

Figure 159 - Core 1 (B) 5844 MHz (CH119) 6 dB Bandwidth



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.2	Test Method(s):	C63.10 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

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

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5733	1.912	1.904	-	-	≥ 500.0
5789	1.904	1.896	-	-	≥ 500.0
5844	1.912	1.896	-	-	≥ 500.0

Table 55 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5733	2.376	2.344	-	-	-
5789	2.368	2.352	-	-	-
5844	2.376	2.344	-	-	-

Table 56 - 99% Bandwidth Results

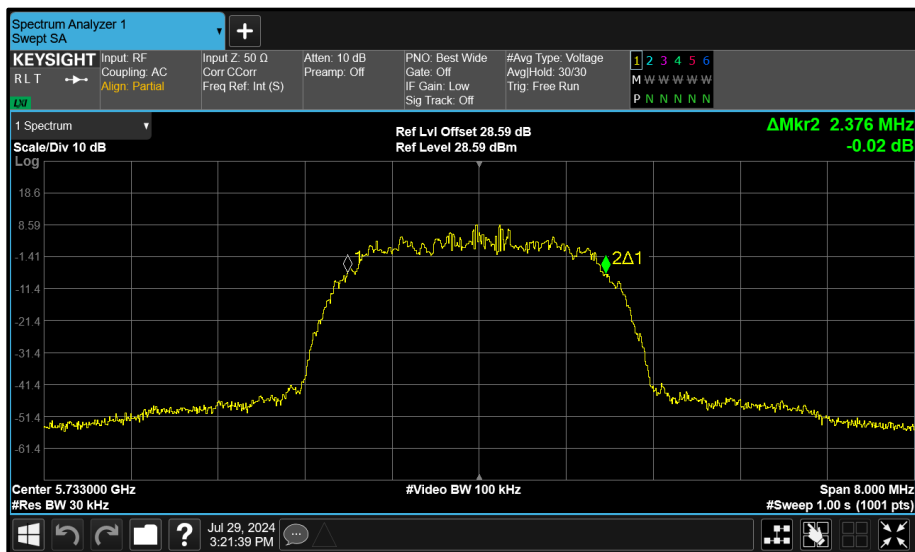


Figure 160 - Core 0 (A) 5733 MHz (CH8) 99% Bandwidth

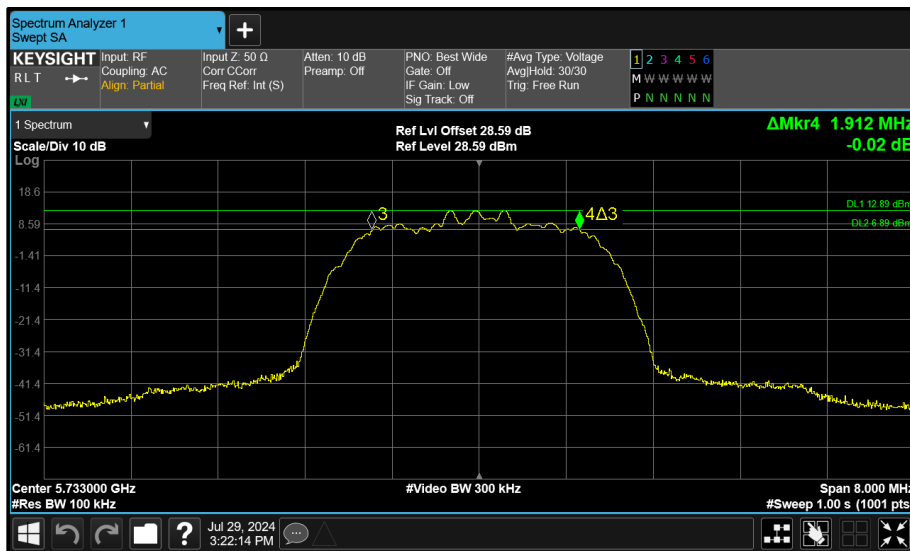


Figure 161 - Core 0 (A) 5733 MHz (CH8) 6 dB Bandwidth

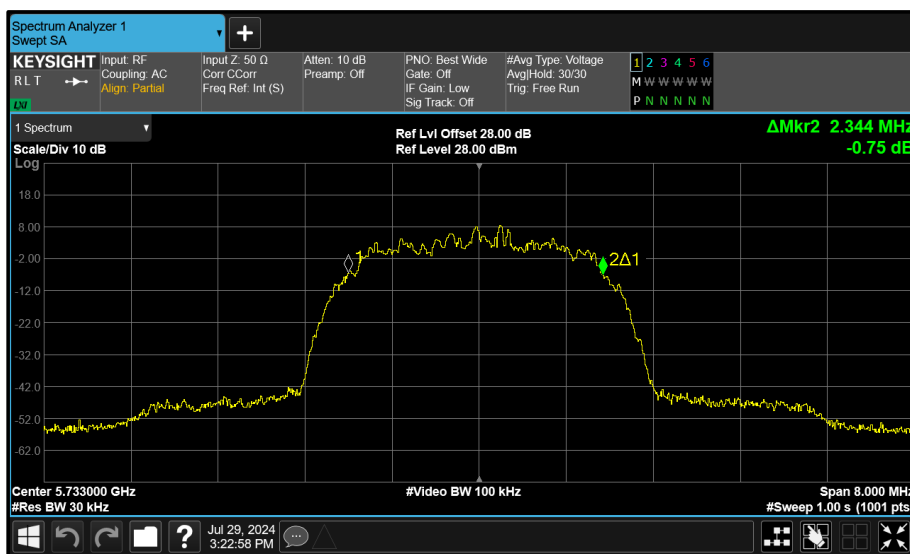


Figure 162 - Core 1 (B) 5733 MHz (CH8) 99% Bandwidth

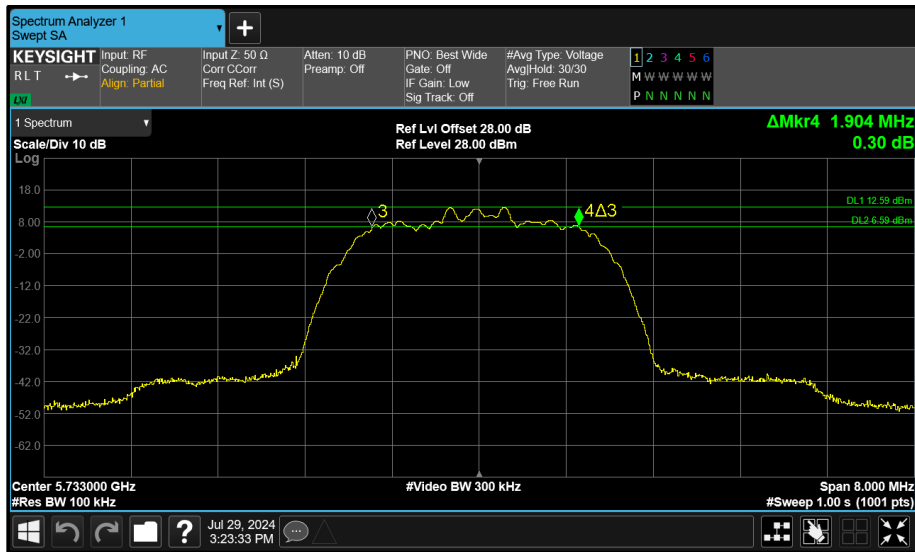


Figure 163 - Core 1 (B) 5733 MHz (CH8) 6 dB Bandwidth

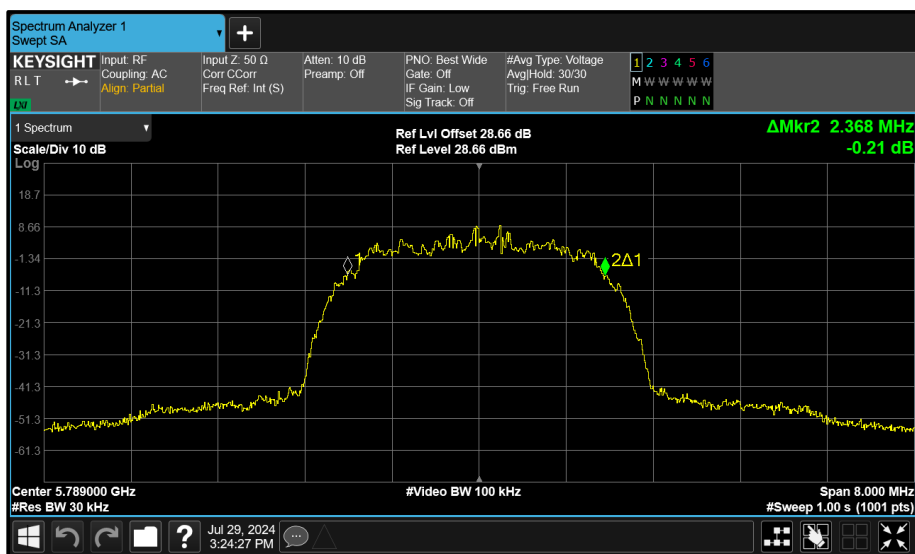


Figure 164 - Core 0 (A) 5789 MHz (CH64) 99% Bandwidth

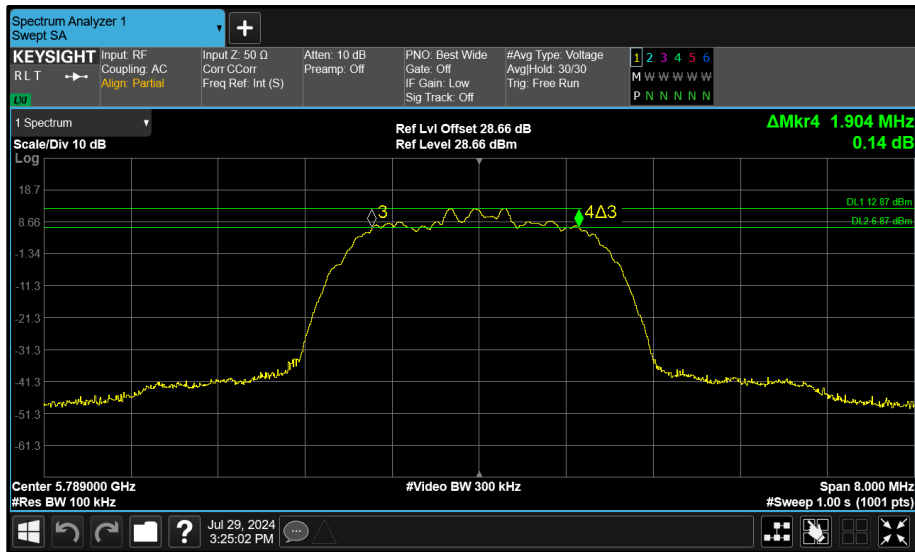


Figure 165 - Core 0 (A) 5789 MHz (CH64) 6 dB Bandwidth

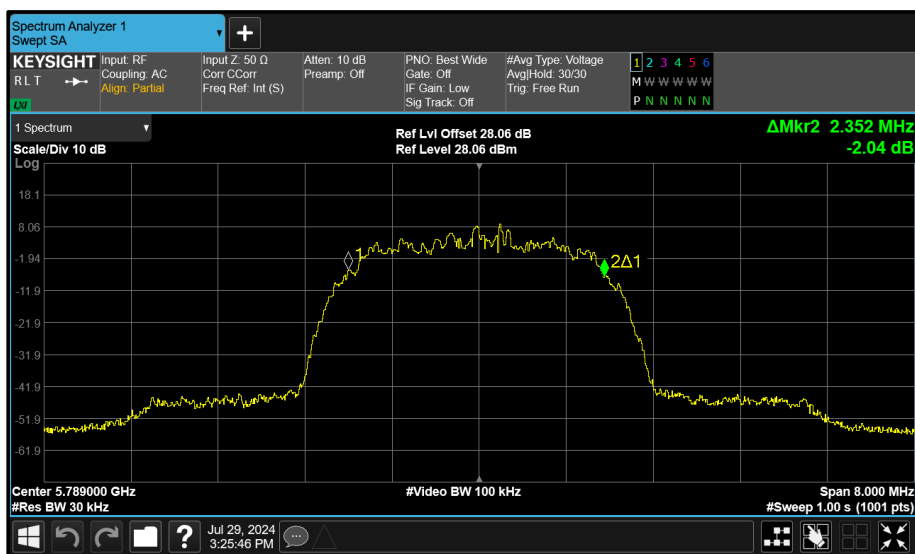


Figure 166 - Core 1 (B) 5789 MHz (CH64) 99% Bandwidth

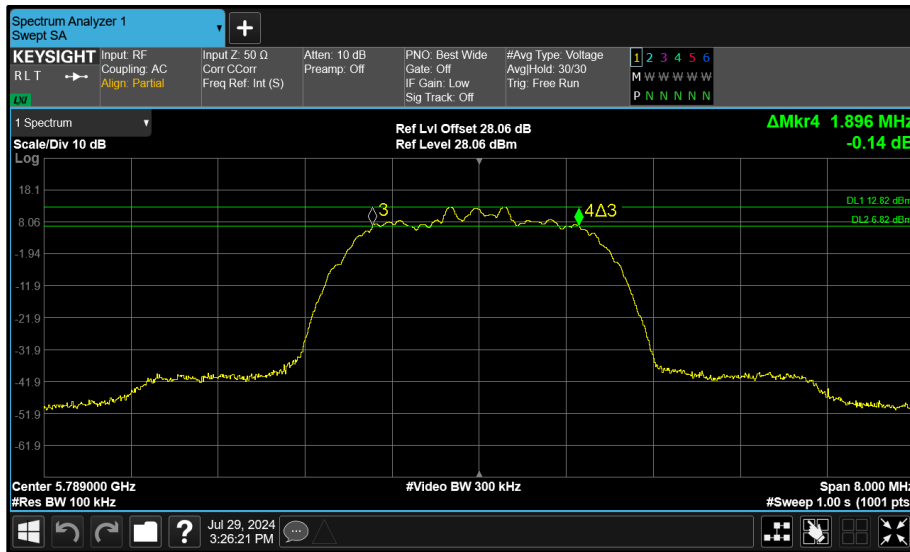


Figure 167 - Core 1 (B) 5789 MHz (CH64) 6 dB Bandwidth

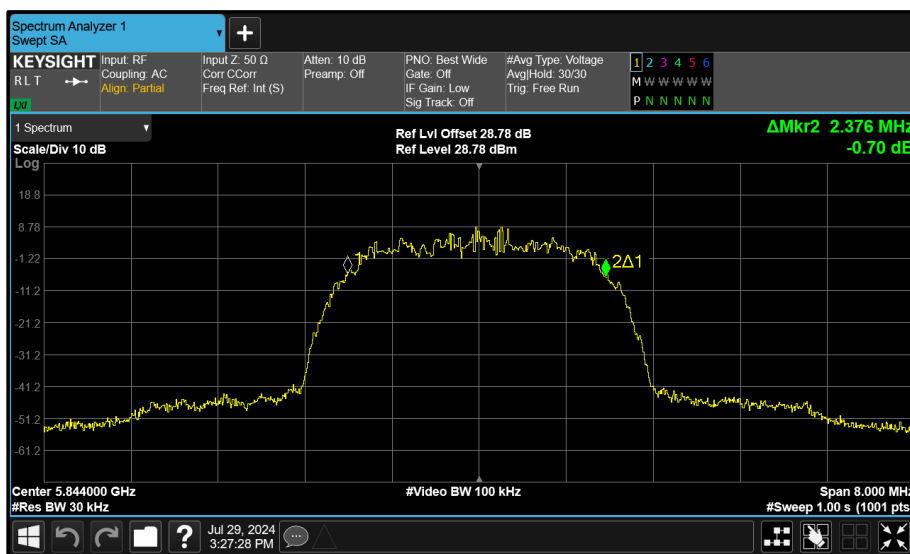


Figure 168 - Core 0 (A) 5844 MHz (CH119) 99% Bandwidth

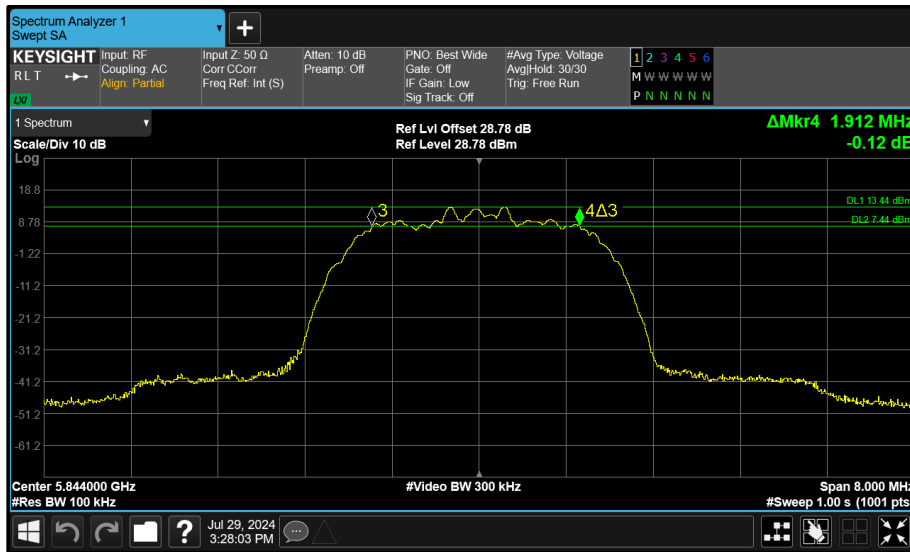


Figure 169 - Core 0 (A) 5844 MHz (CH119) 6 dB Bandwidth

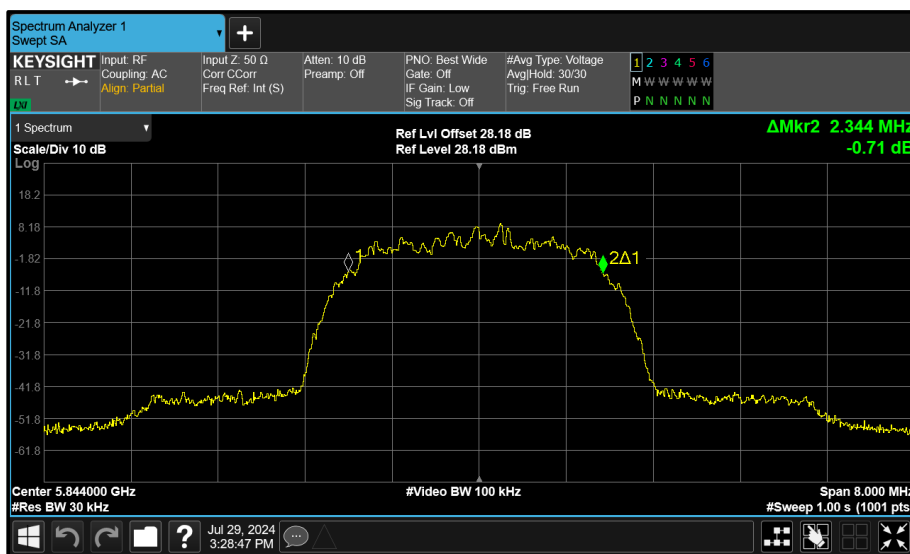


Figure 170 - Core 1 (B) 5844 MHz (CH119) 99% Bandwidth



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.2	Test Method(s):	C63.10 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	-
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5733	0.660	1.020	-	-	≥ 500.0
5789	1.005	1.020	-	-	≥ 500.0
5844	0.990	1.005	-	-	≥ 500.0

Table 57 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5733	4.680	4.635	-	-	-
5789	4.710	4.680	-	-	-
5844	4.710	4.620	-	-	-

Table 58 - 99% Bandwidth Results

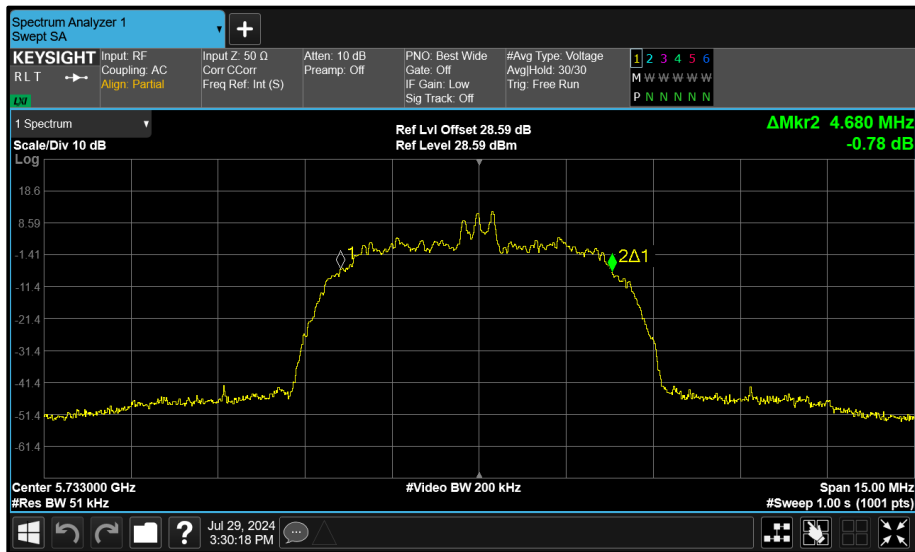


Figure 172 - Core 0 (A) 5733 MHz (CH8) 99% Bandwidth

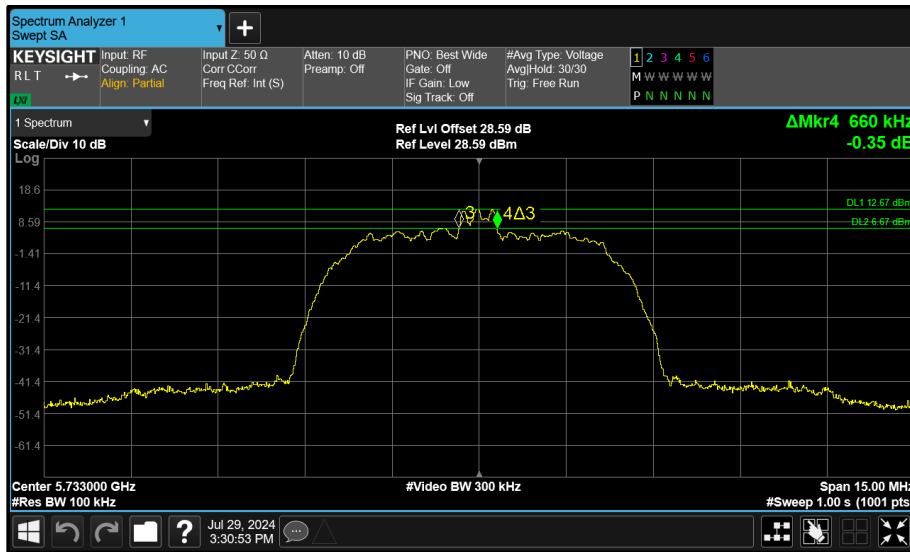


Figure 173 - Core 0 (A) 5733 MHz (CH8) 6 dB Bandwidth

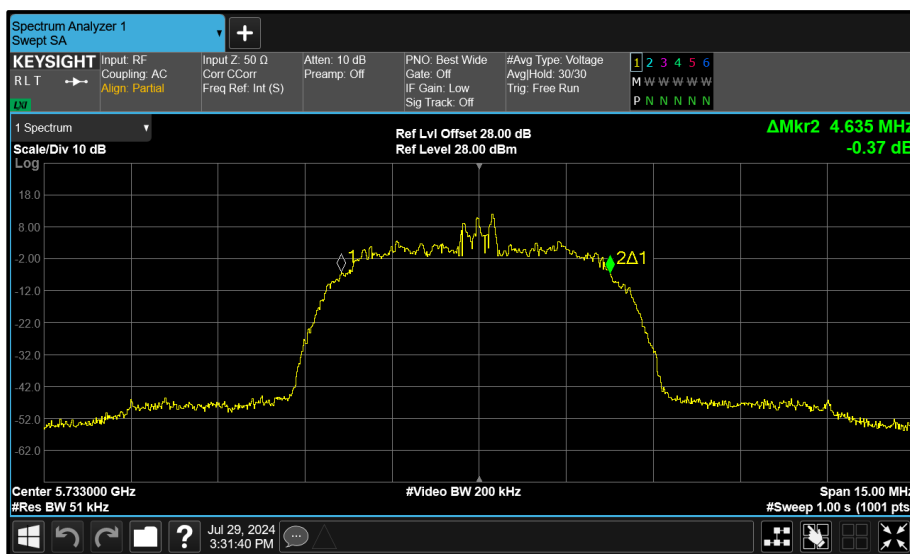


Figure 174 - Core 1 (B) 5733 MHz (CH8) 99% Bandwidth

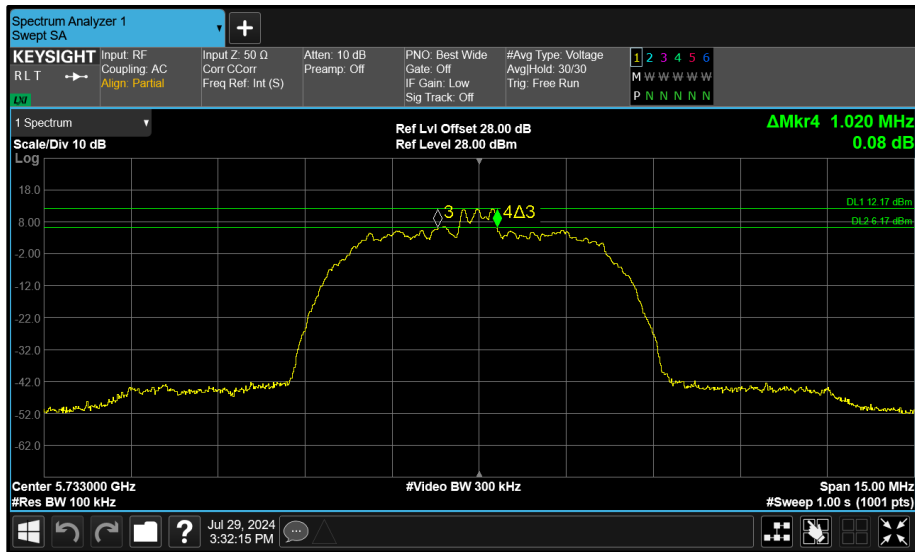


Figure 175 - Core 1 (B) 5733 MHz (CH8) 6 dB Bandwidth

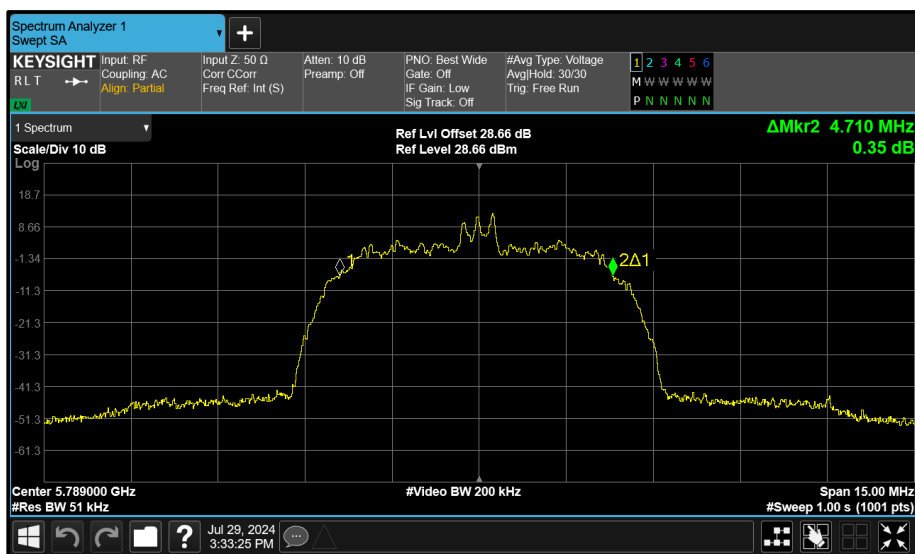


Figure 176 - Core 0 (A) 5789 MHz (CH64) 99% Bandwidth

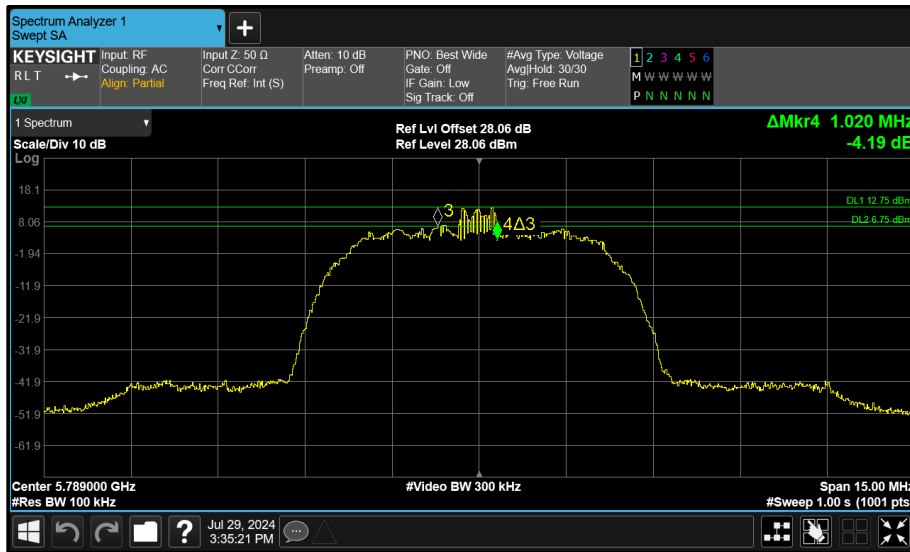


Figure 179 - Core 1 (B) 5789 MHz (CH64) 6 dB Bandwidth

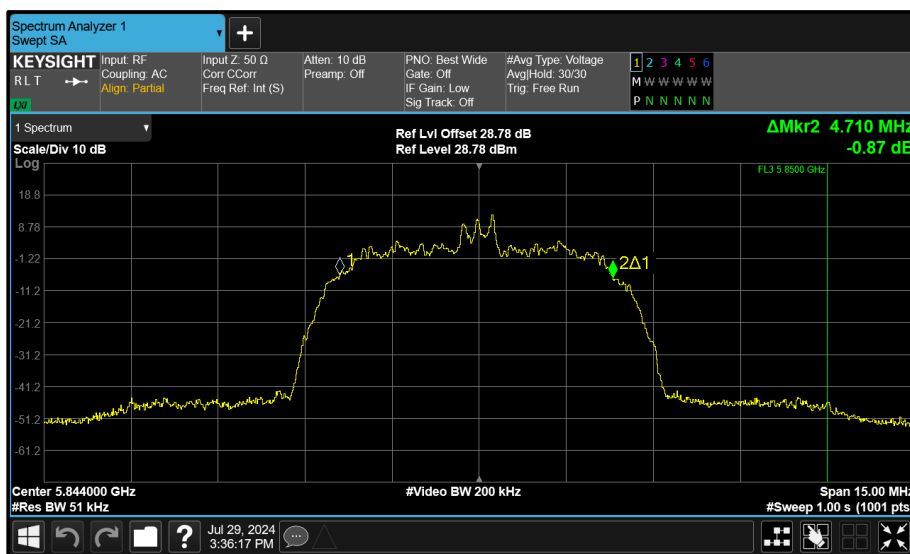


Figure 180 - Core 0 (A) 5844 MHz (CH119) 99% Bandwidth

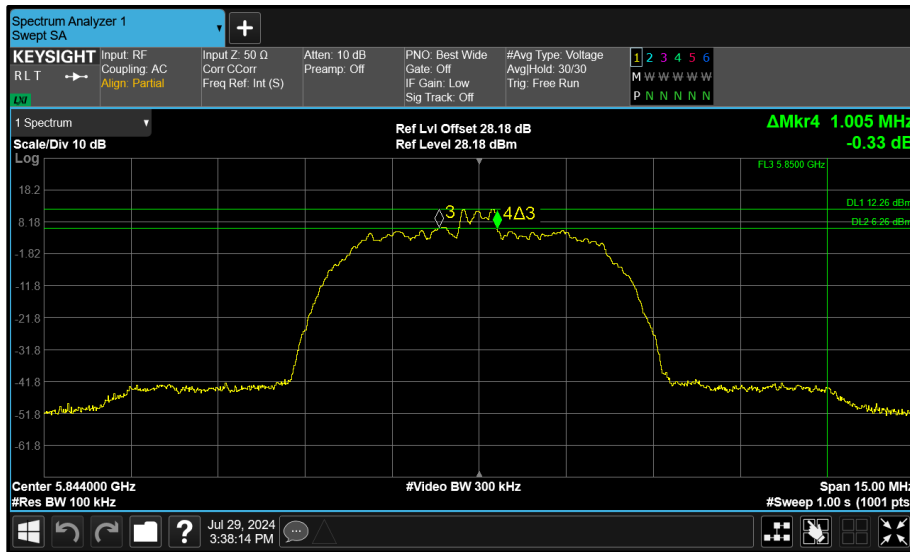


Figure 183 - Core 1 (B) 5844 MHz (CH119) 6 dB Bandwidth

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.

ISED RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.1 and 6.2.5.2

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: The minimum 6 dB bandwidth shall be at least 500 kHz.
 5850 MHz to 5895 MHz: The minimum 6 dB bandwidth shall be at least 500 kHz.

2.2.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 18.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
MXA Signal Analyser	Keysight Technologies	N9020B	5529	24	13-Dec-2024
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6752	12	06-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6753	12	06-Feb-2025

Table 59

O/P Mon - Output Monitored using calibrated equipment



2.3 Maximum Conducted Output Power

2.3.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)
ISED RSS-247, Clause 6.2

2.3.2 Equipment Under Test and Modification State

A3238, S/N: G76H79FX4L - Modification State 0

2.3.3 Date of Test

29-July-2024 to 12-August-2024

2.3.4 Test Method

The test was performed in accordance with ANSI C63.10 clause 12.4.3.1 for FCC measurements and clause 12.4.3.2 for ISED measurements (method PM-G). Since the gated power meter was used for method PM-G the EUT was measured only while transmitting and hence no duty cycle correction was necessary.

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

The EUT has equal conducted powers on all ports for each mode of operation, but unequal antenna gains. Therefore, for SISO and 2TX MIMO modes the EUT was tested on the ports with the highest antenna gain combinations which would result in the highest EIRP output power.

For transmit beamforming (TxBF) mode directional gain was calculated in accordance with clause F)2)d)(i).

2.3.5 Environmental Conditions

Ambient Temperature	20.6 - 21.6 °C
Relative Humidity	21.6 - 58.2 %



2.3.6 Test Results

Narrowband

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:	iPA GFSK (DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	9.50	-	-	-	24.00	-14.50
5204	-	10.00	-	-	-	24.00	-14.00
5245	-	9.83	-	-	-	24.00	-14.17

Table 60 - 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):	-		

DUT Configuration			
Mode:	iPA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	3.25	-	-	-	24.00	-20.75
5204	-	3.28	-	-	-	24.00	-20.72
5245	-	3.15	-	-	-	24.00	-20.85

Table 61 - 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):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	3.08	-	-	-	24.00	-20.92
5204	-	3.46	-	-	-	24.00	-20.54
5245	-	3.12	-	-	-	24.00	-20.88

Table 62 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	9.75	-	-	-	30.00	-20.25
5789	-	9.87	-	-	-	30.00	-20.13
5844	-	9.55	-	-	-	30.00	-20.45

Table 63 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	3.06	-	-	-	30.00	-26.94
5789	-	3.17	-	-	-	30.00	-26.83
5844	-	3.35	-	-	-	30.00	-26.65

Table 64 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	3.49	-	-	-	30.00	-26.51
5789	-	3.49	-	-	-	30.00	-26.51
5844	-	3.28	-	-	-	30.00	-26.72

Table 65 - 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:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	11.80	-	-	-	24.00	-12.20
5204	-	11.71	-	-	-	24.00	-12.29
5245	-	11.86	-	-	-	24.00	-12.14

Table 66 - 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):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.4
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	13.17	-	-	-	24.00	-10.83
5204	-	13.45	-	-	-	24.00	-10.55
5245	-	13.34	-	-	-	24.00	-10.66

Table 67 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	14.17	-	-	-	30.00	-15.83
5789	-	14.27	-	-	-	30.00	-15.73
5844	-	14.26	-	-	-	30.00	-15.74

Table 68 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	13.99	-	-	-	30.00	-16.01
5789	-	13.78	-	-	-	30.00	-16.22
5844	-	13.79	-	-	-	30.00	-16.21

Table 69 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	13.33	-	-	-	30.00	-16.67
5789	-	13.47	-	-	-	30.00	-16.53
5844	-	13.41	-	-	-	30.00	-16.59

Table 70 - 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)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	5.62	5.23	-	-	8.44	22.99	-14.55
5204	5.75	5.73	-	-	8.75	22.99	-14.24
5245	5.42	5.67	-	-	8.56	22.99	-14.43

Table 71 - 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)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	3.23	2.77	-	-	6.02	22.99	-16.97
5204	3.22	2.83	-	-	6.04	22.99	-16.95
5245	3.30	3.26	-	-	6.29	22.99	-16.70

Table 72 - 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)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	3.25	3.17	-	-	6.22	22.99	-16.76
5204	3.30	2.89	-	-	6.11	22.99	-16.88
5245	3.50	3.17	-	-	6.35	22.99	-16.64

Table 73 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	9.94	9.28	-	-	12.63	29.79	-17.16
5789	9.71	9.03	-	-	12.39	29.79	-17.39
5844	9.91	9.44	-	-	12.69	29.79	-17.10

Table 74 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	3.21	3.14	-	-	6.18	29.79	-23.61
5789	3.33	3.36	-	-	6.36	29.79	-23.43
5844	3.48	3.49	-	-	6.50	29.79	-23.29

Table 75 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	3.22	2.81	-	-	6.03	29.79	-23.76
5789	3.25	3.21	-	-	6.24	29.79	-23.55
5844	3.05	2.85	-	-	5.96	29.79	-23.83

Table 76 - 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)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	7.85	7.89	-	-	10.88	22.99	-12.11
5204	7.72	7.37	-	-	10.56	22.99	-12.43
5245	7.94	7.74	-	-	10.85	22.99	-12.14

Table 77 - 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)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.3
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	9.76	9.84	-	-	12.81	22.99	-10.18
5204	9.66	9.44	-	-	12.56	22.99	-10.43
5245	9.92	9.43	-	-	12.69	22.99	-10.29

Table 78 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	14.18	13.71	-	-	16.96	29.79	-12.83
5789	14.15	13.84	-	-	17.01	29.79	-12.78
5844	14.15	14.12	-	-	17.14	29.79	-12.64

Table 79 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	13.92	13.53	-	-	16.74	29.79	-13.05
5789	13.88	13.68	-	-	16.79	29.79	-13.00
5844	13.97	13.91	-	-	16.95	29.79	-12.84

Table 80 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	13.15	12.70	-	-	15.94	29.79	-13.85
5789	13.49	13.48	-	-	16.49	29.79	-13.29
5844	13.33	12.68	-	-	16.03	29.79	-13.76

Table 81 - 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 82

ISED RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.1 and 6.2.5.2

Device	Frequency Range (MHz)				
	5150-5250	5250-5350	5470-5725	5725-5850	5850-5895
OEM installed in vehicles	30 mW or 1.76 + 10 log ₁₀ B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 log ₁₀ B, dBm (EIRP); whichever is less	-	-	-
Other	200 mW or 10 + 10log ₁₀ B dBm (EIRP); whichever is less	250 mW or 11 + 10 log ₁₀ B); whichever is less 1.0 W or 17 + 10log ₁₀ B dBm EIRP; whichever is less	250 mW or 11 + 10 log ₁₀ B); whichever is less 1.0 W or 17 + 10log ₁₀ B dBm EIRP; whichever is less	1W 4W EIRP	Fixed Outdoor Access Point: 4 W EIRP Fixed Outdoor Client: 1 W EIRP Indoor Access Point: 4 W EIRP Indoor subordinate: 4 W EIRP Indoor Client: 1 W EIRP

Table 83



2.3.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 18 and RF Laboratory 14.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
USB Power Sensor	Boonton	RTP5008	5820	12	07-Feb-2025
USB Power Sensor	Boonton	RTP5008	5821	12	07-Feb-2025
1500VA AC Power Supply	iTech	IT7324	5907	-	O/P Mon
USB Power Sensors, 50MHz to 8GHz	Boonton	RTP5008	5921	12	05-Feb-2025
USB Power Sensors, 50MHz to 8GHz	Boonton	RTP5008	5922	12	05-Feb-2025
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6519	12	08-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6520	12	09-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6521	12	09-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6752	12	06-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6753	12	06-Feb-2025

Table 84

O/P Mon - Output Monitored using calibrated equipment



2.4 Maximum Conducted Power Spectral Density

2.4.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)
ISED RSS-247, Clause 6.2

2.4.2 Equipment Under Test and Modification State

A3238, S/N: G76H79FX4L - Modification State 0

2.4.3 Date of Test

29-July-2024 to 12-August-2024

2.4.4 Test Method

The test was performed in accordance with ANSI C63.10 clause 12.6 for FCC and ISED measurements.

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 analyser trace was set to max hold (Method SA-3).

Results for the U-NII-3 band were measured in a narrower bandwidth and integrated over 500 kHz using the spectrum analysers channel power integration function.

The output power was verified as being the same from each transmit core (within negligible tolerances), but the antenna gains were not identical. Therefore, the modes reported for SISO or 2TX MIMO operation are those giving the highest EIRP and/or lowest conducted limit based on the combination of antennas giving highest total directional gain.

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

For transmit beamforming (TxBF) mode directional gain was calculated in accordance with clause F)2)d)(i).

2.4.5 Environmental Conditions

Ambient Temperature	20.6 - 21.6 °C
Relative Humidity	54.2 - 58.2 %



2.4.6 Test Results

Narrowband

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):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	SISO	DCCF (dB):	1.15
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	9.06	-	-	-	11.00	-1.94
5204	-	9.09	-	-	-	11.00	-1.91
5245	-	9.75	-	-	-	11.00	-1.25

Table 85 - 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):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	0.28	-	-	-	11.00	-10.72
5204	-	0.80	-	-	-	11.00	-10.20
5245	-	-0.06	-	-	-	11.00	-11.06

Table 86 - 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):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.3
Antenna Configuration:	SISO	DCCF (dB):	1.06
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	-2.51	-	-	-	11.00	-13.51
5204	-	-1.17	-	-	-	11.00	-12.17
5245	-	-2.19	-	-	-	11.00	-13.19

Table 87 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	1.15
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	8.65	-	-	-	30.00	-21.35
5789	-	9.20	-	-	-	30.00	-20.80
5844	-	8.71	-	-	-	30.00	-21.29

Table 88 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	-2.04	-	-	-	30.00	-32.04
5789	-	-1.39	-	-	-	30.00	-31.39
5844	-	-1.80	-	-	-	30.00	-31.80

Table 89 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	-4.21	-	-	-	30.00	-34.21
5789	-	-3.15	-	-	-	30.00	-33.15
5844	-	-2.78	-	-	-	30.00	-32.78

Table 90 - 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):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	9.02	-	-	-	11.00	-1.98
5204	-	9.45	-	-	-	11.00	-1.55
5245	-	9.44	-	-	-	11.00	-1.56

Table 91 - 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):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.4
Antenna Configuration:	SISO	DCCF (dB):	1.06
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	4.00

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	8.44	-	-	-	11.00	-2.56
5204	-	8.16	-	-	-	11.00	-2.84
5245	-	8.49	-	-	-	11.00	-2.51

Table 92 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	1.15
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	13.04	-	-	-	30.00	-16.96
5789	-	13.31	-	-	-	30.00	-16.69
5844	-	13.21	-	-	-	30.00	-16.79

Table 93 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	8.42	-	-	-	30.00	-21.58
5789	-	8.99	-	-	-	30.00	-21.01
5844	-	8.32	-	-	-	30.00	-21.68

Table 94 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	-		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	5.03	-	-	-	30.00	-24.97
5789	-	5.70	-	-	-	30.00	-24.30
5844	-	5.26	-	-	-	30.00	-24.74

Table 95 - 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 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	Beamforming	DCCF (dB):	1.15
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	5.54	5.20	-	-	8.39	9.99	-1.60
5204	5.72	4.93	-	-	8.35	9.99	-1.64
5245	4.84	5.51	-	-	8.20	9.99	-1.79

Table 96 - 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 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	0.14	0.72	-	-	3.45	9.99	-6.54
5204	0.77	0.46	-	-	3.63	9.99	-6.36
5245	1.10	1.07	-	-	4.10	9.99	-5.89

Table 97 - 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 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-2.36	-1.43	-	-	1.14	9.99	-8.85
5204	-2.17	-2.09	-	-	0.88	9.99	-9.11
5245	-2.17	-1.97	-	-	0.94	9.99	-9.05

Table 98 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	1.15
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	8.56	8.08	-	-	11.34	29.79	-18.45
5789	9.02	7.41	-	-	11.30	29.79	-18.49
5844	9.52	8.93	-	-	12.24	29.79	-17.54

Table 99 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-2.09	-1.77	-	-	1.08	29.79	-28.71
5789	-2.13	-0.97	-	-	1.50	29.79	-28.29
5844	-1.19	-0.78	-	-	2.03	29.79	-27.75

Table 100 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-3.08	-5.15	-	-	-0.98	29.79	-30.77
5789	-3.57	-3.37	-	-	-0.46	29.79	-30.25
5844	-3.29	-4.45	-	-	-0.82	29.79	-30.61

Table 101 - Maximum Power Spectral Density Result



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 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	4.77	5.65	-	-	8.24	9.99	-1.75
5204	5.13	5.07	-	-	8.11	9.99	-1.88
5245	5.35	5.53	-	-	8.45	9.99	-1.54

Table 102 - 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 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.3
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.01

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	4.15	4.74	-	-	7.47	9.99	-2.52
5204	4.18	3.49	-	-	6.86	9.99	-3.13
5245	4.79	3.97	-	-	7.41	9.99	-2.58

Table 103 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	1.15
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	12.96	12.32	-	-	15.66	29.79	-14.13
5789	12.63	12.59	-	-	15.62	29.79	-14.17
5844	12.26	13.52	-	-	15.95	29.79	-13.84

Table 104 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	8.38	7.71	-	-	11.07	29.79	-18.72
5789	8.02	9.14	-	-	11.62	29.79	-18.17
5844	9.02	8.91	-	-	11.97	29.79	-17.81

Table 105 - 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)(i) RSS-247 6.2.4.2	Test Method(s):	C63.10 12.4.2.4 C63.10 12.6
Additional Reference(s):	662911 D01 v02r01 E)2)b)		
Note(s):	DCCF was added to the spectrum analyser reference level offset.		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	5.68	4.85	-	-	8.29	29.79	-21.50
5789	5.64	7.45	-	-	9.65	29.79	-20.14
5844	5.73	5.18	-	-	8.48	29.79	-21.31

Table 106 - 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 107

ISED RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1, 6.2.4.1 and 6.2.5.2

Device	Frequency Range (MHz)				
	5150-5250	5250-5350	5470-5725	5725-5850	5850-5895
OEM installed in vehicles	-	-	-	-	-
Other	≤10 dBm/MHz*	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz	Fixed Outdoor Access Point: 23 dBm/MHz* Fixed Outdoor Client: 17 dBm/MHz Indoor Access Point: 20 dBm/MHz Indoor Subordinate: 20 dBm/MHz Indoor Client: 14 dBm/MHz

Table 108

*Maximum power spectral density specified as EIRP.



2.4.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 18 and RF Laboratory 14.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
MXA Signal Analyser	Keysight Technologies	N9020B	5529	24	13-Dec-2024
1500VA AC Power Supply	iTech	IT7324	5907	-	O/P Mon
MXA Signal Analyser	Keysight Technologies	N9020B	5919	24	18-Mar-2026
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6519	12	08-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6520	12	09-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6521	12	09-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6752	12	06-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6753	12	06-Feb-2025

Table 109

O/P Mon - Output Monitored using calibrated equipment



2.5 Authorised Band Edges

2.5.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (b)
ISED RSS-247, Clause 6.2

2.5.2 Equipment Under Test and Modification State

A3238, S/N: NQMK2V7Q9C - Modification State 0
A3238, S/N: N4N7KFP797 - Modification State 0

2.5.3 Date of Test

09-June-2024 to 12-June-2024

2.5.4 Test Method

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

Field Strength (dB μ V/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.

The measurements displayed within this report, have been limited to those modes which have been shown to be worst case.

Further measurements are held on file by TÜV SÜD and are available if required.

2.5.5 Environmental Conditions

Ambient Temperature	22.8 - 23.5 °C
Relative Humidity	42.1 - 46.6 %

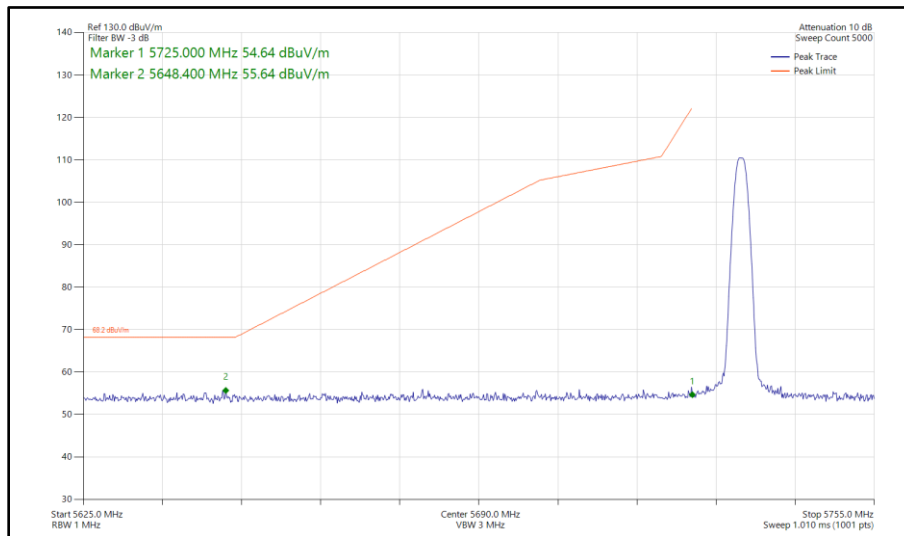


2.5.6 Test Results

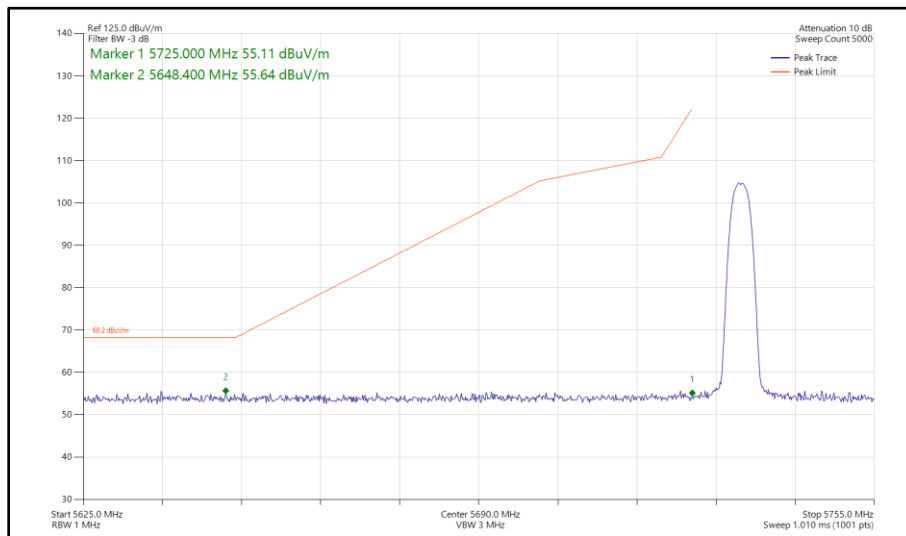
iPA - Core 0 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)
Static	DH5	5733	5725	55.64
Static	HDR4	5733	5725	55.64
Static	HDR8	5733	5725	55.46
Hopping	DH5	5733-5811	5725	55.48
Hopping	HDR4	5733-5811	5725	55.67
Hopping	HDR8	5733-5811	5725	55.90
Static	DH5	5844	5850	56.12
Static	HDR4	5844	5850	56.00
Static	HDR8	5844	5850	55.67
Hopping	DH5	5766-5844	5850	55.73
Hopping	HDR4	5766-5844	5850	56.49
Hopping	HDR8	5766-5844	5850	56.41

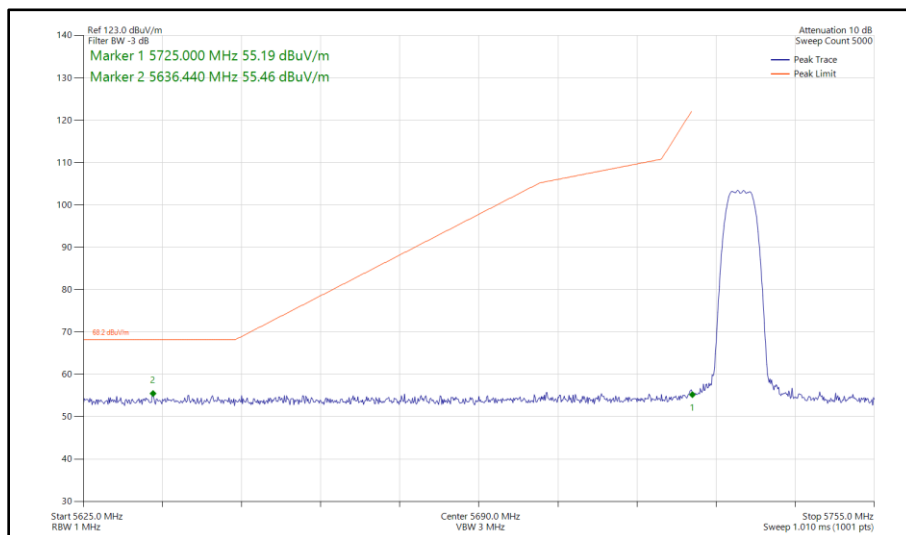
Table 110 - SISO Authorised Band Edge Results



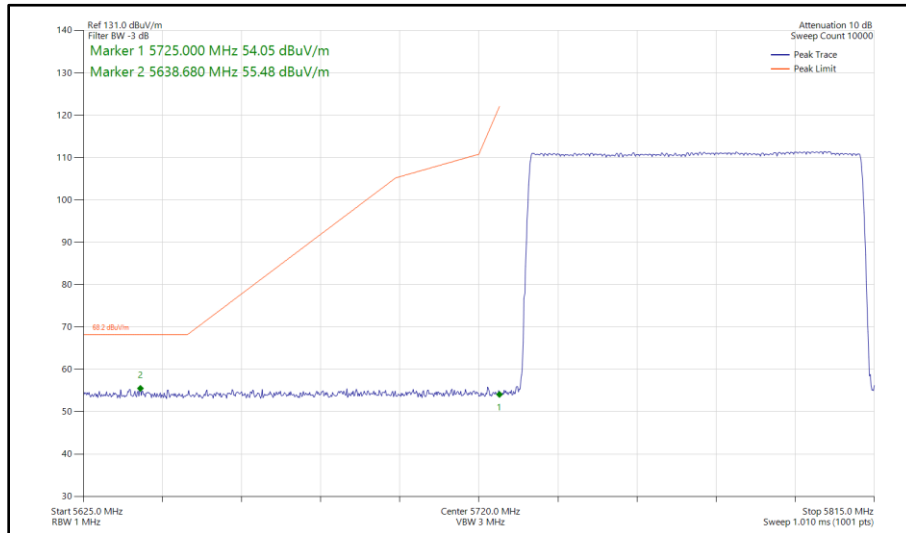
**Figure 184 - Narrowband DH5, SISO, Core 0 - 5733 MHz
 Band Edge Frequency 5725 MHz**



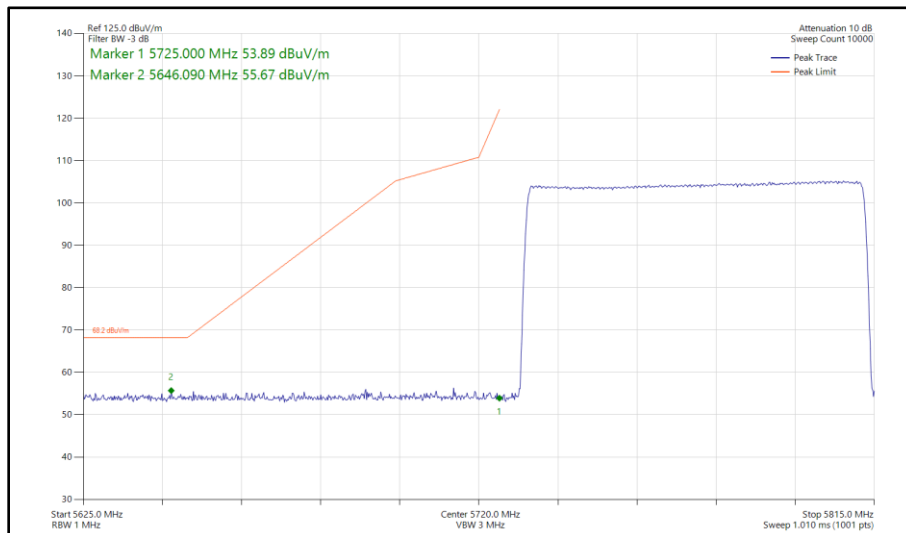
**Figure 185 - Narrowband HDR4, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz**



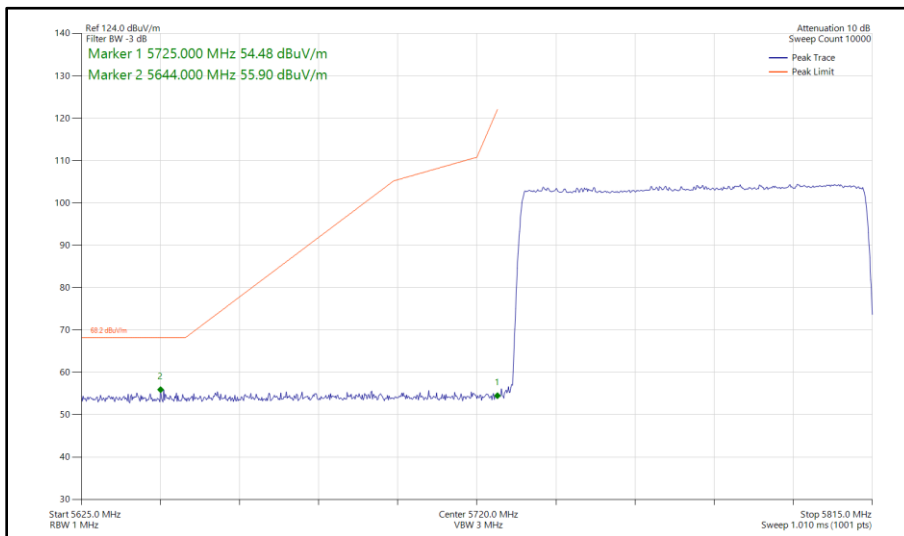
**Figure 186 - Narrowband HDR8, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz**



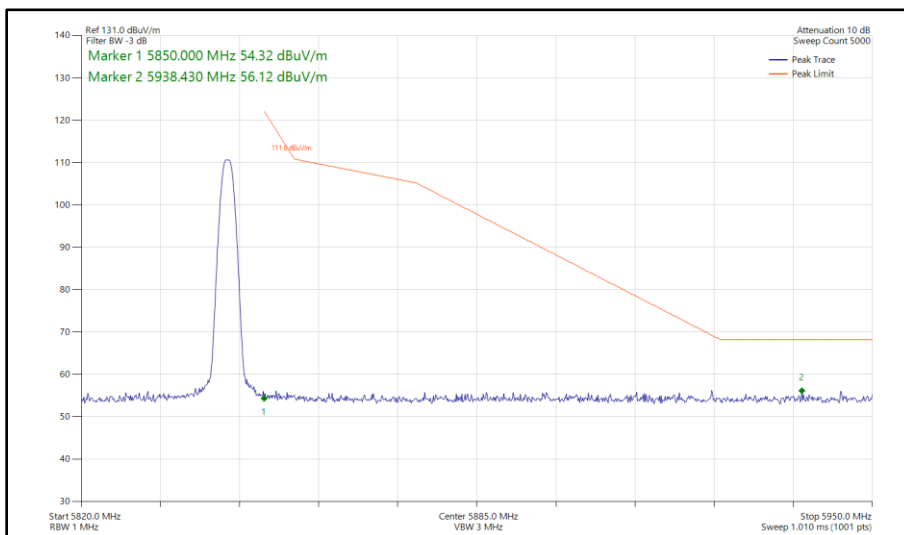
**Figure 187 - Narrowband DH5, SISO, Core 0 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



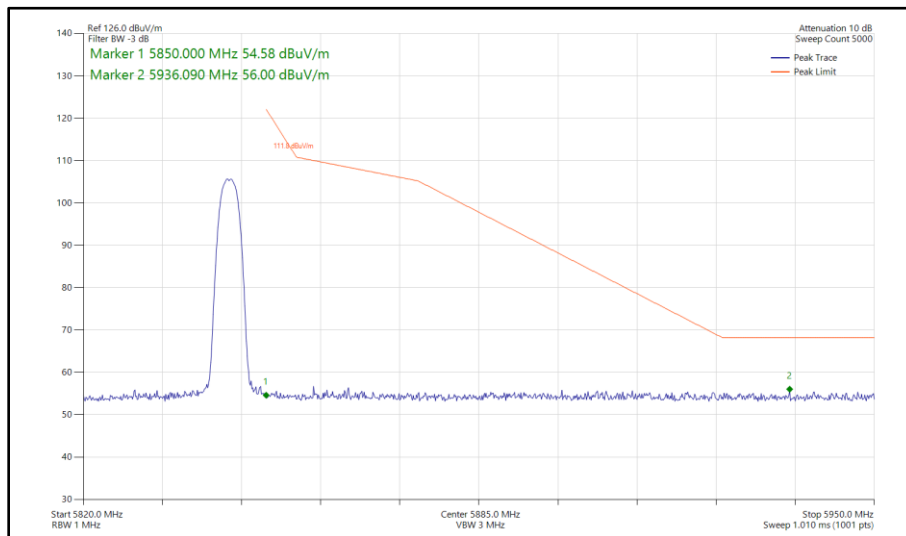
**Figure 188 - Narrowband HDR4, SISO, Core 0 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



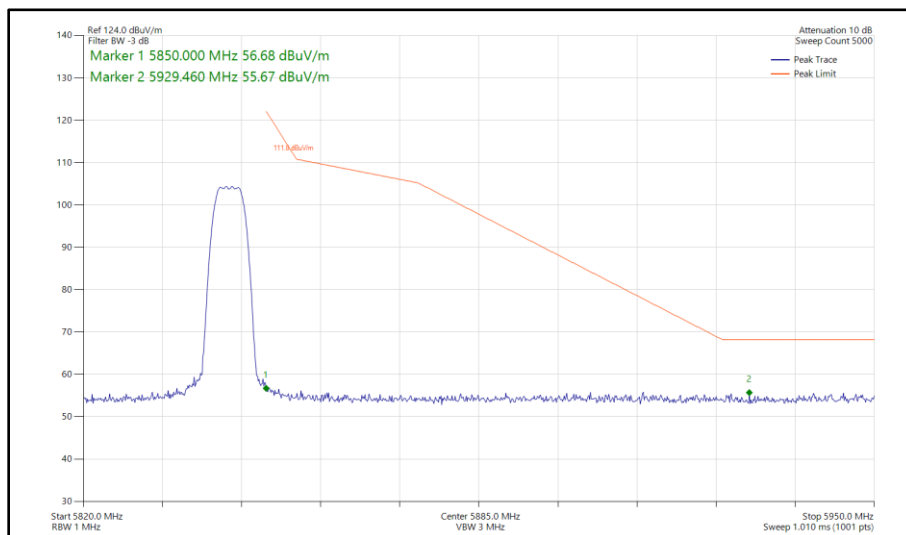
**Figure 189 - Narrowband HDR8, SISO, Core 0 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



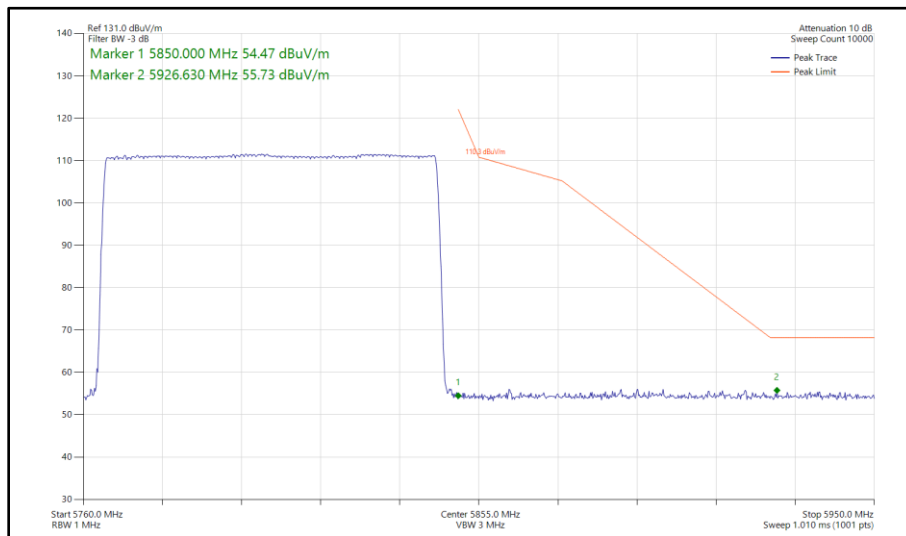
**Figure 190 - Narrowband DH5, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz**



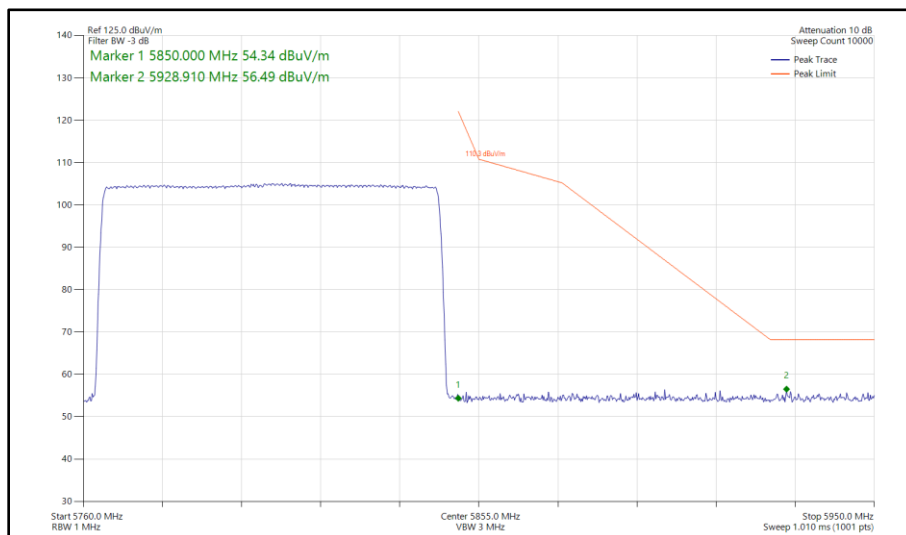
**Figure 191 - Narrowband HDR4, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz**



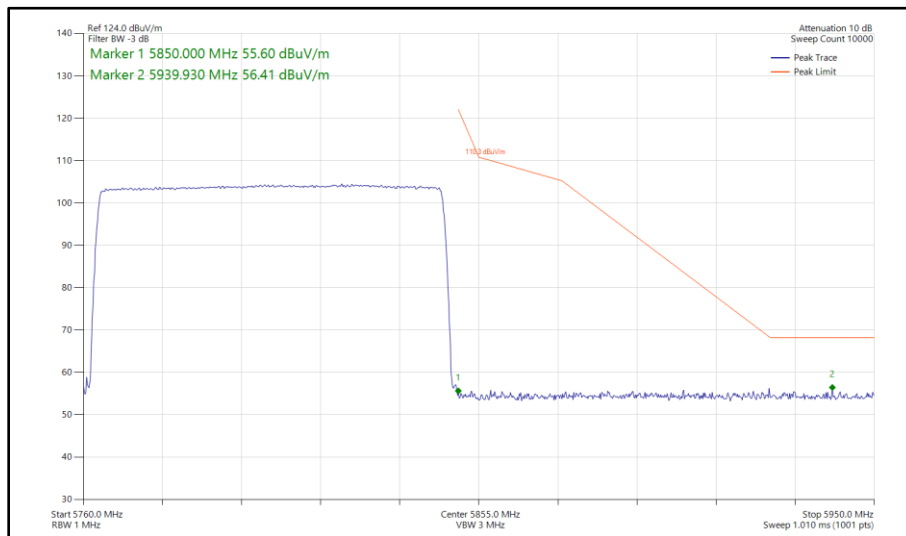
**Figure 192 - Narrowband HDR8, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 193 - Narrowband DH5, SISO, Core 0 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 194 - Narrowband HDR4, SISO, Core 0 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 195 - Narrowband HDR8, SISO, Core 0 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



iPA - Core 1 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)
Static	DH5	5733	5725	55.75
Static	HDR4	5733	5725	55.46
Static	HDR8	5733	5725	55.67
Hopping	DH5	5733-5811	5725	55.34
Hopping	HDR4	5733-5811	5725	55.70
Hopping	HDR8	5733-5811	5725	55.27
Static	DH5	5844	5850	55.95
Static	HDR4	5844	5850	55.94
Static	HDR8	5844	5850	55.67
Hopping	DH5	5766-5844	5850	56.27
Hopping	HDR4	5766-5844	5850	55.89
Hopping	HDR8	5766-5844	5850	55.67

Table 111 - SISO Authorised Band Edge Results

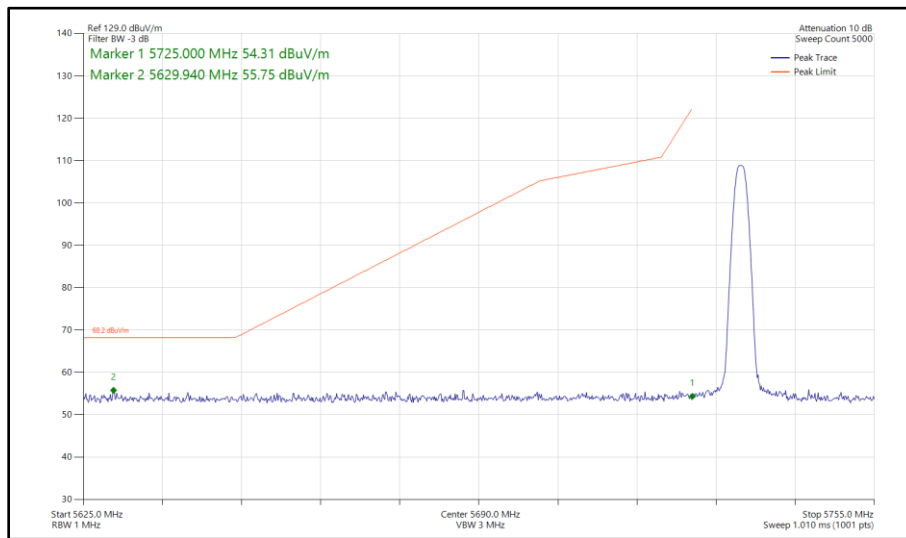
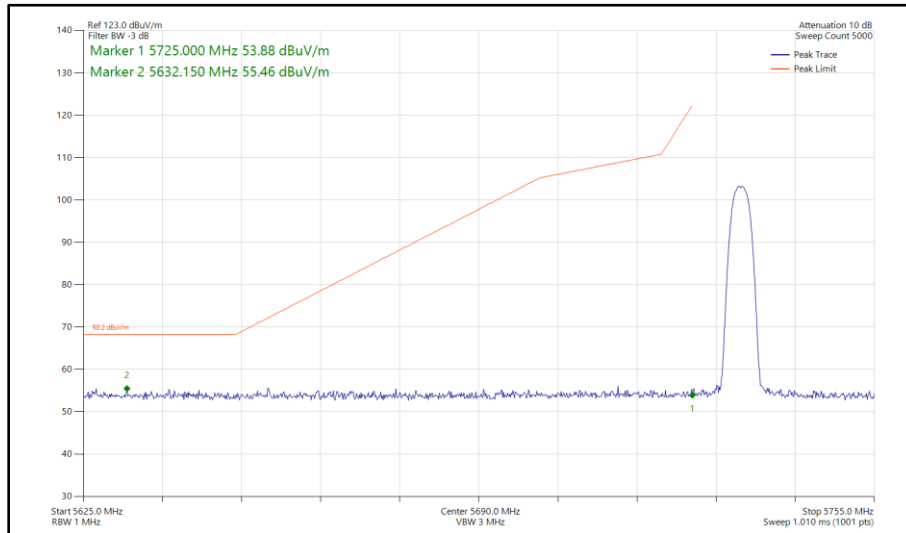
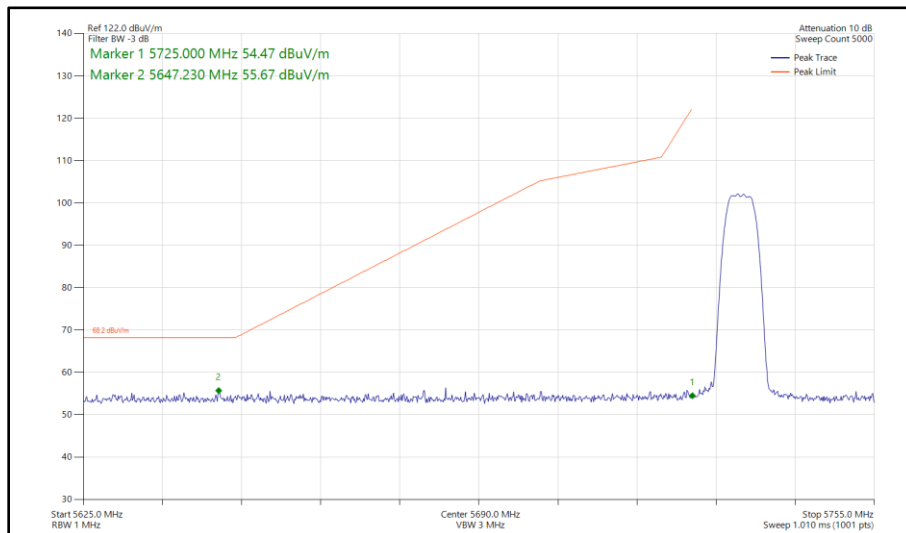


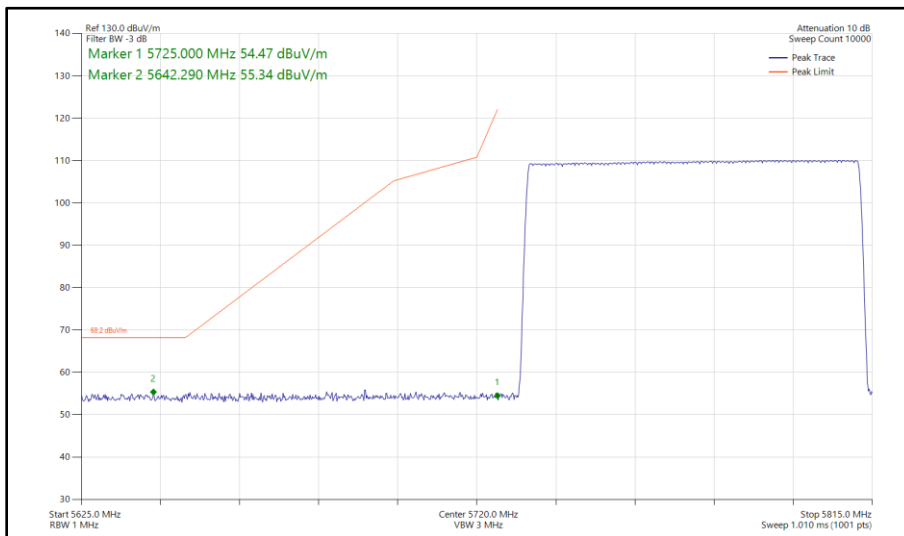
Figure 196 - Narrowband DH5, SISO, Core 1 - 5733 MHz Band Edge Frequency 5725 MHz



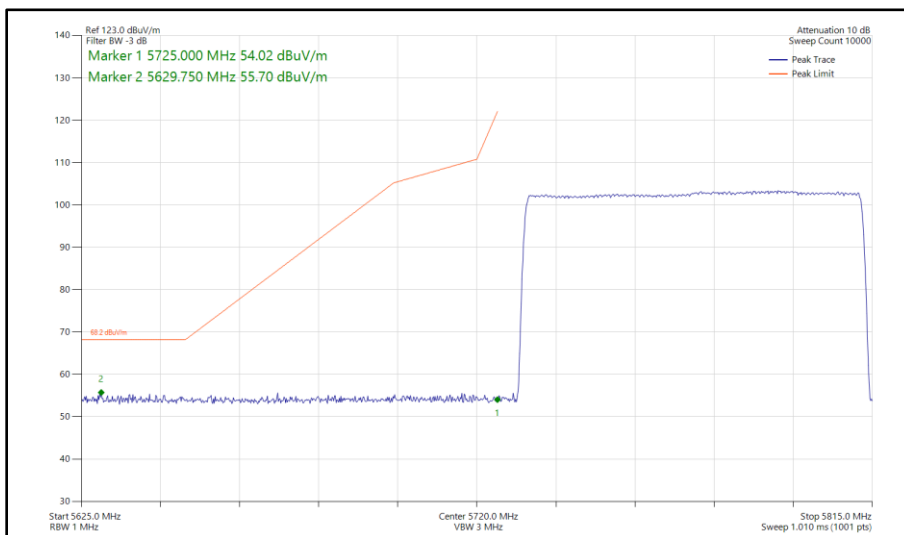
**Figure 197 - Narrowband HDR4, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**



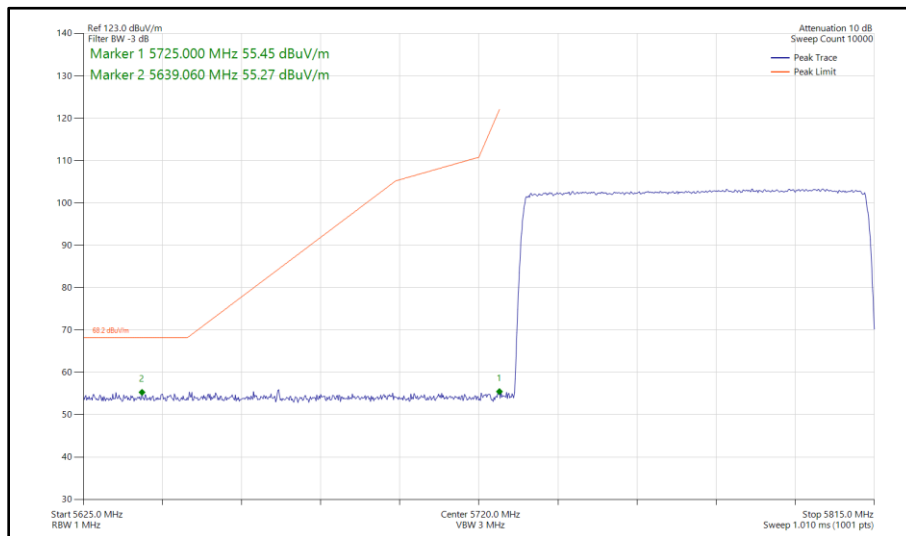
**Figure 198 - Narrowband HDR8, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**



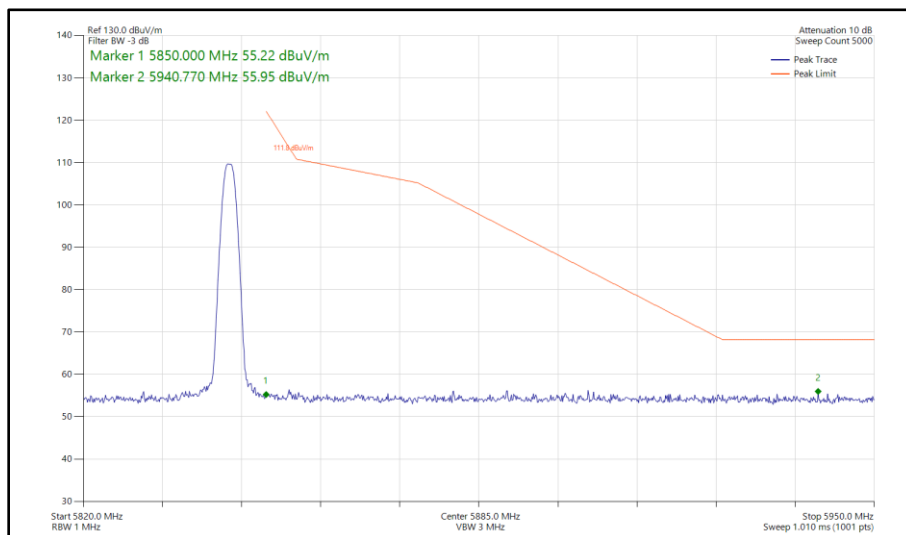
**Figure 199 - Narrowband DH5, SISO, Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



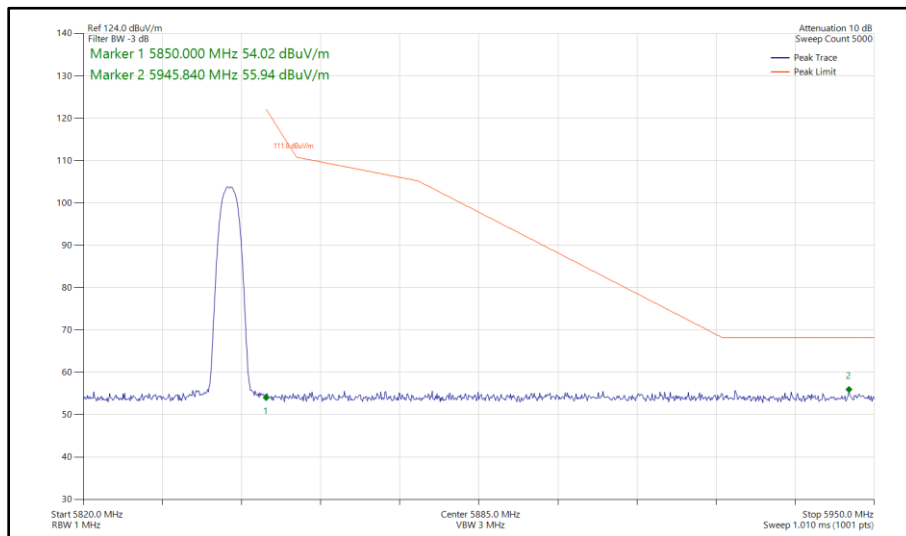
**Figure 200 - Narrowband HDR4, SISO, Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



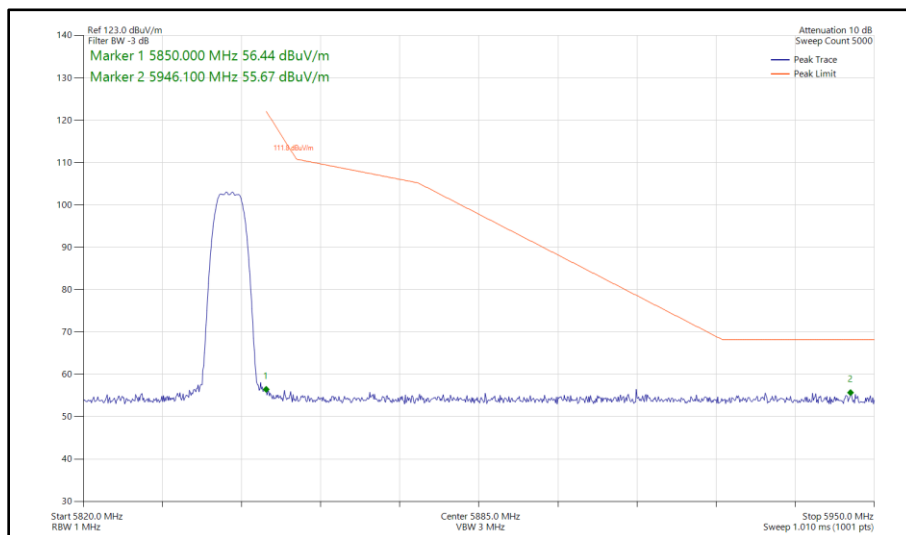
**Figure 201 - Narrowband HDR8, SISO, Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



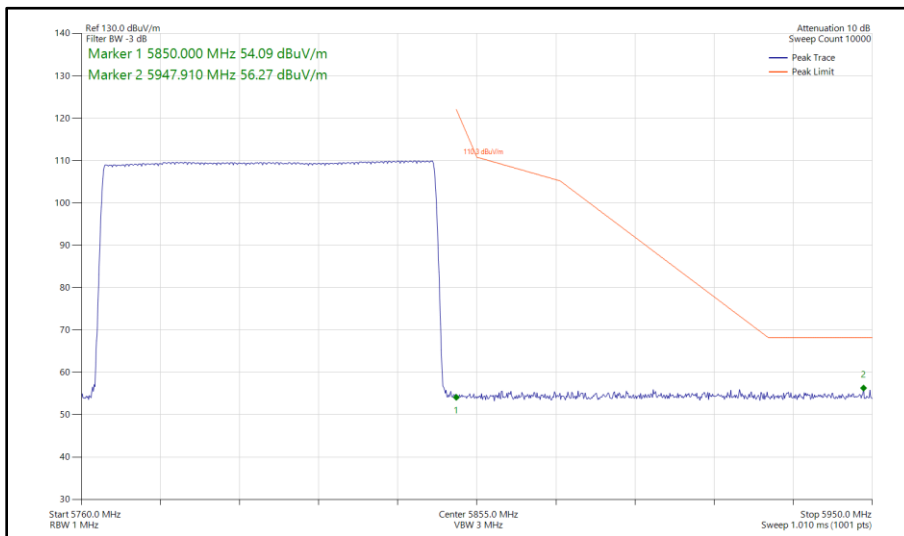
**Figure 202 - Narrowband DH5, SISO, Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz**



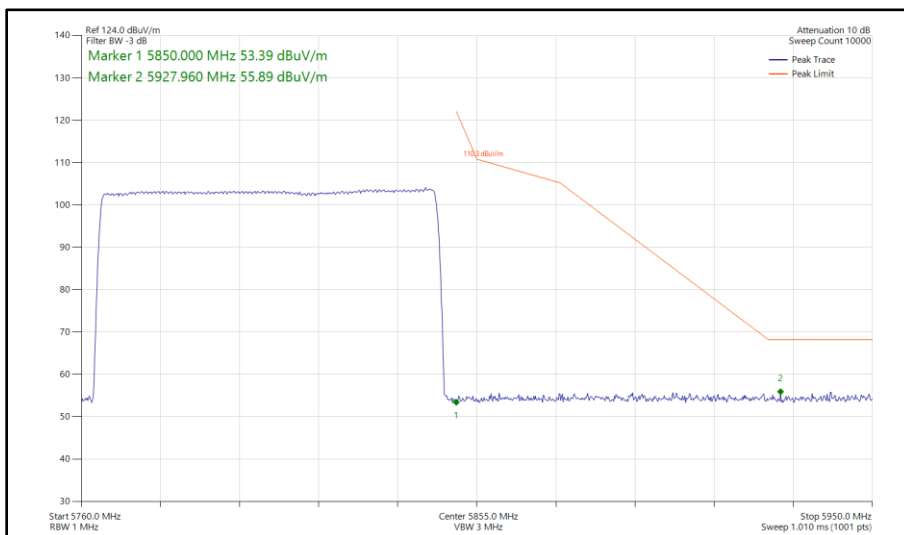
**Figure 203 - Narrowband HDR4, SISO, Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz**



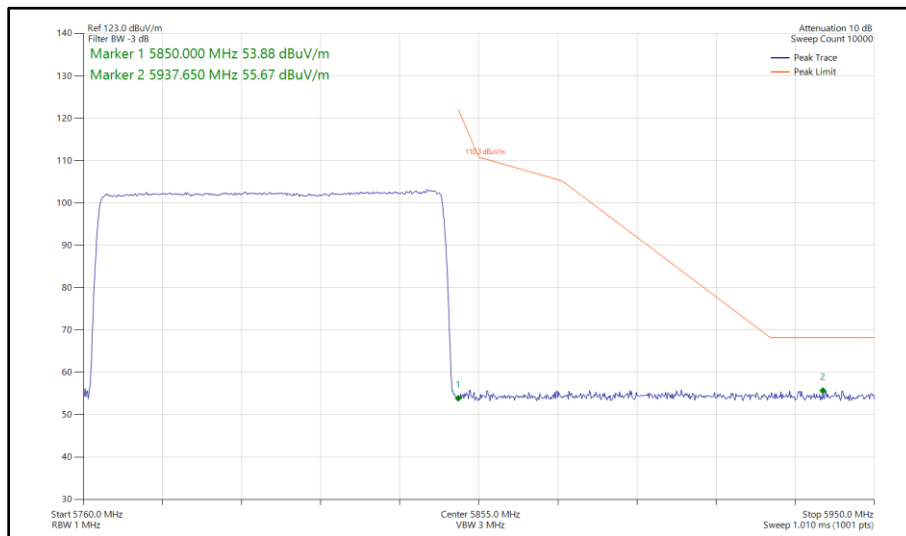
**Figure 204 - Narrowband HDR8, SISO, Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 205 - Narrowband DH5, SISO, Core 1 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 206 - Narrowband HDR4, SISO, Core 1 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 207 - Narrowband HDR8, SISO, Core 1 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



iPA - Core 0 - Core 1 (MIMO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)
Static	DH5	5733	5725	55.43
Static	HDR4	5733	5725	55.64
Static	HDR8	5733	5725	55.30
Hopping	DH5	5733-5811	5725	55.83
Hopping	HDR4	5733-5811	5725	56.21
Hopping	HDR8	5733-5811	5725	56.42
Static	DH5	5844	5850	55.78
Static	HDR4	5844	5850	55.55
Static	HDR8	5844	5850	56.17
Hopping	DH5	5766-5844	5850	55.95
Hopping	HDR4	5766-5844	5850	56.52
Hopping	HDR8	5766-5844	5850	56.30

Table 112 - MIMO Authorised Band Edge Results

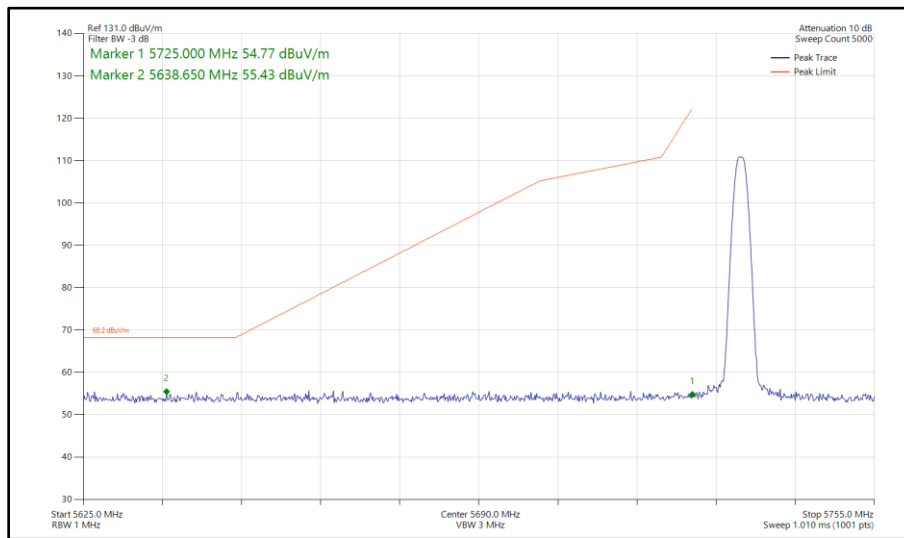
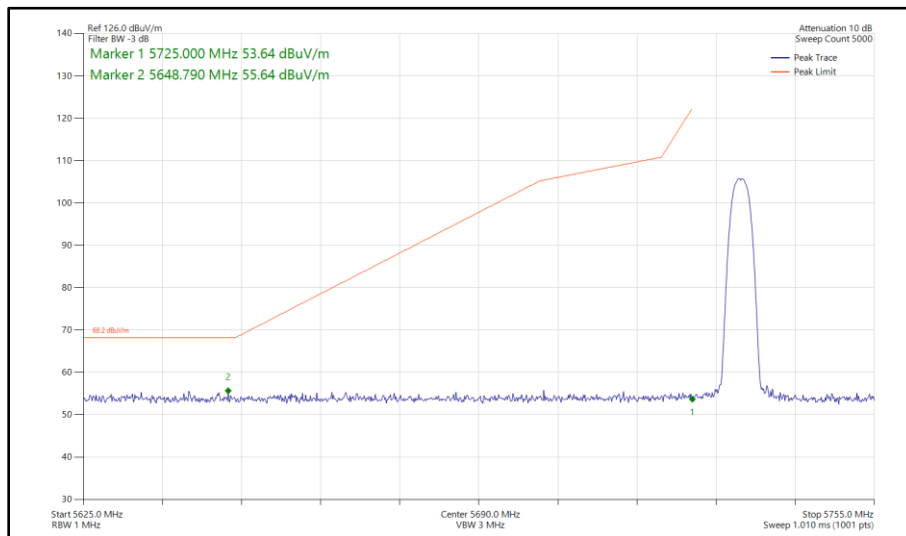
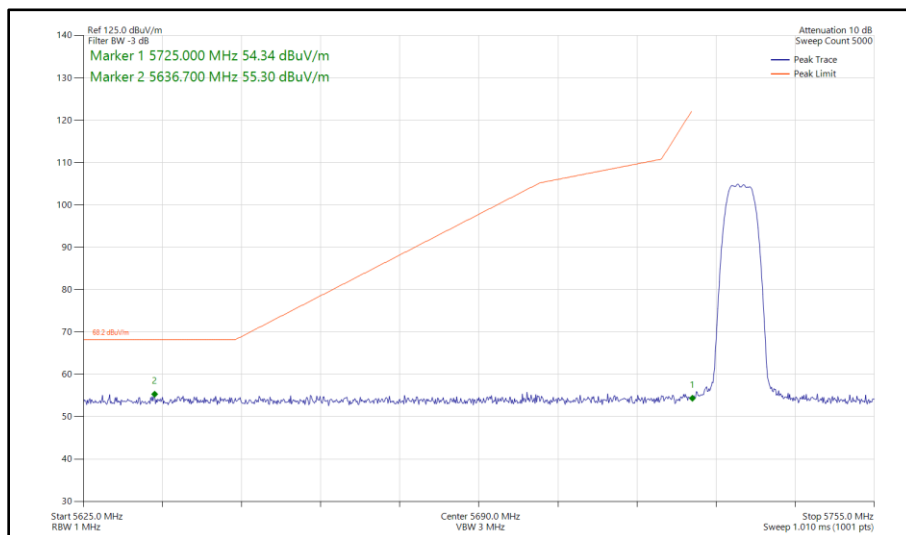


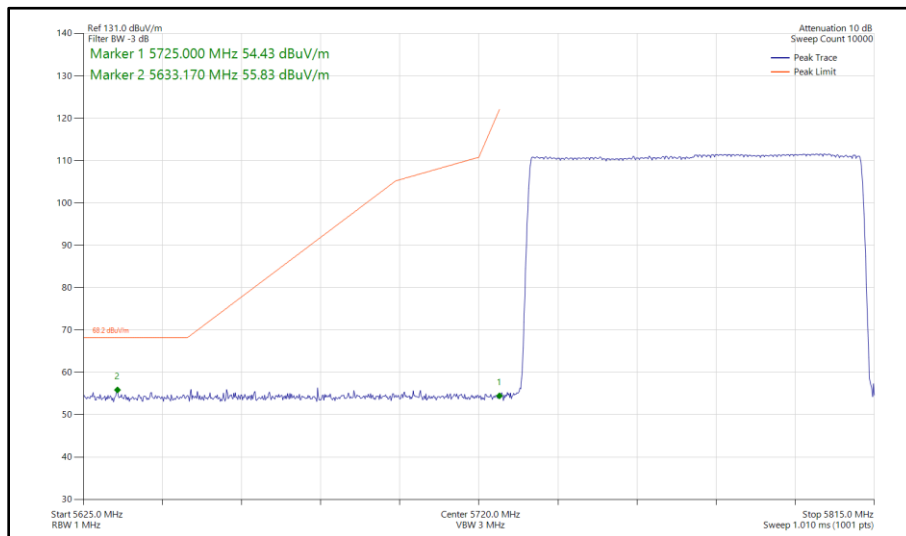
Figure 208 - Narrowband DH5, MIMO, Core 0 - Core 1 - 5733 MHz Band Edge Frequency 5725 MHz



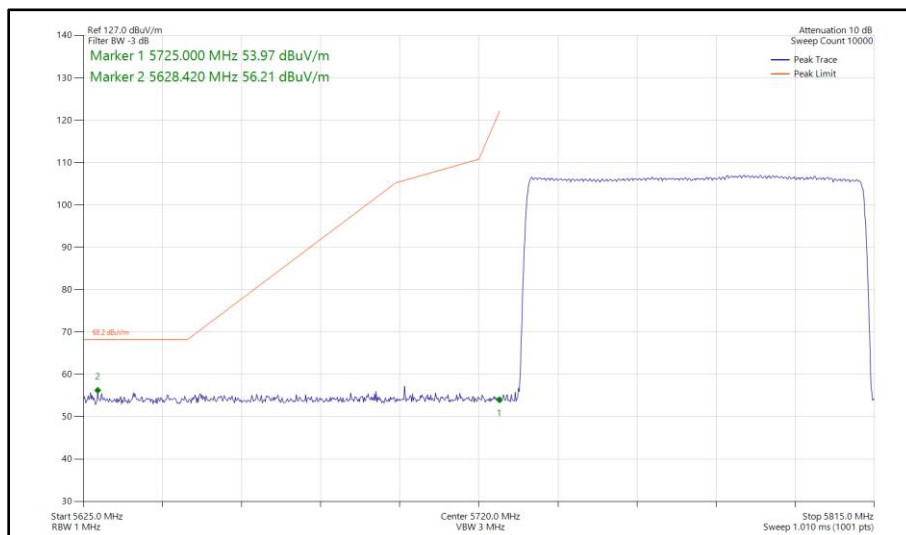
**Figure 209 - Narrowband HDR4, MIMO, Core 0 - Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**



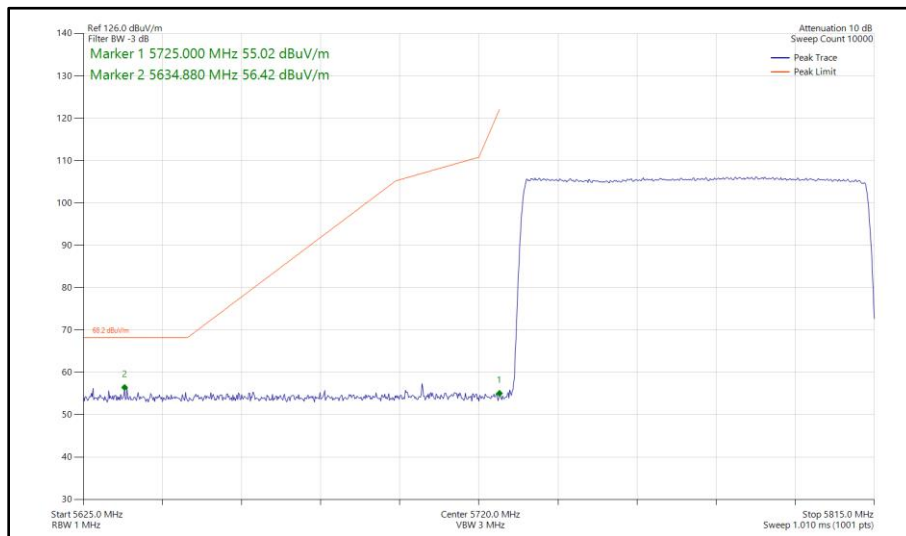
**Figure 210 - Narrowband HDR8, MIMO, Core 0 - Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**



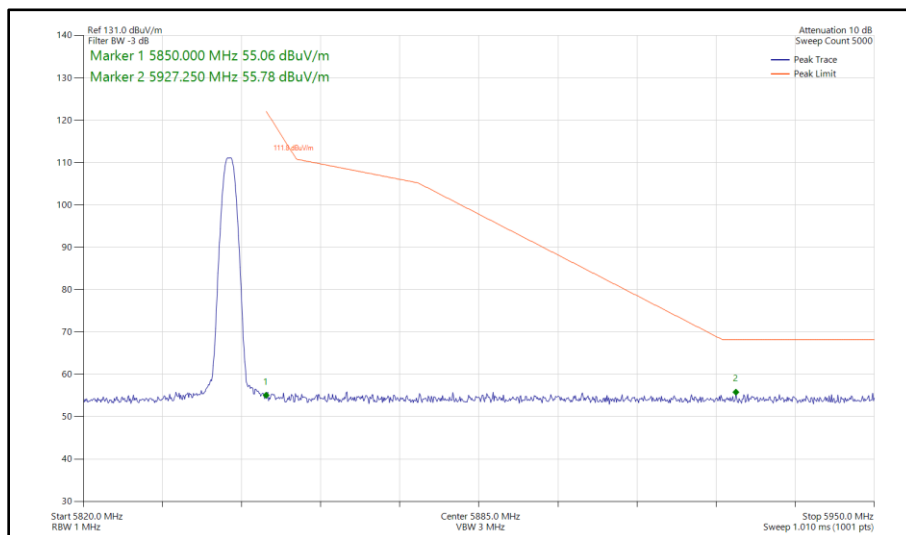
**Figure 211 - Narrowband DH5, MIMO, Core 0 - Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



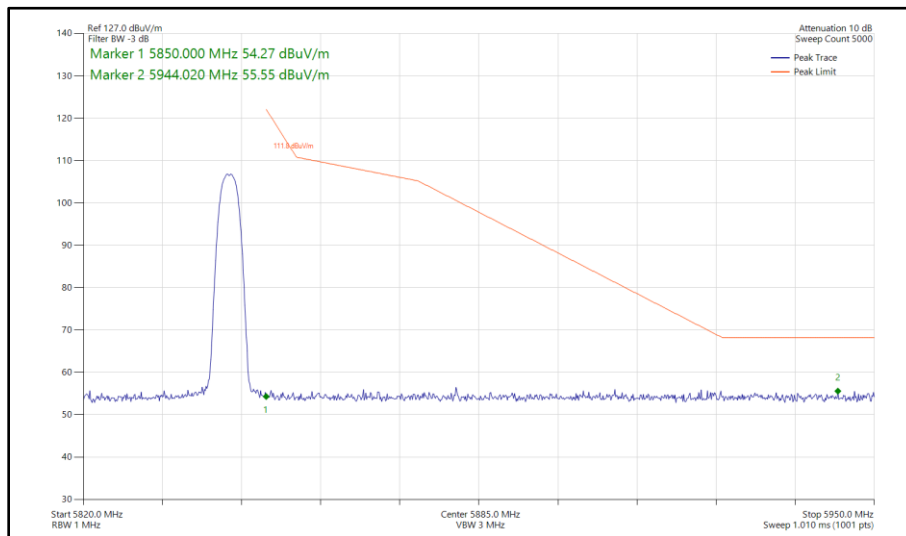
**Figure 212 - Narrowband HDR4, MIMO, Core 0 - Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



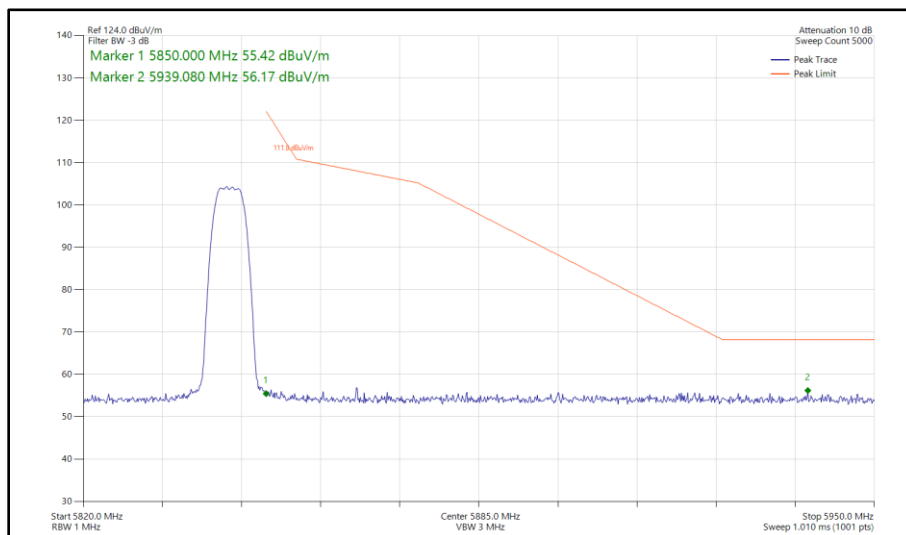
**Figure 213 - Narrowband HDR8, MIMO, Core 0 - Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



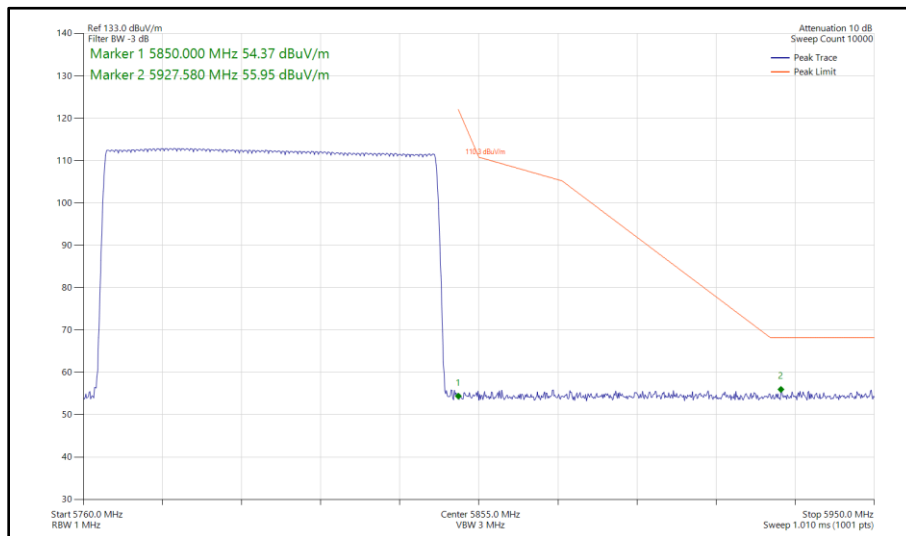
**Figure 214 - Narrowband DH5, MIMO, Core 0 - Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz**



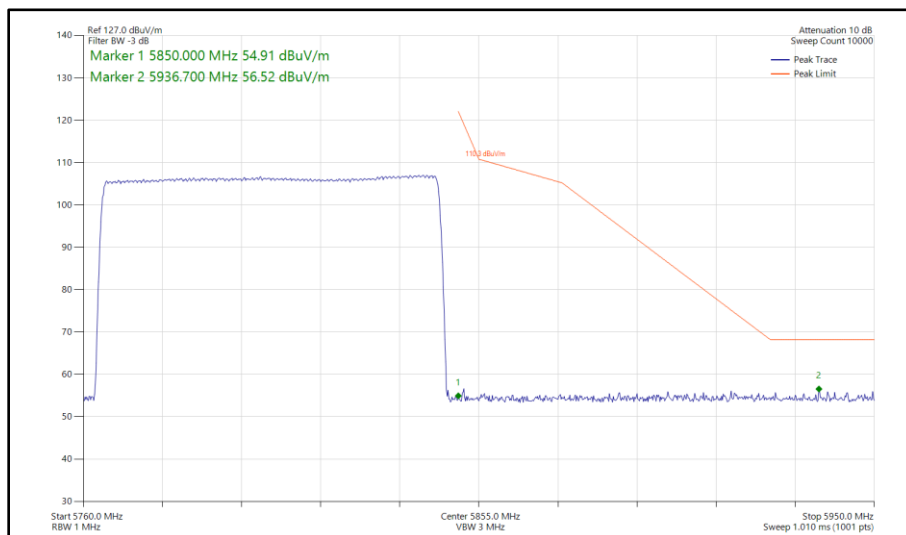
**Figure 215 - Narrowband HDR4, MIMO, Core 0 - Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz**



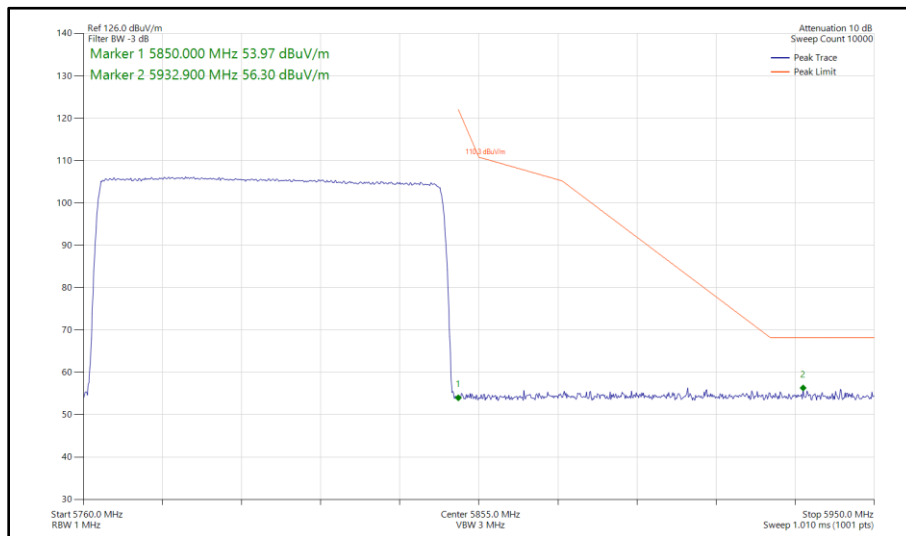
**Figure 216 - Narrowband HDR8, MIMO, Core 0 - Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 217 - Narrowband DH5, MIMO, Core 0 - Core 1 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 218 - Narrowband HDR4, MIMO, Core 0 - Core 1 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



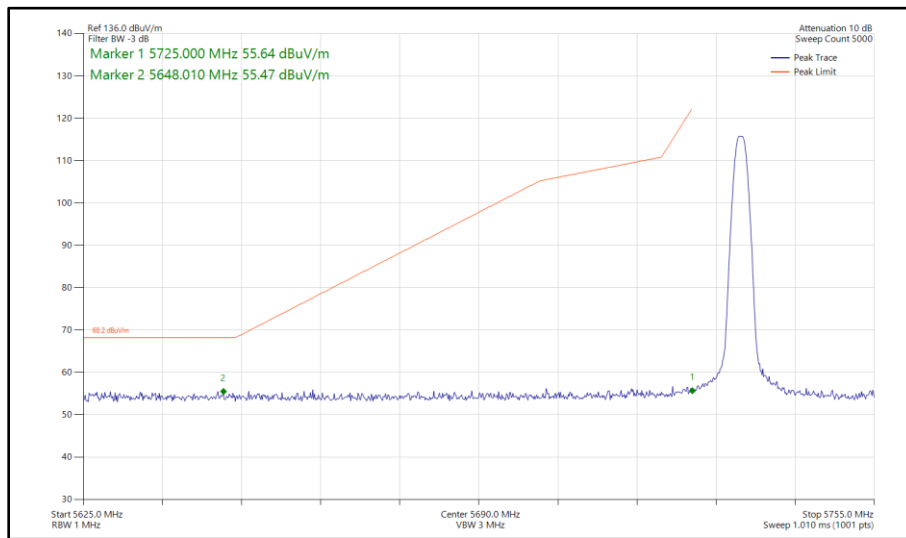
**Figure 219 - Narrowband HDR8, MIMO, Core 0 - Core 1 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



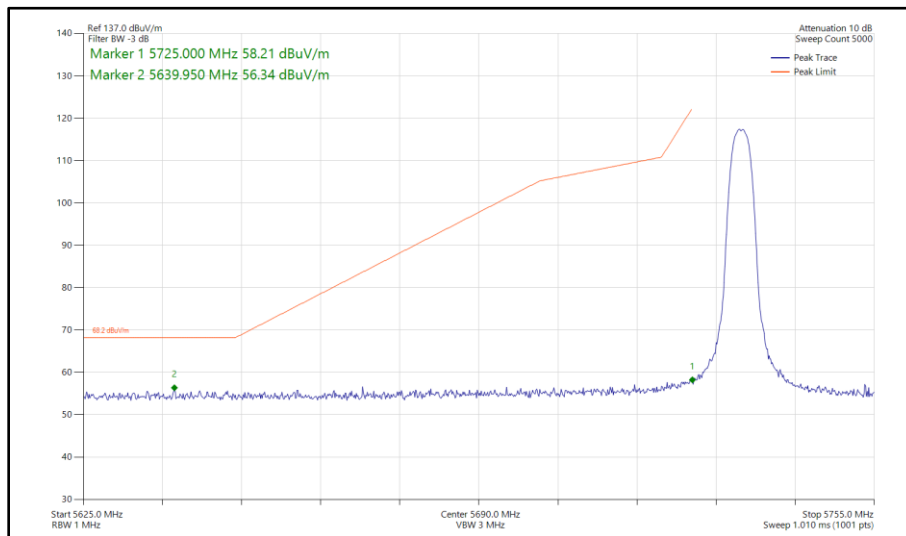
ePA - Core 0 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBµV/m)
Static	DH5	5733	5725	55.47
Static	HDR4	5733	5725	56.34
Static	HDR8	5733	5725	55.91
Hopping	DH5	5733-5811	5725	55.76
Hopping	HDR4	5733-5811	5725	56.12
Hopping	HDR8	5733-5811	5725	55.83
Static	DH5	5844	5850	56.16
Static	HDR4	5844	5850	56.42
Static	HDR8	5844	5850	56.80
Hopping	DH5	5766-5844	5850	56.32
Hopping	HDR4	5766-5844	5850	56.26
Hopping	HDR8	5766-5844	5850	55.97

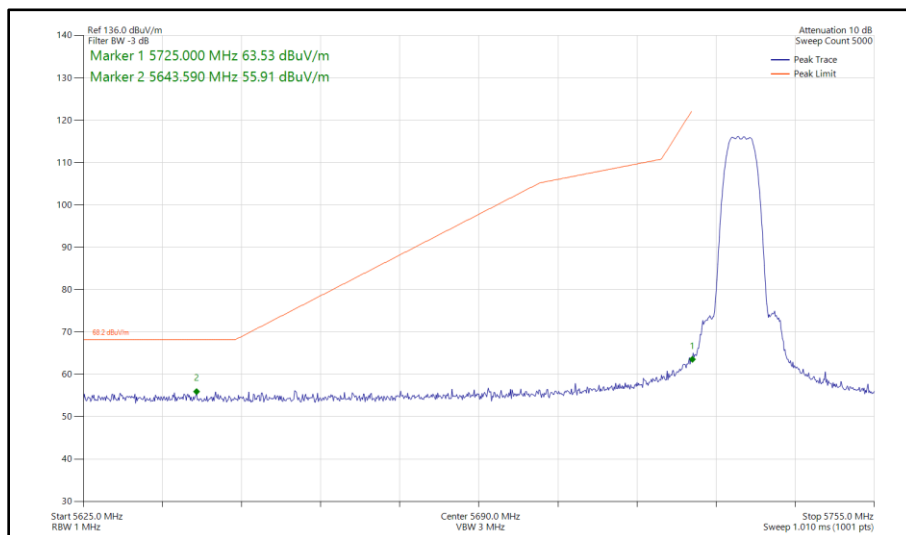
Table 113 - SISO Authorised Band Edge Results



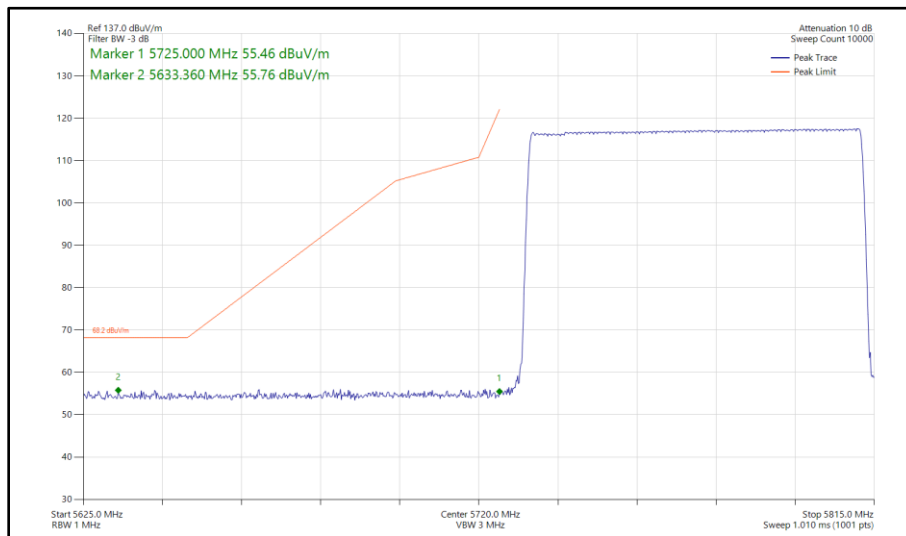
**Figure 220 - Narrowband DH5, SISO, Core 0 - 5733 MHz
 Band Edge Frequency 5725 MHz**



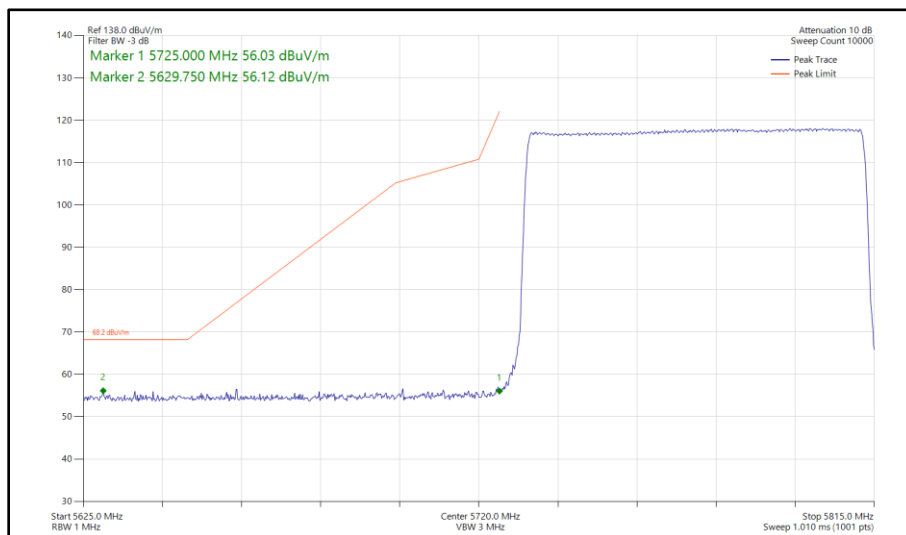
**Figure 221 - Narrowband HDR4, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz**



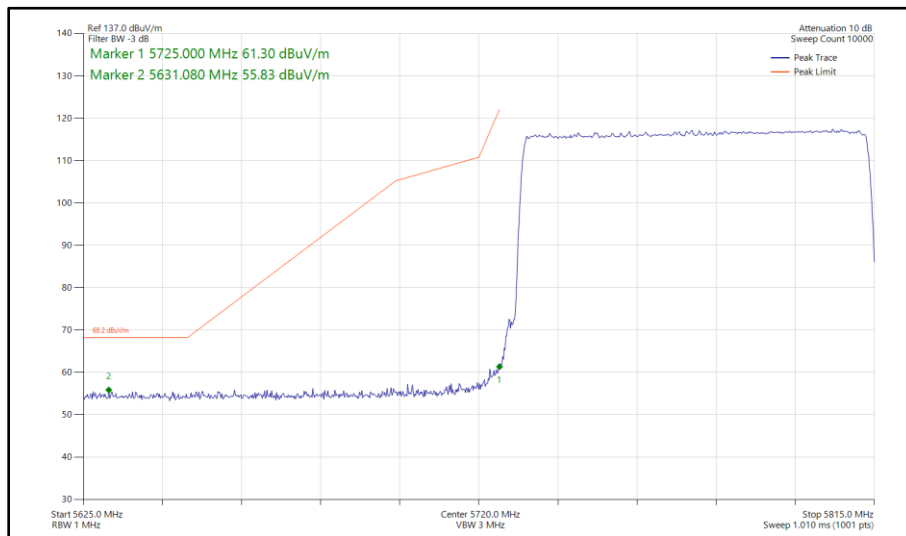
**Figure 222 - Narrowband HDR8, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz**



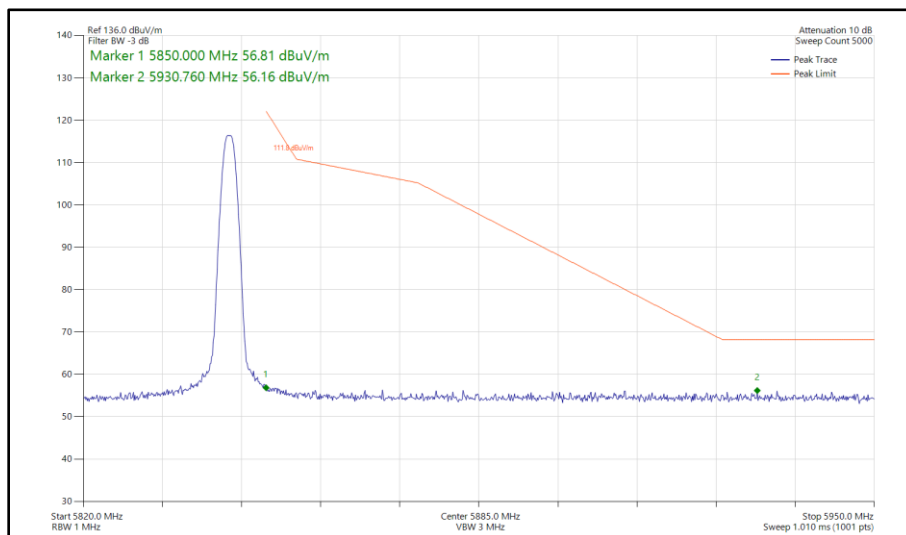
**Figure 223 - Narrowband DH5, SISO, Core 0 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



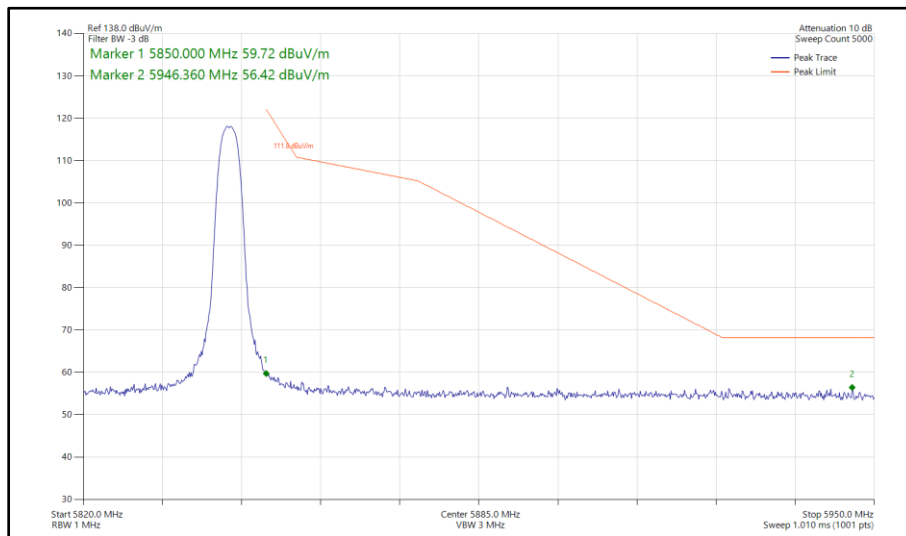
**Figure 224 - Narrowband HDR4, SISO, Core 0 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



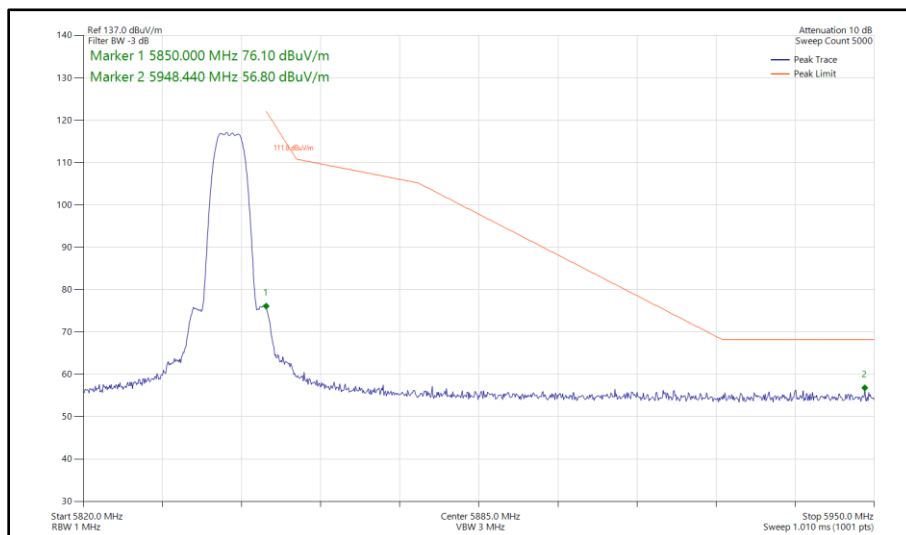
**Figure 225 - Narrowband HDR8, SISO, Core 0 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



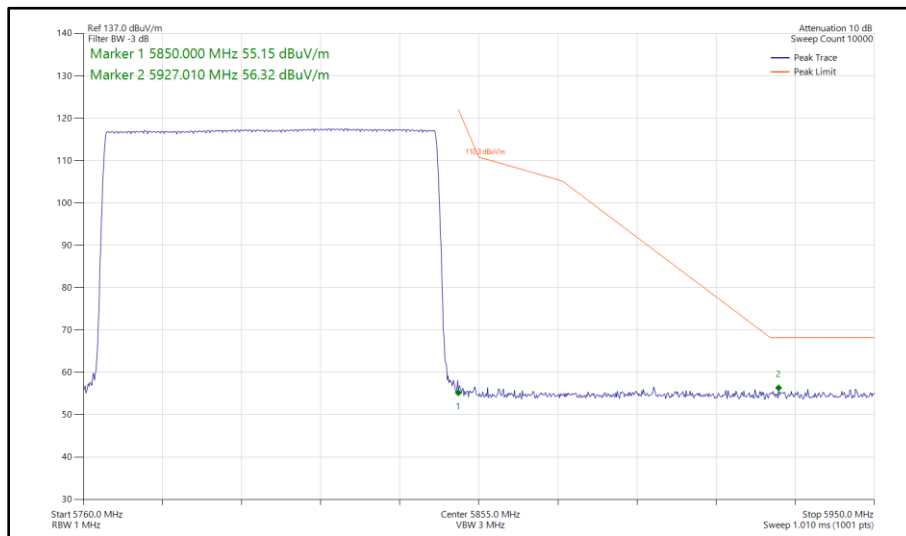
**Figure 226 - Narrowband DH5, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz**



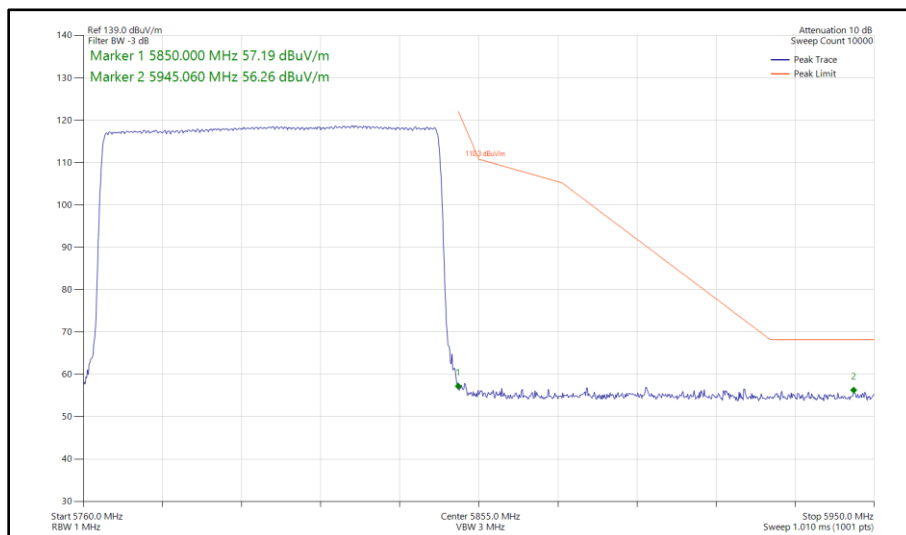
**Figure 227 - Narrowband HDR4, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz**



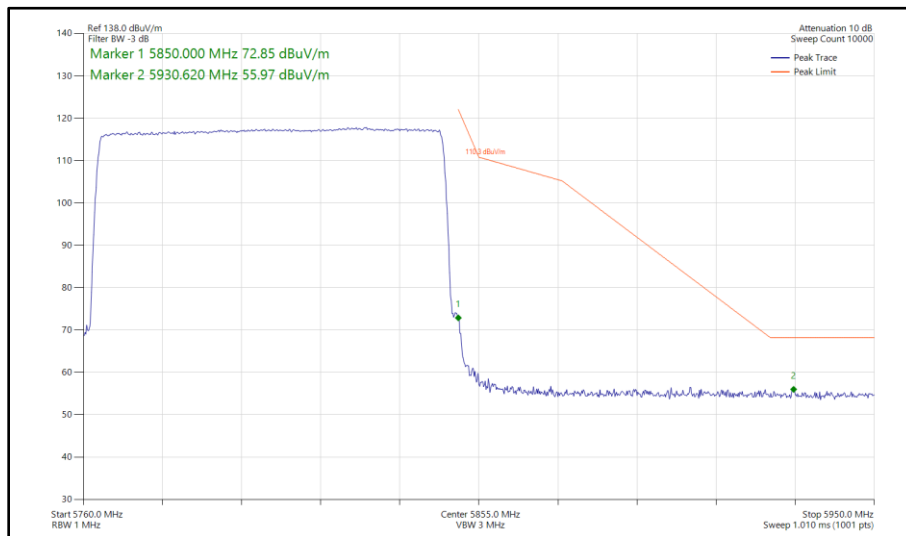
**Figure 228 - Narrowband HDR8, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 229 - Narrowband DH5, SISO, Core 0 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 230 - Narrowband HDR4, SISO, Core 0 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



**Figure 231 - Narrowband HDR8, SISO, Core 0 - 5766-5844 MHz
Band Edge Frequency 5850 MHz**



ePA - Core 1 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)
Static	DH5	5733	5725	55.71
Static	HDR4	5733	5725	55.82
Static	HDR8	5733	5725	56.05
Hopping	DH5	5733-5811	5725	55.59
Hopping	HDR4	5733-5811	5725	55.78
Hopping	HDR8	5733-5811	5725	56.14
Static	DH5	5844	5850	55.73
Static	HDR4	5844	5850	56.78
Static	HDR8	5844	5850	56.07
Hopping	DH5	5766-5844	5850	56.58
Hopping	HDR4	5766-5844	5850	57.09
Hopping	HDR8	5766-5844	5850	56.21

Table 114 - SISO Authorised Band Edge Results

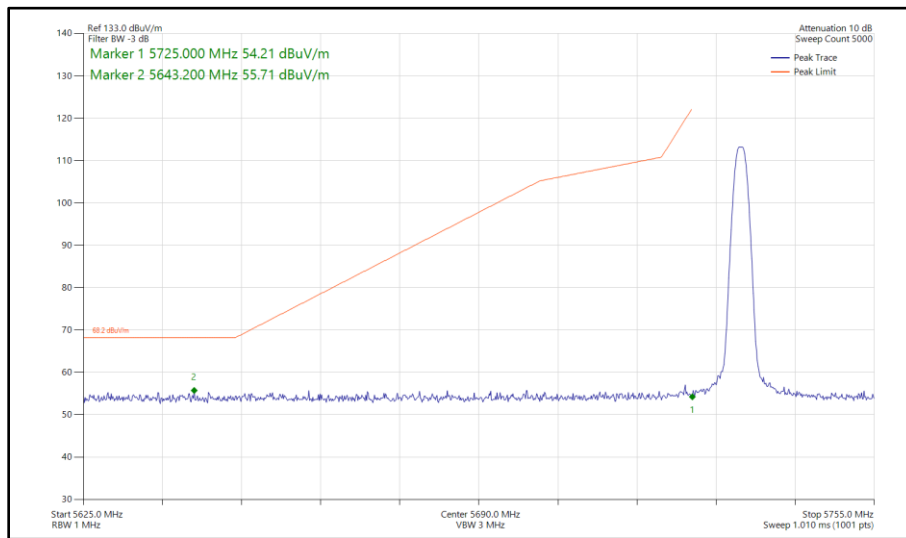
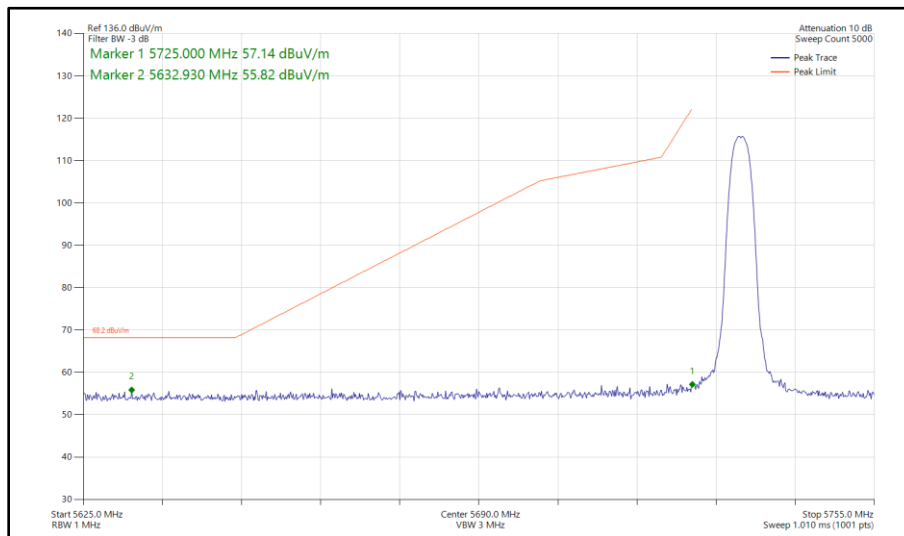
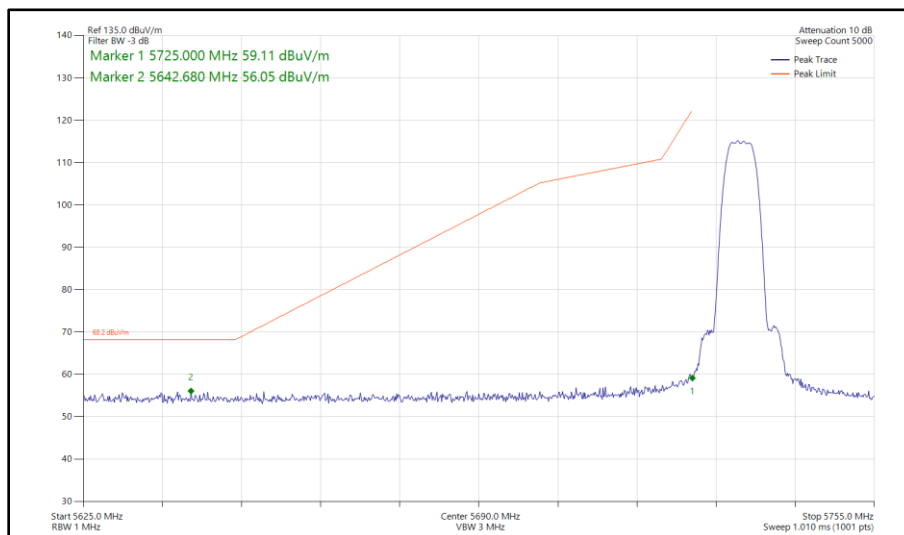


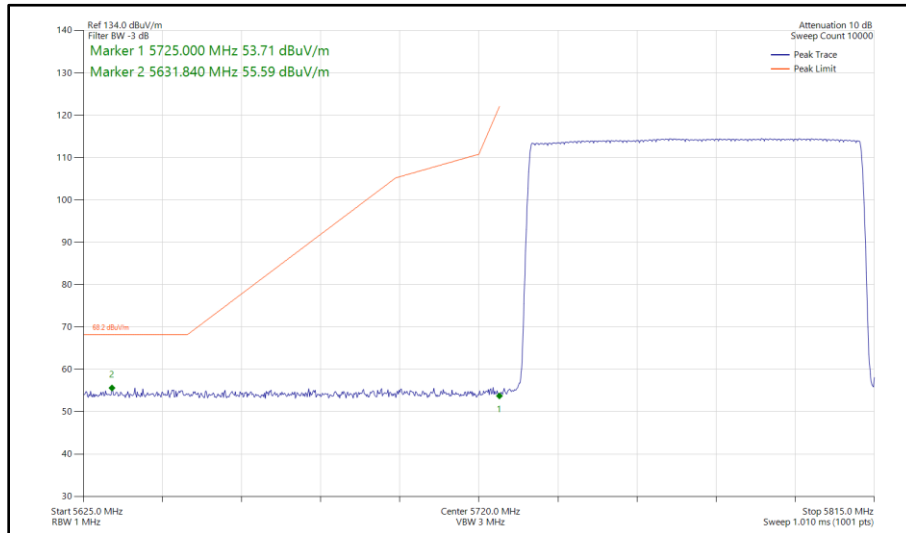
Figure 232 - Narrowband DH5, SISO, Core 1 - 5733 MHz
 Band Edge Frequency 5725 MHz



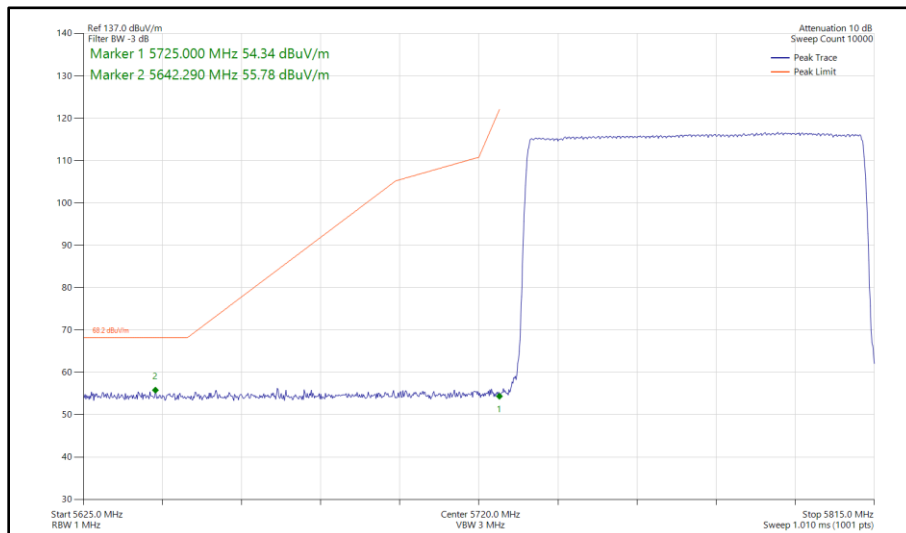
**Figure 233 - Narrowband HDR4, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**



**Figure 234 - Narrowband HDR8, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**



**Figure 235 - Narrowband DH5, SISO, Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**



**Figure 236 - Narrowband HDR4, SISO, Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz**