FCC and ISED Test Report

Apple Inc
Model: A2169

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

Prepared for: Apple Inc
One Apple Park Way, Cupertino, California, 95014, USA

FCC ID: BCGA2169 IC: 579C-A2169

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Document 75946858-10 Issue 01

SIGNATURE			
NAME	**JOB TITLE**	**RESPONSIBLE FOR**	**ISSUE DATE**
Phil Harrison	Senior Engineer	Authorised Signatory	21 January 2021

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
Testing	Mohammad Malik	21 January 2021	
Testing	Faisal Malyar	21 January 2021	
Testing	Ahmad Javid	21 January 2021	
Testing	Jaiyanth Balendrarajah	21 January 2021	
Testing	Ainsley Jenkins	21 January 2021	
Testing	Liang Tian	21 January 2021	
Testing	George Porter	21 January 2021	

FCC Accreditation
90987 Octagon House, Fareham Test Laboratory

ISED Accreditation
12669A Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15C: 2019, ISED RSS-247: Issue 2 (02-2017) and ISED RSS-GEN: Issue 5 (04-2018) + A1 (03-2019) 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 January 2021

Table 1

1.2 Introduction

Applicant	Apple Inc
Manufacturer	Apple Inc
Model Number(s)	A2169
Serial Number(s)	C07CL0AMQ4TG and C07CM0EKQ4TG
Hardware Version(s)	REV1.0
Software Version(s)	18J42710o
Number of Samples Tested	2
Test Specification/Issue/Date	FCC 47 CFR Part 15C: 2019 ISED RSS-247: Issue 2 (02-2017) ISED RSS-GEN: Issue 5 (04-2018) + A1 (03-2019)
Order Number Date	0540188556 07-April-2020
Date of Receipt of EUT	01-June-2020 and 08-July-2020
Start of Test	24-June-2020
Finish of Test	03-November-2020
Name of Engineer(s)	Mohammad Malik, Faisal Malyar, Ahmad Javid, Jaiyanth Balendrarajah, Ainsley Jenkins, Liang Tian and George Porter
Related Document(s)	ANSI C63.10 (2013) 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 devices complies with the provisions of this section, as it uses a permanently attached antenna.
2.1	15.205	-	8.10	Restricted Band Edges	Pass	
2.2	15.247 (a)(2)	5.2	6.7	Emission Bandwidth	Pass	
2.3	15.247 (b)	5.4	6.12	Maximum Conducted Output Power	Pass	
2.4	15.247 (d)	5.5	-	Authorised Band Edges	Pass	
2.5	15.247 (d) and 15.205	5.5	6.13	Spurious Radiated Emissions	Pass	
2.6	15.247 (e)	5.2	6.12	Power Spectral Density	Pass	

Table 2

1.4 Product Information

1.4.1 Technical Description

The Equipment under test (EUT) was an Apple TV Set Top Box with Bluetooth, Bluetooth Low Energy, Thread and 802.11 a/b/g/n/ac/ax capabilities in the 2.4 GHz and 5 GHz bands.

1.4.2 Test Set-up

For conducted tests, a conducted test point was provided by the manufacturer via a UFL connector and cable. The loss of these test cables were known and compensated for in any conducted measurements.

For tests in SISO operation, conducted tests were performed on the Core with the highest antenna gain from Core 0 and Core 1 as these are understood to be identical but with unequal antenna gains.

SISO test were additionally performed on BT Core 2

The EUT also supports TxBF on Core 0 + Core 1.

In addition to the standard output level (iPA), cores 0 & 1 also supported an additional higher output power mode utilizing a different power amplifier (ePA). Therefore both modes are reported due to internal differences in the RF path.

Bluetooth LE + HDR was assessed as a DTS system. The EUT supports Bluetooth on the following mode of operations across its antenna ports:

- BT Core 0 – SISO (iPA and ePA)
- BT Core 1 – SISO (iPA and ePA)
- BT Core 0 + BT Core 1 - TxBF (iPA and ePA)
- BT Core 2 (iPA)

For all tests, the EUT was put into a continuous transmit test mode with the manufacturer's test commands via a script running in the EUTs terminal application. The EUT then transmitted the required type of modulation/packet type on a static channel selected within the test script.

All testing was performed with the EUT powered via a 120 V AC, 60 Hz source.

1.4.3 Antenna Gain Table (2.4GHz Bluetooth)

Antenna Port	Frequency Range (MHz)	Peak Gain (dBi)	Conducted Cable Loss (dB)
BT Core 0	2400 to 2480	2.60	0.50
BT Core 1	2400 to 2480	2.63	0.50
BT Core 2	2400 to 2480	2.80	0.50

Table 3

1.5 Deviations from the Standard

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

1.6 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: A2169, Serial Number: C07CL0AMQ4TG			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A2169, Serial Number: C07CM0EKQ4TG			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 4

1.7 Test Location

TÜV SÜD conducted the following tests at our Fareham Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: 2.4 GHz Bluetooth - DTS		
Emission Bandwidth	George Porter	UKAS
Maximum Conducted Output Power	George Porter	UKAS
Authorised Band Edges	Mohammad Malik, Faisal Malyar, Ahmad Javid, Jaiyanth Balendrarajah, Ainsley Jenkins and Liang Tian	UKAS
Restricted Band Edges		
Spurious Radiated Emissions		UKAS
Power Spectral Density	George Porter	UKAS

Table 5

Office Address:

Octagon House
Concorde Way
Segensworth North
Fareham
Hampshire
PO15 5RL
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 5.2
ISED RSS-GEN, Clause 6.7

2.1.2 Equipment Under Test and Modification State

A2169, S/N: C07CM0EKQ4TG - Modification State 0

2.1.3 Date of Test

02-November-2020 to 03-November-2020

2.1.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 11.8.2.

2.1.5 Environmental Conditions

Ambient Temperature 20.9 - 23.3 °C
Relative Humidity 33.1 - 40.7 %

2.1.6 Test Results

2.4 GHz Bluetooth - DTS

ePA

Antenna Port Configuration: SISO
Modulation: π/4 DQPSK (HDR4)

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 1
2404	1.584
2441	1.584
2478	1.584

Table 6 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 1
2404	2.352
2441	2.352
2478	2.352

Table 7 - 99% Bandwidth Results

Figure 1 - Core 1 HDR4 2404 MHz (CH2) 99% Bandwidth

Figure 2 - Core 1 HDR4 2404 MHz (CH2) 6 dB Bandwidth

Figure 3 - Core 1 HDR4 2441 MHz (CH39) 99% Bandwidth

Figure 4 - Core 1 HDR4 2441 MHz (CH39) 6 dB Bandwidth

Figure 5 - Core 1 HDR4 2478 MHz (CH76) 99% Bandwidth

Figure 6 - Core 1 HDR4 2478 MHz (CH76) 6 dB Bandwidth

Modulation: π/4 DQPSK (HDR8)

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 1
2404	0.660
2441	0.660
2478	0.660

Table 8 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 1
2404	4.520
2441	4.510
2478	4.520

Table 9 - 99% Bandwidth Results

Figure 7 - Core 1 HDR8 2404 MHz (CH2) 99% Bandwidth

Figure 8 - Core 1 HDR8 2404 MHz (CH2) 6 dB Bandwidth

Figure 9 - Core 1 HDR8 2441 MHz (CH39) 99% Bandwidth

Figure 10 - Core 1 HDR8 2441 MHz (CH39) 6 dB Bandwidth

Figure 11 - Core 1 HDR8 2478 MHz (CH76) 99% Bandwidth

Figure 12 - Core 1 HDR8 2478 MHz (CH76) 6 dB Bandwidth

Modulation: GFSK (LE 1M)

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 1
2402	0.672
2440	0.668
2480	0.668

Table 10 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 1
2402	1.048
2440	1.048
2480	1.044

Table 11 - 99% Bandwidth Results

Figure 13 - Core 1 LE 1M 2402 MHz (CH0) 99% Bandwidth

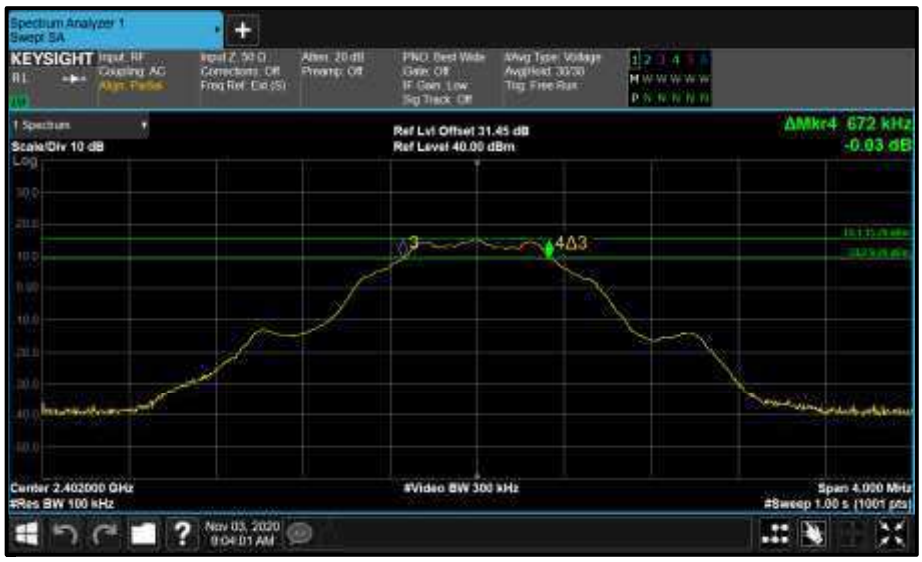

Figure 14 - Core 1 LE 1M 2402 MHz (CH0) 6 dB Bandwidth

Figure 15 - Core 1 LE 1M 2440 MHz (CH19) 99% Bandwidth

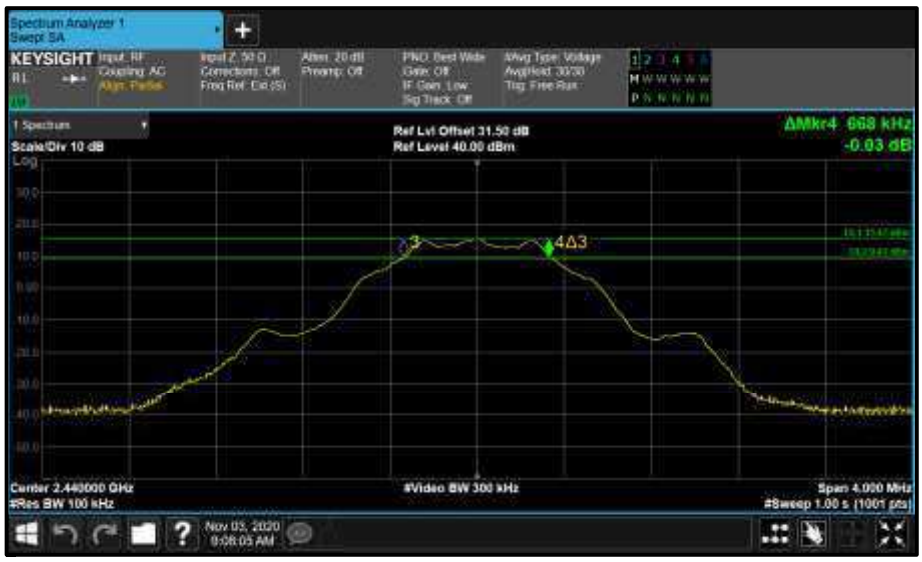

Figure 16 - Core 1 LE 1M 2440 MHz (CH19) 6 dB Bandwidth

Figure 17 - Core 1 LE 1M 2480 MHz (CH39) 99% Bandwidth

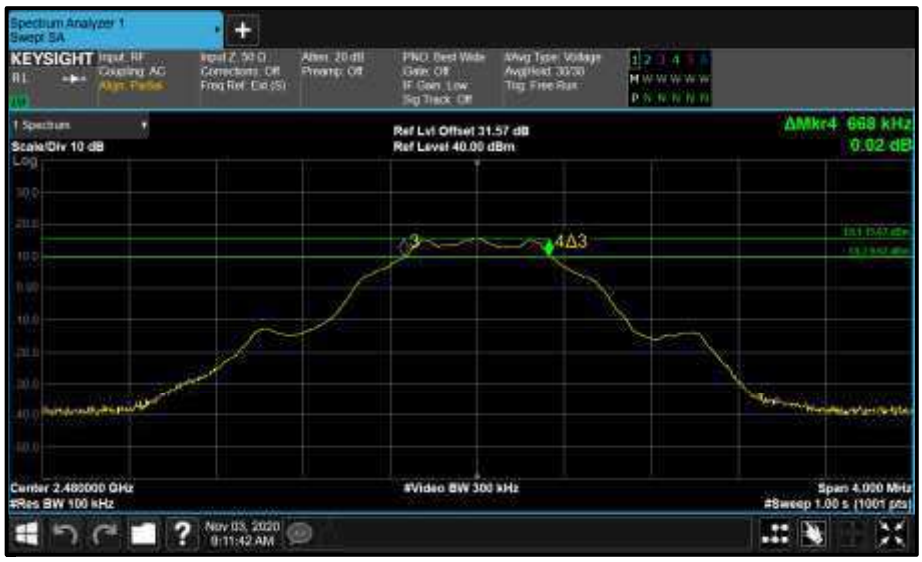

Figure 18 - Core 1 LE 1M 2480 MHz (CH39) 6 dB Bandwidth

Modulation: GFSK (LE 2M)

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 1
2402	1.184
2440	1.184
2480	1.176

Table 12 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 1
2402	2.048
2440	2.056
2480	2.056

Table 13 - 99% Bandwidth Results

Figure 19 - Core 1 LE 2M 2402 MHz (CH0) 99% Bandwidth

Figure 20 - Core 1 LE 2M 2402 MHz (CH0) 6 dB Bandwidth

Figure 21 - Core 1 LE 2M 2440 MHz (CH19) 99% Bandwidth

Figure 22 - Core 1 LE 2M 2440 MHz (CH19) 6 dB Bandwidth

Figure 23 - Core 1 LE 2M 2480 MHz (CH39) 99% Bandwidth

Figure 24 - Core 1 LE 2M 2480 MHz (CH39) 6 dB Bandwidth

Antenna Port Configuration: Beamforming

Modulation: π/4 DQPSK (HDR4)

Test Frequency (MHz)	6 dB Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2404	1.576	1.592
2441	1.584	1.592
2478	1.584	1.592

Table 14 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2404	2.352	2.352
2441	2.352	2.352
2478	2.352	2.352

Table 15 - 99% Bandwidth Results

Figure 25 - Core 0 HDR4 2404 MHz (CH2) 99% Bandwidth

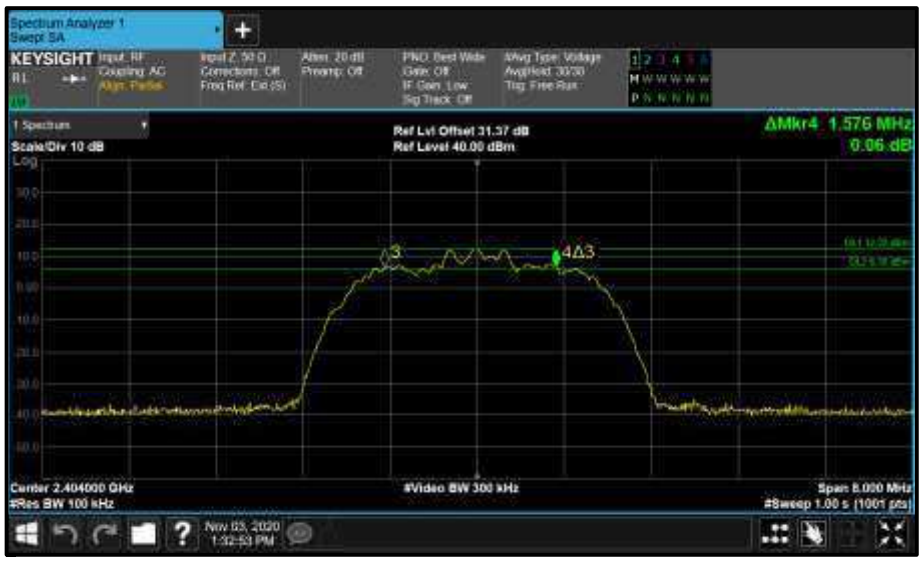

Figure 26 - Core 0 HDR4 2404 MHz (CH2) 6 dB Bandwidth

Figure 27 - Core 1 HDR4 2404 MHz (CH2) 99% Bandwidth

Figure 28 - Core 1 HDR4 2404 MHz (CH2) 6 dB Bandwidth

Figure 29 - Core 0 HDR4 2441 MHz (CH39) 99% Bandwidth

Figure 30 - Core 0 HDR4 2441 MHz (CH39) 6 dB Bandwidth

Figure 31 - Core 1 HDR4 2441 MHz (CH39) 99% Bandwidth

Figure 32 - Core 1 HDR4 2441 MHz (CH39) 6 dB Bandwidth

Figure 33 - Core 0 HDR4 2478 MHz (CH76) 99% Bandwidth

Figure 34 - Core 0 HDR4 2478 MHz (CH76) 6 dB Bandwidth

Figure 35 - Core 1 HDR4 2478 MHz (CH76) 99% Bandwidth

Figure 36 - Core 1 HDR4 2478 MHz (CH76) 6 dB Bandwidth

Modulation: π/4 DQPSK (HDR8)

Test Frequency (MHz)	6 dB Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2404	0.660	0.940
2441	0.660	0.920
2478	0.660	0.920

Table 16 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2404	4.520	4.520
2441	4.510	4.520
2478	4.520	4.520

Table 17 - 99% Bandwidth Results

Figure 37 - Core 0 HDR8 2404 MHz (CH2) 99% Bandwidth

Figure 38 - Core 0 HDR8 2404 MHz (CH2) 6 dB Bandwidth

Figure 39 - Core 1 HDR8 2404 MHz (CH2) 99% Bandwidth

Figure 40 - Core 1 HDR8 2404 MHz (CH2) 6 dB Bandwidth

Figure 41 - Core 0 HDR8 2441 MHz (CH39) 99% Bandwidth

Figure 42 - Core 0 HDR8 2441 MHz (CH39) 6 dB Bandwidth

Figure 43 - Core 1 HDR8 2441 MHz (CH39) 99% Bandwidth

Figure 44 - Core 1 HDR8 2441 MHz (CH39) 6 dB Bandwidth

Figure 45 - Core 0 HDR8 2478 MHz (CH76) 99% Bandwidth

Figure 46 - Core 0 HDR8 2478 MHz (CH76) 6 dB Bandwidth

Figure 47 - Core 1 HDR8 2478 MHz (CH76) 99% Bandwidth

Figure 48 - Core 1 HDR8 2478 MHz (CH76) 6 dB Bandwidth

Modulation: GFSK (LE 1M)

Test Frequency (MHz)	6 dB Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2402	0.668	0.664
2440	0.668	0.664
2480	0.668	0.668

Table 18 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2402	1.044	1.044
2440	1.040	1.048
2480	1.044	1.048

Table 19 - 99% Bandwidth Results

Figure 49 - Core 0 LE 1M 2402 MHz (CH0) 99% Bandwidth

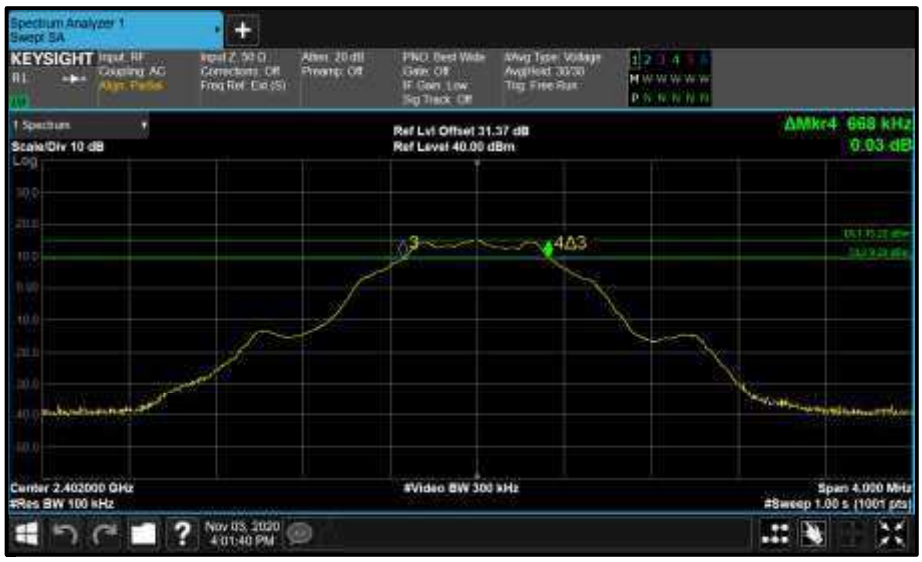

Figure 50 - Core 0 LE 1M 2402 MHz (CH0) 6 dB Bandwidth

Figure 51 - Core 1 LE 1M 2402 MHz (CH0) 99% Bandwidth

Figure 52 - Core 1 LE 1M 2402 MHz (CH0) 6 dB Bandwidth

Figure 53 - Core 0 LE 1M 2440 MHz (CH19) 99% Bandwidth

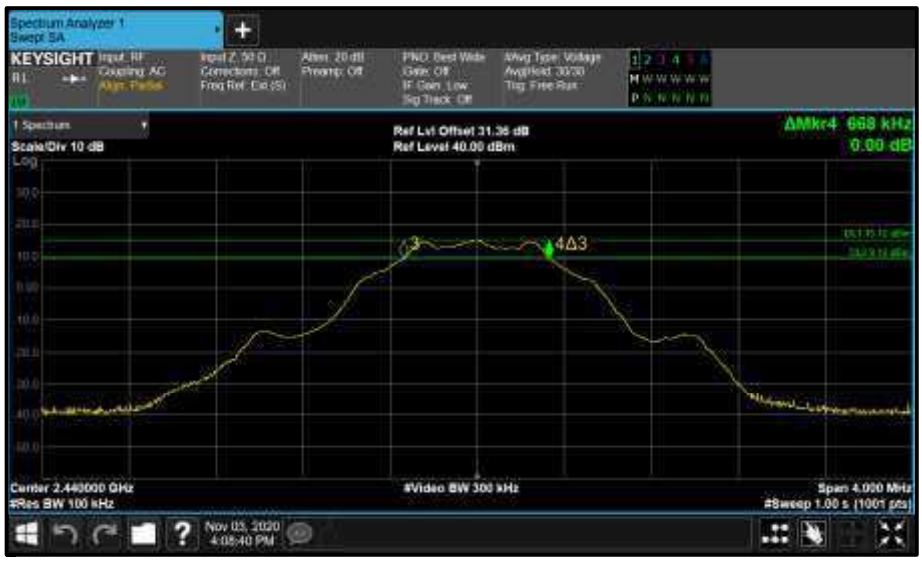

Figure 54 - Core 0 LE 1M 2440 MHz (CH19) 6 dB Bandwidth

Figure 55 - Core 1 LE 1M 2440 MHz (CH19) 99% Bandwidth

Figure 56 - Core 1 LE 1M 2440 MHz (CH19) 6 dB Bandwidth

Figure 57 - Core 0 LE 1M 2480 MHz (CH39) 99% Bandwidth

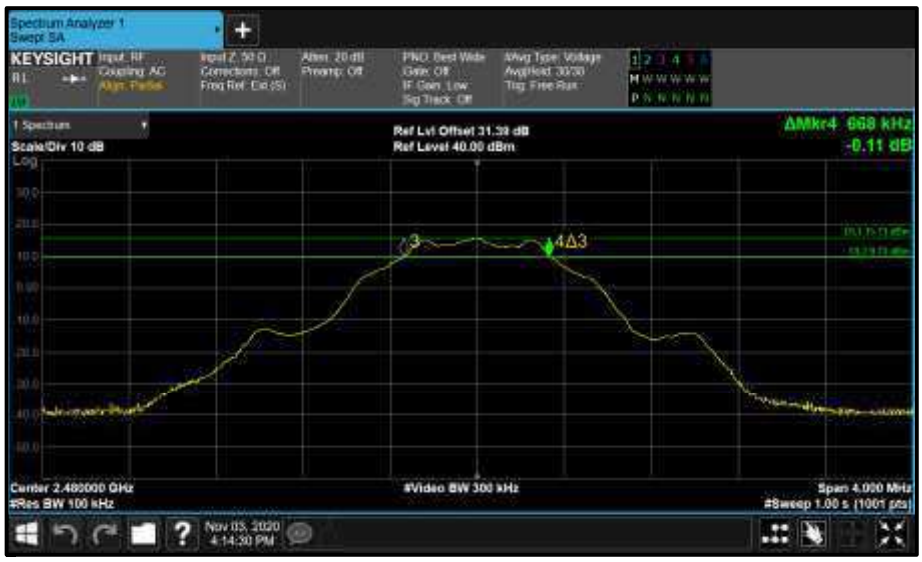

Figure 58 - Core 0 LE 1M 2480 MHz (CH39) 6 dB Bandwidth

Figure 59 - Core 1 LE 1M 2480 MHz (CH39) 99% Bandwidth

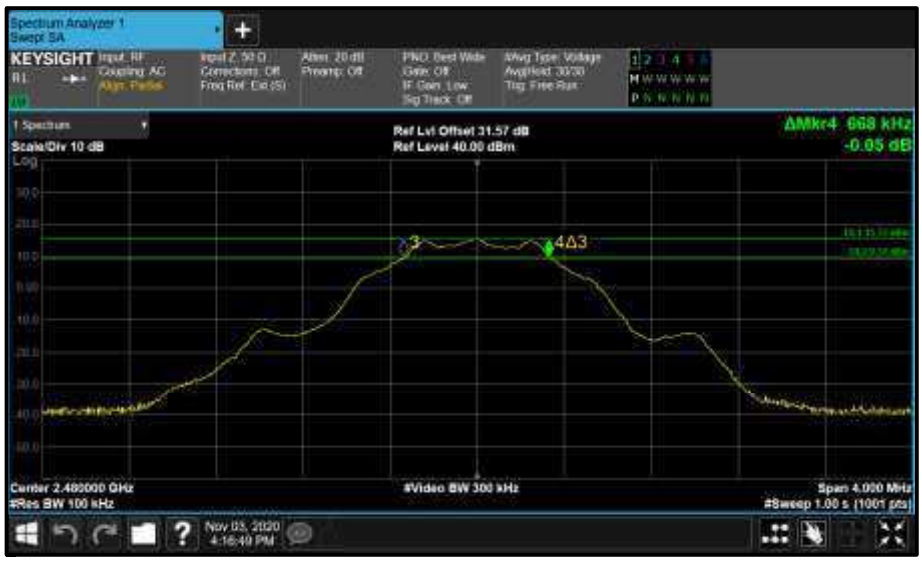

Figure 60 - Core 1 LE 1M 2480 MHz (CH39) 6 dB Bandwidth

Modulation: GFSK (LE 2M)

Test Frequency (MHz)	6 dB Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2402	1.184	1.176
2440	1.184	1.184
2480	1.176	1.184

Table 20 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2402	2.048	2.056
2440	2.048	2.048
2480	2.048	2.056

Table 21 - 99% Bandwidth Results

Figure 61 - Core 0 LE 2M 2402 MHz (CH0) 99% Bandwidth

Figure 62 - Core 0 LE 2M 2402 MHz (CH0) 6 dB Bandwidth

Figure 63 - Core 1 LE 2M 2402 MHz (CH0) 99% Bandwidth

Figure 64 - Core 1 LE 2M 2402 MHz (CH0) 6 dB Bandwidth

Figure 65 - Core 0 LE 2M 2440 MHz (CH19) 99% Bandwidth

Figure 66 - Core 0 LE 2M 2440 MHz (CH19) 6 dB Bandwidth

Figure 67 - Core 1 LE 2M 2440 MHz (CH19) 99% Bandwidth

Figure 68 - Core 1 LE 2M 2440 MHz (CH19) 6 dB Bandwidth

Figure 69 - Core 0 LE 2M 2480 MHz (CH39) 99% Bandwidth

Figure 70 - Core 0 LE 2M 2480 MHz (CH39) 6 dB Bandwidth

Figure 71 - Core 1 LE 2M 2480 MHz (CH39) 99% Bandwidth

Figure 72 - Core 1 LE 2M 2480 MHz (CH39) 6 dB Bandwidth

iPA

Antenna Port Configuration: SISO

Modulation: π/4 DQPSK (HDR4)

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 2
2404	1.584
2441	1.584
2478	1.584

Table 22 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 2
2404	2.336
2441	2.344
2478	2.344

Table 23 - 99% Bandwidth Results

Figure 73 - Core 2 HDR4 2404 MHz (CH2) 99% Bandwidth

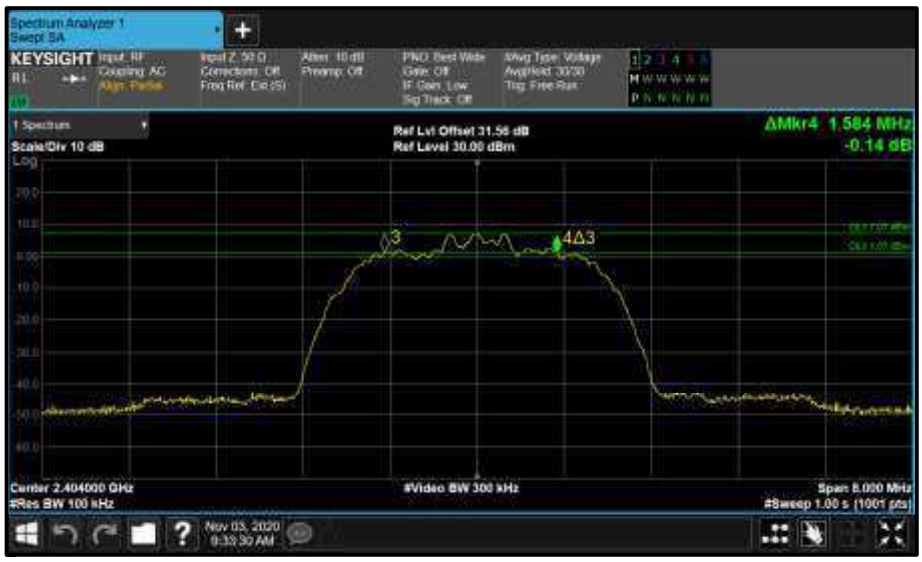

Figure 74 - Core 2 HDR4 2404 MHz (CH2) 6 dB Bandwidth

Figure 75 - Core 2 HDR4 2441 MHz (CH39) 99% Bandwidth

Figure 76 - Core 2 HDR4 2441 MHz (CH39) 6 dB Bandwidth

Figure 77 - Core 2 HDR4 2478 MHz (CH76) 99% Bandwidth

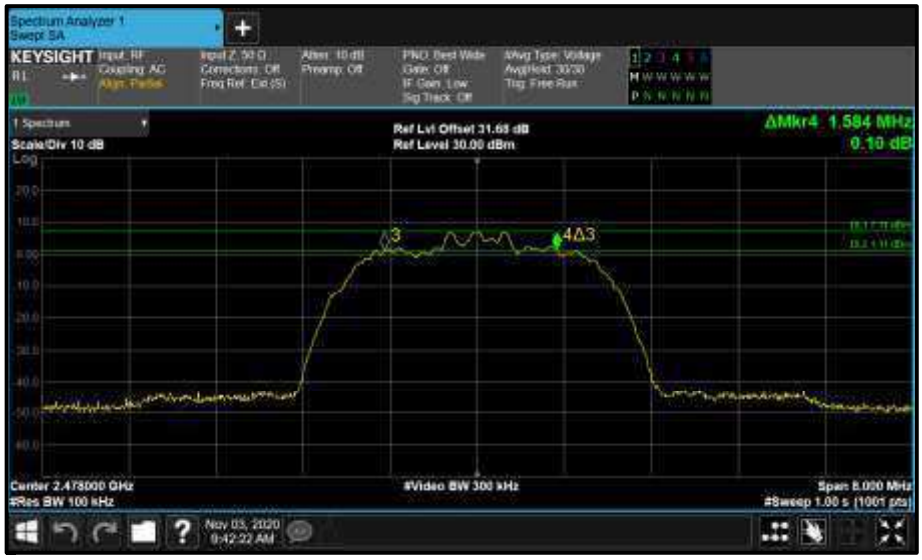

Figure 78 - Core 2 HDR4 2478 MHz (CH76) 6 dB Bandwidth

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 1
2404	1.592
2441	1.584
2478	1.584

Table 24 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 1
2404	2.352
2441	2.352
2478	2.352

Table 25 - 99% Bandwidth Results

Figure 79 - Core 1 HDR4 2404 MHz (CH2) 99% Bandwidth

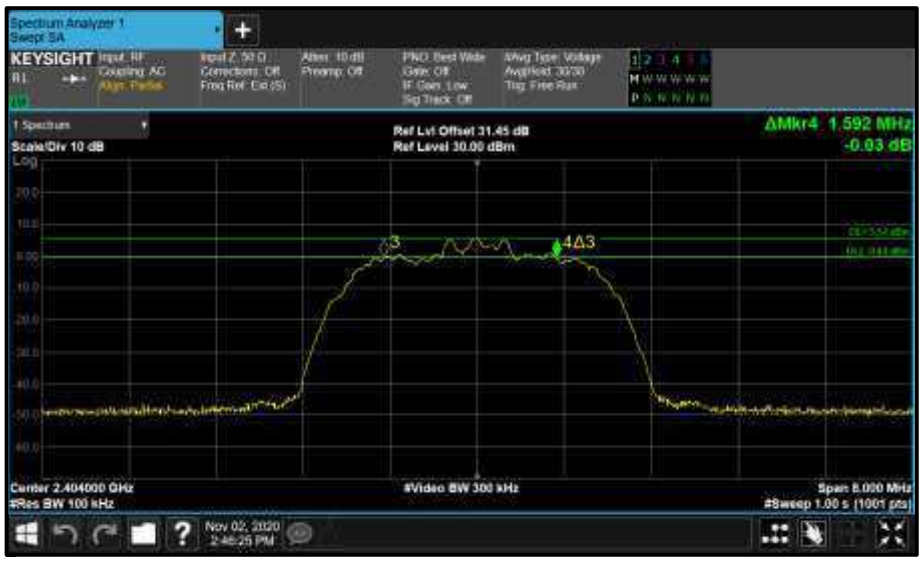

Figure 80 - Core 1 HDR4 2404 MHz (CH2) 6 dB Bandwidth

Figure 81 - Core 1 HDR4 2441 MHz (CH39) 99% Bandwidth

Figure 82 - Core 1 HDR4 2441 MHz (CH39) 6 dB Bandwidth

Figure 83 - Core 1 HDR4 2478 MHz (CH76) 99% Bandwidth

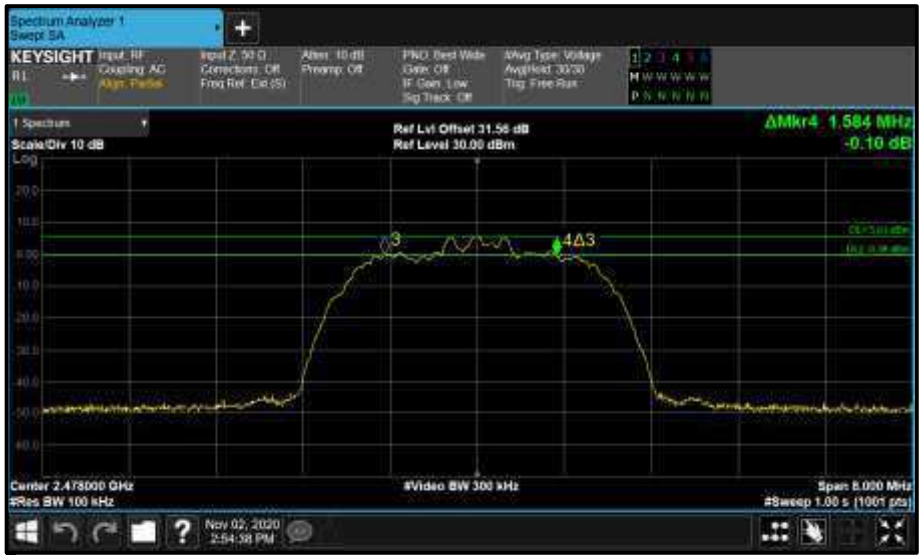

Figure 84 - Core 1 HDR4 2478 MHz (CH76) 6 dB Bandwidth

Modulation: π/4 DQPSK (HDR8)

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 2
2404	0.930
2441	0.940
2478	0.950

Table 26 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 2
2404	4.510
2441	4.500
2478	4.520

Table 27 - 99% Bandwidth Results

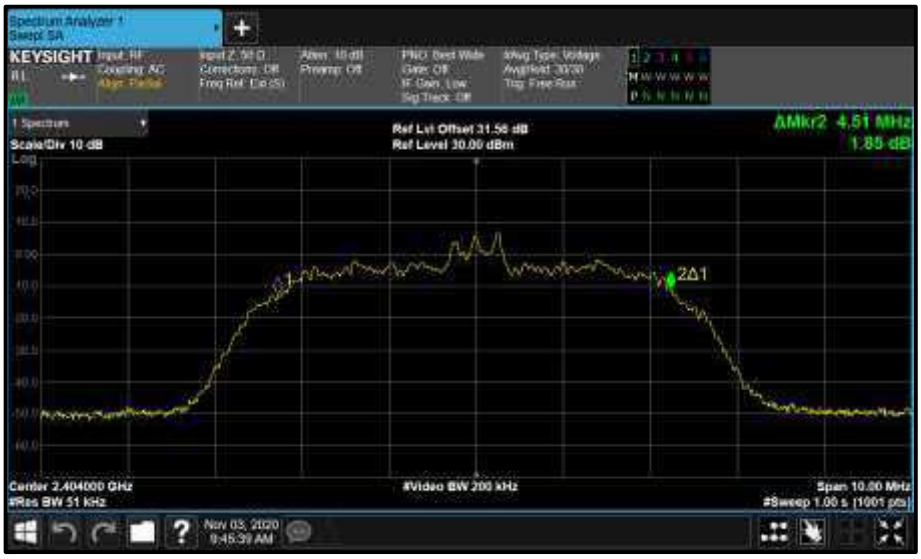

Figure 85 - Core 2 HDR8 2404 MHz (CH2) 99% Bandwidth

Figure 86 - Core 2 HDR8 2404 MHz (CH2) 6 dB Bandwidth

Figure 87 - Core 2 HDR8 2441 MHz (CH39) 99% Bandwidth

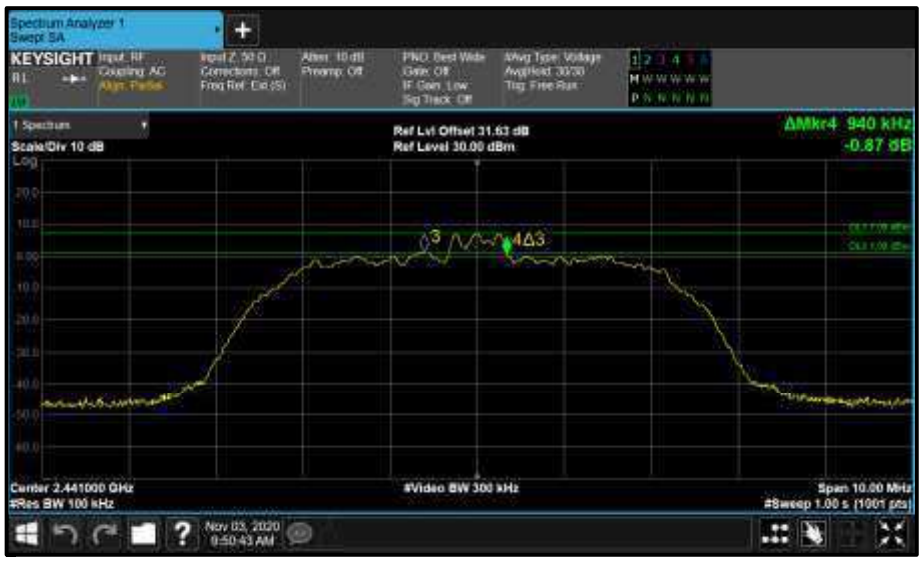

Figure 88 - Core 2 HDR8 2441 MHz (CH39) 6 dB Bandwidth

Figure 89 - Core 2 HDR8 2478 MHz (CH76) 99% Bandwidth

Figure 90 - Core 2 HDR8 2478 MHz (CH76) 6 dB Bandwidth

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 1
2404	0.660
2441	0.660
2478	0.670

Table 28 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 1
2404	4.520
2441	4.510
2478	4.520

Table 29 - 99% Bandwidth Results

Figure 91 - Core 1 HDR8 2404 MHz (CH2) 99% Bandwidth

Figure 92 - Core 1 HDR8 2404 MHz (CH2) 6 dB Bandwidth

Figure 93 - Core 1 HDR8 2441 MHz (CH39) 99% Bandwidth

Figure 94 - Core 1 HDR8 2441 MHz (CH39) 6 dB Bandwidth

Figure 95 - Core 1 HDR8 2478 MHz (CH76) 99% Bandwidth

Figure 96 - Core 1 HDR8 2478 MHz (CH76) 6 dB Bandwidth

Modulation: GFSK (LE 1M)

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 2
2402	0.672
2440	0.676
2480	0.672

Table 30 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 2
2402	1.040
2440	1.036
2480	1.040

Table 31 - 99% Bandwidth Results

Figure 97 - Core 2 LE 1M 2402 MHz (CH0) 99% Bandwidth

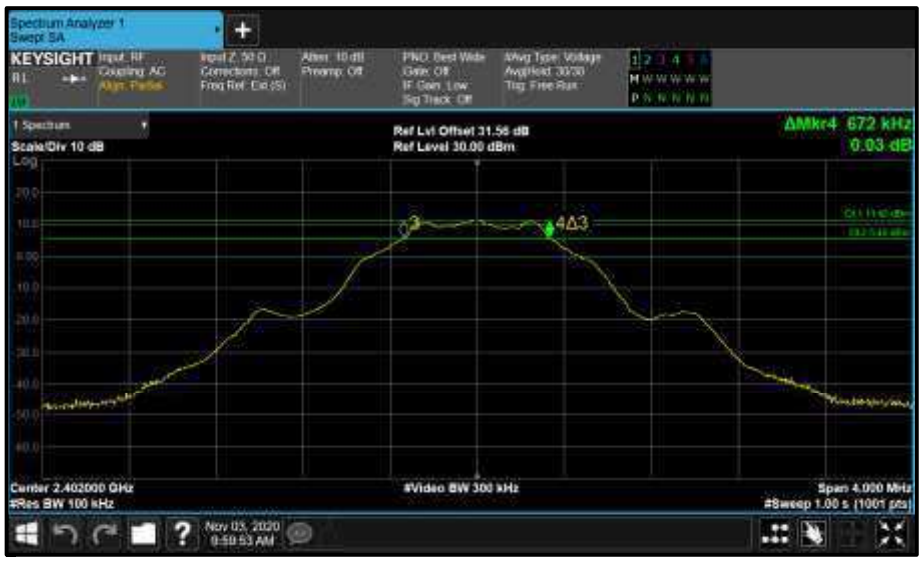

Figure 98 - Core 2 LE 1M 2402 MHz (CH0) 6 dB Bandwidth

Figure 99 - Core 2 LE 1M 2440 MHz (CH19) 99% Bandwidth

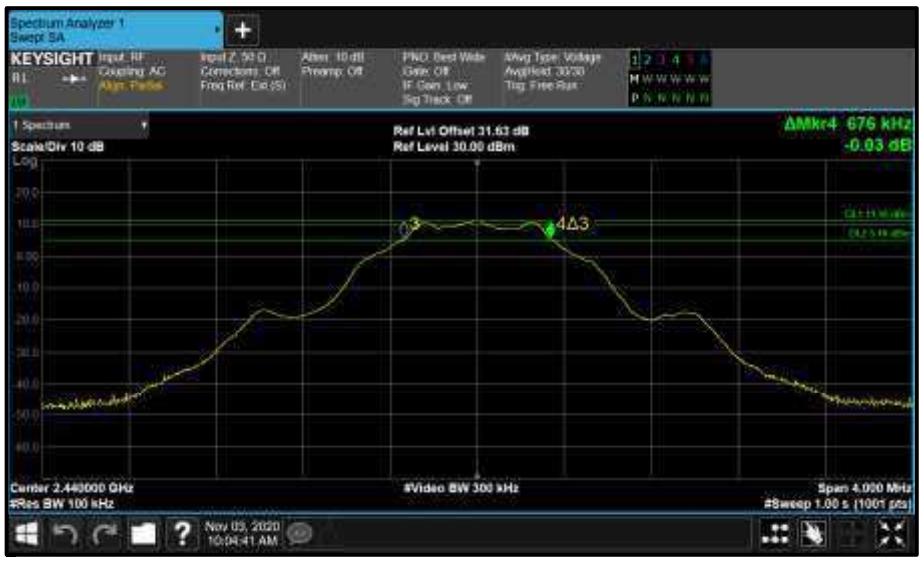

Figure 100 - Core 2 LE 1M 2440 MHz (CH19) 6 dB Bandwidth

Figure 101 - Core 2 LE 1M 2480 MHz (CH39) 99% Bandwidth

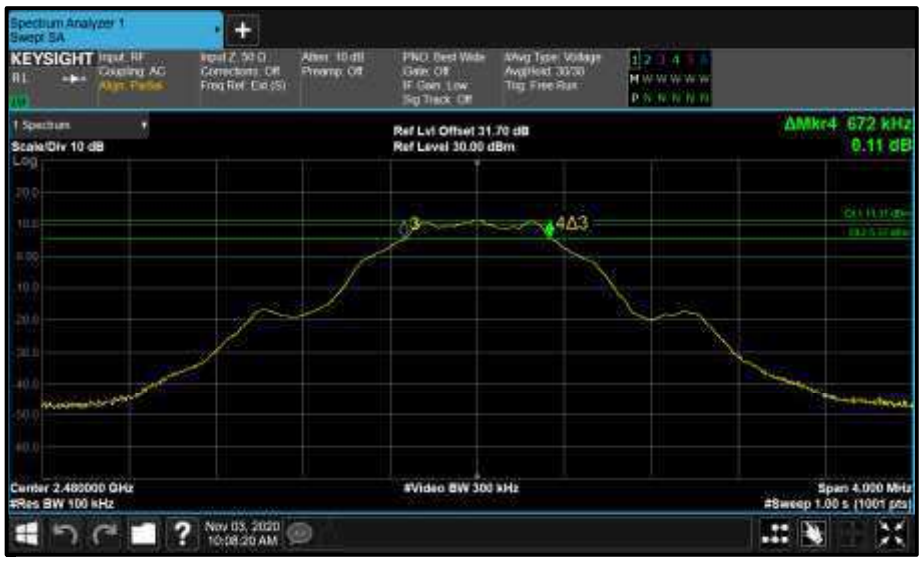

Figure 102 - Core 2 LE 1M 2480 MHz (CH39) 6 dB Bandwidth

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 1
2402	0.672
2440	0.672
2480	0.672

Table 32 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 1
2402	1.040
2440	1.040
2480	1.044

Table 33 - 99% Bandwidth Results

Figure 103 - Core 1 LE 1M 2402 MHz (CH0) 99% Bandwidth

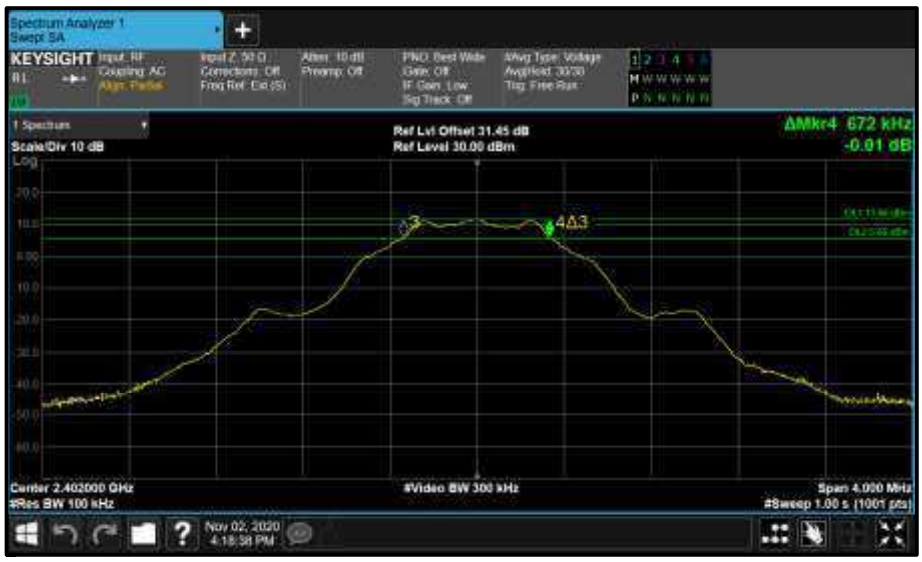

Figure 104 - Core 1 LE 1M 2402 MHz (CH0) 6 dB Bandwidth

Figure 105 - Core 1 LE 1M 2440 MHz (CH19) 99% Bandwidth

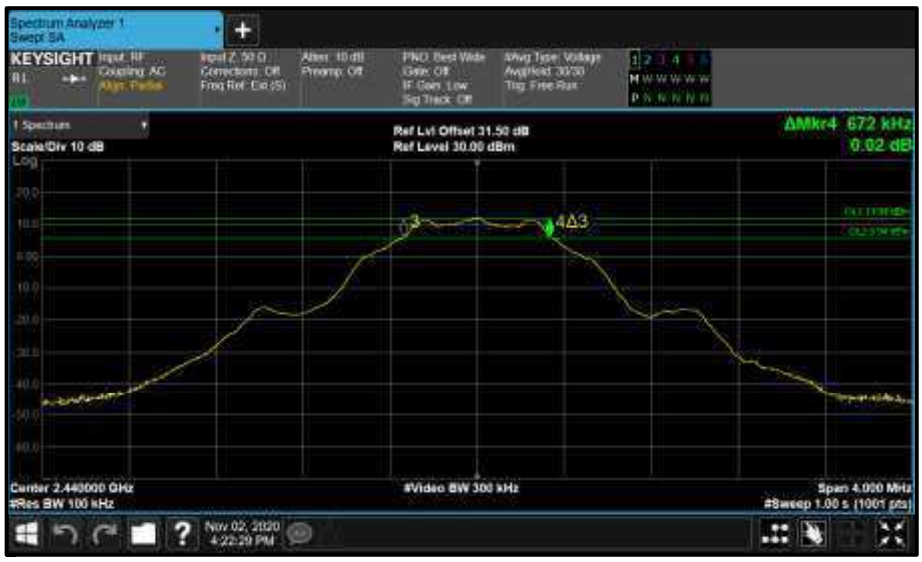

Figure 106 - Core 1 LE 1M 2440 MHz (CH19) 6 dB Bandwidth

Figure 107 - Core 1 LE 1M 2480 MHz (CH39) 99% Bandwidth

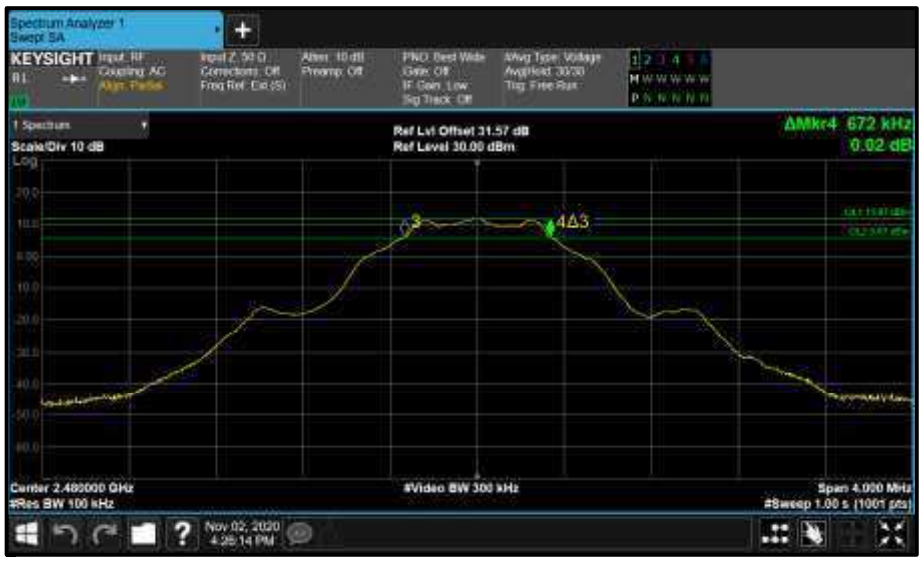

Figure 108 - Core 1 LE 1M 2480 MHz (CH39) 6 dB Bandwidth

Modulation: GFSK (LE 2M)

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 2
2402	1.176
2440	1.176
2480	1.184

Table 34 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 2
2402	2.048
2440	2.048
2480	2.040

Table 35 - 99% Bandwidth Results

Figure 109 - Core 2 LE 2M 2402 MHz (CH0) 99% Bandwidth

Figure 110 - Core 2 LE 2M 2402 MHz (CH0) 6 dB Bandwidth

Figure 111 - Core 2 LE 2M 2440 MHz (CH19) 99% Bandwidth

Figure 112 - Core 2 LE 2M 2440 MHz (CH19) 6 dB Bandwidth

Figure 113 - Core 2 LE 2M 2480 MHz (CH39) 99% Bandwidth

Figure 114 - Core 2 LE 2M 2480 MHz (CH39) 6 dB Bandwidth

Test Frequency (MHz)	6 dB Bandwidth (MHz)
	Port(s)
	Core 1
2402	1.176
2440	1.176
2480	1.176

Table 36 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)
	Port(s)
	Core 1
2402	2.048
2440	2.048
2480	2.048

Table 37 - 99% Bandwidth Results

Figure 115 - Core 1 LE 2M 2402 MHz (CH0) 99% Bandwidth

Figure 116 - Core 1 LE 2M 2402 MHz (CH0) 6 dB Bandwidth

Figure 117 - Core 1 LE 2M 2440 MHz (CH19) 99% Bandwidth

Figure 118 - Core 1 LE 2M 2440 MHz (CH19) 6 dB Bandwidth

Figure 119 - Core 1 LE 2M 2480 MHz (CH39) 99% Bandwidth

Figure 120 - Core 1 LE 2M 2480 MHz (CH39) 6 dB Bandwidth

Antenna Port Configuration: Beamforming

Modulation: π/4 DQPSK (HDR4)

Test Frequency (MHz)	6 dB Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2404	1.576	1.584
2441	1.576	1.584
2478	1.576	1.576

Table 38 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2404	2.336	2.336
2441	2.344	2.344
2478	2.344	2.344

Table 39 - 99% Bandwidth Results

Figure 121 - Core 0 HDR4 2404 MHz (CH2) 99% Bandwidth

Figure 122 - Core 0 HDR4 2404 MHz (CH2) 6 dB Bandwidth

Figure 123 - Core 1 HDR4 2404 MHz (CH2) 99% Bandwidth

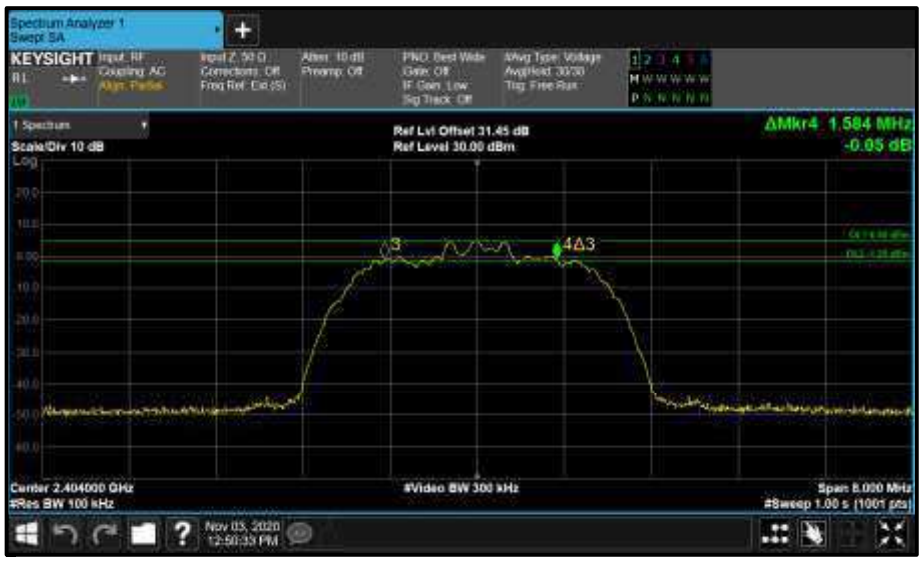

Figure 124 - Core 1 HDR4 2404 MHz (CH2) 6 dB Bandwidth

Figure 125 - Core 0 HDR4 2441 MHz (CH39) 99% Bandwidth

Figure 126 - Core 0 HDR4 2441 MHz (CH39) 6 dB Bandwidth

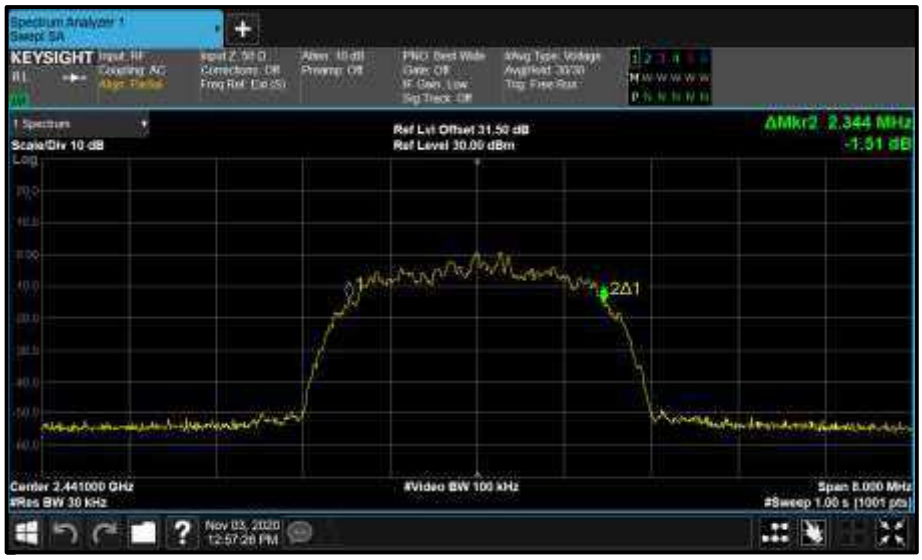

Figure 127 - Core 1 HDR4 2441 MHz (CH39) 99% Bandwidth

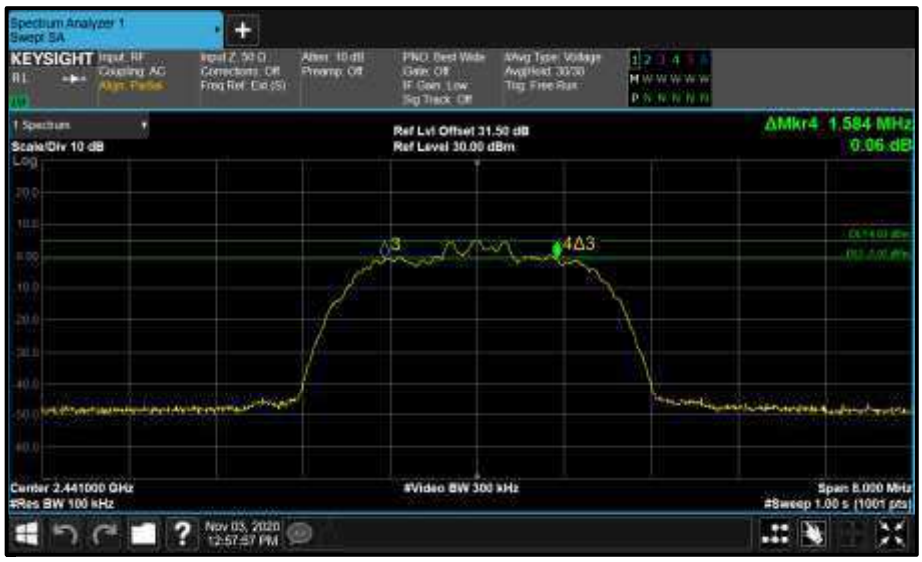

Figure 128 - Core 1 HDR4 2441 MHz (CH39) 6 dB Bandwidth

Figure 129 - Core 0 HDR4 2478 MHz (CH76) 99% Bandwidth

Figure 130 - Core 0 HDR4 2478 MHz (CH76) 6 dB Bandwidth

Figure 131 - Core 1 HDR4 2478 MHz (CH76) 99% Bandwidth

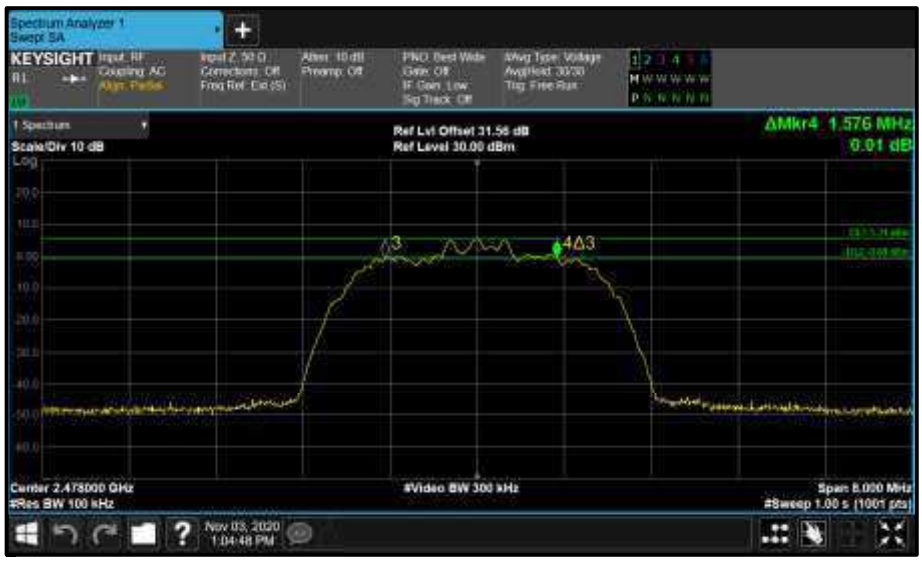

Figure 132 - Core 1 HDR4 2478 MHz (CH76) 6 dB Bandwidth

Modulation: π/4 DQPSK (HDR8)

Test Frequency (MHz)	6 dB Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2404	0.660	0.920
2441	0.930	0.930
2478	0.940	0.670

Table 40 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2404	4.500	4.510
2441	4.500	4.500
2478	4.510	4.510

Table 41 - 99% Bandwidth Results

Figure 133 - Core 0 HDR8 2404 MHz (CH2) 99% Bandwidth

Figure 134 - Core 0 HDR8 2404 MHz (CH2) 6 dB Bandwidth

Figure 135 - Core 1 HDR8 2404 MHz (CH2) 99% Bandwidth

Figure 136 - Core 1 HDR8 2404 MHz (CH2) 6 dB Bandwidth

Figure 137 - Core 0 HDR8 2441 MHz (CH39) 99% Bandwidth

Figure 138 - Core 0 HDR8 2441 MHz (CH39) 6 dB Bandwidth

Figure 139 - Core 1 HDR8 2441 MHz (CH39) 99% Bandwidth

Figure 140 - Core 1 HDR8 2441 MHz (CH39) 6 dB Bandwidth

Figure 141 - Core 0 HDR8 2478 MHz (CH76) 99% Bandwidth

Figure 142 - Core 0 HDR8 2478 MHz (CH76) 6 dB Bandwidth

Figure 143 - Core 1 HDR8 2478 MHz (CH76) 99% Bandwidth

Figure 144 - Core 1 HDR8 2478 MHz (CH76) 6 dB Bandwidth

Modulation: GFSK (LE 1M)

Test Frequency (MHz)	6 dB Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2402	0.676	0.672
2440	0.680	0.668
2480	0.680	0.676

Table 42 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2402	1.036	1.040
2440	1.040	1.040
2480	1.036	1.040

Table 43 - 99% Bandwidth Results

Figure 145 - Core 0 LE 1M 2402 MHz (CH0) 99% Bandwidth

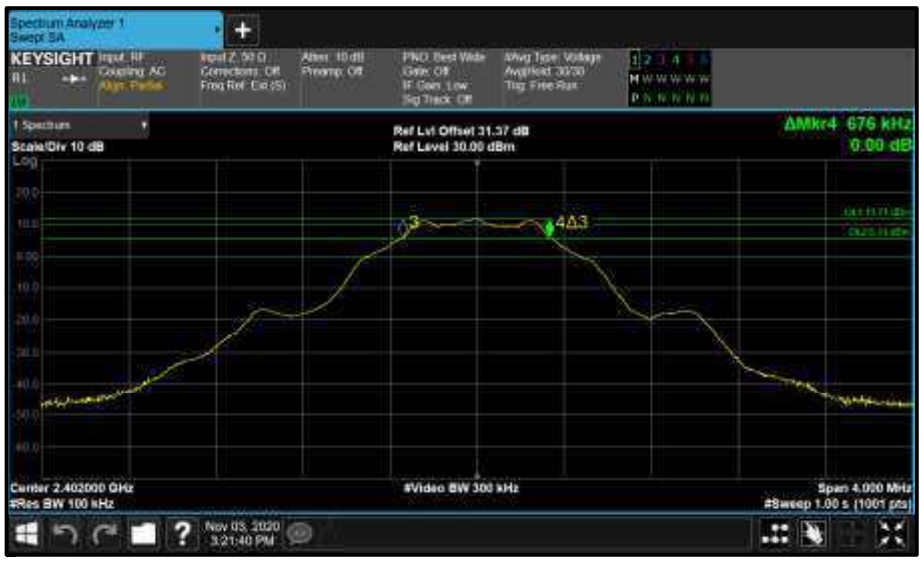

Figure 146 - Core 0 LE 1M 2402 MHz (CH0) 6 dB Bandwidth

Figure 147 - Core 1 LE 1M 2402 MHz (CH0) 99% Bandwidth

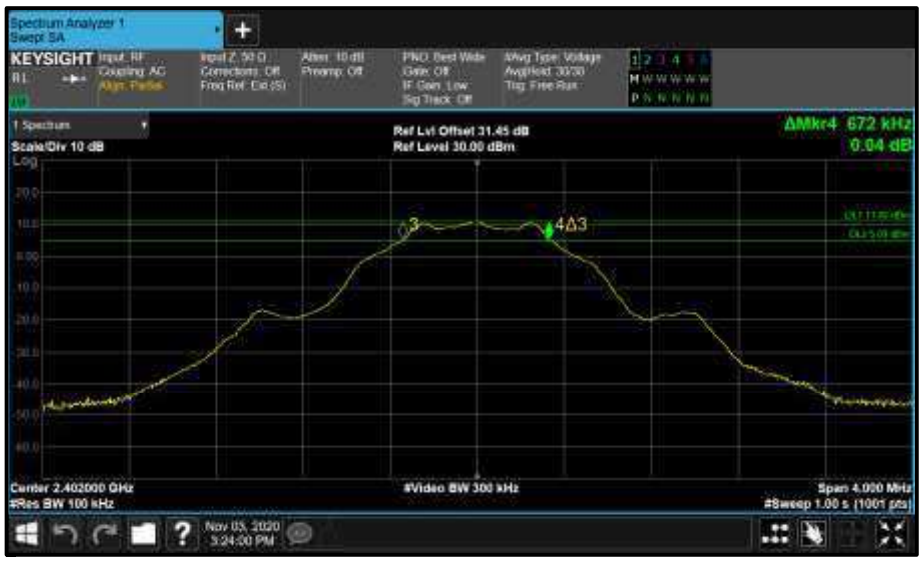

Figure 148 - Core 1 LE 1M 2402 MHz (CH0) 6 dB Bandwidth

Figure 149 - Core 0 LE 1M 2440 MHz (CH19) 99% Bandwidth

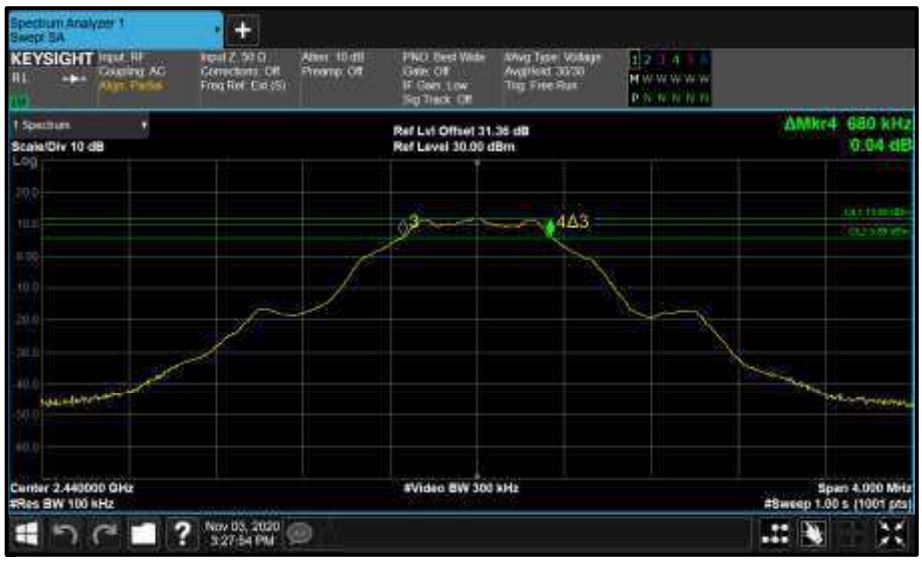

Figure 150 - Core 0 LE 1M 2440 MHz (CH19) 6 dB Bandwidth

Figure 151 - Core 1 LE 1M 2440 MHz (CH19) 99% Bandwidth

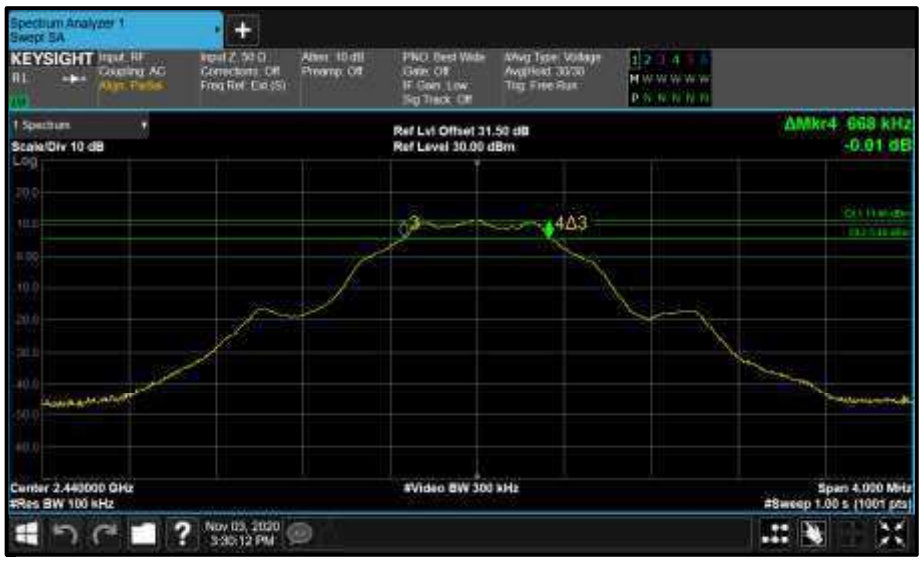

Figure 152 - Core 1 LE 1M 2440 MHz (CH19) 6 dB Bandwidth

Figure 153 - Core 0 LE 1M 2480 MHz (CH39) 99% Bandwidth

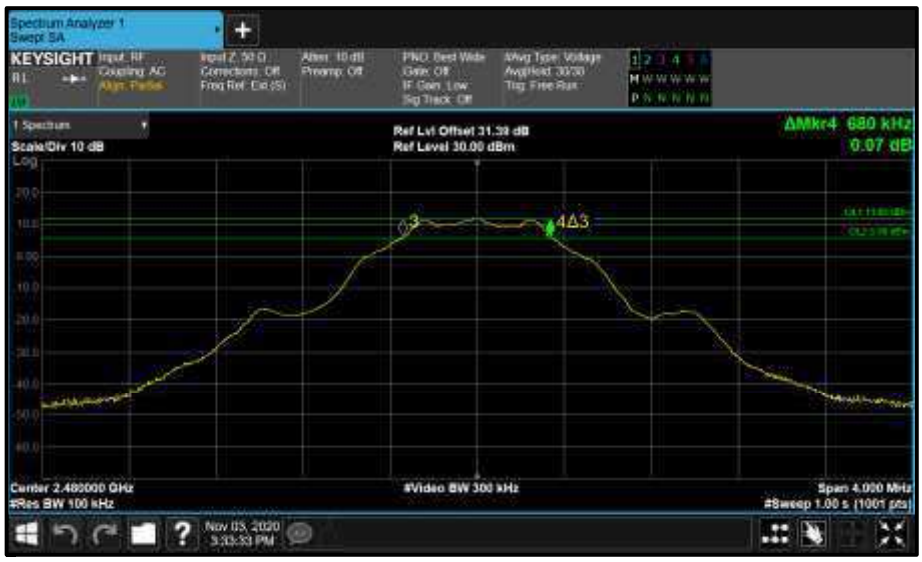

Figure 154 - Core 0 LE 1M 2480 MHz (CH39) 6 dB Bandwidth

Figure 155 - Core 1 LE 1M 2480 MHz (CH39) 99% Bandwidth

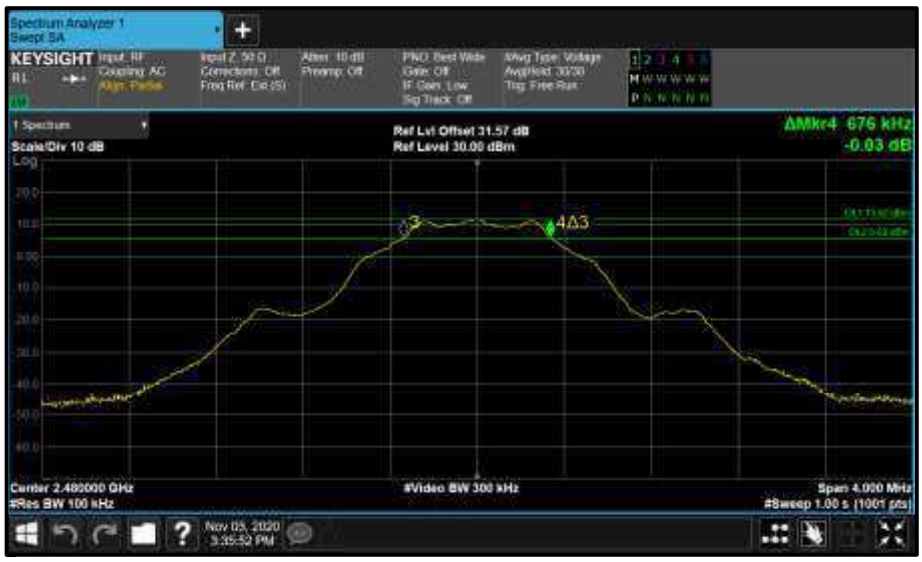

Figure 156 - Core 1 LE 1M 2480 MHz (CH39) 6 dB Bandwidth

Modulation: GFSK (LE 2M)

Test Frequency (MHz)	6 dB Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2402	1.176	1.184
2440	1.176	1.176
2480	1.184	1.176

Table 44 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)	
	Port(s)	
	Core 0	Core 1
2402	2.048	2.048
2440	2.048	2.048
2480	2.048	2.048

Table 45 - 99% Bandwidth Results

Figure 157 - Core 0 LE 2M 2402 MHz (CH0) 99% Bandwidth

Figure 158 - Core 0 LE 2M 2402 MHz (CH0) 6 dB Bandwidth

Figure 159 - Core 1 LE 2M 2402 MHz (CH0) 99% Bandwidth

Figure 160 - Core 1 LE 2M 2402 MHz (CH0) 6 dB Bandwidth

Figure 161 - Core 0 LE 2M 2440 MHz (CH19) 99% Bandwidth

Figure 162 - Core 0 LE 2M 2440 MHz (CH19) 6 dB Bandwidth

Figure 163 - Core 1 LE 2M 2440 MHz (CH19) 99% Bandwidth

Figure 164 - Core 1 LE 2M 2440 MHz (CH19) 6 dB Bandwidth

Figure 165 - Core 0 LE 2M 2480 MHz (CH39) 99% Bandwidth

Figure 166 - Core 0 LE 2M 2480 MHz (CH39) 6 dB Bandwidth

Figure 167 - Core 1 LE 2M 2480 MHz (CH39) 99% Bandwidth

Figure 168 - Core 1 LE 2M 2480 MHz (CH39) 6 dB Bandwidth

<u>FCC 47 CFR Part 15, Limit Clause 15.247(a)(2) and ISEDC RSS-247, Clause 5.2(a)</u>

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

2.1.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	08-Nov-2020
Multimeter	Iso-tech	IDM101	2424	12	12-Dec-2020
Hygrometer	Rotronic	I-1000	3220	12	16-Oct-2020
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	11-Dec-2020
1800-6000 MHz Power Splitter	Mini-Circuits	ZN2PD-63-S+	4055	-	O/P Mon
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	08-Nov-2020
Power splitter - 2 port	Mini-Circuits	ZN2PD-63-S+	4743	12	23-Sep-2021
Climatic Chamber	Aralab	FitoTerm 300E45	4823	12	19-Mar-2021
EXA	Keysight Technologies	N9010B	4968	24	23-Dec-2021
EXA	Keysight Technologies	N9010B	4969	24	03-Feb-2022
Cable (40 GHz)	Rosenberger	LU1-001-500	5021	12	22-Jun-2021
Cable (18 GHz)	Rosenberger	LU7-071-1000	5096	12	22-Jun-2021
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
Power Splitter, 2 way	Mini-Circuits	ZN2PD2-63-S+	5238	-	O/P Mon
3.5 mm 1m Cable	Junkosha	MWX221-01000DMS	5418	12	22-Jun-2021
3.5 mm 2m Cable	Junkosha	MWX221-02000DMS	5425	12	22-Jun-2021
MXA Signal Analyser	Keysight Technologies	N9020B	5528	24	04-Mar-2022
Signal Commissioning Unit	TUV SUD	SCU001	5546	12	15-Apr-2021
Attenuator 2W 10dB DC-10GHz	Telegartner	J01156A0031	5575	-	O/P Mon
Attenuator 2W 10dB DC-10GHz	Telegartner	J01156A0031	5579	-	O/P Mon
Attenuator 2W 10dB DC-10GHz	Telegartner	J01156A0031	5580	-	O/P Mon
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB 40	5605	12	08-Sep-2021

Table 46

O/P Mon – Output Monitored using calibrated equipment

2.2 Maximum Conducted Output Power

2.2.1 Specification Reference

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

2.2.2 Equipment Under Test and Modification State

A2169, S/N: C07CM0EKQ4TG - Modification State 0

2.2.3 Date of Test

02-November-2020 to 03-November-2020

2.2.4 Test Method

The test was performed in accordance with ANSI C63.10 clause 11.9.1.3 Method PKPM1.

The antenna port/port combination with the highest antenna gain was tested in accordance with the supplied target powers.

Directional antenna gain calculation was performed in accordance with KDB 662911 D01, clause F)2)d)(i). Hence for beamforming modes the directional gain was calculated as:
$10 \log ([10^{(2.63/20)} + 10^{(2.60/20)}]^2 / 2) = 5.63$ dBi. Single core transmit antenna directional gains are as given in section 1.4.3. Since all directional gains are <6 dBi this results in an equivalent conducted limit of 30 dBm in all cases for both FCC and ISED.

Summing from multiple outputs of the transmitter was performed in accordance with KDB 662911 D01, clause E)1).

2.2.5 Environmental Conditions

Ambient Temperature	20.9 - 23.3 °C
Relative Humidity	33.1 - 40.7 %

2.2.6 Test Results

<u>2.4 GHz Bluetooth - DTS</u>

<u>ePA</u>

Antenna Port Configuration: SISO

Modulation: π/4 DQPSK (HDR4)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)	
	Average Power	Peak Power
	Core 1	Core 1
2404	12.4	15.1
2441	12.6	15.3
2478	13.0	15.7

Table 47 - Maximum Conducted Output Power Results

Modulation: π/4 DQPSK (HDR8)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)	
	Average Power	Peak Power
	Core 1	Core 1
2404	12.6	15.9
2441	13.1	16.4
2478	13.0	16.3

Table 48 - Maximum Conducted Output Power Results

Modulation: GFSK (LE 1M)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)	
	Average Power	Peak Power
	Core 1	Core 1
2402	15.6	16.8
2440	15.8	17.0
2480	15.9	17.1

Table 49 - Maximum Conducted Output Power Results

Modulation: GFSK (LE 2M)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)	
	Average Power	Peak Power
	Core 1	Core 1
2402	15.9	17.2
2440	15.7	16.9
2480	15.7	17.0

Table 50 - Maximum Conducted Output Power Results

Antenna Port Configuration: Beamforming

Modulation: π/4 DQPSK (HDR4)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					
	Average Power			Peak Power		
	Core 0	Core 1	∑	Core 0	Core 1	∑
2404	12.5	12.4	15.5	15.2	15.1	18.2
2441	12.6	12.3	15.5	15.3	15.0	18.2
2478	12.8	12.4	15.6	15.5	15.1	18.3

Table 51 - Maximum Conducted Output Power Results

Modulation: π/4 DQPSK (HDR8)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					
	Average Power			Peak Power		
	Core 0	Core 1	∑	Core 0	Core 1	∑
2404	12.8	12.5	15.6	16.2	15.8	19.0
2441	12.9	12.5	15.7	16.2	15.9	19.1
2478	12.9	12.6	15.8	16.4	16.0	19.2

Table 52 - Maximum Conducted Output Power Results

Modulation: GFSK (LE 1M)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					
	Average Power			Peak Power		
	Core 0	Core 1	∑	Core 0	Core 1	∑
2402	15.6	15.1	18.4	16.7	16.3	19.5
2440	15.4	15.2	18.3	16.5	16.3	19.4
2480	16.0	15.6	18.8	17.1	16.8	20.0

Table 53 - Maximum Conducted Output Power Results

Modulation: GFSK (LE 2M)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					
	Average Power			Peak Power		
	Core 0	Core 1	∑	Core 0	Core 1	∑
2402	15.9	15.5	18.7	17.2	16.7	20.0
2440	15.8	15.6	18.7	17.1	16.8	20.0
2480	15.6	15.1	18.4	16.9	16.3	19.7

Table 54 - Maximum Conducted Output Power Results

iPA

Antenna Port Configuration: SISO

Modulation: π/4 DQPSK (HDR4)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)			
	Average Power	Average Power	Peak Power	Peak Power
	Core 1	Core 2	Core 1	Core 2
2404	5.8	7.3	8.6	10.0
2441	5.7	7.4	8.5	10.1
2478	5.8	7.3	8.6	10.0

Table 55 - Maximum Conducted Output Power Results

Modulation: π/4 DQPSK (HDR8)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)			
	Average Power	Average Power	Peak Power	Peak Power
	Core 1	Core 2	Core 1	Core 2
2404	5.9	7.4	9.3	10.0
2441	5.8	7.5	9.1	10.1
2478	5.8	7.3	9.2	10.0

Table 56 - Maximum Conducted Output Power Results

Modulation: GFSK (LE 1M)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)			
	Average Power		Peak Power	
	Core 1	Core 2	Core 1	Core 2
2402	12.2	11.9	13.1	12.9
2440	12.4	11.6	13.3	12.6
2480	12.3	11.8	13.3	12.7

Table 57 - Maximum Conducted Output Power Results

Modulation: GFSK (LE 2M)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)			
	Average Power		Peak Power	
	Core 1	Core 2	Core 1	Core 2
2402	12.4	11.6	13.5	12.8
2440	12.3	11.8	13.4	12.9
2480	12.1	11.9	13.3	13.1

Table 58 - Maximum Conducted Output Power Results

Antenna Port Configuration: Beamforming

Modulation: π/4 DQPSK (HDR4)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					
	Average Power			Peak Power		
	Core 0	Core 1	∑	Core 0	Core 1	∑
2404	5.9	5.0	8.5	8.7	7.8	11.3
2441	5.9	5.0	8.5	8.7	7.9	11.3
2478	5.9	5.4	8.7	8.7	8.2	11.4

Table 59 - Maximum Conducted Output Power Results

Modulation: π/4 DQPSK (HDR8)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					
	Average Power			Peak Power		
	Core 0	Core 1	∑	Core 0	Core 1	∑
2404	5.9	5.1	8.5	9.4	8.5	12.0
2441	6.0	5.1	8.6	9.3	8.5	12.0
2478	5.9	5.4	8.7	9.3	8.9	12.1

Table 60 - Maximum Conducted Output Power Results

Modulation: GFSK (LE 1M)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					
	Average Power			Peak Power		
	Core 0	Core 1	∑	Core 0	Core 1	∑
2402	12.2	11.4	14.8	13.1	12.4	15.8
2440	12.3	11.7	15.1	13.2	12.7	16.0
2480	12.2	11.9	15.1	13.1	12.9	16.0

Table 61 - Maximum Conducted Output Power Results

Modulation: GFSK (LE 2M)

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					
	Average Power			Peak Power		
	Core 0	Core 1	∑	Core 0	Core 1	∑
2402	12.5	11.7	15.1	13.5	12.8	16.2
2440	12.2	11.5	14.9	13.3	12.6	16.0
2480	12.5	12.2	15.3	13.5	13.4	16.4

Table 62 - Maximum Conducted 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.

ISEDC RSS-247, Limit Clause 5.4 (b)

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.

2.2.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	08-Nov-2020
Multimeter	Iso-tech	IDM101	2424	12	12-Dec-2020
Hygrometer	Rotronic	I-1000	3220	12	16-Oct-2020
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	11-Dec-2020
1800-6000 MHz Power Splitter	Mini-Circuits	ZN2PD-63-S+	4055	-	O/P Mon
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	28-Nov-2020
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	08-Nov-2020
Power splitter - 2 port	Mini-Circuits	ZN2PD-63-S+	4743	12	23-Sep-2021
Climatic Chamber	Aralab	FitoTerm 300E45	4823	12	19-Mar-2021
EXA	Keysight Technologies	N9010B	4968	24	23-Dec-2021
Cable (40 GHz)	Rosenberger	LU1-001-500	5021	12	22-Jun-2021
Cable (18 GHz)	Rosenberger	LU7-071-1000	5096	12	22-Jun-2021
USB Power Sensor	Boonton	RTP5006	5184	12	09-Jan-2021
USB Power Sensor	Boonton	RTP5006	5186	12	28-Nov-2020
USB Power Sensor	Boonton	RTP5006	5187	12	09-Jan-2021
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
AC Programmable Power Supply	iTech	IT7324	5227	-	O/P Mon
Power Splitter, 2 way	Mini-Circuits	ZN2PD2-63-S+	5238	-	O/P Mon
USB Power Sensor	Boonton	RTP5006	5278	12	27-Apr-2021
USB Power Sensor	Boonton	RTP5006	5279	12	27-Apr-2021
3.5 mm 1m Cable	Junkosha	MWX221-01000DMS	5417	12	22-Jun-2021
3.5 mm 1m Cable	Junkosha	MWX221-01000DMS	5418	12	22-Jun-2021

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Signal Commissioning Unit	TUV SUD	SCU001	5546	12	15-Apr-2021
Attenuator 2W 10dB DC-10GHz	Telegartner	J01156A0031	5575	-	O/P Mon
Attenuator 2W 10dB DC-10GHz	Telegartner	J01156A0031	5579	-	O/P Mon
Attenuator 2W 10dB DC-10GHz	Telegartner	J01156A0031	5580	-	O/P Mon
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB 40	5605	12	08-Sep-2021

Table 63

O/P Mon – Output Monitored using calibrated equipment

2.3 Authorised Band Edges

2.3.1 Specification Reference

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

2.3.2 Equipment Under Test and Modification State

A2169, S/N: C07CL0AMQ4TG - Modification State 0

2.3.3 Date of Test

24-June-2020 to 27-June-2020

2.3.4 Test Method

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

2.3.5 Environmental Conditions

Ambient Temperature	20.7 °C to 23.8 °C
Relative Humidity	44.8 % to 53.7 %

2.3.6 Test Results

2.4 GHz Bluetooth - DTS

ePA - HDR4

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR4	0	2404	2400.0	-64.68

Table 64 - Authorised Band Edge Results

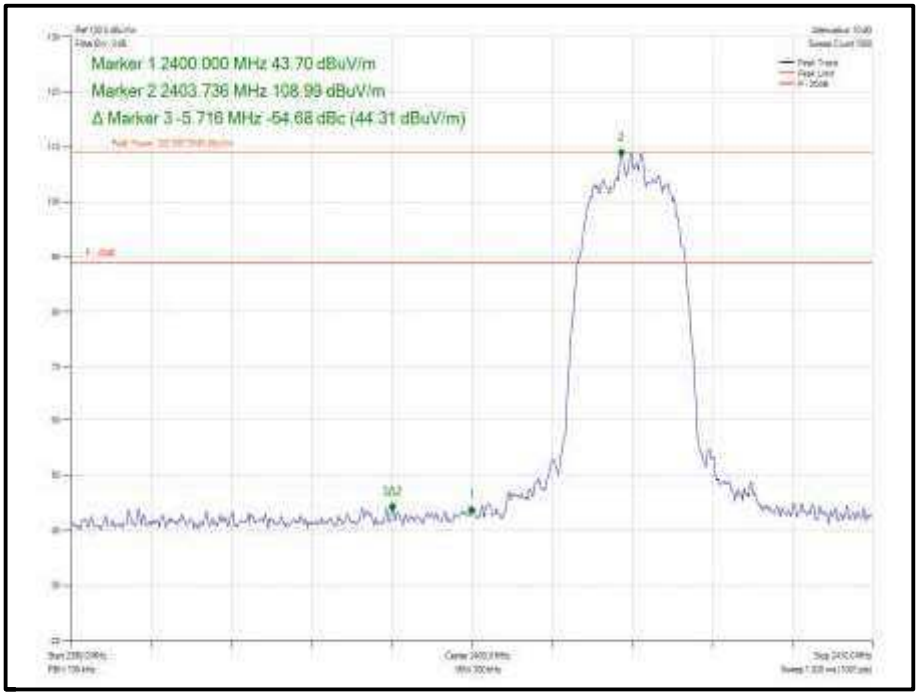

Figure 169 - Static - Core 0 - GFSK/HDR4 - 2404 MHz – Band Edge Frequency 2400.0 MHz

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR4	1	2404	2400.0	-63.79

Table 65 - Authorised Band Edge Results

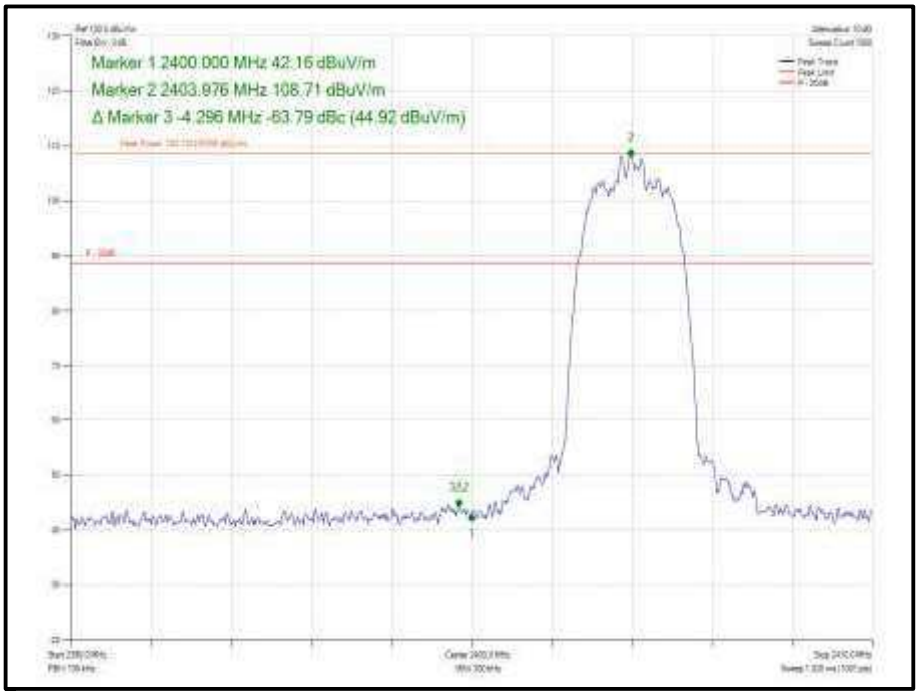

Figure 170 - Static - Core 1 - GFSK/HDR4 - 2404 MHz – Band Edge Frequency 2400.0 MHz

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR4	0-1	2404	2400.0	-66.36

Table 66 - Authorised Band Edge Results

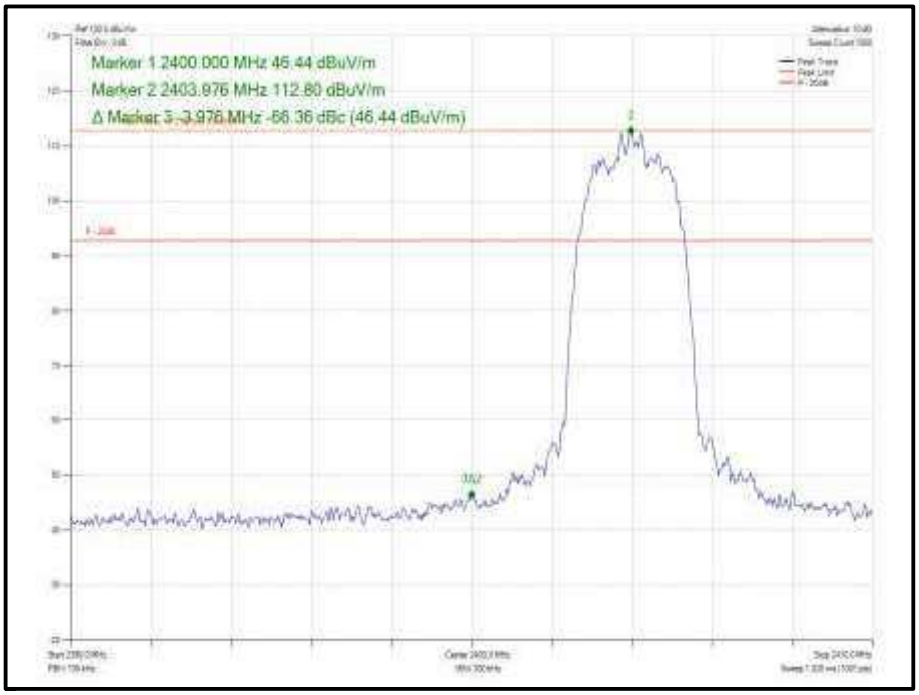

Figure 171 - Static - Core 0-1 - GFSK/HDR4- 2404 MHz – Band Edge Frequency 2400.0 MHz

ePA - HDR8

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR8	0	2404	2400.0	-63.89

Table 67 - Authorised Band Edge Results

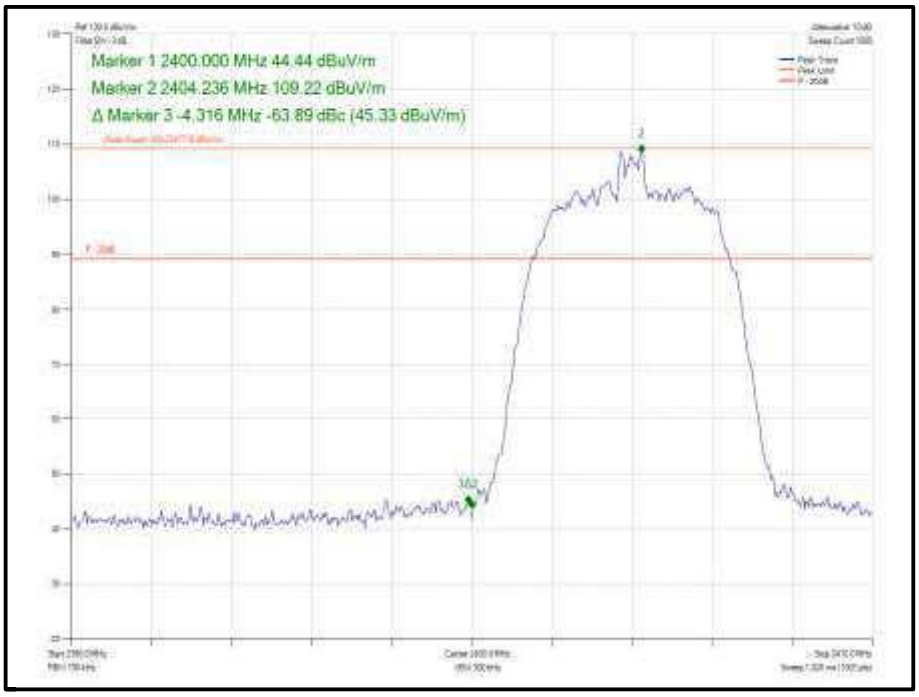

Figure 172 - Static - Core 0 - GFSK/HDR8 - 2404 MHz - Band Edge Frequency 2400.0 MHz

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR8	1	2404	2400.0	-61.11

Table 68 - Authorised Band Edge Results

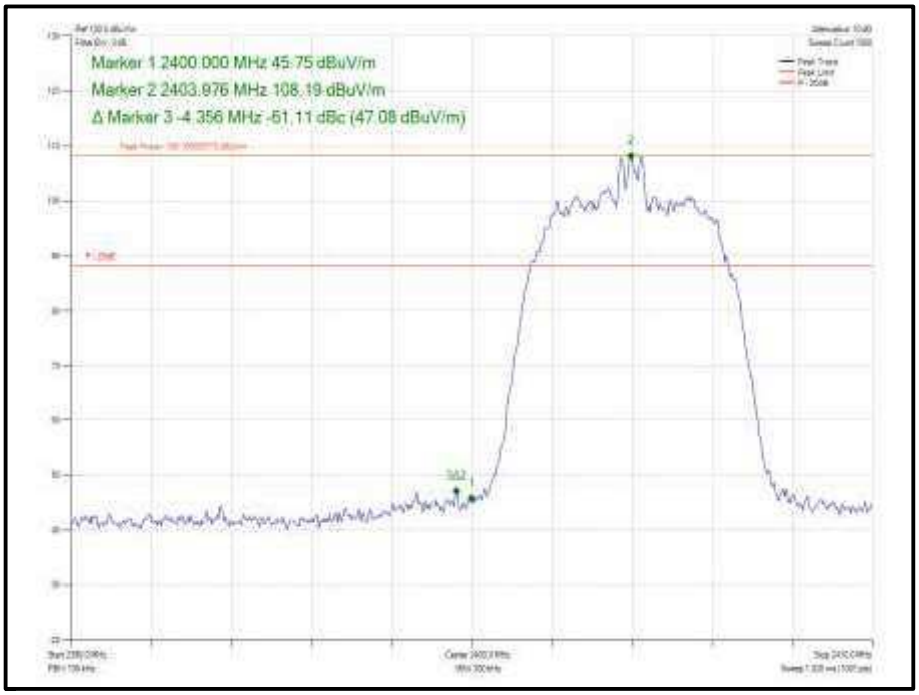

Figure 173 - Static - Core 1 - GFSK/HDR8 - 2404 MHz - Band Edge Frequency 2400.0 MHz