

Test Report

Report No. : MTi260409013-0102E4

Date of issue : 2026-06-15

Applicant : Zhuhai Quin Technology Co., Ltd.

Product : Label Printer

Model(s) : PM643, PM643WF+, PM643WF Plus, PM643air,
PM642, PM643AP, PM643WF, PM643W,
PM645WF+, PM645WF Plus, PM645air, PM645,
PM645AP, PM645WF, PM645W, PM646WF+,
PM646WF Plus, PM646air, PM646, PM646AP,
PM646WF, PM646W, TK42, TK42C, D643, D642A,
D642B, D642 Pro, D642WF Plus, D643 Pro,
D643WF Plus, D643WF, D642WF, D643W, D642W,
D642, D450H, PM6431, PM6432, PM647, PM648,
PM6433, PM649, D450 Pro, PM642Air, PM64Air,
D420Air, PM6421

FCC ID : 2ASRB-PM643

Shenzhen Microtest Co., Ltd.

TEST REPORT

Report No.: MTi260409013-0102E4

Table of contents

1	General Description	4
1.1	Description of the EUT	4
1.2	Description of test modes	5
1.3	Environmental Conditions	7
1.4	Description of support units	7
1.5	Measurement uncertainty	7
2	Summary of Test Result	8
3	Test Facilities and accreditations	10
3.1	Test laboratory	10
4	List of test equipment	11
5	Evaluation Results (Evaluation)	13
5.1	Antenna requirement	13
6	Radio Spectrum Matter Test Results (RF)	13
6.1	Conducted Emission at AC power line	13
6.2	Duty Cycle	16
6.3	Emission bandwidth and occupied bandwidth	17
6.4	Maximum conducted output power	19
6.5	Power spectral density	21
6.6	Band edge emissions (Conducted)	23
6.7	Band edge emissions (Radiated)	26
6.8	Undesirable emission limits (below 1GHz)	85
6.9	Undesirable emission limits (above 1GHz)	92
	Photographs of the test setup	107
	Photographs of the EUT	108
	Appendix A1: Emission bandwidth (26dB bandwidth)	110
6.10	Appendix A2: Occupied channel bandwidth	129
6.11	Appendix A3: Min emission bandwidth	148
	Appendix B: Duty Cycle	158
	Appendix C: Maximum conducted output power	177
	Appendix D: Maximum power spectral density	196
	Photographs of the Test Setup	215
	Photographs of the EUT	216

TEST REPORT

Report No.: MTi260409013-0102E4

Test Result Certification		
Applicant	Zhuhai Quin Technology Co., Ltd.	
Applicant Address	1ST FLOOR, BUILDING 1, NO. 456 CHUANGYUAN ROAD, XIANGZHOU DISTRICT, ZHUHAI CITY	
Manufacturer	Zhuhai Quin Technology Co., Ltd.	
Manufacturer Address	1ST FLOOR, BUILDING 1, NO. 456 CHUANGYUAN ROAD, XIANGZHOU DISTRICT, ZHUHAI CITY	
Product description		
Product name	Label Printer	
Trademark	N/A	
Model name	PM643	
Series Model(s)	PM643WF+, PM643WF Plus, PM643air, PM642, PM643AP, PM643WF, PM643W, PM645WF+, PM645WF Plus, PM645air, PM645, PM645AP, PM645WF, PM645W, PM646WF+, PM646WF Plus, PM646air, PM646, PM646AP, PM646WF, PM646W, TK42, TK42C, D643, D642A, D642B, D642 Pro, D642WF Plus, D643 Pro, D643WF Plus, D643WF, D642WF, D643W, D642W, D642, D450H, PM6431, PM6432, PM647, PM648, PM6433, PM649, D450 Pro, PM642Air, PM64Air, D420Air, PM6421	
Standards	47 CFR Part 15E	
Test Method	KDB 789033 D02 General UNII Test Procedures New Rules v02r01 ANSI C63.10-2020+Cor.1-2023	
Testing Information		
Date of test	2026-05-08 to 2026-05-11	
Test result	Pass	
Prepared by:	Letter Lan	<i>Letter Lan.</i>
Reviewed by:	David Lee	<i>David. Lee</i>
Approved by:	Lewis Lian	<i>Lewis Lian</i>

TEST REPORT

Report No.: MTi260409013-0102E4

1 General Description

1.1 Description of the EUT

Product name:	Label Printer
Model name:	PM643
Series Model(s):	PM643WF+, PM643WF Plus, PM643air, PM642, PM643AP, PM643WF, PM643W, PM645WF+, PM645WF Plus, PM645air, PM645, PM645AP, PM645WF, PM645W, PM646WF+, PM646WF Plus, PM646air, PM646, PM646AP, PM646WF, PM646W, TK42, TK42C, D643, D642A, D642B, D642 Pro, D642WF Plus, D643 Pro, D643WF Plus, D643WF, D642WF, D643W, D642W, D642, D450H, PM6431, PM6432, PM647, PM648, PM6433, PM649, D450 Pro, PM642Air, PM64Air, D420Air, PM6421
Model difference:	All the models are the same circuit and module, except the model name.
Electrical rating:	Input: 24V=2.5A
Accessories:	Adaptor: Model: ZL-C06W2402500-US Input: 100-240V~ 50/60Hz 1.5A Max Output: 24.0V=2500mA 60.0W Cable: Type-C cable*1 1.2m USB Adapter (Type-A to Type-C*1) 0.15m
Hardware version:	Q
Software version:	V
Test sample(s) number:	MTi260409013-01-R001
RF specification	
Operating frequency range:	802.11a/n(HT20)/ac(HT20)/ax(HE20): U-NII Band 1: 5180MHz to 5240MHz; U-NII Band 3: 5745MHz to 5825MHz; 802.11n(HT40)/ac(HT40)/ax(HE40): U-NII Band 1: 5190MHz to 5230MHz; U-NII Band 3: 5755MHz to 5795MHz;
Channel number:	802.11a/n(HT20)/ac(HT20)/ax(HE20): U-NII Band 1: 4; U-NII Band 3: 5; 802.11n(HT40)/ac(HT40)/ax(HE40): U-NII Band 1: 2; U-NII Band 3: 2;
Modulation type:	802.11a: OFDM(BPSK, QPSK, 16QAM, 64QAM); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM); 802.11ax: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM,

TEST REPORT

Report No.: MTi260409013-0102E4

	1024QAM)
Antenna(s) type:	FPC
Antenna(s) gain:	Band1: 2.88dBi Band3: 3.10dBi

1.2 Description of test modes

No.	Emission test modes
Mode1	802.11a mode
Mode2	802.11n20 mode
Mode3	802.11n40 mode
Mode4	802.11ac20 mode
Mode5	802.11ac40 mode
Mode6	802.11ax20 mode
Mode7	802.11ax40 mode

802.11ax only Support SU (Full RU) Mode.

1.2.1 Operation channel list

U-NII Band 1

Bandwidth:	20MHz	Bandwidth:	40MHz	Bandwidth:	80MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230	/	/
44	5220	/	/	/	/
48	5240	/	/	/	/

U-NII Band 3

Bandwidth:	20MHz	Bandwidth:	40MHz	Bandwidth:	80MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795	/	/
157	5785	/	/	/	/
161	5805	/	/	/	/
165	5825	/	/	/	/

Test Channel List

Operation Band: 5150-5250 MHz

Bandwidth	Lowest Channel	Middle Channel	Highest Channel
-----------	----------------	----------------	-----------------

TEST REPORT

Report No.: MTi260409013-0102E4

(MHz)	(LCH) (MHz)	(MCH) (MHz)	(HCH) (MHz)
20	5180	5200	5240
40	5190	/	5230

Operation Band: 5725-5850 MHz

Bandwidth (MHz)	Lowest Channel (LCH) (MHz)	Middle Channel (MCH) (MHz)	Highest Channel (HCH) (MHz)
20	5745	5785	5825
40	5755	/	5795

Note: The test software provided by manufacturer is used to control EUT for working in engineering mode, that enables selectable channel, and capable of continuous transmitting mode.

Test Software:

For power setting, refer to below table.

Mode	LCH	MCH	HCH
802.11a	13	13	13
802.11n(HT20)	13	13	13
802.11n(HT40)	13	13	13
802.11ac(VHT20)	13	13	13
802.11ac(VHT40)	13	13	13

Mode	LCH	MCH	HCH
802.11a	15	15	15
802.11n(HT20)	15	15	15
802.11n(HT40)	15	15	15
802.11ac(VHT20)	15	15	15
802.11ac(VHT40)	15	15	15

TEST REPORT

Report No.: MTi260409013-0102E4

1.3 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C ~ 35°C
Humidity:	20% RH ~ 75% RH
Atmospheric pressure:	98 kPa ~ 101 kPa

1.4 Description of support units

Support equipment list

Description	Model	Serial No.	Manufacturer
/	/	/	/

Support cable list

Description	Length (m)	From	To
/	/	/	/

1.5 Measurement uncertainty

Measurement	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	±3.1dB
Time	±1 %
Occupied channel bandwidth	±3 %
RF output power, conducted	±1 dB
Power Spectral Density, conducted	±1 dB
Unwanted Emissions, conducted	±1 dB
Radiated spurious emissions (above 1GHz)	±5.3dB
Radiated spurious emissions (9kHz~30MHz)	±4.3dB
Radiated spurious emissions (30MHz~1GHz)	±4.7dB
Temperature	±1 °C
Humidity	± 5 %

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

TEST REPORT

Report No.: MTi260409013-0102E4

2 Summary of Test Result

No.	Item	Standard	Requirement	Result
1	Antenna requirement	47 CFR Part 15E	Part 15.203	Pass
2	Conducted Emission at AC power line	47 CFR Part 15E	47 CFR Part 15.207(a)	Pass
3	Duty Cycle	47 CFR Part 15E		Pass
4	Emission bandwidth and occupied bandwidth	47 CFR Part 15E	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use. 47 CFR Part 15.407(e)	Pass
5	Maximum conducted output power	47 CFR Part 15E	47 CFR Part 15.407(a)(1)(i) 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) 47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)	Pass
6	Power spectral density	47 CFR Part 15E	47 CFR Part 15.407(a)(1)(i) 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) 47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)	Pass
7	Band edge emissions (Conducted)	47 CFR Part 15E	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)	Pass
8	Band edge emissions (Radiated)	47 CFR Part 15E	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)	Pass
9	Undesirable emission limits (below 1GHz)	47 CFR Part 15E	47 CFR Part 15.407(b)(9)	Pass
10	Undesirable emission limits (above 1GHz)	47 CFR Part 15E	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part	Pass

TEST REPORT

Report No.: MTi260409013-0102E4

			15.407(b)(10)	
--	--	--	---------------	--

TEST REPORT

Report No.: MTi260409013-0102E4

3 Test Facilities and accreditations

3.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No.7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573
IC Registration No.:	21760
CABID:	CN0093

TEST REPORT

Report No.: MTi260409013-0102E4

4 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
Conducted Emission at AC power line						
1	EMI Test Receiver	Rohde&schwarz	ESCI3	101368	2026-03-10	2027-03-09
2	Artificial mains network	Schwarzbeck	NSLK 8127	183	2026-03-11	2027-03-10
3	Artificial Mains Network	Rohde & Schwarz	ESH2-Z5	100263	2026-03-10	2027-03-09
4	EMI Measurement Software	Farad	EZ-EMC Ver.EMEC-3A1	/	/	/
Band edge emissions (Conducted) Duty Cycle Emission bandwidth and occupied bandwidth Maximum conducted output power Power spectral density						
1	Wideband Radio Communication Tester	Rohde&schwarz	CMW500	149155	2026-03-09	2027-03-08
2	ESG Series Analog Ssignal Generator	Agilent	E4421B	GB40051240	2026-03-09	2027-03-08
3	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2026-03-10	2027-03-09
4	Synthesized Sweeper	Agilent	83752A	3610A01957	2026-03-10	2027-03-09
5	MXA Signal Analyzer	Agilent	N9020A	MY50143483	2026-03-09	2027-03-08
6	RF Control Unit	Tonscend	JS0806-1	19D8060152	2026-03-11	2027-03-10
7	Band Reject Filter Group	Tonscend	JS0806-F	19D8060160	2026-03-11	2027-03-10
8	ESG Vector Signal Generator	Agilent	N5182A	MY50143762	2026-03-10	2027-03-09
9	DC Power Supply	Agilent	E3632A	MY40027695	2026-03-09	2027-03-08
10	RF Test System	Tonscend	JS1120-3 Test System Ver. V3.5.39	/	/	/
Band edge emissions (Radiated) Undesirable emission limits (above 1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2026-03-10	2027-03-09
2	Double Ridged Broadband Horn Antenna	schwarabeck	BBHA 9120 D	2278	2025-05-27	2027-05-26
3	Amplifier	Agilent	8449B	3008A01120	2026-03-10	2027-03-09
4	MXA signal analyzer	Agilent	N9020A	MY54440859	2026-03-10	2027-03-09
5	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2026-03-10	2027-03-09

TEST REPORT

Report No.: MTi260409013-0102E4

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
6	Horn antenna	Schwarzbeck	BBHA 9170	00987	2025-05-27	2027-05-26
7	Pre-amplifier	Space-Dtronics	EWLAN18 40G	210405001	2026-03-11	2027-03-10
8	EMI Measurement Software	Farad	EZ-EMC Ver.EMEC-3A1	/	/	/
Undesirable emission limits (below 1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCi7	101166	2026-03-10	2027-03-09
2	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2025-05-23	2027-05-22
3	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00066	2026-03-08	2028-03-07
4	Amplifier	Hewlett-Packard	8447F	3113A06184	2026-03-10	2027-03-09
5	EMI Measurement Software	Farad	EZ-EMC Ver.EMEC-3A1	/	/	/

TEST REPORT

Report No.: MTi260409013-0102E4

5 Evaluation Results (Evaluation)

5.1 Antenna requirement

Test Requirement:	Refer to 47 CFR Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.
-------------------	---

6 Radio Spectrum Matter Test Results (RF)

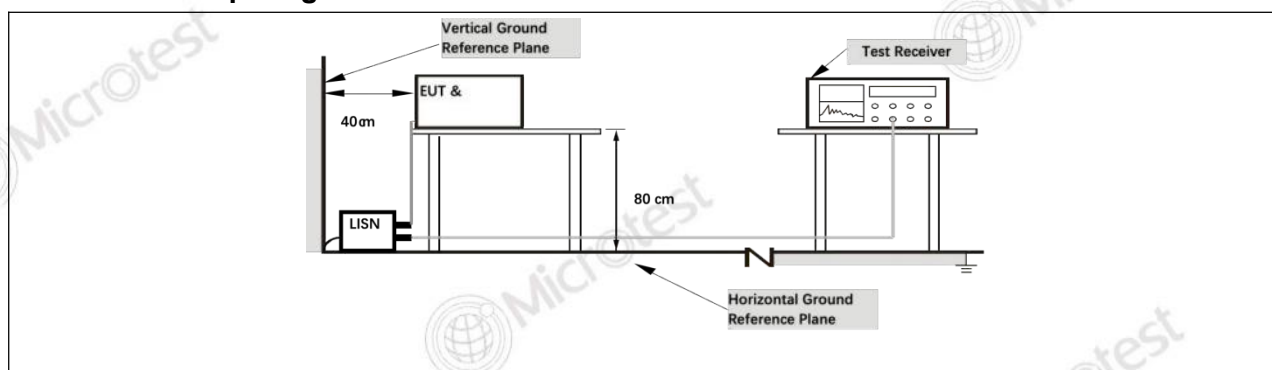
6.1 Conducted Emission at AC power line

Test Requirement:	47 CFR Part 15.207(a)		
Test Limit:	Frequency of emission (MHz)	Conducted limit (dBμV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
*Decreases with the logarithm of the frequency.			
Test Method:	ANSI C63.10-2020+Cor.1-2023 section 6.2		

6.1.1 E.U.T. Operation:

Operating Environment:					
Temperature:	33.4 °C	Humidity:	48.6 %	Atmospheric Pressure:	100.7 kPa
Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode1) is recorded in the report				

6.1.2 Test Setup Diagram:

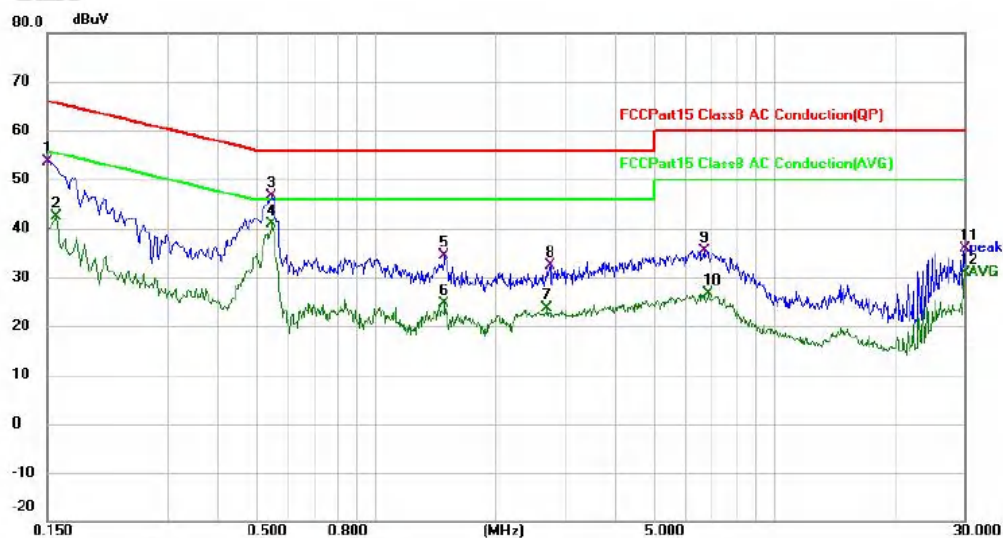


TEST REPORT

Report No.: MTi260409013-0102E4

6.1.3 Test Data:

Mode1 / Line: Line / CH: L

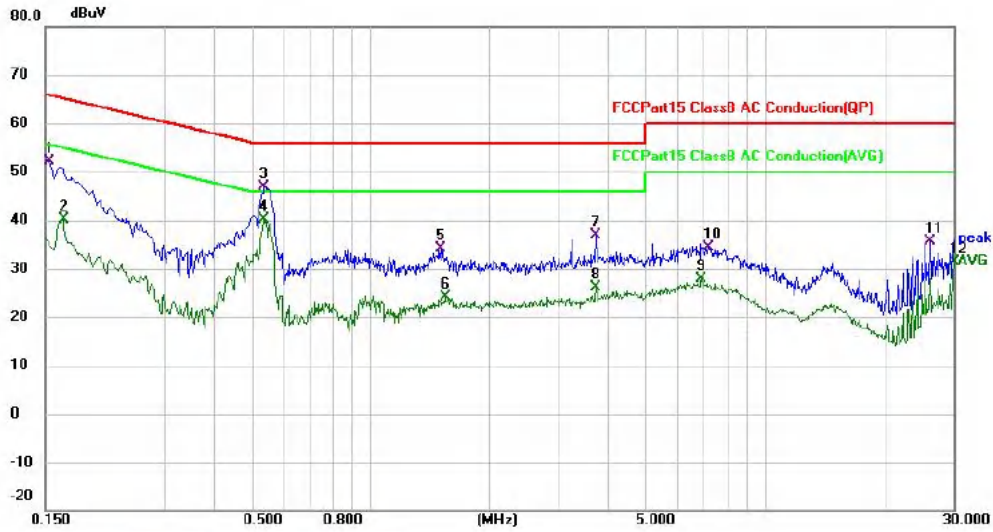


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1500	43.34	10.31	53.65	66.00	-12.35	QP	
2		0.1580	31.99	10.31	42.30	55.57	-13.27	AVG	
3		0.5500	36.38	10.28	46.66	56.00	-9.34	QP	
4	*	0.5500	30.55	10.28	40.83	46.00	-5.17	AVG	
5		1.4939	24.14	10.35	34.49	56.00	-21.51	QP	
6		1.4939	14.18	10.35	24.53	46.00	-21.47	AVG	
7		2.7058	13.28	10.43	23.71	46.00	-22.29	AVG	
8		2.7500	21.86	10.43	32.29	56.00	-23.71	QP	
9		6.6779	24.66	10.70	35.36	60.00	-24.64	QP	
10		6.8379	15.94	10.71	26.65	50.00	-23.35	AVG	
11		30.0000	24.60	11.37	35.97	60.00	-24.03	QP	
12		30.0000	19.45	11.37	30.82	50.00	-19.18	AVG	

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Line: Neutral / CH: L



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1539	41.92	10.32	52.24	65.79	-13.55	QP	
2	0.1660	29.87	10.31	40.18	55.16	-14.98	AVG	
3	0.5380	36.59	10.28	46.87	56.00	-9.13	QP	
4 *	0.5380	29.94	10.28	40.22	46.00	-5.78	AVG	
5	1.5060	23.80	10.35	34.15	56.00	-21.85	QP	
6	1.5460	13.78	10.35	24.13	46.00	-21.87	AVG	
7	3.7219	26.36	10.54	36.90	56.00	-19.10	QP	
8	3.7219	15.57	10.54	26.11	46.00	-19.89	AVG	
9	6.8779	17.09	10.74	27.83	50.00	-22.17	AVG	
10	7.1977	23.61	10.75	34.36	60.00	-25.64	QP	
11	26.1935	24.26	11.29	35.55	60.00	-24.45	QP	
12	30.0000	20.02	11.39	31.41	50.00	-18.59	AVG	

TEST REPORT

Report No.: MTi260409013-0102E4

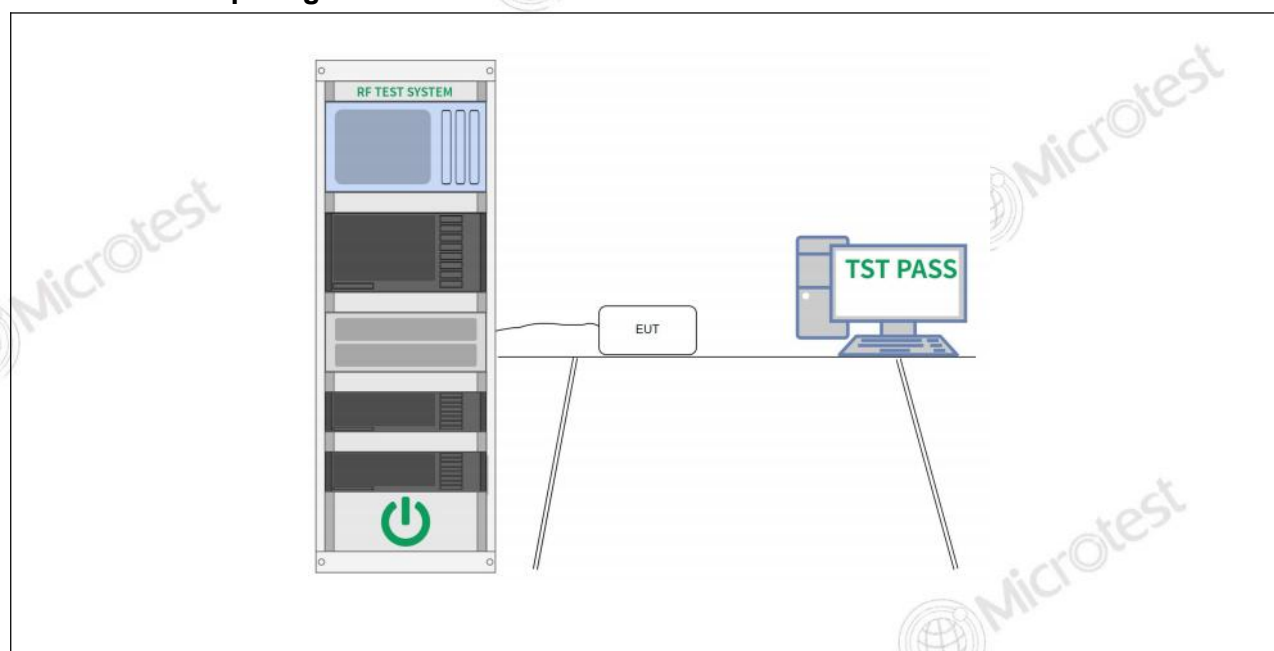
6.2 Duty Cycle

Test Requirement:	All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum-power transmission duration, T, are required for each tested mode of operation.
Test Limit:	No limits, only for report use.
Test Method:	ANSI C63.10-2020+Cor.1-2023 section 12.2 (b)
Procedure:	i) Set the center frequency of the instrument to the center frequency of the transmission. ii) Set RBW $\geq$ EBW if possible; otherwise, set RBW to the largest available value. iii) Set VBW $\geq$ RBW. iv) Set detector = peak. v) The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$, where T is defined in item a1) of 12.2, and the number of sweep points across duration T exceeds 100.

6.2.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24.3 °C	Humidity:	45.3 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				
Final test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				

6.2.2 Test Setup Diagram:



6.2.3 Test Data:

Please Refer to Appendix for Details.

TEST REPORT

Report No.: MTi260409013-0102E4

6.3 Emission bandwidth and occupied bandwidth

Test Requirement:	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use. U-NII 3, U-NII 4: 47 CFR Part 15.407(e)
Test Limit:	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use. U-NII 3, U-NII 4: Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.
Test Method:	ANSI C63.10-2020+Cor.1-2023, section 6.9 & 12.5 KDB 789033 D02, Clause C.2
Procedure:	Emission bandwidth: - Set RBW = shall be in the range of 1% to 5% of the emission bandwidth. - Set the VBW > RBW. - Detector = peak. - Trace mode = max hold. - Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1% to 5%. Occupied bandwidth: - The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW. - The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement. - Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2. - Step a) through step c) might require iteration to adjust within the specified range. - Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used. - Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth. - If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points,

TEST REPORT

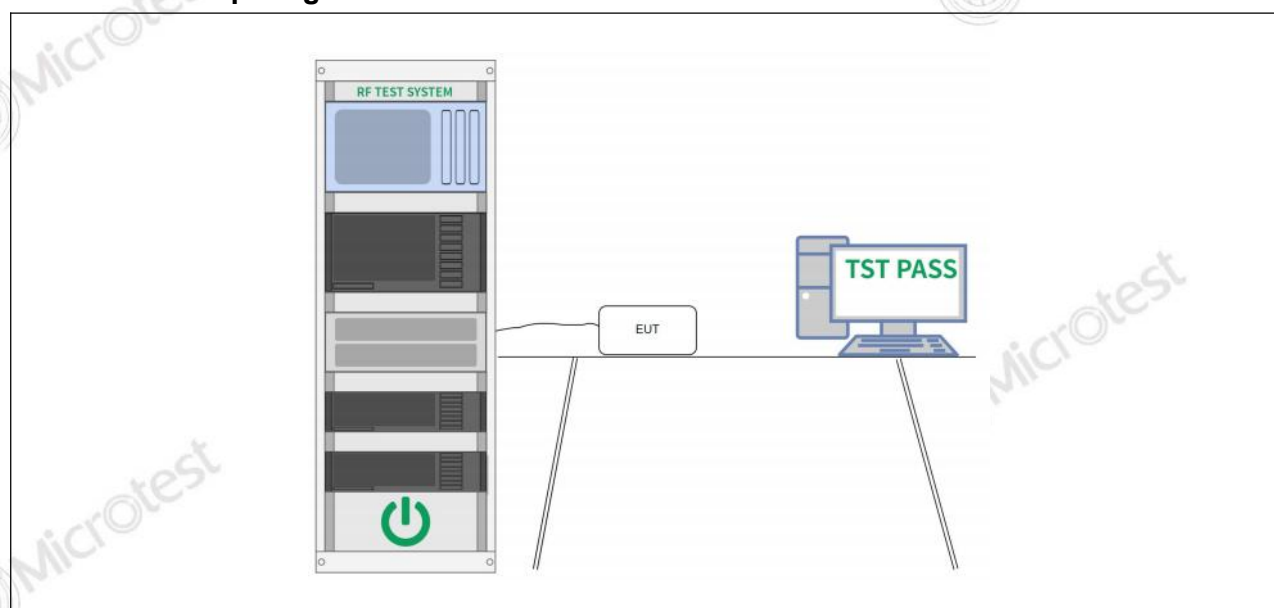
Report No.: MTi260409013-0102E4

	beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies. h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s). 6 dB emission bandwidth: a) Set RBW = 100 kHz. b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW. c) Detector = Peak. d) Trace mode = max hold. e) Sweep = auto couple. f) Allow the trace to stabilize. g) 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 dB relative to the maximum level measured in the fundamental emission.
--	--

6.3.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24.3 °C	Humidity:	45.3 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				
Final test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				

6.3.2 Test Setup Diagram:



6.3.3 Test Data:

Please Refer to Appendix for Details.

TEST REPORT

Report No.: MTi260409013-0102E4

6.4 Maximum conducted output power

Test Requirement:	47 CFR Part 15.407(a)(1)(i) 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) 47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)
Test Limit:	For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm). For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any

TEST REPORT

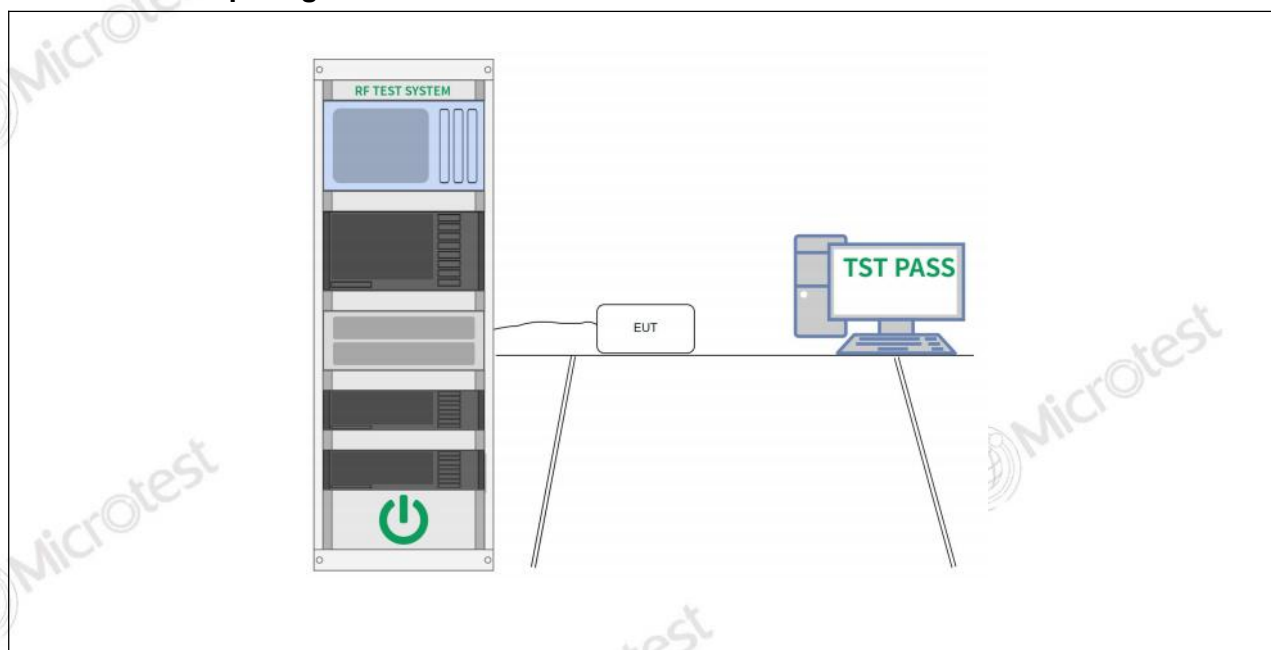
Report No.: MTi260409013-0102E4

	corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
Test Method:	ANSI C63.10-2020+Cor.1-2023, section 12.4
Procedure:	Refer to ANSI C63.10-2020+Cor.1-2023 section 12.4

6.4.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24.3 °C	Humidity:	45.3 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				
Final test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				

6.4.2 Test Setup Diagram:



6.4.3 Test Data:

Please Refer to Appendix for Details.

TEST REPORT

Report No.: MTi260409013-0102E4

6.5 Power spectral density

Test Requirement:	47 CFR Part 15.407(a)(1)(i) 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) 47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)
Test Limit:	For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations. For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For the band 5.725-5.850 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems

TEST REPORT

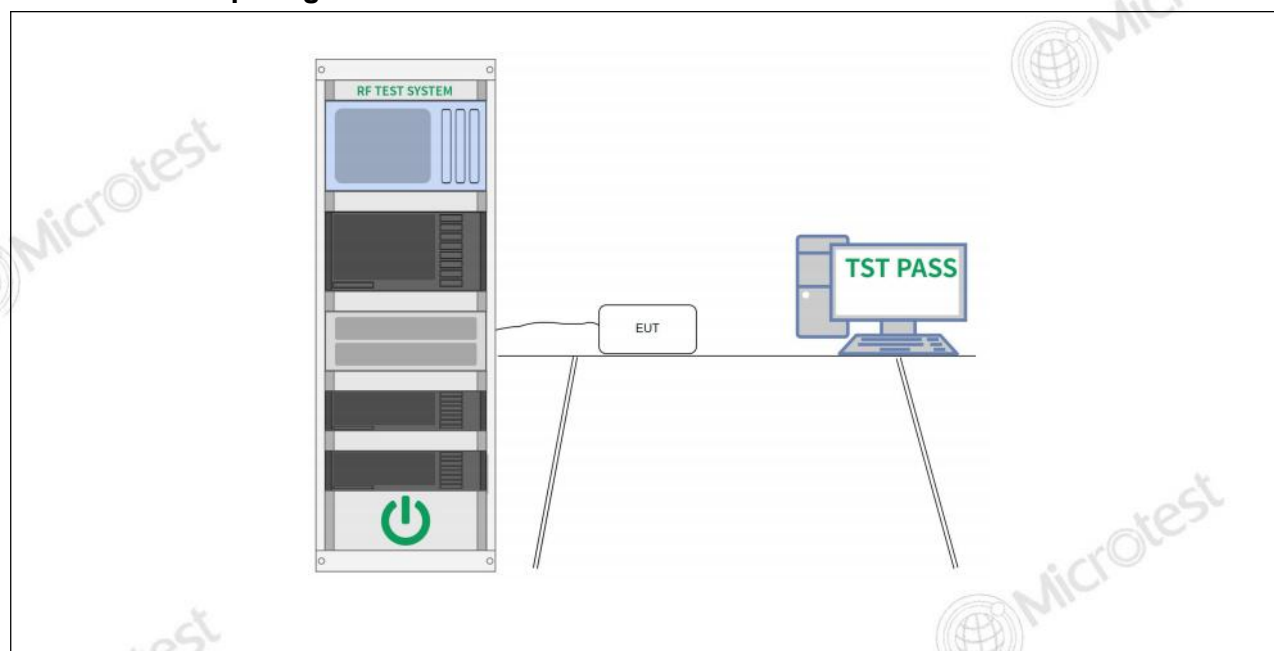
Report No.: MTi260409013-0102E4

	employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
Test Method:	ANSI C63.10-2020+Cor.1-2023, section 12.6
Procedure:	Refer to ANSI C63.10-2020+Cor.1-2023, section 12.6

6.5.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24.3 °C	Humidity:	45.3 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				
Final test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				

6.5.2 Test Setup Diagram:



6.5.3 Test Data:

Please Refer to Appendix for Details.

TEST REPORT

Report No.: MTi260409013-0102E4

6.6 Band edge emissions (Conducted)

Test Requirement:	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)																																																																										
Test Limit:	For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. For transmitters operating solely in the 5.725-5.850 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. <table border="1"> <thead> <tr> <th>MHz</th><th>MHz</th><th>MHz</th><th>GHz</th></tr> </thead> <tbody> <tr> <td>0.090-0.110</td><td>16.42-16.423</td><td>399.9-410</td><td>4.5-5.15</td></tr> <tr> <td>¹ 0.495-0.505</td><td>16.69475-16.69525</td><td>608-614</td><td>5.35-5.46</td></tr> <tr> <td>2.1735-2.1905</td><td>16.80425-16.80475</td><td>960-1240</td><td>7.25-7.75</td></tr> <tr> <td>4.125-4.128</td><td>25.5-25.67</td><td>1300-1427</td><td>8.025-8.5</td></tr> <tr> <td>4.17725-4.17775</td><td>37.5-38.25</td><td>1435-1626.5</td><td>9.0-9.2</td></tr> <tr> <td>4.20725-4.20775</td><td>73-74.6</td><td>1645.5-1646.5</td><td>9.3-9.5</td></tr> <tr> <td>6.215-6.218</td><td>74.8-75.2</td><td>1660-1710</td><td>10.6-12.7</td></tr> <tr> <td>6.26775-6.26825</td><td>108-121.94</td><td>1718.8-1722.2</td><td>13.25-13.4</td></tr> <tr> <td>6.31175-6.31225</td><td>123-138</td><td>2200-2300</td><td>14.47-14.5</td></tr> <tr> <td>8.291-8.294</td><td>149.9-150.05</td><td>2310-2390</td><td>15.35-16.2</td></tr> <tr> <td>8.362-8.366</td><td>156.52475-156.52525</td><td>2483.5-2500</td><td>17.7-21.4</td></tr> <tr> <td>8.37625-8.38675</td><td>156.7-156.9</td><td>2690-2900</td><td>22.01-23.12</td></tr> <tr> <td>8.41425-8.41475</td><td>162.0125-167.17</td><td>3260-3267</td><td>23.6-24.0</td></tr> <tr> <td>12.29-12.293</td><td>167.72-173.2</td><td>3332-3339</td><td>31.2-31.8</td></tr> <tr> <td>12.51975-12.52025</td><td>240-285</td><td>3345.8-3358</td><td>36.43-36.5</td></tr> <tr> <td>12.57675-12.57725</td><td>322-335.4</td><td>3600-4400</td><td>(²)</td></tr> <tr> <td>13.36-13.41</td><td></td><td></td><td></td></tr> </tbody> </table> ¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. ² Above 38.6 The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35 apply to these measurements.			MHz	MHz	MHz	GHz	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15	¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46	2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2	4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7	6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4	6.31175-6.31225	123-138	2200-2300	14.47-14.5	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2	8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5	12.57675-12.57725	322-335.4	3600-4400	(²)	13.36-13.41			
MHz	MHz	MHz	GHz																																																																								
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15																																																																								
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46																																																																								
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75																																																																								
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5																																																																								
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2																																																																								
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5																																																																								
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7																																																																								
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4																																																																								
6.31175-6.31225	123-138	2200-2300	14.47-14.5																																																																								
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2																																																																								
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4																																																																								
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12																																																																								
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0																																																																								
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8																																																																								
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5																																																																								
12.57675-12.57725	322-335.4	3600-4400	(²)																																																																								
13.36-13.41																																																																											

TEST REPORT

Report No.: MTi260409013-0102E4

	Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table: <table><tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr><tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr><tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr><tr><td>1.705-30.0</td><td>30</td><td>30</td></tr><tr><td>30-88</td><td>100 **</td><td>3</td></tr><tr><td>88-216</td><td>150 **</td><td>3</td></tr><tr><td>216-960</td><td>200 **</td><td>3</td></tr><tr><td>Above 960</td><td>500</td><td>3</td></tr></table> ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)	0.009-0.490	2400/F(kHz)	300	0.490-1.705	24000/F(kHz)	30	1.705-30.0	30	30	30-88	100 **	3	88-216	150 **	3	216-960	200 **	3	Above 960	500	3
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)																							
0.009-0.490	2400/F(kHz)	300																							
0.490-1.705	24000/F(kHz)	30																							
1.705-30.0	30	30																							
30-88	100 **	3																							
88-216	150 **	3																							
216-960	200 **	3																							
Above 960	500	3																							
Test Method:	ANSI C63.10-2020+Cor.1-2023, section 12.7.4, 12.7.6, 12.7.7																								
Procedure:	Above 1GHz: - For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. - The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. - The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. - For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. - The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. - If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet. - Test the EUT in the lowest channel, the middle channel, the Highest channel. - The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case. - Repeat above procedures until all frequencies measured was complete. Remark: - Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor - Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low.																								

TEST REPORT

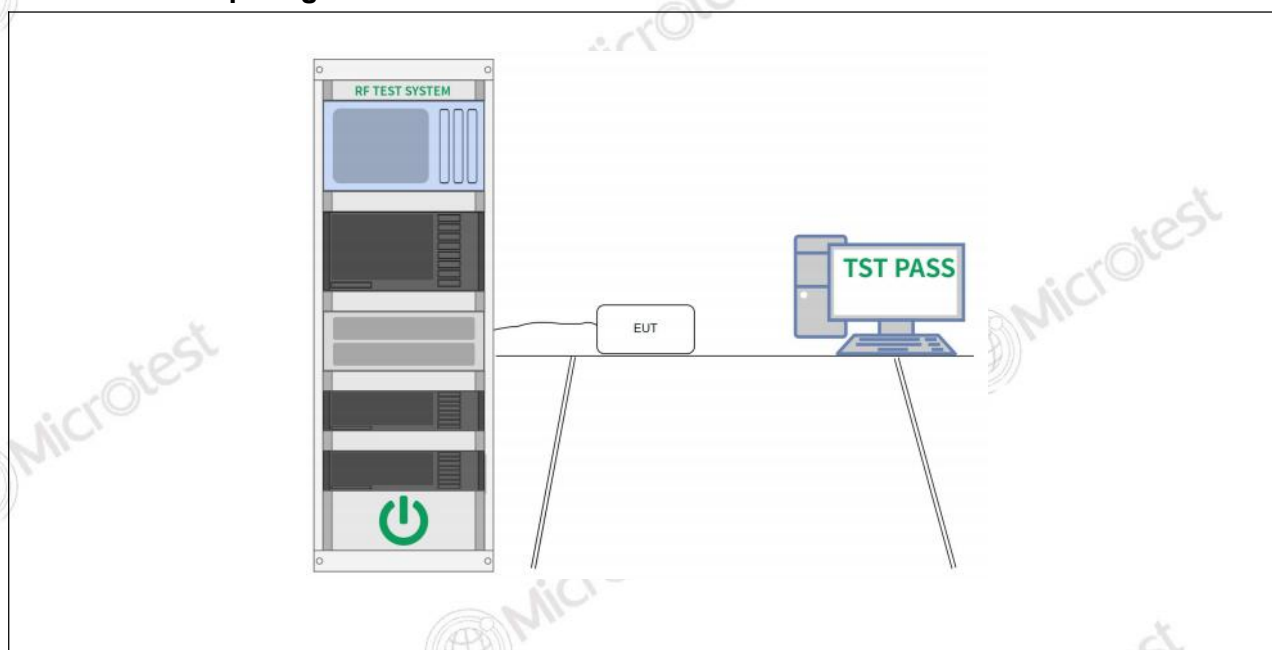
Report No.: MTi260409013-0102E4

	The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report. 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
--	---

6.6.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24.3 °C	Humidity:	45.3 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode6, Mode7				
Final test mode:	Mode6, Mode7				

6.6.2 Test Setup Diagram:



6.6.3 Test Data:

Please Refer to Appendix for Details.

TEST REPORT

Report No.: MTi260409013-0102E4

6.7 Band edge emissions (Radiated)

Test Requirement:	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)																																																																										
Test Limit:	For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. For transmitters operating solely in the 5.725-5.850 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. <table border="1"> <thead> <tr> <th>MHz</th><th>MHz</th><th>MHz</th><th>GHz</th></tr> </thead> <tbody> <tr> <td>0.090-0.110</td><td>16.42-16.423</td><td>399.9-410</td><td>4.5-5.15</td></tr> <tr> <td>¹ 0.495-0.505</td><td>16.69475-16.69525</td><td>608-614</td><td>5.35-5.46</td></tr> <tr> <td>2.1735-2.1905</td><td>16.80425-16.80475</td><td>960-1240</td><td>7.25-7.75</td></tr> <tr> <td>4.125-4.128</td><td>25.5-25.67</td><td>1300-1427</td><td>8.025-8.5</td></tr> <tr> <td>4.17725-4.17775</td><td>37.5-38.25</td><td>1435-1626.5</td><td>9.0-9.2</td></tr> <tr> <td>4.20725-4.20775</td><td>73-74.6</td><td>1645.5-1646.5</td><td>9.3-9.5</td></tr> <tr> <td>6.215-6.218</td><td>74.8-75.2</td><td>1660-1710</td><td>10.6-12.7</td></tr> <tr> <td>6.26775-6.26825</td><td>108-121.94</td><td>1718.8-1722.2</td><td>13.25-13.4</td></tr> <tr> <td>6.31175-6.31225</td><td>123-138</td><td>2200-2300</td><td>14.47-14.5</td></tr> <tr> <td>8.291-8.294</td><td>149.9-150.05</td><td>2310-2390</td><td>15.35-16.2</td></tr> <tr> <td>8.362-8.366</td><td>156.52475-156.52525</td><td>2483.5-2500</td><td>17.7-21.4</td></tr> <tr> <td>8.37625-8.38675</td><td>156.7-156.9</td><td>2690-2900</td><td>22.01-23.12</td></tr> <tr> <td>8.41425-8.41475</td><td>162.0125-167.17</td><td>3260-3267</td><td>23.6-24.0</td></tr> <tr> <td>12.29-12.293</td><td>167.72-173.2</td><td>3332-3339</td><td>31.2-31.8</td></tr> <tr> <td>12.51975-12.52025</td><td>240-285</td><td>3345.8-3358</td><td>36.43-36.5</td></tr> <tr> <td>12.57675-12.57725</td><td>322-335.4</td><td>3600-4400</td><td>(²)</td></tr> <tr> <td>13.36-13.41</td><td></td><td></td><td></td></tr> </tbody> </table> ¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. ² Above 38.6 The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35 apply to these measurements.			MHz	MHz	MHz	GHz	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15	¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46	2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2	4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7	6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4	6.31175-6.31225	123-138	2200-2300	14.47-14.5	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2	8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5	12.57675-12.57725	322-335.4	3600-4400	(²)	13.36-13.41			
MHz	MHz	MHz	GHz																																																																								
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15																																																																								
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46																																																																								
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75																																																																								
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5																																																																								
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2																																																																								
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5																																																																								
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7																																																																								
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4																																																																								
6.31175-6.31225	123-138	2200-2300	14.47-14.5																																																																								
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2																																																																								
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4																																																																								
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12																																																																								
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0																																																																								
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8																																																																								
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5																																																																								
12.57675-12.57725	322-335.4	3600-4400	(²)																																																																								
13.36-13.41																																																																											

TEST REPORT

Report No.: MTi260409013-0102E4

	Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table: <table><tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr><tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr><tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr><tr><td>1.705-30.0</td><td>30</td><td>30</td></tr><tr><td>30-88</td><td>100 **</td><td>3</td></tr><tr><td>88-216</td><td>150 **</td><td>3</td></tr><tr><td>216-960</td><td>200 **</td><td>3</td></tr><tr><td>Above 960</td><td>500</td><td>3</td></tr></table> ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)	0.009-0.490	2400/F(kHz)	300	0.490-1.705	24000/F(kHz)	30	1.705-30.0	30	30	30-88	100 **	3	88-216	150 **	3	216-960	200 **	3	Above 960	500	3
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)																							
0.009-0.490	2400/F(kHz)	300																							
0.490-1.705	24000/F(kHz)	30																							
1.705-30.0	30	30																							
30-88	100 **	3																							
88-216	150 **	3																							
216-960	200 **	3																							
Above 960	500	3																							
Test Method:	ANSI C63.10-2020+Cor.1-2023, section 12.7.4, 12.7.6, 12.7.7																								
Procedure:	Above 1GHz: - For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. - The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. - The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. - For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. - The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. - If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet. - Test the EUT in the lowest channel, the middle channel, the Highest channel. - The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case. - Repeat above procedures until all frequencies measured was complete. Remark: - Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor - Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low.																								

TEST REPORT

Report No.: MTi260409013-0102E4

	The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report. 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
--	---

6.7.1 E.U.T. Operation:

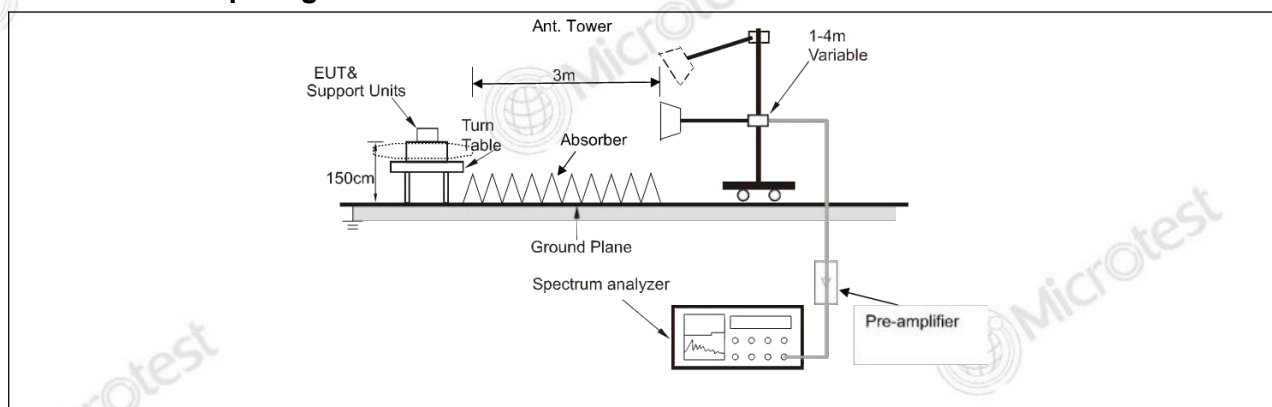
Operating Environment:

Temperature:	24 °C	Humidity:	60 %	Atmospheric Pressure:	101 kPa
--------------	-------	-----------	------	-----------------------	---------

Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7
----------------	---

Final test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7
------------------	---

6.7.2 Test Setup Diagram:



TEST REPORT

Report No.: MTi260409013-0102E4

6.7.3 Test Data:

Band 1:

Mode1 / Polarization: Horizontal / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4500.000	45.46	1.09	46.55	74.00	-27.45	peak
2		4500.000	37.20	1.09	38.29	54.00	-15.71	AVG
3		5150.000	48.60	2.77	51.37	74.00	-22.63	peak
4	*	5150.000	38.94	2.77	41.71	54.00	-12.29	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4500.000	45.37	1.09	46.46	74.00	-27.54	peak
2		4500.000	37.14	1.09	38.23	54.00	-15.77	AVG
3		5150.000	46.53	2.77	49.30	74.00	-24.70	peak
4	*	5150.000	38.24	2.77	41.01	54.00	-12.99	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	46.19	2.64	48.83	74.00	-25.17	peak
2		5350.000	37.82	2.64	40.46	54.00	-13.54	AVG
3		5460.000	46.19	2.98	49.17	74.00	-24.83	peak
4	*	5460.000	37.87	2.98	40.85	54.00	-13.15	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.52	2.64	48.16	74.00	-25.84	peak
2		5350.000	37.28	2.64	39.92	54.00	-14.08	AVG
3		5460.000	45.71	2.98	48.69	74.00	-25.31	peak
4	*	5460.000	37.41	2.98	40.39	54.00	-13.61	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Band 3:

Mode1 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	50.21	3.29	53.50	68.20	-14.70	peak
2		5700.000	55.32	3.61	58.93	105.20	-46.27	peak
3		5720.000	58.99	3.59	62.58	110.80	-48.22	peak
4		5725.000	69.09	3.58	72.67	122.20	-49.53	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5650.000	48.44	3.29	51.73	68.20	-16.47	peak
2		5700.000	51.57	3.61	55.18	105.20	-50.02	peak
3		5720.000	57.12	3.59	60.71	110.80	-50.09	peak
4		5725.000	65.11	3.58	68.69	122.20	-53.51	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Horizontal / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		5850.000	57.39	4.00	61.39	122.20	-60.81	peak
2		5855.000	56.82	4.01	60.83	110.80	-49.97	peak
3		5875.000	49.28	4.11	53.39	105.20	-51.81	peak
4	*	5920.000	47.77	4.32	52.09	71.90	-19.81	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	53.95	4.00	57.95	122.20	-64.25	peak
2		5855.000	52.81	4.01	56.82	110.80	-53.98	peak
3		5875.000	48.27	4.11	52.38	105.20	-52.82	peak
4	*	5920.000	48.45	4.32	52.77	71.90	-19.13	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Band 1:

Mode2 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	45.50	1.09	46.59	74.00	-27.41	peak
2		4500.000	37.16	1.09	38.25	54.00	-15.75	AVG
3		5150.000	48.36	2.77	51.13	74.00	-22.87	peak
4	*	5150.000	39.33	2.77	42.10	54.00	-11.90	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode2 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4500.000	45.49	1.09	46.58	74.00	-27.42	peak
2		4500.000	37.17	1.09	38.26	54.00	-15.74	AVG
3		5150.000	47.31	2.77	50.08	74.00	-23.92	peak
4	*	5150.000	38.62	2.77	41.39	54.00	-12.61	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode2 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	46.16	2.64	48.80	74.00	-25.20	peak
2		5350.000	37.58	2.64	40.22	54.00	-13.78	AVG
3		5460.000	46.01	2.98	48.99	74.00	-25.01	peak
4	*	5460.000	37.95	2.98	40.93	54.00	-13.07	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode2 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.61	2.64	48.25	74.00	-25.75	peak
2		5350.000	37.22	2.64	39.86	54.00	-14.14	AVG
3		5460.000	45.90	2.98	48.88	74.00	-25.12	peak
4	*	5460.000	37.65	2.98	40.63	54.00	-13.37	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Band 3:

Mode2 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	49.71	3.29	53.00	68.20	-15.20	peak
2		5700.000	56.45	3.61	60.06	105.20	-45.14	peak
3		5720.000	64.98	3.59	68.57	110.80	-42.23	peak
4		5725.000	75.84	3.58	79.42	122.20	-42.78	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode2 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5650.000	48.20	3.29	51.49	68.20	-16.71	peak
2		5700.000	48.33	3.61	51.94	105.20	-53.26	peak
3		5720.000	60.73	3.59	64.32	110.80	-46.48	peak
4		5725.000	68.39	3.58	71.97	122.20	-50.23	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode2 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	58.83	4.00	62.83	122.20	-59.37	peak
2		5855.000	53.78	4.01	57.79	110.80	-53.01	peak
3		5875.000	49.17	4.11	53.28	105.20	-51.92	peak
4	*	5920.000	49.66	4.32	53.98	71.90	-17.92	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode2 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	59.15	4.00	63.15	122.20	-59.05	peak
2		5855.000	48.50	4.01	52.51	110.80	-58.29	peak
3		5875.000	48.55	4.11	52.66	105.20	-52.54	peak
4	*	5920.000	48.22	4.32	52.54	71.90	-19.36	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Band 1:

Mode3 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	45.67	1.09	46.76	74.00	-27.24	peak
2		4500.000	36.81	1.09	37.90	54.00	-16.10	AVG
3		5150.000	47.39	2.77	50.16	74.00	-23.84	peak
4	*	5150.000	38.70	2.77	41.47	54.00	-12.53	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode3 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4500.000	45.55	1.09	46.64	74.00	-27.36	peak
2		4500.000	36.83	1.09	37.92	54.00	-16.08	AVG
3		5150.000	46.76	2.77	49.53	74.00	-24.47	peak
4	*	5150.000	38.39	2.77	41.16	54.00	-12.84	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode3 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.94	2.64	48.58	74.00	-25.42	peak
2		5350.000	37.70	2.64	40.34	54.00	-13.66	AVG
3		5460.000	46.24	2.98	49.22	74.00	-24.78	peak
4	*	5460.000	37.68	2.98	40.66	54.00	-13.34	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode3 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.63	2.64	48.27	74.00	-25.73	peak
2		5350.000	37.40	2.64	40.04	54.00	-13.96	AVG
3		5460.000	45.96	2.98	48.94	74.00	-25.06	peak
4	*	5460.000	37.68	2.98	40.66	54.00	-13.34	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Band 3:

Mode3 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	48.64	3.29	51.93	68.20	-16.27	peak
2		5700.000	56.26	3.61	59.87	105.20	-45.33	peak
3		5720.000	69.50	3.59	73.09	110.80	-37.71	peak
4		5725.000	69.90	3.58	73.48	122.20	-48.72	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode3 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5650.000	48.79	3.29	52.08	68.20	-16.12	peak
2		5700.000	51.97	3.61	55.58	105.20	-49.62	peak
3		5720.000	67.59	3.59	71.18	110.80	-39.62	peak
4		5725.000	67.22	3.58	70.80	122.20	-51.40	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode3 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	48.91	4.00	52.91	122.20	-69.29	peak
2		5855.000	49.79	4.01	53.80	110.80	-57.00	peak
3		5875.000	47.75	4.11	51.86	105.20	-53.34	peak
4	*	5920.000	48.16	4.32	52.48	71.90	-19.42	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode3 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	47.99	4.00	51.99	122.20	-70.21	peak
2		5855.000	48.69	4.01	52.70	110.80	-58.10	peak
3		5875.000	47.51	4.11	51.62	105.20	-53.58	peak
4	*	5920.000	48.51	4.32	52.83	71.90	-19.07	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Band 1:

Mode4 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	45.61	1.09	46.70	74.00	-27.30	peak
2		4500.000	36.77	1.09	37.86	54.00	-16.14	AVG
3		5150.000	50.35	2.77	53.12	74.00	-20.88	peak
4	*	5150.000	38.79	2.77	41.56	54.00	-12.44	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode4 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4500.000	45.49	1.09	46.58	74.00	-27.42	peak
2		4500.000	37.18	1.09	38.27	54.00	-15.73	AVG
3		5150.000	46.94	2.77	49.71	74.00	-24.29	peak
4	*	5150.000	38.58	2.77	41.35	54.00	-12.65	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode4 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.79	2.64	48.43	74.00	-25.57	peak
2		5350.000	37.80	2.64	40.44	54.00	-13.56	AVG
3		5460.000	46.27	2.98	49.25	74.00	-24.75	peak
4	*	5460.000	37.83	2.98	40.81	54.00	-13.19	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode4 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.51	2.64	48.15	74.00	-25.85	peak
2		5350.000	37.35	2.64	39.99	54.00	-14.01	AVG
3		5460.000	45.94	2.98	48.92	74.00	-25.08	peak
4	*	5460.000	37.70	2.98	40.68	54.00	-13.32	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Band 3:

Mode4 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	49.12	3.29	52.41	68.20	-15.79	peak
2		5700.000	51.31	3.61	54.92	105.20	-50.28	peak
3		5720.000	65.24	3.59	68.83	110.80	-41.97	peak
4		5725.000	69.21	3.58	72.79	122.20	-49.41	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode4 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5650.000	48.02	3.29	51.31	68.20	-16.89	peak
2		5700.000	48.63	3.61	52.24	105.20	-52.96	peak
3		5720.000	59.30	3.59	62.89	110.80	-47.91	peak
4		5725.000	67.63	3.58	71.21	122.20	-50.99	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode4 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	60.34	4.00	64.34	122.20	-57.86	peak
2		5855.000	55.29	4.01	59.30	110.80	-51.50	peak
3		5875.000	51.10	4.11	55.21	105.20	-49.99	peak
4	*	5920.000	48.21	4.32	52.53	71.90	-19.37	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode4 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	58.04	4.00	62.04	122.20	-60.16	peak
2		5855.000	48.61	4.01	52.62	110.80	-58.18	peak
3		5875.000	47.96	4.11	52.07	105.20	-53.13	peak
4	*	5920.000	47.86	4.32	52.18	71.90	-19.72	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Band 1:

Mode5 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	45.59	1.09	46.68	74.00	-27.32	peak
2		4500.000	37.16	1.09	38.25	54.00	-15.75	AVG
3		5150.000	51.56	2.77	54.33	74.00	-19.67	peak
4	*	5150.000	43.86	2.77	46.63	54.00	-7.37	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode5 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4500.000	45.60	1.09	46.69	74.00	-27.31	peak
2		4500.000	37.24	1.09	38.33	54.00	-15.67	AVG
3		5150.000	48.25	2.77	51.02	74.00	-22.98	peak
4	*	5150.000	40.47	2.77	43.24	54.00	-10.76	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode5 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.75	2.64	48.39	74.00	-25.61	peak
2		5350.000	37.67	2.64	40.31	54.00	-13.69	AVG
3		5460.000	46.01	2.98	48.99	74.00	-25.01	peak
4	*	5460.000	37.77	2.98	40.75	54.00	-13.25	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode5 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.55	2.64	48.19	74.00	-25.81	peak
2		5350.000	37.42	2.64	40.06	54.00	-13.94	AVG
3		5460.000	46.14	2.98	49.12	74.00	-24.88	peak
4	*	5460.000	37.59	2.98	40.57	54.00	-13.43	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Band 3:

Mode5 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	48.32	3.29	51.61	68.20	-16.59	peak
2		5700.000	53.38	3.61	56.99	105.20	-48.21	peak
3		5720.000	68.91	3.59	72.50	110.80	-38.30	peak
4		5725.000	70.30	3.58	73.88	122.20	-48.32	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode5 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5650.000	48.71	3.29	52.00	68.20	-16.20	peak
2		5700.000	48.15	3.61	51.76	105.20	-53.44	peak
3		5720.000	63.02	3.59	66.61	110.80	-44.19	peak
4		5725.000	65.28	3.58	68.86	122.20	-53.34	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode5 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	48.35	4.00	52.35	122.20	-69.85	peak
2		5855.000	48.30	4.01	52.31	110.80	-58.49	peak
3		5875.000	47.86	4.11	51.97	105.20	-53.23	peak
4	*	5920.000	48.11	4.32	52.43	71.90	-19.47	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode5 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	49.15	4.00	53.15	122.20	-69.05	peak
2		5855.000	47.88	4.01	51.89	110.80	-58.91	peak
3		5875.000	47.95	4.11	52.06	105.20	-53.14	peak
4	*	5920.000	48.23	4.32	52.55	71.90	-19.35	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Band 1:

Mode6 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	45.53	1.09	46.62	74.00	-27.38	peak
2		4500.000	37.18	1.09	38.27	54.00	-15.73	AVG
3		5150.000	49.64	2.77	52.41	74.00	-21.59	peak
4	*	5150.000	41.37	2.77	44.14	54.00	-9.86	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode6 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4500.000	45.36	1.09	46.45	74.00	-27.55	peak
2		4500.000	37.27	1.09	38.36	54.00	-15.64	AVG
3		5150.000	47.22	2.77	49.99	74.00	-24.01	peak
4	*	5150.000	39.42	2.77	42.19	54.00	-11.81	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode6 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.71	2.64	48.35	74.00	-25.65	peak
2		5350.000	37.69	2.64	40.33	54.00	-13.67	AVG
3		5460.000	45.93	2.98	48.91	74.00	-25.09	peak
4	*	5460.000	37.68	2.98	40.66	54.00	-13.34	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode6 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.72	2.64	48.36	74.00	-25.64	peak
2		5350.000	37.40	2.64	40.04	54.00	-13.96	AVG
3		5460.000	46.00	2.98	48.98	74.00	-25.02	peak
4	*	5460.000	37.98	2.98	40.96	54.00	-13.04	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Band 3:

Mode6 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	49.09	3.29	52.38	68.20	-15.82	peak
2		5700.000	53.77	3.61	57.38	105.20	-47.82	peak
3		5720.000	67.19	3.59	70.78	110.80	-40.02	peak
4		5725.000	70.55	3.58	74.13	122.20	-48.07	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode6 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5650.000	48.93	3.29	52.22	68.20	-15.98	peak
2		5700.000	52.47	3.61	56.08	105.20	-49.12	peak
3		5720.000	61.30	3.59	64.89	110.80	-45.91	peak
4		5725.000	67.21	3.58	70.79	122.20	-51.41	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode6 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	64.64	4.00	68.64	122.20	-53.56	peak
2		5855.000	56.20	4.01	60.21	110.80	-50.59	peak
3		5875.000	52.42	4.11	56.53	105.20	-48.67	peak
4	*	5920.000	48.29	4.32	52.61	71.90	-19.29	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode6 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	61.14	4.00	65.14	122.20	-57.06	peak
2		5855.000	49.58	4.01	53.59	110.80	-57.21	peak
3		5875.000	48.41	4.11	52.52	105.20	-52.68	peak
4	*	5920.000	48.85	4.32	53.17	71.90	-18.73	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Band 1:

Mode7 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4500.000	45.68	1.09	46.77	74.00	-27.23	peak
2		4500.000	37.31	1.09	38.40	54.00	-15.60	AVG
3		5150.000	51.19	2.77	53.96	74.00	-20.04	peak
4	*	5150.000	43.81	2.77	46.58	54.00	-7.42	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode7 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4500.000	45.50	1.09	46.59	74.00	-27.41	peak
2		4500.000	37.13	1.09	38.22	54.00	-15.78	AVG
3		5150.000	49.48	2.77	52.25	74.00	-21.75	peak
4	*	5150.000	41.88	2.77	44.65	54.00	-9.35	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode7 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	46.38	2.64	49.02	74.00	-24.98	peak
2	*	5350.000	38.51	2.64	41.15	54.00	-12.85	AVG
3		5460.000	46.33	2.98	49.31	74.00	-24.69	peak
4		5460.000	38.09	2.98	41.07	54.00	-12.93	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode7 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5350.000	45.82	2.64	48.46	74.00	-25.54	peak
2		5350.000	37.68	2.64	40.32	54.00	-13.68	AVG
3		5460.000	46.14	2.98	49.12	74.00	-24.88	peak
4	*	5460.000	37.96	2.98	40.94	54.00	-13.06	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Band 3:

Mode7 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	5650.000	48.15	3.29	51.44	68.20	-16.76	peak
2		5700.000	54.11	3.61	57.72	105.20	-47.48	peak
3		5720.000	69.72	3.59	73.31	110.80	-37.49	peak
4		5725.000	67.14	3.58	70.72	122.20	-51.48	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode7 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	5650.000	48.95	3.29	52.24	68.20	-15.96	peak
2		5700.000	55.20	3.61	58.81	105.20	-46.39	peak
3		5720.000	63.57	3.59	67.16	110.80	-43.64	peak
4		5725.000	67.11	3.58	70.69	122.20	-51.51	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode7 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	50.20	4.00	54.20	122.20	-68.00	peak
2		5855.000	49.50	4.01	53.51	110.80	-57.29	peak
3		5875.000	47.86	4.11	51.97	105.20	-53.23	peak
4	*	5920.000	48.55	4.32	52.87	71.90	-19.03	peak

TEST REPORT

Report No.: MTi260409013-0102E4

Mode7 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		5850.000	49.42	4.00	53.42	122.20	-68.78	peak
2		5855.000	48.37	4.01	52.38	110.80	-58.42	peak
3		5875.000	48.42	4.11	52.53	105.20	-52.67	peak
4	*	5920.000	48.28	4.32	52.60	71.90	-19.30	peak

TEST REPORT

Report No.: MTi260409013-0102E4

6.8 Undesirable emission limits (below 1GHz)

Test Requirement:	47 CFR Part 15.407(b)(9)																								
Test Limit:	Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table: <table><tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr><tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr><tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr><tr><td>1.705-30.0</td><td>30</td><td>30</td></tr><tr><td>30-88</td><td>100 **</td><td>3</td></tr><tr><td>88-216</td><td>150 **</td><td>3</td></tr><tr><td>216-960</td><td>200 **</td><td>3</td></tr><tr><td>Above 960</td><td>500</td><td>3</td></tr></table> ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)	0.009-0.490	2400/F(kHz)	300	0.490-1.705	24000/F(kHz)	30	1.705-30.0	30	30	30-88	100 **	3	88-216	150 **	3	216-960	200 **	3	Above 960	500	3
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)																							
0.009-0.490	2400/F(kHz)	300																							
0.490-1.705	24000/F(kHz)	30																							
1.705-30.0	30	30																							
30-88	100 **	3																							
88-216	150 **	3																							
216-960	200 **	3																							
Above 960	500	3																							
Test Method:	ANSI C63.10-2020+Cor.1-2023, section 12.7.4, 12.7.5																								
Procedure:	Below 1GHz: a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet. g. Test the EUT in the lowest channel, the middle channel, the Highest channel. h. The radiation measurements are performed in X, Y, Z axis positioning for																								

TEST REPORT

Report No.: MTi260409013-0102E4

Transmitting mode, and found the X axis positioning which it is the worst case.
i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

Above 1GHz:

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had

TEST REPORT

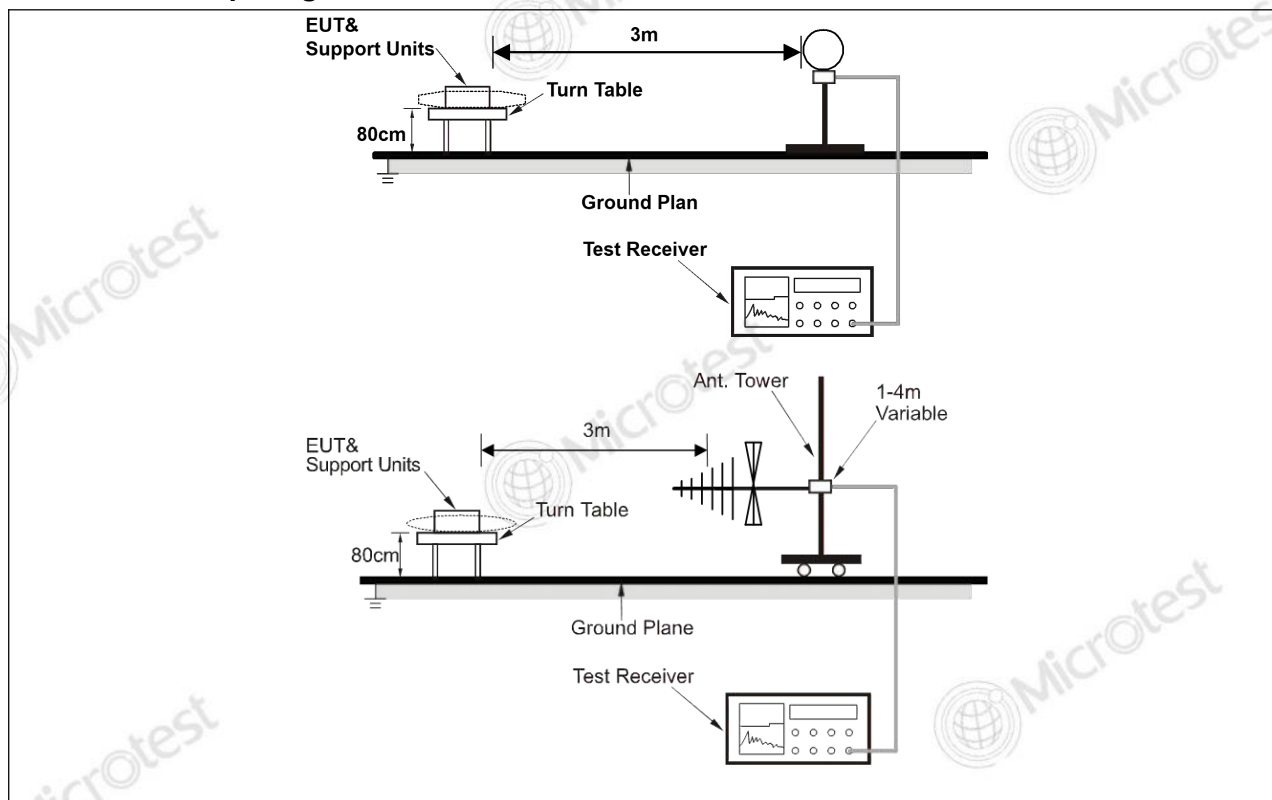
Report No.: MTi260409013-0102E4

	been displayed.
--	-----------------

6.8.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24 °C	Humidity:	60 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode1) is recorded in the report				

6.8.2 Test Setup Diagram:



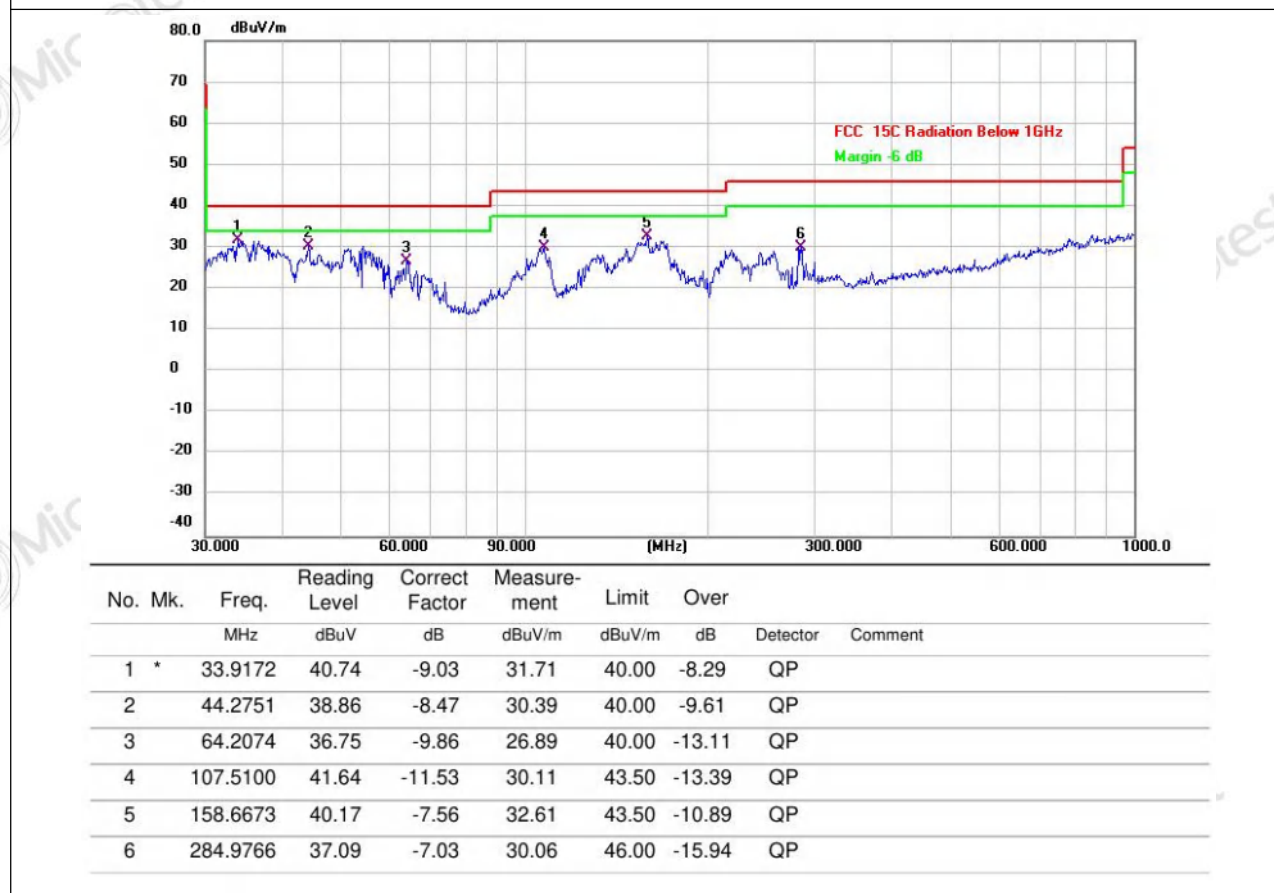
TEST REPORT

Report No.: MTi260409013-0102E4

6.8.3 Test Data:

Band 1:

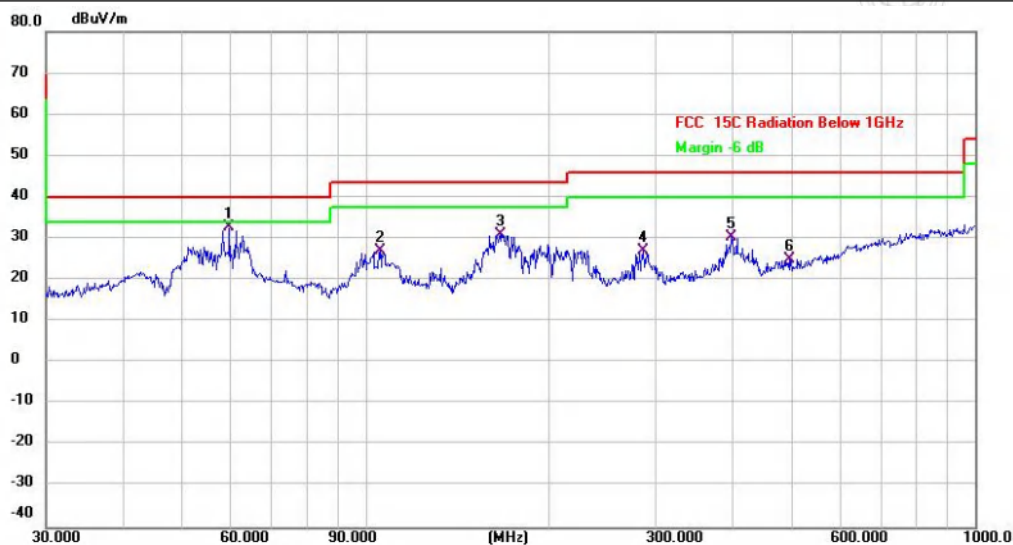
Mode1 / Polarization: Horizontal / CH: H



TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: H



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	59.8588	42.05	-9.45	32.60	40.00	-7.40	QP	
2		105.6414	38.85	-11.75	27.10	43.50	-16.40	QP	
3		166.0680	38.73	-7.69	31.04	43.50	-12.46	QP	
4		285.9777	33.93	-7.01	26.92	46.00	-19.08	QP	
5		399.0300	34.97	-4.63	30.34	46.00	-15.66	QP	
6		495.9343	27.58	-2.77	24.81	46.00	-21.19	QP	

TEST REPORT

Report No.: MTi260409013-0102E4

Band 3:

Mode1 / Polarization: Horizontal / CH: H

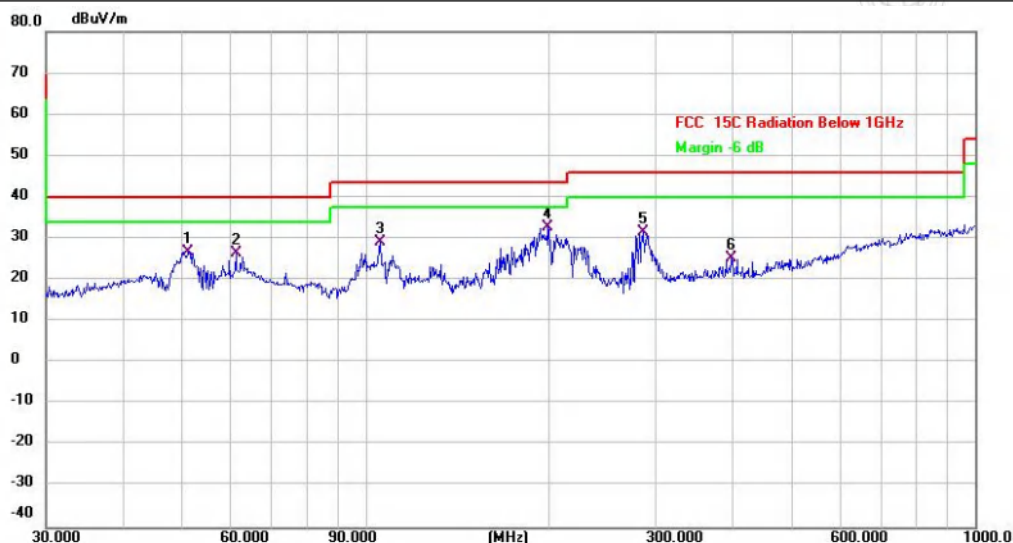


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	!	44.2751	42.86	-8.47	34.39	40.00	-5.61	QP	
2	*	54.4515	44.21	-8.98	35.23	40.00	-4.77	QP	
3		107.5100	40.64	-11.53	29.11	43.50	-14.39	QP	
4		155.3642	39.52	-7.27	32.25	43.50	-11.25	QP	
5		219.0749	42.08	-10.60	31.48	46.00	-14.52	QP	
6		373.3110	34.33	-5.18	29.15	46.00	-16.85	QP	

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: H



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	51.3004	35.62	-8.80	26.82	40.00	-13.18	QP	
2	61.3462	36.03	-9.54	26.49	40.00	-13.51	QP	
3	105.6414	40.85	-11.75	29.10	43.50	-14.40	QP	
4 *	199.9855	43.23	-10.62	32.61	43.50	-10.89	QP	
5	285.9777	38.43	-7.01	31.42	46.00	-14.58	QP	
6	399.0300	29.97	-4.63	25.34	46.00	-20.66	QP	

TEST REPORT

Report No.: MTi260409013-0102E4

6.9 Undesirable emission limits (above 1GHz)

Test Requirement:	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)																																																																										
Test Limit:	For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. For transmitters operating solely in the 5.725-5.850 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. <table border="1"> <thead> <tr> <th>MHz</th><th>MHz</th><th>MHz</th><th>GHz</th></tr> </thead> <tbody> <tr> <td>0.090-0.110</td><td>16.42-16.423</td><td>399.9-410</td><td>4.5-5.15</td></tr> <tr> <td>¹ 0.495-0.505</td><td>16.69475-16.69525</td><td>608-614</td><td>5.35-5.46</td></tr> <tr> <td>2.1735-2.1905</td><td>16.80425-16.80475</td><td>960-1240</td><td>7.25-7.75</td></tr> <tr> <td>4.125-4.128</td><td>25.5-25.67</td><td>1300-1427</td><td>8.025-8.5</td></tr> <tr> <td>4.17725-4.17775</td><td>37.5-38.25</td><td>1435-1626.5</td><td>9.0-9.2</td></tr> <tr> <td>4.20725-4.20775</td><td>73-74.6</td><td>1645.5-1646.5</td><td>9.3-9.5</td></tr> <tr> <td>6.215-6.218</td><td>74.8-75.2</td><td>1660-1710</td><td>10.6-12.7</td></tr> <tr> <td>6.26775-6.26825</td><td>108-121.94</td><td>1718.8-1722.2</td><td>13.25-13.4</td></tr> <tr> <td>6.31175-6.31225</td><td>123-138</td><td>2200-2300</td><td>14.47-14.5</td></tr> <tr> <td>8.291-8.294</td><td>149.9-150.05</td><td>2310-2390</td><td>15.35-16.2</td></tr> <tr> <td>8.362-8.366</td><td>156.52475-156.52525</td><td>2483.5-2500</td><td>17.7-21.4</td></tr> <tr> <td>8.37625-8.38675</td><td>156.7-156.9</td><td>2690-2900</td><td>22.01-23.12</td></tr> <tr> <td>8.41425-8.41475</td><td>162.0125-167.17</td><td>3260-3267</td><td>23.6-24.0</td></tr> <tr> <td>12.29-12.293</td><td>167.72-173.2</td><td>3332-3339</td><td>31.2-31.8</td></tr> <tr> <td>12.51975-12.52025</td><td>240-285</td><td>3345.8-3358</td><td>36.43-36.5</td></tr> <tr> <td>12.57675-12.57725</td><td>322-335.4</td><td>3600-4400</td><td>(²)</td></tr> <tr> <td>13.36-13.41</td><td></td><td></td><td></td></tr> </tbody> </table> ¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. ² Above 38.6 The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35 apply to these measurements.			MHz	MHz	MHz	GHz	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15	¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46	2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2	4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7	6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4	6.31175-6.31225	123-138	2200-2300	14.47-14.5	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2	8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5	12.57675-12.57725	322-335.4	3600-4400	(²)	13.36-13.41			
MHz	MHz	MHz	GHz																																																																								
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15																																																																								
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46																																																																								
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75																																																																								
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5																																																																								
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2																																																																								
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5																																																																								
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7																																																																								
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4																																																																								
6.31175-6.31225	123-138	2200-2300	14.47-14.5																																																																								
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2																																																																								
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4																																																																								
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12																																																																								
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0																																																																								
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8																																																																								
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5																																																																								
12.57675-12.57725	322-335.4	3600-4400	(²)																																																																								
13.36-13.41																																																																											

TEST REPORT

Report No.: MTi260409013-0102E4

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100 **	3
88-216	150 **	3
216-960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.

In the emission table above, the tighter limit applies at the band edges.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Method: ANSI C63.10-2020+Cor.1-2023, section 12.7.4, 12.7.6, 12.7.7

Procedure:

Above 1GHz:

- For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the middle channel, the Highest channel.
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- Repeat above procedures until all frequencies measured was complete.

Remark:

- Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low.

TEST REPORT

Report No.: MTi260409013-0102E4

	The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report. 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
--	---

6.9.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24 °C	Humidity:	60 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5, Mode6, Mode7				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode1) is recorded in the report				

TEST REPORT

Report No.: MTi260409013-0102E4

6.9.2 Test Data:

Band 1:

Mode1 / Polarization: Horizontal / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		10360.000	44.15	10.80	54.95	74.00	-19.05	peak
2		10360.000	33.96	10.80	44.76	54.00	-9.24	AVG
3		15540.000	44.41	12.79	57.20	74.00	-16.80	peak
4	*	15540.000	34.54	12.79	47.33	54.00	-6.67	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		10360.000	43.35	10.80	54.15	74.00	-19.85	peak
2		10360.000	33.87	10.80	44.67	54.00	-9.33	AVG
3		15540.000	44.60	12.79	57.39	74.00	-16.61	peak
4	*	15540.000	35.01	12.79	47.80	54.00	-6.20	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Horizontal / CH: M

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		10400.000	42.89	10.62	53.51	74.00	-20.49	peak
2		10400.000	32.96	10.62	43.58	54.00	-10.42	AVG
3		15600.000	45.66	12.62	58.28	74.00	-15.72	peak
4	*	15600.000	36.09	12.62	48.71	54.00	-5.29	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: M

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		10400.000	43.47	10.62	54.09	74.00	-19.91	peak
2		10400.000	33.65	10.62	44.27	54.00	-9.73	AVG
3		15600.000	45.47	12.62	58.09	74.00	-15.91	peak
4	*	15600.000	36.03	12.62	48.65	54.00	-5.35	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		10480.000	43.34	10.59	53.93	74.00	-20.07	peak
2		10480.000	32.87	10.59	43.46	54.00	-10.54	AVG
3		15720.000	46.16	12.44	58.60	74.00	-15.40	peak
4	*	15720.000	35.89	12.44	48.33	54.00	-5.67	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		10480.000	43.12	10.59	53.71	74.00	-20.29	peak
2		10480.000	33.60	10.59	44.19	54.00	-9.81	AVG
3		15720.000	45.04	12.44	57.48	74.00	-16.52	peak
4	*	15720.000	34.91	12.44	47.35	54.00	-6.65	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Band 3:

Mode1 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		11490.000	43.57	11.94	55.51	74.00	-18.49	peak
2		11490.000	33.84	11.94	45.78	54.00	-8.22	AVG
3		17235.000	45.43	13.04	58.47	74.00	-15.53	peak
4	*	17235.000	35.58	13.04	48.62	54.00	-5.38	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: L

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		11490.000	43.75	11.94	55.69	74.00	-18.31	peak
2		11490.000	33.77	11.94	45.71	54.00	-8.29	AVG
3		17235.000	43.58	13.04	56.62	74.00	-17.38	peak
4	*	17235.000	33.04	13.04	46.08	54.00	-7.92	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Horizontal / CH: M

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		11570.000	44.03	11.59	55.62	74.00	-18.38	peak
2		11570.000	34.28	11.59	45.87	54.00	-8.13	AVG
3		17355.000	44.61	13.06	57.67	74.00	-16.33	peak
4	*	17355.000	34.06	13.06	47.12	54.00	-6.88	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: M

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		11570.000	43.85	11.59	55.44	74.00	-18.56	peak
2		11570.000	34.15	11.59	45.74	54.00	-8.26	AVG
3		17355.000	43.70	13.06	56.76	74.00	-17.24	peak
4	*	17355.000	33.33	13.06	46.39	54.00	-7.61	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Horizontal / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		11650.000	43.46	11.42	54.88	74.00	-19.12	peak
2		11650.000	33.25	11.42	44.67	54.00	-9.33	AVG
3		17475.000	44.54	13.25	57.79	74.00	-16.21	peak
4	*	17475.000	34.03	13.25	47.28	54.00	-6.72	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Mode1 / Polarization: Vertical / CH: H

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		11650.000	44.06	11.42	55.48	74.00	-18.52	peak
2		11650.000	33.94	11.42	45.36	54.00	-8.64	AVG
3		17475.000	44.07	13.25	57.32	74.00	-16.68	peak
4	*	17475.000	34.50	13.25	47.75	54.00	-6.25	AVG

TEST REPORT

Report No.: MTi260409013-0102E4

Photographs of the test setup

Refer to Appendix - Test Setup Photos

TEST REPORT

Report No.: MTi260409013-0102E4

Photographs of the EUT

Refer to Appendix - EUT Photos

Appendix

TEST REPORT

Report No.: MTi260409013-0102E4

Appendix A1: Emission bandwidth (26dB bandwidth)

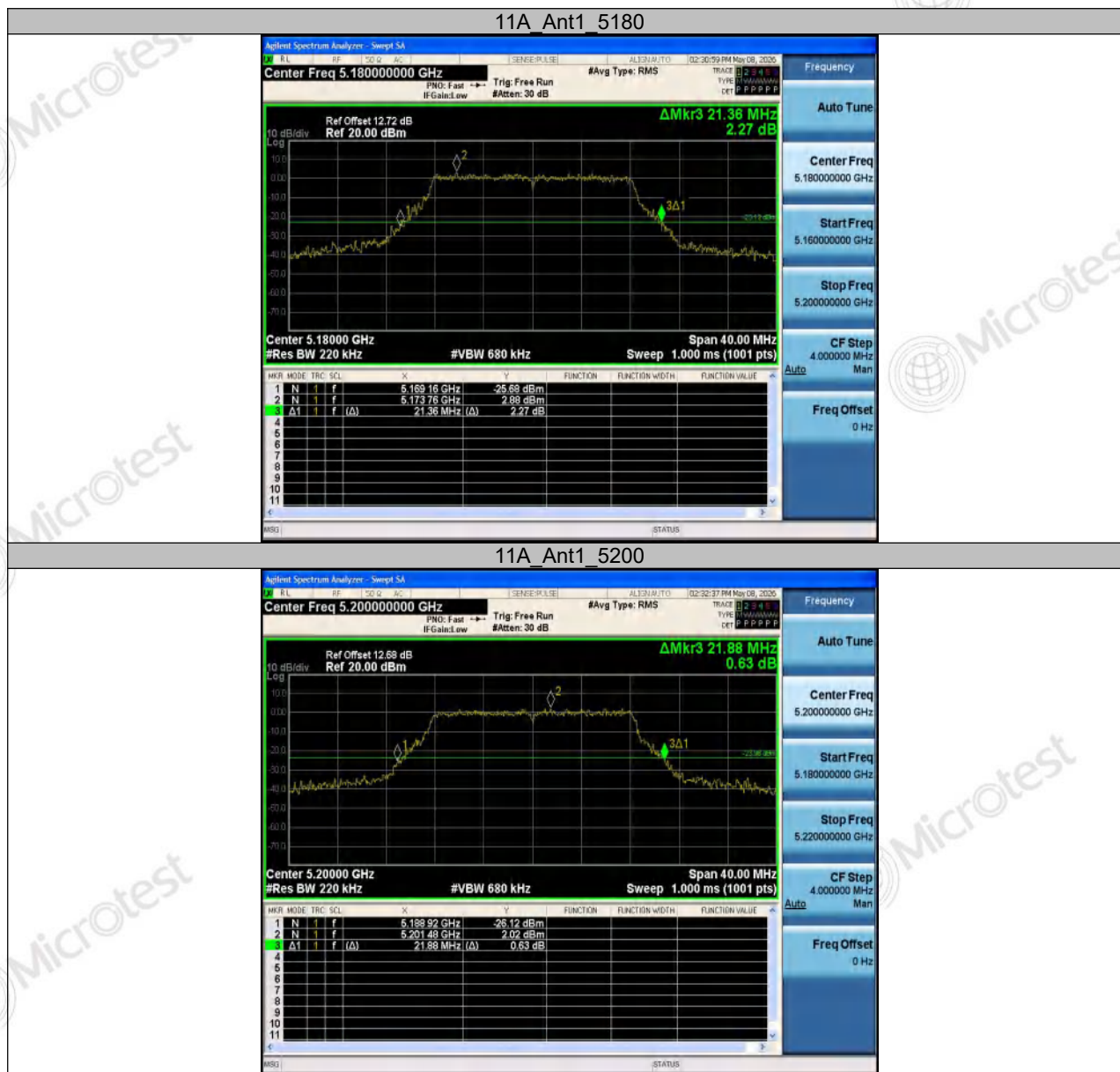
Test Result

Test Mode	Antenna	Frequency [MHz]	26db EBW [MHz]
11A	Ant1	5180	21.360
		5200	21.880
		5240	21.760
		5745	21.800
		5785	21.320
		5825	21.400
11N20SISO	Ant1	5180	21.520
		5200	21.680
		5240	21.800
		5745	21.800
		5785	21.880
		5825	21.960
11N40SISO	Ant1	5190	40.240
		5230	40.720
		5755	40.160
		5795	40.480
11AC20SISO	Ant1	5180	22.000
		5200	22.120
		5240	21.520
		5745	21.920
		5785	21.760
		5825	21.840
11AC40SISO	Ant1	5190	40.800
		5230	40.560
		5755	40.720
		5795	40.480
11AX20SISO	Ant1	5180	22.680
		5200	22.520
		5240	22.080
		5745	22.200
		5785	22.720
		5825	21.920
11AX40SISO	Ant1	5190	41.120
		5230	40.640
		5755	40.960
		5795	40.480

TEST REPORT

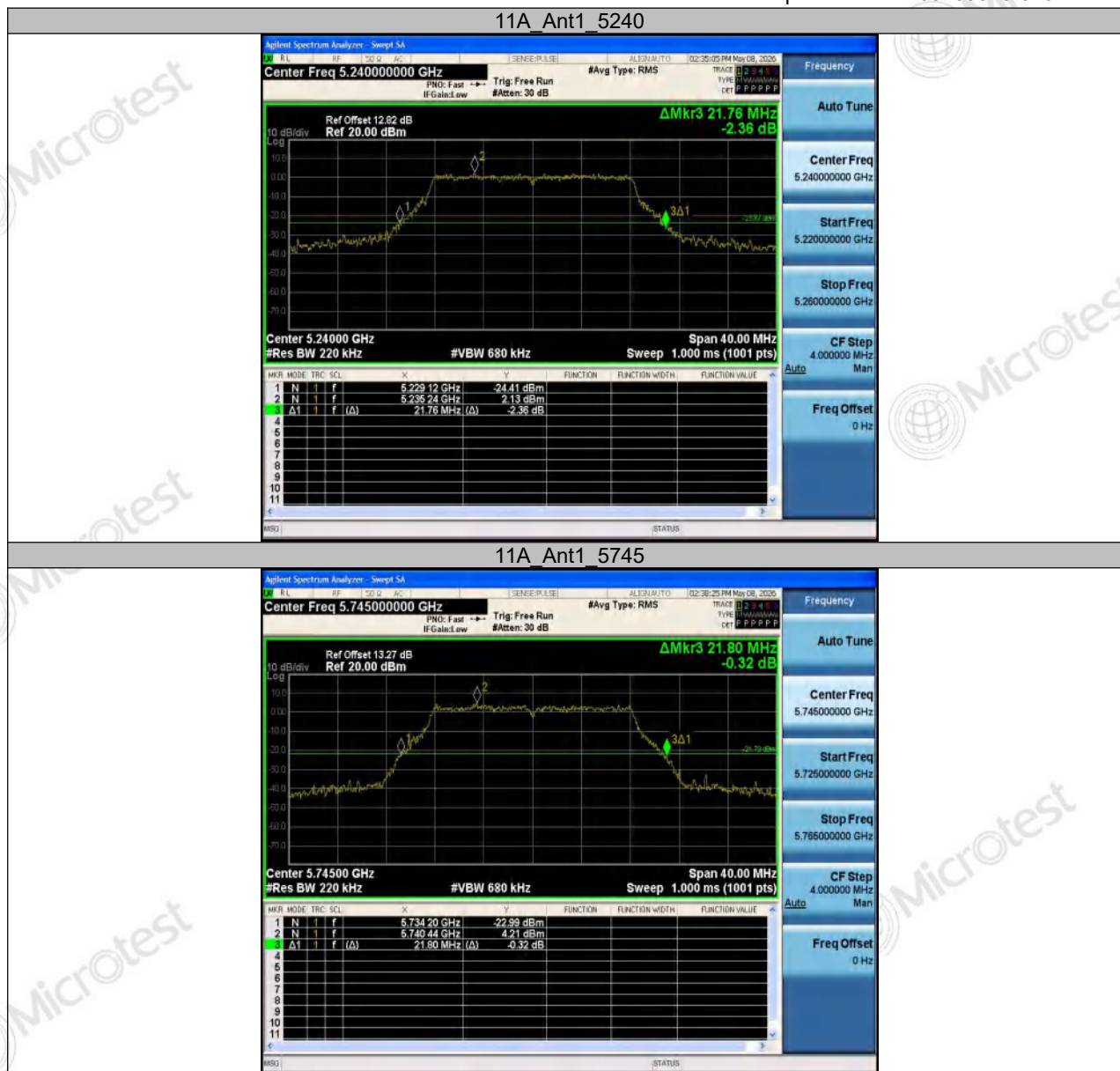
Report No.: MTI260409013-0102E4

Test Graphs



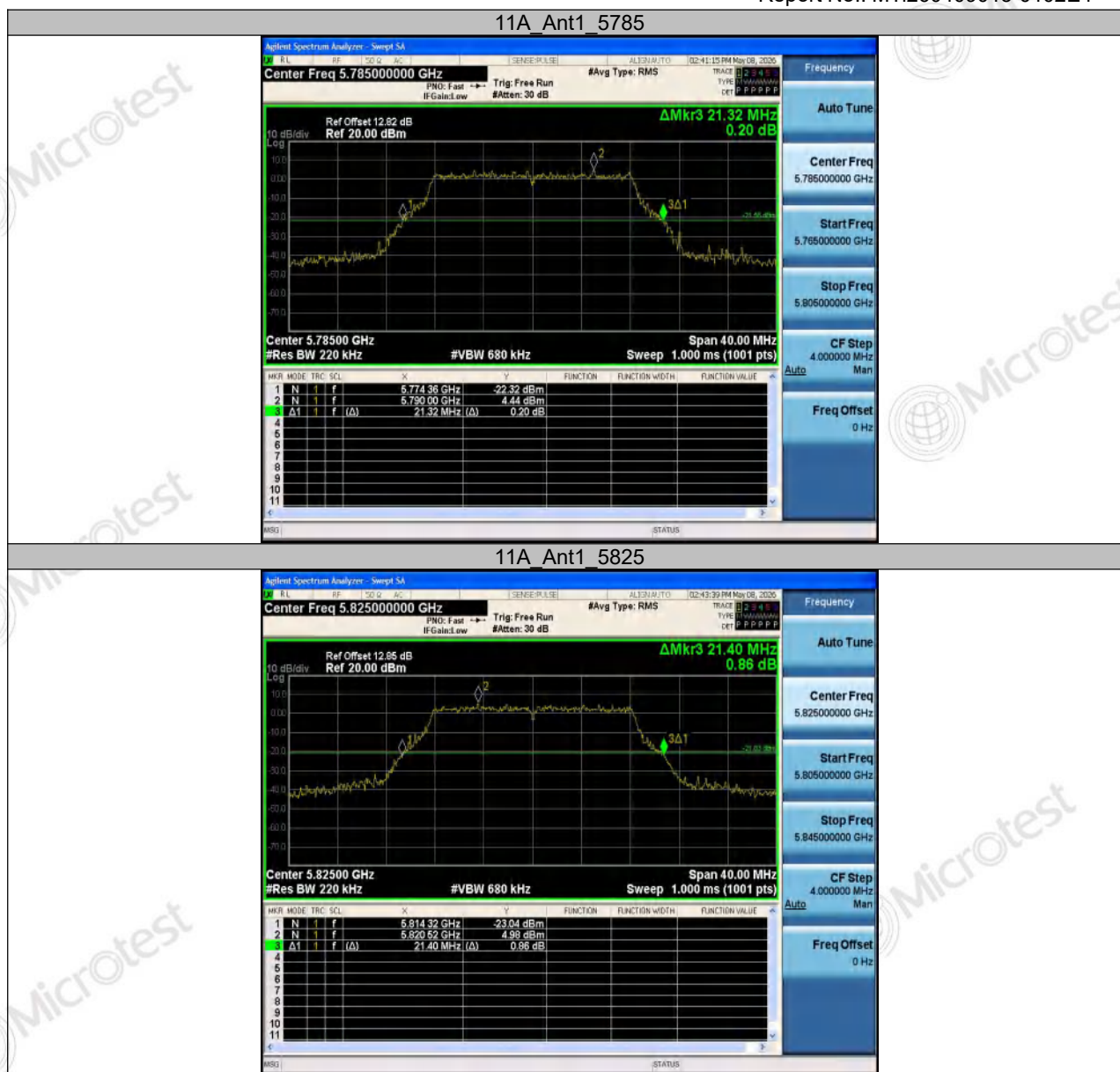
TEST REPORT

Report No.: MTI260409013-0102E4



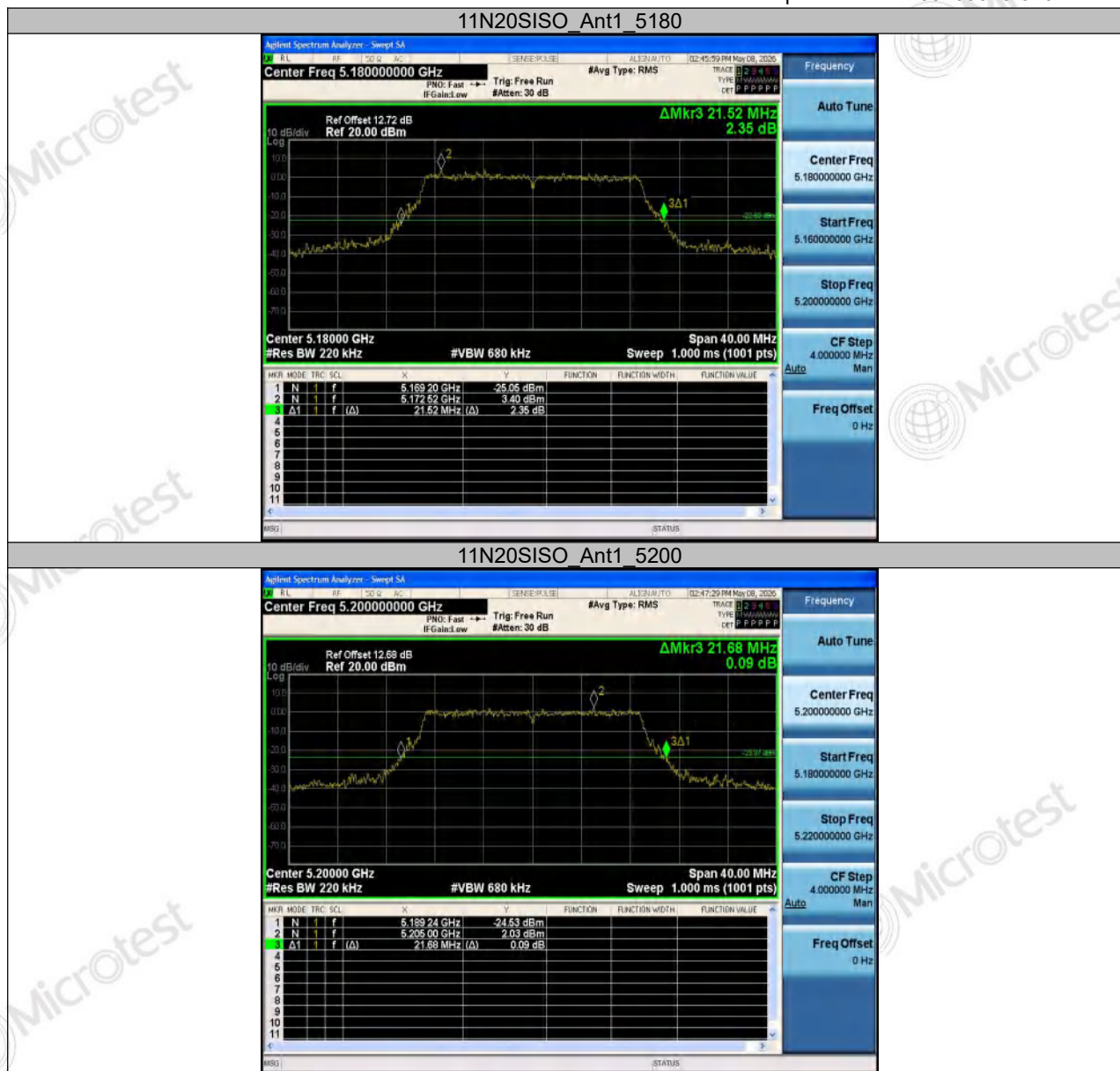
TEST REPORT

Report No.: MTI260409013-0102E4



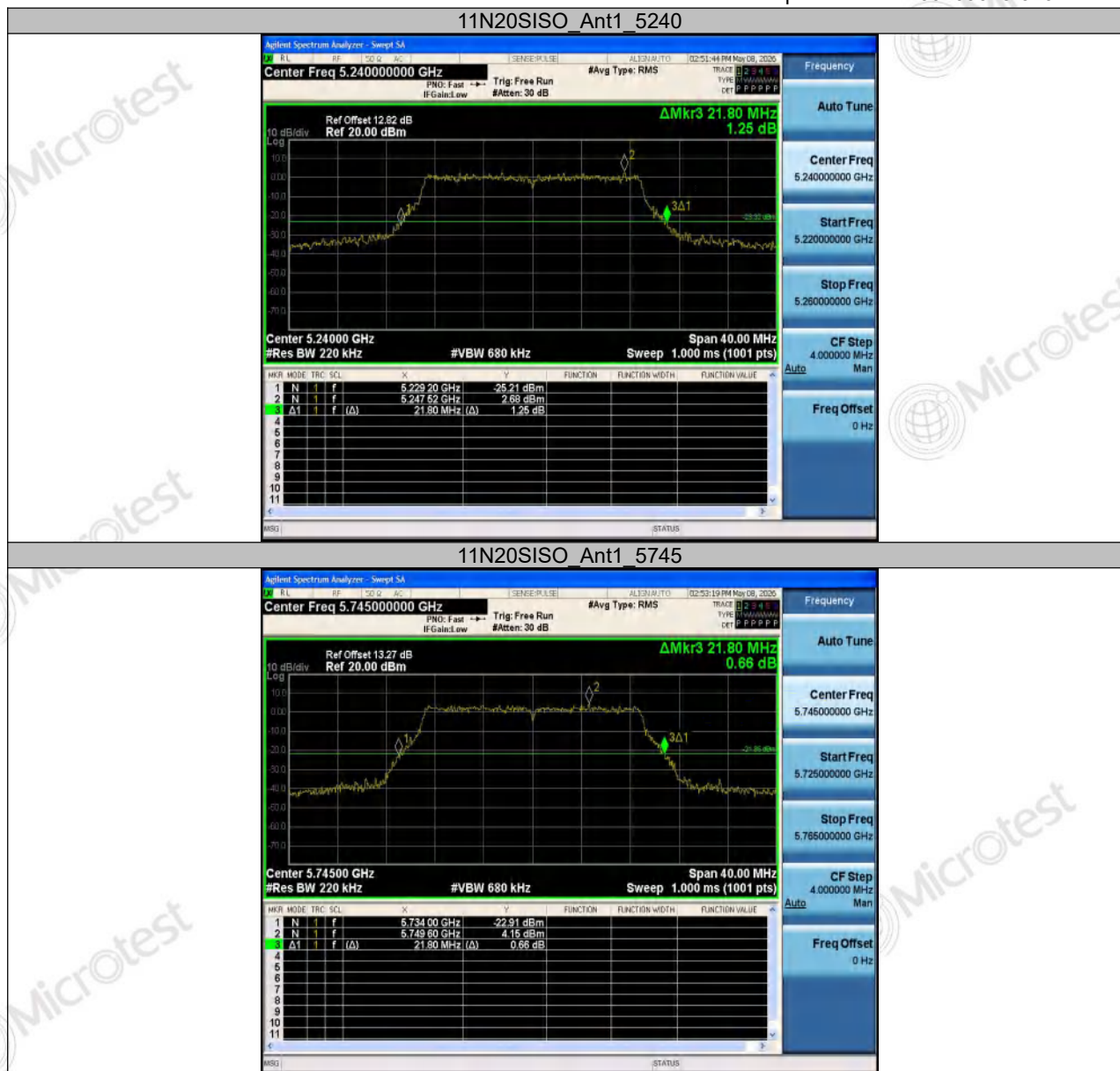
TEST REPORT

Report No.: MTI260409013-0102E4



TEST REPORT

Report No.: MTI260409013-0102E4



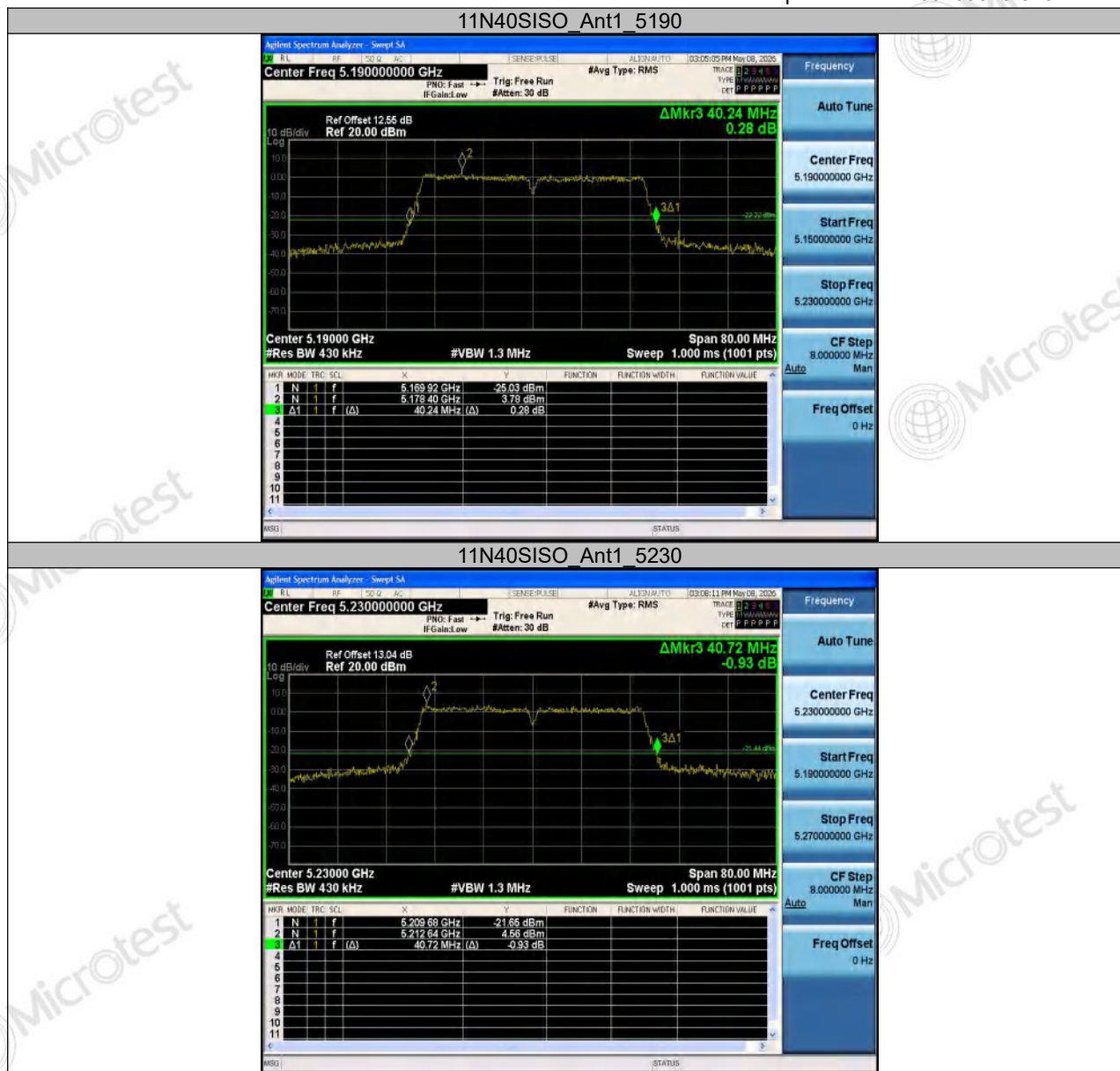
TEST REPORT

Report No.: MTI260409013-0102E4



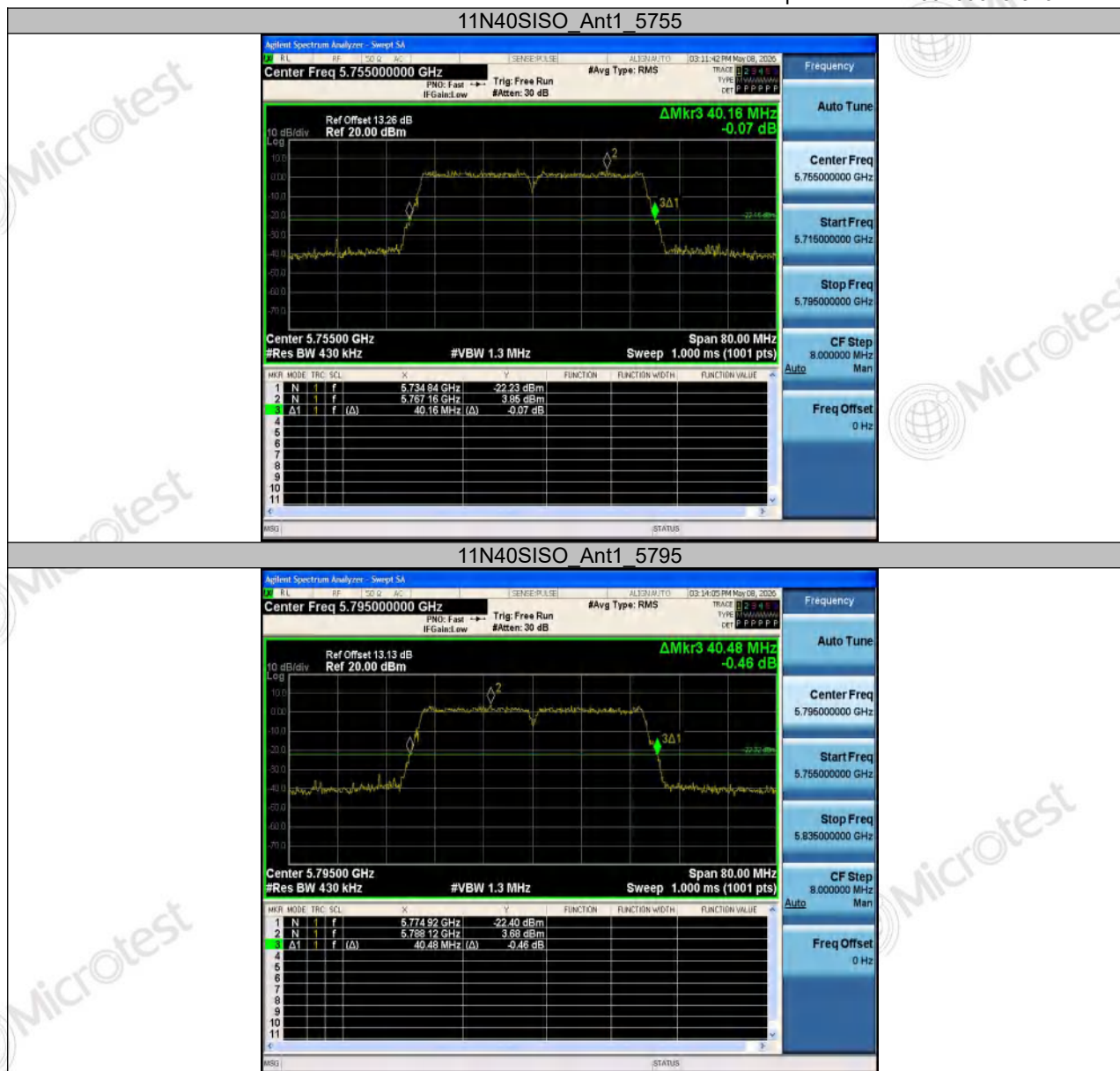
TEST REPORT

Report No.: MTI260409013-0102E4



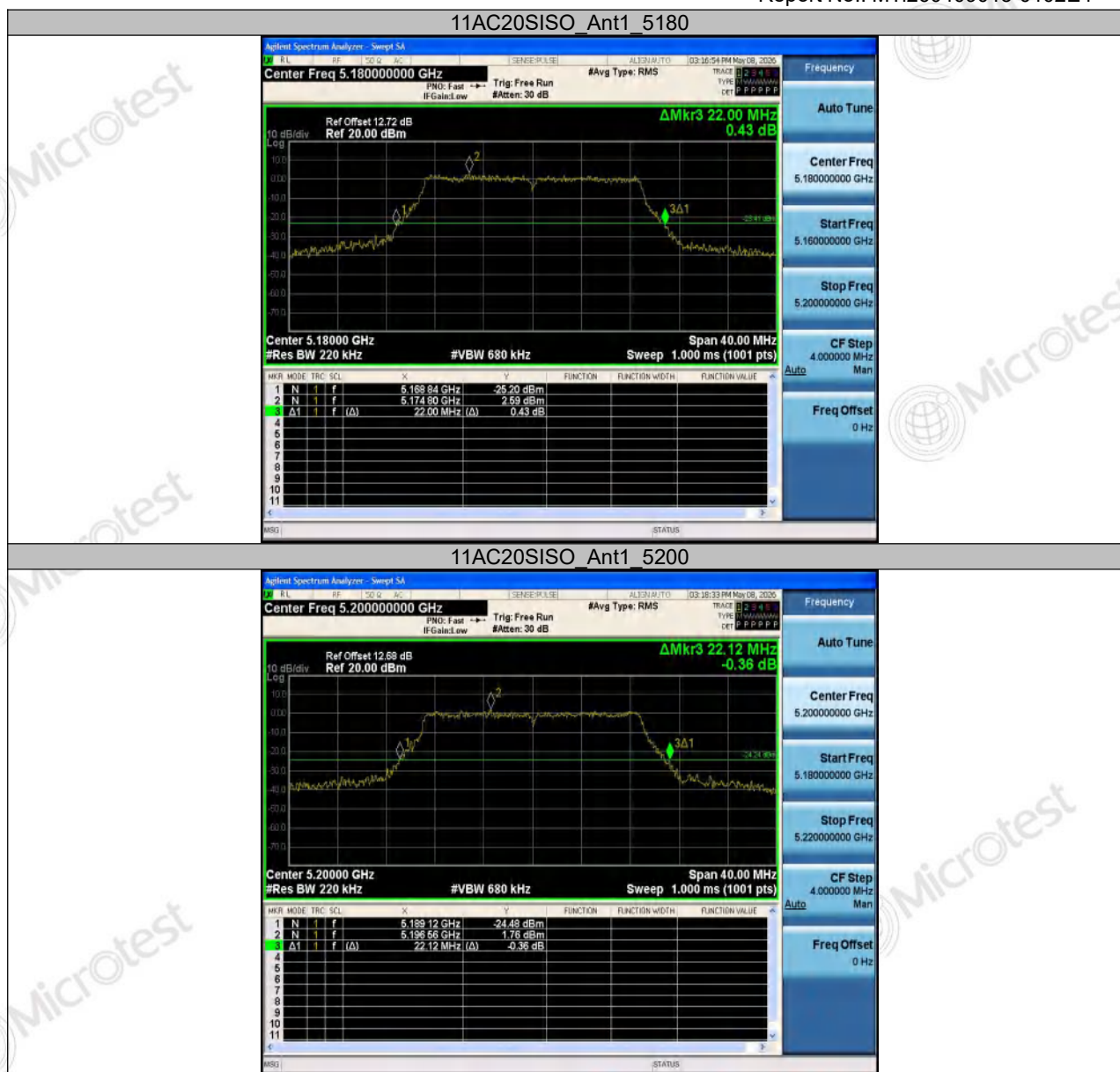
TEST REPORT

Report No.: MTI260409013-0102E4



TEST REPORT

Report No.: MTI260409013-0102E4



TEST REPORT

Report No.: MTI260409013-0102E4

