



**CENTRE OF TESTING SERVICE
INTERNATIONAL**

OPERATE ACCORDING TO ISO/IEC 17025

FCC ID TEST REPORT

TEST REPORT NUMBER : CGZ3130426-00305-E



**CENTRE OF TESTING SERVICE CO., LTD.
A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China**



TEST REPORT For FCC ID

47 CFR PART 15 OCT, 2012

Report Reference No. CGZ3130426-00305-E

Date of issue 28 June 2013

Testing Laboratory Name CENTRE OF TESTING SERVICE CO., LTD.

Address A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Testing location/ procedure Full application of Harmonised standards Partial application of Harmonised standards Other standard testing method

Applicant's name SHARPVISION CO., LTD.

Address 5/F., #3 Building, Huangzhou Industrial Park, Chebei Rd., Tianhe Dist., 510665 Guangzhou, China

Test specification

Standard 47 CFR PART 15 OCT, 2012

Test Report Form No. CTSEMC-1.0

TRF Originator CENTRE OF TESTING SERVICE CO., LTD.

Master TRF Dated 2009-01

CENTRE OF TESTING SERVICE CO., LTD. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the CENTRE OF TESTING SERVICE CO., LTD is acknowledged as copyright owner and source of the material. CENTRE OF TESTING SERVICE CO., LTD takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Test item description : 7"Digital Wireless System

Trade Mark..... /

Manufacturer SHARPVISION CO., LTD.

Model/Type reference DW639

Ratings DC 12V

Operating Frequency 2403MHz ~2478MHz

Result PASSED

Compiled by:

Kate zhang / File administrators

Supervised by:

Duke yang / Technique principal

Approved by:

Vincent yao / Manager

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

FCC ID -- T E S T R E P O R T

Test Report No. : CGZ3130426-00305-E

28 June 2013
Date of issue

Type / Model..... DW639

EUT..... 7"Digital Wireless System

Applicant..... SHARPVISION CO.,LTD.Address..... 5/F., #3 Building, Huangzhou Industrial Park, Chebei Rd.,Tianhe Dist.,
510665 Guangzhou, China

Telephone..... +86-20-66670988-231

Fax..... +86-20-66670977

Contact..... Hongyuan Zhang

Manufacturer..... SHARPVISION CO.,LTD.Address..... 5/F., #3 Building, Huangzhou Industrial Park, Chebei Rd.,Tianhe Dist.,
510665 Guangzhou, China

Telephone..... +86-20-66670988-231

Fax..... +86-20-66670977

Contact..... Hongyuan Zhang

Test report holder..... SHARPVISION CO.,LTD.Address..... 5/F., #3 Building, Huangzhou Industrial Park, Chebei Rd.,Tianhe Dist.,
510665 Guangzhou, China

Telephone..... +86-20-66670988-231

Fax..... +86-20-66670977

Contact..... Hongyuan Zhang

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway,Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

TABLE OF CONTENTS

Description	Page
1.TEST STANDARDS.....	5
2.SUMMARY	5
2.1 GENERAL REMARKS	5
2.2 FINAL ASSESSMENT	5
3.EQUIPMENT UNDER TEST	5
3.1 POWER SUPPLY SYSTEM UTILISED	5
3.2 SHORT DESCRIPTION OF THE EQUIPMENT UNDER TEST (EUT)	5
3.3 EUT OPERATION MODE	5
3.4 EUT CONFIGURATION	6
4.TEST ENVIRONMENT.....	7
4.1 ADDRESS OF THE TEST LABORATORY	7
4.2 TEST FACILITY	7
4.3 ENVIRONMENTAL CONDITIONS	7
4.4 DEFINITIONS OF SYMBOLS USED IN THIS TEST REPORT	7
4.5 STATEMENT OF THE MEASUREMENT UNCERTAINTY	7
4.6 MEASUREMENT UNCERTAINTY.....	8
5.SUMMARY OF STANDARDS AND RESULTS.....	8
5.1.DESCRIPTION OF STANDARDS AND RESULTS	8
6. CONDUCTED DISTURBANCE	9
6. 1 DESCRIPTION OF THE TEST LOCATION	9
6. 2 TEST EQUIPMENT.....	9
6. 3 DESCRIPTION OF THE TEST SET-UP	9
6.4 LIMITS DISTURBANCE	10
6.5 TEST RESULT.....	10
6.6 TEST PROTOCOL.....	11
7.RADIATED DISTURBANCE (ELECTRIC FIELD)	12
7.1.TEST EQUIPMENT.....	12
7.2.BLOCK DIAGRAM OF TEST SETUP	12
7.3.RADIATED EMISSION LIMIT :	13
7.4.TEST PROCEDURE	13
7.5.RADIATED EMISSION TEST RESULTS	14
8.MAXIMUM PEAK OUTPUT POWER TEST	28
8.1. TEST EQUIPMENT.....	28
8.2. TEST INFORMATION.....	28

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

8.3 LIMITS	28
8.4. TEST RESULTS	28
9. BAND EDGE COMPLIANCE TEST.....	29
9.1. TEST EQUIPMENT.....	29
9.2. TEST INFORMATION.....	29
9.3. TEST PROCEDURE.....	29
9.4. TEST RESULTS	29
10. 20 DB BANDWIDTH TEST.....	34
10.1. TEST EQUIPMENT.....	34
10.2. TEST INFORMATION.....	34
10.3. TEST RESULTS	34
11. DWELL TIME TEST	37
11.1. TEST EQUIPMENT.....	37
11.2. TEST INFORMATION.....	37
11.3. LIMIT	37
11.4. TEST PROCEDURE	37
11.5. TEST RESULTS	37
12. FREQUENCY SEPARATION.....	39
12.1. TEST EQUIPMENT.....	39
12.2. TEST INFORMATION.....	39
12.3. LIMIT	39
12.4. TEST PROCEDURE	39
12.4. TEST RESULTS.....	39
13. NUMBER OF HOPPING FREQUENCY.....	41
13.1. TEST EQUIPMENT.....	41
13.2. TEST INFORMATION.....	41
13.3. LIMIT	41
13.4. TEST PROCEDURE	41
13.5. TEST RESULTS.....	41
14. MANUFACTURER/ APPROVAL HOLDER DECLARATION.....	43

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

1. TEST STANDARDS

The tests were performed according to following standards:

- 47 CFR PART 15 OCT, 2012
- ANSI C63.4-2009

2. SUMMARY

2.1 GENERAL REMARKS

Date of receipt of test sample	26 April 2013
Testing commenced on	26 April ~28 June 2013
Testing concluded on	28 June 2013

2.2 FINAL ASSESSMENT

The FCC requirements pertaining to the technical standards and tested operation modes are

- - fulfilled.
- **not** fulfilled.

The equipment under test

- - fulfills the FCC requirements cited on page 1.
- **does not** fulfil the FCC requirements cited on page 1.

3. EQUIPMENT UNDER TEST

3.1 Power supply system utilised

Power supply voltage : ■ DC 12V

3.2 Short description of the Equipment under Test (EUT)

Number of tested samples: 1

Serial number: Prototype

3.3 EUT operation mode

The equipment under test was operated during the measurement under the following conditions:

- Standby
- TX- Y position
- TX- Zposition
- TX- X position

Operation mode 1: TX-X Position Low (2403MHz) , TX-X Position Middle (2439MHz) ,
TX-X Position High (2478MHz)

Note: TX -X position of EUT is the worst case, so only these test results be recorded in the test report.

3.4 EUT configuration

3.4.1. Description of configuration (EUT)

Description	:	7"Digital Wireless System
Model Number	:	DW639
Operation frequency	:	2403~ 2478 MHz ISM Band
Radio Technology	:	16QAM
Modulation Technology	:	16QAM modulation
Antenna	:	External antenna, met requirement of FCC 15.203
Antenna Gain	:	3.0dBi

3.4.2. Tested Supporting System Details

N/A

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhaji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

4. TEST ENVIRONMENT

4.1 Address of the test laboratory

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines) Fax: +86-20-38780406

4.2 Test facility

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

CNAS-Lab Code: L3394

CENTRE OF TESTING SERVICE CO., LTD has been assessed and proved to be in compliance with CNAS-CL01: 2006 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

IC-Registration No.: 8374A

The 3m Alternate Test Site of CENTRE OF TESTING SERVICE CO., LTD has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 8374A on June 6, 2011.

FCC-Registration No.: 971995

CENTRE OF TESTING SERVICE 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 No.791995, July 21,2012.

4.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35 ° C
Humidity:	25~75 %
Atmospheric pressure:	86~106 kPa

4.4 Definitions of symbols used in this test report

- - The black square indicates that the listed condition, standard or equipment is applicable for this report.
- - The empty square indicates that the listed condition, standard or equipment is **not** applicable for this report.

4.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the CTS quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

4.6 Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Conduction disturbance	150kHz~30MHz	±1.22dB	(1)
Power disturbance	30MHz~300MHz	±1.38dB	(1)
	30MHz~300MHz	±3.14dB	(1)
Radiation emission (3m)	300MHz~1000MHz	±3.18dB	(1)
	1GHz~26.5GHz	±3.54dB	(1)

(1).This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

5. Summary of standards and results

5.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	Standard	Results
Conducted disturbance	FCC Part 15 C: 15.209 ANSI C63.4-2009	PASSED
Maximum Peak Output Power Test	FCC Part 15 C: 15.247(b)(1) ANSI C63.4-2009	PASSED
Radiated Emission Test	FCC Part 15 C: 15.247(d) FCC Part 15 C: 15.209(a) ANSI C63.4-2009	PASSED
Band Edge Compliance Test	FCC Part 15 C: 15.247(d) ANSI C63.4-2009	PASSED
20 dB Bandwidth test	FCC Part 15 C: 15.247 (a) ANSI C63.4-2009	PASSED
Frequency Separation	FCC Part 15 C: 15.247 (a) ANSI C63.4-2009	PASSED
Number Of Hopping Frequency Test	FCC Part 15 C: 15.247 (a) ANSI C63.4-2009	PASSED
Dwell Time Test	FCC Part 15 C: 15.247 (a) ANSI C63.4-2009	PASSED
N/A is an abbreviation for Not Applicable.		

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

6. Conducted disturbance

6.1 Description of the test location

Test location: Shielded room

6.2 Test Equipment

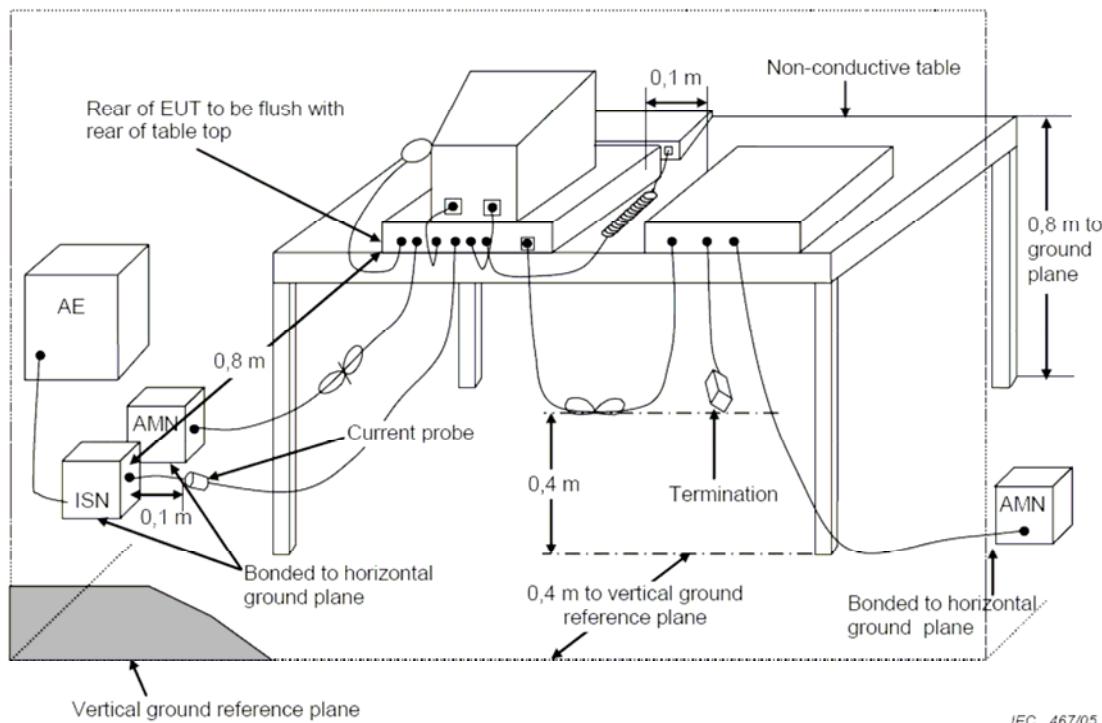
Conducted Disturbance					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	100868	2012/11/06
2	Artificial Mains	ROHDE & SCHWARZ	ESH3-Z5	832479/025	2012/11/06
3	Artificial Mains	ROHDE & SCHWARZ	ESH3-Z6	100140	2012/11/06
4	Pulse Limiter	ROHDE & SCHWARZ	ESHS-Z2	100301	2012/11/06
5	EMI Test Software	Farad	EZ-EMC	N/A	N/A

6.3 Description of the test set-up

6.3.1 Operating Condition

The EUT is engraving during the test, and the results of the maximum emanation are recorded

6.3.2 Block Diagram of Test Setup



Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

6.4 Limits disturbance

Frequency	Maximum RF Line Voltage (dB μ V)	
	Quasi-peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 *	56 ~ 46 *
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Note: (1) The tighter limit shall apply at the edge between two frequency bands.

6.5 Test result

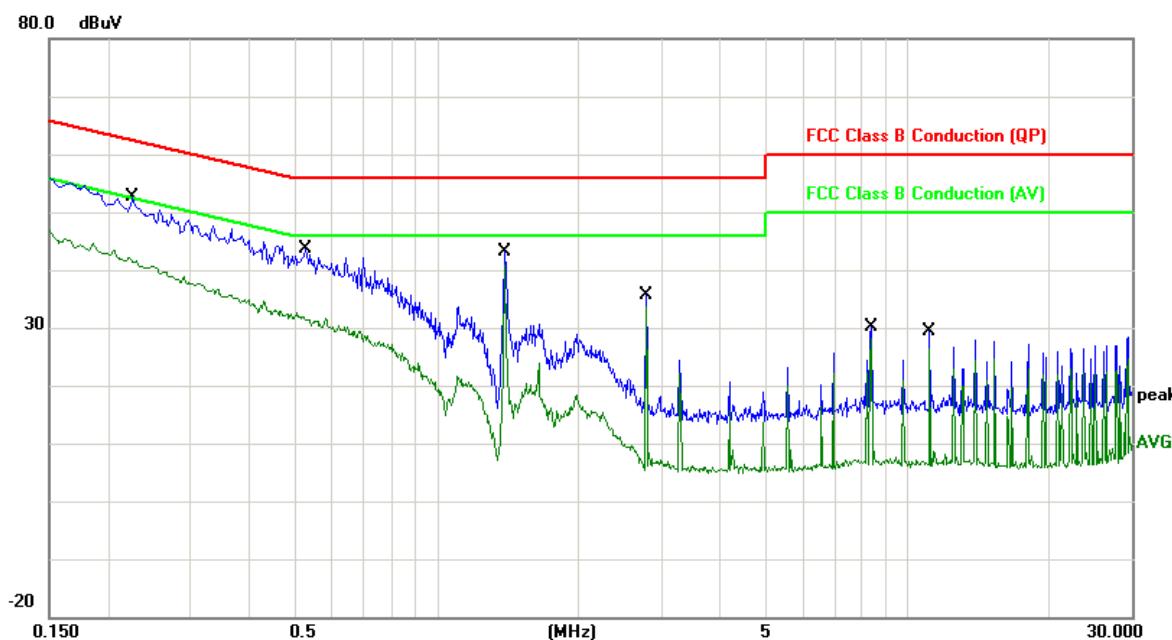
The requirements are	Fulfilled
Band width	9kHz
Frequency range	0.15 MHz - 30 MHz
Min. limit margin	>4.96 dB at 0.15 - 30 MHz

Remarks: The limits are kept. For detailed results, please see the following page(s).

6.6 Test protocol

Test point	DC Port	Result:	■ - passed
Operation mode	TX		□ - not passed
Remarks:			

EUT	7"Digital Wireless System
MODEL NO.	DW639
Operating Condition	DC 12V
Test Date:	26 April~28 June 2013
Test Condition	Ambient Temperature: 24°C Humidity: 56%
Operator	Duke



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2260	9.78	37.32	47.10	62.59	-15.49	QP
2	0.2260	9.78	31.34	41.12	52.59	-11.47	AVG
3	0.5260	9.84	27.29	37.13	56.00	-18.87	QP
4	0.5260	9.84	21.26	31.10	46.00	-14.90	AVG
5	1.3940	9.84	33.16	43.00	56.00	-13.00	QP
6	1.3940	9.84	31.20	41.04	46.00	-4.96	AVG
7	2.7900	9.88	12.09	21.97	56.00	-34.03	QP
8	2.7900	9.88	8.87	18.75	46.00	-27.25	AVG
9	8.3699	9.88	0.79	10.67	60.00	-49.33	QP
10	8.3699	9.88	-3.89	5.99	50.00	-44.01	AVG
11	11.1539	9.90	0.72	10.62	60.00	-49.38	QP
12	11.1539	9.90	-4.14	5.76	50.00	-44.24	AVG

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

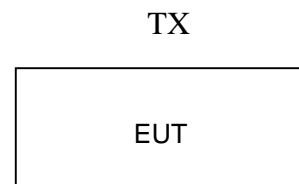
7. Radiated disturbance (electric field)

7.1. Test Equipment

7.1					
Radiated disturbance (Electric field)					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2013/03/28
2	EMI Test Receiver	ROHDE & SCHWARZ	ESVS 10	842885/001	2012/11/06
3	Biconical Antenna	ROHDE & SCHWARZ	HK116	100221	2013/03/29
4	Log per Antenna	ROHDE & SCHWARZ	HL223	100226	2013/03/29
5	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2013/03/29
6	Loop Antenna	A.R.A	PLA-1030/B	1030	2013/03/29
7	EMI Test Software	Farad	EZ-EMC	N/A	N/A

7.2. Block Diagram of Test Setup

7.2.1 Block Diagram of connection between EUT and simulators



(EUT: 7"Digital Wireless System)

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhaji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

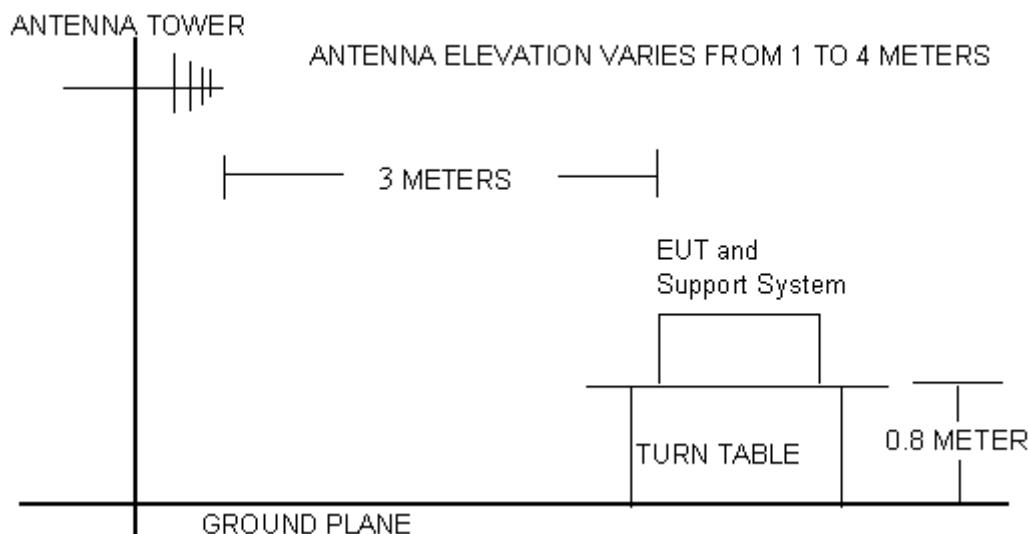
Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

7.2.2 Anechoic Chamber Setup Diagram



7.3. Radiated Emission Limit :

Standard:FCC 15.247 , FCC 15.209

Except as provided in paragraph (d) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μ V/m	dB(μ V)/m
0.009 ~ 0.490	300	2400/F(KHz)	----
0.490 ~ 1.705	30	24000/F(KHz)	----
1.705 ~ 30	30	30	----
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	Other: 74.0 dB(μ V)/m (Peak) 54.0 dB(μ V)/m (Average)	

Remark: (1) Emission level $dB\mu$ V = $20 \log$ Emission level μ V/m
 (2) The smaller limit shall apply at the cross point between two frequency bands.
 (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

7.4. Test Procedure

The EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2009 on radiated emission Test.

The frequency range from 30MHz to 1000MHz and above 1GHz. is investigated. Please see the following pages.

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 120kHz RBW below 1GHz and a Peak and Average detector with 1MHz RBW above 1GHz,

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 300kHz VBW below 1GHz and a Peak detector with 1MHz VBW above 1GHz, A average detector with 10Hz VBW above 1GHz

Pretest x, y, z position of EUT, final, select the worst case x position test and record the test results in the report.

The test modes (TX Mode) is tested in Anechoic Chamber and all the scanning waveforms are reported on section 7.5

7.5.Radiated Emission Test Results

PASSED.

The frequency range from 9KHz~30MHz,30MHz to 230MHz, 230MHz to 1000MHz and above 1GHz. is investigated. Please see the following pages.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



EUT	7"Digital Wireless System
Firm Name	SHARPVISION CO.,LTD.
Operating Condition	DC 12V
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test distance	3 Meter
Test Date:	26 April~28 June 2013
Operator	Duke
MODEL NO	DW639

Test Mode:	TX -X Position Mode	Result:	<input checked="" type="checkbox"/> - passed
Frequency range:	9KHz~30MHz		<input type="checkbox"/> - not passed

No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
Remark: Other frequency no specific emission from the EUT (Margin > 10dB from the applicable Limit)							

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

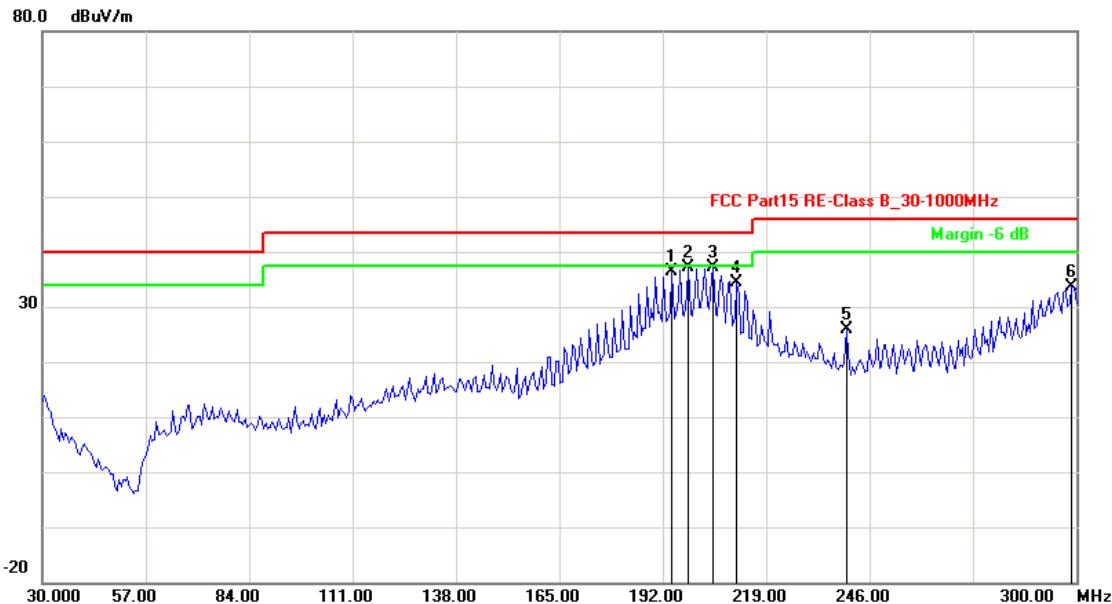
Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Channel:	TX Low Channel	Result:	■ - passed
Test point:	Horizontal		□ - not passed
Frequency range:	30MHz~26.5GHz		



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	194.4890	-12.30	48.64	36.34	43.50	-7.16	QP
2	198.8176	-12.58	49.81	37.23	43.50	-6.27	QP
3	205.3106	-12.34	49.41	37.07	43.50	-6.43	QP
4	211.2625	-12.11	46.56	34.45	43.50	-9.05	QP
5	239.9399	-13.13	38.96	25.83	46.00	-20.17	QP
6	298.9178	-5.73	39.30	33.57	46.00	-12.43	QP

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

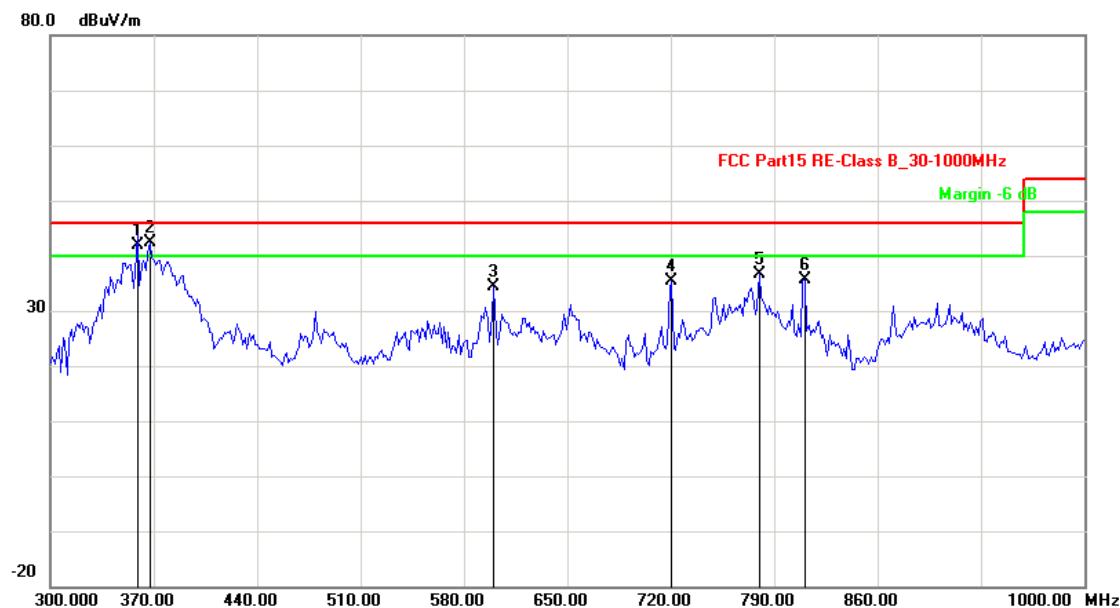
Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	358.9178	-13.85	55.69	41.84	46.00	-4.16	QP
2	367.3347	-14.25	56.72	42.47	46.00	-3.53	QP
3	600.2004	-10.94	45.22	34.28	46.00	-11.72	QP
4	720.8417	-10.94	46.40	35.46	46.00	-10.54	QP
5	779.7595	-5.94	42.65	36.71	46.00	-9.29	QP
6	810.6212	-9.19	44.83	35.64	46.00	-10.36	QP

Above 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	1044.088	-5.36	51.79	46.43	74.00	-27.57	peak
2	1044.088	-5.36	36.61	31.25	54.00	-22.75	AVG
3	1330.661	-2.86	50.02	47.16	74.00	-26.84	peak
4	1330.661	-2.86	35.44	32.58	54.00	-21.42	AVG
5	1639.279	-1.32	53.60	52.28	74.00	-21.72	peak
6	1639.279	-1.32	38.83	37.51	54.00	-16.49	AVG
7	1991.984	-1.15	46.77	45.62	74.00	-28.38	peak
8	1991.984	-1.15	31.37	30.22	54.00	-23.78	AVG
9	2234.469	1.16	44.67	45.83	74.00	-28.17	peak
10	2234.469	1.16	29.25	30.41	54.00	-23.59	AVG
11	4967.936	12.08	38.94	51.02	74.00	-22.98	peak
12	4967.936	12.08	24.31	36.39	54.00	-17.61	AVG

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

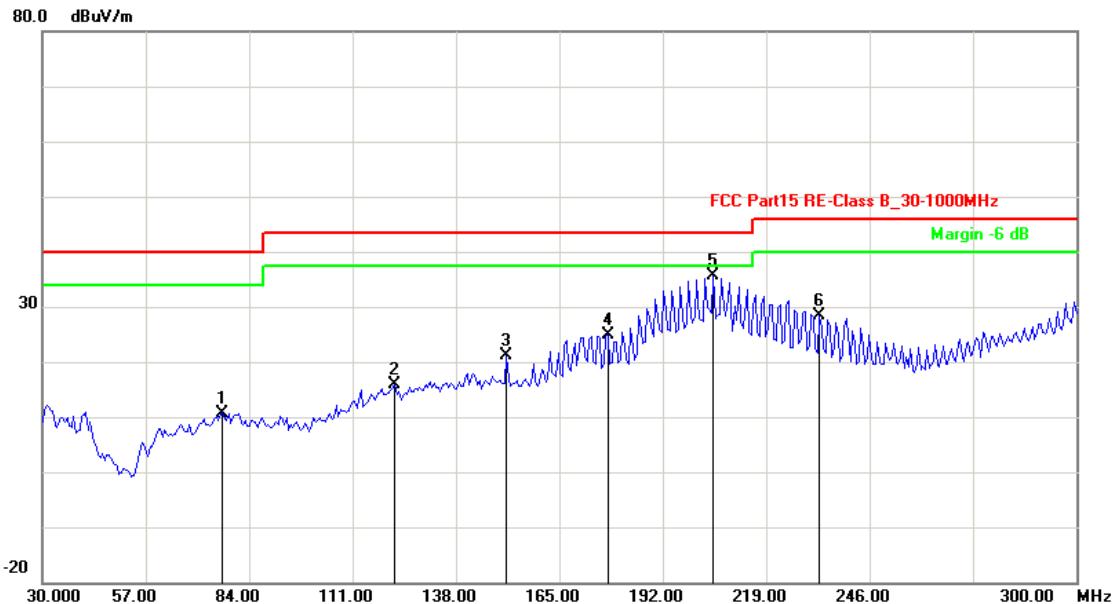
Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Channel:	TX Low Channel	Result:	■ - passed
Test point:	Vertical		□ - not passed
Frequency range:	30MHz~26.5GHz		



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	77.0741	-21.43	32.18	10.75	40.00	-29.25	QP
2	121.9840	-17.92	33.74	15.82	43.50	-27.68	QP
3	151.2024	-17.53	38.64	21.11	43.50	-22.39	QP
4	177.7154	-15.80	40.56	24.76	43.50	-18.74	QP
5	205.3106	-12.34	48.03	35.69	43.50	-7.81	QP
6	232.9058	-12.57	40.91	28.34	46.00	-17.66	QP

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhui Highway, Tianhe District, Guangzhou, China

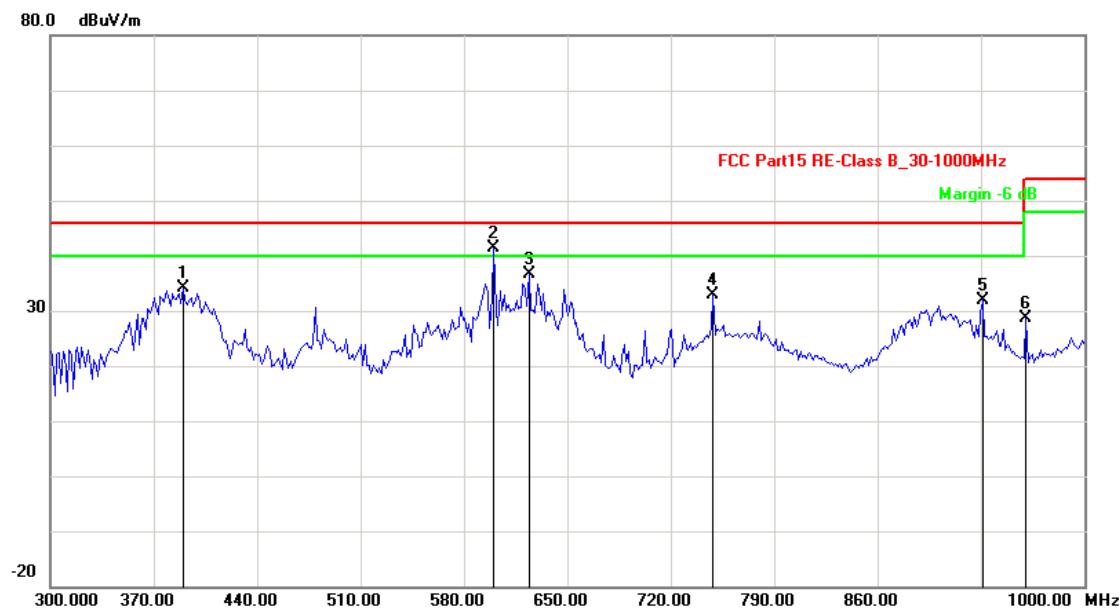
Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	389.7796	-14.94	49.09	34.15	46.00	-11.85	QP
2	600.2004	-10.94	52.33	41.39	46.00	-4.61	QP
3	624.0481	-7.18	43.91	36.73	46.00	-9.27	QP
4	748.8978	-6.42	39.27	32.85	46.00	-13.15	QP
5	931.2625	-5.92	37.87	31.95	46.00	-14.05	QP
6	960.7214	-9.97	38.60	28.63	54.00	-25.37	QP

Above 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	1330.661	-2.86	56.60	53.74	74.00	-20.26	peak
2	1330.661	-2.86	40.88	38.02	54.00	-15.98	AVG
3	1661.323	-1.31	55.86	54.55	74.00	-19.45	peak
4	1661.323	-1.31	40.46	39.15	54.00	-14.85	AVG
5	1991.984	-1.15	54.52	53.37	74.00	-20.63	peak
6	1991.984	-1.15	39.56	38.41	54.00	-15.59	AVG
7	4813.627	11.72	43.81	55.53	74.00	-18.47	peak
8	4813.627	11.72	35.30	47.02	54.00	-6.98	AVG
9	7304.609	18.22	37.09	55.31	74.00	-18.69	peak
10	7304.609	18.22	22.04	40.26	54.00	-13.74	AVG
11	7921.844	19.08	36.94	56.02	74.00	-17.98	peak
12	7921.844	19.08	22.01	41.09	54.00	-12.91	AVG

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

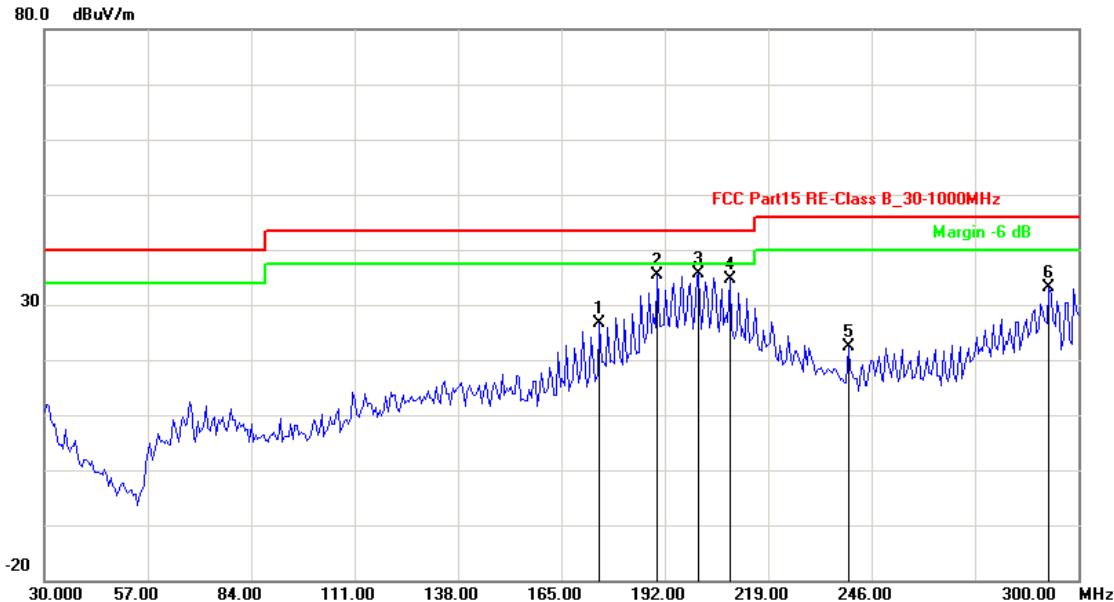
Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Channel:	TX Middle Channel	Result:	■ - passed
Test point:	Horizontal		□ - not passed
Frequency range:	30MHz~26.5GHz		



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	175.0100	-16.09	42.67	26.58	43.50	-16.92	QP
2	190.1603	-12.02	47.30	35.28	43.50	-8.22	QP
3	200.9820	-12.60	48.22	35.62	43.50	-7.88	QP
4	209.0982	-12.11	46.85	34.74	43.50	-8.76	QP
5	239.9399	-13.13	35.58	22.45	46.00	-23.55	QP
6	292.4249	-6.70	39.78	33.08	46.00	-12.92	QP

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

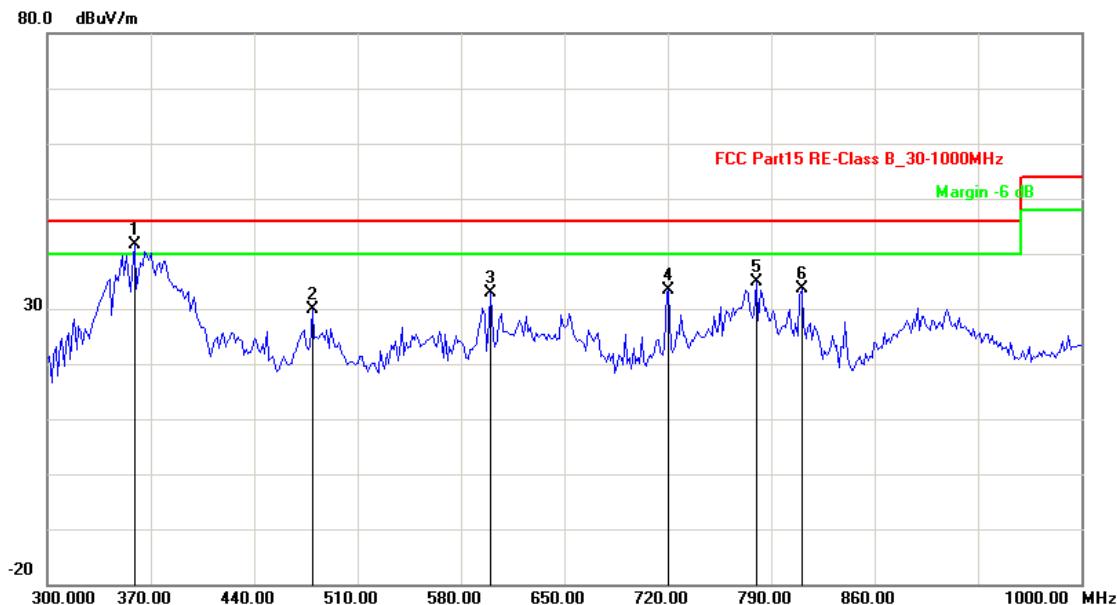
Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	358.9178	-13.85	55.50	41.65	46.00	-4.35	QP
2	479.5591	-9.77	39.75	29.98	46.00	-16.02	QP
3	600.2004	-10.94	43.93	32.99	46.00	-13.01	QP
4	720.8417	-10.94	44.26	33.32	46.00	-12.68	QP
5	779.7595	-5.94	40.85	34.91	46.00	-11.09	QP
6	810.6212	-9.19	42.88	33.69	46.00	-12.31	QP

Above 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	1330.661	-2.86	47.05	44.19	74.00	-29.81	peak
2	1330.661	-2.86	32.72	29.86	54.00	-24.14	AVG
3	1639.279	-1.32	48.04	46.72	74.00	-27.28	peak
4	1639.279	-1.32	32.24	30.92	54.00	-23.08	AVG
5	2322.645	2.02	44.04	46.06	74.00	-27.94	peak
6	2322.645	2.02	28.25	30.27	54.00	-23.73	AVG
7	4460.922	10.89	39.10	49.99	74.00	-24.01	peak
8	4460.922	10.89	22.80	33.69	54.00	-20.31	AVG
9	5034.068	12.27	38.62	50.89	74.00	-23.11	peak
10	5034.068	12.27	22.75	35.02	54.00	-18.98	AVG
11	7458.918	18.44	37.23	55.67	74.00	-18.33	peak
12	7458.918	18.44	22.14	40.58	54.00	-13.42	AVG

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

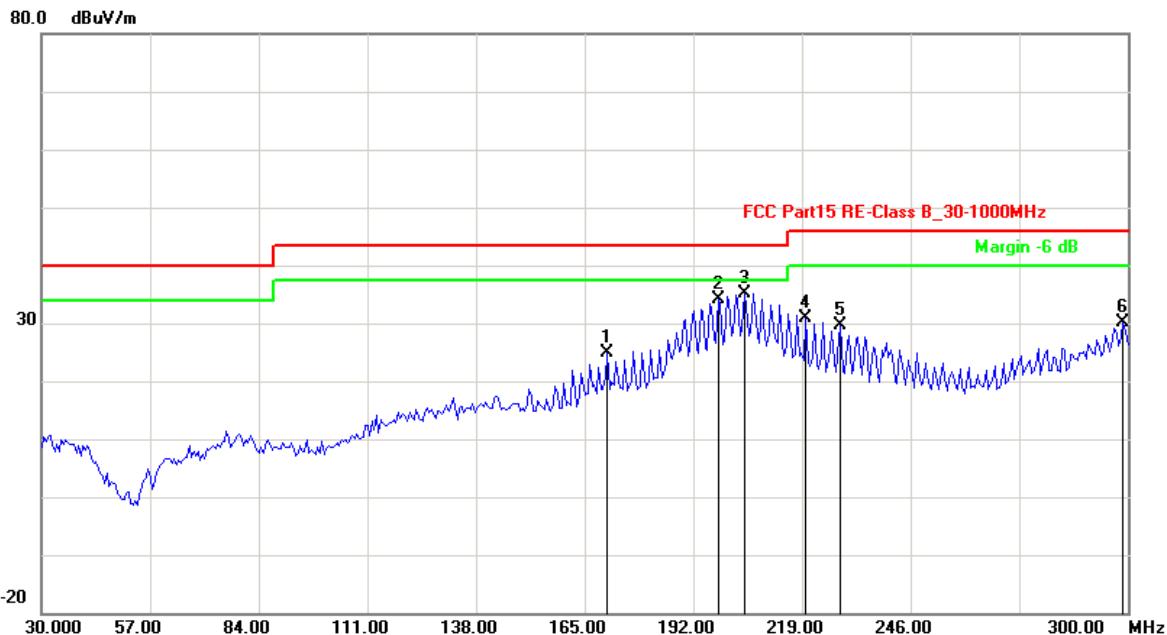
Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Channel:	TX Middle Channel	Result:	■ - passed
Test point:	Vertical		□ - not passed
Frequency range:	30MHz~26.5GHz		

EUT	DW700127DC
Firm Name	SHARPVISION CO.,LTD.
Operating Condition	DC 12V
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test distance	3 Meter
Test Date:	26 April~28 June 2013
Operator	Duke
MODEL NO	DW639



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	170.6814	-16.56	41.40	24.84	43.50	-18.66	QP
2	198.2766	-12.55	46.59	34.04	43.50	-9.46	QP
3	204.7695	-12.37	47.49	35.12	43.50	-8.38	QP
4	219.9198	-12.43	43.20	30.77	46.00	-15.23	QP
5	228.5772	-12.35	41.89	29.54	46.00	-16.46	QP
6	298.9178	-5.73	35.93	30.20	46.00	-15.80	QP

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

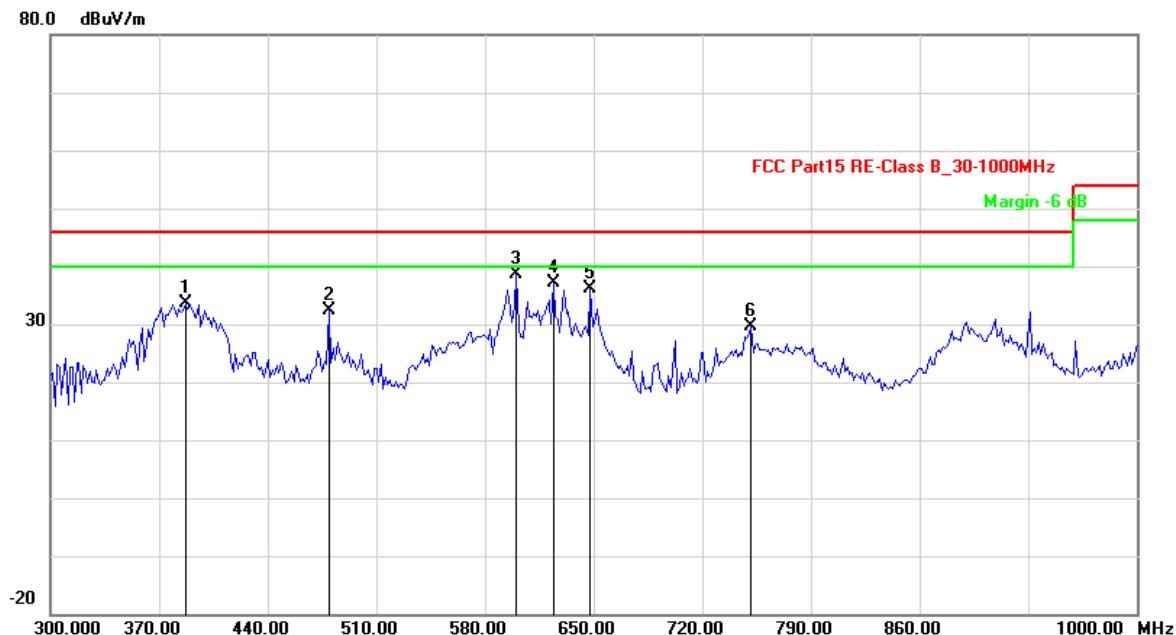
Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	386.9739	-14.92	48.65	33.73	46.00	-12.27	QP
2	479.5591	-9.77	42.07	32.30	46.00	-13.70	QP
3	600.2004	-10.94	49.45	38.51	46.00	-7.49	QP
4	624.0481	-7.18	44.29	37.11	46.00	-8.89	QP
5	647.8958	-8.89	44.99	36.10	46.00	-9.90	QP
6	751.7034	-6.19	35.90	29.71	46.00	-16.29	QP

Above 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	1308.617	-3.05	52.87	49.82	74.00	-24.18	peak
2	1308.617	-3.05	37.17	34.12	54.00	-19.88	AVG
3	1661.323	-1.31	58.17	56.86	74.00	-17.14	peak
4	1661.323	-1.31	42.33	41.02	54.00	-12.98	AVG
5	2234.469	1.16	50.73	51.89	74.00	-22.11	peak
6	2234.469	1.16	35.82	36.98	54.00	-17.02	AVG
7	3821.643	9.24	40.69	49.93	74.00	-24.07	peak
8	3821.643	9.24	24.61	33.85	54.00	-20.15	AVG
9	4879.760	11.88	42.79	54.67	74.00	-19.33	peak
10	4879.760	11.88	35.68	47.56	54.00	-6.44	AVG
11	7657.315	18.71	38.19	56.90	74.00	-17.10	peak
12	7657.315	18.71	22.32	41.03	54.00	-12.97	AVG

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuzi Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

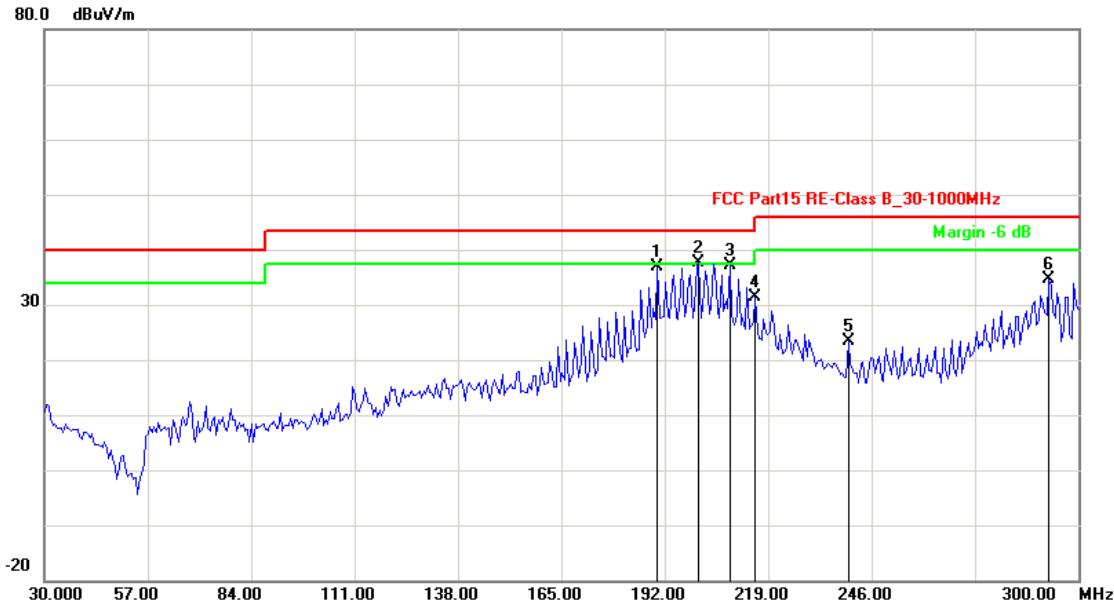
Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Channel:	TX High Channel	Result:	■ - passed
Test point:	Horizontal		□ - not passed
Frequency range:	30MHz~26.5GHz		



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	190.1603	-12.02	48.80	36.78	43.50	-6.72	QP
2	200.9819	-12.60	50.22	37.62	43.50	-5.88	QP
3	209.0981	-12.11	49.35	37.24	43.50	-6.26	QP
4	215.5911	-12.27	43.62	31.35	43.50	-12.15	QP
5	239.9398	-13.13	36.58	23.45	46.00	-22.55	QP
6	292.4248	-6.70	41.28	34.58	46.00	-11.42	QP

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuiji Highway, Tianhe District, Guangzhou, China

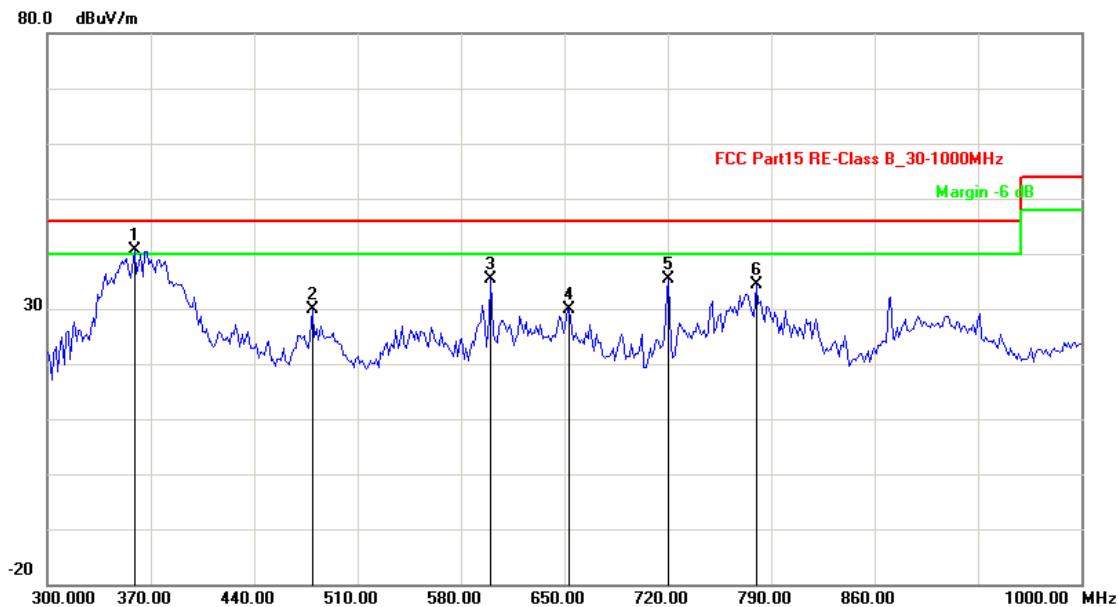
Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	358.9178	-13.85	54.43	40.58	46.00	-5.42	QP
2	479.5591	-9.77	39.67	29.90	46.00	-16.10	QP
3	600.2004	-10.94	46.25	35.31	46.00	-10.69	QP
4	653.5070	-9.80	39.69	29.89	46.00	-16.11	QP
5	720.8417	-10.94	46.33	35.39	46.00	-10.61	QP
6	779.7595	-5.94	40.22	34.28	46.00	-11.72	QP

Above 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	1088.176	-4.98	51.06	46.08	74.00	-27.92	peak
2	1088.176	-4.98	36.00	31.02	54.00	-22.98	AVG
3	1661.323	-1.31	46.83	45.52	74.00	-28.48	peak
4	1661.323	-1.31	31.57	30.26	54.00	-23.74	AVG
5	1991.984	-1.15	46.54	45.39	74.00	-28.61	peak
6	1991.984	-1.15	31.56	30.41	54.00	-23.59	AVG
7	3689.379	8.81	40.41	49.22	74.00	-24.78	peak
8	3689.379	8.81	25.45	34.26	54.00	-19.74	AVG
9	4549.098	11.10	37.37	48.47	74.00	-25.53	peak
10	4549.098	11.10	21.92	33.02	54.00	-20.98	AVG
11	6092.184	15.60	39.32	54.92	74.00	-19.08	peak
12	6092.184	15.60	24.26	39.86	54.00	-14.14	AVG

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuzi Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

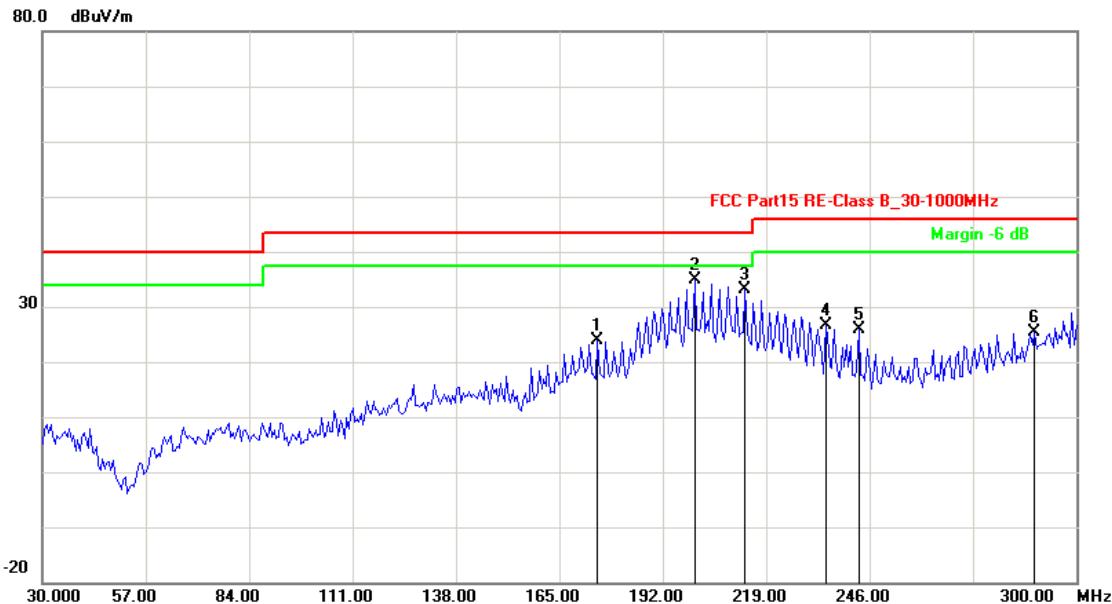
Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Channel:	TX High Channel	Result:	■ - passed
Test point:	Vertical		□ - not passed
Frequency range:	30MHz~26.5GHz		



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	175.0100	-16.09	40.09	24.00	43.50	-19.50	QP
2	200.4409	-12.63	47.41	34.78	43.50	-8.72	QP
3	213.4269	-12.19	45.28	33.09	43.50	-10.41	QP
4	234.5291	-12.70	39.35	26.65	46.00	-19.35	QP
5	243.1864	-13.02	38.84	25.82	46.00	-20.18	QP
6	289.1784	-7.25	32.63	25.38	46.00	-20.62	QP

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

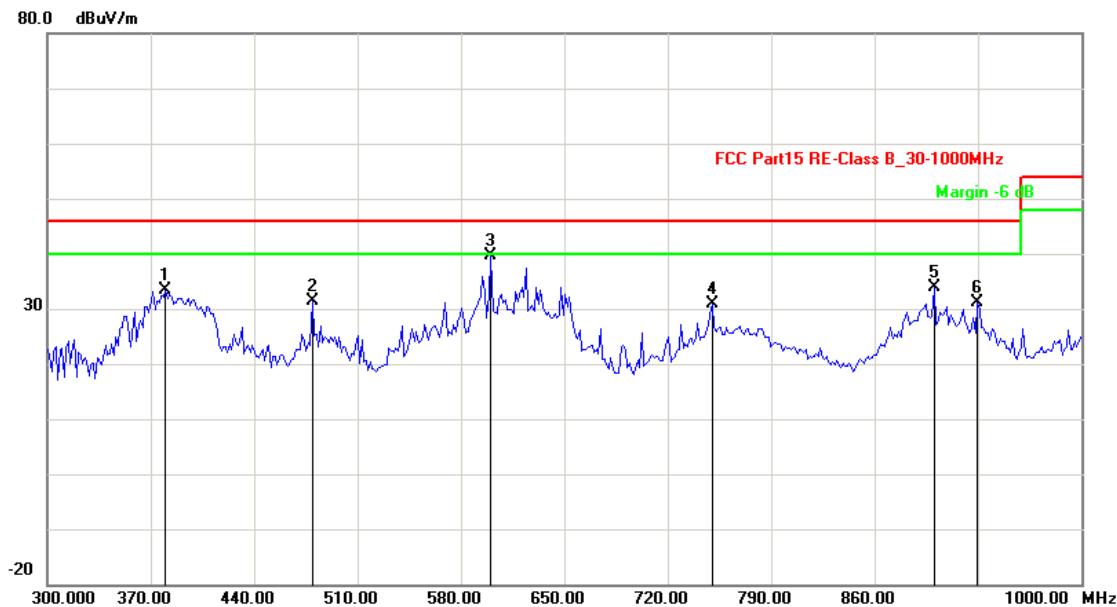
Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	379.9599	-14.86	48.24	33.38	46.00	-12.62	QP
2	479.5591	-9.77	41.26	31.49	46.00	-14.51	QP
3	600.2004	-10.94	50.49	39.55	46.00	-6.45	QP
4	750.3006	-6.30	37.25	30.95	46.00	-15.05	QP
5	900.4008	-3.92	37.89	33.97	46.00	-12.03	QP
6	929.8597	-5.74	36.94	31.20	46.00	-14.80	QP

Above 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dB μ V/m)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Det.
1	1661.323	-1.31	45.54	44.23	74.00	-29.77	peak
2	1661.323	-1.31	31.46	30.15	54.00	-23.85	AVG
3	2498.998	3.76	44.06	47.82	74.00	-26.18	peak
4	2498.998	3.76	28.52	32.28	54.00	-21.72	AVG
5	3821.643	9.24	39.12	48.36	74.00	-25.64	peak
6	3821.643	9.24	24.45	33.69	54.00	-20.31	AVG
7	4571.142	11.15	37.28	48.43	74.00	-25.57	peak
8	4571.142	11.15	22.43	33.58	54.00	-20.42	AVG
9	5519.038	13.83	38.73	52.56	74.00	-21.44	peak
10	5519.038	13.83	23.65	37.48	54.00	-16.52	AVG
11	7569.138	18.59	36.45	55.04	74.00	-18.96	peak
12	7569.138	18.59	21.67	40.26	54.00	-13.74	AVG

Note:Level=Reading+Factor. Margin= Limit -Level.

Remark: Others frequency Radiated Emission level margin all >10dB of Limit.

8. Maximum Peak Output power test

8.1. Test Equipment

Maximum Peak Output power test					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Power meter	ROHDE & SCHWARZ	NRVS	842856/049	2012/11/6

8.2. Test Information

EUT	7"Digital Wireless System
Firm Name	SHARPVISION CO.,LTD.
Operating Condition	DC 12V
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	26 April~28 June 2013
Operator	Duke
MODEL NO	DW639

8.3 Limits

Standard:FCC 15.247(b)(1)

Test Item	Limit	Frequency Range(MHz)
Peak Output	Hopping Channels>75 Power<1W(30dBm) Others<125mW(21dBm)	2400~2483.5

8.4. Test Results

PASSED.

Frequency (MHz)	Cable Loss (dB)	Antenna Gain(dB)	Reading (dBm)	Power (dBm)	Limit dBm	Margin
2403	0.53	3.0	0.23	3.76	21	-17.24
2439	0.53	3.0	0.14	3.67		-16.33
2478	0.53	3.0	0.08	3.61		-16.39

Remark: Power= Reading+Cable loss+Antenna Gain

9. Band Edge Compliance test

9.1. Test Equipment

Band Edge Compliance test					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2013/03/29
2	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2013/03/28

9.2. Test Information

EUT	DW700127DC
Firm Name	SHARPVISION CO.,LTD.
Operating Condition	DC 12V
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test distance	3 Meter
Test Date:	26 April~28 June 2013
Operator	Duke
MODEL NO	DW639

9.3. Test procedure

1. The EUT operates at hopping-off test mode. The lowest or highest channels are tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.
2. Max hold the trace of the step 1, and the EUT operates at hopping-on test mode to verify the largest spurious emissions power.

9.4. Test Results

PASSED.

The EUT operates at hopping-off test mode. The lowest and highest channels are tested to verify the band edge emissions.

Test Mode	Channel Marked Frequency	Test Result Highest Emission (dBuv/m)			
		Horizontal		Vertical	
		Peak	Average	Peak	Average
Low Channel	2390MHz	54.36	42.98	55.26	43.01
	2400MHz	80.46	54.69	87.15	58.14
High Channel	2483.5MHz	64.78	45.47	69.91	46.37
	2500MHz	54.24	44.23	56.26	44.25

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

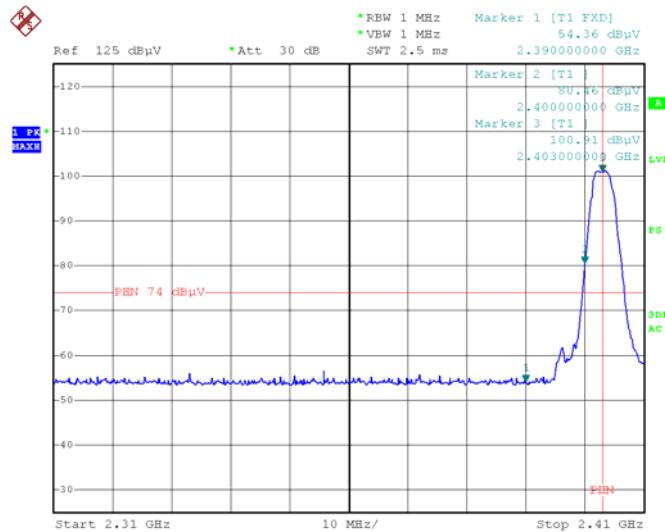
E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Band Edges(CH Low)

Detector mode:Peak

Polarity:Horizontal

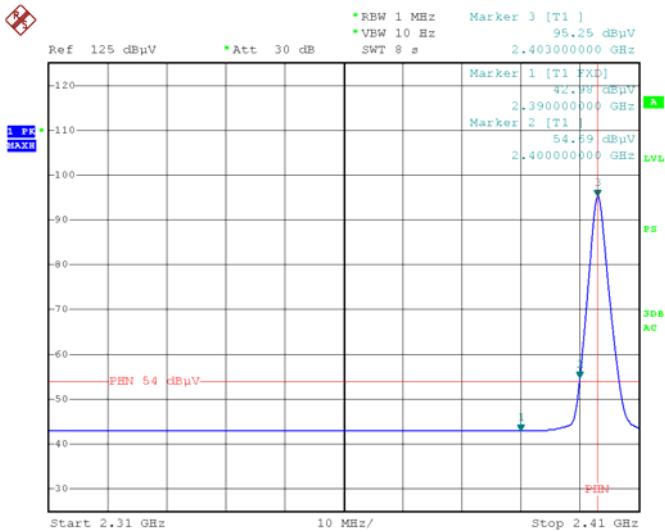


Date: 27.JUN.2013 19:18:59

Band Edges(CH Low)

Detector mode:Average

Polarity:Horizontal



Date: 27.JUN.2013 19:21:11

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhui Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

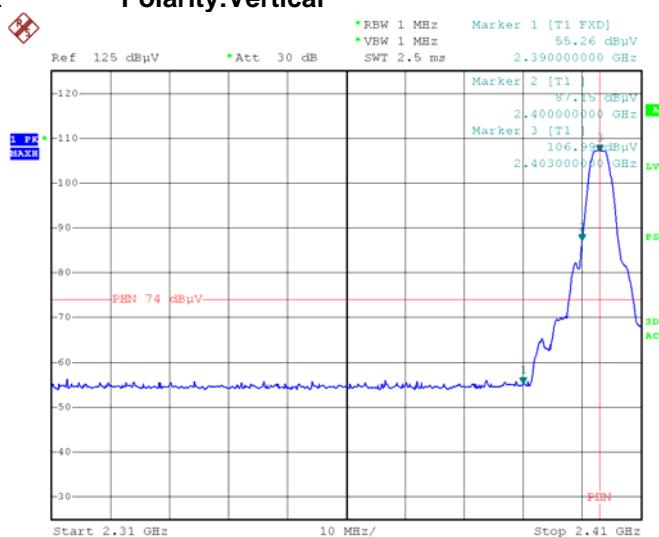
E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Band Edges(CH Low)

Detector mode:Peak

Polarity:Vertical

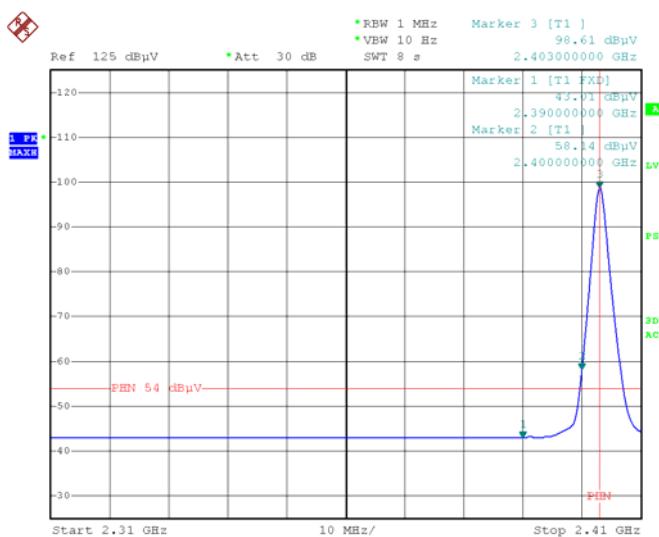


Date: 27.JUN.2013 19:16:49

Band Edges(CH Low)

Detector mode:Average

Polarity:Vertical



Date: 27.JUN.2013 19:22:27

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

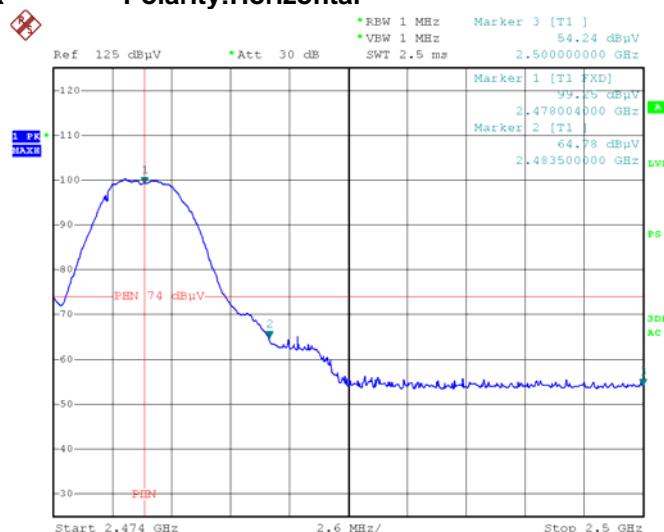
E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Band Edges(CH High)

Detector mode:Peak

Polarity:Horizontal

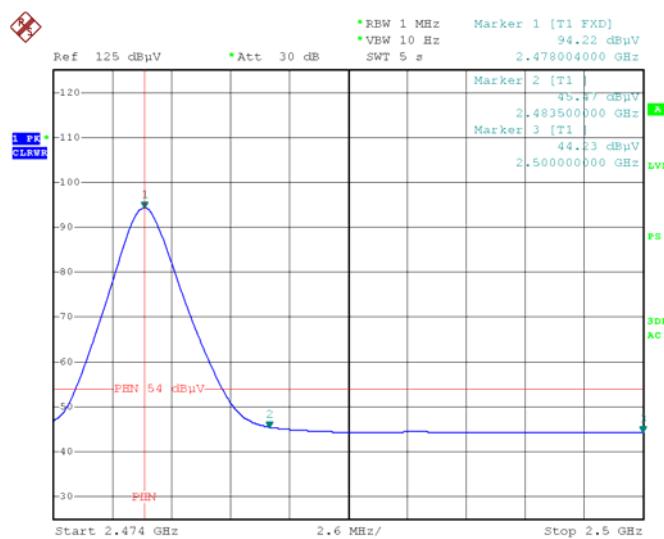


Date: 27.JUN.2013 19:43:12

Band Edges(CH High)

Detector mode:Average

Polarity:Horizontal



Date: 27.JUN.2013 19:49:51

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

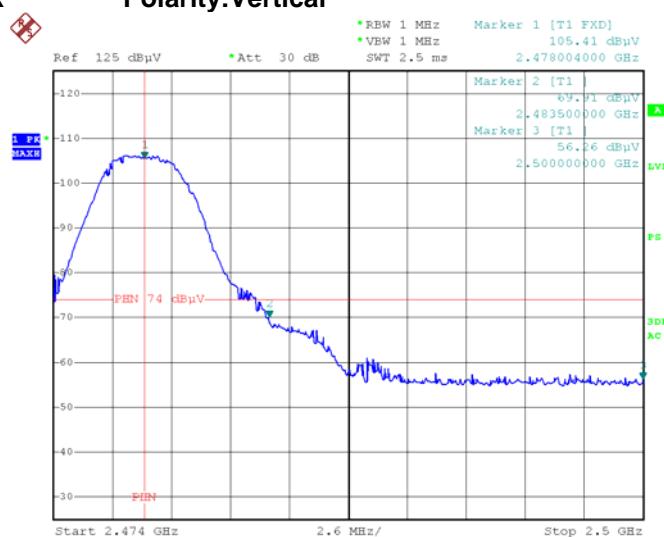
E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Band Edges(CH High)

Detector mode:Peak

Polarity:Vertical

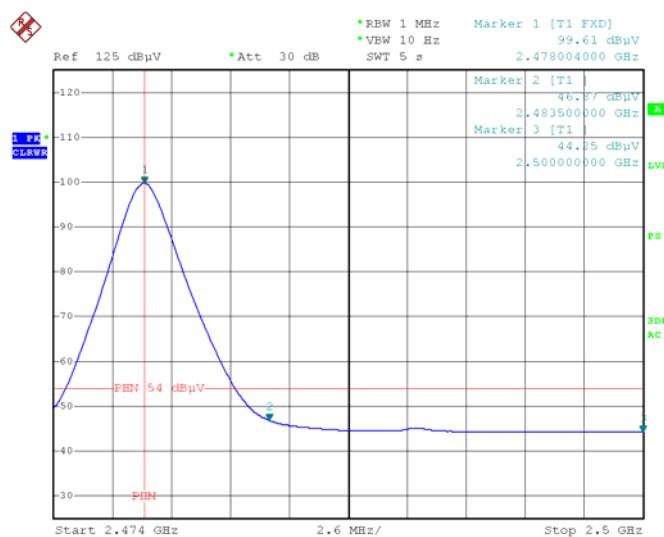


Date: 27.JUN.2013 19:45:31

Band Edges(CH High)

Detector mode:Average

Polarity:Vertical



Date: 27.JUN.2013 19:49:03

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

10. 20 dB Bandwidth test

10.1. Test Equipment

20 dB Bandwidth test					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2013/03/29
2	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2013/03/28

10.2. Test Information

EUT	7"Digital Wireless System
Firm Name	SHARPVISION CO.,LTD.
Operating Condition	DC 12V
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	26 April~28 June 2013
Operator	Duke
MODEL NO	DW639

10.3. Test Results

PASSED.

The testing data was attached in the next pages.

Channel	Frequency (MHz)	20dB Bandwidth (MHz)
Low	2403	4.52
Middle	2439	4.48
High	2478	4.44

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

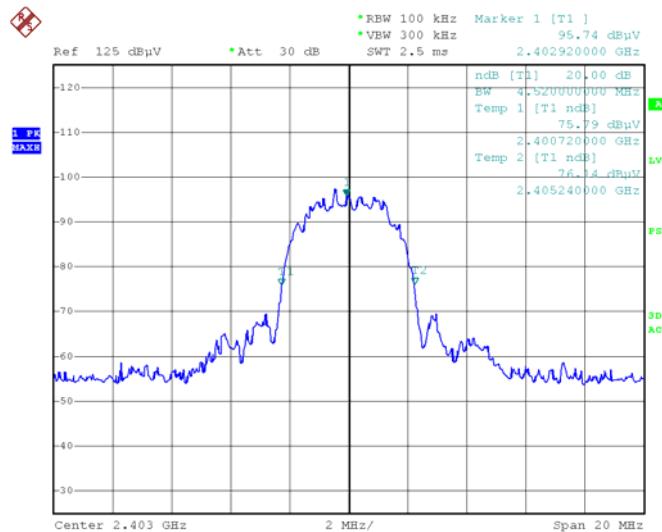
Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

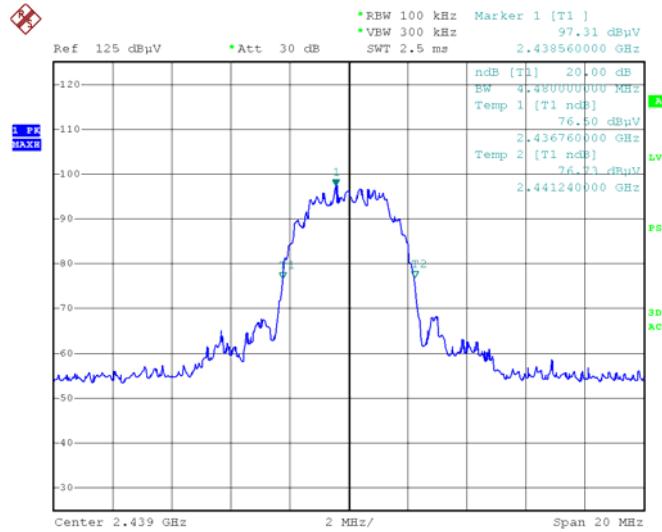
See Reverse For Terms And Conditions of Service

20 dB Bandwidth (2403MHz)



Date: 27.JUN.2013 19:54:34

20 dB Bandwidth (2439MHz)



Date: 27.JUN.2013 19:56:17

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

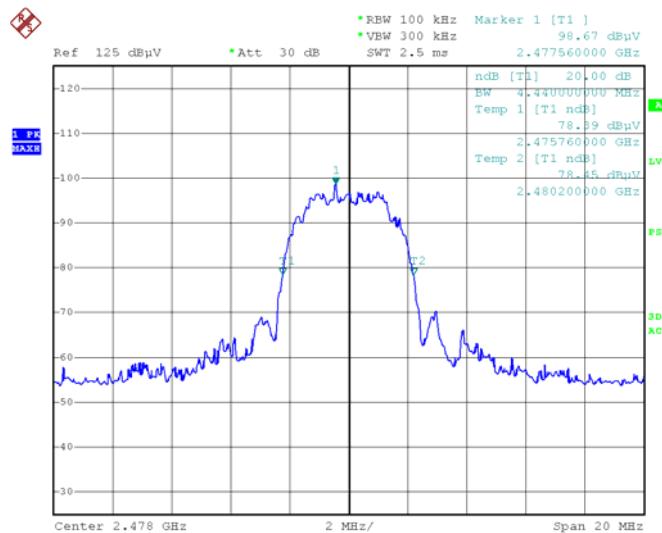
Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

20 dB Bandwidth (2478MHz)



Date: 27.JUN.2013 19:58:00

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

11. Dwell time test

11.1. Test Equipment

Dwell time test					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2013/03/29
2	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2013/03/28

11.2. Test Information

EUT	7"Digital Wireless System
Firm Name	SHARPVISION CO.,LTD.
Operating Condition	DC 12V
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	26 April~28 June 2013
Operator	Duke
MODEL NO	DW639

11.3. Limit

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

11.4. Test Procedure

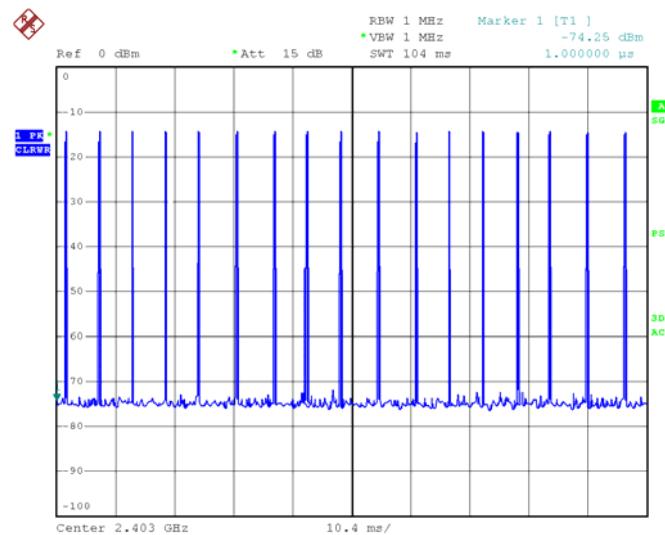
The transmitter output is connected to a spectrum analyzer. The span is set to 0 Hz, centred on a single, selected hopping channel. The width of a single pulse is measured in a fast scan. The number of pulses is measured in a 10.4s second scan, to enable resolution of each occurrence.

The average time of occupancy in the specified 10.4 second period (26 channels*0.4s) is equal to $100*104ms/(\# \text{ of pulses in } 10.4s) * \text{pulse width}$.

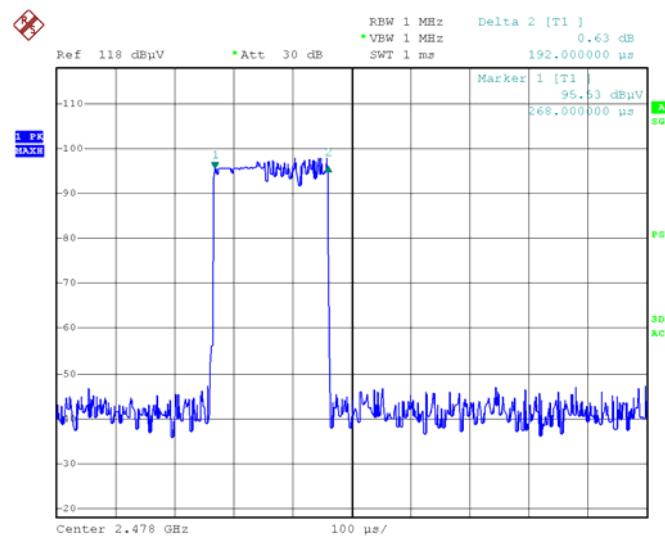
11.5. Test Results

PASSED.

Time of occupancy=100*17 pulse*0.000192s=0.3264s



Date: 28.JUN.2013 13:19:35



Date: 27.JUN.2013 20:00:35

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

12. FREQUENCY SEPARATION

12.1. Test Equipment

Dwell time test					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2013/03/29
2	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2013/03/28

12.2. Test Information

EUT	7"Digital Wireless System
Firm Name	SHARPVISION CO.,LTD.
Operating Condition	DC 12V
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	26 April~28 June 2013
Operator	Duke
MODEL NO	DW639

12.3. LIMIT

According to §15.247(a)(1), Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

12.4. TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Set center frequency of spectrum analyzer = middle of hopping channel.
3. Set the spectrum analyzer as RBW = 1MHz, VBW = 1MHz, Span = 12MHz, Sweep = auto.
4. Max hold, mark 2 peaks of hopping channel and record the 2 peaks frequency.

12.4. TEST RESULTS

PASSED

Channel Separation (MHz)	20dB Band With (MHz)	Limit (KHz)	Test Result
3	4.52	>25	PASSED

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

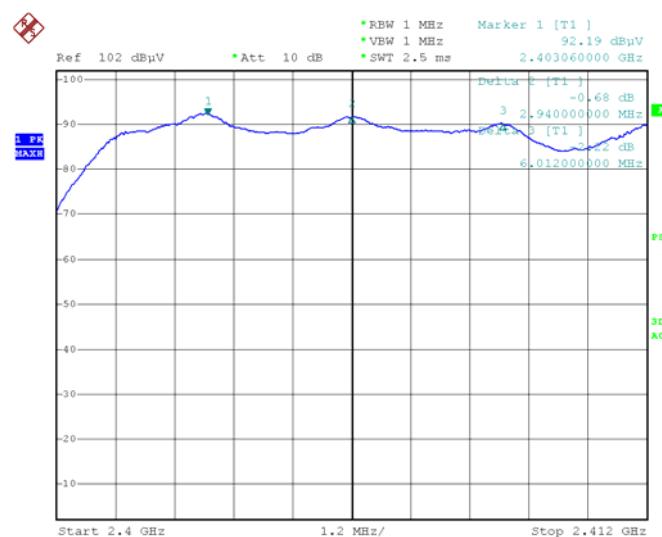
Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



Date: 28.JUN.2013 12:57:49

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

13. NUMBER OF HOPPING FREQUENCY

13.1. Test Equipment

Dwell time test					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2013/03/29
2	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2013/03/28

13.2. Test Information

EUT	7"Digital Wireless System
Firm Name	SHARPVISION CO.,LTD.
Operating Condition	DC 12V
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	26 April-28 June 2013
Operator	Duke
MODEL NO	DW639

13.3. LIMIT

According to §15.247(a)(1)(ii), Frequency hopping systems operating in the 2400MHz-2483.5 MHz bands shall use at least 15 hopping frequencies.

13.4. TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Set spectrum analyzer Start=2400MHz, Stop = 2485MHz, Sweep = auto and
3. Set the spectrum analyzer as RBW, VBW=1MHz,VBW=1MHz.
4. Max hold, view and count how many channel in the band.

13.5. TEST RESULTS

Result(No. of CH)	Limit (No. of CH)	Result
26	>15	PASSED

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhiji Highway, Tianhe District, Guangzhou, China

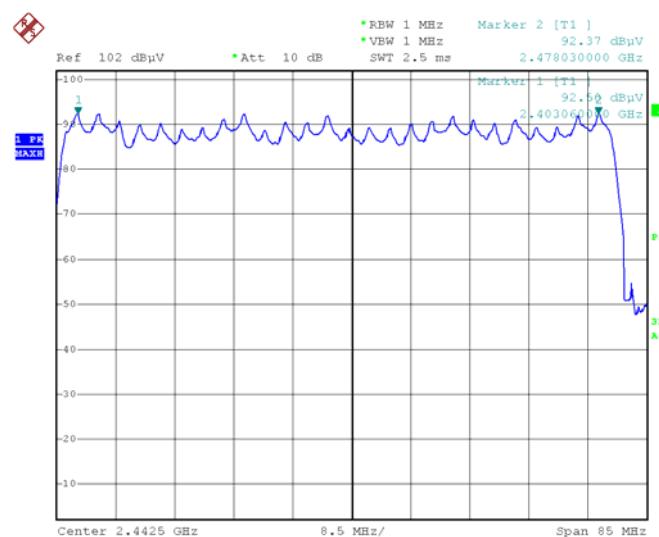
Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



Date: 28.JUN.2013 12:53:23

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuzi Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

14 Manufacturer/ Approval holder Declaration

The following identical model(s):

DW086

Belong to the tested device:

Product description: **7"Digital Wireless System**
Model name: **DW639**

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhaji Highway, Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service