

FCC Test Report

Manufacturer: Skyships Automotive Ltd.
Model: G7 Infotainment Headunit.
In accordance with FCC 47 CFR Part 15C
Technology: (Bluetooth Classic)



Prepared for: Skyships Automotive Ltd.
Saling Barn, Piccotts Lane
Great Saling, Braintree
CM7 5DW

FCC ID: 2BA3IG7A01233

COMMERCIAL-IN-CONFIDENCE

Document 75965807-02 Issue 01

SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Matthew Russell	Chief Engineer	Authorised Signatory	20 November 2025

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

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Testing	Mohiuddin Mohammed	20 November 2025	
Testing	Joshua Peplow-Williams	20 November 2025	

FCC Accreditation: 492497/UK2010 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY / ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on the test pages A sample of this product was tested to demonstrate limited compliance with FCC 47 CFR Part 15C: 2024 for the tests detailed in section 1.3. The sample tested was found to comply with the requirements defined in the applied rules.

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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
01	First version	20-Nov-2025

Table 1

1.2 Introduction

Applicant	Skyships Automotive Ltd.
Manufacturer	Skyships Automotive Ltd.
Model Number(s)	G7 Infotainment Headunit
Serial Number(s)	0024580
Hardware Version(s)	A1
Software Version(s)	7.1
Number of Samples Tested	1
Test Specification/Issue/Date	FCC 47 CFR Part 15C: 2024
Order Number	PO05683
Date	16-September-2025
Date of Receipt of EUT	03-October-2025
Start of Test	03-October-2025
Finish of Test	24-October-2025
Name of Engineer(s)	Mohiuddin Mohammed and Joshua Peploe-Williams
Related Document(s)	ANSI C63.10 (2020) ANSI C63.4 (2014) 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 is shown below.

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: Bluetooth Classic - Single Antenna				
2.1	15.247 (d)	Authorised Band Edges	Pass	
2.2	15.247 (a)(1)	Frequency Hopping Systems - Average Time of Occupancy	Pass	
2.3	15.247 (a)(1)	Frequency Hopping Systems - Channel Separation	Pass	
2.4	15.247 (a)(1)	Frequency Hopping Systems - Number of Hopping Channels	Pass	
2.5	15.247 (a)(1)	Frequency Hopping Systems - 20 dB Bandwidth	Pass	
2.6	15.209 and 15.247 (d)	Spurious Radiated Emissions	Pass	
	15.203	Antenna Requirement	N/T	The EUT meets this requirement as it is only professionally installed.
2.7	15.205	Restricted Band Edges	Pass	
2.8	15.247 (b)	Maximum Conducted Output Power	Pass	

Table 2



1.4 Customer Supplied Form

Equipment Description

Technical Description: (Please provide a brief description of the intended use of the equipment including the technologies the product supports)		Automotive Infotainment Headunit - A vehicle infotainment controller containing FM receiver, GPS, and Bluetooth. The unit has no direct user interface and is controlled remotely from controls in the vehicle. It has three video outputs that drive remote displays.	
Manufacturer:		Skyships Automotive Limited	
Model:		G7 Infotainment Headunit	
Part Number:		A-01233	
Hardware Version:		A1	
Software Version:		7.1	
FCC ID of the product under test – see guidance here		2BA3IG7A01233	
IC ID of the product under test – see guidance here		N/A	
Device Category	Mobile ☐	Portable ☐	Fixed ☒
Equipment is fitted with an Audio Low Pass Filter		Yes ☐	No ☒

Intentional Radiators

Technology	Bluetooth	Wi-Fi	Wi-Fi	Wi-Fi	2G 2	2G 5
Frequency Range (MHz to MHz)	2400 - 2483.5	2400 - 2483.5	5150 - 5250	5730 - 5835	1850 - 1910	824 - 849
Conducted Declared Output Power (dBm)	11	18	14	14	32.06	29.24
Antenna Gain (dBi)	-0.1	-0.1	5.1	5.1	3.0	3.0
Supported Bandwidth(s) (MHz) (e.g. 1 MHz, 20 MHz, 40 MHz)	1	20	20,40,80	20,40,80		
Modulation Scheme(s) (e.g. GFSK, QPSK etc)	DQPSK	DSSS/CCK, OFDM	OFDM	OFDM	GMSK	GMSK
ITU Emission Designator (see guidance here) (not mandatory for Part 15 devices)	Various	Various	Various	Various	Various	Various
Bottom Frequency (MHz)	2402	2412	5180	5745	1850	824
Middle Frequency (MHz)	2441	2437				
Top Frequency (MHz)	2480	2462	5240	5825	1910	849

Technology	HSPA+ 2	HSPA+ 4	HSPA+ 5	LTE 2	LTE 4	LTE 5
Frequency Range (MHz to MHz)	1850 - 1910	1710 - 1755	824 - 849	1850 - 1910	1710 - 1755	824 - 849
Conducted Declared Output Power (dBm)	23.14	23.14	22.87	23.14	23.14	22.87
Antenna Gain (dBi)	3.0	3.0	3.0	3.0	3.0	3.0
Supported Bandwidth(s) (MHz) (e.g. 1 MHz, 20 MHz, 40 MHz)				1.4, 3, 5, 10, 15, 20	1.4, 3, 5, 10, 15, 20	1.4, 3, 5, 10
Modulation Scheme(s) (e.g. GFSK, QPSK etc)	8PSK	8PSK	8PSK	OFDM	OFDM	OFDM
ITU Emission Designator (see guidance here) (not mandatory for Part 15 devices)	Various	Various	Various	Various	Various	Various
Bottom Frequency (MHz)	1850	1710	824	1850	1710	824
Middle Frequency (MHz)						
Top Frequency (MHz)	1910	1755	849	1910	1755	849

Technology	LTE 7	LTE 12				
Frequency Range (MHz to MHz)	2500 - 2570	699 - 716				
Conducted Declared Output Power (dBm)	22.68	22.97				
Antenna Gain (dBi)	3.0	3.0				
Supported Bandwidth(s) (MHz) (e.g. 1 MHz, 20 MHz, 40 MHz)	5, 10, 15, 20	1.4, 3, 5, 10				
Modulation Scheme(s) (e.g. GFSK, QPSK etc)	OFDM	OFDM				
ITU Emission Designator (see guidance here) (not mandatory for Part 15 devices)	Various	Various				
Bottom Frequency (MHz)	2500	699				
Middle Frequency (MHz)						
Top Frequency (MHz)	2570	716				



Un-intentional Radiators

Highest frequency generated or used in the device or on which the device operates or tunes	2.133GHz
Lowest frequency generated or used in the device or on which the device operates or tunes	400kHz
Class A Digital Device (Use in commercial, industrial or business environment) ☐	
Class B Digital Device (Use in residential environment only) ☒	

AC Power Source

AC supply frequency:		Hz
Voltage		V
Max current:		A
Single Phase ☐ Three Phase ☐		

DC Power Source

Nominal voltage:		V
Extreme upper voltage:		V
Extreme lower voltage:		V
Max current:		A

Battery Power Source

Voltage:	13.7	V
End-point voltage:	9.5	V (Point at which the battery will terminate)
Alkaline ☐ Leclanche ☐ Lithium ☐ Nickel Cadmium ☐ Lead Acid* ☒ *(Vehicle regulated)		
Other ☐	Please detail:	

Charging

Can the EUT transmit whilst being charged	Yes ☐ No ☒
---	---

Temperature

Minimum temperature:	-40	°C
Maximum temperature:	70	°C



Cable Loss

Adapter Cable Loss (Conducted sample)	0.775 @ 2.4 GHz 0.78 @ 5 GHz	dB
--	---------------------------------	----

Antenna Characteristics

Antenna connector ☒		State impedance	50	Ohm
Temporary antenna connector ☐		State impedance	N/A	Ohm
Integral antenna ☐	Type:		Gain	dBi
External antenna ☒	Type:		-0.1	dBi

For external antenna only:
Standard Antenna Jack ☐ If yes, describe how user is prohibited from changing antenna (if not professional installed):
Equipment is only ever professionally installed ☒
Non-standard Antenna Jack ☐
All part 15 applications will need to show how the antenna gain was derived either from a manufacturer data sheet or a measurement. Where the gain of the antenna is inherently accounted for as a result of the measurement, such as field strength measurements on a part 15.249 or 15.231 device, so the gain does not necessarily need to be verified. However, enough information regarding the construction of the antenna shall be provided. Such information maybe photographs, length of wire antenna etc.

Ancillaries (if applicable)

Manufacturer:		Part Number:	
Model:		Country of Origin:	

I hereby declare that the information supplied is correct and complete.

Name: Adam Dickison
Position held: Systems Engineer
Date: 24 October 2025



1.5 Product Information

1.5.1 Technical Description

Automotive Infotainment Headunit - A vehicle infotainment controller containing FM receiver, GPS, and Bluetooth. The unit has no direct user interface and is controlled remotely from controls in the vehicle. It has three video outputs that drive remote displays.

1.6 Deviations from the Standard

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

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:G7 Infotainment Headunit , Serial Number: 0024580			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 3

1.8 Test Location

TÜV SÜD conducted the following tests at our Octagon House Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: Bluetooth Classic - Single Antenna		
Authorised Band Edges	Mohiuddin Mohammed	UKAS
Frequency Hopping Systems - Average Time of Occupancy	Joshua Peploe-Williams	UKAS
Frequency Hopping Systems - Channel Separation	Joshua Peploe-Williams	UKAS
Frequency Hopping Systems - Number of Hopping Channels	Joshua Peploe-Williams	UKAS
Frequency Hopping Systems - 20 dB Bandwidth	Joshua Peploe-Williams	UKAS
Spurious Radiated Emissions	Mohiuddin Mohammed	UKAS
Restricted Band Edges	Mohiuddin Mohammed	UKAS
Maximum Conducted Output Power	Joshua Peploe-Williams	UKAS

Table 4

Laboratory Address: TÜV SÜD, Octagon House,
Concorde Way, Fareham, Hampshire,
PO15 5RL, United Kingdom



2 Test Details

2.1 Authorised Band Edges

2.1.1 Specification Reference

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

2.1.2 Equipment Under Test and Modification State

G7 Infotainment Headunit, S/N: 0024580 - Modification State 0.

2.1.3 Date of Test

03-October-2025 to 24-October-2025

2.1.4 Test Method

Bluetooth Classic - Single Antenna

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

2.1.5 Environmental Conditions

Ambient Temperature 23.5 °C

Relative Humidity 47.6 %

2.1.6 Test Results

Bluetooth Classic - Single Antenna

Mode	Modulation	Packet Type	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
CH 0 – Static	GFSK	DH5	2402	2400.0	-45.03
CH 0 – Static	$\pi/4$ DQPSK	2DH5	2402	2400.0	-47.07
CH 0 – Static	8-DPSK	3DH5	2402	2400.0	-46.60
CH 78 – Static	GFSK	DH5	2480	2483.5	-46.23
CH 78 – Static	$\pi/4$ DQPSK	2DH5	2480	2483.5	-46.53
CH 78 – Static	8-DPSK	3DH5	2480	2483.5	-45.95
FHSS	GFSK	DH5	-	2400.0	-47.48
FHSS	$\pi/4$ DQPSK	2DH5	-	2400.0	-48.16
FHSS	8-DPSK	3DH5	-	2400.0	-48.89
FHSS	GFSK	DH5	-	2483.5	-47.04
FHSS	$\pi/4$ DQPSK	2DH5	-	2483.5	-47.26
FHSS	8-DPSK	3DH5	-	2483.5	-46.39

Table 5

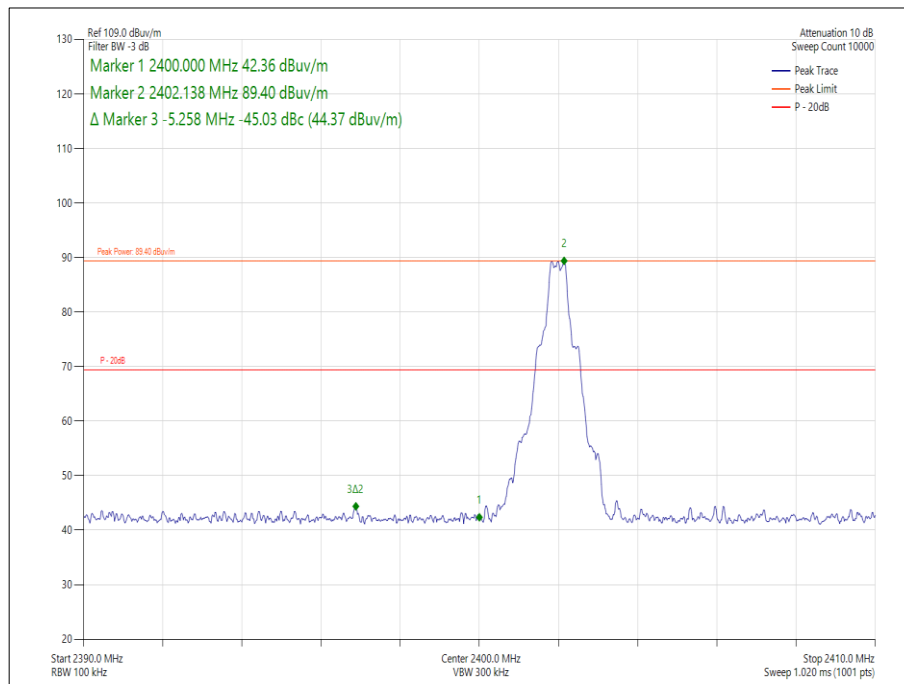
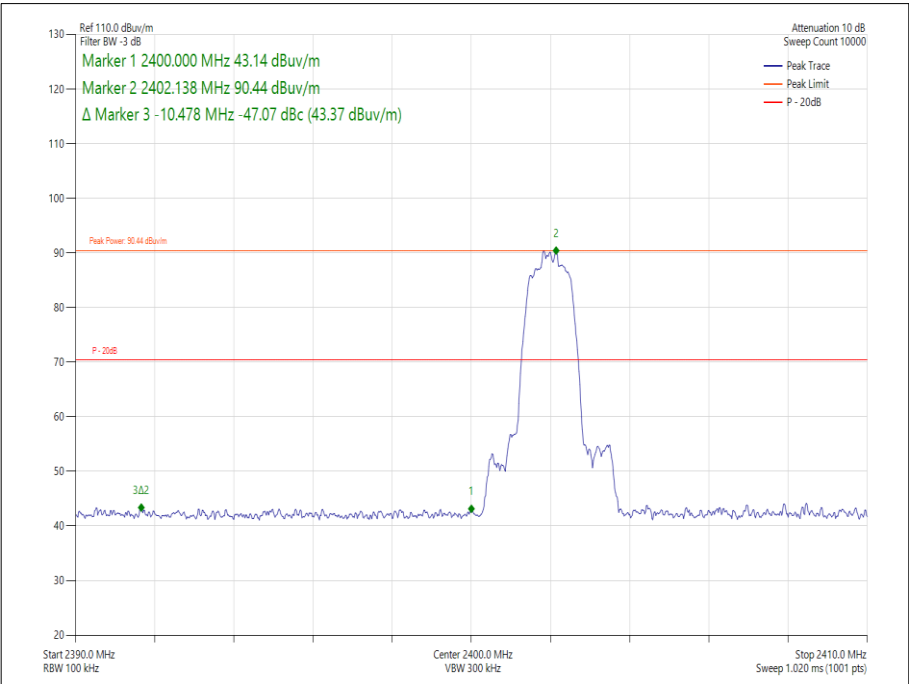
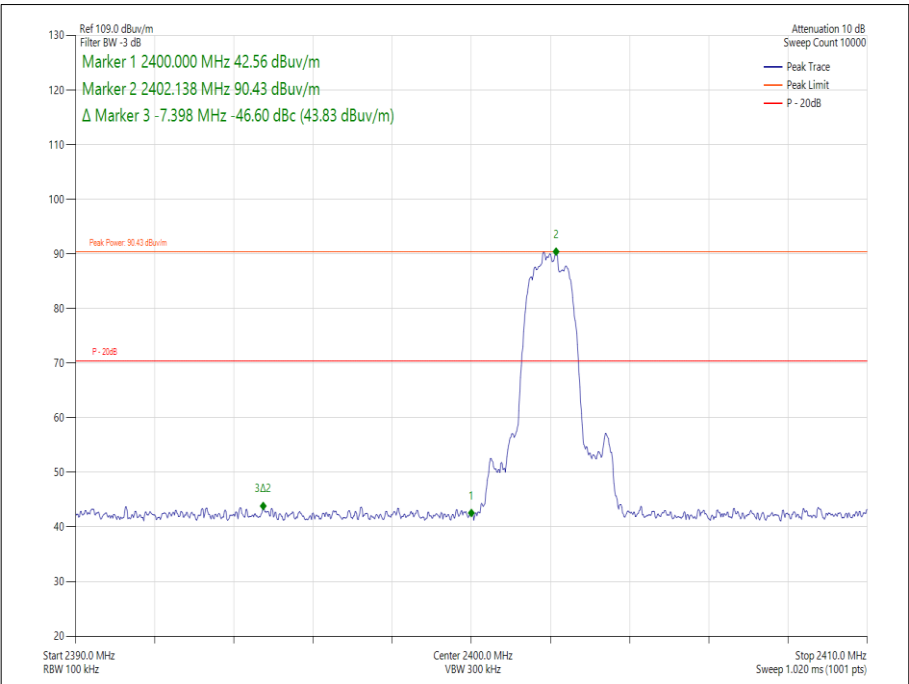


Figure 1 - CH 0 - GFSK/DH5
2402 MHz - Band Edge Frequency 2400.0 MHz



**Figure 2 - CH 0 - $\pi/4$ DQPSK/2DH5
2402 MHz - Band Edge Frequency 2400.0 MHz**



**Figure 3 - CH 0 - 8-DPSK/3DH5
2402 MHz - Band Edge Frequency 2400.0 MHz**

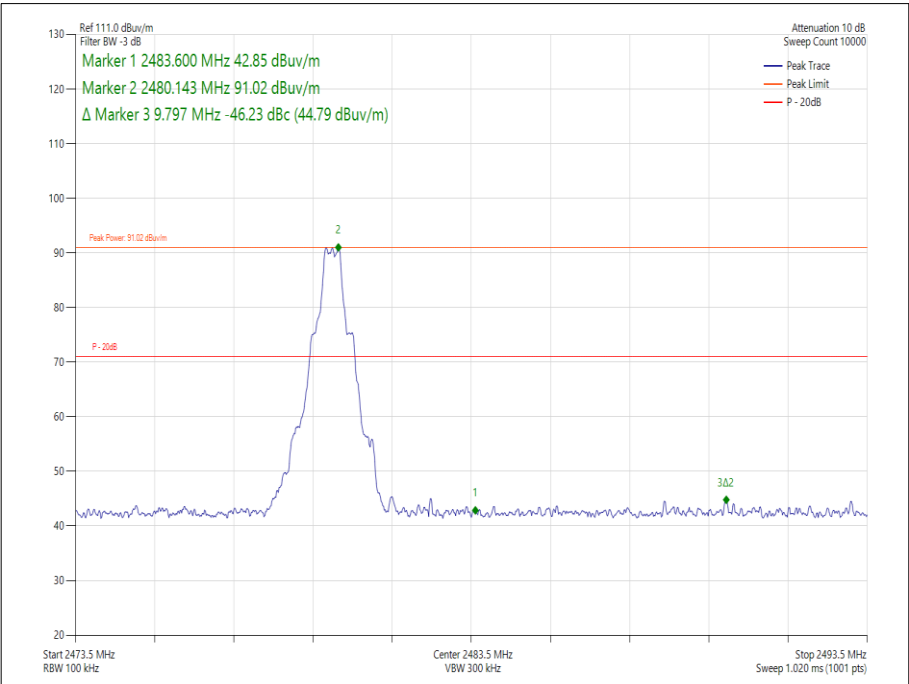


Figure 4 - CH 78 - GFSK/DH5
2480 MHz - Band Edge Frequency 2483.5 MHz

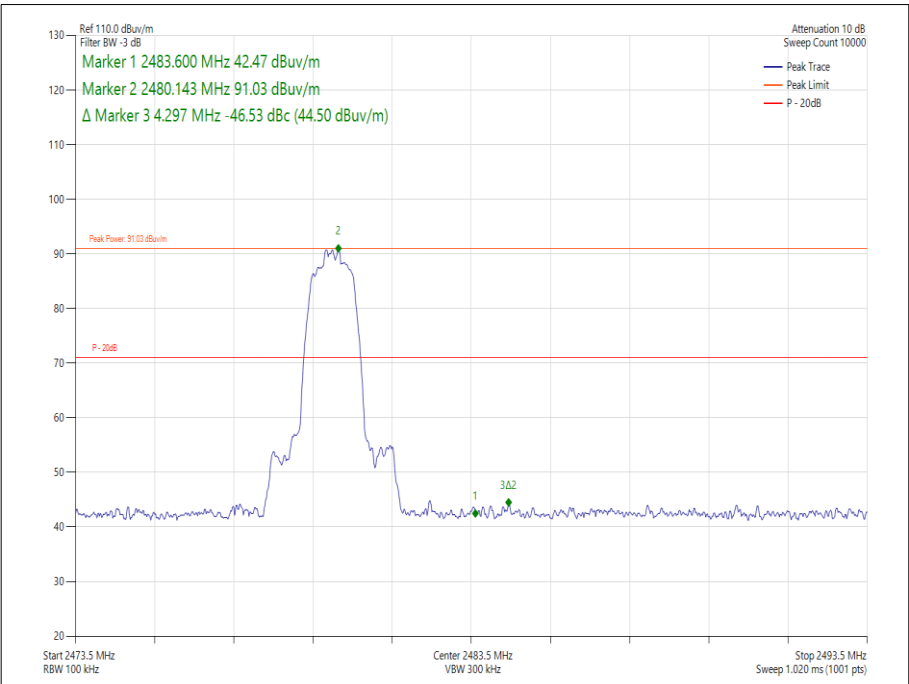
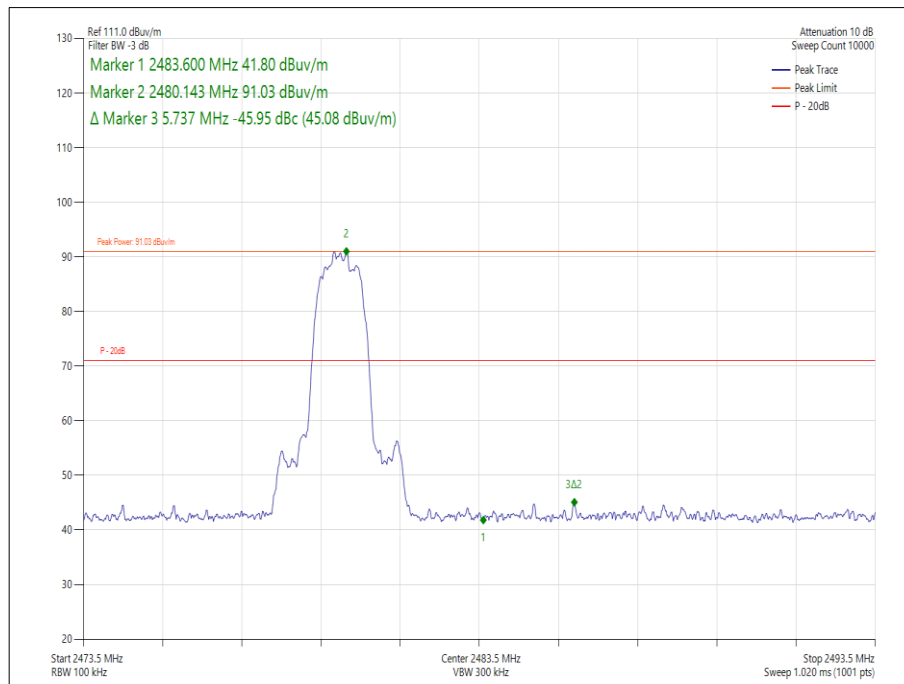


Figure 5 - CH 78 - $\pi/4$ DQPSK/2DH5
2480 MHz - Band Edge Frequency 2483.5 MHz



**Figure 6 - CH 78 - 8-DPSK/3DH5
2480 MHz - Band Edge Frequency 2483.5 MHz**

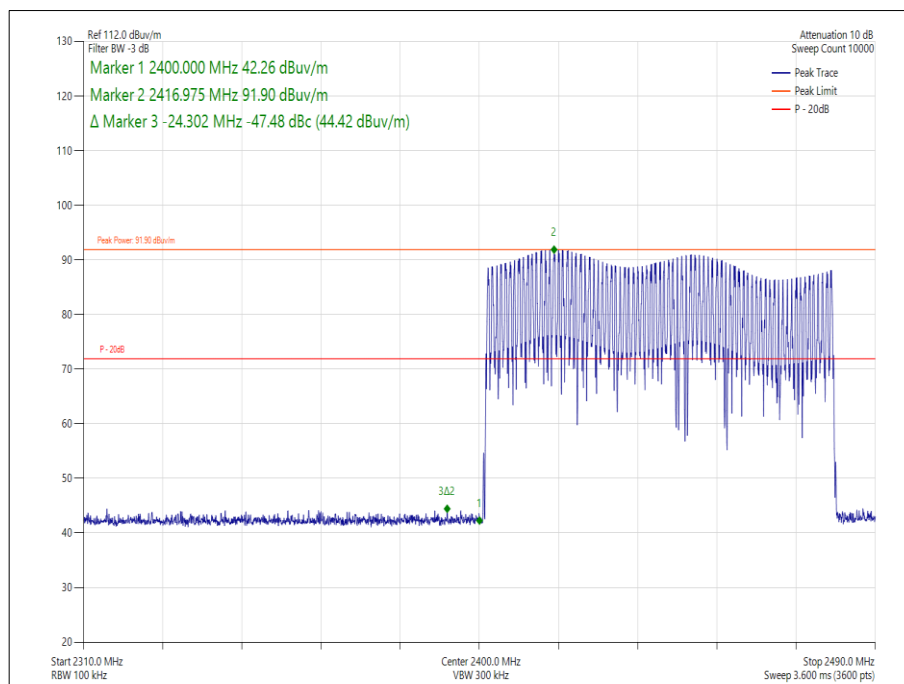


Figure 7 - FHSS - GFSK/DH5 - Band Edge Frequency 2400.0 MHz

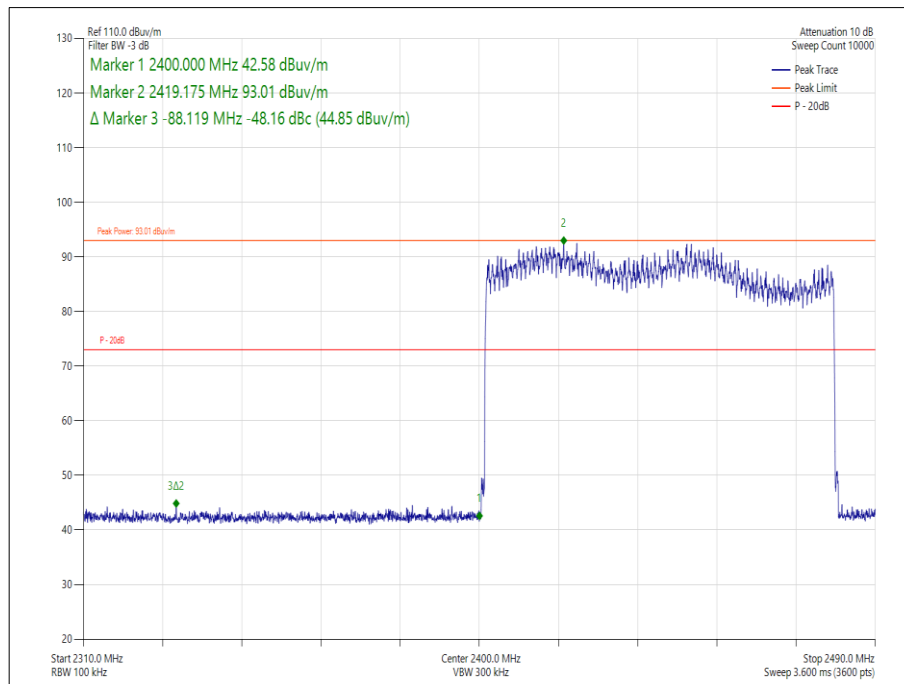


Figure 8 - FHSS - $\pi/4$ DQPSK/2DH5 - Band Edge Frequency 2400.0 MHz

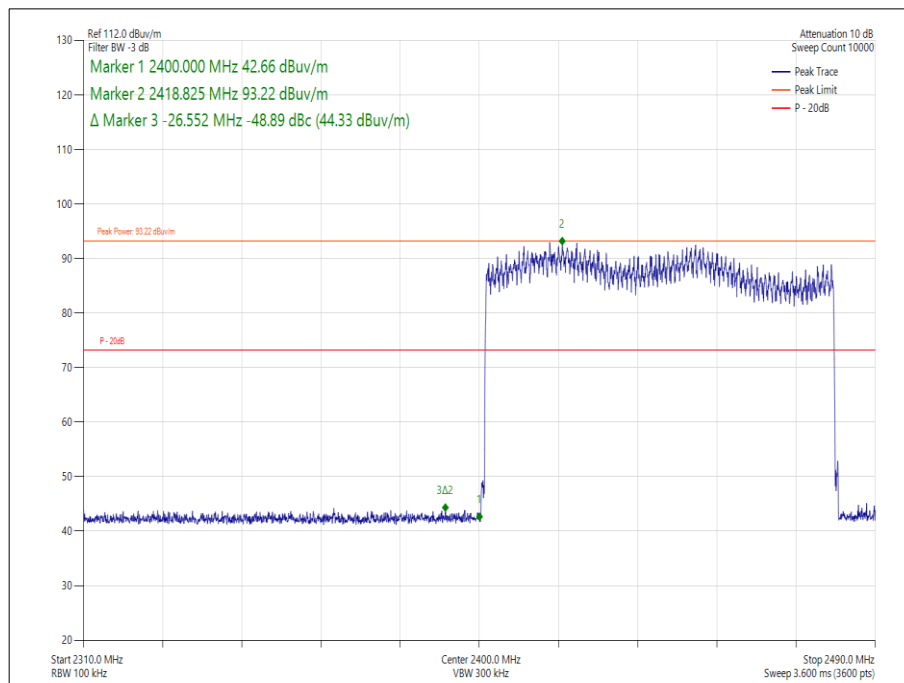


Figure 9 - FHSS - 8-DPSK/3DH5 - Band Edge Frequency 2400.0 MHz

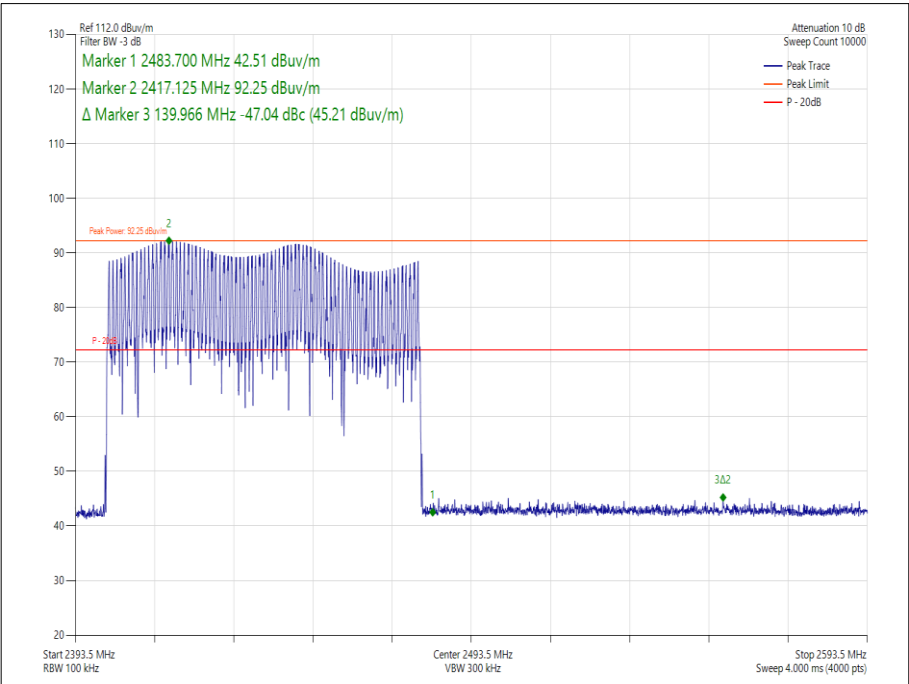


Figure 10 - FHSS High - GFSK/DH5 - Band Edge Frequency 2483.5 MHz

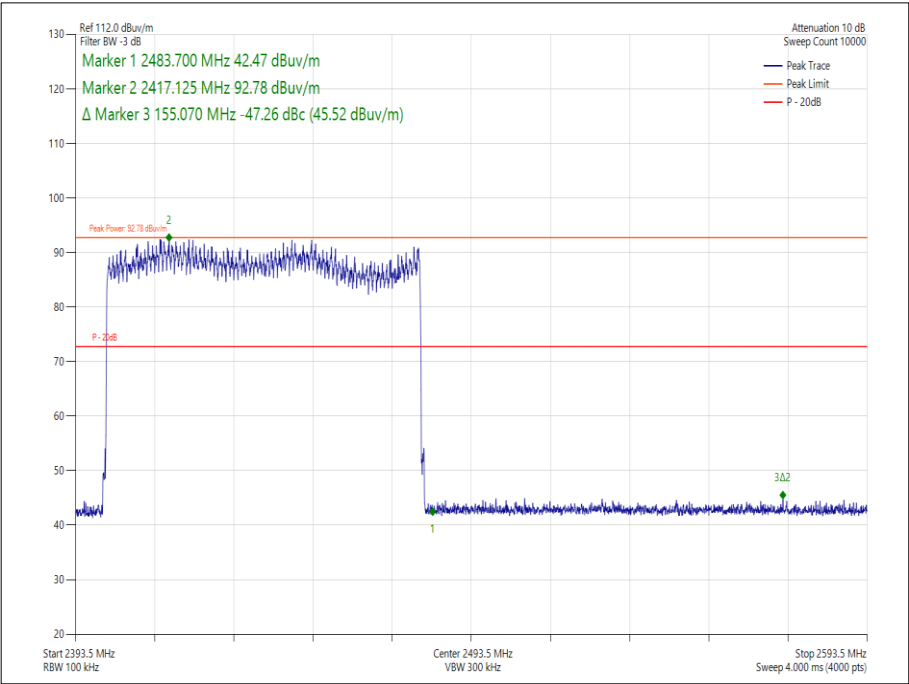


Figure 11 - FHSS High - $\pi/4$ DQPSK/2DH5 - Band Edge Frequency 2483.5 MHz

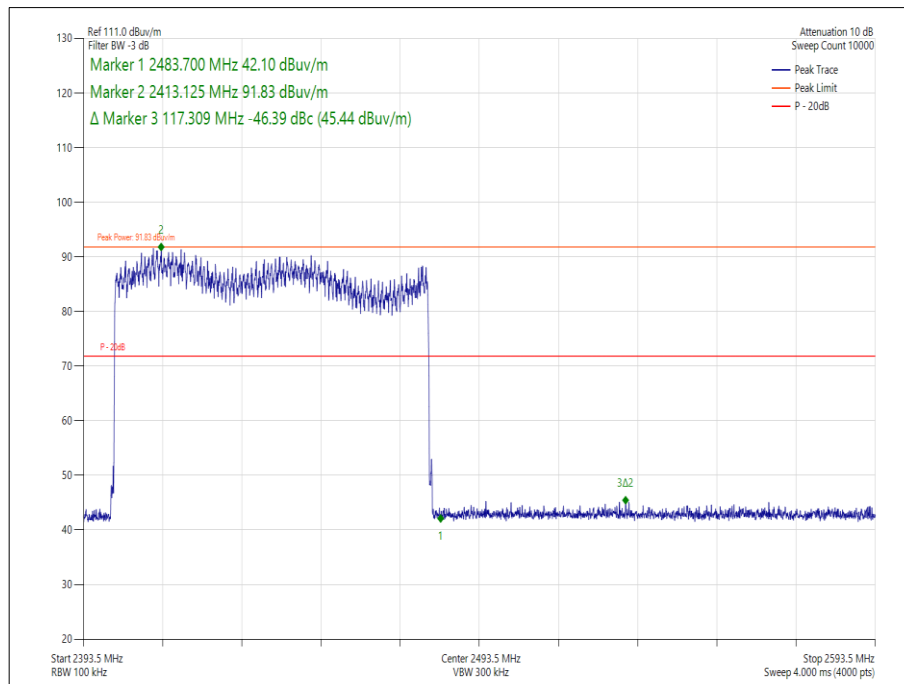


Figure 12 – FHSS - 8-DPSK/3DH5 - Band Edge Frequency 2483.5 MHz

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

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



2.1.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
True RMS Multimeter	Fluke	79 Series III	411	12	09-Jan-2026
Hygrometer	Rotronic	I-1000	3220	12	02-Dec-2025
Emissions Software	TUV SUD	EmX V3.5.5	5125	-	Software
3m Semi-Anechoic Chamber	Rainford	RF Chamber 11	5136	36	14-Nov-2027
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	05-Jul-2026
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	10-Jul-2026
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	14-Aug-2026
2m Coaxial Cable Assy	Junkosha	MWX221-02000AMSAMS/A	6360	12	13-May-2026
1m SMA Cable	Junkosha	MWX221-01000AMSAMS/B	6919	12	08-Dec-2025
Cable Assy 8m (N to N) 18GHz	Junkosha	MWX221-08000NMSNMS/B	7049	12	01-Jun-2026
Wireless Connectivity Tester	Rohde & Schwarz	CMW270	7076	12	15-Apr-2026

Table 6

TU - Traceability Unscheduled

2.2 Frequency Hopping Systems - Average Time of Occupancy

2.2.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a)(1)

2.2.2 Equipment Under Test and Modification State

G7 Infotainment Headunit, S/N: 0024580 - Modification State 0.

2.2.3 Date of Test

08-October-2025 to 09-October-2025

2.2.4 Test Method

Bluetooth Classic - Single Antenna

The test was performed in accordance with ANSI C63.10, clause 7.8.4.

The EUT was powered at 13.7 V using a DC power supply for the duration of the test.

2.2.5 Environmental Conditions

Ambient Temperature 21.9 - 22.5 °C

Relative Humidity 40.2 - 50.9 %

2.2.6 Test Results

Bluetooth Classic - Single Antenna

Packet Type	Dwell Time (ms)	Number of Transmissions	Average Occupancy Time (ms)
DH5	2.908	62	0.180
2-DH5	2.891	67	0.194
3-DH5	2.902	65	0.189

Table 7

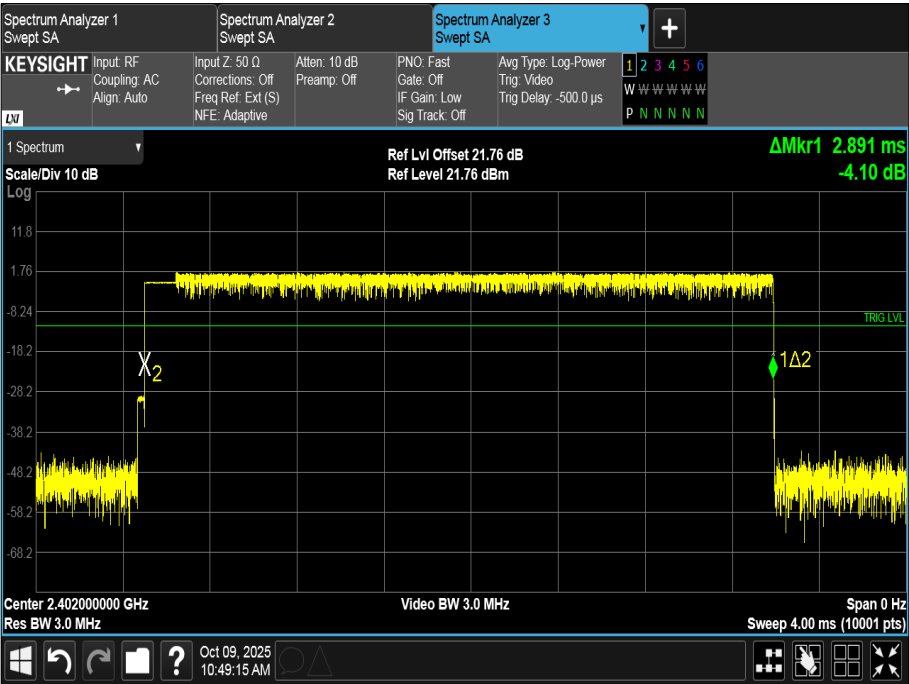


Figure 13 - DH5, Dwell Time

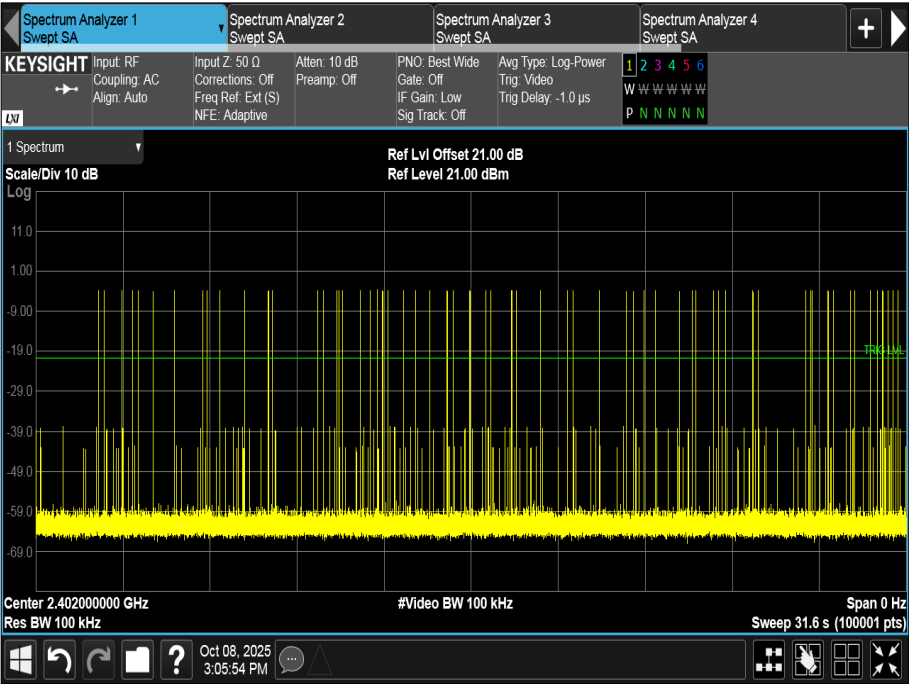


Figure 14 - DH5, Total Average Time of Occupancy

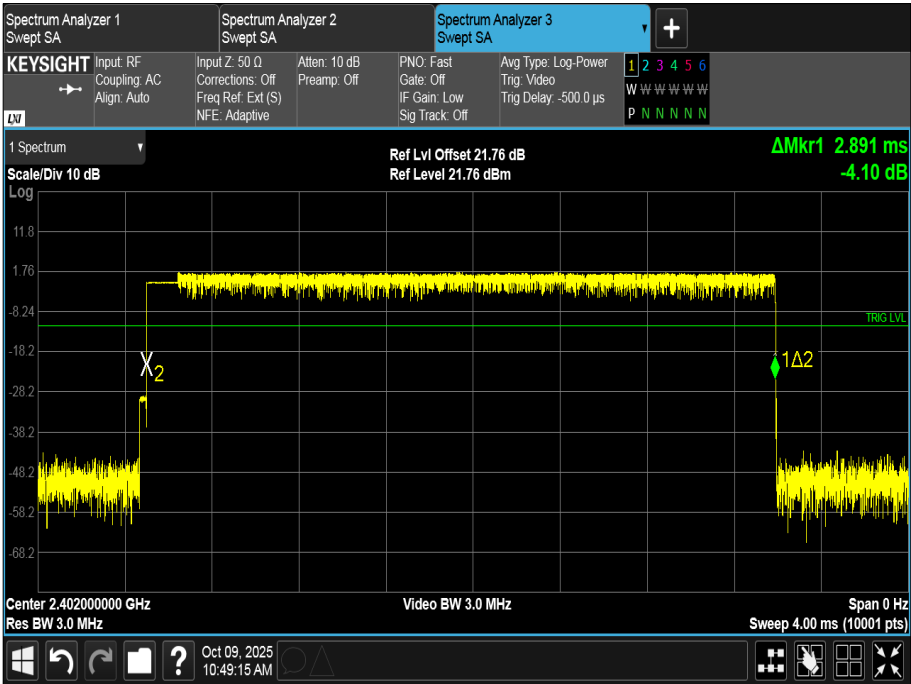


Figure 15 - 2-DH5, Dwell Time

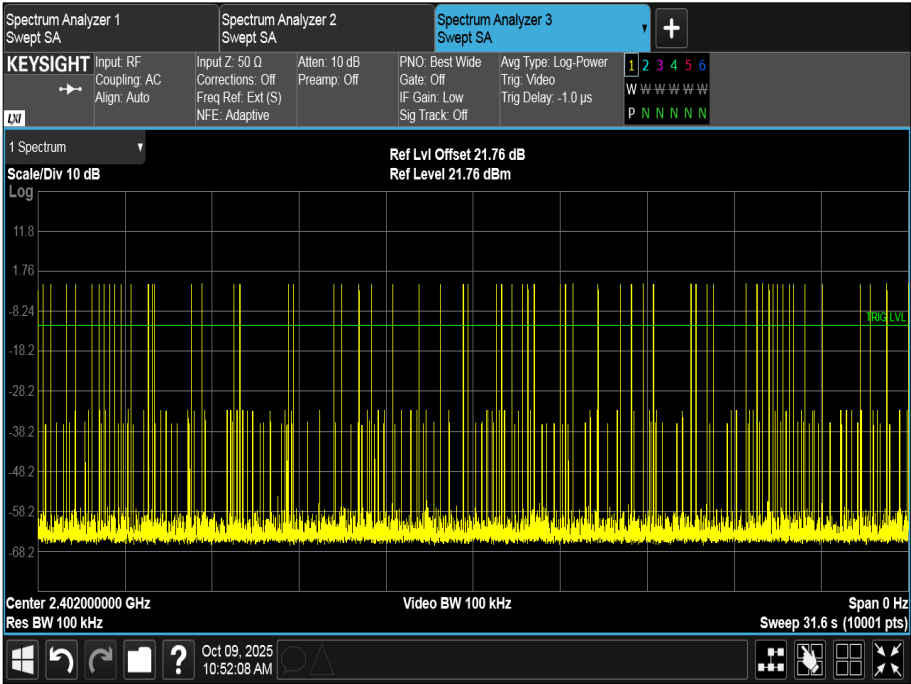


Figure 16 - 2-DH5, Total Average Time of Occupancy

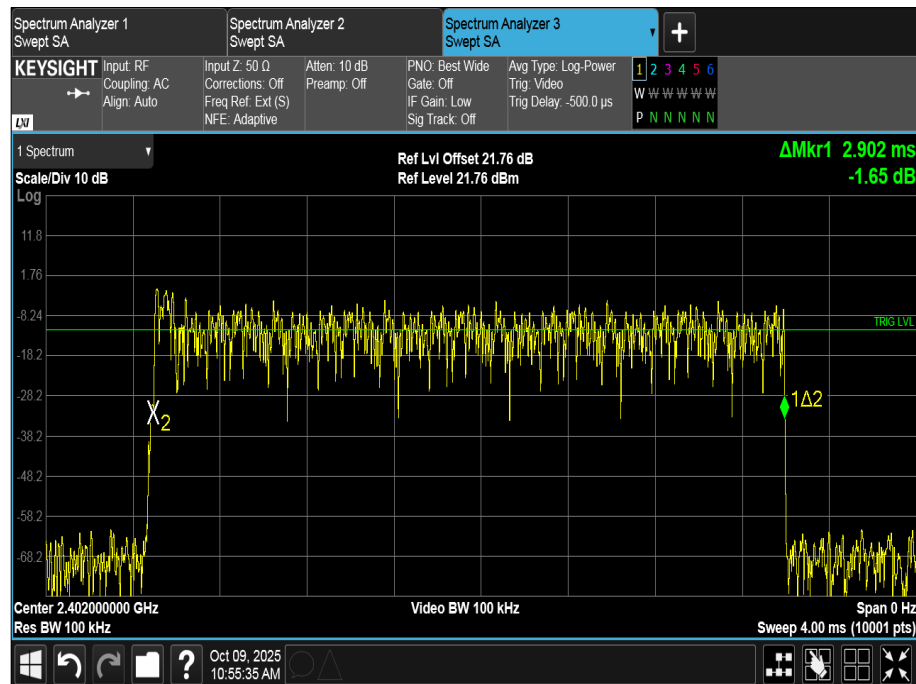


Figure 17 - 3-DH5, Dwell Time

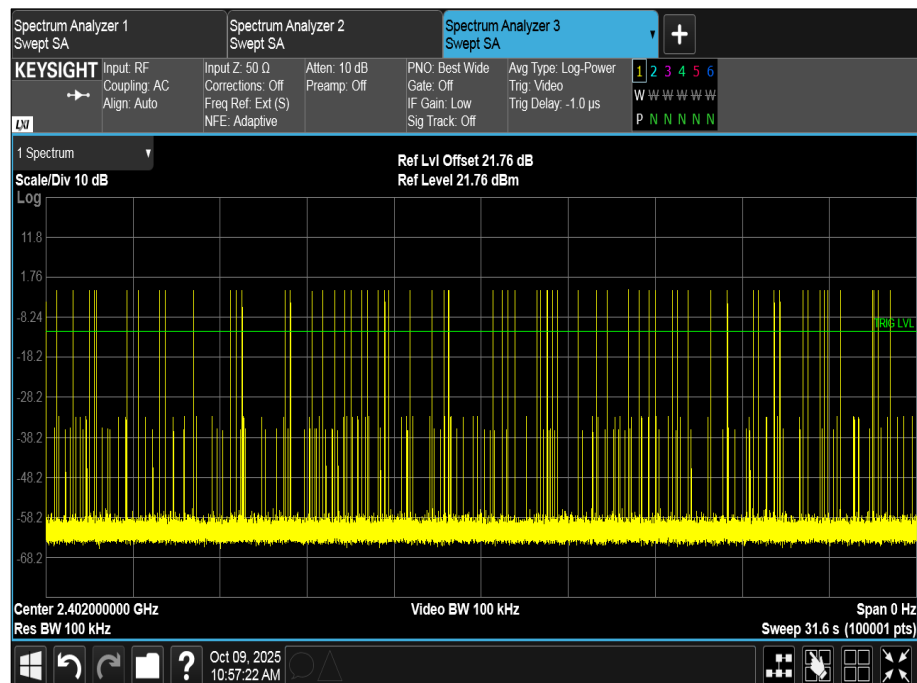


Figure 18 - 3-DH5, Total Average Time of Occupancy

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

Frequency hopping systems operating in the band 2400-2483.5 MHz shall use at least 15 hopping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Transmissions on particular hopping frequencies may be avoided or suppressed provided that a minimum of 15 hopping channels are used.



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 Expires
Directional Coupler	Krytar	1850	58	-	TU
Hygrometer	Rotronic	I-1000	2891	12	02-Dec-2025
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	4143	12	29-Oct-2025
GPSDR Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	18-Mar-2026
Digital Multi-meter	Iso-tech	IDM93N	4435	12	06-Mar-2026
EXA Signal Analyser	Keysight Technologies	N9010B	4969	24	07-Feb-2026
Attenuator 5W 20dB DC-18GHz	Aaren	AT40A-4041-D18-20	5497	12	23-Apr-2026
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5514	12	06-Jun-2026
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	15-Apr-2026

Table 8

TU - Traceability Unscheduled



2.3 Frequency Hopping Systems - Channel Separation

2.3.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a)(1)

2.3.2 Equipment Under Test and Modification State

G7 Infotainment Headunit, S/N: 0024580 - Modification State 0.

2.3.3 Date of Test

08-October-2025 to 09-October-2025

2.3.4 Test Method

Bluetooth Classic - Single Antenna

The test was performed in accordance with ANSI C63.10, clause 7.8.2.

The EUT was powered at 13.7 V using a DC power supply for the duration of the test.

2.3.5 Environmental Conditions

Ambient Temperature 21.9 - 22.5 °C

Relative Humidity 40.2 - 50.9 %

2.3.6 Test Results

Bluetooth Classic - Single Antenna

Modulation	Channel Separation (MHz)
GFSK	1.000
$\pi/4$ DQPSK	1.000
8-DPSK	1.012

Table 9



Figure 19 - GFSK

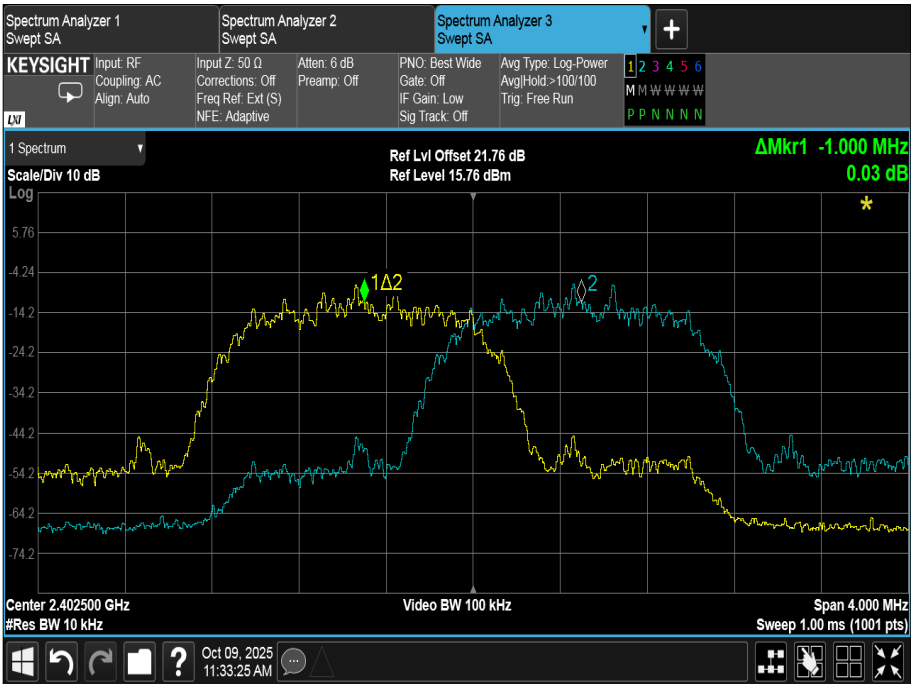


Figure 20 - $\pi/4$ DQPSK



Figure 21 - 8-DPSK

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

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

Alternatively, frequency hopping systems operating in the band 2400-2483.5 MHz may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 0.125 W.



2.3.7 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 Expires
Directional Coupler	Krytar	1850	58	-	TU
Hygrometer	Rotronic	I-1000	2891	12	02-Dec-2025
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	4143	12	29-Oct-2025
GPSDR Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	18-Mar-2026
Digital Multi-meter	Iso-tech	IDM93N	4435	12	06-Mar-2026
EXA Signal Analyser	Keysight Technologies	N9010B	4969	24	07-Feb-2026
Attenuator 5W 20dB DC-18GHz	Aaren	AT40A-4041-D18-20	5497	12	23-Apr-2026
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5514	12	06-Jun-2026
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	15-Apr-2026

Table 10

TU - Traceability Unscheduled

2.4 Frequency Hopping Systems - Number of Hopping Channels

2.4.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a)(1)

2.4.2 Equipment Under Test and Modification State

G7 Infotainment Headunit, S/N: 0024580 - Modification State 0

2.4.3 Date of Test

08-October-2025 to 09-October-2025

2.4.4 Test Method

Bluetooth Classic - Single Antenna

The test was performed in accordance with ANSI C63.10, clause 7.8.3.

The EUT was powered at 13.7 V using a DC power supply for the duration of the test.

2.4.5 Environmental Conditions

Ambient Temperature 21.9 - 22.5 °C

Relative Humidity 40.2 - 50.9 %

2.4.6 Test Results

Bluetooth Classic - Single Antenna

Number of Hopping Channels: 79

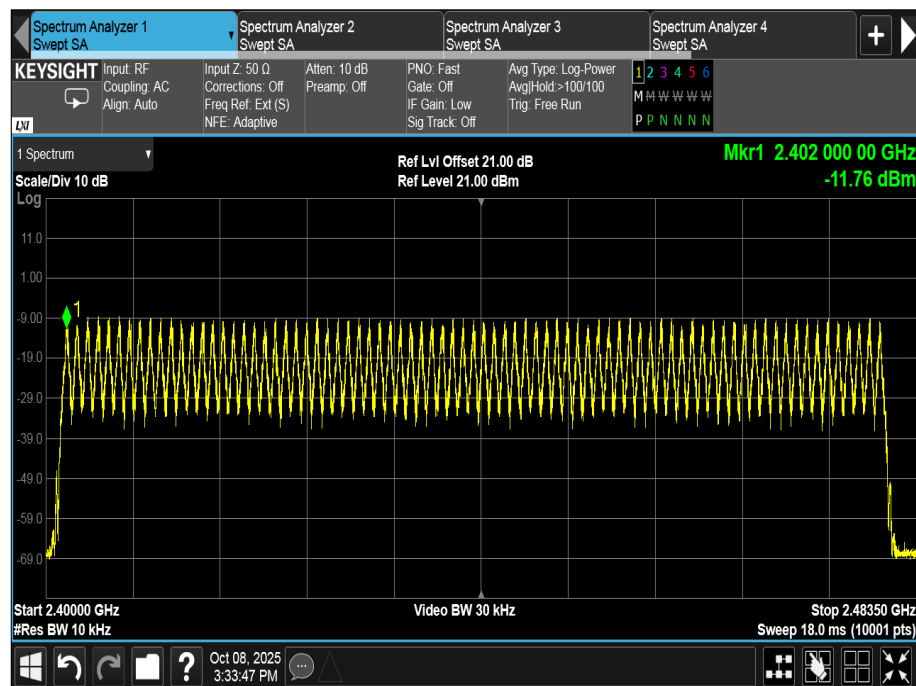


Figure 22 - Measurement Frequency Range: 2400 MHz to 2483.5 MHz (DH5)

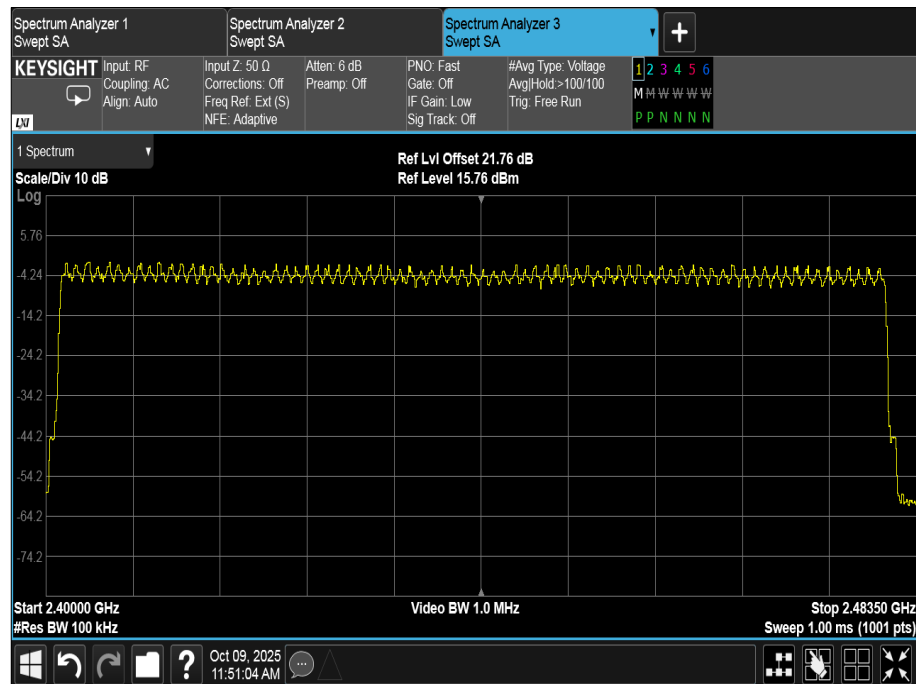


Figure 23 - Measurement Frequency Range: 2400 MHz to 2483.5 MHz (2-DH5)

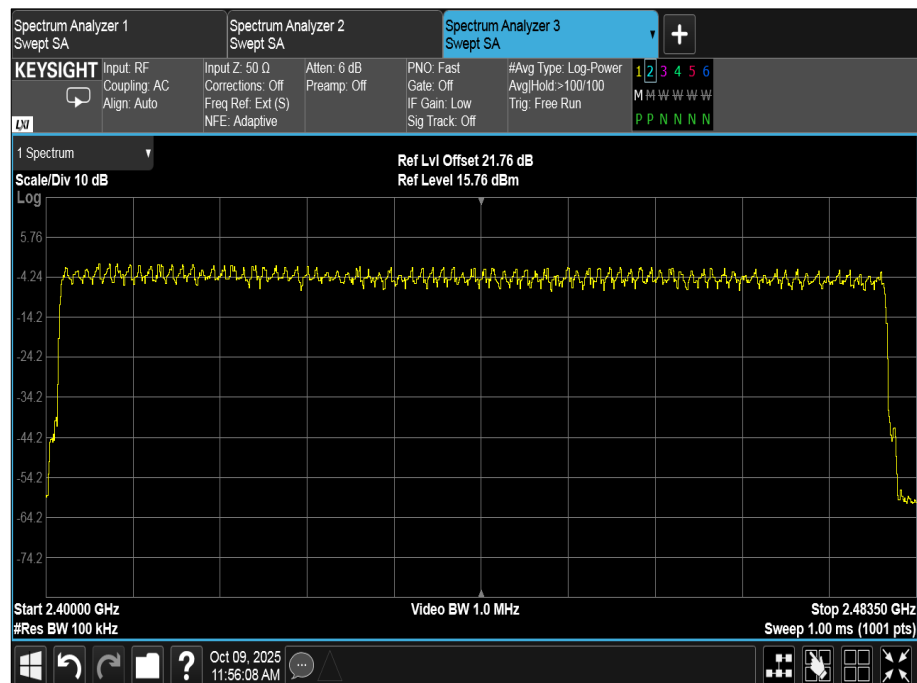


Figure 24 - Measurement Frequency Range: 2400 MHz to 2483.5 MHz (3-DH5)

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

≥ 15 channels



2.4.7 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 Expires
Directional Coupler	Krytar	1850	58	-	TU
Hygrometer	Rotronic	I-1000	2891	12	02-Dec-2025
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	4143	12	29-Oct-2025
GPSDR Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	18-Mar-2026
Digital Multi-meter	Iso-tech	IDM93N	4435	12	06-Mar-2026
EXA Signal Analyser	Keysight Technologies	N9010B	4969	24	07-Feb-2026
Attenuator 5W 20dB DC-18GHz	Aaren	AT40A-4041-D18-20	5497	12	23-Apr-2026
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5514	12	06-Jun-2026
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	15-Apr-2026

Table 11

TU - Traceability Unscheduled

2.5 Frequency Hopping Systems - 20 dB Bandwidth

2.5.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a)(1)

2.5.2 Equipment Under Test and Modification State

G7 Infotainment Headunit, S/N: 0024580 - Modification State 0

2.5.3 Date of Test

08-October-2025 to 09-October-2025

2.5.4 Test Method

Bluetooth Classic - Single Antenna

The test was performed in accordance with ANSI C63.10, clause 6.9.3.

The span was decreased to 200 kHz on the upper and lower points at which the 20dBc point was observed to improve the accuracy of the marker points.

The EUT was powered at 13.7 V using a DC power supply for the duration of the test.

2.5.5 Environmental Conditions

Ambient Temperature 21.9 - 22.5 °C

Relative Humidity 40.2 - 50.9 %

2.5.6 Test Results

Bluetooth Classic - Single Antenna

Frequency (MHz)	20 dB Bandwidth (kHz)		
	GFSK	$\pi/4$ DQPSK	8-DPSK
2402	992.22	1334.40	1312.00
2441	991.10	1336.20	1311.70
2480	992.04	1331.00	1315.60

Table 12 - 20 dB Bandwidth



Figure 25 - 2402 MHz – GFSK, 20 dB Bandwidth

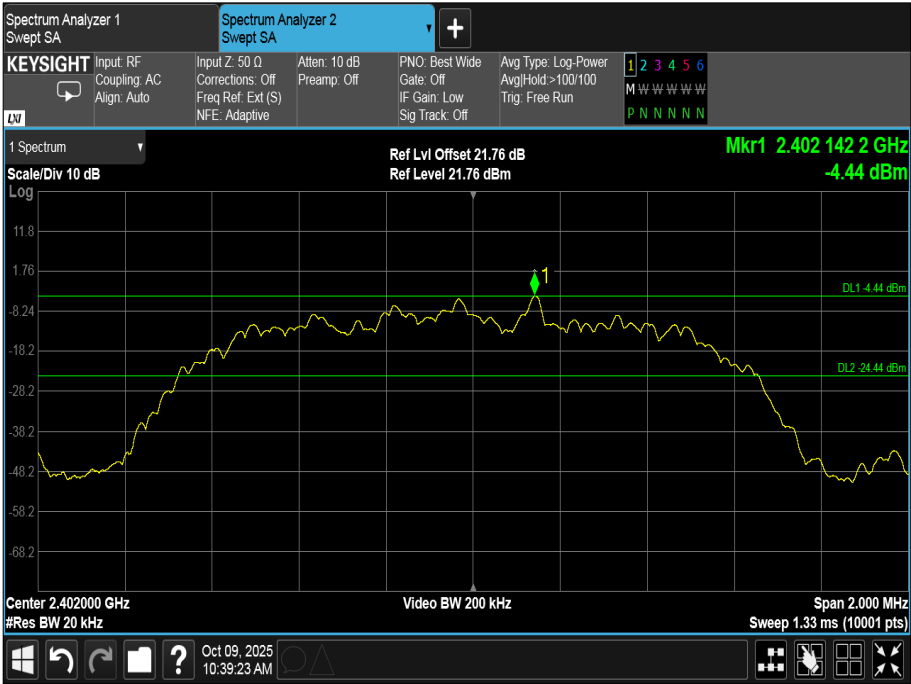


Figure 26 - 2402 MHz - $\pi/4$ DQPSK, 20 dB Bandwidth

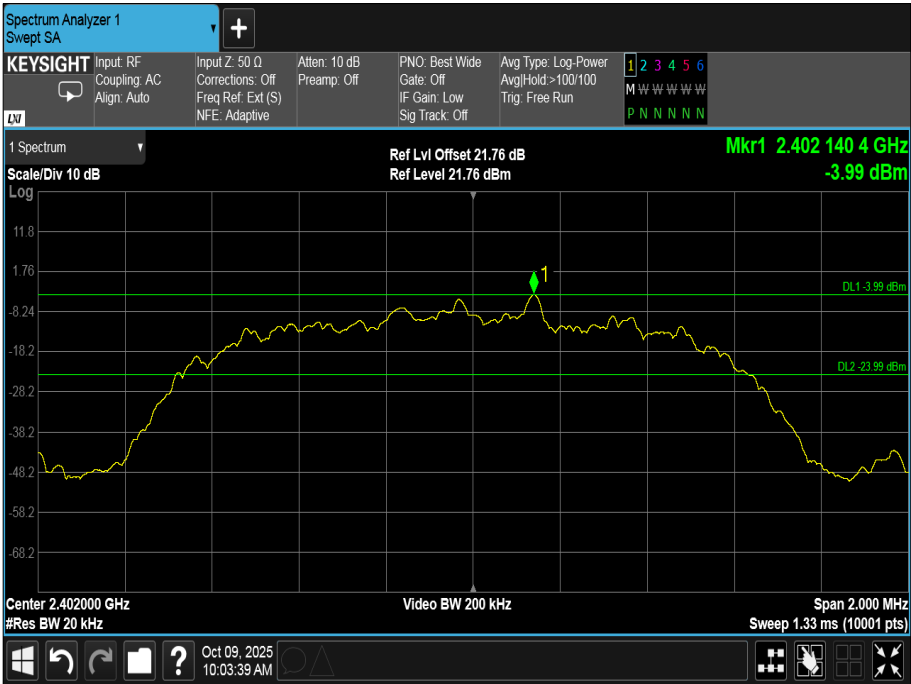


Figure 27 - 2402 MHz - 8-DPSK, 20 dB Bandwidth



Figure 28 - 2441 MHz – GFSK, 20 dB Bandwidth

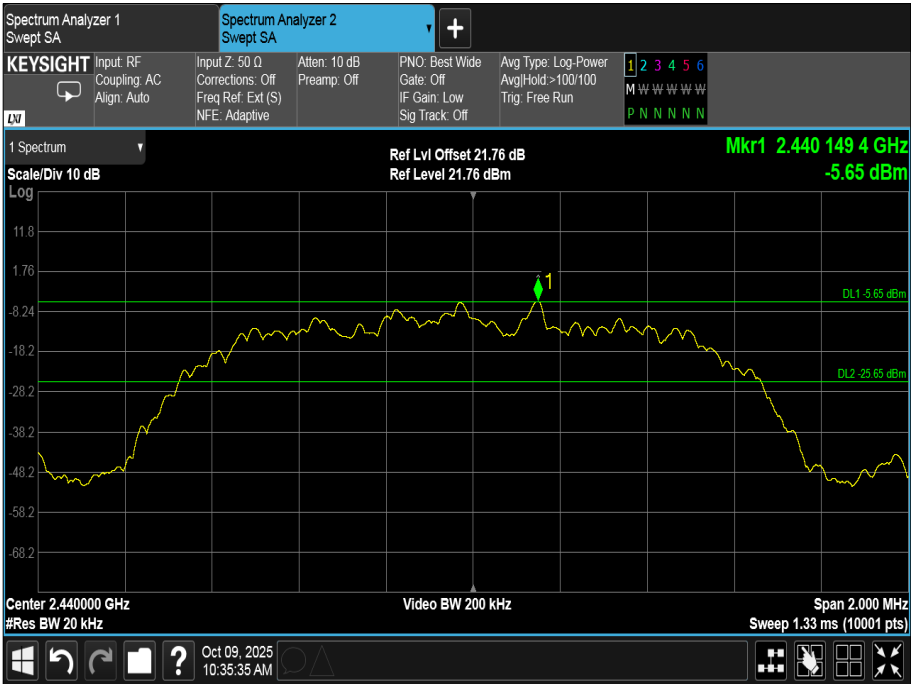


Figure 29 - 2441 MHz - $\pi/4$ DQPSK, 20 dB Bandwidth

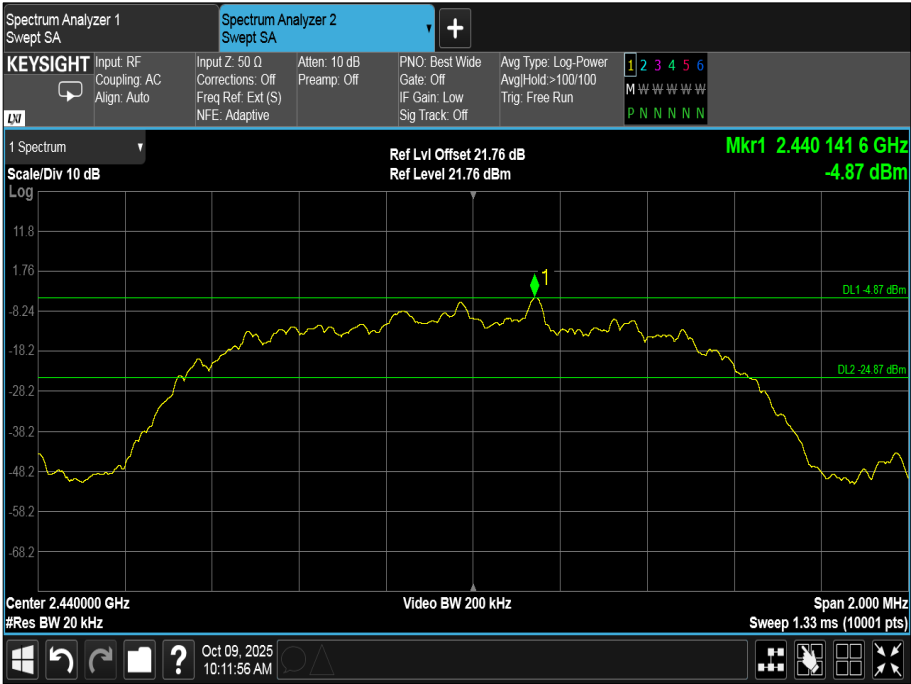


Figure 30 - 2441 MHz - 8-DPSK, 20 dB Bandwidth



Figure 31 - 2480 MHz – GFSK, 20 dB Bandwidth

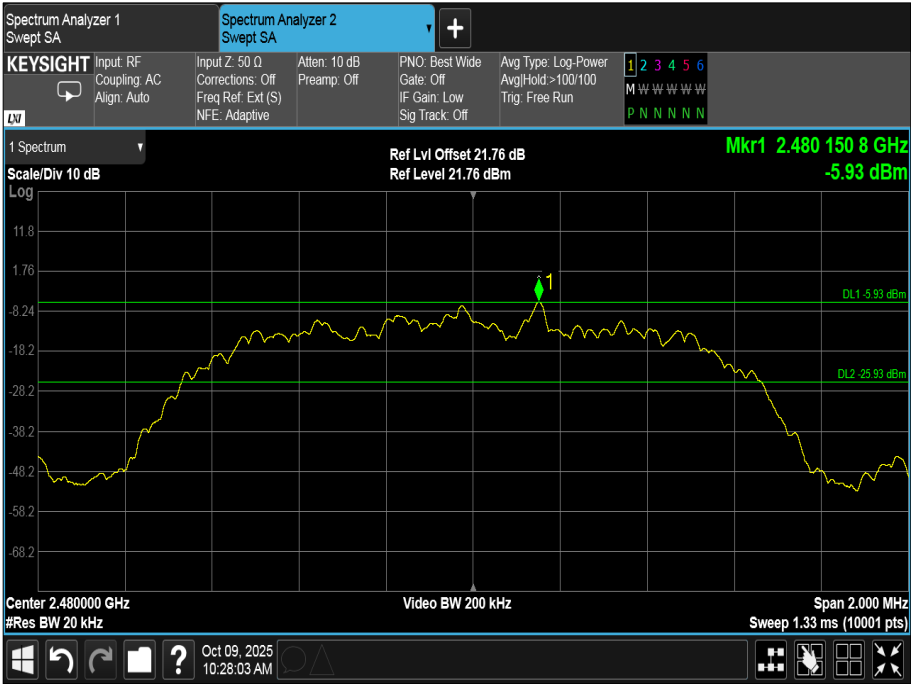


Figure 32 - 2480 MHz - $\pi/4$ DQPSK, 20 dB Bandwidth

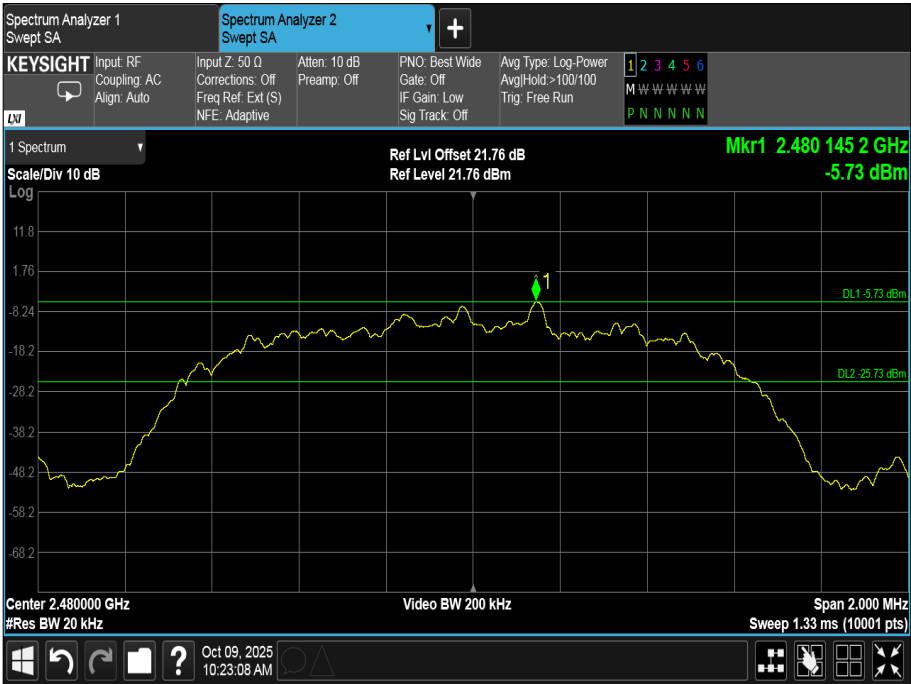


Figure 33 - 2480 MHz - 8-DPSK, 20 dB Bandwidth

FCC 47 CFR Part 15 Limit Clause

None specified.



2.5.7 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 Expires
Directional Coupler	Krytar	1850	58	-	TU
Hygrometer	Rotronic	I-1000	2891	12	02-Dec-2025
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	4143	12	29-Oct-2025
GPSDR Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	18-Mar-2026
Digital Multi-meter	Iso-tech	IDM93N	4435	12	06-Mar-2026
EXA Signal Analyser	Keysight Technologies	N9010B	4969	24	07-Feb-2026
Attenuator 5W 20dB DC-18GHz	Aaren	AT40A-4041-D18-20	5497	12	23-Apr-2026
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5514	12	06-Jun-2026
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	15-Apr-2026

Table 13

TU - Traceability Unscheduled



2.6 Spurious Radiated Emissions

2.6.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.209 and 15.247 (d)

2.6.2 Equipment Under Test and Modification State

G7 Infotainment Headunit, S/N: 0024580 - Modification State 0.

2.6.3 Date of Test

03-October-2025 to 24-October-2025

2.6.4 Test Method

Bluetooth Classic - Single Antenna

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

This test was performed using 3-DH5 (8-DPSK) modulation as this was shown to be the mode with the greatest peak conducted output power.

ANSI C63.10 clause 4.1.5.2.6 was used to characterize the EUT. Where emissions were detected, final average measurements were taken in accordance with clause 4.1.5.2.2.

As the EUT can either be installed horizontally or vertically pre-scans were performed with the EUT orientated in Flat and Up-right positions with reference to the ground plane.

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

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

The following conversion can be applied to convert from dBμV/m to μV/m:
 $10^{(\text{Field Strength in dB}\mu\text{V/m}/20)}$.

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

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

The DUT was powered by 13.6 VDC throughout the test.

2.6.5 Example Test Setup Diagram

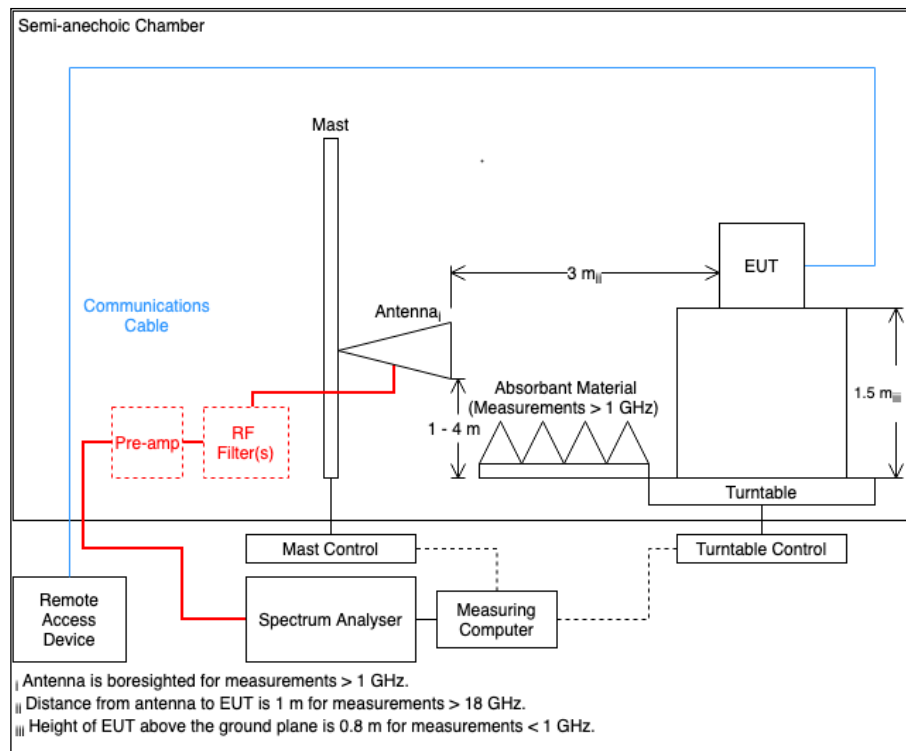


Figure 34

2.6.6 Environmental Conditions

Ambient Temperature	21.6 - 23.5 °C
Relative Humidity	39.5 - 52.3 %

2.6.7 Test Results

Bluetooth Classic - Single Antenna

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
73.170	20.26	40.00	-19.74	Q-Peak	249	100	Vertical
74.565	24.61	40.00	-15.39	Q-Peak	348	100	Horizontal
75.146	16.97	40.00	-23.03	Q-Peak	130	100	Vertical
268.359	8.50	46.00	-37.50	Q-Peak	301	100	Horizontal

Table 14 - Bottom Channel, Flat, 3DH5, 2402 MHz, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

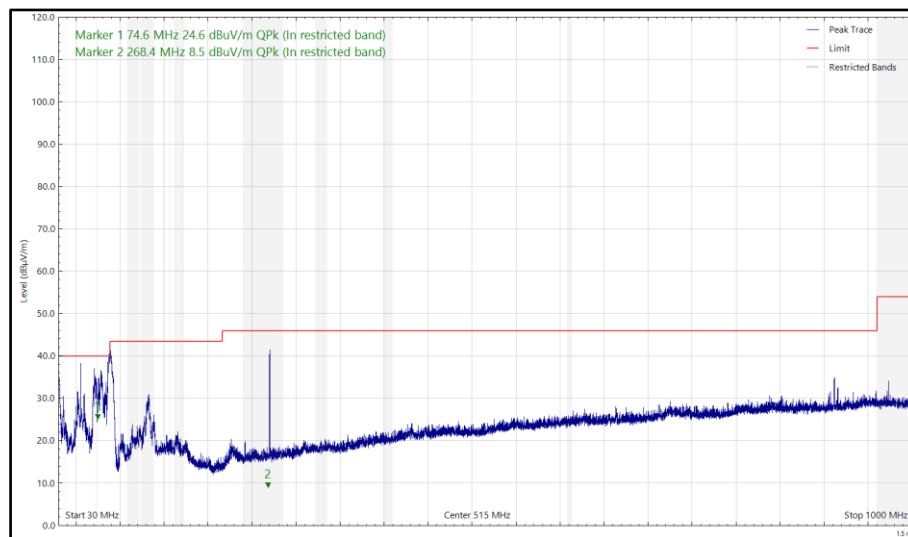


Figure 35 - Bottom Channel, Flat, 3DH5, 2402 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

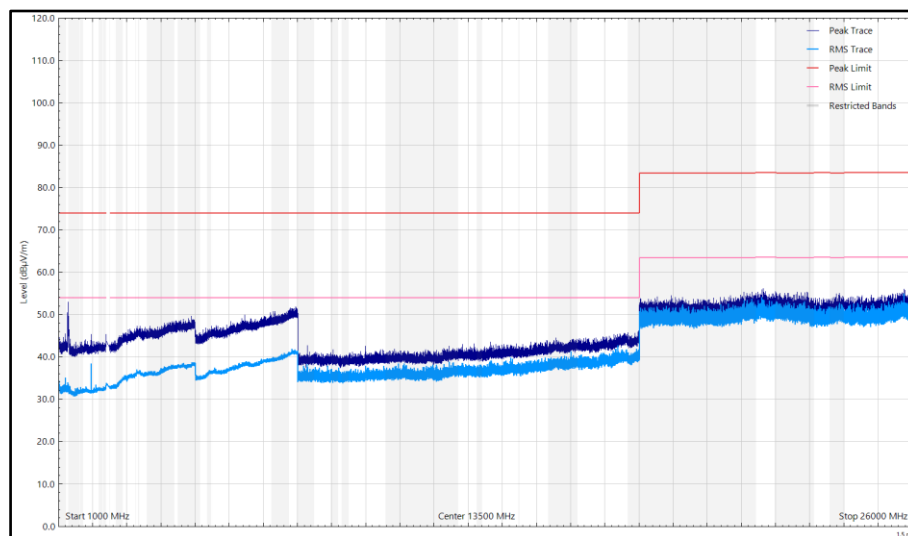


Figure 36 - Bottom Channel, Flat, 3DH5, 2402 MHz, 1 GHz to 26 GHz, Horizontal

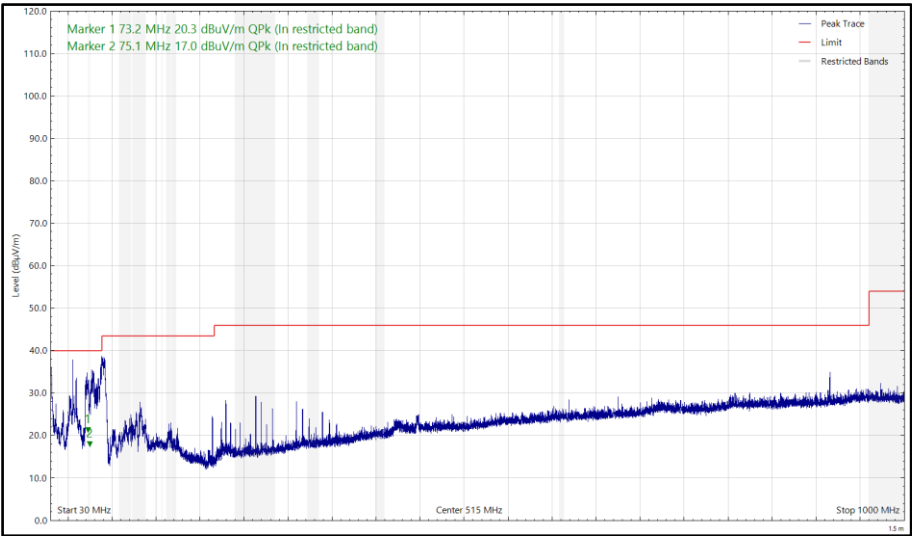


Figure 37 - Bottom Channel, Flat, 3DH5, 2402 MHz, 30 MHz to 1 GHz, Vertical (Peak)

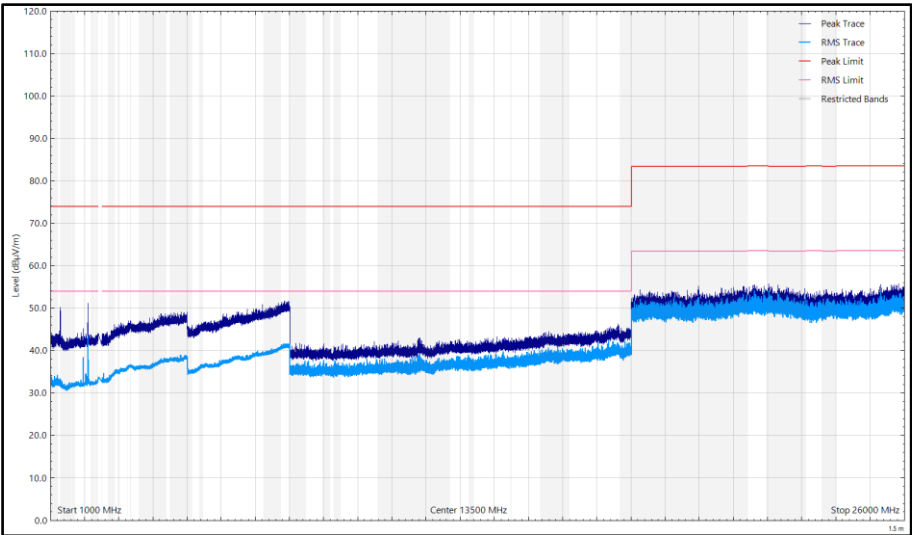


Figure 38 - Bottom Channel, Flat, 3DH5, 2402 MHz, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
73.904	26.76	40.00	-13.24	Q-Peak	233	100	Vertical
75.163	26.63	40.00	-13.37	Q-Peak	230	100	Vertical
75.172	27.77	40.00	-12.23	Q-Peak	141	100	Horizontal

Table 15 - Bottom Channel, Up-right, 3DH5, 2402 MHz, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

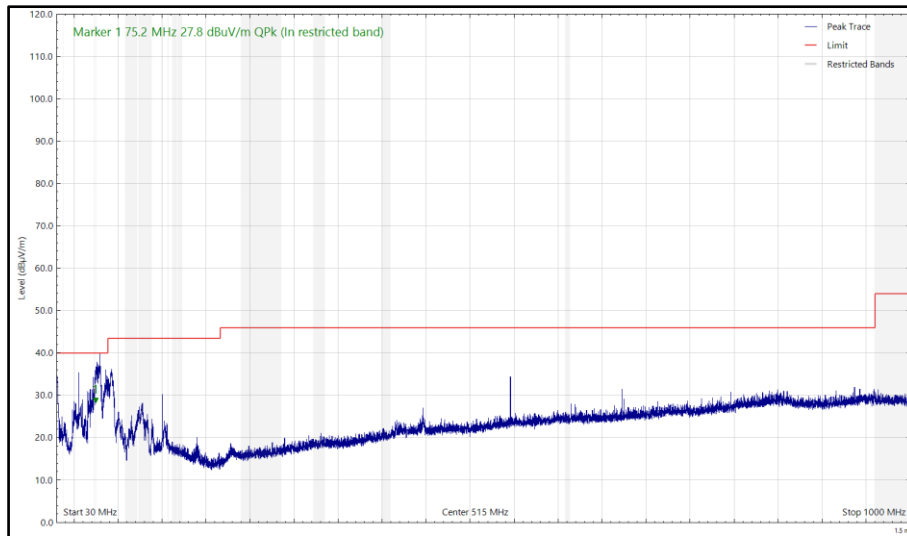


Figure 39 - Bottom Channel, Up-right, 3DH5, 2402 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

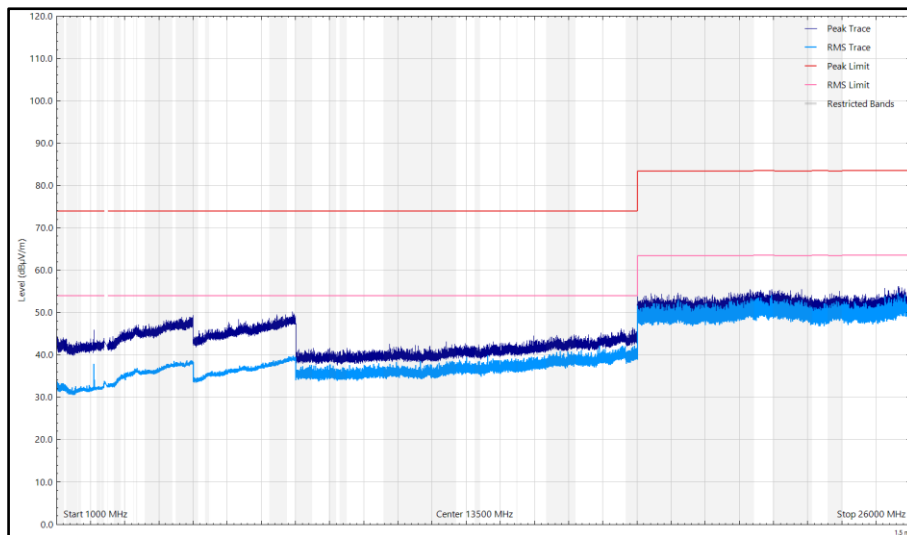


Figure 40 - Bottom Channel, Up-right, 3DH5, 2402 MHz, 1 GHz to 26 GHz, Horizontal

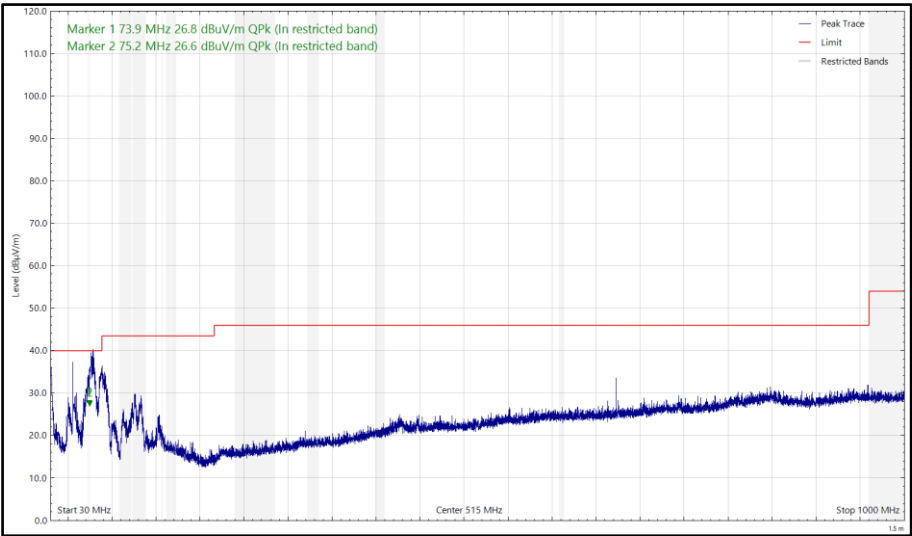


Figure 41 - Bottom Channel, Up-right, 3DH5, 2402 MHz, 30 MHz to 1 GHz, Vertical (Peak)

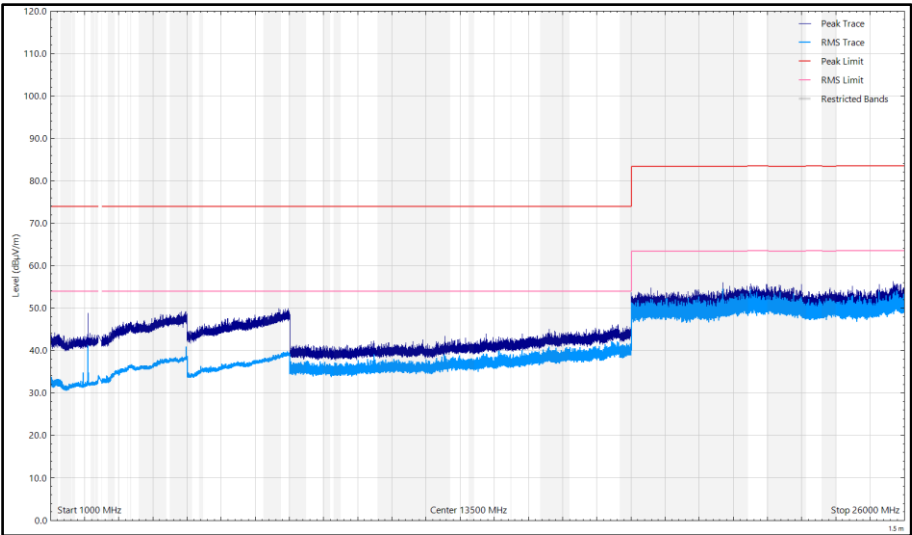


Figure 42 - Bottom Channel, Up-right, 3DH5, 2402 MHz, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
74.508	30.87	40.00	-9.13	Q-Peak	250	100	Horizontal
75.186	30.54	40.00	-9.46	Q-Peak	303	100	Vertical

Table 16 - Mid Channel, Flat, 3DH5, 2441 MHz, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

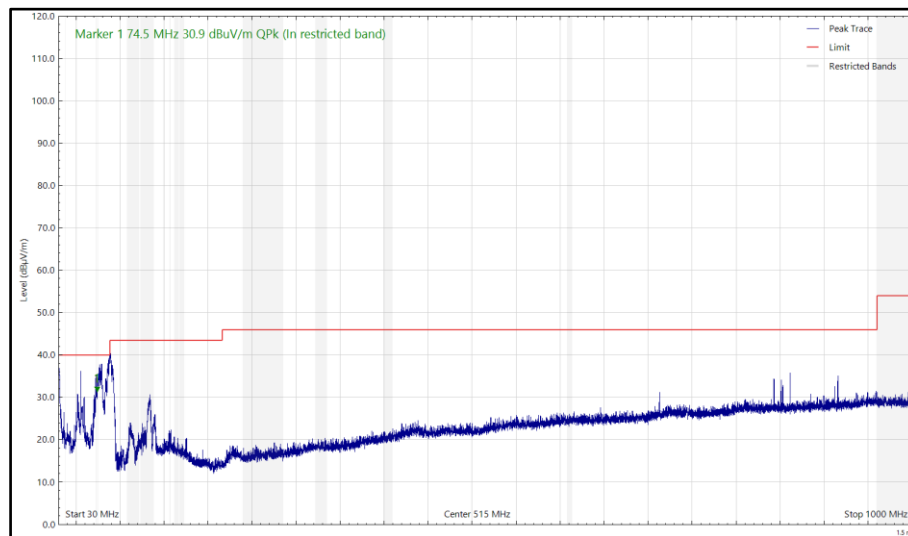


Figure 43 - Mid Channel, Flat, 3DH5, 2441 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

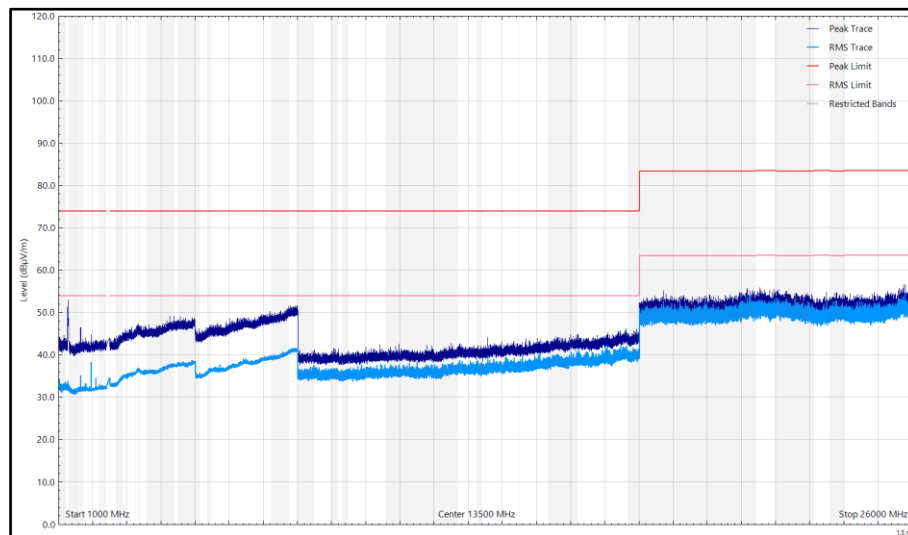


Figure 44 - Mid Channel, Flat, 3DH5, 2441 MHz, 1 GHz to 26 GHz, Horizontal

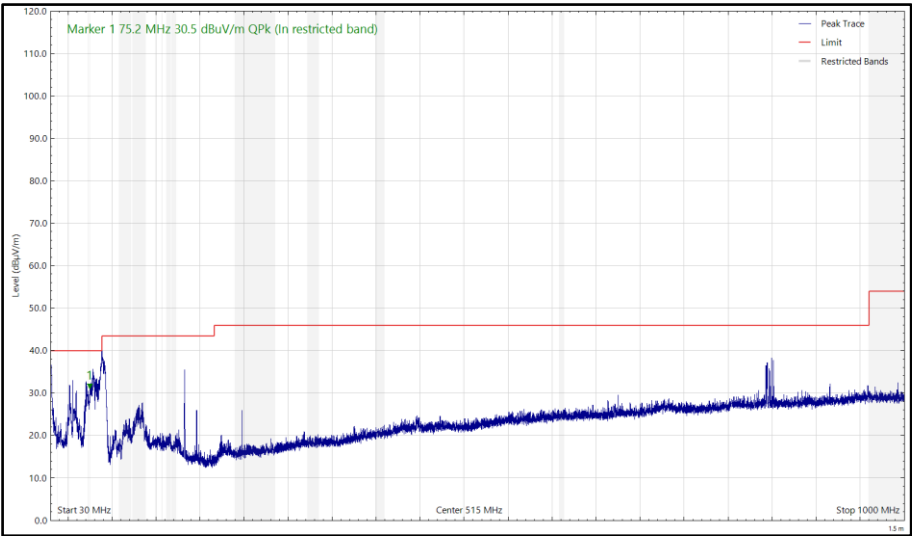


Figure 45 - Mid Channel, Flat, 3DH5, 2441 MHz, 30 MHz to 1 GHz, Vertical (Peak)

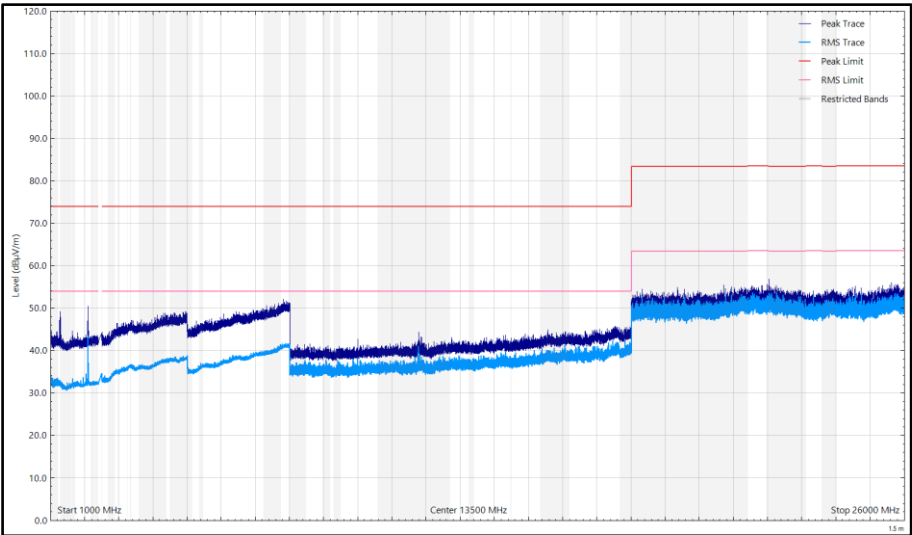


Figure 46 - Mid Channel, Flat, 3DH5, 2441 MHz, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
74.567	28.73	40.00	-11.27	Q-Peak	28	100	Horizontal
75.113	25.43	40.00	-14.57	Q-Peak	3	100	Horizontal
75.149	28.27	40.00	-11.73	Q-Peak	359	100	Vertical

Table 17 - Mid Channel, Up-right, 3DH5, 2441 MHz, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

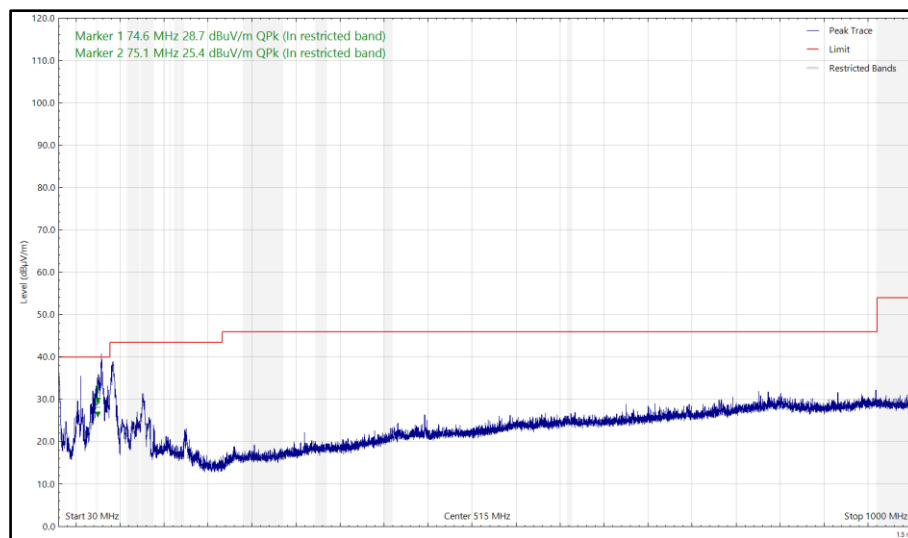


Figure 47 - Mid Channel, Up-right, 3DH5, 2441 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

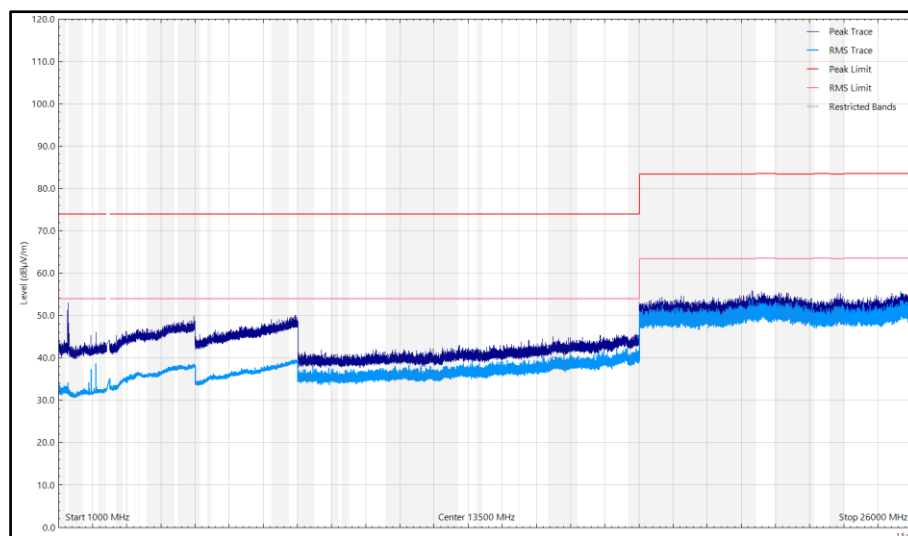


Figure 48 - Mid Channel, Up-right, 3DH5, 2441 MHz, 1 GHz to 26 GHz, Horizontal

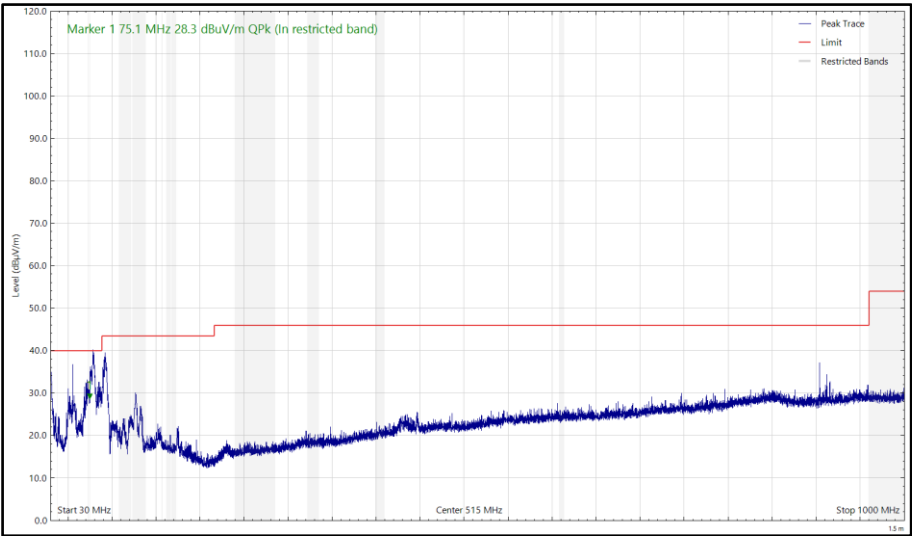


Figure 49 - Mid Channel, Up-right, 3DH5, 2441 MHz, 30 MHz to 1 GHz, Vertical (Peak)

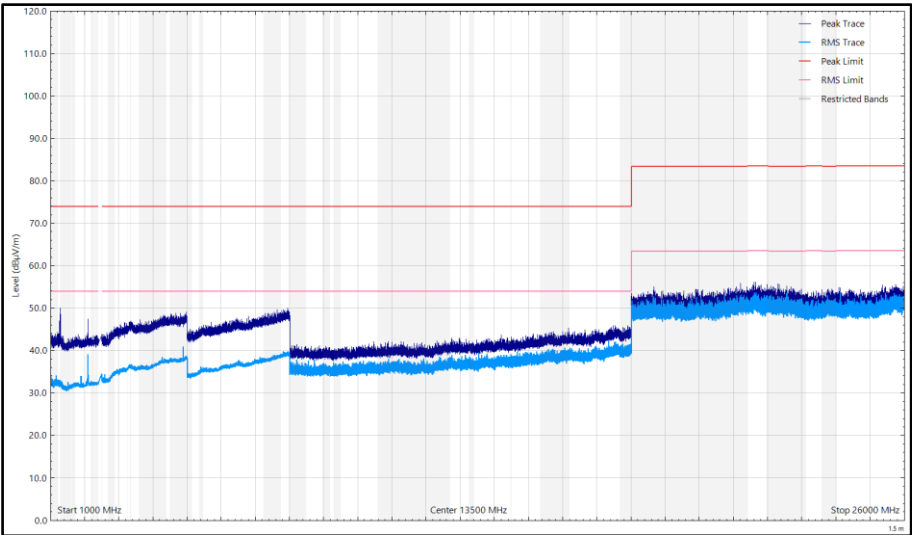


Figure 50 - Mid Channel, Up-right, 3DH5, 2441 MHz, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
74.489	21.97	40.00	-18.03	Q-Peak	267	100	Horizontal
74.854	24.72	40.00	-15.28	Q-Peak	224	100	Vertical
74.866	26.13	40.00	-13.87	Q-Peak	349	100	Vertical

Table 18 - Top Channel, Flat, 3DH5, 2480 MHz, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

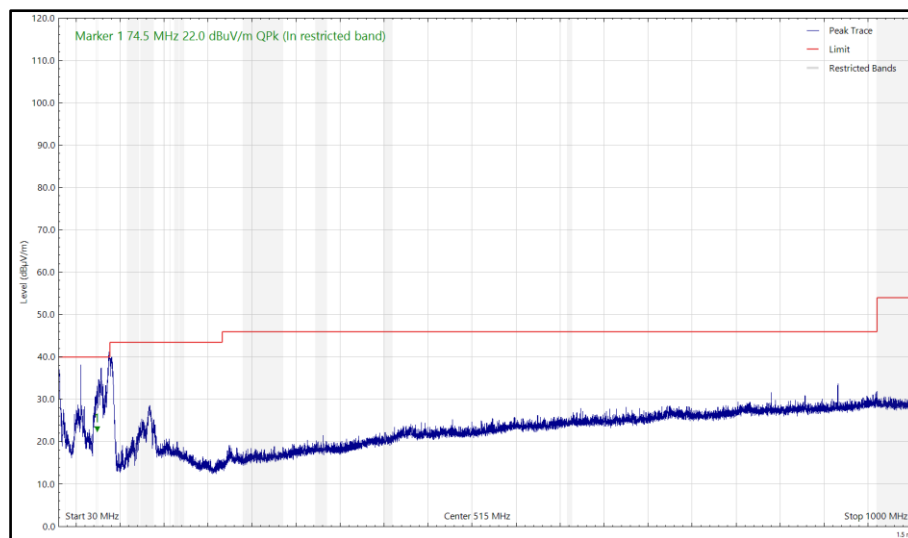


Figure 51 - Top Channel, Flat, 3DH5, 2480 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

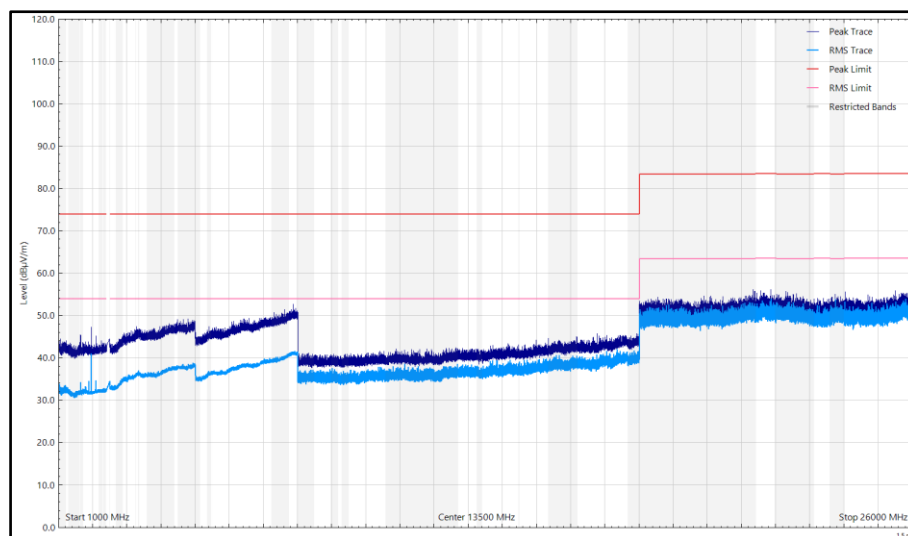


Figure 52 - Top Channel, Flat, 3DH5, 2480 MHz, 1 GHz to 26 GHz, Horizontal

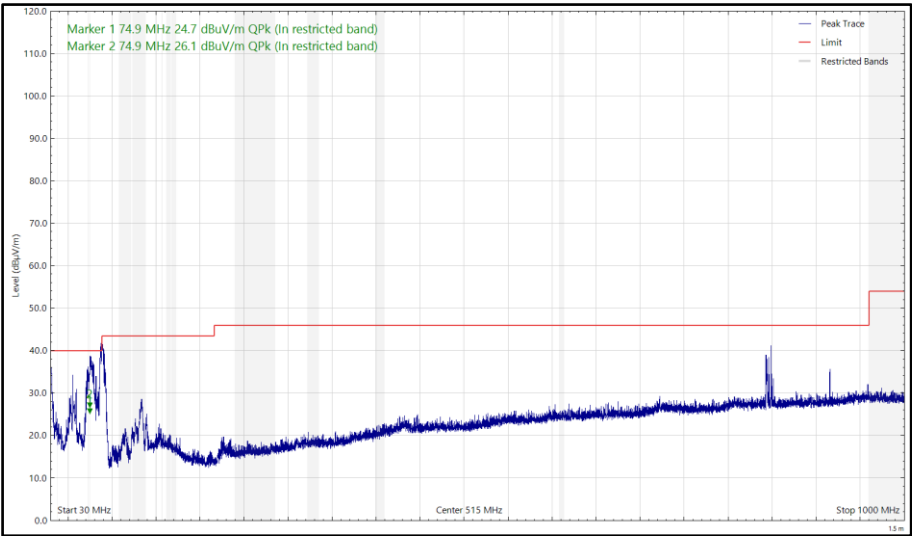


Figure 53 - Top Channel, Flat, 3DH5, 2480 MHz, 30 MHz to 1 GHz, Vertical (Peak)

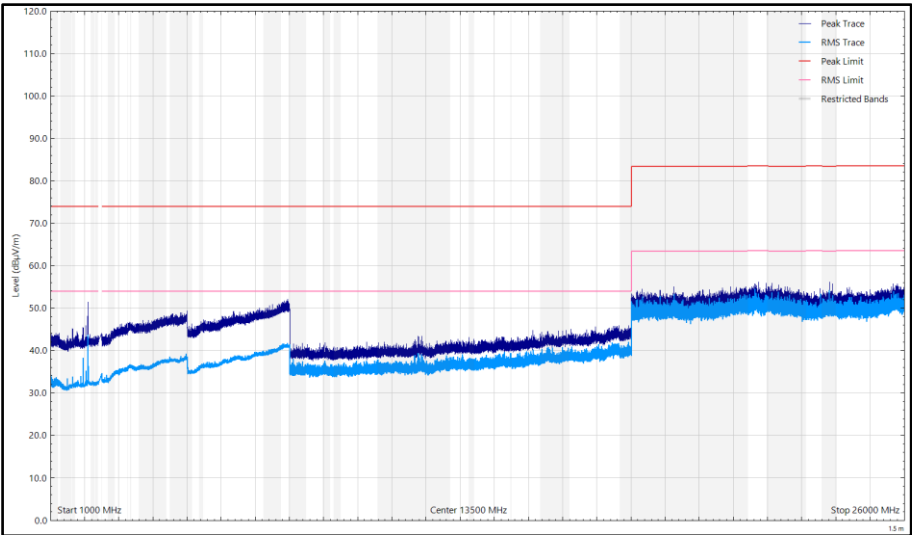


Figure 54 - Top Channel, Flat, 3DH5, 2480 MHz, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
74.160	25.02	40.00	-14.98	Q-Peak	288	100	Horizontal
74.531	27.58	40.00	-12.42	Q-Peak	179	100	Vertical
74.863	28.47	40.00	-11.53	Q-Peak	344	100	Vertical

Table 19 - Top Channel, Up-right, 3DH5, 2480 MHz, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

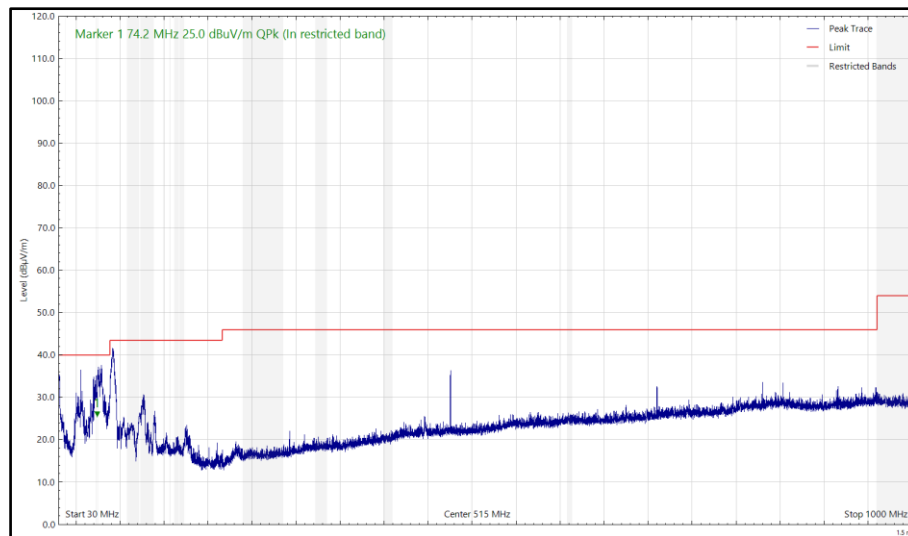


Figure 55 - Top Channel, Up-right, 3DH5, 2480 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

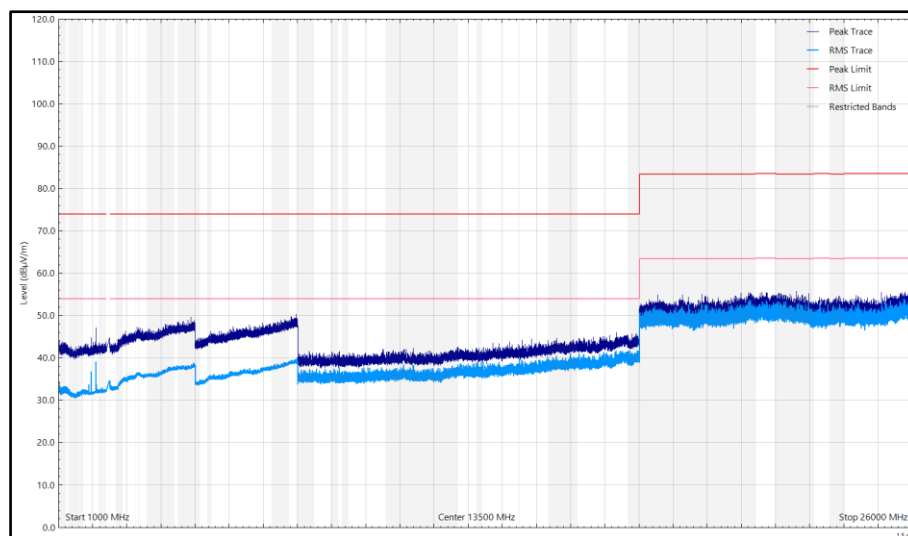


Figure 56 - Top Channel, Up-right, 3DH5, 2480 MHz, 1 GHz to 26 GHz, Horizontal

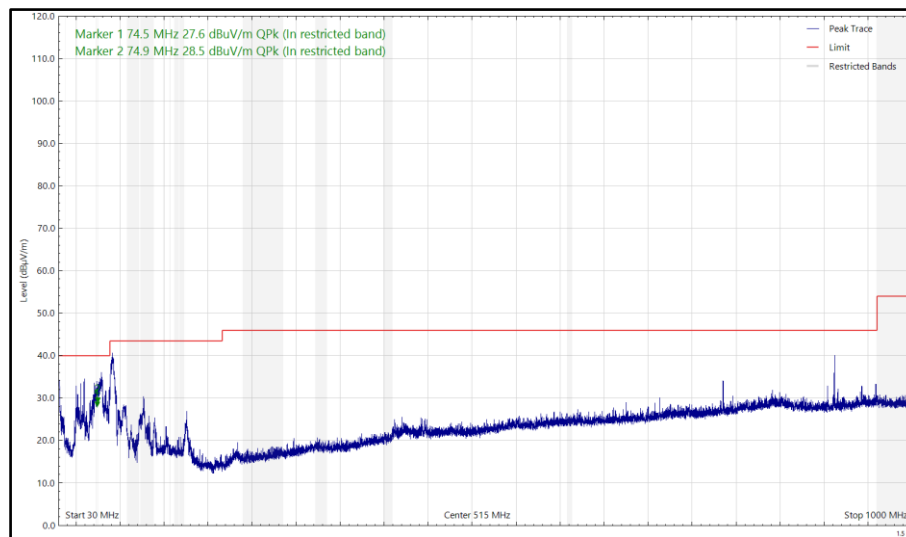


Figure 57 - Top Channel, Up-right, 3DH5, 2480 MHz, 30 MHz to 1 GHz, Vertical (Peak)

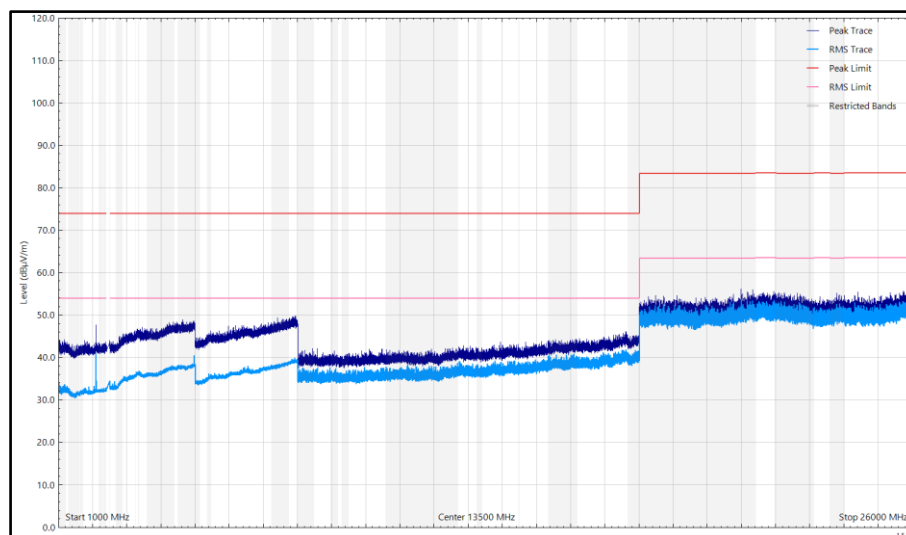


Figure 58 - Top Channel, Up-right, 3DH5, 2480 MHz, 1 GHz to 26 GHz, Vertical

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

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in 15.209(a)



2.6.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11 and EMC Chamber 12.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Antenna (DRG, 18 GHz to 40 GHz)	Link Microtek Ltd	AM180HA-K-TU2	230	24	08-Oct-2026
Pre-Amplifier (18 GHz to 40 GHz)	Narda	NARDA DB02-0447	237	12	30-Apr-2026
Antenna (Bilog with attenuator, 30 MHz to 3 GHz)	Schaffner	CBL6143	287	24	29-Aug-2026
True RMS Multimeter	Fluke	79 Series III	411	12	09-Jan-2026
Pre-Amplifier (18 GHz to 40 GHz)	Phase One	PSO4-0087	1534	12	20-Oct-2026
Programmable Power Supply	Iso-tech	IPS 2010	2437	-	O/P Mon
Hygrometer	Rotronic	I-1000	3220	12	02-Dec-2025
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	4848	12	05-Jul-2026
Band Reject Filter - 2.425 GHz	Wainwright	WRCGV14-2390-2400-2450-2460-50SS	5067	12	14-Nov-2025
Emissions Software	TUV SUD	EmX V3.5.5	5125	-	Software
3m Semi-Anechoic Chamber	Rainford	RF Chamber 11	5136	36	14-Nov-2027
Mast	Maturo	TAM 4.0-P	5158	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	05-Jul-2026
Antenna (DRG, 7.5 GHz to 18 GHz)	Schwarzbeck	HWRD750	5216	12	12-Jul-2026
Cable 2.92m	Junkosha	MWX241-01000KMS	5413	12	23-May-2026
Signal Analyzer	Keysight Technologies	PXA N9030B	5432	12	19-Aug-2026
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	10-Jul-2026
Coupler	Amp Research	DC2035A	5447	12	21-Dec-2025
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	14-Aug-2026
7 GHz High pass Filter	Wainwright	WHKX12-5850-6800-18000-80SS	5549	12	31-Aug-2026
7 GHz High pass Filter	Wainwright	WHKX12-5850-6800-18000-80SS	5550	12	30-May-2026
Pre-Amplifier (8 GHz to 18 GHz)	Wright Technologies	APS06-0061	5595	12	28-Oct-2025
Tilt Antenna Mast	Maturo GmbH	TAM 4.0-P	5613	-	TU



Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
3m Semi-Anechoic Chamber	MVG	EMC Chamber 12	5621	36	07-Aug-2026
Test Receiver	Rohde & Schwarz	ESW44	5802	12	25-Oct-2025
Cable (K-Type to K-Type, 2 m)	Junkosha	MWX241-02000KMSKMS/B	5934	12	12-Jun-2026
2m Coaxial Cable Assy	Junkosha	MWX221-02000AMSAMS/A	6360	12	13-May-2026
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9168	6635	24	25-Jul-2027
1m SMA Cable	Junkosha	MWX221-01000AMSAMS/B	6919	12	08-Dec-2025
Cable (2.92 mm(f)-N(m), 2 m)	Junkosha	MWX241-02000KFSNMS/B	6965	6	14-Feb-2026
Cable Assy 8m (N to N) 18GHz	Junkosha	MWX221-08000NMSNMS/B	7049	12	01-Jun-2026
Cable (N-Type to N-Type, 8 m)	Junkosha	MWX221-08000NMSNMS/B	7054	12	01-Jun-2026

Table 20

TU - Traceability Unscheduled
O/P Mon – Output Monitored using calibrated equipment



2.7 Restricted Band Edges

2.7.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.205

2.7.2 Equipment Under Test and Modification State

G7 Infotainment Headunit S/N: 0024580 - Modification State 0

2.7.3 Date of Test

03-October-2025 to 24-October-2025

2.7.4 Test Method

Bluetooth Classic - Single Antenna

This test was performed in accordance with ANSI C63.10, clause 6.10.

Plots for average measurements were taken in accordance with ANSI C63.10 clause 4.1.5.2.6.

Final average measurements were taken in accordance with ANSI C63.10 clause 4.1.5.2.2.

2.7.5 Environmental Conditions

Ambient Temperature 22.7 - 23.5 °C

Relative Humidity 33.6 - 47.6 %

2.7.6 Test Results

Bluetooth Classic - Single Antenna

Modulation	Packet Type	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)	Average Level (dB μ V/m)
GFSK	DH5	2402	2390.0	53.87	39.55
$\pi/4$ DQPSK	2DH5	2402	2390.0	54.06	39.52
8-DPSK	3DH5	2402	2390.0	54.50	39.53
GFSK	DH5	2480	2483.5	53.74	39.89
$\pi/4$ DQPSK	2DH5	2480	2483.5	54.41	39.89
8-DPSK	3DH5	2480	2483.5	54.06	39.93

Table 21

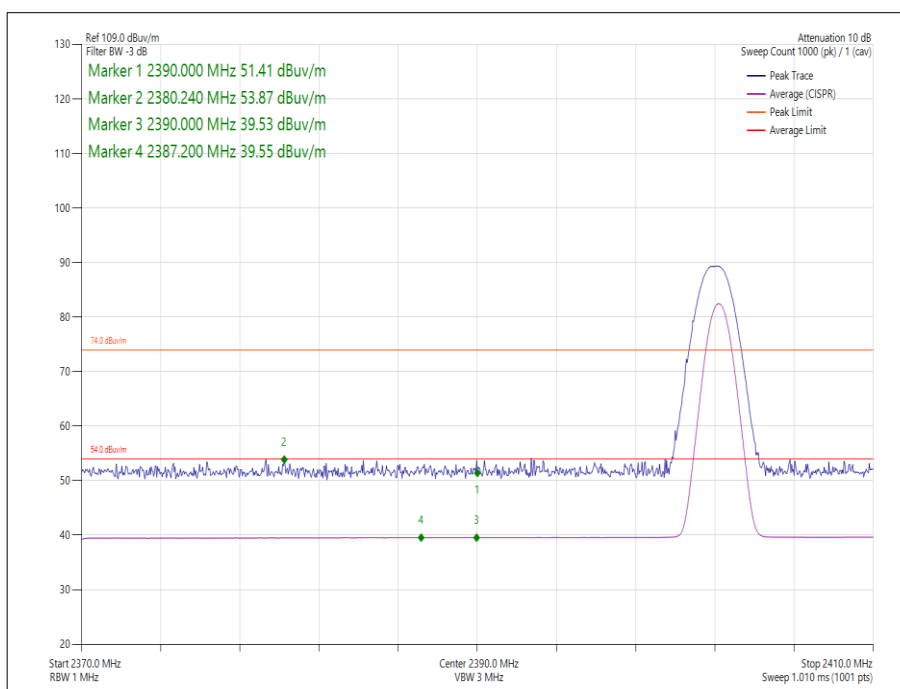


Figure 59 - GFSK/DH5 - 2402 MHz – Band Edge Frequency 2390.0 MHz

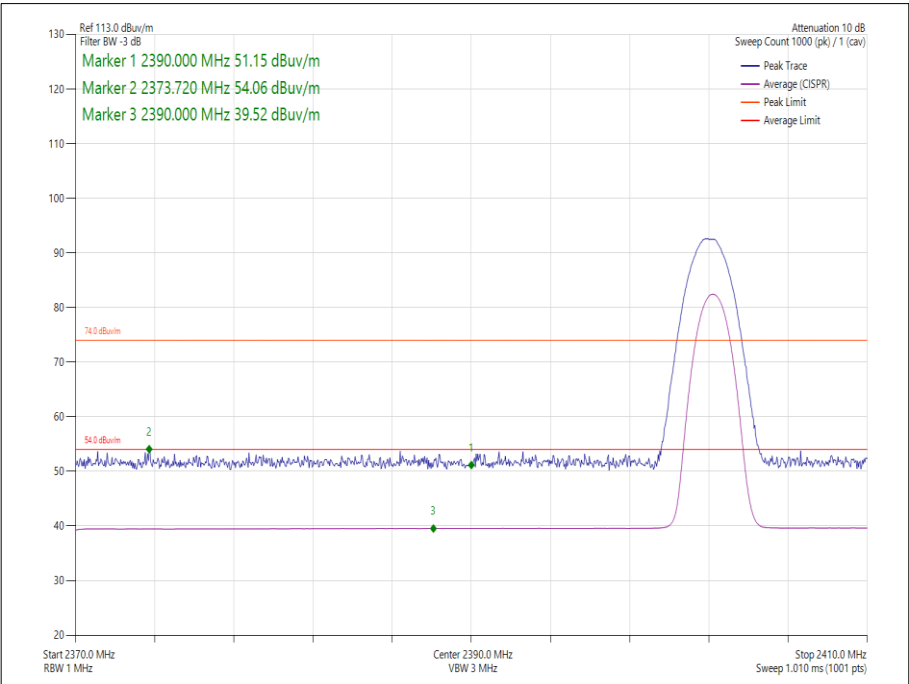


Figure 60 - $\pi/4$ DQPSK/2DH5 - 2402 MHz – Band Edge Frequency 2390.0 MHz

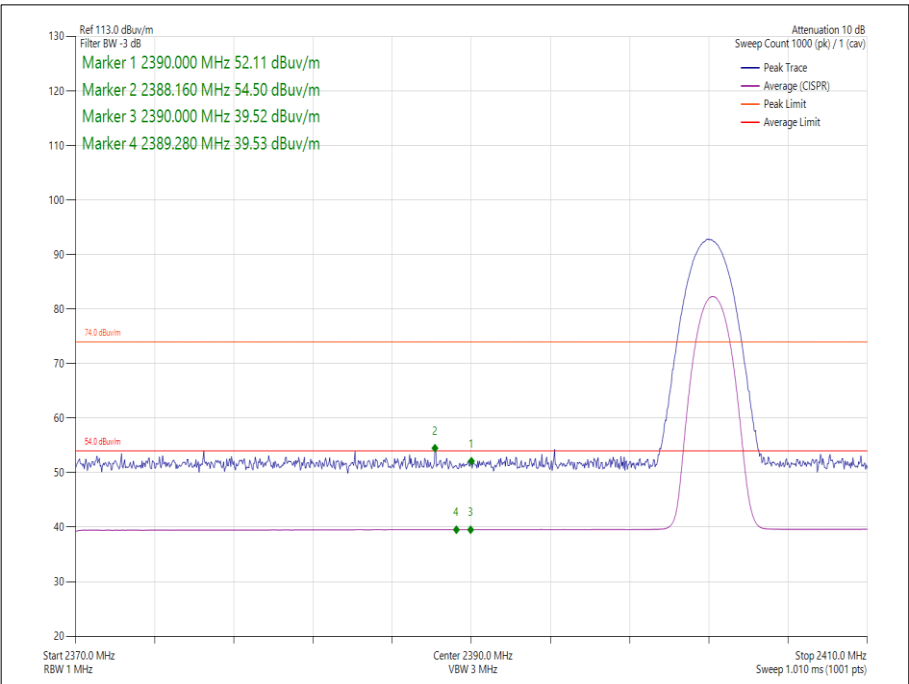


Figure 61 - 8-DPSK/3DH5 - 2402 MHz – Band Edge Frequency 2390.0 MHz

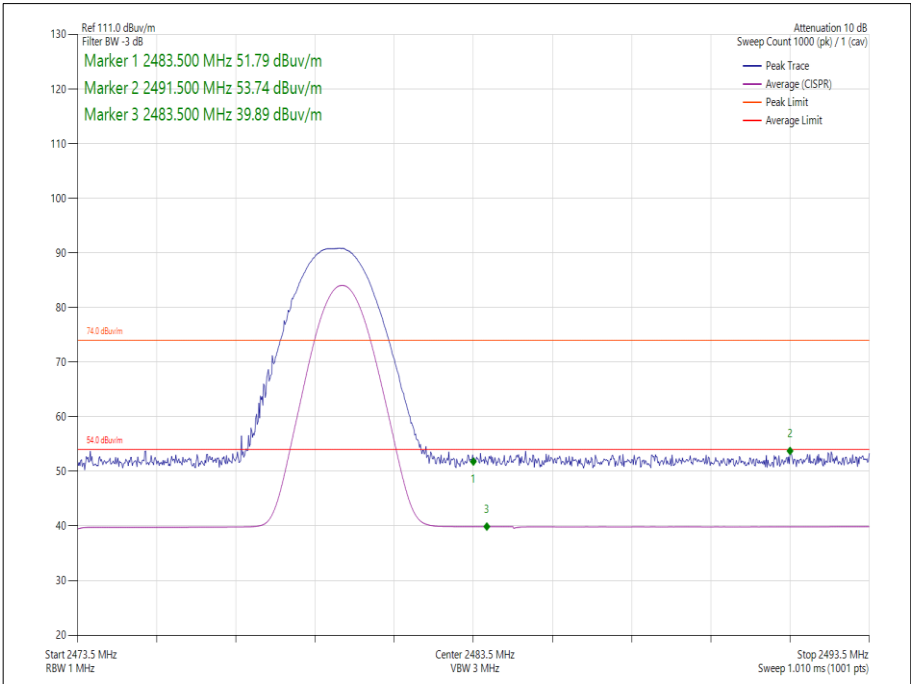


Figure 62 - GFSK/DH5 - 2480 MHz – Band Edge Frequency 2483.5 MHz

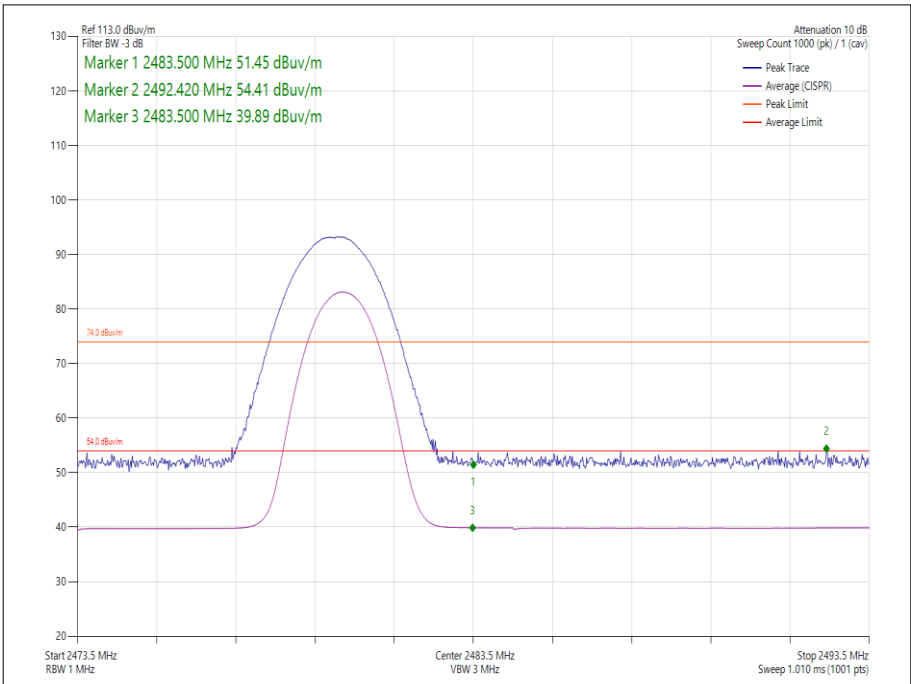


Figure 63 - $\pi/4$ DQPSK/2DH5 - 2480 MHz – Band Edge Frequency 2483.5 MHz

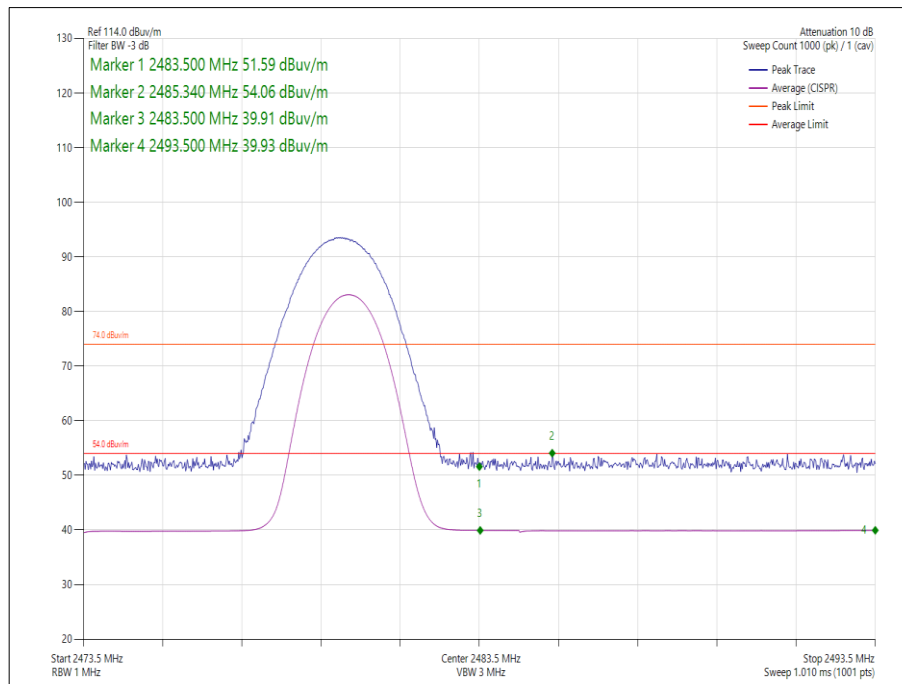


Figure 64 - 8-DPSK/3DH5 - 2480 MHz – Band Edge Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.209

Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$ at 3 m)
30 to 88	100
88 to 216	150
216 to 960	200
Above 960	500

Table 22



2.7.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
True RMS Multimeter	Fluke	79 Series III	411	12	09-Jan-2026
Hygrometer	Rotronic	I-1000	3220	12	02-Dec-2025
Emissions Software	TUV SUD	EmX V3.5.5	5125	-	Software
3m Semi-Anechoic Chamber	Rainford	RF Chamber 11	5136	36	14-Nov-2027
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	05-Jul-2026
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	10-Jul-2026
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	14-Aug-2026
2m Coaxial Cable Assy	Junkosha	MWX221-02000AMSAMS/A	6360	12	13-May-2026
1m SMA Cable	Junkosha	MWX221-01000AMSAMS/B	6919	12	08-Dec-2025
Cable Assy 8m (N to N) 18GHz	Junkosha	MWX221-08000NMSNMS/B	7049	12	01-Jun-2026
Wireless Connectivity Tester	Rohde & Schwarz	CMW270	7076	12	15-Apr-2026

Table 23

TU - Traceability Unscheduled

2.8 Maximum Conducted Output Power

2.8.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (b)

2.8.2 Equipment Under Test and Modification State

Model : G7 Infotainment Headunit,
S/N: 0024580 - Modification State 0

2.8.3 Date of Test

08-October-2025 to 09-October-2025

2.8.4 Test Method

Bluetooth Classic - Single Antenna

The test was performed in accordance with ANSI C63.10 clause 7.8.5 using a spectrum analyser.

The path loss was measured using a ZVA network analyser. To connect to the integral antenna, the device was supplied with an adapter. The adapter loss was 0.775 dB and was added as an offset into the analyser.

2.8.5 Environmental Conditions

Ambient Temperature 21.9 - 22.5 °C
Relative Humidity 40.2 - 50.9 %

2.8.6 Test Results

Bluetooth Classic - Single Antenna

Frequency (MHz)	Modulation Scheme	Maximum Output Power	
		dBm	mW
2402	GFSK	-3.08	0.492
2402	$\pi/4$ DQPSK	1.72	1.486
2402	8-DPSK	1.91	1.552
2440	GFSK	-3.39	0.458
2440	$\pi/4$ DQPSK	0.73	1.183
2440	8-DPSK	1.03	1.268
2480	GFSK	-3.52	0.445
2480	$\pi/4$ DQPSK	0.28	1.067
2480	8-DPSK	0.60	1.148

Table 24

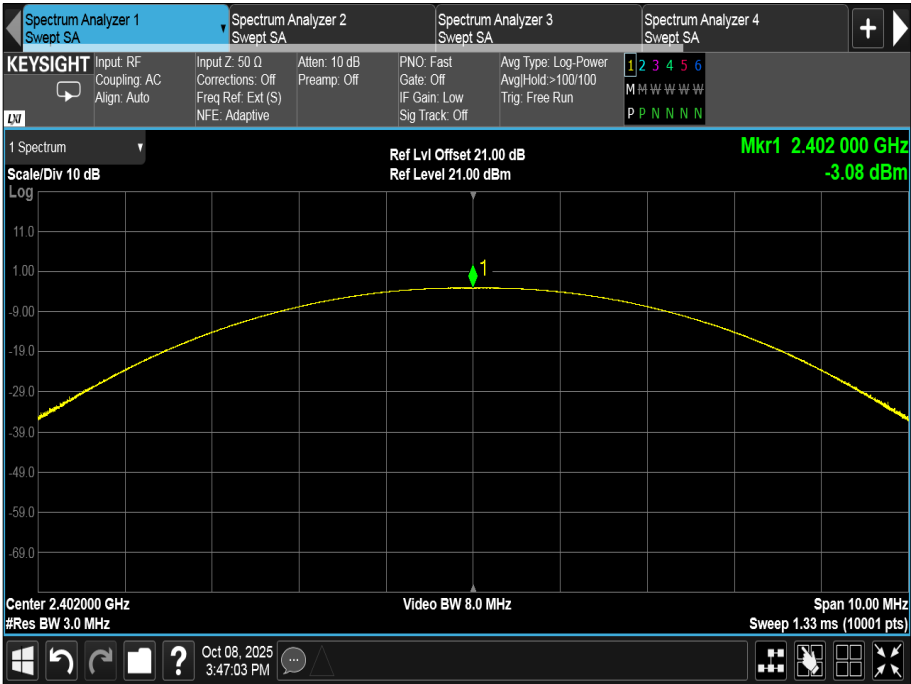


Figure 65 – GFSK, 2402 MHz

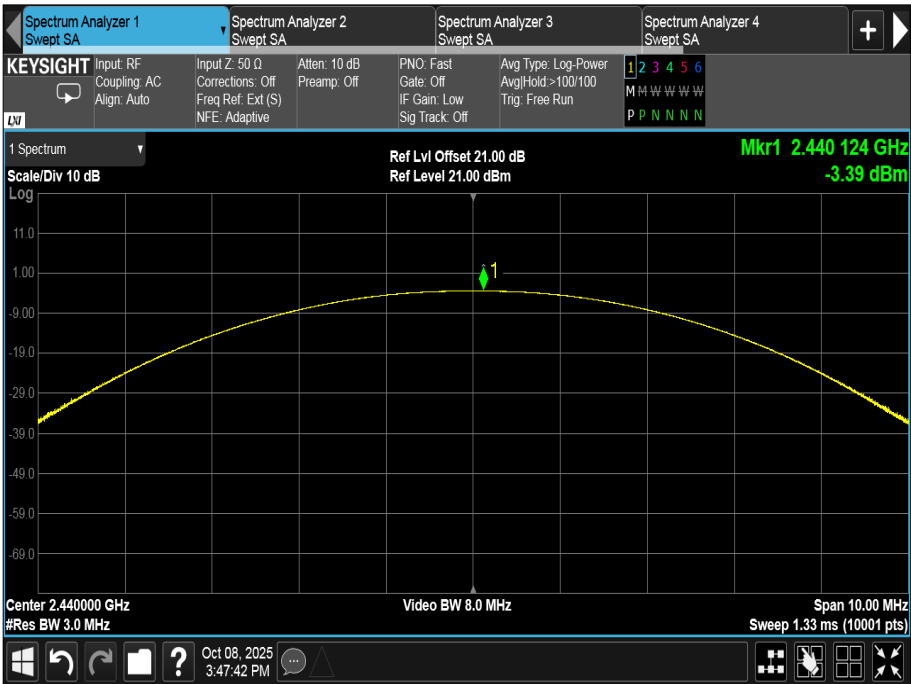


Figure 66 -- GFSK, 2440 MHz

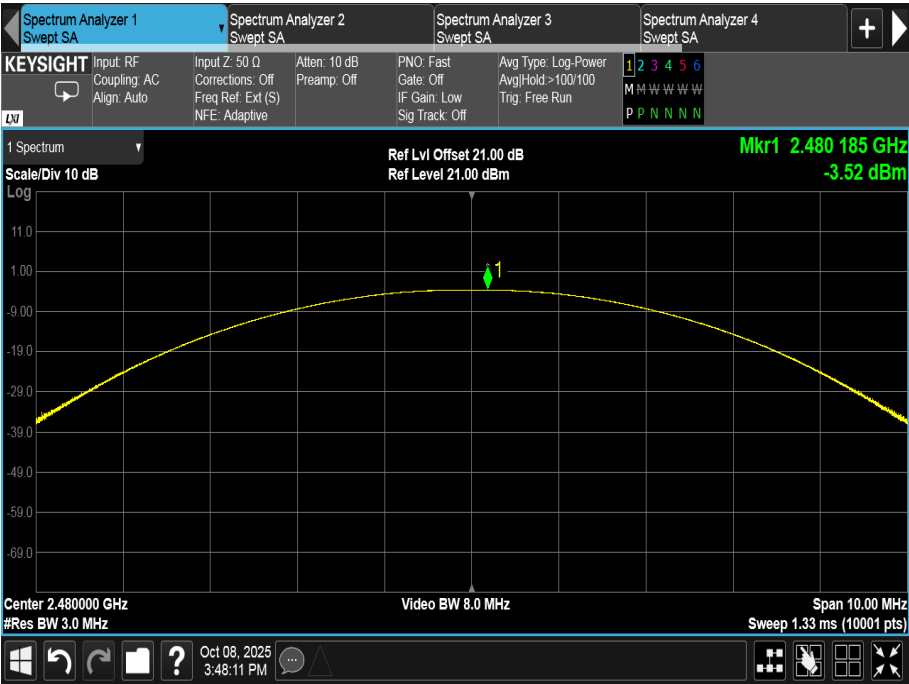


Figure 67 - GFSK, 2480 MHz

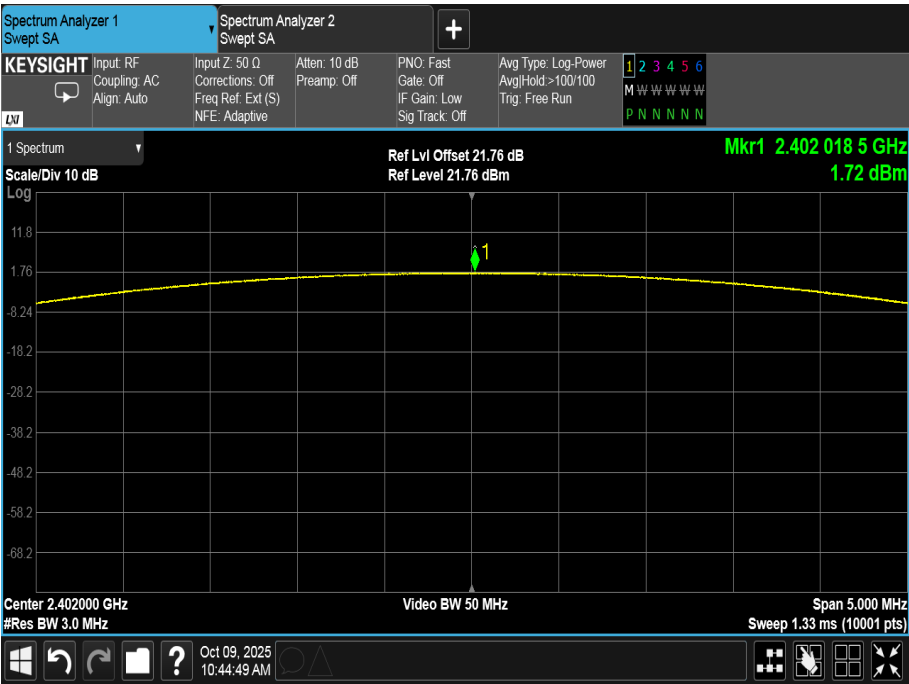


Figure 68 – $\pi/4$ DQPSK, 2402 MHz

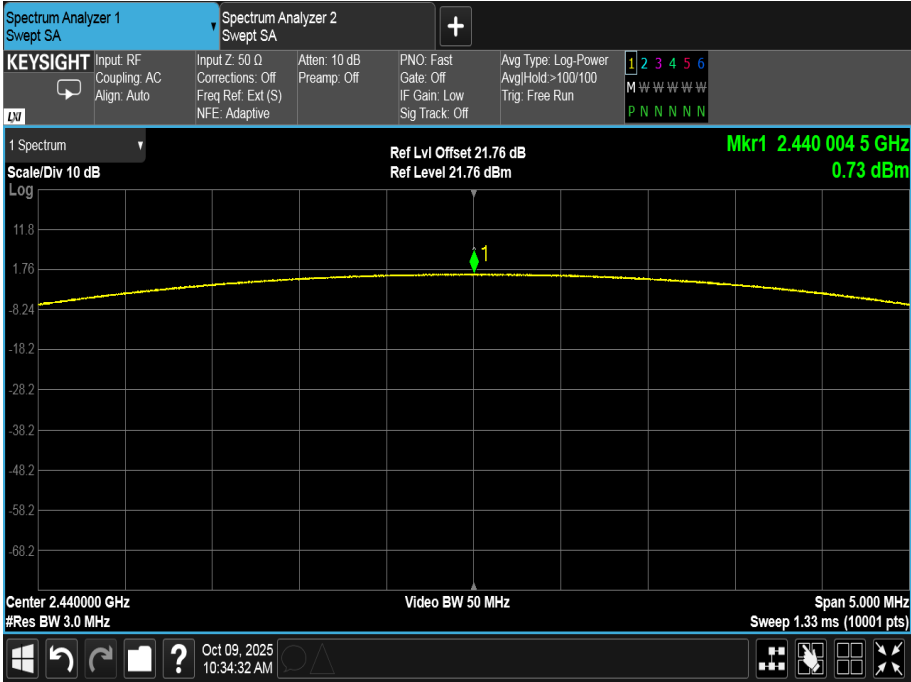


Figure 69 - $\pi/4$ DQPSK, 2440 MHz

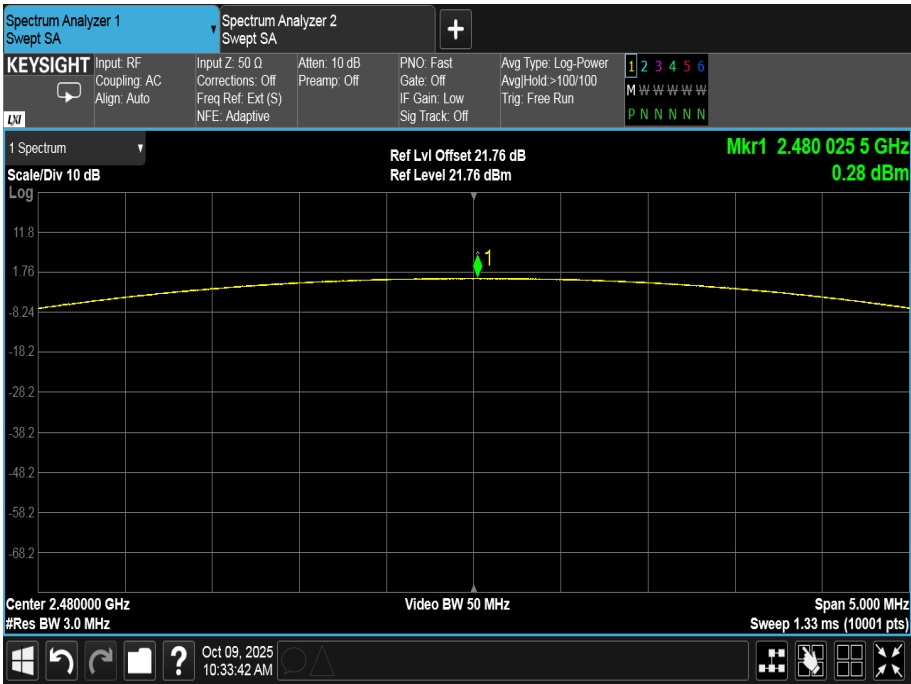


Figure 70 - $\pi/4$ DQPSK, 2480 MHz

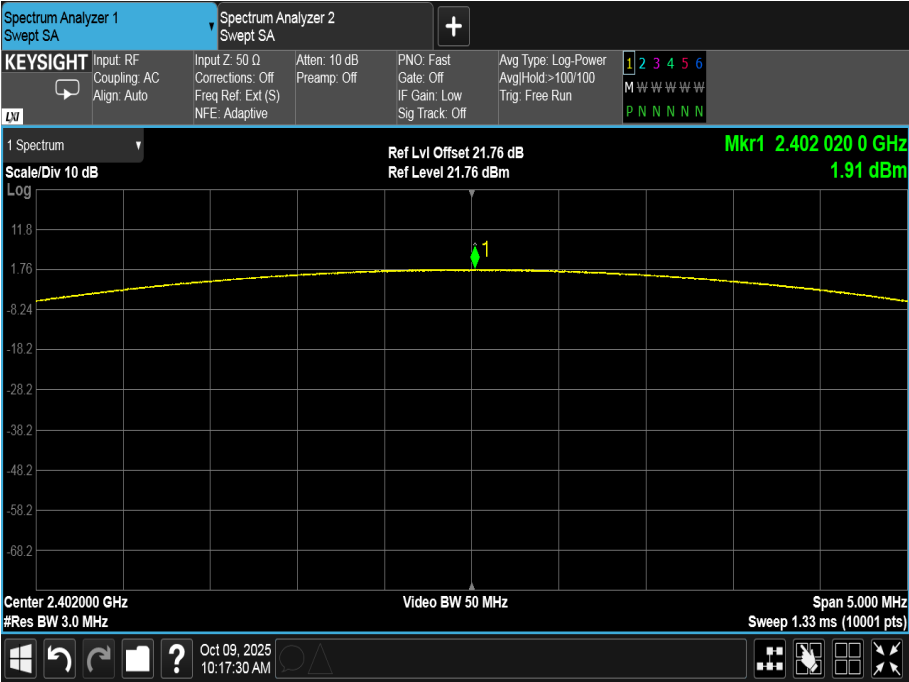


Figure 71 – 8-DPSK, 2402 MHz

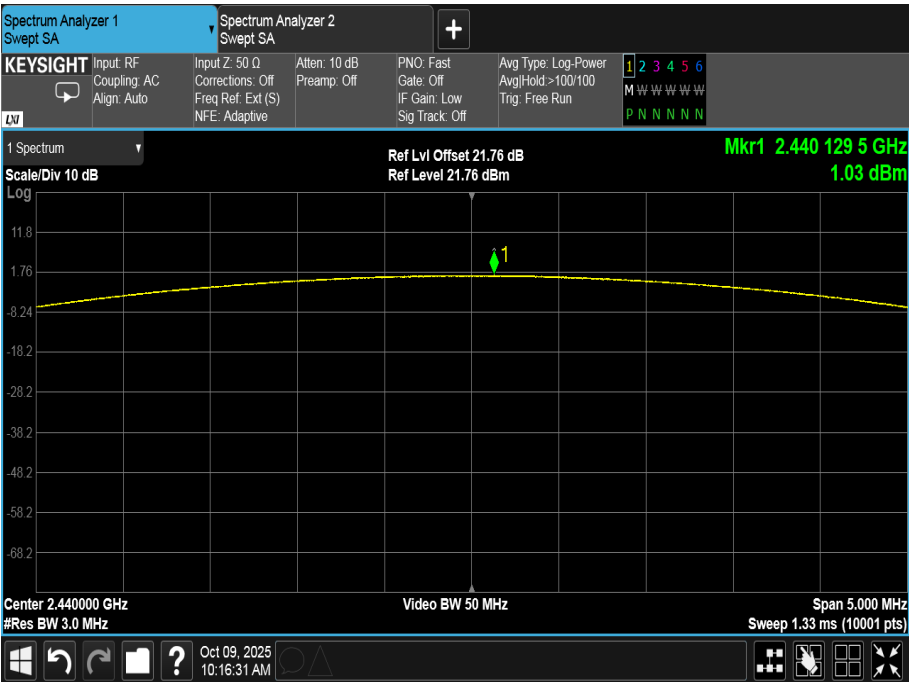


Figure 72 – 8-DPSK, 2440 MHz

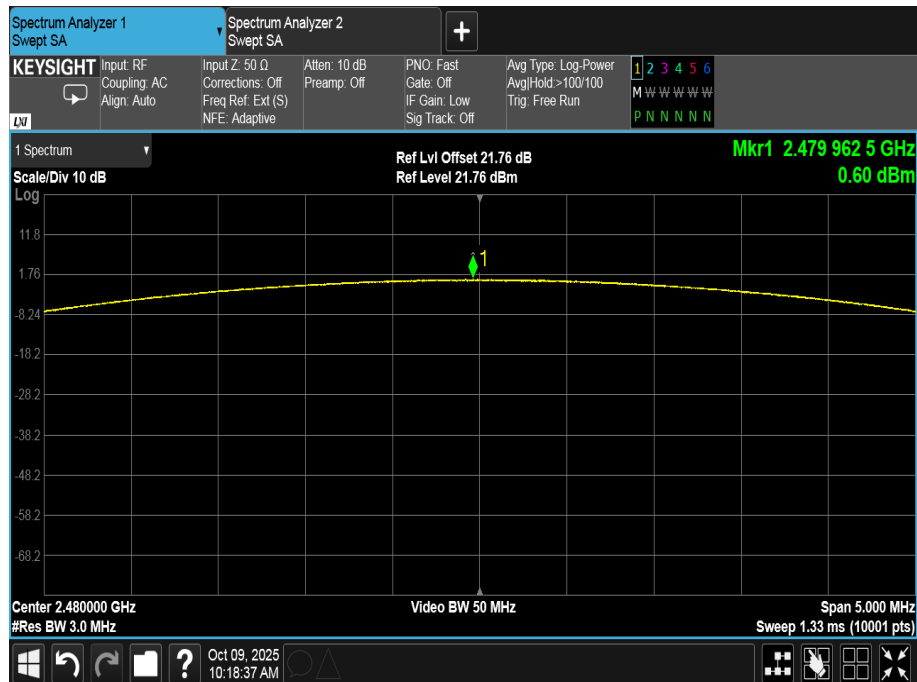


Figure 73 - - 8-DPSK, 2480 MHz

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

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

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.



2.8.7 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 Expires
Directional Coupler	Krytar	1850	58	-	TU
Hygrometer	Rotronic	I-1000	2891	12	02-Dec-2025
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	4143	12	29-Oct-2025
GPSDR Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	18-Mar-2026
Digital Multi-meter	Iso-tech	IDM93N	4435	12	06-Mar-2026
EXA Signal Analyser	Keysight Technologies	N9010B	4969	24	07-Feb-2026
Attenuator 5W 20dB DC-18GHz	Aaren	AT40A-4041-D18-20	5497	12	23-Apr-2026
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5514	12	06-Jun-2026
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	15-Apr-2026

Table 25

TU - Traceability Unscheduled

3 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Authorised Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Frequency Hopping Systems - Average Time of Occupancy	-
Frequency Hopping Systems - Channel Separation	± 13.3 kHz
Frequency Hopping Systems - Number of Hopping Channels	-
Frequency Hopping Systems - 20 dB Bandwidth	± 3.46 kHz
Spurious Radiated Emissions	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Restricted Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Maximum Conducted Output Power	± 1.38 dB

Table 26

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.