

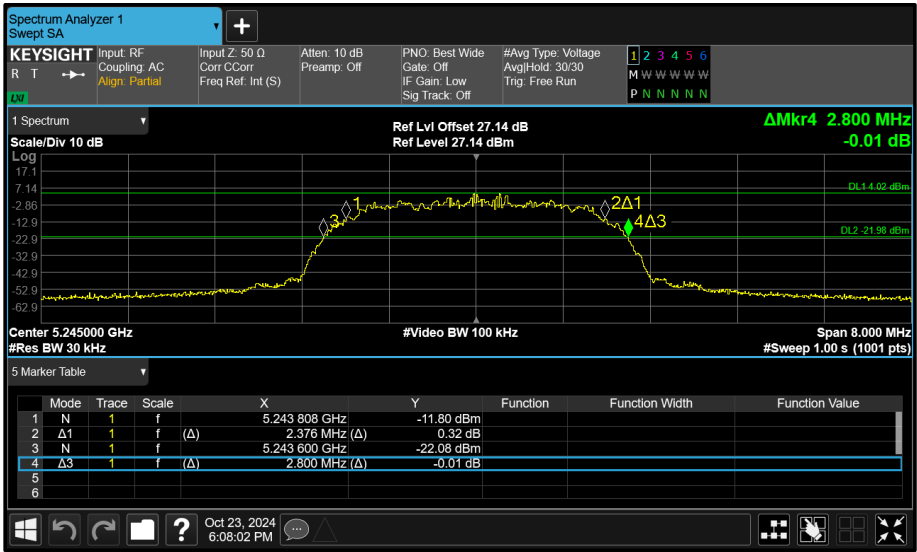


Figure 140 - Core 0 (A) 5245 MHz (CH95) 26 dB and 99% Bandwidth

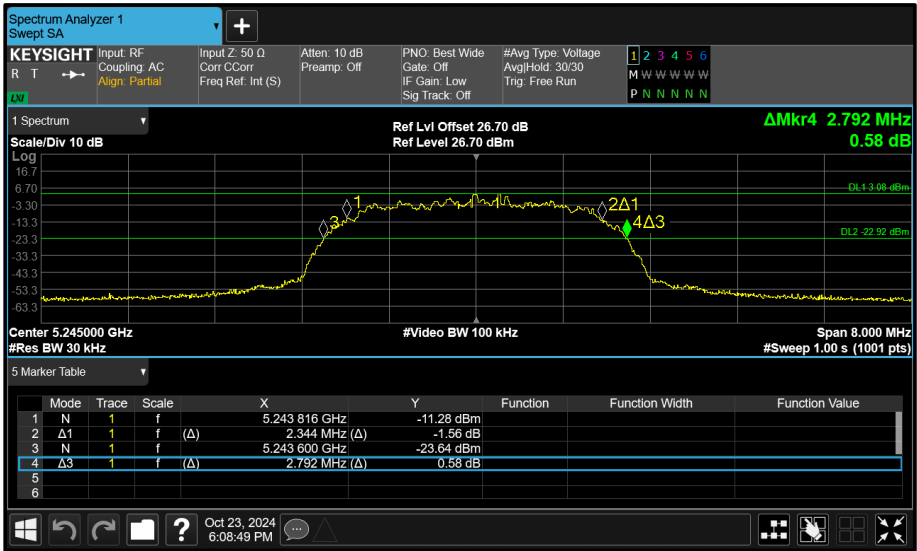


Figure 141 - Core 1 (B) 5245 MHz (CH95) 26 dB and 99% Bandwidth



Test Configuration			
Frequency Range:	5.150-5.250 GHz	Band:	U-NII-1
Limit Clause(s):	-	Test Method(s):	C63.10 6.9.2 C63.10 6.9.3
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)	26 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5162	5.415	5.310	-	-	-
5204	5.400	5.310	-	-	-
5245	5.415	5.325	-	-	-

Table 49 - 26 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5162	4.740	4.620	-	-	-
5204	4.725	4.620	-	-	-
5245	4.695	4.620	-	-	-

Table 50 - 99% Bandwidth Results

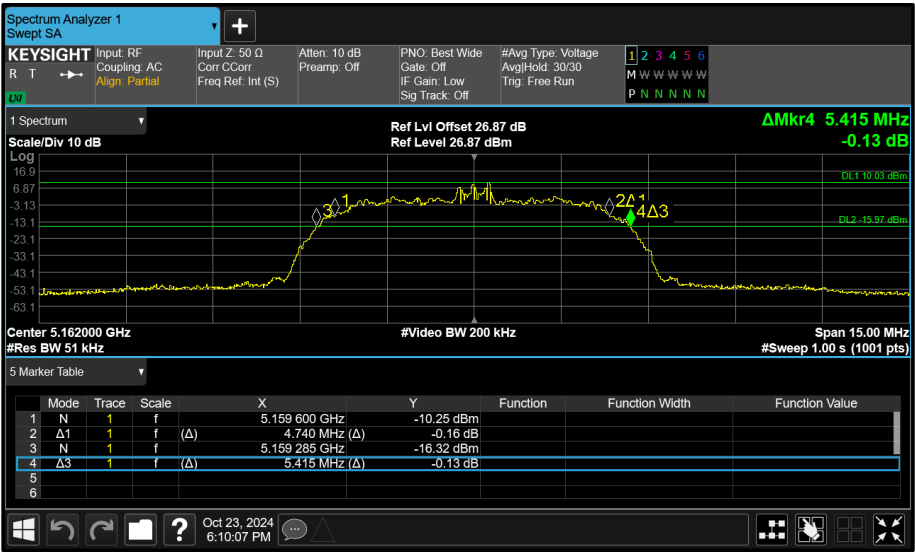


Figure 142 - Core 0 (A) 5162 MHz (CH12) 26 dB and 99% Bandwidth

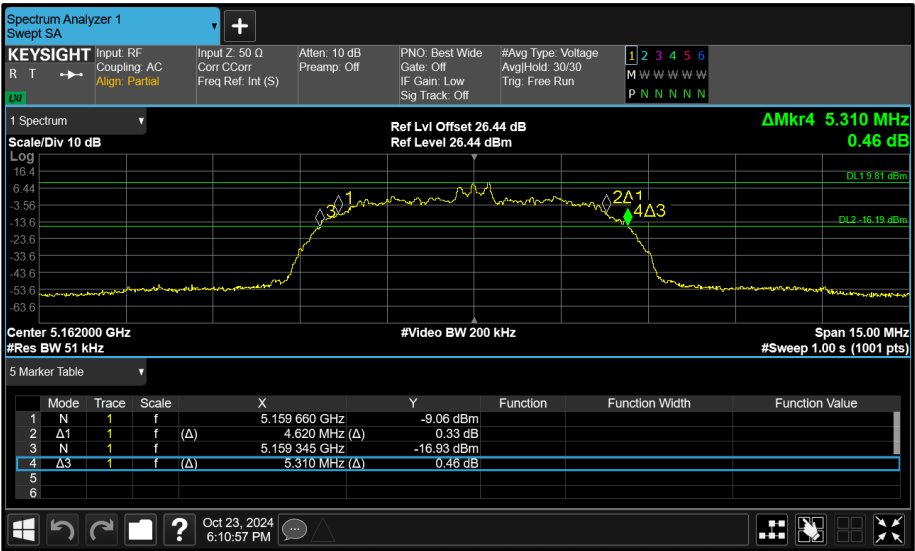


Figure 143 - Core 1 (B) 5162 MHz (CH12) 26 dB and 99% Bandwidth

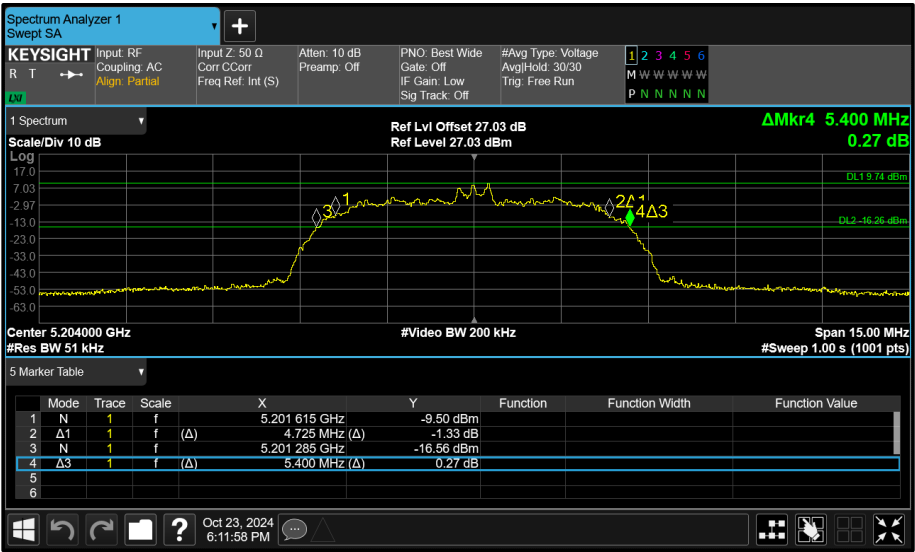


Figure 144 - Core 0 (A) 5204 MHz (CH54) 26 dB and 99% Bandwidth

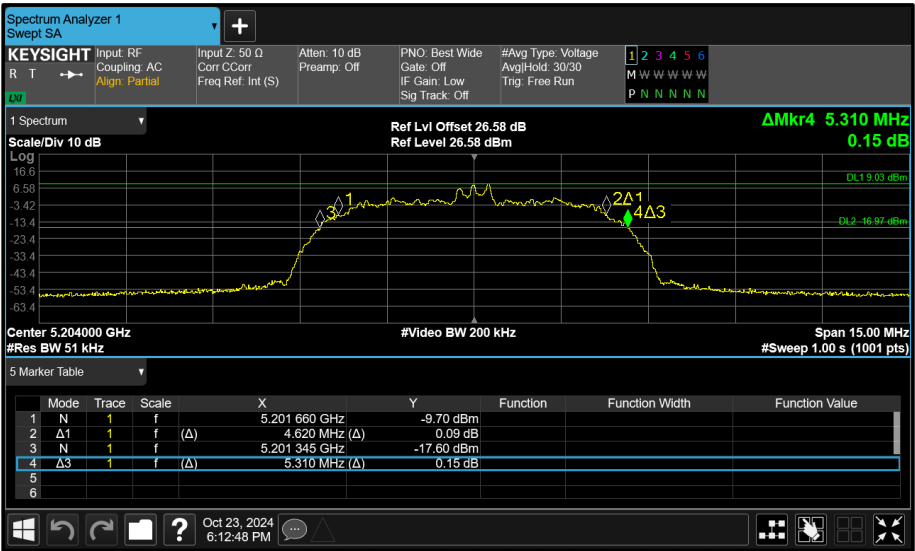


Figure 145 - Core 1 (B) 5204 MHz (CH54) 26 dB and 99% Bandwidth

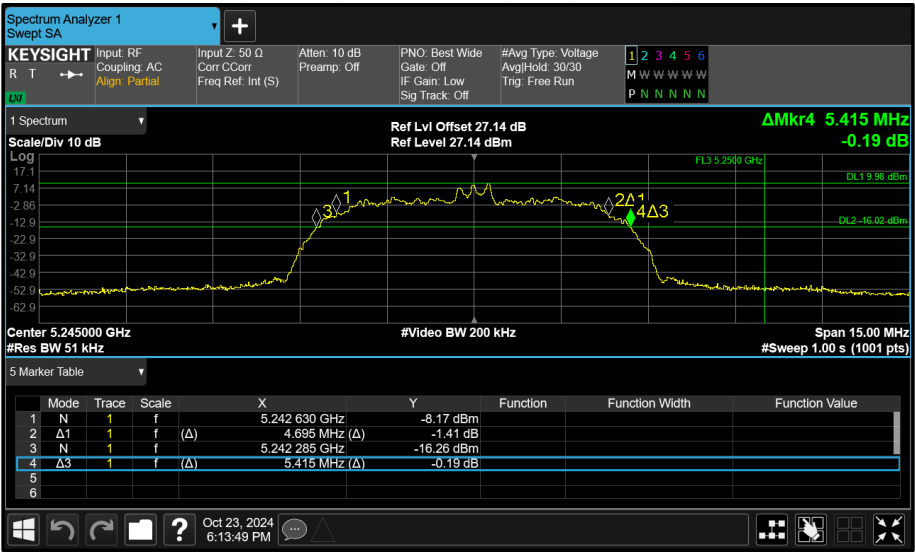


Figure 146 - Core 0 (A) 5245 MHz (CH95) 26 dB and 99% Bandwidth

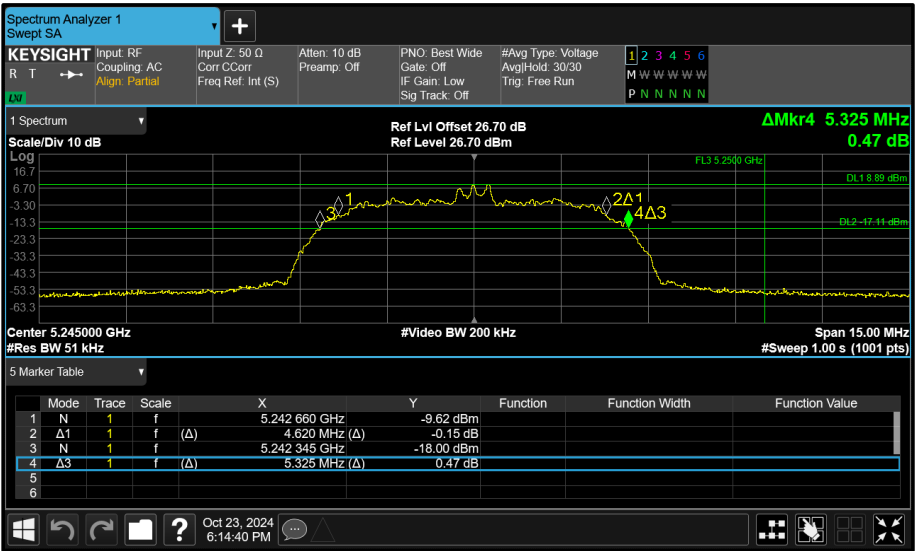


Figure 147 - Core 1 (B) 5245 MHz (CH95) 26 dB and 99% Bandwidth



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 6.9.2 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	1.912	1.896	-	-	≥ 500.0
5844	1.904	1.904	-	-	≥ 500.0

Table 51 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5733	2.368	2.344	-	-	-
5789	2.384	2.344	-	-	-
5844	2.384	2.368	-	-	-

Table 52 - 99% Bandwidth Results

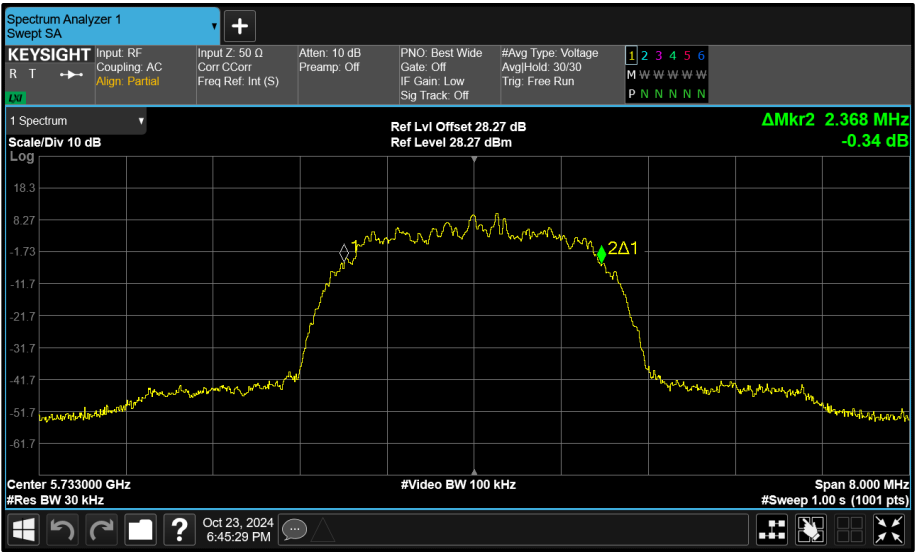


Figure 148 - Core 0 (A) 5733 MHz (CH8) 99% Bandwidth

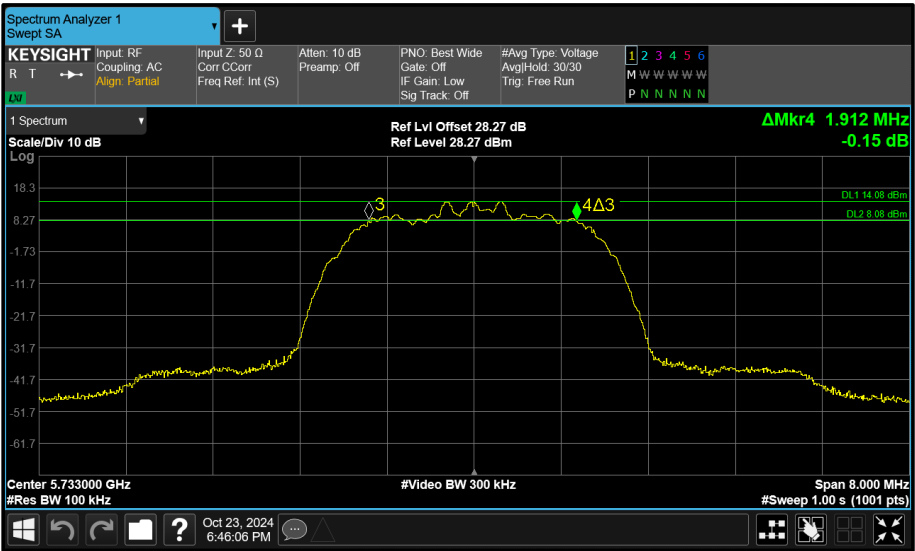


Figure 149 - Core 0 (A) 5733 MHz (CH8) 6 dB Bandwidth

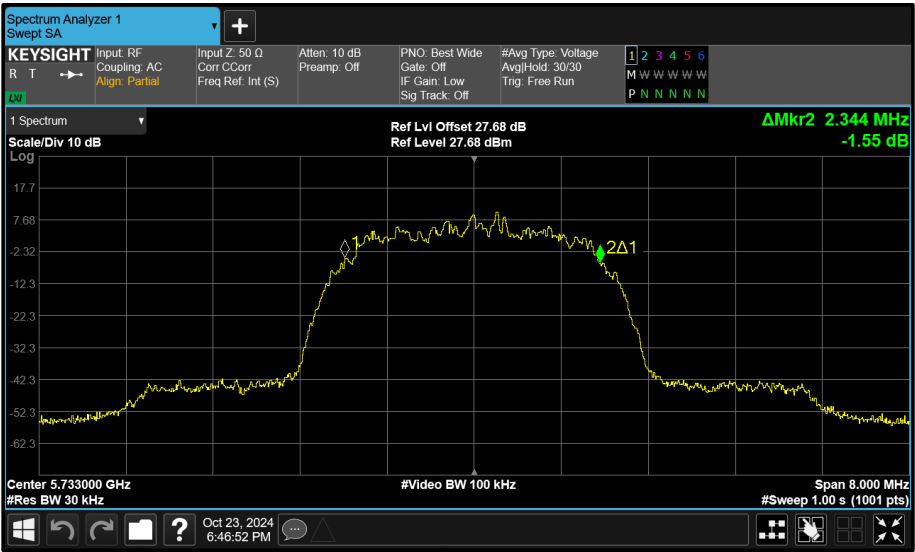


Figure 150 - Core 1 (B) 5733 MHz (CH8) 99% Bandwidth

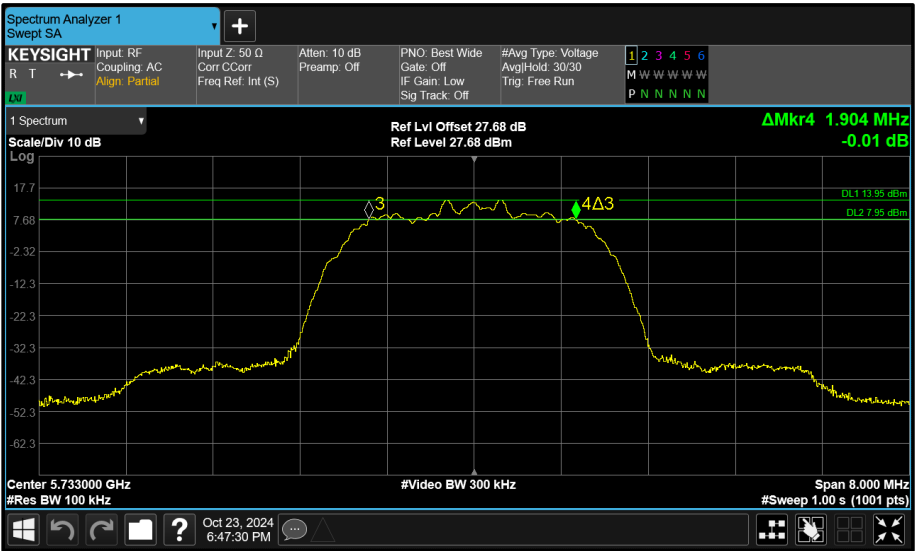


Figure 151 - Core 1 (B) 5733 MHz (CH8) 6 dB Bandwidth

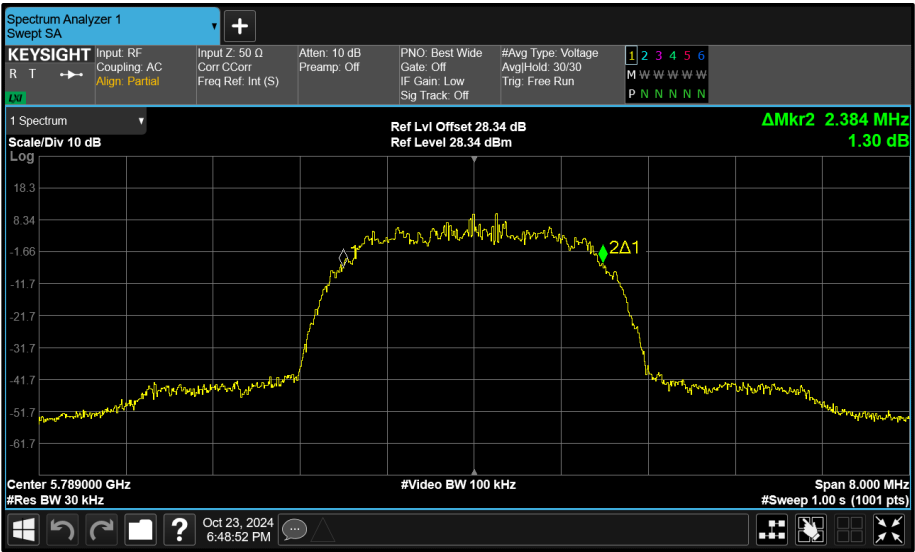


Figure 152 - Core 0 (A) 5789 MHz (CH64) 99% Bandwidth

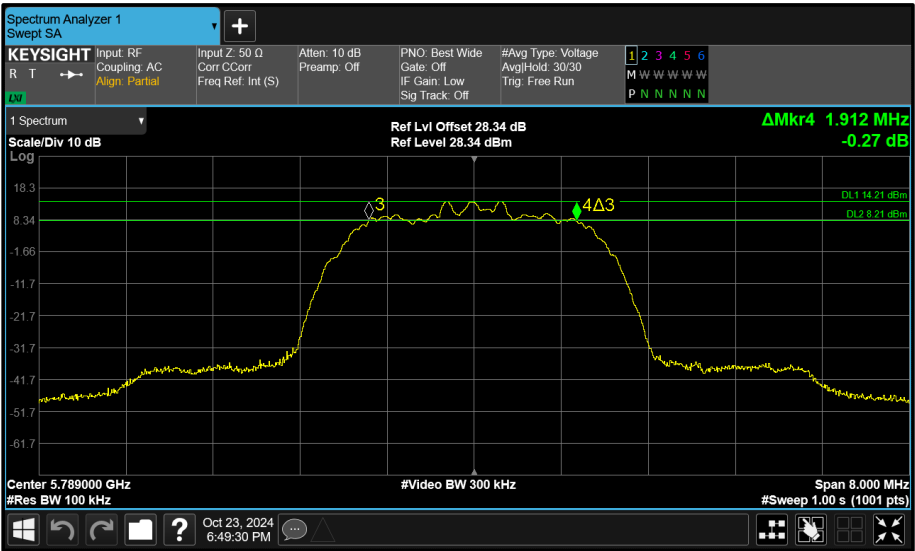


Figure 153 - Core 0 (A) 5789 MHz (CH64) 6 dB Bandwidth

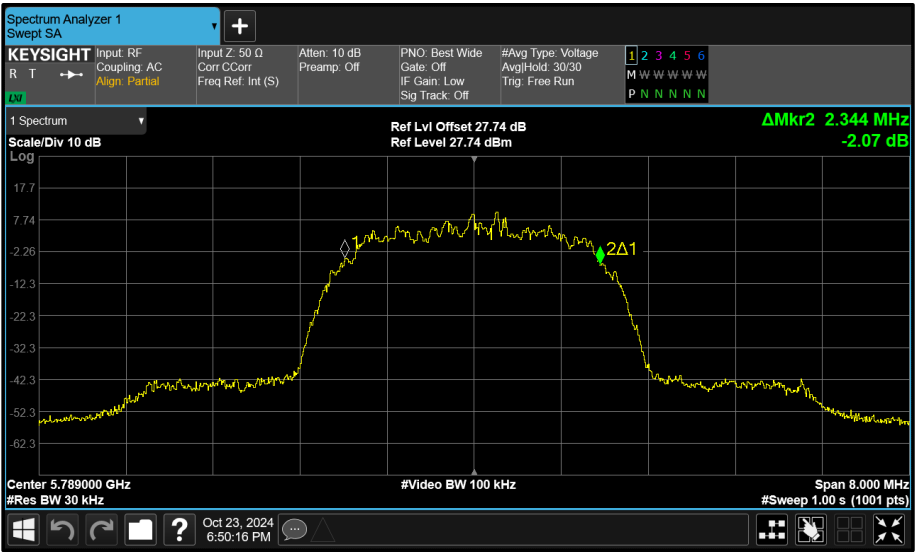


Figure 154 - Core 1 (B) 5789 MHz (CH64) 99% Bandwidth

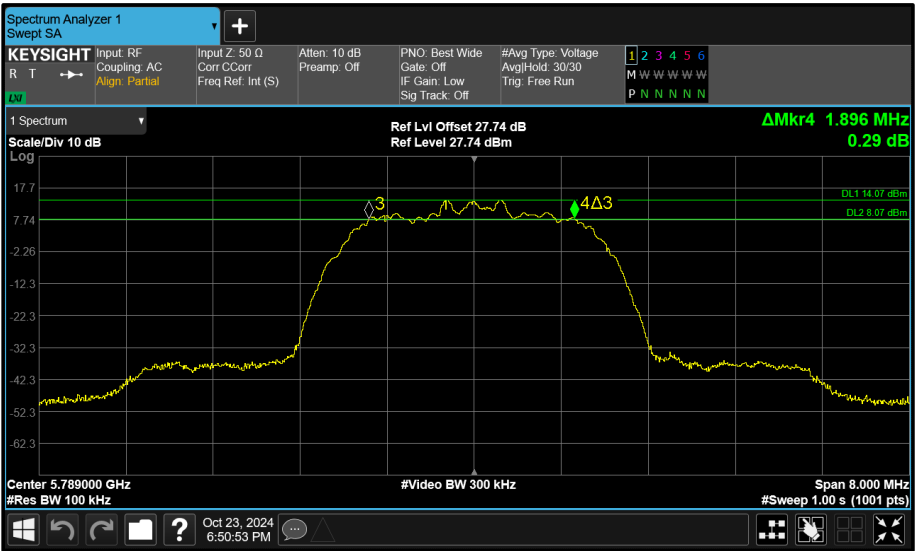


Figure 155 - Core 1 (B) 5789 MHz (CH64) 6 dB Bandwidth

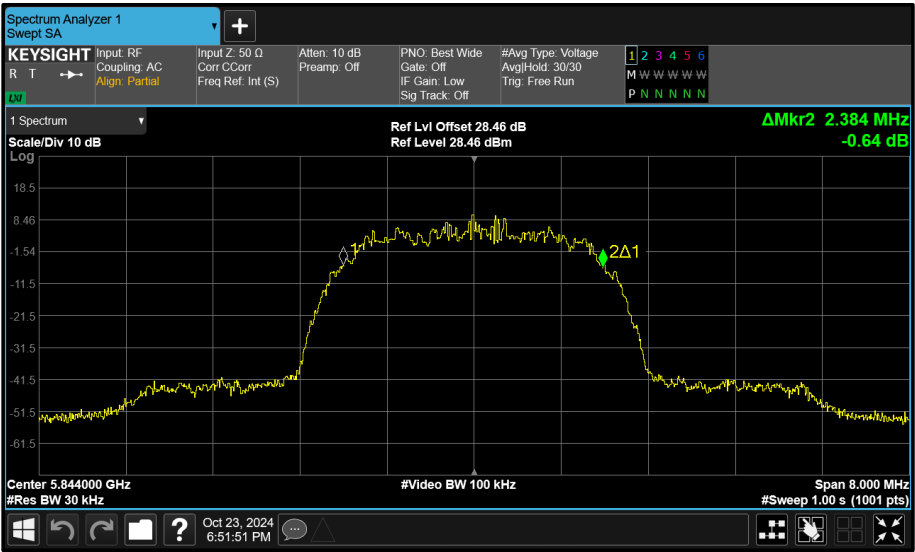


Figure 156 - Core 0 (A) 5844 MHz (CH119) 99% Bandwidth

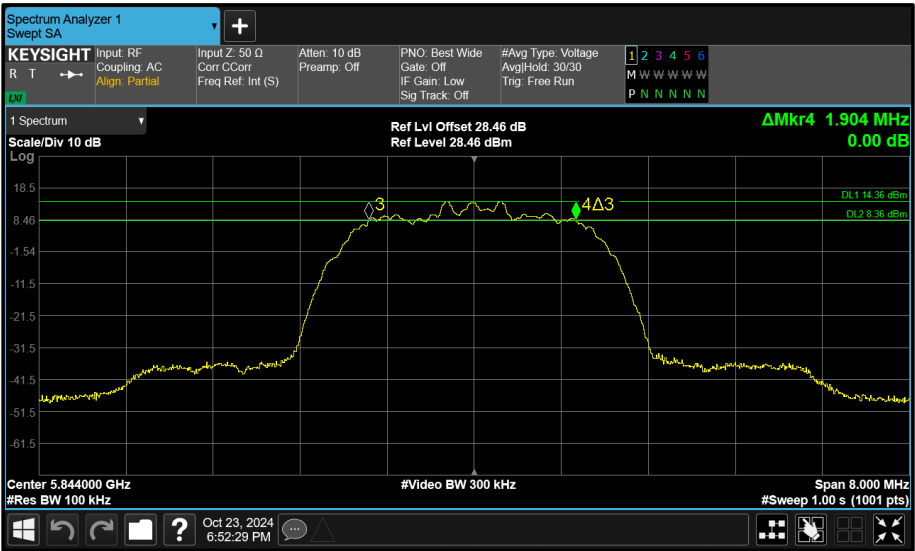


Figure 157 - Core 0 (A) 5844 MHz (CH119) 6 dB Bandwidth

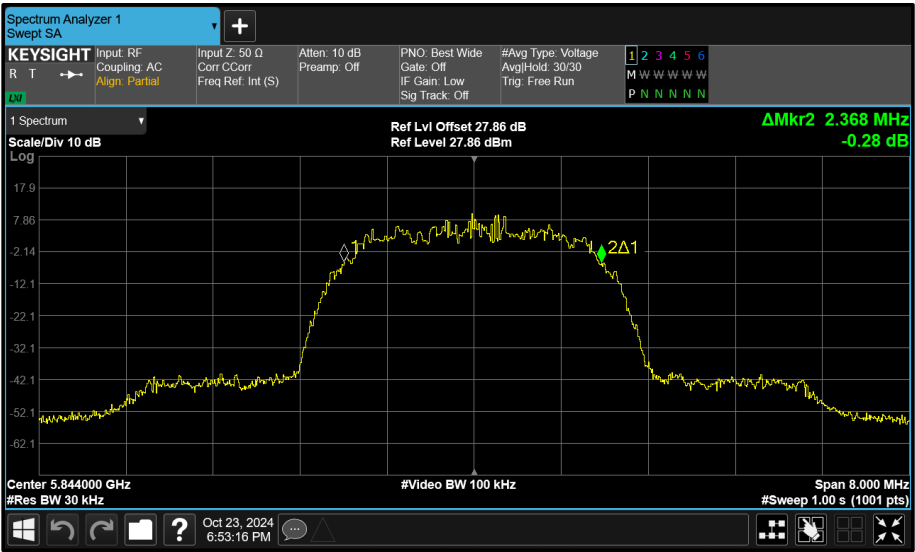


Figure 158 - Core 1 (B) 5844 MHz (CH119) 99% Bandwidth

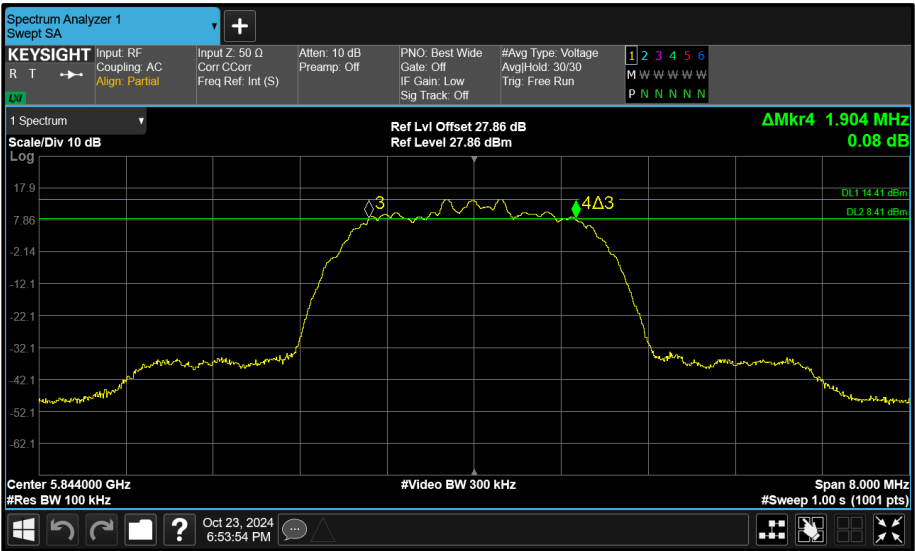


Figure 159 - Core 1 (B) 5844 MHz (CH119) 6 dB Bandwidth



Test Configuration			
Frequency Range:	5.725-5.850 GHz	Band:	U-NII-3
Limit Clause(s):	15.407(e) RSS-247 6.2.4.1	Test Method(s):	C63.10 6.9.2 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	1.020	1.020	-	-	≥ 500.0
5789	1.020	1.020	-	-	≥ 500.0
5844	1.020	1.020	-	-	≥ 500.0

Table 53 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5733	4.695	4.620	-	-	-
5789	4.710	4.620	-	-	-
5844	4.710	4.620	-	-	-

Table 54 - 99% Bandwidth Results

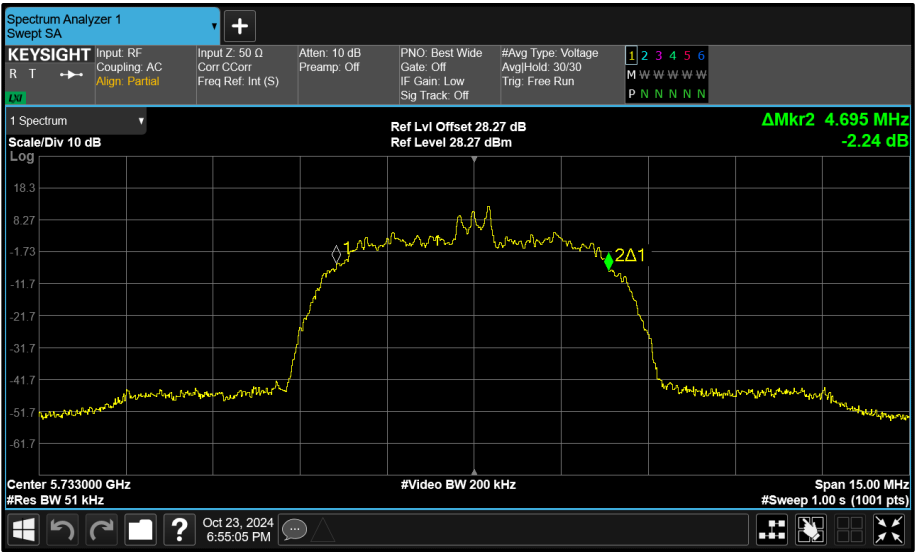


Figure 160 - Core 0 (A) 5733 MHz (CH8) 99% Bandwidth

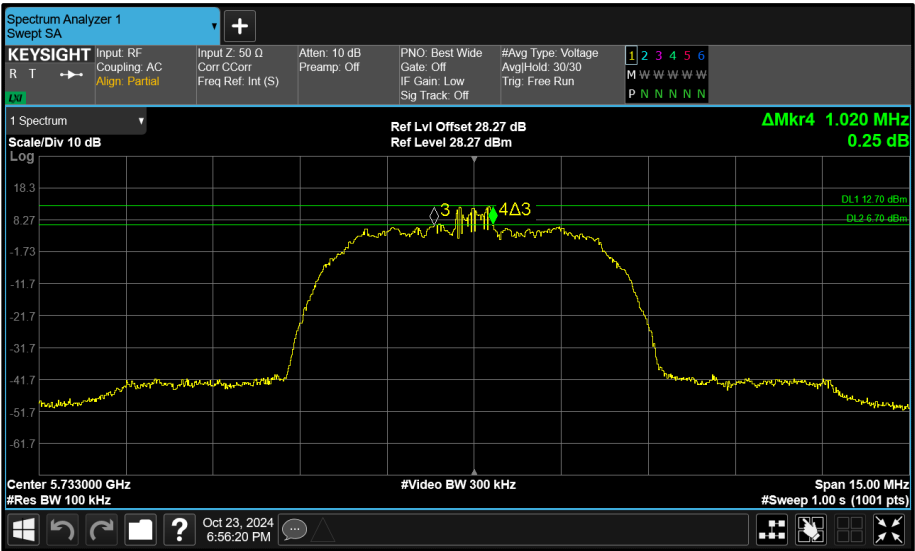


Figure 161 - Core 0 (A) 5733 MHz (CH8) 6 dB Bandwidth

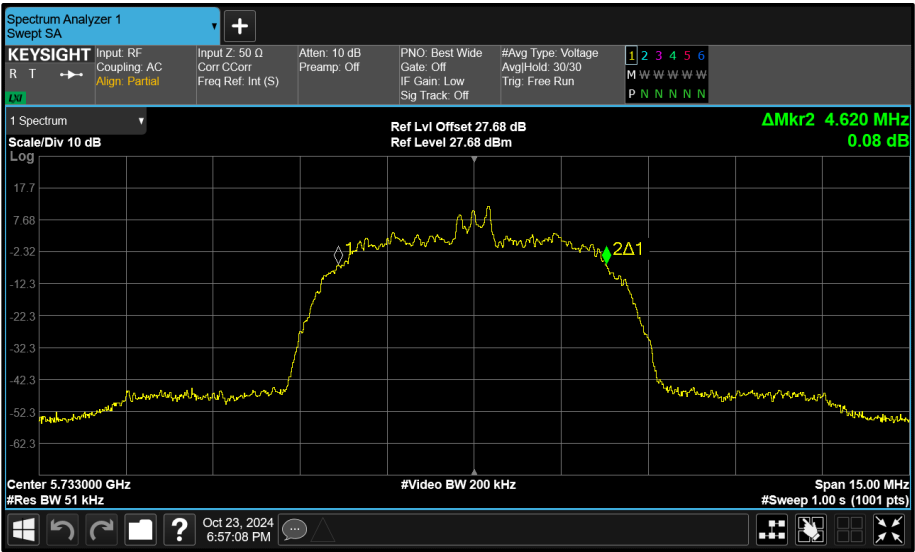


Figure 162 - Core 1 (B) 5733 MHz (CH8) 99% Bandwidth

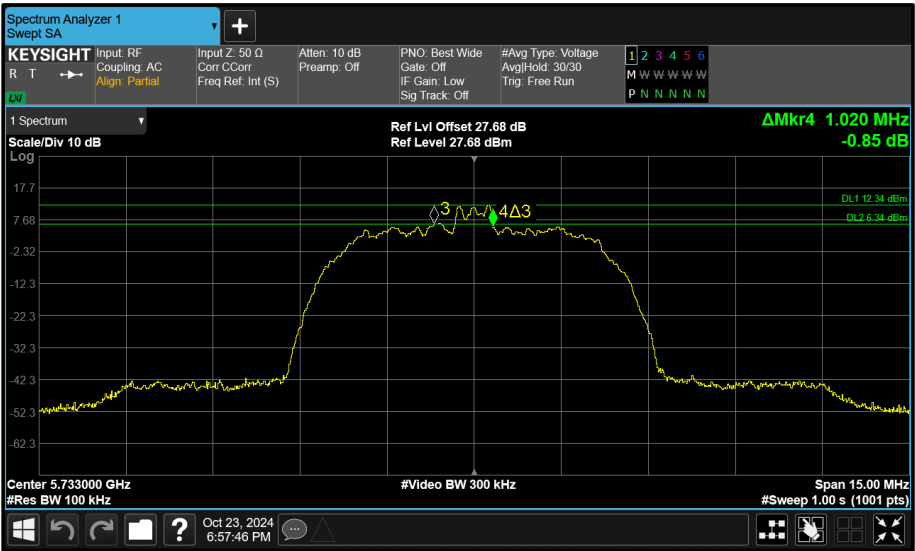


Figure 163 - Core 1 (B) 5733 MHz (CH8) 6 dB Bandwidth

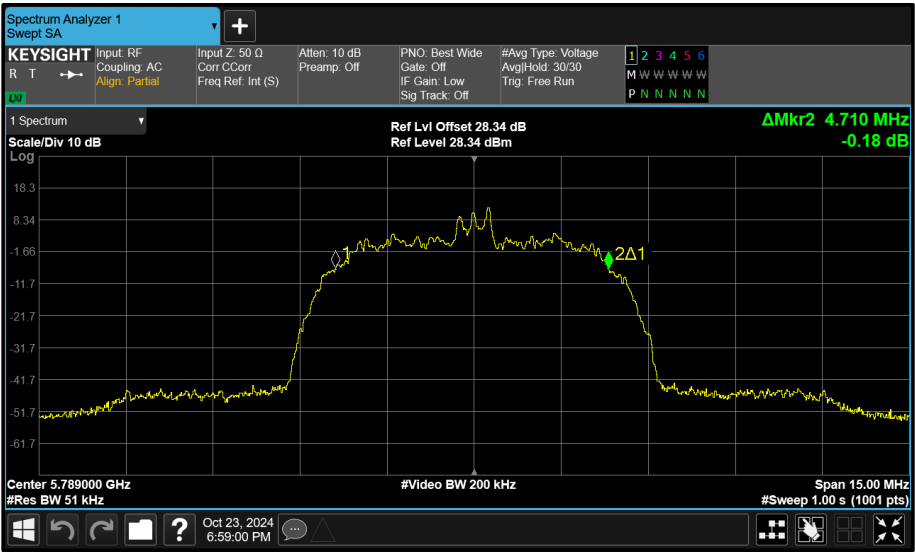


Figure 164 - Core 0 (A) 5789 MHz (CH64) 99% Bandwidth

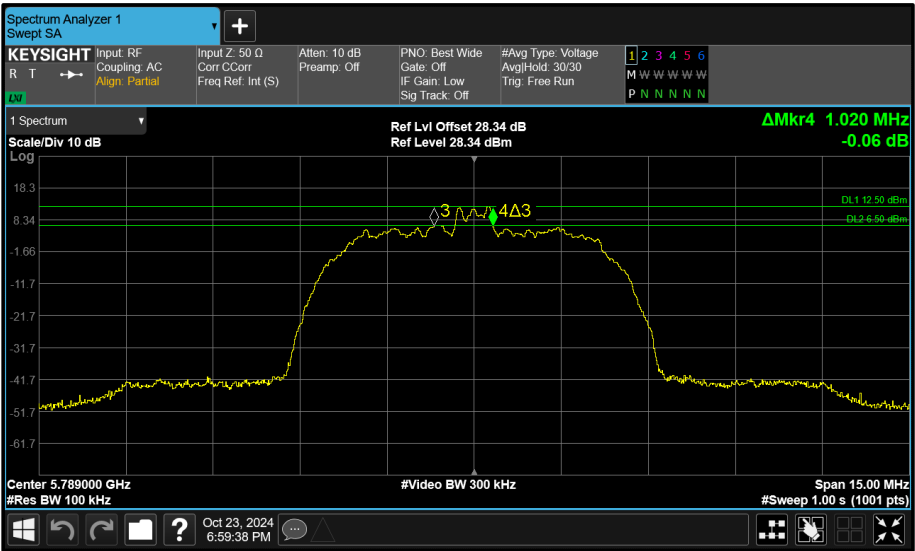


Figure 165 - Core 0 (A) 5789 MHz (CH64) 6 dB Bandwidth

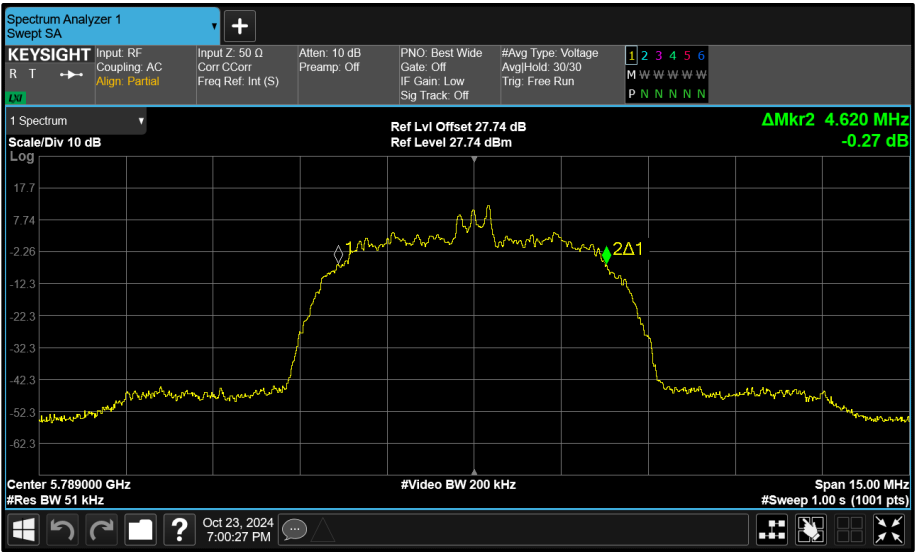


Figure 166 - Core 1 (B) 5789 MHz (CH64) 99% Bandwidth

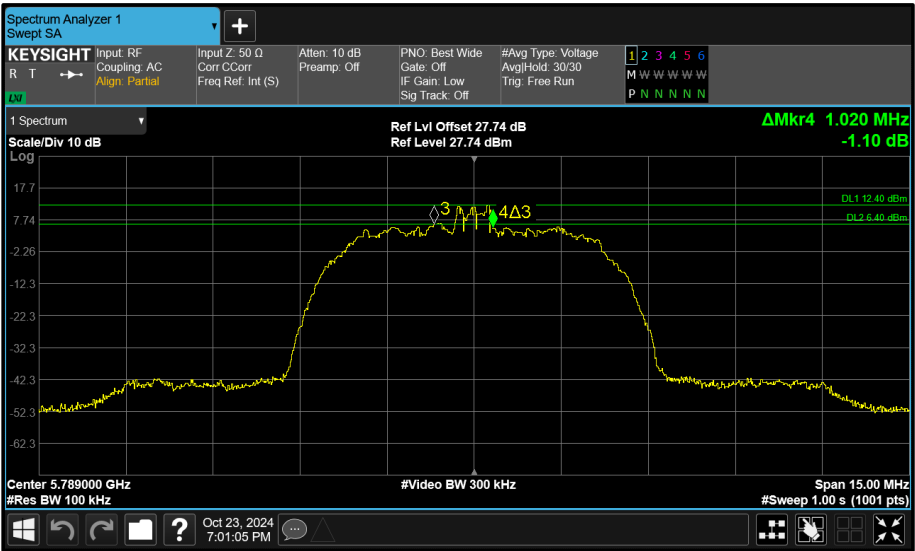


Figure 167 - Core 1 (B) 5789 MHz (CH64) 6 dB Bandwidth

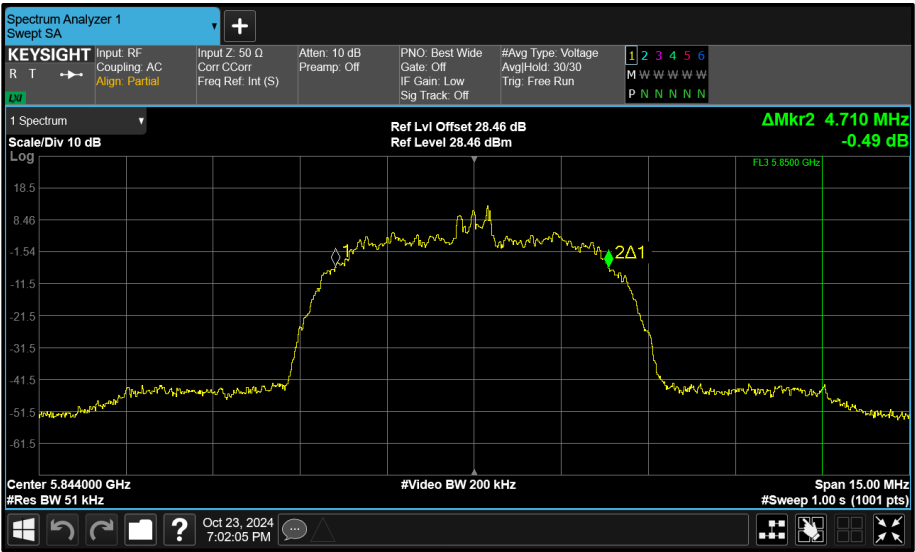


Figure 168 - Core 0 (A) 5844 MHz (CH119) 99% Bandwidth

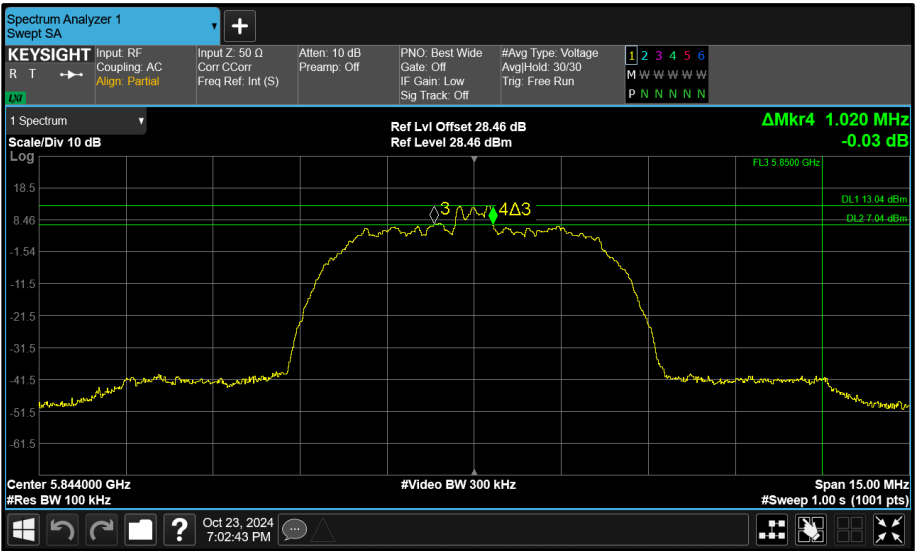


Figure 169 - Core 0 (A) 5844 MHz (CH119) 6 dB Bandwidth

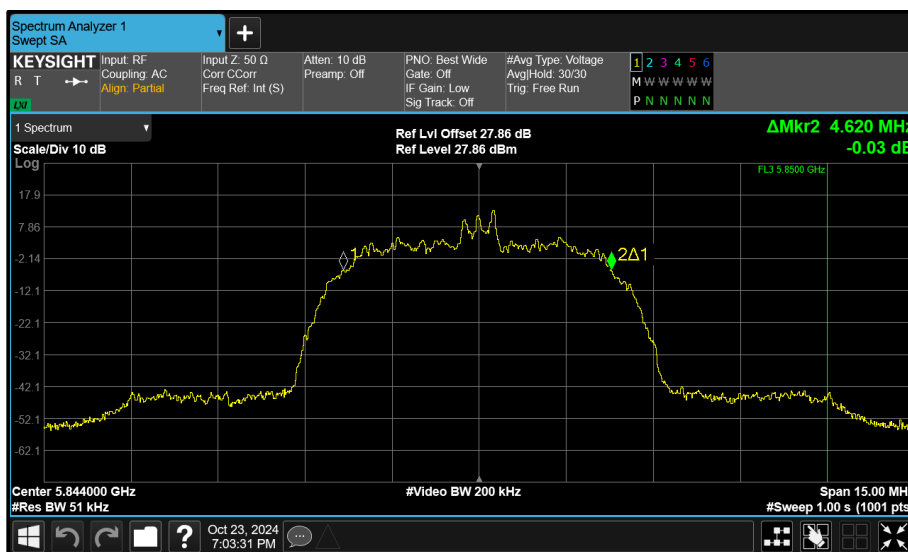


Figure 170 - Core 1 (B) 5844 MHz (CH119) 99% Bandwidth

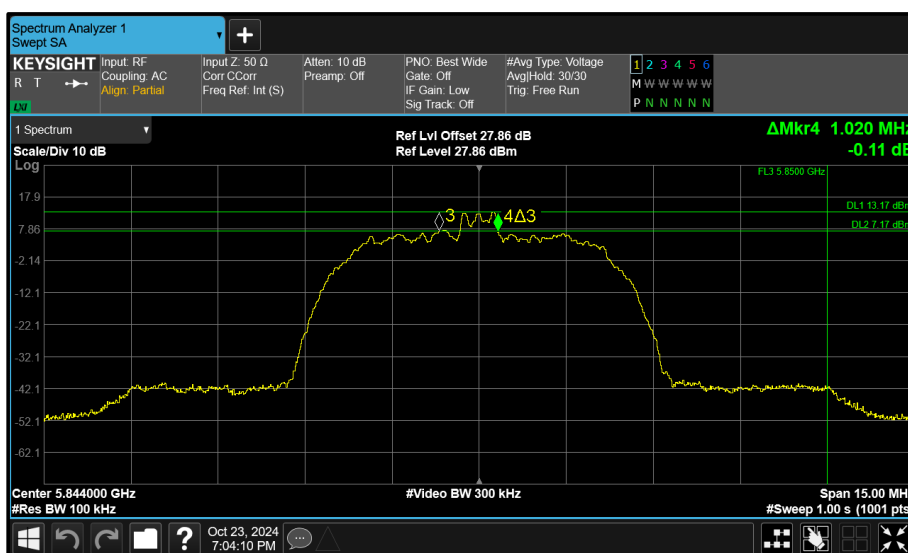


Figure 171 - Core 1 (B) 5844 MHz (CH119) 6 dB Bandwidth

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
USB Power Sensor	Boonton	RTP5008	5820	12	07-Feb-2025
USB Power Sensor	Boonton	RTP5008	5821	12	07-Feb-2025
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 55

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

A3143, S/N: NTP2P9W067 - Modification State 0
A3143, S/N: VCXLW6763J - Modification State 0

2.3.3 Date of Test

23-October-2024 to 01-November-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	20.9 - 22.3 °C
Relative Humidity	51.6 - 55.3 %



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 (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	9.53	-	-	-	24.00	-14.47
5204	-	9.95	-	-	-	24.00	-14.05
5245	-	9.84	-	-	-	24.00	-14.16

Table 56 - 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 (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	4.32	-	-	-	24.00	-19.68
5204	-	4.34	-	-	-	24.00	-19.66
5245	-	4.19	-	-	-	24.00	-19.81

Table 57 - 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 (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	4.17	-	-	-	24.00	-19.83
5204	-	4.30	-	-	-	24.00	-19.70
5245	-	4.10	-	-	-	24.00	-19.90

Table 58 - 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) RSS-247 6.2.4.1	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):	0.79

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	10.98	-	-	-	30.00	-19.02
5789	-	10.52	-	-	-	30.00	-19.48
5844	-	10.69	-	-	-	30.00	-19.31

Table 59 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	10.98	-	-	-	30.00	-19.02
5789	-	10.52	-	-	-	30.00	-19.48
5844	-	10.69	-	-	-	30.00	-19.31

Table 60 - ISSED 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) RSS-247 6.2.4.1	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):	0.79

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	4.23	-	-	-	30.00	-25.77
5789	-	4.43	-	-	-	30.00	-25.57
5844	-	4.43	-	-	-	30.00	-25.57

Table 61 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	4.23	-	-	-	30.00	-25.77
5789	-	4.43	-	-	-	30.00	-25.57
5844	-	4.43	-	-	-	30.00	-25.57

Table 62 - ISSED 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) RSS-247 6.2.4.1	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):	0.79

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	4.17	-	-	-	30.00	-25.83
5789	-	4.43	-	-	-	30.00	-25.57
5844	-	4.36	-	-	-	30.00	-25.64

Table 63 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	4.17	-	-	-	30.00	-25.83
5789	-	4.43	-	-	-	30.00	-25.57
5844	-	4.36	-	-	-	30.00	-25.64

Table 64 - ISSED 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 (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	11.67	-	-	-	24.00	-12.33
5204	-	11.75	-	-	-	24.00	-12.25
5245	-	11.51	-	-	-	24.00	-12.49

Table 65 - 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 (%):	78.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	-	13.20	-	-	-	24.00	-10.80
5204	-	13.37	-	-	-	24.00	-10.63
5245	-	13.25	-	-	-	24.00	-10.75

Table 66 - 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) RSS-247 6.2.4.1	Test Method(s):	C63.10 12.4.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	0.79

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	14.68	-	-	-	30.00	-15.32
5789	-	14.89	-	-	-	30.00	-15.11
5844	-	14.78	-	-	-	30.00	-15.22

Table 67 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	14.68	-	-	-	30.00	-15.32
5789	-	14.89	-	-	-	30.00	-15.11
5844	-	14.78	-	-	-	30.00	-15.22

Table 68 - ISSED 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) RSS-247 6.2.4.1	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):	0.79

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	13.30	-	-	-	30.00	-16.70
5789	-	13.10	-	-	-	30.00	-16.90
5844	-	13.40	-	-	-	30.00	-16.60

Table 69 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	-	13.30	-	-	-	30.00	-16.70
5789	-	13.10	-	-	-	30.00	-16.90
5844	-	13.40	-	-	-	30.00	-16.60

Table 70 - ISSED 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 (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.75

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	6.52	6.76	-	-	9.65	24.00	-14.35
5204	6.63	6.65	-	-	9.65	24.00	-14.35
5245	6.79	6.63	-	-	9.72	24.00	-14.28

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 $\pi/4$ 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):	4.75

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	4.00	3.47	-	-	6.75	24.00	-17.25
5204	4.46	3.29	-	-	6.92	24.00	-17.08
5245	4.06	4.33	-	-	7.21	24.00	-16.79

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):	4.75

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	4.03	3.17	-	-	6.63	24.00	-17.37
5204	4.25	3.25	-	-	6.79	24.00	-17.21
5245	4.48	3.83	-	-	7.18	24.00	-16.82

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) RSS-247 6.2.4.1	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):	3.65

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	10.76	10.53	-	-	13.66	30.00	-16.34
5789	10.87	10.50	-	-	13.70	30.00	-16.30
5844	10.75	10.42	-	-	13.60	30.00	-16.40

Table 74 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	10.76	10.53	-	-	13.66	30.00	-16.34
5789	10.87	10.50	-	-	13.70	30.00	-16.30
5844	10.75	10.42	-	-	13.60	30.00	-16.40

Table 75 - ISSED 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) RSS-247 6.2.4.1	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):	3.65

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	4.12	4.06	-	-	7.10	30.00	-22.90
5789	4.47	4.40	-	-	7.45	30.00	-22.55
5844	4.37	4.41	-	-	7.40	30.00	-22.60

Table 76 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	4.12	4.06	-	-	7.10	30.00	-22.90
5789	4.47	4.40	-	-	7.45	30.00	-22.55
5844	4.37	4.41	-	-	7.40	30.00	-22.60

Table 77 - ISSED 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) RSS-247 6.2.4.1	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):	3.65

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	4.50	4.10	-	-	7.32	30.00	-22.68
5789	4.15	2.71	-	-	6.50	30.00	-23.50
5844	4.50	4.46	-	-	7.49	30.00	-22.51

Table 78 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	4.50	4.10	-	-	7.32	30.00	-22.68
5789	4.15	2.71	-	-	6.50	30.00	-23.50
5844	4.50	4.46	-	-	7.49	30.00	-22.51

Table 79 - ISSED 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 (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.75

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	8.67	7.98	-	-	11.35	24.00	-12.65
5204	8.75	7.77	-	-	11.30	24.00	-12.70
5245	8.58	7.78	-	-	11.21	24.00	-12.79

Table 80 - 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 (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.75

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5162	10.89	10.12	-	-	13.53	24.00	-10.47
5204	10.60	9.76	-	-	13.21	24.00	-10.79
5245	10.89	10.05	-	-	13.50	24.00	-10.50

Table 81 - 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) RSS-247 6.2.4.1	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 (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	3.65

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	14.93	14.68	-	-	17.82	30.00	-12.18
5789	15.00	14.86	-	-	17.94	30.00	-12.06
5844	14.89	14.90	-	-	17.90	30.00	-12.10

Table 82 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	14.93	14.68	-	-	17.82	30.00	-12.18
5789	15.00	14.86	-	-	17.94	30.00	-12.06
5844	14.89	14.90	-	-	17.90	30.00	-12.10

Table 83 - ISSED 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) RSS-247 6.2.4.1	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):	3.65

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	13.06	12.67	-	-	15.88	30.00	-14.12
5789	13.12	12.52	-	-	15.84	30.00	-14.16
5844	13.43	13.43	-	-	16.44	30.00	-13.56

Table 84 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
5733	13.06	12.67	-	-	15.88	30.00	-14.12
5789	13.12	12.52	-	-	15.84	30.00	-14.16
5844	13.43	13.43	-	-	16.44	30.00	-13.56

Table 85 - ISSED 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 86

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 87



2.3.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 14 and 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
USB Power Sensor	Boonton	RTP5008	5820	12	07-Feb-2025
USB Power Sensor	Boonton	RTP5008	5821	12	07-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	6518	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6529	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6530	12	16-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6587	12	13-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6588	12	13-Feb-2025
AC Programmable Power Supply	iTech	IT7324	6662	-	O/P Mon
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 88

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

A3143, S/N: NTP2P9W067 - Modification State 0
A3143, S/N: VCXLW6763J - Modification State 0

2.4.3 Date of Test

23-October-2024 to 01-November-2024

2.4.4 Test Method

The test was performed in accordance with ANSI C63.10 clause 12.6 for FCC and ISSED 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 the CDD results the Directional Gain was calculated in accordance with the equation given in clause F)2)f)(ii) summed for a single spatial stream.

For SDM modes Directional Gain was calculated in accordance with clause F)2)d)(ii).

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

2.4.5 Environmental Conditions

Ambient Temperature	20.9 - 22.3 °C
Relative Humidity	51.2 - 55.3 %



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 (%):	76.7
Antenna Configuration:	SISO	DCCF (dB):	1.15
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	8.86	-	-	-	11.00	-2.14
5204	-	8.70	-	-	-	11.00	-2.30
5245	-	9.06	-	-	-	11.00	-1.94

Table 89 - 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 (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	2.27	-	-	-	11.00	-8.73
5204	-	1.25	-	-	-	11.00	-9.75
5245	-	2.06	-	-	-	11.00	-8.94

Table 90 - 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 (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	-0.82	-	-	-	11.00	-11.82
5204	-	-0.52	-	-	-	11.00	-11.52
5245	-	-1.27	-	-	-	11.00	-12.27

Table 91 - 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) RSS-247 6.2.4.1	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):	0.79

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	10.27	-	-	-	30.00	-19.73
5789	-	10.16	-	-	-	30.00	-19.84
5844	-	9.69	-	-	-	30.00	-20.31

Table 92 - 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) RSS-247 6.2.4.1	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):	0.79

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	-1.25	-	-	-	30.00	-31.25
5789	-	-0.91	-	-	-	30.00	-30.91
5844	-	0.12	-	-	-	30.00	-29.88

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) RSS-247 6.2.4.1	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):	0.79

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	-3.03	-	-	-	30.00	-33.03
5789	-	-3.82	-	-	-	30.00	-33.82
5844	-	-2.51	-	-	-	30.00	-32.51

Table 94 - 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 (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	9.12	-	-	-	11.00	-1.88
5204	-	9.26	-	-	-	11.00	-1.74
5245	-	9.48	-	-	-	11.00	-1.52

Table 95 - 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 (%):	78.3
Antenna Configuration:	SISO	DCCF (dB):	1.06
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	2.67

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-	7.64	-	-	-	11.00	-3.36
5204	-	7.69	-	-	-	11.00	-3.31
5245	-	8.75	-	-	-	11.00	-2.25

Table 96 - 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) RSS-247 6.2.4.1	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 (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	0.79

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	9.89	-	-	-	30.00	-20.11
5789	-	9.37	-	-	-	30.00	-20.63
5844	-	9.83	-	-	-	30.00	-20.17

Table 97 - 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) RSS-247 6.2.4.1	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):	0.79

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	6.85	-	-	-	30.00	-23.15
5789	-	6.80	-	-	-	30.00	-23.20
5844	-	5.84	-	-	-	30.00	-24.16

Table 98 - 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 (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	1.15
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.75

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	6.72	6.21	-	-	9.48	11.00	-1.52
5204	6.21	6.40	-	-	9.32	11.00	-1.68
5245	6.20	6.23	-	-	9.23	11.00	-1.77

Table 99 - 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 (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):	4.75

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	1.82	0.90	-	-	4.40	11.00	-6.60
5204	1.77	0.54	-	-	4.21	11.00	-6.79
5245	0.94	1.29	-	-	4.13	11.00	-6.87

Table 100 - 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):	4.75

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	-1.19	-1.88	-	-	1.49	11.00	-9.51
5204	-1.38	-2.10	-	-	1.29	11.00	-9.71
5245	-0.51	-1.89	-	-	1.87	11.00	-9.13

Table 101 - 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) RSS-247 6.2.4.1	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):	3.65

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	9.58	9.69	-	-	12.65	30.00	-17.35
5789	10.19	9.35	-	-	12.80	30.00	-17.20
5844	10.36	9.79	-	-	13.09	30.00	-16.91

Table 102 - 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) RSS-247 6.2.4.1	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):	3.65

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-0.84	-0.28	-	-	2.46	30.00	-27.54
5789	-0.04	-0.21			2.88	30.00	-27.12
5844	0.19	-0.07	-	-	3.07	30.00	-26.93

Table 103 - 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) RSS-247 6.2.4.1	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):	3.65

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-3.25	-3.99	-	-	-0.60	30.00	-30.60
5789	-3.53	-4.63	-	-	-1.03	30.00	-31.03
5844	-2.33	-2.18	-	-	0.75	30.00	-29.25

Table 104 - 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 (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):	4.75

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	6.75	5.77	-	-	9.30	11.00	-1.70
5204	5.41	5.11	-	-	8.27	11.00	-2.73
5245	6.23	5.11	-	-	8.72	11.00	-2.28

Table 105 - 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 (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.75

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / MHz)	Margin (dB)
	A	B	C	D	Σ		
5162	6.30	5.24	-	-	8.81	11.00	-2.19
5204	4.80	4.50	-	-	7.66	11.00	-3.34
5245	5.67	4.48	-	-	8.13	11.00	-2.87

Table 106 - 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) RSS-247 6.2.4.1	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 (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	1.07
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	3.65

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	10.28	9.68	-	-	13.00	30.00	-17.00
5789	10.20	9.93	-	-	13.08	30.00	-16.92
5844	10.39	10.79	-	-	13.61	30.00	-16.39

Table 107 - 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) RSS-247 6.2.4.1	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):	3.65

Test Frequency (MHz)	PSD (dBm/MHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	5.00	4.74	-	-	7.88	30.00	-22.12
5789	5.74	6.12	-	-	8.95	30.00	-21.05
5844	6.61	6.96	-	-	9.80	30.00	-20.20

Table 108 - 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 109

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 110

*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
USB Power Sensor	Boonton	RTP5008	5820	12	07-Feb-2025
USB Power Sensor	Boonton	RTP5008	5821	12	07-Feb-2025
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
MXA Signal Analyser	Keysight Technologies	N9020B	6417	24	26-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6518	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6529	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6530	12	16-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6587	12	13-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6588	12	13-Feb-2025
AC Programmable Power Supply	iTech	IT7324	6662	-	O/P Mon
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 111

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

A3143, S/N: P44KN4197F - Modification State 0
A3143, S/N: GCYK43TX1V - Modification State 0

2.5.3 Date of Test

24-July-2024 to 25-July-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	19.9 - 22.6 °C
Relative Humidity	45.2 - 51.6 %



2.5.6 Test Results

Narrowband

iPA - Core 0 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)
Static	DH5	5733	5725	55.83
Static	HDR4	5733	5725	55.86
Static	HDR8	5733	5725	55.67
Static	DH5	5844	5850	56.12
Static	HDR4	5844	5850	56.49
Static	HDR8	5844	5850	56.98

Table 112 - SISO Authorised Band Edge Results

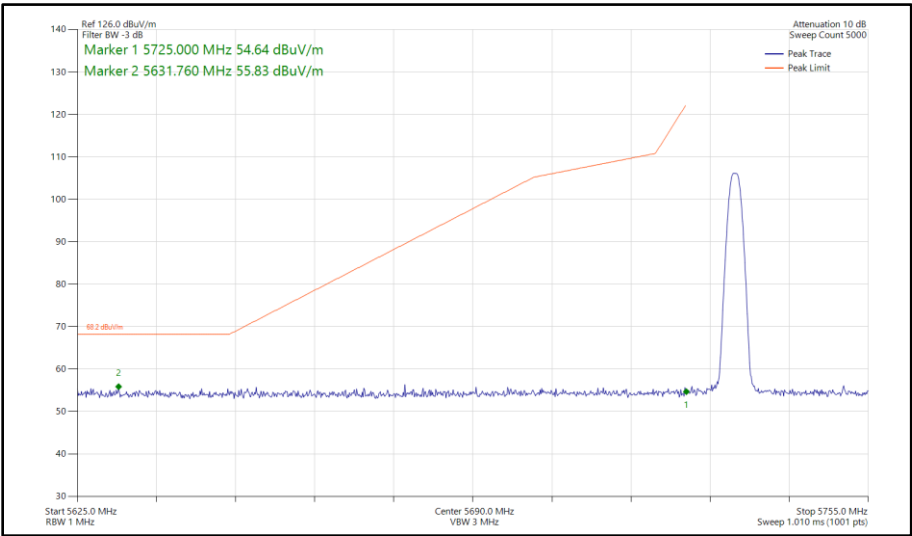


Figure 172 - Bluetooth DH5, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz

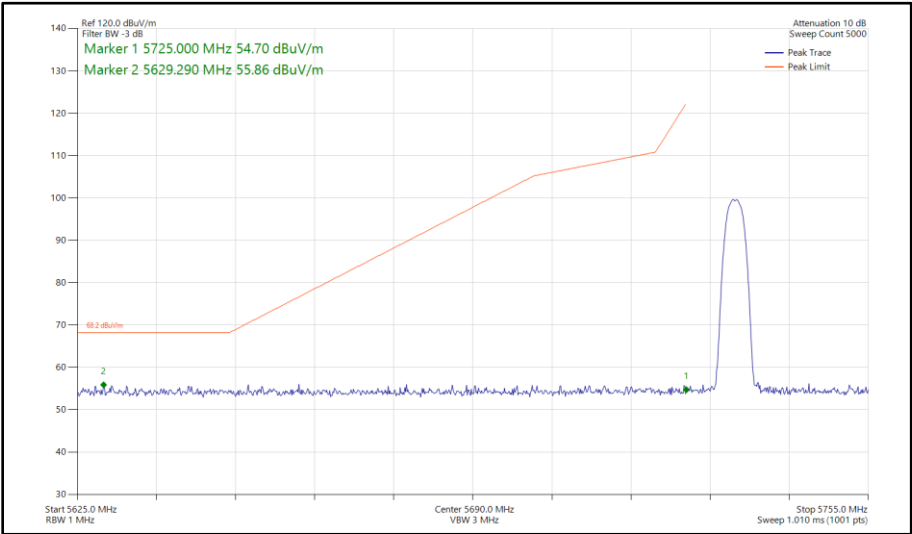


Figure 173 - Bluetooth HDR4, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz

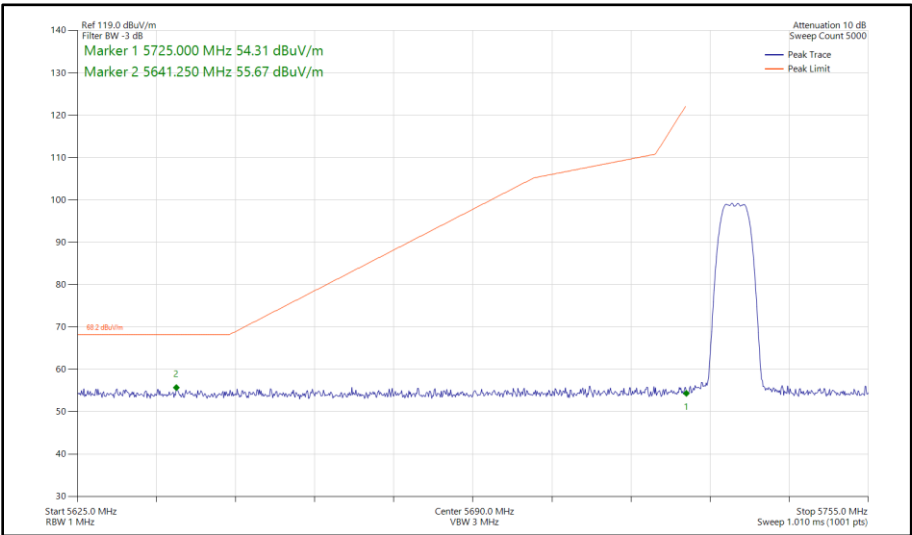


Figure 174 - Bluetooth HDR8, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz

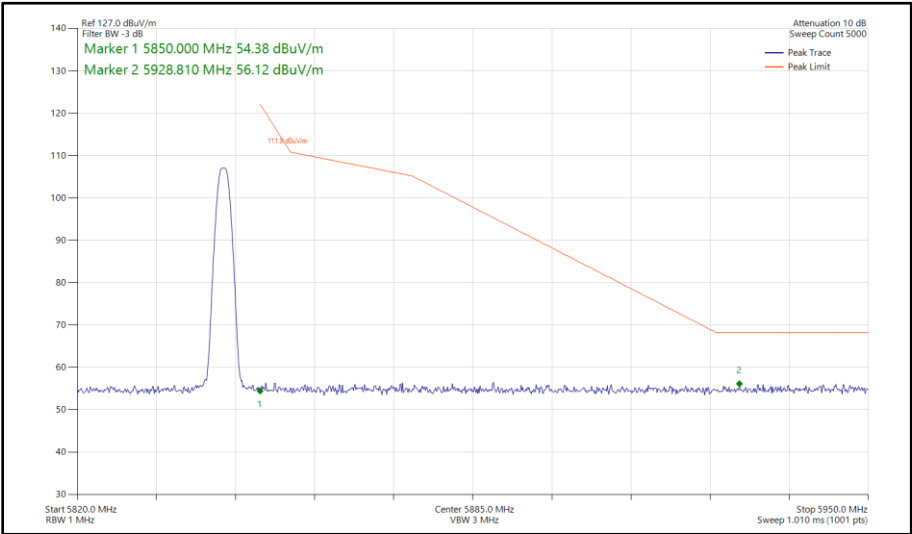


Figure 175 - Bluetooth DH5, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz

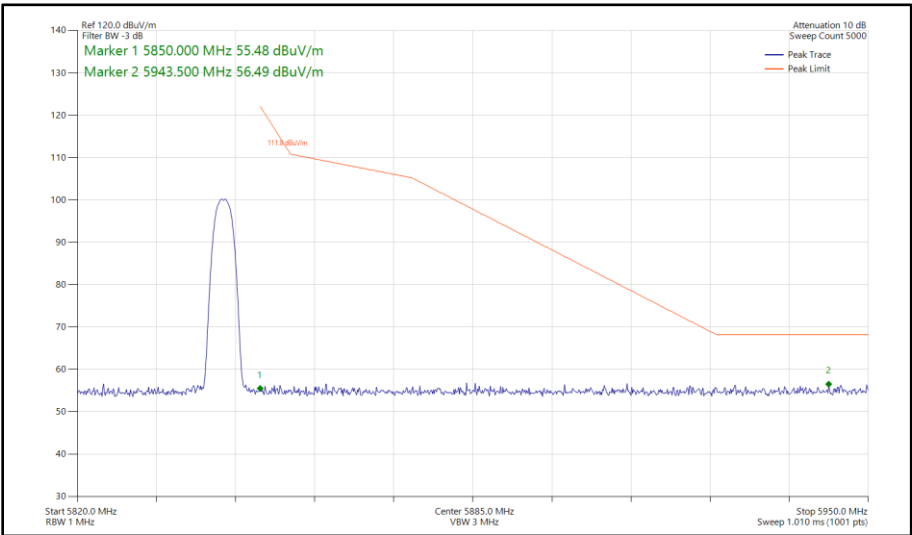
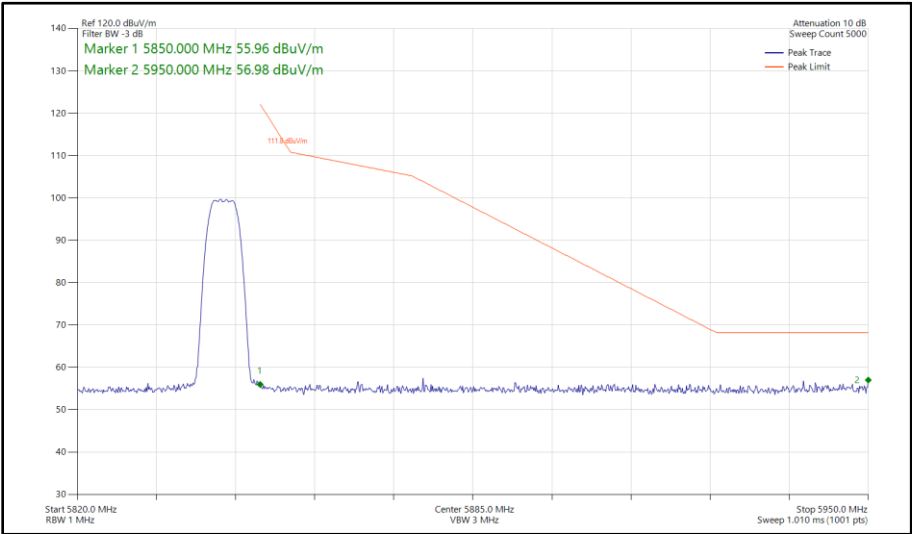


Figure 176 - Bluetooth HDR4, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz

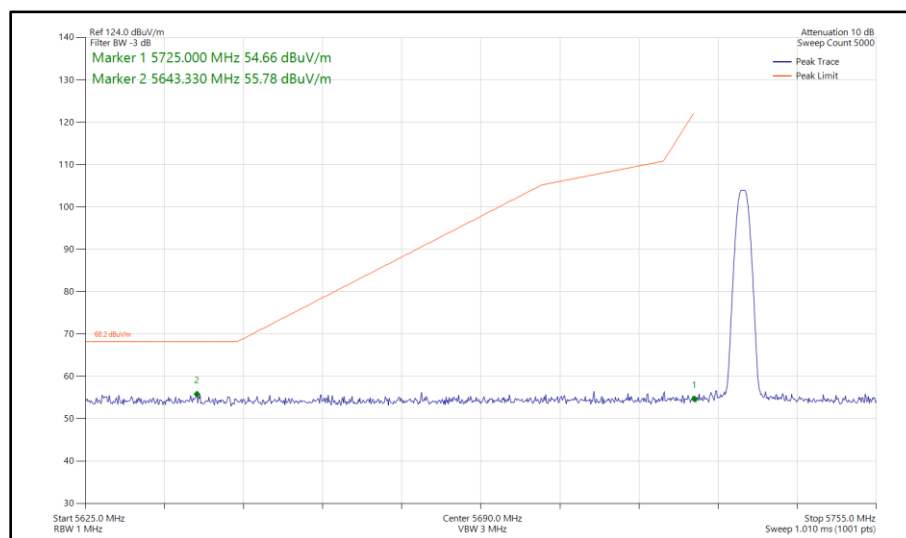


**Figure 177 - Bluetooth HDR8, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz**

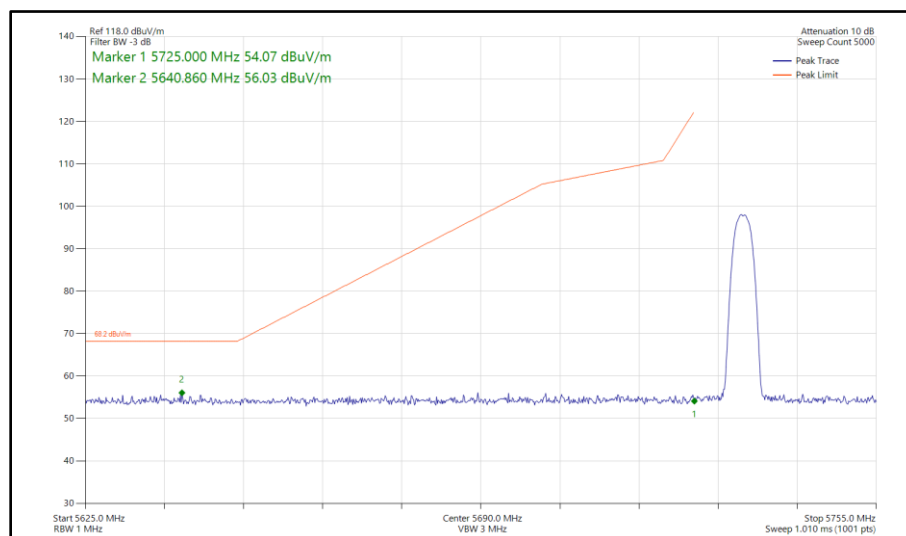
iPA - Core 1 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)
Static	DH5	5733	5725	55.78
Static	HDR4	5733	5725	56.03
Static	HDR8	5733	5725	55.40
Static	DH5	5844	5850	56.30
Static	HDR4	5844	5850	56.40
Static	HDR8	5844	5850	56.00

Table 113 - SISO Authorised Band Edge Results



**Figure 178 - Bluetooth DH5, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**



**Figure 179 - Bluetooth HDR4, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**

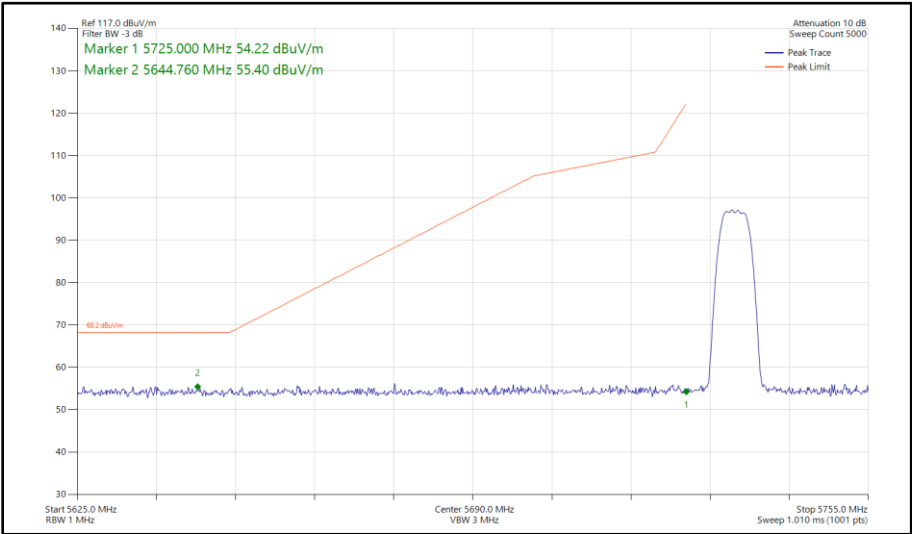


Figure 180 - Bluetooth HDR8, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

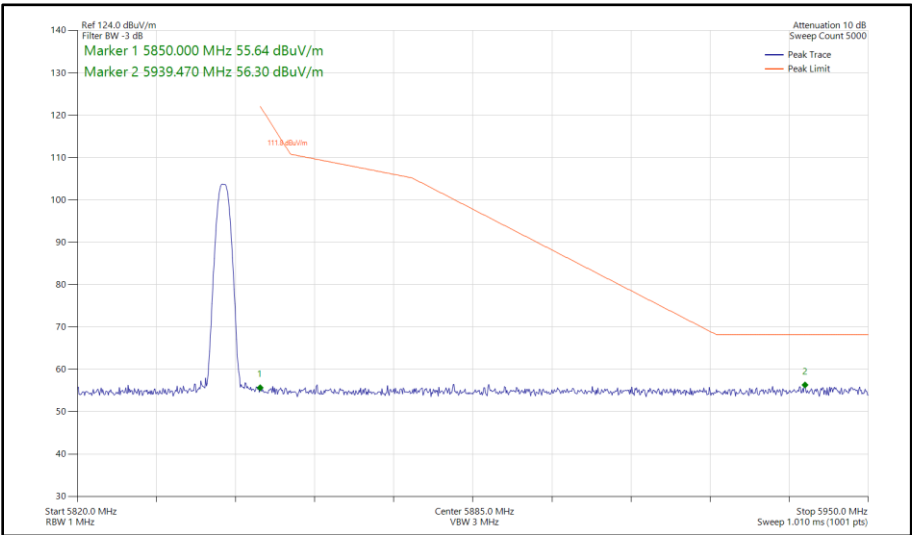


Figure 181 - Bluetooth DH5, SISO, Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz

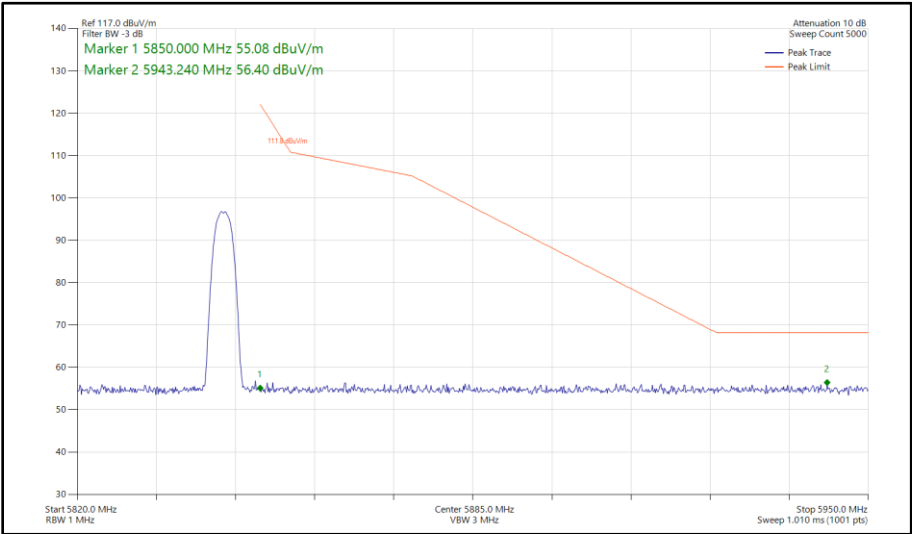


Figure 182 - Bluetooth HDR4, SISO, Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz

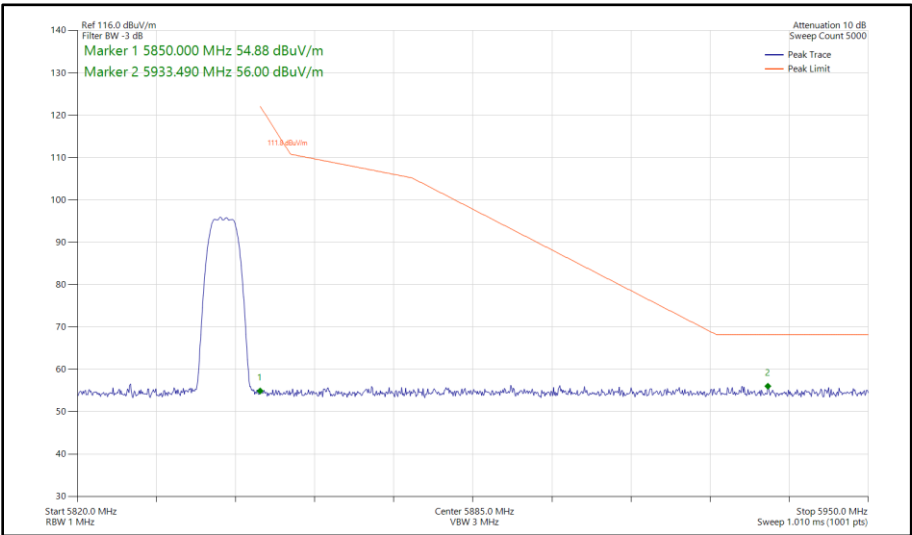


Figure 183 - Bluetooth HDR8, SISO, Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz

iPA - Core 0 - Core 1 (MIMO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)
Static	DH5	5733	5725	56.18
Static	HDR4	5733	5725	56.08
Static	HDR8	5733	5725	55.60
Static	DH5	5844	5850	56.48
Static	HDR4	5844	5850	57.00
Static	HDR8	5844	5850	56.06

Table 114 - MIMO Authorised Band Edge Results

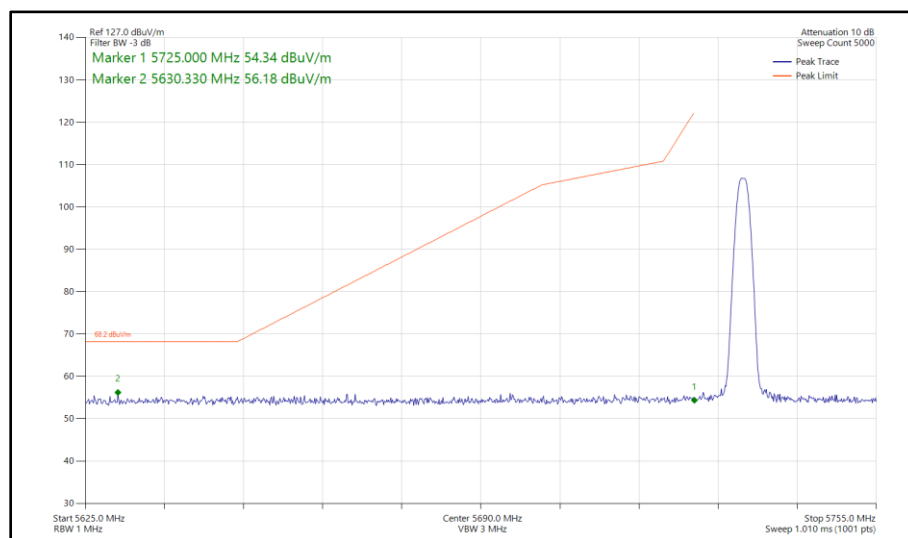


Figure 184 - Bluetooth DH5, MIMO, Core 0 - Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

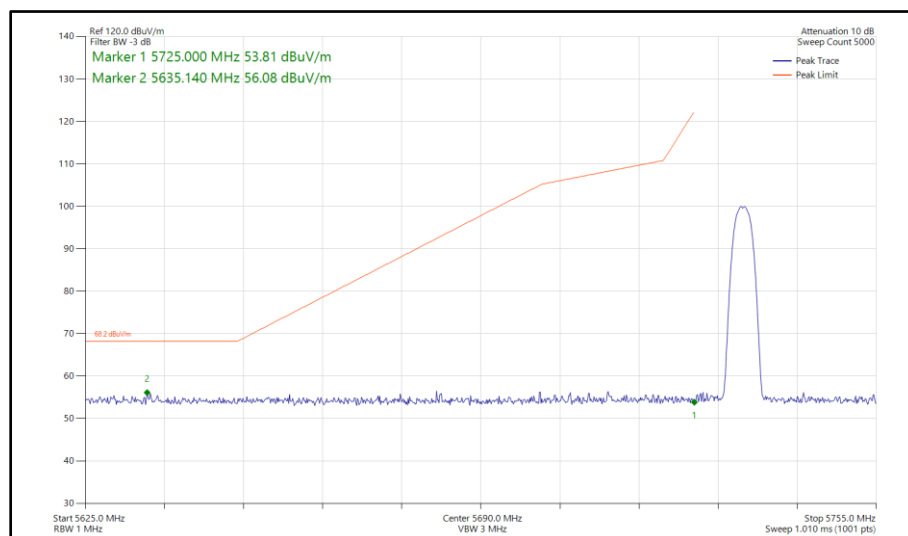


Figure 185 - Bluetooth HDR4, MIMO, Core 0 - Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

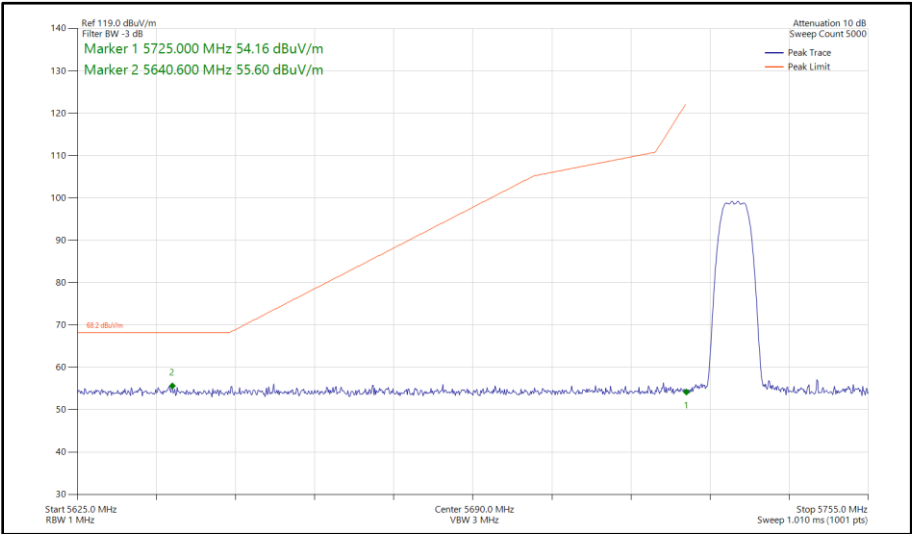


Figure 186 - Bluetooth HDR8, MIMO, Core 0 - Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

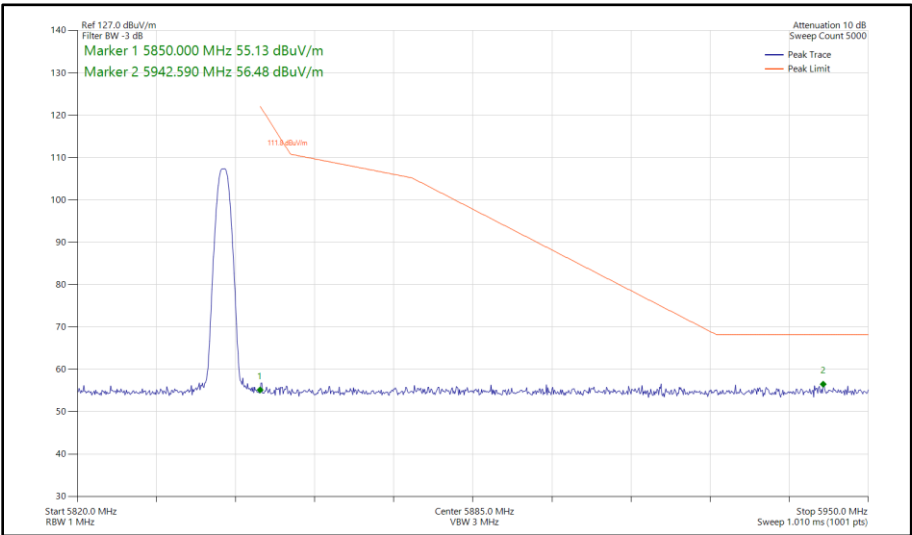


Figure 187 - Bluetooth DH5, MIMO, Core 0 - Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz

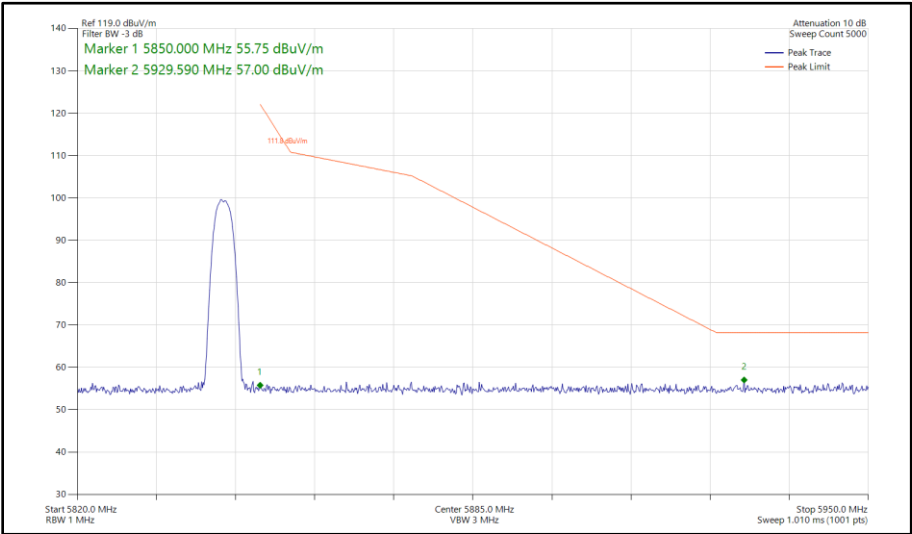


Figure 188 - Bluetooth HDR4, MIMO, Core 0 - Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz

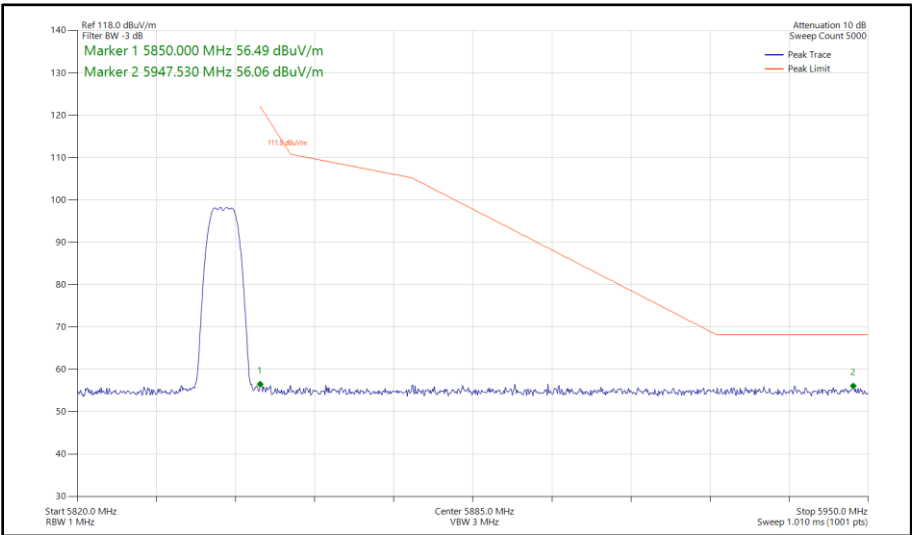


Figure 189 - Bluetooth HDR8, MIMO, Core 0 - Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz

ePA - Core 0 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)
Static	DH5	5733	5725	56.34
Static	HDR4	5733	5725	56.29
Static	HDR8	5733	5725	56.11
Static	DH5	5844	5850	57.09
Static	HDR4	5844	5850	56.43
Static	HDR8	5844	5850	56.81

Table 115 - SISO Authorised Band Edge Results

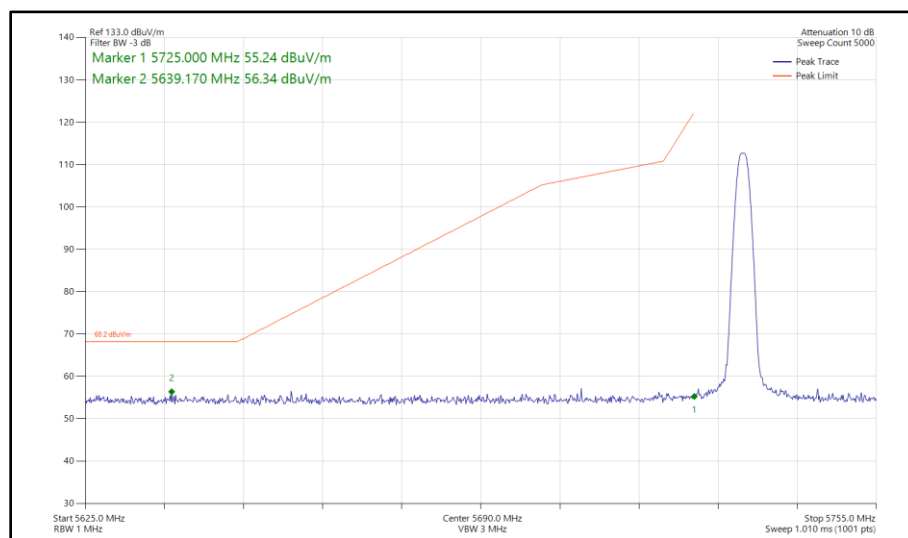


Figure 190 - Bluetooth DH5, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz

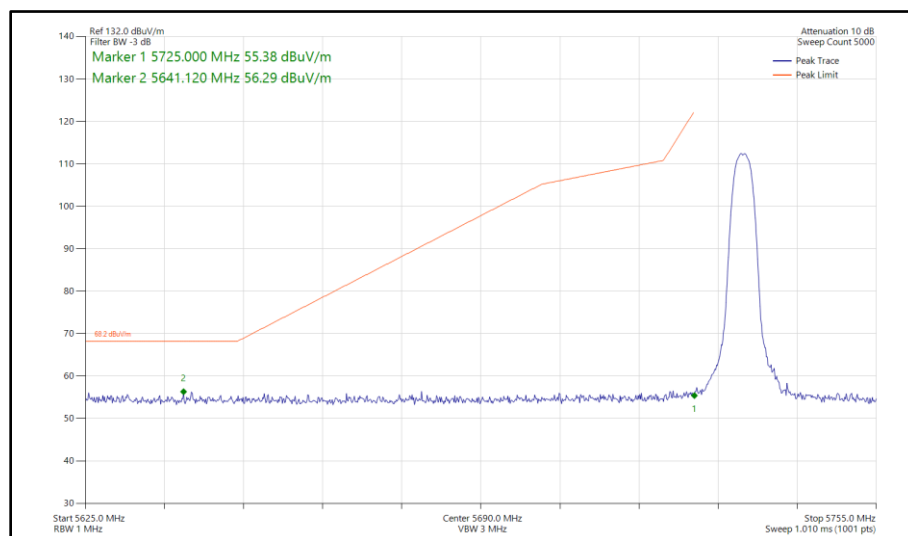


Figure 191 - Bluetooth HDR4, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz

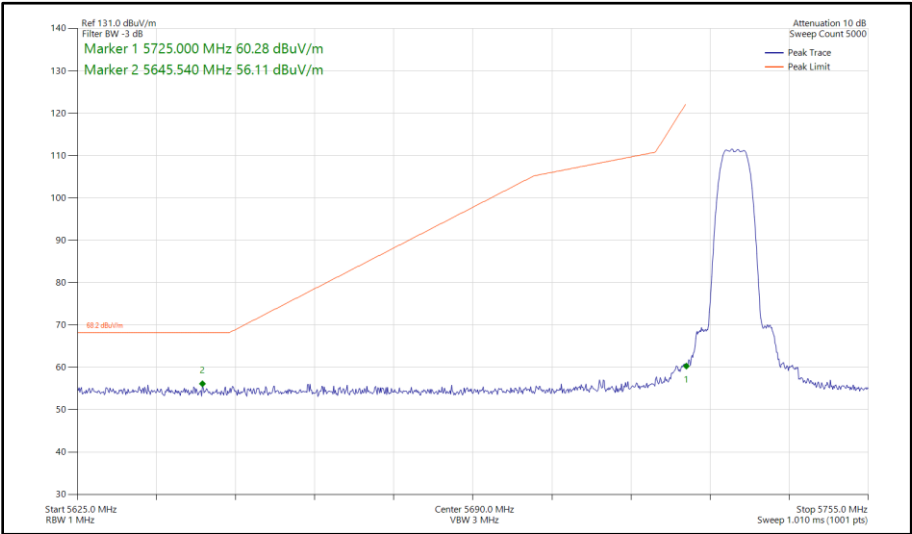


Figure 192 - Bluetooth HDR8, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz

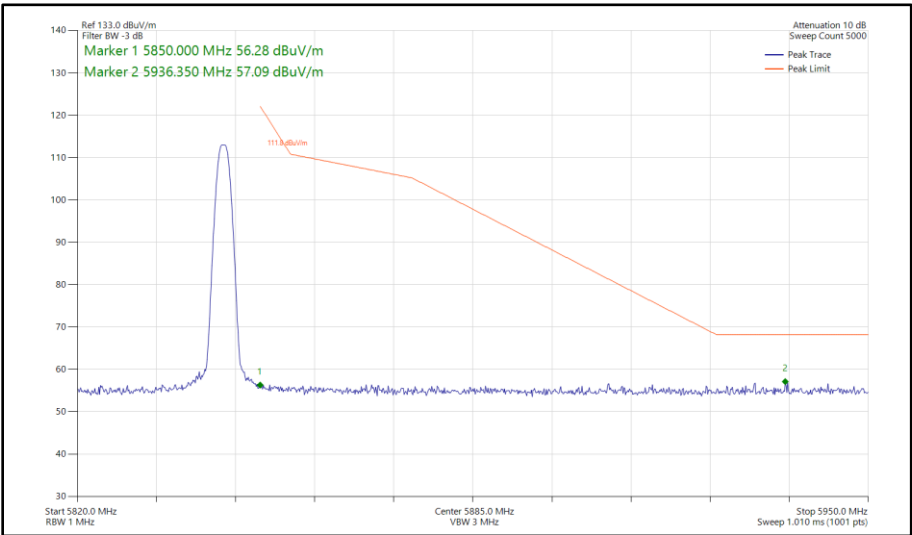


Figure 193 - Bluetooth DH5, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz

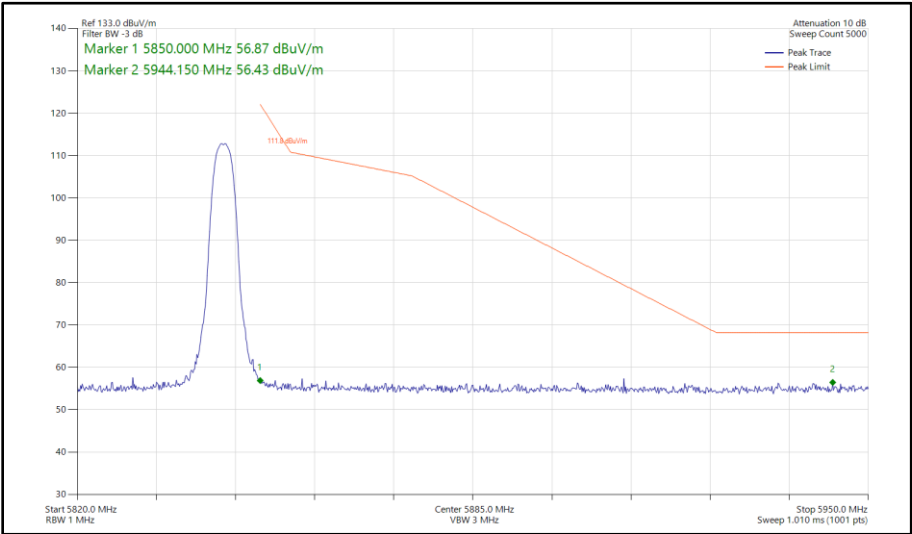


Figure 194 - Bluetooth HDR4, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz

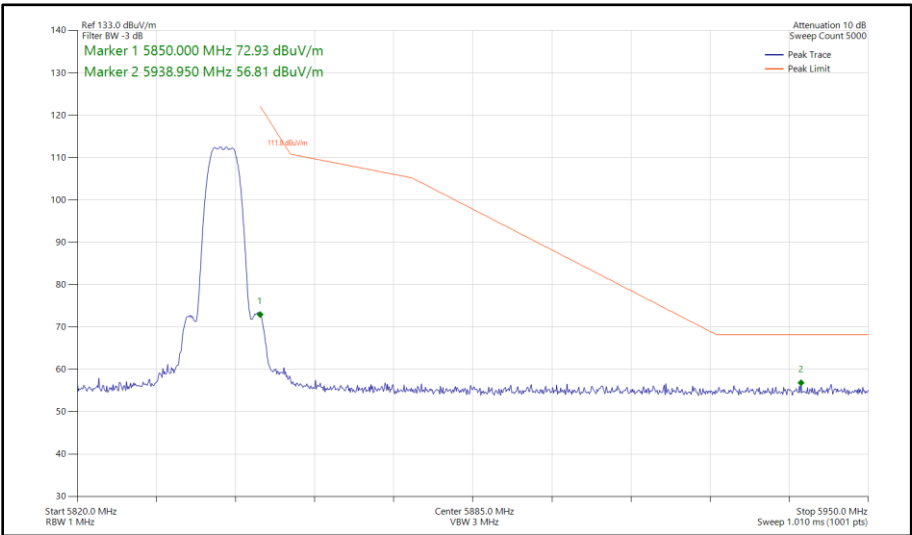


Figure 195 - Bluetooth HDR8, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz

ePA - Core 1 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)
Static	DH5	5733	5725	55.71
Static	HDR4	5733	5725	55.99
Static	HDR8	5733	5725	56.25
Static	DH5	5844	5850	56.30
Static	HDR4	5844	5850	56.92
Static	HDR8	5844	5850	57.99

Table 116 - SISO Authorised Band Edge Results

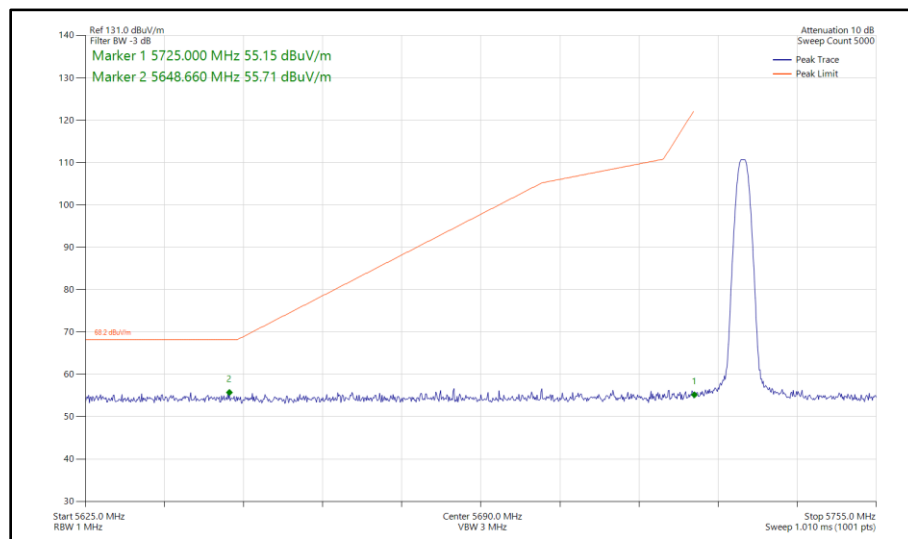


Figure 196 - Bluetooth DH5, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

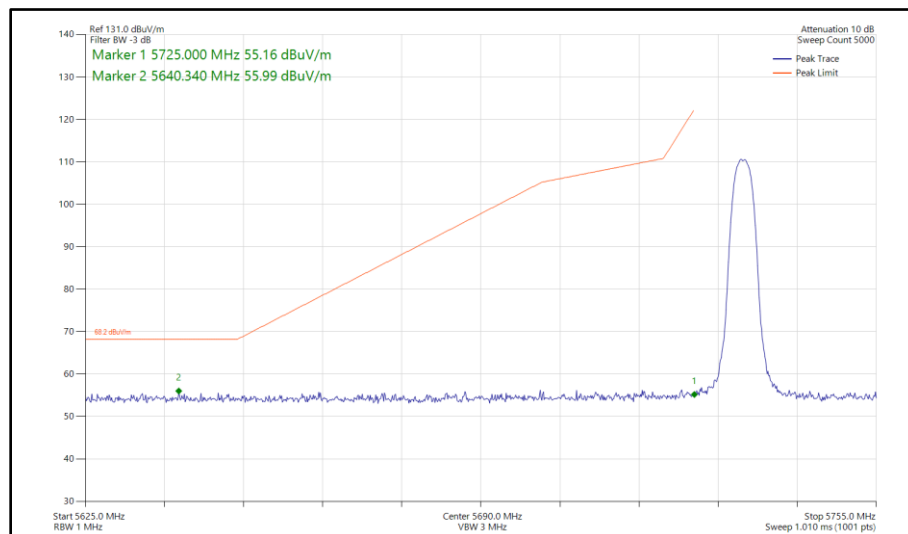


Figure 197 - Bluetooth HDR4, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

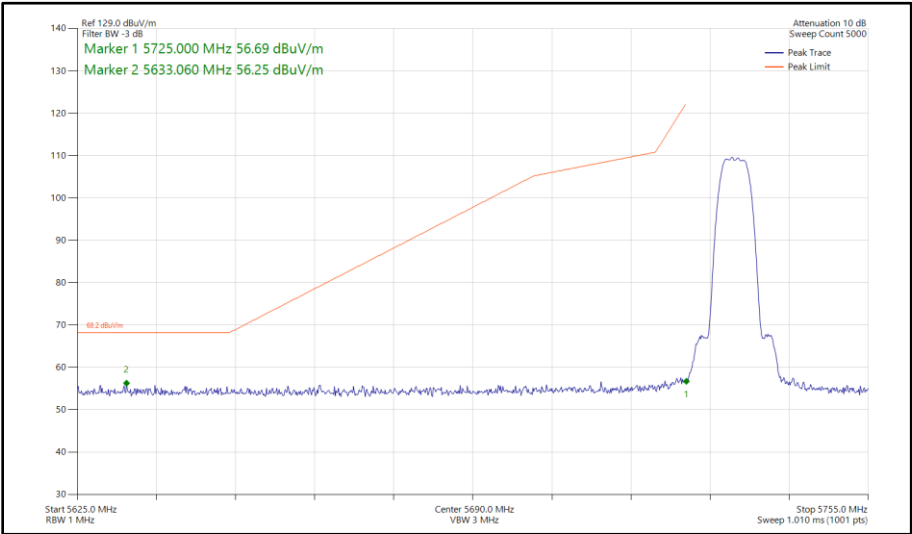


Figure 198 - Bluetooth HDR8, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

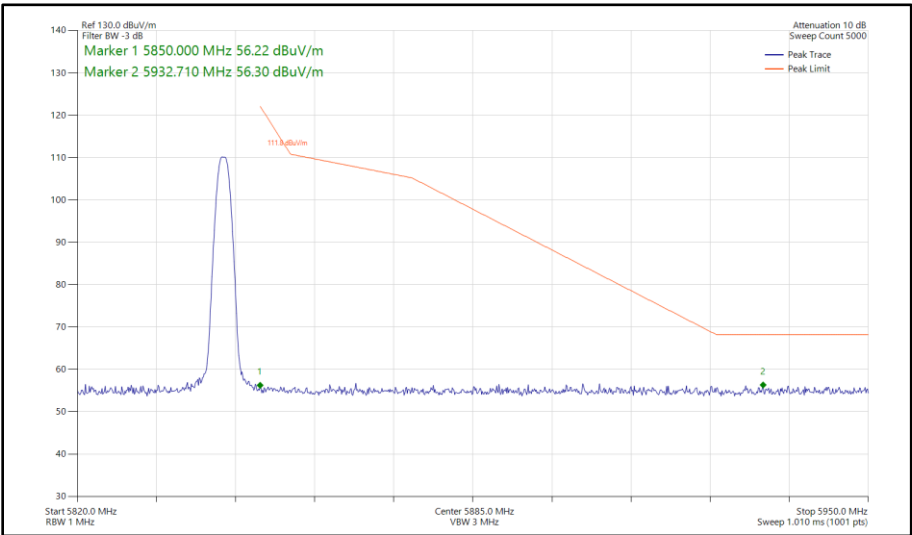


Figure 199 - Bluetooth DH5, SISO, Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz

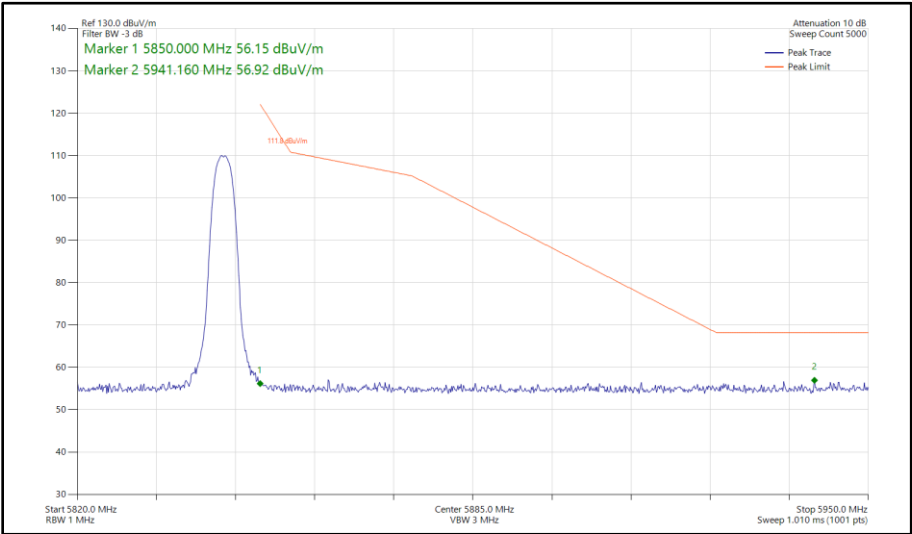


Figure 200 - Bluetooth HDR4, SISO, Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz

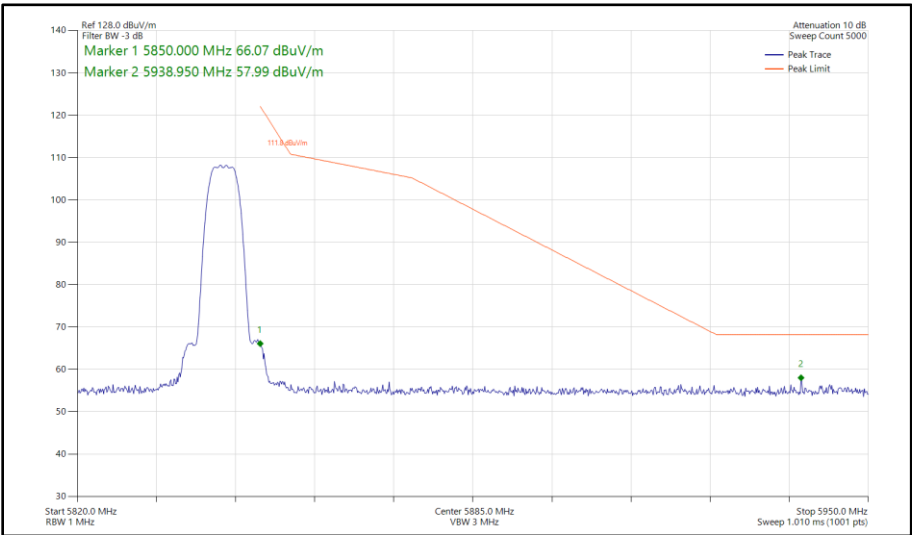
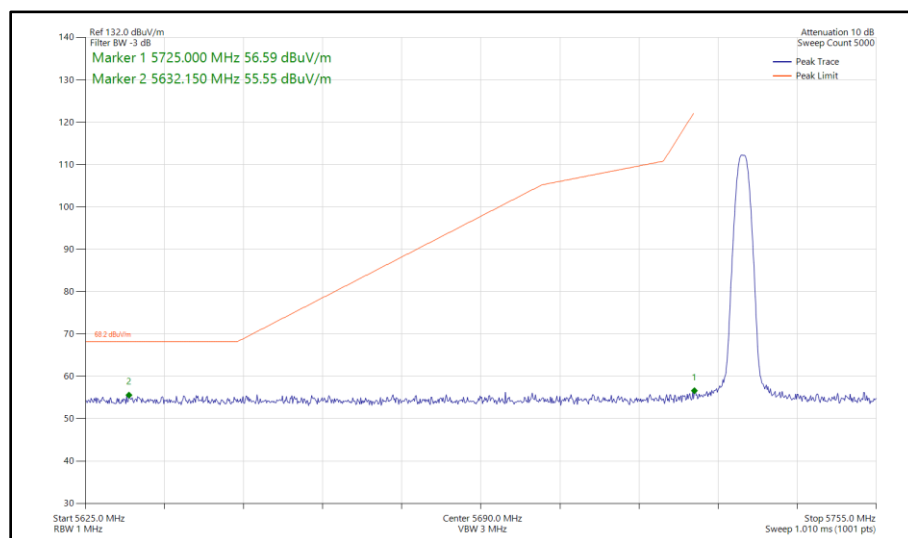


Figure 201 - Bluetooth HDR8, SISO, Core 1 - 5844 MHz
Band Edge Frequency 5850 MHz

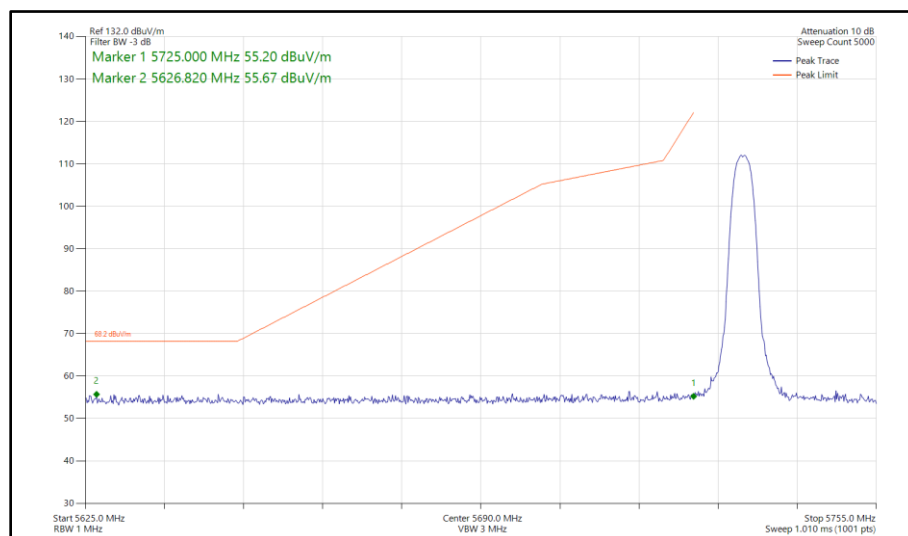
ePA - Core 0 - Core 1 (MIMO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)
Static	DH5	5733	5725	55.55
Static	HDR4	5733	5725	55.67
Static	HDR8	5733	5725	55.76
Static	DH5	5844	5850	56.38
Static	HDR4	5844	5850	56.29
Static	HDR8	5844	5850	56.79

Table 117 - MIMO Authorised Band Edge Results



**Figure 202 - Bluetooth DH5, MIMO, Core 0 - Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**



**Figure 203 - Bluetooth HDR4, MIMO, Core 0 - Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz**