

No. 1 Workshop, M-10, Middle section, Science & Technology

Park, Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594

Email: sgs_internet_operations@sgs.com

Report No.: SZEMO10050236502

Page: 1 of 26

FCC REPORT

Application No.: SZEMO100502365RF

Applicant: ShenZhen Xinzhensheng electronics CO LTD

Product Name: WII Wireless Classic Controller

Operation Frequency: 2402MHz to 2476MHz

FCC ID: VZB-FM3963R

Standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249: 2008

Date of Receipt 05 May 2010

Date of Test 05 to 20 May 2010

Date of Issue 24 May 2010

Test Result : PASS *

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

Authorized Signature:

Jack Zhang Laboratory 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. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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.

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the Company.



Report No.: SZEMO10050236502

Page: 2 of 26

2 Contents

		Page
1	COVER PAGE	1
2	CONTENTS	2
_	TTOT 0111111 DV	
3	TEST SUMMARY	3
4	GENERAL INFORMATION	4
	4.1 CLIENT INFORMATION	4
	4.2 GENERAL DESCRIPTION OF E.U.T.	4
	4.3 E.U.T OPERATION MODE	6
	4.4 TEST FACILITY	
	4.5 TEST LOCATION	6
	4.6 OTHER INFORMATION REQUESTED BY THE CUSTOMER	
	4.7 TEST INSTRUMENT LIST	7
5	TEST RESULTS AND MEASUREMENT DATA	8
	5.1 ANTENNA REQUIREMENT:	8
	5.2 RADIATED EMISSION	
	5.1.1 Field Strength Of The Fundamental Signal	11
	5.1.2 Spurious Emissions	
	5.1.3 Band edge (Radiated Emission)	
	5.1.4 20dB Bandwidth	24-26



Report No.: SZEMO10050236502

Page: 3 of 26

3 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Passed
Field strength of the fundamental signal	15.249 (a)	Passed
Spurious emissions	15.249 (a)/15.209	Passed
Band edge (Radiated Emission)	15.249(a)/15.205	Passed
20dB Occupied Bandwidth	15.215 (c)	Passed

Remark: Passed: The EUT complies with the essential requirements in the standard.

Failed: The EUT does not comply with the essential requirements in the standard.



Report No.: SZEMO10050236502

Page: 4 of 26

4 General Information

4.1 Client Information

Applicant:	ShenZhen Xinzhensheng electronics CO LTD
Manufacturer/ Factory:	SHENZHEN XINZHENSHENG ELECTRONICS CO,, LTD.
Address of Applicant:	Building 49, Baotian Industrial Zone Xixiang Town, Shenzhen, China
Address of Manufacturer:	Building 49, Baotian Industrial Zone, Xixiang Town, Baoan District, Shenzhen, China

4.2 General Description of E.U.T.

Product Name:	WII Wireless Classic Controller
Trade Name:	N/A
Item No.:	FM3963
Operation Frequency:	2402MHz to 2476MHz
Channel numbers:	75
Channel separation:	1MHz
Modulation type:	FSK
Antenna Type:	Integral
Antenna gain:	0dBi
Power supply:	Wii remote (DC3.0V (2*1.5"AA")) port supply



Report No.: SZEMO10050236502

Page: 5 of 26

Operatio	Operation Frequency each of channel									
channel	Frequency	channel	Frequency	channel	Frequency	channel	Frequency	channel	Frequency	
1	2402	16	2417	31	2432	46	2447	61	2462	
2	2403	17	2418	32	2433	47	2448	62	2463	
3	2404	18	2419	33	2434	48	2449	63	2464	
4	2405	19	2420	34	2435	49	2450	64	2465	
5	2406	20	2421	35	2436	50	2451	65	2466	
6	2407	21	2422	36	2437	51	2452	66	2467	
7	2408	22	2423	37	2438	52	2453	67	2468	
8	2409	23	2424	38	2439	53	2454	68	2469	
9	2410	24	2425	39	2440	54	2455	69	2470	
10	2411	25	2426	40	2441	55	2456	70	2471	
11	2412	26	2427	41	2442	56	2457	71	2472	
12	2413	27	2428	42	2443	57	2458	72	2473	
13	2414	28	2429	43	2444	58	2459	73	2474	
14	2415	29	2430	44	2445	59	2460	74	2475	
15	2416	30	2431	45	2446	60	2461	75	2476	

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The lowest channel	2402MHz
The middle channel	2440MHz
The Highest channel	2476MHz



Report No.: SZEMO10050236502

Page: 6 of 26

4.3 E.U.T Operation mode

Operating Environment:

Temperature: 24.0 °C
Humidity: 52 % RH
Atmospheric Pressure: 1008 mbar

Test mode:

Normal operation mode: Keep the EUT connect to the WII primary and exchange data.

Transmitting mode: Keep the EUT in transmitting mode with modulation.

4.4 Test Facility

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

CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab 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.

VCC

The 3m Semi-anechoic chamber and Shielded Room (7.5 m x 4.0 m x 3.0 m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197 and C-2383 respectively.

Date of Registration: September 29, 2008. Valid until September 28, 2011.

FCC - Registration No.: 556682

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen 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 556682, June 27, 2008.

Industry Canada (IC)

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1.

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch E&E Lab

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594

No tests were sub-contracted.

4.6 Other Information Requested by the Customer

None.

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 7 of 26

4.7 Test Instrument list

RE i	RE in Chamber									
Item Test Equipment		Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)				
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	ETS-LINDGREN N/A SE		16-06-2009	15-06-2010				
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	12-12-2009	11-12-2010				
3	EMI Test software	AUDIX	E3	SEL0050	N/A	N/A				
4	Coaxial cable	SGS	N/A	SEL0028	18-06-2009	17-06-2010				
6	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0014	12-08-2009	11-08-2010				
7	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0005	12-08-2009	11-08-2010				
8	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	12-08-2009	11-08-2010				
9	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	18-06-2009	17-06-2010				
10	Pre-amplifier (1-18GHz)	Pre-amplifier Bohde & Schwarz		SEL0081	18-06-2009	17-06-2010				
11	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	SEL0080	18-06-2009	17-06-2010				
12	Band filter	Amindeon	82346	SEL0094	18-06-2009	17-06-2010				



Report No.: SZEMO10050236502

Page: 8 of 26

5 Test results and Measurement Data

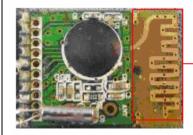
5.1 Antenna requirement:

Standard requirement: FCC Part15 C Section 15.203

15.203 requirement:

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

E.U.T Antenna:



-RF Antenna

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 9 of 26

5.2 Radiated Emission

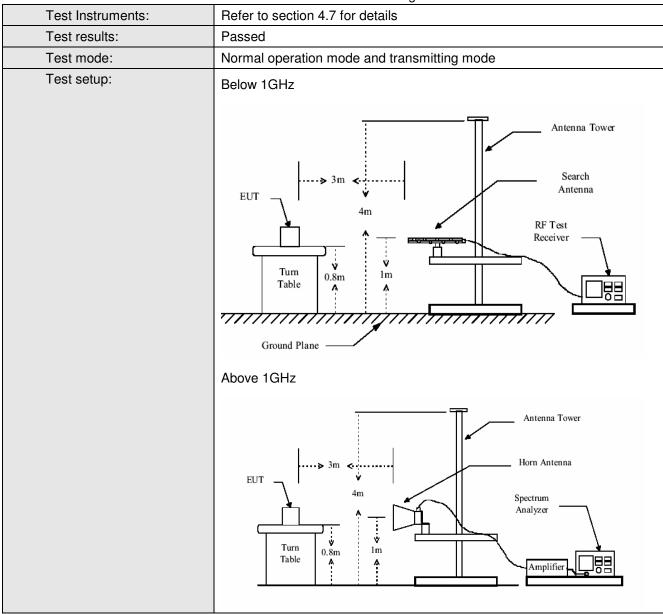
Test Requirement:	FCC Part15 C S	Section 15.24	9 and 15.209					
Test Method:	ANSI C63.4: 2003							
Test Frequency Range:	30MHz to 25000	OMHz						
Test site:	Measurement D	istance: 3m	(Semi-Anecho	ic Chamber	·)			
Receiver setup:					_			
	Frequency	Detector	RBW	VBW	Remark			
	30MHz-1GHz	Quasi-peak Peak	100KHz 1MHz	300KHz 3MHz	Quasi-peak Value Peak Value			
	Above 1GHz	Peak	1MHz	10Hz	Average Value			
Limit:			•		y			
(Field strength of the	Freque	ency	Limit (dBuV/		Remark			
fundamental signal)	2400MHz-24	183.5MHz	94.0		Average Value			
- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '			114.	0	Peak Value			
Limit:			1: :: / ID 1/	/ O0 \	Б			
(Spurious Emissions)	Freque		Limit (dBuV/		Remark			
	30MHz-8 88MHz-21		40.0 43.5		Quasi-peak Value			
	216MHz-9		46.0		Quasi-peak Value Quasi-peak Value			
	960MHz-		54.0		Quasi-peak Value			
			54.0		Average Value			
	Above 1	GHz))	Peak Value				
Limit: (band edge) Test Procedure:	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.							
rest Procedure.	 whichever is the lesser attenuation. a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasipeak or average method as specified and then reported in a data sheet. 							

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 10 of 26



Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 11 of 26

Measurement Data

5.1.1 Field Strength Of The Fundamental Signal

Peak value:

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2402.120	6.34	30.03	38.87	86.5	84.00	114	-30	Horizontal
2401.760	6.34	30.03	38.87	87.28	84.78	114	-29.22	Vertical
2440.430	6.40	30.18	38.59	83.53	81.52	114	-32.48	Horizontal
2439.820	6.40	30.18	38.59	86.77	84.76	114	-29.24	Vertical
2476.420	6.45	30.3	39.72	85.58	82.61	114	-31.39	Horizontal
2475.748	6.45	30.3	39.72	86.39	83.42	114	-30.58	Vertical

Average value:

Attorage value.									
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
2402.312	6.34	30.03	38.87	79.88	77.38	94	-16.62	Horizontal	
2402.336	6.34	30.03	38.87	85.68	83.18	94	-10.82	Vertical	
2440.390	6.40	30.18	38.59	81.86	79.85	94	-14.15	Horizontal	
2440.390	6.40	30.18	38.59	83.23	81.22	94	-12.78	Vertical	
2476.504	6.45	30.3	39.72	82.96	79.99	94	-14.01	Horizontal	
2476.456	6.45	30.3	39.72	85.54	82.57	94	-11.43	Vertical	



Report No.: SZEMO10050236502

Page: 12 of 26

5.1.2 Spurious Emissions

30MHz~1GHz		
Test mode:	Transmitting	

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
230.790	1.58	11.70	27.00	44.04	30.32	46.00	-15.68	Vertical
288.020	1.85	13.40	26.76	45.88	34.37	46.00	-11.63	Vertical
336.520	2.02	15.10	27.00	50.83	40.95	46.00	-5.05	Vertical
353.980	2.07	15.49	27.12	50.44	40.88	46.00	-5.12	Vertical
401.510	2.21	16.31	27.42	49.22	40.32	46.00	-5.68	Vertical
696.390	2.90	21.58	27.29	43.54	40.73	46.00	-5.27	Vertical
167.740	1.35	9.52	27.33	51.84	35.38	43.50	-8.12	Horizontal
191.990	1.39	10.12	27.20	52.53	36.84	40.00	-3.16	Horizontal
240.490	1.63	12.01	26.95	52.28	38.97	46.00	-7.03	Horizontal
288.020	1.85	13.40	26.76	51.33	39.82	46.00	-6.18	Horizontal
336.520	2.02	15.10	27.00	52.01	42.13	47.00	-4.87	Horizontal
551.860	2.65	18.92	27.66	46.64	40.55	46.00	-5.45	Horizontal



Report No.: SZEMO10050236502

Page: 13 of 26

Above 1GHz					
Test mode:	Transmitting	Test channel:	Lowest	Remark:	Peak

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2339.500	6.08	29.81	39.59	43.85	40.15	74.00	-33.85	Vertical
3538.000	7.74	32.58	40.01	44.74	45.05	74.00	-28.95	Vertical
4783.500	9.45	34.23	41.50	55.65	57.83	74.00	-16.17	Vertical
5982.000	13.13	35.78	41.90	45.59	52.60	74.00	-21.40	Vertical
7956.000	13.05	37.69	39.96	43.51	54.29	74.00	-19.71	Vertical
9695.000	13.69	38.01	37.79	41.68	55.59	74.00	-18.41	Vertical
2339.500	6.08	29.81	39.59	44.79	41.09	74.00	-32.91	Horizontal
3667.250	7.71	32.74	39.70	45.35	46.10	74.00	-27.90	Horizontal
4783.500	9.45	34.23	41.50	55.94	58.12	74.00	-15.88	Horizontal
6616.500	13.20	36.63	40.89	45.27	54.21	74.00	-19.79	Horizontal
8026.500	12.75	37.70	39.80	42.40	53.05	74.00	-20.95	Horizontal
9225.000	13.35	37.87	38.25	40.71	53.68	74.00	-20.32	Horizontal

Test mode:	Tran	smitting	Test char	nnel: L	owest	Remark:	ave	erage
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2339.500	6.08	29.81	39.59	34.30	30.60	54.00	-23.40	Vertical
3538.000	7.74	32.58	40.01	33.80	34.11	54.00	-19.89	Vertical
4783.500	9.45	34.23	41.50	40.60	42.78	54.00	-11.22	Vertical
5982.000	13.13	35.78	41.90	35.30	42.31	54.00	-11.69	Vertical
7956.000	13.05	37.69	39.96	31.20	41.98	54.00	-12.02	Vertical
9695.000	13.69	38.01	37.79	30.50	44.41	54.00	-9.59	Vertical
2339.500	6.08	29.81	39.59	34.50	30.80	54.00	-23.20	Horizontal
3667.250	7.71	32.74	39.70	34.20	34.95	54.00	-19.05	Horizontal
4783.500	9.45	34.23	41.50	39.60	41.78	54.00	-12.22	Horizontal
6616.500	13.20	36.63	40.89	30.21	39.15	54.00	-14.85	Horizontal
8026.500	12.75	37.70	39.80	29.81	40.46	54.00	-13.54	Horizontal
9225.000	13.35	37.87	38.25	30.61	43.58	54.00	-10.42	Horizontal

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



6017.250

7157.000

13.27

13.45

35.82

37.20

41.87

41.17

SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEMO10050236502

Page: 14 of 26

Test mode:	Tran	smitting	Test char	nnel:	Middle	Remark:	P	eak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1916.500	5.47	28.29	39.69	50.99	45.06	74.00	-28.94	Vertical
2821.250	6.38	31.39	39.14	48.11	46.74	74.00	-27.26	Vertical
3796.500	7.51	32.88	40.39	44.93	44.93	74.00	-29.07	Vertical
5100.750	10.83	34.64	41.20	44.87	49.14	74.00	-24.86	Vertical
7157.000	13.45	37.20	41.17	44.29	53.77	74.00	-20.23	Vertical
9201.500	13.26	37.86	38.35	42.11	54.88	74.00	-19.12	Vertical
1799.000	5.65	27.99	38.66	48.35	43.33	74.00	-30.67	Horizontal
2856.500	6.33	31.49	39.31	49.48	47.99	74.00	-26.01	Horizontal
4031.500	8.10	33.14	40.76	50.73	51.21	74.00	-22.79	Horizontal
5089.000	10.68	34.62	41.20	45.29	49.39	74.00	-24.61	Horizontal

45.71

44.25

52.93

53.73

74.00

74.00

-21.07

-20.27

Horizontal

Horizontal

Test mode:	Tran	smitting	Test char	nnel: I	Middle	Remark:	а	verage	
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
1916.500	5.47	28.29	39.69	35.80	29.87	54.00	-24.13	Vertical	
2821.250	6.38	31.39	39.14	37.61	36.24	54.00	-17.76	Vertical	
3796.500	7.51	32.88	40.39	35.20	35.20	54.00	-18.80	Vertical	
5100.750	10.83	34.64	41.20	35.60	39.87	54.00	-14.13	Vertical	
7157.000	13.45	37.20	41.17	30.61	40.09	54.00	-13.91	Vertical	
9201.500	13.26	37.86	38.35	30.50	43.27	54.00	-10.73	Vertical	
1799.000	5.65	27.99	38.66	38.60	33.58	54.00	-20.42	Horizontal	
2856.500	6.33	31.49	39.31	37.30	35.81	54.00	-18.19	Horizontal	
4031.500	8.10	33.14	40.76	36.20	36.68	54.00	-17.32	Horizontal	
5089.000	10.68	34.62	41.20	37.50	41.60	54.00	-12.40	Horizontal	
6017.250	13.27	35.82	41.87	35.51	42.73	54.00	-11.27	Horizontal	
7157.000	13.45	37.20	41.17	33.31	42.79	54.00	-11.21	Horizontal	

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 15 of 26

Test mode:	Tran	smitting	Test char	nnel: Hi	ghest	Remark:	Pe	ak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2022.250	5.45	28.60	38.93	44.26	39.38	74.00	-34.62	Vertical
3091.500	7.47	32.02	39.86	45.74	45.37	74.00	-28.63	Vertical
4783.500	9.45	34.23	41.50	56.41	58.59	74.00	-15.41	Vertical
5112.500	10.98	34.67	41.20	46.75	51.20	74.00	-22.80	Vertical
7180.500	13.42	37.22	41.07	44.72	54.29	74.00	-19.71	Vertical
9225.000	13.35	37.87	38.25	42.56	55.53	74.00	-18.47	Vertical
2139.750	5.64	29.06	39.32	44.27	39.65	74.00	-34.35	Horizontal
3432.250	7.24	32.46	39.65	45.68	45.73	74.00	-28.27	Horizontal
4278.250	8.72	33.52	40.02	45.72	47.94	74.00	-26.06	Horizontal
4783.500	9.45	34.23	41.50	57.45	59.63	74.00	-14.37	Horizontal
5676.500	12.82	35.41	42.01	44.51	50.73	74.00	-23.27	Horizontal
7098.250	13.56	37.17	41.46	45.98	55.25	74.00	-18.75	Horizontal

Test mode:	Tran	smitting	Test char	nnel:	Highest	Remark:	a	verage
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2022.250	5.45	28.60	38.93	35.19	30.31	54.00	-23.69	Vertical
3091.500	7.47	32.02	39.86	34.80	34.43	54.00	-19.57	Vertical
4783.500	9.45	34.23	41.50	41.60	43.78	54.00	-10.22	Vertical
5112.500	10.98	34.67	41.20	37.19	41.64	54.00	-12.36	Vertical
7180.500	13.42	37.22	41.07	31.59	41.16	54.00	-12.84	Vertical
9225.000	13.35	37.87	38.25	30.51	43.48	54.00	-10.52	Vertical
2139.750	5.64	29.06	39.32	34.50	29.88	54.00	-24.12	Horizontal
3423.250	7.23	32.45	39.70	35.21	35.19	54.00	-18.81	Horizontal
4278.250	8.72	33.52	40.02	35.60	37.82	54.00	-16.18	Horizontal
4783.500	9.45	34.23	41.50	39.20	41.38	54.00	-12.62	Horizontal
5676.500	12.82	35.41	42.01	36.20	42.42	54.00	-11.58	Horizontal
7098.250	13.56	37.17	41.46	33.20	42.47	54.00	-11.53	Horizontal

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 16 of 26

5.1.3 Band edge (Radiated Emission) Test mode: Transmitting Test channel: Lowest Remark: Peak

Vertical: Data: 45 Level (dBuV/m) FCC PART 15(>1 60 2310 2320 2410 Frequency (MHz) CableAntenna Preamp Read Limit Over Freq Loss Factor Factor Level Line Limit MHz dBdB/m dB dBuV dBuV/m dBuV/m dB 2390.000 6.28 29.98 39.03 47.34 44.57 74.00 -29.43 2 @ 2400.000 6.34 30.03 38.87 65.34 62.84 74.00 -11.16

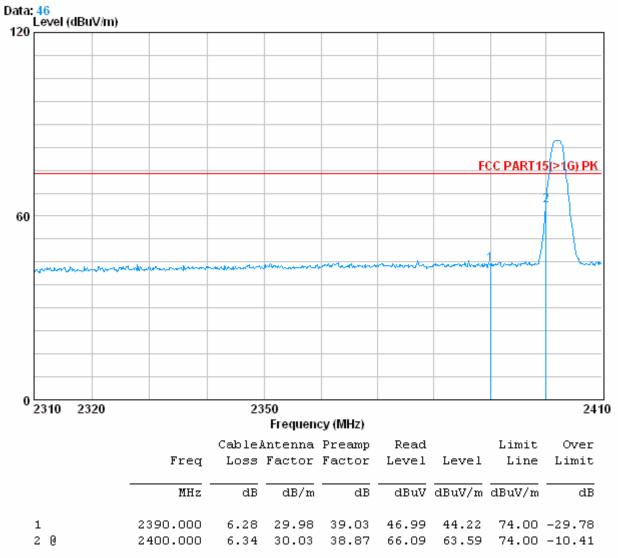
[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 17 of 26

Horizontal:

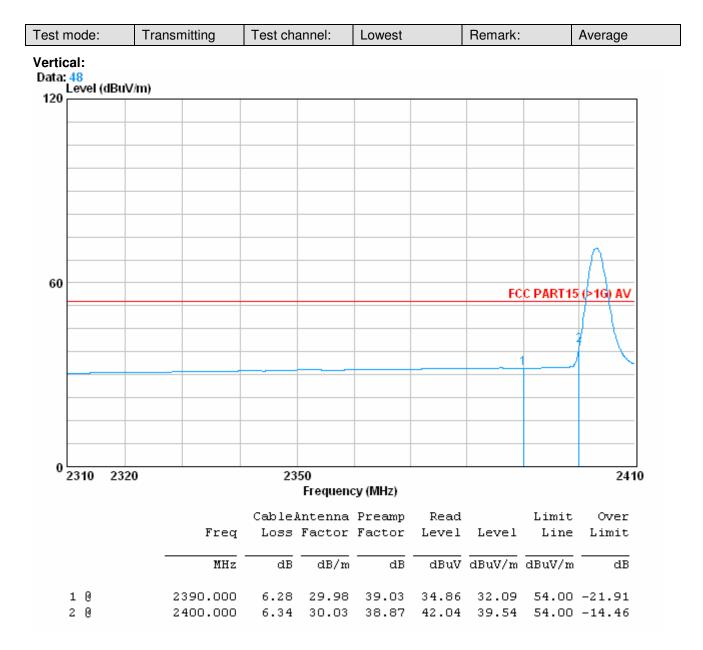


[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 18 of 26



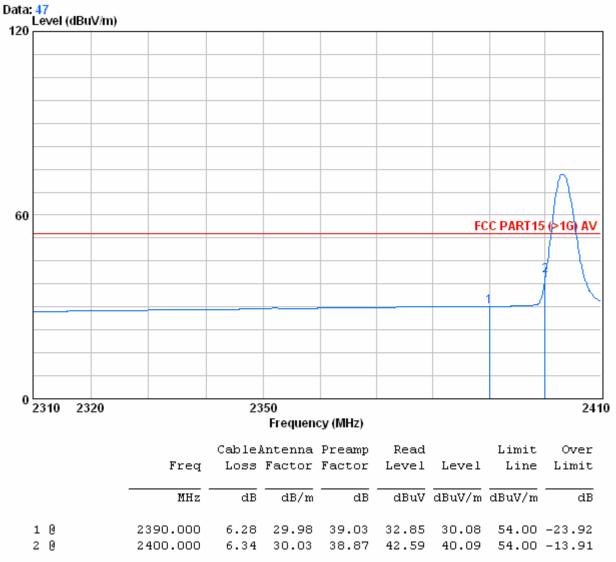
[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 19 of 26

Horizontal:

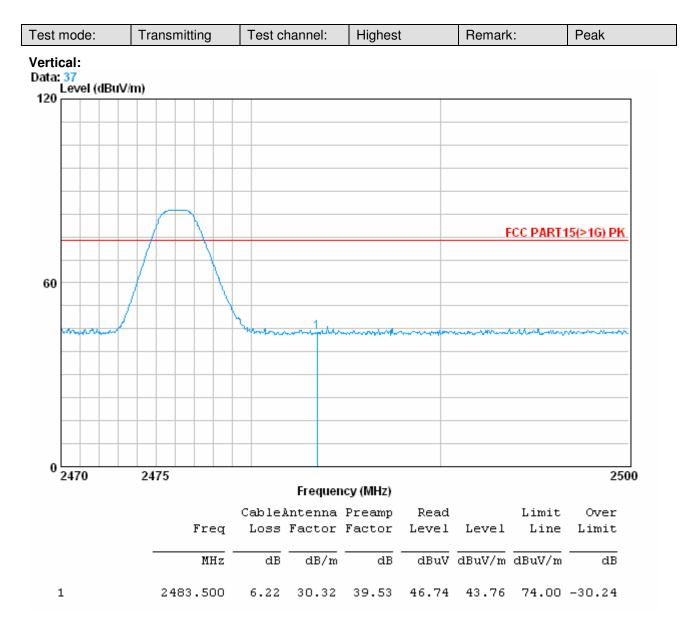


[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 20 of 26



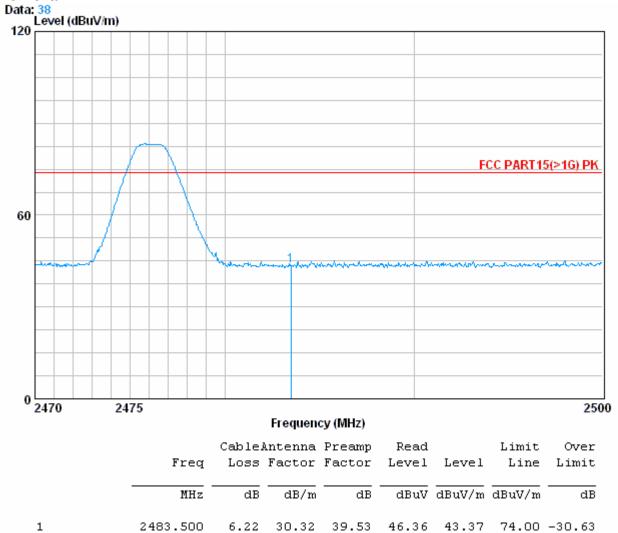
[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 21 of 26

Horizontal:

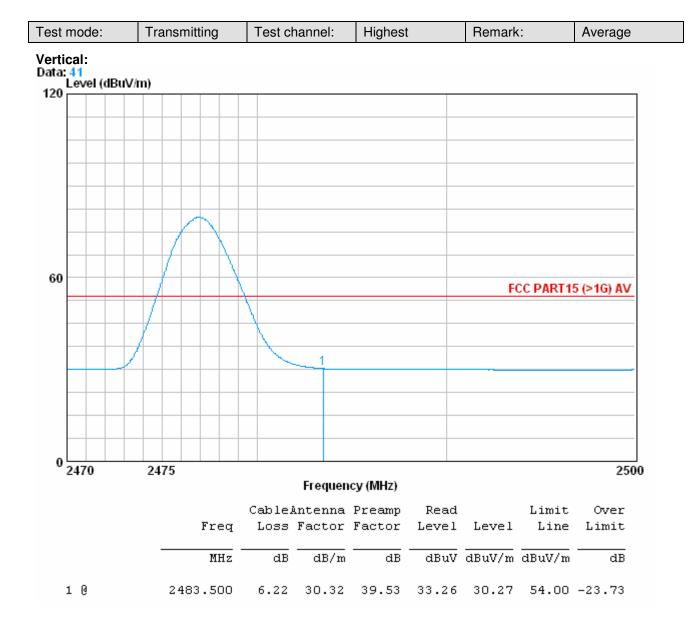


[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 22 of 26



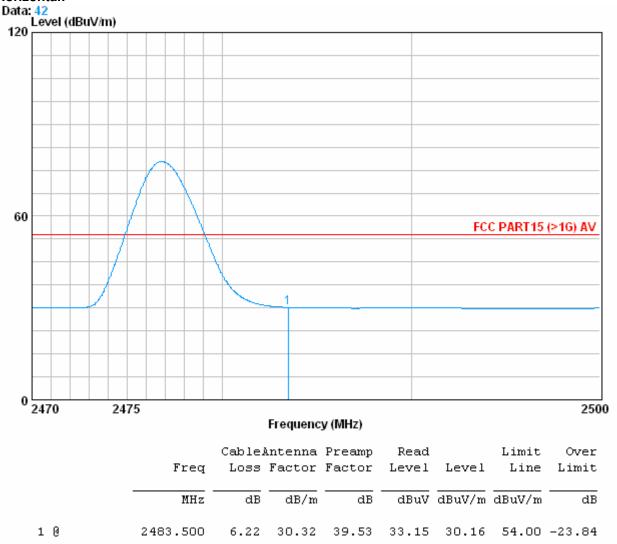
[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 23 of 26

Horizontal:



[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 24 of 26

5.1.4 20dB Bandwidth

Test Requirement: FCC Part15 C Section 15.249/15.215 Test Method: ANSI C63.4:2003 Limit: Operation Frequency range 2400MHz-2483.5MHz						
Limit: Operation Frequency range 2400MHz-2483.5MHz						
Test Procedure: 1. According to the follow Test-setup, keep the relative the artificial antenna and the EUT.	According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT.					
2. Set the EUT to proper test channel.						
3. Max hold the radiated emissions, mark the peak power and the -20dB upper and lower frequency points.	wer frequency point					
4. Read 20dB bandwidth.						
Test setup:						
Spectrum Analyzer E.U.T Non-Conducted Table						
Ground Reference Plane						
Test Instruments: Refer to section 4.7 for details	Refer to section 4.7 for details					
Took made:	Transmitting mode					
Test mode: Transmitting mode	Passed					

Measurement Data

Test channel	20dB bandwidth (MHz)	Results
Lowest	1.250	Pass
Middle	1.250	Pass
Highest	1.280	Pass

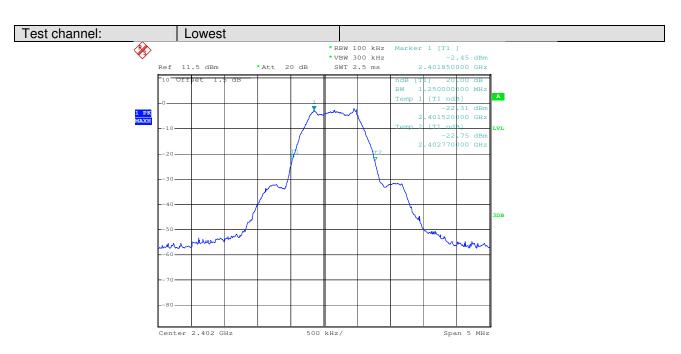
Test plot as follows:

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

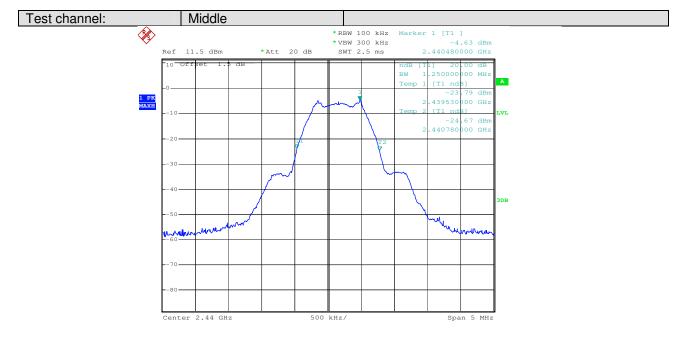


Report No.: SZEMO10050236502

Page: 25 of 26



Date: 17.MAY.2010 16:23:53



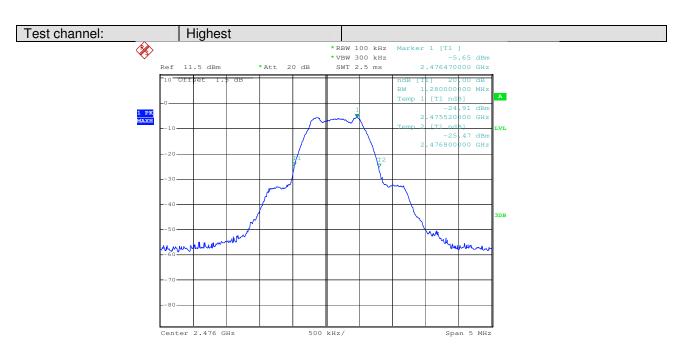
Date: 17.MAY.2010 16:24:43

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEMO10050236502

Page: 26 of 26



Date: 17.MAY.2010 16:30:13