

FCC and ISED Test Report

Apple Inc
Model: A3428



In accordance with FCC 47 CFR Part 15E,
ISED RSS-247 and ISED RSS-GEN
(5 GHz WLAN)

Prepared for: Apple Inc
One Apple Park Way
Cupertino
California
95014
USA

TUV SUD
SERVICES
(UK) LIMITED
Digitally signed by
TUV SUD SERVICES
(UK) LIMITED
Date: 2026.02.10
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SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
James O'Reilly	RF Engineer	Authorised Signatory	10 February 2026

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC 47 CFR Part 15E, ISED RSS-247 and ISED RSS-GEN. The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Report Generation	George Capps	10 February 2026	

FCC Accreditation
553713/UK2026 Concorde Park, Fareham Test Laboratory

ISED Accreditation
28798/UK0003 Concorde Park, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15E: 2023, ISED RSS-247: Issue 4 (2025-07) and ISED RSS-GEN: Issue 5 (2018-04) + A2 (2021-02) for the tests detailed in section 1.3.



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TÜV SÜD
is a trading name of TÜV SÜD Ltd
Registered in Scotland at East Kilbride,
Glasgow G75 0QF, United Kingdom
Registered number: SC215164

TÜV SÜD Ltd is a
TÜV SÜD Group Company

Phone: +44 (0) 1489 558100
Fax: +44 (0) 1489 558101
www.tuvsud.com/en

TÜV SÜD
Octagon House
Concorde Way
Fareham
Hampshire PO15 5RL
United Kingdom

TÜV SÜD

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1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
1	First Issue	10 February 2026

Table 1

1.2 Introduction

Applicant	Apple Inc
Manufacturer	Apple Inc
EUT/Sample Identification	Refer to section 1.6
Test Specification/Issue/Date	FCC 47 CFR Part 15E: 2023 ISED RSS-247: Issue 4 (2025-07) ISED RSS-GEN: Issue 5 (2018-04) + A2 (2021-02)
Start of Test	17-October-2025
Finish of Test	23-January-2026
Name of Engineer(s)	Tony Baby, Ahmed Al Derdiri, Nathan Ocom, Ian Broomhall, Colin Brain, Gridi Bilali, Zeeshan Zia, Ian Hart, Marius Vasii, Ioan-Alexandru Bogatu, Dulanjan Witharamalage, Arjun Sasikumar, Obinna Eze, Morsalin Hossain, Manohar Thota, Babitha Babu.
Related Document(s)	ANSI C63.4 (2014) ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024 KDB 662911 D01 v02r01 KDB 789033 D02 v02r01 KDB 905462 D02 v02 KDB 905462 D03 v01r02



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15E, ISSED RSS-247 and ISSED RSS-GEN is shown below.

Section	Specification Clause			Test Description	Result	Comments/Base Standard
	Part 15E	RSS-247	RSS-GEN			
Configuration and Mode: 5 GHz WLAN						
-	15.203	-	-	Antenna Requirement	N/T	The device complies with the provisions of this section, as it uses permanently attached integral antennas.
2.1	15.407 (h)(2)(iii)(iv)	Clause 7.3.6.3	-	Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period	Pass	KDB 905462 D02 v02 KDB 905462 D03 v01r02
2.2	15.209 and 15.407 (b)	7.3	6.13 and 8.9	Spurious Radiated Emissions	Pass	ANSI C63.4 (2014) ANSI C63.10 (2020) +Cor.1-2023+C63.10a-2024
2.3	15.407 (b)	7.3	-	Authorised Band Edges	Pass	ANSI C63.10 (2020) +Cor.1-2023+C63.10a-2024
2.4	15.407 (a)	7.3	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10 (2020) +Cor.1-2023+C63.10a-2024 KDB 662911 D01 v02r01
2.5	15.407 (a)	7.3	-	Maximum Conducted Output Power	Pass	ANSI C63.10 (2020) +Cor.1-2023+C63.10a-2024 KDB 662911 D01 v02r01
2.6	15.407 (a)	7.3	-	Emission Bandwidth	Pass	ANSI C63.10 (2020) +Cor.1-2023+C63.10a-2024
2.7	15.205	2.4	8.10	Restricted Band Edges	Pass	ANSI C63.10 (2020) +Cor.1-2023+C63.10a-2024

Table 2



1.4 Product Information

1.4.1 Technical Description

The equipment under test (EUT) was a portable laptop computer.

1.4.2 Test Modes

The EUT's 5 GHz 802.11 radio supports SISO (Single Input/Single Output) and 2x2 MIMO (Multiple Input/Multiple Output) modes. 802.11n supports 20 MHz and 40 MHz bandwidths, 802.11a/ac/ax/be support 20 MHz, 40 MHz, 80MHz and 160 MHz bandwidths.

802.11a mode supports SISO and Cyclic Delay Diversity (CDD) operation only. 802.11n/ac/ax/be supports SISO, CDD, Space Division Multiplexing (SDM), Space Time Block Coding (STBC) and Transmit Beamforming (TxBF) modes. The EUT supports 802.11ax/be Single User (SU) and Multi-User (MU) with all Resource Unit (RU) sizes from 26 subcarriers, up to the maximum allowed dependent on channel bandwidth, other than from 5250-5350 MHz and 5470-5725 MHz where RU-26 is not supported. 802.11be additionally supports 52+26 and 106+26 Multiple Resource Unit (MRU) modes and channel punctured modes with 484+242, 996+484, and 996+484+242 RUs.

The EUT uses different output powers per core dependent on how many cores are used. The EUT also uses different power tables for different MIMO modes to compensate for whether the spatial streams are correlated, uncorrelated, or intentionally beamformed. It uses the same conducted power across all cores in any given mode, but due to the different antenna gains, the radiated powers per core differ.

US and CA country codes change the power table used for U-NII band 1. Therefore U-NII-1 channels were tested using both power settings for each country's respective limits.

Band edge testing was performed in all modes with multiple modulation types, with only the worst-case reported. After band edge and additional preliminary investigations were performed to find worst-case operation, the EUT was tested in the following supported transmit modes:

SISO Modes (Core 0, Core 1):

- 802.11a - 12 Mbps
- 802.11a40 - 12 Mbps
- 802.11a80 - 12 Mbps
- 802.11a160 - 12 Mbps
- 802.11n HT20 - MCS2
- 802.11n HT40 - MCS2
- 802.11ac VHT80 - MCS2x1
- 802.11ac VHT160 - MCS2x1
- 802.11ax HE20 SU - MCS2x1
- 802.11ax HE40 SU - MCS2x1
- 802.11ax HE80 SU - MCS2x1
- 802.11ax HE160 SU - MCS2x1
- 802.11ax HE20 MU RU26/52/106 - MCS2x1
- 802.11be EHT20 MU RU52+26/106+26 - MCS2x1
- 802.11be EHT80 MU RU484+242 - MCS2x1
- 802.11be EHT160 MU RU996+484/996+484+242 - MCS2x1

2x2 MIMO Modes (Core 0 + Core 1):

- 802.11a - CDD - 12 Mbps
- 802.11a40 - CDD - 12 Mbps



- 802.11a80 - CDD - 12 Mbps
- 802.11a160 - CDD - 12 Mbps
- 802.11n/ac (V)HT20 - CDD (MCS2), SDM (MCS10) and TxBF (MCS2x1)
- 802.11n/ac (V)HT40 - CDD (MCS2), SDM (MCS10) and TxBF (MCS2x1)
- 802.11ac VHT80 - CDD (MCS2x1), SDM (MCS2x2) and TxBF (MCS2x1)
- 802.11ac VHT160 - CDD (MCS2x1), SDM (MCS2x2) and TxBF (MCS2x1)
- 802.11ax HE20 SU - CDD (MCS2x1), SDM (MCS2x2) and TxBF (MCS2x1)
- 802.11ax HE40 SU - CDD (MCS2x1), SDM (MCS2x2) and TxBF (MCS2x1)
- 802.11ax HE80 SU - CDD (MCS2x1), SDM (MCS2x2) and TxBF (MCS2x1)
- 802.11ax HE160 SU - CDD (MCS2x1), SDM (MCS2x2) and TxBF (MCS2x1)
- 802.11ax HE20 MU RU26/52/106 - CDD - MCS2x1
- 802.11be EHT20 MU RU52+26/106+26 - CDD - MCS2x1
- 802.11be EHT80 MU RU484+242 - CDD - MCS2x1
- 802.11be EHT160 MU RU996+484/996+484+242 - CDD - MCS2x1

Note: The RU offset for bottom and middle channels were placed in the lowest position and on the top channel, the offset was placed in the upper most position. HT (802.11n) modes were used for CDD and SDM. VHT (802.11ac) modes were used for TxBF.

1.4.3 Test Setup

For conducted tests the EUT antennas were disconnected and replaced with U.FL to SMA test cables to enable conducted testing on each core. The loss of these test cables were known and compensated for in any conducted measurements.

For all testing except DFS the EUT was put into a continuous transmit test mode with the chipset manufacturer's test commands. The EUT then transmitted the required type of packeted 802.11 data frames of fixed length, containing the standard headers and with pseudo-random data content, ensuring the measured signals were representative and contained all the symbols at the highest power control level.

The test setup used for DFS is described in the test result section of the present document.

All testing was performed with the EUT powered via a 120 V AC, 60 Hz source.

1.4.4 Antenna Gain Table

Antenna Port	Frequency Range (MHz)	Peak Gain (dBi)	Conducted Cable Loss (dB)
Core 0 (WF1)	5150 to 5250	4.3	1.07
	5250 to 5350	5.7	1.07
	5470 to 5725	4.6	1.18
	5725 to 5850	3.0	1.15
Core 1 (WF2)	5150 to 5250	6.0	1.07
	5250 to 5350	6.1	1.07
	5470 to 5725	5.5	1.18
	5725 to 5850	5.5	1.15

1.5 Deviations from the Standard

No deviations from the applicable test standard were made during testing.



1.6 Identification of the EUT

The table below details identification of the EUT(s) that have been used to carry out the testing within this report.

Model: A3428		
Serial Number	Hardware Version	Software Version
FF9MP4FP2G	REV1.0	25D36
GJM3XKXYGQ	REV1.0	25D36
F2H34JK2NG	REV1.0	25D46
GT6RH79JJQ	REV1.0	25D36
L61HW7H962	REV1.0	25D43
J6NX2X6RCP	REV1.0	25D36
G9F4Y6NJ31	REV1.0	25D36
DJQ7J7L5JK	REV1.0	25D36

Table 3

1.7 EUT Modification Record

The table below details modifications made to the EUT during the test programme.

The modifications incorporated during each test are recorded on the appropriate test pages.

Modification State	Description of Modification still fitted to EUT	Modification Fitted By	Date Modification Fitted
Model: A3428, Serial Number: FF9MP4FP2G			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3428, Serial Number: GJM3XKXYGQ			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3428, Serial Number: J6NX2X6RCP			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3428, Serial Number: GT6RH79JJQ			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3428, Serial Number: L61HW7H962			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3428, Serial Number: G9F4Y6NJ31			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3428, Serial Number: DJQ7J7L5JK			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3428, Serial Number: F2H34JK2NG			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 4



1.8 Test Location

TÜV SÜD conducted the following tests at our Concorde Park Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: 5 GHz WLAN		
Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period	Babitha Babu	UKAS
Spurious Radiated Emissions	Morsalin Hossain, Gridi Bilali, Manohar Thota, Dulanjan Witharamalage	UKAS
Authorised Band Edges	Tony Baby, Ahmed Al Derdiri, Nathan Ocom, Ian Broomhall, Colin Brain, Gridi Bilali, Zeeshan Zia, Ian Hart, Marius Vasii, Ioan-Alexandru Bogatu, Dulanjan Witharamalage	UKAS
Maximum Conducted Power Spectral Density	Arjun Sasikumar, Obinna Eze	UKAS
Maximum Conducted Output Power	Arjun Sasikumar, Obinna Eze	UKAS
Emission Bandwidth	Arjun Sasikumar	UKAS
Restricted Band Edges	Tony Baby, Ahmed Al Derdiri, Nathan Ocom, Ian Broomhall, Colin Brain, Gridi Bilali, Zeeshan Zia, Ian Hart, Marius Vasii, Ioan-Alexandru Bogatu, Dulanjan Witharamalage	UKAS
Configuration and Mode: 5 GHz WLAN Client to Client		
Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period	Babitha Babu	UKAS

Table 5

Office Address:

TÜV SÜD
Concorde Park
Concorde Way
Fareham
Hampshire
PO15 5FG
United Kingdom



2 Test Details

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

2.1.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (h)(2)(iii)(iv)
ISED RSS-247, Clause 7.3.6.3(c)(d)(e)

2.1.2 Equipment Under Test and Modification State

A3428, S/N: F2H34JK2NG - Modification State 0

2.1.3 Date of Test

21-January-2026

2.1.4 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.

2.1.5 Environmental Conditions

Ambient Temperature 21.7 °C

Relative Humidity 52.1 %

2.1.6 Test Results

5 GHz WLAN

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 (μ s)	PRI (μ s)	Number of Pulses
0	1	1428	18

Table 6 - Radar Pulse Type 0 Characteristics

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

Table 7 - Details of Master Device used to support testing

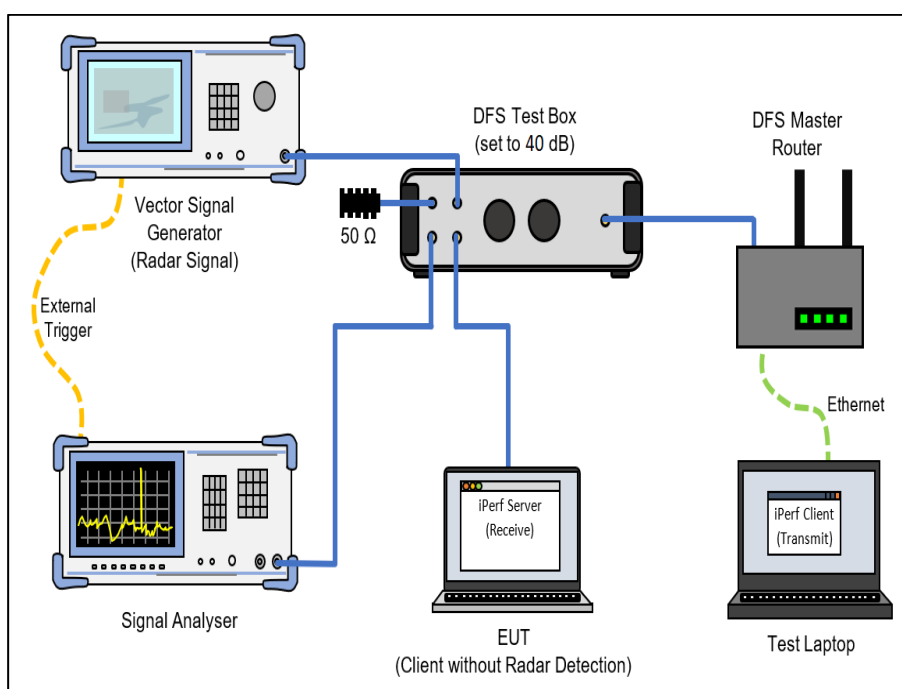


Figure 1 - Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master

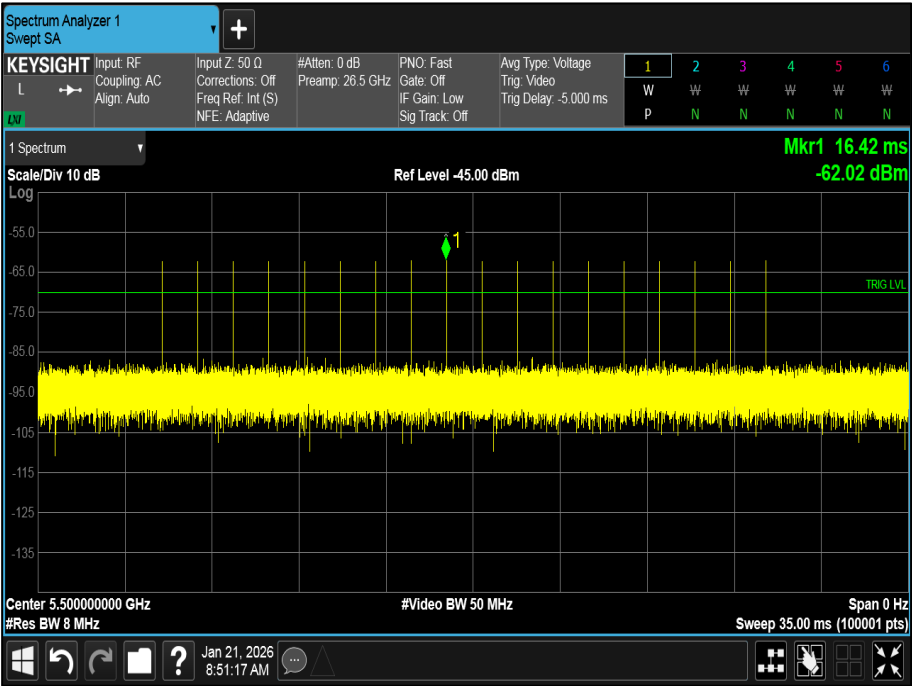


Figure 2 - Verification of Radar Type 0

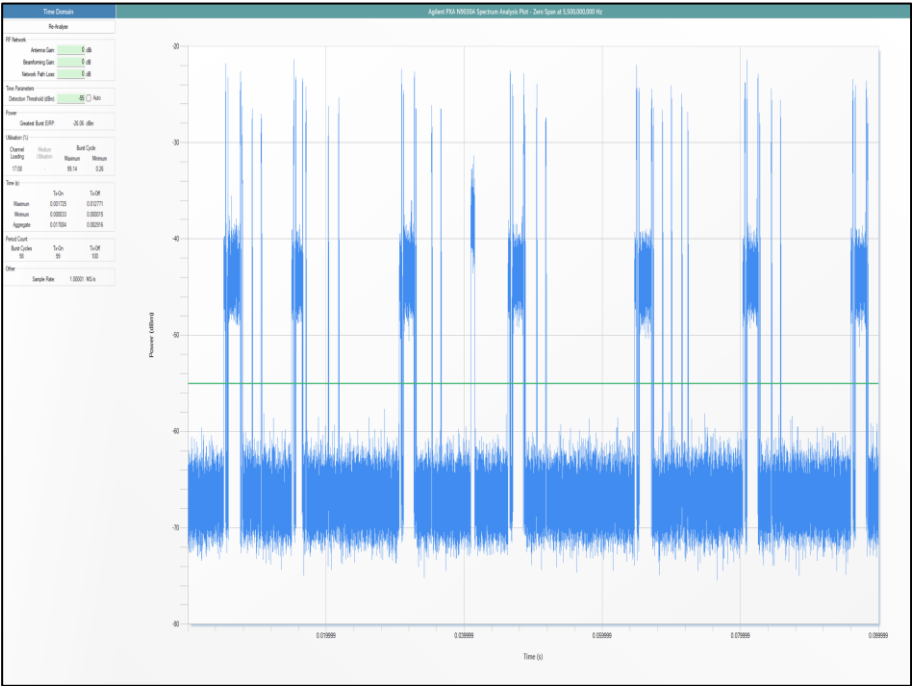


Figure 3 - Channel Loading

The channel loading was 17.08%



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 8 - 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	0.777 secs
Channel Closing Time (Aggregate Time During 200 ms)	1.200 ms
Channel Closing Time (Aggregate Time During 200 ms to 10 s)	2.040 ms
Channel Closing Time (Aggregate Time During 10 s)	3.240 ms
Transmission Observed During Non-Occupancy Period	No

Table 9 - In-Service Monitoring Test Results

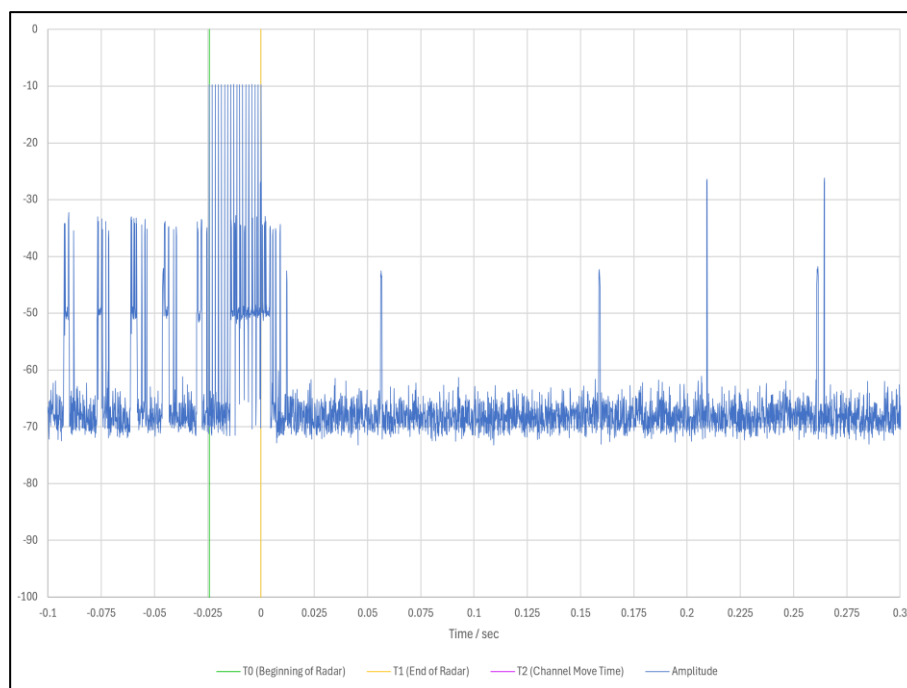


Figure 4 - First 200 ms of Channel Shutdown Period

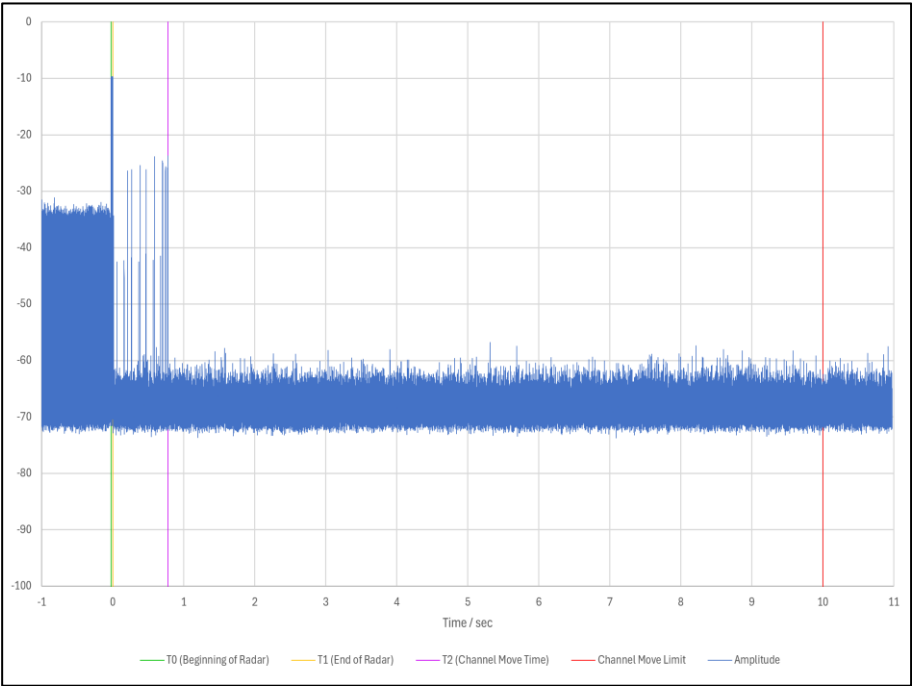


Figure 5 - First 12 s of Channel Shutdown Period

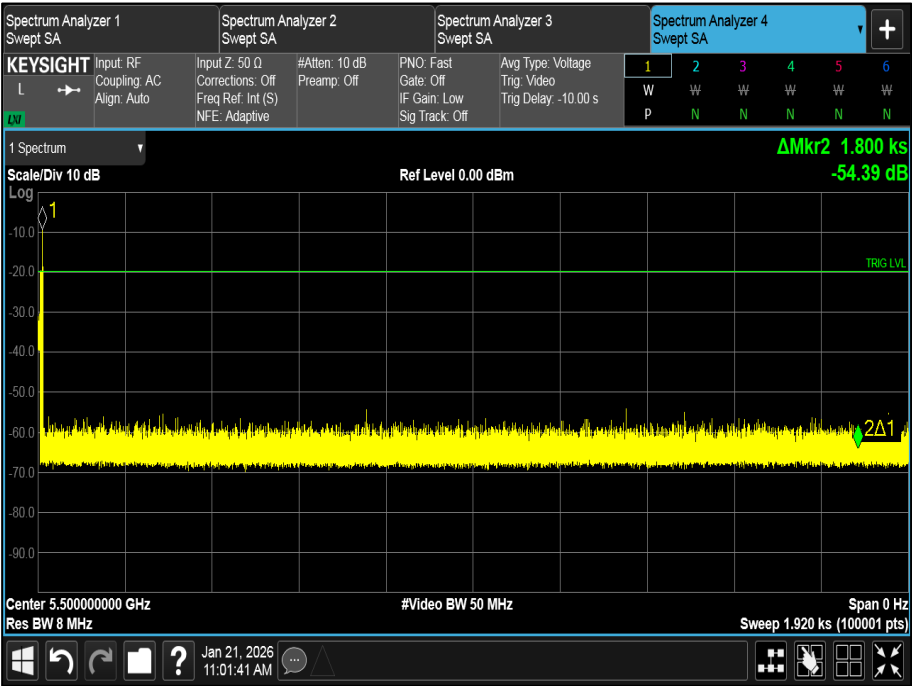


Figure 6 - 30 minute Non-Occupancy Period



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: 802.11ac VHT80.

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 10 - Radar Pulse Type 0 Characteristics

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

Table 11 - Details of Master Device used to support testing

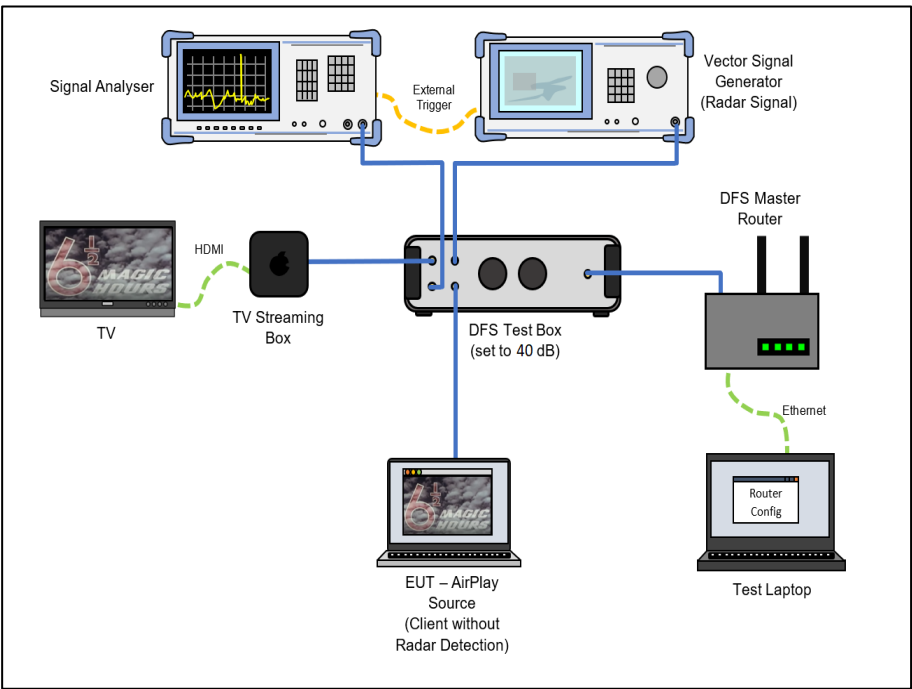


Figure 7 - Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master

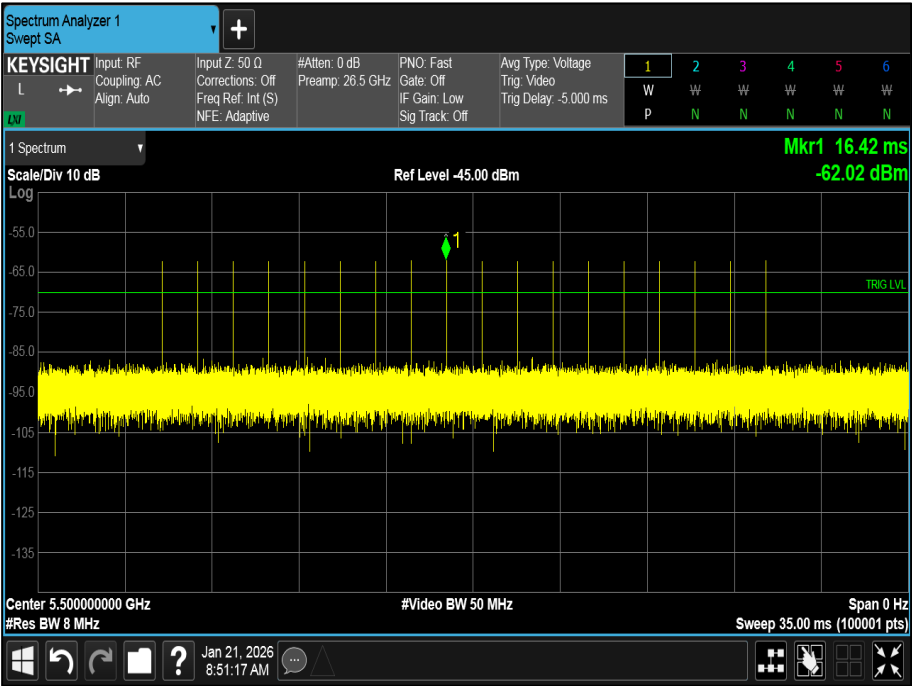


Figure 8 - Verification of Radar Type 0

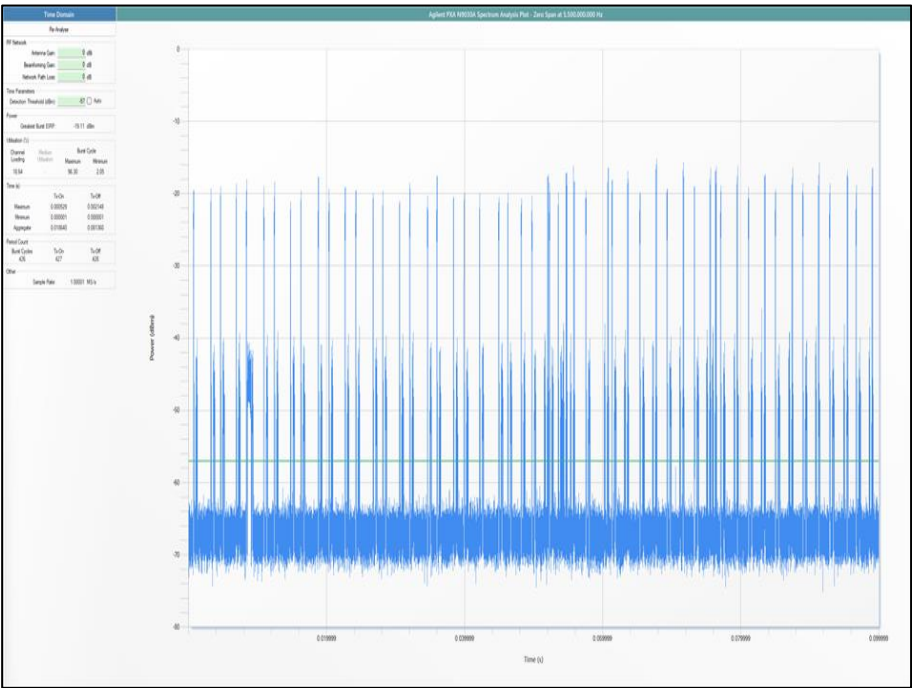


Figure 9 - Channel Loading

The channel loading was 18.64%

- Test Setup Photograph



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 12 - DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Test Parameter	Result
Test Channel	CH106 (5530 MHz), Control CH100(5500 MHz)
Channel Move Time	0.028 secs
Channel Closing Time (Aggregate Time During 200 ms)	2.520 ms
Channel Closing Time (Aggregate Time During 200 ms to 10 s)	0.000 ms
Channel Closing Time (Aggregate Time During 10 s)	2.520 ms
Transmission Observed During Non-Occupancy Period	No

Table 13 - In-Service Monitoring Test Results

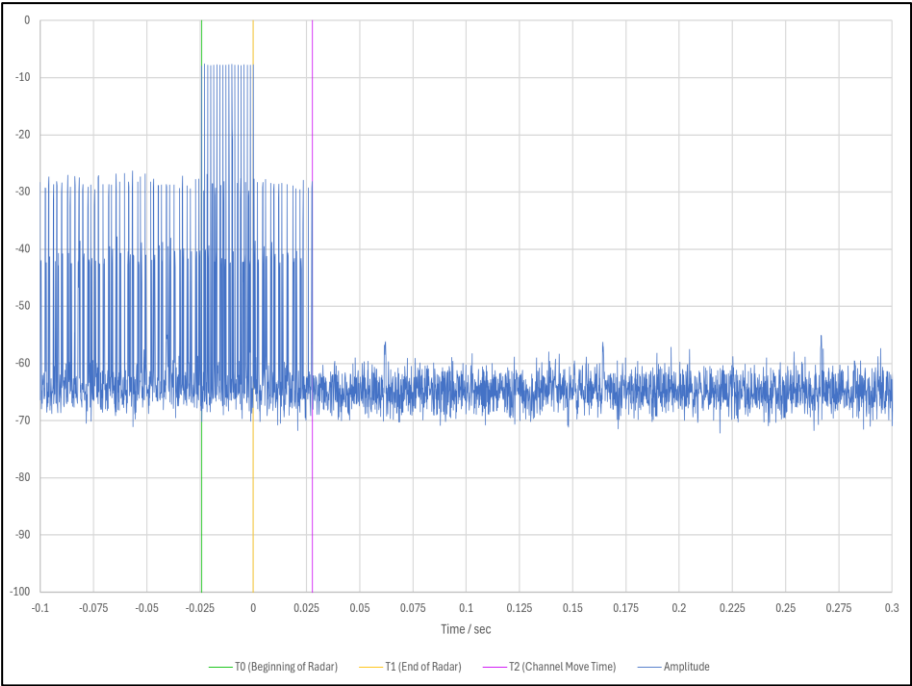


Figure 10 - First 200 ms of Channel Shutdown Period

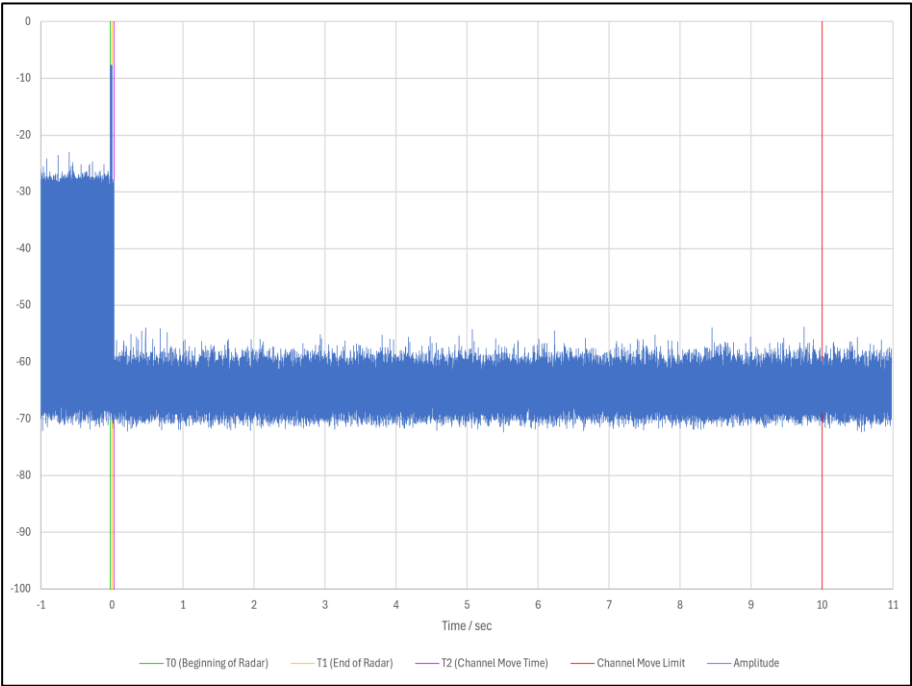


Figure 11 - First 12 s of Channel Shutdown Period

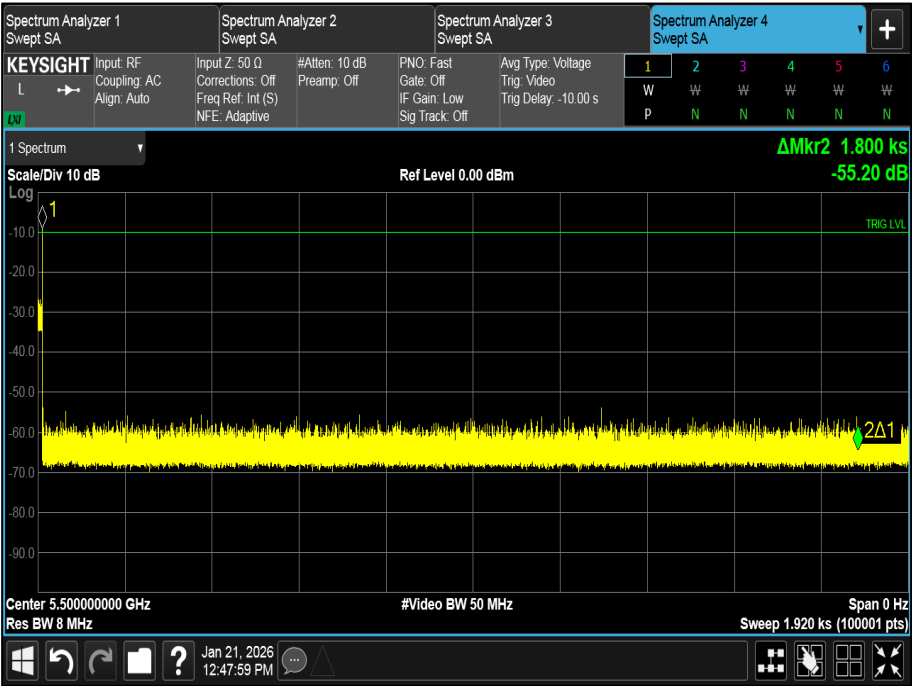


Figure 12 - 30 minute Non-Occupancy Period



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 14 - 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 15 - Non-Occupancy Limit

ISED RSS-247, Limit Clause 7.3.6.3

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 7.3.6.2 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.



2.1.7 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
Power splitter - 2 port	Mini-Circuits	ZN2PD-63-S+	4743	12	31-Aug-2026
EXA Signal Analyser	Keysight Technologies	N9010B	4968	24	29-Jan-2026
Cable 2.92mm 1m	Junkosha	MWX241-01000KMS	5414	12	15-Aug-2026
3.5 mm 2m Cable	Junkosha	MWX221-02000DMS	5426	12	23-May-2026
3.5mm Cable (1m)	Junkosha	MWX221/B	5838	12	15-Aug-2026
Vector Signal Generator	Rohde & Schwarz	SMM100A	5915	36	1-Mar-2026
WiFi 6E Tri-Band Gaming Router	Asus	GT-AXE110000	5926	-	TU
Coaxial Fixed Attenuator DC-18GHz 5W 10dB	RF-Lambda	RFS5G18B10SMP	6176	12	09-Oct-2026
1m Coaxial Cable Assy	Junkosha	MWX221-01000AMSAMS/A	6356	12	23-May-2026
1m Coaxial Cable Assy	Junkosha	MWX221-01000AMSAMS/A	6374	12	23-May-2026
Test Coupling Network	TUV SUD	TUV_RxTest_001	6387	12	05-Dec-2026
Humidity & Temperature meter	Fluke	971	7102	12	05-Aug-2026

Table 16

TU - Traceability Unscheduled



2.2 Spurious Radiated Emissions

2.2.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.209 and 15.407 (b)
ISED RSS-247, Clause 7.3
ISED RSS-GEN, Clause 6.13 and 8.9

2.2.2 Equipment Under Test and Modification State

A3428, S/N: FF9MP4FP2G - Modification State 0
A3428, S/N: GJM3XKXYGQ - Modification State 0

2.2.3 Date of Test

16-December-2025 to 20-December-2025

2.2.4 Test Method

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

Measurements were undertaken from 30 MHz to 40 GHz on Channel 36 (5180 MHz) and Channel 165 (5825 MHz).

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

All testing was performed using the lowest data rate/modulation scheme for the applicable mode since this was declared worst case by the customer.

Plots for average measurements were taken in accordance with ANSI C63.10, clause 12.7.7.2 with max-hold trace to characterize the EUT. Where emissions were detected, final average measurements were taken using trace averaging.

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 10dB 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 dBuV/m to uV/m:
 $10^{(\text{Field Strength in dBuV/m}/20)}$

EIRP was converted to field strength at 3m using the following formula:
 $\text{Field Strength (dBuV/m at 3 m)} = \text{EIRP (dBm)} + 95.2 \text{ dB}$

2.2.5 Test Setup Diagram

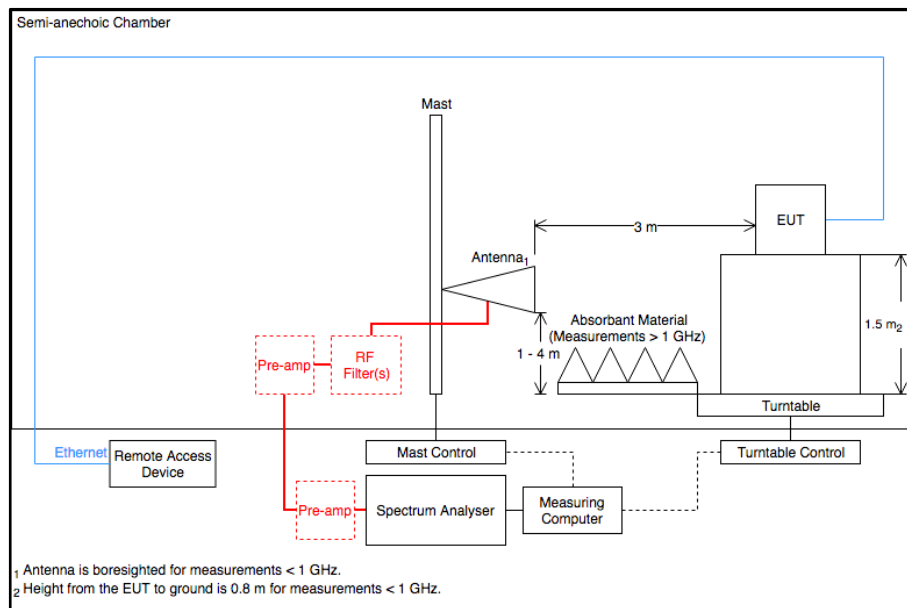


Figure 13 - Radiated Emissions Test Setup Diagram

2.2.6 Environmental Conditions

Ambient Temperature	22.6 - 24.7 °C
Relative Humidity	24.7 - 48.9 %

2.2.7 Test Results

5 GHz WLAN

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5092.703	55.29	74.00	-18.71	Peak	6	322	Vertical
5109.068	40.54	54.00	-13.46	RMS	68	390	Horizontal
5109.919	44.45	54.00	-9.55	RMS	4	322	Vertical
5350.910	41.80	54.00	-12.20	RMS	68	389	Horizontal
5357.637	53.28	74.00	-20.72	Peak	75	335	Horizontal
5385.430	57.13	74.00	-16.87	Peak	357	263	Vertical
5417.971	44.21	54.00	-9.79	RMS	0	282	Vertical
5465.965	56.26	68.20	-11.94	Peak	355	283	Vertical
5496.366	53.12	68.20	-15.08	Peak	75	355	Horizontal

Table 17 - 5180 MHz (CH36), a, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

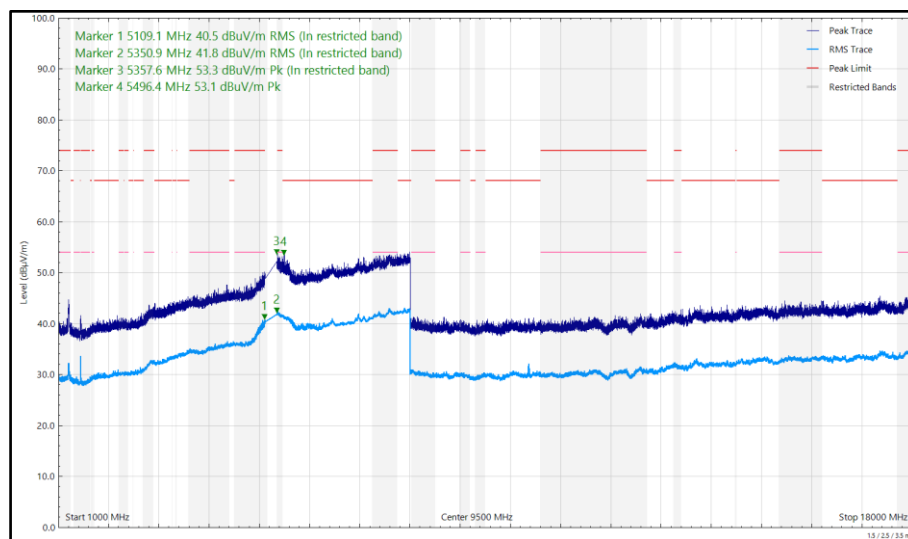


Figure 14 - 5180 MHz (CH36), a, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

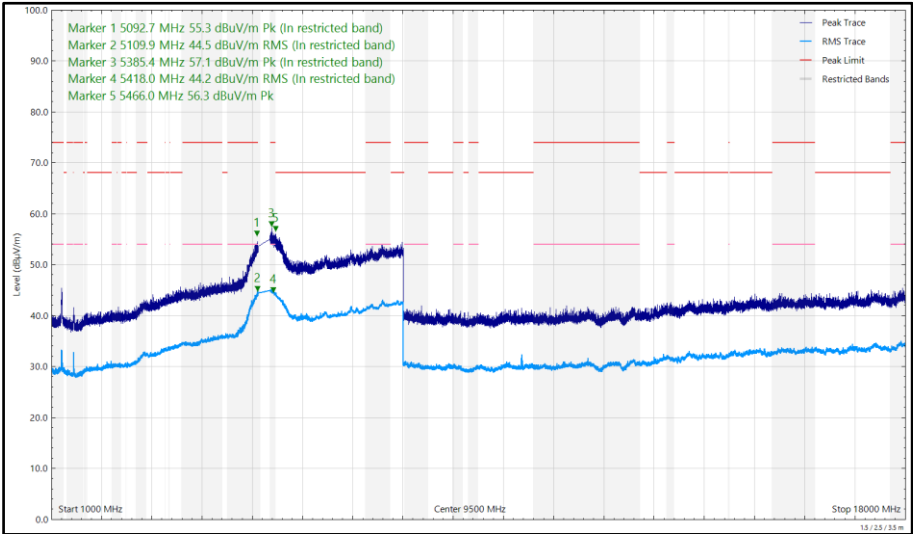


Figure 15 - 5180 MHz (CH36), a, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5446.575	42.98	54.00	-11.02	RMS	70	362	Horizontal
5454.796	57.24	74.00	-16.76	Peak	0	267	Vertical
5455.047	45.80	54.00	-8.20	RMS	360	251	Vertical
5465.569	57.83	68.20	-10.37	Peak	0	264	Vertical
5467.148	54.46	68.20	-13.74	Peak	69	389	Horizontal
5831.649	55.62	68.20	-12.58	Peak	52	276	Vertical
5875.676	55.15	68.20	-13.05	Peak	64	382	Horizontal

Table 18 - 5700 MHz (CH140), a, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

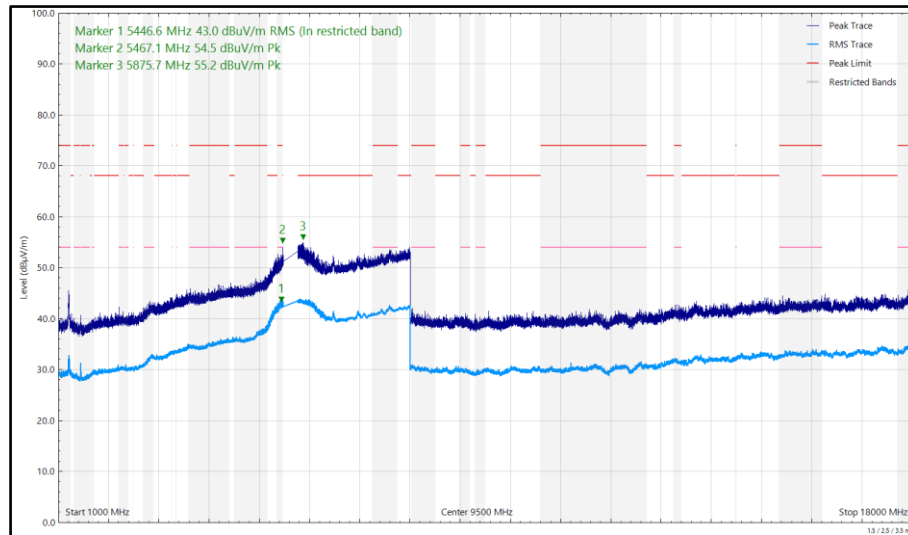


Figure 16 - 5700 MHz (CH140), a, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

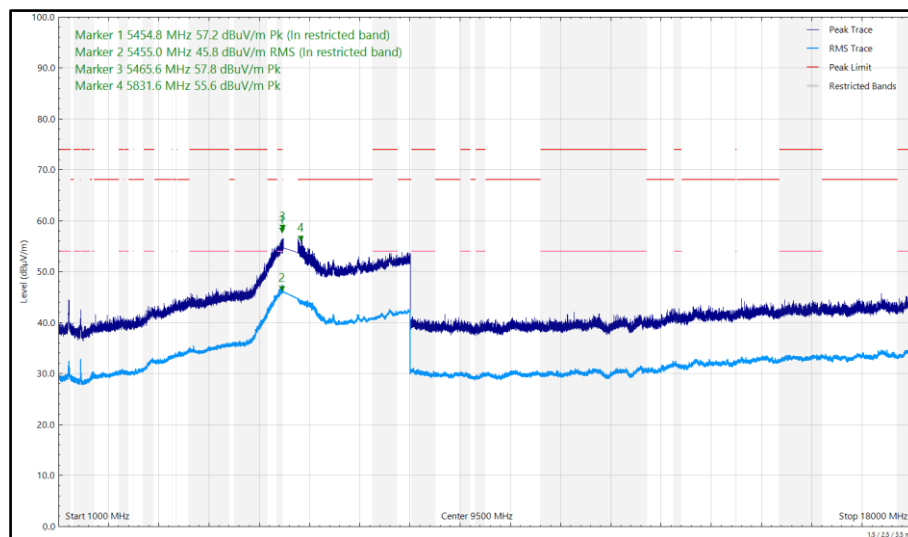


Figure 17 - 5700 MHz (CH140), a, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5447.624	45.38	54.00	-8.62	RMS	353	247	Vertical
5459.082	41.99	54.00	-12.01	RMS	71	394	Horizontal
5459.299	56.61	74.00	-17.39	Peak	0	270	Vertical
5559.893	58.38	68.20	-9.82	Peak	0	263	Vertical
5618.500	55.67	68.20	-12.53	Peak	71	392	Horizontal
5983.464	56.15	68.20	-12.05	Peak	68	375	Horizontal
5991.605	57.70	68.20	-10.50	Peak	56	293	Vertical

Table 19 - 5825 MHz (CH165), a, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

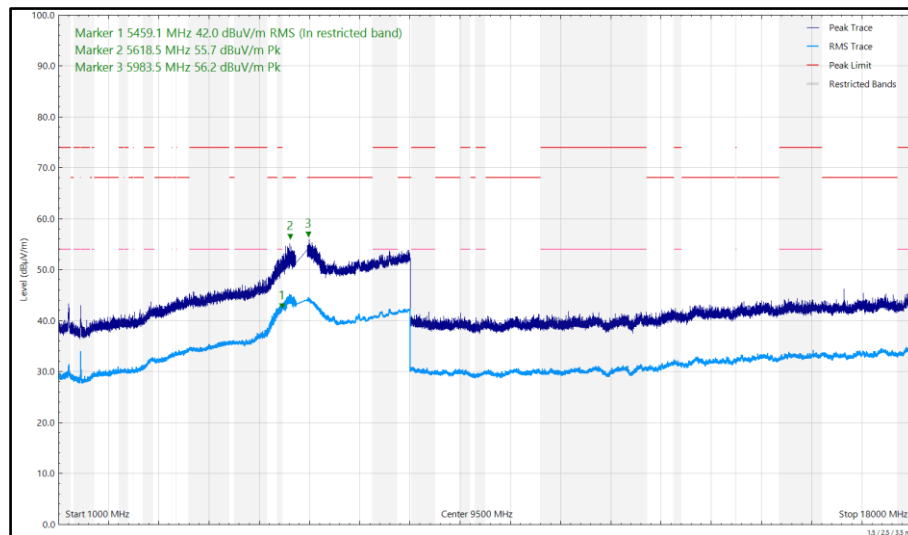


Figure 18 - 5825 MHz (CH165), a, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

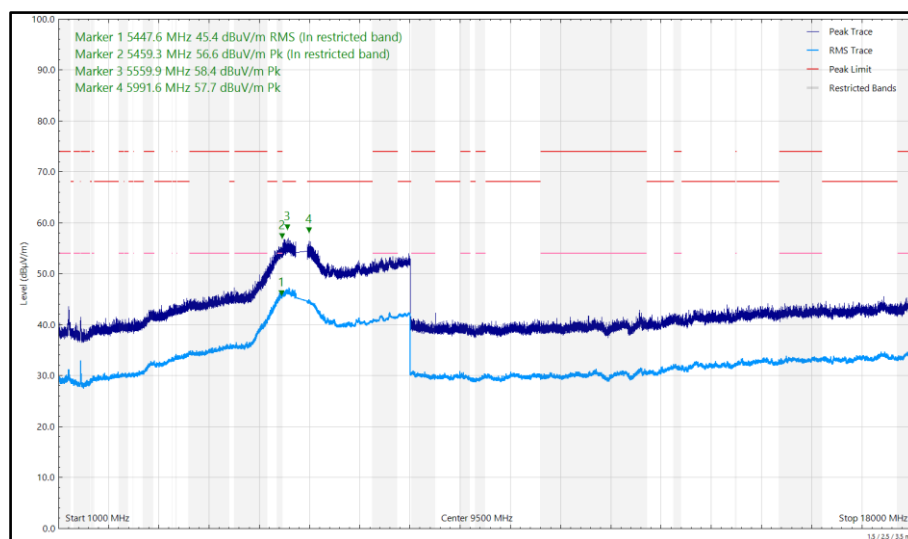


Figure 19 - 5825 MHz (CH165), a, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
33.392	32.34	40.00	-7.66	Q-Peak	359	116	Vertical
72.320	19.97	40.00	-20.03	Q-Peak	154	283	Horizontal
94.947	22.53	43.50	-20.97	Q-Peak	159	363	Horizontal
95.336	33.38	43.50	-10.12	Q-Peak	72	110	Vertical
110.545	24.90	43.50	-18.60	Q-Peak	7	266	Horizontal
113.389	24.76	43.50	-18.74	Q-Peak	83	100	Vertical
5089.263	54.19	74.00	-19.81	Peak	7	333	Vertical
5109.335	44.00	54.00	-10.00	RMS	0	258	Vertical
5109.983	40.47	54.00	-13.53	RMS	69	374	Horizontal
5359.825	41.49	54.00	-12.51	RMS	70	400	Horizontal
5367.771	45.06	54.00	-8.94	RMS	358	275	Vertical
5422.528	56.21	74.00	-17.79	Peak	360	267	Vertical
5470.246	52.93	68.20	-15.27	Peak	77	391	Horizontal
5496.186	55.58	68.20	-12.62	Peak	360	267	Vertical

Table 20 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 20 dB of the limit.

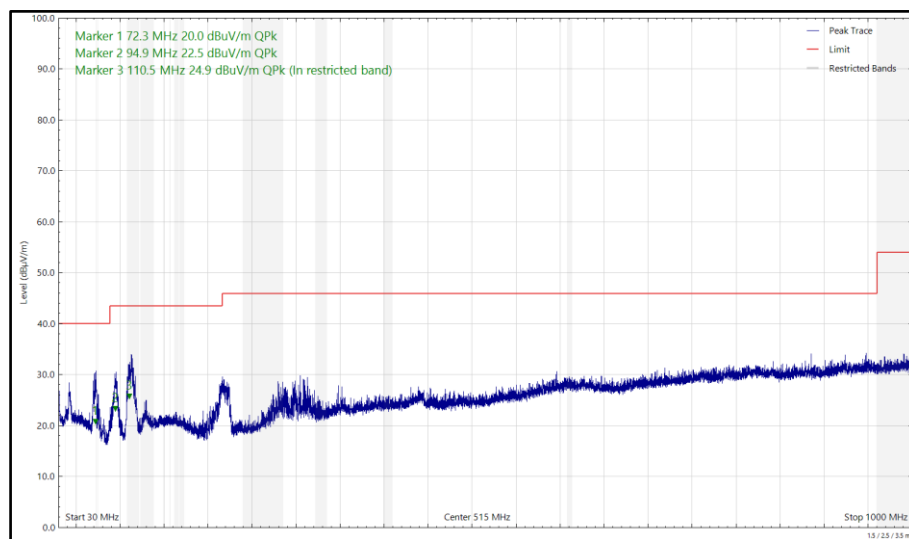


Figure 20 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

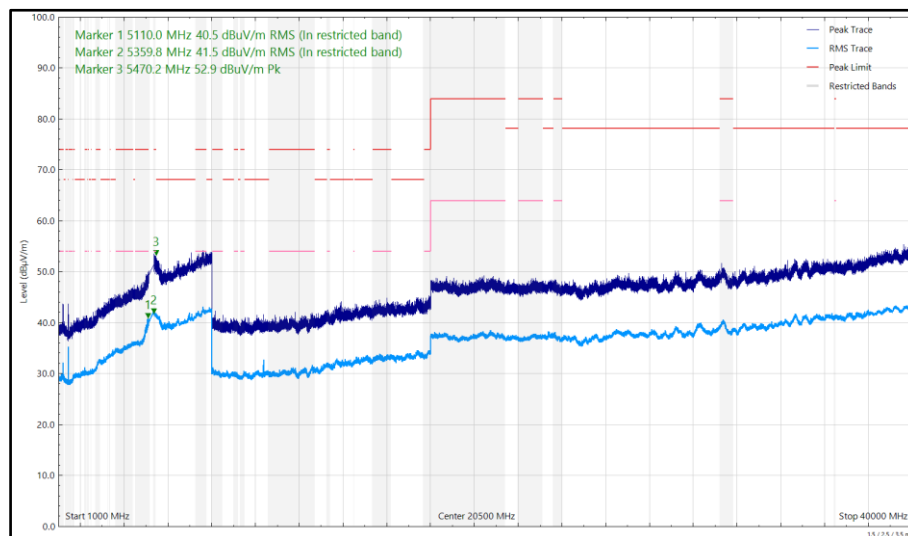


Figure 21 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

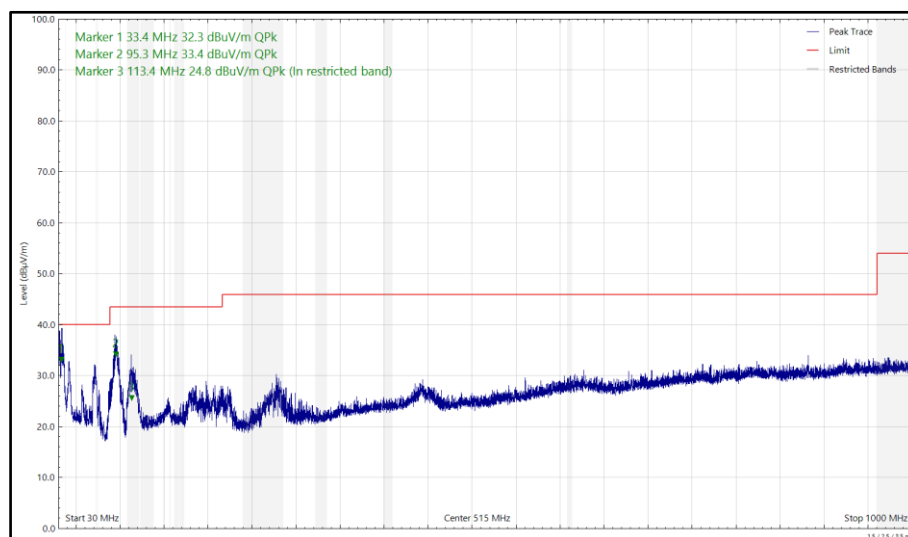


Figure 22 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

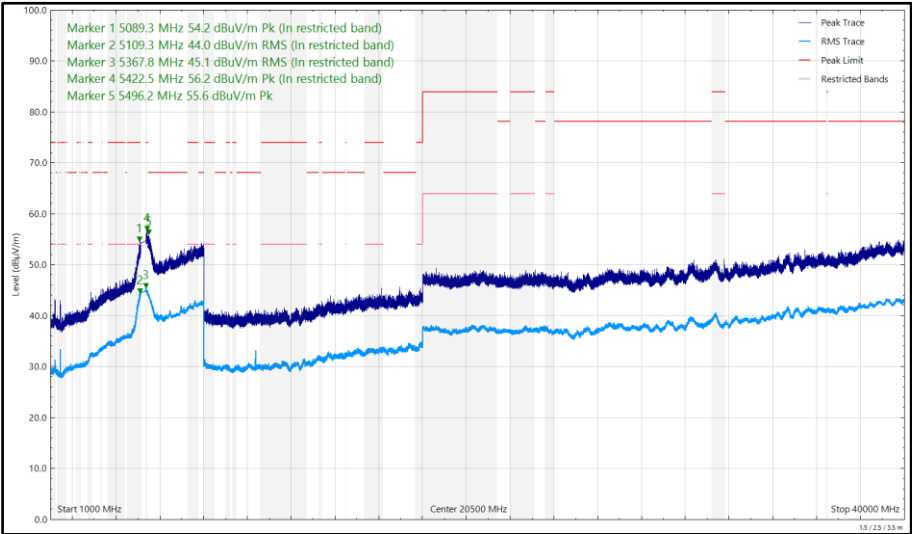


Figure 23 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5144.941	53.97	74.00	-20.03	Peak	360	264	Vertical
5147.589	42.89	54.00	-11.11	RMS	3	232	Vertical
5149.358	38.66	54.00	-15.34	RMS	307	310	Horizontal
5392.396	42.94	54.00	-11.06	RMS	71	351	Horizontal
5393.737	46.31	54.00	-7.69	RMS	355	247	Vertical
5400.937	54.44	74.00	-19.56	Peak	71	361	Horizontal
5417.785	55.99	74.00	-18.01	Peak	2	252	Vertical
5491.713	57.95	68.20	-10.25	Peak	354	260	Vertical
5564.545	54.06	68.20	-14.14	Peak	72	371	Horizontal

Table 21 - 5320 MHz (CH64), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

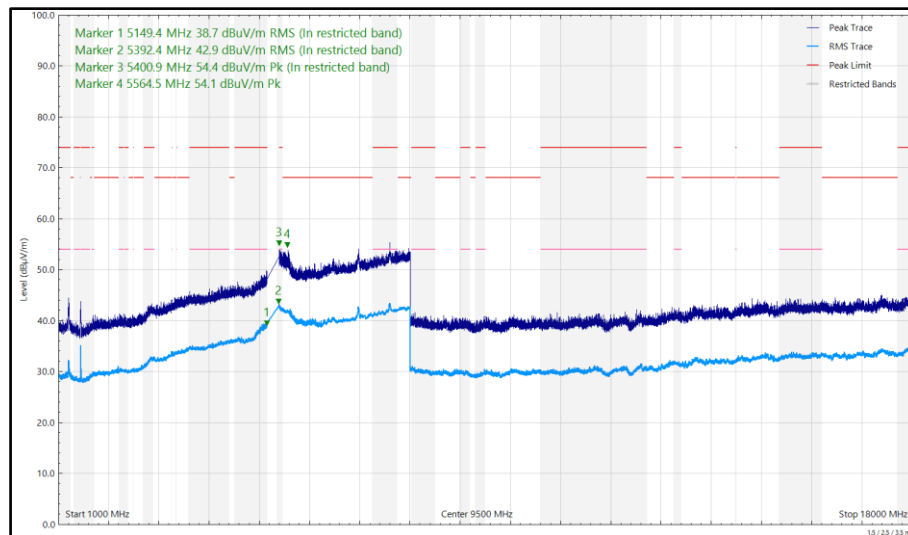


Figure 24 - 5320 MHz (CH64), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

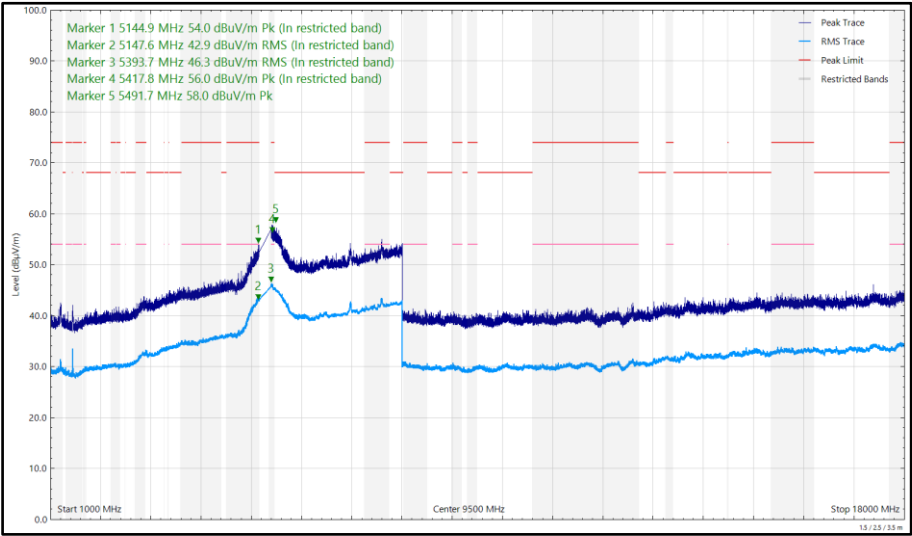


Figure 25 - 5320 MHz (CH64), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5319.734	53.56	68.20	-14.64	Peak	70	348	Horizontal
5348.878	56.89	68.20	-11.31	Peak	354	261	Vertical
5391.958	45.71	54.00	-8.29	RMS	0	258	Vertical
5402.972	42.69	54.00	-11.31	RMS	70	365	Horizontal
5406.534	57.37	74.00	-16.63	Peak	356	331	Vertical
5744.131	54.12	68.20	-14.08	Peak	360	266	Vertical
5810.423	52.46	68.20	-15.74	Peak	73	390	Horizontal

Table 22 - 5500 MHz (CH100), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

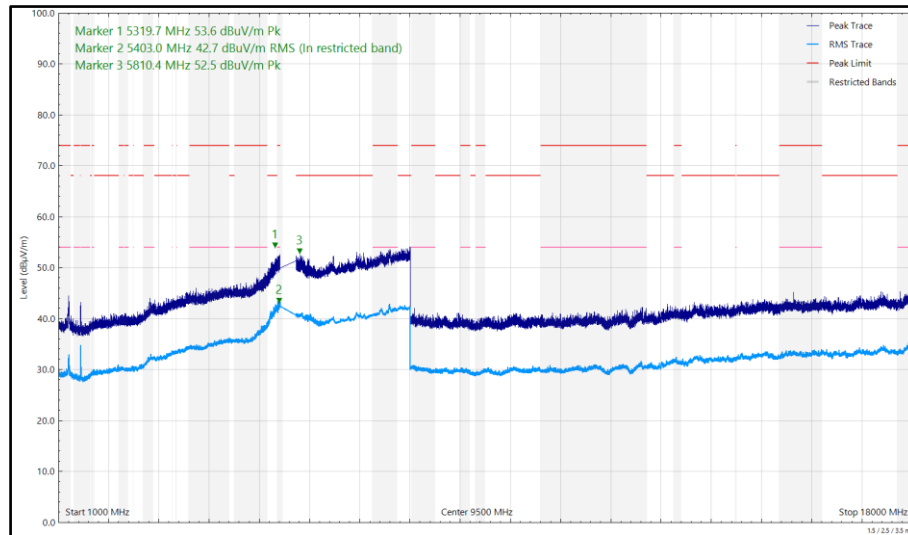


Figure 26 - 5500 MHz (CH100), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

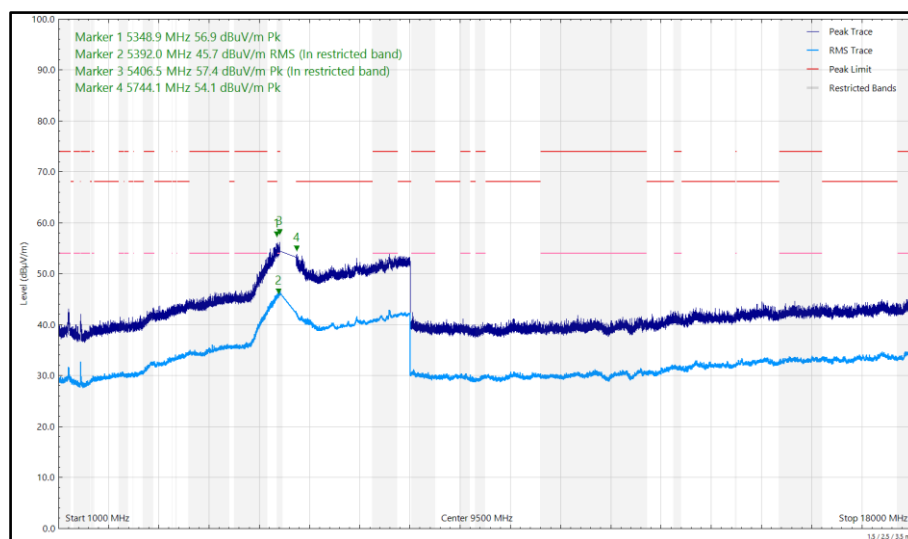


Figure 27 - 5500 MHz (CH100), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5446.178	57.58	74.00	-16.42	Peak	0	260	Vertical
5446.211	46.30	54.00	-7.70	RMS	356	258	Vertical
5457.580	42.56	54.00	-11.44	RMS	69	387	Horizontal
5464.920	54.25	68.20	-13.95	Peak	69	398	Horizontal
5468.157	57.30	68.20	-10.90	Peak	3	278	Vertical
5802.938	57.31	68.20	-10.89	Peak	358	278	Vertical
5803.768	55.54	68.20	-12.66	Peak	65	392	Horizontal

Table 23 - 5700 MHz (CH140), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

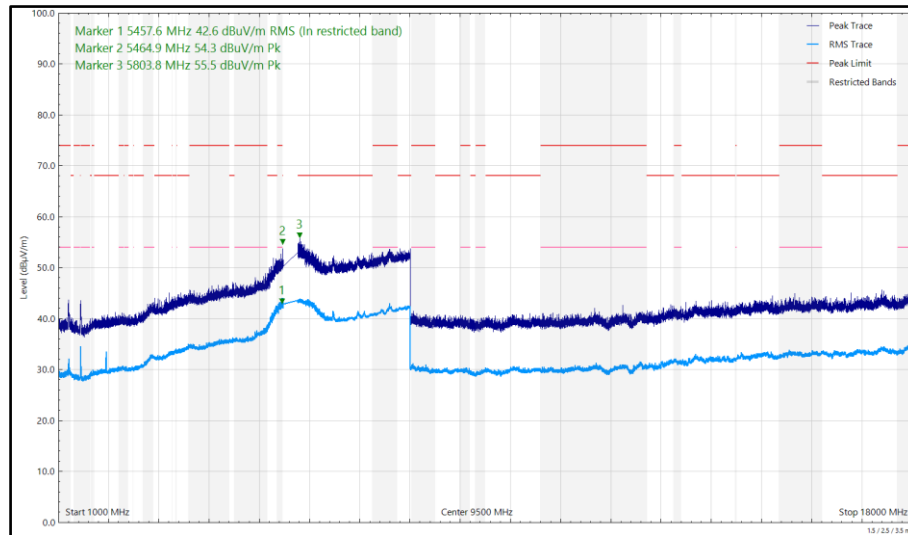


Figure 28 - 5700 MHz (CH140), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

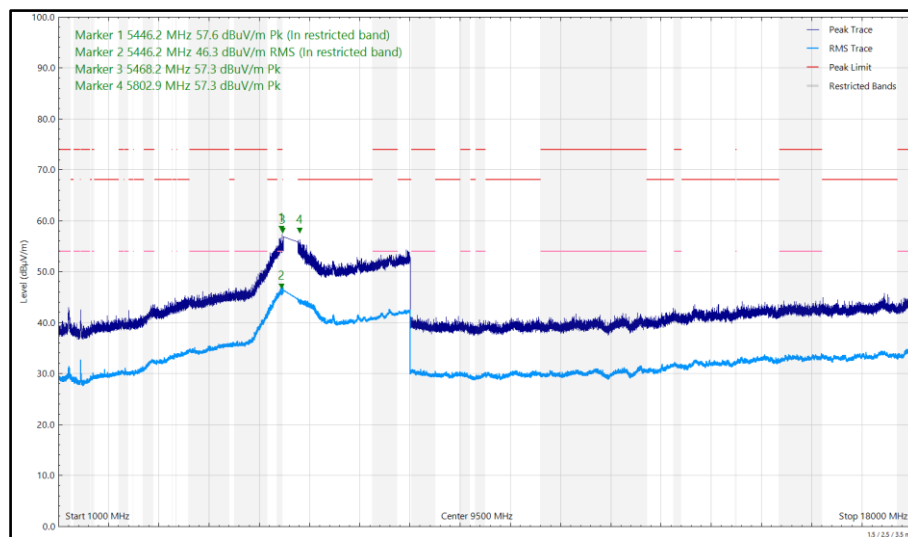


Figure 29 - 5700 MHz (CH140), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5424.497	52.83	74.00	-21.17	Peak	76	390	Horizontal
5433.268	57.59	74.00	-16.41	Peak	359	276	Vertical
5456.277	45.84	54.00	-8.16	RMS	0	282	Vertical
5457.581	43.19	54.00	-10.81	RMS	75	341	Horizontal
5554.308	56.23	68.20	-11.97	Peak	73	376	Horizontal
5554.987	58.52	68.20	-9.68	Peak	356	267	Vertical
5851.511	56.73	68.20	-11.47	Peak	49	263	Vertical
5877.199	55.99	68.20	-12.21	Peak	73	391	Horizontal

Table 24 - 5745 MHz (CH149), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

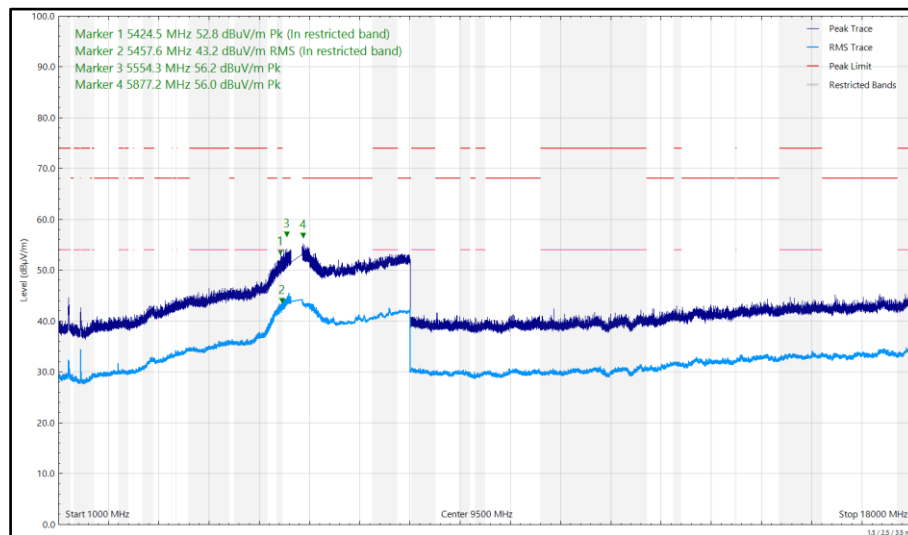


Figure 30 - 5745 MHz (CH149), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

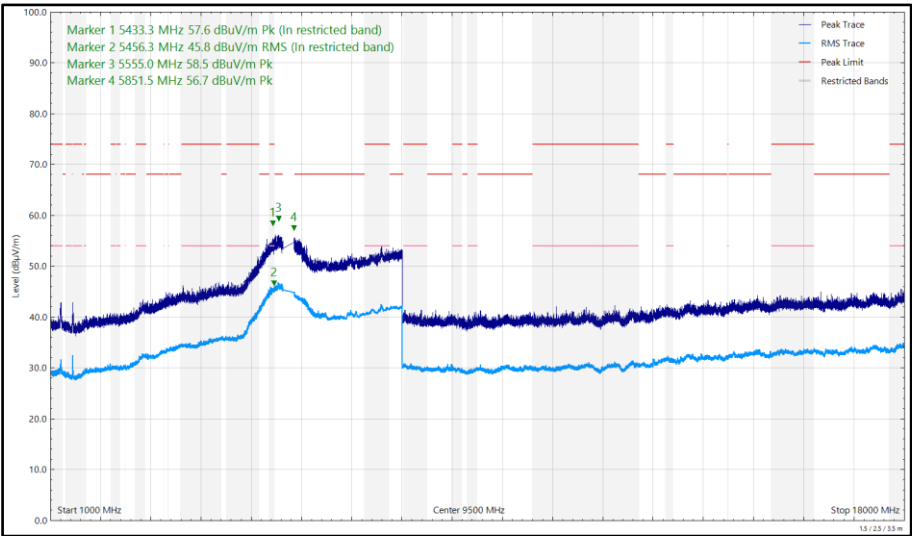


Figure 31 - 5745 MHz (CH149), HT20, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
33.654	30.12	40.00	-9.88	Q-Peak	260	100	Vertical
70.847	20.43	40.00	-19.57	Q-Peak	161	365	Horizontal
71.740	23.06	40.00	-16.94	Q-Peak	227	117	Vertical
95.806	30.91	43.50	-12.59	Q-Peak	76	139	Vertical
112.835	24.78	43.50	-18.72	Q-Peak	5	285	Horizontal
303.232	21.45	46.00	-24.55	Q-Peak	350	140	Horizontal
5451.898	57.30	74.00	-16.70	Peak	355	275	Vertical
5458.477	45.35	54.00	-8.65	RMS	360	273	Vertical
5458.997	42.56	54.00	-11.44	RMS	72	381	Horizontal
5497.997	57.45	68.20	-10.75	Peak	357	264	Vertical
5597.855	56.55	68.20	-11.65	Peak	71	365	Horizontal
5977.588	57.19	68.20	-11.01	Peak	72	374	Horizontal
6015.668	56.32	68.20	-11.88	Peak	50	296	Vertical

Table 25 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 20 dB of the limit.

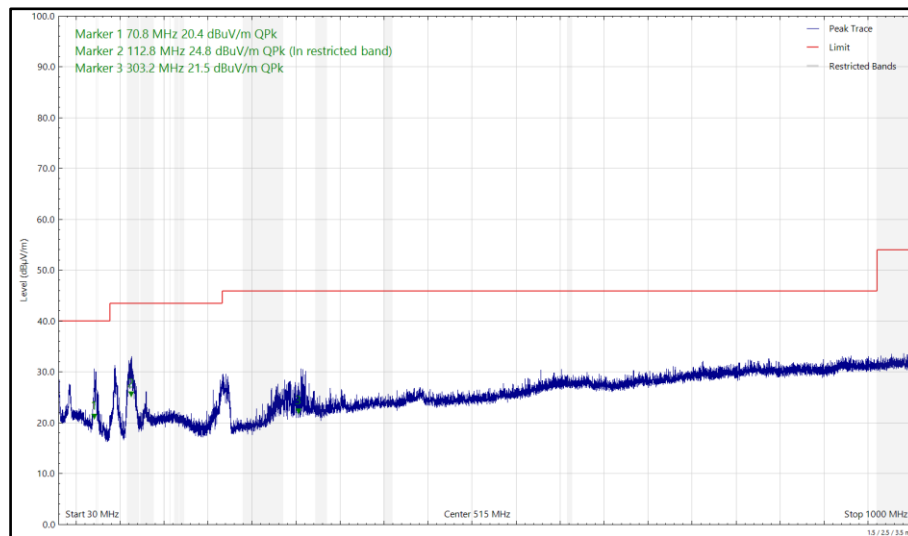


Figure 32 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

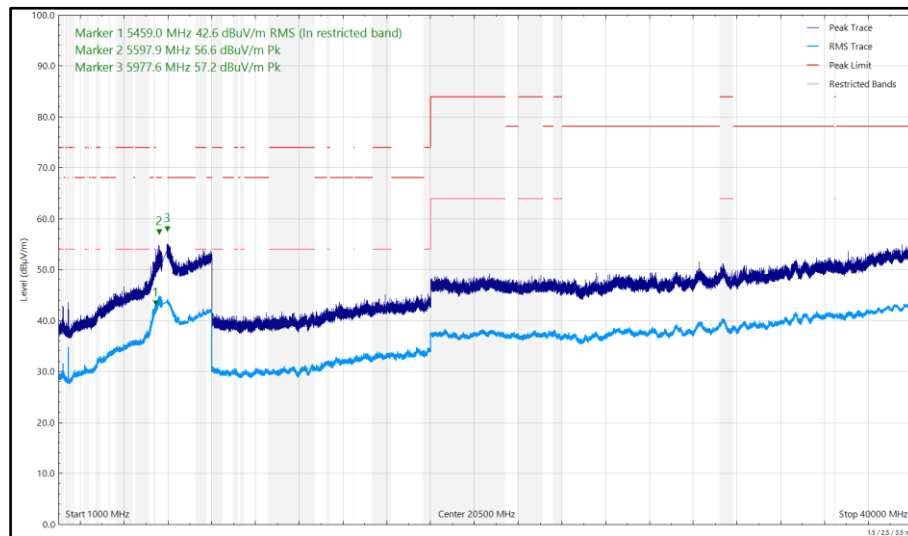


Figure 33 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

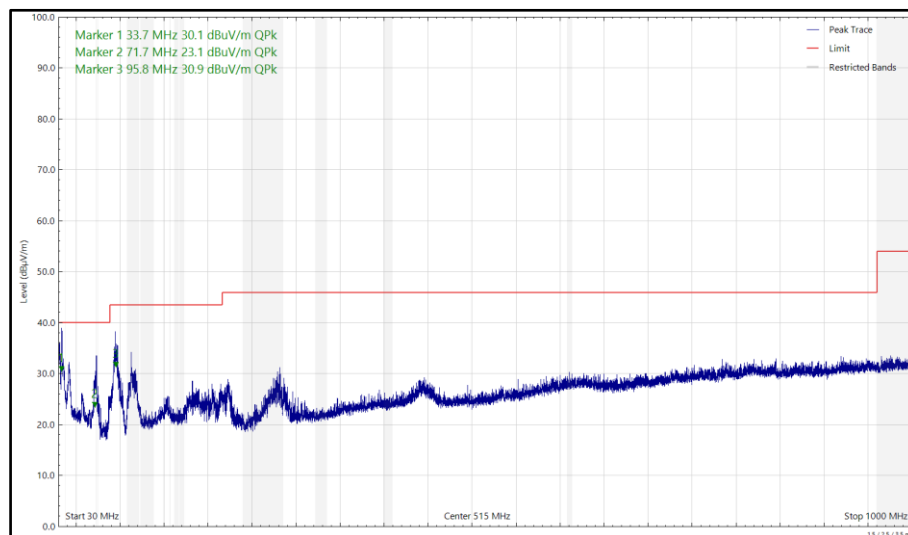


Figure 34 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

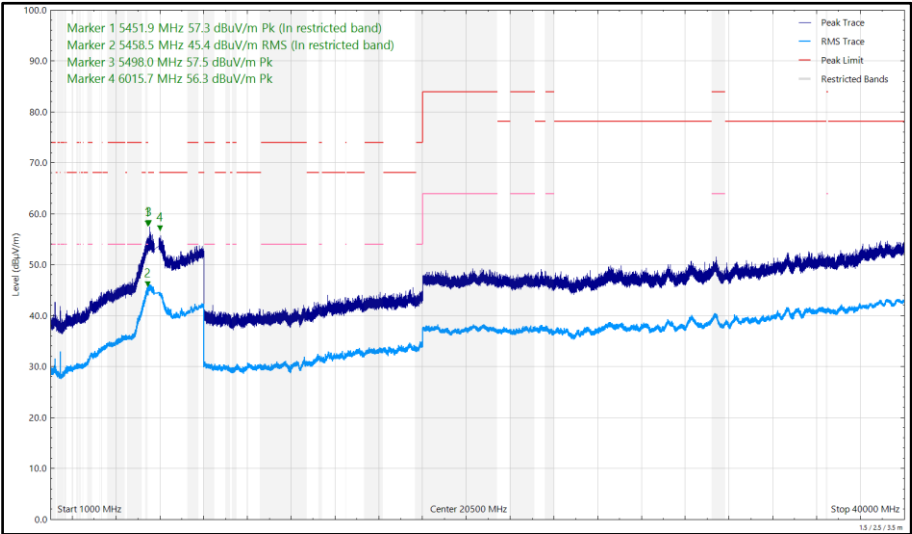


Figure 35 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
31.458	31.57	40.00	-8.43	Q-Peak	227	113	Vertical
69.538	18.74	40.00	-21.26	Q-Peak	360	377	Horizontal
95.091	31.60	43.50	-11.90	Q-Peak	110	106	Vertical
95.092	25.58	43.50	-17.92	Q-Peak	195	351	Horizontal
289.519	21.07	46.00	-24.93	Q-Peak	157	117	Vertical
313.029	22.24	46.00	-23.76	Q-Peak	357	102	Horizontal
5066.395	54.40	74.00	-19.60	Peak	360	269	Vertical
5108.963	40.18	54.00	-13.82	RMS	74	370	Horizontal
5109.559	43.34	54.00	-10.66	RMS	360	326	Vertical
5356.412	44.84	54.00	-9.16	RMS	352	271	Vertical
5371.003	56.58	74.00	-17.42	Peak	357	287	Vertical
5373.242	41.53	54.00	-12.47	RMS	77	322	Horizontal
5460.028	53.12	68.20	-15.08	Peak	73	371	Horizontal
5466.541	56.69	68.20	-11.51	Peak	357	281	Vertical

Table 26 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 20 dB of the limit.

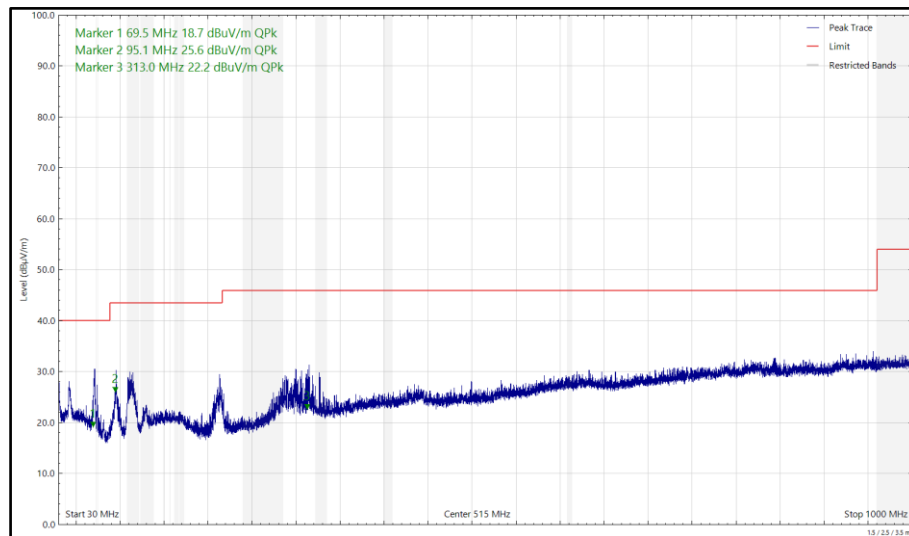


Figure 36 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

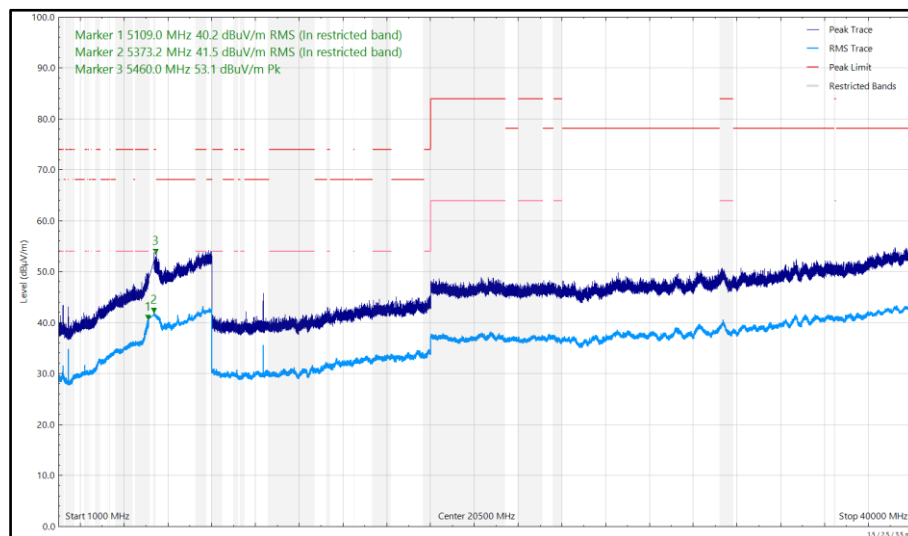


Figure 37 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

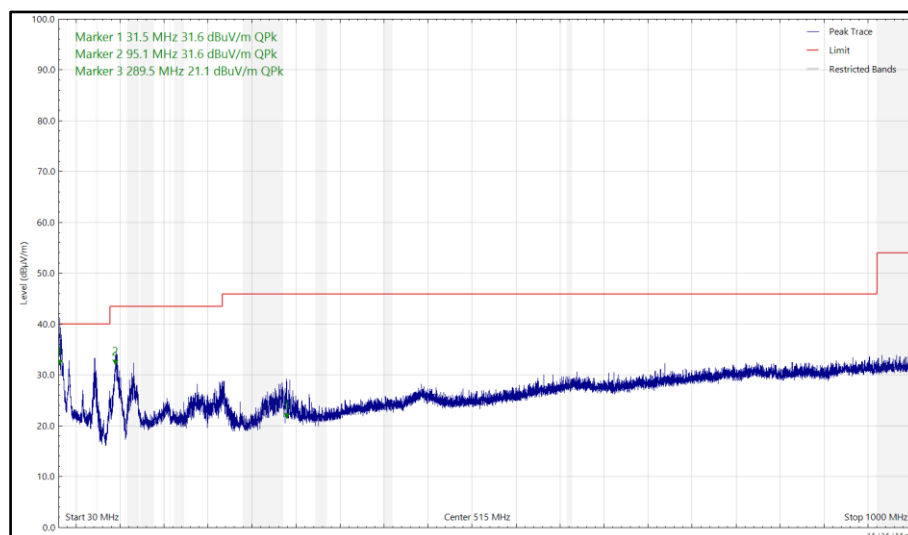


Figure 38 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

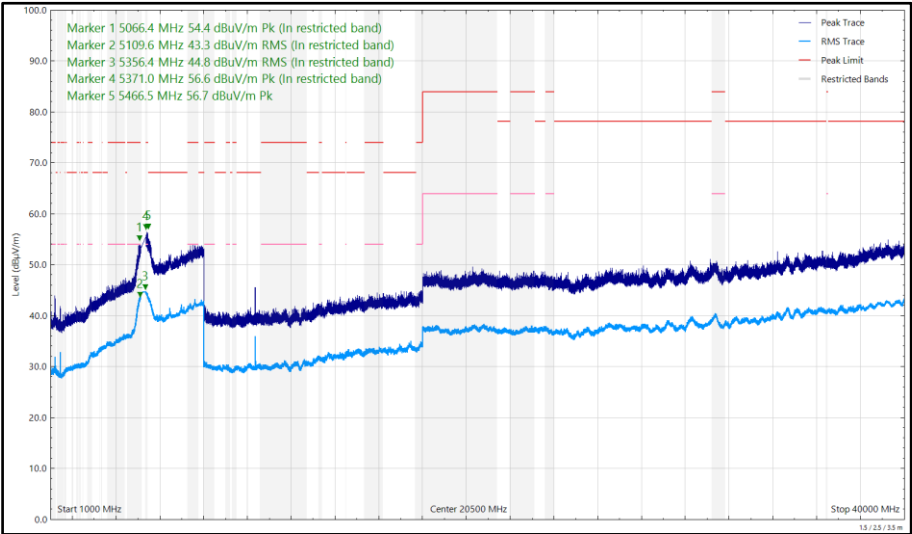


Figure 39 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5363.578	55.74	74.00	-18.26	Peak	351	276	Vertical
5442.380	45.49	54.00	-8.51	RMS	0	280	Vertical
5457.337	42.98	54.00	-11.02	RMS	74	341	Horizontal
5461.853	55.14	68.20	-13.06	Peak	72	365	Horizontal
5469.875	57.44	68.20	-10.76	Peak	354	293	Vertical
5802.589	55.15	68.20	-13.05	Peak	49	302	Vertical
5834.727	56.56	68.20	-11.64	Peak	69	397	Horizontal

Table 27 - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

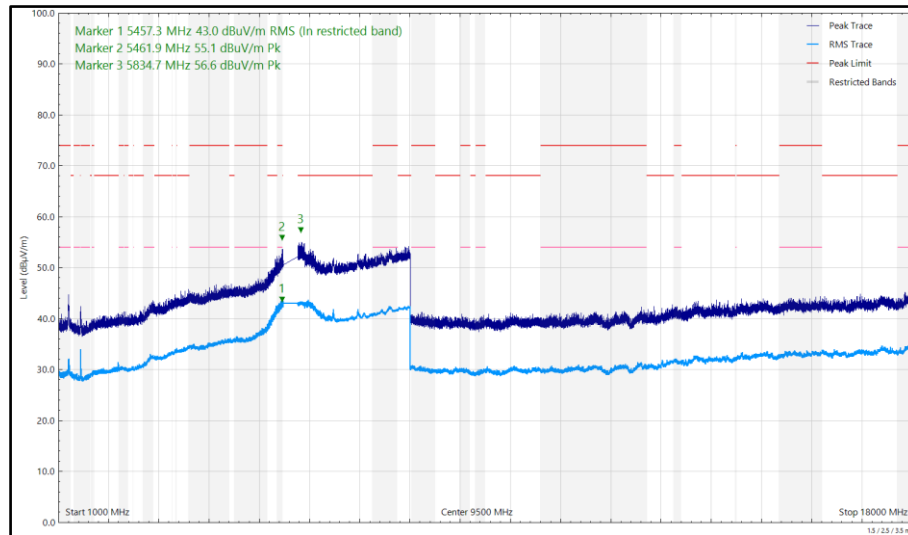


Figure 40 - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

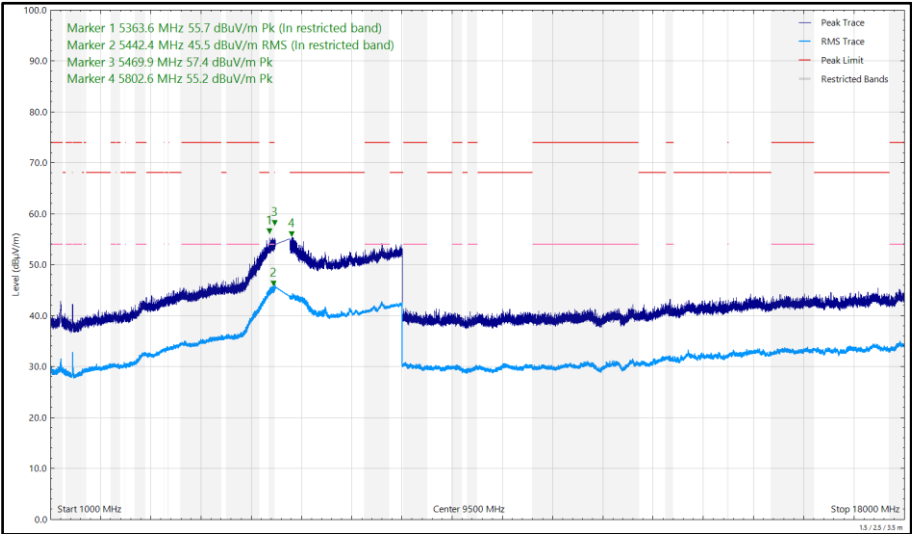


Figure 41 - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
31.857	28.11	40.00	-11.89	Q-Peak	1	122	Vertical
41.980	28.08	40.00	-11.92	Q-Peak	312	104	Vertical
70.432	18.37	40.00	-21.63	Q-Peak	170	388	Horizontal
95.118	28.71	43.50	-14.79	Q-Peak	2	104	Vertical
112.396	23.01	43.50	-20.49	Q-Peak	360	285	Horizontal
288.724	21.80	46.00	-24.20	Q-Peak	148	100	Vertical
291.061	20.26	46.00	-25.74	Q-Peak	337	247	Horizontal
5426.921	44.83	54.00	-9.17	RMS	0	260	Vertical
5431.626	56.49	74.00	-17.51	Peak	358	251	Vertical
5459.099	41.48	54.00	-12.52	RMS	74	400	Horizontal
5554.960	54.87	68.20	-13.33	Peak	72	389	Horizontal
5569.624	58.76	68.20	-9.44	Peak	357	261	Vertical
5977.512	55.95	68.20	-12.25	Peak	71	390	Horizontal
5990.379	57.12	68.20	-11.08	Peak	53	247	Vertical

Table 28 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 20 dB of the limit.

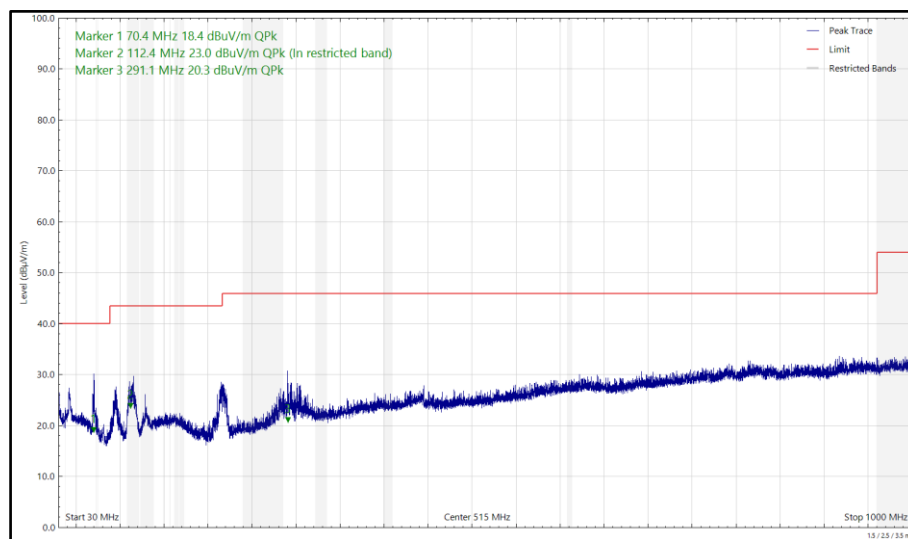


Figure 42 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

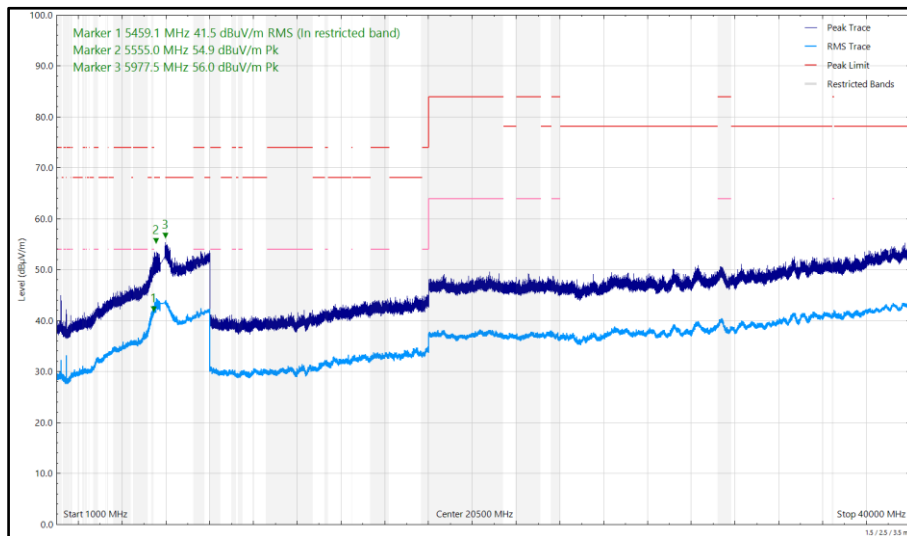


Figure 43 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

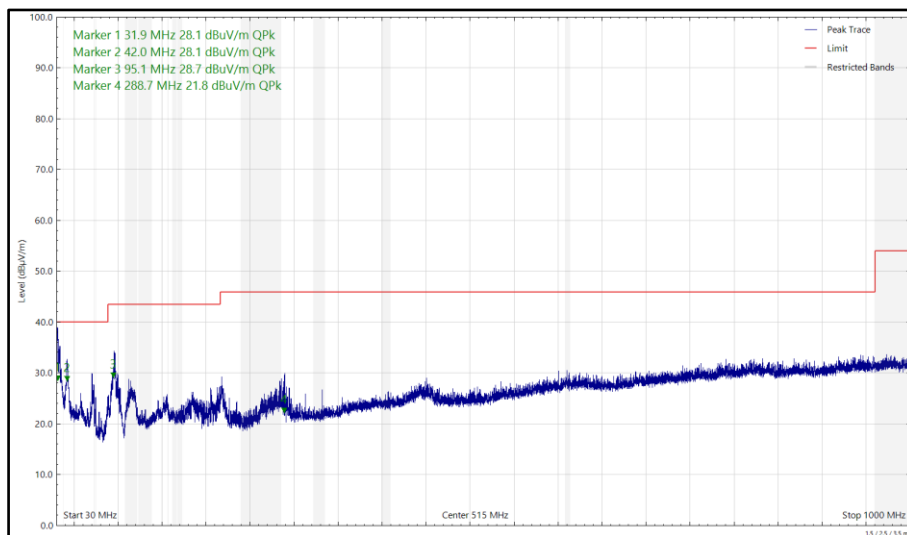


Figure 44 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

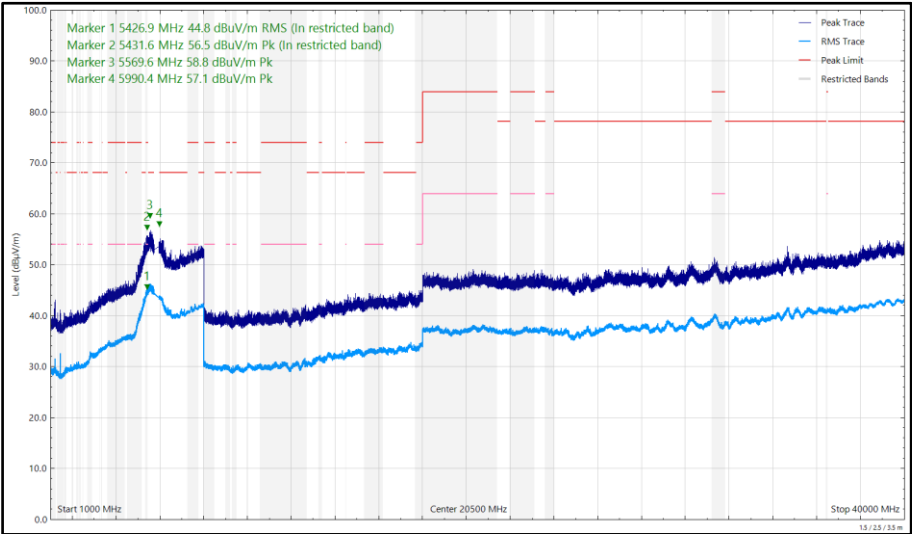


Figure 45 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5441.855	56.21	74.00	-17.79	Peak	0	281	Vertical
5456.240	42.63	54.00	-11.37	RMS	71	352	Horizontal
5459.723	44.81	54.00	-9.19	RMS	0	300	Vertical
5555.559	58.16	68.20	-10.04	Peak	0	270	Vertical
5694.631	55.54	68.20	-12.66	Peak	69	365	Horizontal
5965.195	56.81	68.20	-11.39	Peak	54	282	Vertical
6012.957	56.17	68.20	-12.03	Peak	71	389	Horizontal

Table 29 - 5825 MHz (CH165), EHT20, RU106+26-82, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

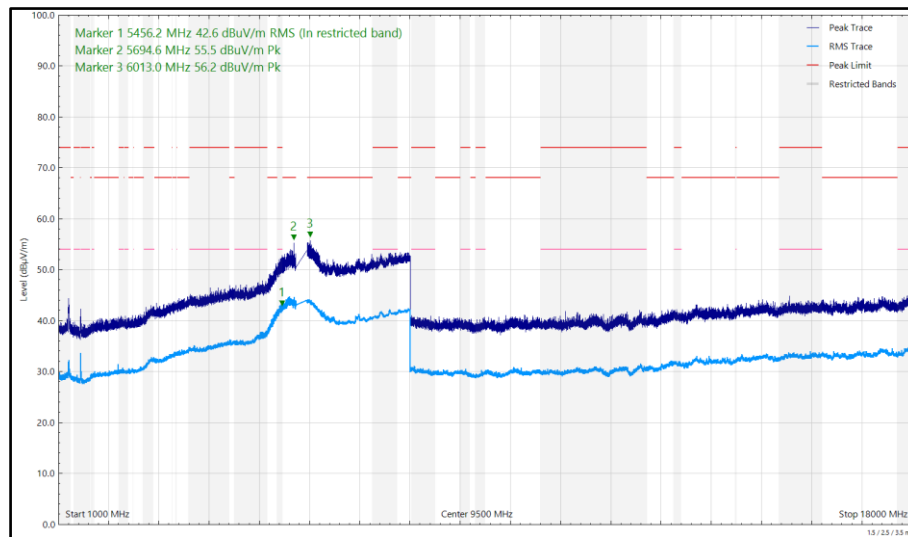


Figure 46 - 5825 MHz (CH165), EHT20, RU106+26-82, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

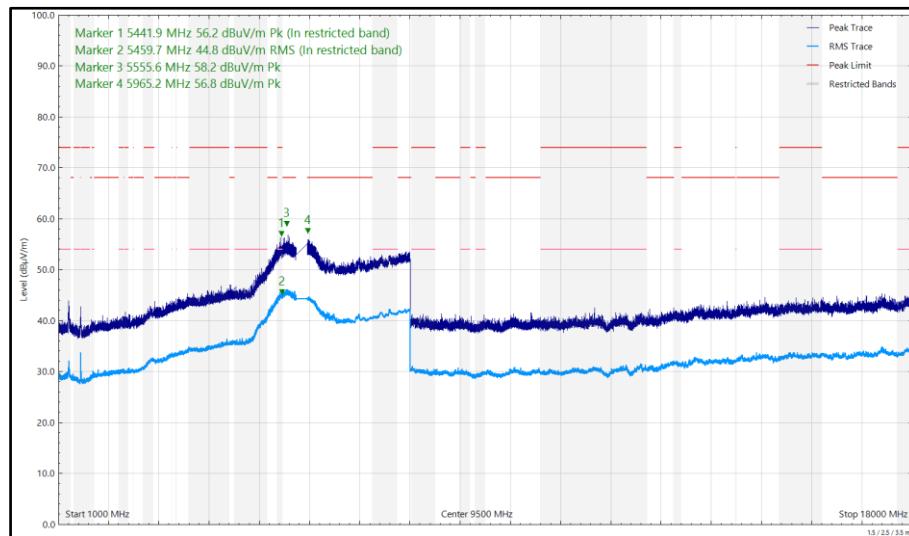


Figure 47 - 5825 MHz (CH165), EHT20, RU106+26-82, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5140.096	37.97	54.00	-16.03	RMS	301	361	Horizontal
5142.902	40.40	54.00	-13.60	RMS	10	335	Vertical
5220.690	51.81	68.20	-16.39	Peak	71	348	Horizontal
5242.731	53.96	68.20	-14.24	Peak	10	291	Vertical
5970.680	53.41	68.20	-14.79	Peak	55	269	Vertical
6005.762	52.17	68.20	-16.03	Peak	77	381	Horizontal

Table 30 - 5570 MHz (CH114), EHT160, RU52+26-80S, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

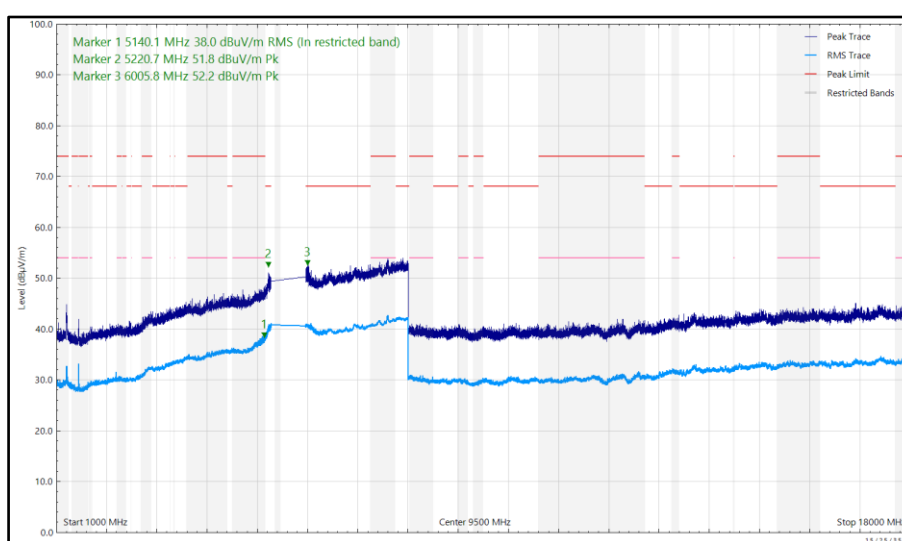


Figure 48 - 5570 MHz (CH114), EHT160, RU52+26-80S, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

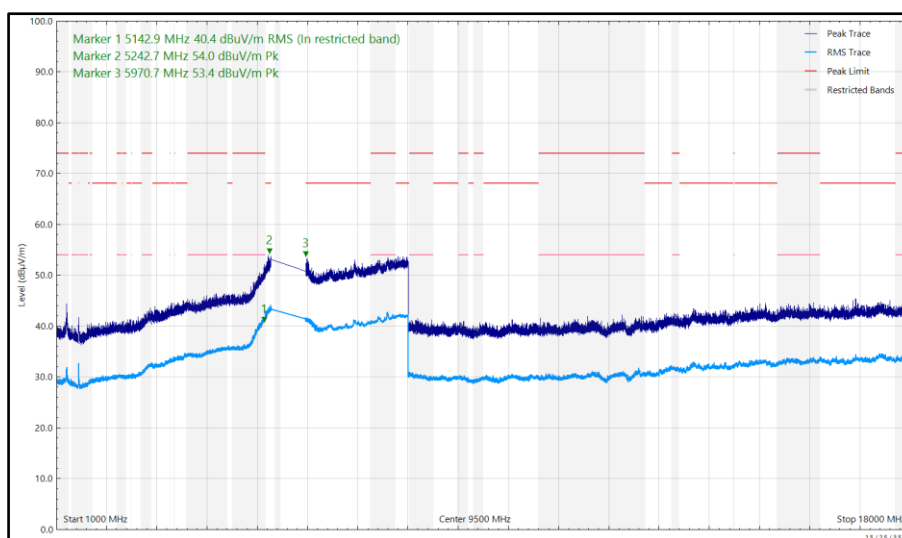


Figure 49 - 5570 MHz (CH114), EHT160, RU52+26-80S, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
4960.616	37.08	54.00	-16.92	RMS	350	362	Horizontal
4966.331	37.86	54.00	-16.14	RMS	357	345	Vertical
5769.652	50.51	68.20	-17.69	Peak	348	359	Vertical
5828.999	50.83	68.20	-17.37	Peak	75	157	Horizontal

Table 31 - 5250 MHz (CH50), EHT160, RU996+484+242-96P, CDD, Core 0 + Core 1, 1 GHz to 18 GHz

No other emissions found within 20 dB of the limit.

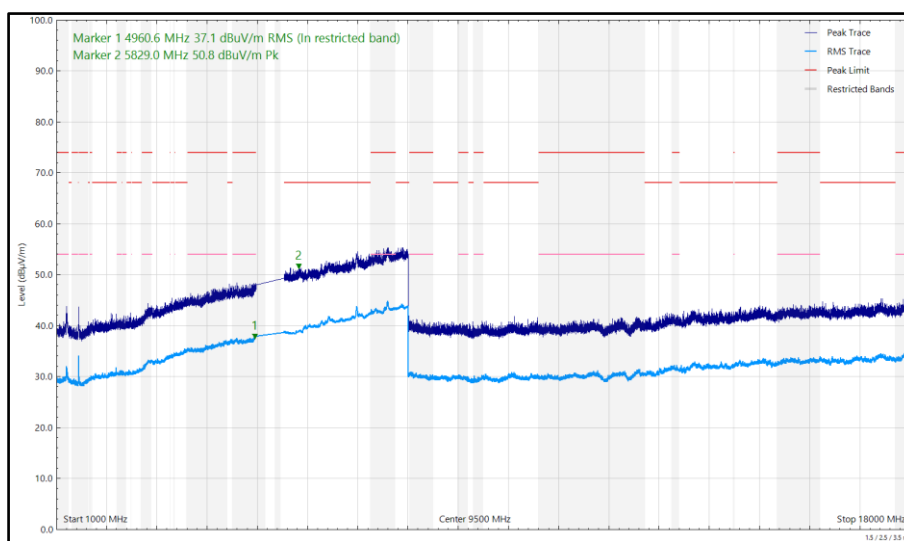


Figure 50 - 5250 MHz (CH50), EHT160, RU996+484+242-96P, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Horizontal

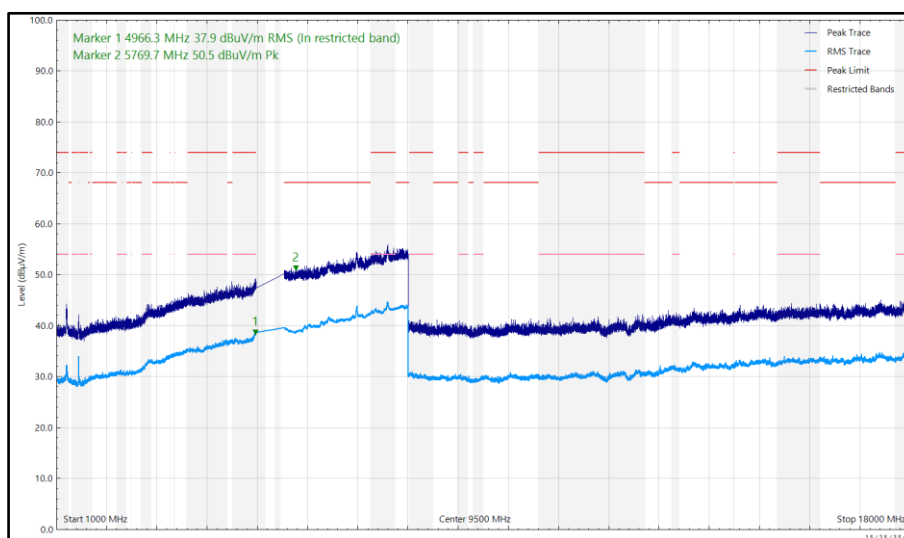


Figure 51 - 5250 MHz (CH50), EHT160, RU996+484+242-96P, CDD, Core 0 + Core 1, 1 GHz to 18 GHz, Vertical



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 32 - Radiated Emissions Limit Table (FCC)



ISED RSS-247, Limit Clause 7.3.1.3, 7.3.2.3, 7.3.3.3 and 7.3.4.4 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:

- 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;
- 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;
- 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
- -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 33 - 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.



2.2.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 17 and RF Chamber 18.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Emissions Software	TUV SUD	EmX V3.6	5125	-	TU
EMI Test Receiver	Rohde & Schwarz	ESW44	5911	12	29-Oct-2026
DRG Horn Antenna (7.5-18GHz)	Schwarzbeck	HWRD750	5940	12	18-May-2026
TRILOG Super Broadband Test Antenna	Schwarzbeck	VULB 9168	5943	24	05-Sep-2027
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	5960	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5961	-	TU
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6007	12	06-Jun-2026
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6018	12	12-Jun-2026
Digital Multimeter	Fluke	115	6145	12	06-Jun-2026
Humidity & Temperature meter	R.S Components	1364	6149	12	28-Aug-2026
Double Ridge Active Horn Antenna (18-40 GHz)	Com-Power	AHA-840	6188	24	31-Jul-2026
8GHz Highpass Filter	Wainwright	WHKX 7150 8000 18000 50SS	6195	12	23-Apr-2026
Pre Amp 8 - 18 GHz	Wright Technologies	APS06 0061	6198	12	09-Jun-2026
Attenuator 4dB	Pasternack	PE7074-4	6201	24	05-Sep-2027
Cable (SMA to SMA 20cm)	TUV SUD	MH-FH 8-18	6214	12	23-Apr-2026
EMI Test Receiver	Rohde & Schwarz	ESW44	6294	12	24-Feb-2026
USB Spectrum Analyser	Signal Hound	SA124B	6295	-	TU
USB Spectrum Analyser	Signal Hound	SA124B	6298	-	TU
Digital Multimeter	Fluke	115	6345	12	24-Jul-2026
Humidity and Temperature Meter	R.S Components	1364	6346	12	13-Mar-2026
SAC Switch Unit	TUV SUD	TUV_SSU_004 PLC	6349	12	16-May-2026
1m Coaxial Cable Assy	Junkosha	MWX221-01000AMSAMS/A	6354	12	15-Apr-2026
Horn Antenna (1-10.5 GHz)	Schwarzbeck	BBHA 9120 B	6457	12	14-Sep-2026
3m Semi-Anechoic Chamber	Albatross Projects	Chamber 18	6597	36	08-May-2028
AC Power Supply	iTech	IT7324	6657	-	TU
3m Semi-Anechoic Chamber	Albatross Projects	RF Chamber 17	6658	36	07-May-2028
Mast and Turntable Controller	Maturo Gmbh	FCU3.0	6659	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	6660	-	TU
Turntable	Maturo Gmbh	TT1.5SI	6661	-	TU
2m Cable	Junkosha	MWX241-02000KMSKMS/B	6742	12	27-Apr-2026
Turntable	Maturo Gmbh	TT1.5SI	6797	-	TU



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
AC Programmable Power Supply	iTech	IT7324	6812	-	TU
8m SMA-Type Cable	Junkosha	MWX221-08000AMSAMS/B	6846	12	23-Oct-2026
8m SMA-Type Cable	Junkosha	MWX221-08000AMSAMS/B	6850	12	23-Oct-2026
Cable Assembly	SpecTech	PE300-60	6859	-	TU
Cable Assembly	SpecTech	PE300-60	6860	-	TU
Cable Assembly	SpecTech	PE300-60	6861	-	TU
Cable Assembly	SpecTech	PE300-60	6863	-	TU
SAC Switch Unit	TUV SUD	TUV_SSU_004 PLC	6886	12	02-Dec-2026
RF Amplifier BROADBAND AMPL/SMA/RoHS	Mini-Circuits	ZX60-83LN12+	6975	12	05-Apr-2026
RF Amplifier BROADBAND AMPL/SMA/RoHS	Mini-Circuits	ZX60-83LN12+	6979	12	05-Apr-2026

Table 34

TU - Traceability Unscheduled



2.3 Authorised Band Edges

2.3.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.209 and 15.407 (b)
ISED RSS-247, Clause 7.3
ISED RSS-GEN, Clause 6.13 and 8.9

2.3.2 Equipment Under Test and Modification State

A3428, S/N: GT6RH79JJQ - Modification State 0

2.3.3 Date of Test

17-October-2025 to 17-November-2025

2.3.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.6.

For U-NII-2C channels, the limit line on the following plots equated to -27 dBm/MHz. EIRP and was converted to field strength at 3 m using the following formula:

Field Strength (dB μ V/m at 3 m) = EIRP (dBm) + 95.2 dB

Authorised band edge measurements were performed, with the device operating in SISO and MIMO configurations, across the various modes supported by the device.

The measurements displayed within this report, have been limited to those modes which have been shown to be worst case.

Further measurements are held on file by TÜV SÜD and are available if required.

2.3.5 Environmental Conditions

Ambient Temperature	21.2 - 27.8 °C
Relative Humidity	31.9 - 55.2 %



2.3.6 Test Results

5 GHz WLAN

20 MHz Bandwidth - Core 0 (SISO)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)
802.11a	24 Mbps	-	-	5500	5470	63.30
802.11n HT20	MCS 4	-	-	5500	5470	63.64
802.11ax HE20	MCS 11x1	SU	-	5500	5470	63.51
802.11ax HE20	MCS 11x1	106	53	5500	5470	62.85
802.11be EHT20	MCS 9	52+26	70	5500	5470	61.75
802.11a	54 Mbps	-	-	5745	5725	58.34
802.11n HT20	MCS 2	-	-	5745	5725	58.17
802.11ax HE20	MCS 2x1	SU	-	5745	5725	58.91
802.11ax HE20	MCS 11x1	106	53	5745	5725	57.73
802.11be EHT20	MCS 9	106+26	82	5745	5725	57.52
802.11a	12 Mbps	-	-	5700	5725	62.47
802.11n HT20	MCS 4	-	-	5700	5725	63.58
802.11ax HE20	MCS 4x1	SU	-	5700	5725	62.80
802.11ax HE20	MCS 11x1	52	40	5700	5725	62.92
802.11be EHT20	MCS 9x1	106+26	83	5700	5725	59.72
802.11a	54 Mbps	-	-	5720	5850	57.96
802.11a	12 Mbps	-	-	5825	5850	57.82
802.11n HT20	MCS 4	-	-	5720	5850	57.65
802.11n HT20	MCS 4	-	-	5825	5850	57.12
802.11ax HE20	MCS 11x1	SU	-	5720	5850	57.99
802.11ax HE20	MCS 11x1	106	54	5720	5850	56.85
802.11ax HE20	MCS 2x1	SU	-	5825	5850	57.21
802.11ax HE20	MCS 11x1	52	40	5825	5850	57.38
802.11be EHT20	MCS 9x1	106+26	83	5720	5850	57.75
802.11be EHT20	MCS 9x1	106+26	83	5825	5850	57.35

Table 35 - SISO Authorised Band Edge Results