

FCC Test Report

Report No.: 2405U83388EG

Applicant: Nexite LTD

Address: 126 Yigal Alon St, Tel-Aviv, Israel

Product Name: READER 2.0

Product Model: NX-RDR-2000-HB

Multiple Models: N/A

Trade Mark: N/A

FCC ID: 2A6MX13EA2BCXC

Standards: FCC CFR Title 47 Part 18

Test Date: 2025-01-18 to 2025-01-23

Test Result: Complied

Report Date: 2025-01-24

Reviewed by: Approved by:

Frank Tin

Frank Yin
Project Engineer

Jacob Kong

Jacob Gong

Manager

Prepared by:

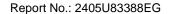
World Alliance Testing and Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China



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Revision History

Version No.	Issued Date	Description
00	2025-01-24	Original

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1 General Information

1.1 Client Information

Applicant:	Nexite LTD
Address:	126 Yigal Alon St, Tel-Aviv, Israel
Manufacturer:	Nexite LTD
Address:	126 Yigal Alon St, Tel-Aviv, Israel

1.2 Product Description of EUT

The EUT is READER 2.0 that contains UHF WPT transmitter, this report covers the full testing of the UHF WPT transmitter.

Sample Serial Number	2NVW-1(assigned by WATC)
Sample Received Date	2024-07-05
Sample Status	Good Condition
Frequency Range	902.5MHz – 927.5MHz
	(251 hopping channels with 100kHz channel spacing)
Modulation Technology	CW
Spatial Streams	SI (1TX)
Antenna Gain#	3.02 dBi
Power Supply	DC 54V from POE
Adapter Information	N/A
Modification	Sample No Modification by the test lab

1.3 Measurement Uncertainty

Parameter		Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))		
AC Power Lines Conducted Emissions		±3.14dB		
	Below 1GHz	±4.84dB		
Radiated emission	Above 1GHz	±5.44dB		
Conducted Power		0.74dB		

Note 1: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Note 2: The Decision Rule is based on simple acceptance with ISO Guide 98-4:2012 Clause 8.2 (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

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1.4 Laboratory Location

World Alliance Testing and Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China

Tel: +86-755-29691511, Email: qa@watc.com.cn

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 463912, the FCC Designation No. : CN5040.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0160.

1.5 Test Methodology

FCC CFR 47 Part 18

FCC OST MP-5-1986

KDB 680106 D01 Wireless Power Transfer v04

Unless otherwise stated there are no any additions to, deviations, or exclusions from the method

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2 Description of Measurement

2.1 Test Configuration

Test Mode:	
Mode 1:	standby mode
Mode 2	working mode(charging tags with maximum output power)
For radiated emissions, was recorded in report	EUT was investigated in three orthogonal orientation, the worst-case orientation

2.2 Test Auxiliary Equipment

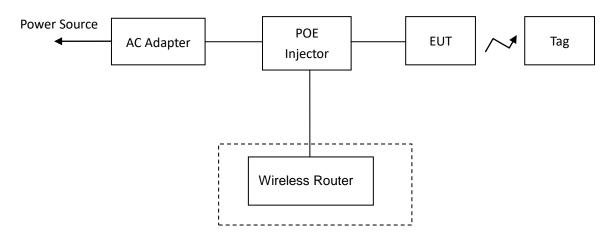
Manufacturer	Description	Model	Serial Number
Shenzhen Gospell Digital Technology Co.,Ltd.	AC adapter	G0753-540-060	1899-3540
D-Link Corporation	POE Injector	DPE-301GI	A1
Xiaomi Communications Co.,Ltd.	Wireless Router	R4AC	25090/C9TT74105
Nexite LTD	Tag	NX-TAG-3000-HB	unknown

Note: above Auxiliary Equipment was provided by applicant.

2.3 Interconnecting Cables

Manufacturer	Description	Length(m)	From	То
Unknown	DC Power Cable	1.5	AC Adapter	POE Injector
Unknown	RJ45 Cable	1.0	POE Injector	EUT
Unknown	RJ45 Cable	10	POE Injector	Wireless Router

2.4 Block Diagram of Connection between EUT and AE



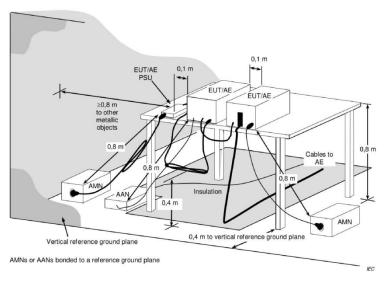
Note: for reference only, the actual connection setup used for testing please refer to the test photos.

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2.5 Test Setup

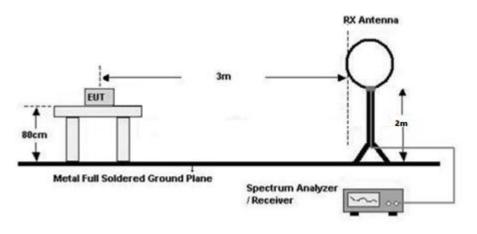
1) Conducted emission measurement:



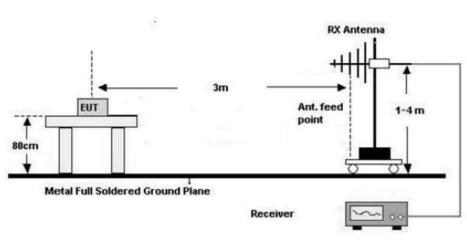
Note: The 0.8 m distance specified between EUT/AE/PSU and AMN/AAN, is applicable only to the EUT being measured. If the device is AE then it shall be >0.8 m.

2) Radiated emission measurement:

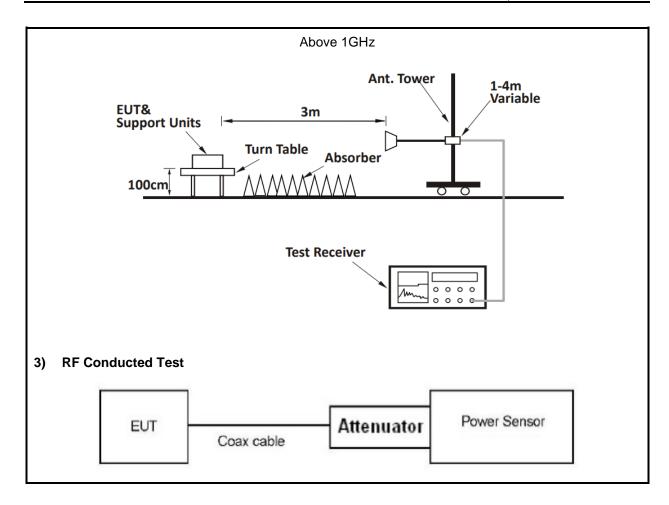
Below 30MHz (3m SAC)



30MHz-1GHz (3m SAC)







2.6 Test Procedure

Conducted emission:

- 1. The E.U.T is placed on a non-conducting table 40cm from the vertical ground plane and 80cm above the horizontal ground plane (Please refer to the block diagram of the test setup and photographs).
- 2. Both sides of A.C. line are checked for maximum conducted interference.
- 3. Line conducted data is recorded for both Line and Neutral

Radiated Emission Procedure:

a) For below 30MHz

- 1. All measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz- 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were 20*Log (test distance / specification distance).
- 2. Loop antenna use, investigation was done on the three antenna orientations (parallel, perpendicular, gound-parallel)
- 3. The RBW/VBW of receiver is set to 200Hz/1kHz for 9kHz to 150kHz range, to 9kHz/30kHz for 150kHz to 30MHz range for scan Peak emission, 200Hz/9kHz IF BW was used for final measurement in the Quasi-peak or average detection mode for frequency range 9~150kHz/150kHz~30MHz respectively.



4. If the Peak emission complies with the QP limit, then perform final measurement is optional.

b) For 30MHz-1GHz:

- 1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m.
- 2. EUT works in each mode of operation that needs to be tested. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.
- 3. The RBW/VBW of receiver is set to 100kHz/300kHz for scan Peak emission, 120kHz IF BW was used for final measurement in the Quasi-peak detection mode.
- 4. If the Peak emission complies with the QP limit, then perform final measurement is optional.

c) For above 1GHz:

- The EUT was placed on the tabletop of a rotating table 1.0 m the ground at a 3 m fully anechoic room.
 The measurement distance from the EUT to the receiving antenna is 3 m.
- 2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.
- 3. The RBW/VBW of spectrum analyzer is set to 1MHz/3MHz for scan Peak emission, for measured average emission, reduce the VBW to 10Hz. (Note: a high VBW (for example 1kHz, not less than 1/T) may used to scan average emissions to avoid long sweep time.)
- 4. If the Peak emission complies with the Average limit, then perform average measurement is optional.
- 5. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.
- 6. measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

RF Conducted Test:

- 1. The antenna port of EUT was connected to the RF port of the test equipment (Power Meter) through Attenuator and RF cable.
- 2. The cable assembly insertion loss of 7.0dB (including 6dB Attenuator and 1.0dB cable) was entered as an offset in the power meter. Note: Actual cable loss was unavailable at the time of testing, therefore a loss of 1.0dB was assumed as worst case. This was later verified to be true by laboratory. (if the RF cable provided by client, the cable loss declared by client)
- 3. The EUT is keeping in continuous transmission mode and tested in all modulation modes.



2.7 Measurement Method

Description of Test	Measurement Method		
AC Line Conducted Emissions	FCC OST MP-5-1986 Section 7		
Radiated emission	FCC OST MP-5-1986 Section 5		

2.8 Measurement Equipment

Manufacturer	Description	Model	Management No.	Calibration Date	Calibration Due Date		
	AC Line Conducted Emission Test						
ROHDE& SCHWARZ	EMI TEST RECEIVER	ESR	101817	2024/6/4	2025/6/3		
R&S	LISN	ENV216	101748	2024/6/4	2025/6/3		
N/A	Coaxial Cable	NO.12	N/A	2024/6/4	2025/6/3		
Farad	Test Software	EZ-EMC	Ver. EMEC-3A1	1	/		
		Radiated Emissio	n Test				
R&S	EMI test receiver	ESR3	102758	2024/6/4	2025/6/3		
ROHDE& SCHWARZ	SPECTRUM ANALYZER	FSV40-N	101608	2024/6/4	2025/6/3		
SONOMA INSTRUMENT	Low frequency amplifier	310	186014	2024/6/4	2025/6/3		
A.H. Systems	PREAMPLIFIER	PAM-0118P	531	2024/6/4	2025/6/3		
BACL	Loop Antenna	1313-1A	4010611	2024/2/7	2027/2/6		
SCHWARZBECK	Log - periodic wideband antenna	VULB 9163	9163-872	2023/7/7	2026/7/6		
Astro Antenna Ltd	Horn antenna	AHA-118S	3015	2023/7/6	2026/7/5		
Oulitong	Band Reject Filter	OBSF-902-928-4 0S	OE02104362	2024/6/4	2025/6/3		
N/A	Coaxial Cable	NO.9	N/A	2024/6/4	2025/6/3		
N/A	Coaxial Cable	NO.15	N/A	2024/6/4	2025/6/3		
N/A	Coaxial Cable	NO.16	N/A	2024/6/4	2025/6/3		
N/A	Coaxial Cable	NO.17	N/A	2024/6/4	2025/6/3		
Audix	Test Software	E3	191218 V9	/	/		
Conducted Output Power Test							
ANRITSU	USB Power Sensor	MA24418A	12620	2024/6/4	2025/6/3		
MEEA	6dB attenuator	603-06-1	N/A	2024/6/4	2025/6/3		

Note: All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or International standards.

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3 Test Results

3.1 Test Summary

FCC Rules	Description of Test	Result
FCC §18.307	AC Line Conducted Emissions	Compliance
FCC §18.305	Radiated emission	Compliance
1	Conducted Output Power	Report Only

3.2 Limit

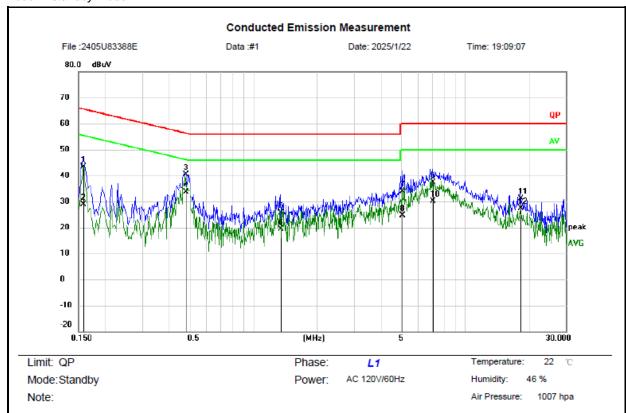
Test items	Limit					
	Frequency of emission (MHz)			Conducted limit (dBµV)		
				Quasi-peak	Average	
AC Line Conducted Emissions	0.15-0.5			66 to 56 *	56 to 46 *	
AC LINE CONducted Emissions	0.5-5			56	46	
	5-30			60	50	
	* Decreases with the log	parithm of the fre	equency.			
	a) ISM equipment op unlimited radiated erb) The field strength § 18.301, unless oth	nergy in the b	and specific	ed for that freque h lie outside the l	ncy. bands specified i	
Radiated emission	Equipment	Operating frequency	RF Powe generated equipmer (watts)	by Field strengtl		
	Any type unless otherwise specified (miscellaneous)	Any ISM frequency	Below 500 500 or more	25 25 × SQRT(power/5	300 1 300 500)	
		Any non-ISM frequency	Below 500 500 or more	15 × SQRT(power/5	300 1 300 500)	



3.3 AC Line Conducted Emissions Test Data

Test Date:	2025-01-22	Test By:	Ryan Zhang
Environment condition:	Temperature: 22°C; Relative H	umidity:46%; ATM Pres	ssure: 100.7kPa

Mode 1: standby mode



Receiver Setting: 9~150kHz: Pre-scan: RBW: 200Hz, DET: PK/AV; Final measure: RBW: 200Hz, DET: QP/AV 0.15~30MHz: Pre-scan: RBW: 9kHz, DET: PK/AV; Final measure: RBW: 9kHz, DET: QP/AV

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over Limit		
	MHz	dBu∀	dB	dBuV	dBu∀	dB	Detector	Comment
1	0.1580	32.95	10.43	43.38	65.57	-22.19	QP	
2	0.1580	18.47	10.43	28.90	55.57	-26.67	AVG	
3	0.4820	29.92	10.58	40.50	56.30	-15.80	QP	
4 *	0.4820	22.96	10.58	33.54	46.30	-12.76	AVG	
5	1.3500	14.84	10.70	25.54	56.00	-30.46	QP	
6	1.3500	8.69	10.70	19.39	46.00	-26.61	AVG	
7	5.0700	23.45	10.46	33.91	60.00	-26.09	QP	
8	5.0700	14.13	10.46	24.59	50.00	-25.41	AVG	
9	7.0380	27.12	10.27	37.39	60.00	-22.61	QP	
10	7.0380	19.97	10.27	30.24	50.00	-19.76	AVG	
11	18.2420	20.81	10.34	31.15	60.00	-28.85	QP	
12	18.2420	16.92	10.34	27.26	50.00	-22.74	AVG	

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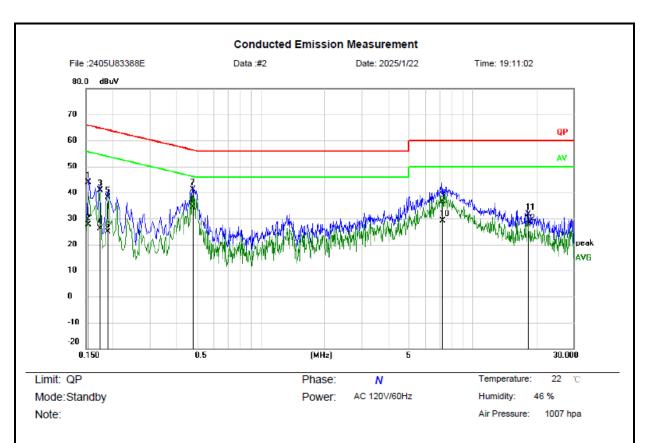
x:Over limit

!:over margin

*:Maximum data

Engineer Signature: Ryan





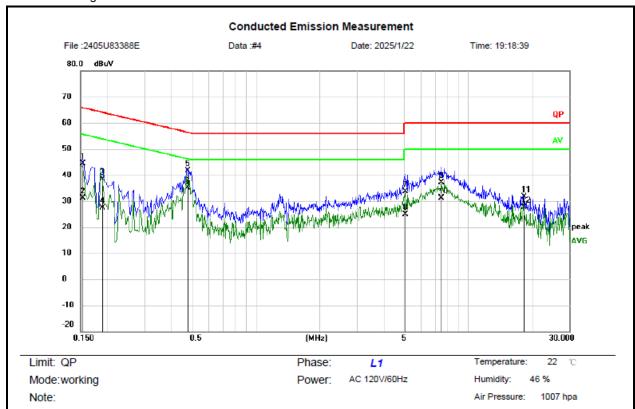
Receiver Setting: 9~150kHz: Pre-scan: RBW: 200Hz, DET: PK/AV; Final measure: RBW: 200Hz, DET: QP/AV 0.15~30MHz: Pre-scan: RBW: 9kHz, DET: PK/AV; Final measure: RBW: 9kHz, DET: QP/AV

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over Limit		
	MHz	dBu∀	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1539	33.43	10.44	43.87	65.79	-21.92	QP	
2	0.1539	17.24	10.44	27.68	55.79	-28.11	AVG	
3	0.1740	30.60	10.40	41.00	64.77	-23.77	QP	
4	0.1740	15.68	10.40	26.08	54.77	-28.69	AVG	
5	0.1900	27.82	10.38	38.20	64.04	-25.84	QP	
6	0.1900	14.45	10.38	24.83	54.04	-29.21	AVG	
7	0.4780	30.56	10.58	41.14	56.37	-15.23	QP	
8 *	0.4780	23.78	10.58	34.36	46.37	-12.01	AVG	
9	7.1820	26.41	10.28	36.69	60.00	-23.31	QP	
10	7.1820	18.79	10.28	29.07	50.00	-20.93	AVG	
11	18.2420	21.27	10.34	31.61	60.00	-28.39	QP	
12	18.2420	17.40	10.34	27.74	50.00	-22.26	AVG	

^{*:}Maximum data x:Over limit !:over margin Engineer Signature: Ryan



Mode 2: working mode

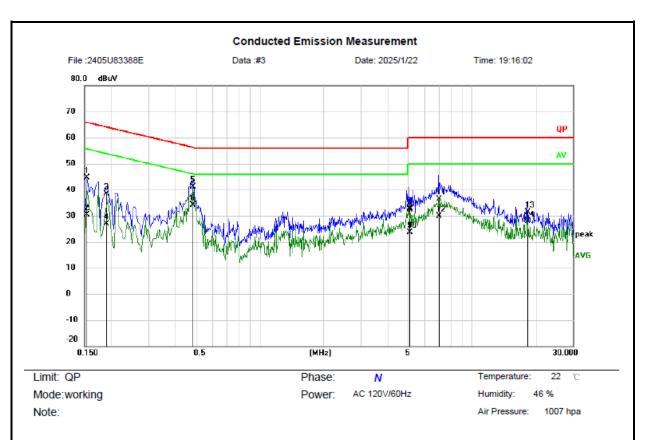


Receiver Setting: 9~150kHz: Pre-scan: RBW: 200Hz, DET: PK/AV; Final measure: RBW: 200Hz, DET: QP/AV 0.15~30MHz: Pre-scan: RBW: 9kHz, DET: PK/AV; Final measure: RBW: 9kHz, DET: QP/AV

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over Limit		
	MHz	dBu∀	dB	dBuV	dBu∀	dB	Detector	Comment
1	0.1539	33.95	10.44	44.39	65.79	-21.40	QP	
2	0.1539	20.65	10.44	31.09	55.79	-24.70	AVG	
3	0.1900	27.95	10.38	38.33	64.04	-25.71	QP	
4	0.1900	16.99	10.38	27.37	54.04	-26.67	AVG	
5	0.4780	31.15	10.58	41.73	56.37	-14.64	QP	
6 *	0.4780	24.60	10.58	35.18	46.37	-11.19	AVG	
7	5.0460	23.04	10.47	33.51	60.00	-26.49	QP	
8	5.0460	14.42	10.47	24.89	50.00	-25.11	AVG	
9	7.4540	26.83	10.28	37.11	60.00	-22.89	QP	
10	7.4540	20.95	10.28	31.23	50.00	-18.77	AVG	
11	18.2420	21.22	10.34	31.56	60.00	-28.44	QP	
12	18.2420	17.23	10.34	27.57	50.00	-22.43	AVG	

*:Maximum data x:Over limit !:over margin Engineer Signature: Ryan





Receiver Setting: 9~150kHz: Pre-scan: RBW: 200Hz, DET: PK/AV; Final measure: RBW: 200Hz, DET: QP/AV 0.15~30MHz: Pre-scan: RBW: 9kHz, DET: PK/AV; Final measure: RBW: 9kHz, DET: QP/AV

			Reading Level	Correct Factor	Measure- ment		Over Limit		
No.	Mk.	Freq.	LEVEI	raciol	mem	Limit	LIIIII		
		MHz	dBu∨	dB	dBu∨	dBu∀	dB	Detector	Comment
1		0.1539	34.15	10.44	44.59	65.79	-21.20	QP	
2		0.1539	20.03	10.44	30.47	55.79	-25.32	AVG	
3		0.1900	28.10	10.38	38.48	64.04	-25.56	QP	
4		0.1900	16.61	10.38	26.99	54.04	-27.05	AVG	
5		0.4860	30.57	10.58	41.15	56.24	-15.09	QP	
6	*	0.4860	23.53	10.58	34.11	46.24	-12.13	AVG	
7		5.0980	22.30	10.46	32.76	60.00	-27.24	QP	
8		5.0980	21.92	10.46	32.38	60.00	-27.62	QP	
9		5.0980	13.19	10.46	23.65	50.00	-26.35	AVG	
10		5.0980	13.15	10.46	23.61	50.00	-26.39	AVG	
11		7.0020	26.21	10.27	36.48	60.00	-23.52	QP	
12		7.0020	19.55	10.27	29.82	50.00	-20.18	AVG	
13		18.2420	21.13	10.34	31.47	60.00	-28.53	QP	
14		18.2420	17.64	10.34	27.98	50.00	-22.02	AVG	
*:Max	imun	n data	x:Over limit	!:over m	nargin				Engineer Signature: Ryan

Remark:

Measurement (dBuV) = Reading Level (dBuV) + Correct Factor(dB)

Correct Factor (dB) = LISN Voltage Division Factor (dB)+ Cable loss(dB)

Over Limit = Measurement - Limit

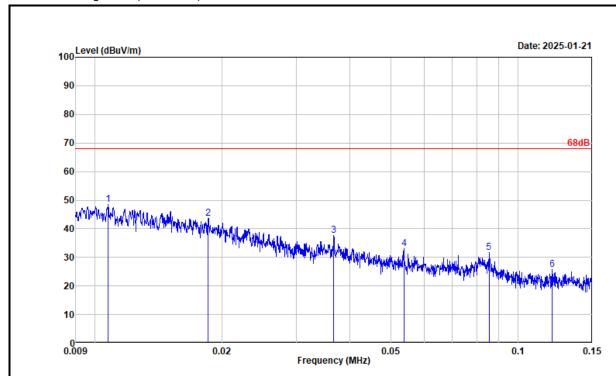


3.4 Radiated emission Test Data

9 kHz-30MHz:

Test Date:	2025-01-21	Test By:	Luke Li
Environment condition:	Temperature: 22.5°C; Relative	Humidity:41%; ATM Pr	essure: 101.1

Mode 2: working mode (worst case)



Project No. : 2405U83388E Test Mode : Working Test Voltage : AC 120V/60Hz

Environment : $22.5\,^{\circ}\mathrm{C}/41\%R.H./101.1kPa$

Tested by : Luke Li Polarization : PARALLEL Remark : /

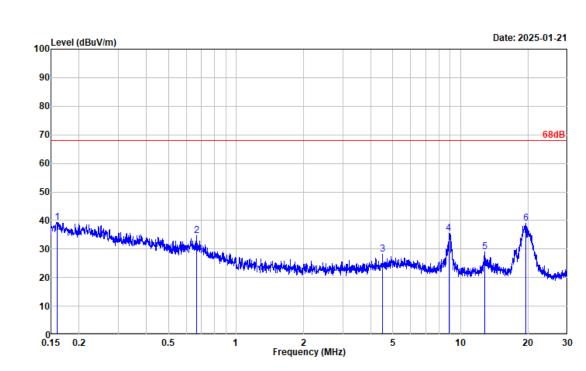
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	0.011	11.72	36.75	48.47	68.00	-19.53	Peak
2	0.019	11.91	31.81	43.72	68.00	-24.28	Peak
3	0.037	14.48	23.14	37.62	68.00	-30.38	Peak
4	0.054	13.15	19.90	33.05	68.00	-34.95	Peak
5	0.085	15.69	15.92	31.61	68.00	-36.39	Peak
6	0.121	11.34	14.40	25.74	68.00	-42.26	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain Result = Reading + Factor

Result = Reading + Factor Over Limit = Result - Limit SA setting: RBW/VBW: 200Hz/1kHz, DET: PK

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Project No. : 2405U83388E Test Mode : Working Test Voltage : AC 120V/60Hz

Environment : 22.5℃/41%R.H./101.1kPa

Tested by : Luke Li Polarization : PARALLEL Remark : /

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector	
1	0.159	26.05	13.31	39.36	68.00	-28.64	Peak	
2	0.666	30.89	3.83	34.72	68.00	-33.28	Peak	
3	4.491	31.96	-3.89	28.07	68.00	-39.93	Peak	
4	8.866	39.24	-3.70	35.54	68.00	-32.46	Peak	
5	12.871	32.35	-3.43	28.92	68.00	-39.08	Peak	
6	19.598	42.10	-3.15	38.95	68.00	-29.05	Peak	

Remarks: Factor = Antenna factor + Cable loss - Preamp gain

Result = Reading + Factor Over Limit = Result - Limit SA setting: RBW/VBW: 9kHz/30kHz, DET: PK

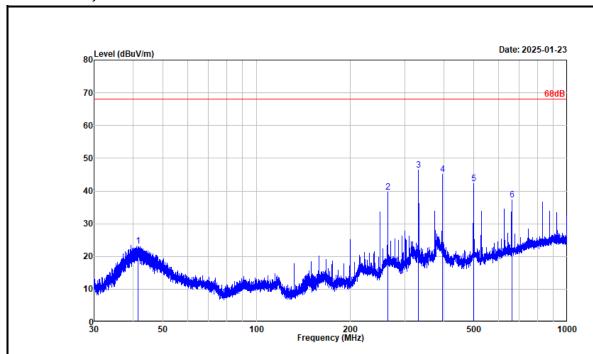
Note: According to FCC § 18.305, the field strength limit of the outside band emissions is: Limit=20lg(25)+20lg(300/3)=68dBuV/m



30MHz-1GHz:

Test Date:	2025-01-21~2025-01-23	Test By:	Luke Li				
Environment condition:	Temperature: 22.5~23.1°C; Relative Humidity:41~51%;						
Livironment condition.	ATM Pressure: 101.0~101.1kPa						

Mode 1: standby mode



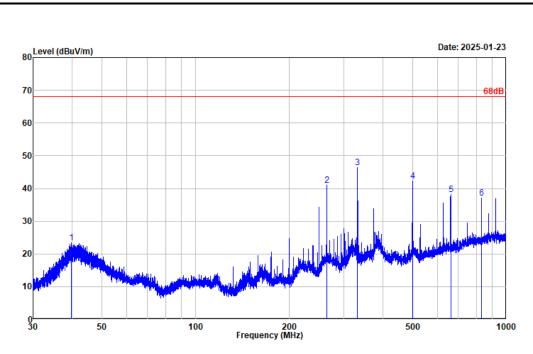
Project No. : 2405U83388E Test Mode : Standby Test Voltage : AC 120V/60Hz

Environment : 23.1° C/51%R.H./101.0kPa

Tested by : Luke Li Polarization : horizontal Remark : /

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	41.549	35.72	-12.54	23.18	68.00	-44.82	Peak
2	264.050	51.75	-12.07	39.68	68.00	-28.32	Peak
3	332.373	56.72	-10.29	46.43	68.00	-21.57	Peak
4	396.068	53.86	-8.70	45.16	68.00	-22.84	Peak
5	498.550	49.53	-7.26	42.27	68.00	-25.73	Peak
6	664.637	41.61	-4.25	37.36	68.00	-30.64	Peak





Project No. : 2405U83388E Test Mode : Standby Test Voltage : AC 120V/60Hz

 $\ \, \text{Environment} \ : \ 23.1^{\circ}\text{C}/51\%\text{R.H.}/101.0\text{kPa}$

Tested by : Luke Li Polarization : vertical Remark : /

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector	
1	39.854	36.37	-13.05	23.32	68.00	-44.68	Peak	
2	264.050	53.01	-12.07	40.94	68.00	-27.06	Peak	
3	332.373	56.62	-10.29	46.33	68.00	-21.67	Peak	
4	498.550	49.53	-7.26	42.27	68.00	-25.73	Peak	
5	664.637	42.36	-4.25	38.11	68.00	-29.89	Peak	
6	830.764	39.25	-2.25	37.00	68.00	-31.00	Peak	

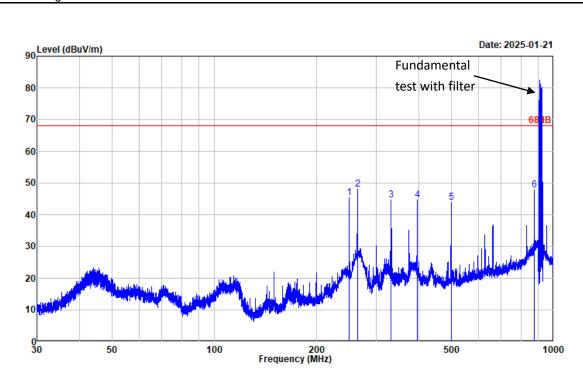
Remarks: Factor = Antenna factor + Cable loss - Preamp gain Result = Reading + Factor

Over Limit = Result - Limit

SA setting: Pre-scan: RBW/VWB: 100Hz/300kHz, DET: PK Final measure: RBW: 120kHz, DET: QP



Mode 2: working mode



Project No. : 2405U83388E Test Mode : Working Test Voltage : AC 120V/60Hz

Environment : 22.5℃/41%R.H./101.1kPa

Tested by : Luke Li Polarization : horizontal

Remark : /

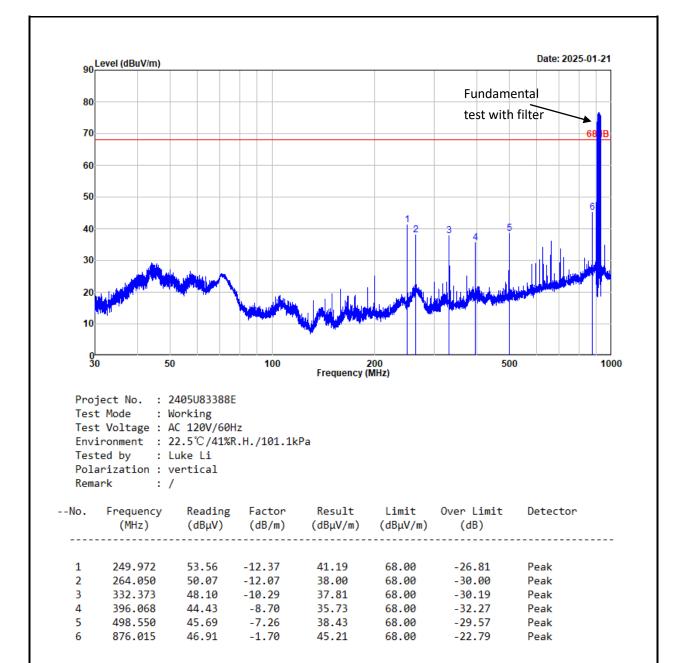
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Detector
1	249.972	57.77	-12.37	45.40	68.00	-22.60	Peak
2	264.050	60.17	-12.07	48.10	68.00	-19.90	Peak
3	332.373	54.94	-10.29	44.65	68.00	-23.35	Peak
4	396.068	53.35	-8.70	44.65	68.00	-23.35	Peak
5	498.550	51.15	-7.26	43.89	68.00	-24.11	Peak
6	876.015	49.56	-1.70	47.86	68.00	-20.14	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain Result = Reading + Factor

Over Limit = Result - Limit

SA setting: Pre-scan: RBW/VWB: 100Hz/300kHz, DET: PK Final measure: RBW: 120kHz, DET: QP





Remarks: Factor = Antenna factor + Cable loss - Preamp gain

Result = Reading + Factor Over Limit = Result - Limit

SA setting: Pre-scan: RBW/VWB: 100Hz/300kHz, DET: PK

Final measure: RBW: 120kHz, DET: QP

Note: According to FCC § 18.305, the field strength limit of the outside band emissions is: Limit=20lg(25)+20lg(300/3)=68dBuV/m



Report No.: 2405U83388EG

Fundamental field strength:

Test Date:	2025-01-21	Test By:	Luke Li	
Environment condition:	Temperature: 22.5°C; Relative Humidity:41%; ATM Pressure: 101.1kPa			

KDB 680106 D01 Wireless Power Transfer v04 Section 5.3:

Besides complying with the field strength limits in §18.305 (unwanted emission limits at 300 m and 1600 m distances5), the RF field strength measured beyond one meter (electric and magnetic components) is lower than that which is measured at one meter. These measurements shall be done while the transmitter is operating at full power to charge the client devices. The client device(s) shall be placed first within one meter from the transmitter antenna (or radiating structure) geometric center. Then, the client device(s) shall be placed beyond one meter, at least in two locations one meter apart (e.g., two and three meters away). The evaluation points shall be chosen along the direction of the main lobe of the field emission pattern (estimates of the lobe direction based on the transmitter geometry are acceptable, e.g., the main axis of a transmitter coil).

If a field pattern estimate is unavailable, measurements shall be repeated on radials that are no more than 30° apart from the direction of the main axis of the radiating structure on the planes containing the three principal axes (i.e., x-y, x-z, and y-z). Both electric and magnetic field components must be measured if the one-meter location is not in the far-field region (computed based on the frequency and antenna size of the WPT transmitter).

Below is the RF field strength measured result at 3 difference distance, base on the test result, the device compliance with above requirement.

Frequency (MHz)	Reading level (dBµV)	Polar (H/V)	Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m)	Remark
		Test D	istance 1m		
915	102.79	vertical	30.08	132.87	Peak
Test Distance 2m					
915	94.48	vertical	30.08	124.56	Peak
Test Distance 3m					
915	92.47	vertical	30.08	122.55	Peak

Remark:

Corrected Amplitude= Reading level + corrected Factor

Corrected Factor = Antenna factor + Cable loss - Amplifier gain

The worst antenna polar was test and recorded.

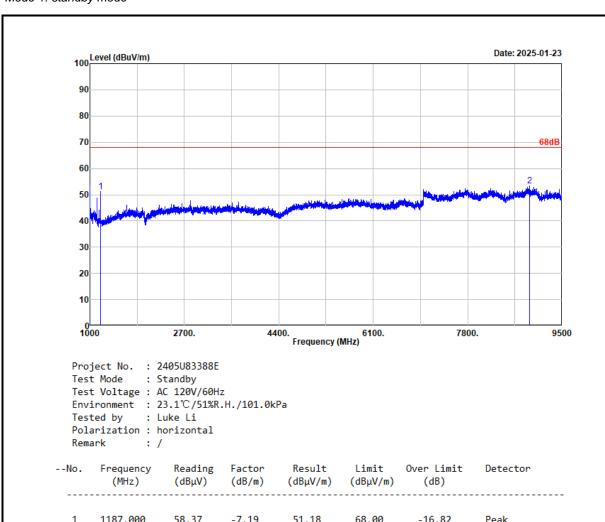
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Above 1GHz:

Test Date:	2025-01-18~2025-01-23	Test By:	Luke Li		
Environment condition:	Temperature: 22.5~23.1°C; Relative Humidity: 32~51%;				
ATM Pressure:101.0~101.3kPa					

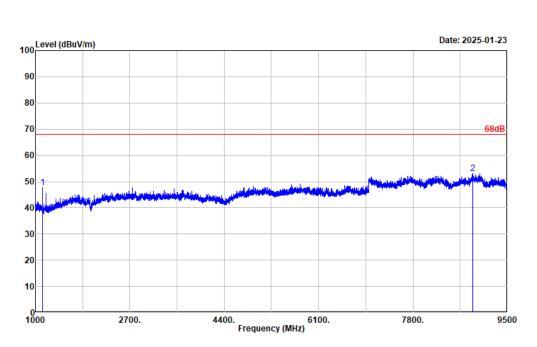
Mode 1: standby mode



1187.000 58.37 -7.19 51.18 68.00 -16.82 Peak 2 8911.000 51.67 1.69 53.36 68.00 -14.64 Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain Result = Reading + Factor Over Limit = Result - Limit SA setting: Peak: RBW/VWB: 1MHz/3MHz, DET: PK
Average: RBW/VWB: 1MHz/1kHz, DET: PK





Project No. : 2405U83388E Test Mode : Standby Test Voltage : AC 120V/60Hz

Environment : 23.1℃/51%R.H./101.0kPa

Tested by : Luke Li Polarization : vertical Remark : /

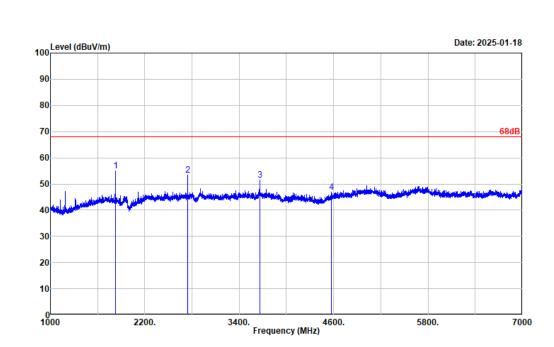
No.		Reading (dBµV)			Limit (dBµV/m)	Over Limit (dB)	Detector	
1	1124.000	55.14	-7.54	47.60	68.00	-20.40	Peak	
2	8877.000	51.46	1.66	53.12	68.00	-14.88	Peak	

Remarks: Factor = Antenna factor + Cable loss - Preamp gain

Remarks: Factor = Antenna Tactor + Cable loss Result = Reading + Factor
Over Limit = Result - Limit
SA setting: Peak: RBW/VWB: 1MHz/3MHz, DET: PK
Average: RBW/VWB: 1MHz/1kHz, DET: PK



Mode 2: working mode



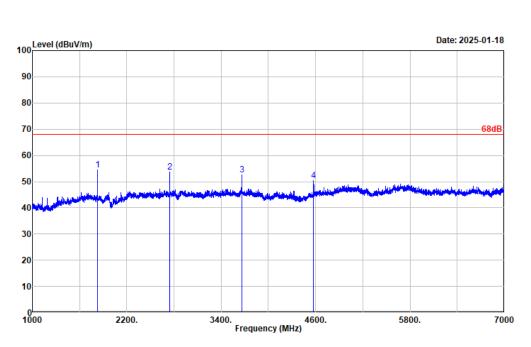
Project No. : 2405U83388E Test Mode : Working Test Voltage : AC 120V/60Hz

Environment : $22.5\,^{\circ}\text{C}/32\%\text{R.H.}/101.3\text{kPa}$ Tested by : Luke Li

Polarization : horizontal Remark : /

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Detector
1	1830.000	58.93	-3.83	55.10	68.00	-12.90	Peak
2	2745.000	55.77	-2.35	53.42	68.00	-14.58	Peak
3	3660.000	54.04	-2.60	51.44	68.00	-16.56	Peak
4	4575.000	50.16	-3.17	46.99	68.00	-21.01	Peak





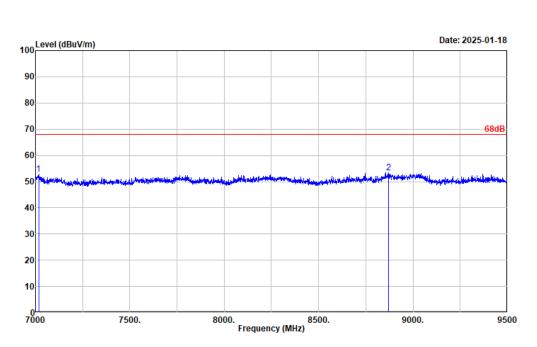
Project No. : 2405U83388E Test Mode : Working Test Voltage : AC 120V/60Hz

Environment : 22.5℃/32%R.H./101.3kPa

Tested by : Luke Li Polarization : vertical : / Remark

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBµV/m)	Over Limit (dB)	Detector
4	1970 000	F0 20	2 82	F4 4F	68.00	42.55	DI-
1	1830.000	58.28	-3.83	54.45	68.00	-13.55	Peak
2	2745.000	55.99	-2.35	53.64	68.00	-14.36	Peak
3	3660.000	55.13	-2.60	52.53	68.00	-15.47	Peak
4	4575.000	53.63	-3.17	50.46	68.00	-17.54	Peak





Project No. : 2405U83388E Test Mode : Working Test Voltage : AC 120V/60Hz

Environment : 22.5℃/32%R.H./101.3kPa

Tested by : Luke Li Polarization : horizontal Remark : /

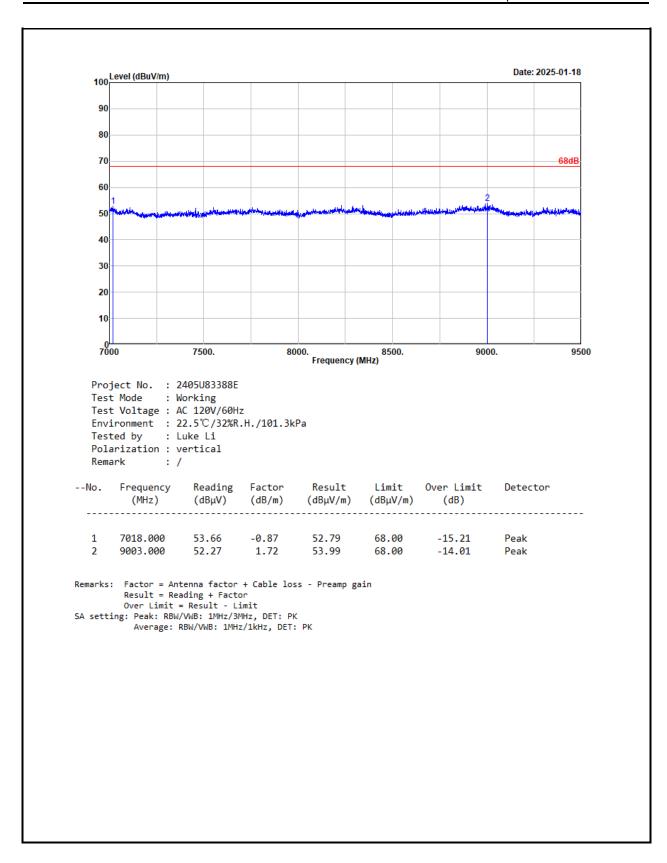
--No. Frequency Reading Factor Result Limit Over Limit Detector (MHz) (dBμV) (dB/m) (dBμV/m) (dBμV/m) (dB)

1 7017.000 53.58 -0.86 52.72 68.00 -15.28 Peak
2 8871.000 51.85 1.66 53.51 68.00 -14.49 Peak

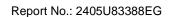
Remarks: Factor = Antenna factor + Cable loss - Preamp gain

Result = Reading + Factor
Over Limit = Result - Limit
SA setting: Peak: RBW/VWB: 1MHz/3MHz, DET: PK
Average: RBW/VWB: 1MHz/1kHz, DET: PK





Note: According to FCC \S 18.305, the field strength limit of the outside band emissions is: Limit=20lg(25)+20lg(300/3)=68dBuV/m





3.5 RF Conducted Test Data

Test Date:	2025-01-21	Test By:	Ryan Zhang	
Environment condition:	Temperature: 23.4°C; Relative Humidity:45%; ATM Pressure: 101.3kPa			

3.5.1 Conducted Output Power

Test Modes	Test Frequency (MHz)	Peak Conducted Output Power (dBm)	
Hopping	902.5~927.5	23.08	

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4 Test Setup Photo

Please refer to the attachment 2405U83388EG Test setup photo.



5 E.U.T Photo

Please refer to the attachment 2405U83388E External photo and 2405U83388E Internal photo.

---End of Report---