

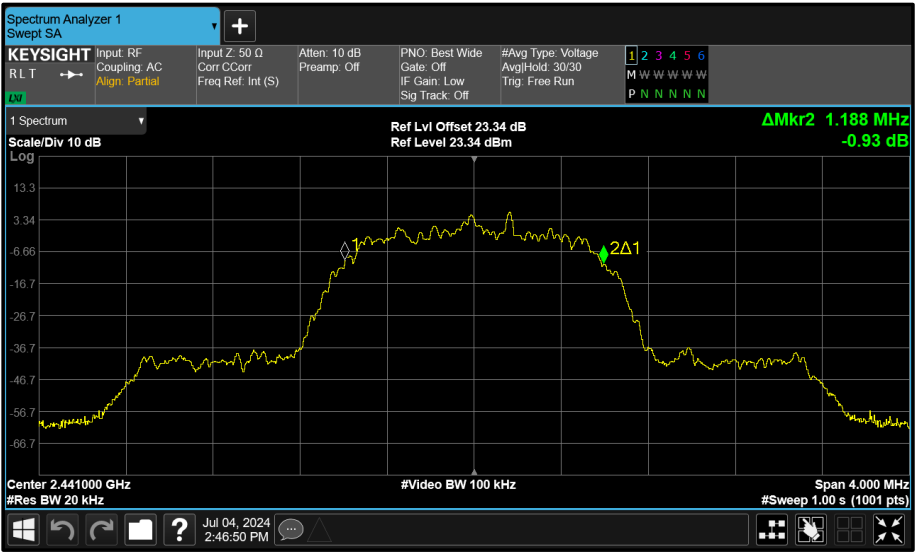


Figure 159 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

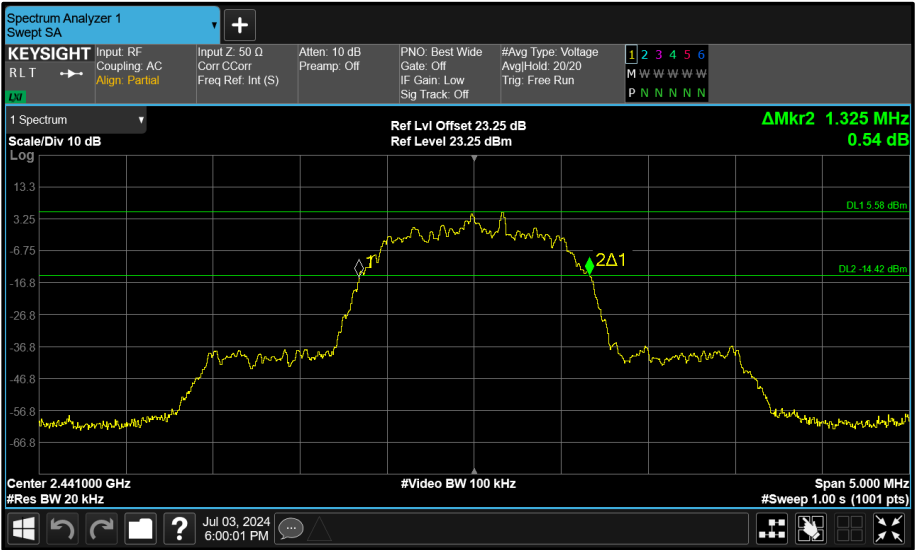


Figure 160 - Core 1 (B) 2441 MHz (CH39) 20 dB Bandwidth

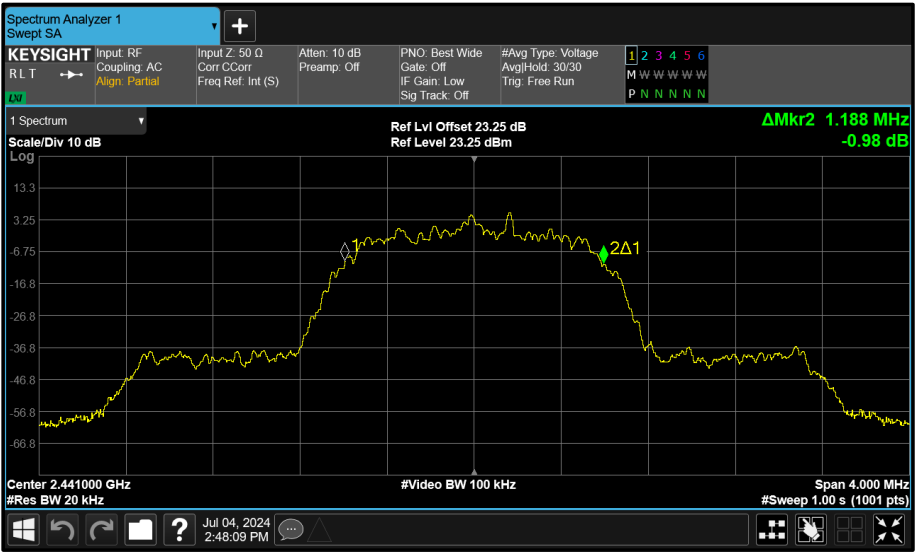


Figure 161 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth

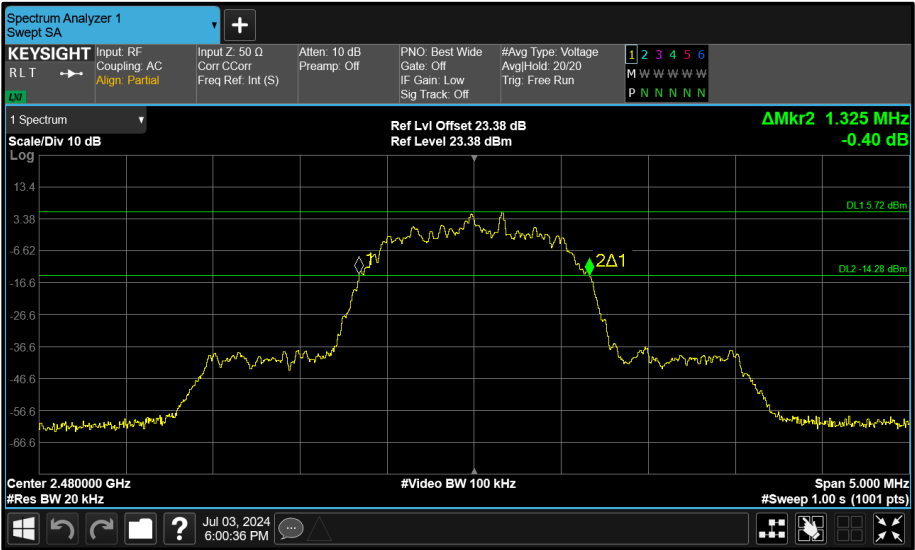


Figure 162 - Core 0 (A) 2480 MHz (CH78) 20 dB Bandwidth

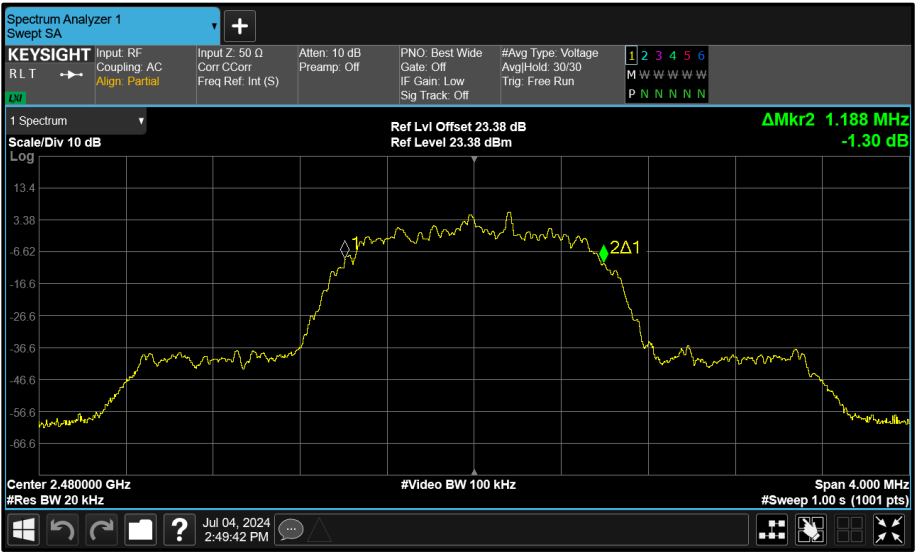


Figure 163 - Core 0 (A) 2480 MHz (CH78) 99% Bandwidth

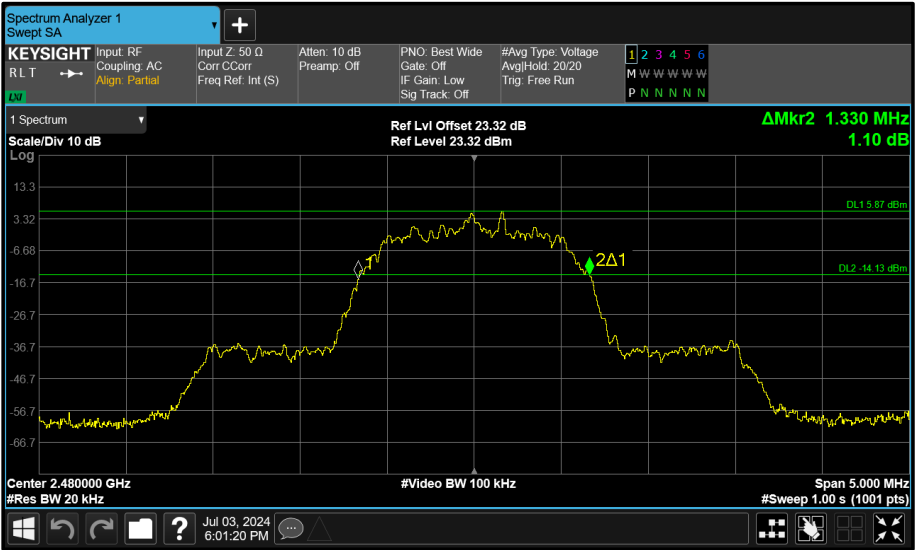


Figure 164 - Core 1 (B) 2480 MHz (CH78) 20 dB Bandwidth

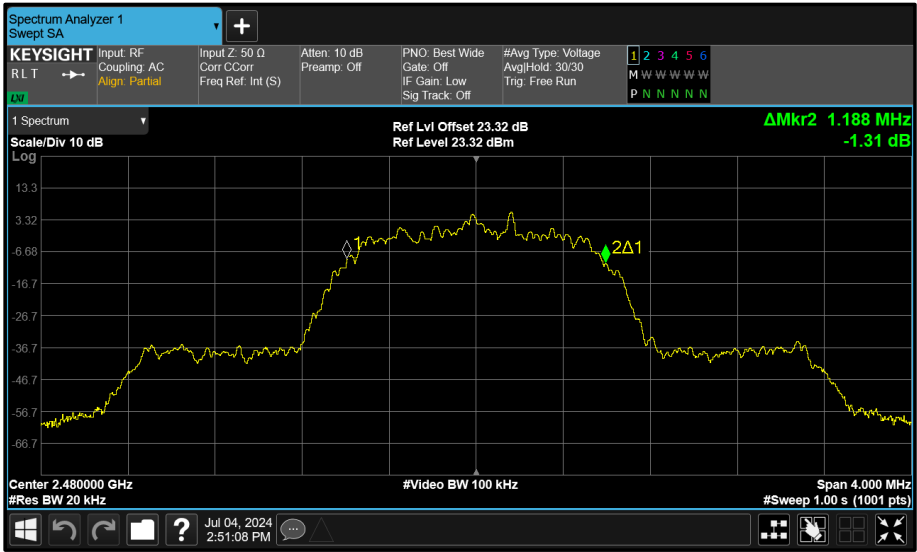
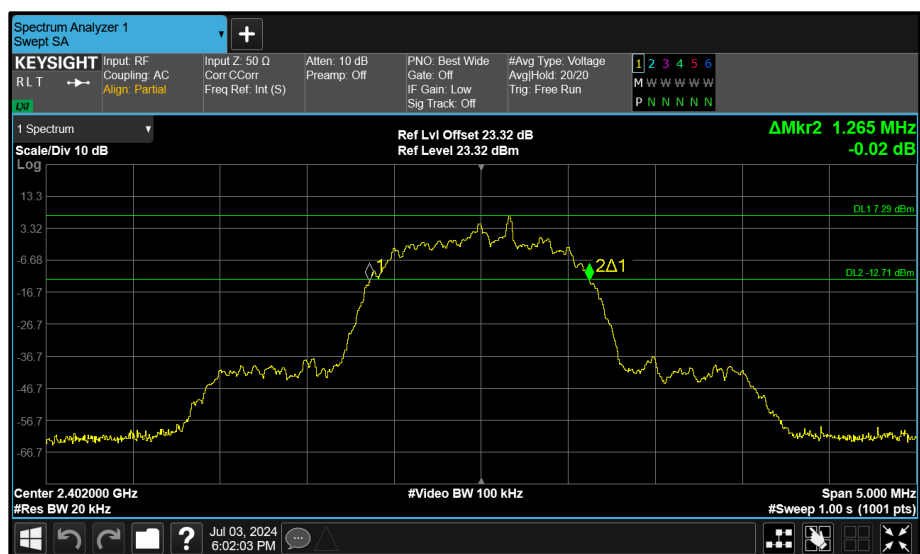


Figure 165 - Core 1 (B) 2480 MHz (CH78) 99% Bandwidth

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

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



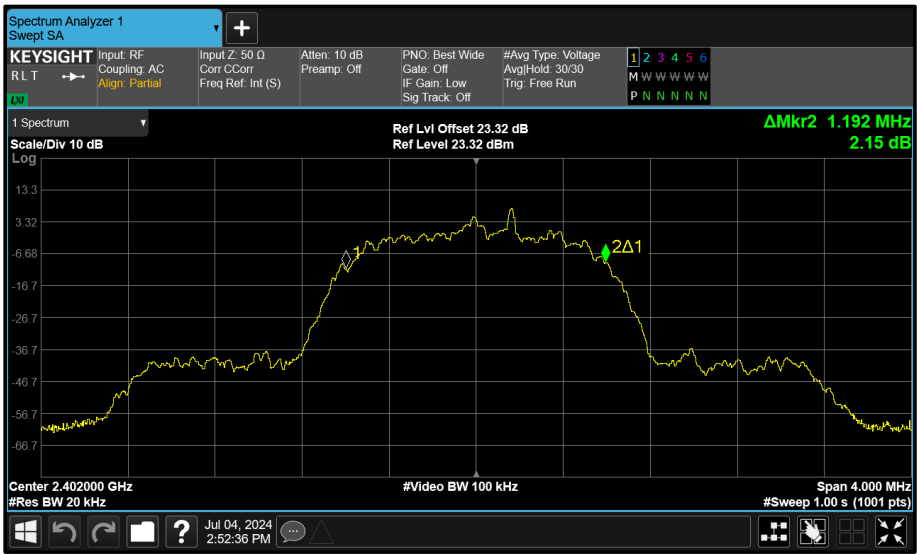


Figure 167 - Core 0 (A) 2402 MHz (CH0) 99% Bandwidth

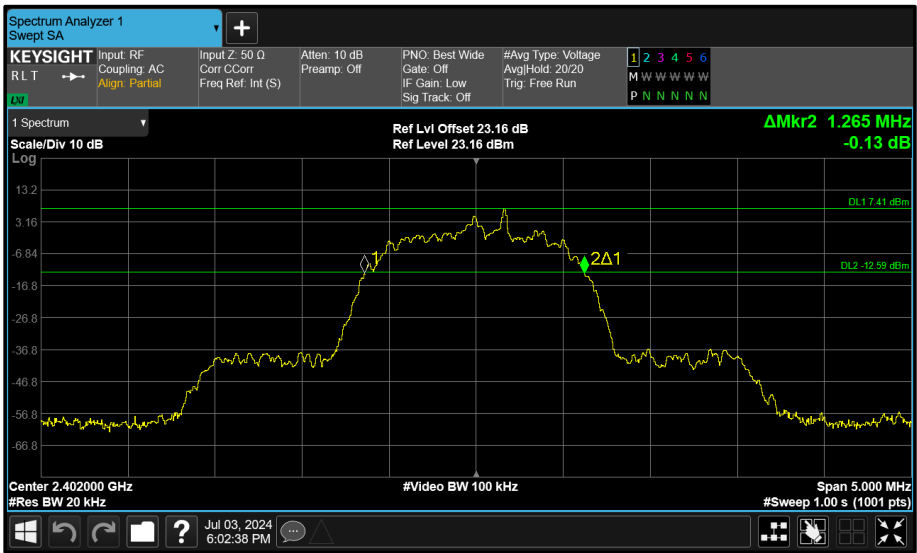
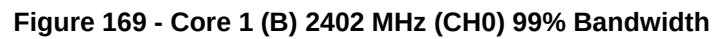


Figure 168 - Core 1 (B) 2402 MHz (CH0) 20 dB Bandwidth



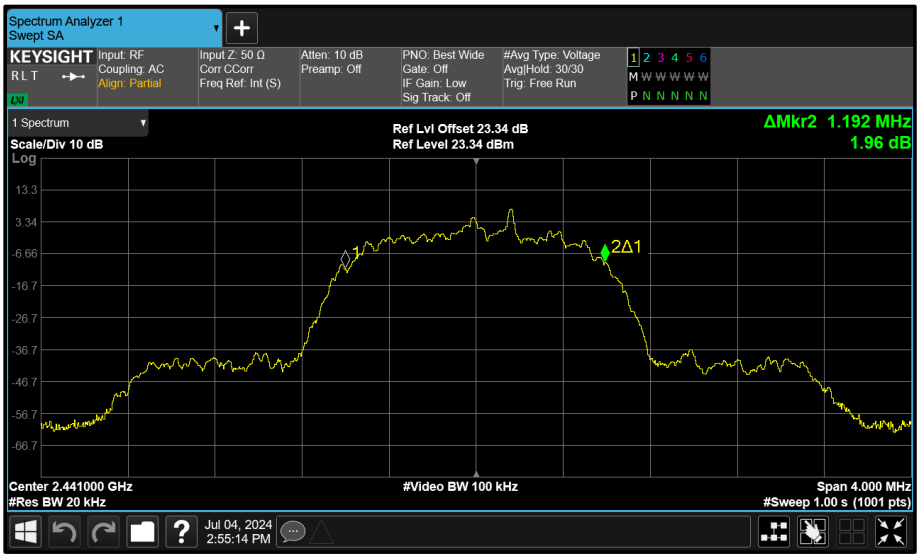


Figure 171 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

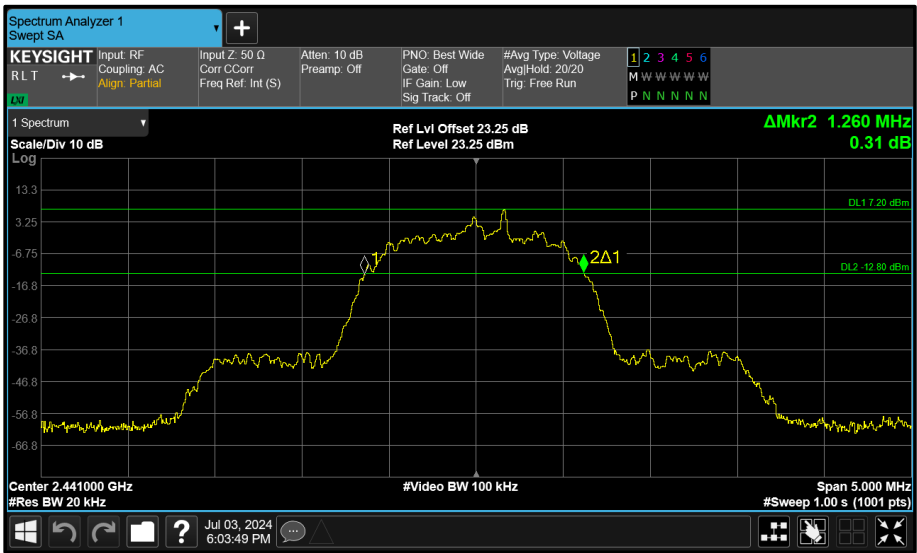


Figure 172 - Core 1 (B) 2441 MHz (CH39) 20 dB Bandwidth

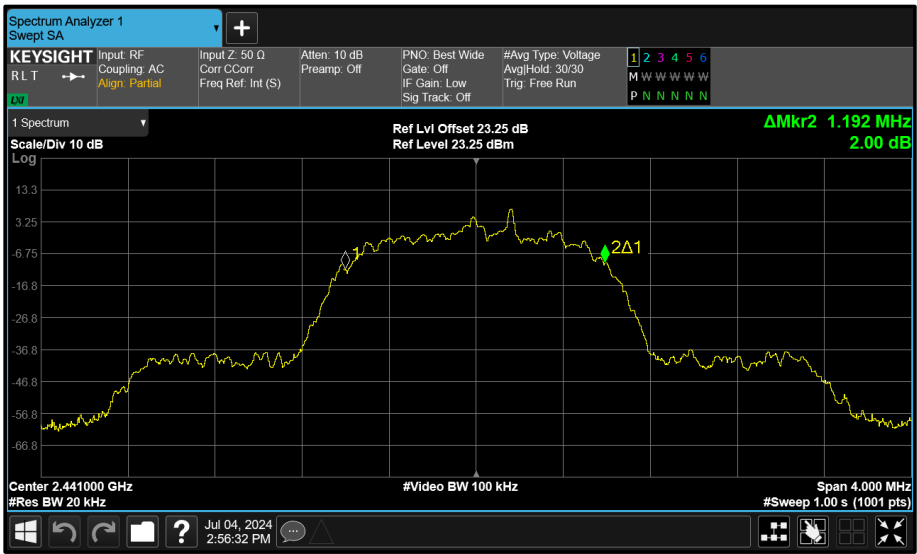


Figure 173 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth

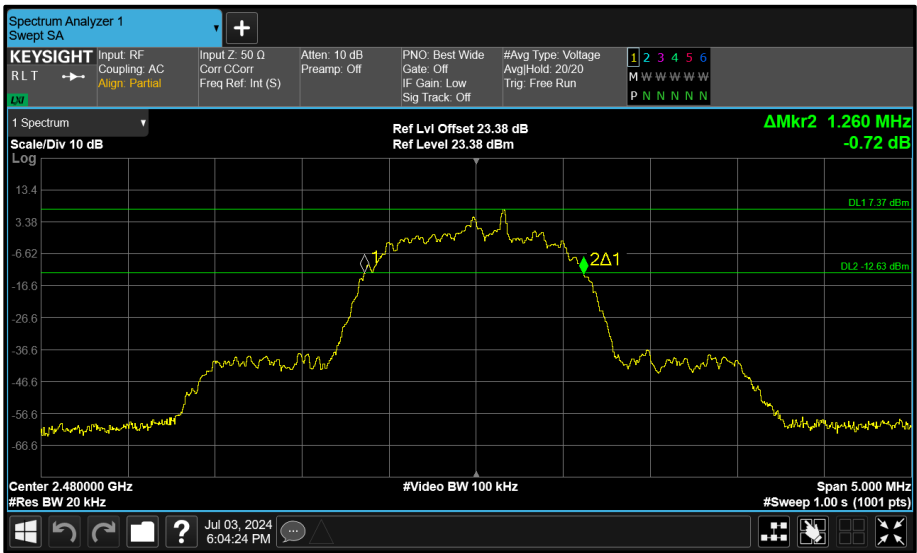


Figure 174 - Core 0 (A) 2480 MHz (CH78) 20 dB Bandwidth



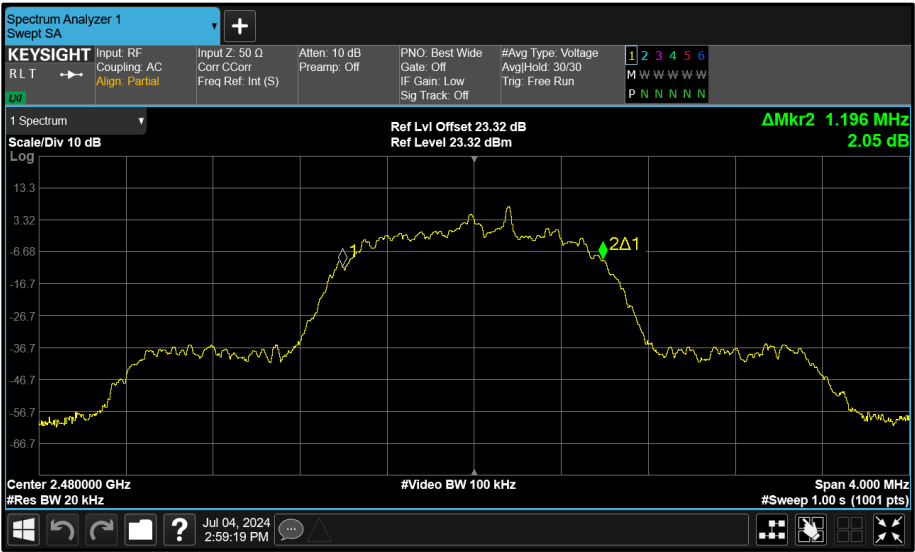


Figure 177 - Core 1 (B) 2480 MHz (CH78) 99% Bandwidth



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 C63.10 6.9.3
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	0.867	-	-	-
2441	0.858	0.870	-	-	-
2480	0.861	0.870	-	-	-

Table 90 - 99% Bandwidth Results

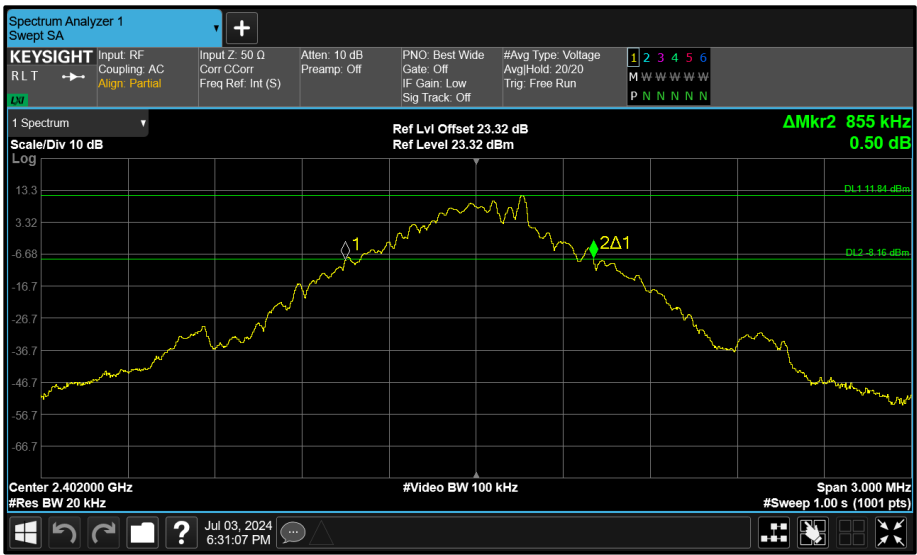


Figure 178 - Core 0 (A) 2402 MHz (CH0) 20 dB Bandwidth

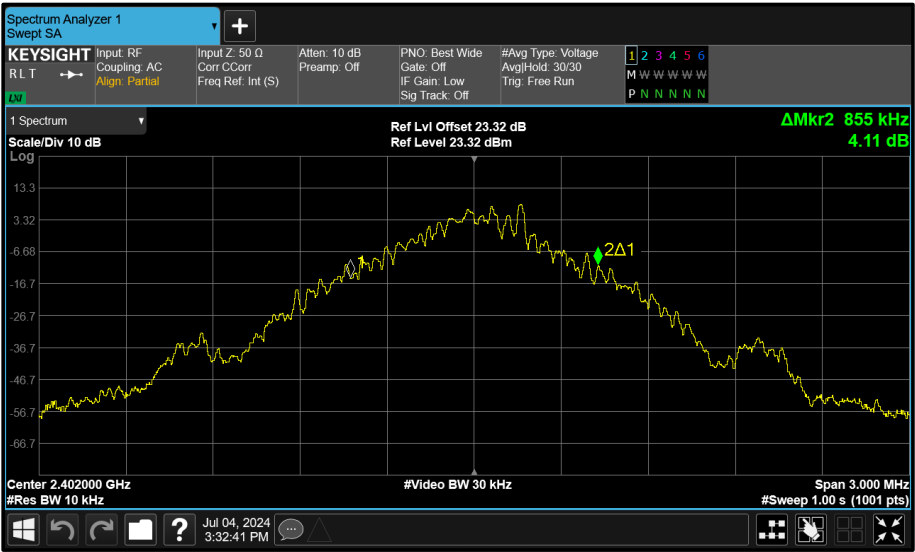


Figure 179 - Core 0 (A) 2402 MHz (CH0) 99% Bandwidth

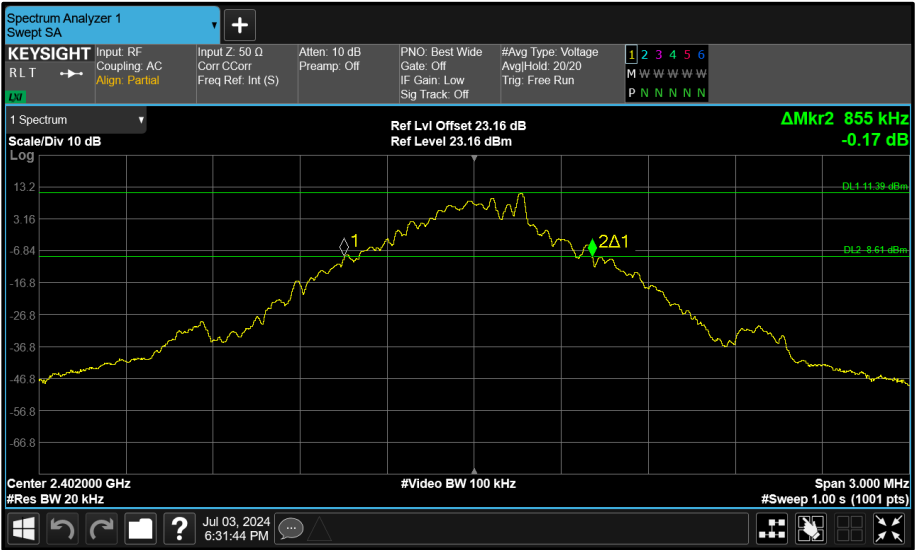


Figure 180 - Core 1 (B) 2402 MHz (CH0) 20 dB Bandwidth

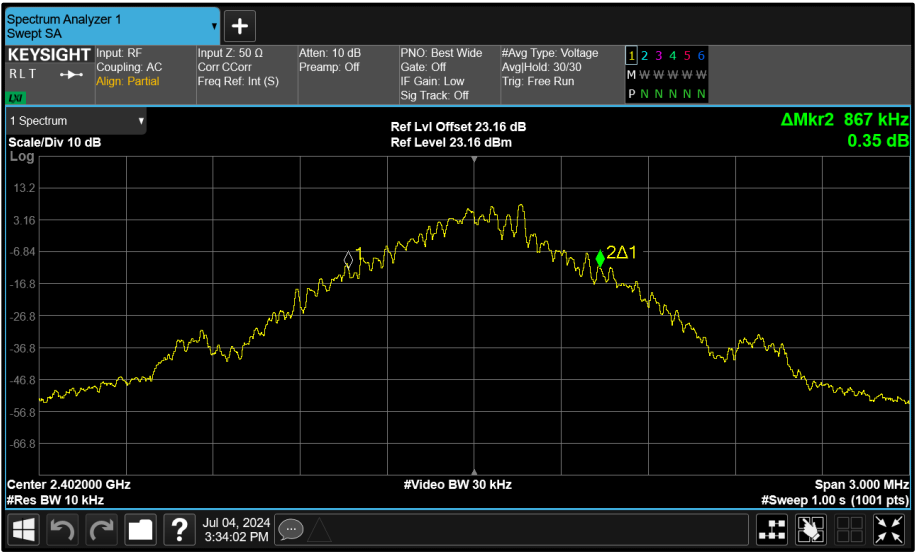


Figure 181 - Core 1 (B) 2402 MHz (CH0) 99% Bandwidth

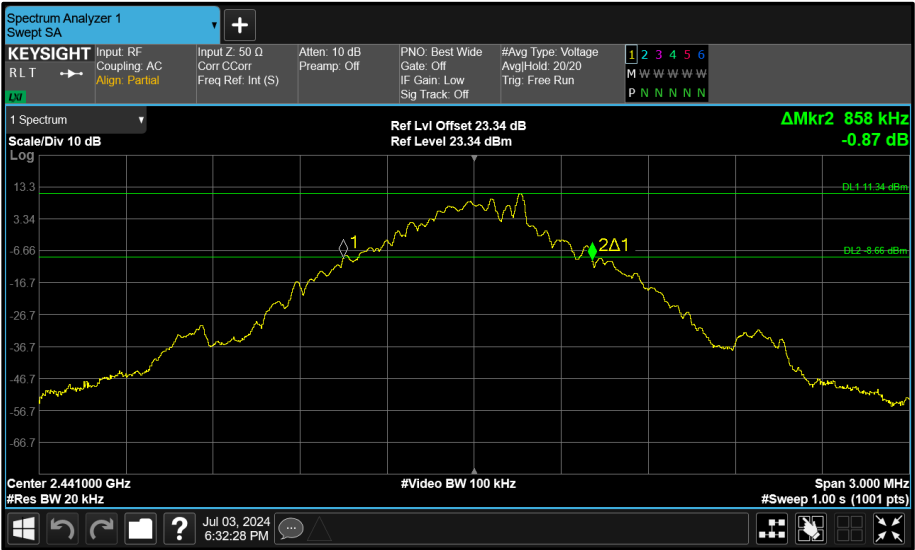
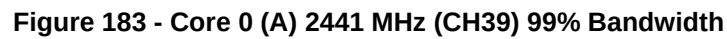


Figure 182 - Core 0 (A) 2441 MHz (CH39) 20 dB Bandwidth



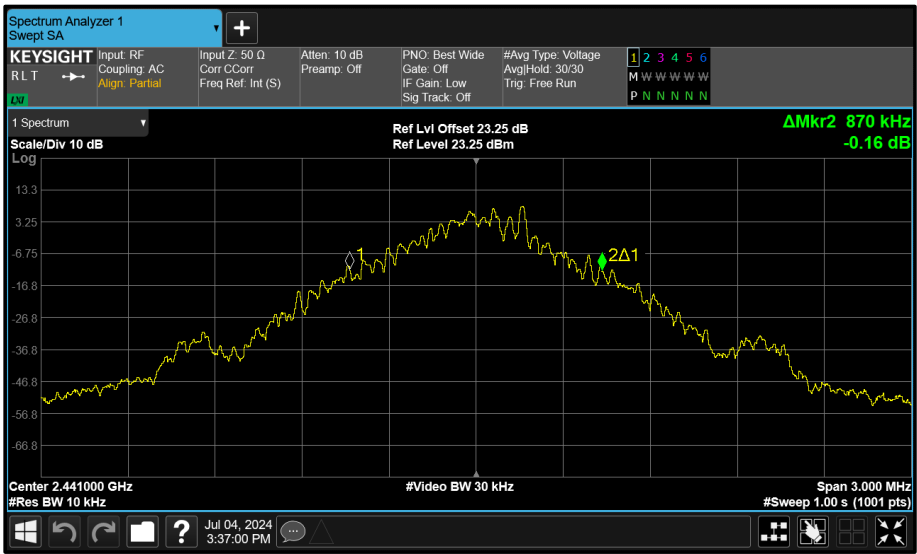


Figure 185 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth

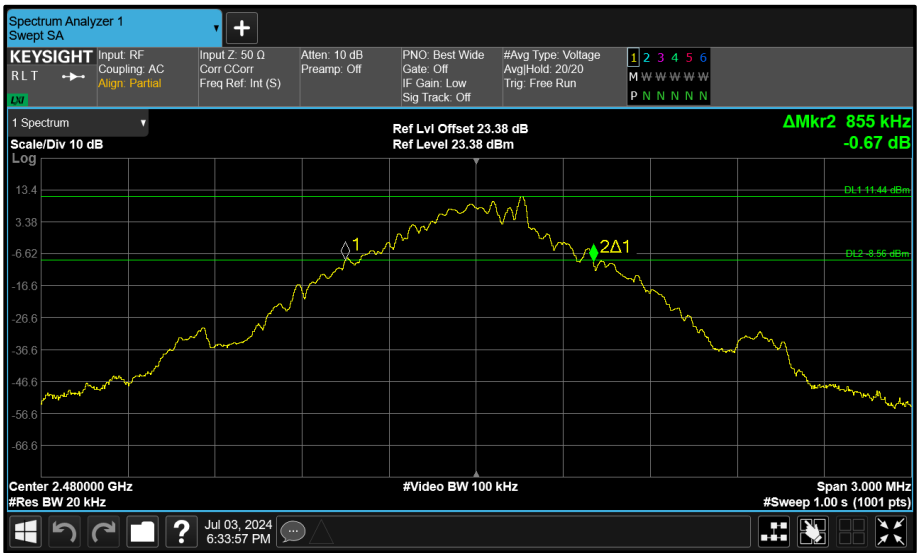
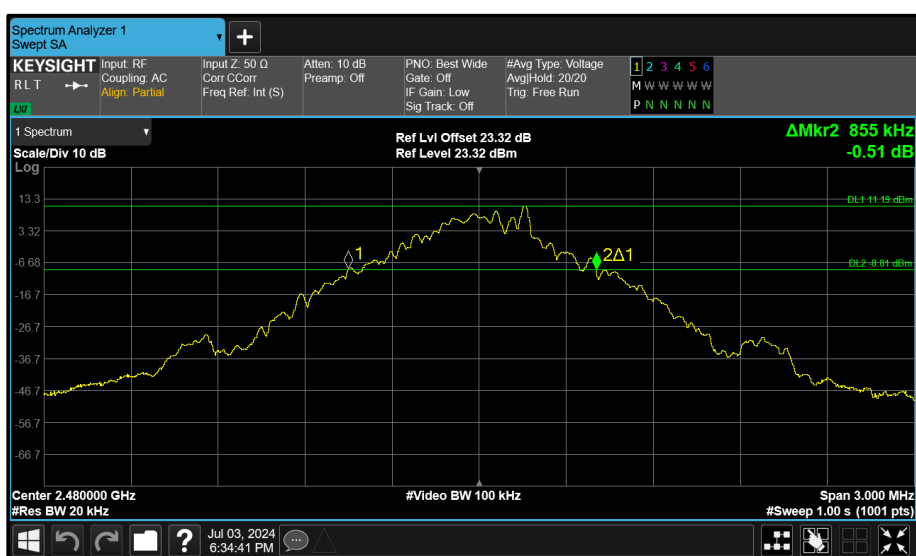
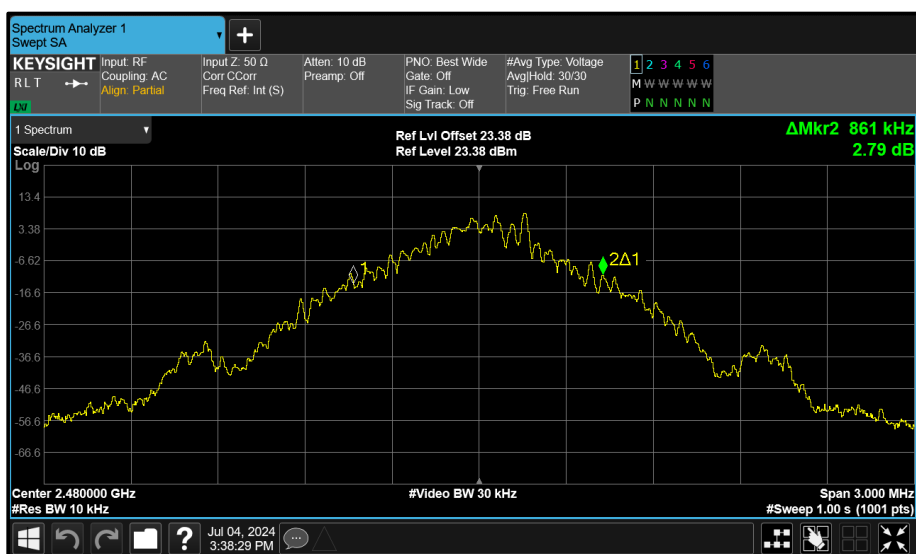


Figure 186 - Core 0 (A) 2480 MHz (CH78) 20 dB Bandwidth



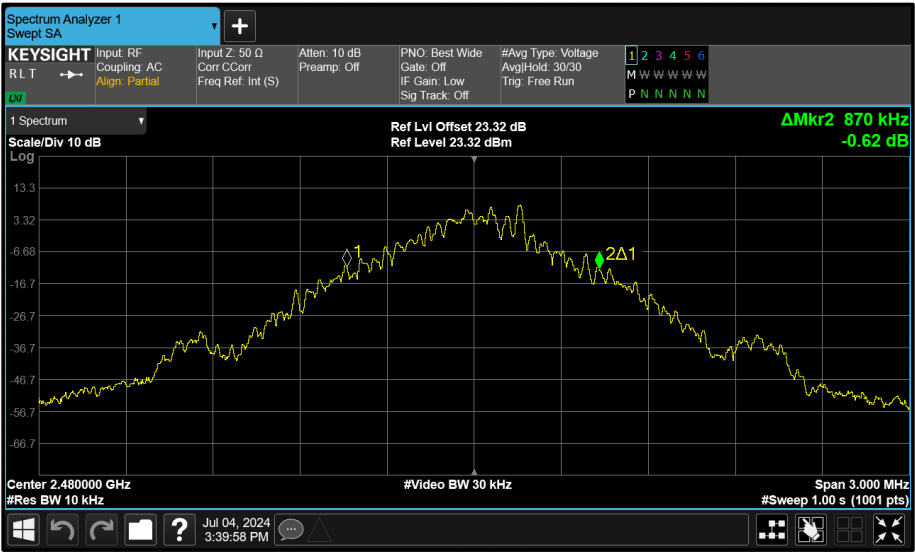


Figure 189 - Core 1 (B) 2480 MHz (CH78) 99% Bandwidth



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 C63.10 6.9.3
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	1.184	1.180	-	-	-
2480	1.184	1.184	-	-	-

Table 92 - 99% Bandwidth Results

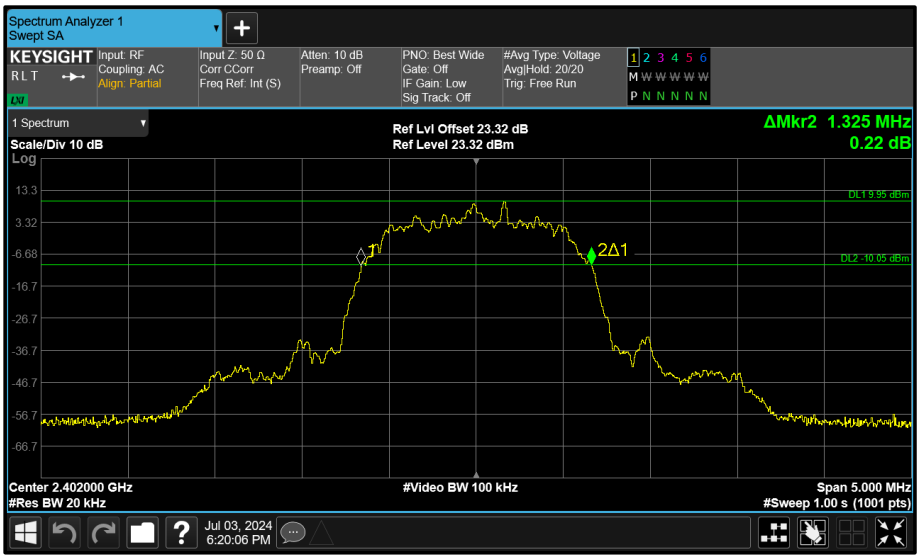


Figure 190 - Core 0 (A) 2402 MHz (CH0) 20 dB Bandwidth

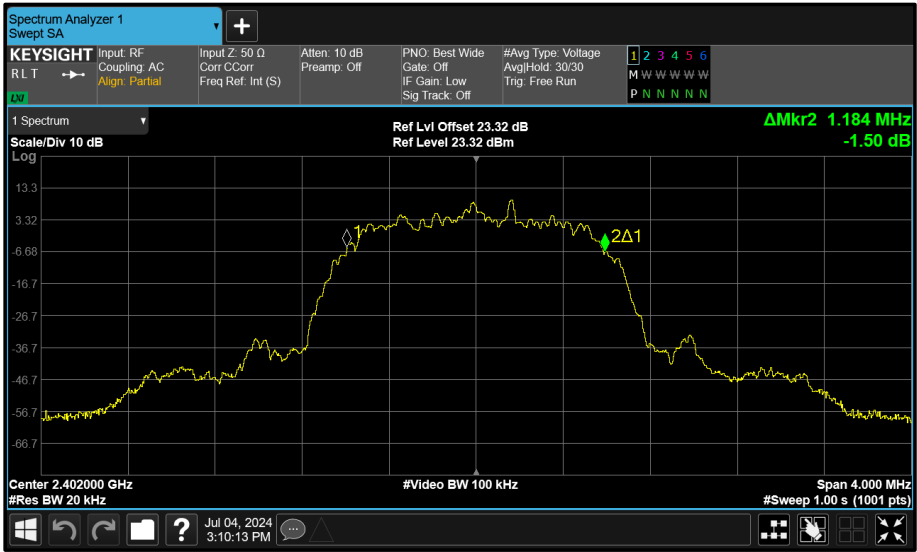


Figure 191 - Core 0 (A) 2402 MHz (CH0) 99% Bandwidth

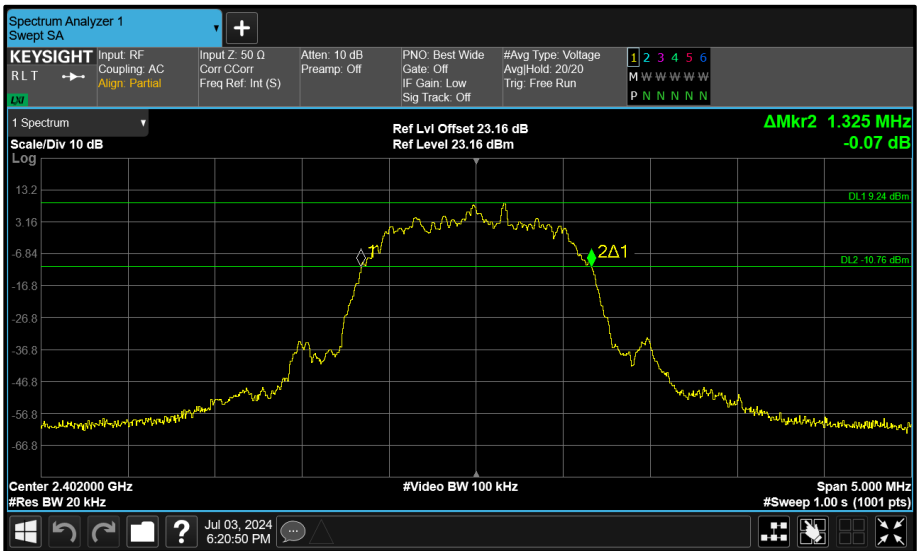
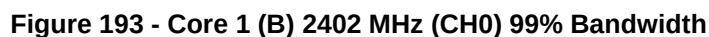


Figure 192 - Core 1 (B) 2402 MHz (CH0) 20 dB Bandwidth



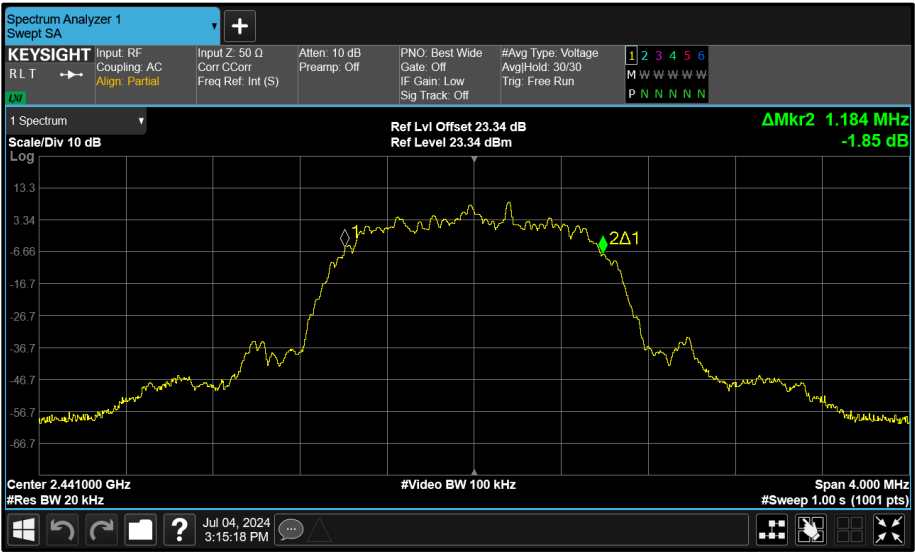


Figure 195 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

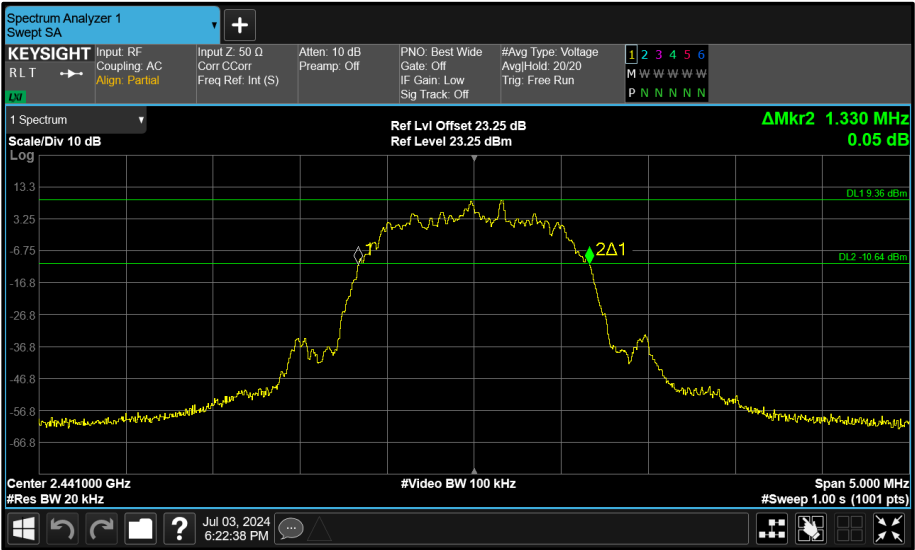
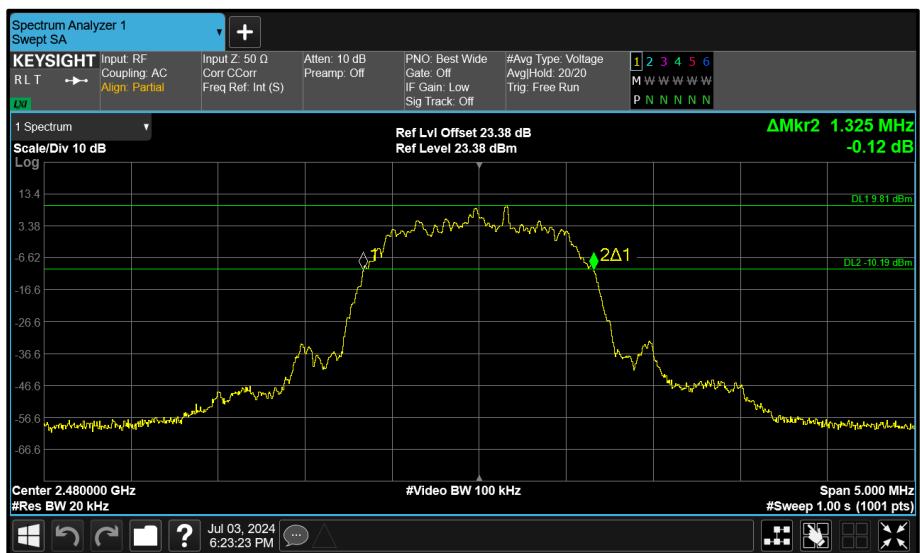
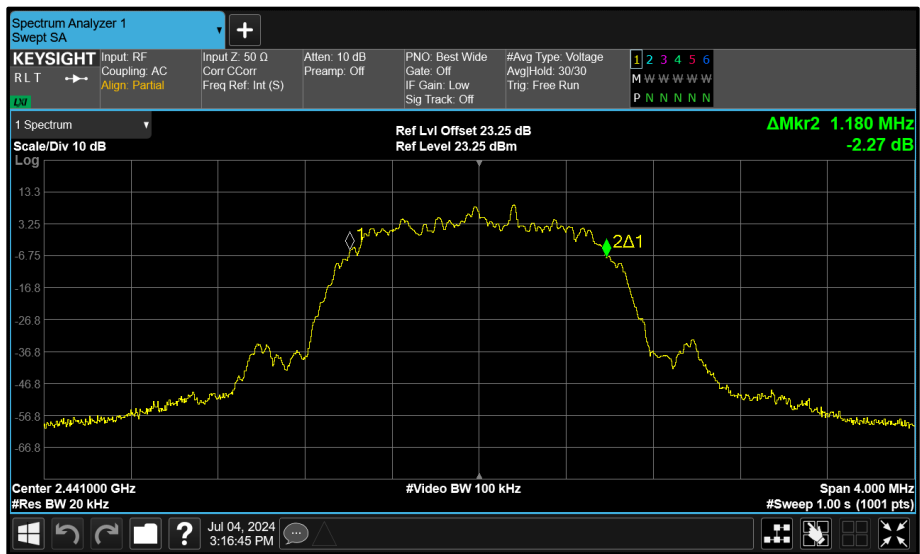


Figure 196 - Core 1 (B) 2441 MHz (CH39) 20 dB Bandwidth



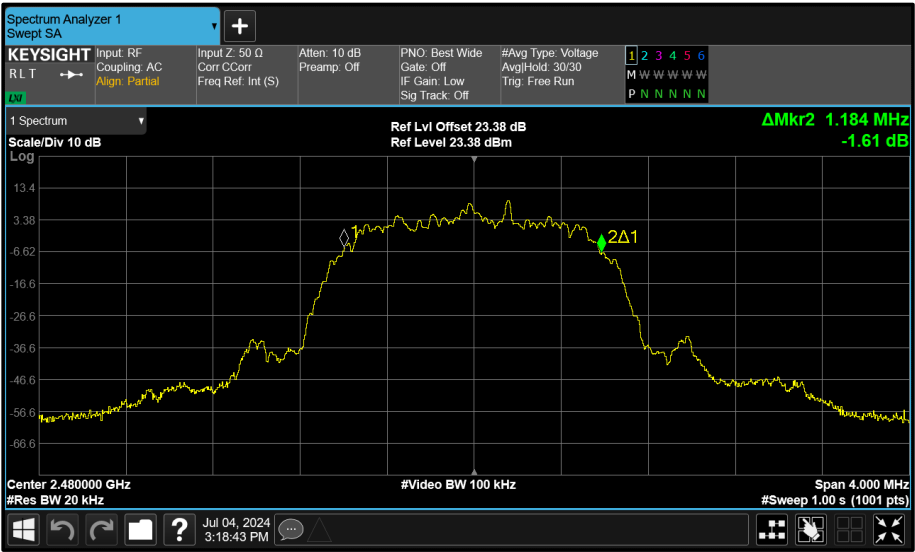


Figure 199 - Core 0 (A) 2480 MHz (CH78) 99% Bandwidth

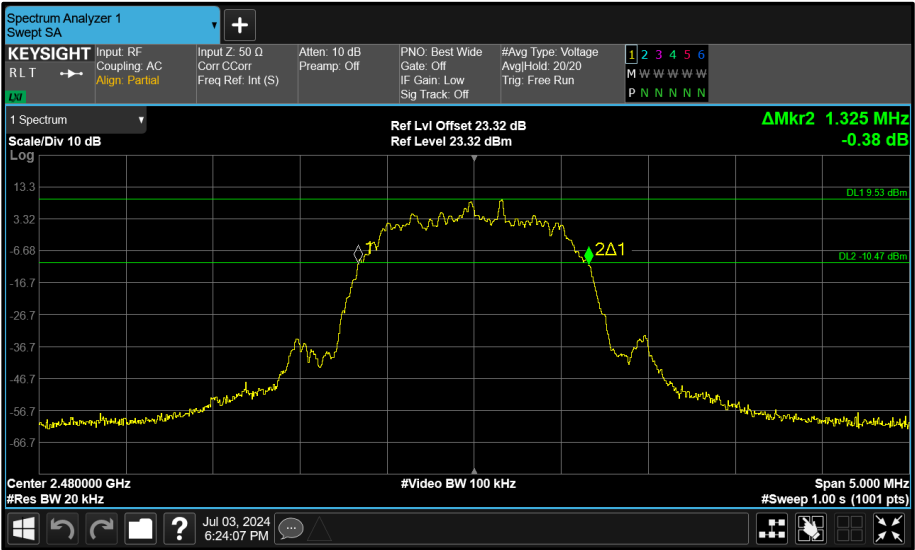


Figure 200 - Core 1 (B) 2480 MHz (CH78) 20 dB Bandwidth

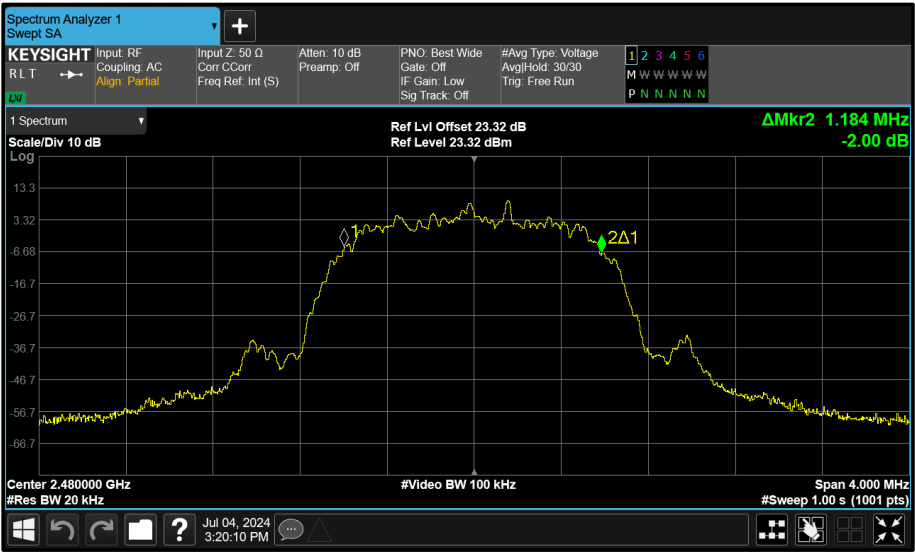


Figure 201 - Core 1 (B) 2480 MHz (CH78) 99% Bandwidth



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 C63.10 6.9.3
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	1.255	1.255	-	-
2480	1.260	1.260	-	-

Table 93 - 20 dB Bandwidth Results

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

Table 94 - 99% Bandwidth Results

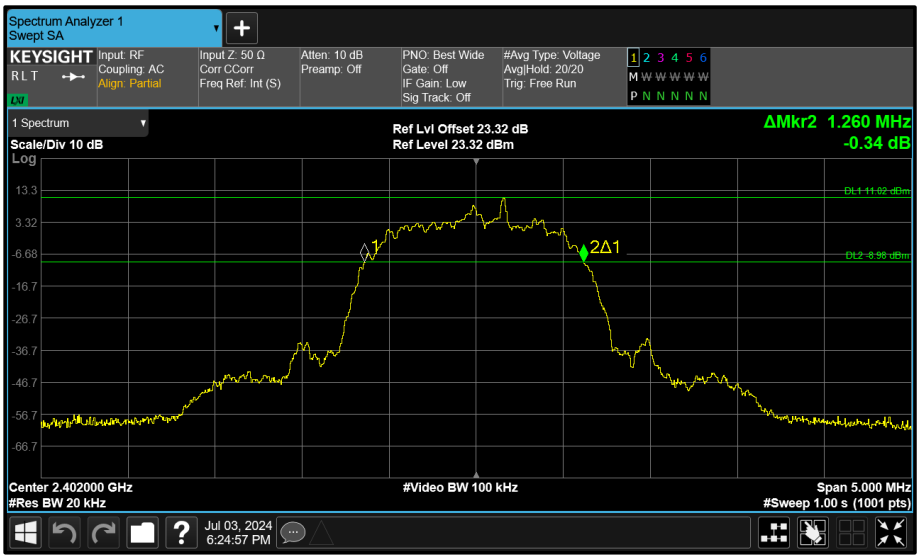


Figure 202 - Core 0 (A) 2402 MHz (CH0) 20 dB Bandwidth

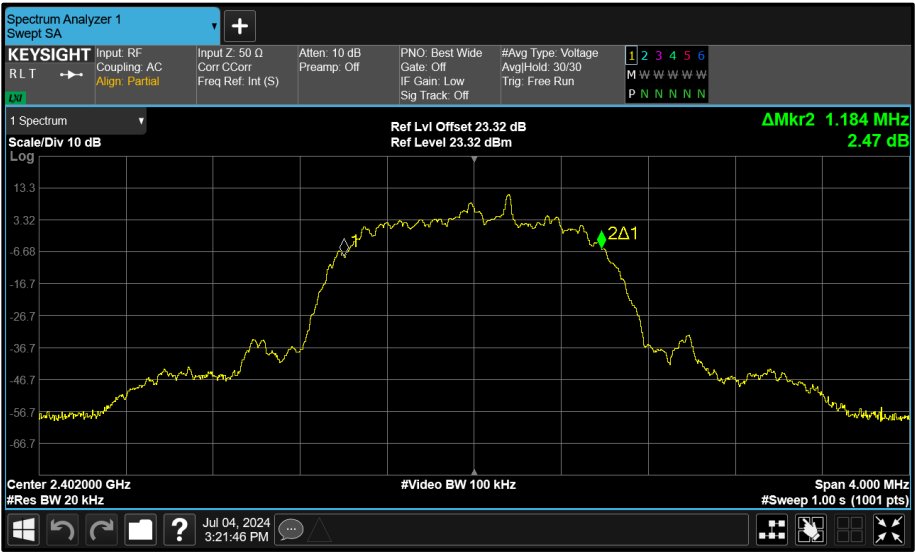


Figure 203 - Core 0 (A) 2402 MHz (CH0) 99% Bandwidth

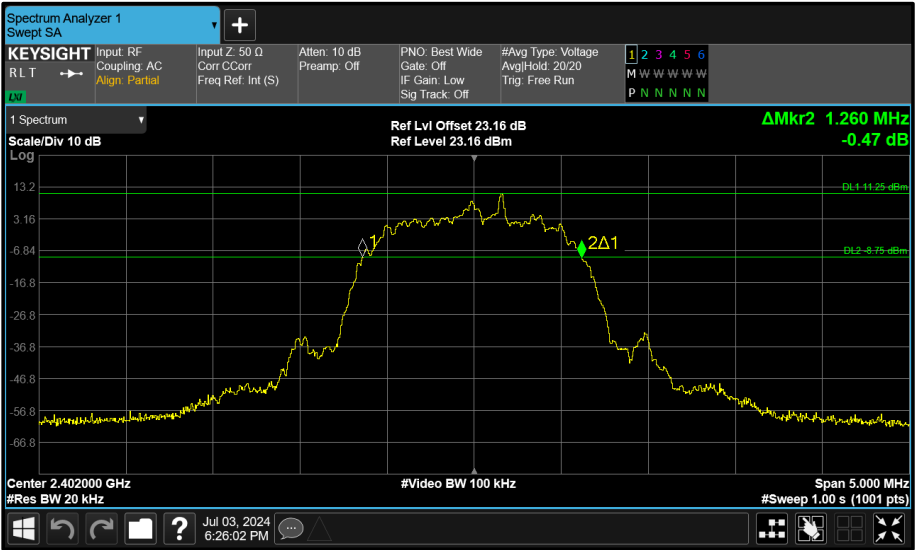


Figure 204 - Core 1 (B) 2402 MHz (CH0) 20 dB Bandwidth

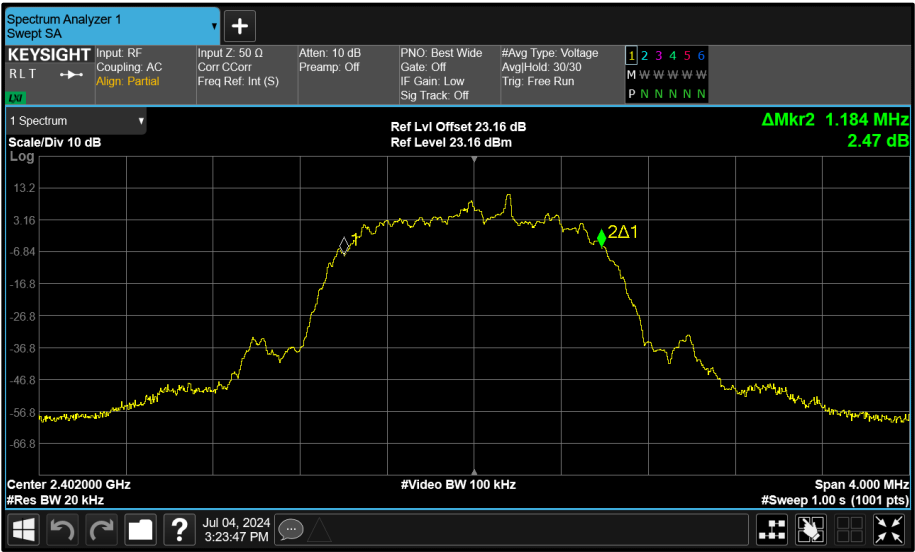


Figure 205 - Core 1 (B) 2402 MHz (CH0) 99% Bandwidth

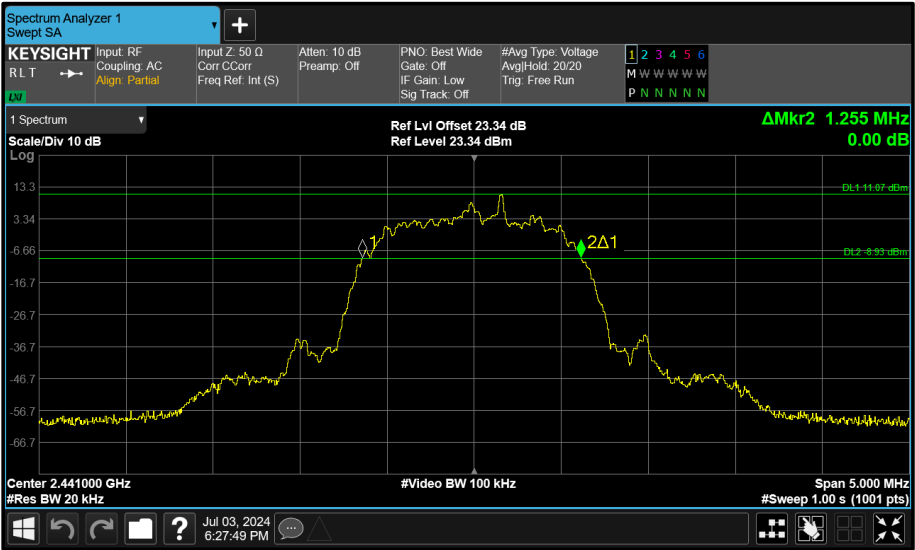


Figure 206 - Core 0 (A) 2441 MHz (CH39) 20 dB Bandwidth

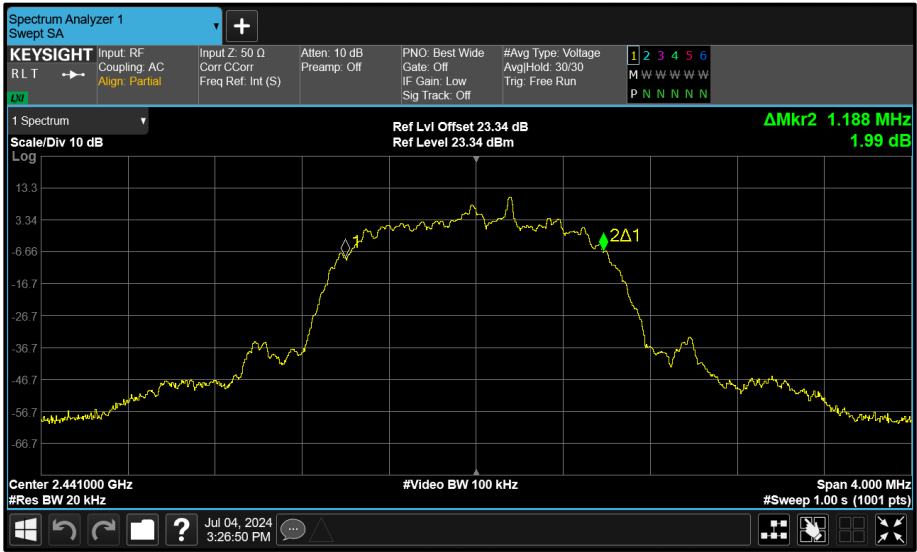


Figure 207 - Core 0 (A) 2441 MHz (CH39) 99% Bandwidth

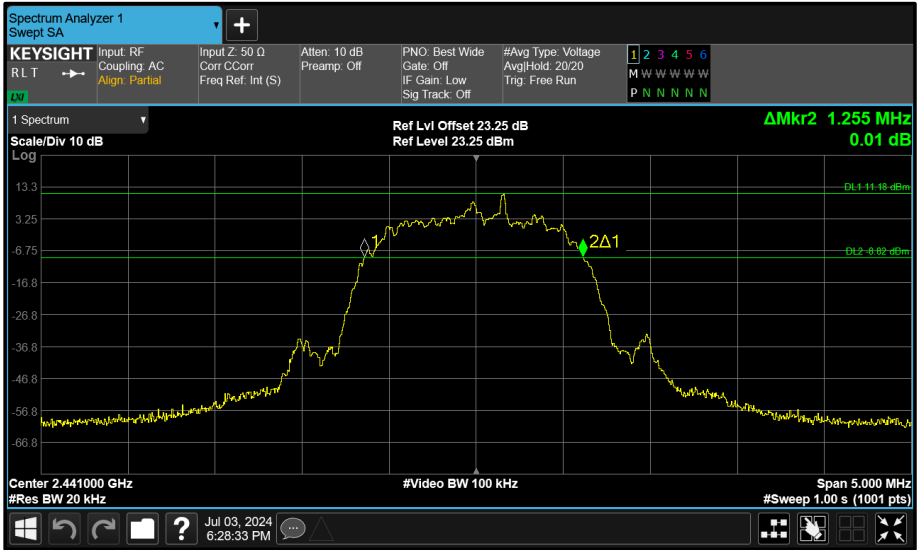


Figure 208 - Core 1 (B) 2441 MHz (CH39) 20 dB Bandwidth

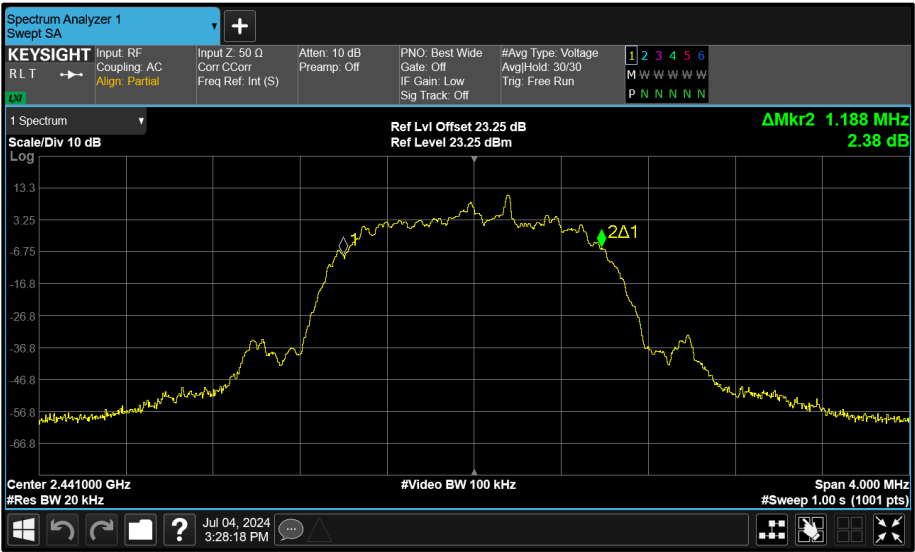


Figure 209 - Core 1 (B) 2441 MHz (CH39) 99% Bandwidth

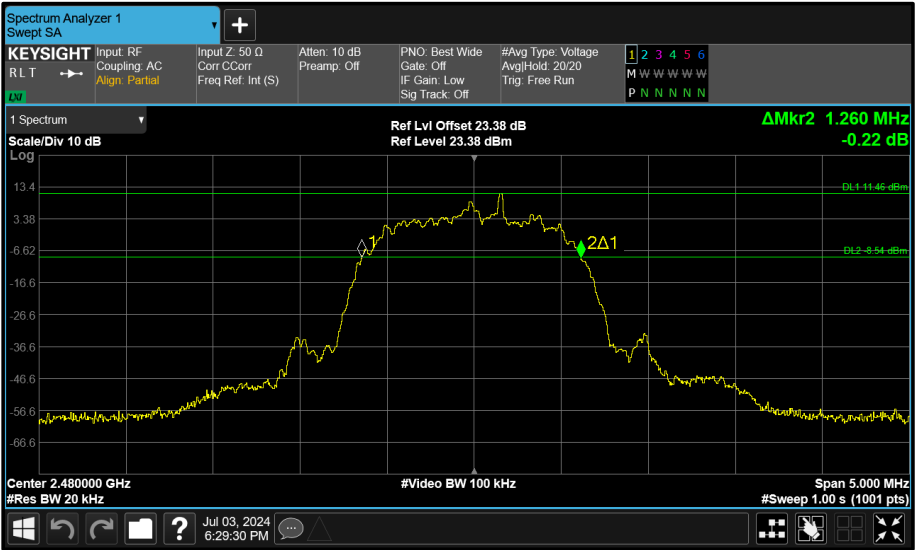


Figure 210 - Core 0 (A) 2480 MHz (CH78) 20 dB Bandwidth

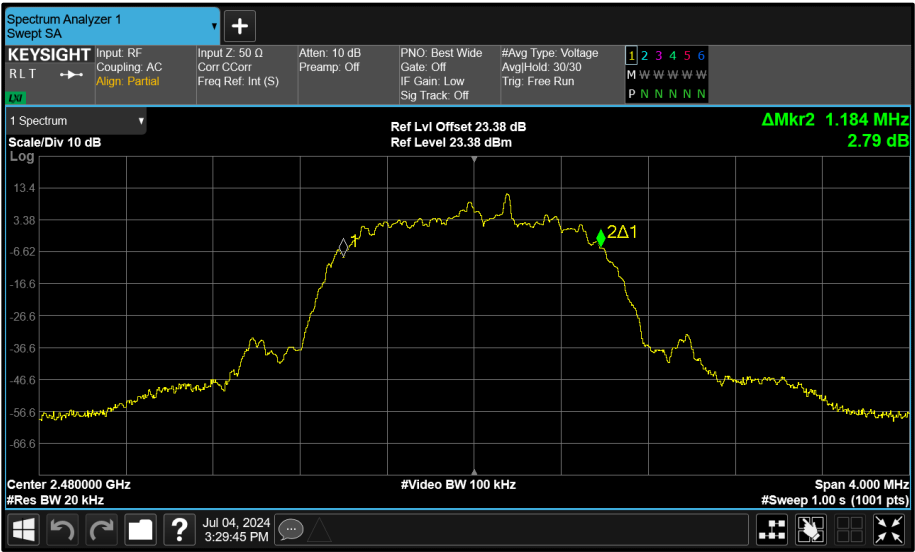


Figure 211 - Core 0 (A) 2480 MHz (CH78) 99% Bandwidth

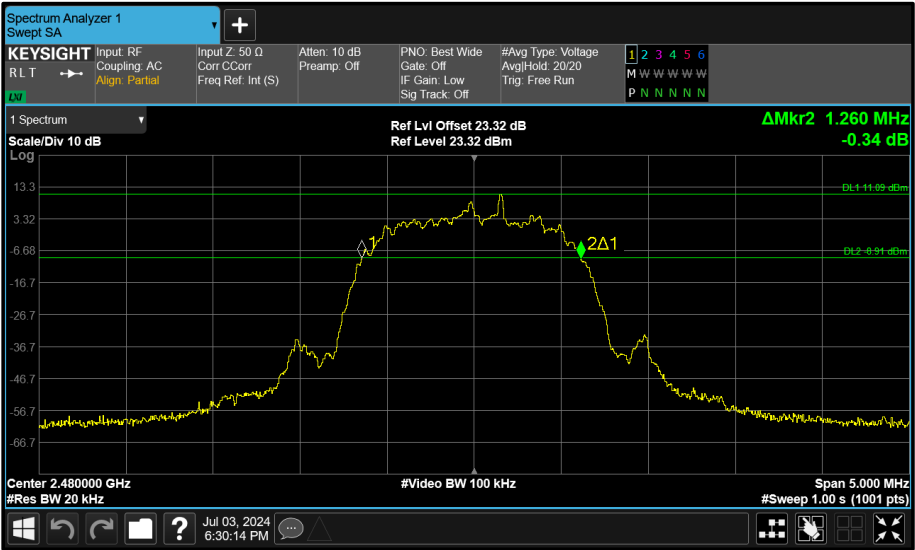


Figure 212 - Core 1 (B) 2480 MHz (CH78) 20 dB Bandwidth

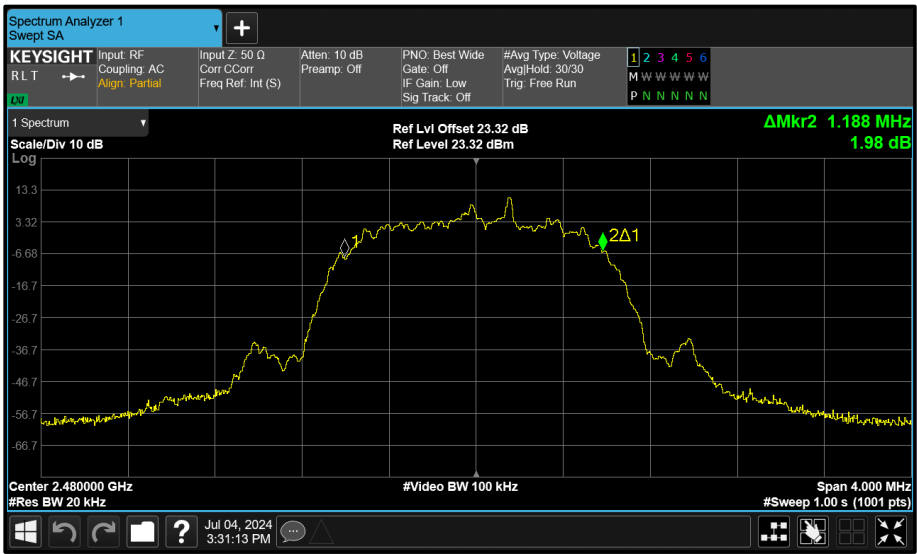


Figure 213 - Core 1 (B) 2480 MHz (CH78) 99% Bandwidth

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

None specified.

2.5.7 Test Location and Test Equipment Used

This test was carried out in 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
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
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

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

A3247, S/N: CMVW5QCY3C - Modification State 0

2.6.3 Date of Test

03-July-2024 to 08-August-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	21.1 - 22.2 °C
Relative Humidity	52.5 - 55.8 %



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):	A (Core 0)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	14.27	-	-	-	-	30.00	-15.73
2441	13.78	-	-	-	-	30.00	-16.22
2480	13.54	-	-	-	-	30.00	-16.46

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	14.27	-	-	-	-	30.00	-15.73	16.87	36.00	-19.13
2441	13.78	-	-	-	-	30.00	-16.22	16.38	36.00	-19.62
2480	13.54	-	-	-	-	30.00	-16.46	16.14	36.00	-19.86

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):	A (Core 0)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	11.75	-	-	-	-	30.00	-18.25
2441	11.95	-	-	-	-	30.00	-18.05
2480	11.75	-	-	-	-	30.00	-18.25

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	11.75	-	-	-	-	30.00	-18.25	14.35	36.00	-21.65
2441	11.95	-	-	-	-	30.00	-18.05	14.55	36.00	-21.45
2480	11.75	-	-	-	-	30.00	-18.25	14.35	36.00	-21.65

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):	A (Core 0)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	12.11	-	-	-	-	30.00	-17.89
2441	12.27	-	-	-	-	30.00	-17.73
2480	12.13	-	-	-	-	30.00	-17.87

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	12.11	-	-	-	-	30.00	-17.89	14.71	36.00	-21.29
2441	12.27	-	-	-	-	30.00	-17.73	14.87	36.00	-21.13
2480	12.13	-	-	-	-	30.00	-17.87	14.73	36.00	-21.27

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 (%):	76.8
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.40

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	12.65	-	-	30.00	-17.35
2441	-	-	13.21	-	-	30.00	-16.79
2480	-	-	12.72	-	-	30.00	-17.28

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	-	-	12.65	-	-	30.00	-17.35	14.05	36.00	-21.95
2441	-	-	13.21	-	-	30.00	-16.79	14.61	36.00	-21.39
2480	-	-	12.72	-	-	30.00	-17.28	14.12	36.00	-21.88

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 (%):	77.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.40

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	11.80	-	-	30.00	-18.20
2441	-	-	11.85	-	-	30.00	-18.15
2480	-	-	11.70	-	-	30.00	-18.30

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	-	-	11.80	-	-	30.00	-18.20	13.20	36.00	-22.80
2441	-	-	11.85	-	-	30.00	-18.15	13.25	36.00	-22.75
2480	-	-	11.70	-	-	30.00	-18.30	13.10	36.00	-22.90

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 (%):	76.9
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.40

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	12.31	-	-	30.00	-17.69
2441	-	-	12.25	-	-	30.00	-17.75
2480	-	-	12.09	-	-	30.00	-17.91

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	-	-	12.31	-	-	30.00	-17.69	13.71	36.00	-22.29
2441	-	-	12.25	-	-	30.00	-17.75	13.65	36.00	-22.35
2480	-	-	12.09	-	-	30.00	-17.91	13.49	36.00	-22.51

Table 107 - 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:	ePA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	14.23	-	-	-	-	30.00	-15.77
2441	13.83	-	-	-	-	30.00	-16.17
2480	13.57	-	-	-	-	30.00	-16.43

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	14.23	-	-	-	-	30.00	-15.77	16.83	36.00	-19.17
2441	13.83	-	-	-	-	30.00	-16.17	16.43	36.00	-19.57
2480	13.57	-	-	-	-	30.00	-16.43	16.17	36.00	-19.83

Table 109 - 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:	ePA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	76.9
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	19.35	-	-	-	-	30.00	-10.65
2441	19.44	-	-	-	-	30.00	-10.56
2480	19.06	-	-	-	-	30.00	-10.94

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	19.35	-	-	-	-	30.00	-10.65	21.95	36.00	-14.05
2441	19.44	-	-	-	-	30.00	-10.56	22.04	36.00	-13.96
2480	19.06	-	-	-	-	30.00	-10.94	21.66	36.00	-14.34

Table 111 - 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:	ePA 8-DPSK (3-DH5)	Duty Cycle (%):	76.9
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.60

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	19.49	-	-	-	-	30.00	-10.51
2441	19.67	-	-	-	-	30.00	-10.33
2480	19.75	-	-	-	-	30.00	-10.25

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	19.49	-	-	-	-	30.00	-10.51	22.09	36.00	-13.91
2441	19.67	-	-	-	-	30.00	-10.33	22.27	36.00	-13.73
2480	19.75	-	-	-	-	30.00	-10.25	22.35	36.00	-13.65

Table 113 - 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):	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):	5.46

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	13.79	13.66	-	-	16.73	30.00	-13.27
2441	13.58	13.55	-	-	16.57	30.00	-13.43
2480	13.55	13.39	-	-	16.48	30.00	-13.52

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	13.79	13.66	-	-	16.73	30.00	-13.27	22.19	36.00	-13.81
2441	13.58	13.55	-	-	16.57	30.00	-13.43	22.03	36.00	-13.97
2480	13.55	13.39	-	-	16.48	30.00	-13.52	21.94	36.00	-14.06

Table 115 - 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):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	76.9
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	5.46

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	11.68	11.84	-	-	14.77	30.00	-15.23
2441	11.74	11.64	-	-	14.70	30.00	-15.30
2480	11.73	11.72	-	-	14.74	30.00	-15.26

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	11.68	11.84	-	-	14.77	30.00	-15.23	20.23	36.00	-15.77
2441	11.74	11.64	-	-	14.70	30.00	-15.30	20.16	36.00	-15.84
2480	11.73	11.72	-	-	14.74	30.00	-15.26	20.20	36.00	-15.80

Table 117 - 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):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA 8-DPSK (3-DH5)	Duty Cycle (%):	76.9
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	5.46

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	12.01	12.19	-	-	15.12	30.00	-14.88
2441	12.26	12.01	-	-	15.14	30.00	-14.86
2480	12.11	12.06	-	-	15.09	30.00	-14.91

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	12.01	12.19	-	-	15.12	30.00	-14.88	20.58	36.00	-15.42
2441	12.26	12.01	-	-	15.14	30.00	-14.86	20.61	36.00	-15.39
2480	12.11	12.06	-	-	15.09	30.00	-14.91	20.56	36.00	-15.44

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):	5.46

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	14.25	13.63	-	-	16.96	30.00	-13.04
2441	13.59	13.56	-	-	16.59	30.00	-13.41
2480	13.55	13.40	-	-	16.49	30.00	-13.51

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	14.25	13.63	-	-	16.96	30.00	-13.04	22.43	36.00	-13.57
2441	13.59	13.56	-	-	16.59	30.00	-13.41	22.05	36.00	-13.95
2480	13.55	13.40	-	-	16.49	30.00	-13.51	21.95	36.00	-14.05

Table 121 - 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):	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):	5.46

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	16.25	15.88	-	-	19.08	30.00	-10.92
2441	15.93	15.91	-	-	18.93	30.00	-11.07
2480	16.33	15.82	-	-	19.09	30.00	-10.91

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	16.25	15.88	-	-	19.08	30.00	-10.92	24.54	36.00	-11.46
2441	15.93	15.91	-	-	18.93	30.00	-11.07	24.39	36.00	-11.61
2480	16.33	15.82	-	-	19.09	30.00	-10.91	24.56	36.00	-11.44

Table 123 - 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):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA 8-DPSK (3-DH5)	Duty Cycle (%):	76.9
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	5.46

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	16.50	16.85	-	-	19.69	30.00	-10.31
2441	16.38	16.50	-	-	19.45	30.00	-10.55
2480	16.71	16.40	-	-	19.57	30.00	-10.43

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	16.50	16.85	-	-	19.69	30.00	-10.31	25.15	36.00	-10.85
2441	16.38	16.50	-	-	19.45	30.00	-10.55	24.91	36.00	-11.09
2480	16.71	16.40	-	-	19.57	30.00	-10.43	25.03	36.00	-10.97

Table 125 - 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.



2.6.7 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
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
USB Power Sensor	Boonton	RTP5008	5820	12	07-Feb-2025
USB Power Sensors, 50MHz to 8GHz	Boonton	RTP5008	5921	12	05-Feb-2025
USB Power Sensors, 50MHz to 8GHz	Boonton	RTP5008	5922	12	05-Feb-2025
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6518	12	16-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
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
AC Programmable Power Supply	iTech	IT7324	6662	-	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	12	06-Feb-2025

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

A3247, S/N: KN47NTDQRY - Modification State 0

2.7.3 Date of Test

14-April-2024 to 18-April-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	21.0 - 23.0 °C
Relative Humidity	38.3 - 41.5 %



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	-66.55
Static	2-DH5	2402	2400	-56.94
Static	3-DH5	2402	2400	-57.01
Hopping	DH5	Hopping	2400	-67.98
Hopping	2-DH5	Hopping	2400	-62.53
Hopping	3-DH5	Hopping	2400	-62.51

Table 127 - SISO Authorised Band Edge Results

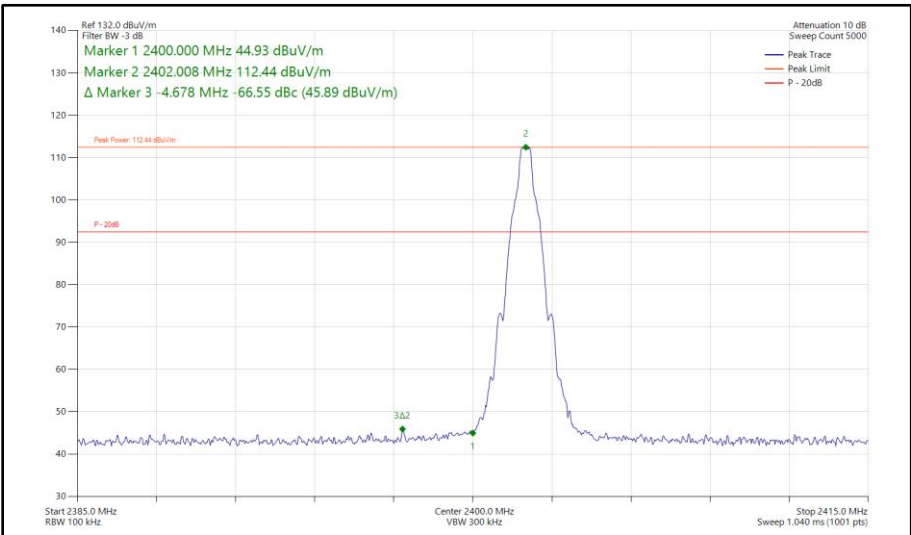


Figure 214 - Bluetooth DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

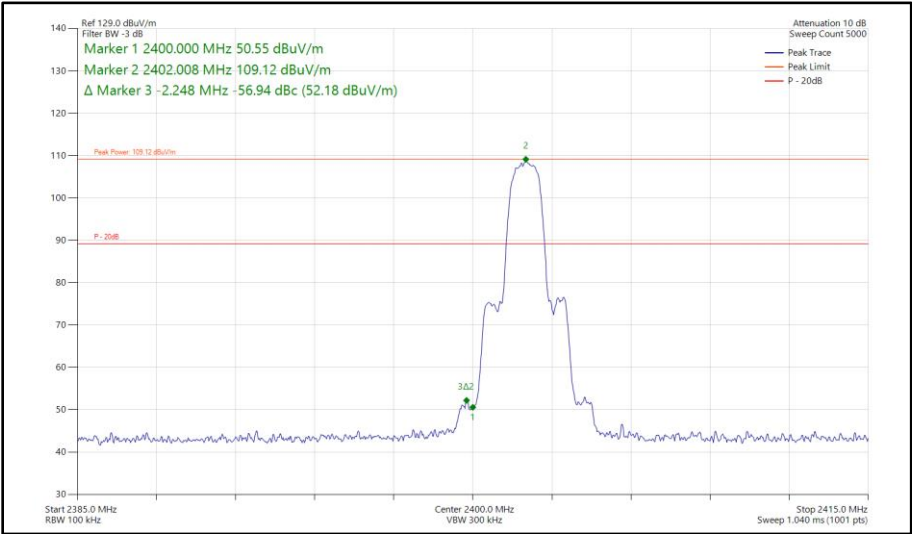


Figure 215 - Bluetooth 2-DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

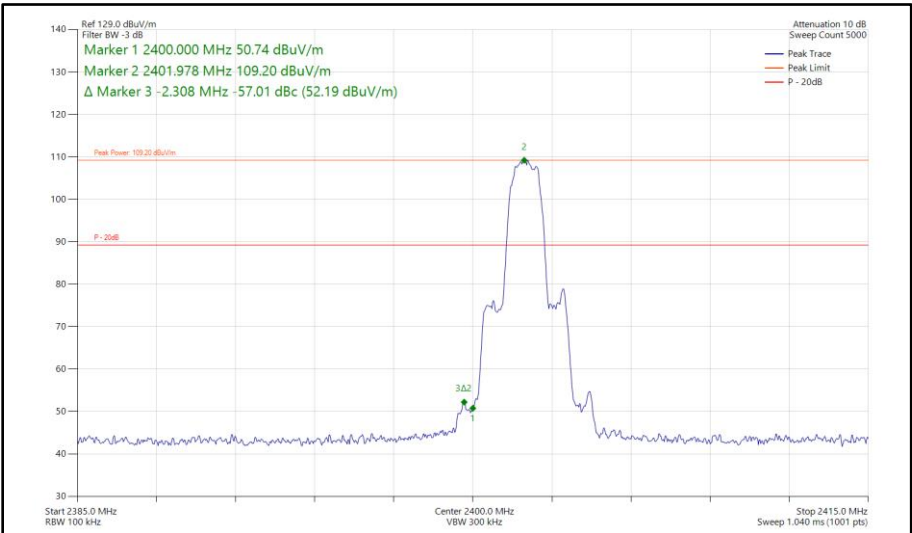


Figure 216 - Bluetooth 3-DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

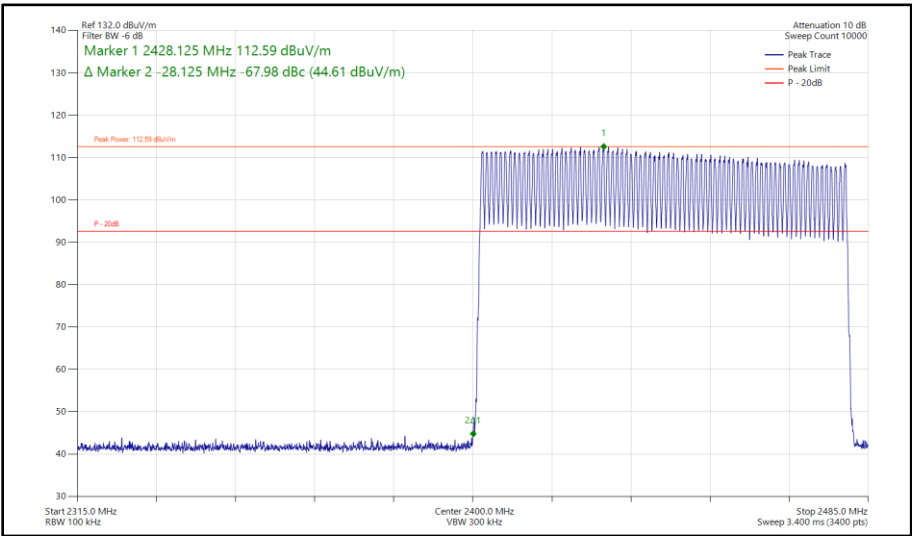


Figure 217 - Bluetooth DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz

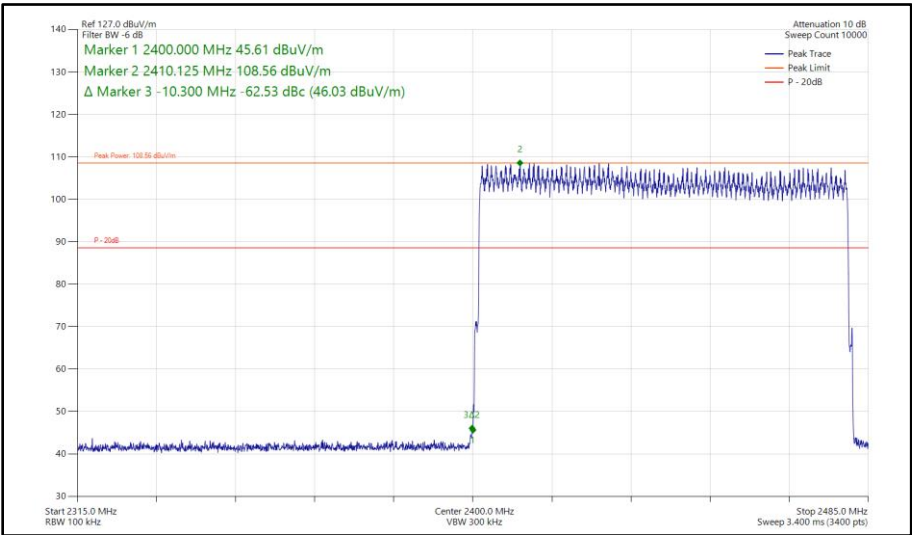


Figure 218 - Bluetooth 2-DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz

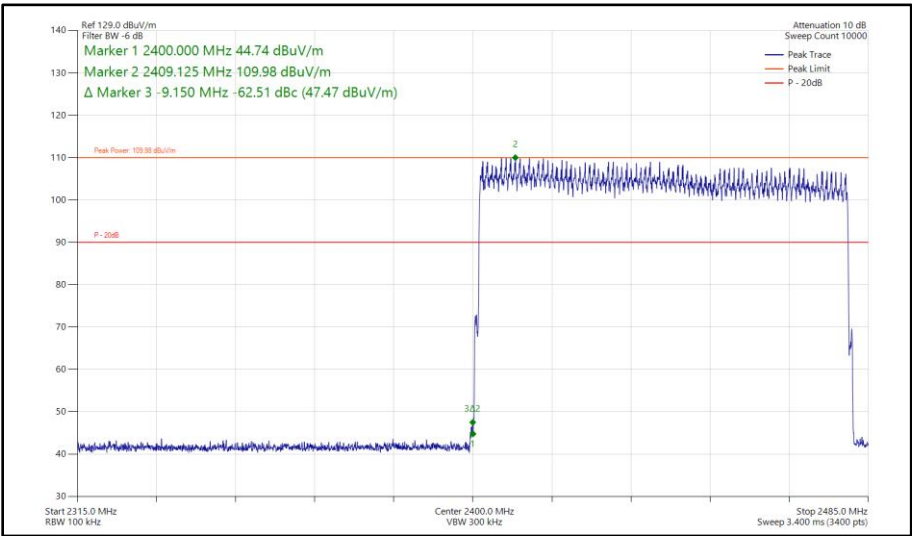


Figure 219 - Bluetooth 3-DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz



iPA - Core 1 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-64.50
Static	2-DH5	2402	2400	-56.15
Static	3-DH5	2402	2400	-56.90
Hopping	DH5	Hopping	2400	-67.69
Hopping	2-DH5	Hopping	2400	-60.91
Hopping	3-DH5	Hopping	2400	-61.24

Table 128 - SISO Authorised Band Edge Results

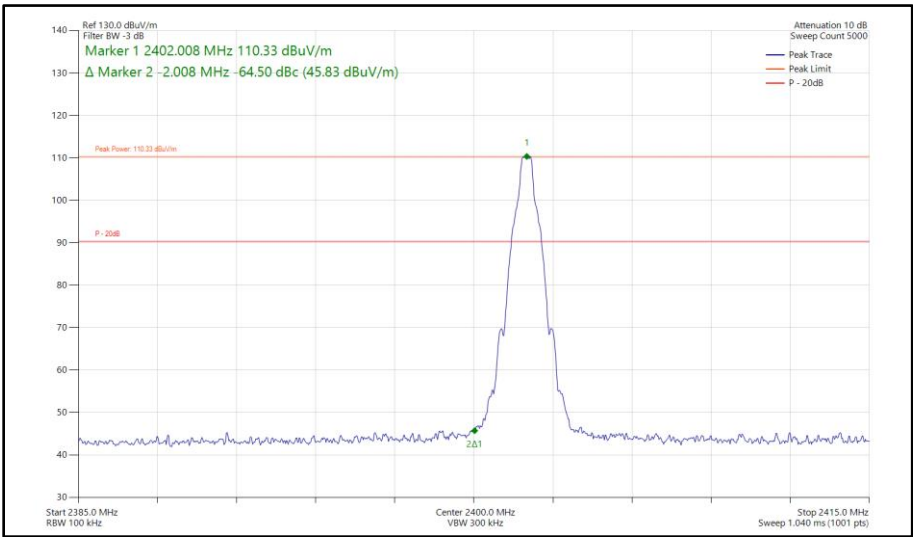


Figure 220 - Bluetooth DH5, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

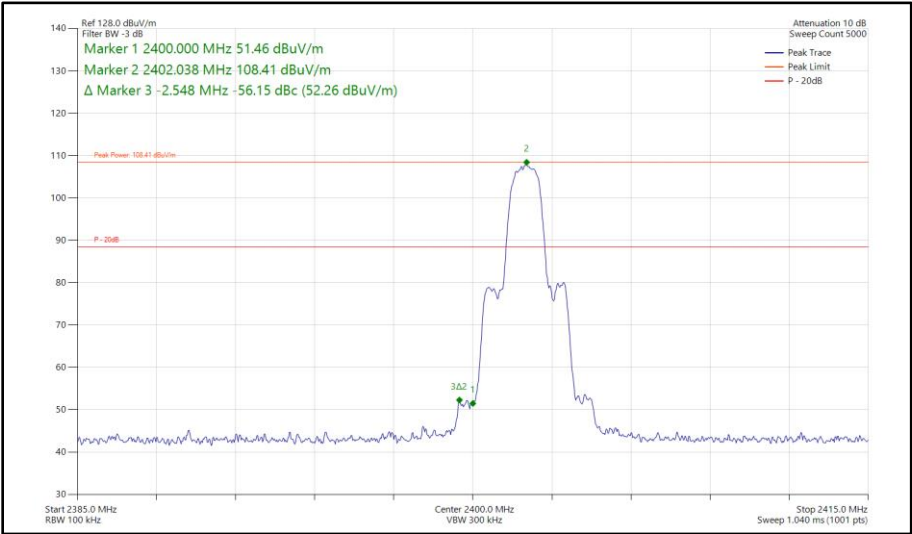


Figure 221 - Bluetooth 2-DH5, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

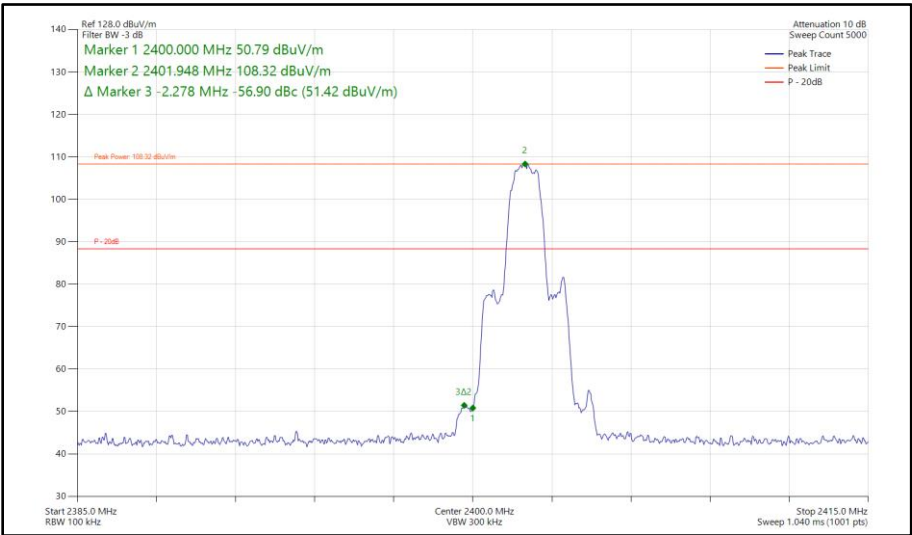


Figure 222 - Bluetooth 3-DH5, SISO, Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz

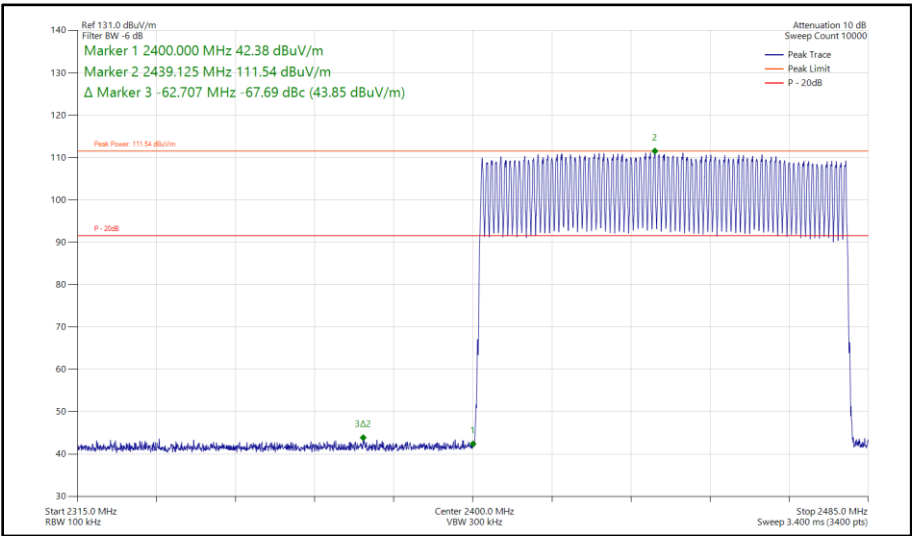


Figure 223 - Bluetooth DH5, SISO, Core 1 - Hopping
Band Edge Frequency 2400 MHz

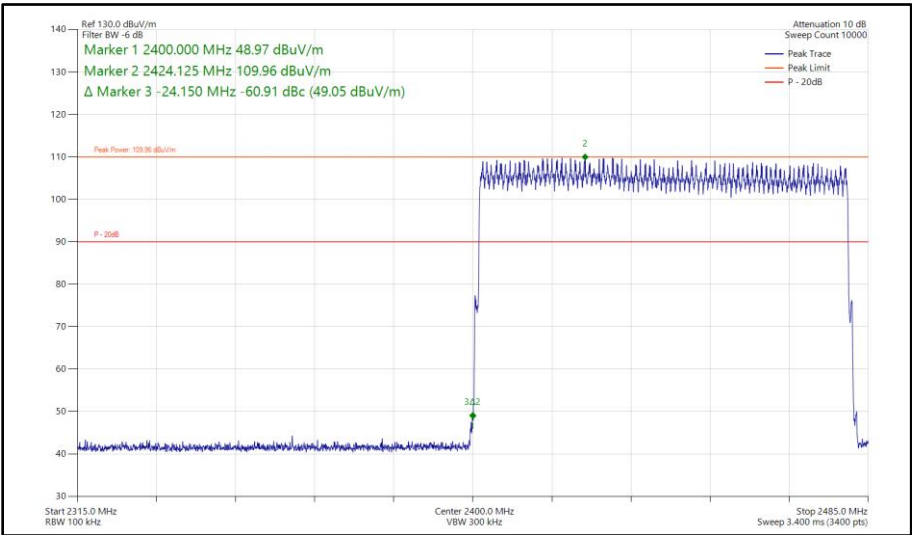


Figure 224 - Bluetooth 2-DH5, SISO, Core 1 - Hopping
Band Edge Frequency 2400 MHz

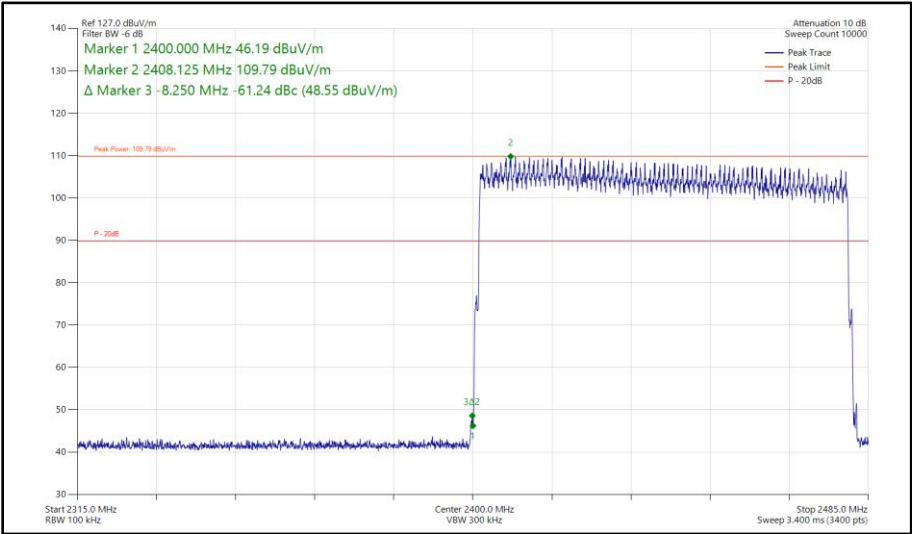


Figure 225 - Bluetooth 3-DH5, SISO, Core 1 - Hopping
Band Edge Frequency 2400 MHz



iPA - Core 2 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-58.54
Static	2-DH5	2402	2400	-52.59
Static	3-DH5	2402	2400	-52.04
Hopping	DH5	Hopping	2400	-64.28
Hopping	2-DH5	Hopping	2400	-61.42
Hopping	3-DH5	Hopping	2400	-59.55

Table 129 - SISO Authorised Band Edge Results

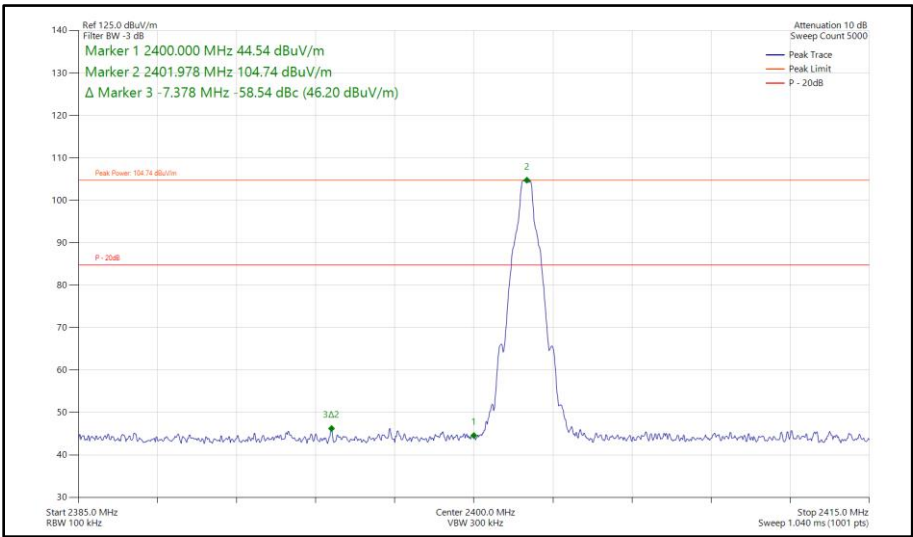


Figure 226 - Bluetooth DH5, SISO, Core 2 - 2402 MHz
Band Edge Frequency 2400 MHz

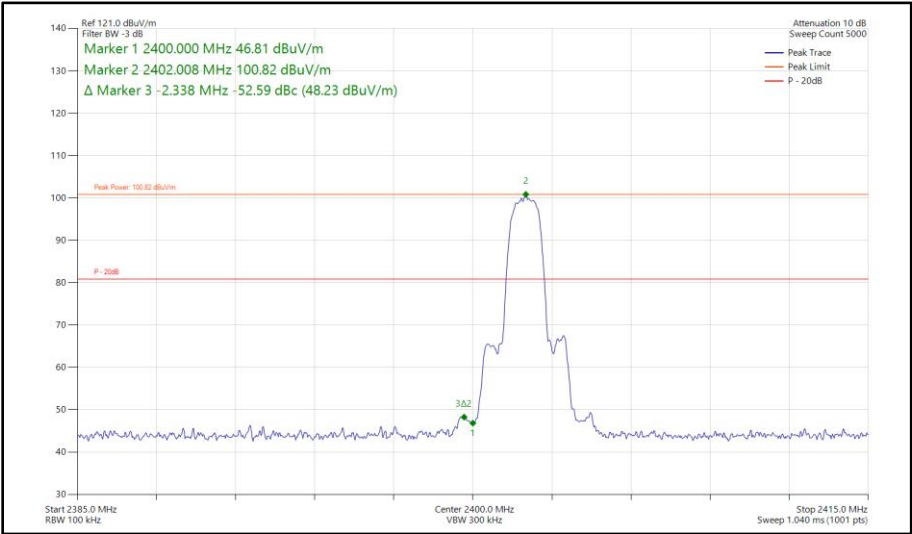


Figure 227 - Bluetooth 2-DH5, SISO, Core 2 - 2402 MHz
Band Edge Frequency 2400 MHz

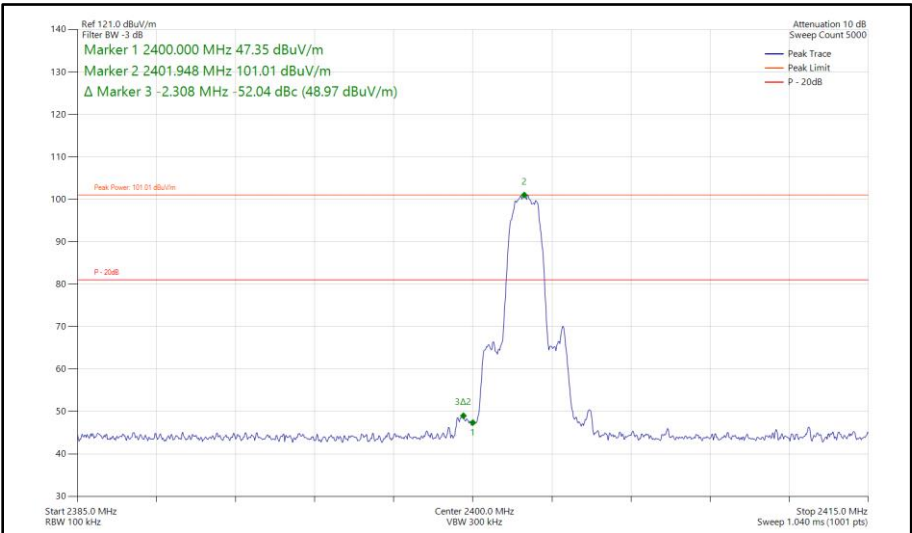


Figure 228 - Bluetooth 3-DH5, SISO, Core 2 - 2402 MHz
Band Edge Frequency 2400 MHz

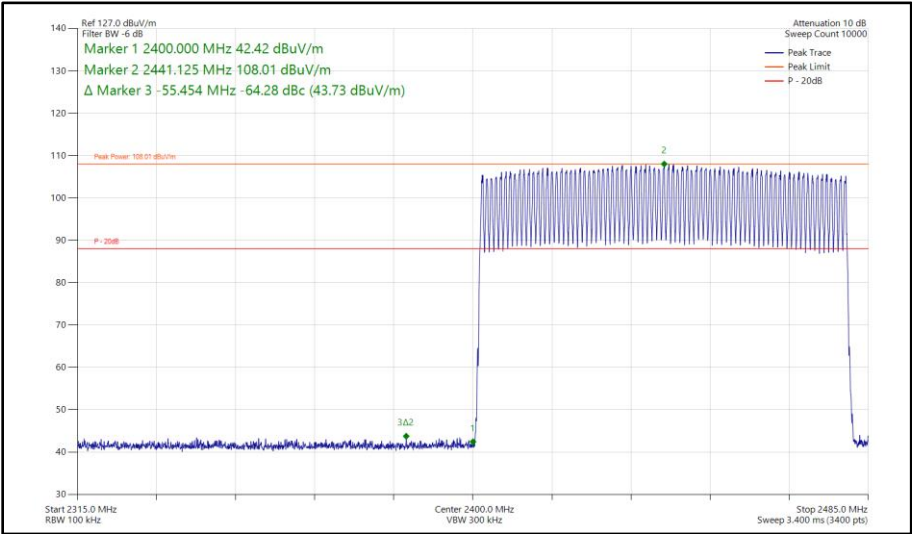


Figure 229 - Bluetooth DH5, SISO, Core 2 - Hopping
Band Edge Frequency 2400 MHz

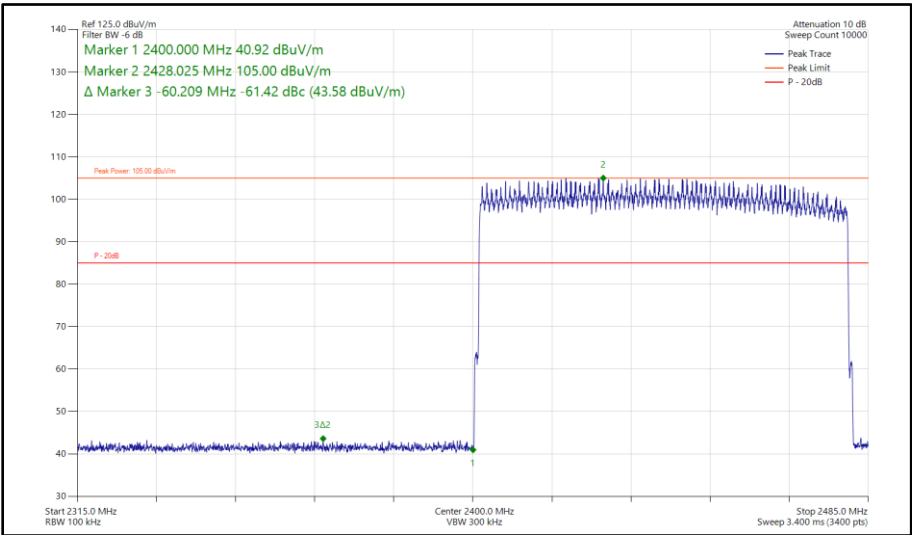


Figure 230 - Bluetooth 2-DH5, SISO, Core 2 - Hopping
Band Edge Frequency 2400 MHz





iPA - Core 0 - Core 1 (MIMO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-63.67
Static	2-DH5	2402	2400	-57.13
Static	3-DH5	2402	2400	-57.46
Hopping	DH5	Hopping	2400	-70.21
Hopping	2-DH5	Hopping	2400	-62.68
Hopping	3-DH5	Hopping	2400	-65.73

Table 130 - MIMO Authorised Band Edge Results

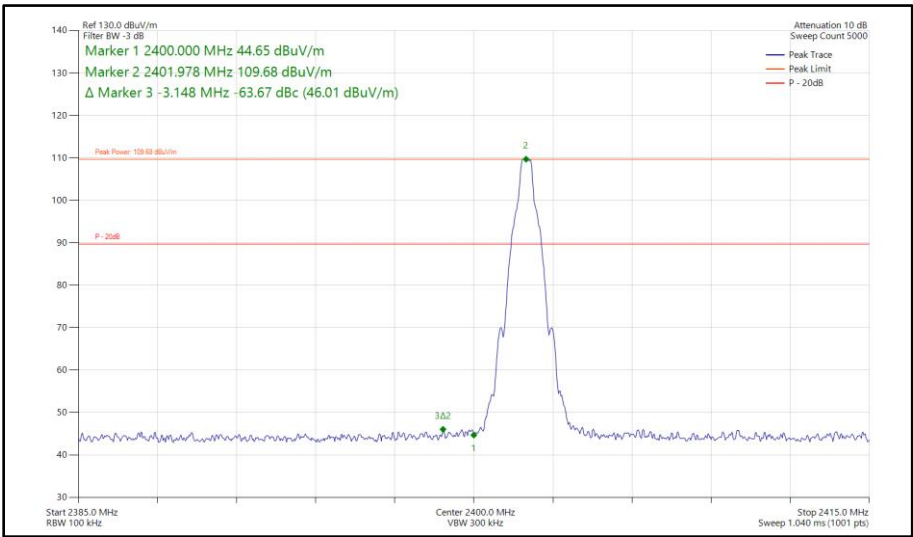


Figure 232 - Bluetooth DH5, MIMO, Core 0 - Core 1 - 2402 MHz
Band Edge Frequency 2400 MHz



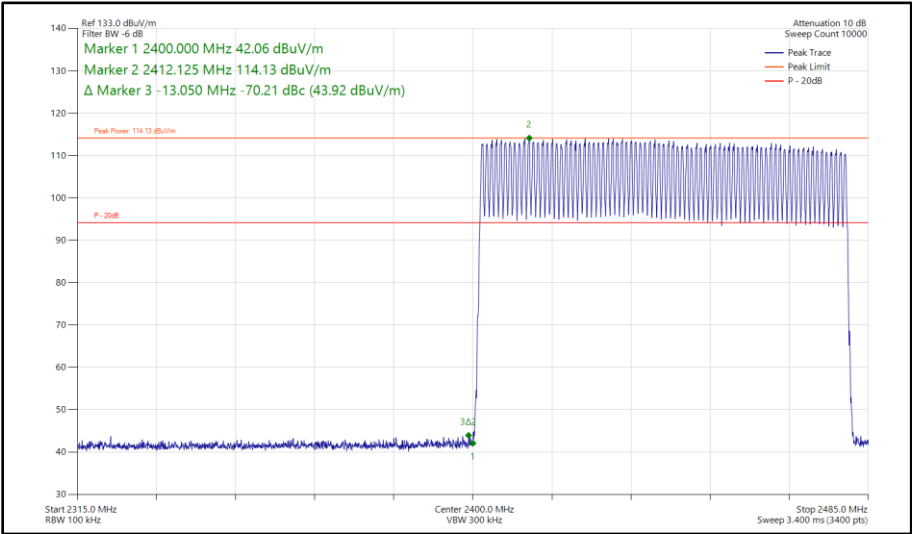


Figure 235 - Bluetooth DH5, MIMO, Core 0 - Core 1 - Hopping
Band Edge Frequency 2400 MHz

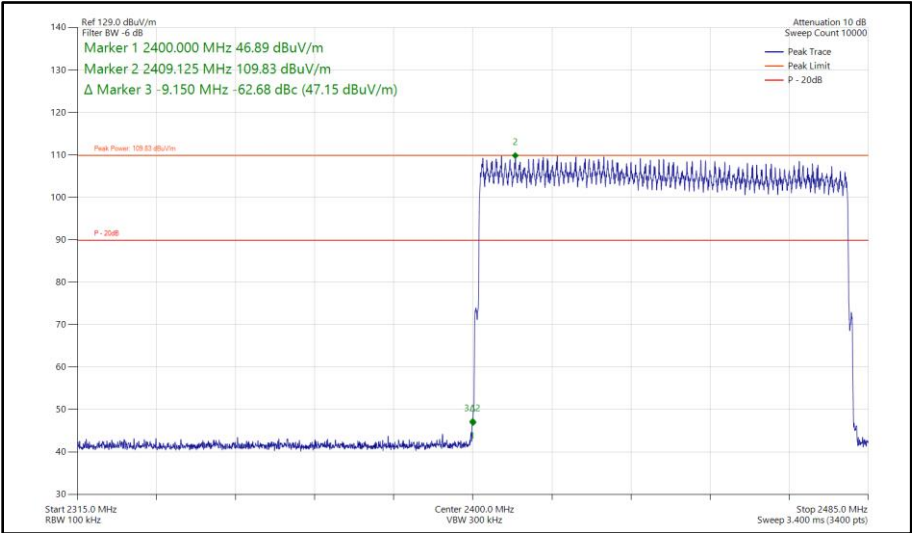


Figure 236 - Bluetooth 2-DH5, MIMO, Core 0 - Core 1 - Hopping
Band Edge Frequency 2400 MHz

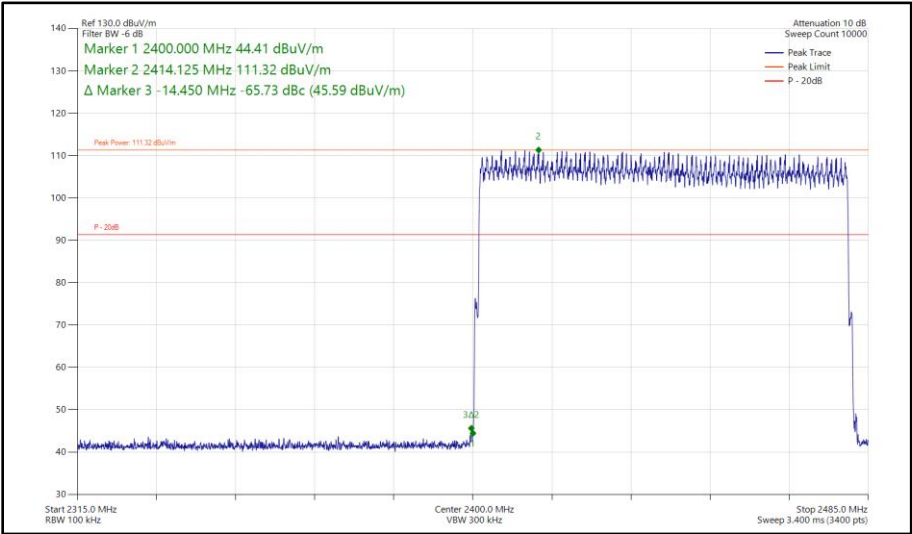


Figure 237 - Bluetooth 3-DH5, MIMO, Core 0 - Core 1 - Hopping
Band Edge Frequency 2400 MHz



ePA - Core 0 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	DH5	2402	2400	-67.05
Static	2-DH5	2402	2400	-59.24
Static	3-DH5	2402	2400	-57.69
Hopping	DH5	Hopping	2400	-70.33
Hopping	2-DH5	Hopping	2400	-66.43
Hopping	3-DH5	Hopping	2400	-68.66

Table 131 - SISO Authorised Band Edge Results

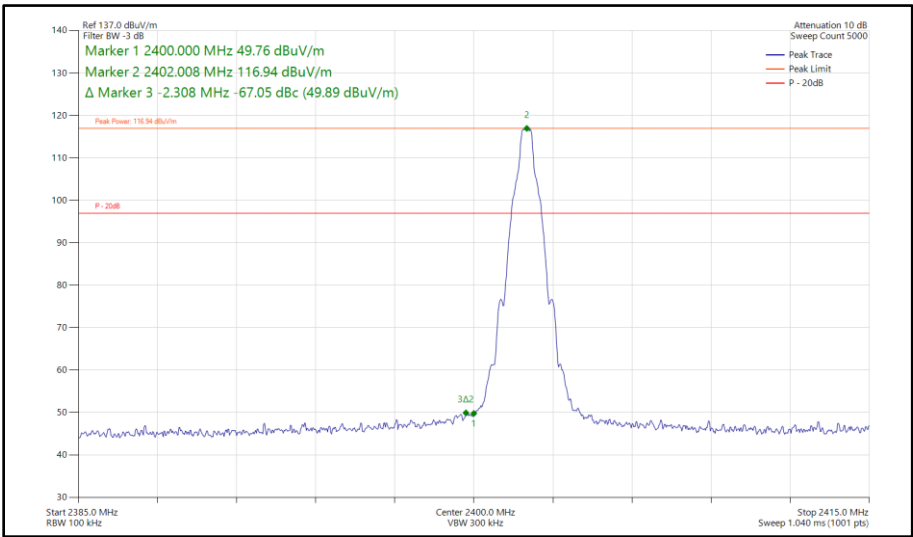


Figure 238 - Bluetooth DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

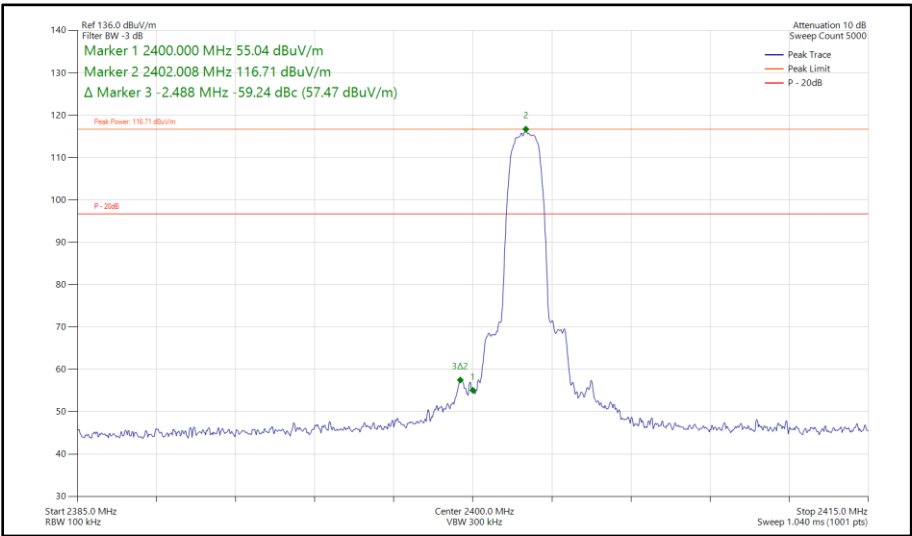


Figure 239 - Bluetooth 2-DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

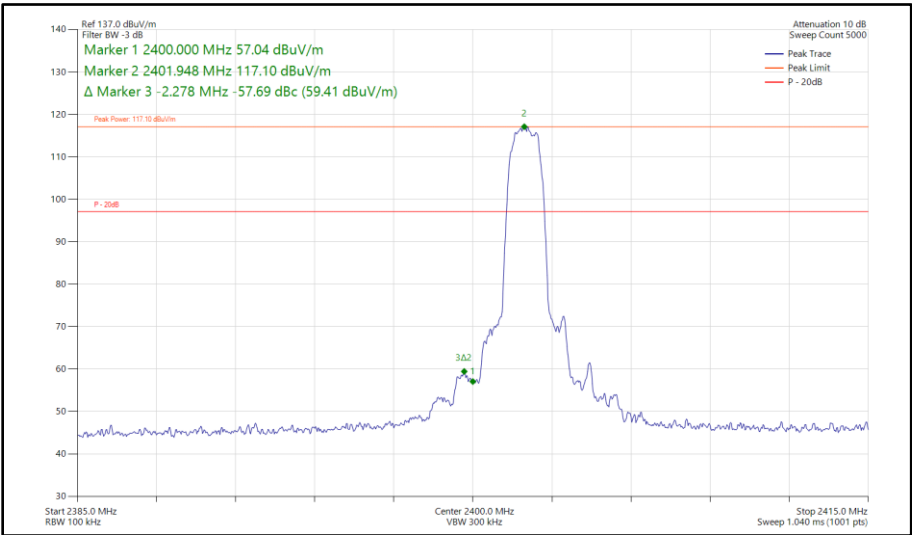


Figure 240 - Bluetooth 3-DH5, SISO, Core 0 - 2402 MHz
Band Edge Frequency 2400 MHz

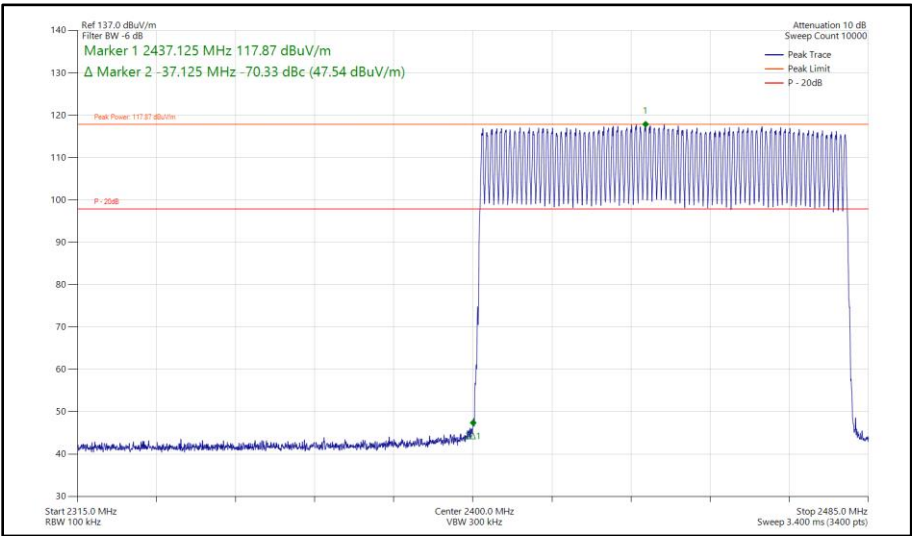


Figure 241 - Bluetooth DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz

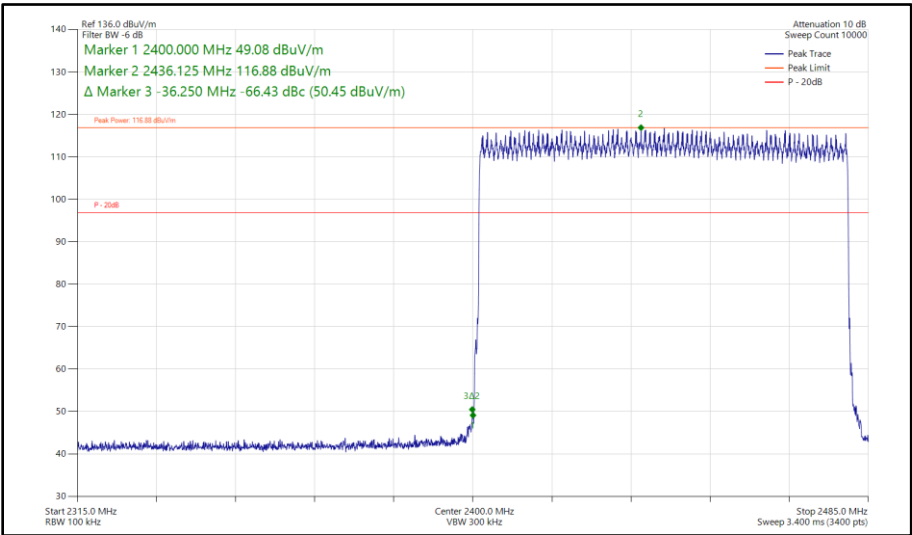


Figure 242 - Bluetooth 2-DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz

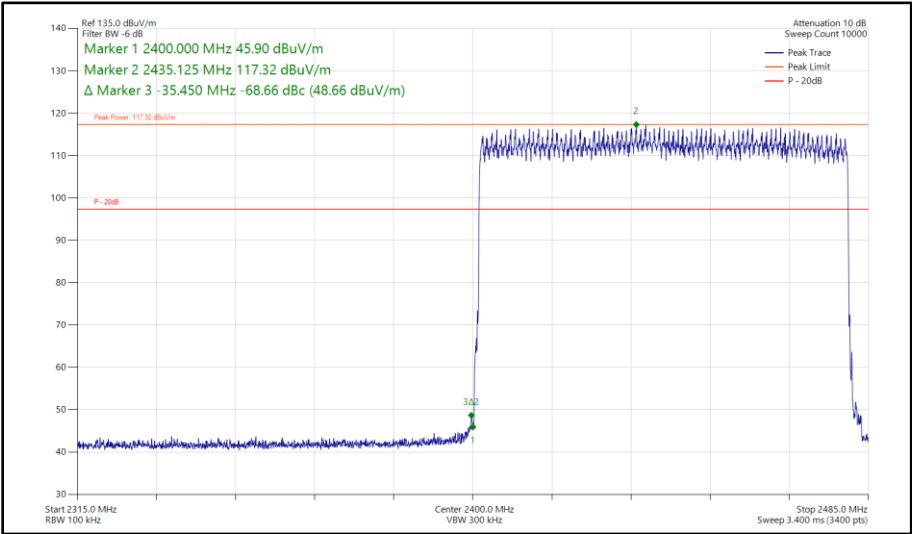


Figure 243 - Bluetooth 3-DH5, SISO, Core 0 - Hopping
Band Edge Frequency 2400 MHz