SGS-CSTC Standards Technical Services Co., Ltd.

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Email: ee.guangzhou@sgs.com

TEST REPORT

Application No.:	GZEM1404001983IT
Applicant:	Disney Interactive Studios,Inc
FCC ID:	QOF -8037059
Product Name:	Disney Infinity Base INF-8037059
Product Description:	Radio Frequency Identification with 13.56 MHz as carrier.
Model No.:	INF-8037059
Standards:	47 CFR PART 15 SUBPART C:2011 section 15.225 ANSI C63.10:2009
Date of Receipt:	2014-05-15
Date of Test:	2014-05-15 to 2014-05-19
Date of Issue:	2014-05-21
Test Result :	**PASS ***

* In the configuration tested, the EUT detailed in this report complied with the standards specified above. Please refer to section 3 of this report for further details.

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Richard Li May. 2014

Manager

The manufacturer should ensure that all 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.

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. All test results in this report can be traceable to National or International Standards.

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2 Version

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
00		2014-05-21		Original

Authorized for issue by:				
Tested By		Daniel He **(Daniel He) /Project Engineer**		2014-05-15 to 2014-05-19 **Date**
Prepared By		Daniel He **(Daniel He) /Clerk**		2014-05-21 **Date**
Checked By		Storm Shu **(Storm Shu) /Reviewer**		2014-05-21 **Date**

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3 Test Summary

Test	Test Requirement	Test method	Result
Radiated Emission (9 kHz to 1 GHz)	FCC PART 15 C section 15.225	ANSI C63.10: Clasue 6.4, 6.5	PASS
Occupied Bandwidth	FCC PART 15 C section 15.225	ANSI 63.10 Clasue 6.9	PASS
Frequency Stability	FCC PART 15 C section 15.225	ANSI C63.10 Clasue 6.8	PASS
Conducted Emissions at Mains Terminals	FCC PART 15 C section 15.207	ANSI C63.10: Clause 6.2	PASS

Remark:

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radio Frequency.

ANSI C63.10: the detail version is ANSI C63.10:2009 in the whole report.

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4 Contents

1 COVER PAGE 1

2 VERSION 2

3 TEST SUMMARY 3

4 CONTENTS 4

5 GENERAL INFORMATION 5

5.1 CLIENT INFORMATION 5
5.2 GENERAL DESCRIPTION OF E.U.T. 5
5.3 DETAILS OF E.U.T. 5
5.4 DESCRIPTION OF SUPPORT UNITS 5
5.5 DEVIATION FROM STANDARDS 5
5.6 ABNORMALITIES FROM STANDARD CONDITIONS 5
5.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER 5
5.8 TEST LOCATION 5
5.9 TEST FACILITY 6

6 EQUIPMENT USED DURING TEST 7

7 TEST RESULTS 9

7.1 E.U.T. TEST CONDITIONS 9
7.2 ANTENNA REQUIREMENT 10
7.3 RADIATED EMISSIONS 11
7.4 OCCUPIED BANDWIDTH 16
7.5 FREQUENCY STABILITY 18
7.6 CONDUCTED EMISSIONS AT MAINS TERMINALS 150 KHZ TO 30 MHZ 19

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5 General Information

5.1 Client Information

Applicant: Disney Interactive Studios,Inc

Address of Applicant: 1200 Grand Central Avenue,Glendale,California,91201 United States

5.2 General Description of E.U.T.

Product Name: Disney Infinity Base INF-8037059

Model No.: INF-8037059

5.3 Details of E.U.T.

Operating Frequency 13.56MHz

Type of Modulation: BPSK

Antenna Type Cooper Wire printed circuit board

Antenna gain: 0 dBi

Power Supply: DC 5.0V (supplied by XBOX-one)

Power cord: 1.8m unscreened USB cord

5.4 Description of Support Units

Description	Manufacturer	Model No.	SN/Certificate NO
Monitor	SAMSUNG	225MS	CR22HVMP900646W
XBOX- one	Microsoft	Build PV-06	06679-008986

5.5 Deviation from Standards

None.

5.6 Abnormalities from Standard Conditions

None.

5.7 Other Information Requested by the Customer

None.

5.8 Test Location

All tests were performed at:
SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou 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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5.9 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 recognized un the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

- **ACMA**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for tl 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 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 (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 le from the FCC is maintained in our files. Registration 282399, May 31, 2002.

- **Industry Canada (Registration No.: 4620B-1)**

  The 3m/10m Alternate Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., L has been registered by Certification and Engineering of Industry Canada for radio equipment testin with Registration No. 4620B-1.

- **VCCI (Registration No.: R-2460, C-2584, G-449 and T-1179)**

  The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Service Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2460, C-2584，G-449 and T-1179 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 01:2006-10 and Rul of procedure IECEE 02:2006-10, and the relevant IECEE CB-Scheme Operational documents.

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6 Equipment Used during Test

RE in Chamber						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Due date (YYYY-MM-DD)	Calibration Interval
EMC0525	Compact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	2014-08-30	2Y
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100283	2015-04-19	1Y
EMC0056	EMI Test Receiver	Rohde & Schwarz	ESCI	100236	2015-03-03	1Y
EMC0528	RI High frequency Cable	SGS	20 m	N/A	2015-05-09	1Y
EMC2025	Trilog Broadband Antenna 30-3000MHz	SCHWARZBECK MESS-ELEKTRONIK	VULB 9163	9163-450	2016-08-31	3Y
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	2016-08-31	3Y
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	2016-05-04	2Y
EMC2026	Horn Antenna 1-18GHz	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	9120D-841	2016-08-31	3Y
EMC0518	Horn Antenna	Rohde & Schwarz	HF906	100096	2014-07-01	2Y
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	2015-03-03	1Y
EMC2065	Amplifier	HP	8447F	N/A	2014-08-31	1Y
EMC2063	1-26GHz Pre Amplifier	Compliance Direction System Inc.	PAP-1G26-48	6279.628	2014-07-29	1Y
EMC0075	310N Amplifier	Sonama	310N	272683	2015-03-03	1Y
EMC0523	Active Loop Antenna	EMCO	6502	42963	2016-03-03	2Y
EMC2041	Broad-Band Horn Antenna (14)15-26.5(40)GHz	SCHWARZBECK MESS-ELEKTRONI	BBHA 9170	9170-375	2014-06-01	3Y
EMC2069	2.4GHz filter	Micro-Tronics	BRM 50702	149	2015-04-19	1Y
EMC0530	10m Semi-Anechoic Chamber	ETS	N/A	N/A	2016-05-03	2Y

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Conducted Emission						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Due date (YYYY-MM-DD)	Calibration Interval
EMC0306	Shielding Room	Zhong Yu	8 x 3 x 3.8 m^3	N/A	N/A	N/A
EMC0118	Two-line v-netwok	R&S	ENV216	100359	2015-03-03	1Y
EMC0102	LISN	SCHAFFNER CHASE	MN2050D/1	1421	2014-08-31	1Y
EMC2046	Artificial Mains Network (LISN)	AFJ Instruments	LT32C	S.N.32031120150	2015-03-03	1Y
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	2015-03-03	1Y
EMC0107	Coaxial Cable	SGS	2m	N/A	2014-07-25	2Y
EMC0106	Voltage Probe	SGS	N/A	N/A	2015-4-19	1Y
EMC0120	8 Line ISN	Fischer Custom Communications	FCC-TLISN-T8-02	20550	2014-08-31	1Y
EMC0121	4 Line ISN	Fischer Custom Communications	FCC-TLISN-T4-02	20549	2014-08-31	1Y
EMC0122	2 Line ISN	Fischer Custom Communications	FCC-TLISN-T2-02	20548	2014-08-31	1Y
EMC2047	CDN	Elektronik-Feinmechanik	L-801:AF2	2793	2014-11-11	3Y
EMC2048	CDN	Elektronik-Feinmechanik	L-801:M2/M3	2738	2014-11-11	3Y
EMC2062	6dB Attenuator	HP	8491A	24487	2015-04-19	1Y
EMC167	Conical metal housing	SGS-EMC	N/A	N/A	2016-02-16	2Y

General used equipment						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Due date (YYYY-MM-DD)	Calibration Interval
EMC0006	DMM	Fluke	73	70681569	2014-09-13	1Y
EMC0007	DMM	Fluke	73	70671122	2014-09-13	1Y

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7 Test Results

7.1 E.U.T. test conditions

Test Voltage: AC 120V

Requirements: **15.31(e)**: For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

Type of antenna: Cooper Wire printed circuit board

Operating Environment:
Temperature: 22-25.0 °C
Humidity: 48-55% RH
Atmospheric Pressure: 1001-1010 mbar

Test frequencies and frequency range: According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and, if required, reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

According to the 15.33 (a) For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in the following table:

Number of fundamental frequencies to be tested in EUT transmit band

Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
1 MHz or less	1	Middle
1 MHz to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

Frequency range of radiated emission measurements

Lowest frequency generated in the device	Upper frequency range of measurement
9 kHz to below 10 GHz	10th harmonic of highest fundamental frequency or to 40 GHz, whichever is lower
At or above 10 GHz to below 30 GHz	5th harmonic of highest fundamental frequency or to 100 GHz, whichever is lower
At or above 30 GHz	5th harmonic of highest fundamental frequency or to 200 GHz, whichever is lower, unless otherwise specified

Remark:Test frequency is 13.56MHz.

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7.2 Antenna Requirement

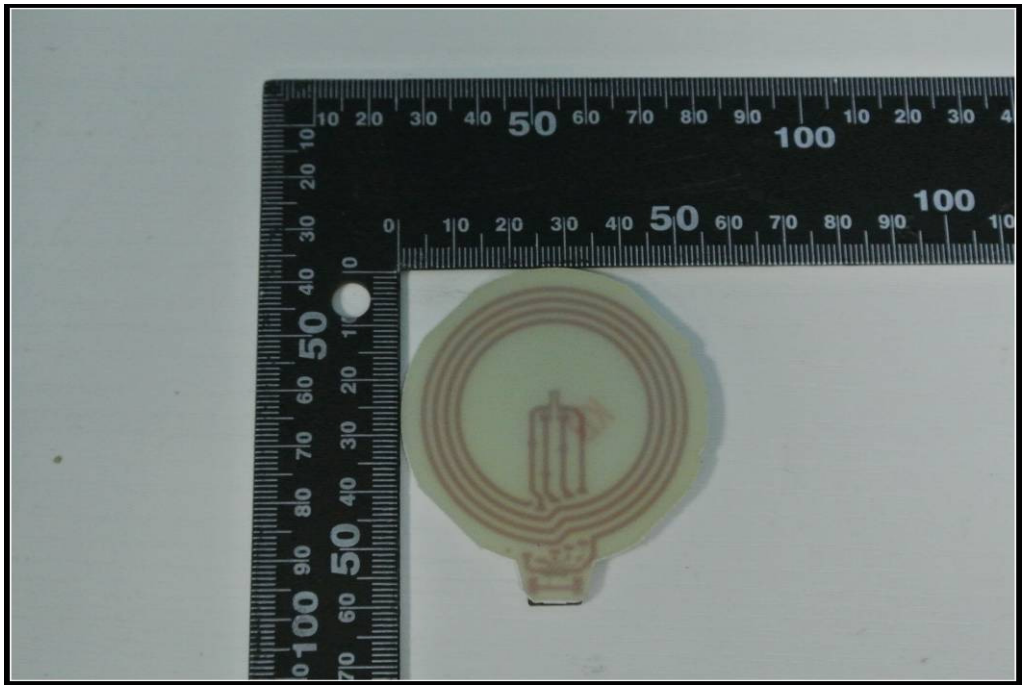
Standard requirement

15.203 requirement:

For intentional device. According to 15.203. 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.

EUT Antenna

The antenna is an Cooper Wire printed circuit board and integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 0 dBi.



Test result: The unit does meet the FCC requirements.

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7.3 Radiated Emissions

Test Requirement: FCC Part 15 C section 15.225

Test Method: ANSI C63.10: Clause 6.4, 6.5

Measurement Distance: 3 m (Semi-Anechoic Chamber)

Test Status: Test the EUT connected with XBOX-one in reading tags status.

Requirements:

the field strength of emissions from intentional radiators operated under this Section shall not exceed the following:

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.i.e. **124.0dBμV/m** @ 3 m.

15.225(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. i.e. **90.5dBμV/m** @ 3 m.

15.225l: 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. i.e. **80.5dBμV/m** @ 3 m.

15.225(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

Out of band emissions shall not exceed:

Frequency range (MHz)	**Quasi-peak limits(dBμV/m)**
1.705 - 30.0	69.5
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960	54
At transitional frequencies the lower limit applies.	

Test Procedure:

1) 9 kHz to 30 MHz emissions:

For testing performed with the loop antenna. The center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specied distance from the EUT.During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane.

2) 30 MHz to 1 GHz emissions:

For testing perfomed with the bi-log type antenna. The measurement is performed with the EUT rotated 360º, the antenna height scaned between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

Detector Peak for pre-scan

Test Receiver test setup	Detector		
	9 kHz-150 kHz	150 kHz-30 MHz	30 MHz-1000 MHz
RBW	200 Hz	9 kHz	120 kHz
VBW	≥ RBW	≥ RBW	≥ RBW
Sweep	auto	auto	auto
Detector function	QP	QP	AV
Trace	max hold	max hold	max hold

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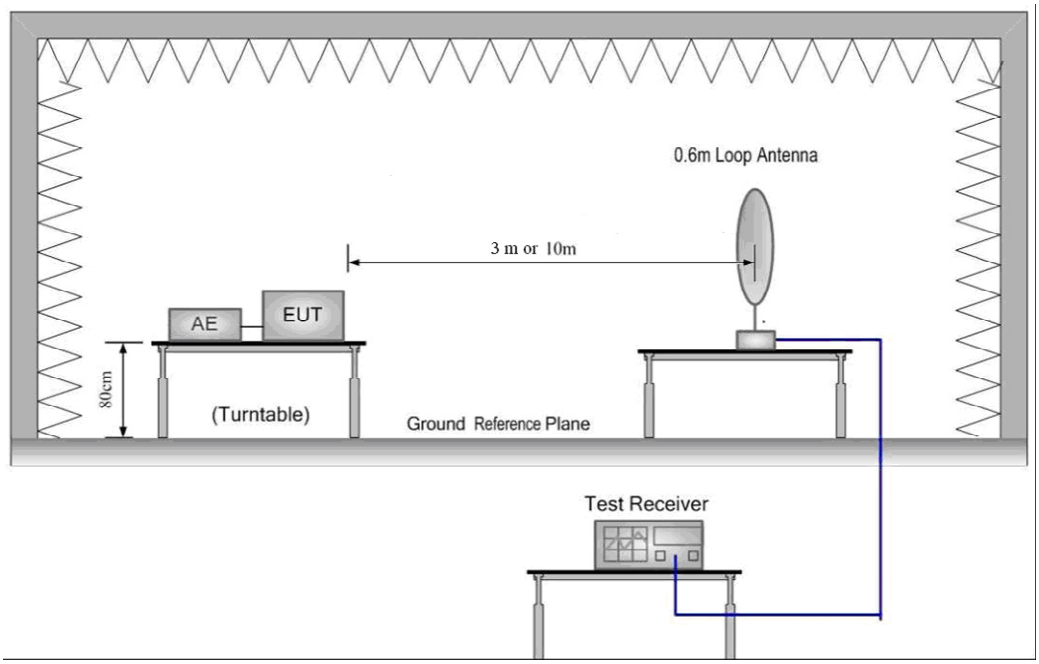
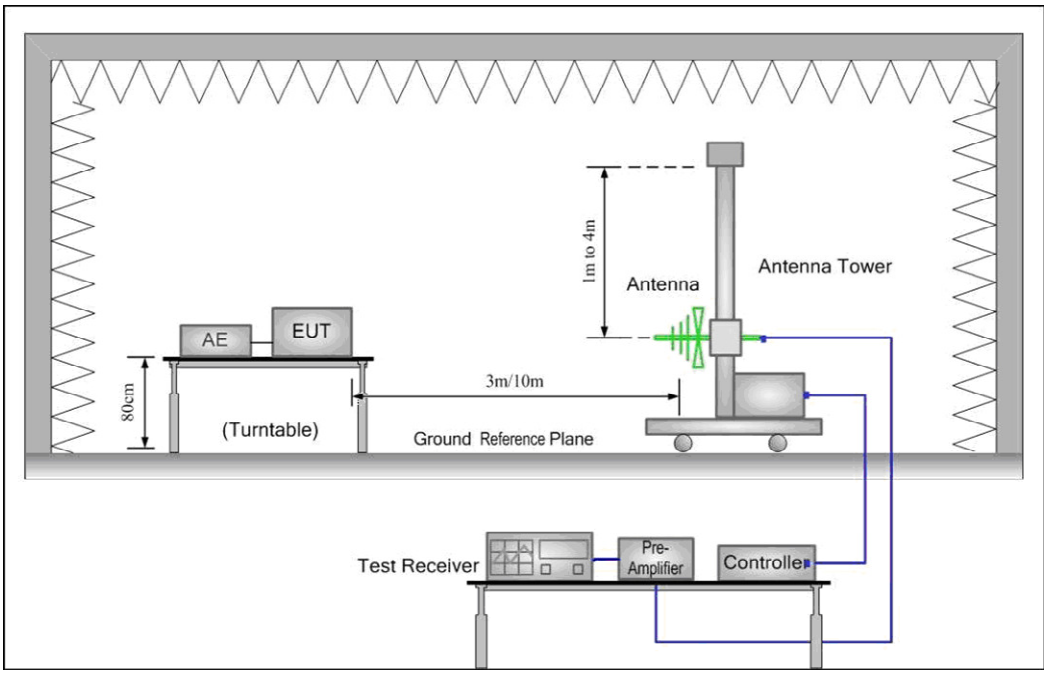
Test Configuration:

1) 9 kHz to 30 MHz emissions:



2) 30 MHz to 1 GHz emissions:



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1) Intentional Emission and Spectrum Mask

Test Frequency (MHz)	Quasi-Peak (dBµV/m)		Limits (dBµV/m)	Over limit(dB)	
	Vertical	Horizontal		Vertical	Horizontal
13.110	49.79	49.56	69.5	-19.71	-19.94
13.410	49.35	48.43	80.5	-31.15	-32.07
13.553	49.41	49.74	90.5	-41.09	-40.76
13.560	53.72	54.98	124.0	-70.28	-69.02
13.567	48.63	49.25	90.5	-41.87	-41.25
13.710	48.98	49.04	80.5	-31.52	-31.46
14.010	48.75	49.62	69.5	-20.75	-19.88

2) Spurious Emission: below 30 MHz

Test Frequency (MHz)	Quasi-Peak (dBµV/m)		Limits (dBµV/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
3.586	49.14	48.28	69.5	-20.36	-21.22
9.745	49.49	49.99	69.5	-20.01	-19.51
25.397	49.20	49.47	69.5	-20.30	-20.03

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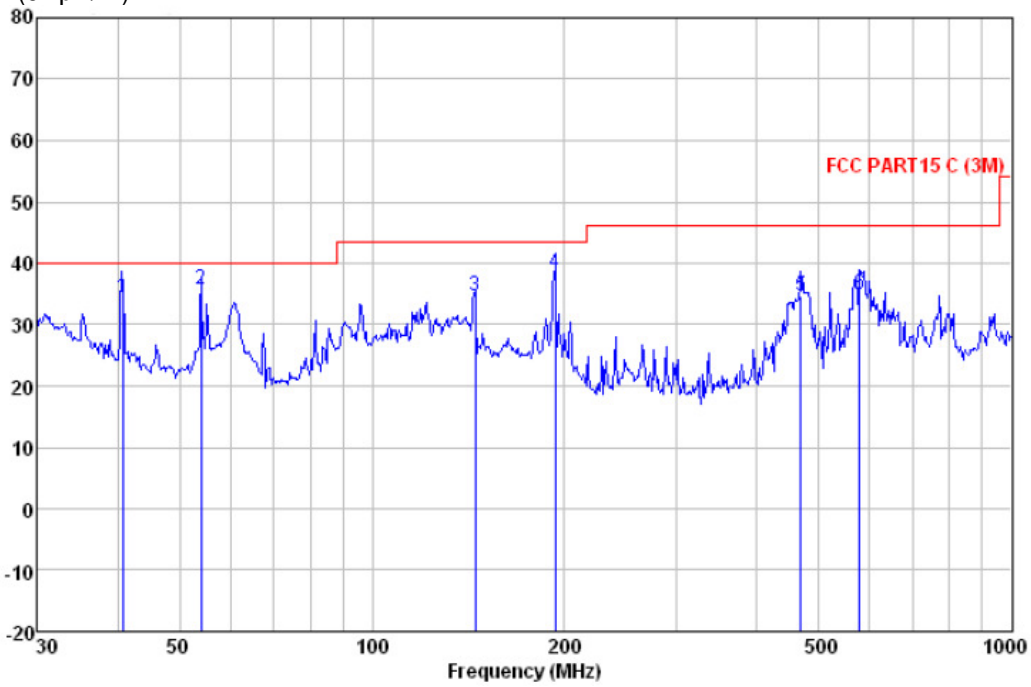
3) Spurious Emssion: above 30 MHz

The following test results were performed on the EUT.

Vertical:

Peak scan

Level (dBµV/m)



Quasi-peak measurement

Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
40.711	49.35	13.58	0.94	29.50	34.37	40.00	-5.63	QP
54.071	51.25	13.06	1.05	29.52	35.84	40.00	-4.16	QP
144.842	54.56	8.23	1.69	29.70	34.78	43.50	-8.72	QP
193.095	55.44	10.56	1.86	29.52	38.34	43.50	-5.16	QP
468.876	45.26	15.83	2.99	29.53	34.55	46.00	-11.45	QP
578.670	43.14	18.09	3.20	29.42	35.01	46.00	-10.99	QP

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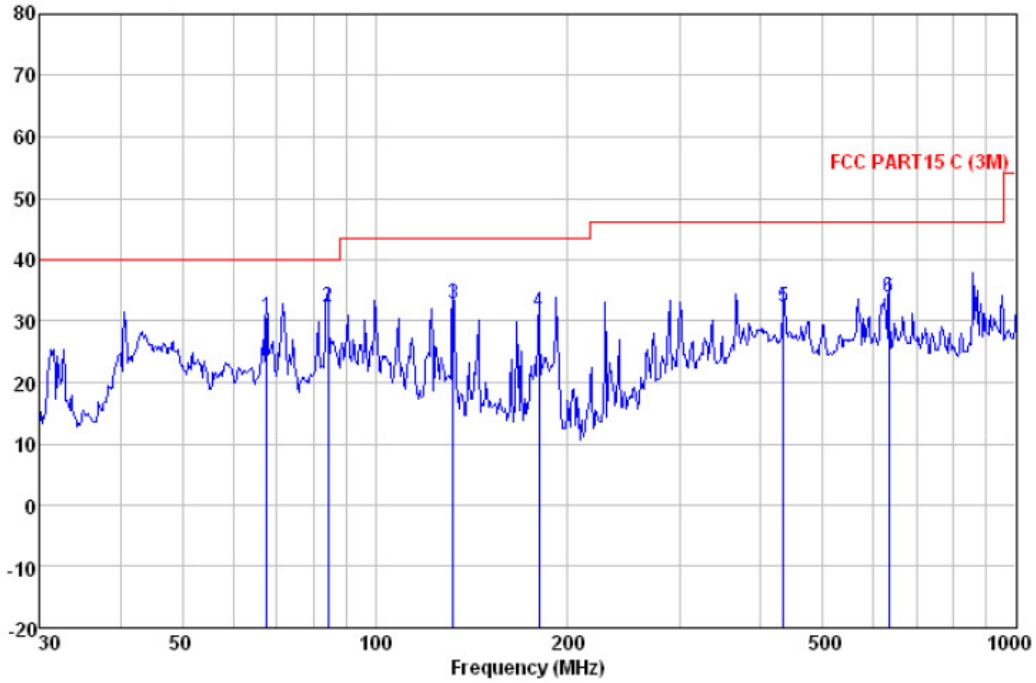
Horizontal:

Peak scan

Level (dBµV/m)



Quasi-peak measurement

Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
67.675	49.41	9.61	1.21	29.59	30.64	40.00	-9.36	QP
84.405	50.37	10.16	1.31	29.65	32.19	40.00	-7.81	QP
132.221	52.22	8.77	1.62	29.70	32.91	43.50	-10.59	QP
180.017	49.49	9.68	1.82	29.57	31.42	43.50	-12.08	QP
434.065	43.40	15.53	2.86	29.56	32.23	46.00	-13.77	QP
633.907	41.21	18.58	3.40	29.36	33.83	46.00	-12.17	QP

The field strength is calculated by adding the Antenna Factor, Cable Factor & Peramplifier. The basic equation with a sample calculation is as follows:
Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Peramplifier Factor.
Remark:
According to 15.35 (b) When average radiated emission measurements are specified in the regulations, including emission measurements below 1000 MHz, there is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules, e.g., see Section 15.255.

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7.4 Occupied Bandwidth

Test Requirement: FCC Part 15 C section 15.215

Test Method: ANSI C63.10: Clause 6.9

Operation within the band 13.110 –14.010 MHz

Test Status: Test the EUT connected with XBOX-one in reading tags status.

Requirements:

15.215(c), Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the 20 dB bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Test Procedure:

The useful radiated emission from the EUT was detected by the spectrum analyzer with peak detector. Record the 20 dB bandwidth of the carrier.

The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector. The vertical Scale is set to 10dB per division. The horizontal scale is set to 20 kHz per division. Read the down 20dB bandwidth of the carrier.

Set the spectrum analyzer: Span = 15 kHz

Set the spectrum analyzer: RBW = 500 Hz, VBW = 500 Hz

Sweep = auto; Detector Function = Peak. Trace = Max Hold.

Mark the peak frequency and -20dB points bandwidth.

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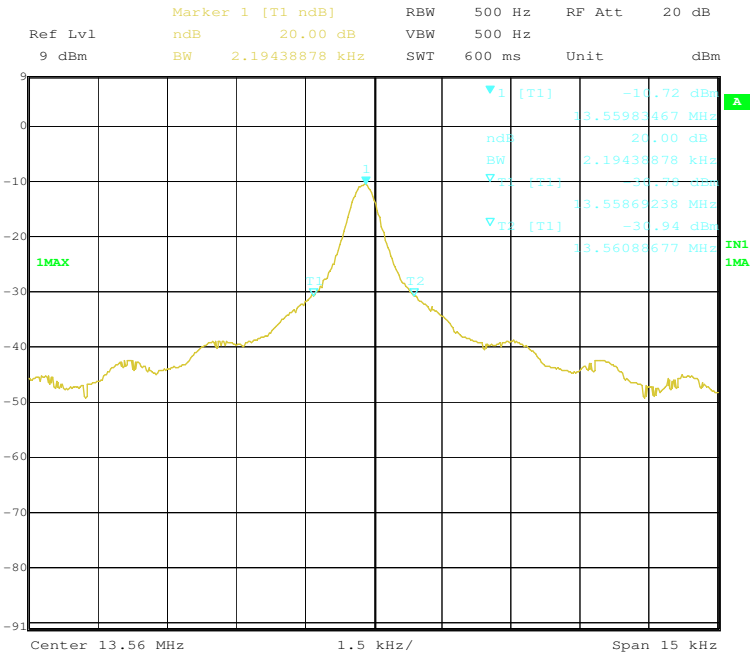
Test plot as below:



20dB bandwidth lower frequency : 13.55869MHz

20dB bandwidth upper frequency : 13.56088MHz

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7.5 Frequency Stability

Test Requirement: FCC Part 15 C section 15.225 (e)

Test Method: ANSI C63.10: Clause 6.8

Test Status: Test the EUT connected with XBOX-one in reading tags status.

Requirements:

15.225(e): The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency over a temperature variation of –20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Test Procedure:

1. The EUT was turn-up.
2. With all power removed, the temperature was decreased to -20°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was noted within one minute. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
3. The temperature tests were performed for the worst case.
4. Variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20°C. The maximum frequency change was recorded.

Test Result:

Operating Frequency: 13.560MHz,
Limit: total emission within +/- 1.3560kHz(+/- 0.01% of the operating frequency)

Frequency stability vs. temperature		
Environment Temperature (℃)	Measured Frequency (MHz)	Frequency Measure with Time Elapsed Total emission within kHz
50	13.560012	0.000178
40	13.560214	0.000380
30	13.559965	0.000131
20	13.559834	reference
10	13.560159	0.000325
0	13.559944	0.000110
-10	13.560239	0.000405
-20	13.559827	0.000178

Frequency stability vs.input voltage		
Power Supplied (VAC)	Measured Frequency (MHz)	Frequency Measure with Time Elapsed Total emission within kHz
102	13.559965	0.000131
120	13.559834	reference
132	13.560321	0.000487
138	13.560122	0.000288

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7.6 Conducted Emissions at Mains Terminals 150 kHz to 30 MHz

Test Requirement: FCC Part 15 C section 15.207

Test Method: ANSI C63.10: Clause 6.2

Frequency Range: 150 kHz to 30 MHz

Detector: Peak for pre-scan (9 kHz Resolution Bandwidth)

Test Limit

Limits for conducted disturbance at the mains ports of class B

Frequency Range (MHz)	**Class B Limit dB(µV)**	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
NOTE 1 The limit decreases linearly with the logarithm of the frequency in the range 0,15 MHz to 0,50 MHz.		

EUT Operation: Test EUT keep reading the tags mode. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Test the EUT connected with XBOX-one in reading tags status.

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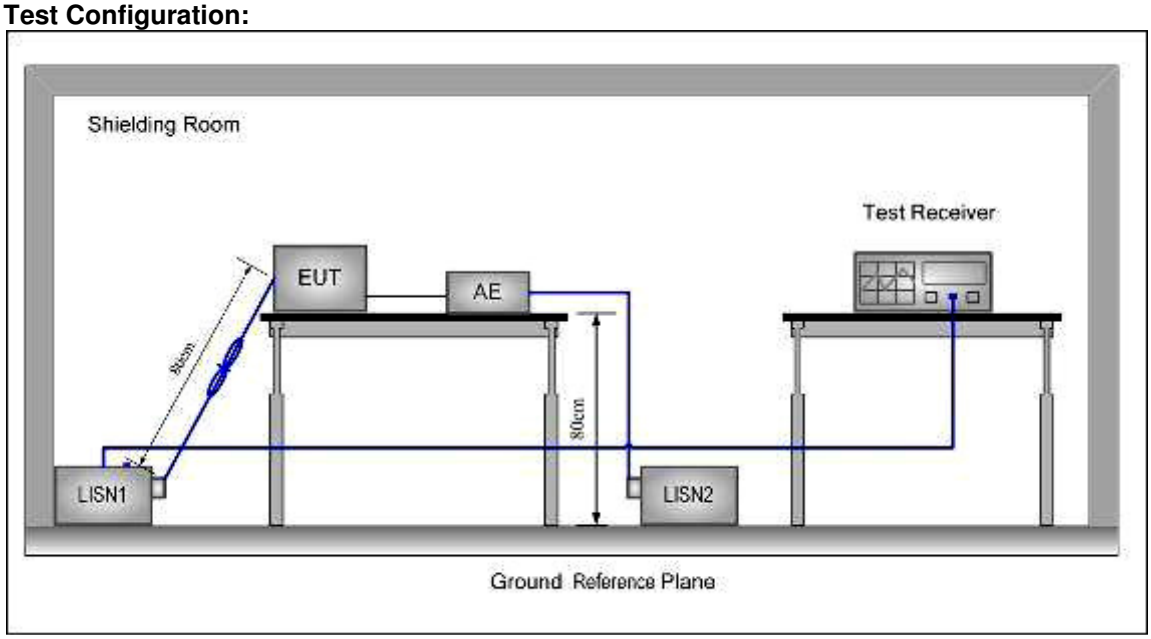
Test Configuration:



Test procedure:

1. The mains terminal disturbance voltage test was conducted in a shielded room.

2. The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.

4. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0,4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0,8 m from the LISN 2.

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7.6.1 Measurement Data

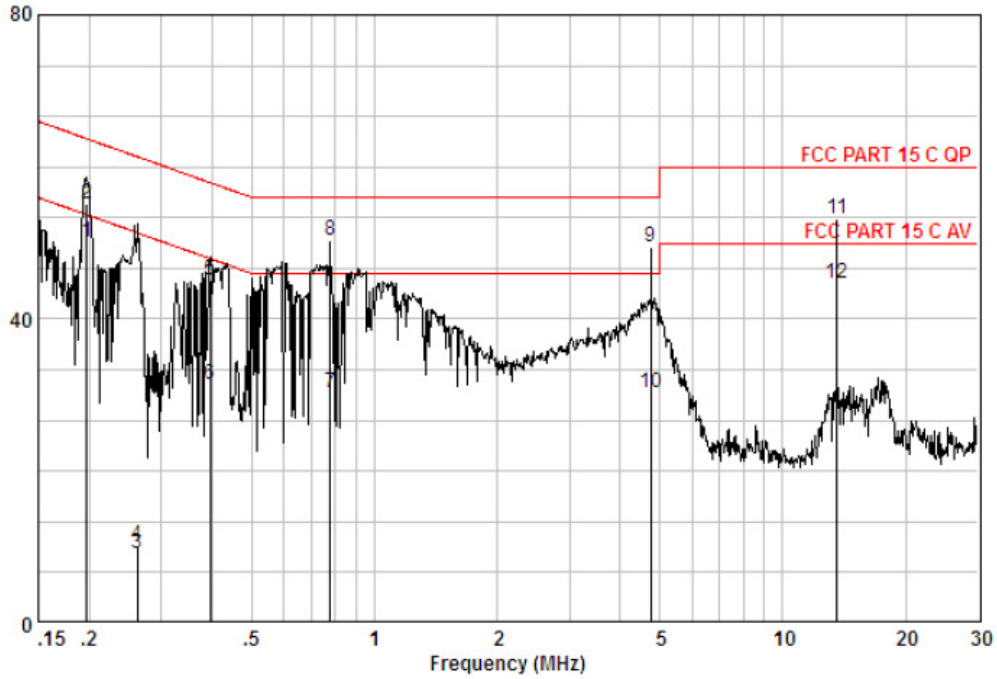
An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected. For EUT the communicating was worst case mode.

The following Quasi-Peak and Average measurements were performed on the EUT:

Neutral Line

Level(dB μ V)



Measure data:

Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.198	40.33	0.12	9.66	50.11	53.71	-3.60	AVERAGE
0.198	45.36	0.12	9.66	55.14	63.71	-8.57	QP
0.262	-0.63	0.11	9.66	9.14	51.38	-42.24	AVERAGE
0.262	0.52	0.11	9.66	10.29	61.38	-51.09	QP
0.396	35.48	0.06	9.66	45.20	57.95	-12.74	QP
0.396	21.77	0.06	9.66	31.49	47.95	-16.45	AVERAGE
0.779	20.57	0.06	9.67	30.30	46.00	-15.70	AVERAGE
0.779	40.72	0.06	9.67	50.45	56.00	-5.55	QP
4.746	39.56	0.18	9.71	49.45	56.00	-6.55	QP
4.746	20.37	0.18	9.71	30.26	46.00	-15.74	AVERAGE
13.560	43.08	0.24	9.97	53.29	60.00	-6.71	QP
13.560	34.42	0.24	9.97	44.63	50.00	-5.37	AVERAGE

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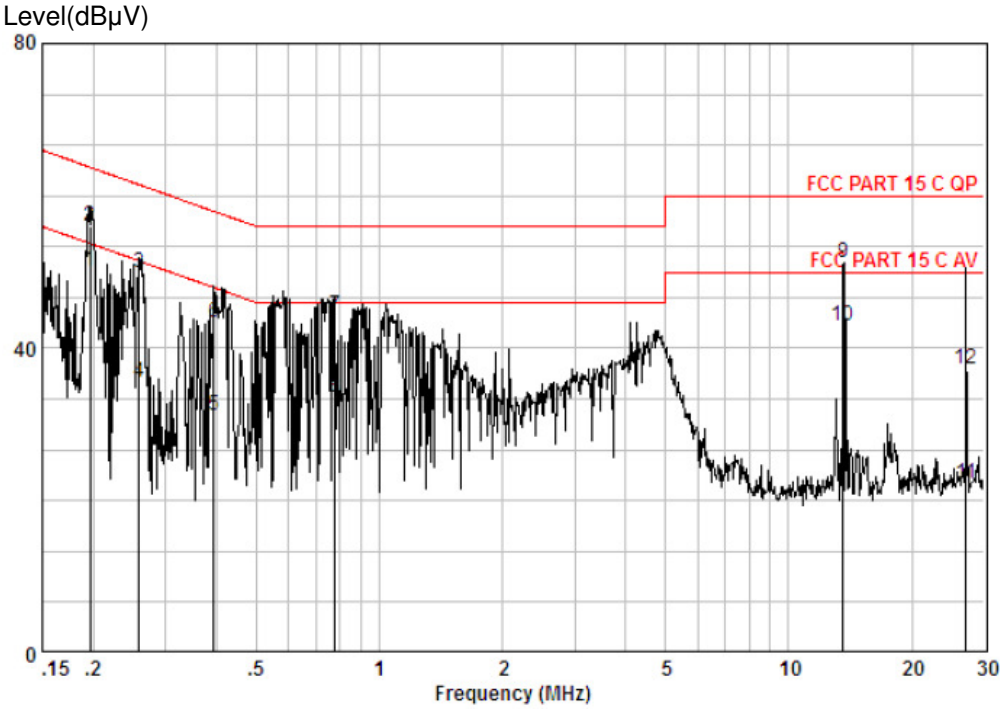
Live Line



Measure result:

Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.197	40.41	0.12	9.60	50.13	53.76	-3.63	AVERAGE
0.197	46.36	0.12	9.60	56.08	63.76	-7.68	QP
0.259	40.14	0.11	9.62	49.87	61.47	-11.60	QP
0.259	25.77	0.11	9.62	35.50	51.47	-15.97	AVERAGE
0.393	21.57	0.06	9.61	31.24	47.99	-16.75	AVERAGE
0.393	33.62	0.06	9.61	43.29	57.99	-14.70	QP
0.779	34.44	0.06	9.70	44.20	56.00	-11.80	QP
0.779	23.77	0.06	9.70	33.53	46.00	-12.47	AVERAGE
13.560	41.08	0.24	9.87	51.19	60.00	-8.81	QP
13.560	32.77	0.24	9.87	42.88	50.00	-7.12	AVERAGE
27.122	11.34	0.43	10.43	22.20	50.00	-27.80	AVERAGE
27.122	26.44	0.43	10.43	37.30	60.00	-22.70	QP

--The End of Report--

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