[Shenzhen weicejiance Testing Technology Co., LTD Testing Report]

Shenzhen weicejiance Testing Technology Co., LTD
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FCC TEST REPORT

For

Product Name	Ultrasonic Cleaning Machine
Model No.	SL103（Product colors: white, pink）
Trade Mark	N/A
Prepared for:	Shenzhen Xinsenli Technology Co., Ltd
Address:	101, Building 2, Chunhu Industrial Zone, Pinghu Street, Longgang District, Shenzhen, China
Prepared by:	Shenzhen weicejiance Testing Technology Co., LTD
Address:	Building E, Science Park, Shajing Street, Baoan District, Shenzhen City, China
Date of Receiver Number:	August 14, 2024
of tested samples Serial :	2
number	Prototype
Date of Test	August 14, 2024~ August 22, 2024
Date of Report	August 22, 2024
Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior written consent of Shenzhen weicejiance Testing Technology Co., LTD	

TABLE OF CONTENT

Description
Test Report Description Page

1. GENERAL INFORMATION **3**
1.1. Description of Device (EUT) 3
1.2. Test Standards 4
1.3. Test Methodology 4
1.4. Test Facility 4

2. MEASURING DEVICE AND TEST EQUIPMENT **5**
2.1. For Power Line Conducted Emission 5
2.2. For Radiated Emission Measurement 5

3. POWER LINE CONDUCTED EMISSION MEASUREMENT **6**
3.1. Block Diagram of Test Setup 6
3.2. Measuring Standard 6
3.3. EUT Configuration on Measurement 6
3.4. Test Procedure 6

4. RADIATED EMISSION MEASUREMENT **9**
4.1. Block Diagram of Test 9
4.2. Measuring Standard 9
4.3. EUT Configuration on Test 9
4.4. Test Procedure 10

5. PHOTOGRAPH **13**
5.1. Photo of Radiated Emission Measurement 13
5.2. Photo of Conducted Emission Measurement 13

FIGURE **14**
Photos of EUT

Name and address of the testing laboratory: Shenzhen weicejiance Testing Technology Co., Ltd. Building E, Science Park, Shajing Street, Baoan District, Shenzhen City, China.

Date of Test: August 14, 2024~ August 22, 2024

Testing Engineer

Reviewer(Quality Manager):

Approved &Authorized Signer(Manager): Ganwei

1.2. Test Standards

√Indicates that the test is applicable
0Indicates that the test is not applicable

Standard	Test Items	Status
FCC Part 15 Subpart B Class B	Disturbance Voltage at The Mains Terminals (150KHz To30MHz)	√
	Radiated Disturbances (10MHz To 80MHz)	√

1.3. Test Methodology

All measurements contained in this report were conducted with CISPR 14-1, radio disturbance and immunity measuring apparatus, and CISPR16-2, Method of measurement of disturbances and immunity.

All measurement required was performed at laboratory of Shenzhen weicejiance Testing Technology Co., LTD., at Building E, Science Park, Shajing Street, Baoan District, Shenzhen City, China.

District, Shenzhen

1.4. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC – Registration No.: 222278
EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission.The acceptance letter from the FCC is maintained in our files. Registration 222278.

The facility also complies with the radiated and AC line conducted test site criteria set forth in CISPR 14-1, CISPR14-1.

2. MEASURING DEVICE AND TEST EQUIPMENT

2.1. For Power Line Conducted Emission

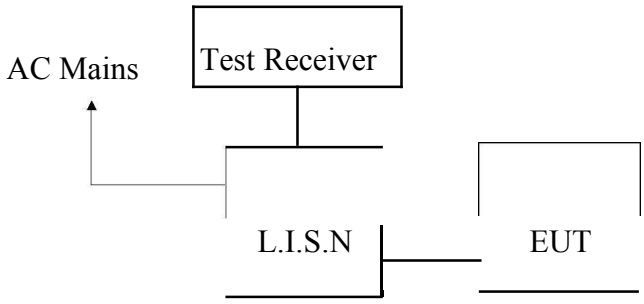
Item	Equipment	Manufacturer	Model No.	Factory Number	Last Cal.
1.	Test Receiver	Rohde & Schwarz	ESPI TEST RECEIVER	ID:1164.6607K03-102109-MH	March 19, 2024
2.	L.I.S.N	Rohde & Schwarz	ESH3-Z5.831.5518.52	9561-G071	
3.	50ΩCoaxial Switch	Anritsu	MP59B	M20531	N/A
4.	Pulse Limiter	SCHWARZ BECK	VTSD 9561-F Pulse Limiter 10dB Ateennator	561-G071	March 19, 2024
5.	Cable	SCHWARZ BECK	N/A	N/A	March 19, 2024

2.2. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Factory Number	Last Cal.
1.	Test Receiver	Rohde & Schwarz	ESPI TEST RECEIVER	ID:1164.6607K03-102109-MH	March 19, 2024
2.	Bilog Antenna	Sunol Sciences	Model JB6 Antenna	A090414	March 19, 2024
3.	50ΩCoaxial Switch	Anritsu	MP59B	M20531	N/A
4.	control	Positioning Controller	Model MF-7802	MF780208362	March 19, 2024
5.	Cable	SCHWARZ BECK	N/A	N/A	March 19, 2024
6.	Cable	SCHWARZ BECK	N/A	N/A	March 19, 2024

3. POWER LINE CONDUCTED EMISSION MEASUREMENT

3.1. Block Diagram of Test Setup



(EUT: Garden Light)

3.2. Measuring Standard

FCC PART 15: 2014

Power Line Conducted Emission Limits

Frequency (MHz)	Limit (dBμV)	
	Quasi-Peak Level	Average Level
1.15 ~ 2.50	60.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	50.0	50.0

NOTE1-The lower limit shall apply at the transition frequencies. NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

3.3. EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet FCC PART 15 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

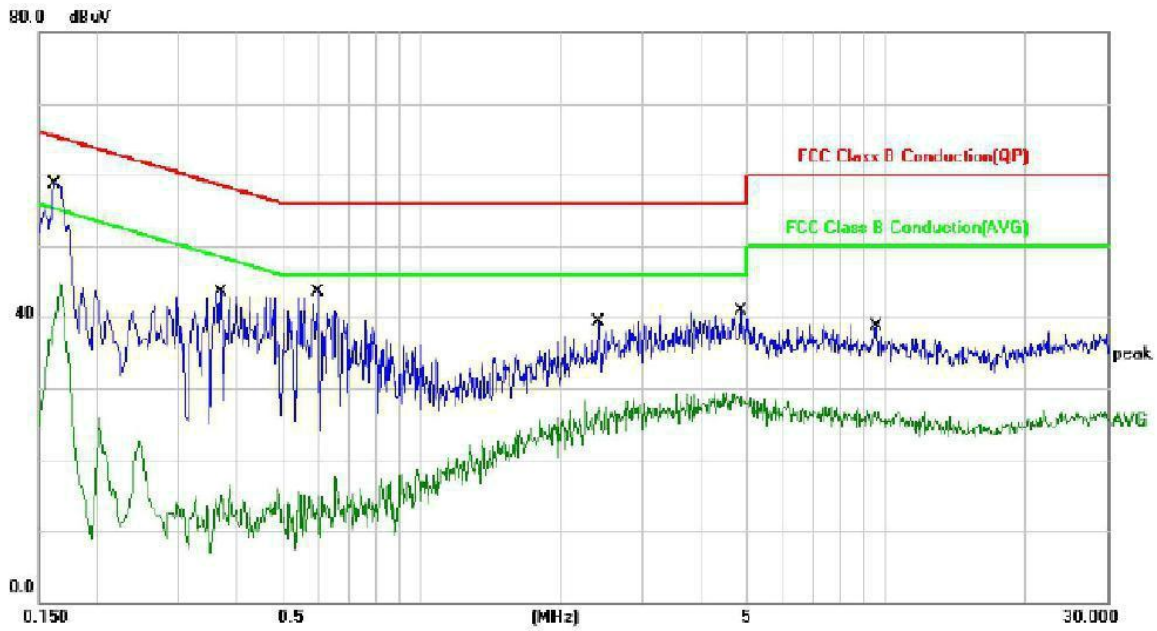
3.4. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and connected to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided a 50ohm coupling impedance for the tested equipments.Both sides of AC line are investigated to find out the maximum conducted emission according to the FCC PART 15B regulations during conducted emission measurement.
The bandwidth of the field strength meter (R&S Test Receiver ESCS30) is set at 9KHz in 75KHz~30MHz and 120Hz in 9KHz~150KHz.
The frequency range from 150kHz to 30MHz is

investigated. Conduction Uncertainty: Uc = ± 2.72 dB

Conducted Emission

EUT	Ultrasonic Cleaning Machine	Temperature	20℃
M/N	SL103	Humidity	50%
Test Voltage	DC 12V	Test Mode	On
Test Engineer	Bill	Phase	L-Line

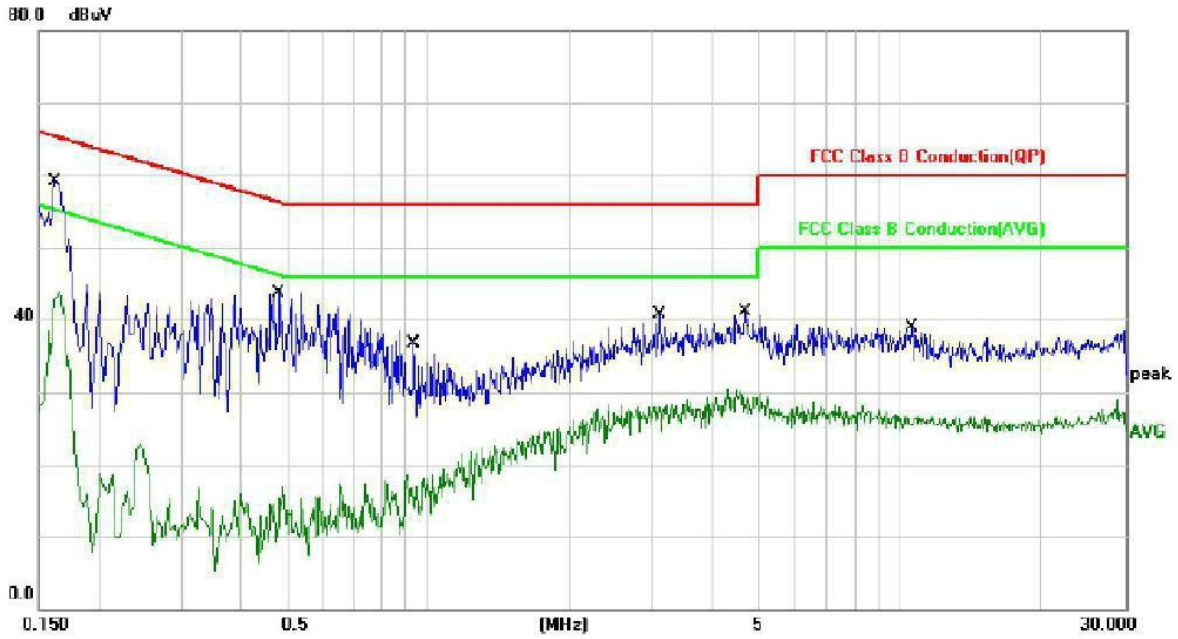


Site Chamber #1 Phase: L1 Temperature:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1620	58.55	0.18	58.73	65.36	-6.63	QP	
2		0.1620	39.39	0.18	39.57	55.36	-15.79	AVG	
3		0.3699	43.27	0.32	43.59	58.50	-14.91	QP	
4		0.3699	14.84	0.32	15.16	48.50	-33.34	AVG	
5		0.5979	43.18	0.33	43.51	56.00	-12.49	QP	
6		0.5979	14.52	0.33	14.85	46.00	-31.15	AVG	
7		2.4060	39.11	0.15	39.26	56.00	-16.74	QP	
8		2.4060	27.41	0.15	27.56	46.00	-18.44	AVG	
9		4.8539	40.89	0.07	40.96	56.00	-15.04	QP	
10		4.8539	28.89	0.07	28.96	46.00	-17.04	AVG	
11		9.5298	38.60	0.04	38.64	60.00	-21.36	QP	
12		9.5298	25.50	0.04	25.54	50.00	-24.46	AVG	

Conducted Emission

EUT	Ultrasonic Cleaning Machine	Temperature	20℃
M/N	SL103	Humidity	50%
Test Voltage	DC 12V	Test Mode	On
Test Engineer	Bill	Phase	L-Line



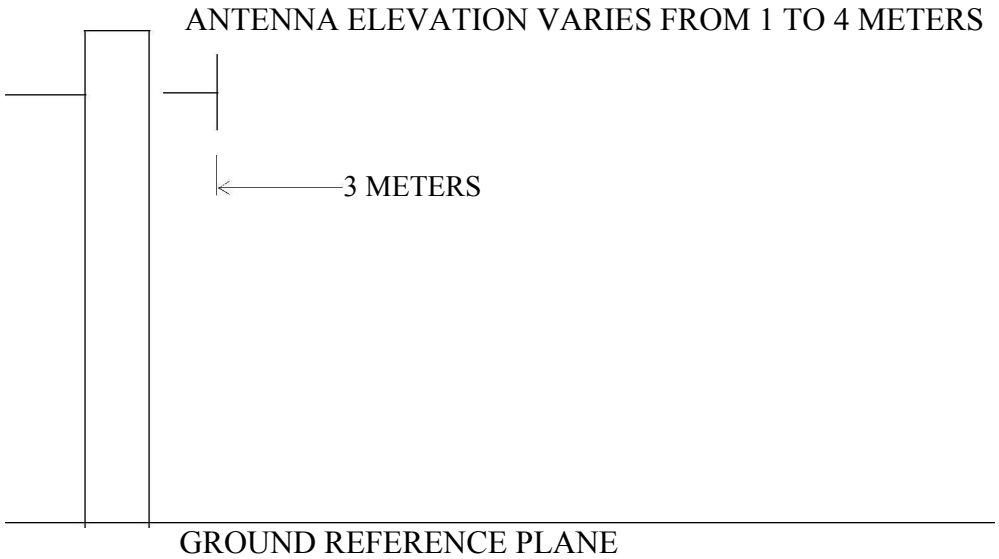
Site Chamber #1 Phase: N Temperature:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1620	58.97	0.18	59.15	65.36	-6.21	QP	
2		0.1620	42.77	0.18	42.95	55.36	-12.41	AVG	
3		0.4859	43.38	0.32	43.70	56.24	-12.54	QP	
4		0.4859	14.96	0.32	15.28	46.24	-30.96	AVG	
5		0.9340	36.39	0.30	36.69	56.00	-19.31	QP	
6		0.9340	16.56	0.30	16.86	46.00	-29.14	AVG	
7		3.1059	40.66	-0.03	40.63	56.00	-15.37	QP	
8		3.1059	27.86	-0.03	27.83	46.00	-18.17	AVG	
9		4.7058	40.97	0.04	41.01	56.00	-14.99	QP	
10		4.7058	27.94	0.04	27.98	46.00	-18.02	AVG	
11		10.5739	38.83	0.11	38.94	60.00	-21.06	QP	
12		10.5739	25.48	0.11	25.59	50.00	-24.41	AVG	

4. RADIATED EMISSION MEASUREMENT

4.1. Block Diagram of Test

4.1.1.Block diagram of test setup (In chamber)



(EUT: Garden Light)

4.2. Measuring Standard

FCC PART 15: 2014

Radiated Emission Limits

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		V/m	dB(V)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 950	3	200	46.0
950 ~ 1000	3	500	54.0

Note**:** (1) The smaller limit shall apply at the combination point between two frequency bands.

(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

4.3. EUT Configuration on Test

The FCC PART 15 regulations test method must be used to find the maximum emission during radiated emission measurement.

4.4. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

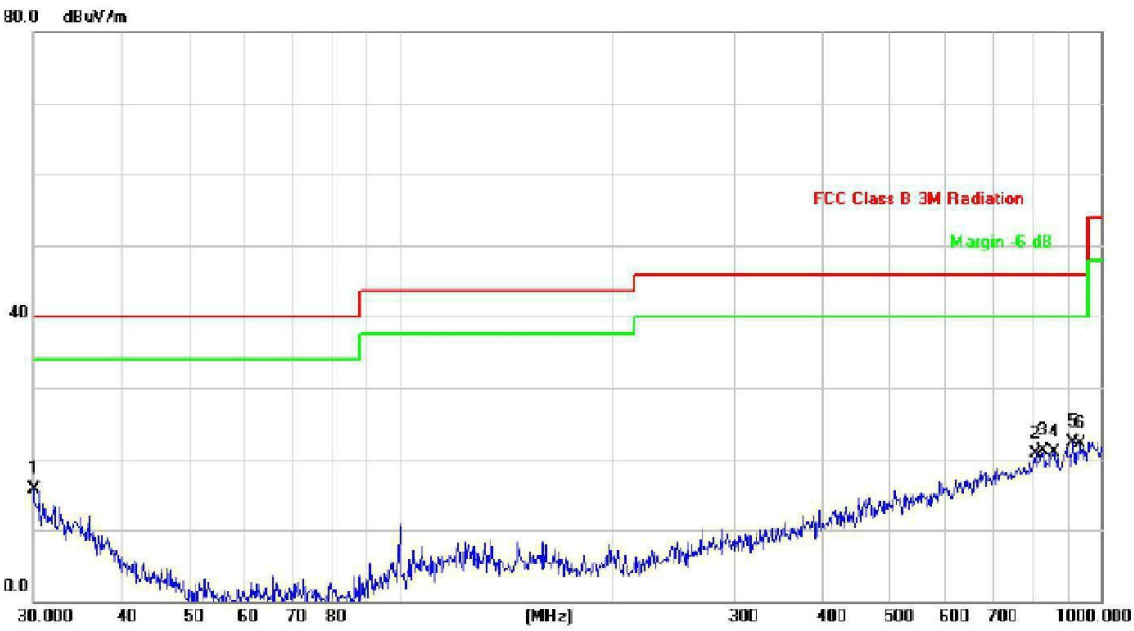
The bandwidth of the Receiver (ESCS30) is set at 120kHz.

The frequency range from 30MHz to 1000MHz is investigated.

Radiation Uncertainty: Ur = ± 3.84 dB

Radiated Emission Test Data

EUT	Ultrasonic Cleaning Machine	Temperature	20℃
M/N	SL103	Humidity	50%
Test Voltage	DC 12V	Test Mode	On
Test Engineer	Bill	Polarization	Horizontal

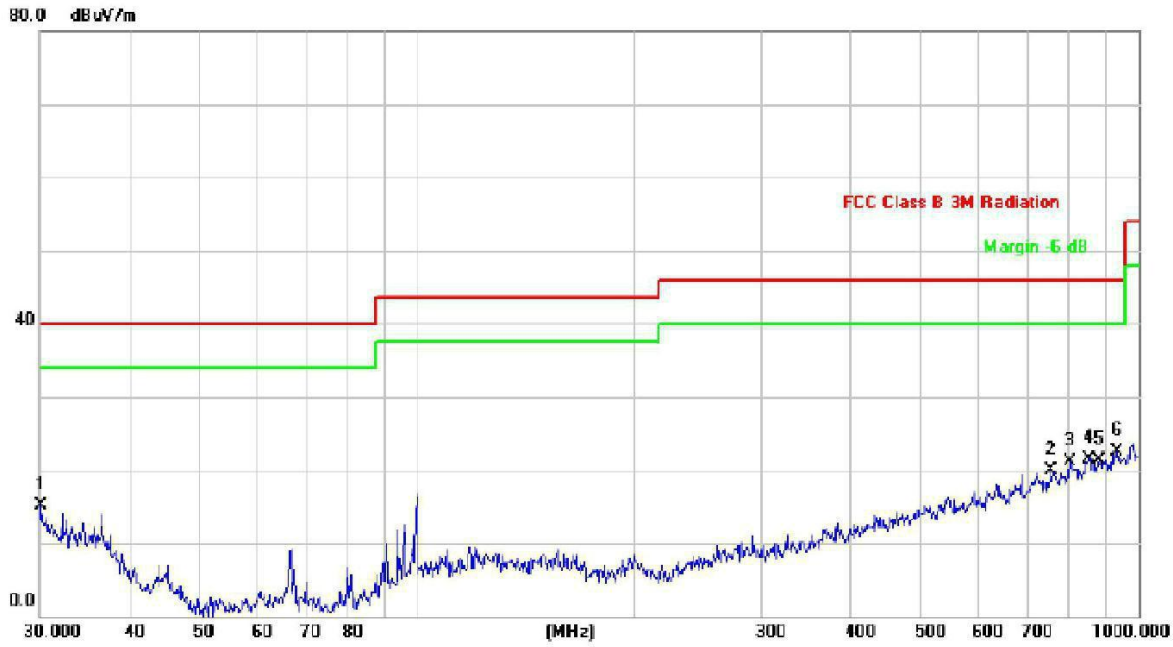


Site Chamber #1 Polarization: *Horizontal* Temperature:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		30.0000	20.98	-5.30	15.68	40.00	-24.32	QP			
2		807.4291	22.85	-2.19	20.66	46.00	-25.34	QP			
3		827.4934	22.84	-1.78	21.06	46.00	-24.94	QP			
4		860.0352	22.37	-1.46	20.91	46.00	-25.09	QP			
5	*	912.8620	23.23	-0.88	22.35	46.00	-23.65	QP			
6		935.5463	22.39	-0.34	22.05	46.00	-23.95	QP			

Radiated Emission Test Data

EUT	Ultrasonic Cleaning Machine	Temperature	20℃
M/N	SL103	Humidity	50%
Test Voltage	DC 12V	Test Mode	:On
Test Engineer	Bill	Polarization :	Horizontal

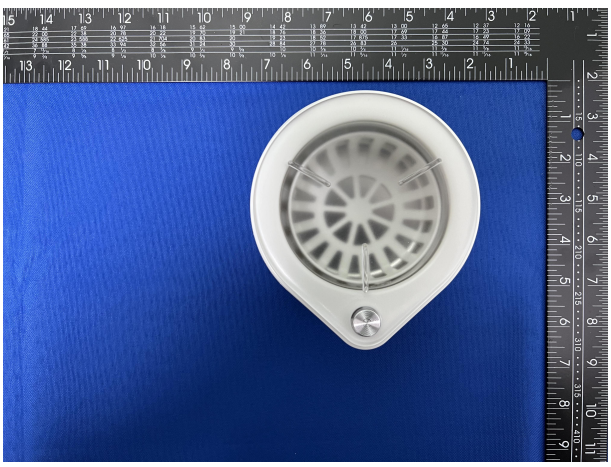


Site Chamber #1 Polarization: *Vertical* Temperature:

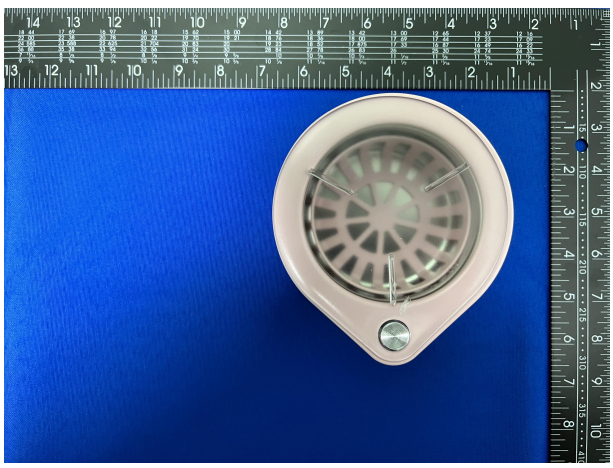
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		30.1054	21.83	-6.79	15.04	40.00	-24.96	QP			
2		758.0408	23.85	-3.85	20.00	46.00	-26.00	QP			
3		804.6028	24.07	-2.88	21.19	46.00	-24.81	QP			
4		854.0247	23.82	-2.22	21.60	46.00	-24.40	QP			
5		881.4067	23.22	-1.95	21.27	46.00	-24.73	QP			
6	*	935.5463	23.51	-0.94	22.57	46.00	-23.43	QP			

5. PHOTOGRAPH

EUT Photo 1



EUT Photo 2



**************************THE END OF REPORT*************************