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Report No.: SHEM120200011220  
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## **FCC MPE REPORT**

<b>Application No.:</b>	SHEM1202000112RF
<b>Applicant:</b>	Monster, LLC
<b>Equipment Under Test (EUT):</b>	
<b>NOTE:</b> The following sample(s) submitted was/were identified on behalf of the client as	
<b>EUT Name:</b>	StreamCast HD Receiver
<b>Brand Name:</b>	Monster Products
<b>Model No:</b>	MSP STRC WL REC WW
<b>Fundamental Frequency :</b>	2412-2464 MHz, 5736-5814MHz and 5180-5240MHz*
<b>FCC ID:</b>	RJE-178458
<b>IC:</b>	7512A-178458
<b>Standards:</b>	FCC Rules 47 CFR §2.1091 FCC OET Bulletin 65 supplement C
<b>Date of Receipt:</b>	Feb. 13, 2012
<b>Date of Test:</b>	Nov. 12, 2012 to Mar. 26, 2013.
<b>Date of Issue:</b>	Apr. 24, 2013
<b>Test Result :</b>	<b>PASS *</b>

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

**Tony Wu**

**E&E Section Manager**

**SGS-CSTC (Shanghai) Co., Ltd.**

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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**Version**

Revision Record				
Version	Chapter	Date	Modifier	Remark
00	/	Apr.22, 2013	/	Original

<b>Authorized for issue by:</b>				
<b>Engineer</b>		Zenger Zhang		Zenger Zhang
		<b>Print Name</b>		
<b>Clerk</b>		Amy Wang		Amy Wang
		<b>Print Name</b>		
<b>Reviewer</b>		Keny Xu		Keny. xu
		<b>Print Name</b>		

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## 4 General Information

### 4.1 Client Information

<b>Applicant :</b>	Monster, LLC
<b>Applicant Address:</b>	7251 West Lake Mead Blvd Suite 342 Las Vegas, NV 89128
<b>Manufacturer:</b>	Hansong(Nanjing) Technology Ltd.
<b>Manufacturer Address:</b>	8 <sup>th</sup> Kangping Road, Jiangning Economy and Technology Development Zone,Nanjing,201106,China

### 4.2 Details of E.U.T.

<b>EUT Name:</b>	StreamCast HD Receiver
<b>Brand Name:</b>	Monster Products
<b>Model No:</b>	MSP STRC WL REC WW
<b>Power Supply:</b>	5.2V DC
<b>Frequency Band</b>	2.4GHz Wi-Fi Band: 2412MHz to 2464MHz 5.8GHz Wi-Fi Band: 5736MHz to 5814MHz 5.2GHz Wi-Fi Band: 5180MHz to 5240MHz
<b>Antenna Type:</b>	Integral antenna Note:Antenna Gain 2.0dBi

### 4.3 Description of Support Units

Name	Model No.	Remark
AC Adapter	N/A	N/A

## 4.4 Test Location

All tests were performed at SGS E&E EMC lab

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
No.588 West Jindu Road, Songjiang District, Shanghai, China. 201612.  
Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

## 4.5 Test Facility

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

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing. Date of expiry: 2014-07-26.

- **FCC – Registration No.: 402683**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683, Expiry Date: 2015-02-22.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A. Expiry Date: 2014-09-20.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3868 and C-4336 respectively. Date of Registration: 2012-05-29. Date of Expiry: 2015-05-28.

## 5 Test Standards and Limits

The Equipment under Test (EUT) has been tested at SGS's (own or subcontracted) laboratories.

The following table summarizes the specific reference documents such as harmonized standards or test specifications which were used for testing as SGS's (own or subcontracted) laboratories.

Identity	Document Title	Version
FCC OET Bulletin 65 supplement C	Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields	2001

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

### FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

#### (B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

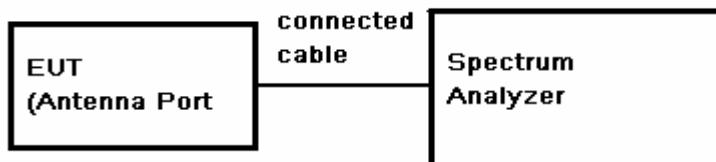
f = frequency in MHz \*Plane-wave equivalent power density

## 6 Measurement and Calculation

### 6.1 Maximum transmit power

**EUT Operation:** Test in fixing frequency operating mode at lowest, middle and highest frequency of the every working band.

**Test Configuration:**



#### Test Results

Test Mode		CH	Frequency (MHz)	Reading Peak Power (dBm)	Cable Loss (dB)	Output Peak Power (dBm)	Output Peak Power (mW)
Band	Antenna						
2.4GHz Band	Antenna A	Low	2412	17.25	0.5	17.75	59.57
		Middle	2438	17.52	0.5	18.02	63.39
		High	2464	17.22	0.5	17.72	59.16
	Antenna B	Low	2412	17.05	0.5	17.55	59.57
		Middle	2438	17.40	0.5	17.9	63.39
		High	2464	17.21	0.5	17.71	59.16
5.8GHz Band	Antenna A	Low	5736	16.36	0.5	16.86	48.53
		Middle	5762	16.49	0.5	16.99	50.00
		High	5814	16.30	0.5	16.80	47.86
	Antenna B	Low	5736	16.34	0.5	16.84	48.53
		Middle	5762	16.56	0.5	17.06	50.00
		High	5814	16.43	0.5	16.93	47.86
5.2GHz Band	Antenna A	Low	5180	4.06	0.5	4.56	2.86
		Middle	5210	3.64	0.5	4.14	2.59
		High	5240	3.84	0.5	4.34	2.72
	Antenna B	Low	5180	5.13	0.5	5.63	2.86
		Middle	5210	2.98	0.5	3.48	2.59
		High	5240	3.77	0.5	4.27	2.72

Note: For 2.4GHz band output power please reference report: SHEM120200011218

For 5.2GHz band output power please reference report: SHEM120200011219

## 6.2 MPE Calculation

Equation from page 18 of OET 65, Edition 97-01

$$S = PG^* \text{ Duty factor} / 4\pi R^2$$

P = Power Input to antenna

G = Antenna Gain

R = distance to the center of radiation of antenna (in meter) = 20cm

Note:

$$1) P (\text{Watts}) = 10^{\frac{dBm}{10}} / 1000$$

$$2) G (\text{Antenna gain in numeric}) = 10^{\text{Antenna gain in dBi}} / 10$$

$$3) \text{MPE limit} = 1 \text{mW/cm}^2$$

Test Mode		CH	Frequency (MHz)	Output Peak Power (mW)	Antenna Gain (dBi)	R (cm)	MPE (mW/cm <sup>2</sup> )	Results
Band	Antenna							
2.4GHz Band	Antenna A	Low	2412	59.57	2.0	20	0.019	Pass
		Middle	2438	63.39	2.0	20	0.020	Pass
		High	2464	59.16	2.0	20	0.019	Pass
	Antenna B	Low	2412	59.57	2.0	20	0.019	Pass
		Middle	2438	63.39	2.0	20	0.020	Pass
		High	2464	59.16	2.0	20	0.019	Pass
5.8GHz Band	Antenna A	Low	5736	48.53	2.0	20	0.015	Pass
		Middle	5762	50.00	2.0	20	0.016	Pass
		High	5814	47.86	2.0	20	0.015	Pass
	Antenna B	Low	5736	48.53	2.0	20	0.015	Pass
		Middle	5762	50.00	2.0	20	0.016	Pass
		High	5814	47.86	2.0	20	0.015	Pass
5.2GHz Band	Antenna A	Low	5180	2.86	2.0	20	0.001	Pass
		Middle	5210	2.59	2.0	20	0.001	Pass
		High	5240	2.72	2.0	20	0.001	Pass
	Antenna B	Low	5180	2.86	2.0	20	0.001	Pass
		Middle	5210	2.59	2.0	20	0.001	Pass
		High	5240	2.72	2.0	20	0.001	Pass

## **7 EUT Constructional Details**

Refer to the < Monster\_RX \_External Photos > & < Monster\_RX \_Internal Photos >.

***THE END OF REPORT***