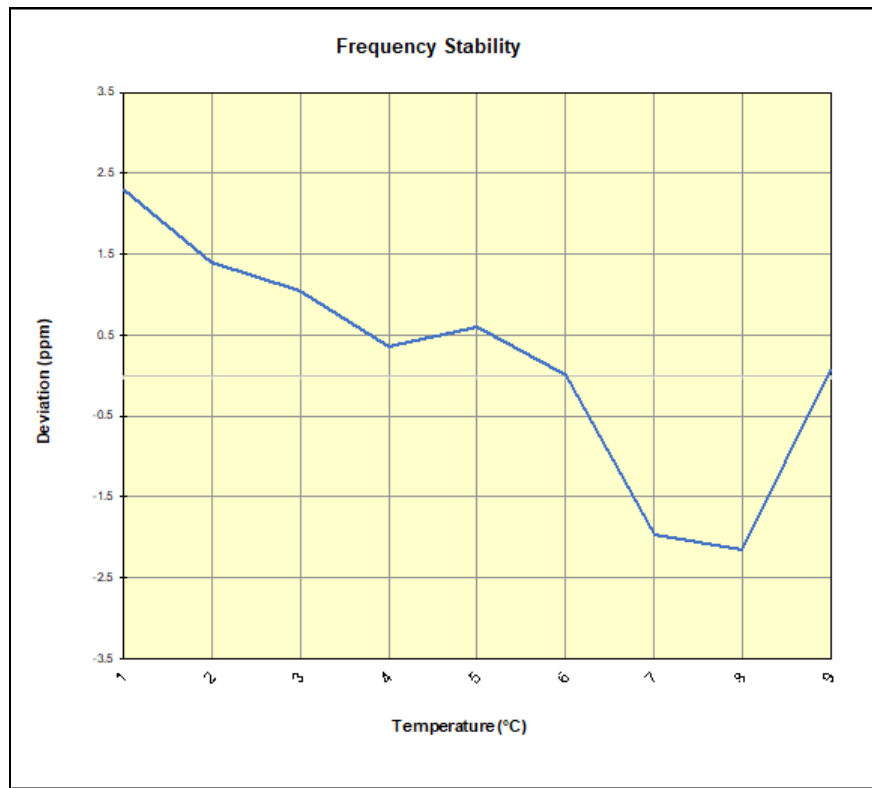
Test Notes

None

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 115 of 120

LTE Band 26					
		Operating Frequency (Hz):		819,000,000	
		Ref. Voltage (VDC):		3.85	
		Deviation Limit:		± 0.00025% or 2.5 ppm	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.85	- 30	818,993,198	1,881	0.0002297
		- 20	818,992,459	1,142	0.0001394
		- 10	818,992,177	860	0.0001050
		0	818,991,616	299	0.0000365
		+ 10	818,991,801	484	0.0000591
		+ 20 (Ref)	818,991,317	0	0.0000000
		+ 30	818,989,702	-1,615	-0.0001972
		+ 40	818,989,553	-1,764	-0.0002154
		+ 50	818,991,366	49	0.0000060
Battery Endpoint	2.80	+ 20	818,990,815	-502	-0.0000612

Table 7-32. LTE Band 26 Frequency Stability Data

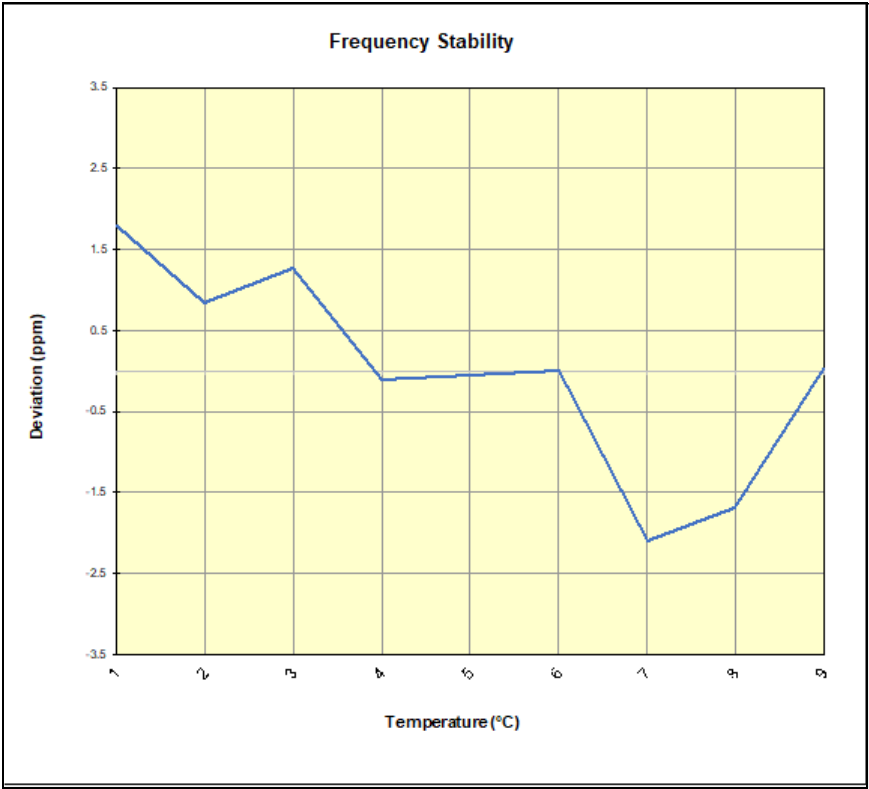


Plot 7-147. LTE Band 26 Frequency Stability Chart

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 116 of 120

LTE Band 14					
		Operating Frequency (Hz):		793,000,000	
		Ref. Voltage (VDC):		3.85	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.85	- 30	792,992,991	1,424	0.0001796
		- 20	792,992,227	661	0.0000833
		- 10	792,992,569	1,003	0.0001265
		0	792,991,478	-88	-0.0000111
		+ 10	792,991,518	-48	-0.0000061
		+ 20 (Ref)	792,991,566	0	0.0000000
		+ 30	792,989,899	-1,667	-0.0002102
		+ 40	792,990,223	-1,343	-0.0001694
		+ 50	792,991,591	25	0.0000031
Battery Endpoint	2.80	+ 20	792,990,642	-925	-0.0001166

Table 7-33. LTE Band 14 Frequency Stability Data



Plot 7-148. LTE Band 14 Frequency Stability Chart

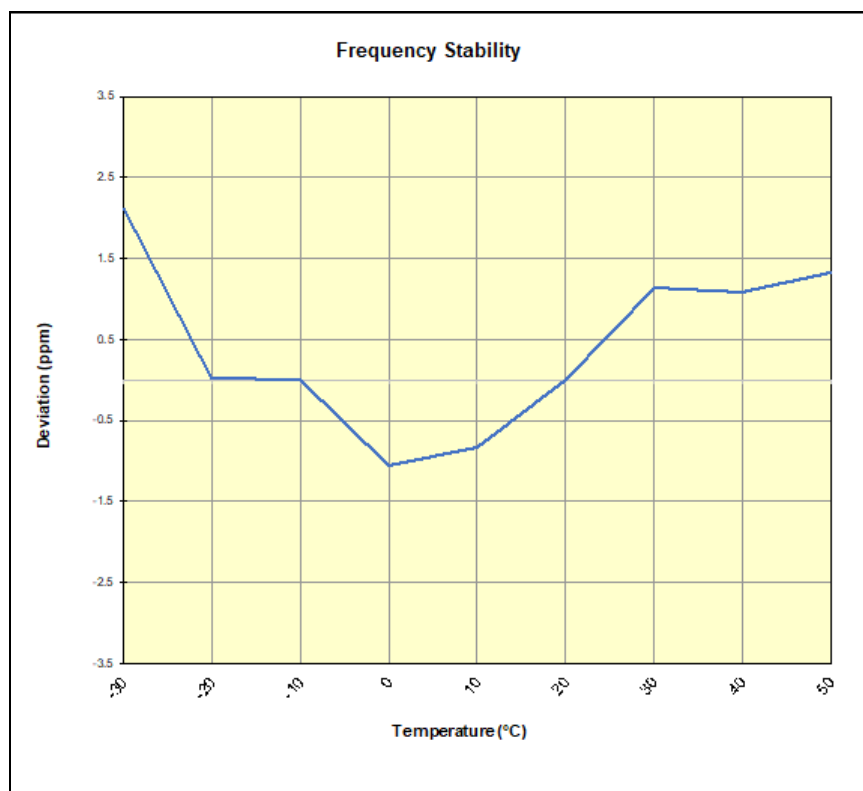
FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 117 of 120

NR Band n26

Operating Frequency (Hz):	819,000,000
Ref. Voltage (VDC):	3.85
Deviation Limit:	± 0.00025% or 2.5 ppm

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.85	- 30	818,992,982	1,721	0.0002101
		- 20	818,991,275	13	0.0000016
		- 10	818,991,265	3	0.0000004
		0	818,990,393	-868	-0.0001060
		+ 10	818,990,579	-682	-0.0000833
		+ 20 (Ref)	818,991,262	0	0.0000000
		+ 30	818,992,192	930	0.0001136
		+ 40	818,992,142	881	0.0001076
		+ 50	818,992,341	1,079	0.0001318
Battery Endpoint	2.80	+ 20	818,990,437	-824	-0.0001007

Table 7-34. NR Band n26 Frequency Stability Data



Plot 7-149. NR Band n26 Frequency Stability Chart

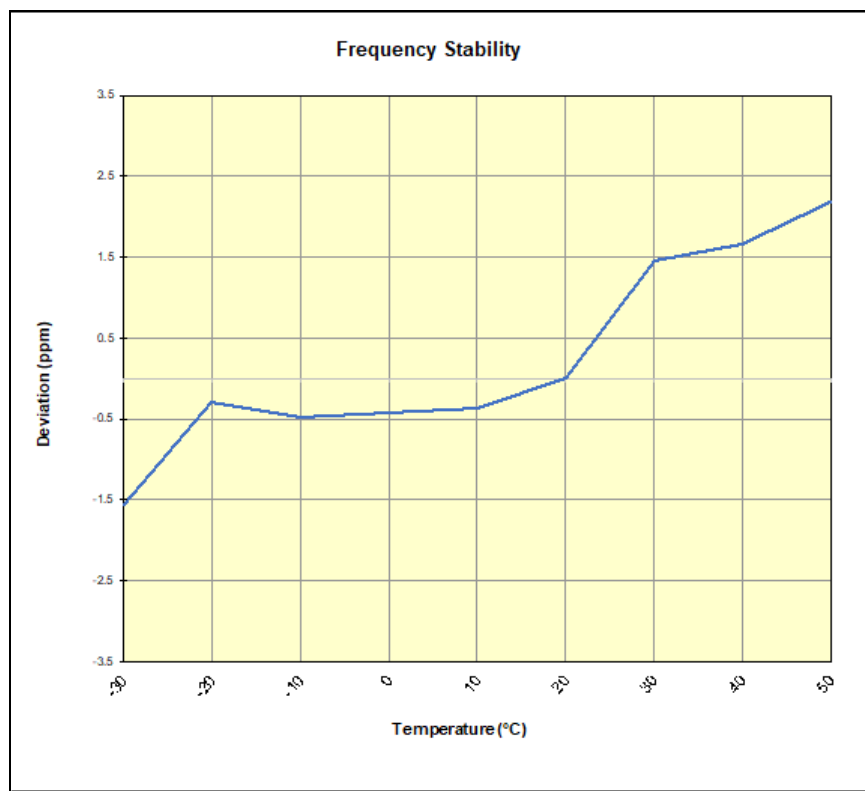
FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 118 of 120

NR Band n14

Operating Frequency (Hz):	793,000,000
Ref. Voltage (VDC):	3.85

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.85	- 30	792,989,780	-1,238	-0.0001561
		- 20	792,990,790	-228	-0.0000287
		- 10	792,990,639	-379	-0.0000478
		0	792,990,687	-331	-0.0000417
		+ 10	792,990,727	-290	-0.0000366
		+ 20 (Ref)	792,991,017	0	0.0000000
		+ 30	792,992,179	1,161	0.0001464
		+ 40	792,992,336	1,319	0.0001663
		+ 50	792,992,746	1,728	0.0002179
Battery Endpoint	2.80	+ 20	792,991,177	160	0.0000202

Table 7-35. NR Band n14 Frequency Stability Data



Plot 7-150. NR Band n14 Frequency Stability Chart

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 119 of 120



8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Microsoft Corporation Full Modular FCC ID: C3K2114** complies with all the requirements of Parts 22(H) and 90 of the FCC rules.

FCC ID: C3K2114	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2411190103-06-R1.C3K	Test Dates: 12/3/2024 - 2/14/2025	EUT Type: Full Modular	Page 120 of 120