

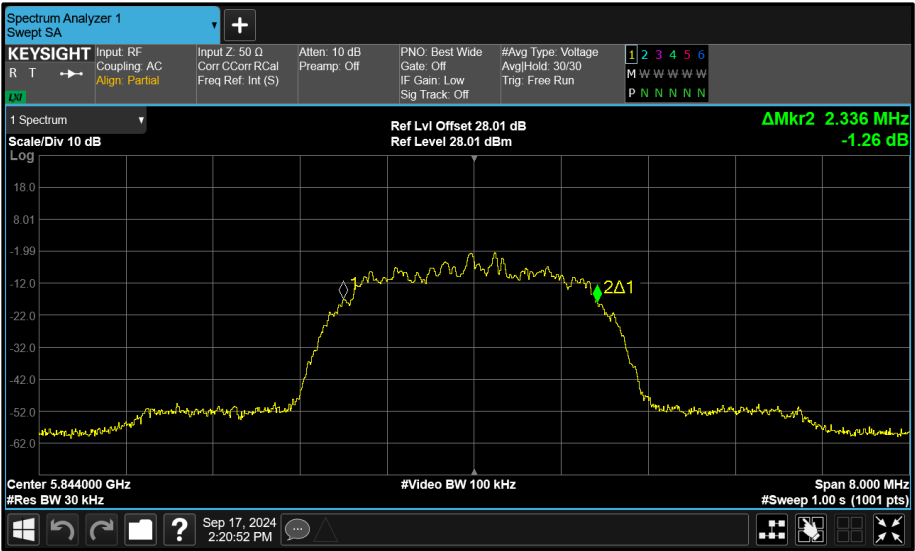


Figure 138 - Core 0 (A) 5844 MHz (CH119) 99% Bandwidth

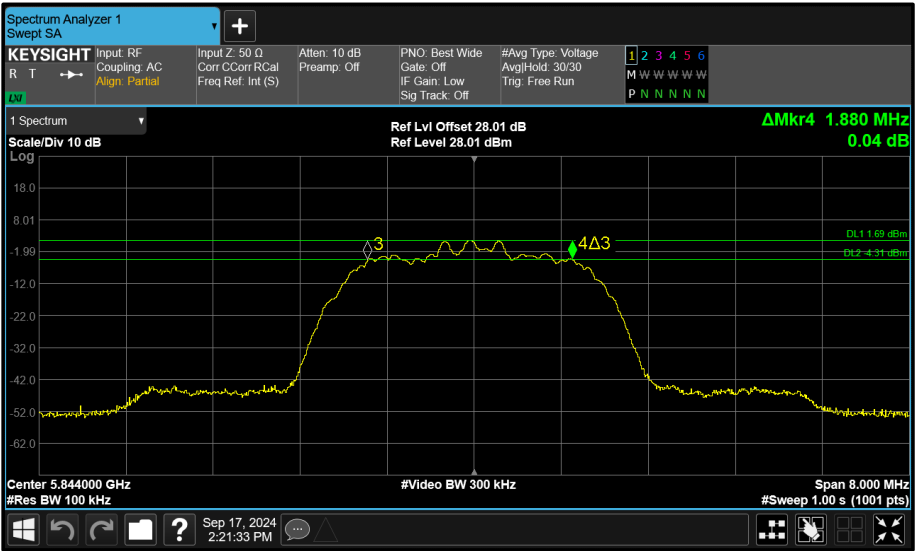


Figure 139 - Core 0 (A) 5844 MHz (CH119) 6 dB Bandwidth

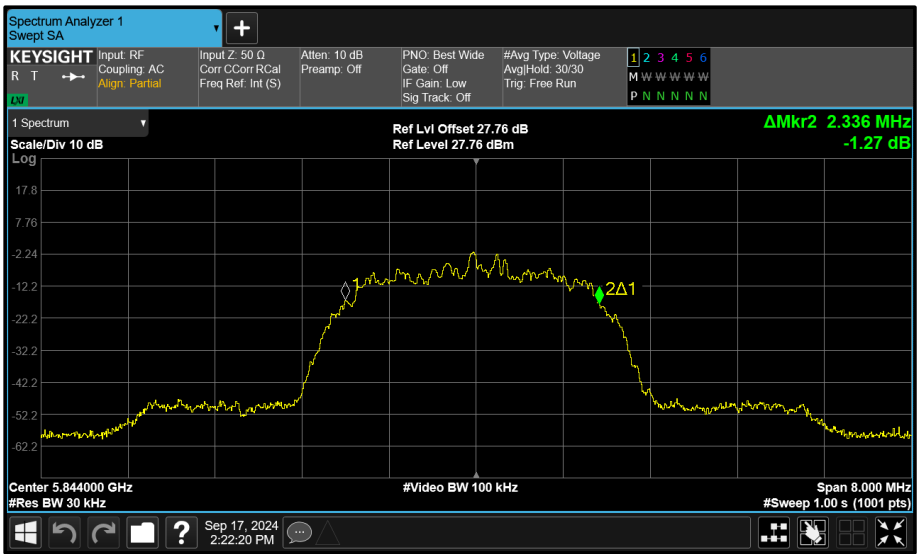


Figure 140 - Core 1 (B) 5844 MHz (CH119) 99% Bandwidth

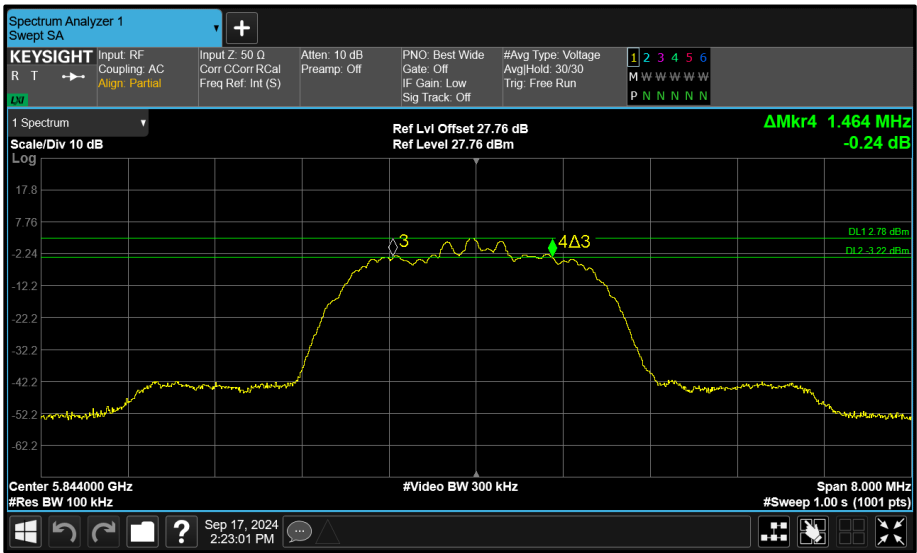


Figure 141 - Core 1 (B) 5844 MHz (CH119) 6 dB Bandwidth



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:	iPA $\pi/4$ 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	0.645	-	-	≥ 500.0
5844	1.050	1.005	-	-	≥ 500.0

Table 51 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5733	4.710	4.635	-	-	-
5789	4.635	4.635	-	-	-
5844	4.710	4.650	-	-	-

Table 52 - 99% Bandwidth Results

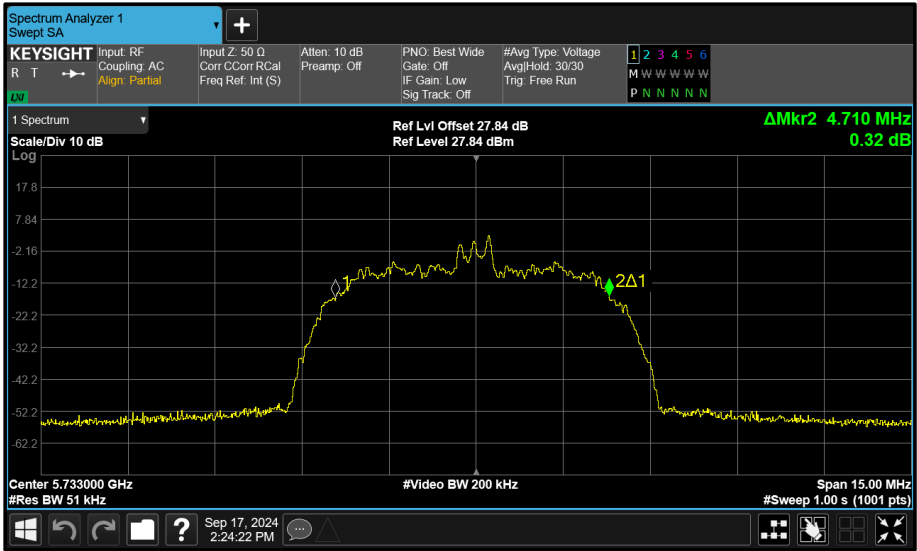


Figure 142 - Core 0 (A) 5733 MHz (CH8) 99% Bandwidth

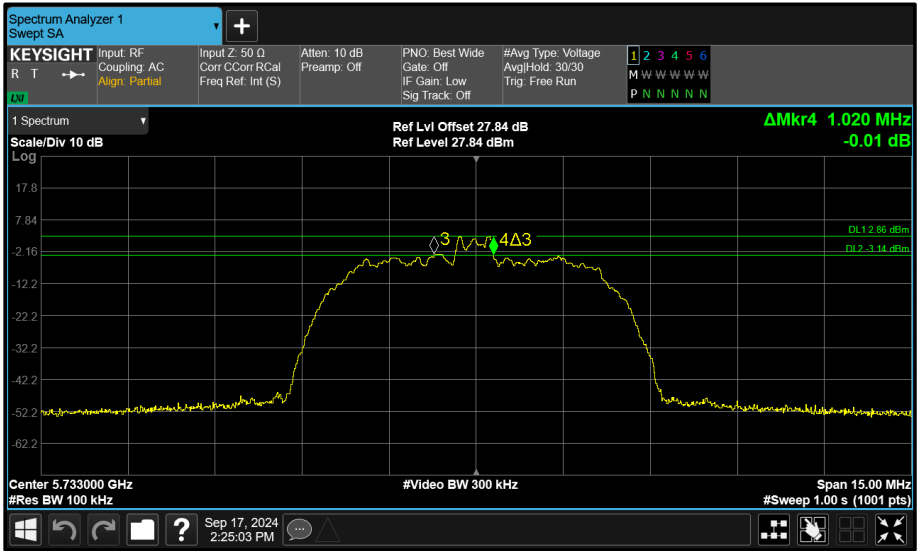


Figure 143 - Core 0 (A) 5733 MHz (CH8) 6 dB Bandwidth

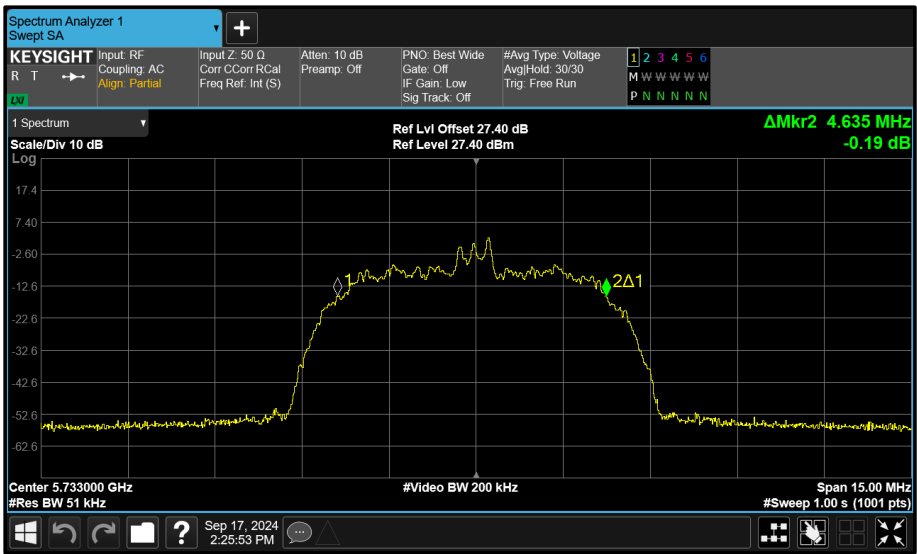


Figure 144 - Core 1 (B) 5733 MHz (CH8) 99% Bandwidth

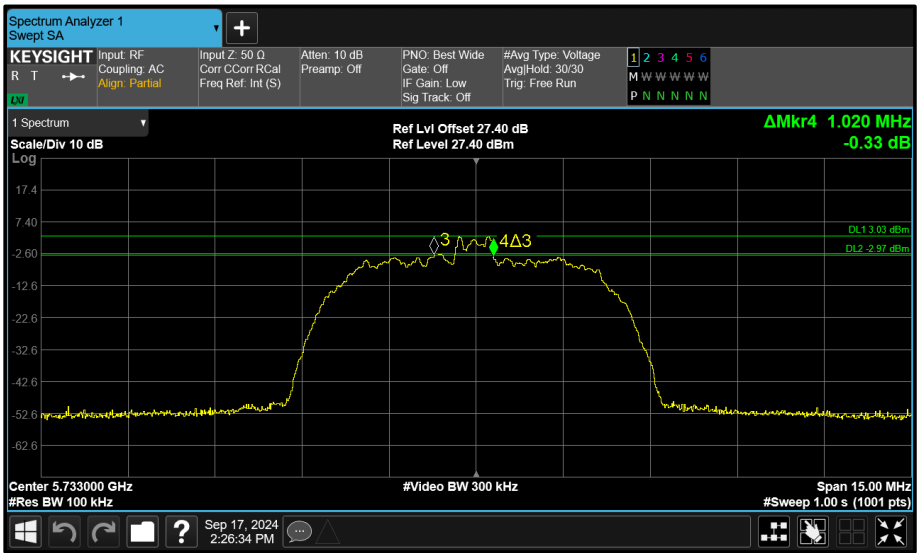


Figure 145 - Core 1 (B) 5733 MHz (CH8) 6 dB Bandwidth

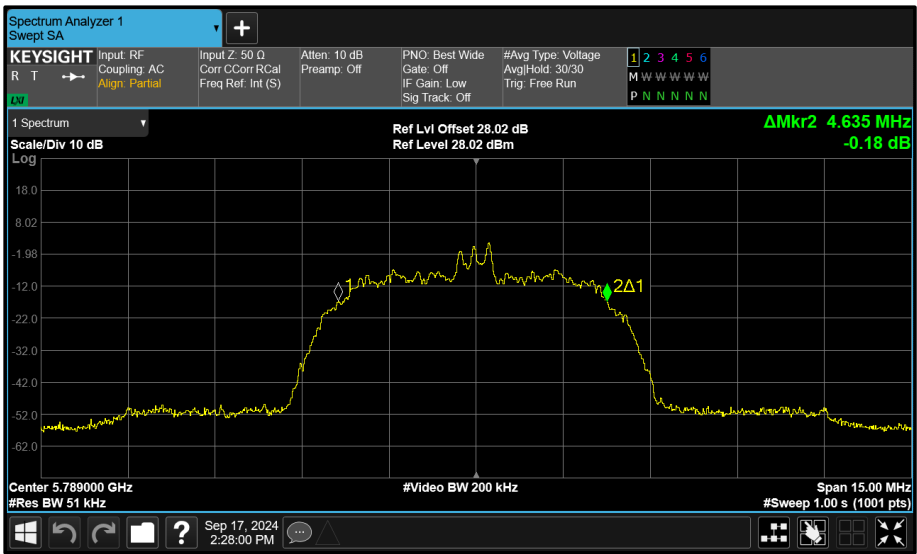


Figure 146 - Core 0 (A) 5789 MHz (CH64) 99% Bandwidth

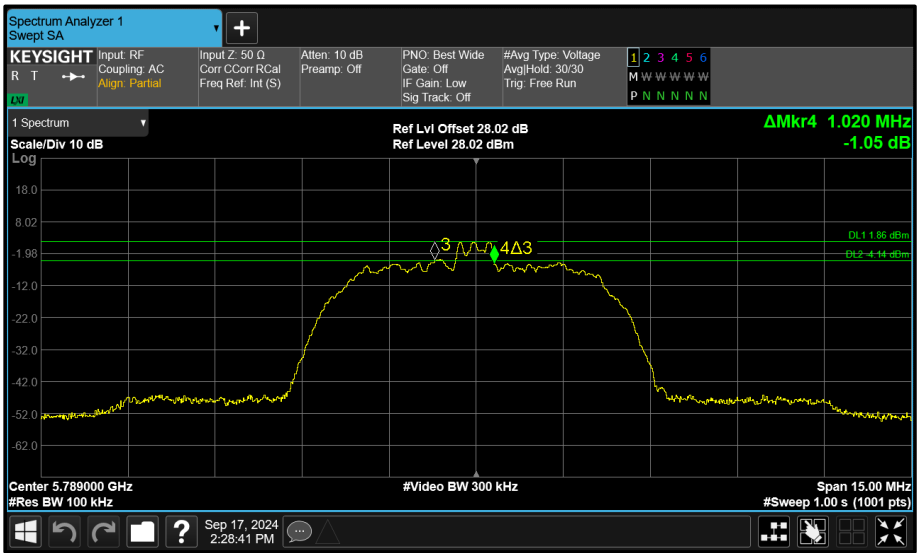


Figure 147 - Core 0 (A) 5789 MHz (CH64) 6 dB Bandwidth

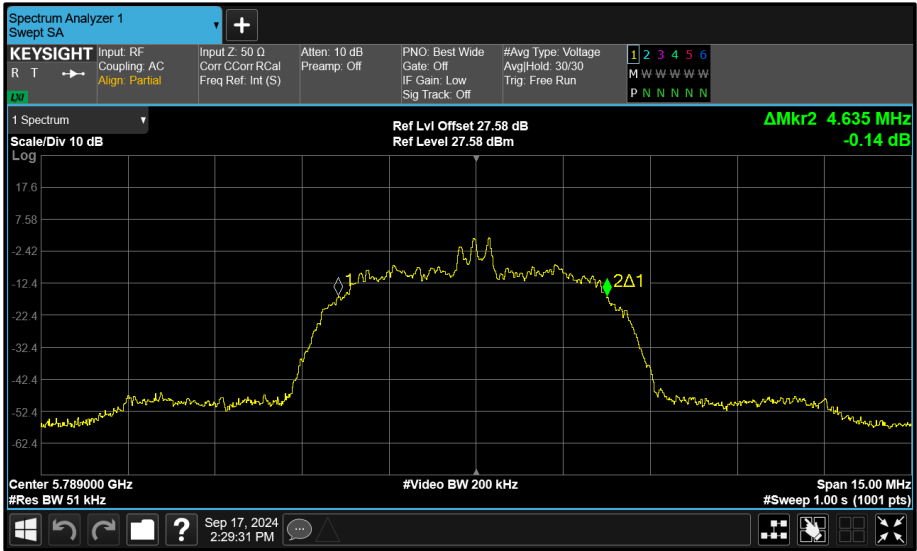


Figure 148 - Core 1 (B) 5789 MHz (CH64) 99% Bandwidth

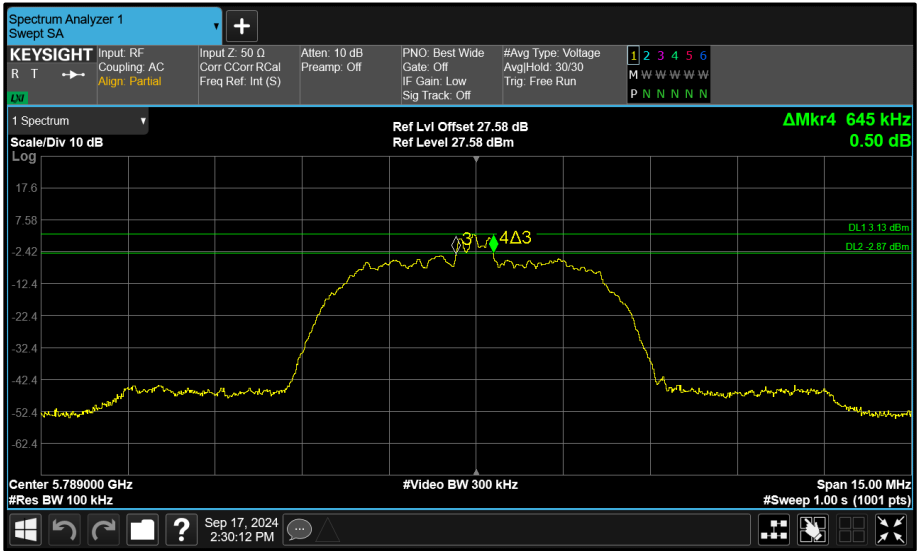


Figure 149 - Core 1 (B) 5789 MHz (CH64) 6 dB Bandwidth

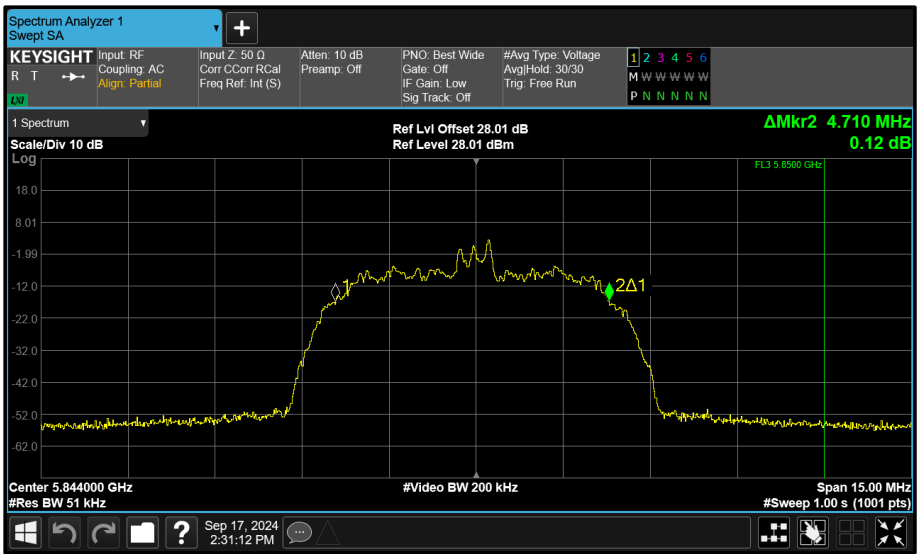


Figure 150 - Core 0 (A) 5844 MHz (CH119) 99% Bandwidth

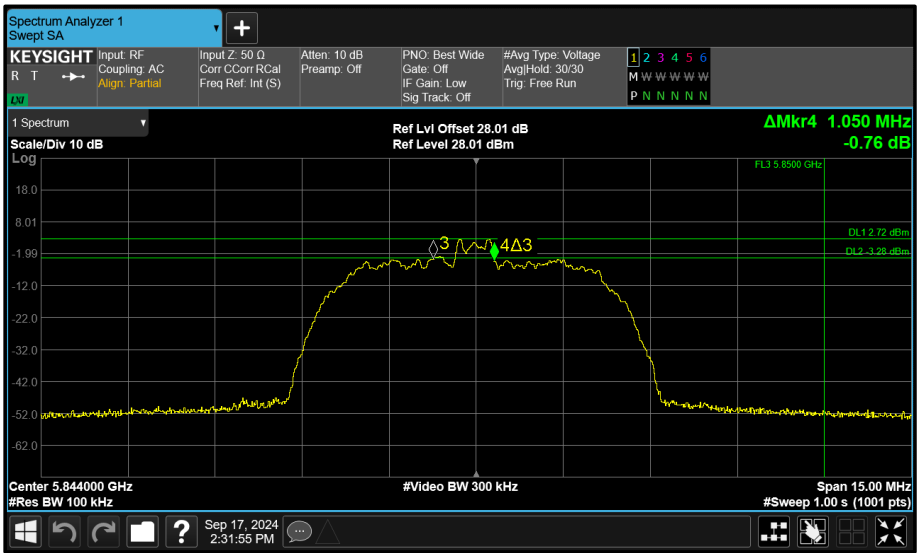


Figure 151 - Core 0 (A) 5844 MHz (CH119) 6 dB Bandwidth

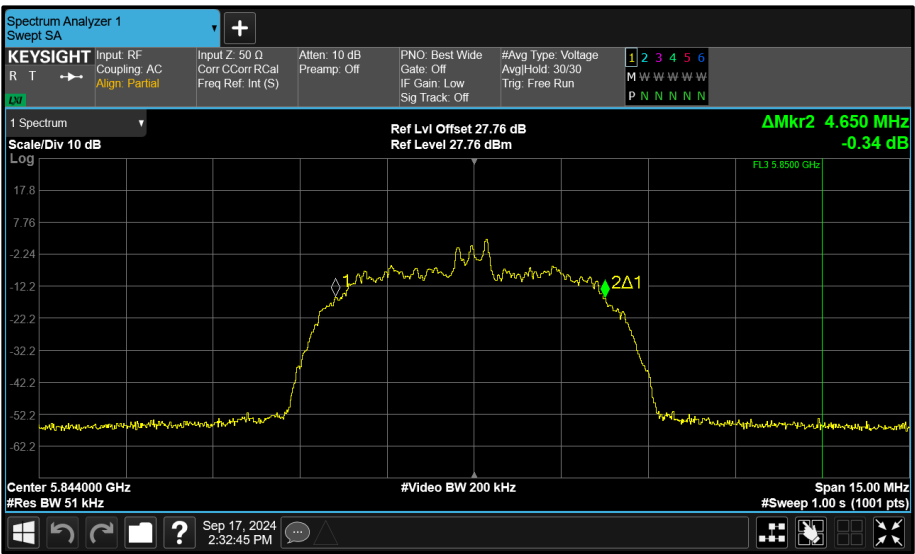


Figure 152 - Core 1 (B) 5844 MHz (CH119) 99% Bandwidth

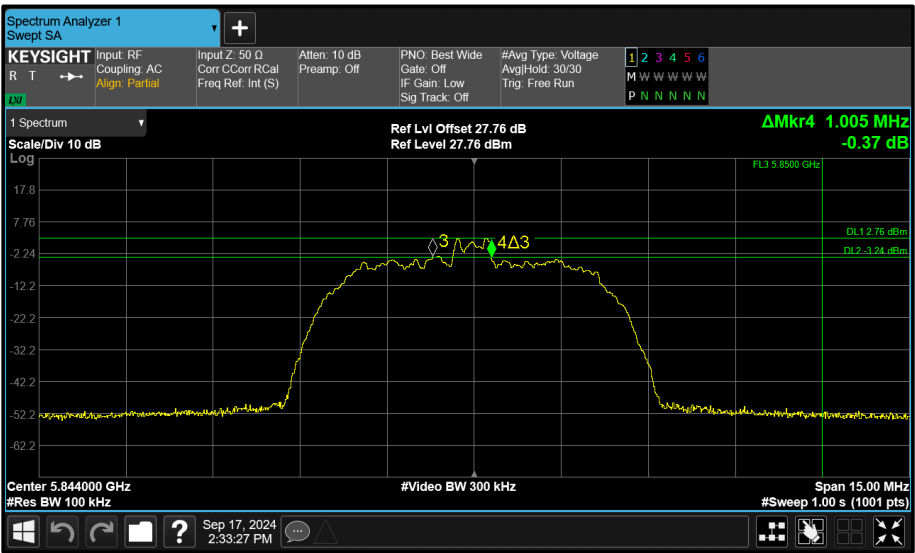


Figure 153 - Core 1 (B) 5844 MHz (CH119) 6 dB Bandwidth



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 6.9.3 789033 D02 v02r01 II.C.2.
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (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	0.572	0.572	-	-	≥500.0
5789	0.564	0.568	-	-	≥500.0
5844	0.572	0.572	-	-	≥500.0

Table 53 - 6 dB Bandwidth Results

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5733	0.988	0.996	-	-	-
5789	0.996	0.996	-	-	-
5844	0.996	0.992	-	-	-

Table 54 - 99% Bandwidth Results

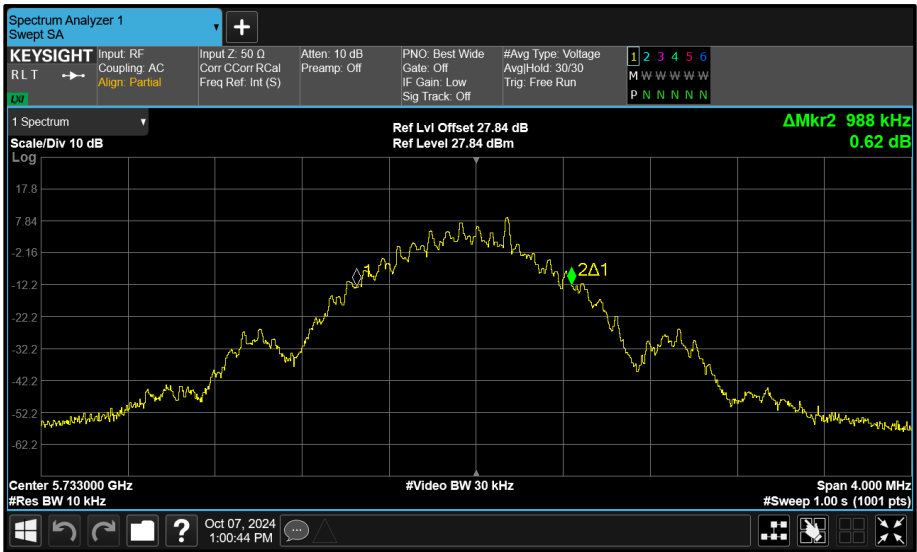


Figure 154 - Core 0 (A) 5733 MHz (CH8) 99% Bandwidth

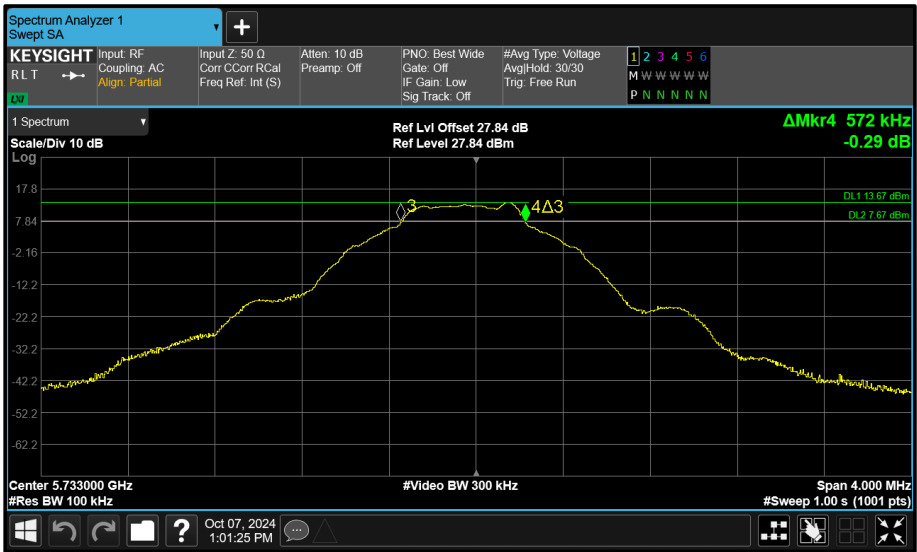


Figure 155 - Core 0 (A) 5733 MHz (CH8) 6 dB Bandwidth

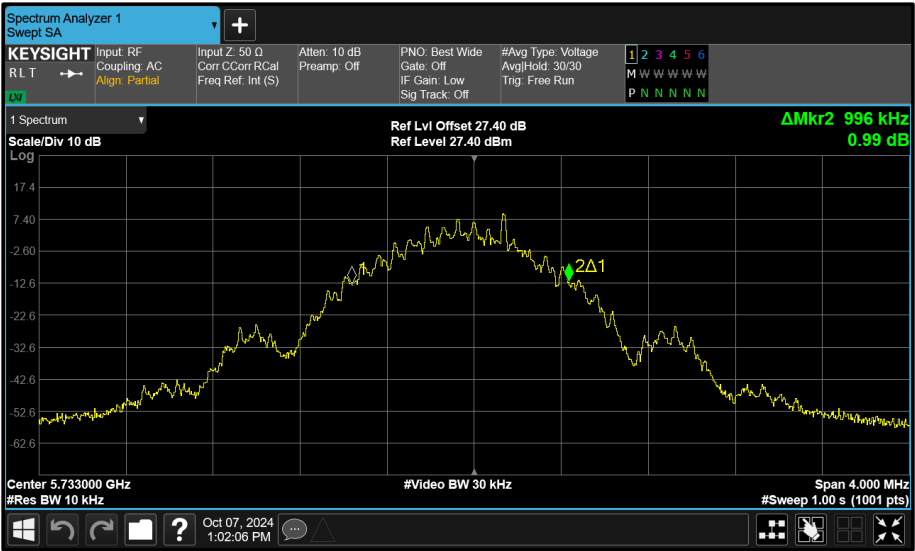


Figure 156 - Core 1 (B) 5733 MHz (CH8) 99% Bandwidth

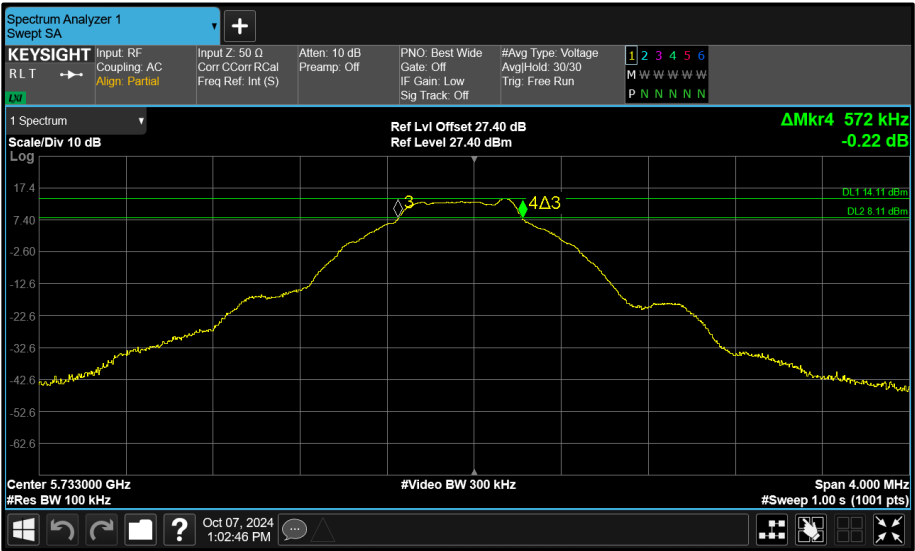


Figure 157 - Core 1 (B) 5733 MHz (CH8) 6 dB Bandwidth

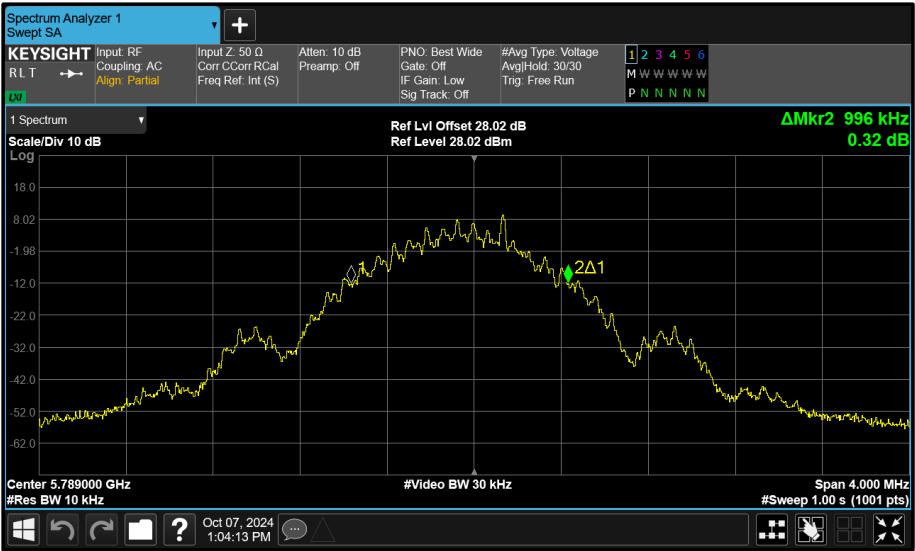


Figure 158 - Core 0 (A) 5789 MHz (CH64) 99% Bandwidth

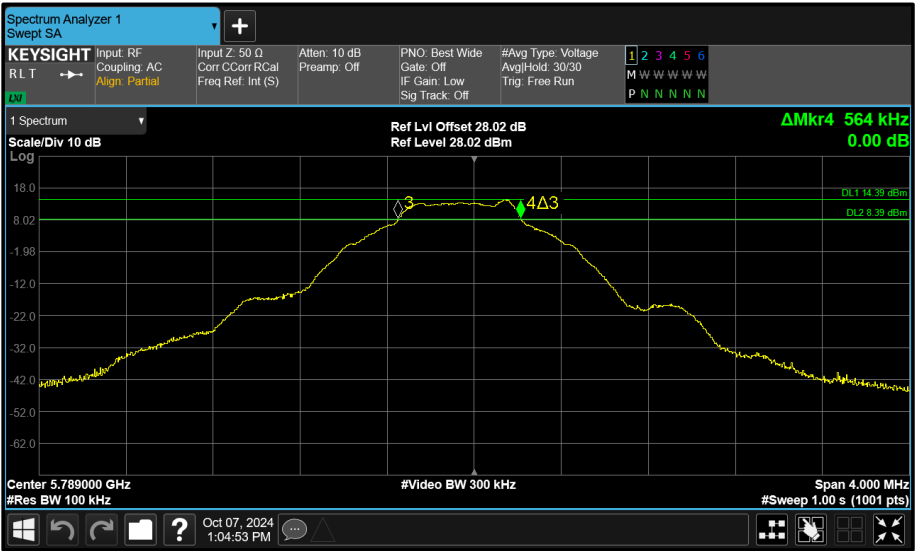


Figure 159 - Core 0 (A) 5789 MHz (CH64) 6 dB Bandwidth

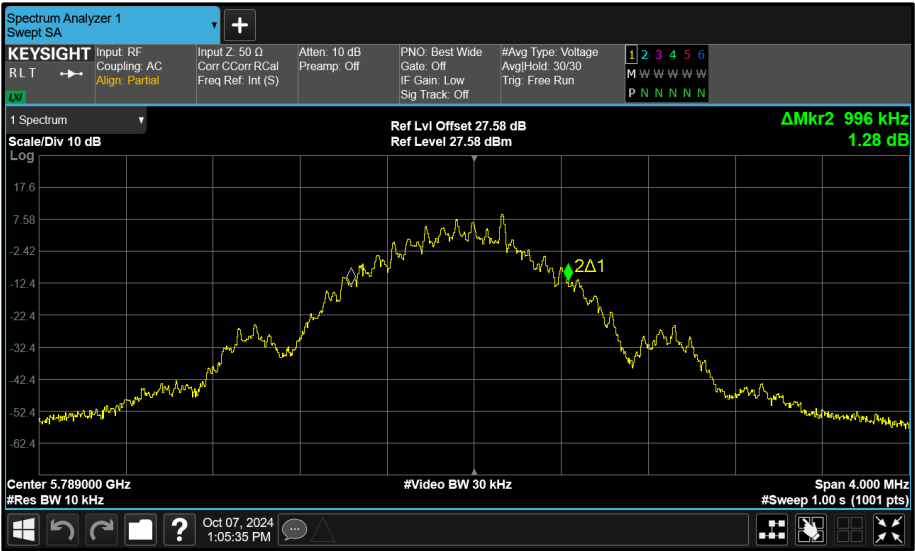


Figure 160 - Core 1 (B) 5789 MHz (CH64) 99% Bandwidth

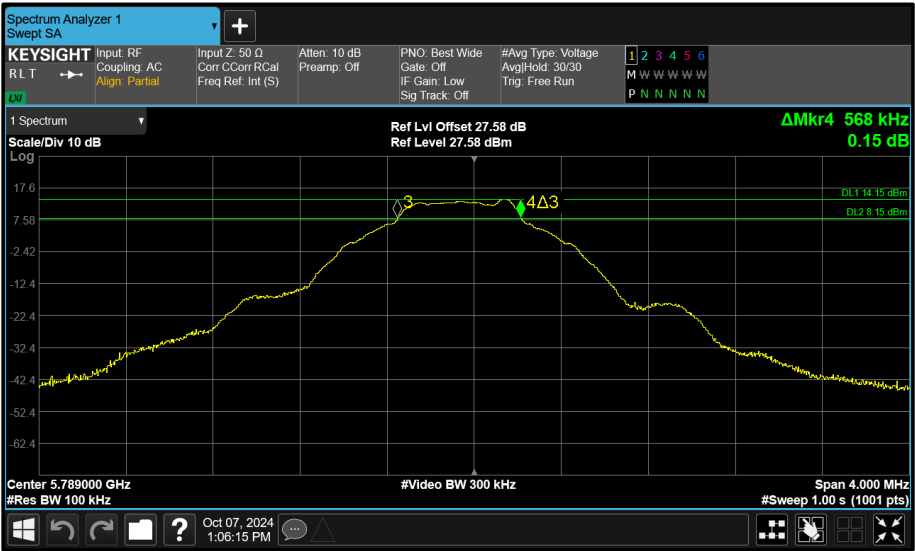


Figure 161 - Core 1 (B) 5789 MHz (CH64) 6 dB Bandwidth

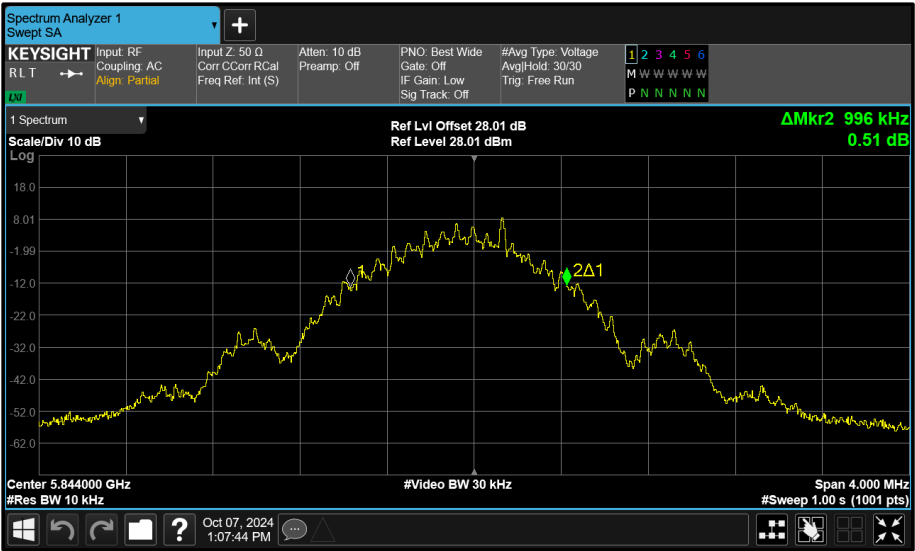


Figure 162 - Core 0 (A) 5844 MHz (CH119) 99% Bandwidth

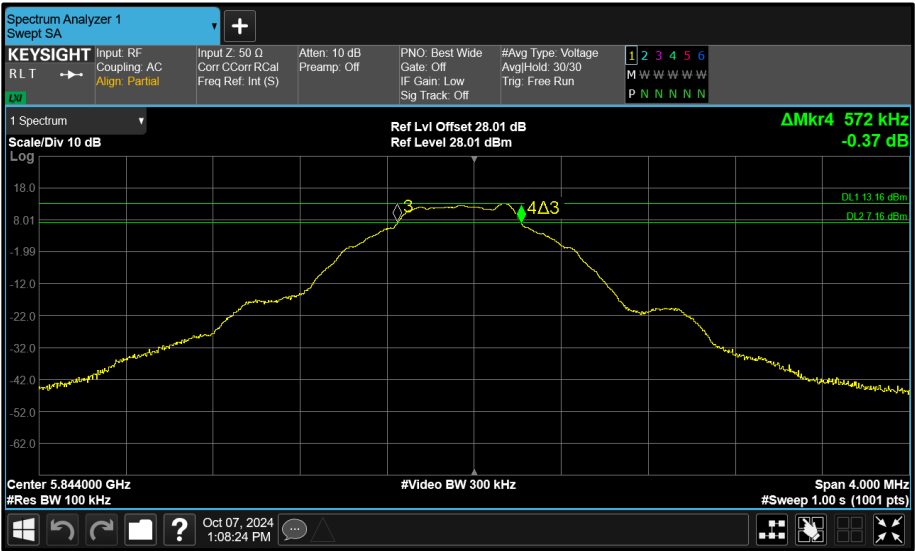


Figure 163 - Core 0 (A) 5844 MHz (CH119) 6 dB Bandwidth

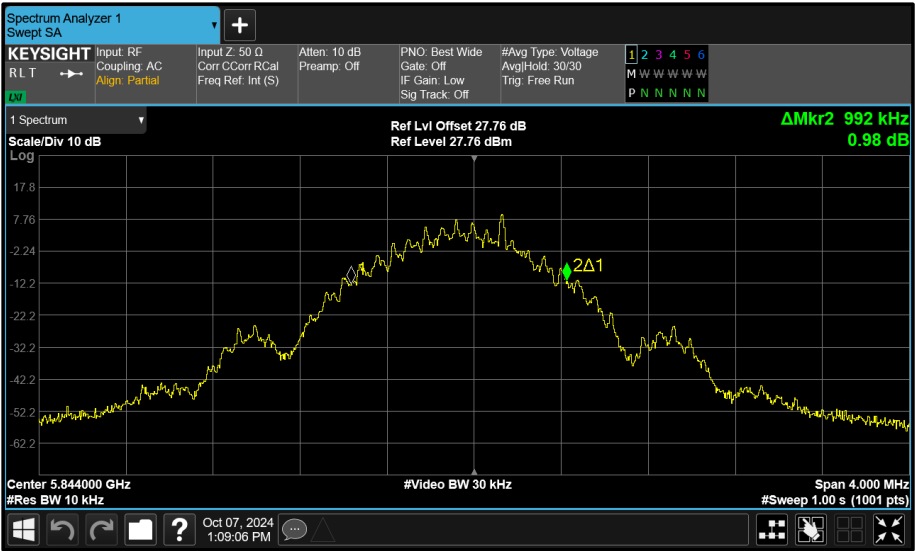


Figure 164 - Core 1 (B) 5844 MHz (CH119) 99% Bandwidth

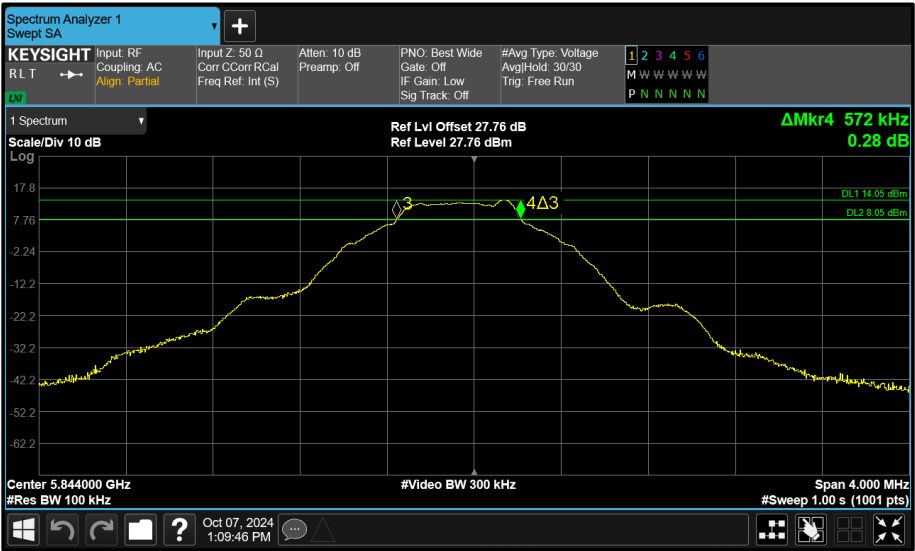


Figure 165 - Core 1 (B) 5844 MHz (CH119) 6 dB Bandwidth



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):	-		

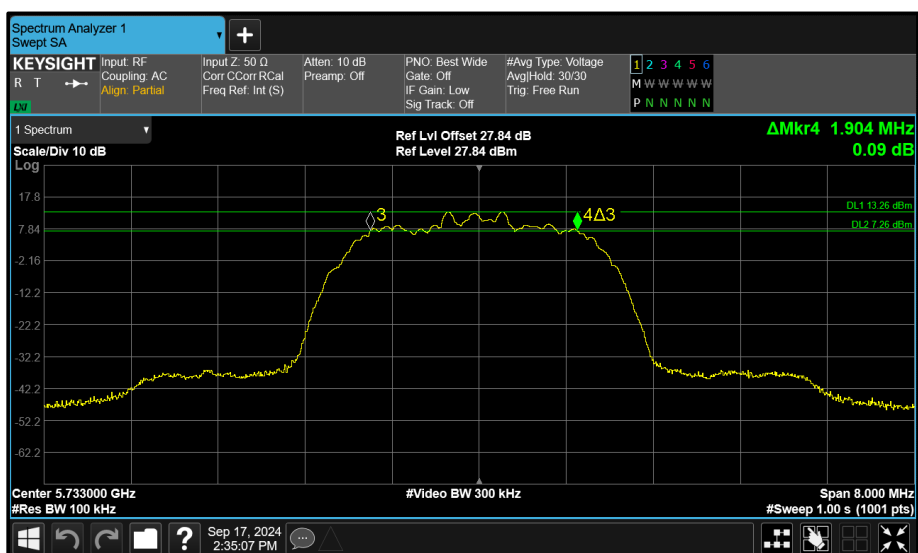
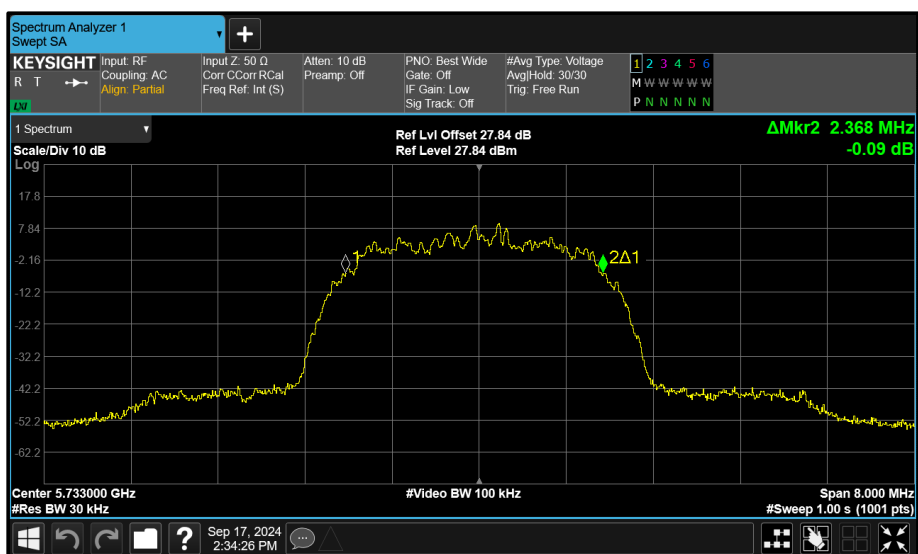
DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	-
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
5733	1.904	1.888	-	-	≥ 500.0
5789	1.904	1.904	-	-	≥ 500.0
5844	1.912	1.904	-	-	≥ 500.0

Table 55 - 6 dB Bandwidth Results

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

Table 56 - 99% Bandwidth Results



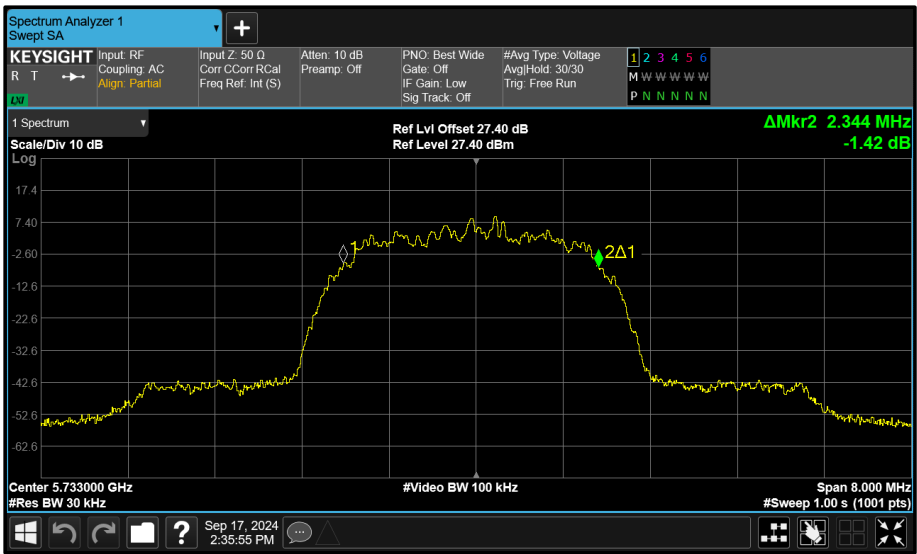


Figure 168 - Core 1 (B) 5733 MHz (CH8) 99% Bandwidth

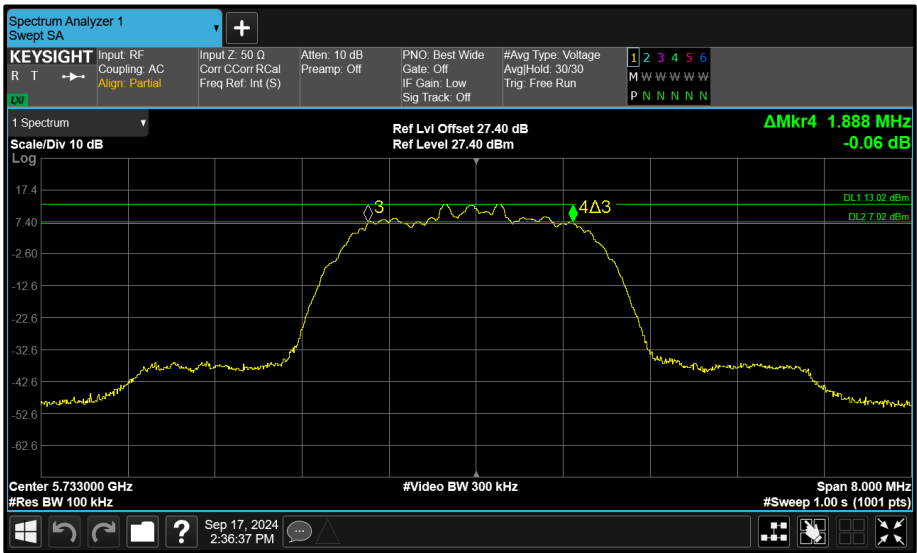


Figure 169 - Core 1 (B) 5733 MHz (CH8) 6 dB Bandwidth

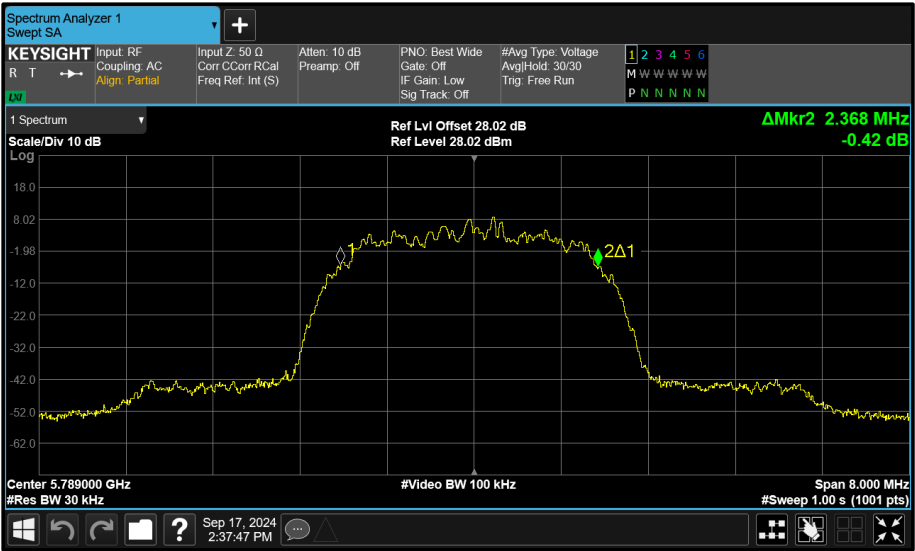


Figure 170 - Core 0 (A) 5789 MHz (CH64) 99% Bandwidth

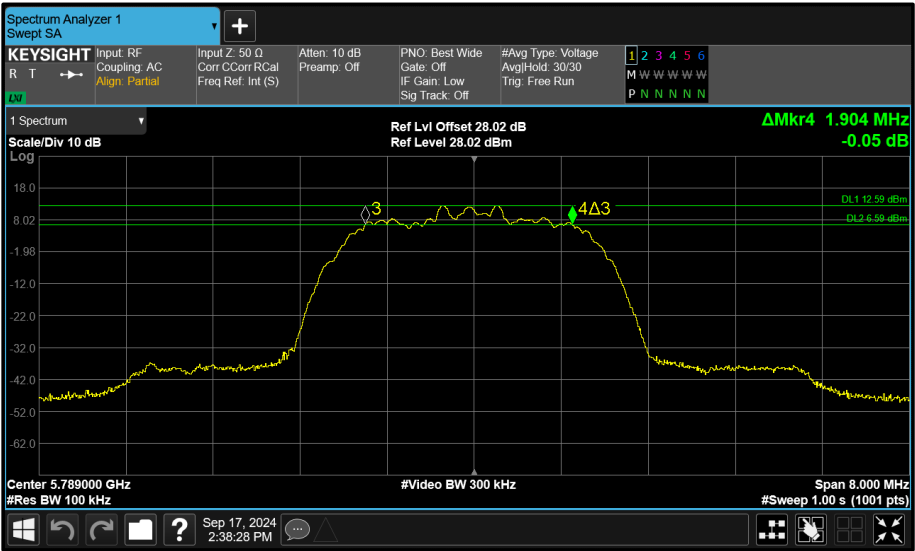


Figure 171 - Core 0 (A) 5789 MHz (CH64) 6 dB Bandwidth

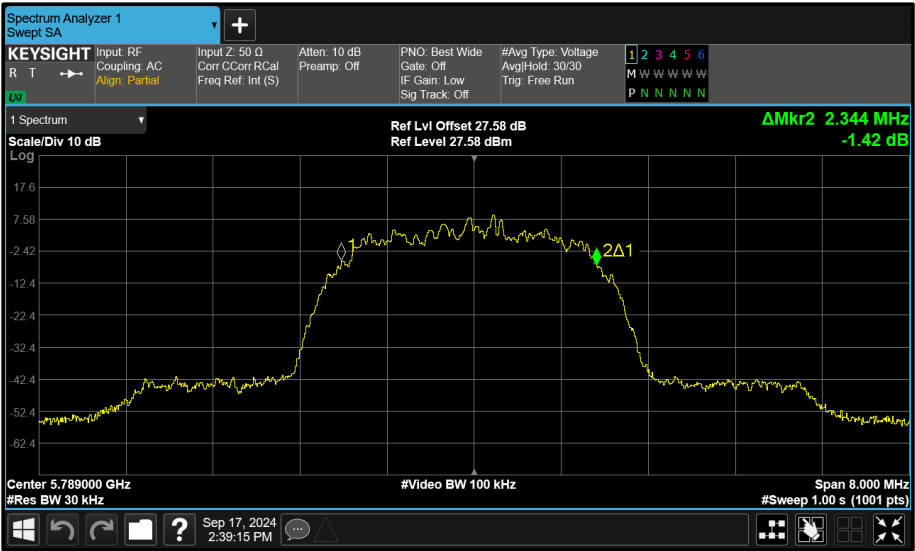


Figure 172 - Core 1 (B) 5789 MHz (CH64) 99% Bandwidth

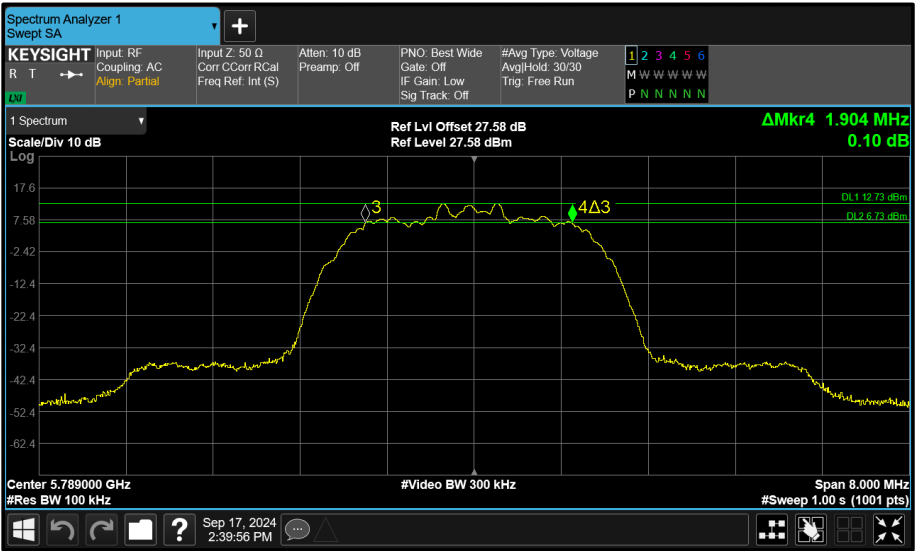


Figure 173 - Core 1 (B) 5789 MHz (CH64) 6 dB Bandwidth

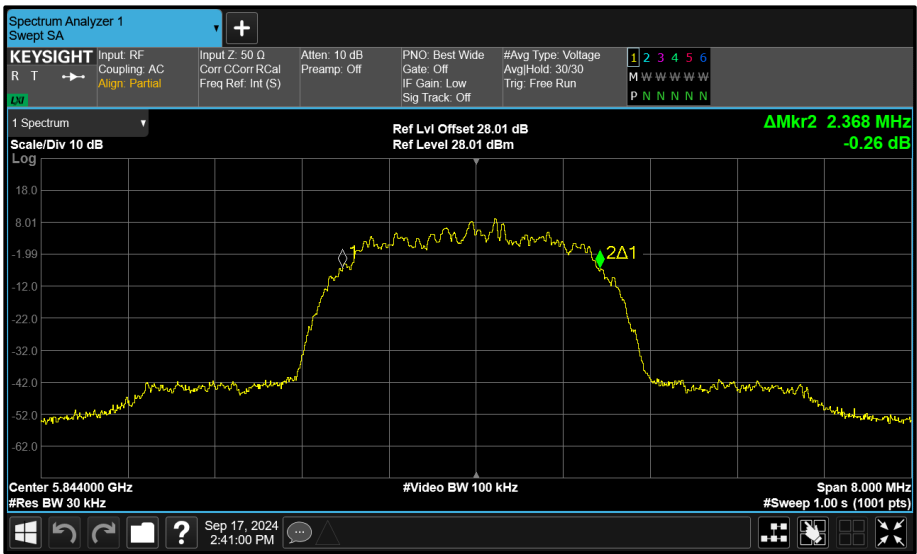


Figure 174 - Core 0 (A) 5844 MHz (CH119) 99% Bandwidth

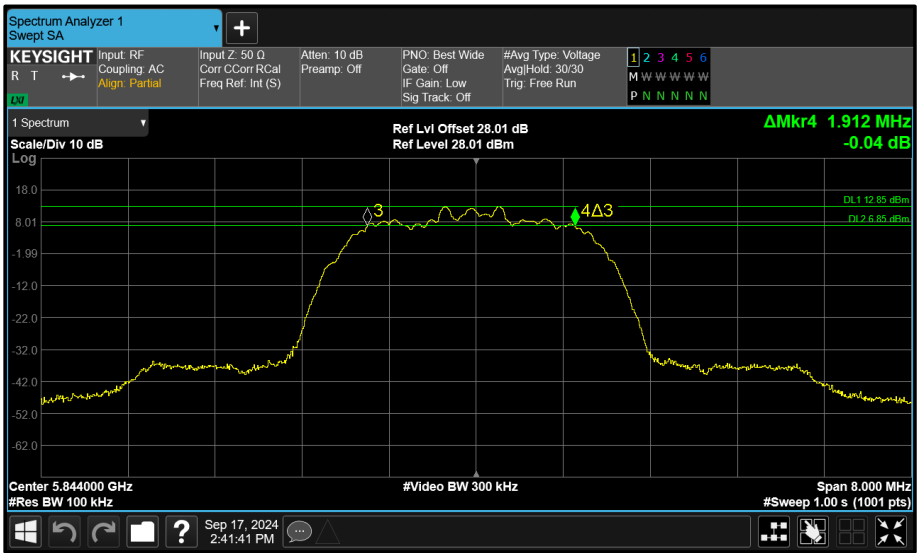


Figure 175 - Core 0 (A) 5844 MHz (CH119) 6 dB Bandwidth

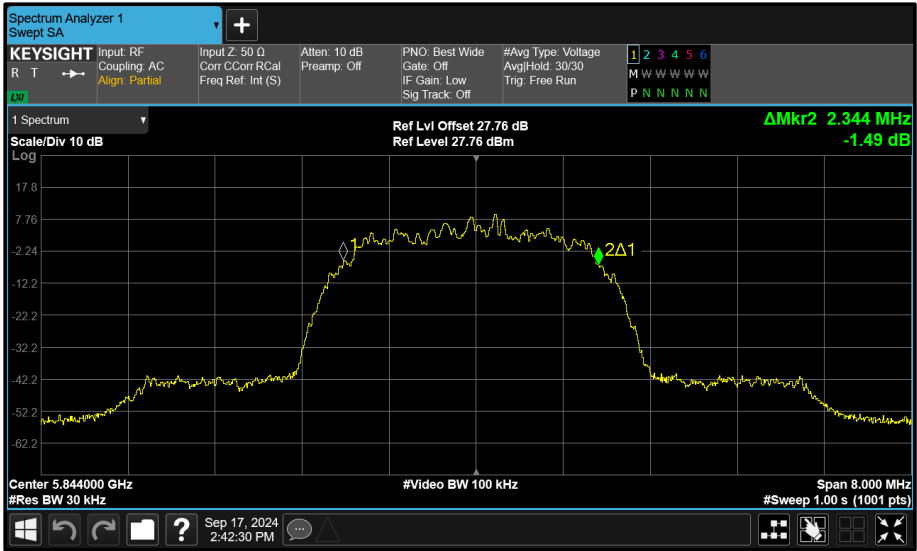


Figure 176 - Core 1 (B) 5844 MHz (CH119) 99% Bandwidth

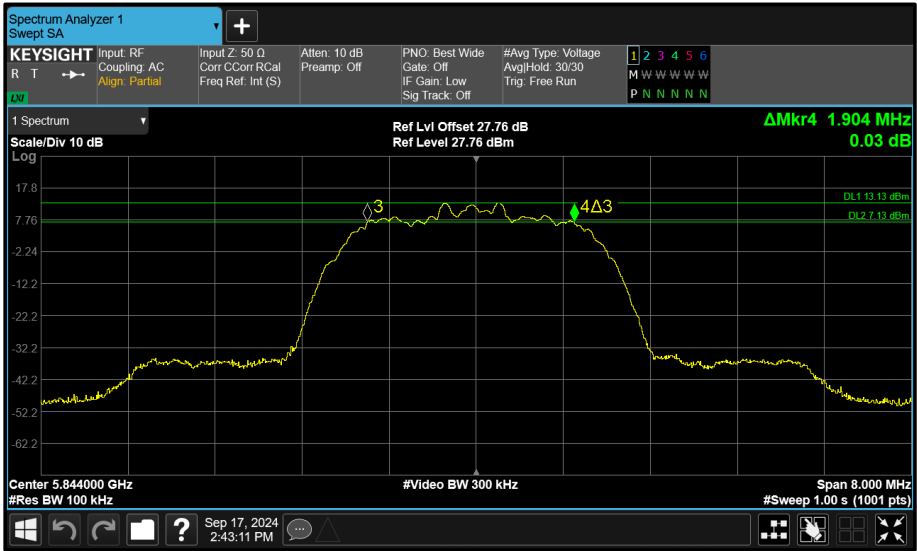


Figure 177 - Core 1 (B) 5844 MHz (CH119) 6 dB Bandwidth



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 (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 57 - 6 dB Bandwidth Results

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

Table 58 - 99% Bandwidth Results

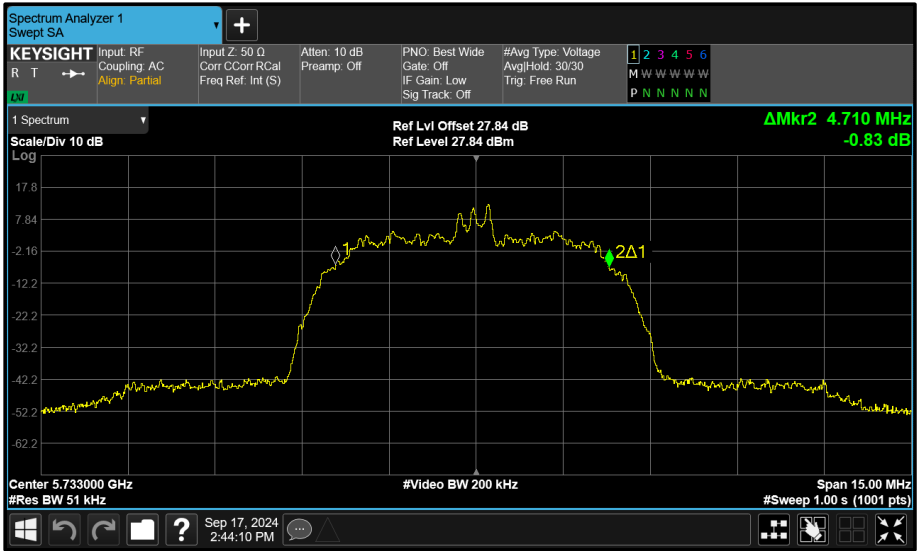


Figure 178 - Core 0 (A) 5733 MHz (CH8) 99% Bandwidth

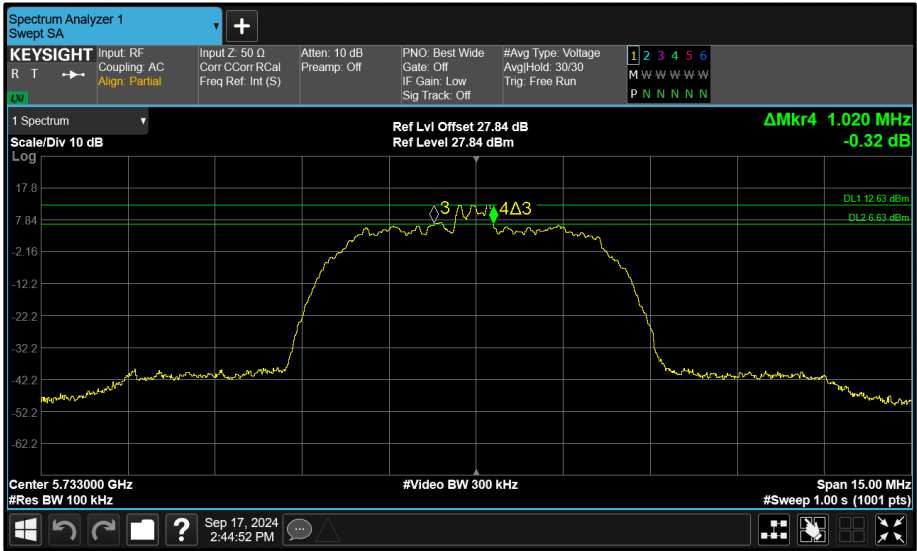


Figure 179 - Core 0 (A) 5733 MHz (CH8) 6 dB Bandwidth

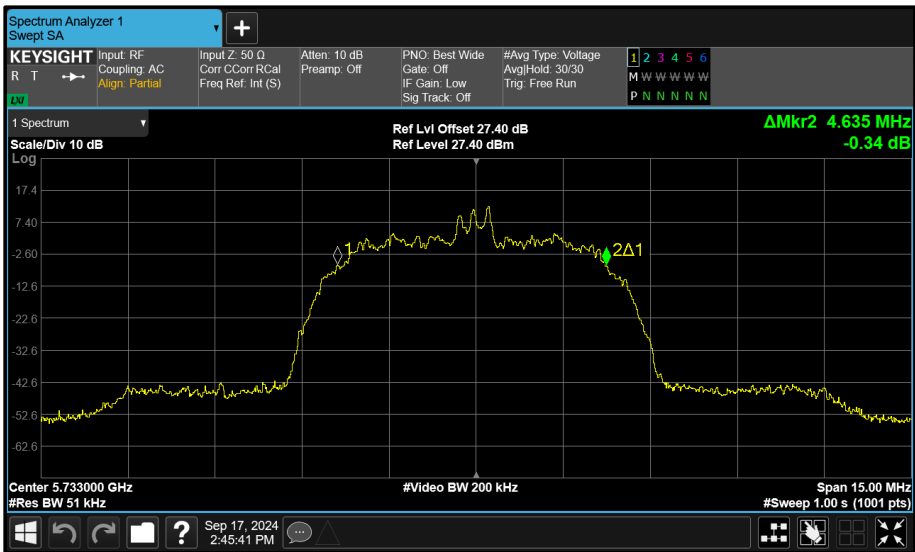


Figure 180 - Core 1 (B) 5733 MHz (CH8) 99% Bandwidth

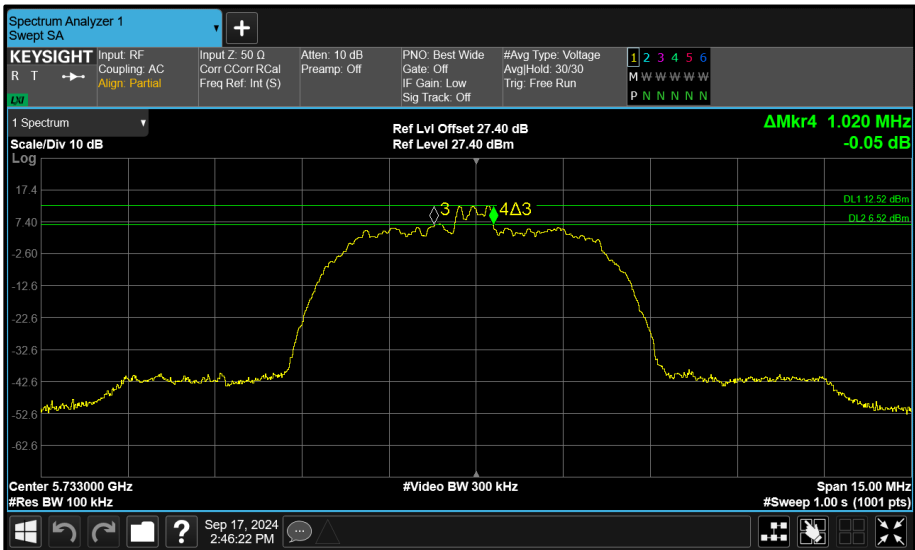


Figure 181 - Core 1 (B) 5733 MHz (CH8) 6 dB Bandwidth

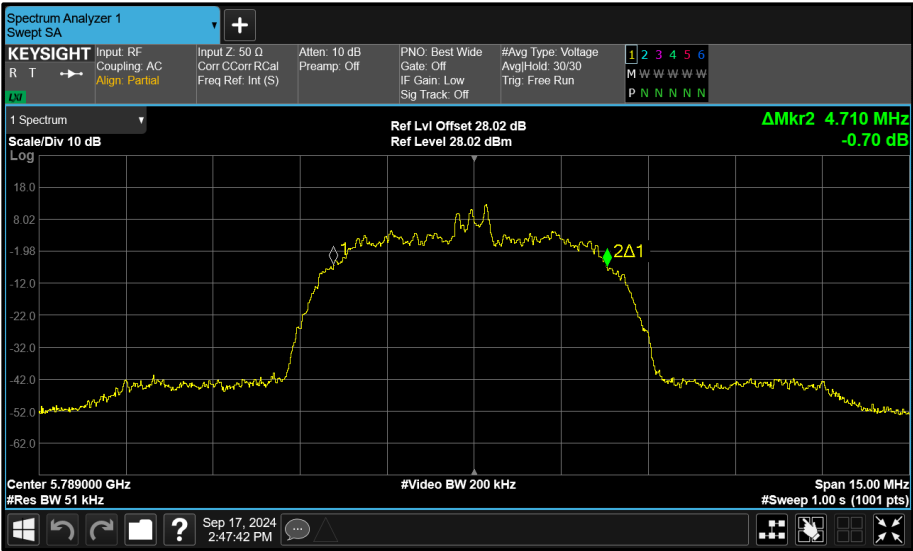


Figure 182 - Core 0 (A) 5789 MHz (CH64) 99% Bandwidth

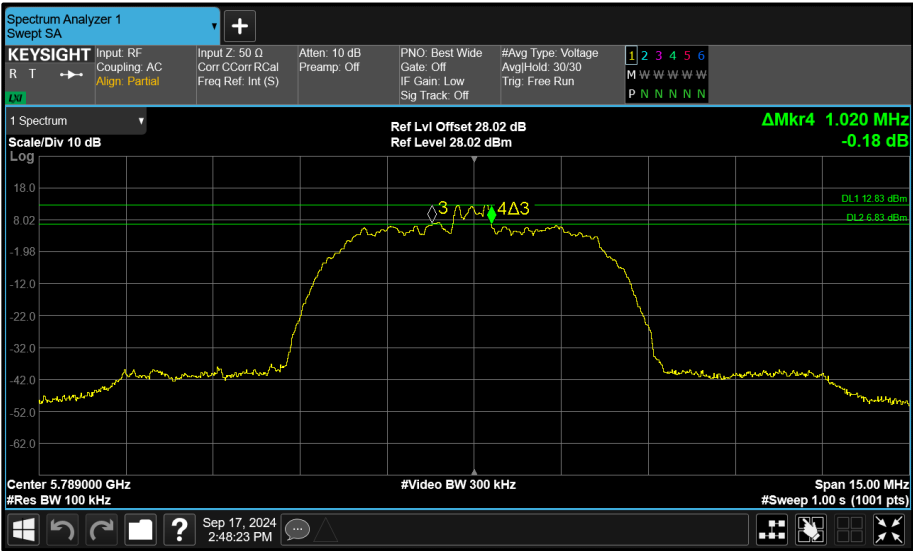


Figure 183 - Core 0 (A) 5789 MHz (CH64) 6 dB Bandwidth

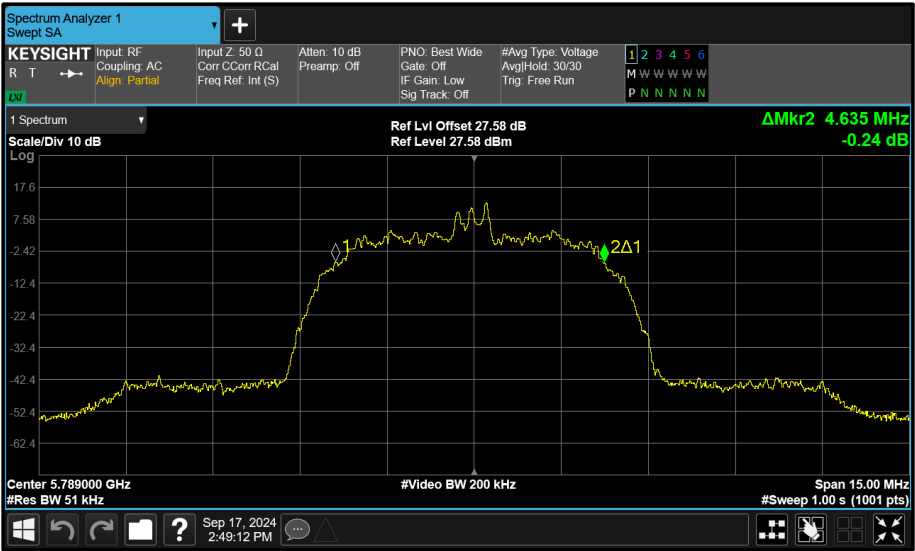


Figure 184 - Core 1 (B) 5789 MHz (CH64) 99% Bandwidth

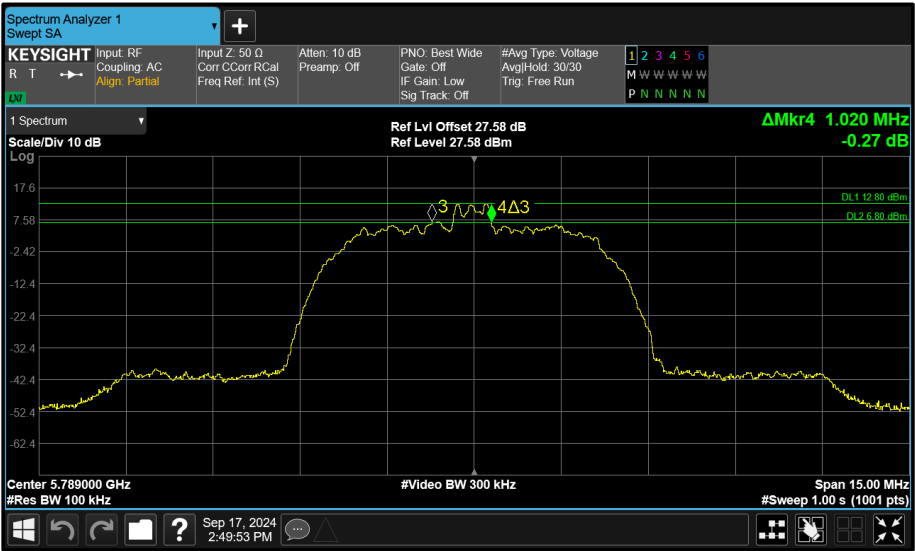


Figure 185 - Core 1 (B) 5789 MHz (CH64) 6 dB Bandwidth

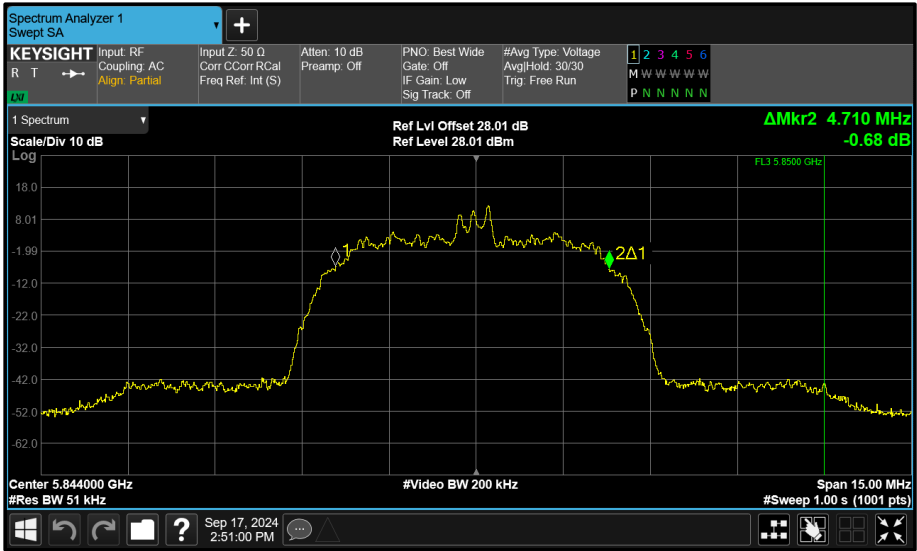


Figure 186 - Core 0 (A) 5844 MHz (CH119) 99% Bandwidth

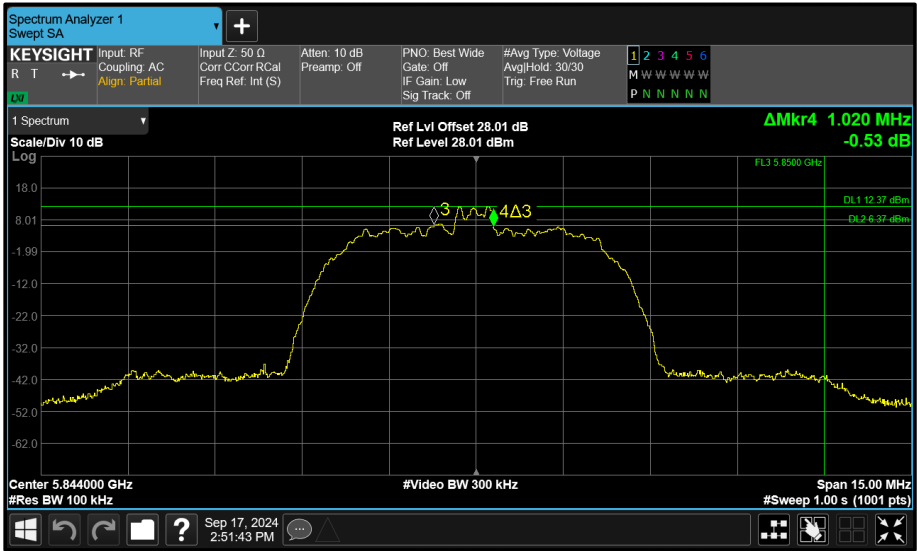


Figure 187 - Core 0 (A) 5844 MHz (CH119) 6 dB Bandwidth

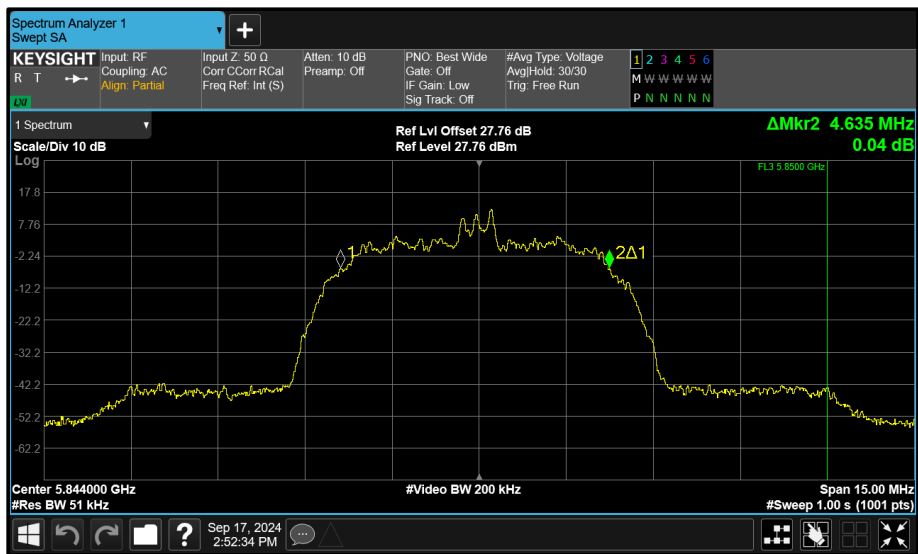


Figure 188 - Core 1 (B) 5844 MHz (CH119) 99% Bandwidth

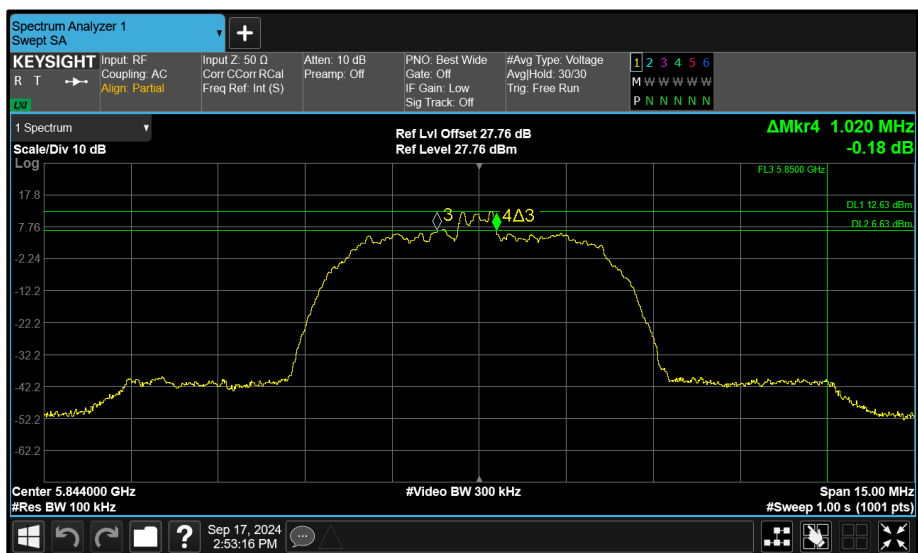


Figure 189 - Core 1 (B) 5844 MHz (CH119) 6 dB Bandwidth

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 Laboratory 14.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
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	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
AC Programmable Power Supply	iTech	IT7324	6662	-	O/P Mon

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

A3239, S/N: J3FYV0C64X - Modification State 0
A3239, S/N: DLX7VG477R - Modification State 0

2.3.3 Date of Test

17-September-2024 to 11-October-2024

2.3.4 Test Method

The test was performed in accordance with ANSI C63.10 2020 clause 12.4.3.2 (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 it was calculated in accordance with clause F)2)d)(i).

2.3.5 Environmental Conditions

Ambient Temperature	20.6 - 22.8 °C
Relative Humidity	55.6 - 58.6 %



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 (%):	77.1
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	-	9.52	-	-	-	24.00	-14.48
5204	-	9.52	-	-	-	24.00	-14.48
5245	-	9.76	-	-	-	24.00	-14.24

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 $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.8
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	-	3.13	-	-	-	24.00	-20.87
5204	-	3.30	-	-	-	24.00	-20.70
5245	-	3.43	-	-	-	24.00	-20.57

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 (%):	78.5
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	-	3.18	-	-	-	24.00	-20.82
5204	-	3.16	-	-	-	24.00	-20.84
5245	-	3.22	-	-	-	24.00	-20.78

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) 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 (%):	77.3
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	-	9.62	-	-	-	30.00	-20.38
5789	-	9.83	-	-	-	30.00	-20.17
5844	-	9.85	-	-	-	30.00	-20.15

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) 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 (%):	78.3
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	-	3.01	-	-	-	30.00	-26.99
5789	-	3.44	-	-	-	30.00	-26.56
5844	-	3.01	-	-	-	30.00	-26.99

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) 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 (%):	78.3
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	-	3.48	-	-	-	30.00	-26.52
5789	-	3.33	-	-	-	30.00	-26.67
5844	-	3.41	-	-	-	30.00	-26.59

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 (4-DH5)	Duty Cycle (%):	78.5
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	-	11.71	-	-	-	24.00	-12.29
5204	-	11.77	-	-	-	24.00	-12.23
5245	-	11.85	-	-	-	24.00	-12.15

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 (%):	78.6
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	-	13.49	-	-	-	24.00	-10.51
5204	-	13.18	-	-	-	24.00	-10.82
5245	-	13.20	-	-	-	24.00	-10.80

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

DUT Configuration			
Mode:	ePA GFSK (DH5)	Duty Cycle (%):	77.6
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	-	14.21	-	-	-	30.00	-15.79
5789	-	14.16	-	-	-	30.00	-15.84
5844	-	14.03	-	-	-	30.00	-15.97

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) 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 (%):	79.2
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	-	13.85	-	-	-	30.00	-16.15
5789	-	13.90	-	-	-	30.00	-16.10
5844	-	13.97	-	-	-	30.00	-16.03

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) 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 (%):	79.0
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	-	13.50	-	-	-	30.00	-16.50
5789	-	13.24	-	-	-	30.00	-16.76
5844	-	13.32	-	-	-	30.00	-16.68

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 (%):	77.6
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	5.83	5.96	-	-	8.90	22.99	-14.09
5204	5.16	5.78	-	-	8.49	22.99	-14.50
5245	5.43	5.83	-	-	8.65	22.99	-14.34

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 (%):	79.2
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	2.92	3.36	-	-	6.15	22.99	-16.84
5204	2.87	3.24	-	-	6.07	22.99	-16.92
5245	3.11	3.12	-	-	6.12	22.99	-16.87

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 (%):	79.3
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	3.13	2.83	-	-	5.99	22.99	-17.00
5204	3.06	2.56	-	-	5.83	22.99	-17.16
5245	3.32	3.02	-	-	6.18	22.99	-16.81

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 (%):	76.2
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	9.28	9.59	-	-	12.45	29.79	-17.34
5789	9.65	9.77	-	-	12.72	29.79	-17.07
5844	9.36	9.91	-	-	12.65	29.79	-17.14

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) 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 (%):	78.2
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	2.90	3.06	-	-	5.99	29.79	-23.80
5789	3.28	3.39	-	-	6.35	29.79	-23.44
5844	3.25	3.40	-	-	6.34	29.79	-23.45

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) 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 (%):	78.6
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	3.41	3.43	-	-	6.43	29.79	-23.36
5789	3.22	2.22	-	-	5.76	29.79	-24.03
5844	3.40	3.45	-	-	6.44	29.79	-23.35

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 (%):	79.1
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	8.00	8.00	-	-	11.01	22.99	-11.98
5204	7.77	7.44	-	-	10.62	22.99	-12.37
5245	6.96	7.60	-	-	10.30	22.99	-12.69

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 (%):	79.9
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	9.67	9.39	-	-	12.54	22.99	-10.44
5204	9.79	9.49	-	-	12.65	22.99	-10.33
5245	9.62	9.44	-	-	12.54	22.99	-10.45

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) 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 GFSK (DH5)	Duty Cycle (%):	77.2
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	13.63	14.08	-	-	16.87	29.79	-12.92
5789	14.03	13.62	-	-	16.84	29.79	-12.95
5844	13.98	14.50	-	-	17.26	29.79	-12.53

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) 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 (%):	78.7
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	13.88	13.81	-	-	16.86	29.79	-12.93
5789	13.61	13.72	-	-	16.67	29.79	-13.12
5844	13.69	13.97	-	-	16.84	29.79	-12.95

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) 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 (%):	78.6
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	13.31	13.10	-	-	16.22	29.79	-13.57
5789	13.39	13.23	-	-	16.32	29.79	-13.47
5844	13.07	13.18	-	-	16.13	29.79	-13.65

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
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6517	12	22-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6518	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6526	12	22-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6527	12	05-Mar-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	6585	12	20-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6586	12	20-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
AC Programmable Power Supply	iTech	IT7324	6665	-	O/P Mon

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

A3239, S/N: J3FYV0C64X - Modification State 0
A3239, S/N: DLX7VG477R - Modification State 0

2.4.3 Date of Test

17-September-2024 to 11-October-2024

2.4.4 Test Method

The test was performed in accordance with ANSI C63.10 2020 clause 12.6.

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).

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 it was calculated in accordance with clause F)2)d)(i).

2.4.5 Environmental Conditions

Ambient Temperature	20.6 - 22.8 °C
Relative Humidity	55.6 - 58.6 %



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 (%):	77.1
Antenna Configuration:	SISO	DCCF (dB):	1.13
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	-	9.12	-	-	-	11.00	-1.88
5204	-	9.20	-	-	-	11.00	-1.80
5245	-	9.43	-	-	-	11.00	-1.57

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 $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.8
Antenna Configuration:	SISO	DCCF (dB):	1.03
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	-	0.51	-	-	-	11.00	-10.49
5204	-	0.17	-	-	-	11.00	-10.83
5245	-	0.28	-	-	-	11.00	-10.72

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 (%):	78.5
Antenna Configuration:	SISO	DCCF (dB):	1.05
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	-	-1.84	-	-	-	11.00	-12.84
5204	-	-1.73	-	-	-	11.00	-12.73
5245	-	-1.50	-	-	-	11.00	-12.50

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) 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 (%):	77.3
Antenna Configuration:	SISO	DCCF (dB):	1.12
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	8.57	-	-	-	30.00	-21.43
5789	-	8.51	-	-	-	30.00	-21.49
5844	-	8.83	-	-	-	30.00	-21.17

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) 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 (%):	78.3
Antenna Configuration:	SISO	DCCF (dB):	1.07
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	-2.11	-	-	-	30.00	-32.11
5789	-	-1.40	-	-	-	30.00	-31.40
5844	-	-1.62	-	-	-	30.00	-31.62

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) 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 (%):	78.3
Antenna Configuration:	SISO	DCCF (dB):	1.06
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	-4.37	-	-	-	30.00	-34.37
5789	-	-3.80	-	-	-	30.00	-33.80
5844	-	-4.58	-	-	-	30.00	-34.58

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 (%):	78.5
Antenna Configuration:	SISO	DCCF (dB):	1.05
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	-	9.11	-	-	-	11.00	-1.89
5204	-	8.64	-	-	-	11.00	-2.36
5245	-	9.04	-	-	-	11.00	-1.96

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 (%):	78.6
Antenna Configuration:	SISO	DCCF (dB):	1.05
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	-	8.33	-	-	-	11.00	-2.67
5204	-	7.62	-	-	-	11.00	-3.38
5245	-	7.86	-	-	-	11.00	-3.14

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) 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 (%):	77.6
Antenna Configuration:	SISO	DCCF (dB):	1.10
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	13.19	-	-	-	30.00	-16.81
5789	-	12.99	-	-	-	30.00	-17.01
5844	-	12.76	-	-	-	30.00	-17.24

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 6.2.4.2	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 (4-DH5)	Duty Cycle (%):	79.2
Antenna Configuration:	SISO	DCCF (dB):	1.01
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	8.37	-	-	-	30.00	-21.63
5789	-	9.39	-	-	-	30.00	-20.61
5844	-	8.92	-	-	-	30.00	-21.08

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) 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 (%):	79.0
Antenna Configuration:	SISO	DCCF (dB):	1.02
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-	5.54	-	-	-	30.00	-24.46
5789	-	5.47	-	-	-	30.00	-24.53
5844	-	5.97	-	-	-	30.00	-24.03

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 (%):	77.6
Antenna Configuration:	Beamforming	DCCF (dB):	1.10
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	5.08	5.24	-	-	8.17	9.99	-1.82
5204	4.52	5.31	-	-	7.94	9.99	-2.05
5245	5.20	5.55	-	-	8.39	9.99	-1.60

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 $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	79.2
Antenna Configuration:	Beamforming	DCCF (dB):	1.01
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	-0.16	0.46	-	-	3.17	9.99	-6.82
5204	0.44	0.31	-	-	3.38	9.99	-6.60
5245	0.62	0.45	-	-	3.55	9.99	-6.44

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 (%):	79.3
Antenna Configuration:	Beamforming	DCCF (dB):	1.01
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	-2.65	-2.59	-	-	0.39	9.99	-9.60
5204	-2.47	-2.34	-	-	0.61	9.99	-9.38
5245	-2.15	-2.65	-	-	0.62	9.99	-9.37

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) 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 (%):	76.2
Antenna Configuration:	Beamforming	DCCF (dB):	1.18
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	8.33	9.15	-	-	11.77	29.79	-18.02
5789	8.77	9.22	-	-	12.01	29.79	-17.78
5844	8.38	9.06	-	-	11.74	29.79	-18.05

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) 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 (%):	78.2
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/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-2.37	-2.48	-	-	0.58	29.79	-29.21
5789	-1.58	-1.28	-	-	1.58	29.79	-28.21
5844	-1.63	-1.87	-	-	1.26	29.79	-28.53

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) 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 (%):	78.6
Antenna Configuration:	Beamforming	DCCF (dB):	1.04
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	-3.94	-4.49	-	-	-1.20	29.79	-30.99
5789	-4.12	-4.85	-	-	-1.46	29.79	-31.25
5844	-4.14	-4.43	-	-	-1.27	29.79	-31.06

Table 101 - 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 (%):	79.1
Antenna Configuration:	Beamforming	DCCF (dB):	1.02
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	4.60	4.56	-	-	7.59	9.99	-2.40
5204	4.99	4.75	-	-	7.88	9.99	-2.11
5245	4.21	4.62	-	-	7.43	9.99	-2.56

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 (%):	79.9
Antenna Configuration:	Beamforming	DCCF (dB):	0.97
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	3.71	3.59	-	-	6.66	9.99	-3.33
5204	4.14	4.13	-	-	7.15	9.99	-2.84
5245	4.39	4.04	-	-	7.23	9.99	-2.76

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) 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 (%):	77.2
Antenna Configuration:	Beamforming	DCCF (dB):	1.13
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	12.09	13.26	-	-	15.72	29.79	-14.07
5789	12.62	12.78	-	-	15.71	29.79	-14.08
5844	12.72	14.00	-	-	16.41	29.79	-13.37

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) 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 (4-DH5)	Duty Cycle (%):	78.7
Antenna Configuration:	Beamforming	DCCF (dB):	1.04
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	9.40	8.87	-	-	12.16	29.79	-17.63
5789	8.64	8.25	-	-	11.46	29.79	-18.33
5844	9.04	8.52	-	-	11.80	29.79	-17.99

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) 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 (%):	78.6
Antenna Configuration:	Beamforming	DCCF (dB):	1.05
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	6.21

Test Frequency (MHz)	PSD (dBm/500 kHz)					Limit (dBm / 500 kHz)	Margin (dB)
	A	B	C	D	Σ		
5733	5.33	6.10	-	-	8.74	29.79	-21.04
5789	5.70	5.61	-	-	8.67	29.79	-21.12
5844	5.30	5.83	-	-	8.59	29.79	-21.20

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
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
MXA Signal Analyser	Keysight Technologies	N9020B	6417	24	26-Feb-2025
MXA Signal Analyser	Keysight Technologies	N9020B	6419	24	28-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6517	12	22-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6518	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6526	12	22-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6527	12	5-Mar-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	6585	12	20-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6586	12	20-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
AC Programmable Power Supply	iTech	IT7324	6665	-	O/P Mon

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

A3239, S/N: D4D3YLHFTQ - Modification State 0

2.5.3 Date of Test

14-August-2024 to 15-August-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 - 23.2 °C
Relative Humidity	39.5 - 43.4 %



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	54.32
Static	HDR4	5733	5725	54.22
Static	HDR8	5733	5725	54.46
Hopping	DH5	5733-5811	5725	54.09
Hopping	HDR4	5733-5811	5725	54.30
Hopping	HDR8	5733-5811	5725	54.00
Static	DH5	5844	5850	54.10
Static	HDR4	5844	5850	54.43
Static	HDR8	5844	5850	54.70
Hopping	DH5	5766-5844	5850	54.01
Hopping	HDR4	5766-5844	5850	54.88
Hopping	HDR8	5766-5844	5850	54.64

Table 110 - SISO Authorised Band Edge Results

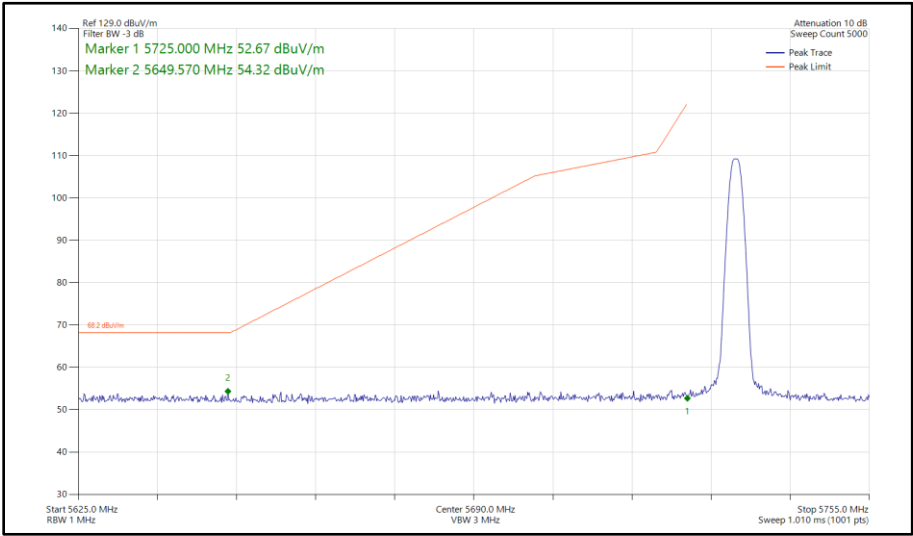


Figure 190 - Bluetooth DH5, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz

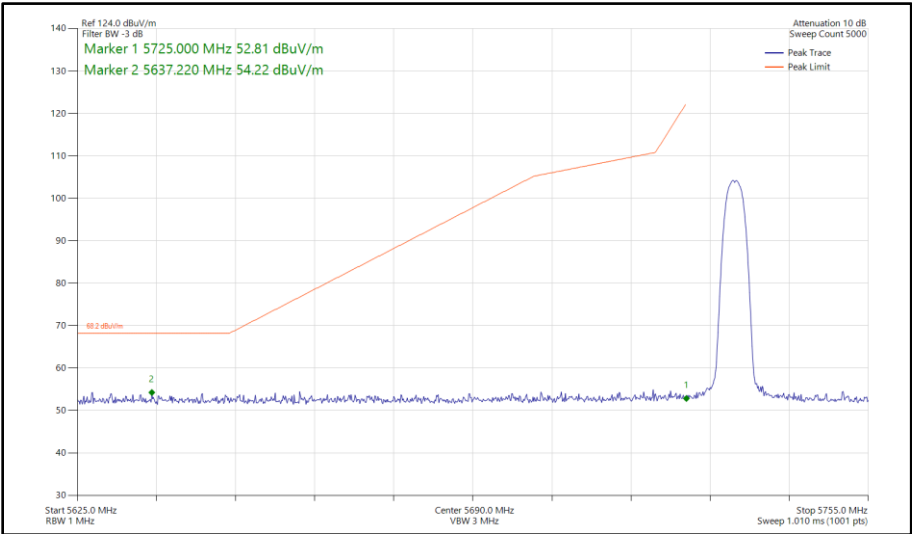


Figure 191 - Bluetooth HDR4, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz

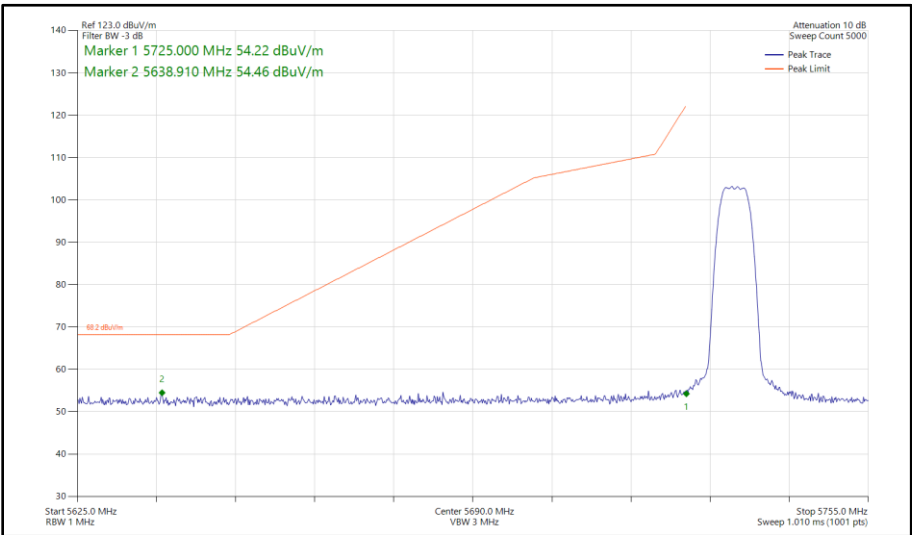


Figure 192 - Bluetooth HDR8, SISO, Core 0 - 5733 MHz
Band Edge Frequency 5725 MHz

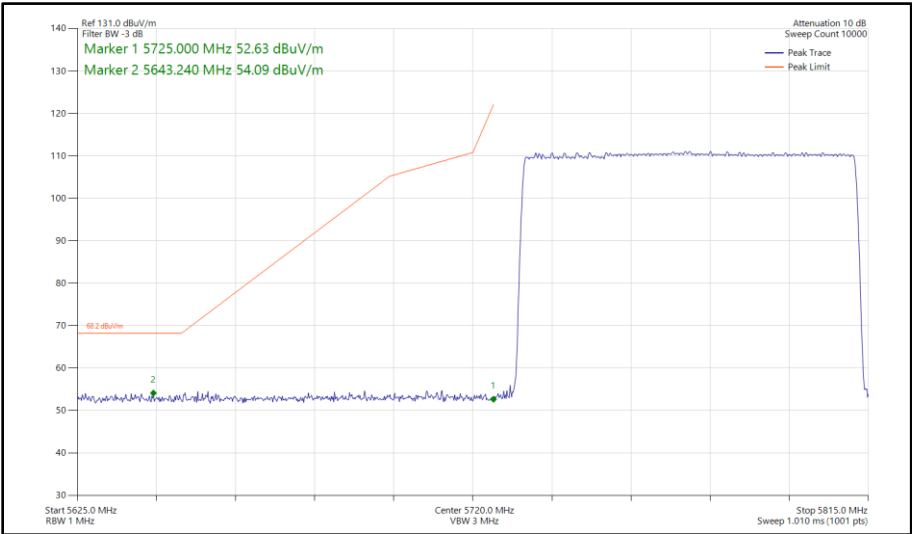


Figure 193 - Bluetooth DH5, SISO, Core 0 - 5733-5811 MHz
Band Edge Frequency 5725 MHz

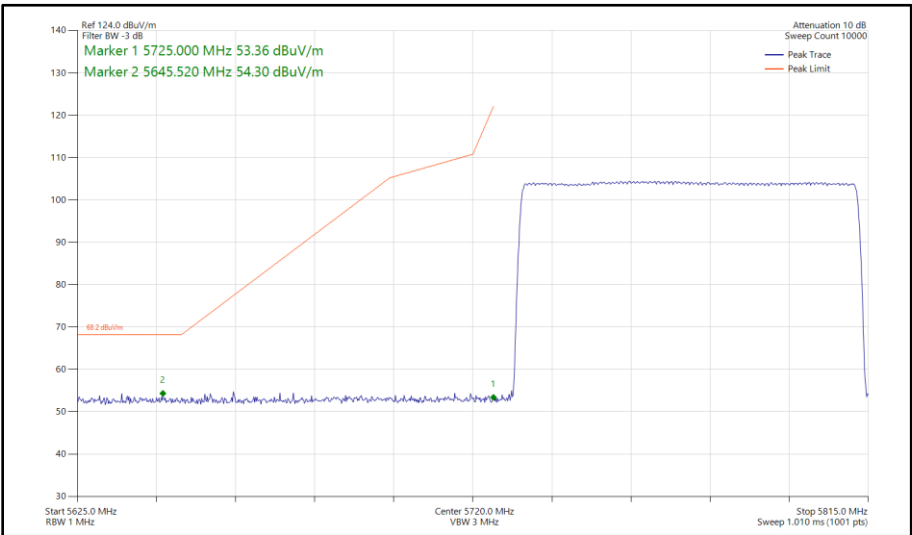


Figure 194 - Bluetooth HDR4, SISO, Core 0 - 5733-5811 MHz
Band Edge Frequency 5725 MHz

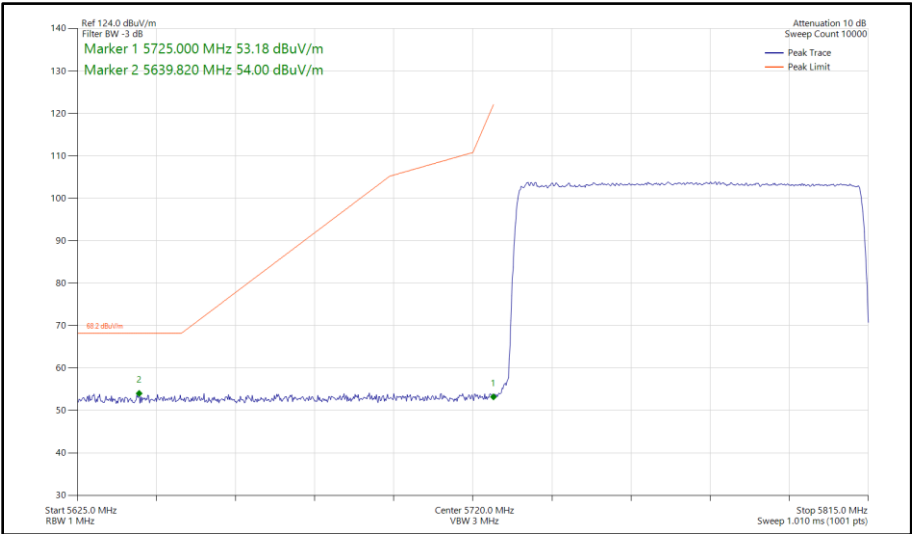


Figure 195 - Bluetooth HDR8, SISO, Core 0 - 5733-5811 MHz
Band Edge Frequency 5725 MHz

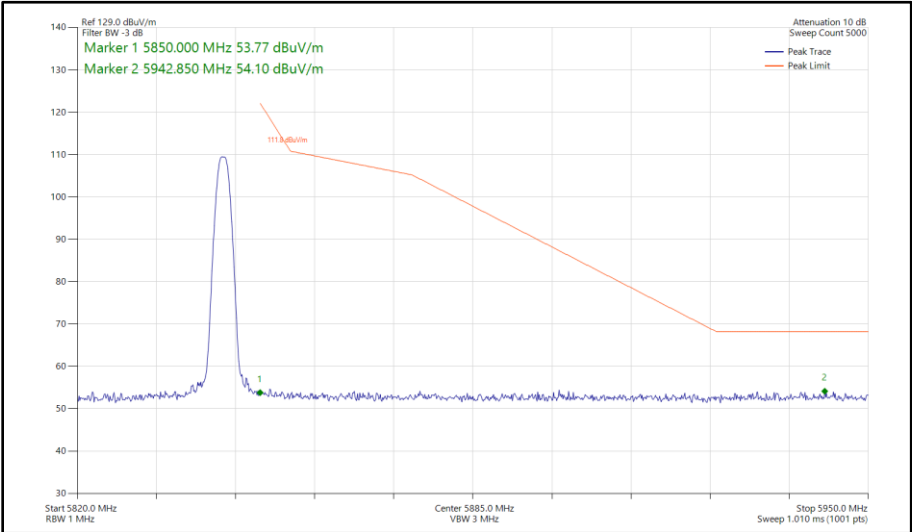


Figure 196 - Bluetooth DH5, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz

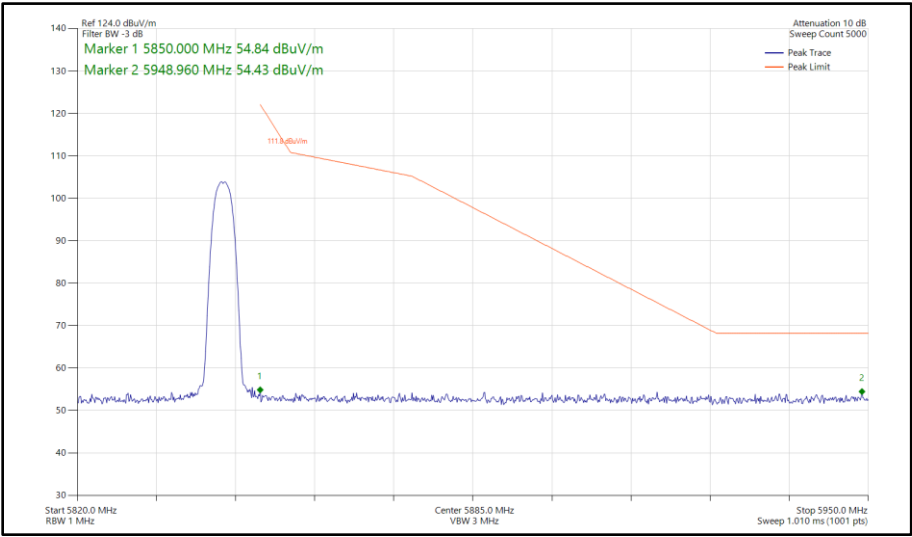


Figure 197 - Bluetooth HDR4, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz

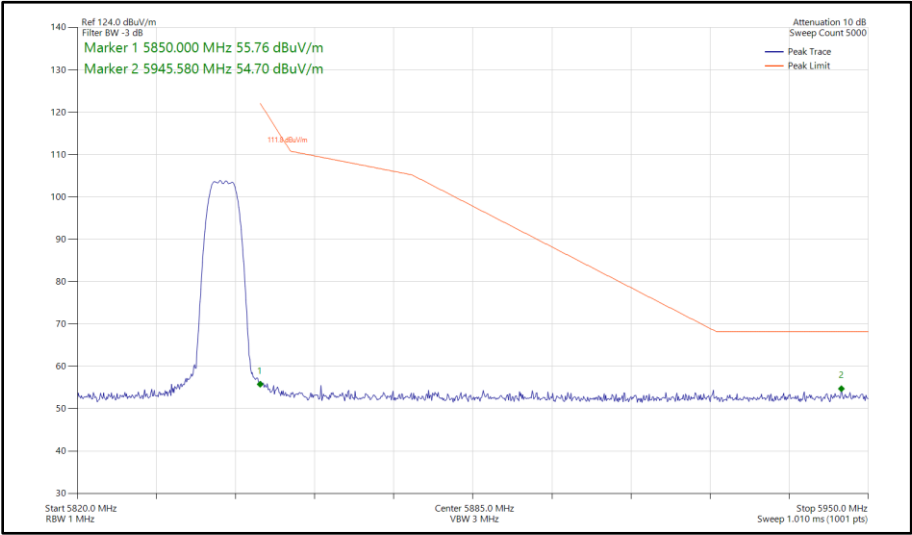


Figure 198 - Bluetooth HDR8, SISO, Core 0 - 5844 MHz
Band Edge Frequency 5850 MHz

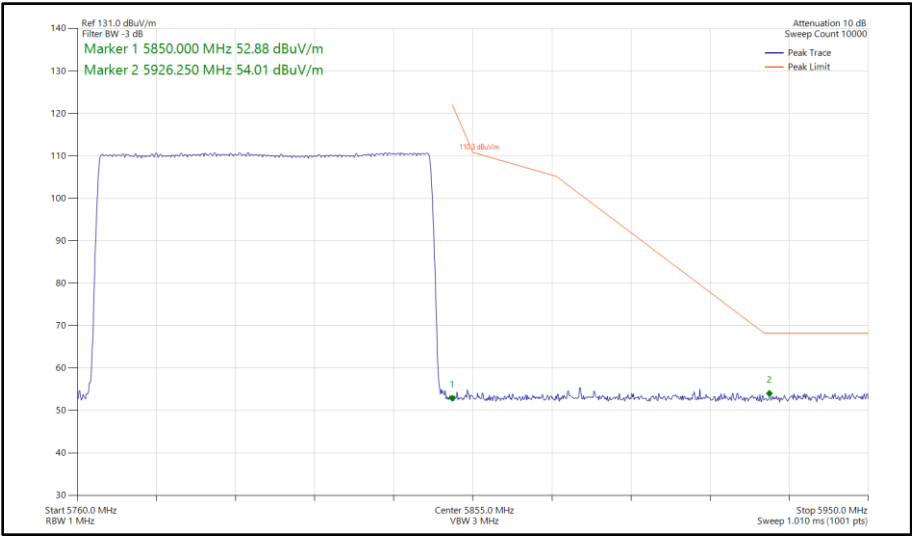


Figure 199 - Bluetooth DH5, SISO, Core 0 - 5766-5844 MHz
Band Edge Frequency 5850 MHz

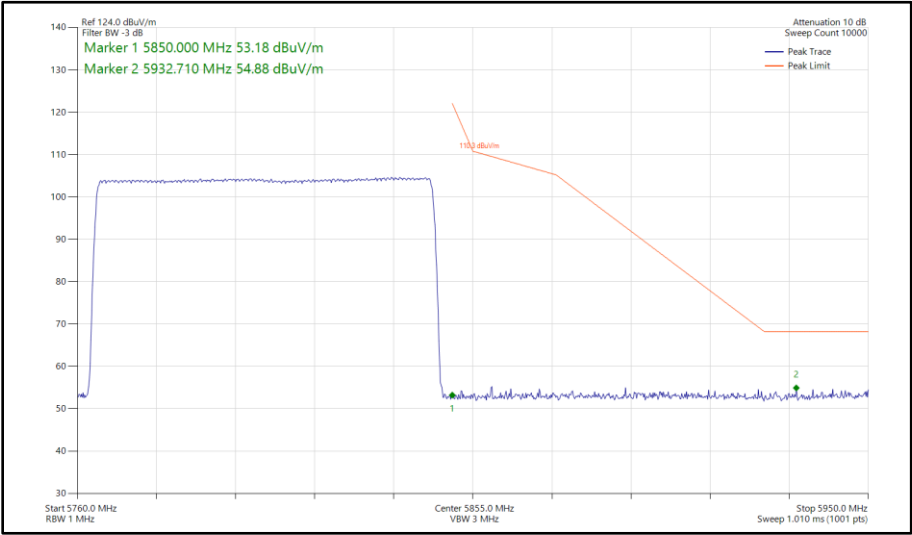


Figure 200 - Bluetooth HDR4, SISO, Core 0 - 5766-5844 MHz
Band Edge Frequency 5850 MHz

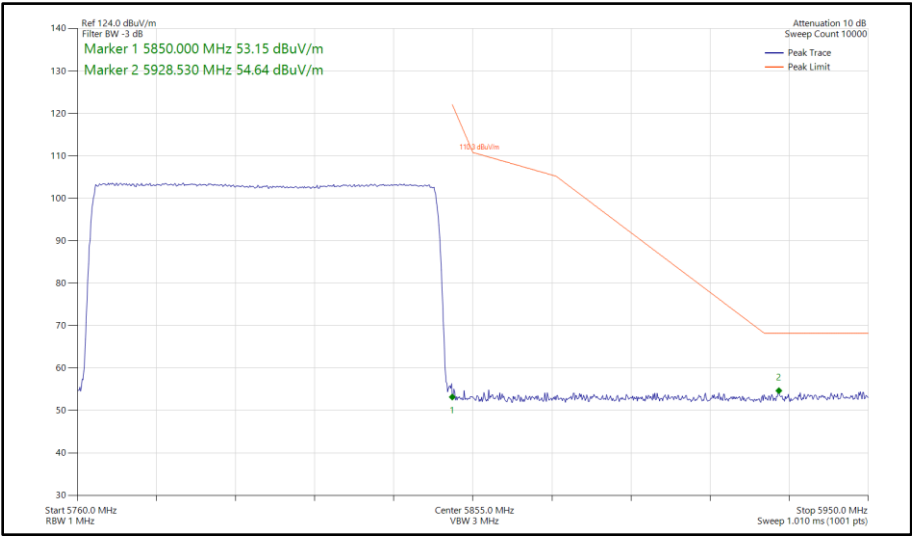


Figure 201 - Bluetooth HDR8, SISO, Core 0 - 5766-5844 MHz
Band Edge Frequency 5850 MHz



iPA - Core 1 (SISO)

Mode	Packet Type	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)
Static	DH5	5733	5725	54.03
Static	HDR4	5733	5725	54.04
Static	HDR8	5733	5725	54.43
Hopping	DH5	5733-5811	5725	53.89
Hopping	HDR4	5733-5811	5725	54.66
Hopping	HDR8	5733-5811	5725	54.73
Static	DH5	5844	5850	54.13
Static	HDR4	5844	5850	54.01
Static	HDR8	5844	5850	54.23
Hopping	DH5	5766-5844	5850	54.42
Hopping	HDR4	5766-5844	5850	54.31
Hopping	HDR8	5766-5844	5850	54.56

Table 111 - SISO Authorised Band Edge Results

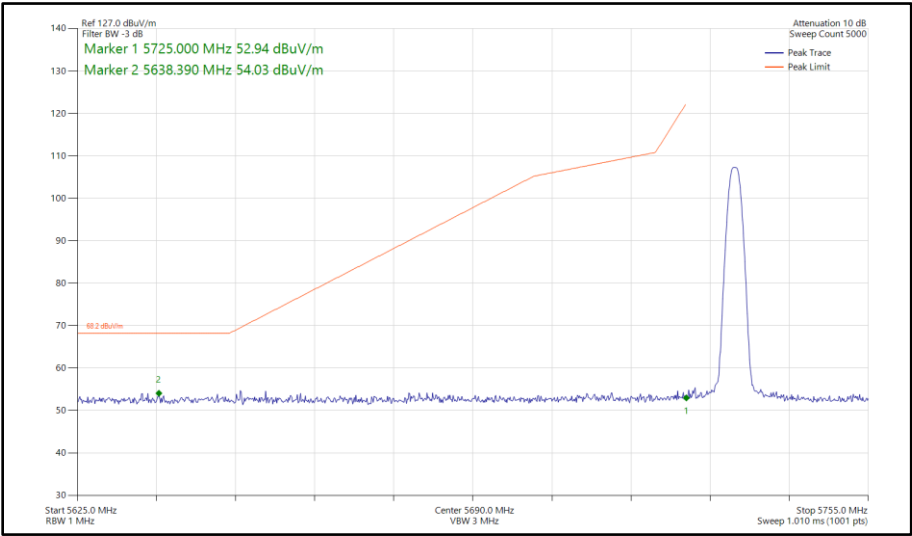


Figure 202 - Bluetooth DH5, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

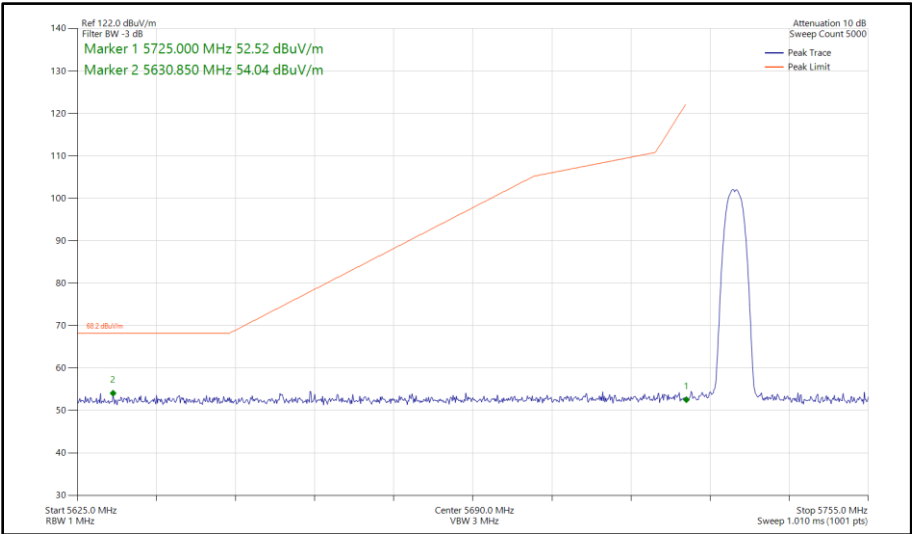


Figure 203 - Bluetooth HDR4, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

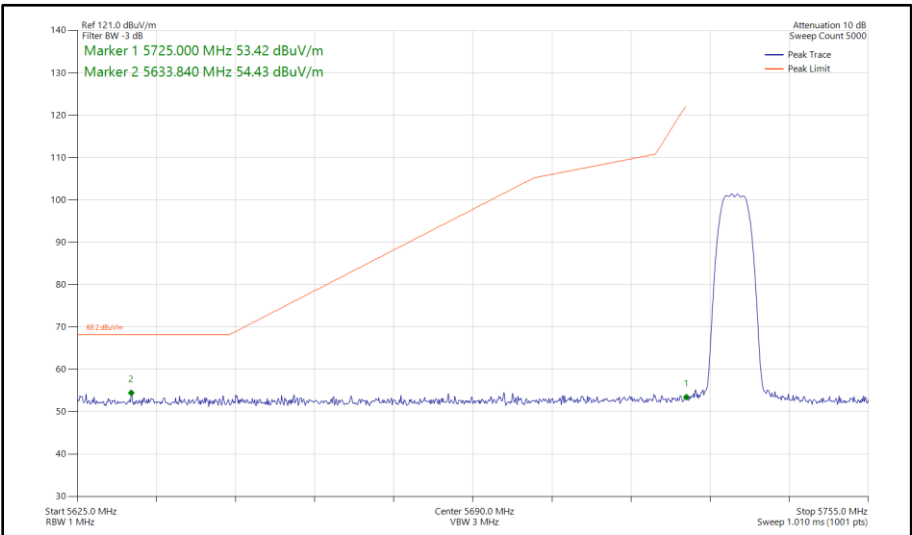


Figure 204 - Bluetooth HDR8, SISO, Core 1 - 5733 MHz
Band Edge Frequency 5725 MHz

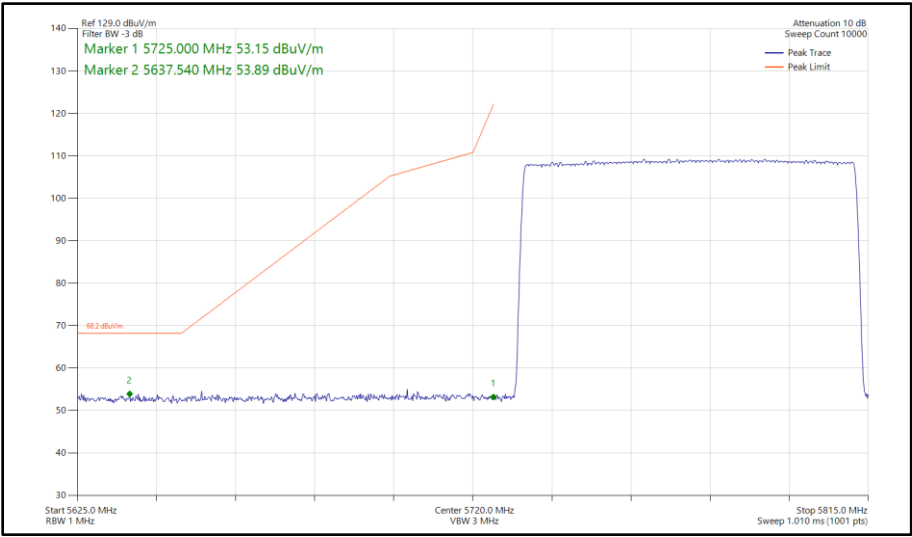


Figure 205 - Bluetooth DH5, SISO, Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz

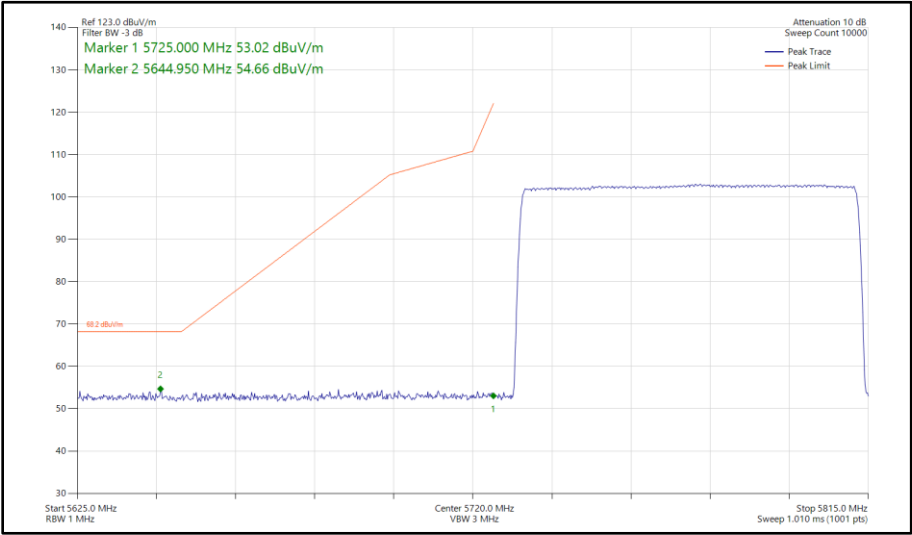


Figure 206 - Bluetooth HDR4, SISO, Core 1 - 5733-5811 MHz
Band Edge Frequency 5725 MHz