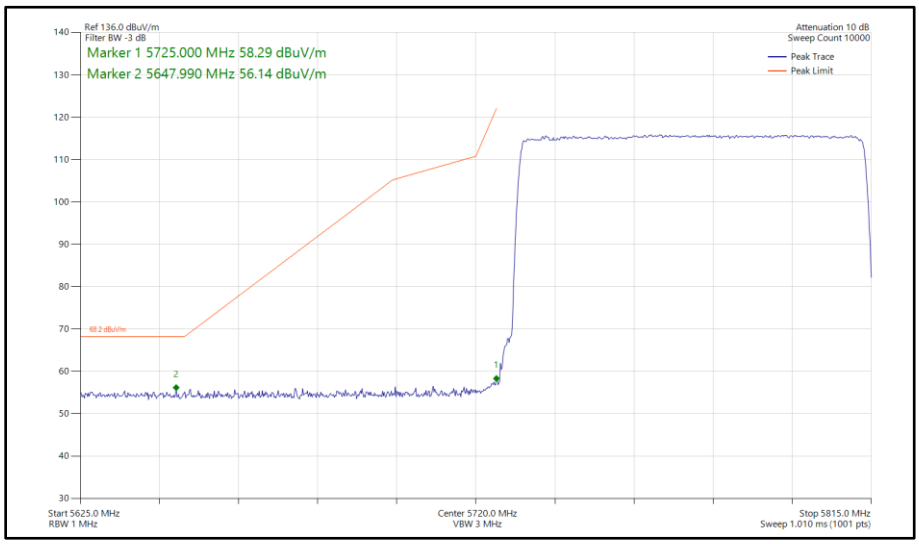


**Figure 237 - Narrowband HDR8, SISO, Core 1 - 5733-5811 MHz Band Edge Frequency 5725 MHz**

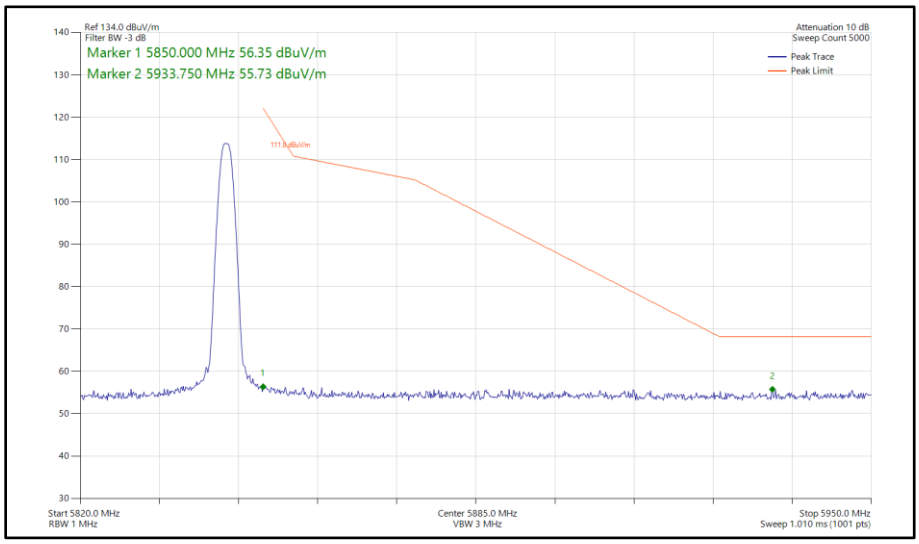


**Figure 238 - Narrowband DH5, SISO, Core 1 - 5844 MHz Band Edge Frequency 5850 MHz**

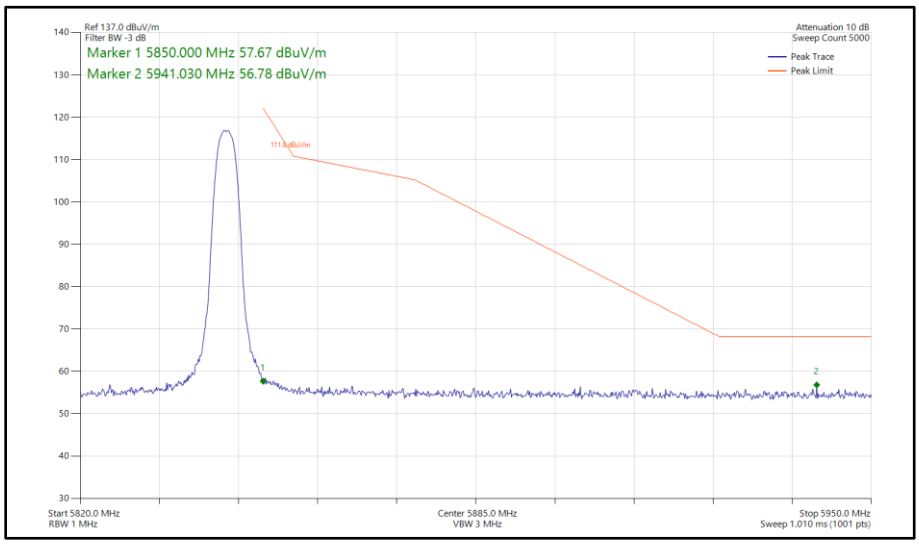


**Figure 239 - Narrowband HDR4, SISO, Core 1 - 5844 MHz Band Edge Frequency 5850 MHz**

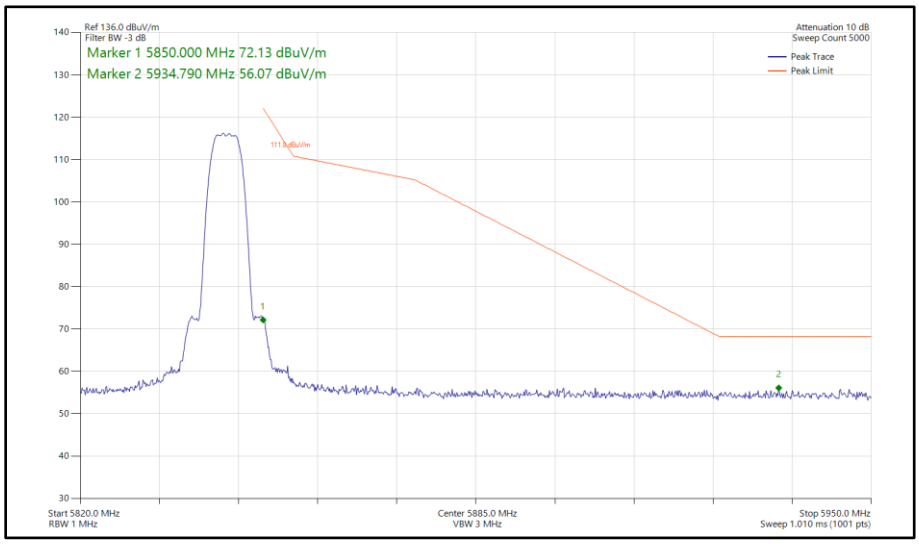


**Figure 240 - Narrowband HDR8, SISO, Core 1 - 5844 MHz Band Edge Frequency 5850 MHz**

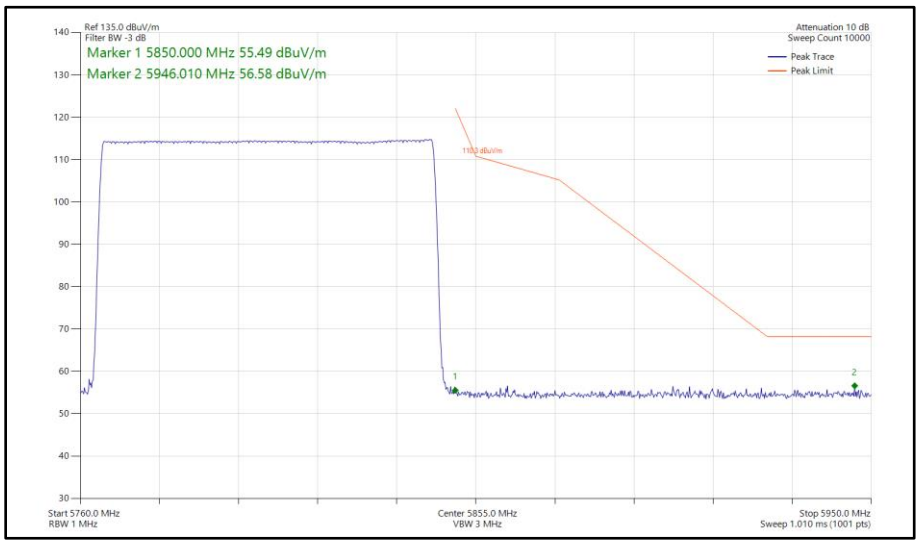


**Figure 241 - Narrowband DH5, SISO, Core 1 - 5766-5844 MHz Band Edge Frequency 5850 MHz**

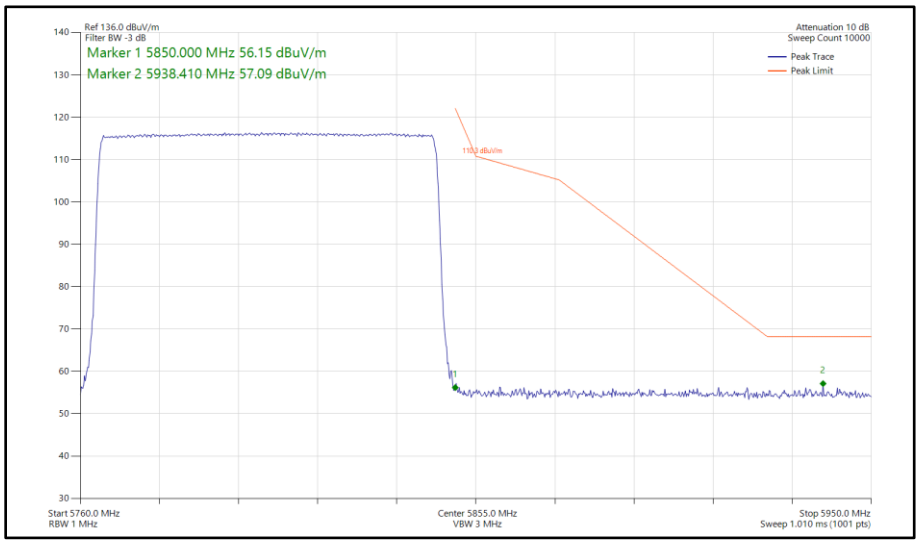


**Figure 242 - Narrowband HDR4, SISO, Core 1 - 5766-5844 MHz Band Edge Frequency 5850 MHz**

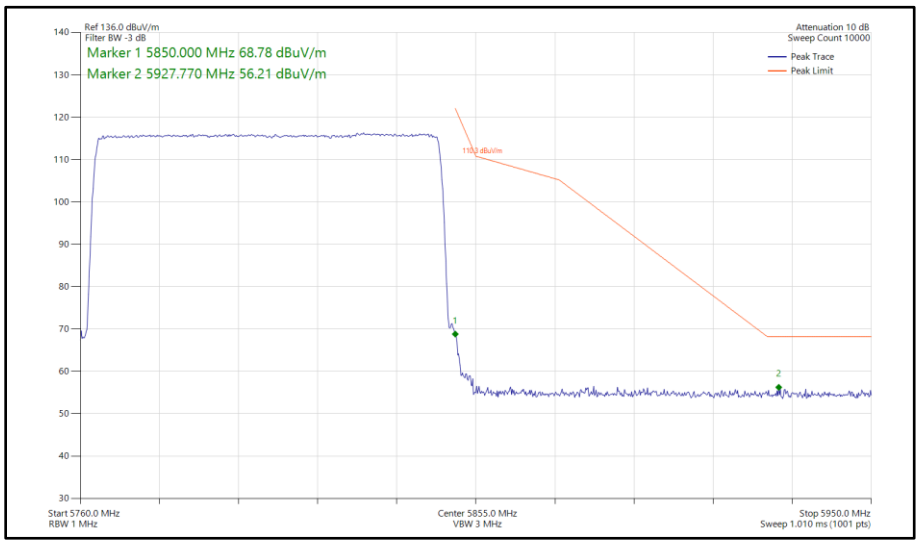


**Figure 243 - Narrowband HDR8, SISO, Core 1 - 5766-5844 MHz Band Edge Frequency 5850 MHz**

ePA - Core 0 - Core 1 (MIMO)

| Mode | Packet Type | TX Frequency (MHz) | Band Edge Frequency (MHz) | Peak Level (dBµV/m) |
|---|---|---|---|---|
| Static | DH5 | 5733 | 5725 | 56.06 |
| Static | HDR4 | 5733 | 5725 | 56.00 |
| Static | HDR8 | 5733 | 5725 | 55.73 |
| Hopping | DH5 | 5733-5811 | 5725 | 55.37 |
| Hopping | HDR4 | 5733-5811 | 5725 | 56.12 |
| Hopping | HDR8 | 5733-5811 | 5725 | 56.46 |
| Static | DH5 | 5844 | 5850 | 55.91 |
| Static | HDR4 | 5844 | 5850 | 55.88 |
| Static | HDR8 | 5844 | 5850 | 56.29 |
| Hopping | DH5 | 5766-5844 | 5850 | 56.60 |
| Hopping | HDR4 | 5766-5844 | 5850 | 56.25 |
| Hopping | HDR8 | 5766-5844 | 5850 | 56.21 |

**Table 115 - MIMO Authorised Band Edge Results**

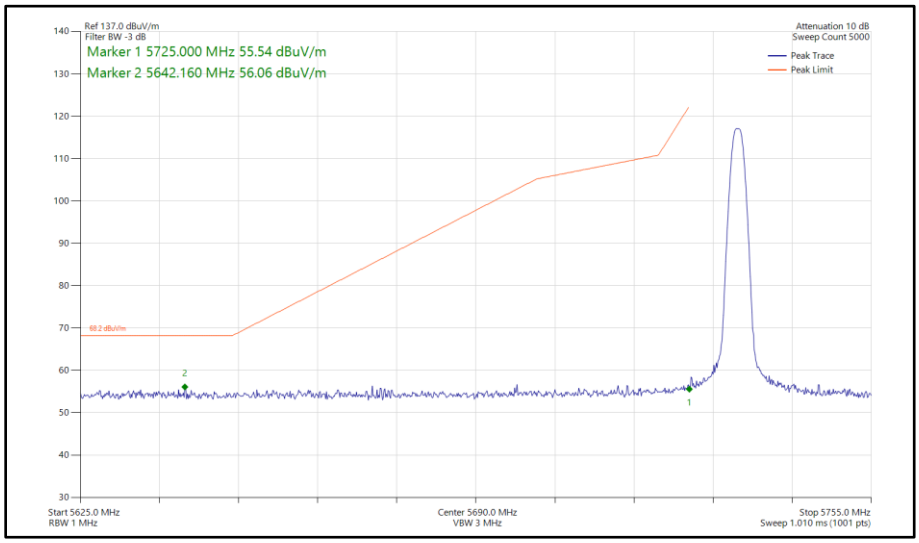


**Figure 244 - Narrowband DH5, MIMO, Core 0 - Core 1 - 5733 MHz Band Edge Frequency 5725 MHz**

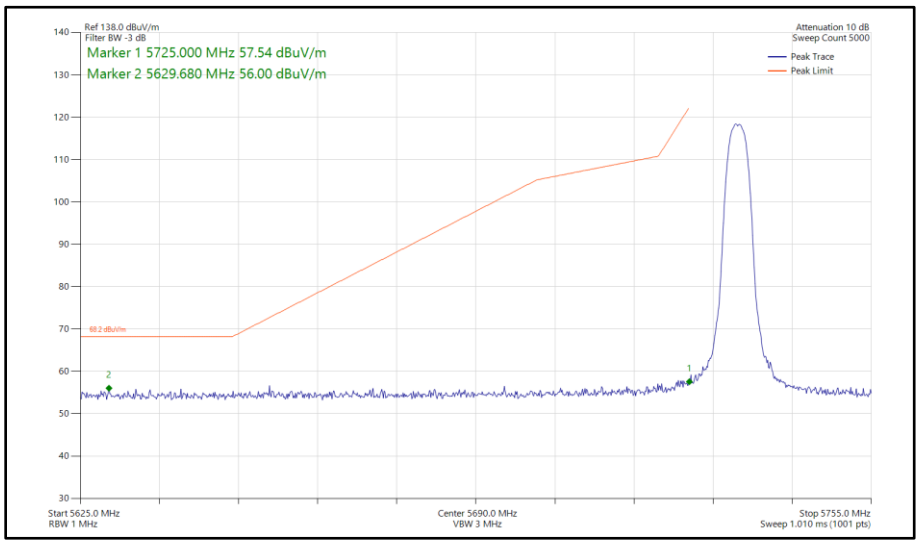


**Figure 245 - Narrowband HDR4, MIMO, Core 0 - Core 1 - 5733 MHz Band Edge Frequency 5725 MHz**

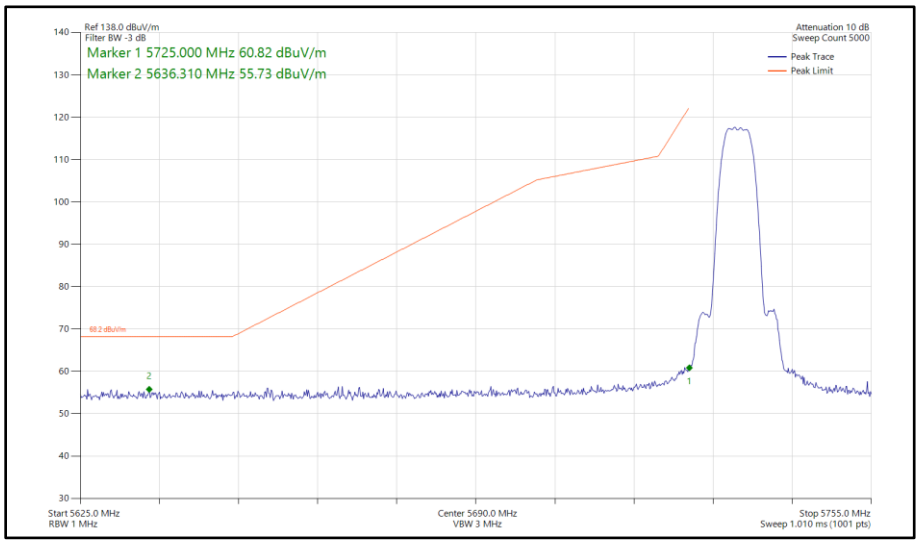


**Figure 246 - Narrowband HDR8, MIMO, Core 0 - Core 1 - 5733 MHz Band Edge Frequency 5725 MHz**

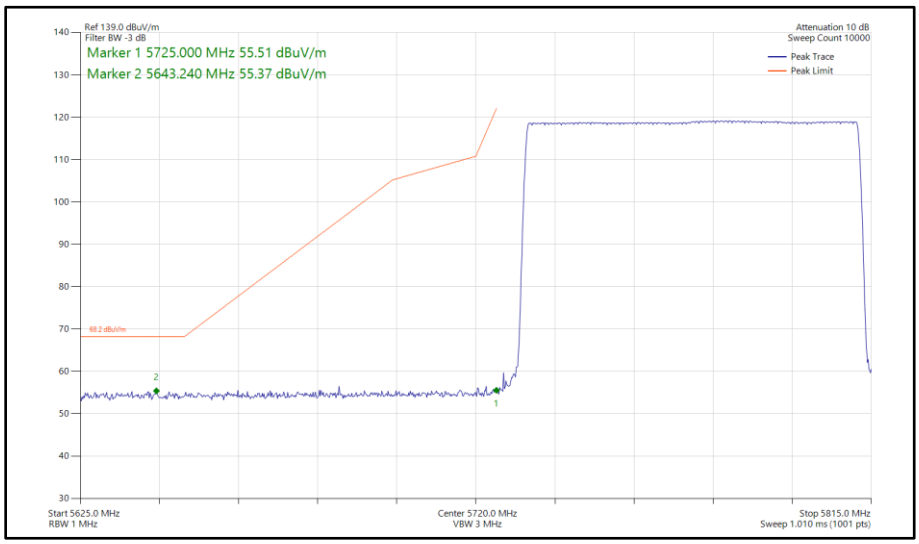


**Figure 247 - Narrowband DH5, MIMO, Core 0 - Core 1 - 5733-5811 MHz Band Edge Frequency 5725 MHz**

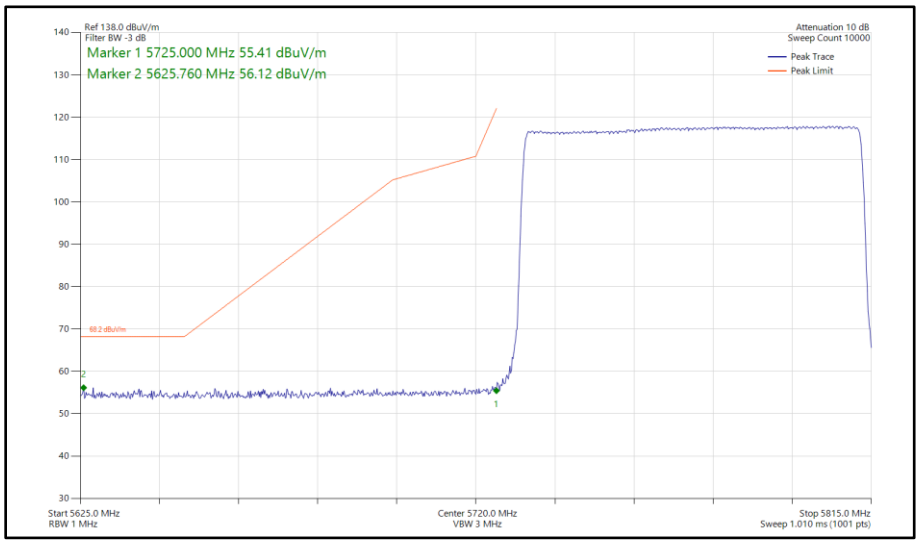


**Figure 248 - Narrowband HDR4, MIMO, Core 0 - Core 1 - 5733-5811 MHz Band Edge Frequency 5725 MHz**

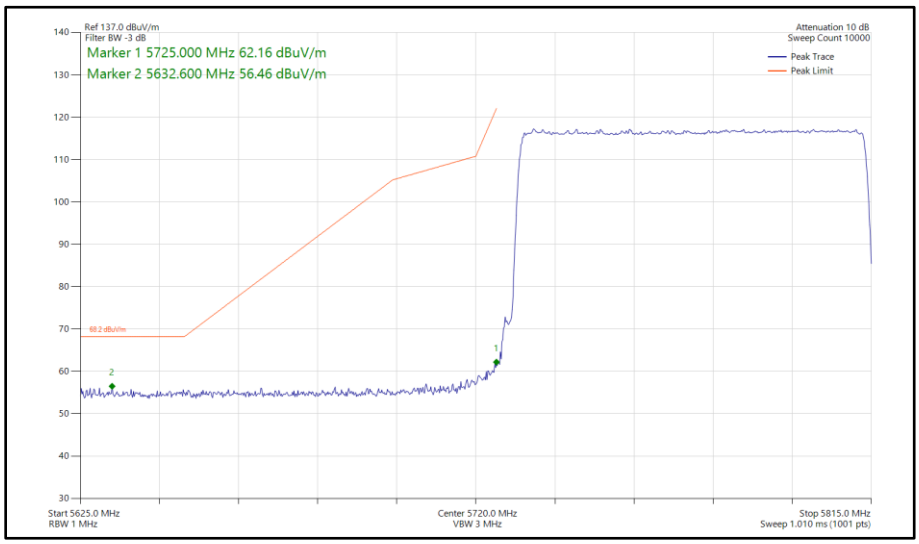


**Figure 249 - Narrowband HDR8, MIMO, Core 0 - Core 1 - 5733-5811 MHz Band Edge Frequency 5725 MHz**

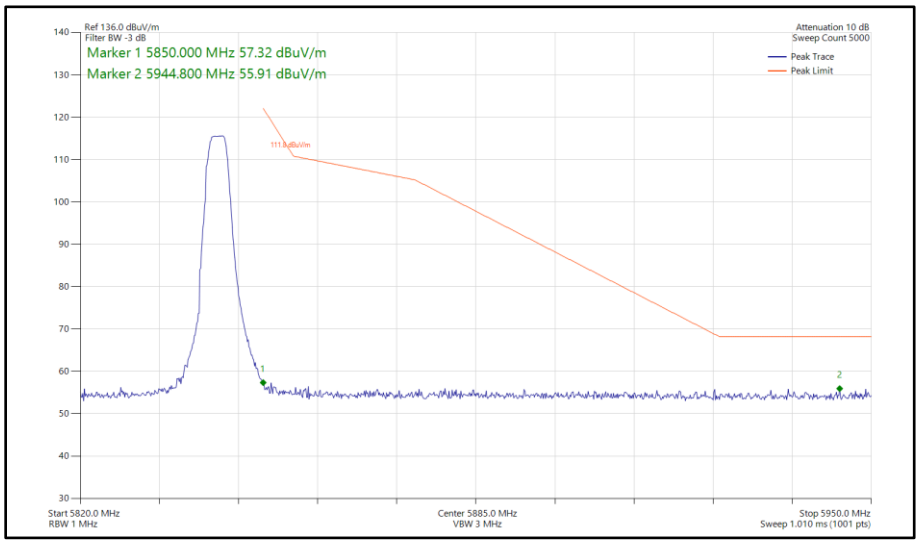


**Figure 250 - Narrowband DH5, MIMO, Core 0 - Core 1 - 5844 MHz Band Edge Frequency 5850 MHz**

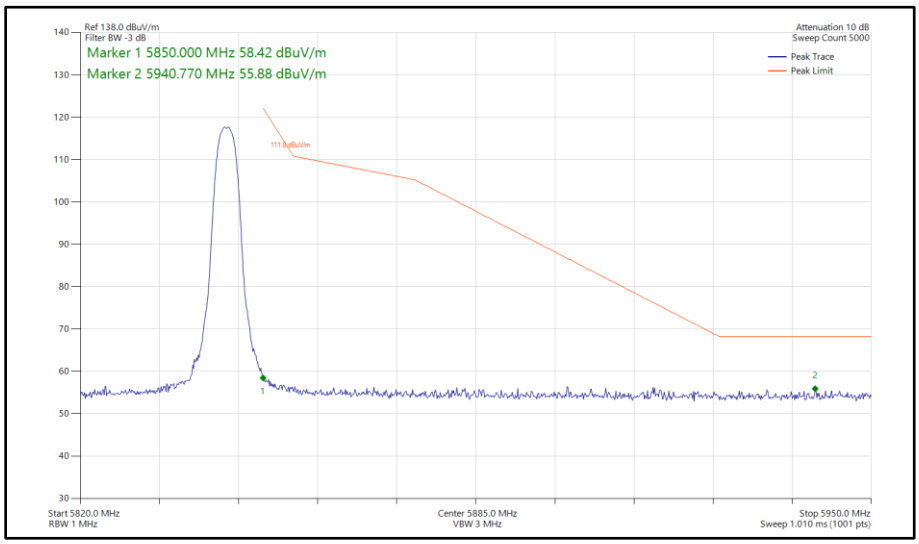


**Figure 251 - Narrowband HDR4, MIMO, Core 0 - Core 1 - 5844 MHz Band Edge Frequency 5850 MHz**

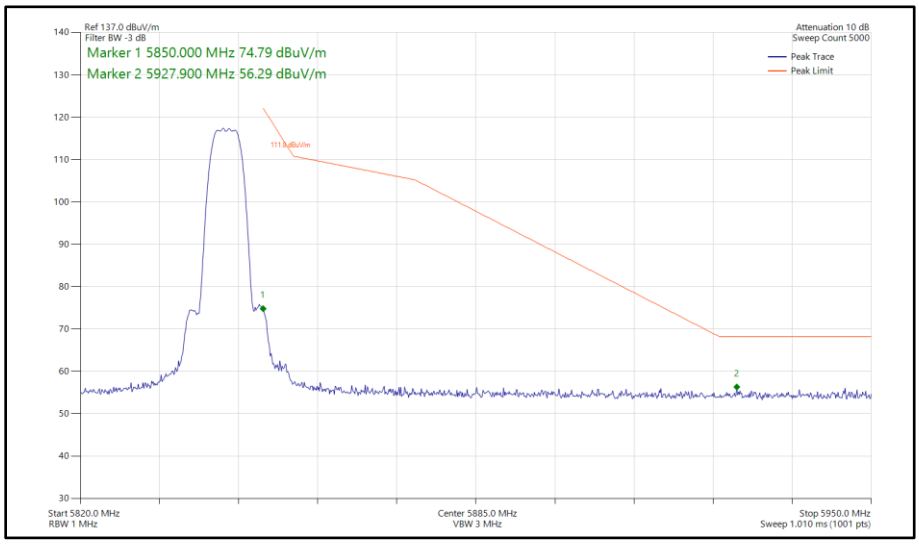


**Figure 252 - Narrowband DH5, MIMO, Core 0 - Core 1 - 5844 MHz Band Edge Frequency 5850 MHz**

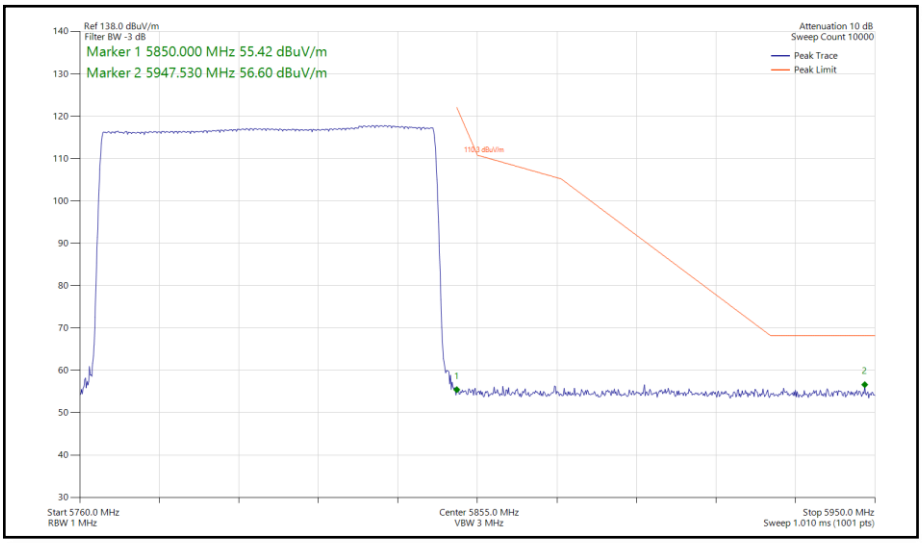


**Figure 253 - Narrowband HDR8, MIMO, Core 0 - Core 1 - 5844 MHz Band Edge Frequency 5850 MHz**

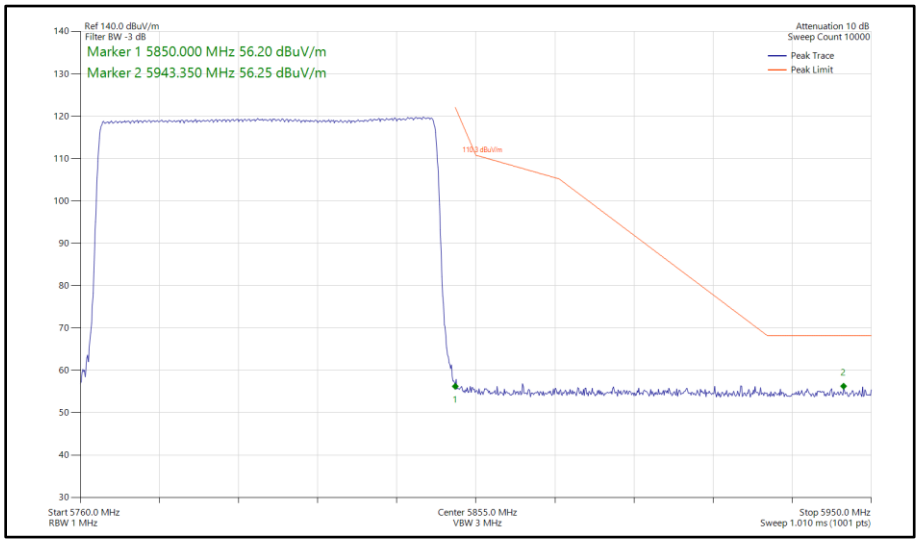


**Figure 254 - Narrowband HDR4, MIMO, Core 0 - Core 1 - 5766-5844 MHz Band Edge Frequency 5850 MHz**

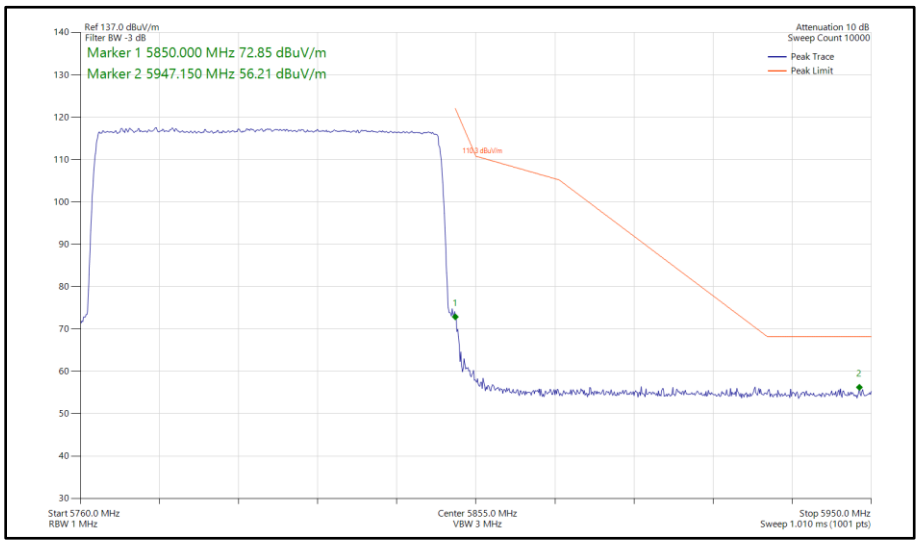


**Figure 255 - Narrowband HDR8, MIMO, Core 0 - Core 1 - 5766-5844 MHz Band Edge Frequency 5850 MHz**

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

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.

ISED RSS-247, Limit Clause 6.2.1.2, 6.2.2.2, 6.2.3.2, 6.2.4.2 and 6.2.5.3

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.

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.

### 2.5.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 14 and RF Chamber 15.

| Instrument | Manufacturer | Type No. | TE No. | Calibration Period (months) | Calibration Expiry Date |
|---|---|---|---|---|---|
| Emissions Software | TUV SUD | EmX V3.2.0 | 5125 | - | Software |
| EMI Test Receiver | Rohde & Schwarz | ESW44 | 5911 | 12 | 11-Sep-2024 |
| EMI Test Receiver | Rohde & Schwarz | ESW44 | 5912 | 12 | 05-Jul-2024 |
| 1500W (300V 12A) AC Power Supply | iTech | IT7324 | 5955 | - | O/P Mon |
| 1500W (300V 12A) AC Power Supply | iTech | IT7324 | 5956 | - | 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 |
| 5m Semi-Anechoic Chamber (Dual-Axis), Chamber 15 | Albatross Projects | RF Chamber 15 | 5963 | 36 | 28-Apr-2025 |
| Compact Antenna Mast | Maturo Gmbh | CAM4.0-P | 5964 | - | TU |
| Mast & Turntable Controller | Maturo Gmbh | FCU3.0 | 5966 | - | TU |
| Tilt Antenna Mast | Maturo Gmbh | BAM4.5-P | 5967 | - | TU |
| Turntable | Maturo Gmbh | TT1.5SI | 5968 | - | TU |
| Cable (SMA to SMA 1m) | Junkosha | MWX221-01000AMSAMS/A | 5996 | 12 | 20-May-2025 |
| Cable (SMA to SMA 1m) | Junkosha | MWX221-01000AMSAMS/A | 5997 | 12 | 14-Sep-2024 |
| 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 |
| Horn Antenna (1-10 GHz) | Schwarzbeck | BBHA9120B | 6141 | 12 | 05-May-2025 |
| Horn Antenna (1-10 GHz) | Schwarzbeck | BBHA9120B | 6142 | 12 | 05-May-2025 |
| Digital Multimeter | Fluke | 115 | 6145 | 12 | 06-Jun-2025 |
| Digital Multimeter | Fluke | 115 | 6147 | 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 |
| Cable (SMA to SMA 3m) | Junkosha | MWX221-03000AMSAMS/A | 6316 | 12 | 04-Feb-2025 |
| Humidity and Temperature Meter | R.S Components | 1364 | 6486 | 12 | 04-Jun-2025 |
| 1m Cable | Junkosha | MWX241-01000AMSAMS/B | 6740 | 12 | 01-Feb-2025 |
| 1m Cable | Junkosha | MWX241-01000AMSAMS/B | 6741 | 12 | 01-Feb-2025 |
| 6.5m Cable | Junkosha | MWX221-06500AMSAMS/B | 6744 | 12 | 01-Feb-2025 |

**Table 116**

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

## 2.6 Spurious Radiated Emissions

### 2.6.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.209 and 15.407 (b)
ISED RSS-247, Clause 6.2
ISED RSS-GEN, Clause 6.13 and 8.9

### 2.6.2 Equipment Under Test and Modification State

A3238, S/N: NQMK2V7Q9C - Modification State 0
A3238, S/N: V4KFHR9J44 - Modification State 0

### 2.6.3 Date of Test

15-June-2024 to 04-July-2024

### 2.6.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 6.3, 6.5 and 6.6.

Ports on the EUT were terminated with loads as described in ANSI C63.10 clause 6.2.3.

Measurements were undertaken from 30 MHz to 40 GHz on Channel 5203 (5203 MHz) and Channel 5788 (5788 MHz).

For the purpose of this testing, spurious emissions were limited to 1 GHz to 40 GHz on all other test channels.

The plots shown are the characterization of the EUT. The limits on the plots represent the most stringent case for restricted bands, (54/74 dBuV/m @ 3 m and 64/84 dBuV/m @ 1m) when compared to -27 dBm/MHz EIRP outside restricted bands. The limits shown have been used as a threshold to determine where further measurements are necessary. Where results are within 20dB of the limits shown on the plots, further investigation was carried out and reported in results tables.

The following conversion can be applied to convert from dBµV/m to µV/m:
10^(Field Strength in dBµV/m/20).

EIRP was converted to field strength at 3m using the following formula:
Field Strength (dBµV/m at 3 m) = EIRP (dBm) + 95.2 dB

Radiated spurious emissions tests have been conducted in DH5 (high power) mode as this represents worst case with respect to Power and PSD.

### 2.6.5 Test Setup Diagram

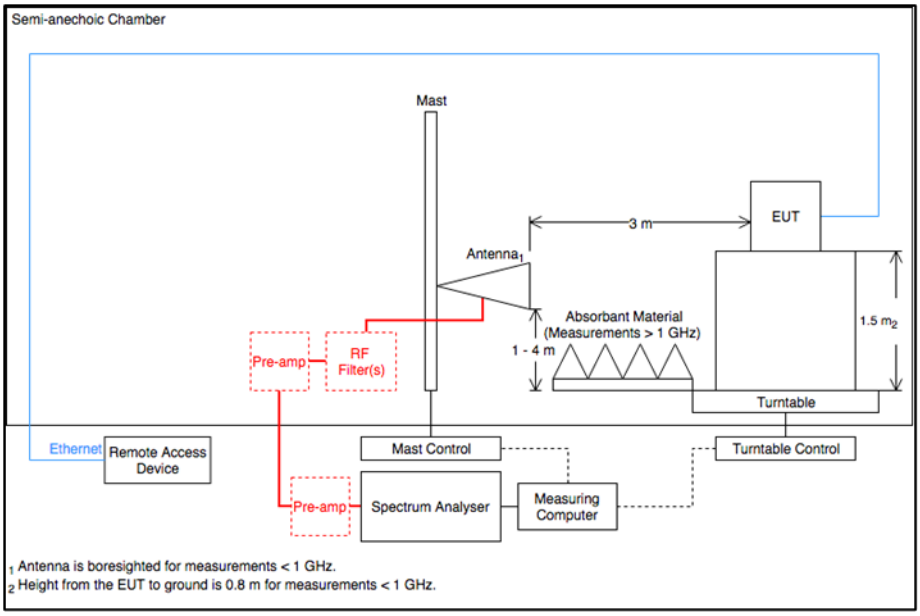


**Figure 256 - Radiated Emissions Test Setup Diagram**

### 2.6.6 Environmental Conditions

| | |
|---|---|
| Ambient Temperature | 21.6 - 23.1 °C |
| Relative Humidity | 37.2 - 48.1 % |

### 2.6.7 Test Results

Narrowband

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 5119.769 | 36.62 | 54.00 | -17.38 | RMS | 240 | 389 | Vertical |
| 5119.986 | 36.54 | 54.00 | -17.46 | RMS | 263 | 360 | Horizontal |
| 5367.169 | 36.68 | 54.00 | -17.32 | RMS | 288 | 380 | Vertical |
| 5427.814 | 36.74 | 54.00 | -17.26 | RMS | 43 | 324 | Horizontal |

**Table 117 - 5162 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.

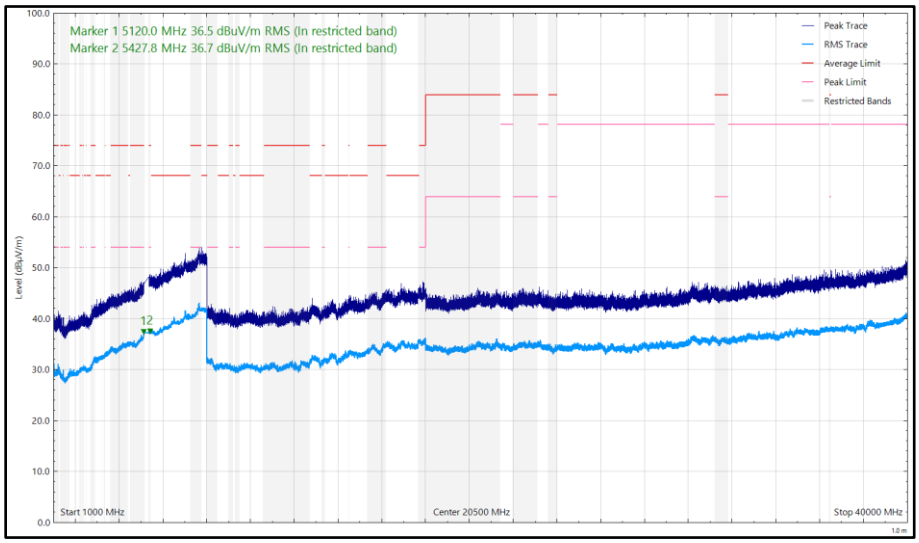


**Figure 257 - 5162 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

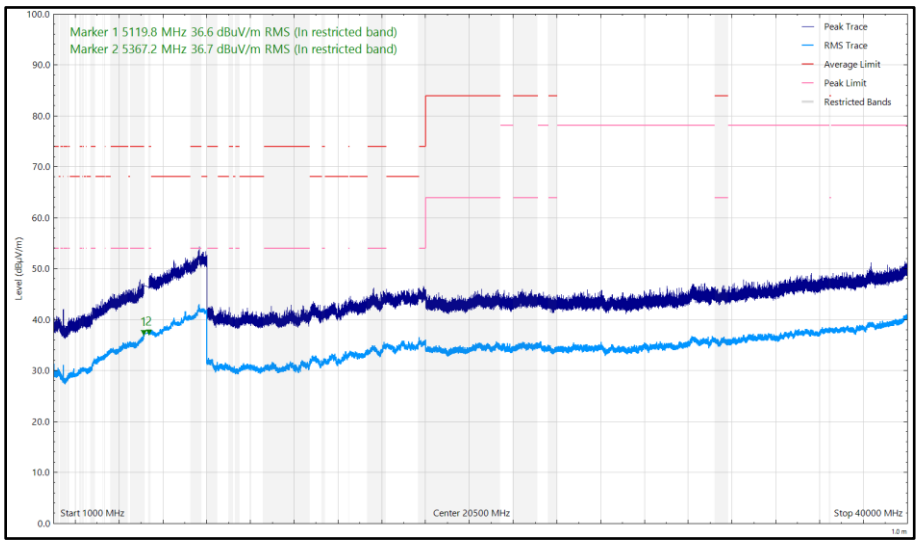


**Figure 258 - 5162 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 333.904 | 28.88 | 46.00 | -17.12 | Q-Peak | 32 | 104 | Horizontal |
| 5139.396 | 35.26 | 54.00 | -18.74 | RMS | 132 | 374 | Vertical |
| 5148.120 | 35.30 | 54.00 | -18.70 | RMS | 192 | 393 | Horizontal |
| 5358.244 | 36.70 | 54.00 | -17.30 | RMS | 114 | 272 | Vertical |
| 5359.635 | 36.69 | 54.00 | -17.31 | RMS | 306 | 110 | Horizontal |

**Table 118 - 5203 MHz, DH5, iPA, Core 0 - Core 1, 30 MHz to 40 GHz**

No other emissions found within 10 dB of the limit.

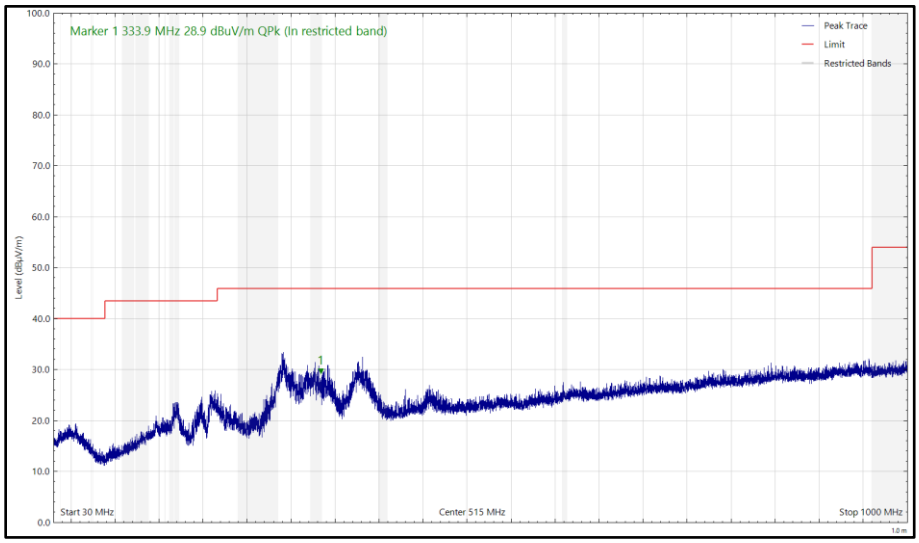


**Figure 259 - 5203 MHz, DH5, iPA, Core 0 - Core 1, 30 MHz to 1 GHz, Horizontal (Peak)**

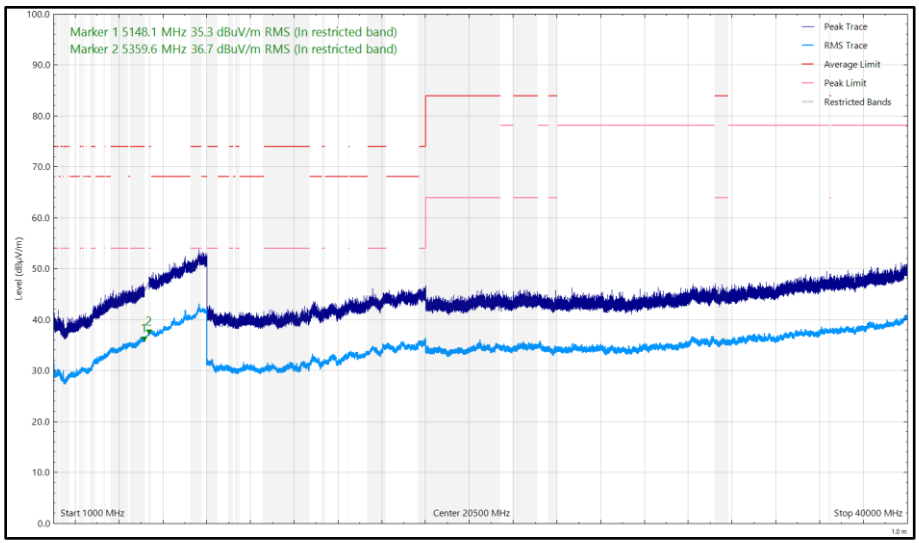


**Figure 260 - 5203 MHz, DH5 iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

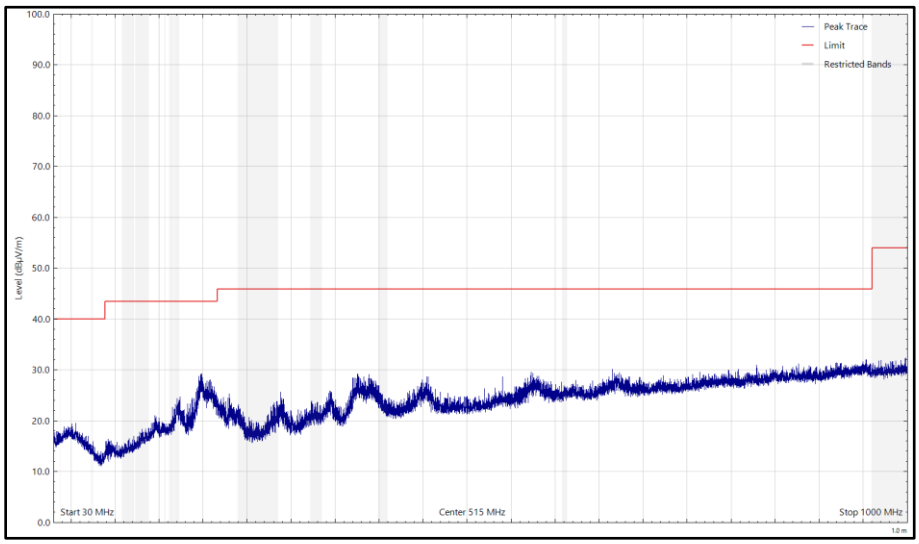


**Figure 261 - 5203 MHz, DH5, Core 0 - Core 1, iPA, 30 MHz to 1 GHz, Vertical (Peak)**

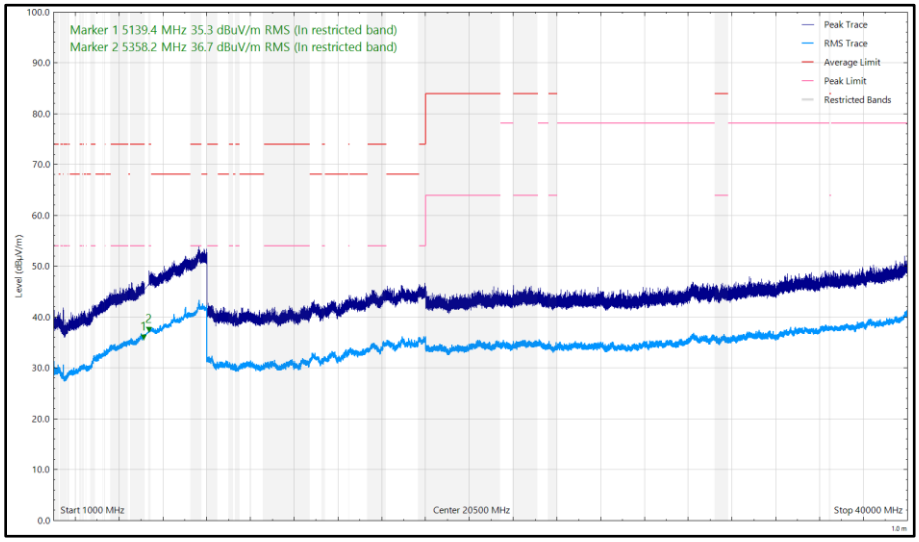


**Figure 262 - 5203 MHz, DH5, Core 0 - Core 1, iPA, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 5140.009 | 35.32 | 54.00 | -18.68 | RMS | 101 | 384 | Vertical |
| 5358.759 | 36.67 | 54.00 | -17.33 | RMS | 80 | 192 | Horizontal |
| 5359.818 | 36.68 | 54.00 | -17.32 | RMS | 163 | 123 | Vertical |

**Table 119 - 5245 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.

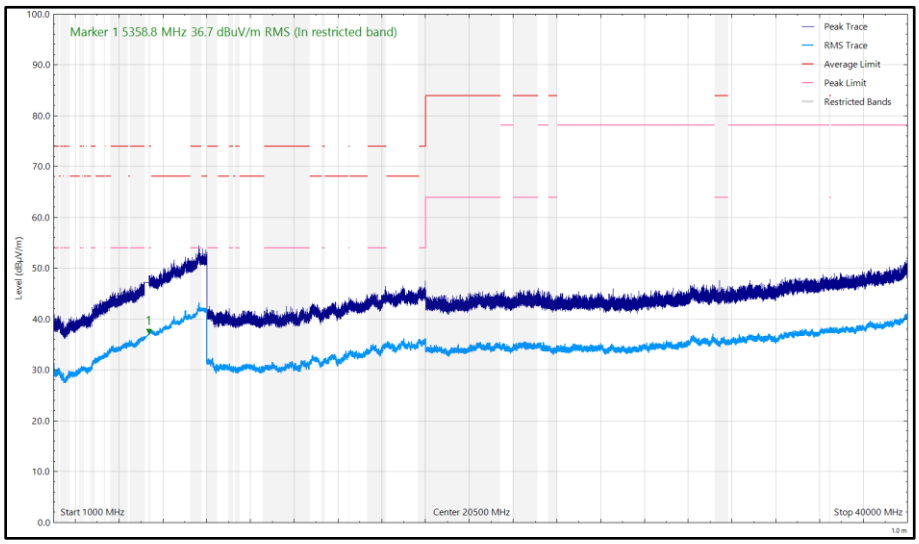


**Figure 263 - 5245 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

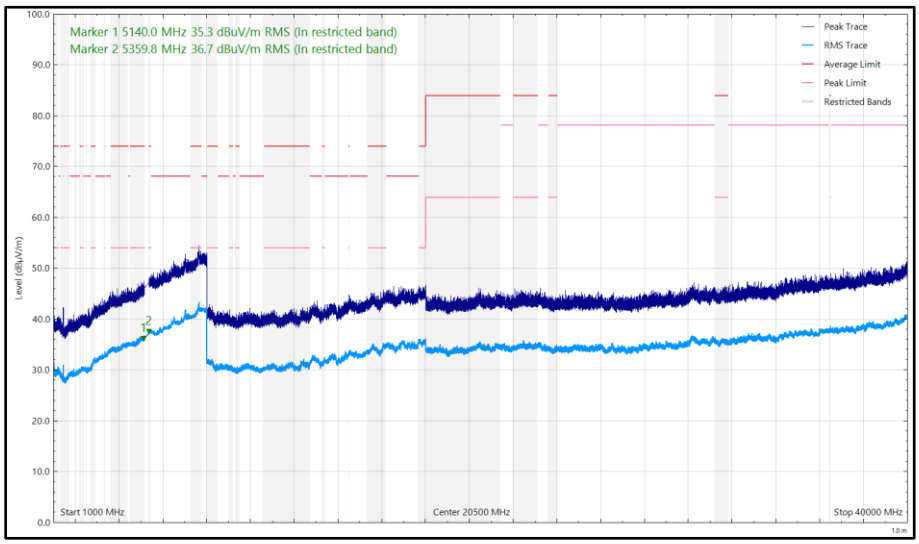


**Figure 264 - 5245 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 5416.731 | 36.55 | 54.00 | -17.45 | RMS | 18 | 298 | Vertical |
| 5431.624 | 36.69 | 54.00 | -17.31 | RMS | 225 | 266 | Horizontal |

**Table 120 - 5733 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.

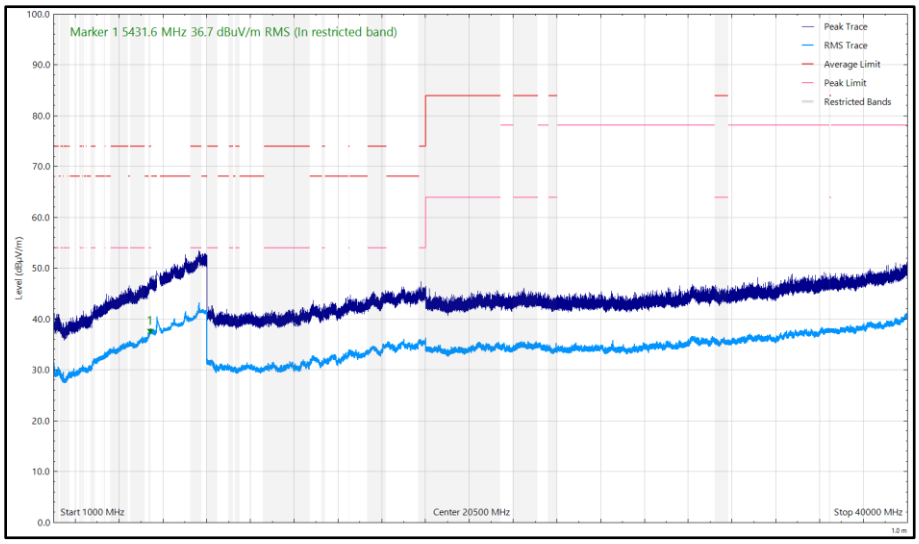


**Figure 265 - 5733 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

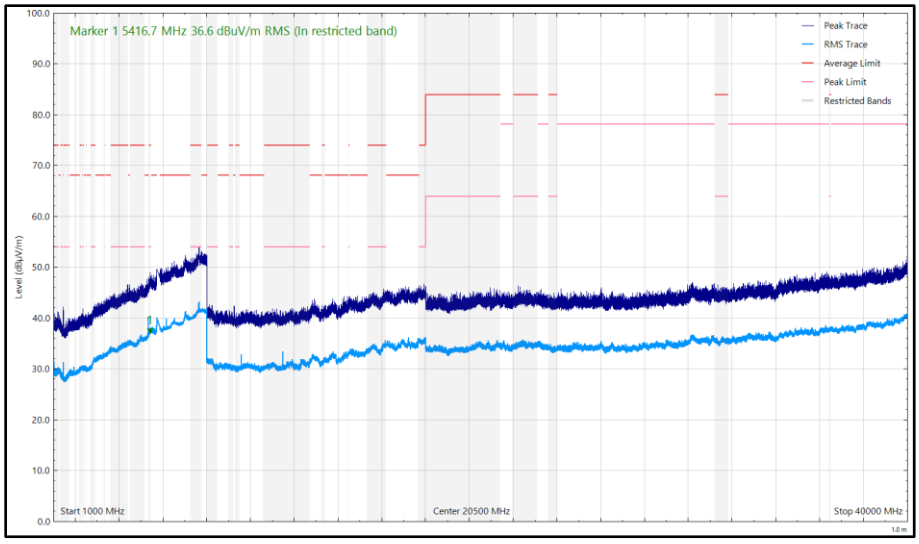


**Figure 266 - 5733 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 198.367 | 23.73 | 43.50 | -19.77 | Q-Peak | 93 | 100 | Vertical |
| 324.926 | 27.00 | 46.00 | -19.00 | Q-Peak | 16 | 100 | Horizontal |
| 5374.548 | 39.27 | 54.00 | -14.73 | RMS | 118 | 100 | Vertical |
| 5405.297 | 36.44 | 54.00 | -17.56 | RMS | 26 | 255 | Horizontal |
| 5712.848 | 50.62 | 68.20 | -17.58 | Peak | 111 | 143 | Horizontal |
| 5713.679 | 50.79 | 68.20 | -17.41 | Peak | 298 | 285 | Vertical |
| 11575.995 | 38.47 | 54.00 | -15.53 | RMS | 251 | 100 | Vertical |

**Table 121 - 5788 MHz, DH5, iPA, Core 0 - Core 1, 30 MHz to 40 GHz**

No other emissions found within 10 dB of the limit.

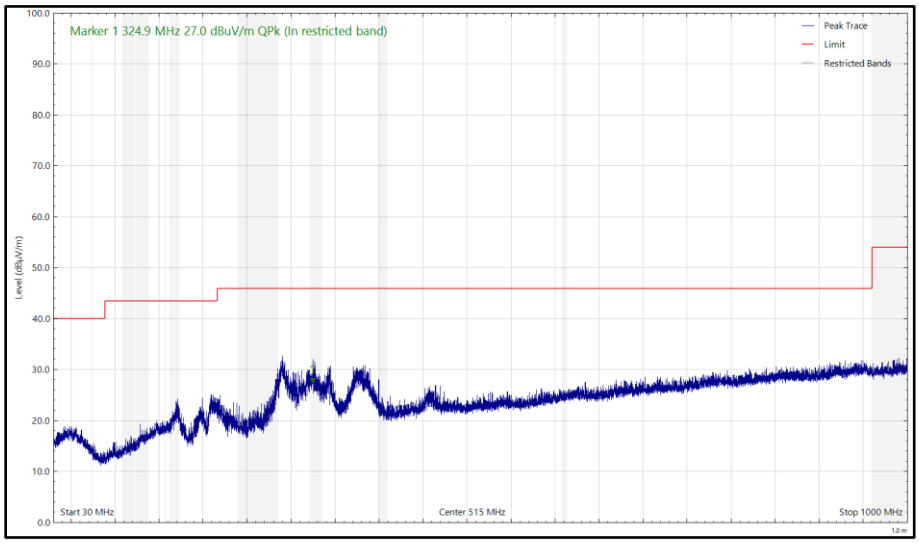


**Figure 267 - 5788 MHz, DH5, iPA, Core 0 - Core 1, 30 MHz to 1 GHz, Horizontal (Peak)**

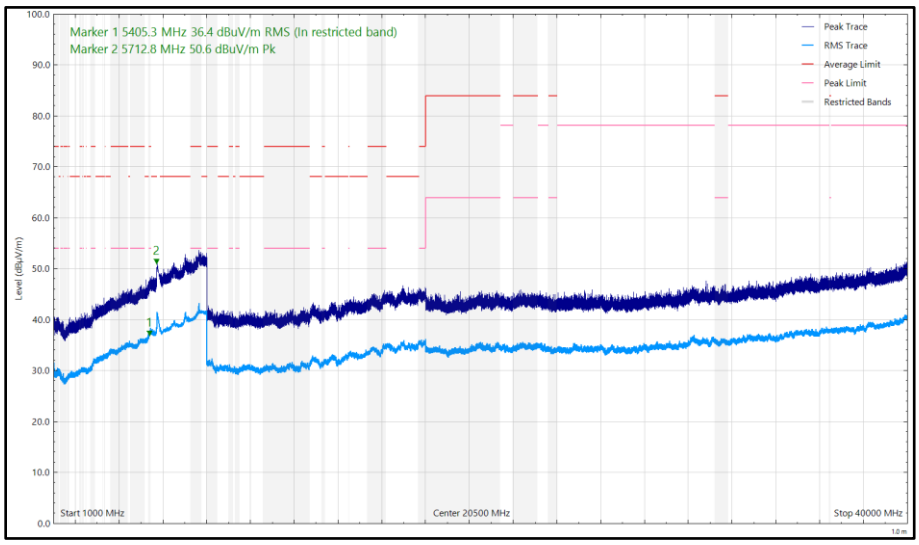


**Figure 268 - 5788 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

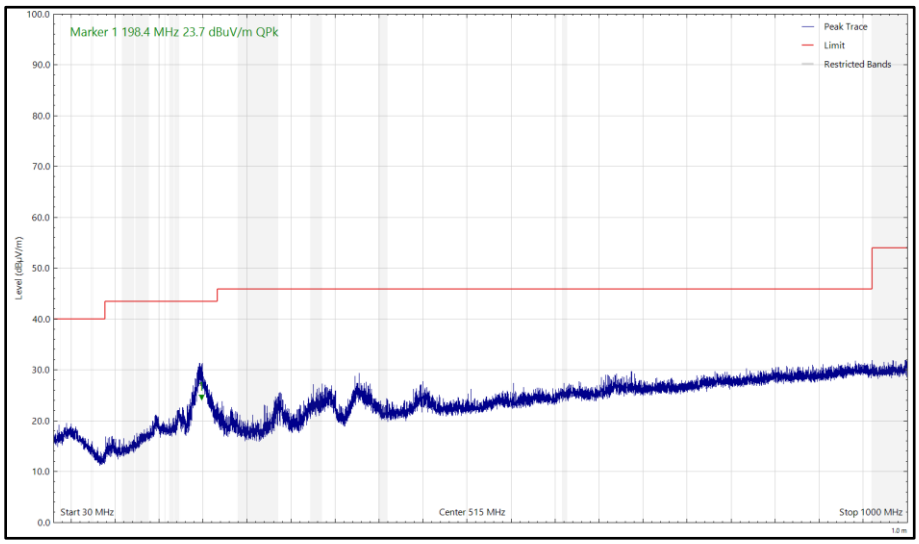


**Figure 269 - 5788 MHz, DH5, iPA, Core 0 - Core 1, 30 MHz to 1 GHz, Vertical (Peak)**

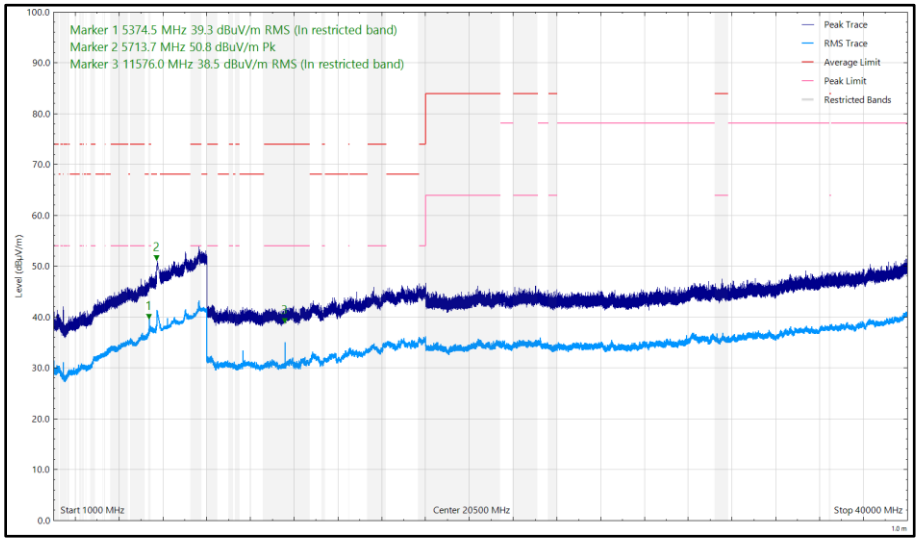


**Figure 270 - 5788 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 5413.072 | 36.56 | 54.00 | -17.44 | RMS | 108 | 392 | Horizontal |
| 5426.614 | 41.29 | 54.00 | -12.71 | RMS | 118 | 106 | Vertical |
| 5711.586 | 50.85 | 68.20 | -17.35 | Peak | 108 | 384 | Horizontal |
| 5713.163 | 51.03 | 68.20 | -17.17 | Peak | 123 | 394 | Vertical |

**Table 122 - 5844 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.

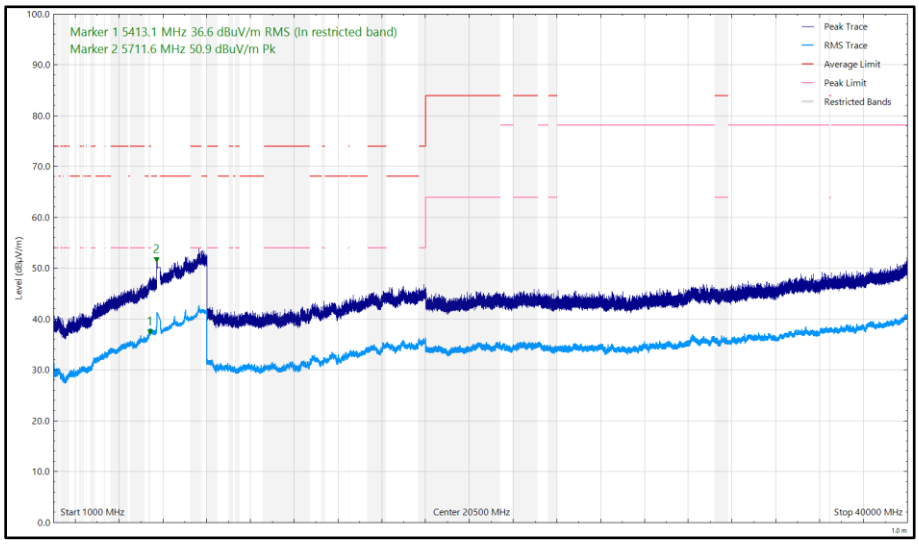


**Figure 271 - 5844 MHz, DH5, iPA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

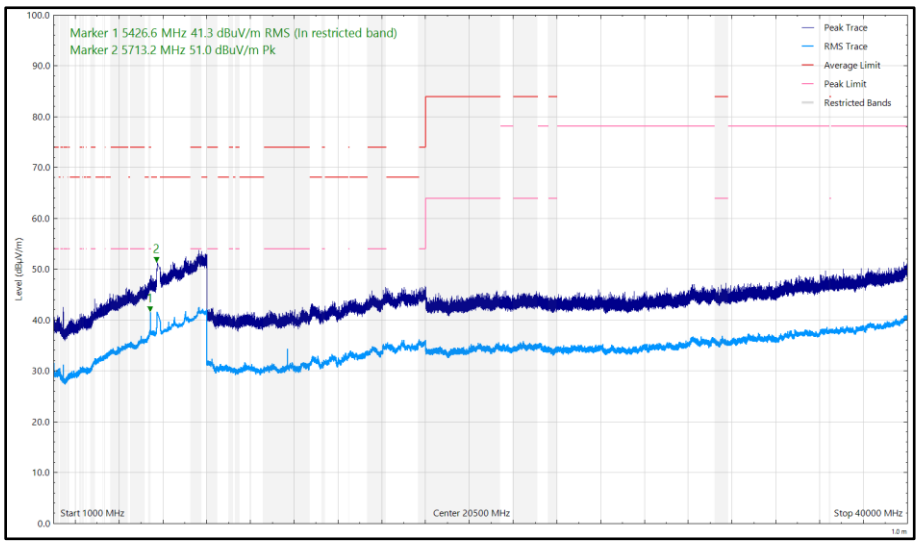


**Figure 272 - 5844 MHz, DH5, Core 0 - Core 1, iPA, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 5100.302 | 36.32 | 54.00 | -17.68 | RMS | 250 | 253 | Vertical |
| 5109.111 | 35.86 | 54.00 | -18.14 | RMS | 109 | 318 | Horizontal |
| 5368.582 | 37.42 | 54.00 | -16.58 | RMS | 120 | 158 | Vertical |
| 5425.229 | 36.96 | 54.00 | -17.04 | RMS | 215 | 341 | Horizontal |
| 5509.885 | 49.31 | 68.20 | -18.89 | Peak | 118 | 269 | Horizontal |
| 5592.115 | 51.86 | 68.20 | -16.34 | Peak | 121 | 262 | Vertical |

**Table 123 - 5162 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.

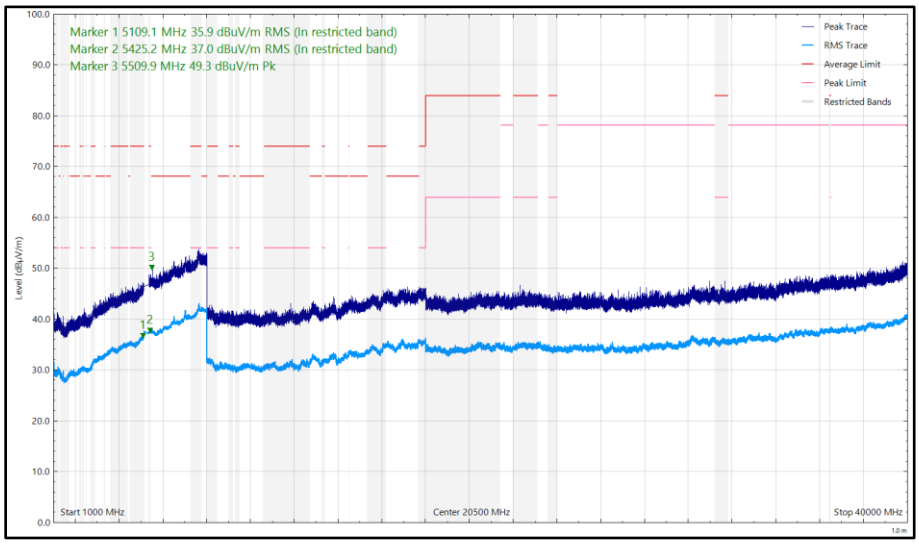


**Figure 273 - 5162 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

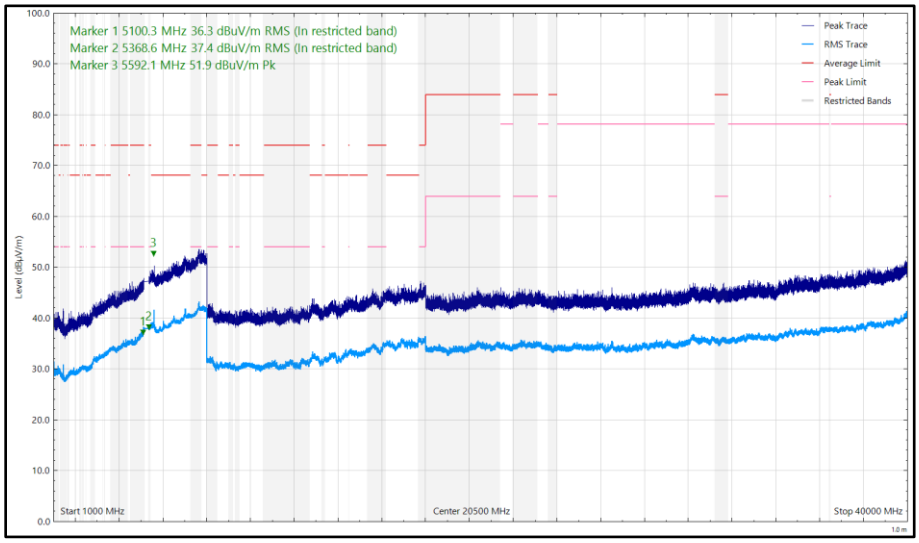


**Figure 274 - 5162 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 200.078 | 21.58 | 43.50 | -21.92 | Q-Peak | 254 | 106 | Vertical |
| 324.598 | 27.57 | 46.00 | -18.43 | Q-Peak | 23 | 106 | Horizontal |
| 5130.678 | 36.37 | 54.00 | -17.63 | RMS | 260 | 392 | Vertical |
| 5135.312 | 35.32 | 54.00 | -18.68 | RMS | 262 | 155 | Horizontal |
| 5360.282 | 36.76 | 54.00 | -17.24 | RMS | 112 | 128 | Horizontal |
| 5432.611 | 37.93 | 54.00 | -16.07 | RMS | 261 | 400 | Vertical |

**Table 124 - 5203 MHz, DH5, ePA, Core 0 - Core 1, 30 MHz to 40 GHz**

No other emissions found within 10 dB of the limit.

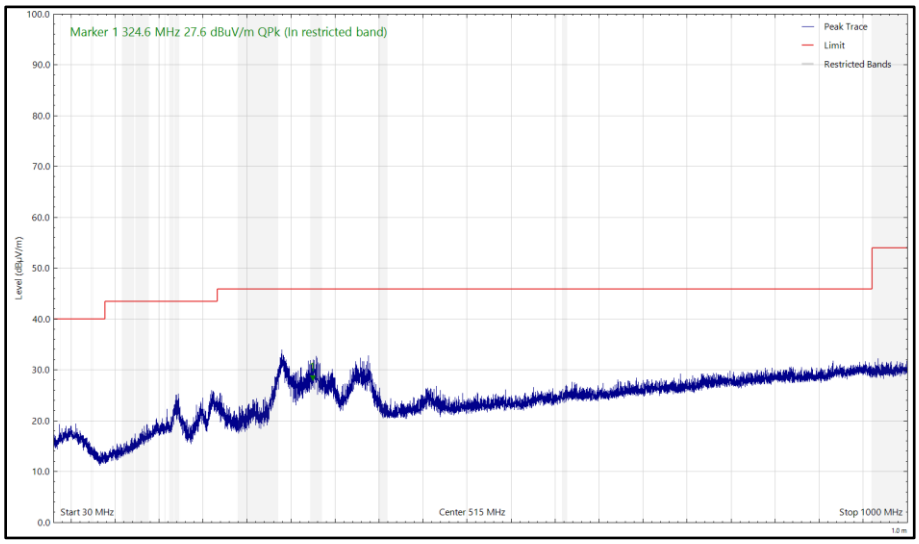


**Figure 275 - 5203 MHz, DH5, ePA, Core 0 - Core 1, 30 MHz to 1 GHz, Horizontal (Peak)**

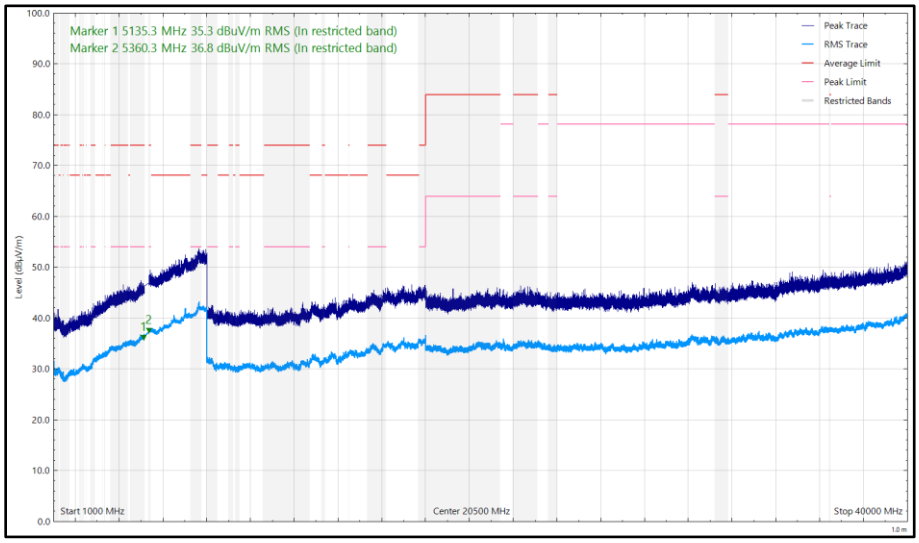


**Figure 276 - 5203 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

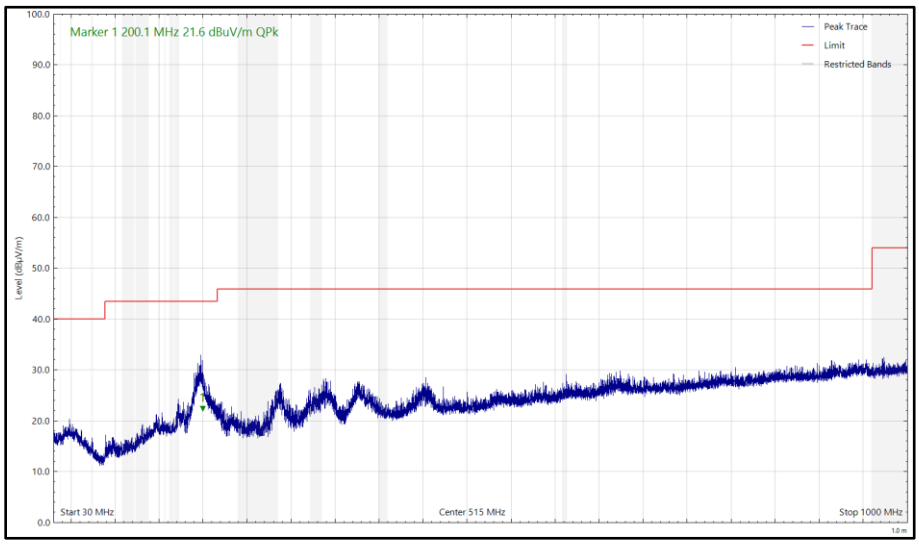


**Figure 277 - 5203 MHz, DH5, ePA, Core 0 - Core 1, 30 MHz to 1 GHz, Vertical (Peak)**

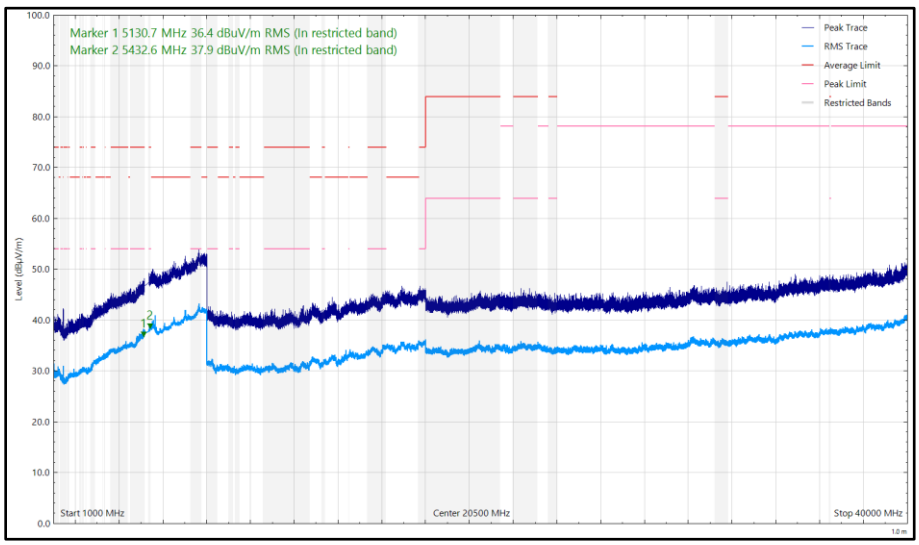


**Figure 278 - 5203 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 4807.995 | 37.62 | 54.00 | -16.38 | RMS | 291 | 112 | Vertical |
| 5149.615 | 35.45 | 54.00 | -18.55 | RMS | 135 | 110 | Horizontal |
| 5366.496 | 36.94 | 54.00 | -17.06 | RMS | 192 | 328 | Horizontal |
| 5393.996 | 37.65 | 54.00 | -16.35 | RMS | 240 | 292 | Vertical |

**Table 125 - 5245 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.

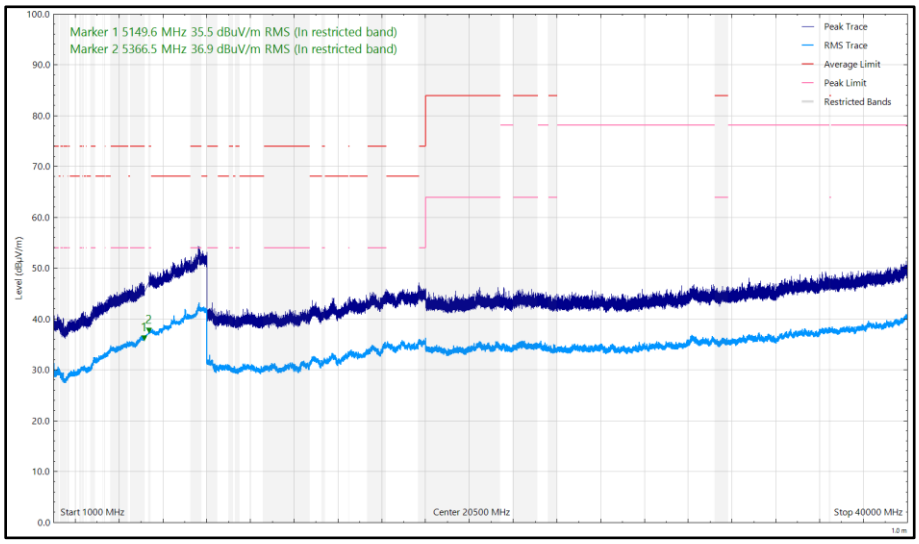


**Figure 279 - 5245 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

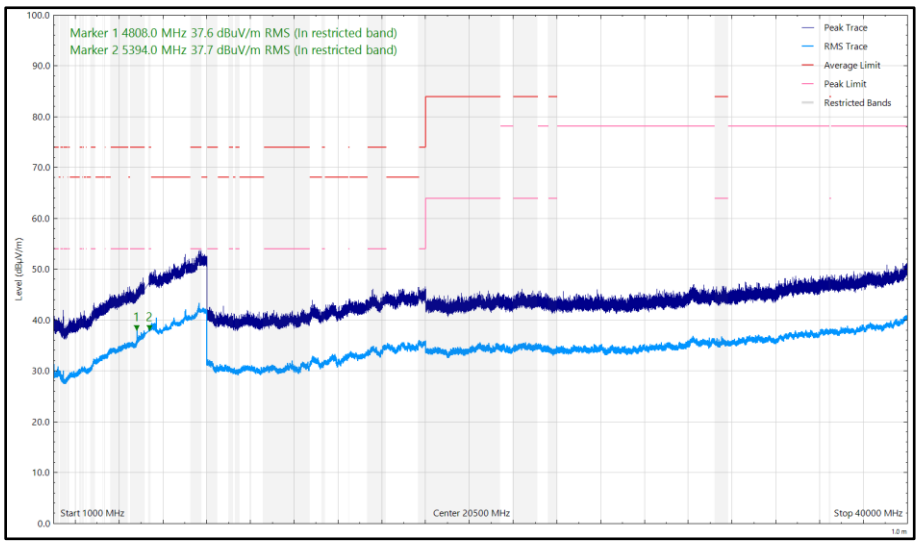


**Figure 280 - 5245 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 5323.728 | 53.19 | 68.20 | -15.01 | Peak | 112 | 103 | Vertical |
| 5419.652 | 36.65 | 54.00 | -17.35 | RMS | 63 | 118 | Horizontal |
| 5433.296 | 37.53 | 54.00 | -16.47 | RMS | 118 | 161 | Vertical |
| 5703.649 | 49.88 | 68.20 | -18.32 | Peak | 80 | 400 | Horizontal |

**Table 126 - 5733 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.

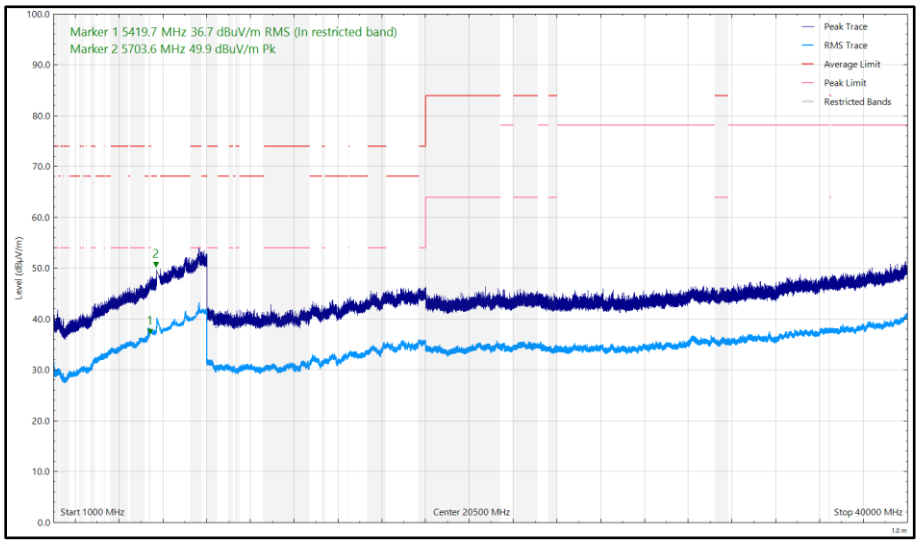


**Figure 281 - 5733 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

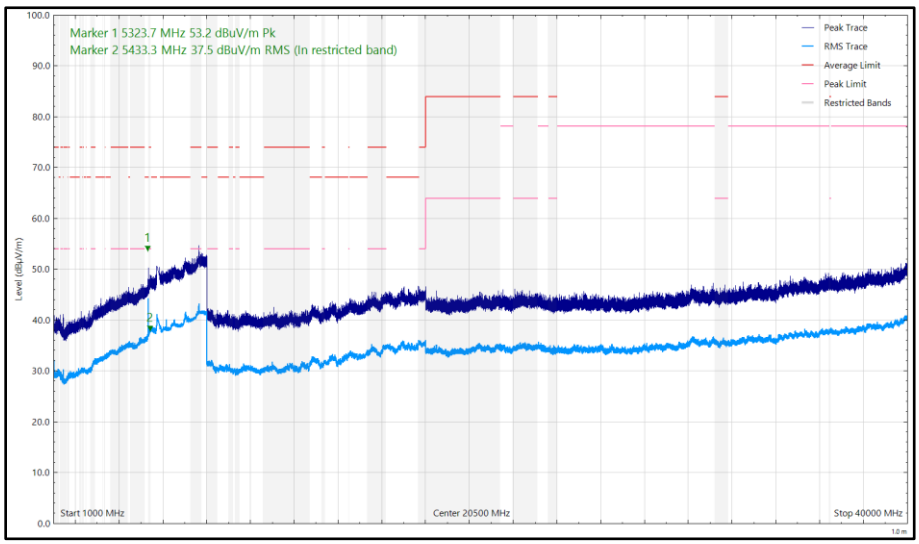


**Figure 282 - 5733 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 5374.485 | 36.78 | 54.00 | -17.22 | RMS | 108 | 248 | Horizontal |
| 5374.540 | 44.38 | 54.00 | -9.62 | RMS | 118 | 100 | Vertical |
| 5720.981 | 52.56 | 68.20 | -15.64 | Peak | 159 | 342 | Horizontal |
| 5723.621 | 53.49 | 68.20 | -14.71 | Peak | 263 | 100 | Vertical |

**Table 127 - 5788 MHz, DH5, ePA, Core 0 - Core 1, 30 MHz to 40 GHz**

No other emissions found within 10 dB of the limit.

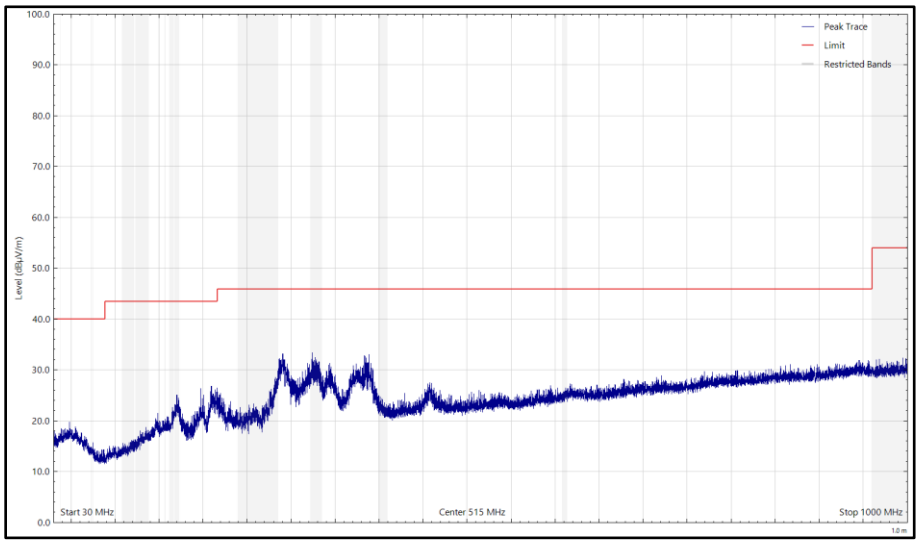


**Figure 283 - 5788 MHz, DH5, ePA, Core 0 - Core 1, 30 MHz to 1 GHz, Horizontal (Peak)**

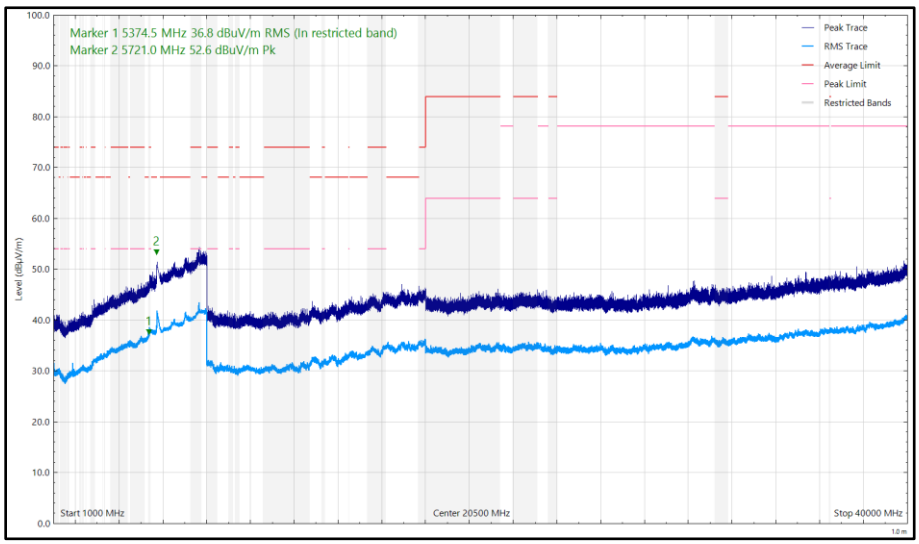


**Figure 284 - 5788 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

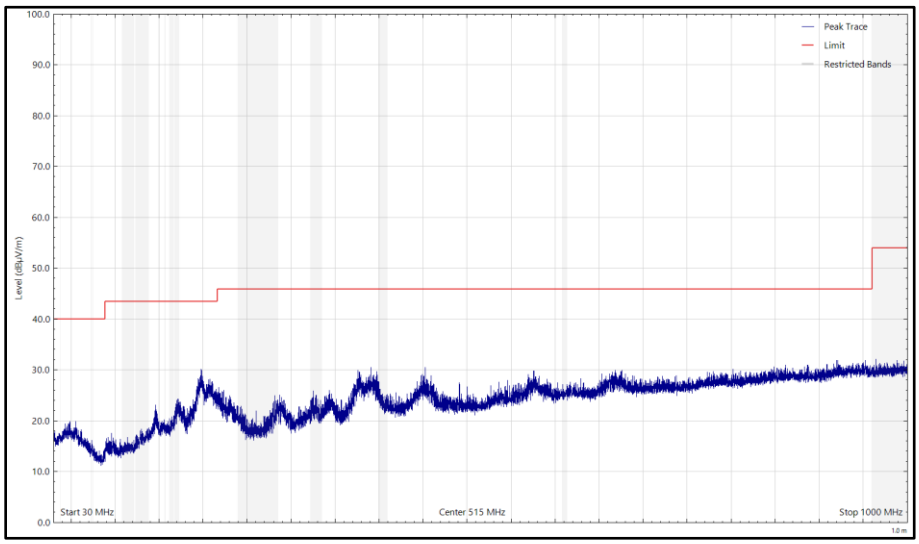


**Figure 285 - 5788 MHz, DH5, ePA, Core 0 - Core 1, 30 MHz to 1 GHz, Vertical (Peak)**

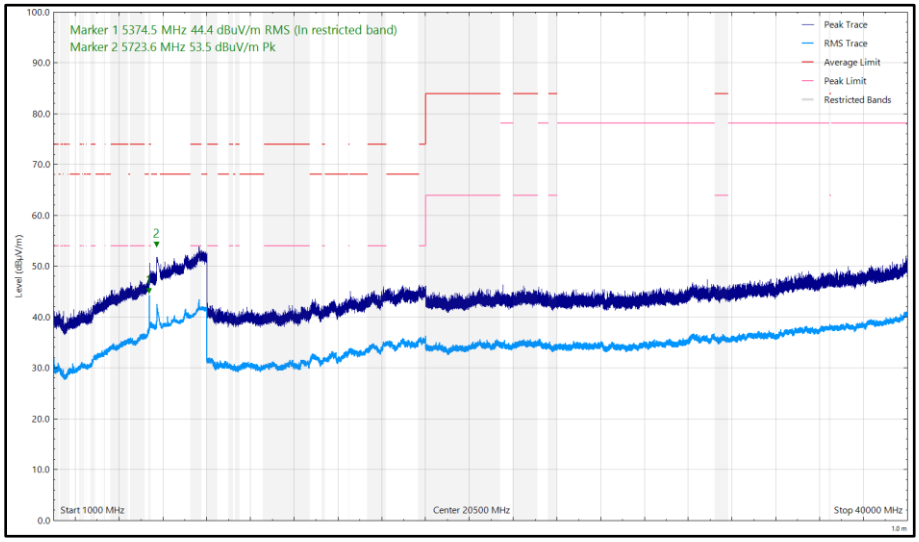


**Figure 286 - 5788 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector | Angle (°) | Height (cm) | Polarisation |
|---|---|---|---|---|---|---|---|
| 5426.610 | 46.21 | 54.00 | -7.79 | RMS | 108 | 110 | Vertical |
| 5431.870 | 36.90 | 54.00 | -17.10 | RMS | 92 | 393 | Horizontal |
| 5721.052 | 53.21 | 68.20 | -14.99 | Peak | 109 | 202 | Vertical |
| 5721.264 | 52.31 | 68.20 | -15.89 | Peak | 139 | 393 | Horizontal |

**Table 128 - 5844 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz**

No other emissions found within 10 dB of the limit.

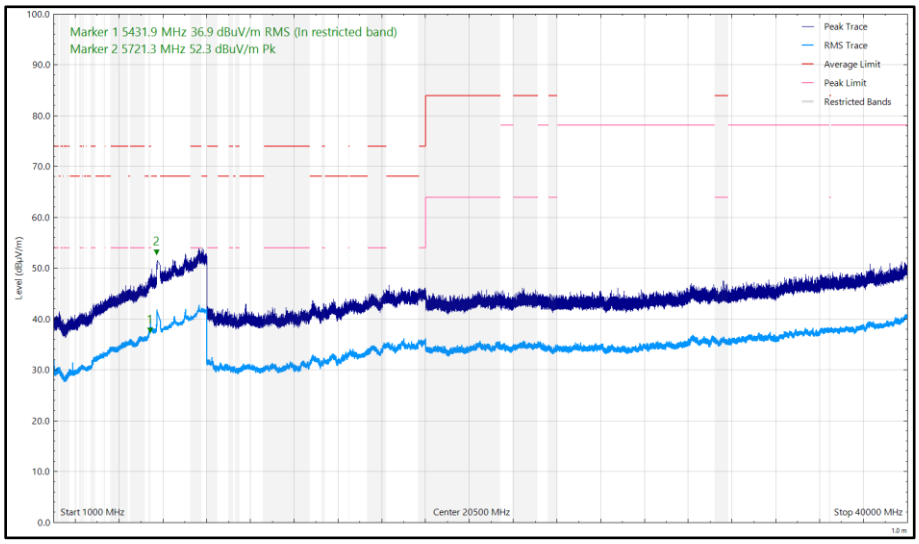


**Figure 287 - 5844 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Horizontal**

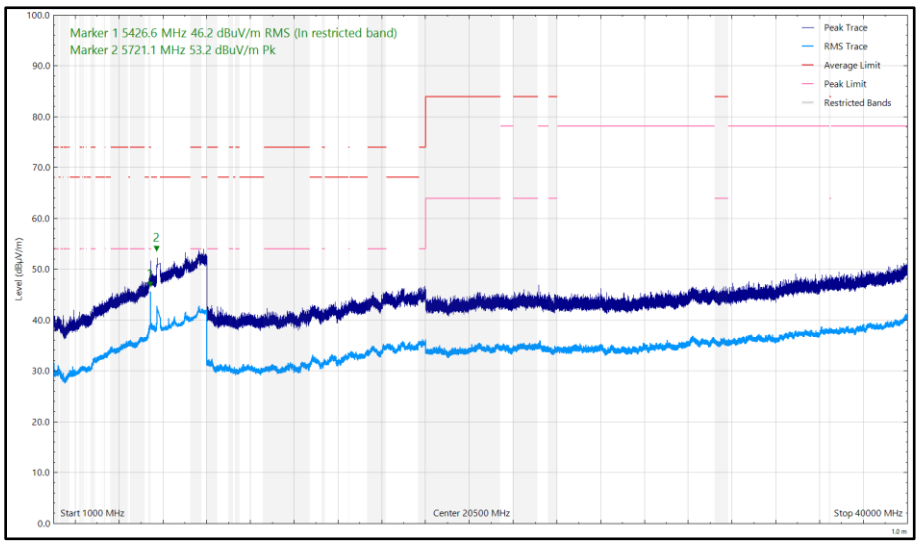


**Figure 288 - 5844 MHz, DH5, ePA, Core 0 - Core 1, 1 GHz to 40 GHz, Vertical**

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 (µV/m) at 3m | Field Strength Limit (dBµV/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 129 - 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 (µV/m) at 3m | Field Strength Limit (dBµV/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 130 - 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, RF Chamber 15, and RF Chamber 18.

| Instrument | Manufacturer | Type No. | TE No. | Calibration Period (months) | Calibration Expiry Date |
|---|---|---|---|---|---|
| Emissions Software | TUV SUD | EmX V3.2.0 | 5125 | - | Software |
| EMI Test Receiver | Rohde & Schwarz | ESW44 | 5912 | 12 | 05-Jul-2024 |
| Test Receiver | Rohde & Schwarz | ESW44 | 5914 | 12 | 24-May-2025 |
| DRG Horn Antenna (7.5-18GHz) | Schwarzbeck | HWRD750 | 5939 | 12 | 05-May-2025 |
| TRILOG Super Broadband Test Antenna | Schwarzbeck | VULB 9168 | 5944 | 24 | 24-May-2026 |
| 1500W (300V 12A) AC Power Supply | iTech | IT7324 | 5955 | - | O/P Mon |
| 1500W (300V 12A) AC Power Supply | iTech | IT7324 | 5956 | - | 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 |
| 5m Semi-Anechoic Chamber (Dual-Axis), Chamber 15 | Albatross Projects | RF Chamber 15 | 5963 | 36 | 28-Apr-2025 |
| Compact Antenna Mast | Maturo Gmbh | CAM4.0-P | 5964 | - | TU |
| Mast & Turntable Controller | Maturo Gmbh | FCU3.0 | 5966 | - | TU |
| Tilt Antenna Mast | Maturo Gmbh | BAM4.5-P | 5967 | - | TU |
| Turntable | Maturo Gmbh | TT1.5SI | 5968 | - | TU |
| Cable (SMA to SMA 1m) | Junkosha | MWX221-01000AMSAMS/A | 5997 | 12 | 14-Sep-2024 |
| Cable (SMA to SMA 4.5m) | Junkosha | MWX221-04500AMSAMS/A | 6002 | 12 | 14-Sep-2024 |
| Cable (N to N 8m) | Junkosha | MWX221-08000NMSNMS/A | 6017 | 12 | 14-Sep-2024 |
| Cable (SMA to SMA 3m) | Junkosha | MWX221-03000AMSAMS/A | 6021 | 12 | 14-Sep-2024 |
| Horn Antenna (1-10 GHz) | Schwarzbeck | BBHA9120B | 6140 | 12 | 05-May-2025 |
| Digital Multimeter | Fluke | 115 | 6145 | 12 | 15-Jun-2024* |
| Digital Multimeter | Fluke | 115 | 6145 | 12 | 06-Jun-2025* |
| Digital Multimeter | Fluke | 115 | 6147 | 12 | 16-Jun-2024* |
| Digital Multimeter | Fluke | 115 | 6147 | 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 |
| SAC Switch Unit | TUV SUD | TUV_SSU_001 | 6191 | 12 | 18-Dec-2024 |
| USB Spectrum Analyser | Signal Hound | SA124B | 6297 | - | TU |

| Instrument | Manufacturer | Type No. | TE No. | Calibration Period (months) | Calibration Expiry Date |
|---|---|---|---|---|---|
| USB Spectrum Analyser | Signal Hound | SA124B | 6298 | - | TU |
| Cable (SMA to SMA 3m) | Junkosha | MWX221-03000AMSAMS/A | 6316 | 12 | 04-Feb-2025 |
| Cable (K Type 2m) | Junkosha | MWX241-02000KMSKMS/B | 6323 | 12 | 04-Feb-2025 |
| EMC Test Receiver | Rohde & Schwarz | ESW44 | 6333 | 12 | 16-Feb-2025 |
| Humidity and Temperature Meter | R.S Components | 1364 | 6346 | 12 | 06-Mar-2025 |
| 8 GHz High Pass Filter | Wainwright | WHKX 7150 8000 18000 50SS | 6427 | 12 | 23-Apr-2025 |
| 3m Semi-Anechoic Chamber , Chamber18 | Albatross Projects | Chamber 18 | 6597 | 36 | 07-Feb-2026 |
| AC Power Supply | iTech | IT7324 | 6657 | - | O/P Mon |
| 1m Cable | Junkosha | MWX241-01000AMSAMS/B | 6740 | 12 | 01-Feb-2025 |
| 1m Cable | Junkosha | MWX241-01000AMSAMS/B | 6741 | 12 | 01-Feb-2025 |
| 6.5m Cable | Junkosha | MWX221-06500AMSAMS/B | 6744 | 12 | 01-Feb-2025 |
| Double Ridge Active Horn Antenna (18-40 GHz | Com-Power | AHA-840 | 6771 | 24 | 17-Jan-2025 |
| Pre Amp 8 - 18 GHz | Wright Technologies | APS06-0061 | 6783 | 12 | 23-Apr-2025 |
| Mast & Turntable Controller | Maturo Gmbh | FCU3.0 | 6795 | - | TU |
| Tilt Antenna Mast | Maturo Gmbh | BAM4.5-P | 6796 | - | TU |
| Turntable | Maturo Gmbh | TT1.5SI | 6797 | - | TU |

**Table 131**

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

*NOTE: Only used within calibration period.

# 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 | ± 136.57 kHz |
| 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 |

**Table 132**

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.