

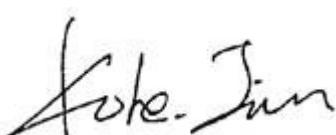
Report No.: GZEM200501228202
Page: 1 of 22
FCC ID: 2AVIA2020UVBOX

TEST REPORT

Application No.: GZEM2005012282CR
Applicant: Samsung Trading (Shanghai) Co., Ltd.
Address of Applicant: China (Shanghai) Pilot Free Trade Zone C Zone the Building of Waigaoqiao Rm.526
Manufacturer: Shenzhen Bifoxs Industrial Design Co., Ltd
Address of Manufacturer: 5#, Jianxing Rd., Luozu Community, Shiyan, Baoan District, Shenzhen, 518108, P.R.China
Factory: Shenzhen Silver Basis Technology Co., Ltd.
Address of Factory: 5#, Jianxing Rd., Luozu Community, Shiyan, Baoan District, Shenzhen, 518108, P.R.China
Equipment Under Test (EUT):
FCC ID: 2AVIA2020UVBOX
EUT Name: IT FIT UV STERILIZER WITH WIRELESS CHARGING
Model No.: GP-TOU020SABWW
Standard(s) : 47 CFR Part 18
Date of Receipt: 2020-05-12
Date of Test: 2020-05-13 to 2020-05-15
Date of Issue: 2020-05-18

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.



Kobe Jian
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2020-05-18		Original

Authorized for issue by:			
Tested By		 Jackson Yuan	2020-05-13 to 2020-05-15
		Jackson_Yuan /Project Engineer	Date
Checked By		 Ricky Liu	2020-05-18
		Ricky_Liu /Reviewer	Date

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2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at Mains Terminals (150kHz-30MHz)	47 CFR Part 18	FCC OST/MP-5:1986	Clause 18.307 (b)	Pass
Radiated Emissions (30MHz-1GHz)	47 CFR Part 18	FCC OST/MP-5:1986	Clause 18.305 (b)	Pass
Radiated Emissions (Magnetic field Strength) (9kHz-30MHz)	47 CFR Part 18	FCC OST/MP-5:1986	Clause 18.305 (b)	Pass

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4 General Information

4.1 Details of E.U.T.

Power Supply:	DC 5/9 V
Test Voltage:	AC 120 V, 60 Hz powered by DC power refer to section 4.2
Cable:	Type C power input ports with unshielded cables (0.5m)
Max Internal Source:	< 108MHz
Operation Frequency:	126.8-147.4 kHz
Antenna Type:	Inductive Loop Coil Antenna
Modulation Type:	Load Modulation

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
AC/DC Adapter	SGS	DC 5/9V	REF. No.SEA0500
Mobile Phone	SAMSUNG	GT-9500	RV1D82X8W9X

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 5.5 \times 10^{-8}$
2	Duty cycle	$\pm 0.57\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF Conducted power	$\pm 0.68\text{dB}$
5	RF Power Density	$\pm 1.50\text{dB}$
6	Conducted Spurious Emissions	$\pm 1.04\text{dB}$
7	RF Radiated Power	$\pm 4.5\text{dB}$ (below 1GHz)
		$\pm 4.8\text{dB}$ (above 1GHz)
8	Radiated Spurious Emission Test	$\pm 4.5\text{dB}$ (30MHz-1GHz)
		$\pm 4.8\text{dB}$ (1GHz-18GHz)
9	Temperature	$\pm 0.4^\circ\text{C}$
10	Humidity	$\pm 1.3\%$
11	Supply Voltages	$\pm 1.5\%$
12	Time	$\pm 3\%$

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District,
Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.



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4.5 Test Facility

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

● NVLAP (Lab Code: 200611-0)

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

● ACMA

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

● SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

● CNAS (Lab Code: L0167)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.

● FCC Recognized 2.948 Listed Test Firm(Registration No.: 282399)

SGS-CSTC Standards Technical Services 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. Registration 282399, May 31, 2002.

● FCC Recognized Accredited Test Firm(Registration No.: 486818)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818, Jul 13, 2017.

● Industry Canada (Registration No.: 4620B, CAB identifier: CN0052)

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

● VCCI (Registration No.: R-12460, C-12584, G-10449 and T-11179)

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-10449 and T-11179 respectively.

● CBTL (Lab Code: TL129)

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2005, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

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4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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5 Equipment List

Conducted Emissions at Mains Terminals (150kHz-30MHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Shielding Room	Zhong Yu	8m x 3m x 3.8m	EMC0306	N/A	N/A
Two-Line V-Netwok	R&S	ENV216	EMC0118	2020-01-10	2021-01-09
LISN	R&S	ENV216	EMC2135	2019-09-16	2020-09-15
EMI Test Receiver	Rohde & Schwarz	ESCS30	EMC0506	2019-11-18	2020-11-17
Coaxial Cable	HangTianXing	2m	EMC0107	2018-09-20	2020-09-19
Voltage Probe	SGS	N/A	EMC0106	2019-05-10	2021-05-09
Conical Metal Housing	SGS-EMC	N/A	EMC0167	2020-04-19	2022-04-18
Test Software E3c	Audix	Ver. 5.4.1221b	GZE100-62	N/A	N/A

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2020-01-10	2021-01-09
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2020-01-10	2021-01-09
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9160	EMC2025	2018-09-06	2021-09-05
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Bi-log Type Antenna	Schaffner -Chase	CBL6143	EMC0519	2020-05-04	2021-05-03
Horn Antenna 1GHz-18GHz	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2018-09-02	2021-09-01
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2020-01-10	2021-01-09
Amplifier	HP	8447F	EMC2065	2019-05-29	2020-05-28
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2019-11-18	2020-11-17
Active Loop Antenna	EMCO	6502	EMC0523	2019-12-27	2021-12-26
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2020-01-10	2021-01-09
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2020-01-10	2021-01-09
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2017-12-19	2020-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2019-11-18	2020-11-17
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2019-11-18	2020-11-17
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

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Radiated Emissions (Magnetic field Strength) (9kHz-30MHz)

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2020-01-10	2021-01-09
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2020-01-10	2021-01-09
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9160	EMC2025	2018-09-06	2021-09-05
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Bi-log Type Antenna	Schaffner -Chase	CBL6143	EMC0519	2020-05-04	2021-05-03
Horn Antenna 1GHz-18GHz	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2018-09-02	2021-09-01
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2020-01-10	2021-01-09
Amplifier	HP	8447F	EMC2065	2019-05-29	2020-05-28
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2019-11-18	2020-11-17
Active Loop Antenna	EMCO	6502	EMC0523	2019-12-27	2021-12-26
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2020-01-10	2021-01-09
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2020-01-10	2021-01-09
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2017-12-19	2020-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2019-11-18	2020-11-17
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2019-11-18	2020-11-17
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

General used equipment

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2019-07-16	2020-07-15
DMM	Fluke	73	EMC0007	2019-07-16	2020-07-15

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6 Emission Test Results

6.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)

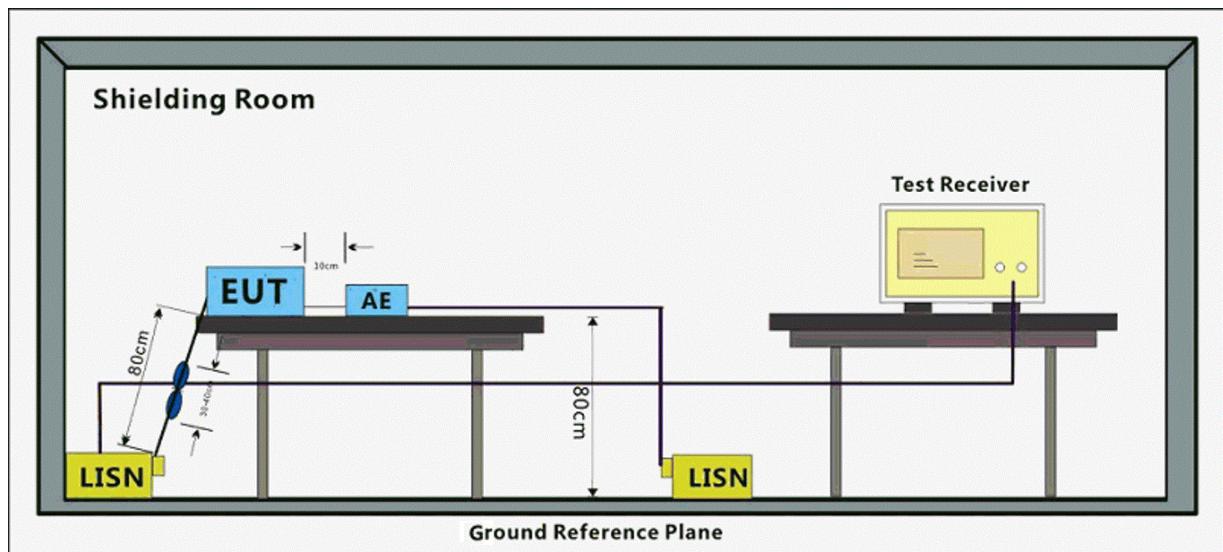
Test Requirement:	47 CFR Part 18
Test Method:	FCC OST/MP-5:1986
Frequency Range:	150kHz to 30MHz
Limit:	
0.15M-0.5MHz	66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average
0.5M-5MHz	56dB(μV) quasi-peak, 46dB(μV) average
5M-30MHz	60dB(μV) quasi-peak, 50dB(μV) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 28.2 °C Humidity: 64.7 % RH Atmospheric Pressure: 1020 mbar
Test mode b: Charge mode_Keep the EUT charging

6.1.2 Test Setup Diagram



6.1.3 Measurement Data

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

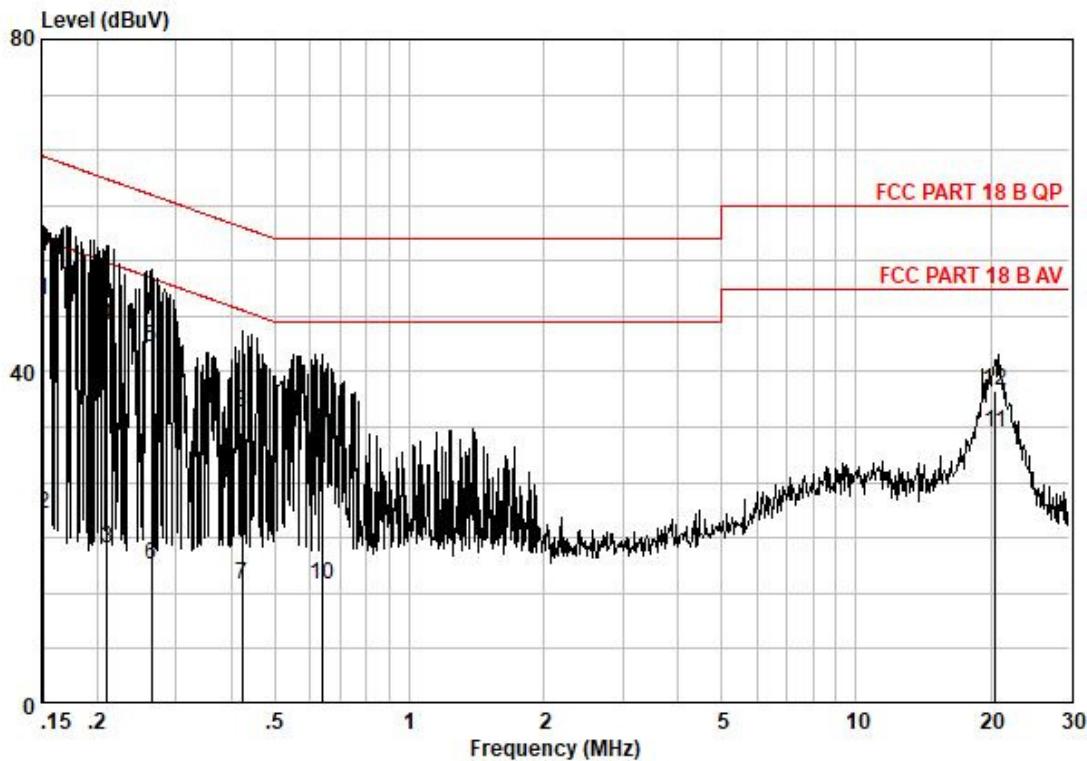
Measured Level = Read level + Cable Loss + LISN Factor

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Mode:b; Line:Live Line



Pol :LIVE
No :
Model :

Frequency MHz	read level dBuV	Cable Loss dB	LISN dB	Measured level dBuV	Limit Line dBuV	Over limit dB	Remark
0.15	38.86	0.10	9.67	48.63	65.91	-17.28	QP
0.15	13.08	0.10	9.67	22.85	55.91	-33.06	AVERAGE
0.21	8.99	0.10	9.66	18.75	53.18	-34.43	AVERAGE
0.21	35.71	0.10	9.66	45.47	63.18	-17.71	QP
0.26	33.20	0.10	9.67	42.97	61.29	-18.32	QP
0.26	7.07	0.10	9.67	16.84	51.29	-34.45	AVERAGE
0.42	4.63	0.10	9.66	14.39	47.42	-33.03	AVERAGE
0.42	25.37	0.10	9.66	35.13	57.42	-22.29	QP
0.64	22.55	0.10	9.67	32.32	56.00	-23.68	QP
0.64	4.63	0.10	9.67	14.40	46.00	-31.60	AVERAGE
20.49	22.56	0.40	9.83	32.79	50.00	-17.21	AVERAGE
20.49	27.39	0.40	9.83	37.62	60.00	-22.38	QP

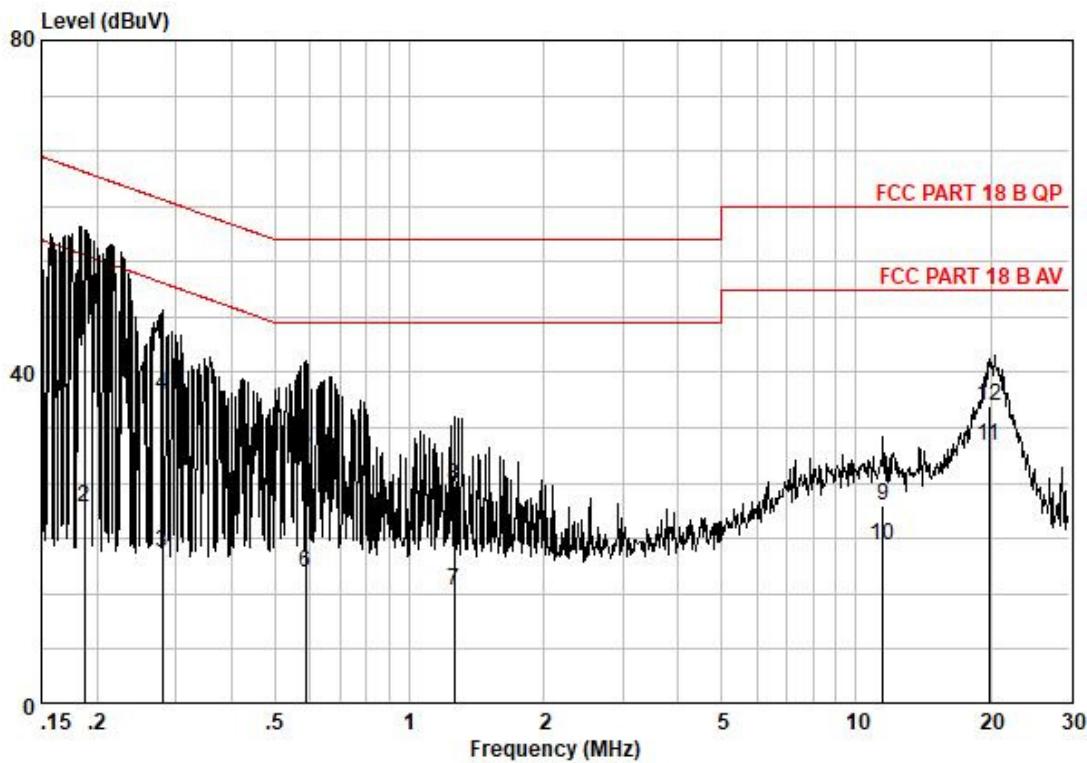
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Mode:b; Line:Neutral Line



Pol : NEUTRAL
No :
Model :

Frequency MHz	read level dBuV	Cable Loss dB	LISN dB	Measured level dBuV	Limit Line dBuV	Over limit dB	Remark
0.19	36.38	0.10	9.60	46.08	64.15	-18.07	QP
0.19	14.11	0.10	9.60	23.81	54.15	-30.34	AVERAGE
0.28	8.72	0.10	9.59	18.41	50.81	-32.40	AVERAGE
0.28	27.67	0.10	9.59	37.36	60.81	-23.45	QP
0.59	20.81	0.10	9.60	30.51	56.00	-25.49	QP
0.59	6.18	0.10	9.60	15.88	46.00	-30.12	AVERAGE
1.26	4.11	0.10	9.61	13.82	46.00	-32.18	AVERAGE
1.26	16.77	0.10	9.61	26.48	56.00	-29.52	QP
11.50	13.87	0.30	9.76	23.93	60.00	-36.07	QP
11.50	9.20	0.30	9.76	19.26	50.00	-30.74	AVERAGE
19.84	20.86	0.40	9.96	31.22	50.00	-18.78	AVERAGE
19.84	25.53	0.40	9.96	35.89	60.00	-24.11	QP



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6.2 Radiated Emissions (30MHz-1GHz)

Test Requirement: 47 CFR Part 18
 Test Method: FCC OST/MP-5:1986
 Frequency Range: 30MHz to 1GHz
 Measurement Distance: 3m
 Limit:

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous).	Any ISM frequency	Below 500	25	300
		500 or more	$25 \times \text{SQRT}(\text{power}/500)$	300 (1)
	Any non-ISM frequency	Below 500	15	300
		500 or more	$15 \times \text{SQRT}(\text{power}/500)$	300 (1)
Industrial heaters and RF stabilized arc	On or below 5,725 MHz	Any	10	1,600
welders.	Above 5,725 MHz	Any	(2)	(2)
Medical diathermy	Any ISM frequency	Any	25	300
	Any non-ISM frequency	Any	15	300
Ultrasonic	Below 490 kHz	Below 500	2,400/F(kHz)	300
		500 or more	$2,400/F(\text{kHz}) \times \text{SQRT}(\text{power}/500)$	300 (3)
Induction cooking ranges	490 to 1,600 kHz	Any	$24,000/F(\text{kHz})$	30
	Above 1,600 kHz	Any	15	30
	Below 90 kHz	Any	1,500	30 (4)
	On or above 90 kHz	Any	300	30 (4)

(1) Field strength may not exceed 10 $\mu\text{V}/\text{m}$ at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

(2) Reduced to the greatest extent possible.

(3) Field strength may not exceed 10 $\mu\text{V}/\text{m}$ at 1600 meters. Consumer equipment is not permitted the increase in field strength

(4) otherwise permitted here for over 500 watts.

Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.

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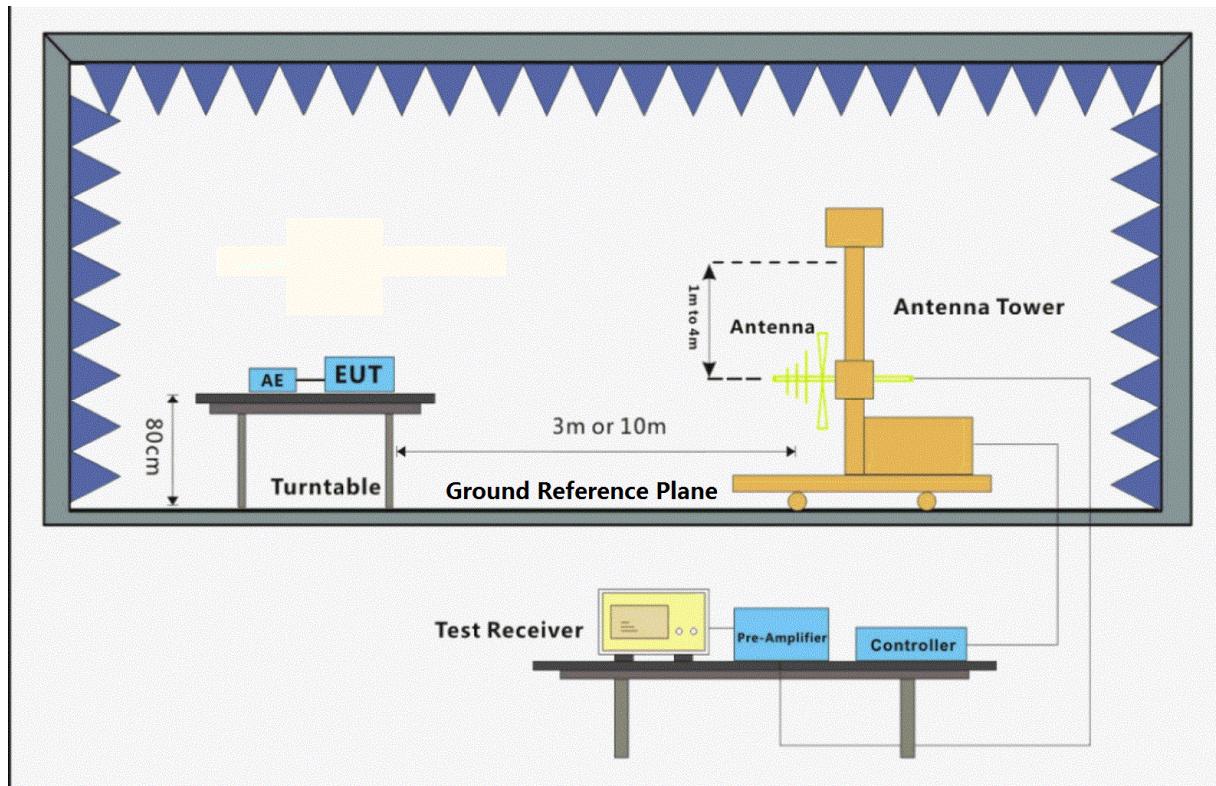
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6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 54 % RH Atmospheric Pressure: 1020 mbar
 Test mode b: Charge mode_Keep the EUT charging

6.2.2 Test Setup Diagram



6.2.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Remark:

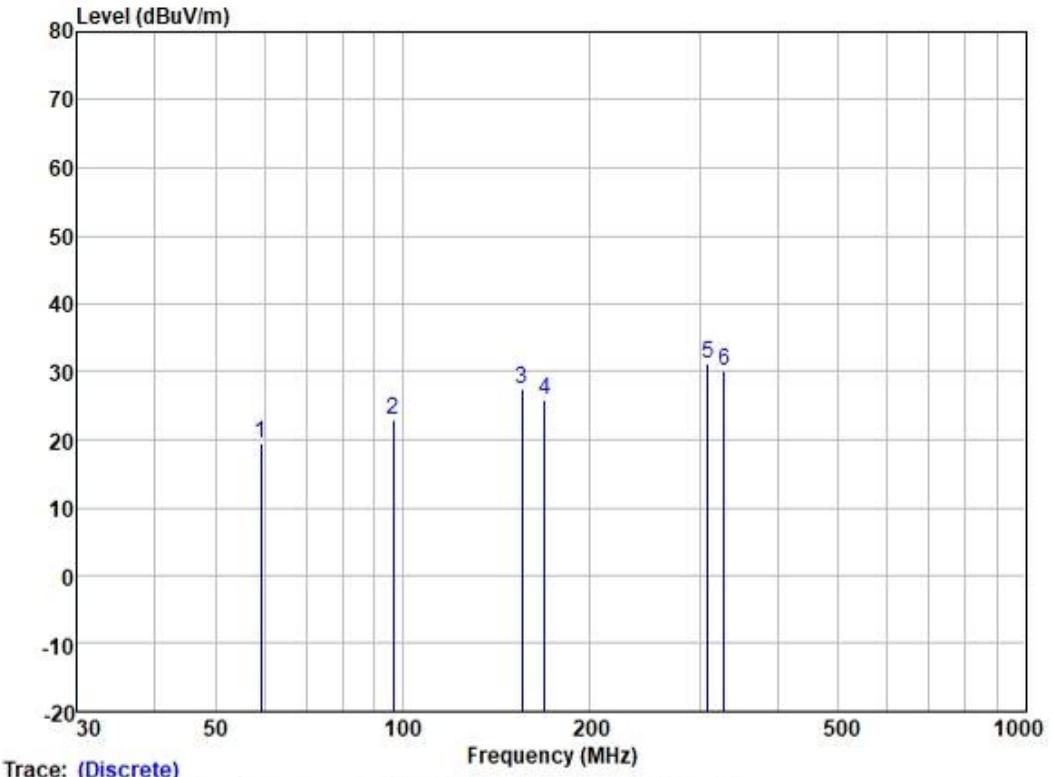
- 1 This product belongs to any non-ISM frequency equipment, the field strength limit is 15uV/m (23.52 dBuV/m=20log(15uV/m)) at 300 meter
- 2 Convert Factor=20log(300/3)=40 dB.

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Mode:b; Polarization:Horizontal



Wavelength (Discrete)		ReadAntenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	59.232	31.87	13.48	1.32	27.16	19.51	-----	-----	HORIZONTAL Average
2	96.436	39.73	8.63	1.61	27.10	22.87	-----	-----	HORIZONTAL Average
3	155.364	38.59	13.72	2.10	26.86	27.55	-----	-----	HORIZONTAL Average
4	169.005	37.38	13.20	2.23	26.83	25.98	-----	-----	HORIZONTAL Average
5	308.913	41.64	13.85	2.99	27.30	31.18	-----	-----	HORIZONTAL Average
6	327.887	40.28	14.45	3.02	27.58	30.17	-----	-----	HORIZONTAL Average

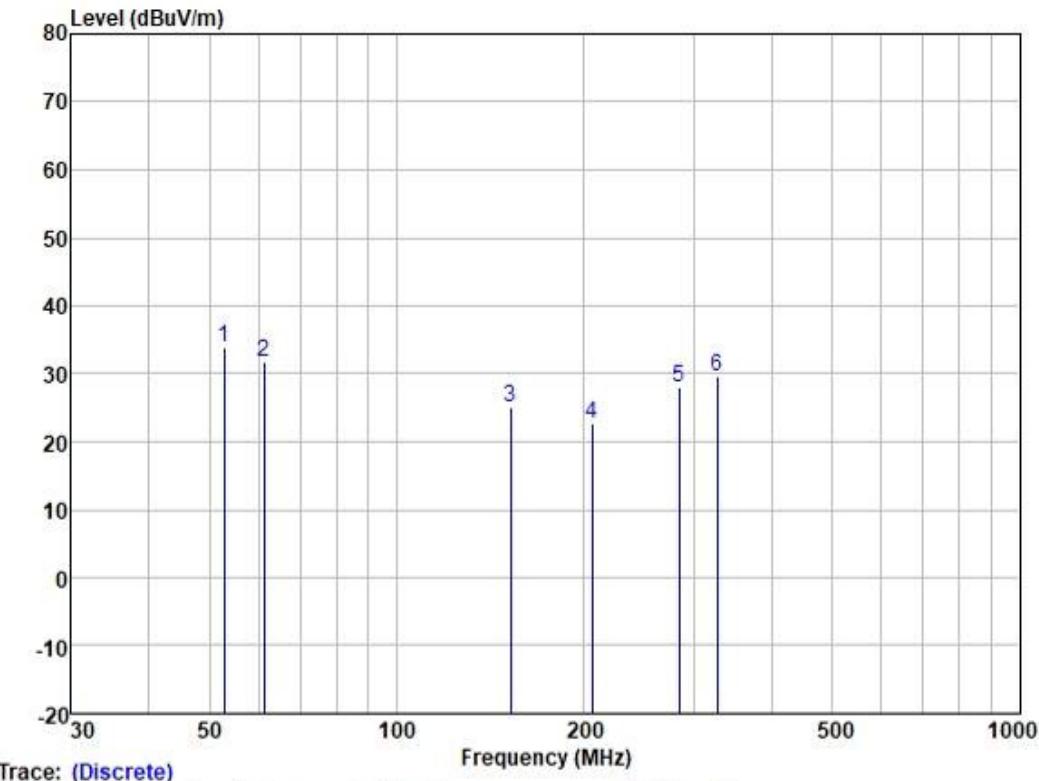
Frequency (MHz)	Level (dBuV/m) @3m	Limit @30m	Limit (dBuV/m) @300m	Convert Factor (dB)	Level @ 30m	Level (dBuV/m) @ 300m	Over limit (dB)
59.232	19.51	-	23.52	40	-	-20.49	-44.01
96.436	22.87	-	23.52	40	-	-17.13	-40.65
155.364	27.55	-	23.52	40	-	-12.45	-35.97
169.005	25.98	-	23.52	40	-	-14.02	-37.54
308.913	31.18	-	23.52	40	-	-8.82	-32.34
327.887	30.17	-	23.52	40	-	-9.83	-33.35

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Mode:a; Polarization:Vertical



Trace: (Discrete)

Freq	Read	Antenna	Cable	Preamp	Limit	Over	Pol/Phase	Remark
	Freq	Level	Factor	Loss	Factor	Level	Line	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	52.690	45.80	13.92	1.24	27.17	33.79	-----	----- VERTICAL Average
2	61.214	44.31	13.21	1.32	27.16	31.68	-----	----- VERTICAL Average
3	152.130	36.04	13.80	2.07	26.87	25.04	-----	----- VERTICAL Average
4	205.675	37.02	9.80	2.53	26.80	22.55	-----	----- VERTICAL Average
5	283.979	38.94	13.28	2.85	27.09	27.98	-----	----- VERTICAL Average
6	326.740	39.75	14.43	3.02	27.57	29.63	-----	----- VERTICAL Average

Frequency (MHz)	Level (dBuV/m) @3m	Limit @30m	Limit (dBuV/m) @300m	Convert Factor (dB)	Level @ 30m	Level (dBuV/m) @ 300m	Over limit (dB)
52.690	33.79	-	23.52	40	-	-6.21	-29.73
61.214	31.68	-	23.52	40	-	-8.32	-31.84
152.130	25.04	-	23.52	40	-	-14.96	-38.48
205.675	22.55	-	23.52	40	-	-17.45	-40.97
283.979	27.98	-	23.52	40	-	-12.02	-35.54
326.740	29.63	-	23.52	40	-	-10.37	-33.89

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6.3 Radiated Emissions (Magnetic field Strength) (9kHz-30MHz)

Test Requirement: 47 CFR Part 18

Test Method: FCC OST/MP-5:1986

Frequency Range: 9kHz to 30MHz

Measurement Distance: 10m

Limit:

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous).	Any ISM frequency	Below 500	25	300
		500 or more	$25 \times \text{SQRT}(\text{power}/500)$	300 (1)
	Any non-ISM frequency	Below 500	15	300
		500 or more	$15 \times \text{SQRT}(\text{power}/500)$	300 (1)
Industrial heaters and RF stabilized arc welders.	On or below 5,725 MHz	Any	10	1,600
Medical diathermy	Above 5,725 MHz	Any	(2)	(2)
	Any ISM frequency	Any	25	300
	Any non-ISM frequency	Any	15	300
Ultrasonic	Below 490 kHz	Below 500	$2,400/\text{F(kHz)}$	300
		500 or more	$2,400/\text{F(kHz)} \times \text{SQRT}(\text{power}/500)$	300 (3)
		490 to 1,600 kHz	$24,000/\text{F(kHz)}$	30
	Above 1,600 kHz	Any	15	30
	Below 90 kHz	Any	1,500	30 (4)
Induction cooking ranges	On or above 90 kHz	Any	300	30 (4)

(1) Field strength may not exceed 10 μ V/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

(2) Reduced to the greatest extent possible.

(3) Field strength may not exceed 10 $\mu\text{V/m}$ at 1600 meters. Consumer equipment is not permitted the increase in field strength

(4) otherwise permitted here for over 500 watts.

Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.

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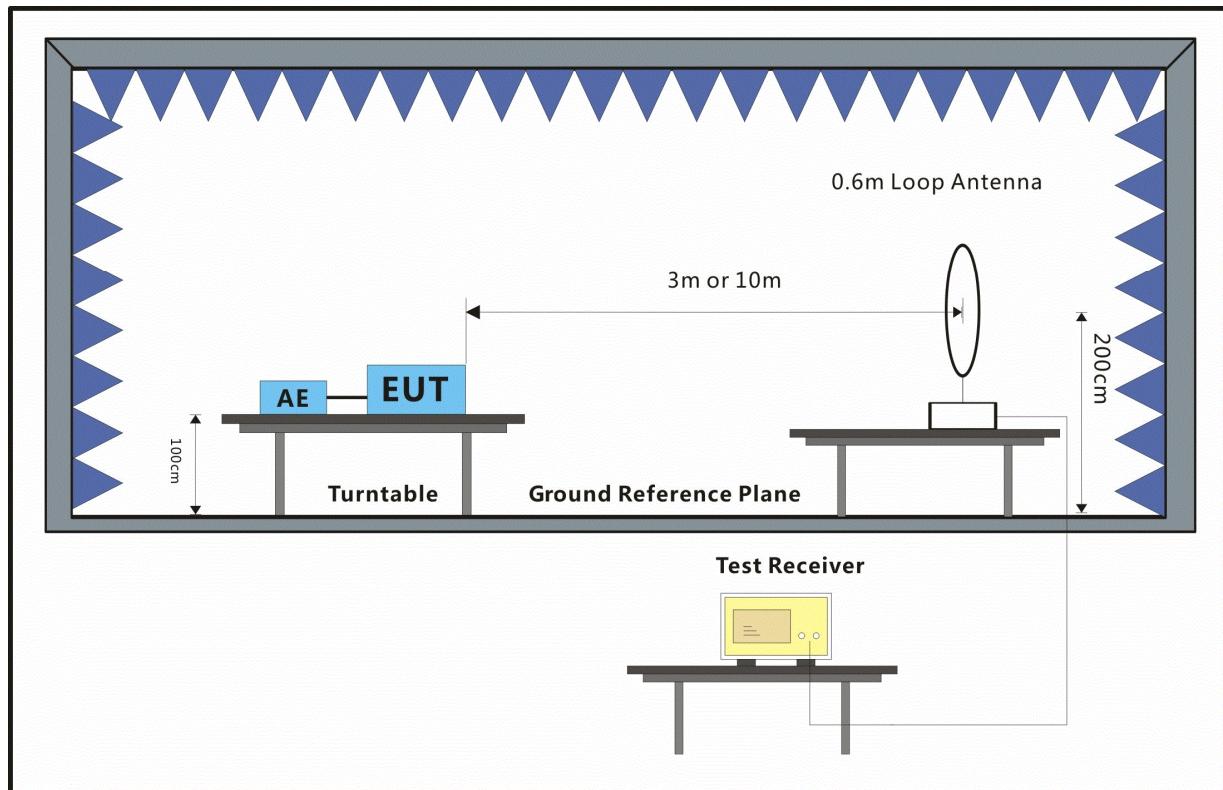


6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 54 % RH Atmospheric Pressure: 1020 mbar
 Test mode a: Charge mode_Keep the EUT charging

6.3.2 Test Setup Diagram



6.3.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Remark:

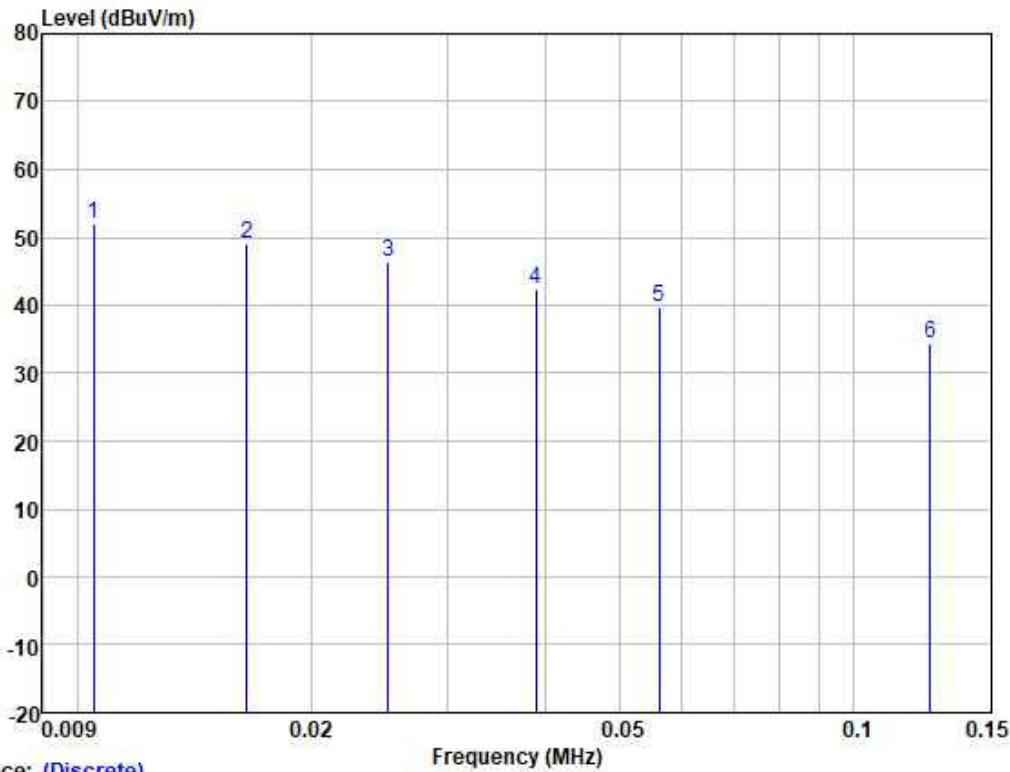
- 1 This product belongs to any non-ISM frequency equipment, the field strength limit is 15uV/m (23.52 dBuV/m=20log(15uV/m)) at 300 meter
- 2 Convert Factor=20log(300/10)=29.54 dB.

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Mode:a; Polarization:Horizontal for 9kHz to 150kHz



1	0.010	58.66	21.41	0.00	28.07	52.00	-----	-----	HORIZONTAL	Average
	0.017	60.14	17.16	0.00	28.21	49.09	-----	-----	HORIZONTAL	Average
2	0.025	59.16	15.63	0.00	28.46	46.33	-----	-----	HORIZONTAL	Average
3	0.039	58.54	13.08	0.00	29.12	42.50	-----	-----	HORIZONTAL	Average
4	0.056	56.64	12.48	0.00	29.31	39.81	-----	-----	HORIZONTAL	Average
5	0.125	51.44	12.40	0.00	29.45	34.39	-----	-----	HORIZONTAL	Average

Frequency (MHz)	Level (dBuV/m) @10m	Limit @30m	Limit (dBuV/m) @300m	Convert Factor (dB)	Level @ 30m	Level (dBuV/m) @ 300m	Over limit (dB)
0.010	52.00	-	23.52	29.54	-	22.46	-1.06
0.017	49.09	-	23.52	29.54	-	19.55	-3.97
0.025	46.33	-	23.52	29.54	-	16.79	-6.73
0.039	42.50	-	23.52	29.54	-	12.96	-10.56
0.056	39.81	-	23.52	29.54	-	10.27	-13.25
0.125	34.39	-	23.52	29.54	-	4.85	-18.67

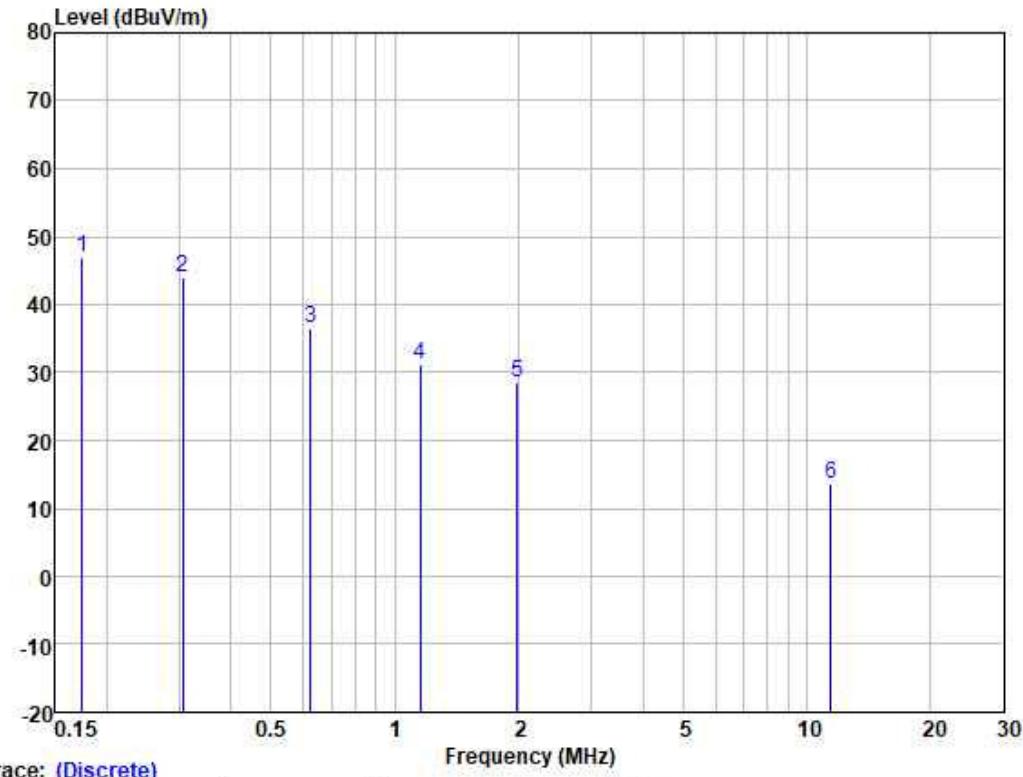
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Mode:a; Polarization:Horizontal for 150kHz to 30MHz



Trace: (Discrete)	Read	Antenna	Cable	Preamp	Limit	Over	Remark		
	Freq	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.174	64.04	12.38	0.00	29.43	46.99	-----	-----	HORIZONTAL Average
2	0.305	61.08	12.26	0.10	29.42	44.02	-----	-----	HORIZONTAL Average
3	0.624	53.76	12.16	0.10	29.40	36.62	-----	-----	HORIZONTAL Average
4	1.153	48.19	12.33	0.10	29.38	31.24	-----	-----	HORIZONTAL Average
5	1.980	45.08	12.60	0.10	29.36	28.42	-----	-----	HORIZONTAL Average
6	11.438	31.97	10.65	0.34	29.28	13.68	-----	-----	HORIZONTAL Average

Frequency (MHz)	Level (dBuV/m) @10m	Limit @30m	Limit (dBuV/m) @300m	Convert Factor (dB)	Level @ 30m	Level (dBuV/m) @ 300m	Over limit (dB)
0.174	46.99	-	23.52	29.54	-	17.45	-6.07
0.305	44.02	-	23.52	29.54	-	14.48	-9.04
0.624	36.62	-	23.52	29.54	-	7.08	-16.44
1.153	31.24	-	23.52	29.54	-	1.7	-21.82
1.980	28.42	-	23.52	29.54	-	-1.12	-24.64
11.438	13.68	-	23.52	29.54	-	-15.86	-39.38

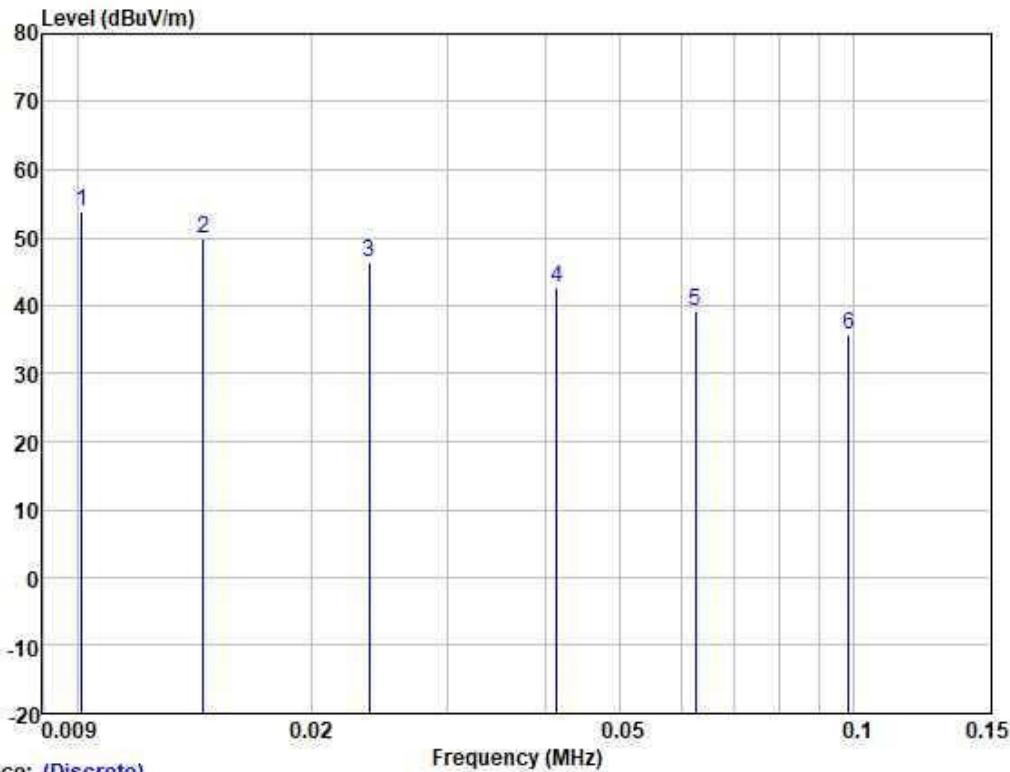
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Mode:a; Polarization:Vertical for 9kHz to 150kHz



1	0.010	58.38	21.54	0.00	28.07	51.85	-----	-----	VERTICAL	Average
2	0.015	59.68	18.47	0.00	28.16	49.99	-----	-----	VERTICAL	Average
3	0.024	59.01	15.80	0.00	28.41	46.40	-----	-----	VERTICAL	Average
4	0.041	58.99	12.91	0.00	29.16	42.74	-----	-----	VERTICAL	Average
5	0.063	56.05	12.44	0.00	29.34	39.15	-----	-----	VERTICAL	Average
6	0.098	52.77	12.40	0.00	29.46	35.71	-----	-----	VERTICAL	Average

Frequency (MHz)	Level (dBuV/m) @10m	Limit @30m	Limit (dBuV/m) @300m	Convert Factor (dB)	Level @ 30m	Level (dBuV/m) @ 300m	Over limit (dB)
0.010	51.85	-	23.52	29.54	-	22.31	-1.21
0.015	49.99	-	23.52	29.54	-	20.45	-3.07
0.024	46.40	-	23.52	29.54	-	16.86	-6.66
0.041	42.74	-	23.52	29.54	-	13.2	-10.32
0.063	39.15	-	23.52	29.54	-	9.61	-13.91
0.098	35.71	-	23.52	29.54	-	6.17	-17.35

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