Testing Laboratory 1190

JAPAN DFS TEST REPORT

Equipment	:	802.11ax Dual-band Wi-Fi Router
Brand Name	:	ASUS
Model Name	:	RT-AX3000, TUF-AX3000, RT-AX82U, RT-AX5400
Applicant	:	ASUSTeK COMPUTER INC. 1F., No. 15, Lide Rd., Beitou District, Taipei City 112, Taiwan
Manufacturer (1)	:	Datamax Electronics (DongGuan) Co., Ltd. Niu Shan Foreign Economic Industrial Park, Dong Cheng District, Dong Guan City, Guang Dong, China
Manufacturer (2)	:	Compal Networking(KunShan) CO., LTD. No.520,Nanbang RD Economic & Technical Development Zone, KunShan,JiangSu, P.R.China
Standard	:	MIC Certification Rule, Article 2 Paragraph 1 Item 19-3 MIC Certification Rule, Article 2 Paragraph 1 Item 19-3-2

The product was received on Jun. 18, 2019, and testing was started from Sep. 07, 2019 and completed on Sep. 16, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in MIC Notice No.88 Appendix No.45 and shown compliance with the applicable MIC Ordinance Regulating Radio Equipment Article 49.20 and ARIB STD-T71 technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

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Report Template No.: CB-D5_1 Ver1.0

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History of this test report

Report No.	Version	Description	Issued Date
JZ952922-06	01	Initial issue of report	May 07, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	NT No.368,2011	Channel Availability Check (CAC)	PASS	-
3.3	NT No.368,2011	In-service Monitoring	PASS	-
3.4	NT No.368,2011	Channel Shutdown and Non-Occupancy Period	PASS	-

RLE: Radio Law Enforcement Regulations
ORE: Ordinance Regulating Radio Equipment
TR: Terminal and Other Equipment Regulations
NT: Notification of the Ministry of Internal Affairs and Communications

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Cindy Peng

1 General Description

1.1 Information

1.1.1 DFS General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5250-5350	a, n (HT20), ac (VHT20), ax (HEW20)	5260-5320	52-64 [4]
5470-5725		5500-5700	100-140 [11]
5250-5350	n (HT40), ac (VHT40), ax (HEW40)	5270-5310	54-62 [2]
5470-5725		5510-5670	102-134 [5]
5250-5350	ac (VHT80), ax (HEW80)	5290	58 [1]
5470-5725		5530-5610	106-122 [2]
5150-5350	ac (VHT160), ax (HEW160)	5250	50 [1]
5470-5725		5570	114 [1]

- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80 and VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.

1.1.2 Frequency Band

Frequency Band	
☒	W53:
	☒ (20MHz) - 5260, 5280, 5300, 5320MHz
	☒ (40MHz) - 5270, 5310MHz
	☒ (80MHz) - 5290MHz
☒	W52+W53:
	☒ (160MHz) contiguous – 5250MHz
☒	W56:
	☒ (20MHz) - 5500, 5520, 5540, 5560, 5580, 5600, 5620, 5640, 5660, 5680, 5700MHz
	☒ (40MHz) - 5510, 5550, 5590, 5630, 5670MHz
	☒ (80MHz) - 5530, 5610MHz
	☒ (160MHz) contiguous - 5570MHz
☐	W52+W56: (80+80 MHz) non-contiguous - 5210, 5530MHz or 5210, 5610MHz
☐	W53+W56: (80+80 MHz) non-contiguous - 5290, 5530MHz or 5290, 5610MHz
Note: The EUT supports 802.11a/n/ac/ax	

1.1.3 Antenna Information

Set	Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	1	PSA	RFDPA161314IMLB701	Dipole Antenna	I-PEX	Note 1
	2	PSA	RFDPA161311IM5B702	Dipole Antenna	I-PEX	
	3	PSA	RFDPA161310IM5B701	Dipole Antenna	I-PEX	
	4	PSA	RFDPA161316IMLB701	Dipole Antenna	I-PEX	
2	1	M.gear	C660-510468-A	Dipole Antenna	I-PEX	
	2	M.gear	C660-510469-A	Dipole Antenna	I-PEX	
	3	M.gear	C660-510470-A	Dipole Antenna	I-PEX	
	4	M.gear	C660-510471-A	Dipole Antenna	I-PEX	
3	1	M.gear	C660-510472-A	Dipole Antenna	I-PEX	
	2	M.gear	C660-510473-A	Dipole Antenna	I-PEX	
	3	M.gear	C660-510474-A	Dipole Antenna	I-PEX	
	4	M.gear	C660-510475-A	Dipole Antenna	I-PEX	
4	1	PSA	RFDPA171314IMLB701	Dipole Antenna	I-PEX	
	2	PSA	RFDPA171311IM5B702	Dipole Antenna	I-PEX	
	3	PSA	RFDPA171310IM5B702	Dipole Antenna	I-PEX	
	4	PSA	RFDPA171316IMLB701	Dipole Antenna	I-PEX	

Note 1:

Set	Ant.	Port			2.4GHz	5GHz W52	5GHz W53	5GHz W56
		2.4G 2TX	5G 2TX	5G 4TX				
1	1	2	-	2	1.71	1.75	1.89	1.88
	2	-	1	1	-	1.93	1.93	1.92
	3	-	2	4	-	1.75	1.85	1.83
	4	1	-	3	1.63	1.92	1.88	1.90
2	1	2	-	2	1.61	1.74	1.84	1.86
	2	-	1	1	-	1.76	1.80	1.87
	3	-	2	4	-	1.66	1.72	1.69
	4	1	-	3	1.60	1.88	1.82	1.85
3	1	2	-	2	1.70	1.71	1.85	1.85
	2	-	1	1	-	1.68	1.73	1.80
	3	-	2	4	-	1.63	1.74	1.76
	4	1	-	3	1.62	1.67	1.74	1.79
4	1	2	-	2	1.70	1.74	1.74	1.82
	2	-	1	1	-	1.86	1.90	1.64
	3	-	2	4	-	1.48	1.60	1.46
	4	1	-	3	1.61	1.63	1.71	1.81

Note 2: The above information was declared by manufacturer.

Note 3: The EUT has four sets of antennas and there are four antennas for each set.

Set 1~4 are the same type antenna. Only the lowest gain Set 4 antenna was selected to test and record in this report.

For 2.4GHz WLAN function

IEEE 802.11b/g/n/VHT/ax mode (2TX/2RX):

Port 1 and port 2 can be used as transmitting/receiving antenna.

Port 1 and port 2 could transmit/receive simultaneously.

For 5GHz WLAN function

IEEE 802.11a/n/ac/ax mode (2TX, 4TX/4RX):

For 2TX

Port 1 and port 2 can be used as transmitting antenna.

Port 1 and port 2 could transmit simultaneously.

For 4TX, 4RX

Port 1, port 2, port 3 and port 4 can be used as transmitting/receiving antenna.

Port 1, port 2, port 3 and port 4 could transmit/receive simultaneously.

1.1.4 Table for SKU Information

SKU	Material	Housing Size	Brand	P/N
SKU 1	RJ-45 port was covered by plastic.	223.62mm x 129.48mm x 32.9mm	LAN port : NETSWAP / Mingtek WAN port : NETSWAP / Mingtek	LAN port : NS773602 / HN36201CG WAN port: NS771802 / HN18101CG
SKU 2	RJ-45 port was covered by metal.	264.82mm x 156.11mm x 54.97mm		
SKU 3	RJ-45 port was covered by metal.	265.00mm x 158.39mm x 54.99mm		
SKU 4	RJ-45 port was covered by metal.	275.50mm x 170.40mm x 65.00mm		

Note1: The SKU 3 is same as SKU 2 except for the logo of housing and antenna appearance.

Note2: The SKU 4 is same as SKU 2 except for the logo of housing, antenna appearance and design of light board.

Note3: Only SKU 1 was tested and recorded in this test report.

1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Equipment	Model Name	Description
802.11ax Dual-band Wi-Fi Router	RT-AX3000, TUF-AX3000, RT-AX82U, RT-AX5400	All the model names are identical, the different model names served as marketing strategy.

From the above table, model: RT-AX3000 was selected as representative model for the test and its data was recorded in this report.

1.1.6 Table for EUT Supports Functions

Function	Support Type
AP Router	Master
Bridge	Slave without radar detection
Repeater	Master
Mesh	Master

Note: After evaluating, there is only Master-AP Router was selected to test and record in the report.

1.1.7 Table for Existing Change

This product is an extension of original one reported under Sporton project number: JZ952922-05
Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Adding the SKU 4 (Refer to section 1.1.4 for detail information). 2. Adding model name: RT-AX82U, RT-AX5400 (Refer to section 1.1.5 for detail information). 3. Adding Mesh function. 4. Changing the applicant address to “1F., No. 15, Lide Rd., Beitou District, Taipei City 112, Taiwan” from “No. 15, Li-Te Rd., Peitou District, Taipei 112, Taiwan, R.O.C.”.	It is not necessary to re-test.

Note: All test results were based on original test report.

1.2 Accessories

Accessories				
Equipment Name	**Brand Name**	**Model Name**	**P/N**	**Rating**
Adapter 1	PI	AD2088320	010LF	INPUT: 100-240V ~ 50/60Hz, 0.8A OUTPUT: 19V, 1.75A
Adapter 2	PI	AD2088320	010-5LF	INPUT: 100-240V ~ 50/60Hz, 0.8A OUTPUT: 19V, 1.75A
Adapter 3	DELTA	ADP-33AW B	-	INPUT: 100-240V ~ 1A, 50-60Hz OUTPUT: 19V, 1.75A
Other				
RJ-45 cable*1, Non-shielded, 1.5m				

Note: The power adapter 1~adapter 3 do not affect the test result of RF tests, so only adapter 1 was tested and recorded in this report.

1.3 Support Equipment

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	WLAN AP	ASUS	RT-AX82U	MSQ-RTAXJ300

1.4 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- MIC Ordinance Regulating Radio Equipment Article 49.20
- MIC Notice No.88 Appendix No.45

1.5 Testing Location Information

Testing Location					
☐	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456 FAX : 886-3-327-0973			
☒	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085			
Test Condition		**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
DFS Site		DF02-CB	DK Chang	23.8~25.8°C / 63~67%	Sep. 07, 2019~Sep. 16, 2019

2 Test Configuration of EUT

2.1 EUT Information

EUT Information				
Operating Mode	☒	Master (AP Router, Repeater, Mesh)		
	☐	Slave with radar detection		
	☒	Slave without radar detection (Bridge)		
Software / Firmware Version	3.0.0.4.384_7263-g5d201a6			
Communication Mode	☒	IP Based (Load Based)	☐	Frame Based
TPC Function	☒	With TPC	☐	Without TPC

Note: The above information was declared by manufacturer.

2.2 Test Channel Frequencies Configuration

Test Channel Frequencies Configuration		
Frequency Range (MHz)	**IEEE Std. 802.11**	**Test Channel Freq. (MHz)**
5250-5350MHz	ax (HEW20)	5300
5470-5725MHz	ax (HEW20)	5500
5250-5350MHz	ax (HEW40)	5310
5470-5725MHz	ax (HEW40)	5510
5250-5350MHz	ax (HEW80)	5290
5470-5725MHz	ax (HEW80)	5530
5250-5350MHz	ax (HEW160)	5250
5470-5725MHz	ax (HEW160)	5570

2.3 The Worst Case Measurement Configuration

Tests Item	Dynamic Frequency Selection (DFS)
Test Condition	Conducted measurement at transmit chains.
Modulation Mode	11ax (HEW20), 11ax (HEW40), 11ax (HEW80), 11ax (HEW160)
Test Mode	Master (AP Router,
☒	For conducted tests, antenna ports are used for the tests and Master lowest antenna gain that was used to set the DFS Detection Threshold level during calibration of the test setup.
☐	For radiated tests, the DFS test should be performed with lowest antenna gain (regardless of antenna type).
Modulation modes consist of below configuration: 11a: IEEE 802.11a, HT20/HT40: IEEE 802.11n, VHT20/VHT40/VHT80/VHT160: IEEE 802.11ac, HEW20/HEW40/HEW80/HEW160: IEEE 802.11ax	

3 Dynamic Frequency Selection (DFS) Test Result

3.1 General DFS Information

3.1.1 DFS Parameters

DFS requirement values	
Parameter	**Value**
Channel Availability Check Time	60 sec
Channel Move Time	10 sec
Channel Closing Transmission Time	260 ms
Non-occupancy period	Minimum 30 minutes

W53: Parameters DFS radar test signal				
Test Signal (#)	**Pulse width [μs]**	**Pulse repetition frequency PRF [Hz]**	**Pulses per burst [PPB]**	**Detection Probability (%)**
1	1	700	18	≥60
2	2.5	260	18	≥60

W56: Un-modulation Parameters DFS radar test signal				
Test Signal (#)	**Pulse width [μs]**	**Pulse repetition frequency PRF [Hz]**	**Pulses per burst [PPB]**	**Detection Probability (%)**
1	0.5	720	18	≥60
2	1.0	700	18	≥60
3	2.0	250	18	≥60
4	1~5 (step 1)	200-500 (step 1)	23~29	≥60
5	6~10 (step 1)	2000-5000 (step 1)	16~18	≥60
6	11~20 (step 1)	2000-5000 (step 1)	12~16	≥60
Aggregate (Radar Types 1-6)				≥80

W56: Chirp Modulation (5~20MHz) Parameters DFS radar test signal					
Test Signal (#)	**Pulse width [μs]**	**Pulse repetition frequency PRF [Hz]**	**Number of Pulses per Burst**	**Number of Bursts**	**Detection Probability (%)**
7	50-100 (step 1)	500-1000 (step 1)	1-3	8-20	≥80

W56: 5250-5724 MHz Frequency Hopping Modulation Parameters DFS radar test signal					
Test Signal (#)	**Pulse width [μs]**	**Pulse repetition frequency PRF [Hz]**	**Number of Pulses per Burst**	**Hopping Length (ms)**	**Detection Probability (%)**
8	1	3000	9 (3ms)	300	≥70

3.1.2 DFS Threshold Level

DFS Threshold Level	
DFS Threshold level: -64 dBm	☒ at the antenna connector
	☐ in front of the antenna
Note 1: The DFS **Detection Threshold Level** is chosen the worse Interference Detection Threshold level (-64dBm) as the test parameter. Note 2: maximum EIRP < 200mW (23dBm). DFS **Detection Threshold Level** is (-62dBm) + G_{ANT} maximum EIRP ≥ 200mW (23dBm). DFS **Detection Threshold Level** is (-64dBm) + G_{ANT}	

3.1.3 User Access Restrictions

User Access Restrictions
☒ DFS controls (hardware or software) related to radar detection are NOT accessible to the user

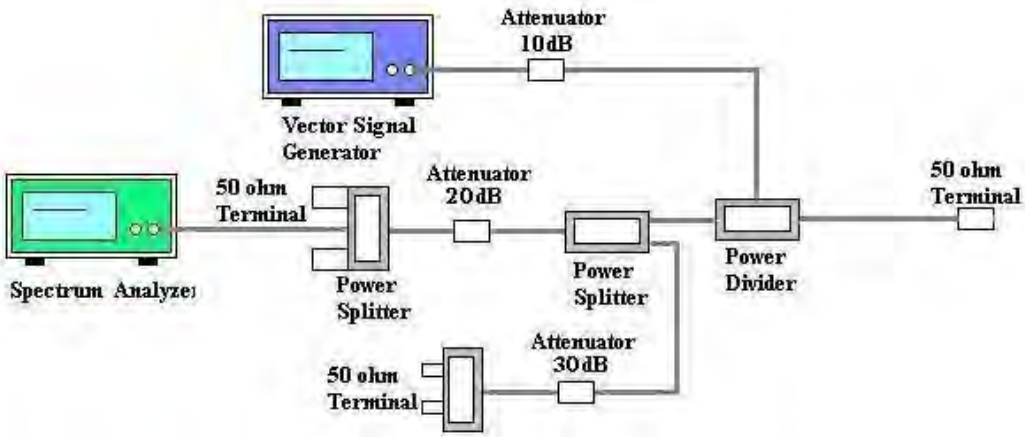
3.1.4 Channel Loading/Data Streaming

☒	Test transmission sequence is from the Master to the Slave.
☒	For W53 band (5250-5350 MHz) Monitoring of operating channel with about 50% loading over maximum signal transmission speed.
☒	For W56 band (5470-5725 MHz) Monitoring of operating channel with about 17% loading over maximum signal transmission speed.
☒	No transmissions on channels being checked during a Channel Availability Check and Confirming Available Channels.

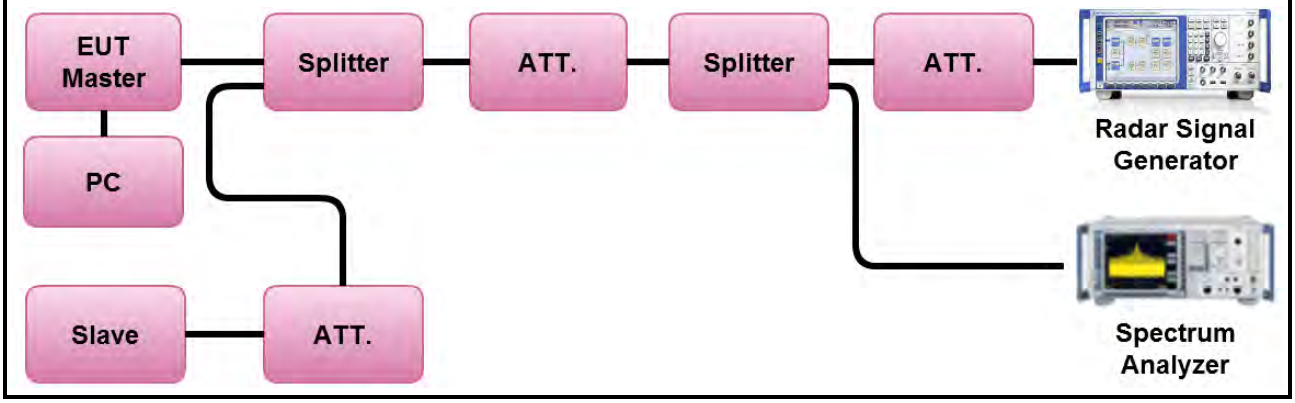
3.1.5 Test Setup and Calibration Setup

A spectrum analyzer is used as a monitor to verify that the EUT has vacated the Channel within the (Channel Closing Transmission Time and Channel Move Time, and does not transmit on a Channel during the Non-Occupancy Period after the detection and Channel move.

Calibration Setup



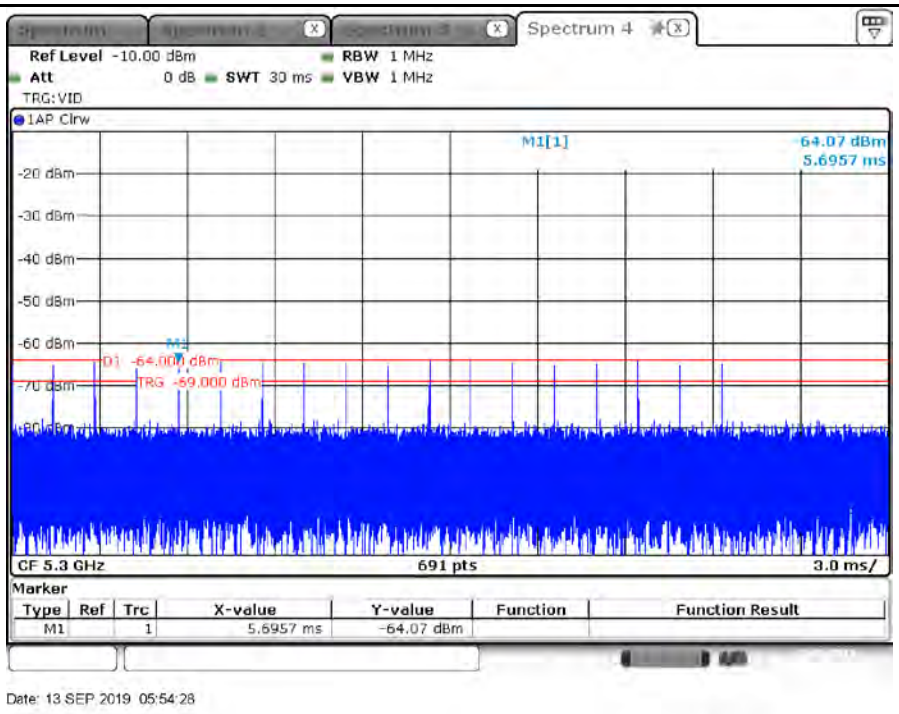
Master Conducted Measurement



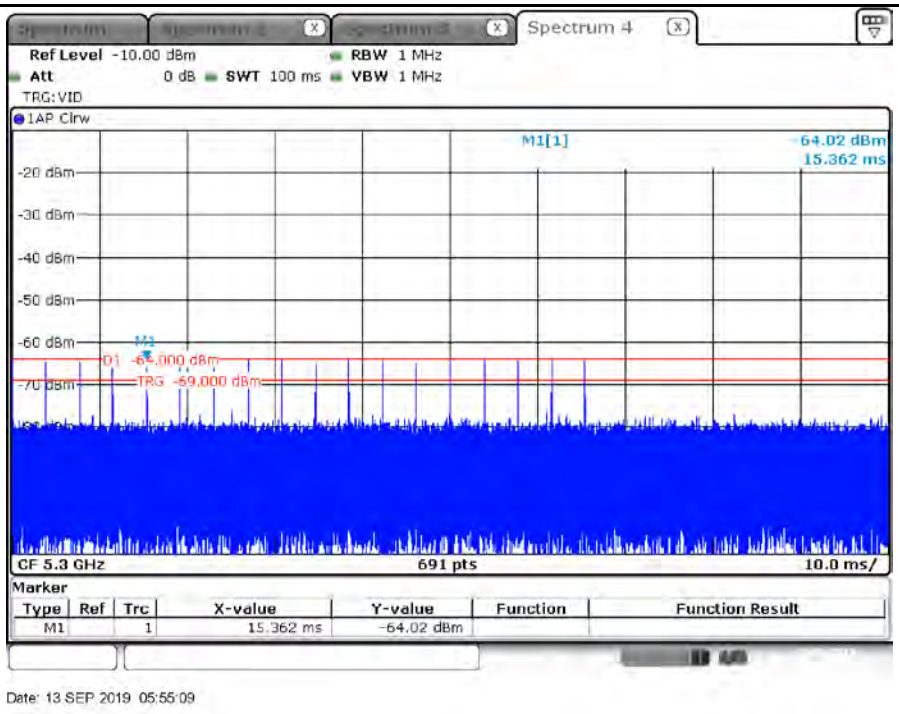
3.1.6 Radar Waveform calibration Plot

W53 band (5250-5350 MHz)

Radar #1 DFS detection threshold level and the burst of pulses on the Channel frequency

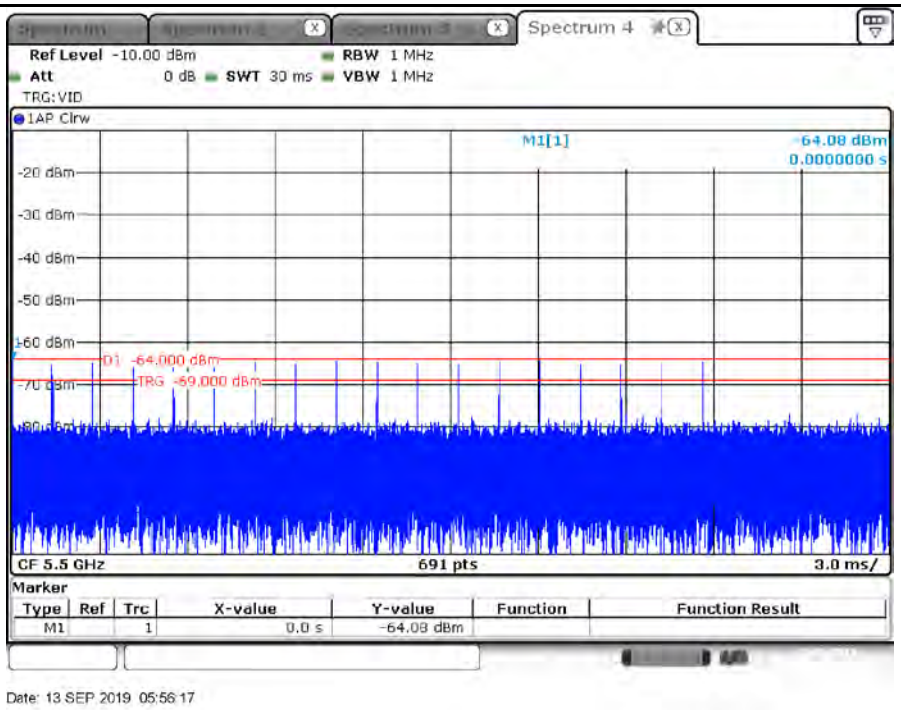


Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency

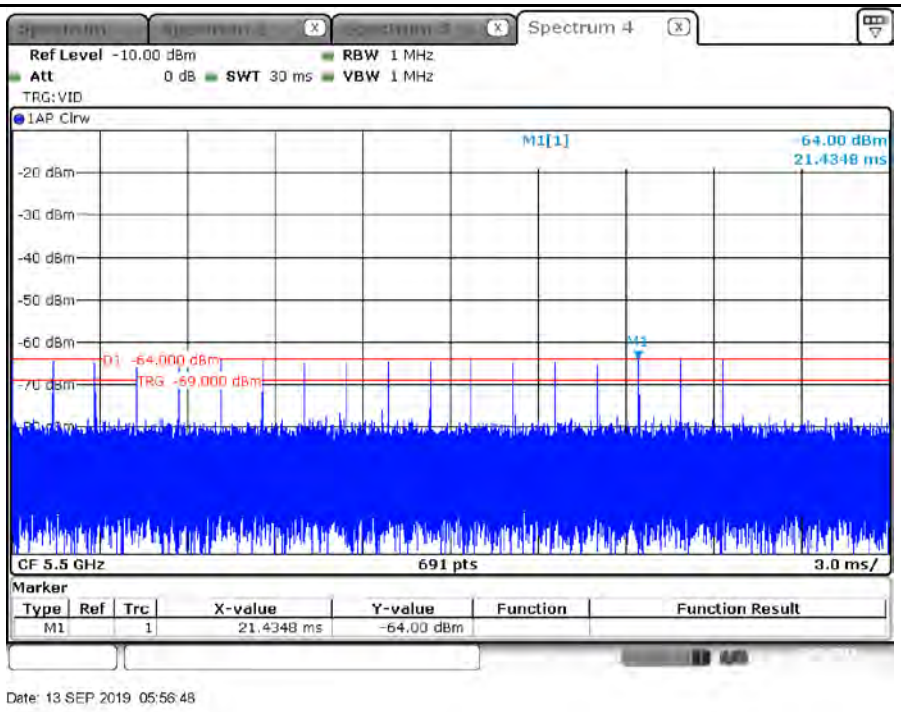


W56 band (5470-5725 MHz)

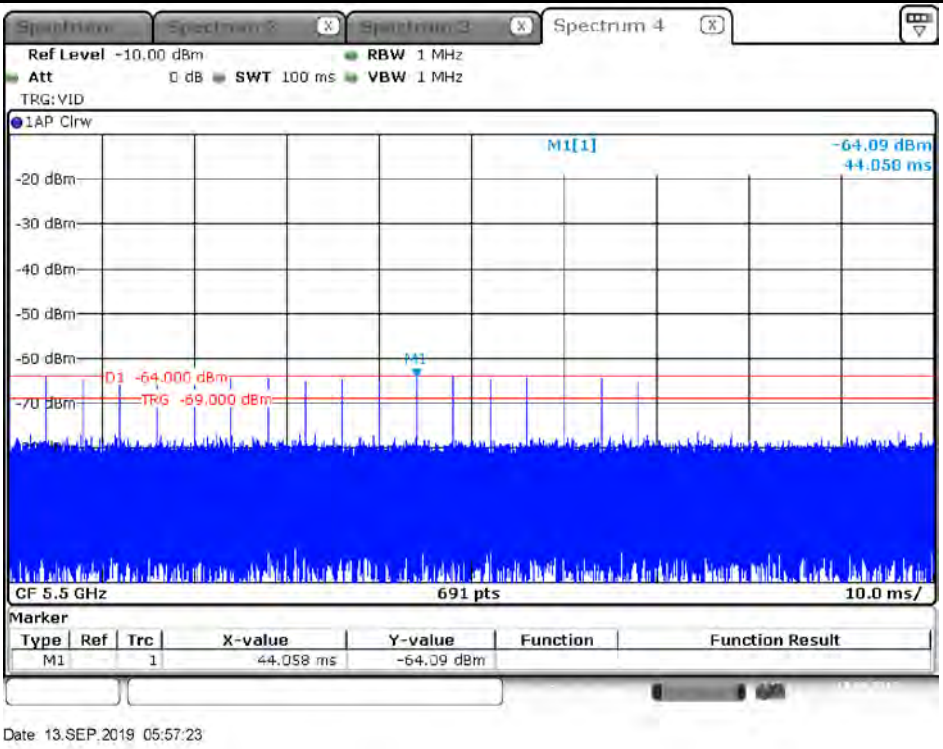
Radar #1 DFS detection threshold level and the burst of pulses on the Channel frequency



Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency

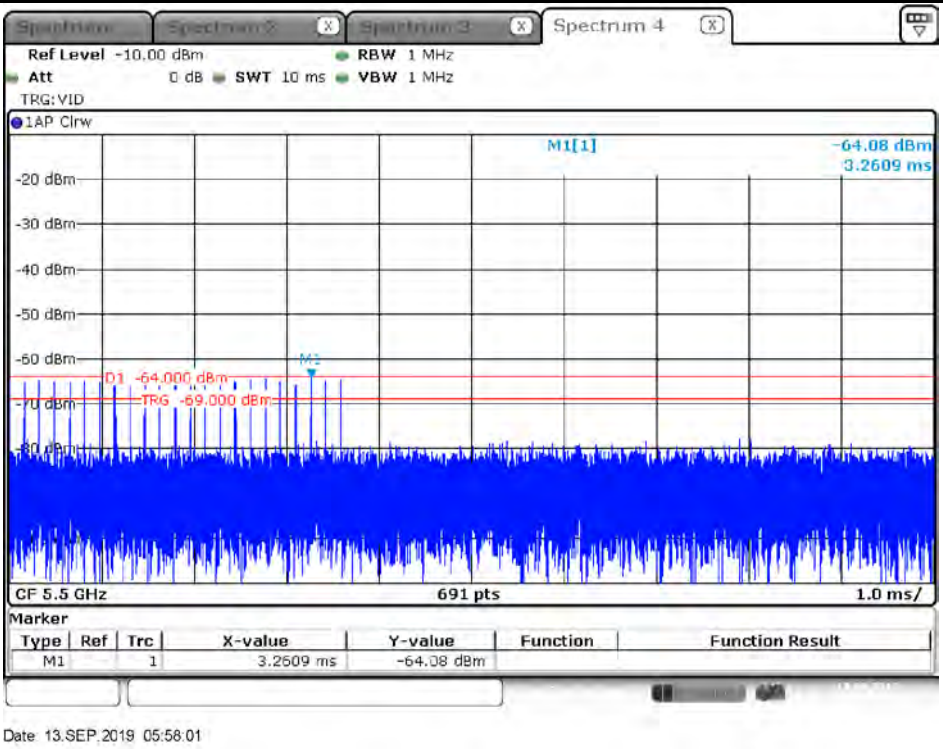


Radar #3 DFS detection threshold level and the burst of pulses on the Channel frequency



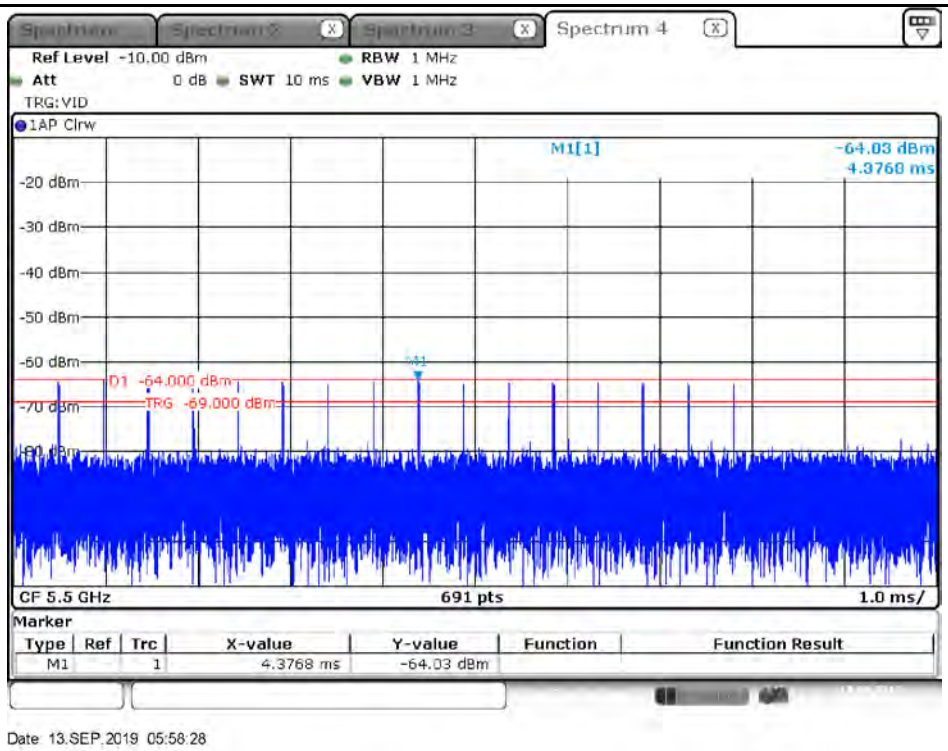
Date 13.SEP.2019 05:57:23

Radar #4 DFS detection threshold level and the burst of pulses on the Channel frequency

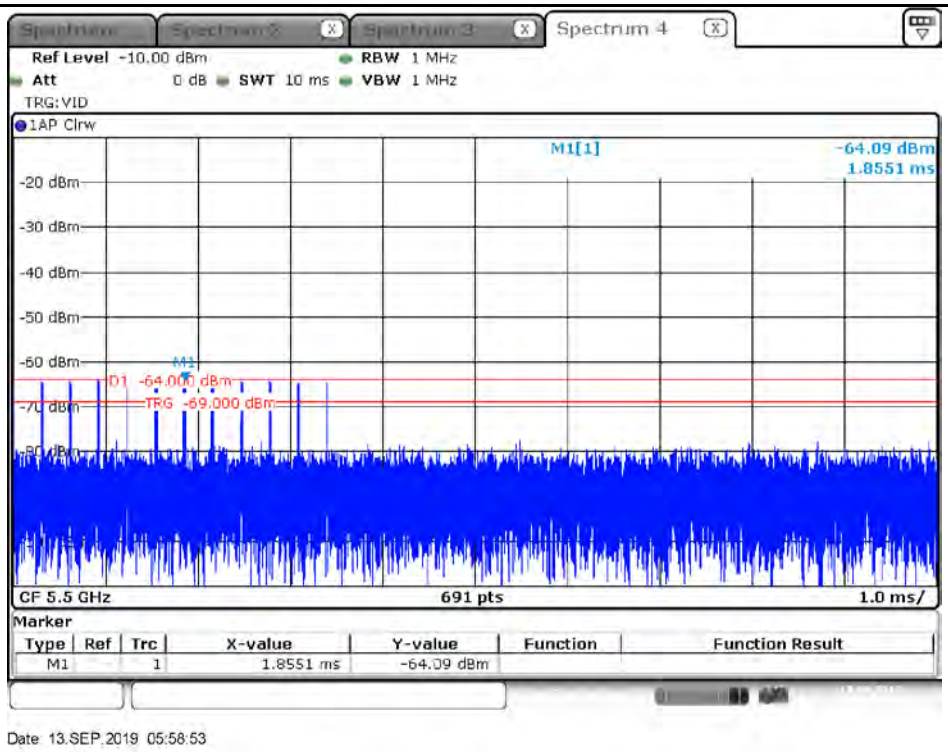


Date 13.SEP.2019 05:58:01

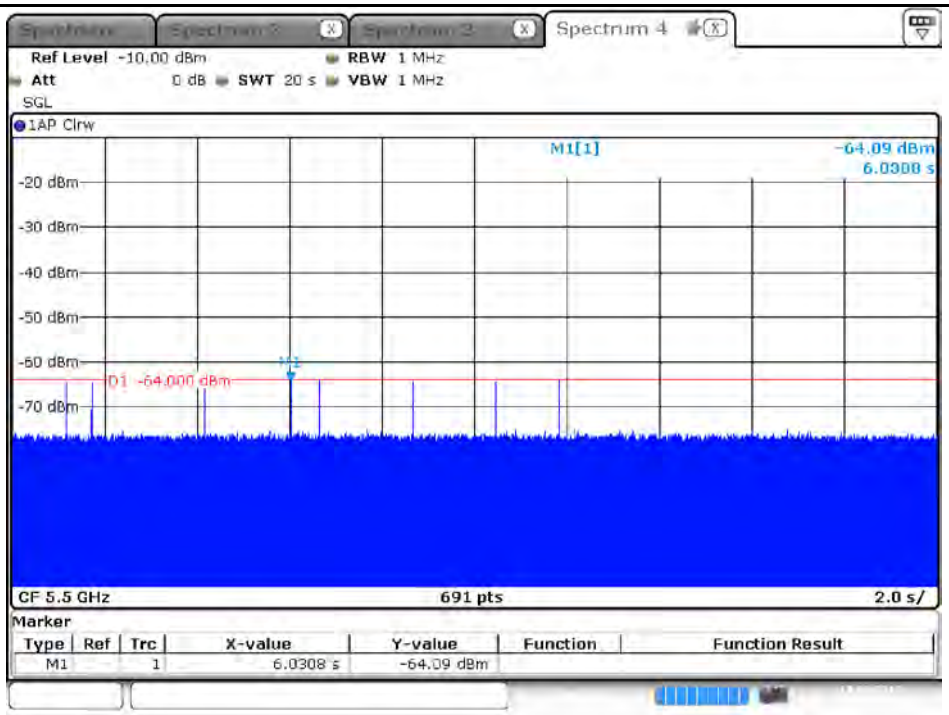
Radar #5 DFS detection threshold level and the burst of pulses on the Channel frequency



Radar #6 DFS detection threshold level and the burst of pulses on the Channel frequency

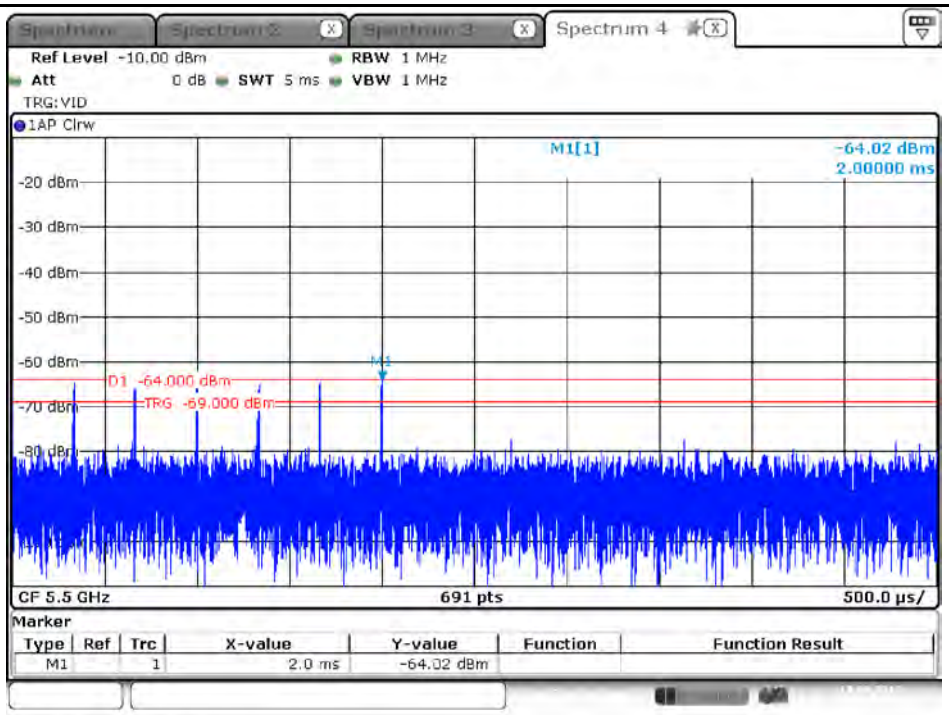


Radar #7 DFS detection threshold level and the burst of pulses on the Channel frequency



Date: 13.SEP.2019 06:00:42

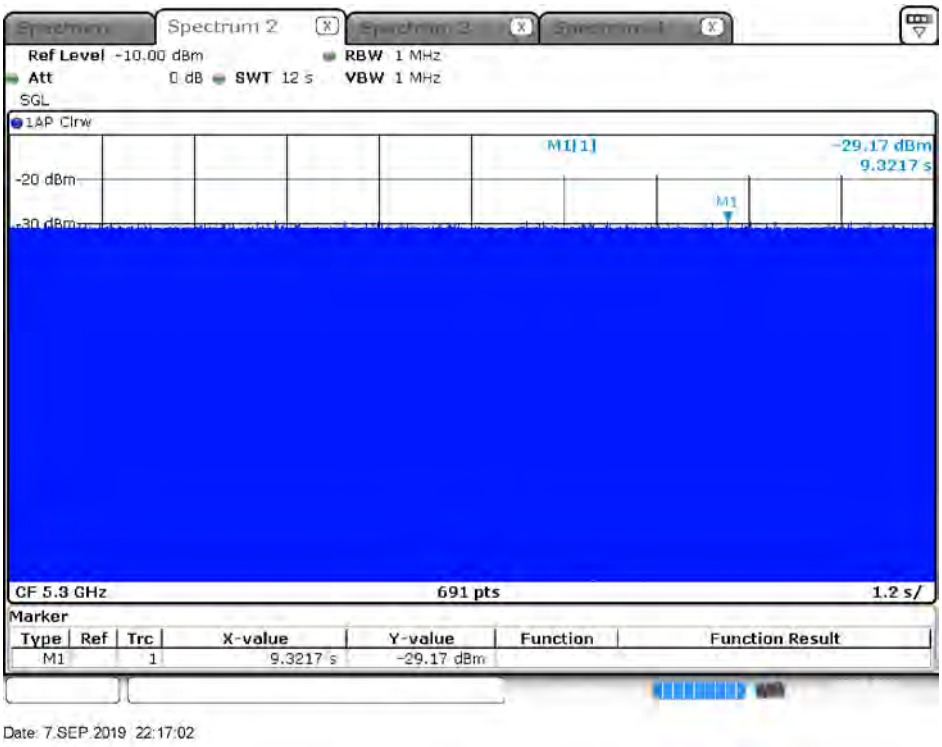
Radar #8 DFS detection threshold level and a single hop (9 pulses) on the Channel frequency within UNII detection bandwidth.



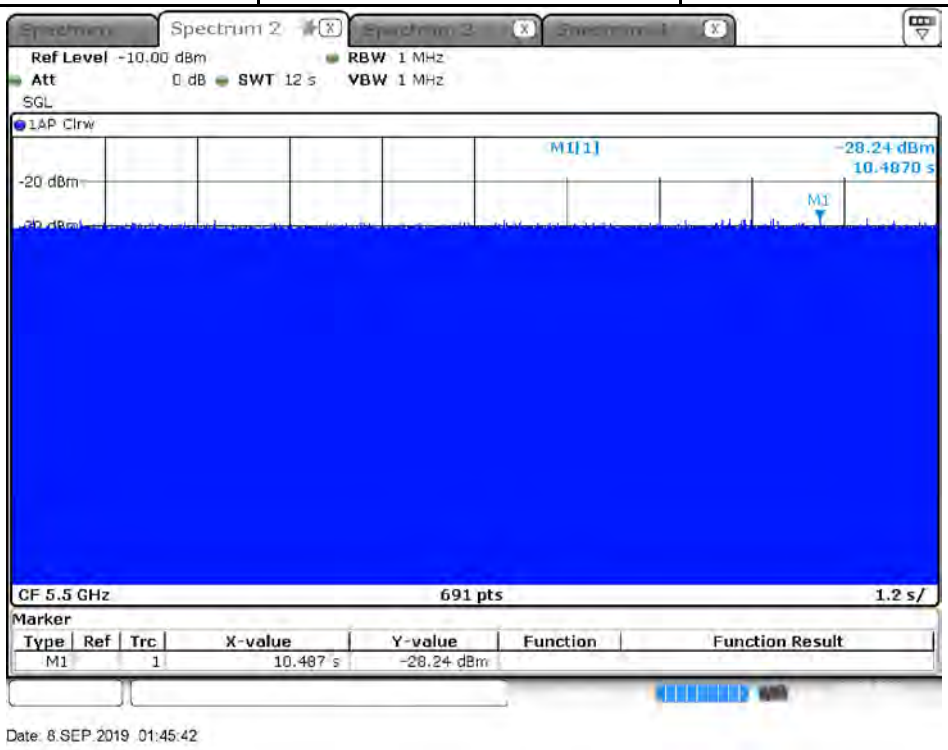
Date: 13.SEP.2019 06:05:30

3.1.7 Data traffic Plot

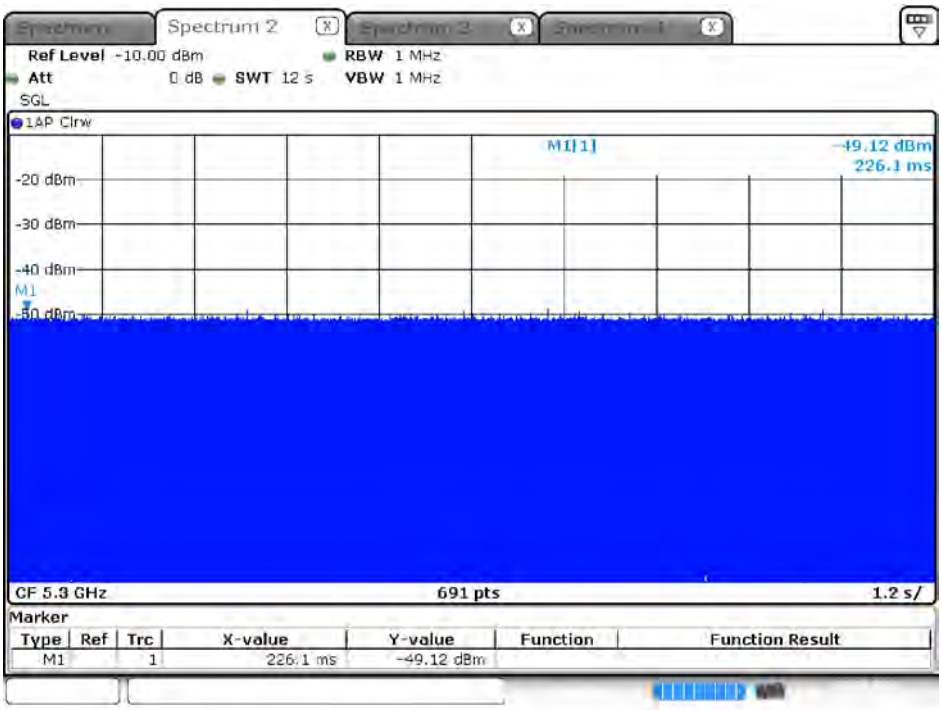
EUT Data traffic Plot	Modulation Mode: ax (HEW20)	Test Frequency: 5300 MHz



EUT Data traffic Plot	Modulation Mode: ax (HEW20)	Test Frequency: 5500 MHz



Slave Data Traffic Plot	Modulation Mode: ax (HEW20)	Test Frequency: 5300 MHz



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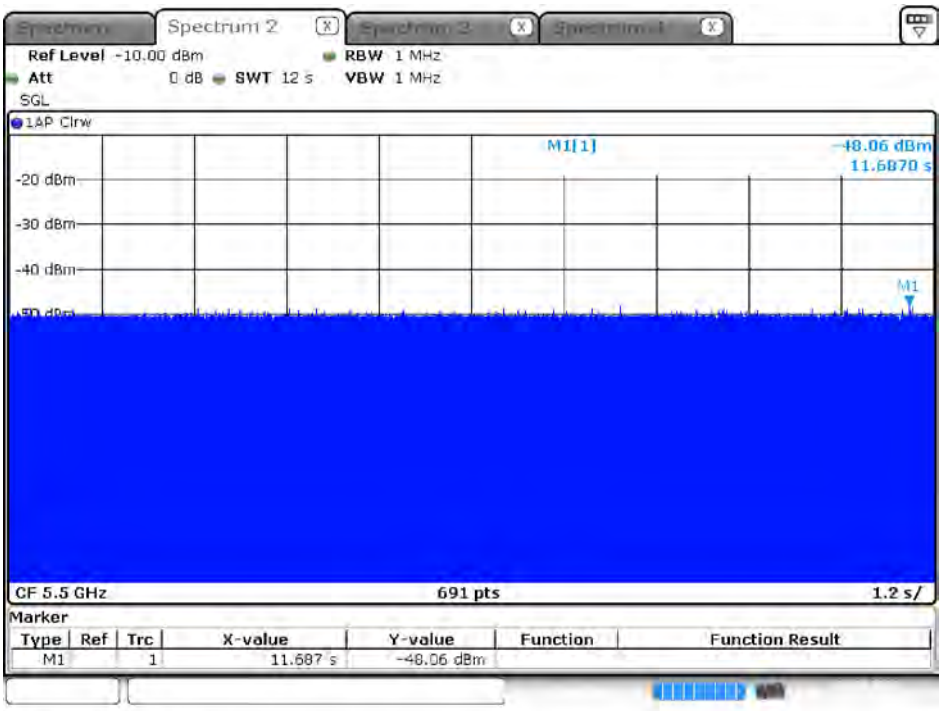
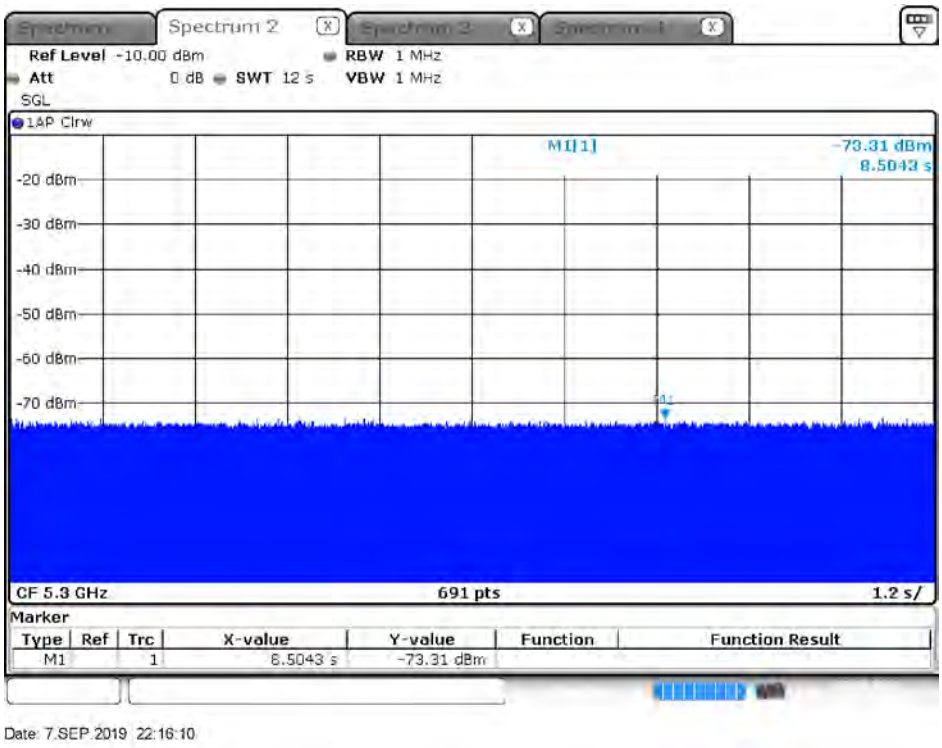
Slave Data Traffic Plot	Modulation Mode: ax (HEW20)	Test Frequency: 5500 MHz

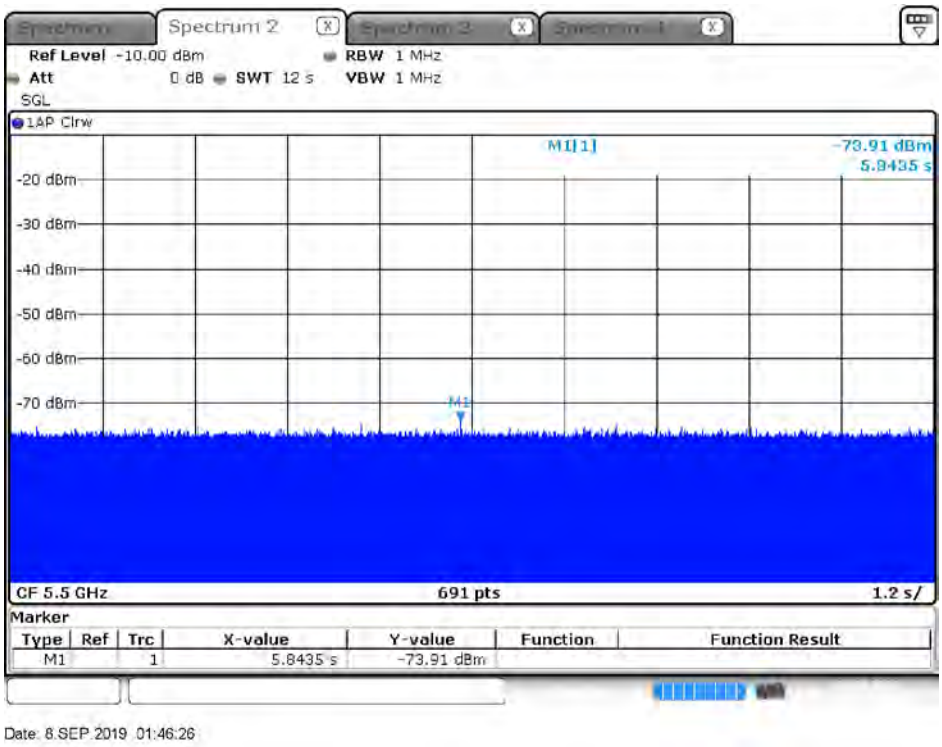


Date: 8.SEP.2019 01:47:58

Without Data Traffic Plot	Modulation Mode: ax (HEW20)	Test Frequency: 5300 MHz



Without Data Traffic Plot	Modulation Mode: ax (HEW20)	Test Frequency: 5500 MHz



3.2 Channel Availability Check (CAC)

3.2.1 Channel Availability Check Limit

Channel Availability Check Limit
☒ The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute (60 sec) on the intended operating frequency.

3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

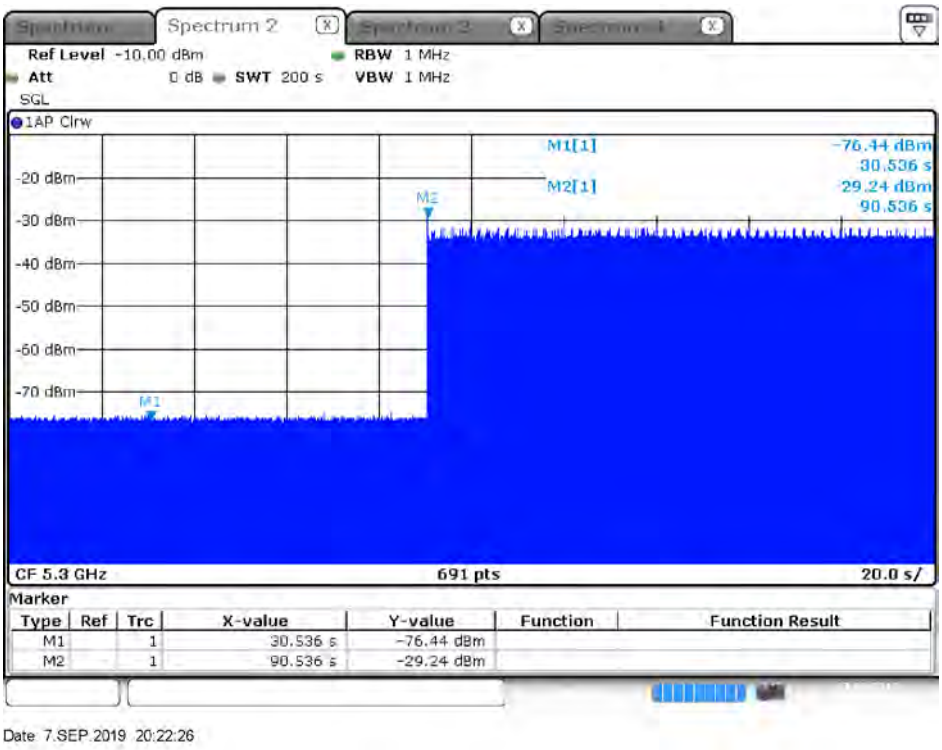
Test Method for W53	
Measuring Equipment Conditions	MIC Notice No.88 Appendix No.45, clause 13.2/26.2
Conditions of Equipment under Test	MIC Notice No.88 Appendix No.45, clause 13.3/26.3
Measuring Operation Procedures	MIC Notice No.88 Appendix No.45, clause 13.4/26.4
Presentation of Results	MIC Notice No.88 Appendix No.45, clause 13.5/26.5
Other Conditions	MIC Notice No.88 Appendix No.45, clause 13.6/26.6

Test Method for W56	
Measuring Equipment Conditions	MIC Notice No.88 Appendix No.45, clause 13.2/27.2
Conditions of Equipment under Test	MIC Notice No.88 Appendix No.45, clause 13.3/27.3
Measuring Operation Procedures	MIC Notice No.88 Appendix No.45, clause 13.4/27.4
Presentation of Results	MIC Notice No.88 Appendix No.45, clause 13.5/27.5
Other Conditions	MIC Notice No.88 Appendix No.45, clause 13.6/27.6

3.2.4 Radar Detection Threshold (Initial Channel Availability Check) Result

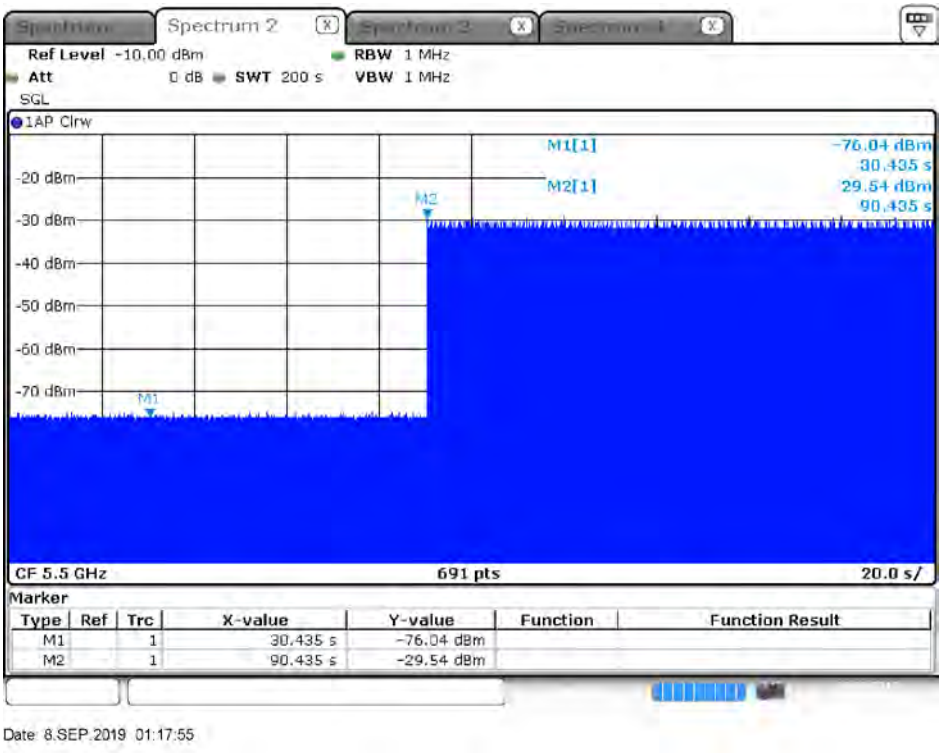
W53 band (5250-5350 MHz)	Modulation Mode: ax (HEW20)

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (30.536 sec). The initial power up time of the EUT is indicated by marker 1 (30.536 sec). Initial beacons/data transmissions are indicated by marker 2 (90.536 sec).



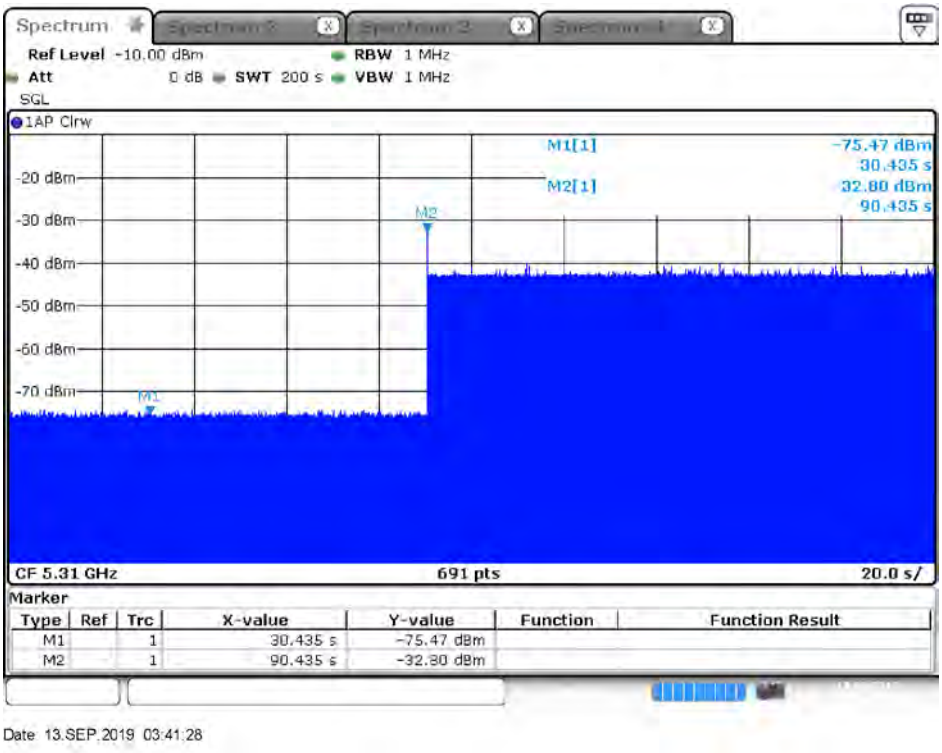
W56 band (5470-5725 MHz)	Modulation Mode: ax (HEW20)

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (30.435 sec). The initial power up time of the EUT is indicated by marker 1 (30.435 sec). Initial beacons/data transmissions are indicated by marker 2 (90.435 sec).



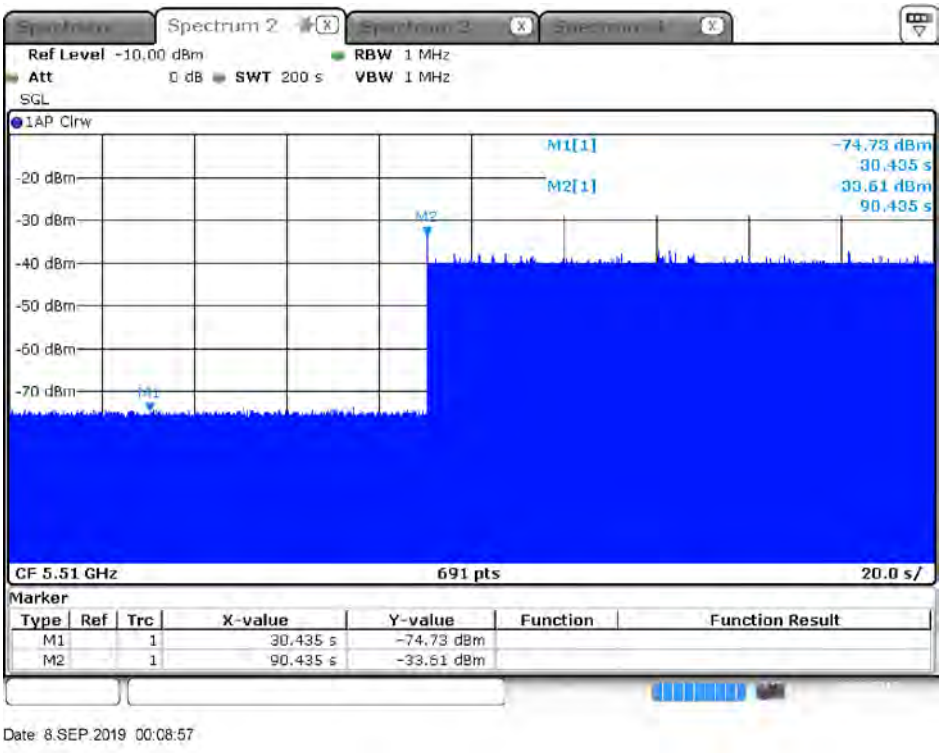
W53 band (5250-5350 MHz)	Modulation Mode: ax (HEW40)

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (30.435 sec). The initial power up time of the EUT is indicated by marker 1 (30.435 sec). Initial beacons/data transmissions are indicated by marker 2 (90.435 sec).



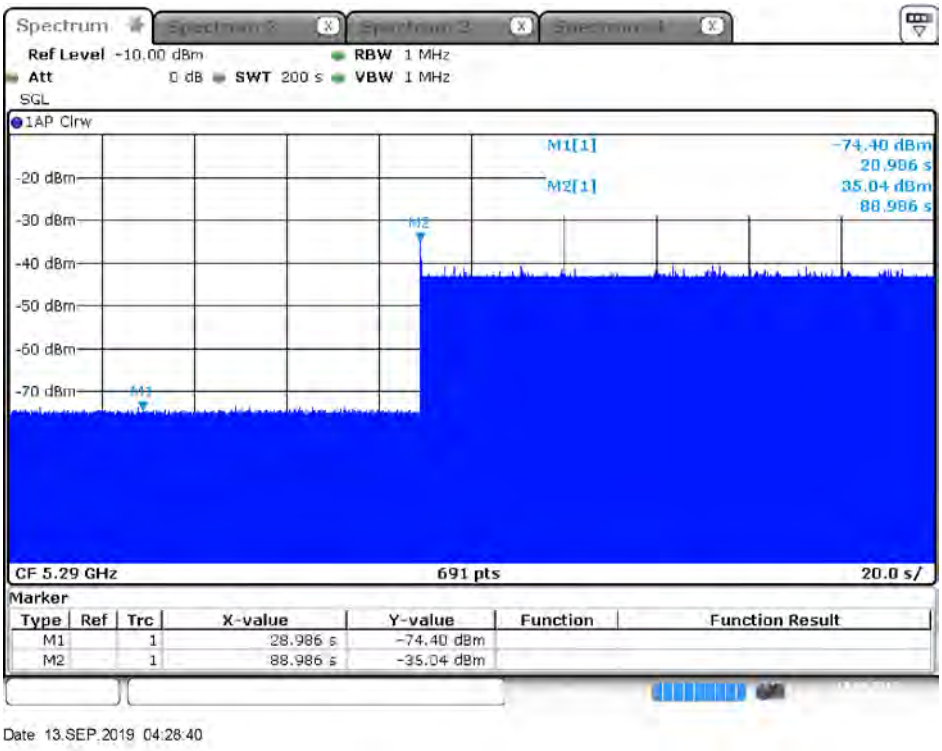
W56 band (5470-5725 MHz)	Modulation Mode: ax (HEW40)

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (30.435 sec). The initial power up time of the EUT is indicated by marker 1 (30.435 sec). Initial beacons/data transmissions are indicated by marker 2 (90.435 sec).



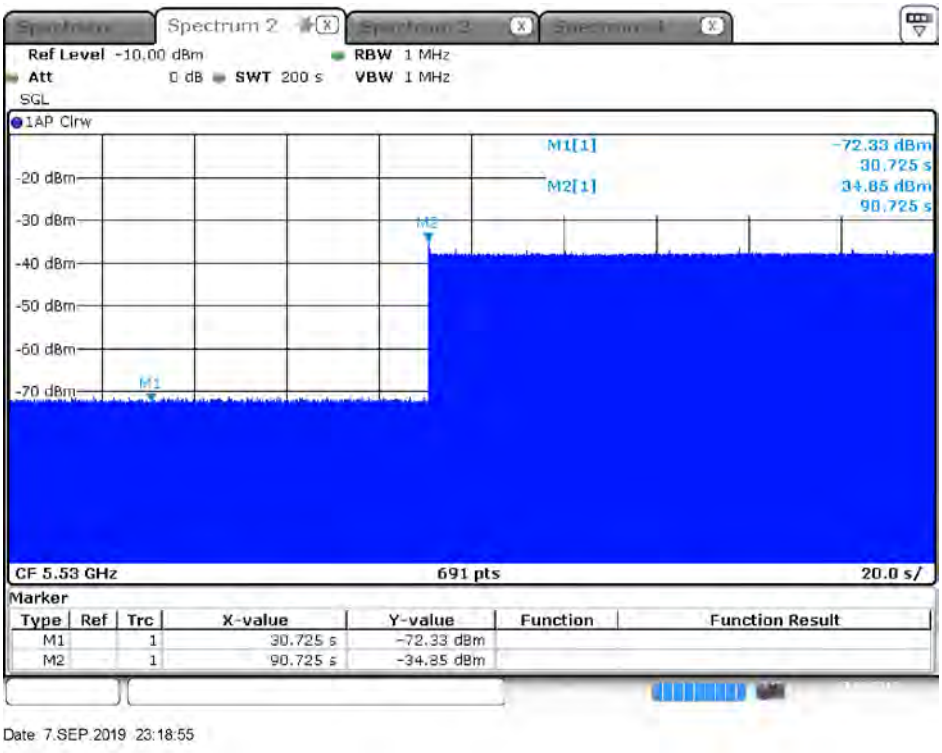
W53 band (5250-5350 MHz)	Modulation Mode: ax (HEW80)

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (28.986 sec). The initial power up time of the EUT is indicated by marker 1 (28.986 sec). Initial beacons/data transmissions are indicated by marker 2 (88.986 sec).



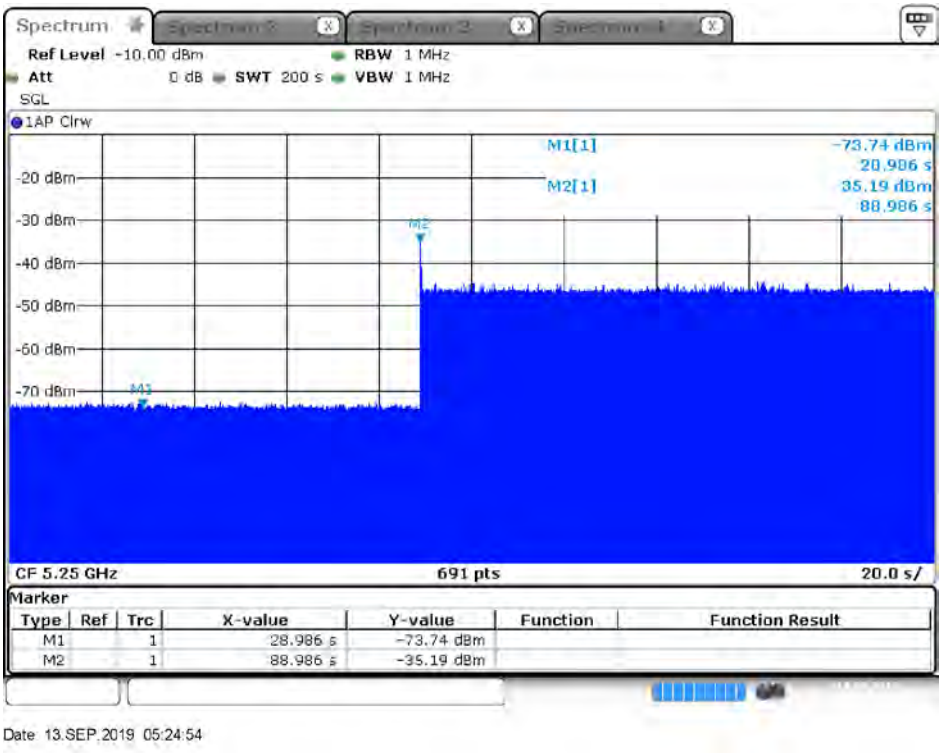
W56 band (5470-5725 MHz)	Modulation Mode: ax (HEW80)

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (30.725 sec). The initial power up time of the EUT is indicated by marker 1 (30.725 sec). Initial beacons/data transmissions are indicated by marker 2 (90.725 sec).



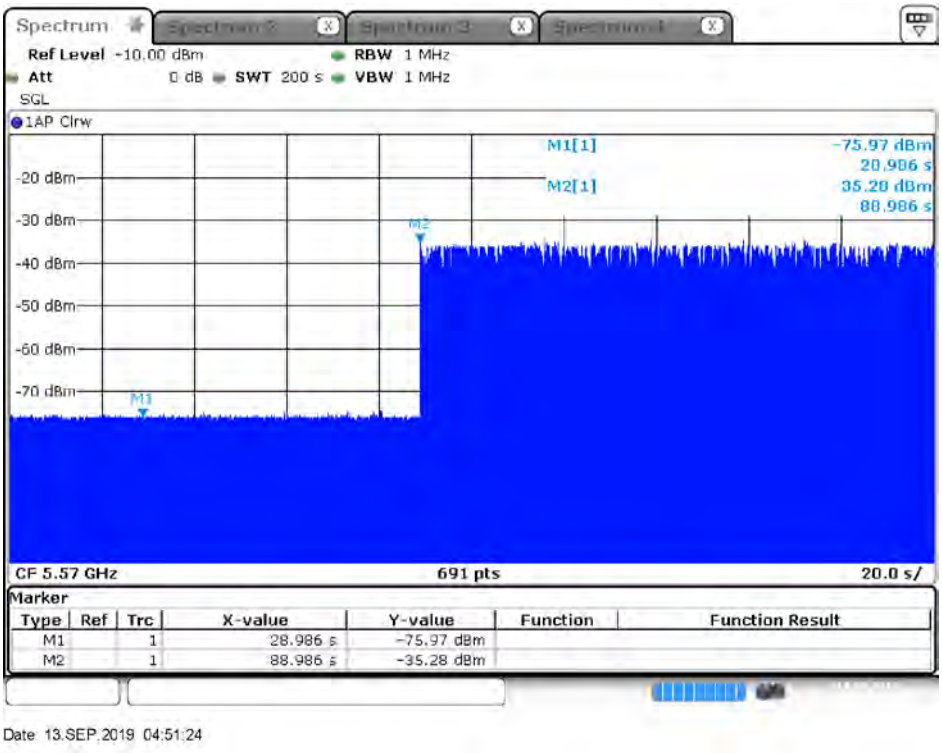
W53 band (5250-5350 MHz)	Modulation Mode: ax (HEW160)

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (28.986 sec). The initial power up time of the EUT is indicated by marker 1 (28.986 sec). Initial beacons/data transmissions are indicated by marker 2 (88.986 sec).



W56 band (5470-5725 MHz)	Modulation Mode: ax (HEW160)

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (28.986 sec). The initial power up time of the EUT is indicated by marker 1 (28.986 sec). Initial beacons/data transmissions are indicated by marker 2 (88.986 sec).



3.2.5 Radar Detection Threshold (during the Channel Availability Check) Result

Radar Detection Threshold (during the Channel Availability Check) Result					
Detection Threshold Level (dBm)			-64		
Modulation Mode	**Freq. (MHz)**	**Radar Test Signal (#)**	**Nr of Times Triggered (# out of 4)**	**Detection Probability (%)**	**Detection Probability Limit (%)**
ax (HEW20)	5300	1 - Fixed	4	100	100
		2 - Fixed	4	100	100
ax (HEW20)	5500	1 - Fixed	4	100	100
		2 - Fixed	4	100	100
		3 - Fixed	4	100	100
		4 - Variable	4	100	100
		5 - Variable	4	100	100
		6 - Variable	4	100	100
		7 - Chirp	4	100	100
		8 - Hopping	4	100	100
Result		**PASS**			

Radar Detection Threshold (during the Channel Availability Check) Result					
Detection Threshold Level (dBm)			-64		
Modulation Mode	**Freq. (MHz)**	**Radar Test Signal (#)**	**Nr of Times Triggered (# out of 4)**	**Detection Probability (%)**	**Detection Probability Limit (%)**
ax (HEW40)	5310	1 - Fixed	4	100	100
		2 - Fixed	4	100	100
ax (HEW40)	5510	1 - Fixed	4	100	100
		2 - Fixed	4	100	100
		3 - Fixed	4	100	100
		4 - Variable	4	100	100
		5 - Variable	4	100	100
		6 - Variable	4	100	100
		7 - Chirp	4	100	100
		8 - Hopping	4	100	100
Result		**PASS**			

Radar Detection Threshold (during the Channel Availability Check) Result					
Detection Threshold Level (dBm)			-64		
Modulation Mode	Freq. (MHz)	Radar Test Signal (#)	Nr of Times Triggered (# out of 4)	Detection Probability (%)	Detection Probability Limit (%)
ax (HEW80)	5290	1 - Fixed	4	100	100
		2 - Fixed	4	100	100
ax (HEW80)	5530	1 - Fixed	4	100	100
		2 - Fixed	4	100	100
		3 - Fixed	4	100	100
		4 - Variable	4	100	100
		5 - Variable	4	100	100
		6 - Variable	4	100	100
		7 - Chirp	4	100	100
		8 - Hopping	4	100	100
Result		PASS			

Radar Detection Threshold (during the Channel Availability Check) Result					
Detection Threshold Level (dBm)			-64		
Modulation Mode	Freq. (MHz)	Radar Test Signal (#)	Nr of Times Triggered (# out of 4)	Detection Probability (%)	Detection Probability Limit (%)
ax (HEW160)	5250	1 - Fixed	4	100	100
		2 - Fixed	4	100	100
ax (HEW160)	5570	1 - Fixed	4	100	100
		2 - Fixed	4	100	100
		3 - Fixed	4	100	100
		4 - Variable	4	100	100
		5 - Variable	4	100	100
		6 - Variable	4	100	100
		7 - Chirp	4	100	100
		8 - Hopping	4	100	100
Result		PASS			

3.3 In-service Monitoring

3.3.1 In-service Monitoring Limit

In-service Monitoring Limit	
☒	The *In-Service Monitoring* shall be used to monitor an *Operating Channel*.
☒	The *In-Service-Monitoring* shall start immediately after the EUT has started transmissions on a channel. During the *In-Service Monitoring*, the EUT shall be capable of detecting any of the radar test signals that fall within the started transmissions ranges and with a level above the *Radar Detection Threshold*.
☒	The minimum required detection probability is defined in clause3.1.1 DFS Parameters.

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method for W53	
Measuring Equipment Conditions	MIC Notice No.88 Appendix No.45, clause 13.2/26.2
Conditions of Equipment under Test	MIC Notice No.88 Appendix No.45, clause 13.3/26.3
Measuring Operation Procedures	MIC Notice No.88 Appendix No.45, clause 13.4/26.4
Presentation of Results	MIC Notice No.88 Appendix No.45, clause 13.5/26.5
Other Conditions	MIC Notice No.88 Appendix No.45, clause 13.6/26.6

Test Method for W56	
Measuring Equipment Conditions	MIC Notice No.88 Appendix No.45, clause 13.2/27.2
Conditions of Equipment under Test	MIC Notice No.88 Appendix No.45, clause 13.3/27.3
Measuring Operation Procedures	MIC Notice No.88 Appendix No.45, clause 13.4/27.4
Presentation of Results	MIC Notice No.88 Appendix No.45, clause 13.5/27.5
Other Conditions	MIC Notice No.88 Appendix No.45, clause 13.6/27.6

3.3.4 Test Result of In-service Monitoring

In-service Monitoring Result					
Detection Threshold Level (dBm)			-64 (DFS Detection Threshold)		
Modulation Mode	**Freq. (MHz)**	**Radar Test Signal (#)**	**Nr of Times Triggered (# out of 20)**	**Detection Probability (%)**	**Detection Probability Limit (%)**
ax (HEW20)	5300	1 - Fixed	16	80	60
		2 - Fixed	15	75	60
ax (HEW20)	5500	1 - Fixed	17	85	60
		2 - Fixed	18	90	60
		3 - Fixed	19	95	60
		4 - Variable	18	90	60
		5 - Variable	18	90	60
		6 - Variable	17	85	60
		7 - Chirp	18	90	80
		8 - Hopping	20	100	70
Result		**PASS**			

In-service Monitoring Result					
Detection Threshold Level (dBm)			-64 (DFS Detection Threshold)		
Modulation Mode	**Freq. (MHz)**	**Radar Test Signal (#)**	**Nr of Times Triggered (# out of 20)**	**Detection Probability (%)**	**Detection Probability Limit (%)**
ax (HEW40)	5310	1 - Fixed	14	70	60
		2 - Fixed	12	60	60
ax (HEW40)	5510	1 - Fixed	17	85	60
		2 - Fixed	18	90	60
		3 - Fixed	18	90	60
		4 - Variable	19	95	60
		5 - Variable	19	95	60
		6 - Variable	16	80	60
		7 - Chirp	18	90	80
		8 - Hopping	20	100	70
Result		**PASS**			

In-service Monitoring Result					
Detection Threshold Level (dBm)			-64 (DFS Detection Threshold)		
Modulation Mode	Freq. (MHz)	Radar Test Signal (#)	Nr of Times Triggered (# out of 20)	Detection Probability (%)	Detection Probability Limit (%)
ax (HEW80)	5290	1 - Fixed	14	70	60
		2 - Fixed	13	65	60
ax (HEW80)	5530	1 - Fixed	19	95	60
		2 - Fixed	18	90	60
		3 - Fixed	19	95	60
		4 - Variable	19	95	60
		5 - Variable	16	80	60
		6 - Variable	16	80	60
		7 - Chirp	18	90	80
		8 - Hopping	20	100	70
Result		PASS			

In-service Monitoring Result					
Detection Threshold Level (dBm)			-64 (DFS Detection Threshold)		
Modulation Mode	Freq. (MHz)	Radar Test Signal (#)	Nr of Times Triggered (# out of 20)	Detection Probability (%)	Detection Probability Limit (%)
ax (HEW160)	5250	1 - Fixed	14	70	60
		2 - Fixed	14	70	60
ax (HEW160)	5570	1 - Fixed	16	80	60
		2 - Fixed	17	85	60
		3 - Fixed	16	80	60
		4 - Variable	16	80	60
		5 - Variable	16	80	60
		6 - Variable	15	75	60
		7 - Chirp	16	80	80
		8 - Hopping	18	90	70
Result		PASS			

In-service Monitoring Result				
Detection Threshold Level (dBm)			-64 (DFS Detection Threshold)	
Modulation Mode	**Freq. (MHz)**	**Radar Test Signal (#)**	**Detection Probability (%)**	**Detection Probability Limit (%)**
ax (HEW20)	5500	1 - Fixed	85	60
		2 - Fixed	90	
		3 - Fixed	95	
		4 - Variable	90	
		5 - Variable	90	
		6 - Variable	85	
		Total	89	80
ax (HEW40)	5510	1 - Fixed	85	60
		2 - Fixed	90	
		3 - Fixed	90	
		4 - Variable	95	
		5 - Variable	95	
		6 - Variable	80	
		Total	89	80
ax (HEW80)	5530	1 - Fixed	95	60
		2 - Fixed	90	
		3 - Fixed	95	
		4 - Variable	95	
		5 - Variable	80	
		6 - Variable	80	
		Total	89	80
ax (HEW160)	5570	1 - Fixed	80	60
		2 - Fixed	85	
		3 - Fixed	80	
		4 - Variable	80	
		5 - Variable	80	
		6 - Variable	75	
		Total	80	80
Result		**PASS**		

3.4 Channel Shutdown and Non-Occupancy Period

3.4.1 Channel Shutdown and Non-Occupancy Period Limit

Channel Shutdown and Non-Occupancy Period Limit	
Channel Move Time	10 sec
Channel Closing Transmission Time	260 ms in Channel Move Time 10 sec period.
Non-occupancy period	Minimum 30 minutes

3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method for W53	
Measuring Equipment Conditions	MIC Notice No.88 Appendix No.45, clause 13.2/26.2
Conditions of Equipment under Test	MIC Notice No.88 Appendix No.45, clause 13.3/26.3
Measuring Operation Procedures	MIC Notice No.88 Appendix No.45, clause 13.4/26.4
Presentation of Results	MIC Notice No.88 Appendix No.45, clause 13.5/26.5
Other Conditions	MIC Notice No.88 Appendix No.45, clause 13.6/26.6

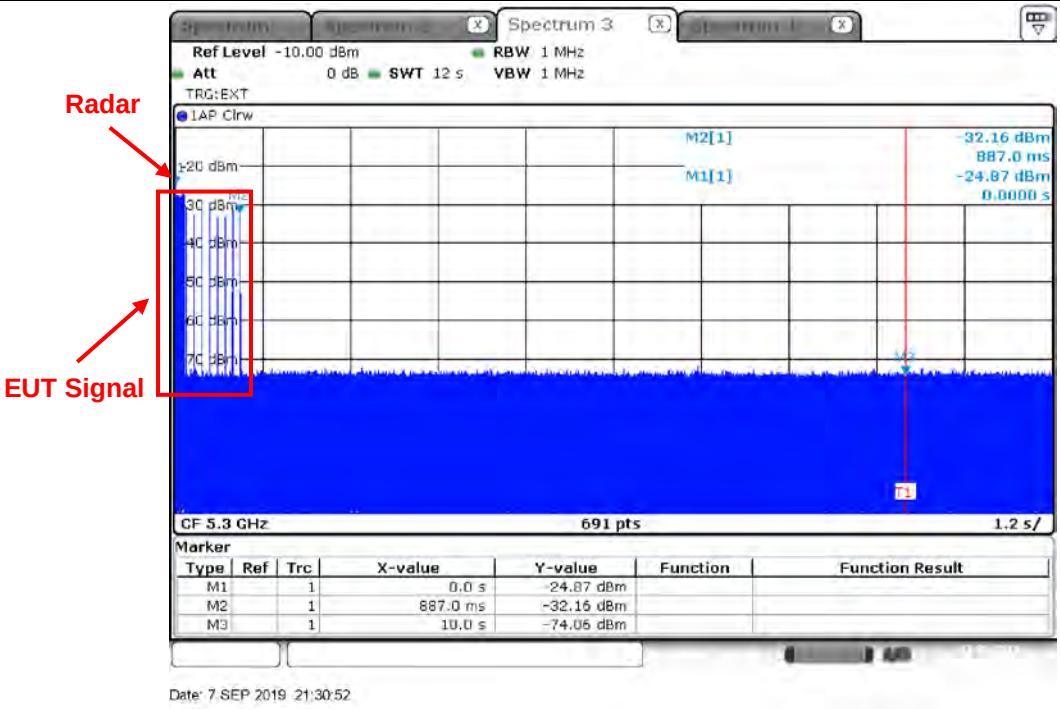
Test Method for W56	
Measuring Equipment Conditions	MIC Notice No.88 Appendix No.45, clause 13.2/27.2
Conditions of Equipment under Test	MIC Notice No.88 Appendix No.45, clause 13.3/27.3
Measuring Operation Procedures	MIC Notice No.88 Appendix No.45, clause 13.4/27.4
Presentation of Results	MIC Notice No.88 Appendix No.45, clause 13.5/27.5
Other Conditions	MIC Notice No.88 Appendix No.45, clause 13.6/27.6

3.4.4 Test Result of Channel Shutdown

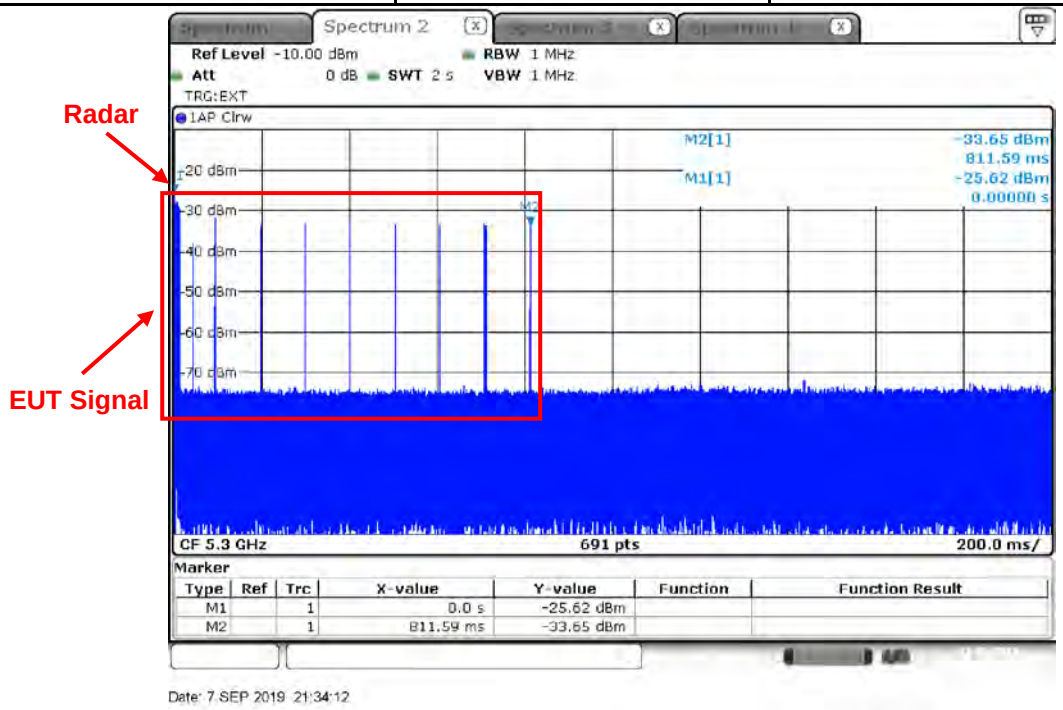
Channel Shutdown and Non-Occupancy Period Result				
Detection Threshold Level (dBm)			-64	
Modulation Mode	**Freq. (MHz)**	**Radar Test Signal**	**Channel Closing Transmission Time (ms)**	**Channel Move Time (s)**
ax (HEW20)	5300	1 - Fixed	40.579	0.887
ax (HEW20)	5500	2 - Fixed	81.159	0.782
ax (HEW40)	5310	1 - Fixed	75.362	0.782
ax (HEW40)	5510	2 - Fixed	75.362	0.782
ax (HEW80)	5290	1 - Fixed	57.971	0.904
ax (HEW80)	5530	2 - Fixed	26.086	0.939
ax (HEW160)	5250	1 - Fixed	69.565	0.939
ax (HEW160)	5570	2 - Fixed	78.260	0.869
Limit			260 ms	10 sec
Result			**PASS**	

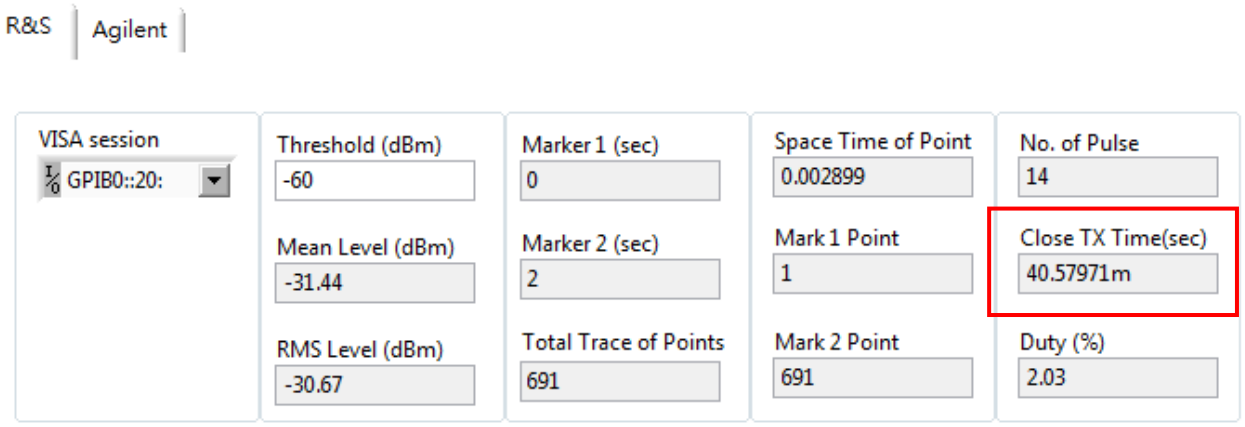
3.4.5 Channel Shutdown Plots

W53 band (5250-5350 MHz)		
Radar #1 Channel Move Time: < 10 sec		
Modulation Mode: ax (HEW20)	Test Frequency: 5300 MHz	Channel Move Time: 0.887 s



Radar #1 Channel Closing Transmission Time: 40.579 ms		Sampling Bins (B): 690
Modulation Mode: ax (HEW20)	Test Frequency: 5300 MHz	Number of Sampling Bins (N): 14

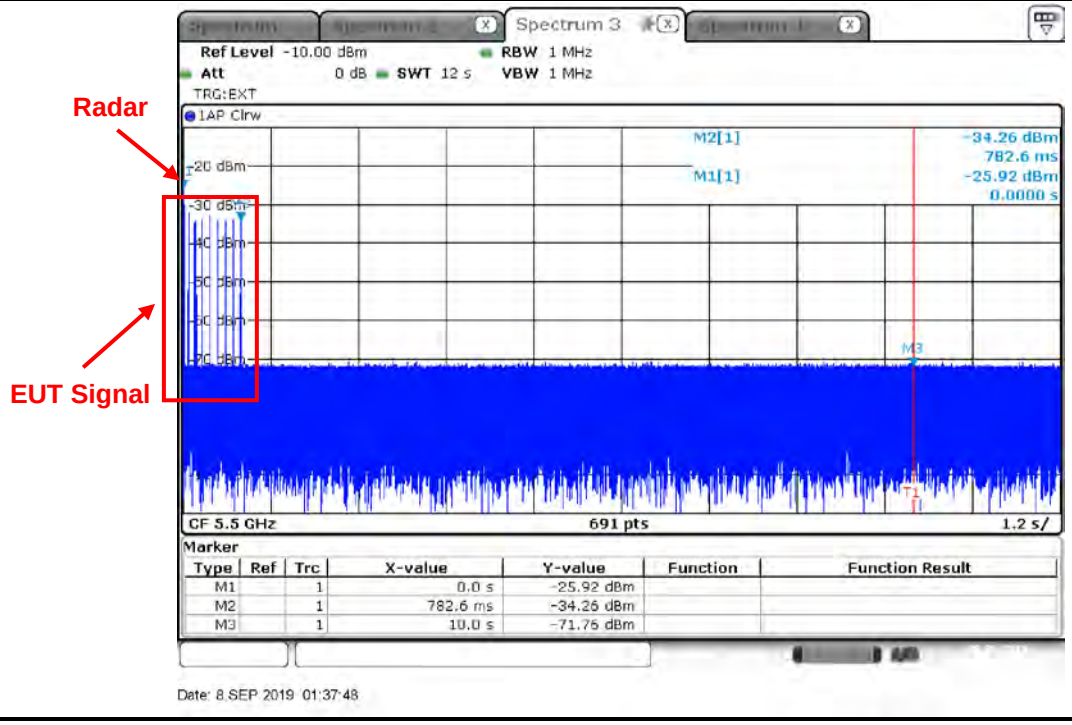




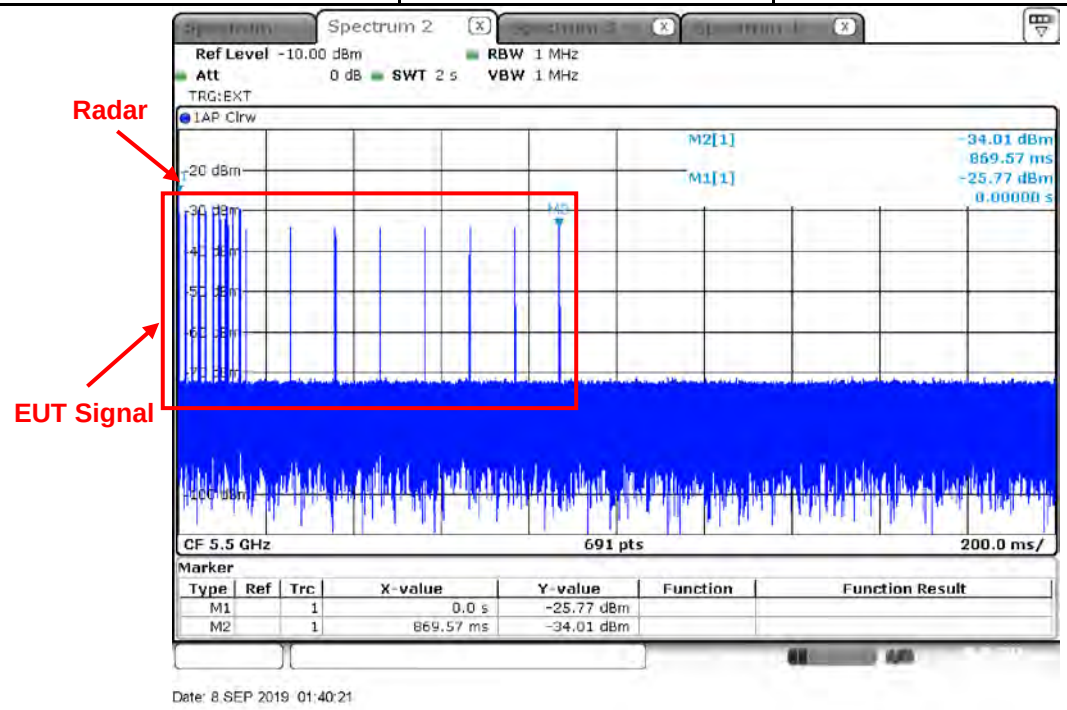
Dwell=S / B=2000ms / 690=2.89855ms, C=N x Dwell=14 x 2.89855ms=40.579 ms

Note: The first sweep point of spectrum analyzer is occupied by radar signal, therefore, the number "Sweep Point-1" should be used for Channel Closing Transmission Time calculation.
The Channel Closing Transmission Time is calculated by Closing Time = N*(Sweep time/Sweep Point-1) where N is the number of spectrum analyzer sampling bins.

W56 band (5470-5725 MHz)		
Radar #2 Channel Move Time: < 10 sec		
Modulation Mode: ax (HEW20)	Test Frequency: 5500 MHz	Channel Move Time: 0.782 s



Radar #2 Channel Closing Transmission Time: 81.159 ms		Sampling Bins (B): 690
Modulation Mode: ax (HEW20)	Test Frequency: 5500 MHz	Number of Sampling Bins (N): 28



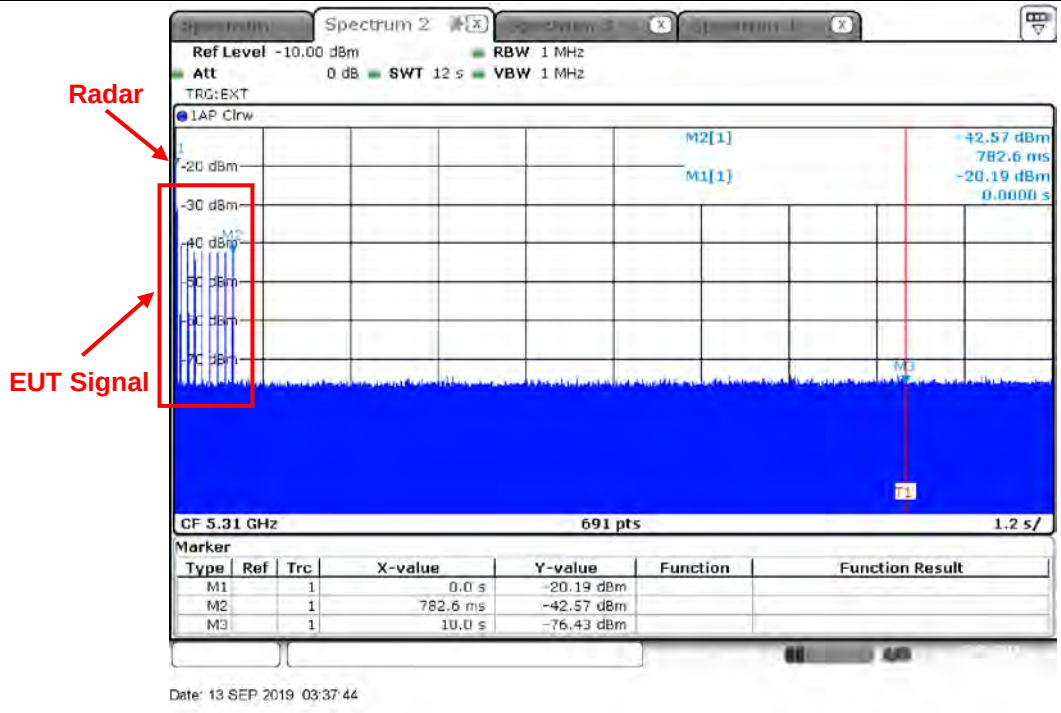
R&S | Agilent

VISA session	Threshold (dBm)	Marker 1 (sec)	Space Time of Point	No. of Pulse
GPIB0::20:	-60	0	0.002899	28
	Mean Level (dBm)	Marker 2 (sec)	Mark 1 Point	Close TX Time(sec)
	-31.48	2	1	81.15942m
	RMS Level (dBm)	Total Trace of Points	Mark 2 Point	Duty (%)
	-31.03	691	691	4.06

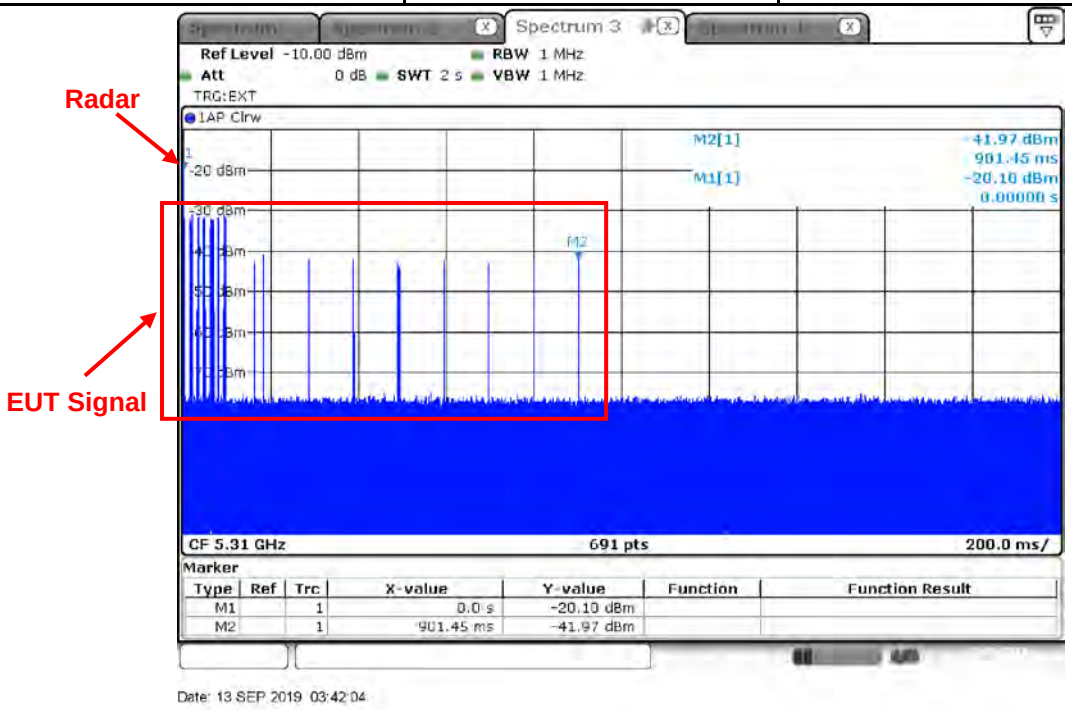
Dwell=S / B=2000ms / 690=2.89855ms, C=N x Dwell=28 x 2.89855ms=81.159 ms

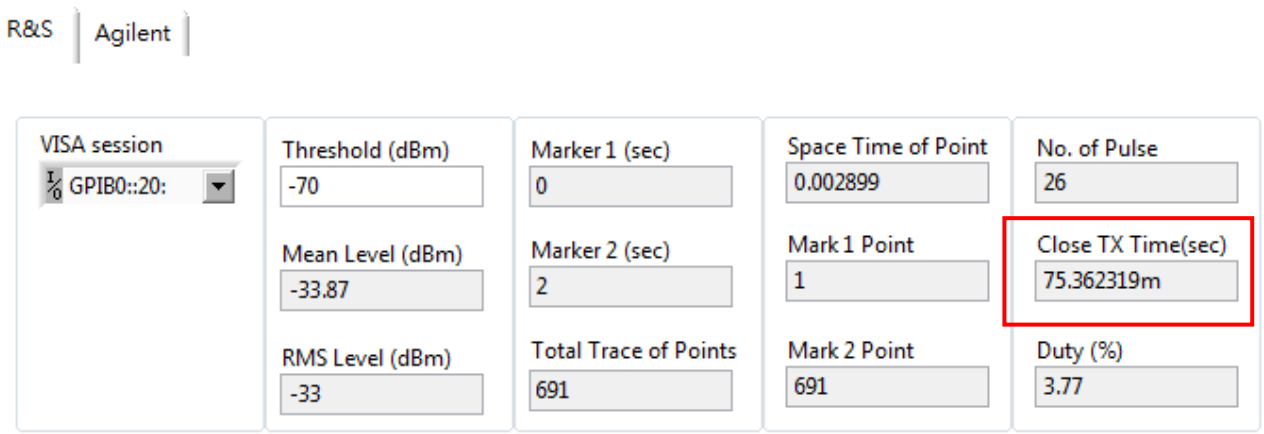
Note: The first sweep point of spectrum analyzer is occupied by radar signal, therefore, the number "Sweep Point-1" should be used for Channel Closing Transmission Time calculation.
The Channel Closing Transmission Time is calculated by Closing Time = N*(Sweep time/Sweep Point-1) where N is the number of spectrum analyzer sampling bins.

W53 band (5250-5350 MHz)		
Radar #1 Channel Move Time: < 10 sec		
Modulation Mode: ax (HEW40)	Test Frequency: 5310 MHz	Channel Move Time: 0.782 s



Radar #1 Channel Closing Transmission Time: 75.362 ms		Sampling Bins (B): 690
Modulation Mode: ax (HEW40)	Test Frequency: 5310 MHz	Number of Sampling Bins (N): 26

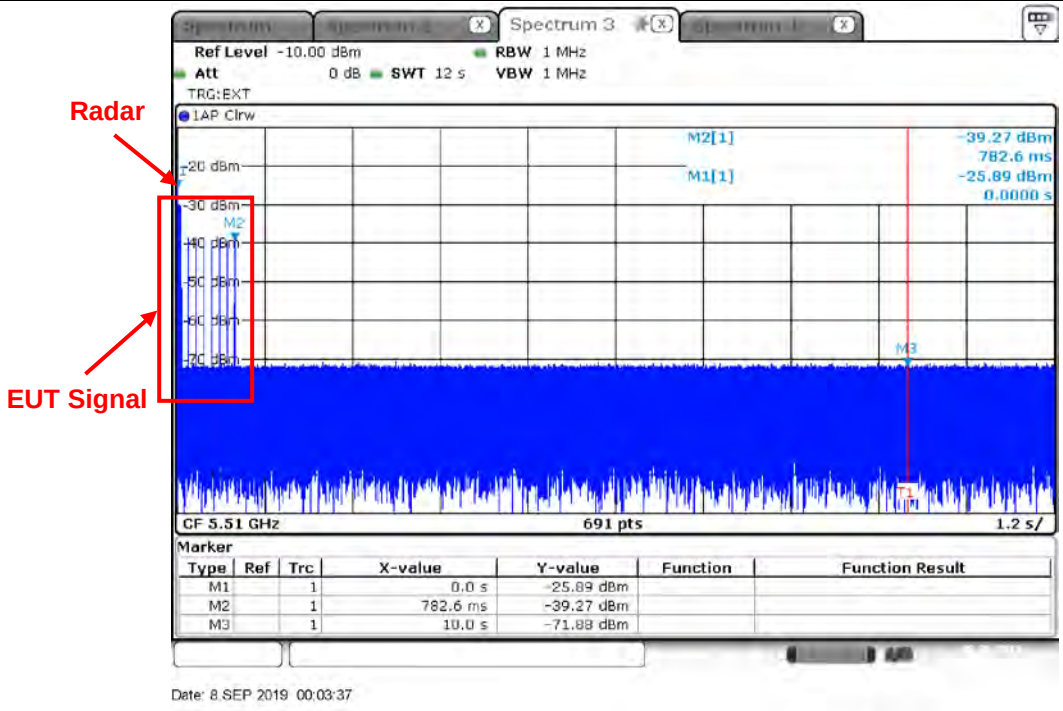




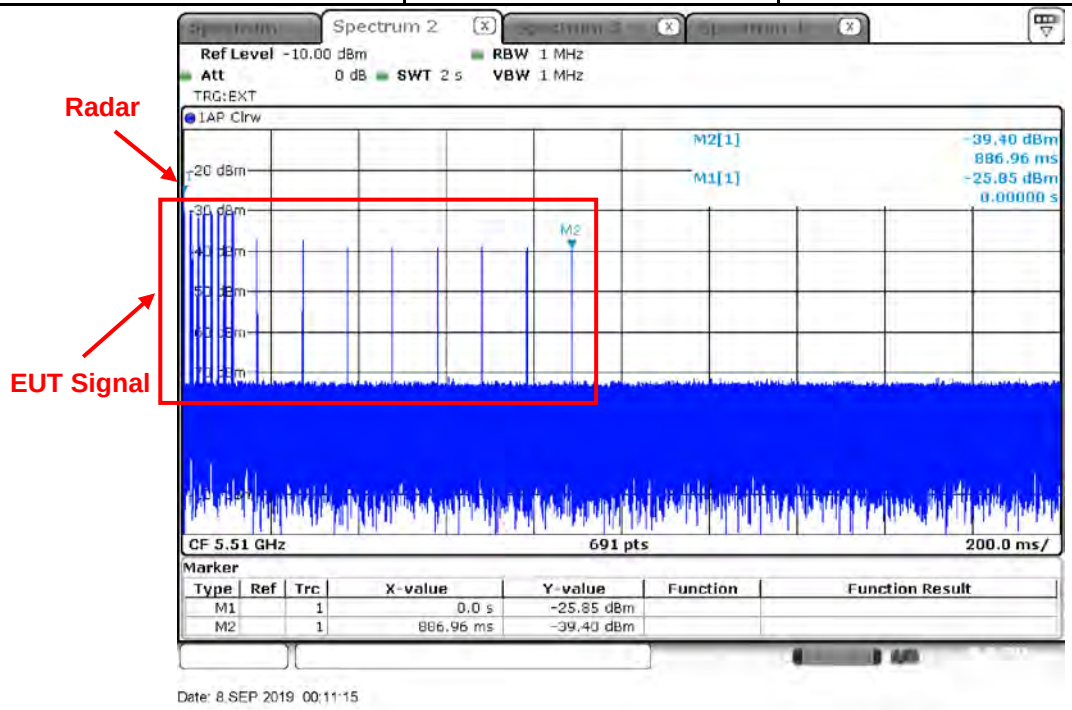
Dwell=S / B=2000ms / 690=2.89855ms, C=N x Dwell=26 x 2.89855ms=75.362 ms

Note: The first sweep point of spectrum analyzer is occupied by radar signal, therefore, the number "Sweep Point-1" should be used for Channel Closing Transmission Time calculation.
The Channel Closing Transmission Time is calculated by Closing Time = N*(Sweep time/Sweep Point-1) where N is the number of spectrum analyzer sampling bins.

W56 band (5470-5725 MHz)		
Radar #2 Channel Move Time: < 10 sec		
Modulation Mode: ax (HEW40)	Test Frequency: 5510 MHz	Channel Move Time: 0.782 s



Radar #2 Channel Closing Transmission Time: 75.362 ms		Sampling Bins (B): 690
Modulation Mode: ax (HEW40)	Test Frequency: 5510 MHz	Number of Sampling Bins (N): 26



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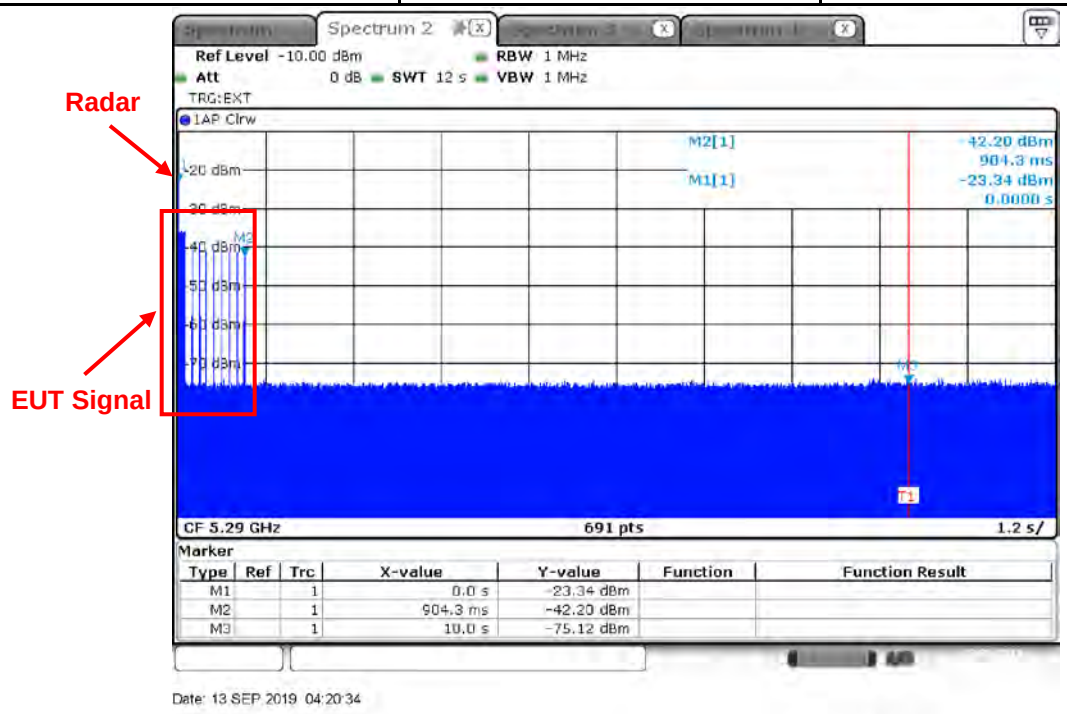
VISA session	Threshold (dBm)	Marker 1 (sec)	Space Time of Point	No. of Pulse
GPIB0::20:	-60	0	0.002899	26
	Mean Level (dBm)	Marker 2 (sec)	Mark 1 Point	Close TX Time(sec)
	-32.6	2	1	75.362319m
	RMS Level (dBm)	Total Trace of Points	Mark 2 Point	Duty (%)
	-31.78	691	691	3.77

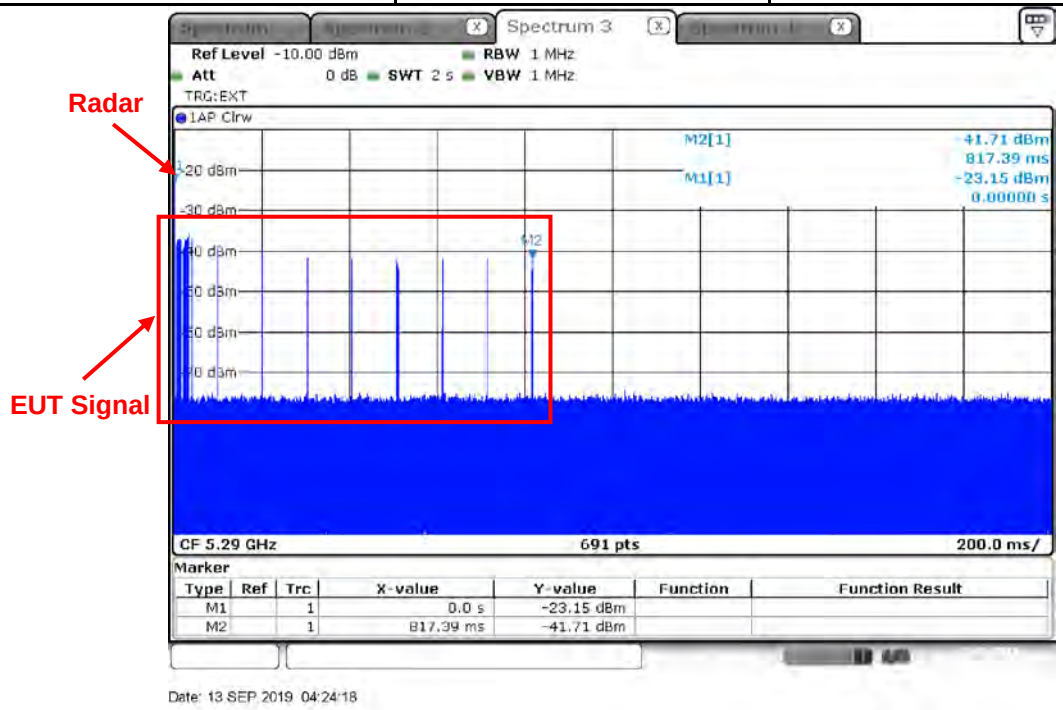
Dwell=S / B=2000ms / 690=2.89855ms, C=N x Dwell=26 x 2.89855ms=75.362 ms

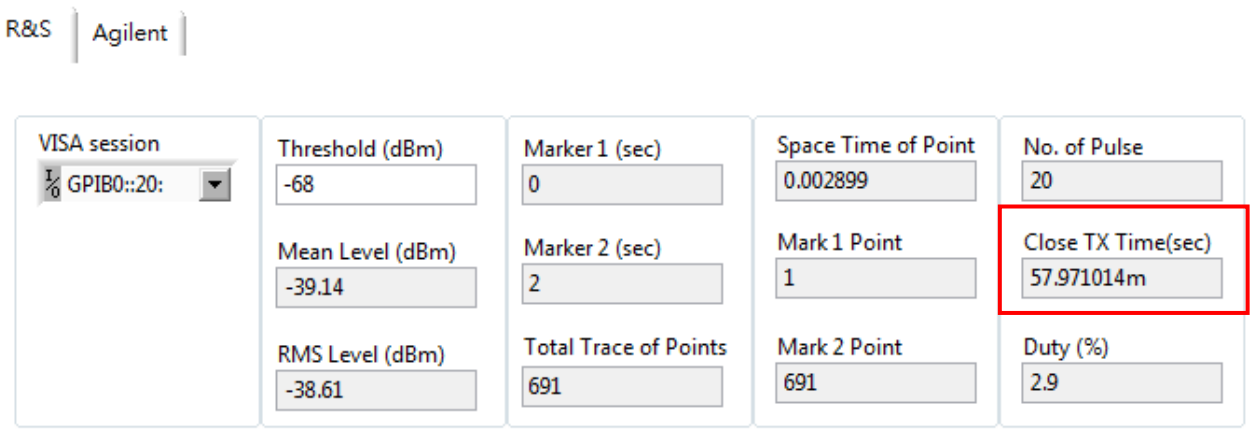
Note: The first sweep point of spectrum analyzer is occupied by radar signal, therefore, the number "Sweep Point-1" should be used for Channel Closing Transmission Time calculation.
The Channel Closing Transmission Time is calculated by Closing Time = N*(Sweep time/Sweep Point-1) where N is the number of spectrum analyzer sampling bins.

W53 band (5250-5350 MHz)		
Radar #1 Channel Move Time: < 10 sec		
Modulation Mode: ax (HEW80)	Test Frequency: 5290 MHz	Channel Move Time: 0.904 s



Radar #1 Channel Closing Transmission Time: 57.971 ms		Sampling Bins (B): 690
Modulation Mode: ax (HEW80)	Test Frequency: 5290 MHz	Number of Sampling Bins (N): 20

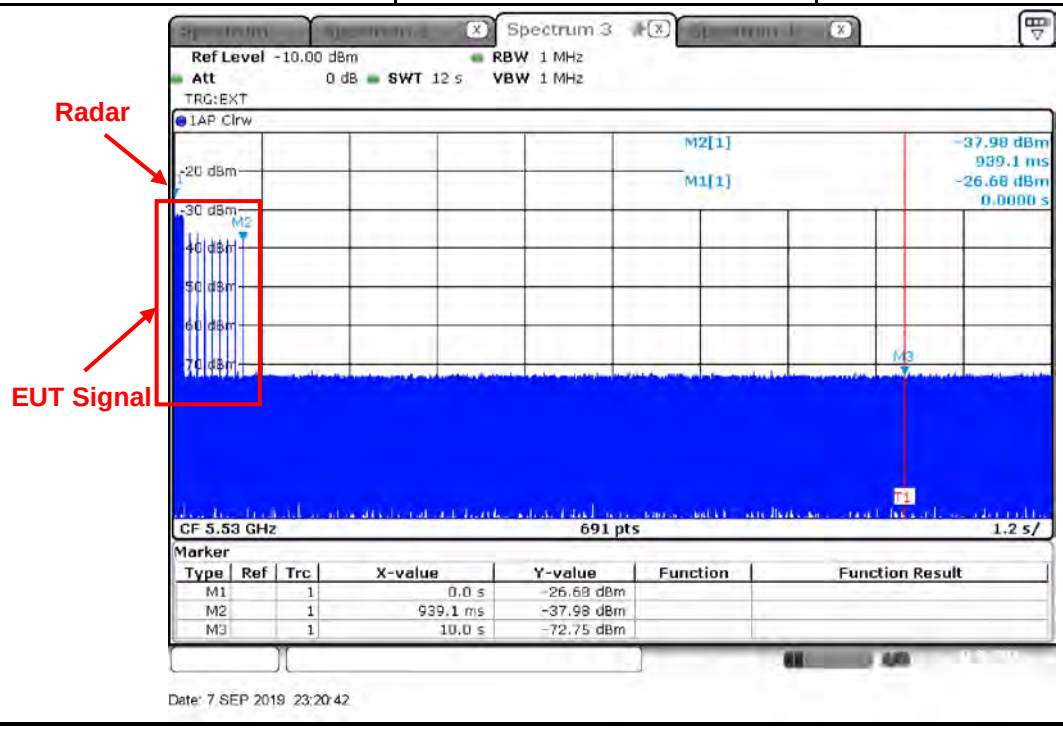




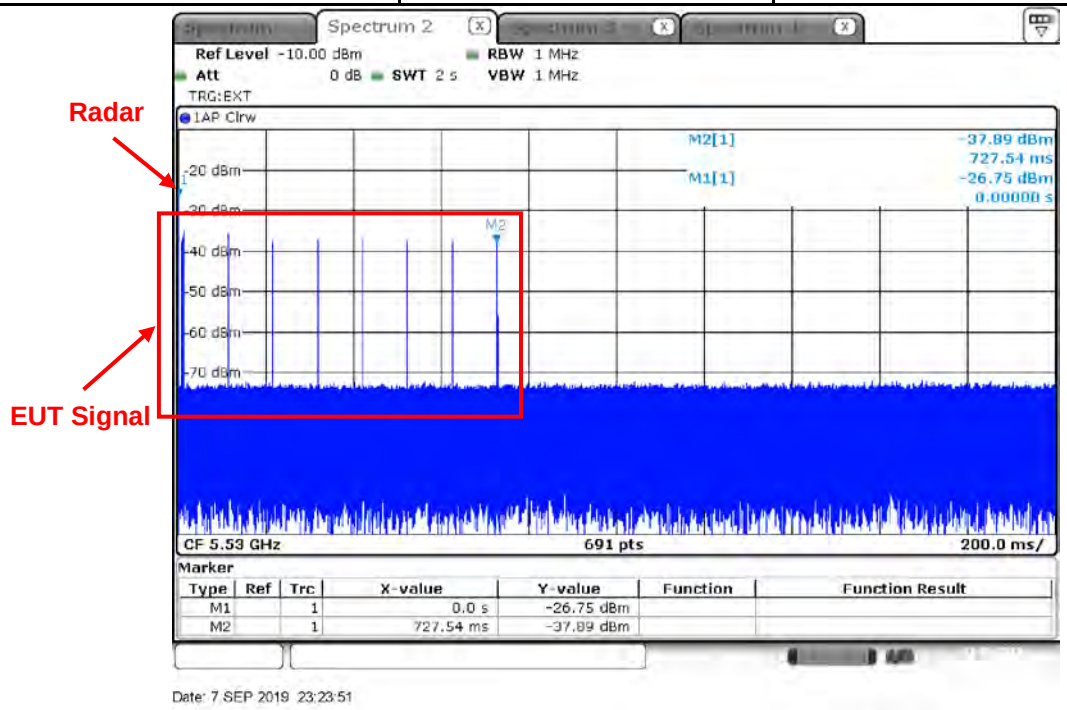
Dwell=S / B=2000ms / 690=2.89855ms, C=N x Dwell=20 x 2.89855ms=57.971 ms

Note: The first sweep point of spectrum analyzer is occupied by radar signal, therefore, the number "Sweep Point-1" should be used for Channel Closing Transmission Time calculation.
The Channel Closing Transmission Time is calculated by Closing Time = N*(Sweep time/Sweep Point-1) where N is the number of spectrum analyzer sampling bins.

W56 band (5470-5725 MHz)		
Radar #2 Channel Move Time: < 10 sec		
Modulation Mode: ax (HEW80)	Test Frequency: 5530 MHz	Channel Move Time: 0.939 s



Radar #2 Channel Closing Transmission Time: 26.086 ms		Sampling Bins (B): 690
Modulation Mode: ax (HEW80)	Test Frequency: 5530 MHz	Number of Sampling Bins (N): 9



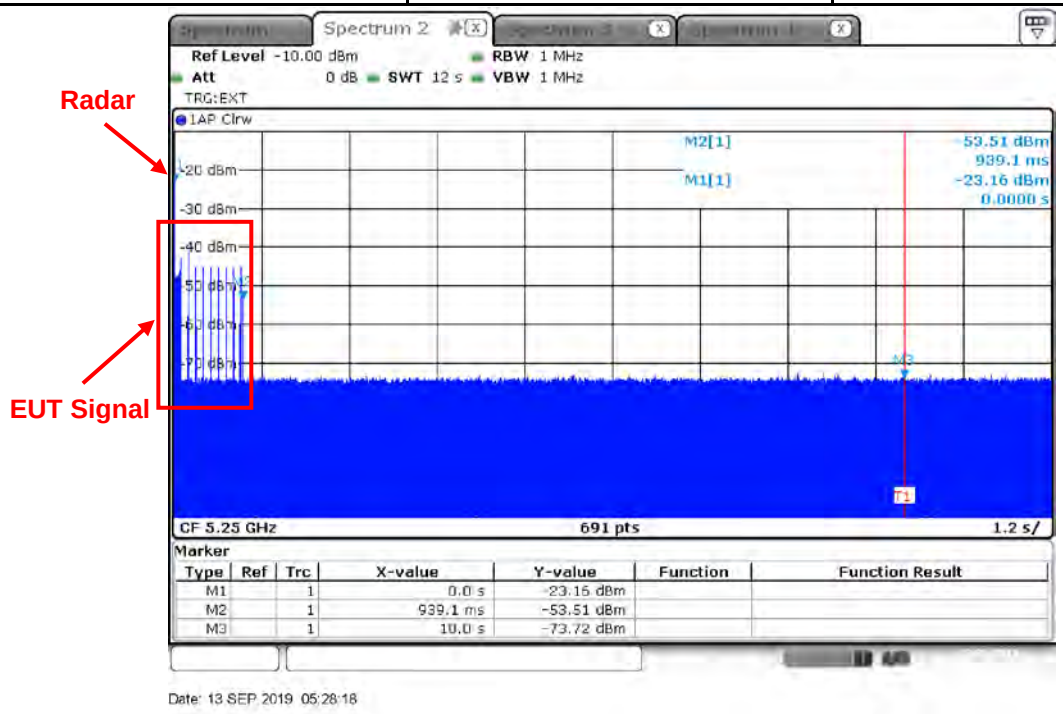
R&S | Agilent

VISA session	Threshold (dBm)	Marker 1 (sec)	Space Time of Point	No. of Pulse
GPIB0::20:	-60	0	0.002899	9
	Mean Level (dBm)	Marker 2 (sec)	Mark 1 Point	Close TX Time(sec)
	-37	2	1	26.086957m
	RMS Level (dBm)	Total Trace of Points	Mark 2 Point	Duty (%)
	-36.85	691	691	1.3

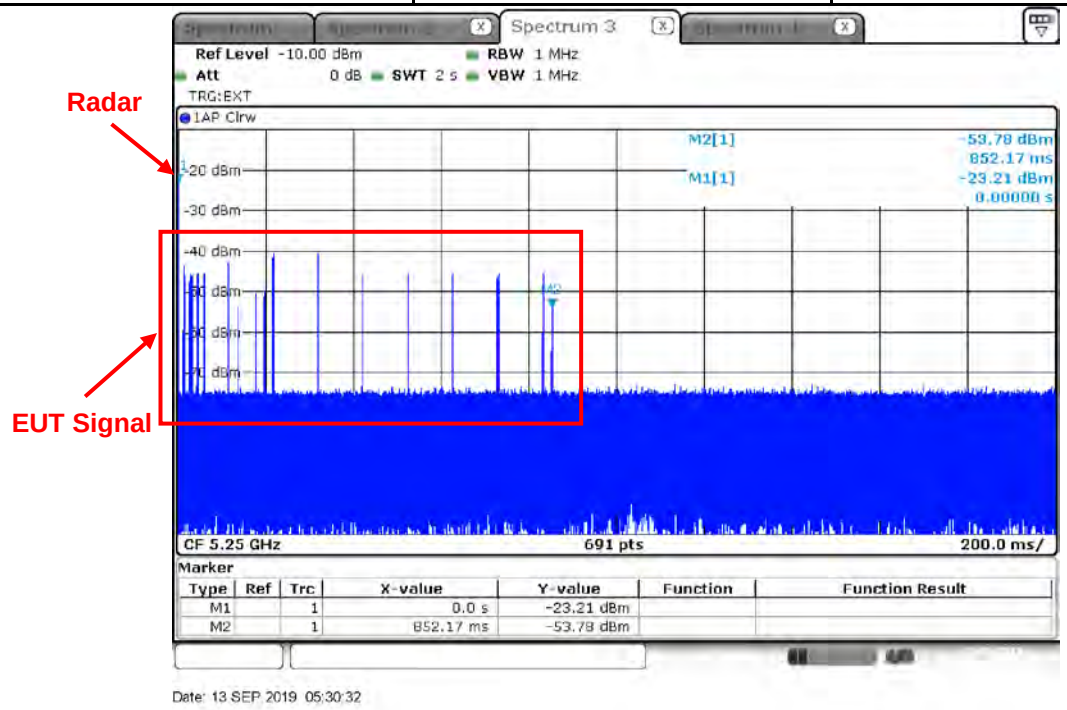
Dwell=S / B=2000ms / 690=2.89855ms, C=N x Dwell=9 x 2.89855ms=26.086 ms

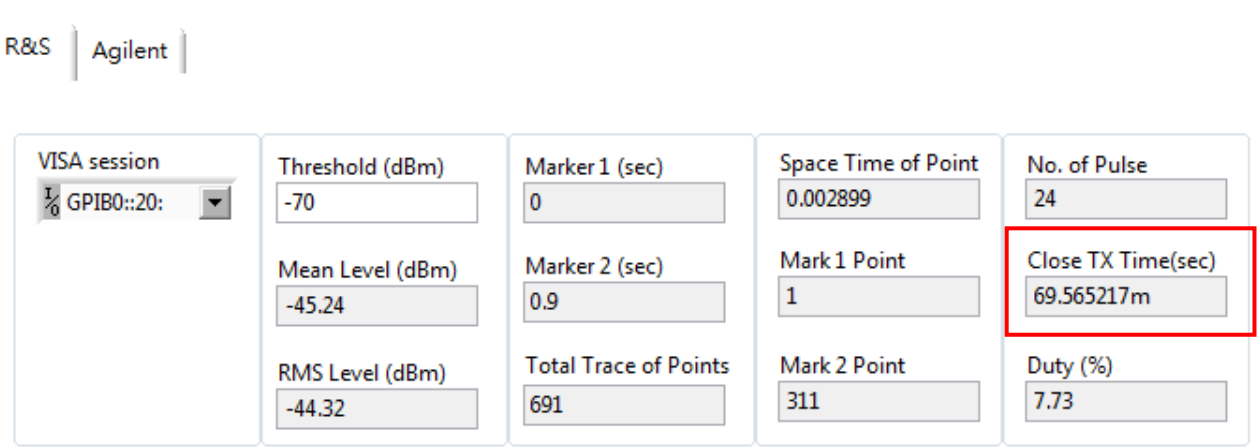
Note: The first sweep point of spectrum analyzer is occupied by radar signal, therefore, the number "Sweep Point-1" should be used for Channel Closing Transmission Time calculation.
The Channel Closing Transmission Time is calculated by Closing Time = N*(Sweep time/Sweep Point-1) where N is the number of spectrum analyzer sampling bins.

W53 band (5250-5350 MHz)		
Radar #1 Channel Move Time: < 10 sec		
Modulation Mode: ax (HEW160)	Test Frequency: 5250 MHz	Channel Move Time: 0.939 s



Radar #1 Channel Closing Transmission Time: 69.565 ms		Sampling Bins (B): 690
Modulation Mode: ax (HEW160)	Test Frequency: 5250 MHz	Number of Sampling Bins (N): 24

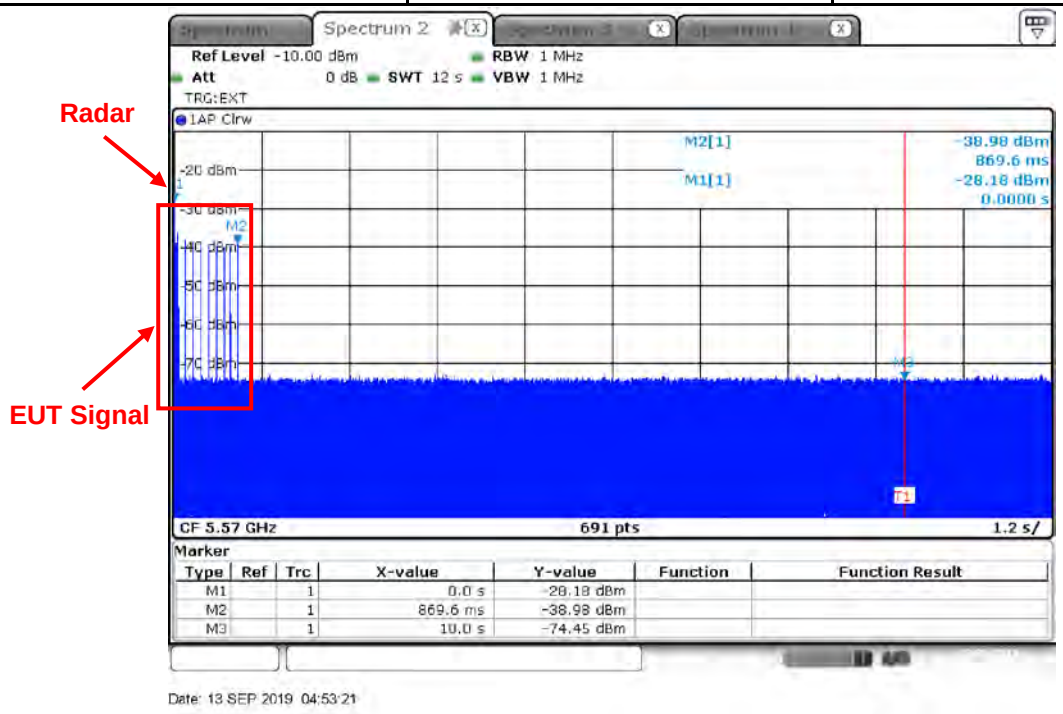




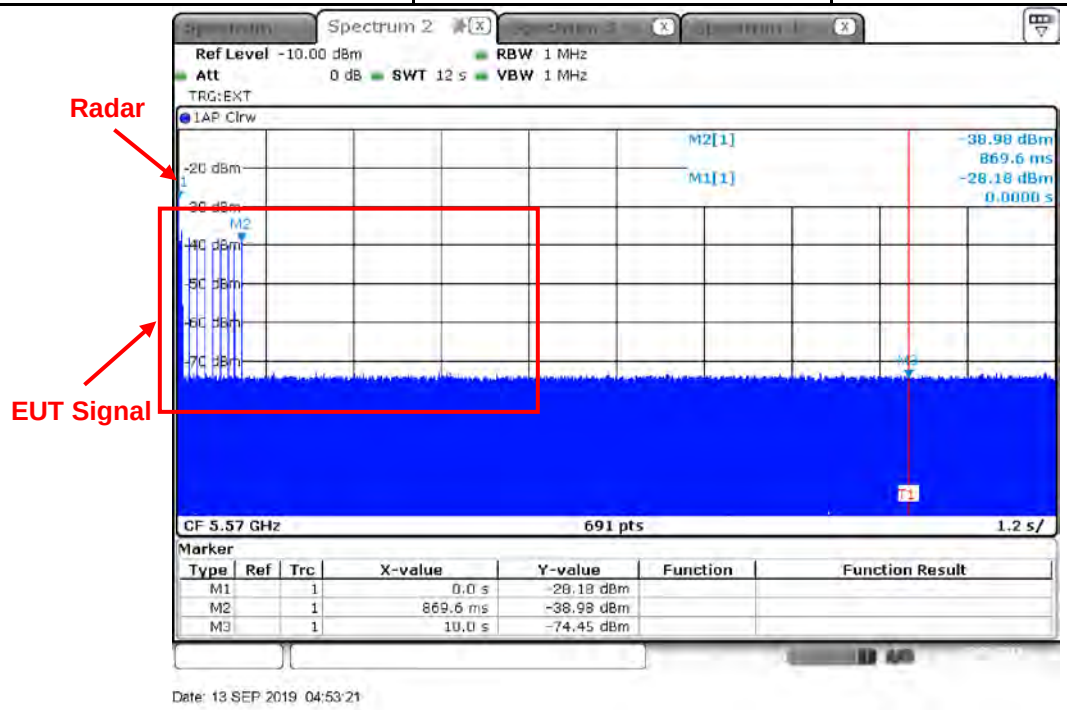
Dwell=S / B=2000ms / 690=2.89855ms, C=N x Dwell=24 x 2.89855ms=69.565 ms

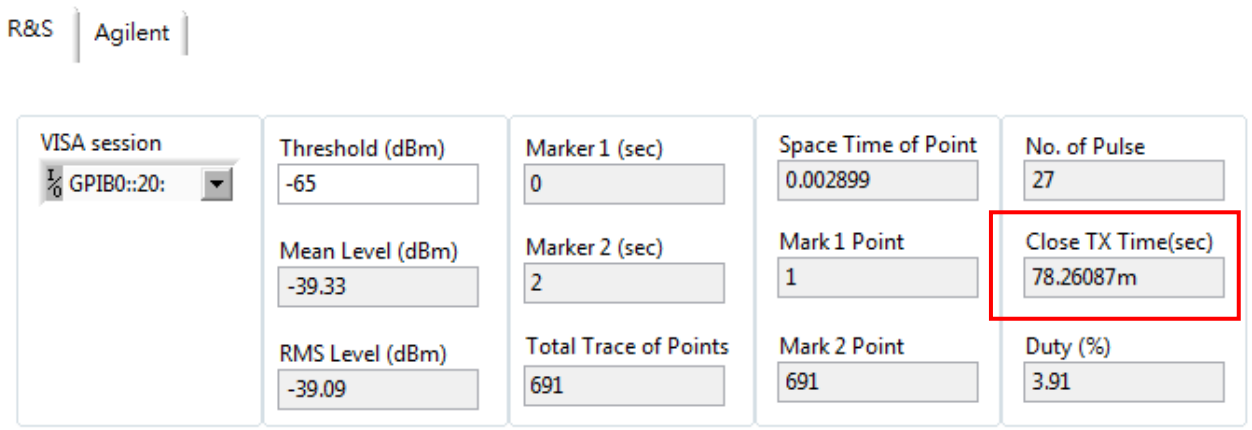
Note: The first sweep point of spectrum analyzer is occupied by radar signal, therefore, the number "Sweep Point-1" should be used for Channel Closing Transmission Time calculation.
The Channel Closing Transmission Time is calculated by Closing Time = N*(Sweep time/Sweep Point-1) where N is the number of spectrum analyzer sampling bins.

W56 band (5470-5725 MHz)		
Radar #1 Channel Move Time: < 10 sec		
Modulation Mode: ax (HEW160)	Test Frequency: 5570 MHz	Channel Move Time: 0.869 s



Radar #1 Channel Closing Transmission Time: 78.260 ms		Sampling Bins (B): 690
Modulation Mode: ax (HEW160)	Test Frequency: 5570 MHz	Number of Sampling Bins (N): 27





Dwell=S / B=2000ms / 690=2.89855ms, C=N x Dwell=27 x 2.89855ms=78.260 ms

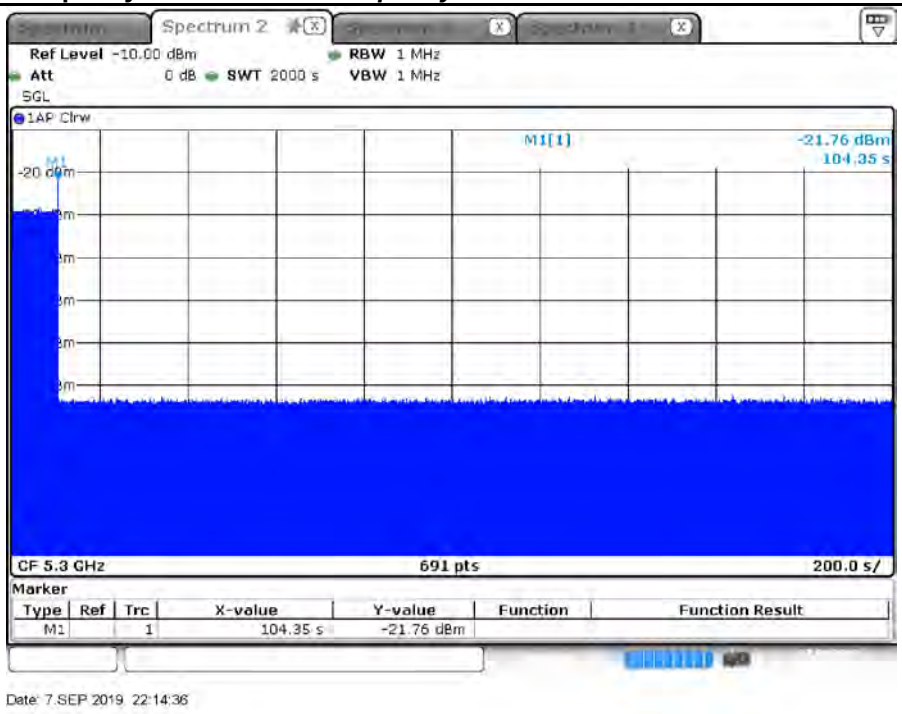
Note: The first sweep point of spectrum analyzer is occupied by radar signal, therefore, the number "Sweep Point-1" should be used for Channel Closing Transmission Time calculation.
The Channel Closing Transmission Time is calculated by Closing Time = N*(Sweep time/Sweep Point-1) where N is the number of spectrum analyzer sampling bins.

3.4.6 Test Result of Non-Occupancy Period

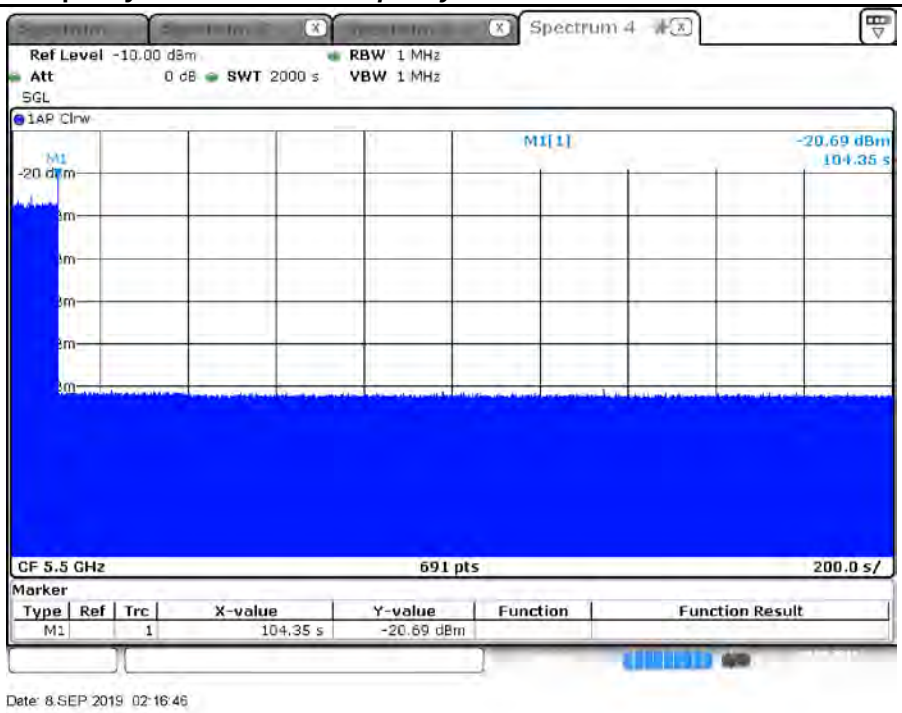
Non-Occupancy Period Result			
Detection Threshold Level (dBm)			-64
Modulation Mode	**Freq. (MHz)**	**Radar Test Signal**	**Non-Occupancy Period (min)**
ax (HEW20)	5300	1 - Fixed	>30
ax (HEW20)	5500	2 - Fixed	>30
ax (HEW40)	5310	1 - Fixed	>30
ax (HEW40)	5510	2 - Fixed	>30
ax (HEW80)	5290	1 - Fixed	>30
ax (HEW80)	5530	2 - Fixed	>30
ax (HEW160)	5250	1 - Fixed	>30
ax (HEW160)	5570	2 - Fixed	>30
Limit			30 min
Result			**PASS**

3.4.7 Non-Occupancy Period Plots

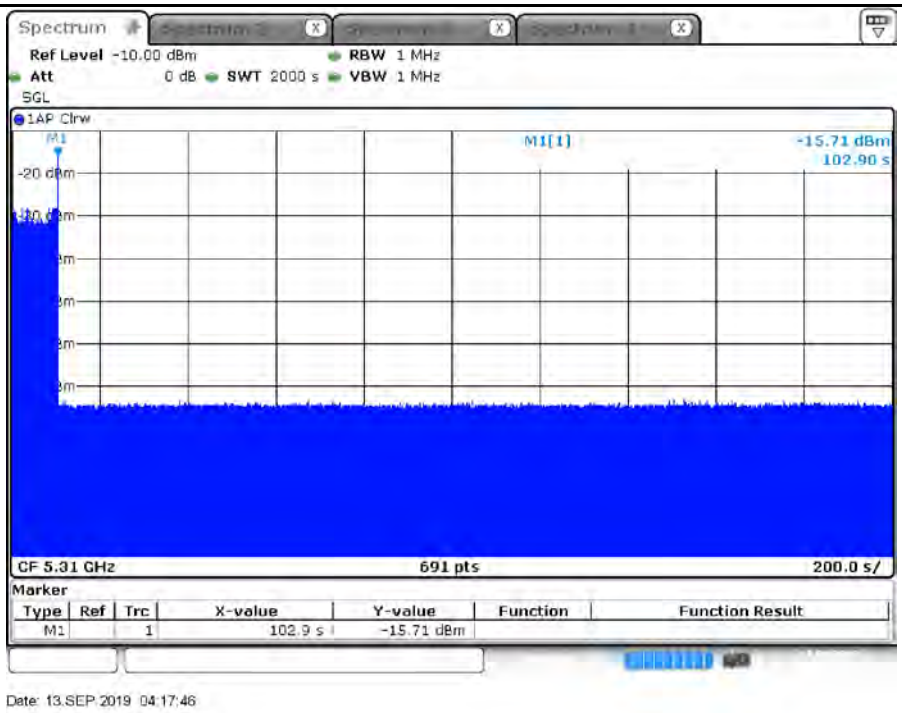
W53 band (5250-5350 MHz)	Modulation Mode: ax (HEW20)
Radar #1 Non-Occupancy Period / *Non-Occupancy Period* is more than 30 min.	



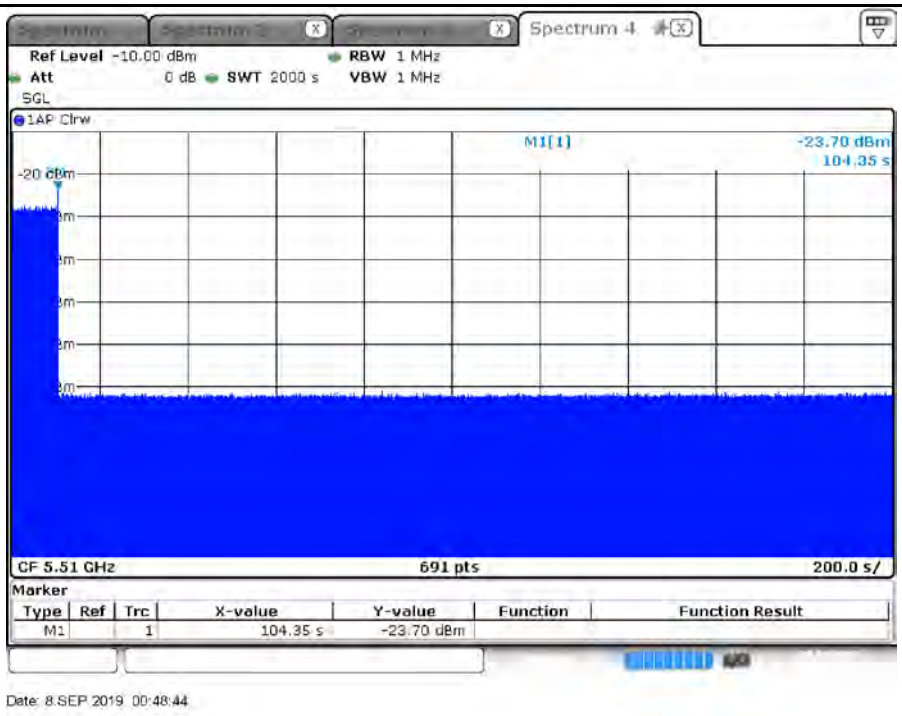
W56 band (5470-5725 MHz)	Modulation Mode: ax (HEW20)
Radar #2 Non-Occupancy Period / *Non-Occupancy Period* is more than 30 min.	



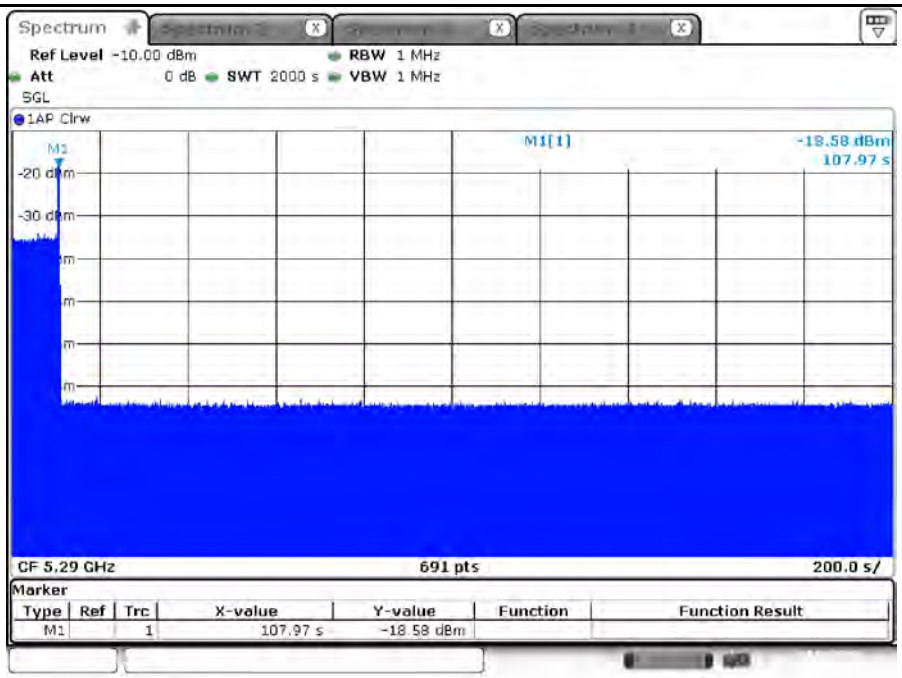
W53 band (5250-5350 MHz)	Modulation Mode: ax (HEW40)
Radar #1 Non-Occupancy Period / *Non-Occupancy Period* is more than 30 min.	



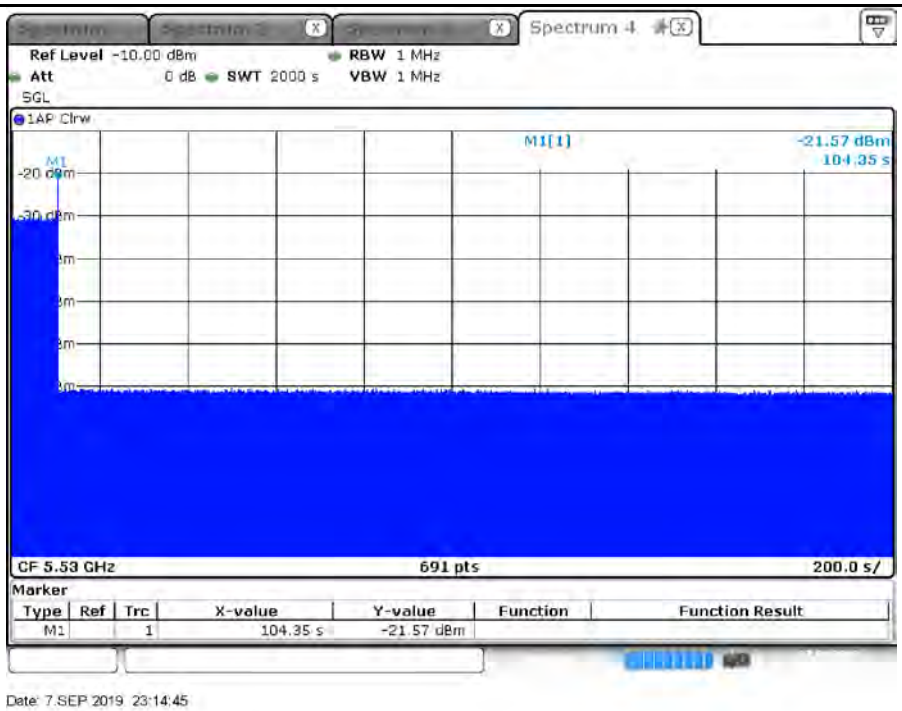
W56 band (5470-5725 MHz)	Modulation Mode: ax (HEW40)
Radar #2 Non-Occupancy Period / *Non-Occupancy Period* is more than 30 min.	



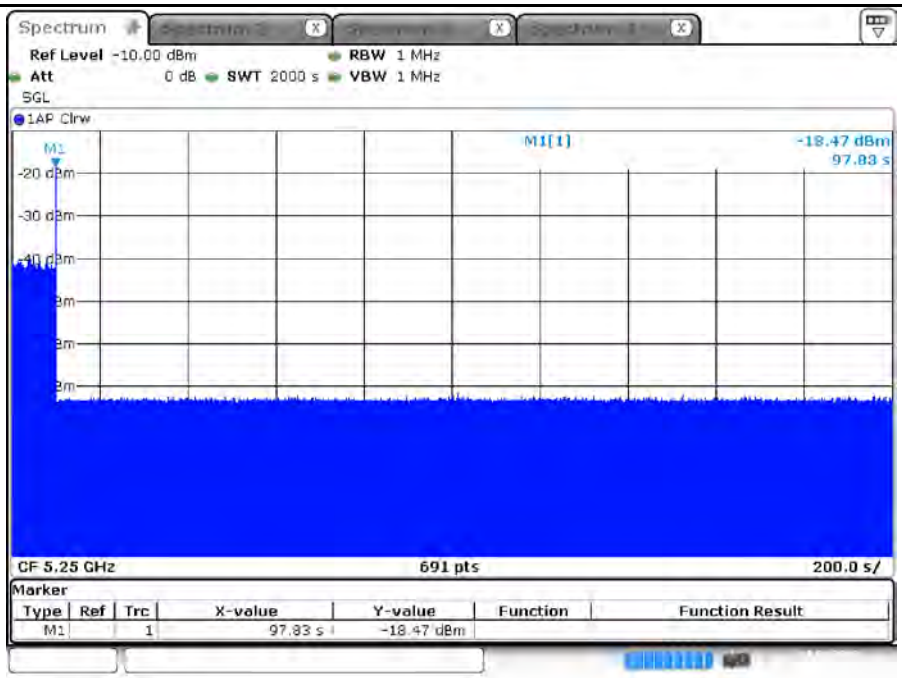
W53 band (5250-5350 MHz)	Modulation Mode: ax (HEW80)
Radar #1 Non-Occupancy Period / *Non-Occupancy Period* is more than 30 min.	



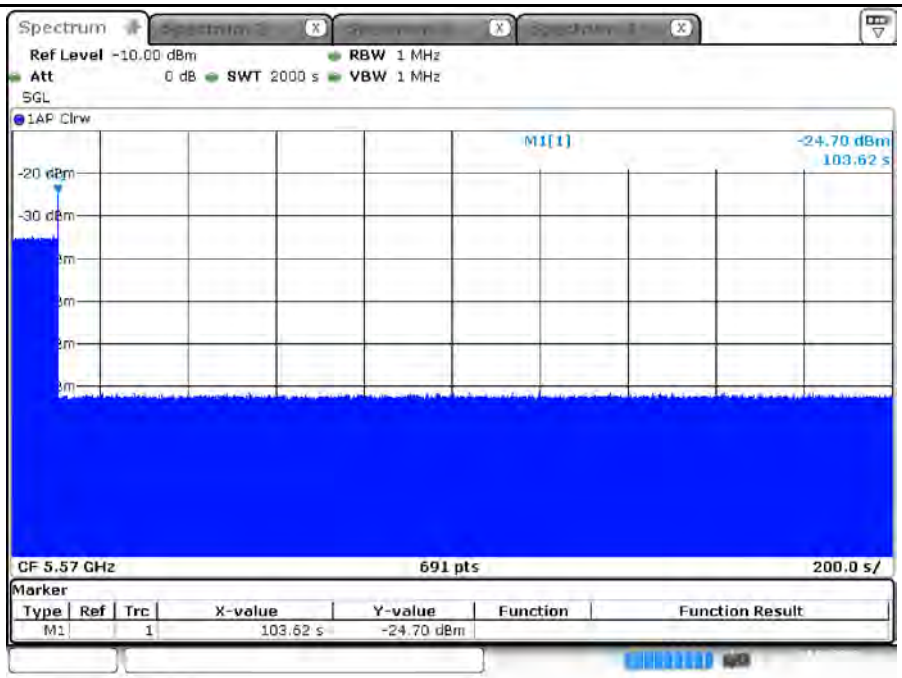
W56 band (5470-5725 MHz)	Modulation Mode: ax (HEW80)
Radar #2 Non-Occupancy Period / *Non-Occupancy Period* is more than 30 min.	



W53 band (5250-5350 MHz)	Modulation Mode: ax (HEW160)
Radar #1 Non-Occupancy Period / *Non-Occupancy Period* is more than 30 min.	



W56 band (5470-5725 MHz)	Modulation Mode: ax (HEW160)
Radar #2 Non-Occupancy Period / *Non-Occupancy Period* is more than 30 min.	



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Calibration Method	Calibration Agent Name	Remark
Spectrum Analyzer	R&S	FSV3044	101007	9kHz~44GHz	Sep. 04, 2019	Sep. 03, 2020	c)	C	Conducted (DF02-CB)
Vector Signal generator	R&S	SMU200A	105352	25MHz-6GHz	Nov. 01, 2018	Oct. 31, 2019	c)	A	Conducted (DF02-CB)
RF Power Divider	Woken	2 Way	DFS02-DV -01	2GHz ~ 18GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (DF02-CB)
RF Power Divider	Woken	2Way	DFS02-DV -03	2GHz ~ 18GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (DF02-CB)
RF Power Divider	Woken	4 Way	DFS02-DV -02	2GHz ~ 18GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-61	1 GHz – 18 GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-62	1 GHz – 18 GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-63	1 GHz – 18 GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-66	1 GHz – 18 GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (DF02-CB)

Note:

1. Calibration Interval of instruments listed above is one year.
2. N.C.R. means Non-Calibration required.
3. Calibration Agent Name: Describe calibration agent name with its country name, and symbols in “Calibration Agent Name” shows the agent names as follows,
   A: Electronics Testing Center, Taiwan.
   B: Sporton International Inc., Taiwan.
   C: ROHDE&SCHWARZ, Taiwan.
4. Calibration Method
   a)：Calibration conducted by the National Institute of Information and Communications Technology or a designated calibration agency under Article 102-18 paragraph (1)
   b)：Correction conducted pursuant to the provisions of Article 135 or Article 144 of the MeasurementLaw (Law No. 51 of 1992)
   c)：Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted bythe NICT or a designated calibration agency under Article 102-18 paragraph (1)
   d)：Calibration conducted by using other equipment that listed above from a) to c)

5 Measurement Uncertainty

Test Items	Uncertainty	Remark
Conducted Emission	2.4 dB	Confidence levels of 95%