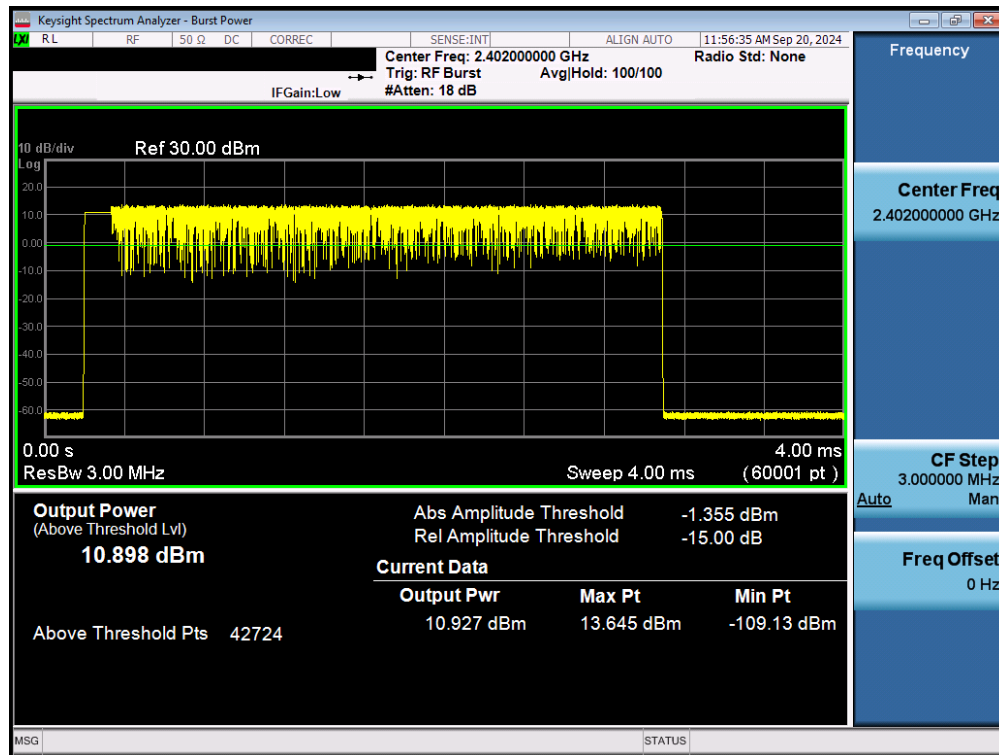
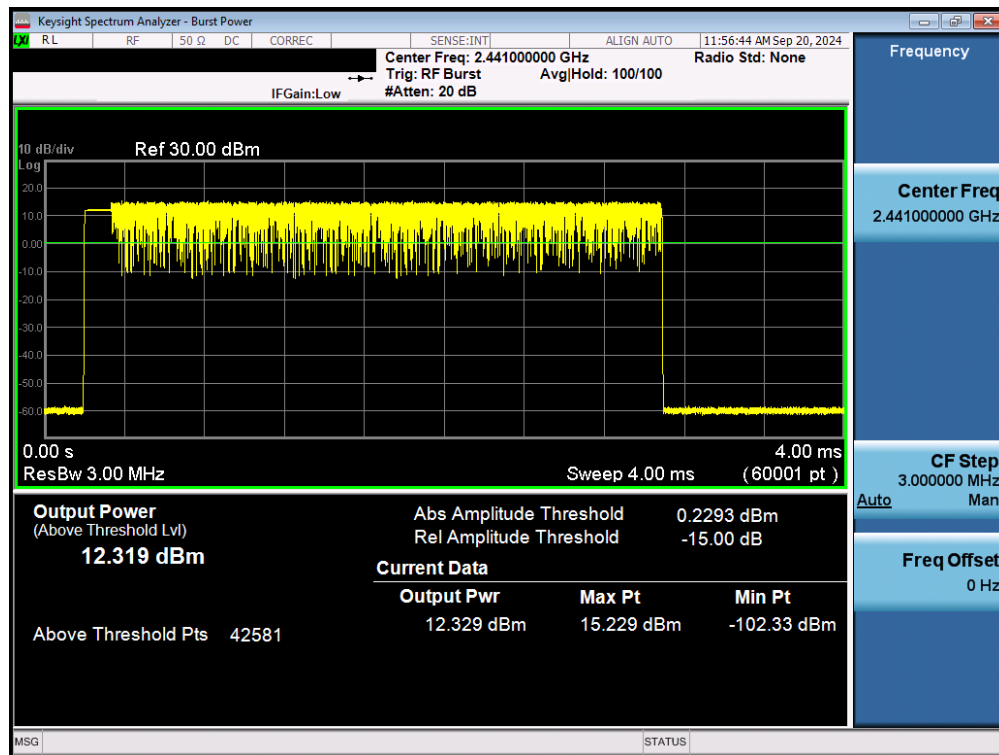


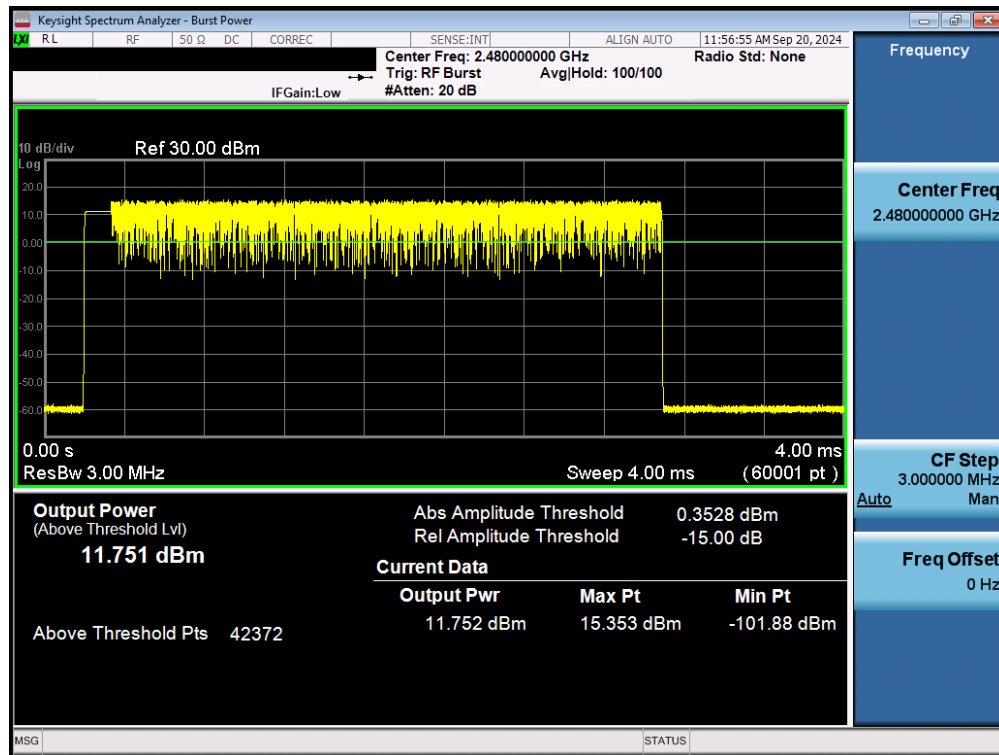


Plot 7-88. Average Conducted Power (3Mbps – Ch. 0) – Dual Ant 1

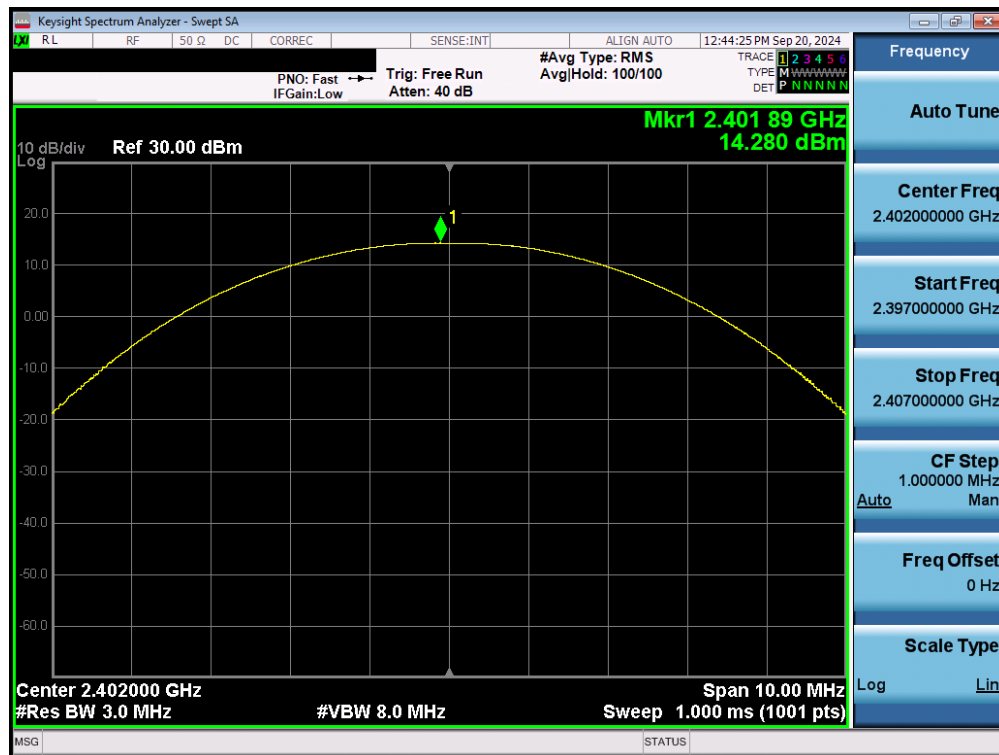


Plot 7-89. Average Conducted Power (3Mbps – Ch. 39) – Dual Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 62 of 140

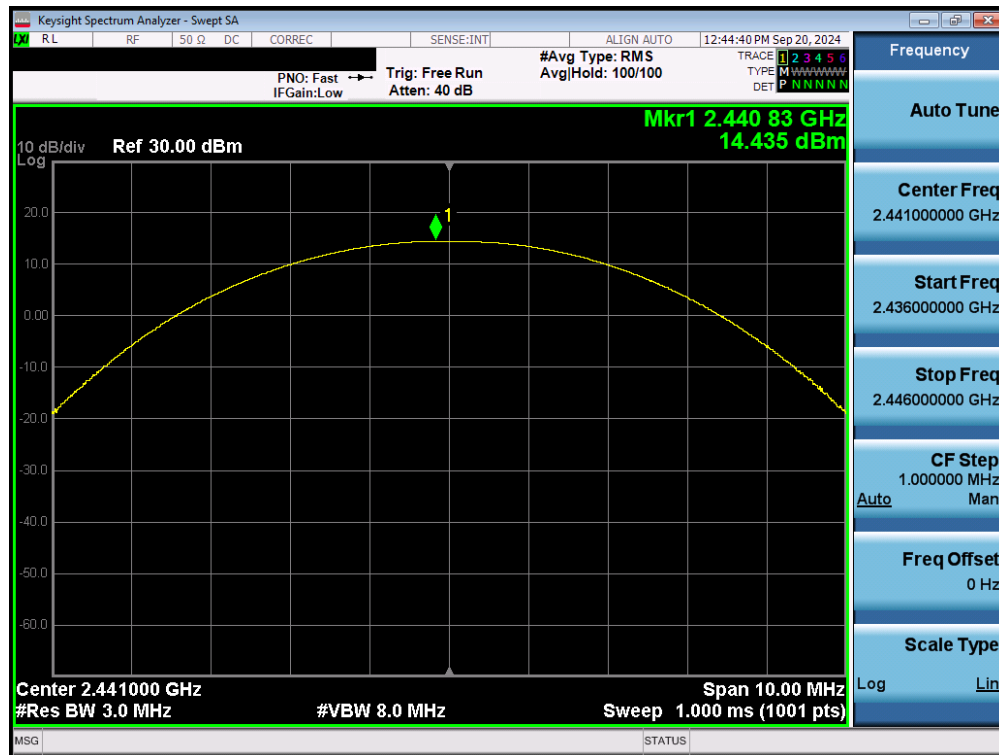


Plot 7-90. Average Conducted Power (3Mbps – Ch. 78) – Dual Ant 1

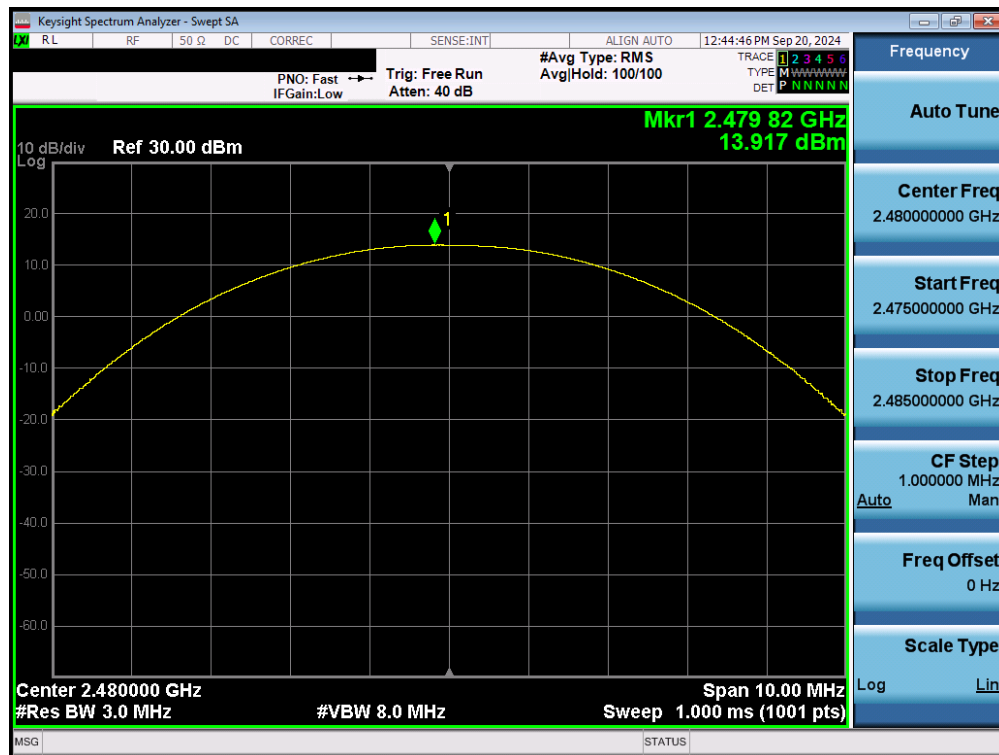


Plot 7-91. Peak Conducted Power (1Mbps – Ch. 0) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 63 of 140

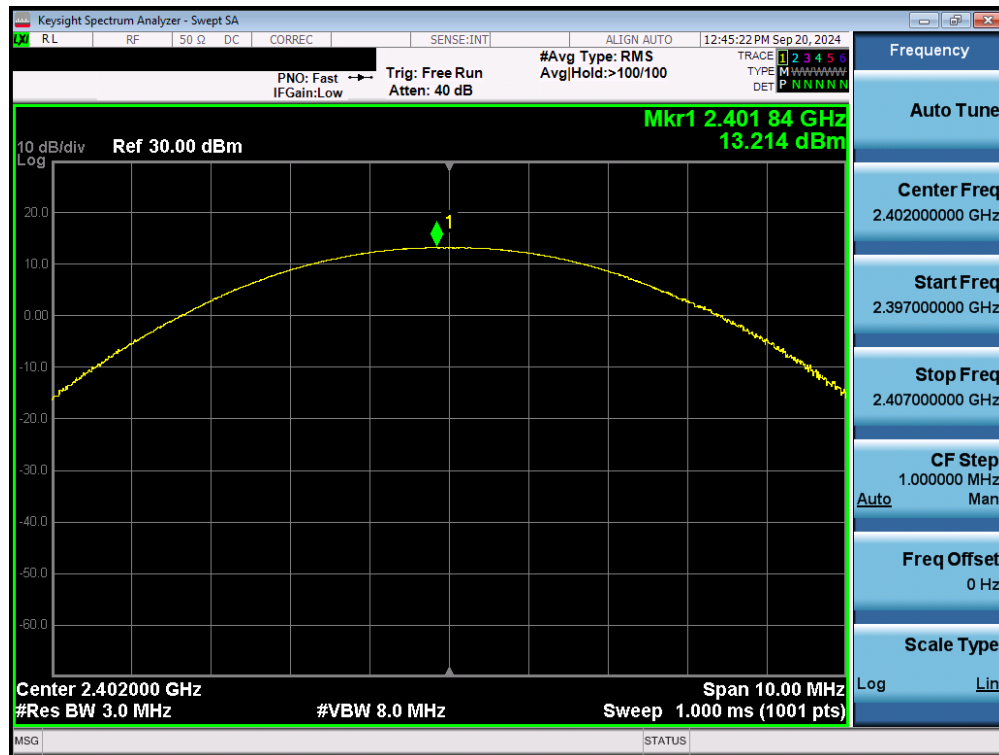


Plot 7-92. Peak Conducted Power (1Mbps – Ch. 39) – Dual Ant 2

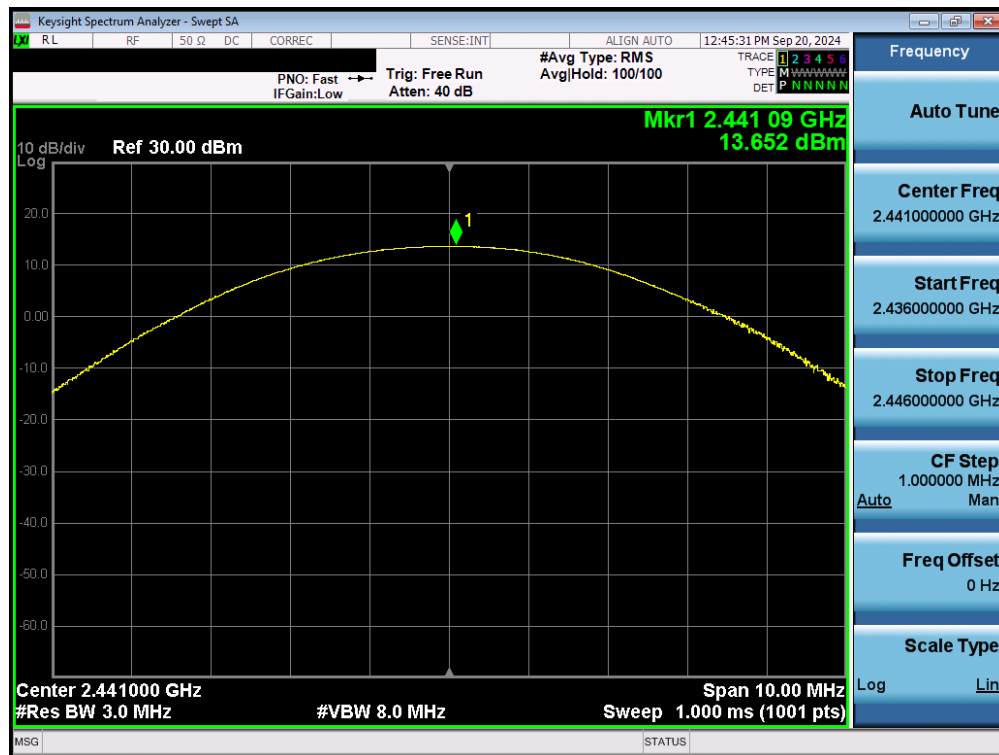


Plot 7-93. Peak Conducted Power (1Mbps – Ch. 78) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 64 of 140

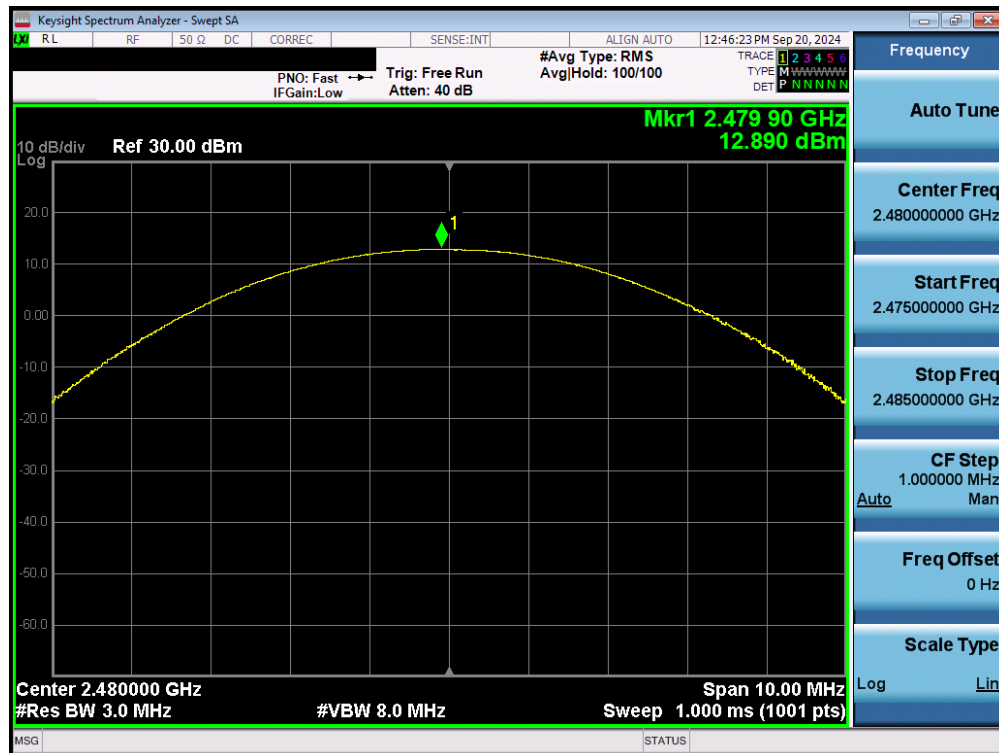


Plot 7-94. Peak Conducted Power (2Mbps – Ch. 0) – Dual Ant 2

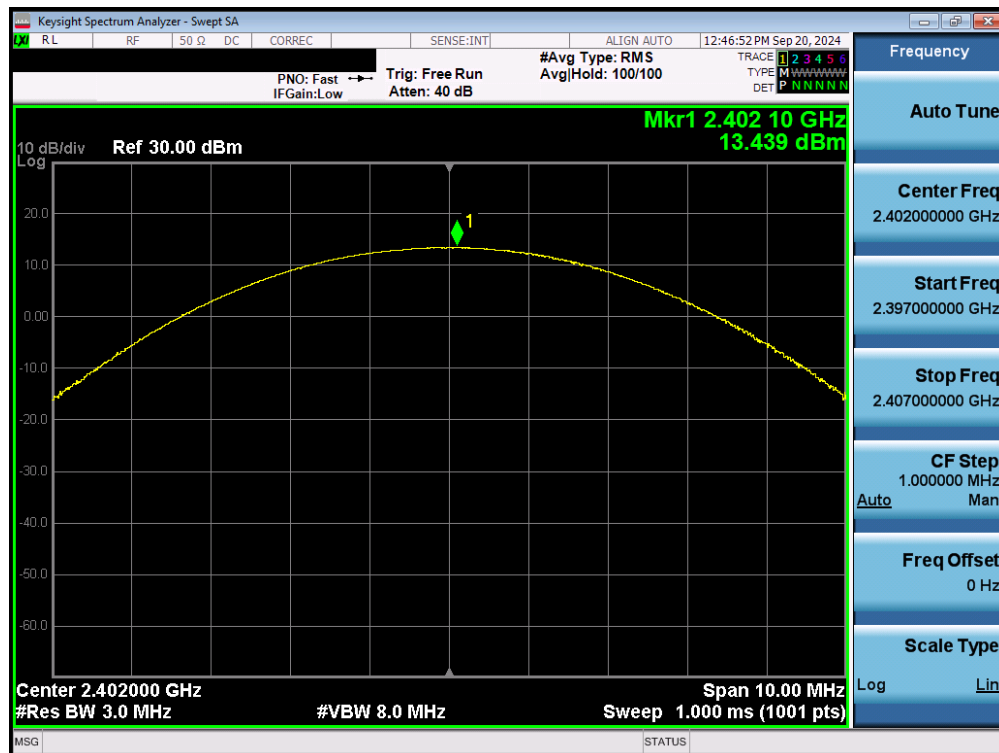


Plot 7-95. Peak Conducted Power (2Mbps – Ch. 39) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 65 of 140

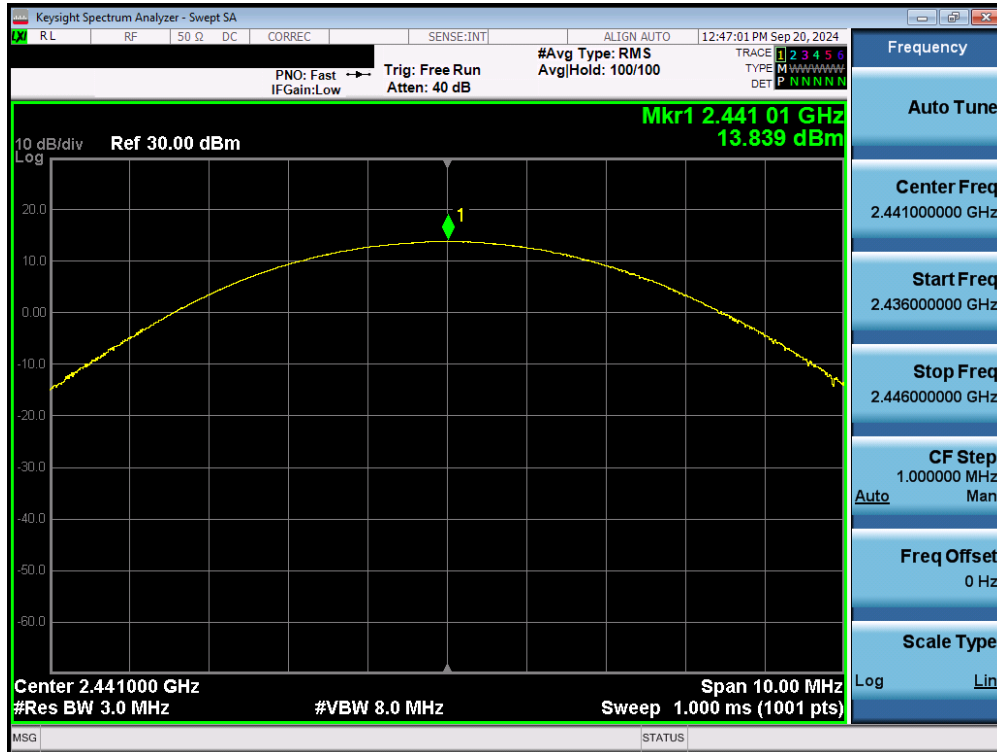


Plot 7-96. Peak Conducted Power (2Mbps – Ch. 78) – Dual Ant 2

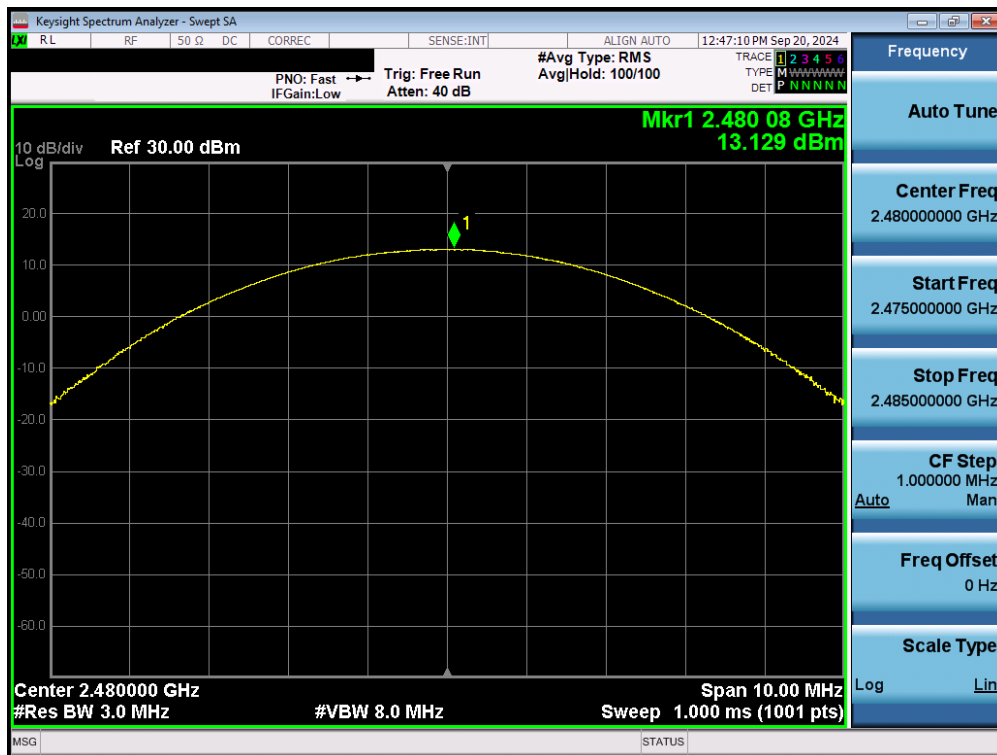


Plot 7-97. Peak Conducted Power (3Mbps – Ch. 0) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 66 of 140

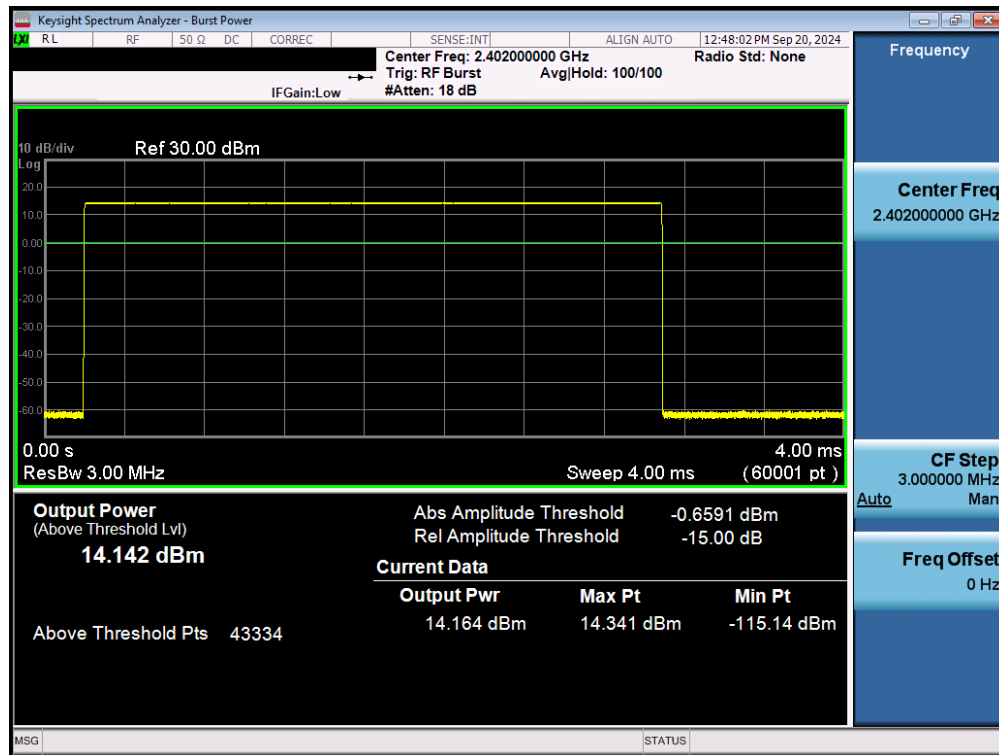


Plot 7-98. Peak Conducted Power (3Mbps – Ch. 39) – Dual Ant 2

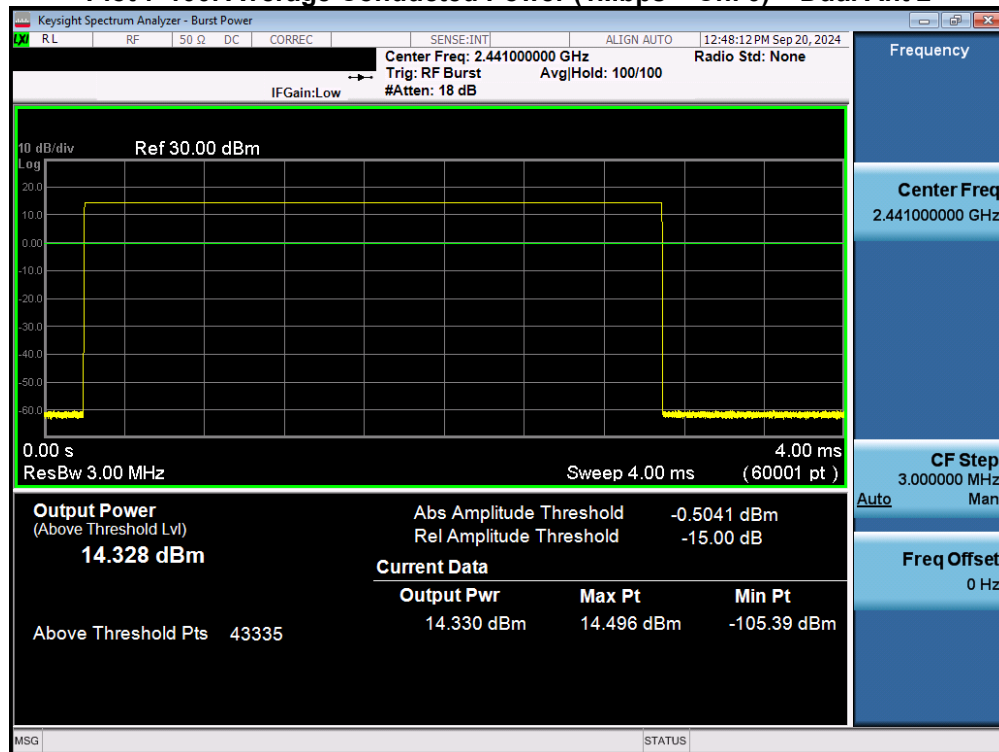


Plot 7-99. Peak Conducted Power (3Mbps – Ch. 78) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 67 of 140

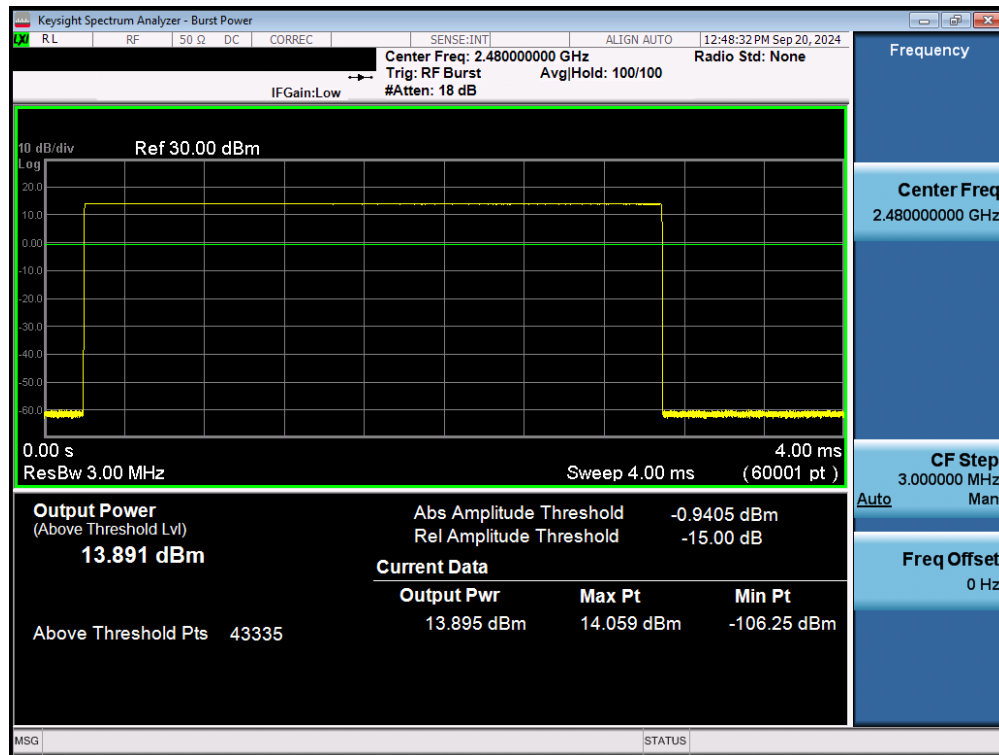


Plot 7-100. Average Conducted Power (1Mbps – Ch. 0) – Dual Ant 2

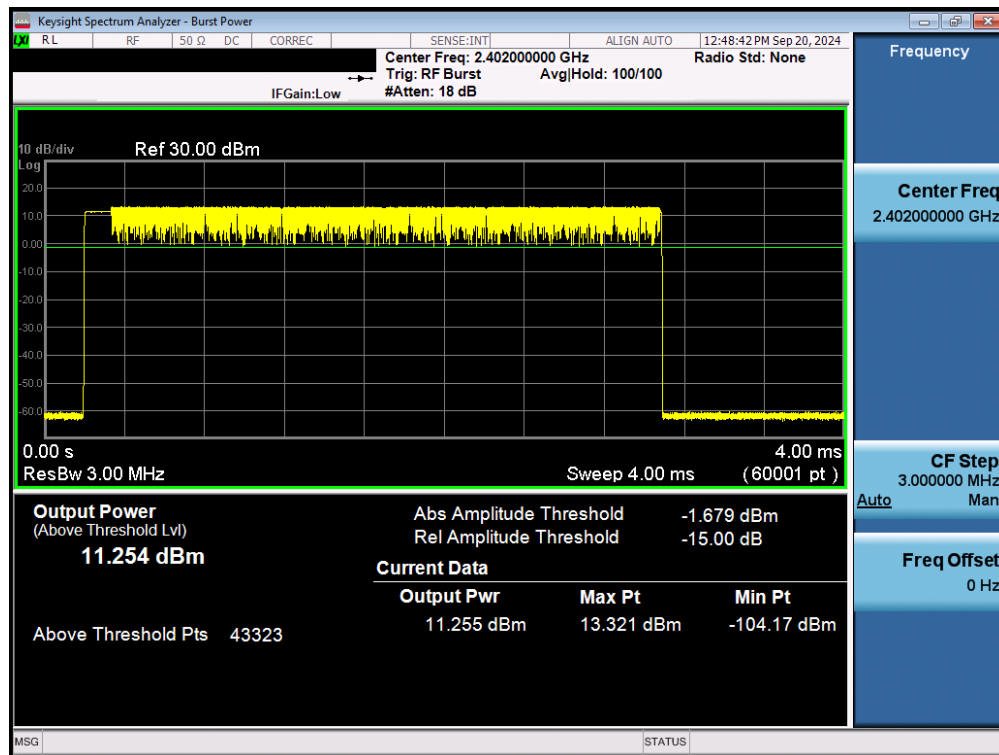


Plot 7-101. Average Conducted Power (1Mbps – Ch. 39) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 68 of 140

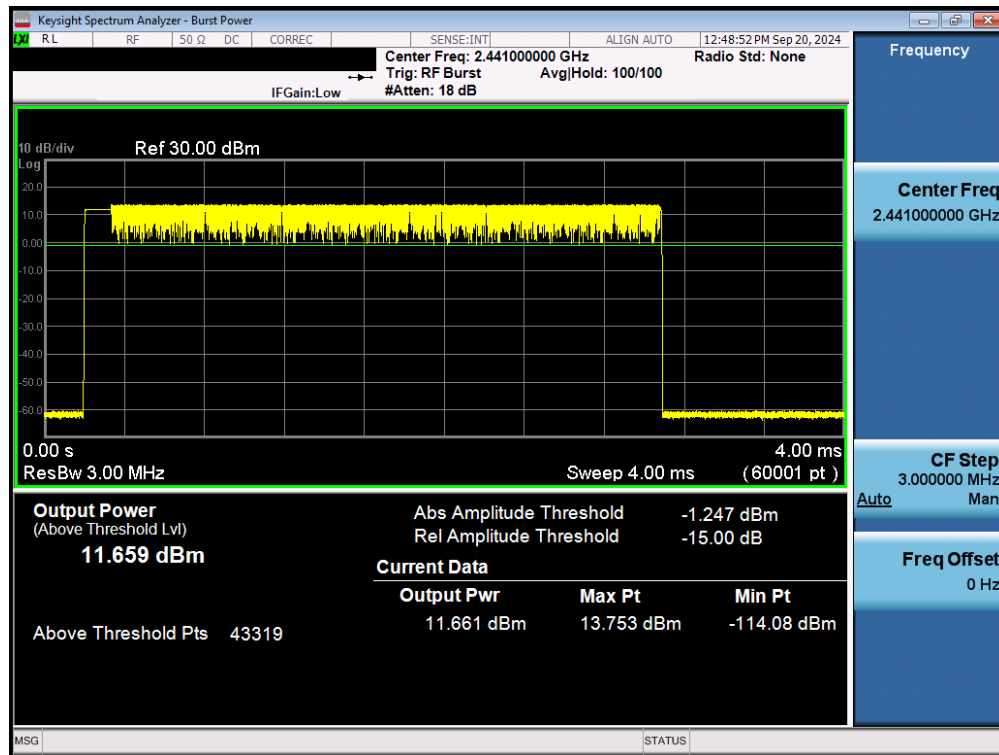


Plot 7-102. Average Conducted Power (1Mbps – Ch. 78) – Dual Ant 2

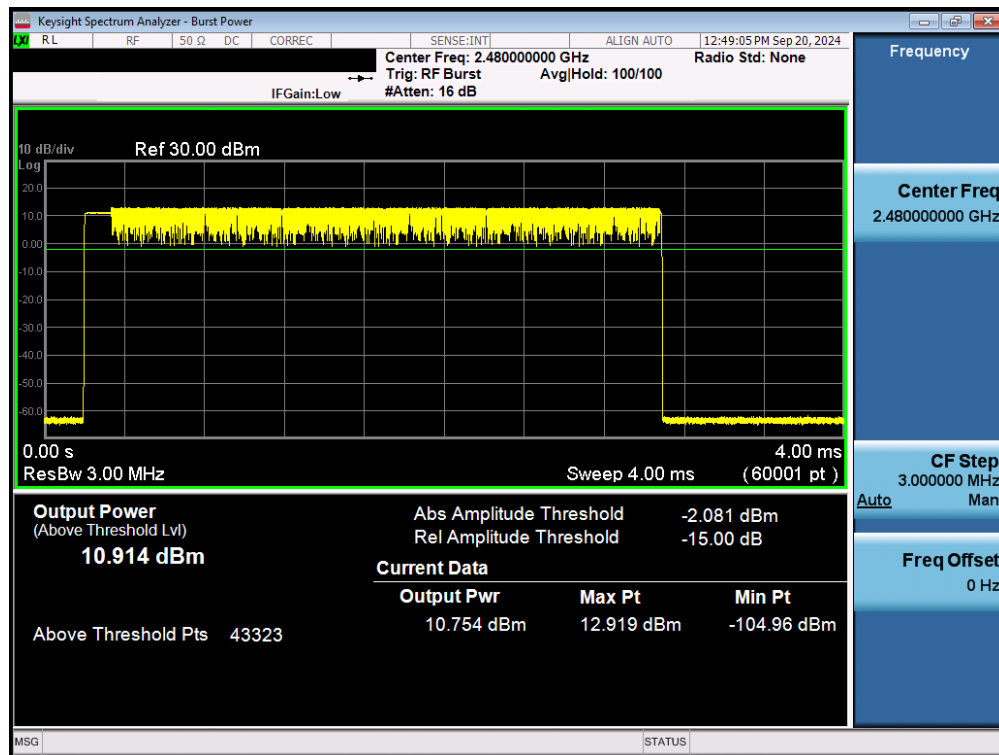


Plot 7-103. Average Conducted Power (2Mbps – Ch. 0) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 69 of 140

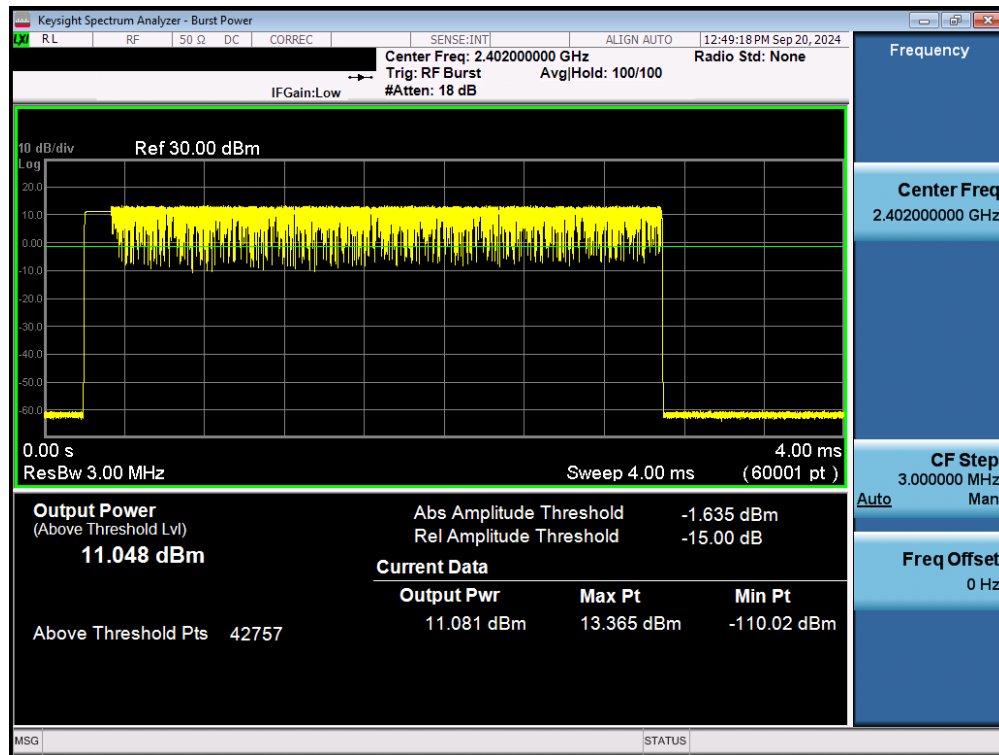


Plot 7-104. Average Conducted Power (2Mbps – Ch. 39) – Dual Ant 2

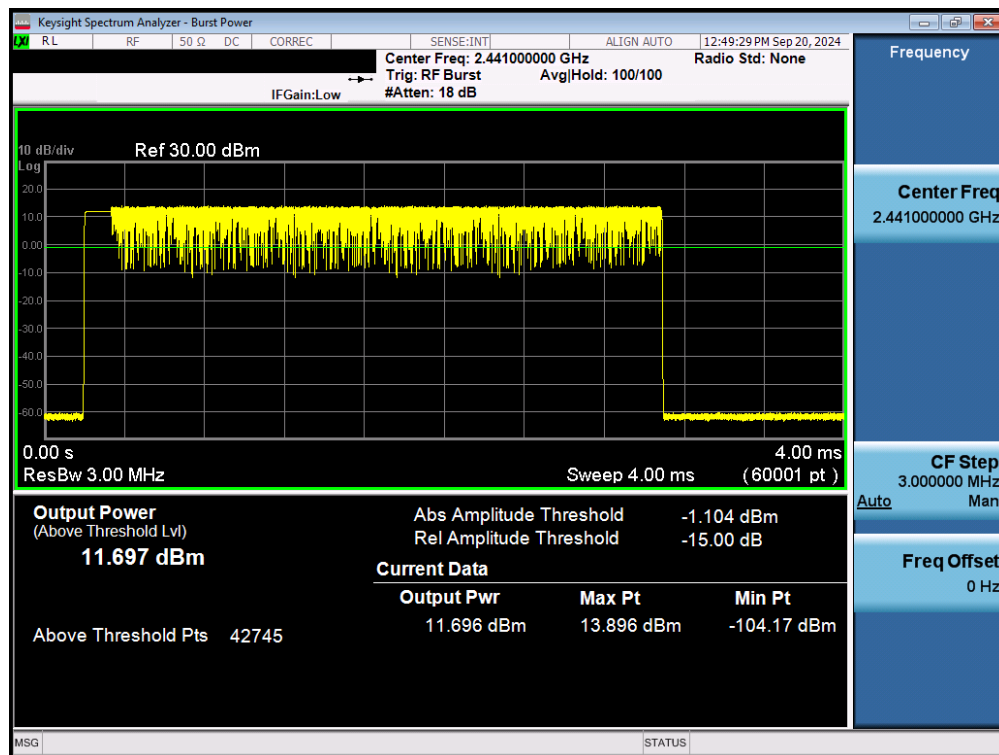


Plot 7-105. Average Conducted Power (2Mbps – Ch. 78) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 70 of 140

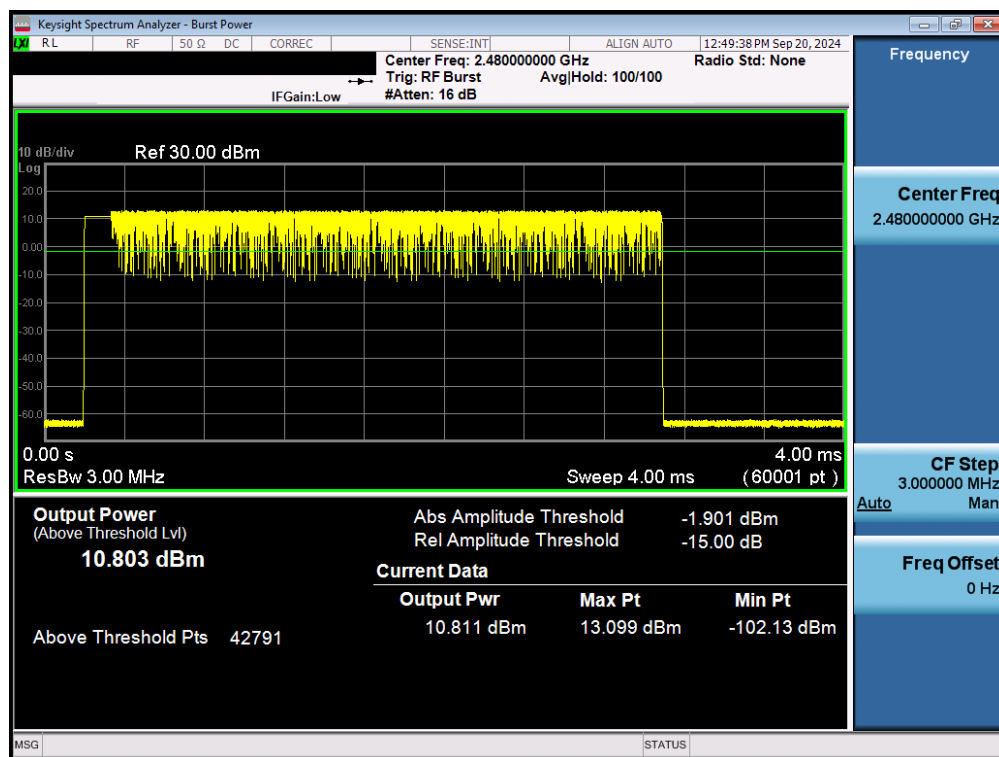


Plot 7-106. Average Conducted Power (3Mbps – Ch. 0) – Dual Ant 2



Plot 7-107. Average Conducted Power (3Mbps – Ch. 39) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 71 of 140



Plot 7-108. Average Conducted Power (3Mbps – Ch. 78) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 72 of 140

7.4 Band Edge Compliance

§15.247 (d); RSS-247 [5.5]

Test Overview and Limits

EUT operates in hopping and non-hopping transmission mode. Measurement is taken at the highest point located outside of the emission bandwidth. **The maximum permissible out-of-band emission level is 20 dBc.**

Test Procedure Used

ANSI C63.10-2013 – Section 6.10.4

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW = 100kHz
4. VBW = 300kHz
5. Detector = Peak
6. Number of sweep points $\geq 2 \times \text{Span/RBW}$
7. Trace mode = max hold
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Setup

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

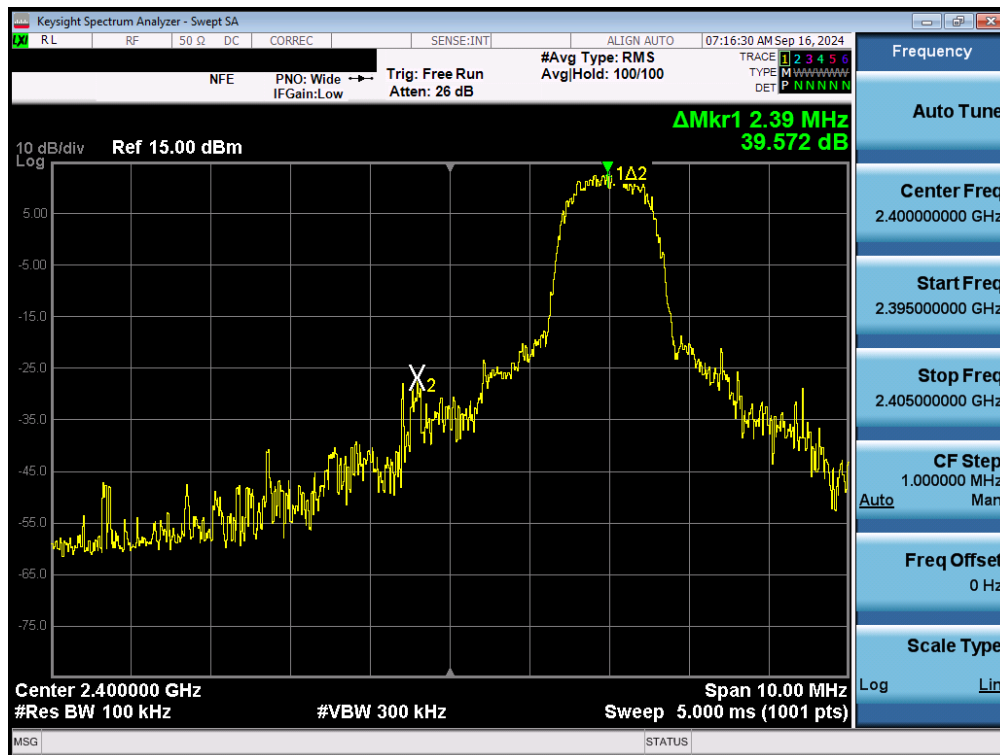


Figure 7-3. Test Instrument & Measurement Setup

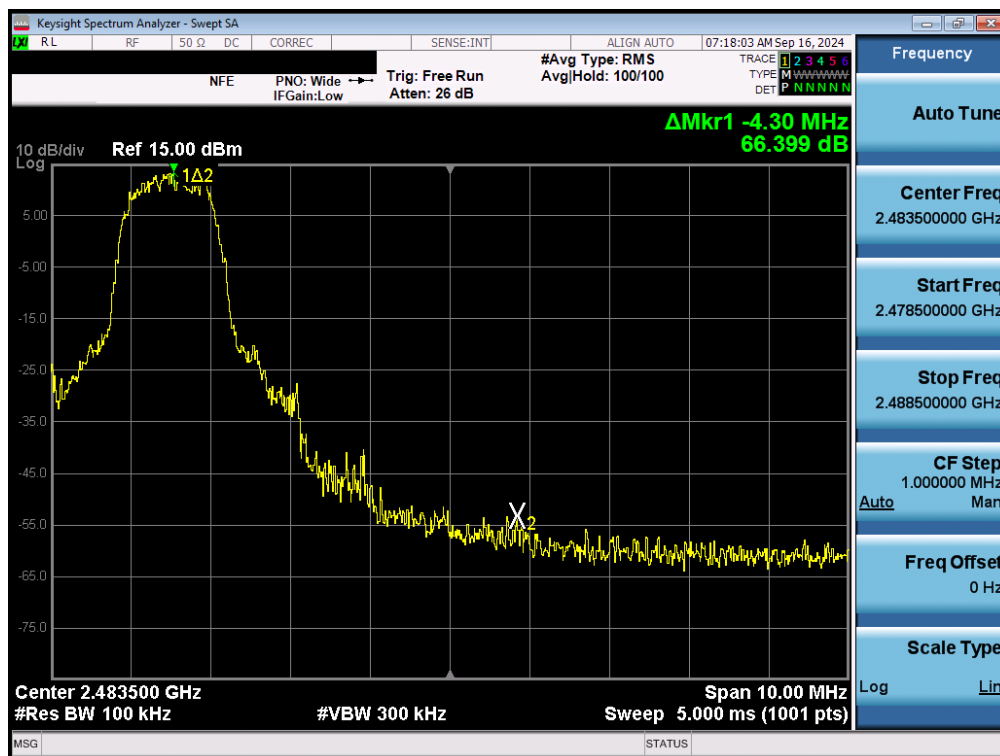
Test Notes

Out of band conducted spurious emissions at the band edge were investigated for all data rates in hopping and non-hopping modes. The worst case emissions were found with the EUT transmitting at 3 Mbps. Band edge emissions were also investigated with the EUT transmitting in all data rates. Plots of the worst case emissions are shown below.

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 73 of 140

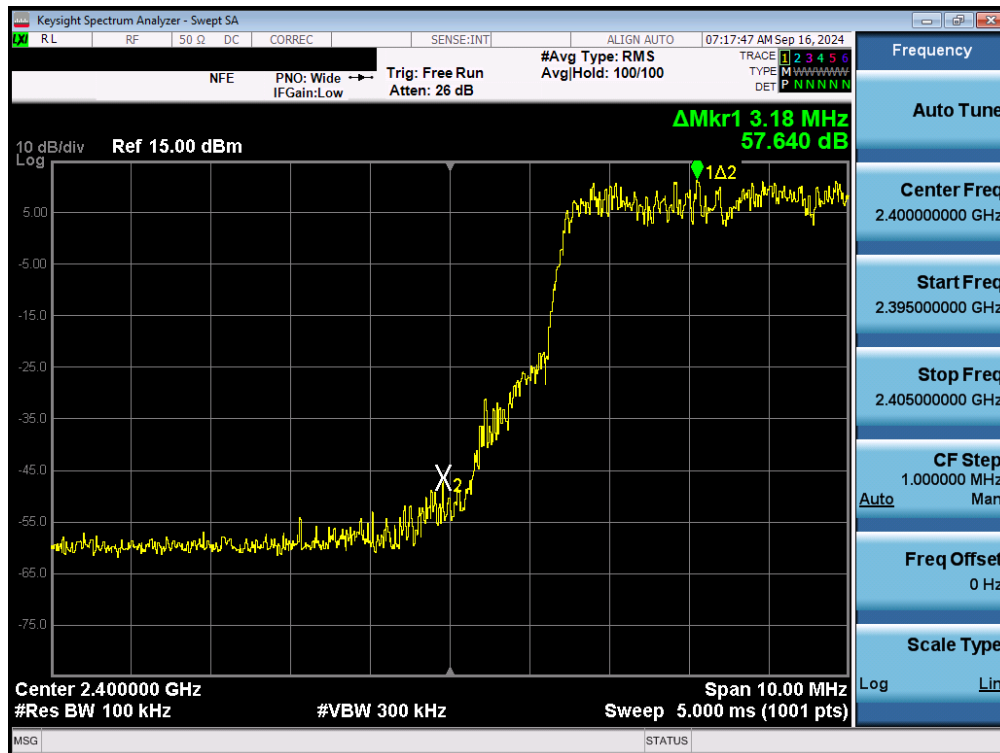


Plot 7-109. Band Edge Plot (Bluetooth with Hopping Disabled, 3 Mbps – Ch. 0) – Ant 1

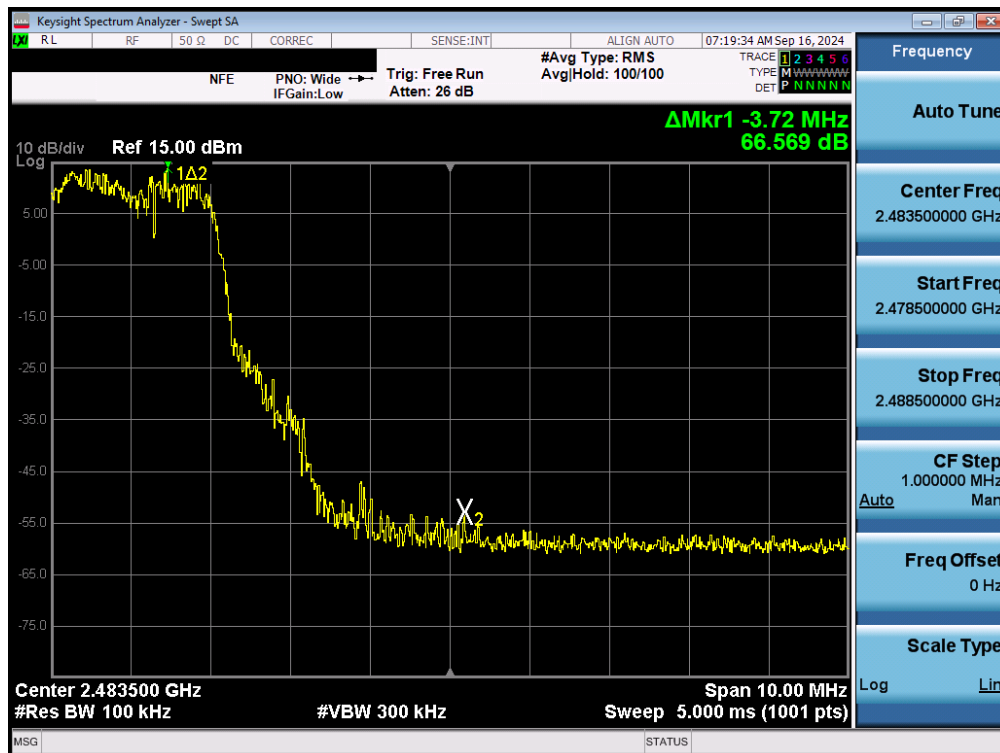


Plot 7-110. Band Edge Plot (Bluetooth with Hopping Disabled, 3 Mbps – Ch. 78) – Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 74 of 140

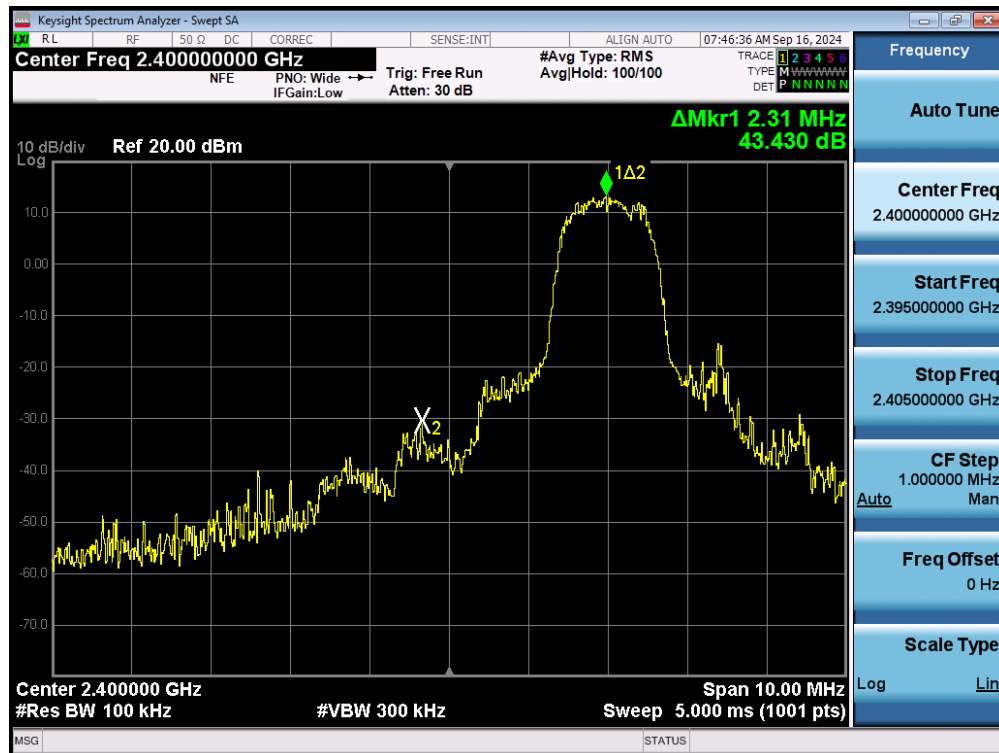


Plot 7-111. Band Edge Plot (Bluetooth with Hopping Enabled, 3 Mbps) – Ant 1

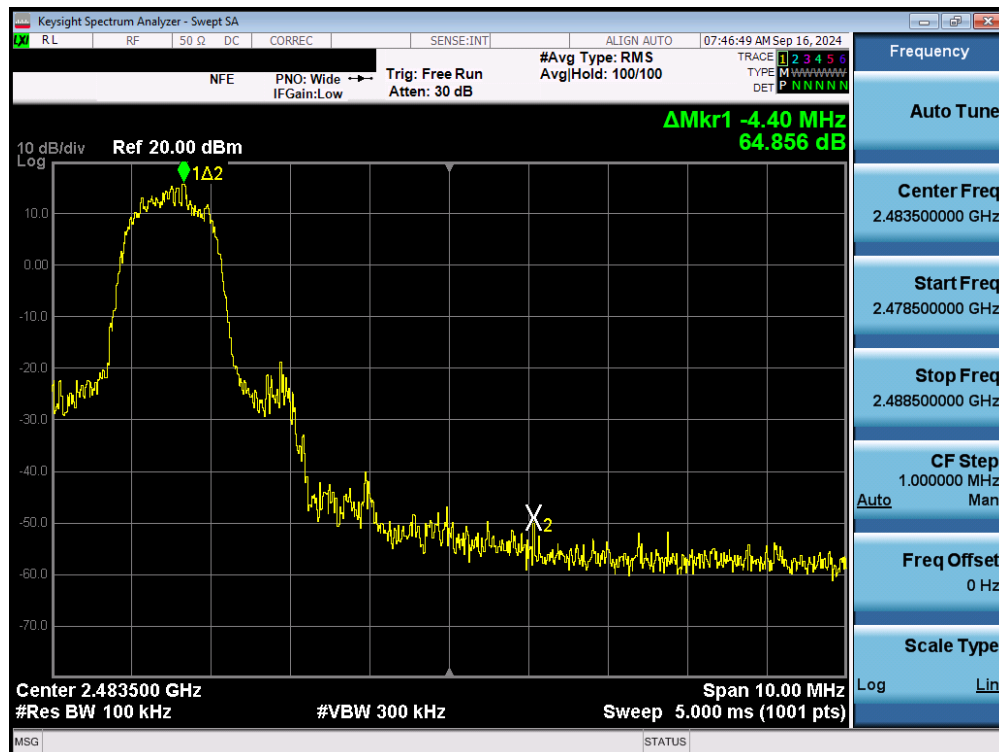


Plot 7-112. Band Edge Plot (Bluetooth with Hopping Enabled, 3 Mbps) – Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 75 of 140



Plot 7-113. Band Edge Plot (Bluetooth with Hopping Disabled, 3 Mbps – Ch. 0) – Ant 2



Plot 7-114. Band Edge Plot (Bluetooth with Hopping Disabled, 3 Mbps – Ch. 78) – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 76 of 140



Plot 7-115. Band Edge Plot (Bluetooth with Hopping Enabled, 3 Mbps) – Ant 2



Plot 7-116. Band Edge Plot (Bluetooth with Hopping Enabled, 3 Mbps) – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 77 of 140





Plot 7-121. Band Edge Plot (Bluetooth with Hopping Disabled, 3 Mbps – Ch. 0) – Dual Ant 2



Plot 7-122. Band Edge Plot (Bluetooth with Hopping Disabled, 3 Mbps – Ch. 78) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 80 of 140



7.5 Carrier Frequency Separation

§15.247 (a.1); RSS-247 [5.1(2)]

Test Overview and Limit

Measurement is made with EUT operating in hopping mode. ***The minimum permissible channel separation for this system is 2/3 the value of the 20dB BW.***

Test Procedure Used

ANSI C63.10-2013 – Section 7.8.2

Test Settings

1. Span = Wide enough to capture peaks of two adjacent channels
2. RBW = 30% of channel spacing. Adjust as necessary to best identify center of each individual channel
3. VBW $\geq$ RBW
4. Sweep = Auto
5. Detector = Peak
6. Trace mode = max hold
7. The trace was allowed to stabilize.
8. Marker-delta function used to determine separation between peaks of the adjacent channels

Test Setup

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



Figure 7-4. Test Instrument & Measurement Setup

Test Notes

The EUT complies with the minimum channel separation requirement when it is operating in 1x/EDR mode using 79 channels and when operating in AFH mode using 20 channels.

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 82 of 140

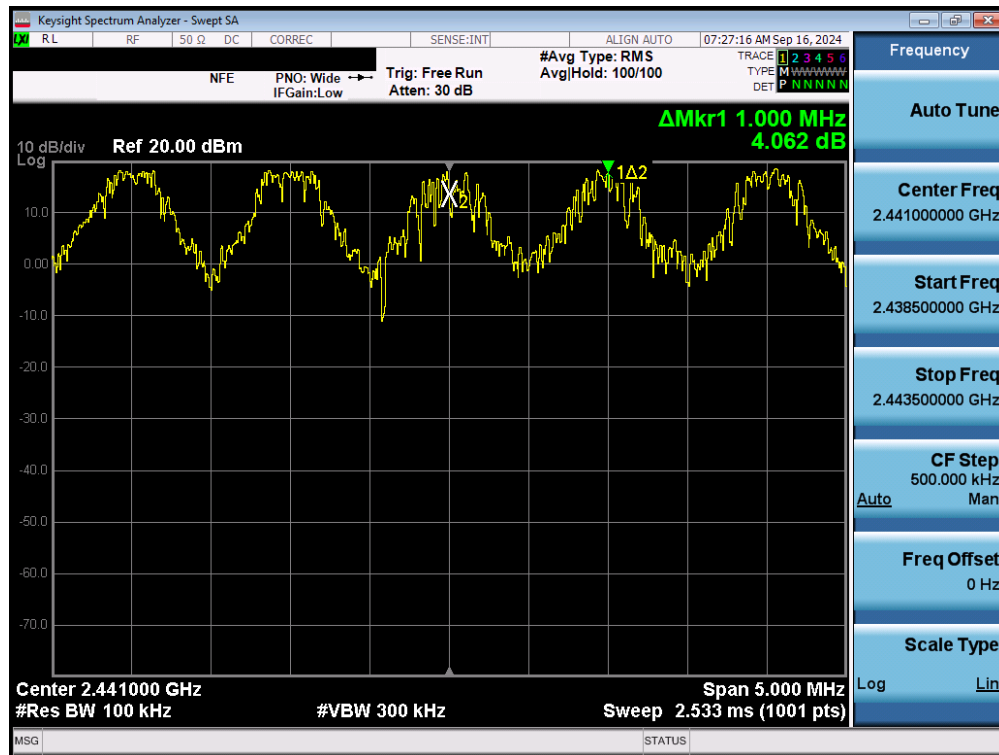
Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	Min. Channel Separation [MHz]
2402	1.0	GFSK	0	0.631
2441	1.0	GFSK	39	0.626
2480	1.0	GFSK	78	0.630
2402	2.0	$\pi/4$ -DQPSK	0	0.862
2441	2.0	$\pi/4$ -DQPSK	39	0.876
2480	2.0	$\pi/4$ -DQPSK	78	0.864
2402	3.0	8DPSK	0	0.885
2441	3.0	8DPSK	39	0.858
2480	3.0	8DPSK	78	0.880

Table 7-9. Minimum Channel Separation – Ant 1

Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	Min. Channel Separation [MHz]
2402	1.0	GFSK	0	0.626
2441	1.0	GFSK	39	0.631
2480	1.0	GFSK	78	0.599
2402	2.0	$\pi/4$ -DQPSK	0	0.881
2441	2.0	$\pi/4$ -DQPSK	39	0.877
2480	2.0	$\pi/4$ -DQPSK	78	0.875
2402	3.0	8DPSK	0	0.897
2441	3.0	8DPSK	39	0.893
2480	3.0	8DPSK	78	0.859

Table 7-10. Minimum Channel Separation – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 83 of 140



Plot 7-125. Channel Spacing Plot (Bluetooth) – Ant 1



Plot 7-126. Channel Spacing Plot (Bluetooth) – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 84 of 140

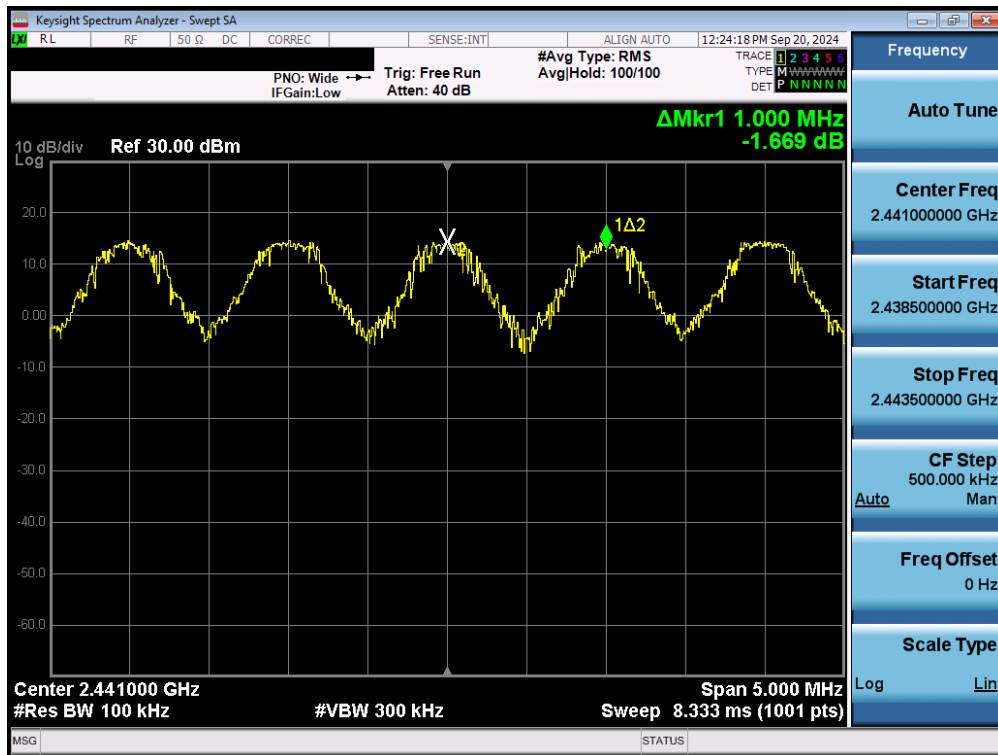
Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	Min. Channel Separation [MHz]
2402	1.0	GFSK	0	0.631
2441	1.0	GFSK	39	0.632
2480	1.0	GFSK	78	0.626
2402	2.0	$\pi/4$ -DQPSK	0	0.888
2441	2.0	$\pi/4$ -DQPSK	39	0.887
2480	2.0	$\pi/4$ -DQPSK	78	0.886
2402	3.0	8DPSK	0	0.885
2441	3.0	8DPSK	39	0.890
2480	3.0	8DPSK	78	0.871

Table 7-11. Minimum Channel Separation – Dual Ant 1

Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	Min. Channel Separation [MHz]
2402	1.0	GFSK	0	0.628
2441	1.0	GFSK	39	0.630
2480	1.0	GFSK	78	0.656
2402	2.0	$\pi/4$ -DQPSK	0	0.895
2441	2.0	$\pi/4$ -DQPSK	39	0.903
2480	2.0	$\pi/4$ -DQPSK	78	0.896
2402	3.0	8DPSK	0	0.890
2441	3.0	8DPSK	39	0.885
2480	3.0	8DPSK	78	0.882

Table 7-12. Minimum Channel Separation – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 85 of 140



Plot 7-127. Channel Spacing Plot (Bluetooth) – Dual Ant 1



Plot 7-128. Channel Spacing Plot (Bluetooth) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 86 of 140

7.6 Time of Occupancy

§15.247 (a.1.iii); RSS-247 [5.1(4)]

Test Overview and Limit

Measurement is made while EUT is operating in hopping mode with the spectrum analyzer set to zero span. ***The maximum permissible time of occupancy is 400 ms within a period of 400ms multiplied by the number of hopping channels employed.***

Test Procedure Used

ANSI C63.10-2013 – Section 7.8.4

Test Settings

1. Span = zero span, centered on a hopping channel
2. RBW $\leq$ channel spacing and $\gg 1/T$, where T is expected dwell time per channel
3. Sweep = as necessary to capture entire dwell time. Second plot may be required to demonstrate two successive hops on a channel
4. Trigger is set with appropriate trigger delay to place pulse near the center of the plot
5. Detector = peak
6. Trace mode = max hold
7. Marker-delta function used to determine transmit time per hop

Test Setup

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

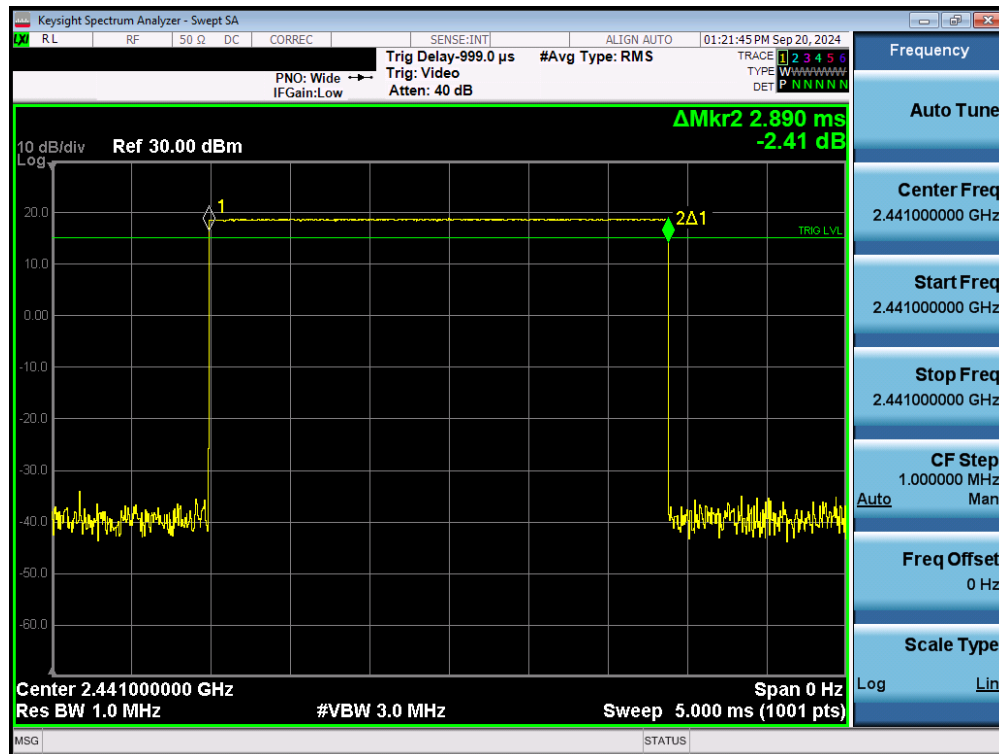


Figure 7-5. Test Instrument & Measurement Setup

Test Notes

None

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 87 of 140



Plot 7-129. Time of Occupancy Plot (Bluetooth) – Ant 1

Bluetooth Time of Occupancy Calculation

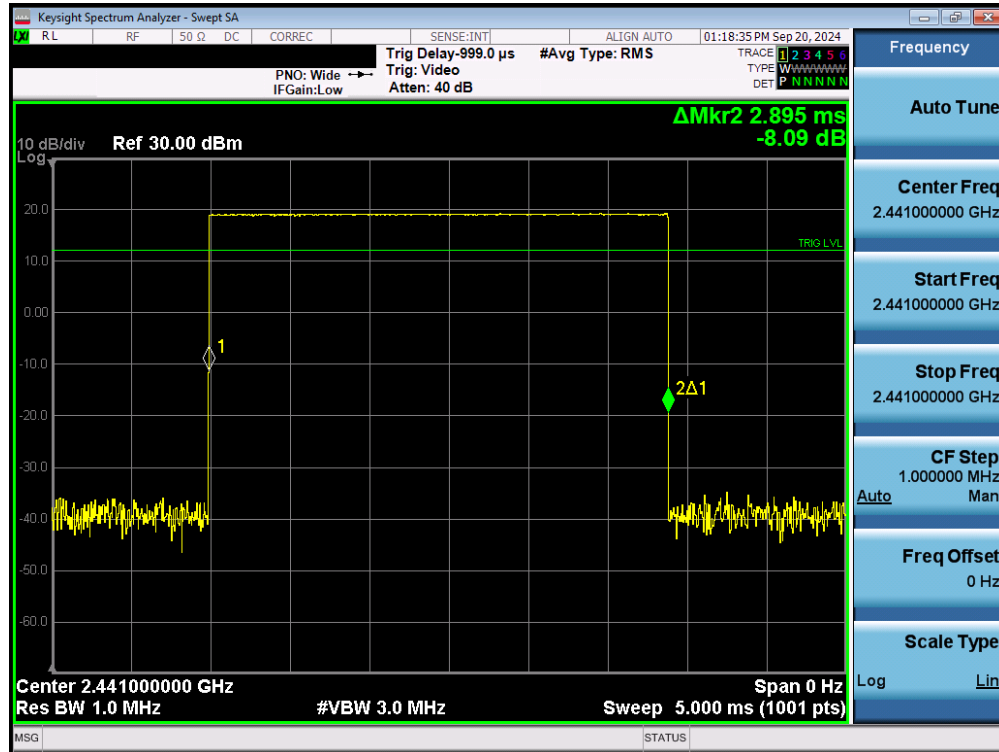
Typically, Bluetooth 1x/EDR mode has a channel hopping rate of 1600 hops/s. Since 1x/EDR modes use 5 transmit and 1 receive slot, for a total of 6 slots, the Bluetooth transmitter is actually hopping at a rate of $1600 / 6 = 266.67$ hops/s/slot

- $400\text{ms} \times 79$ hopping channels = 31.6 sec (Time of Occupancy Limit)
- Worst case BT has 266.67 hops/second (for 1x/EDR modes with DH5 operation)
- $266.67 \text{ hops/second} / 79 \text{ channels} = 3.38 \text{ hops/second}$ (# of hops/second on one channel)
- $3.38 \text{ hops/second/channel} \times 31.6 \text{ seconds} = 106.67 \text{ hops}$ (# hops over a 31.6 second period)
- $106.67 \text{ hops} \times 2.89 \text{ ms/channel} = 308.28 \text{ ms}$ (worst case dwell time for one channel in 1x/EDR modes)

With AFH, the number of channels is reduced to a minimum of 20 channels and the channel hopping rate is reduced by 50% to 800 hops/s. AFH mode also uses 6 total slots so the Bluetooth transmitter hops at a rate of $800 / 6 = 133.3$ hops/s/slot

- $400\text{ms} \times 20$ hopping channels = 8 sec (Time of Occupancy Limit)
- Worst case BT has 133.3 hops/second/slot (for AFH mode with DH5 operation)
- $133.3 \text{ hops/s} / 20 \text{ channels} = 6.67 \text{ hops/second}$ (# of hops/second on one channel)
- $6.67 \text{ hops/s} / \text{channel} \times 8 \text{ seconds} = 53.34 \text{ hops}$ (# hops over a 8 second period)
- $53.34 \text{ hops} \times 2.89 \text{ ms/channel} = 154.15 \text{ ms}$ (worst case dwell time for one channel in AFH mode)

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 88 of 140



Plot 7-130. Time of Occupancy Plot (Bluetooth) – Ant 2

Bluetooth Time of Occupancy Calculation

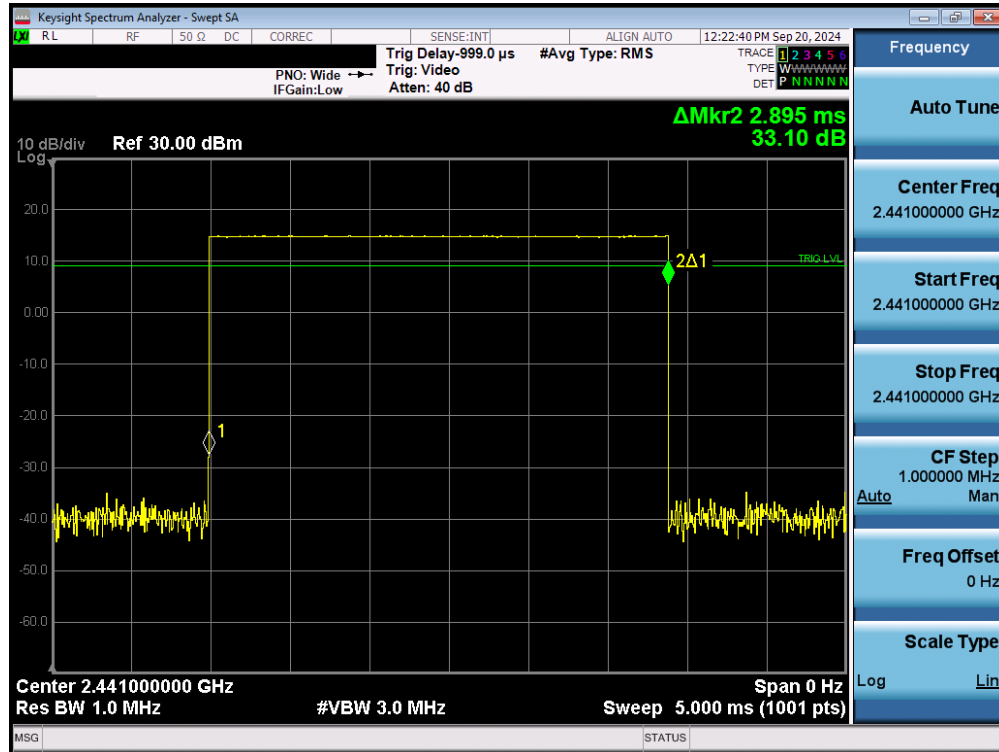
Typically, Bluetooth 1x/EDR mode has a channel hopping rate of 1600 hops/s. Since 1x/EDR modes use 5 transmit and 1 receive slot, for a total of 6 slots, the Bluetooth transmitter is actually hopping at a rate of $1600 / 6 = 266.67$ hops/s/slot

- $400\text{ms} \times 79$ hopping channels = 31.6 sec (Time of Occupancy Limit)
- Worst case BT has 266.67 hops/second (for 1x/EDR modes with DH5 operation)
- $266.67 \text{ hops/second} / 79 \text{ channels} = 3.38 \text{ hops/second}$ (# of hops/second on one channel)
- $3.38 \text{ hops/second/channel} \times 31.6 \text{ seconds} = 106.67 \text{ hops}$ (# hops over a 31.6 second period)
- $106.67 \text{ hops} \times 2.895 \text{ ms/channel} = 308.81 \text{ ms}$ (worst case dwell time for one channel in 1x/EDR modes)

With AFH, the number of channels is reduced to a minimum of 20 channels and the channel hopping rate is reduced by 50% to 800 hops/s. AFH mode also uses 6 total slots so the Bluetooth transmitter hops at a rate of $800 / 6 = 133.3$ hops/s/slot

- $400\text{ms} \times 20$ hopping channels = 8 sec (Time of Occupancy Limit)
- Worst case BT has 133.3 hops/second/slot (for AFH mode with DH5 operation)
- $133.3 \text{ hops/s} / 20 \text{ channels} = 6.67 \text{ hops/second}$ (# of hops/second on one channel)
- $6.67 \text{ hops/s} / \text{channel} \times 8 \text{ seconds} = 53.34 \text{ hops}$ (# hops over a 8 second period)
- $53.34 \text{ hops} \times 2.895 \text{ ms/channel} = 154.42 \text{ ms}$ (worst case dwell time for one channel in AFH mode)

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 89 of 140



Plot 7-131. Time of Occupancy Plot (Bluetooth) – Dual Ant 1

Bluetooth Time of Occupancy Calculation

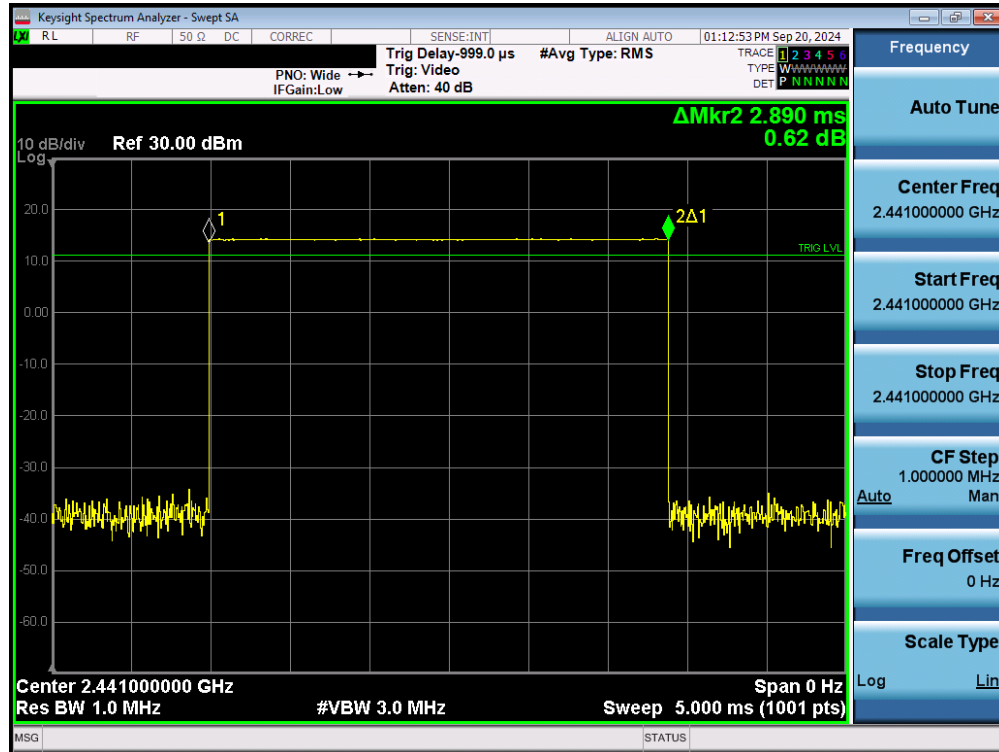
Typically, Bluetooth 1x/EDR mode has a channel hopping rate of 1600 hops/s. Since 1x/EDR modes use 5 transmit and 1 receive slot, for a total of 6 slots, the Bluetooth transmitter is actually hopping at a rate of $1600 / 6 = 266.67$ hops/s/slot

- $400\text{ms} \times 79$ hopping channels = 31.6 sec (Time of Occupancy Limit)
- Worst case BT has 266.67 hops/second (for 1x/EDR modes with DH5 operation)
- $266.67 \text{ hops/second} / 79 \text{ channels} = 3.38 \text{ hops/second}$ (# of hops/second on one channel)
- $3.38 \text{ hops/second/channel} \times 31.6 \text{ seconds} = 106.67 \text{ hops}$ (# hops over a 31.6 second period)
- $106.67 \text{ hops} \times 2.895 \text{ ms/channel} = 308.81 \text{ ms}$ (worst case dwell time for one channel in 1x/EDR modes)

With AFH, the number of channels is reduced to a minimum of 20 channels and the channel hopping rate is reduced by 50% to 800 hops/s. AFH mode also uses 6 total slots so the Bluetooth transmitter hops at a rate of $800 / 6 = 133.3$ hops/s/slot

- $400\text{ms} \times 20$ hopping channels = 8 sec (Time of Occupancy Limit)
- Worst case BT has 133.3 hops/second/slot (for AFH mode with DH5 operation)
- $133.3 \text{ hops/s} / 20 \text{ channels} = 6.67 \text{ hops/second}$ (# of hops/second on one channel)
- $6.67 \text{ hops/s} / \text{channel} \times 8 \text{ seconds} = 53.34 \text{ hops}$ (# hops over a 8 second period)
- $53.34 \text{ hops} \times 2.895 \text{ ms/channel} = 154.42 \text{ ms}$ (worst case dwell time for one channel in AFH mode)

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 90 of 140



Plot 7-132. Time of Occupancy Plot (Bluetooth) – Dual Ant 2

Bluetooth Time of Occupancy Calculation

Typically, Bluetooth 1x/EDR mode has a channel hopping rate of 1600 hops/s. Since 1x/EDR modes use 5 transmit and 1 receive slot, for a total of 6 slots, the Bluetooth transmitter is actually hopping at a rate of $1600 / 6 = 266.67$ hops/s/slot

- $400\text{ms} \times 79$ hopping channels = 31.6 sec (Time of Occupancy Limit)
- Worst case BT has 266.67 hops/second (for 1x/EDR modes with DH5 operation)
- $266.67 \text{ hops/second} / 79 \text{ channels} = 3.38 \text{ hops/second}$ (# of hops/second on one channel)
- $3.38 \text{ hops/second/channel} \times 31.6 \text{ seconds} = 106.67 \text{ hops}$ (# hops over a 31.6 second period)
- $106.67 \text{ hops} \times 2.89 \text{ ms/channel} = 308.28 \text{ ms}$ (worst case dwell time for one channel in 1x/EDR modes)

With AFH, the number of channels is reduced to a minimum of 20 channels and the channel hopping rate is reduced by 50% to 800 hops/s. AFH mode also uses 6 total slots so the Bluetooth transmitter hops at a rate of $800 / 6 = 133.3$ hops/s/slot

- $400\text{ms} \times 20$ hopping channels = 8 sec (Time of Occupancy Limit)
- Worst case BT has 133.3 hops/second/slot (for AFH mode with DH5 operation)
- $133.3 \text{ hops/s} / 20 \text{ channels} = 6.67 \text{ hops/second}$ (# of hops/second on one channel)
- $6.67 \text{ hops/s} / \text{channel} \times 8 \text{ seconds} = 53.34 \text{ hops}$ (# hops over a 8 second period)
- $53.34 \text{ hops} \times 2.89 \text{ ms/channel} = 154.15 \text{ ms}$ (worst case dwell time for one channel in AFH mode)

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 91 of 140

7.7 Number of Hopping Channels

§15.247 (a.1.iii); RSS-247 [5.1(4)]

Test Overview and Limit

Measurement is made while EUT is operating in hopping mode. ***This frequency hopping system must employ a minimum of 15 hopping channels.***

Test Procedure Used

ANSI C63.10-2013 – Section 7.8.3

Test Settings

1. Span = frequency of band of operation (divided into two plots)
2. RBW < 30% of channel spacing or 20dB bandwidth, whichever is smaller
3. VBW ≥ RBW
4. Sweep = auto
5. Detector = peak
6. Trace mode = max hold
7. Trace was allowed to stabilize

Test Setup

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

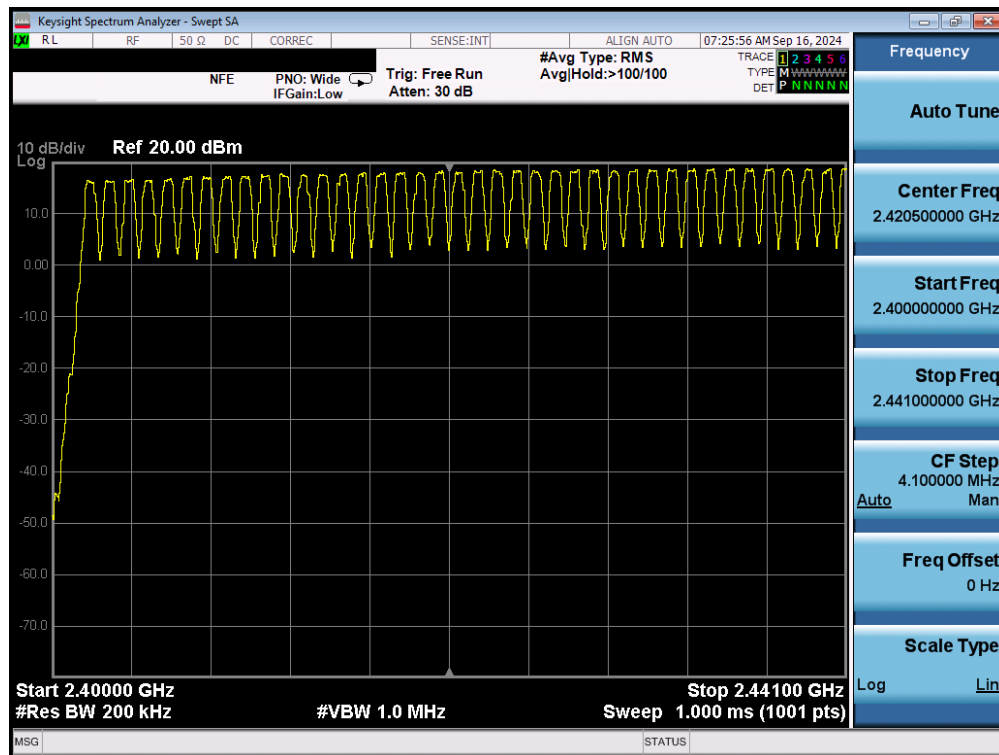


Figure 7-6. Test Instrument & Measurement Setup

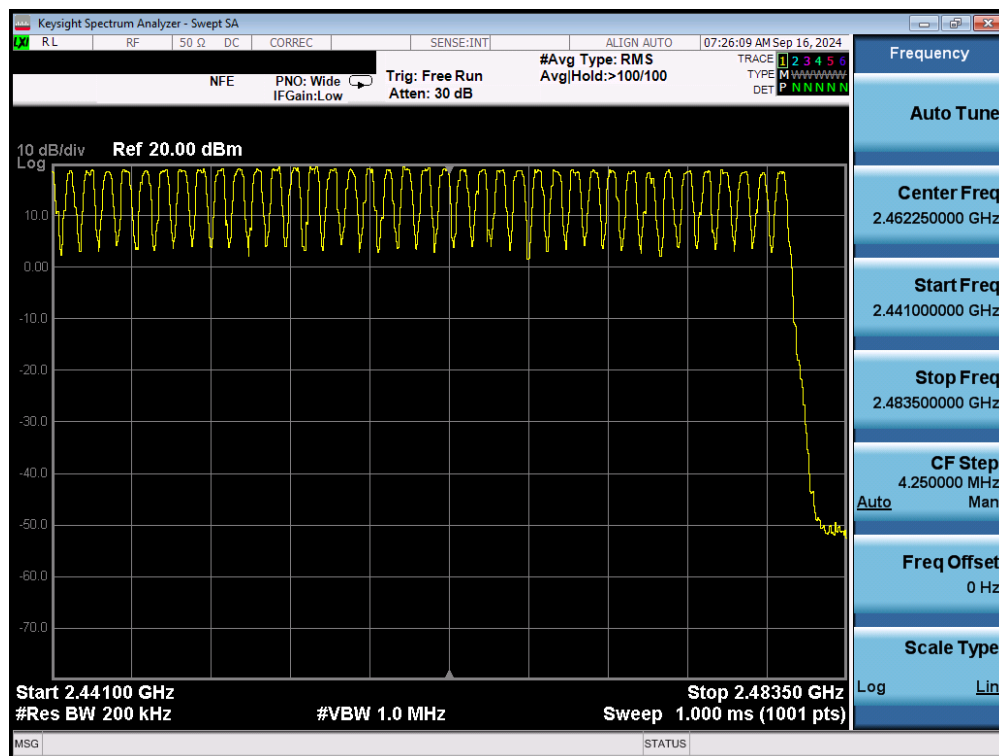
Test Notes

The frequency spectrum was broken up into two sub-ranges to clearly show all the hopping frequencies. In AFH mode, this device operates using 20 channels so the requirement for minimum number of hopping channels is satisfied.

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 92 of 140

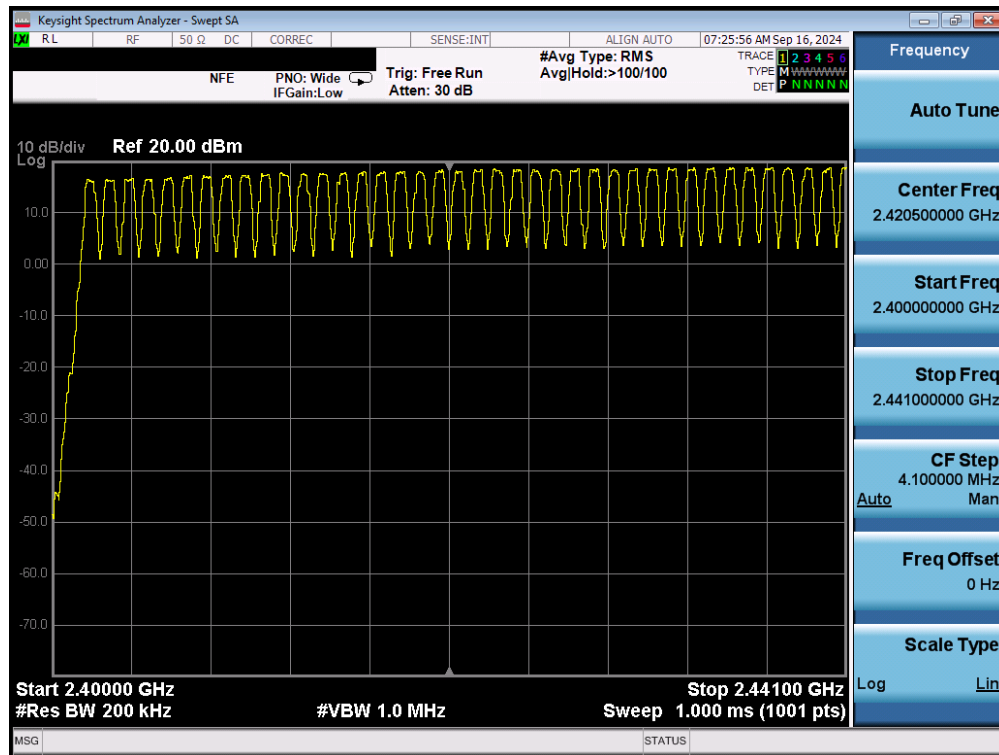


Plot 7-133. Low End Spectrum Channel Hopping Plot (Bluetooth) – Ant 1

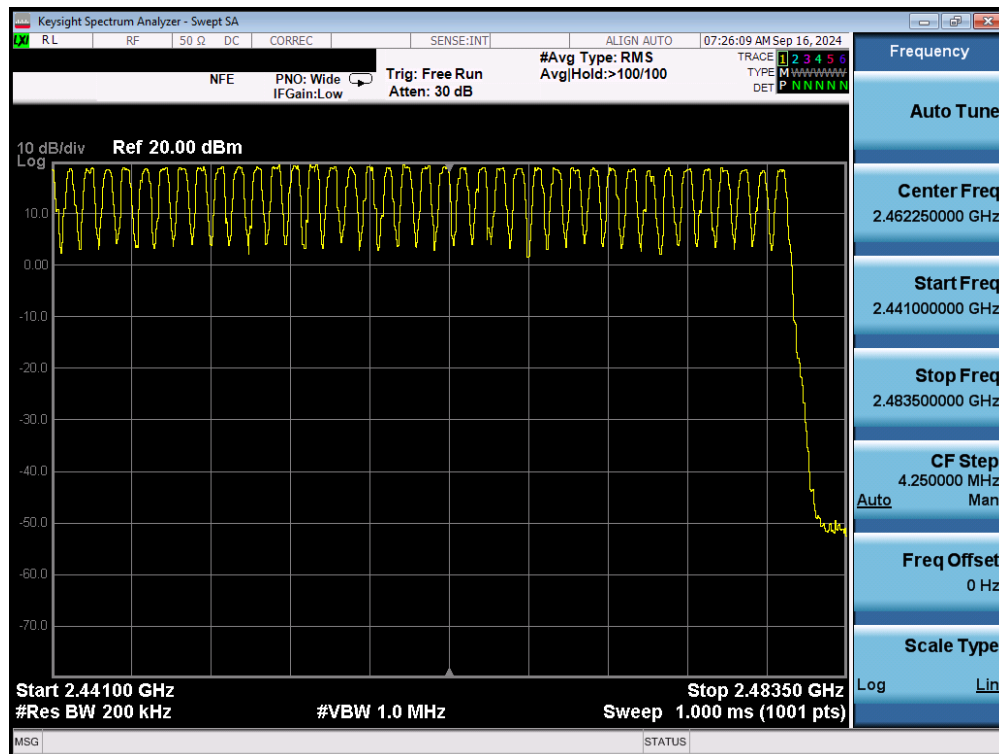


Plot 7-134. High End Spectrum Channel Hopping Plot (Bluetooth) – Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 93 of 140

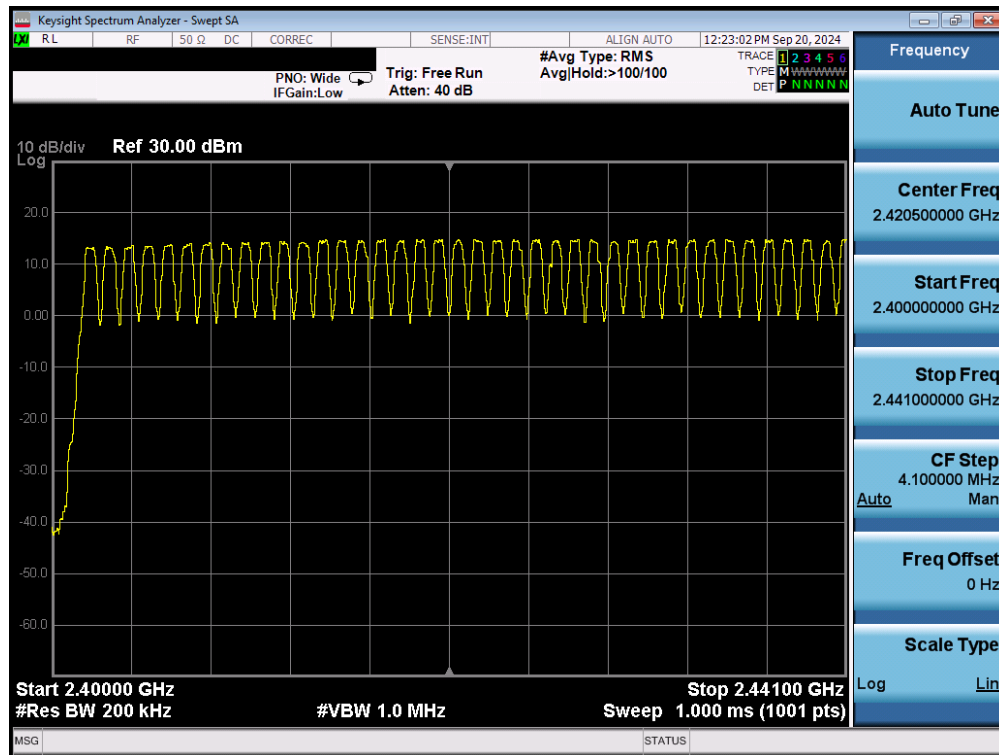


Plot 7-135. Low End Spectrum Channel Hopping Plot (Bluetooth) – Ant 2

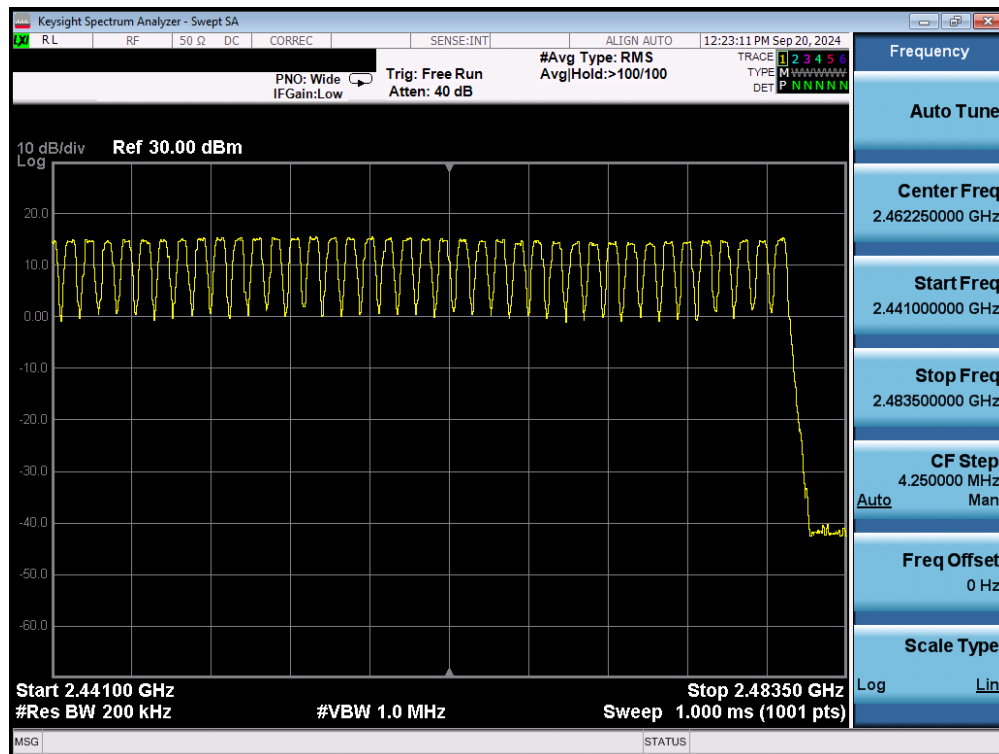


Plot 7-136. High End Spectrum Channel Hopping Plot (Bluetooth) – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 94 of 140

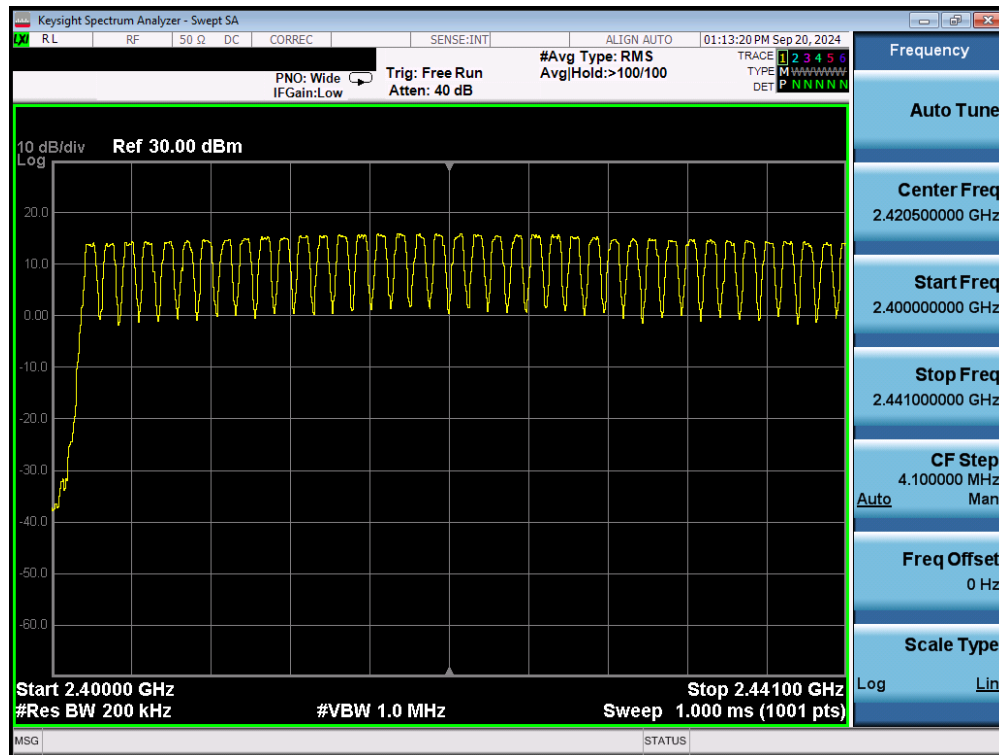


Plot 7-137. Low End Spectrum Channel Hopping Plot (Bluetooth) – Dual Ant 1

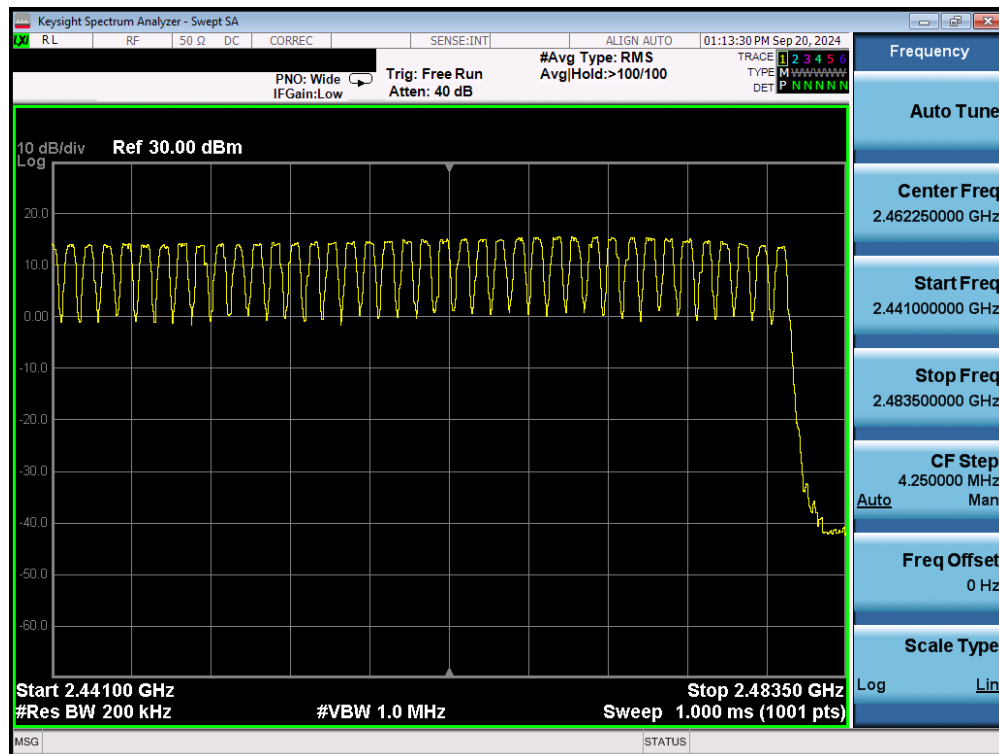


Plot 7-138. High End Spectrum Channel Hopping Plot (Bluetooth) – Dual Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 95 of 140



Plot 7-139. Low End Spectrum Channel Hopping Plot (Bluetooth) – Dual Ant 2



Plot 7-140. High End Spectrum Channel Hopping Plot (Bluetooth) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 96 of 140

7.8 Conducted Spurious Emissions

§15.247 (d); RSS-247 [5.5]

Test Overview and Limit

Conducted out-of-band spurious emissions were investigated from 30MHz up to 25GHz to include the 10th harmonic of the fundamental transmit frequency. ***The maximum permissible out-of-band emission level is 20 dBc.***

Test Procedure Used

ANSI C63.10-2013 – Section 7.8.8

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to 25GHz (separated into two plots per channel)
2. RBW = 1MHz* (See note below)
3. VBW = 3MHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

Test Setup

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

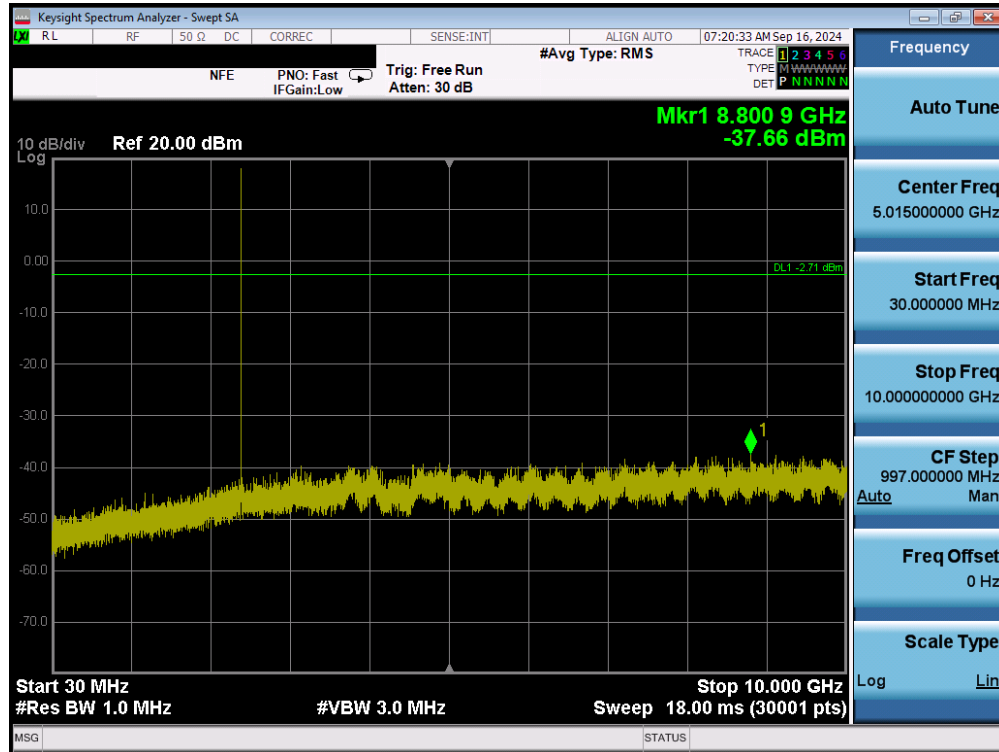


Figure 7-7. Test Instrument & Measurement Setup

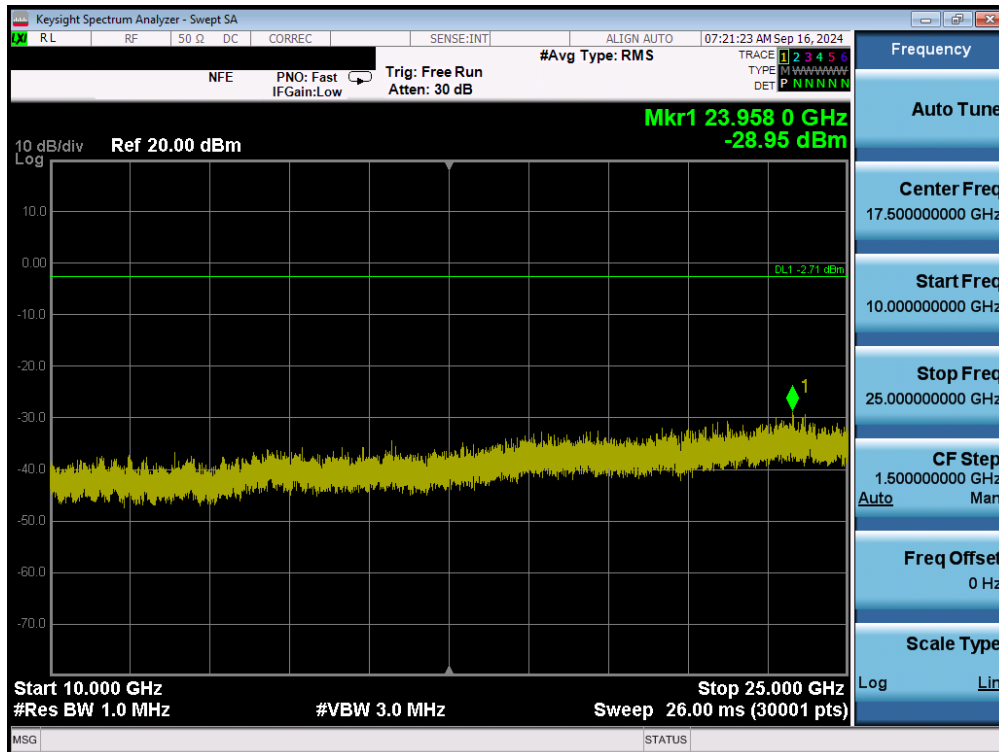
Test Notes

Out-of-band conducted spurious emissions were investigated for all data rates and the worst-case emissions were found with the EUT transmitting at 1Mbps. The display line shown in the following plots is the limit at 20dB below the fundamental emission level measured in a 100kHz bandwidth. However, the traces in the following plots are measured with a 1MHz RBW to reduce test time, so the display line may not necessarily appear to be 20dB below the level of the fundamental in a 1MHz bandwidth.

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 97 of 140

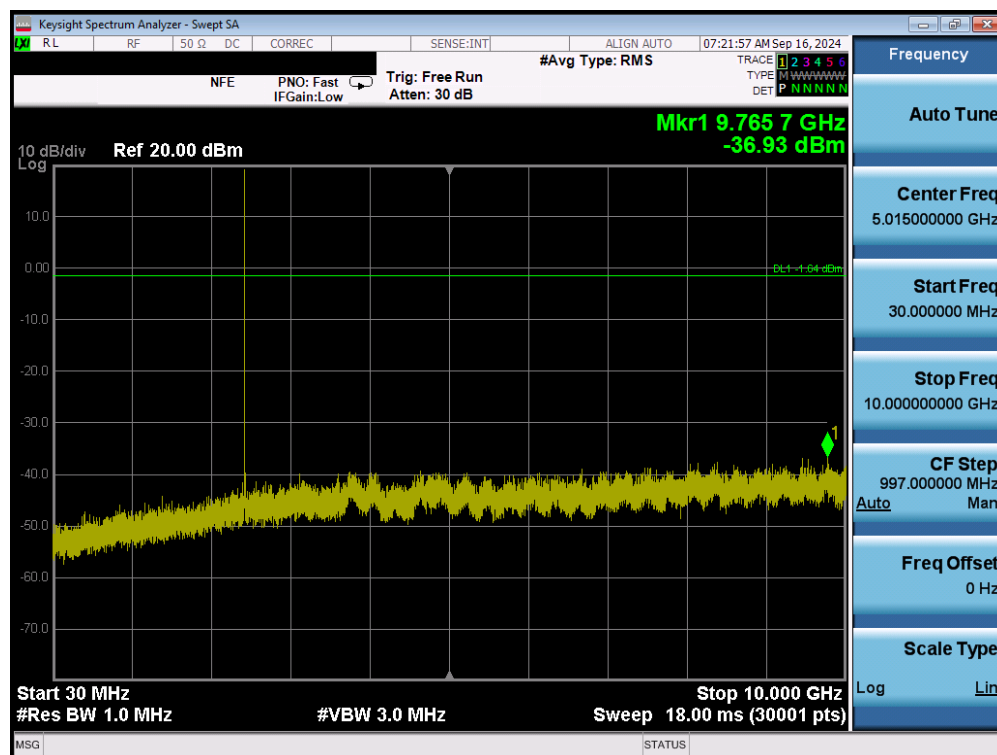


Plot 7-141. Conducted Spurious Plot (Bluetooth, 3Mbps - Ch. 0) - Ant 1

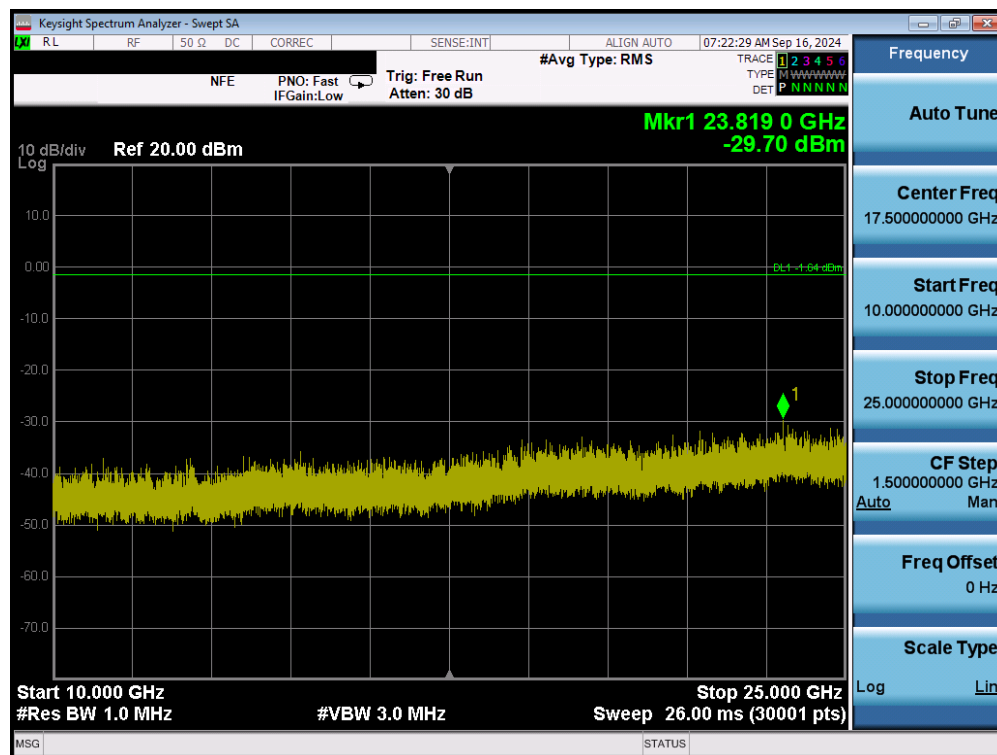


Plot 7-142. Conducted Spurious Plot (Bluetooth, 3Mbps - Ch. 0) - Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 98 of 140

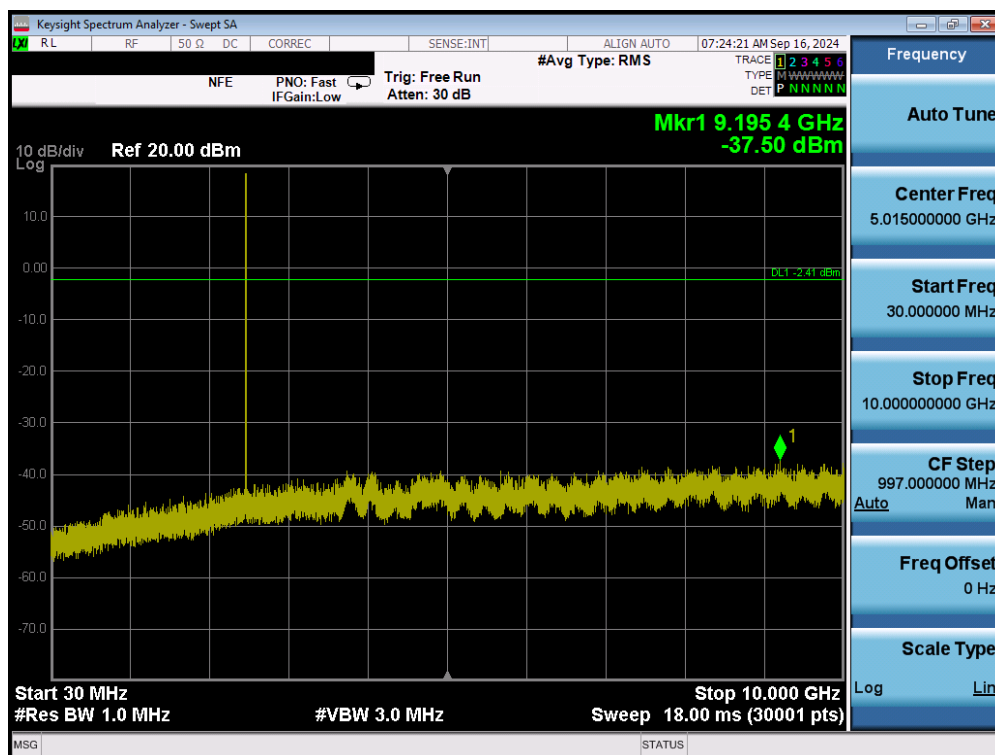


Plot 7-143. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 39) – Ant 1

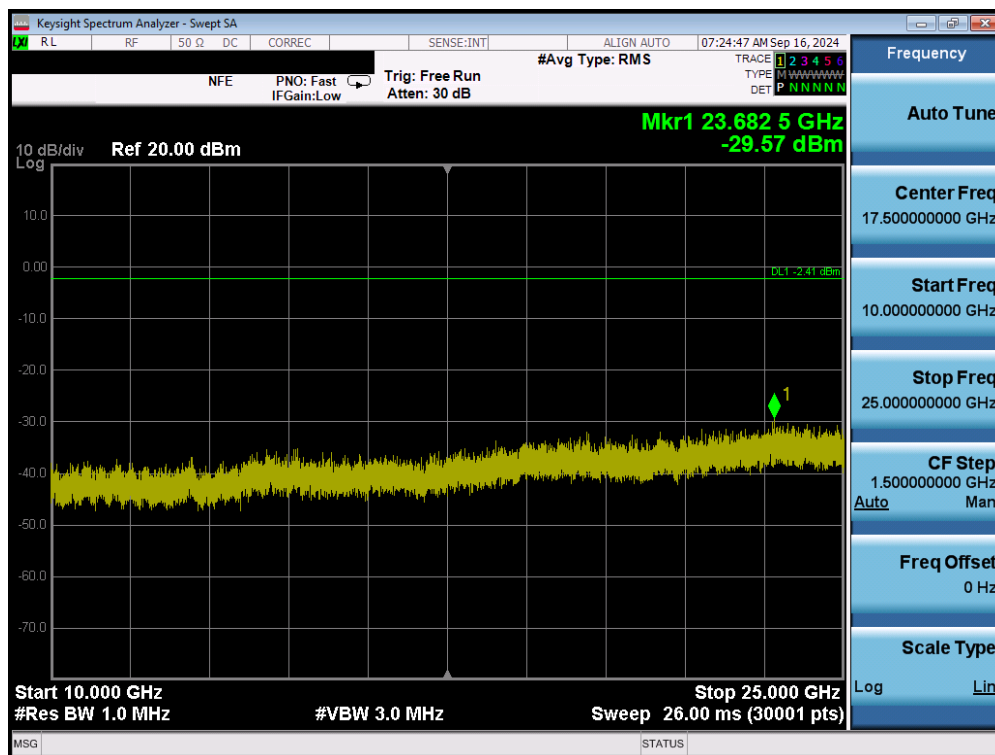


Plot 7-144. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 39) – Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 99 of 140

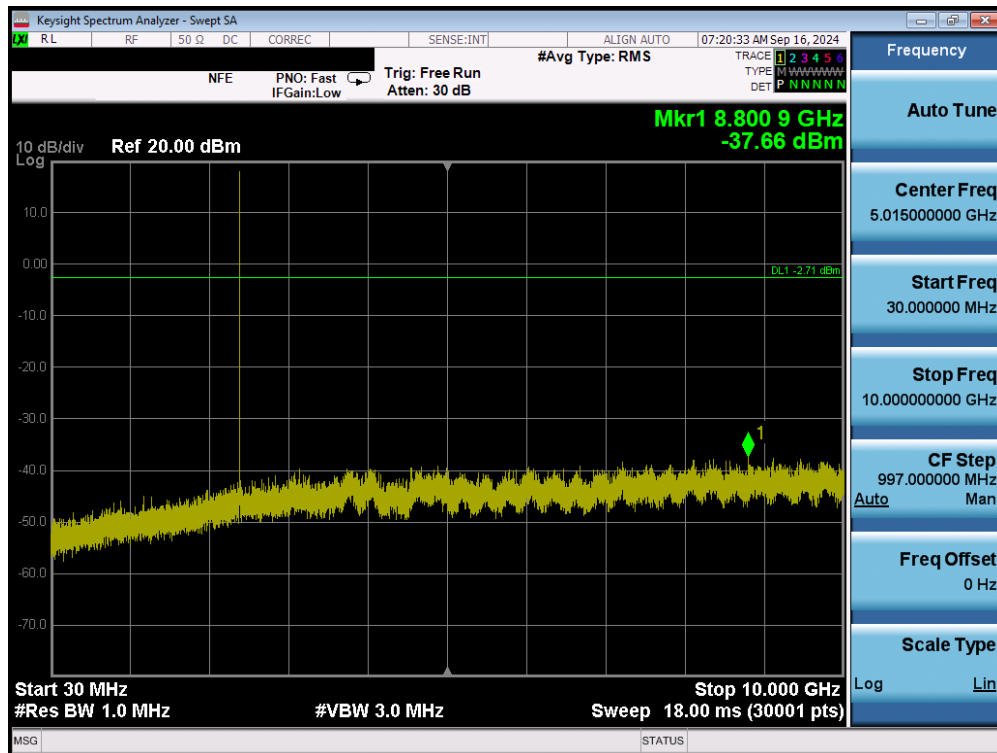


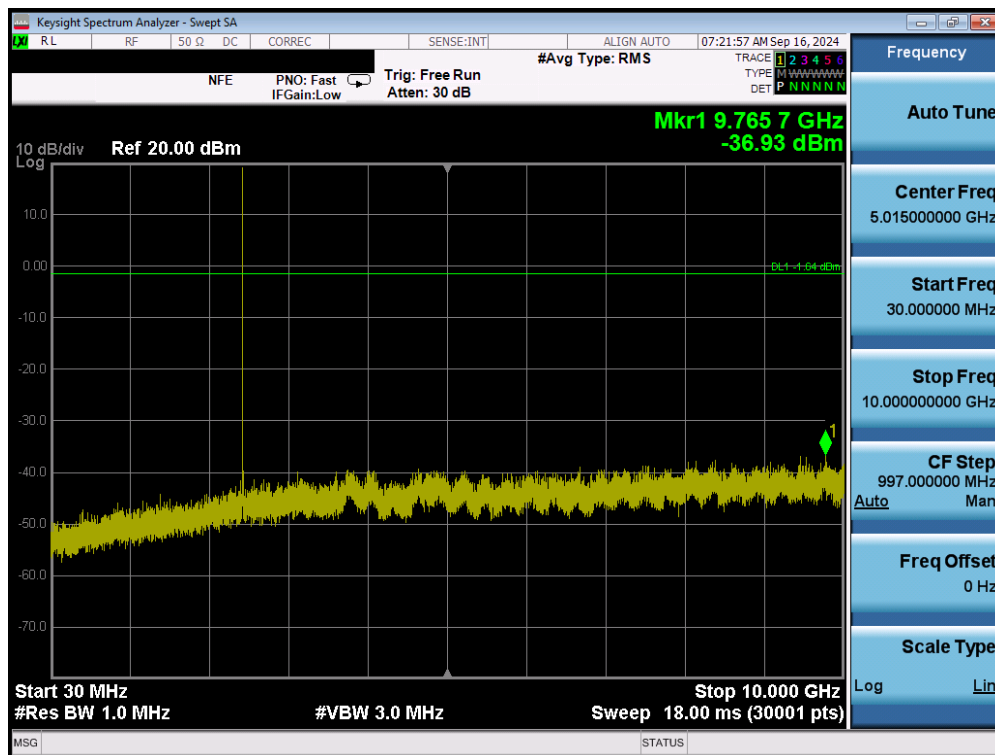
Plot 7-145. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 78) – Ant 1



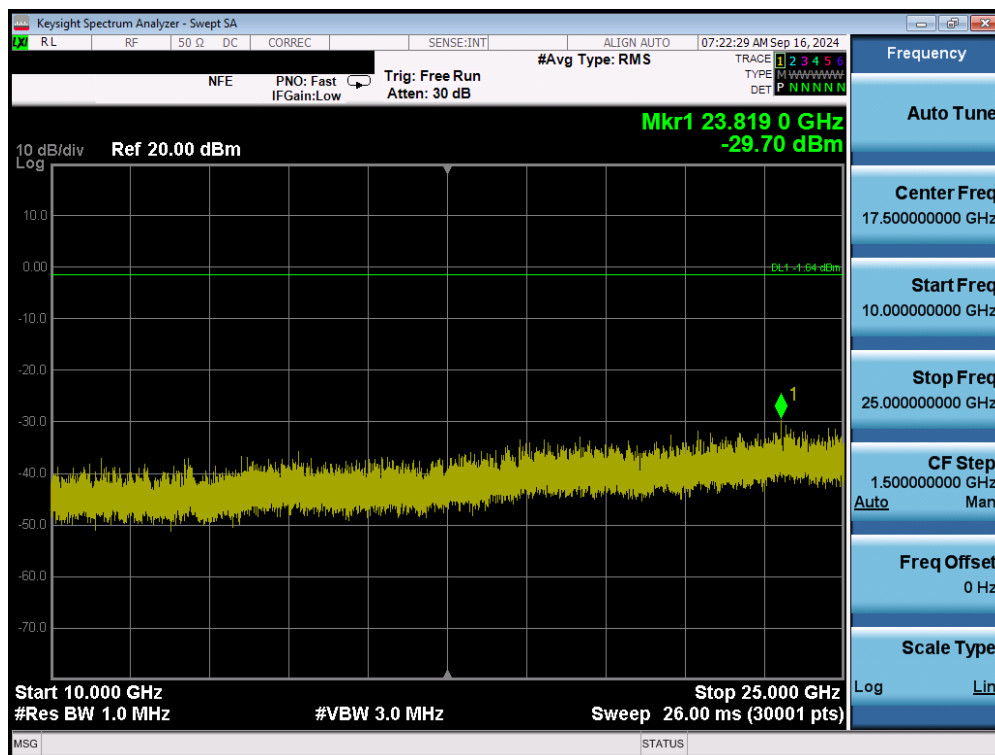
Plot 7-146. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 78) – Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 100 of 140



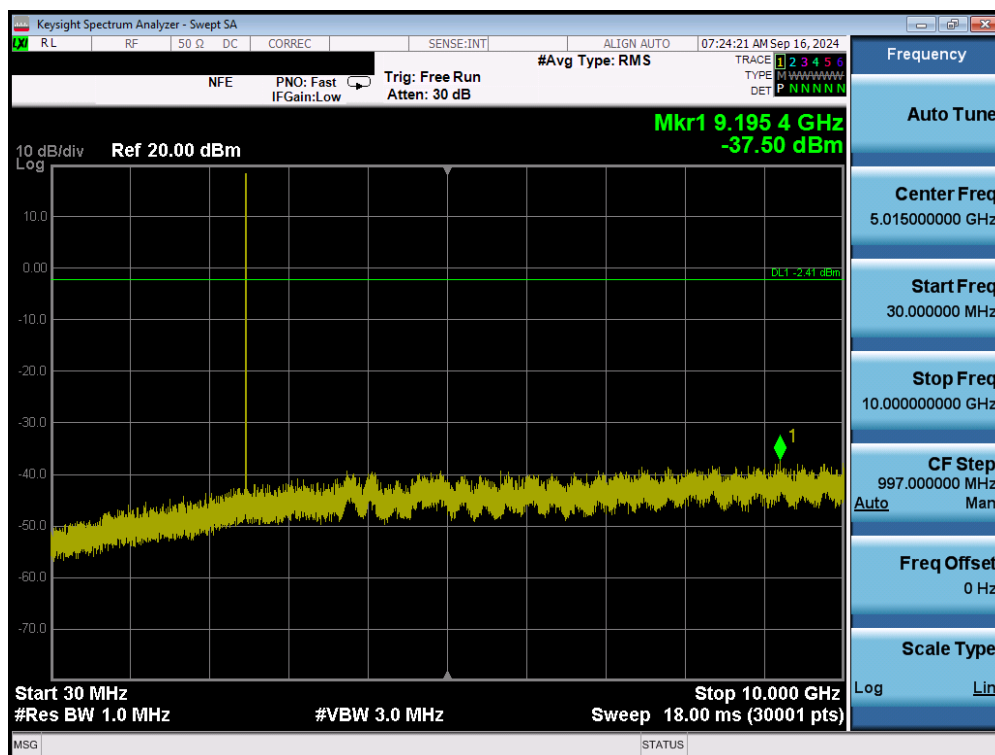


Plot 7-149. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 39) – Ant 2

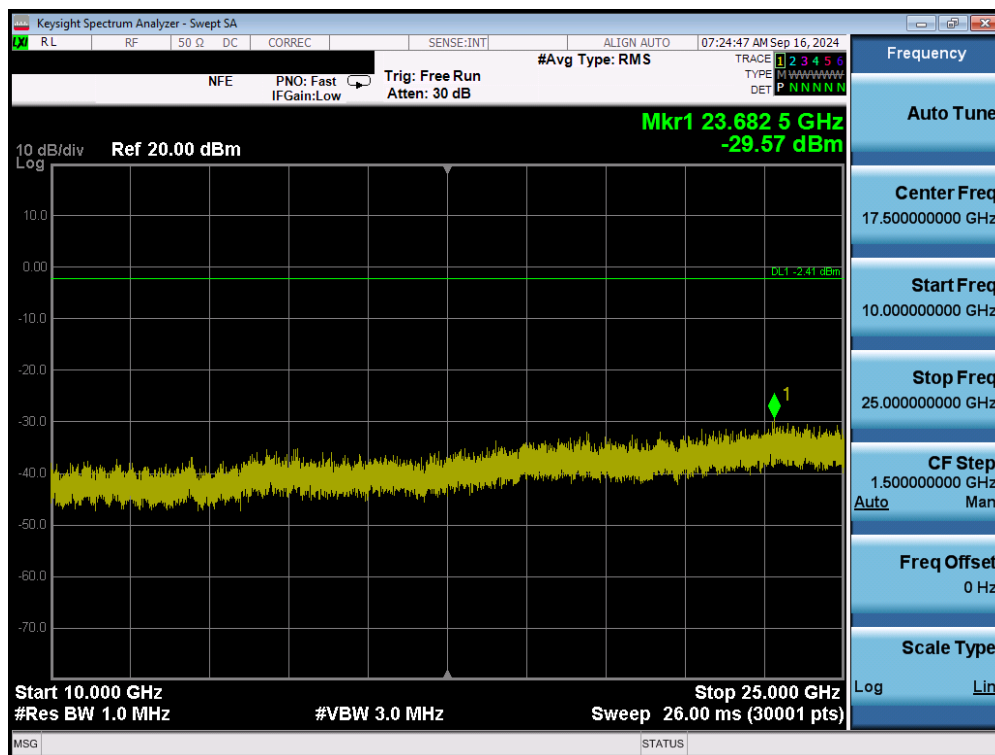


Plot 7-150. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 39) – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 102 of 140

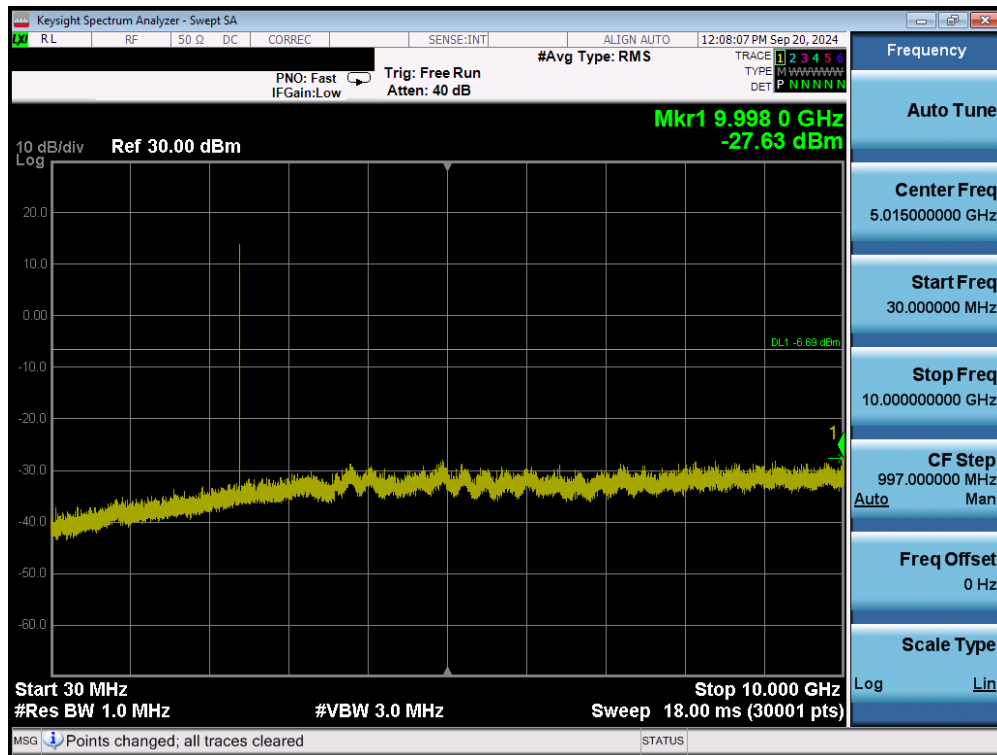


Plot 7-151. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 78) – Ant 2



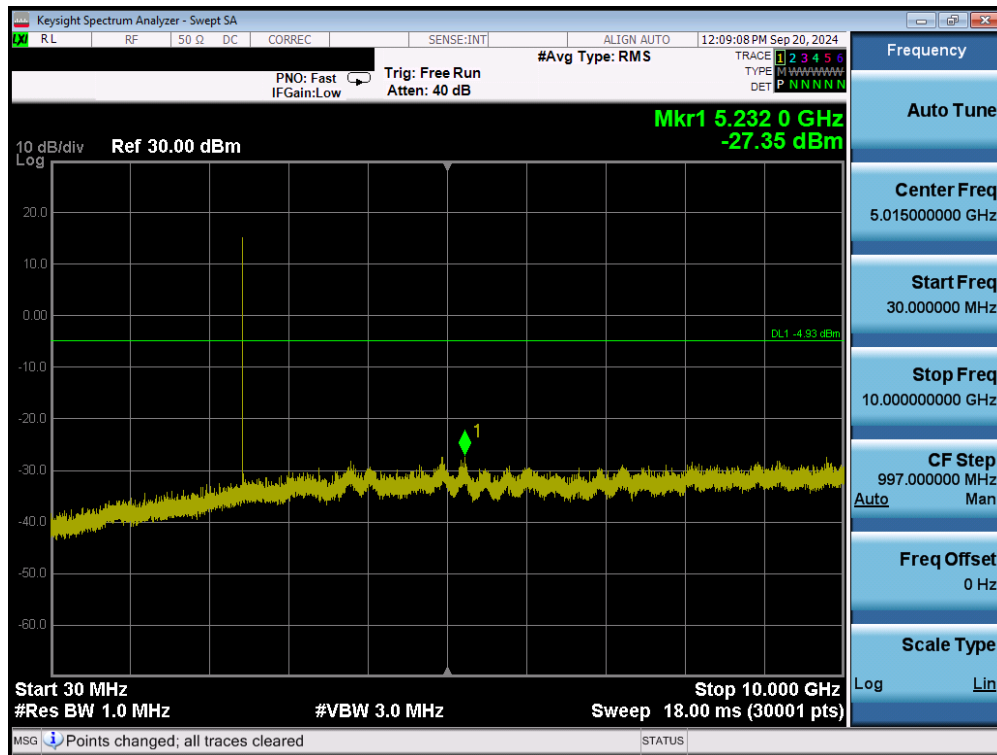
Plot 7-152. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 78) – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 103 of 140

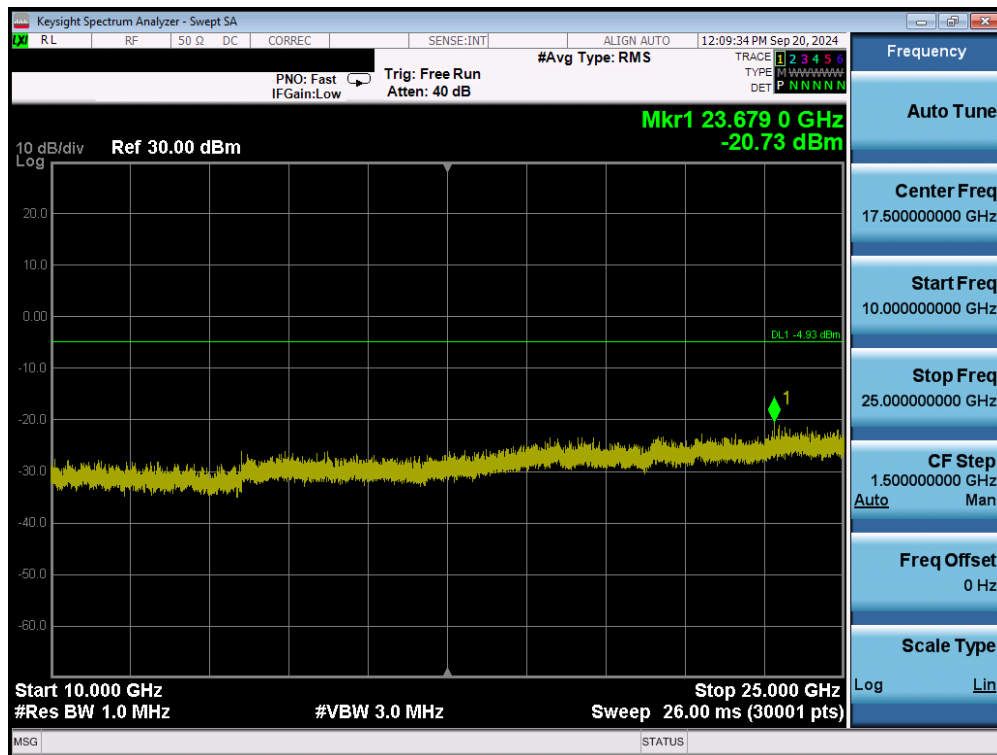


Plot 7-153. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 0) – Dual Ant 1

Plot 7-154. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 0) – Dual Ant 1

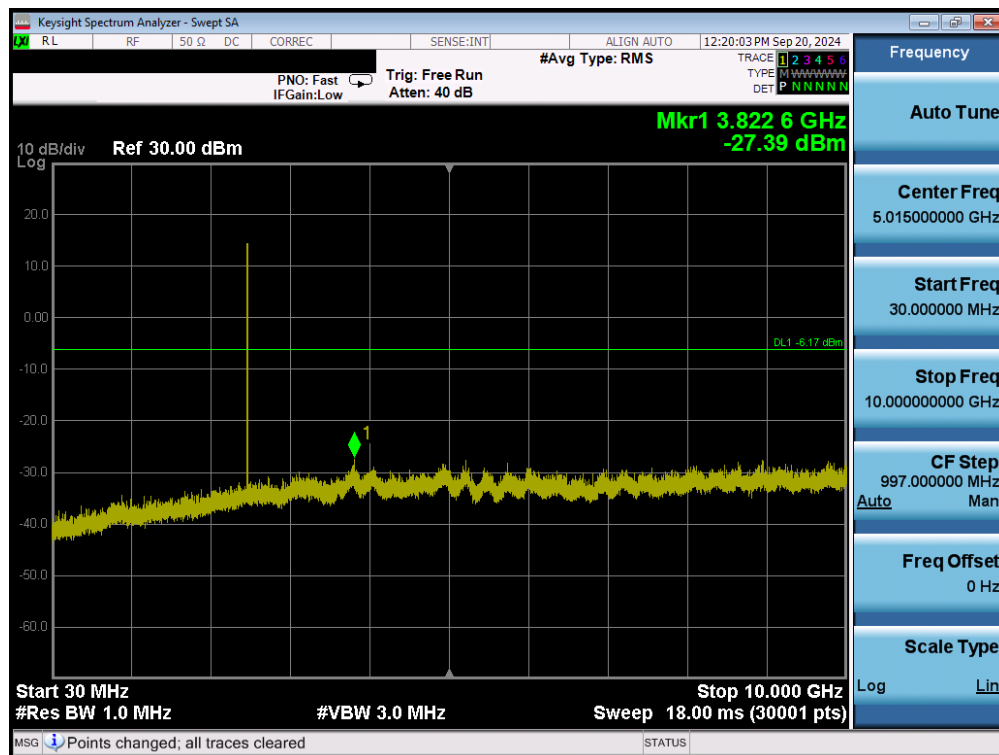


Plot 7-155. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 39) – Dual Ant 1

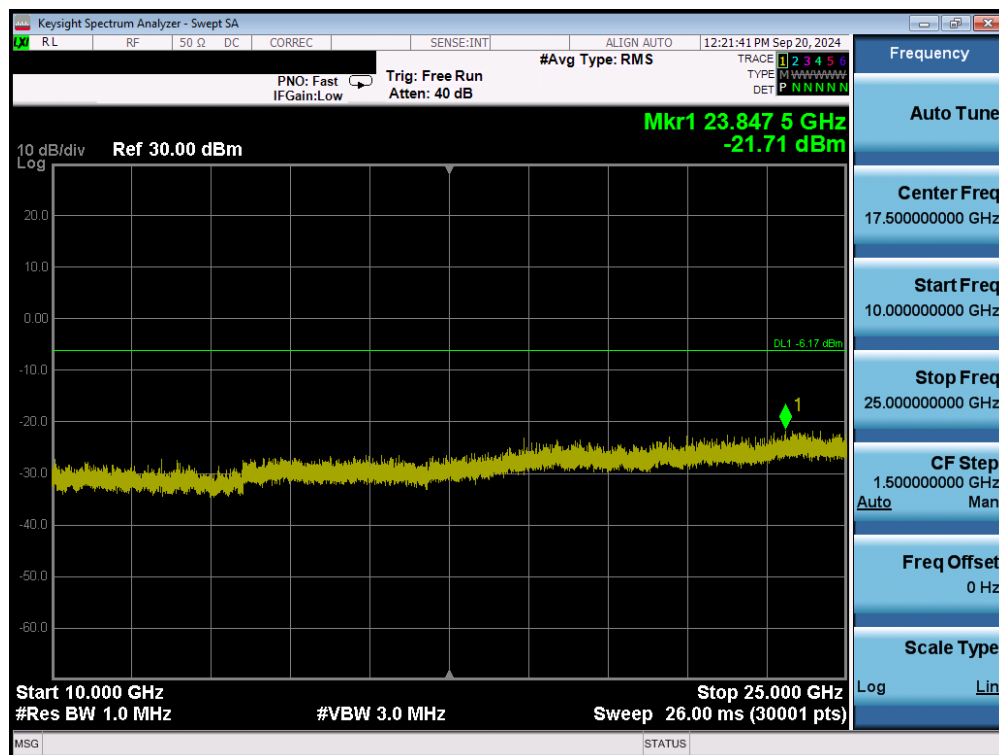


Plot 7-156. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 39) – Dual Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 105 of 140

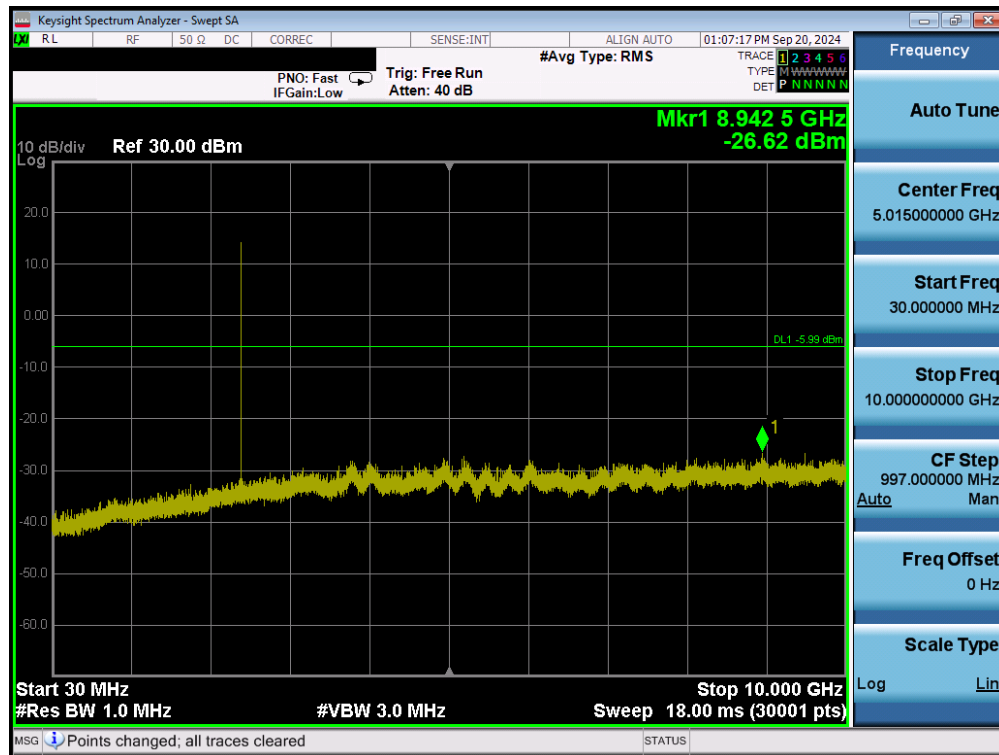


Plot 7-157. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 78) – Dual Ant 1

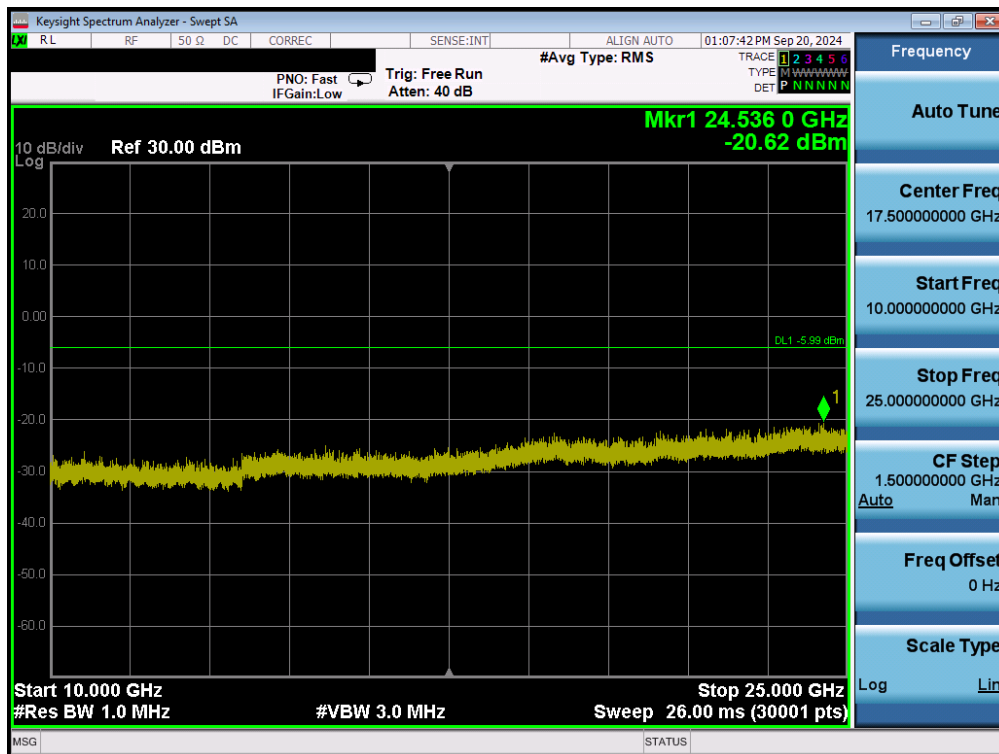


Plot 7-158. Conducted Spurious Plot (Bluetooth, 3Mbps – Ch. 78) – Dual Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 106 of 140

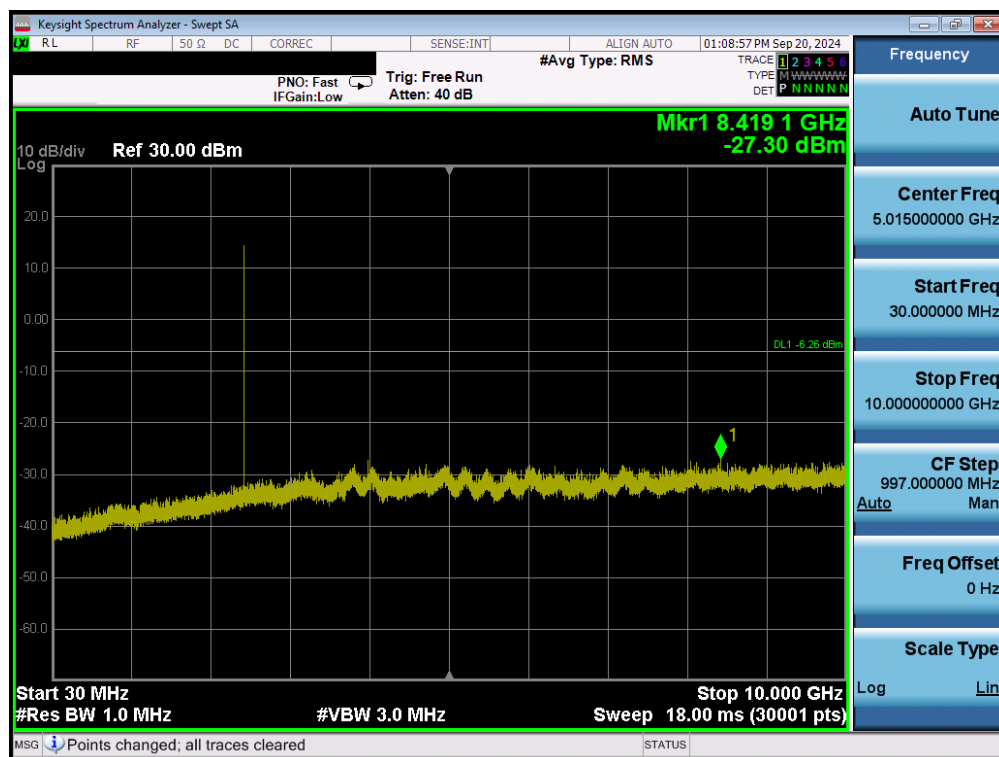


Plot 7-159. Conducted Spurious Plot (Bluetooth, 1Mbps – Ch. 0) – Dual Ant 2

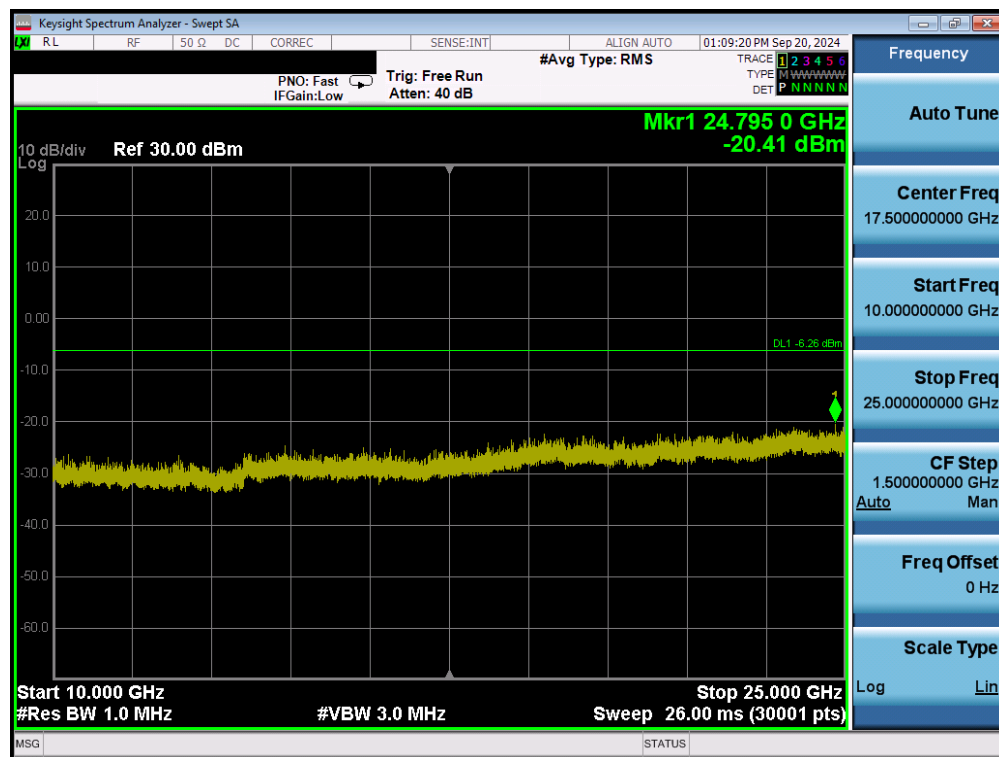


Plot 7-160. Conducted Spurious Plot (Bluetooth, 1Mbps – Ch. 0) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 107 of 140

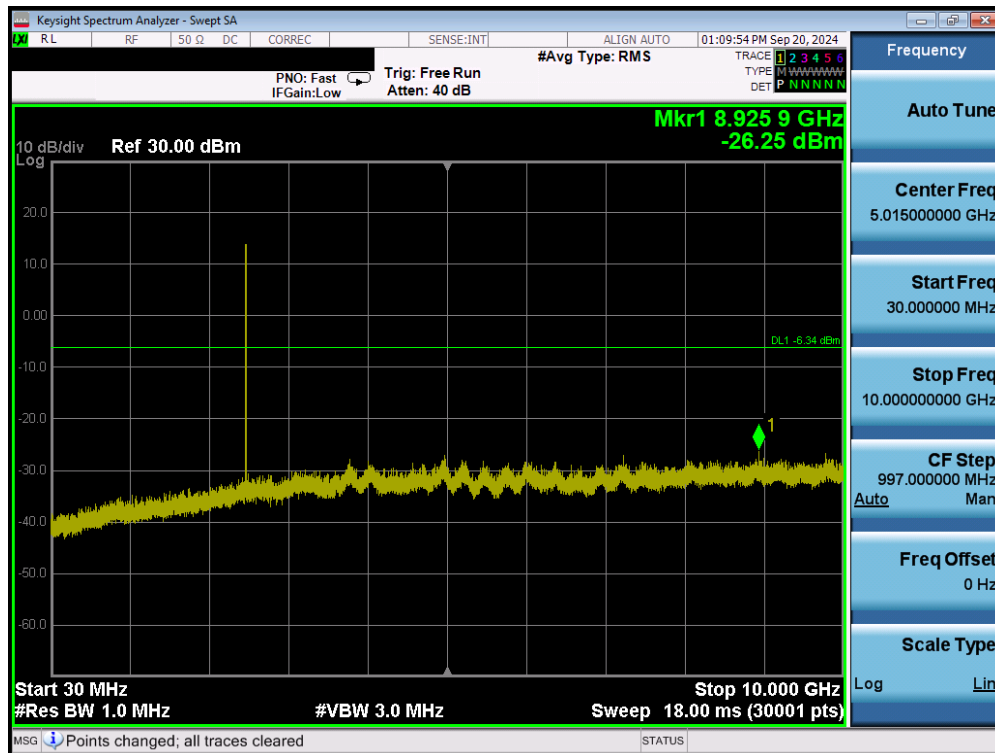


Plot 7-161. Conducted Spurious Plot (Bluetooth, 1Mbps – Ch. 39) – Dual Ant 2

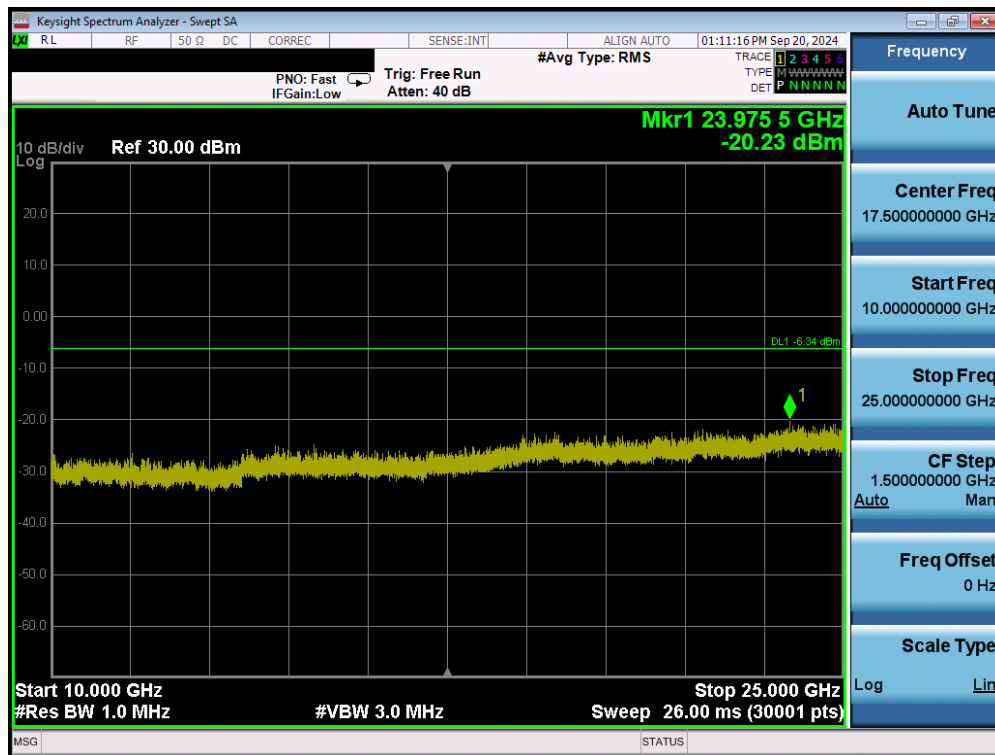


Plot 7-162. Conducted Spurious Plot (Bluetooth, 1Mbps – Ch. 39) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 108 of 140



Plot 7-163. Conducted Spurious Plot (Bluetooth, 1Mbps – Ch. 78) – Dual Ant 2



Plot 7-164. Conducted Spurious Plot (Bluetooth, 1Mbps – Ch. 78) – Dual Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 109 of 140

7.9 Radiated Spurious Emission Measurements – Above 1GHz

§15.205 §15.209 §15.247 (d); RSS-Gen [8.9]

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at maximum power and at the appropriate frequencies. Only the radiated emissions of the configuration that produced the worst-case emissions are reported in this section.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown below per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [$\mu\text{V/m}$]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-13. Radiated Limits

Test Procedure Used

ANSI C63.10-2013 – Section 6.6.4.3

Test Settings

Average Field Strength Measurements per Section 4.1.4.2.3 of ANSI C63.10-2013

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 1kHz $\geq 1/\tau$ Hz, where τ = pulse width in seconds
4. Averaging type was set to RMS to ensure that video filtering was applied in the power domain
5. Detector = peak
6. Sweep time = auto
7. Trace mode = max hold
8. Trace was allowed to stabilize

Peak Field Strength Measurements per Section 4.1.4.2.2 of ANSI C63.10-2013

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW is set depending on measurement frequency, as specified in Table 7-14 below
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 110 of 140

Frequency	RBW
9 – 150kHz	200 – 300Hz
0.15 – 30MHz	9 – 10kHz
30 – 1000MHz	100 – 120kHz
> 1000MHz	1MHz

Table 7-14. RBW as a Function of Frequency

Test Setup

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

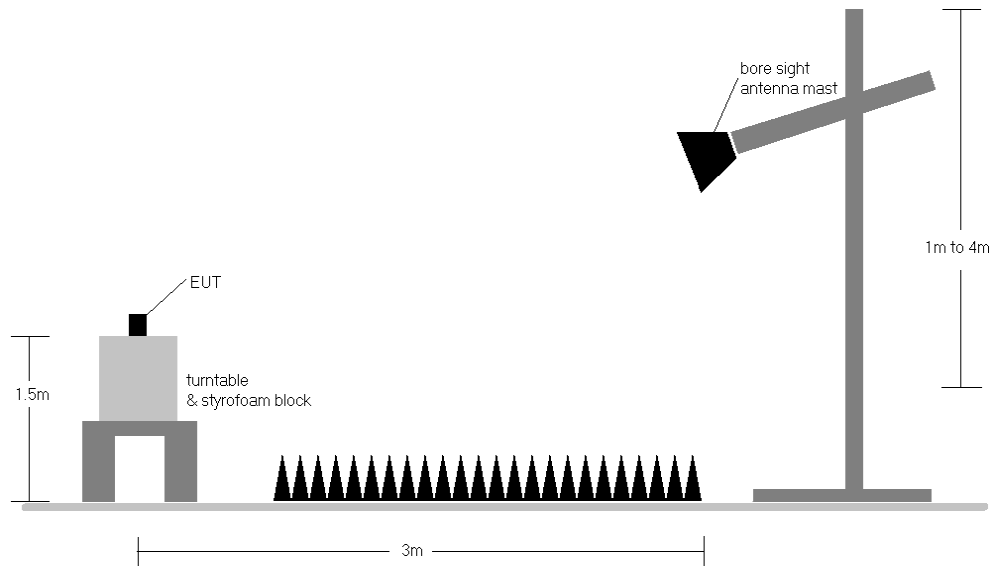


Figure 7-8. Radiated Test Setup >1GHz

Test Notes

- All emissions lying in restricted bands specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in §15.209.
- No significant radiated emissions were found in the 2310 - 2390MHz restricted band.
- The antenna is manipulated through typical positions, polarity, and length during the tests. The EUT is manipulated through three orthogonal planes.
- This unit was tested with its standard battery.
- The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported.
- The duty cycle correction factor was not applied to noise floor measurements.
- The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
- The "-" shown in the following RSE tables is used to denote a noise floor measurement.

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 111 of 140

Sample Calculation

- Field Strength Level $_{\text{dB}\mu\text{V/m}} = \text{Analyzer Level}_{\text{dBm}} + 107 + \text{AFCL}_{\text{dB/m}} + \text{Duty Cycle Correction}_{\text{dB}}$
- $\text{AFCL}_{\text{dB/m}} = \text{Antenna Factor}_{\text{dB/m}} + \text{Cable Loss}_{\text{dB}}$
- $\text{Margin}_{\text{dB}} = \text{Field Strength Level}_{\text{dB}\mu\text{V/m}} - \text{Limit}_{\text{dB}\mu\text{V/m}}$

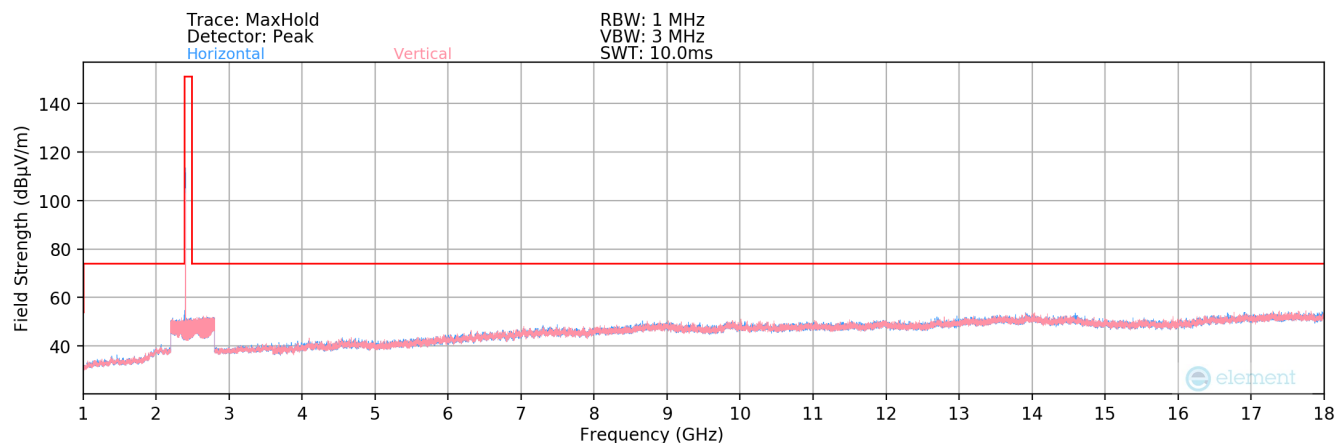
Duty Cycle Correction Factor Calculation

- Channel hop rate = N/A hops/second (N/A Mode)
- Adjusted channel hop rate for DH5 mode = N/A hops/second
- Time per channel hop = $1 / \text{N/A hops/second} = \text{N/A ms}$
- Time to cycle through all channels = $\text{N/A} \times \text{N/A channels} = \text{N/A ms}$
- Number of times transmitter hits on one channel = $100 \text{ ms} / \text{N/A ms} = \text{N/A time(s)}$
- Worst case dwell time = N/A ms
- Duty cycle correction factor = $20\log_{10}(\text{N/Ams}/100\text{ms}) = \text{N/A dB}$

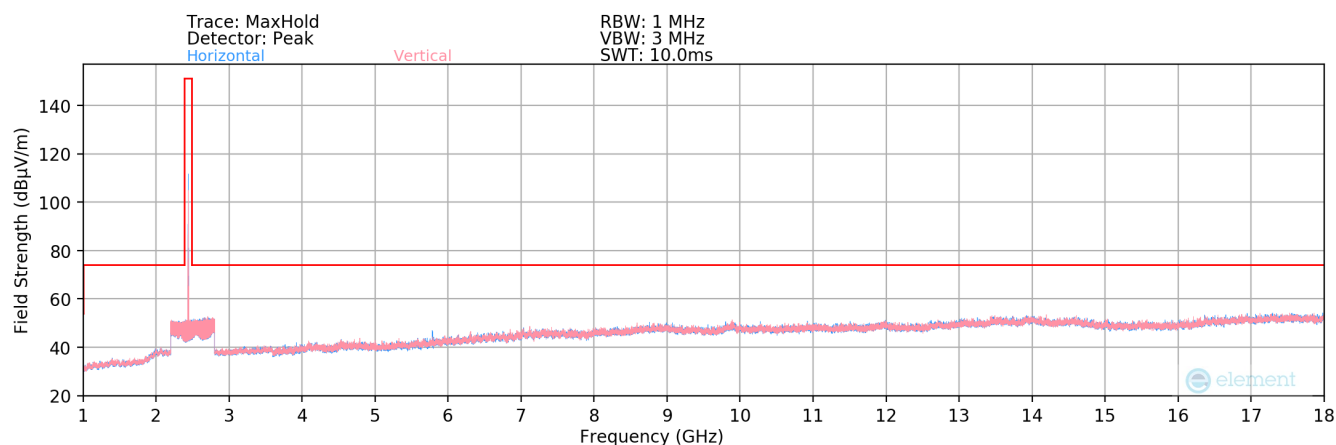
FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 112 of 140

Radiated Spurious Emission Measurements

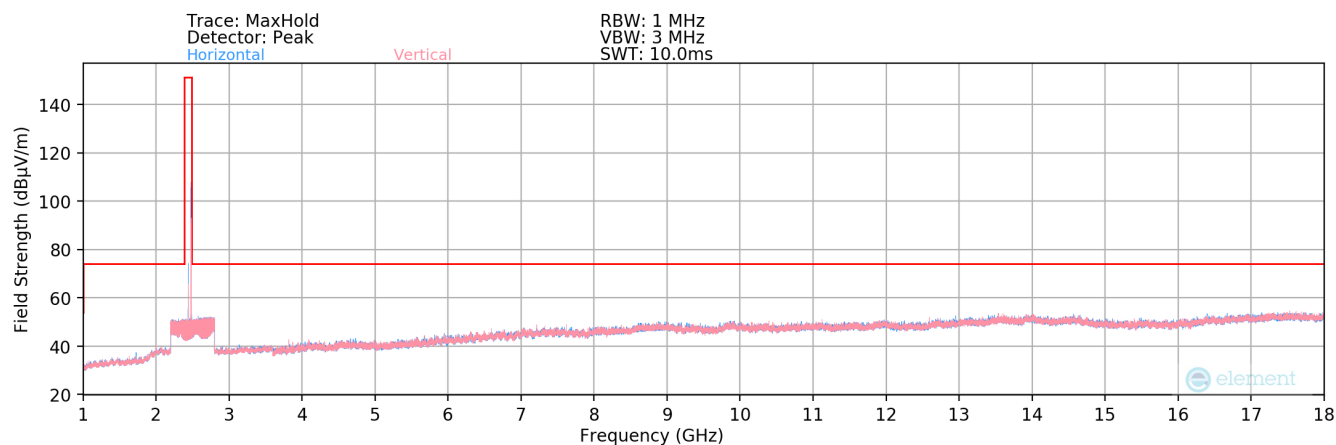
§15.205 §15.209 §15.247 (d); RSS-Gen [8.9]



Plot 7-165. Radiated Spurious Plot above 1GHz (BT – Ch. 0) – Ant 1



Plot 7-166. Radiated Spurious Plot above 1GHz (BT – Ch. 39) – Ant 1

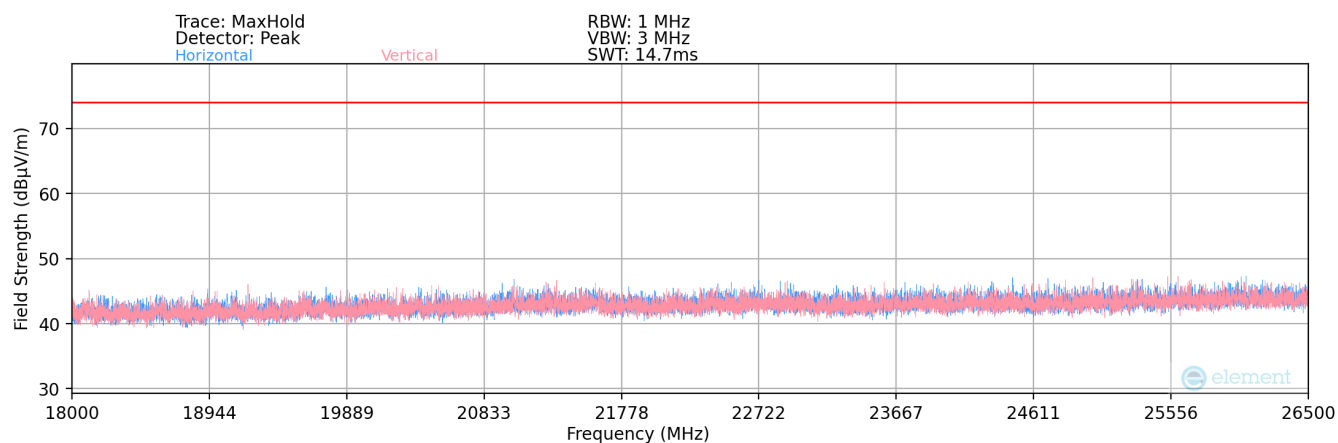


Plot 7-167. Radiated Spurious Plot above 1GHz (BT – Ch. 78) – Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 113 of 140

Radiated Spurious Emissions Measurements (Above 18GHz)

§15.209; RSS-Gen [8.9]



Plot 7-168. Radiated Spurious Plot above 18GHz – Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 114 of 140



Radiated Spurious Emission Measurements

§15.205 §15.209 §15.247 (d); RSS-Gen [8.9]

Worst Case Mode: Bluetooth
Worst Case Data Rate: 1 Mbps
Measurement Distance: 3 Meters
Operating Frequency: 2402MHz
Channel: 0

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Dist. Corr. Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4804.00	Avg	H	-	-	-79.77	2.66	0.00	0.00	29.89	53.98	-24.09
4804.00	Peak	H	-	-	-61.45	2.66	0.00	0.00	48.21	73.98	-25.77

Table 7-15. Radiated Measurements – Ant 1

Worst Case Mode: Bluetooth
Worst Case Data Rate: 1 Mbps
Measurement Distance: 3 Meters
Operating Frequency: 2441MHz
Channel: 39

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Dist. Corr. Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4882.00	Avg	H	-	-	-79.70	3.12	0.00	0.00	30.42	53.98	-23.55
4882.00	Peak	H	-	-	-62.10	3.12	0.00	0.00	48.02	73.98	-25.95
7323.00	Avg	H	-	-	-80.45	9.45	0.00	0.00	36.00	53.98	-17.98
7323.00	Peak	H	-	-	-60.76	9.45	0.00	0.00	55.69	73.98	-18.29

Table 7-16. Radiated Measurements– Ant 1

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 115 of 140

Worst Case Mode: Bluetooth
 Worst Case Data Rate: 1 Mbps
 Measurement Distance: 3 Meters
 Operating Frequency: 2480MHz
 Channel: 78

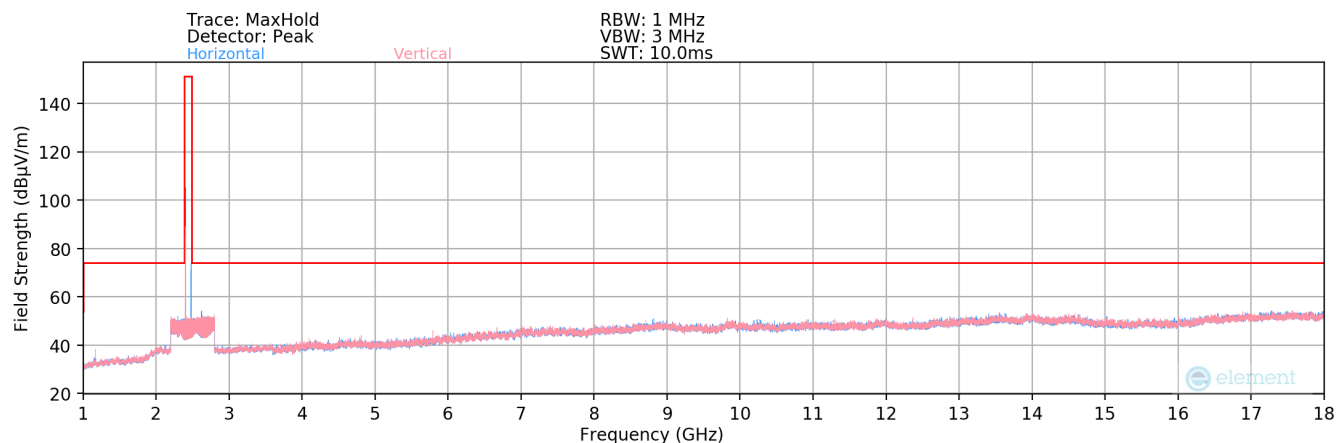
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Dist. Corr. Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
4960.00	Avg	H	-	-	-79.70	3.20	0.00	0.00	30.50	53.98	-23.48
4960.00	Peak	H	-	-	-61.25	3.20	0.00	0.00	48.95	73.98	-25.03
7440.00	Avg	H	-	-	-80.62	9.00	0.00	0.00	35.38	53.98	-18.60
7440.00	Peak	H	-	-	-61.88	9.00	0.00	0.00	54.12	73.98	-19.86

Table 7-17. Radiated Measurements – Ant 1

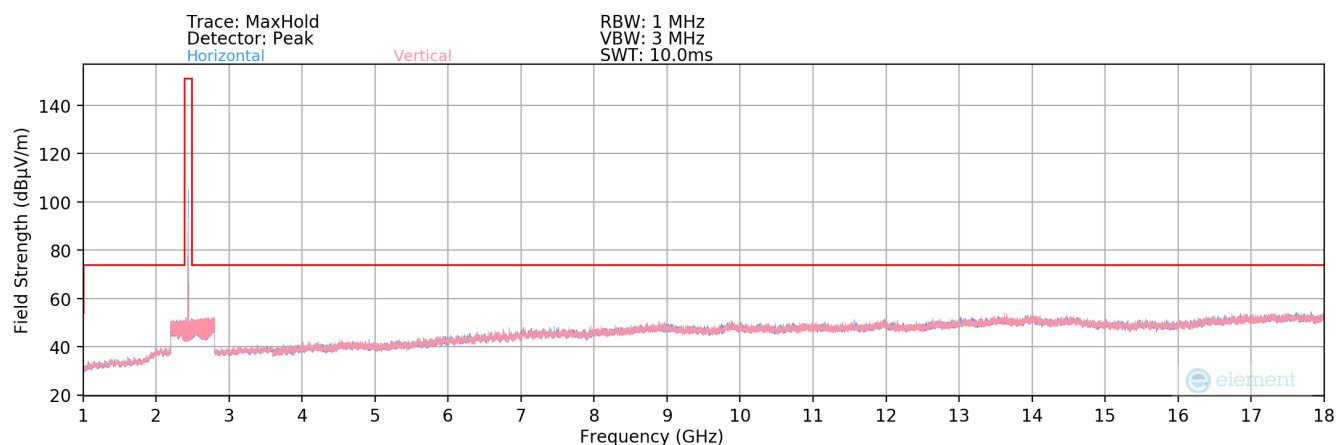
FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 116 of 140

Radiated Spurious Emission Measurements

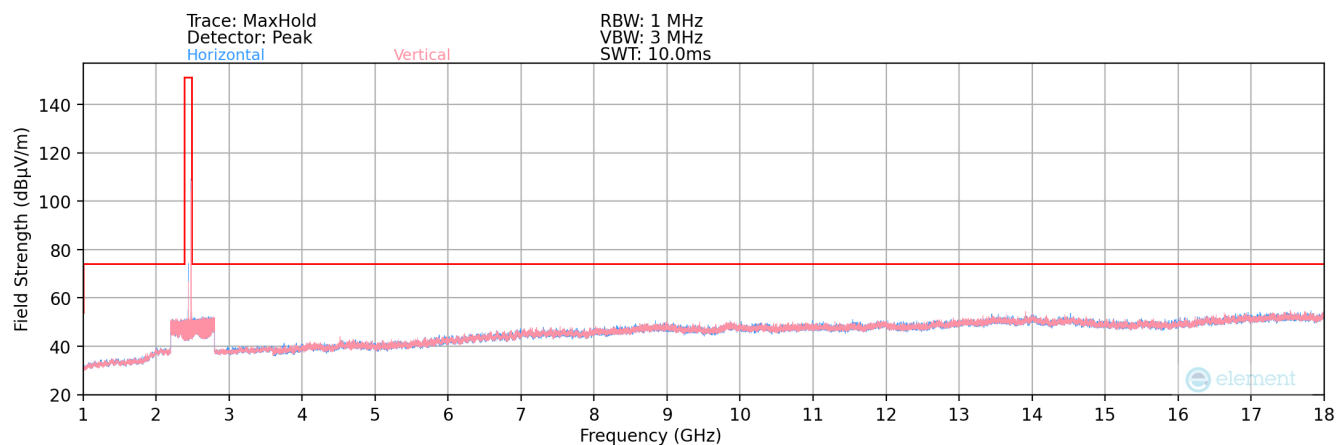
§15.205 §15.209 §15.247 (d); RSS-Gen [8.9]



Plot 7-169. Radiated Spurious Plot above 1GHz (BT – Ch. 0) – Ant 2



Plot 7-170. Radiated Spurious Plot above 1GHz (BT – Ch. 39) – Ant 2

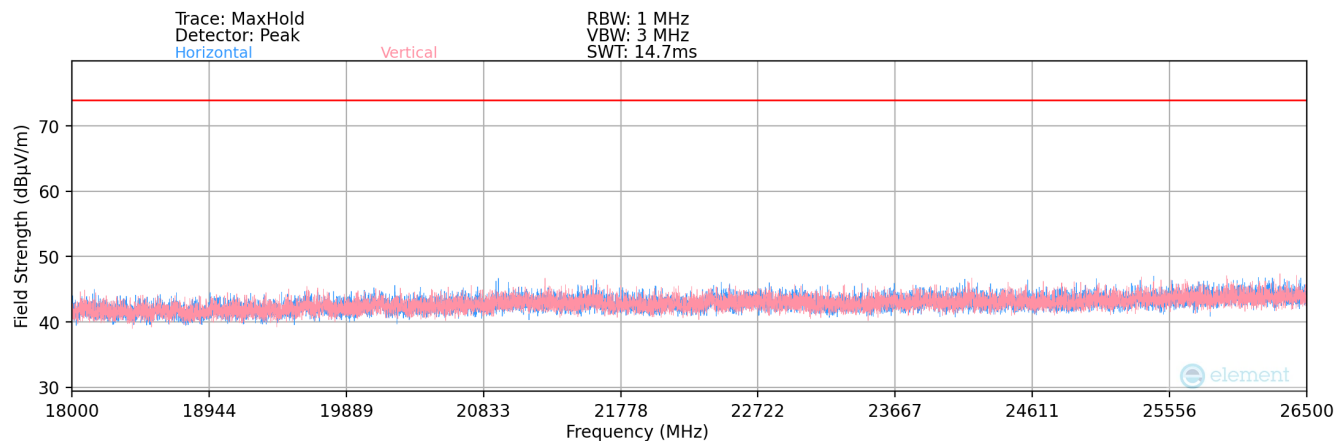


Plot 7-171. Radiated Spurious Plot above 1GHz (BT – Ch. 78) – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 117 of 140



Radiated Spurious Emissions Measurements (Above 18GHz)
§15.209; RSS-Gen [8.9]



Plot 7-172. Radiated Spurious Plot above 18GHz – Ant 2

FCC ID: A3LSMS938U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset		Page 118 of 140



Radiated Spurious Emission Measurements

§15.205 §15.209 §15.247 (d); RSS-Gen [8.9]

Worst Case Mode: Bluetooth
Worst Case Data Rate: 1 Mbps
Measurement Distance: 3 Meters
Operating Frequency: 2402MHz
Channel: 0

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Dist. Corr. Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4804.00	Avg	H	-	-	-76.80	2.66	0.00	0.00	32.86	53.98	-21.12
4804.00	Peak	H	-	-	-62.17	2.66	0.00	0.00	47.49	73.98	-26.49

Table 7-18. Radiated Measurements – Ant 2

Worst Case Mode: Bluetooth
Worst Case Data Rate: 1 Mbps
Measurement Distance: 3 Meters
Operating Frequency: 2441MHz
Channel: 39

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Dist. Corr. Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4882.00	Avg	H	-	-	-76.72	3.12	0.00	0.00	33.40	53.98	-20.57
4882.00	Peak	H	-	-	-61.09	3.12	0.00	0.00	49.03	73.98	-24.94
7323.00	Avg	H	-	-	-77.35	9.45	0.00	0.00	39.10	53.98	-14.88
7323.00	Peak	H	-	-	-61.99	9.45	0.00	0.00	54.46	73.98	-19.52

Table 7-19. Radiated Measurements – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 119 of 140



Worst Case Mode: Bluetooth
Worst Case Data Rate: 1 Mbps
Measurement Distance: 3 Meters
Operating Frequency: 2480MHz
Channel: 78

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Duty Cycle Correction [dB]	Dist. Corr. Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4960.00	Avg	H	-	-	-76.78	3.20	0.00	0.00	33.42	53.98	-20.56
4960.00	Peak	H	-	-	-61.58	3.20	0.00	0.00	48.62	73.98	-25.36
7440.00	Avg	H	-	-	-77.35	9.00	0.00	0.00	38.65	53.98	-15.33
7440.00	Peak	H	-	-	-61.56	9.00	0.00	0.00	54.44	73.98	-19.54

Table 7-20. Radiated Measurements – Ant 2

FCC ID: A3LSMS938U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2408260067-09-R1.A3L	Test Dates: 09/03/2024 - 10/25/2024	EUT Type: Portable Handset	Page 120 of 140