



427 West 12800 South
Draper, UT 84020

Test Report Certification

FCC ID	SWX-UDBPS
ISED ID	6545A-UDBPS
Equipment Under Test	UDB-Pro-Sector
Test Report Serial Number	TR9867_01
Date of Test(s)	22 - 25 October; 10 - 13 December 2024; 11 - 12 February; 11 March 2025
Report Issue Date	12 March 2025

Test Specification	Applicant
47 CFR FCC Part 15, Subpart E	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.



NVLAP LAB CODE 600241-0

Certification of Engineering Report

This report has been prepared by Unified Compliance Laboratory (UCL) to document compliance of the device described below with the requirement of Federal Communication Commissions (FCC) Part 15, Subpart E. This report may be reproduced in full. Partial reproduction of this report may only be made with the written consent of the laboratory. The results in this report apply only to the sample tested with the specifications provided by the manufacturer.

Applicant	Ubiquiti Inc.
Manufacturer	Ubiquiti Inc.
Brand Name	UBIQUITI
Model Number	UDB-Pro-Sector
FCC ID	SWX-UDBPS
ISED ID	6545A-UDBPS

On this 12th day of March 2025, I individually and for Unified Compliance Laboratory certify that the statements made in this engineering report are true, complete and correct to the best of my knowledge and are made in good faith. Unified Compliance laboratory is not responsible for incorrect information provided by the manufacturer.

Although NVLAP has accredited the Unified Compliance Laboratory testing facilities, this report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. federal government.

Unified Compliance Laboratory


Written By: Joseph W. Jackson
Reviewed By: Clay Allred

Revision History		
Revision	Description	Date
01	Original Report Release	12 March 2025

Table of Contents

1	Client Information.....	5
1.1	Applicant.....	5
1.2	Manufacturer.....	5
2	Equipment Under Test (EUT).....	6
2.1	Identification of EUT	6
2.2	Description of EUT	6
2.3	EUT and Support Equipment	6
2.4	Interface Ports on EUT	7
2.5	Operating Environment.....	7
2.6	Operating Modes.....	7
2.7	EUT Exercise Software.....	8
2.8	Block Diagram of Test Configuration	8
2.9	Modification Incorporated/Special Accessories on EUT.....	8
2.10	Deviation, Opinions Additional Information or Interpretations from Test Standard.....	8
3	Test Specification, Method and Procedures.....	9
3.1	Test Specification.....	9
3.2	Methods & Procedures.....	9
3.3	FCC Part 15, Subpart E.....	9
3.4	Results.....	9
3.5	Test Location	10
4	Test Equipment	11
4.1	Conducted Emissions at Mains Ports.....	11
4.2	Direct Connect at the Antenna Port Tests.....	11
4.3	Radiated Emissions	12
4.4	DFS Testing	13
4.5	Equipment Calibration	14
4.6	Measurement Uncertainty	14
5	Test Results	15
5.1	§15.203 Antenna Requirements.....	15
5.2	Conducted Emissions at Mains Ports Data	16
5.3	§15.407(a) 26 dB Emissions Bandwidth.....	18
5.4	§15.407(a)(2) Maximum Average Output Power	20
5.5	§15.407(b) Spurious Emissions	22
5.6	§15.407(a) Maximum Power Spectral Density	32
5.7	DFS Requirement.....	35

1 Client Information

1.1 Applicant

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance

1.2 Manufacturer

Company	Ubiquiti Inc. 685 Third Avenue New York, NY 10017 U.S.A.
Contact Name	Alex Macon
Title	Compliance

2 Equipment Under Test (EUT)

2.1 Identification of EUT

Brand Name	UBIQUITI
Model Number	UDB-Pro-Sector
Serial Number	4C780E
Dimensions (cm)	36.1 x 13.0 x 7.1

2.2 Description of EUT

The UDB-Pro-Sector is a 5 GHz wireless access point for multiple point-to-point UDB clients. The UDB-Pro-Sector is designed for long-range applications. The UDB-Pro-Sector has an Ethernet port for power and data transfer. The UDB-Pro-Sector is powered by an 802-3at PoE power adapter. The UDB-Pro-Sector is designed for outdoor use.

The UDB-Pro-Sector uses Transmit Power (TP) Control protocol and is included in the power tables of Section 5.4.

Band	Modulation Bandwidth	Frequency (MHz)
UNII-2A	20 MHz	5260, 5265, 5270, 5275, 5280, 5285, 5290, 5295, 5300, 5305, 5310, 5315, 5320
	40 MHz	5270, 5275, 5280, 5285, 5290, 5295, 5300, 5305, 5310
UNII-2C	20 MHz	5500, 5505, 5510, 5515, 5520, 5525, 5530, 5535, 5540, 5545, 5550, 5555, 5560, 5565, 5570, 5575, 5580, 5585, 5590, 5595, 5600*, 5605*, 5610*, 5615*, 5620*, 5625*, 5630*, 5635*, 5640*, 5645*, 5650, 5655, 5660, 5665, 5670, 5675, 5680, 5685, 5690, 5695, 5700, 5705, 5710, 5715, 5720
	40 MHz	5510, 5515, 5520, 5525, 5530, 5535, 5540, 5545, 5550, 5555, 5560, 5565, 5570, 5575, 5580, 5585, 5590, 5595, 5600*, 5605*, 5610*, 5615*, 5620*, 5625*, 5630*, 5635*, 5640*, 5645*, 5650, 5655, 5660, 5665, 5670, 5675, 5680, 5685, 5690, 5695, 5700, 5705, 5710
* Frequency not applicable in Canada		

Table 1: UNII-2A and UNII-2C Channel Settings

This report covers the circuitry of the device subject to FCC Part 15, Subpart E. The circuitry of the device subject to FCC Part 15 Subpart B was found to be compliant and is covered under a separate Unified Compliance Laboratory test report.

2.3 EUT and Support Equipment

The EUT and support equipment used during the test are listed below.

Brand Name Model Number Serial Number	Description	Name of Interface Ports / Interface Cables
BN: UBIQUITI MN: UDB-Pro-Sector (Note 1) SN: 4C780E	Wireless Access Point	See Section 2.4
BN: UBIQUITI MN: U-POE-at SN: N/A	PoE Injector	PoE Output / Shielded Cat 5E/ unshielded Cat 5E to AE
BN: Dell MN: XPS 13 SN: N/A	Laptop Personal Computer	LAN Port / Un-shielded Cat 5e cable (Note 2)

Notes: (1) EUT

(2) Interface port connected to EUT (See Section 2.4)

The support equipment listed above was not modified in order to achieve compliance with this standard.

2.4 Interface Ports on EUT

Name of Ports	No. of Ports Fitted to EUT	Cable Description/Length
PoE Input	1	7m Shielded Cat 5E
PoE Output (PoE Injector)	1	7m Shielded Cat 5E to UDB- Pro-Sector PoE Input
LAN (PoE Injector)	1	unshielded Cat 5E to Laptop PC
AC (PoE Injector)	1	3 Conductor power cord to AC mains/80cm

2.5 Operating Environment

Power Supply	120 Volts AC to 48 Volts PoE
AC Mains Frequency	60 Hz
Temperature	21.2 – 23.7 °C
Humidity	22.1 – 29.8 %
Barometric Pressure	1019 mBar

2.6 Operating Modes

The UDB-Pro-Sector was tested using test software in order to enable a constant transmission. The measurements within this report are corrected to reference a 100% duty cycle. All emission modes of 802.11 a/ac were investigated. All measurements are reported with the worst-case mode (802.11ac) unless otherwise stated.

2.7 EUT Exercise Software

EUT firmware version 1.0 was used to operate the transmitter using a constant transmit mode.

2.8 Block Diagram of Test Configuration

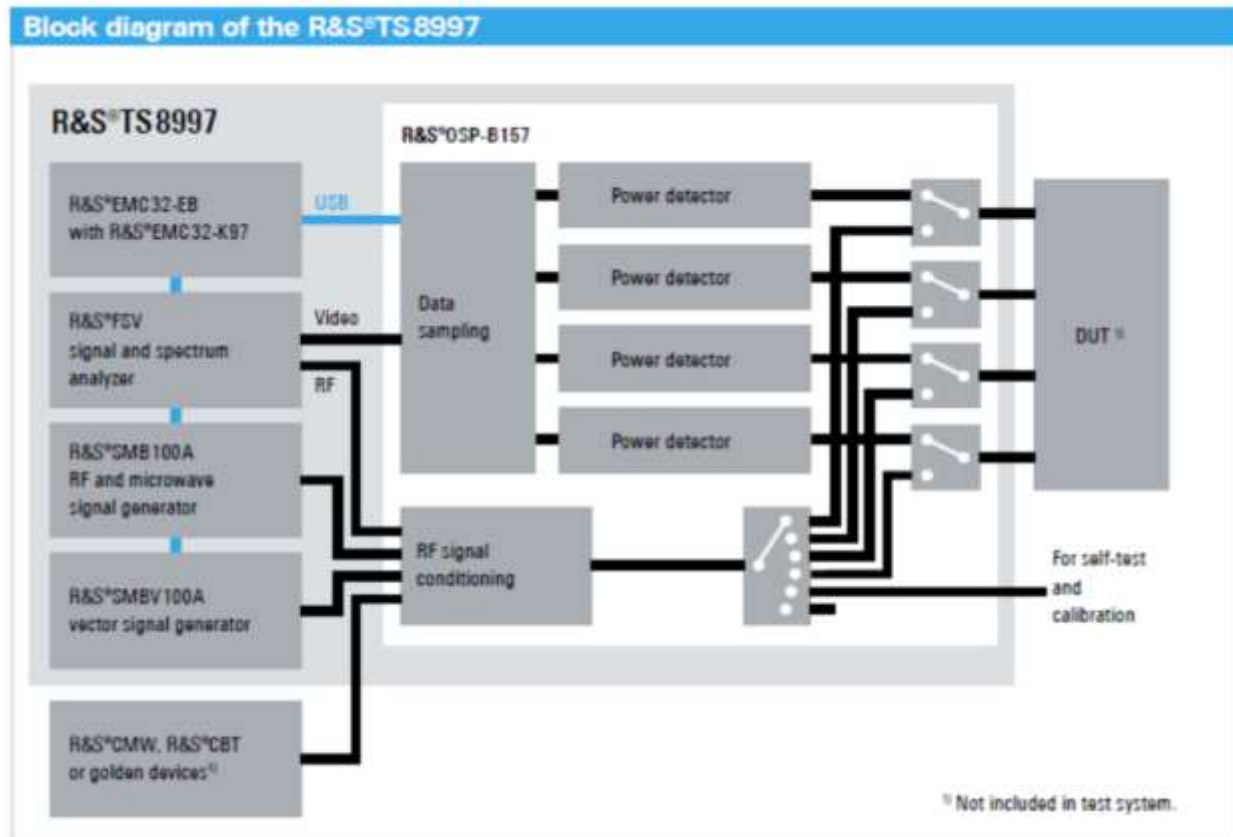


Diagram 1: Test Configuration Block Diagram

2.9 Modification Incorporated/Special Accessories on EUT

There were no modifications made to the EUT during testing to comply with the specification.

2.10 Deviation, Opinions Additional Information or Interpretations from Test Standard

There were no deviations, opinions, additional information or interpretations from the test specification.

3 Test Specification, Method and Procedures

3.1 Test Specification

Title	47 CFR FCC Part 15, Subpart E, Section 15.407 Limits and methods of measurement of radio interference characteristics of Unlicensed National Information Infrastructure Devices
Purpose of Test	The tests were performed to demonstrate initial compliance

3.2 Methods & Procedures

3.2.1 47 CFR FCC Part 15 Section 15.407

See test standard for details.

3.3 FCC Part 15, Subpart E

3.3.1 Summary of Tests

FCC Section	ISED Section	Environmental Phenomena	Frequency Range (MHZ)	Result
15.203	N/A	Antenna requirements	Structural Requirement	Compliant
15.207	RSS-Gen	Conducted Disturbance at Mains Port	0.15 to 30	Compliant
15.407(a)	RSS-247 §6.2.2	Bandwidth Requirement	5260 to 5720	Compliant
15.407(a)	RSS-247 §6.2.2, §6.2.3	Peak Output Power	5260 to 5720	Compliant
15.407(b)	RSS-247 §6.2.2, §6.2.3	Antenna Conducted Spurious Emissions	0.009 to 40000	N/A Note ¹
15.209	RSS-247 §6.2.2, §6.2.3	Radiated Spurious Emissions	0.009 to 40000	Compliant
15.407(a)	RSS-247 §6.2.2, §6.2.3	Peak Power Spectral Density	5260 to 5720	Compliant
15.407(h)	RSS-247 §6.3	DFS Requirements	5260 to 5720	Compliant

The testing was performed according to the procedures in ANSI C63.10-2013, KDB 558074 and 47 CFR Part 15. Where applicable, KDB 662911 was followed to sum required measurements.

Note ¹: Radiated Spurious was performed per 15.209 with the antenna unterminated.

3.4 Results

In the configuration tested, the EUT complied with the requirements of the specification.

3.5 Test Location

Testing was performed at the Unified Compliance Laboratory 3-Meter and 10-Meter chambers located at 427 West 12800 South, Draper, UT 84020. Unified Compliance Laboratory is accredited by National Voluntary Laboratory Accreditation Program (NVLAP); NVLAP Code 600241-0 which is effective until 30 June 2025. This site has also been registered with Innovations, Science and Economic Development (ISED) department as was accepted under Appendix B, Phase 1 procedures of the APEC Tel MRA for Canadian recognition. ISED No.: 25346, effective until 30 June 2025.

Unified Compliance Laboratory has been assigned Designation Number US5037 by the FCC and Conformity Assessment Number US0223 by ISED.

4 Test Equipment

4.1 Conducted Emissions at Mains Ports

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
EMI Receiver	AFJ	FFT3010	UCL-2500	8/27/2024	8/27/2025
LISN	AFJ	LS16C/10	UCL-2512	7/08/2024	7/08/2025
ISN	Teseq	ISN T800	UCL-2974	7/09/2024	7/09/2025
AC Power Source	Laplace Instruments	AC1000A	UCL-2857	N/A	N/A
Test Software	AFJ	AFJ FFT3010	UCL-3107	N/A	N/A

Table 2: List of equipment used for Conducted Emissions Testing at Mains Port

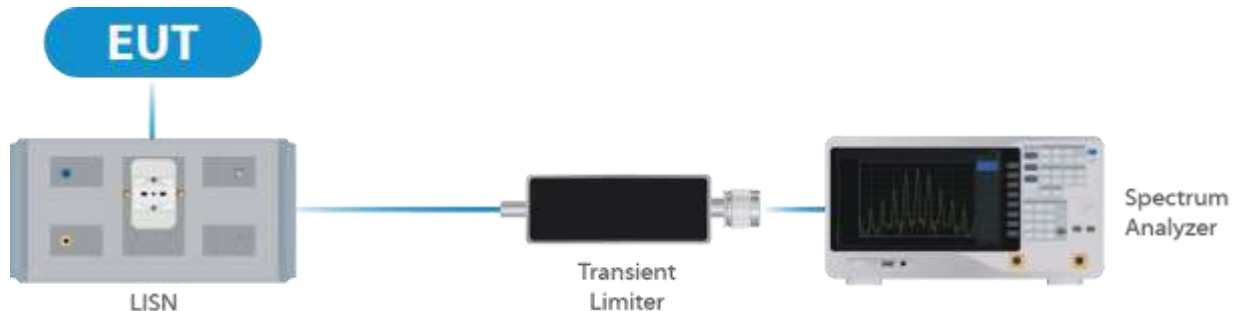


Figure 1: Conducted Emissions Test

4.2 Direct Connect at the Antenna Port Tests

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
Spectrum Analyzer	R&S	FSV40	UCL-2861	1/16/2025	1/16/2026
Signal Generator	R&S	SMB100A	UCL-2864	N/A	N/A
Vector Signal Generator	R&S	SMBV100A	UCL-2873	N/A	N/A
Switch Extension	R&S	OSP-B157WX	UCL-2867	4/12/2024	4/19/2025
Switch Extension	R&S	OSP-150W	UCL-2870	4/12/2024	4/19/2025
Test Software	R&S	EMC32	UCL-9442	-	-

Table 3: List of equipment used for Direct Connect at the Antenna Port

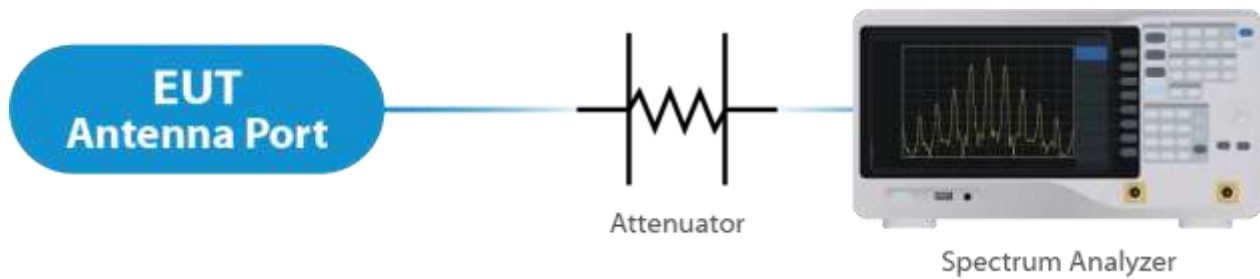


Figure 2: Direct Connect at the Antenna Port Test



Figure 3: Output Power Measurement

4.3 Radiated Emissions

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
EMI Receiver	Keysight	N9038A	UCL-2778	12/27/2024	12/27/2025
Pre-Amplifier 9 kHz – 1 GHz	Sonoma Instruments	310N	UCL-2889	1/19/2024	1/19/2026
Broadband Antenna	ETS-Lindgren	3142E	UCL-9782	2/6/2025	2/6/2026
Double Ridge Horn Antenna	Scwarzbeck	BBHA 9120D	UCL-3065	3/10/2023	3/10/2025
Log Periodic	ETS-Lindgren	3142E	UCL-9782	2/6/2025	2/6/2026
15 - 40 GHz Horn Antenna	Scwarzbeck	BBHA 9170	UCL-2487	3/10/2023	3/10/2025
1 – 18 GHz Amplifier	Com-Power	PAM 118A	UCL-3833	7/2/2024	7/2/2025
Test Software	Nexio	BatEMC	UCL-5253 & UCL-5249	N/A	N/A

Table 4: List of equipment used for Radiated Emissions

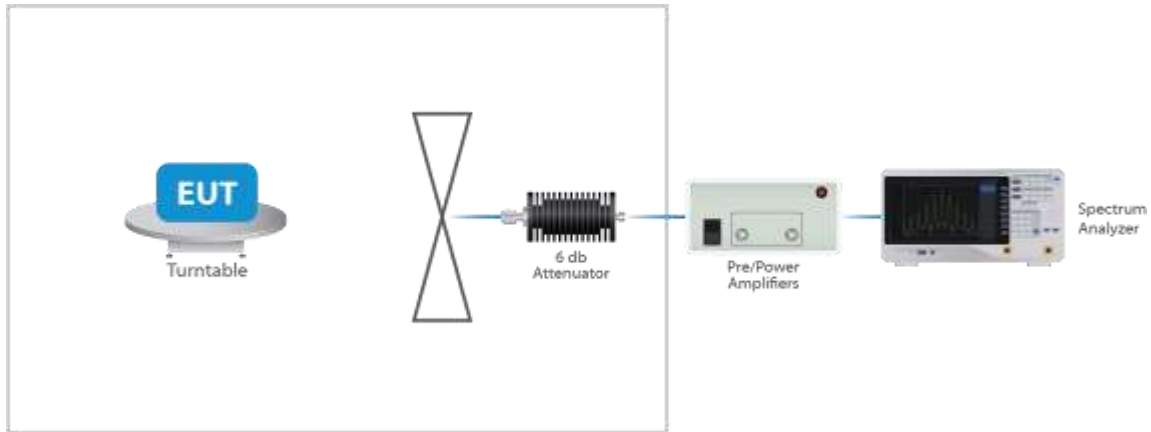


Figure 4: Radiated Emissions Test

4.4 DFS Testing

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
Vector Signal Generator	R&S	SMBV100A	UCL-2873	N/A	N/A
Spectrum Analyzer	Keysight	N9010B	UCL-7069	5/3/2024	5/3/2025

4.4.1 Master Test Set Up

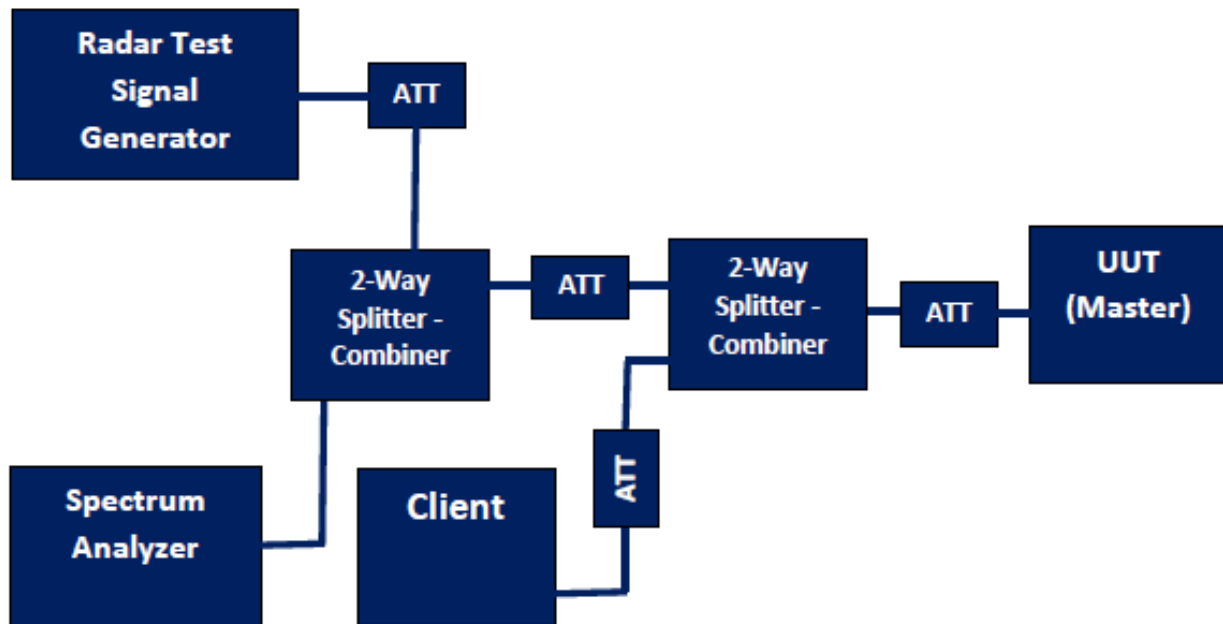


Figure 5: DFS Test Set Up - Master

4.5 Equipment Calibration

All applicable equipment is calibrated using either an independent calibration laboratory or Unified Compliance Laboratory personnel at intervals defined in ANSI C63.4:2014 following outlined calibration procedures. All measurement instrumentation is traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and is available for examination upon request.

4.6 Measurement Uncertainty

Test	Uncertainty ($\pm$ dB)	Confidence (%)
Conducted Emissions	1.44	95
Radiated Emissions (9 kHz to 30 MHz)	2.50	95
Radiated Emissions (30 MHz to 1 GHz)	4.38	95
Radiated Emissions (1 GHz to 18 GHz)	4.37	95
Radiated Emissions (18 GHz to 40 GHz)	3.93	95
Direct Connect Tests	K Factor	Value
Emissions Bandwidth	2	2.0%
Output Power	2	1.0 dB
Peak Power Spectral Density	2	1.3 dB
Band Edge	2	0.8 dB
Transmitter Spurious Emissions	2	1.8 dB

5 Test Results

5.1 §15.203 Antenna Requirements

The EUT uses an internal integrated antenna. Per the manufacturer, the Maximum gain of the antenna per chain is 17 dBi. This is an 802.11 device and utilizes CDD as described in KDB 662911 D01. The antenna is not user replaceable. For CDD transmissions, directional gain is calculated as follows.

Array Gain = $10 \log(\text{NANT}/\text{NSS})$ dB

NANT = number of transmit antennas and

NSS = number of spatial streams. NSS = 1 considered worst case.

For power measurements on IEEE 802.11 devices, Array Gain = 0 dB for $\text{NANT} \leq 4$;

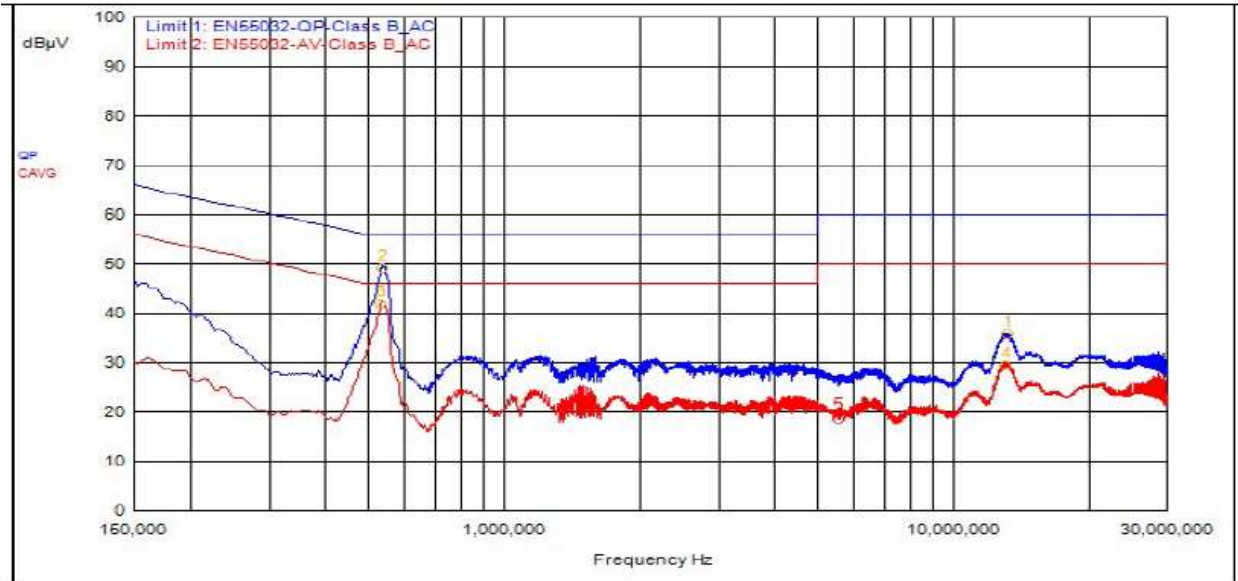
For PSD measurements when $\text{Nss}=1$: Array Gain = $10 \log(\text{NANT}/\text{NSS})$ dB + Antenna Gain (dBi). Or $3.01 \text{ dB} + 17 \text{ dBi} = 20.01 \text{ dBi}$.

Results

The EUT complied with the specification

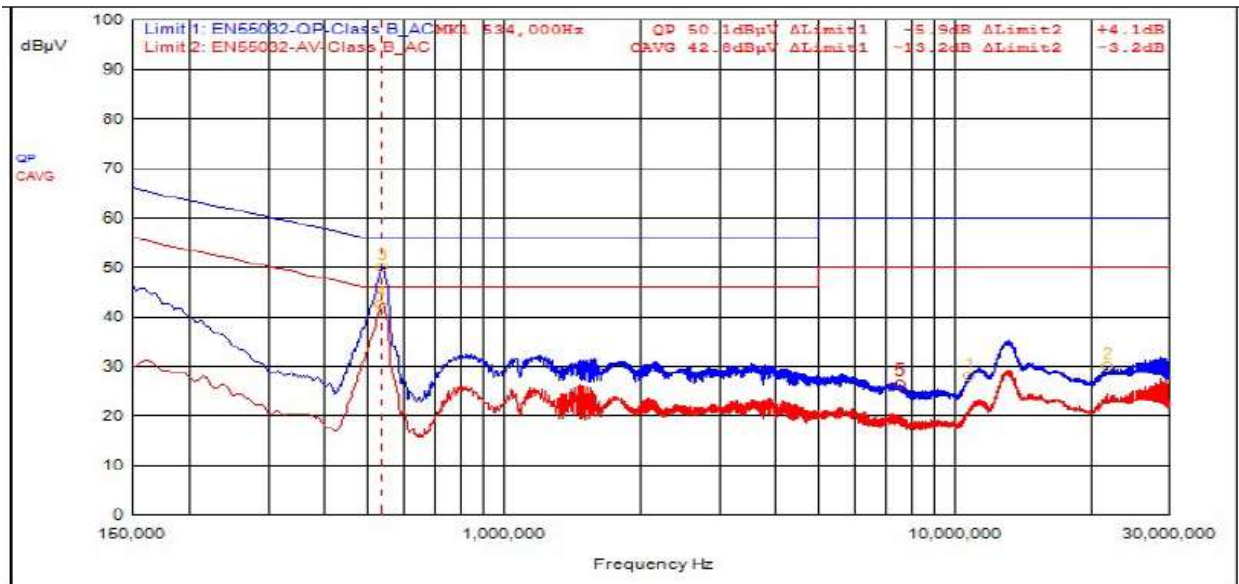
5.2 Conducted Emissions at Mains Ports Data

5.2.1 Line



ID	Frequency	Probe	Cable	Atten.	Detector	Meter Read	Meas Level	Limit 1	Limit 1 Dist.	Limit 2	Limit 2 Dist.	P/F
MU	MHz	dB	dB	dB	Type	dBμV	dBμV	dBμV	dB	dBμV	dB	P/F
2	537,000kHz	9.49			QPeak	39.59	49.08	56.00	-6.92			
1	13.158	9.66			QPeak	26.19	35.85	60.00	-24.15			
3	531,000kHz	9.49			C_AVG	32.53	42.02			46.00	-3.98	
4	13.122	9.66			C_AVG	19.66	29.32			50.00	-20.68	
5	5.556	9.61			C_AVG	9.02	18.63			50.00	-31.37	

5.2.2 Neutral



ID	Frequency	Probe	Cable	Atten.	Detector	Meter Read	Meas Level	Limit 1	Limit 1 Dist.	Limit 2	Limit 2 Dist.	P/F
MU	MHz	dB	dB	dB	Type	dBμV	dBμV	dBμV	dB	dBμV	dB	P/F
3	534,000kHz	9.62			QPeak	40.45	50.07	56.00	-5.93			
2	21.897	9.97			QPeak	20.00	29.97	60.00	-30.03			
1	10.803	9.65			QPeak	18.49	28.14	60.00	-31.86			
5	7.593	9.63			QPeak	16.79	26.42	60.00	-33.58			
4	531,000kHz	9.62			C_AVG	32.86	42.48			46.00	-3.52	

Result

The EUT complied with the specification limit.

5.3 §15.407(a) 26 dB Emissions Bandwidth

All chains were measured under the guidance of KDB 789033 Section II.C. and KDB 662911 D01.
Please see associated annex for details on instrument settings.

5.3.1 UNII-2A

Bandwidth	Frequency (MHz)	99% Bandwidth (MHz)	Emissions 26 dB Bandwidth (MHz)
OFDM 20	5260	17.3	21.7
OFDM 20	5280	17.3	20.7
OFDM 20	5320	17.3	21.1
VHT 20	5260	18.5	21.8
VHT 20	5280	18.3	21.8
VHT 20	5320	18.3	21.8
VHT 40	5270	36.5	42.6
VHT 40	5310	36.8	42.8

5.3.2 UNII-2C

Bandwidth	Frequency (MHz)	99% Bandwidth (MHz)	Emissions 26 dB Bandwidth (MHz)
OFDM 20	5500	17.3	21.1
OFDM 20	5600	17.0	21.3
OFDM 20	5720	17.0	21.5
VHT 20	5500	18.3	22.2
VHT 20	5600	18.5	21.1
VHT 20	5720	18.5	21.3
VHT 40	5510	37.5	42.3
VHT 40	5590	37.0	41.6
VHT 40	5710	37.0	41.7

Result

All chains were tested and the highest bandwidth per chain is reported above. Please see Annex for all bandwidth measurements.

5.4 §15.407(a)(2) Maximum Average Output Power

All chains were measured and summed under the guidance of KDB 789033 Section II. E.2. and KDB 662911 D01. Please see associated annex for details on instrument settings.

The maximum average RF conducted output power measured for this device was 12.48 dBm or 17.70 mW. The limit is 24 dBm or 250 mW when using antennas with 6 dBi or less gain. The antenna has a maximum gain of 17 dBi. Adjusted limit with 17 dBi antenna is 13 dBm or 19.95 mW.

5.4.1 UNII-2A

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP
OFDM 20	5260	Mcs0_Nss2	8	11.71	28.71
OFDM 20	5280	Mcs0_Nss2	8	11.66	28.66
OFDM 20	5320	Mcs0_Nss2	8	11.58	28.58
VHT 20	5260	Mcs0_Nss2	8	11.75	28.75
VHT 20	5280	Mcs0_Nss2	8	11.73	28.73
VHT 20	5320	Mcs0_Nss2	8	11.58	28.58
VHT 40	5270	Mcs0_Nss2	9	12.43	29.43
VHT 40	5310	Mcs0_Nss2	9	12.40	29.40

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP
OFDM 20	5260	Mcs0_Nss1	5	8.71	25.71
OFDM 20	5280	Mcs0_Nss1	5	8.66	25.66
OFDM 20	5320	Mcs0_Nss1	5	8.58	25.58
VHT 20	5260	Mcs0_Nss1	6	9.75	26.75
VHT 20	5280	Mcs0_Nss1	6	9.73	26.73
VHT 20	5320	Mcs0_Nss1	6	9.58	26.58
VHT 40	5270	Mcs0_Nss1	7	10.43	27.43
VHT 40	5310	Mcs0_Nss1	7	10.40	27.40

5.4.2 UNII-2C

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP
OFDM 20	5500	Mcs0_Nss2	8	12.11	29.11
OFDM 20	5600	Mcs0_Nss2	8	11.99	28.99
OFDM 20	5720	Mcs0_Nss2	8	11.81	28.81
VHT 20	5500	Mcs0_Nss2	8	12.47	29.47
VHT 20	5600	Mcs0_Nss2	8	12.44	29.44
VHT 20	5720	Mcs0_Nss2	8	12.48	29.48
VHT 40	5510	Mcs0_Nss2	8	12.00	29.00
VHT 40	5590	Mcs0_Nss2	8	11.99	28.99
VHT 40	5710	Mcs0_Nss2	8	11.93	28.93

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP
OFDM 20	5500	Mcs0_Nss1	4	8.11	25.11
OFDM 20	5600	Mcs0_Nss1	4	7.99	24.99
OFDM 20	5720	Mcs0_Nss1	4	7.81	24.81
VHT 20	5500	Mcs0_Nss1	5	9.47	26.47
VHT 20	5600	Mcs0_Nss1	5	9.44	26.44
VHT 20	5720	Mcs0_Nss1	5	9.48	26.48
VHT 40	5510	Mcs0_Nss1	8	12.00	29.00
VHT 40	5590	Mcs0_Nss1	8	11.99	28.99
VHT 40	5710	Mcs0_Nss1	8	11.93	28.93

Result

In the configuration tested, the maximum average RF output power was less than 0.250 watt; therefore, the EUT complied with the requirements of the specification.

* Gated EIRP shown in the Annex is the conducted measurement.

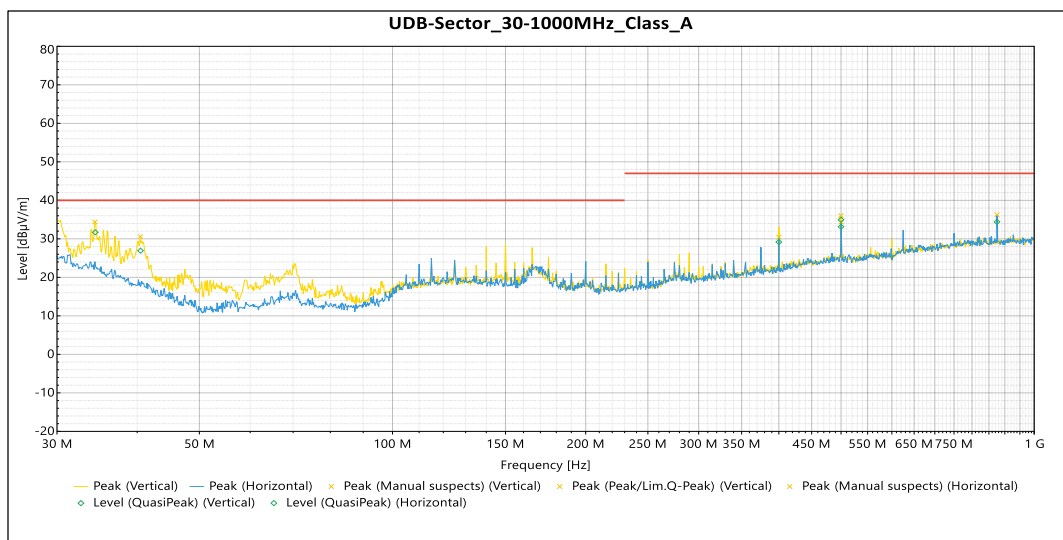
5.5 §15.407(b) Spurious Emissions

5.5.1 Radiated Spurious Emissions in the Restricted Bands of § 15.205

The frequency range from the lowest frequency generated or used in the device to the tenth harmonic of the highest fundamental emissions was investigated to measure any radiated emissions in the restricted bands. For frequencies above 18.0 GHz. The emissions in the restricted bans must meet the limits specified in § 15.209. Conducted measurement results are included in the Annex. Radiated data with the EUT transmitting into a load is included below. All emissions between the required frequencies were investigated, the following plots represent the worst case. The “fail” is the transmitted signal exceeding the spurious limit.

Correction Factor = Antenna Factor (dBi) + Cable Loss (dB) - Pre-Amplifier Gain (dB), and is added to the Receiver reading.

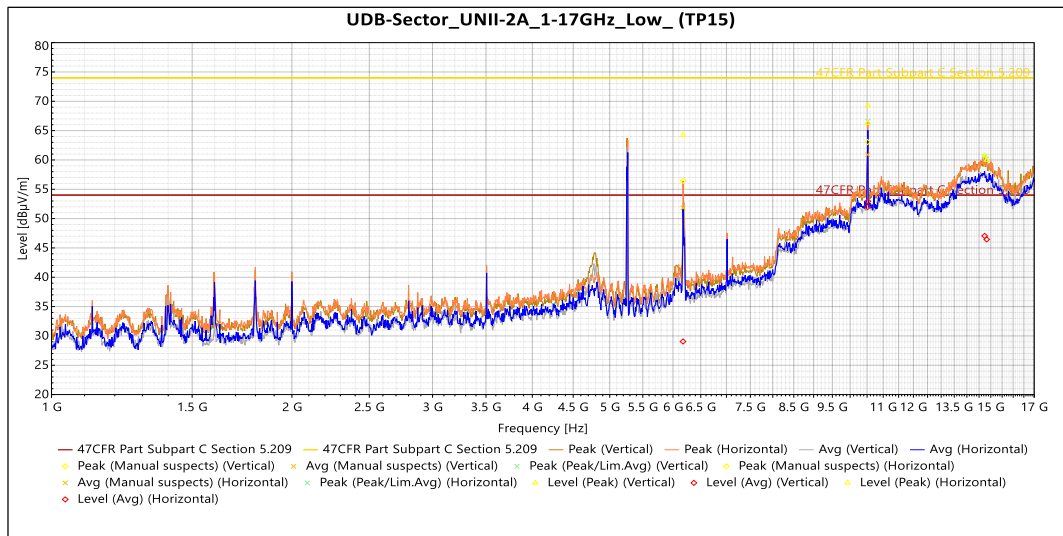
5.5.2 UNII-2A



QuasiPeak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
34.42 MHz	31.69	30	-8.31	261	1.16	Vertical	-6.12
40.48 MHz	26.93	30	-13.07	207	1	Vertical	-10.56
499.99 MHz	33.15	30	-13.85	142	2.56	Vertical	-5.19
400.00 MHz	29.17	30	-17.83	295	2.95	Horizontal	-7.62
500.01 MHz	34.96	30	-12.04	277	1.52	Horizontal	-5.19
875.01 MHz	34.40	30	-12.60	244	1.17	Horizontal	-0.65

Table 5: Radiated Emissions 30 – 1000 MHz



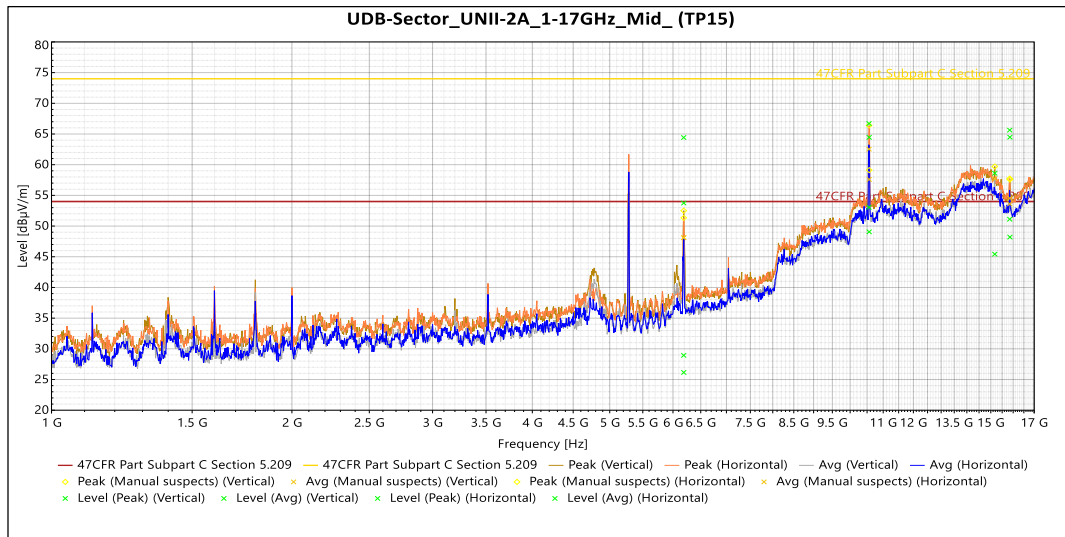
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
10.52 GHz	66.28	74.0	-7.72	192	3.307	Vertical	10.04
14.82 GHz	60.00	74.0	-14.00	189	3.311	Vertical	14.61
6.18 GHz	64.23	74.0	-9.78	34	1.834	Horizontal	-9.77
10.52 GHz	69.27	74.0	-4.73	166	2.146	Horizontal	10.06
14.74 GHz	60.75	74.0	-13.25	24	3.656	Horizontal	14.89

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
10.52 GHz	51.98	54.0	-2.02	192	3.307	Vertical	10.04
14.82 GHz	46.45	54.0	-7.55	189	3.311	Vertical	14.61
6.18 GHz	29.05	54.0	-24.95	34	1.834	Horizontal	-9.77
10.52 GHz	52.97	54.0	-1.03	166	2.146	Horizontal	10.06
14.74 GHz	47.05	54.0	-6.95	24	3.656	Horizontal	14.89

Table 6: Radiated Emissions 1 – 17 GHz at the Lowest Frequency



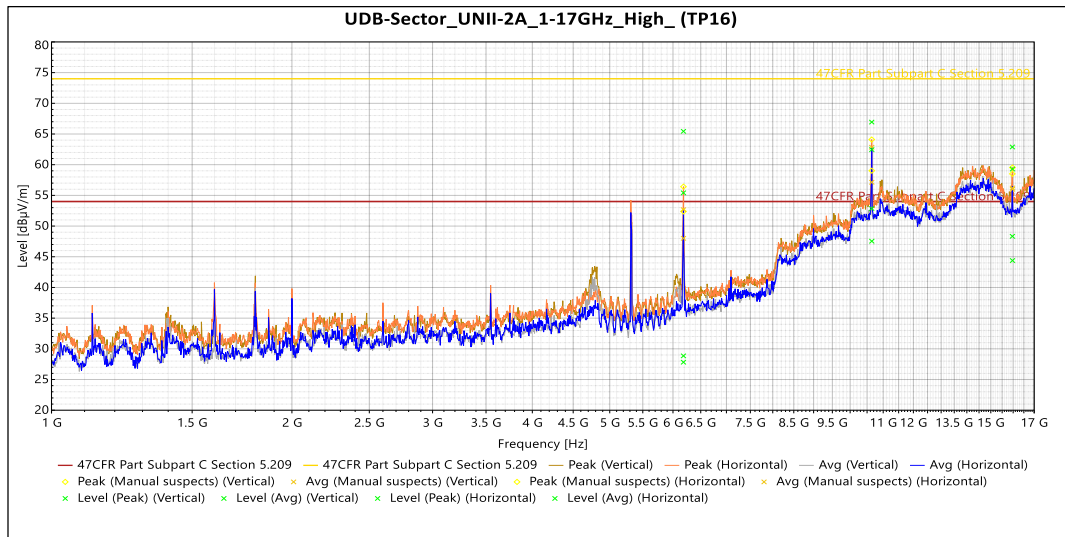
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
6.19 GHz	53.75	74.0	-20.25	41	2.142	Vertical	-9.71
10.56 GHz	64.45	74.0	-9.55	220	4	Vertical	10.10
15.17 GHz	58.90	74.0	-15.40	258	2.325	Vertical	13.36
15.85 GHz	64.48	74.0	-9.52	172	2.65	Vertical	11.55
6.19 GHz	64.43	74.0	-9.57	25	2.142	Horizontal	-9.71
10.56 GHz	66.70	74.0	-7.30	163	2.146	Horizontal	10.10
15.84 GHz	65.63	74.0	-8.37	327	2.146	Horizontal	11.50

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
6.19 GHz	26.15	54.0	-27.85	41	2.142	Vertical	-9.71
10.56 GHz	49.06	54.0	-4.94	220	4	Vertical	10.10
15.17 GHz	45.42	54.0	-8.58	258	2.325	Vertical	13.36
15.85 GHz	48.20	54.0	-5.80	172	2.65	Vertical	11.55
6.19 GHz	28.94	54.0	-25.06	25	2.142	Horizontal	-9.71
10.56 GHz	53.05	54.0	-0.95	163	2.146	Horizontal	10.10
15.84 GHz	51.12	54.0	-2.88	327	2.146	Horizontal	11.50

Table 7: Radiated Emissions 1 – 17 GHz at the Middle Frequency



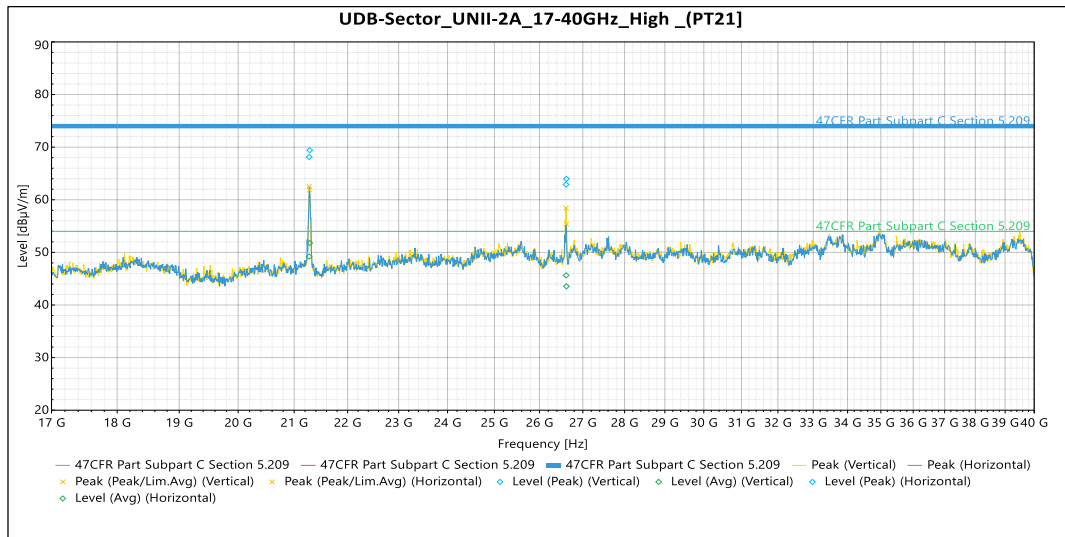
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
61.18 GHz	55.41	74.0	-18.59	28	1.5	Vertical	-9.72
10.64 GHz	62.46	74.0	-11.54	217	2.65	Vertical	10.00
15.96 GHz	62.89	74.0	-11.11	236	3.149	Vertical	10.61
6.18 GHz	65.44	74.0	-8.56	15	2.146	Horizontal	-9.73
10.64 GHz	66.94	74.0	-7.06	160	1.643	Horizontal	10.00
15.97 GHz	59.29	74.0	-14.71	255	2.65	Horizontal	10.61

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
61.18 GHz	27.82	54.0	-26.18	28	1.5	Vertical	-9.72
10.64 GHz	47.53	54.0	-6.47	217	2.65	Vertical	10.00
15.96 GHz	48.33	54.0	-5.67	236	3.149	Vertical	10.61
6.18 GHz	28.85	54.0	-25.15	15	2.146	Horizontal	-9.73
10.64 GHz	52.86	54.0	-1.14	160	1.643	Horizontal	10.00
15.97 GHz	44.38	54.0	-9.62	255	2.65	Horizontal	10.61

Table 8: Radiated Emissions 1 – 17 GHz at the Highest Frequency



Peak

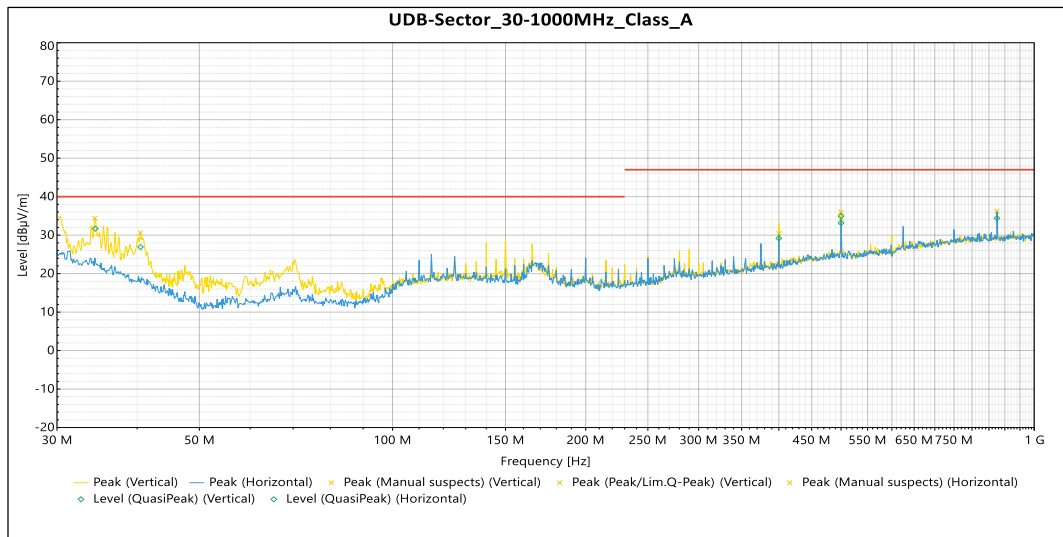
Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
21.29 GHz	69.43	74.0	-4.57	139	Vertical	0.04
26.61 GHz	62.90	74.0	-11.10	214	Vertical	0.16
21.28 GHz	68.13	74.0	-5.87	189	Horizontal	0.02
26.62 GHz	63.98	74.0	-10.02	247	Horizontal	0.24

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
21.29 GHz	51.77	54.0	-2.23	139	Vertical	0.04
26.61 GHz	45.64	54.0	-8.36	214	Vertical	0.16
21.28 GHz	49.21	54.0	-4.79	189	Horizontal	0.02
26.62 GHz	43.55	54.0	-10.45	247	Horizontal	0.24

Table 9: Radiated Emissions 17 – 40 GHz at the Highest Frequency (worse case)

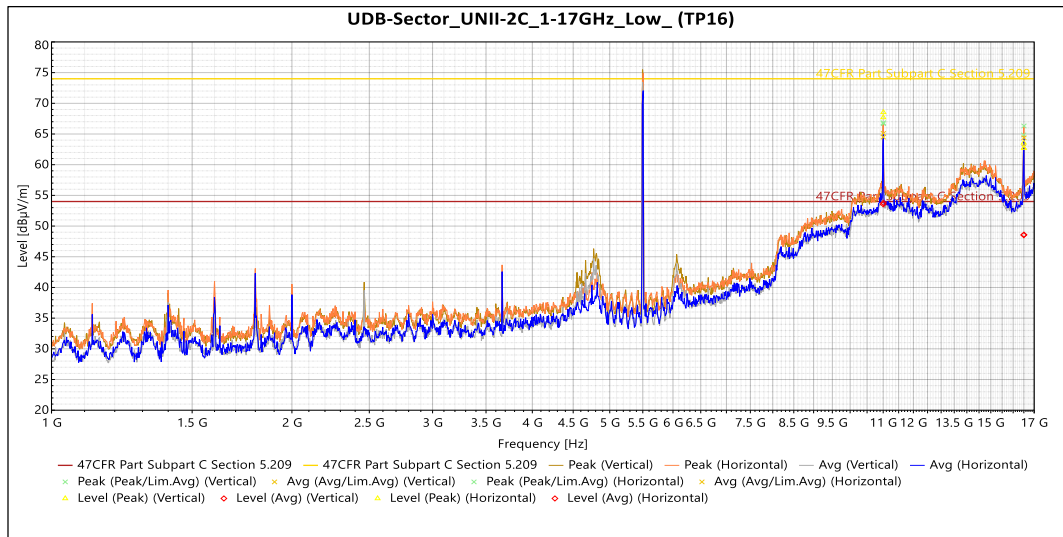
5.5.3 UNII-2C



QuasiPeak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
34.42 MHz	31.69	30	-8.31	261	1.16	Vertical	-6.12
40.48 MHz	26.93	30	-13.07	207	1	Vertical	-10.56
499.99 MHz	33.15	30	-13.85	142	2.56	Vertical	-5.19
400.00 MHz	29.17	30	-17.83	295	2.95	Horizontal	-7.62
500.01 MHz	34.96	30	-12.04	277	1.52	Horizontal	-5.19
875.01 MHz	34.40	30	-12.60	244	1.17	Horizontal	-0.65

Table 10: Radiated Emissions 30 – 1000 MHz



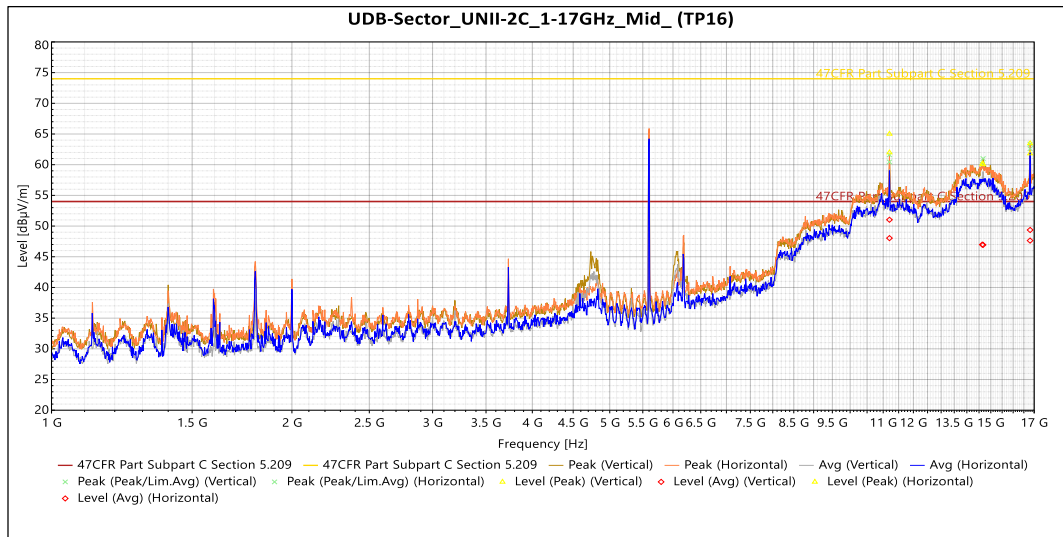
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.00 GHz	67.70	74.0	-6.30	214	1.643	Vertical	11.34
16.49 GHz	63.57	74.0	-10.43	215	2.645	Vertical	13.30
11.01 GHz	68.53	74.0	-5.47	245	1.5	Horizontal	11.29
16.51 GHz	52.71	74.0	-11.29	241	2.645	Horizontal	13.42

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.00 GHz	53.55	54.0	-0.45	214	1.643	Vertical	11.34
16.49 GHz	48.54	54.0	-5.46	215	2.645	Vertical	13.30
11.01 GHz	53.78	54.0	-0.22	245	1.5	Horizontal	11.29
16.51 GHz	48.59	54.0	-5.41	241	2.645	Horizontal	13.42

Table 11: Radiated Emissions 1 – 17 GHz at the Lowest Frequency



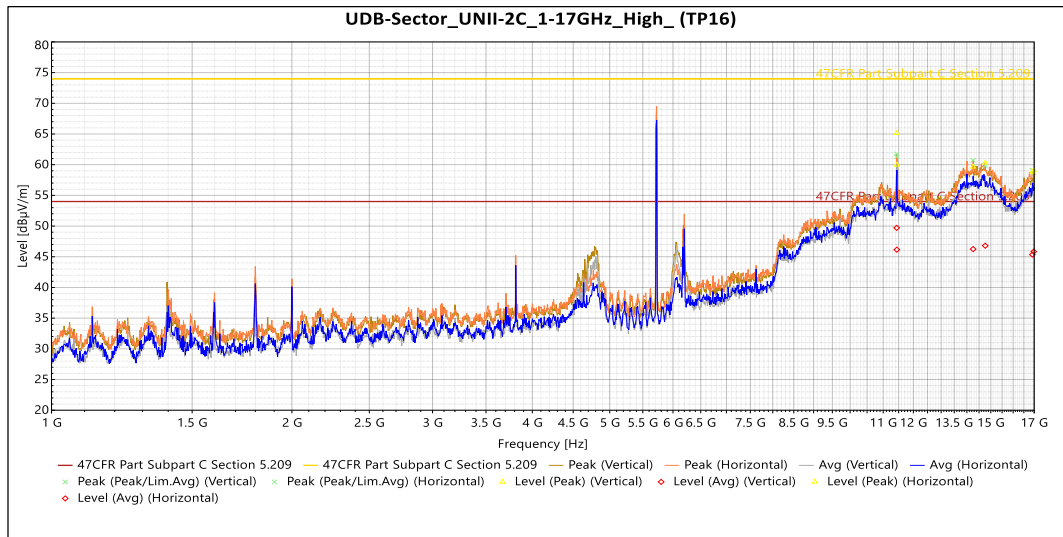
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.20 GHz	65.01	74.0	-8.99	203	1.643	Vertical	10.56
14.67 GHz	60.06	74.0	-13.94	30	1.643	Vertical	14.96
16.80 GHz	61.81	74.0	-12.19	191	2.645	Vertical	14.36
11.20 GHz	61.98	74.0	-12.02	159	3.802	Horizontal	10.56
14.64 GHz	60.14	74.0	-13.86	137	3.307	Horizontal	14.85
16.80 GHz	63.47	74.0	-10.53	132	3.311	Horizontal	14.36

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.20 GHz	51.03	54.0	-2.97	203	1.643	Vertical	10.56
14.67 GHz	46.93	54.0	-7.07	30	1.643	Vertical	14.96
16.80 GHz	47.63	54.0	-6.37	191	2.645	Vertical	14.36
11.20 GHz	48.03	54.0	-5.97	159	3.802	Horizontal	10.56
14.64 GHz	46.98	54.0	-7.02	137	3.307	Horizontal	14.85
16.80 GHz	49.36	54.0	-4.64	132	3.311	Horizontal	14.36

Table 12: Radiated Emissions 1 – 17 GHz at the Middle Frequency



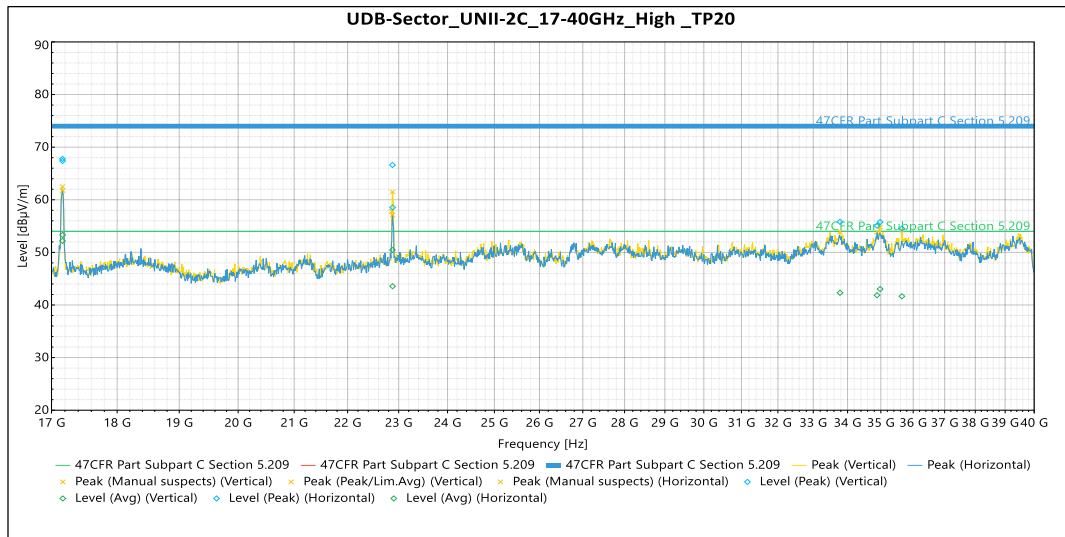
Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.44 GHz	65.12	74.0	-8.88	217	3.307	Vertical	10.78
14.76 GHz	60.31	74.0	-13.69	179	3.802	Vertical	14.80
16.98 GHz	59.07	74.0	-14.93	273	3.802	Vertical	15.19
11.44 GHz	59.98	74.0	-14.02	352	1.838	Horizontal	10.82
14.26 GHz	59.66	74.0	-14.34	119	2.645	Horizontal	14.25
16.91 GHz	58.83	74.0	-15.17	194	2.142	Horizontal	14.71

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.44 GHz	49.71	54.0	-4.29	217	3.307	Vertical	10.78
14.76 GHz	46.80	54.0	-7.20	179	3.802	Vertical	14.80
16.98 GHz	45.84	54.0	-8.16	273	3.802	Vertical	15.19
11.44 GHz	46.15	54.0	-7.85	352	1.838	Horizontal	10.82
14.26 GHz	46.25	54.0	-7.75	119	2.645	Horizontal	14.25
16.91 GHz	45.35	54.0	-8.65	194	2.142	Horizontal	14.71

Table 13: Radiated Emissions 1 – 17 GHz at the Highest Frequency



Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
17.16 GHz	67.76	74.0	-6.24	165	Vertical	-0.90
22.88 GHz	66.62	74.0	-7.38	199	Vertical	-0.28
33.78 GHz	55.81	74.0	-18.19	244	Vertical	3.83
34.98 GHz	55.76	74.0	-18.24	179	Vertical	5.09
35.65 GHz	54.52	74.0	-19.48	61	Vertical	3.70
17.17 GHz	67.38	74.0	-6.62	225	Horizontal	-0.92
22.88 GHz	58.54	74.0	-15.46	244	Horizontal	-0.27
34.89 GHz	55.07	74.0	-18.93	179	Horizontal	4.79

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
17.16 GHz	52.19	54.0	-1.81	165	Vertical	-0.90
22.88 GHz	50.46	54.0	-3.54	199	Vertical	-0.28
33.78 GHz	42.31	54.0	-11.69	244	Vertical	3.83
34.98 GHz	43.03	54.0	-10.97	179	Vertical	5.09
35.65 GHz	41.65	54.0	-12.35	61	Vertical	3.70
17.17 GHz	53.31	54.0	-0.69	225	Horizontal	-0.92
22.88 GHz	43.56	54.0	-10.44	244	Horizontal	-0.27
34.89 GHz	41.86	54.0	-12.14	179	Horizontal	4.79

Table 14: Radiated Emissions 17 – 40 GHz at the Highest Frequency (worse case)

5.6 §15.407(a) Maximum Power Spectral Density

All chains were measured and summed under the guidance of KDB 789033 Section II. F. and KDB 662911 D01. Please see associated annex for details on instrument settings.

The maximum average power spectral density conducted from the intentional radiator of the antenna shall not be greater than 11 dBm in any 1 MHz band during any time interval of continuous transmission. For transmitting antennas with a directional gain greater than 6 dBi, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. Results of this testing are summarized. With a 17 dBi antenna, the conducted limit for power spectral density is 0 dBm for NSS>1 modes. For NSS=1 Mode the PSD limit was adjusted per KDB 662911 for a limit of -3dB.

As per KDB 662911, When the EUT is using spatial-multiplexing in HT to HE modes, there is not additional array gain to accommodate. When the EUT uses Nss=1 data rates, the antenna gain is 17 dBi + Array gain of 3.01 dB which is a total of 20.01 dBi

Results of this testing are summarized.

5.6.1 UNII-2A

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	Measured PSD
OFDM 20	5260	Mcs0_Nss2	8	11.71	-0.56
OFDM 20	5280	Mcs0_Nss2	8	11.66	-0.50
OFDM 20	5320	Mcs0_Nss2	8	11.58	-0.43
VHT 20	5260	Mcs0_Nss2	8	11.75	-1.10
VHT 20	5280	Mcs0_Nss2	8	11.73	-1.18
VHT 20	5320	Mcs0_Nss2	8	11.58	-1.33
VHT 40	5270	Mcs0_Nss2	9	12.43	-3.77
VHT 40	5310	Mcs0_Nss2	9	12.40	-3.15

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	Measured PSD
OFDM 20	5260	Mcs0_Nss1	5	8.71	-3.26
OFDM 20	5280	Mcs0_Nss1	5	8.66	-3.50
OFDM 20	5320	Mcs0_Nss1	5	7.58	-3.43
VHT 20	5260	Mcs0_Nss1	6	9.75	-3.10
VHT 20	5280	Mcs0_Nss1	6	9.73	-3.18
VHT 20	5320	Mcs0_Nss1	6	9.58	-3.33
VHT 40	5270	Mcs0_Nss1	7	10.43	-5.17
VHT 40	5310	Mcs0_Nss1	7	10.40	-5.15

5.6.2 UNII-2C

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	Measured PSD
OFDM 20	5500	Mcs0_Nss2	8	12.11	-0.38
OFDM 20	5600	Mcs0_Nss2	8	11.99	-0.56
OFDM 20	5720	Mcs0_Nss2	8	11.81	-0.68
VHT 20	5500	Mcs0_Nss2	8	12.47	-0.07
VHT 20	5600	Mcs0_Nss2	8	12.44	-0.09
VHT 20	5720	Mcs0_Nss2	8	12.48	-0.10
VHT 40	5510	Mcs0_Nss2	8	12.00	-3.69
VHT 40	5590	Mcs0_Nss2	8	11.99	-3.57
VHT 40	5710	Mcs0_Nss2	8	11.93	-3.66

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	Measured PSD
OFDM 20	5500	Mcs0_Nss1	4	8.46	-3.87
OFDM 20	5600	Mcs0_Nss1	4	8.28	-3.90
OFDM 20	5720	Mcs0_Nss1	4	8.25	-3.92
VHT 20	5500	Mcs0_Nss1	5	9.47	-3.07
VHT 20	5600	Mcs0_Nss1	5	9.44	-3.09

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	Measured PSD
VHT 20	5720	Mcs0_Nss1	5	9.48	-3.10
VHT 40	5510	Mcs0_Nss1	8	12.00	-3.69
VHT 40	5590	Mcs0_Nss1	8	11.99	-3.57
VHT 40	5710	Mcs0_Nss1	8	11.93	-3.66

Result

The maximum average power spectral density was less than the limit of 0 dBm for NSS>1 and -3.01 for NSS=1; therefore, the EUT complies with the specification.

5.7 DFS Requirement

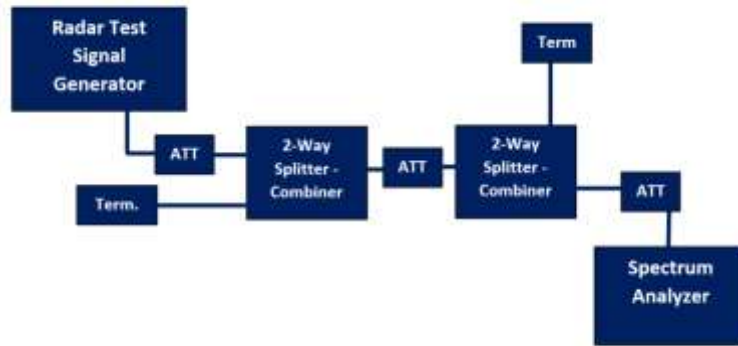
This product is a master with radar detection. The outcome of the required DFS tests is located in this section. DFS testing was performed following the test procedures as outlined in KDB 905462.

The product passes all required DFS tests for a master with radar detection.

Information	Status	
Possible Antenna/s	Integral 17 dBi	
Antenna used for test	Integral 17 dBi	
Operating mode	Master	
If Client	N/A	
Port used for testing	J13	
EIRP range	> 200 milliwatts	
Impedance of port	50 ohms	
Channel loading technique	Data transfer was enacted to achieve a minimum channel loading of approximately 17%	
Antenna measurement technique	See note 1	
Time of power-on cycle	60s	
Detection threshold level	-52 dBm	

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
<i>Non-Occupancy Period</i>	Yes	Not Required	Yes
<i>DFS Detection Threshold</i>	Yes	Not Required	Yes
<i>Channel Availability Check Time</i>	Yes	Not Required	Not Required
<i>U-NII Detection Bandwidth</i>	Yes	Not Required	Yes

Requirement	Operational Mode	
	Master or Client Client Without Radar Detection	Client Without Radar Detection
<i>DFS Detection Threshold</i>	Yes	Not Required
<i>Channel Closing Transmission Time</i>	Yes	Yes
<i>Channel Move Time</i>	Yes	Yes
<i>U-NII Detection Bandwidth</i>	Yes	Not Required



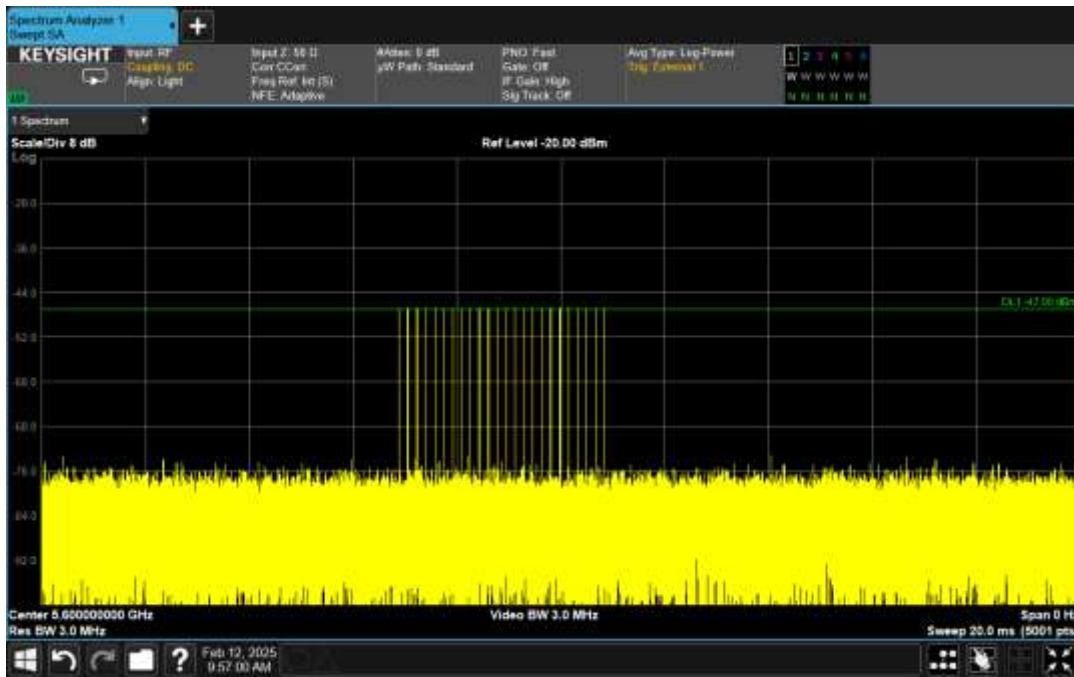
Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming 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. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	



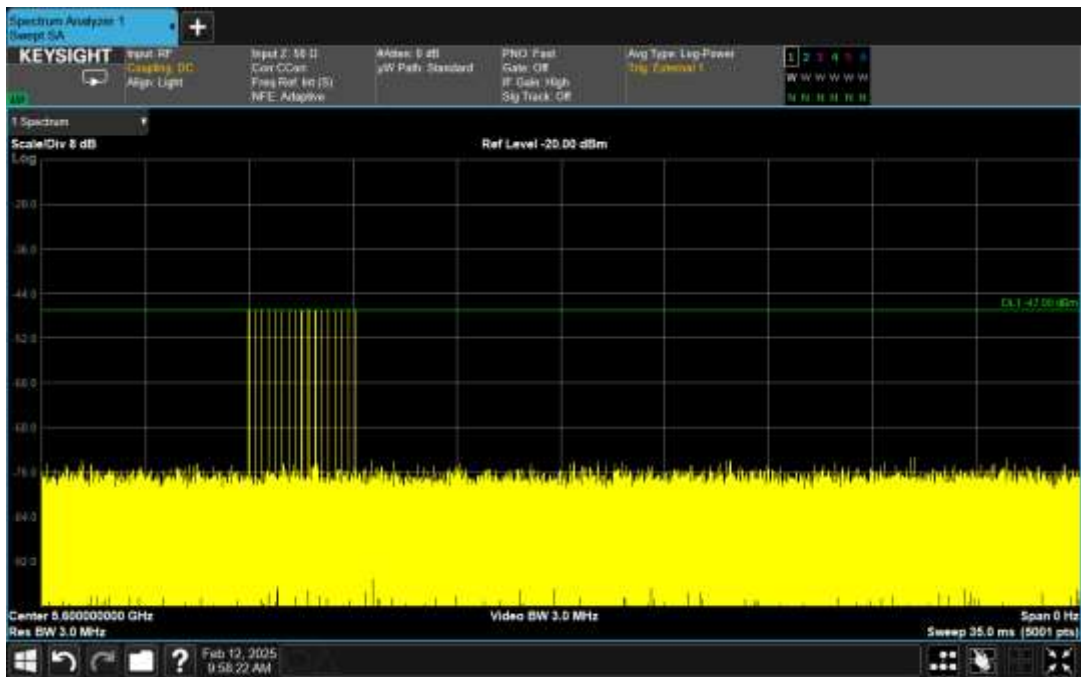
Plot 1: Radar Level 0



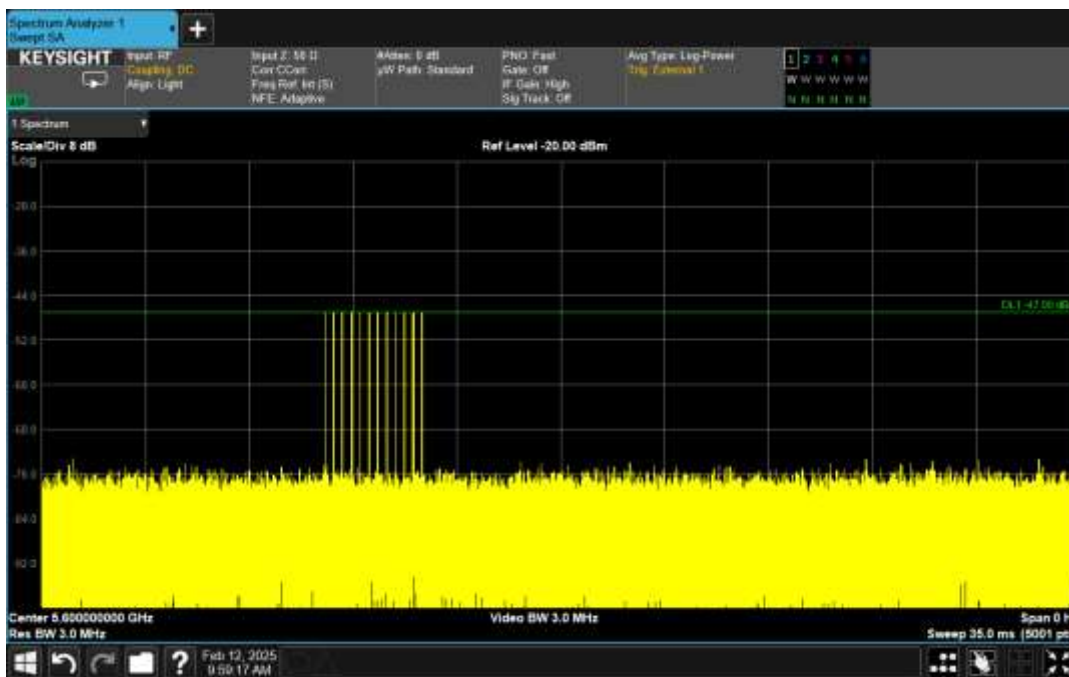
Plot 2: Radar Level 1



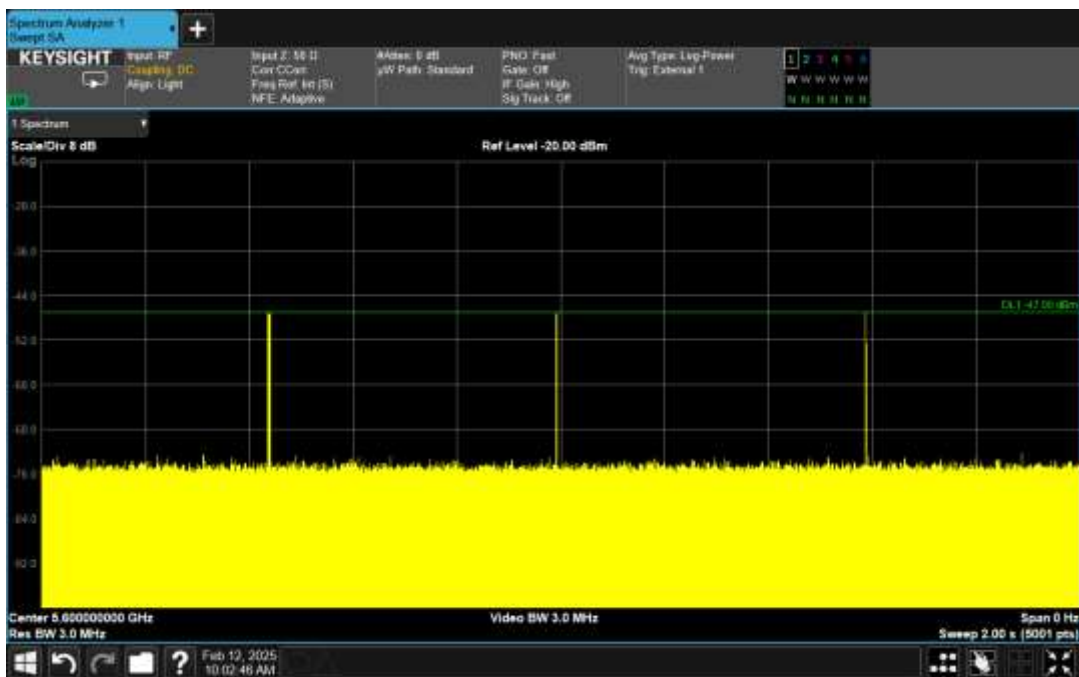
Plot 3: Radar Level 2



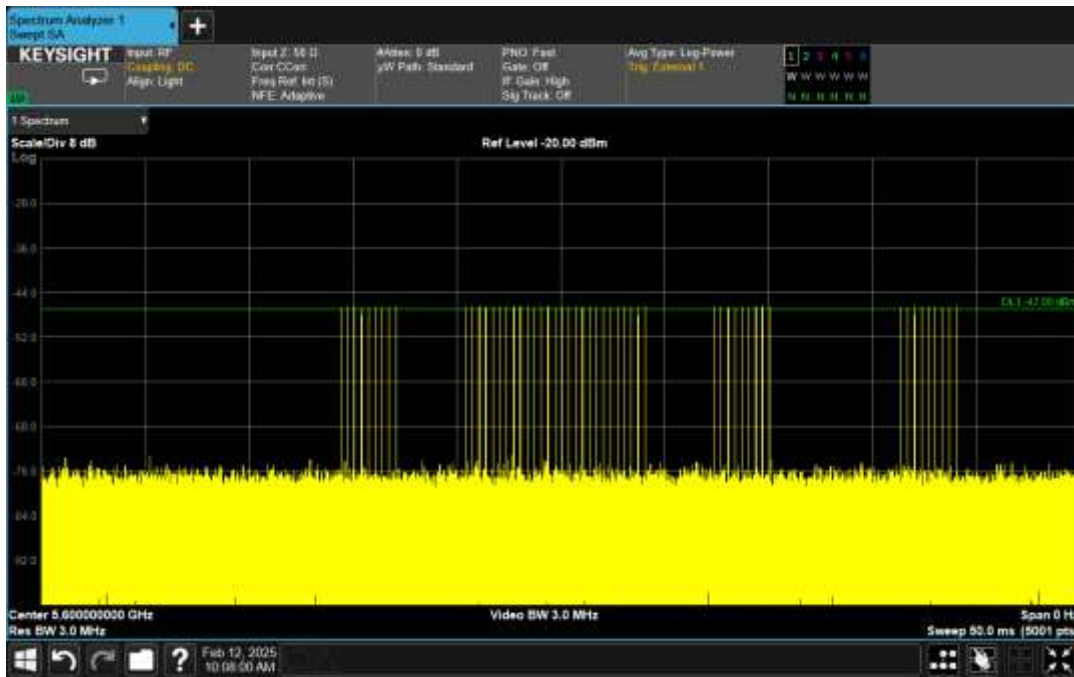
Plot 4: Radar Level 3



Plot 5: Radar Level 4



Plot 6: Radar Level 5



Plot 7: Radar Level 6

5.7.1 Channel Availability Check (CAC)

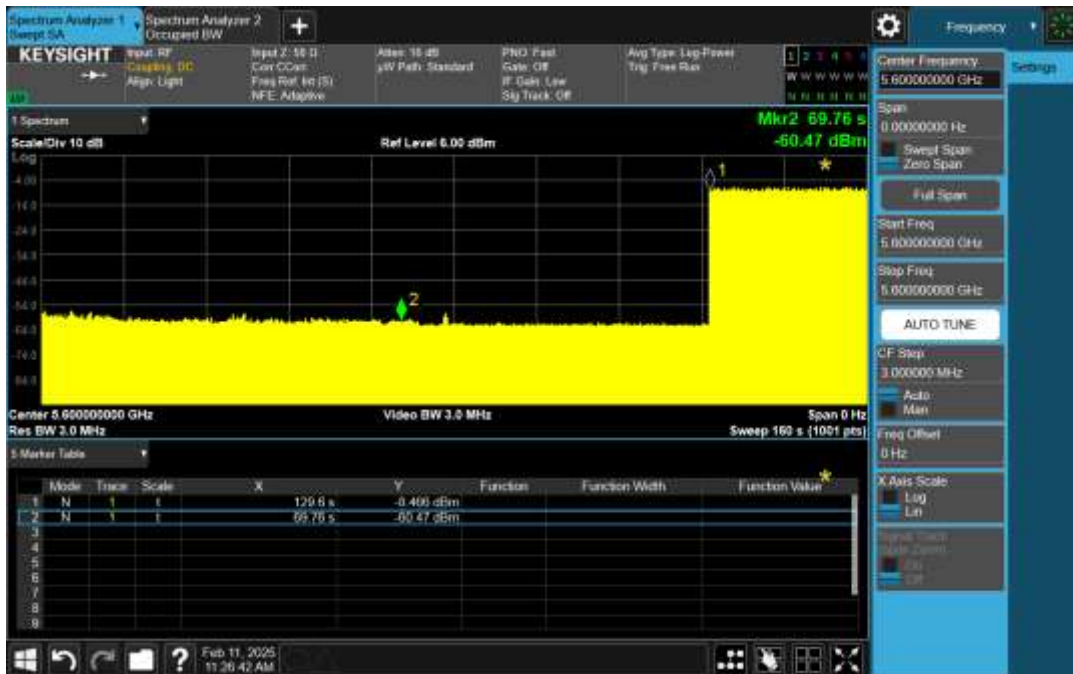
The EUT shall perform a CAC to ensure that there is no radar operating on the channel. After the power-up sequence, at-least 1 minute shall be monitored on the intended operating frequency.

For initial CAC, the EUT does not emit beacon, control, or data signals on the test channel until the power-up sequence has been completed and the UNII device checks for radar waveforms for one minute on the test channel. This test does not use any radar waveforms. The markers in the associated plots indicate initial beacons.

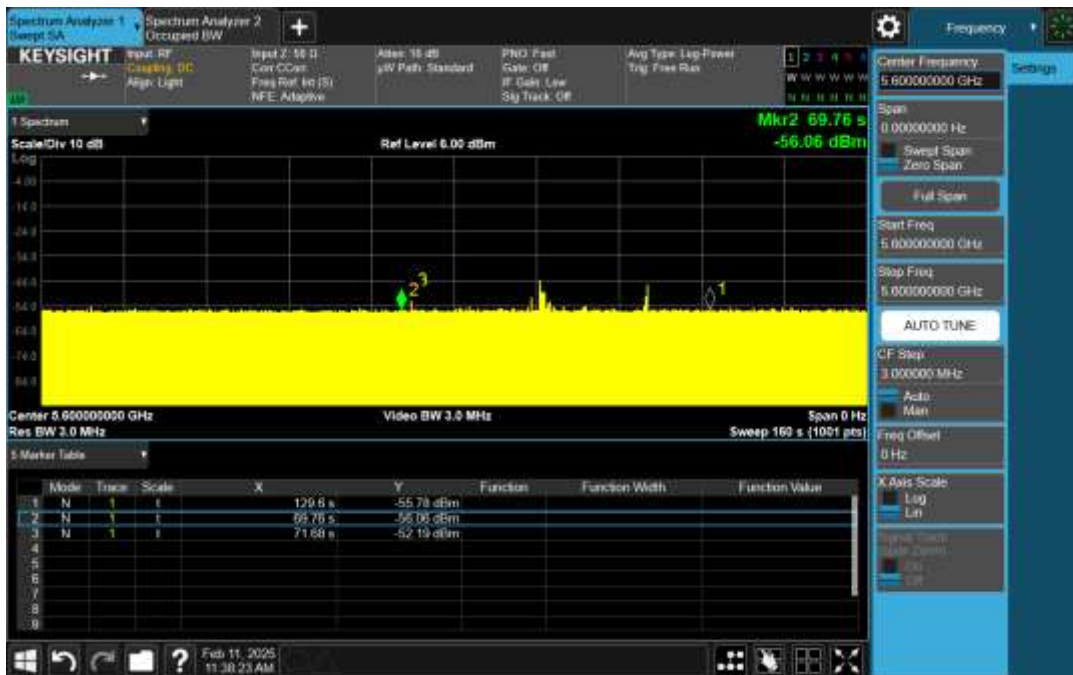
For radar burst at the beginning of the CAC. To verify successful radar detection on the selected channel during a period equal to the beginning of the CAC time, visual indication on the EUT of successful detection of the radar burst will be recorded and reported. Observation of the radar burst is show on the associated plot to be within the beginning of the CAC time. Emissions will continue to be monitored for the remaining 300 seconds.

For radar burst at the end of the CAC. To verify successful radar detection on the selected channel during a period equal to the end of the CAC time, visual indication on the EUT of successful detection of the radar burst will be recorded and reported. Observation of the radar burst is show on the associated plot to be within the end of the CAC time. Emissions will continue to be monitored for the remaining 300 seconds.

A spectrum analyzer is used as a monitor to verify that the EUT has vacated the channel within the channel closing transmission time and channel move time, and does not transmit on a channel during the non-occupancy period after the detection and channel move.



Plot 8: DUT Turn On



Plot 9: Beginning



Plot 10: End

5.7.2 In-service Monitoring

Channel Move Time	10 seconds
Channel Closing Transmission Time	200 ms + aggregate of 60 ms over remaining 10 second period
Non-occupancy period	Minimum 30 minutes

Verified during in-service monitoring: channel closing transmission time and channel move time. The transmissions were observed at the end of the radar burst on the operating channel for a duration of greater than 10 seconds. The transmissions were measured and recorded during the observation time. This was compared to the channel move time and channel closing time limits. One 12 second plot is reported for the short pulse radar type 0. A 60 ms plot is also provided to verify closing time for the aggregate transmission time starting from 200 ms after the end of the radar signal to the completion of the channel move.

During the 30 minutes observation time, the EUT did not make any transmissions on a channel after a radar signal was detected.

Please see plots below.

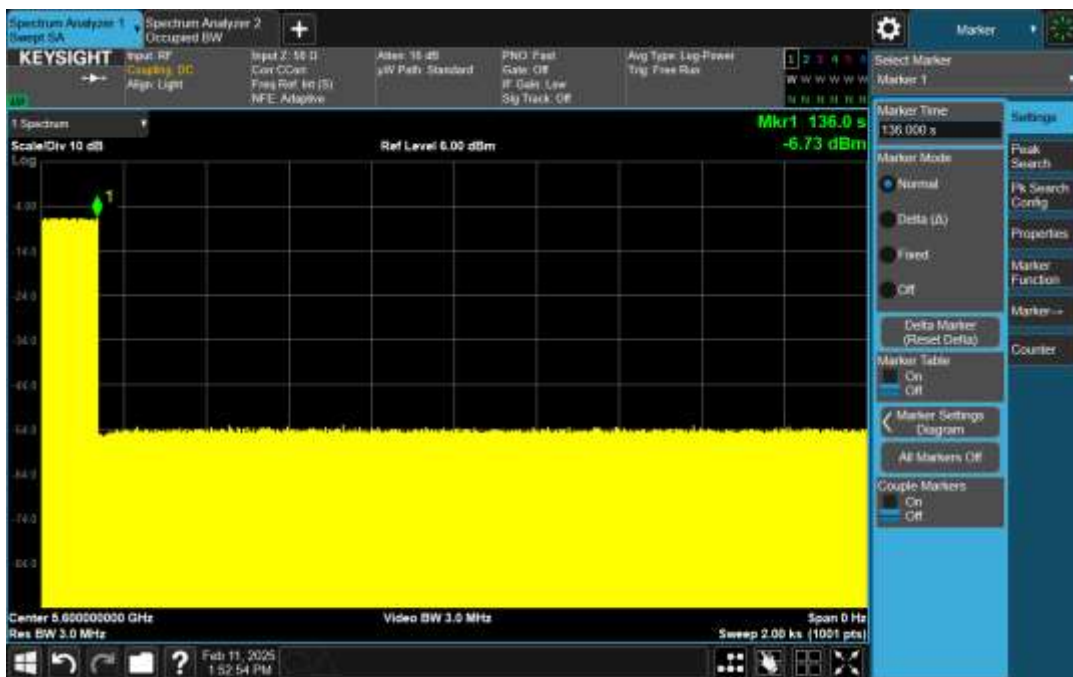
A spectrum analyzer is used as a monitor to verify that the EUT has vacated the channel within the channel closing transmission time and channel move time, and does not transmit on a channel during the non-occupancy period after the detection and channel move.



Plot 11: Channel Close



Plot 12: Channel Move



Plot 13: Non-Occupancy

5.7.3 DFS Detection Bandwidth

20 MHz

EUT Frequency = 5600 MHz ; Bandwidth = 20 MHz												
Radar Frequency MHz	DFS Detection Trials (1 = Detection, 0 = No Detection)										Detection Rate %	
	Trials											
	1	2	3	4	5	6	7	8	9	10		
5590	1	1	1	1	1	1	1	1	1	1	100	
5595	1	1	1	1	1	1	1	1	1	1	100	
5600	1	1	1	1	1	1	1	1	1	1	100	
5605	1	1	1	1	1	1	1	1	1	1	100	
5610	1	1	1	1	1	1	1	1	1	1	100	
Parameter											Value	
U-NII 99% Transmission Power Bandwidth:											18.204	
Lowest frequency with at least 90% detection (F _L):											5590	
Highest frequency with at least 90% detection (F _H):											5610	
Detection Bandwidth (F _H - F _L):											20	
Detection Bandwidth percentage of 99% Transmission Power Bandwidth:											110%	

40 MHz

EUT Frequency = 5590 MHz ; Bandwidth = 40 MHz											
Radar Frequency MHz	DFS Detection Trials (1 = Detection, 0 = No Detection)										Detection Rate %
	Trials										
	1	2	3	4	5	6	7	8	9	10	
5570	0	0	0	0	0	0	0	0	0	0	0
5571	1	1	1	1	1	1	1	1	1	1	100
5572	1	1	1	1	1	1	1	1	1	1	100
5573	1	1	1	1	1	1	1	1	1	1	100
5574	1	0	1	1	1	1	1	1	1	1	90
5575	1	1	1	1	1	1	1	1	1	1	100
5580	1	1	1	1	1	1	1	1	1	1	100
5585	1	1	1	1	1	1	1	1	1	1	100
5590	1	1	1	1	1	1	1	1	1	1	100
5595	1	1	1	1	1	1	1	1	1	1	100
5600	1	1	1	1	1	1	1	1	1	1	100
5605	1	1	1	1	1	1	1	1	1	1	100
5606	1	1	1	1	1	1	1	1	1	1	100
5607	1	1	1	1	1	1	1	1	1	1	100
5608	1	1	1	1	1	1	1	1	1	1	100
5609	1	1	1	1	1	1	1	1	1	1	100
5610	0	0	1	1	1	0	1	0	0	0	40
Parameter											Value
U-NII 99% Transmission Power Bandwidth:											36.6
Lowest frequency with at least 90% detection (F _L):											5571
Highest frequency with at least 90% detection (F _H):											5609
Detection Bandwidth (F _H - F _L):											38
Detection Bandwidth percentage of 99% Transmission Power Bandwidth:											104%

5.7.4 Detection Probability

For statistical performance check. Demonstrating a minimum channel loading of approximately 17% or greater of the test. Observe the transmissions of the EUT at the end of the burst on the operating channel for duration greater than 10 seconds for short pulse radar type 1-4 and 6 to ensure detection occurs. Then observe the transmissions of the EUT at the end of the burst on the operating channel for duration greater than 22 seconds for long pulse radar type 5 to ensure detection occurs. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs.

Please see data below.

Radar Type	Min successful detection (%)	Minimum Trials
1	60	30
2	60	30
3	60	30
4	60	30
Types 1 - 4	80	120
5	80	30
6	70	30

20 MHz

RADAR TYPE 1				
Rohde & Schwarz K350 Pulse Sequencer DFS				
Trial #	Number of Pulses per Burst	Pulse Width (μsec)	PRI (μs)	Detection (yes/no)
1	25	1	2175	y
2	26	1	2045	n
3	18	1	2934	y
4	41	1	1317	y
5	32	1	1649	y
6	24	1	2235	y
7	22	1	2463	y
8	79	1	672	y
9	24	1	2233	y
10	27	1	2005	y
11	26	1	2061	y
12	48	1	1102	y
13	25	1	2185	y
14	18	1	2936	y
15	35	1	1517	y
16	49	1	1091	y
17	18	1	2946	y
18	35	1	1507	y
19	51	1	1041	y
20	26	1	2106	y
21	32	1	1694	y
22	82	1	650	y
23	96	1	550	n
24	38	1	1402	y
25	27	1	1974	y
26	41	1	1305	y
27	88	1	599	y
28	62	1	861	y
29	27	1	2001	y
30	39	1	1375	y

28/30: 93.3%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μsec)	PRI (μs)	Detection (yes/no)
1	29	1.2	196	y
2	27	1	228	n
3	26	1.2	155	n
4	29	3.3	174	y
5	28	1.6	192	y
6	24	2.9	216	y
7	28	2.9	150	y
8	28	4.4	169	y
9	24	3	168	y
10	24	1.5	182	y
11	24	3.2	222	n
12	27	4.8	222	y
13	26	2.7	163	y
14	24	1	172	y
15	26	3.8	172	y
16	26	3.4	212	y
17	28	1.6	182	y
18	23	3.9	225	y
19	25	4.3	189	y
20	25	3.8	212	y
21	26	3.5	201	y
22	26	2.4	157	y
23	25	4.7	219	y
24	24	4.9	172	y
25	25	2.3	192	y
26	25	2.4	193	y
27	27	4.7	178	y
28	25	3.1	222	y
29	28	3.7	182	y
30	25	4	174	y

27/30: 90%

RADAR TYPE 3				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μsec)	PRI (μs)	Detection (yes/no)
1	17	6.7	379	y
2	16	8.7	206	y
3	17	7.3	423	y
4	17	7	368	y
5	16	8.1	358	y
6	17	9.1	373	y
7	17	6.5	435	y
8	18	6.5	348	y
9	17	7.7	450	y
10	17	7.5	466	y
11	17	7.6	434	y
12	17	6	439	y
13	17	8.9	236	y
14	17	9.5	321	y
15	16	8.9	306	y
16	17	6.3	244	y
17	17	6	344	y
18	17	7.6	460	y
19	17	8.7	221	y
20	17	7.4	342	n
21	18	9.5	498	y
22	16	8.2	480	y
23	17	9.2	315	y
24	18	9.7	440	y
25	17	7.6	457	y
26	17	7.4	227	y
27	17	7.8	483	y
28	16	8.8	387	n
29	17	6.2	218	y
30	17	6.7	381	y

28/30: 93.3%

RADAR TYPE 4				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μsec)	PRI (μs)	Detection (yes/no)
1	15	15.9	370	y
2	16	13.9	482	y
3	16	13.8	403	y
4	15	16.7	205	y
5	16	18.5	361	n
6	12	13.4	251	y
7	14	14.2	276	y
8	13	16.1	249	y
9	16	18.2	447	y
10	13	18	452	y
11	15	14.3	219	y
12	14	17.7	407	y
13	13	12.5	431	y
14	12	16.5	338	y
15	15	15.9	448	y
16	15	15.8	226	y
17	15	18.6	425	y
18	13	12.8	304	y
19	12	16.7	307	y
20	15	15.3	246	y
21	15	15.9	244	y
22	15	16.7	333	y
23	13	13.3	492	y
24	13	14.7	302	y
25	15	19.7	291	y
26	15	14.2	451	y
27	15	18.2	246	y
28	14	17.5	473	y
29	13	11.7	248	y
30	13	16	265	y

29/30: 96.7%

TYPE 5		Rohde & Schwarz K350 Pulse Sequencer DFS		
Trial #	Detection (yes/no)	Chirp Width (MHz)	Subset	Fc
1	y	7	1	5600
2	y	12	1	5600
3	y	18	1	5600
4	y	5	1	5600
5	y	5	1	5600
6	y	12	1	5600
7	y	6	1	5600
8	y	19	1	5600
9	y	10	1	5600
10	y	17	1	5600
11	y	16	2	5596.4
12	y	18	2	5597.2
13	y	5	2	5592
14	y	5	2	5592
15	y	20	2	5598
16	y	14	2	5595.6
17	y	13	2	5595.2
18	y	12	2	5594.8
19	y	6	2	5592.4
20	y	18	2	5597.2
21	y	7	3	5607.2
22	y	9	3	5606.4
23	y	5	3	5608
24	y	11	3	5605.6
25	y	16	3	5603.6
26	y	8	3	5606.8
27	y	7	3	5607.2
28	y	18	3	5602.8
29	y	5	3	5608
30	y	13	3	5604.8

30/30: 100%

TYPE 6 S		Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Detection (yes/no)	
1	y	
2	y	
3	y	
4	y	
5	y	
6	y	
7	y	
8	y	
9	y	
10	y	
11	y	
12	y	
13	y	
14	y	
15	y	
16	y	
17	y	
18	y	
19	y	
20	y	
21	y	
22	y	
23	y	
24	y	
25	y	
26	y	
27	y	
28	y	
29	y	
30	y	

30/30: 100%

40 MHz

RADAR TYPE 1				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μsec)	PRI (μs)	Detection (yes/no)
1	27	1	1973	y
2	34	1	1582	y
3	26	1	2052	y
4	67	1	787	y
5	19	1	2782	n
6	22	1	2496	y
7	30	1	1784	y
8	65	1	816	y
9	49	1	1089	y
10	19	1	2893	y
11	37	1	1447	y
12	21	1	2542	y
13	44	1	1205	y
14	43	1	1237	y
15	40	1	1340	y
16	53	1	998	y
17	27	1	1976	y
18	61	1	878	y
19	26	1	2080	y
20	80	1	665	y
21	22	1	2441	y
22	25	1	2173	y
23	24	1	2219	n
24	42	1	1256	y
25	50	1	1059	y
26	100	1	527	y
27	18	1	2964	y
28	26	1	2104	y
29	34	1	1580	y
30	19	1	2830	y

28/30: 93.3%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μsec)	PRI (μs)	Detection (yes/no)
1	24	1.5	175	y
2	27	1.5	202	y
3	23	4.4	189	y
4	25	1.4	194	y
5	29	3.8	167	y
6	25	4.9	199	y
7	24	3	216	y
8	26	3.8	224	n
9	24	4.9	199	n
10	23	4.2	167	y
11	28	4.3	212	y
12	24	2.6	187	y
13	29	4.9	195	y
14	24	2.1	179	y
15	28	4.8	177	y
16	25	1.3	156	y
17	26	3.4	177	y
18	27	4.5	186	y
19	23	2.9	161	y
20	28	1.3	165	y
21	23	3.8	183	n
22	27	4.9	195	y
23	24	3.3	178	y
24	25	1.7	157	y
25	28	1.8	191	y
26	24	4.4	163	y
27	28	2.4	169	y
28	27	4.5	223	y
29	26	4.3	205	y
30	26	4.2	206	y

27/30: 90%

RADAR TYPE 3				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μsec)	PRI (μs)	Detection (yes/no)
1	18	8.9	477	y
2	18	8.7	468	y
3	18	8.5	386	y
4	17	9.2	279	y
5	17	9.2	227	n
6	18	6.3	371	y
7	18	9.6	311	y
8	17	8.5	316	y
9	17	7.1	434	y
10	18	8.6	266	y
11	17	6.3	436	y
12	18	7	451	y
13	17	8.4	432	y
14	16	7.9	386	y
15	16	6.8	388	y
16	18	6.8	237	y
17	18	8.2	415	y
18	18	9.2	454	y
19	16	7.4	480	y
20	17	8.1	489	y
21	17	9.2	372	y
22	17	6.4	353	n
23	18	8.3	261	y
24	18	9.8	476	y
25	17	9.4	361	y
26	16	6.5	220	y
27	18	6.2	416	y
28	18	7.5	295	y
29	16	6.3	403	n
30	17	8.6	421	n

26/30: 86.7%

RADAR TYPE 4				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μsec)	PRI (μs)	Detection (yes/no)
1	13	17.6	368	y
2	13	15.4	473	y
3	15	11.4	311	y
4	14	14.4	259	y
5	15	19.9	272	y
6	12	20	466	y
7	14	19.8	342	n
8	14	12.2	369	y
9	13	16.6	353	y
10	14	15.8	249	y
11	12	14	245	y
12	15	19.4	413	y
13	12	18.1	415	y
14	14	14.3	320	y
15	16	14.2	375	y
16	15	17.8	332	y
17	15	16.2	331	y
18	15	17.3	206	y
19	14	17.3	430	y
20	16	17.4	318	y
21	12	14.2	469	y
22	16	16.1	308	n
23	15	15.5	367	y
24	15	18.2	241	y
25	14	11.4	383	y
26	14	12.7	225	n
27	15	17	275	y
28	15	19.3	471	y
29	16	19	482	y
30	13	16.1	386	y

27/30: 90%

TYPE 5		Rohde & Schwarz K350 Pulse Sequencer DFS		
Trial #	Detection (yes/no)	Chirp Width (MHz)	Subset	Fc
1	n	10	1	5590
2	y	5	1	5590
3	y	7	1	5590
4	y	19	1	5590
5	y	5	1	5590
6	y	16	1	5590
7	y	5	1	5590
8	y	16	1	5590
9	y	13	1	5590
10	y	14	1	5590
11	y	20	2	5578
12	y	9	2	5573.6
13	y	16	2	5576.4
14	y	16	2	5576.4
15	y	12	2	5574.8
16	y	18	2	5577.2
17	y	9	2	5573.6
18	y	19	2	5577.6
19	y	6	2	5572.4
20	y	11	2	5574.4
21	y	11	3	5605.6
22	y	6	3	5607.6
23	y	7	3	5607.2
24	y	8	3	5606.8
25	y	12	3	5605.2
26	y	19	3	5602.4
27	y	12	3	5605.2
28	y	14	3	5604.4
29	y	16	3	5603.6
30	y	7	3	5607.2

29/30: 96.7%

TYPE 6 S		Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Detection (yes/no)	
1	y	
2	y	
3	y	
4	y	
5	y	
6	y	
7	y	
8	y	
9	y	
10	y	
11	y	
12	y	
13	y	
14	y	
15	y	
16	y	
17	y	
18	y	
19	y	
20	y	
21	y	
22	y	
23	y	
24	y	
25	y	
26	y	
27	y	
28	y	
29	y	
30	y	

30/30: 100%

-- End of Test Report --