

TEST REPORT

FCC Rules Part 15.225

Report Reference No..... : MTEB26040226-R1

FCC ID..... : NRH-LR-R900A

Compiled by

(position+printed name+signature)..: File administrators Alisa Luo



Supervised by

(position+printed name+signature)..: Test Engineer Sunny Deng



Approved by

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Date of issue.....: **Apr.23,2026**

Representative Laboratory Name.: Shenzhen Most Technology Service Co., Ltd.

Address.....: No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park,
Nanshan, Shenzhen, Guangdong, China.

Applicant's name.....: Netvox Technology Co., Ltd

Address.....: No 21, Sec 1 Chung Hua West Road, Tainan, Taiwan

Test specification/ Standard.....: FCC Rules Part 15.225

TRF Originator.....: Shenzhen Most Technology Service Co., Ltd.

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Test item description.....: Wireless multifunctional sensor

Trade Mark.....: netvox

Model/Type reference.....: R900A02AO1, R900AD02AO1

Listed Models: R900AxyyyzzwHTL
(See the model description on the APPENDIX I)

Modulation Type.....: ASK

Operation Frequency.....: 13.56MHz

Hardware version.....: V0.2

Software version: V1.0

Rating.....: R900A02AO1: battery 3.6V 50mA
R900AD02AO1: Adapter 12V 1.5A

Result.....: **PASS**

TEST REPORT

Equipment under Test : Wireless multifunctional sensor

Model /Type : R900A02AO1, R900AD02AO1

Listed Models : R900AxyyyyyzwHTL
(See the model description on the APPENDIX I)

Remark : The specifications and quantities of external sensors vary

Applicant : **Netvox Technology Co., Ltd**

Address : No 21, Sec 1 Chung Hua West Road, Tainan, Taiwan

Manufacturer : **Netvox Technology Co., Ltd. (Xiamen)**

Address : No.2, Xin Feng 2 Road, Xiamen Torch Hi-Tech Industrial
Development Zone, Xiamen City, China

Test Result:	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2026.04.23	Initial Issue	Alisa Luo

2. TEST STANDARDS

The tests were performed according to following standards:

The tests were performed according to following standards:

[**FCC Rules Part 15.225:**](#) Operation within the band 13.110-14.010 MHz.

[**ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024:**](#) American National Standard for Testing Unlicensed Wireless Devices

[**ANSI C63.4: 2014:**](#) –American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40GHz
Range of 9 kHz to 40GHz

3. SUMMARY

3.1. General Remarks

Date of receipt of test sample	:	2026.01.21
Testing commenced on	:	2026.01.22
Testing concluded on	:	2026.04.23

3.2. Product Description

Product Name:	Wireless multifunctional sensor
Model/Type reference:	R900A02AO1, R900AD02AO1
Power Supply:	R900A02AO1: battery 3.6V 50mA R900AD02AO1: Adapter 12V 1.5A
Testing sample ID:	MTYP11946/11948
Modulation:	ASK
Operation frequency:	13.56MHZ
Channel number:	1 (declared by the client)

3.3. Equipment Under Test

Power supply system utilised

Power supply voltage	:	☐ 230V / 50 Hz	☐ 120V / 60Hz
		☐ 12 V DC	☐ 24 V DC
		☒ Other (specified in blank below)	

DC 3.6V by Battery /DC 12V by Adapter

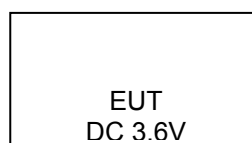
3.4. Short description of the Equipment under Test (EUT)

This is a Wireless multifunctional sensor For more details, refer to the user's manual of the EUT.

3.5. EUT operation mode

Channel	Freq.(MHz)	Note(Modulation Type)
1	13.56MHz	ASK

3.6. Block Diagram of Test Setup



3.7. Test Item (Equipment Under Test) Description*

Short designation	EUT Name	EUT Description	Serial number	Hardware status	Software status
EUT A	/	/	/	/	/
EUT B	/	/	/	/	/

*: declared by the applicant. According to customers information EUTs A and B are the same devices.

3.8. Auxiliary Equipment (AE) Description

AE short designation	EUT Name (if available)	EUT Description	Serial number (if available)	Software (if used)
AE 1	/	/	/	/
AE 2	/	/	/	/

3.9 Antenna Information*

Short designation	Antenna Name	Antenna Type	Frequency Range	Serial number	Antenna Peak Gain
Antenna 1	---	/	13.56MHZ	---	2.5dBi
Antenna 2	/	/	/	/	/

*: declared by the applicant.

3.10. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

○ - Supplied by the lab

☐	ADAPTER	M/N:	
		Manufacturer:	

3.11. Modifications

No modifications were implemented to meet testing criteria.

4. TEST ENVIRONMENT

4.1. Address of the test laboratory

Shenzhen Most Technology Service Co., Ltd.

No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.
The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

Test Facility

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

FCC-Registration No.: 0031192610

Shenzhen Most Technology Service Co., Ltd. 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.

A2LA-Lab Cert. No.: 6343.01

Shenzhen Most Technology Service Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

4.2. Environmental conditions

Radiated Emission:

Temperature:	23 ° C
Humidity:	48 %
Atmospheric pressure:	950-1050mbar

Conducted testing:

Temperature:	24 ° C
Humidity:	45 %
Atmospheric pressure:	950-1050mbar

4.3. Test Description

FCC and IC Requirements		
FCC Part 15.203	Antenna Requirement	PASS
FCC Part 15.207	AC Power Conducted Emission	PASS
FCC Part 15.209&15.205 (a) &15.225(a,b,c,d)	Spurious Emissions	PASS
FCC Part 15.215 (c) &15.225	20dB Occupied Bandwidth	PASS
FCC Part 15.225(e)	Frequency Tolerance	PASS

Remark:

1. The measurement uncertainty is not included in the test result.
2. NA = Not Applicable; NP = Not Performed

4.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Most Technology Service Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Most Technology Service Co., Ltd. is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10 dB	(1)
Radiated Emission	1~18GHz	4.32 dB	(1)
Radiated Emission	18-40GHz	5.54 dB	(1)
Conducted Disturbance	0.15~30MHz	3.12 dB	(1)

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

4.5. Equipments Used during the Test

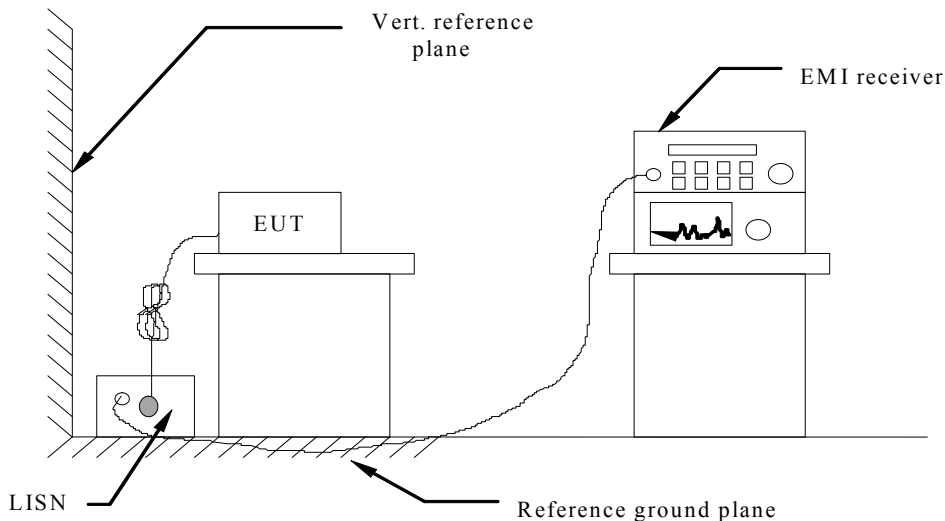
Item	Equipment	Manufacturer	Model No.	Serial No.	Firmware versions	Last Cal.
1.	L.I.S.N.	R&S	ENV216	100093	/	2026/02/28
2.	Three-phase artificial power network	Schwarzback Mess	NNLK8129	8129178	/	2026/02/28
3.	Receiver	R&S	ESCI	100492	V3.0-10-2	2026/02/28
4.	Receiver	R&S	ESPI	101202	V3.0-10-2	2026/02/28
5.	Spectrum analyzer	Agilent	9020A	/	A14.16	2026/02/28
6.	Bilog Antenna	Sunol Sciences	JB3	A121206	/	2025/11/22
7.	Horn antenna	HF Antenna	HF Antenna	/	/	2026/03/08
8.	Loop antenna	Beijing Daze	ZN30900B	/	/	2026/03/28
10.	Wireless Communication Test Set	R&S	CMW500	155873	V3.7.40	2026/02/28
11.	Preamplifier	Millitech	KA-LNA18-40-01	18050001	/	2026/02/28
12.	High gain antenna	A-INFOMW	LB-180400KF	J211060273	/	2026/02/28
13.	Spectrum analyzer	R&S	FSP	100019	V4.40 SP2	2026/02/28
14.	Pre-amplifier	lenscend	TAP011840	AP21C806124	/	2026/02/28
15.	RF Cable(below1GHz)	Times	9kHz-1GHz	/	/	2026/02/28
16.	RF Cable(above1GHz)	Times	1-18G	/	/	2026/02/28
17.	RF Cable(9KHz-40GHz)	Tonscend	170660	/	/	2026/02/28
18.	vector Signal Generator	ROHDE & SCHWARZ	SMBV100B		/	2026/02/28
19.	Signal Generator	Agilent	5181A		/	2026/02/28
20.	splitter	Mini-Circuits	ZAP-50W	NN256400424	/	2026/02/28
21.	Humid & Temp Programmable Tester	Haida	HD-2257	110807201	/	2026/02/28
22.	X-series USB Peak and Average Power Sensor	Agilent	U2021XA	MY54080019	/	2026/02/28
23.	4 Ch.Simultaneous Sampling 14 Bits 2 MS/s	Agilent	U2531A	TW54063507	/	2026/02/28
24.	splitter	Mini-Circuits	ZAP-50W	NN256400424	/	2026/02/28
25.	Power meter	R&S	NRVS	100444	/	2026/02/28
26.	Testing software	Fala	EZ-EMC(CE)	/	Ver.FA-03A1	/
27.	Testing software	Fala	EZ-EMC(RE)	/	Ver.FA-03A3	/
27.	Testing software	WCS	WCS	/	Ver.23.06.1401	/

Note: The Cal.Interval was one year.

5. TEST CONDITIONS AND RESULTS

5.1. AC Power Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

- 1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024.
- 2 Support equipment, if needed, was placed as per ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024
- 3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024
- 4 The EUT received DC12V power, the adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5 All support equipments received AC power from a second LISN, if any.
- 6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
- 8 During the above scans, the emissions were maximized by cable manipulation.

AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following :

Frequency range (MHz)	Limit (dBuV)	
	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 RESULTS

Pass

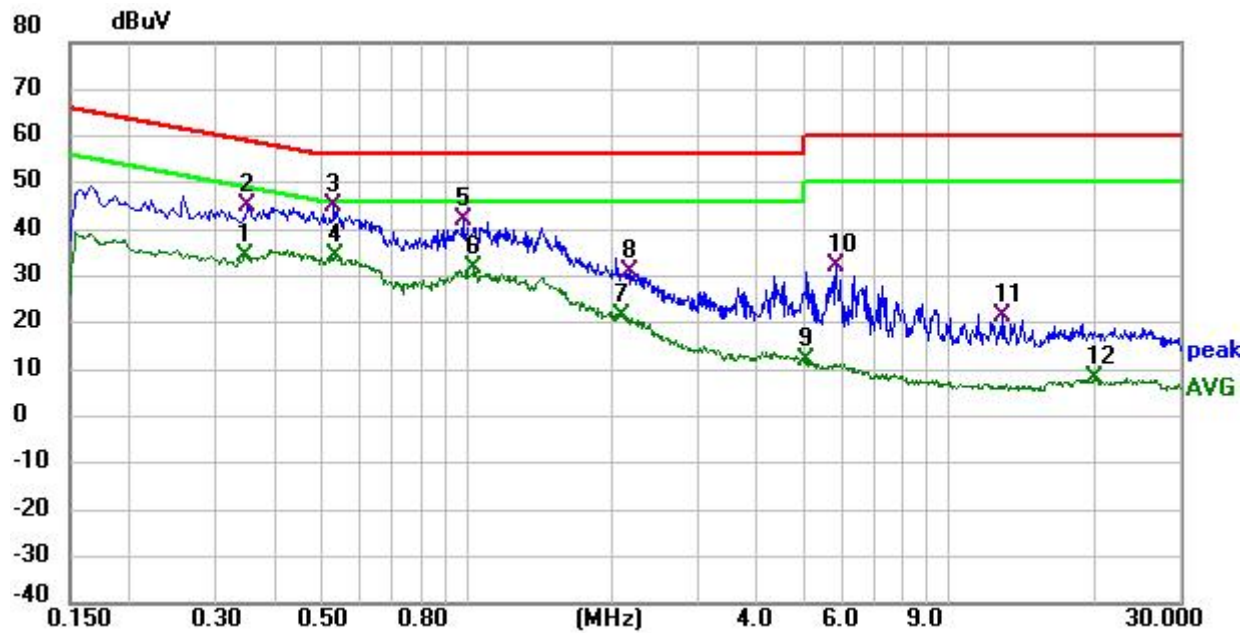
Power supply:

DC 12V by Adapter

Polarization

L

Model No.: R900AD02AO1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.3460	24.81	9.59	34.40	49.06	-14.66	AVG	P	
2	0.3500	35.53	9.59	45.12	58.96	-13.84	QP	P	
3 *	0.5299	35.38	9.59	44.97	56.00	-11.03	QP	P	
4	0.5340	24.69	9.59	34.28	46.00	-11.72	AVG	P	
5	0.9820	32.28	9.60	41.88	56.00	-14.12	QP	P	
6	1.0339	21.98	9.60	31.58	46.00	-14.42	AVG	P	
7	2.1099	11.79	9.60	21.39	46.00	-24.61	AVG	P	
8	2.1740	21.29	9.60	30.89	56.00	-25.11	QP	P	
9	5.0780	2.26	9.63	11.89	50.00	-38.11	AVG	P	
10	5.8340	22.54	9.64	32.18	60.00	-27.82	QP	P	
11	12.9420	11.96	9.70	21.66	60.00	-38.34	QP	P	
12	20.1100	-1.49	9.73	8.24	50.00	-41.76	AVG	P	

*:Maximum data x:Over limit !:over margin

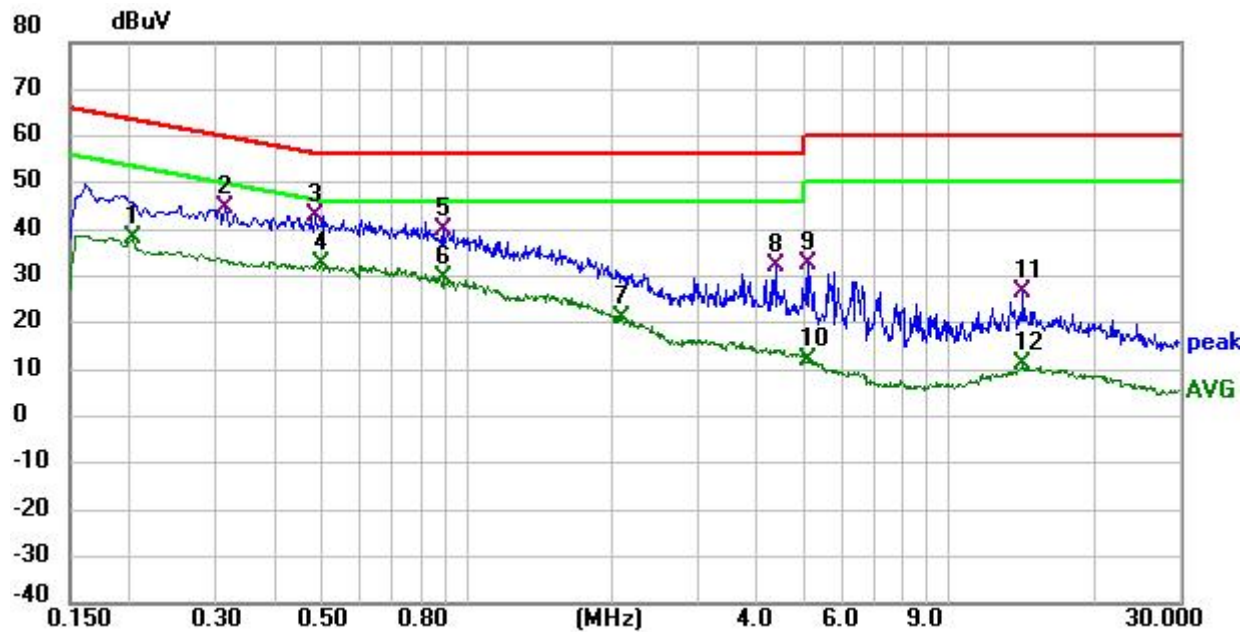
Power supply:

DC 12V by Adapter

Polarization

N

Model No.: R900AD02AO1



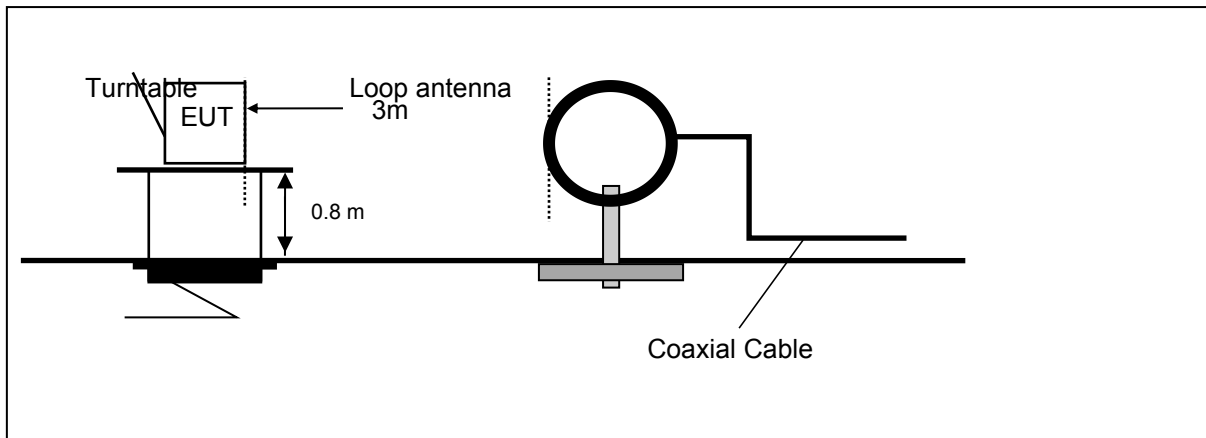
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2017	28.44	9.60	38.04	53.54	-15.50	AVG	P	
2	0.3140	35.24	9.59	44.83	59.86	-15.03	QP	P	
3 *	0.4860	33.41	9.59	43.00	56.24	-13.24	QP	P	
4	0.4980	23.00	9.59	32.59	46.03	-13.44	AVG	P	
5	0.8940	30.52	9.60	40.12	56.00	-15.88	QP	P	
6	0.8940	19.85	9.60	29.45	46.00	-16.55	AVG	P	
7	2.1020	11.44	9.60	21.04	46.00	-24.96	AVG	P	
8	4.3700	22.76	9.62	32.38	56.00	-23.62	QP	P	
9	5.1220	22.88	9.63	32.51	60.00	-27.49	QP	P	
10	5.1220	2.59	9.63	12.22	50.00	-37.78	AVG	P	
11	14.2620	16.74	9.70	26.44	60.00	-33.56	QP	P	
12	14.2620	1.33	9.70	11.03	50.00	-38.97	AVG	P	

*:Maximum data x:Over limit !:over margin

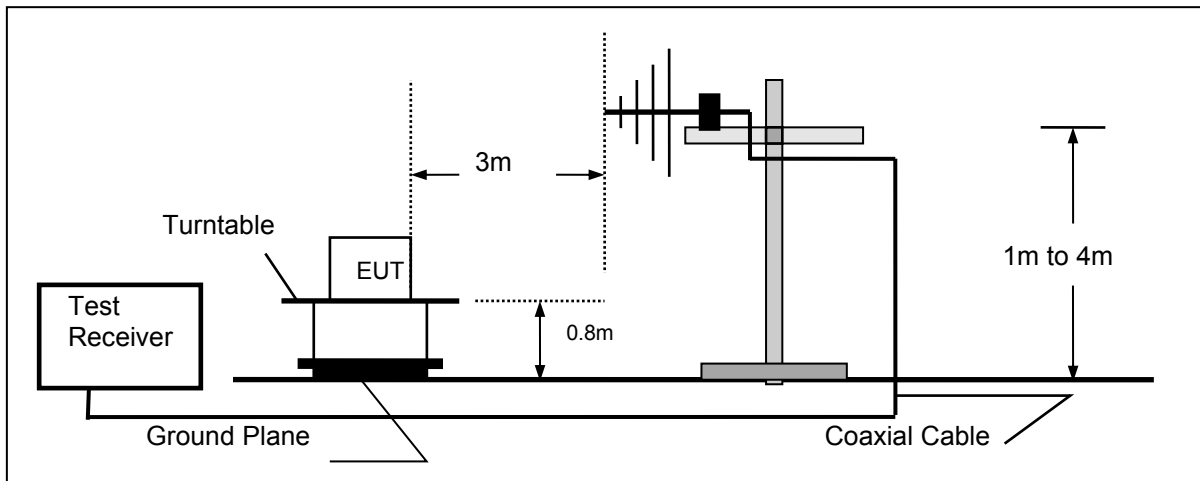
5.2. Radiated Emission

TEST CONFIGURATION

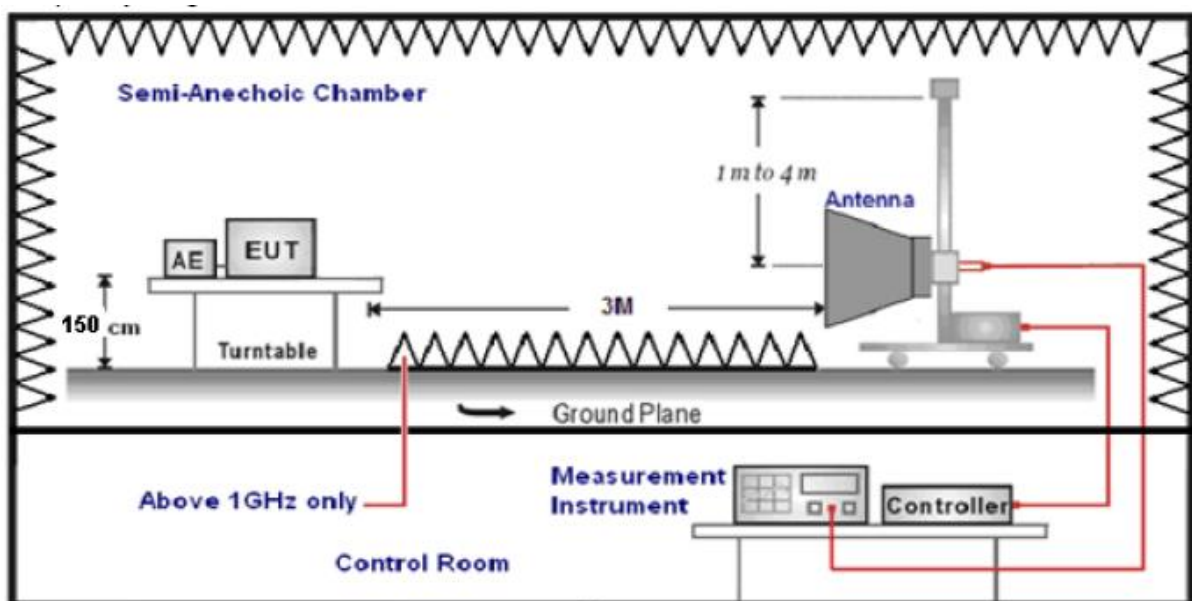
Frequency range 9 KHz – 30MHz



Frequency range 30MHz – 1000MHz



Frequency range above 1GHz-25GHz



TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane when testing frequency range 9 KHz –1GHz;the EUT was placed on a turn table which is 1.5m above ground plane when testing frequency range 1GHz – 25GHz.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0°C to 360°C to acquire the highest emissions from EUT.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. The EUT minimum operation frequency was 32.768KHz and maximum operation frequency was 2480MHz.so radiated emission test frequency band from 9KHz to 25GHz.
6. The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Ultra-Broadband Antenna	3
1GHz-18GHz	Double Ridged Horn Antenna	3
18GHz-25GHz	Horn Antenna	1

7. Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz, Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz, Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz, Sweep time=Auto	QP
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

$$\text{Transd}=AF +CL-AG$$

RADIATION LIMIT

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Except when the requirements applicable to a given device state otherwise, emissions from licence-exempt transmitters shall comply with the field strength limits shown in table below. Additionally, the level of any transmitter emission shall not exceed the level of the transmitter's fundamental emission

Unwanted emissions that fall into restricted bands shall comply with the limits specified in RSS-Gen; and Unwanted emissions that do not fall within the restricted frequency bands shall comply either with the limits specified in the applicable RSS or with those specified in this RSS-Gen.

Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
0.009-0.49	3	$20\log(2400/F(\text{KHz}))+40\log(300/3)$	$2400/F(\text{KHz})$
0.49-1.705	3	$20\log(24000/F(\text{KHz}))+ 40\log(30/3)$	$24000/F(\text{KHz})$

1.705-30	3	$20\log(30) + 40\log(30/3)$	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

According to FCC Part 15.205, Restricted bands

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	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	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			

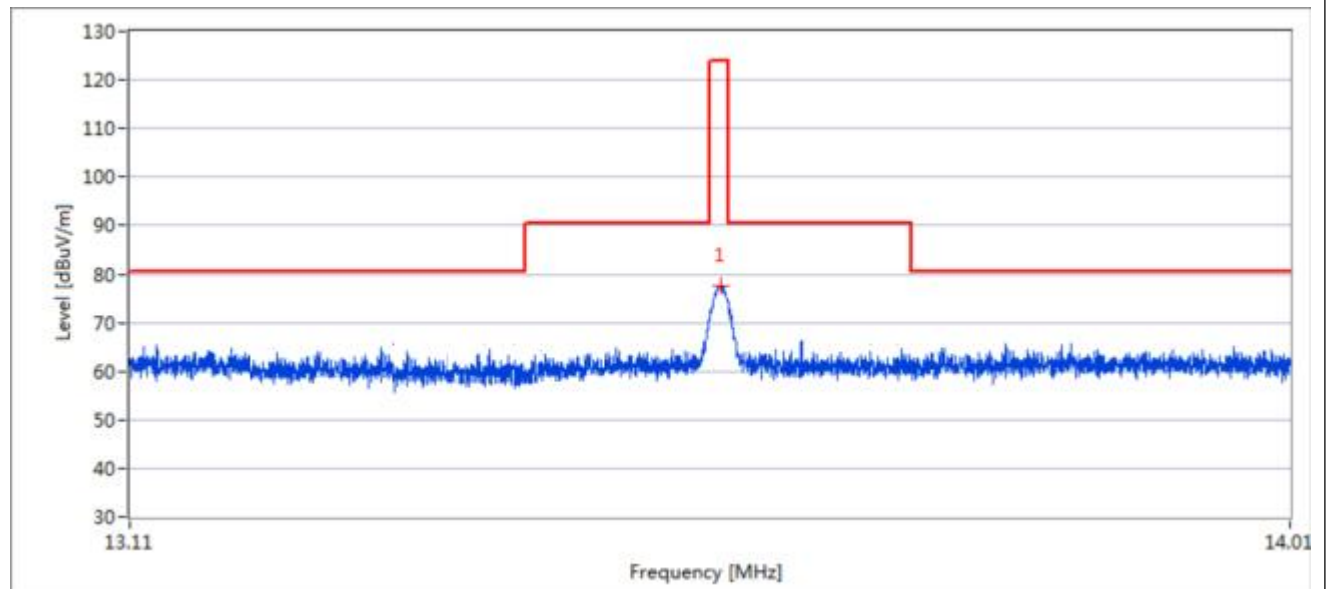
LIMITS OF RADIATED EMISSION MEASUREMENT (FCC 15.225)

- (a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters, equal to 124dBuV/m at 3 meters.
- (b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters, equal to 90.5dBuV/m at 3 meters.
- (c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters, equal to 80.5dBuV/m at 3 meters..
- (d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.

TEST RESULTS (BELOW 30MHz)

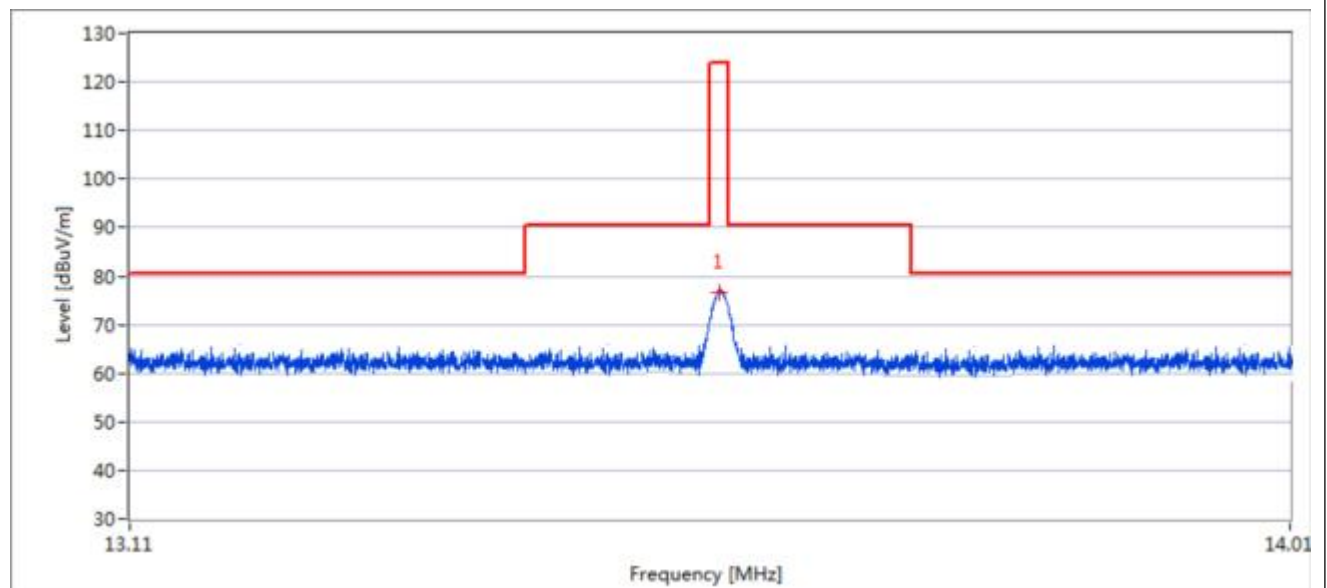
- 1: This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.
- 2: Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.

X

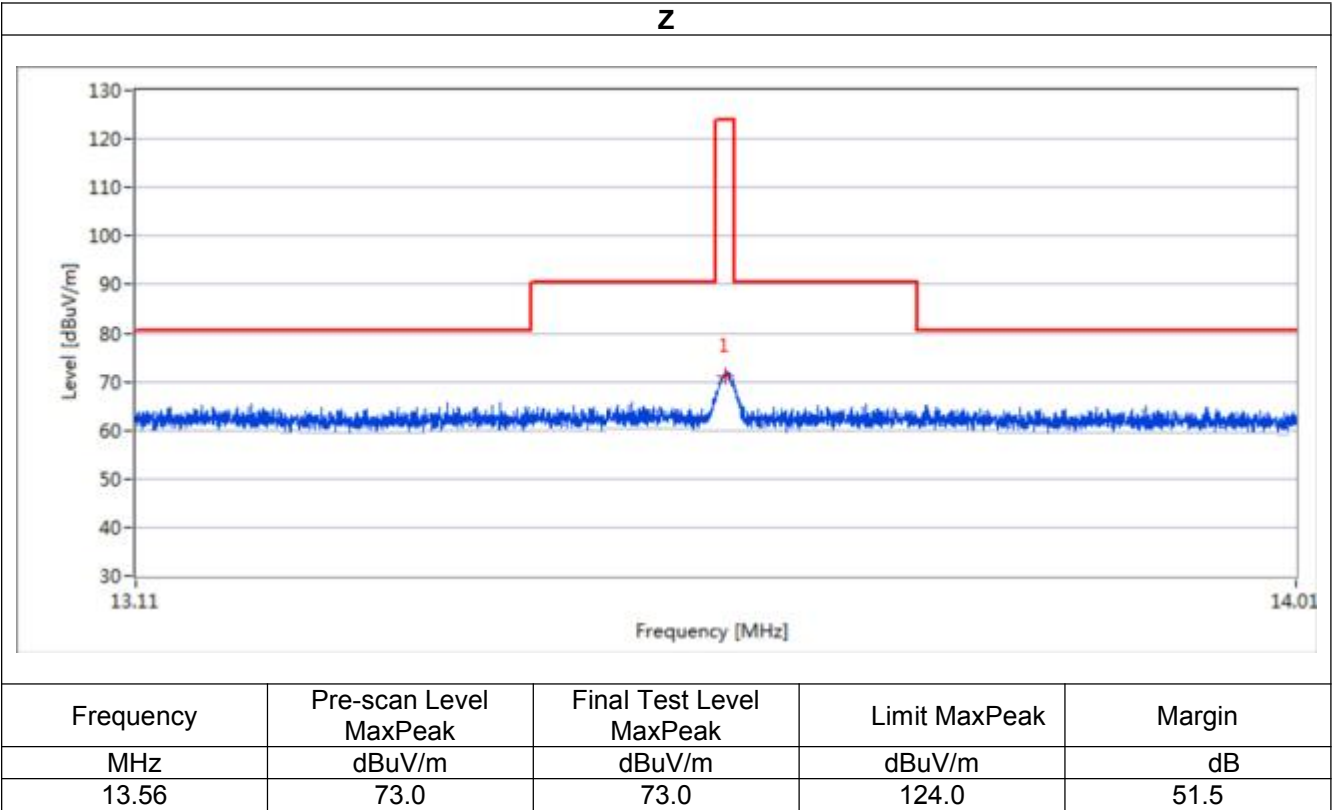


Frequency	Pre-scan Level MaxPeak	Final Test Level MaxPeak	Limit MaxPeak	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
13.56	77.9	77.9	124.0	45.8

Y



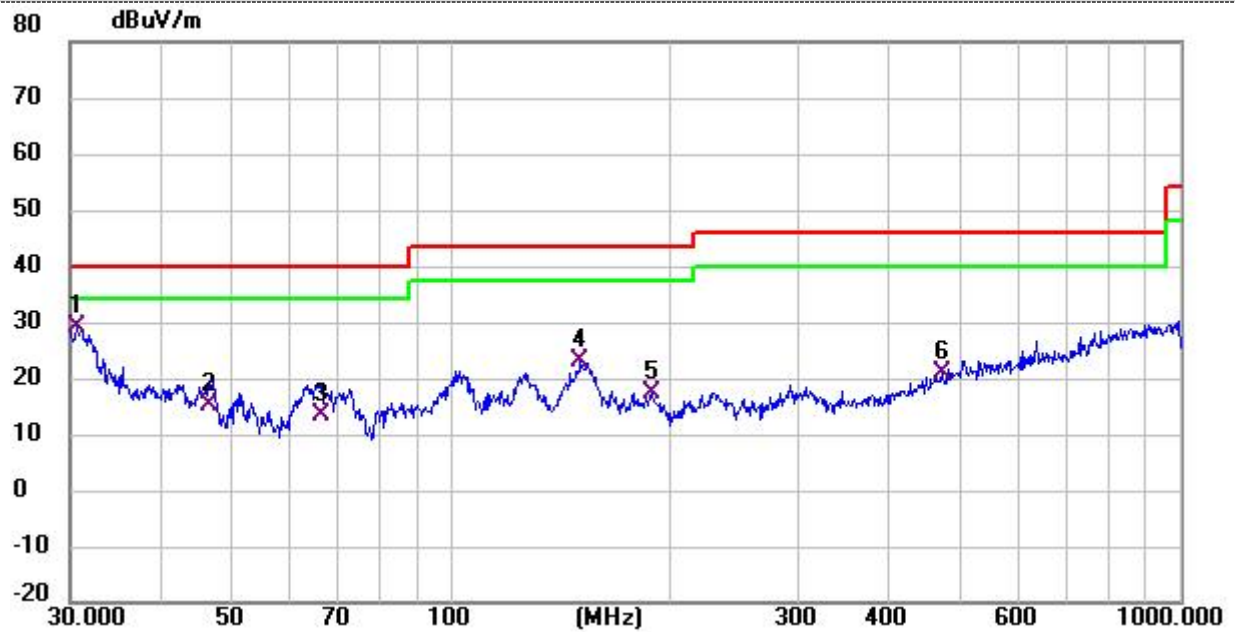
Frequency	Pre-scan Level MaxPeak	Final Test Level MaxPeak	Limit MaxPeak	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
13.56	76.2	76.2	124.0	46.5



For 30MHz-1GHz

Horizontal

Model No.: R900AD02AO1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	30.6800	3.89	25.11	29.00	40.00	-11.00	QP	200	10	P	
2	46.5200	1.32	13.94	15.26	40.00	-24.74	QP	200	100	P	
3	66.4400	2.73	10.54	13.27	40.00	-26.73	QP	200	152	P	
4	151.0000	5.21	17.66	22.87	43.50	-20.63	QP	200	200	P	
5	188.9200	2.61	14.87	17.48	43.50	-26.02	QP	200	300	P	
6	472.4800	-0.69	21.52	20.83	46.00	-25.17	QP	200	350	P	

*:Maximum data x:Over limit !:over margin

Vertical
Model No.: R900AD02AO1

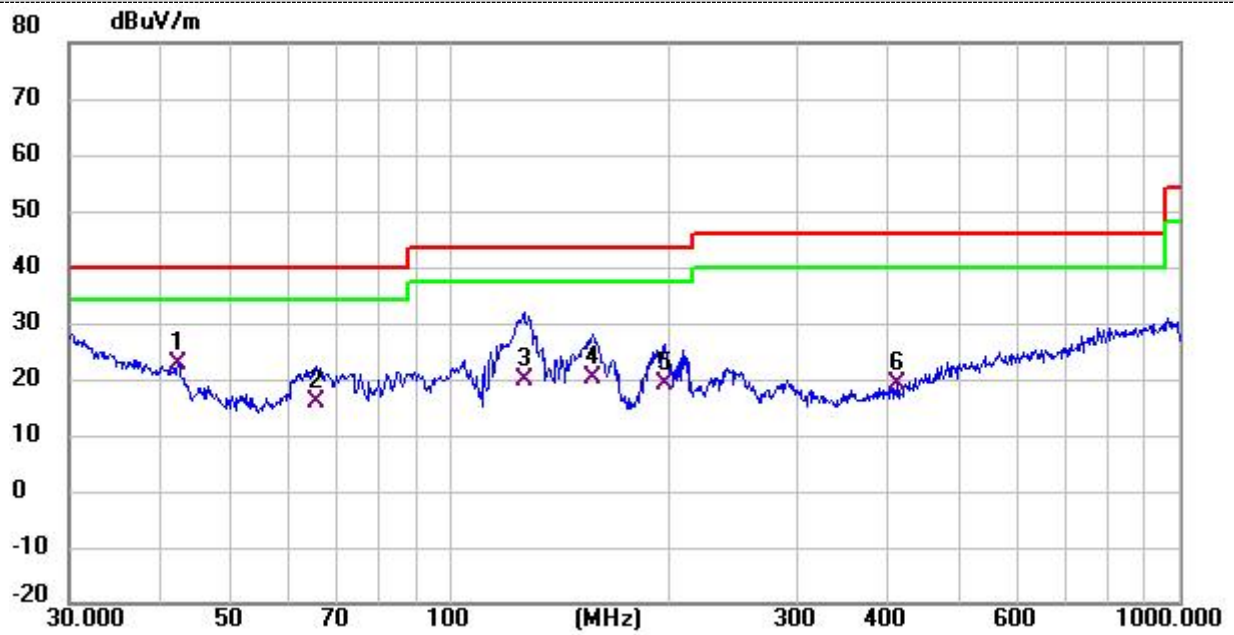


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	63.5200	2.37	10.56	12.93	40.00	-27.07	QP	100	50	P	
2 *	126.3600	6.83	16.04	22.87	43.50	-20.63	QP	100	154	P	
3	197.1200	5.32	15.11	20.43	43.50	-23.07	QP	100	200	P	
4	291.9200	3.95	16.23	20.18	46.00	-25.82	QP	100	250	P	
5	489.2800	0.45	22.24	22.69	46.00	-23.31	QP	100	300	P	
6	603.8800	1.35	23.85	25.20	46.00	-20.80	QP	100	350	P	

*:Maximum data x:Over limit !:over margin

Horizontal

Model No.: R900A02AO1

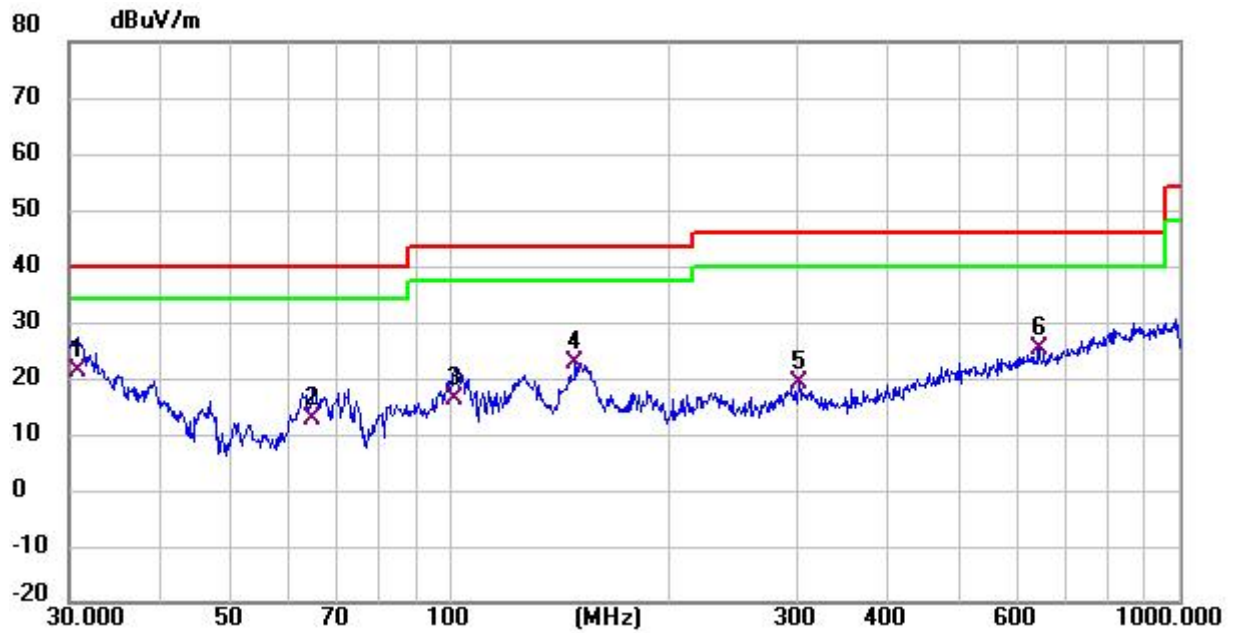


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	42.5200	6.09	16.49	22.58	40.00	-17.42	QP	200	50	P	
2	65.8000	5.32	10.54	15.86	40.00	-24.14	QP	200	100	P	
3	126.5600	3.78	16.04	19.82	43.50	-23.68	QP	200	150	P	
4	157.2400	2.73	17.41	20.14	43.50	-23.36	QP	200	200	P	
5	197.2800	3.99	15.12	19.11	43.50	-24.39	QP	200	250	P	
6	411.9200	0.23	18.91	19.14	46.00	-26.86	QP	200	300	P	

*:Maximum data x:Over limit !:over margin

Vertical

Model No.: R900A02AO1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	31.0400	1.04	20.19	21.23	40.00	-18.77	QP	100	50	P	
2	65.0400	3.64	8.95	12.59	40.00	-27.41	QP	100	100	P	
3	102.0000	2.30	13.82	16.12	43.50	-27.38	QP	100	150	P	
4	148.6000	5.22	17.52	22.74	43.50	-20.76	QP	100	200	P	
5	302.4800	2.50	16.55	19.05	46.00	-26.95	QP	100	300	P	
6	642.8800	0.84	24.36	25.20	46.00	-20.80	QP	100	320	P	

*:Maximum data x:Over limit !:over margin

5.3. 20dB Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

The 20dB bandwidth and 99% bandwidth is measured with a spectrum analyzer connected via a receive antenna placed near the EUT while the EUT is operating in transmission mode.

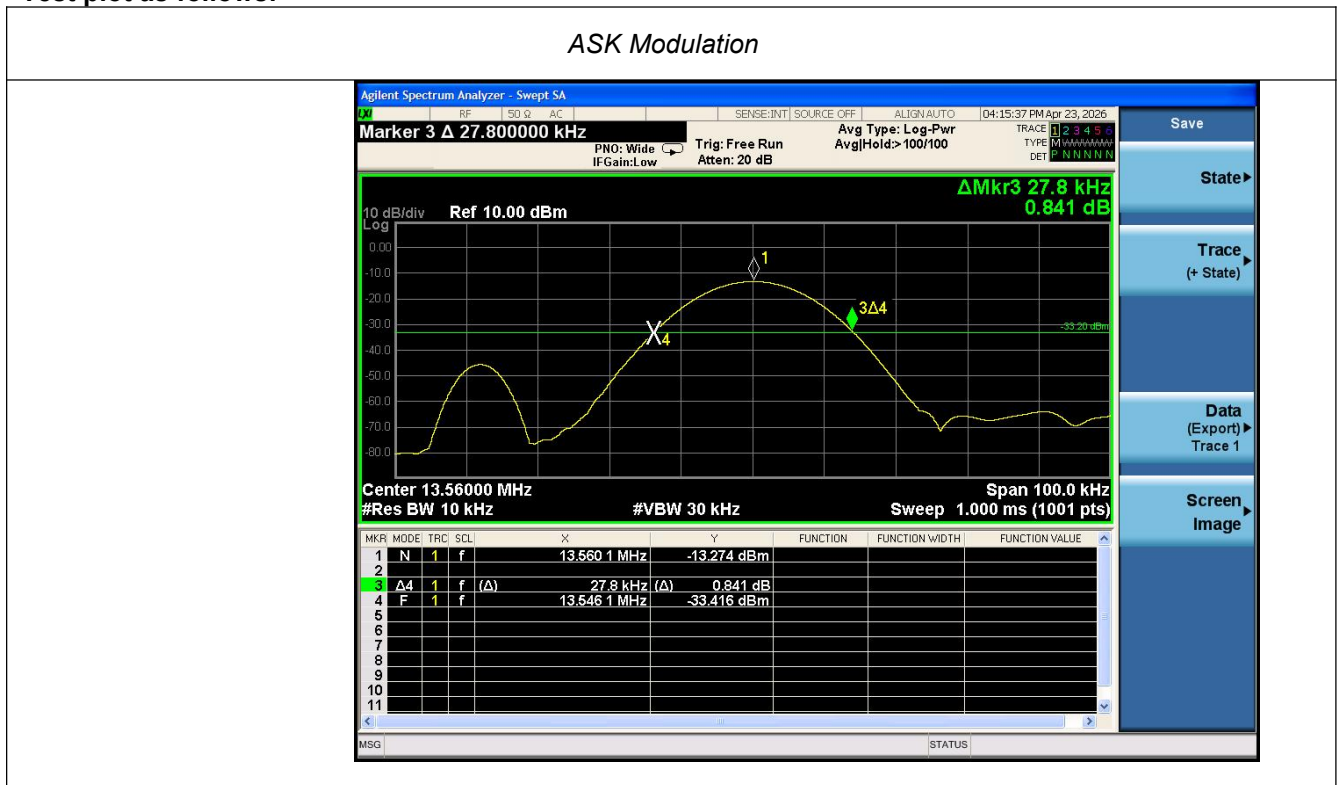
The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

The occupied bandwidth (OBW), that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission

TEST RESULTS

Modulation	Channel Frequency (MHz)	20dB bandwidth (KHz)	Result
ASK	13.56	27.8	Pass

Test plot as follows:



5.4. FREQUENCY TOLERANCE**TEST CONFIGURATION****TEST PROCEDURE**

The EUT was placed on a turn table which is 0.8m above ground plane.

Set EUT as normal operation

Set SPA Center Frequency = fundamental frequency, RBW, VBW= 10kHz, Span=100K

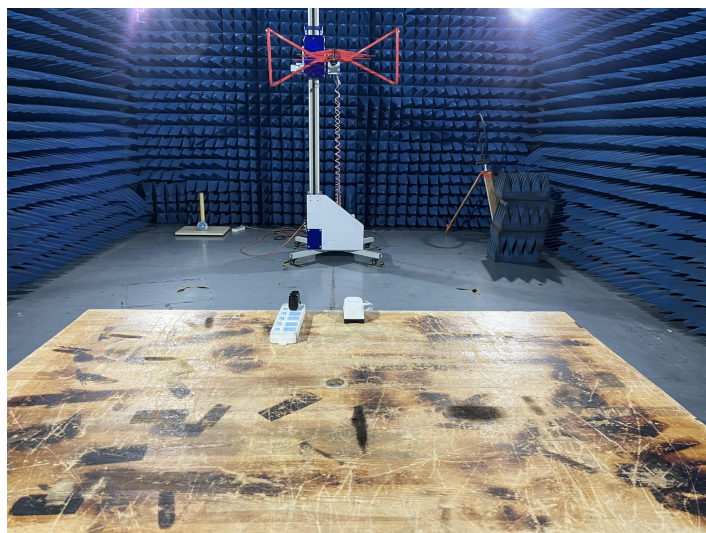
Set SPA Max hold. Mark peak.

TEST RESULTS

Power Supply	Temperature(°C)	Measured Frequency (MHz)	Frequency Error (MHz)	Result(ppm)	Part 15.225 Limit
DC 12V	5	13.560074	0.000073	5.42	+/- 0.01%(100ppm)
	20	13.560027	0.000027	2.02	+/- 0.01%(100ppm)
	40	13.560024	0.000023	1.73	+/- 0.01%(100ppm)
DC 12V	5	13.560057	0.000057	4.21	+/- 0.01%(100ppm)
	20	13.560078	0.000078	5.78	+/- 0.01%(100ppm)
	40	13.560035	0.000035	2.56	+/- 0.01%(100ppm)
DC 12V	5	13.560037	0.000037	2.73	+/- 0.01%(100ppm)
	20	13.560063	0.000063	4.62	+/- 0.01%(100ppm)
	40	13.560026	0.000025	1.88	+/- 0.01%(100ppm)

6. Test Setup Photos of the EUT

R900AD02AO1

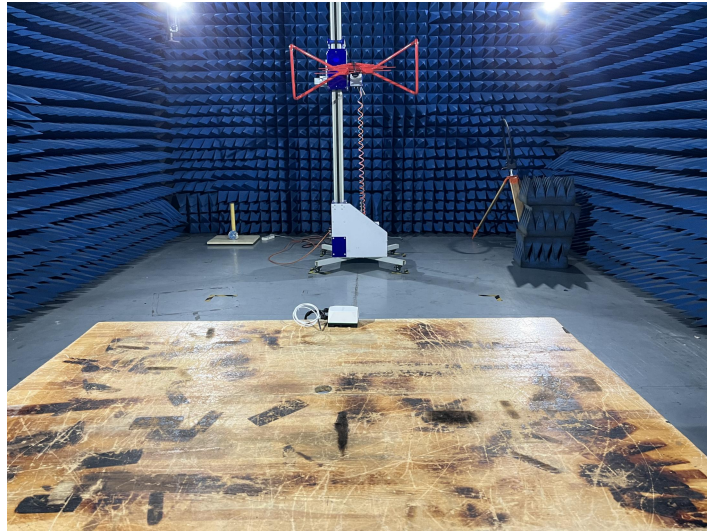


(30M-1G)

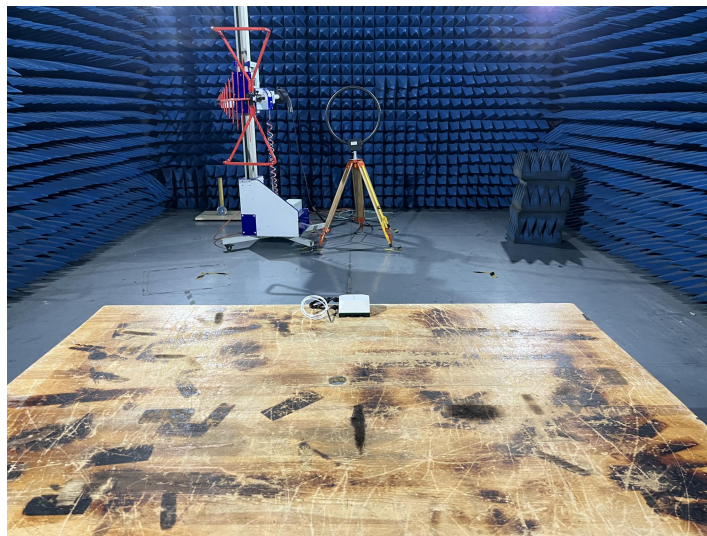


(9k-30M)

R900A02AO1



(30M-1G)



(9k-30M)

7. External and Internal Photos of the EUT

See related photo report.

APPENDIX I

R900A Wireless Sensor Model Naming Description

Format: R900AxyyyzzwHTL

Description of differences among series products: Apart from the differences in power supply methods of batteries and adapters, as well as the main functions distinguished according to the list, all other models are variations of the full-function model with certain individual functions removed.

Meaning of each letter in the naming format:

Field position	Values
Premix	R900A
“x” (power supply method)	“D”, or blank
“yyyy” (Main Sensor Codes)	Refer to the attachment “R900A Main Sensor Codes”
“z” (output or input signal function)	“O”, “I” or blank
“w” (output or input signal count)	“1”, “2”, or blank
“HT” (Temperature and humidity function)	“HT”, or blank
“L” (Light sensing function)	“L”, or blank

R900A Main Sensor Codes (Product name: Wireless Sensor)

Main Sensor Code	Specifications
01	Wireless Temperature and Humidity Sensor
02A	Wireless 1-Gang Temperature Sensor
02B	Wireless 2-Gang Temperature Sensor
03A	Wireless 1-Gang Water Leak Detector - Rope Sensor
03B	Wireless 2-Gang Water Leak Detector - Rope Sensor
03C	Wireless 3-Gang Water Leak Detector - Rope Sensor
03D	Wireless 4-Gang Water Leak Detector - Rope Sensor
03E	Wireless 1-Gang Water Leak (Rope Sensor), Temperature and Humidity Detector
03F	Wireless 2-Gang Water Leak (Rope Sensor), Temperature and Humidity Detector
03G	Wireless 3-Gang Water Leak (Rope Sensor), Temperature and Humidity Detector
03H	Wireless 4-Gang Water Leak (Rope Sensor), Temperature and Humidity Detector
04CKA	Wireless Thermocouple Interface for 1-Gang K Type Thermocouple
04CRA	Wireless Thermocouple Interface for 1-Gang R Type Thermocouple
04CTA	Wireless Thermocouple Interface for 1-Gang T Type Thermocouple
04CNA	Wireless Thermocouple Interface for 1-Gang N Type Thermocouple
04CKB	Wireless Thermocouple Interface for 2-Gang K Type Thermocouple
04CRB	Wireless Thermocouple Interface for 2-Gang R Type Thermocouple
04CTB	Wireless Thermocouple Interface for 2-Gang T Type Thermocouple
04CNB	Wireless Thermocouple Interface for 2-Gang N Type Thermocouple
05A	Wireless Tilt Angle, Accelerometer, and 1-Gang Surface Temperature Sensor
05B	Wireless Tilt Angle, Accelerometer, and 2-Gang Surface Temperature Sensor
05C	Wireless Tilt Angle, Accelerometer, and 3-Gang Surface Temperature Sensor
05D	Wireless Tilt Angle, Accelerometer, and 4-Gang Surface Temperature Sensor
06A	Wireless 1-Gang Water Leak, 1-Gang Surface Temperature, Activity Detection, and Light Sensor
06B	Wireless 1-Gang Water Leak, 2-Gang Surface Temperature, Activity Detection, and Light Sensor

06C	Wireless 1-Gang Water Leak, 3-Gang Surface Temperature, Activity Detection, and Light Sensor
06D	Wireless 1-Gang Water Leak, 4-Gang Temperature, Activity Detection, and Light Sensor
06E	Wireless 2-Gang Water Leak, 1-Gang Surface Temperature, Activity Detection, and Light Sensor
06F	Wireless 2-Gang Water Leak, 2-Gang Surface Temperature, Activity Detection, and Light Sensor
06G	Wireless 2-Gang Water Leak, 3-Gang Surface Temperature, Activity Detection, and Light Sensor
06H	Wireless 2-Gang Water Leak, 4-Gang Surface Temperature, Activity Detection, and Light Sensor
07	Wireless Temperature and Humidity Sensor For Low Temperature Environment
08A	Wireless 1-Gang Vibration Sensor - Rolling Ball Type
08B	Wireless 2-Gang Vibration Sensor - Rolling Ball Type
09A	Wireless 1-Gang Vibration Sensor - Spring Type
09B	Wireless 2-Gang Vibration Sensor - Spring Type
10A	Wireless 1-Gang Reed Switch Open/Close Detection Sensor
10B	Wireless 2-Gang Reed Switch Open/Close Detection Sensor
11A	Wireless 1-Gang Hall Type Open/Close Detection Sensor
11B	Wireless 2-Gang Hall Type Open/Close Detection Sensor
12	Wireless Light Sensor
13A	Wireless 1-input 0-5V ADC Sampling Interface
13B	Wireless 2-input 0-5V ADC Sampling Interface
13C	Wireless 3-input 0-5V ADC Sampling Interface
13D	Wireless 4-input 0-5V ADC Sampling Interface
13E	Wireless 1-input 0-10V ADC Sampling Interface
13F	Wireless 2-input 0-10V ADC Sampling Interface
13G	Wireless 3-input 0-10V ADC Sampling Interface
13H	Wireless 4-input 0-10V ADC Sampling Interface
13I	Wireless 1-input 0-24V ADC Sampling Interface
13J	Wireless 2-input 0-24V ADC Sampling Interface
13K	Wireless 3-input 0-24V ADC Sampling Interface
13L	Wireless 4-input 0-24V ADC Sampling Interface
14A	Wireless 1-input Dry Contact Interface
14B	Wireless 2-input Dry Contact Interface
15	Wireless Asset Sensor
16A	Wireless 1-input Push Button Interface
16B	Wireless 2-Input Push Button Interface
17A	Wireless 1-Gang Water Leak Detector
17B	Wireless 2-Gang Water Leak Detector
17C	Wireless 3-Gang Water Leak Detector
17D	Wireless 4-Gang Water Leak Detector
17E	Wireless 1-Gang Water Leak, Temperature and Humidity Detector
17F	Wireless 2-Gang Water Leak, Temperature and Humidity Detector

17G	Wireless 3-Gang Water Leak, Temperature and Humidity Detector
17H	Wireless 4-Gang Water Leak, Temperature and Humidity Detector
18	Wireless Accelerometer Sensor
19	Wireless Accelerometer and Surface Temperature Sensor
20	Wireless Tilt Angle Sensor
21	Wireless Activity Detection and Temperature Sensor
2201	Wireless Thermocouple Interface for 1-Gang K Type Thermocouple, with 1-Input ADC Sampling Interface
2202	Wireless Thermocouple Interface for 1-Gang R Type Thermocouple, with 1-Input ADC Sampling Interface
2203	Wireless Thermocouple Interface for 1-Gang T Type Thermocouple, with 1-Input ADC Sampling Interface
2204	Wireless Thermocouple Interface for 1-Gang N Type Thermocouple, with 1-Input ADC Sampling Interface
2205	Wireless Thermocouple Interface for 2-Gang K Type Thermocouple, with 1-Input ADC Sampling Interface
2206	Wireless Thermocouple Interface for 2-Gang R Type Thermocouple, with 1-Input ADC Sampling Interface
2207	Wireless Thermocouple Interface for 2-Gang T Type Thermocouple, with 1-Input ADC Sampling Interface
2208	Wireless Thermocouple Interface for 2-Gang N Type Thermocouple, with 1-Input ADC Sampling Interface
2209	Wireless Thermocouple Interface for 1-Gang K Type Thermocouple, with 2-Input ADC Sampling Interface
2210	Wireless Thermocouple Interface for 1-Gang R Type Thermocouple, with 2-Input ADC Sampling Interface
2211	Wireless Thermocouple Interface for 1-Gang T Type Thermocouple, with 2-Input ADC Sampling Interface
2212	Wireless Thermocouple Interface for 1-Gang N Type Thermocouple, with 2-Input ADC Sampling Interface
2213	Wireless Thermocouple Interface for 2-Gang K Type Thermocouple, with 2-Input ADC Sampling Interface
2214	Wireless Thermocouple Interface for 2-Gang R Type Thermocouple, with 2-Input ADC Sampling Interface
2215	Wireless Thermocouple Interface for 2-Gang T Type Thermocouple, with 2-Input ADC Sampling Interface
2216	Wireless Thermocouple Interface for 2-Gang N Type Thermocouple, with 2-Input ADC Sampling Interface
2217	Wireless Thermocouple Interface for 1-Gang K Type Thermocouple, with 3-Input ADC Sampling Interface
2218	Wireless Thermocouple Interface for 1-Gang R Type Thermocouple, with 3-Input ADC Sampling Interface
2219	Wireless Thermocouple Interface for 1-Gang T Type Thermocouple, with 3-Input ADC Sampling Interface
2220	Wireless Thermocouple Interface for 1-Gang N Type Thermocouple, with 3-Input ADC Sampling Interface
2221	Wireless Thermocouple Interface for 2-Gang K Type Thermocouple, with 3-Input ADC Sampling Interface
2222	Wireless Thermocouple Interface for 2-Gang R Type Thermocouple, with 3-Input ADC Sampling Interface
2223	Wireless Thermocouple Interface for 2-Gang T Type Thermocouple, with 3-Input ADC Sampling Interface
2224	Wireless Thermocouple Interface for 2-Gang N Type Thermocouple, with 3-Input ADC Sampling Interface
2225	Wireless Thermocouple Interface for 1-Gang K Type Thermocouple, with 4-Input ADC Sampling Interface
2226	Wireless Thermocouple Interface for 1-Gang R Type Thermocouple, with 4-Input ADC Sampling Interface
2227	Wireless Thermocouple Interface for 1-Gang T Type Thermocouple, with 4-Input ADC Sampling Interface
2228	Wireless Thermocouple Interface for 1-Gang N Type Thermocouple, with 4-Input ADC Sampling Interface
2229	Wireless Thermocouple Interface for 2-Gang K Type Thermocouple, with 4-Input ADC Sampling Interface
2230	Wireless Thermocouple Interface for 2-Gang R Type Thermocouple, with 4-Input ADC Sampling Interface
2231	Wireless Thermocouple Interface for 2-Gang T Type Thermocouple, with 4-Input ADC Sampling Interface
2232	Wireless Thermocouple Interface for 2-Gang N Type Thermocouple, with 4-Input ADC Sampling Interface

Examples:

Model	Interpretation
R900AD03AO1L	Wireless 1-Gang Water Leak Sensor, with 1 x Digital Output and Light Sensing (DC-powered)
R900A03AO1	Wireless 1-Gang Water Leak Sensor, with 1 x Digital Output (Battery-powered)

.....**End of Report**.....