MOST TECHNOLOGY SERVICE CO., LTD.
Tel:(86) 755-86170306 Fax:(86) 755-86170310
Http:// www. szmost.com Email: szmost@szmost.com

Test Report

Product Name: Digital Satellite Receiver

FCC ID: WNA081202A

MODEL NO. : S16BE-DR

Applicant:

Shenzhen Skyworth Digital Technology Co., Ltd.

Unit A14/F. Skyworth Bldg., Gaoxin Ave.1s.,
Nanshan District, Shenzhen, China

Date Received: 11/26-27/2008

Date Tested: 11/28/2008

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APPLICANT: Shenzhen Skyworth Digital Technology Co., Ltd.

FCC ID: WNA081202A

TEST REPORT CONTAINING:

EXHIBIT INCLUDED:

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EMC Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	100492	Apr 05,2008	1 Year
LISN	ROHDE&SCHWARZ	ENV216	100093	Apr 05,2008	1Year
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	101202	Apr 05,2008	1 Year
Spectrum Analyzer	ANRITSU	MS2651B	6200238316	Apr 05,2008	1 Year
50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Apr 05,2008	1 Year
Bilog Antenna	Sunol	JB3	A121206	Apr 05,2008	1 Year
Horn Antenna	EMCO	3115	640201028-06	Apr 05,2008	1 Year
50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Apr 05,2008	1 Year
Cable	Resenberger	N/A	NO.1	Apr 05,2008	1 Year
Cable	SCHWARZBECK	N/A	NO.2	Apr 05,2008	1 Year
Cable	SCHWARZBECK	N/A	NO.3	Apr 05,2008	1 Year
Single Phase Power Line Filter	Kikusui	LIN40MA-PCR-L	LM002352	Apr 05,2008	1Year
AC Power Source	Kikusui	AC40MA	LM003232	Apr 05,2008	1Year
Test analyzer	Kikusui	KHA1000	LM003720	Apr 05,2008	1Year
ESD Tester	Kikusui	KES4021	LM003537	Apr 05,2008	1 Year
Signal Generator	IFR	2032	203002/100	Apr 05,2008	1 Year
Amplifier	A&R	150W1000	301584	NCR	NCR
Dual Directional Coupler	A&R	DC6080	301508	Apr 05,2008	1 Year
Power Head	A&R	PH2000	301193	Apr 05,2008	1 Year
Power Meter	A&R	PM2002	302799	Apr 05,2008	1 Year
Field Monitor	A&R	FM5004	300329	Apr 05,2008	1 Year
Field Probe	A&R	FP5000	300221	Apr 05,2008	1 Year
EMCPRO System	EM Test	UCS-500-M4	V0648102026	Apr 05,2008	1 Year
EMCPRO System	EM Test	UCS-500-M4	V0648102026	Apr 05,2008	1 Year
Signal Generator	ROHDE&SCHWARZ	SMY01	SB4033	Apr 05,2008	1 Year
Match Network	Anritsu	12N50-75B	A0304264	Apr 05,2008	1 Year
TV Signal Generator	Philips	PM5518	A9012042	Apr 05,2008	1 Year

Remark:

Test Firm Name: Most Technology Service Co., Ltd.
Test Firm Address:
No. 5, 2nd Langshan Road, North District, Hi-tech Industrial Park,Nanshan, Shenzhen, Guangdong, China
FCC Registered Test Site Number: 490827

TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of MOST TECHNOLOGY SERVICE CO., LTD. The EUT was transmitting a test signal during the testing.

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

RADIATION INTERFERENCE: The test procedure used was ANSI Standard C63.4-2003 using a ANRITSU spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a micro volt at the output of the antenna. The resolution bandwidth was 100 kHz and the video bandwidth was 300 kHz up to 1 GHz and 1 MHz with a video BW of 3 MHz above 1 GHz. The ambient temperature of the EUT was 25℃ with a humidity of 58%.
Disturbance voltage at the antenna terminals: The test procedure used was ANSI Standard C63.4-2003 G5. The ambient temperature of the EUT was 25℃ with a humidity of 58%.

Disturbance voltage at the antenna terminals: The test procedure used was ANSI Standard C63.4-2003 G5. The ambient temperature of the EUT was 25℃ with a humidity of 58%.

Output and spurious conducted level measurements: The test procedure used was ANSI Standard C63.4-2003 G6. The ambient temperature of the EUT was 25℃ with a humidity of 58%.

Incorporate circuitry to automatically prevent emanations: The test procedure used was ANSI Standard C63.4-2003. The ambient temperature of the EUT was 25℃ with a humidity of 58%.

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

Example:
Freq (MHz) METER READING + ACF + CABLE = FS
33 20 dBuV + 10.36 dB + 0.9 dB= 31.26 dBuV/m @ 3m

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to 10th harmonic of the fundamental.

Peak readings were taken in three (3) orthogonal planes and the highest readings were converted to average readings based on the duration of "ON" time.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSI Standard C63.4-2003 10.1.7 with the EUT 40 cm from the vertical ground wall.

APPLICANT: Shenzhen Skyworth Digital Technology Co., Ltd.

FCC ID: WNA081202A

NAME OF TEST: POWER LINE CONDUCTED INTERFERENCE

RULES PART NUMBER: 15.107

REQUIREMENTS:

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE: ANSI STANDARD C63.4-2003

Test Mode: AV Output

Frequency (MHz)	Line Under Test	Emission Level (dBuV/m)		FCC 15 Subpart B Limit (dBuV/m)Avg	FCC 15 Subpart B Limit (dBuV/m)QP
		Avg	QP		
0.618	L	38.91	51.23	46.00	56.00
1.030	L	29.17	46.04	46.00	56.00
2.718	L	28.00	45.26	46.00	56.00
0.204	N	40.95	49.45	53.35	63.45
0.630	N	36.45	48.53	46.00	56.00
20.646	N	34.10	55.50	50.00	60.00

Test Mode: RF Output

Frequency (MHz)	Line Under Test	Emission Level (dBuV/m)		FCC 15 Subpart B Limit (dBuV/m)Avg	FCC 15 Subpart B Limit (dBuV/m)QP
		Avg	QP		
0.203	L	41.28	53.95	53.49	63.49
0.626	L	36.60	48.60	46.00	56.00
4.266	L	32.39	46.27	46.00	56.00
0.618	N	36.17	49.43	46.00	56.00
4.330	N	30.77	46.27	46.00	56.00
20.418	N	30.60	51.20	50.00	60.00

APPLICANT: Shenzhen Skyworth Digital Technology Co., Ltd.

FCC ID: WNA081202A

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NUMBER: 15.109

REQUIREMENTS:

S15.109
30 -88 MHz 40 dBuV/m @3M
88 - 216 MHz 43.5
216 - 960 MHz 46
ABOVE 960 MHz 54dBuV/m

Test Data:

Test Mode: TV CH 72:1295MHz (AV Output)

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
30.00	Horizontal	--	27.31	--	40.0
148.34	Horizontal	--	35.32	--	43.5
359.80	Horizontal	--	34.48	--	46.0
90.14	Vertical	--	29.84	--	40.0
140.58	Vertical	--	27.16	--	43.5
359.80	Vertical	--	37.27	--	46.0

Test Mode: TV CH 94:1550MHz (AV Output)

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
30.00	Horizontal	--	26.70	--	40.0
359.80	Horizontal	--	32.83	--	46.0
600.36	Horizontal	--	35.91	--	46.0
33.88	Vertical	--	31.30	--	40.0
359.80	Vertical	--	38.65	--	46.0
600.36	Vertical	--	38.21	--	46.0

Test Mode: TV CH 112:2010.5MHz (AV Output)

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
30.00	Horizontal	--	27.10	--	40.0
140.58	Horizontal	--	30.01	--	43.5
359.80	Horizontal	--	35.25	--	46.0
35.82	Vertical	--	29.90	--	40.0
179.38	Vertical	--	31.64	--	43.5
359.80	Vertical	--	37.16	--	46.0

APPLICANT: Shenzhen Skyworth Digital Technology Co., Ltd.

FCC ID: WNA081202A

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NUMBER: 15.109

REQUIREMENTS:

S15.109
30 -88 MHz 40 dBuV/m @3M
88 - 216 MHz 43.5
216 - 960 MHz 46
ABOVE 960 MHz 54dBuV/m

Test Data:

REMARK: Emissions attenuated more than 20 dB below the permissible value are not reported.

Test Mode: TV CH 3:61.25MHz (RF Output)

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
30.00	Horizontal	--	27.24	--	40.0
359.80	Horizontal	--	35.18	--	46.0
600.36	Horizontal	--	31.45	--	46.0
30.00	Vertical	--	34.63	--	40.0
359.80	Vertical	--	39.09	--	46.0
600.36	Vertical	--	36.23	--	46.0

Test Mode: TV CH 4:67.25MHz (RF Output)

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
30.00	Horizontal	--	27.06	--	40.0
359.80	Horizontal	--	32.08	--	46.0
600.36	Horizontal	--	34.09	--	46.0
30.00	Vertical	--	34.71	--	40.0
359.80	Vertical	--	39.78	--	46.0
600.36	Vertical	--	35.16	--	46.0

APPLICANT: Shenzhen Skyworth Digital Technology Co., Ltd.

FCC ID: WNA081202A

NAME OF TEST: Disturbance voltage at the antenna terminals

RULES PART NUMBER: 15.111(a)

REQUIREMENTS:

S15.111
30 -1000 MHz 51.8 dBuV/m

Test Data:

Test Mode: RF Output

Channel	Frequency(MHz)	Level(dBuV)	Limit(dBuV)
3(61.25MHz)	107.0(Fundamental)	23.90	51.8
	214.0(Harmonic)	19.02	51.8
	321.0(Harmonic)	15.43	51.8
	749.0(Harmonic)	16.11	51.8
	61.25 (other)	26.20	51.8
	80.70(other)	12.11	51.8
	504.00(other)	11.10	51.8
4(67.25MHz)	113.0(Fundamental)	23.10	51.8
	226.0(Harmonic)	18.90	51.8
	339.0(Harmonic)	16.51	51.8
	904.0(Harmonic)	18.10	51.8
	67.25 (other)	26.00	51.8
	320.70(other)	10.19	51.8
	214.00(other)	15.10	51.8

Memo: Set the spectrum analyzer as follows.
Frequency Span: 1MHz
Resolution Bandwidth: 100kHz
Video Bandwidth: 3MHz
Detector Function: Peak Mode

APPLICANT: Shenzhen Skyworth Digital Technology Co., Ltd.

FCC ID: WNA081202A

NAME OF TEST: Output and spurious conducted level measurements

RULES PART NUMBER: 15.115(b)

REQUIREMENTS:

Source	Limits(dBuV)
Video Carrier	69.54
Audio Carrier	56.53
Spurious	39.55

Test Data:

Source			Reading Level (dBuV)	Factor (dB)	Emission Level (dBuV)	Limits (dBuV)
Channel	Carrier Frequency (MHz)					
3	Video	4.8	49.60	4.8	54.40	69.54
	Audio	4.8	50.87	4.8	55.67	56.53
	Spurious	4.8	11.77	4.8	16.57	39.55
	Spurious	4.8	14.14	4.8	18.94	39.55
	Spurious	4.8	12.21	4.8	17.01	39.55
	Spurious	4.8	13.80	4.8	18.60	39.55
	Spurious	4.8	4.90	4.8	9.70	39.55
	Spurious	4.8	5.25	4.8	10.05	39.55
4	Video	4.8	50.05	4.8	54.85	69.54
	Audio	4.8	51.11	4.8	55,91	56.53
	Spurious	4.8	12.63	4.8	17.43	39.55
	Spurious	4.8	12.12	4.8	16.92	39.55
	Spurious	4.8	12.96	4.8	17.76	39.55
	Spurious	4.8	5.21	4.8	10.01	39.55
	Spurious	4.8	4.43	4.8	9.23	39.55
	Spurious	4.8	3.96	4.8	8.76	39.55

Memo: 1. The impedance of RF Output terminal is 75 ohm. (dBuV=20lguV)
2. Emission level =Reading Level +Factor
3. Factor =Cable loss + Matching Network

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NAME OF TEST: Incorporate circuitry to automatically prevent emanations

RULES PART NUMBER: 15.115(d)

REQUIREMENTS:

A TV interface device, including a cable system terminal device, shall incorporate circuitry to automatically prevent emanations from the device from exceeding the technical specifications in this Part. These circuits shall be adequate to accomplish their functions when the TV interface device is presented, if applicable, with video input signal levels in the range of one to five volts.

Test results:

The EUT meets the requirements of 15.115(d), these circuits could accomplish their function when input a video input signal levels from one to five volts.