

TEST REPORT

FCC ID: 2AC3Q-HTAE05

Applicant : Shenzhen Hong Tai An Da Technology Co., Ltd.
Address : 3rd Floor, Building A2, Nanjiang Industrial Zone, Dalang, Longhua, Shenzhen

Equipment under Test (EUT):

Name : EAS system in supermarkets, clothing stores, and for other good
Model : HTA-E01, HTA-E05, HTA-E06, HTA-S01, HTA-E04, HTA-J01, HTA-S02, HTA-S03, HTA-S04, HTA-S05, HTA-S06, HTA-S07

Standards : FCC PART 15, SUBPART C : 2013 (Section 15.223)

Report No. : CST-TCB140730049

Date of Test : August23- October 9, 2014

Date of Issue : October 9, 2014

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

Authorized Signature



(Mark Zhu)
General Manager

The manufacture should ensure that all the products in series production are in conformity with the product sample detailed in this report.

If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of Shenzhen Certification Technology Service Co., Ltd. Or test done by Shenzhen Certification Technology Service Co., Ltd. Approvals in connection with, distribution or use of the product described in this report must be approved by Shenzhen Certification Technology Service Co., Ltd. Approvals in writing.

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1 General Information

1.1 Description of Device (EUT)

Trade Name	: N/A
EUT	: EAS system in supermarkets, clothing stores, and for other good
Model No.	HTA-E01, HTA-E05, HTA-E06, HTA-S01, HTA-E04 HTA-J01, HTA-S02, HTA-S03, HTA-S04, HTA-S05, HTA-S06, HTA-S07
DIFF.	: Only different in Model No., the other are the same. The test model: HTA-E05.
Antenna Type	: Integrated Antenna, 4.2dBi antenna.
Operation Frequency	: 8.2MHz
Channel number	: 1 channel
Modulation type	: FM
Power Supply	: DC 24V Supply by adaptor with 120V/60Hz input
Applicant	: Shenzhen Hong Tai An Da Technology Co., Ltd.
Address	: 3rd Floor, Building A2, Nanjiang Industrial Zone, Dalang, Longhua, Shenzhen
Manufacturer	: Shenzhen Hong Tai An Da Technology Co., Ltd.
Address	: 3rd Floor, Building A2, Nanjiang Industrial Zone, Dalang, Longhua, Shenzhen

1.2 Description of Test Facility

Shenzhen Certification Technology Service Co., Ltd.
2F, Building B, East Area of Nanchang Second Industrial Zone,
Gushu 2nd Road, Bao'an District, Shenzhen 518126, P.R. China
FCC Registered No.:197647
IC Registered No.:8528B

2 EMC Equipment List

Equipment	Manufacture	Model No.	Serial No.	Last cal.	Cal Interval
3m Semi-Anechoic	ETS-LINDGREN	N/A	SEL0017	Nov. 16, 13	1 Year
Spectrum analyzer	Agilent	E4407B	MY49510055	Oct. 30, 13	1 Year
Receiver	R&S	ESCI	101165	Oct. 30, 13	1 Year
Receiver	R&S	ESCI	101202	Oct. 30, 13	1 Year
Bilog Antenna	SCHWARZBECK	VULB 9168	9168-438	Mar.11, 14	1 Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D(1201)	Mar.11, 14	1 Year
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170 D(1432)	Mar.11, 14	1 Year
Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	Mar.11, 14	1 Year
L.I.S.N.	SCHWARZBECK	NSLK8126	8126466	Oct. 30, 13	1 Year
Cable	Resenberger	SUCOFLEX 104	MY6562/4	Oct. 30, 13	1 Year
Cable	Resenberger	SUCOFLEX 104	309972/4	Oct. 30, 13	1 Year
Cable	Resenberger	SUCOFLEX 104	329112/4	Oct. 30, 13	1 Year
Power Meter	Anritsu	ML2487A	6K00001491	Oct. 30, 13	1 Year
Power sensor	Anritsu	ML2491A	32516	Oct. 30, 13	1 Year
Pre-amplifier	SCHWARZBECK	BBV9743	9743-019	Oct. 30, 13	1 Year
Pre-amplifier	Quietek	AP-180C	CHM-0602012	Oct. 30, 13	1 Year

3 Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The test procedure used was ANSI Standard C63.4-2003 using a 50 u H LISN. Both Lines were observed. The bandwidth of the receiver was 10kHz with an appropriate sweep speed. The ambient temperature of the EUT was 25°C with a humidity of 58%.

RADIATION INTERFERENCE: The test procedure used was ANSI Standard C63.4-2003 using a ANRITSU spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a micro volt at the output of the antenna. The resolution bandwidth was 100kHz and the video bandwidth was 300 kHz up to 1 GHz and 1 MHz with a video BW of 3MHz above 1 GHz. The ambient temperature of the EUT was 25°C with a humidity of 58%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer and cable loss. The antenna correction factors and cable loss are stated in terms of dB. The gain of the Pre-selector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

Freq (MHz) METER READING + ACF + CABLE = FS

33.20 dBuV + 10.36 dB + 0.9 dB= 44.46 dBuV/m @ 3m

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes. The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSI Standard C63.4-2003 10.1.7 with the EUT 40 cm from the vertical ground wall.

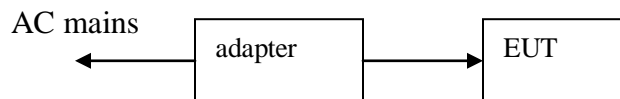
4 Summary of Measurement

4.1 Summary of test result

Test Item	Test Requirement	Standards Paragraph	Result
Spurious Emission	FCC PART 15 : 2013	Section 15.223&15.209	Compliance
Conduction Emission	FCC PART 15: 2013	Section 15.207	Compliance
Bandwidth Test	FCC PART 15:2013	Section 15.223	Compliance
Antenna Requirement	FCC PART 15 : 2013	Section 15.203	Compliance

Note: The EUT has been tested as an independent unit. And Continual Transmitting in maximum power.

4.2 Test connection



4.3 Assistant equipment used for test

Description	:	N/A
Manufacturer	:	N/A
Model No.	:	N/A

4.4 Test mode

Tested mode, channel, and data rate information		
Mode	Channel	Frequency (MHz)
Tx	1	8.2
Note1: According exploratory test, EUT will have maximum output power in those data rate. so those data rate were used for all test. Note2: The device had been professionally installed during the test and only the worst case is recorded in the test report after taking following setting factors - "bandwidth, sweep frequency, antenna output power" into the consideration.		

4.5 Test Conditions

Temperature range	21-25°C
Humidity range	40-75%
Pressure range	86-106kPa

4.6 Measurement Uncertainty (95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.42dB	
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	2.13 dB	Polarize: V
	2.57dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.54dB	Polarize: V
	4.1dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	2.08dB	Polarize: H
	2.56dB	Polarize: V
Uncertainty for radio frequency	1×10^{-9}	
Uncertainty for conducted RF Power	0.65dB	
Uncertainty for temperature	0.2°C	
Uncertainty for humidity	1%	
Uncertainty for DC and low frequency voltages	0.06%	

5 Spurious Emission

5.1 Radiation Emission

5.1.1 Radiation Emission Limits(15.209)

Frequencies (MHz)	Field Strength (micровolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

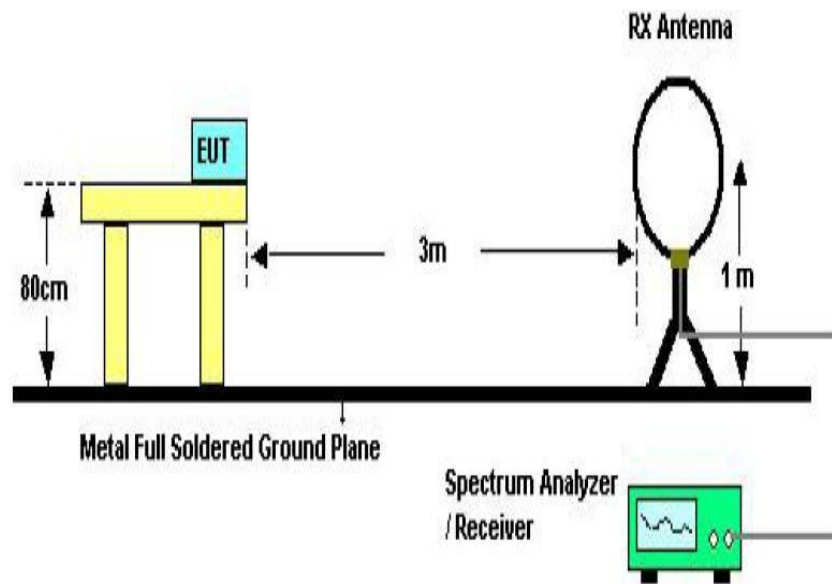
Harmonic emissions limits comply with below 54 dBuV/m at 3m. Other emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

NOTE:

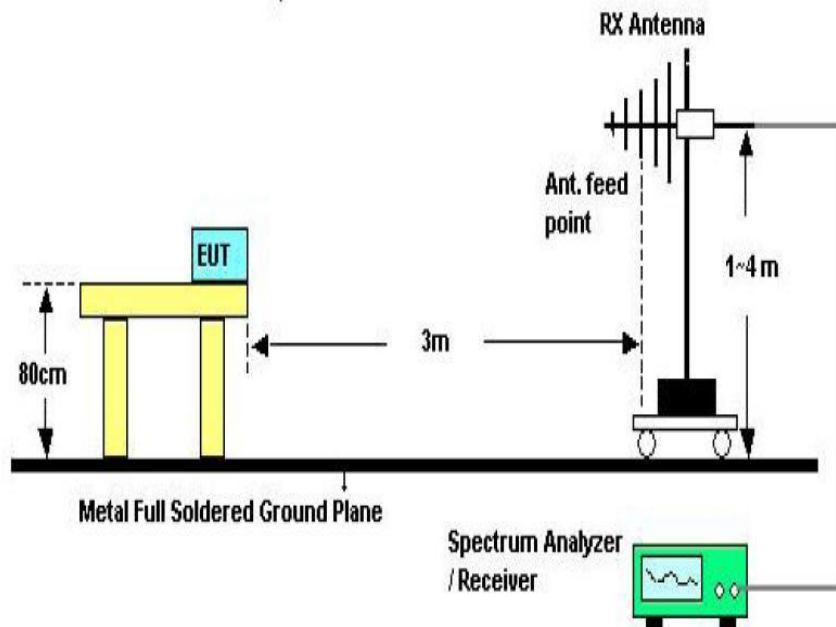
- a) The tighter limit applies at the band edges.
- b) Emission Level(dB uV/m)=20log Emission Level(Uv/m)

5.1.2 Test Setup

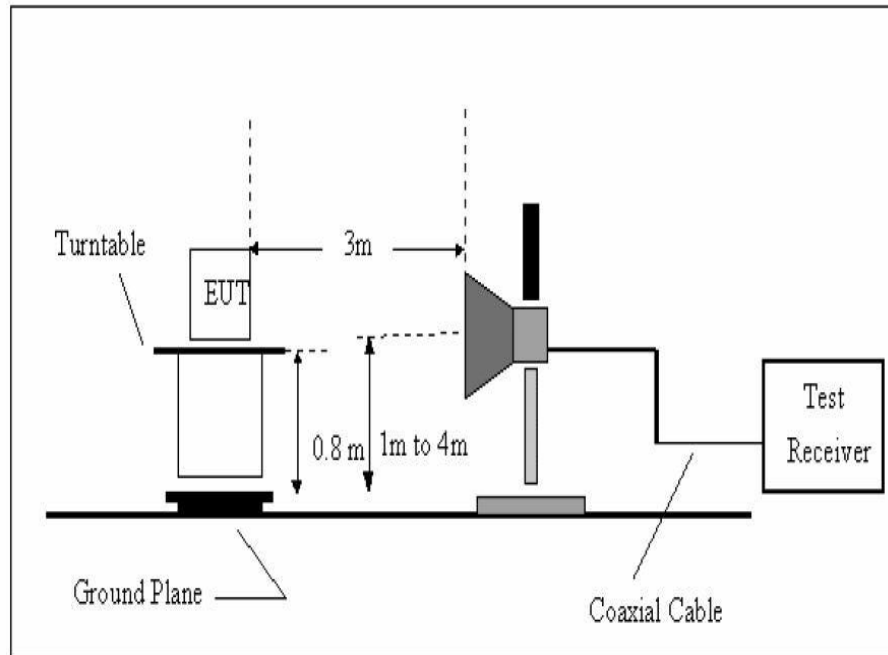
See the next page



Below 30MHz Test Setup



Above 30MHz Test Setup



Above 1GHz Test Setup

5.1.3 Test Procedure

- The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1GHz, The EUT was placed on a rotating 0.8 m high above ground, 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 of 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 Qusia Peak Detector mode premeasured
- If Peak value comply with QP limit Below 1GHz. The EUT deemed to comply with QP limit. But the Peak value and average value both need to comply with applicable limit above 1GHz.
- For the actual test configuration, please see the test setup photo.

5.1.4 Test Equipment Setting For emission test Result

9KHz~150KHz	RBW 200Hz	VBW1KHz
150KHz~30MHz	RBW 9KHz	VBW 30KHz
30MHz~1GHz	RBW 120KHz	VBW 300KHz
Above 1GHz	RBW 1MHz	VBW 3MHz

5.1.5 Test Condition

Continual Transmitting in maximum power.

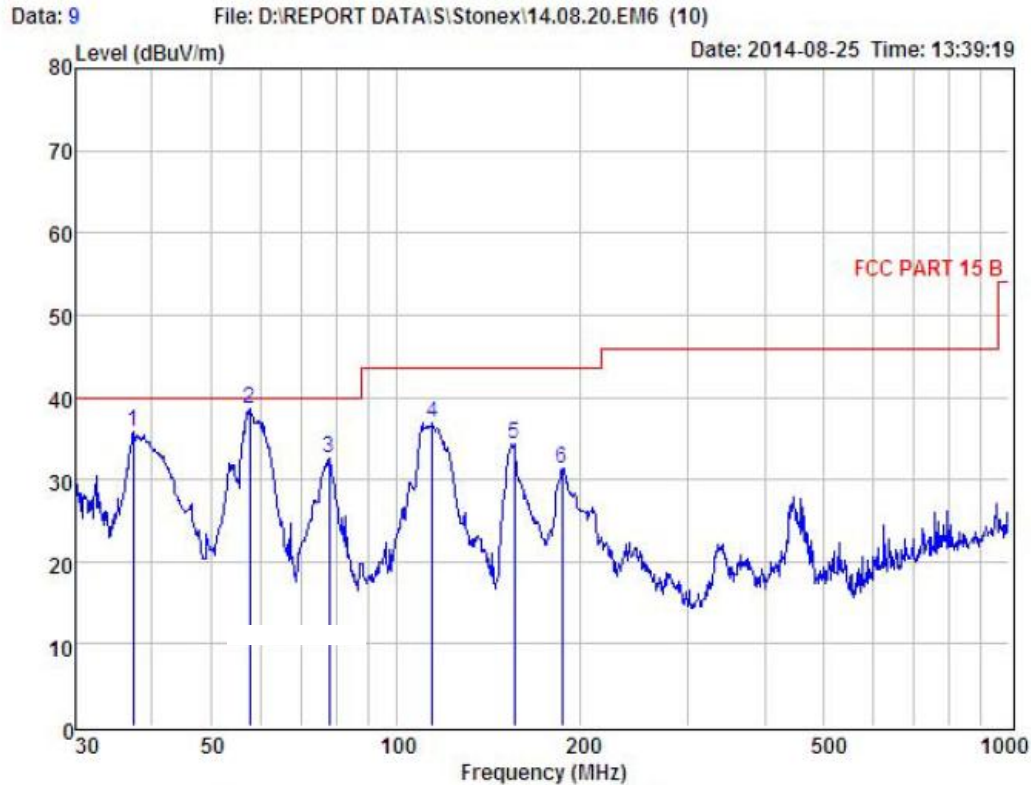
5.1.6 Test Result

From 9KHz to 30MHz: Conclusion: Pass
Please refer to section 9.4 for information.

Conclusion: PASS



Shenzhen Certification Technology Service Co., Ltd.
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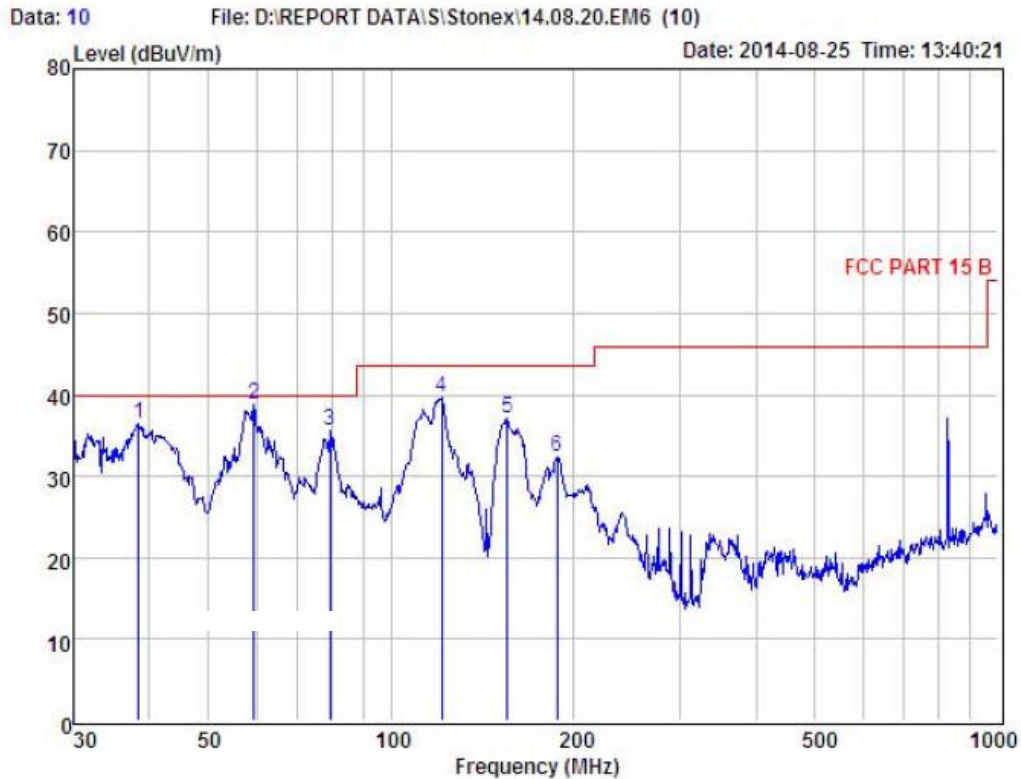
Condition : FCC PART 15 B 3m POL: HORIZONTAL
 EUT :
 Model No : HTA-E05
 Test Mode : TX
 Power : AC 120V 60Hz
 Test Engineer : Peter
 Remark :
 Temp : 24.2°C
 Hum : 54%

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	37.29	47.69	13.73	25.74	0.08	35.76	40.00	-4.24	QP
2	57.80	52.72	12.91	27.36	0.23	38.50	40.00	-1.50	QP
3	77.87	49.41	9.60	26.78	0.29	32.52	40.00	-7.48	QP
4	114.51	51.60	11.68	26.87	0.41	36.82	43.50	-6.68	QP
5	155.91	46.66	14.15	26.91	0.38	34.28	43.50	-9.22	QP
6	186.44	46.76	10.95	26.94	0.57	31.34	43.50	-12.16	QP

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



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Condition : FCC PART 15 B 3m POL: VERTICAL
 EUT :
 Model No : HTA-E05
 Test Mode : TX
 Power : AC 120V 60Hz
 Test Engineer : Peter
 Remark :
 Temp : 24.2°C
 Hum : 54%

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	38.35	48.31	13.73	25.74	0.13	36.43	40.00	-3.57	QP
2	59.44	53.57	12.75	27.87	0.32	38.77	40.00	-1.23	QP
3	79.24	52.79	9.29	26.79	0.23	35.52	40.00	-4.48	QP
4	121.12	54.01	12.24	26.88	0.40	39.77	43.50	-3.73	QP
5	155.36	49.40	14.15	26.91	0.39	37.03	43.50	-6.47	QP
6	187.75	48.08	10.71	26.95	0.55	32.39	43.50	-11.11	QP

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

6 POWER LINE CONDUCTED EMISSION

6.1 Conducted Emission Limits(15.207)

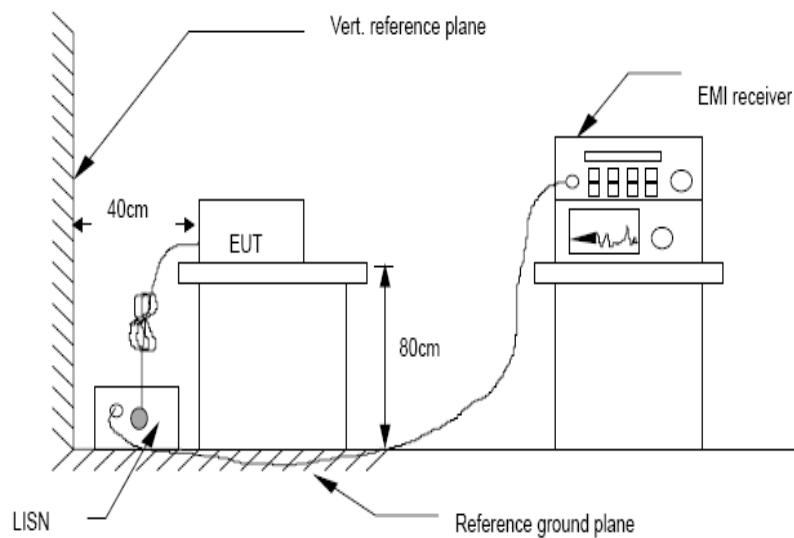
Frequency MHz	Limits dB(μ V)	
	Quasi-peak Level	Average Level
0.15 -0.50	66 -56*	56 - 46*
0.50 -5.00	56	46
5.00 -30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

6.2 Test Setup



6.3 Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4-2003 on Conducted Emission Measurement. The bandwidth of test receiver (R & S ESC) is set at 9 kHz.

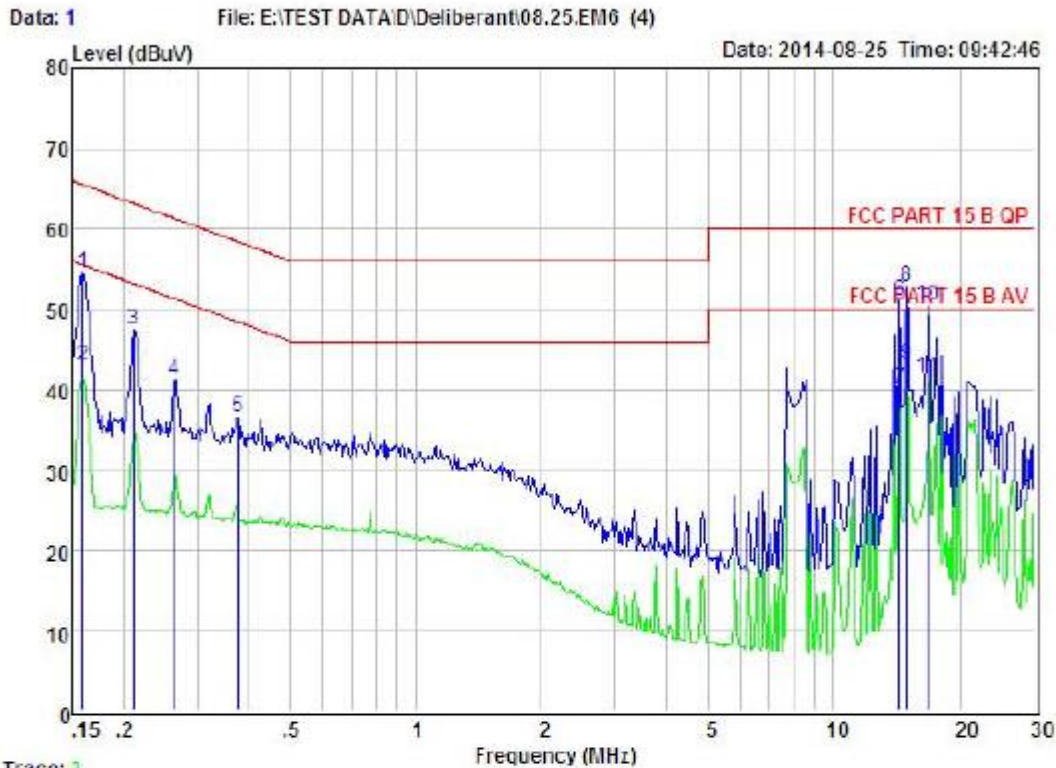
6.4 Test Results

PASS

Detailed information please see the following page.



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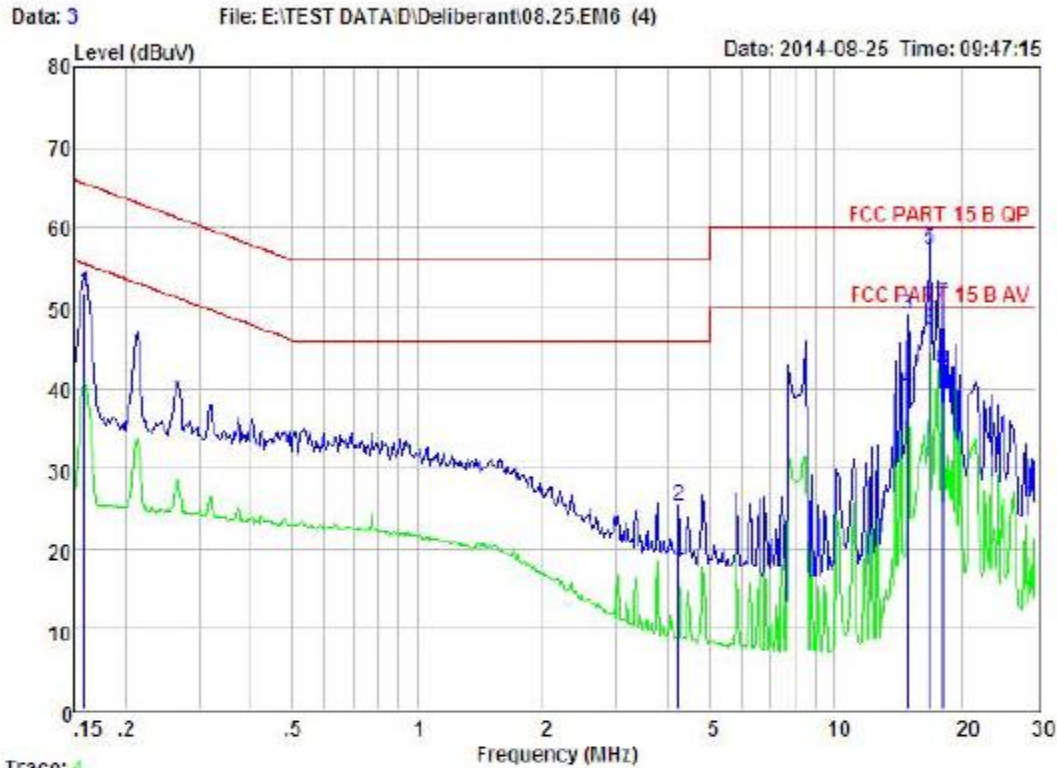
Trace: 2
 Condition : FCC PART 15 B QP POL: LINE Temp: 24 °C Hum: 56 %
 EUT :
 Model No : HTA-E05
 Test Mode : ON
 Power : AC 120V/60Hz
 Test Engineer:
 Remark :

Item	Freq	Read	LISN	Preamp	Cable	Level	Limit	Margin	Remark
	MHz	dBuV	Factor	Factor	Loss	dBuV	dBuV	dBuV	
			dB	dB	dB				
1	0.159	44.70	0.03	-9.72	0.10	54.55	65.52	-10.97	Peak
2	0.159	33.00	0.03	-9.72	0.10	42.85	65.52	-12.67	Average
3	0.211	37.49	0.03	-9.72	0.10	47.34	63.16	-15.84	Peak
4	0.264	31.43	0.03	-9.72	0.10	41.28	61.29	-20.01	Peak
5	0.375	26.59	0.03	-9.72	0.10	36.44	58.39	-21.95	Peak
6	14.364	41.10	0.23	-9.40	0.23	50.96	60.00	-9.04	Peak
7	14.364	30.20	0.23	-9.40	0.23	40.06	50.00	-9.94	Average
8	14.986	42.95	0.24	-9.38	0.23	52.80	60.00	-7.20	Peak
9	14.986	33.30	0.24	-9.38	0.23	43.15	50.00	-6.85	Average
10	16.839	40.49	0.27	-9.42	0.29	50.47	60.00	-9.53	Peak
11	16.839	31.39	0.27	-9.42	0.29	41.37	50.00	-8.63	Average

Remarks: Level = Read + LISN Factor - Preamp Factor + Cable loss



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 Website: <http://www.cessz.com> Email: Service@cessz.com



Trace: 4
 Condition : FCC PART 15 B QP POI: NEUTRAL Temp:24 °C Hum:56 %
 EUT :
 Model No : HTA-E05
 Test Mode : ON
 Power : AC 120V/60Hz
 Test Engineer:
 Remark :

Item	Freq MHz	Read dBuV	LISN Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	0.159	42.00	0.03	-9.72	0.10	51.85	65.52	-13.67	QP
2	4.224	15.32	0.06	-9.69	0.12	25.21	56.00	-30.79	Peak
3	14.986	39.18	0.24	-9.38	0.23	49.03	60.00	-10.97	Peak
4	14.986	30.00	0.24	-9.38	0.23	39.85	60.00	-20.15	Average
5	16.839	47.19	0.27	-9.42	0.29	57.17	60.00	-2.83	QP
6	16.839	37.29	0.27	-9.42	0.29	47.27	60.00	-12.73	Average
7	18.039	40.59	0.29	-9.45	0.32	50.65	60.00	-9.35	Peak
8	18.039	32.30	0.29	-9.45	0.32	42.36	60.00	-17.64	Average

Remarks: Level = Read + LISN Factor - Preamp Factor + Cable loss

7 6dB Bandwidth

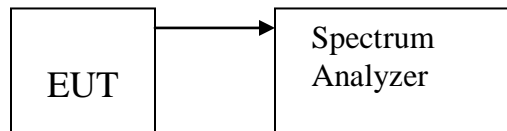
7.1 Test limit

Please refer section 15.223

7.2 Method of measurement

- a) The bandwidth is measured at an amplitude level reduced 6dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.
- b) The test receiver set RBW = 10KHz, VBW= 30KHz, Sweep time set auto, detail see the test plot.

7.3 Test Setup

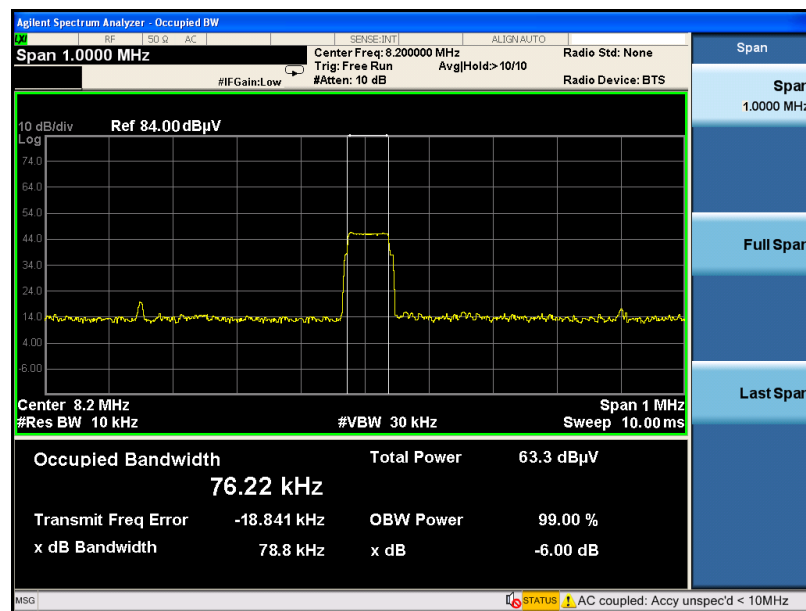


7.4 Test Results

PASS.

Detailed information please see the following page.

Carrier Frequency (MHz)	6dB Bandwidth (KHz)	Limit
8.2	78.8	N/A



8 Fundamental Emissions

8.1 Test limit

Please refer section 15.223(a)

The field strength of any emission within the band 1.705-10.0 MHz shall not exceed 100 microvolts/meter at a distance of 30 meters. However, if the bandwidth of the emission is less than 10% of the center frequency, the field strength shall not exceed 15 microvolts/meter or (the bandwidth of the device in kHz) divided by (the center frequency of the device in MHz) microvolts/meter at a distance of 30 meters, whichever is the higher level. For the purposes of this section, bandwidth is determined at the points 6 dB down from the modulated carrier. The emission limits in this paragraph are based on measurement instrumentation employing an average detector.

8.2 Test Procedure

Put the EUT on a 0.8m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission at 3m distance.

Check the spurious emissions out of band.

RBW,VBW Setting, please see the following test plot.

8.3 Test Setup

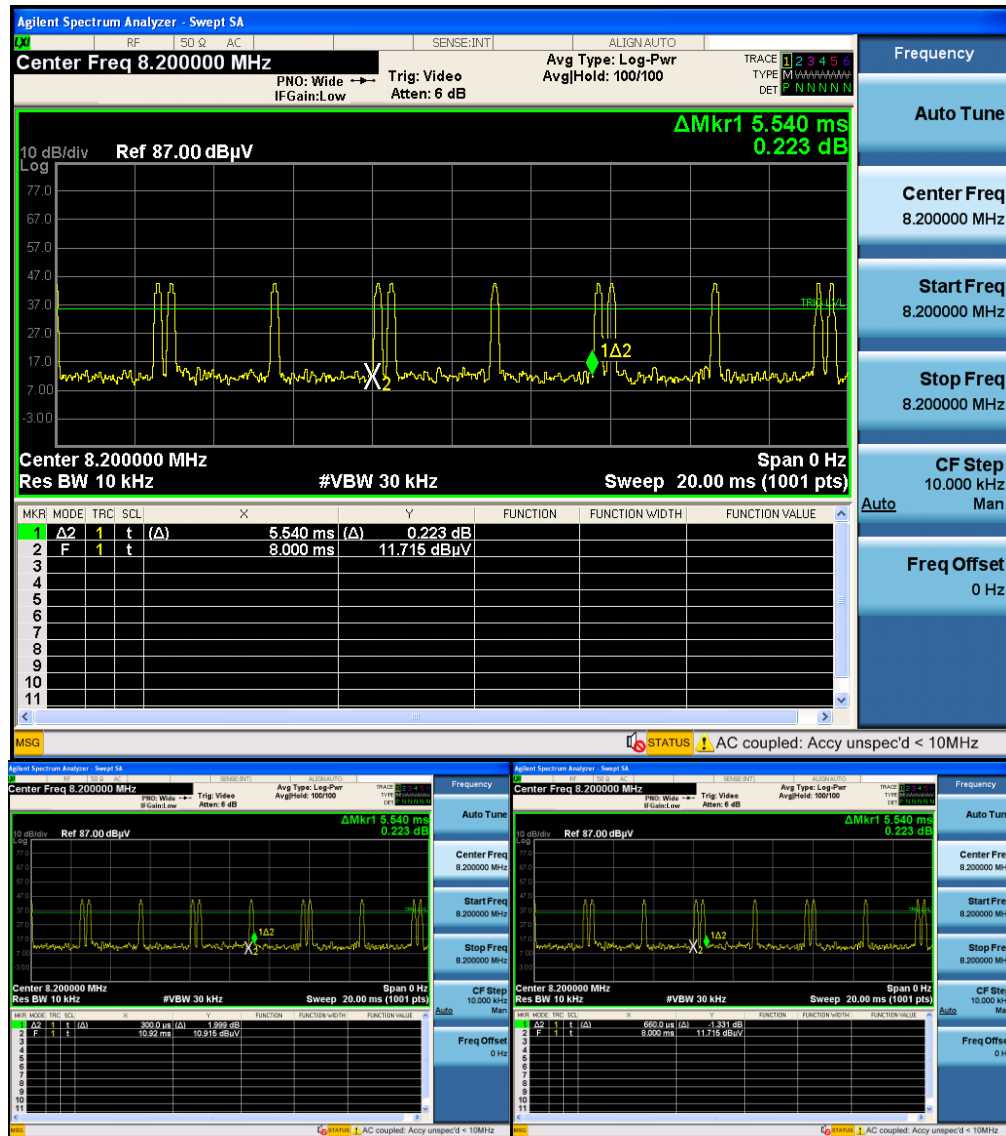
Same as 5.2.2.

8.4 Test Result

PASS.

Detailed information please see the following page.

Frequency(MHz)	Reading(dBuV)	Correction factor1(dB)	Correction factor2(dB)	Level (dBuV)	limit (dBuV)	Detector
8.2	39.05	26.61	--	65.66	83.5	PK
8.2	65.66	--	-15.22	50.44	63.5	AV



Remark1: 6dB bandwidth of EUT is 78.8KHz , which is less than 10% of the center frequency($8200 \times 10\% = 820\text{KHz}$), therefore, the average limit at 3m distance $= 20 \times \log 15 + \text{correction factor} = 23.5 \text{ dBuV/m} + 40 \times \log(30/3) \text{ dB} = 63.5 \text{ dBuV/m}$.

Remark2: Peak limit = AV limit + 20dB = 63.5 dBuV/m + 20dB = 83.5 dBuV/m.

Remark3: Correction factor1 = Antenna + Cable Loss- Preamp Factor

Remark4: AV = PEAK + correction factor2 = PEAK + $20 \times \text{LOG}(T_{\text{ON}}/T_{\text{P}})$, Which T_{ON} means ON time and T_{P} means period time.

Remark5: correction factor2 = $20 \times \text{LOG}(T_{\text{ON}}/T_{\text{P}})$

9 Field strength of emissions outside of the band 1.705-10.0 MHz

9.1 Test limit

The field strength of emissions outside of the band 1.705-10.0 MHz shall not exceed the general radiated emission limits in §15.209.

Frequency Band(MHz)	Field Strength (uv/m)	Field Strength (dBuv/m)	Distance(m)
0.009-0.490	2400/F(KHz)	$20\log(2400/F)$	300
0.490-1.705	24000/F(KHz)	$20\log(24000/F)$	30
1.705-30	30	29.54	30
0.009-0.490		$80+20\log(2400/F)$	3
0.490-1.705		$40+20\log(24000/F)$	3
1.705-30		69.54	3

Remark1: Test was performed at 3m distance, and limit at 3m distance $=20*\log(\text{limit}) + \text{correction factor} = 20*\log(\text{limit}) + 40*\log(D_1/D_2)$ dB.

9.2 Test Procedure

Put the EUT on a 0.8m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission at 3m distance.

Check the spurious emissions out of band.

9.3 Test Setup

Same as 5.2.2.

9.4 Test Result

PASS.

Detailed information please see the following page.

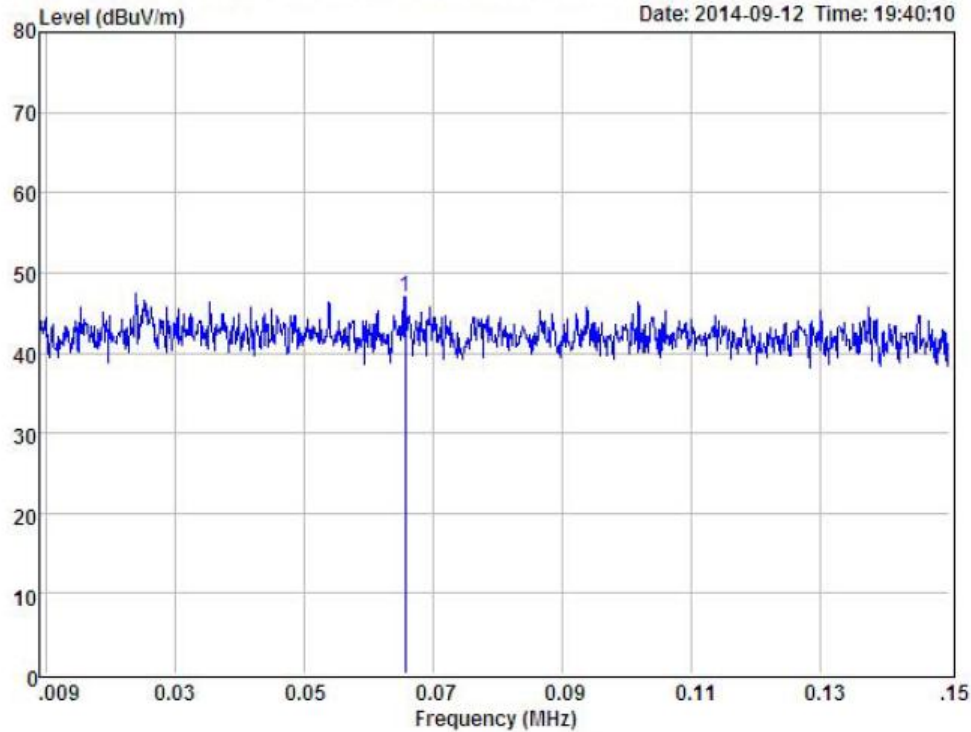


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Data: 21

File: D:\REPORT DATA\SI\Stonex\14.08.20.EM6 (21)

Date: 2014-09-12 Time: 19:40:10



Condition : 3m
EUT :
Model No : HTA-E05
Test Mode :
Power : 120V 60Hz
Test Engineer :
Remark : Y
Temp :
Hum :

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	0.07	22.61	24.39	0.00	0.02	47.02	-----	-----	Peak

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

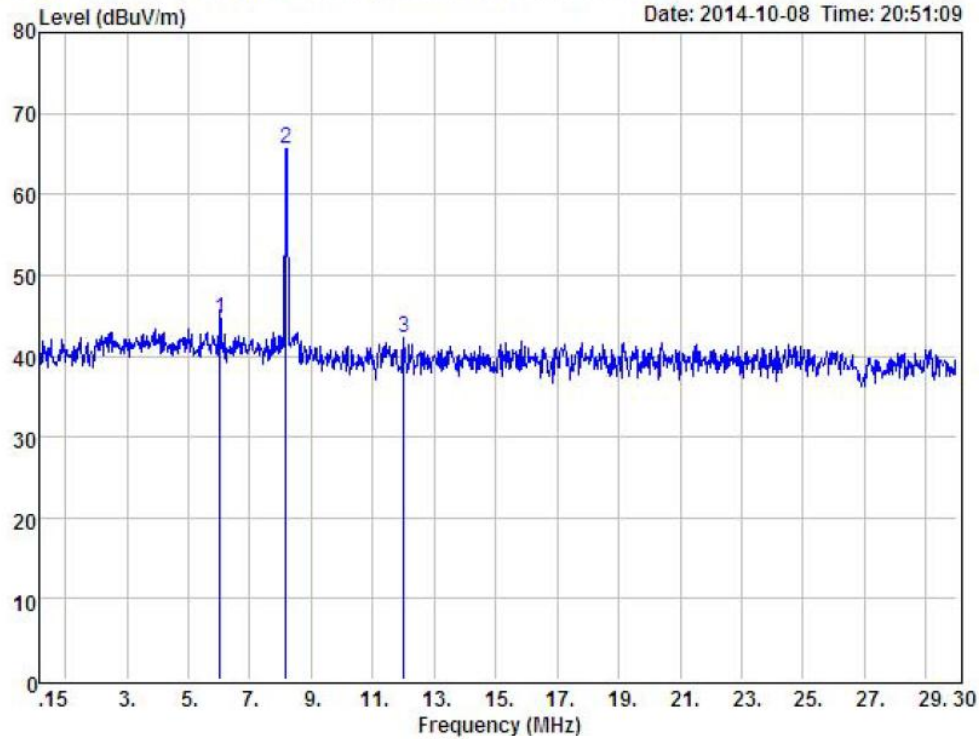


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Data: 25

File: D:\REPORT DATA\SI\Stonex\14.08.20.EM6 (25)

Date: 2014-10-08 Time: 20:51:09



Condition : 3m
 EUT :
 Model No : HTA-E05
 Test Mode :
 Power : 120V 60Hz
 Test Engineer :
 Remark : Y
 Temp :
 Hum :

Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamplifier Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	6.03	18.36	26.24	0.00	0.11	44.71	-----	-----	Peak
2	8.18	39.05	26.49	0.00	0.12	65.66	-----	-----	Peak
3	12.00	15.41	26.66	0.00	0.12	42.19	-----	-----	Peak

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

10 Restricted bands of operation.

10.1 Limit

15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 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	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	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)

10.2 Test Procedure

Put the EUT on a 0.8m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission at 3m distance.

10.3 Test Setup

Same as 5.2.2.

10.4 Test Result

PASS.

Detailed information please see the following.

Frequency(MHz)	Reading(dBuV)	Correction factor1(dB)	Level (dBuV)	limit (dBuV)	Detector
8.291	15.81	26.72	42.53	69.54	QP
8.294	15.76	26.72	42.48	69.54	QP
8.362	15.84	26.73	42.57	69.54	QP
8.366	15.66	26.73	42.39	69.54	QP
8.376	15.12	26.73	41.85	69.54	QP
8.386	15.03	26.73	41.76	69.54	QP
8.414	15.20	26.73	41.93	69.54	QP
8.415	15.04	26.73	41.77	69.54	QP

11 Antenna Requirement

11.1 Standard Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

11.2 Antenna Connected Construction

The directional gains of antenna used for transmitting is 4.2dBi antenna, and the antenna connector is unique antenna and no consideration of replacement. Please see EUT photo for details.

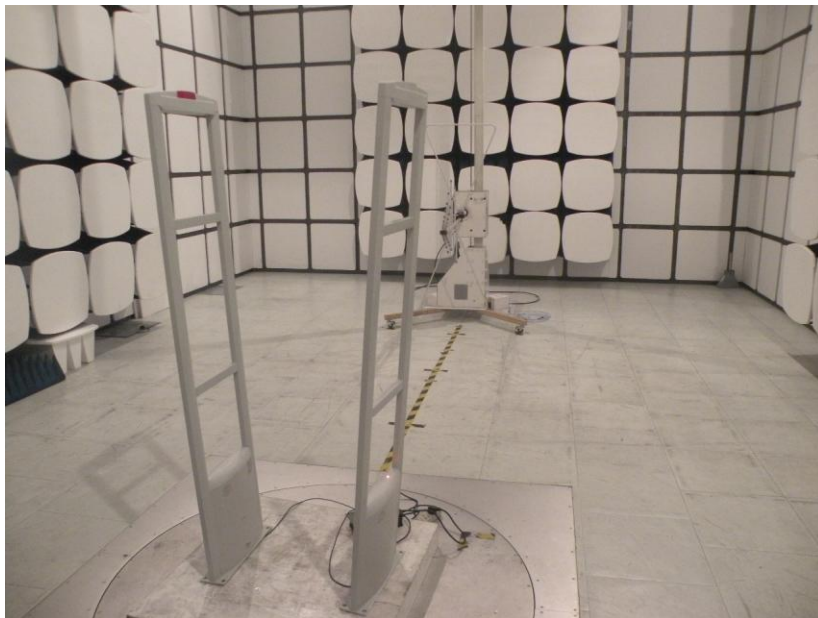
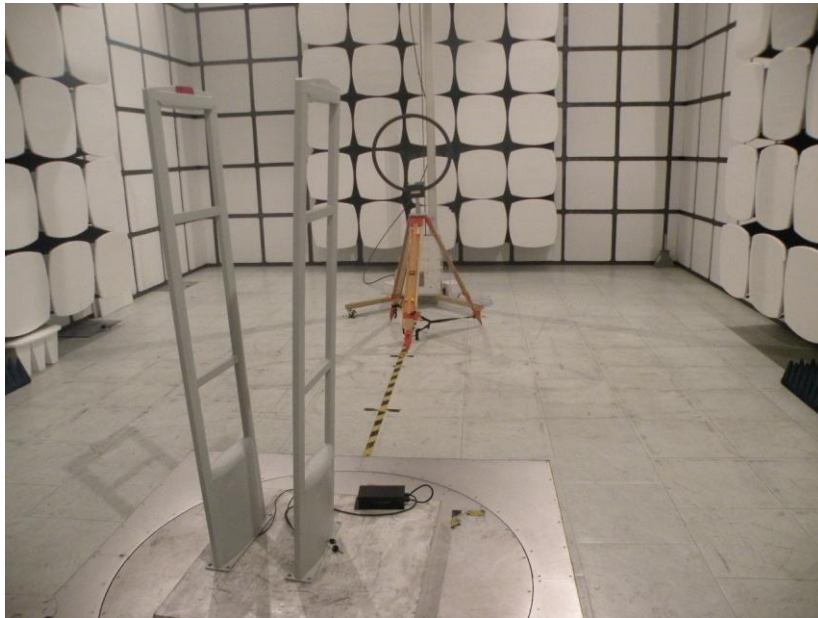
11.3 Result

The EUT antenna is Integral Antenna. It comply with the standard requirement.

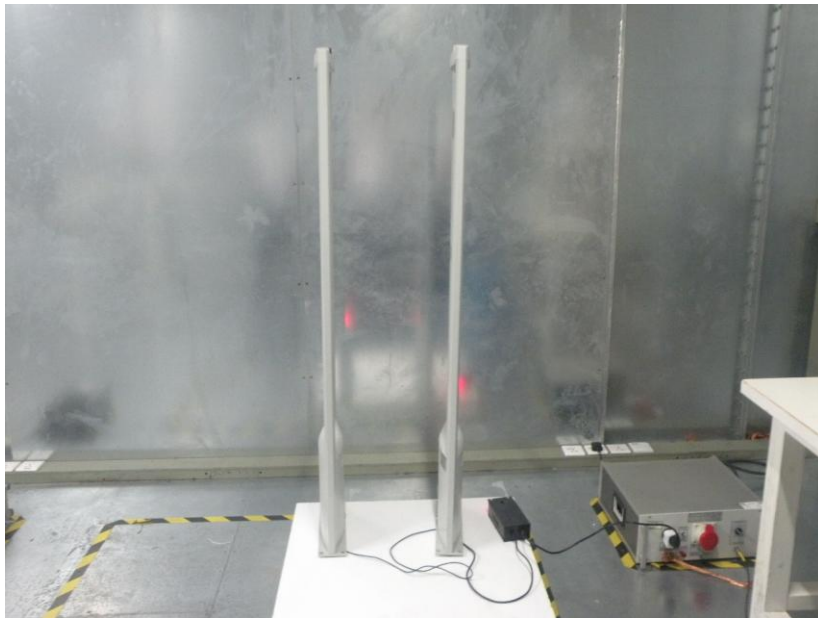
12 Photographs of Test Setup

Photographs-Radiated Emission Test Setup in Chamber

Below 1G



Photographs-Conducted Emission Test Setup



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