UNIFIED COMPLIANCE LABORATORY

427 West 12800 South
Draper, UT 84020

Test Report

Certification

FCC ID	SWX-E7AD
ISED ID	6545A-E7AD
Equipment Under Test	E7-Audience
Test Report Serial Number	TR9802_01
Date of Test(s)	16 - 18 July; 24 - 27 September 2024; 14, 18 - 20 February 2025
Report Issue Date	24 February 2025

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

NVLAP TESTING ilac-MRA

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	E7-Audience
FCC ID	SWX-E7AD
ISED ID	6545A-E7AD

On this 24th day of February 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.

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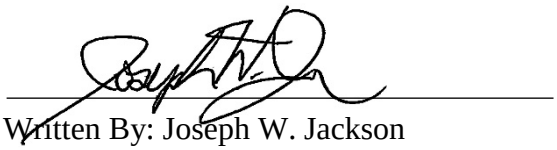
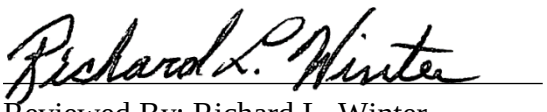


Written By: Joseph W. Jackson



Reviewed By: Richard L. Winter

Revision History		
Revision	**Description**	**Date**
01	Original Report Release	24 February 2025

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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	E7-Audience
Serial Number	FE60A0
Dimensions (cm)	47.4 x 26.5 x 9.4

2.2 Description of EUT

The E7-Audience is a WiFi 7 access point designed for high-density environments with (1) 10GbE PoE port and (1) 1GbE PoE port. The E7-Audience transmits in the 5 GHz, and 6 GHz frequency bands using integral antennas and is powered by an 802.3at PoE power adapter.

The E7-Audience has a low gain mode with the antenna gain of 11 dBm and a high gain mode with the antenna gain of 15 dBm. For Output Power (Section 5.4) and PSD (Section 5.6) both low gain and high gain antenna modes are documented. For the remaining test, the high gain mode is characterized as worst case scenario.

The E7-Audience 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
	80 MHz	5290
	160 MHz	5250
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
	80 MHz	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
	160 MHz	5570
* 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: E7-Audience (Note 1) SN: FE60A0	Wireless Access Point	See Section 2.4
BN: UBIQUITI MN: U-POE-at SN: N/A	PoE Injector Power Supply	Shielded or Un-shielded Cat 5e cable (Note 2)
BN: Dell MN: XPS 13 SN: N/A	Laptop Computer	Shielded or 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 E7-Audience 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 Mains to 48 Volts PoE
AC Mains Frequency	60 Hz

Temperature	21.1 – 23.6 °C
Humidity	22.4 – 26.8 %
Barometric Pressure	1013mBar

2.6 Operating Modes

The E7-Audience was tested using test software in order to enable to constant transmission. The measurements within this report are corrected to reference a 100% duty cycle. All emission modes of 802.11 a/ax were investigated. All measurements are reported with the worst-case mode (802.11ax) 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

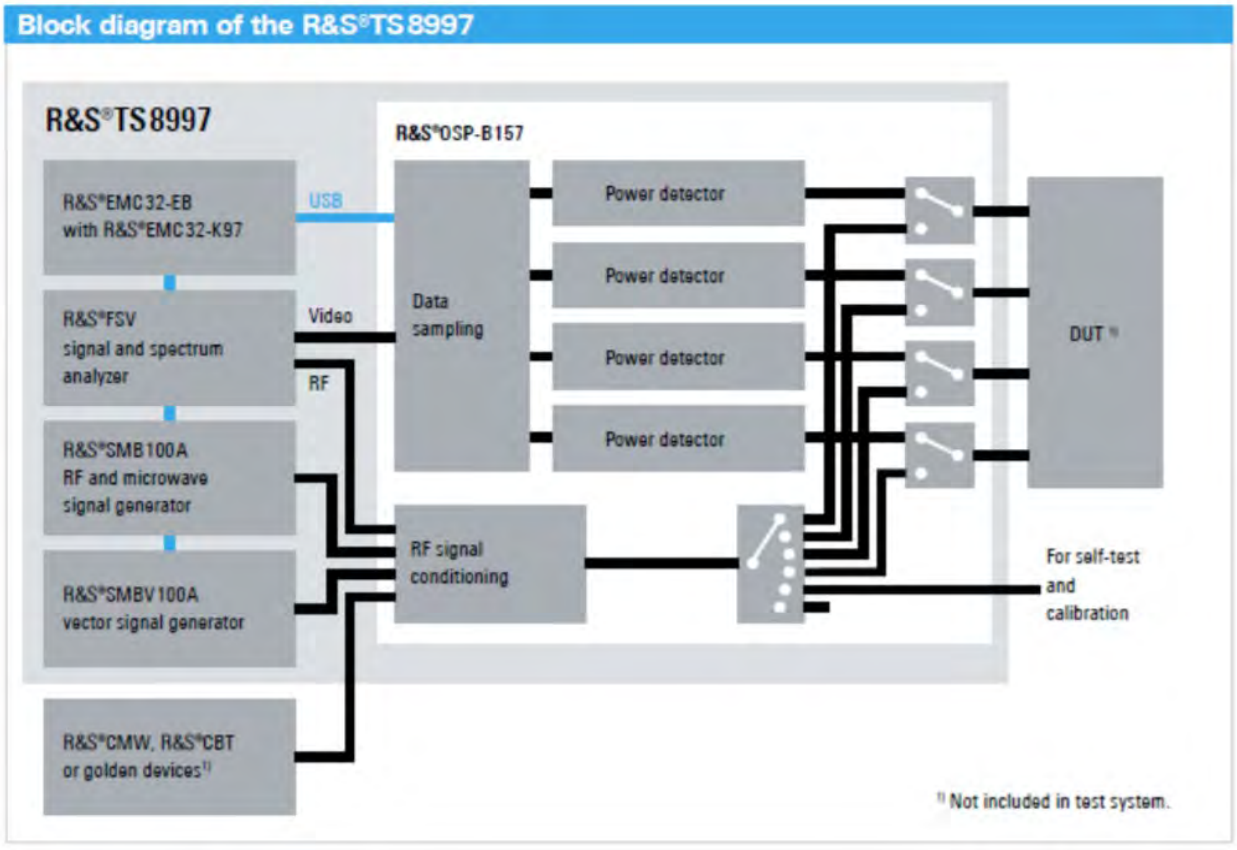


Diagram 1: Test Configuration Block Diagram

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

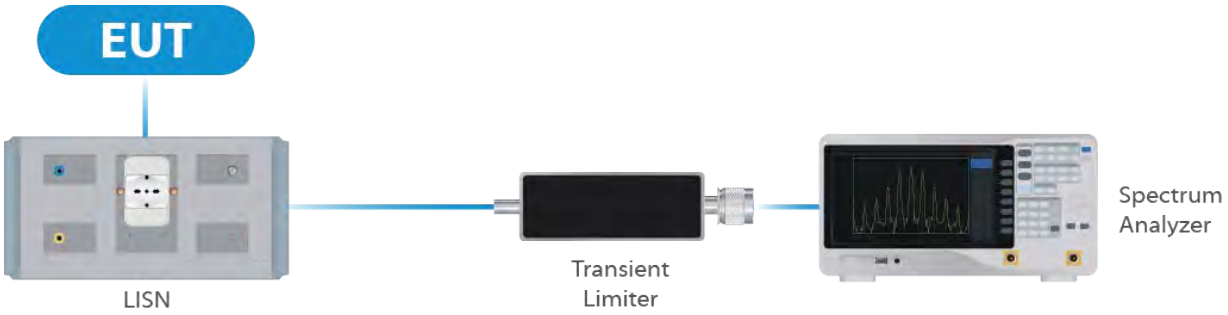


Figure 1: Conducted Emissions Test

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

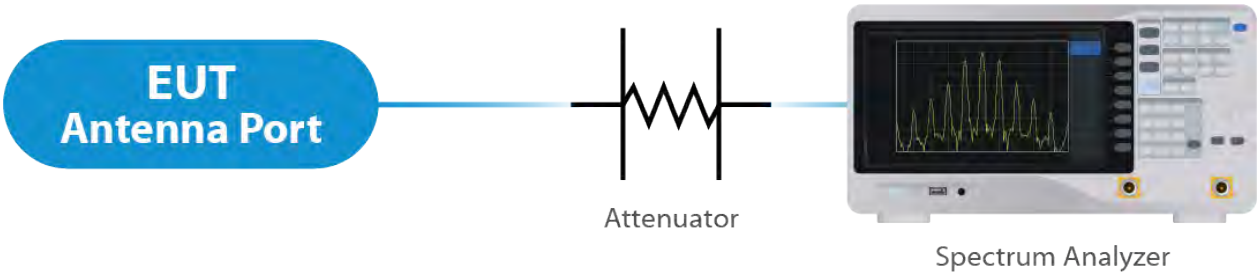


Figure 2: Direct Connect at the Antenna Port Test

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	Scwarzbeck	STLP 9129	UCL-3068	1/27/2023	1/27/2025
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	1/19/2024	1/19/2026
Test Software	Nexio	BatEMC	UCL-5253 & UCL-5249	N/A	N/A

Table 4: List of equipment used for Radiated Emissions

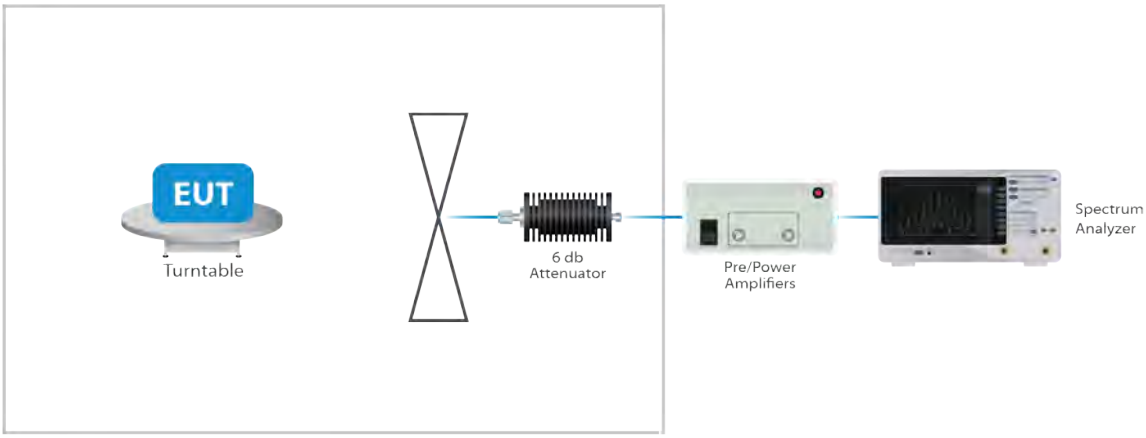


Figure 4: Radiated Emissions Test

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

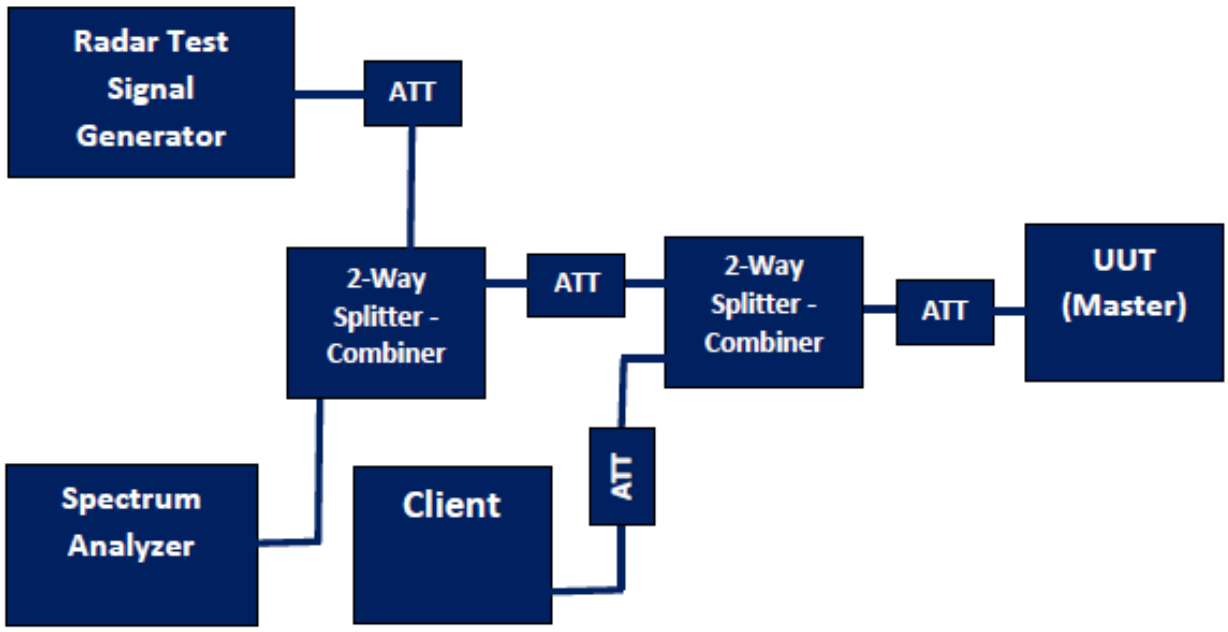


Figure 5: DFS Test Set Up - Master

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 (± 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 15 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(NANT/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 NANT ≤ 4;

Low Gain Mode
For PSD measurements when Nss=1: Array Gain = 10 log(NANT/NSS) dB + Antenna Gain (dBi). Or 6.02 dB + 11 dBi = 17.02 dBi.

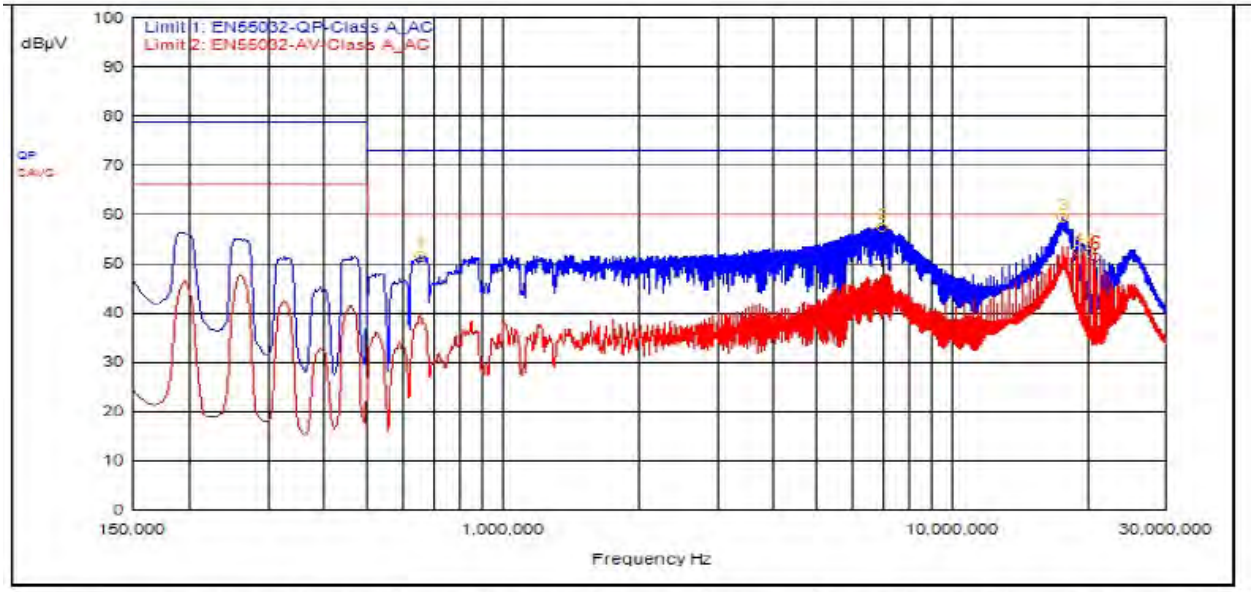
High Gain Mode
For PSD measurements when Nss=1: Array Gain = 10 log(NANT/NSS) dB + Antenna Gain (dBi). Or 6.02 dB + 15 dBi = 21.02 dBi.

Results

The EUT complied with the specification

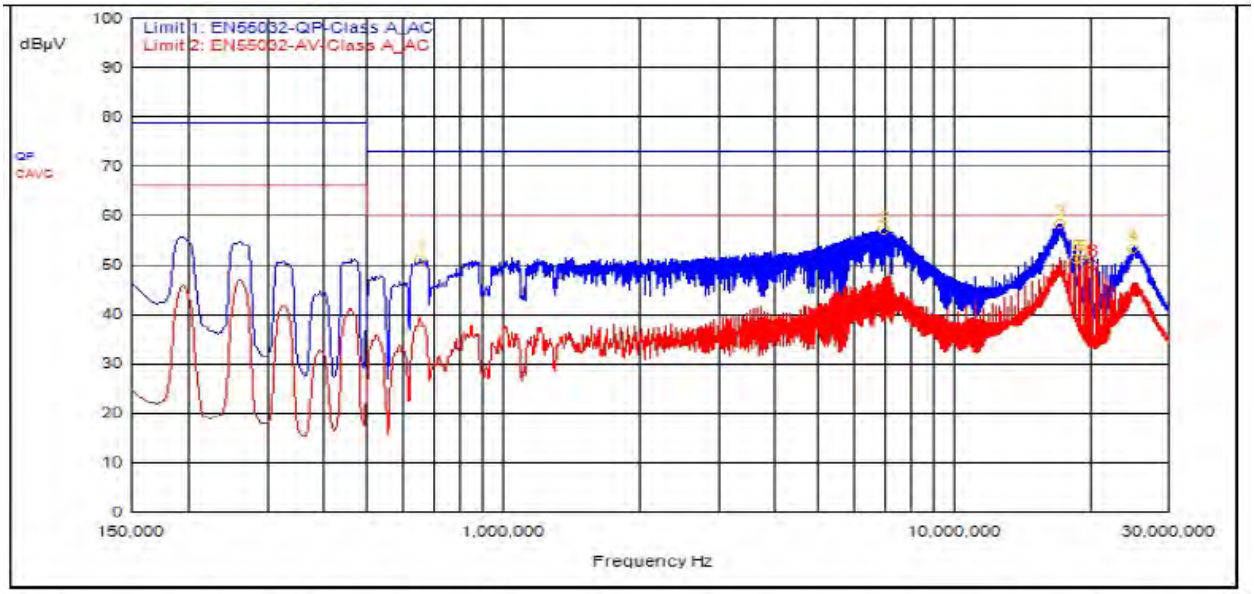
5.2 Conducted Emissions at Mains Ports Data

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
3	17.646	9.68			QPeak	49.79	59.47	73.00	-13.53			
2	6.999	9.63			QPeak	47.91	57.54	73.00	-15.46			
1	654,000kHz	9.50			QPeak	42.07	51.57	73.00	-21.43			
4	19.137	9.67			C_AVG	43.24	52.91			60.00	-7.09	
5	20.379	9.69			C_AVG	42.58	52.27			60.00	-7.73	
6	20.877	9.71			C_AVG	41.75	51.46			60.00	-8.54	

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	17.160	9.78			QPeak	48.53	58.31	73.00	-14.69			
2	6.999	9.63			QPeak	47.56	57.19	73.00	-15.81			
4	24.990	10.19			QPeak	43.15	53.34	73.00	-19.66			
1	654,000kHz	9.56			QPeak	41.62	51.18	73.00	-21.82			
5	19.146	9.82			C_AVG	41.58	51.40			60.00	-8.60	
6	18.648	9.81			C_AVG	41.56	51.37			60.00	-8.63	
7	19.644	9.82			C_AVG	40.85	50.67			60.00	-9.33	
8	20.391	9.86			C_AVG	40.15	50.01			60.00	-9.99	

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

Low Band Mode

Bandwidth	Frequency (MHz)	99% Bandwidth (MHz)	Emissions 26 dB Bandwidth (MHz)
OFDM 20	5260	17.8	23.1
OFDM 20	5280	17.5	23.7
OFDM 20	5320	17.3	23.0
HE 20	5260	19.3	23.3
HE 20	5280	19.5	22.5
HE 20	5320	19.5	22.4
HE 40	5270	38.5	44.0
HE 40	5310	38.5	43.8
HE 80	5290	79.0	83.5
HE 160	5250	160.0	177.0

High Gain Mode

Bandwidth	Frequency (MHz)	99% Bandwidth (MHz)	Emissions 26 dB Bandwidth (MHz)
OFDM 20	5260	17.5	23.1
OFDM 20	5280	17.3	22.8
OFDM 20	5320	17.3	22.5
HE 20	5260	19.3	22.5
HE 20	5280	19.3	22.8
HE 20	5320	19.3	23.0
HE 40	5270	39.0	43.0

HE 40	5310	38.5	43.5
HE 80	5290	79.0	88.0
HE 160	5250	162.5	170.0

5.3.2 UNII-2C

Low Gain Mode

Bandwidth	Frequency (MHz)	99% Bandwidth (MHz)	Emissions 26 dB Bandwidth (MHz)
OFDM 20	5500	17.5	22.7
OFDM 20	5600	17.5	22.9
OFDM 20	5720	17.5	22.7
HE 20	5500	19.3	23.0
HE 20	5600	19.3	23.1
HE 20	5720	19.8	23.1
HE 40	5510	38.5	43.8
HE 40	5590	38.5	44.0
HE 40	5710	38.5	43.3
HE 80	5530	79.0	91.0
HE 80	5610	79.0	89.5
HE 80	5690	79.0	89.5
HE 160	5570	160.0	176.0

High Gain Mode

Bandwidth	Frequency (MHz)	99% Bandwidth (MHz)	Emissions 26 dB Bandwidth (MHz)
OFDM 20	5500	17.5	23.1
OFDM 20	5600	17.3	22.9
OFDM 20	5720	17.5	22.7

HE 20	5500	19.5	22.7
HE 20	5600	19.3	23.7
HE 20	5720	19.3	23.0
HE 40	5510	38.5	43.5
HE 40	5590	38.5	43.3
HE 40	5710	39.0	43.3
HE 80	5530	79.0	87.5
HE 80	5610	79.0	86.5
HE 80	5690	79.0	86.0
HE 160	5570	160.0	175.0

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.

Low Gain Mode
For PSD measurements when Nss=1: Array Gain = 10 log(NANT/NSS) dB + Antenna Gain (dBi). Or 6.02 dB + 11 dBi = 17.02 dBi.

High Gain Mode
For PSD measurements when Nss=1: Array Gain = 10 log(NANT/NSS) dB + Antenna Gain (dBi). Or 6.02 dB + 15 dBi = 21.02 dBi.

The maximum average RF conducted output power measured for this device was 18.95 dBm or 78.52 mW (Low Gain Mode). The limit is 24 dBm or 250 mW when using antennas with 6 dBi or less gain. The antenna has a gain of 11 dBi (Low Gain Mode) and 15 dBi (High Gain Mode).

5.4.1 UNII-2A

Low Gain Mode

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5260	Mcs0_Nss4	14	18.73	29.73	6.19
OFDM 20	5280	Mcs0_Nss4	14	18.68	29.68	6.02
OFDM 20	5320	Mcs0_Nss4	14	18.95	29.95	6.24
HE 20	5260	Mcs0_Nss4	14	18.83	29.83	5.53
HE 20	5280	Mcs0_Nss4	14	18.81	29.81	5.45
HE 20	5320	Mcs0_Nss4	13	18.09	29.09	4.63
HE 40	5270	Mcs0_Nss4	14	18.75	29.75	2.36
HE 40	5310	Mcs0_Nss4	13	18.10	29.10	1.73
HE 80	5290	Mcs0_Nss4	14	18.77	29.77	-0.66
HE 160	5250	Mcs0_Nss4	14	18.67	29.67	-3.45

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5260	Mcs0_Nss1	7	11.73	22.73	-0.81

OFDM 20	5280	Mcs0_Nss1	7	11.68	22.68	-0.98
OFDM 20	5320	Mcs0_Nss1	7	11.95	22.95	-0.76
HE 20	5260	Mcs0_Nss1	8	12.83	23.83	-0.47
HE 20	5280	Mcs0_Nss1	8	12.81	23.81	-0.55
HE 20	5320	Mcs0_Nss1	8	13.09	24.09	-0.37
HE 40	5270	Mcs0_Nss1	11	15.75	26.75	-0.65
HE 40	5310	Mcs0_Nss1	11	16.10	27.10	-0.27
HE 80	5290	Mcs0_Nss1	14	18.44	29.77	-0.66
HE 160	5250	Mcs0_Nss1	14	18.67	29.67	-3.45

High Gain Mode

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5260	Mcs0_Nss4	10	14.76	29.76	2.32
OFDM 20	5280	Mcs0_Nss4	10	14.69	29.69	2.09
OFDM 20	5320	Mcs0_Nss4	10	14.96	29.96	2.22
HE 20	5260	Mcs0_Nss4	10	14.89	29.89	1.58
HE 20	5280	Mcs0_Nss4	10	14.80	29.80	1.48
HE 20	5320	Mcs0_Nss4	9	14.07	29.07	0.48
HE 40	5270	Mcs0_Nss4	10	14.79	29.79	-1.58
HE 40	5310	Mcs0_Nss4	9	14.10	29.10	-2.28
HE 80	5290	Mcs0_Nss4	10	14.75	29.75	-4.70
HE 160	5250	Mcs0_Nss4	10	14.65	29.65	-7.46

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5260	Mcs0_Nss1	9	5.76	20.76	-6.68
OFDM 20	5280	Mcs0_Nss1	9	5.69	20.69	-6.91
OFDM 20	5320	Mcs0_Nss1	9	5.96	20.96	-6.78
HE 20	5260	Mcs0_Nss1	9	5.89	20.89	-7.42
HE 20	5280	Mcs0_Nss1	9	5.80	20.80	-7.52

HE 20	5320	Mcs0_Nss1	8	6.07	21.07	-7.52
HE 40	5270	Mcs0_Nss1	9	5.79	20.79	-10.58
HE 40	5310	Mcs0_Nss1	8	6.10	21.10	-10.28
HE 80	5290	Mcs0_Nss1	10	14.75	29.75	-4.70
HE 160	5250	Mcs0_Nss1	10	14.65	29.65	-7.46

5.4.2 UNII-2C

Low Gain Mode

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5500	Mcs0_Nss4	14	18.63	29.63	6.04
OFDM 20	5600	Mcs0_Nss4	14	18.47	29.47	6.09
OFDM 20	5720	Mcs0_Nss4	14	18.78	29.78	6.13
HE 20	5500	Mcs0_Nss4	14	18.77	29.77	5.63
HE 20	5600	Mcs0_Nss4	14	18.56	29.56	5.74
HE 20	5720	Mcs0_Nss4	14	18.92	29.92	5.70
HE 40	5510	Mcs0_Nss4	14	18.63	29.63	2.64
HE 40	5590	Mcs0_Nss4	14	18.46	29.46	2.44
HE 40	5710	Mcs0_Nss4	14	18.75	28.75	2.84
HE 80	5530	Mcs0_Nss4	14	18.66	29.66	-0.48
HE 80	5610	Mcs0_Nss4	14	18.36	29.36	1.57
HE 80	5690	Mcs0_Nss4	14	18.53	29.53	1.86
HE 160	5570	Mcs0_Nss4	14	18.51	29.51	-3.11

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5500	Mcs0_Nss1	7	11.63	22.63	-0.96
OFDM 20	5600	Mcs0_Nss1	7	11.47	22.47	-0.91
OFDM 20	5720	Mcs0_Nss1	7	11.78	22.78	-0.87
HE 20	5500	Mcs0_Nss1	8	12.77	23.77	-0.37

HE 20	5600	Mcs0_Nss1	8	12.56	23.56	-0.26
HE 20	5720	Mcs0_Nss1	8	12.92	23.92	-0.30
HE 40	5510	Mcs0_Nss1	11	15.63	26.63	-0.36
HE 40	5590	Mcs0_Nss1	11	15.46	26.46	-0.56
HE 40	5710	Mcs0_Nss1	11	15.75	26.75	-0.16
HE 80	5530	Mcs0_Nss1	14	18.66	29.66	-0.48
HE 80	5610	Mcs0_Nss1	12	16.36	27.36	-0.43
HE 80	5690	Mcs0_Nss1	12	16.53	27.53	-0.14
HE 160	5570	Mcs0_Nss1	14	18.51	29.51	-3.11

High Gain Mode

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5500	Mcs0_Nss4	10	14.58	29.58	1.96
OFDM 20	5600	Mcs0_Nss4	10	14.55	29.55	2.13
OFDM 20	5720	Mcs0_Nss4	10	14.79	29.79	2.07
HE 20	5500	Mcs0_Nss4	10	14.71	29.71	1.57
HE 20	5600	Mcs0_Nss4	10	14.64	29.64	1.69
HE 20	5720	Mcs0_Nss4	10	14.92	29.92	1.68
HE 40	5510	Mcs0_Nss4	10	14.60	29.60	-1.41
HE 40	5590	Mcs0_Nss4	10	14.48	29.48	-1.16
HE 40	5710	Mcs0_Nss4	10	14.02	29.02	-1.15
HE 80	5530	Mcs0_Nss4	10	14.64	29.64	-4.51
HE 80	5610	Mcs0_Nss4	10	14.34	29.34	-4.48
HE 80	5690	Mcs0_Nss4	10	14.65	29.65	-4.52
HE 160	5570	Mcs0_Nss4	10	14.48	29.48	-7.19

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5500	Mcs0_Nss1	9	5.58	20.58	-7.04
OFDM 20	5600	Mcs0_Nss1	9	5.55	20.55	-6.87

OFDM 20	5720	Mcs0_Nss1	9	5.79	20.79	-6.93
HE 20	5500	Mcs0_Nss1	9	5.71	20.71	-7.44
HE 20	5600	Mcs0_Nss1	9	5.64	20.64	-7.32
HE 20	5720	Mcs0_Nss1	9	5.92	20.92	-7.32
HE 40	5510	Mcs0_Nss1	9	5.60	20.60	-10.41
HE 40	5590	Mcs0_Nss1	9	5.48	20.48	-10.16
HE 40	5710	Mcs0_Nss1	9	5.02	20.02	-10.15
HE 80	5530	Mcs0_Nss1	10	14.64	29.64	-4.51
HE 80	5610	Mcs0_Nss1	10	14.34	29.34	-4.48
HE 80	5690	Mcs0_Nss1	10	14.65	29.65	-4.52
HE 160	5570	Mcs0_Nss1	10	14.48	29.48	-7.19

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.

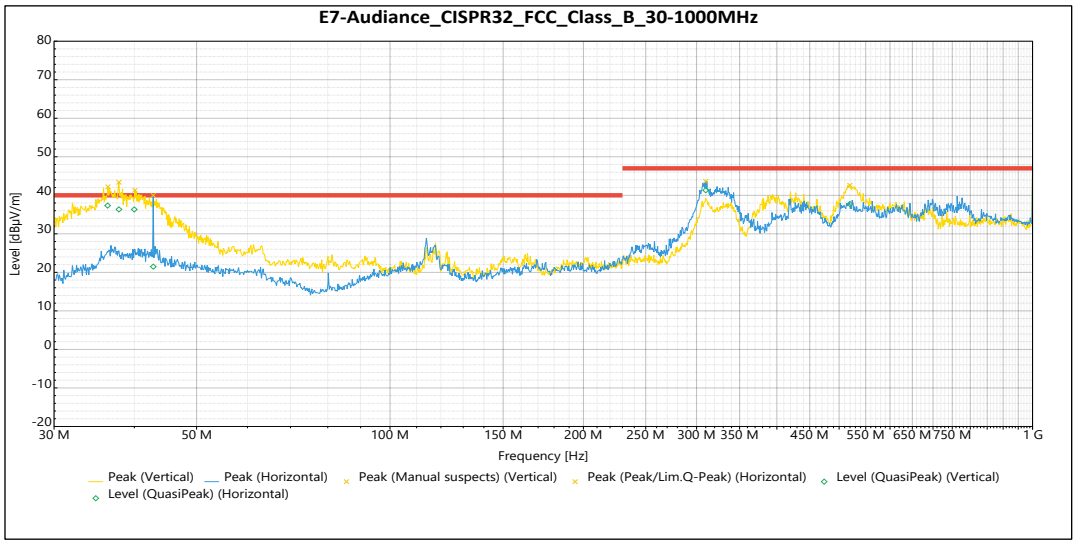
5.5 §15.407(b) Spurious Emissions

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.

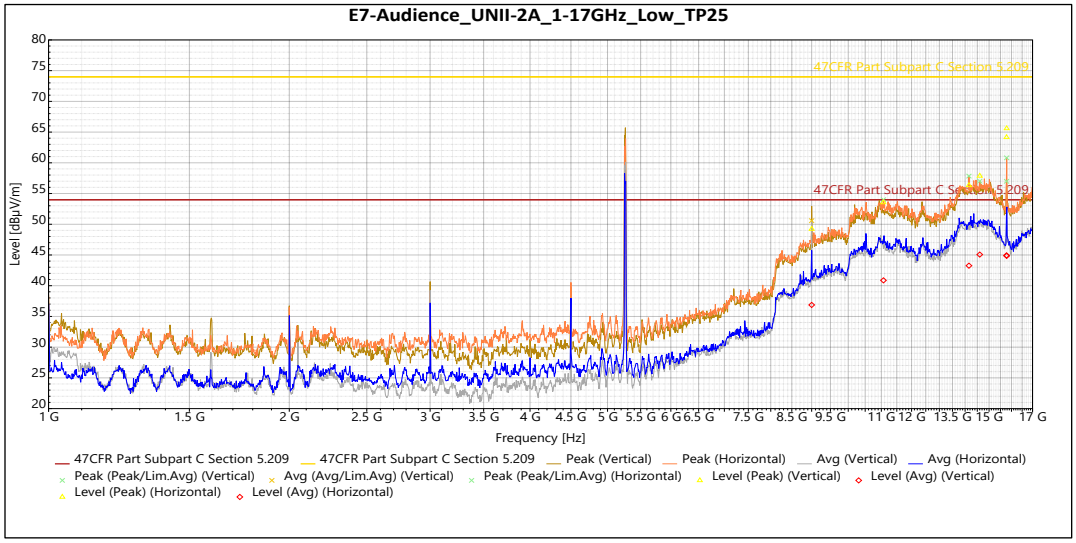
5.5.2 UNII-2A



QuasiPeak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
36.35 MHz	37.33	30	-2.67	43	1.129	Vertical	-9.91
37.85 MHz	36.35	30	-3.65	88	1.306	Vertical	-9.42
39.99 MHz	36.33	30	-3.67	80	1.126	Vertical	-8.84
519.77 MHz	37.74	30	-9.26	117	1.489	Vertical	-2.52
42.81 MHz	21.48	30	-18.52	143	1.897	Horizontal	-8.30
310.01 MHz	41.31	30	-5.69	334	1.131	Horizontal	-7.04

Table 5: Radiated Emissions 30 – 1000 MHz



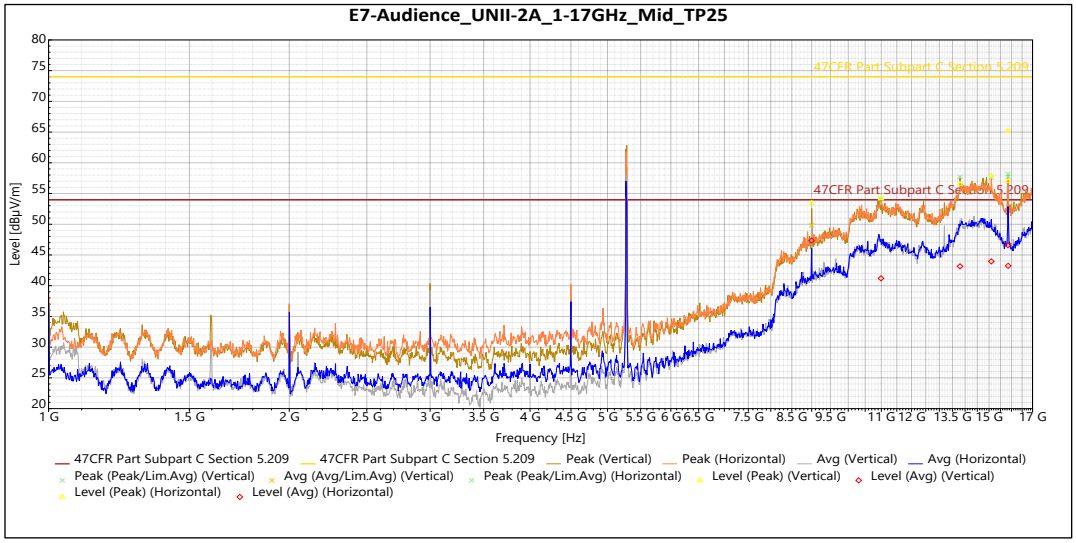
Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
9.00 GHz	49.23	74.0	-24.77	181	1.5	Vertical	4.43
14.60 GHz	57.87	74.0	-16.13	207	2.292	Vertical	14.12
15.77 GHz	64.16	74.0	-9.84	114	2.288	Vertical	10.49
11.07 GHz	53.55	74.0	-20.45	222	2.04	Horizontal	10.38
14.16 GHz	56.34	74.0	-17.66	2	2.866	Horizontal	13.27
15.78 GHz	65.60	74.0	-8.40	149	2.037	Horizontal	10.51

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
9.00 GHz	36.87	54.0	-17.13	181	1.5	Vertical	4.43
14.60 GHz	45.07	54.0	-8.93	207	2.292	Vertical	14.12
15.77 GHz	44.94	54.0	-9.06	114	2.288	Vertical	10.49
11.07 GHz	40.87	54.0	-13.13	222	2.04	Horizontal	10.38
14.16 GHz	43.26	54.0	-10.74	2	2.866	Horizontal	13.27
15.78 GHz	44.86	54.0	-9.14	149	2.037	Horizontal	10.51

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



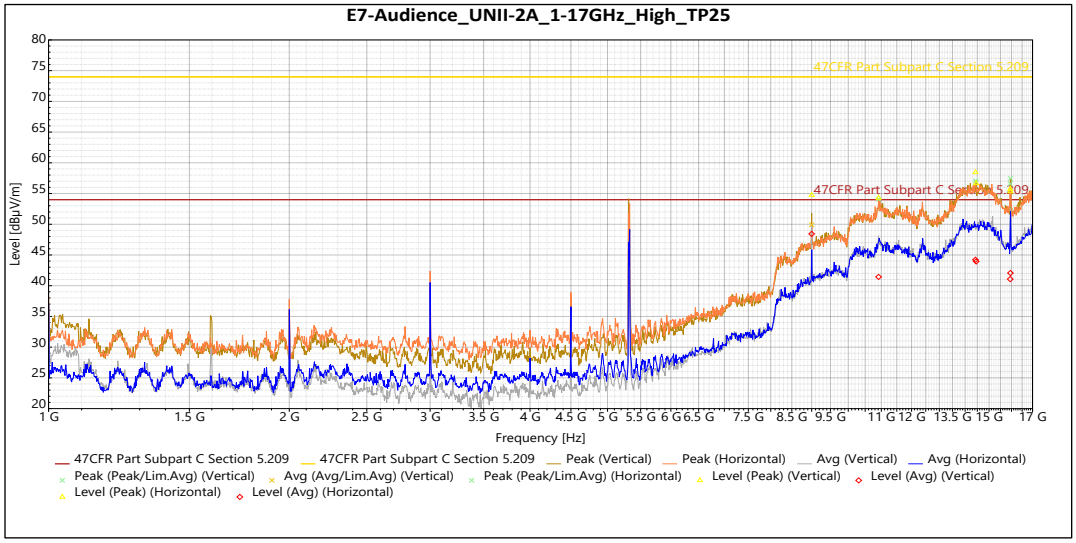
Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
9.00 GHz	53.47	74.0	-20.53	132	1.5	Vertical	4.43
13.90 GHz	56.53	74.0	-17.47	36	2.866	Vertical	13.18
15.85 GHz	57.01	74.0	-16.99	127	2.041	Vertical	10.84
10.99 GHz	54.26	74.0	-19.74	70	1.5	Horizontal	10.97
15.10 GHz	57.91	74.0	-16.09	358	1.714	Horizontal	13.09
15.84 GHz	65.17	74.0	-8.83	146	2.867	Horizontal	10.80

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
9.00 GHz	47.36	54.0	-6.64	132	1.5	Vertical	4.43
13.90 GHz	43.16	54.0	-10.84	36	2.866	Vertical	13.18
15.85 GHz	43.24	54.0	-10.76	127	2.041	Vertical	10.84
10.99 GHz	41.20	54.0	-12.80	70	1.5	Horizontal	10.97
15.10 GHz	43.96	54.0	-10.04	358	1.714	Horizontal	13.09
15.84 GHz	46.60	54.0	-7.40	146	2.867	Horizontal	10.80

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



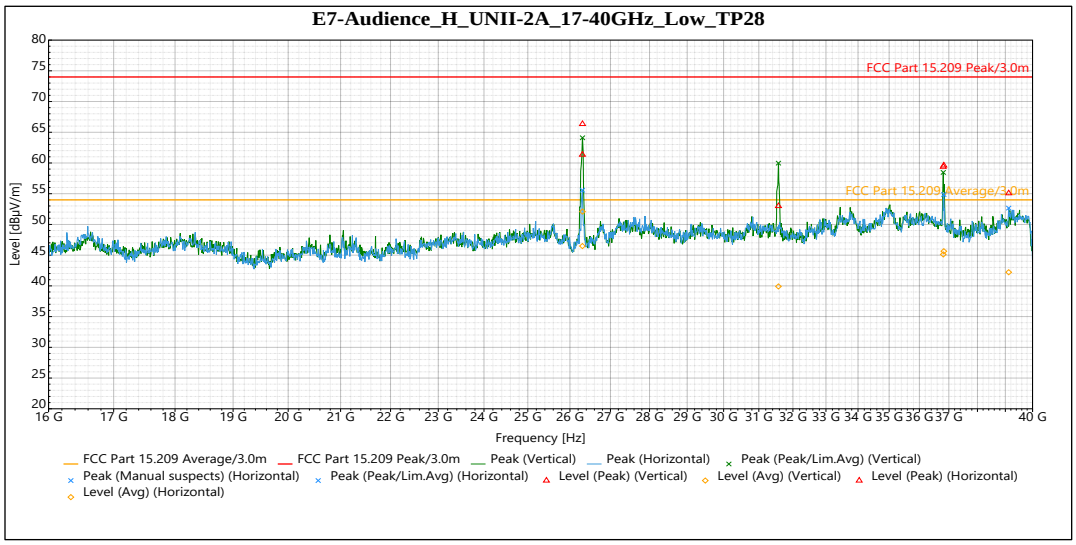
Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
9.00 GHz	54.75	74.0	-19.25	168	2.036	Vertical	4.43
14.45 GHz	56.64	74.0	-17.36	40	2.288	Vertical	13.57
15.96 GHz	55.33	74.0	-18.67	127	1.714	Vertical	9.92
10.91 GHz	54.28	74.0	-19.72	280	1.5	Horizontal	11.38
14.43 GHz	58.46	74.0	-15.54	266	1.714	Horizontal	13.68
15.94 GHz	55.72	74.0	-18.28	193	2.288	Horizontal	9.97

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
9.00 GHz	48.44	54.0	-5.56	168	2.036	Vertical	4.43
14.45 GHz	43.95	54.0	-10.05	40	2.288	Vertical	13.57
15.96 GHz	42.07	54.0	-11.93	127	1.714	Vertical	9.92
10.91 GHz	41.44	54.0	-12.89	280	1.5	Horizontal	11.38
14.43 GHz	44.23	54.0	-9.77	266	1.714	Horizontal	13.68
15.94 GHz	41.07	54.0	-12.93	193	2.288	Horizontal	9.97

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



Peak

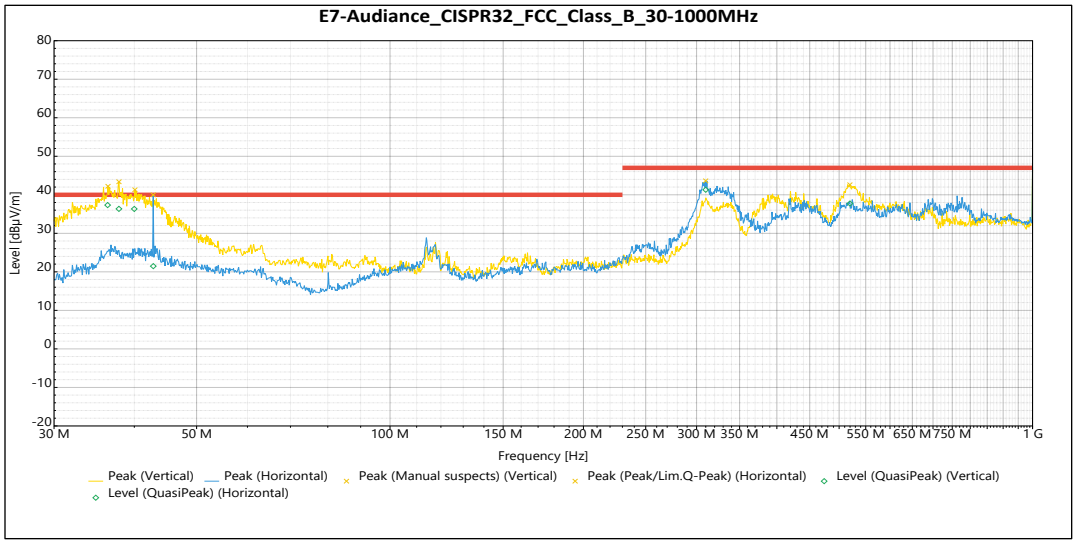
Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
26.31 GHz	66.36	74.0	-7.64	343	Vertical	2.14
31.57 GHz	52.99	74.0	-21.01	1	Vertical	2.15
36.81 GHz	59.39	74.0	-14.61	2	Vertical	5.42
26.30 GHz	61.36	74.0	-12.64	21	Horizontal	2.15
36.83 GHz	59.60	74.0	-14.40	35	Horizontal	5.38
39.12 GHz	55.08	74.0	-18.92	269	Horizontal	3.84

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
26.31 GHz	52.10	54.0	-1.90	343	Vertical	2.14
31.57 GHz	39.91	54.0	-14.09	1	Vertical	2.15
36.81 GHz	45.12	54.0	-8.88	2	Vertical	5.42
26.30 GHz	46.48	54.0	-7.52	21	Horizontal	2.15
36.83 GHz	45.64	54.0	-8.36	35	Horizontal	5.38
39.12 GHz	42.22	54.0	-11.78	269	Horizontal	3.84

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

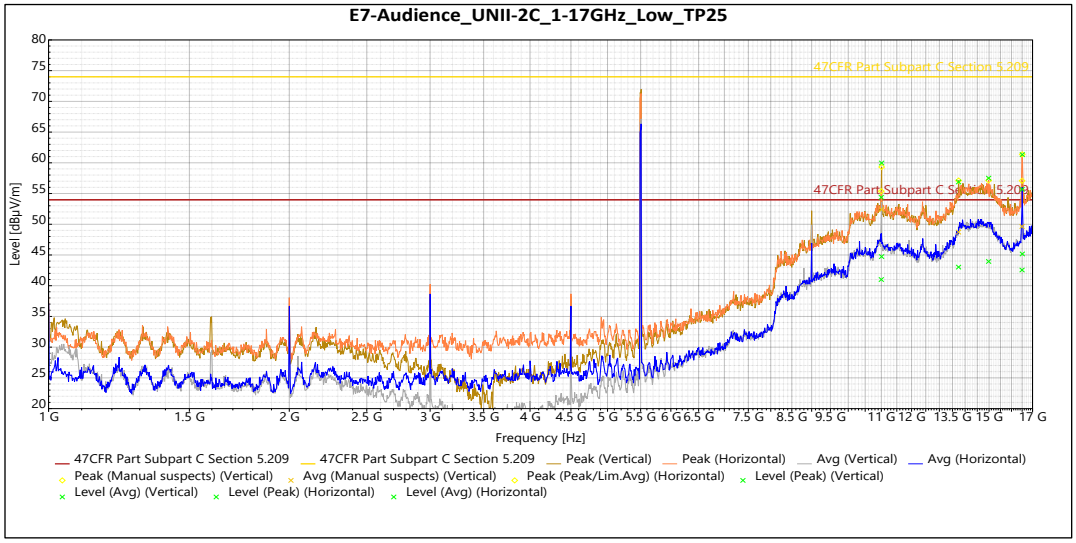
5.5.3 UNII-2C



QuasiPeak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
36.35 MHz	37.33	30	-2.67	43	1.129	Vertical	-9.91
37.85 MHz	36.35	30	-3.65	88	1.306	Vertical	-9.42
39.99 MHz	36.33	30	-3.67	80	1.126	Vertical	-8.84
519.77 MHz	37.74	30	-9.26	117	1.489	Vertical	-2.52
42.81 MHz	21.48	30	-18.52	143	1.897	Horizontal	-8.30
310.01 MHz	41.31	30	-5.69	334	1.131	Horizontal	-7.04

Table 10: Radiated Emissions 30 – 1000 MHz



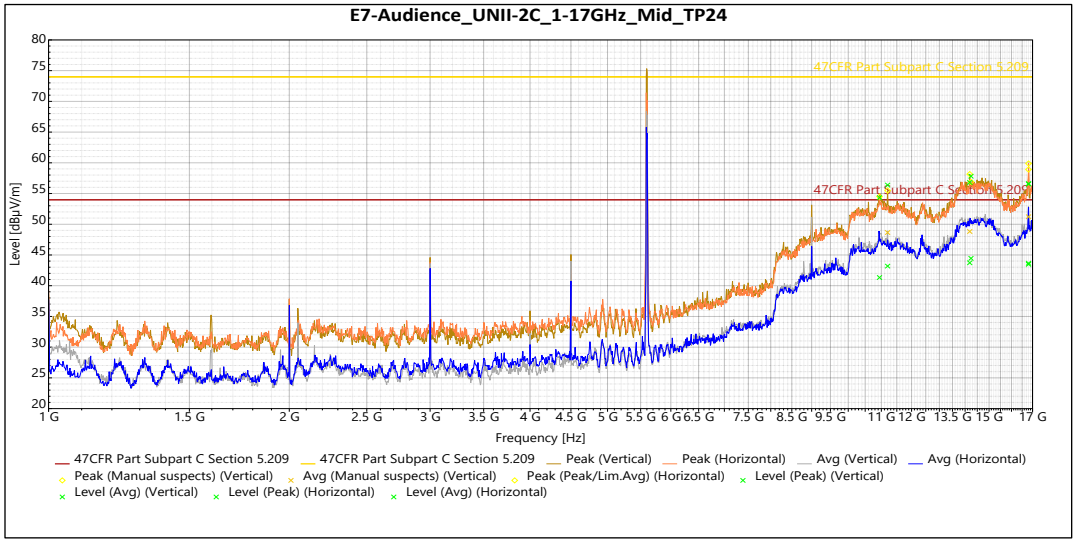
Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.01 GHz	59.97	74.0	-14.03	145	2.04	Vertical	10.74
13.74 GHz	56.89	74.0	-17.11	120	2.292	Vertical	12.72
16.49 GHz	55.68	74.0	-18.32	156	2.292	Vertical	12.62
11.00 GHz	54.39	74.0	-19.61	269	1.5	Horizontal	10.86
14.98 GHz	57.51	74.0	-16.49	182	2.292	Horizontal	13.86
16.51 GHz	61.33	74.0	-12.67	92	2.292	Horizontal	12.76

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.01 GHz	44.74	54.0	-9.26	145	2.04	Vertical	10.74
13.74 GHz	43.03	54.0	-10.97	120	2.292	Vertical	12.72
16.49 GHz	42.56	54.0	-11.44	156	2.292	Vertical	12.62
11.00 GHz	41.01	54.0	-12.99	269	1.5	Horizontal	10.86
14.98 GHz	43.95	54.0	-10.05	182	2.292	Horizontal	13.86
16.51 GHz	45.17	54.0	-8.83	92	2.292	Horizontal	12.76

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



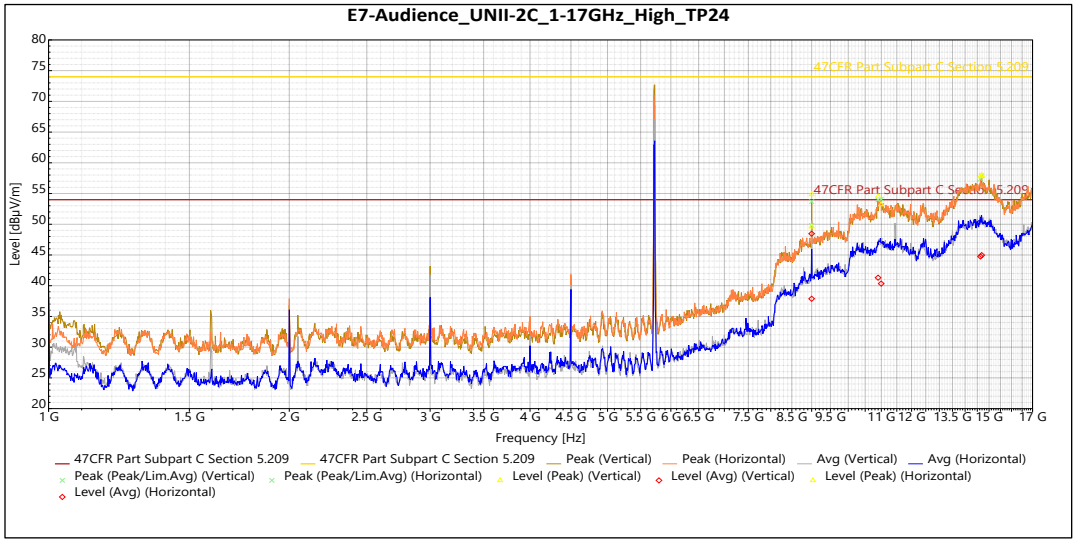
Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.20 GHz	56.39	74.0	-17.61	153	2.292	Vertical	10.02
14.19 GHz	56.81	74.0	-17.19	239	2.871	Vertical	13.43
16.81 GHz	56.62	74.0	-17.38	154	3.728	Vertical	13.57
10.94 GHz	54.34	74.0	-19.66	103	3.728	Horizontal	11.53
14.24 GHz	57.82	74.0	-16.18	330	2.04	Horizontal	13.58
16.81 GHz	56.55	74.0	-17.45	117	2.287	Horizontal	13.56

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.20 GHz	43.19	54.0	-10.81	153	2.292	Vertical	10.02
14.19 GHz	43.73	54.0	-10.27	239	2.871	Vertical	13.43
16.81 GHz	43.66	54.0	-10.34	154	3.728	Vertical	13.57
10.94 GHz	41.34	54.0	-12.66	103	3.728	Horizontal	11.53
14.24 GHz	44.45	54.0	-9.55	330	2.04	Horizontal	13.58
16.81 GHz	43.49	54.0	-10.51	117	2.287	Horizontal	13.56

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



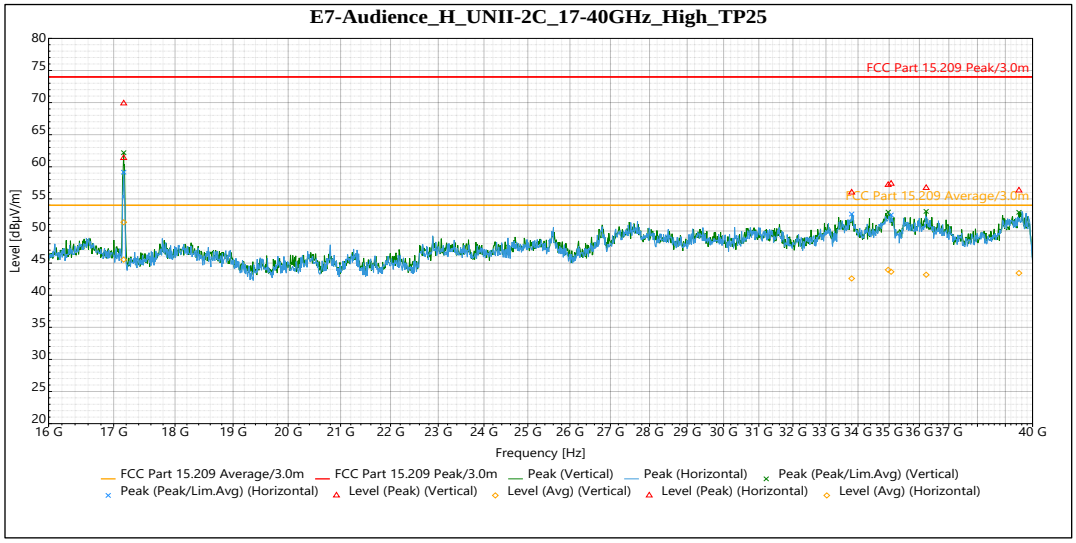
Peak

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
9.00 GHz	54.86	74.0	-19.14	132	1.5	Vertical	4.43
10.90 GHz	54.54	74.0	-16.46	348	1.714	Vertical	11.08
14.69 GHz	58.02	74.0	-15.98	146	2.292	Vertical	14.32
9.00 GHz	49.61	74.0	-24.39	174	3.728	Horizontal	4.43
11.00 GHz	53.22	74.0	-20.78	330	3.732	Horizontal	10.90
14.63 GHz	57.78	74.0	-16.22	139	1.5	Horizontal	14.19

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
9.00 GHz	48.47	54.0	-5.53	132	1.5	Vertical	4.43
10.90 GHz	41.31	54.0	-12.69	348	1.714	Vertical	11.08
14.69 GHz	44.98	54.0	-9.02	146	2.292	Vertical	14.32
9.00 GHz	37.88	54.0	-16.12	174	3.728	Horizontal	4.43
11.00 GHz	40.34	54.0	-13.66	330	3.732	Horizontal	10.90
14.63 GHz	44.76	54.0	-9.24	139	1.5	Horizontal	14.19

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	69.88	74.0	-4.12	359	Vertical	0.06
34.97 GHz	57.19	74.0	-16.81	18	Vertical	6.37
36.23 GHz	56.72	74.0	-17.28	1	Vertical	5.82
39.50 GHz	56.32	74.0	-17.68	189	Vertical	4.68
17.16 GHz	61.38	74.0	-12.62	29	Horizontal	0.06
33.80 GHz	56.00	74.0	-18.00	355	Horizontal	5.32
35.06 GHz	57.37	74.0	-16.63	163	Horizontal	6.04

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
17.16 GHz	51.36	54.0	-2.64	359	Vertical	0.06
34.97 GHz	43.95	54.0	-10.05	18	Vertical	6.37
36.23 GHz	43.19	54.0	-10.81	1	Vertical	5.82
39.50 GHz	43.45	54.0	-10.55	189	Vertical	4.68
17.16 GHz	45.55	54.0	-8.45	29	Horizontal	0.06
33.80 GHz	42.61	54.0	-11.39	355	Horizontal	5.32
35.06 GHz	43.65	54.0	-10.35	163	Horizontal	6.04

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. Results of this testing are summarized. With a 6 dBi antenna, the conducted limit for power spectral density is 11 dBm.

As per KDB 662911, When the EUT is using spatial-multiplexing in HT to HE modes, there is not additional array gain to accommodate.

Low Gain Mode
For PSD measurements when Nss=1: Array Gain = 10 log(NANT/NSS) dB + Antenna Gain (dBi). Or 6.02 dB + 11 dBi = 17.02 dBi.

High Gain Mode
For PSD measurements when Nss=1: Array Gain = 10 log(NANT/NSS) dB + Antenna Gain (dBi). Or 6.02 dB + 15 dBi = 21.02 dBi.

Results of this testing are summarized.

5.6.1 UNII-2A

Low Gain Mode

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5260	Mcs0_Nss4	14	18.73	6.19
OFDM 20	5280	Mcs0_Nss4	14	18.68	6.02
OFDM 20	5320	Mcs0_Nss4	14	18.95	6.24
HE 20	5260	Mcs0_Nss4	14	18.83	5.53
HE 20	5280	Mcs0_Nss4	14	18.81	5.45
HE 20	5320	Mcs0_Nss4	13	18.09	4.63
HE 40	5270	Mcs0_Nss4	14	18.75	2.36
HE 40	5310	Mcs0_Nss4	13	18.10	1.73
HE 80	5290	Mcs0_Nss4	14	18.77	-0.66
HE 160	5250	Mcs0_Nss4	14	18.67	-3.45

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5260	Mcs0_Nss1	7	11.73	-0.81
OFDM 20	5280	Mcs0_Nss1	7	11.68	-0.98
OFDM 20	5320	Mcs0_Nss1	7	11.95	-0.76
HE 20	5260	Mcs0_Nss1	8	12.83	-0.47
HE 20	5280	Mcs0_Nss1	8	12.81	-0.55
HE 20	5320	Mcs0_Nss1	8	13.09	-0.37
HE 40	5270	Mcs0_Nss1	11	15.75	-0.65
HE 40	5310	Mcs0_Nss1	11	16.10	-0.27
HE 80	5290	Mcs0_Nss1	14	18.44	-0.66
HE 160	5250	Mcs0_Nss1	14	18.67	-3.45

High Gain Mode

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5260	Mcs0_Nss4	10	14.76	2.32
OFDM 20	5280	Mcs0_Nss4	10	14.69	2.09
OFDM 20	5320	Mcs0_Nss4	10	14.96	2.22
HE 20	5260	Mcs0_Nss4	10	14.89	1.58
HE 20	5280	Mcs0_Nss4	10	14.80	1.48
HE 20	5320	Mcs0_Nss4	9	14.07	0.48
HE 40	5270	Mcs0_Nss4	10	14.79	-1.58
HE 40	5310	Mcs0_Nss4	9	14.10	-2.28
HE 80	5290	Mcs0_Nss4	10	14.75	-4.70
HE 160	5250	Mcs0_Nss4	10	14.65	-7.46

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5260	Mcs0_Nss1	9	5.76	-6.68

OFDM 20	5280	Mcs0_Nss1	9	5.69	-6.91
OFDM 20	5320	Mcs0_Nss1	9	5.96	-6.78
HE 20	5260	Mcs0_Nss1	9	5.89	-7.42
HE 20	5280	Mcs0_Nss1	9	5.80	-7.52
HE 20	5320	Mcs0_Nss1	8	6.07	-7.52
HE 40	5270	Mcs0_Nss1	9	5.79	-10.58
HE 40	5310	Mcs0_Nss1	8	6.10	-10.28
HE 80	5290	Mcs0_Nss1	10	14.75	-4.70
HE 160	5250	Mcs0_Nss1	10	14.65	-7.46

5.6.2 UNII-2C

Low Gain Mode

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5500	Mcs0_Nss4	14	18.63	6.04
OFDM 20	5600	Mcs0_Nss4	14	18.47	6.09
OFDM 20	5720	Mcs0_Nss4	14	18.78	6.13
HE 20	5500	Mcs0_Nss4	14	18.77	5.63
HE 20	5600	Mcs0_Nss4	14	18.56	5.74
HE 20	5720	Mcs0_Nss4	14	18.92	5.70
HE 40	5510	Mcs0_Nss4	14	18.63	2.64
HE 40	5590	Mcs0_Nss4	14	18.46	2.44
HE 40	5710	Mcs0_Nss4	14	18.75	2.84
HE 80	5530	Mcs0_Nss4	14	18.66	-0.48
HE 80	5610	Mcs0_Nss4	14	18.36	1.57
HE 80	5690	Mcs0_Nss4	14	18.53	1.86
HE 160	5570	Mcs0_Nss4	14	18.51	-3.11

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD

OFDM 20	5500	Mcs0_Nss1	7	11.63	-0.96
OFDM 20	5600	Mcs0_Nss1	7	11.47	-0.91
OFDM 20	5720	Mcs0_Nss1	7	11.78	-0.87
HE 20	5500	Mcs0_Nss1	8	12.77	-0.37
HE 20	5600	Mcs0_Nss1	8	12.56	-0.26
HE 20	5720	Mcs0_Nss1	8	12.92	-0.30
HE 40	5510	Mcs0_Nss1	11	15.63	-0.36
HE 40	5590	Mcs0_Nss1	11	15.46	-0.56
HE 40	5710	Mcs0_Nss1	11	15.75	-0.16
HE 80	5530	Mcs0_Nss1	14	18.66	-0.48
HE 80	5610	Mcs0_Nss1	12	16.36	-0.43
HE 80	5690	Mcs0_Nss1	12	16.53	-0.14
HE 160	5570	Mcs0_Nss1	14	18.51	-3.11

High Gain Mode

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5500	Mcs0_Nss4	10	14.58	1.96
OFDM 20	5600	Mcs0_Nss4	10	14.55	2.13
OFDM 20	5720	Mcs0_Nss4	10	14.79	2.07
HE 20	5500	Mcs0_Nss4	10	14.71	1.57
HE 20	5600	Mcs0_Nss4	10	14.64	1.69
HE 20	5720	Mcs0_Nss4	10	14.92	1.68
HE 40	5510	Mcs0_Nss4	10	14.60	-1.41
HE 40	5590	Mcs0_Nss4	10	14.48	-1.16
HE 40	5710	Mcs0_Nss4	10	14.02	-1.15
HE 80	5530	Mcs0_Nss4	10	14.64	-4.51
HE 80	5610	Mcs0_Nss4	10	14.34	-4.48
HE 80	5690	Mcs0_Nss4	10	14.65	-4.52
HE 160	5570	Mcs0_Nss4	10	14.48	-7.19

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5500	Mcs0_Nss1	9	5.58	-7.04
OFDM 20	5600	Mcs0_Nss1	9	5.55	-6.87
OFDM 20	5720	Mcs0_Nss1	9	5.79	-6.93
HE 20	5500	Mcs0_Nss1	9	5.71	-7.44
HE 20	5600	Mcs0_Nss1	9	5.64	-7.32
HE 20	5720	Mcs0_Nss1	9	5.92	-7.32
HE 40	5510	Mcs0_Nss1	9	5.60	-10.41
HE 40	5590	Mcs0_Nss1	9	5.48	-10.16
HE 40	5710	Mcs0_Nss1	9	5.02	-10.15
HE 80	5530	Mcs0_Nss1	10	14.64	-4.51
HE 80	5610	Mcs0_Nss1	10	14.34	-4.48
HE 80	5690	Mcs0_Nss1	10	14.65	-4.52
HE 160	5570	Mcs0_Nss1	10	14.48	-7.19

Result

The maximum average power spectral density was less than the limit of 11 dBm; therefore, the EUT complies with the specification.

5.7 DFS Requirement

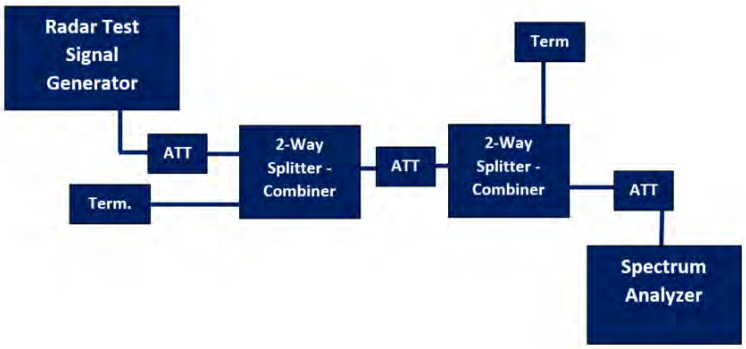
This product is a master with radar detection. The outcome of the required DFS tests is located in this section. DFS testing was performed following the test procedures as outlined in KDB 905462.

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

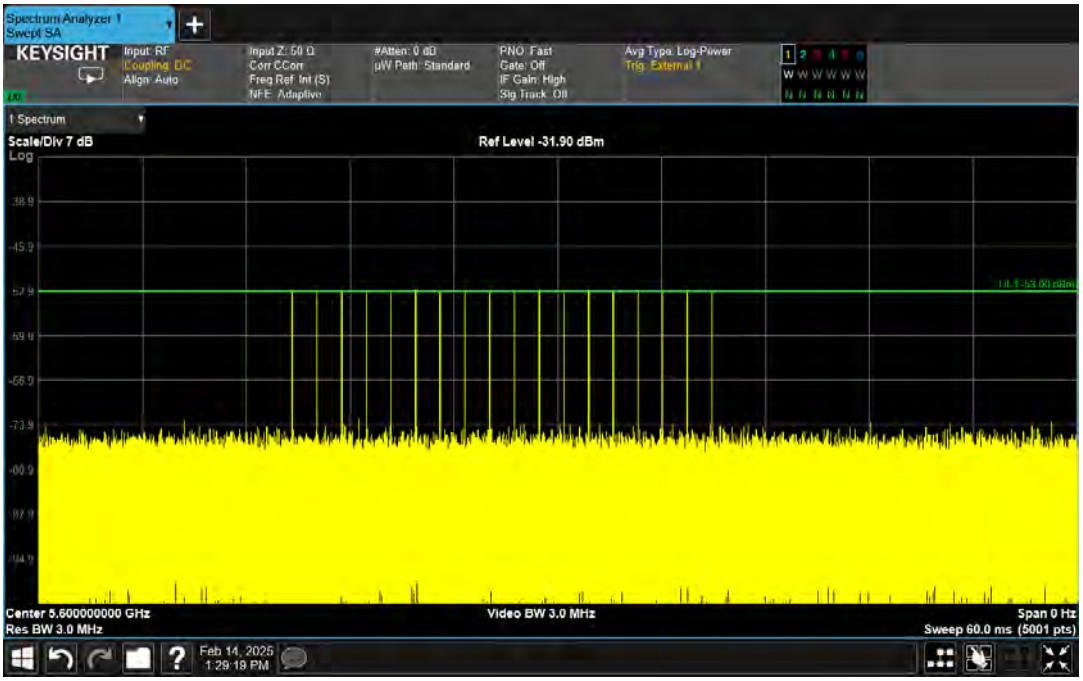
Information	Status	
Possible Antenna/s	Internal Integral 15 dBi	
Antenna used for test	Internal Integral 15 dBi	
Operating mode	Client	
If Client	N/A	
Port used for testing	FJ2	
EIRP range	> 200 milliwatts	
Impedance of port	50 ohms	
Channel loading technique	Data transfer was enacted to achieve a minimum 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
Non-Occupancy Period	Yes	Not Required	Yes
DFS Detection Threshold	Yes	Not Required	Yes
Channel Availability Check Time	Yes	Not Required	Not Required
U-NII Detection Bandwidth	Yes	Not Required	Yes

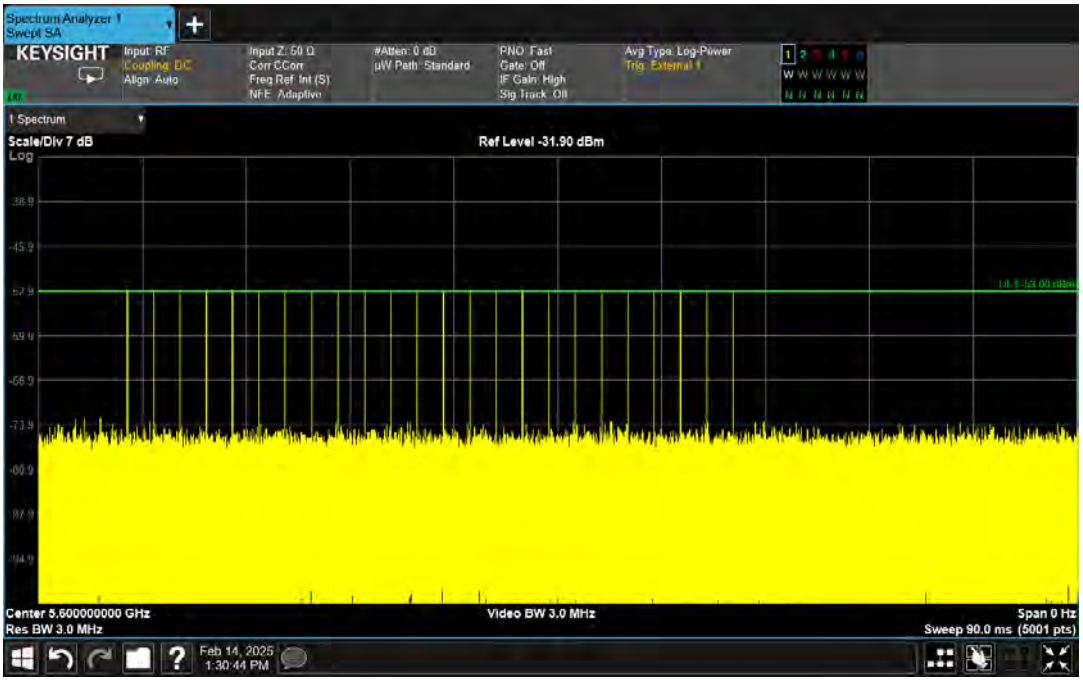
Requirement	Operational Mode	
	Master or Client Client Without Radar Detection	Client Without Radar Detection
DFS Detection Threshold	Yes	Not Required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not Required



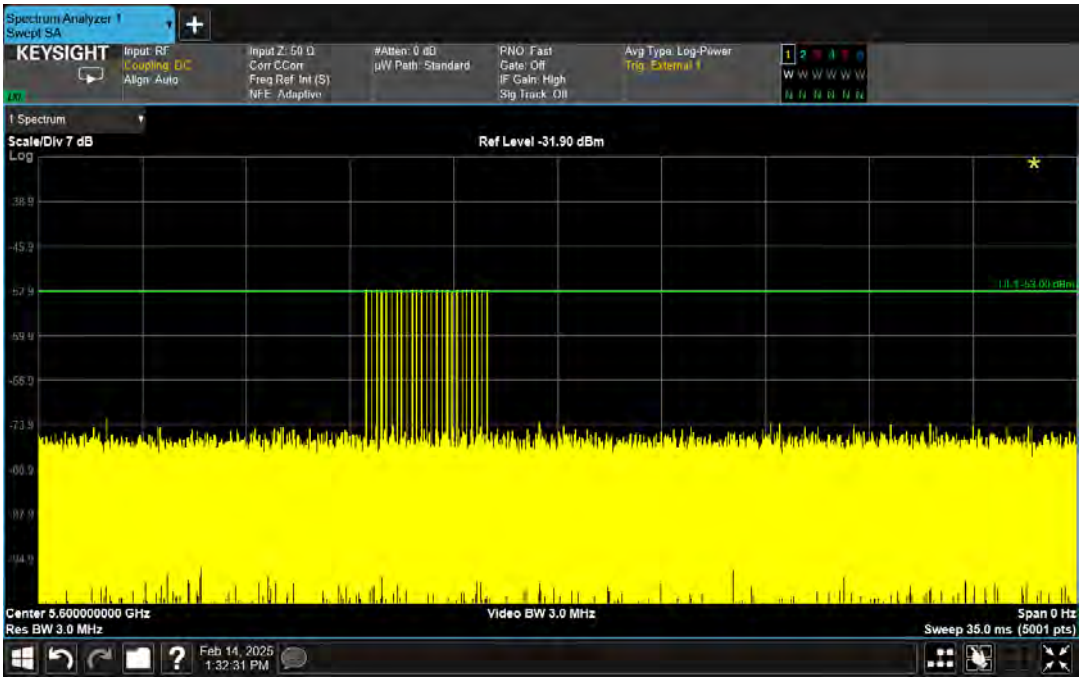
Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 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.	



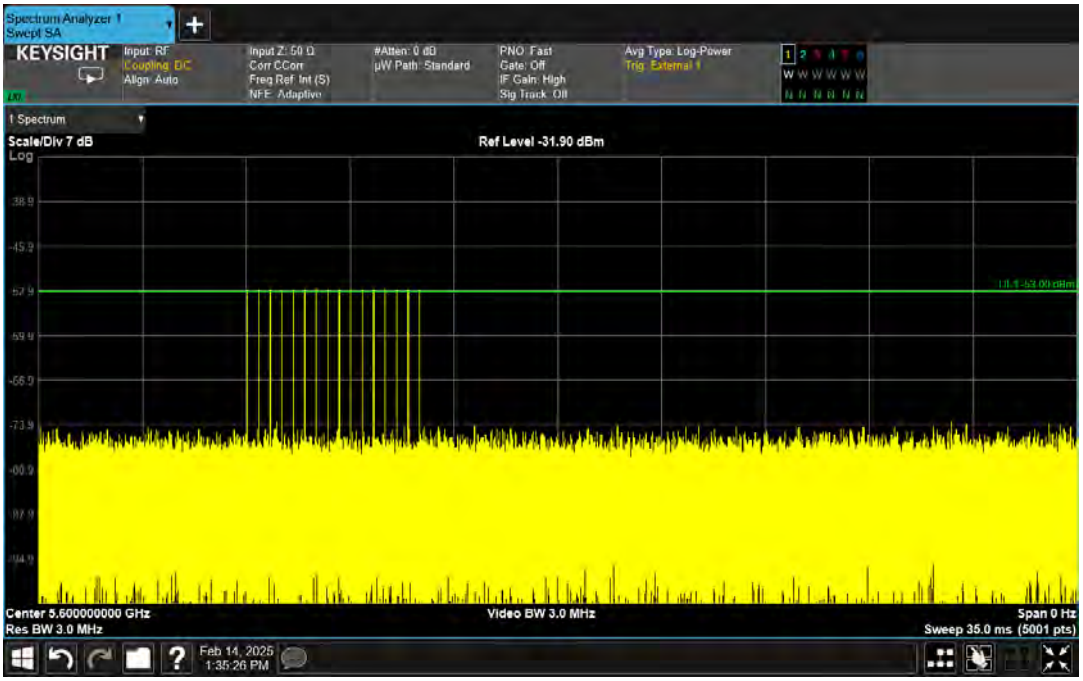
Plot 1: Radar Level 0



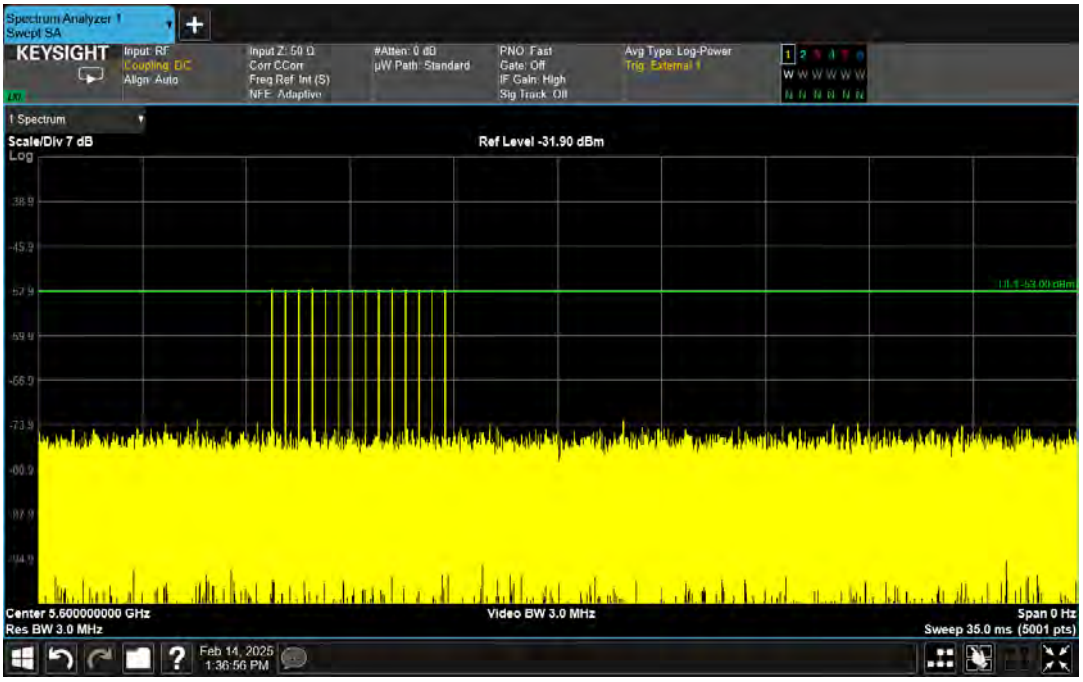
Plot 2: Radar Level 1



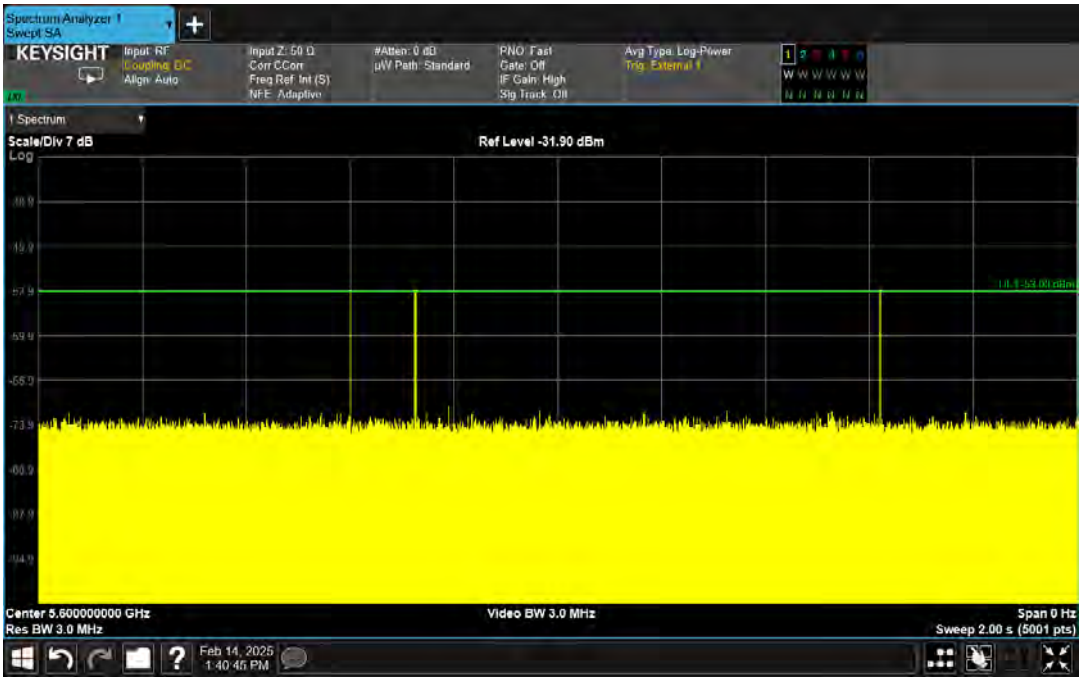
Plot 3: Radar Level 2



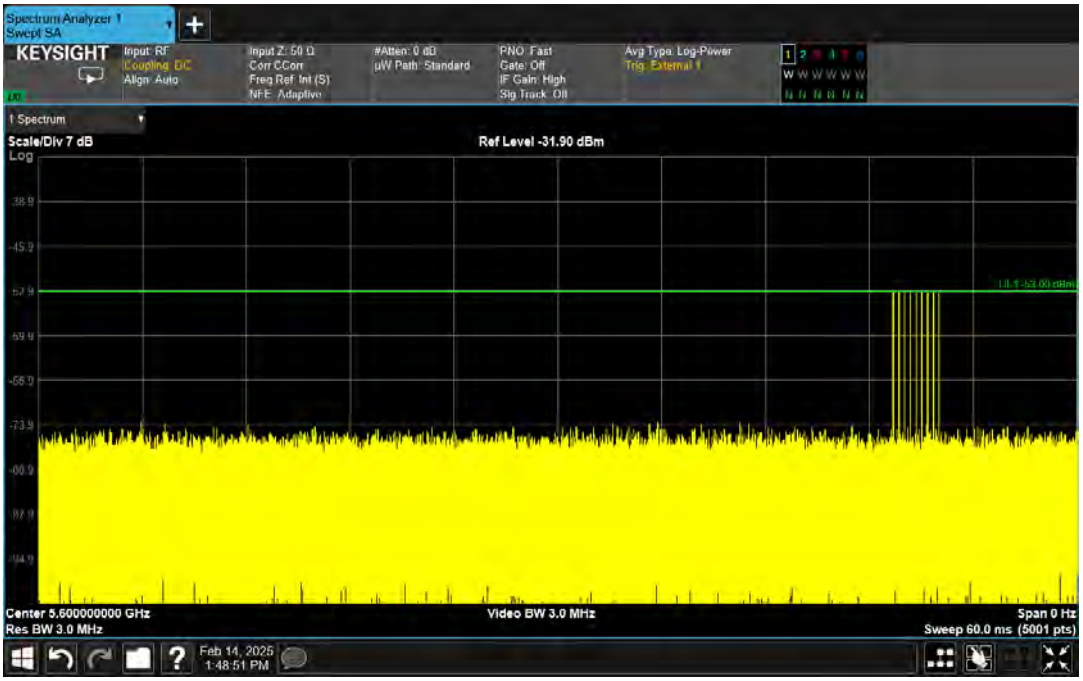
Plot 4: Radar Level 3



Plot 5: Radar Level 4



Plot 6: Radar Level 5



Plot 7: Radar Level 6

5.7.1 Channel Availability Check (CAC)

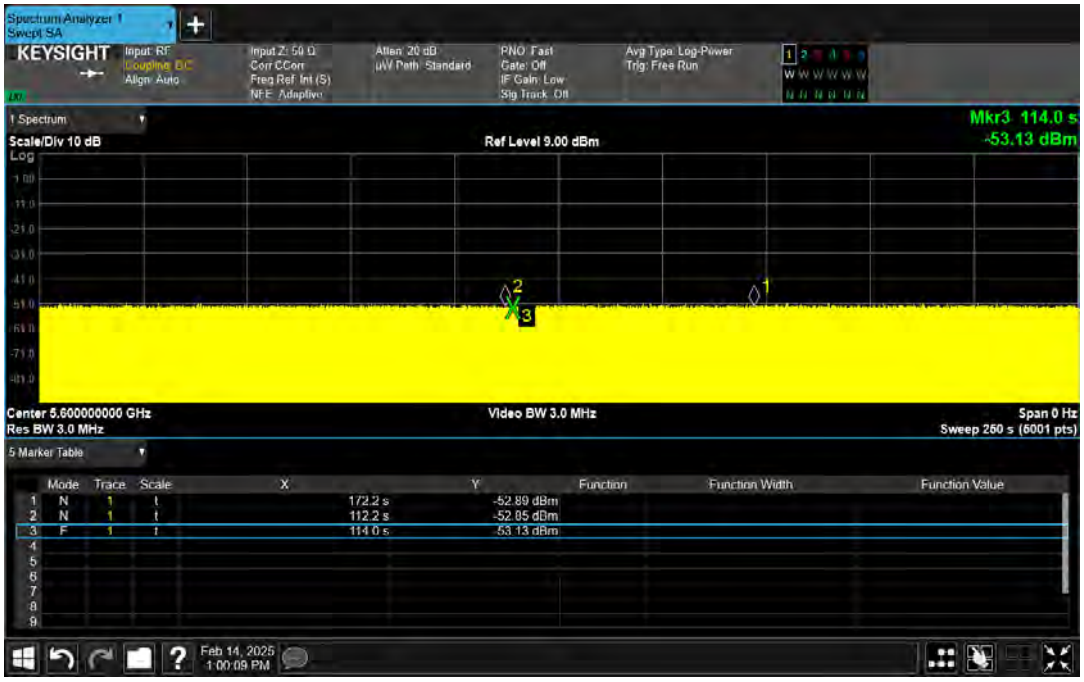
The EUT shall perform a CAC to ensure that there is no radar operating on the channel. After the power-up sequence, at-east 1 minute shall be monitored on the intended operating frequency. For initial CAC, the EUT does not emit beacon, control, or data signals on the test channel until the power-up sequence 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

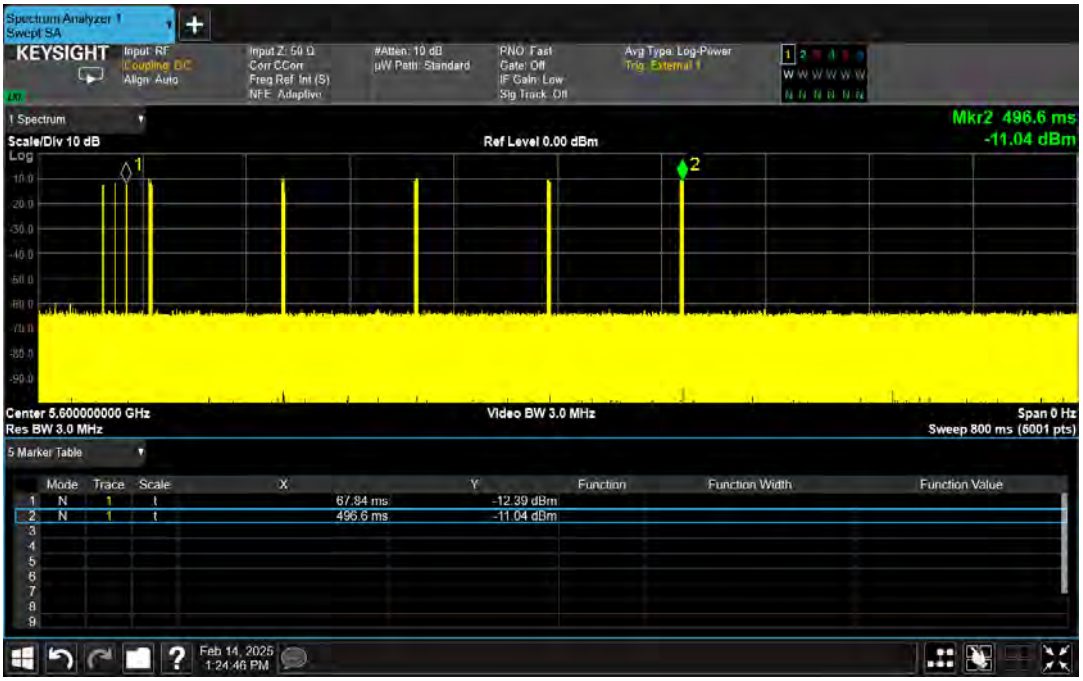

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
NFE: Adaptive
Atten: 20 dB
µW Path: Standard
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
Avg Type: Log-Power
Trig: Free Run
1 Spectrum
Mkr3 170.1 s
-53.13 dBm
Scale/Div 10 dB
Ref Level 9.00 dBm
Log
Center 5.600000000 GHz
Res BW 3.0 MHz
Video BW 3.0 MHz
Span 0 Hz
Sweep 250 s (6001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 t 172.2 s -53.15 dBm
2 N 1 t 112.2 s -52.49 dBm
3 F 1 t 170.1 s -53.13 dBm
Feb 14, 2025
1:04:38 PM

Plot 10: End

5.7.2 In-service Monitoring

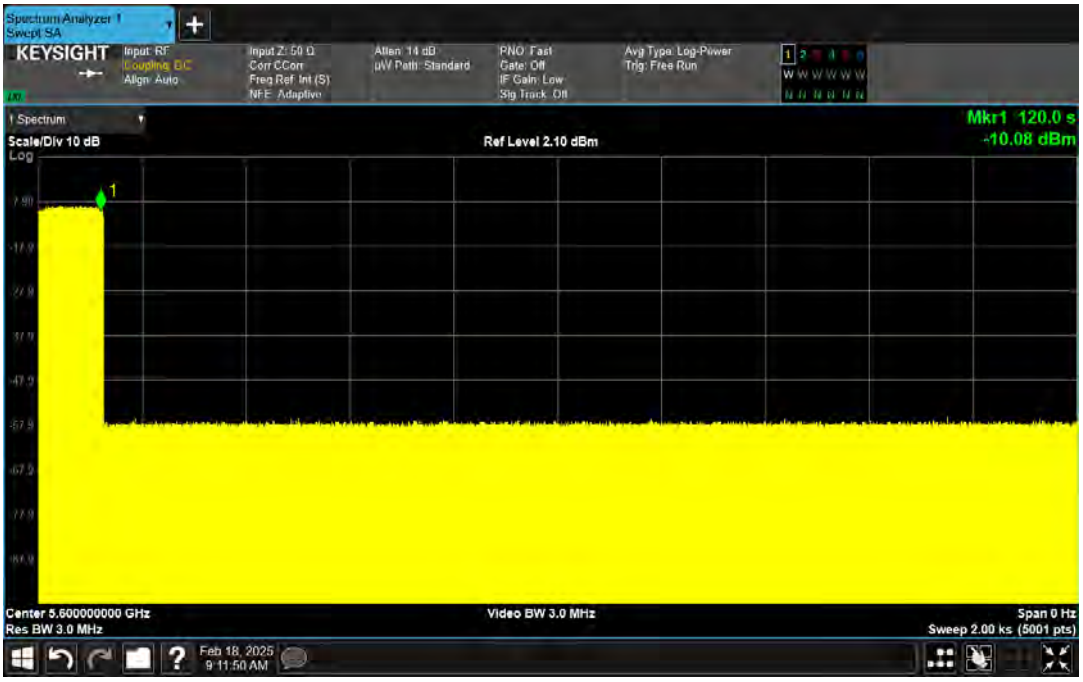
Channel Move Time	10 seconds
Channel Closing Transmission Time	200 ms + aggregate of 60 ms over remaining 10 second period
Non-occupancy period	Minimum 30 minutes

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:											17.978
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:											111%

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	1	1	1	1	1	1	1	1	1	1	100
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
5610	1	1	1	1	1	1	1	1	1	1	100
Parameter											Value
U-NII 99% Transmission Power Bandwidth:											36.71
Lowest frequency with at least 90% detection (F_L):											5570
Highest frequency with at least 90% detection (F_H):											5610
Detection Bandwidth (F_H - F_L):											40
Detection Bandwidth percentage of 99% Transmission Power Bandwidth:											109%

80 MHz

EUT Frequency = 5610 MHz ; Bandwidth = 80 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	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
5610	1	1	1	1	1	1	1	1	1	1	100
5615	1	1	1	1	1	1	1	1	1	1	100
5620	1	1	1	1	1	1	1	1	1	1	100
5625	1	1	1	1	1	1	1	1	1	1	100
5630	1	1	1	1	1	1	1	1	1	1	100
5635	1	1	1	1	1	1	1	1	1	1	100
5640	1	1	1	1	1	1	1	1	1	1	100
5645	1	1	1	1	1	1	1	1	1	1	100
5650	1	1	1	1	1	1	1	1	1	1	100
Parameter											Value
U-NII 99% Transmission Power Bandwidth:											76.44
Lowest frequency with at least 90% detection (F_L):											5570
Highest frequency with at least 90% detection (F_H):											5650
Detection Bandwidth (F_H - F_L):											80
Detection Bandwidth percentage of 99% Transmission Power Bandwidth:											105%

160 MHz

EUT Frequency = 5570 MHz ; Bandwidth = 160 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	
5490	1	1	1	1	1	1	1	1	1	1	100
5495	1	1	1	1	1	1	1	1	1	1	100
5500	1	1	1	1	1	1	1	1	1	1	100
5505	1	1	1	1	1	1	1	1	1	1	100
5510	1	1	1	1	1	1	1	1	1	1	100
5515	1	1	1	1	1	1	1	1	1	1	100
5520	1	1	1	1	1	1	1	1	1	1	100
5525	1	1	1	1	1	1	1	0	1	1	90
5530	1	1	1	1	1	1	1	1	1	1	100
5535	1	1	1	1	1	1	1	1	1	1	100
5540	1	1	1	1	1	1	1	1	1	1	100
5545	1	1	1	1	1	1	1	1	1	1	100
5550	1	1	1	1	1	1	0	1	1	1	90
5555	1	1	1	1	1	1	1	1	1	1	100
5560	1	1	1	1	1	1	1	1	1	1	100
5565	1	1	1	1	1	1	1	1	1	1	100
5570	1	1	1	1	1	1	1	1	1	1	100
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
5610	1	1	1	1	1	1	1	1	1	1	100
5615	1	1	1	1	1	1	1	1	1	1	100
5620	1	1	1	1	1	1	1	1	1	1	100
5625	1	1	1	1	1	1	1	1	1	1	100

5630	1	1	1	1	1	1	1	1	1	1	100
5635	1	1	1	1	1	1	1	1	1	1	100
5640	1	1	1	1	1	1	1	1	1	1	100
5645	1	1	1	1	1	1	1	1	1	1	100
5650	1	1	1	1	1	1	1	1	1	1	100

Parameter	Value
U-NII 99% Transmission Power Bandwidth:	156.03
Lowest frequency with at least 90% detection (F_L):	5490
Highest frequency with at least 90% detection (F_H):	5650
Detection Bandwidth (F_H - F_L):	160
Detection Bandwidth percentage of 99% Transmission Power Bandwidth:	103%

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

Summary			
Type	**Detections**	**Trials**	**Detection Probability**
Type 1	29	30	97%
Type 2	30	30	100%
Type 3	29	30	97%
Type 4	26	30	87%
Type 5	30	30	100%
Type 6	28	30	93%
Aggregate 1-4	114	120	95%

RADAR TYPE 1				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	**Number of Pulses per Burst**	**Pulse Width (µsec)**	**PRI (µs)**	**Detection (yes/no)**
1	92	1	578	y
2	57	1	938	y
3	86	1	618	y
4	95	1	558	y
5	72	1	738	y
6	76	1	698	y
7	74	1	718	y
8	59	1	898	y
9	18	1	3066	y
10	67	1	798	y
11	63	1	838	y
12	61	1	878	y
13	78	1	678	y
14	65	1	818	y
15	89	1	598	y
16	58	1	920	y
17	30	1	1808	y
18	80	1	665	y
19	28	1	1930	y
20	43	1	1245	y
21	34	1	1576	y
22	18	1	3043	y
23	26	1	2087	y
24	34	1	1551	y
25	24	1	2258	y
26	20	1	2663	y
27	19	1	2899	y
28	22	1	2407	y
29	24	1	2212	n
30	80	1	659	y
				29/30: 96.7%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	**Number of Pulses per Burst**	**Pulse Width (µsec)**	**PRI (µs)**	**Detection (yes/no)**
1	25	1.8	158	y
2	29	2.9	179	y
3	24	1.3	228	y
4	25	1.1	212	y
5	27	1.4	200	y
6	27	3.7	174	y
7	26	3.2	168	y
8	26	3.3	158	y
9	25	3	209	y
10	26	1.4	195	y
11	24	4.4	216	y
12	23	2.3	228	y
13	29	2.2	209	y
14	23	1.6	166	y
15	28	4.4	209	y
16	23	2.3	208	y
17	25	3.8	155	y
18	25	3	216	y
19	25	2.9	205	y
20	26	2.8	218	y
21	27	2.9	206	y
22	23	1.8	210	y
23	28	2.6	217	y
24	24	3.2	202	y
25	28	1.4	186	y
26	25	4.7	227	y
27	24	1.5	212	y
28	25	4.3	224	y
29	26	2.4	226	y
30	26	3.6	210	y
				30/30: 100%

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	9.4	484	y
2	18	6.7	417	y
3	18	7.4	239	y
4	17	6.5	412	y
5	17	7.5	372	y
6	18	6.6	370	y
7	16	8.2	419	y
8	16	6.1	266	y
9	17	9.7	423	y
10	16	6	363	y
11	18	7.7	318	y
12	18	8.9	289	y
13	17	6.6	389	y
14	17	6.9	341	y
15	16	7.7	475	y
16	17	9.8	460	y
17	17	7.2	224	y
18	18	6.7	418	y
19	17	8.7	477	y
20	17	7.6	270	y
21	17	7.7	402	y
22	18	8.5	307	y
23	17	8.7	460	y
24	18	8.4	335	y
25	16	6.4	491	y
26	17	7.2	353	y
27	17	6.7	381	y
28	17	9.9	291	n
29	17	8.6	500	y
30	18	9.2	447	y
				29/30: 96.7%

RADAR TYPE 4				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	**Number of Pulses per Burst**	**Pulse Width (µsec)**	**PRI (µs)**	**Detection (yes/no)**
1	14	14.7	387	n
2	13	12	370	y
3	15	17.6	297	n
4	15	19.5	474	y
5	12	11.1	328	y
6	15	11	293	y
7	16	15.6	485	y
8	16	16.5	425	y
9	15	16.2	322	y
10	12	17.2	319	y
11	16	19.4	322	y
12	15	12.4	270	y
13	16	17.6	352	y
14	13	18.7	359	y
15	16	12.1	241	y
16	14	12	287	y
17	15	19.6	235	y
18	15	13.8	399	y
19	14	18.7	419	y
20	14	18.5	312	y
21	13	16.4	297	y
22	13	11.4	465	y
23	15	11.7	496	y
24	12	19.5	440	y
25	14	11.6	213	y
26	12	12.3	216	y
27	12	14.5	354	y
28	13	13.4	390	n
29	14	14.7	310	y
30	16	14.9	462	n
				26/30: 86.7%

TYPE 5	Rohde & Schwarz K350 Pulse Sequencer DFS			
Trial #	**Detection (yes/no)**	**Chirp Width (MHz)**	**Subset**	**Fc**
1	y	6	1	5500
2	y	8	1	5500
3	y	6	1	5500
4	y	16	1	5500
5	y	9	1	5500
6	y	16	1	5500
7	y	7	1	5500
8	y	12	1	5500
9	y	15	1	5500
10	y	5	1	5500
11	y	8	2	5494.2
12	y	10	2	5495
13	y	10	2	5495
14	y	20	2	5499
15	y	14	2	5496.6
16	y	15	2	5497
17	y	19	2	5498.6
18	y	15	2	5497
19	y	15	2	5497
20	y	11	2	5495.4
21	y	14	3	5503.4
22	y	11	3	5504.6
23	y	5	3	5507
24	y	17	3	5502.2
25	y	6	3	5506.6
26	y	20	3	5501
27	y	5	3	5507
28	y	18	3	5501.8
29	y	11	3	5504.6
30	y	15	3	5503

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	n
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	n
24	y
25	y
26	y
27	y
28	y
29	y
30	y
	28/30: 93.3%

40 MHz

Summary			
Type	**Detections**	**Trials**	**Detection Probability**
Type 1	26	30	87%
Type 2	27	30	90%
Type 3	29	30	97%
Type 4	28	30	93%
Type 5	30	30	100%
Type 6	30	30	100%
Aggregate 1-4	110	120	92%

RADAR TYPE 1				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	**Number of Pulses per Burst**	**Pulse Width (µsec)**	**PRI (µs)**	**Detection (yes/no)**
1	21	1	2626	n
2	19	1	2836	n
3	20	1	2635	y
4	50	1	1059	y
5	18	1	3029	y
6	26	1	2029	y
7	52	1	1015	y
8	28	1	1935	y
9	34	1	1582	y
10	63	1	839	y
11	59	1	905	y
12	23	1	2338	y
13	72	1	739	y
14	25	1	2182	y
15	28	1	1914	y
16	76	1	696	y
17	48	1	1106	n
18	31	1	1725	n
19	54	1	990	y
20	20	1	2760	y
21	23	1	2320	y
22	19	1	2775	y
23	46	1	1148	y
24	20	1	2694	y
25	25	1	2125	y
26	34	1	1575	y
27	90	1	591	y
28	23	1	2311	y
29	96	1	551	y
30	18	1	3053	y
				26/30: 86.7%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	**Number of Pulses per Burst**	**Pulse Width (µsec)**	**PRI (µs)**	**Detection (yes/no)**
1	28	3	167	y
2	28	1	172	y
3	26	1.6	175	y
4	28	2.2	165	y
5	23	3.8	209	y
6	28	3.1	186	y
7	28	4.9	209	y
8	23	1.9	230	n
9	26	2.8	153	y
10	23	4	159	n
11	28	3.8	193	y
12	28	1.2	150	y
13	26	4.2	182	y
14	28	2.3	190	y
15	28	4.5	204	y
16	23	3.9	229	y
17	24	2.6	152	y
18	26	3.6	222	y
19	29	1.6	221	y
20	24	4.2	154	y
21	27	2.5	189	y
22	26	1.2	195	y
23	29	4.8	181	y
24	28	2.3	211	y
25	25	2.8	191	y
26	28	3.8	230	y
27	28	4.9	214	y
28	28	3.3	186	n
29	26	3.1	161	y
30	27	2.6	207	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	16	10	328	y
2	18	7.7	333	y
3	16	7.2	263	y
4	16	8.1	338	y
5	18	9.4	256	y
6	18	7.1	460	y
7	16	7.6	428	y
8	17	9.3	367	y
9	17	7.7	348	y
10	16	9.6	381	y
11	18	6.5	404	n
12	17	9	355	y
13	16	8.9	425	y
14	18	10	416	y
15	16	7.8	495	y
16	18	8.2	421	y
17	17	8.2	253	y
18	17	8.7	297	y
19	17	8.3	403	y
20	16	6.7	307	y
21	17	7.6	482	y
22	18	7	216	y
23	18	7.1	485	y
24	18	6.8	438	y
25	16	7.7	394	y
26	17	10	416	y
27	16	9.4	328	y
28	17	8.1	251	y
29	16	6.6	327	y
30	17	9.2	420	y
				29/30: 96.7%

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	13.9	463	y
2	15	13.6	305	y
3	13	15.8	367	y
4	14	14.7	478	y
5	13	13.2	259	y
6	13	13.6	316	y
7	13	11.6	492	y
8	15	18.8	374	y
9	12	14.7	206	y
10	13	12.6	348	y
11	12	19.4	210	y
12	14	19.2	202	y
13	12	18.1	414	y
14	15	15.9	239	y
15	14	18.2	329	y
16	13	12.6	326	n
17	14	15.6	249	y
18	12	12.1	467	y
19	16	14.7	293	y
20	15	13	381	y
21	12	13	351	y
22	15	12.2	261	y
23	15	18.4	299	y
24	13	13.6	242	n
25	15	13	290	y
26	14	18.5	456	y
27	13	17.1	365	y
28	13	16.4	278	y
29	14	15.3	256	y
30	15	18.7	396	y
				28/30: 93.3%

TYPE 5	Rohde & Schwarz K350 Pulse Sequencer DFS			
Trial #	**Detection (yes/no)**	**Chirp Width (MHz)**	**Subset**	**Fc**
1	y	15	1	5500
2	y	5	1	5500
3	y	14	1	5500
4	y	7	1	5500
5	y	12	1	5500
6	y	9	1	5500
7	y	10	1	5500
8	y	20	1	5500
9	y	16	1	5500
10	y	17	1	5500
11	y	10	2	5495
12	y	11	2	5495.4
13	y	10	2	5495
14	y	20	2	5499
15	y	9	2	5494.6
16	y	7	2	5493.8
17	y	20	2	5499
18	y	6	2	5493.4
19	y	8	2	5494.2
20	y	18	2	5498.2
21	y	9	3	5505.4
22	y	15	3	5503
23	y	16	3	5502.6
24	y	10	3	5505
25	y	20	3	5501
26	y	11	3	5504.6
27	y	10	3	5505
28	y	16	3	5502.6
29	y	7	3	5506.2
30	y	14	3	5503.4

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%

80 MHz

Summary			
Type	**Detections**	**Trials**	**Detection Probability**
Type 1	29	30	97%
Type 2	27	30	90%
Type 3	28	30	93%
Type 4	28	30	93%
Type 5	28	30	93%
Type 6	27	30	90%
Aggregate 1-4	112	120	93%

RADAR TYPE 1				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	**Number of Pulses per Burst**	**Pulse Width (µsec)**	**PRI (µs)**	**Detection (yes/no)**
1	30	1	1796	y
2	29	1	1865	y
3	23	1	2380	y
4	21	1	2562	y
5	101	1	526	y
6	27	1	1969	n
7	19	1	2885	y
8	28	1	1901	y
9	46	1	1146	y
10	24	1	2275	y
11	30	1	1809	y
12	27	1	1990	y
13	19	1	2907	y
14	20	1	2652	y
15	46	1	1152	y
16	33	1	1601	y
17	29	1	1847	y
18	36	1	1485	y
19	37	1	1435	y
20	83	1	641	y
21	21	1	2528	y
22	25	1	2160	y
23	61	1	875	y
24	38	1	1401	y
25	45	1	1182	y
26	23	1	2357	y
27	31	1	1749	y
28	27	1	1959	y
29	21	1	2529	y
30	79	1	669	y
				29/30: 96.7%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	**Number of Pulses per Burst**	**Pulse Width (µsec)**	**PRI (µs)**	**Detection (yes/no)**
1	26	3.4	226	y
2	28	3	209	y
3	27	3.7	161	y
4	25	2	191	y
5	27	4.4	226	y
6	24	4.5	167	y
7	27	4.9	208	y
8	25	4.1	217	y
9	27	3	219	y
10	24	4.9	195	y
11	24	3.3	185	y
12	29	2.9	225	y
13	24	4.2	160	y
14	23	3.8	166	y
15	23	3.9	157	y
16	25	1.8	207	y
17	26	3.8	215	y
18	28	3	159	y
19	23	1.2	190	y
20	26	1.3	182	y
21	28	4.5	224	y
22	27	2.4	172	y
23	29	2.3	181	y
24	27	4.6	209	y
25	24	2	230	y
26	28	3.2	214	n
27	24	4.9	215	y
28	26	3.8	173	y
29	24	1.2	157	y
30	24	4.8	202	y
				29/30: 96.7%

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	7.7	320	y
2	17	9.3	358	y
3	17	9.7	403	y
4	16	8.4	353	y
5	17	6.3	341	y
6	16	9.3	405	y
7	18	8.4	471	y
8	17	10	267	y
9	18	7.2	366	n
10	16	6.2	341	y
11	17	7.9	308	y
12	17	6.2	481	n
13	17	9.7	310	y
14	17	9.4	286	y
15	16	6.3	263	y
16	17	8.6	210	y
17	17	7.4	278	y
18	18	8.8	340	y
19	17	9.9	488	y
20	18	9.4	225	y
21	17	9.8	451	y
22	18	7.9	394	y
23	16	7.1	415	y
24	17	10	432	y
25	17	6.9	347	y
26	18	8.5	236	y
27	17	6.3	469	y
28	16	6.4	307	y
29	17	6.9	354	y
30	17	6.1	241	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	13	17.1	253	y
2	14	20	247	y
3	15	16.4	465	y
4	12	17	413	y
5	14	19.6	243	y
6	14	19	490	y
7	16	18.4	295	y
8	13	16.4	323	y
9	15	19.3	490	y
10	15	11.2	238	y
11	15	12.8	279	y
12	13	15.6	449	y
13	12	16.2	201	n
14	13	15.1	235	y
15	13	16.8	301	y
16	13	16.8	416	y
17	14	17.2	310	y
18	13	16.6	348	y
19	14	18	266	y
20	13	12.3	261	y
21	13	16	375	y
22	14	11.8	377	y
23	15	17.3	274	y
24	13	13.1	232	y
25	14	16.7	335	y
26	14	15.5	353	y
27	15	13.1	385	y
28	15	18.7	358	y
29	14	15.2	232	n
30	15	14.8	275	y
				28/30: 93.3%

TYPE 5	Rohde & Schwarz K350 Pulse Sequencer DFS			
Trial #	**Detection (yes/no)**	**Chirp Width (MHz)**	**Subset**	**Fc**
1	y	19	1	5500
2	y	17	1	5500
3	y	10	1	5500
4	y	13	1	5500
5	y	18	1	5500
6	y	20	1	5500
7	y	7	1	5500
8	y	17	1	5500
9	y	19	1	5500
10	y	16	1	5500
11	y	13	2	5496.2
12	y	12	2	5495.8
13	y	6	2	5493.4
14	y	5	2	5493
15	y	6	2	5493.4
16	y	12	2	5495.8
17	n	18	2	5498.2
18	y	5	2	5493
19	y	17	2	5497.8
20	y	10	2	5495
21	y	14	3	5503.4
22	y	10	3	5505
23	y	9	3	5505.4
24	y	6	3	5506.6
25	y	20	3	5501
26	y	14	3	5503.4
27	y	17	3	5502.2
28	n	14	3	5503.4
29	y	10	3	5505
30	y	16	3	5502.6

28/30: 93.3%

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	n
15	y
16	y
17	y
18	n
19	n
20	y
21	y
22	y
23	y
24	y
25	y
26	y
27	y
28	y
29	y
30	y
	27/30: 90%

160 MHz

Summary			
Type	**Detections**	**Trials**	**Detection Probability**
Type 1	26	30	87%
Type 2	29	30	97%
Type 3	28	30	93%
Type 4	29	30	97%
Type 5	30	30	100%
Type 6	29	30	97%
Aggregate 1-4	112	120	93%

RADAR TYPE 1				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	**Number of Pulses per Burst**	**Pulse Width (µsec)**	**PRI (µs)**	**Detection (yes/no)**
1	30	1	1796	y
2	29	1	1865	n
3	23	1	2380	y
4	21	1	2562	y
5	101	1	526	y
6	27	1	1969	y
7	19	1	2885	y
8	28	1	1901	y
9	46	1	1146	y
10	24	1	2275	y
11	30	1	1809	n
12	27	1	1990	n
13	19	1	2907	y
14	20	1	2652	y
15	46	1	1152	y
16	33	1	1601	y
17	29	1	1847	y
18	36	1	1485	n
19	37	1	1435	y
20	83	1	641	y
21	21	1	2528	y
22	25	1	2160	y
23	61	1	875	y
24	38	1	1401	y
25	45	1	1182	y
26	23	1	2357	y
27	31	1	1749	y
28	27	1	1959	y
29	21	1	2529	y
30	79	1	669	y
				26/30: 86.7%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	**Number of Pulses per Burst**	**Pulse Width (µsec)**	**PRI (µs)**	**Detection (yes/no)**
1	27	1.9	158	y
2	25	2.9	151	y
3	26	3.5	173	y
4	23	3.7	170	y
5	23	2.3	216	y
6	25	2	216	y
7	28	3.3	223	y
8	29	2.4	209	y
9	28	2.8	215	y
10	27	4.2	230	y
11	24	3.2	198	y
12	24	3.8	192	y
13	26	3.2	162	y
14	26	2.9	185	y
15	28	3.8	156	y
16	29	3.4	203	y
17	26	4.1	184	y
18	27	1.8	188	y
19	26	4.6	164	y
20	23	2.4	189	n
21	27	4.4	174	y
22	24	4.7	214	y
23	25	2.1	204	y
24	27	3.8	151	y
25	23	3.8	181	y
26	27	4	154	y
27	27	3.9	223	y
28	26	4.1	166	y
29	28	3.5	189	y
30	27	1.5	225	y
				29/30: 96.7%

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	6.6	272	y
2	16	8.1	290	y
3	17	8.5	325	y
4	16	7.1	316	y
5	17	9.1	222	y
6	17	7.3	315	y
7	17	8.7	238	y
8	16	7.2	299	y
9	16	8.8	443	y
10	16	8	296	y
11	16	7.7	336	y
12	16	8	355	y
13	17	6.3	205	n
14	17	7.6	461	y
15	17	6.1	353	y
16	17	6.8	261	y
17	18	8.6	337	y
18	16	6.5	484	n
19	17	8.2	482	y
20	16	6.4	276	y
21	17	7.4	332	y
22	16	6.5	267	y
23	17	7.8	481	y
24	18	9.9	382	y
25	17	9.3	364	y
26	17	6.7	334	y
27	18	9.6	279	y
28	16	6.5	455	y
29	17	7.9	340	y
30	17	9	327	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	16	18.5	279	y
2	14	11.2	233	y
3	12	14.9	274	y
4	15	13.6	469	y
5	12	13.1	279	y
6	15	13.1	392	y
7	13	19	250	y
8	14	17.6	201	y
9	14	14.1	455	y
10	13	15.7	279	y
11	14	14.5	322	y
12	13	11.1	455	y
13	15	16.9	271	y
14	14	13.4	285	y
15	12	15.1	497	y
16	14	17	403	y
17	15	19.6	385	y
18	15	17.9	495	y
19	13	14.2	443	y
20	14	14.2	456	y
21	13	19.7	217	y
22	14	19.9	257	y
23	14	17.3	480	y
24	14	18.8	495	y
25	16	19.6	307	y
26	14	14.3	241	y
27	15	13.2	375	n
28	15	17.3	405	y
29	12	11.9	452	y
30	13	17.3	329	y
				29/30: 96.7%

TYPE 5	Rohde & Schwarz K350 Pulse Sequencer DFS			
Trial #	**Detection (yes/no)**	**Chirp Width (MHz)**	**Subset**	**Fc**
1	y	5	1	5500
2	y	11	1	5500
3	y	17	1	5500
4	y	17	1	5500
5	y	19	1	5500
6	y	6	1	5500
7	y	14	1	5500
8	y	6	1	5500
9	y	5	1	5500
10	y	15	1	5500
11	y	20	2	5499
12	y	20	2	5499
13	y	10	2	5495
14	y	8	2	5494.2
15	y	20	2	5499
16	y	9	2	5494.6
17	y	16	2	5497.4
18	y	16	2	5497.4
19	y	11	2	5495.4
20	y	8	2	5494.2
21	y	17	3	5502.2
22	y	5	3	5507
23	y	13	3	5503.8
24	y	17	3	5502.2
25	y	18	3	5501.8
26	y	8	3	5505.8
27	y	8	3	5505.8
28	y	10	3	5505
29	y	14	3	5503.4
30	y	8	3	5505.8

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	n
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
	29/30: 96.7%

-- End of Test Report --