

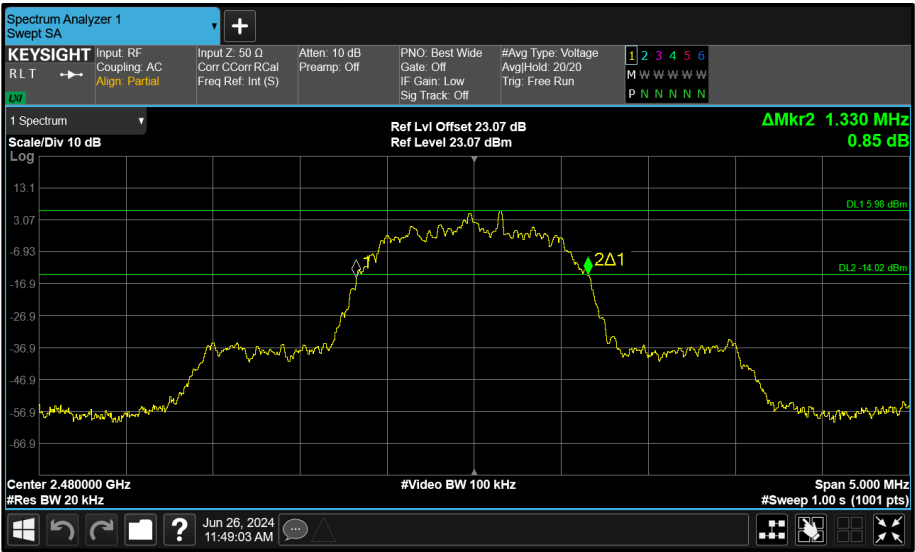


Figure 163 - Core 1 (B) 2480 MHz (CH78) 20 dB Bandwidth

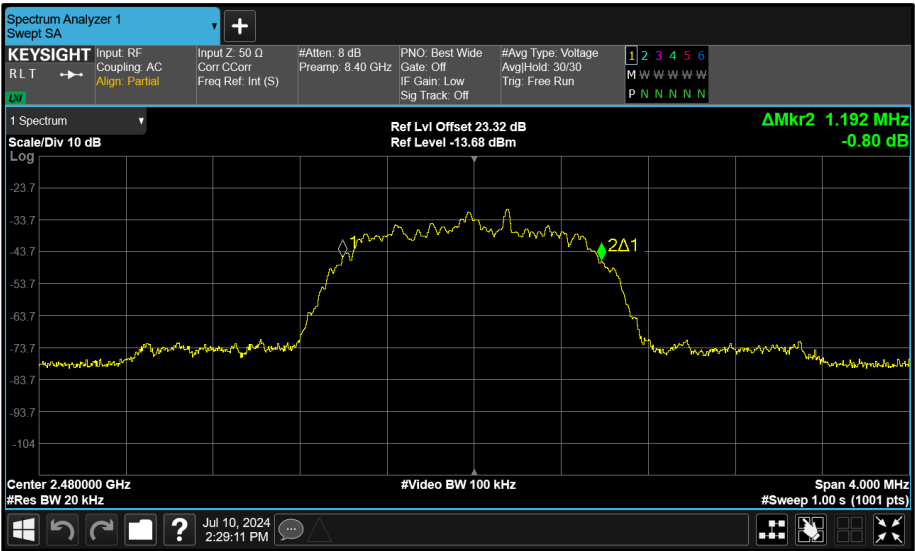


Figure 164 - Core 1 (B) 2480 MHz (CH78) 99% Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	FCC 15.247 (a)(1) RSS-247 5.1	Test Method(s):	C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA 8-DPSK (3-DH5)	Duty Cycle (%):	-
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	20 dB Bandwidth (MHz)			
	A	B	C	D
2402	1.260	1.260	-	-
2441	1.260	1.265	-	-
2480	1.260	1.265	-	-

Table 87 - 20 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	1.188	1.196	-	-	-
2441	1.192	1.196	-	-	-
2480	1.192	1.196	-	-	-

Table 88 - 99% Bandwidth Results

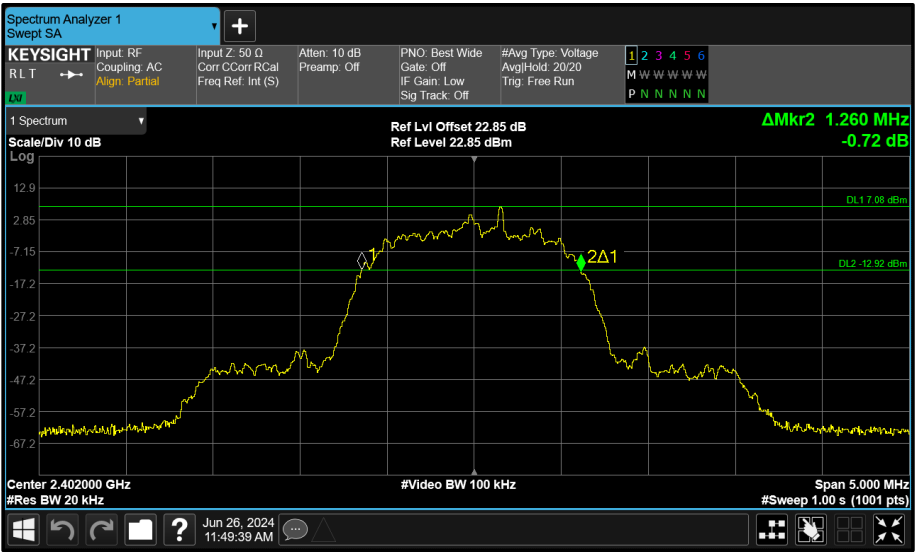


Figure 165 - Core 0 (A) 2402 MHz (CH0) 20 dB Bandwidth

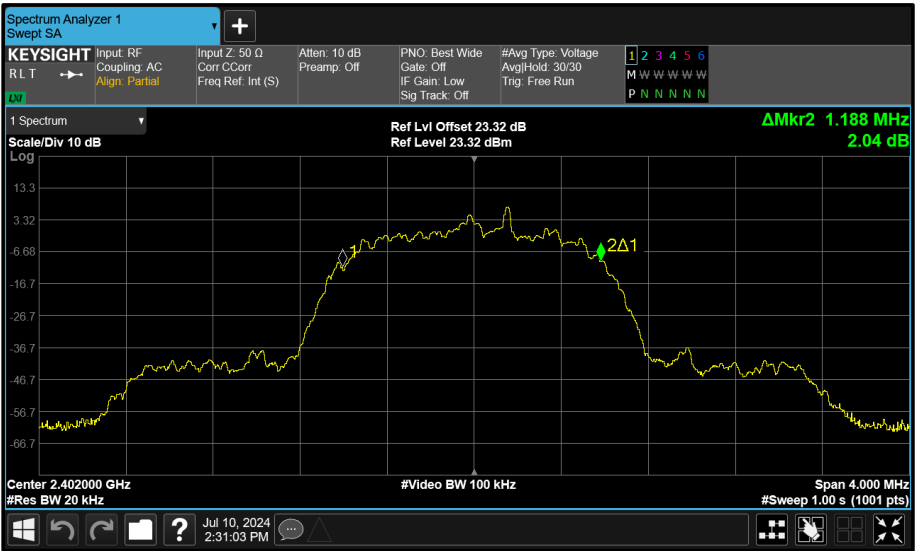


Figure 166 - Core 0 (A) 2402 MHz (CH0) 99% Bandwidth

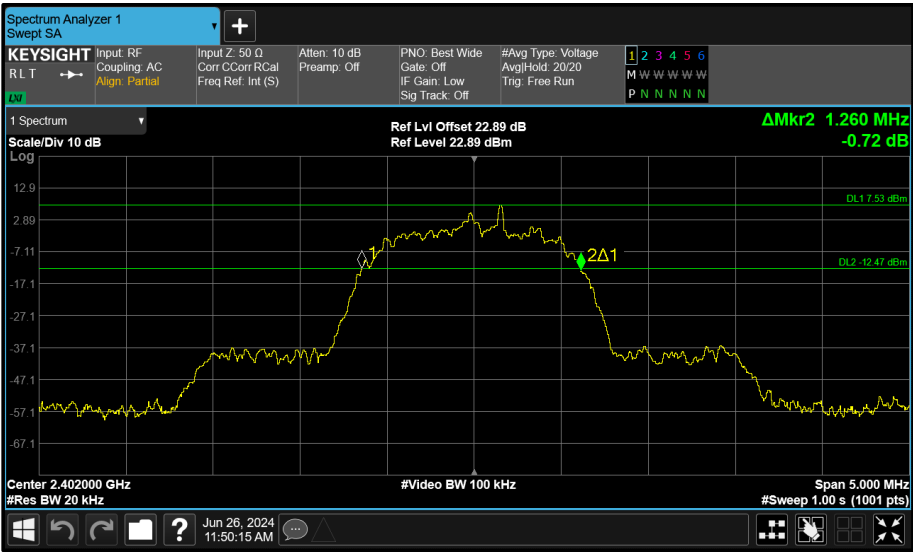


Figure 167 - Core 1 (B) 2402 MHz (CH0) 20 dB Bandwidth

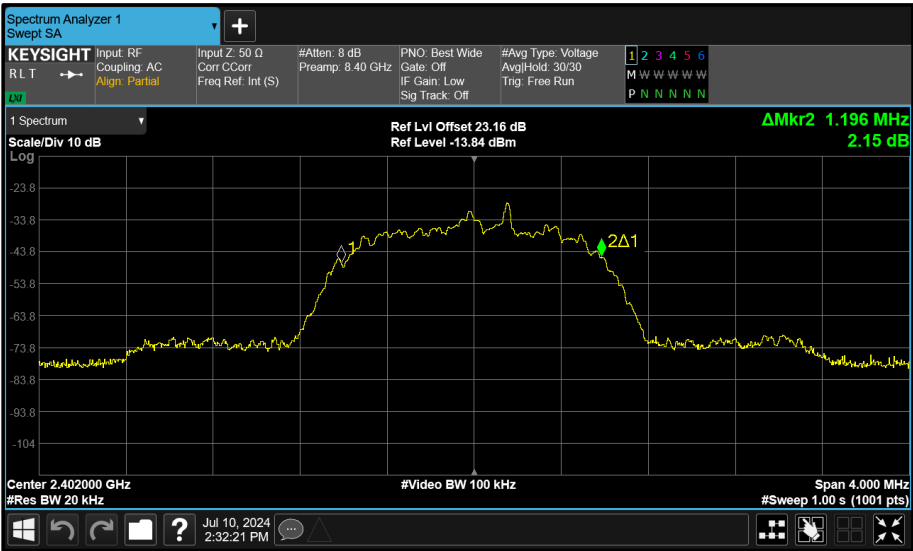


Figure 168 - Core 1 (B) 2402 MHz (CH0) 99% Bandwidth

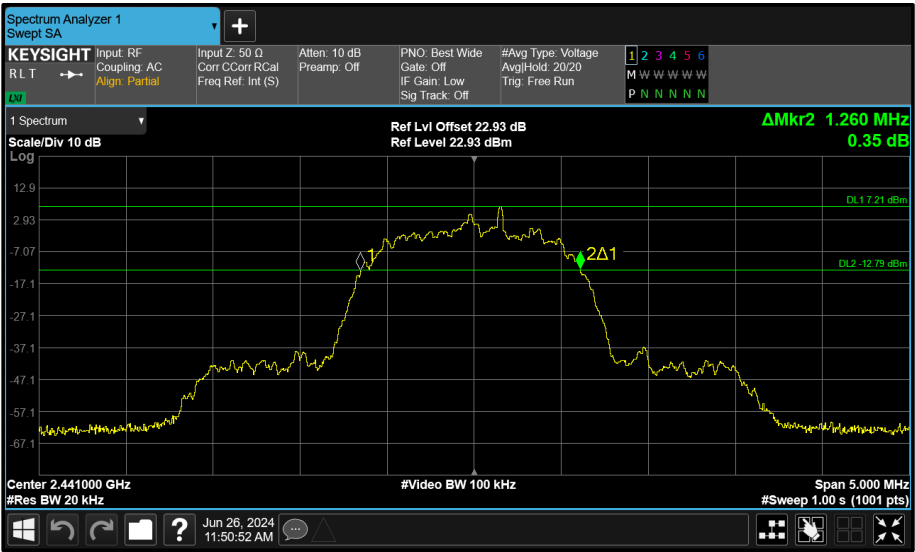


Figure 169 - Core 0 (A) 2441 MHz (CH39) 20 dB Bandwidth

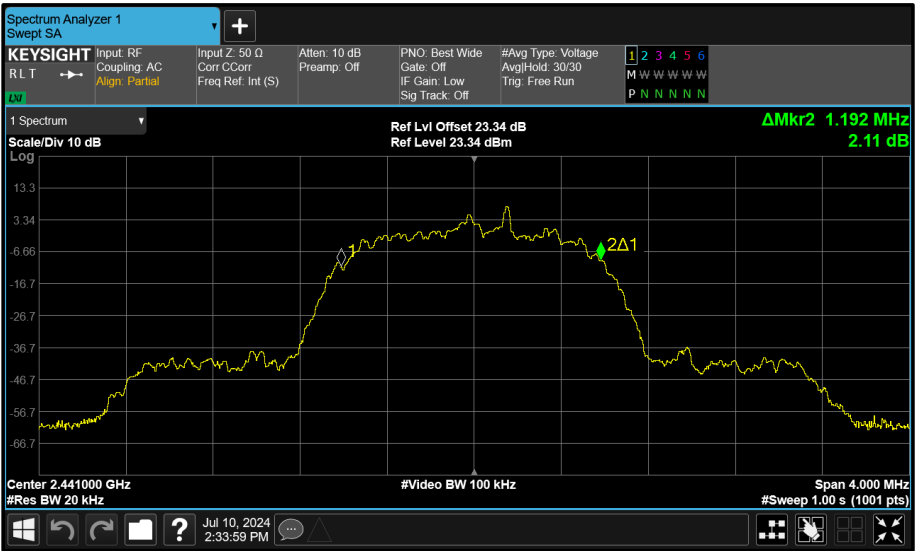


Figure 170 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

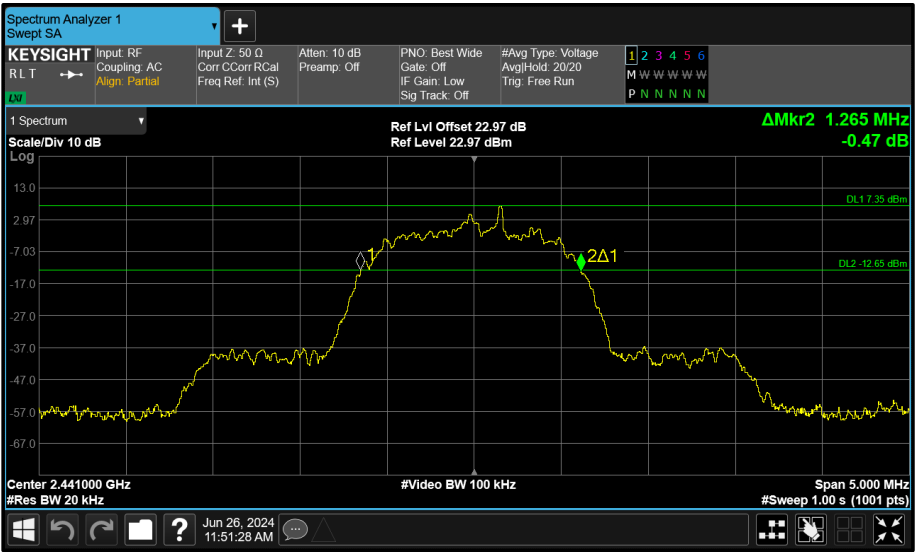


Figure 171 - Core 1 (B) 2441 MHz (CH39) 20 dB Bandwidth

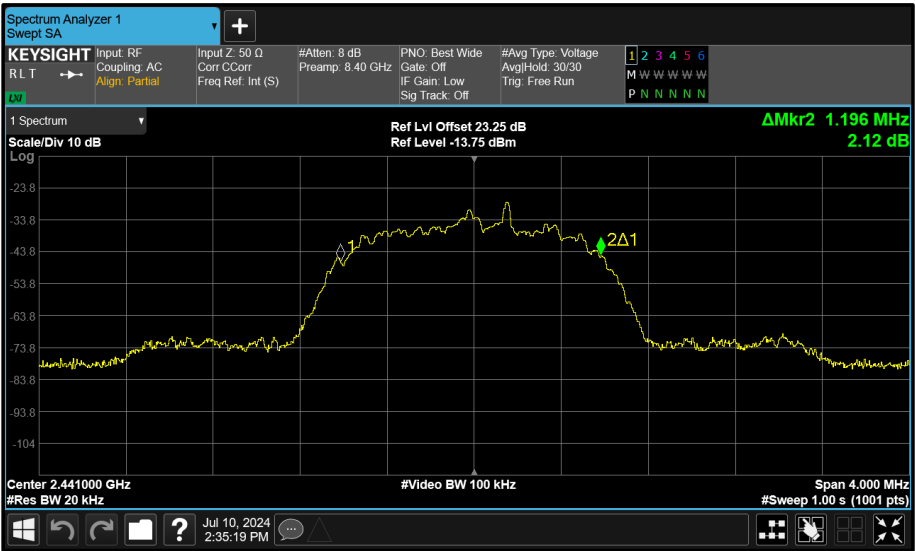


Figure 172 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth



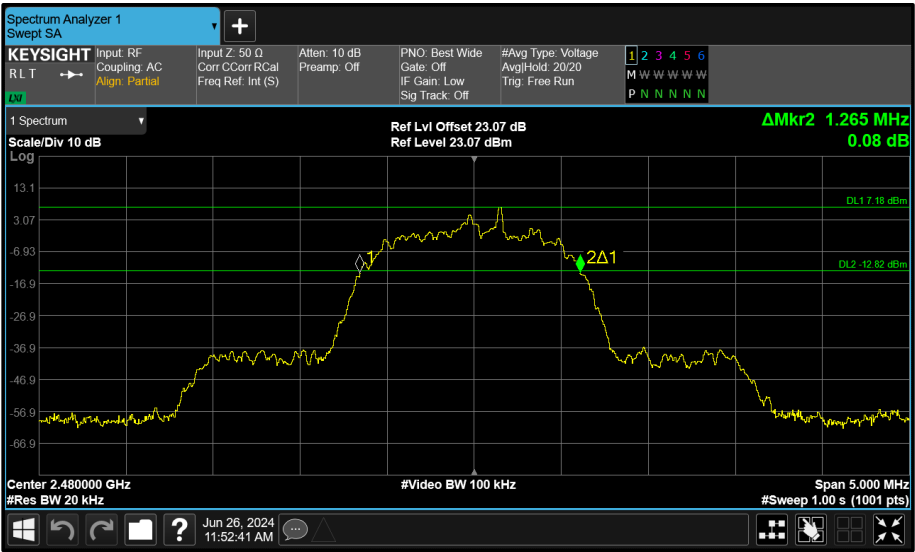


Figure 175 - Core 1 (B) 2480 MHz (CH78) 20 dB Bandwidth

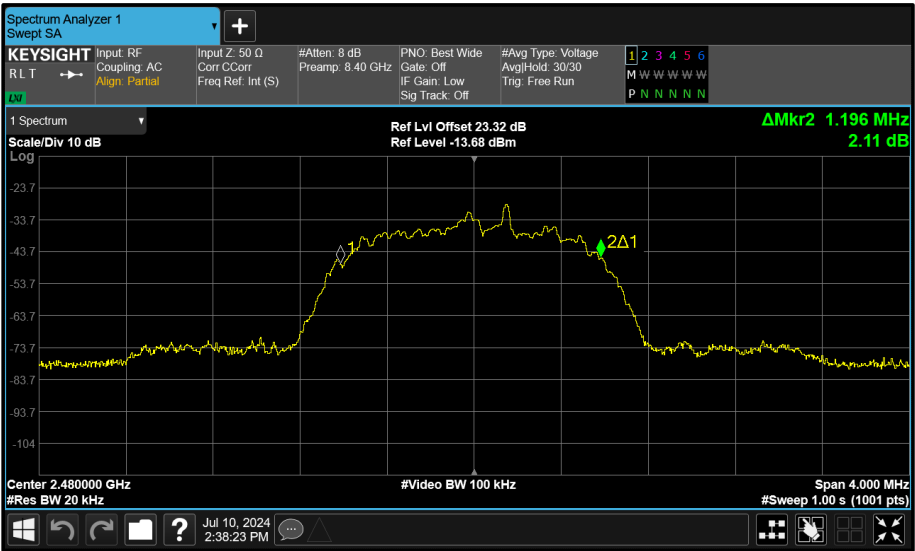


Figure 176 - Core 1 (B) 2480 MHz (CH78) 99% Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	FCC 15.247 (a)(1) RSS-247 5.1	Test Method(s):	C63.10 6.9.2
Additional Reference(s):	-		

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

Test Frequency (MHz)	20 dB Bandwidth (MHz)			
	A	B	C	D
2402	0.855	0.855	-	-
2441	0.858	0.858	-	-
2480	0.855	0.855	-	-

Table 89 - 20 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	0.855	0.873	-	-	-
2441	0.858	0.870	-	-	-
2480	0.855	0.864	-	-	-

Table 90 - 99% Bandwidth Results

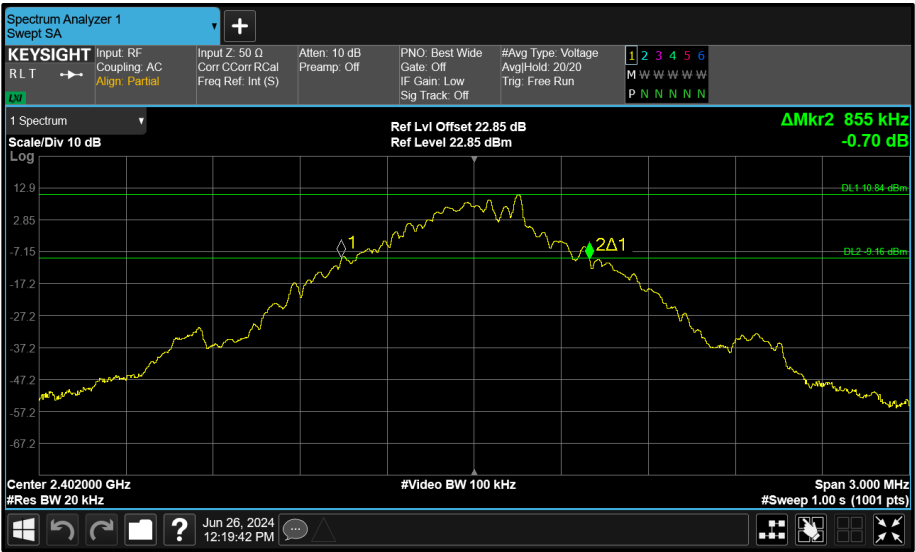


Figure 177 - Core 0 (A) 2402 MHz (CH0) 20 dB Bandwidth

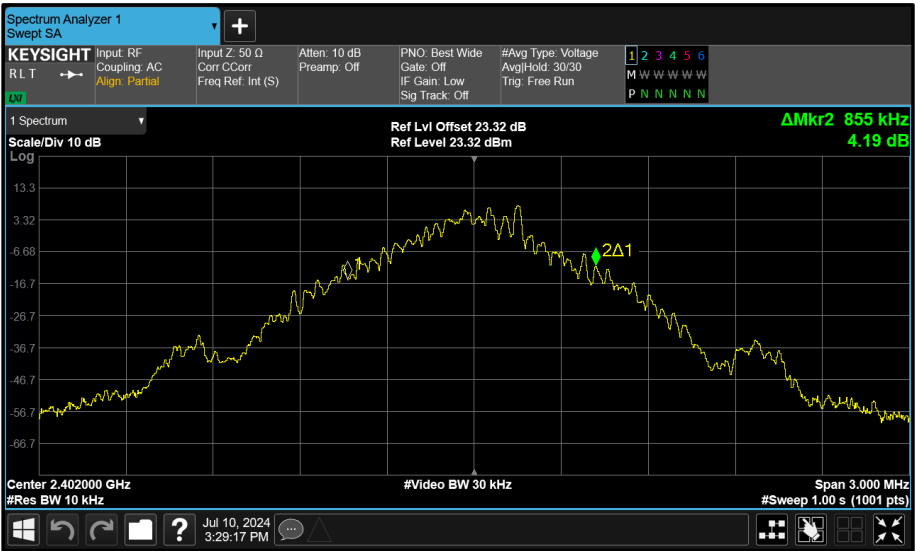


Figure 178 - Core 0 (A) 2402 MHz (CH0) 99% Bandwidth

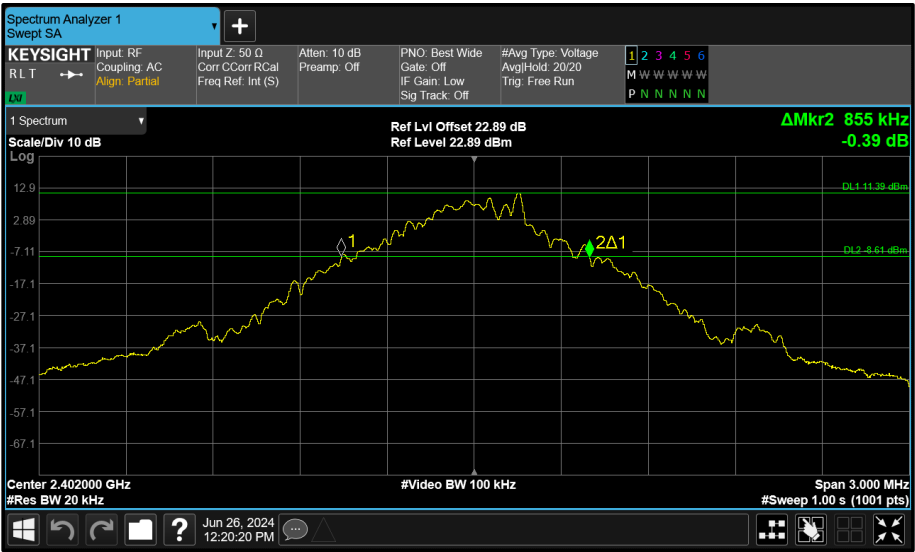


Figure 179 - Core 1 (B) 2402 MHz (CH0) 20 dB Bandwidth

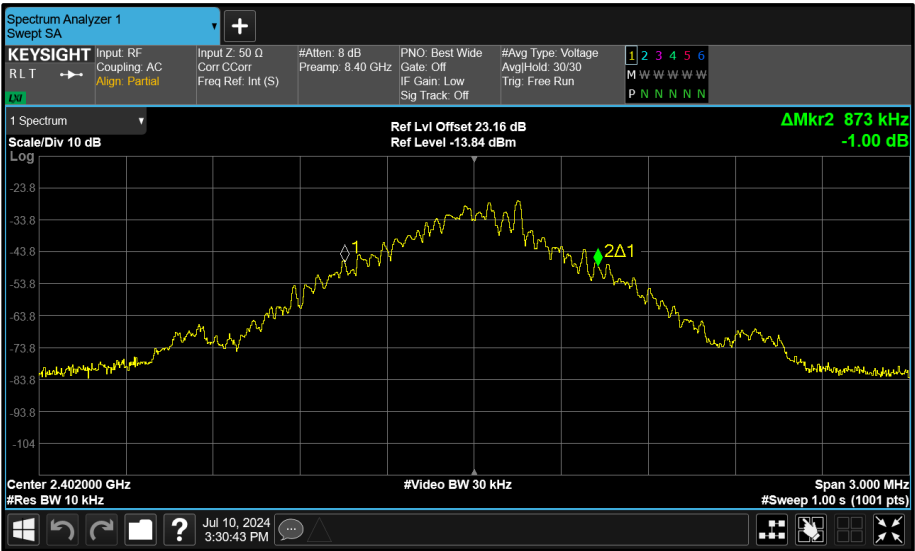


Figure 180 - Core 1 (B) 2402 MHz (CH0) 99% Bandwidth

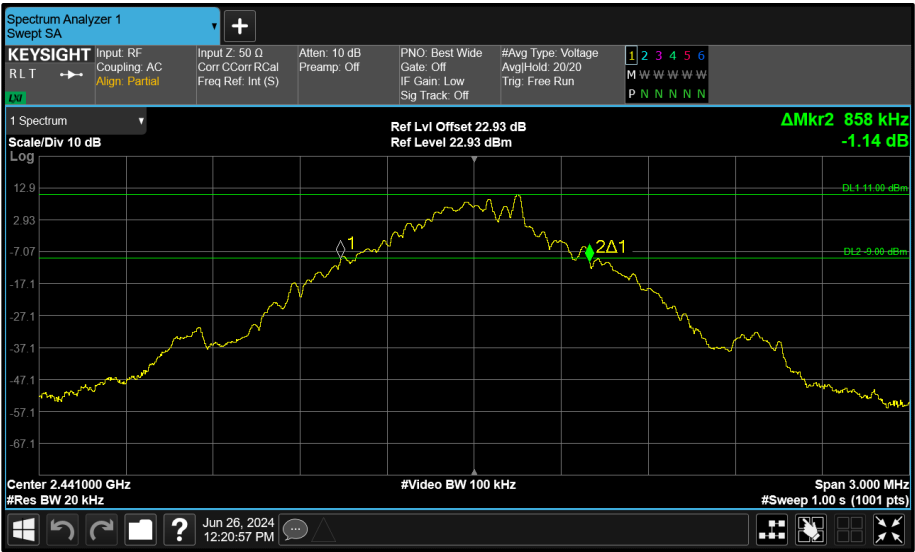


Figure 181 - Core 0 (A) 2441 MHz (CH39) 20 dB Bandwidth

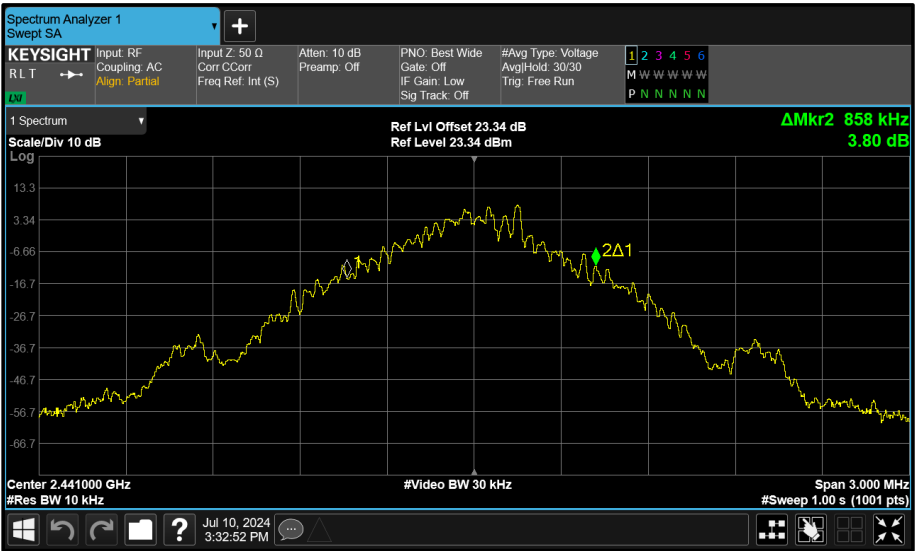


Figure 182 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

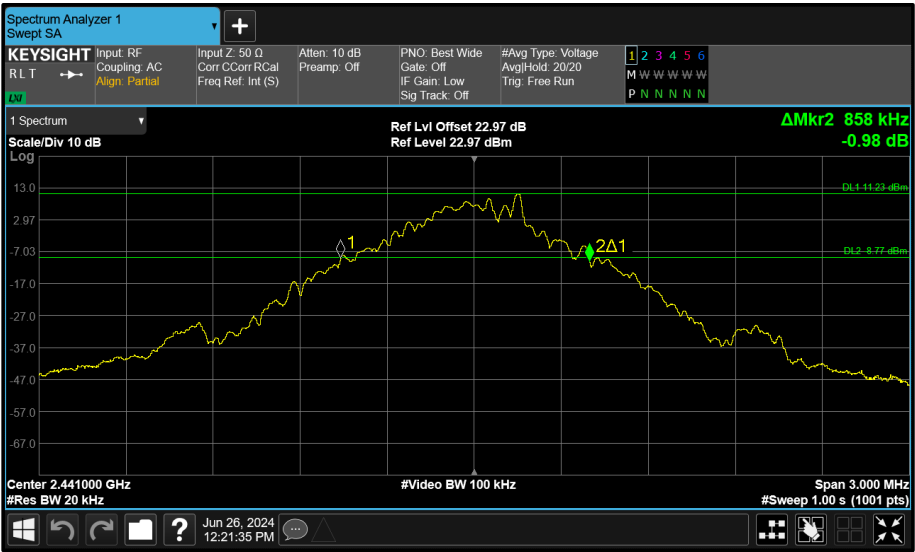


Figure 183 - Core 1 (B) 2441 MHz (CH39) 20 dB Bandwidth

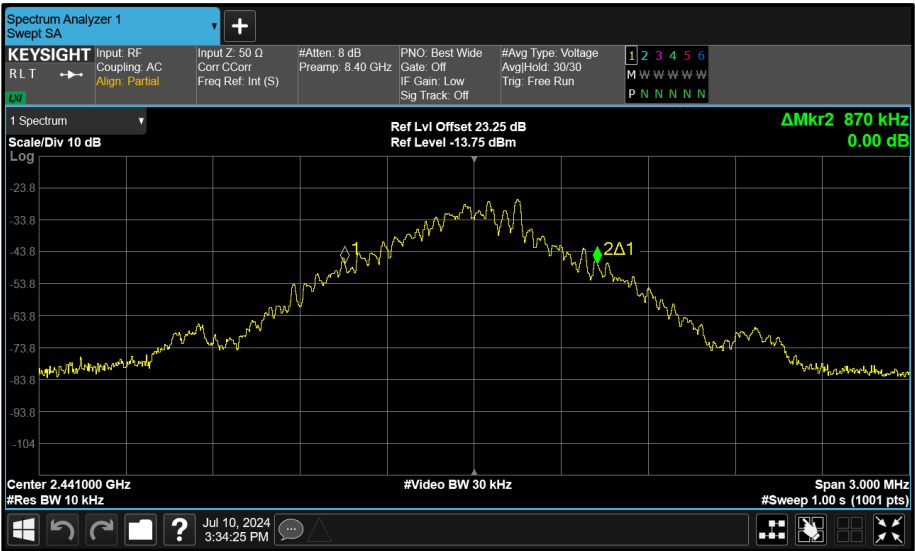


Figure 184 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth

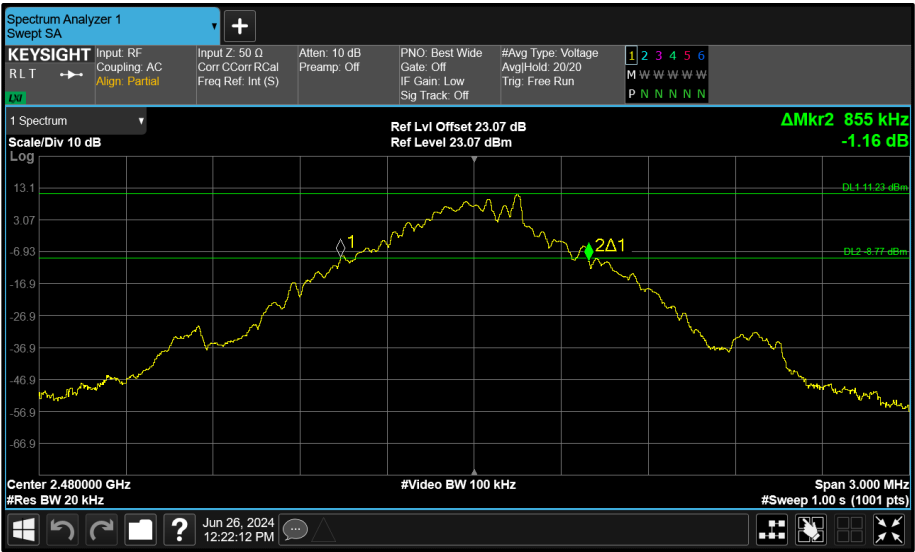


Figure 185 - Core 0 (A) 2480 MHz (CH78) 20 dB Bandwidth

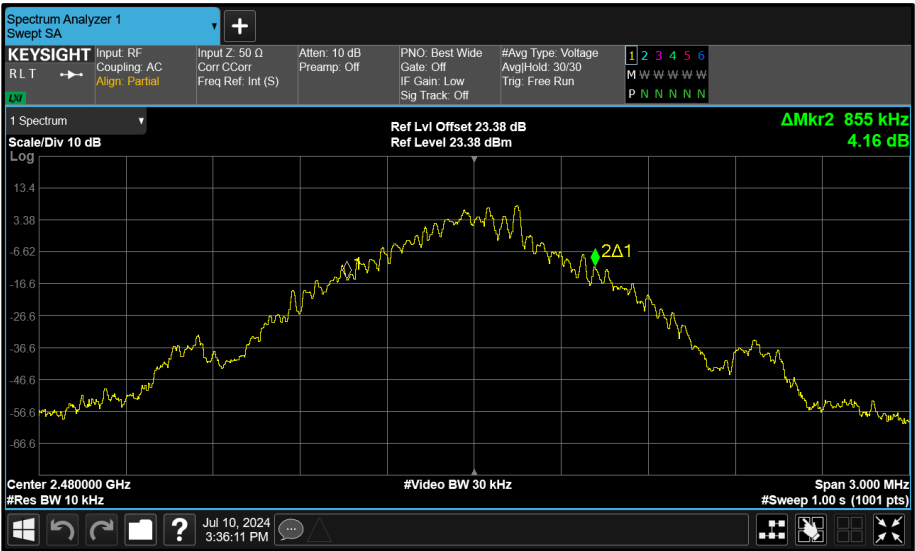


Figure 186 - Core 0 (A) 2480 MHz (CH78) 99% Bandwidth

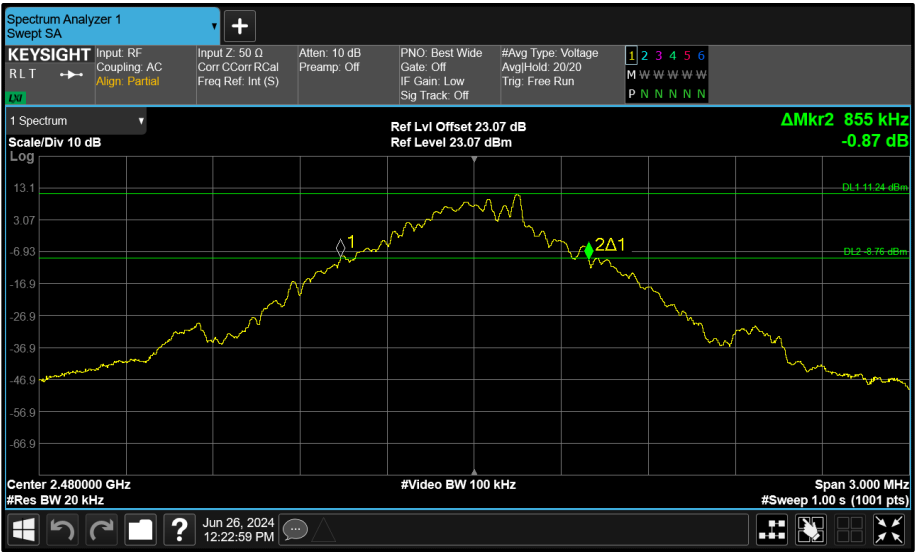


Figure 187 - Core 1 (B) 2480 MHz (CH78) 20 dB Bandwidth

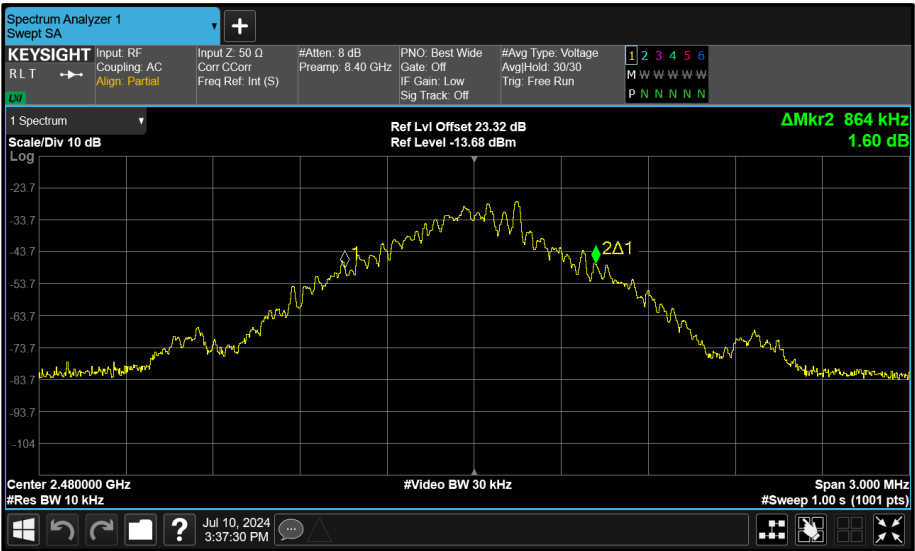


Figure 188 - Core 1 (B) 2480 MHz (CH78) 99% Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	FCC 15.247 (a)(1) RSS-247 5.1	Test Method(s):	C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	-
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	20 dB Bandwidth (MHz)			
	A	B	C	D
2402	1.325	1.325	-	-
2441	1.330	1.330	-	-
2480	1.325	1.325	-	-

Table 91 - 20 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	1.184	1.184	-	-	-
2441	1.182	1.184	-	-	-
2480	1.184	1.184	-	-	-

Table 92 - 99% Bandwidth Results

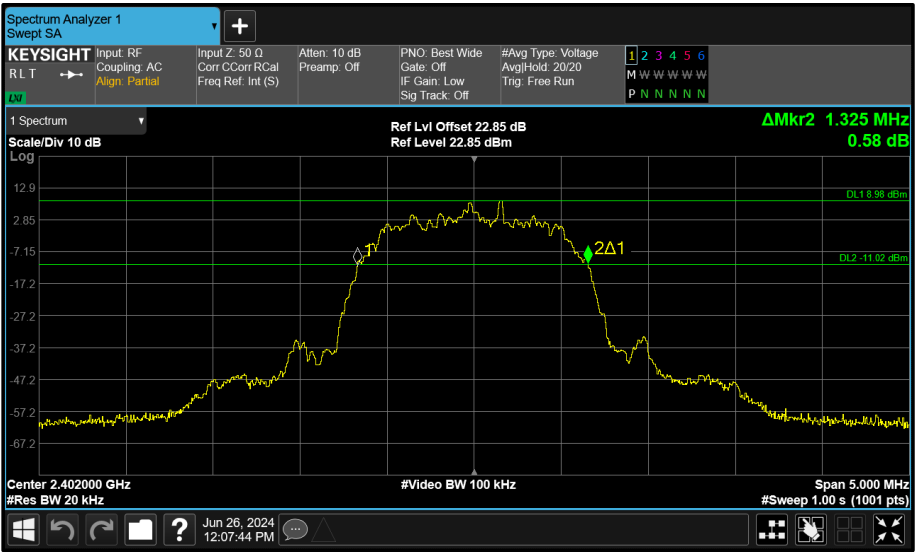


Figure 189 - Core 0 (A) 2402 MHz (CH0) 20 dB Bandwidth

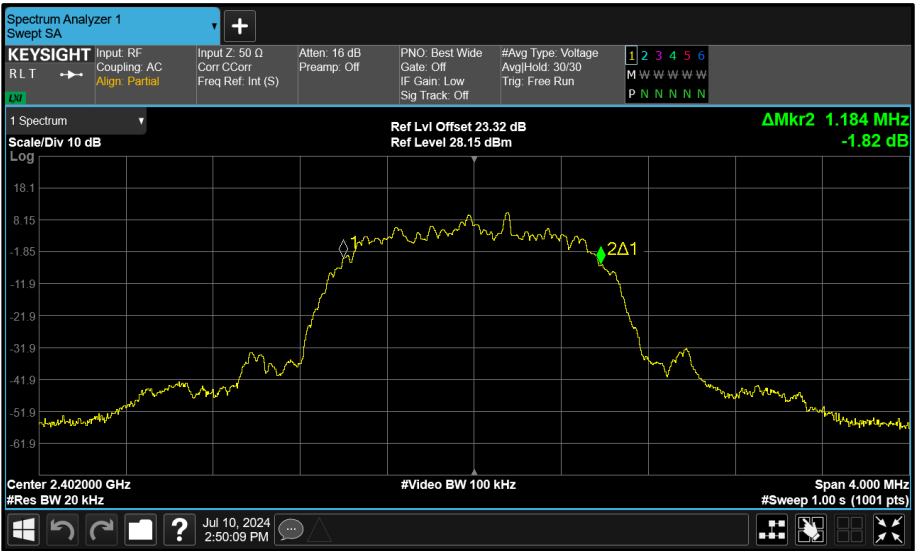


Figure 190 - Core 0 (A) 2402 MHz (CH0) 99% Bandwidth

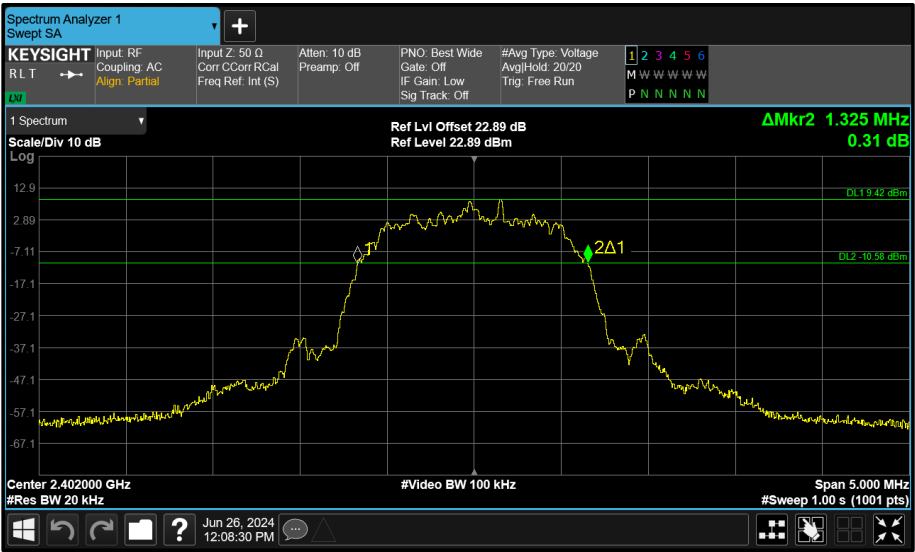


Figure 191 - Core 1 (B) 2402 MHz (CH0) 20 dB Bandwidth

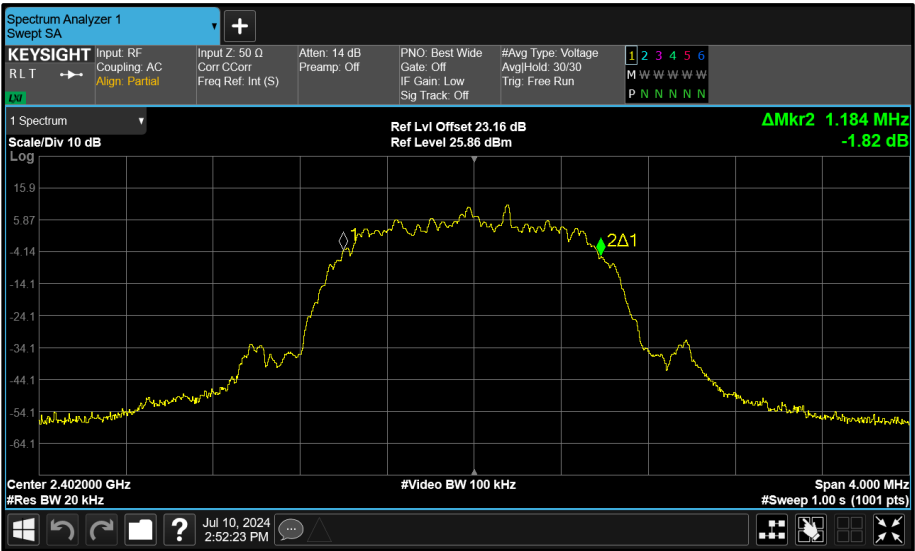


Figure 192 - Core 1 (B) 2402 MHz (CH0) 99% Bandwidth

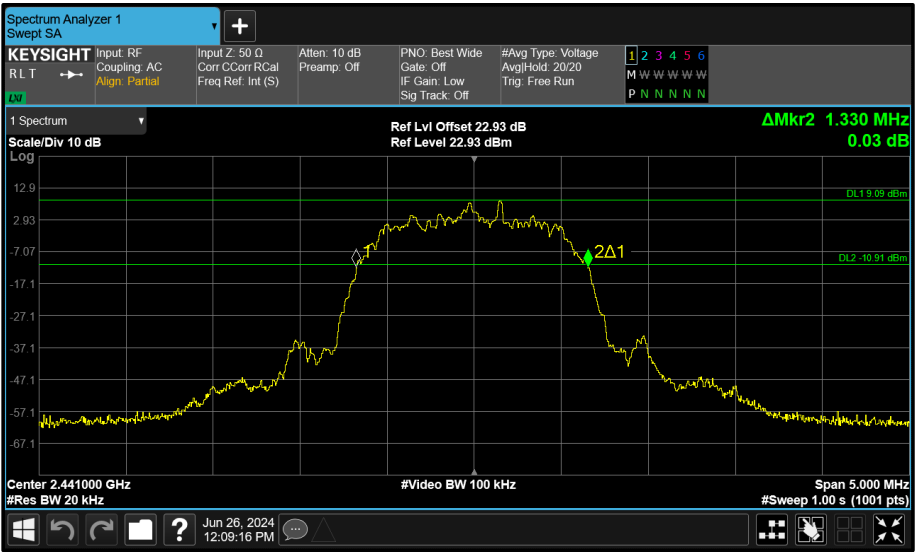


Figure 193 - Core 0 (A) 2441 MHz (CH39) 20 dB Bandwidth

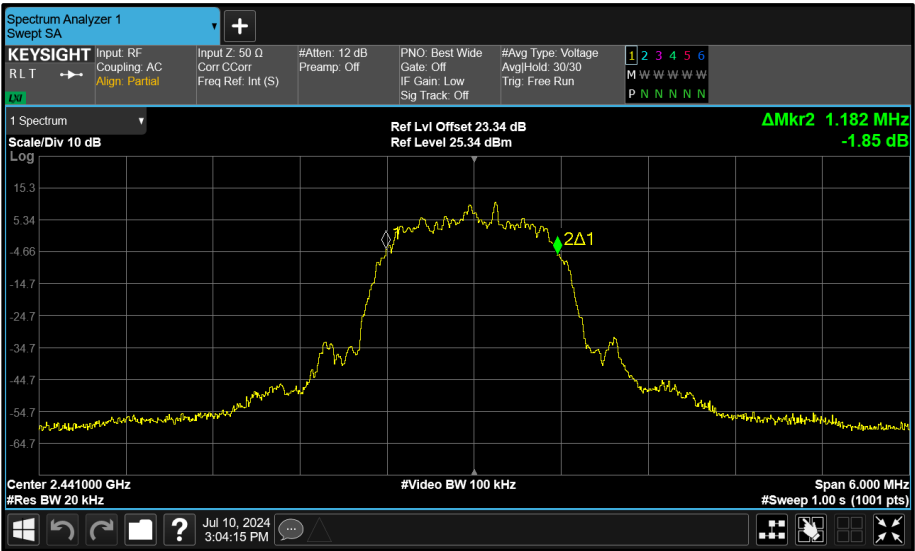


Figure 194 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

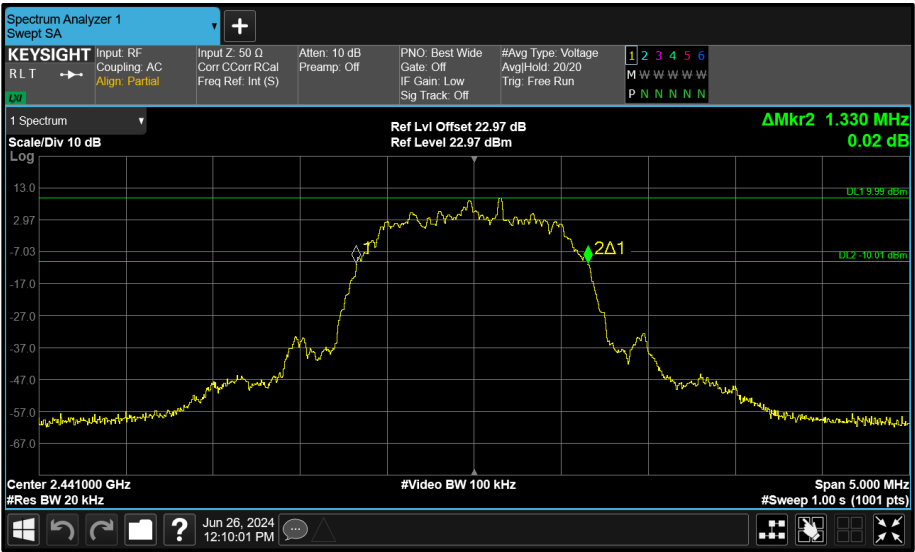


Figure 195 - Core 1 (B) 2441 MHz (CH39) 20 dB Bandwidth

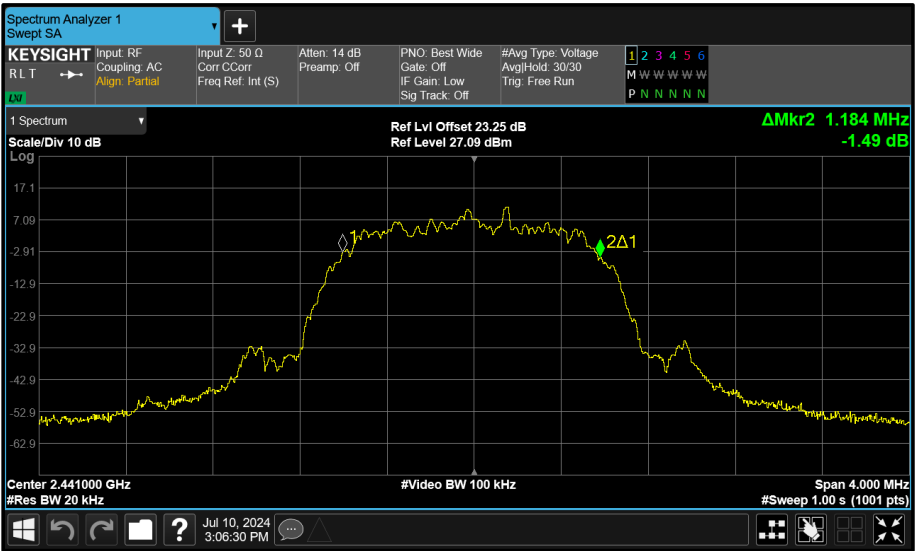


Figure 196 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth

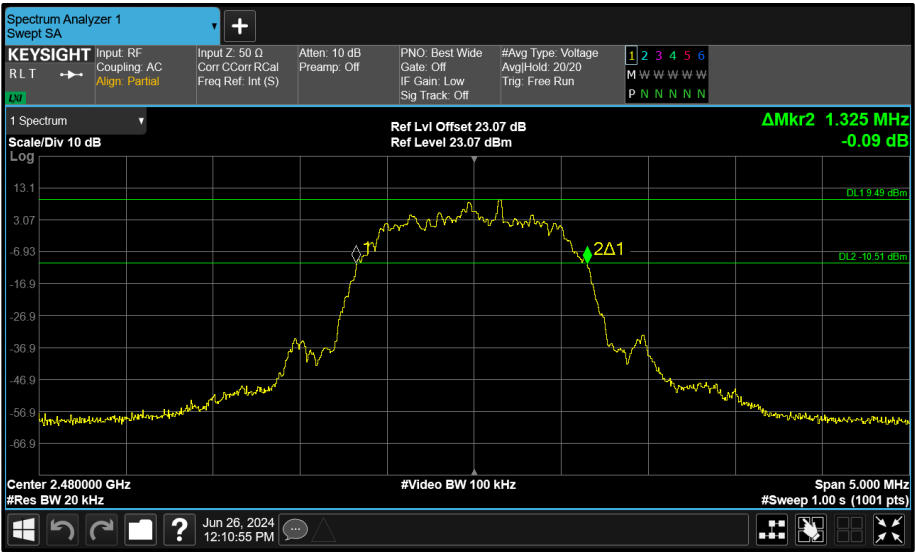


Figure 197 - Core 0 (A) 2480 MHz (CH78) 20 dB Bandwidth

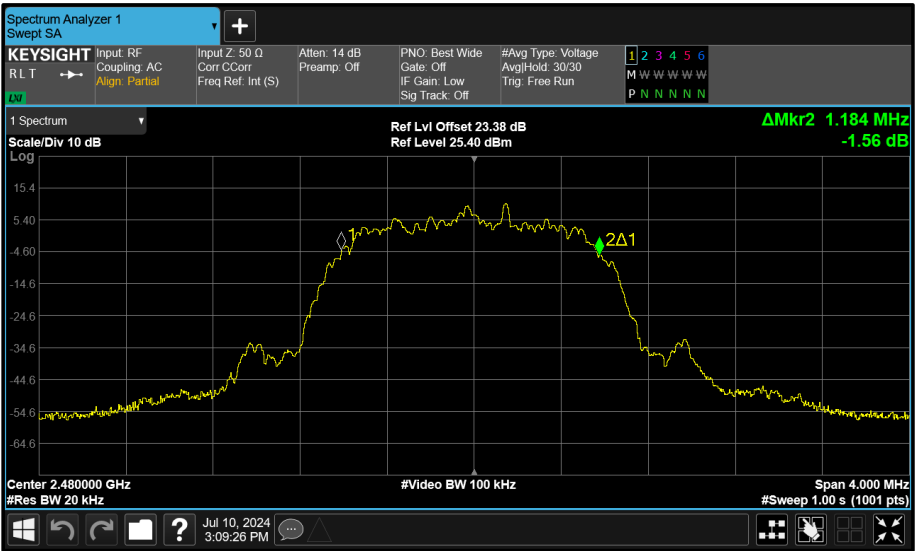


Figure 198 - Core 0 (A) 2480 MHz (CH78) 99% Bandwidth





Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	FCC 15.247 (a)(1) RSS-247 5.1	Test Method(s):	C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA 8-DPSK (3-DH5)	Duty Cycle (%):	-
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	20 dB Bandwidth (MHz)			
	A	B	C	D
2402	1.260	1.260	-	-
2441	1.265	1.260	-	-
2480	1.260	1.260	-	-

Table 93 - 20 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	1.182	1.180	-	-	-
2441	1.188	1.188	-	-	-
2480	1.184	1.184	-	-	-

Table 94 - 99% Bandwidth Results

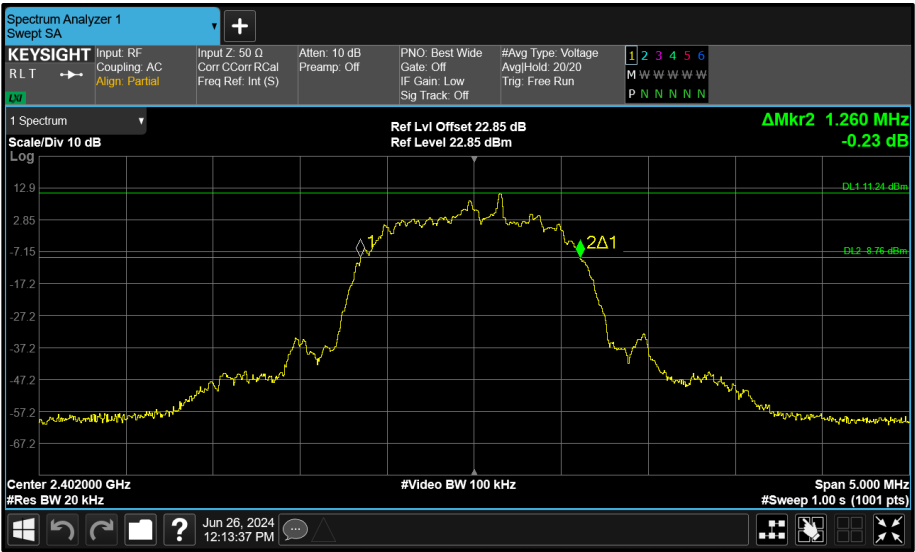


Figure 201 - Core 0 (A) 2402 MHz (CH0) 20 dB Bandwidth

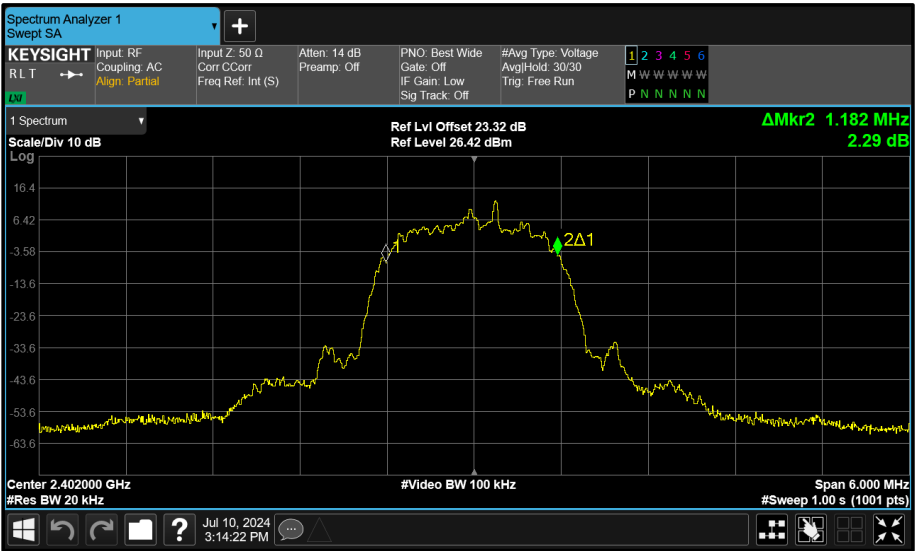


Figure 202 - Core 0 (A) 2402 MHz (CH0) 99% Bandwidth

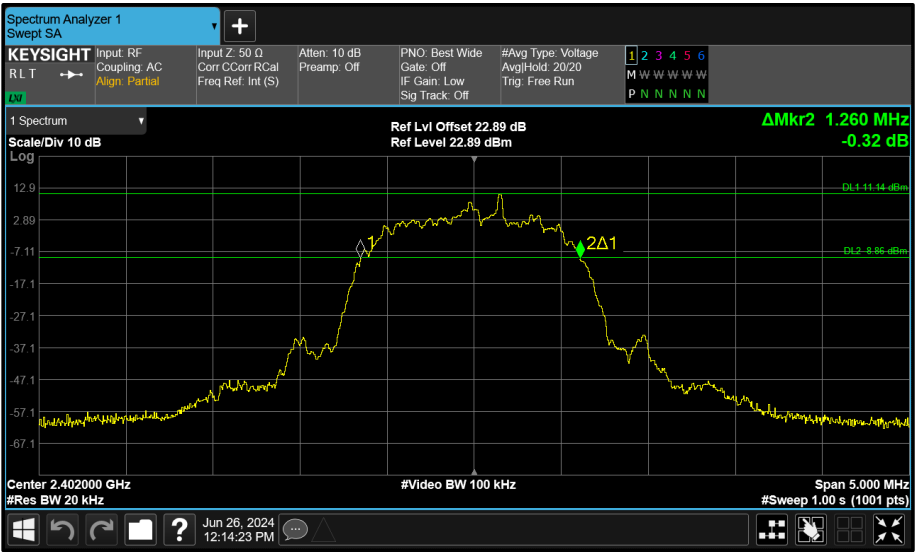


Figure 203 - Core 1 (B) 2402 MHz (CH0) 20 dB Bandwidth

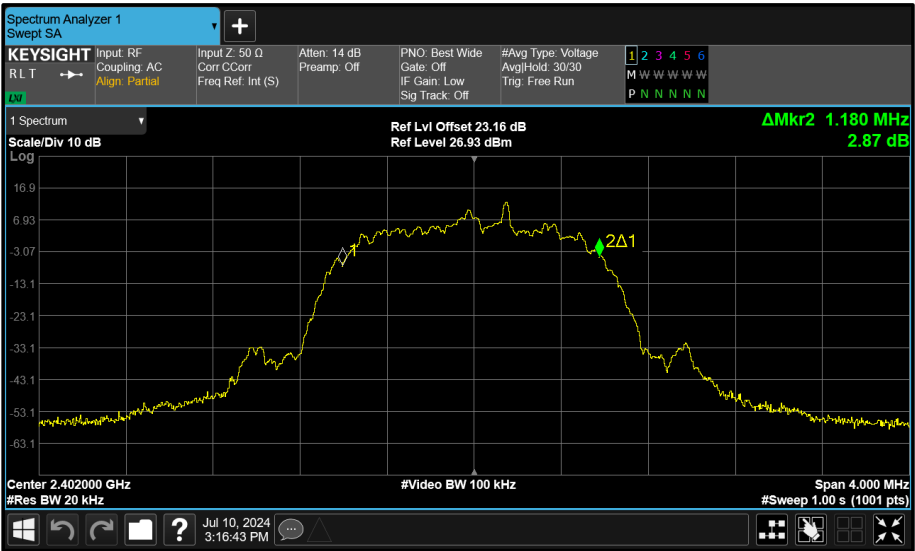


Figure 204 - Core 1 (B) 2402 MHz (CH0) 99% Bandwidth

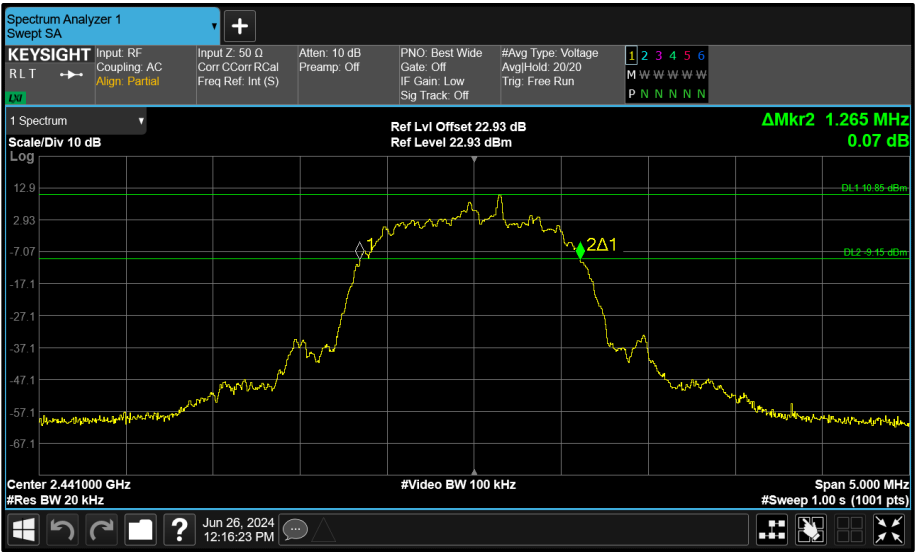


Figure 205 - Core 0 (A) 2441 MHz (CH39) 20 dB Bandwidth

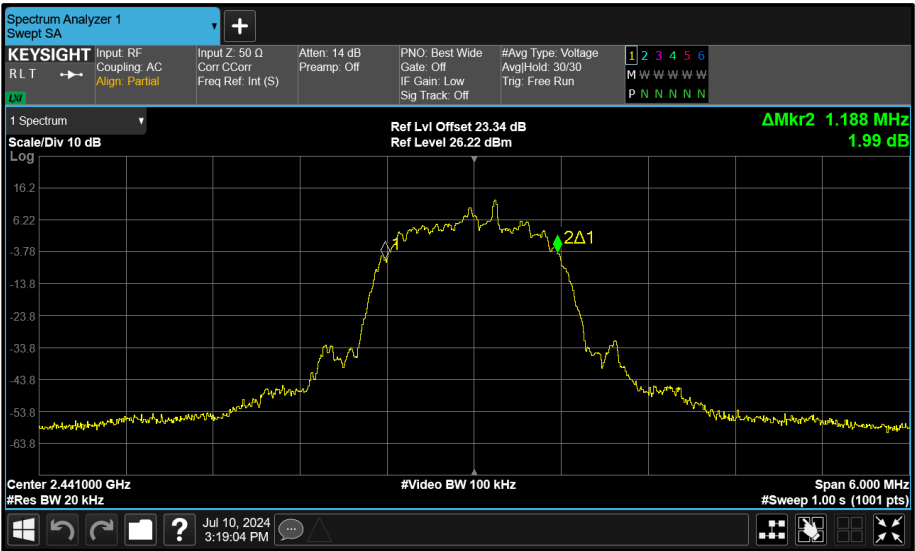


Figure 206 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

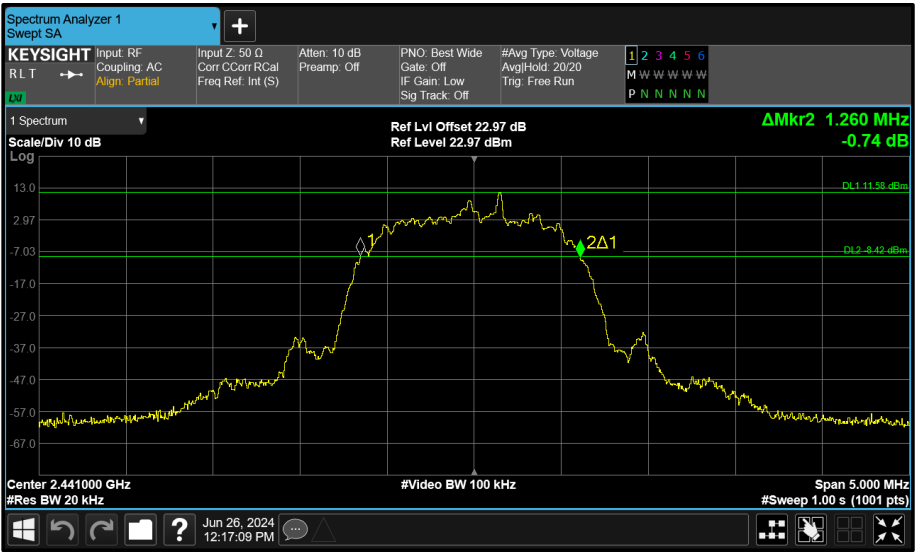


Figure 207 - Core 1 (B) 2441 MHz (CH39) 20 dB Bandwidth

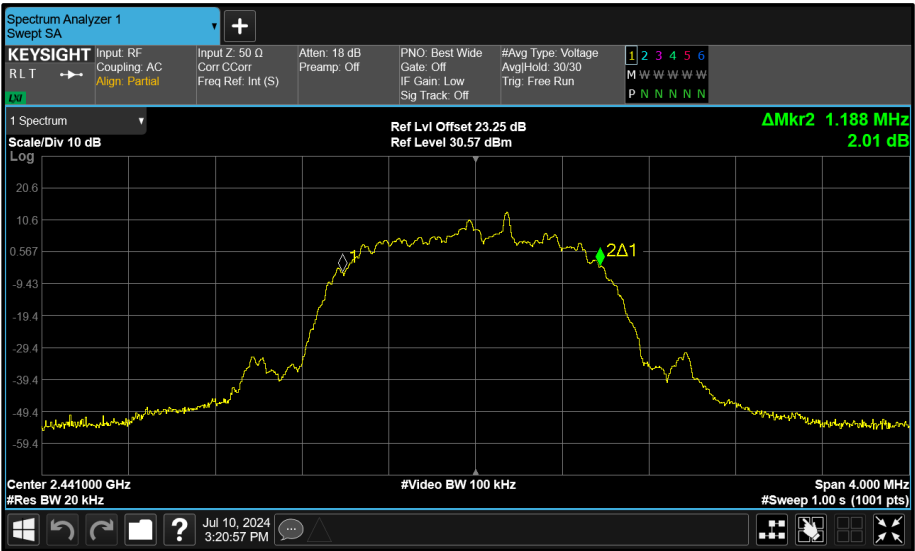


Figure 208 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth

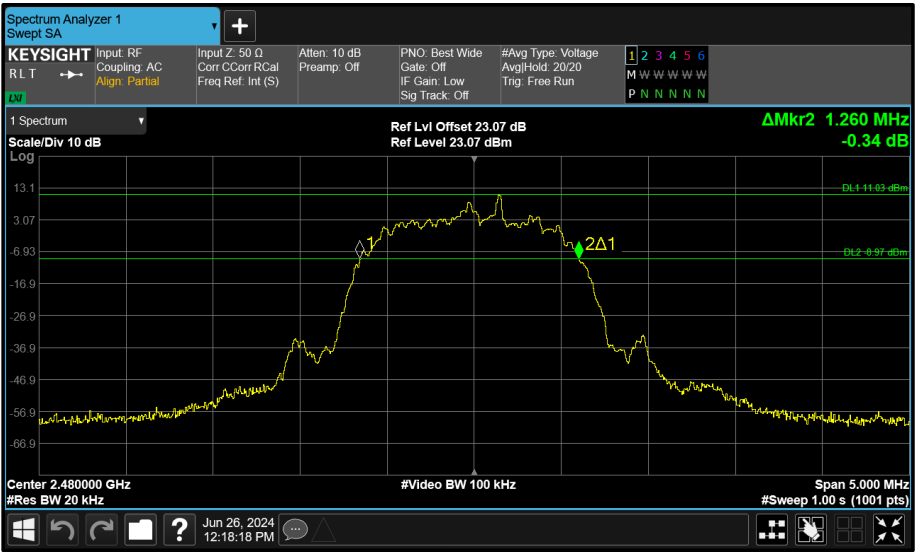


Figure 209 - Core 0 (A) 2480 MHz (CH78) 20 dB Bandwidth

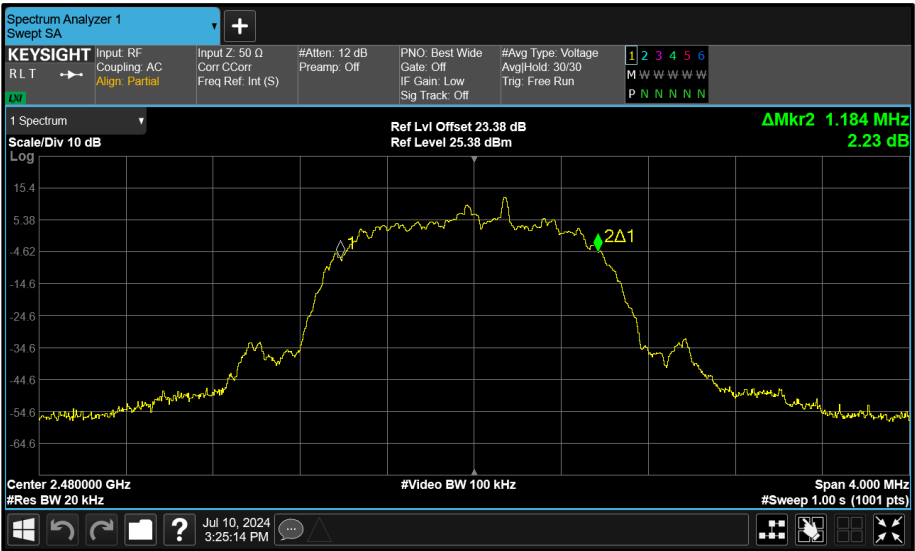


Figure 210 - Core 0 (A) 2480 MHz (CH78) 99% Bandwidth

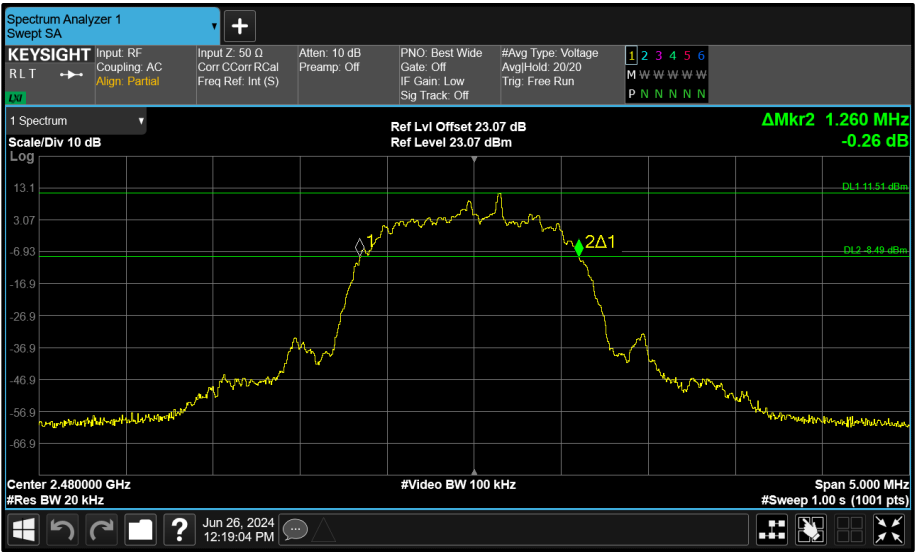


Figure 211 - Core 1 (B) 2480 MHz (CH78) 20 dB Bandwidth

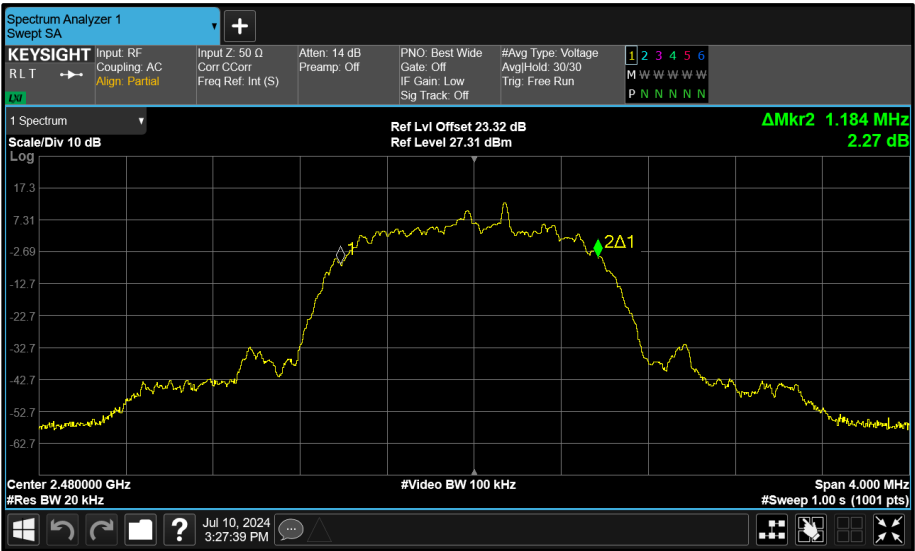


Figure 212 - Core 1 (B) 2480 MHz (CH78) 99% Bandwidth

FCC 47 CFR Part 15 and ISED RSS-247 Limit Clause

None specified.



2.5.7 Test Location and Test Equipment Used

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

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
MXA Signal Analyser	Keysight Technologies	N9020B	5529	24	13-Dec-2024
1500VA AC Power Supply	iTech	IT7324	5907	-	O/P Mon
MXA Signal Analyser	Keysight Technologies	N9020B	5919	24	18-Mar-2026
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	6426	12	07-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
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6519	12	08-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6520	12	09-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6521	12	09-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6522	12	09-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
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6752	12	06-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6753	12	06-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6754	0	06-Feb-2025

Table 95

O/P Mon - Output Monitored using calibrated equipment



2.6 Maximum Conducted Output Power

2.6.1 Specification Reference

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

2.6.2 Equipment Under Test and Modification State

A3137, S/N: H6D001F73D - Modification State 0

2.6.3 Date of Test

26-June-2024 to 03-July-2024

2.6.4 Test Method

The test was performed in accordance with ANSI C63.10 clause 7.8.5 using a power meter.

2.6.5 Environmental Conditions

Ambient Temperature	22.0 - 22.4 °C
Relative Humidity	45.1 - 49.6 %



2.6.6 Test Results

2.4 GHz Bluetooth BDR/EDR

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	13.86	-	-	-	30.00	-16.14
2441	-	13.69	-	-	-	30.00	-16.31
2480	-	13.43	-	-	-	30.00	-16.57

Table 96 - 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	16.46	36.00	-19.54
2441	-	13.69	-	-	-	30.00	-16.31	16.29	36.00	-19.71
2480	-	13.43	-	-	-	30.00	-16.57	16.03	36.00	-19.97

Table 97 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	11.92	-	-	-	21.00	-9.08
2441	-	11.56	-	-	-	21.00	-9.44
2480	-	11.64	-	-	-	21.00	-9.36

Table 98 - 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	-	11.92	-	-	-	21.00	-9.08	14.52	36.00	-21.48
2441	-	11.56	-	-	-	21.00	-9.44	14.16	36.00	-21.84
2480	-	11.64	-	-	-	21.00	-9.36	14.24	36.00	-21.76

Table 99 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA 8-DPSK (3-DH5)	Duty Cycle (%):	76.9
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	12.24	-	-	-	21.00	-8.76
2441	-	11.90	-	-	-	21.00	-9.10
2480	-	11.88	-	-	-	21.00	-9.12

Table 100 - 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	-	12.24	-	-	-	21.00	-8.76	14.84	36.00	-21.16
2441	-	11.90	-	-	-	21.00	-9.10	14.50	36.00	-21.50
2480	-	11.88	-	-	-	21.00	-9.12	14.48	36.00	-21.52

Table 101 - ISD Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.10

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	12.66	-	-	30.00	-17.34
2441	-	-	12.83	-	-	30.00	-17.17
2480	-	-	13.04	-	-	30.00	-16.96

Table 102 - 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	-	-	12.66	-	-	30.00	-17.34	13.76	36.00	-22.24
2441	-	-	12.83	-	-	30.00	-17.17	13.93	36.00	-22.07
2480	-	-	13.04	-	-	30.00	-16.96	14.14	36.00	-21.86

Table 103 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.10

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	11.59	-	-	21.00	-9.41
2441	-	-	11.62	-	-	21.00	-9.38
2480	-	-	11.84	-	-	21.00	-9.16

Table 104 - 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	-	-	11.59	-	-	21.00	-9.41	12.69	36.00	-23.31
2441	-	-	11.62	-	-	21.00	-9.38	12.72	36.00	-23.28
2480	-	-	11.84	-	-	21.00	-9.16	12.94	36.00	-23.06

Table 105 - ISD Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA 8-DPSK (3-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.10

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	11.94	-	-	21.00	-9.06
2441	-	-	11.91	-	-	21.00	-9.09
2480	-	-	12.15	-	-	21.00	-8.85

Table 106 - 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	-	-	11.94	-	-	21.00	-9.06	13.04	36.00	-22.96
2441	-	-	11.91	-	-	21.00	-9.09	13.01	36.00	-22.99
2480	-	-	12.15	-	-	21.00	-8.85	13.25	36.00	-22.75

Table 107 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	13.76	-	-	-	30.00	-16.24
2441	-	13.72	-	-	-	30.00	-16.28
2480	-	13.45	-	-	-	30.00	-16.55

Table 108 - 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	-	13.76	-	-	-	30.00	-16.24	16.36	36.00	-19.64
2441	-	13.72	-	-	-	30.00	-16.28	16.32	36.00	-19.68
2480	-	13.45	-	-	-	30.00	-16.55	16.05	36.00	-19.95

Table 109 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	18.82	-	-	-	21.00	-2.18
2441	-	19.09	-	-	-	21.00	-1.91
2480	-	19.06	-	-	-	21.00	-1.94

Table 110 - 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	-	18.82	-	-	-	21.00	-2.18	21.42	36.00	-14.58
2441	-	19.09	-	-	-	21.00	-1.91	21.69	36.00	-14.31
2480	-	19.06	-	-	-	21.00	-1.94	21.66	36.00	-14.34

Table 111 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA 8-DPSK (3-DH5)	Duty Cycle (%):	76.9
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	19.40	-	-	-	21.00	-1.60
2441	-	19.53	-	-	-	21.00	-1.47
2480	-	19.20	-	-	-	21.00	-1.80

Table 112 - 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	-	19.40	-	-	-	21.00	-1.60	22.00	36.00	-14.00
2441	-	19.53	-	-	-	21.00	-1.47	22.13	36.00	-13.87
2480	-	19.20	-	-	-	21.00	-1.80	21.80	36.00	-14.20

Table 113 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	5.51

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	13.85	13.62	-	-	16.75	30.00	-13.25
2441	13.85	13.52	-	-	16.70	30.00	-13.30
2480	13.56	13.43	-	-	16.51	30.00	-13.49

Table 114 - 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	13.85	13.62	-	-	16.75	30.00	-13.25	22.26	36.00	-13.74
2441	13.85	13.52	-	-	16.70	30.00	-13.30	22.21	36.00	-13.79
2480	13.56	13.43	-	-	16.51	30.00	-13.49	22.02	36.00	-13.98

Table 115 - ISCED Maximum Conducted (peak) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	5.51

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	11.75	11.80	-	-	14.78	21.00	-6.22
2441	11.58	11.57	-	-	14.59	21.00	-6.41
2480	11.54	11.78	-	-	14.67	21.00	-6.33

Table 116 - 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	11.75	11.80	-	-	14.78	21.00	-6.22	20.29	36.00	-15.71
2441	11.58	11.57	-	-	14.59	21.00	-6.41	20.10	36.00	-15.90
2480	11.54	11.78	-	-	14.67	21.00	-6.33	20.18	36.00	-15.82

Table 117 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA 8-DPSK (3-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	5.51

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	12.22	12.08	-	-	15.16	21.00	-5.84
2441	12.46	11.92	-	-	15.21	21.00	-5.79
2480	12.46	11.74	-	-	15.13	21.00	-5.87

Table 118 - 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	12.22	12.08	-	-	15.16	21.00	-5.84	20.67	36.00	-15.33
2441	12.46	11.92	-	-	15.21	21.00	-5.79	20.72	36.00	-15.28
2480	12.46	11.74	-	-	15.13	21.00	-5.87	20.64	36.00	-15.36

Table 119 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	5.51

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	13.89	13.66	-	-	16.78	30.00	-13.22
2441	13.67	13.56	-	-	16.63	30.00	-13.37
2480	13.57	13.44	-	-	16.52	30.00	-13.48

Table 120 - 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	13.89	13.66	-	-	16.78	30.00	-13.22	22.29	36.00	-13.71
2441	13.67	13.56	-	-	16.63	30.00	-13.37	22.14	36.00	-13.86
2480	13.57	13.44	-	-	16.52	30.00	-13.48	22.03	36.00	-13.97

Table 121 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	5.51

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	15.82	15.97	-	-	18.90	21.00	-2.10
2441	15.87	16.18	-	-	19.04	21.00	-1.96
2480	16.26	16.19	-	-	19.23	21.00	-1.77

Table 122 - 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	15.82	15.97	-	-	18.90	21.00	-2.10	24.41	36.00	-11.59
2441	15.87	16.18	-	-	19.04	21.00	-1.96	24.55	36.00	-11.45
2480	16.26	16.19	-	-	19.23	21.00	-1.77	24.74	36.00	-11.26

Table 123 - 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)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA 8-DPSK (3-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	5.51

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	16.93	16.27	-	-	19.62	21.00	-1.38
2441	16.48	16.62	-	-	19.56	21.00	-1.44
2480	16.80	16.61	-	-	19.71	21.00	-1.29

Table 124 - 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	16.93	16.27	-	-	19.62	21.00	-1.38	25.13	36.00	-10.87
2441	16.48	16.62	-	-	19.56	21.00	-1.44	25.07	36.00	-10.93
2480	16.80	16.61	-	-	19.71	21.00	-1.29	25.22	36.00	-10.78

Table 125 - ISSED Maximum Conducted (peak) Output Power Results

FCC 47 CFR Part 15, Limit Clause 15.247 (b)(1)

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

ISSED RSS-247, Limit Clause 5.4 (b)

For FHSs operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1.0 W if the hopset uses 75 or more hopping channel; the maximum peak conducted output power shall not exceed 0.125 W if the hopset uses less than 75 hopping channel. The e.i.r.p. shall not exceed 4 W except as provided in section 5.4(e) of the specification.



2.6.7 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
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 126

O/P Mon - Output Monitored using calibrated equipment



2.7 Authorised Band Edges

2.7.1 Specification Reference

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

2.7.2 Equipment Under Test and Modification State

A3137, S/N: FV5VYV72RL - Modification State 0
A3137, S/N: LQ9QKVVW0H6 - Modification State 0

2.7.3 Date of Test

25-April-2024 to 21-June-2024

2.7.4 Test Method

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

2.7.5 Environmental Conditions

Ambient Temperature	22.6 - 23.8 °C
Relative Humidity	35.6 - 50.5 %



2.7.6 Test Results

2.4 GHz Bluetooth BDR/EDR

iPA - Core 0 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-64.62
Static	2-DH5	2402	2400	-55.93
Static	3-DH5	2402	2400	-55.80
Hopping	DH5	Hopping	2400	-66.53
Hopping	2-DH5	Hopping	2400	-60.68
Hopping	3-DH5	Hopping	2400	-60.99

Table 127 - SISO Authorised Band Edge Results

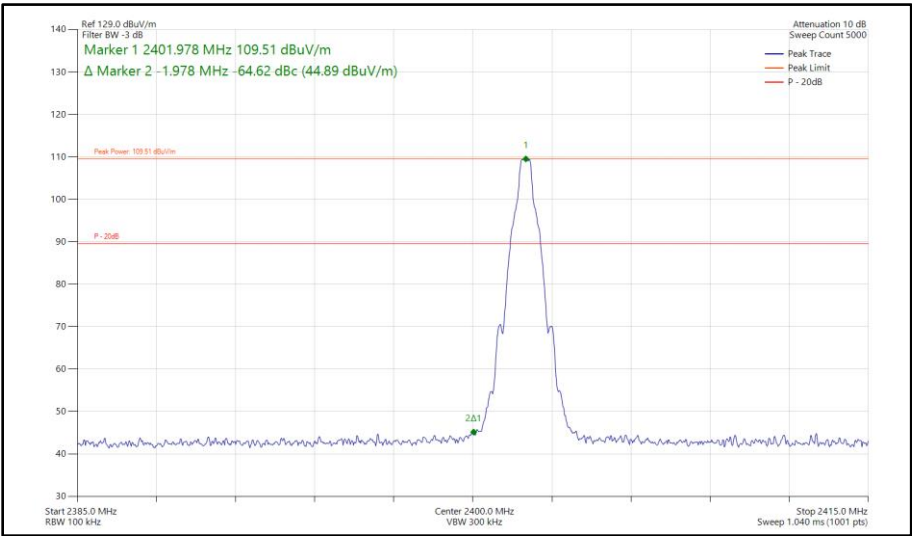


Figure 213 - Bluetooth DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

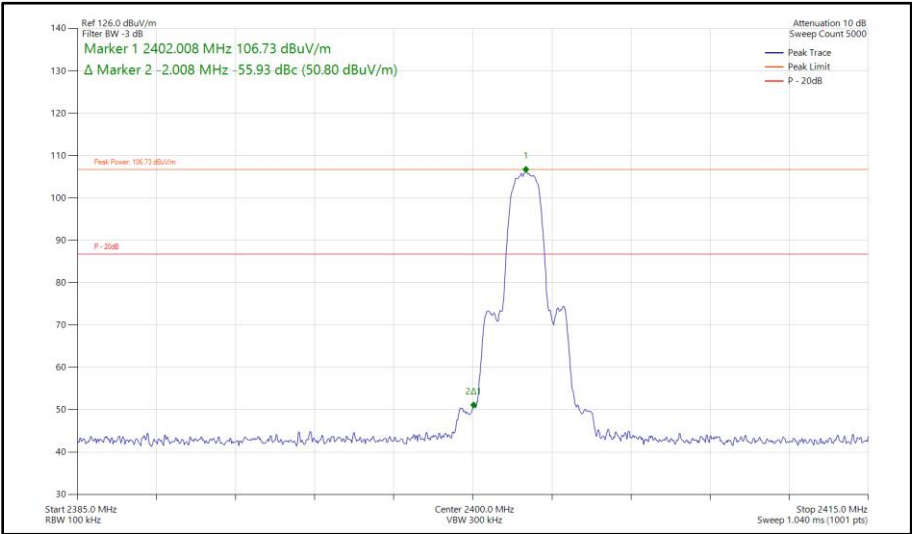


Figure 214 - Bluetooth 2-DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

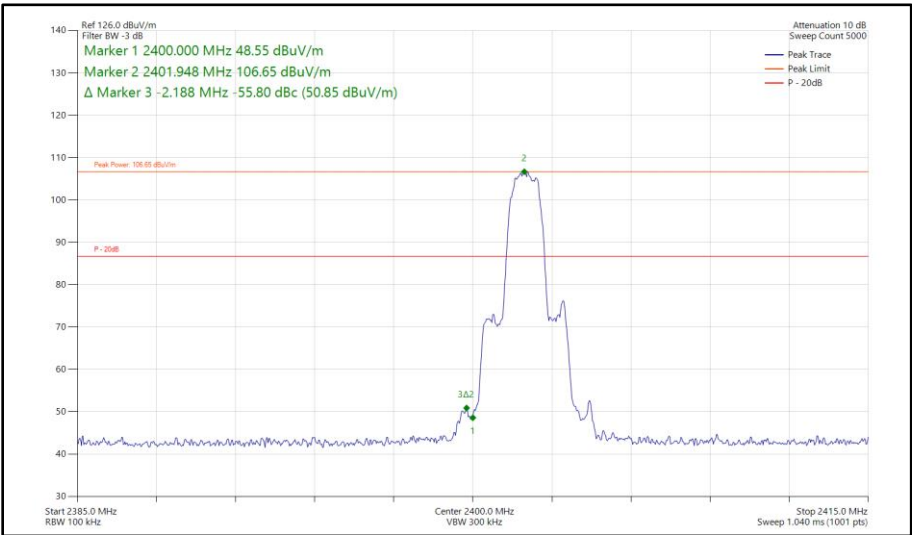


Figure 215 - Bluetooth 3-DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

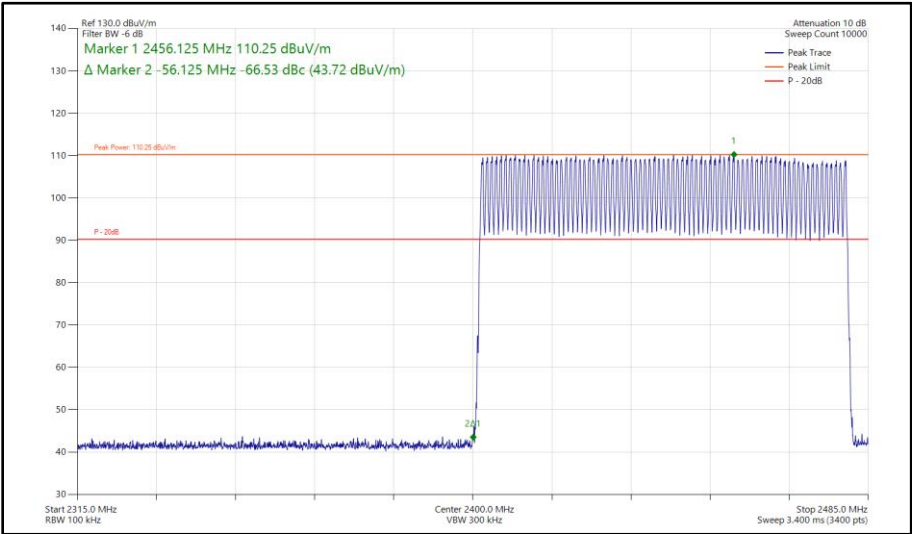


Figure 216 - Bluetooth DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz

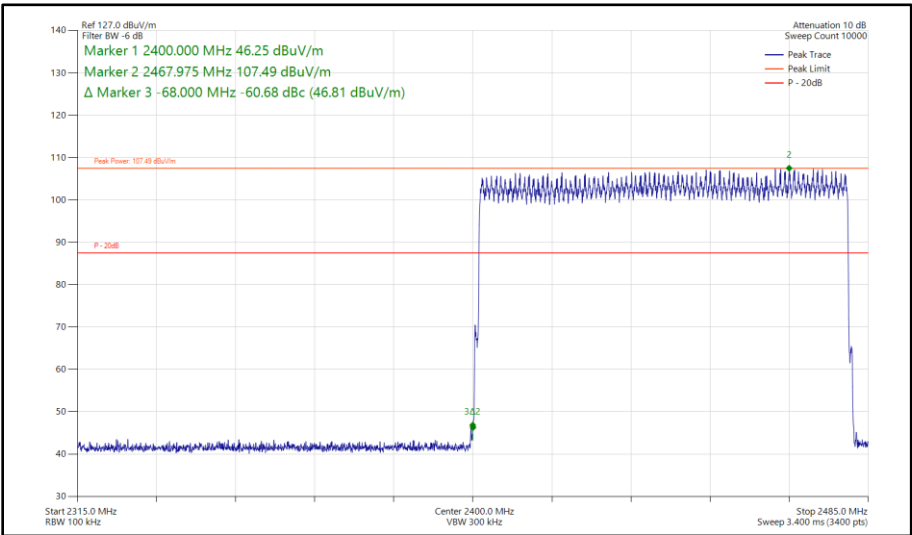
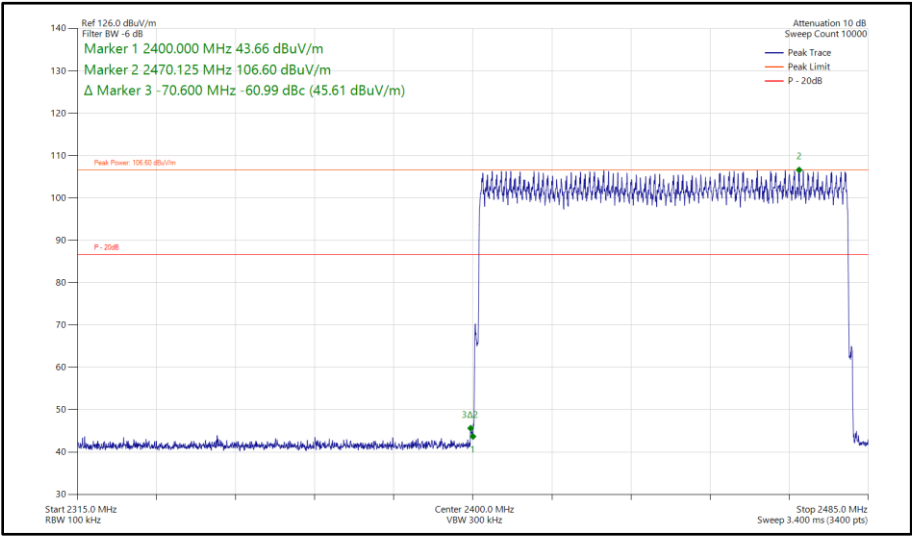


Figure 217 - Bluetooth 2-DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz



**Figure 218 - Bluetooth 3-DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz**

iPA - Core 1 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-65.65
Static	2-DH5	2402	2400	-51.39
Static	3-DH5	2402	2400	-50.94
Hopping	DH5	Hopping	2400	-57.60
Hopping	2-DH5	Hopping	2400	-54.56
Hopping	3-DH5	Hopping	2400	-56.18

Table 128 - SISO Authorised Band Edge Results

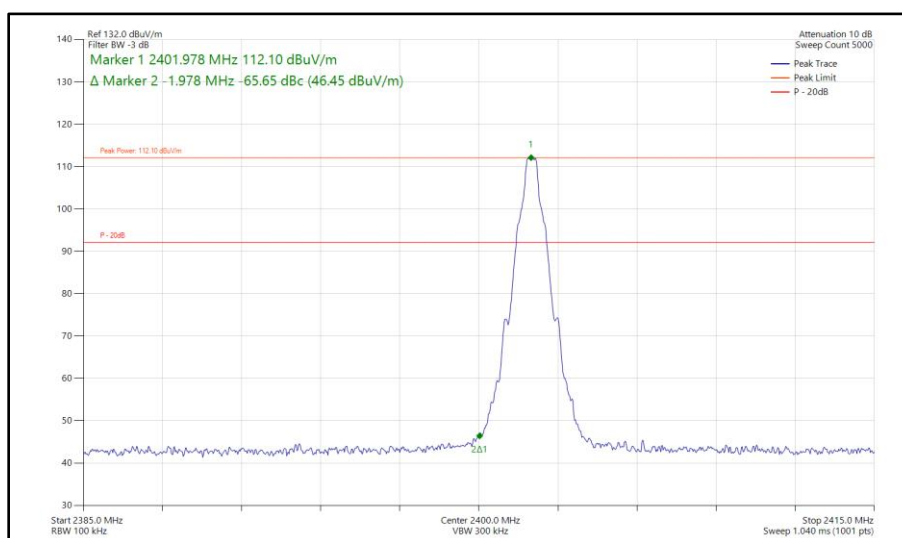


Figure 219 - Bluetooth DH5, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

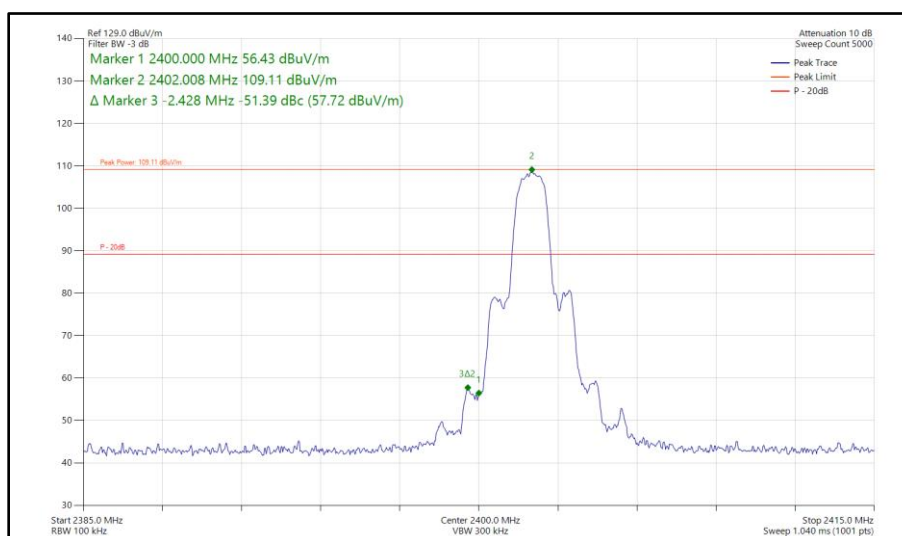
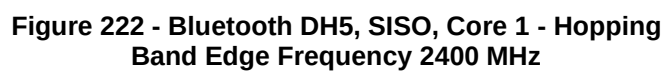


Figure 220 - Bluetooth 2-DH5, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz



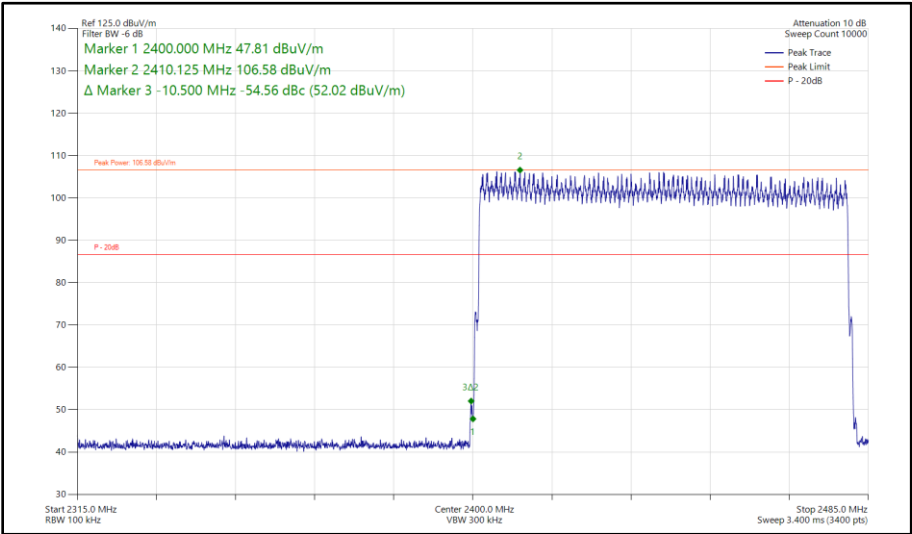


Figure 223 - Bluetooth 2-DH5, SISO, Core 1 - Hopping
Band Edge Frequency 2400 MHz

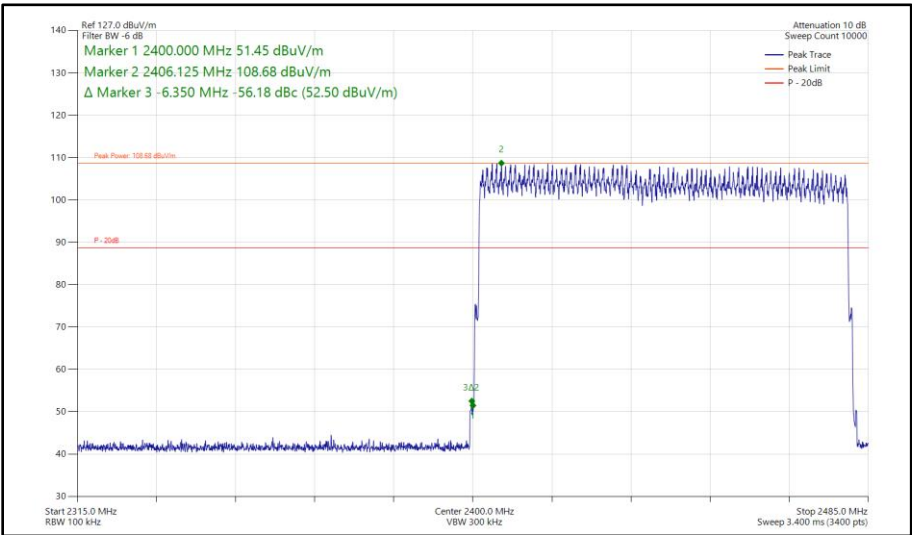


Figure 224 - Bluetooth 3-DH5, SISO, Core 1 - Hopping
Band Edge Frequency 2400 MHz

iPA - Core 2 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-59.79
Static	2-DH5	2402	2400	-50.36
Static	3-DH5	2402	2400	-50.31
Hopping	DH5	Hopping	2400	-64.13
Hopping	2-DH5	Hopping	2400	-57.81
Hopping	3-DH5	Hopping	2400	-59.23

Table 129 - SISO Authorised Band Edge Results

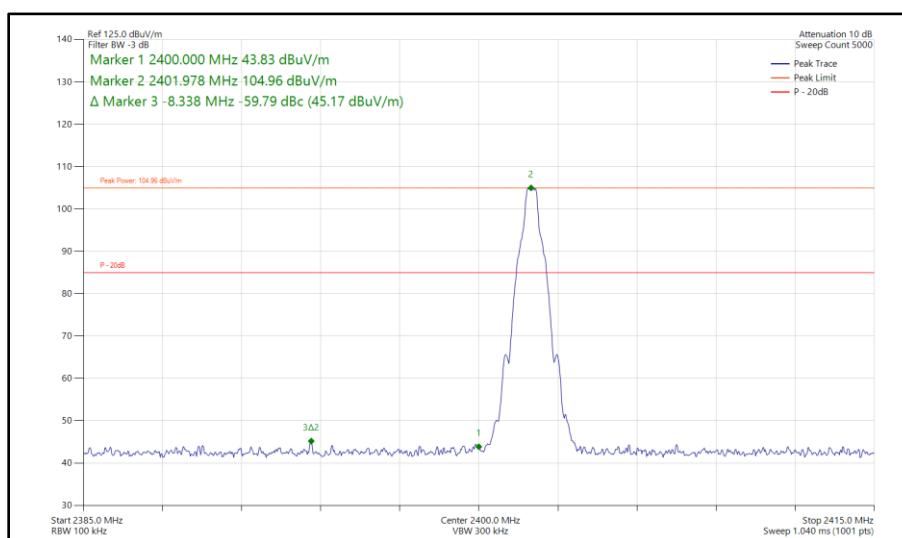


Figure 225 - Bluetooth DH5, SISO, Core 2 - 2402 MHz
Band Edge Frequency 2400 MHz

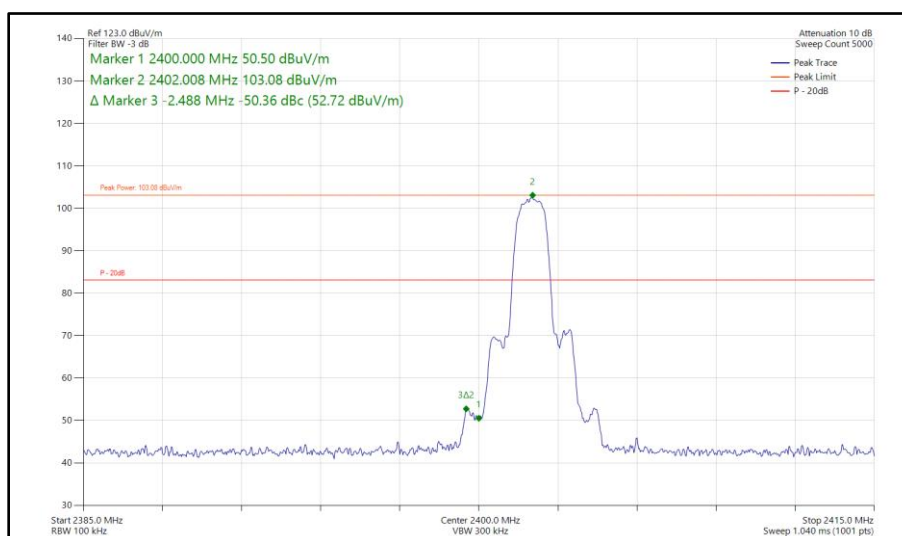
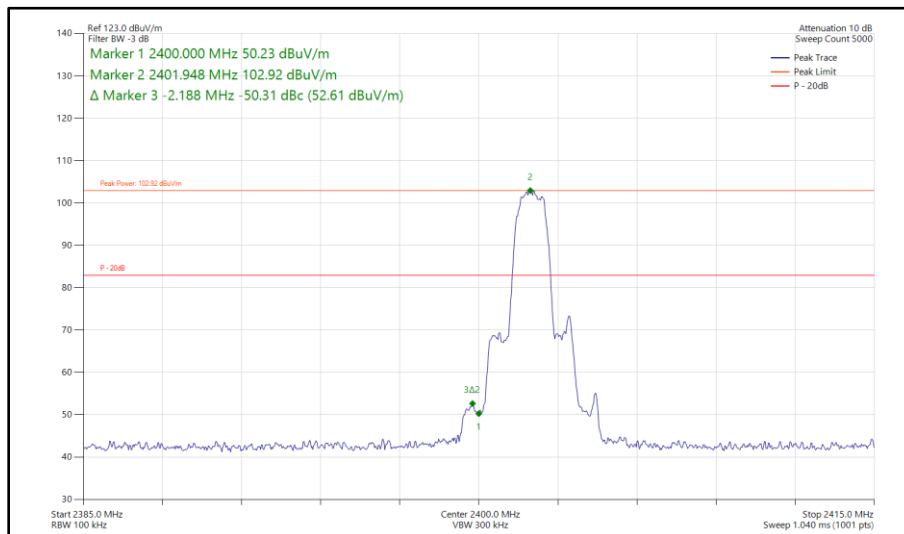
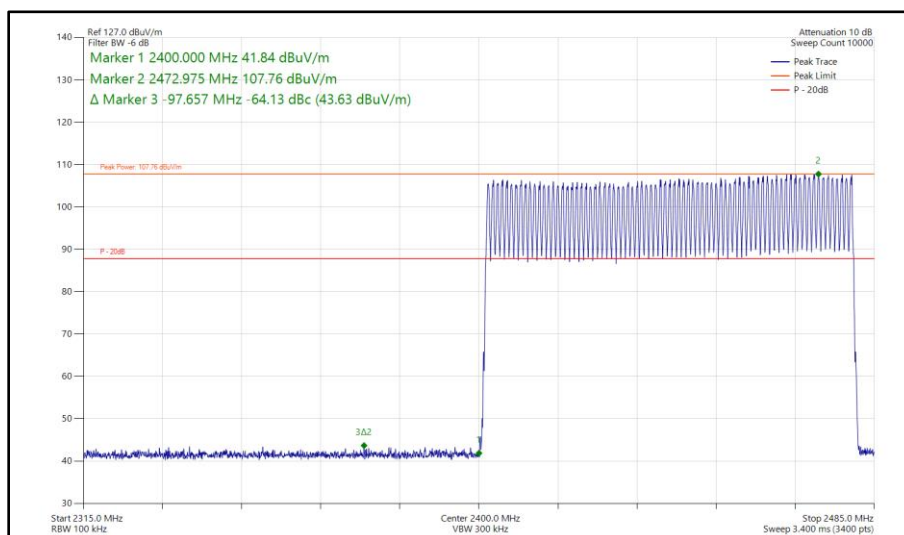


Figure 226 - Bluetooth 2-DH5, SISO, Core 2 - 2402 MHz
Band Edge Frequency 2400 MHz



**Figure 227 - Bluetooth 3-DH5, SISO, Core 2 - 2402 MHz
Band Edge Frequency 2400 MHz**



**Figure 228 - Bluetooth DH5, SISO, Core 2 - Hopping
Band Edge Frequency 2400 MHz**

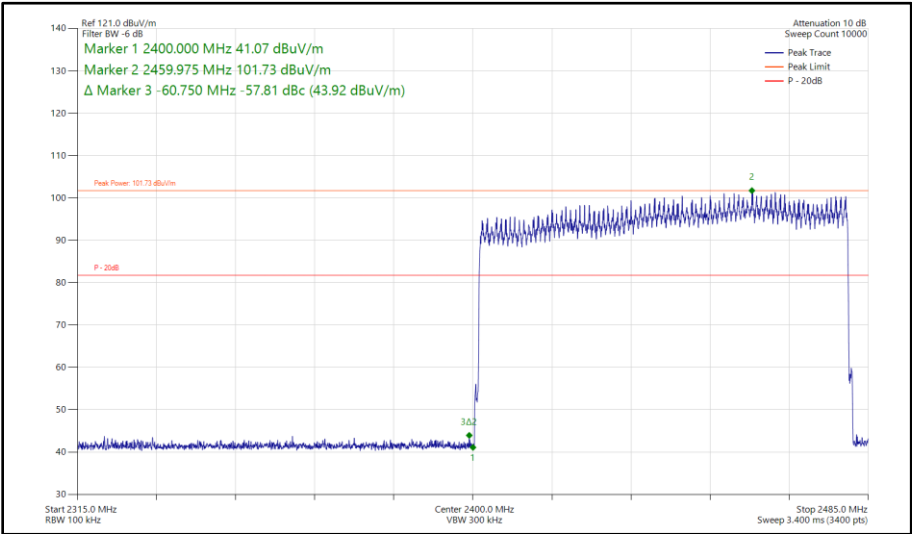


Figure 229 - Bluetooth 2-DH5, SISO, Core 2 - Hopping
Band Edge Frequency 2400 MHz

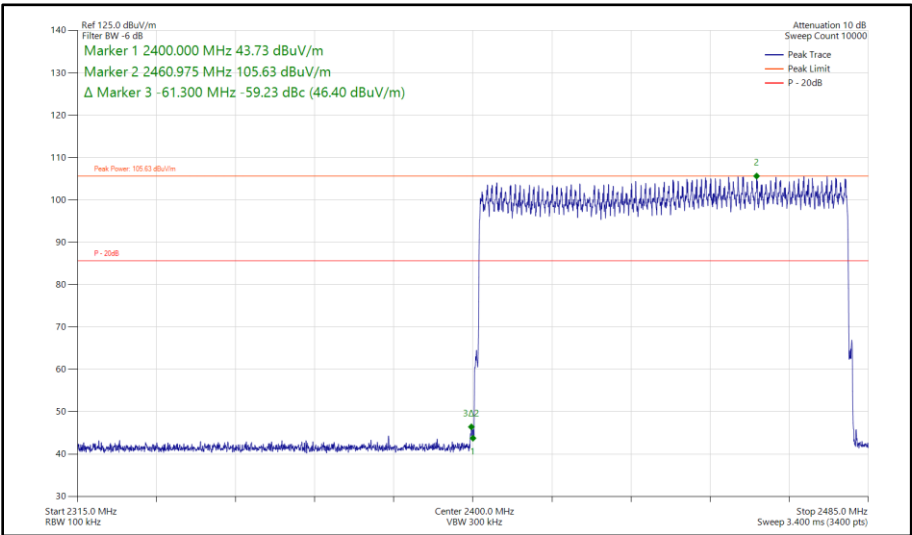


Figure 230 - Bluetooth 3-DH5, SISO, Core 2 - Hopping
Band Edge Frequency 2400 MHz

iPA - Core 0 - Core 1 (MIMO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-38.52
Static	2-DH5	2402	2400	-37.88
Static	3-DH5	2402	2400	-52.81
Hopping	DH5	Hopping	2400	-44.92
Hopping	2-DH5	Hopping	2400	-41.23
Hopping	3-DH5	Hopping	2400	-44.53

Table 130 - MIMO Authorised Band Edge Results

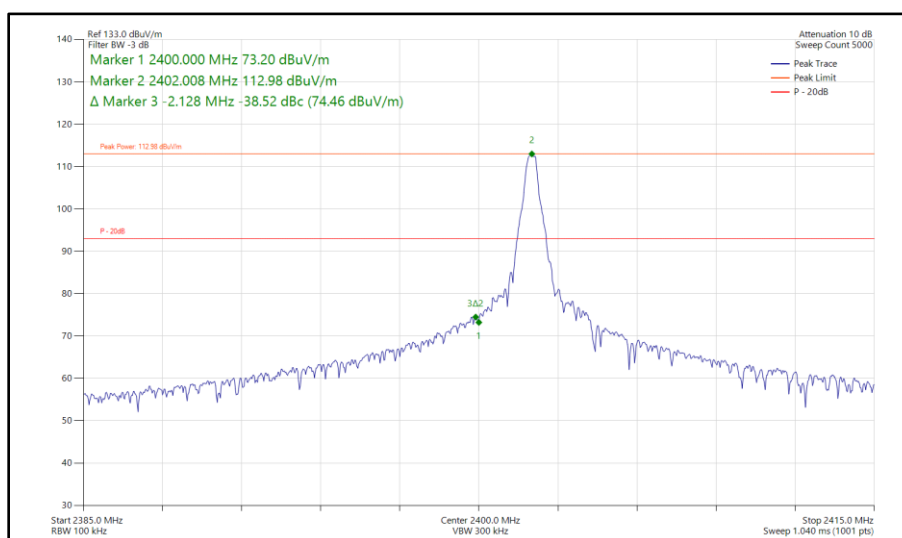


Figure 231 - Bluetooth DH5, MIMO, Core 0 - Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

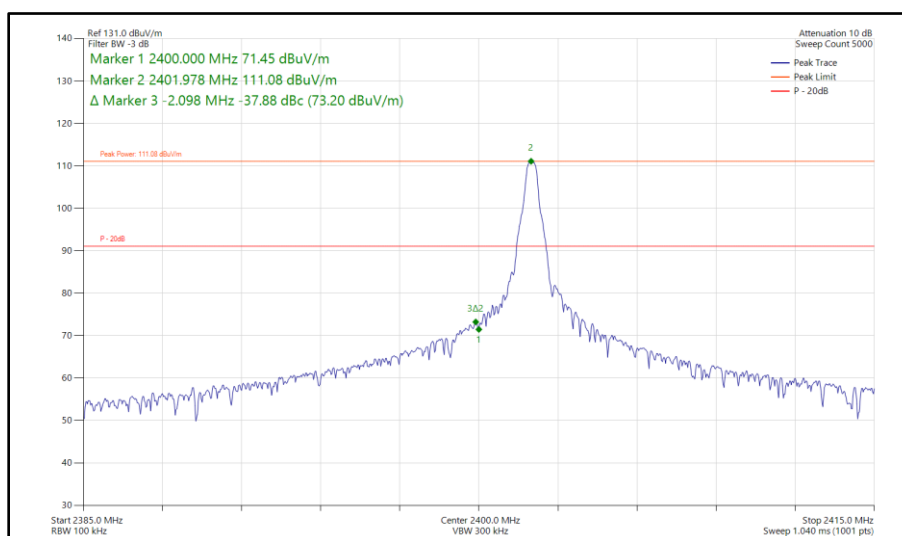
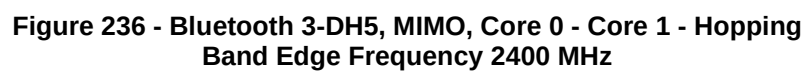
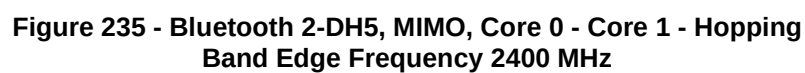


Figure 232 - Bluetooth 2-DH5, MIMO, Core 0 - Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz





ePA - Core 0 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-65.44
Static	2-DH5	2402	2400	-60.25
Static	3-DH5	2402	2400	-58.45
Hopping	DH5	Hopping	2400	-72.28
Hopping	2-DH5	Hopping	2400	-69.68
Hopping	3-DH5	Hopping	2400	-69.11

Table 131 - SISO Authorised Band Edge Results

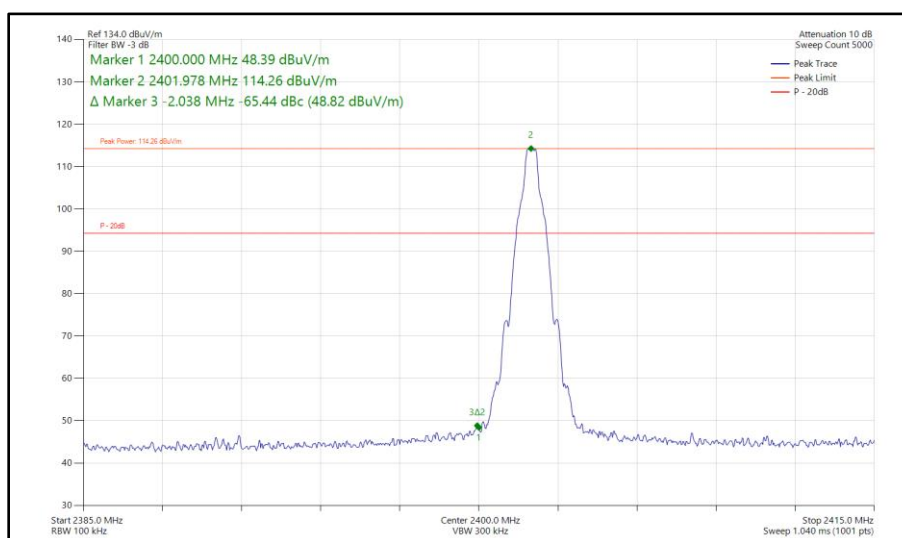


Figure 237 - Bluetooth DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

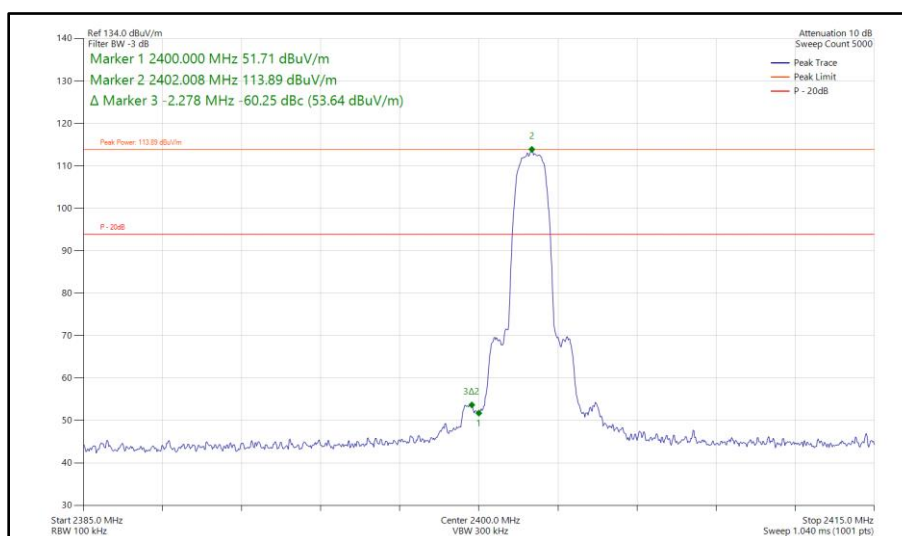
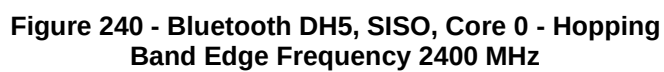


Figure 238 - Bluetooth 2-DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz



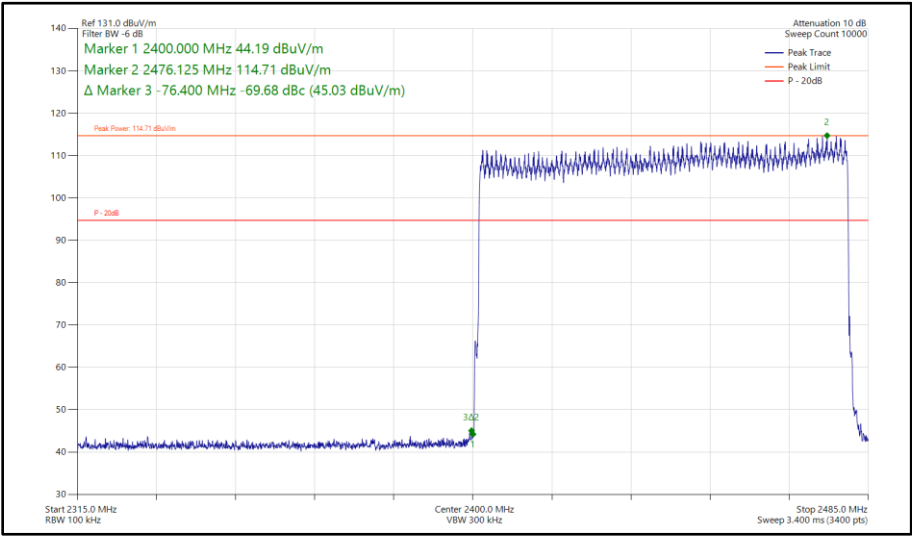


Figure 241 - Bluetooth 2-DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz

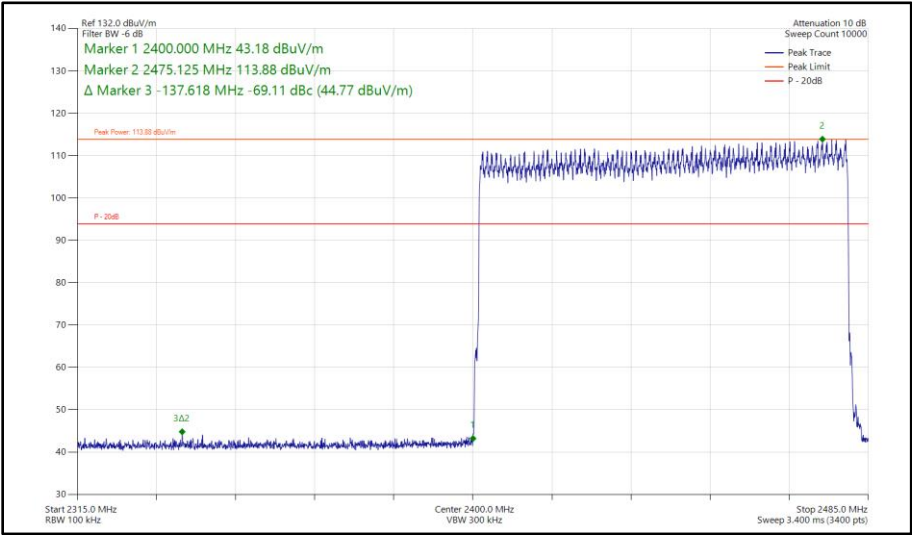


Figure 242 - Bluetooth 3-DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz

ePA - Core 1 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-66.36
Static	2-DH5	2402	2400	-63.19
Static	3-DH5	2402	2400	-63.59
Hopping	DH5	Hopping	2400	-72.79
Hopping	2-DH5	Hopping	2400	-68.05
Hopping	3-DH5	Hopping	2400	-68.63

Table 132 - SISO Authorised Band Edge Results

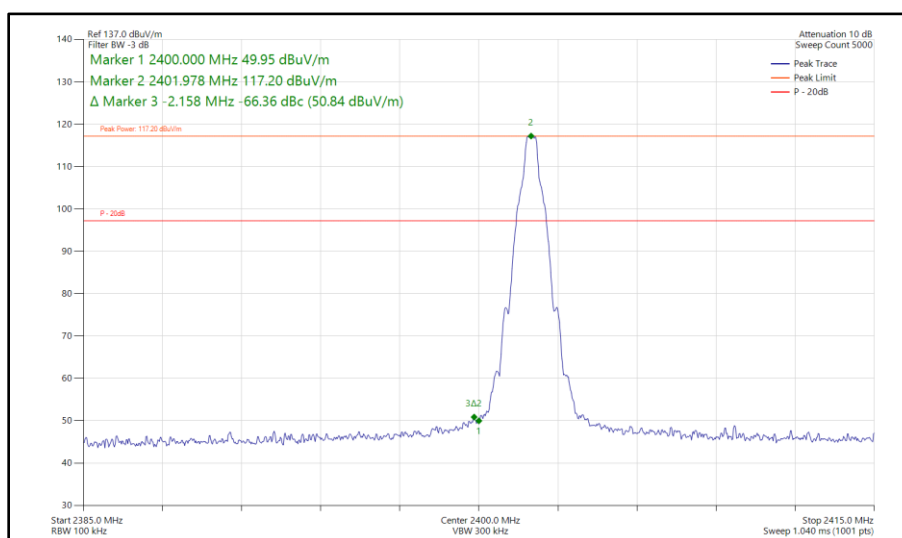


Figure 243 - Bluetooth DH5, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

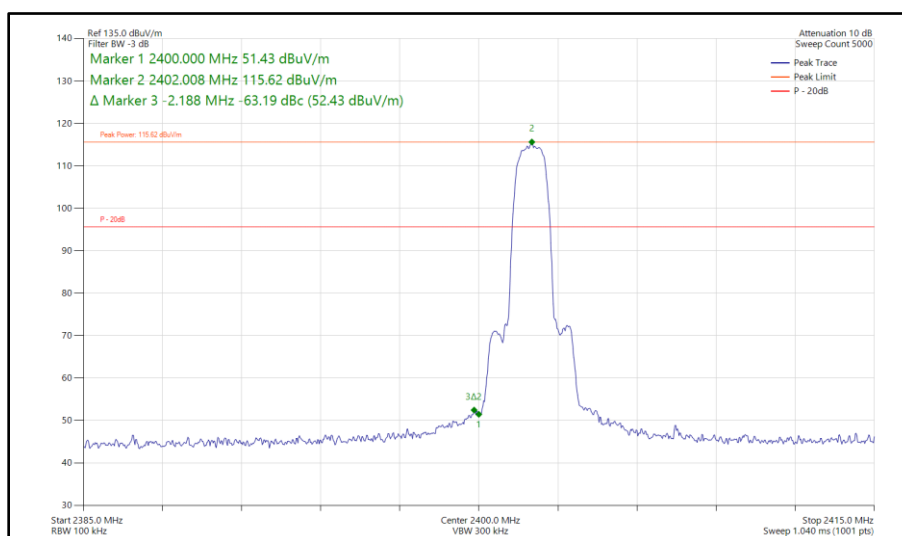


Figure 244 - Bluetooth 2-DH5, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz