

Figure 709 - U-NII-1 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1
1 GHz to 40 GHz, Horizontal

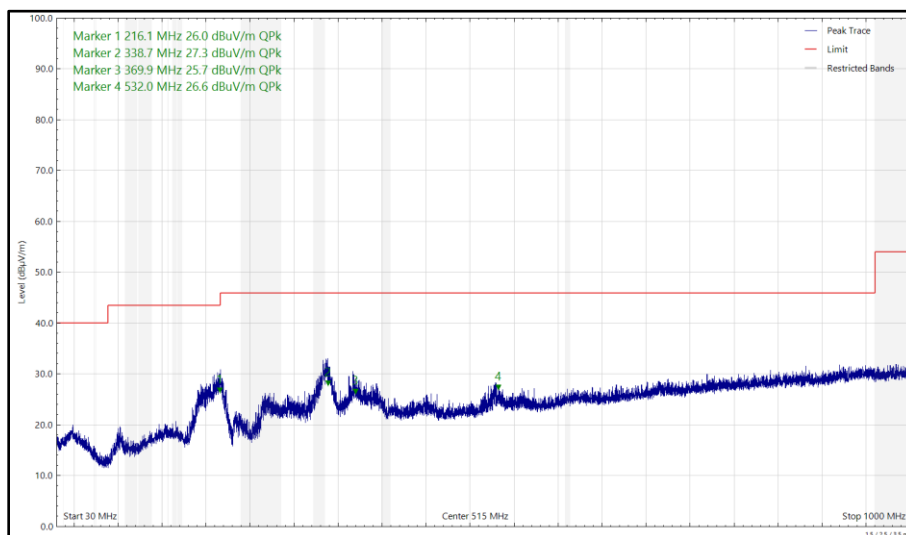
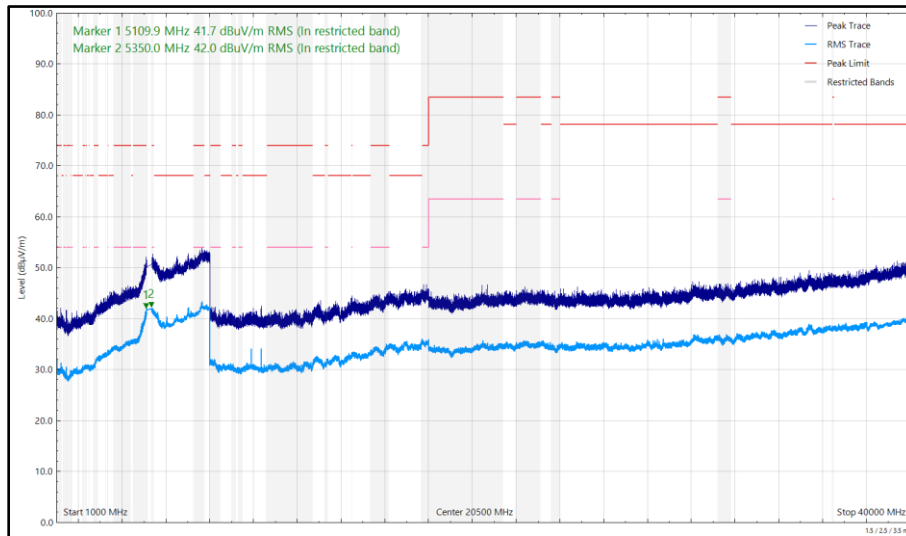


Figure 710 - U-NII-1 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1
30 MHz to 1 GHz, Vertical (Peak)



**Figure 711 - U-NII-1 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1
1 GHz to 40 GHz, Vertical**



Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5142.265	40.05	54.00	-13.95	RMS	104	114	Vertical
5390.132	43.67	54.00	-10.33	RMS	240	148	Vertical
5392.766	56.28	74.00	-17.72	Peak	90	400	Vertical
5430.626	38.15	54.00	-15.85	RMS	321	389	Horizontal
10625.015	44.30	54.00	-9.70	RMS	335	113	Vertical
10625.110	38.35	54.00	-15.65	RMS	348	117	Horizontal

Table 730 - U-NII-2A - 5320 MHz (CH64), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

No other emissions found within 10 dB of the limit.

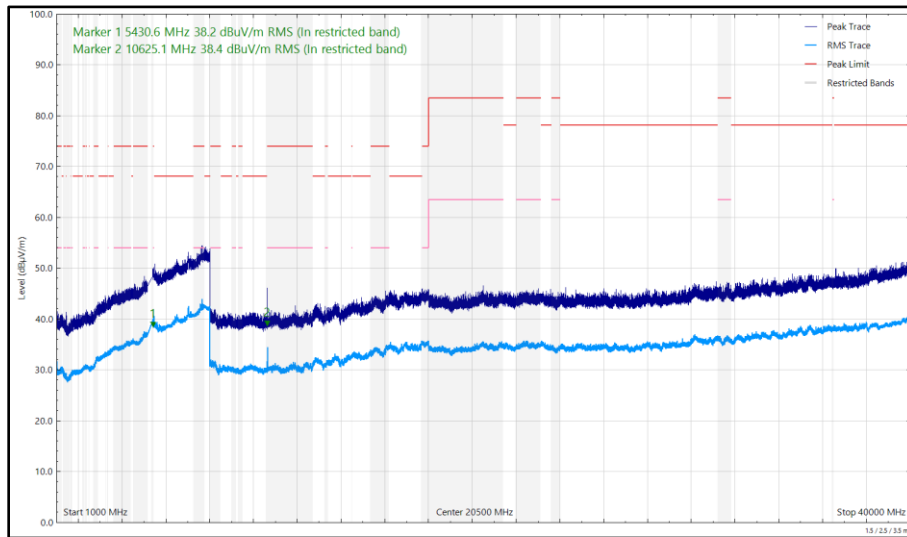
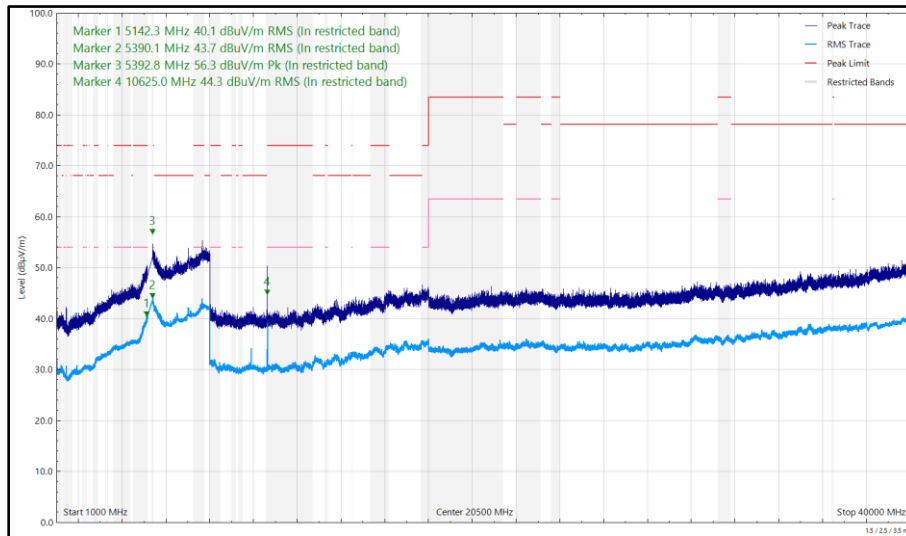


Figure 712 - U-NII-2A - 5320 MHz (CH64), HE20, RU52-37, CDD, Core 0 + Core 1 1 GHz to 40 GHz, Horizontal



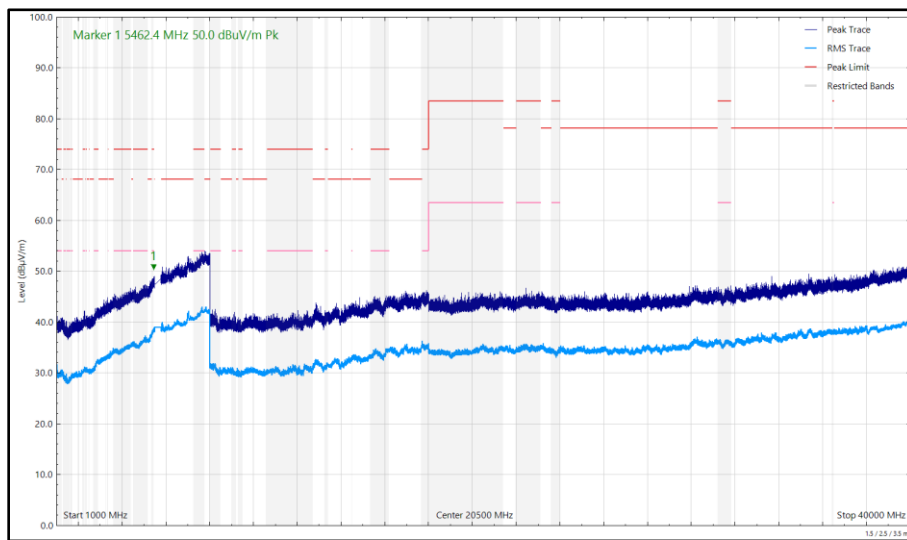
**Figure 713 - U-NII-2A - 5320 MHz (CH64), HE20, RU52-37, CDD, Core 0 + Core 1
1 GHz to 40 GHz, Vertical**



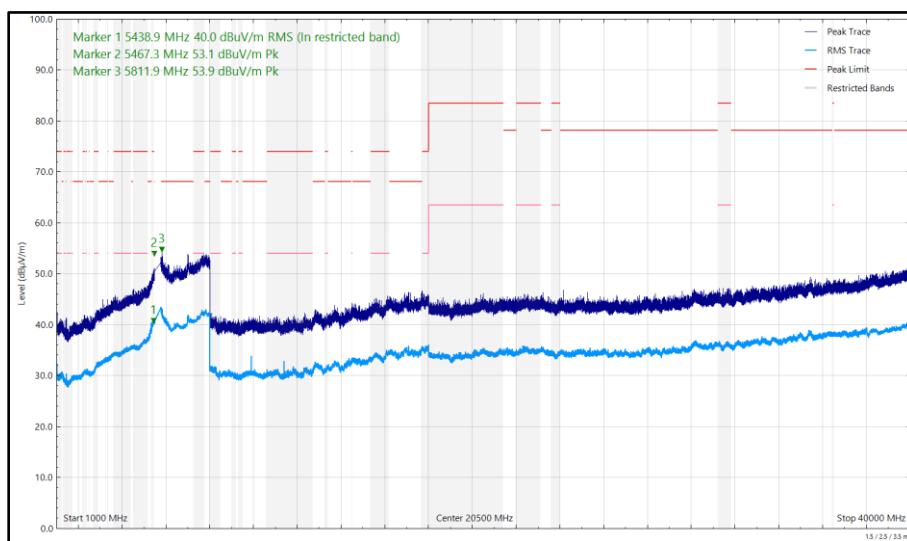
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5438.944	39.95	54.00	-14.05	RMS	277	150	Vertical
5462.402	49.96	68.20	-18.24	Peak	141	400	Horizontal
5467.287	53.08	68.20	-15.12	Peak	126	120	Vertical
5811.900	53.94	68.20	-14.26	Peak	102	143	Vertical

**Table 731 - U-NII-2C - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1
 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.



**Figure 714 - U-NII-2C - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1
 1 GHz to 40 GHz, Horizontal**



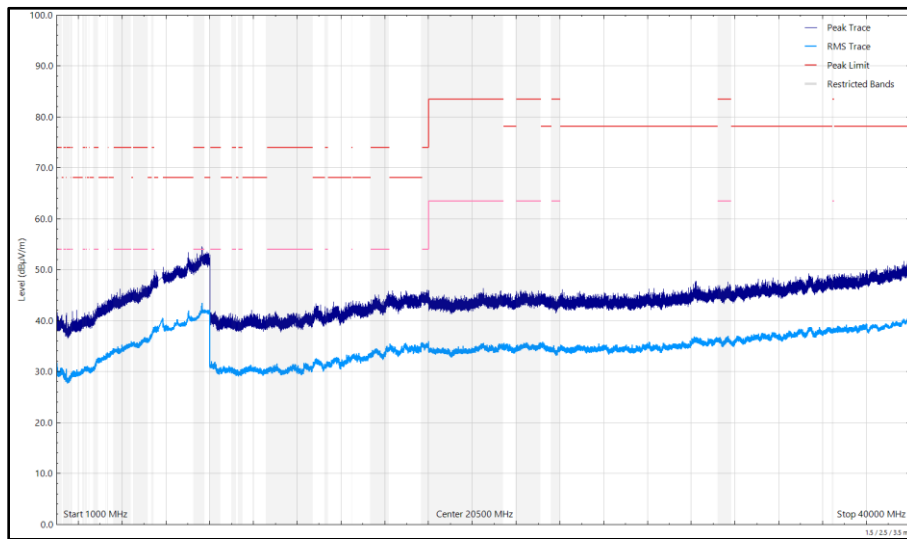
**Figure 715 - U-NII-2C - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1
 1 GHz to 40 GHz, Vertical**



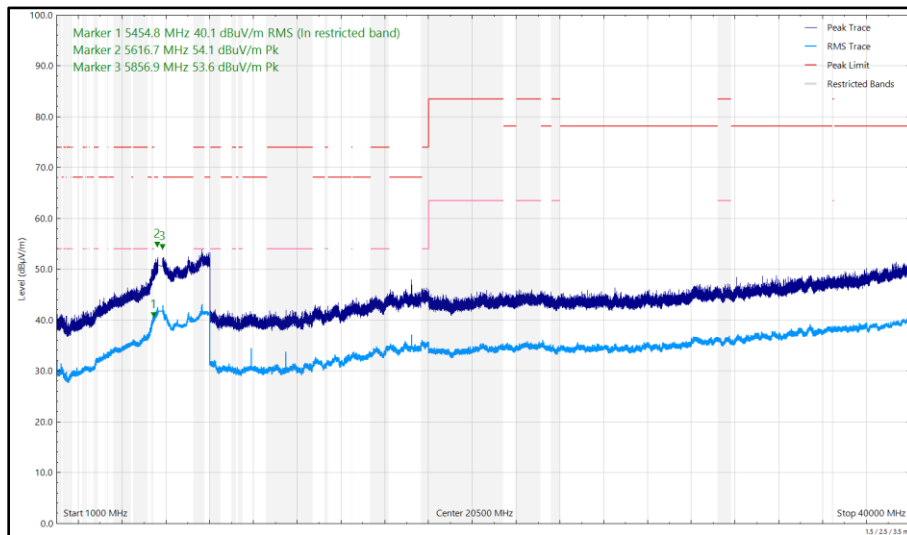
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5454.813	40.12	54.00	-13.88	RMS	240	133	Vertical
5616.686	54.09	68.20	-14.11	Peak	225	156	Vertical
5856.890	53.55	68.20	-14.65	Peak	118	122	Vertical

**Table 732 - U-NII-3 - 5745 MHz (CH149), HE20, RU26-0, CDD, Core 0 + Core 1
 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.



**Figure 716 - U-NII-3 - 5745 MHz (CH149), HE20, RU26-0, CDD, Core 0 + Core 1
 1 GHz to 40 GHz, Horizontal**



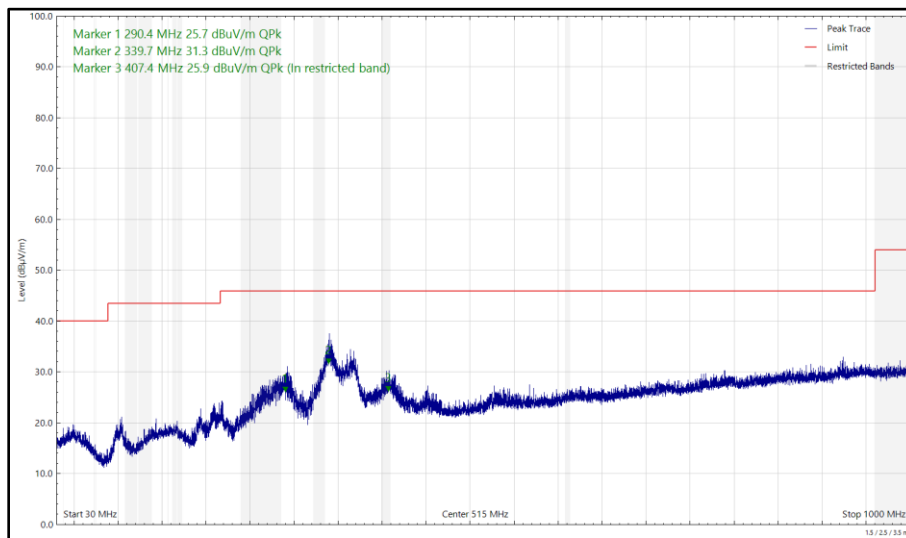
**Figure 717 - U-NII-3 - 5745 MHz (CH149), HE20, RU26-0, CDD, Core 0 + Core 1
 1 GHz to 40 GHz, Vertical**



Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
213.658	25.10	43.50	-18.40	Q-Peak	90	103	Vertical
290.448	25.72	46.00	-20.28	Q-Peak	41	111	Horizontal
337.881	27.61	46.00	-18.39	Q-Peak	103	104	Vertical
339.673	31.26	46.00	-14.74	Q-Peak	320	117	Horizontal
407.356	25.86	46.00	-20.14	Q-Peak	292	107	Horizontal
528.637	26.90	46.00	-19.10	Q-Peak	2	102	Vertical
5427.160	37.13	54.00	-16.87	RMS	177	133	Horizontal
5429.319	38.68	54.00	-15.32	RMS	125	202	Vertical
5716.882	57.47	68.20	-10.73	Peak	94	348	Vertical
5724.744	53.09	68.20	-15.11	Peak	345	356	Horizontal
5969.467	52.99	68.20	-15.21	Peak	134	139	Vertical
11632.620	38.77	54.00	-15.23	RMS	14	100	Vertical

**Table 733 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1
 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.



**Figure 718 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1
 30 MHz to 1 GHz, Horizontal (Peak)**

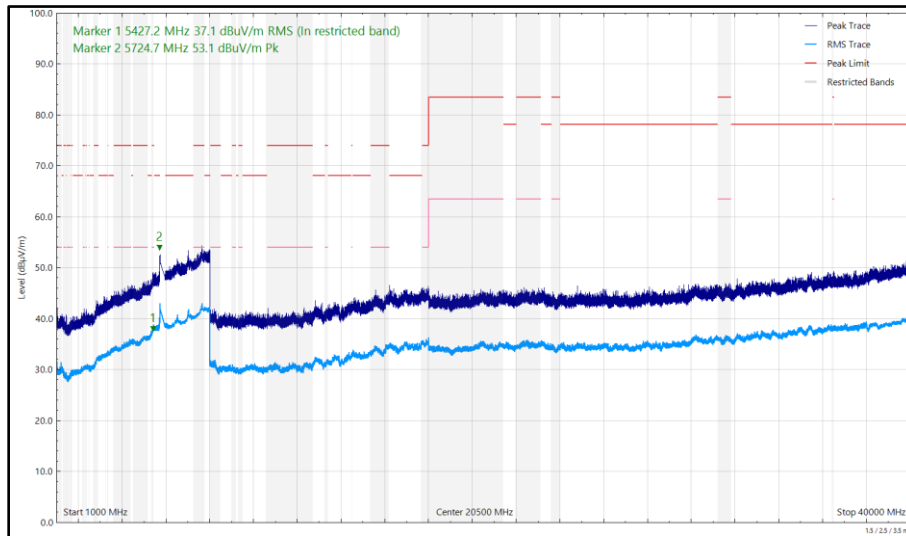


Figure 719 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1
1 GHz to 40 GHz, Horizontal

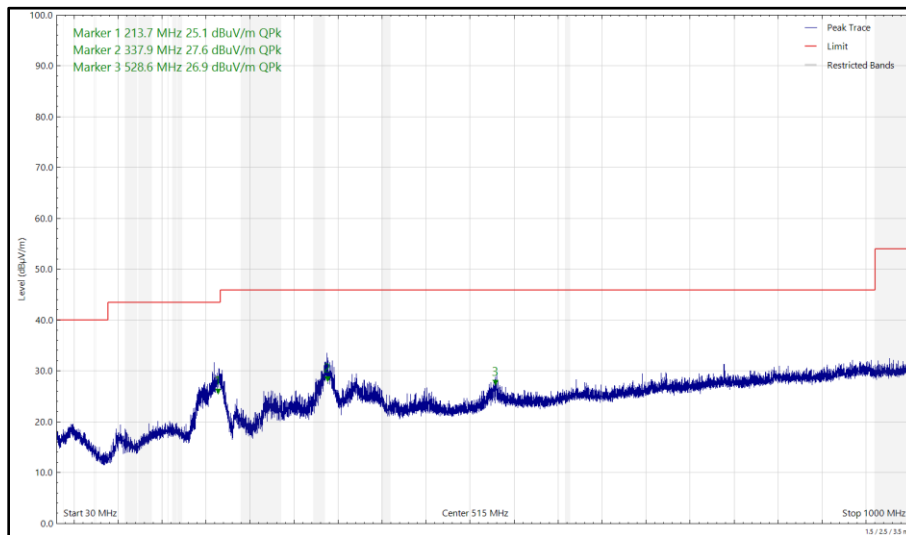
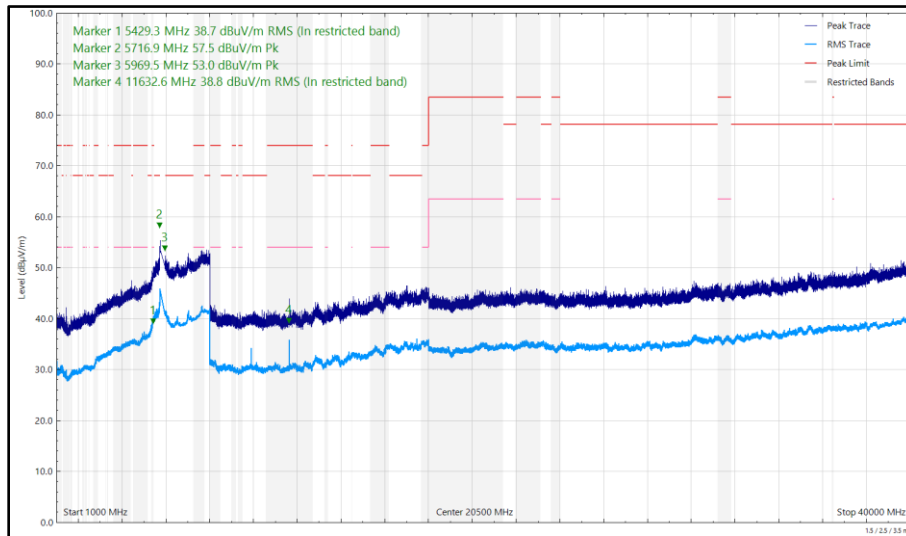


Figure 720 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1
30 MHz to 1 GHz, Vertical (Peak)



**Figure 721 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1
 1 GHz to 40 GHz, Vertical**

FCC 47 CFR Part 15, Limit Clause 15.407(b)(1)(2)(3)(4)

Emissions not falling within the restricted bands listed in FCC 47 CFR Part 15.209:

For transmitters operating in the 5.15-5.25 GHz band: ≤ -27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.25-5.35 GHz band: ≤ -27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.47-5.725 GHz band: ≤ -27 dBm/MHz outside 5470-5725 MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Emissions within the restricted bands listed in FCC 47 CFR Part 15.209:

Frequency (MHz)	Field Strength (μ V/m) at 3m	Field Strength Limit (dB μ V/m) at 3m
30 to 88	100	40.00
88 to 216	150	43.52
216 to 960	200	46.02
Above 960	500	53.98

Table 734 - Radiated Emissions Limit Table (FCC)



ISED RSS-247, Limit Clause 6.2.1.2, 6.2.2.2, 6.2.3.2 and 6.2.4.2 and ISED RSS-GEN, Limit Clause 8.9

Emissions not falling within the restricted bands listed in ISED RSS-GEN, Clause 8.10:

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB.

For transmitters with operating frequencies in the bands 5250-5350 MHz and 5470-5725 MHz, all emissions outside the band 5250-5350 MHz and 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

- a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
- b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
- c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
- d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

Emissions falling within the restricted bands listed in ISED RSS-GEN, Clause 8.10:

Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$) at 3m	Field Strength Limit ($\text{dB}\mu\text{V}/\text{m}$) at 3m
30 to 88	100	40.00
88 to 216	150	43.52
216 to 960	200	46.02
Above 960	500	53.98

Table 735 - Radiated Emissions Limit Table (ISED)

For the 5895 MHz band edge and above, all devices shall be measured using average detection and shall comply with the following e.i.r.p. spectral density limits:

Fixed outdoor access points and fixed outdoor client devices shall not exceed -27 dBm/MHz e.i.r.p. spectral density at or above the 5895 MHz band edge.

Indoor access points or indoor subordinate devices shall not exceed 15 dBm/MHz e.i.r.p. spectral density at the 5895 MHz band edge and shall decrease linearly to not exceed -7 dBm/MHz e.i.r.p. spectral density at or above 5925 MHz.

Client devices shall not exceed -5 dBm/MHz e.i.r.p. spectral density at the 5895 MHz band edge and shall decrease linearly to not exceed -27 dBm/MHz e.i.r.p. spectral density at or above 5925 MHz.



2.6.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 14.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Emissions Software	TUV SUD	EmX V3.2.0	5125	-	Software
Test Receiver	Rohde & Schwarz	ESW44	5914	12	24-May-2025
DRG Horn Antenna (7.5-18GHz)	Schwarzbeck	HWRD750	5939	12	05-May-2025
1500W (300V 12A) AC Power Supply	iTech	IT7324	5955	-	O/P Mon
5m Semi-Anechoic Chamber (Dual-Axis)	Albatross Projects	RF Chamber 14	5958	36	26-Apr-2025
Compact Antenna Mast	Maturo Gmbh	CAM4.0-P	5959	-	TU
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	5960	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5961	-	TU
Turntable	Maturo Gmbh	TT1.5SI	5962	-	TU
Cable (SMA to SMA 4.5m)	Junkosha	MWX221-04500AMSAMS/A	6002	12	14-Sep-2024
Cable (SMA to SMA 3m)	Junkosha	MWX221-03000AMSAMS/A	6021	12	14-Sep-2024
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Humidity & Temperature meter	R.S Components	1364	6149	12	07-Jul-2024
SAC Switch Unit	TUV SUD	TUV_SSU_001	6190	12	22-Dec-2024
USB Spectrum Analyser	Signal Hound	SA124B	6298	-	TU
Cable (SMA to SMA 3m)	Junkosha	MWX221-03000AMSAMS/A	6316	12	04-Feb-2025
8 GHz High Pass Filter	Wainwright	WHKX 7150 8000 18000 50SS	6427	12	23-Apr-2025
1m Cable	Junkosha	MWX241-01000AMSAMS/B	6741	12	01-Feb-2025
Pre-Amp 8 - 18 GHz	Wright Technologies	APS06-0061	6783	12	23-Apr-2025

Table 736

TU - Traceability Unscheduled
 O/P Mon - Output Monitored using calibrated equipment



2.7 Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

2.7.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (h)(2)(iii)(iv)
ISED RSS-247, Clause 6.3.2(c)(d)(e)

2.7.2 Equipment Under Test and Modification State

A3238, S/N: FJYC9L9VQL - Modification State 0

2.7.3 Date of Test

21-August-2024 to 27-August-2024

2.7.4 Test Method

This test was performed in accordance with FCC KDB 905462 D02, clause 7.8.3.

Radar Pulse Type 0 was then transmitted, and the Spectrum monitored. The transmissions from the UUT were observed for a period of 12 seconds after the final injected Radar Pulse.

It was checked that all transmissions stopped within the 10 second period defined from the point of the end of the final Radar pulse + 10 seconds. In addition, the aggregate on time during the first 200ms and the following 9.8 seconds of the Channel Move Time was computed.

The markers on the trace data correspond to the following time periods:

Yellow - End of Radar Burst, (T0)
Purple - End of Channel Move Time, (T0 + 10 seconds)

To verify the non-occupancy period, the external trigger was used to trigger a 30-minute sweep from the moment the radar burst sequence was injected. It was verified that no transmissions occurred on the test channel during this time period.

2.7.5 Environmental Conditions

Ambient Temperature	22.7 - 24.6 °C
Relative Humidity	37.1 - 43.4 %

2.7.6 Test Results

5 GHz WLAN – Master to Client

The equipment under test was a Client without Radar Detection. This test was performed in the following mode of operation: 802.11ax HE160.

The equipment was set up as shown in the diagram below. The EUT was configured to run iPerf, transmitting UDP to the client laptop. The channel loading was set to >17% by adjusting the bandwidth specified in the iPerf UDP transfer.

To calibrate the level of the radar at the input to the companion device, the companion device was replaced by the spectrum analyser and the output of the PXI RF generator adjusted to give -62 dBm.

Radar Type	Pulse Width (µs)	PRI (µs)	Number of Pulses
0	1	1428	18

Table 737 - Radar Pulse Type 0 Characteristics

Manufacturer	Model	Serial Number	FCC ID
ASUS	GT-AXE11000	N5IGOX400280MY7	MSQ-RTAXJF00

Table 738 - Details of Master Device used to support testing

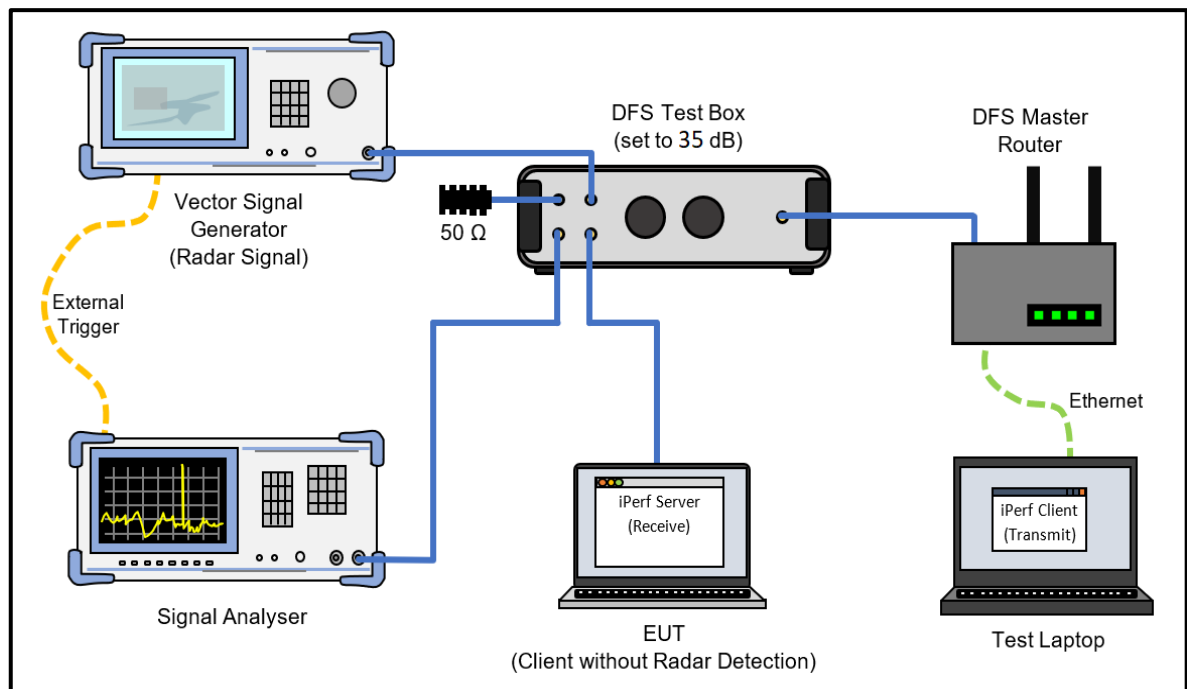


Figure 722- Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master

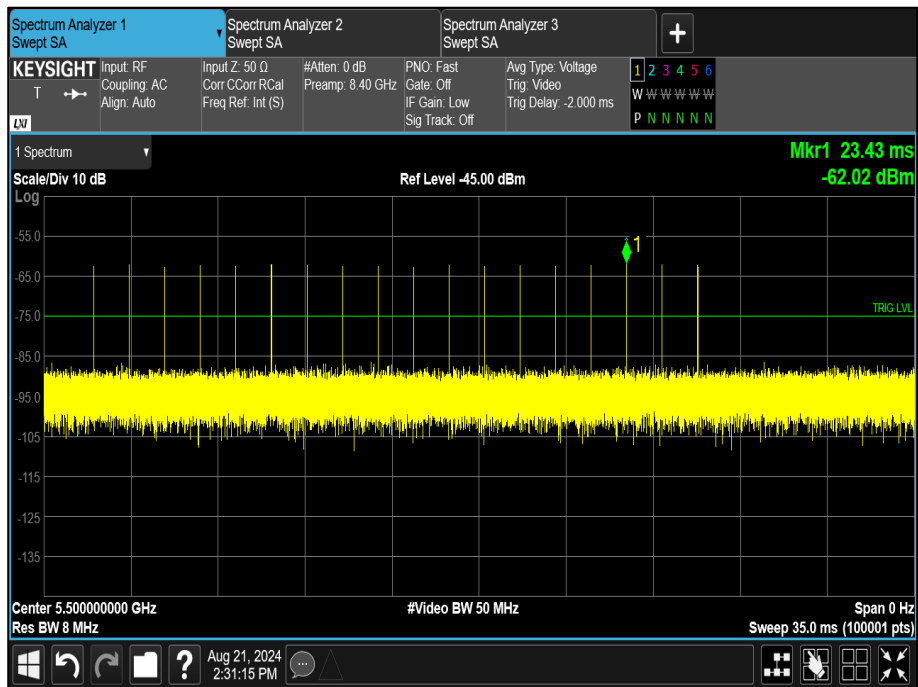


Figure 723- Verification of Radar Type 0

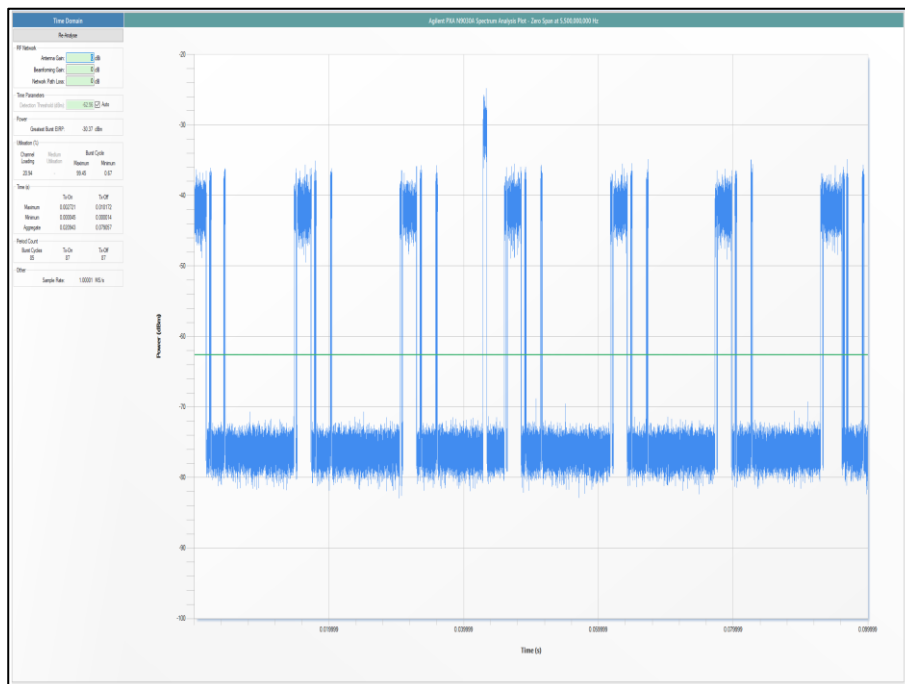


Figure 724- Channel Loading

The channel loading was 20.94%



Maximum Transmit Power	Value (Notes 1 and 2)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.	

Table 739 - DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Test Parameter	Result
Test Channel	CH114 (5570 MHz), Control CH100 (5500 MHz)
Channel Move Time	0.929
Channel Closing Time (Aggregate Time During 200 ms)	29.520
Channel Closing Time (Aggregate Time During 200 ms to 10 s)	5.760
Channel Closing Time (Aggregate Time During 10 s)	35.280
Transmission Observed During Non-Occupancy Period	No

Table 740 - In-Service Monitoring Test Results

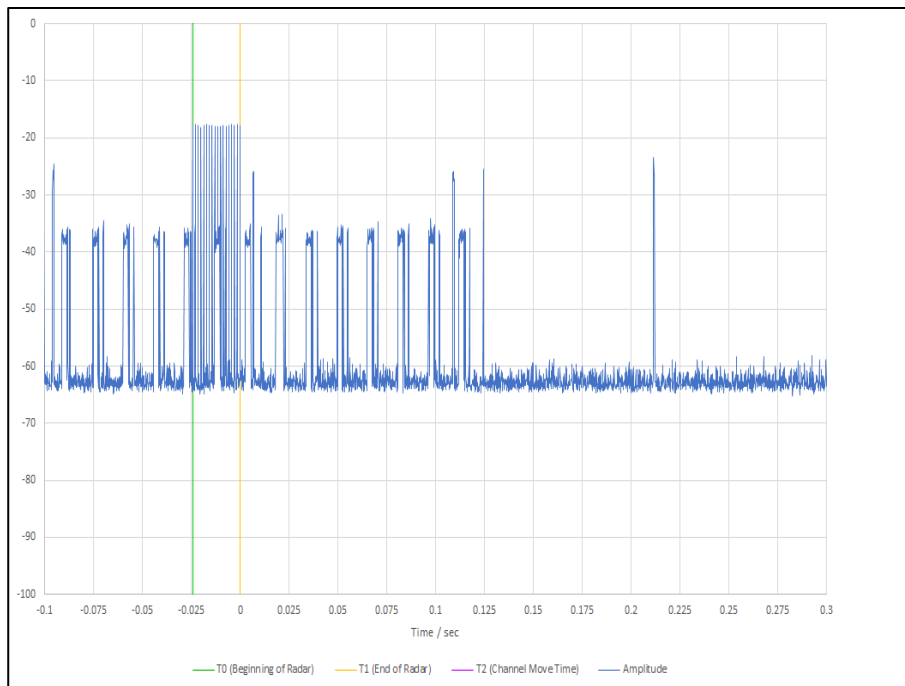


Figure 725 - First 200 ms of Channel Shutdown Period

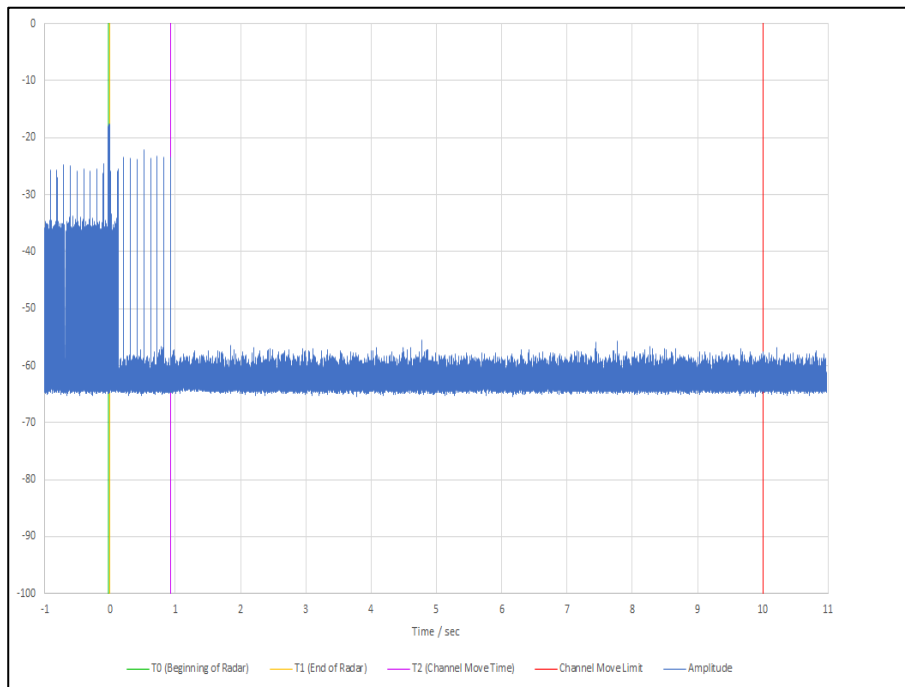


Figure 726 - First 12 s of Channel Shutdown Period

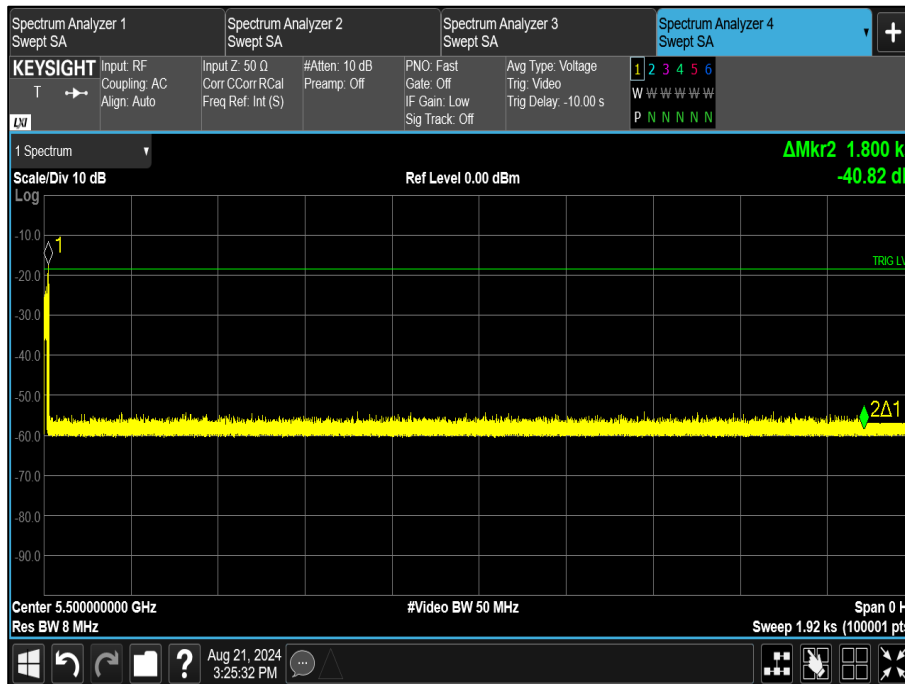


Figure 727 - 30 minute Non-Occupancy Period

5 GHz WLAN - Client to Client

The equipment under test was a Client without Radar Detection.
 This test was performed in the following mode of operation: 802.11ax HE160.

The equipment was set up as shown in the diagram below. The EUT was configured to run iPerf, transmitting UDP to the client laptop. The channel loading was set to >17% by adjusting the bandwidth specified in the iPerf UDP transfer.

To calibrate the level of the radar at the input to the companion device, the companion device was replaced by the spectrum analyser and the output of the PXI RF generator adjusted to give -62 dBm.

Radar Type	Pulse Width (µs)	PRI (µs)	Number of Pulses
0	1	1428	18

Table 741 - Radar Pulse Type 0 Characteristics

Manufacturer	Model	Serial Number	FCC ID
ASUS	GT-AXE11000	N5IGOX400280MY7	MSQ-RTAXJF00

Table 742 - Details of Master Device used to support testing

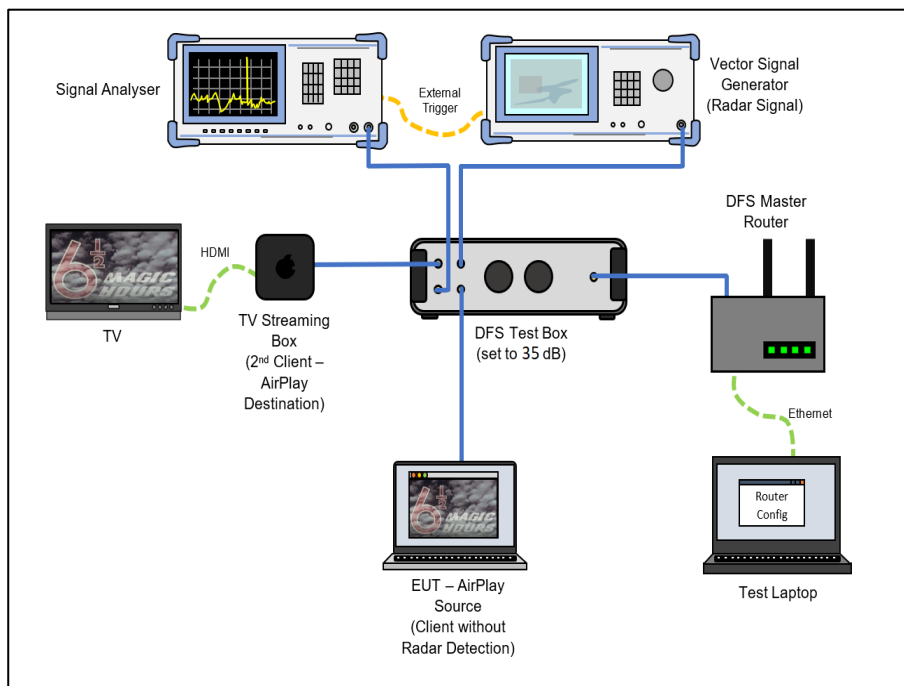


Figure 728- Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master

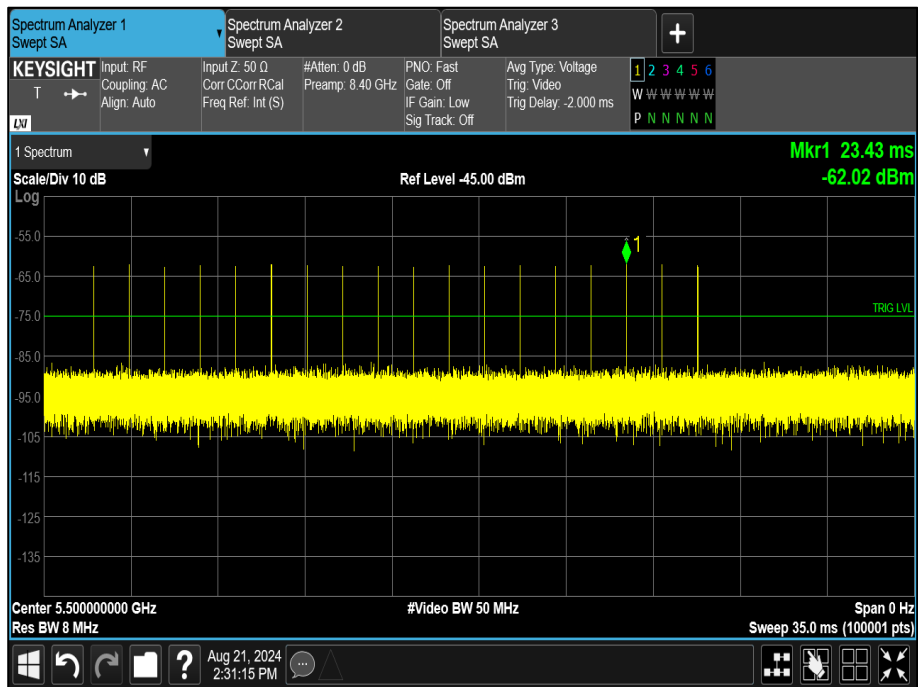


Figure 729- Verification of Radar Type 0

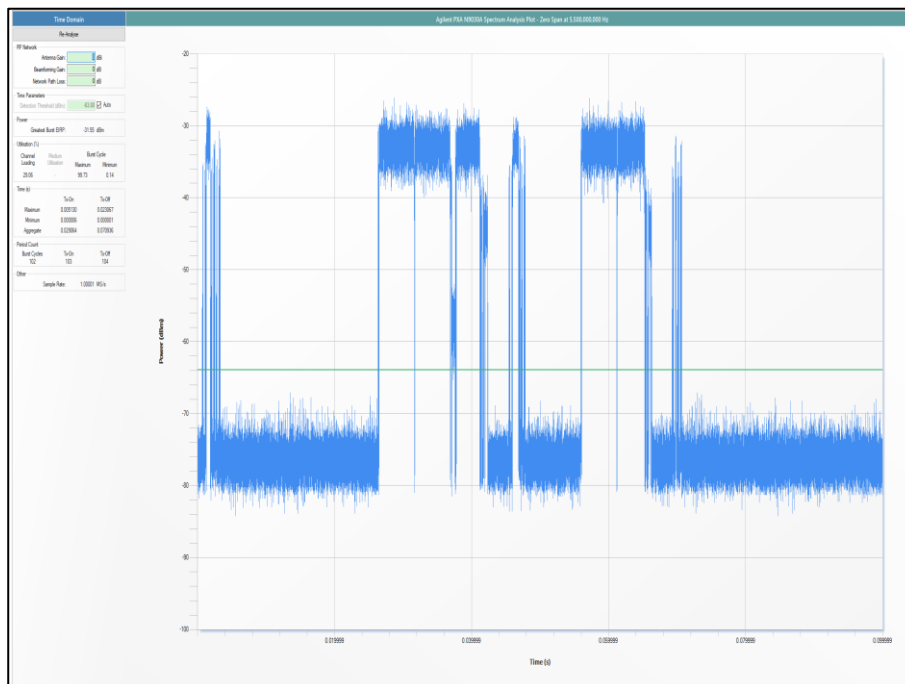


Figure 730- Channel Loading

The channel loading was 29.06%



Maximum Transmit Power	Value (Notes 1 and 2)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.	

Table 743 - DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Test Parameter	Result
Test Channel	CH112 (5560 MHz), Control CH100 (5500 MHz)
Channel Move Time	0.089
Channel Closing Time (Aggregate Time During 200 ms)	14.400
Channel Closing Time (Aggregate Time During 200 ms to 10 s)	0.000
Channel Closing Time (Aggregate Time During 10 s)	14.400
Transmission Observed During Non-Occupancy Period	No

Table 744 - In-Service Monitoring Test Results

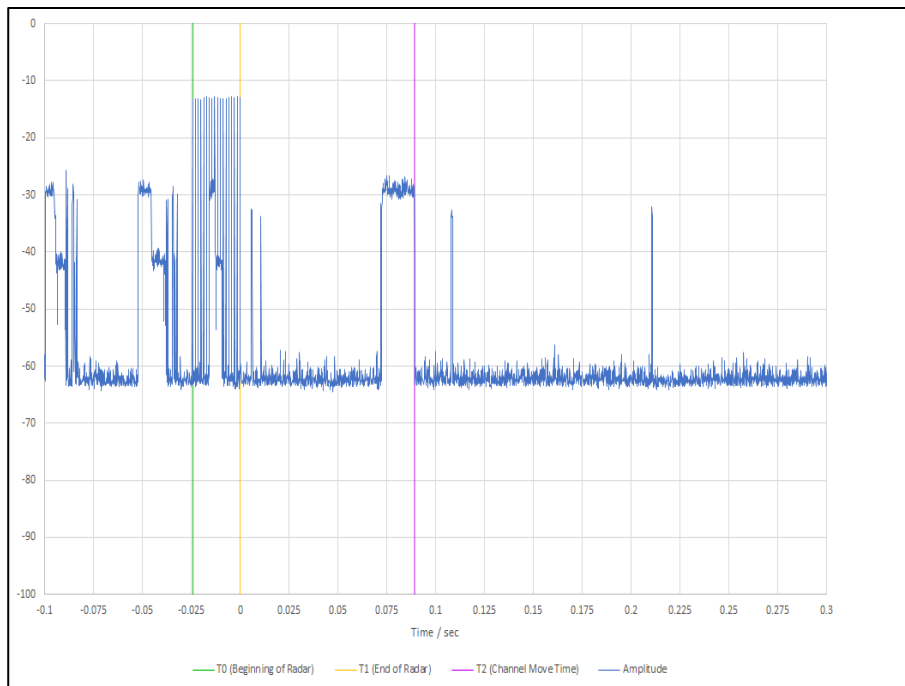


Figure 731 - First 200 ms of Channel Shutdown Period

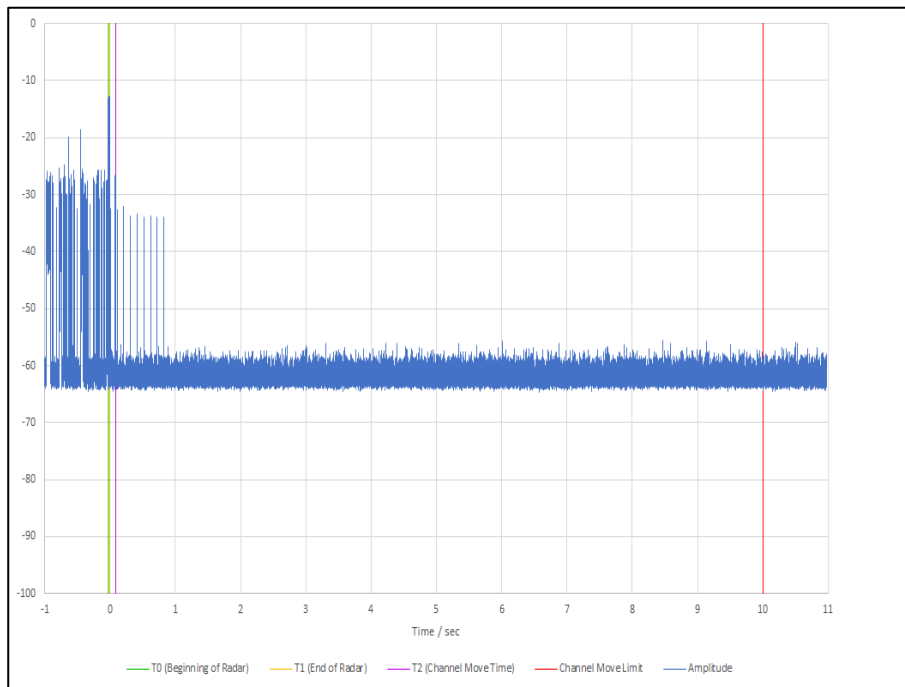


Figure 732 - First 12 s of Channel Shutdown Period

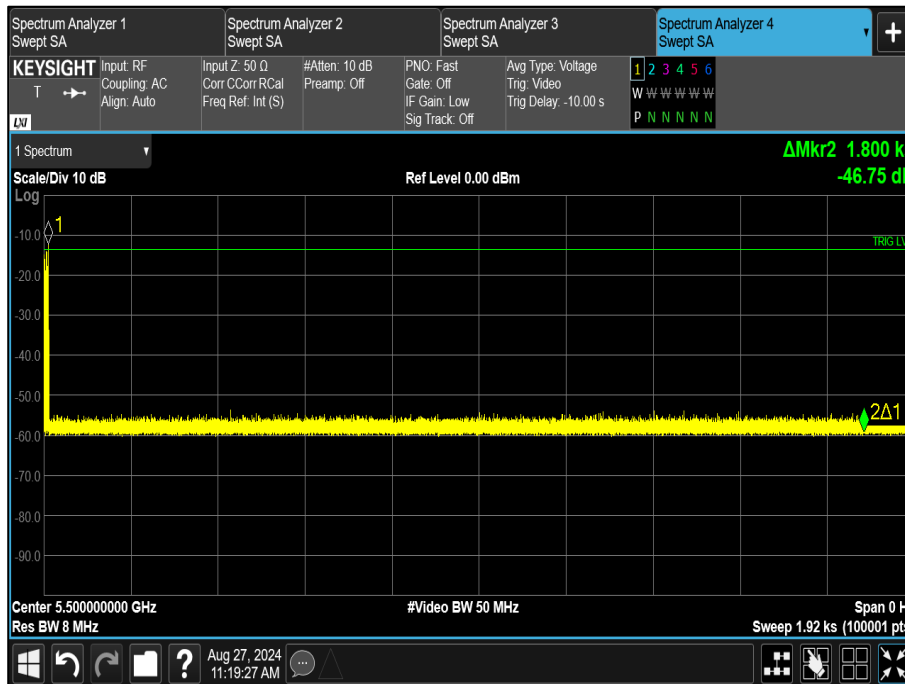


Figure 733 - 30 minute Non-Occupancy Period



FCC 47 CFR Part 15, Limit Clause 15.407 (h)(2)(iii)

Channel Move Time	<10 seconds
Channel Closing Time (Aggregate Time During 200ms)	<200 ms
Channel Closing Time (Aggregate Time During +200ms to 10s)	<60 ms

Table 745 - Channel Move Time and Channel Closing Transmission Time Limit

FCC 47 CFR Part 15, Limit Clause 15.407 (h)(2)(iv)

Non-occupancy Period	> 30 minutes
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Table 746 - Non-Occupancy Limit

ISED RSS-247, Limit Clause 6.3.2

Devices shall comply with the following requirements, however, the requirement for in-service monitoring does not apply to slave devices without radar detection.

In-service monitoring: an LE-LAN device shall be able to monitor the operating channel to check that a co-channel radar has not moved or started operation within range of the LE-LAN device. During in-service monitoring, the LE-LAN radar detection function continuously searches for radar signals between normal LE-LAN transmissions.

Channel availability check time: the device shall check whether there is a radar system already operating on the channel before it initiates a transmission on a channel and when it moves to a channel. The device may start using the channel if no radar signal with a power level greater than the interference threshold value specified in Section 6.3.1 above is detected within 60 seconds. This requirement only applies in the master operational mode.

Channel move time: after a radar signal is detected, the device shall cease all transmissions on the operating channel within 10 seconds.

Channel closing transmission time: is comprised of 200 ms starting at the beginning of the channel move time plus any additional intermittent control signals required to facilitate a channel move (an aggregate of 60 ms) over the remaining 10-second period of the channel move time.

Non-occupancy period: a channel that has been flagged as containing a radar signal, either by a channel availability check or in-service monitoring, is subject to a 30-minute non-occupancy period where the channel cannot be used by the LE-LAN device. The non-occupancy period starts from the time that the radar signal is detected.



2.7.7 Test Location and Test Equipment Used

This test was carried out in Shielded Laboratory 1.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Cable (18 GHz)	Rosenberger	LU7-071-1000	5103	12	21-Dec-2024
3.5 mm 1m Cable	Junkosha	MWX221-01000DMS	5416	12	07-Mar-2025
3.5 mm 2m Cable	Junkosha	MWX221-02000DMS	5426	12	16-May-2025
3.5 mm 2m Cable	Junkosha	MWX221-02000DMS	5427	12	23-May-2025
Vector Signal Generator	Rohde & Schwarz	SMM100A	5915	36	01-Mar-2026
WiFi 6E Tri-Band Gaming Router	Asus	GT-AXE110000	6251	-	TU
Thermohygrometer	R.S Components	1364	6352	12	13-Jun-2025
MXA Signal Analyzer	Keysight Technologies	N9020B	6415	24	22-Mar-2025
Test Coupling Network	TUV SUD	TUV_RxTest_001	6441	12	30-Apr-2025

Table 747

TU - Traceability Unscheduled



3 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Restricted Band Edges	± 6.3 dB
Emission Bandwidth	± 3.91 MHz
Maximum Conducted Output Power	± 1.38 dB
Maximum Conducted Power Spectral Density	± 1.49 dB
Authorised Band Edges	± 6.3 dB
Spurious Radiated Emissions	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period	Time: ± 0.47 % Power: ± 1.29 dB

Table 748

Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.