

FCC Test Report

SkyShips Automotive Ltd.
Model: G7 Infotainment Headunit
In accordance with FCC 47 CFR Part 15E
Technology (5 GHz WLAN)



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

FCC ID: 2BA3IG7A01233

COMMERCIAL-IN-CONFIDENCE

Document 75965807-06 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.

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 15E. The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Testing	Thomas Biddlecombe	20 November 2025	
Testing	Mohiuddin Mohammed	20 November 2025	

FCC Accreditation
492497/UK2010 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15E: 2024 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	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 and 0024581
Hardware Version(s)	A1
Software Version(s)	7.1
Number of Samples Tested	2
Test Specification/Issue/Date	FCC 47 CFR Part 15E: 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)	Thomas Biddlecombe and Mohiuddin Mohammed
Related Document(s)	KDB 789033 D02 v02r01 KDB 662911 D01 v02r01 ANSI C63.10 (2020)



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15E is shown below.

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: 5GHz WiFi - 2x2 MIMO - Single Antenna Type				
2.1	15.407 (a)	Maximum Conducted Output Power	Pass	
2.2	15.407 (a)	Maximum Conducted Power Spectral Density	Pass	
2.3	15.407 (a)	Emission Bandwidth	Pass	
2.4	15.407 (b)	Authorised Band Edges	Pass	
2.5	15.209 and 15.407 (b)	Spurious Radiated Emissions	Pass	
	15.203	Antenna Requirement	N/T	The EUT meets this requirement as it is only professionally installed.
2.6	15.205	Restricted Band Edges	Pass	

Table 2



1.4 Application 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 ☒
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Temperature

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

Cable Loss

Adapter Cable Loss (Conducted sample)	0.78	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:		5.1	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
Model: G7 Infotainment Headunit, Serial Number: 0024581			
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: 5GHz WiFi - 2x2 MIMO - Single Antenna Type		
Maximum Conducted Output Power	Thomas Biddlecombe	UKAS
Maximum Conducted Power Spectral Density	Thomas Biddlecombe	UKAS
Emission Bandwidth	Thomas Biddlecombe	UKAS
Authorised Band Edges	Mohiuddin Mohammed	UKAS
Spurious Radiated Emissions	Mohiuddin Mohammed	UKAS
Restricted Band Edges	Mohiuddin Mohammed	UKAS

Table 4

Office Address:

TÜV SÜD
Octagon House
Concorde Way
Fareham
Hampshire
PO15 5RL
United Kingdom



2 Test Details

2.1 Maximum Conducted Output Power

2.1.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)

2.1.2 Equipment Under Test and Modification State

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

2.1.3 Date of Test

13-October-2025

2.1.4 Test Method

This test was performed in accordance with KDB 789033 clause E.3b (gated RF average power meter).

MIMO output port summing was performed in accordance with KDB 662911 D01.

2.1.5 Environmental Conditions

Ambient Temperature	21.3 °C
Relative Humidity	46.2 %



2.1.6 Test Results

Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11a	Duty Cycle (%):	98.5
Data Rate:	6 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5180	12.16	-	-	-	12.16	24.00	-11.84
5200	12.18	-	-	-	12.18	24.00	-11.82
5240	12.55	-	-	-	12.55	24.00	-11.45

Table 5 - FCC Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11a	Duty Cycle (%):	98.4
Data Rate:	6 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5745	17.46	-	-	-	17.46	30.00	-12.54
5785	17.59	-	-	-	17.59	30.00	-12.41
5825	16.95	-	-	-	16.95	30.00	-13.05

Table 6 - Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	94.2
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5180	11.83	-	-	-	11.83	24.00	-12.17
5200	12.18	-	-	-	12.18	24.00	-11.82
5240	12.16	-	-	-	12.16	24.00	-11.84

Table 7 - FCC Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	92.1
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5745	18.43	-	-	-	18.43	30.00	-11.57
5785	17.89	-	-	-	17.89	30.00	-12.11
5825	17.32	-	-	-	17.32	30.00	-12.68

Table 8 - Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	91.0
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5190	11.28	-	-	-	11.28	24.00	-12.72
5230	11.83	-	-	-	11.83	24.00	-12.17

Table 9 - FCC Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	87.2
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5755	17.98	-	-	-	17.98	30.00	-12.02
5795	17.49	-	-	-	17.49	30.00	-12.51

Table 10 - Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	97.4
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5210	8.78	-	-	-	8.78	24.00	-15.22

Table 11 - FCC Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	95.7
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5775	14.41	-	-	-	14.41	30.00	-15.59

Table 12 - Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	92.0
Modulation Coding Scheme:	MCS8	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5745	17.76	15.70	-	-	19.86	30.00	-10.14
5785	17.27	15.53	-	-	19.49	30.00	-10.51
5825	16.54	13.91	-	-	18.43	30.00	-11.57

Table 13 - Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	94.0
Modulation Coding Scheme:	MCS8	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5180	10.80	11.09	-	-	13.95	24.00	-10.05
5200	10.99	11.15	-	-	14.08	24.00	-9.92
5240	11.34	11.17	-	-	14.27	24.00	-9.73

Table 14 - FCC Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	91.0
Modulation Coding Scheme:	MCS8	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5190	8.29	8.25	-	-	11.28	24.00	-12.72
5230	8.68	8.05	-	-	11.38	24.00	-12.62

Table 15 - FCC Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	87.1
Modulation Coding Scheme:	MCS8	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5755	17.32	15.47	-	-	19.51	30.00	-10.49
5795	16.81	15.08	-	-	19.04	30.00	-10.96

Table 16 - Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	94.6
Modulation Coding Scheme:	MCS0x2	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5210	8.71	8.35	-	-	11.55	24.00	-12.45

Table 17 - FCC Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	92.9
Modulation Coding Scheme:	MCS0x2	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5775	12.20	10.78	-	-	14.56	30.00	-15.44

Table 18 - Maximum Conducted (average) Output Power Results



FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e., no antenna gain limit)

Table 19 - Maximum Conducted Output Power Limit

2.1.7 Test Location and Test Equipment Used

This test was carried out in EMC Laboratory 2.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
HygroPalm	Rotronic	HP21	5358	12	13-Nov-2025
USB Power Sensor	Boonton	RTP5008	5833	12	29-Aug-2026
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6350	12	02-Sep-2026
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6638	12	29-Aug-2026



2.2 Maximum Conducted Power Spectral Density

2.2.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)

2.2.2 Equipment Under Test and Modification State

S/N: 0024581 - Modification State 0

2.2.3 Date of Test

13-October-2025

2.2.4 Test Method

The test was performed in accordance with KDB 789033, clause F.

Where the EUT duty cycle was < 98 % and repeatable within 2 %, the spectrum analyser was set to trace (power) averaging and a duty cycle correction was added as calculated in the result tables below (Method SA-2). Where the duty cycle was = 98 % the spectrum analyser was set to trace (power) averaging and no duty cycle correction made (Method SA-1). In all other cases the spectrum analyzer trace was set to max hold (Method SA-3).

MIMO output port summing was performed in accordance with KDB 662911 D01:

2.2.5 Environmental Conditions

Ambient Temperature	21.3 °C
Relative Humidity	46.2 %



2.2.6 Test Results

Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11a	Duty Cycle (%):	98.5
Data Rate:	6 Mbps	DCCF (dB):	0.07
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	PSD (dBm / MHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5180	2.59	-	-	-	2.59	11.00	-8.41
5200	2.47	-	-	-	2.47	11.00	-8.53
5240	2.73	-	-	-	2.73	11.00	-8.27

Table 19 - FCC Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	94.2
Modulation Coding Scheme:	MCS0	DCCF (dB):	0.26
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	PSD (dBm / MHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5180	0.83	-	-	-	0.83	11.00	-10.17
5200	1.02	-	-	-	1.02	11.00	-9.98
5240	1.33	-	-	-	1.33	11.00	-9.67

Table 20 - FCC Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	91.0
Modulation Coding Scheme:	MCS0	DCCF (dB):	0.41
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	PSD (dBm / MHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5190	-2.49	-	-	-	-2.49	11.00	-13.49
5230	-2.64	-	-	-	-2.64	11.00	-13.64

Table 21 - FCC Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	97.4
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	0.12
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	PSD (dBm / MHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5210	-7.02	-	-	-	-7.02	11.00	-18.02

Table 22 - FCC Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11a	Duty Cycle (%):	98.4
Data Rate:	6 Mbps	DCCF (dB):	0.07
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	PSD (dBm / 500 kHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5745	4.47	-	-	-	4.47	30.00	-25.53
5785	4.96	-	-	-	4.96	30.00	-25.04
5825	4.24	-	-	-	4.24	30.00	-25.76

Table 23 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	92.1
Modulation Coding Scheme:	MCS0	DCCF (dB):	0.36
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	PSD (dBm / 500 kHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5745	4.42	-	-	-	4.42	30.00	-25.58
5785	3.89	-	-	-	3.89	30.00	-26.11
5825	3.44	-	-	-	3.44	30.00	-26.56

Table 24 - Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	87.2
Modulation Coding Scheme:	MCS0	DCCF (dB):	0.59
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	PSD (dBm / 500 kHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5755	1.59	-	-	-	1.59	30.00	-28.41
5795	1.18	-	-	-	1.18	30.00	-28.82

Table 25 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	95.7
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	0.19
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	PSD (dBm / 500 kHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5775	-4.50	-	-	-	-4.50	30.00	-34.50

Table 26 - Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 (ii), 662911 D01 v02r01		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	94.0
Modulation Coding Scheme:	MCS8	DCCF (dB):	0.27
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	PSD (dBm / MHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5180	-0.55	-0.48	-	-	2.50	11.00	-8.50
5200	-0.17	-0.11	-	-	2.87	11.00	-8.13
5240	0.15	-0.08	-	-	3.05	11.00	-7.95

Table 27 - FCC Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 (ii), 662911 D01 v02r01		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	91.0
Modulation Coding Scheme:	MCS8	DCCF (dB):	0.41
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	PSD (dBm / MHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5190	-5.72	-6.40	-	-	-3.04	11.00	-14.04
5230	-5.60	-6.32	-	-	-2.94	11.00	-13.94

Table 28 - FCC Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	15.407 (a)(1)(iv)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 , 662911 D01 v02r01		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	94.6
Modulation Coding Scheme:	MCS0x2	DCCF (dB):	0.24
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	PSD (dBm / MHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5210	-7.00	-7.77	-	-	-4.36	11.00	-15.36

Table 29 - FCC Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 (ii), 662911 D01 v02r01		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	92.0
Modulation Coding Scheme:	MCS8	DCCF (dB):	0.36
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	PSD (dBm / 500 kHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5745	3.54	1.59	-	-	5.68	30.00	-24.32
5785	3.16	0.90	-	-	5.19	30.00	-24.81
5825	2.36	-0.18	-	-	4.28	30.00	-25.72

Table 30 - Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 F)2)d)(ii), 662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	87.1
Modulation Coding Scheme:	MCS8	DCCF (dB):	0.60
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	PSD (dBm / 500 kHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5755	0.49	-1.54	-	-	2.60	30.00	-27.40
5795	0.46	-1.97	-	-	2.42	30.00	-27.58

Table 31 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407 (a)(3)	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 (ii), 662911 D01 v02r01		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	92.9
Modulation Coding Scheme:	MCS0x2	DCCF (dB):	0.32
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	5.10
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	PSD (dBm / 500 kHz)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5775	-6.40	-8.12	-	-	-4.17	30.00	-34.17

Table 32 - Maximum Power Spectral Density Results



FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Table 33 - Maximum Conducted Power Spectral Density Limit

2.2.7 Test Location and Test Equipment Used

This test was carried out in EMC Laboratory 2.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
GPSDR Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	18-Mar-2026
HygroPalm	Rotronic	HP21	5358	12	13-Nov-2025
MXA Signal Analyser	Keysight Technologies	N9020B	5528	24	10-Aug-2027
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6350	12	02-Sep-2026
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6638	12	29-Aug-2026

Table 34



2.3 Emission Bandwidth

2.3.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)

2.3.2 Equipment Under Test and Modification State

S/N: 0024581 - Modification State 0

2.3.3 Date of Test

13-October-2025

2.3.4 Test Method

The test was performed in accordance with KDB 789033, clause C.1 for 26 dB bandwidth and clause D for 99% occupied bandwidth.

2.3.5 Environmental Conditions

Ambient Temperature 21.3 °C

Relative Humidity 46.2 %

2.3.6 Test Results

Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	-	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11a	Duty Cycle (%):	-
Data Rate:	6 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	26 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5180	21.360	-	-	-	-
5200	21.360	-	-	-	-
5240	21.240	-	-	-	-

Table 35 - 26 dB Bandwidth Results



Figure 1 - 5180 MHz (CH36) 26 dB and 99% Bandwidth



Figure 2 - 5200 MHz (CH40) 26 dB and 99% Bandwidth



Figure 3 - 5240 MHz (CH48) 26 dB and 99% Bandwidth



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	-	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	26 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5180	21.660	-	-	-	-
5200	21.660	-	-	-	-
5240	21.660	-	-	-	-

Table 36 - 26 dB Bandwidth Results



Figure 4 - 5180 MHz (CH36) 26 dB and 99% Bandwidth



Figure 5 - 5200 MHz (CH40) 26 dB and 99% Bandwidth



Figure 6 - 5240 MHz (CH48) 26 dB and 99% Bandwidth



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	-	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	26 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5190	40.100	-	-	-	-
5230	40.100	-	-	-	-

Table 37 - 26 dB Bandwidth Results



Figure 7 - 5190 MHz (CH38) 26 dB and 99% Bandwidth



Figure 8 - 5230 MHz (CH46) 26 dB and 99% Bandwidth

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	26 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5210	81.840	-	-	-	-

Spectrum Analyzer 1
Sweep SA

KEYSIGHT Input: RS
RL Clipping AC
Auto Level
Input Coupling AC
Freq Ref Ext (S)
Attenu: 10 dB
Preamp: Off
PNO: Fast
Gate: Off
PQ: Low
Sig Track: Off
Wave Type: Voltage
Amplitude: 10.00
Tig: Free Run
1 2 3 4 5 6
P N N N N N

1 Spectrum
Center/Div 10 dB
Log
F1: 5.199 GHz
F2: 5.200 GHz
F3: 5.201 GHz
Ref Lvl Offset 27.47 dB
Ref Level 27.47 dBsm
Span 220.0 MHz
#Sweep 1.00 s (1001 pts)
Center 5.2100 GHz
#Res BW 1.0 MHz
IFBW 3.0 MHz
5 Marker Tab

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	A1	f	5.171 94 GHz	-5.02 dBm			
2	N	f	75.90 MHz	0.98 dB			
3	N	f	5.169 08 GHz	-24.11 dBm			
4	A3	f	81.64 MHz	-0.16 dB			

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1:24:13 PM

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Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.1	Test Method(s):	C63.10 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11a	Duty Cycle (%):	-
Data Rate:	6 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5745	16.500	-	-	-	≥500.0
5785	16.500	-	-	-	≥500.0
5825	16.500	-	-	-	≥500.0

Table 39 - 6 dB Bandwidth Results



Figure 10 - 5745 MHz (CH149) 99% Bandwidth

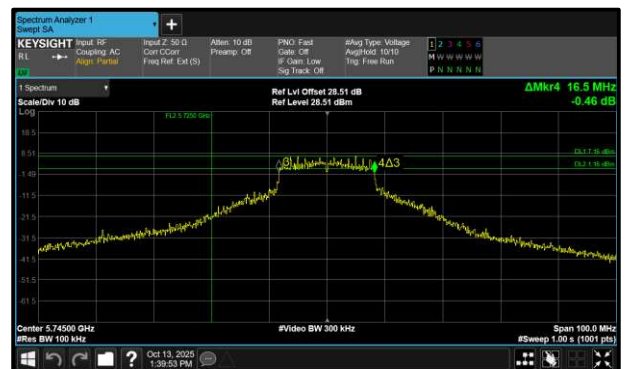


Figure 11 - 5745 MHz (CH149) 6 dB Bandwidth



Figure 12 - 5785 MHz (CH157) 99% Bandwidth

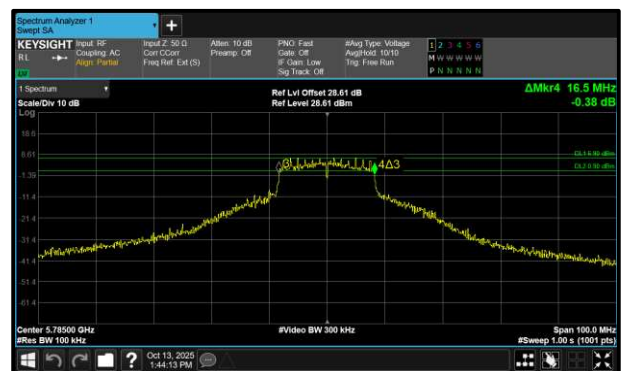


Figure 13 - 5785 MHz (CH157) 6 dB Bandwidth



Figure 14 - 5825 MHz (CH165) 99% Bandwidth

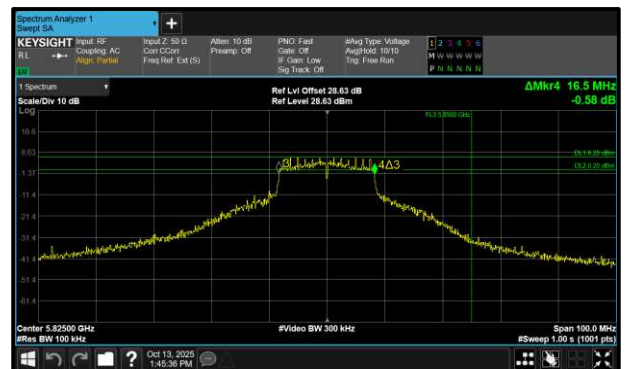


Figure 15 - 5825 MHz (CH165) 6 dB Bandwidth



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.1	Test Method(s):	C63.10 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5745	17.900	-	-	-	≥500.0
5785	17.900	-	-	-	≥500.0
5825	17.900	-	-	-	≥500.0

Table 40 - 6 dB Bandwidth Results



Figure 16 - 5745 MHz (CH149) 99% Bandwidth



Figure 17 - 5745 MHz (CH149) 6 dB Bandwidth



Figure 18 - 5785 MHz (CH157) 99% Bandwidth



Figure 19 - 5785 MHz (CH157) 6 dB Bandwidth



Figure 20 - 5825 MHz (CH165) 99% Bandwidth

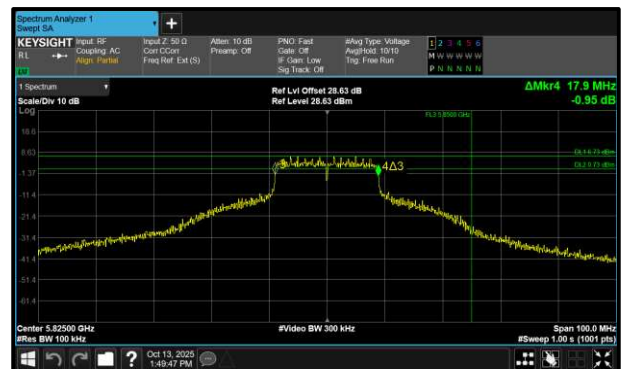


Figure 21 - 5825 MHz (CH165) 6 dB Bandwidth



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.1	Test Method(s):	C63.10 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5755	36.800	-	-	-	≥500.0
5795	36.800	-	-	-	≥500.0

Table 41 - 6 dB Bandwidth Results



Figure 22 - 5755 MHz (CH151) 99% Bandwidth



Figure 23 - 5755 MHz (CH151) 6 dB Bandwidth



Figure 24 - 5795 MHz (CH159) 99% Bandwidth

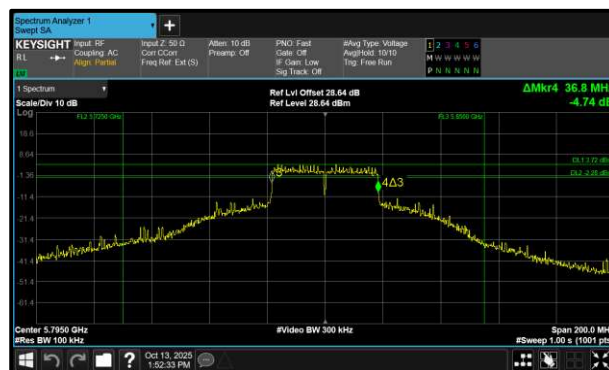


Figure 25 - 5795 MHz (CH159) 6 dB Bandwidth



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.1	Test Method(s):	C63.10 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A	Active Chain(s):	0

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5775	75.900	-	-	-	≥500.0

Table 42 - 6 dB Bandwidth Results



Figure 26 - 5775 MHz (CH155) 99% Bandwidth



Figure 27 - 5775 MHz (CH155) 6 dB Bandwidth



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	-	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS8	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5180	21.660	21.780	-	-	-
5200	21.600	21.900	-	-	-
5240	21.540	23.460	-	-	-

Table 43 - 26 dB Bandwidth Results





Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	-	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS8	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5190	40.100	40.100	-	-	-
5230	40.100	40.100	-	-	-

Table 44 - 26 dB Bandwidth Results



Figure 34 - A 5190 MHz (CH38) 26 dB and 99% Bandwidth



Figure 35 - B 5190 MHz (CH38) 26 dB and 99% Bandwidth



Figure 36 - A 5230 MHz (CH46) 26 dB and 99% Bandwidth



Figure 37 - B 5230 MHz (CH46) 26 dB and 99% Bandwidth



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	-	Test Method(s):	C63.10 6.9.3 C63.10 6.9.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0x2	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	26 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5210	81.400	82.060	-	-	-

Table 45 - 26 dB Bandwidth Results



Figure 38 - A 5210 MHz (CH42) 26 dB and 99% Bandwidth



Figure 39 - B 5210 MHz (CH42) 26 dB and 99% Bandwidth



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.1	Test Method(s):	C63.10 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS8	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5745	17.900	17.900	-	-	≥500.0
5785	17.900	17.900	-	-	≥500.0
5825	17.900	17.900	-	-	≥500.0

Table 46 - 6 dB Bandwidth Results



Figure 40 - A 5745 MHz (CH149) 99% Bandwidth



Figure 41 - A 5745 MHz (CH149) 6 dB Bandwidth



Figure 42 - B 5745 MHz (CH149) 99% Bandwidth



Figure 43 - B 5745 MHz (CH149) 6 dB Bandwidth



Figure 44 - A 5785 MHz (CH157) 99% Bandwidth



Figure 45 - A 5785 MHz (CH157) 6 dB Bandwidth



Figure 46 - B 5785 MHz (CH157) 99% Bandwidth

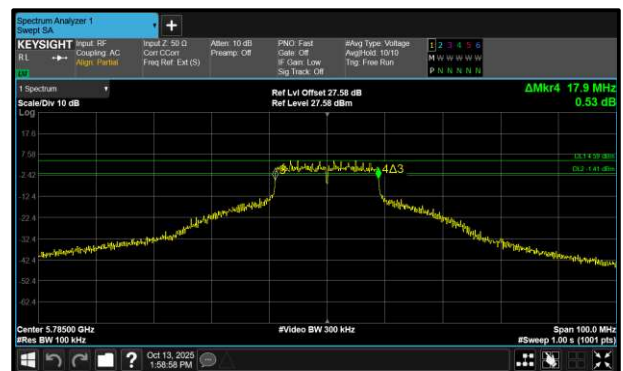


Figure 47 - B 5785 MHz (CH157) 6 dB Bandwidth



Figure 48 - A 5825 MHz (CH165) 99% Bandwidth

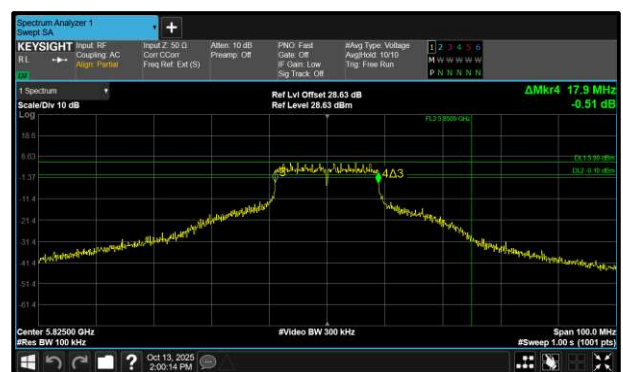


Figure 49 - A 5825 MHz (CH165) 6 dB Bandwidth



Figure 50 - B 5825 MHz (CH165) 99% Bandwidth



Figure 51 - B 5825 MHz (CH165) 6 dB Bandwidth



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.1	Test Method(s):	C63.10 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT40	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS8	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5755	36.800	36.800	-	-	≥500.0
5795	36.800	36.800	-	-	≥500.0

Table 47 - 6 dB Bandwidth Results



Figure 52 - A 5755 MHz (CH151) 99% Bandwidth



Figure 53 - A 5755 MHz (CH151) 6 dB Bandwidth



Figure 54 - B 5755 MHz (CH151) 99% Bandwidth



Figure 55 - B 5755 MHz (CH151) 6 dB Bandwidth



Figure 56 - A 5795 MHz (CH159) 99% Bandwidth



Figure 57 - A 5795 MHz (CH159) 6 dB Bandwidth



Figure 58 - B 5795 MHz (CH159) 99% Bandwidth



Figure 59 - B 5795 MHz (CH159) 6 dB Bandwidth



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.1	Test Method(s):	C63.10 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ac VHT80	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0x2	DCCF (dB):	-
Antenna Configuration:	MIMO SDM	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B	Active Chain(s):	0+1

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5775	76.340	75.680	-	-	≥500.0

Table 48 - 6 dB Bandwidth Results



Figure 60 - A 5775 MHz (CH155) 99% Bandwidth



Figure 61 - A 5775 MHz (CH155) 6 dB Bandwidth



Figure 62 - B 5775 MHz (CH155) 99% Bandwidth



Figure 63 - B 5775 MHz (CH155) 6 dB Bandwidth



FCC Part 15E, Limit Clause 15.407

5150 MHz to 5250 MHz: None specified.
5250 MHz to 5350 MHz: None specified.
5470 MHz to 5725 MHz: None specified.
5725 MHz to 5850 MHz: > 500 kHz.

2.3.7 Test Location and Test Equipment Used

This test was carried out in EMC Laboratory 2.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
GPSDR Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	18-Mar-2026
HygroPalm	Rotronic	HP21	5358	12	13-Nov-2025
MXA Signal Analyser	Keysight Technologies	N9020B	5528	24	10-Aug-2027
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6350	12	02-Sep-2026
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6638	12	29-Aug-2026

Table 49



2.4 Authorised Band Edges

2.4.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (b)

2.4.2 Equipment Under Test and Modification State

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

2.4.3 Date of Test

03-October-2025 to 24-October-2025

2.4.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.6.

For U-NII-3 channels, the limit line on the following plots equated to -27 dBm/MHz. EIRP and was converted to field strength at 3 m using the following formula:

Field Strength (dBμV/m at 3 m) = EIRP (dBm) + 95.2 dB

Authorised band edge measurements were performed, with the device operating in SISO and MIMO configurations, across the various modes supported by the device.

2.4.5 Environmental Conditions

Ambient Temperature 23.5 °C

Relative Humidity 49.5 %

2.4.6 Test Results

5GHz WiFi - 2x2 MIMO - Single Antenna Type

Mode	Antenna Port	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11a - 6 Mbps	SISO	5745	5725	49.28	N/A
802.11a - 6 Mbps	SISO	5825	5825	46.28	N/A

Table 50 - 802.11a - 6 Mbps, Authorised Band Edge Results

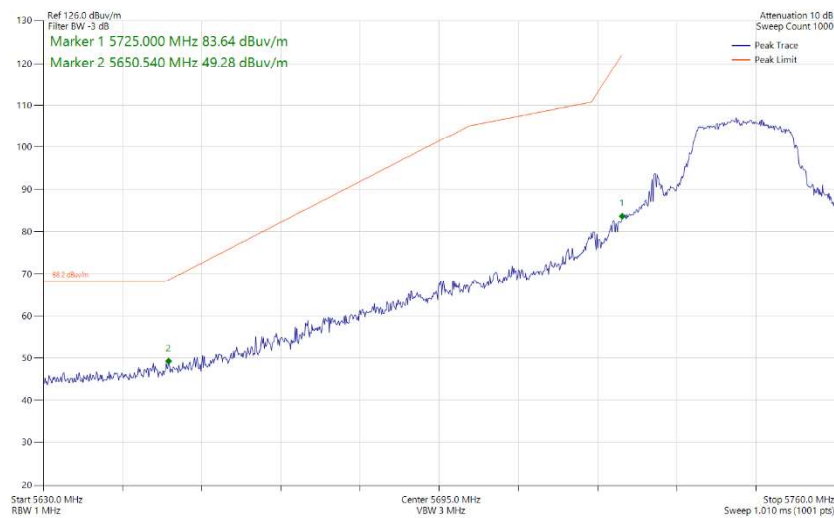


Figure 64 - 802.11a, 5745 MHz (CH149), Band Edge Frequency 5725 MHz

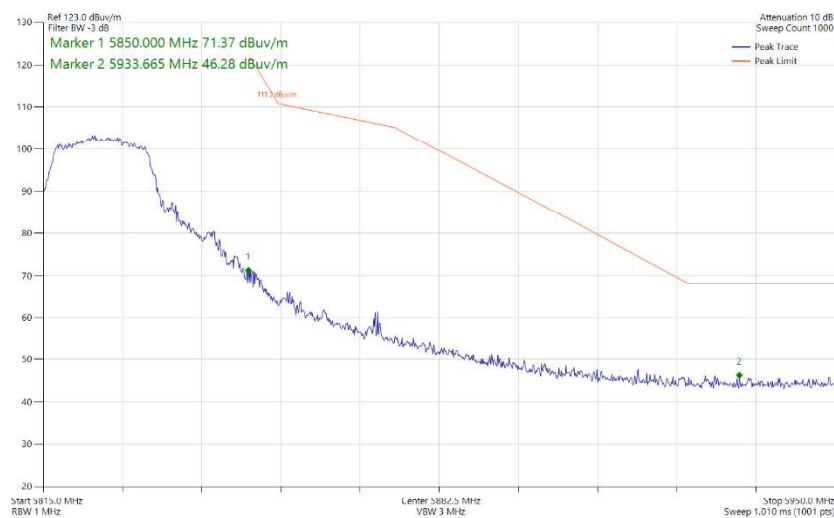


Figure 65 - 802.11a, 5825 MHz (CH165), Band Edge Frequency 5850 MHz

Mode	Antenna Port	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)	Average Level (dB μ V/m)
HT20 - MCS0	SISO	5745	5725	56.30	N/A
HT20 - MCS0	MIMO	5745	5725	56.13	N/A
HT20 - MCS0	SISO	5825	5850	46.18	N/A
HT20 - MCS0	MIMO	5825	5850	47.15	N/A

Table 51 - HT20 - MCS0, Authorised Band Edge Results

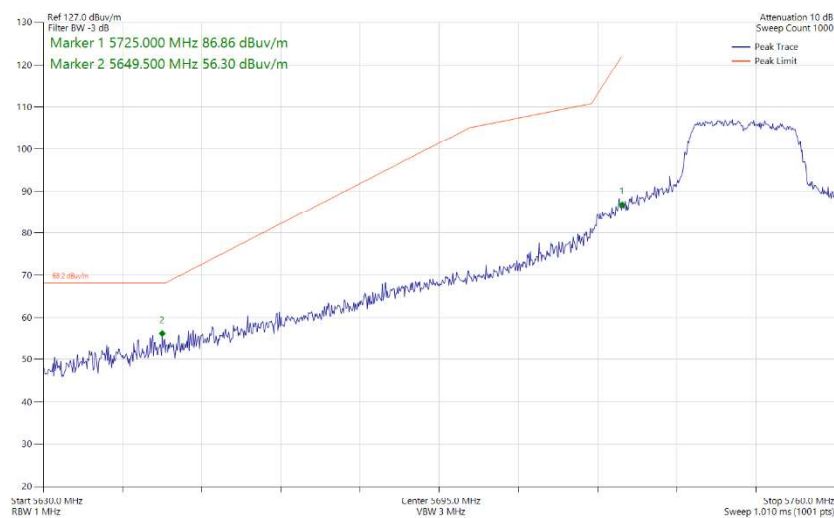


Figure 66 - HT20, 5745 MHz (CH149), SISO, Band Edge Frequency 5725 MHz

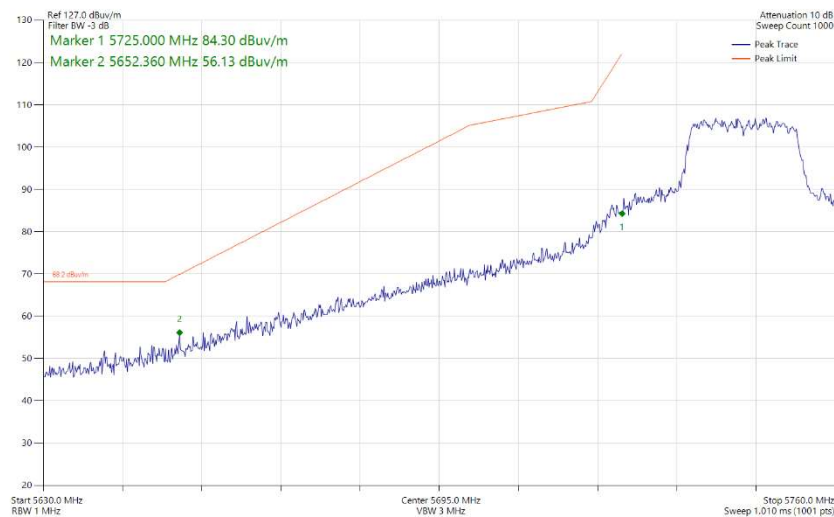


Figure 67 - HT20, 5745 MHz (CH149), MIMO, Band Edge Frequency 5725 MHz

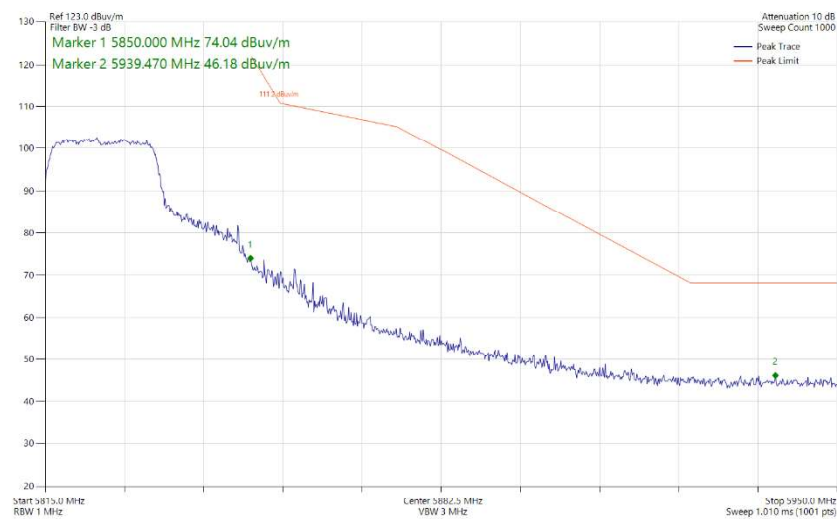


Figure 68 - HT20, 5825 MHz (CH165), SISO, Band Edge Frequency 5850 MHz

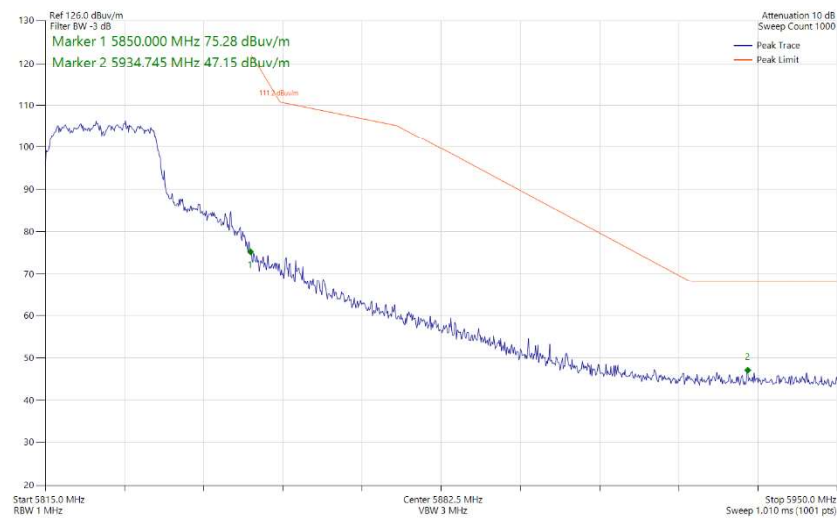


Figure 69 - HT20, 5825 MHz (CH165), MIMO, Band Edge Frequency 5850 MHz

Mode	Antenna Port	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
HT40- MCS0	SISO	5755	5725	63.50	N/A
HT40- MCS0	MIMO	5755	5725	65.70	N/A
HT40- MCS0	SISO	5795	5850	51.92	N/A
HT40- MCS0	MIMO	5795	5850	51.55	N/A

Table 52 - HT40 - MCS0, Authorised Band Edge Results

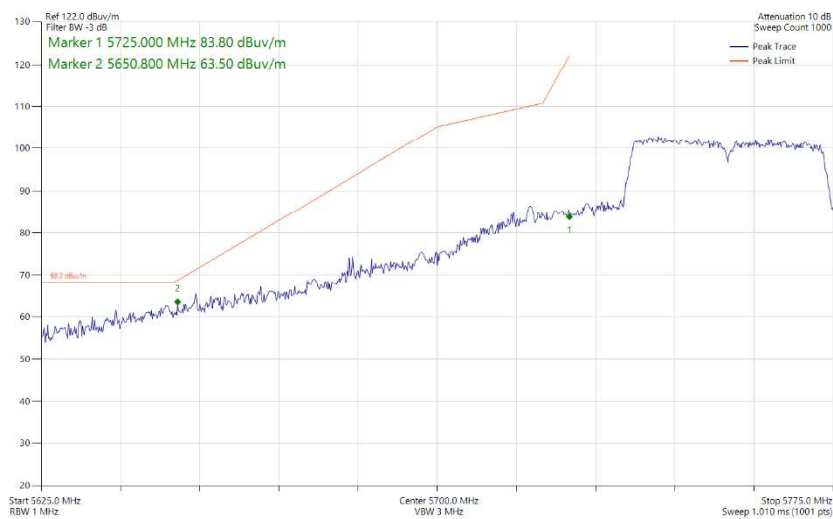


Figure 70 - HT40, 5755 MHz (CH151), SISO, Band Edge Frequency 5725 MHz

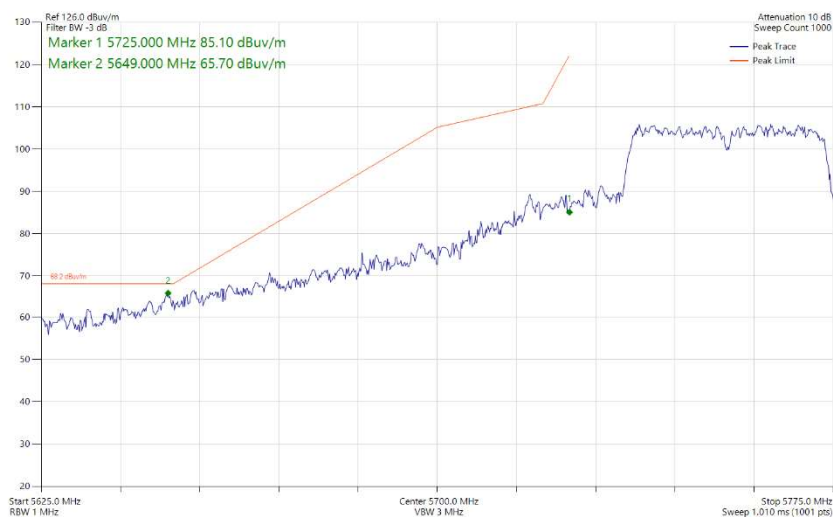


Figure 71 - HT40, 5755 MHz (CH151), MIMO, Band Edge Frequency 5725 MHz

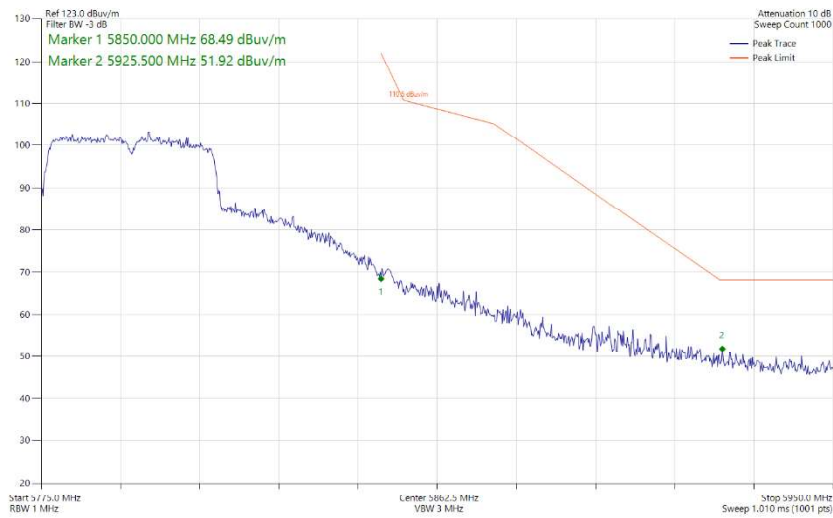


Figure 72 - HT40, 5795 MHz (CH159), SISO, Band Edge Frequency 5850 MHz

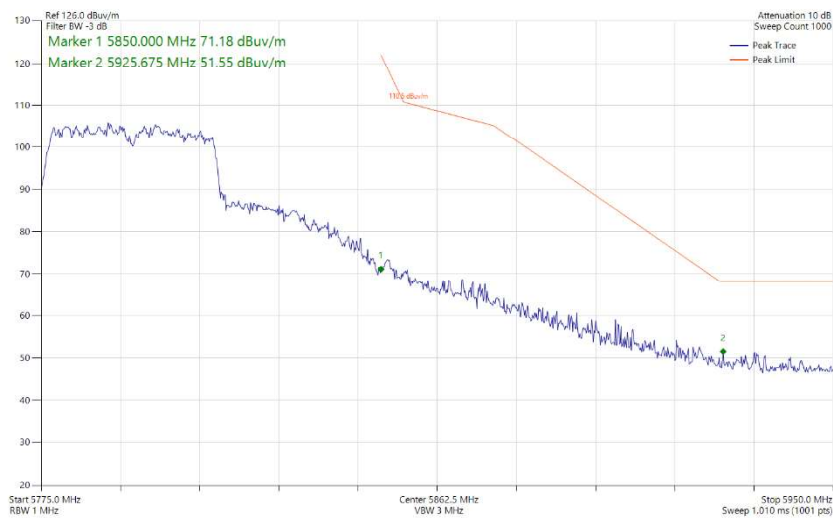


Figure 73 - HT40, 5795 MHz (CH159), MIMO, Band Edge Frequency 5850 MHz

Mode	Antenna Port	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)	Average Level (dB μ V/m)
VHT80 - MCS0	SISO	5775	5725	62.77	N/A
VHT80 - MCS0	MIMO	5775	5725	62.07	N/A
VHT80 - MCS0	SISO	5775	5850	63.19	N/A
VHT80 - MCS0	MIMO	5775	5850	65.09	N/A

Table 53 - VHT80 - MCS0 Authorised Band Edge Results

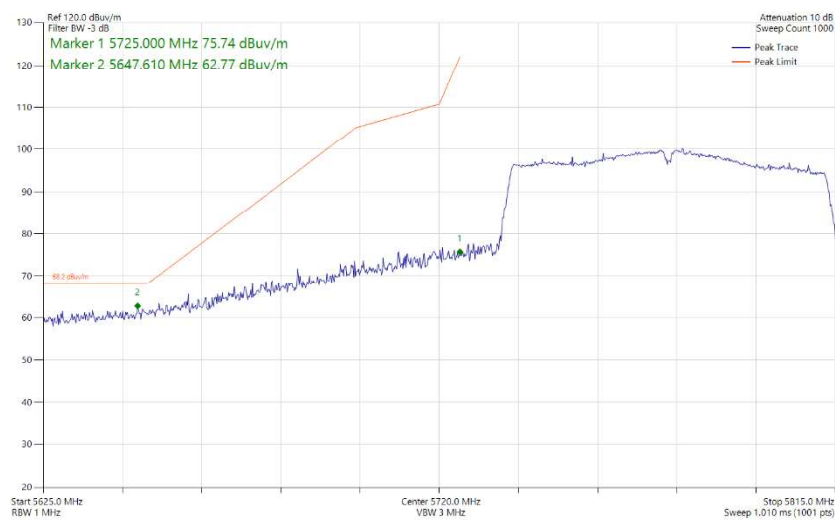


Figure 74 - VHT80, 5775 MHz (CH155), SISO, Band Edge Frequency 5725 MHz

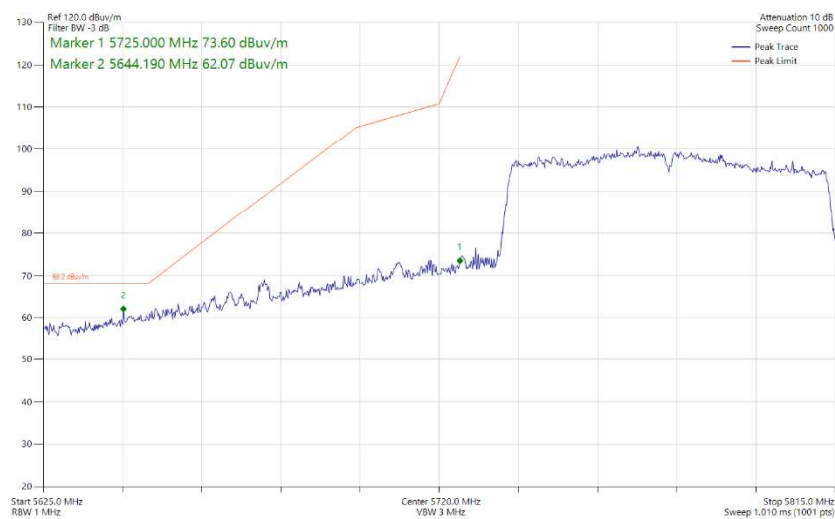


Figure 75 - VHT80, 5775 MHz (CH155), MIMO, Band Edge Frequency 5725 MHz