

**CFR 47 FCC PART 15 SUBPART E
ISED RSS-247 ISSUE 3**

CERTIFICATION TEST REPORT

ISEFY

MODEL NUMBER: DR1003BC-C

PROJECT NUMBER: 4791532994.8

REPORT NUMBER: 4791532994.8-3

FCC ID: 2BF8I-DR1003BCC

IC: 32415-DR1003BCC

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Prepared for

ISEFY TECHNOLOGY

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	11/22/2024	Initial Issue	

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	4
2. TEST METHODOLOGY	6
3. FACILITIES AND ACCREDITATIO.....	6
4. CALIBRATION AND UNCERTAINTY	7
4.1. MEASURING INSTRUMENT CALIBRATION	7
4.2. MEASUREMENT UNCERTAINTY	7
5. EQUIPMENT UNDER TEST	8
5.1. DESCRIPTION OF EUT	8
5.2. MAXIMUM OUTPUT POWER	9
5.3. CHANNEL LIST.....	10
5.4. TEST CHANNEL CONFIGURATION.....	11
5.5. POWER GRADE	12
5.6. DESCRIPTION OF AVAILABLE ANTENNAS.....	16
5.7. THE WORSE CASE POWER SETTING PARAMETER.....	17
5.8. DESCRIPTION OF TEST SETUP	20
5.9. MEASURING INSTRUMENT AND SOFTWARE USED	21
6. ANTENNA PORT TEST RESULTS	22
6.1. ON TIME AND DUTY CYCLE.....	22
6.2. 6/26 dB EMISSION BANDWIDTH AND 99% OCCUPIED BANDWIDTH.....	26
6.3. MAXIMUM CONDUCTED AVERAGE OUTPUT POWER.....	100
6.4. POWER SPECTRAL DENSITY.....	138
7. RADIATED TEST RESULTS	176
7.1. RESTRICTED BANDEDGE.....	182
7.2. HARMONICS AND SPURIOUS EMISSIONS.....	244
8. FREQUENCY STABILITY.....	500
9. DYNAMIC FREQUENCY SELECTION	504
10. AC POWER LINE CONDUCTED EMISSIONS.....	511
11. ANTENNA REQUIREMENTS.....	515

1. ATTESTATION OF TEST RESULTS**Applicant Information**

Company Name: ISEFY TECHNOLOGY
Address: 26 Pine Street. Toronto, ON, Canada M9N 2Y8

Manufacturer Information

Company Name: ISEFY TECHNOLOGY
Address: 26 Pine Street. Toronto, ON, Canada M9N 2Y8

EUT Description

Product Name: ISEFY
Model Number: DR1003BC-C
Series Model Number: /
Model Difference: /
Sample Number: 7773810-S004
Data of Receipt Sample: Nov. 01, 2024
Test Date: Nov. 01, 2024~ Nov. 20, 2024

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 15 SUBPART E	PASS
ISED RSS-247 Issue 3	
ISED RSS-GEN Issue 5	

Summary of Test Results			
Clause	Test Items	FCC Rules	Test Results
1	6dB/26dB Bandwidth	FCC 15.407 (a)&(e) RSS-247 Clause 6.2	PASS
	99% Occupied Bandwidth	RSS-Gen Clause 6.7	PASS
2	Conducted Output Power	FCC 15.407 (a) RSS-247 Clause 6.2	PASS
3	Power Spectral Density	FCC 15.407 (a) RSS-247 Clause 6.2	PASS
4	Radiated Bandedge and Spurious Emission	FCC 15.407 (b) FCC 15.209 FCC 15.205 RSS-247 Clause 6.2 RSS-GEN Clause 8.9	PASS
5	Conducted Emission Test for AC Power Port	FCC 15.207 RSS-GEN Clause 8.8	PASS
6	Frequency Stability	FCC 15.407 (g) RSS-Gen Clause 6.11	PASS
7	Dynamic Frequency Selection	FCC 15.407 (h) RSS-247 Clause 6.3	PASS
8	Antenna Requirement	FCC 15.203 RSS-GEN Clause 6.8	PASS
Note: 1. The measurement result for the sample received is < Pass > according to < ANSI C63.10-2013, FCC CFR 47 Part 2, FCC CFR 47 Part 15 E, RSS-GEN, RSS-247 > when < Simple Acceptance > decision rule is applied. 2. It is a slave device without radar detection.			

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, CFR 47 FCC Part 2, CFR 47 FCC Part 15, KDB 789033 D02 v02r01, RSS-GEN Issue 5, RSS-247 Issue 3, KDB414788 D01 Radiated Test Site v01r01, KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02, KDB 905462 D03 UNII clients without radar detection New Rules v01r02, KDB 905462 D04 Operational Modes for DFS Testing New Rules v01 and KDB 905462 D06 802 11 Channel Plans New Rules v02.

3. FACILITIES AND ACCREDITATIO

Accreditation Certificate	A2LA (Certificate No.: 4829.01) UL-CCIC COMPANY LIMITED has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1247) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules. IC (IC Designation No.: 25056; CAB No.: CN0073) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.
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Remark 1: All tests measurement facilities use to collect the measurement data are located at No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, People's Republic of China

Remark 2: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. These measurements below 30MHz had been correlated to measurements performed on an OFS based on KDB 414788.

Remark 3: The test anechoic chamber in UL-CCIC COMPANY LIMITED had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognize national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Conduction emission	3.1dB
Radiation Emission test (include Fundamental emission) (9kHz-30MHz)	3.3dB
Radiation Emission test (include Fundamental emission) (30MHz-1GHz)	3.3dB
Radiation Emission test (1GHz to 26GHz) (include Fundamental emission)	3.9dB (1GHz-18GHz)
	4.2dB (18GHz-26.5GHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

Product Name:	ISEFY
Model No.:	DR1003BC-C
Operating Frequency:	IEEE 802.11a/n/ac/ax 20MHz: 5180MHz to 5240MHz, 5260MHz to 5320MHz, 5500MHz to 5720MHz (ISED not include 5600MHz to 5640MHz), 5745MHz to 5825MHz IEEE 802.11n/ac/ax 40MHz: 5190MHz to 5230MHz, 5270MHz to 5310MHz, 5510MHz to 5710MHz (ISED not include 5590MHz to 5630MHz), 5755MHz-5795MHz This report just including 5G WIFI part.
Type of Modulation:	IEEE for 802.11a: BPSK, QPSK, 16QAM, 64QAM IEEE for 802.11n HT20/HT40: BPSK, QPSK, 16QAM, 64QAM IEEE for 802.11ac VHT20/VHT40: BPSK, QPSK, 16QAM, 64QAM, 256QAM IEEE for 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Channels Step:	Channels with 5MHz step
Test Software of EUT:	SecureCRT (manufacturer declare)
Antenna Type:	Patch Antenna
Antenna Gain:	1.08 dBi Note: This data is provided by customer and our lab isn't responsible for this data.

5.2. MAXIMUM OUTPUT POWER

UNII-1 BAND

IEEE Std. 802.11	Frequency (MHz)	Maximum Average Conducted Power
		[dBm]
a	5150 ~ 5250	13.05
n HT20		12.94
n HT40		12.59
ac VHT20		12.94
ac VHT40		12.59
ax HE20		12.90
ax HE40		12.54

UNII-2A BAND

IEEE Std. 802.11	Frequency (MHz)	Maximum Average Conducted Power
		[dBm]
a	5250 ~ 5350	12.95
n HT20		12.96
n HT40		13.01
ac VHT20		12.96
ac VHT40		13.01
ax HE20		12.90
ax HE40		12.90

UNII-2C BAND

IEEE Std. 802.11	Frequency (MHz)	Max Power
		[dBm]
a	5470 ~ 5725	11.02
n HT20		12.95
n HT40		11.61
ac VHT20		12.95
ac VHT40		11.61
ax HE20		10.92
ax HE40		11.54

UNII-3 BAND

IEEE Std. 802.11	Frequency (MHz)	Max Power
		[dBm]
a	5725 ~ 5850	11.12
n HT20		11.13
n HT40		11.04
ac VHT20		11.13
ac VHT40		11.04
ax HE20		11.02
ax HE40		10.97

5.3. CHANNEL LIST

UNII-1 (For Bandwidth = 20 MHz)		UNII-1 (For Bandwidth = 40 MHz)		UNII-1 (For Bandwidth = 80 MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	/	/
40	5200	46	5230		
44	5220				
48	5240				

UNII-2A (For Bandwidth = 20 MHz)		UNII-2A (For Bandwidth = 40 MHz)		UNII-2A (For Bandwidth = 80 MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	54	5270	/	/
56	5280	62	5310		
60	5300				
64	5320				

UNII-2C (For Bandwidth = 20 MHz)		UNII-2C (For Bandwidth = 40 MHz)		UNII-2C (For Bandwidth = 80 MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	102	5510	/	/
104	5520	110	5550	/	/
108	5540	118	5590	/	/
112	5560	126	5630		
116	5580	134	5670		
120	5600	142	5710		
124	5620				
128	5640				
132	5660				
136	5680				
140	5700				
144	5720				

Note: The frequency band 5600MHz-5650MHz is not allow use in ISFD.

UNII-3 (For Bandwidth = 20 MHz)		UNII-3 (For Bandwidth = 40 MHz)		UNII-3 (For Bandwidth = 80 MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	/	/
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

5.4. TEST CHANNEL CONFIGURATION

UNII-1 Test Channel Configuration		
IEEE Std.	Test Channel Number	Frequency
802.11a	CH 36, CH 40, CH 48	5180 MHz, 5200 MHz, 5240 MHz
802.11n HT20	CH 36, CH 40, CH 48	5180 MHz, 5200 MHz, 5240 MHz
802.11n HT40	CH 38, CH 46	5190 MHz, 5230 MHz
802.11ac VHT20	CH 36, CH 40, CH 48	5180 MHz, 5200 MHz, 5240 MHz
802.11ac VHT40	CH 38, CH 46	5190 MHz, 5230 MHz
802.11ax HE20	CH 36, CH 40, CH 48	5180 MHz, 5200 MHz, 5240 MHz
802.11ax HE40	CH 38, CH 46	5190 MHz, 5230 MHz

UNII-2A Test Channel Configuration		
IEEE Std.	Test Channel Number	Frequency
802.11a	CH 52, CH 56, CH 64	5260 MHz, 5280 MHz, 5320 MHz
802.11n HT20	CH 52, CH 56, CH 64	5260 MHz, 5280 MHz, 5320 MHz
802.11n HT40	CH 54, CH 62	5270 MHz, 5310 MHz
802.11ac VHT20	CH 52, CH 56, CH 64	5260 MHz, 5280 MHz, 5320 MHz
802.11ac VHT40	CH 54, CH 62	5270 MHz, 5310 MHz
802.11ax HE20	CH 52, CH 56, CH 64	5260 MHz, 5280 MHz, 5320 MHz
802.11ax HE40	CH 54, CH 62	5270 MHz, 5310 MHz

UNII-2C Test Channel Configuration		
IEEE Std.	Test Channel Number	Frequency
802.11a	CH 100, CH120, CH 140, CH 144	5500 MHz, 5580 MHz, 5700 MHz, 5720 MHz
802.11n HT20	CH 100, CH120, CH 140, CH 144	5500 MHz, 5580 MHz, 5700 MHz, 5720 MHz
802.11n HT40	CH 102, CH 118, CH 134, CH 142	5510 MHz, 5550 MHz, 5670 MHz, 5710 MHz
802.11ac VHT20	CH 100, CH120, CH 140, CH 144	5500 MHz, 5580 MHz, 5700 MHz, 5720 MHz
802.11ac VHT40	CH 102, CH 118, CH 134, CH 142	5510 MHz, 5550 MHz, 5670 MHz, 5710 MHz
802.11ax HE20	CH 100, CH120, CH 140, CH 144	5500 MHz, 5580 MHz, 5700 MHz, 5720 MHz
802.11ax HE40	CH 102, CH 118, CH 134, CH 142	5510 MHz, 5550 MHz, 5670 MHz, 5710 MHz

UNII-3 Test Channel Configuration		
IEEE Std.	Test Channel Number	Frequency
802.11a	CH 149, CH 157, CH165	5745 MHz, 5785 MHz, 5825 MHz
802.11n HT20	CH 149, CH 157, CH165	5745 MHz, 5785 MHz, 5825 MHz
802.11n HT40	CH 151, CH 159	5755 MHz, 5795 MHz
802.11ac VHT20	CH 149, CH 157, CH165	5745 MHz, 5785 MHz, 5825 MHz
802.11ac VHT40	CH 151, CH 159	5755 MHz, 5795 MHz
802.11ac HE20	CH 149, CH 157, CH165	5745 MHz, 5785 MHz, 5825 MHz
802.11ac HE40	CH 151, CH 159	5755 MHz, 5795 MHz

5.5. POWER GRADE

UNII-1

IEEE Std. 802.11	Channel	Power Grade
a	36	default
	40	default
	44	default
	48	default
n HT20	36	default
	40	default
	44	default
	48	default
n HT40	38	default
	46	default
ac VHT20	36	default
	40	default
	44	default
	48	default
ac VHT40	38	default
	46	default
ax HE20	36	default
	40	default
	44	default
	48	default
ax HE40	38	default
	46	default

UNII-2A

IEEE Std. 802.11	Channel	Power Grade
a	52	default
	56	default
	60	default
	64	default
n HT20	52	default
	56	default
	60	default
	64	default
n HT40	54	default
	62	default
ac VHT20	52	default
	56	default
	60	default
	64	default
ac VHT40	54	default
	62	default
ax HE20	52	default
	56	default
	60	default
	64	default
ax HE40	54	default
	62	default

UNII-2C

IEEE Std. 802.11	Channel	Power Grade
a	100	default
	104	default
	108	default
	112	default
	116	default
	120	default
	124	default
	128	default
	132	default
	136	default
	140	default
	144	default
n HT20	100	default
	104	default
	108	default
	112	default
	116	default
	120	default
	124	default
	128	default
	132	default
	136	default
	140	default
	144	default
n HT40	102	default
	110	default
	118	default
	126	default
	134	default
	142	default

ac VHT20	100	default
	104	default
	108	default
	112	default
	116	default
	120	default
	124	default
	128	default
	132	default
	136	default
	140	default
	144	default
ac VHT40	102	default
	110	default
	118	default
	126	default
	134	default
	142	default
ax HE20	100	default
	104	default
	108	default
	112	default
	116	default
	120	default
	124	default
	128	default
	132	default
	136	default
	140	default
	144	default
ax HE40	102	default
	110	default
	118	default
	126	default
	134	default
	142	default

UNII-3

IEEE Std. 802.11	Channel	Power Grade
a	149	default
	153	default
	157	default
	161	default
	165	default
n HT20	149	default
	153	default
	157	default
	161	default
	165	default
n HT40	151	default
	159	default
ac VHT20	149	default
	153	default
	157	default
	161	default
	165	default
ac VHT40	151	default
	159	default
ax HE20	149	default
	153	default
	157	default
	161	default
	165	default
ax HE40	151	default
	159	default

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency Band	Maximum Antenna Gain [dBi]
1	UNII-1	1.08
1	UNII-2A	1.08
1	UNII-2C	1.08
1	UNII-3	1.08

IEEE Std. 802.11	Transmit and Receive Mode	Description
a	☒ 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
n HT20	☒ 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
n HT40	☒ 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
ac VHT20	☒ 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
ac VHT40	☒ 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
ax HE20	☒ 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
Axhe40	☒ 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
Note: BLE & WLAN 2.4G & WLAN 5G can't transmit simultaneously. (Declared by client)		

5.7. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter	
Test Software	SecureCRT

UNII-1

IEEE Std. 802.11	Rate	Channel	Test Software Setting Value
a	6M	36	default
		40	default
		48	default
ac VHT20	MCS0	36	default
		40	default
		48	default
ac VHT40	MCS0	38	default
		46	default
ax HE20	MCS0	36	default
		40	default
		48	default
ax HE40	MCS0	38	default
		46	default

UNII-2A

IEEE Std. 802.11	Rate	Channel	Test Software Setting Value
a	6M	52	default
		56	default
		64	default
ac VHT20	MCS0	52	default
		56	default
		64	default
ac VHT40	MCS0	54	default
		62	default
ax HE20	MCS0	52	default
		56	default
		64	default
ax HE40	MCS0	54	default
		62	default

UNII-2C

IEEE Std. 802.11	Rate	Channel	Test Software Setting Value
a	6M	100	default
		120	default
		136	default
		140	default
		144	default
ac VHT20	MCS0	100	default
		104	default
		120	default
		136	default
		140	default
ac VHT40	MCS0	144	default
		102	default
		110	default
		118	default
		126	default
ax HE20	MCS0	134	default
		142	default
		100	default
		104	default
		120	default
ax HE40	MCS0	136	default
		140	default
		144	default
		102	default
		110	default
		118	default
		126	default
		134	default
		142	default
			default

UNII-3

IEEE Std. 802.11	Rate	Channel	Test Software Setting Value
a	6M	149	default
		157	default
		165	default
ac VHT20	MCS0	149	default
		157	default
		165	default
ac VHT40	MCS0	151	default
		159	default
ax HE20	MCS0	149	default
		157	default
		165	default
ax HE40	MCS0	151	default
		159	default

Note: Since 802.11ac VHT20/VHT40 modes are different from 802.11n HT20/HT40 only in control messages, so all the tests are performed on the worst case (802.11ac VHT20/802.11ac VHT40) mode between these 4 modes and only the worst data was recorded in this report.

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Description
1	Laptop	ThinkPad	E590	/
2	Router(FCC ID:MSQ-RTAXI600)	ASUS	RT-AX86U	/

I/O PORT

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	USB-TTL	USB	100cm Length	/

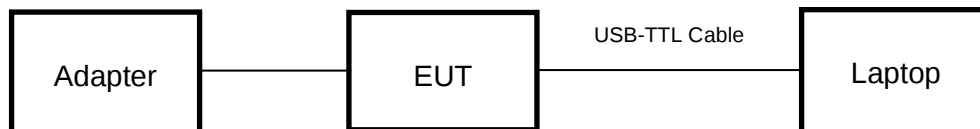
ACCESSORY

Item	Accessory	Brand Name	Model Name	Description
1	AC ADAPTOR	MNC	MAUS-1201001202	Input: 100-240V~ 50/60Hz 0.35A Output: 12V=1.0A

TEST SETUP

The EUT can work in an engineer mode with a software through a laptop.

SETUP DIAGRAM FOR TESTS



5.9. MEASURING INSTRUMENT AND SOFTWARE USED

Conducted Emissions Test (Instrument)							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Next Cal.
☒	EMI Test Receiver	R&S	ESR3	126700	2023-11-25	2024-11-02	2025-11-01
☒	Two-Line V-Network	R&S	ENV216	126701	2023-11-25	2024-11-02	2025-11-01
Conducted Emissions Test (Software)							
Used	Description		Manufacturer		Name	Version	
☒	Software for Conducted Emissions Test		R&S		EMC32	9.25.00	
Radiated Emissions Test (Instrument)							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Next Cal.
☒	EMI test receiver	R&S	ESR7	222993	2023-04-08	2024-03-23	2025-03-22
☒	EMI test receiver	R&S	ESR26	126703	2023-11-25	2024-11-02	2025-11-01
☒	Spectrum Analyzer	R&S	FSV3044	222992	2023-04-08	2024-03-23	2025-03-22
☒	Receiver Antenna (9kHz-30MHz)	Schwarzbeck	FMZB 1513	155456	2021-06-03	2024-05-27	2027-05-26
☒	Receiver Antenna (30MHz-1GHz)	Schwarzbeck	VULB 9168	171952	2021-07-05	2024-07-04	2027-07-03
☒	Receiver Antenna (1GHz-18GHz)	R&S	HF907	126705	2019-01-27	2022-02-28	2025-02-27
☒	Receiver Antenna (18GHz-26.5GHz)	Schwarzbeck	BBHA9170	126706	2019-02-29	2022-02-28	2025-02-27
☒	Pre-amplification (To 18GHz)	Tonscnd	TAP01018050	224539	2023-10-10	2024-10-10	2025-10-09
☒	Pre-amplification (To 18GHz)	R&S	SCU-18D	134667	2023-11-25	2024-11-02	2025-11-01
☒	Pre-amplification (To 26.5GHz)	R&S	SCU-26D	135391	2023-11-25	2024-11-02	2025-11-01
☒	Band Reject Filter	Wainwright	WRCGV12-2375-2400-2485-2510-40SS	1	2023-12-18	2024-11-02	2025-11-01
☒	High Pass Filter	COM-MW	ZBF13-3-18G-01	2	2023-12-18	2024-11-02	2025-11-01
Radiated Emissions Test (Software)							
Used	Description		Manufacturer		Name	Version	
☒	Software for Radiated Emissions Test		Tonscnd		JS32-RE	5.0.0.2	
Antenna Port Test (Instrument)							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Next Cal.
☒	Spectrum Analyzer	Keysight	N9010B	155368	2023-04-08	2024-03-23	2025-03-22
☒	Power Meter	MWT	MW100-RFCB	221694	2023-04-08	2024-03-23	2025-03-22
☒	Power Meter	Anritsu	MA24406A	12896	2023-04-08	2024-03-23	2025-03-22
☒	Attenuator	PASTERNAK	PE7087-6	1624	/	2024-11-04	2025-11-03
	Adjustable Attenuator	SHX	SHX	371	2023-03-24	2024-03-23	2025-03-22
Antenna Port Test (Software)							
Used	Description		Manufacturer		Name	Version	
☒	Software for Antenna Port Test		Tonscnd		JS1120-3 Test System	V3.2.22	

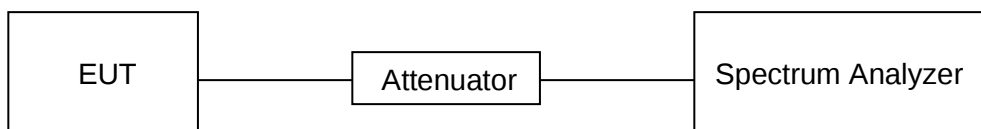
6. ANTENNA PORT TEST RESULTS

6.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

TEST SETUP



TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests
Relative Humidity	60%
Atmospheric Pressure:	101kPa
Temperature	22.2°C
Test Voltage	AC 120V
Test Date	11/17/2024

RESULTS

Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
11a	100	1000	1	100	0	0.01	0.01
11ac VHT20	100	1000	1	100	0	0.01	0.01
11ac VHT40	100	1000	1	100	0	0.01	0.01
11ax HE20	100	1000	1	100	0	0.01	0.01
11ax HE40	100	1000	1	100	0	0.01	0.01

Remark:

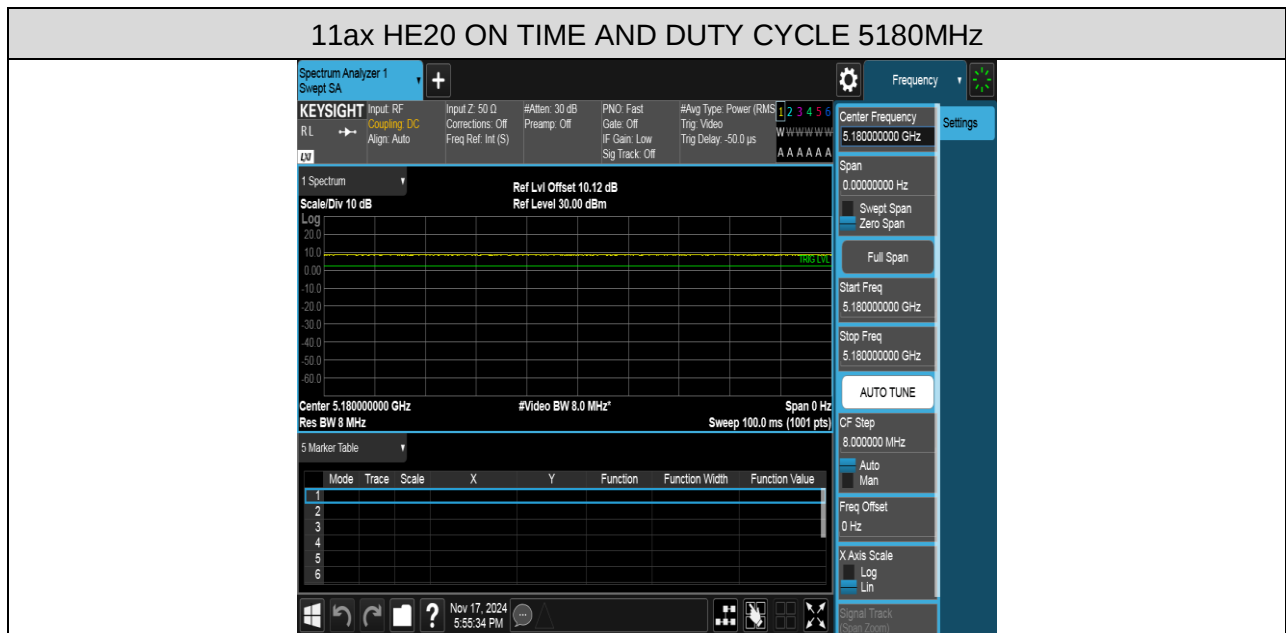
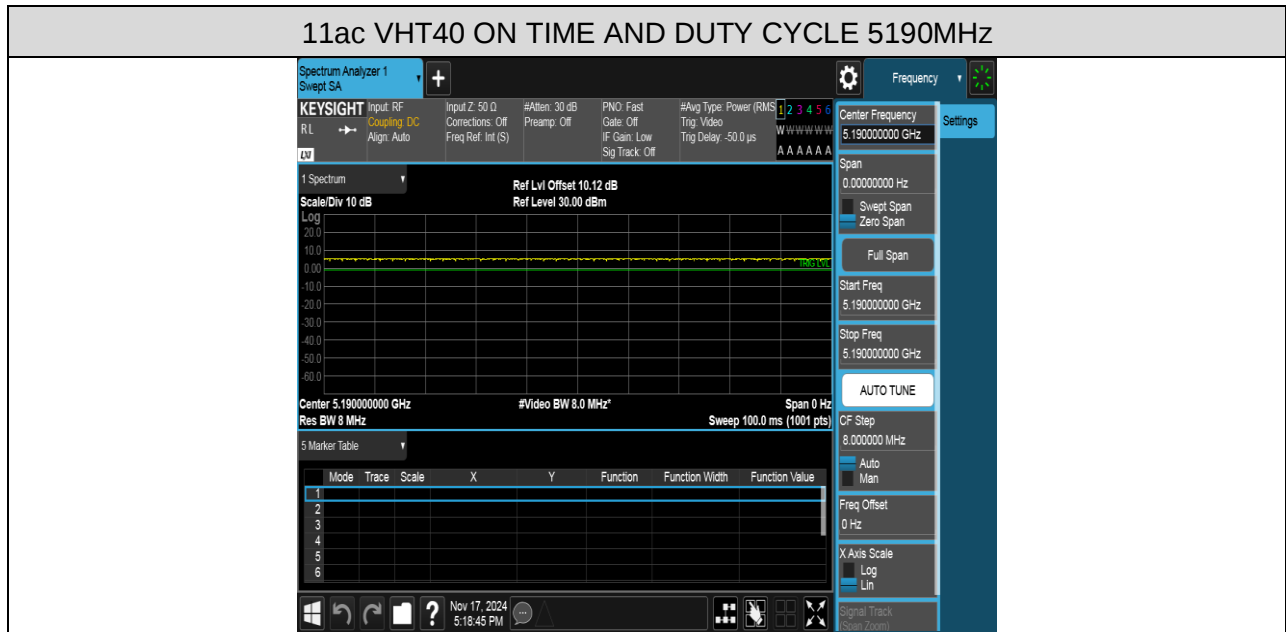
1. Duty Cycle Correction Factor=10log (1/x).
2. Where: x is Duty Cycle (Linear)
3. Where: T is On Time
4. If that calculated VBW is not available on the analyzer then the next higher value should be used.
5. If the duty cycle is above 98%, the Final VBW is 10Hz.

11a ON TIME AND DUTY CYCLE 5180MHz



11ac VHT20 ON TIME AND DUTY CYCLE 5180MHz





11ax HE40 ON TIME AND DUTY CYCLE 5190MHz (WORSE CASE)



6.2. 6/26 dB EMISSION BANDWIDTH AND 99% OCCUPIED BANDWIDTH

LIMITS

CFR 47 FCC Part15, Subpart E RSS-247 Clause 6.2 RSS-Gen Clause 6.7		
Test Item	Limit	Frequency Range (MHz)
26 dB Emission Bandwidth	For reporting purposes only.	5150 ~ 5250
26 dB Emission Bandwidth	For reporting purposes only.	5250 ~ 5350
26 dB Emission Bandwidth	For reporting purposes only.	5470 ~ 5725
6 dB Emission Bandwidth	The minimum 6 dB emission bandwidth shall be 500 kHz.	5725 ~ 5850
99 % Occupied Bandwidth	For reporting purposes only.	5150 ~ 5825

TEST PROCEDURE

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.C1. for 26 dB Emission Bandwidth; section II.C2. for 6 dB Emission Bandwidth; section II.D. for 99 % Occupied Bandwidth.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 6 dB Emission Bandwidth: RBW=100 kHz For 26 dB Emission bandwidth: approximately 1 % of the EBW. For 99 % Occupied Bandwidth: approximately 1 % ~ 5 % of the OBW.
VBW	For 6 dB Bandwidth: $\geq 3 \times \text{RBW}$ For 26 dB Bandwidth: $> \text{RBW}$ For 99 % Bandwidth: $> 3 \times \text{RBW}$
Trace	Max hold
Sweep	Auto couple

a) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.

b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6/26 dB relative to the maximum level measured in the fundamental emission.

Calculation for 26 dB Bandwidth of UNII-2C and UNII-3 Straddle Channel:

For Example: Fundamental Frequency: 5720 MHz

FL: 5710.60 MHz

FH: 5728.33 MHz

Turning Frequency: 5725 MHz

UNII-2C Band Portion = $5725 - 5710.60 = 14.40$ MHzUNII-3 Band Portion = $5728.33 - 5725 = 3.30$ MHz**Calculation for 6dB Bandwidth of UNII-3 Straddle Channel:**

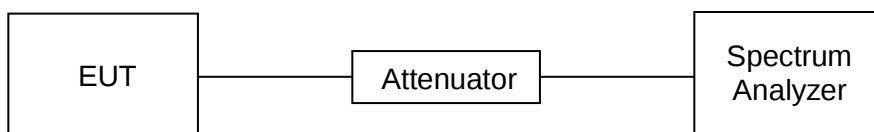
For Example: Fundamental frequency: 5720 MHz

6 dB BW: 16.44 MHz

FL: 5711.76 MHz

FH: 5728.2 MHz

Turning Frequency: 5725 MHz

6 dB Bandwidth of UNII-3 band Portion = $5728.2 - 5725 = 3.2$ MHz**TEST SETUP****TEST ENVIRONMENT**

Environment Parameter	Selected Values During Tests
Relative Humidity	60%
Atmospheric Pressure:	101kPa
Temperature	22.2°C
Test Voltage	AC 120V
Test Date	11/10/2024-11/17/2024

RESULTS TABLE

1) 26 dB Emission Bandwidth Part:

Test Mode	Channel	26dB EBW [MHz]	FL [MHz]	FH [MHz]	Verdict
11a	5180	25.651	5167.459	5193.109	PASS
	5200	27.552	5185.364	5212.916	PASS
	5240	26.604	5225.673	5252.277	PASS
	5260	23.920	5248.849	5272.769	PASS
	5280	23.628	5268.943	5292.571	PASS
	5320	26.581	5306.292	5332.873	PASS
	5500	22.285	5488.397	5510.683	PASS
	5580	22.920	5568.832	5591.752	PASS
	5700	25.891	5686.584	5712.475	PASS
	5720	26.573	5706.911	5733.484	PASS
	5720 UNII-2C	18.089	5706.911	5725	PASS
	5720 UNII-3	8.484	5725	5733.484	PASS
	5745	22.056	5733.421	5755.477	PASS
	5785	26.877	5771.725	5798.603	PASS
	5825	25.648	5812.168	5837.816	PASS

Test Mode	Channel	26dB EBW [MHz]	FL [MHz]	FH [MHz]	Verdict
11ac HT20	5180	25.883	5168.164	5194.047	PASS
	5200	29.812	5186.479	5216.291	PASS
	5240	25.961	5226.349	5252.311	PASS
	5260	25.281	5248.341	5273.623	PASS
	5280	32.521	5260.001	5292.523	PASS
	5320	26.045	5307.709	5333.755	PASS
	5500	21.991	5488.459	5510.449	PASS
	5580	24.399	5566.051	5590.449	PASS
	5700	27.168	5686.864	5714.032	PASS
	5720	26.393	5706.177	5732.571	PASS
	5720 UNII-2C	18.823	5706.177	5725	PASS
	5720 UNII-3	7.571	5725	5732.571	PASS
	5745	24.381	5732.840	5757.221	PASS
	5785	26.892	5771.840	5798.732	PASS
	5825	27.817	5810.311	5838.128	PASS

Test Mode	Channel	26dB EBW [MHz]	FL [MHz]	FH [MHz]	Verdict
11ac HT40	5190	41.219	5169.373	5210.592	PASS
	5230	44.925	5205.848	5250.773	PASS
	5270	45.907	5244.963	5290.869	PASS
	5310	54.045	5278.243	5332.288	PASS
	5510	41.571	5488.848	5530.419	PASS
	5550	57.133	5520.760	5577.893	PASS
	5670	56.485	5635.880	5692.365	PASS
	5710	51.923	5678.803	5730.725	PASS
	5710_UNII-2C	46.197	5678.803	5725	PASS
	5710_UNII-3	5.725	5725	5730.725	PASS
	5755	59.749	5717.779	5777.528	PASS
	5795	51.048	5764.517	5815.565	PASS

Test Mode	Channel	26dB EBW [MHz]	FL [MHz]	FH [MHz]	Verdict
11ax HE20	5180	24.619	5168.475	5193.093	PASS
	5200	32.063	5184.036	5216.099	PASS
	5240	23.073	5228.240	5251.313	PASS
	5260	27.693	5248.137	5275.831	PASS
	5280	21.813	5268.681	5290.495	PASS
	5320	28.644	5305.504	5334.148	PASS
	5500	24.119	5489.647	5513.765	PASS
	5580	28.820	5563.991	5592.811	PASS
	5700	23.869	5687.413	5711.283	PASS
	5720	26.636	5706.055	5732.691	PASS
	5720_UNII-2C	18.945	5706.055	5725	PASS
	5720_UNII-3	7.691	5725	5732.691	PASS
	5745	25.997	5733.153	5759.151	PASS
	5785	27.095	5770.060	5797.155	PASS
	5825	27.184	5810.476	5837.660	PASS

Test Mode	Channel	26dB EBW [MHz]	FL [MHz]	FH [MHz]	Verdict
11ax HE40	5190	47.037	5165.715	5212.752	PASS
	5230	44.992	5205.251	5250.243	PASS
	5270	41.739	5248.563	5290.301	PASS
	5310	41.629	5288.560	5330.189	PASS
	5510	40.419	5489.656	5530.075	PASS
	5550	49.619	5523.005	5572.624	PASS
	5670	44.464	5645.835	5690.299	PASS
	5710	46.488	5685.949	5732.437	PASS
	5710_UNII-2C	39.051	5685.949	5725	PASS
	5710_UNII-3	7.437	5725	5732.437	PASS
	5755	49.099	5726.533	5775.632	PASS
	5795	46.421	5770.853	5817.275	PASS

2) 99% Occupied Channel Bandwidth Part:

Test Mode	Channel	OCW [MHz]	FL [MHz]	FH [MHz]	Verdict
11a	5180	17.103	5171.4425	5188.5455	PASS
	5200	17.145	5191.4339	5208.5789	PASS
	5240	17.075	5231.4413	5248.5163	PASS
	5260	17.097	5251.4595	5268.5565	PASS
	5280	17.074	5271.4414	5288.5154	PASS
	5320	17.163	5311.4150	5328.5780	PASS
	5500	17.027	5491.4711	5508.4981	PASS
	5580	17.102	5571.4373	5588.5393	PASS
	5700	17.077	5691.4443	5708.5213	PASS
	5720	17.098	5711.4502	5728.5482	PASS
	5720 UNII-2C	13.55	5711.4502	5725	PASS
	5720 UNII-3	3.548	5725	5728.5482	PASS
	5745	17.041	5736.5022	5753.5432	PASS
	5785	17.089	5776.4822	5793.5712	PASS
	5825	17.111	5816.4285	5833.5395	PASS

Test Mode	Channel	OCW [MHz]	FL [MHz]	FH [MHz]	Verdict
11ac HT20	5180	18.030	5170.9906	5189.0206	PASS
	5200	18.098	5190.9615	5209.0595	PASS
	5240	18.026	5230.9824	5249.0084	PASS
	5260	18.023	5251.0125	5269.0355	PASS
	5280	18.024	5270.9760	5289.0000	PASS
	5320	18.030	5310.9915	5329.0215	PASS
	5500	17.994	5490.9919	5508.9859	PASS
	5580	18.006	5570.9755	5588.9815	PASS
	5700	18.004	5690.9875	5708.9915	PASS
	5720	18.027	5710.9801	5729.0071	PASS
	5720 UNII-2C	14.02	5710.9801	5725	PASS
	5720 UNII-3	4.007	5725	5729.0071	PASS
	5745	17.940	5736.0431	5753.9831	PASS
	5785	17.988	5776.0236	5794.0116	PASS
	5825	18.057	5815.9761	5834.0331	PASS

Test Mode	Channel	OCW [MHz]	FL [MHz]	FH [MHz]	Verdict
11ac HT40	5190	36.388	5171.7840	5208.1720	PASS
	5230	36.321	5211.8028	5248.1238	PASS
	5270	36.340	5251.7954	5288.1354	PASS
	5310	36.390	5291.7860	5328.1760	PASS
	5510	36.378	5491.7329	5528.1109	PASS
	5550	36.395	5531.7570	5568.1520	PASS
	5670	36.358	5651.8086	5688.1666	PASS
	5710	36.409	5691.7202	5728.1292	PASS
	5710_UNII-2C	33.28	5691.7202	5725	PASS
	5710_UNII-3	3.129	5725	5728.1292	PASS
	5755	36.447	5736.7855	5773.2325	PASS
	5795	36.372	5776.8142	5813.1862	PASS

Test Mode	Channel	OCW [MHz]	FL [MHz]	FH [MHz]	Verdict
11ax HE20	5180	18.908	5170.5541	5189.4621	PASS
	5200	18.937	5190.5342	5209.4712	PASS
	5240	18.922	5230.5267	5249.4487	PASS
	5260	18.871	5250.5607	5269.4317	PASS
	5280	18.954	5270.5297	5289.4837	PASS
	5320	18.929	5310.5408	5329.4698	PASS
	5500	18.904	5490.5465	5509.4505	PASS
	5580	18.914	5570.5494	5589.4634	PASS
	5700	18.938	5690.5257	5709.4637	PASS
	5720	18.934	5710.5352	5729.4692	PASS
	5720_UNII-2C	14.465	5710.5352	5725	PASS
	5720_UNII-3	4.469	5725	5729.4692	PASS
	5745	18.887	5735.5571	5754.4441	PASS
	5785	18.928	5775.5630	5794.4910	PASS
	5825	18.955	5815.5413	5834.4963	PASS

Test Mode	Channel	OCW [MHz]	FL [MHz]	FH [MHz]	Verdict
11ax HE40	5190	37.663	5171.1707	5208.8337	PASS
	5230	37.610	5211.1526	5248.7626	PASS
	5270	37.580	5251.2026	5288.7826	PASS
	5310	37.685	5291.1222	5328.8072	PASS
	5510	37.593	5491.1805	5528.7735	PASS
	5550	37.687	5531.1299	5568.8169	PASS
	5670	37.620	5651.1571	5688.7771	PASS
	5710	37.635	5691.1306	5728.7656	PASS
	5710_UNII-2C	33.869	5691.1306	5725	PASS
	5710_UNII-3	3.766	5725	5728.7656	PASS
	5755	37.680	5736.1546	5773.8346	PASS
	5795	37.660	5776.1995	5813.8595	PASS

3) 6dB Minimum Emission Bandwidth

Test Mode	Channel	6db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11a	5745	16.545	5736.748	5753.293	0.5	PASS
	5785	16.563	5776.733	5793.296	0.5	PASS
	5825	16.569	5816.740	5833.309	0.5	PASS
11ac VHT20	5745	17.755	5736.149	5753.904	0.5	PASS
	5785	17.691	5776.204	5793.895	0.5	PASS
	5825	17.657	5816.192	5833.849	0.5	PASS
11ac VHT40	5755	36.315	5736.861	5773.176	0.5	PASS
	5795	36.309	5776.872	5813.181	0.5	PASS
11ax HE20	5745	18.825	5735.619	5754.444	0.5	PASS
	5785	18.773	5775.708	5794.481	0.5	PASS
	5825	18.695	5815.660	5834.355	0.5	PASS
11ax HE40	5755	37.661	5736.243	5773.904	0.5	PASS
	5795	37.821	5776.144	5813.965	0.5	PASS

TEST GRAPHS

For 26 dB Emission Bandwidth Part:

