

Test Report

Report No.: MTi240318026-07E1

Date of issue: 2024-05-22

Applicant: Shenzhen Xiangdangwen Technology Co., Ltd.

Product: 3-IN-1 WIRELESS CHARGING DESKTOP STAND

Model(s): 2E572

FCC ID: 2AW73-2E572

Shenzhen Microtest Co., Ltd. http://www.mtitest.cn



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Test Result Certification					
Applicant:	Applicant: Shenzhen Xiangdangwen Technology Co., Ltd.				
Address:	106, 1/F, No.313-4 Building, Huachang Road, Langkou Community, Dalang Street, Longhua District, Shenzhen, China				
Manufacturer:	Huizhou Yimai Electronics Technology Co., Ltd.				
Address:	3rd Floor, Building B, Huakai High-tech Industrial Park, Electronic City Road, Longxi Street, Boluo Country				
Product description					
Product name:	3-IN-1 WIRELESS CHARGING DESKTOP STAND				
Trademark:	LISEN, AINOPE, VEICO				
Model name:	2E572				
Series Model(s):	N/A				
Standards:	47 CFR Part 15C				
Test Method:	ANSI C63.10-2013				
Date of Test					
Date of test:	2024-03-25 to 2024-04-10				
Test result:	Pass				

Test Engineer	:	Yanice Xie
		(Yanice.Xie)
Reviewed By	:	David. Cel
		(David Lee)
Approved By	:	leon chan
		(Leon Chen)



1 General Description

1.1 Description of the EUT

Product name:	3-IN-1 WIRELESS CHARGING DESKTOP STAND
Model name:	2E572
Series Model(s):	N/A
Model difference:	N/A
Electrical rating:	Input: 5V-3A, 9V-3A, 12V-2.5A Wireless output: Phone Output: 5W/7.5W/10W/15W, Earbuds Output: 3W, Watch Output: 2.5W
Accessories:	Cable: Type-C to Type-C cable (1.5m)*1
Hardware version:	KB-T9-V1.0
Software version:	KB-T9-V1.0
Test sample(s) number:	MTi240318026-07S1001
RF specification	
Operating frequency range:	Coil1 (Phone): 115-205kHz Coil2 (Earphone): 115-205kHz Coil3(Watch): 300-350kHz
Modulation type:	ASK
Antenna(s) type:	Coil
4.0 December of test	•

1.2 Description of test modes

No.	Emission test modes	
Mode1	Wireless Output(5W)+Earphone Output(3W)+Watch Output(2.5W)	
Mode2	Wireless Output(7.5W)+Earphone Output(3W)+Watch Output(2.5W)	
Mode3	Wireless Output(10W)+Earphone Output(3W)+Watch Output(2.5W)	
Mode4	Wireless Output(15W)+Earphone Output(3W)+Watch Output(2.5W)	
Mode5	Wireless output(5W)+Earphone(3W)	
Mode6	Wireless output(7.5W)+Earphone(3W)	
Mode7	Wireless output(10W)+Earphone(3W)	
Mode8	Wireless output(15W)+Earphone(3W)	
Mode9	Wireless output(5W)+Watch(2.5W)	
Mode10	Wireless output(7.5W)+Watch(2.5W)	
Mode11	Wireless output(10W)+Watch(2.5W)	
Mode12	Wireless output(15W)+Watch(2.5W)	
Mode13	Earphone Output(3W)+Watch Output(2.5W)	
Mode14	Wireless output(5W)	
Mode15	Wireless output(7.5W)	
Mode16	Wireless output(10W)	

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Mode17	Wireless output(15W)	
Mode18 Earphone(3W)		
Mode19	Watch (2.5W)	
Mode20	Stand by	



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

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Support equipment list						
Description Model		Serial No.	Manufacturer			
Lenovo Laptop Portable adapter(65W)	LS-65WTAQCPD	31088453SH94303G	Lenovo			
iwatch	1	1	Apple			
wireless charging load	YBZ1.1	1	YBZ			
Air Pods MQD83CH/A		1	Apple			
Support cable list						
Description	Length (m)	From	То			
/	1	1	1			

1.5 Measurement uncertainty

Measurement	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	±3.1dB
Occupied channel bandwidth	±3 %
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.

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2 Summary of Test Result

No.	Item	Standard	Requirement	Result
1	Antenna requirement	47 CFR Part 15C	47 CFR Part 15.203	Pass
2	Conducted Emission at AC power line	47 CFR Part 15C	47 CFR Part 15.207(a)	Pass
3	20dB Occupied Bandwidth	47 CFR Part 15C	47 CFR Part 15.215(c)	Pass
4	Emissions in frequency bands (below 30MHz)	47 CFR Part 15C	47 CFR Part 15.209	Pass
5	Emissions in frequency bands (30MHz - 1GHz)	47 CFR Part 15C	47 CFR Part 15.209	Pass



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			



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	2023-04-26	2024-04-25
2	Artificial mains network	Schwarzbeck	NSLK 8127	183	2023-05-05	2024-05-04
3	Artificial Mains Network	Rohde & Schwarz	ESH2-Z5	100263	2023-06-03	2024-06-02
		20dB Od	cupied Bandwid	th		
1	Wideband Radio Communication Tester	Rohde&schwarz	CMW500	149155	2023-04-26	2024-04-25
2	ESG Series Analog Ssignal Generator	Agilent	E4421B	GB40051240	2023-04-25	2024-04-24
3	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2023-04-25	2024-04-24
4	Synthesized Sweeper	Agilent	83752A	3610A01957	2023-04-25	2024-04-24
5	MXA Signal Analyzer	Agilent	N9020A	MY50143483	2023-04-26	2024-04-25
6	RF Control Unit	Tonscend	JS0806-1	19D8060152	2023-04-26	2024-04-25
7	Band Reject Filter Group	Tonscend	JS0806-F	19D8060160	2023-05-05	2024-05-04
8	ESG Vector Signal Generator	Agilent	N5182A	MY50143762	2023-04-25	2024-04-24
9	DC Power Supply	Agilent	E3632A	MY40027695	2023-05-05	2024-05-04
		Emissions in frequ	iency bands (bel	low 30MHz)		
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2023-04-26	2024-04-25
2	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00066	2023-06-11	2025-06-10
3	Amplifier	Hewlett-Packard	8447F	3113A06184	2023-04-25	2024-04-24
		Emissions in freque	ency bands (30N	ИНz - 1GHz)		
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2023-04-26	2024-04-25
2	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2023-06-11	2025-06-10
3	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00066	2023-06-11	2025-06-10
4	Amplifier	Hewlett-Packard	8447F	3113A06184	2023-04-25	2024-04-24
5	Multi-device Controller	TuoPu	TPMDC	1	2023-05-04	2024-05-03



5 Evaluation Results (Evaluation)

5.1 Antenna requirement

5.1.1 Conclusion:

The antenna of the EUT is permanently attached.
The EUT complies with the requirement of FCC PART 15.203.



6 Radio Spectrum Matter Test Results (RF)

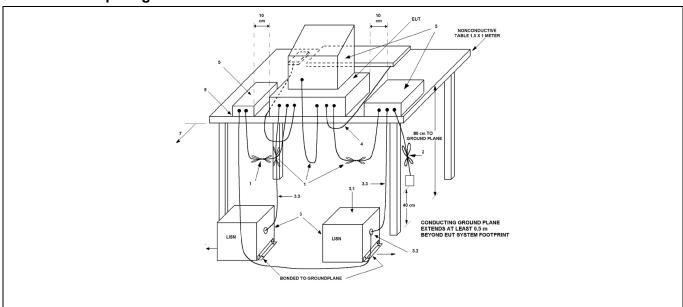
6.1 Conducted Emission at AC power line

Test Requirement:	Except as shown in paragraphs (b)and (c)of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN).					
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.		<u>-</u>		
Test Method:	ANSI C63.10-2013 section 6.2					
Procedure:	Refer to ANSI C63.10-2013 section line conducted emissions from unitarity and the conducted emissions from unitarity and the conducted emissions from unitarity and the conducted emissions are conducted emissions.			ver-		

6.1.1 E.U.T. Operation:

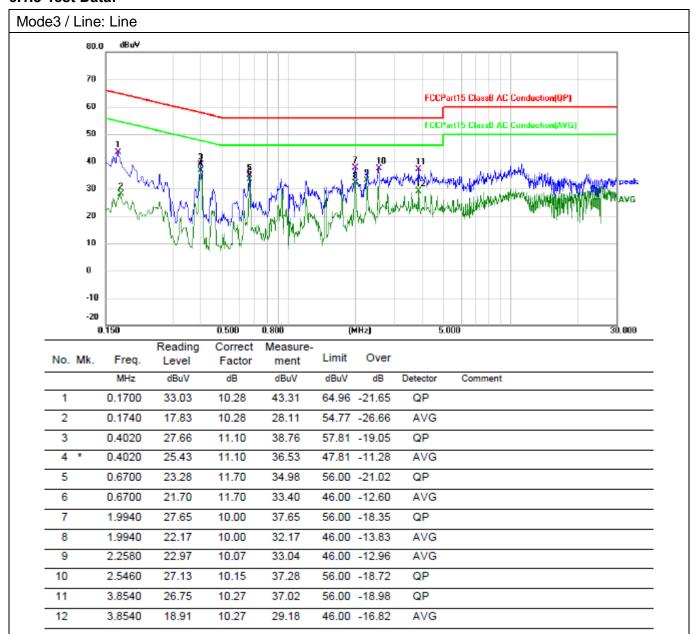
Operating Environment:									
Temperature:	25.9 °C		Humidity:	44 %	Atmospheric Pressure:	101 kPa			
Pre test mode:		Mode		1, Mode12, Mo	, Mode5, Mode6, Mode7, de13, Mode14, Mode15,				
Final test mode	e:			re-test mode w ded in the repo	vere tested, only the data ort	of the worst mode			

6.1.2 Test Setup Diagram:



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6.1.3 Test Data:



1.7340

2.2700

2.2740

2.5380

2.5500

8

9

10

11

12

17.50

25.65

21.31

26.40

20.96

13.89

10.43

10.43

10.37

10.37

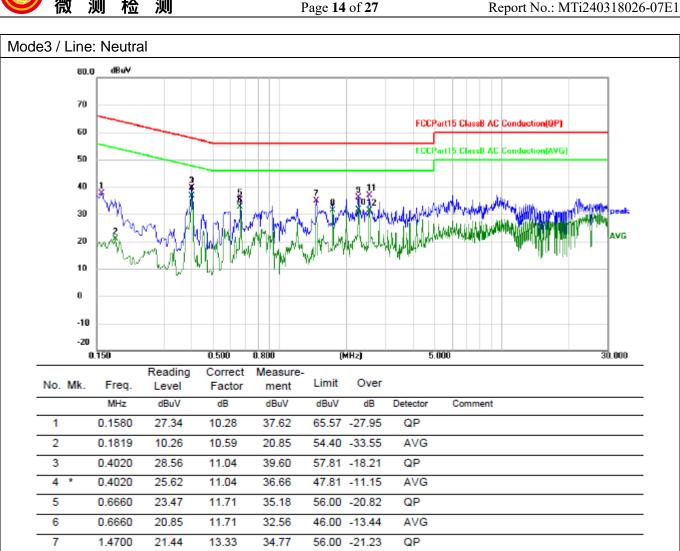
31.39

36.08

31.74

36.77

31.33



46.00 -14.61

56.00 -19.92

46.00 -14.26

56.00 -19.23

46.00 -14.67

AVG

QP

AVG

QP

AVG



6.2 20dB Occupied Bandwidth

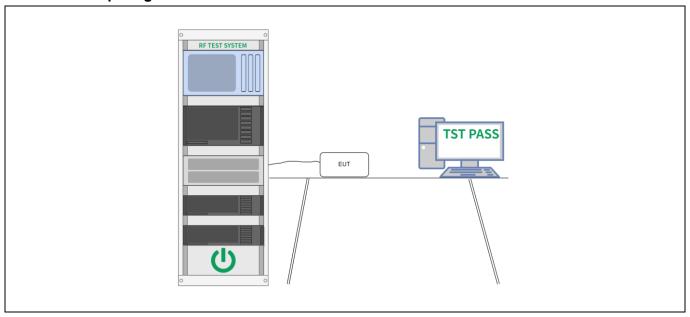
Test Requirement:	47 CFR Part 15.215(c)
Test Limit:	Refer to 47 CFR 15.215(c), intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
Test Method:	ANSI C63.10-2013, section 6.9.2
Test Method: Procedure:	· · · · · · · · · · · · · · · · · · ·
	amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth. k) 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).



6.2.1 E.U.T. Operation:

Operating Environment:									
Temperature:	15.2 °C		Humidity:	34.4 %	Atmospheric Pressure:	98 kPa			
Pre test mode:		Mode		1, Mode12, Mod	, Mode5, Mode6, Mode7, de13, Mode14, Mode15,				
Final test mode	e:			re-test mode w ded in the repo	ere tested, only the data or	of the worst mode			

6.2.2 Test Setup Diagram:

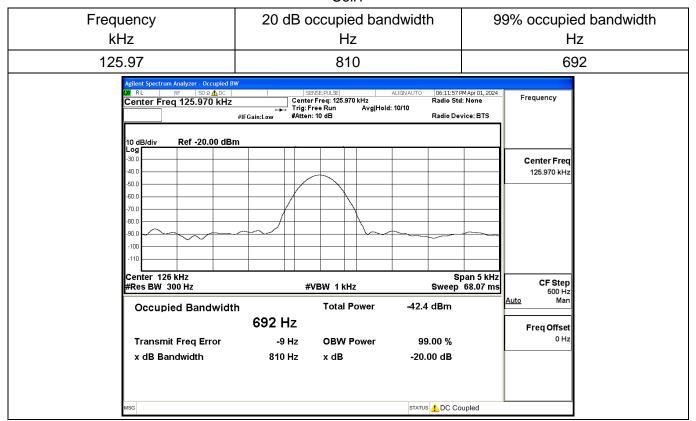




6.2.3 Test Data:

Note: Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 300 Hz to perform the occupied bandwidth test.

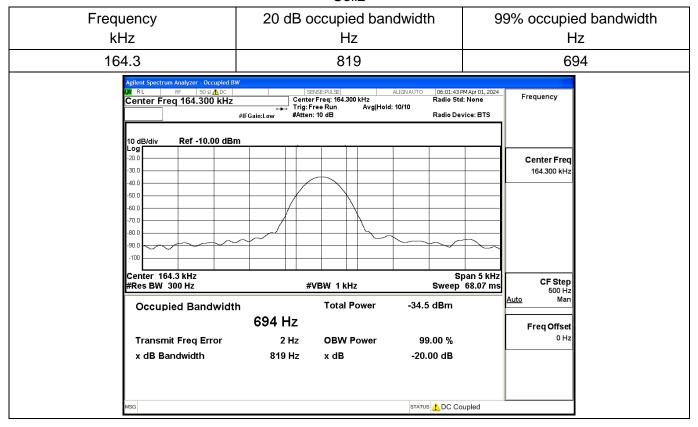
Coil1





Note: Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 300 Hz to perform the occupied bandwidth test.

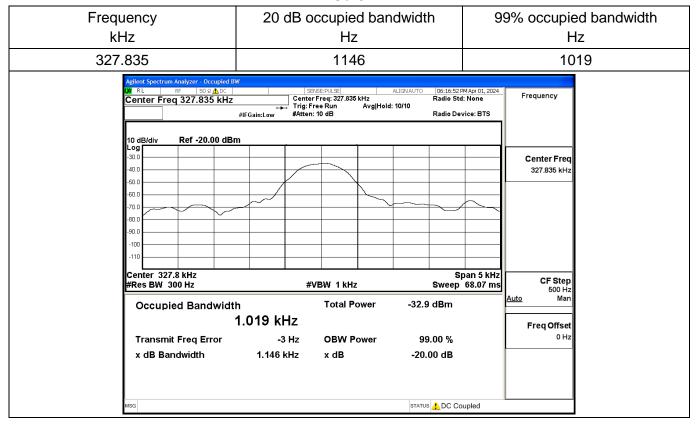
Coil2





Note: Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 300 Hz to perform the occupied bandwidth test.

Coil3





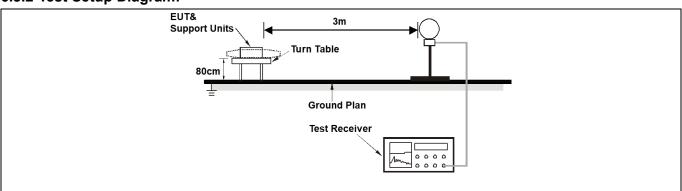
6.3 Emissions in frequency bands (below 30MHz)

Test Requirement:	47 CFR Part 15.209		
Test Limit:	Frequency (MHz)	Field strength	Measuremen
		(microvolts/meter)	t 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 bands 54-72 However, operation with sections of this part, e.g. In the emission table at The emission limits show employing a CISPR quarkHz, 110–490 kHz and three bands are based As shown in § 15.35(b) limits in paragraphs (a) However, the peak field maximum permitted awany condition of modula (b) of this section, the permillivolts/meter at 3 merits and sections with the permillivolts of this section.	erating under this section she MHz, 76-88 MHz, 174-216 in these frequency bands is g., §§ 15.231 and 15.241. Dove, the tighter limit applies own in the above table are basi-peak detector except for above 1000 MHz. Radiated on measurements employing, for frequencies above 1000 and (b)of this section are bast strength of any emission sherage limits specified above ation. For point-to-point oper eak field strength shall not eters along the antenna azim	MHz or 470-806 MHz. s permitted under other at the band edges. ased on measurements the frequency bands 9–90 emission limits in these g an average detector. MHz, the field strength sed on average limits. In all not exceed the by more than 20 dB under ation under paragraph exceed 2500
Test Method:	ANSI C63.10-2013 sec		
Procedure:	ANSI C63.10-2013 sec	tion 6.4	

6.3.1 E.U.T. Operation:

Operating Environment:									
Temperature:	26 °C		Humidity:	54 %	Atmospheric Pressure:	101 kPa			
Pre test mode:		Mode	, ,	1, Mode12, Mo	, Mode5, Mode6, Mode7, de13, Mode14, Mode15,	,			
Final test mode	e:			re-test mode w ded in the repo	ere tested, only the data	of the worst mode			

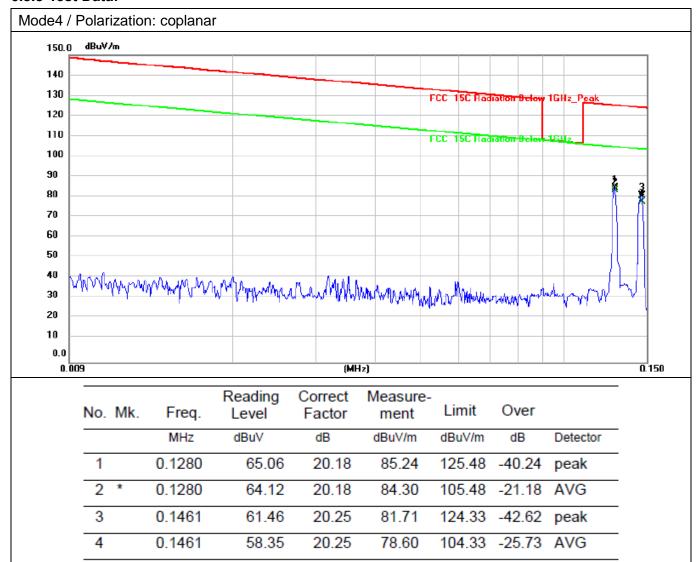
6.3.2 Test Setup Diagram:



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6.3.3 Test Data:

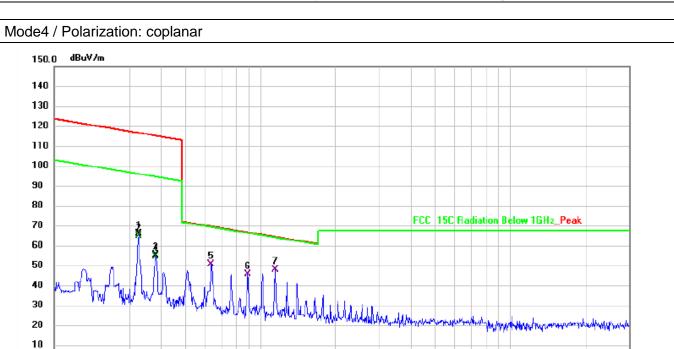


30.000

0.0 0.150

0.500

0.800



(MHz)

5.000

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	0.3266	47.61	20.32	67.93	117.33	-49.40	peak
2	0.3266	46.48	20.32	66.80	97.33	-30.53	AVG
3	0.3830	37.04	20.34	57.38	115.94	-58.56	peak
4	0.3830	36.54	20.34	56.88	95.94	-39.06	AVG
5	0.6370	32.50	20.42	52.92	71.53	-18.61	QP
6	0.8941	27.71	20.53	48.24	68.59	-20.35	QP
7 *	1.1471	29.70	20.58	50.28	66.43	-16.15	QP



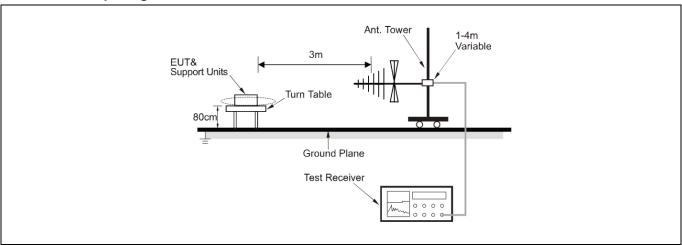
6.4 Emissions in frequency bands (30MHz - 1GHz)

Test Requirement:	47 CFR Part 15.209							
Test Limit:	Frequency (MHz)	Field strength	Measuremen					
		(microvolts/meter)	t 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	ı paragraph (g), fundamental en	nissions from					
	intentional radiators ope	erating under this section shall r	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							
		., §§ 15.231 and 15.241.						
		ove, the tighter limit applies at t	•					
		wn in the above table are based						
	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.							
	As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength							
	limits in paragraphs (a)and (b)of this section 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 point-to-point operation under paragraph							
		eak field strength shall not exce						
Test Method:	ANSI C63.10-2013 sect	ers along the antenna azimuth.						
Procedure:								
Flocedule.	ANSI C63.10-2013 sect	c.o noi						

6.4.1 E.U.T. Operation:

Operating Environment:									
Temperature:	22.5 °C		Humidity:	43 %	Atmospheric Pressure:	101 kPa			
Pre test mode:		Mode		1, Mode12, Mo	, Mode5, Mode6, Mode7, de13, Mode14, Mode15,	,			
Final test mode	e:			re-test mode w ded in the repo	ere tested, only the data ort	of the worst mode			

6.4.2 Test Setup Diagram:



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6.4.3 Test Data:



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		140.8350	51.19	-15.07	36.12	43.50	-7.38	QP
2		154.2785	47.76	-15.90	31.86	43.50	-11.64	QP
3		252.0627	44.71	-12.62	32.09	46.00	-13.91	QP
4	*	286.9823	51.45	-11.89	39.56	46.00	-6.44	QP
5		319.9368	48.62	-11.13	37.49	46.00	-8.51	QP
6		406.0880	46.41	-10.55	35.86	46.00	-10.14	QP



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		39.4371	44.37	-14.25	30.12	40.00	-9.88	QP
2		62.4313	46.53	-15.04	31.49	40.00	-8.51	QP
3	*	73.6170	53.74	-17.24	36.50	40.00	-3.50	QP
4		140.8350	51.15	-15.07	36.08	43.50	-7.42	QP
5		154.8204	51.05	-15.85	35.20	43.50	-8.30	QP
6		325.5957	39.10	-10.92	28.18	46.00	-17.82	QP



Photographs of the test setup

Refer to Appendix - Test Setup Photos



Photographs of the EUT

Refer to Appendix - EUT Photos

----End of Report----