

| Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| *               |                   |                   |             |          |           |             |              |

Table 765 - U-NII-2A - 5320 MHz (CH64), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

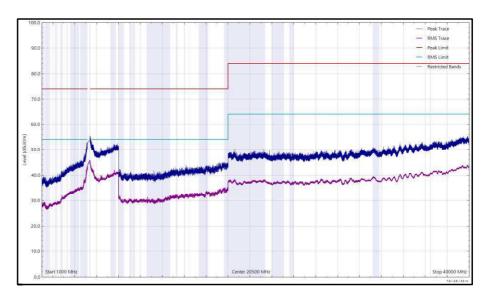


Figure 500 - U-NII-2A - 5320 MHz (CH64), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

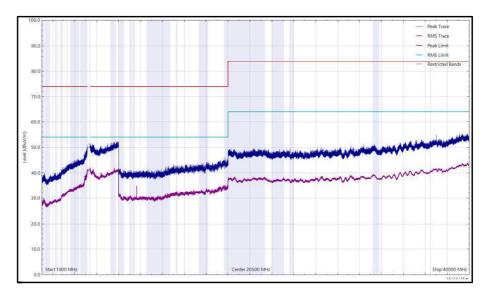


Figure 501 - U-NII-2A - 5320 MHz (CH64), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| F | Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| * | •               |                   |                   |             |          |           |             |              |

Table 766 - U-NII-2C - 5500 MHz (CH100), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

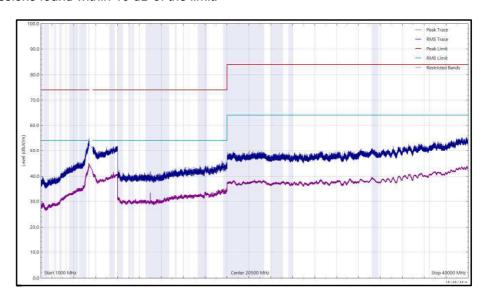


Figure 502 - U-NII-2C - 5500 MHz (CH100), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

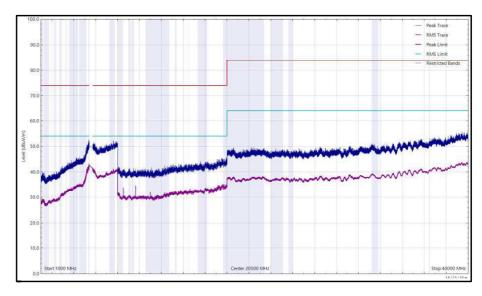


Figure 503 - U-NII-2C - 5500 MHz (CH100), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| F | Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| * | •               |                   |                   |             |          |           |             |              |

Table 767 - U-NII-2C - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

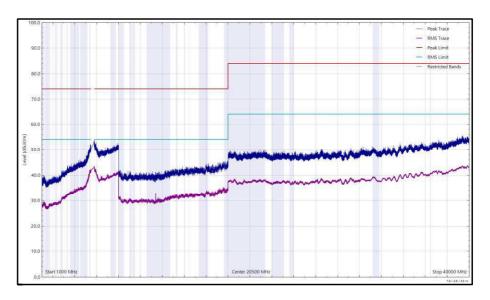


Figure 504 - U-NII-2C - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

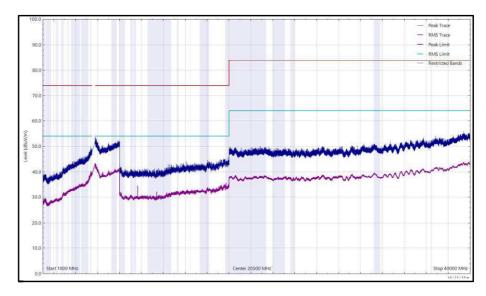


Figure 505 - U-NII-2C - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| F | Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| * | •               |                   |                   |             |          |           |             |              |

Table 768 - U-NII-3 - 5745 MHz (CH149), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

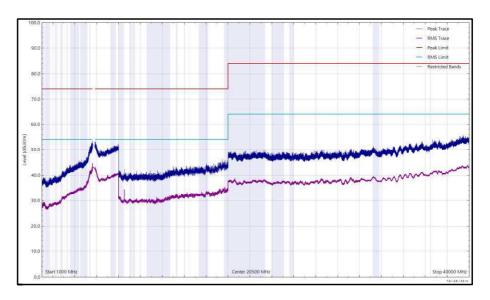


Figure 506 - U-NII-3 - 5745 MHz (CH149), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

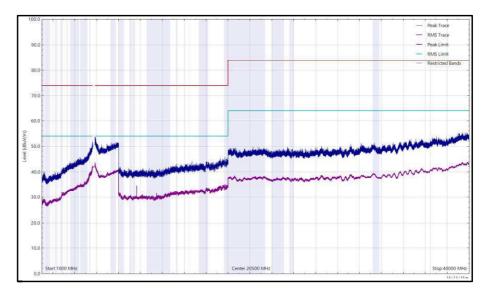


Figure 507 - U-NII-3 - 5745 MHz (CH149), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| 56.496          | 22.78             | 40.00             | -17.22      | Q-Peak   | 350       | 363         | Vertical     |
| 56.509          | 22.06             | 40.00             | -17.94      | Q-Peak   | 85        | 100         | Horizontal   |
| 11632.651       | 35.40             | 54.00             | -18.60      | RMS      | 21        | 163         | Vertical     |
| 11632.704       | 36.50             | 54.00             | -17.50      | RMS      | 65        | 214         | Horizontal   |

Table 769 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

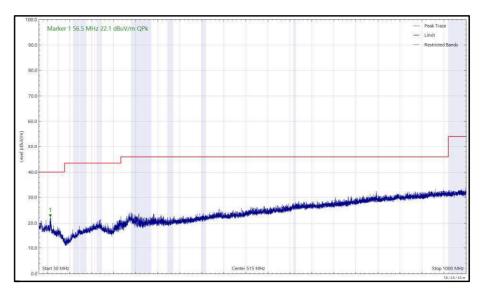


Figure 508 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

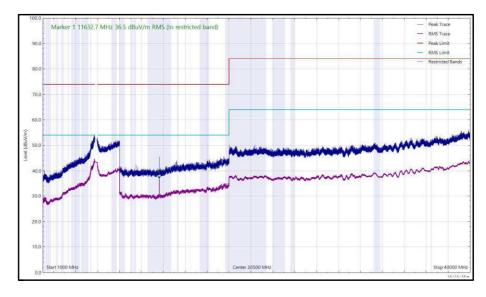


Figure 509 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal



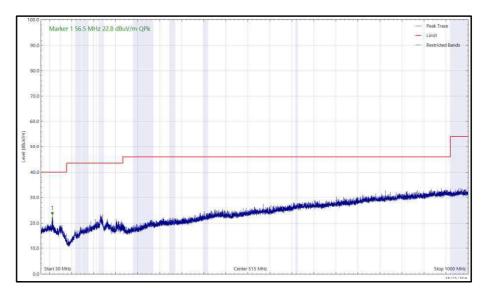


Figure 510 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

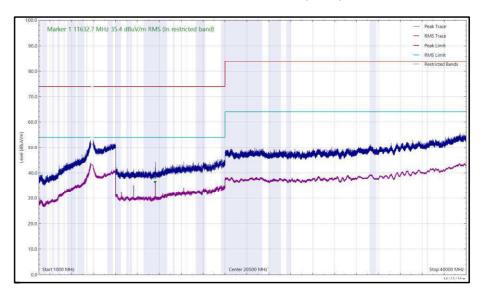


Figure 511 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| 53.967          | 21.80             | 40.00             | -18.20      | Q-Peak   | 84        | 350         | Horizontal   |
| 54.981          | 21.88             | 40.00             | -18.12      | Q-Peak   | 0         | 351         | Vertical     |

Table 770 - U-NII-1 - 5180 MHz (CH36), VHT20, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

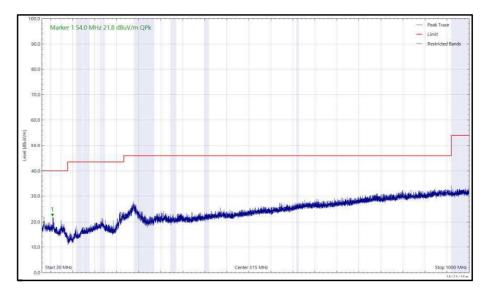


Figure 512 - U-NII-1 - 5180 MHz (CH36), VHT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

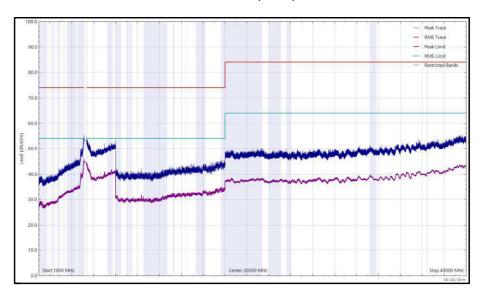


Figure 513 - U-NII-1 - 5180 MHz (CH36), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal



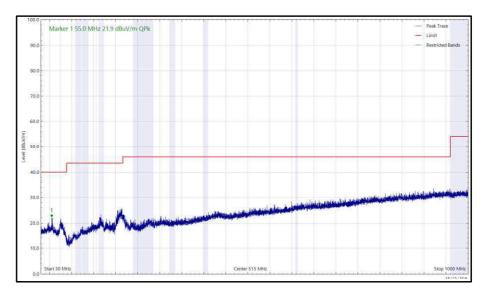


Figure 514 - U-NII-1 - 5180 MHz (CH36), VHT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

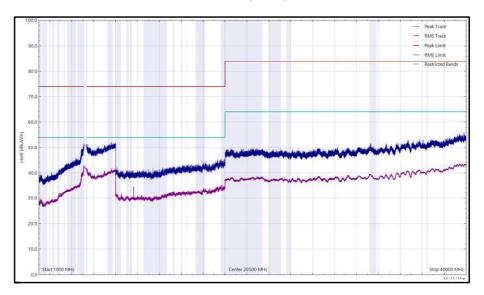


Figure 515 - U-NII-1 - 5180 MHz (CH36), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| *               |                   |                   |             |          |           |             |              |

Table 771 - U-NII-2A - 5320 MHz (CH64), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

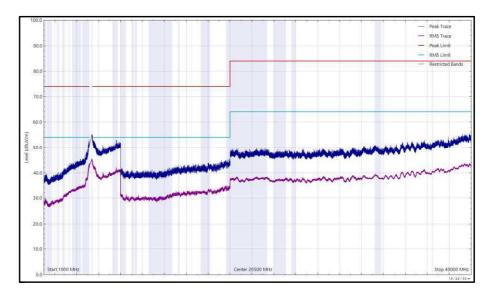


Figure 516 - U-NII-2A - 5320 MHz (CH64), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

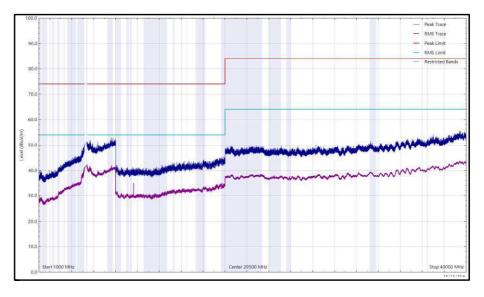


Figure 517 - U-NII-2A - 5320 MHz (CH64), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| *               |                   |                   |             |          |           |             |              |

Table 772 - U-NII-2C - 5500 MHz (CH100), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

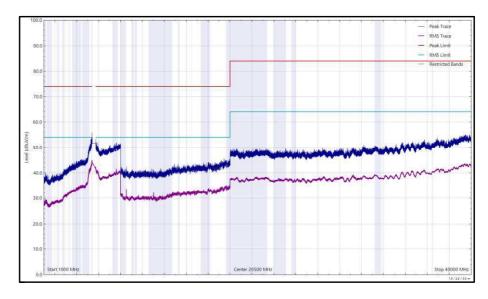


Figure 518 - U-NII-2C - 5500 MHz (CH100), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

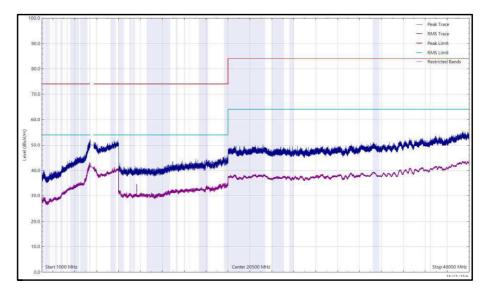


Figure 519 - U-NII-2C - 5500 MHz (CH100), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| F | Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| * | •               |                   |                   |             |          |           |             |              |

Table 773 - U-NII-2C - 5700 MHz (CH140), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

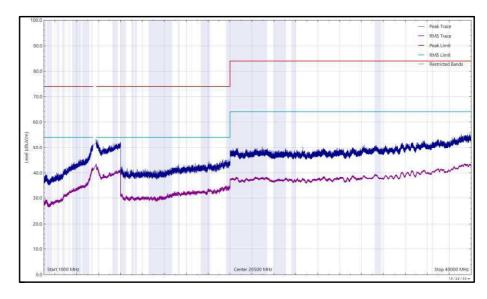


Figure 520 - U-NII-2C - 5700 MHz (CH140), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

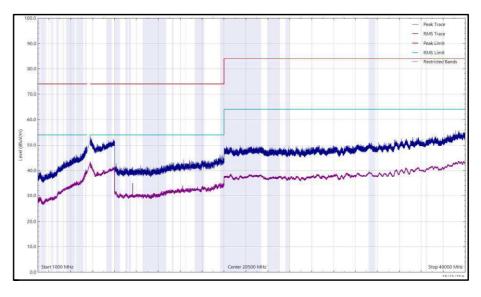


Figure 521 - U-NII-2C - 5700 MHz (CH140), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| F | Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| * | •               |                   |                   |             |          |           |             |              |

Table 774 - U-NII-3 - 5745 MHz (CH149), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

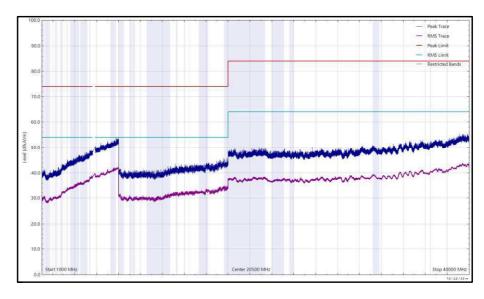


Figure 522 - U-NII-3 - 5745 MHz (CH149), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

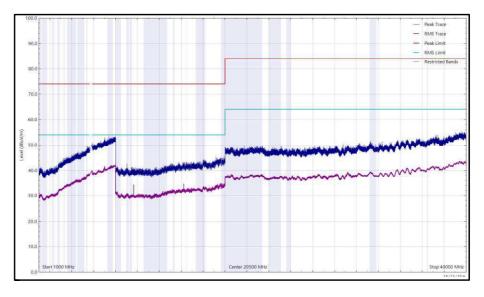


Figure 523 - U-NII-3 - 5745 MHz (CH149), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



| Frequency (MHz) | Level<br>(dBuv/m) | Limit<br>(dBuv/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|-----------------|-------------------|-------------------|-------------|----------|-----------|-------------|--------------|
| *               |                   |                   |             |          |           |             |              |

Table 775 - U-NII-3 - 5825 MHz (CH165), VHT20, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

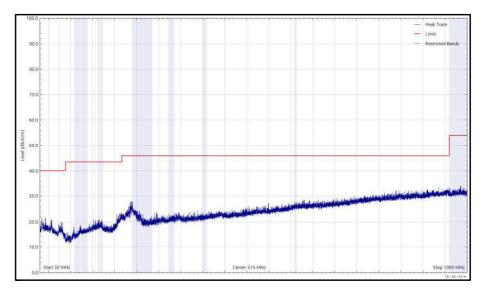


Figure 524 - U-NII-3 - 5825 MHz (CH165), VHT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

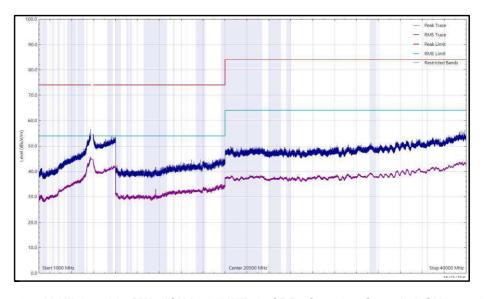


Figure 525 - U-NII-3 - 5825 MHz (CH165), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal



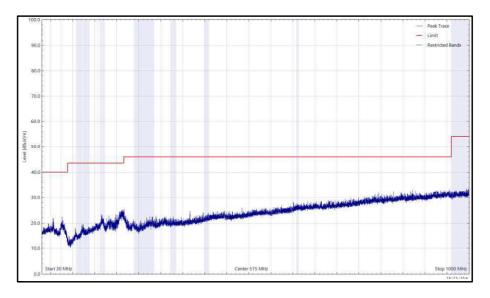


Figure 526 - U-NII-3 - 5825 MHz (CH165), VHT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

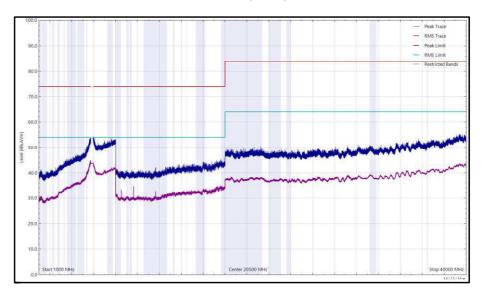


Figure 527 - U-NII-3 - 5825 MHz (CH165), VHT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



#### 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 Limit at 3m (µV/m) | Field Strength Limit at 3m (dBµV/m) |
|-----------------|-----------------------------------|-------------------------------------|
| 30 to 88        | 100                               | 40.00                               |
| 88 to 216       | 150                               | 43.52                               |
| 216 to 960      | 200                               | 46.02                               |
| Above 960       | 500                               | 53.98                               |

Table 776 - Radiated Emissions Limit Table (FCC)



# <u>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</u>

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 Limit at 3m (µV/m) | Field Strength Limit at 3m (dBµV/m) |
|-----------------|-----------------------------------|-------------------------------------|
| 30 to 88        | 100                               | 40.00                               |
| 88 to 216       | 150                               | 43.52                               |
| 216 to 960      | 200                               | 46.02                               |
| Above 960       | 500                               | 53.98                               |

Table 777 - Radiated Emissions Limit Table (ISED)



## 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<br>Period<br>(months) | Calibration<br>Expiry Date |
|---|---------------------|------------------------------|--------|-----------------------------------|----------------------------|
| Emissions Software                              | TUV SUD             | EmX V3.1.10                  | 5125   | -                                 | Software                   |
| EMI Test Receiver                               | Rohde & Schwarz     | ESW44                        | 5912   | 12                                | 17-Mar-2023                |
| Cable (K Type 2m)                               | Junkosha            | MWX241-<br>02000KMSKMS/B     | 5937   | 12                                | 14-May-2023                |
| DRG Horn Antenna (7.5-<br>18GHz)                | Schwarzbeck         | HWRD750                      | 5941   | 12                                | 29-May-2023                |
| TRILOG Super Broadband<br>Test Antenna          | Schwarzbeck         | VULB 9168                    | 5943   | 24                                | 03-Feb-2024                |
| 1500W (300V 12A) AC<br>Power Supply             | iTech               | IT7324                       | 5956   | -                                 | O/P Mon                    |
| 5m Semi-Anechoic Chamber<br>(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 1m)                           | Junkosha            | MWX221-<br>01000AMSAMS/A     | 5997   | 12                                | 06-Jun-2023                |
| Cable (SMA to SMA 6.5m)                         | Junkosha            | MWX221-<br>06500AMSAMS/B     | 6003   | 12                                | 07-Jun-2023                |
| Cable (SMA to SMA 1m)                           | Junkosha            | MWX221-<br>01000AMSAMS/A     | 6008   | 12                                | 06-Jun-2023                |
| Cable (N to N 1m)                               | Junkosha            | MWX221-<br>01000AMSAMS/B     | 6009   | 12                                | 07-Jun-2023                |
| Cable (N to N 7m)                               | Junkosha            | MWX221-<br>07000NMSNMS/B     | 6016   | 12                                | 05-Jun-2023                |
| Cable (N to N 8m)                               | Junkosha            | MWX221-<br>08000NMSNMS/A     | 6017   | 12                                | 05-Jun-2023                |
| Horn Antenna (1-10 GHz)                         | Schwarzbeck         | BBHA9120B                    | 6141   | 12                                | 21-Jun-2023                |
| SAC Switch Unit                                 | TUV SUD             | TUV_SSU_001                  | 6144   | 12                                | 05-Dec-2023                |
| Double Ridge Active Horn<br>Antenna (18-40 GHz) | Com-Power           | AHA-840                      | 6188   | 24                                | 02-Jun-2024                |
| 8 GHz Highpass Filter                           | Wainwright          | WHKX 7150 8000<br>18000 50SS | 6194   | 12                                | 15-Jul-2023                |
| Pre Amp 8 - 18 GHz                              | Wright Technologies | APS06 0061                   | 6199   | 12                                | 19-Jul-2023                |
| Attenuator 4dB                                  | Pasternack          | PE7074-4                     | 6202   | 24                                | 16-Jul-2024                |
| Cable (SMA to SMA 20cm)                         | TUV SUD             | MH-FH 8-18                   | 6215   | 12                                | 25-Jul-2023                |

Table 778

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

A2873, S/N: DX9R95FW3R - Modification State 0

#### 2.7.3 Date of Test

22-March-2023

#### 2.7.4 Test Method

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

To calibrate the level of the radar at the input to the DFS Master device, the DFS Master was replaced by the spectrum analyser and the output of the vector signal generator adjusted to give -62 dBm.

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.

The EUT supports direct communication with another client while under supervision of a DFS Master. Therefore, this direct client-to-client mode was also tested in accordance with KDB 905462 D03 clause (b)3.

#### 2.7.5 Environmental Conditions

Ambient Temperature 24.4 °C Relative Humidity 43.0 %



#### 2.7.6 Test Results

#### 5 GHz WLAN - Master to Client - 802.11ac VHT160

The equipment was set up as shown in the diagram below.

A test laptop was connected via an Ethernet cable to the Master device and was configured to run iPerf, transmitting UDP to the EUT. An appropriate rate and buffer was found and used to achieve the correct channel loading. The EUT The channel loading was set to >17% by adjusting the bandwidth specified in the iPerf UDP transfer.

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

Table 779 - Radar Pulse Type 0 Characteristics

| Manufacturer | Model       | Serial Number   | FCC ID       |
|--------------|-------------|-----------------|--------------|
| ASUS         | GT-AXE11000 | M8IG0X400285XVN | MSQ-RTAXJF00 |

Table 780 - Details of Master Device used to support testing

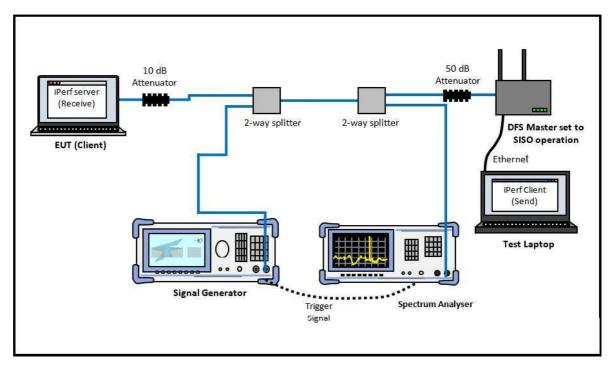


Figure 528 - Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master



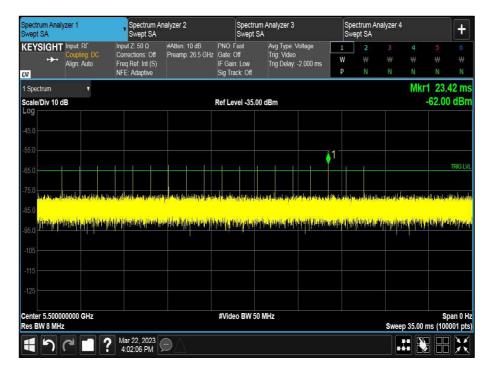


Figure 529 - Verification of Radar Type 0

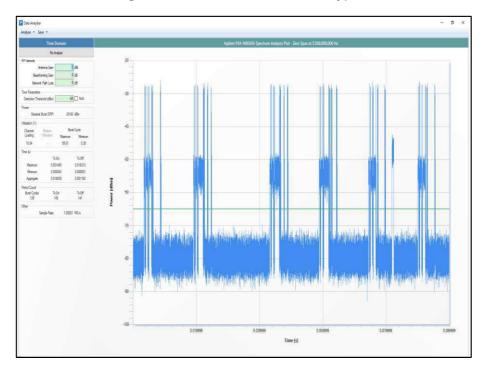


Figure 530 - Channel Loading

The channel loading was 18.84%.



| 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 781 - 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   | 0.819 s                                    |
| Channel Closing Time (Aggregate Time During 200 ms)         | 36.000 ms                                  |
| Channel Closing Time (Aggregate Time During 200 ms to 10 s) | 5.125 ms                                   |
| Channel Closing Time (Aggregate Time During 10 s)           | 41.125 ms                                  |
| Transmission Observed During Non-Occupancy Period           | No   |

**Table 782 - In-Service Monitoring Test Results** 

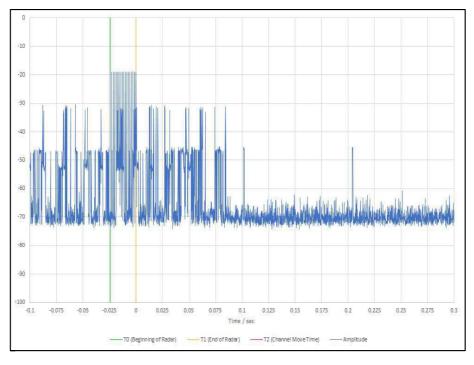


Figure 531 - First 200 ms of Channel Shutdown Period



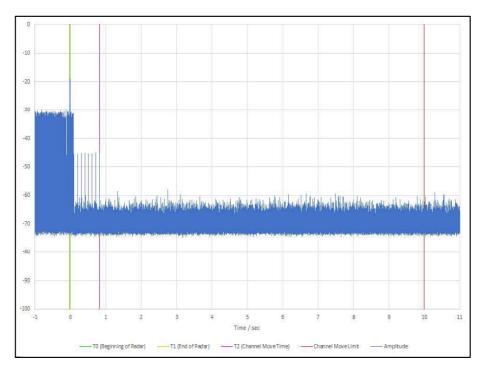


Figure 532 - First 12 s of Channel Shutdown Period

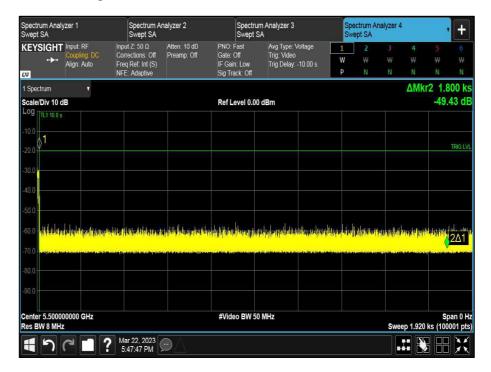


Figure 533 - 30 minute Non-Occupancy Period



#### 5 GHz WLAN - Client to Client - 802.11ac VHT160

The equipment was set up as shown in the diagram below.

The EUT and a 2nd client device were both connected to the DFS Master device. The 2nd client device was set to stream video directly to the EUT using the AirPlay protocol, while under the supervision of the DFS master (but without the DFS master re-transmitting the data packets). The channel loading was checked to ensure it was >17%.

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

Table 783 - Radar Pulse Type 0 Characteristics

| Manufacturer | Model       | Serial Number   | FCC ID       |
|--------------|-------------|-----------------|--------------|
| ASUS         | GT-AXE11000 | M8IG0X400285XVN | MSQ-RTAXJF00 |

Table 784 - Details of Master Device used to support testing

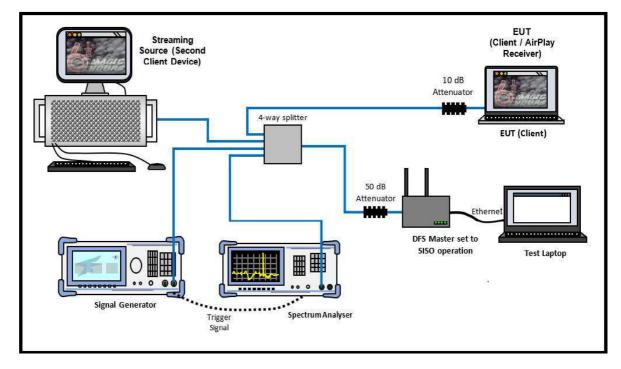


Figure 534 - Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master





Figure 535 - Verification of Radar Type 0

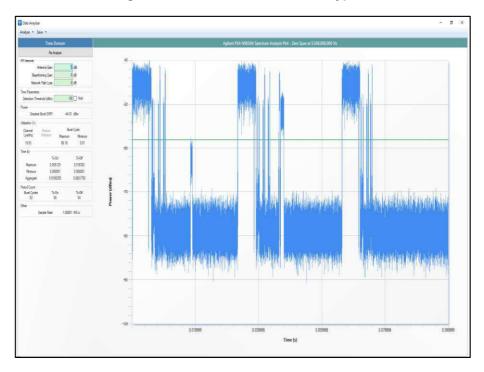


Figure 536 - Channel Loading

The channel loading was 19.83%.



| 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 785 - 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   | 0.837 s                                    |
| Channel Closing Time (Aggregate Time During 200 ms)         | 28.500 ms                                  |
| Channel Closing Time (Aggregate Time During 200 ms to 10 s) | 7.500 ms                                   |
| Channel Closing Time (Aggregate Time During 10 s)           | 36.000 ms                                  |
| Transmission Observed During Non-Occupancy Period           | No   |

**Table 786 - In-Service Monitoring Test Results** 

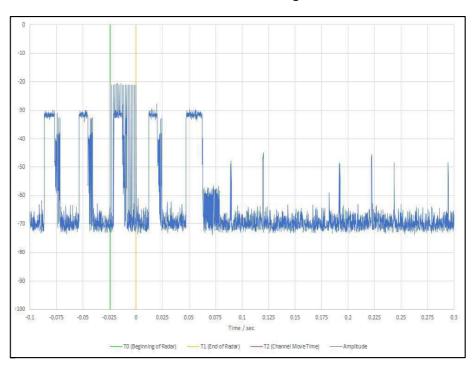


Figure 537 - First 200 ms of Channel Shutdown Period



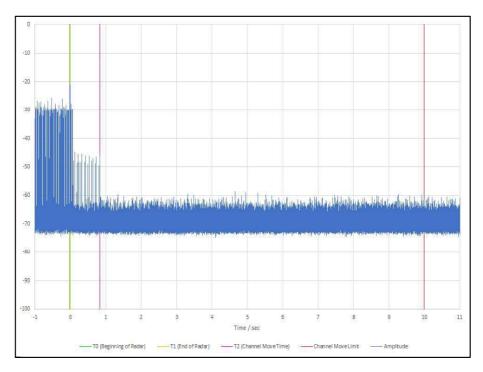


Figure 538 - First 12 s of Channel Shutdown Period

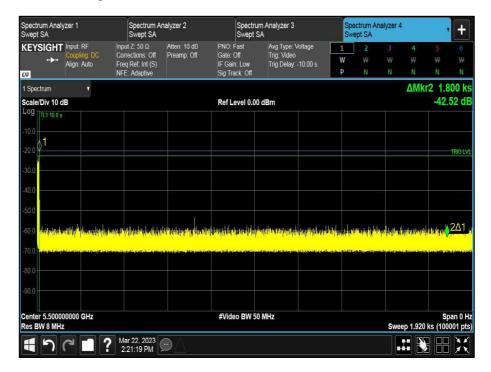


Figure 539 - 30 minute Non-Occupancy Period



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

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

**Table 787 - Channel Move Time and Channel Closing Transmission Time Limit** 

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

| _  |                     |              |
|----|---------------------|--------------|
| No | on-occupancy Period | > 30 minutes |

#### **Table 788 - 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 RF Chamber 18.

| Instrument                                   | Manufacturer             | Type No.              | TE No. | Calibration<br>Period<br>(months) | Calibration<br>Expiry Date |
|--|--------------------------|-----------------------|--------|-----------------------------------|----------------------------|
| Attenuator (20dB, 1W)                        | Sealectro                | 60-674-1020-89        | 1520   | -                                 | O/P Mon                    |
| Power splitter - 4 port                      | Mini-Circuits            | ZN4PD1-63-S+          | 4744   | 12                                | 21-Feb-2024                |
| EXA  | Keysight<br>Technologies | N9010B                | 4969   | 24                                | 07-Feb-2024                |
| Cable (18 GHz)                               | Rosenberger              | LU7-071-1000          | 5103   | 12                                | 18-Dec-2023                |
| Cable (18 GHz)                               | Rosenberger              | LU7-071-2000          | 5106   | 12                                | 18-Dec-2023                |
| 2.92mm 1m cable                              | Junkosha                 | MWX211/B              | 5415   | 12                                | 24-Jul-2023                |
| 3.5 mm 1m Cable                              | Junkosha                 | MWX221-<br>01000DMS   | 5416   | 12                                | 06-Mar-2024                |
| 3.5 mm 2m Cable                              | Junkosha                 | MWX221-<br>02000DMS   | 5427   | 12                                | 29-Mar-2023                |
| Attenuator 5W 30dB DC-<br>18GHz              | Aaren                    | AT40A-4041-D18-<br>30 | 5505   | 12                                | 21-Feb-2024                |
| 2-Way Power Divider (2 to 8 GHz)             | Aaren                    | AT30A-TE0208-2-<br>AF | 5684   | 12                                | 21-Dec-2023                |
| 2-Way Power Divider (2-8<br>GHz)             | Aaren                    | AT30A-TE0208-2-<br>AF | 5685   | 12                                | 21-Dec-2023                |
| Vector Signal Generator                      | Rohde & Schwarz          | SMM100A               | 5915   | 36                                | 01-Mar-2026                |
| WiFi 6E Tri-Band Gaming<br>Router            | Asus                     | GT-AXE110000          | 5926   | -                                 | TU                         |
| Humidity & Temperature meter                 | R.S Components           | 1364                  | 6148   | 12                                | 17-Jun-2023                |
| Coaxial Fixed Attenuator<br>DC-18GHz 5W 10dB | RF-Lambda                | RFS5G18B10SMP         | 6177   | 12                                | 17-Jul-2023                |

Table 789

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



## 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  | ± 3.914 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<br>1 GHz to 40 GHz: ± 6.3 dB |  |  |
| Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period | Time: ± 0.47 %<br>Power: ± 1.29 dB                     |  |  |

Table 790

## 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.