



427 West 12800 South
Draper, UT 84020

Test Report Certification

FCC ID	SWX-E7CP
ISED ID	6545A-E7CP
Equipment Under Test	E7-Campus
Test Report Serial Number	TR9548_02
Date of Test(s)	8, 21 – 23, 28 – 29 May; 24 – 27 September; 11 – 12, 18 November 2024
Report Issue Date	17 December 2024

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



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.

Applicant	Ubiquiti Inc.
Manufacturer	Ubiquiti Inc.
Brand Name	UBIQUITI
Model Number	E7-Campus
FCC ID	SWX-E7CP
ISED ID	6545A-E7CP

On this 17th day of December 2024, 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.

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: Clay Allred



Reviewed By: Richard L. Winter

Revision History		
Revision	Description	Date
01	Original Report Release	25 November 2024
02	Added TPC statement to Section 2.2	17 December 2024

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.....	7
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	§15.403(i) 26 dB Emissions Bandwidth.....	18
5.4	§15.407(a)(2) Maximum Average Output Power.....	20
5.5	§15.407(b) Spurious Emissions.....	23
5.6	§15.407(a) Maximum Power Spectral Density.....	29
5.7	DFS Requirement.....	32

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-Campus
Serial Number	F4E2C61FFB30
Dimensions (cm)	25.0 x 25.0 x 4.6

2.2 Description of EUT

The E7-Campus is a WiFi 7 access point with (1) 10GbE PoE port and (1) 1GbE PoE port. The E7-Campus transmits in the 2.4 GHz, 5 GHz, and 6 GHz frequency bands using integral antennas and is powered by an 802.3++ PoE power adapter. This device employs Transmit Power Control (TPC) to ensure operation 6dBm below the mean EIRP of 30dBm.

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-Campus (Note 1) SN: F4E2C61FFB30	Access Point	PoE Input / Shielded Cat 5E cable
BN: UBIQUITI MN: U-POE++ SN: N/A	PoE Injector	PoE Output / Shielded Cat 5E to E7, and Ethernet / unshielded Cat 5E to PC
BN: DELL MN: XPS SN: N/A	Laptop PC	Ethernet / un-shielded Cat 5E

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 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 POE 48 Volts
AC Mains Frequency	60 Hz
Temperature	21.1 – 24.2 °C
Humidity	20.8 – 31.5 %
Barometric Pressure	1016 mBar

2.6 Operating Modes

The E7-Campus 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

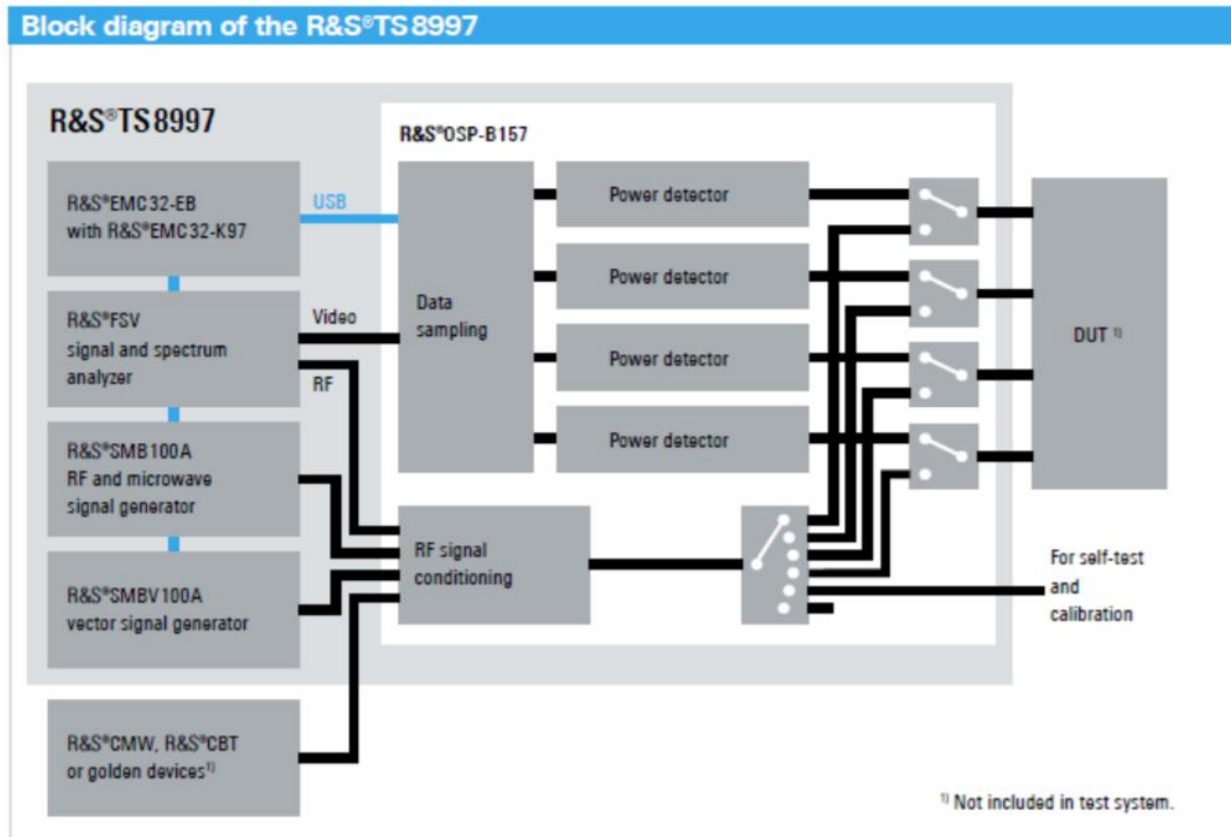


Diagram 1: Test Configuration Block Diagram

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
15.407(a)	N/A	Antenna requirements	Structural Requirement	Compliant
15.407(b)	RSS-Gen	Conducted Disturbance at Mains Port	0.15 to 30	Compliant
15.407(a)	RSS-247 §6.2.2, §6.2.3	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	Compliant
15.407(b)	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.				

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-6754	1/23/2024	2/26/2025
LISN	AFJ	LS16C/10	UCL-2512	7/08/2024	7/08/2025
ISN	Teseq	ISN T800	UCL-2974	7/09/2024	7/09/2025
LISN	AFJ	LS16C\10	UCL-6749	1/29/2024	1/29/2025
AC Power Source	Laplace Instruments	AC1000A	UCL-2857	N/A	N/A
Test Software	UCL	Revision 1	UCL-3107	N/A	N/A

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

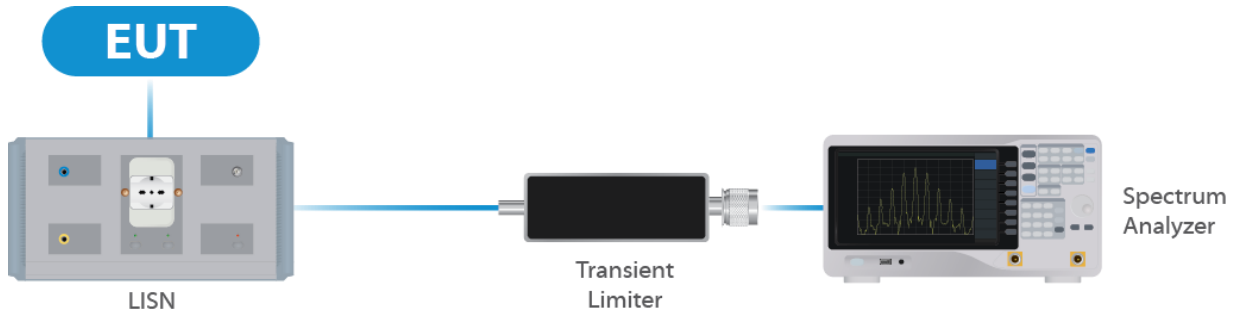


Figure 1: Conducted Emissions Test

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	11/27/2023	11/27/2024
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

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

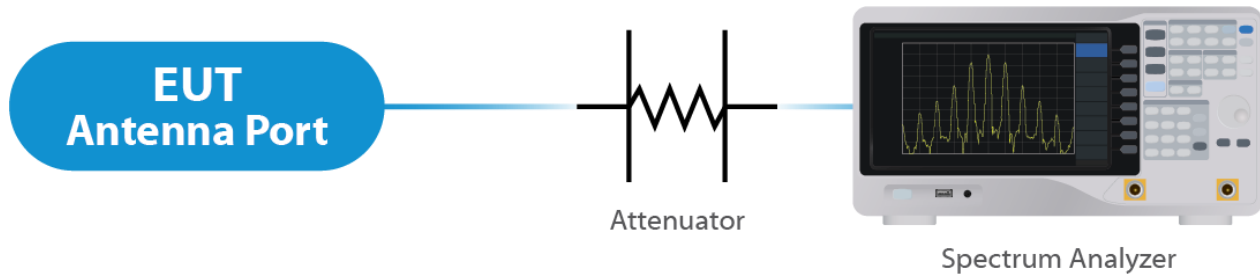


Figure 2: Direct Connect at the Antenna Port Test



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	1/25/2024	1/29/2025
Pre-Amplifier 9 kHz – 1 GHz	Sonoma Instruments	310N	UCL-2889	1/19/2024	1/19/2026
Broadband Antenna	Scwarzbeck	VULB 9163	UCL-3062	2/22/2023	2/22/2025
Broadband Antenna	Scwarzbeck	VULB 9163	UCL-3071	1/11/2023	1/11/2025
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	UCL	Revision 1	UCL-3108	N/A	N/A

Table 4: List of equipment used for Radiated Emissions

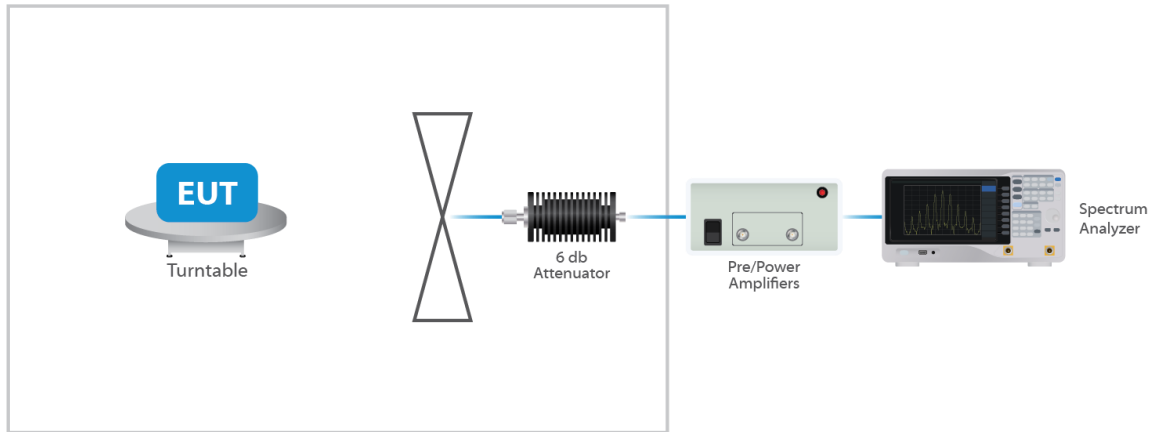
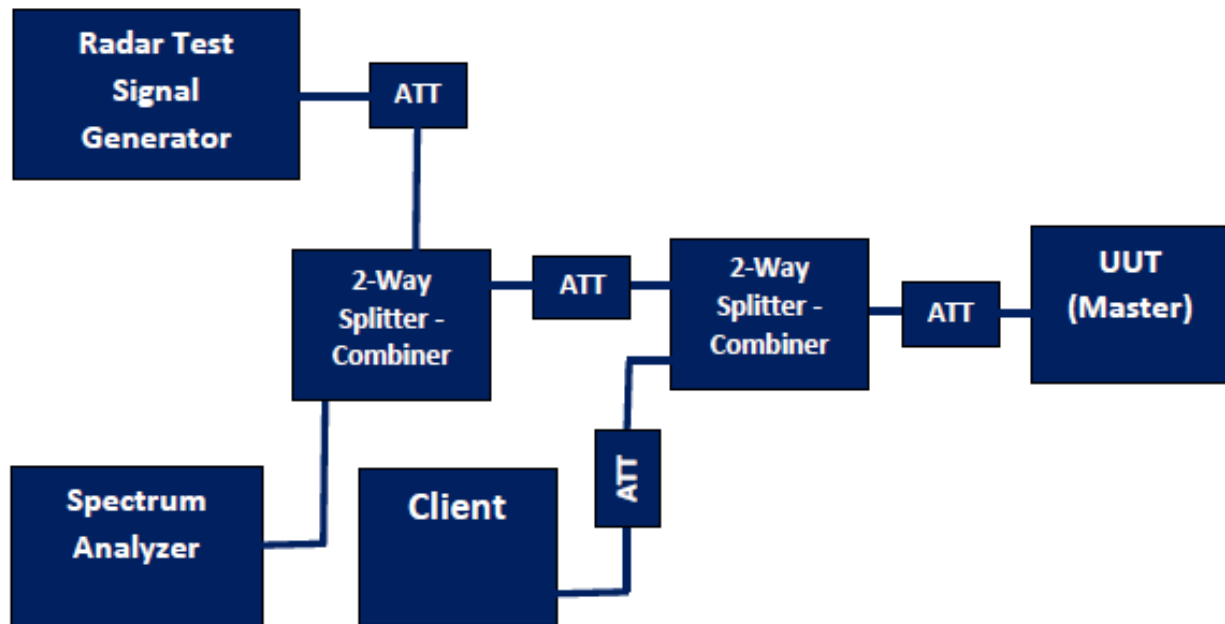


Figure 4: Radiated Emissions Test

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



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 a internal integrated antenna. Per the manufacturer, the Maximum gain of the antenna per chain is 12 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 $\text{NANT} \leq 4$;

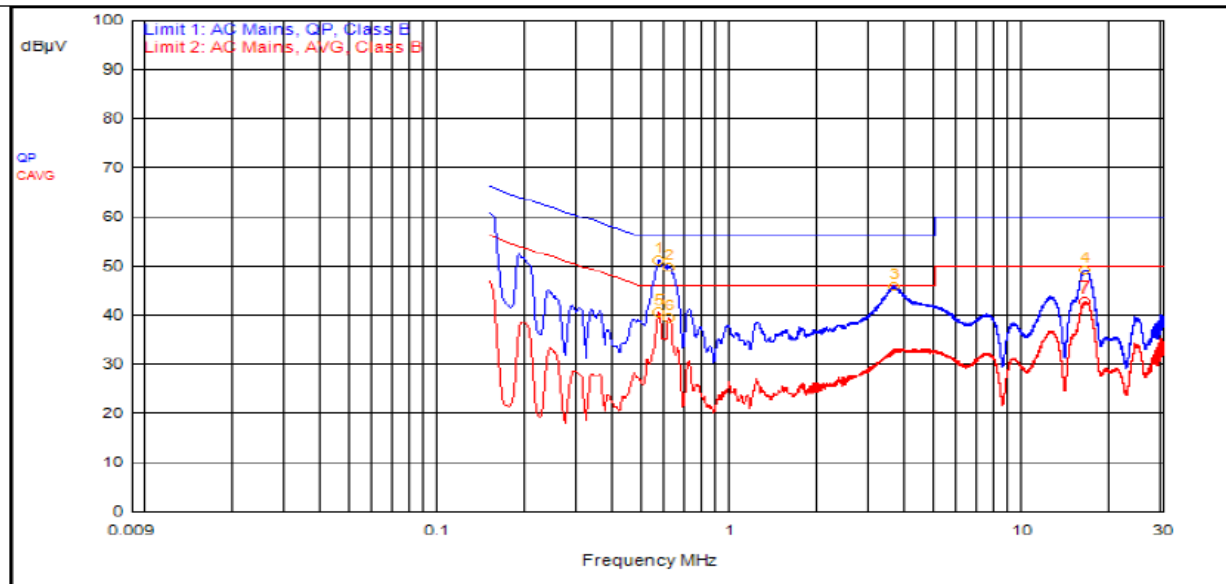
For PSD measurements when $\text{Nss}=1$: Array Gain = $10 \log(\text{NANT}/\text{NSS})$ dB + Antenna Gain (dBi). Or
 $6.02 \text{ dB} + 10 \text{ dBi} = 16.02 \text{ dBi}$.

Results

The EUT complied with the specification

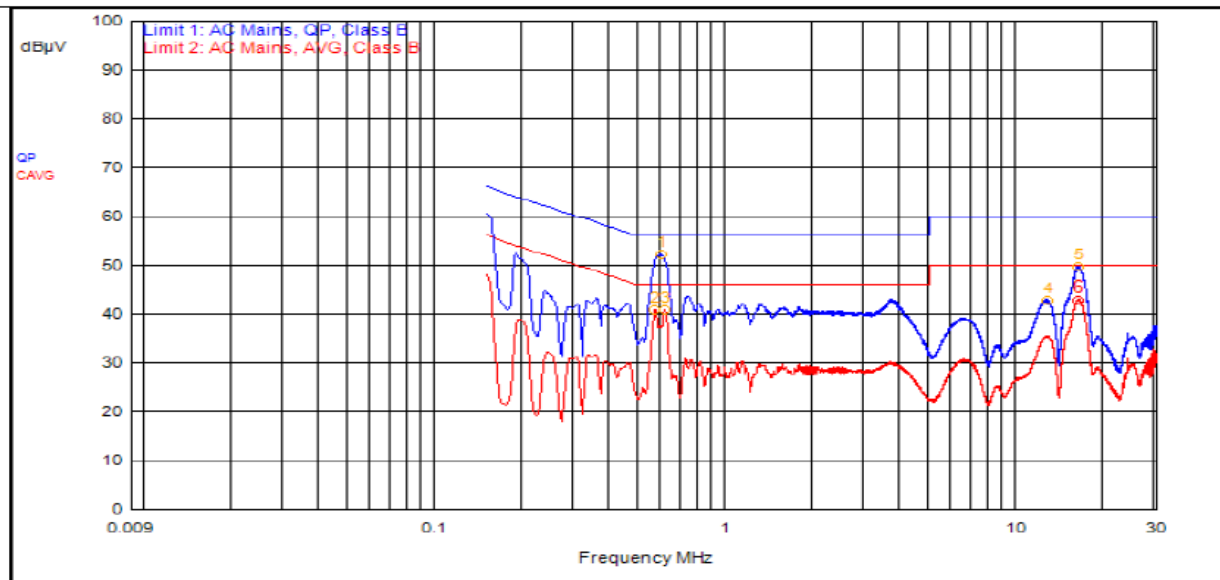
5.2 Conducted Emissions at Mains Ports Data

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
1	567,000kHz	12.40	0.00		QPeak	38.61	51.01	56.00	-4.99			
2	615,000kHz	12.38	0.00		QPeak	37.44	49.82	56.00	-6.18			
3	3.594	12.29	0.10		QPeak	33.37	45.76	56.00	-10.24			
4	16.206	12.40	0.20		QPeak	36.61	49.21	60.00	-10.79			
5	567,000kHz	12.40	0.00		C_AVG	28.23	40.63			46.00	-5.37	
6	609,000kHz	12.38	0.00		C_AVG	27.16	39.54			46.00	-6.46	
7	16.206	12.40	0.20		C_AVG	30.08	42.68			50.00	-7.32	

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
1	591,000kHz	12.40	0.00		QPeak	39.70	52.10	56.00	-3.90			
5	16.143	12.43	0.20		QPeak	37.04	49.67	60.00	-10.33			
4	12.678	12.40	0.20		QPeak	30.24	42.84	60.00	-17.16			
2	567,000kHz	12.41	0.00		C_AVG	28.53	40.94			46.00	-5.06	
3	612,000kHz	12.40	0.00		C_AVG	28.43	40.83			46.00	-5.17	
6	16.155	12.43	0.20		C_AVG	30.17	42.80			50.00	-7.20	

Result

The EUT complied with the specification limit.

5.3 §15.403(i) 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	17.5	22.8
OFDM 20	5280	17.5	22.3
OFDM 20	5320	17.5	22.2
HE 20	5260	19.3	22.6
HE 20	5280	19.3	22.8
HE 20	5320	19.5	22.8
HE 40	5270	38.5	43.5
HE 40	5310	38.5	43.4
HE 80	5290	79.0	88.0
HE 160	5250	160.0	173.0

5.3.2 UNII-2C

Bandwidth	Frequency (MHz)	99% Bandwidth (MHz)	Emissions 26 dB Bandwidth (MHz)
OFDM 20	5500	17.5	21.9
OFDM 20	5600	17.5	22.5
OFDM 20	5720	17.3	22.0
HE 20	5500	19.3	22.8
HE 20	5600	19.3	23.1
HE 20	5720	19.3	22.6
HE 40	5510	39.0	44.0
HE 40	5590	38.5	42.8

HE 40	5710	38.5	43.4
HE 80	5530	80.0	86.5
HE 80	5610	79.0	88.5
HE 80	5690	79.0	89.0
HE 160	5570	160.0	171.0

Result

The 26 dB bandwidths are reported for information purposes. 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 17.93 dBm or 62.09 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 12 dBi, therefore the adjusted limit is 18 dBm.

5.4.1 UNII-2A

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5260	Mcs0_Nss4	12	17.58	29.58	4.93
OFDM 20	5280	Mcs0_Nss4	12	17.31	29.31	4.80
OFDM 20	5320	Mcs0_Nss4	13	17.87	29.87	5.25
HE 20	5260	Mcs0_Nss4	12	17.70	29.70	4.54
HE 20	5280	Mcs0_Nss4	12	17.40	29.40	4.15
HE 20	5320	Mcs0_Nss4	12	16.98	28.98	3.66
HE 40	5270	Mcs0_Nss4	12	17.44	29.44	1.20
HE 40	5310	Mcs0_Nss4	12	17.11	29.11	0.82
HE 80	5290	Mcs0_Nss4	12	16.91	28.91	-2.34
HE 160	5250	Mcs0_Nss4	12	17.38	29.38	-4.26

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5260	Mcs0_Nss1	6	11.58	23.58	-1.07
OFDM 20	5280	Mcs0_Nss1	6	11.31	23.31	-1.20
OFDM 20	5320	Mcs0_Nss1	6	10.87	22.87	-1.75
HE 20	5260	Mcs0_Nss1	6	11.70	23.70	-1.46
HE 20	5280	Mcs0_Nss1	6	11.40	23.40	-1.85
HE 20	5320	Mcs0_Nss1	7	11.98	23.98	-1.34
HE 40	5270	Mcs0_Nss1	9	14.44	26.44	-1.80
HE 40	5310	Mcs0_Nss1	10	15.11	27.11	-1.18

HE 80	5290	Mcs0_Nss1	12	16.91	28.91	-2.34
HE 160	5250	Mcs0_Nss1	12	17.38	29.38	-4.26

5.4.2 UNII-2C

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5500	Mcs0_Nss4	14	17.70	29.70	5.46
OFDM 20	5600	Mcs0_Nss4	14	17.79	29.79	5.61
OFDM 20	5720	Mcs0_Nss4	14	17.66	29.33	5.29
HE 20	5500	Mcs0_Nss4	14	17.83	29.83	5.07
HE 20	5600	Mcs0_Nss4	14	17.93	29.93	5.29
HE 20	5720	Mcs0_Nss4	14	17.76	29.76	4.90
HE 40	5510	Mcs0_Nss4	14	17.48	29.48	1.92
HE 40	5590	Mcs0_Nss4	14	17.90	29.90	2.28
HE 40	5710	Mcs0_Nss4	14	17.64	29.64	2.08
HE 80	5530	Mcs0_Nss4	14	17.40	29.40	-1.34
HE 80	5610	Mcs0_Nss4	14	17.08	29.08	-0.91
HE 80	5690	Mcs0_Nss4	14	17.67	29.67	-0.73
HE 160	5570	Mcs0_Nss4	14	17.17	29.17	-2.93

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power*	EIRP	Measured PSD
OFDM 20	5500	Mcs0_Nss1	7	10.79	22.70	-1.54
OFDM 20	5600	Mcs0_Nss1	7	10.79	22.79	-1.39
OFDM 20	5720	Mcs0_Nss1	7	10.66	22.66	-1.71
HE 20	5500	Mcs0_Nss1	7	10.83	22.83	-1.93
HE 20	5600	Mcs0_Nss1	7	10.93	22.93	-1.71
HE 20	5720	Mcs0_Nss1	8	11.76	23.76	-1.10
HE 40	5510	Mcs0_Nss1	11	14.48	26.48	-1.08
HE 40	5590	Mcs0_Nss1	10	13.90	25.90	-1.72

HE 40	5710	Mcs0_Nss1	10	13.64	25.54	-1.92
HE 80	5530	Mcs0_Nss1	14	17.40	29.40	-1.34
HE 80	5610	Mcs0_Nss1	13	16.08	28.08	-1.91
HE 80	5690	Mcs0_Nss1	13	16.67	28.67	-1.73
HE 160	5570	Mcs0_Nss1	14	17.17	29.17	-2.93

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.

5.5 §15.407(b) Spurious Emissions

5.5.1 Conducted Spurious Emissions

The frequency range from the lowest frequency generated or used in the device to the tenth harmonic of the highest fundamental frequency was investigated to measure any antenna-conducted emissions. The graphs show the measurement data from spurious emissions noted across the frequency range when transmitting at the lowest frequency, middle frequency and upper frequency. Shown below are plots with the EUT turned to the upper and lower channels with the antenna gain of 12 dBi accounted for. These demonstrate compliance with the provisions of this section at the band edges.

The emissions must be below -27 dBm EIRP.

Result

Conducted spurious emissions were below -27 dBm; therefore, the EUT complies with the specification. See Annex for results.

5.5.2 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 + Cable Loss - Pre-Amplifier Gain, and is added to the Receiver reading.

5.5.3 UNII-2A

QuasiPeak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
No Significant Emissions were Observed in this Orientation of the Antenna						Vertical	--
No Significant Emissions were Observed in this Orientation of the Antenna						Horizontal	--

Table 5: Radiated Emissions 30 – 1000 MHz

Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
4.50 GHz	49.02	74	-24.98	343	3.1	Vertical	2.82
10.51 GHz	56.96	74	-17.04	15	2.539	Vertical	13.93
15.79 GHz	61.82	74	-12.18	335	1.996	Vertical	15.47
No Significant Emissions were Observed in this Orientation of the Antenna						Horizontal	--

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
4.50 GHz	42.18	54	-11.82	343	3.1	Vertical	2.82
10.51 GHz	41.13	54	-12.87	15	2.539	Vertical	13.93
15.79 GHz	47.17	54	-6.83	335	1.996	Vertical	15.47
No Significant Emissions were Observed in this Orientation of the Antenna						Horizontal	--

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)
10.55 GHz	53.85	74	-20.15	269	1.521	Vertical	14.38
12.58 GHz	55.29	74	-18.71	189	2.897	Vertical	16.72
15.83 GHz	62.50	74	-11.50	339	1.522	Vertical	15.36
1.50 GHz	49.24	74	-24.76	86	3.802	Horizontal	-7.40
4.50 GHz	53.77	74	-20.23	39	3.1	Horizontal	2.82
10.56 GHz	56.45	74	-17.55	25	1.5	Horizontal	14.58
15.85 GHz	55.78	74	-18.22	13	1.643	Horizontal	15.36

Avg

Frequency	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
10.55 GHz	36.25	54	-17.75	269	1.521	Vertical	14.38
12.58 GHz	38.19	54	-15.81	189	2.897	Vertical	16.72
15.83 GHz	47.96	54	-6.04	339	1.522	Vertical	15.36
1.50 GHz	21.20	54	-32.80	86	3.802	Horizontal	-7.40
4.50 GHz	48.91	54	-5.09	39	3.1	Horizontal	2.82
10.56 GHz	44.97	54	-9.03	25	1.5	Horizontal	14.58
15.85 GHz	39.31	54	-14.69	13	1.643	Horizontal	15.36

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)
2.39 GHz	50.99	74	-23.01	314	3.095	Vertical	-3.43
11.95 GHz	55.28	74	-18.72	246	2.57	Vertical	16.49
15.95 GHz	60.75	74	-13.25	10	1.82	Vertical	15.45
2.39 GHz	51.39	74	-22.61	13	2.222	Horizontal	-3.43

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
4.50 GHz	55.22	74	-18.78	27	1.643	Horizontal	2.81
11.37 GHz	52.76	74	-21.24	179	3.259	Horizontal	14.71
15.97 GHz	55.96	74	-18.04	2	2.222	Horizontal	15.51

Ave

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
2.39 GHz	31.12	54	-22.88	314	3.095	Vertical	-3.43
11.95 GHz	37.46	54	-16.54	246	2.57	Vertical	16.49
15.95 GHz	44.53	54	-9.47	10	1.82	Vertical	15.45
2.39 GHz	32.11	54	-21.89	13	2.222	Horizontal	-3.43
4.50 GHz	52.22	54	-1.78	27	1.643	Horizontal	2.81
11.37 GHz	36.05	54	-17.95	179	3.259	Horizontal	14.71
15.97 GHz	39.72	54	-14.28	2	2.222	Horizontal	15.51

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)
28.46 GHz	57.50	74	-16.50	2	Vertical	-0.39
30.94 GHz	53.20	74	-20.80	3	Vertical	0.78
21.12 GHz	51.91	74	-22.09	9	Horizontal	-0.57
27.03 GHz	51.77	74	-22.23	290	Horizontal	1.93
28.46 GHz	54.39	74	-19.61	1	Horizontal	-0.39

Ave

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
28.46 GHz	53.46	54	-0.54	2	Vertical	-0.39
30.94 GHz	43.82	54	-10.18	3	Vertical	0.78
21.12 GHz	39.36	54	-14.64	9	Horizontal	-0.57
27.03 GHz	36.07	54	-17.93	290	Horizontal	1.93
28.46 GHz	47.90	54	-6.10	1	Horizontal	-0.39

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

5.5.4 UNII-2C

QuasiPeak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin	Azimuth (°)	Height	Pol.	Correction (dB)
No Significant Emissions were Observed in this Orientation of the Antenna						Vertical	
No Significant Emissions were Observed in this Orientation of the Antenna						Horizontal	

Table 10: Radiated Emissions 30 – 1000 MHz

Peak

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
1.61 GHz	58.64	74	-15.36	349	2.222	Vertical	-6.89
11.00 GHz	54.50	74	-19.50	267	1.643	Vertical	15.47
14.78 GHz	56.23	74	-17.77	199	2.359	Vertical	16.89
4.50 GHz	51.98	74	-22.02	43	2.928	Horizontal	2.814
11.00 GHz	55.95	74	-18.05	316	1.643	Horizontal	15.45
12.51 GHz	54.15	74	-19.85	247	3.44	Horizontal	16.51
16.37 GHz	55.61	74	-18.39	270	2.222	Horizontal	17.58

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
1.61 GHz	22.98	54	-31.02	349	2.222	Vertical	-6.89
11.00 GHz	36.82	54	-17.18	267	1.643	Vertical	15.47
14.78 GHz	38.13	54	-15.87	199	2.359	Vertical	16.89
4.50 GHz	46.88	54	-7.12	43	2.928	Horizontal	2.814
11.00 GHz	38.82	54	-15.18	316	1.643	Horizontal	15.45
12.51 GHz	36.33	54	-17.67	247	3.44	Horizontal	16.51
16.37 GHz	38.07	54	-15.93	270	2.222	Horizontal	17.58

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)
11.19 GHz	57.06	74	-16.94	311	2.001	Vertical	14.95
12.52 GHz	53.86	74	-20.14	123	3.44	Vertical	16.54
16.22 GHz	56.16	74	-17.84	326	2.222	Vertical	17.79
2.39 GHz	44.17	74	-29.83	160	3.798	Horizontal	-3.42
11.91 GHz	55.88	74	-18.12	335	2.721	Horizontal	16.54

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
14.72 GHz	57.25	74	-16.75	304	2.363	Horizontal	17.26

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
11.19 GHz	39.86	54	-14.14	311	2.001	Vertical	14.95
12.52 GHz	36.75	54	-17.25	123	3.44	Vertical	16.54
16.22 GHz	38.53	54	-15.47	326	2.222	Vertical	17.79
2.39 GHz	27.46	54	-26.54	160	3.798	Horizontal	-3.42
11.91 GHz	42.49	54	-11.51	335	2.721	Horizontal	16.54
14.72 GHz	38.78	54	-15.22	304	2.363	Horizontal	17.26

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)
1.59 GHz	49.62	74	-24.38	308	3.095	Vertical	-6.92
2.39 GHz	50.90	74	-23.10	325	2.923	Vertical	-3.42
16.36 GHz	56.36	74	-17.64	130	3.802	Vertical	17.48
2.40 GHz	44.84	74	-29.16	300	1.5	Horizontal	-3.39
10.31 GHz	54.15	74	-19.85	40	3.44	Horizontal	14.62
11.91 GHz	58.07	74	-15.93	306	1.522	Horizontal	16.54

Avg

Frequency	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Correction (dB)
1.59 GHz	22.79	54	-31.21	308	3.095	Vertical	-6.92
2.39 GHz	31.66	54	-22.34	325	2.923	Vertical	-3.42
16.36 GHz	38.03	54	-15.97	130	3.802	Vertical	17.48
2.40 GHz	28.39	54	-25.61	300	1.5	Horizontal	-3.39
10.31 GHz	36.69	54	-17.31	40	3.44	Horizontal	14.62
11.91 GHz	48.49	54	-5.51	306	1.522	Horizontal	16.54

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)
16.51 GHz	52.03	74	-21.97	359	Vertical	0.30

Frequency	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
22.00 GHz	56.05	74	-17.95	355	Vertical	-0.76
30.94 GHz	52.35	74	-21.65	355	Vertical	0.79
37.87 GHz	53.81	74	-20.19	223	Vertical	3.72
16.50 GHz	53.23	74	-20.77	317	Horizontal	0.35
22.00 GHz	56.96	74	-17.04	35	Horizontal	-0.76
23.82 GHz	55.45	74	-18.55	317	Horizontal	0.80
32.53 GHz	53.08	74	-20.92	2353	Horizontal	2.57

Ave

Frequency	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
16.51 GHz	38.56	54	-15.44	359	Vertical	0.30
22.00 GHz	45.60	54	-8.40	355	Vertical	-0.76
30.94 GHz	37.12	54	-16.88	355	Vertical	0.79
37.87 GHz	36.92	54	-17.08	223	Vertical	3.72
16.50 GHz	39.84	54	-14.46	359	Horizontal	0.35
22.00 GHz	52.79	54	-1.21	355	Horizontal	-0.76
23.82 GHz	47.95	54	-6.05	355	Horizontal	0.80
32.53 GHz	38.01	54	-15.99	223	Horizontal	2.57

Table 14: Radiated Emissions 17 – 40 GHz at the Middle Lowest (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. When the EUT uses Nss=1 data rates, the antenna gain is 12 dBi + Array gain of 6.02 dB which is a total of 18.01 dBi. The adjusted PSD limit for Nss1 is -1.02 dBm.

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_Nss4	12	17.58	4.93
OFDM 20	5280	Mcs0_Nss4	12	17.31	4.80
OFDM 20	5320	Mcs0_Nss4	13	17.87	5.25
HE 20	5260	Mcs0_Nss4	12	17.70	4.54
HE 20	5280	Mcs0_Nss4	12	17.40	4.15
HE 20	5320	Mcs0_Nss4	12	16.98	3.66
HE 40	5270	Mcs0_Nss4	12	17.44	1.20
HE 40	5310	Mcs0_Nss4	12	17.11	0.82
HE 80	5290	Mcs0_Nss4	12	16.91	-2.34
HE 160	5250	Mcs0_Nss4	12	17.38	-4.26

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5260	Mcs0_Nss1	6	11.58	-1.07
OFDM 20	5280	Mcs0_Nss1	6	11.31	-1.20
OFDM 20	5320	Mcs0_Nss1	6	10.87	-1.75

HE 20	5260	Mcs0_Nss1	6	11.70	-1.46
HE 20	5280	Mcs0_Nss1	6	11.40	-1.85
HE 20	5320	Mcs0_Nss1	7	11.98	-1.34
HE 40	5270	Mcs0_Nss1	9	14.44	-1.80
HE 40	5310	Mcs0_Nss1	10	15.11	-1.18
HE 80	5290	Mcs0_Nss1	12	26.91	-2.34
HE 160	5250	Mcs0_Nss1	12	17.38	-4.26

5.6.2 UNII-2C

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5500	Mcs0_Nss4	14	17.70	5.46
OFDM 20	5600	Mcs0_Nss4	14	17.79	5.61
OFDM 20	5720	Mcs0_Nss4	14	17.66	5.29
HE 20	5500	Mcs0_Nss4	14	17.83	5.07
HE 20	5600	Mcs0_Nss4	14	17.93	5.29
HE 20	5720	Mcs0_Nss4	14	17.76	4.90
HE 40	5510	Mcs0_Nss4	14	17.48	1.92
HE 40	5590	Mcs0_Nss4	14	17.90	2.28
HE 40	5710	Mcs0_Nss4	14	17.64	2.08
HE 80	5530	Mcs0_Nss4	14	17.40	-1.34
HE 80	5610	Mcs0_Nss4	14	17.08	-0.91
HE 80	5690	Mcs0_Nss4	14	17.67	-0.73
HE 160	5570	Mcs0_Nss4	14	17.17	-2.93

Modulation (BW)	Frequency (MHz)	Data Rate	TP Setting	Conducted Output Power	Measured PSD
OFDM 20	5500	Mcs0_Nss1	7	10.70	-1.54
OFDM 20	5600	Mcs0_Nss1	7	10.79	-1.39
OFDM 20	5720	Mcs0_Nss1	7	10.66	-1.71

HE 20	5500	Mcs0_Nss1	7	10.83	-1.93
HE 20	5600	Mcs0_Nss1	7	10.93	-1.71
HE 20	5720	Mcs0_Nss1	8	11.76	-1.10
HE 40	5510	Mcs0_Nss1	11	14.48	-1.08
HE 40	5590	Mcs0_Nss1	10	13.90	-1.72
HE 40	5710	Mcs0_Nss1	10	13.64	-1.92
HE 80	5530	Mcs0_Nss1	14	17.40	-1.34
HE 80	5610	Mcs0_Nss1	13	16.08	-1.91
HE 80	5690	Mcs0_Nss1	13	16.67	-1.73
HE 160	5570	Mcs0_Nss1	14	17.17	-2.93

Result

The maximum average power spectral density was less than the limit of 11 dBm (-1.02 dBm for Nss1); therefore, the EUT complies with the specification.

5.7 DFS Requirement

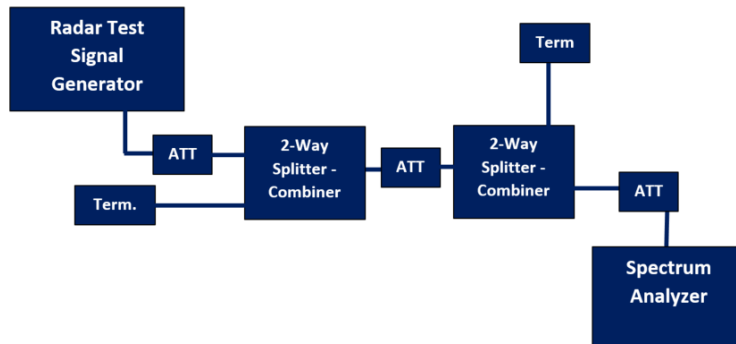
This product is a master with radar detection. The outcome of the required DFS tests is located in this section. DFS testing was performed following the test procedures as outlined in KDB 905462.

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

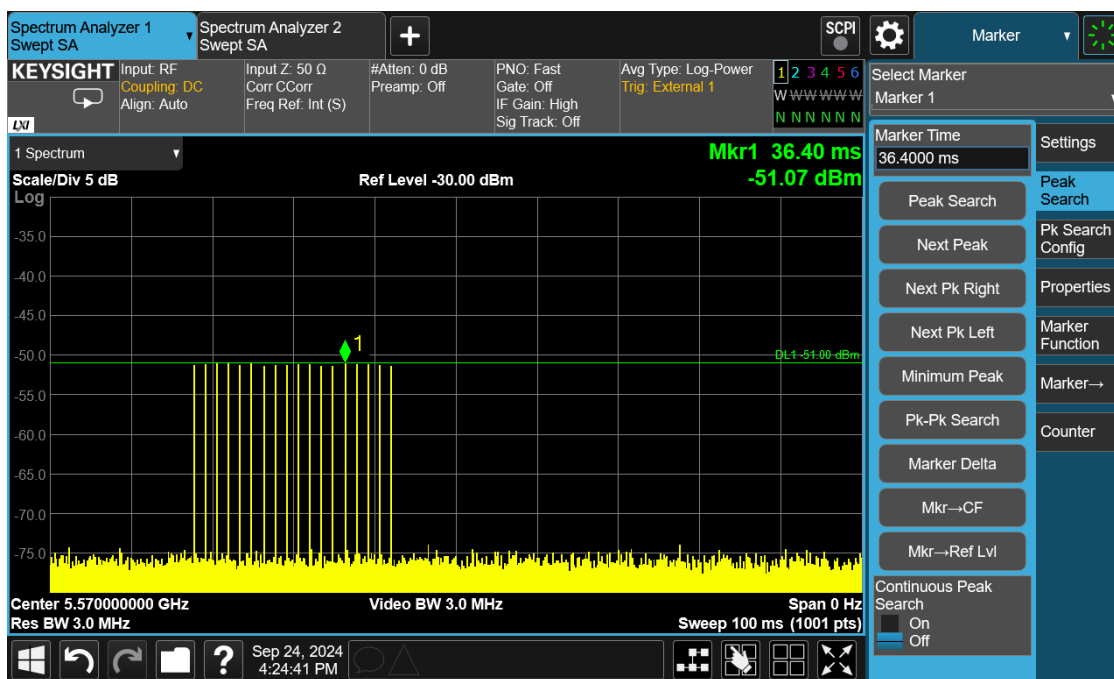
Information	Status	
Possible Antenna/s	Integral / 12 dBi	
Antenna used for test	Integral / 12 dBi	
Operating mode	Master	
If Client	N/A	
Port used for testing	Port J1	
EIRP range	> 200 milliwatts	
Impedance of port	50 ohms	
Channel loading technique	Data transfer was enacted to achieve a minimum channel loading of approximately 17%	
Antenna measurement technique	See note 1	
Time of power-on cycle	25s	
Detection threshold level	-64 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

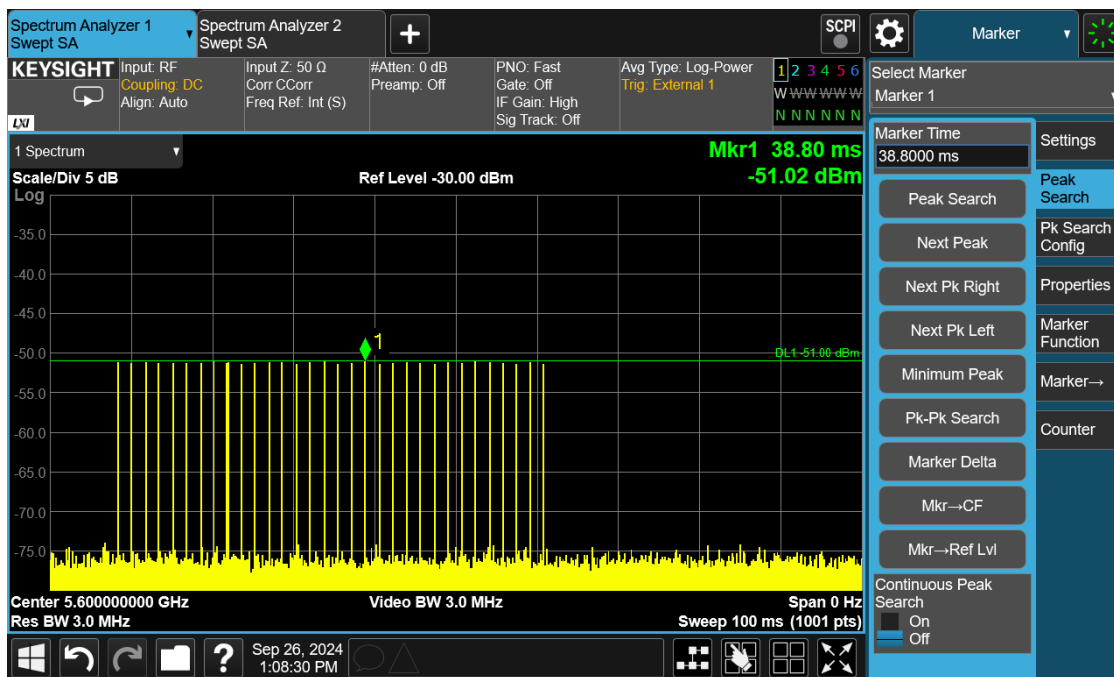
Requirement	Operational Mode	
	Master or Client Client Without Radar Detection	Client Without Radar Detection
<i>DFS Detection Threshold</i>	Yes	Not Required
<i>Channel Closing Transmission Time</i>	Yes	Yes
<i>Channel Move Time</i>	Yes	Yes
<i>U-NII Detection Bandwidth</i>	Yes	Not Required



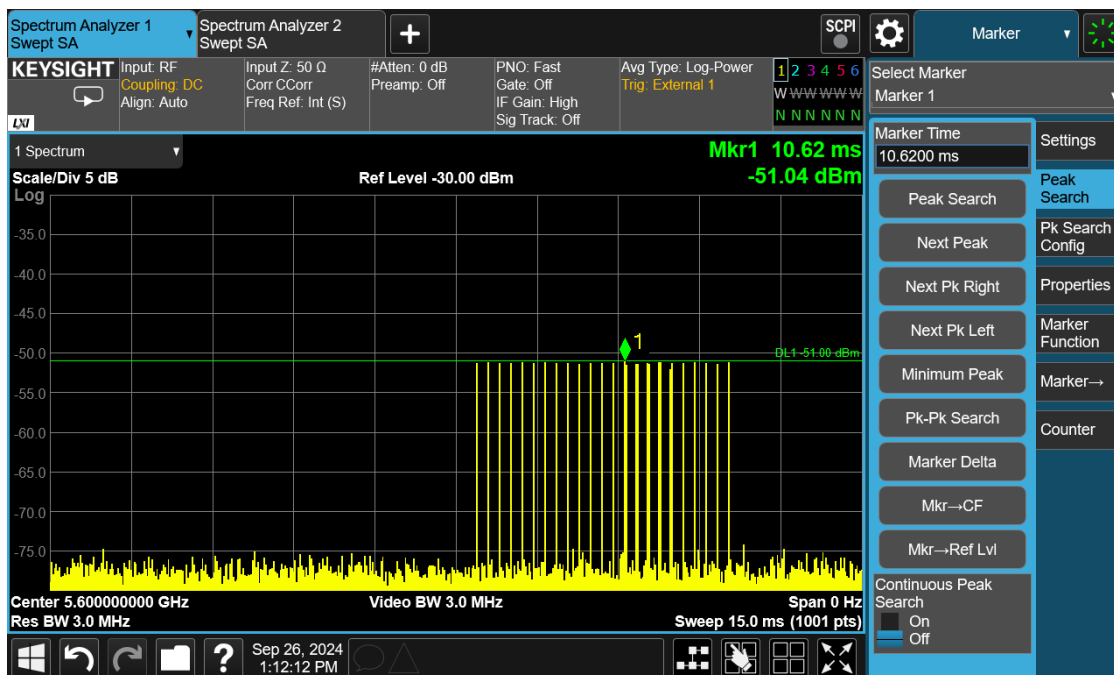
Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming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



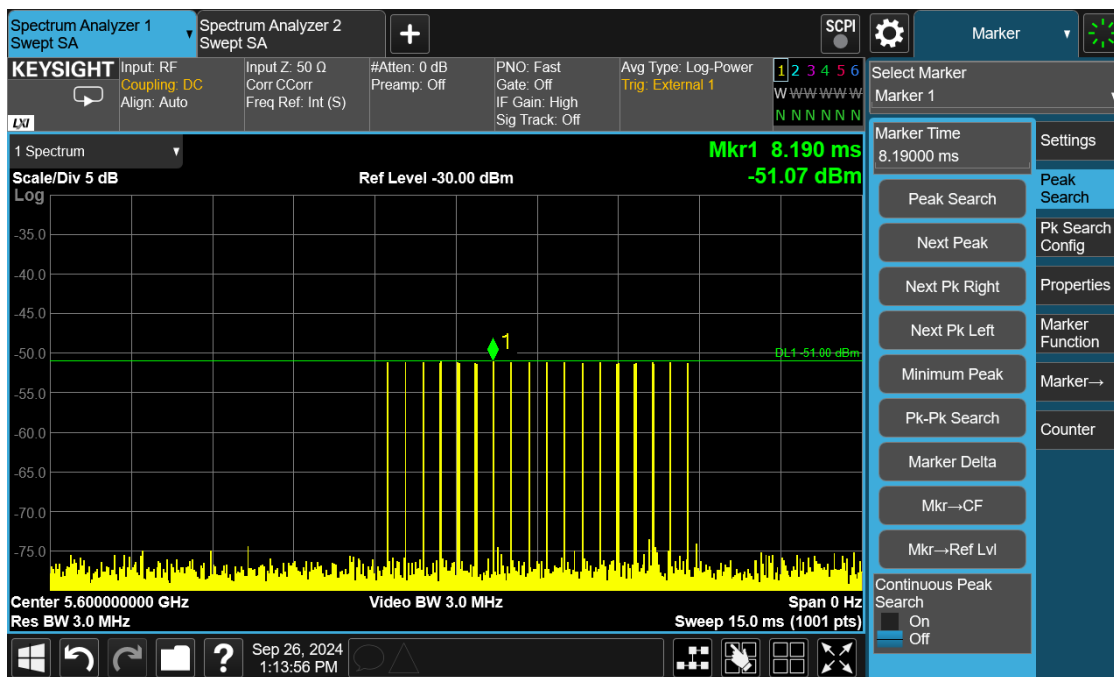
Plot 1: Radar Level 0



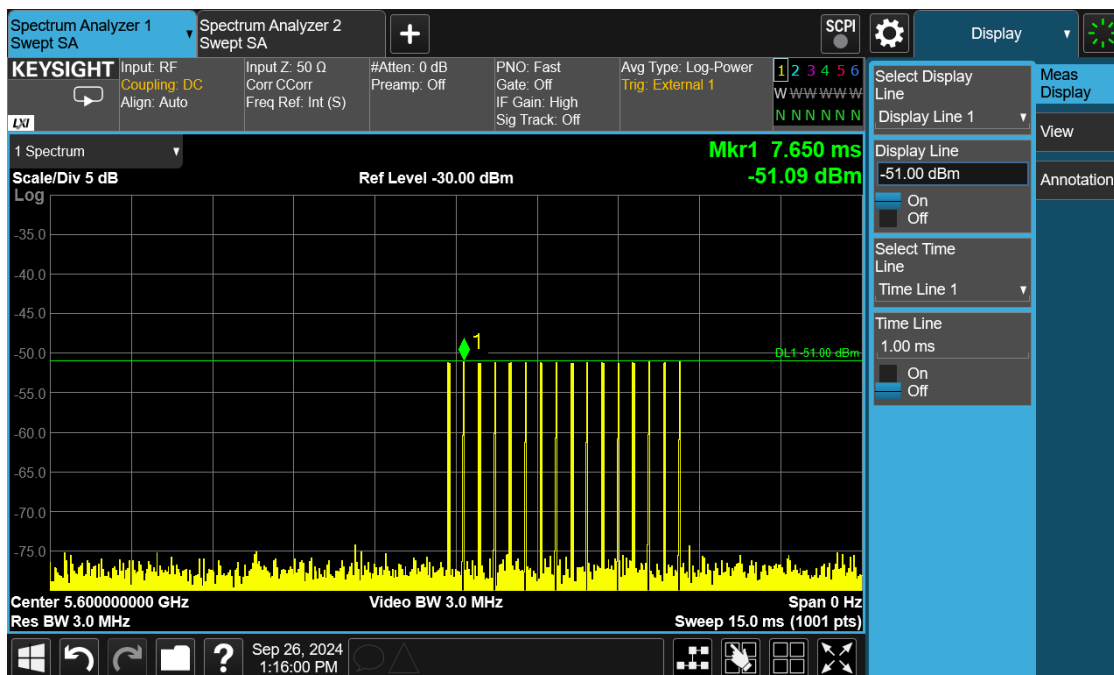
Plot 2: Radar Level 1



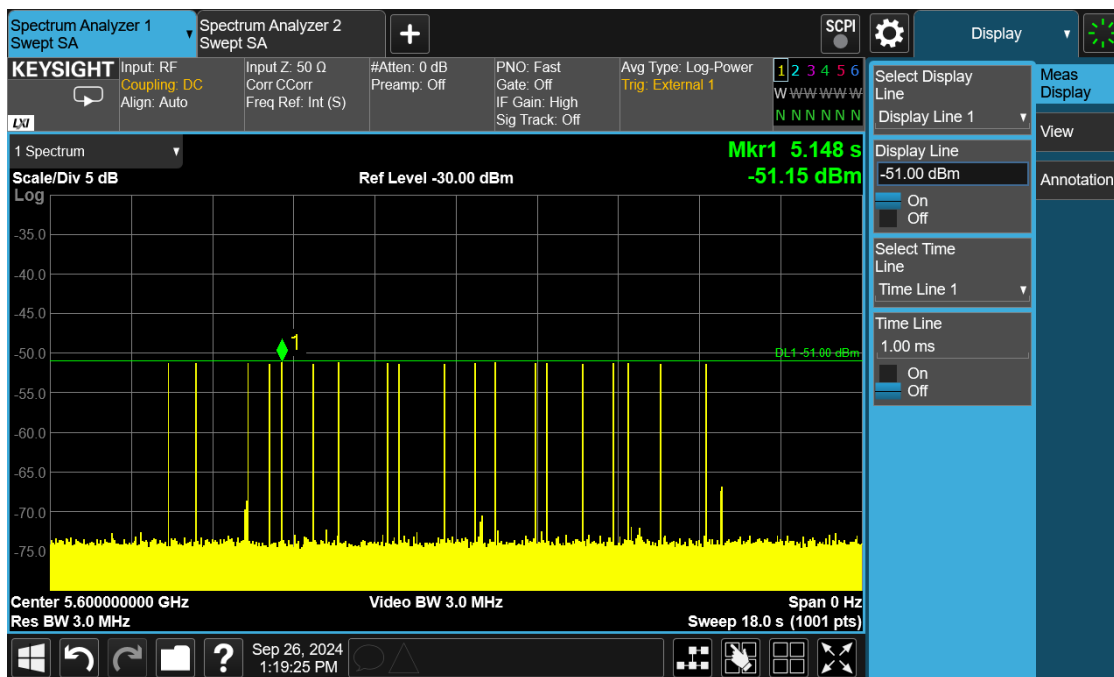
Plot 3: Radar Level 2



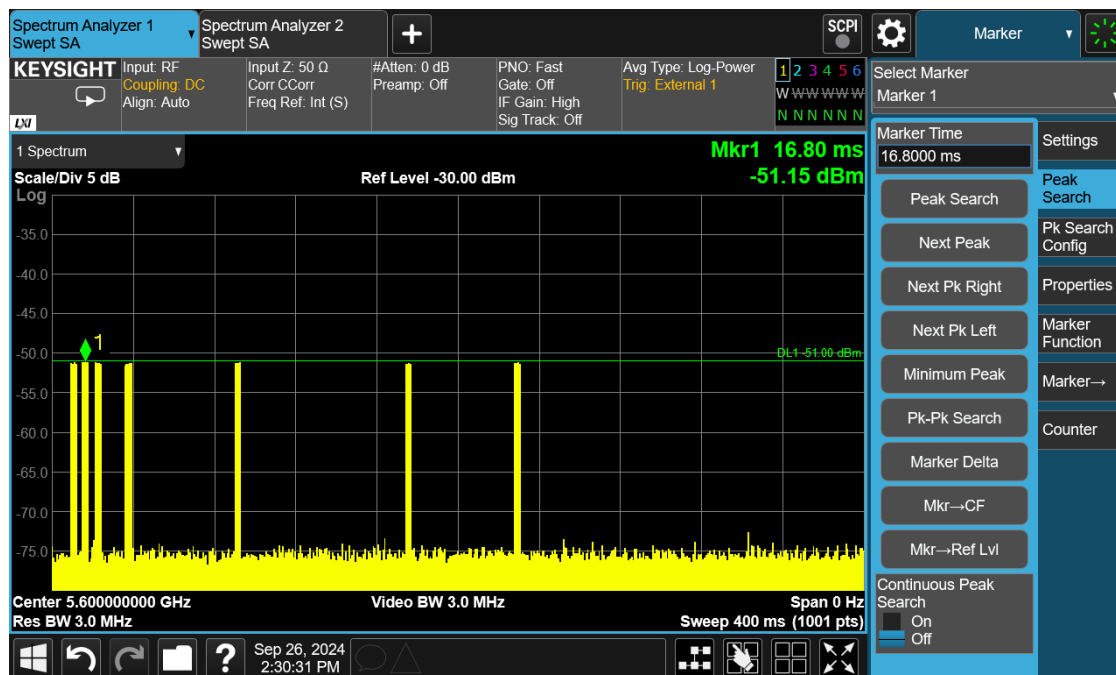
Plot 4: Radar Level 3



Plot 5: Radar Level 4



Plot 6: Radar Level 5



Plot 7: Radar Level 6

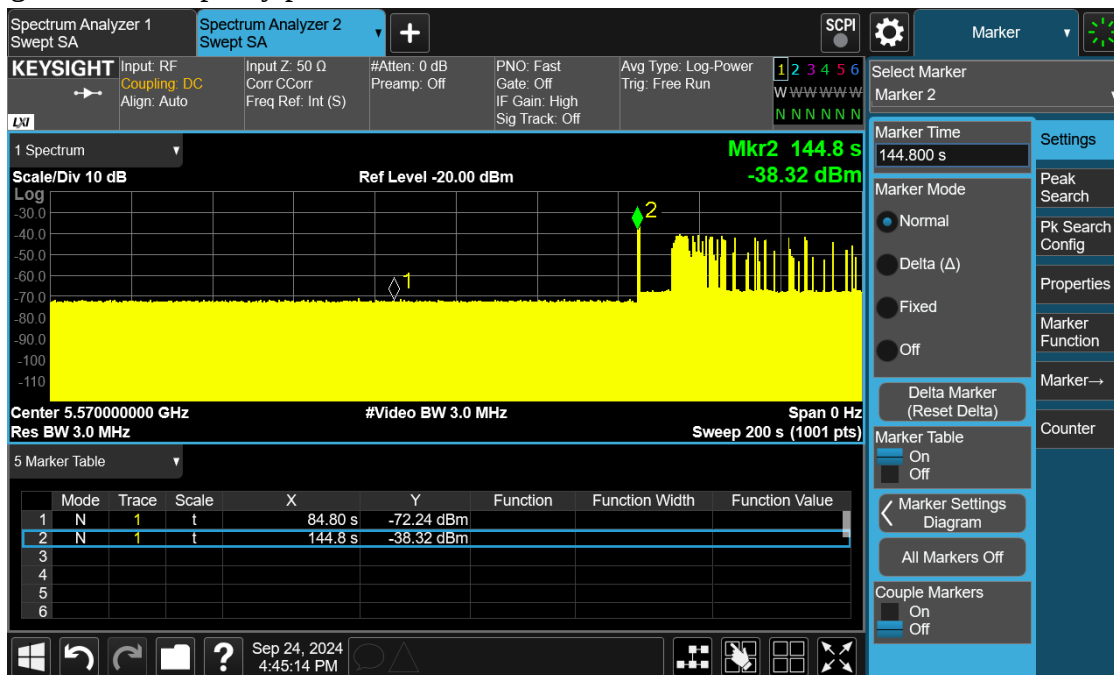
5.7.1 Channel Availability Check (CAC)

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.

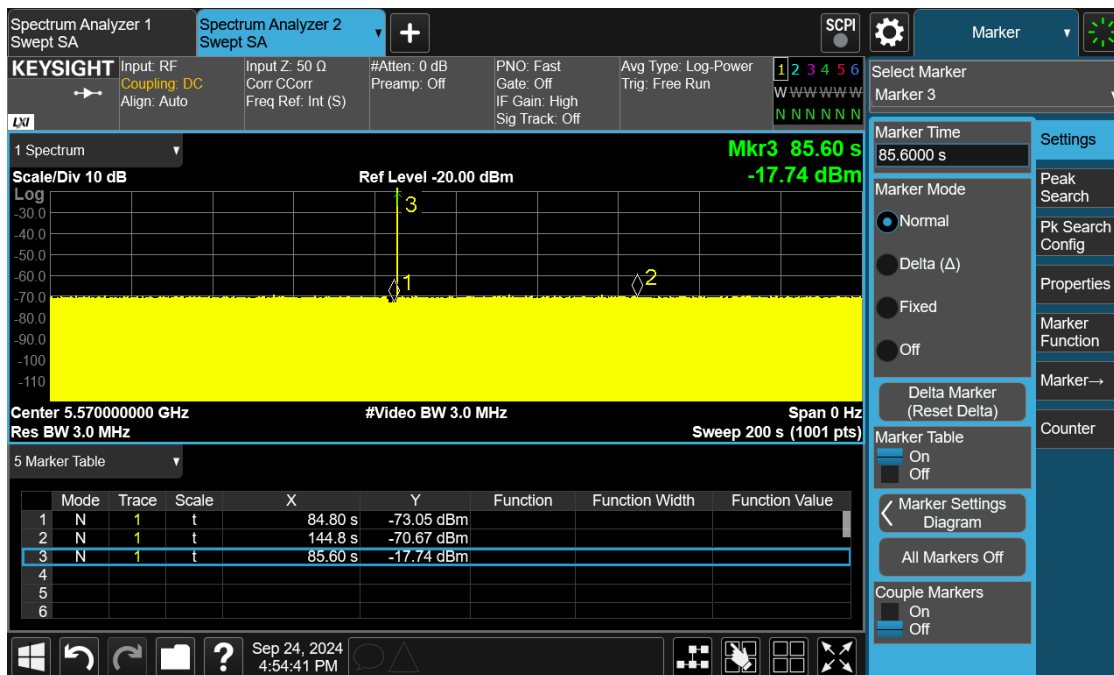
For radar burst at the beginning of the CAC. To verify successful radar detection on the selected channel during a period equal to the beginning of the CAC time, visual indication on the EUT of successful detection of the radar burst will be recorded and reported. Observation of the radar burst is show 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.

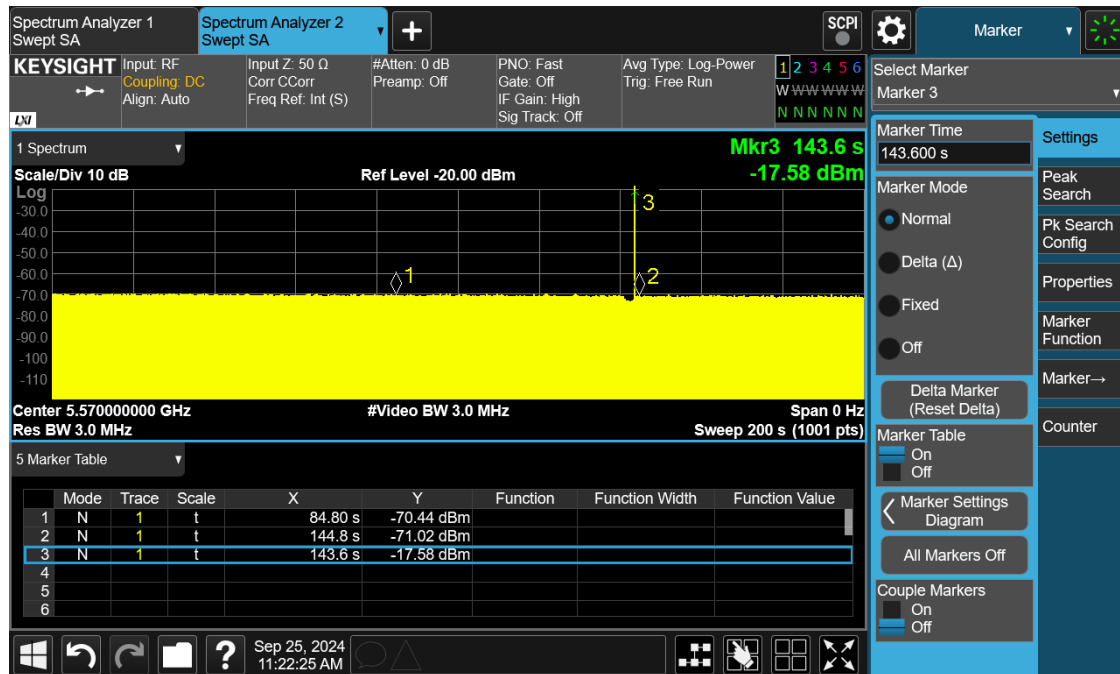
A spectrum analyzer is used as a monitor to verify that the EUT has vacated the channel within the channel closing transmission time and channel move time, and does not transmit on a channel during the non-occupancy period after the detection and channel move.



Plot 8: DUT Turn On



Plot 9: Beginning



5.7.2 In-service Monitoring

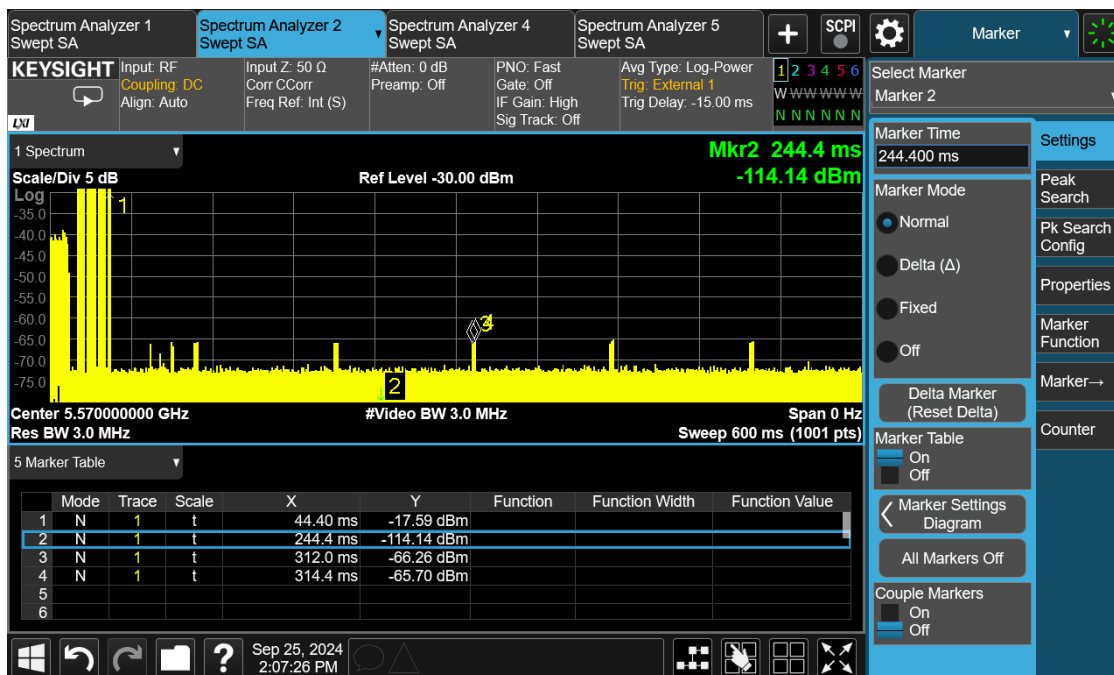
Channel Move Time	10 seconds
Channel Closing Transmission Time	200 ms + aggregate of 60 ms over remaining 10 second period
Non-occupancy period	Minimum 30 minutes

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.

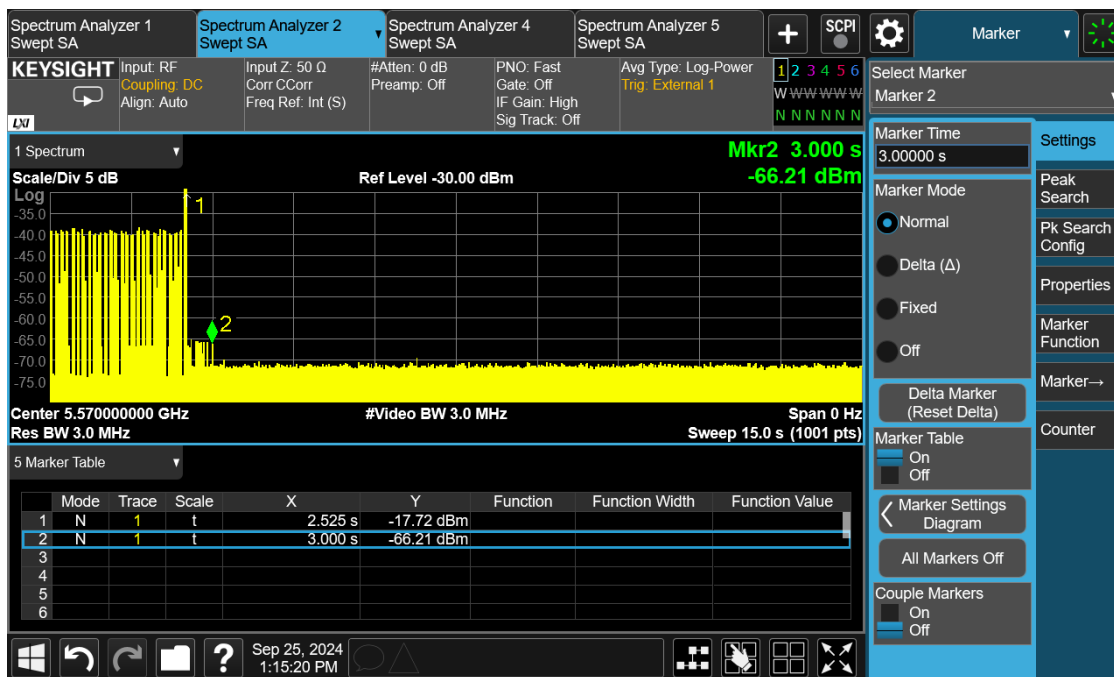
During the 30 minutes observation time, the EUT did not make any transmissions on a channel after a radar signal was detected.

Please see plots below.

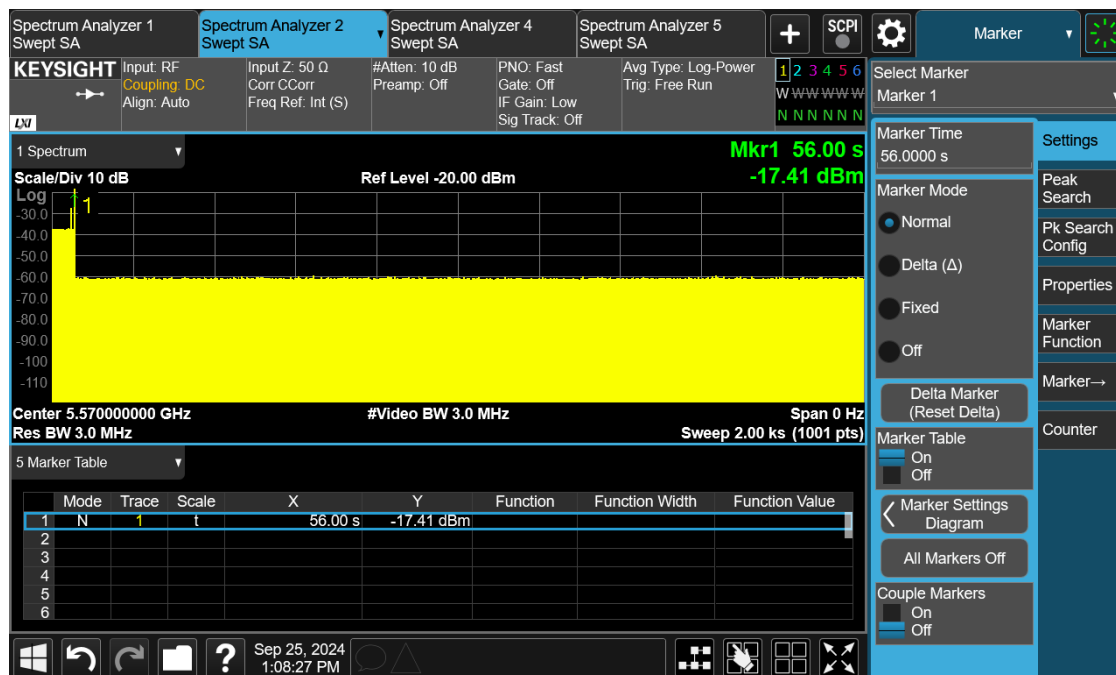
A spectrum analyzer is used as a monitor to verify that the EUT has vacated the channel within the channel closing transmission time and channel move time, and does not transmit on a channel during the non-occupancy period after the detection and channel move.



Plot 11: Channel Close



Plot 12: Channel Move



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:											19.25	
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:											104%	

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:											38.5
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:											104%

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	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	0	90	
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:											79	
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:											101%	

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	0	1	1	1	1	1	1	90
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	1	0	1	90
5530	1	1	1	1	1	1	0	1	1	1	90
5535	1	1	1	1	1	0	1	1	1	1	90
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	1	1	1	1	100
5555	1	1	1	1	1	1	1	1	1	1	100
5560	1	1	1	0	1	1	1	1	1	1	90
5565	1	1	1	1	1	1	1	0	1	1	90
5570	1	1	1	1	1	1	1	1	1	1	100
5575	1	1	1	1	1	1	1	1	1	0	90
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	0	1	1	1	1	90
5600	1	1	0	1	1	1	1	1	1	1	90
5605	1	1	1	1	1	1	1	1	1	1	100
5610	1	1	1	1	1	1	1	1	1	0	90
5615	1	1	0	1	1	1	1	1	1	1	90
5620	1	1	1	0	1	1	1	1	1	1	90
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	0	90
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	0	1	1	1	1	1	1	90
Parameter											Value
U-NII 99% Transmission Power Bandwidth:											160

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:	100%

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	25	30	83%
Type 2	23	30	77%
Type 3	26	30	87%
Type 4	25	30	83%
Type 5	26	30	87%
Type 6	27	30	90%
Aggregate 1-4	99	120	83%

RADAR TYPE 1				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	96	1	550	y
2	23	1	2355	y
3	59	1	900	y
4	21	1	2520	y
5	20	1	2667	y
6	28	1	1932	y
7	20	1	2729	y
8	31	1	1720	y
9	22	1	2495	y
10	81	1	655	y
11	88	1	600	y
12	20	1	2738	y
13	73	1	729	y
14	38	1	1416	y
15	75	1	704	y
16	18	1	2967	y
17	23	1	2394	n
18	21	1	2599	y
19	19	1	2861	n
20	33	1	1625	y
21	23	1	2307	n
22	23	1	2331	y
23	31	1	1741	y
24	36	1	1497	y
25	57	1	928	y
26	38	1	1415	y
27	29	1	1836	n
28	31	1	1722	y
29	19	1	2920	y
30	29	1	1819	n
				25/30: 83.3%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	24	2.6	162	y
2	26	1.5	175	y
3	23	1.4	214	y
4	25	1.3	210	y
5	25	2.1	215	y
6	25	1.8	194	y
7	28	4.1	202	n
8	24	1.9	195	n
9	29	4.8	207	y
10	27	1.1	170	y
11	29	5	215	y
12	27	3.2	214	y
13	28	3.6	172	y
14	27	1.4	221	y
15	28	2	214	y
16	24	1.1	173	y
17	26	2.7	170	y
18	25	3.5	227	y
19	29	4.2	194	y
20	28	3.5	176	n
21	28	5	224	y
22	27	3	165	n
23	24	5	194	y
24	27	1.8	159	y
25	26	1.6	202	y
26	25	1.4	199	n
27	25	4.7	162	y
28	27	4.6	172	n
29	27	4.7	187	n
30	26	2.1	174	y
				23/30: 76.7%

RADAR TYPE 3				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	18	6.2	445	y
2	17	6.6	282	y
3	18	9.9	449	n
4	16	6.3	417	y
5	16	7.1	339	y
6	17	8.3	342	y
7	17	6.4	405	y
8	18	9.5	270	y
9	16	9.1	239	y
10	16	9.7	447	y
11	17	7.8	420	y
12	17	7.3	497	y
13	16	6.4	233	y
14	17	7.5	233	y
15	18	7.8	368	y
16	16	7.1	247	y
17	16	8.8	432	y
18	17	6.4	388	y
19	17	9.1	391	y
20	17	7.6	245	n
21	16	6.9	307	y
22	17	8.1	233	y
23	18	9.4	478	y
24	17	6.6	369	n
25	18	9.6	481	y
26	17	6.8	205	y
27	17	9.4	285	y
28	18	6.8	454	y
29	18	6.1	367	n
30	16	6.6	355	y
				26/30: 86.7%

RADAR TYPE 4				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	15	18.1	243	y
2	13	12.2	359	y
3	16	17.7	334	y
4	13	18.6	354	y
5	13	11.8	222	y
6	13	13	261	y
7	13	19.3	485	y
8	12	19.4	420	n
9	14	12.7	272	y
10	15	17.8	421	y
11	14	17.9	403	y
12	14	17	216	y
13	13	17.3	460	y
14	14	13	495	y
15	13	11.1	388	y
16	12	13.3	367	y
17	13	14.3	365	n
18	14	12.6	388	y
19	12	15.6	285	n
20	14	15.7	248	y
21	15	11.9	438	y
22	12	13.9	346	y
23	15	17.3	383	y
24	12	12.3	334	y
25	16	12.5	288	n
26	12	11.4	466	n
27	12	14.3	448	y
28	13	19.5	489	y
29	14	17.5	375	y
30	15	17.9	331	y
				25/30: 83.3%

TYPE 5		Rohde & Schwarz K350 Pulse Sequencer DFS		
Trial #	Detection (yes/no)	Chirp Width (MHz)	Subset	Fc
1	y	6	1	5500
2	n	20	1	5500
3	y	12	1	5500
4	y	17	1	5500
5	n	20	1	5500
6	y	8	1	5500
7	y	7	1	5500
8	n	19	1	5500
9	y	10	1	5500
10	y	12	1	5500
11	y	14	2	5496.6
12	y	15	2	5497
13	y	10	2	5495
14	y	14	2	5496.6
15	y	16	2	5497.4
16	y	17	2	5497.8
17	y	16	2	5497.4
18	y	5	2	5493
19	y	13	2	5496.2
20	n	20	2	5499
21	y	14	3	5503.4
22	y	13	3	5503.8
23	y	14	3	5503.4
24	y	9	3	5505.4
25	y	13	3	5503.8
26	y	7	3	5506.2
27	y	12	3	5504.2
28	y	13	3	5503.8
29	y	11	3	5504.6
30	y	18	3	5501.8

26/30: 86.7%

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	n	
14	y	
15	y	
16	y	
17	y	
18	n	
19	y	
20	y	
21	y	
22	y	
23	y	
24	y	
25	y	
26	y	
27	y	
28	y	
29	y	
30	n	

27/30: 90%

40 MHz**Summary**

Type	Detections	Trials	Detection Probability
Type 1	26	30	87%
Type 2	24	30	80%
Type 3	25	30	83%
Type 4	25	30	83%
Type 5	30	30	100%
Type 6	30	30	100%
Aggregate 1-4	100	120	83%

RADAR TYPE 1				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	18	1	2962	y
2	48	1	1120	n
3	36	1	1473	n
4	22	1	2408	y
5	24	1	2228	y
6	53	1	996	y
7	64	1	829	y
8	23	1	2356	y
9	94	1	564	n
10	65	1	818	y
11	84	1	632	y
12	89	1	597	y
13	32	1	1667	n
14	36	1	1498	y
15	70	1	755	y
16	82	1	643	y
17	28	1	1913	y
18	24	1	2258	y
19	69	1	764	y
20	41	1	1305	y
21	23	1	2378	y
22	29	1	1823	y
23	35	1	1541	y
24	19	1	2880	y
25	19	1	2812	y
26	32	1	1674	y
27	26	1	2056	y
28	21	1	2565	y
29	29	1	1852	y
30	41	1	1316	y
				26/30: 86.7%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	28	4.8	208	y
2	27	1.5	202	y
3	28	2	156	n
4	24	1.6	215	y
5	27	2	163	y
6	27	3.8	169	y
7	28	4.2	211	n
8	29	2.6	168	y
9	28	1.2	198	y
10	23	4.9	215	y
11	24	1.5	227	y
12	26	1	190	y
13	25	4.5	190	n
14	27	2	163	y
15	25	2.5	182	y
16	24	3.2	194	y
17	28	1.7	220	y
18	28	3.5	219	y
19	28	3.7	164	y
20	26	2.2	158	y
21	24	4.1	186	n
22	26	2.4	177	y
23	27	3.8	215	y
24	23	2.1	160	y
25	24	3.9	191	n
26	24	3.9	204	y
27	27	1	152	y
28	23	1	156	n
29	28	1.5	207	y
30	27	2.8	156	y
				24/30: 80%

RADAR TYPE 3				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	17	6.9	370	y
2	17	9.5	479	y
3	17	7.5	418	y
4	17	6.8	285	y
5	17	7.4	268	y
6	17	8.2	411	y
7	16	7.1	289	y
8	16	9.6	452	y
9	18	7.2	303	y
10	16	6.8	342	n
11	18	7	276	y
12	16	8.6	264	y
13	18	9	434	n
14	16	8	393	y
15	18	8.4	282	y
16	18	8.8	288	n
17	17	8.7	351	y
18	18	8	352	y
19	17	9.3	478	n
20	17	9.2	389	y
21	17	8.6	299	n
22	18	8.4	226	y
23	17	9.6	323	y
24	18	6.2	484	y
25	16	8.6	269	y
26	17	8.3	464	y
27	18	9.1	472	y
28	18	9.3	392	y
29	18	8.8	265	y
30	16	9.8	286	y
				25/30: 83.3%

RADAR TYPE 4				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	13	16.1	313	y
2	16	19.8	390	y
3	15	19.3	368	y
4	14	18.7	499	n
5	15	12.6	213	y
6	14	15.1	226	y
7	13	11.9	361	n
8	13	18.9	400	y
9	13	19	482	y
10	16	11	492	y
11	12	17.5	446	y
12	14	17.4	483	y
13	13	18.1	301	y
14	15	18.2	323	y
15	14	18.9	262	n
16	13	18.5	435	y
17	15	12.9	426	y
18	13	19.3	217	y
19	13	19.6	452	y
20	16	17.9	353	y
21	15	13	406	n
22	13	16.3	438	y
23	13	19.2	444	y
24	13	13.7	465	y
25	12	14.7	417	y
26	15	13.9	327	n
27	16	14.1	358	y
28	16	12.7	467	y
29	14	12.4	343	y
30	13	17.9	394	y
				25/30: 83.3%

TYPE 5		Rohde & Schwarz K350 Pulse Sequencer DFS		
Trial #	Detection (yes/no)	Chirp Width (MHz)	Subset	Fc
1	y	20	1	5500
2	y	18	1	5500
3	y	19	1	5500
4	y	16	1	5500
5	y	11	1	5500
6	y	11	1	5500
7	y	11	1	5500
8	y	16	1	5500
9	y	20	1	5500
10	y	7	1	5500
11	y	8	2	5494.2
12	y	7	2	5493.8
13	y	17	2	5497.8
14	y	20	2	5499
15	y	16	2	5497.4
16	y	15	2	5497
17	y	14	2	5496.6
18	y	15	2	5497
19	y	6	2	5493.4
20	y	9	2	5494.6
21	y	15	3	5503
22	y	15	3	5503
23	y	14	3	5503.4
24	y	20	3	5501
25	y	6	3	5506.6
26	y	19	3	5501.4
27	y	8	3	5505.8
28	y	20	3	5501
29	y	20	3	5501
30	y	20	3	5501

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	30	30	100%
Type 2	27	30	90%
Type 3	24	30	80%
Type 4	25	30	83%
Type 5	29	30	97%
Type 6	30	30	100%
Aggregate 1-4	106	120	88%

RADAR TYPE 1				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	59	1	898	y
2	61	1	878	y
3	81	1	658	y
4	95	1	558	y
5	58	1	918	y
6	81	1	658	y
7	68	1	778	y
8	89	1	598	y
9	59	1	898	y
10	86	1	618	y
11	61	1	878	y
12	61	1	878	y
13	62	1	858	y
14	58	1	918	y
15	63	1	838	y
16	65	1	818	y
17	57	1	938	y
18	86	1	618	y
19	58	1	918	y
20	70	1	758	y
21	86	1	618	y
22	67	1	798	y
23	102	1	518	y
24	57	1	938	y
25	63	1	838	y
26	86	1	618	y
27	74	1	718	y
28	83	1	638	y
29	89	1	598	y
30	92	1	578	y
				30/30: 100%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	24	4.3	212	y
2	25	2.2	185	y
3	28	4	173	y
4	25	4.9	185	y
5	24	2.6	206	y
6	28	1.1	194	y
7	28	3.5	186	y
8	29	2.2	167	y
9	27	4.7	199	y
10	28	4.5	157	y
11	27	3.7	171	y
12	29	3.5	160	y
13	28	3.6	214	y
14	24	2.6	214	n
15	27	3.5	186	y
16	28	2.5	161	y
17	26	1	159	y
18	28	2.4	180	n
19	23	4	181	y
20	24	1.8	157	y
21	26	3.8	216	y
22	23	3.9	208	n
23	23	3.8	218	y
24	25	1	190	y
25	23	3.1	153	y
26	28	2.8	185	y
27	27	3.3	153	y
28	24	3.3	226	y
29	26	1.3	161	y
30	29	4.1	195	y
				27/30: 90%

RADAR TYPE 3				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	16	7	349	n
2	18	7.6	253	y
3	17	9.3	347	n
4	18	6.4	260	y
5	18	6	203	y
6	18	7.6	490	y
7	16	6	273	y
8	16	7.4	480	y
9	16	6.3	243	y
10	16	8.7	459	n
11	17	9.6	427	y
12	18	6.8	296	y
13	18	8.1	309	y
14	16	9.3	284	n
15	17	9	356	y
16	18	9.2	471	y
17	18	6.6	276	y
18	16	8.2	254	y
19	17	7.7	434	y
20	17	9.1	433	y
21	18	7.3	435	y
22	17	6.9	458	y
23	18	8.5	307	n
24	17	6.7	240	y
25	16	7.3	215	n
26	17	9.7	447	y
27	17	9.3	427	y
28	17	10	221	y
29	17	7.9	450	y
30	17	7.4	361	y
				24/30: 80%

RADAR TYPE 4				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	15	12	360	y
2	13	15	296	y
3	15	13.3	398	y
4	16	13.2	318	y
5	16	13.5	461	y
6	13	12.9	223	y
7	15	12	261	y
8	15	12	416	y
9	15	15.8	431	n
10	13	12.8	412	y
11	14	12.1	392	y
12	14	16.1	221	y
13	13	13.1	316	n
14	13	19.3	294	y
15	14	20	365	y
16	14	15.7	316	y
17	13	15.4	313	y
18	14	16.6	333	y
19	14	11.3	297	y
20	14	15.8	253	y
21	16	15.4	491	y
22	12	19.9	276	y
23	14	15	334	y
24	15	11.1	325	n
25	14	16.5	245	y
26	13	12.7	484	y
27	15	19.5	336	n
28	13	19.3	264	y
29	15	18.6	415	y
30	16	11.5	342	n
				25/30: 83.3%

TYPE 5		Rohde & Schwarz K350 Pulse Sequencer DFS		
Trial #	Detection (yes/no)	Chirp Width (MHz)	Subset	Fc
1	y	5	1	5500
2	y	7	1	5500
3	y	19	1	5500
4	y	19	1	5500
5	y	7	1	5500
6	y	8	1	5500
7	y	15	1	5500
8	y	13	1	5500
9	y	16	1	5500
10	y	11	1	5500
11	y	14	2	5496.6
12	y	5	2	5493
13	y	8	2	5494.2
14	y	8	2	5494.2
15	y	17	2	5497.8
16	y	10	2	5495
17	y	12	2	5495.8
18	y	5	2	5493
19	y	11	2	5495.4
20	y	18	2	5498.2
21	n	11	3	5504.6
22	y	18	3	5501.8
23	y	16	3	5502.6
24	y	14	3	5503.4
25	y	5	3	5507
26	y	10	3	5505
27	y	20	3	5501
28	y	17	3	5502.2
29	y	11	3	5504.6
30	y	17	3	5502.2

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%

160 MHz**Summary**

Type	Detections	Trials	Detection Probability
Type 1	25	30	83%
Type 2	27	30	90%
Type 3	23	30	77%
Type 4	25	30	83%
Type 5	30	30	100%
Type 6	30	30	100%
Aggregate 1-4	100	120	83%

RADAR TYPE 1				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	83	1	638	y
2	65	1	818	y
3	95	1	558	y
4	98	1	538	y
5	102	1	518	y
6	59	1	898	y
7	89	1	598	y
8	67	1	798	y
9	68	1	778	y
10	92	1	578	y
11	18	1	3066	y
12	72	1	738	n
13	61	1	878	y
14	62	1	858	y
15	74	1	718	y
16	19	1	2781	y
17	28	1	1928	n
18	29	1	1868	n
19	43	1	1239	y
20	53	1	996	y
21	45	1	1197	y
22	23	1	2372	y
23	19	1	2891	y
24	26	1	2059	y
25	21	1	2555	y
26	30	1	1775	n
27	33	1	1633	y
28	49	1	1087	y
29	22	1	2480	y
30	30	1	1784	n
				25/30: 83.3%

RADAR TYPE 2				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	29	1	208	y
2	27	2.2	190	y
3	26	1.1	165	y
4	29	4.3	219	n
5	24	2.5	214	y
6	24	1.5	169	y
7	28	2.1	199	y
8	27	4.4	168	y
9	23	1.4	172	y
10	26	2.4	177	y
11	27	3.6	159	y
12	24	1.1	205	y
13	26	1.5	208	y
14	29	4.6	158	y
15	25	4.2	220	y
16	25	2.7	175	y
17	25	2.3	205	y
18	28	1.9	226	n
19	27	4.6	183	y
20	26	4.1	155	y
21	24	4.1	176	y
22	26	3.1	210	n
23	24	3.6	202	y
24	25	1.5	205	y
25	24	2.4	213	y
26	23	4.7	187	y
27	26	2.6	210	y
28	27	5	150	y
29	23	3.2	173	y
30	28	4.8	160	y
				27/30: 90%

RADAR TYPE 3				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	17	8.2	469	y
2	17	7.8	432	n
3	17	8.4	395	y
4	16	9.2	272	y
5	16	6.7	368	n
6	17	7	211	y
7	18	7	351	y
8	16	9.6	380	y
9	16	10	305	y
10	18	8.7	431	y
11	17	9.9	399	n
12	17	8.4	306	y
13	18	8.2	341	y
14	16	7.2	473	n
15	17	9.4	338	y
16	17	9.7	203	y
17	17	9.1	252	y
18	17	8.9	332	y
19	18	8.9	365	n
20	17	7.4	283	y
21	16	8.9	430	y
22	16	8.5	292	y
23	16	6.6	409	y
24	17	6.6	402	y
25	17	9.6	459	y
26	16	6.7	495	n
27	17	6.6	389	y
28	16	6.7	357	y
29	17	7.2	466	y
30	17	7.1	451	n
				23/30: 76.7%

RADAR TYPE 4				Rohde & Schwarz K350 Pulse Sequencer DFS
Trial #	Number of Pulses per Burst	Pulse Width (μ sec)	PRI (μ s)	Detection (yes/no)
1	13	17.5	431	n
2	15	15	451	n
3	15	15.2	321	y
4	13	11.3	462	y
5	15	14.4	332	y
6	13	14.3	430	y
7	13	14.4	299	y
8	16	17.1	469	y
9	14	17	495	y
10	14	17.3	245	y
11	15	16.4	213	y
12	15	13	330	y
13	14	13.5	306	y
14	13	16.8	361	y
15	13	11.2	278	y
16	15	15.4	473	y
17	15	13.1	200	y
18	16	15.6	278	y
19	15	12.4	288	y
20	14	18.9	429	n
21	13	16.5	218	y
22	15	16	245	y
23	12	11.6	232	n
24	13	15.3	315	y
25	15	16.3	292	n
26	13	19.1	391	y
27	15	12.6	204	y
28	15	11.6	213	y
29	15	16.8	483	y
30	13	12.2	455	y
				25/30: 83.3%

TYPE 5		Rohde & Schwarz K350 Pulse Sequencer DFS		
Trial #	Detection (yes/no)	Chirp Width (MHz)	Subset	Fc
1	y	8	1	5500
2	y	7	1	5500
3	y	17	1	5500
4	y	18	1	5500
5	y	16	1	5500
6	y	7	1	5500
7	y	8	1	5500
8	y	9	1	5500
9	y	8	1	5500
10	y	17	1	5500
11	y	5	2	5493
12	y	14	2	5496.6
13	y	17	2	5497.8
14	y	11	2	5495.4
15	y	8	2	5494.2
16	y	14	2	5496.6
17	y	7	2	5493.8
18	y	14	2	5496.6
19	y	6	2	5493.4
20	y	20	2	5499
21	y	20	3	5501
22	y	8	3	5505.8
23	y	11	3	5504.6
24	y	17	3	5502.2
25	y	7	3	5506.2
26	y	13	3	5503.8
27	y	13	3	5503.8
28	y	16	3	5502.6
29	y	17	3	5502.2
30	y	12	3	5504.2

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%

-- End of Test Report --