

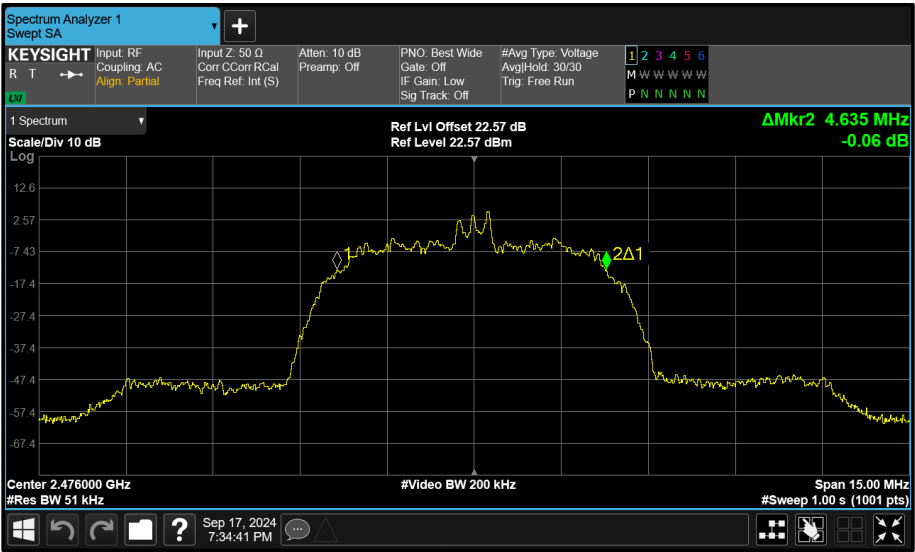


Figure 159 - Core 1 (B) 2476 MHz (CH74) 99% Bandwidth

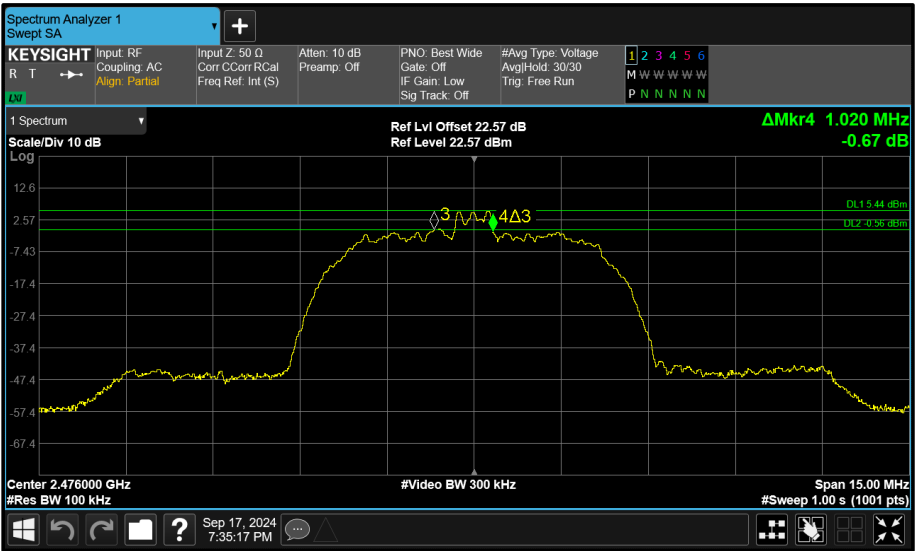


Figure 160 - Core 1 (B) 2476 MHz (CH74) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	-
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	0.720	0.716	-	-	≥500.0
2440	0.724	0.712	-	-	≥500.0
2480	0.724	0.716	-	-	≥500.0

Table 45 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	1.032	1.020	-	-	-
2440	1.036	1.024	-	-	-
2480	1.032	1.024	-	-	-

Table 46 - 99% Bandwidth Results

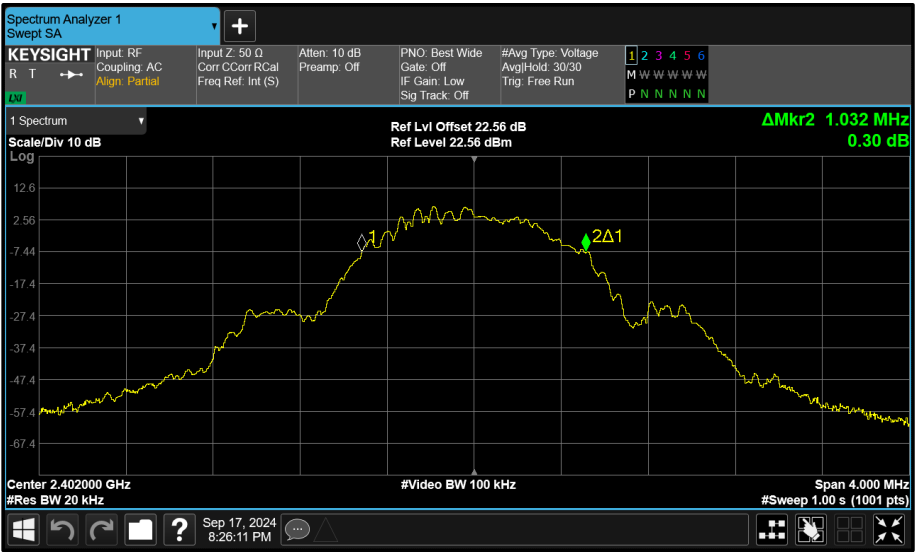


Figure 161 - Core 0 (A) 2402 MHz (CH37) 99% Bandwidth

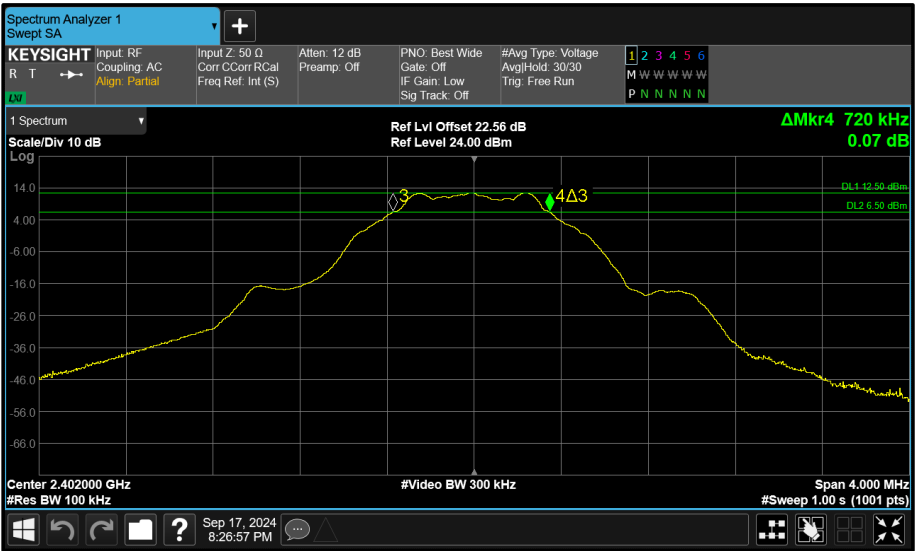


Figure 162 - Core 0 (A) 2402 MHz (CH37) 6 dB Bandwidth

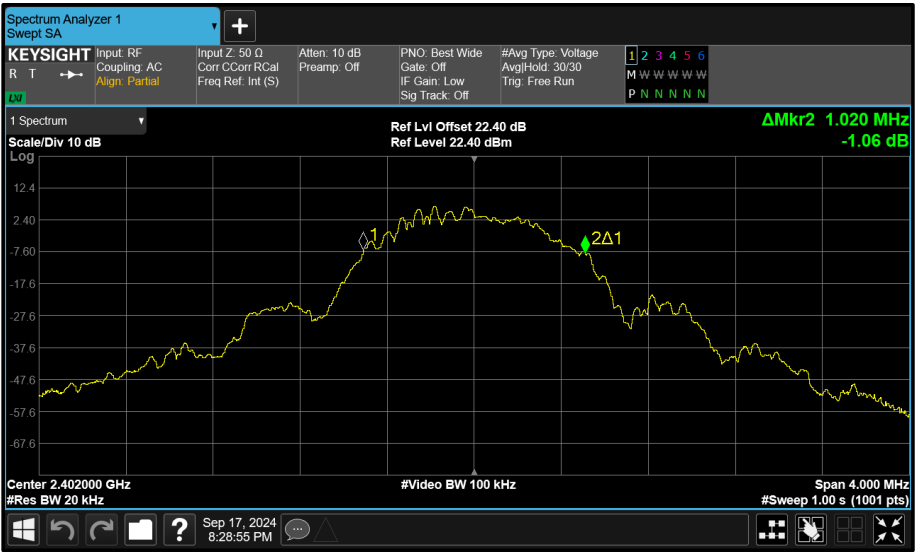


Figure 163 - Core 1 (B) 2402 MHz (CH37) 99% Bandwidth

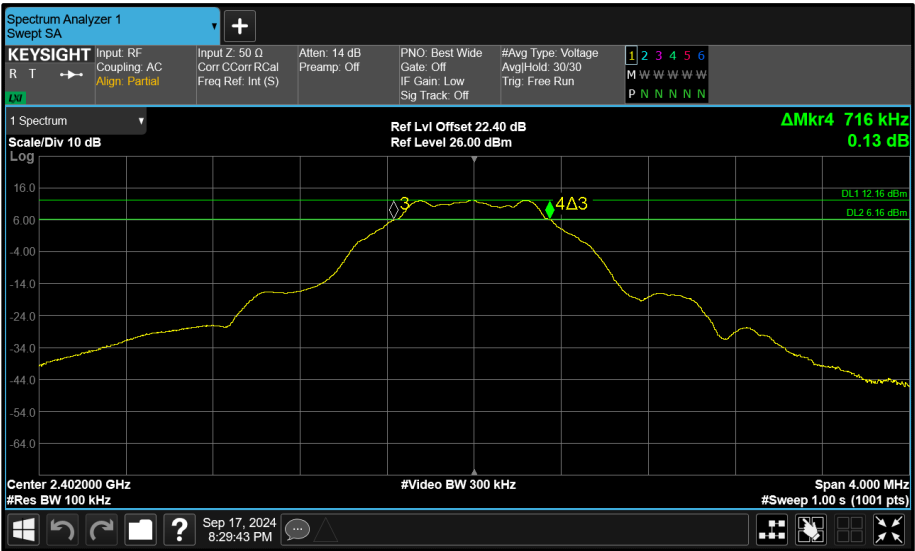


Figure 164 - Core 1 (B) 2402 MHz (CH37) 6 dB Bandwidth



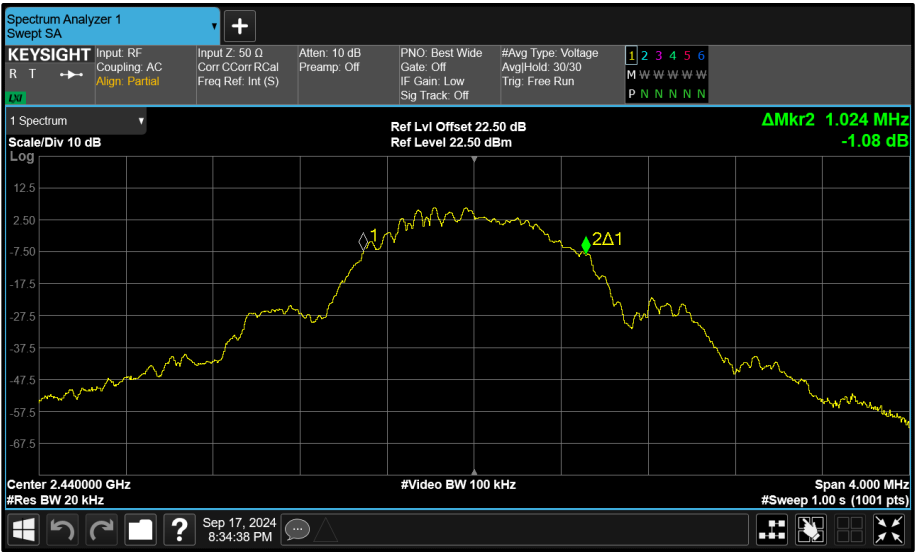


Figure 167 - Core 1 (B) 2440 MHz (CH17) 99% Bandwidth

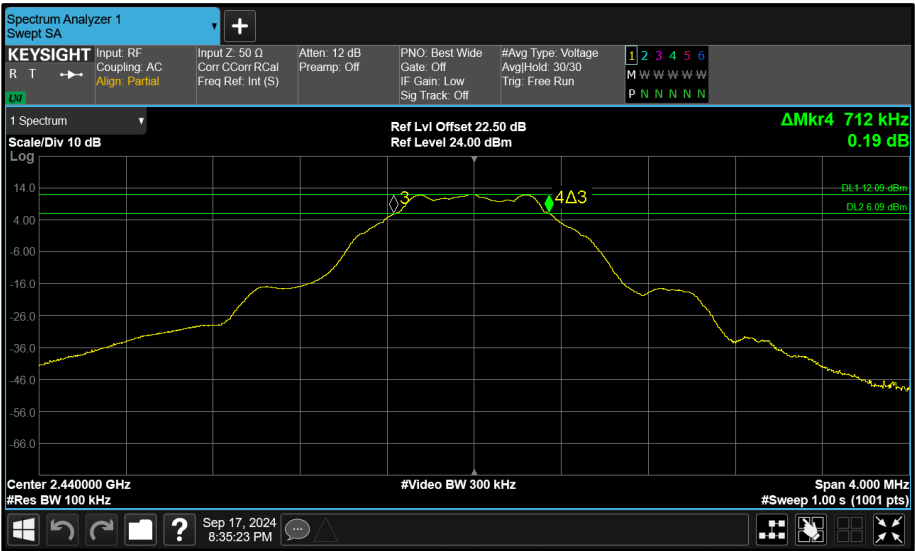


Figure 168 - Core 1 (B) 2440 MHz (CH17) 6 dB Bandwidth

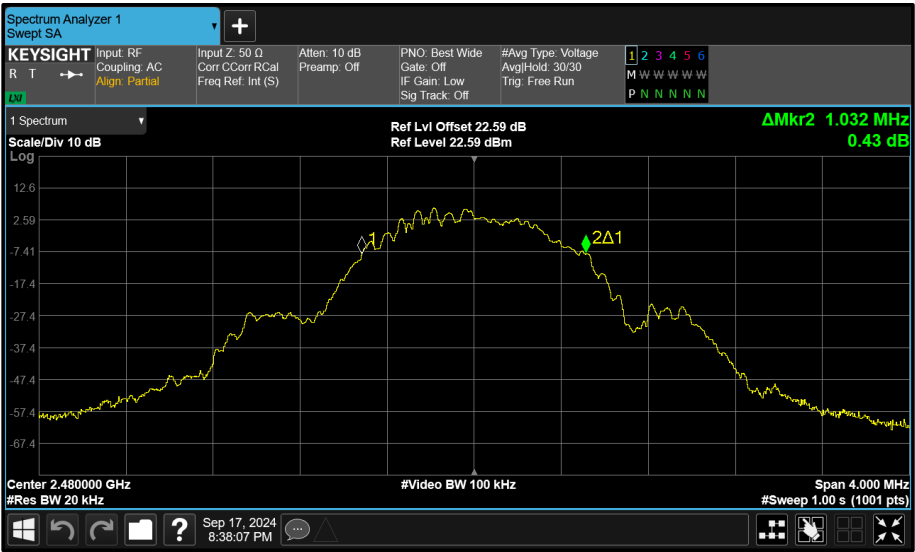


Figure 169 - Core 0 (A) 2480 MHz (CH39) 99% Bandwidth

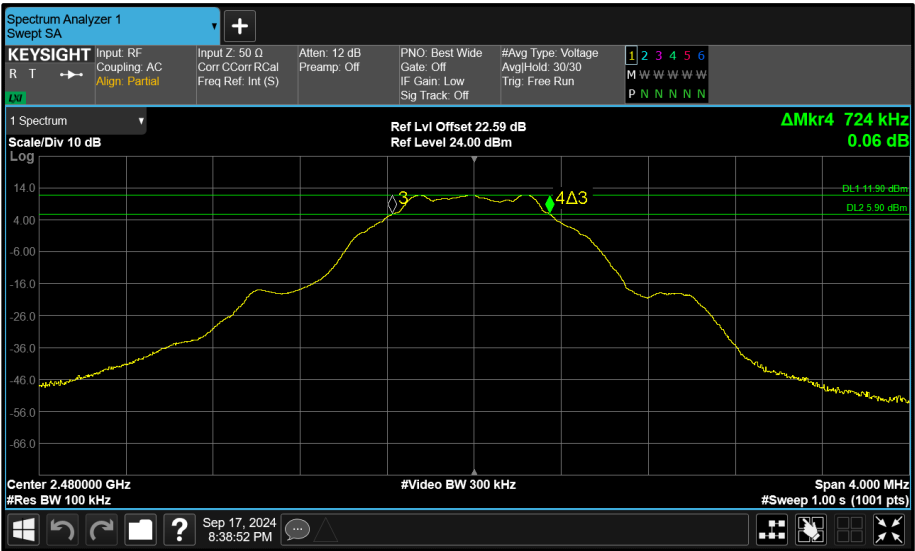


Figure 170 - Core 0 (A) 2480 MHz (CH39) 6 dB Bandwidth

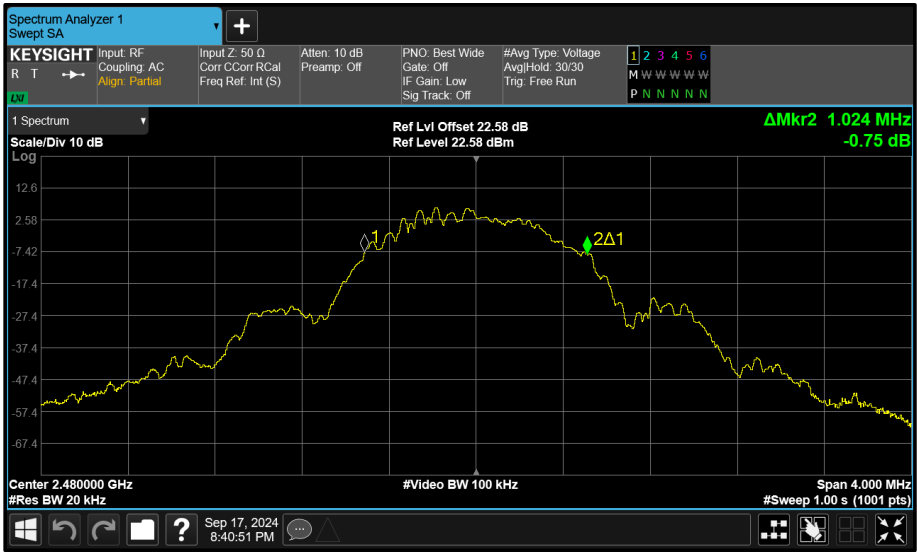


Figure 171 - Core 1 (B) 2480 MHz (CH39) 99% Bandwidth

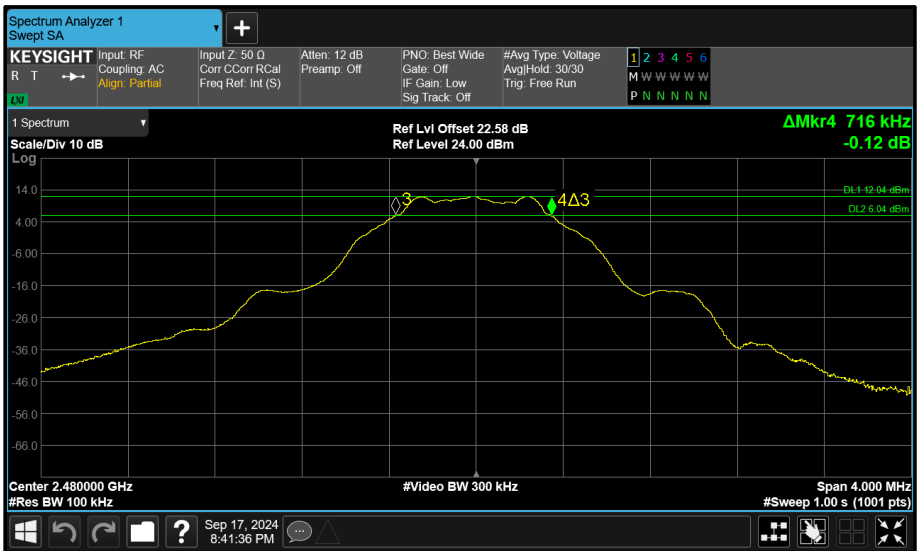


Figure 172 - Core 1 (B) 2480 MHz (CH39) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	-
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	1.168	1.240	-	-	≥500.0
2440	1.248	1.240	-	-	≥500.0
2480	1.248	1.248	-	-	≥500.0

Table 47 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	2.072	2.064	-	-	-
2440	2.080	2.064	-	-	-
2480	2.080	2.064	-	-	-

Table 48 - 99% Bandwidth Results

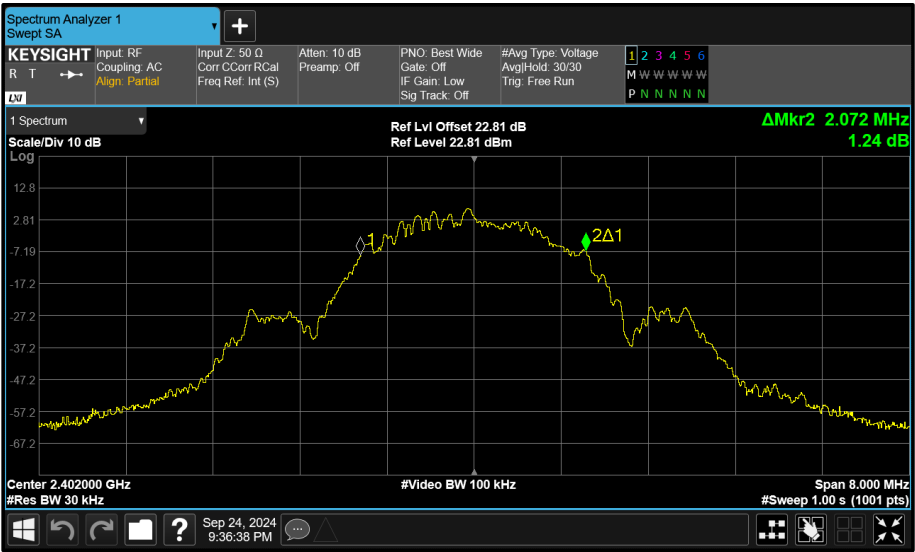


Figure 173 - Core 0 (A) 2402 MHz (CH37) 99% Bandwidth

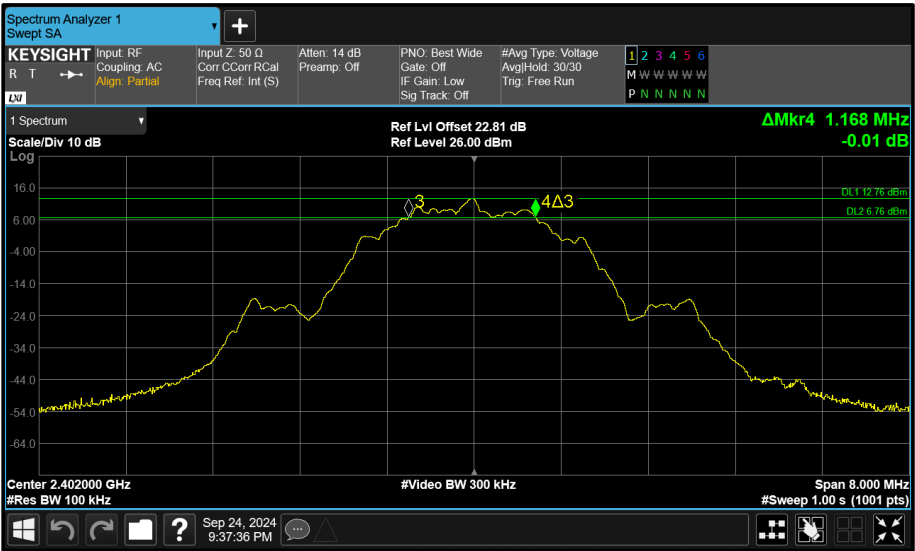


Figure 174 - Core 0 (A) 2402 MHz (CH37) 6 dB Bandwidth

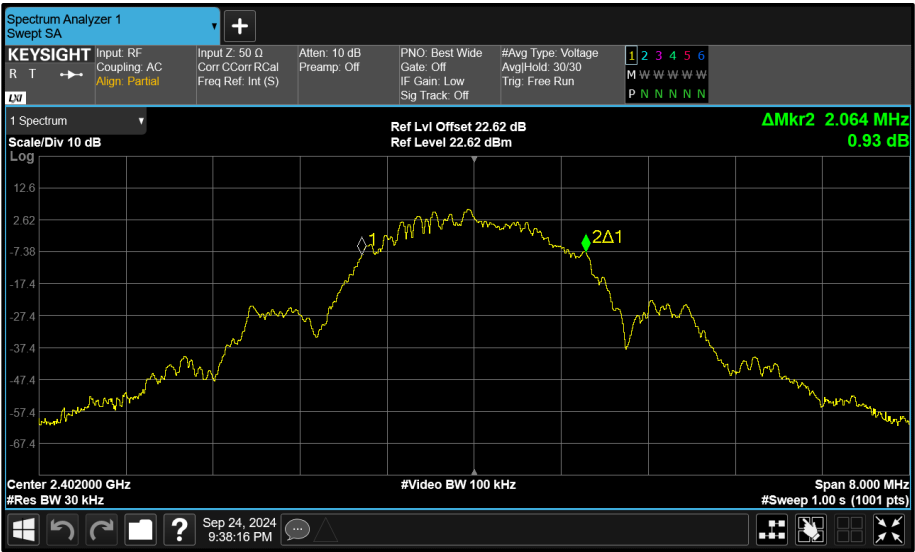


Figure 175 - Core 1 (B) 2402 MHz (CH37) 99% Bandwidth

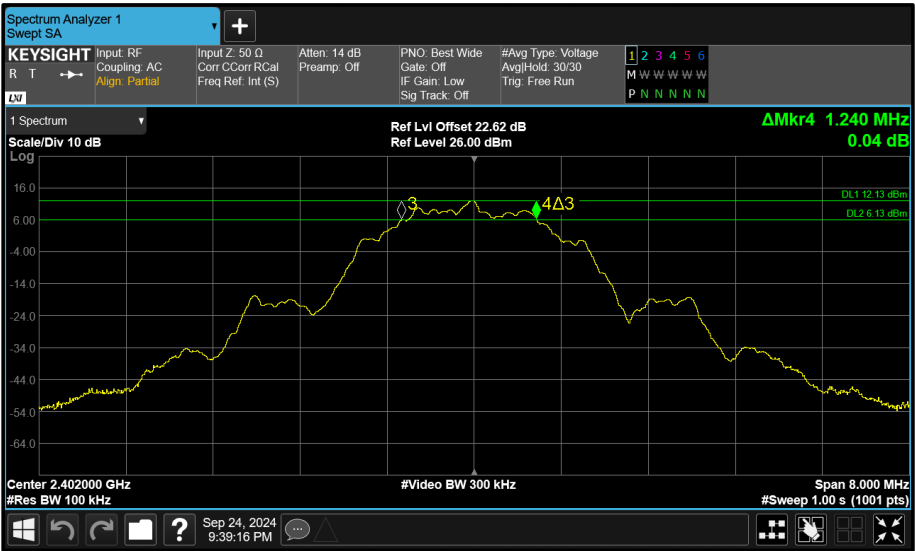


Figure 176 - Core 1 (B) 2402 MHz (CH37) 6 dB Bandwidth

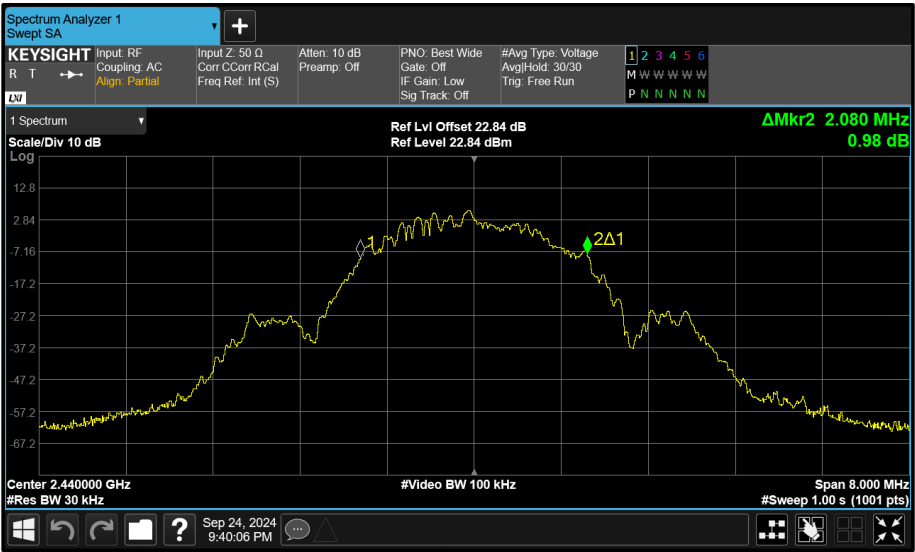


Figure 177 - Core 0 (A) 2440 MHz (CH17) 99% Bandwidth

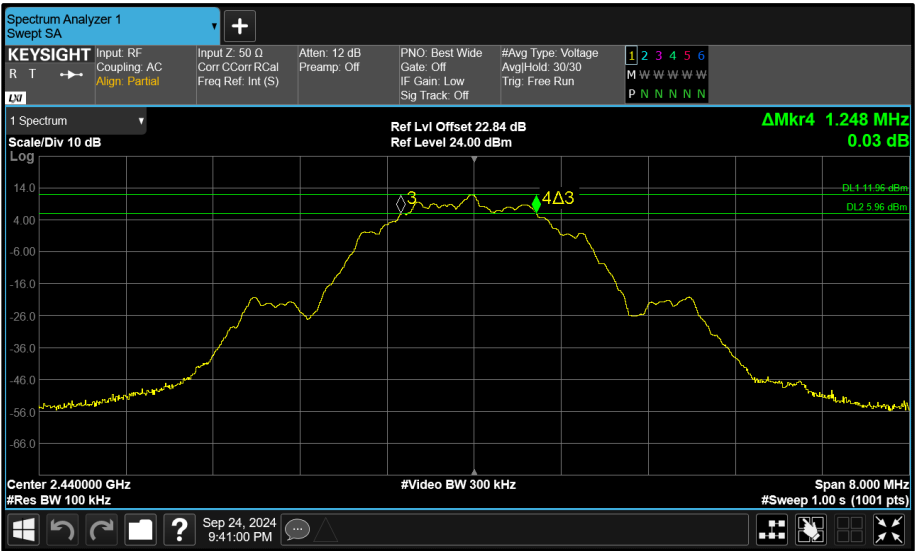


Figure 178 - Core 0 (A) 2440 MHz (CH17) 6 dB Bandwidth

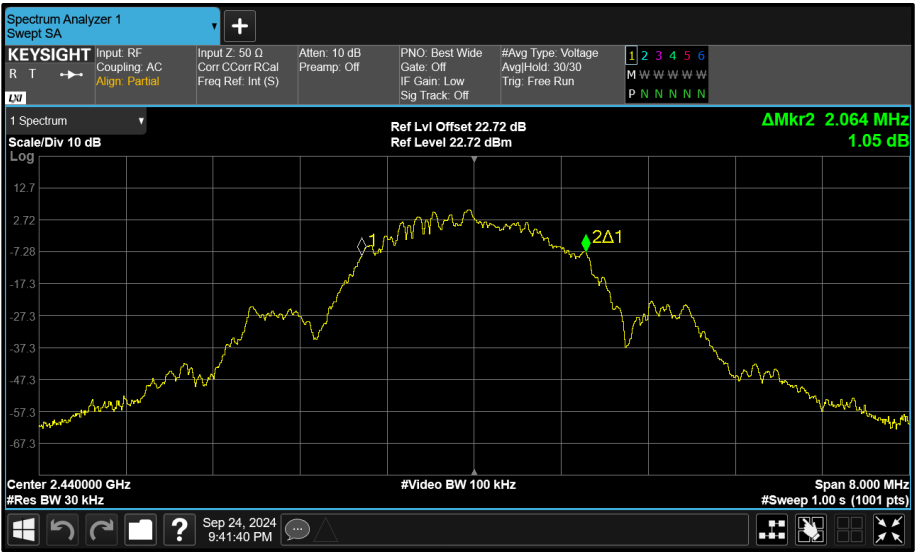


Figure 179 - Core 1 (B) 2440 MHz (CH17) 99% Bandwidth

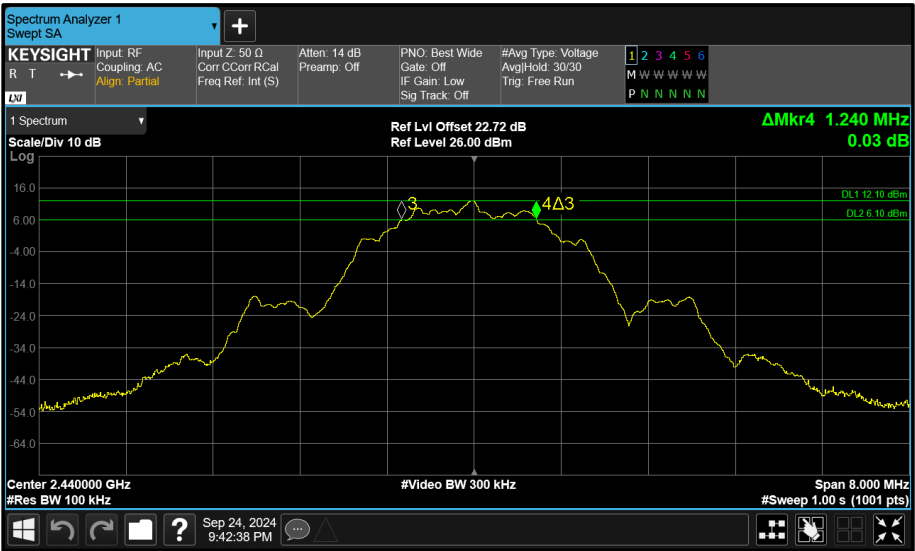


Figure 180 - Core 1 (B) 2440 MHz (CH17) 6 dB Bandwidth

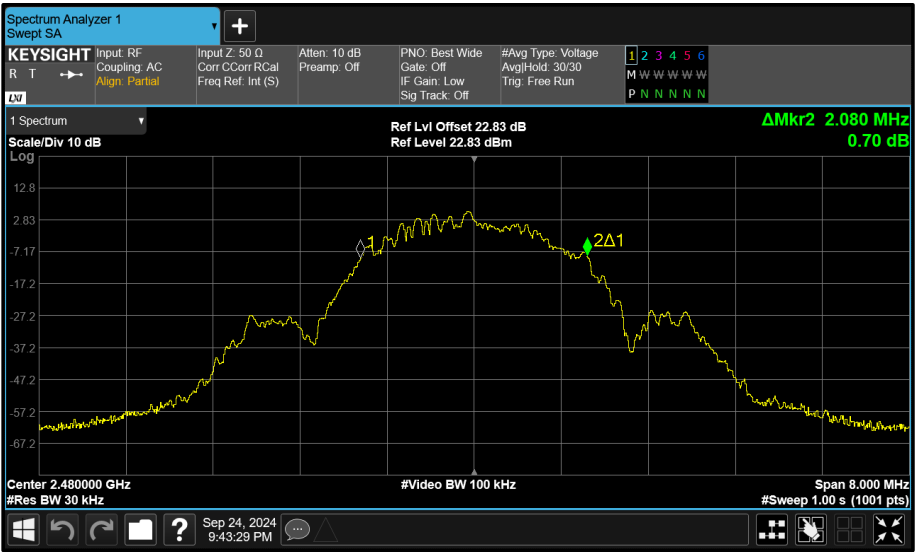


Figure 181 - Core 0 (A) 2480 MHz (CH39) 99% Bandwidth

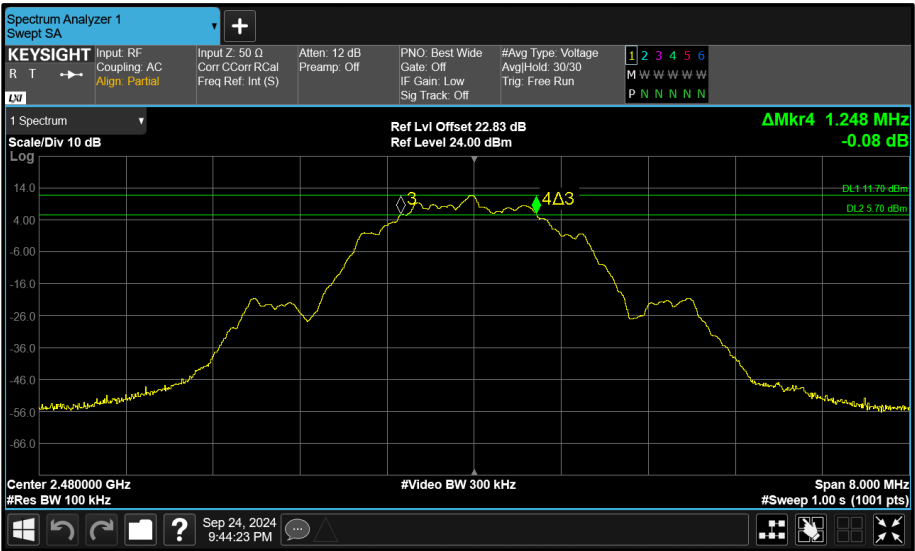


Figure 182 - Core 0 (A) 2480 MHz (CH39) 6 dB Bandwidth

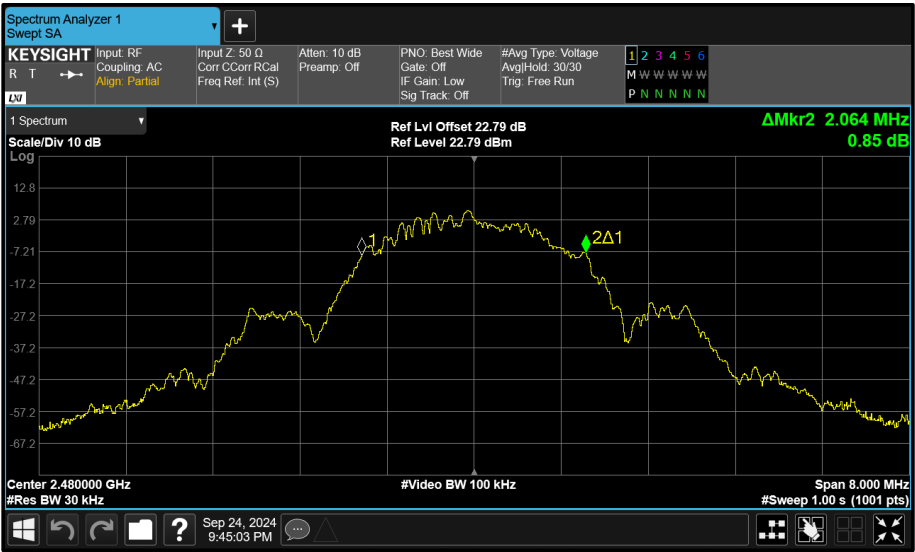


Figure 183 - Core 1 (B) 2480 MHz (CH39) 99% Bandwidth

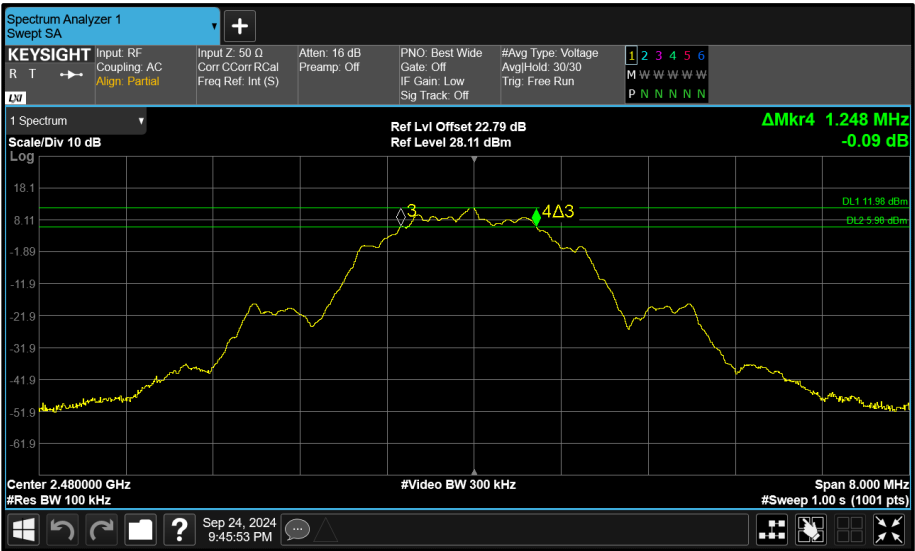


Figure 184 - Core 1 (B) 2480 MHz (CH39) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

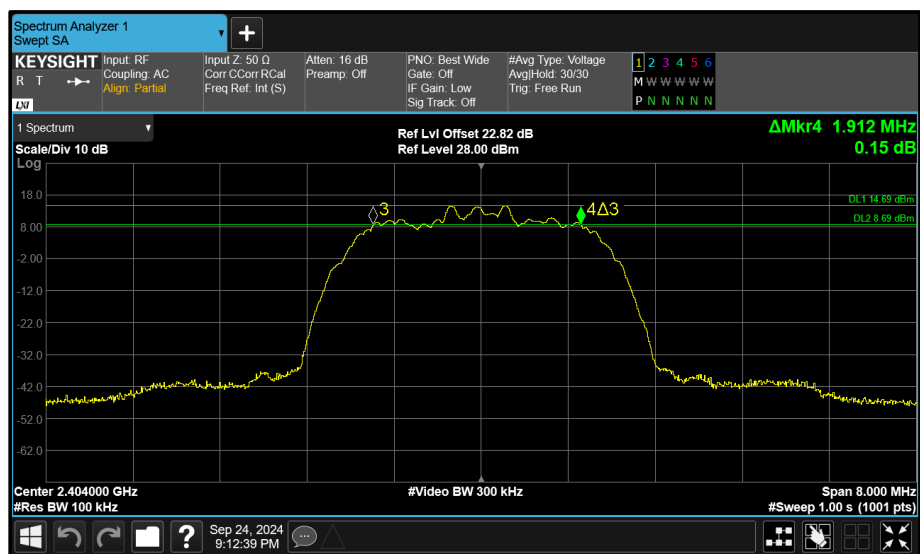
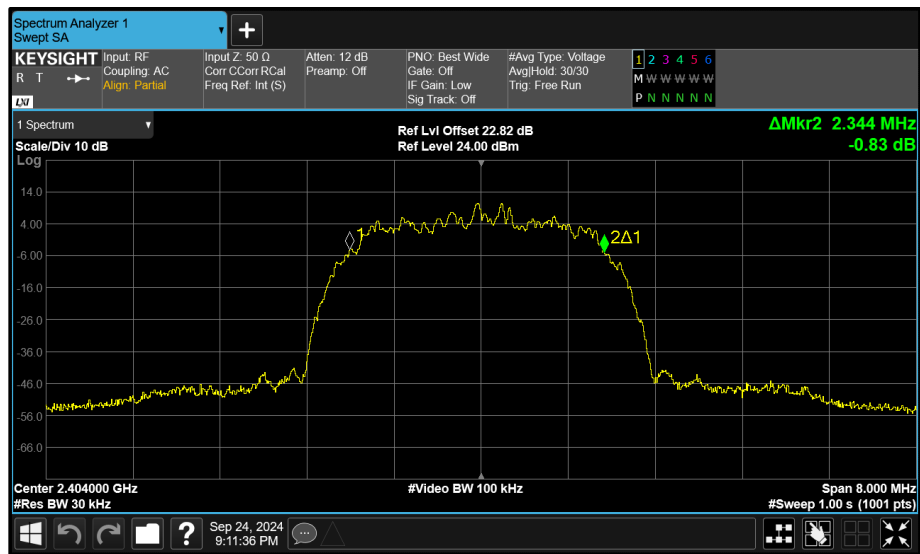
DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	-
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	1.912	1.896	-	-	≥ 500.0
2441	1.904	1.904	-	-	≥ 500.0
2476	1.904	1.896	-	-	≥ 500.0

Table 49 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	2.344	2.328	-	-	-
2441	2.344	2.320	-	-	-
2476	2.344	2.328	-	-	-

Table 50 - 99% Bandwidth Results



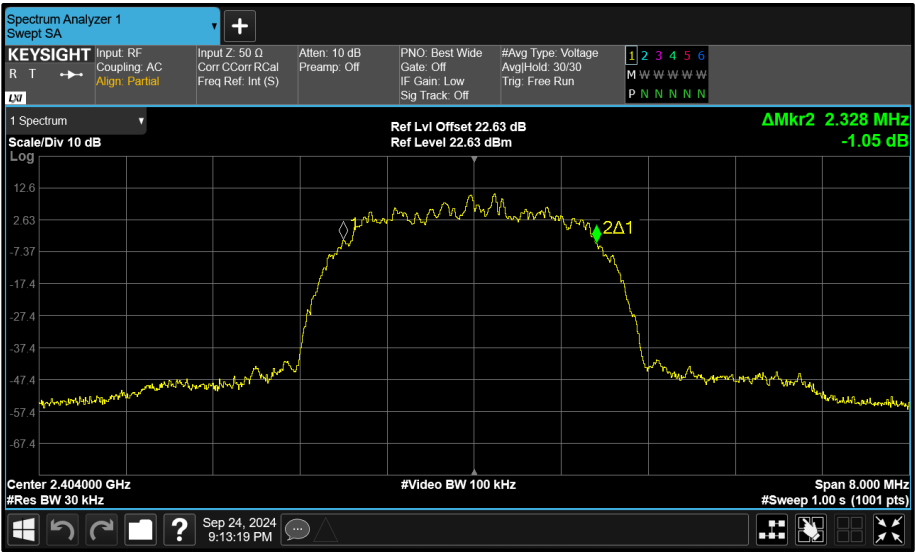


Figure 187 - Core 1 (B) 2404 MHz (CH2) 99% Bandwidth

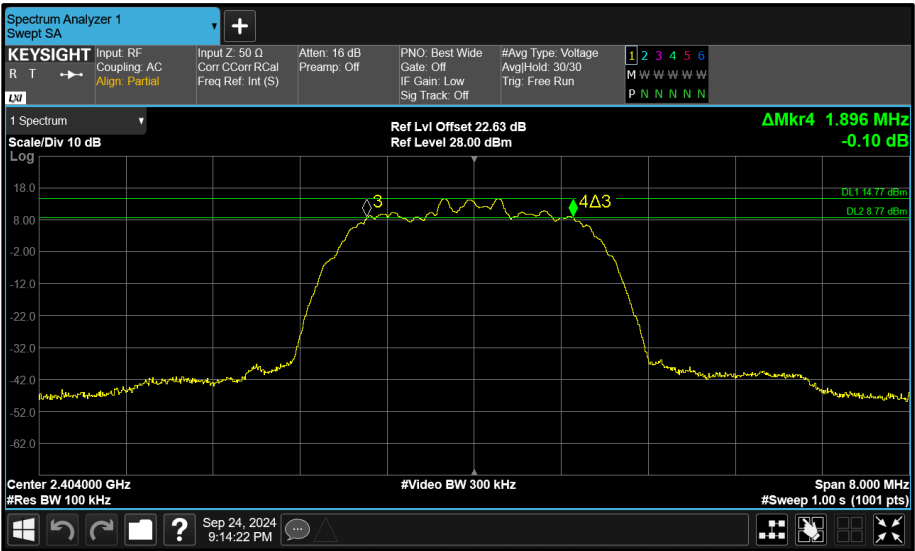


Figure 188 - Core 1 (B) 2404 MHz (CH2) 6 dB Bandwidth

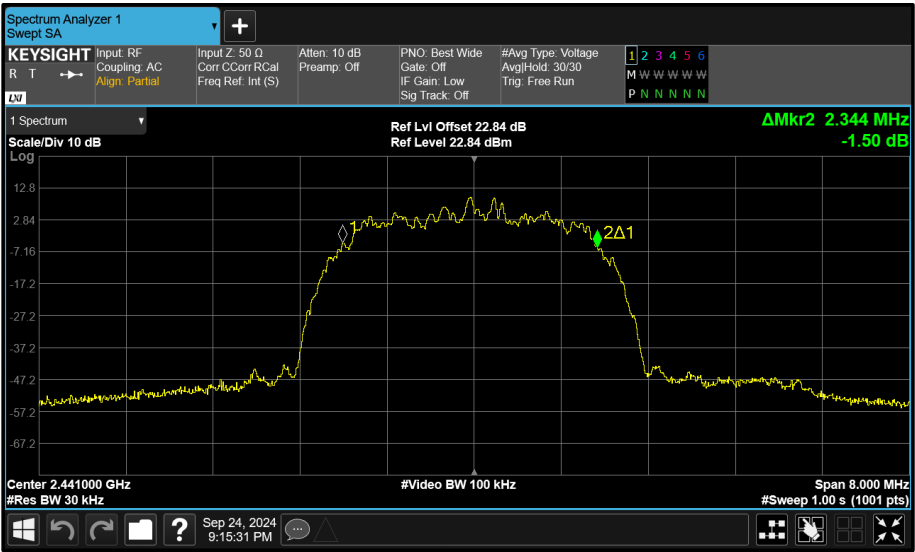


Figure 189 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

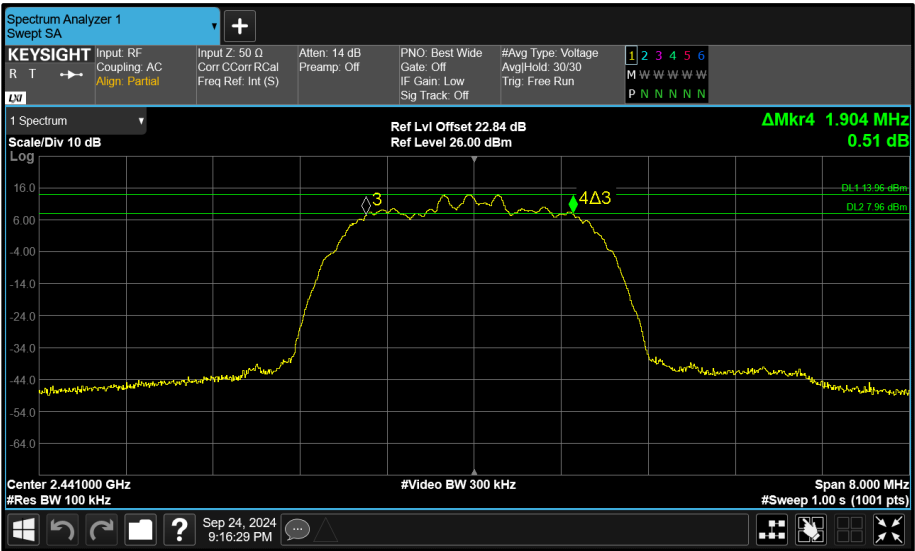


Figure 190 - Core 0 (A) 2441 MHz (CH39) 6 dB Bandwidth

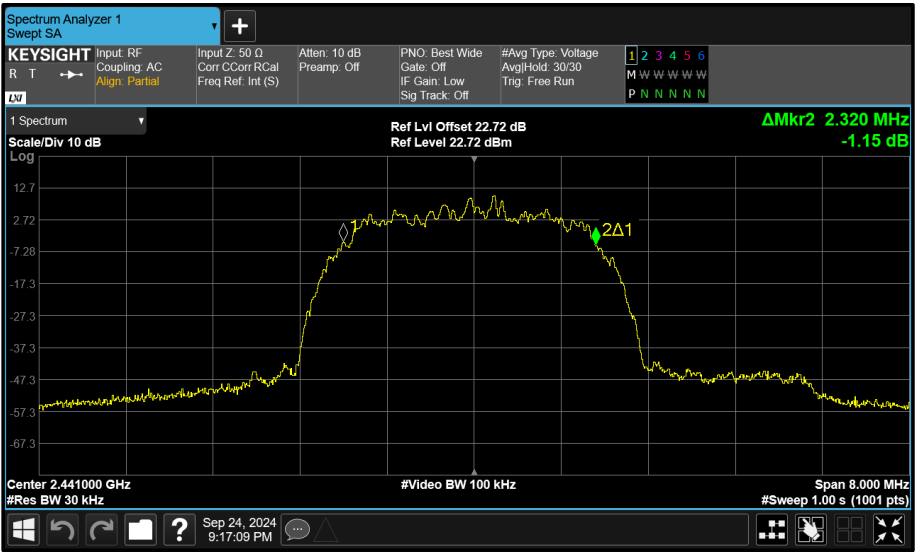


Figure 191 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth

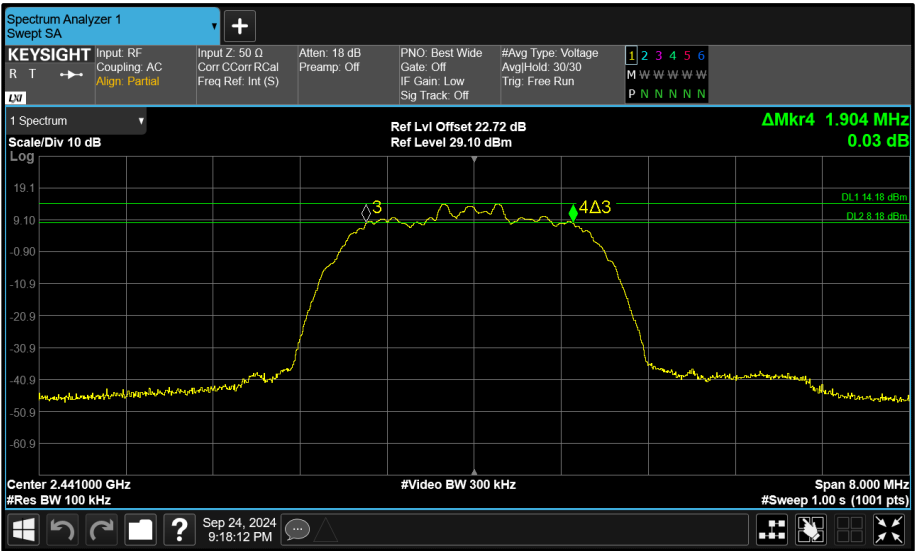


Figure 192 - Core 1 (B) 2441 MHz (CH39) 6 dB Bandwidth

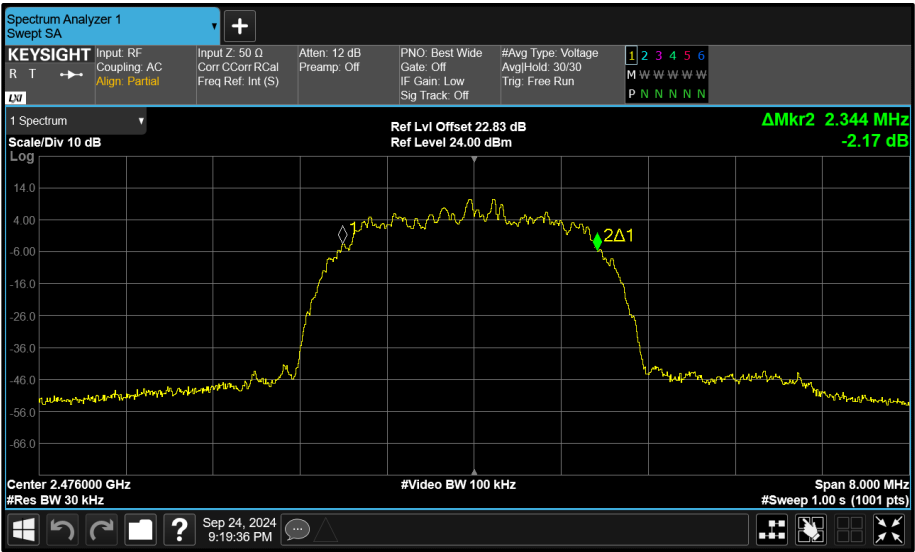


Figure 193 - Core 0 (A) 2476 MHz (CH74) 99% Bandwidth

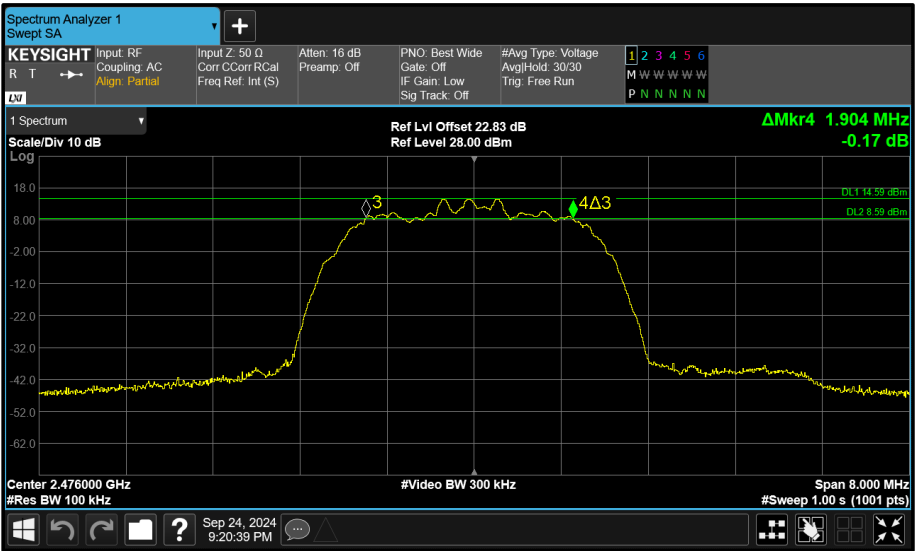


Figure 194 - Core 0 (A) 2476 MHz (CH74) 6 dB Bandwidth

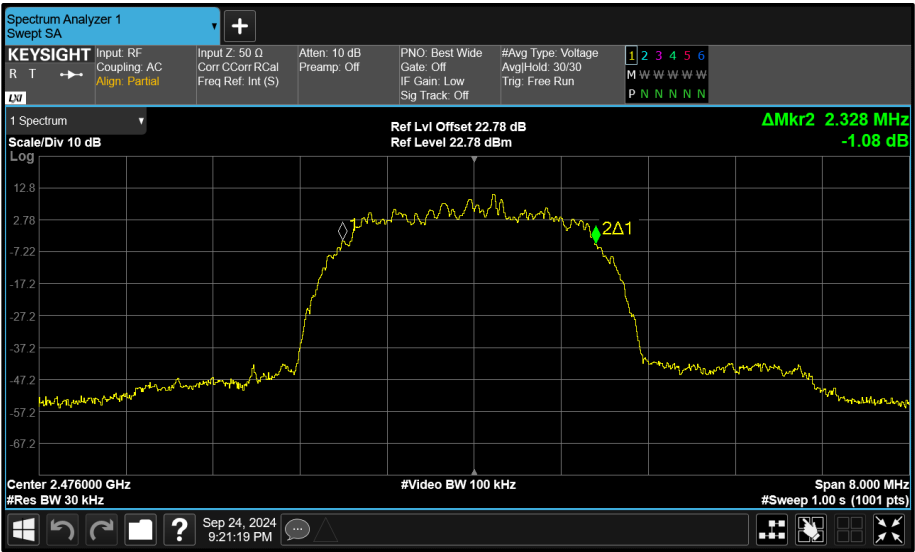


Figure 195 - Core 1 (B) 2476 MHz (CH74) 99% Bandwidth

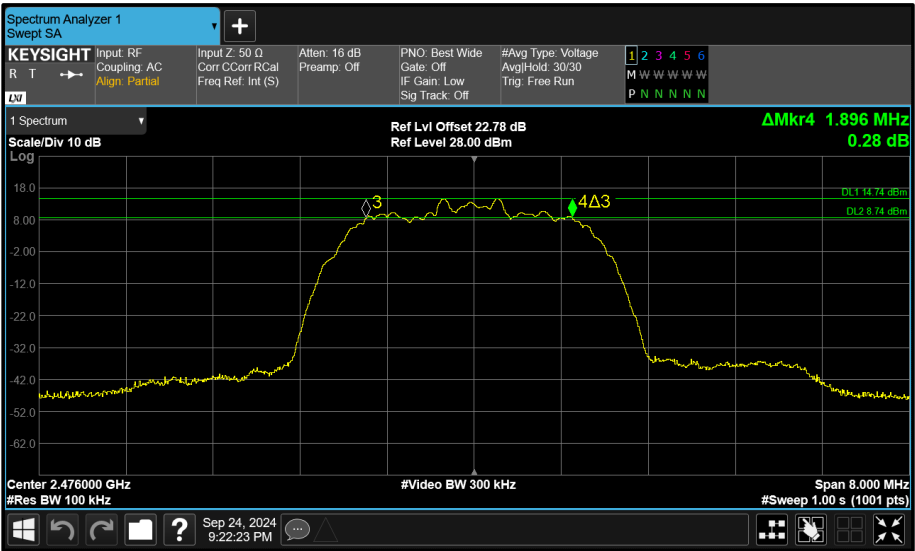


Figure 196 - Core 1 (B) 2476 MHz (CH74) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	-
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	1.020	1.005	-	-	≥ 500.0
2441	0.660	1.035	-	-	≥ 500.0
2476	0.990	1.020	-	-	≥ 500.0

Table 51 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	4.695	4.620	-	-	-
2441	4.695	4.620	-	-	-
2476	4.710	4.635	-	-	-

Table 52 - 99% Bandwidth Results

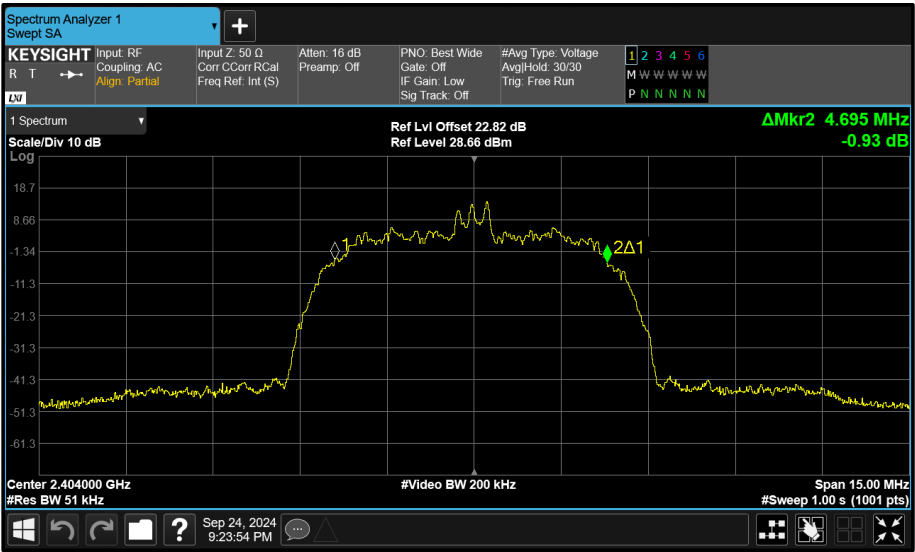


Figure 197 - Core 0 (A) 2404 MHz (CH2) 99% Bandwidth

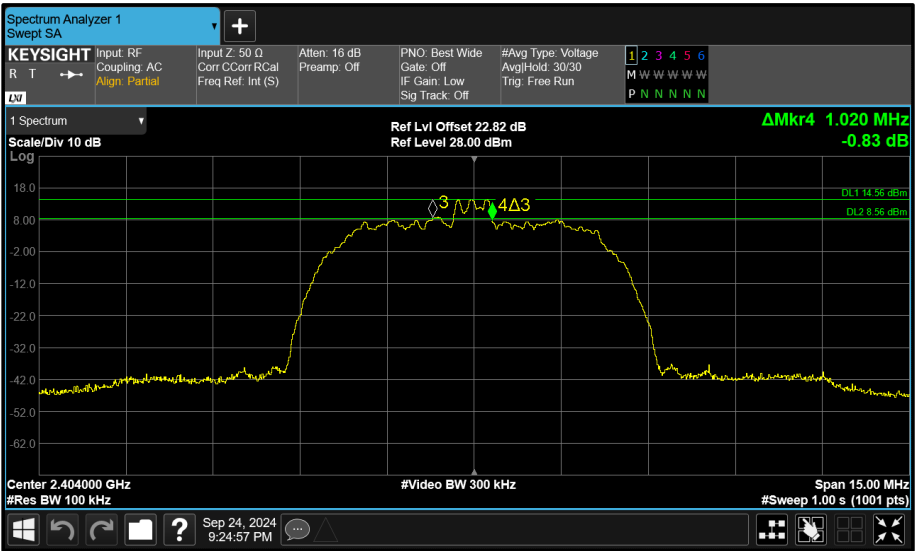


Figure 198 - Core 0 (A) 2404 MHz (CH2) 6 dB Bandwidth

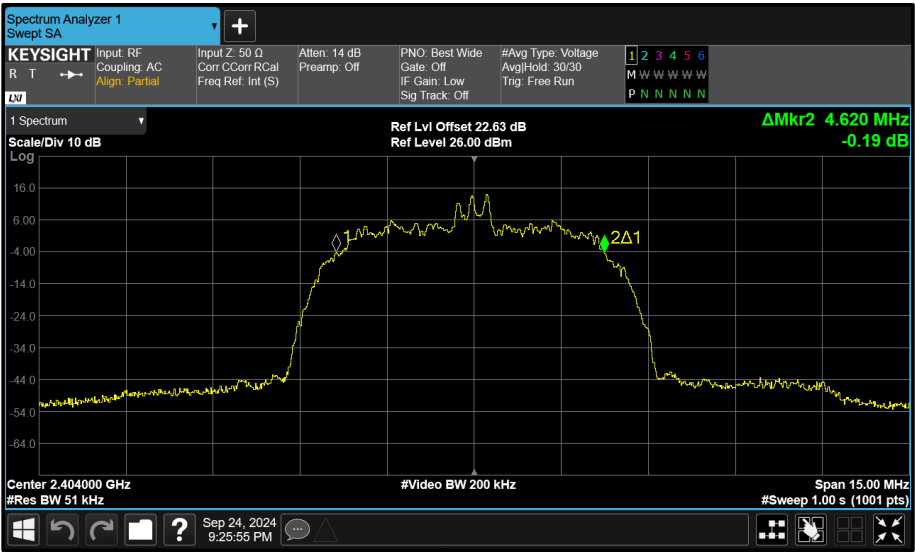


Figure 199 - Core 1 (B) 2404 MHz (CH2) 99% Bandwidth

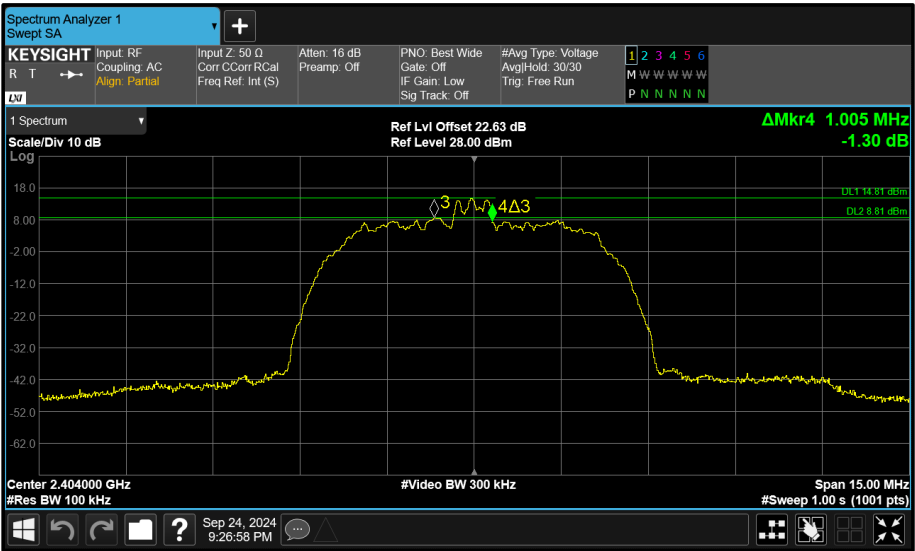


Figure 200 - Core 1 (B) 2404 MHz (CH2) 6 dB Bandwidth

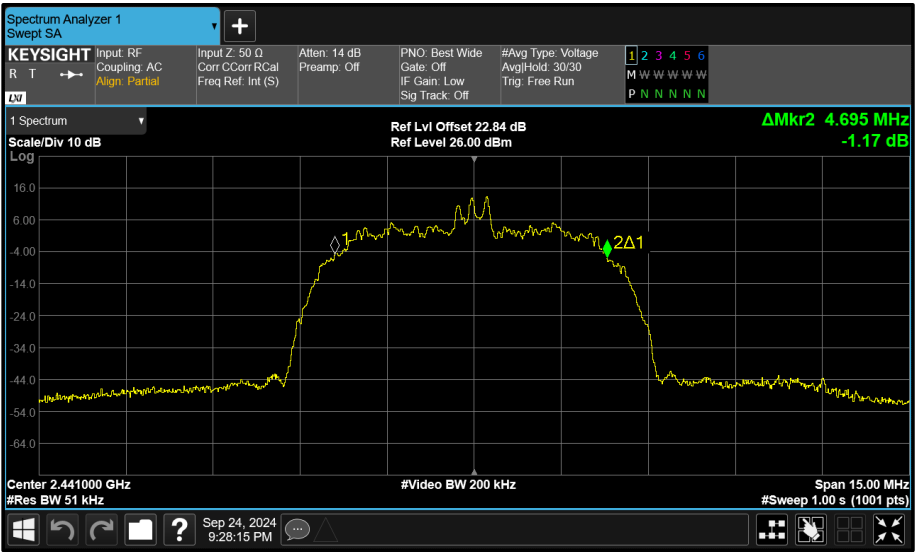


Figure 201 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

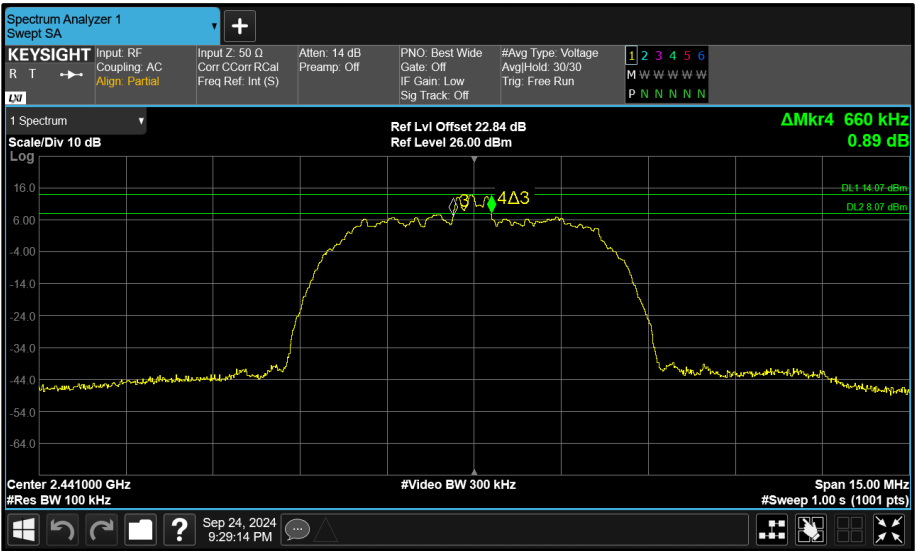


Figure 202 - Core 0 (A) 2441 MHz (CH39) 6 dB Bandwidth

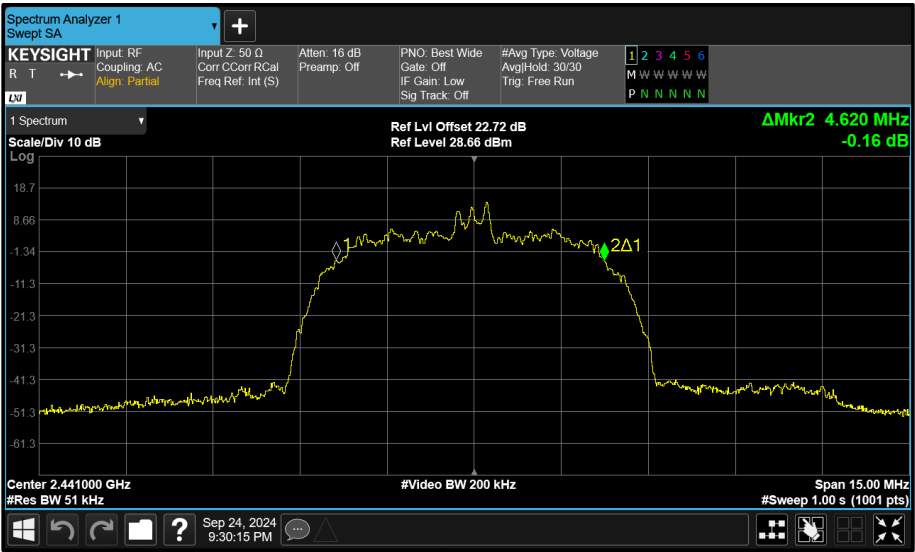


Figure 203 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth

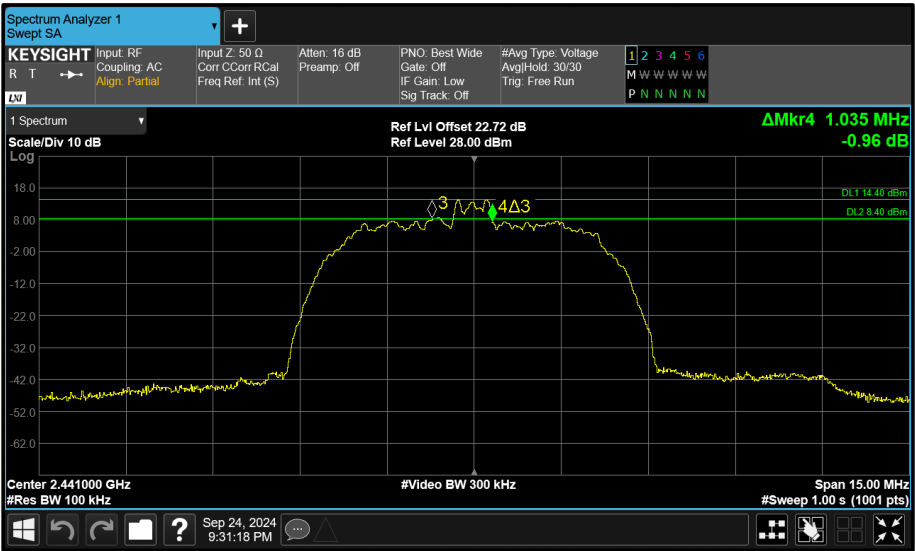


Figure 204 - Core 1 (B) 2441 MHz (CH39) 6 dB Bandwidth

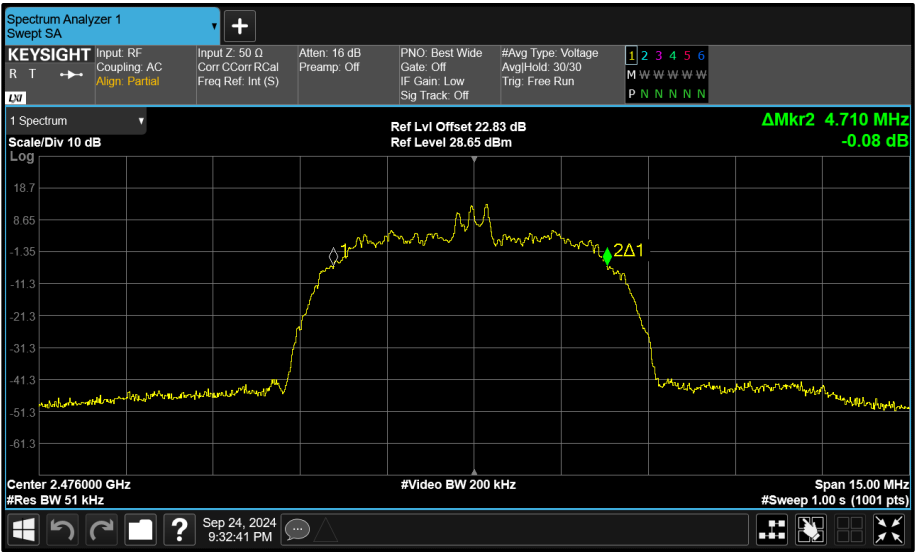


Figure 205 - Core 0 (A) 2476 MHz (CH74) 99% Bandwidth

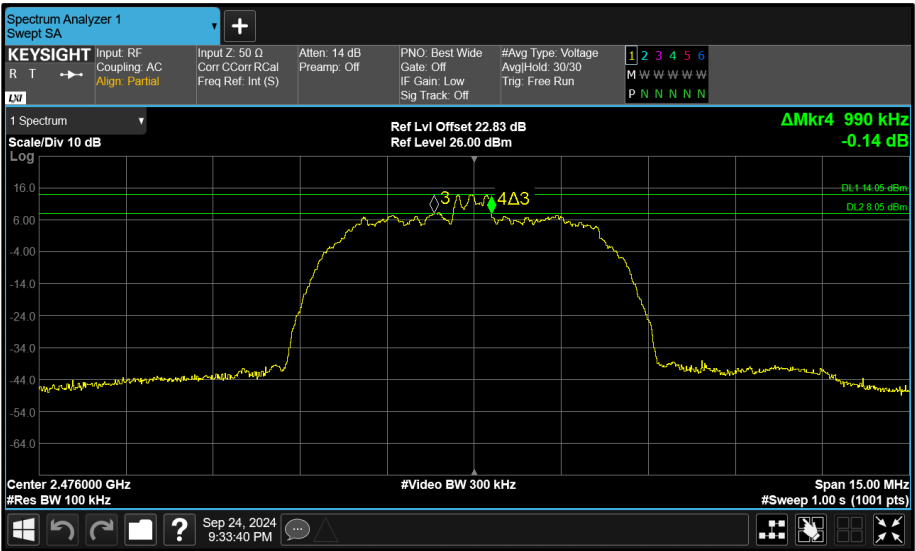


Figure 206 - Core 0 (A) 2476 MHz (CH74) 6 dB Bandwidth

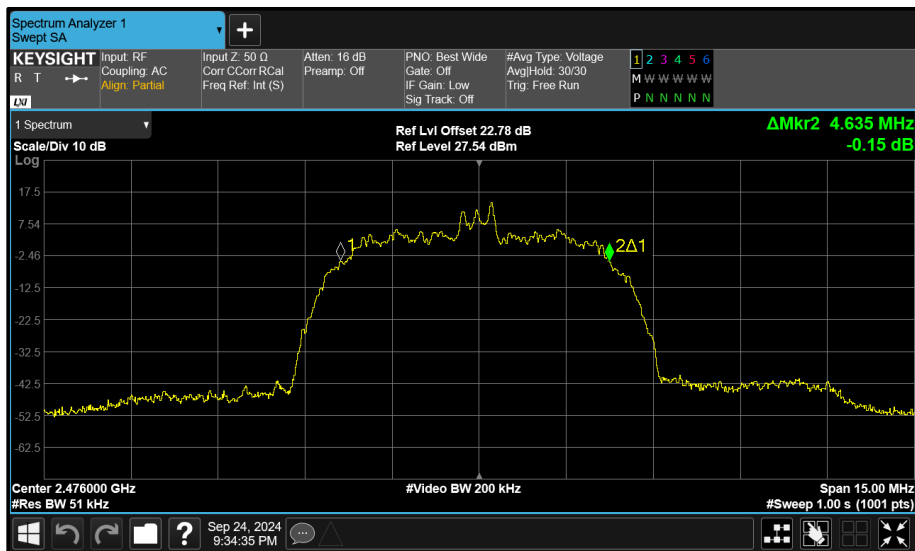


Figure 207 - Core 1 (B) 2476 MHz (CH74) 99% Bandwidth

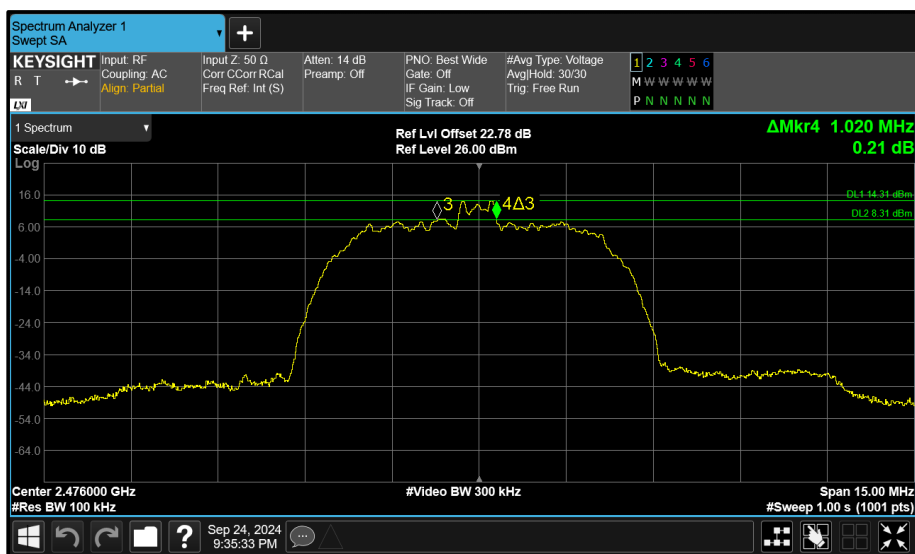


Figure 208 - Core 1 (B) 2476 MHz (CH74) 6 dB Bandwidth

FCC 47 CFR Part 15, Limit Clause 15.247(a)(2) and ISSED RSS-247, Clause 5.2(a)

The minimum 6 dB Bandwidth shall be at least 500 kHz.



2.2.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 18 and RF Laboratory 14.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
MXA Signal Analyser	Keysight Technologies	N9020B	6417	24	26-Feb-2025
MXA Signal Analyser	Keysight Technologies	N9020B	6419	24	28-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6517	12	22-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6518	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6526	12	22-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6527	12	05-Mar-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6528	12	22-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6529	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6530	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6531	12	16-Feb-2025
AC Programmable Power Supply	iTech	IT7324	6662	-	O/P Mon
AC Programmable Power Supply	iTech	IT7324	6665	-	O/P Mon

Table 53

O/P Mon - Output Monitored using calibrated equipment



2.3 Maximum Conducted Output Power

2.3.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (b)
ISED RSS-247, Clause 5.4
ISED RSS-GEN, Clause 6.12

2.3.2 Equipment Under Test and Modification State

A3239, S/N: J3FYV0C64X - Modification State 0

2.3.3 Date of Test

17-September-2024 to 01-October-2024

2.3.4 Test Method

The test was performed in accordance with ANSI C63.10 clause 11.9.1.2 Method PKPM1.

MIMO output port summing was performed in accordance with KDB 662911 D01. Directional Gain was calculated in accordance with clause F)2)f)(ii) using the calculations from F)2)f)(i) with worst-case individual gain and an array gain of zero.

2.3.5 Environmental Conditions

Ambient Temperature	22.3 - 22.9 °C
Relative Humidity	55.6 - 58.9 %



2.3.6 Test Results

2.4 GHz Bluetooth LE/HDR

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.4
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	1.80

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	9.14	-	-	-	-	30.00	-20.86
2441	8.79	-	-	-	-	30.00	-21.21
2476	8.83	-	-	-	-	30.00	-21.17

Table 54 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	9.14	-	-	-	-	30.00	-20.86	10.94	36.00	-25.06
2441	8.79	-	-	-	-	30.00	-21.21	10.59	36.00	-25.41
2476	8.83	-	-	-	-	30.00	-21.17	10.63	36.00	-25.37

Table 55 - ISED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	1.80

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	9.07	-	-	-	-	30.00	-20.93
2441	8.93	-	-	-	-	30.00	-21.07
2476	9.05	-	-	-	-	30.00	-20.95

Table 56 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	9.07	-	-	-	-	30.00	-20.93	10.87	36.00	-25.13
2441	8.93	-	-	-	-	30.00	-21.07	10.73	36.00	-25.27
2476	9.05	-	-	-	-	30.00	-20.95	10.85	36.00	-25.15

Table 57 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.5
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	1.80

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	8.68	-	-	-	-	30.00	-21.32
2440	8.82	-	-	-	-	30.00	-21.18
2480	8.37	-	-	-	-	30.00	-21.63

Table 58 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	8.68	-	-	-	-	30.00	-21.32	10.48	36.00	-25.52
2440	8.82	-	-	-	-	30.00	-21.18	10.62	36.00	-25.38
2480	8.37	-	-	-	-	30.00	-21.63	10.17	36.00	-25.83

Table 59 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.4
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	1.80

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	8.56	-	-	-	-	30.00	-21.44
2440	8.79	-	-	-	-	30.00	-21.21
2480	8.87	-	-	-	-	30.00	-21.13

Table 60 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	8.56	-	-	-	-	30.00	-21.44	10.36	36.00	-25.64
2440	8.79	-	-	-	-	30.00	-21.21	10.59	36.00	-25.41
2480	8.87	-	-	-	-	30.00	-21.13	10.67	36.00	-25.33

Table 61 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	0.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	-	-	9.00	-	-	30.00	-21.00
2441	-	-	8.90	-	-	30.00	-21.10
2476	-	-	8.81	-	-	30.00	-21.19

Table 62 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	-	-	9.00	-	-	30.00	-21.00	9.20	36.00	-26.80
2441	-	-	8.90	-	-	30.00	-21.10	9.10	36.00	-26.90
2476	-	-	8.81	-	-	30.00	-21.19	9.01	36.00	-26.99

Table 63 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	0.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	-	-	8.76	-	-	30.00	-21.24
2441	-	-	8.97	-	-	30.00	-21.03
2476	-	-	8.89	-	-	30.00	-21.11

Table 64 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	-	-	8.76	-	-	30.00	-21.24	8.96	36.00	-27.04
2441	-	-	8.97	-	-	30.00	-21.03	9.17	36.00	-26.83
2476	-	-	8.89	-	-	30.00	-21.11	9.09	36.00	-26.91

Table 65 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.5
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	0.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	8.40	-	-	30.00	-21.60
2440	-	-	8.48	-	-	30.00	-21.52
2480	-	-	9.14	-	-	30.00	-20.86

Table 66 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	-	-	8.40	-	-	30.00	-21.60	8.60	36.00	-27.40
2440	-	-	8.48	-	-	30.00	-21.52	8.68	36.00	-27.32
2480	-	-	9.14	-	-	30.00	-20.86	9.34	36.00	-26.66

Table 67 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	0.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	8.59	-	-	30.00	-21.41
2440	-	-	8.72	-	-	30.00	-21.28
2480	-	-	9.39	-	-	30.00	-20.61

Table 68 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	-	-	8.59	-	-	30.00	-21.41	8.79	36.00	-27.21
2440	-	-	8.72	-	-	30.00	-21.28	8.92	36.00	-27.08
2480	-	-	9.39	-	-	30.00	-20.61	9.59	36.00	-26.41

Table 69 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	1.80

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	17.76	-	-	-	-	30.00	-12.24
2441	17.58	-	-	-	-	30.00	-12.42
2476	18.08	-	-	-	-	30.00	-11.92

Table 70 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	17.76	-	-	-	-	30.00	-12.24	19.56	36.00	-16.44
2441	17.58	-	-	-	-	30.00	-12.42	19.38	36.00	-16.62
2476	18.08	-	-	-	-	30.00	-11.92	19.88	36.00	-16.12

Table 71 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	1.80

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	18.20	-	-	-	-	30.00	-11.80
2441	18.08	-	-	-	-	30.00	-11.92
2476	18.33	-	-	-	-	30.00	-11.67

Table 72 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	18.20	-	-	-	-	30.00	-11.80	20.00	36.00	-16.00
2441	18.08	-	-	-	-	30.00	-11.92	19.88	36.00	-16.12
2476	18.33	-	-	-	-	30.00	-11.67	20.13	36.00	-15.87

Table 73 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (LE 1M)	Duty Cycle (%):	60.6
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	1.80

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	13.75	-	-	-	-	30.00	-16.25
2440	13.36	-	-	-	-	30.00	-16.64
2480	13.77	-	-	-	-	30.00	-16.23

Table 74 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	13.75	-	-	-	-	30.00	-16.25	15.55	36.00	-20.45
2440	13.36	-	-	-	-	30.00	-16.64	15.16	36.00	-20.84
2480	13.77	-	-	-	-	30.00	-16.23	15.57	36.00	-20.43

Table 75 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (LE 2M)	Duty Cycle (%):	31.4
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	1.80

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	13.86	-	-	-	-	30.00	-16.14
2440	13.82	-	-	-	-	30.00	-16.18
2480	13.76	-	-	-	-	30.00	-16.24

Table 76 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	13.86	-	-	-	-	30.00	-16.14	15.66	36.00	-20.34
2440	13.82	-	-	-	-	30.00	-16.18	15.62	36.00	-20.38
2480	13.76	-	-	-	-	30.00	-16.24	15.56	36.00	-20.44

Table 77 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.47

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	8.81	8.96	-	-	11.90	30.00	-18.10
2441	8.60	8.86	-	-	11.74	30.00	-18.26
2476	8.82	8.75	-	-	11.79	30.00	-18.21

Table 78 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	8.81	8.96	-	-	11.90	30.00	-18.10	16.36	36.00	-19.64
2441	8.60	8.86	-	-	11.74	30.00	-18.26	16.21	36.00	-19.79
2476	8.82	8.75	-	-	11.79	30.00	-18.21	16.26	36.00	-19.74

Table 79 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.47

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	8.96	8.97	-	-	11.97	30.00	-18.03
2441	9.08	8.74	-	-	11.92	30.00	-18.08
2476	8.98	9.00	-	-	12.00	30.00	-18.00

Table 80 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	8.96	8.97	-	-	11.97	30.00	-18.03	16.44	36.00	-19.56
2441	9.08	8.74	-	-	11.92	30.00	-18.08	16.39	36.00	-19.61
2476	8.98	9.00	-	-	12.00	30.00	-18.00	16.47	36.00	-19.53

Table 81 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.6
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.47

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	13.70	13.06	-	-	16.40	30.00	-13.63
2440	13.37	13.29	-	-	16.34	30.00	-13.73
2480	13.26	13.23	-	-	16.25	30.00	-13.78

Table 82 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	13.70	13.06	-	-	16.40	30.00	-13.60	20.87	36.00	-15.13
2440	13.37	13.29	-	-	16.34	30.00	-13.66	20.81	36.00	-15.19
2480	13.26	13.23	-	-	16.25	30.00	-13.75	20.72	36.00	-15.28

Table 83 - ISED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.4
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.47

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	13.78	13.49	-	-	16.65	30.00	-13.35
2440	13.36	13.40	-	-	16.39	30.00	-13.61
2480	13.34	13.31	-	-	16.34	30.00	-13.66

Table 84 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	13.78	13.49	-	-	16.65	30.00	-13.35	21.12	36.00	-14.88
2440	13.36	13.40	-	-	16.39	30.00	-13.61	20.85	36.00	-15.15
2480	13.34	13.31	-	-	16.34	30.00	-13.66	20.81	36.00	-15.19

Table 85 - ISSED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.47

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	17.99	17.89	-	-	20.95	30.00	-9.05
2441	17.40	18.06	-	-	20.75	30.00	-9.25
2476	17.29	18.04	-	-	20.69	30.00	-9.31

Table 86 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	17.99	17.89	-	-	20.95	30.00	-9.05	25.42	36.00	-10.58
2441	17.40	18.06	-	-	20.75	30.00	-9.25	25.22	36.00	-10.78
2476	17.29	18.04	-	-	20.69	30.00	-9.31	25.16	36.00	-10.84

Table 87 - ISED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.3
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.47

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2404	17.85	17.95	-	-	20.91	30.00	-9.09
2441	17.52	17.86	-	-	20.70	30.00	-9.30
2476	17.66	17.91	-	-	20.80	30.00	-9.20

Table 88 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2404	17.85	17.95	-	-	20.91	30.00	-9.09	25.38	36.00	-10.62
2441	17.52	17.86	-	-	20.70	30.00	-9.30	25.17	36.00	-10.83
2476	17.66	17.91	-	-	20.80	30.00	-9.20	25.27	36.00	-10.73

Table 89 - ISED Maximum Conducted (peak) Output Power Results

FCC 47 CFR Part 15, Limit Clause 15.247 (b)(3)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

ISED RSS-247, Limit Clause 5.4 (d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.



2.3.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 14.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6517	12	22-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6518	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6526	12	22-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6527	12	05-Mar-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6528	12	22-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6529	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6530	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6531	12	16-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6585	12	20-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6586	12	20-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6587	12	13-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6588	12	13-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6589	12	13-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6590	12	20-Feb-2025
AC Programmable Power Supply	iTech	IT7324	6662	-	O/P Mon
AC Programmable Power Supply	iTech	IT7324	6665	-	O/P Mon

Table 90

O/P Mon - Output Monitored using calibrated equipment



2.4 Authorised Band Edges

2.4.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d)
ISED RSS-247, Clause 5.5

2.4.2 Equipment Under Test and Modification State

A3239, S/N: D4D3YLHFTQ - Modification State 0

2.4.3 Date of Test

12-August-2024 to 30-September-2024

2.4.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.10.4.

2.4.5 Environmental Conditions

Ambient Temperature	21.8 - 23.2 °C
Relative Humidity	43.4 - 46.7 %

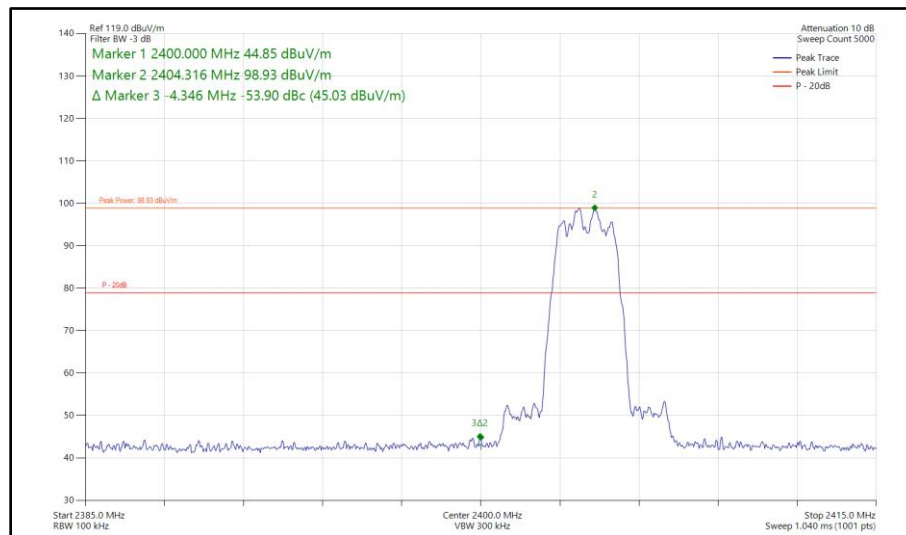
2.4.6 Test Results

2.4 GHz Bluetooth LE/HDR

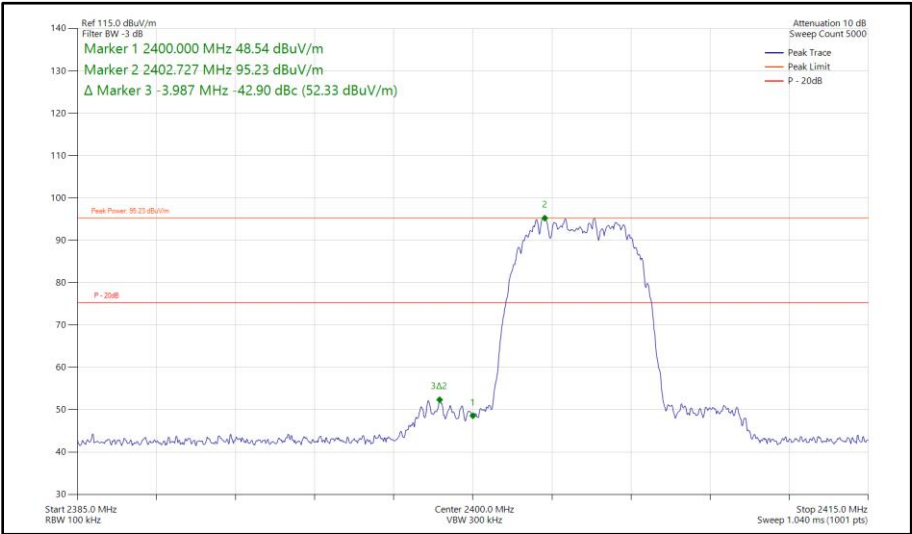
iPA - Core 0 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	HDR4	2404	2400	-53.90
Static	HDR8	2404	2400	-42.90
Static	LE1M	2402	2400	-58.16
Static	LE2M	2402	2400	-33.99

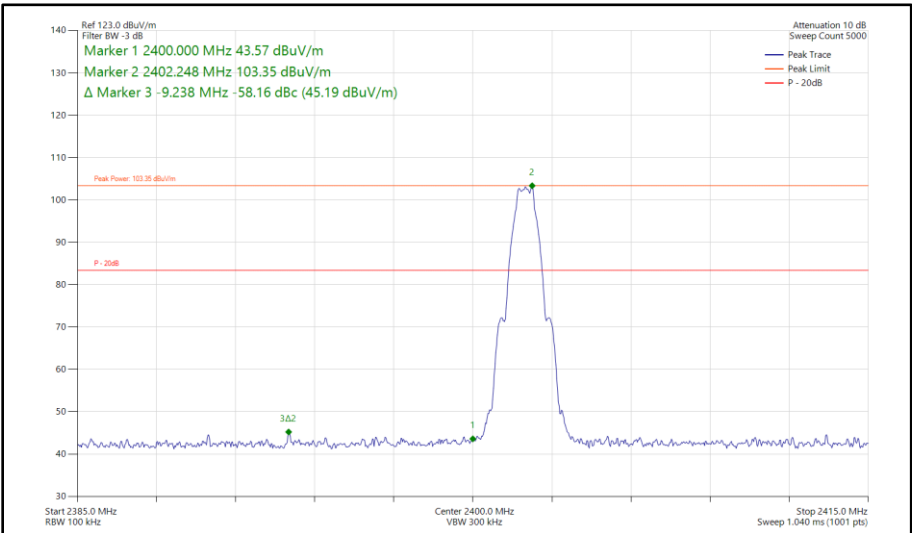
Table 91 - SISO Authorised Band Edge Results



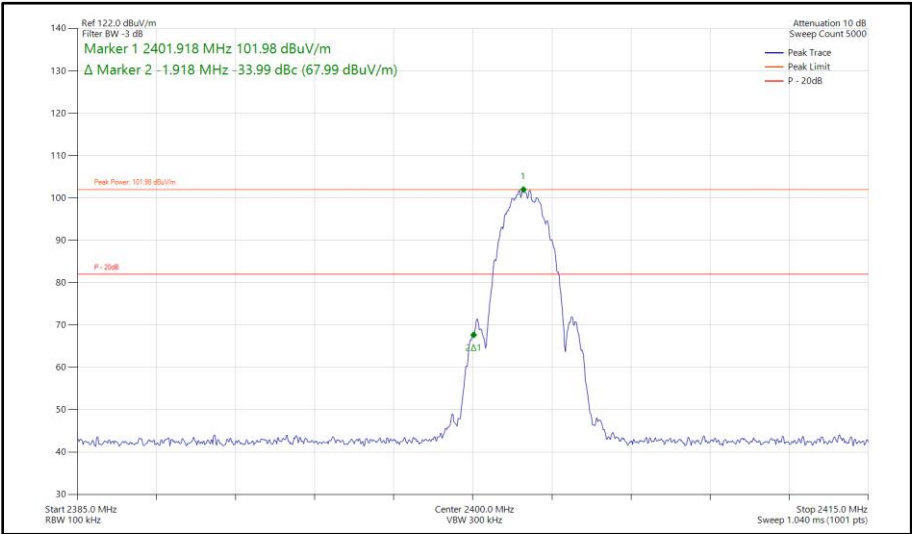
**Figure 209 - Bluetooth HDR4, SISO, Core 0 - 2404 MHz
Band Edge Frequency 2400 MHz**



**Figure 210 - Bluetooth HDR8, SISO, Core 0 - 2404 MHz
Band Edge Frequency 2400 MHz**



**Figure 211 - Bluetooth LE1M, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz**



**Figure 212 - Bluetooth LE2M, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz**

iPA - Core 1 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	HDR4	2404	2400	-52.41
Static	HDR8	2404	2400	-44.06
Static	LE1M	2402	2400	-55.88
Static	LE2M	2402	2400	-34.10

Table 92 - SISO Authorised Band Edge Results

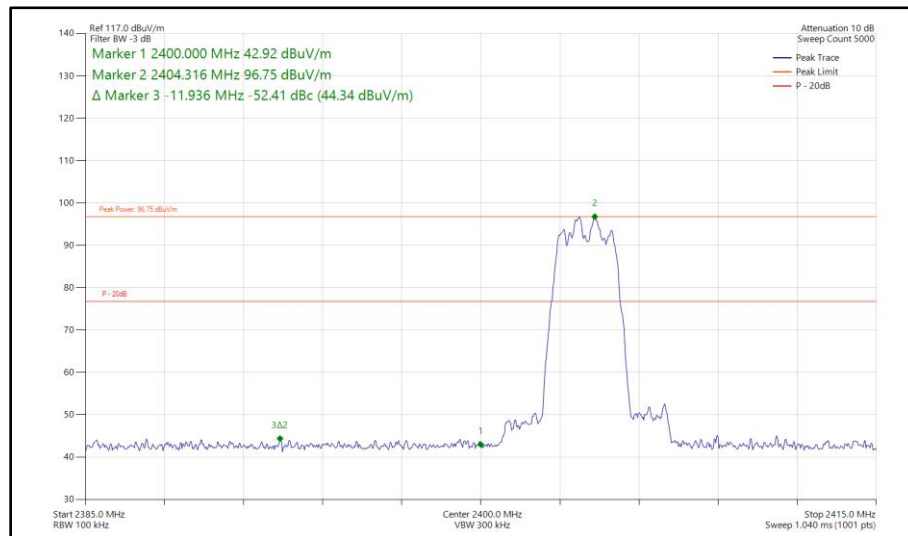


Figure 213 - Bluetooth HDR4, SISO, Core 1 - 2404 MHz
Band Edge Frequency 2400 MHz

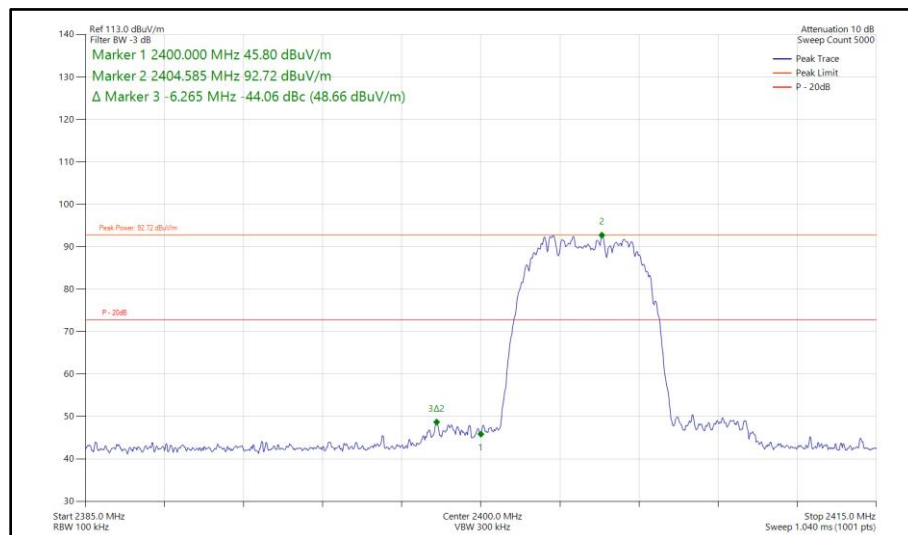


Figure 214 - Bluetooth HDR8, SISO, Core 1 - 2404 MHz
Band Edge Frequency 2400 MHz

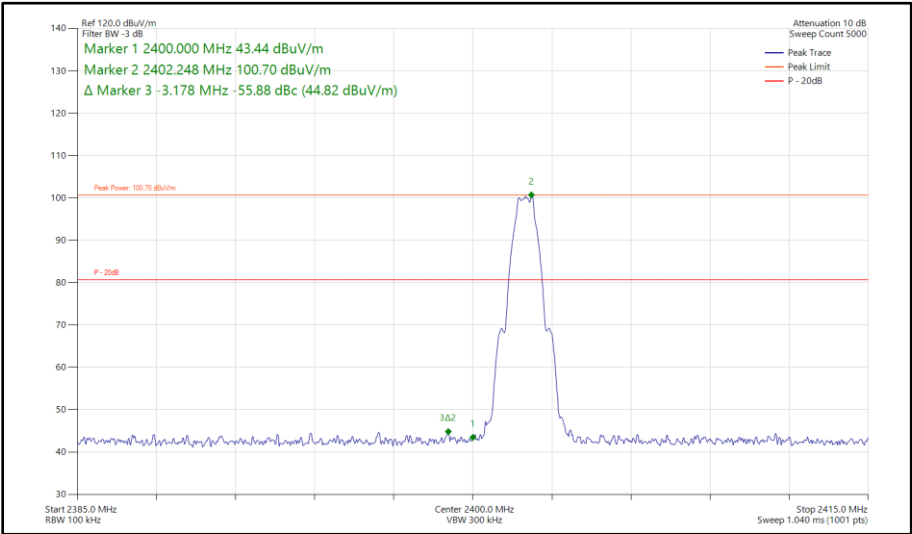


Figure 215 - Bluetooth LE1M, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

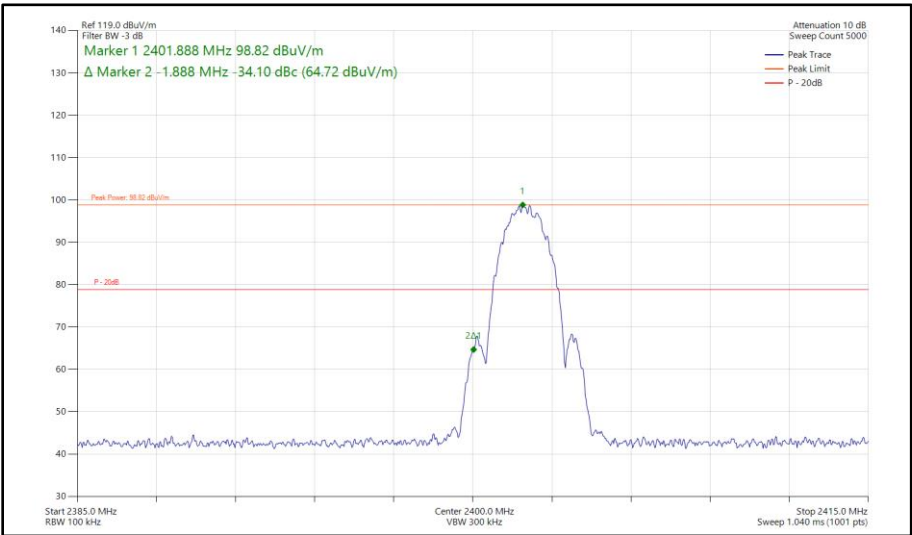


Figure 216 - Bluetooth LE2M, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

iPA - Core 2 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	HDR4	2404	2400	-45.27
Static	HDR8	2404	2400	-40.80
Static	LE1M	2402	2400	-47.76
Static	LE2M	2402	2400	-34.13

Table 93 - SISO Authorised Band Edge Results

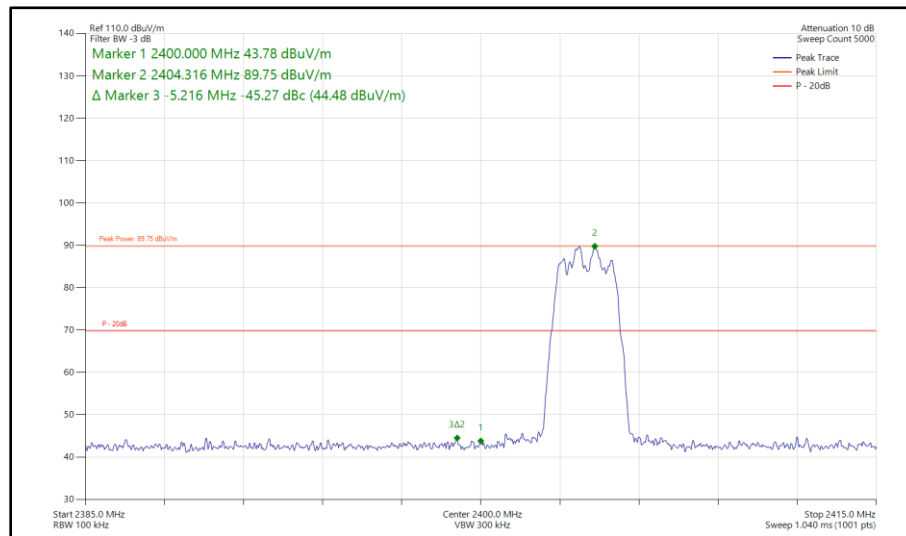


Figure 217 - Bluetooth HDR4, SISO, Core 2 - 2404 MHz
Band Edge Frequency 2400 MHz

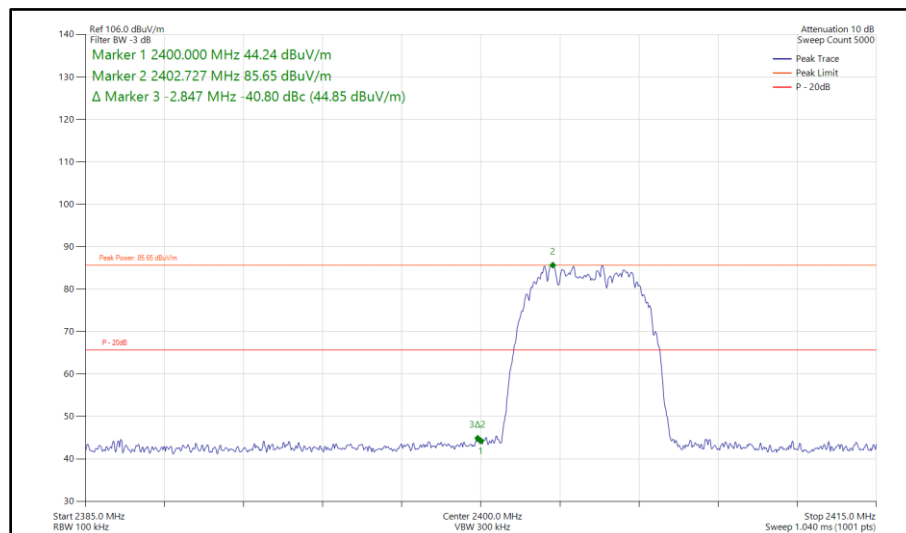
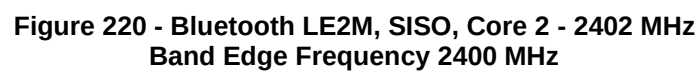
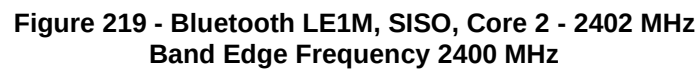


Figure 218 - Bluetooth HDR8, SISO, Core 2 - 2404 MHz
Band Edge Frequency 2400 MHz



iPA - Core 0-1 (MIMO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	HDR4	2404	2400	-56.78
Static	HDR8	2404	2400	-44.36
Static	LE1M	2402	2400	-64.01
Static	LE2M	2402	2400	-32.26

Table 94 - MIMO Authorised Band Edge Results

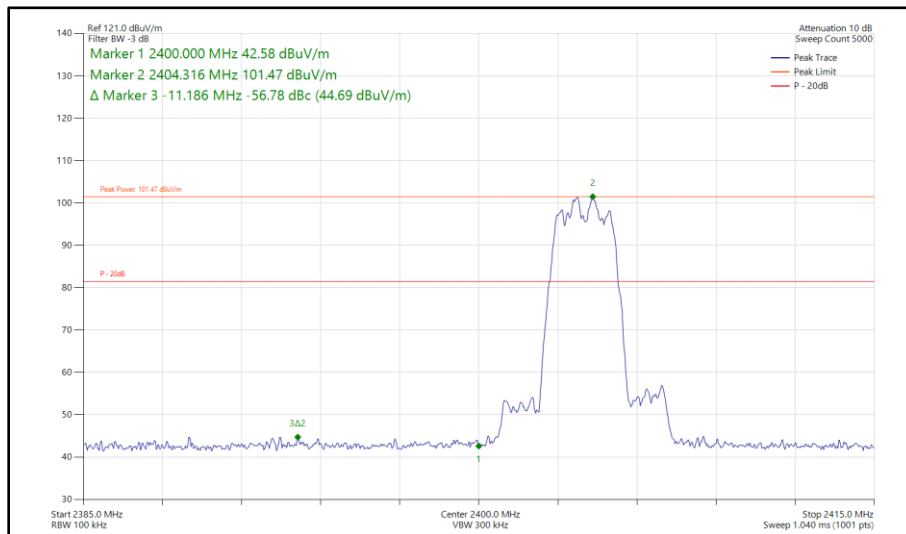


Figure 221 - Bluetooth HDR4, MIMO, Core 0-1 - 2404 MHz
Band Edge Frequency 2400 MHz

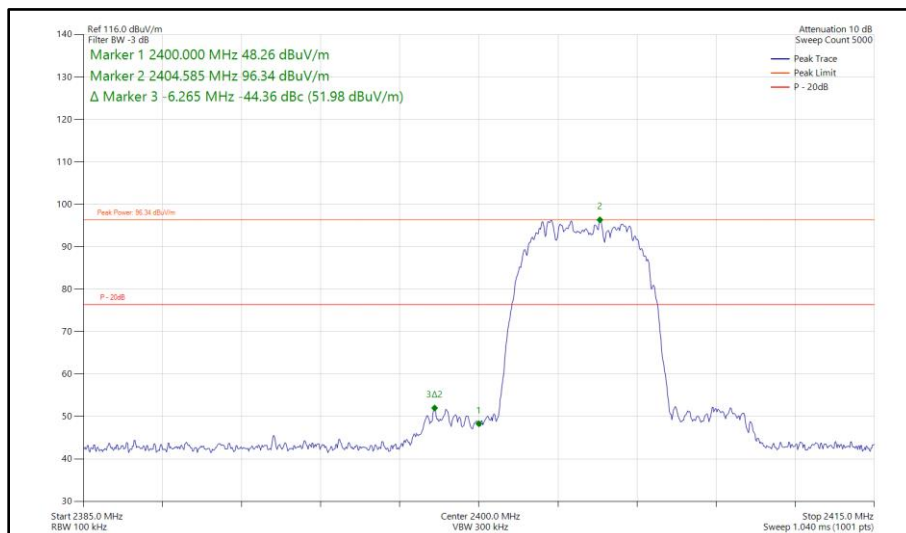


Figure 222 - Bluetooth HDR8, MIMO, Core 0-1 - 2404 MHz
Band Edge Frequency 2400 MHz

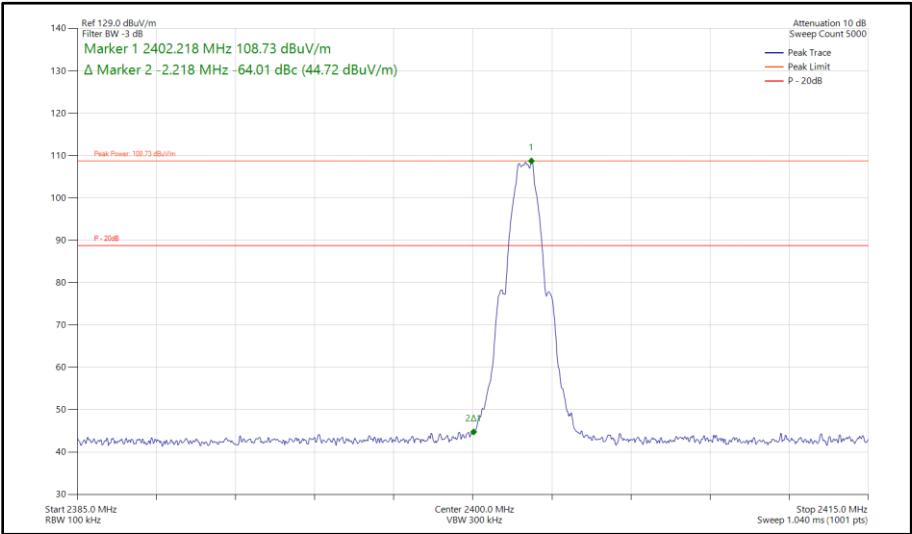


Figure 223 - Bluetooth LE1M, MIMO, Core 0-1 - 2402 MHz
Band Edge Frequency 2400 MHz

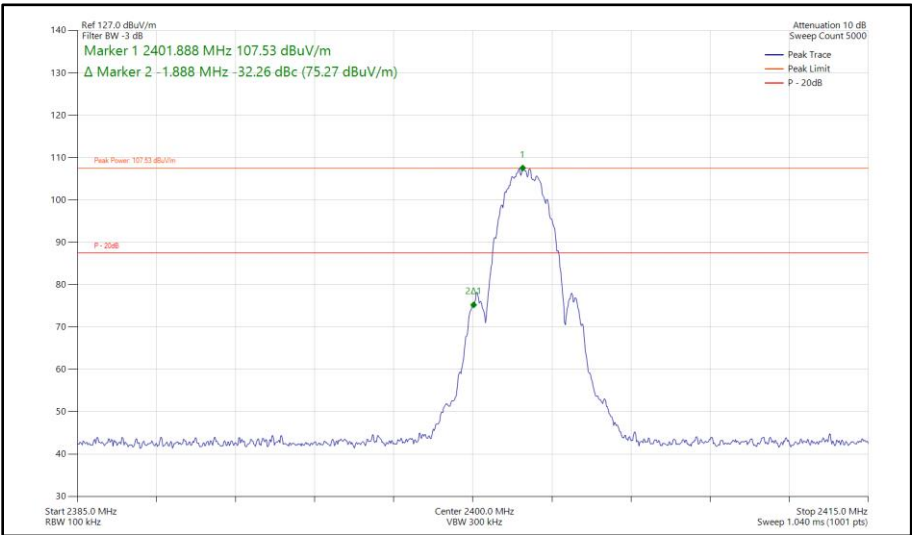


Figure 224 - Bluetooth LE2M, MIMO, Core 0-1 - 2402 MHz
Band Edge Frequency 2400 MHz



ePA - Core 0 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	HDR4	2404	2400	-57.44
Static	HDR8	2404	2400	-47.43
Static	LE1M	2402	2400	-62.46
Static	LE2M	2402	2400	-32.00

Table 95 - SISO Authorised Band Edge Results

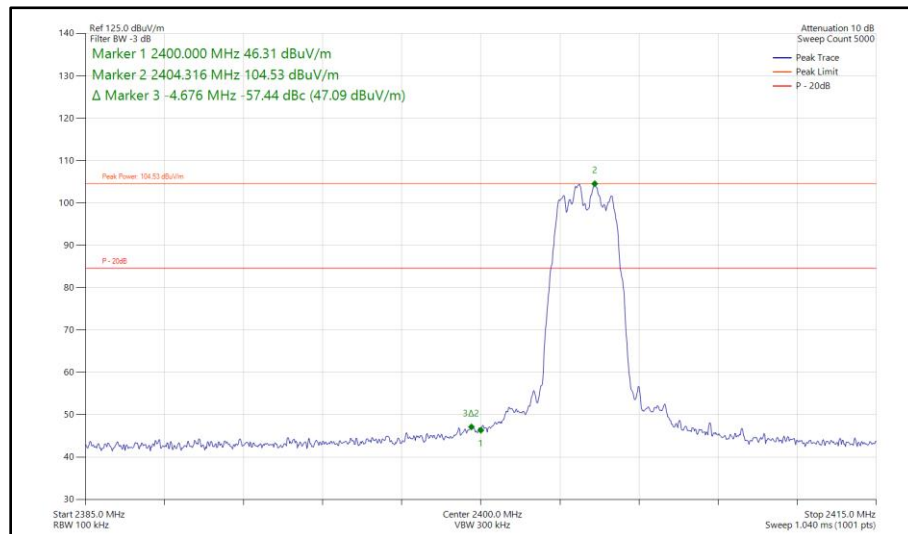


Figure 225 - Bluetooth HDR4, SISO, Core 0 - 2404 MHz
Band Edge Frequency 2400 MHz

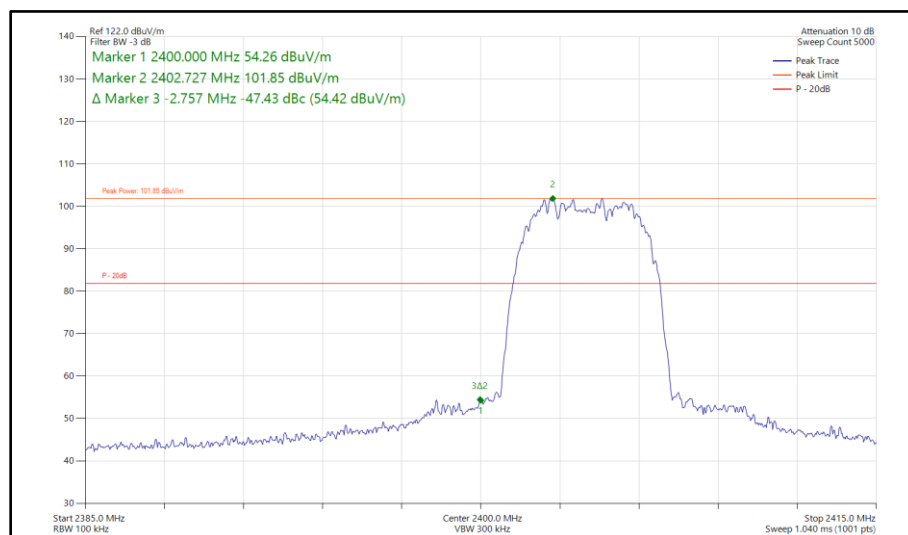


Figure 226 - Bluetooth HDR8, SISO, Core 0 - 2404 MHz
Band Edge Frequency 2400 MHz

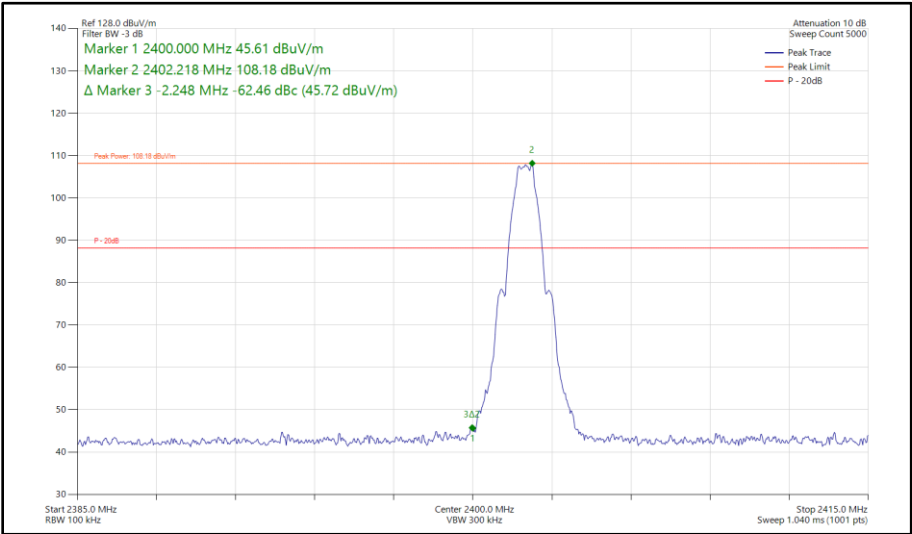


Figure 227 - Bluetooth LE1M, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

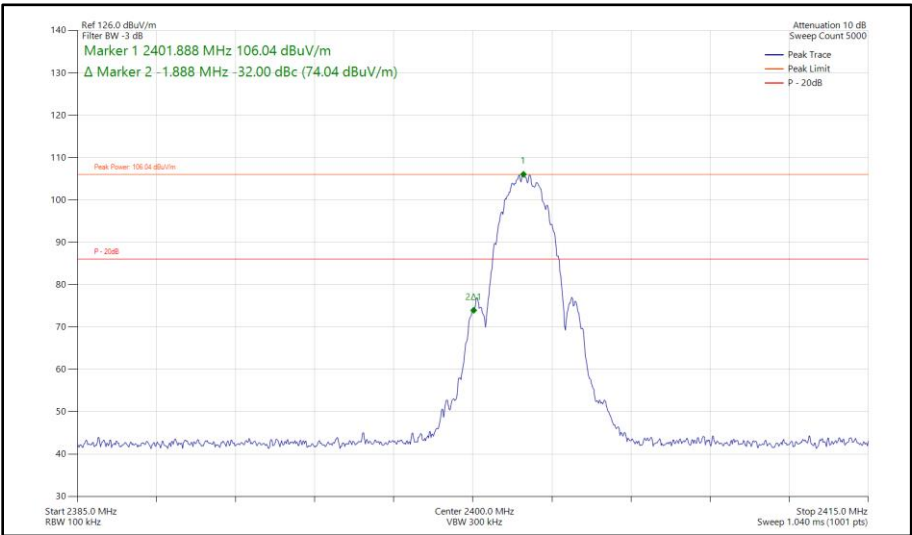


Figure 228 - Bluetooth LE2M, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	HDR4	2404	2400	-57.75
Static	HDR8	2404	2400	-44.55
Static	LE1M	2402	2400	-59.27
Static	LE2M	2402	2400	-31.10

Ref 124.0 dBuV/m
Filter BW -3 dB

Marker 1 2400.000 MHz 45.63 dBuV/m
Marker 2 2404.316 MHz 104.01 dBuV/m
Δ Marker 3 -5.216 MHz -57.75 dBc (46.26 dBuV/m)

Peak Power: 104.01 dBuV/m
P -20dB

Peak Trace
Peak Limit
P -20dB

Start 2385.0 MHz
RBW 100 kHz
Center 2400.0 MHz
VBW 300 kHz
Stop 2415.0 MHz
Sweep 1.040 ms (1001 pts)

Ref 121.0 dBuV/m
Filter BW -3 dB

Marker 1 2400.000 MHz 54.26 dBuV/m
Marker 2 2404.585 MHz 101.56 dBuV/m
Δ Marker 3 -6.265 MHz -44.55 dBc (57.01 dBuV/m)

Peak Power: 101.56 dBuV/m
P -20dB

Peak Trace
Peak Limit
P -20dB

Start 2385.0 MHz
RBW 100 kHz
Center 2400.0 MHz
VBW 300 kHz
Stop 2415.0 MHz
Sweep 1.040 ms (1001 pts)

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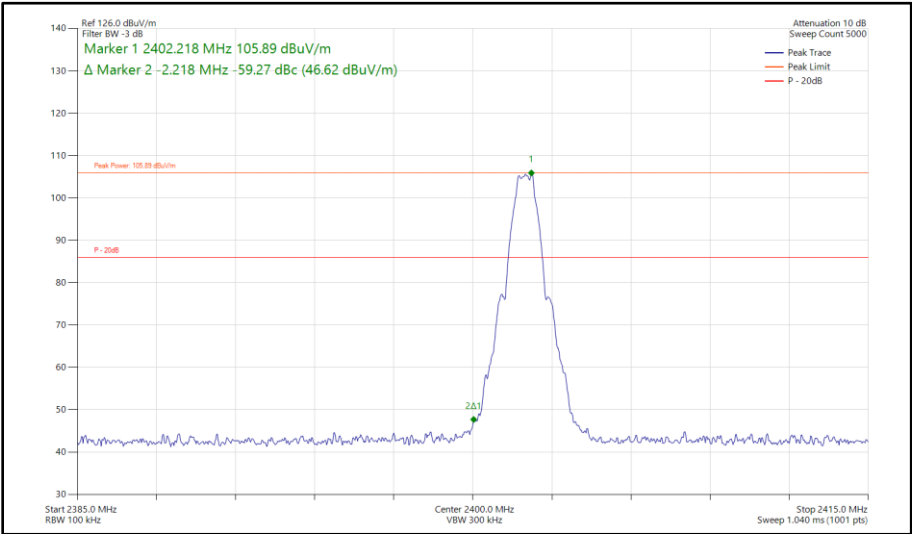


Figure 231 - Bluetooth LE1M, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

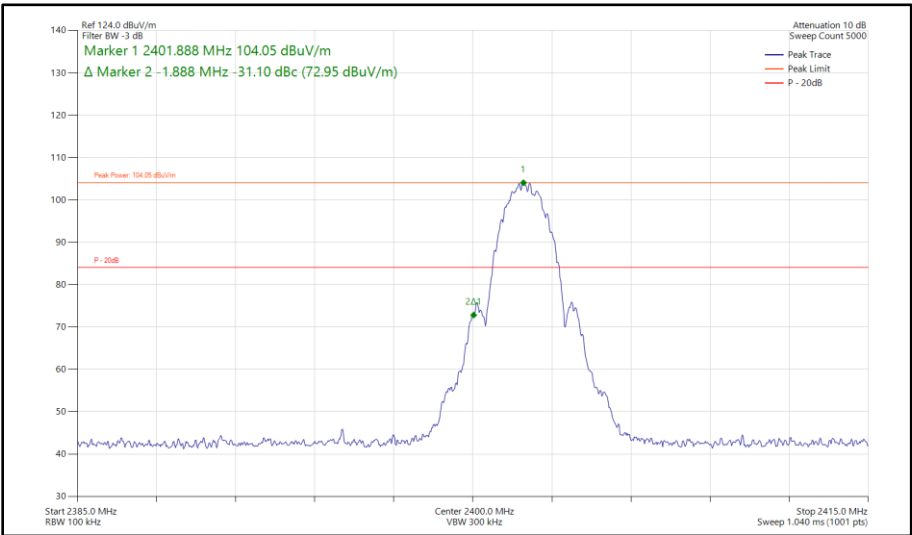


Figure 232 - Bluetooth LE2M, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

ePA - Core 0-1 (MIMO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	HDR4	2404	2400	-60.07
Static	HDR8	2404	2400	-48.67

Table 97 - MIMO Authorised Band Edge Results

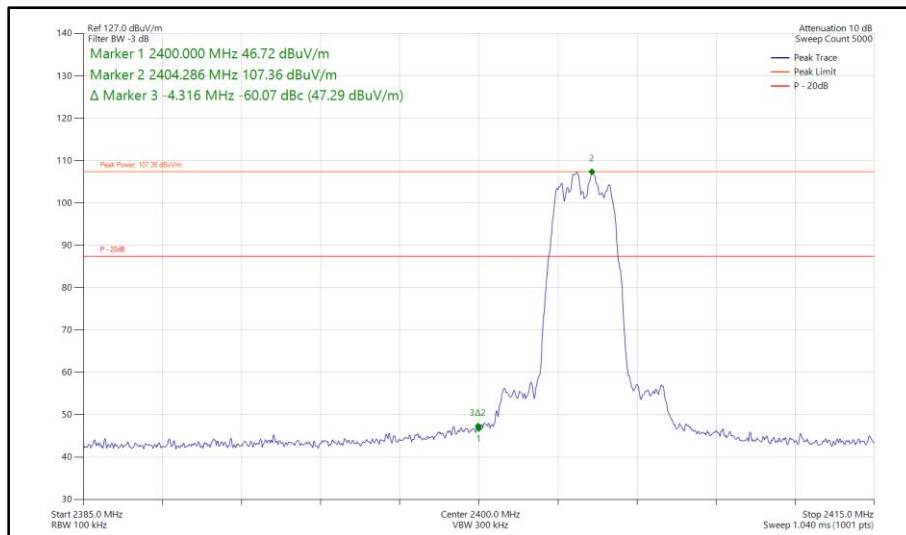


Figure 233 - Bluetooth HDR4, MIMO, Core 0-1 - 2404 MHz
Band Edge Frequency 2400 MHz

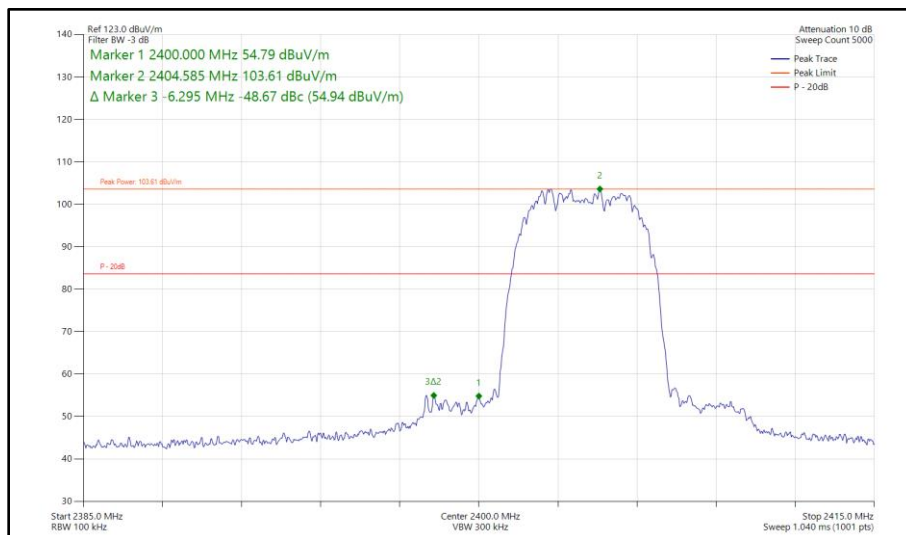


Figure 234 - Bluetooth HDR8, MIMO, Core 0-1 - 2404 MHz
Band Edge Frequency 2400 MHz



FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

ISED RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

2.4.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 16.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Emissions Software	TUV SUD	EmX V3.4.2	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESW44	5911	12	19-Sep-2025
1500W (300V 12A) AC Power Supply	iTech	IT7324	5955	-	O/P Mon
Compact Antenna Mast	Maturo Gmbh	CAM4.0-P	5964	-	TU
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	5966	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5967	-	TU
Turntable	Maturo Gmbh	TT1.5SI	5968	-	TU
3m Semi-Anechoic Chamber, Chamber16	Albatross Projects	RF Chamber 16	5972	36	24-May-2025
Cable (N to N 7m)	Junkosha	MWX221-07000NMSNMS/B	6005	12	20-May-2025
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6018	12	10-Jun-2025
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6142	12	05-May-2025
Digital Multimeter	Fluke	115	6147	12	06-Jun-2025
Cable (SMA to SMA 8m)	Junkosha	MWX221-08000AMSAMS/B	6319	-	04-Feb-2025
SAC Switch Unit	TUV SUD	TUV_SSU_004 PLC	6349	12	07-May-2025
Humidity and Temperature Meter	R.S Components	1364	6486	12	04-Jun-2025

Table 98

TU - Traceability Unscheduled

O/P Mon - Output Monitored using calibrated equipment



2.5 Spurious Radiated Emissions

2.5.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.209 and 15.247 (d)
ISED RSS-247, Clause 3.3 and 5.5
ISED RSS-GEN, Clause 6.13 and 8.9

2.5.2 Equipment Under Test and Modification State

A3239, S/N: N7C7VWDN4T - Modification State 0

2.5.3 Date of Test

18-August-2024 to 22-August-2024

2.5.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 6.3, 6.5 and 6.6.

For frequencies > 1 GHz, plots for average measurements were taken in accordance with ANSI C63.10, clause 11.12.2.5.1.

The EUT was placed on the non-conducting platform in a manner typical of a normal installation.

Ports on the EUT were terminated with loads as described in ANSI C63.4 clause 6.2.4. For EUT's with multiple connectors of the same type, additional interconnecting cables were connected, and pre-scans performed to determine whether the level of the emissions were increased by >2 dB.

In the 30 MHz to 1 GHz range pre-scans were only performed on the mid channel (2440 MHz) only.

The plots shown are the characterisation of the EUT. The limits on the plots represent the most stringent case for restricted bands, (74/54 dBuV/m) when compared to 20 dBc outside restricted bands. The limits shown have been used as a threshold to determine where further measurements are necessary. Where results are within 10 dB of the limits shown on the plots, further investigation was carried out and reported in results tables.

The following conversion can be applied to convert from dBuV/m to uV/m:

$10^{(\text{Field Strength in dBuV/m}/20)}$.

Above 18 GHz, the measurement distance was reduced to 1 m. The limit line was increased by $20 \cdot \text{LOG}(3/1) = 9.54$ dB.

Where formal measurements have been necessary, the results have been presented in the emissions table.