



element

Seowon Intech Co., Ltd

CPE Device

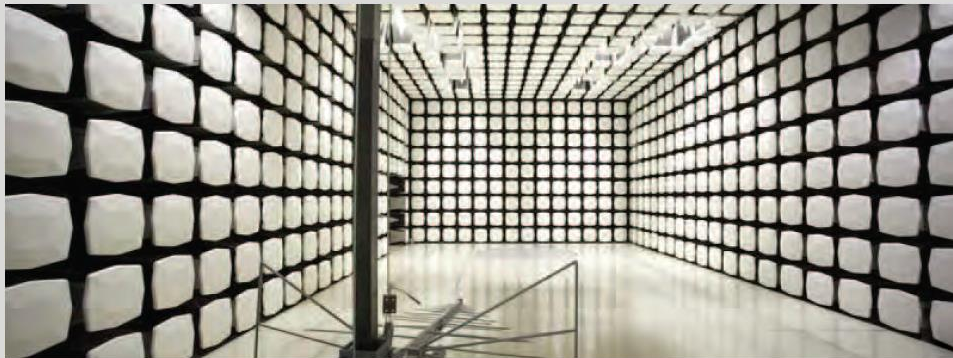
FCC ID: V7MESLCTGA

FCC 15.247:2022

RSS-247 Issue 2:2017

802.11 Radio

Report: PCTE0022.0, Issue Date: June 27, 2022



This report must not be used to claim product certification, approval, or endorsement by A2LA or any agency of the U.S. Government. This Report shall not be reproduced, except in full without written approval of the laboratory.

EAR-Controlled Data - This document contains technical data whose export and reexport/retransfer is subject to control by the U.S. Department of Commerce under the Export Administration Act and the Export Administration Regulations. The Department of Commerce's prior written approval may be required for the export or re-export/retransfer of such technical data to any foreign person, foreign entity or foreign organization whether in the United States or abroad.

CERTIFICATE OF TEST



Last Date of Test: June 13, 2022
Seowon Intech Co., Ltd
EUT: CPE Device

Radio Equipment Testing

Standards

Specification	Method
FCC 15.407:2022	ANSI C63.10:2013, KDB 789033, KDB 905462, KDB 662911
RSS-247 Issue 2:2017	ANSI C63.10:2013, KDB 789033, KDB 905462, RSS-Gen Issue 5:2018+A1:2019+A2:2021

Results

Test Description	Result	Specification Section(s)	Method Section(s)	Comments
DFS Testing - Channel Availability Check	Pass	15.407(h)(2)(ii)	KDB 905462 -7.8.2	
DFS Testing - Channel Loading Channel Utilization	Pass	15.407(h)	KDB 905462 -7.7	
DFS Testing - Closing Time	Pass	15.407(h)	KDB 905462 -7.8.3	
DFS Testing - Detection Bandwidth	Pass	15.407(h)	KDB 905462 -7.8.1	
DFS Testing - DFS Product Information	N/A	N/A	N/A	Not required to test. When DFS is supported, A1 Product Information must be filled out by the manufacturer and included in the test report.
DFS Testing - Move Time	Pass	15.407(h)(2)(iii)	KDB 905462 -7.8.3	
DFS Testing - Non Occupancy Period	Pass	15.407(h)(2)(iv)	KDB 905462 -7.8.3	
DFS Testing - Statistical Performance	Pass	15.407(h)	KDB 905462 -7.8.4	
DFS Testing - Test Signal Level	Pass	15.407(h)	KDB 905462 -7.5	

Deviations From Test Standards

None

Approved By:

Adam Bruno, Operations Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information. As indicated in the Statement of Work sent with the quotation, Element's standard process is to always use the latest published version of the test methods even when earlier versions are cited in the test specification. Issuance of a purchase order was de facto acceptance of this approach. Otherwise, the client would have advised Element in writing of the specific version of the test methods they wanted applied to the subject testing.

REVISION HISTORY



Revision Number	Description	Date (yyyy-mm-dd)	Page Number
00	None		

ACCREDITATIONS AND AUTHORIZATIONS



United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Each laboratory is accredited by A2LA to ISO / IEC 17025, and as a product certifier to ISO / IEC 17065 which allows Element to certify transmitters to FCC and IC specifications.

Canada

ISED - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB) and as a CAB for the acceptance of test data.

European Union

European Commission – Recognized as an EU Notified Body validated for the EMCD and RED Directives.

United Kingdom

BEIS – Recognized by the UK as an Approved Body under the UK Radio Equipment and UK EMC Regulations.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIT / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFCA – Recognized by OFCA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

SCOPE

For details on the Scopes of our Accreditations, please visit:

[California](#)

[Minnesota](#)

[Oregon](#)

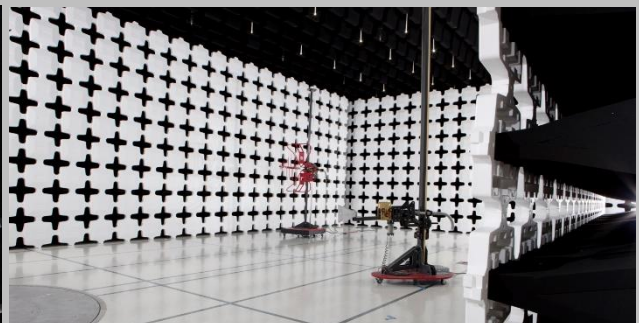
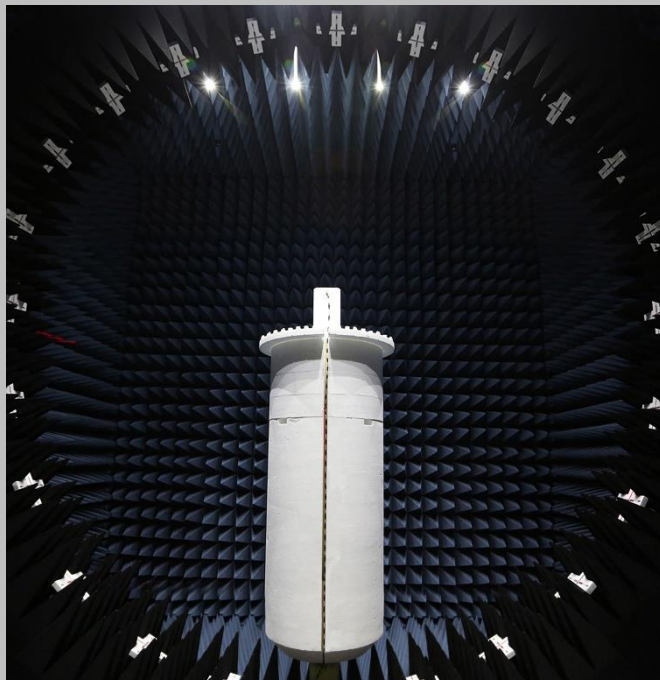
[Texas](#)

[Washington](#)

FACILITIES



California Labs OC01-17 41 Tesla Irvine, CA 92618 (949) 861-8918	Minnesota Labs MN01-11 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Oregon Labs EV01-12 6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	Texas Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Washington Labs NC01-05 19201 120 th Ave NE Bothell, WA 98011 (425)984-6600
A2LA				
Lab Code: 3310.04	Lab Code: 3310.05	Lab Code: 3310.02	Lab Code: 3310.03	Lab Code: 3310.06
Innovation, Science and Economic Development Canada				
2834B-1, 2834B-3	2834E-1, 2834E-3	2834D-1	2834G-1	2834F-1
BSMI				
SL2-IN-E-1154R	SL2-IN-E-1152R	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI				
A-0029	A-0109	A-0108	A-0201	A-0110
Recognized Phase I CAB for ISED, ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA				
US0158	US0175	US0017	US0191	US0157



MEASUREMENT UNCERTAINTY



Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found in the table below. A lab specific value may also be found in the applicable test description section. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	1.2 dB	-1.2 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.1 dB	-5.1 dB
AC Powerline Conducted Emissions (dB)	3.1 dB	-3.1 dB

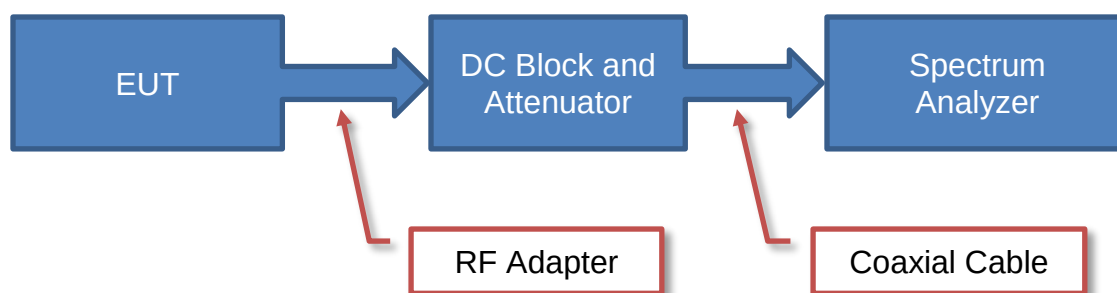
TEST SETUP BLOCK DIAGRAMS

Measurement Bandwidths

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Unless otherwise stated, measurements were made using the bandwidths and detectors specified. No video filter was used.

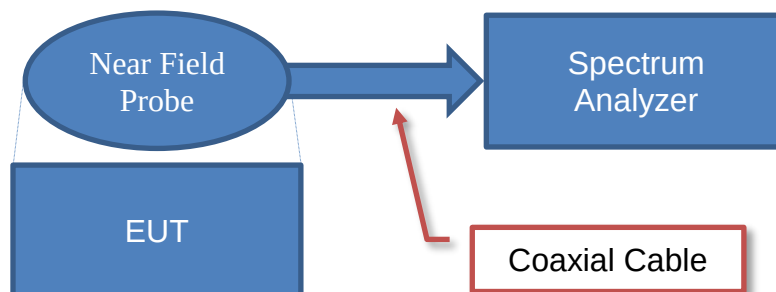
Antenna Port Conducted Measurements



Sample Calculation (logarithmic units)

Measured Value		Measured Level		Reference Level Offset
71.2	=	42.6	+	28.6

Near Field Test Fixture Measurements

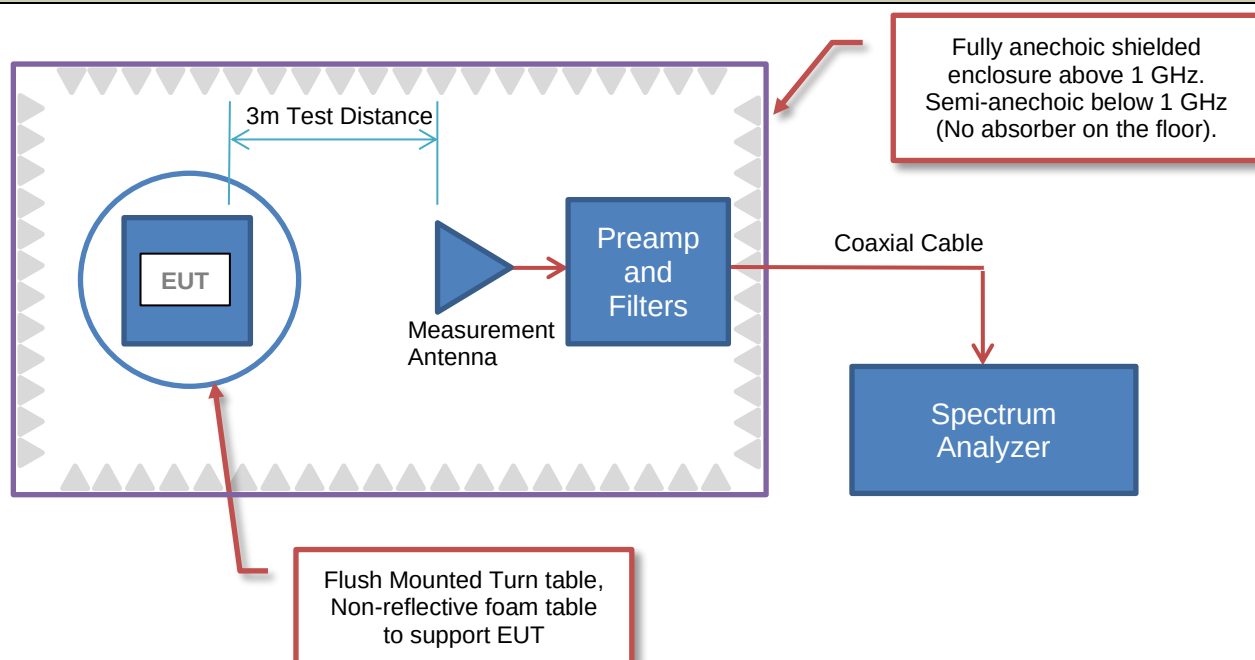


Sample Calculation (logarithmic units)

Measured Value		Measured Level		Reference Level Offset
71.2	=	42.6	+	28.6

TEST SETUP BLOCK DIAGRAMS

Emissions Measurements



Sample Calculation (logarithmic units)

Radiated Emissions:

Measured Level (Amplitude)	Factor			Distance Adjustment Factor	External Attenuation	Field Strength
	Antenna Factor	Cable Factor	Amplifier Gain			
42.6	28.6	3.1	40.8	0.0	0.0	33.5

Conducted Emissions:

Measured Level (Amplitude)	Factor		External Attenuation	Adjusted Level
	Transducer Factor	Cable Factor		
26.7	0.3	0.1	20.0	47.1

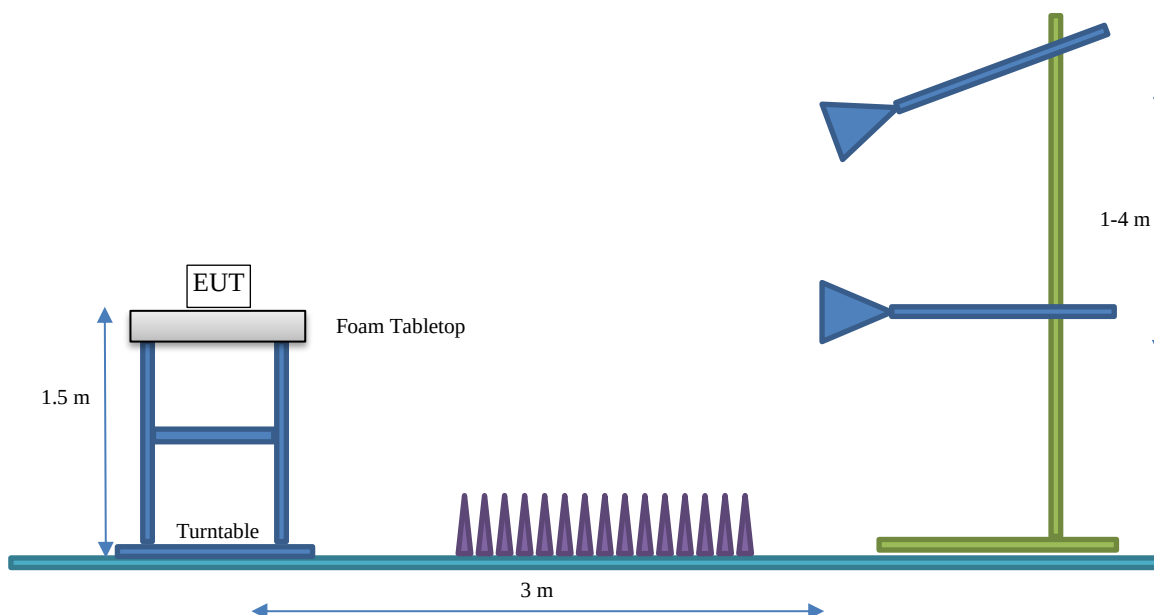
Radiated Power (ERP/EIRP):

Measured Level into Substitution Antenna (Amplitude dBm)	Substitution Antenna Factor (dBi)	EIRP to ERP (if applicable)	Measured power (dBm ERP/EIRP)
10.0	6.0	2.15	13.9/16.0

TEST SETUP BLOCK DIAGRAMS

Bore Sighting (>1GHz)

The diameter of the illumination area is the dimension of the line tangent to the EUT formed by 3 dB beamwidth of the measurement antenna at the measurement distance. At a 3 meter test distance, the diameter of the illumination area was 3.8 meters at 1 GHz and greater than 2.1 meters up to 6 GHz. Above 1 GHz, when required by the measurement standard, the antenna is pointed for both azimuth and elevation to maintain the receive antenna within the cone of radiation from the EUT. The specified measurement detectors were used for comparison of the emissions to the peak and average specification limits.



PRODUCT DESCRIPTION



Client and Equipment Under Test (EUT) Information

Company Name:	Seowon Intech Co., Ltd
Address:	69, LS-ro, 115beon-gil, Gunpo-si,
City, State, Zip:	Gyeonggi-do, 15809 Korea
Test Requested By:	Dan Pino
EUT:	CPE Device
First Date of Test:	June 10, 2022
Last Date of Test:	June 13, 2022
Receipt Date of Samples:	June 10, 2022
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Device containing LTE and WLAN (2x2 MIMO 802.11a/b/g/n/ac)
Testing Objective:
To demonstrate compliance of the Wi-Fi 802.11 a/b/g/n/ac 2x2 MIMO radio under FCC 15.407 and RSS-247 for operation in the 5.2 GHz, 5.3 GHz, 5.6 GHz and 5.8 GHz band(s).

CONFIGURATIONS

Configuration PCTE0022- 1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
N/A	N/A	N/A	N/A

Peripherals in Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Server Laptop	Lenovo	ThinkPad Pro L530	n/a
Client Laptop	Lenovo	IdeaPad Slim 1-14AST-05	n/a
AC Power Supply, 90W	Lenovo	90W	n/a
AC Power Supply, 45W	Lenovo	45W	n/a
Mouse, USB	Lenovo	45J4886	4454328

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power Cable	No	1.20m	No	AC Mains	AC Power Adapter, 90W
DC Power Cable	No	0.75m	Yes	AC Power Supply, 90W	Sever Laptop
DC Power Cable	No	1.00m	No	AC Power Supply, 45W	Client Laptop
SMA Cable A	Yes	0.50m	No	BNC Near Field Cable	RKW
SMA Cable B	Yes	0.46m	No	RKW	PDF
SMA Cable C	Yes	0.10m	No	PDF	RKV
SMA Cable D	Yes	0.08m	No	DPF	PDI
SMA Cable E	Yes	1.70m	No	PDI	TEV

CONFIGURATIONS



Configuration PCTE0022- 2

Software/Firmware Running During Test	
Description	Version
Putty	0.76
SEOWON INTECH Web interface	2.20.701
Windows 11 Home	22000.9
Windows 10 Home	19044.1706

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
CPE Device	Seowon Intech	SLC-1505S	KRS0104C150T42GA-00001

Peripherals in Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Server Laptop	Lenovo	ThinkPad Pro L530	n/a
Client Laptop	Lenovo	IdeaPad Slim 1-14AST-05	n/a
AC Power Supply, 90W	Lenovo	90W	n/a
AC Power Supply, 45W	Lenovo	45W	n/a
AC Power Supply, 24W	Seowon Intech	ICP30A-120-2000	n/a
Mouse, USB	Lenovo	45J4886	4454328

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power Cable	No	1.20m	No	AC Mains	AC Power Adapter, 90W
DC Power Cable	No	0.75m	Yes	AC Power Supply, 90W	Sever Laptop
DC Power Cable	No	1.00m	No	AC Power Supply, 45W	Client Laptop
Ethernet A	No	1.80m	No	Server Laptop	CPE Device
DC Power Cable	No	1.40m	No	AC Power Supply, 24W	CPE Device
USB to Ethernet Dongle	Yes	0.18m	No	Server Laptop	Ethernet A
BNC Near Field Cable	Yes	1.20m	No	IPS	SMA Cable A
SMA Cable A	Yes	0.50m	No	BNC Near Field Cable	RKW
SMA Cable B	Yes	0.46m	No	RKW	PDF
SMA Cable C	Yes	0.10m	No	PDF	RKV
SMA Cable D	Yes	0.08m	No	DPF	PDI
SMA Cable E	Yes	1.70m	No	PDI	TEV
SMA Cable F	Yes	2.40m	No	PDI	ANC

MODIFICATIONS



Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	2022-06-10	DFS Testing – Test Signal Level	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
2	2022-06-10	DFS Testing - Channel Loading Channel Utilization	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
3	2022-06-10	DFS Testing - Detection Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
4	2022-06-10	DFS Testing - Channel Availability Check	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
5	2022-06-13	DFS Testing - Move Time	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
6	2022-06-13	DFS Testing - Closing Time	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
7	2022-06-13	DFS Testing - Non-Occupancy Period	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
8	2022-06-13	DFS Testing - Statistical Performance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

DFS TESTING - CHANNEL AVAILABILITY CHECK



XMIT 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR
Block - DC	Fairview Microwave	SD3239	ANC	2022-03-02	2023-03-02
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Generator - Signal	Keysight	N5182B	TEV	2021-04-27	2024-04-27
Cable	UtiFlex Micro-Coax	UFD1150A-1-0720-200200	TXJ	2021-09-13	2022-09-13
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDI	2021-07-23	2022-07-23
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDF	2021-07-23	2022-07-23
Attenuator	Fairview Microwave	SA1501SMA	RKV	NCR	NCR
Attenuator	Fairview Microwave	SA1501SMA	RKW	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The master and client were connected using the conducted method described in the FCC KDB procedure via a series of splitters and attenuators which allows the radar signals to be injected and monitored. The master detection level was set prior to testing by temporarily replacing the master device with the analyzer and setting the power level according to Table 3 and Section 7.5. In addition, a specified time or indicator was used to determine when the master finishes its power up cycle and begins its channel availability check. Configuration and status of the master and client devices were then monitored using the spectrum analyzer. Three tests were performed on the necessary modes of the device: initial CAC, beginning CAC, and ending CAC. For initial CAC, using the analyzer settings specified in the procedure, the master is monitored to make sure it does not transmit or emit beacons for at least 60 seconds or more after the initial power up cycle. For beginning CAC, the required radar pulse is injected within the first 6 seconds of the channel availability check time, and the channel is monitored to make sure the master detects the radar and does not use the channel. For ending CAC, the required radar pulse is injected within the last 6 seconds of the channel availability check time, and the channel is monitored to make sure the master detects the radar and does not use the channel.

DFS TESTING - CHANNEL AVAILABILITY CHECK



XMR 2022 02.07.0

EUT: CPE Device		Work Order: PCTE0022	
Serial Number: KRS0104C150T42GA-00001		Date: 10-Jun-22	
Customer: Seowon Intech Co., Ltd		Temperature: 21.3 °C	
Attendees: None		Humidity: 57.4% RH	
Project: None		Barometric Pres.: 1013 mbar	
Tested by: Brandon Hobbs		Power: 110VAC/60Hz	
		Job Site: TX05	
TEST SPECIFICATIONS			
FCC 15.407:2022		Test Method	
RSS-247 Issue 2:2017		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, KDB 662911 D01	
		ANSI C63.10:2013, KDB 789033, KDB 905462, RSS-Gen Issue 5:2018+A1:2019+A2:2021	
COMMENTS			
Losses seen in the measurement path were account for in the radar calibration leveling. Reference the DFS setup and master attenuation documentation for the attenuators used while under test. Port 1 was tested. Internal Attn was reduced for better dynamic range. Streaming was disabled, only control signals seen on channel before radar burst. Radar type 0 was used for Beginning and Ending CAC.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		Value (Sec)	Limit (Sec)
802.11a/n/ac, Band 5.3 GHz			
20 MHz Channel Bandwidth			
Ch.60, 5300 MHz			
Initial CAC		84.3	≥ 60
Beginning CAC		≥ 150	≥ 150
Ending CAC		≥ 150	≥ 150
802.11a/n/ac, Band 5.5 GHz			
20 MHz Channel Bandwidth			
Ch.100, 5500 MHz			
Initial CAC		85.9	≥ 60
Beginning CAC		≥ 150	≥ 150
Ending CAC		≥ 150	≥ 150
			Result
			Pass
			Pass
			Pass

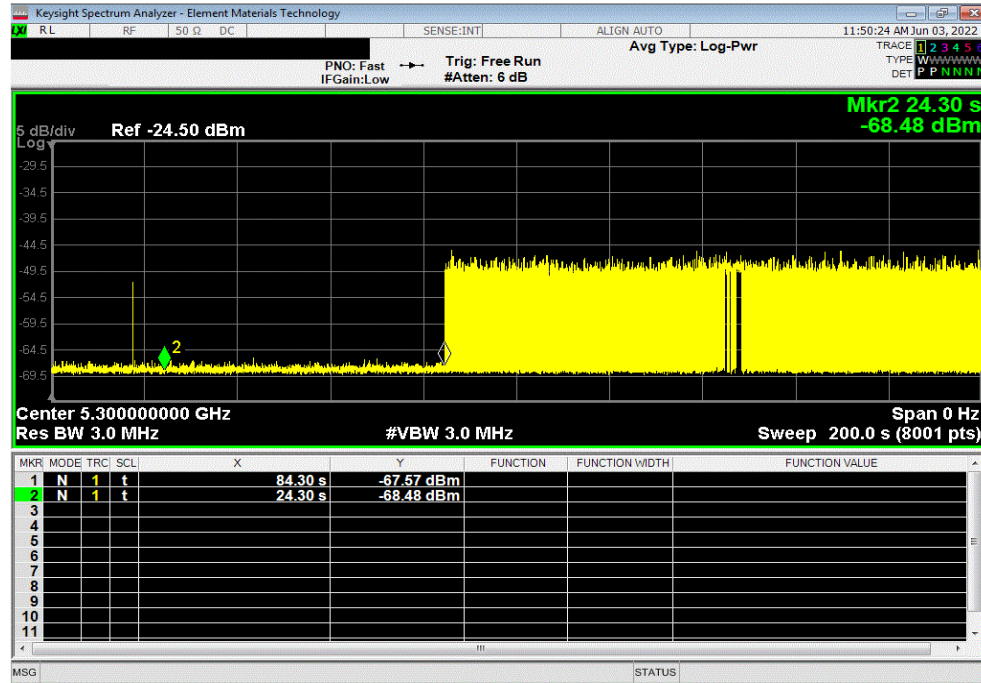
DFS TESTING - CHANNEL AVAILABILITY CHECK



XMR 2022.02.07.0

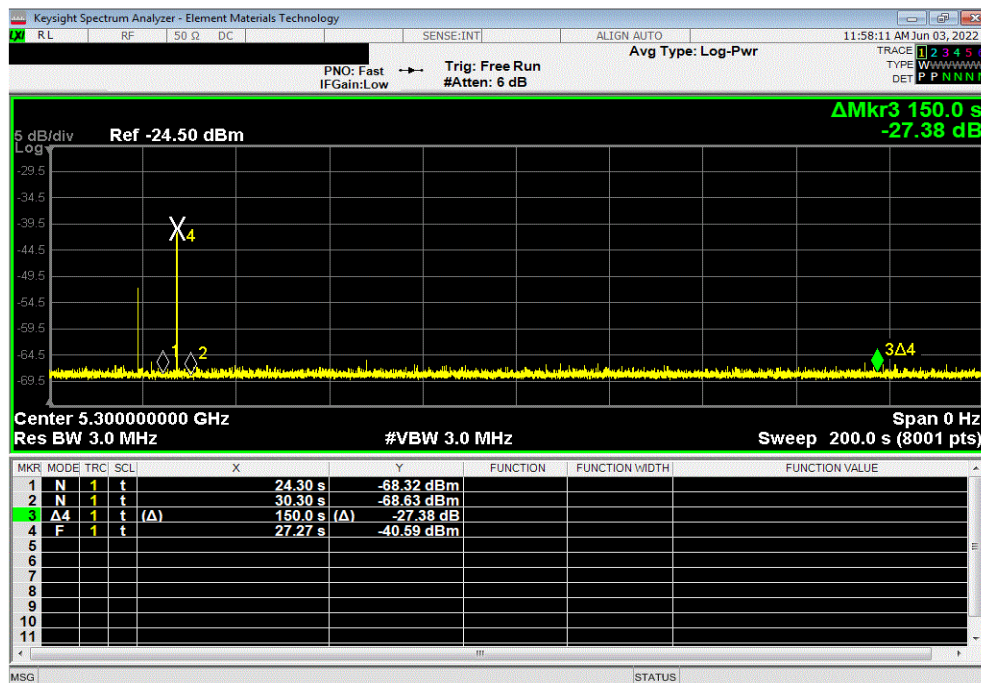
802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Initial CAC

				Value (Sec)	Limit (Sec)	Result
				84.3	≥ 60	Pass



802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Beginning CAC

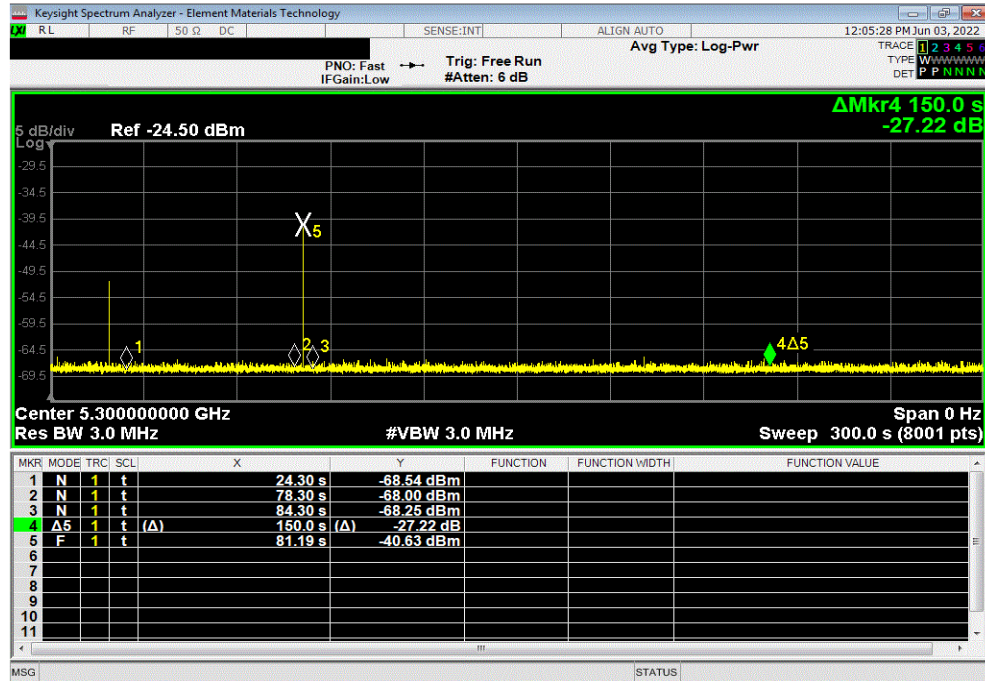
				Value (Sec)	Limit (Sec)	Result
				≥ 150	≥ 150	Pass



DFS TESTING - CHANNEL AVAILABILITY CHECK

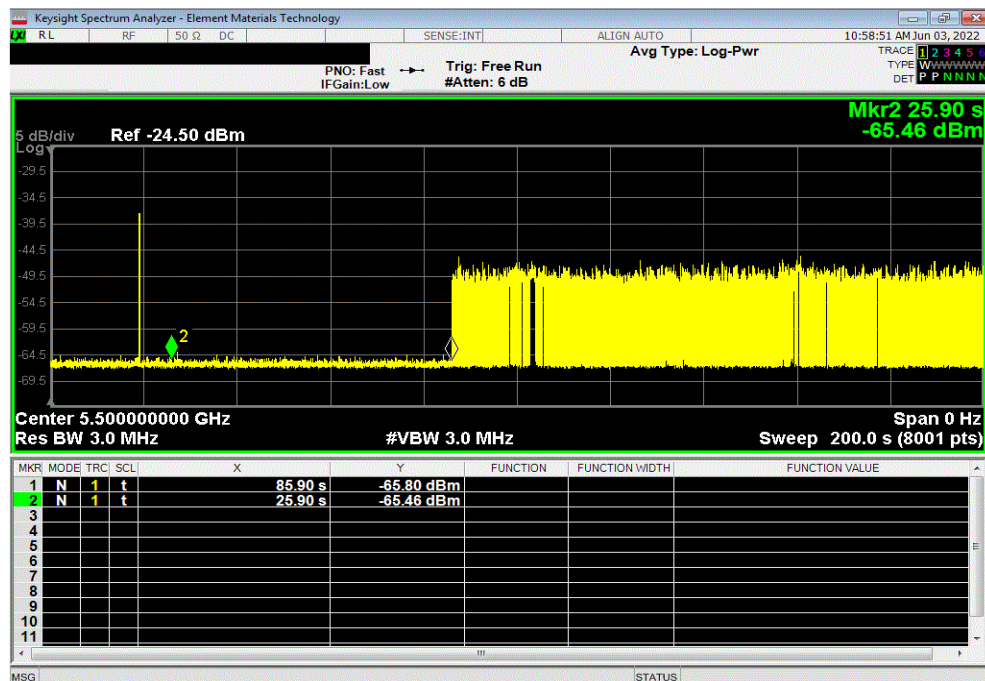
802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Ending CAC

				Value (Sec)	Limit (Sec)	Result
				≥ 150	≥ 150	Pass



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Initial CAC

				Value (Sec)	Limit (Sec)	Result
				85.9	≥ 60	Pass



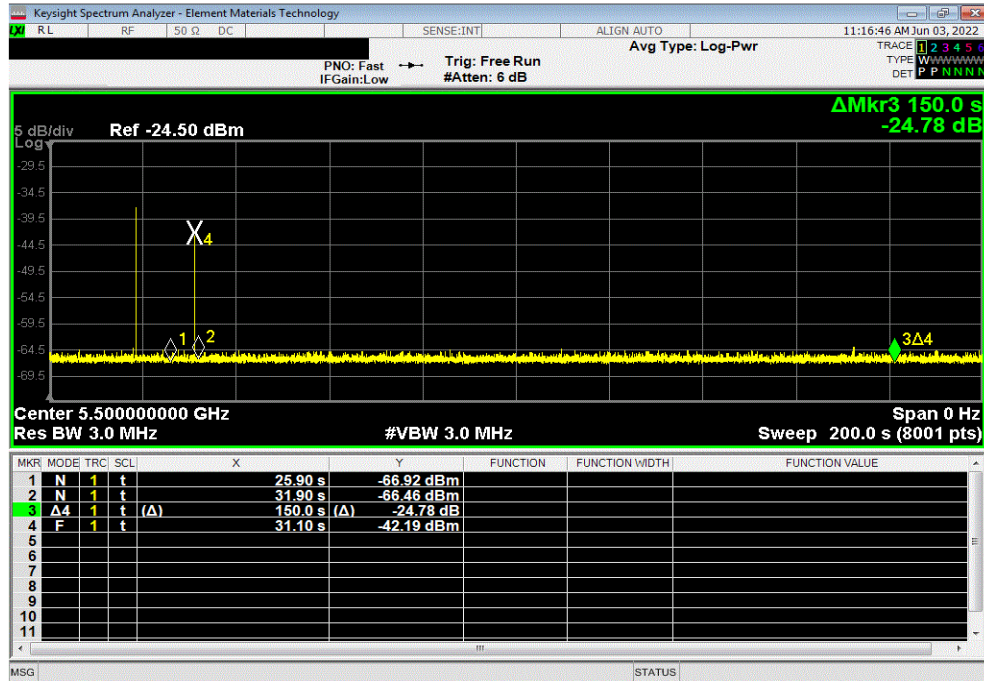
DFS TESTING - CHANNEL AVAILABILITY CHECK



XMR 2022.02.07.0

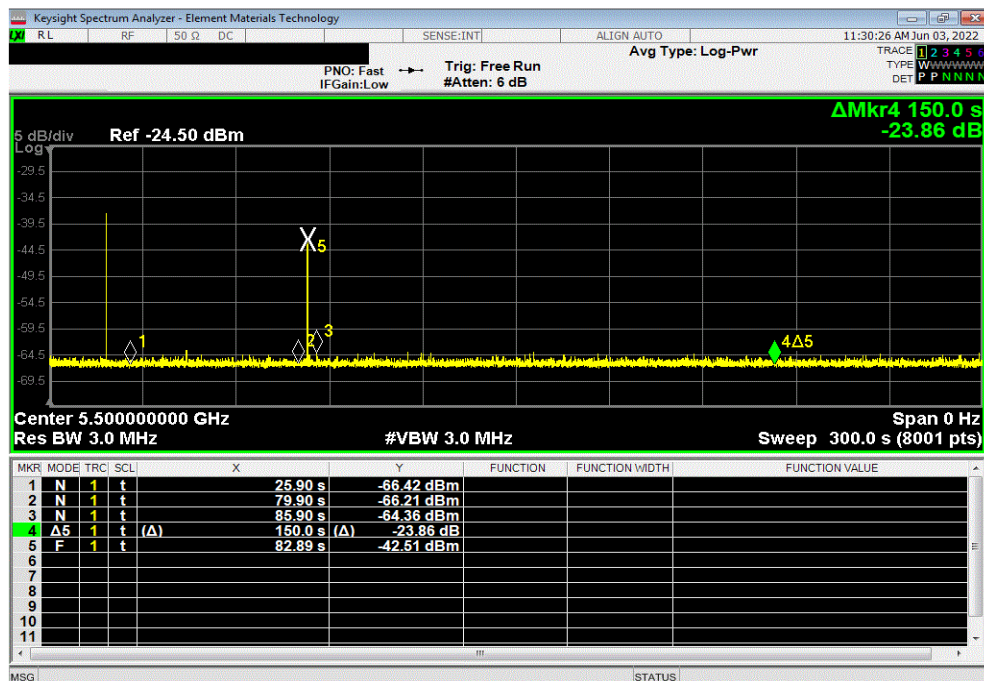
802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Beginning CAC

				Value (Sec)	Limit (Sec)	Result
				≥ 150	≥ 150	Pass



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Ending CAC

				Value (Sec)	Limit (Sec)	Result
				≥ 150	≥ 150	Pass



DFS TESTING - CHANNEL LOADING CHANNEL UTILIZATION



XMH 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR
Block - DC	Fairview Microwave	SD3239	ANC	2022-03-02	2023-03-02
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Generator - Signal	Keysight	N5182B	TEV	2021-04-27	2024-04-27
Cable	UtiFlex Micro-Coax	UFD1150A-1-0720-200200	TXJ	2021-09-13	2022-09-13
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDI	2021-07-23	2022-07-23
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDF	2021-07-23	2022-07-23
Attenuator	Fairview Microwave	SA6B10W-20	RKU	2022-02-16	2023-02-16
Attenuator	Fairview Microwave	SA6B10W-20	RKU	2022-02-16	2023-02-16

TEST DESCRIPTION

The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain as further described by the sweep times listed in the test data. A direct connection was made between the RF output of the master and client system setup which used the conducted method described in the FCC KDB 905462 test procedure via a series of splitters and attenuators.

DFS TESTING - CHANNEL LOADING CHANNEL UTILIZATION



XMR 2022 02.07.0

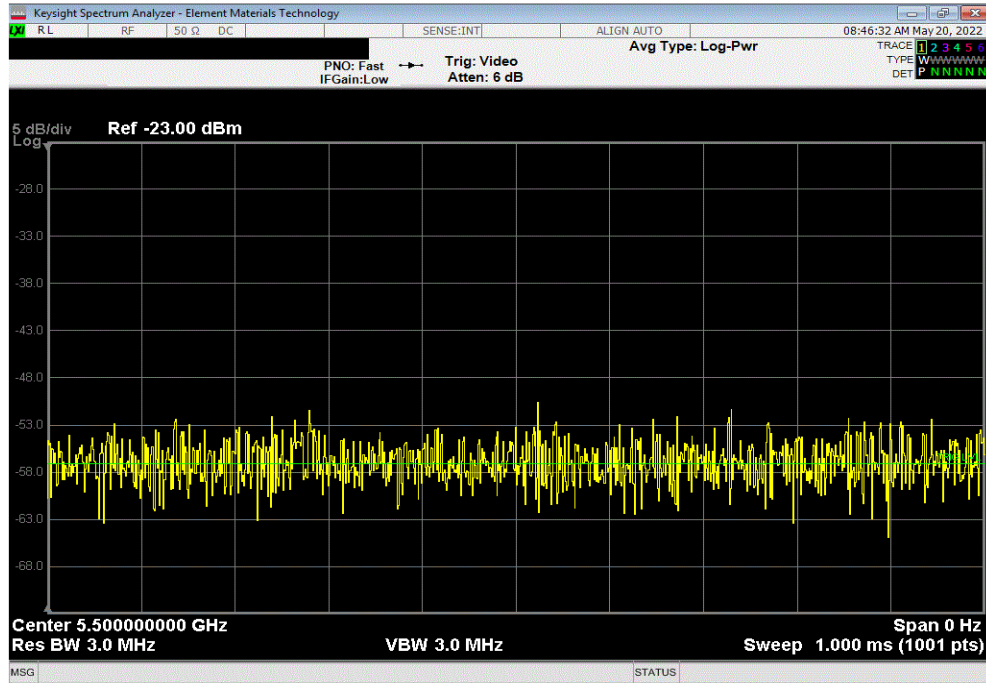
EUT: CPE Device		Work Order: PCTE0022	
Serial Number: KRS0104C150T42GA-00001		Date: 10-Jun-22	
Customer: Seowon Intech Co., Ltd		Temperature: 21.6 °C	
Attendees: None		Humidity: 55.7% RH	
Project: None		Barometric Pres.: 1015 mbar	
Tested by: Brandon Hobbs		Power: 110VAC/60Hz	
		Job Site: TX05	
TEST SPECIFICATIONS			
FCC 15.407:2022		Test Method	
RSS-247 Issue 2:2017		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, KDB 662911 D01	
		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, RSS-Gen Issue 5:2018+A1:2019+A2:2021	
COMMENTS			
Losses seen in the measurement path were account for in the radar calibration leveling. Reference the DFS setup and master attenuation documentation for the attenuators used while under test. Port 1 was tested. A single representative channel and band were tested. Internal Attn was reduced for better dynamic range. Channel loading was achieved by streaming an FCC approved MP4 file across an IP network from master to client.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		Value	Limit
802.11a/n/ac, Band 5.5 GHz			
20 MHz Channel Bandwidth			
Ch.100, 5500 MHz			
1mS		≥ 17%	≥ 17% Pass
2mS		≥ 17%	≥ 17% Pass
10mS		≥ 17%	≥ 17% Pass
25mS		≥ 17%	≥ 17% Pass
100mS		≥ 17%	≥ 17% Pass
10Sec		≥ 17%	≥ 17% Pass

DFS TESTING - CHANNEL LOADING CHANNEL UTILIZATION

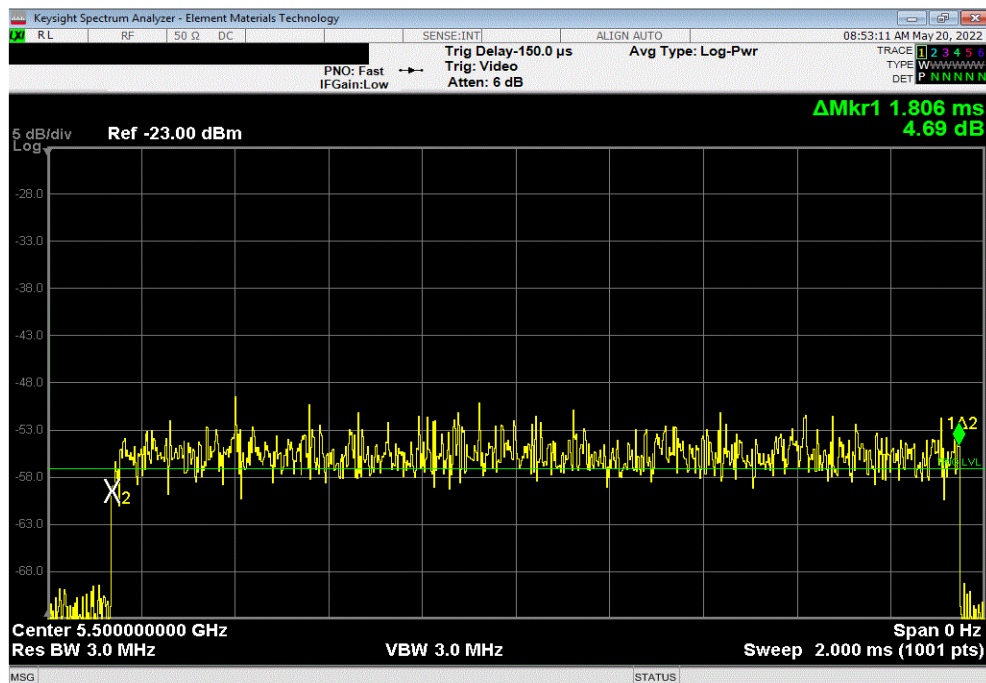


XMR 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, 1mS						
				Value	Limit	Result
				$\geq 17\%$	$\geq 17\%$	Pass



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, 2mS						
				Value	Limit	Result
				$\geq 17\%$	$\geq 17\%$	Pass



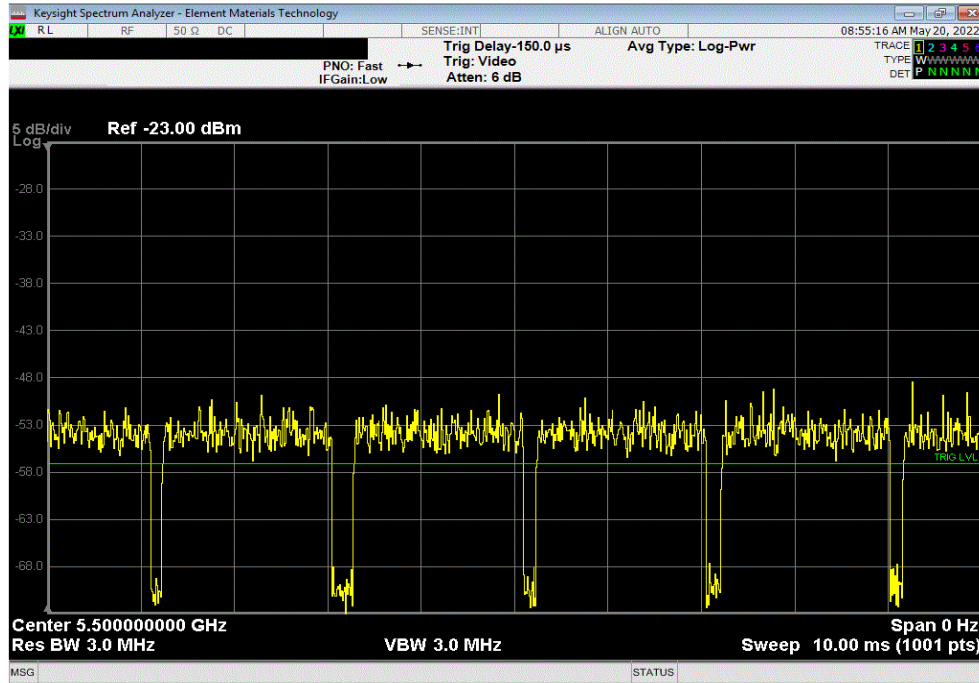
DFS TESTING - CHANNEL LOADING CHANNEL UTILIZATION



XMR 2022.02.07.0

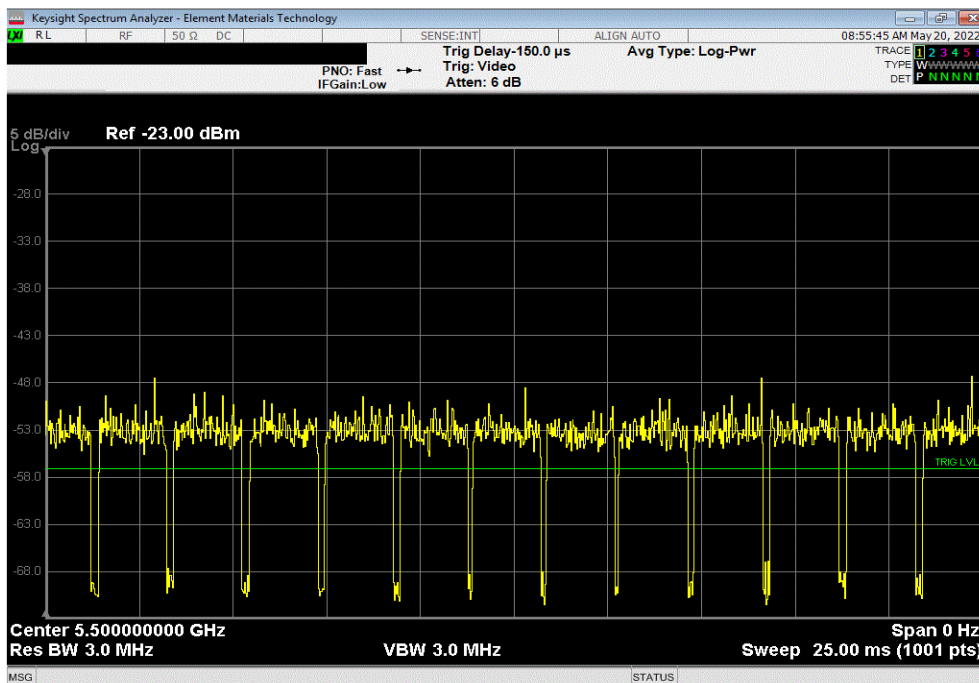
802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, 10mS

				Value	Limit	Result
				$\geq 17\%$	$\geq 17\%$	Pass



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, 25mS

				Value	Limit	Result
				$\geq 17\%$	$\geq 17\%$	Pass



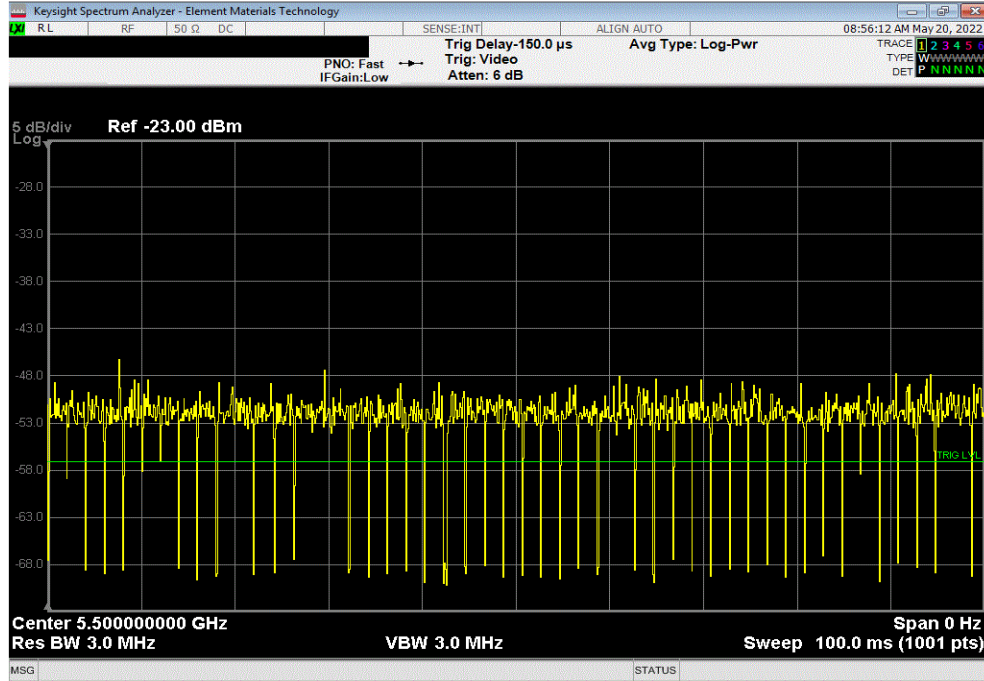
DFS TESTING - CHANNEL LOADING CHANNEL UTILIZATION



XMR 2022.02.07.0

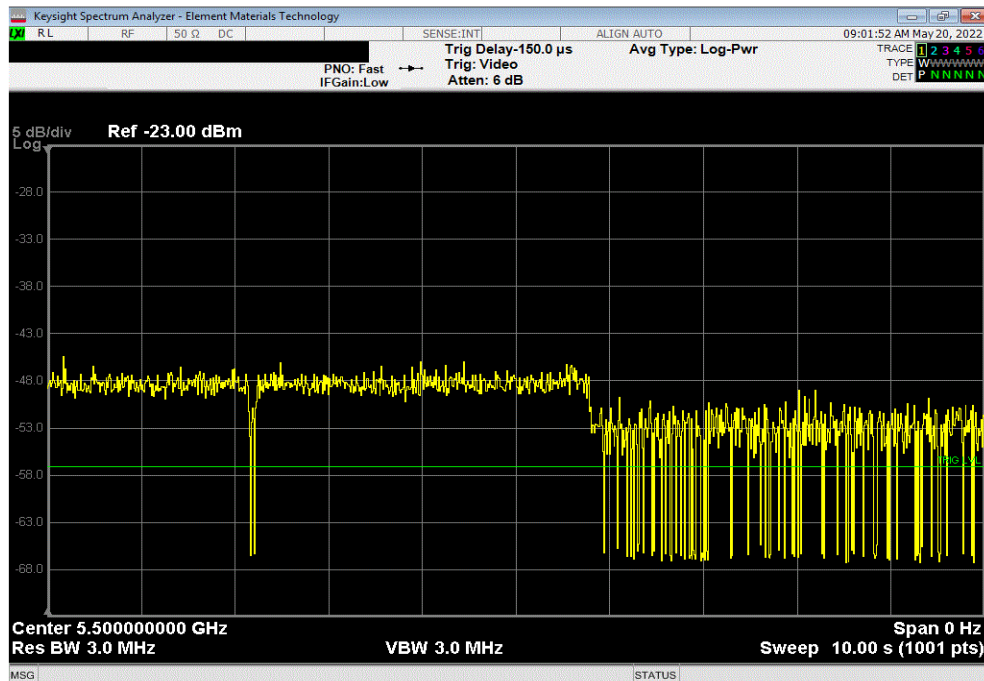
802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, 100mS

				Value	Limit	Result
				$\geq 17\%$	$\geq 17\%$	Pass



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, 10Sec

				Value	Limit	Result
				$\geq 17\%$	$\geq 17\%$	Pass



DFS TESTING - CLOSING TIME



XMit 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR
Block - DC	Fairview Microwave	SD3239	ANC	2022-03-02	2023-03-02
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Generator - Signal	Keysight	N5182B	TEV	2021-04-27	2024-04-27
Cable	UtiFlex Micro-Coax	UFD1150A-1-0720-200200	TXJ	2021-09-13	2022-09-13
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDI	2021-07-23	2022-07-23
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDF	2021-07-23	2022-07-23
Attenuator	Fairview Microwave	SA1501SMA	RKV	NCR	NCR
Attenuator	Fairview Microwave	SA1501SMA	RKW	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The master and client were connected using the conducted method described in the FCC KDB procedure via a series of splitters and attenuators which allows the radar signals to be injected and monitored. For master devices, the detection level was set prior to testing by temporarily replacing the master device with the analyzer and setting the power level according to Table 3 and Section 7.5. Where required, an approved Media file was streamed through the master and client or an alternative method to load the channel may be used instead. Channel loading requirements were also verified prior to testing. Configuration and status of the master and client devices were then monitored using the spectrum analyzer. The Closing Time test was performed by starting a transmission between the master and client device, and then injecting the appropriate radar signals. All transmission signals between the master and client in the first 200mS are allowed. After this time period, the number of transmissions signals are counted and multiplied by the pulse width value(s). This aggregate is then added to the 200mS allowance for the final value and compared to the specified limit.

DFS TESTING - CLOSING TIME



XMIT 2022.02.07.0

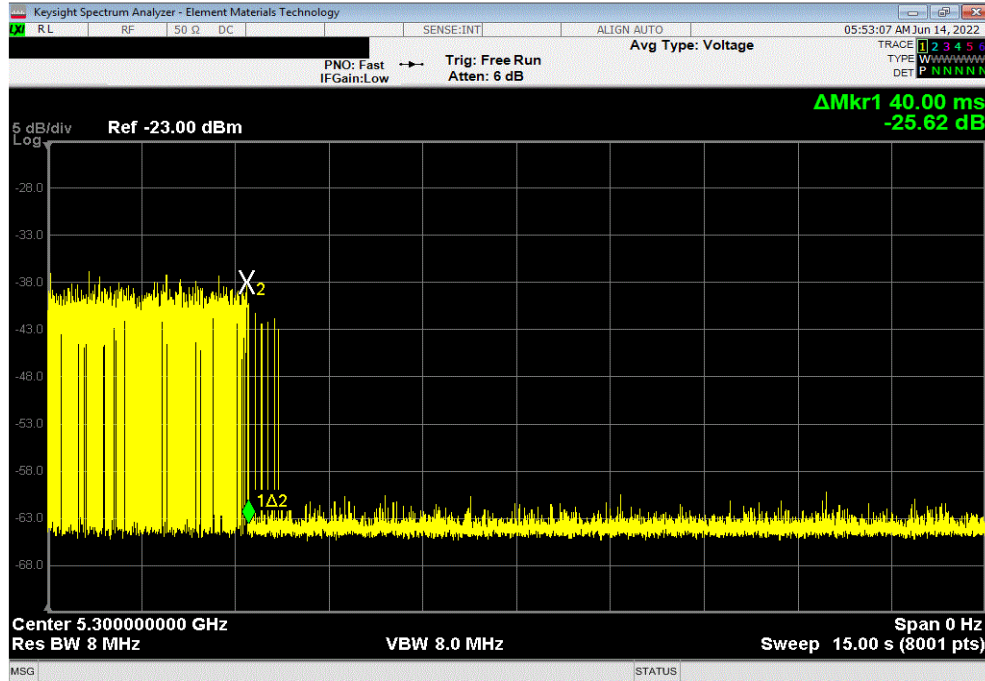
EUT: CPE Device		Work Order: PCTE0022	
Serial Number: KRS0104C150T42GA-00001		Date: 13-Jun-22	
Customer: Seowon Intech Co., Ltd		Temperature: 22 °C	
Attendees: None		Humidity: 52.3% RH	
Project: None		Barometric Pres.: 1016 mbar	
Tested by: Brandon Hobbs		Power: 110VAC/60Hz	
		Job Site: TX05	
TEST SPECIFICATIONS			
FCC 15.407:2022		Test Method	
RSS-247 Issue 2:2017		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, KDB 662911 D01	
COMMENTS		ANSI C63.10:2013, KDB 789033, KDB 905462, RSS-Gen Issue 5:2018+A1:2019+A2:2021	
Losses seen in the measurement path were account for in the radar calibration leveling. Reference the DFS setup and master attenuation documentation for the attenuators used while under test. Port 1 was tested. Internal Attn was reduced for better dynamic range. Channel loading was achieved by streaming an FCC approved MP4 file across an IP network from master to client.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		# of Signals	Pulse Width (mS)
		Initial Closing Time (mS)	Final Closing Time (mS)
		Limit (mS)	Result
802.11a/n/ac, Band 5.3 GHz			
20 MHz Channel Bandwidth			
Ch.60, 5300 MHz			
		Radar Type 0 200mS	5 N/A 40.0 N/A 200 Pass
		Radar Type 0 Aggregate	5 0.204 40.0 41.02 260 Pass
802.11a/n/ac, Band 5.5 GHz			
20 MHz Channel Bandwidth			
Ch.100, 5500 MHz			
		Radar Type 0 200mS	5 N/A 68.1 N/A 200 Pass
		Radar Type 0 Aggregate	5 0.204 68.1 69.15 260 Pass

DFS TESTING - CLOSING TIME

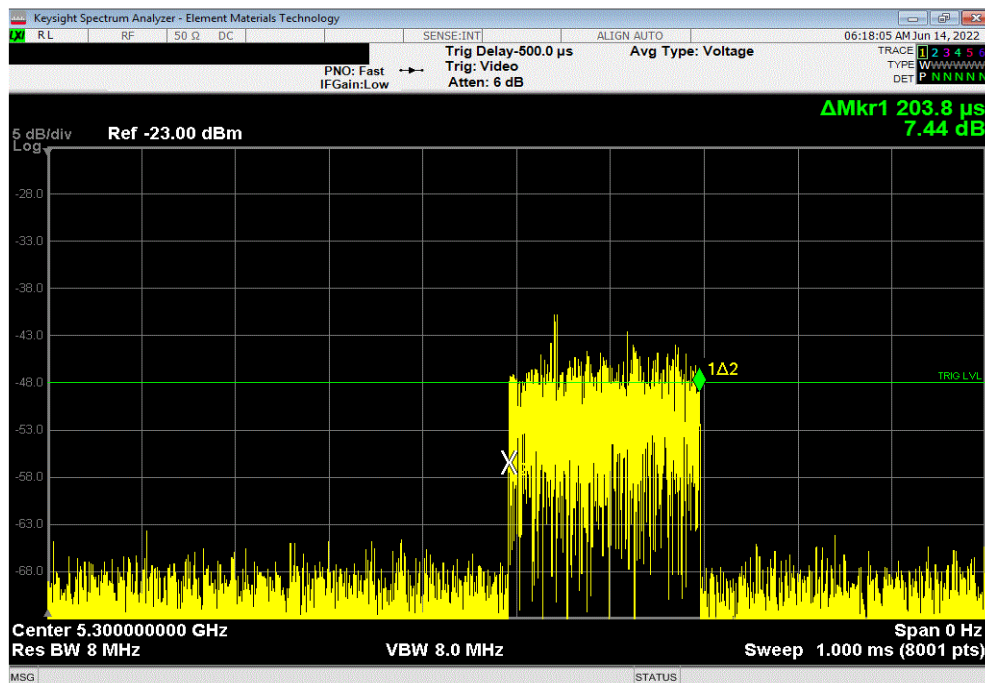


XM8 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 0 200mS						
# of Signals	Pulse Width (mS)	Initial Closing Time (mS)	Final Closing Time (mS)	Limit (mS)	Result	
5	N/A	40	N/A	200	Pass	



802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 0 Aggregate						
# of Signals	Pulse Width (mS)	Initial Closing Time (mS)	Final Closing Time (mS)	Limit (mS)	Result	
5	0.204	40	41.02	260	Pass	

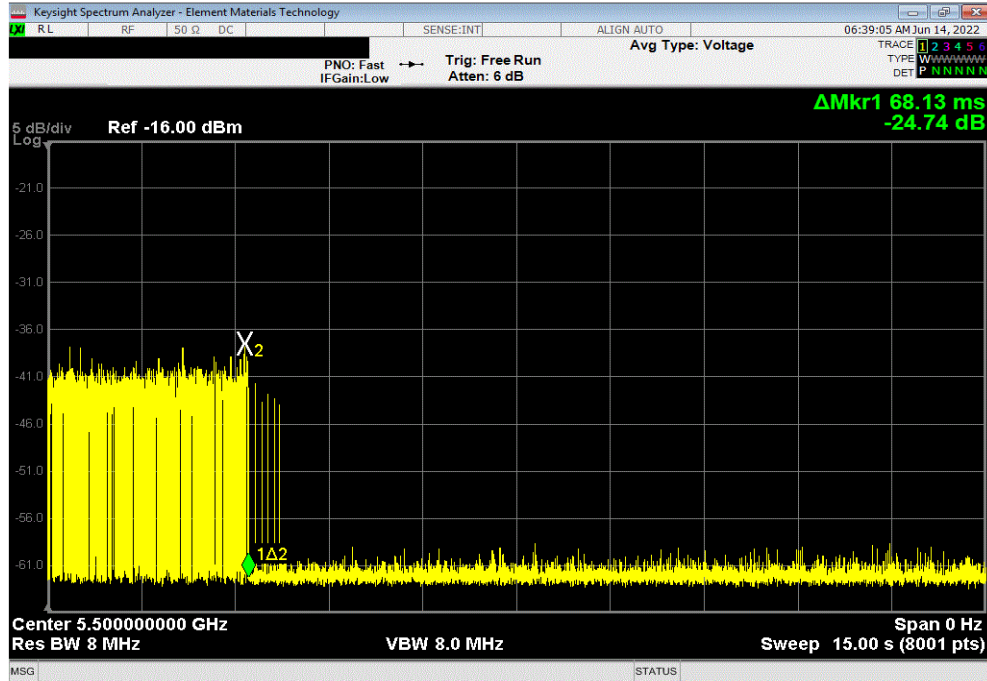


DFS TESTING - CLOSING TIME

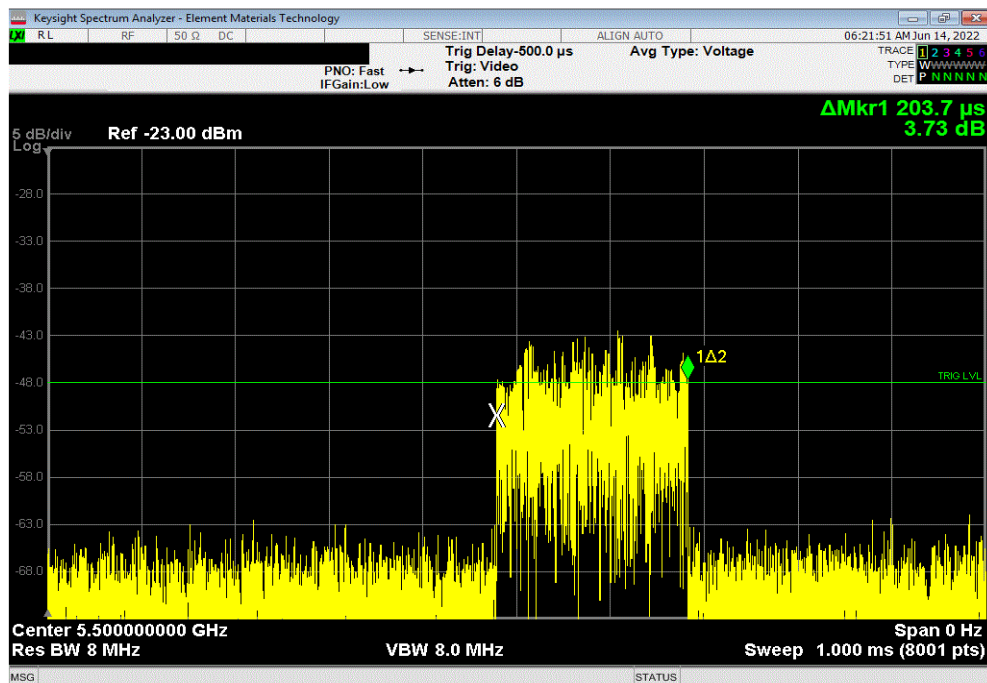


XM8 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 0 200mS						
# of Signals	Pulse Width (mS)	Initial Closing Time (mS)	Final Closing Time (mS)	Limit (mS)	Result	
5	N/A	68.13	N/A	200	Pass	



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 0 Aggregate						
# of Signals	Pulse Width (mS)	Initial Closing Time (mS)	Final Closing Time (mS)	Limit (mS)	Result	
5	0.204	68.13	69.15	260	Pass	



DFS TESTING - DETECTION BANDWIDTH



XML 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR
Block - DC	Fairview Microwave	SD3239	ANC	2022-03-02	2023-03-02
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Generator - Signal	Keysight	N5182B	TEV	2021-04-27	2024-04-27
Cable	UtiFlex Micro-Coax	UFD1150A-1-0720-200200	TXJ	2021-09-13	2022-09-13
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDI	2021-07-23	2022-07-23
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDF	2021-07-23	2022-07-23
Attenuator	Fairview Microwave	SA1501SMA	RKV	NCR	NCR
Attenuator	Fairview Microwave	SA1501SMA	RKW	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The master was connected using the conducted method described in the FCC KDB procedure via a series of splitters and attenuators which allows the radar signals to be injected and monitored. The detection level was set prior to testing by temporarily replacing the master device with the analyzer and setting the power level according to Table 3 and Section 7.5. Configuration and status of the master device was then monitored using the spectrum analyzer (no association with client). The required radar signal was injected at the upper and lower band edge frequencies for ten trials each. If the detection percentage was not met, the upper and lower frequencies were reduced or increased by 1MHz and then injected again. This process is repeated until the frequency is found where the master detects the required number of trials. The upper and lower frequencies are subtracted and the resulting number is the U-NII Detection Bandwidth which must be greater than or equal to the bandwidth used for data transmission.

DFS TESTING - DETECTION BANDWIDTH



XMR 2022 02.07.0

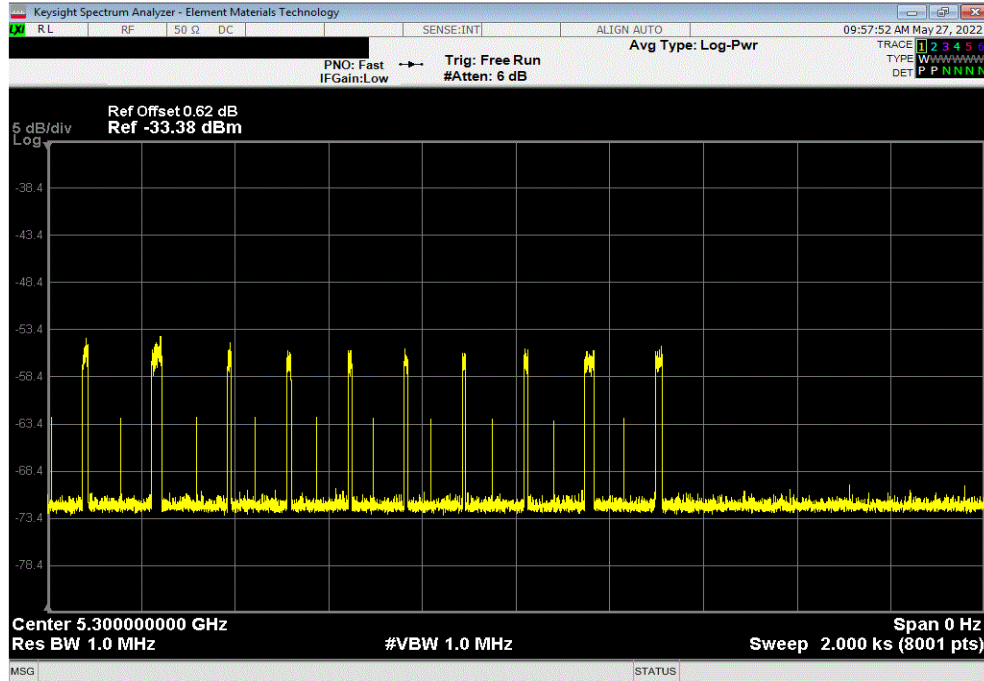
EUT: CPE Device		Work Order: PCTE0022	
Serial Number: KRS0104C150T42GA-00001		Date: 10-Jun-22	
Customer: Seowon Intech Co., Ltd		Temperature: 21.7 °C	
Attendees: None		Humidity: 56.4% RH	
Project: None		Barometric Pres.: 1012 mbar	
Tested by: Brandon Hobbs		Power: 110VAC/60Hz	
		Job Site: TX05	
TEST SPECIFICATIONS			
FCC 15.407:2022		Test Method	
RSS-247 Issue 2:2017		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, KDB 662911 D01	
COMMENTS		ANSI C63.10:2013, KDB 789033, KDB 905462, RSS-Gen Issue 5:2018+A1:2019+A2:2021	
Losses seen in the measurement path were account for in the radar calibration leveling. Reference the DFS setup and master attenuation documentation for the attenuators used while under test. Port 1 was tested. Internal Attn was reduced for better dynamic range. Streaming was disabled, only control signals seen on channel. Per FCC requirements radar type 0 was used to define the detection bandwidths			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		Detected	Not Detected
		% Detected	Value
			≥ 99% PBW Limit
			Result
802.11a/n/ac, Band 5.3 GHz			
20 MHz Bandwidth			
Ch.60, 5300 MHz			
		10	0
		100	5290 MHz
		100	5310 MHz
		N/A	20 MHz
802.11a/n/ac, Band 5.5 GHz			
20 MHz Bandwidth			
Ch.100, 5500 MHz			
		10	0
		100	5490 MHz
		100	5510 MHz
		N/A	20 MHz

DFS TESTING - DETECTION BANDWIDTH

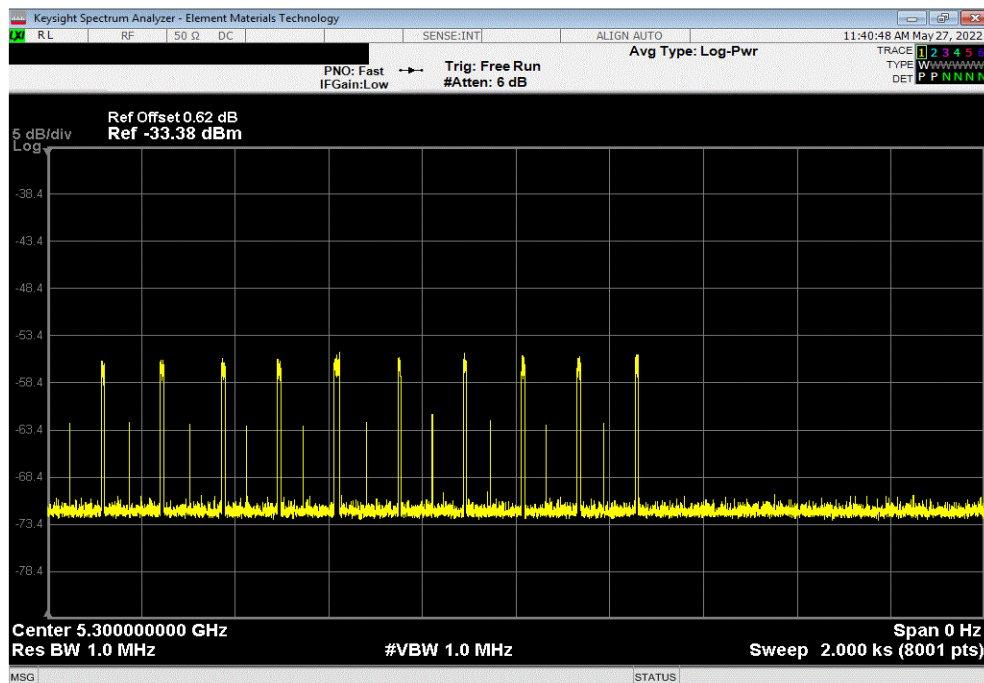


XMR 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Bandwidth, Ch.60, 5300 MHz, Lowest Frequency						
≥ 99% PBW						
	Detected	Not Detected	% Detected	Value	Limit	Result
	10	0	100	5290 MHz	N/A	N/A



802.11a/n/ac, Band 5.3 GHz, 20 MHz Bandwidth, Ch.60, 5300 MHz, Highest Frequency						
≥ 99% PBW						
	Detected	Not Detected	% Detected	Value	Limit	Result
	10	0	100	5310 MHz	N/A	N/A



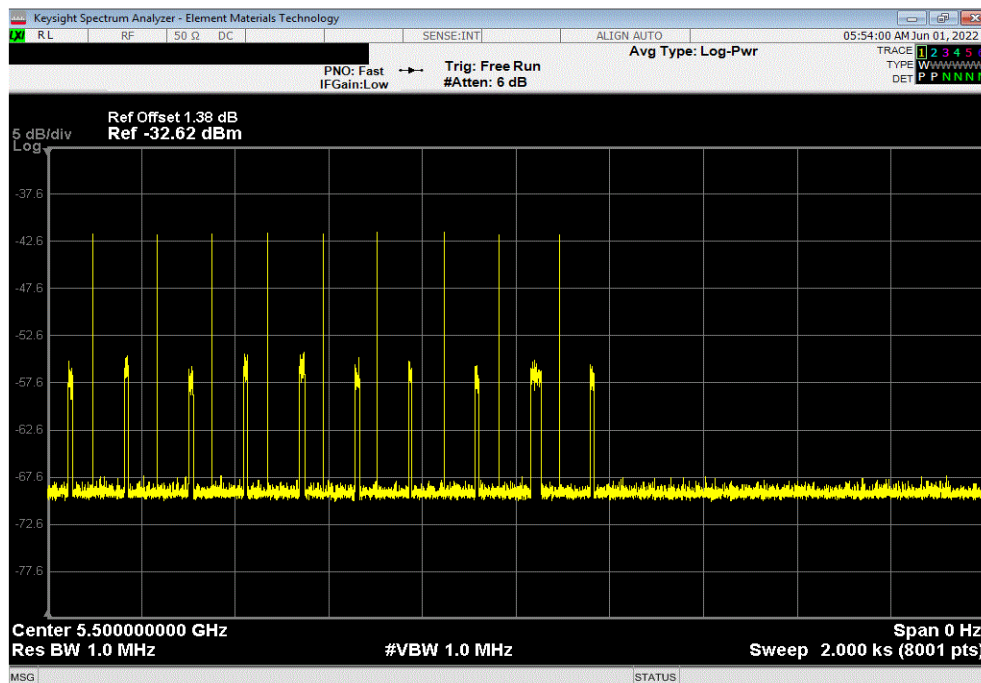
DFS TESTING - DETECTION BANDWIDTH



XMR 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Bandwidth, Ch.60, 5300 MHz, U-NII Detection Bandwidth						
≥ 99% PBW						
	Detected	Not Detected	% Detected	Value	Limit	Result
	N/A	N/A	N/A	20 MHz	18 MHz	Pass

802.11a/n/ac, Band 5.5 GHz, 20 MHz Bandwidth, Ch.100, 5500 MHz, Lowest Frequency						
≥ 99% PBW						
	Detected	Not Detected	% Detected	Value	Limit	Result
	10	0	100	5490 MHz	N/A	N/A

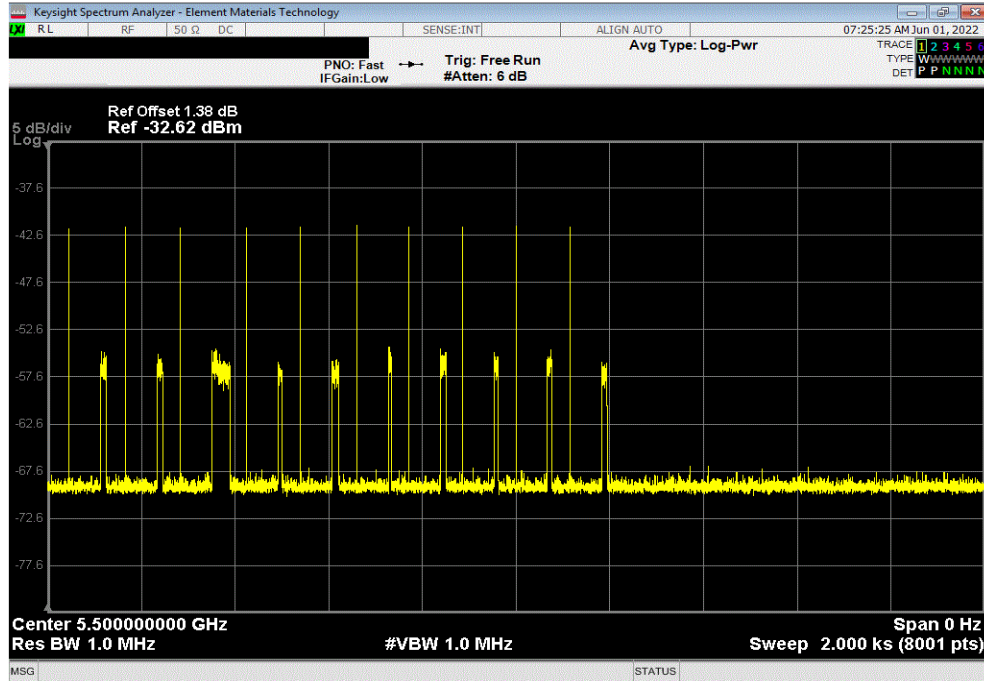


DFS TESTING - DETECTION BANDWIDTH



XM8 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Bandwidth, Ch.100, 5500 MHz, Highest Frequency						
≥ 99% PBW						
	Detected	Not Detected	% Detected	Value	Limit	Result
	10	0	100	5510 MHz	N/A	N/A



802.11a/n/ac, Band 5.5 GHz, 20 MHz Bandwidth, Ch.100, 5500 MHz, U-NII Detection Bandwidth						
≥ 99% PBW						
	Detected	Not Detected	% Detected	Value	Limit	Result
	N/A	N/A	N/A	20 MHz	18 MHz	Pass

DFS TESTING - MOVE TIME



XML 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR
Block - DC	Fairview Microwave	SD3239	ANC	2022-03-02	2023-03-02
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Generator - Signal	Keysight	N5182B	TEV	2021-04-27	2024-04-27
Cable	UtiFlex Micro-Coax	UFD1150A-1-0720-200200	TXJ	2021-09-13	2022-09-13
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDI	2021-07-23	2022-07-23
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDF	2021-07-23	2022-07-23
Attenuator	Fairview Microwave	SA1501SMA	RKV	NCR	NCR
Attenuator	Fairview Microwave	SA1501SMA	RKW	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The master and client were connected using the conducted method described in the FCC KDB procedure via a series of splitters and attenuators which allows the radar signals to be injected and monitored. For master devices, the detection level was set prior to testing by temporarily replacing the master device with the analyzer and setting the power level according to Table 3 and Section 7.5. Where required, an approved Media file was streamed between the master and client or an alternative method to load the channel may be used instead. Channel loading requirements were also verified prior to testing. Configuration and status of the master and client devices were then monitored using the spectrum analyzer. The Move Time test was performed by starting a transmission between the master and client device, and then injecting the appropriate radar signals and making sure both the master and client device vacate the DFS channel within the time specified by the standard.

DFS TESTING - MOVE TIME



XMR 2022.02.07.0

EUT: CPE Device		Work Order: PCTE0022	
Serial Number: KRS0104C150T42GA-00001		Date: 13-Jun-22	
Customer: Seowon Intech Co., Ltd		Temperature: 21.5 °C	
Attendees: None		Humidity: 54.1% RH	
Project: None		Barometric Pres.: 1016 mbar	
Tested by: Brandon Hobbs		Power: 110VAC/60Hz	
		Job Site: TX05	
TEST SPECIFICATIONS			
FCC 15.407:2022		Test Method	
RSS-247 Issue 2:2017		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, KDB 662911 D01	
		ANSI C63.10:2013, KDB 789033, KDB 905462, RSS-Gen Issue 5:2018+A1:2019+A2:2021	
COMMENTS			
Losses seen in the measurement path were account for in the radar calibration leveling. Reference the DFS setup and master attenuation documentation for the attenuators used while under test. Port 1 was tested. Internal Attn was reduced for better dynamic range. Channel loading was achieved by streaming an FCC approved MP4 file across an IP network from master to client.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		Value	Limit
802.11a/n/ac, Band 5.3 GHz			
20 MHz Channel Bandwidth			
Ch.60, 5300 MHz			
Short Pulse Radar Type 0		≤ 10 Sec	≤ 10 Sec
			Pass
802.11a/n/ac, Band 5.5 GHz			
20 MHz Channel Bandwidth			
Ch.100, 5500 MHz			
Short Pulse Radar Type 0		≤ 10 Sec	≤ 10 Sec
			Pass

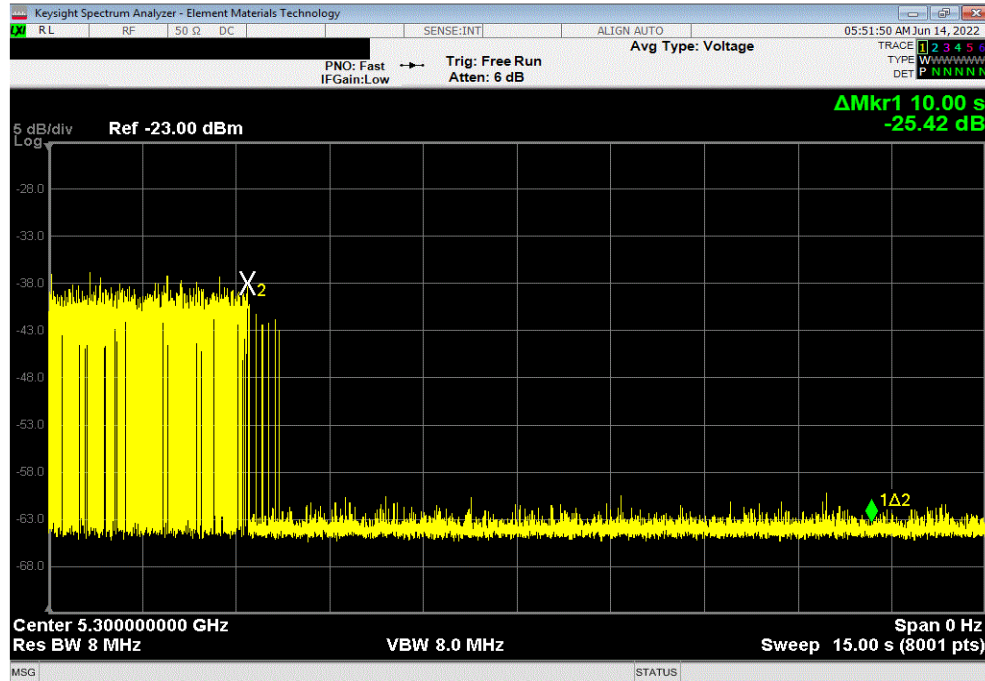
DFS TESTING - MOVE TIME



XMR 2022.02.07.0

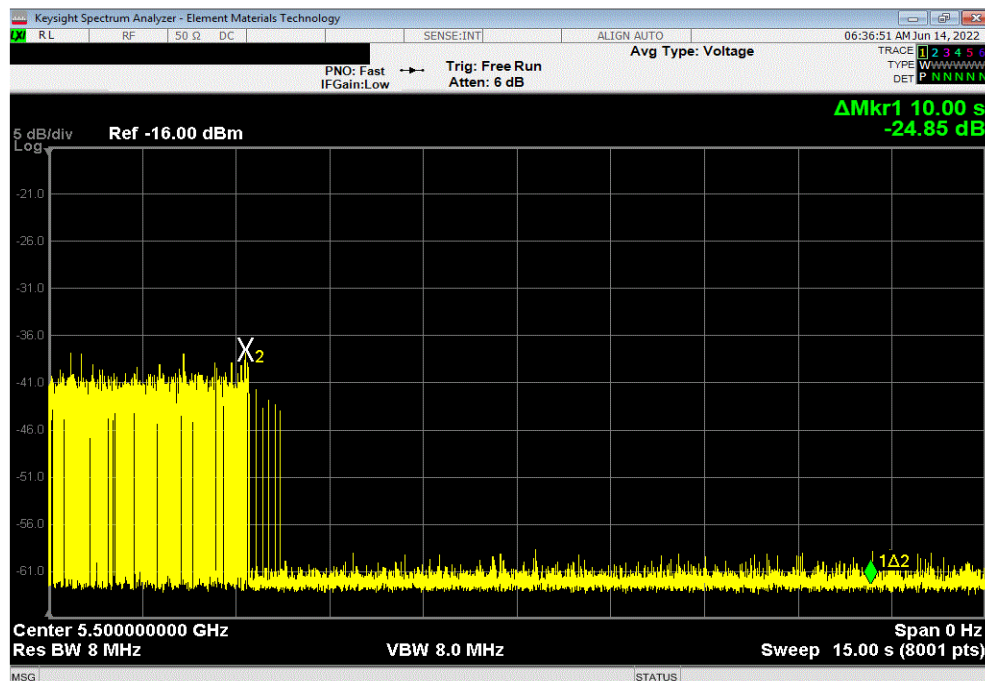
802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Short Pulse Radar Type 0

				Value	Limit	Result
				≤ 10 Sec	≤ 10 Sec	Pass



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Short Pulse Radar Type 0

				Value	Limit	Result
				≤ 10 Sec	≤ 10 Sec	Pass



DFS TESTING - NON OCCUPANCY PERIOD

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR
Block - DC	Fairview Microwave	SD3239	ANC	2022-03-02	2023-03-02
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Generator - Signal	Keysight	N5182B	TEV	2021-04-27	2024-04-27
Cable	UtiFlex Micro-Coax	UFD1150A-1-0720-200200	TXJ	2021-09-13	2022-09-13
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDI	2021-07-23	2022-07-23
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDF	2021-07-23	2022-07-23
Attenuator	Fairview Microwave	SA1501SMA	RKV	NCR	NCR
Attenuator	Fairview Microwave	SA1501SMA	RKW	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The master and client were connected using the conducted method described in the FCC KDB procedure via a series of splitters and attenuators which allows the communication and injected radar signals to be monitored simultaneously. The spectrum analyzer was configured to sweep the frequency for at least 30 minutes. The appropriate radar signal was injected and the channel was monitored to make sure the master and client devices vacated the channel and did not use it again for a period of time equal to or greater than 30 minutes.

DFS TESTING - NON OCCUPANCY PERIOD



XMR 2022.02.07.0

EUT: CPE Device		Work Order: PCTE0022	
Serial Number: KRS0104C150T42GA-00001		Date: 13-Jun-22	
Customer: Seowon Intech Co., Ltd		Temperature: 21.7 °C	
Attendees: None		Humidity: 52.9% RH	
Project: None		Barometric Pres.: 1016 mbar	
Tested by: Brandon Hobbs		Power: 110VAC/60Hz	
		Job Site: TX05	
TEST SPECIFICATIONS			
FCC 15.407:2022		Test Method	
RSS-247 Issue 2:2017		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, KDB 662911 D01	
		ANSI C63.10:2013, KDB 789033, KDB 905462, RSS-Gen Issue 5:2018+A1:2019+A2:2021	
COMMENTS			
Losses seen in the measurement path were account for in the radar calibration leveling. Reference the DFS setup and master attenuation documentation for the attenuators used while under test. Port 1 was tested. Internal Attn was reduced for better dynamic range. Channel loading was achieved by streaming an FCC approved MP4 file across an IP network from master to client. Radar Type 0 was deployed for this testing. Per the DFS requirements any single bandwidth can be tested. Covertng 30 minutes x 60 sec / minute = 1800 second limit.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		Value	Limit
802.11a/n/ac, Band 5.3 GHz			
20 MHz Channel Bandwidth			
Ch.60, 5300 MHz			
30min Non Occupancy Period		≥ 1800	≥ 1800
			Pass
802.11a/n/ac, Band 5.5 GHz			
20 MHz Channel Bandwidth			
Ch100, 5500 MHz			
30min Non Occupancy Period		≥ 1800	≥ 1800
			Pass

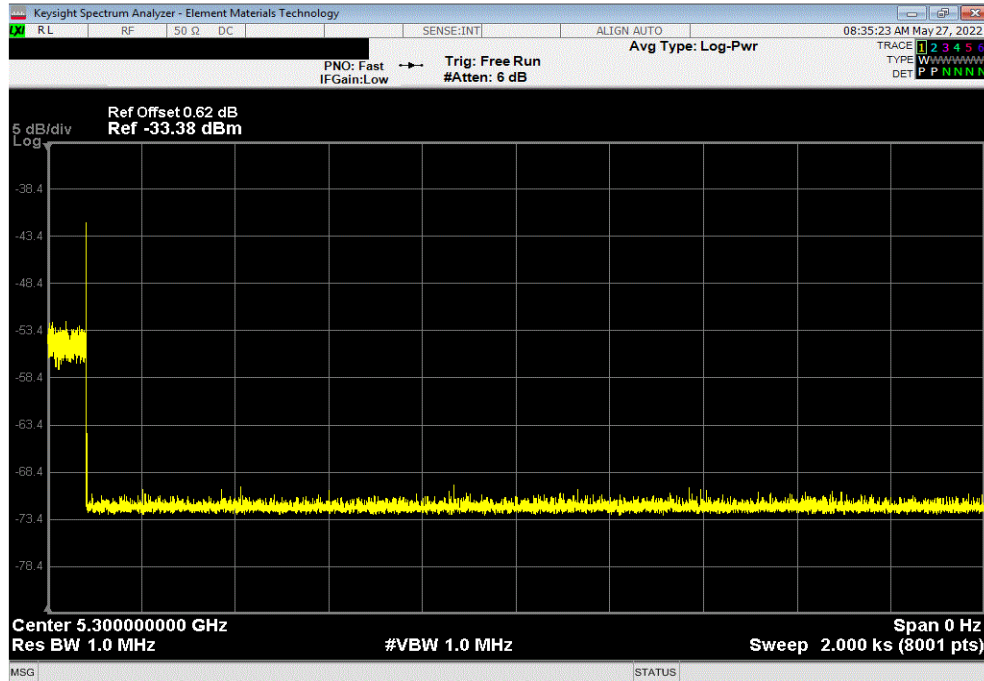
DFS TESTING - NON OCCUPANCY PERIOD



XMR 2022.02.07.0

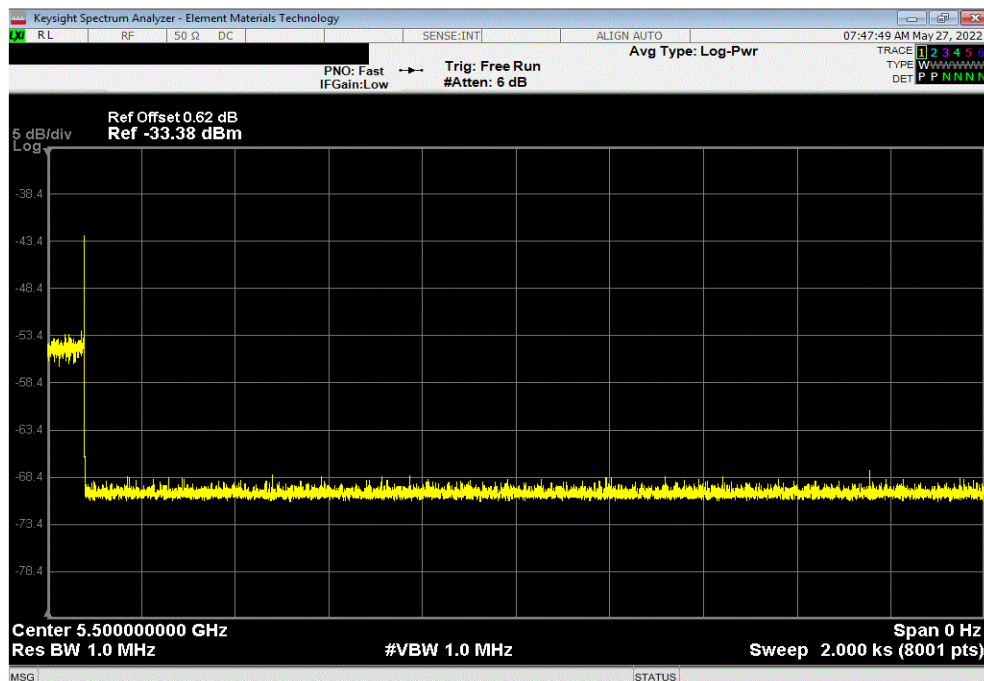
802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, 30min Non Occupancy Period

				Value	Limit	Result
				≥ 1800	≥ 1800	Pass



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch100, 5500 MHz, 30min Non Occupancy Period

				Value	Limit	Result
				≥ 1800	≥ 1800	Pass



DFS TESTING - STATISTICAL PERFORMANCE

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR
Block - DC	Fairview Microwave	SD3239	ANC	2022-03-02	2023-03-02
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Generator - Signal	Keysight	N5182B	TEV	2021-04-27	2024-04-27
Cable	UtiFlex Micro-Coax	UFD1150A-1-0720-200200	TXJ	2021-09-13	2022-09-13
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDI	2021-07-23	2022-07-23
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDF	2021-07-23	2022-07-23
Attenuator	Fairview Microwave	SA1501SMA	RKV	NCR	NCR
Attenuator	Fairview Microwave	SA1501SMA	RKW	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The master and client were connected using the conducted method described in the FCC KDB procedure via a series of splitters and attenuators which allows the radar signals to be injected and monitored. For master devices, the detection level was set prior to testing by temporarily replacing the master device with the analyzer and setting the power level according to Table 3 and Section 7.5. Where required, an approved Media file was streamed between the master and client or an alternative method to load the channel may be used instead. Channel loading requirements were also verified prior to testing. Configuration and status of the master and client devices were then monitored with the spectrum analyzer. Essentially, a move time test is performed on all the necessary radar types to make sure the master and client vacate the channel when a radar signal is injected. Numerous trials are performed for each radar type to establish a statistical analysis of detection probability, and the guidelines of section 7.8.4 of the procedure were used to calculate the data and determine if the results passed.

DFS TESTING - STATISTICAL PERFORMANCE



XMR 2022 02.07.0

EUT: CPE Device		Work Order: PCTE0022	
Serial Number: KRS0104C150T42GA-00001		Date: 13-Jun-22	
Customer: Seowon Intech Co., Ltd		Temperature: 22 °C	
Attendees: None		Humidity: 52.4% RH	
Project: None		Barometric Pres.: 1016 mbar	
Tested by: Brandon Hobbs		Power: 110VAC/60Hz	
		Job Site: TX05	
TEST SPECIFICATIONS			
FCC 15.407:2022		Test Method	
RSS-247 Issue 2:2017		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, KDB 662911 D01	
		ANSI C63.10:2013, KDB 789033, KDB 905462, RSS-Gen Issue 5:2018+A1:2019+A2:2021	
COMMENTS			
Losses seen in the measurement path were account for in the radar calibration leveling. Reference the DFS setup and master attenuation documentation for the attenuators used while under test. Port 1 was tested. Internal Attn was reduced for better dynamic range. Channel loading was achieved by streaming an FCC approved MP4 file across an IP network from master to client.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		Value	Limit
802.11a/n/ac, Band 5.3 GHz			
20 MHz Channel Bandwidth			
Ch.60, 5300 MHz			
	Radar Type 1 (A/B)	86.7%	60.0% Pass
	Radar Type 2	93.3%	60.0% Pass
	Radar Type 3	80.0%	60.0% Pass
	Radar Type 4	83.3%	60.0% Pass
	Radar Type 1-4 Summary	85.8%	80.0% Pass
	Radar Type 5	83.3%	80.0% Pass
	Radar Type 6	96.7%	70.0% Pass
802.11a/n/ac, Band 5.5 GHz			
20 MHz Channel Bandwidth			
Ch.100, 5500 MHz			
	Radar Type 1 (A/B)	83.3%	60.0% Pass
	Radar Type 2	90.0%	60.0% Pass
	Radar Type 3	93.3%	60.0% Pass
	Radar Type 4	80.0%	60.0% Pass
	Radar Type 1-4 Summary	86.7%	80.0% Pass
	Radar Type 5	100.0%	80.0% Pass
	Radar Type 6	93.3%	70.0% Pass

DFS TESTING - STATISTICAL PERFORMANCE



XMIT 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 1 (A/B)						
				Value	Limit	Result
				86.7%	60.0%	Pass

Trial #	Detected
0	PASS
1	PASS
2	PASS
3	PASS
4	PASS
5	FAIL
6	PASS
7	PASS
8	PASS
9	PASS
10	PASS
11	PASS
12	PASS
13	PASS
14	PASS
15	PASS
16	PASS
17	PASS
18	PASS
19	PASS
20	PASS
21	PASS
22	FAIL
23	PASS
24	PASS
25	PASS
26	PASS
27	FAIL
28	FAIL
29	PASS

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 2						
				Value	Limit	Result
				93.3%	60.0%	Pass

Trial #	Detected	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)
0	FAIL	3.2	179	26	4654
1	PASS	1.1	207	23	4761
2	FAIL	2.1	230	24	5520
3	PASS	4.8	200	29	5800
4	PASS	3.9	214	28	5992
5	PASS	2.9	222	26	5772
6	PASS	3.2	204	26	5304
7	PASS	2.5	192	25	4800
8	PASS	3.1	164	26	4264
9	PASS	1.2	156	23	3588
10	PASS	3.9	210	27	5670
11	PASS	4.6	201	29	5829
12	PASS	3.2	162	26	4212
13	PASS	2.2	197	25	4925
14	PASS	4.5	163	29	4727
15	PASS	3.0	203	26	5278
16	PASS	5.0	168	29	4872
17	PASS	2.4	217	25	5425
18	PASS	2.9	191	26	4966
19	PASS	2.3	166	25	4150
20	PASS	3.7	150	27	4050
21	PASS	2.2	176	25	4400
22	PASS	4.9	195	29	5655
23	PASS	2.9	202	26	5252
24	PASS	2.5	178	25	4450
25	PASS	1.1	206	23	4738
26	PASS	3.8	155	27	4185
27	PASS	4.7	157	29	4553
28	PASS	2.4	224	25	5600
29	PASS	4.2	159	28	4452

DFS TESTING - STATISTICAL PERFORMANCE



XMIT 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 3						
				Value	Limit	Result
				80.0%	60.0%	Pass
Trial #	Detected	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)	
0	FAIL	8.2	355	17	6035	
1	FAIL	6.1	487	16	7792	
2	PASS	7.1	344	16	5504	
3	PASS	9.8	288	18	5184	
4	PASS	8.9	230	18	4140	
5	PASS	7.9	432	17	7344	
6	PASS	8.2	207	17	3519	
7	PASS	7.5	443	17	7531	
8	PASS	8.1	439	17	7463	
9	PASS	6.2	223	16	3568	
10	FAIL	8.9	208	18	3744	
11	PASS	9.6	463	18	8334	
12	PASS	8.2	441	17	7497	
13	FAIL	7.2	323	16	5168	
14	PASS	9.5	297	18	5346	
15	PASS	8	412	17	7004	
16	PASS	10	324	18	5832	
17	PASS	7.4	271	17	4607	
18	FAIL	7.9	349	17	5933	
19	PASS	7.3	409	16	6544	
20	PASS	8.7	373	18	6714	
21	PASS	7.2	254	16	4064	
22	PASS	9.9	274	18	4932	
23	PASS	7.9	278	17	4726	
24	PASS	7.5	317	17	5389	
25	PASS	6.1	260	16	4160	
26	PASS	8.8	211	18	3798	
27	PASS	9.7	272	18	4896	
28	FAIL	7.4	264	17	4488	
29	PASS	9.2	284	18	5112	

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 4						
				Value	Limit	Result
				83.3%	60.0%	Pass
Trial #	Detected	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)	
0	PASS	16.0	355	14	4970	
1	PASS	11.3	487	12	5844	
2	PASS	13.5	344	13	4472	
3	PASS	19.4	288	16	4608	
4	PASS	17.5	230	15	3450	
5	PASS	15.3	432	14	6048	
6	PASS	15.9	207	14	2898	
7	PASS	14.3	443	13	5759	
8	FAIL	15.8	439	14	6146	
9	PASS	11.5	223	12	2676	
10	PASS	17.4	208	15	3120	
11	PASS	19.0	463	16	7408	
12	FAIL	16.0	441	14	6174	
13	PASS	13.8	323	13	4199	
14	PASS	18.9	297	16	4752	
15	FAIL	15.5	412	14	5768	
16	PASS	19.9	324	16	5184	
17	PASS	14.1	271	13	3523	
18	PASS	15.2	349	14	4886	
19	PASS	13.8	409	13	5317	
20	PASS	17.1	373	15	5595	
21	PASS	13.8	254	13	3302	
22	PASS	19.8	274	16	4384	
23	FAIL	15.3	278	14	3892	
24	PASS	14.5	317	13	4121	
25	PASS	11.3	260	12	3120	
26	FAIL	17.3	211	15	3165	
27	PASS	19.2	272	16	4352	
28	PASS	14.2	264	13	3432	
29	PASS	18.2	284	15	4260	

DFS TESTING - STATISTICAL PERFORMANCE



XMIT 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 1-4 Summary						
					Value	Limit
					85.8%	80.0%
						Result
						Pass

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 5						
					Value	Limit
					83.3%	80.0%
						Result
						Pass

Trial #	Detected
0	PASS
1	FAIL
2	FAIL
3	PASS
4	PASS
5	PASS
6	PASS
7	PASS
8	PASS
9	FAIL
10	PASS
11	PASS
12	PASS
13	FAIL
14	PASS
15	FAIL
16	PASS
17	PASS
18	PASS
19	PASS
20	PASS
21	PASS
22	PASS
23	PASS
24	PASS
25	PASS
26	PASS
27	PASS
28	PASS
29	PASS

DFS TESTING - STATISTICAL PERFORMANCE



XMIT 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 6						
				Value	Limit	Result
				96.7%	70.0%	Pass

Trial #	Detected
0	PASS
1	PASS
2	PASS
3	PASS
4	PASS
5	PASS
6	PASS
7	PASS
8	PASS
9	PASS
10	PASS
11	PASS
12	PASS
13	PASS
14	PASS
15	PASS
16	PASS
17	PASS
18	PASS
19	PASS
20	PASS
21	PASS
22	PASS
23	PASS
24	PASS
25	PASS
26	FAIL
27	PASS
28	PASS
29	PASS

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 1 (A/B)						
				Value	Limit	Result
				83.3%	60.0%	Pass

Trial #	Detected
0	PASS
1	PASS
2	PASS
3	FAIL
4	PASS
5	FAIL
6	PASS
7	PASS
8	PASS
9	PASS
10	PASS
11	PASS
12	PASS
13	PASS
14	PASS
15	PASS
16	FAIL
17	FAIL
18	PASS
19	PASS
20	PASS
21	PASS
22	PASS
23	PASS
24	PASS
25	PASS
26	PASS
27	PASS
28	FAIL
29	PASS

DFS TESTING - STATISTICAL PERFORMANCE



XMIT 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 2						
				Value	Limit	Result
				90.0%	60.0%	Pass
Trial #	Detected	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)	
0	PASS	3.2	179	26	4654	
1	PASS	1.1	207	23	4761	
2	PASS	2.1	230	24	5520	
3	FAIL	4.8	200	29	5800	
4	PASS	3.9	214	28	5992	
5	PASS	2.9	222	26	5772	
6	PASS	3.2	204	26	5304	
7	PASS	2.5	192	25	4800	
8	PASS	3.1	164	26	4264	
9	PASS	1.2	156	23	3588	
10	FAIL	3.9	210	27	5670	
11	PASS	4.6	201	29	5829	
12	PASS	3.2	162	26	4212	
13	PASS	2.2	197	25	4925	
14	PASS	4.5	163	29	4727	
15	PASS	3	203	26	5278	
16	PASS	5	168	29	4872	
17	FAIL	2.4	217	25	5425	
18	PASS	2.9	191	26	4966	
19	PASS	2.3	166	25	4150	
20	PASS	3.7	150	27	4050	
21	PASS	2.2	176	25	4400	
22	PASS	4.9	195	29	5655	
23	PASS	2.9	202	26	5252	
24	PASS	2.5	178	25	4450	
25	PASS	1.1	206	23	4738	
26	PASS	3.8	155	27	4185	
27	PASS	4.7	157	29	4553	
28	PASS	2.4	224	25	5600	
29	PASS	4.2	159	28	4452	

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 3						
				Value	Limit	Result
				93.3%	60.0%	Pass
Trial #	Detected	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)	
0	PASS	8.2	355	17	6035	
1	PASS	6.1	487	16	7792	
2	PASS	7.1	344	16	5504	
3	PASS	9.8	288	18	5184	
4	PASS	8.9	230	18	4140	
5	PASS	7.9	432	17	7344	
6	PASS	8.2	207	17	3519	
7	PASS	7.5	443	17	7531	
8	PASS	8.1	439	17	7463	
9	PASS	6.2	223	16	3568	
10	PASS	8.9	208	18	3744	
11	FAIL	9.6	463	18	8334	
12	PASS	8.2	441	17	7497	
13	PASS	7.2	323	16	5168	
14	FAIL	9.5	297	18	5346	
15	PASS	8.0	412	17	7004	
16	PASS	10.0	324	18	5832	
17	PASS	7.4	271	17	4607	
18	PASS	7.9	349	17	5933	
19	PASS	7.3	409	16	6544	
20	PASS	8.7	373	18	6714	
21	PASS	7.2	254	16	4064	
22	PASS	9.9	274	18	4932	
23	PASS	7.9	278	17	4726	
24	PASS	7.5	317	17	5389	
25	PASS	6.1	260	16	4160	
26	PASS	8.8	211	18	3798	
27	PASS	9.7	272	18	4896	
28	PASS	7.4	264	17	4488	
29	PASS	9.2	284	18	5112	

DFS TESTING - STATISTICAL PERFORMANCE



XMIT 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 4						
				Value	Limit	Result
				80.0%	60.0%	Pass
Trial #	Detected	Pulse Width (us)	PRI (us)	Number of Pulses	Waveform Length (us)	
0	PASS	16	355	14	4970	
1	PASS	11.3	487	12	5844	
2	PASS	13.5	344	13	4472	
3	PASS	19.4	288	16	4608	
4	FAIL	17.5	230	15	3450	
5	PASS	15.3	432	14	6048	
6	PASS	15.9	207	14	2898	
7	PASS	14.3	443	13	5759	
8	PASS	15.8	439	14	6146	
9	FAIL	11.5	223	12	2676	
10	FAIL	17.4	208	15	3120	
11	PASS	19	463	16	7408	
12	PASS	16	441	14	6174	
13	PASS	13.8	323	13	4199	
14	PASS	18.9	297	16	4752	
15	PASS	15.5	412	14	5768	
16	PASS	19.9	324	16	5184	
17	PASS	14.1	271	13	3523	
18	PASS	15.2	349	14	4886	
19	FAIL	13.8	409	13	5317	
20	PASS	17.1	373	15	5595	
21	PASS	13.8	254	13	3302	
22	PASS	19.8	274	16	4384	
23	FAIL	15.3	278	14	3892	
24	PASS	14.5	317	13	4121	
25	PASS	11.3	260	12	3120	
26	PASS	17.3	211	15	3165	
27	PASS	19.2	272	16	4352	
28	FAIL	14.2	264	13	3432	
29	PASS	18.2	284	15	4260	

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 1-4 Summary						
				Value	Limit	Result
				86.7%	80.0%	Pass

DFS TESTING - STATISTICAL PERFORMANCE



XMIT 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 5						
				Value	Limit	Result
				100.0%	80.0%	Pass

Trial #	Detected
0	PASS
1	PASS
2	PASS
3	PASS
4	PASS
5	PASS
6	PASS
7	PASS
8	PASS
9	PASS
10	PASS
11	PASS
12	PASS
13	PASS
14	PASS
15	PASS
16	PASS
17	PASS
18	PASS
19	PASS
20	PASS
21	PASS
22	PASS
23	PASS
24	PASS
25	PASS
26	PASS
27	PASS
28	PASS
29	PASS

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 6						
				Value	Limit	Result
				93.3%	70.0%	Pass

Trial #	Detected
0	PASS
1	PASS
2	PASS
3	PASS
4	PASS
5	PASS
6	FAIL
7	PASS
8	PASS
9	FAIL
10	PASS
11	PASS
12	PASS
13	PASS
14	PASS
15	PASS
16	PASS
17	PASS
18	PASS
19	PASS
20	PASS
21	PASS
22	PASS
23	PASS
24	PASS
25	PASS
26	PASS
27	PASS
28	PASS
29	PASS

DFS TESTING - STATISTICAL PERFORMANCE



XMR 2022 02.07.0

Trial # 0	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detectected PASS								
Number of Burst 15	0	636185	77.8	13	2	1665	1477	-
Burst Period (s) 0.8	1	32674	51.9	13	1	1074	-	-
WaveForm Length (s) 12	2	226294	63.8	13	1	1584	-	-
Center Frequency (GHz) 5.3	3	417976	96.6	13	3	1682	1786	1843
EUT Occupied Bandwidth (MHz) 20	4	611152	85.9	13	3	1795	1215	1729
	5	8789	73.7	13	2	1198	1549	-
	6	201917	77.2	13	2	1837	1819	-
	7	395530	68.4	13	2	1587	1114	-
	8	588564	76.7	13	2	2000	1155	-
	9	783794	53.2	13	1	1147	-	-
	10	177933	85.7	13	3	1433	1695	1394
	11	370624	94.3	13	3	1670	1426	1935
	12	564893	77.6	13	2	1294	1671	-
	13	759583	65.7	13	1	1512	-	-
	14	154262	93.5	13	3	1444	1130	1468

DFS TESTING - STATISTICAL PERFORMANCE



XMR 2022.02.07.0

Trial # 1	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected FAIL	0	653020	75	5	2	1880	1527	-
Number of Burst 8	1	1015643	99.4	5	3	1401	1262	1257
Burst Period (s) 1.5	2	1379398	67.4	5	2	1531	1403	-
WaveForm Length (s) 12	3	245489	73.6	5	2	1449	1041	-
Center Frequency (GHz) 5.3	4	609113	65.9	5	1	1432	-	-
EUT Occupied Bandwidth (MHz) 20	5	970852	83.8	5	3	1356	1292	1419
	6	1335913	65.5	5	1	1543	-	-
	7	200406	98.6	5	3	1548	1796	1728

DFS TESTING - STATISTICAL PERFORMANCE



XMR 2022.02.07.0

Trial # 2	Burst ID	Burst Offset	Pulse Width	Chirp Width	Number of Pulses	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detectected FAIL		(us)	(us)	(MHz)	Per Burst			
Number of Burst 11	0	409565	73.8	9	2	1806	1538	-
Burst Period (s) 1.0909	1	673692	69.5	9	2	1117	1649	-
WaveForm Length (s) 12	2	938562	51.9	9	1	1651	-	-
Center Frequency (GHz) 5.3	3	113209	84.6	9	3	1976	1032	1271
EUT Occupied Bandwidth (MHz) 20	4	376726	95.4	9	3	1060	1903	1388
	5	641212	68	9	2	1368	1351	-
	6	903714	89.6	9	3	1338	1514	1573
	7	80863	81.9	9	2	1022	1689	-
	8	344067	88.3	9	3	1810	1330	1838
	9	609331	53.7	9	1	1597	-	-
	10	871542	91.3	9	3	1961	1106	1001

DFS TESTING - STATISTICAL PERFORMANCE



XMR 2022.02.07.0

Trial # 3	Burst ID	Burst Offset	Pulse Width	Chirp Width	Number of Pulses	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detectected PASS		(us)	(us)	(MHz)	Per Burst			
Number of Burst 20	0	26541	68.1	19	2	1339	1355	-
Burst Period (s) 0.6	1	171821	58.7	19	1	1251	-	-
WaveForm Length (s) 12	2	316229	75.3	19	2	1136	1640	-
Center Frequency (GHz) 5.3	3	461864	56.4	19	1	1753	-	-
EUT Occupied Bandwidth (MHz) 20	4	8677	99.7	19	3	1196	1708	1159
	5	153995	57.7	19	1	1013	-	-
	6	299238	59.5	19	1	1072	-	-
	7	443177	80	19	2	1482	1369	-
	8	587671	82	19	2	1993	1197	-
	9	135674	82.8	19	2	1883	1005	-
	10	279928	88	19	3	1061	1928	1101
	11	424279	93.2	19	3	1207	1907	1223
	12	570132	70.4	19	2	1526	1360	-
	13	117439	95.3	19	3	1171	1955	1775
	14	262502	81.9	19	2	1690	1545	-
	15	406573	98.5	19	3	1975	1169	1062
	16	553328	65	19	1	1767	-	-
	17	99799	85.4	19	3	1011	1637	1425
	18	244095	91.6	19	3	1878	1445	1325
	19	390012	67.3	19	2	1091	1218	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 4	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	629614	67.9	16	2	1320	1133	-
Number of Burst 17	1	96856	62.3	16	1	1957	-	-
Burst Period (s) 0.7059	2	267719	53.3	16	1	1592	-	-
WaveForm Length (s) 12	3	436784	90	16	3	1900	1153	1346
Center Frequency (GHz) 5.3	4	608289	77.1	16	2	1166	1646	-
EUT Occupied Bandwidth (MHz) 20	5	75610	83.9	16	3	1278	1232	1459
	6	245638	89.1	16	3	1240	1384	1939
	7	416355	81.8	16	2	1833	1676	-
	8	588736	50.3	16	1	1075	-	-
	9	54571	87.1	16	3	1116	1996	1756
	10	225175	71.3	16	2	1225	1815	-
	11	394825	97.5	16	3	1884	1465	1132
	12	565361	90.6	16	3	1561	1040	1354
	13	33643	86.3	16	3	1596	1183	1792
	14	203957	97.6	16	3	1365	1073	1361
	15	373812	84.7	16	3	1021	1718	1854
	16	544060	99.7	16	3	1150	1244	1988

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 5	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	15438	92.9	12	3	1085	1564	1407
Number of Burst 14	1	222486	67.7	12	2	1744	1747	-
Burst Period (s) 0.8571	2	430731	65.8	12	1	1092	-	-
WaveForm Length (s) 12	3	637784	56.3	12	1	1851	-	-
Center Frequency (GHz) 5.3	4	845342	53.7	12	1	1727	-	-
EUT Occupied Bandwidth (MHz) 20	5	196720	83.5	12	3	1679	1930	1025
	6	404955	65.8	12	1	1519	-	-
	7	610711	85.9	12	3	1134	1034	1808
	8	818057	76.3	12	2	1606	1926	-
	9	171459	81.5	12	2	1891	1714	-
	10	377969	89.4	12	3	1310	1594	1827
	11	586875	63.4	12	1	1568	-	-
	12	792834	69.6	12	2	1307	1925	-
	13	146044	74.5	12	2	1264	1846	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 6	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	329022	96.6	13	3	1182	1609	1581
Number of Burst 15	1	521718	96.7	13	3	1829	1799	1154
Burst Period (s) 0.8	2	714222	86.5	13	3	1923	1396	1865
WaveForm Length (s) 12	3	112450	73.3	13	2	1908	1318	-
Center Frequency (GHz) 5.3	4	306283	55.8	13	1	1688	-	-
EUT Occupied Bandwidth (MHz) 20	5	500239	55.4	13	1	1145	-	-
	6	690932	85.3	13	3	1336	1504	1820
	7	88645	79.4	13	2	1344	1893	-
	8	282508	65.7	13	1	1476	-	-
	9	475842	68.6	13	2	1008	1028	-
	10	667887	77.7	13	2	1972	1835	-
	11	64845	79.6	13	2	1882	1331	-
	12	257755	94.9	13	3	1830	1070	1349
	13	452335	61.4	13	1	1451	-	-
	14	643395	90.6	13	3	1233	1562	1887

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 7	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	51446	52.6	10	1	1210	-	-
Number of Burst 12	1	292696	84.1	10	3	1314	1725	1529
Burst Period (s) 1	2	533989	97.7	10	3	1139	1868	1805
WaveForm Length (s) 12	3	775564	97.3	10	3	1341	1446	1755
Center Frequency (GHz) 5.3	4	21542	98.8	10	3	1544	1386	1302
EUT Occupied Bandwidth (MHz) 20	5	263385	72.2	10	2	1771	1184	-
	6	505581	67.6	10	2	1175	1027	-
	7	747058	75.7	10	2	1026	1871	-
	8	989976	60.9	10	1	1798	-	-
	9	234024	64.2	10	1	1138	-	-
	10	475207	78.8	10	2	1784	1604	-
	11	715825	87.5	10	3	1511	1712	1683

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 8	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	823112	54.1	13	1	1415	-	-
Number of Burst 14	1	174965	50.7	13	1	1221	-	-
Burst Period (s) 0.8571	2	382216	52.3	13	1	1974	-	-
WaveForm Length (s) 12	3	587395	99.8	13	3	1558	1696	1949
Center Frequency (GHz) 5.3	4	796897	68.4	13	2	1014	1099	-
EUT Occupied Bandwidth (MHz) 20	5	149042	80.8	13	2	1736	1505	-
	6	356750	62.5	13	1	1778	-	-
	7	563824	74.8	13	2	1149	1204	-
	8	772314	50.8	13	1	1049	-	-
	9	123796	54	13	1	1417	-	-
	10	331215	63	13	1	1730	-	-
	11	537402	91.8	13	3	1143	1270	1347
	12	744805	79.3	13	2	1274	1992	-
	13	98172	64.3	13	1	1937	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 9	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected FAIL	0	535615	63.4	6	1	1043	-	-
Number of Burst 8	1	898668	52	6	1	1863	-	-
Burst Period (s) 1.5	2	1259235	97.2	6	3	1973	1605	1583
WaveForm Length (s) 12	3	127106	78.7	6	2	1466	1743	-
Center Frequency (GHz) 5.3	4	490358	74.2	6	2	1280	1219	-
EUT Occupied Bandwidth (MHz) 20	5	852409	88.7	6	3	1293	1934	1273
	6	1217152	54.3	6	1	1991	-	-
	7	82296	95.4	6	3	1580	1555	1791

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 10	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	209249	73.7	16	2	1208	1497	-
Number of Burst 17	1	378386	97.4	16	3	1942	1754	1613
Burst Period (s) 0.7059	2	548411	91.7	16	3	1999	1702	1462
WaveForm Length (s) 12	3	177733	66.2	16	1	1393	-	-
Center Frequency (GHz) 5.296	4	187952	70.8	16	2	1968	1821	-
EUT Occupied Bandwidth (MHz) 20	5	359277	52.3	16	1	1740	-	-
	6	528886	78.9	16	2	1308	1984	-
	7	700166	70.9	16	2	1050	1358	-
	8	167197	75.6	16	2	1437	1430	-
	9	338262	59.1	16	1	1697	-	-
	10	508324	77	16	2	1397	1304	-
	11	678689	67.9	16	2	1803	1083	-
	12	146031	81.2	16	2	1720	1932	-
	13	316923	78.7	16	2	1247	1121	-
	14	488056	63.3	16	1	1634	-	-
	15	657326	68.9	16	2	1849	1423	-
	16	125509	59.3	16	1	1093	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 11	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	263736	98.9	19	3	1381	1690	1488
Number of Burst 19	1	416459	82.3	19	2	1716	1855	-
Burst Period (s) 0.6316	2	567902	86.7	19	3	1211	1400	1919
WaveForm Length (s) 12	3	92979	89.7	19	3	1861	1068	1282
Center Frequency (GHz) 5.298	4	245155	98.6	19	3	1507	1194	1461
EUT Occupied Bandwidth (MHz) 20	5	397609	71.1	19	2	1921	1789	-
	6	551431	55.9	19	1	1947	-	-
	7	74413	67.9	19	2	1350	1372	-
	8	226559	84.4	19	3	1203	1107	1443
	9	380056	58.8	19	1	1715	-	-
	10	533408	65.6	19	1	1017	-	-
	11	55547	78.5	19	2	1911	1704	-
	12	207876	82.3	19	2	1845	1686	-
	13	359771	90.1	19	3	1938	1071	1266
	14	511297	90.2	19	3	1989	1089	1950
	15	36803	83.1	19	2	1943	1406	-
	16	189652	58.8	19	1	1742	-	-
	17	341809	77	19	2	1187	1657	-
	18	495737	55	19	1	1012	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 12	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	22911	58.1	13	1	1929	-	-
Number of Burst 15	1	216473	52.1	13	1	1910	-	-
Burst Period (s) 0.8	2	410004	59.9	13	1	1971	-	-
WaveForm Length (s) 12	3	603671	60.2	13	1	1812	-	-
Center Frequency (GHz) 5.295	4	794160	95.9	13	3	1399	1906	1608
EUT Occupied Bandwidth (MHz) 20	5	192251	79.9	13	2	1626	1859	-
	6	385590	78.5	13	2	1238	1917	-
	7	579862	53.8	13	1	1763	-	-
	8	773423	64.7	13	1	1800	-	-
	9	168898	61.4	13	1	1390	-	-
	10	361606	83.2	13	2	1692	1858	-
	11	553866	84.7	13	3	1533	1677	1638
	12	747241	88.7	13	3	1703	1528	1058
	13	144710	78.3	13	2	1258	1951	-
	14	337856	69.3	13	2	1731	1717	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 13 Detected FAIL	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Number of Burst 12	0	664275	75.3	10	2	1994	1612	-
Burst Period (s) 1	1	907886	56.3	10	1	1456	-	-
WaveForm Length (s) 12	2	151316	67.7	10	2	1617	1185	-
Center Frequency (GHz) 5.294	3	393746	55.6	10	1	1337	-	-
EUT Occupied Bandwidth (MHz) 20	4	635093	75.2	10	2	1421	1267	-
	5	876993	76.3	10	2	1359	1305	-
	6	121278	85.7	10	3	1547	1362	1924
	7	362696	98.4	10	3	1873	1550	1249
	8	604342	86.4	10	3	1779	1439	1046
	9	846453	93.6	10	3	1059	1031	1452
	10	91871	63.3	10	1	1328	-	-
	11	333050	92.4	10	3	1412	1673	1322

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 14	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	361323	93.3	18	3	1983	1912	1535
Number of Burst 19	1	515261	69.1	18	2	1102	1794	-
Burst Period (s) 0.6316	2	39025	86.9	18	3	1044	1152	1148
WaveForm Length (s) 12	3	190900	84.9	18	3	1894	1948	1118
Center Frequency (GHz) 5.297	4	343941	72.3	18	2	1094	1916	-
EUT Occupied Bandwidth (MHz) 20	5	497624	51.7	18	1	1447	-	-
	6	20319	58.3	18	1	1429	-	-
	7	172999	60.8	18	1	1979	-	-
	8	325872	57.1	18	1	1641	-	-
	9	475841	88.9	18	3	1886	1964	1489
	10	1489	72	18	2	1909	1297	-
	11	153647	90.9	18	3	1261	1566	1370
	12	307096	59.8	18	1	1552	-	-
	13	458804	70	18	2	1759	1291	-
	14	610798	67.2	18	2	1625	1881	-
	15	134759	91.2	18	3	1382	1832	1661
	16	288306	56.5	18	1	1483	-	-
	17	441296	51.2	18	1	1237	-	-
	18	592780	74.1	18	2	1471	1245	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 15	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected FAIL	0	158286	76.9	12	2	1110	1140	-
Number of Burst 14	1	366024	50.2	12	1	1316	-	-
Burst Period (s) 0.8571	2	573452	62.9	12	1	1520	-	-
WaveForm Length (s) 12	3	780619	64.7	12	1	1902	-	-
Center Frequency (GHz) 5.295	4	132455	83.8	12	3	1410	1097	1621
EUT Occupied Bandwidth (MHz) 20	5	340207	65.4	12	1	1944	-	-
	6	548208	53.2	12	1	1024	-	-
	7	755333	51.7	12	1	1603	-	-
	8	107117	78.7	12	2	1804	1168	-
	9	314500	72.4	12	2	1030	1343	-
	10	522447	53.8	12	1	1327	-	-
	11	728517	73.6	12	2	1524	1553	-
	12	81611	66.7	12	2	1722	1122	-
	13	288948	82.5	12	2	1404	1019	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 16	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	345766	87.6	20	3	1565	1055	1840
Number of Burst 20	1	490019	85.2	20	3	1735	1541	1408
Burst Period (s) 0.6	2	39073	84.8	20	3	1534	1889	1463
WaveForm Length (s) 12	3	183923	77.9	20	2	1749	1460	-
Center Frequency (GHz) 5.298	4	328777	76.5	20	2	1518	1485	-
EUT Occupied Bandwidth (MHz) 20	5	474728	60.9	20	1	1540	-	-
	6	21394	83	20	2	1080	1010	-
	7	165992	80.4	20	2	1824	1752	-
	8	310973	67.5	20	2	1764	1181	-
	9	456884	62.1	20	1	1495	-	-
	10	3515	86.4	20	3	1773	1966	1263
	11	147928	84.3	20	3	1593	1188	1788
	12	293225	76.9	20	2	1226	1537	-
	13	436922	95.8	20	3	1192	1298	1844
	14	584015	55.2	20	1	1644	-	-
	15	130832	59	20	1	1402	-	-
	16	274684	94.5	20	3	1296	1700	1283
	17	418579	91.9	20	3	1970	1978	1165
	18	563464	85.2	20	3	1732	1551	1189
	19	112787	69.5	20	2	1038	1224	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 17	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	429224	86.4	10	3	1259	1918	1455
Number of Burst 12	1	670241	92.2	10	3	1598	1719	1895
Burst Period (s) 1	2	912880	80.4	10	2	1816	1899	-
WaveForm Length (s) 12	3	158603	54.3	10	1	1335	-	-
Center Frequency (GHz) 5.294	4	400824	53.1	10	1	1303	-	-
EUT Occupied Bandwidth (MHz) 20	5	641915	69.4	10	2	1503	1546	-
	6	883823	69.1	10	2	1279	1639	-
	7	128373	100	10	3	1375	1438	1595
	8	370379	79.6	10	2	1239	1705	-
	9	611194	88.4	10	3	1374	1579	1623
	10	855665	53.3	10	1	1016	-	-
	11	98897	65.3	10	1	1709	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 18	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	292143	55.3	12	1	1920	-	-
Number of Burst 14	1	499633	58.3	12	1	1797	-	-
Burst Period (s) 0.8571	2	706377	72.3	12	2	1610	1039	-
WaveForm Length (s) 12	3	58989	84.8	12	3	1131	1761	1721
Center Frequency (GHz) 5.295	4	266161	82.5	12	2	1875	1431	-
EUT Occupied Bandwidth (MHz) 20	5	474469	63.3	12	1	1095	-	-
	6	680544	80	12	2	1119	1913	-
	7	33519	90.3	12	3	1660	1853	1123
	8	240319	91.1	12	3	1539	1783	1172
	9	447400	96.6	12	3	1525	1036	1385
	10	654516	82.7	12	2	1710	1990	-
	11	8083	50.7	12	1	1234	-	-
	12	215435	78.4	12	2	1047	1109	-
	13	421325	99.5	12	3	1299	1965	1869

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 19 Detected PASS	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Number of Burst 12	0	733725	88.6	10	3	1501	1067	1927
Burst Period (s) 1	1	977882	57.4	10	1	1723	-	-
WaveForm Length (s) 12	2	221197	96.6	10	3	1086	1658	1324
Center Frequency (GHz) 5.294	3	462915	69.7	10	2	1751	1945	-
EUT Occupied Bandwidth (MHz) 20	4	705071	77.9	10	2	1642	1317	-
	5	947923	62	10	1	1866	-	-
	6	191373	88.4	10	3	1997	1077	1366
	7	432561	97.3	10	3	1790	1896	1367
	8	674004	96.2	10	3	1391	1787	1672
	9	915842	95.4	10	3	1020	1892	1414
	10	162176	54.8	10	1	1084	-	-
	11	403553	80.4	10	2	1850	1436	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 20	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	483470	74.7	15	2	1619	1611	-
Number of Burst 16	1	666072	57.1	15	1	1560	-	-
Burst Period (s) 0.75	2	98810	91.9	15	3	1392	1475	1276
WaveForm Length (s) 12	3	279914	83.1	15	2	1809	1772	-
Center Frequency (GHz) 5.304	4	462536	50.7	15	1	1003	-	-
EUT Occupied Bandwidth (MHz) 20	5	642324	79.2	15	2	1574	1600	-
	6	76831	58.7	15	1	1186	-	-
	7	257785	71	15	2	1521	1567	-
	8	438554	79	15	2	1777	1960	-
	9	620397	68.5	15	2	1284	1428	-
	10	54310	73.5	15	2	1904	1352	-
	11	235506	70.5	15	2	1864	1115	-
	12	417036	76.6	15	2	1045	1300	-
	13	597974	81.2	15	2	1160	1675	-
	14	32086	61.8	15	1	1277	-	-
	15	212751	94.9	15	3	1450	1206	1860

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 21	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	526149	78.5	9	2	1653	1698	-
Number of Burst 12	1	767135	89.8	9	3	1174	1962	1167
Burst Period (s) 1	2	12955	59.4	9	1	1982	-	-
WaveForm Length (s) 12	3	254612	79.6	9	2	1633	1890	-
Center Frequency (GHz) 5.306	4	496588	76	9	2	1112	1811	-
EUT Occupied Bandwidth (MHz) 20	5	739728	53.6	9	1	1144	-	-
	6	980872	80.9	9	2	1220	1053	-
	7	225249	61.6	9	1	1724	-	-
	8	467279	53.4	9	1	1901	-	-
	9	709720	59.9	9	1	1379	-	-
	10	951847	60.4	9	1	1453	-	-
	11	194839	91.4	9	3	1768	1726	1227

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 22 Detected PASS	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Number of Burst 20	0	261858	77	20	2	1191	1363	-
Burst Period (s) 0.6	1	407646	58.1	20	1	1248	-	-
WaveForm Length (s) 12	2	552319	62.1	20	1	1836	-	-
Center Frequency (GHz) 5.302	3	99107	76.9	20	2	1334	1236	-
EUT Occupied Bandwidth (MHz) 20	4	243514	80	20	2	1914	1852	-
	5	389464	52	20	1	1701	-	-
	6	531093	88.6	20	3	1693	1995	1905
	7	81159	72.9	20	2	1922	1387	-
	8	225245	98.5	20	3	1839	1746	1389
	9	371906	57.9	20	1	1193	-	-
	10	514197	95.9	20	3	1659	1870	1066
	11	63561	53.5	20	1	1162	-	-
	12	207510	92	20	3	1745	1654	1458
	13	353638	57.3	20	1	1834	-	-
	14	497515	70.5	20	2	1684	1586	-
	15	45553	70	20	2	1042	1664	-
	16	189821	84	20	3	1765	1630	1176
	17	335330	76.1	20	2	1557	1057	-
	18	478825	93.2	20	3	1985	1018	1340
	19	27594	96.8	20	3	1760	1614	1817

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022 02.07.0

Trial # 23	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	247117	50.1	12	1	1841	-	-
Number of Burst 14	1	453362	93.5	12	3	1590	1081	1413
Burst Period (s) 0.8571	2	660875	68.8	12	2	1707	1577	-
WaveForm Length (s) 12	3	14140	56.3	12	1	1056	-	-
Center Frequency (GHz) 5.305	4	220734	86	12	3	1953	1108	1987
EUT Occupied Bandwidth (MHz) 20	5	428367	75.2	12	2	1572	1536	-
	6	636681	54.4	12	1	1517	-	-
	7	843157	71.1	12	2	1329	1243	-
	8	195585	76.2	12	2	1940	1770	-
	9	403231	80.2	12	2	1098	1209	-
	10	610202	79.7	12	2	1588	1214	-
	11	815229	90.9	12	3	1615	1862	1601
	12	170267	68.7	12	2	1377	1441	-
	13	377306	67.4	12	2	1872	1313	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 24 Detected PASS	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Number of Burst 13	0	628071	94	11	3	1643	1748	1941
Burst Period (s) 0.923	1	853391	70.8	11	2	1177	1201	-
WaveForm Length (s) 12	2	156223	56.3	11	1	1006	-	-
Center Frequency (GHz) 5.306	3	378734	96.7	11	3	1230	1163	1332
EUT Occupied Bandwidth (MHz) 20	4	601331	90.6	11	3	1217	1582	1498
	5	825462	74.5	11	2	1569	1281	-
	6	128265	92.6	11	3	1065	1669	1222
	7	351161	89	11	3	1493	1135	1380
	8	573425	96.5	11	3	1607	1822	1602
	9	798431	70.5	11	2	1141	1178	-
	10	100737	94	11	3	1009	1629	1956
	11	324661	55.8	11	1	1290	-	-
	12	546278	87.7	11	3	1435	1963	1164

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 25	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	1253842	68.6	5	2	1306	1161	-
Number of Burst 8	1	119486	83.1	5	2	1420	1315	-
Burst Period (s) 1.5	2	482958	60.9	5	1	1687	-	-
WaveForm Length (s) 12	3	845641	77.7	5	2	1776	1158	-
Center Frequency (GHz) 5.308	4	1208428	77.4	5	2	1793	1510	-
EUT Occupied Bandwidth (MHz) 20	5	74748	66.8	5	2	1576	1323	-
	6	438300	63.7	5	1	1333	-	-
	7	800152	91.2	5	3	1409	1681	1275

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 26	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	545865	83.6	16	3	1632	1195	1000
Number of Burst 17	1	14067	89.4	16	3	1173	1627	1656
Burst Period (s) 0.7059	2	184953	55.8	16	1	1532	-	-
WaveForm Length (s) 12	3	353759	90.9	16	3	1981	1554	1998
Center Frequency (GHz) 5.304	4	526388	54.7	16	1	1825	-	-
EUT Occupied Bandwidth (MHz) 20	5	694806	97.7	16	3	1734	1202	1250
	6	163568	67.5	16	2	1571	1434	-
	7	333410	96.7	16	3	1589	1469	1268
	8	504006	68.3	16	2	1750	1954	-
	9	675297	78.3	16	2	1591	1082	-
	10	142890	55	16	1	1427	-	-
	11	312479	84.9	16	3	1129	1936	1199
	12	482953	74.6	16	2	1959	1856	-
	13	655022	63.3	16	1	1885	-	-
	14	121457	99.8	16	3	1035	1515	1120
	15	292606	63.6	16	1	1647	-	-
	16	461322	87.3	16	3	1931	1051	1831

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 27	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	565136	85.6	19	3	1946	1078	1015
Number of Burst 19	1	89970	68.6	19	2	1029	1780	-
Burst Period (s) 0.6316	2	243121	54.2	19	1	1111	-	-
WaveForm Length (s) 12	3	396034	61.2	19	1	1104	-	-
Center Frequency (GHz) 5.302	4	546225	97.1	19	3	1157	1969	1100
EUT Occupied Bandwidth (MHz) 20	5	70998	98.3	19	3	1142	1699	1622
	6	224093	62.4	19	1	1655	-	-
	7	376127	80.2	19	2	1126	1769	-
	8	527806	87.5	19	3	1216	1448	1179
	9	52247	85.8	19	3	1847	1348	1472
	10	204582	88.1	19	3	1023	1124	1631
	11	357941	65.3	19	1	1848	-	-
	12	510977	52.5	19	1	1470	-	-
	13	33698	52.3	19	1	1312	-	-
	14	186023	74.1	19	2	1915	1200	-
	15	339327	54.9	19	1	1479	-	-
	16	491053	76.2	19	2	1376	1502	-
	17	14858	60.4	19	1	1758	-	-
	18	167387	81.5	19	2	1491	1103	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 28	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	507709	50.5	10	1	1857	-	-
Number of Burst 12	1	750249	55.7	10	1	1246	-	-
Burst Period (s) 1	2	989003	85.8	10	3	1774	1002	1967
WaveForm Length (s) 12	3	235634	76.9	10	2	1125	1474	-
Center Frequency (GHz) 5.306	4	477675	75.1	10	2	1254	1052	-
EUT Occupied Bandwidth (MHz) 20	5	718312	92.3	10	3	1180	1486	1492
	6	960895	78.1	10	2	1301	1757	-
	7	205370	92.2	10	3	1898	1252	1713
	8	446940	89	10	3	1260	1706	1411
	9	689225	70.9	10	2	1578	1620	-
	10	932305	63.1	10	1	1782	-	-
	11	176231	55.3	10	1	1522	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 29	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	277485	83.4	17	3	1454	1205	1801
Number of Burst 18	1	437880	97.3	17	3	1319	1826	1635
Burst Period (s) 0.6667	2	598445	90.4	17	3	1079	1986	1674
WaveForm Length (s) 12	3	97088	91.8	17	3	1563	1151	1802
Center Frequency (GHz) 5.303	4	257251	98.2	17	3	1876	1977	1766
EUT Occupied Bandwidth (MHz) 20	5	419893	59.5	17	1	1952	-	-
	6	580724	80	17	2	1253	1137	-
	7	77366	86.5	17	3	1054	1128	1828
	8	238032	91.1	17	3	1105	1599	1442
	9	398605	93.5	17	3	1867	1373	1087
	10	562025	60.7	17	1	1033	-	-
	11	57684	67.2	17	2	1288	1405	-
	12	219083	61.8	17	1	1585	-	-
	13	379234	79.4	17	2	1933	1667	-
	14	540896	81.4	17	2	1096	1464	-
	15	37916	65.7	17	1	1496	-	-
	16	198794	76	17	2	1733	1255	-
	17	359754	81	17	2	1326	1668	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 0	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	636185	77.8	13	2	1665	1477	-
Number of Burst 15	1	32674	51.9	13	1	1074	-	-
Burst Period (s) 0.8	2	226294	63.8	13	1	1584	-	-
WaveForm Length (s) 12	3	417976	96.6	13	3	1682	1786	1843
Center Frequency (GHz) 5.5	4	611152	85.9	13	3	1795	1215	1729
EUT Occupied Bandwidth (MHz) 20	5	8789	73.7	13	2	1198	1549	-
	6	201917	77.2	13	2	1837	1819	-
	7	395530	68.4	13	2	1587	1114	-
	8	588564	76.7	13	2	2000	1155	-
	9	783794	53.2	13	1	1147	-	-
	10	177933	85.7	13	3	1433	1695	1394
	11	370624	94.3	13	3	1670	1426	1935
	12	564893	77.6	13	2	1294	1671	-
	13	759583	65.7	13	1	1512	-	-
	14	154262	93.5	13	3	1444	1130	1468

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 1	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	653020	75	5	2	1880	1527	-
Number of Burst 8	1	1015643	99.4	5	3	1401	1262	1257
Burst Period (s) 1.5	2	1379398	67.4	5	2	1531	1403	-
WaveForm Length (s) 12	3	245489	73.6	5	2	1449	1041	-
Center Frequency (GHz) 5.5	4	609113	65.9	5	1	1432	-	-
EUT Occupied Bandwidth (MHz) 20	5	970852	83.8	5	3	1356	1292	1419
	6	1335913	65.5	5	1	1543	-	-
	7	200406	98.6	5	3	1548	1796	1728

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 2	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	409565	73.8	9	2	1806	1538	-
Number of Burst 11	1	673692	69.5	9	2	1117	1649	-
Burst Period (s) 1.0909	2	938562	51.9	9	1	1651	-	-
WaveForm Length (s) 12	3	113209	84.6	9	3	1976	1032	1271
Center Frequency (GHz) 5.5	4	376726	95.4	9	3	1060	1903	1388
EUT Occupied Bandwidth (MHz) 20	5	641212	68	9	2	1368	1351	-
	6	903714	89.6	9	3	1338	1514	1573
	7	80863	81.9	9	2	1022	1689	-
	8	344067	88.3	9	3	1810	1330	1838
	9	609331	53.7	9	1	1597	-	-
	10	871542	91.3	9	3	1961	1106	1001

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 3	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	26541	68.1	19	2	1339	1355	-
Number of Burst 20	1	171921	58.7	19	1	1251	-	-
Burst Period (s) 0.6	2	316229	75.3	19	2	1136	1640	-
WaveForm Length (s) 12	3	461864	56.4	19	1	1753	-	-
Center Frequency (GHz) 5.5	4	8677	99.7	19	3	1196	1708	1159
EUT Occupied Bandwidth (MHz) 20	5	153995	57.7	19	1	1013	-	-
	6	299238	59.5	19	1	1072	-	-
	7	443177	80	19	2	1482	1369	-
	8	587671	82	19	2	1993	1197	-
	9	135674	82.8	19	2	1883	1005	-
	10	279928	88	19	3	1061	1928	1101
	11	424279	93.2	19	3	1207	1907	1223
	12	570132	70.4	19	2	1526	1360	-
	13	117439	95.3	19	3	1171	1955	1775
	14	262502	81.9	19	2	1690	1545	-
	15	406573	98.5	19	3	1975	1169	1062
	16	553328	65	19	1	1767	-	-
	17	99799	85.4	19	3	1011	1637	1425
	18	244095	91.6	19	3	1878	1445	1325
	19	390012	67.3	19	2	1091	1218	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 4	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	629614	67.9	16	2	1320	1133	-
Number of Burst 17	1	96856	62.3	16	1	1957	-	-
Burst Period (s) 0.7059	2	267719	53.3	16	1	1592	-	-
WaveForm Length (s) 12	3	436784	90	16	3	1900	1153	1346
Center Frequency (GHz) 5.5	4	608289	77.1	16	2	1166	1646	-
EUT Occupied Bandwidth (MHz) 20	5	75610	83.9	16	3	1278	1232	1459
	6	245638	89.1	16	3	1240	1384	1939
	7	416355	81.8	16	2	1833	1676	-
	8	588736	50.3	16	1	1075	-	-
	9	54571	87.1	16	3	1116	1996	1756
	10	225175	71.3	16	2	1225	1815	-
	11	394825	97.5	16	3	1884	1465	1132
	12	565361	90.6	16	3	1561	1040	1354
	13	33643	86.3	16	3	1596	1183	1792
	14	203957	97.6	16	3	1365	1073	1361
	15	373812	84.7	16	3	1021	1718	1854
	16	544060	99.7	16	3	1150	1244	1988

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 5	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	15438	92.9	12	3	1085	1564	1407
Number of Burst 14	1	222486	67.7	12	2	1744	1747	-
Burst Period (s) 0.8571	2	430731	65.8	12	1	1092	-	-
WaveForm Length (s) 12	3	637784	56.3	12	1	1851	-	-
Center Frequency (GHz) 5.5	4	845342	53.7	12	1	1727	-	-
EUT Occupied Bandwidth (MHz) 20	5	196720	83.5	12	3	1679	1930	1025
	6	404955	65.8	12	1	1519	-	-
	7	610711	85.9	12	3	1134	1034	1808
	8	818057	76.3	12	2	1606	1926	-
	9	171459	81.5	12	2	1891	1714	-
	10	377969	89.4	12	3	1310	1594	1827
	11	586875	63.4	12	1	1568	-	-
	12	792834	69.6	12	2	1307	1925	-
	13	146044	74.5	12	2	1264	1846	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 6	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	329022	96.6	13	3	1182	1609	1581
Number of Burst 15	1	521718	96.7	13	3	1829	1799	1154
Burst Period (s) 0.8	2	714222	86.5	13	3	1923	1396	1865
WaveForm Length (s) 12	3	112450	73.3	13	2	1908	1318	-
Center Frequency (GHz) 5.5	4	306283	55.8	13	1	1688	-	-
EUT Occupied Bandwidth (MHz) 20	5	500239	55.4	13	1	1145	-	-
	6	690932	85.3	13	3	1336	1504	1820
	7	88645	79.4	13	2	1344	1893	-
	8	282508	65.7	13	1	1476	-	-
	9	475842	68.6	13	2	1008	1028	-
	10	667887	77.7	13	2	1972	1835	-
	11	64845	79.6	13	2	1882	1331	-
	12	257755	94.9	13	3	1830	1070	1349
	13	452335	61.4	13	1	1451	-	-
	14	643395	90.6	13	3	1233	1562	1887

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 7	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	51446	52.6	10	1	1210	-	-
Number of Burst 12	1	292696	84.1	10	3	1314	1725	1529
Burst Period (s) 1	2	533989	97.7	10	3	1139	1868	1805
WaveForm Length (s) 12	3	775564	97.3	10	3	1341	1446	1755
Center Frequency (GHz) 5.5	4	21542	98.8	10	3	1544	1386	1302
EUT Occupied Bandwidth (MHz) 20	5	263385	72.2	10	2	1771	1184	-
	6	505581	67.6	10	2	1175	1027	-
	7	747058	75.7	10	2	1026	1871	-
	8	989976	60.9	10	1	1798	-	-
	9	234024	64.2	10	1	1138	-	-
	10	475207	78.8	10	2	1784	1604	-
	11	715825	87.5	10	3	1511	1712	1683

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 8	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	823112	54.1	13	1	1415	-	-
Number of Burst 14	1	174965	50.7	13	1	1221	-	-
Burst Period (s) 0.8571	2	382216	52.3	13	1	1974	-	-
WaveForm Length (s) 12	3	587395	99.8	13	3	1558	1696	1949
Center Frequency (GHz) 5.5	4	796897	68.4	13	2	1014	1099	-
EUT Occupied Bandwidth (MHz) 20	5	149042	80.8	13	2	1736	1505	-
	6	356750	62.5	13	1	1778	-	-
	7	563824	74.8	13	2	1149	1204	-
	8	772314	50.8	13	1	1049	-	-
	9	123796	54	13	1	1417	-	-
	10	331215	63	13	1	1730	-	-
	11	537402	91.8	13	3	1143	1270	1347
	12	744805	79.3	13	2	1274	1992	-
	13	98172	64.3	13	1	1937	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 9	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	535615	63.4	6	1	1043	-	-
Number of Burst 8	1	898668	52	6	1	1863	-	-
Burst Period (s) 1.5	2	1259235	97.2	6	3	1973	1605	1583
WaveForm Length (s) 12	3	127106	78.7	6	2	1466	1743	-
Center Frequency (GHz) 5.496	4	490358	74.2	6	2	1280	1219	-
EUT Occupied Bandwidth (MHz) 20	5	852409	88.7	6	3	1293	1934	1273
	6	1217152	54.3	6	1	1991	-	-
	7	82296	95.4	6	3	1580	1555	1791

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 10	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	209249	73.7	16	2	1208	1497	-
Number of Burst 17	1	378386	97.4	16	3	1942	1754	1613
Burst Period (s) 0.7059	2	548411	91.7	16	3	1999	1702	1462
WaveForm Length (s) 12	3	177733	66.2	16	1	1393	-	-
Center Frequency (GHz) 5.496	4	187952	70.8	16	2	1968	1821	-
EUT Occupied Bandwidth (MHz) 20	5	359277	52.3	16	1	1740	-	-
	6	528886	78.9	16	2	1308	1984	-
	7	700166	70.9	16	2	1050	1358	-
	8	167197	75.6	16	2	1437	1430	-
	9	338262	59.1	16	1	1697	-	-
	10	508324	77	16	2	1397	1304	-
	11	678689	67.9	16	2	1803	1083	-
	12	146031	81.2	16	2	1720	1932	-
	13	316923	78.7	16	2	1247	1121	-
	14	488056	63.3	16	1	1634	-	-
	15	657326	68.9	16	2	1849	1423	-
	16	125509	59.3	16	1	1093	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 11	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	263736	98.9	19	3	1381	1690	1488
Number of Burst 19	1	416459	82.3	19	2	1716	1855	-
Burst Period (s) 0.6316	2	567902	86.7	19	3	1211	1400	1919
WaveForm Length (s) 12	3	92979	89.7	19	3	1861	1068	1282
Center Frequency (GHz) 5.498	4	245155	98.6	19	3	1507	1194	1461
EUT Occupied Bandwidth (MHz) 20	5	397609	71.1	19	2	1921	1789	-
	6	551431	55.9	19	1	1947	-	-
	7	74413	67.9	19	2	1350	1372	-
	8	226559	84.4	19	3	1203	1107	1443
	9	380056	58.8	19	1	1715	-	-
	10	533408	65.6	19	1	1017	-	-
	11	55547	78.5	19	2	1911	1704	-
	12	207876	82.3	19	2	1845	1686	-
	13	359771	90.1	19	3	1938	1071	1266
	14	511297	90.2	19	3	1989	1089	1950
	15	36803	83.1	19	2	1943	1406	-
	16	189652	58.8	19	1	1742	-	-
	17	341809	77	19	2	1187	1657	-
	18	495737	55	19	1	1012	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 12	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	22911	58.1	13	1	1929	-	-
Number of Burst 15	1	216473	52.1	13	1	1910	-	-
Burst Period (s) 0.8	2	410004	59.9	13	1	1971	-	-
WaveForm Length (s) 12	3	603671	60.2	13	1	1812	-	-
Center Frequency (GHz) 5.495	4	794160	95.9	13	3	1399	1906	1608
EUT Occupied Bandwidth (MHz) 20	5	192251	79.9	13	2	1626	1859	-
	6	385590	78.5	13	2	1238	1917	-
	7	579862	53.8	13	1	1763	-	-
	8	773423	64.7	13	1	1800	-	-
	9	168898	61.4	13	1	1390	-	-
	10	361606	83.2	13	2	1692	1858	-
	11	553866	84.7	13	3	1533	1677	1638
	12	747241	88.7	13	3	1703	1528	1058
	13	144710	78.3	13	2	1258	1951	-
	14	337856	69.3	13	2	1731	1717	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 13 Detected PASS	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Number of Burst 12	0	664275	75.3	10	2	1994	1612	-
Burst Period (s) 1	1	907886	56.3	10	1	1456	-	-
WaveForm Length (s) 12	2	151316	67.7	10	2	1617	1185	-
Center Frequency (GHz) 5.494	3	393746	55.6	10	1	1337	-	-
EUT Occupied Bandwidth (MHz) 20	4	635093	75.2	10	2	1421	1267	-
	5	876993	76.3	10	2	1359	1305	-
	6	121278	85.7	10	3	1547	1362	1924
	7	362696	98.4	10	3	1873	1550	1249
	8	604342	86.4	10	3	1779	1439	1046
	9	846453	93.6	10	3	1059	1031	1452
	10	91871	63.3	10	1	1328	-	-
	11	333050	92.4	10	3	1412	1673	1322

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 14 Detected PASS	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Number of Burst 19	0	361323	93.3	18	3	1983	1912	1535
Burst Period (s) 0.6316	1	515261	69.1	18	2	1102	1794	-
WaveForm Length (s) 12	2	39025	86.9	18	3	1044	1152	1148
Center Frequency (GHz) 5.497	3	190900	84.9	18	3	1894	1948	1118
EUT Occupied Bandwidth (MHz) 20	4	343941	72.3	18	2	1094	1916	-
	5	497624	51.7	18	1	1447	-	-
	6	20319	58.3	18	1	1429	-	-
	7	172999	60.8	18	1	1979	-	-
	8	325872	57.1	18	1	1641	-	-
	9	475841	88.9	18	3	1886	1964	1489
	10	1489	72	18	2	1909	1297	-
	11	153647	90.9	18	3	1261	1566	1370
	12	307096	59.8	18	1	1552	-	-
	13	458804	70	18	2	1759	1291	-
	14	610798	67.2	18	2	1625	1881	-
	15	134759	91.2	18	3	1382	1832	1661
	16	288306	56.5	18	1	1483	-	-
	17	441296	51.2	18	1	1237	-	-
	18	592780	74.1	18	2	1471	1245	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 15	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	158286	76.9	12	2	1110	1140	-
Number of Burst 14	1	366024	50.2	12	1	1316	-	-
Burst Period (s) 0.8571	2	573452	62.9	12	1	1520	-	-
WaveForm Length (s) 12	3	780619	64.7	12	1	1902	-	-
Center Frequency (GHz) 5.495	4	132455	83.8	12	3	1410	1097	1621
EUT Occupied Bandwidth (MHz) 20	5	340207	65.4	12	1	1944	-	-
	6	548208	53.2	12	1	1024	-	-
	7	755333	51.7	12	1	1603	-	-
	8	107117	78.7	12	2	1804	1168	-
	9	314500	72.4	12	2	1030	1343	-
	10	522447	53.8	12	1	1327	-	-
	11	728517	73.6	12	2	1524	1553	-
	12	81611	66.7	12	2	1722	1122	-
	13	288948	82.5	12	2	1404	1019	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 16	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	345766	87.6	20	3	1565	1055	1840
Number of Burst 20	1	490019	85.2	20	3	1735	1541	1408
Burst Period (s) 0.6	2	39073	84.8	20	3	1534	1889	1463
WaveForm Length (s) 12	3	183923	77.9	20	2	1749	1460	-
Center Frequency (GHz) 5.498	4	328777	76.5	20	2	1518	1485	-
EUT Occupied Bandwidth (MHz) 20	5	474728	60.9	20	1	1540	-	-
	6	21394	83	20	2	1080	1010	-
	7	165992	80.4	20	2	1824	1752	-
	8	310973	67.5	20	2	1764	1181	-
	9	456884	62.1	20	1	1495	-	-
	10	3515	86.4	20	3	1773	1966	1263
	11	147928	84.3	20	3	1593	1188	1788
	12	293225	76.9	20	2	1226	1537	-
	13	436922	95.8	20	3	1192	1298	1844
	14	584015	55.2	20	1	1644	-	-
	15	130832	59	20	1	1402	-	-
	16	274684	94.5	20	3	1296	1700	1283
	17	418579	91.9	20	3	1970	1978	1165
	18	563464	85.2	20	3	1732	1551	1189
	19	112787	69.5	20	2	1038	1224	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 17	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	429224	86.4	10	3	1259	1918	1455
Number of Burst 12	1	670241	92.2	10	3	1598	1719	1895
Burst Period (s) 1	2	912880	80.4	10	2	1816	1899	-
WaveForm Length (s) 12	3	158603	54.3	10	1	1335	-	-
Center Frequency (GHz) 5.494	4	400824	53.1	10	1	1303	-	-
EUT Occupied Bandwidth (MHz) 20	5	641915	69.4	10	2	1503	1546	-
	6	883823	69.1	10	2	1279	1639	-
	7	128373	100	10	3	1375	1438	1595
	8	370379	79.6	10	2	1239	1705	-
	9	611194	88.4	10	3	1374	1579	1623
	10	855665	53.3	10	1	1016	-	-
	11	98897	65.3	10	1	1709	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 18 Detected PASS Number of Burst 14 Burst Period (s) 0.8571 WaveForm Length (s) 12 Center Frequency (GHz) 5.495 EUT Occupied Bandwidth (MHz) 20	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
	0	292143	55.3	12	1	1920	-	-
	1	499633	58.3	12	1	1797	-	-
	2	706377	72.3	12	2	1610	1039	-
	3	58989	84.8	12	3	1131	1761	1721
	4	266161	82.5	12	2	1875	1431	-
	5	474469	63.3	12	1	1095	-	-
	6	680544	80	12	2	1119	1913	-
	7	33519	90.3	12	3	1660	1853	1123
	8	240319	91.1	12	3	1539	1783	1172
	9	447400	96.6	12	3	1525	1036	1385
	10	654516	82.7	12	2	1710	1990	-
	11	8083	50.7	12	1	1234	-	-
	12	215435	78.4	12	2	1047	1109	-
	13	421325	99.5	12	3	1299	1965	1869

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 19	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	733725	88.6	10	3	1501	1067	1927
Number of Burst 12	1	977882	57.4	10	1	1723	-	-
Burst Period (s) 1	2	221197	96.6	10	3	1086	1658	1324
WaveForm Length (s) 12	3	462915	69.7	10	2	1751	1945	-
Center Frequency (GHz) 5.494	4	705071	77.9	10	2	1642	1317	-
EUT Occupied Bandwidth (MHz) 20	5	947923	62	10	1	1866	-	-
	6	191373	88.4	10	3	1997	1077	1366
	7	432561	97.3	10	3	1790	1896	1367
	8	674004	96.2	10	3	1391	1787	1672
	9	915842	95.4	10	3	1020	1892	1414
	10	162176	54.8	10	1	1084	-	-
	11	403553	80.4	10	2	1850	1436	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 20	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	483470	74.7	15	2	1619	1611	-
Number of Burst 16	1	666072	57.1	15	1	1560	-	-
Burst Period (s) 0.75	2	98810	91.9	15	3	1392	1475	1276
WaveForm Length (s) 12	3	279914	83.1	15	2	1809	1772	-
Center Frequency (GHz) 5.504	4	462536	50.7	15	1	1003	-	-
EUT Occupied Bandwidth (MHz) 20	5	642324	79.2	15	2	1574	1600	-
	6	76831	58.7	15	1	1186	-	-
	7	257785	71	15	2	1521	1567	-
	8	438554	79	15	2	1777	1960	-
	9	620397	68.5	15	2	1284	1428	-
	10	54310	73.5	15	2	1904	1352	-
	11	235506	70.5	15	2	1864	1115	-
	12	417036	76.6	15	2	1045	1300	-
	13	597974	81.2	15	2	1160	1675	-
	14	32086	61.8	15	1	1277	-	-
	15	212751	94.9	15	3	1450	1206	1860

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 21	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	526149	78.5	9	2	1653	1698	-
Number of Burst 12	1	767135	89.8	9	3	1174	1962	1167
Burst Period (s) 1	2	12955	59.4	9	1	1982	-	-
WaveForm Length (s) 12	3	254612	79.6	9	2	1633	1890	-
Center Frequency (GHz) 5.506	4	496588	76	9	2	1112	1811	-
EUT Occupied Bandwidth (MHz) 20	5	739728	53.6	9	1	1144	-	-
	6	980872	80.9	9	2	1220	1053	-
	7	225249	61.6	9	1	1724	-	-
	8	467279	53.4	9	1	1901	-	-
	9	709720	59.9	9	1	1379	-	-
	10	951847	60.4	9	1	1453	-	-
	11	194839	91.4	9	3	1768	1726	1227

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 22 Detected PASS	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Number of Burst 20	0	261858	77	20	2	1191	1363	-
Burst Period (s) 0.6	1	407646	58.1	20	1	1248	-	-
WaveForm Length (s) 12	2	552319	62.1	20	1	1836	-	-
Center Frequency (GHz) 5.502	3	99107	76.9	20	2	1334	1236	-
EUT Occupied Bandwidth (MHz) 20	4	243514	80	20	2	1914	1852	-
	5	389464	52	20	1	1701	-	-
	6	531093	88.6	20	3	1693	1995	1905
	7	81159	72.9	20	2	1922	1387	-
	8	225245	98.5	20	3	1839	1746	1389
	9	371906	57.9	20	1	1193	-	-
	10	514197	95.9	20	3	1659	1870	1066
	11	63561	53.5	20	1	1162	-	-
	12	207510	92	20	3	1745	1654	1458
	13	353638	57.3	20	1	1834	-	-
	14	497515	70.5	20	2	1684	1586	-
	15	45553	70	20	2	1042	1664	-
	16	189821	84	20	3	1765	1630	1176
	17	335330	76.1	20	2	1557	1057	-
	18	478825	93.2	20	3	1985	1018	1340
	19	27594	96.8	20	3	1760	1614	1817

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 23	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	247117	50.1	12	1	1841	-	-
Number of Burst 14	1	453362	93.5	12	3	1590	1081	1413
Burst Period (s) 0.8571	2	660875	68.8	12	2	1707	1577	-
WaveForm Length (s) 12	3	14140	56.3	12	1	1056	-	-
Center Frequency (GHz) 5.505	4	220734	86	12	3	1953	1108	1987
EUT Occupied Bandwidth (MHz) 20	5	428367	75.2	12	2	1572	1536	-
	6	636681	54.4	12	1	1517	-	-
	7	843157	71.1	12	2	1329	1243	-
	8	195585	76.2	12	2	1940	1770	-
	9	403231	80.2	12	2	1098	1209	-
	10	610202	79.7	12	2	1588	1214	-
	11	815229	90.9	12	3	1615	1862	1601
	12	170267	68.7	12	2	1377	1441	-
	13	377306	67.4	12	2	1872	1313	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 24	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	628071	94	11	3	1643	1748	1941
Number of Burst 13	1	853391	70.8	11	2	1177	1201	-
Burst Period (s) 0.923	2	156223	56.3	11	1	1006	-	-
WaveForm Length (s) 12	3	378734	96.7	11	3	1230	1163	1332
Center Frequency (GHz) 5.506	4	601331	90.6	11	3	1217	1582	1498
EUT Occupied Bandwidth (MHz) 20	5	825462	74.5	11	2	1569	1281	-
	6	128265	92.6	11	3	1065	1669	1222
	7	351161	89	11	3	1493	1135	1380
	8	573425	96.5	11	3	1607	1822	1602
	9	798431	70.5	11	2	1141	1178	-
	10	100737	94	11	3	1009	1629	1956
	11	324661	55.8	11	1	1290	-	-
	12	546278	87.7	11	3	1435	1963	1164

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 25	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	1253842	68.6	5	2	1306	1161	-
Number of Burst 8	1	119486	83.1	5	2	1420	1315	-
Burst Period (s) 1.5	2	482958	60.9	5	1	1687	-	-
WaveForm Length (s) 12	3	845641	77.7	5	2	1776	1158	-
Center Frequency (GHz) 5.508	4	1208428	77.4	5	2	1793	1510	-
EUT Occupied Bandwidth (MHz) 20	5	74748	66.8	5	2	1576	1323	-
	6	438300	63.7	5	1	1333	-	-
	7	800152	91.2	5	3	1409	1681	1275

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 26	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	545865	83.6	16	3	1632	1195	1000
Number of Burst 17	1	14067	89.4	16	3	1173	1627	1656
Burst Period (s) 0.7059	2	184953	55.8	16	1	1532	-	-
WaveForm Length (s) 12	3	353759	90.9	16	3	1981	1554	1998
Center Frequency (GHz) 5.504	4	526388	54.7	16	1	1825	-	-
EUT Occupied Bandwidth (MHz) 20	5	694806	97.7	16	3	1734	1202	1250
	6	163568	67.5	16	2	1571	1434	-
	7	333410	96.7	16	3	1589	1469	1268
	8	504006	68.3	16	2	1750	1954	-
	9	675297	78.3	16	2	1591	1082	-
	10	142890	55	16	1	1427	-	-
	11	312479	84.9	16	3	1129	1936	1199
	12	482953	74.6	16	2	1959	1856	-
	13	655022	63.3	16	1	1885	-	-
	14	121457	99.8	16	3	1035	1515	1120
	15	292606	63.6	16	1	1647	-	-
	16	461322	87.3	16	3	1931	1051	1831

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 27	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	565136	85.6	19	3	1946	1078	1015
Number of Burst 19	1	89970	68.6	19	2	1029	1780	-
Burst Period (s) 0.6316	2	243121	54.2	19	1	1111	-	-
WaveForm Length (s) 12	3	396034	61.2	19	1	1104	-	-
Center Frequency (GHz) 5.502	4	546225	97.1	19	3	1157	1969	1100
EUT Occupied Bandwidth (MHz) 20	5	70998	98.3	19	3	1142	1699	1622
	6	224093	62.4	19	1	1655	-	-
	7	376127	80.2	19	2	1126	1769	-
	8	527806	87.5	19	3	1216	1448	1179
	9	52247	85.8	19	3	1847	1348	1472
	10	204582	88.1	19	3	1023	1124	1631
	11	357941	65.3	19	1	1848	-	-
	12	510977	52.5	19	1	1470	-	-
	13	33698	52.3	19	1	1312	-	-
	14	186023	74.1	19	2	1915	1200	-
	15	339327	54.9	19	1	1479	-	-
	16	491053	76.2	19	2	1376	1502	-
	17	14858	60.4	19	1	1758	-	-
	18	167387	81.5	19	2	1491	1103	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022 02 07 0

Trial # 28	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	507709	50.5	10	1	1857	-	-
Number of Burst 12	1	750249	55.7	10	1	1246	-	-
Burst Period (s) 1	2	989003	85.8	10	3	1774	1002	1967
WaveForm Length (s) 12	3	235634	76.9	10	2	1125	1474	-
Center Frequency (GHz) 5.506	4	477675	75.1	10	2	1254	1052	-
EUT Occupied Bandwidth (MHz) 20	5	718312	92.3	10	3	1180	1486	1492
	6	960895	78.1	10	2	1301	1757	-
	7	205370	92.2	10	3	1898	1252	1713
	8	446940	89	10	3	1260	1706	1411
	9	689225	70.9	10	2	1578	1620	-
	10	932305	63.1	10	1	1782	-	-
	11	176231	55.3	10	1	1522	-	-

DFS TESTING - STATISTICAL PERFORMANCE



XMM 2022.02.07.0

Trial # 29	Burst ID	Burst Offset (us)	Pulse Width (us)	Chirp Width (MHz)	Number of Pulses Per Burst	PRI-1 (us)	PRI-2 (us)	PRI-3 (us)
Detected PASS	0	277485	83.4	17	3	1454	1205	1801
Number of Burst 18	1	437880	97.3	17	3	1319	1826	1635
Burst Period (s) 0.6667	2	598445	90.4	17	3	1079	1986	1674
WaveForm Length (s) 12	3	97088	91.8	17	3	1563	1151	1802
Center Frequency (GHz) 5.503	4	257251	98.2	17	3	1876	1977	1766
EUT Occupied Bandwidth (MHz) 20	5	419893	59.5	17	1	1952	-	-
	6	580724	80	17	2	1253	1137	-
	7	77366	86.5	17	3	1054	1128	1828
	8	238032	91.1	17	3	1105	1599	1442
	9	398605	93.5	17	3	1867	1373	1087
	10	562025	60.7	17	1	1033	-	-
	11	57684	67.2	17	2	1288	1405	-
	12	219083	61.8	17	1	1585	-	-
	13	379234	79.4	17	2	1933	1667	-
	14	540896	81.4	17	2	1096	1464	-
	15	37916	65.7	17	1	1496	-	-
	16	198794	76	17	2	1733	1255	-
	17	359754	81	17	2	1326	1668	-

DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD



XMIT 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Probe - Near Field Set	ETS Lindgren	7405	IPS	NCR	NCR
Block - DC	Fairview Microwave	SD3239	ANC	2022-03-02	2023-03-02
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Generator - Signal	Keysight	N5182B	TEV	2021-04-27	2024-04-27
Cable	UtiFlex Micro-Coax	UFD1150A-1-0720-200200	TXJ	2021-09-13	2022-09-13
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDI	2021-07-23	2022-07-23
Power Divider/Combiner	Fairview Microwave	MP0208-2	PDF	2021-07-23	2022-07-23
Attenuator	Fairview Microwave	SA1501SMA	RKV	NCR	NCR
Attenuator	Fairview Microwave	SA1501SMA	RKW	NCR	NCR

TEST DESCRIPTION

FCC KDB 905462 describes the compliance measurement procedures including acceptable instrument system configurations for performing Dynamic Frequency Selection (DFS) tests under FCC Part 15 Subpart E Rules required for Unlicensed - National Information Infrastructure (U-NII) equipment that operates in the frequency bands 5.25 GHz to 5.35 GHz and/or 5.47 GHz to 5.725 GHz. The master and client were connected using the conducted method described in the procedure via a series of splitters and attenuators which allows the radar signals to be injected and monitored. A spectrum analyzer was used to measure and record the test signal level for each radar type (0-6) as defined in the test procedure.

RBW: $\geq 3\text{MHz}$

VBW: $\geq 3\text{MHz}$

Detector: Peak
SPAN: Zero

The measurement was taken using the transmission path from the signal generator to the master. The test signal level was then set equal to the DFS Detection Threshold that is required for testing.

5.3GHz: $-64\text{dBm} + 1\text{dB}(\text{spec allowance}) + 4.3\text{dBi}(\text{minimum antenna gain}) = -58.7\text{dBm}$ final threshold level + .62dB(u.fl to sma cable) accounted for in the analyzer offset.

5.5GHz: $-64\text{dBm} + 1\text{dB}(\text{spec allowance}) + 4.4\text{dBi}(\text{minimum antenna gain}) = -58.6\text{dBm}$ final threshold level + 1.38dB(u.fl to sma cable) accounted for in the analyzer offset.

DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD



XMR 2022 02 07 0

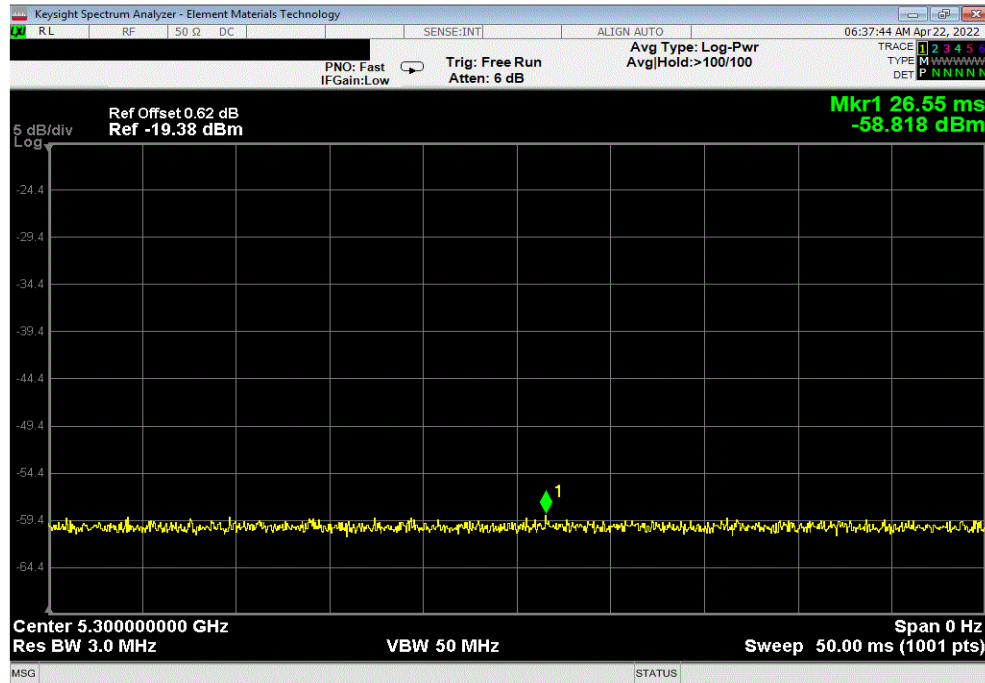
EUT: CPE Device		Work Order: PCTE0022	
Serial Number: KRS0104C150T42GA-00001		Date: 10-Jun-22	
Customer: Seowon Intech Co., Ltd		Temperature: 21.2 °C	
Attendees: None		Humidity: 55.5% RH	
Project: None		Barometric Pres.: 1015 mbar	
Tested by: Brandon Hobbs		Power: 110VAC/60Hz	
		Job Site: TX05	
TEST SPECIFICATIONS			
FCC 15.407:2022		Test Method	
RSS-247 Issue 2:2017		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, KDB 662911 D01	
		ANSI C63.10:2013, KDB 905462 D02, KDB 789033 D02, RSS-Gen Issue 5:2018+A1:2019+A2:2021	
COMMENTS			
Losses seen in the measurement path were account for in the radar calibration leveling. Reference the DFS setup and master attenuation documentation for the attenuators used while under test. Port 1 was tested. Per the DFS requirements any single bandwidth can be tested. Internal Attn was reduced for better dynamic range.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature	
		Measured Value (dBm)	Target Limit (dBm) Result
802.11a/n/ac, Band 5.3 GHz			
20 MHz Channel Bandwidth			
Ch.60, 5300 MHz			
	Radar Type 0	-58.8	-58.7 Within Tolerance
	Radar Type 1A	-58.9	-58.7 Within Tolerance
	Radar Type 1B	-58.8	-58.7 Within Tolerance
	Radar Type 2	-58.7	-58.7 Within Tolerance
	Radar Type 3	-58.8	-58.7 Within Tolerance
	Radar Type 4	-58.8	-58.7 Within Tolerance
	Radar Type 5	-58.9	-58.7 Within Tolerance
	Radar Type 6	-58.7	-58.7 Within Tolerance
802.11a/n/ac, Band 5.5 GHz			
20 MHz Channel Bandwidth			
Ch.100, 5500 MHz			
	Radar Type 0	-59.2	-58.6 Within Tolerance
	Radar Type 1A	-59.0	-58.6 Within Tolerance
	Radar Type 1B	-59.5	-58.6 Within Tolerance
	Radar Type 2	-58.7	-58.6 Within Tolerance
	Radar Type 3	-58.8	-58.6 Within Tolerance
	Radar Type 4	-58.8	-58.6 Within Tolerance
	Radar Type 5	-59.2	-58.6 Within Tolerance
	Radar Type 6	-59.5	-58.6 Within Tolerance

DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD

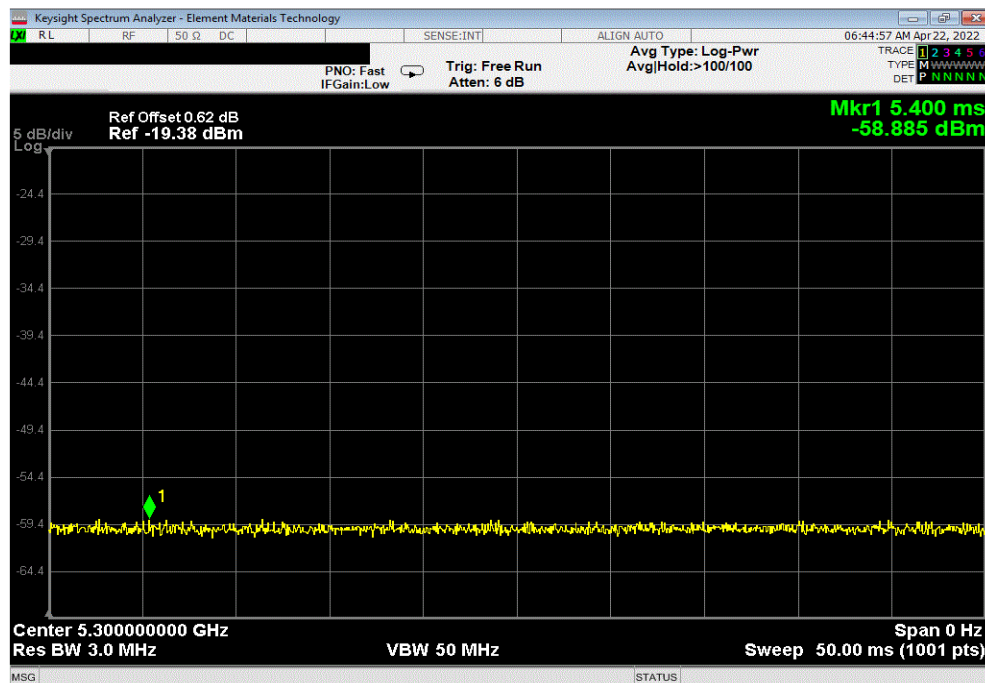


XMM 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 0						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.818	-58.7	Within Tolerance



802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 1A						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.885	-58.7	Within Tolerance

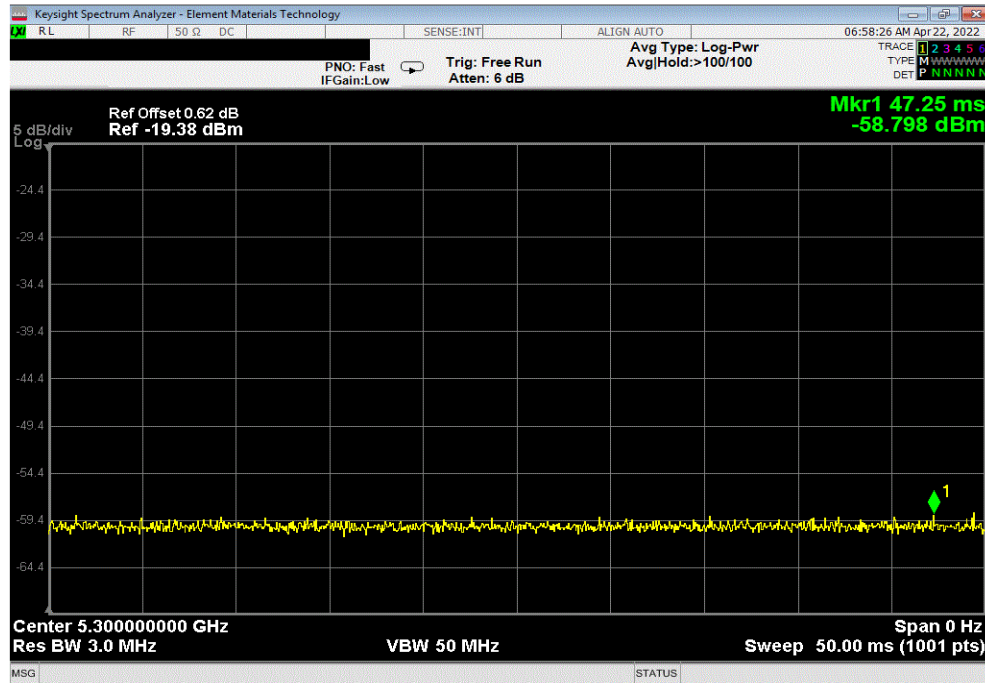


DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD

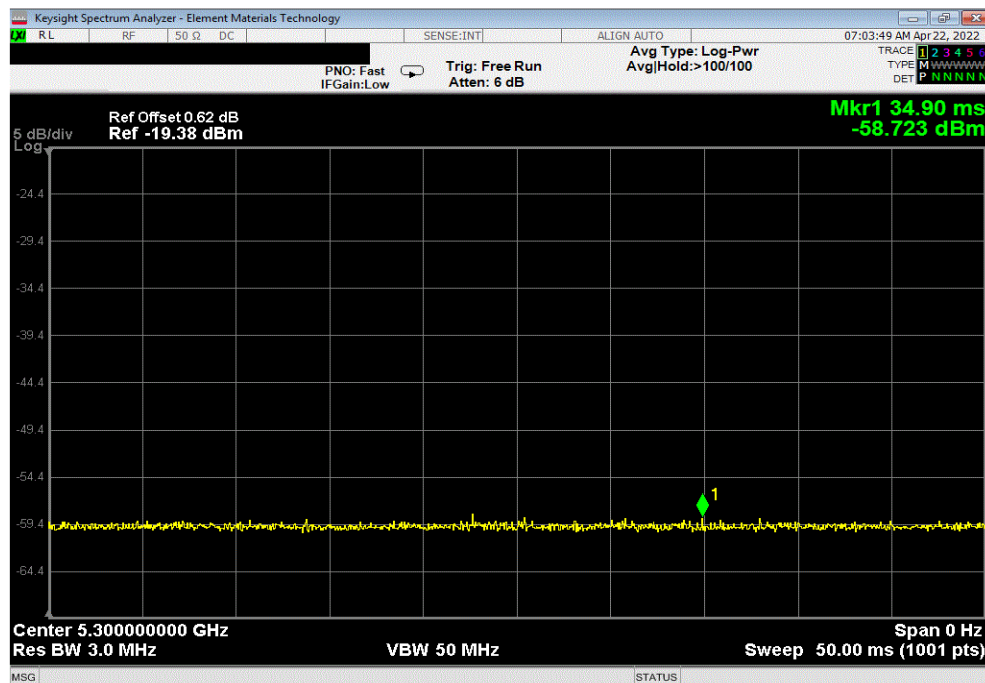


XMM 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 1B						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.798	-58.7	Within Tolerance



802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 2						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.723	-58.7	Within Tolerance

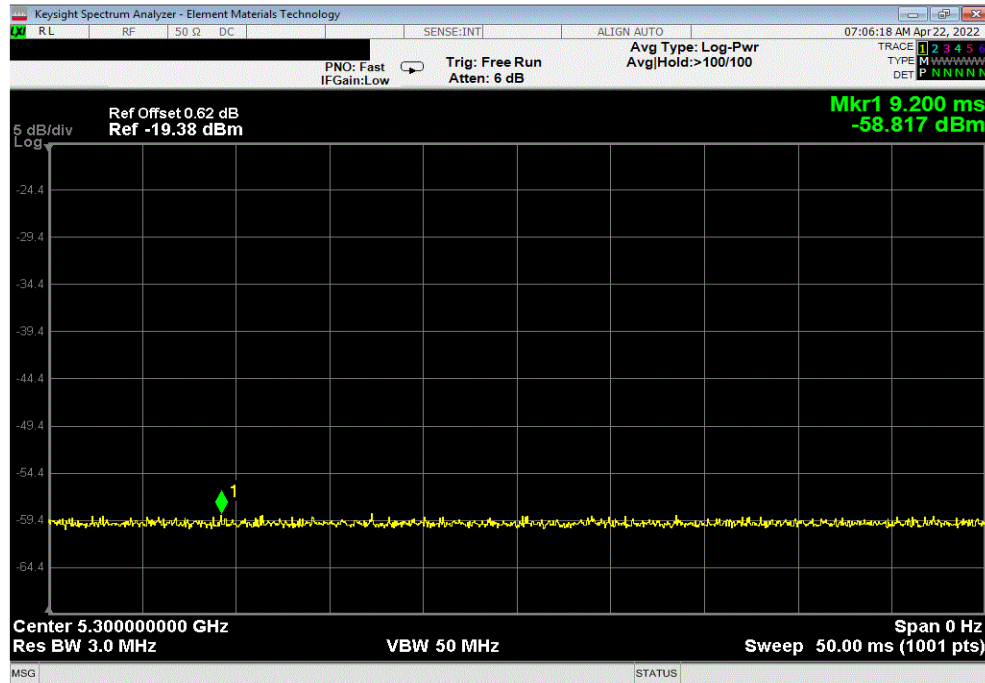


DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD

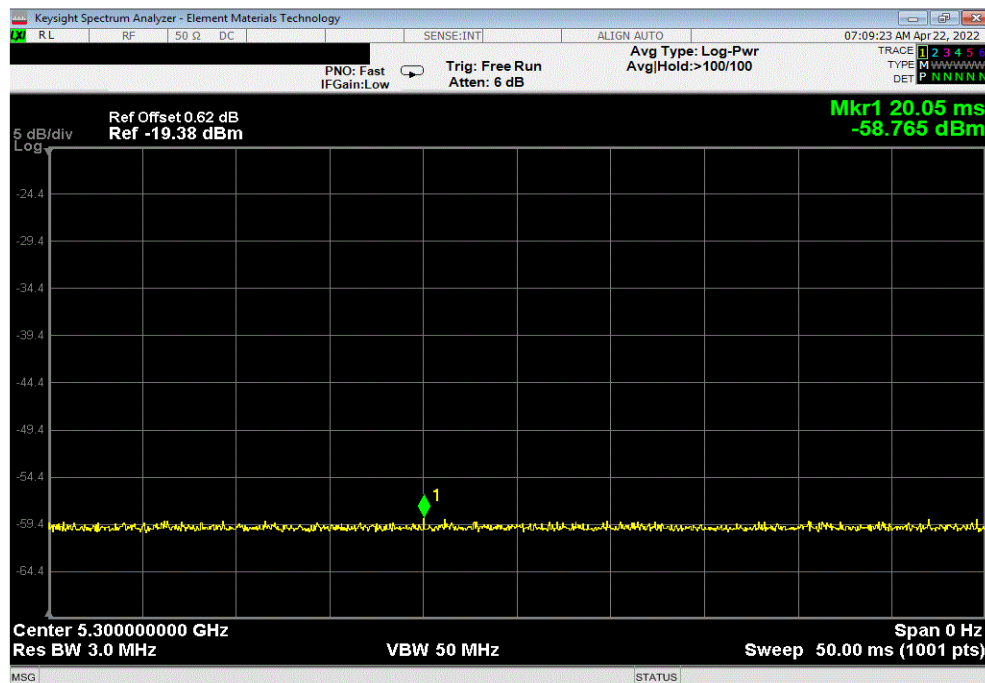


XMM 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 3						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.817	-58.7	Within Tolerance



802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 4						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.765	-58.7	Within Tolerance

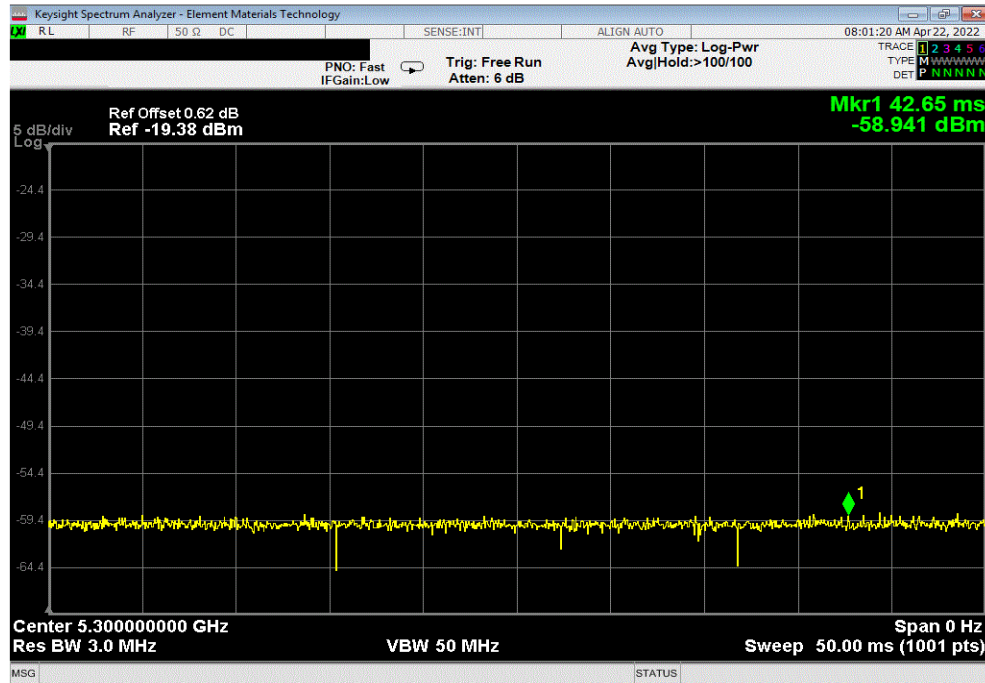


DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD

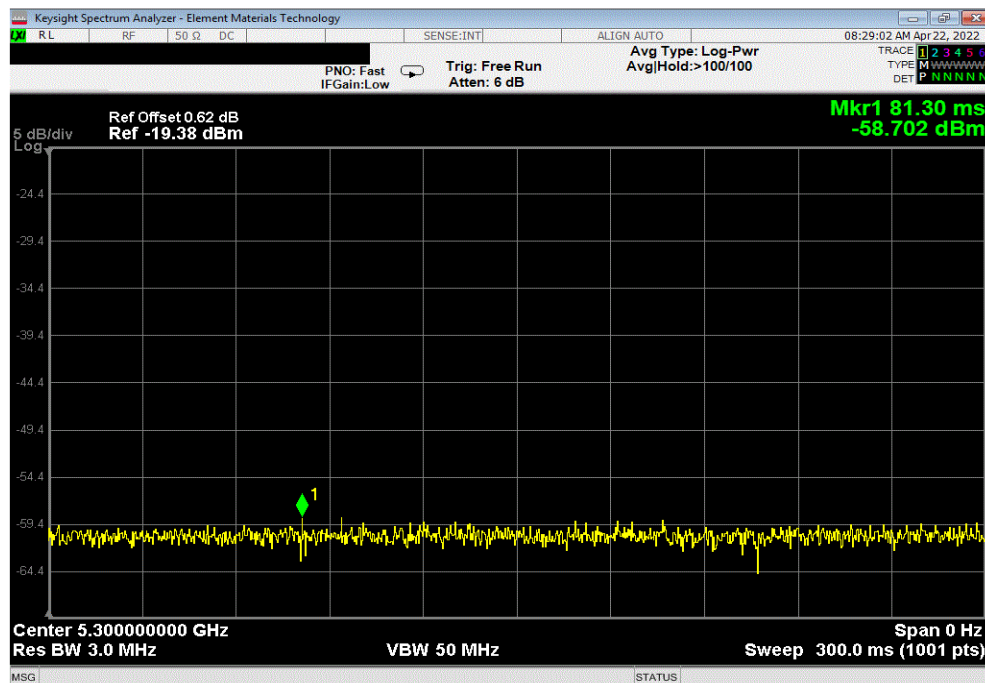


XMM 2022.02.07.0

802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 5						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.941	-58.7	Within Tolerance



802.11a/n/ac, Band 5.3 GHz, 20 MHz Channel Bandwidth, Ch.60, 5300 MHz, Radar Type 6						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.702	-58.7	Within Tolerance

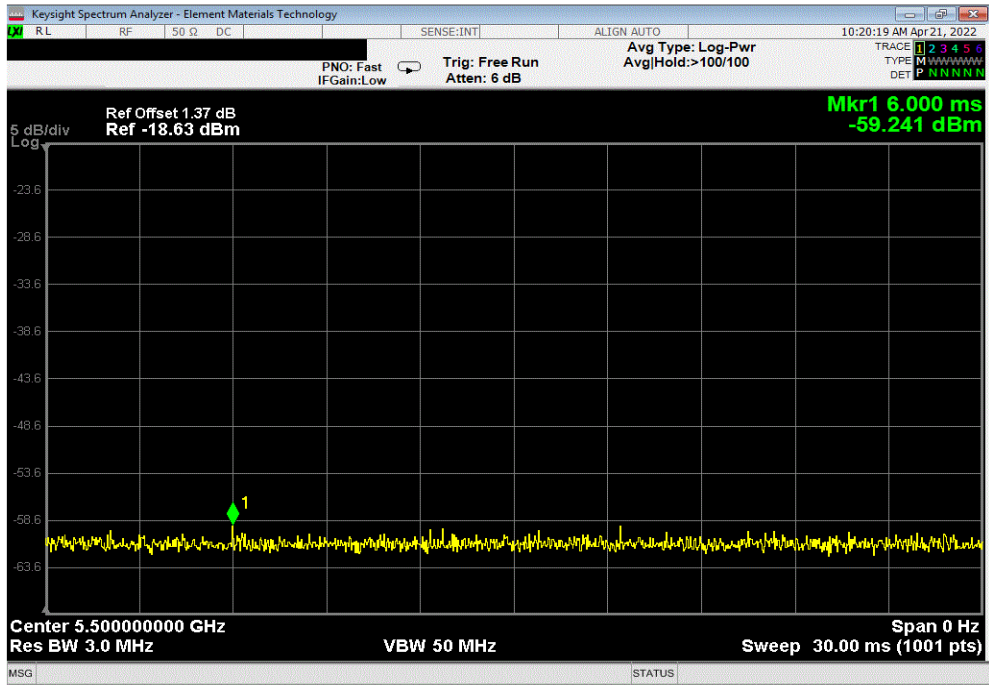


DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD

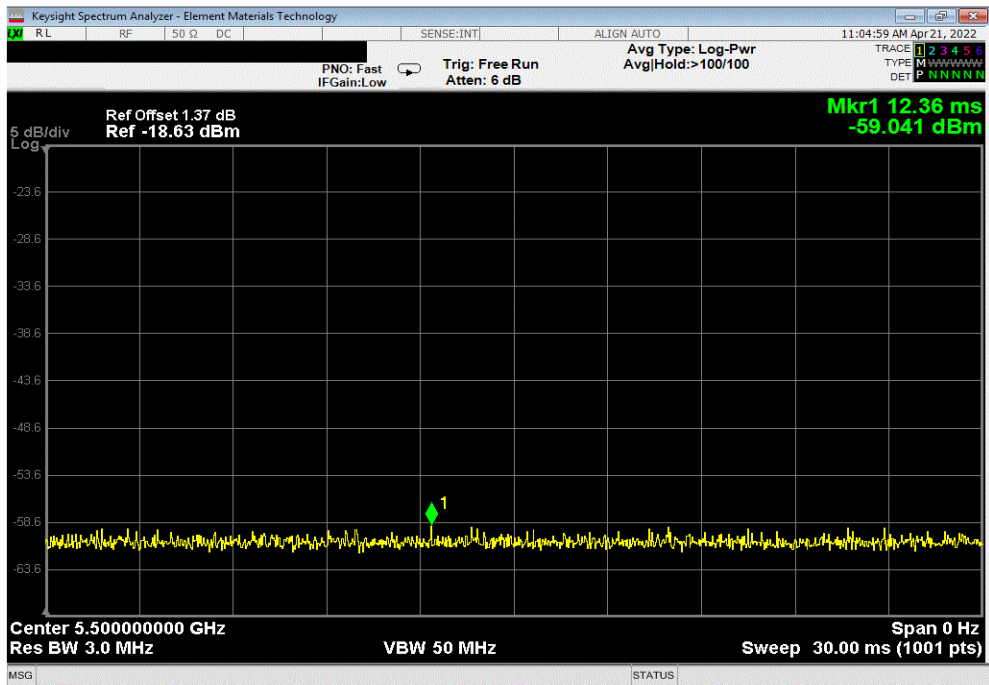


XMM 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 0						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-59.241	-58.6	Within Tolerance



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 1A						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-59.041	-58.6	Within Tolerance

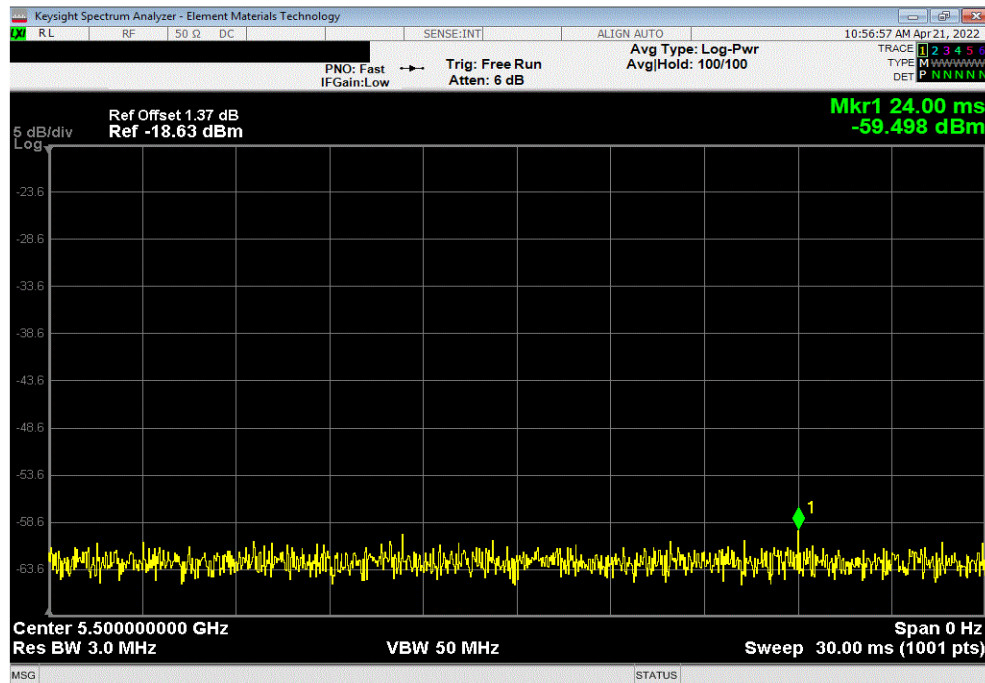


DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD

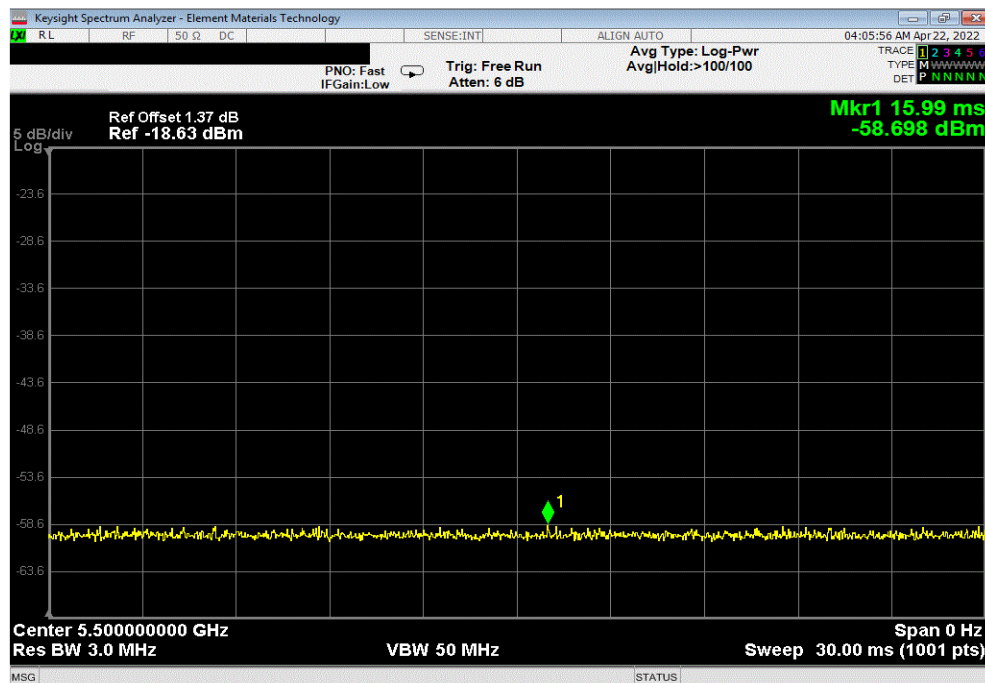


XMM 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 1B						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-59.498	-58.6	Within Tolerance



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 2						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.698	-58.6	Within Tolerance

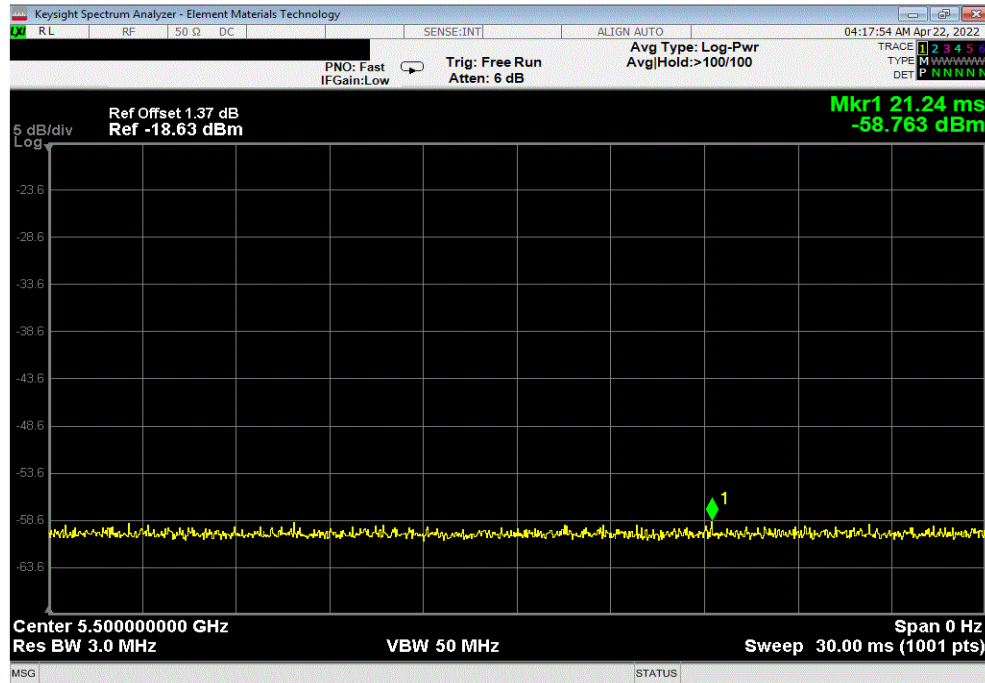


DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD

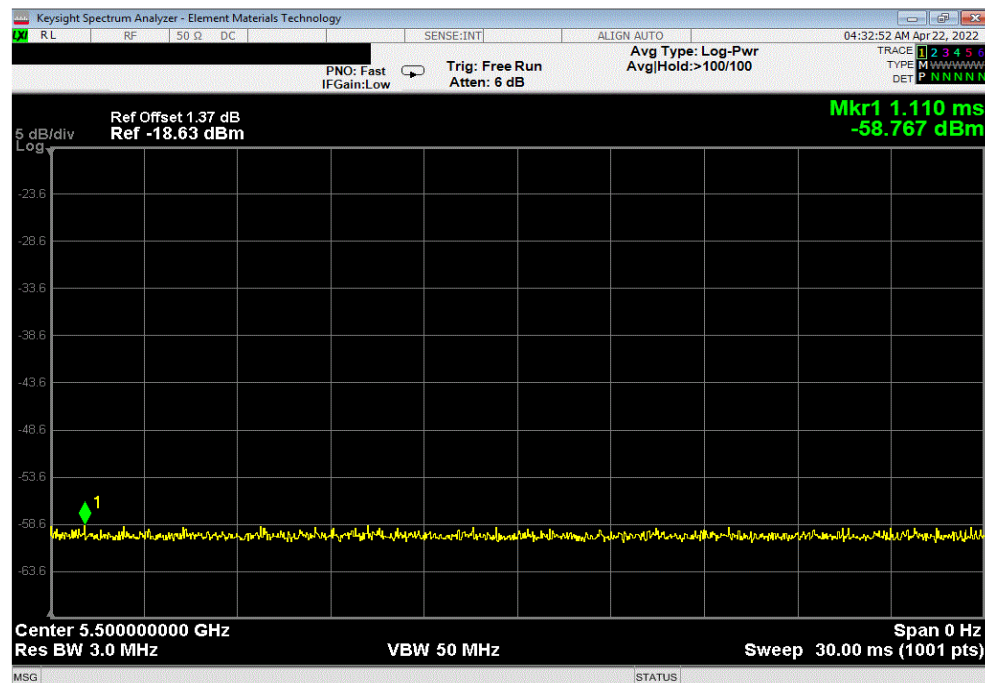


XMM 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 3						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.763	-58.6	Within Tolerance



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 4						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-58.767	-58.6	Within Tolerance

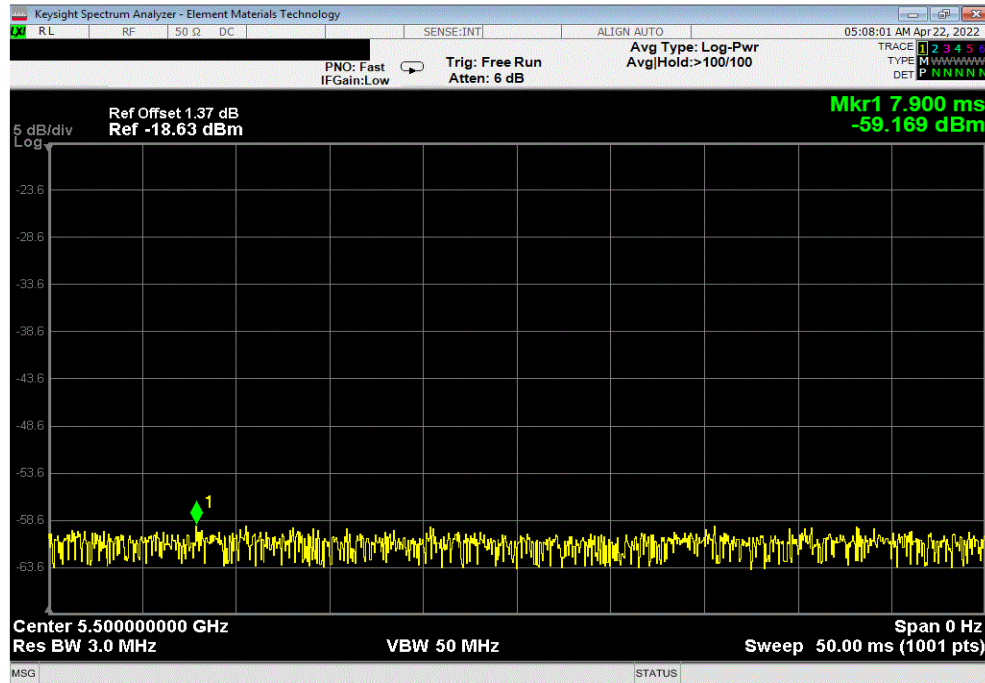


DFS TESTING -TEST SIGNAL LEVEL WITH DETECTION THRESHOLD

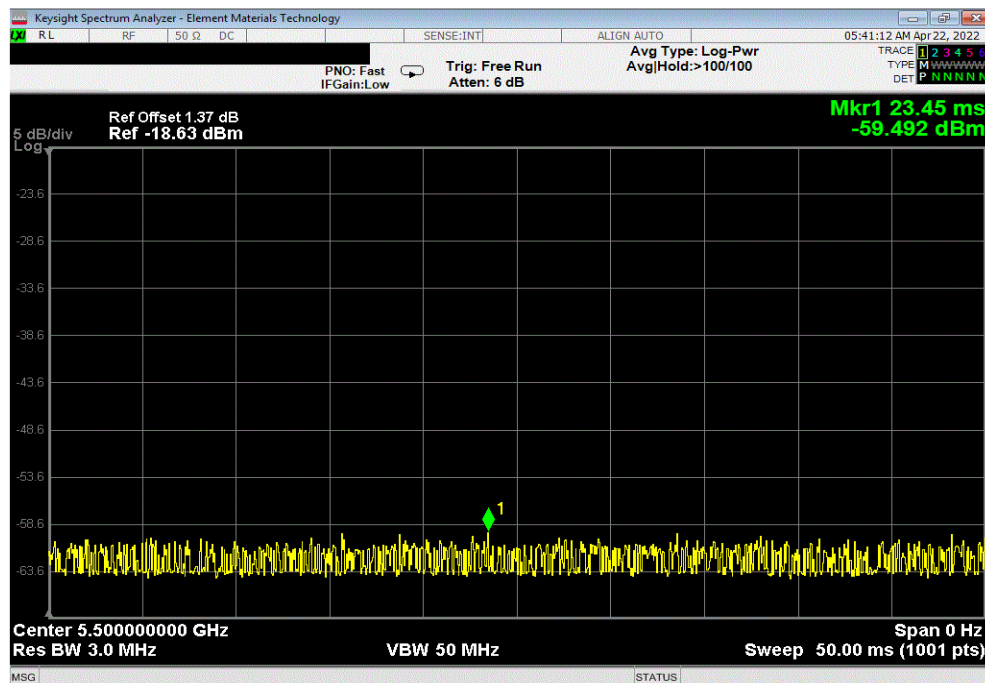


XMM 2022.02.07.0

802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 5						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-59.169	-58.6	Within Tolerance



802.11a/n/ac, Band 5.5 GHz, 20 MHz Channel Bandwidth, Ch.100, 5500 MHz, Radar Type 6						
				Measured Value (dBm)	Target Limit (dBm)	Result
				-59.492	-58.6	Within Tolerance



End of Test Report