

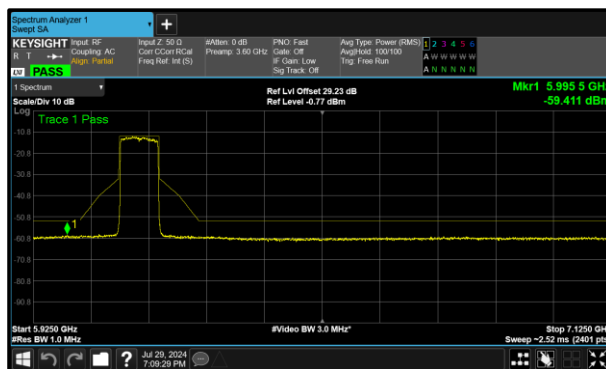


Figure 331 - A (Core 0) 6145 MHz (CH39)

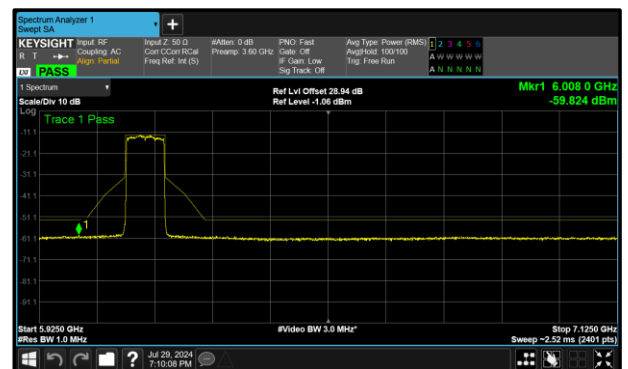


Figure 332 - B (Core 1) 6145 MHz (CH39)

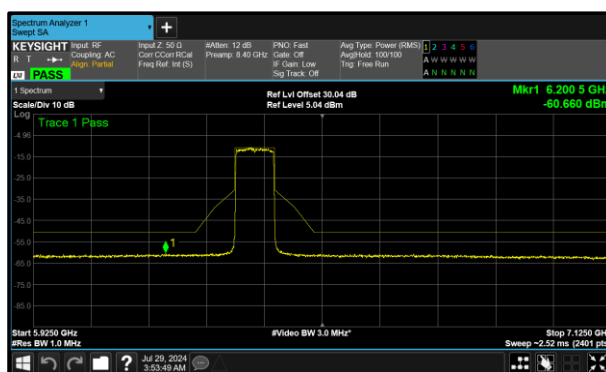


Figure 333 - A (Core 0) 6385 MHz (CH87)

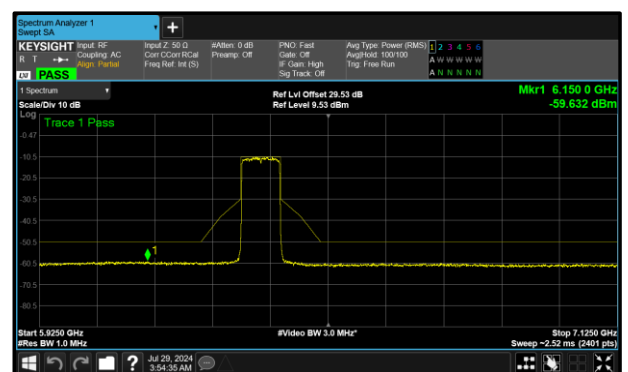


Figure 334 - B (Core 1) 6385 MHz (CH87)

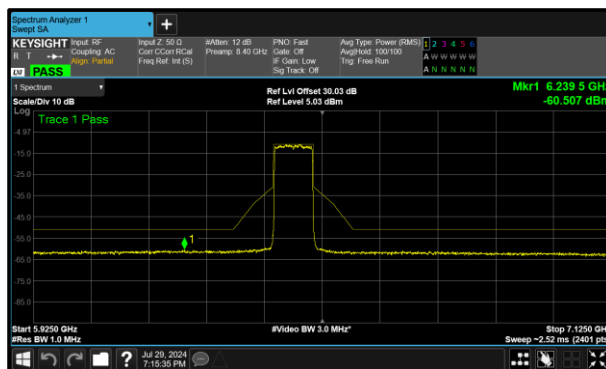


Figure 335 - A (Core 0) 6465 MHz (CH103)

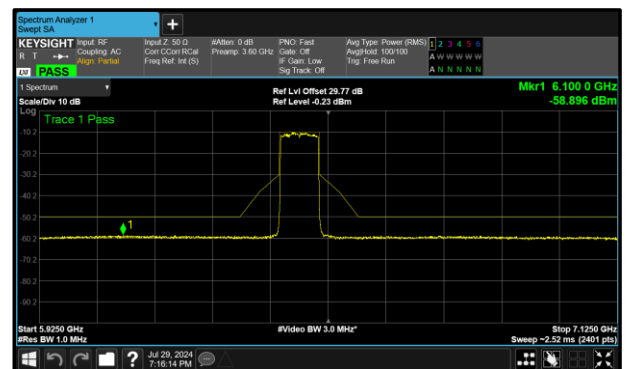


Figure 336 - B (Core 1) 6465 MHz (CH103)

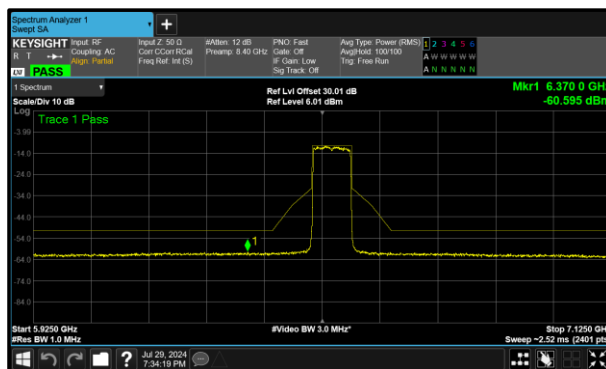


Figure 337 - A (Core 0) 6545 MHz (CH119)

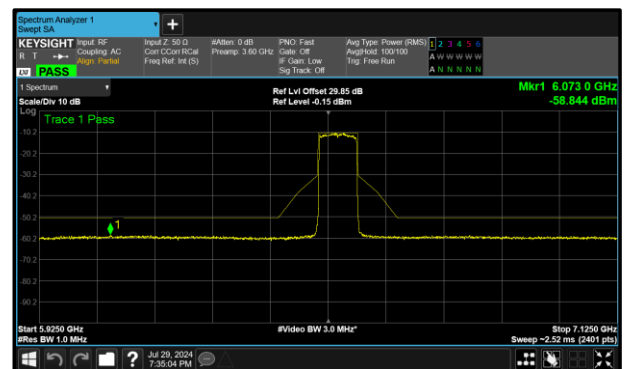


Figure 338 - B (Core 1) 6545 MHz (CH119)

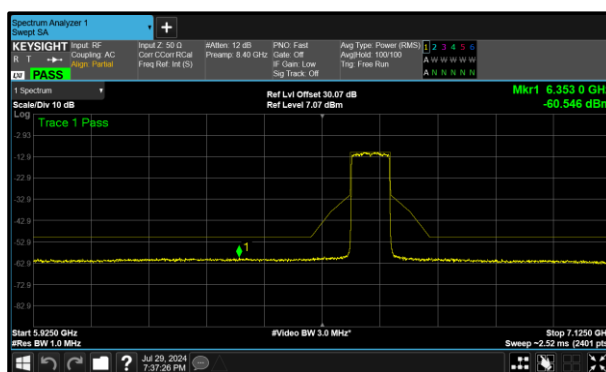


Figure 339 - A (Core 0) 6625 MHz (CH135)

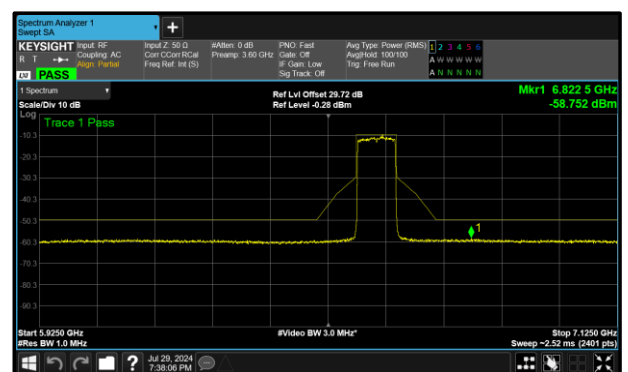


Figure 340 - B (Core 1) 6625 MHz (CH135)

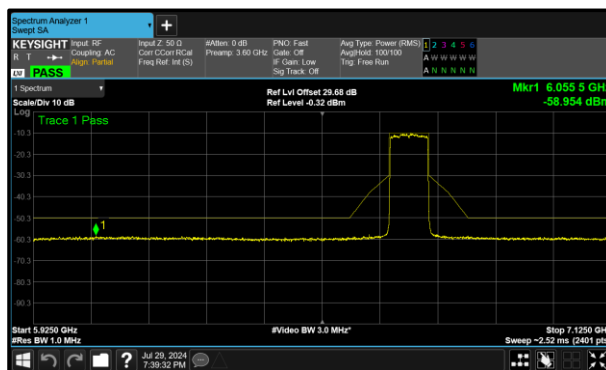


Figure 341 - A (Core 0) 6705 MHz (CH151)

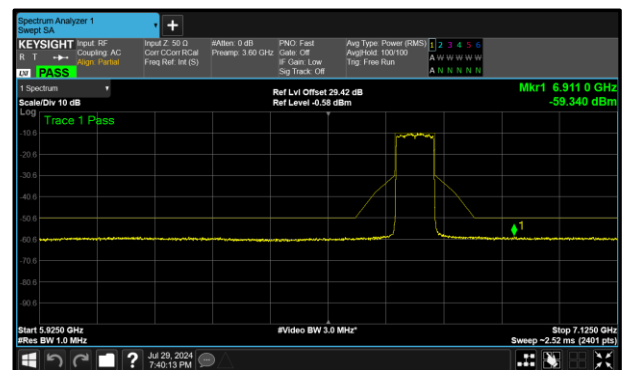
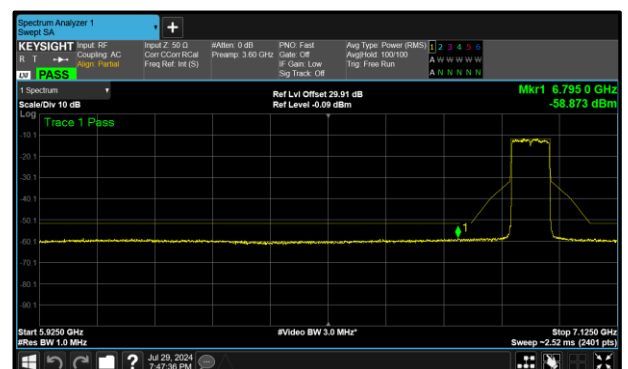
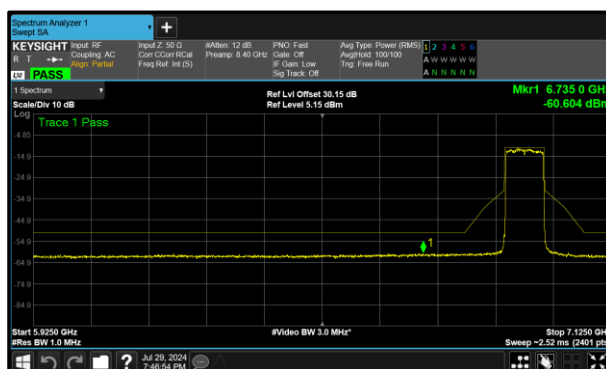
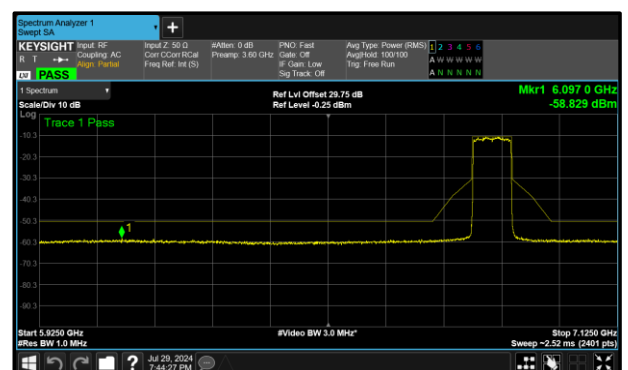
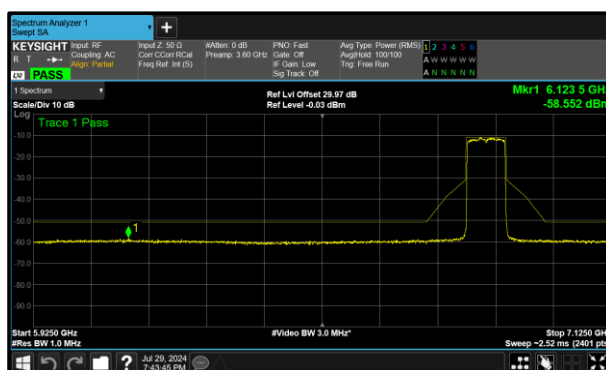
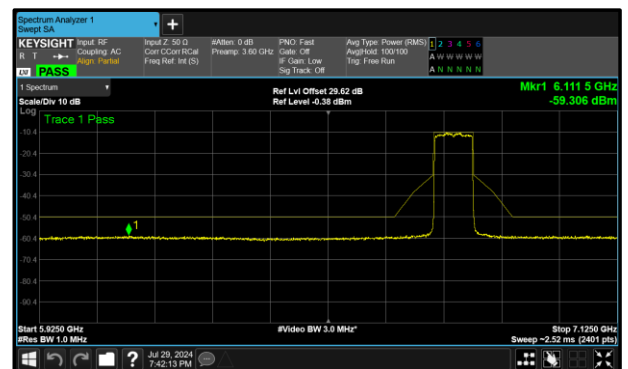
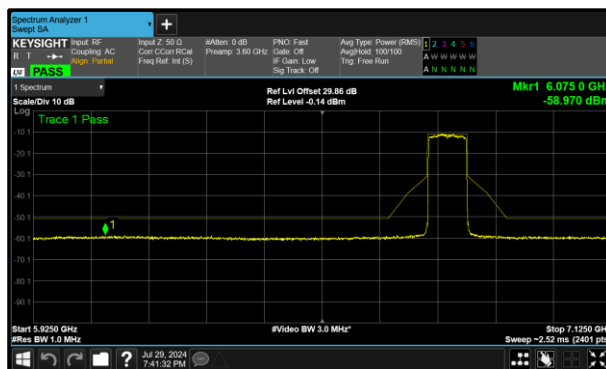


Figure 342 - B (Core 1) 6705 MHz (CH151)



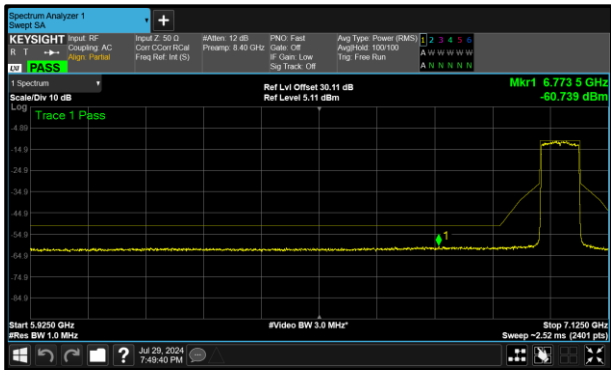


Figure 349 - A (Core 0) 7025 MHz (CH215)

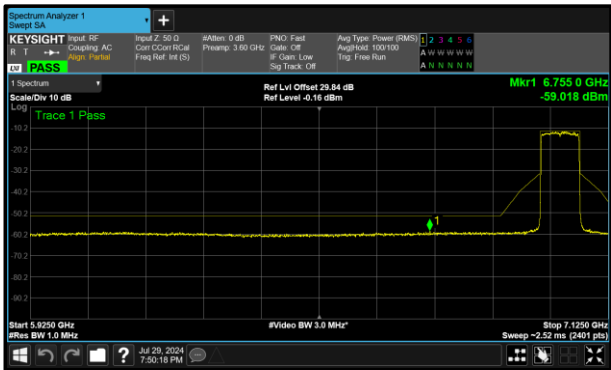


Figure 350 - B (Core 1) 7025 MHz (CH215)



Protocol	Unwanted Emissions Within the RLAN Band	
	Margin (dB)	Frequency (MHz)
802.11ax HE20 SU SP	11.25	6443.400
802.11ax HE40 SU SP	9.35	6559.694
802.11ax HE80 SU SP	4.90	6635.000

Table 388 - Unwanted Emissions Within the RLAN Band Summary Results

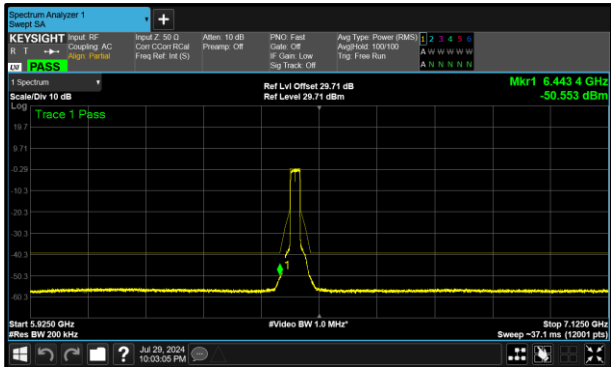


Figure 351 - B (Core 1) 802.11ax HE20 SU SP
6475 MHz (CH105)

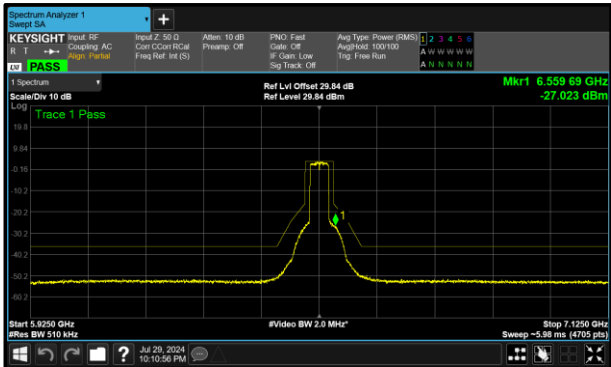


Figure 352 - B (Core 1) 802.11ax HE40 SU SP
6525 MHz (CH115)

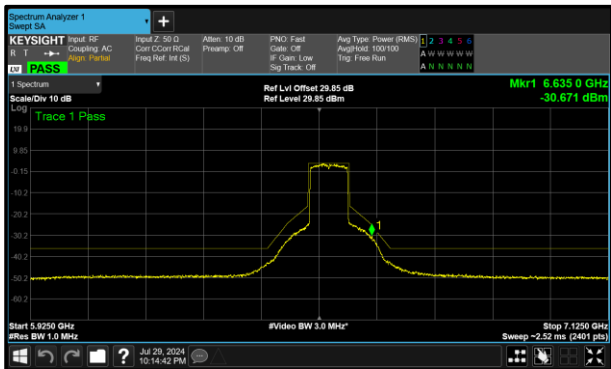


Figure 353 - B (Core 1) 802.11ax HE80 SU SP
6545 MHz (CH119)



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-6 U-NII-7
Limit Clause(s):	15.407(b)(7) RSS-248 4.6.2	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE20 SU SP	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	TxBF	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B (Core 0 + Core 1)	Active Chain Id(s):	0+1

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5955	13.89	14.11	-	-
6175	13.44	13.81	-	-
6415	13.11	12.59	-	-
6435	11.85	11.29	-	-
6475	11.91	11.25	-	-
6515	11.82	12.59	-	-
6535	12.71	12.51	-	-
6695	13.02	12.95	-	-
6855	12.02	12.34	-	-

Table 389 - Unwanted Emissions Within the Band Results

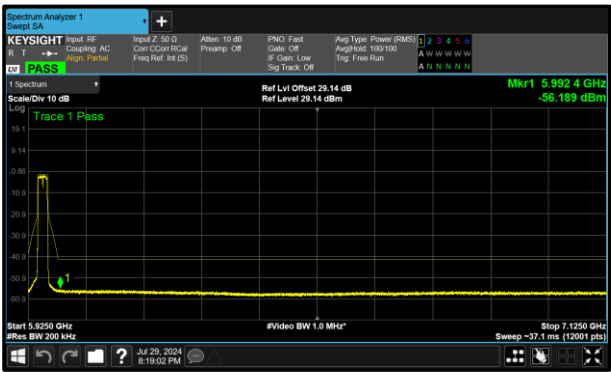


Figure 354 - A (Core 0) 5955 MHz (CH1)

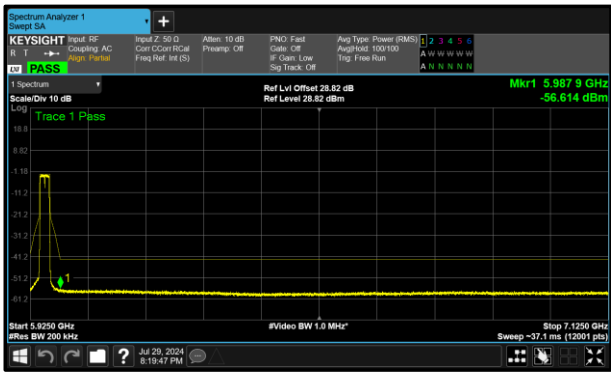


Figure 355 - B (Core 1) 5955 MHz (CH1)

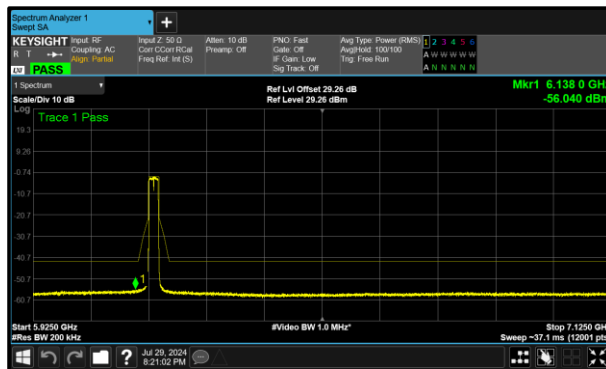


Figure 356 - A (Core 0) 6175 MHz (CH45)

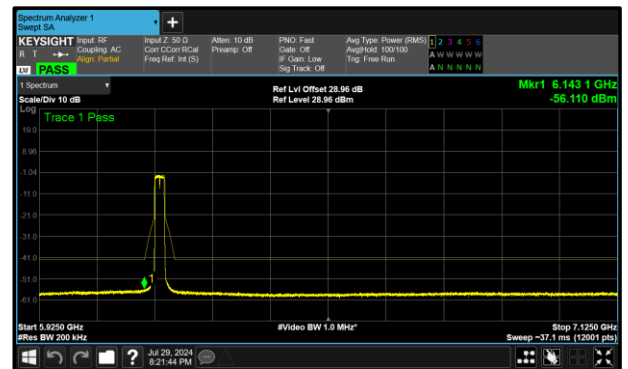


Figure 357 - B (Core 1) 6175 MHz (CH45)

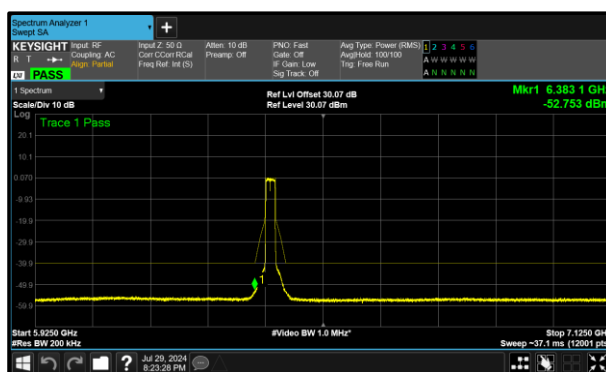


Figure 358 - A (Core 0) 6415 MHz (CH93)

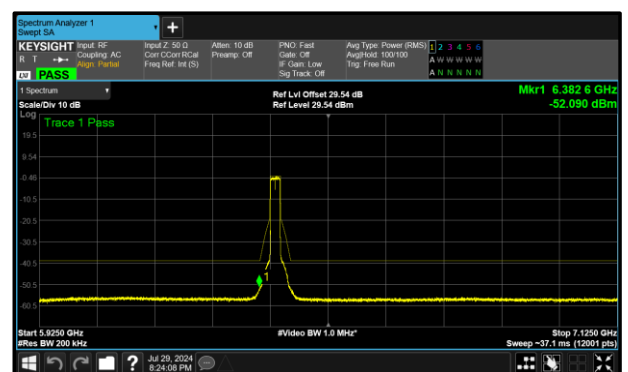


Figure 359 - B (Core 1) 6415 MHz (CH93)

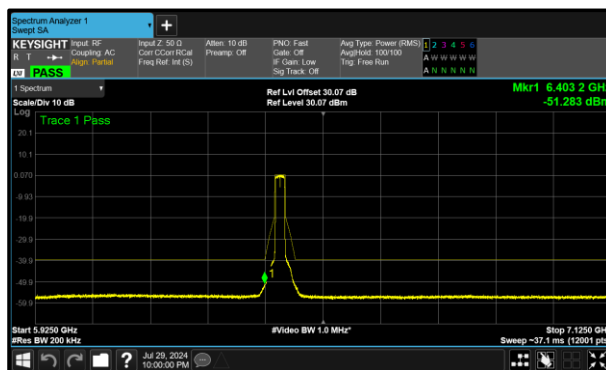


Figure 360 - A (Core 0) 6435 MHz (CH97)

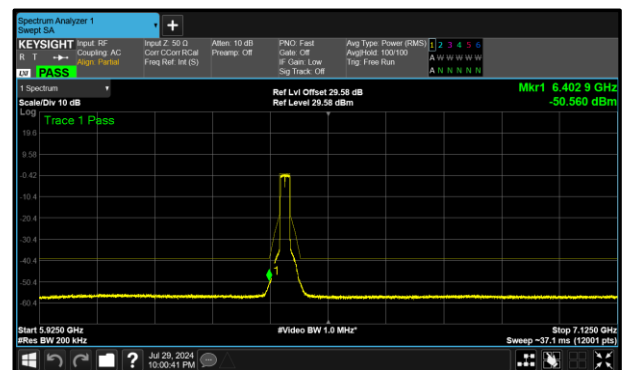


Figure 361 - B (Core 1) 6435 MHz (CH97)

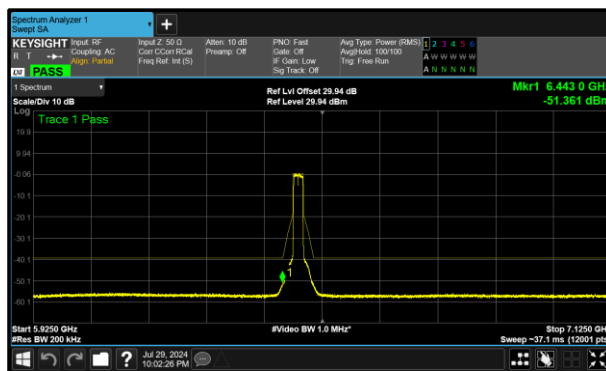


Figure 362 - A (Core 0) 6475 MHz (CH105)

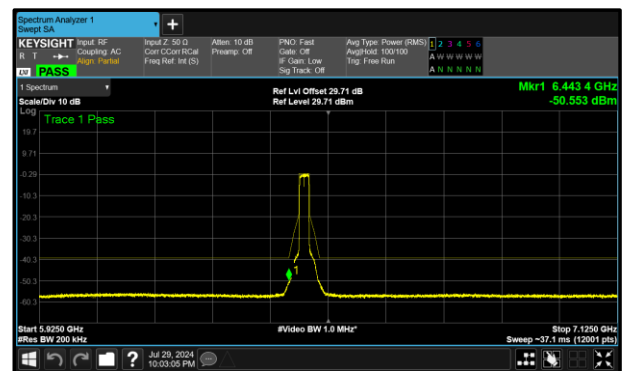


Figure 363 - B (Core 1) 6475 MHz (CH105)

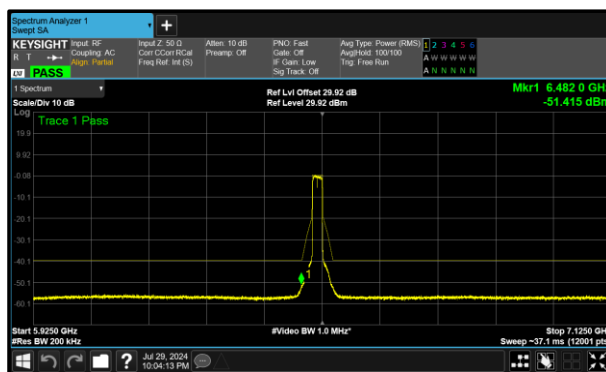


Figure 364 - A (Core 0) 6515 MHz (CH113)

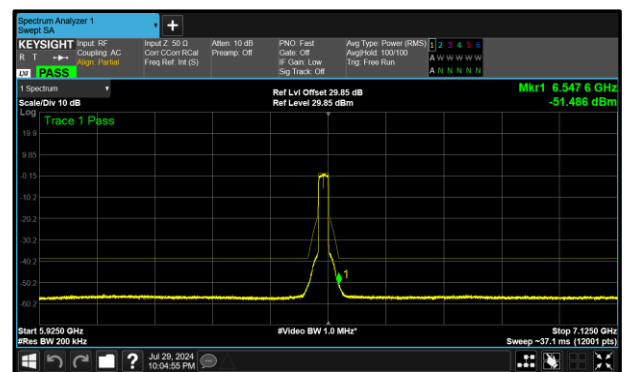


Figure 365 - B (Core 1) 6515 MHz (CH113)

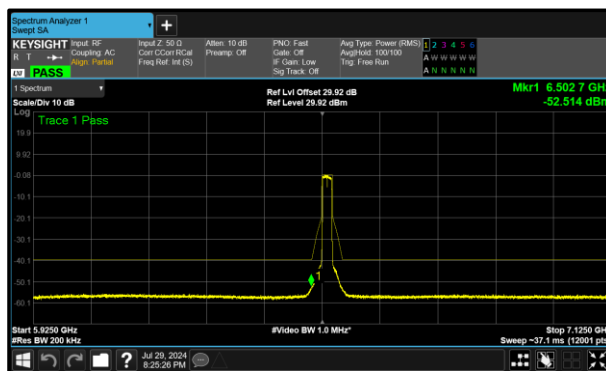


Figure 366 - A (Core 0) 6535 MHz (CH117)

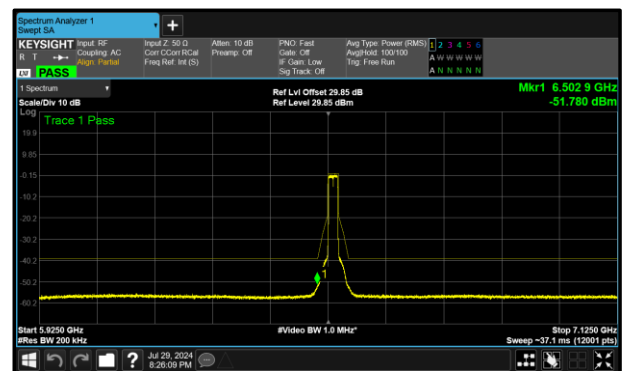


Figure 367 - B (Core 1) 6535 MHz (CH117)

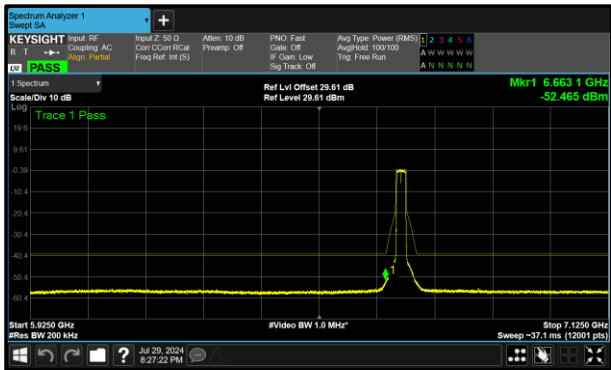


Figure 368 - A (Core 0) 6695 MHz (CH149)

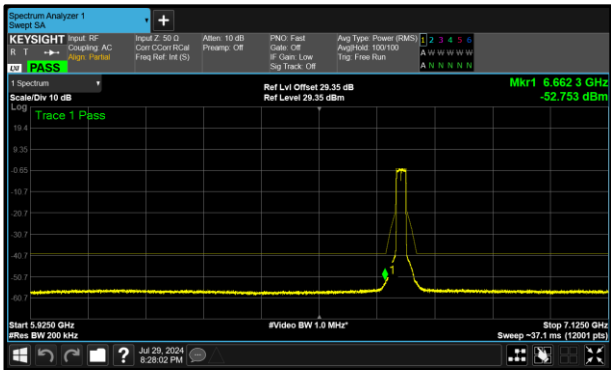


Figure 369 - B (Core 1) 6695 MHz (CH149)

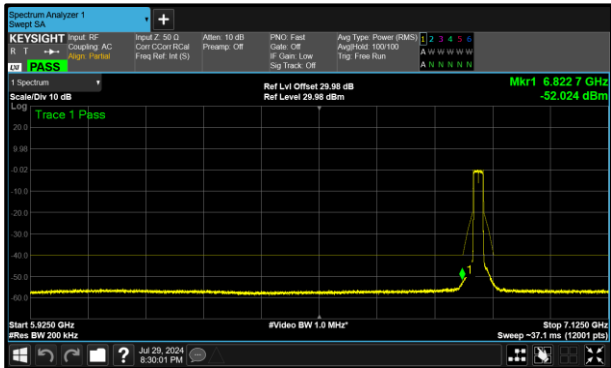


Figure 370 - A (Core 0) 6855 MHz (CH181)

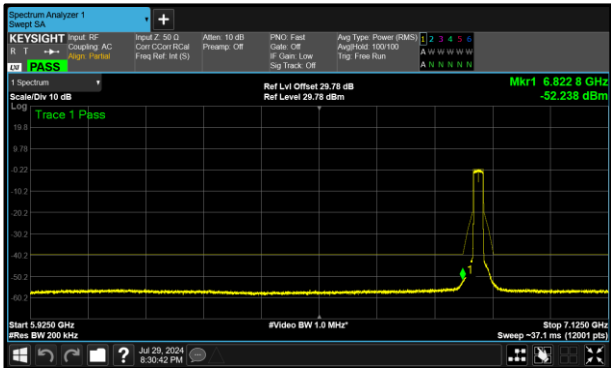


Figure 371 - B (Core 1) 6855 MHz (CH181)



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-6 U-NII-7
Limit Clause(s):	15.407(b)(7) RSS-248 4.6.2	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE40 SU SP	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	TxBF	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B (Core 0 + Core 1)	Active Chain Id(s):	0+1

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5965	12.40	12.58	-	-
6165	11.26	10.40	-	-
6405	10.43	10.55	-	-
6445	10.86	11.45	-	-
6485	10.95	11.03	-	-
6525	9.66	9.35	-	-
6565	11.35	11.86	-	-
6685	11.20	10.74	-	-
6845	12.28	11.81	-	-

Table 390 - Unwanted Emissions Within the Band Results

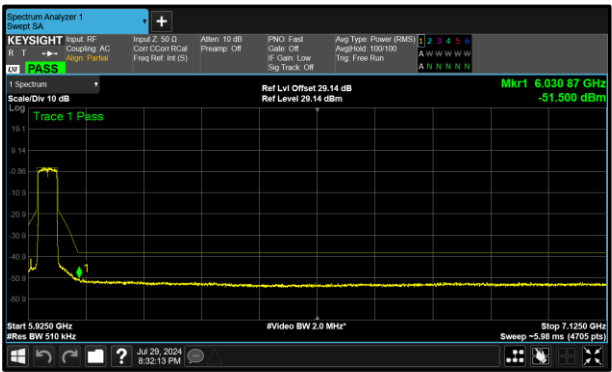


Figure 372 - A (Core 0) 5965 MHz (CH3)

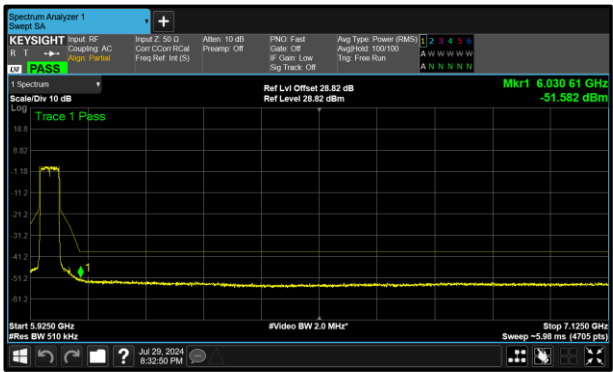


Figure 373 - B (Core 1) 5965 MHz (CH3)

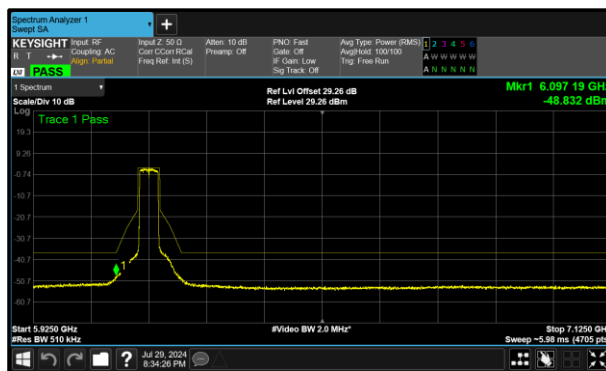


Figure 374 - A (Core 0) 6165 MHz (CH43)

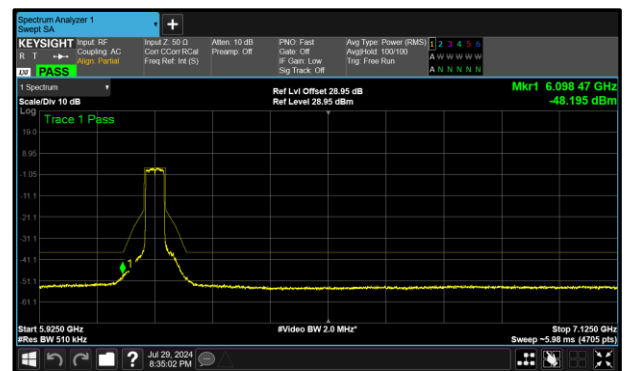


Figure 375 - B (Core 1) 6165 MHz (CH43)

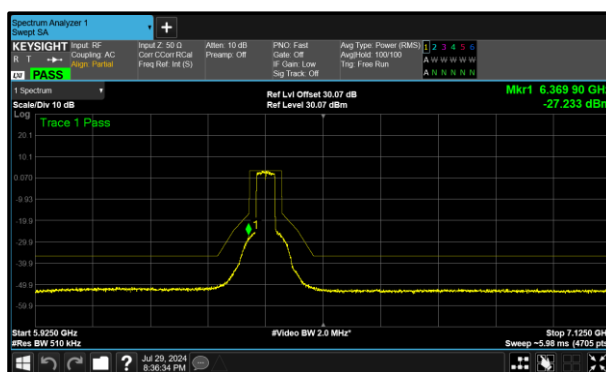


Figure 376 - A (Core 0) 6405 MHz (CH91)

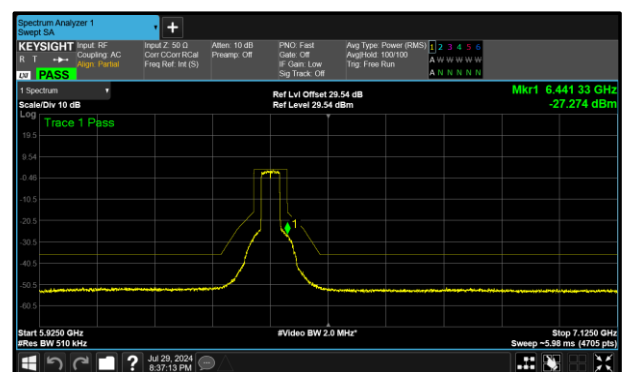


Figure 377 - B (Core 1) 6405 MHz (CH91)

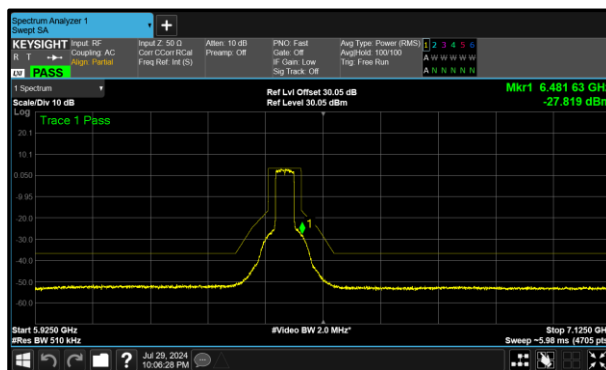


Figure 378 - A (Core 0) 6445 MHz (CH99)

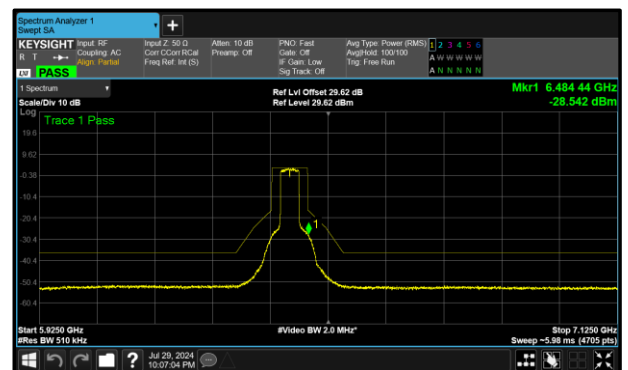


Figure 379 - B (Core 1) 6445 MHz (CH99)

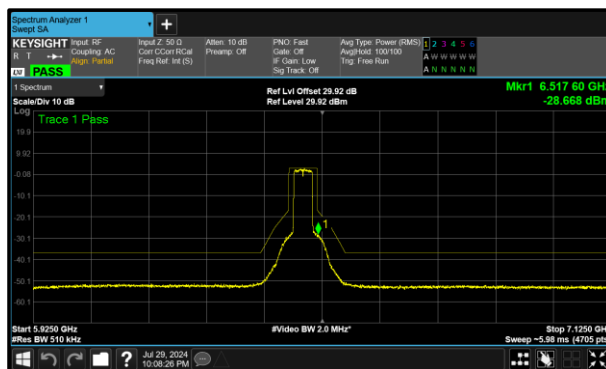


Figure 380 - A (Core 0) 6485 MHz (CH107)

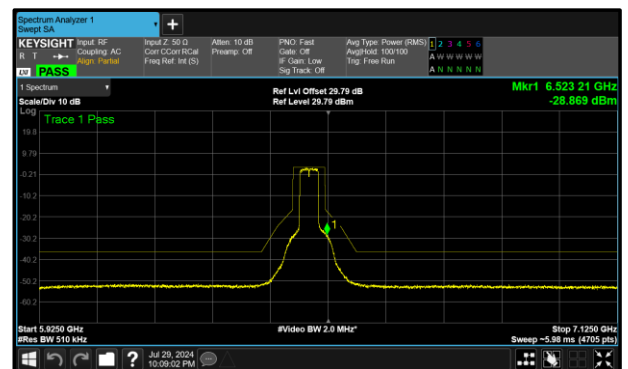


Figure 381 - B (Core 1) 6485 MHz (CH107)

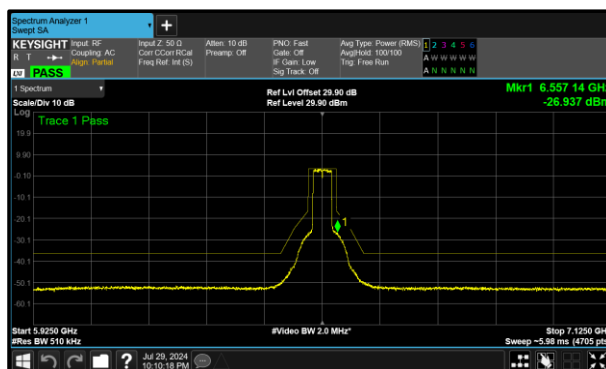


Figure 382 - A (Core 0) 6525 MHz (CH115)

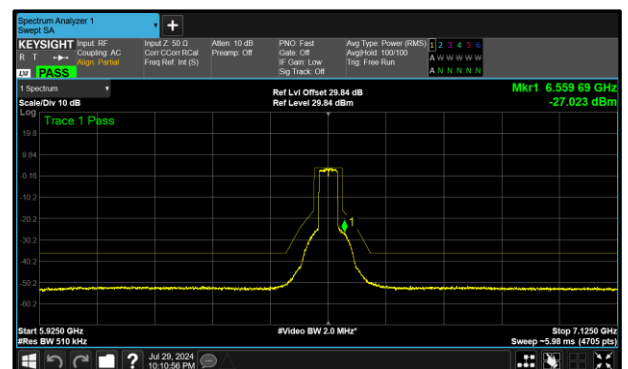


Figure 383 - B (Core 1) 6525 MHz (CH115)

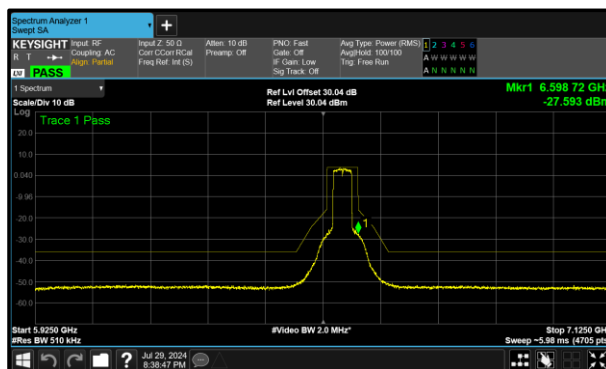


Figure 384 - A (Core 0) 6565 MHz (CH123)

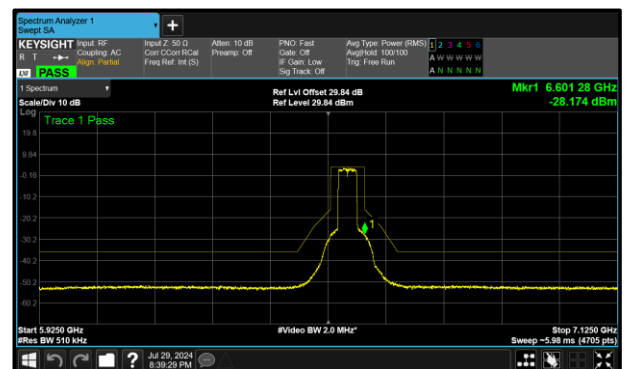


Figure 385 - B (Core 1) 6565 MHz (CH123)

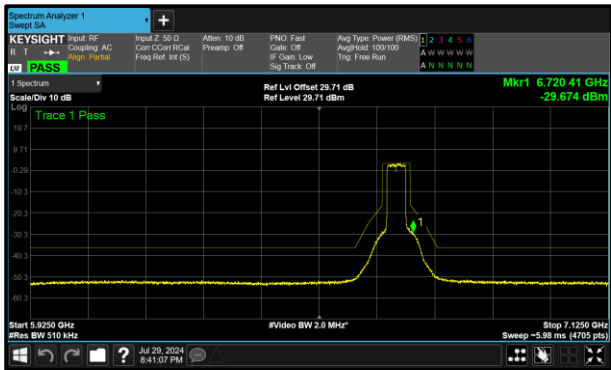


Figure 386 - A (Core 0) 6685 MHz (CH147)

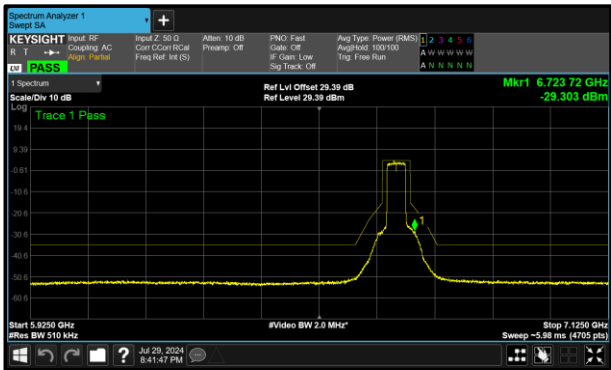


Figure 387 - B (Core 1) 6685 MHz (CH147)

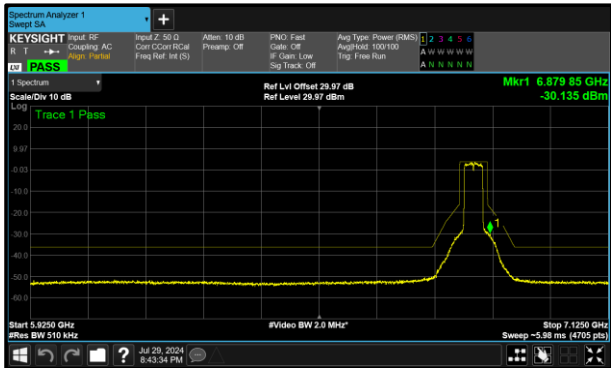


Figure 388 - A (Core 0) 6845 MHz (CH179)

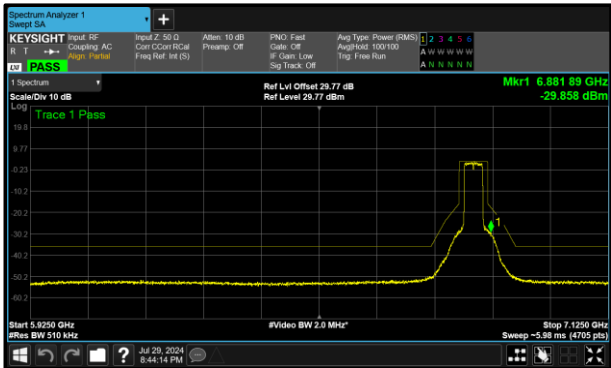


Figure 389 - B (Core 1) 6845 MHz (CH179)



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.425-6.525 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-6 U-NII-7
Limit Clause(s):	15.407(b)(7) RSS-248 4.6.2	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE80 SU SP	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	TxBF	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B (Core 0 + Core 1)	Active Chain Id(s):	0+1

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5985	9.64	11.03	-	-
6145	8.16	8.39	-	-
6385	7.85	7.26	-	-
6465	5.21	8.39	-	-
6545	5.66	4.90	-	-
6625	7.78	6.59	-	-
6705	6.61	6.62	-	-
6785	6.32	6.38	-	-

Table 391 - Unwanted Emissions Within the Band Results

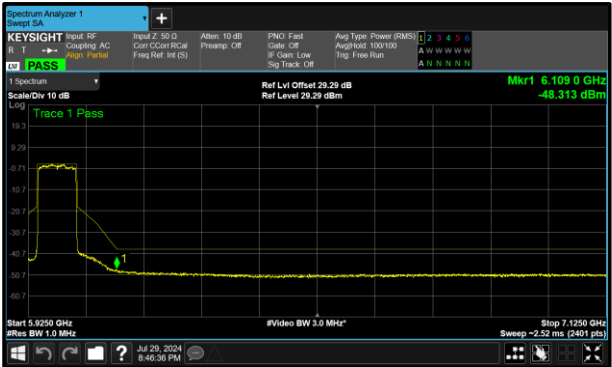


Figure 390 - A (Core 0) 5985 MHz (CH7)

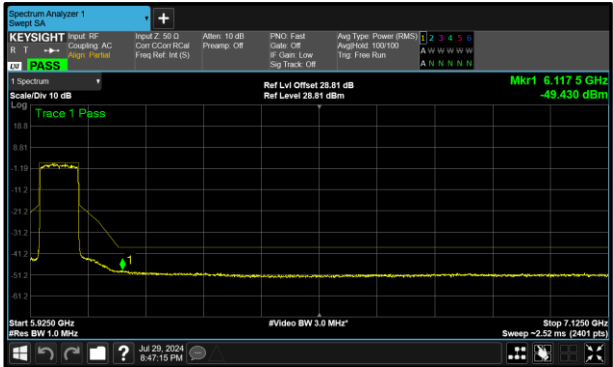
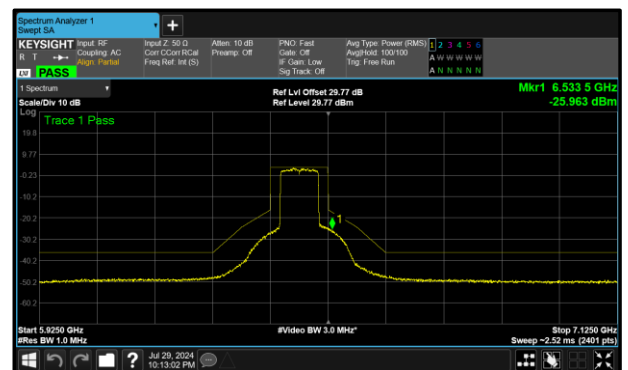
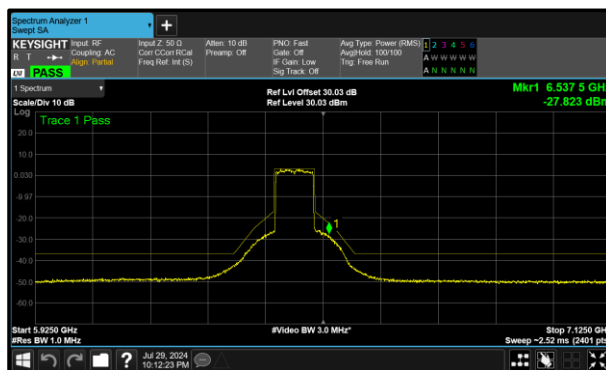
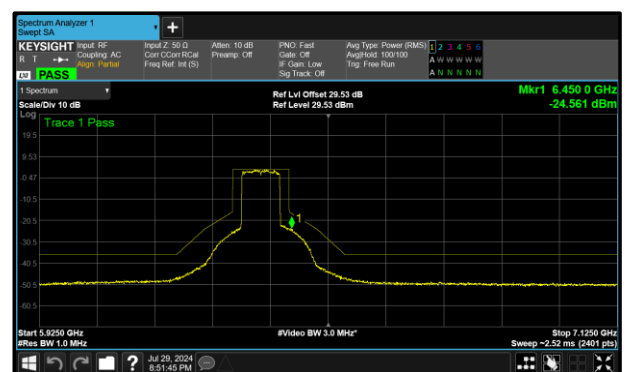
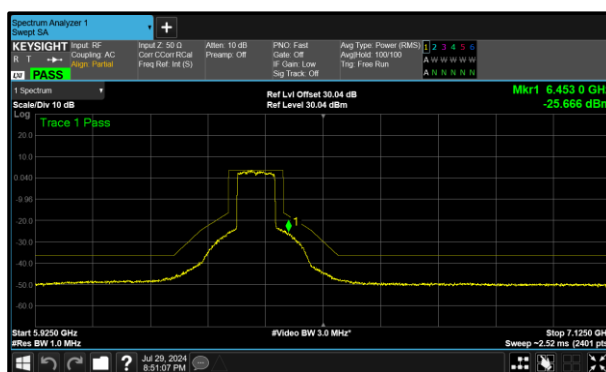
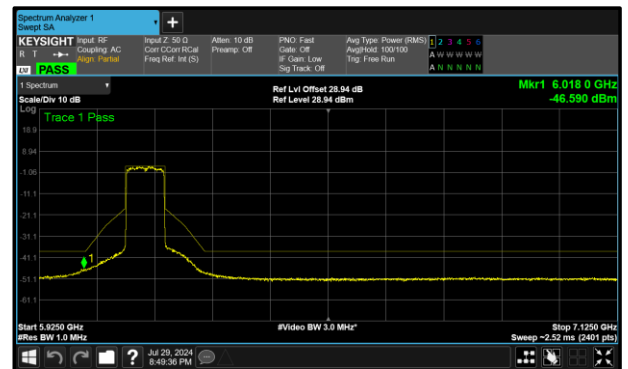
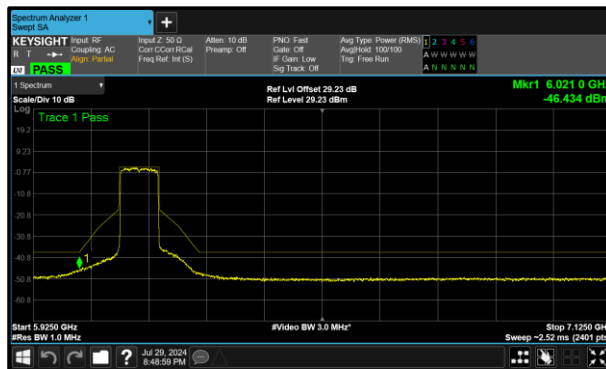


Figure 391 - B (Core 1) 5985 MHz (CH7)



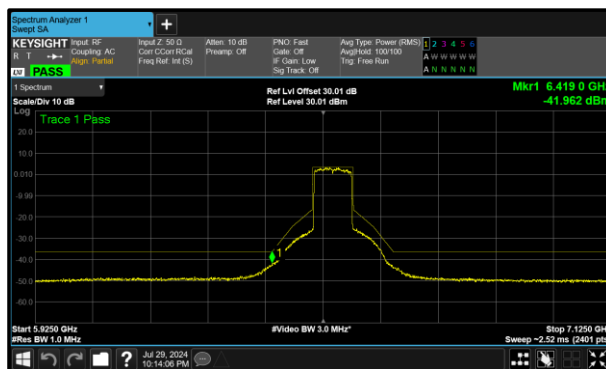


Figure 398 - A (Core 0) 6545 MHz (CH119)

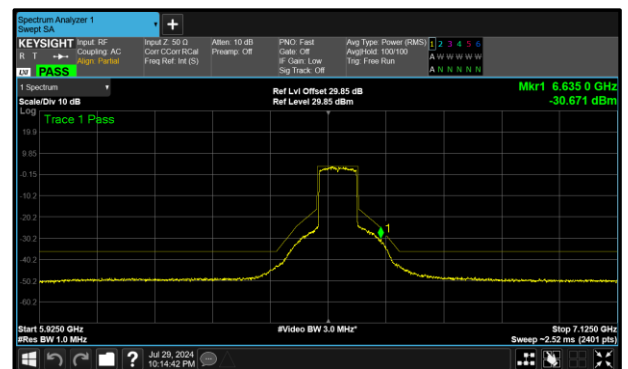


Figure 399 - B (Core 1) 6545 MHz (CH119)

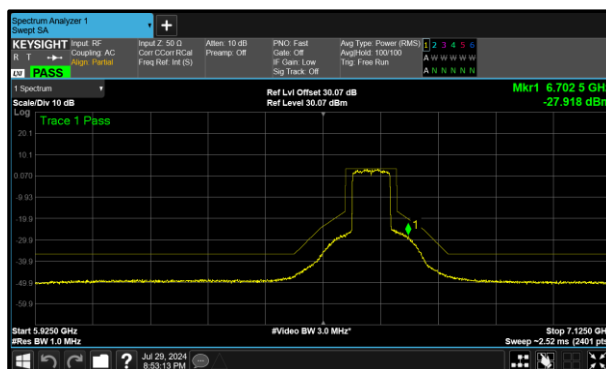


Figure 400 - A (Core 0) 6625 MHz (CH135)

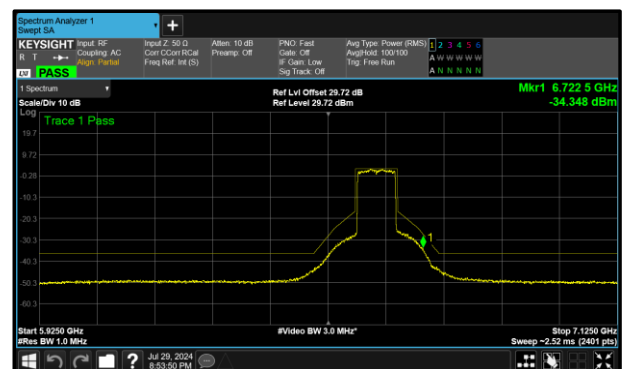


Figure 401 - B (Core 1) 6625 MHz (CH135)

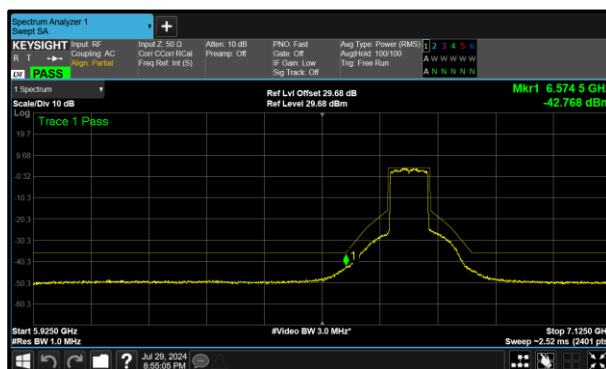


Figure 402 - A (Core 0) 6705 MHz (CH151)

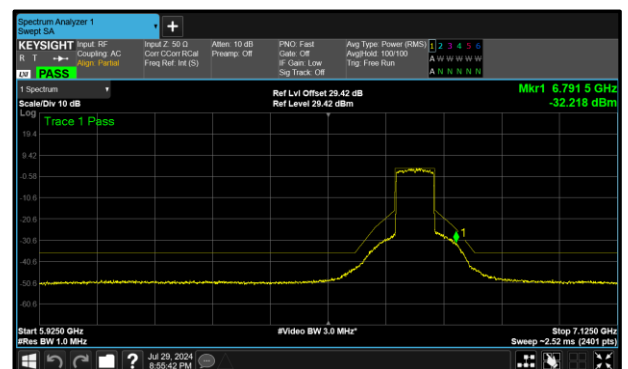


Figure 403 - B (Core 1) 6705 MHz (CH151)

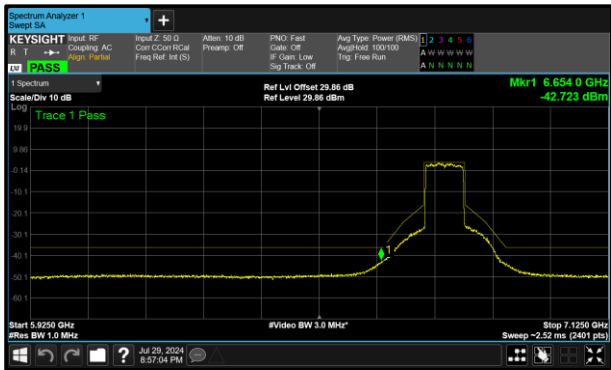


Figure 404 - A (Core 0) 6785 MHz (CH167)

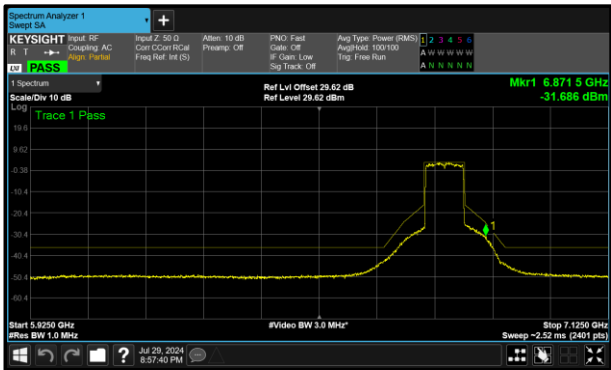


Figure 405 - B (Core 1) 6785 MHz (CH167)



Protocol	Unwanted Emissions Within the RLAN Band	
	Margin (dB)	Frequency (MHz)
802.11ax HE80 SU VLP	3.60	6978.500

Table 392 - Unwanted Emissions Within the RLAN Band Summary Results

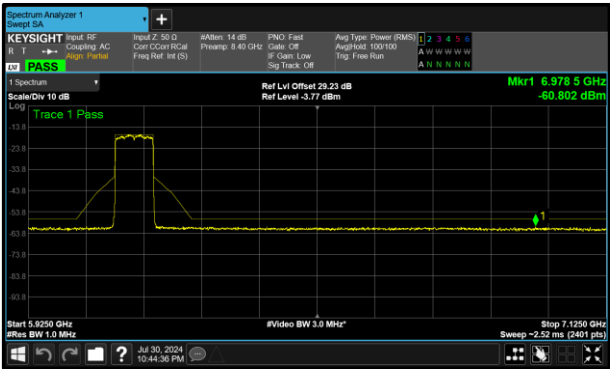


Figure 406 - A (Core 0) 802.11ax HE80 SU VLP 6140 MHz (CH39)



Test Configuration			
Frequency Range:	5.925-6.425 GHz 6.525-6.875 GHz	Band:	U-NII-5 U-NII-7
Limit Clause(s):	15.407(b)(7)	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE80 SU VLP	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	TxBF	Peak Antenna Gain (dBi):	-
Active Port(s):	A+B (Core 0 + Core 1)	Active Chain Id(s):	0+1

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
6145	3.60	4.36	-	-
6225	5.31	4.05	-	-
6385	9.45	4.73	-	-
6625	7.99	4.29	-	-
6705	4.52	4.87	-	-
6785	4.81	4.77	-	-

Table 393 - Unwanted Emissions Within the Band Results

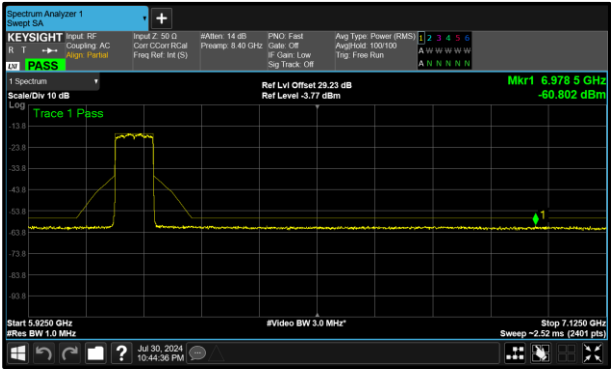


Figure 407 - A (Core 0) 6145 MHz (CH39)

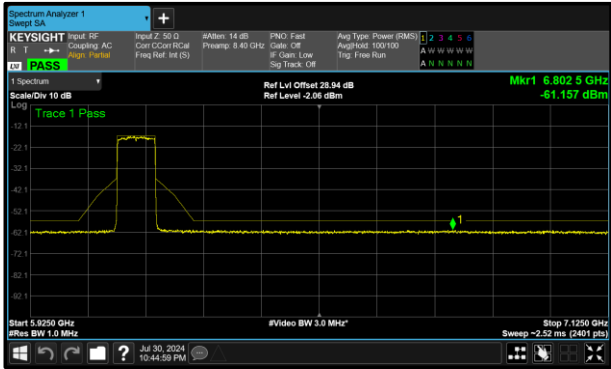


Figure 408 - B (Core 1) 6145 MHz (CH39)

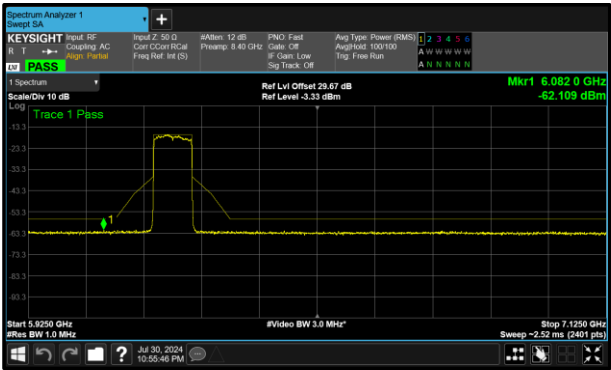


Figure 409 - A (Core 0) 6225 MHz (CH55)

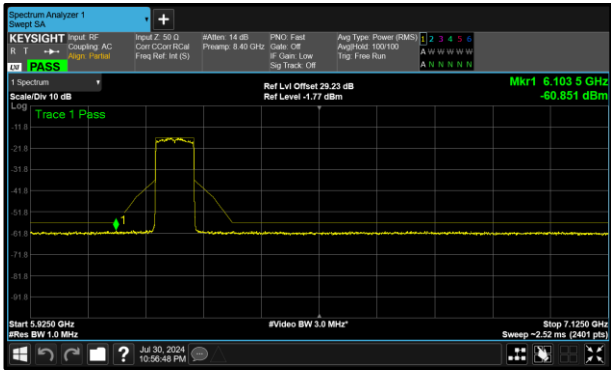


Figure 410 - B (Core 1) 6225 MHz (CH55)

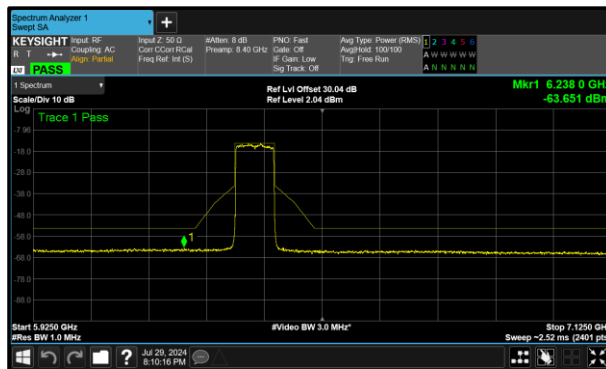


Figure 411 - A (Core 0) 6385 MHz (CH87)

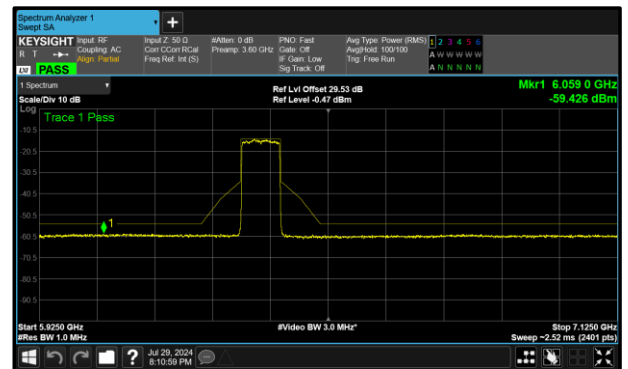


Figure 412 - B (Core 1) 6385 MHz (CH87)

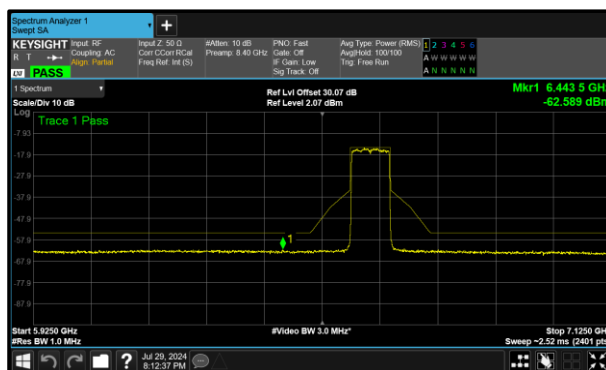


Figure 413 - A (Core 0) 6625 MHz (CH135)

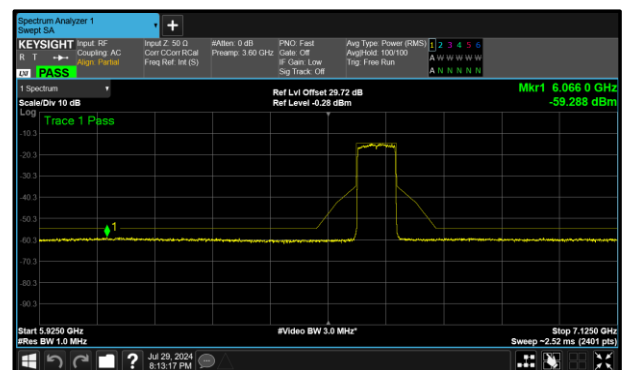


Figure 414 - B (Core 1) 6625 MHz (CH135)

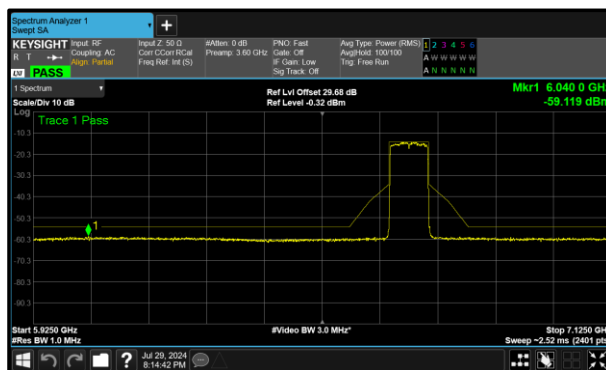


Figure 415 - A (Core 0) 6705 MHz (CH151)

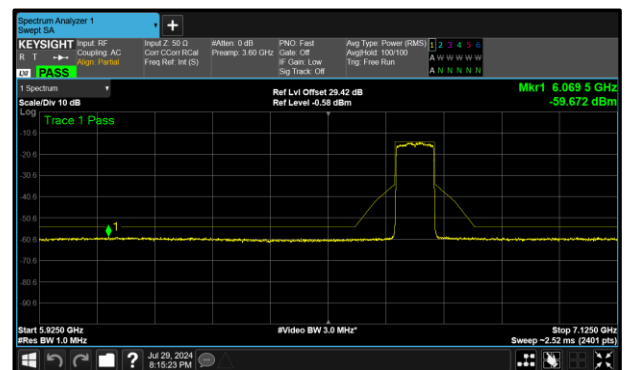


Figure 416 - B (Core 1) 6705 MHz (CH151)

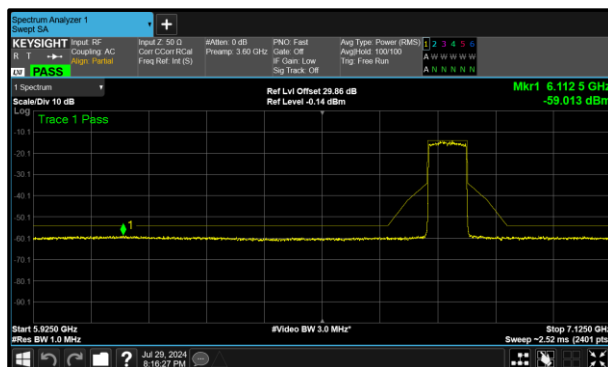


Figure 417 - A (Core 0) 6785 MHz (CH167)

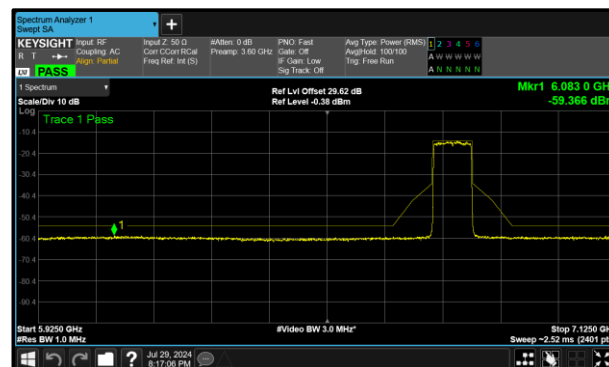


Figure 418 - B (Core 1) 6785 MHz (CH167)

FCC 47 CFR Part 15, Limit Clause 15.407(b)(6)

For transmitters operating within the 5.925-7.125 GHz bands:

Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel centre, and by 40 dB at one- and one-half times the channel bandwidth away from channel centre. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the centre of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel centre by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

ISED RSS-248, Limit Clause 4.6.2(b)

e.i.r.p. spectral density of unwanted emissions falling into the 5925-7125 MHz band shall be attenuated (in dB) below the reference power spectral density by:

- i. 20 dB at 1 MHz away from the channel edge; and
- ii. a linearly interpolated value between 20 dB and 28 dB at frequencies between 1 MHz outside of channel edge and one (1) channel bandwidth from the operating channel centre, respectively; and
- iii. 28 dB at one (1) channel bandwidth away from the operating channel centre; and
- iv. a linearly interpolated value between 28 dB and 40 dB at frequencies between one (1) channel bandwidth from the channel centre and one- and one-half (1.5) times the channel bandwidth away from the operating channel centre, respectively; and
- v. 40 dB at one- and one-half (1.5) times the channel bandwidth away from the channel centre; and
- vi. a minimum of 40 dB at frequencies that are further away than one and one-half (1.5) times the channel bandwidth from the channel centre.



2.8.7 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
1800-6000 MHz Power Splitter	Mini-Circuits	ZN2PD-63-S+	4055	-	O/P Mon
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
Attenuator 5W 30dB DC-18GHz	Aaren	AT40A-4041-D18-30	5505	12	22-Feb-2025
MXA Signal Analyser	Keysight Technologies	N9020B	5529	24	13-Dec-2024
2-Way Power Divider (2-8 GHz)	Aaren	AT30A-TE0208-2-AF	5685	12	02-Jan-2025
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
MXA Signal Analyser	Keysight Technologies	N9020B	6419	24	28-Feb-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
Directional Coupler 2-8GHz	RF-Lambda	RFDC2G8G10	6447	-	O/P Mon
Directional Coupler 2-8GHz	RF-Lambda	RFDC2G8G10	6448	-	O/P Mon
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6517	12	22-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
AC Programmable Power Supply	iTech	IT7324	6665	-	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 394

O/P Mon - Output Monitored using calibrated equipment



2.9 Contention Based Protocol

2.9.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (d)(6)
ISED RSS-248, Clause 4.7

2.9.2 Equipment Under Test and Modification State

A3238, S/N: FJYC9L9VQL - Modification State 0

2.9.3 Date of Test

03-September-2024

2.9.4 Test Method

This test was performed in accordance with KDB 987594 D02, clause I.

The AWGN signal level was initially set at a level much less than the required threshold level ($\ll -62$ dBm) it was verified at this point that transmissions from the device under test (DUT) were present. The signal level was gradually increased until it was observed that the DUT continuously ceased transmissions with the AWGN signal present, i.e. no partial transmissions other than short control signalling transmissions.

The AWGN Signal level recorded is the level into the DUT's receiver, corrected for all cable losses. The minimum antenna gain value was then used to correct the level as described in KDB 987594 D04.

Timing plots showing verification that transmissions from the DUT responded to the interferer have been included in the test results below.

2.9.5 Test Setup Diagram

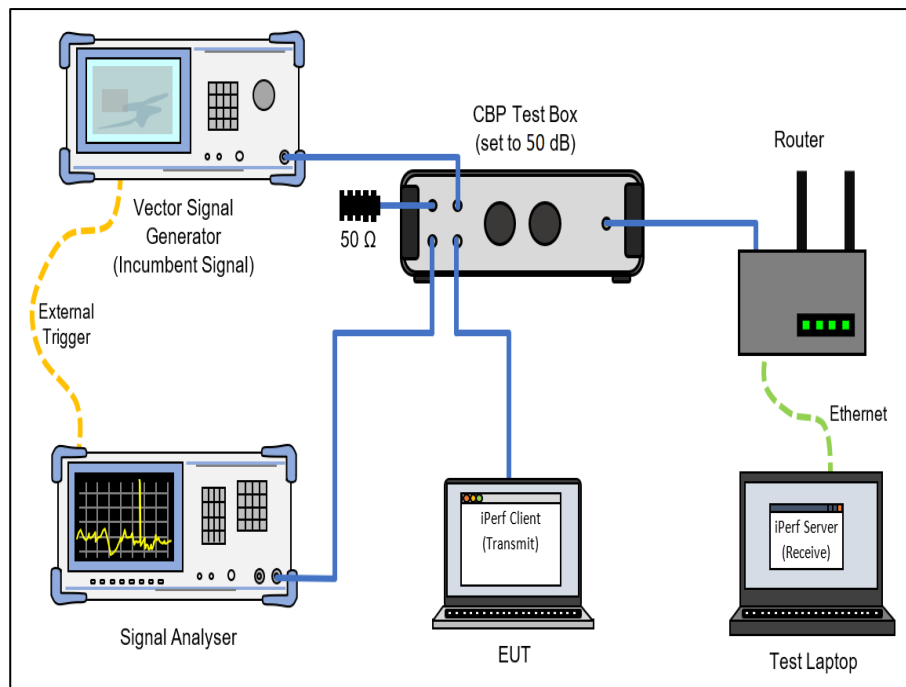


Figure 419 - Test Equipment Setup Diagram

2.9.6 Environmental Conditions

Ambient Temperature	22.6 °C
Relative Humidity	44.3 %



2.9.7 Test Results

6 GHz WLAN

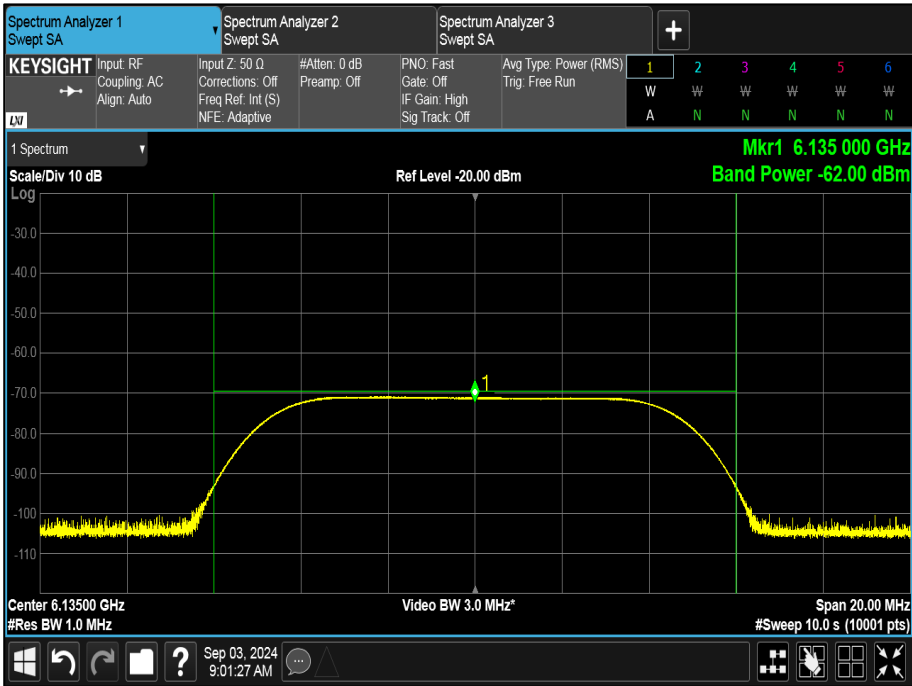


Figure 420 - Example of AWGN Signal

Parameter	Results		
U-NII Band	5	5	5
Channel Number	37	37	37
Bandwidth (MHz)	20	20	20
DUT Centre Frequency (MHz)	6135	6135	6135
AWGN Centre Frequency (MHz)	6135	6135	6135
AWGN Signal Power (dBm)	-74.25	-71.53	-70.03
Antenna Gain (dBi)	2.90	2.90	2.90
Adjusted Power (dBm)	-77.15	-74.43	-72.93
Detection Limit (dBm)	-62.0	-62.0	-62.0
EUT Tx Status (OFF/Minimal/ON)	ON	Minimal	OFF

Table 395 - U-NII-5, Minimum Bandwidth

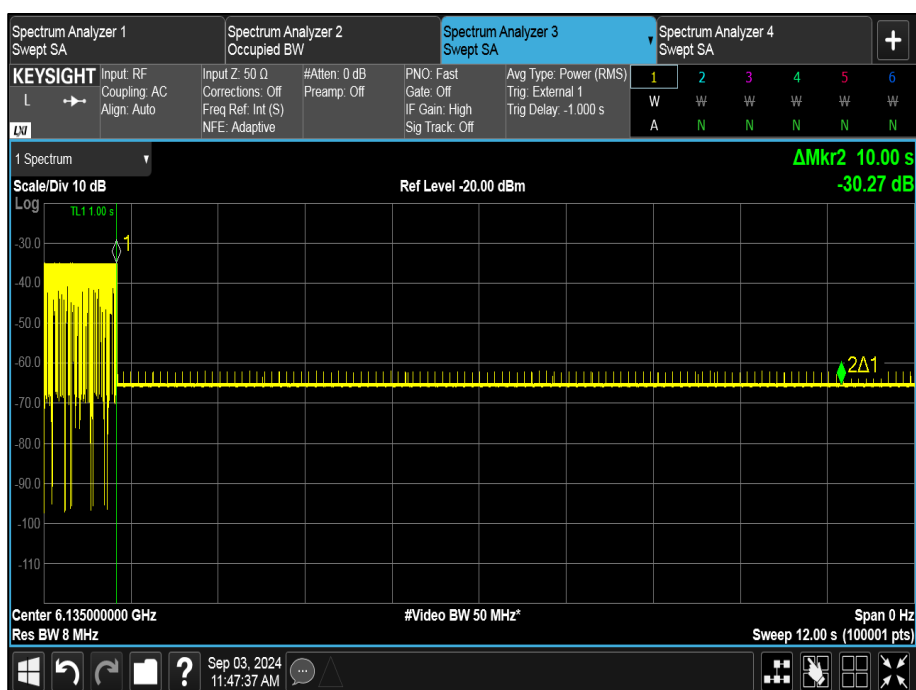


Figure 421 - U-NII-5, Minimum Bandwidth



Parameter	Results		
U-NII Band	5	5	5
Channel Number	47	47	47
Bandwidth (MHz)	160	160	160
DUT Centre Frequency (MHz)	6185	6185	6185
AWGN Centre Frequency (MHz)	6110	6110	6110
AWGN Signal Power (dBm)	-68.98	-66.86	-66.46
Antenna Gain (dBi)	2.90	2.90	2.90
Adjusted Power (dBm)	-71.88	-69.76	-69.36
Detection Limit (dBm)	-62.0	-62.0	-62.0
EUT Tx Status (OFF/Minimal/ON)	ON	Minimal	OFF

Table 396 - U-NII-5, Maximum Bandwidth (AWGN Low)



Figure 422 - U-NII-5, Maximum Bandwidth (AWGN Low)



Parameter	Results		
U-NII Band	5	5	5
Channel Number	47	47	47
Bandwidth (MHz)	160	160	160
DUT Centre Frequency (MHz)	6185	6185	6185
AWGN Centre Frequency (MHz)	6185	6185	6185
AWGN Signal Power (dBm)	-71.92	-69.43	-67.52
Antenna Gain (dBi)	2.90	2.90	2.90
Adjusted Power (dBm)	-74.82	-72.33	-70.42
Detection Limit (dBm)	-62.0	-62.0	-62.0
EUT Tx Status (OFF/Minimal/ON)	ON	Minimal	OFF

Table 397 - U-NII-5, Maximum Bandwidth (AWGN Mid)

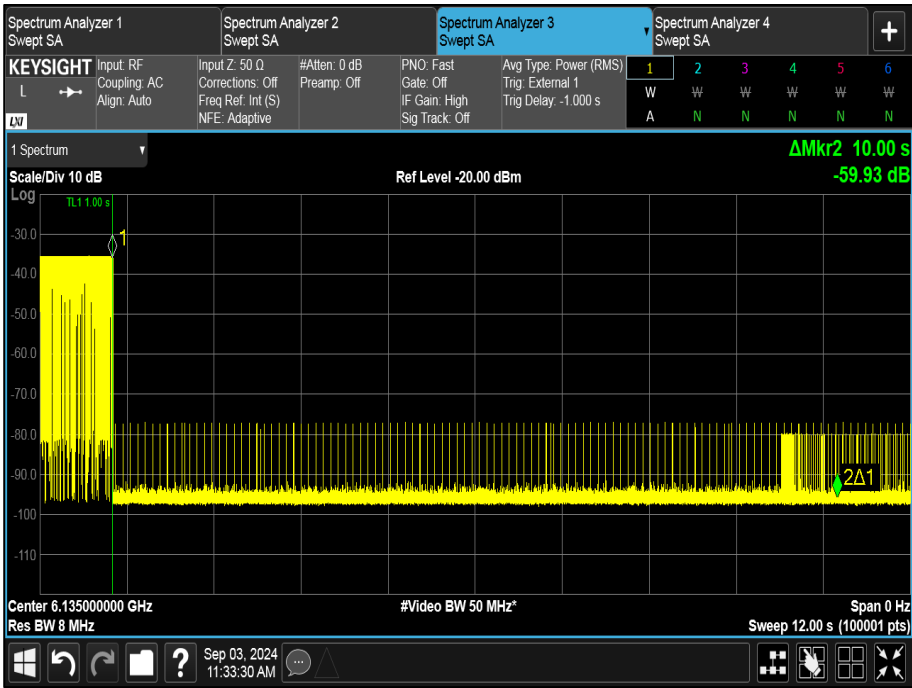


Figure 423 - U-NII-5, Maximum Bandwidth (AWGN Mid)



Parameter	Results		
U-NII Band	5	5	5
Channel Number	47	47	47
Bandwidth (MHz)	160	160	160
DUT Centre Frequency (MHz)	6185	6185	6185
AWGN Centre Frequency (MHz)	6260	6260	6260
AWGN Signal Power (dBm)	-65.00	-63.57	-63.16
Antenna Gain (dBi)	2.90	2.90	2.90
Adjusted Power (dBm)	-67.90	-66.47	-66.06
Detection Limit (dBm)	-62.0	-62.0	-62.0
EUT Tx Status (OFF/Minimal/ON)	ON	Minimal	OFF

Table 398 - U-NII-5, Maximum Bandwidth (AWGN High)

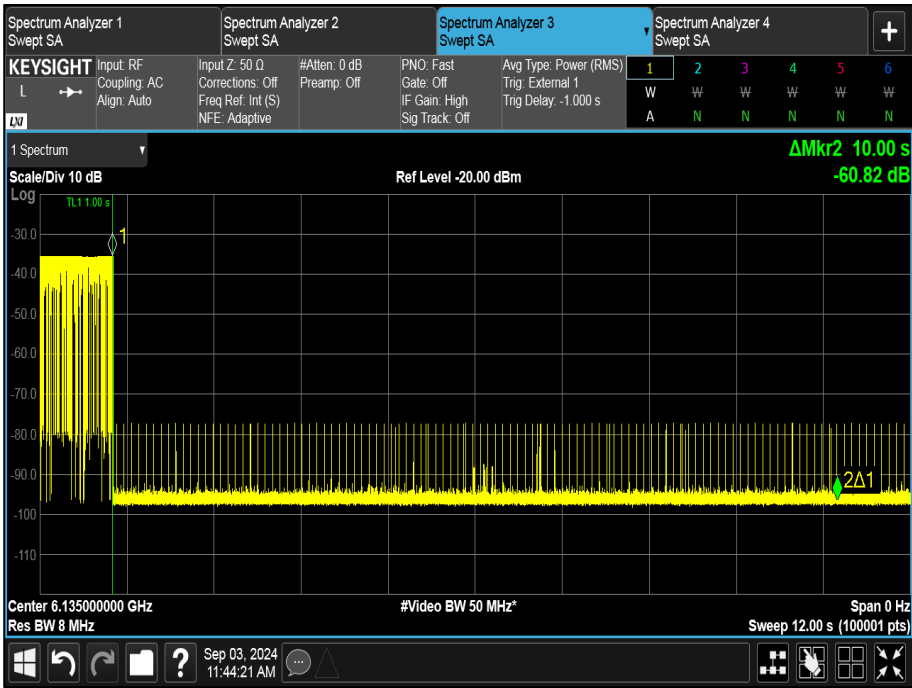


Figure 424 - U-NII-5, Maximum Bandwidth (AWGN High)

Parameter	Results		
U-NII Band	6	6	6
Channel Number	101	101	101
Bandwidth (MHz)	20	20	20
DUT Centre Frequency (MHz)	6455	6455	6455
AWGN Centre Frequency (MHz)	6455	6455	6455
AWGN Signal Power (dBm)	-74.93	-71.92	-69.93
Antenna Gain (dBi)	0.40	0.40	0.40
Adjusted Power (dBm)	-75.33	-72.32	-70.33
Detection Limit (dBm)	-62.0	-62.0	-62.0
EUT Tx Status (OFF/Minimal/ON)	ON	Minimal	OFF

Table 399 - U-NII-6, Minimum Bandwidth

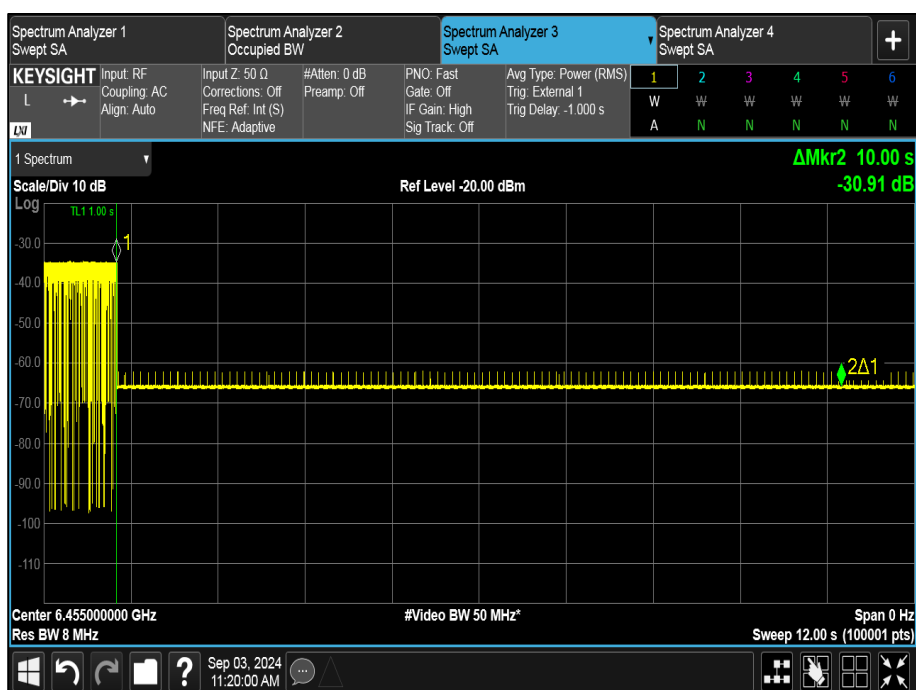


Figure 425 - U-NII-6, Minimum Bandwidth



Parameter	Results		
U-NII Band	6	6	6
Channel Number	111	111	111
Bandwidth (MHz)	160	160	160
DUT Centre Frequency (MHz)	6505	6505	6505
AWGN Centre Frequency (MHz)	6430	6430	6430
AWGN Signal Power (dBm)	-72.73	-70.88	-68.98
Antenna Gain (dBi)	0.40	0.40	0.40
Adjusted Power (dBm)	-73.13	-71.28	-69.38
Detection Limit (dBm)	-62.0	-62.0	-62.0
EUT Tx Status (OFF/Minimal/ON)	ON	Minimal	OFF

Table 400 - U-NII-6, Maximum Bandwidth (AWGN Low)

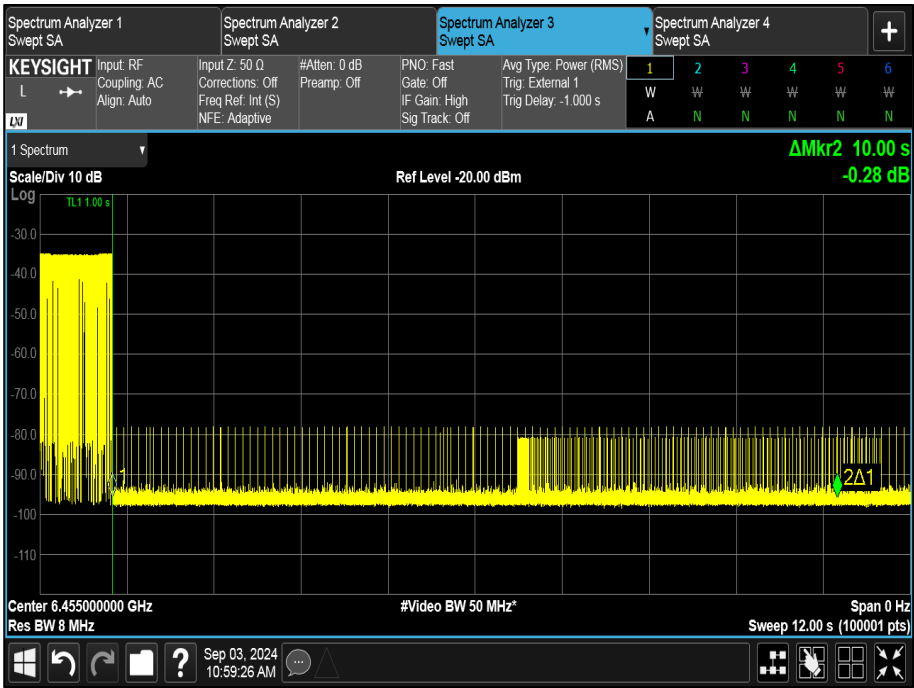


Figure 426 - U-NII-6, Maximum Bandwidth (AWGN Low)

Parameter	Results		
U-NII Band	6	6	6
Channel Number	111	111	111
Bandwidth (MHz)	160	160	160
DUT Centre Frequency (MHz)	6505	6505	6505
AWGN Centre Frequency (MHz)	6505	6505	6505
AWGN Signal Power (dBm)	-75.03	-72.32	-69.72
Antenna Gain (dBi)	0.40	0.40	0.40
Adjusted Power (dBm)	-75.43	-72.72	-70.12
Detection Limit (dBm)	-62.0	-62.0	-62.0
EUT Tx Status (OFF/Minimal/ON)	ON	Minimal	OFF

Table 401 - U-NII-6, Maximum Bandwidth (AWGN Mid)

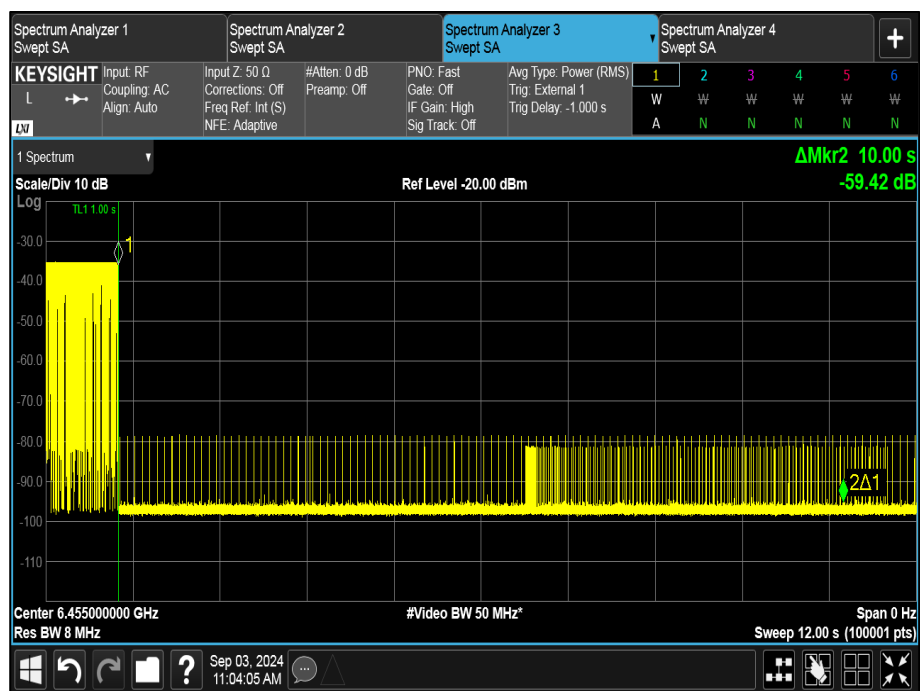


Figure 427 - U-NII-6, Maximum Bandwidth (AWGN Mid)



Parameter	Results		
U-NII Band	6	6	6
Channel Number	111	111	111
Bandwidth (MHz)	160	160	160
DUT Centre Frequency (MHz)	6505	6505	6505
AWGN Centre Frequency (MHz)	6580	6580	6580
AWGN Signal Power (dBm)	-68.66	-67.04	-66.05
Antenna Gain (dBi)	0.40	0.40	0.40
Adjusted Power (dBm)	-69.06	-67.44	-66.45
Detection Limit (dBm)	-62.0	-62.0	-62.0
EUT Tx Status (OFF/Minimal/ON)	ON	Minimal	OFF

Table 402 - U-NII-6, Maximum Bandwidth (AWGN High)

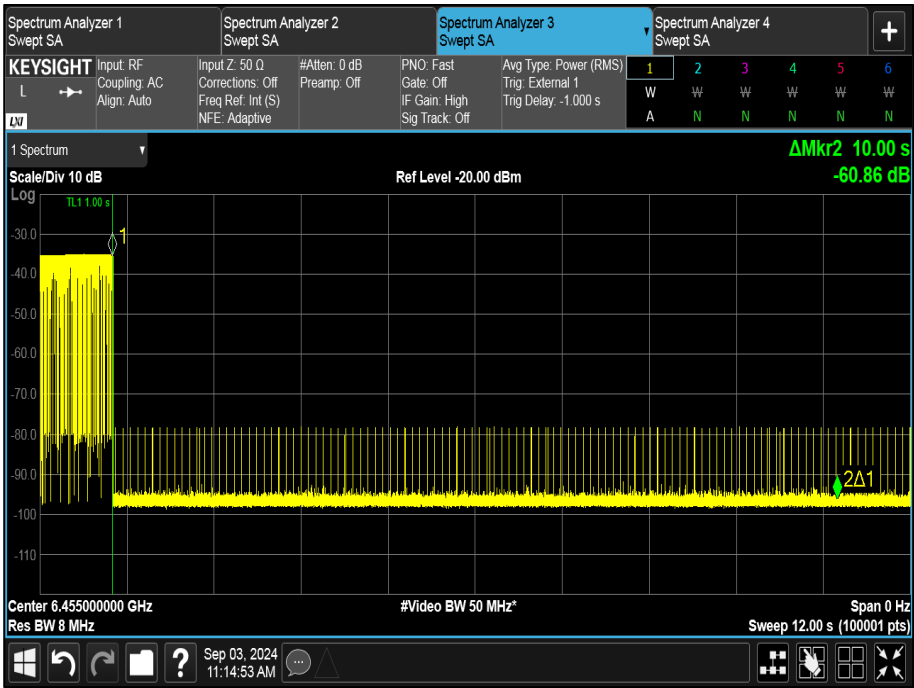


Figure 428 - U-NII-6, Maximum Bandwidth (AWGN High)

