

FCC and ISED Test Report

Apple Inc
Model: A3593



In accordance with FCC 47 CFR Part 15C
ISED RSS-247 and ISED RSS-GEN
(2.4 GHz Bluetooth DTS)

Prepared for: Apple Inc
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SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Ryan Hanley	Senior Sales and Technical Specialist	Authorised Signatory	21 September 2026

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC 47 CFR Part 15C, ISED RSS-247 and ISED RSS-GEN. The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Report Generation	Malwina Kowalska	21 September 2026	

FCC Accreditation

553713/UK2026 Concorde Park, Fareham Test Laboratory

ISED Accreditation

28798/UK0003 Concorde Park, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15C: 2025, ISED RSS-247: Issue 4 (2025-07) and ISED RSS-GEN: Issue 5 (2018-04) + A2 (2021-02) for the tests detailed in section 1.3.



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1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
1	First Issue	21 September 2026

Table 1

1.2 Introduction

Applicant	Apple Inc
Manufacturer	Apple Inc
EUT/Sample Identification	Refer to section 1.6
Test Specification/Issue/Date	FCC 47 CFR Part 15C: 2025 ISED RSS-247: Issue 4 (2025-07) ISED RSS-GEN: Issue 5 (2018-04) + A2 (2021-02)
Start of Test	28-June-2026
Finish of Test	10-September-2026
Name of Engineer(s)	Zeeshan Zia, Colin Brain, Dulanjan Witharamalage, Morsalin Hossain, Manohar Thota, Marius Vasii, Ian Hart, Tony Baby, Gridi Bilali, Babitha Babu and Nathan Ocom, Joshua O'Donnell
Related Document(s)	ANSI C63.4 (2014) ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024 KDB 662911 D01 v02r01



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15C, ISED RSS-247 and ISED RSS-GEN is shown below.

Section	Specification Clause			Test Description	Result	Comments/Base Standard
	Part 15C	RSS-247	RSS-GEN			
Configuration and Mode: 2.4 GHz Bluetooth DTS						
-	15.203	-	-	Antenna Requirement	N/T	The device complies with the provisions of this section, as it uses permanently attached integral antennas.
2.1	15.247 (a)(2),	6.3.1	6.7	Emission Bandwidth	Pass	ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024
2.2	15.247 (b)	6.3.2	6.12	Maximum Conducted Output Power	Pass	ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024 KDB 662911 D01 v02r01
2.3	15.247 (e)	6.3.1	6.12	Power Spectral Density	Pass	ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024 KDB 662911 D01 v02r01
2.4	15.205	2.4	8.10	Restricted Band Edges	Pass	ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024
2.5	15.247 (d)	6.6	-	Authorised Band Edges	Pass	ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024
2.6	15.209 & 15.247 (d)	2.4 and 6.6	6.13 and 8.9	Spurious Radiated Emissions	Pass	ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024

Table 2



1.4 Product Information

1.4.1 Technical Description

The equipment under test (EUT) was a TV Set Top Box.

1.4.2 Test Modes

The EUT's 2.4 GHz Bluetooth radio supports SISO (Single Input/Single Output) operation on three different cores (Core 0, Core 1 and Core 2). It also supports MIMO (Multiple Input/Multiple Output) beamforming operation on Core 0 + Core 1.

The EUT uses different output powers per core dependent on how many cores are used.

It also operates at two power settings: low power "iPA" and high power "ePA" and the EUT uses different output powers per core dependent on how many cores are used, with operation on Core 2 being limited to low power "iPA".

The EUT supports EDR2 (2-DHx), EDR3 (3-DHx), LE Adv, LE1M, LE2M, LELR, HDR4 (4-DH5), HDR8 (8-DH5), HDRPS2, XHDRPS2, HDRPM4/6/8/12/16, XHDRPM4/6/8/12/16 and HDT2/3/4/6/8 for DTS operation.

After preliminary investigations were performed, the EUT was tested in the following worst-case modes during conducted transmitter tests.

SISO modes (Core 0, Core 1, Core 2):

- LELR125K – iPA
- LE1M – iPA/ePA
- HDR8 (8-DH5) – iPA/ePA
- HDRPM12 – iPA/ePA
- HDT4 – iPA/ePA
- 2-DH5 – ePA

MIMO modes (Core 0 + 1):

- LELR125K – Beamforming - iPA
- LE1M – Beamforming – iPA/ePA
- HDR8 (8-DH5) – Beamforming – iPA/ePA
- HDRPM12 – Beamforming – iPA/ePA
- HDT4 – Beamforming – iPA/ePA
- 2-DH5 – Beamforming – ePA

With Spurious Radiated Emissions tests limited to the modes shown below, with the device configured to operate at maximum output power. As this was deemed to be worst case.

MIMO modes:

- LE1M – iPA/ePA - Core 0 + Core 1
- HDR8 (8-DH5) – iPA/ePA - Core 0 + Core 1
- HDT4 – iPA/ePA - Core 0 + Core 1

SISO modes:

- LE1M – iPA – Core 2
- HDR8 (8-DH5) – iPA – Core 2
- HDT4 – iPA – Core 2



1.4.3 Test Setup

For conducted tests the EUT antennas were disconnected and replaced with U.FL to SMA test cables to enable conducted testing on each core. The loss of these test cables was known and compensated for in any conducted measurements.

For all tests the EUT was put into a continuous transmit/receive test mode with the chipset manufacturer's test commands to ensure the measured signals were representative. All testing was performed with the EUT powered via a 120 V AC, 60 Hz source.

1.4.4 Antenna Gain Table

Antenna Port	Frequency Range (MHz)	Peak Gain (dBi)	Conducted Cable Loss (dB)
Core 0 (Ant 1)	2402	-2.0	1.4
	2441	-1.6	1.4
	2480	-1.1	1.4
Core 1 (Ant 2)	2402	0.0	1.4
	2441	0.3	1.4
	2480	-0.2	1.4
Core 2 (Ant 3)	2402	1.2	1.4
	2441	0.8	1.4
	2480	0.4	1.4

Table 3

1.5 Deviations from the Standard

No deviations from the applicable test standard were made during testing.

1.6 Identification of the EUT

The table below details identification of the EUT(s) that have been used to carry out the testing within this report.

Model: A3593		
Serial Number	Hardware Version	Software Version
CFN9096KYW	REV1.0	24J232
HW4095PWM7	REV1.0	24J232
DQTC67Q9HH	REV1.0	24J232

Table 4



1.7 EUT Modification Record

The table below details modifications made to the EUT during the test programme.

The modifications incorporated during each test are recorded on the appropriate test pages.

Modification State	Description of Modification still fitted to EUT	Modification Fitted By	Date Modification Fitted
Model: A3593, Serial Number: CFN9096KYW			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3593, Serial Number: HW4095PWM7			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3593, Serial Number: DQTC67Q9HH			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 5

1.8 Test Location

TÜV SÜD conducted the following tests at our Concorde Park Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: 2.4 GHz Bluetooth - DTS		
Emission Bandwidth	Joshua O'Donnell	UKAS
Maximum Conducted Output Power	Joshua O'Donnell	UKAS
Power Spectral Density	Joshua O'Donnell	UKAS
Restricted Band Edges	Zeeshan Zia, Colin Brain, Dulanjan Witharamalage, Morsalin Hossain, Manohar Thota	UKAS
Authorised Band Edges	Zeeshan Zia, Colin Brain, Dulanjan Witharamalage, Morsalin Hossain, Manohar Thota	UKAS
Spurious Radiated Emissions	Ian Hart, Tony Baby, Zeeshan Zia, Gridi Bilali, Marius Vasii, Babitha Babu and Nathan Ocom	UKAS

Table 6

Office Address:

TÜV SÜD
Concorde Park
Concorde Way
Fareham
Hampshire
PO15 5FG
United Kingdom



2 Test Details

2.1 Emission Bandwidth

2.1.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a) (2)
ISED RSS-247, Clause 6.3.1
ISED RSS-GEN, Clause 6.7

2.1.2 Equipment Under Test and Modification State

A3593, S/N: DQTC67Q9HH - Modification State 0

2.1.3 Date of Test

03-September-2026 to 10-September-2026

2.1.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 11.8.1 for 6 dB BW and 6.9.3 for 99% occupied bandwidth measurements.

2.1.5 Environmental Conditions

Ambient Temperature	21.1 - 25.5 °C
Relative Humidity	41.8 - 58.8 %



2.1.6 Test Results

2.4 GHz Bluetooth - DTS

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA HDT (HDT4)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	2.144	-	-	-	≥500.0
2440	2.136	-	-	-	≥500.0
2478	2.136	-	-	-	≥500.0

Table 7 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	2.352	-	-	-	-
2440	2.360	-	-	-	-
2478	2.360	-	-	-	-

Table 8 - 99% Bandwidth Results

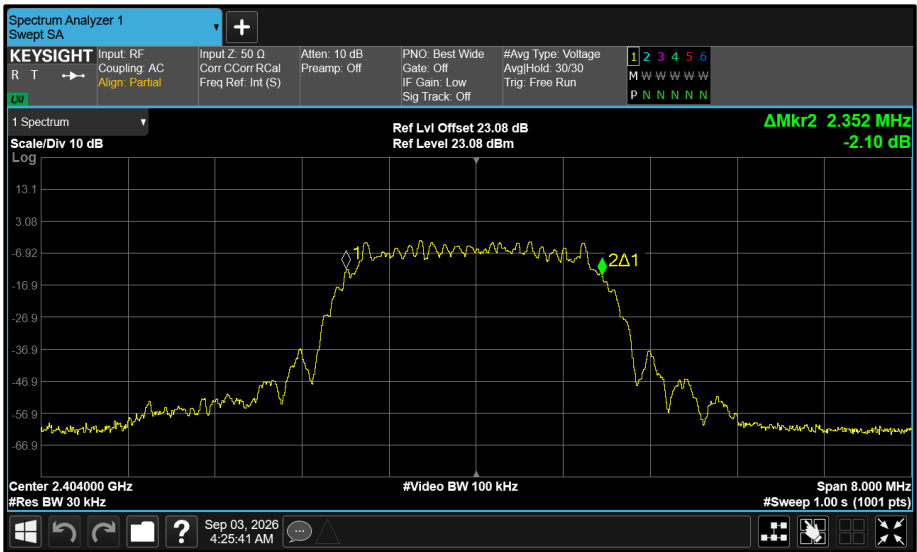


Figure 1 - Core 0 (A) 2404 MHz (CH2) 99% Bandwidth

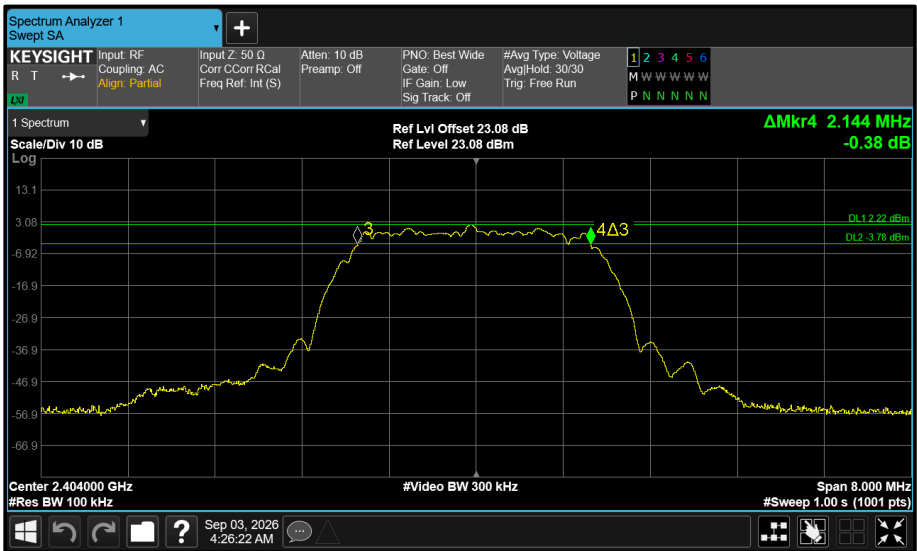


Figure 2 - Core 0 (A) 2404 MHz (CH2) 6 dB Bandwidth

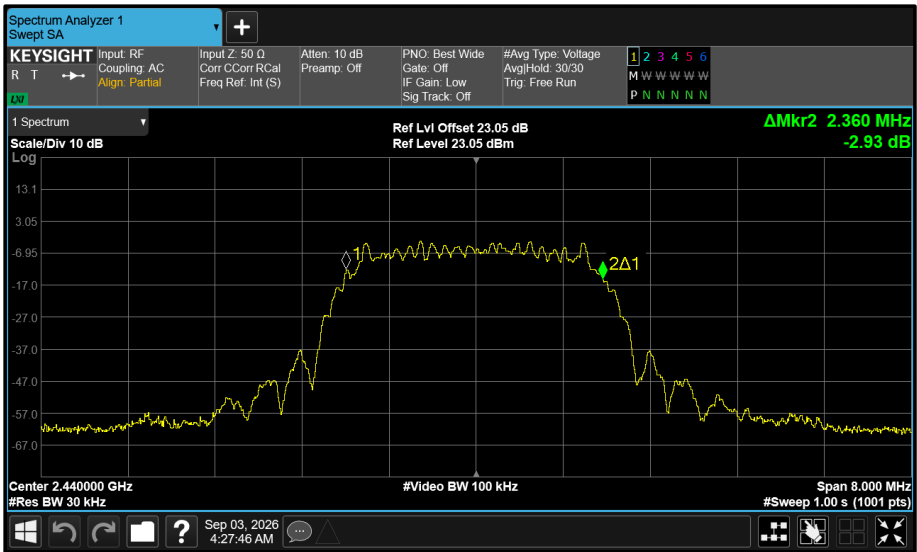


Figure 3 - Core 0 (A) 2440 MHz (CH38) 99% Bandwidth

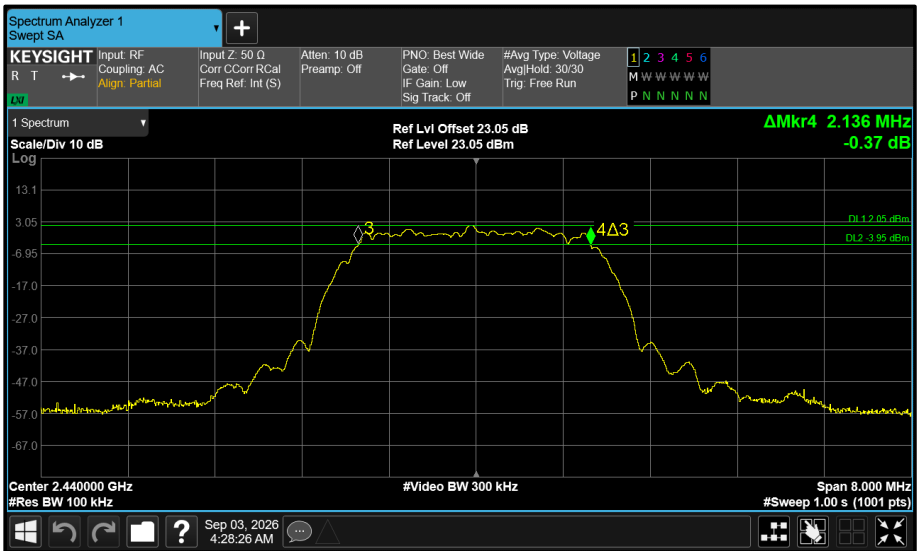


Figure 4 - Core 0 (A) 2440 MHz (CH38) 6 dB Bandwidth

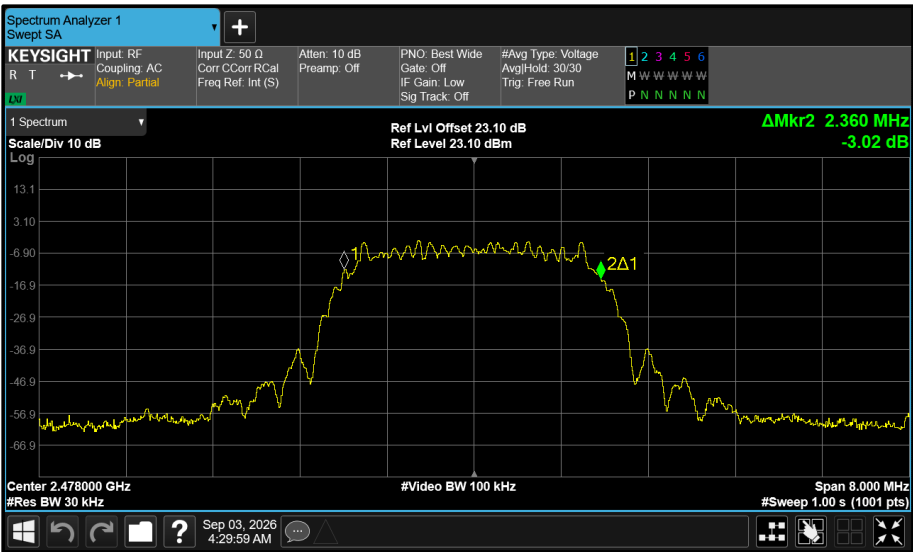


Figure 5 - Core 0 (A) 2478 MHz (CH76) 99% Bandwidth

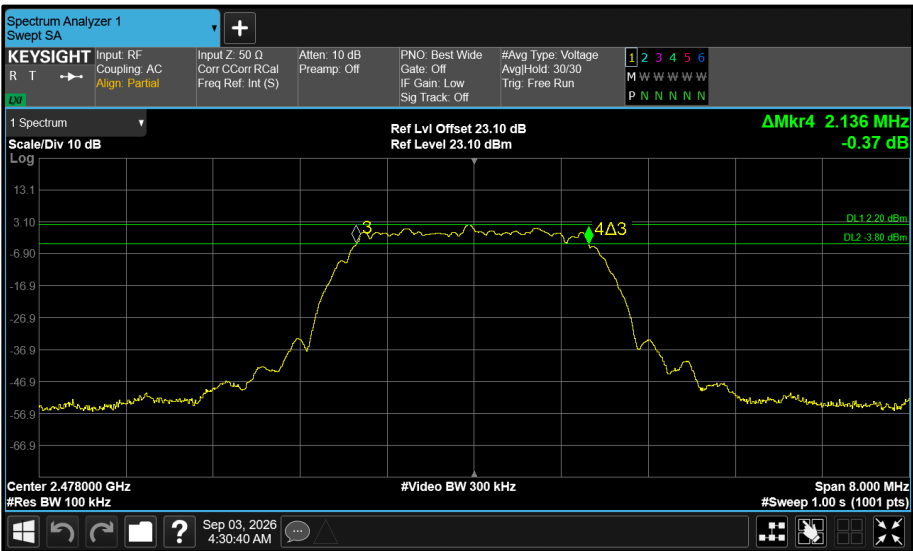


Figure 6 - Core 0 (A) 2478 MHz (CH76) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA HDR (8-DH5)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	0.585	-	-	-	≥500.0
2440	0.570	-	-	-	≥500.0
2476	0.570	-	-	-	≥500.0

Table 9 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	4.665	-	-	-	-
2440	4.665	-	-	-	-
2476	4.650	-	-	-	-

Table 10 - 99% Bandwidth Results

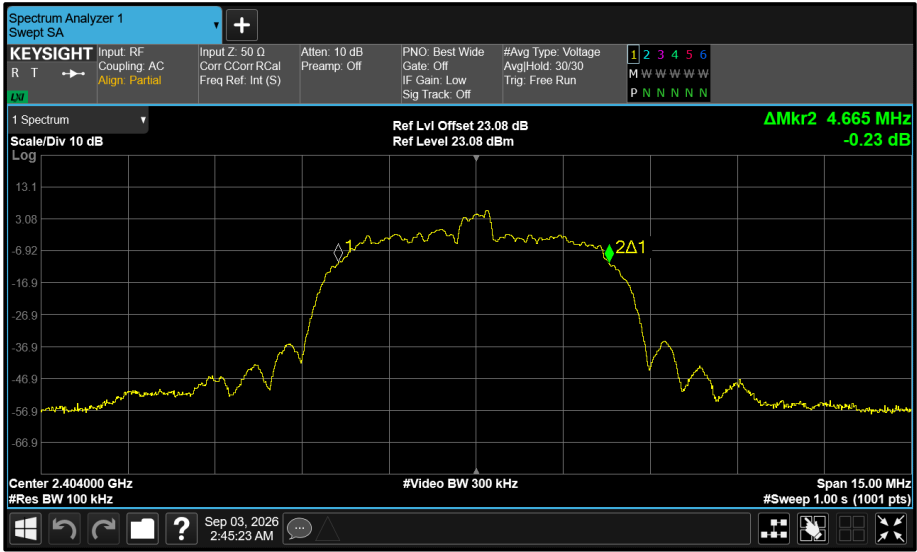


Figure 7 - Core 0 (A) 2404 MHz (CH2) 99% Bandwidth

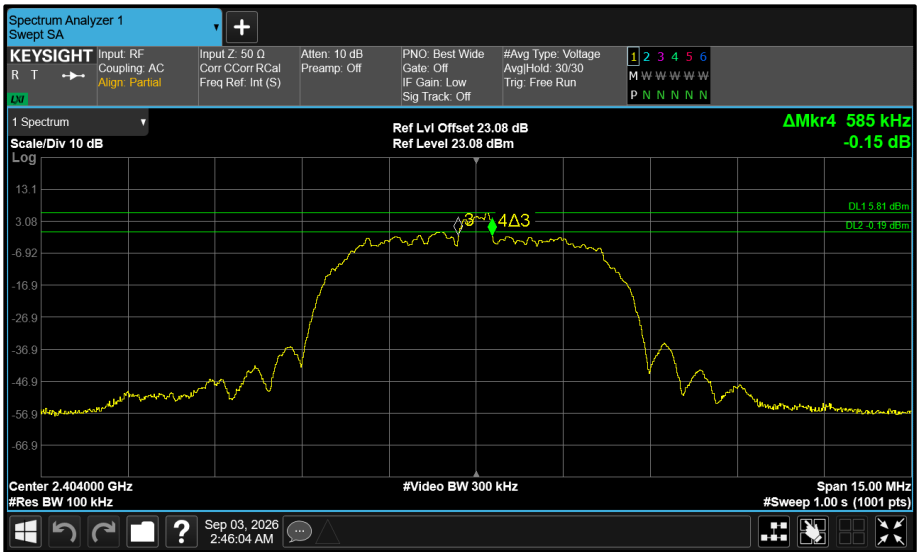


Figure 8 - Core 0 (A) 2404 MHz (CH2) 6 dB Bandwidth

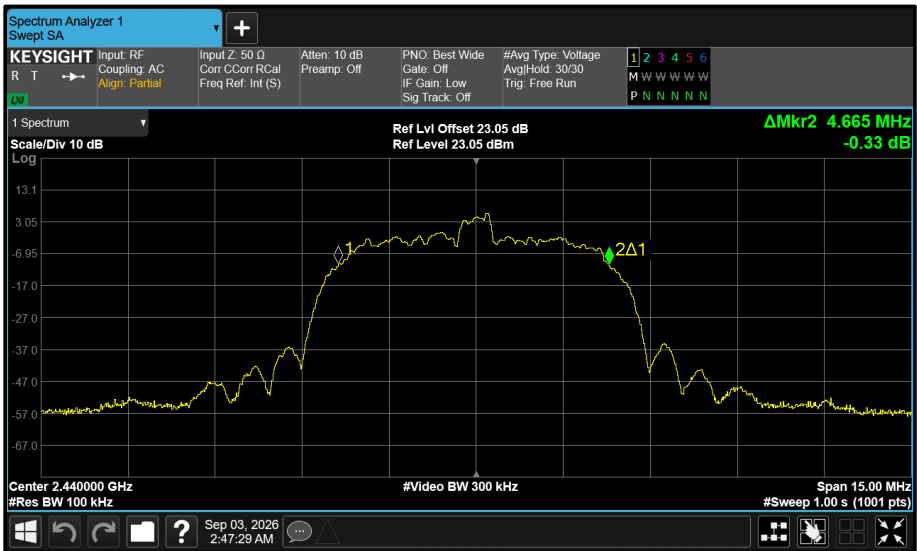


Figure 9 - Core 0 (A) 2440 MHz (CH38) 99% Bandwidth



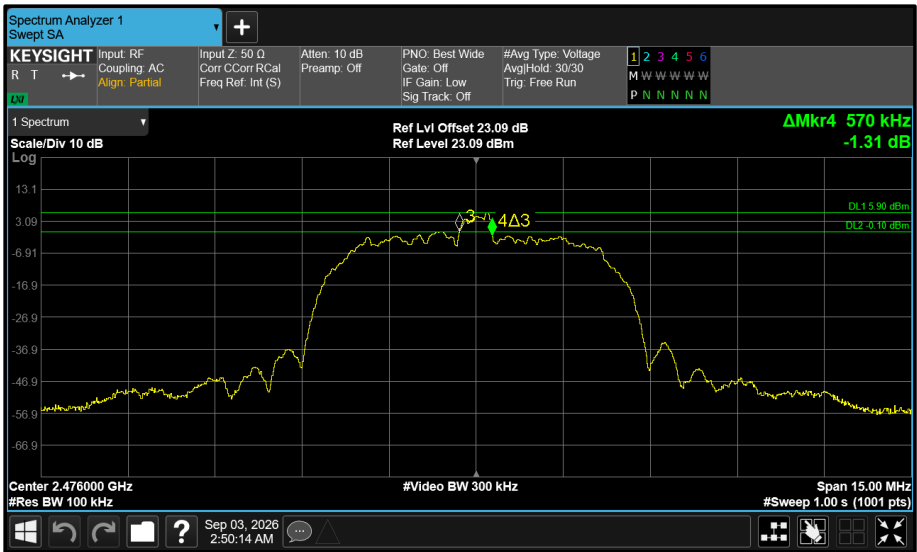


Figure 12 - Core 0 (A) 2476 MHz (CH74) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA HDRP (HDRPM4)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	4.060	-	-	-	≥500.0
2440	4.060	-	-	-	≥500.0
2476	4.060	-	-	-	≥500.0

Table 11 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	4.780	-	-	-	-
2440	4.780	-	-	-	-
2476	4.760	-	-	-	-

Table 12 - 99% Bandwidth Results

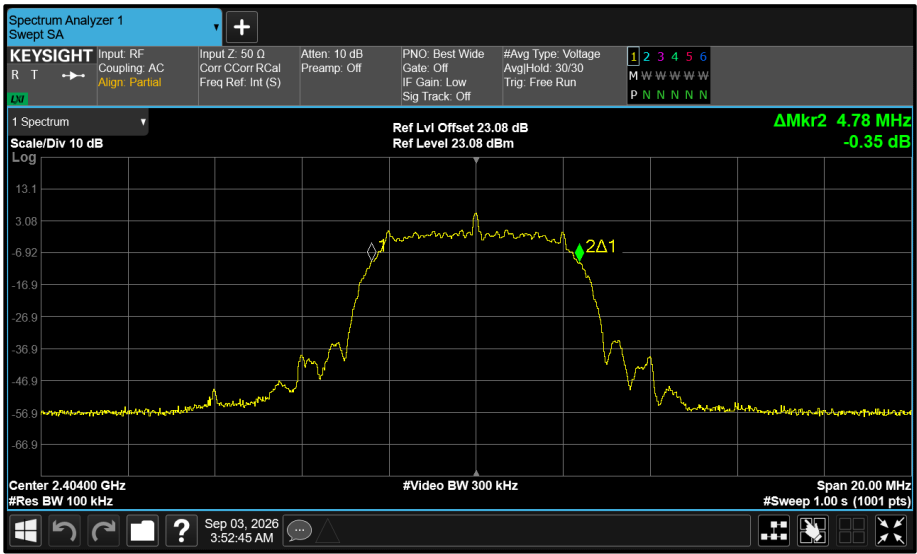


Figure 13 - Core 0 (A) 2404 MHz (CH2) 99% Bandwidth

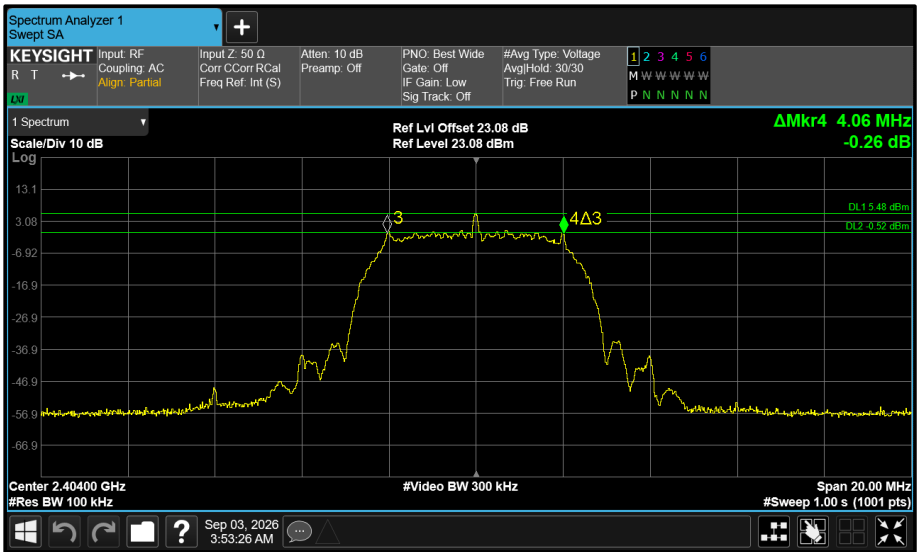


Figure 14 - Core 0 (A) 2404 MHz (CH2) 6 dB Bandwidth

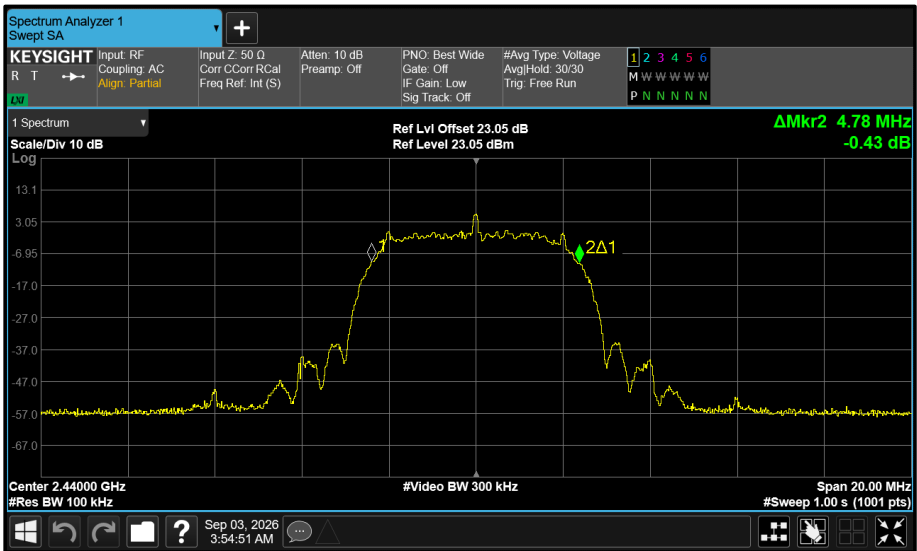


Figure 15 - Core 0 (A) 2440 MHz (CH38) 99% Bandwidth

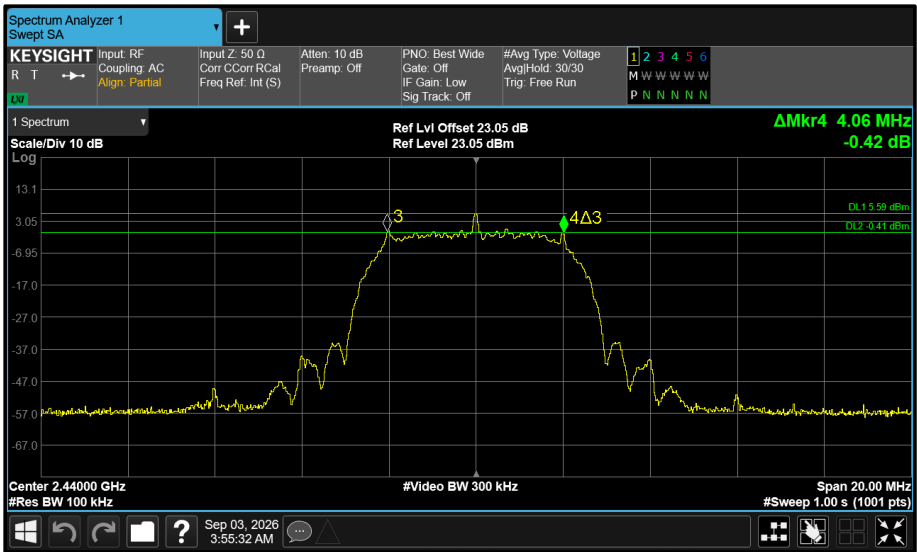


Figure 16 - Core 0 (A) 2440 MHz (CH38) 6 dB Bandwidth

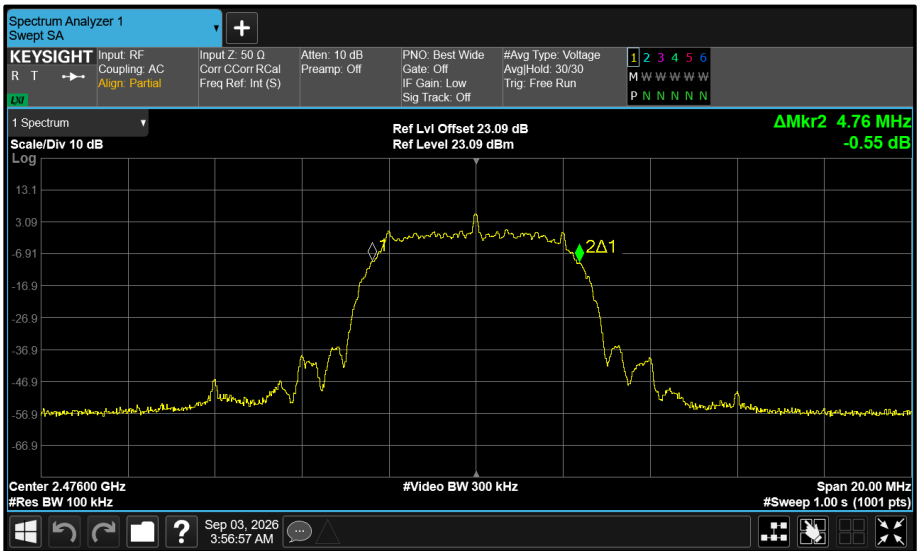


Figure 17 - Core 0 (A) 2476 MHz (CH74) 99% Bandwidth

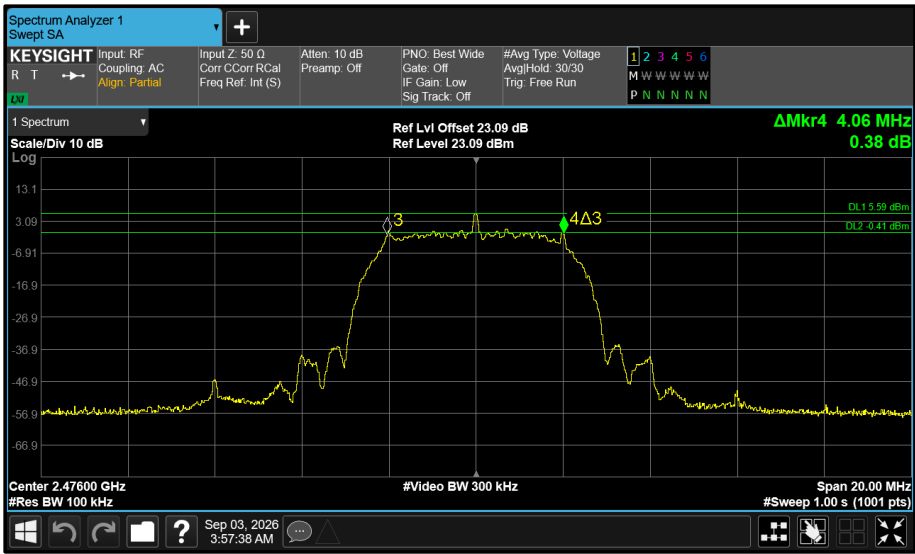


Figure 18 - Core 0 (A) 2476 MHz (CH74) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA HDRP (HDRPM12)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	4.060	-	-	-	≥500.0
2440	4.060	-	-	-	≥500.0
2476	4.080	-	-	-	≥500.0

Table 13 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	4.720	-	-	-	-
2440	4.720	-	-	-	-
2476	4.720	-	-	-	-

Table 14 - 99% Bandwidth Results

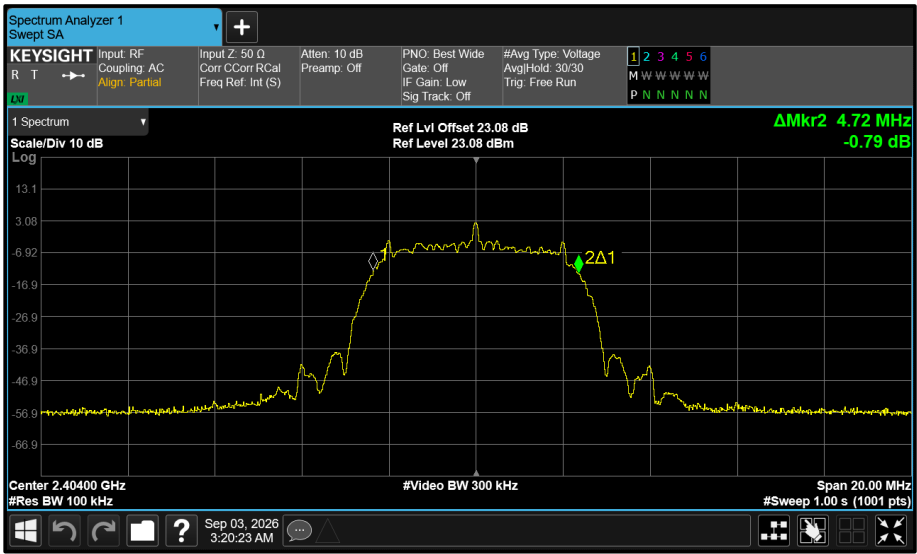


Figure 19 - Core 0 (A) 2404 MHz (CH2) 99% Bandwidth

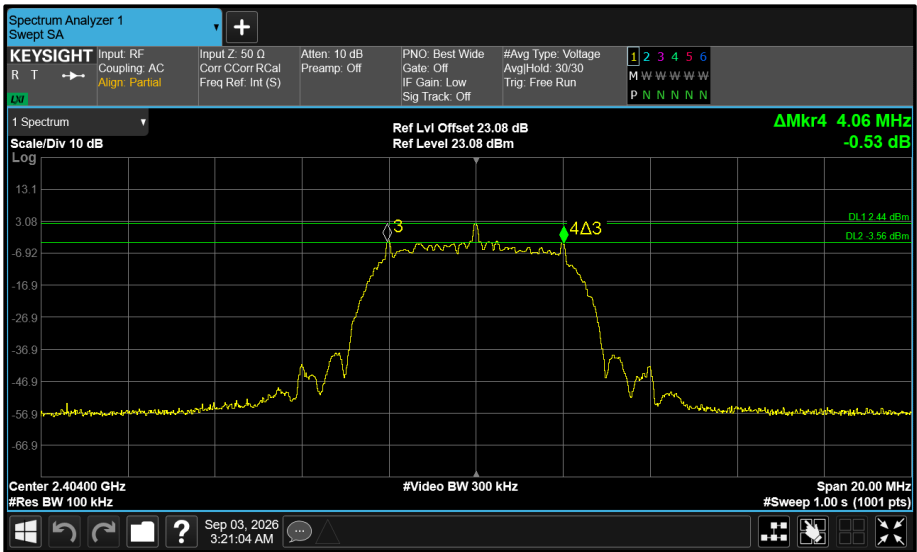


Figure 20 - Core 0 (A) 2404 MHz (CH2) 6 dB Bandwidth

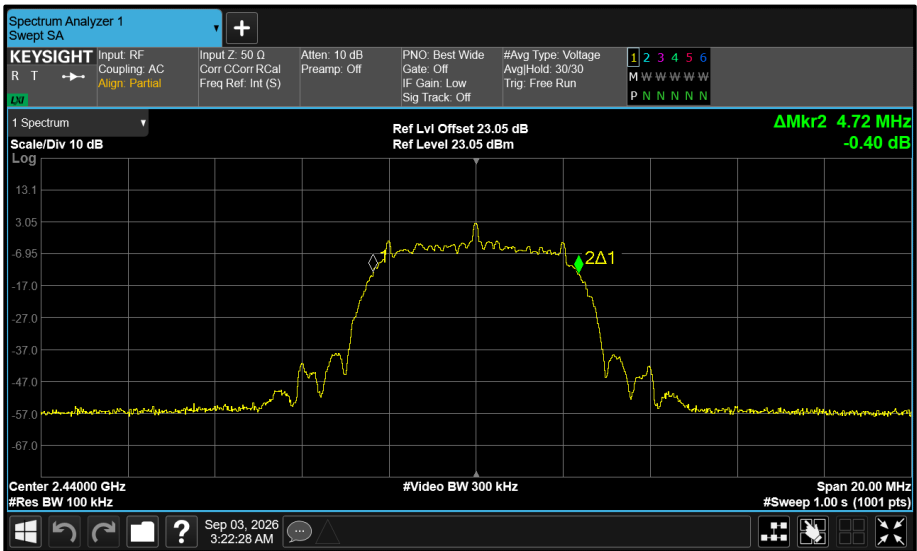


Figure 21 - Core 0 (A) 2440 MHz (CH38) 99% Bandwidth

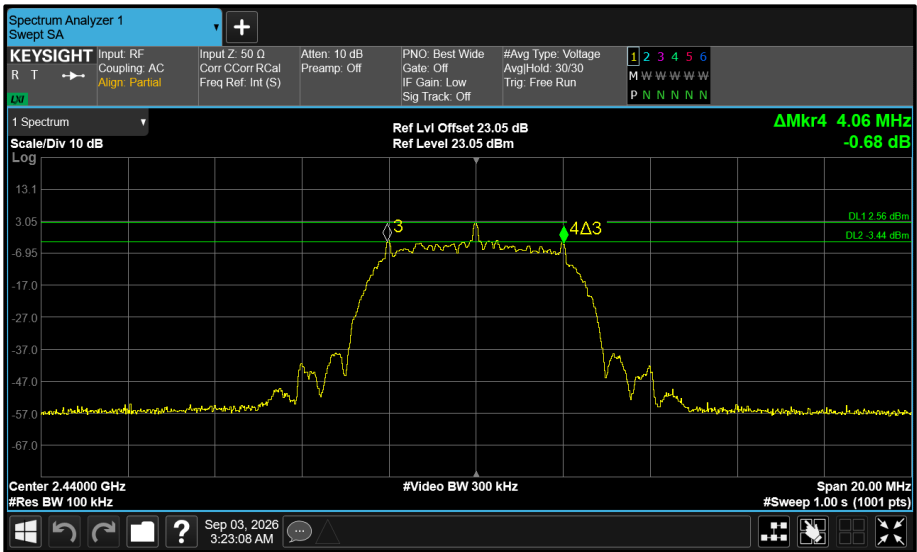


Figure 22 - Core 0 (A) 2440 MHz (CH38) 6 dB Bandwidth

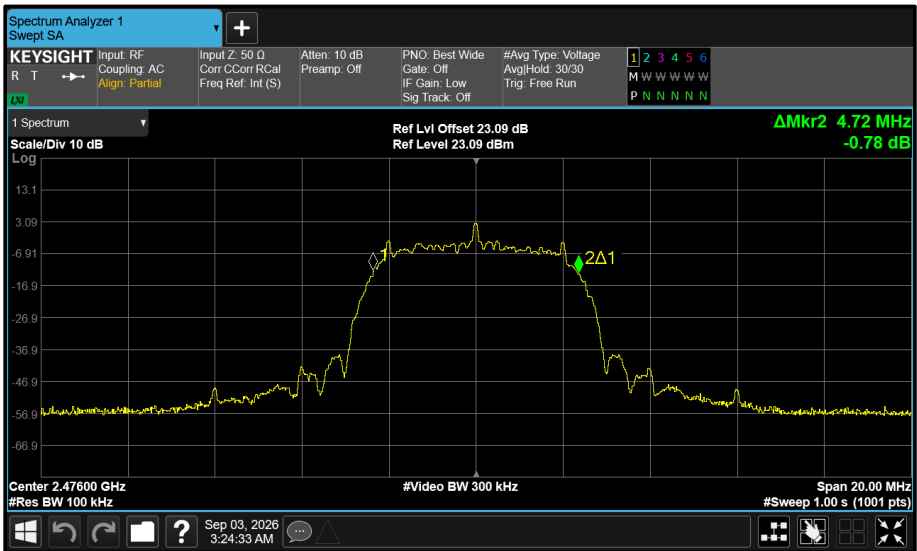


Figure 23 - Core 0 (A) 2476 MHz (CH74) 99% Bandwidth





Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

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

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	0.668	-	-	-	≥500.0
2440	0.664	-	-	-	≥500.0
2480	0.672	-	-	-	≥500.0

Table 15 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	1.016	-	-	-	-
2440	1.016	-	-	-	-
2480	1.016	-	-	-	-

Table 16 - 99% Bandwidth Results

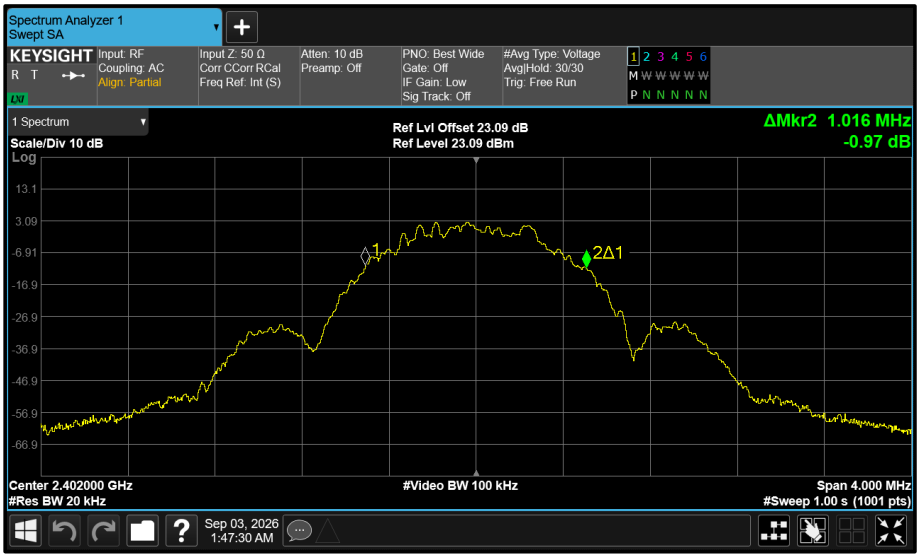


Figure 25 - Core 0 (A) 2402 MHz (CH37) 99% Bandwidth

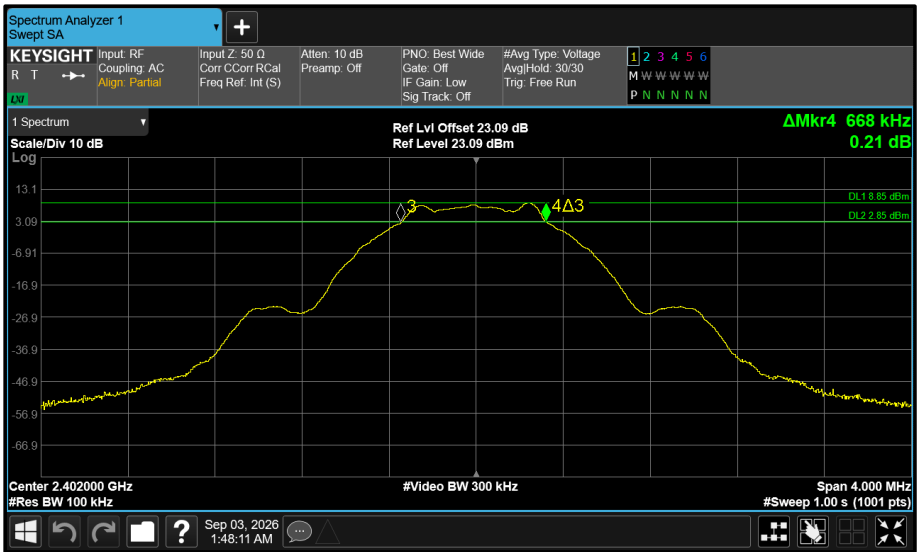


Figure 26 - Core 0 (A) 2402 MHz (CH37) 6 dB Bandwidth

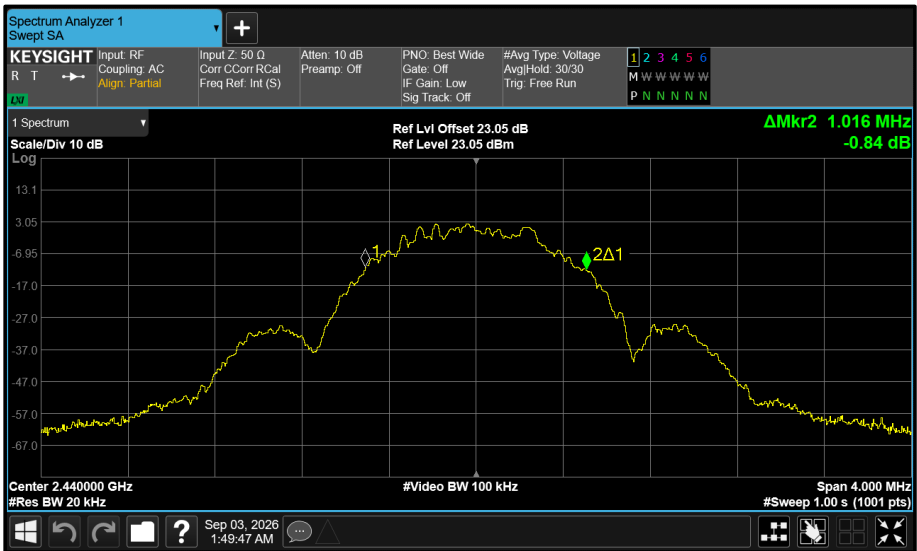


Figure 27 - Core 0 (A) 2440 MHz (CH17) 99% Bandwidth



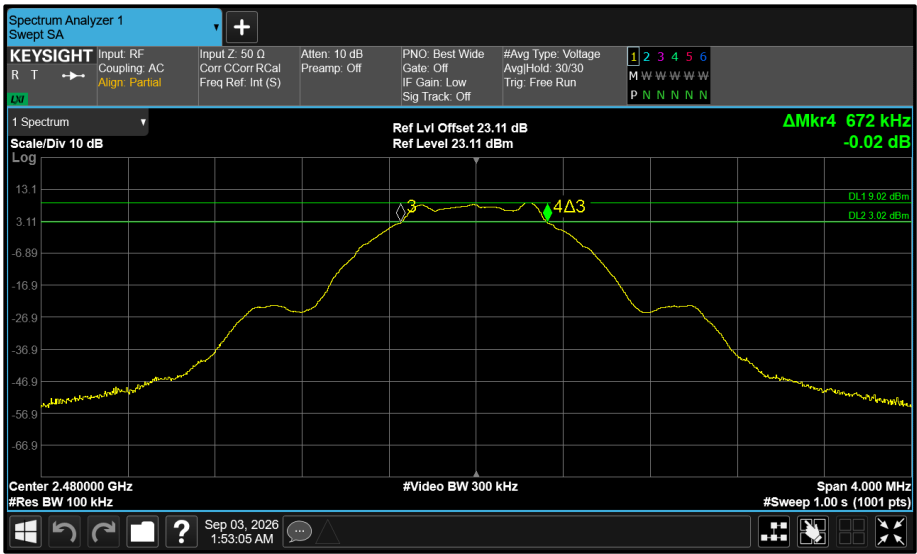


Figure 30 - Core 0 (A) 2480 MHz (CH39) 6 dB Bandwidth

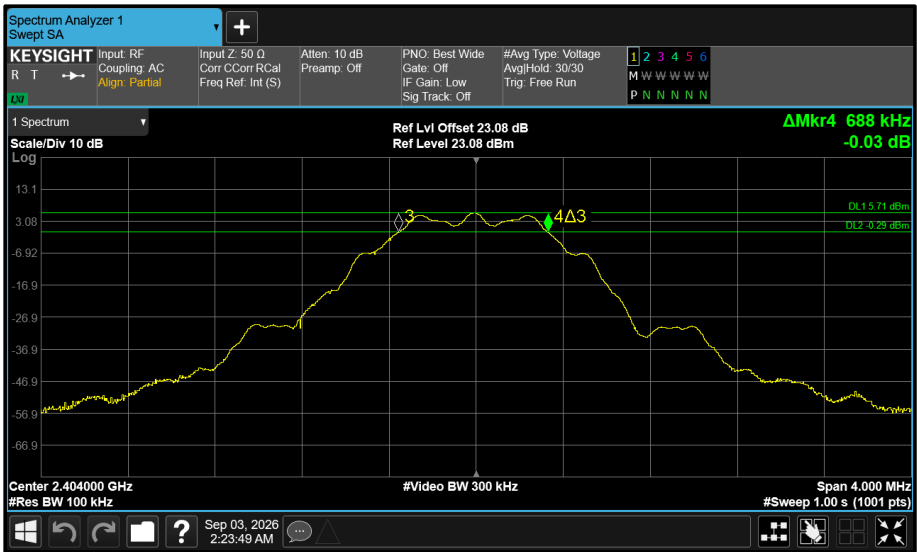


Figure 32 - Core 0 (A) 2404 MHz (CH0) 6 dB Bandwidth

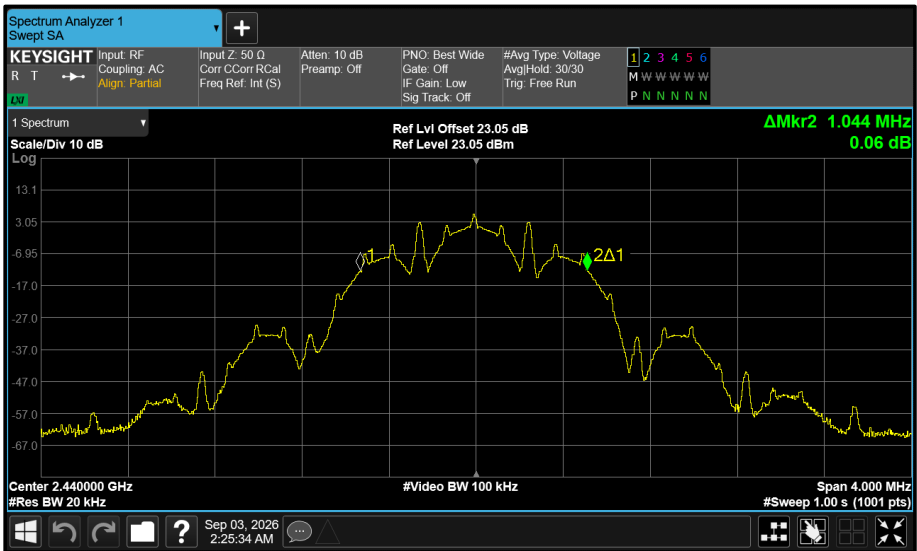


Figure 33 - Core 0 (A) 2440 MHz (CH17) 99% Bandwidth

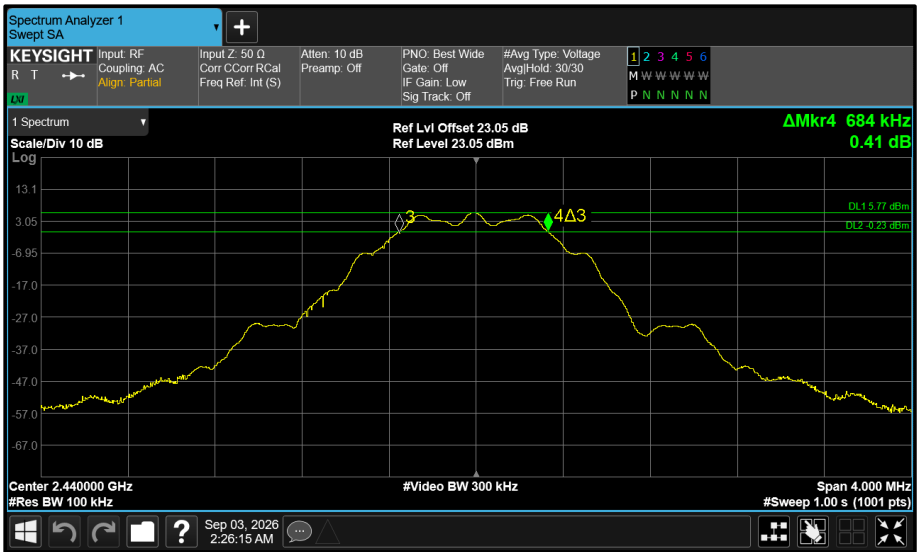


Figure 34 - Core 0 (A) 2440 MHz (CH17) 6 dB Bandwidth

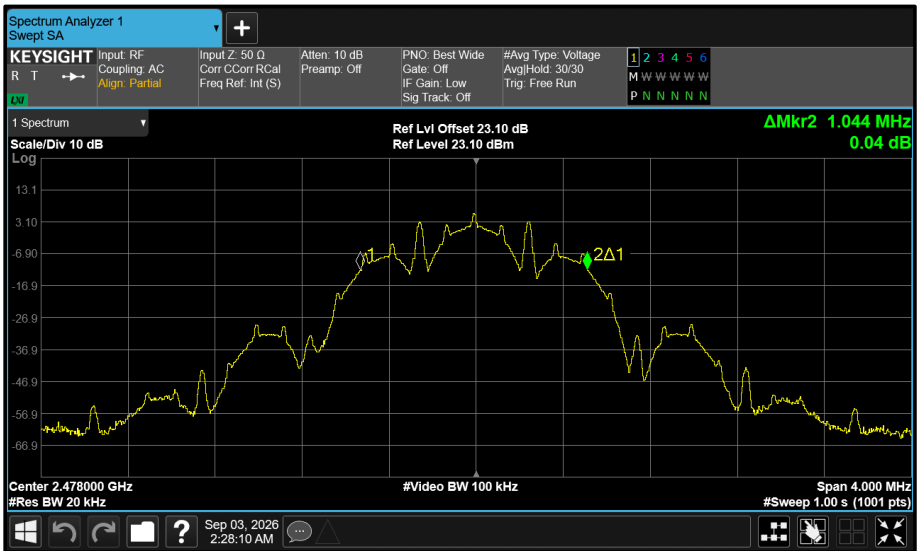


Figure 35 - Core 0 (A) 2478 MHz (CH36) 99% Bandwidth

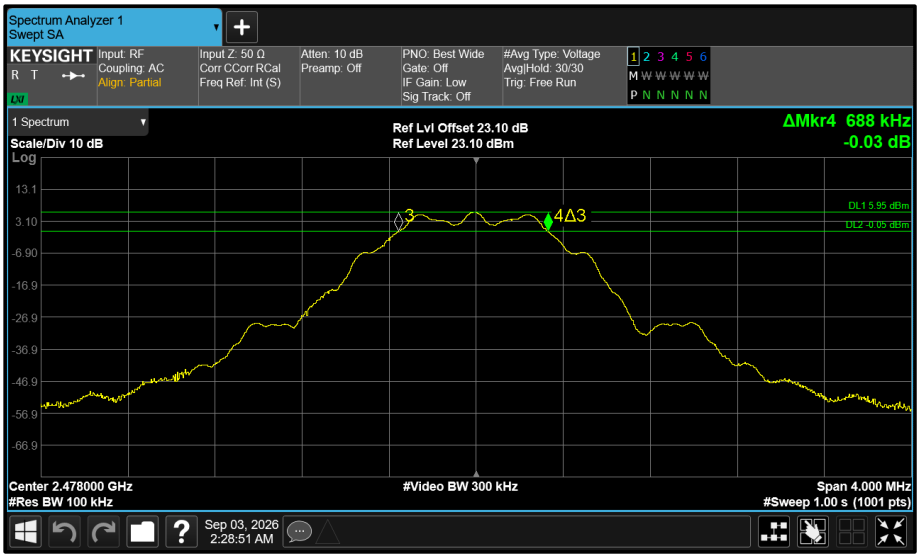


Figure 36 - Core 0 (A) 2478 MHz (CH36) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA HDT (HDT4)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	2.136	-	-	≥500.0
2440	-	2.136	-	-	≥500.0
2478	-	2.136	-	-	≥500.0

Table 19 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	2.352	-	-	-
2440	-	2.360	-	-	-
2478	-	2.360	-	-	-

Table 20 - 99% Bandwidth Results

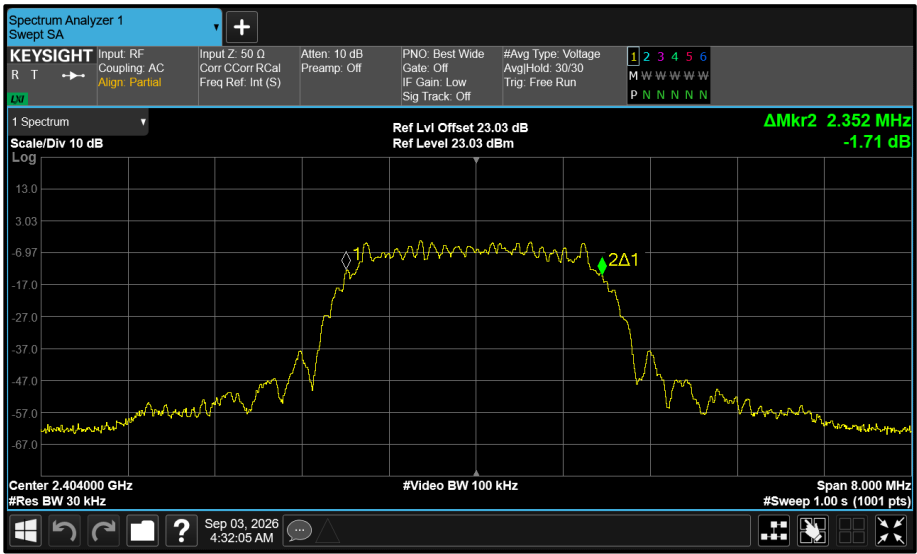


Figure 37 - Core 1 (B) 2404 MHz (CH2) 99% Bandwidth

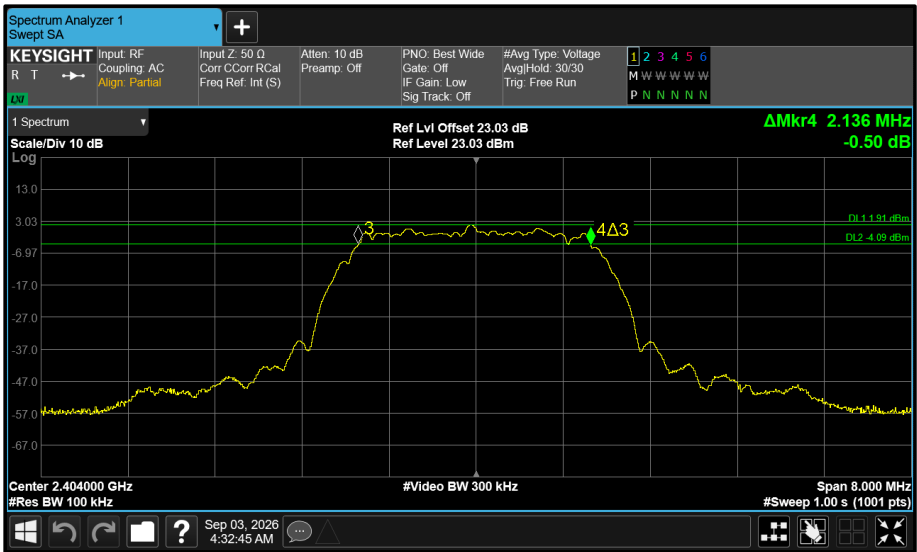


Figure 38 - Core 1 (B) 2404 MHz (CH2) 6 dB Bandwidth

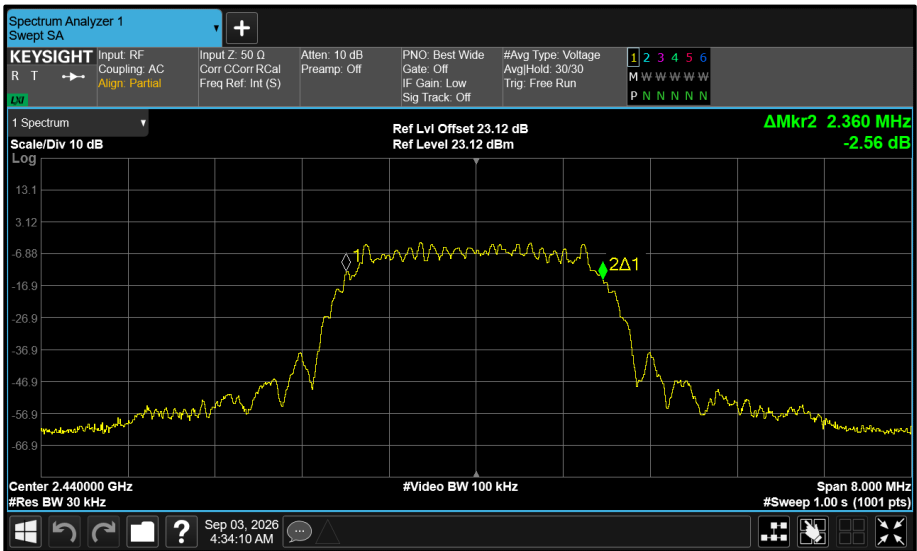


Figure 39 - Core 1 (B) 2440 MHz (CH38) 99% Bandwidth

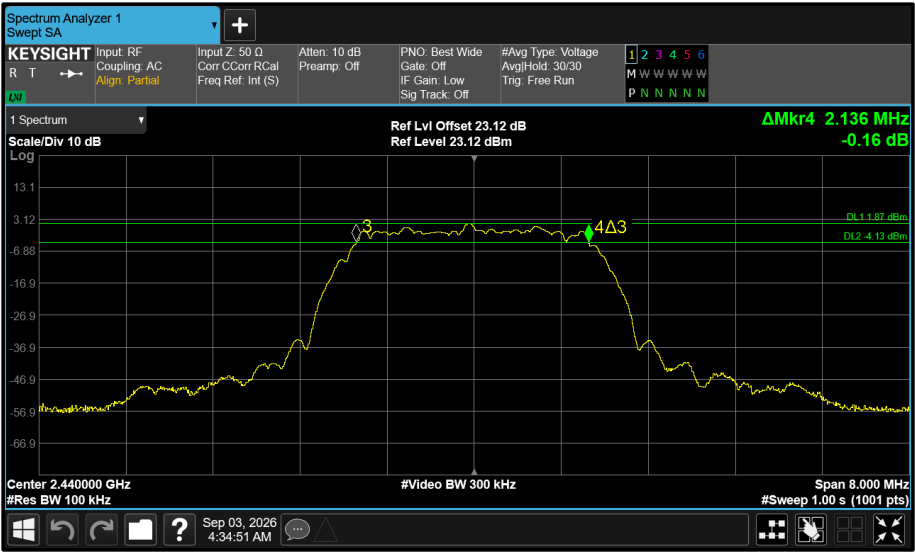


Figure 40 - Core 1 (B) 2440 MHz (CH38) 6 dB Bandwidth

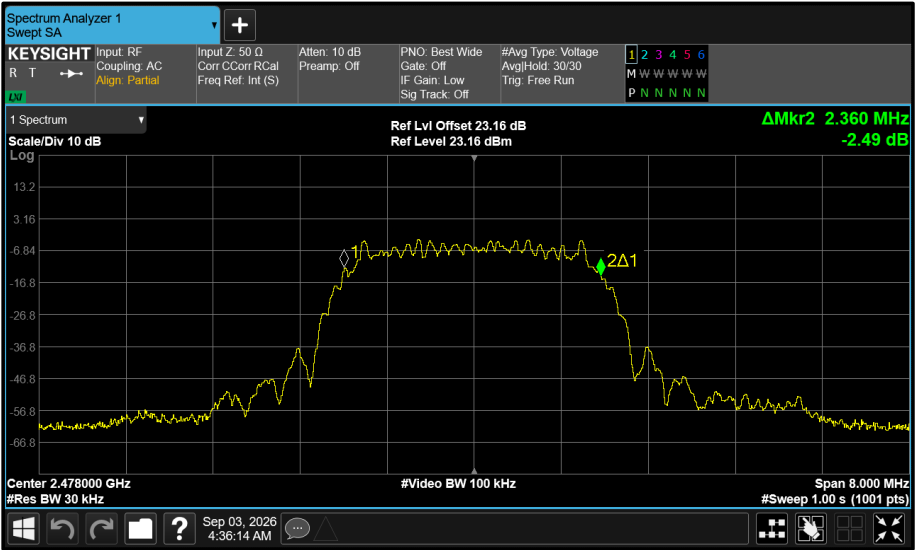


Figure 41 - Core 1 (B) 2478 MHz (CH76) 99% Bandwidth

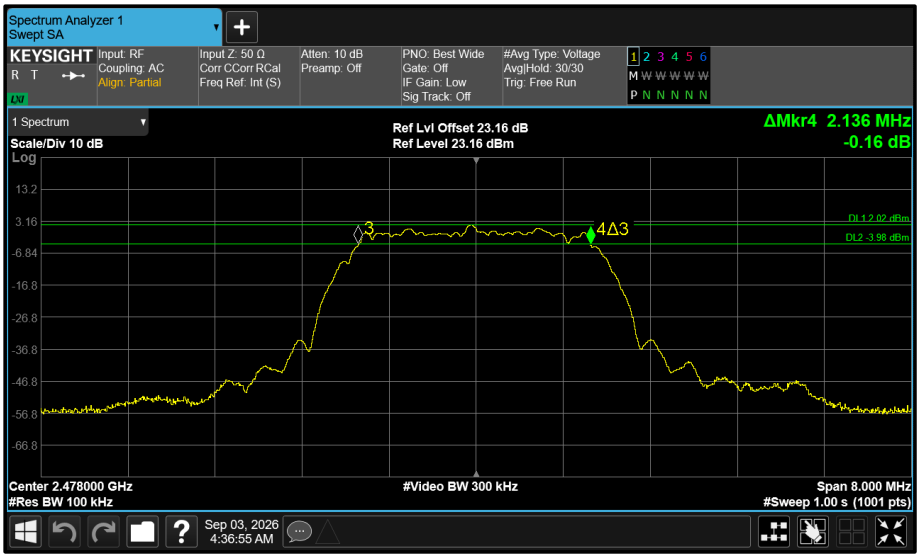


Figure 42 - Core 1 (B) 2478 MHz (CH76) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

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

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	0.570	-	-	≥500.0
2440	-	0.570	-	-	≥500.0
2476	-	0.570	-	-	≥500.0

Table 21 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	4.665	-	-	-
2440	-	4.680	-	-	-
2476	-	4.665	-	-	-

Table 22 - 99% Bandwidth Results

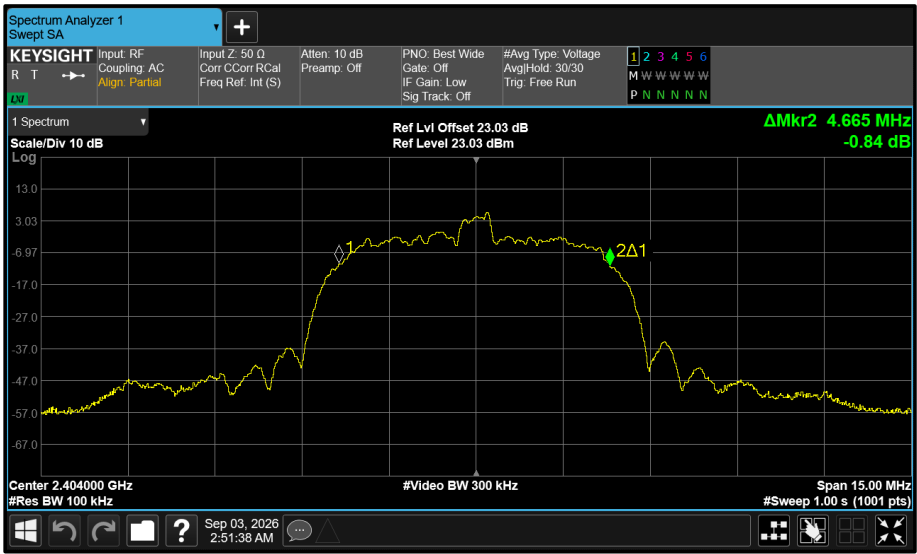


Figure 43 - Core 1 (B) 2404 MHz (CH2) 99% Bandwidth

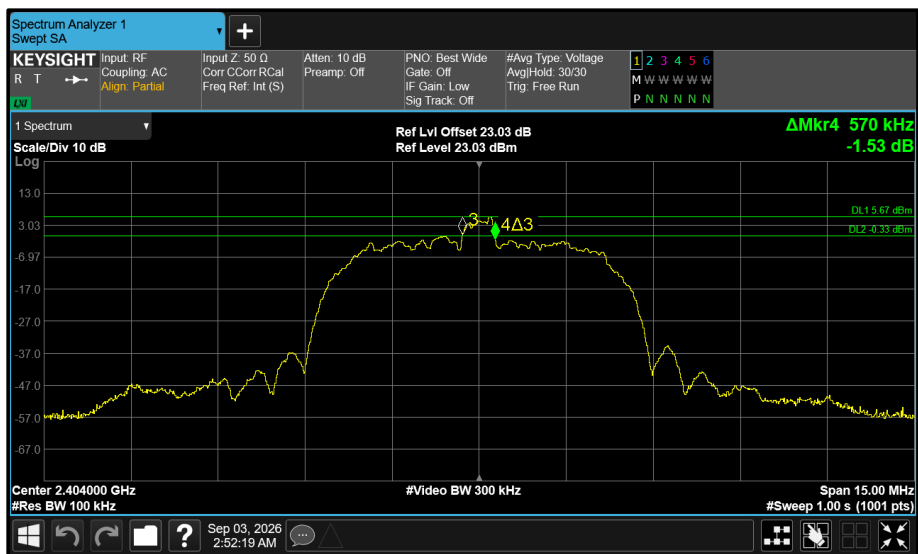


Figure 44 - Core 1 (B) 2404 MHz (CH2) 6 dB Bandwidth

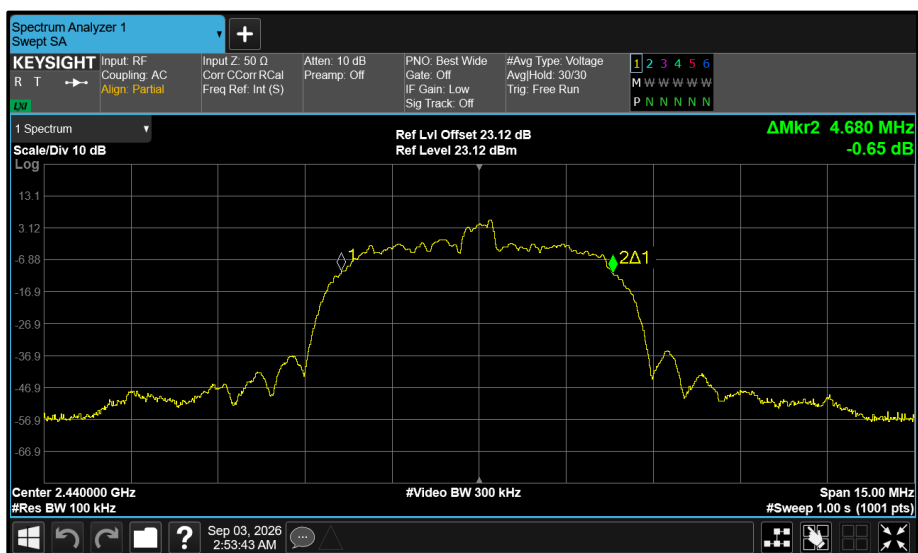


Figure 45 - Core 1 (B) 2440 MHz (CH38) 99% Bandwidth

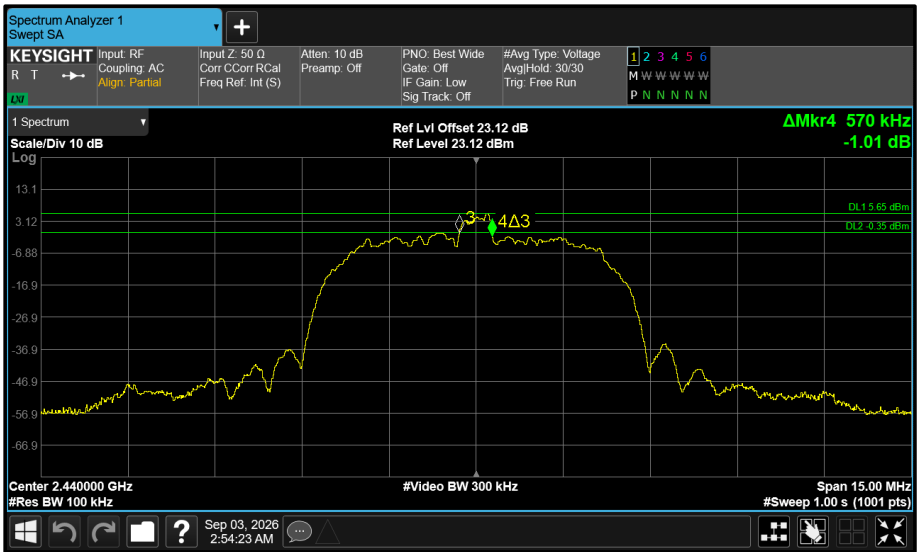


Figure 46 - Core 1 (B) 2440 MHz (CH38) 6 dB Bandwidth

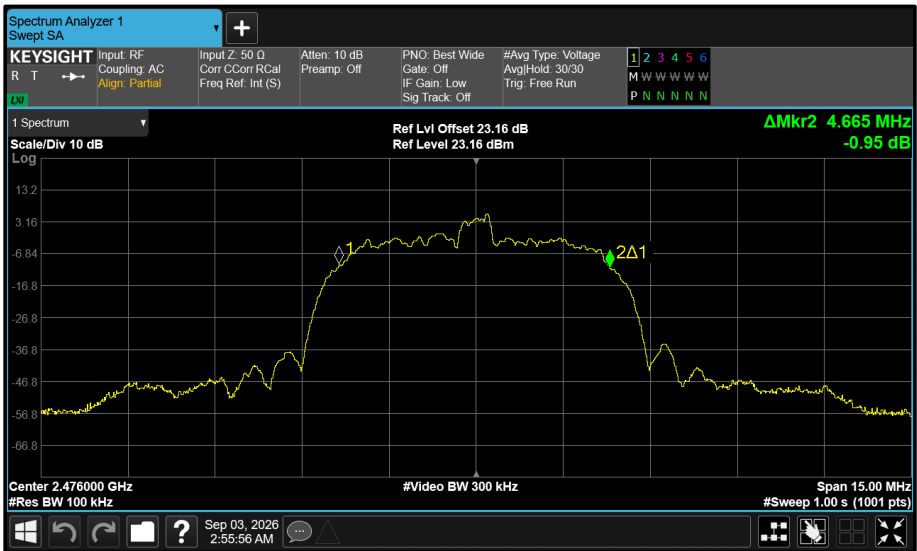


Figure 47 - Core 1 (B) 2476 MHz (CH74) 99% Bandwidth

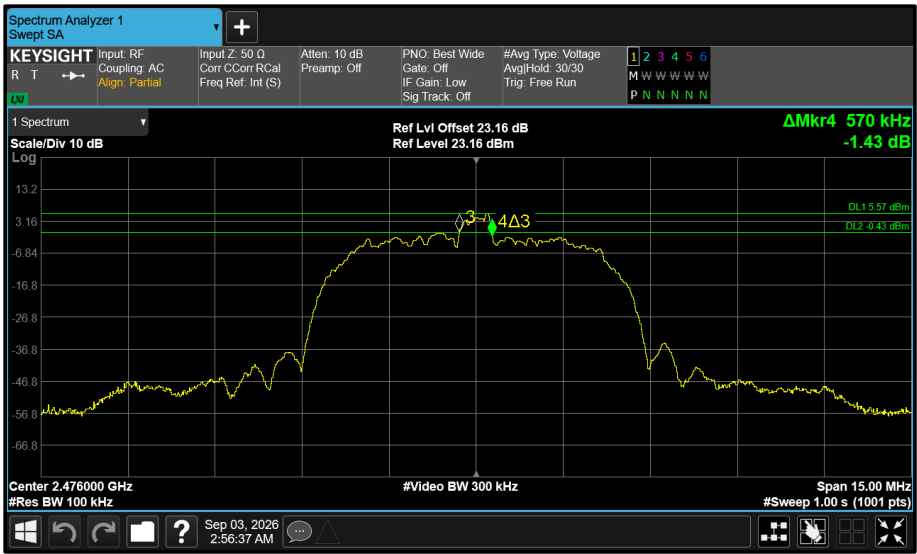


Figure 48 - Core 1 (B) 2476 MHz (CH74) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA HDRP (HDRPM4)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	4.060	-	-	≥500.0
2440	-	4.060	-	-	≥500.0
2476	-	4.060	-	-	≥500.0

Table 23 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	4.760	-	-	-
2440	-	4.760	-	-	-
2476	-	4.760	-	-	-

Table 24 - 99% Bandwidth Results

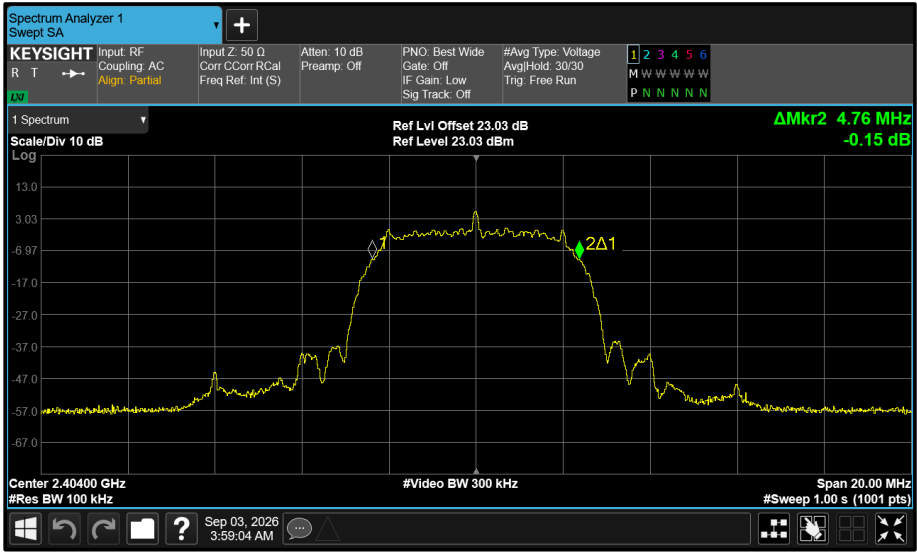


Figure 49 - Core 1 (B) 2404 MHz (CH2) 99% Bandwidth

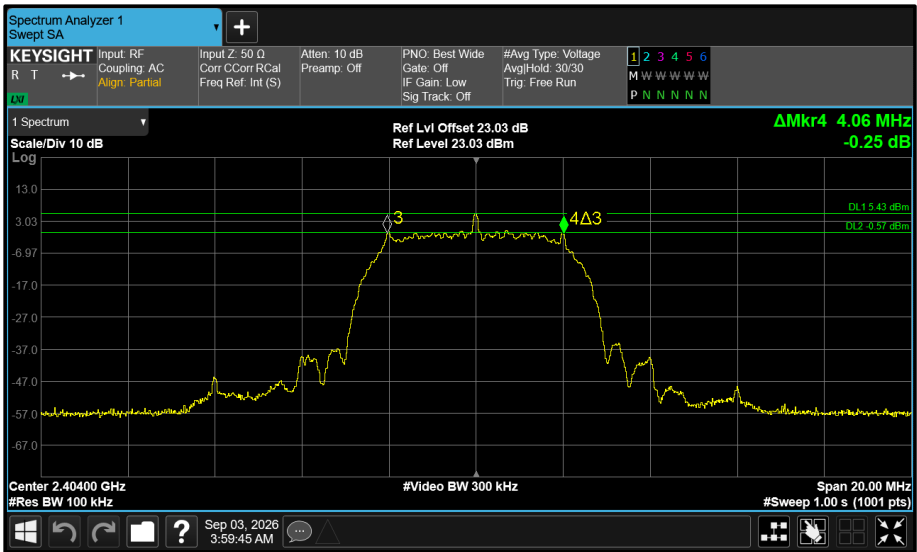


Figure 50 - Core 1 (B) 2404 MHz (CH2) 6 dB Bandwidth

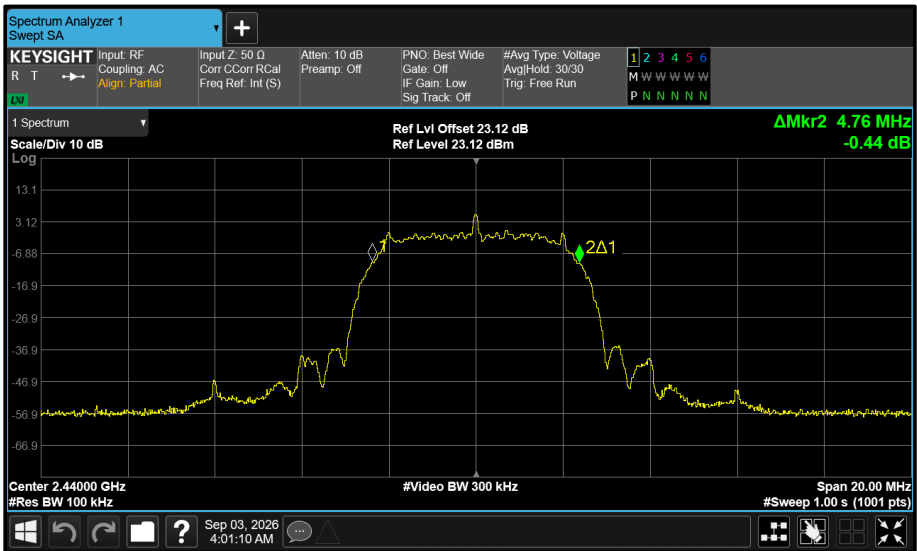


Figure 51 - Core 1 (B) 2440 MHz (CH38) 99% Bandwidth

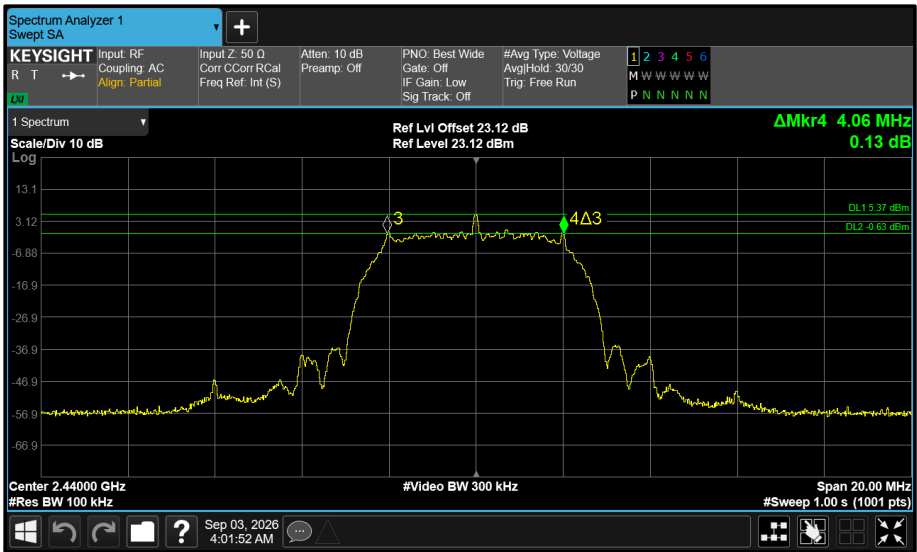


Figure 52 - Core 1 (B) 2440 MHz (CH38) 6 dB Bandwidth

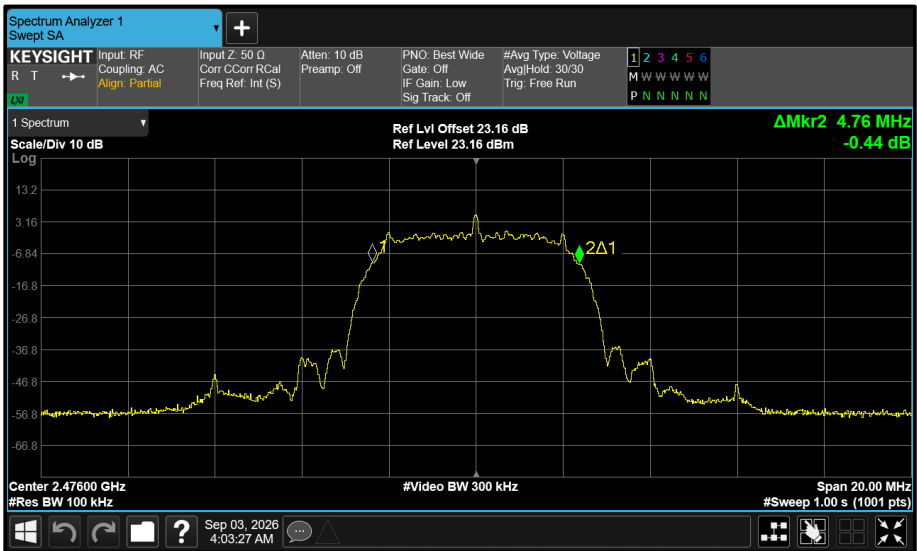


Figure 53 - Core 1 (B) 2476 MHz (CH74) 99% Bandwidth

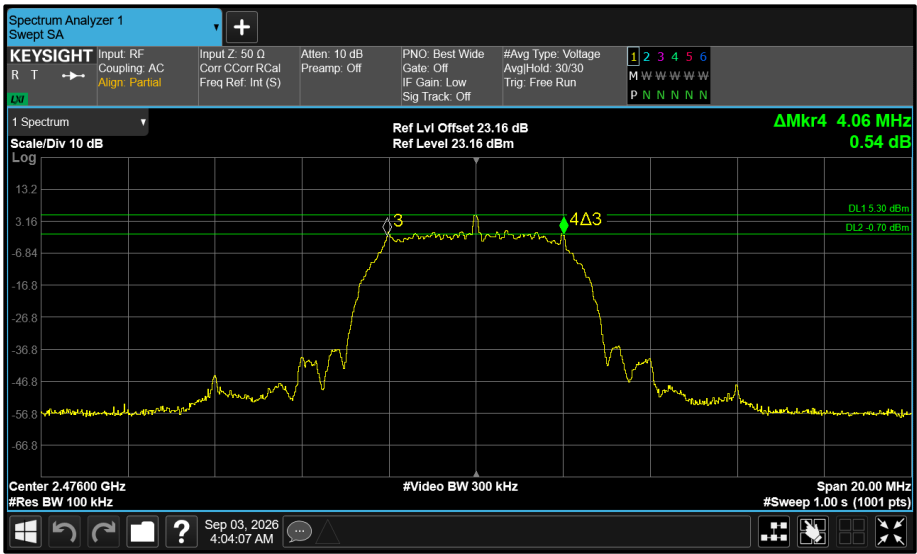


Figure 54 - Core 1 (B) 2476 MHz (CH74) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA HDRP (HDRPM12)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	4.060	-	-	≥500.0
2440	-	4.060	-	-	≥500.0
2476	-	4.060	-	-	≥500.0

Table 25 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	4.720	-	-	-
2440	-	4.720	-	-	-
2476	-	4.720	-	-	-

Table 26 - 99% Bandwidth Results

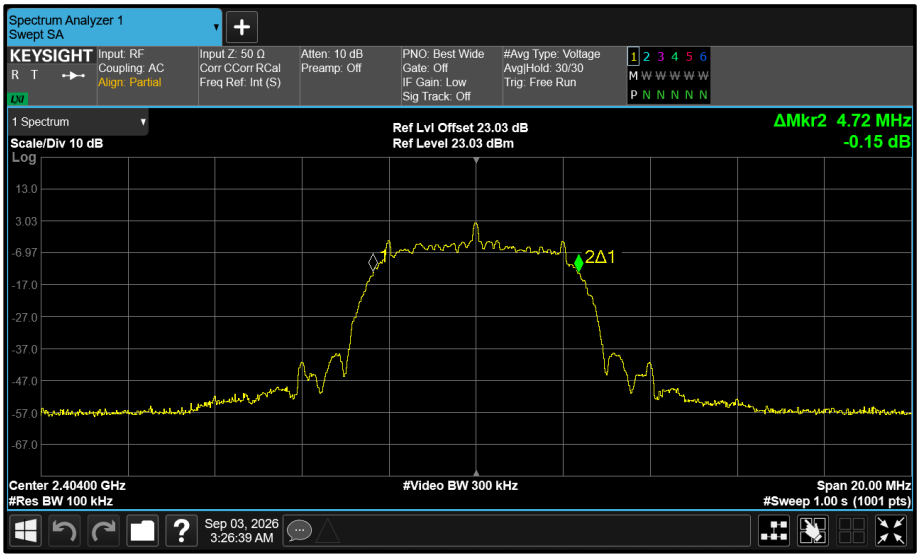


Figure 55 - Core 1 (B) 2404 MHz (CH2) 99% Bandwidth

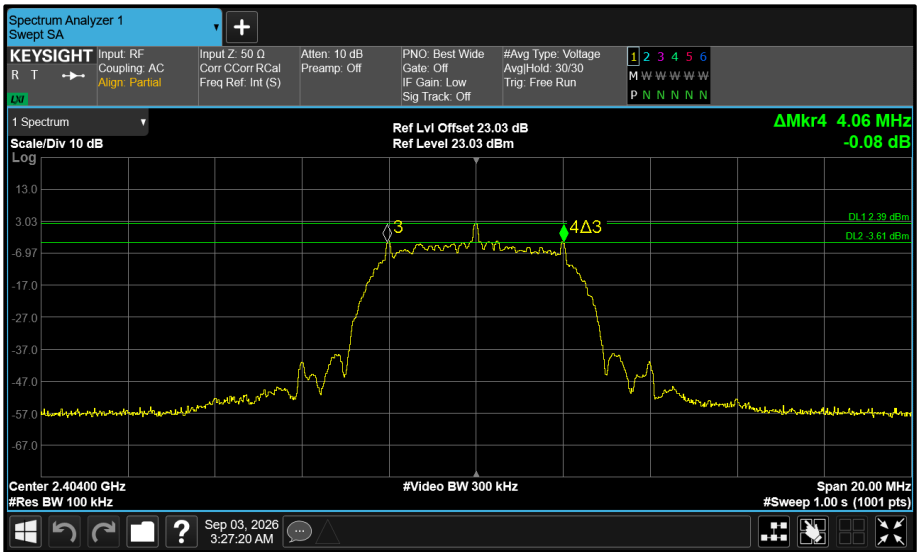


Figure 56 - Core 1 (B) 2404 MHz (CH2) 6 dB Bandwidth

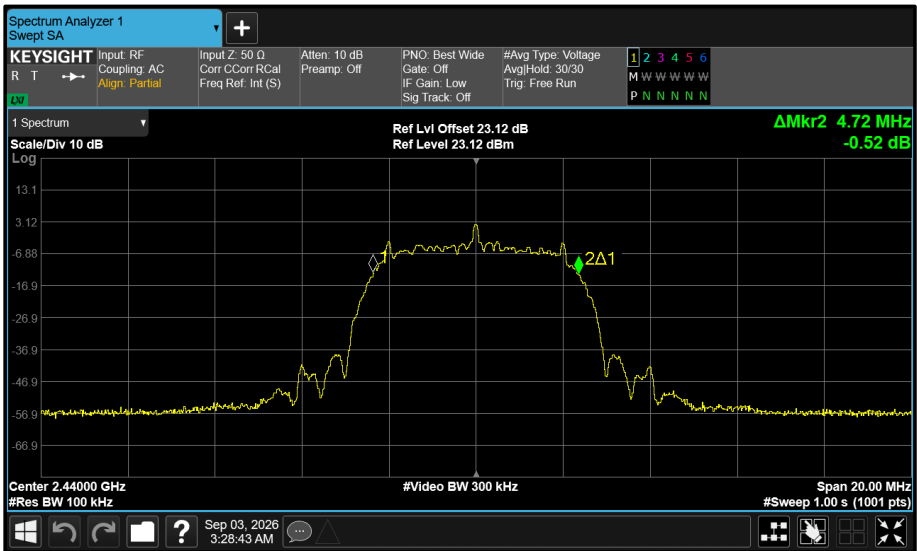


Figure 57 - Core 1 (B) 2440 MHz (CH38) 99% Bandwidth

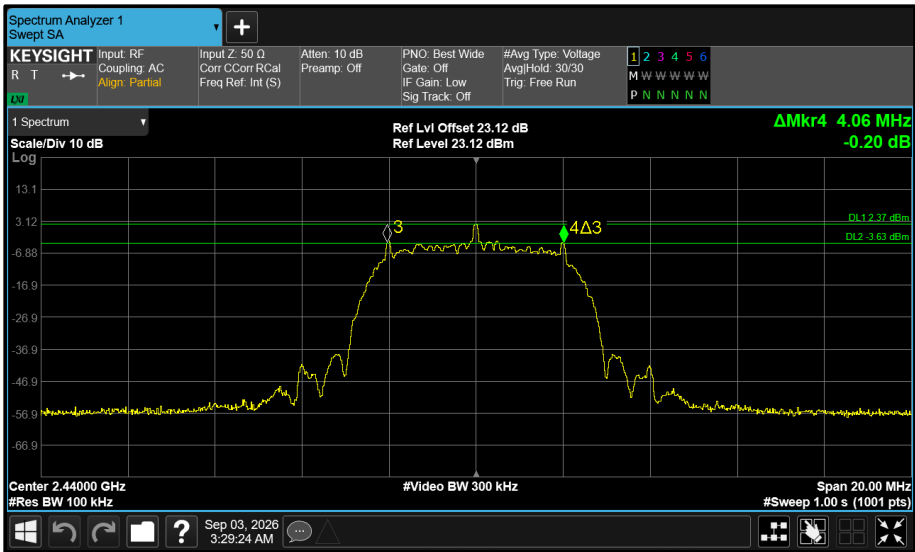


Figure 58 - Core 1 (B) 2440 MHz (CH38) 6 dB Bandwidth

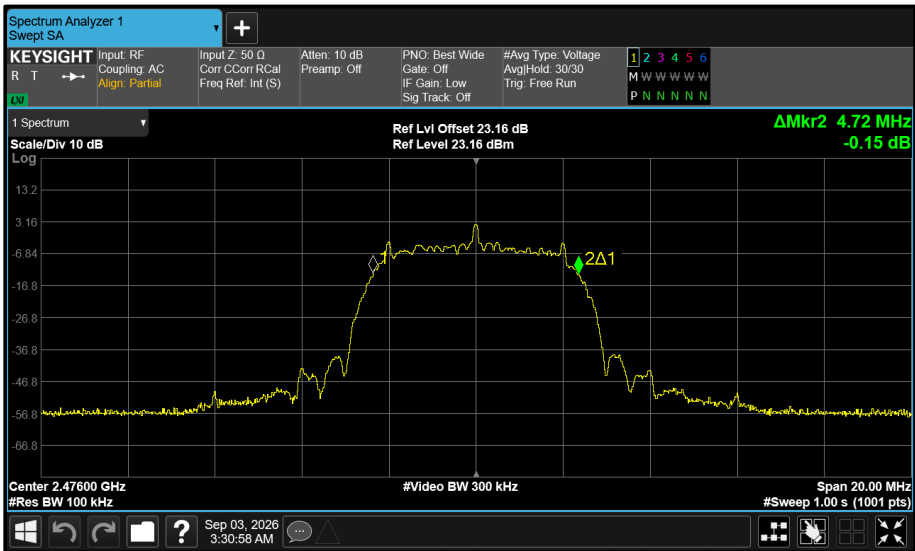


Figure 59 - Core 1 (B) 2476 MHz (CH74) 99% Bandwidth





Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

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

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	-	0.672	-	-	≥500.0
2440	-	0.668	-	-	≥500.0
2480	-	0.672	-	-	≥500.0

Table 27 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2402	-	1.016	-	-	-
2440	-	1.016	-	-	-
2480	-	1.016	-	-	-

Table 28 - 99% Bandwidth Results

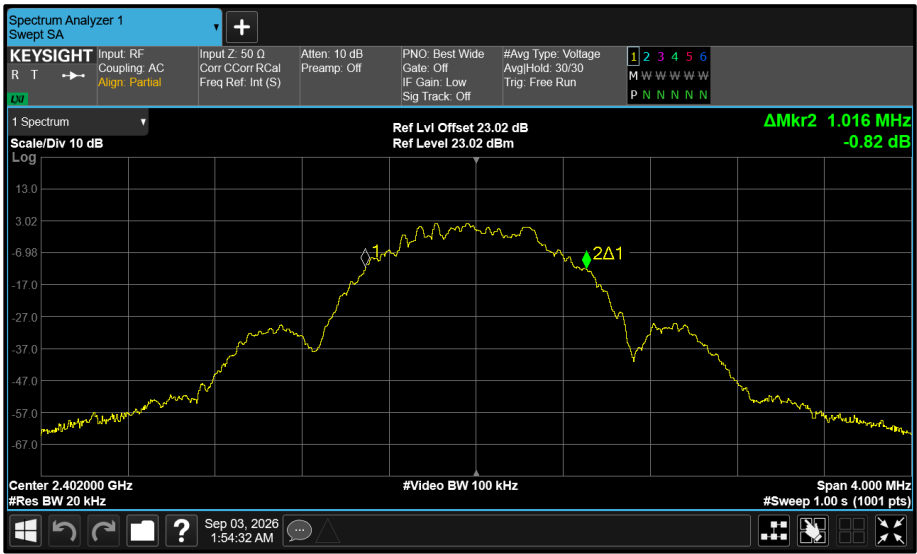


Figure 61 - Core 1 (B) 2402 MHz (CH37) 99% Bandwidth

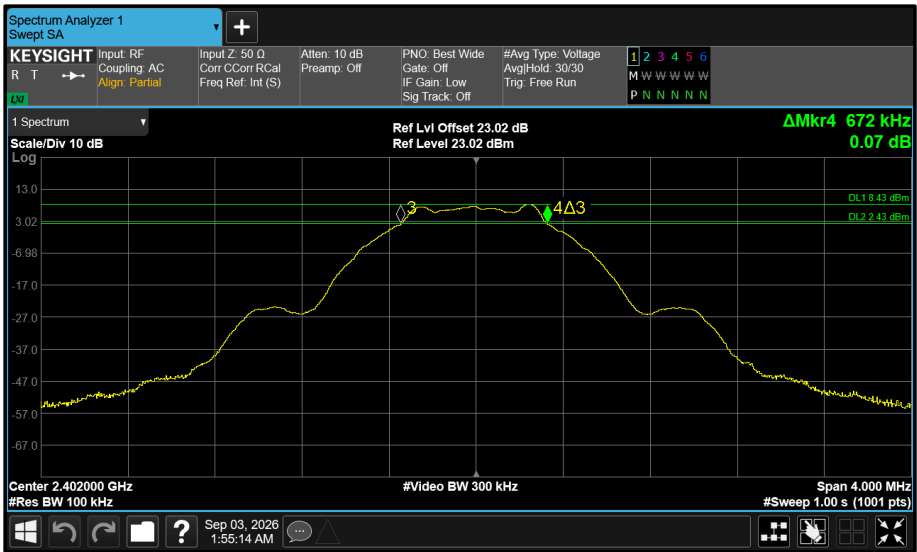


Figure 62 - Core 1 (B) 2402 MHz (CH37) 6 dB Bandwidth

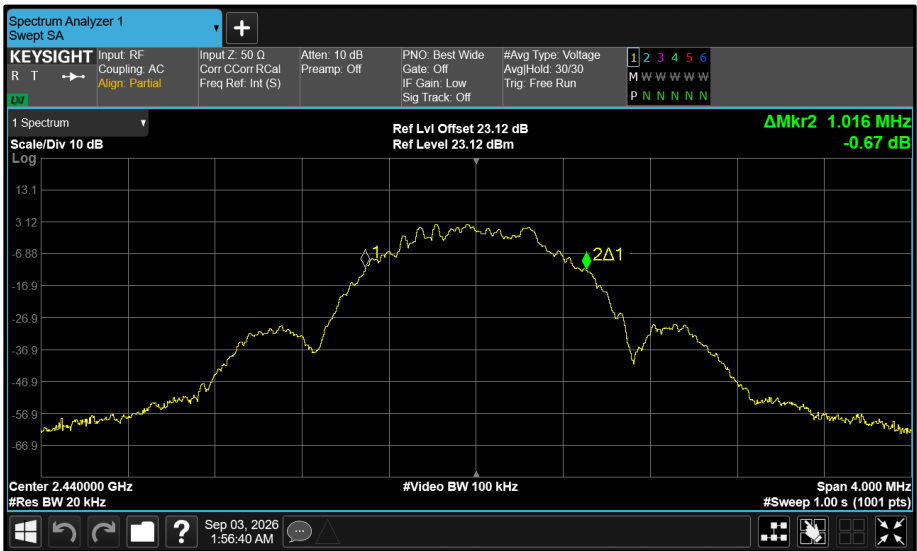


Figure 63 - Core 1 (B) 2440 MHz (CH17) 99% Bandwidth

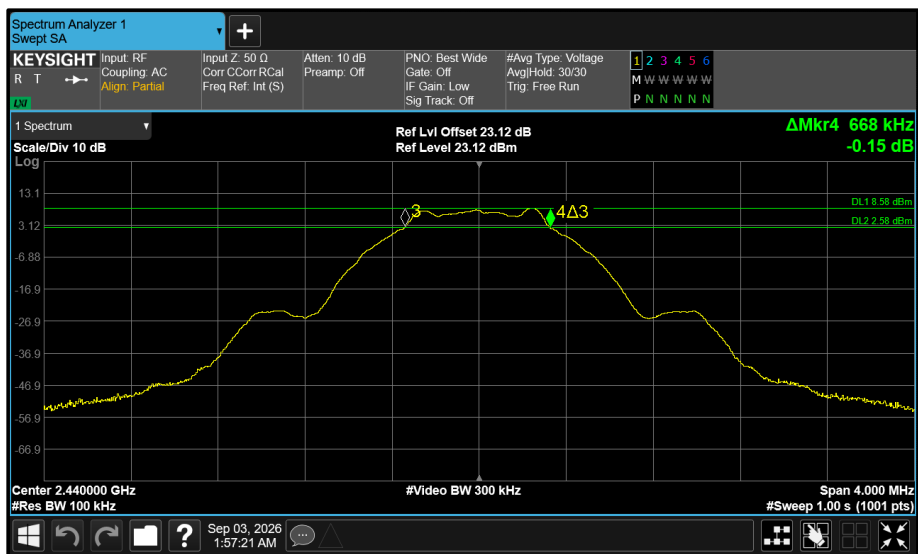


Figure 64 - Core 1 (B) 2440 MHz (CH17) 6 dB Bandwidth

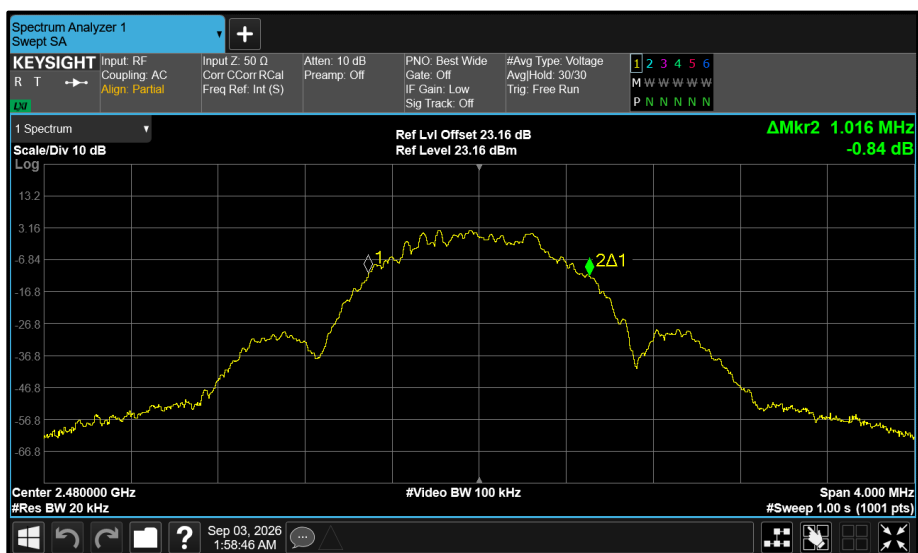


Figure 65 - Core 1 (B) 2480 MHz (CH39) 99% Bandwidth

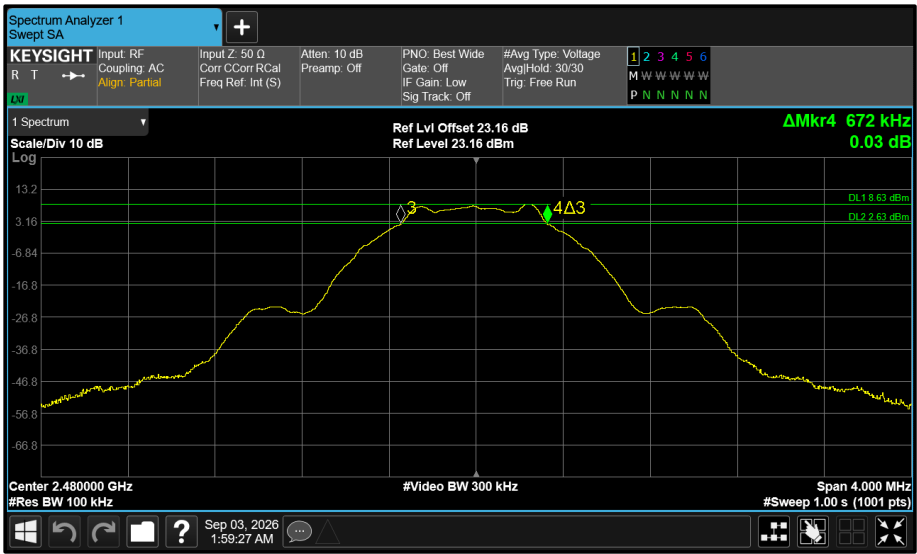


Figure 66 - Core 1 (B) 2480 MHz (CH39) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA LE (LELR125K)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	0.680	-	-	≥500.0
2440	-	0.684	-	-	≥500.0
2478	-	0.688	-	-	≥500.0

Table 29 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	1.044	-	-	-
2440	-	1.040	-	-	-
2478	-	1.040	-	-	-

Table 30 - 99% Bandwidth Results

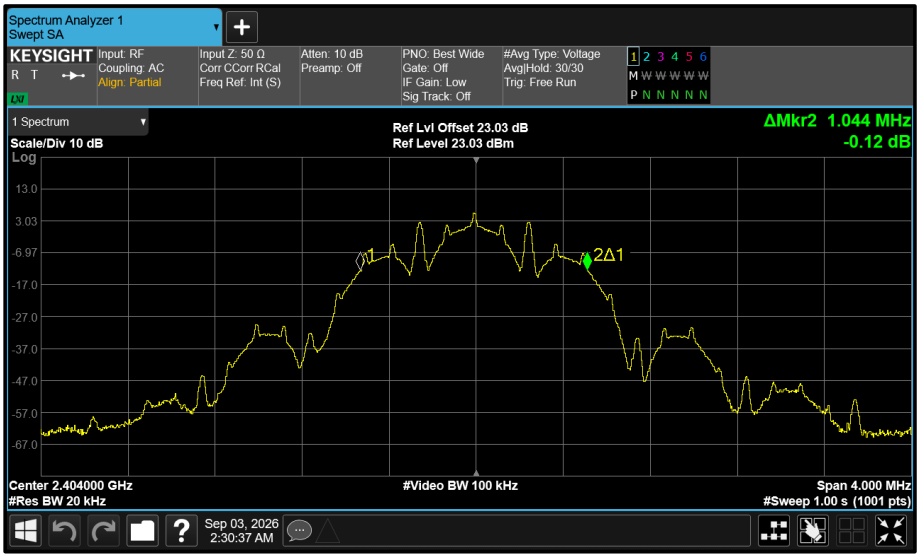


Figure 67 - Core 1 (B) 2404 MHz (CH0) 99% Bandwidth

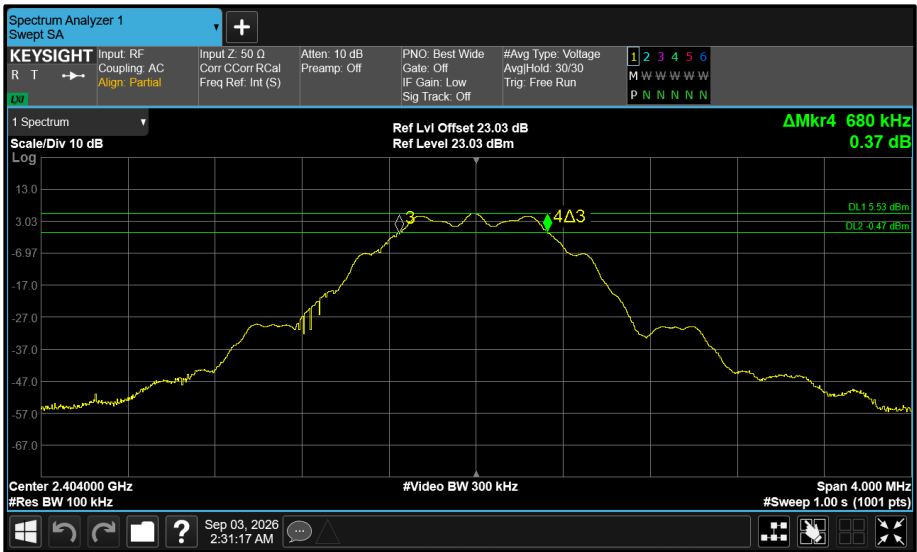


Figure 68 - Core 1 (B) 2404 MHz (CH0) 6 dB Bandwidth

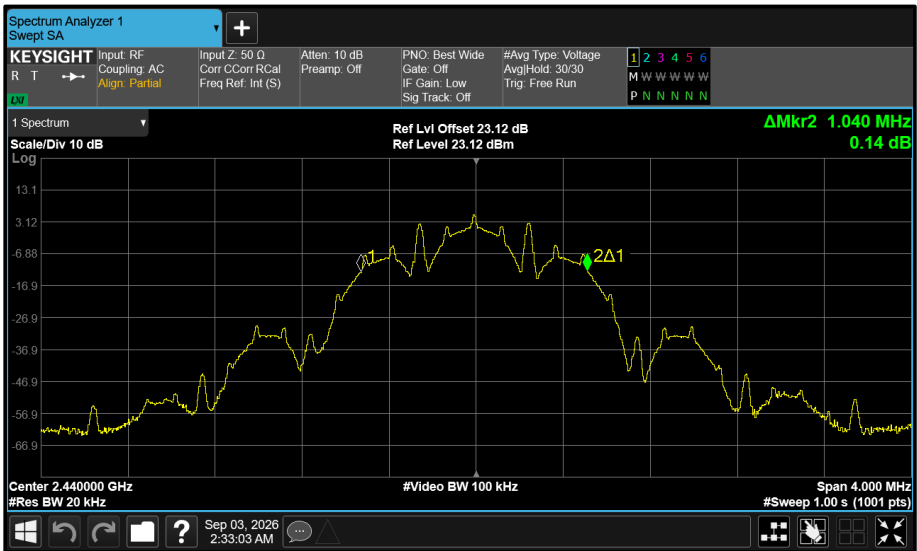


Figure 69 - Core 1 (B) 2440 MHz (CH17) 99% Bandwidth

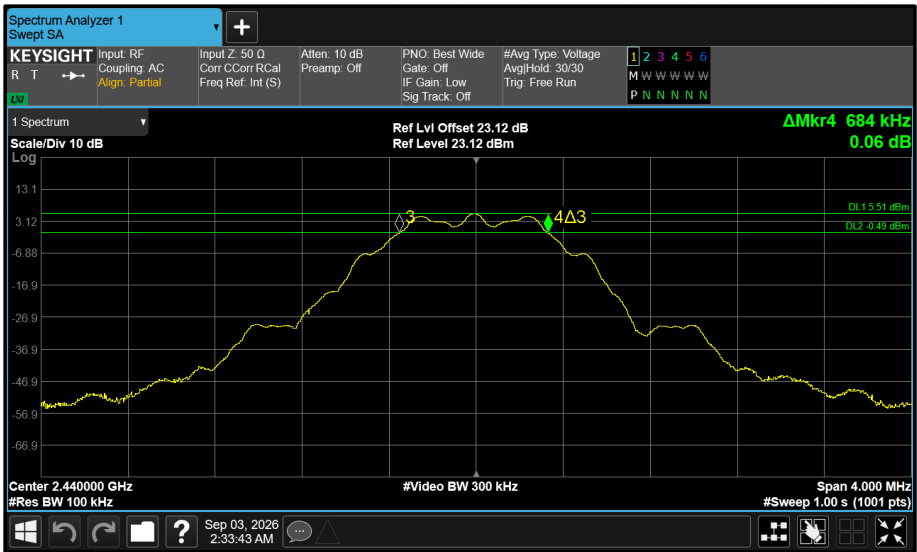


Figure 70 - Core 1 (B) 2440 MHz (CH17) 6 dB Bandwidth

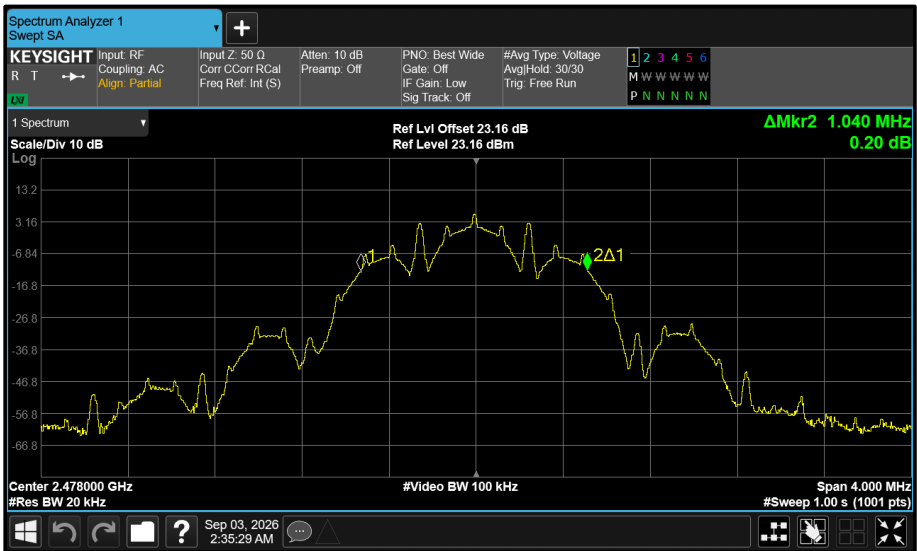


Figure 71 - Core 1 (B) 2478 MHz (CH36) 99% Bandwidth

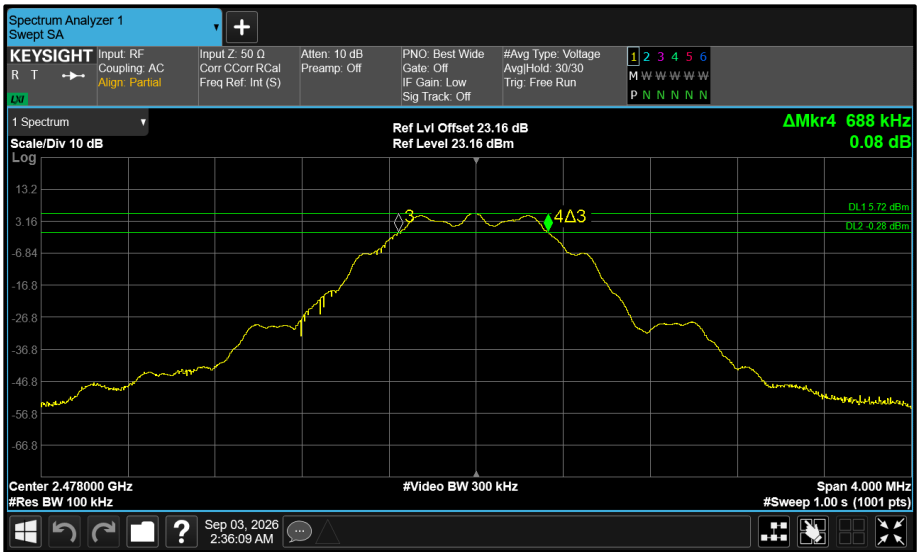


Figure 72 - Core 1 (B) 2478 MHz (CH36) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA HDT (HDT4)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	-	2.144	-	≥500.0
2440	-	-	2.136	-	≥500.0
2478	-	-	2.136	-	≥500.0

Table 31 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	-	2.360	-	-
2440	-	-	2.360	-	-
2478	-	-	2.360	-	-

Table 32 - 99% Bandwidth Results

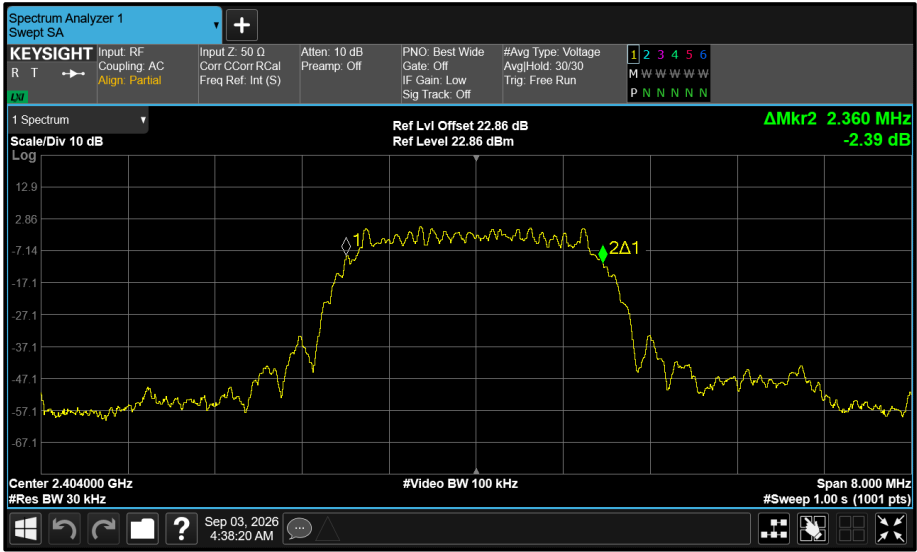


Figure 73 - Core 2 (C) 2404 MHz (CH2) 99% Bandwidth

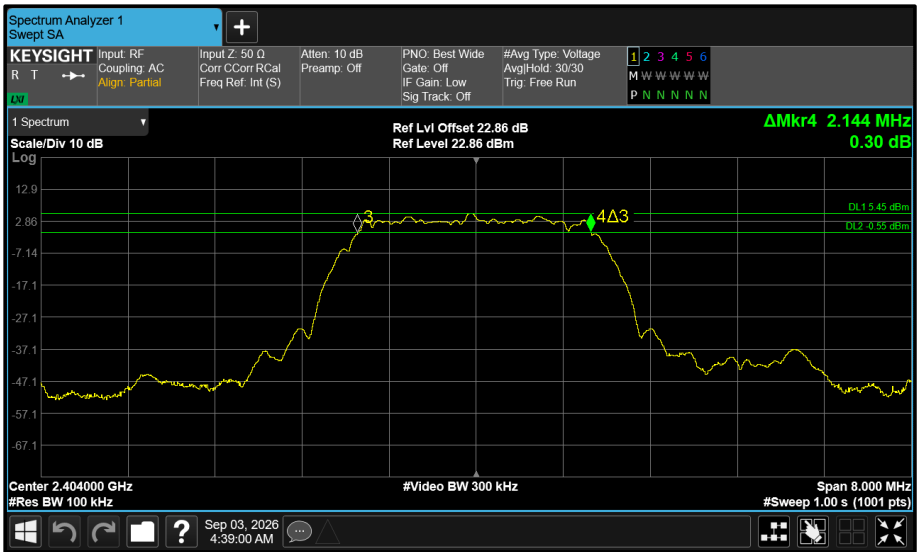


Figure 74 - Core 2 (C) 2404 MHz (CH2) 6 dB Bandwidth

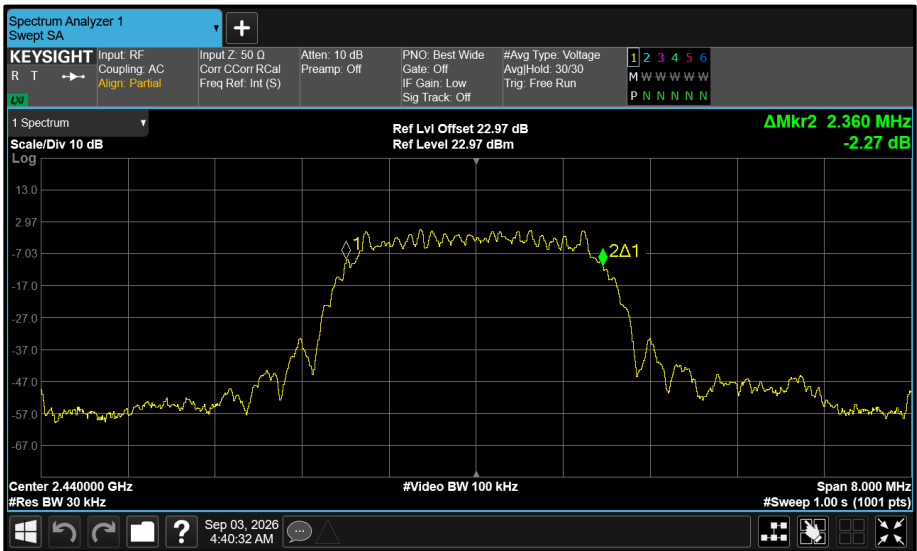


Figure 75 - Core 2 (C) 2440 MHz (CH38) 99% Bandwidth

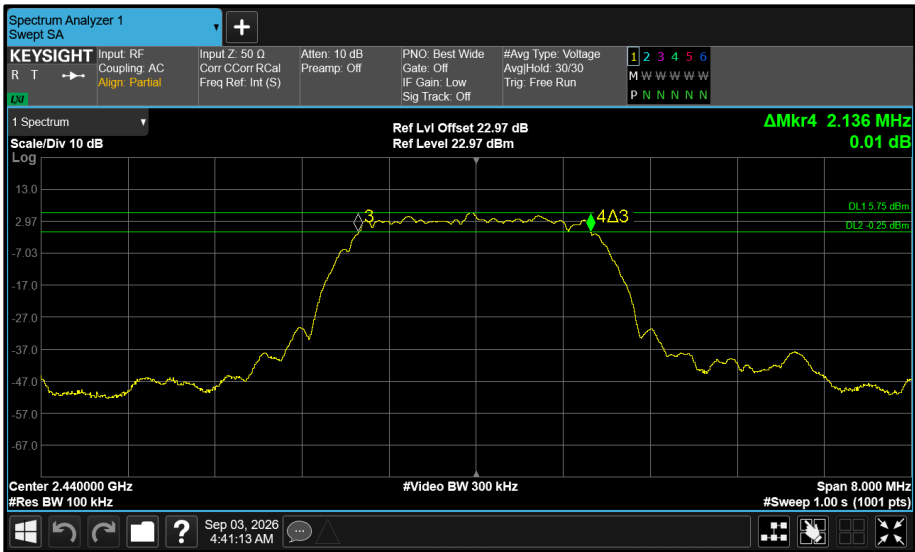


Figure 76 - Core 2 (C) 2440 MHz (CH38) 6 dB Bandwidth

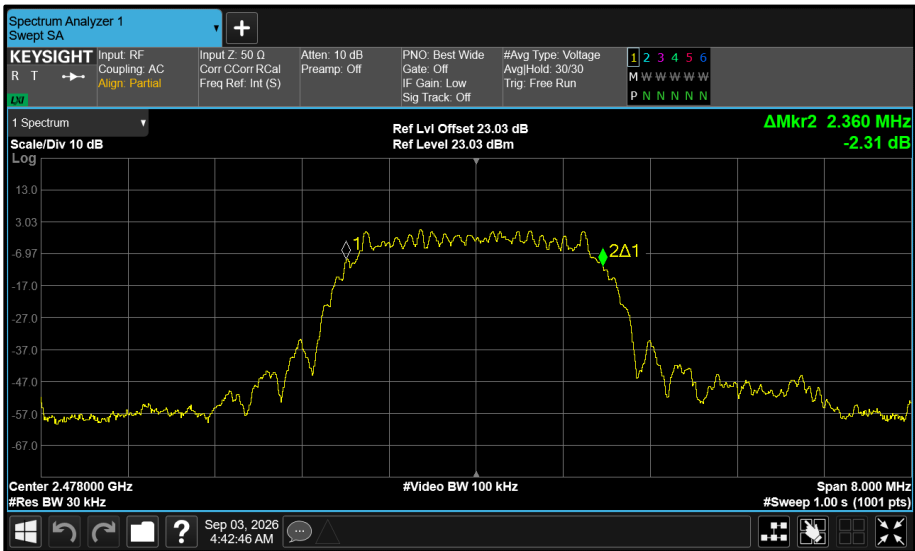


Figure 77 - Core 2 (C) 2478 MHz (CH76) 99% Bandwidth

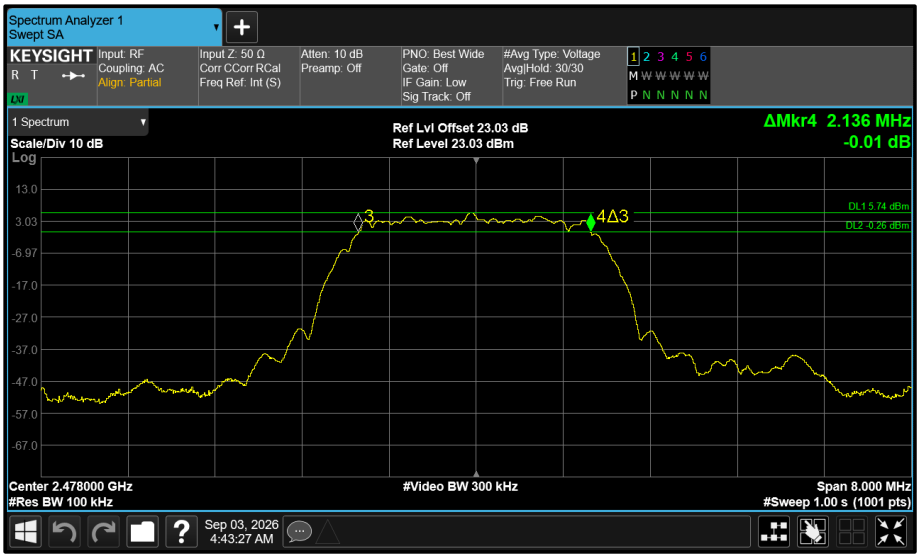


Figure 78 - Core 2 (C) 2478 MHz (CH76) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

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

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	-	0.555	-	≥500.0
2440	-	-	0.570	-	≥500.0
2476	-	-	0.570	-	≥500.0

Table 33 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	-	4.680	-	-
2440	-	-	4.665	-	-
2476	-	-	4.665	-	-

Table 34 - 99% Bandwidth Results

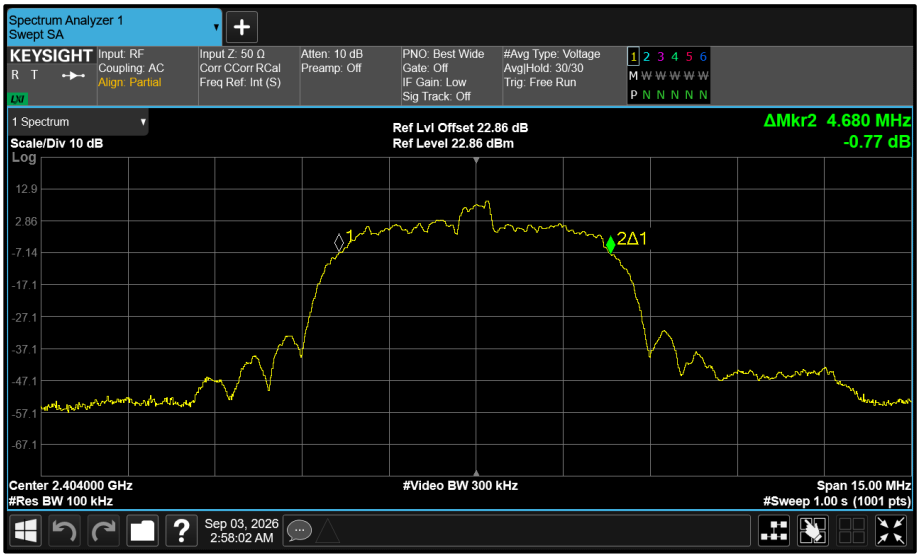


Figure 79 - Core 2 (C) 2404 MHz (CH2) 99% Bandwidth

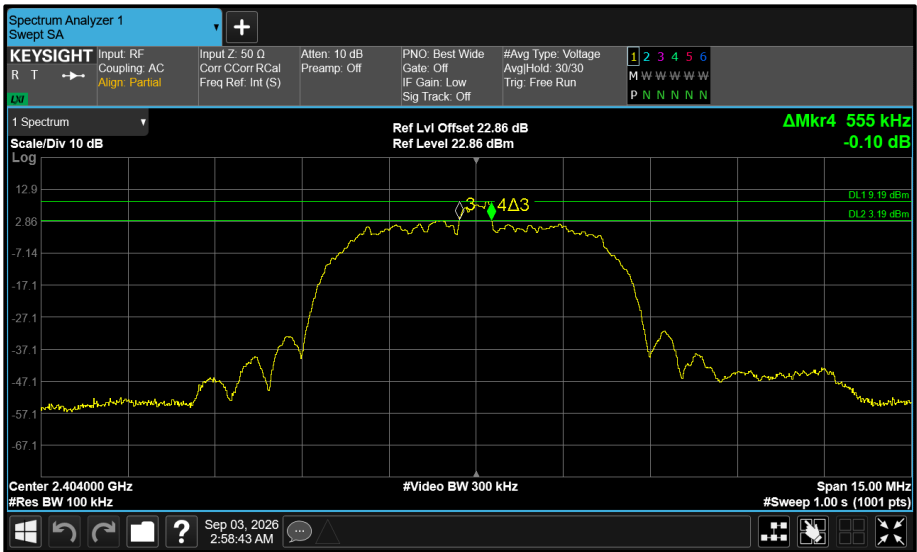


Figure 80 - Core 2 (C) 2404 MHz (CH2) 6 dB Bandwidth

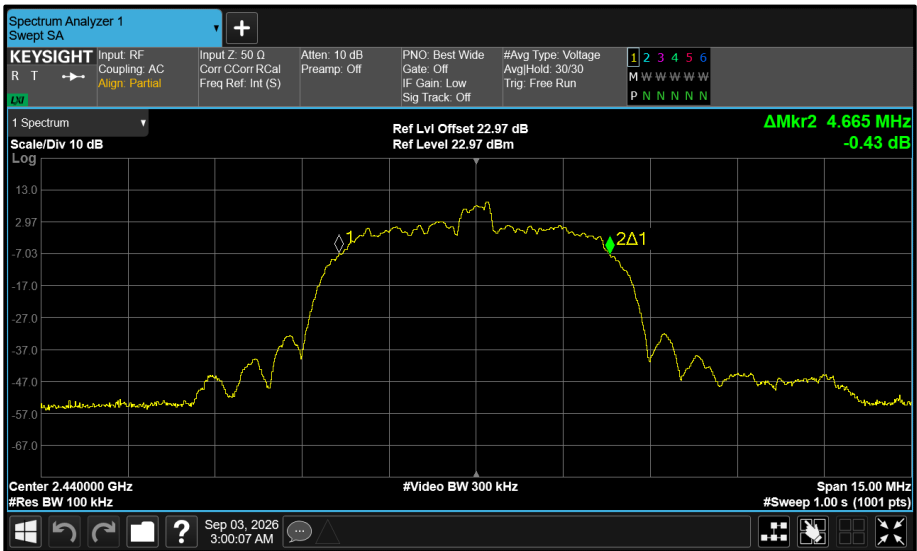


Figure 81 - Core 2 (C) 2440 MHz (CH38) 99% Bandwidth

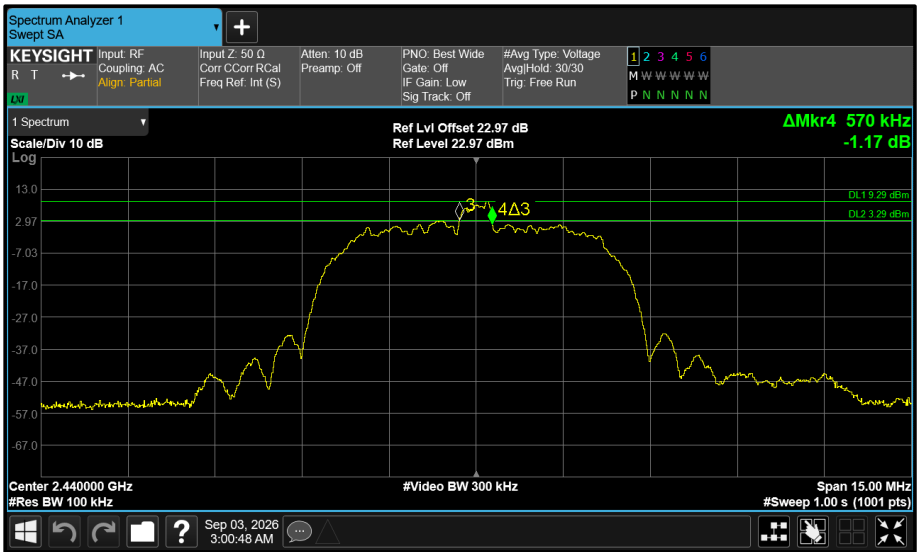


Figure 82 - Core 2 (C) 2440 MHz (CH38) 6 dB Bandwidth

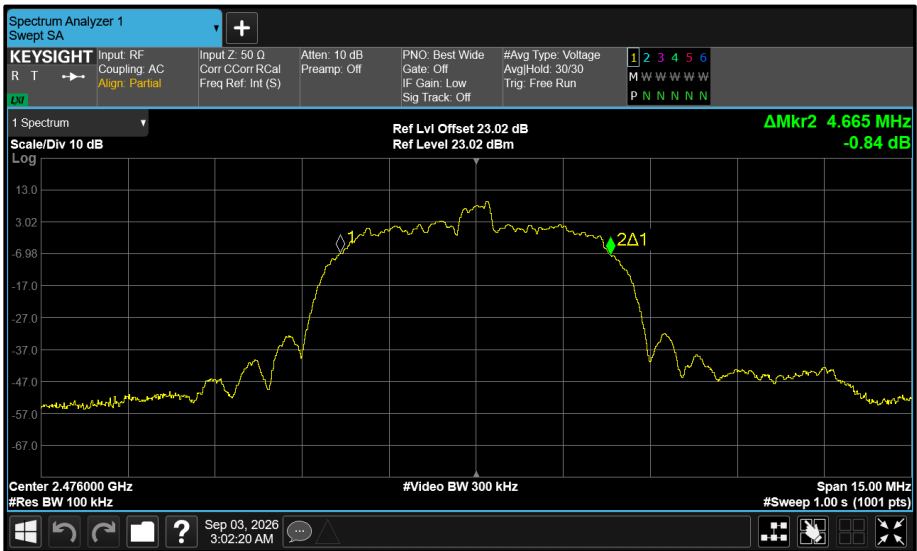


Figure 83 - Core 2 (C) 2476 MHz (CH74) 99% Bandwidth

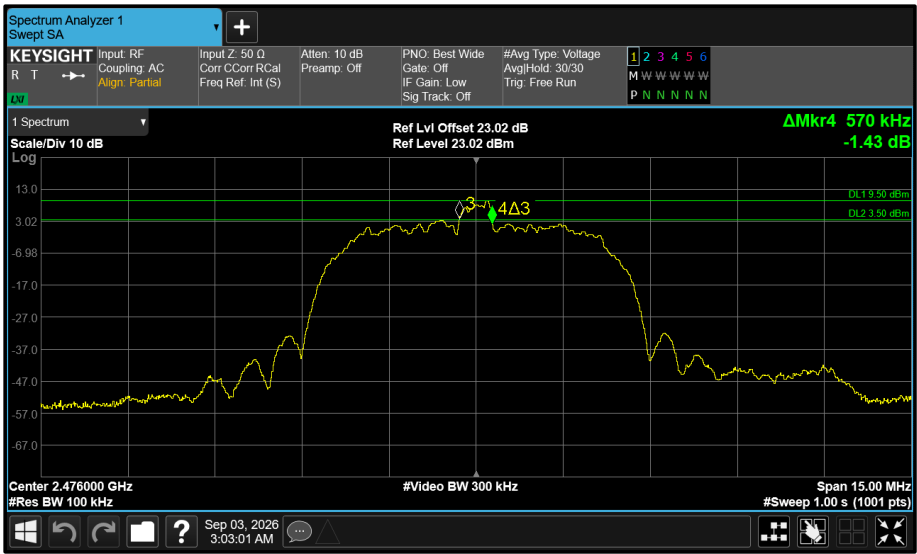


Figure 84 - Core 2 (C) 2476 MHz (CH74) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 6.3.1	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA HDRP (HDRPM4)	Duty Cycle (%):	-
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	-	4.040	-	≥500.0
2440	-	-	4.060	-	≥500.0
2476	-	-	4.060	-	≥500.0

Table 35 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2404	-	-	4.780	-	-
2440	-	-	4.780	-	-
2476	-	-	4.760	-	-

Table 36 - 99% Bandwidth Results

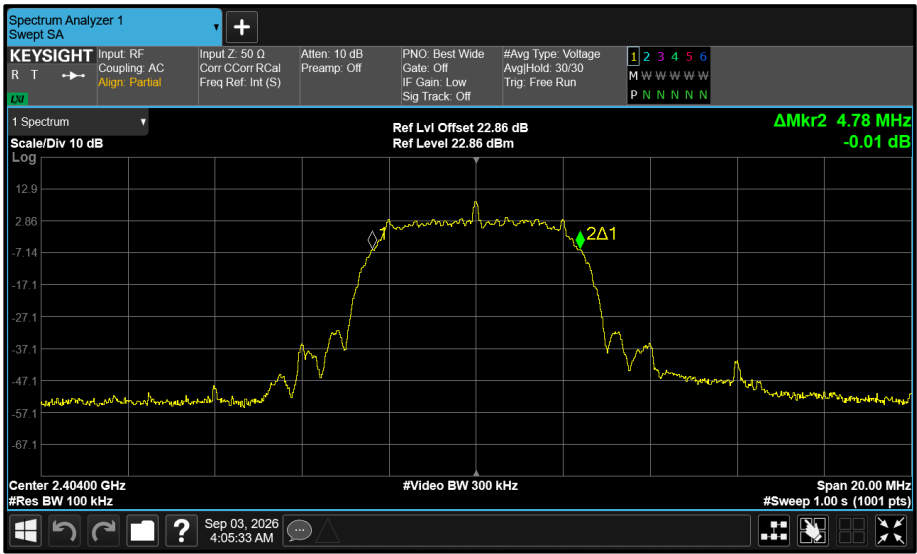


Figure 85 - Core 2 (C) 2404 MHz (CH2) 99% Bandwidth