

FCC Test Report

FCC ID:2BFNI-CCB007AA

Report No. : TBR-C-202402-0079-31
Applicant : Sun Cupid Industries Ltd.
Equipment Under Test (EUT)
EUT Name : Milktea Machine
Model No. : CCB007AA
Series Model No. : ----
Brand Name : Chime
Sample ID : HC-C-202402-0079-01-01#
Receipt Date : 2024-03-28
Test Date : 2024-03-28 to 2024-04-15
Issue Date : 2024-04-15
Standards : FCC Part 18
Conclusions : **PASS**

In the configuration tested, the EUT complied with the standards specified above.

Tested By : Zkn Zhou

Reviewed By : Camille Li

Approved By : Ivan Su



This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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Revision History

Report No.	Version	Description	Issued Date
TBR-C-202402-0079-31	Rev.01	Initial issue of report	2024-04-15

1. General Information about EUT

1.1 Client Information

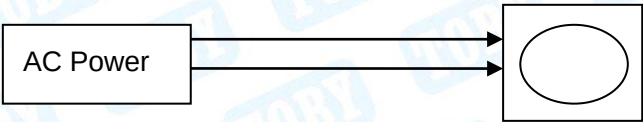
Applicant	:	Sun Cupid Industries Ltd.
Address	:	16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong China
Manufacturer	:	Shenzhen Sun Cupid Industries Ltd. Longgang Branch
Address	:	No. 7, Gao Ke Blvd., Bao Long Sub-district, Long Gang District, Shen Zhen, Guang Dong, China.

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Milktea Machine
Models No.	:	CCB007AA
Model Different	:	----
Product Description	:	Operation Frequency: 29KHz
Power Rating	:	Input: AC120V, 60Hz
Software Version	:	EB-5.04
Hardware Version	:	-----
(1) Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.		

1.3 Block Diagram Showing the Configuration of System Tested

Working



1.4 Description of Support Units

Equipment Information				
Name	Model	FCC ID/SDOC	Manufacturer	Used “√”
----	----	----	----	----
Cable Information				
Number	Shielded Type	Ferrite Core	Length	Note
----	----	----	----	----

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

Final Test Mode	Description
Mode 1	AC Power + EUT

The EUT system operated these modes were found to be the worst case during the pre-scanning test as Following:

For Conducted Test	
Final Test Mode	Description
Mode 1	AC Power + EUT
For Radiated Test	
Final Test Mode	Description
Mode 1	AC Power + EUT

1.6 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U_{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz 150kHz to 30MHz	± 3.50 dB ± 3.10 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	± 4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	± 4.50 dB
Radiated Emission	Level Accuracy: Above 1000MHz	± 4.20 dB

1.7 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F., Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

IC Registration No.: (11950A)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.

2. Test Summary

Standard Section	Test Item	Test Method	Judgment
18.305	Radiated Emission (9KHz to 1GHz)	FCC OST/MP-5:1986	PASS
18.307(a)	Conducted Emission (150KHz to 30MHz)	FCC OST/MP-5:1986	PASS
Note: N/A is an abbreviation for Not Applicable.			

3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Conducted Emission	EZ-EMC	EZ	CDI-03A2
Radiation Emission	EZ-EMC	EZ	FA-03A2RE
RF Conducted Measurement	MTS-8310	MWRFtest	V2.0.0.0
RF Test System	JS1120	Tonscend	V2.6.88.0336

4. Test Equipment and Test Site

Test Site				
No.	Test Site	Manufacturer	Specification	Used
TB-EMCSR001	Shielding Chamber #1	YIHENG	7.5*4.0*3.0 (m)	√
TB-EMCSR002	Shielding Chamber #2	YIHENG	8.0*4.0*3.0 (m)	√
TB-EMCCA001	3m Anechoic Chamber #A	ETS	9.0*6.0*6.0 (m)	√
TB-EMCCB002	3m Anechoic Chamber #B	YIHENG	9.0*6.0*6.0 (m)	√

Radiation Emission Test (A Site)					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 20, 2023	Jun. 19, 2024
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jun. 20, 2023	Jun. 19, 2024
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Feb. 27, 2024	Feb.26, 2026
Horn Antenna	ETS-LINDGREN	3117	00143207	Feb. 27, 2024	Feb.26, 2026
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Feb. 27, 2024	Feb.26, 2026
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 26, 2022	Jun.25, 2024
Pre-amplifier	SONOMA	310N	185903	Feb. 23, 2024	Feb.22, 2025
Pre-amplifier	HP	8449B	3008A00849	Feb. 23, 2024	Feb.22, 2025
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Feb. 27, 2024	Feb.26, 2026
Radiation Emission Test (B Site)					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	N9020A	MY49100060	Aug. 30, 2023	Aug. 29, 2024
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 20, 2023	Jun. 19, 2024
EMI Test Receiver	Rohde & Schwarz	ESU-8	100472/008	Feb. 23, 2024	Feb.22, 2025
Bilog Antenna	SCHWARZBECK	VULB 9168	1225	Nov. 13, 2023	Nov. 12, 2025
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2463	Jun. 26, 2022	Jun.25, 2024
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Feb. 27, 2024	Feb.26, 2026
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 26, 2022	Jun.25, 2024
HF Amplifier	Tonscend	TAP9E6343	AP21C806117	Aug. 30, 2023	Aug. 29, 2024
HF Amplifier	Tonscend	TAP051845	AP21C806141	Aug. 30, 2023	Aug. 29, 2024
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Aug. 30, 2023	Aug. 29, 2024
Highpass Filter	CD	HPM-6.4/18G	---	N/A	N/A
Highpass Filter	CD	HPM-2.8/18G	---	N/A	N/A
Highpass Filter	XINBO	XBLBQ-HTA67(8-25G)	22052702-1	N/A	N/A
Conducted Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jun. 20, 2023	Jun. 19, 2024
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jun. 20, 2023	Jun. 19, 2024

AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jun. 20, 2023	Jun. 19, 2024
LISN	Rohde & Schwarz	ENV216	101131	Jun. 20, 2023	Jun. 19, 2024
ISN	SCHWARZBECK	NTFM 8131	8131-193	Jun. 20, 2023	Jun. 19, 2024
ISN	SCHWARZBECK	CAT3 8158	cat3 5158-0094	Jun. 20, 2023	Jun. 19, 2024
ISN	SCHWARZBECK	NTFM5158	NTFM5158 0145	Jun. 06, 2023	Jun. 05, 2024
ISN	SCHWARZBECK	CAT 8158	cat5 8158-179	Jun. 20, 2023	Jun. 19, 2024

5. Conducted Emission

5.1 Test Standard and Limit

5.1.1 Test Standard

FCC Part 18.307(a)

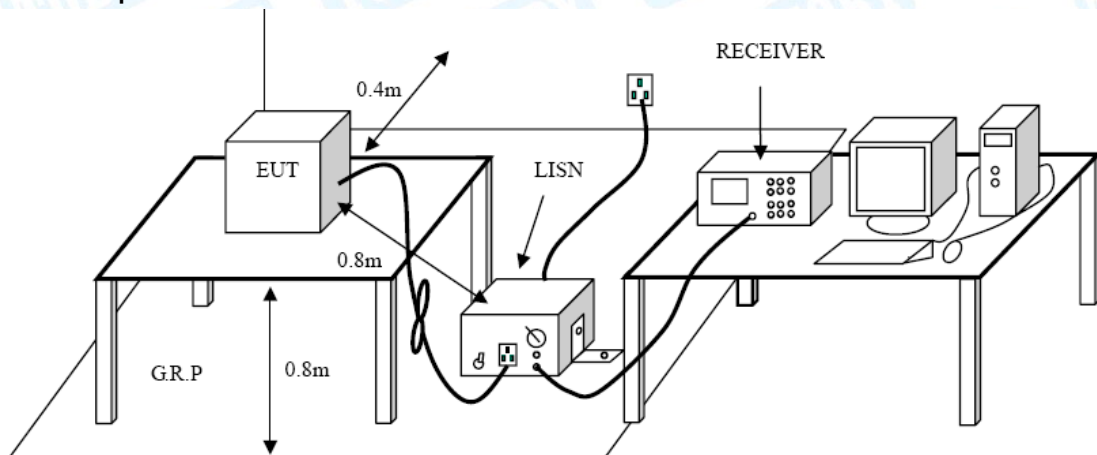
5.1.2 Test Limit

Conducted Emission Test Limit

Frequency (MHz)	Maximum RF Line Voltage (dB μ V)	
	Quasi-peak Level	Average Level
0.009 ~ 0.05	110	--
0.05 ~ 0.15	90 ~ 80	--
0.15 ~ 0.5	66 ~ 56 *	56 ~ 46 *
0.5 ~ 5	56	46
5 ~ 30	60	50

Notes: (1) *Decreasing linearly with logarithm of the frequency.
(2) The lower limit shall apply at the transition frequencies.

5.2 Test Setup



5.3 Test Procedure

- The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The

overall length shall not exceed 1 m.

- LISN at least 80 cm from nearest part of EUT chassis.
- The bandwidth of EMI test receiver is set at 9 kHz, and the test frequency band is from 0.15MHz to 30MHz.

5.4 Deviation From Test Standard

No deviation

5.5 EUT Operating Mode

Please refer to the description of test mode.

5.6 Test Data

Please refer to the Attachment A inside test report.

6. Radiated Emission Test

6.1 Test Standard and Limit

6.1.1 Test Standard

FCC Part 18.305

6.1.2 Test Limit

Radiated Emission Limit

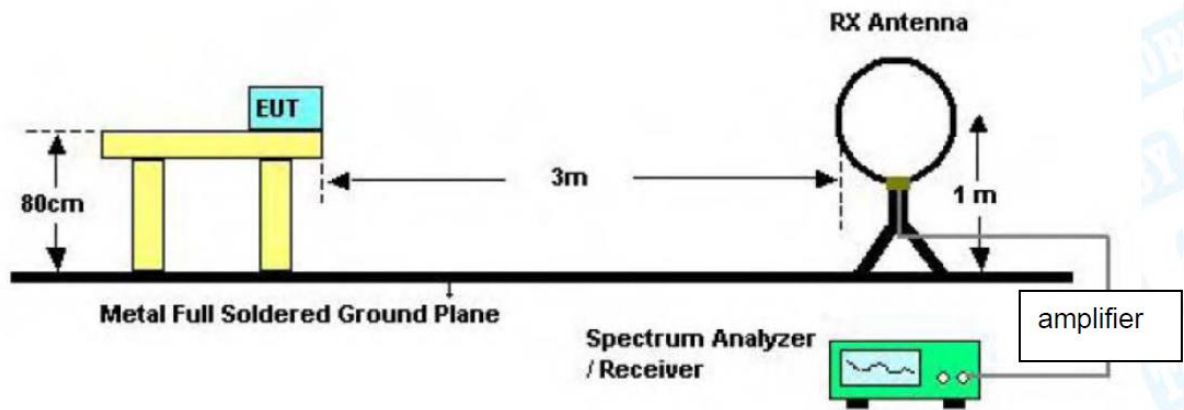
Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless otherwise specified (miscellaneous)	Any ISM frequency	Below 500	25	300
		500 or more	$25 \times \text{SQRT}(\text{power}/500)$	¹ 300
	Any non-ISM frequency	Below 500	15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

Radiated Emission Limit (9kHz~30MHz)

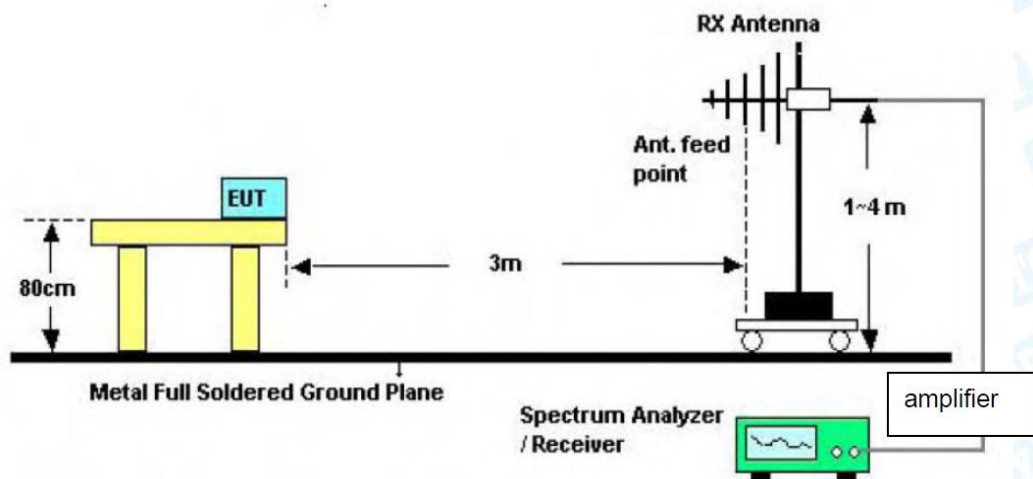
Frequency (MHz)	Field Strength Limit (microvolt/meter)	Measurement Distance (meters)
0.009~30	1500	30
Note: Emission Level(dBuV/m)=20log Emission Level(uV/m)		

6.2 Test Setup

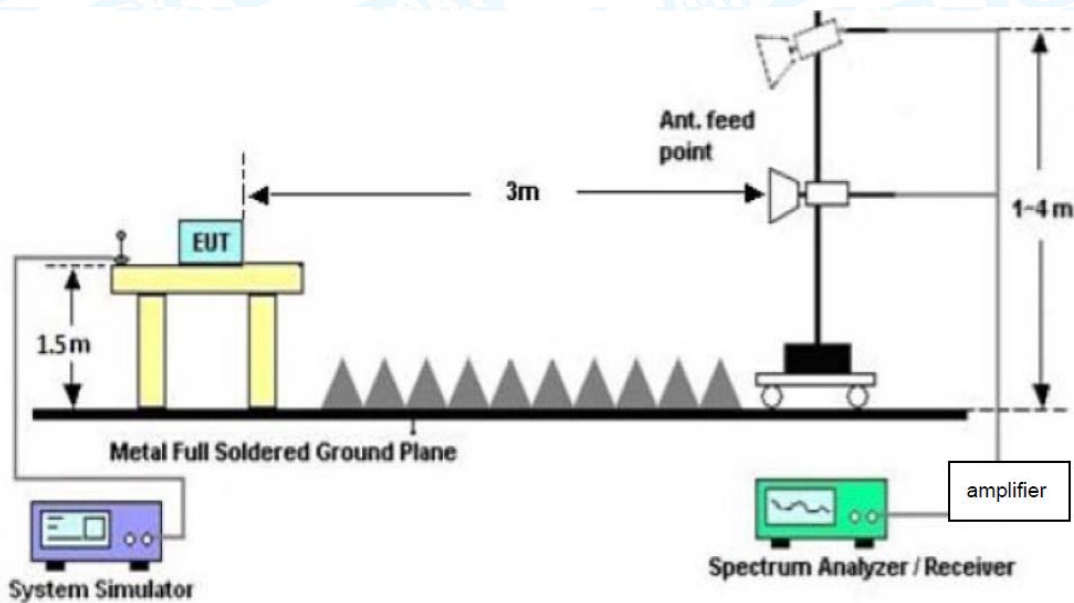
Radiated measurement



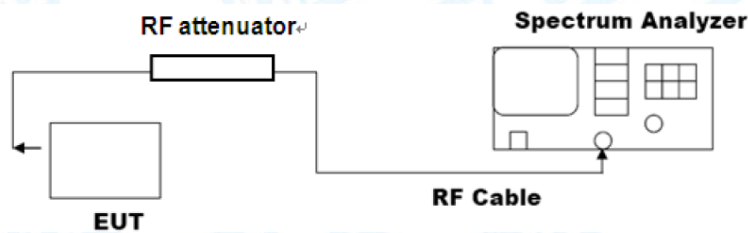
Below 30MHz Test Setup



Below 1000MHz Test Setup



Above 1GHz Test Setup
Conducted measurement



6.3 Test Procedure

---Radiated measurement

- The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Below 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- Testing frequency range 30MHz-1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection. Testing frequency range 9KHz-150Hz the measuring instrument use VBW=200Hz with Quasi-peak detection. Testing frequency range 9KHz-30MHz the measuring instrument use VBW=9kHz with Quasi-peak detection.
- Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- For the actual test configuration, please see the test setup photo.

6.4 Deviation From Test Standard

No deviation

6.5 EUT Operating Mode

Please refer to the description of test mode.

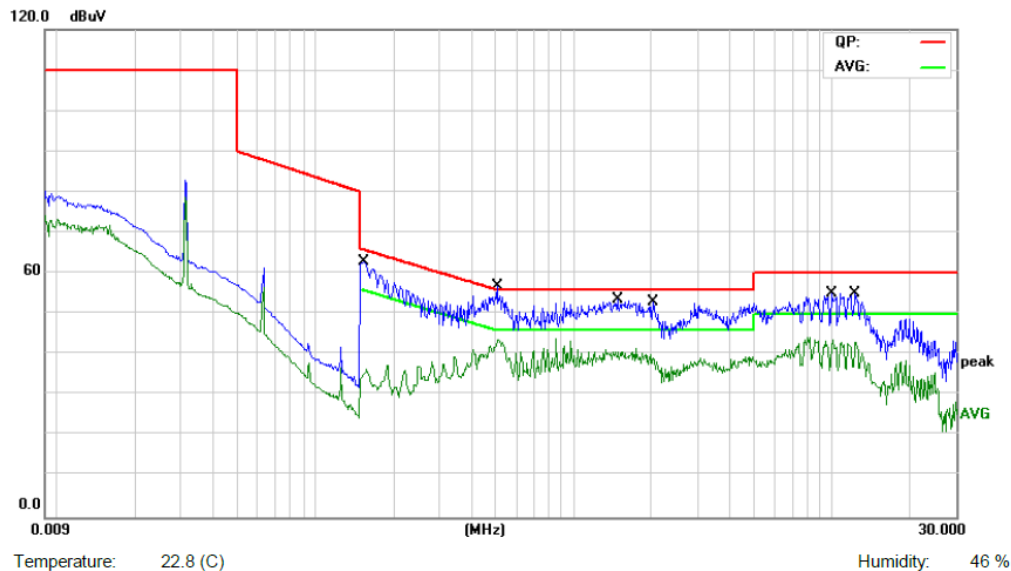
6.6 Test Data

Radiated measurement please refer to the Attachment B inside test report.

Conducted measurement please refer to the Appendix A.

Attachment A-- Conducted Emission Test Data

Test Voltage:	AC 120V/60Hz
Terminal:	Line
Test Mode:	Mode 1
Remark:	Only worse case is reported.



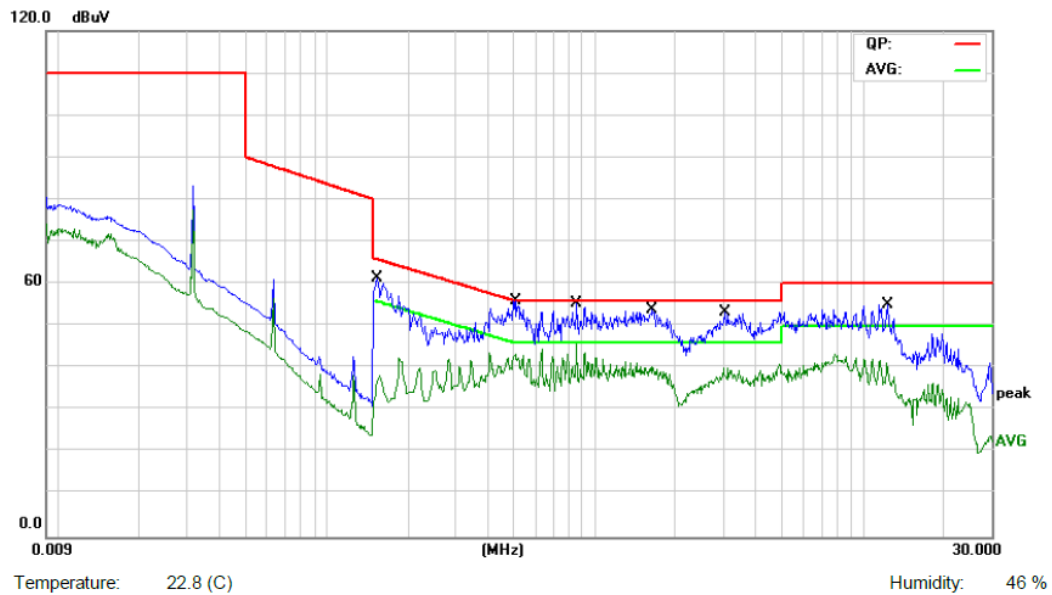
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1539	45.11	9.87	54.98	65.78	-10.80	QP
2		0.1539	20.62	9.87	30.49	55.78	-25.29	AVG
3		0.5060	40.86	10.18	51.04	56.00	-4.96	QP
4	*	0.5060	32.62	10.18	42.80	46.00	-3.20	AVG
5		1.4740	37.15	9.96	47.11	56.00	-8.89	QP
6		1.4740	28.93	9.96	38.89	46.00	-7.11	AVG
7		2.0220	36.62	9.86	46.48	56.00	-9.52	QP
8		2.0220	27.12	9.86	36.98	46.00	-9.02	AVG
9		9.9300	34.74	9.80	44.54	60.00	-15.46	QP
10		9.9300	26.21	9.80	36.01	50.00	-13.99	AVG
11		12.2739	37.64	10.00	47.64	60.00	-12.36	QP
12		12.2739	27.17	10.00	37.17	50.00	-12.83	AVG

Remark:

1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)

2. Margin (dB) = QuasiPeak/Average (dBuV) - Limit (dBuV)

Test Voltage:	AC 120V/60Hz
Terminal:	Neutral
Test Mode:	Mode 1
Remark:	Only worse case is reported.



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1539	26.77	9.85	36.62	65.78	-29.16	QP
2		0.1539	20.63	9.85	30.48	55.78	-25.30	AVG
3		0.5100	41.45	9.58	51.03	56.00	-4.97	QP
4	*	0.5100	33.17	9.58	42.75	46.00	-3.25	AVG
5		0.8540	35.27	10.03	45.30	56.00	-10.70	QP
6		0.8540	26.85	10.03	36.88	46.00	-9.12	AVG
7		1.6420	36.38	9.74	46.12	56.00	-9.88	QP
8		1.6420	26.85	9.74	36.59	46.00	-9.41	AVG
9		3.0579	35.69	10.00	45.69	56.00	-10.31	QP
10		3.0579	27.17	10.00	37.17	46.00	-8.83	AVG
11		12.3220	33.98	9.93	43.91	60.00	-16.09	QP
12		12.3220	25.03	9.93	34.96	50.00	-15.04	AVG

Remark:

1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)

2. Margin (dB) = QuasiPeak/Average (dBuV) - Limit (dBuV)

Attachment B--Unwanted Emissions Data

Test Voltage:	AC 120V/60Hz
Ant. Pol.	Ant 0°
Test Mode:	Mode 1
Remark:	Frequency Range: 9kHz~0.15MHz

120.0 dBuV/m

60

0.0

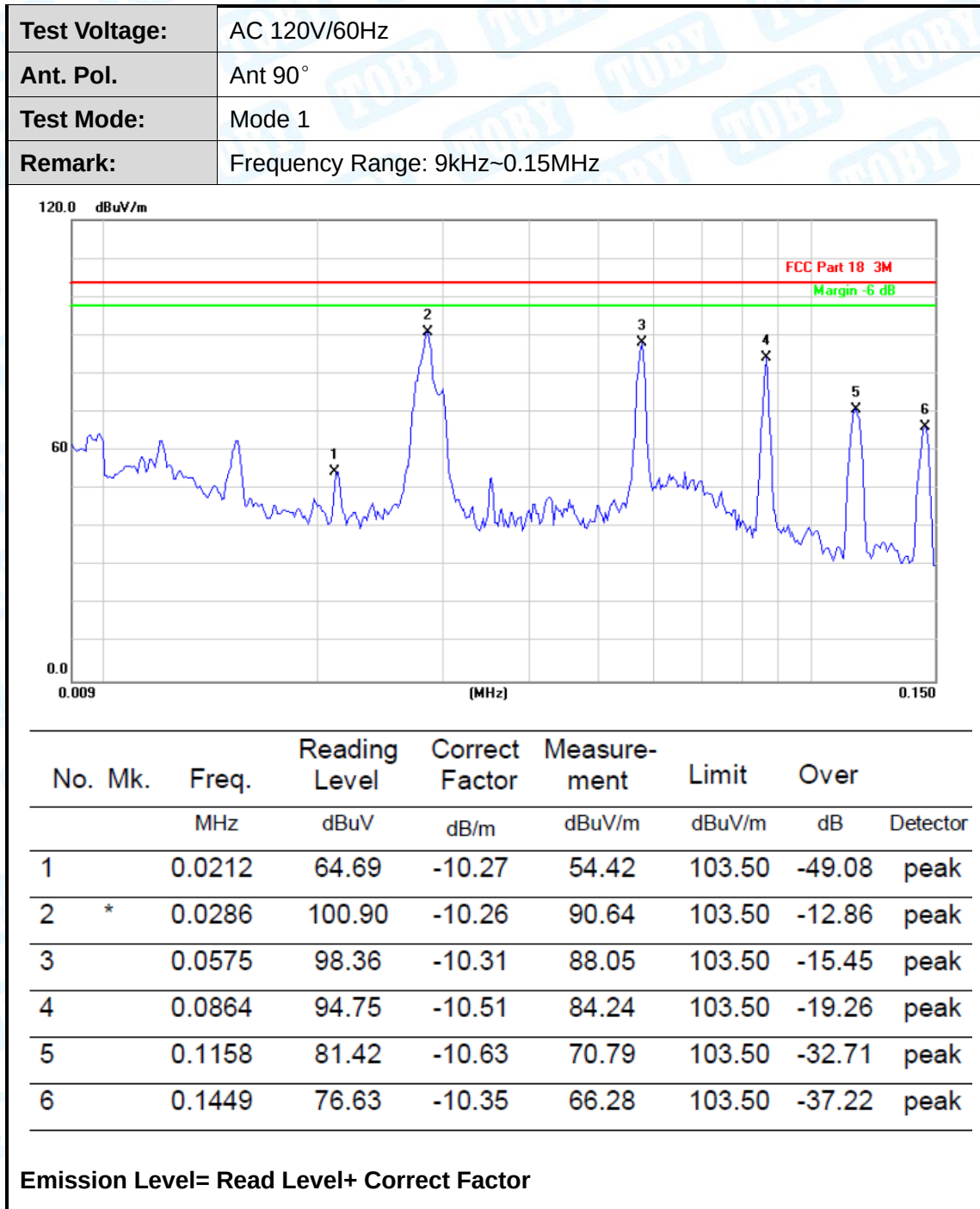
0.009 (MHz) 0.150

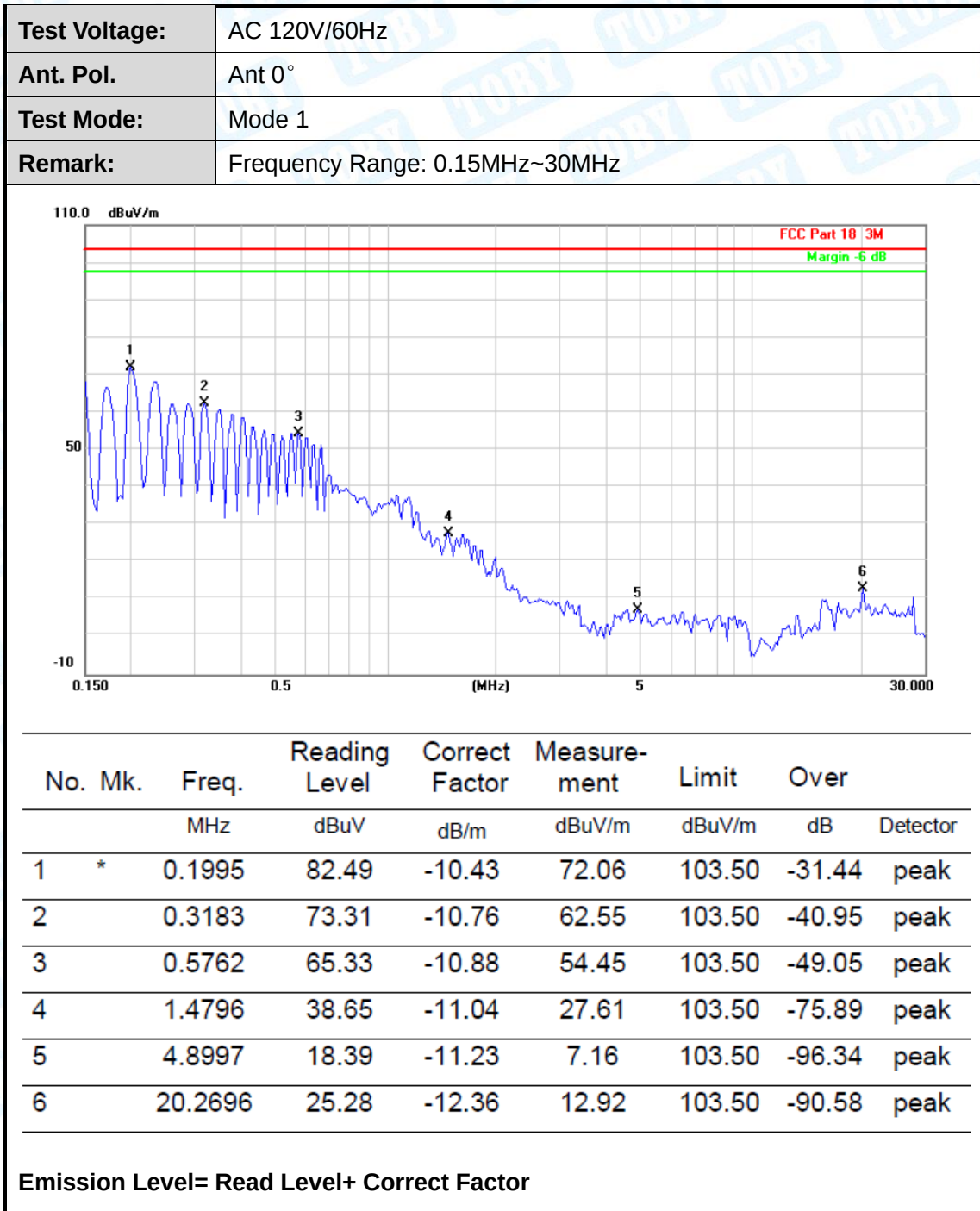
FCC Part 18 3M

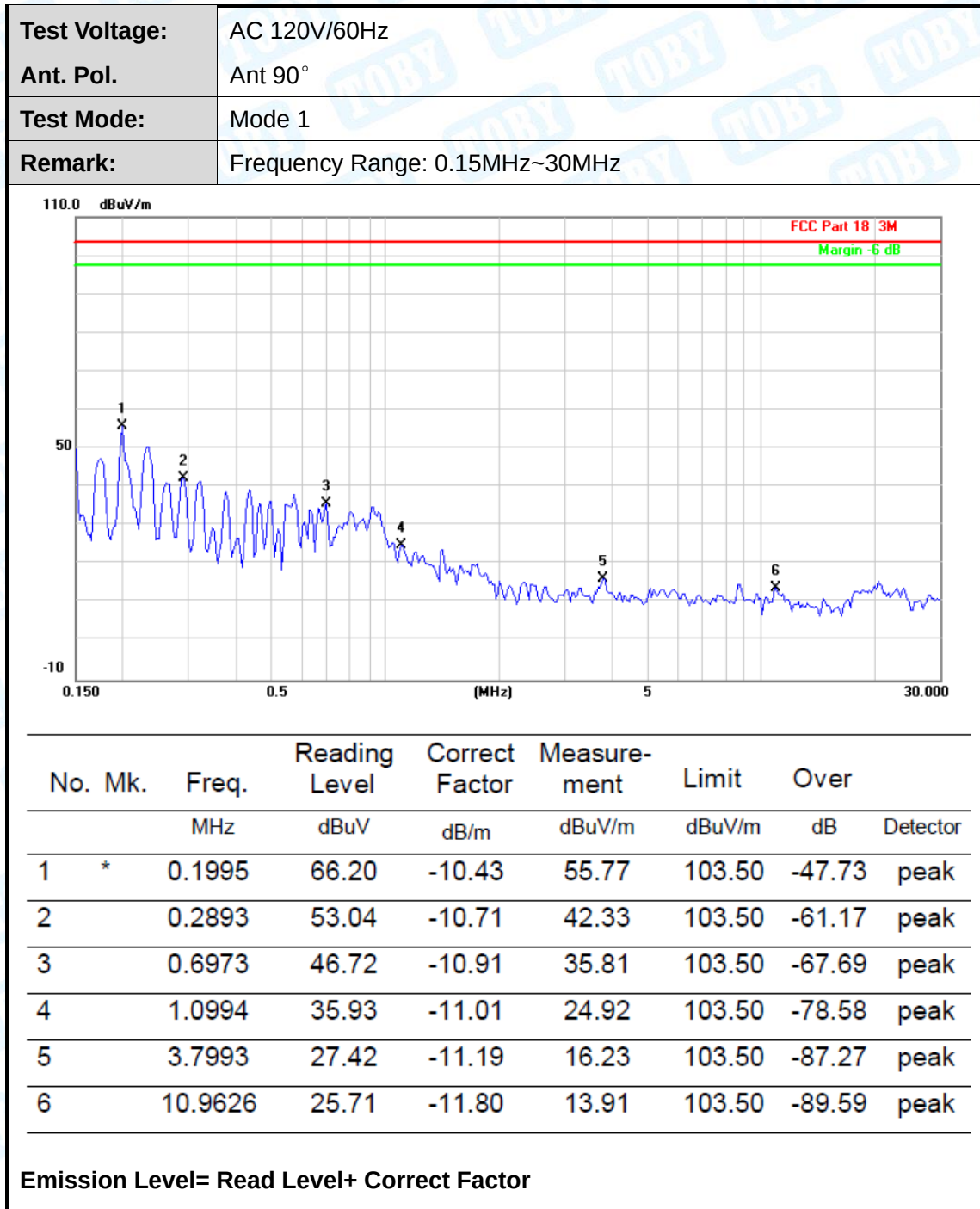
Margin -6 dB

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		0.0120	64.65	-10.30	54.35	103.50	-49.15	peak
2		0.0286	102.57	-10.26	92.31	103.50	-11.19	peak
3	*	0.0572	104.53	-10.30	94.23	103.50	-9.27	peak
4		0.0859	93.73	-10.51	83.22	103.50	-20.28	peak
5		0.1150	93.17	-10.64	82.53	103.50	-20.97	peak
6		0.1449	85.64	-10.35	75.29	103.50	-28.21	peak

Emission Level= Read Level+ Correct Factor







-----END OF REPORT-----