

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

Telephone:	+86 (0) 755 2601 2053
Fax:	+86 (0) 755 2671 0594
Email:	ee.shenzhen@sgs.com

Report No.: SZEM141000589402 Page: 1 of 163

FCC REPORT

Application No:	SZEM1410005894CR
Applicant:	Flyingvoice Technology Co., Ltd.
Manufacturer/ Factory:	Flyingvoice Technology Co., Ltd.
Product Name:	VoIP Wireless Router
Model No.(EUT):	G702P
Add Model No.:	G702, G701P, G701A, G700P, G700A
FCC ID:	2AATVG702
Standards:	47 CFR Part 15, Subpart C (2014)
Date of Receipt:	2014-11-04
Date of Test:	2014-11-11 to 2015-01-04
Date of Issue:	2015-01-30
Test Result:	PASS *

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

Authorized Signature:



Jack Zhang EMC 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.

Report No.: SZEM141000589402 Page: 2 of 163

2 Version

Revision Record					
Version	Chapter	Date	Modifier	Remark	
00		2015-01-30		Original	

Authorized for issue by:		
Tested By	Chris-3hong	2015-01-04
	(Chris Zhong) /Project Engineer	Date
Prepared By	Linton W	2015-01-30
	(Linlin Lv) /Clerk	Date
Checked By	Kermfer	2015-02-05
	(Kevin Feng) /Reviewer	Date

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. 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.: SZEM141000589402 Page: 3 of 163

3 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15, Subpart C Section 15.203/15.247 (c)	ANSI C63.10 2009	PASS
AC Power Line Conducted Emission	47 CFR Part 15, Subpart C Section 15.207	ANSI C63.10 2009	PASS
Conducted Peak Output Power	47 CFR Part 15, Subpart C Section 15.247 (b)(3)	KDB558074 D01 v03r02 KDB662911 D01Multiple Transmitter Output v02r01	PASS
6dB Occupied Bandwidth	47 CFR Part 15, Subpart C Section 15.247 (a)(2)	KDB558074 D01 v03r02	PASS
Power Spectral Density	47 CFR Part 15, Subpart C Section 15.247 (e)	KDB558074 D01 v03r02 KDB662911 D01Multiple Transmitter Output v02r01	PASS
Band-edge for RF Conducted Emissions	47 CFR Part 15, Subpart C Section 15.247(d)	KDB558074 D01 v03r02 KDB662911 D01Multiple Transmitter Output v02r01	PASS
RF Conducted Spurious Emissions	47 CFR Part 15, Subpart C Section 15.247(d)	KDB558074 D01 v03r02 KDB662911 D01Multiple Transmitter Output v02r01	PASS
Radiated Spurious Emissions	47 CFR Part 15, Subpart C Section 15.205/15.209	ANSI C63.10 2009	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15, Subpart C Section 15.205/15.209	ANSI C63.10 2009	PASS

Remark:

1) Model No.: G702P, G702, G701P, G701A, G700P, G700A.

Only the model G702P was tested, since the circuit design, PCB layout, electrical components used, internal wiring and functions were identical for the above models, with difference being model no., color and decorations.

2) Other than AC Power Line Conducted Emission and Radiated Spurious Emissions items, through pre-scan all adapter and find the No.: SW36-12003000-W adapter which is the worst case, so only this adapter is used during those test and only this adapter test data include in this report.

Report No.: SZEM141000589402 Page: 4 of 163

4 Contents

			Page
1	COV	/ER PAGE	1
2	VER	RSION	2
3	TES	ST SUMMARY	3
4	CON	NTENTS	4
5	GEN	NERAL INFORMATION	5
	5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 5.10	CLIENT INFORMATION GENERAL DESCRIPTION OF EUT TEST ENVIRONMENT AND MODE DESCRIPTION OF SUPPORT UNITS TEST LOCATION TEST FACILITY DEVIATION FROM STANDARDS ABNORMALITIES FROM STANDARD CONDITIONS OTHER INFORMATION REQUESTED BY THE CUSTOMER EQUIPMENT LIST	
6	TES	T RESULTS AND MEASUREMENT DATA	
	6.1 6.2 6.3 6.4 6.5 6.6	ANTENNA REQUIREMENT CONDUCTED EMISSIONS CONDUCTED PEAK OUTPUT POWER	13 23 26 34 48
	6.7 6.8 <i>6.8.1</i> 6.8.2 6.9		78 81 105
	0.9	RESTRICTED BANDS AROUND FUNDAMENTAL FREQUENCY	. 130-103

Report No.: SZEM141000589402 Page: 5 of 163

5 General Information

5.1 Client Information

Applicant:	Flyingvoice Technology Co., Ltd.
Address of Applicant:	Room 202, Chuangxin Bldg A#, No.12 Hongda North Rd, BDA, Beijing, China
Manufacturer:	Flyingvoice Technology Co., Ltd.
Address of Manufacturer:	Room 202, Chuangxin Bldg A#, No.12 Hongda North Rd, BDA, Beijing, China
Factory:	Flyingvoice Technology Co., Ltd.
Address of Factory:	Room 202, Chuangxin Bldg A#, No.12 Hongda North Rd, BDA, Beijing, China

5.2 General Description of EUT

Product Name:	VoIP Wireless F	Router	
Model No.:	G702P		
Operation Frequency:	IEEE 802.11n(F	/n(HT20): 2412MHz to 2462MHz IT40): 2422MHz to 2452MHz	
Channel Numbers:		, IEEE 802.11n HT20: 11 Channels IT40: 7 Channels	
Channel Separation:	5MHz		
Type of Modulation:	IEEE for 802.11	b: DSSS(CCK,DQPSK,DBPSK) g : OFDM(64QAM, 16QAM, QPSK, BPSK) n(HT20 and HT40) : OFDM (64QAM, 16QAM,	
Sample Type:	Fixed production	n	
Test Power Grade:	802.11b: 00; 80 declare)	2.11g: 02; 802.11n(HT20 and HT40): 00 (manufacture	
Antenna Type and Gain:	Type: Integral Gain:5dBi		
Power Supply:	AC adapter:	M/N: F12W3-120100SPAU Input: 100-240V; 50/60Hz, 0.3A Output: DC 12V, 1A M/N: S24B12-120A200-Y4 Input: 100-240V; 50/60Hz, 0.7A Output: DC 12V, 2A M/N: WHF-1200300T3 Input: 100-240V; 50/60Hz, 1.0A Output: DC 12V 3.0A M/N: SW36-12003000-W Input: 100-240V; 50/60Hz, 1.5A Output: DC 12V, 3.0A	
DC output cable:	140cm (Unshiel	ded) (MODEL: S24B12-120A200-Y4)	
DC output cable :	144cm Unshield	led with a ferrite core (MODEL: SW36-12003000-W)	
DC output cable:	148cm (Unshielded) (MODEL: F12W3-120100SPAU)		
DC output cable :	146cm Unshielded (MODEL: WHF-1200300T3)		

Report No.: SZEM141000589402 Page: 6 of 163

Operation I	Operation Frequency each of channel(802.11b/g/n HT20)													
Channel	Fr	equency	Channe	I Frequency	Channel	Fre	quency	Char	nel	Frequency				
1	24	412MHz	4	2427MHz	7	244	12MHz	10)	2457MHz				
2	24	417MHz	5	2432MHz	8	244	17MHz	11		2462MHz				
3	24	422MHz	6	2437MHz	9	245	52MHz							
Operation F	=requ	ency each	of channe	el(802.11n HT40)									
Channe	I	Frequ	ency	Channel	Frequen	су	Chan	nel		Frequency				
1		24221	MHz	4	2437MHz		2437MHz		2437MHz		7			2452MHz
2		2427	MHz	5	2442MHz									
3		2432	MHz	6	2447MF	lz								

Note:

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:

For 802.11b/g/n (HT20):

Channel	Frequency
The Lowest channel	2412MHz
The Middle channel	2437MHz
The Highest channel	2462MHz

For 802.11n (HT40):

Channel	Frequency
The Lowest channel	2422MHz
The Middle channel	2437MHz
The Highest channel	2452MHz

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. 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.: SZEM141000589402 Page: 7 of 163

5.3 Test Environment and Mode

Operating Environment:		
Temperature:	24.0 °C	
Humidity:	55 % RH	
Atmospheric Pressure:	1020 mbar	
Test mode:		
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all	
	kind of data rate.	
Note: During the test, we use the PC to configure the power, modulation, data rate and channels.		

5.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	
PC	Supply by client	DCSM	
Lan cable	Supply by SGS	N/A	
Mouse	IBM	MO28UO	
Keyboard	IBM	KB-0225	
Phone(Just used for Conducted Emission and Radiated Spurious	PHILIPS	HCD1888(11)TSD	
Emissions test items)			

5.5 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.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

Report No.: SZEM141000589402 Page: 8 of 163

5.6 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.

VCCI

The 10m Semi-anechoic chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

• 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 No.: 556682.

Industry Canada (IC)

Two 3m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1 & 4620C-2.

5.7 Deviation from Standards

None.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.

Report No.: SZEM141000589402 Page: 9 of 163

	Conducted Emission	n			
ltem	Test Equipment	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)	
1	Shielding Room	ZhongYu Electron	GB-88	SEL0042	2015-06-10
2	LISN	Rohde & Schwarz	ENV216	SEL0152	2015-10-24
3	LISN	ETS-LINDGREN	3816/2	SEL0021	2015-05-16
4	8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T8-02	SEL0162	2015-08-30
5	4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T4-02	SEL0163	2015-08-30
6	2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T2-02	SEL0164	2015-08-30
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	2015-05-16
8	Coaxial Cable	SGS	N/A	SEL0025	2015-05-29
9	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2015-10-24
10	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B SEL0103		2015-10-24
11	Barometer	Chang Chun	DYM3	SEL0088	2015-05-16

5.10Equipment List

Report No.: SZEM141000589402 Page: 10 of 163

RE in Chamber									
ltem	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)				
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2015-06-10				
2	EMI Test Receiver	Agilent Technologies	N9038A	SEL0312	2015-09-16				
3	EMI Test software	AUDIX	E3	SEL0050	N/A				
4	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2015-10-24				
5	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2015-10-24				
6	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	2015-10-24				
7	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2015-05-16				
8	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEL0168	2015-10-24				
9	Coaxial cable	SGS	N/A	SEL0027	2015-05-29				
10	Coaxial cable	SGS	N/A	SEL0189	2015-05-29				
11	Coaxial cable	SGS	N/A	SEL0121	2015-05-29				
12	Coaxial cable	SGS	N/A	SEL0178	2015-05-29				
13	Band filter	Amindeon	82346	SEL0094	2015-05-16				
14	Barometer	Chang Chun	DYM3	SEL0088	2015-05-16				
15	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2015-10-24				
16	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2015-10-24				
17	Signal Generator (10M-27GHz)	Rohde & Schwarz	SMR27	SEL0067	2015-05-16				
18	Signal Generator	Rohde & Schwarz	SMY01	SEL0155	2015-10-24				
19	Loop Antenna	Beijing Daze	ZN30401	SEL0203	2015-06-04				

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. 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.: SZEM141000589402 Page: 11 of 163

	RF connected test									
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)					
1	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2015-10-24					
2	Humidity/ Temperature Indicator	HYGRO	ZJ1-2B	SEL0033	2015-10-24					
3	Spectrum Analyzer	Rohde & Schwarz	FSP	SEL0154	2015-10-24					
4	Coaxial cable	SGS	N/A	SEL0178	2015-05-29					
5	Coaxial cable	SGS	N/A	SEL0179	2015-05-29					
6	Barometer	ChangChun	DYM3	SEL0088	2015-05-16					
7	Signal Generator	Rohde & Schwarz	SML03	SEL0068	2015-05-16					
8	Band filter	amideon	82346	SEL0094	2015-05-16					
9	POWER METER	R & S	NRVS	SEL0144	2015-10-24					
10	Attenuator	Beijin feihang taida	TST-2-6dB	SEL0205	2015-05-16					
11	Power Divider(splitter)	Agilent Technologies	11636B	SEL0130	2015-10-24					

Note: The calibration interval is one year, all the instruments are valid.



Report No.: SZEM141000589402 Page: 12 of 163

6 Test results and Measurement Data

6.1 Antenna Requirement

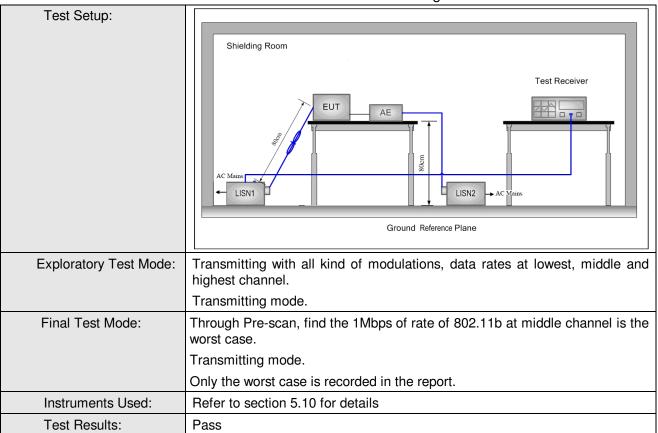
Standard requirement:	47 CFR Part 15C Section 15.203 /247(c)						
15.203 requirement:							
An intentional radiator	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the						
responsible party shall	be used with the device. The use of a permanently attached antenna or of an						
antenna that uses a un	ique coupling to the intentional radiator, the manufacturer may design the unit						
so that a broken antenr	na can be replaced by the user, but the use of a standard antenna jack or						
electrical connector is p	prohibited.						
15.247(b) (4) requireme	ent:						
The conducted output p	power limit specified in paragraph (b) of this section is based on the use of						
antennas with direction	al gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this						
section, if transmitting	antennas of directional gain greater than 6 dBi are used, the conducted output						
power from the intentio	nal radiator shall be reduced below the stated values in paragraphs (b)(1),						
(b)(2), and (b)(3) of this	s section, as appropriate, by the amount in dB that the directional gain of the						
antenna exceeds 6 dBi							
EUT Antenna:	ntenna 016 % 2 9 5 7 % % % % % % % % % % % % % % % % % %						
The antenna is integral	antenna and no consideration of replacement. The best case gain						
of the antenna is 5dBi.							

Report No.: SZEM141000589402 Page: 13 of 163

0.2	Conductod Enne													
	Test Requirement:	47 CFR Part 15C Section 15.207												
	Test Method:	ANSI C63.10: 2009												
	Test Frequency Range:	150kHz to 30MHz							150kHz to 30MHz					
	Limit:	Limit (dBuV)												
		Frequency range (MHz)	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 logarith	m of the frequency.											
	Test Procedure:	 * Decreases with the logarithm of the frequency. 1) The mains terminal disturbance voltage test was conducted in a shroom. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50µH linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the greference plane in the same way as the LISN 1 for the unit measured. A multiple socket outlet strip was used to connect m power cables to a single LISN provided the rating of the LISN we exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above ground reference plane. And for floor-standing arrangement, the was placed on the horizontal ground reference plane. The of the EUT shall be 0.4 m from the vertical ground reference plane. The unit is of the EUT shall be 0.4 m from the vertical ground reference plane. The unit is of the EUT shall be 0.4 m from the vertical ground reference plane. The unit is of the EUT shall be 0.4 m from the vertical ground reference plane. The unit is of the EUT shall be 0.4 m from the vertical ground reference plane. The UISN 1 was placed 0.8 m from the boundary or unit under test and bonded to a ground reference plane. This distance was 												
		 the EUT and associated equipment was at least 0.8 m from the LIS 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed accord ANSI C63.10: 2009 on conducted measurement. 												

6.2 Conducted Emissions

Report No.: SZEM141000589402 Page: 14 of 163



Measurement Data

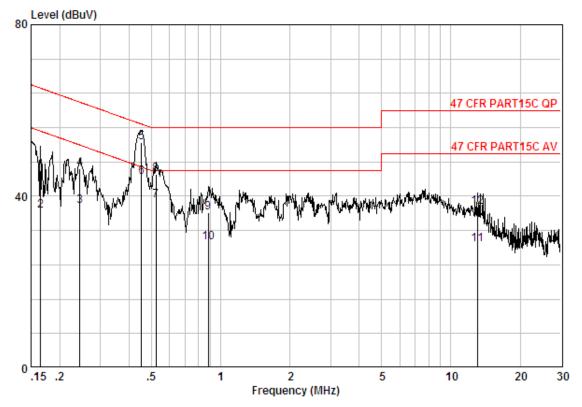
An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Report No.: SZEM141000589402 Page: 15 of 163

F12W3-120100SPAU:

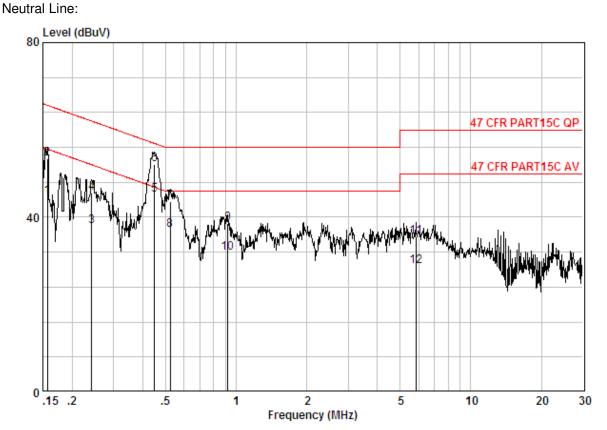
Live Line:



Site	: Shielding Room
Condition	: 47 CFR PART15C QP CE LINE
Job.No	: 5894CR
Mode	: 2437 TX mode

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.16501	0.02	9.70	36.37	46.09	65.21	-19.12	QP
2	0.16501	0.02	9.70	26.88	36.60	55.21	-18.60	Average
3	0.24422	0.02	9.70	28.09	37.80	51.95	-14.15	Average
4	0.24422	0.02	9.70	36.66	46.37	61.95	-15.58	QP
5	0.45300	0.01	9.80	42.65	52.46	56.82	-4.35	QP
6	0.45300	0.01	9.80	34.69	44.50	46.82	-2.32	Average
7	0.52376	0.01	9.80	29.13	38.95	46.00	-7.05	Average
8	0.52376	0.01	9.80	35.37	45.19	56.00	-10.81	QP
9	0.88499	0.02	9.80	26.27	36.09	56.00	-19.91	QP
10	0.88499	0.02	9.80	19.49	29.31	46.00	-16.69	Average
11	13.057	0.01	10.03	18.62	28.67	50.00	-21.33	Average
12	13.057	0.01	10.03	27.48	37.52	60.00	-22.48	QP

Report No.: SZEM141000589402 Page: 16 of 163

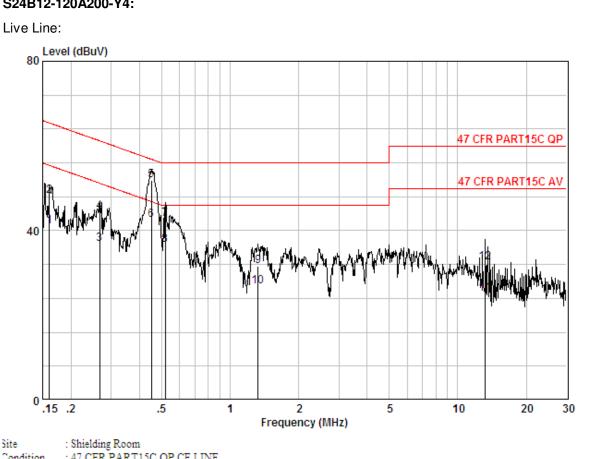


Site	: Shielding Room
Condition	: 47 CFR PART15C QP CE NEUTRAL
Job.No	: 5894CR
Mode	: 2437 TX mode

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 2 3 4 5 @ 6 7	0.15649 0.15649 0.24165 0.24165 0.44800 0.44800 0.52376	0.02 0.02 0.02 0.02 0.01 0.01 0.01		43.66 28.22 35.94 35.30 42.22	44.73 53.38 37.93 45.66 45.11 52.03 43.49	65.65 52.04 62.04 46.91 56.91	-12.27 -14.11 -16.38 -1.80	Äverage QP Average QP
9 10 11 12	0.52376 0.92330 0.92330 5.836 5.836	0.01 0.02 0.02 0.01 0.01	9.80 9.80 9.80	27.22 28.66 21.96	37.03 38.48 31.78 35.52	46.00 56.00 46.00 60.00	-8.97 -17.52 -14.22 -24.48	Äverage QP Average

Report No.: SZEM141000589402 Page: 17 of 163

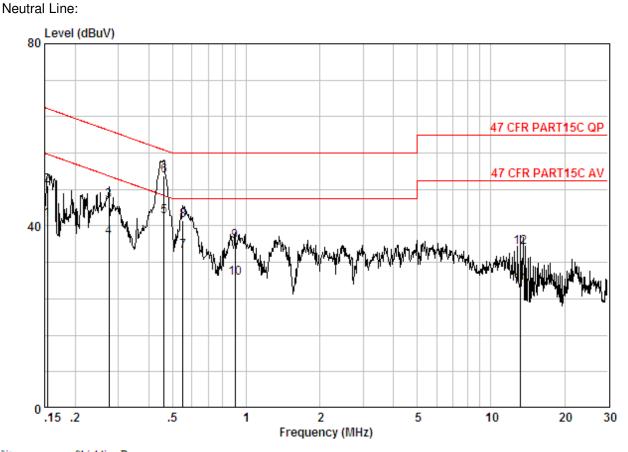
S24B12-120A200-Y4:



ane	. Shielding Room
Condition	: 47 CFR PART15C QP CE LINE
Job.No	: 5894CR
Mode	: 2437 TX mode

		Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
		MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1		0.16070	0.02	9.70	31.18	40.90	55.43	-14.53	Average
2		0.16070	0.02	9.70	38.48	48.20	65.43	-17.23	QP
3		0.26724	0.01	9.70	27.08	36.79	51.20	-14.41	Average
4		0.26724	0.01	9.70	34.65	44.36	61.20	-16.84	QP
5		0.45100	0.01	9.80	42.10	51.91	56.86	-4.95	QP
6	0	0.45100	0.01	9.80	32.70	42.51	46.86	-4.35	Average
7		0.51824	0.01	9.80	32.90	42.71	56.00	-13.29	QP
8		0.51824	0.01	9.80	26.76	36.57	46.00	-9.43	Average
9		1.324	0.02	9.80	21.73	31.55	56.00	-24.45	QP
10		1.324	0.02	9.80	16.98	26.80	46.00	-19.20	Average
11		13.197	0.01	10.04	14.92	24.97	50.00	-25.03	Average
12		13.197	0.01	10.04	22.37	32.41	60.00	-27.59	QP

Report No.: SZEM141000589402 Page: 18 of 163



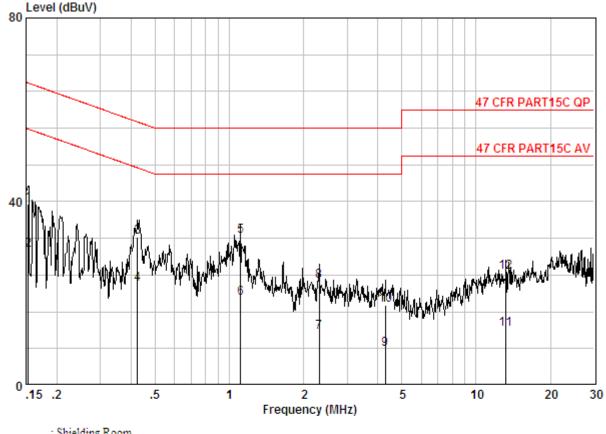
Site	: Shielding Room
Condition	: 47 CFR PART15C QP CE NEUTRAL
Job.No	: 5894CR
Mode	: 2437 TX mode

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15403	0.02	9.70	31.66	41.38	55.78	-14.40	Average
2	0.15403	0.02	9.70	39.01	48.73	65.78	-17.05	QP
3	0.27442	0.01	9.70	35.90	45.61	60.98	-15.37	QP
4	0.27442	0.01	9.70	27.88	37.59	50.98	-13.39	Average
5	0.46100	0.01	9.80	32.20	42.01	46.67	-4.66	Average
6	0.46100	0.01	9.80	41.30	51.11	56.67	-5.56	QP
7	0.55226	0.01	9.80	24.72	34.54	46.00	-11.46	Average
8	0.55226	0.01	9.80	31.47	41.29	56.00	-14.71	QP
9	0.89917	0.02	9.80	26.74	36.56	56.00	-19.44	QP
10	0.89917	0.02	9.80	18.67	28.49	46.00	-17.51	Average
11	13.197	0.01	10.00	17.00	27.01	50.00	-22.99	Average
12	13.197	0.01	10.00	25.38	35.39	60.00	-24.61	QP

Report No.: SZEM141000589402 Page: 19 of 163

WHF-1200300T3:

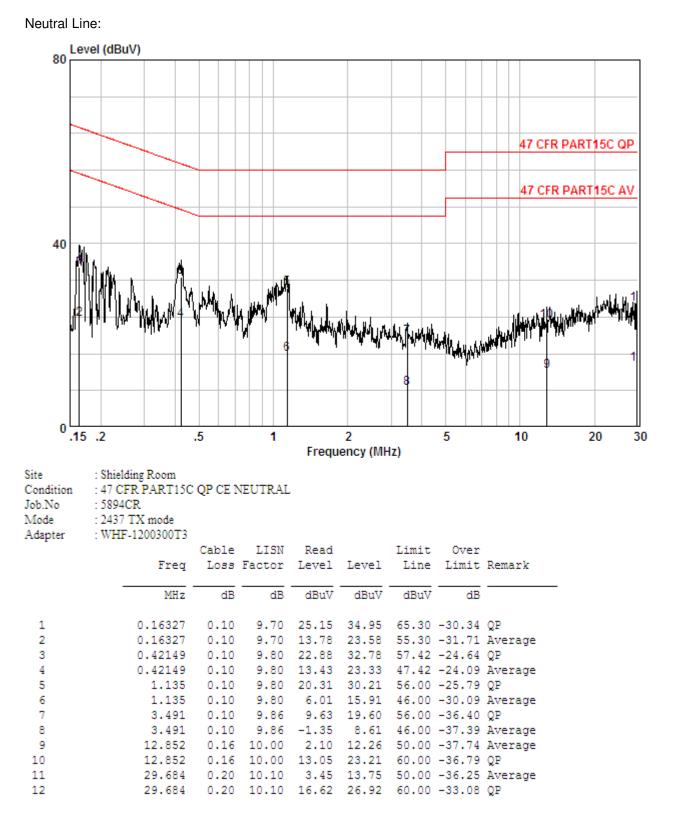
Live Line:



Site	: Shielding Room
Condition	: 47 CFR PART15C QP CE LINE
Job.No	: 5894CR
Mode	: 2437 TX mode
Adapter	: WHF-1200300T3

-	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15321	0.10	9.70	29.60	39.40	65.82	-26.43	QP
2	0.15321	0.10	9.70	19.57	29.37	55.82	-26.46	Average
3	0.42373	0.10	9.80	22.44	32.34	57.37	-25.03	QP
4	0.42373	0.10	9.80	12.03	21.93	47.37	-25.44	Average
5 @	1.111	0.10	9.80	22.47	32.37	56.00	-23.63	QP
6	1.111	0.10	9.80	9.04	18.94	46.00	-27.06	Average
7	2.309	0.10	9.82	1.57	11.48	46.00	-34.52	Average
8	2.309	0.10	9.82	12.68	22.59	56.00	-33.41	QP
9	4.292	0.10	9.88	-2.04	7.94	46.00	-38.06	Average
10	4.292	0.10	9.88	7.55	17.54	56.00	-38.46	QP
11	13.197	0.17	10.04	2.07	12.27	50.00	-37.73	Average
12	13.197	0.17	10.04	14.52	24.73	60.00	-35.27	QP

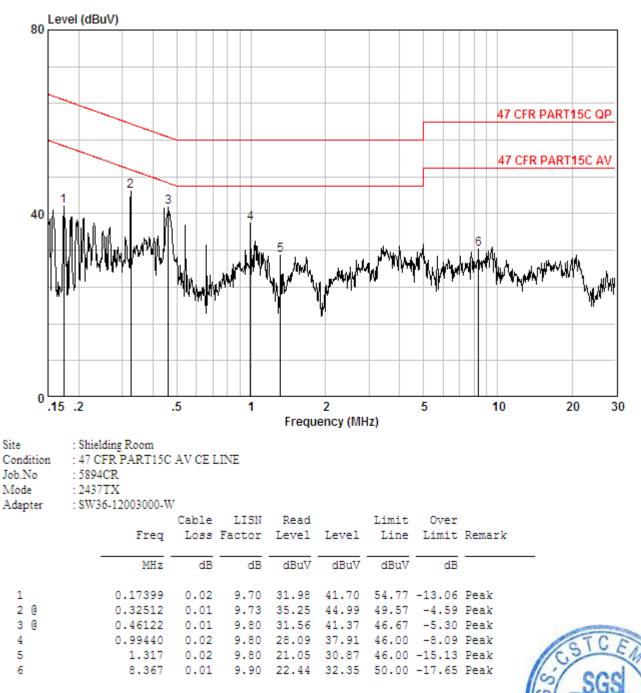
Report No.: SZEM141000589402 Page: 20 of 163



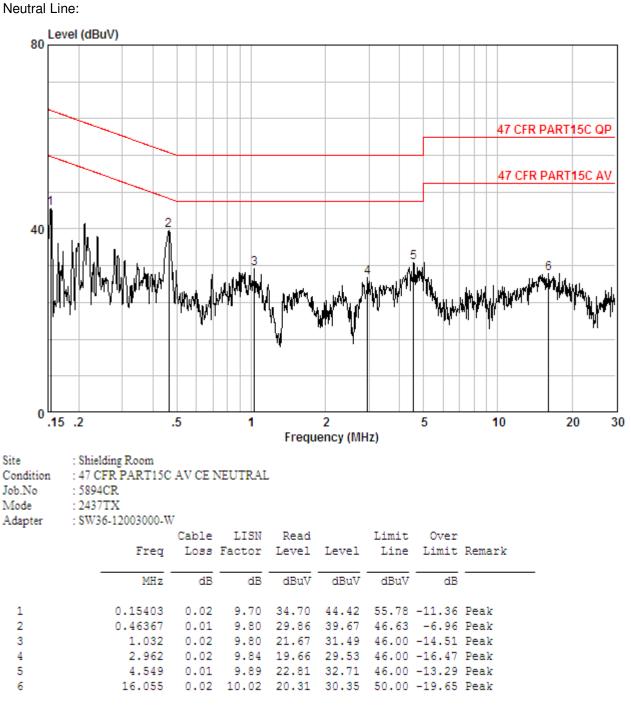
Report No.: SZEM141000589402 Page: 21 of 163

SW36-12003000-W

Live Line:



Report No.: SZEM141000589402 Page: 22 of 163



Notes:

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

2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

Report No.: SZEM141000589402 Page: 23 of 163

6.3 Conducted Peak Output Power

Test Requirement:	47 CFR Part 15C Section 15.247 (b)(3)						
Test Method:	KDB558074 D01 v03r02						
	KDB662911 D01Multiple Transmitter Output v02r01						
Test Setup:	Power Meter E.U.T RF Output poit E.U.T Non-Conducted Table Non-Conducted Table Ground Reference Plane Remark: Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.						
Test Instruments:	Refer to section 5.10 for details						
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates						
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b;						
	6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40)						
Limit:	30dBm						
Test Results:	Pass						

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. 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.: SZEM141000589402 Page: 24 of 163

Mode		802	.11b					
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps				
Power (dBm)	19.59	19.47	19.21	18.87				
Mode				80	2.11g			
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power (dBm)	19.12	18.95	18.75	18.72	18.68	18.55	18.51	18.01
Mode				802.11	In(HT20)			
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps
Power (dBm)	19.47	19.33	19.20	19.11	19.02	18.82	18.71	18.23
Mode				802.11	n(HT40)			
Data Rate	13.5Mbps	27Mbps	40.5Mbps	54Mbps	81Mbps	108Mbps	121.5Mbps	135Mbps
Power (dBm)	18.82	18.71	18.59	18.42	18.30	18.15	18.02	17.64

Report No.: SZEM141000589402 Page: 25 of 163

Measurement Data									
		802.11	b mode						
Test channel	Peak O	utput Power (c	dBm)	Limit (dBm)	Result				
	Antenna 1	Ante	enna 2						
Lowest	14.83	1	9.59	30.00	Pass				
Middle	15.50	1	9.02	30.00	Pass				
Highest	15.39	1	8.77	30.00	Pass				
	802.11g mode								
Test channel	Peak O	utput Power (c	dBm)	Limit (dBm)	Result				
	Antenna 1	Ante	enna 2						
Lowest	14.56	1	9.12	30.00	Pass				
Middle	15.14	1	8.53	30.00	Pass				
Highest	14.80	1	8.21 30.00		Pass				
		802.11n(H	T20)mode						
Test channel	Peak O	utput Power (c	dBm)	Limit (dBm)	Result				
	Antenna 1	Antenna 2	Total						
Lowest	13.64	18.16	19.47	30.00	Pass				
Middle	14.08	17.47	19.11	30.00	Pass				
Highest	13.78	17.16	18.80	30.00	Pass				
		802.11n(H	T40)mode						
Test channel	Peak O	utput Power (c	lBm)	Limit (dBm)	Result				
	Antenna 1 Antenna 2 Total		Total						
Lowest	13.31	17.39	18.82	30.00	Pass				
Middle	13.46	17.03	18.61	30.00	Pass				
Highest	13.41	16.80	18.44	30.00	Pass				

Report No.: SZEM141000589402 Page: 26 of 163

6.4 6dB Occupy Bandwidth

	1
Test Requirement:	47 CFR Part 15C Section 15.247 (a)(2)
Test Method:	KDB558074 D01 v03r02
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane
Instruments Used:	Refer to section 5.10 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b;
	6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40)
Limit:	≥ 500 kHz
Test Results:	Pass
Remark: Through Pre-scan, fin data is included in this report	d the power of antenna 1 is larger than antenna 2 , so only the antenna 1 test

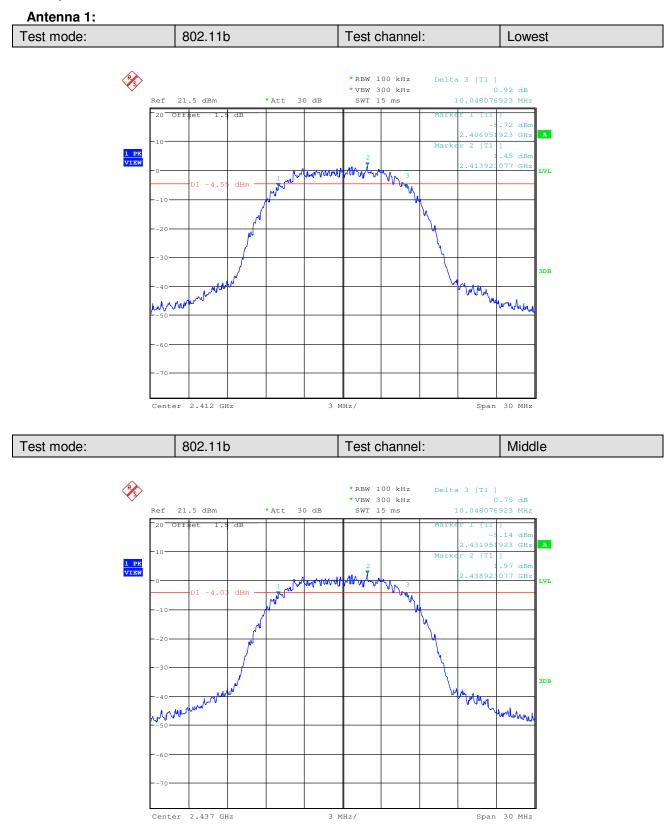
Report No.: SZEM141000589402 Page: 27 of 163

Measurement Data

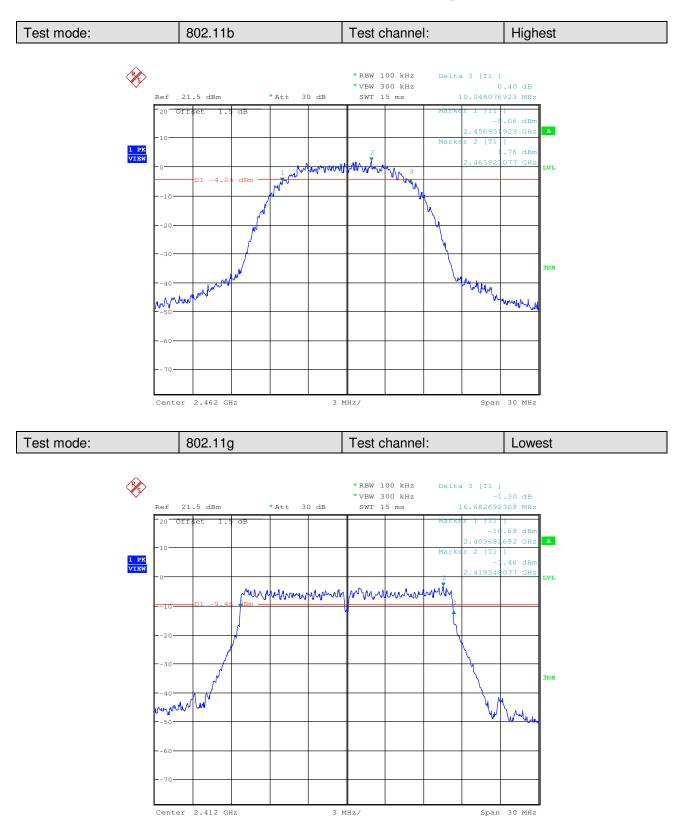
802.11b mode							
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
	Antenna 1						
Lowest	10.048	≥500	Pass				
Middle	10.048	≥500	Pass				
Highest	10.048	≥500	Pass				
	802.11g mode						
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
	Antenna 1						
Lowest	16.683	≥500	Pass				
Middle	16.683	≥500	Pass				
Highest	16.683	≥500	Pass				
	802.11n(HT20) mode						
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
	Antenna 1						
Lowest	17.837	≥500	Pass				
Middle	17.885	≥500	Pass				
Highest	17.885	≥500	Pass				
	802.11n(HT40)mode						
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
	Antenna 1						
Lowest	36.699	≥500	Pass				
Middle	36.683	≥500	Pass				
Highest	36.667	≥500	Pass				

Report No.: SZEM141000589402 Page: 28 of 163

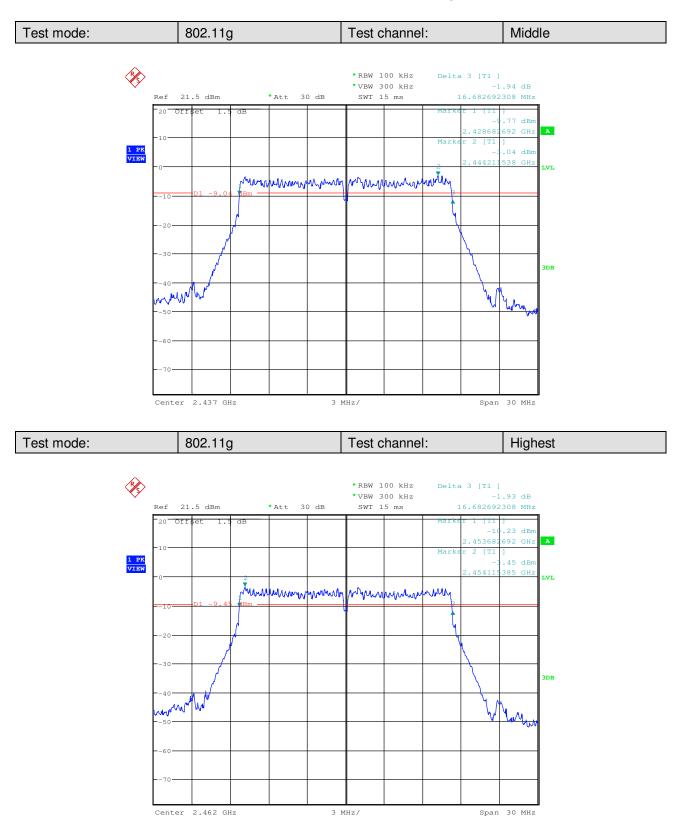
Test plot as follows:



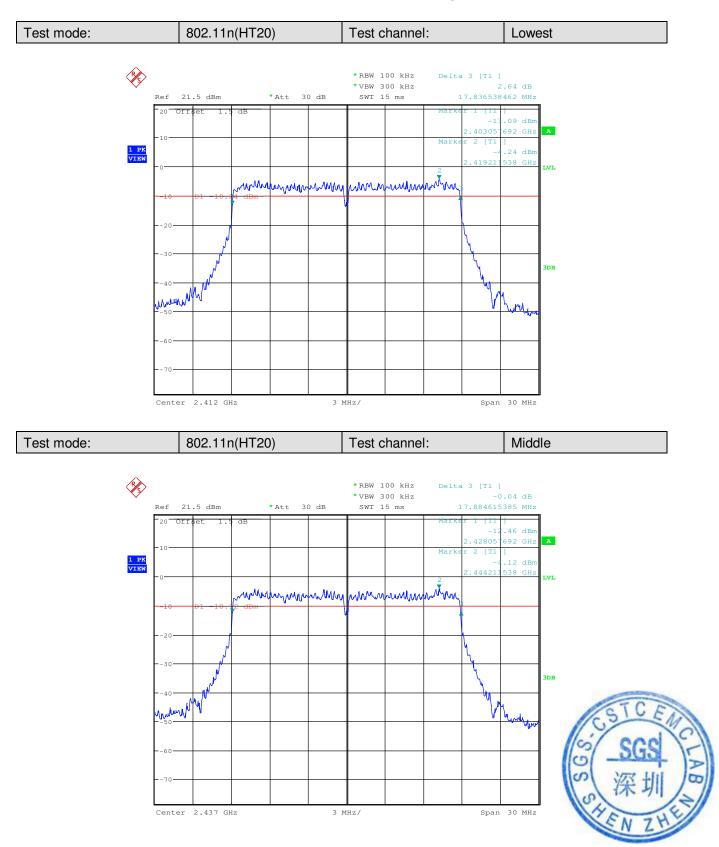
Report No.: SZEM141000589402 Page: 29 of 163



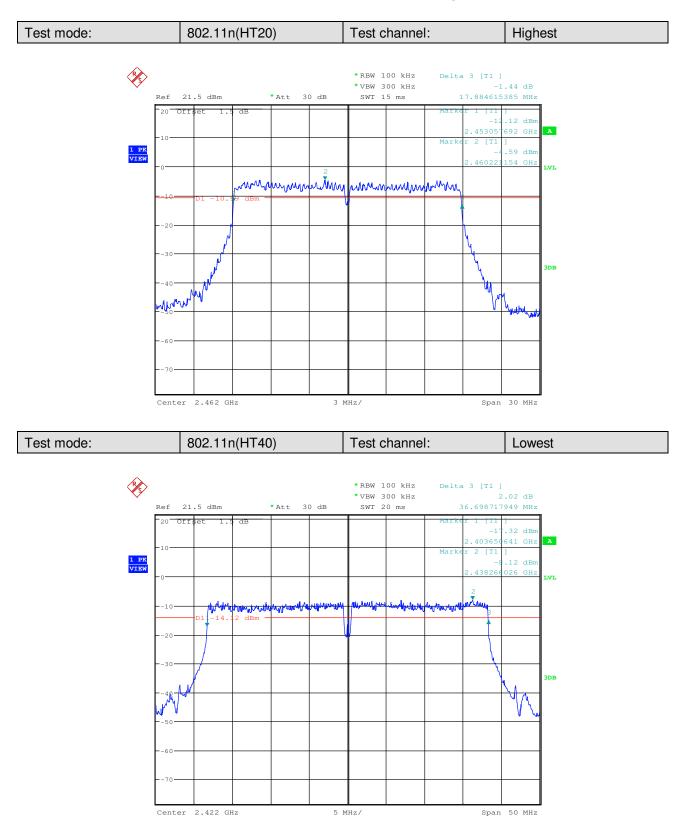
Report No.: SZEM141000589402 Page: 30 of 163



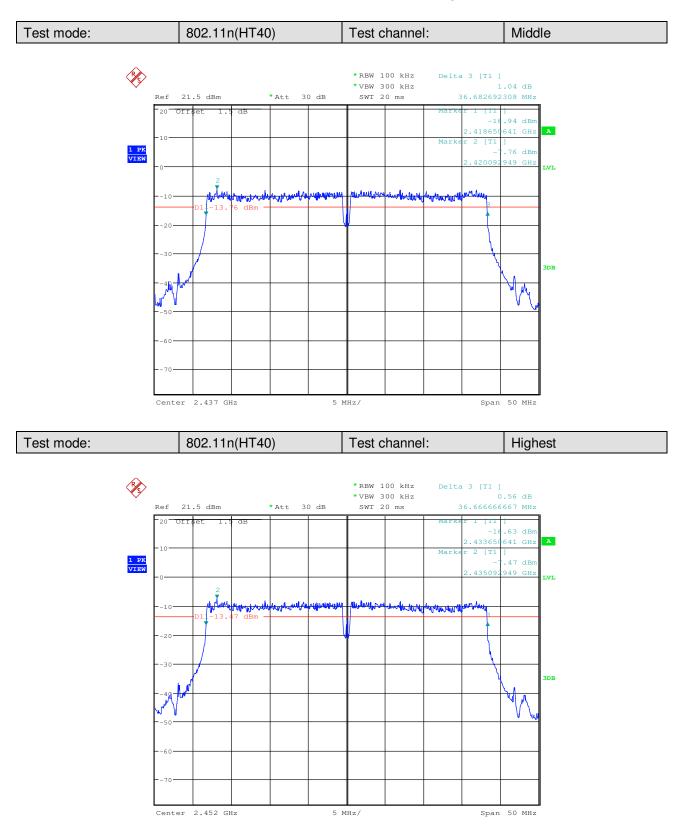
Report No.: SZEM141000589402 Page: 31 of 163



Report No.: SZEM141000589402 Page: 32 of 163



Report No.: SZEM141000589402 Page: 33 of 163



Report No.: SZEM141000589402 Page: 34 of 163

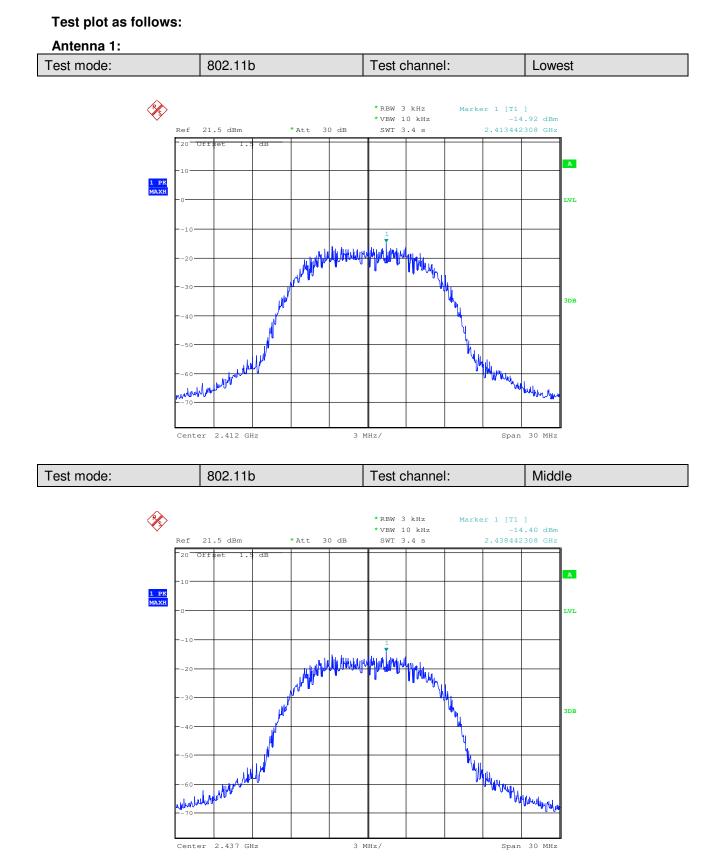
Test Requirement: 47 CFR Part 15C Section 15.247 (e) **Test Method:** KDB558074 D01 v03r02 KDB662911 D01Multiple Transmitter Output v02r01 Test Setup: Spectrum Analyzer E.U.T 0 Non-Conducted Table Ground Reference Plane Remark: Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer. **Test Instruments:** Refer to section 5.10 for details Exploratory Test Mode: Transmitting with all kind of modulations, data rates Final Test Mode: Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Limit: ≤8.00dBm Test Results: Pass

6.5 Power Spectral Density

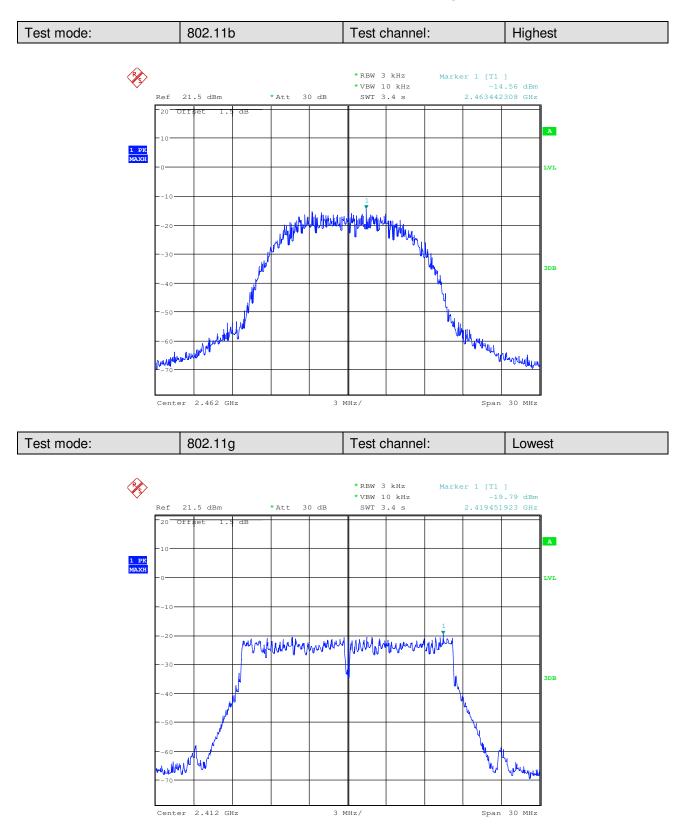
Report No.: SZEM141000589402 Page: 35 of 163

Measurement Data								
802.11b mode								
Test channel	Power S	pectral D	ensity (dBm)	Limit (dBm)	Result			
	Antenna	Antenna 1 Antenna						
Lowest	-14.92	2	-10.38	≤8.00	Pass			
Middle	-14.40)	-10.85	≤8.00	Pass			
Highest	-14.56	6	-10.94	≤8.00	Pass			
		8	02.11g mode	1				
Test channel	Power S	pectral D	ensity (dBm)	Limit (dBm)	Result			
	Antenna	a 1	Antenna 2					
Lowest	-19.79)	-15.78	≤8.00	Pass			
Middle	-19.65	5	-16.61	≤8.00	Pass			
Highest	-20.26	6	-16.26	≤8.00	Pass			
	-	802.	11n(HT20) mode					
Test channel	Power S	pectral D	ensity (dBm)	Limit (dBm)	Result			
	Antenna 1	Antenna	a 2 Total					
Lowest	-20.99	-17.18	-15.67	≤8.00	Pass			
Middle	-20.54	-17.80	15.95	≤8.00	Pass			
Highest	-21.20	-18.28	-16.49	≤8.00	Pass			
		802.	11n(HT40) mode	1	1			
Test channel	Power S	Power Spectral Density (dBm)		Limit (dBm)	Result			
	Antenna 1	Antenna	a 2 Total					
Lowest	-21.14	-19.32	-17.13	≤8.00	Pass			
Middle	-21.18	-19.89	9 -17.48	≤8.00	Pass			
Highest	-21.15	-20.44	4 -17.77	≤8.00	Pass			

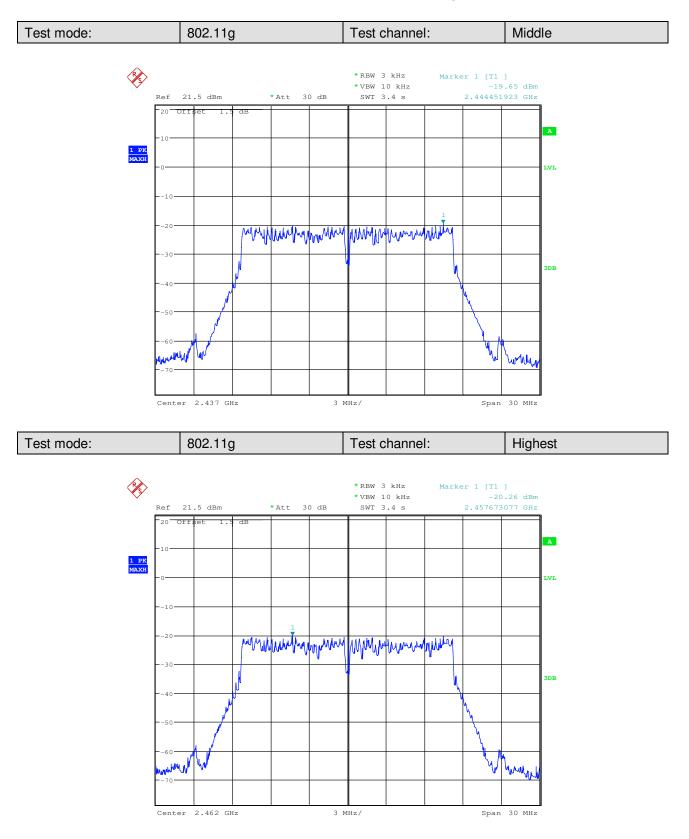
Report No.: SZEM141000589402 Page: 36 of 163



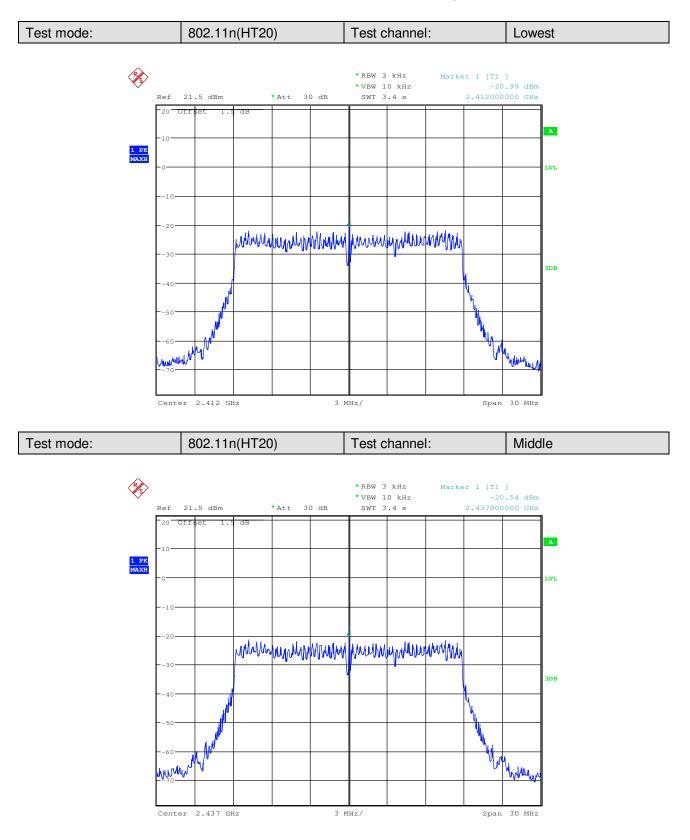
Report No.: SZEM141000589402 Page: 37 of 163



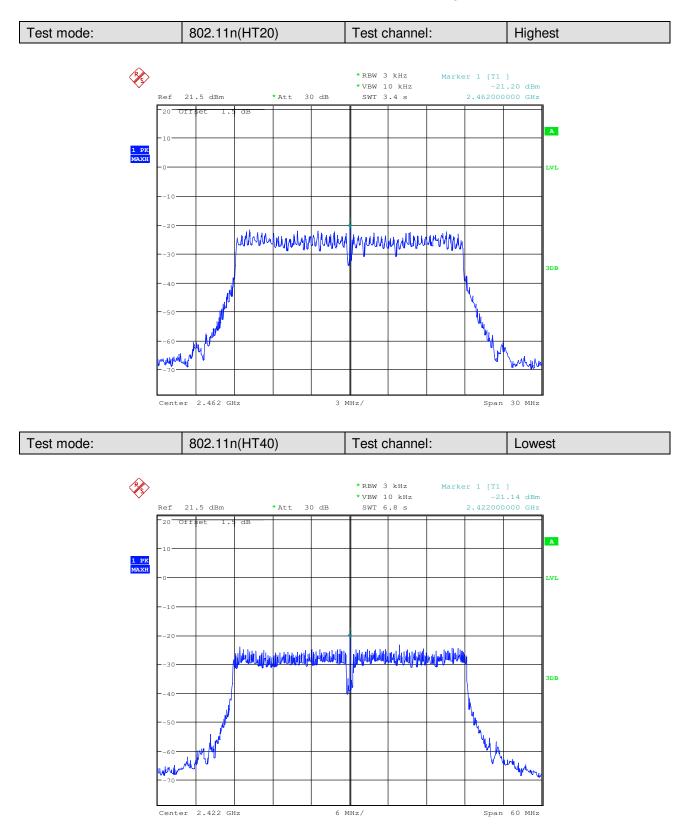
Report No.: SZEM141000589402 Page: 38 of 163



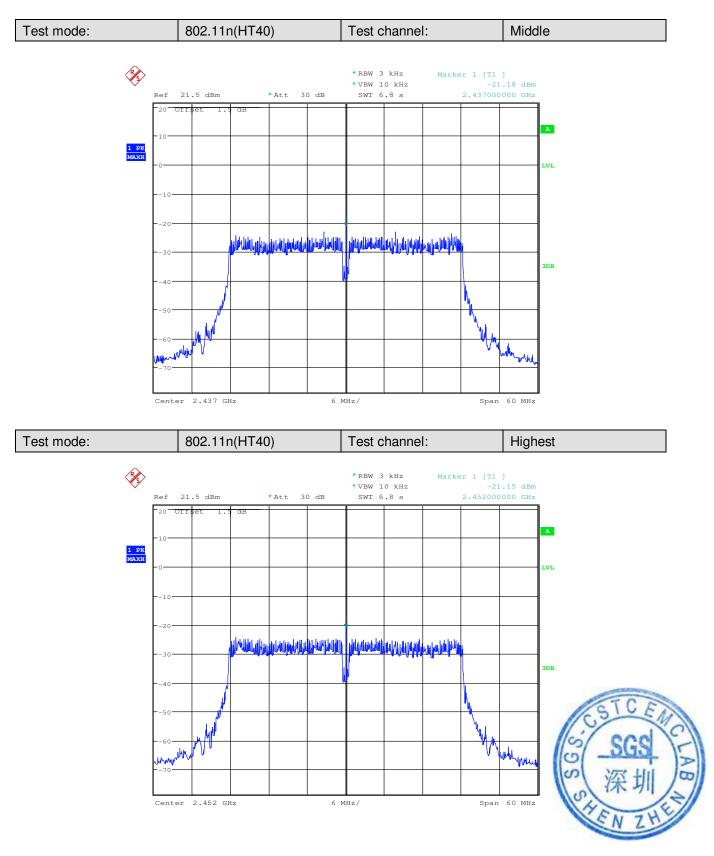
Report No.: SZEM141000589402 Page: 39 of 163



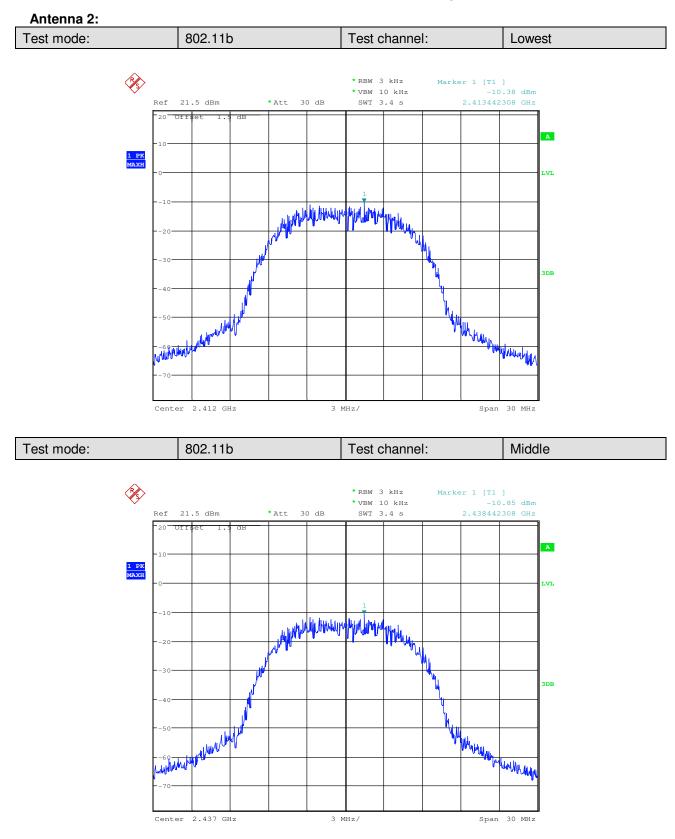
Report No.: SZEM141000589402 Page: 40 of 163



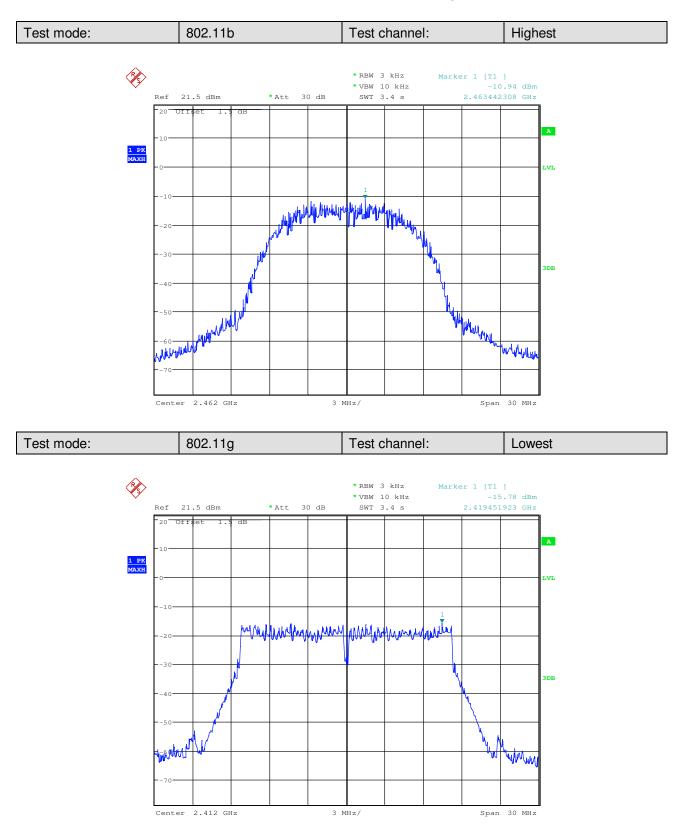
Report No.: SZEM141000589402 Page: 41 of 163



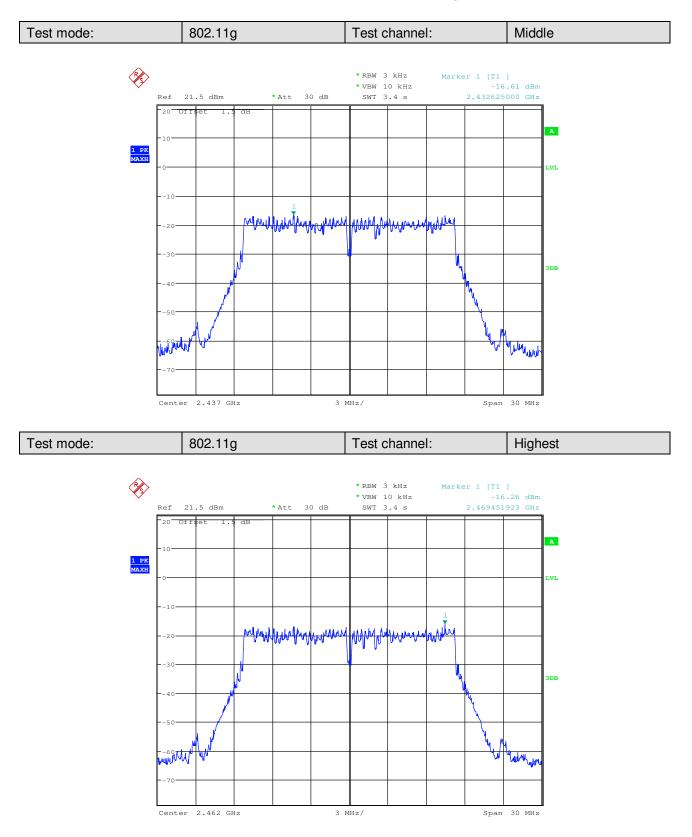
Report No.: SZEM141000589402 Page: 42 of 163



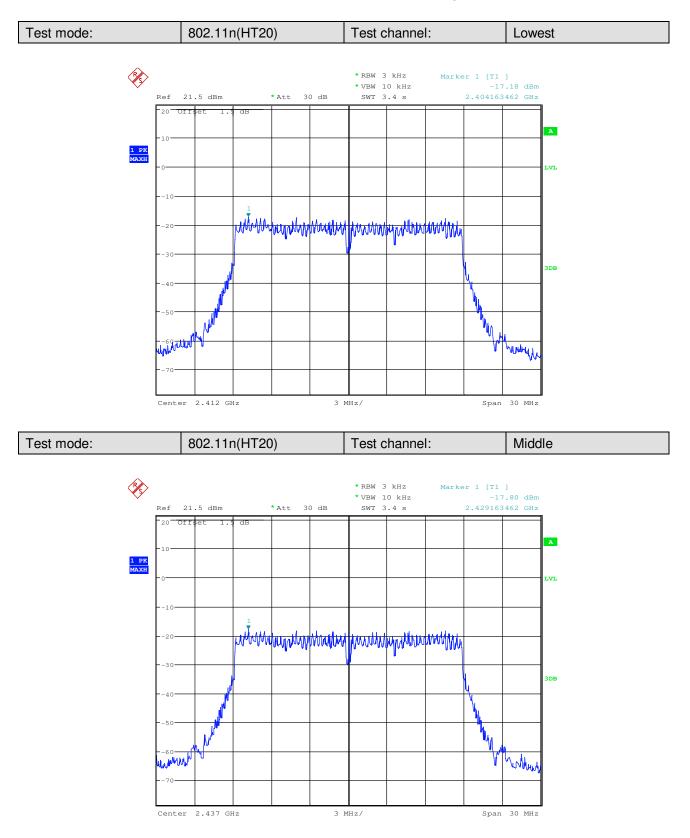
Report No.: SZEM141000589402 Page: 43 of 163



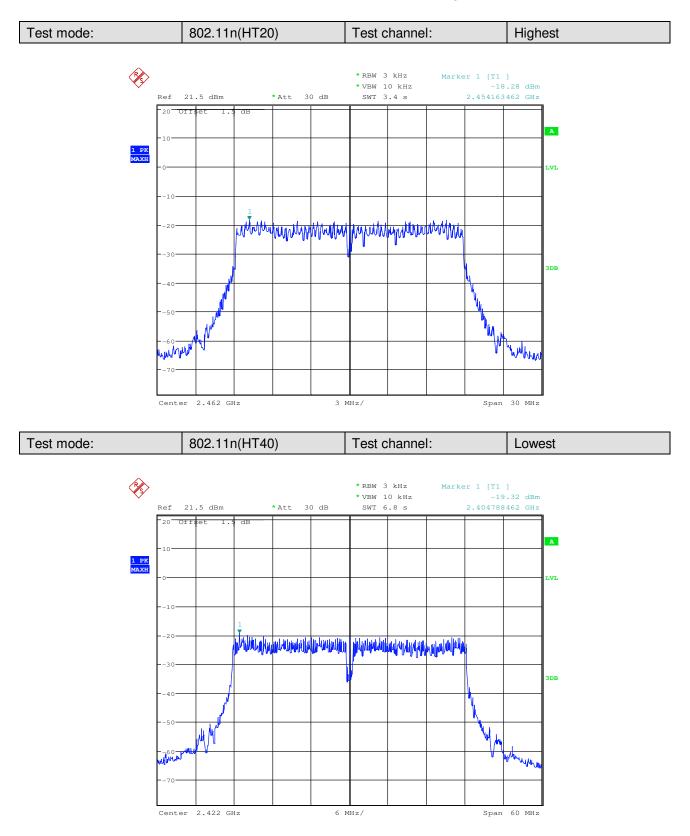
Report No.: SZEM141000589402 Page: 44 of 163



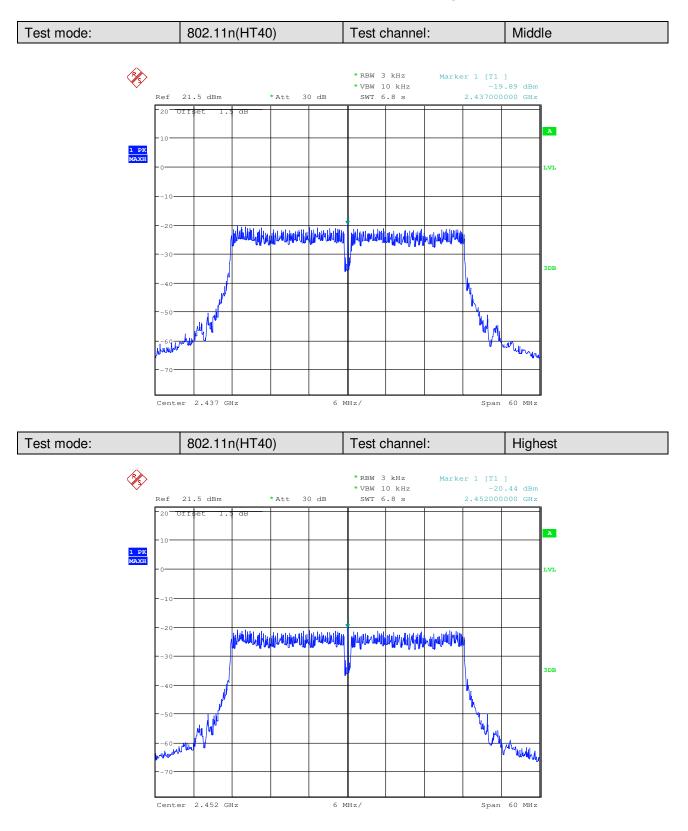
Report No.: SZEM141000589402 Page: 45 of 163



Report No.: SZEM141000589402 Page: 46 of 163



Report No.: SZEM141000589402 Page: 47 of 163



Report No.: SZEM141000589402 Page: 48 of 163

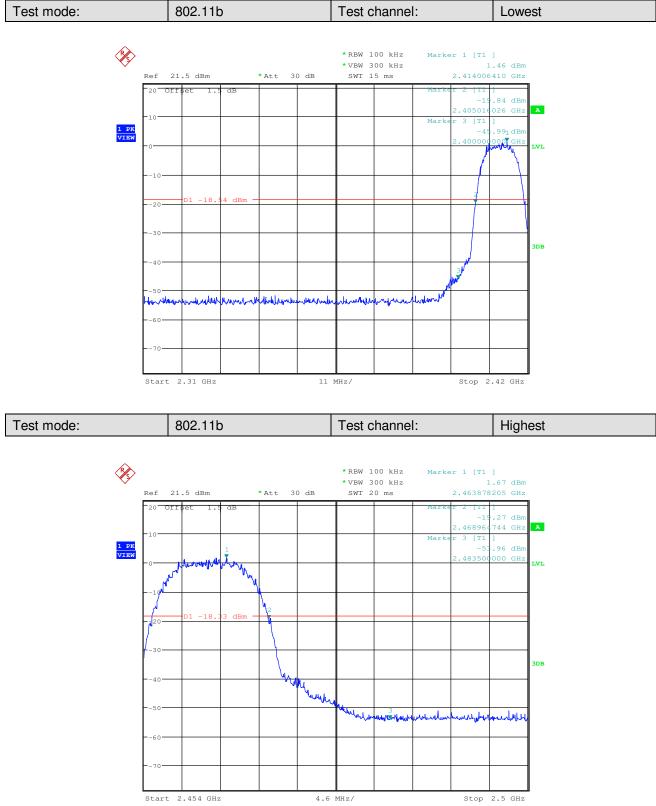
6.6 Band-edge for RF Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	KDB558074 D01 v03r02
	KDB662911 D01Multiple Transmitter Output v02r01
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane Remark:
	Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b;
	6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case
	of 802.11n(HT20) ; 13.5Mbps of rate is the worst case of 802.11n(HT40)
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Instruments Used:	Refer to section 5.10 for details.
Test Results:	Pass
	Noted: According to KDB662911 D01Multiple Transmitter Output v02r01, section E) 3) a)(iii), Final value = Measure value + 10 log(N _{ANT}).
	Where (NANT) is the number of output
Remark: Through Pre-scan, fi data is included in this report	nd the power of antenna 1 is larger than antenna 2 , so only the antenna 1 test

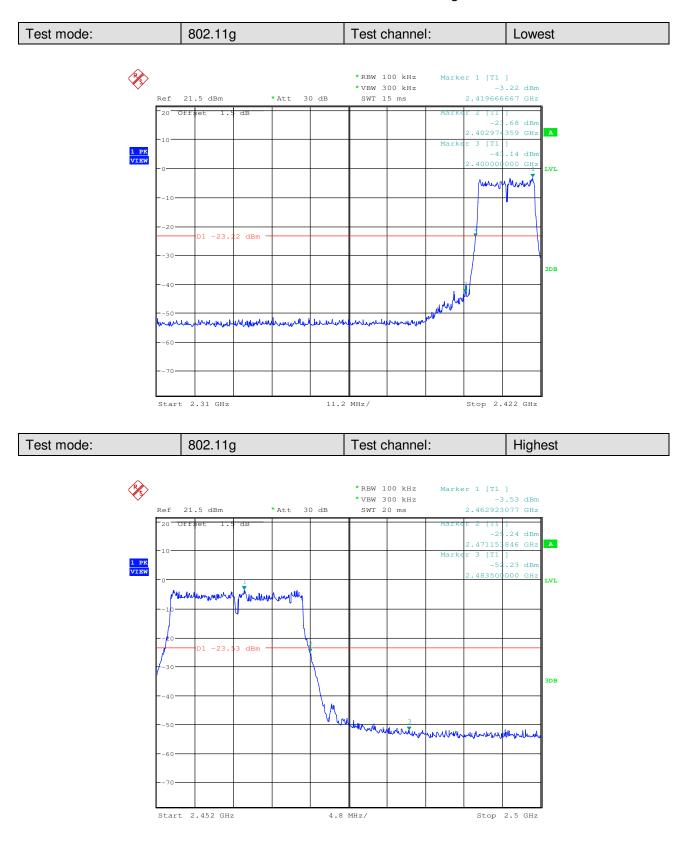
Report No.: SZEM141000589402 Page: 49 of 163

Test plot as follows:

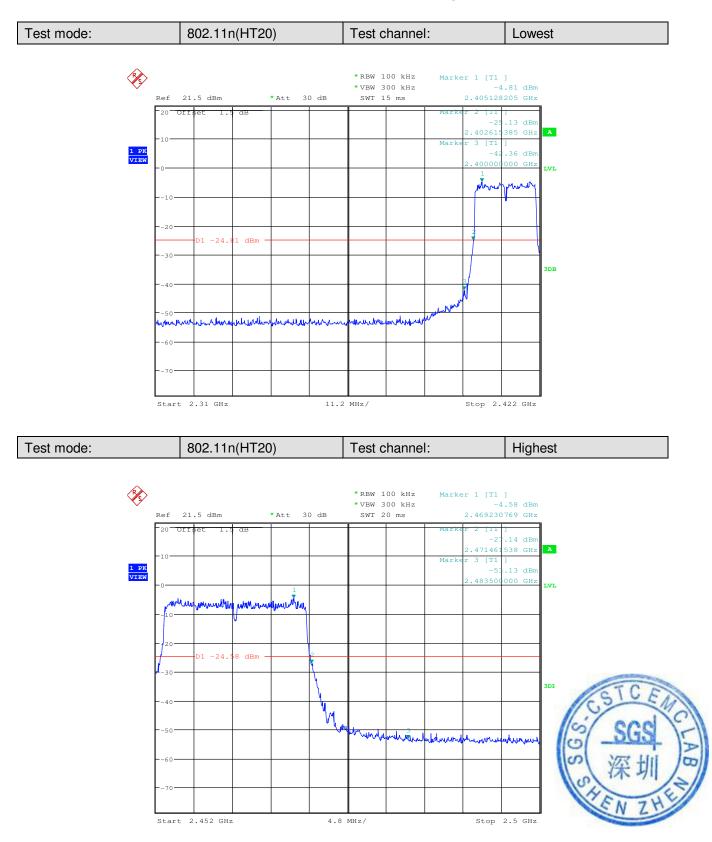
Antenna 1:



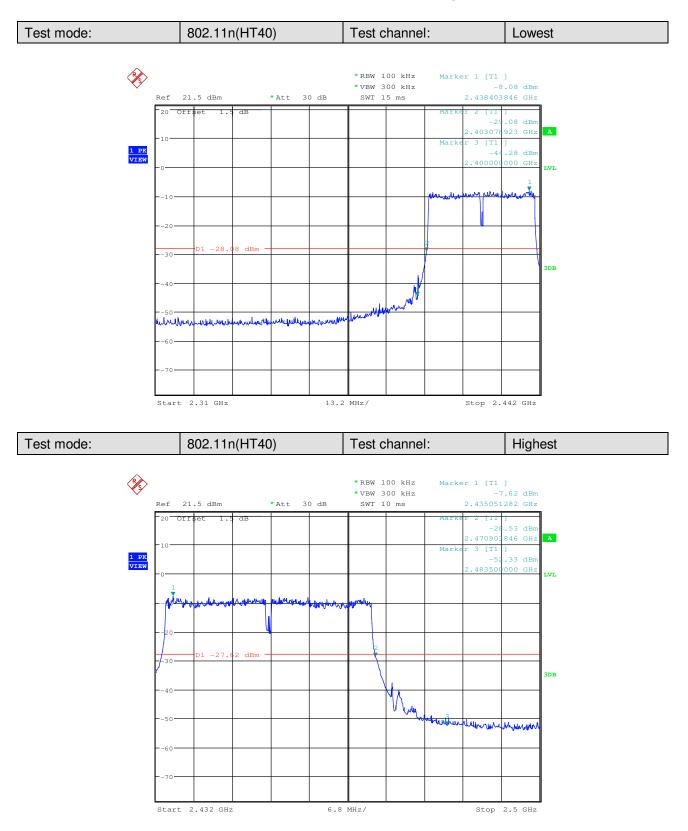
Report No.: SZEM141000589402 Page: 50 of 163



Report No.: SZEM141000589402 Page: 51 of 163



Report No.: SZEM141000589402 Page: 52 of 163



Report No.: SZEM141000589402 Page: 53 of 163

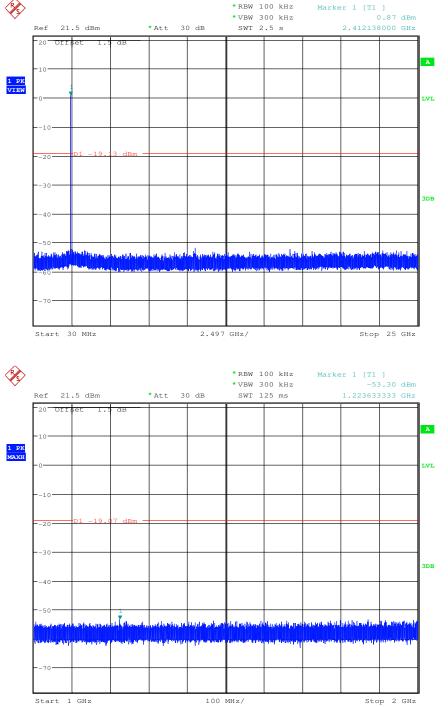
6.7 RF Conducted Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	KDB558074 D01 v03r02
	KDB662911 D01Multiple Transmitter Output v02r01
Test Setup:	Spectrum Analyzer Image: Description of the spectrum analyzer.
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20) ; 13.5Mbps of rate is the worst case of 802.11n(HT40)
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass
	Noted: According to KDB662911 D01Multiple Transmitter Output v02r01, section E) 3) a)(iii), Final value = Measure value + 10 log(NANT).
	Where (NANT) is the number of output
Remark: Through Pre-scan, fir data is included in this report	nd the power of antenna 1 is larger than antenna 2 , so only the antenna 1 test

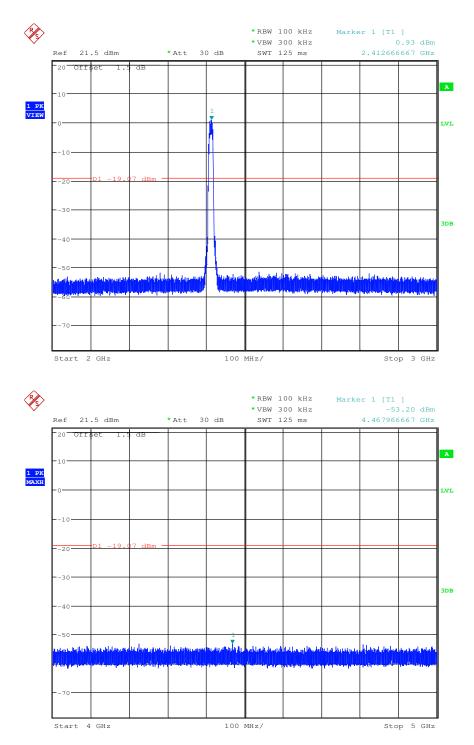
Report No.: SZEM141000589402 Page: 54 of 163

Lowest

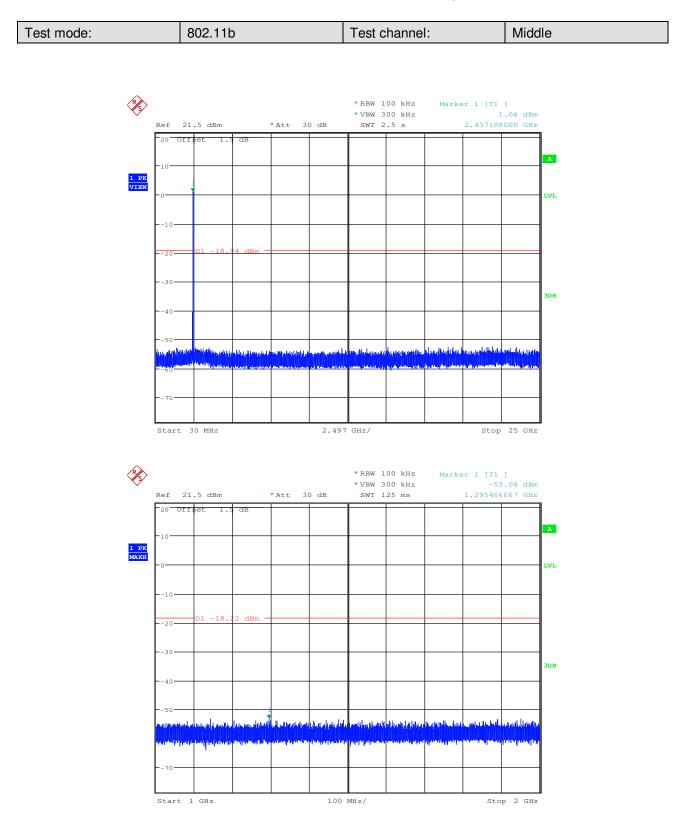
Test plot as follows: Antenna 1: Test mode: 802.11b Test channel: * RBW 100 kHz Marker 1 * WBW 200 kHz



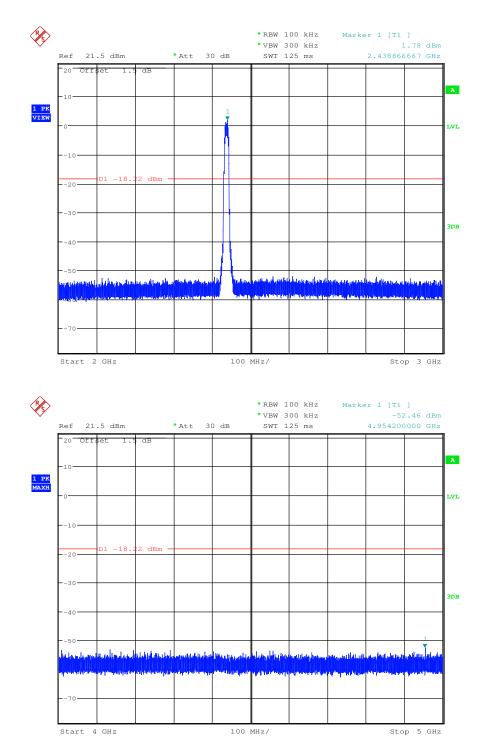
Report No.: SZEM141000589402 Page: 55 of 163



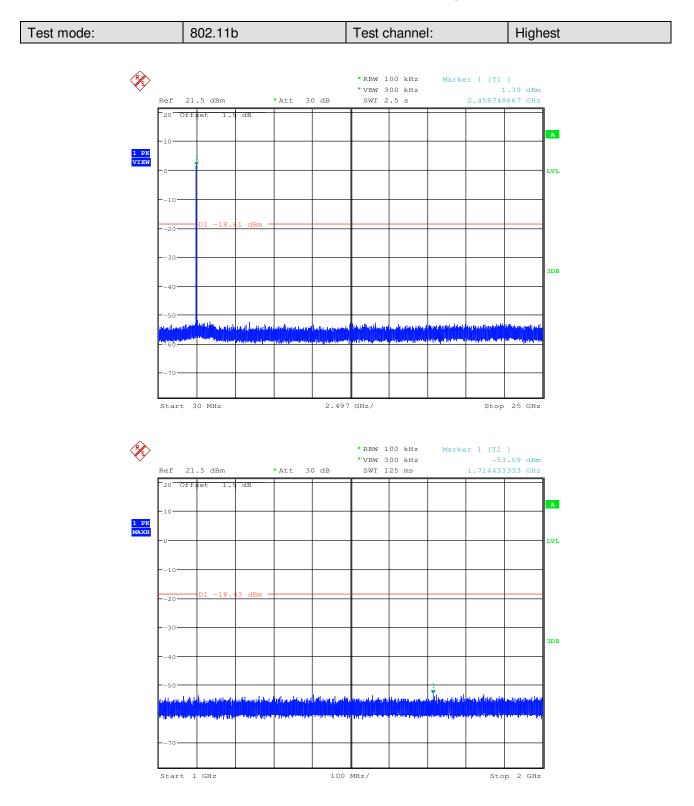
Report No.: SZEM141000589402 Page: 56 of 163



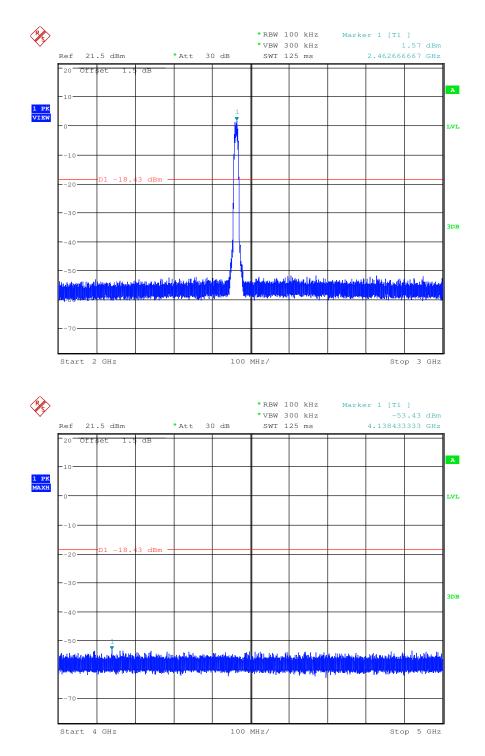
Report No.: SZEM141000589402 Page: 57 of 163



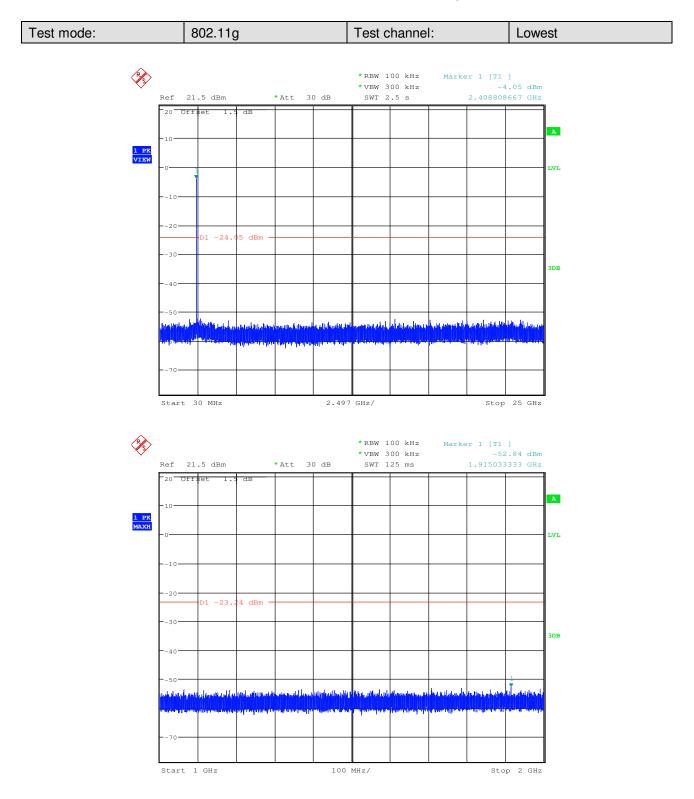
Report No.: SZEM141000589402 Page: 58 of 163



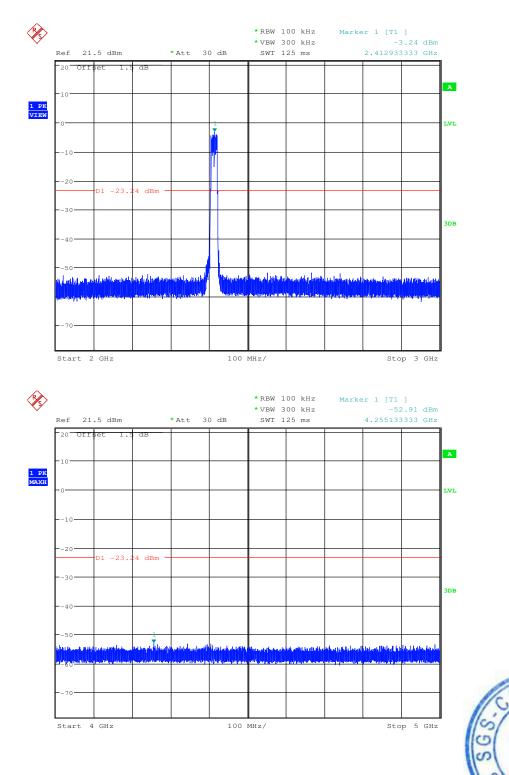
Report No.: SZEM141000589402 Page: 59 of 163



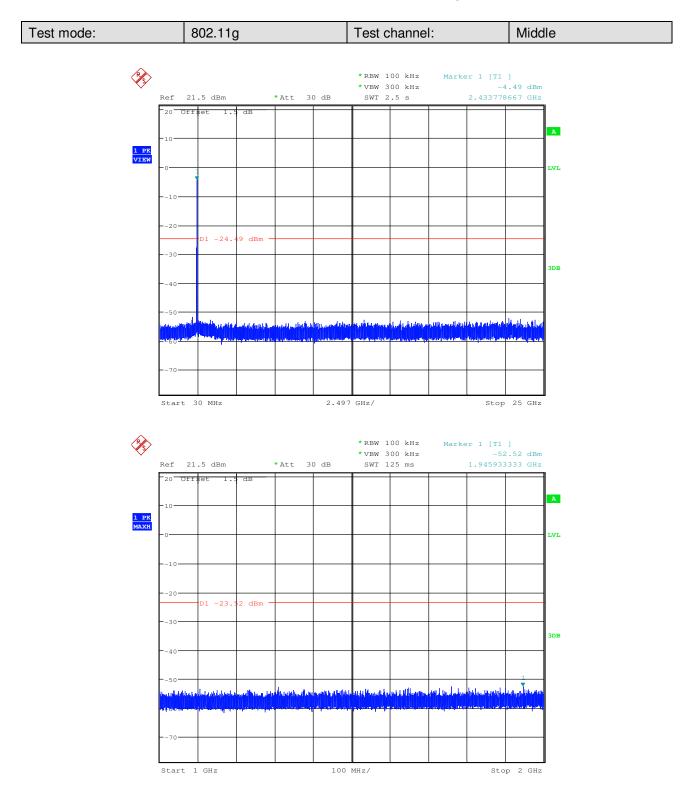
Report No.: SZEM141000589402 Page: 60 of 163



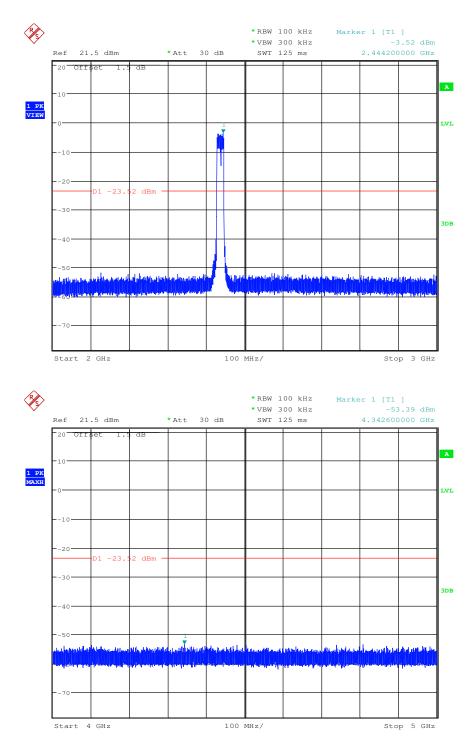
Report No.: SZEM141000589402 Page: 61 of 163



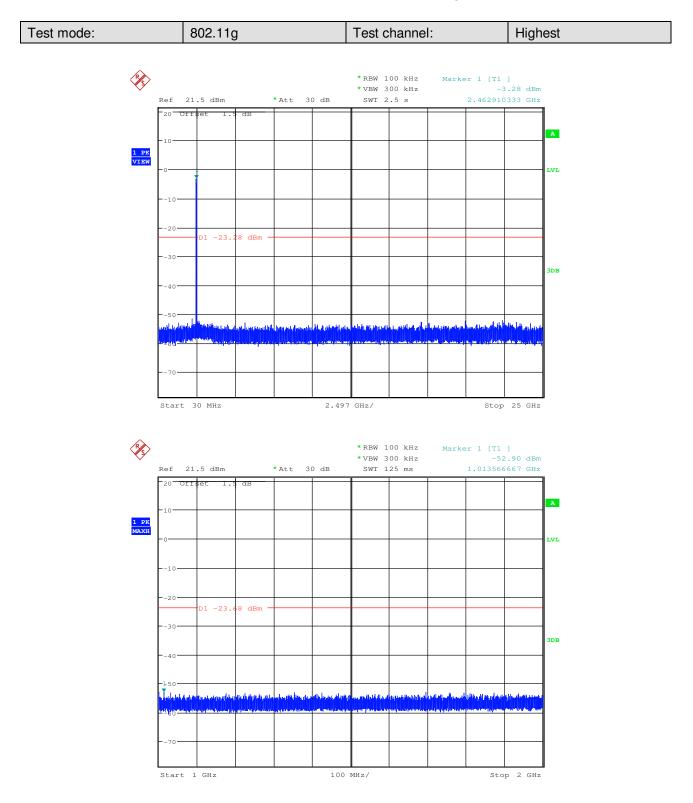
Report No.: SZEM141000589402 Page: 62 of 163



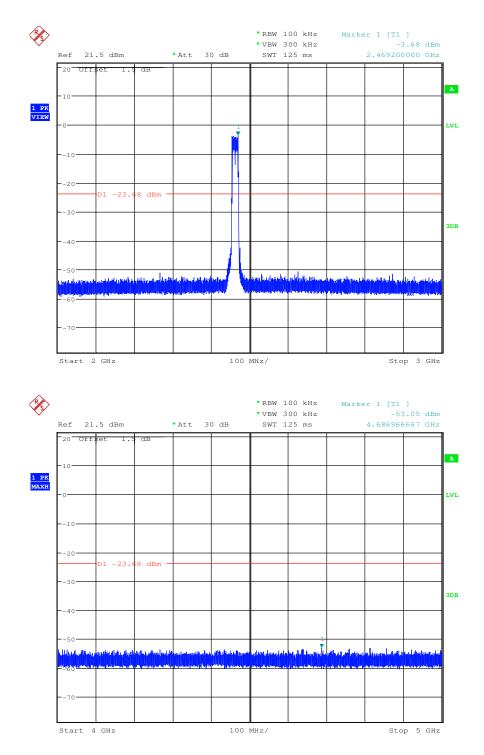
Report No.: SZEM141000589402 Page: 63 of 163



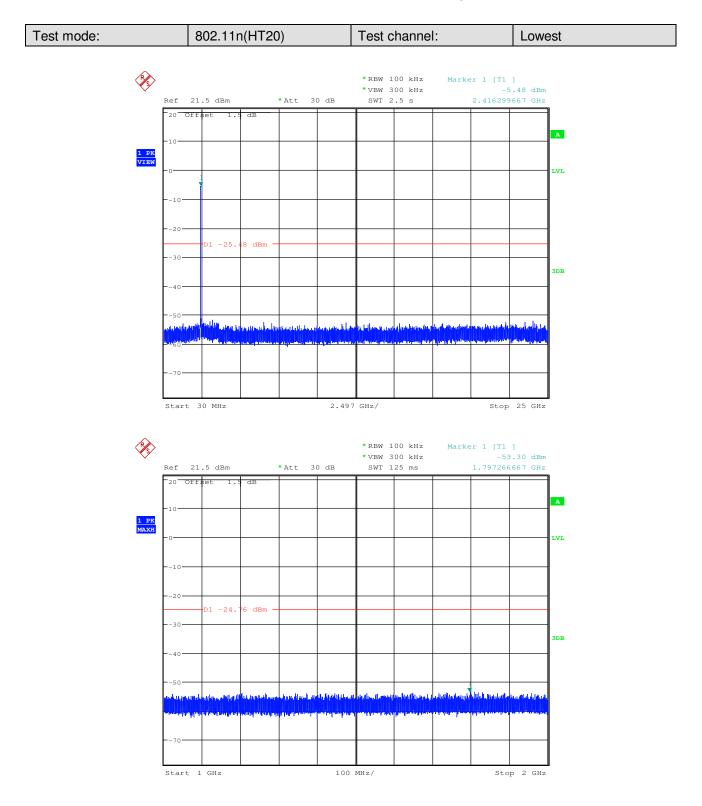
Report No.: SZEM141000589402 Page: 64 of 163



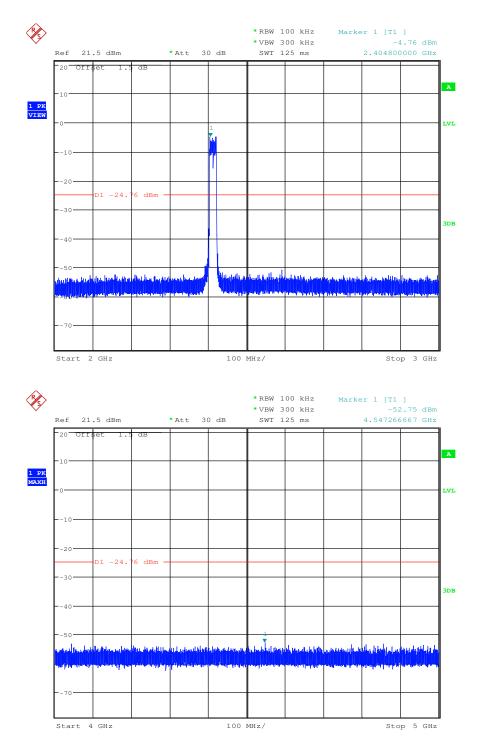
Report No.: SZEM141000589402 Page: 65 of 163



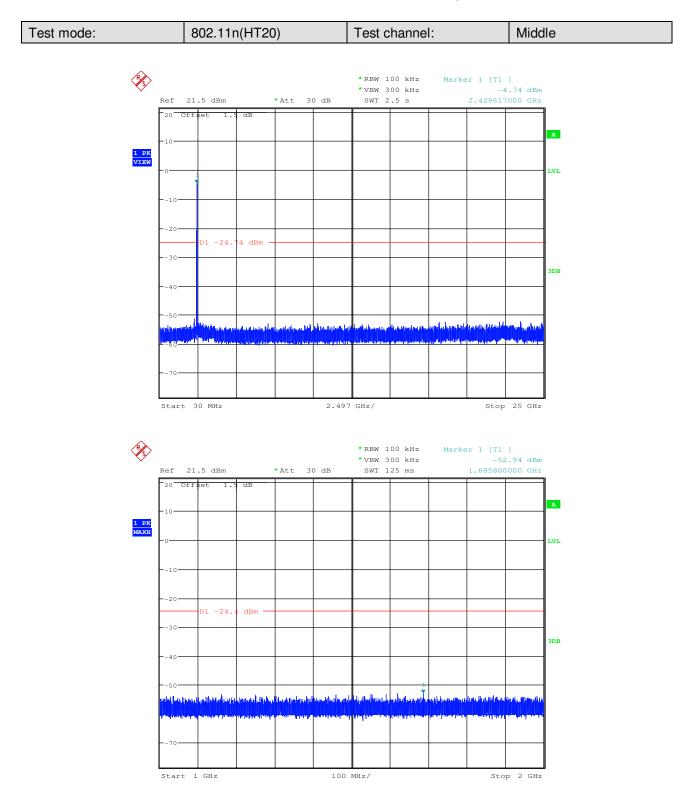
Report No.: SZEM141000589402 Page: 66 of 163



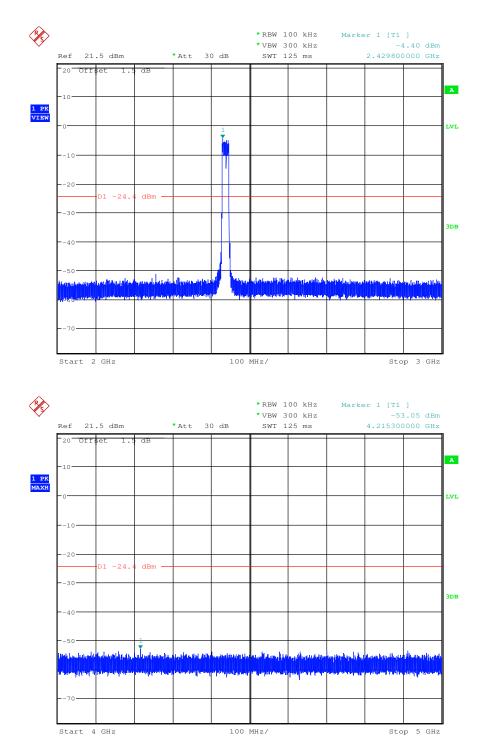
Report No.: SZEM141000589402 Page: 67 of 163



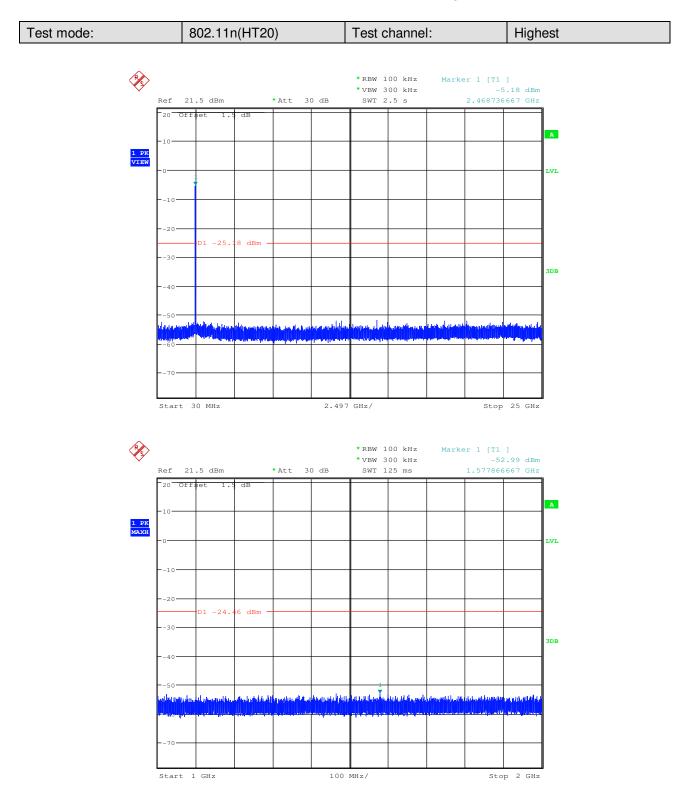
Report No.: SZEM141000589402 Page: 68 of 163



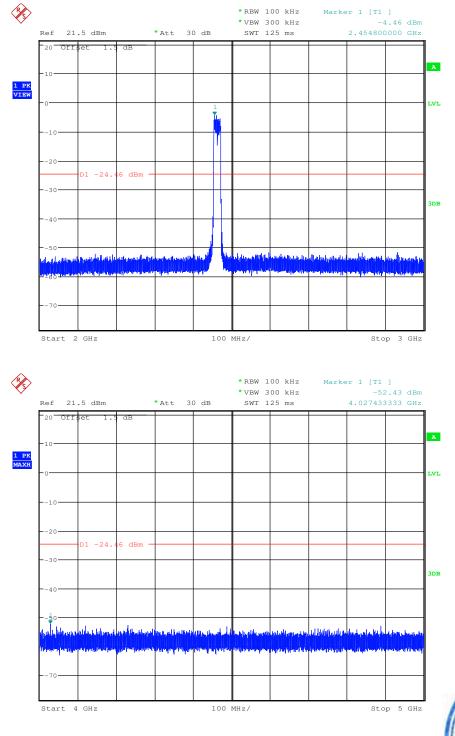
Report No.: SZEM141000589402 Page: 69 of 163



Report No.: SZEM141000589402 Page: 70 of 163

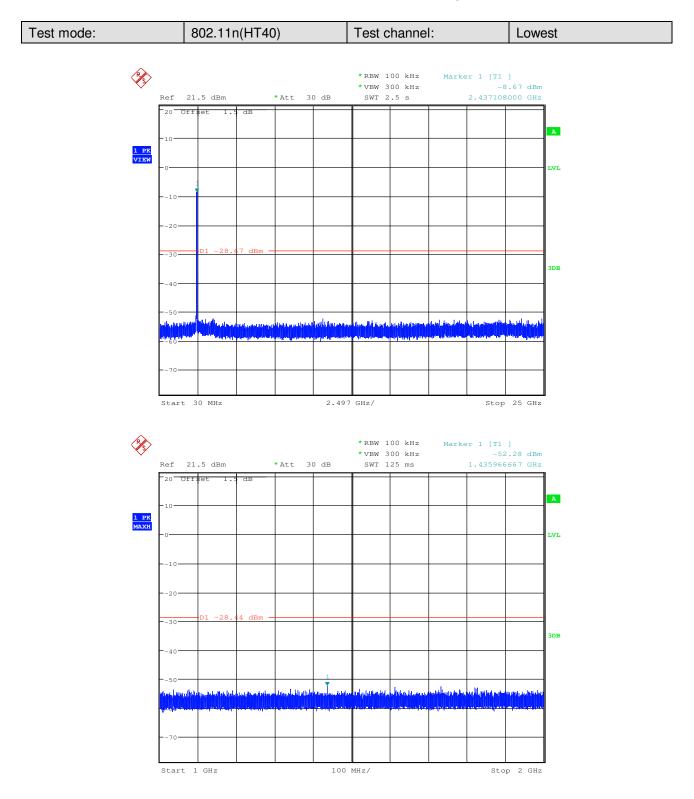


Report No.: SZEM141000589402 Page: 71 of 163

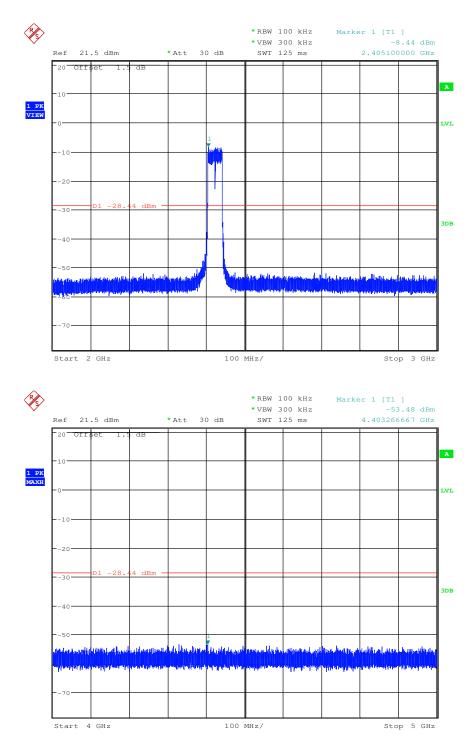




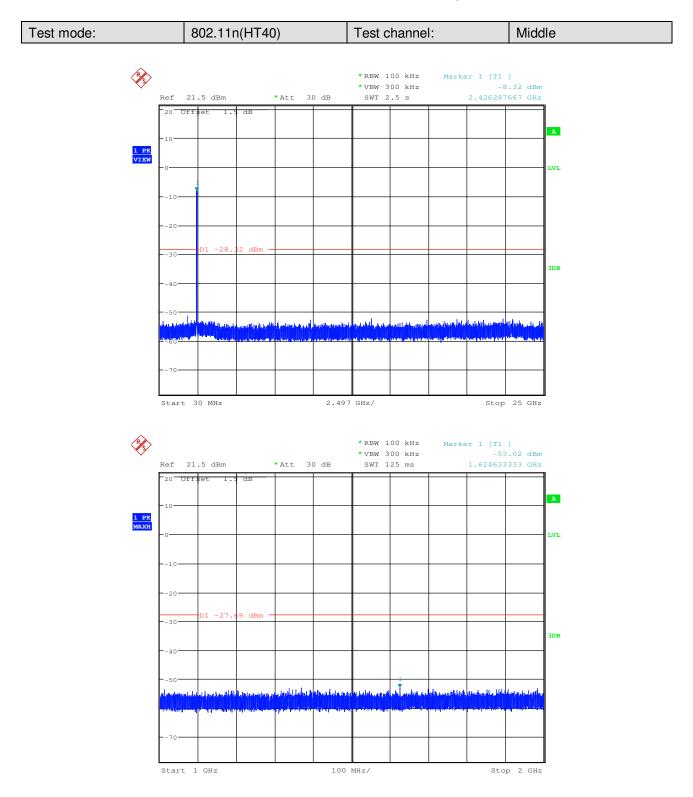
Report No.: SZEM141000589402 Page: 72 of 163



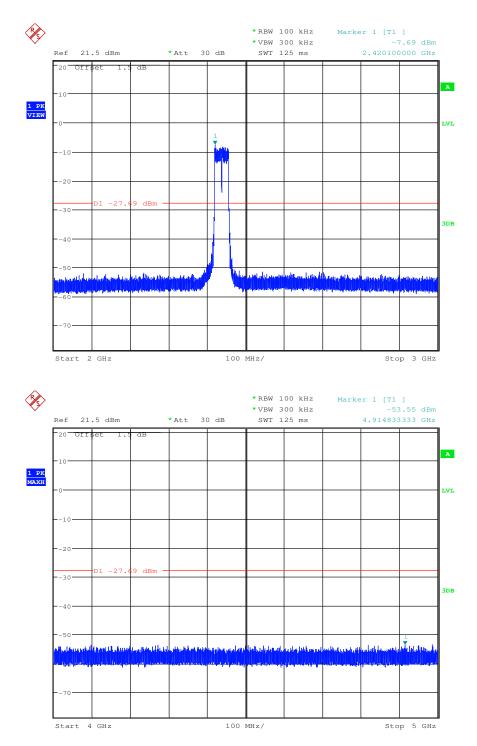
Report No.: SZEM141000589402 Page: 73 of 163



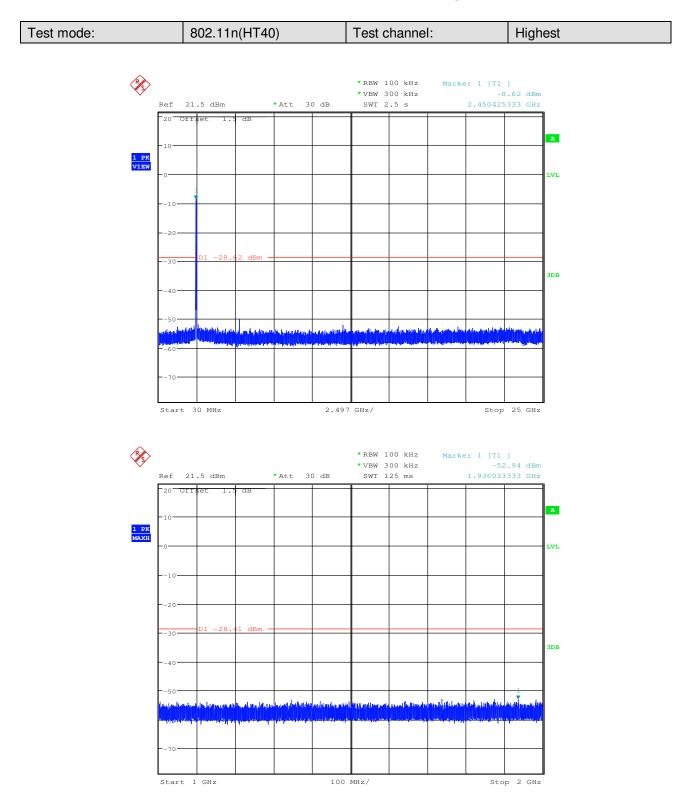
Report No.: SZEM141000589402 Page: 74 of 163



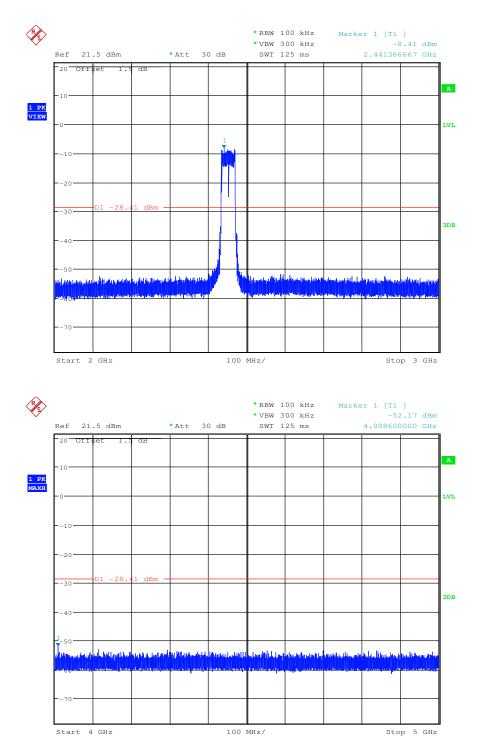
Report No.: SZEM141000589402 Page: 75 of 163



Report No.: SZEM141000589402 Page: 76 of 163



Report No.: SZEM141000589402 Page: 77 of 163



Remark:

Pretest 9kHz to 25GHz, find the highest point when testing, so only the worst data were shown in the test report. Per FCC Part 15.33 (a) and 15.31 (o) ,The amplitude of spurious emissions from intentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless

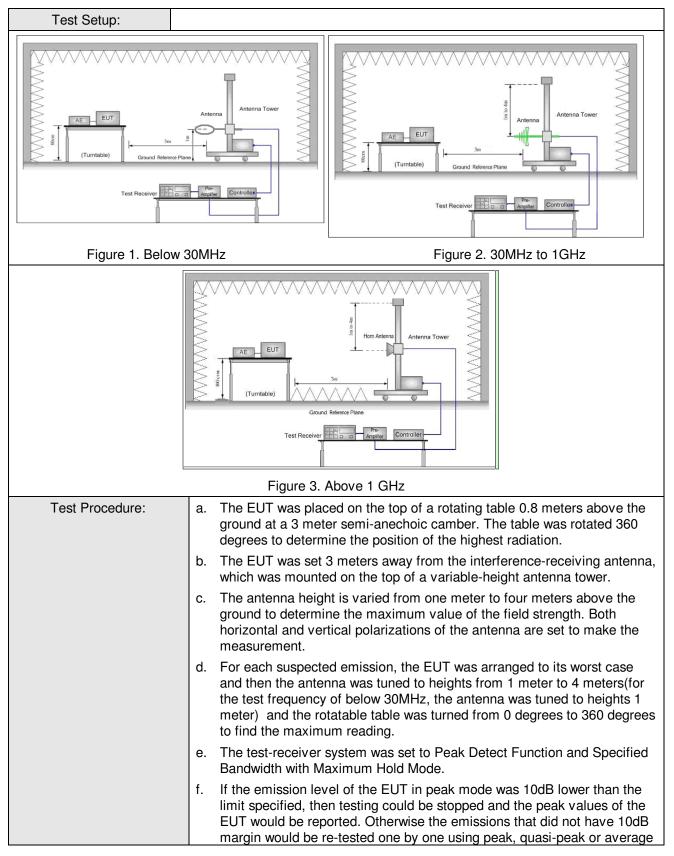
specifically required elsewhere in this part.

Report No.: SZEM141000589402 Page: 78 of 163

6.8 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15C Sectio	n 15.209 and 15.20	05						
Test Method:	ANSI C63.10 2009								
Test Site:	Measurement Distance:	3m (Semi-Anecho	ic Chamber)						
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark				
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak				
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average				
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak				
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak				
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average				
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak				
	30MHz-1GHz	Quasi-peak	100 kHz	300kHz	Quasi-peak				
	Above 1011-	Peak	1MHz	3MHz	Peak				
	Above 1GHz	Peak	1MHz	10Hz	Average				
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)				
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300				
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30				
	1.705MHz-30MHz	30	-	-	30				
	30MHz-88MHz	100	40.0	Quasi-peak	3				
	88MHz-216MHz	150	43.5	Quasi-peak	3				
	216MHz-960MHz	200	46.0	Quasi-peak	3				
	960MHz-1GHz	500	54.0	Quasi-peak	3				
	Above 1GHz	500	54.0	Average	3				
	applicable to the	therwise specified, above the maxim equipment under	um permitted	d average em	ission limit				
	peak emission level radiated by the device.								

Report No.: SZEM141000589402 Page: 79 of 163

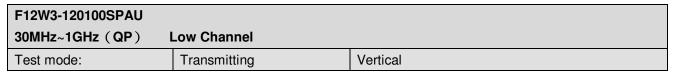


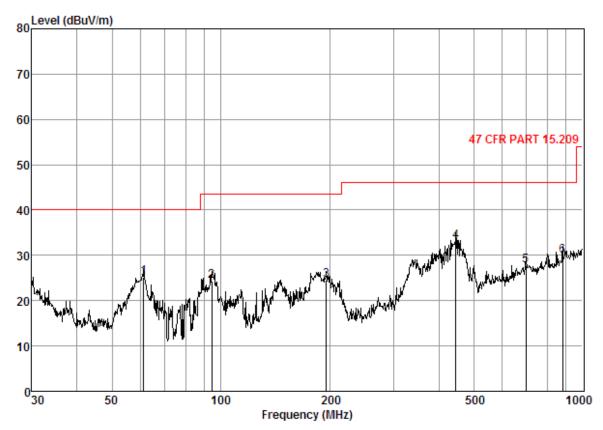
Report No.: SZEM141000589402 Page: 80 of 163

	6
	method as specified and then reported in a data sheet.
	g. Test the EUT in the lowest channel ,the middle channel ,the Highest channel
	h. Repeat above procedures until all frequencies measured was complete.
Exploratory	Transmitting with all kind of modulations, data rates.
Test Mode:	Transmitting mode
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b;
	6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case
	of 802.11n(HT20) ; 13.5Mbps of rate is the worst case of 802.11n(HT40)
	Only the worst case is recorded in the report.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass

Report No.: SZEM141000589402 Page: 81 of 163

6.8.1 Radiated emission below 1GHz





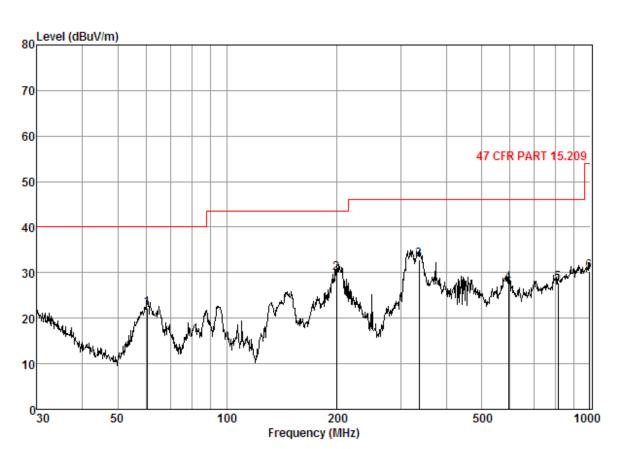
Condition: 47 CFR PART 15.209 3m 3142C VERTICAL Job No. : 5894CR Mode : 2412 TX mode

	Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	$\begin{array}{c} 61.13\\ 94.43\\ 195.82\\ 446.41\\ 696.86\\ 881.41\end{array}$	1.08 1.41 2.14 3.49 4.63 5.14	7.17 8.93 10.16 16.81 21.65 22.90	25, 55 25, 44 25, 11 25, 67 25, 91 25, 80	42. 44 39. 45 37. 36 38. 37 27. 31 27. 73	25.14 24.35 24.55 33.00 27.68 29.97	43.50 43.50 46.00 46.00	-14.86 -19.15 -18.95 -13.00 -18.32 -16.03



Report No.: SZEM141000589402 Page: 82 of 163



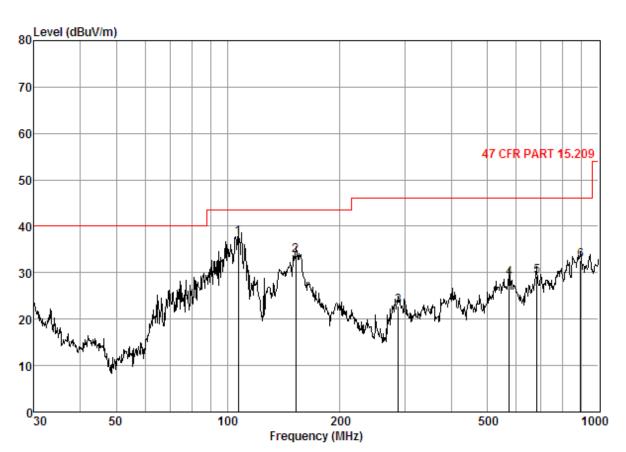


Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL Job No. : 5894CR Mode : 2412 TX mode

	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	60.28 199.99 337.22 593.05 813.11 989.54	1.05 2.17 2.96 4.10 4.98 5.72	7.19 10.20 15.14 19.51 22.10 23.93	25.67 24.95 24.42 26.72 26.37 25.71	39.72 42.44 39.23 30.92 27.02 26.29	22. 29 29. 86 32. 91 27. 81 27. 73 30. 23	43.50 46.00 46.00 46.00	-17.71 -13.64 -13.09 -18.19 -18.27 -23.77

Report No.: SZEM141000589402 Page: 83 of 163



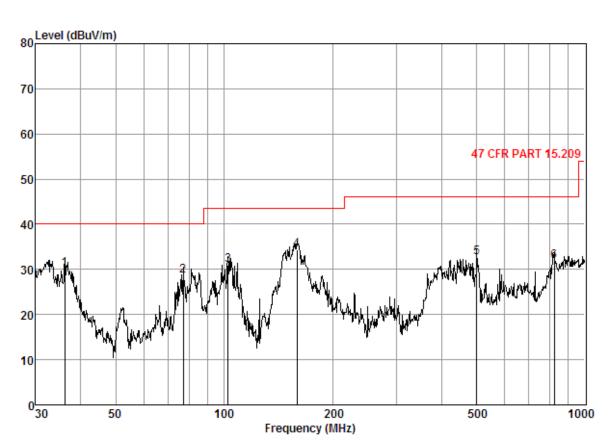


Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL Job No. : 5894CR Wode : 2437 TX mode

	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	106.76 152.66 287.99 574.63 682.35 893.86	1.45 1.82 2.68 4.00 4.58 5.31	8.83 9.41 13.17 19.00 21.42 23.10	25. 93 25. 62 24. 45 26. 17 26. 41 25. 11	53.18 48.07 31.47 32.02 29.74 29.26	37.53 33.68 22.87 28.85 29.33 32.56	46.00 46.00 46.00	-5.97 -9.82 -23.13 -17.15 -16.67 -13.44

Report No.: SZEM141000589402 Page: 84 of 163



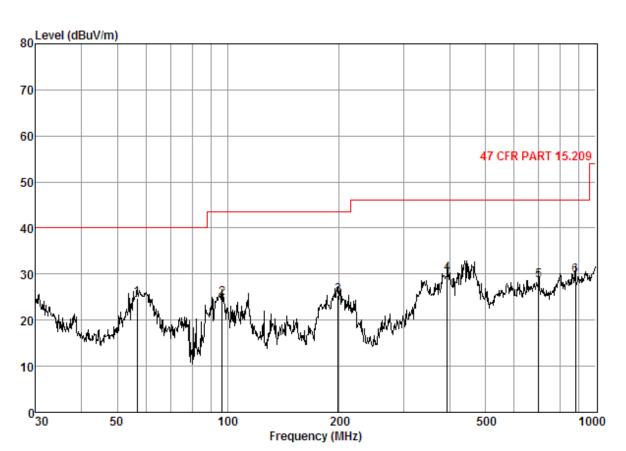


Condition: 47 CFR PART 15.209 3m 3142C VERTICAL Job No. : 5894CR Mode : 2437 TX mode

	Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	36.13 77.05 102.36 159.23 501.18 821.71	0.74 1.24 1.46 1.93 3.76 4.96	15.27 7.53 9.01 9.67 17.64 22.17	25, 73 25, 25 25, 44 25, 54 26, 23 26, 38	39.84 44.98 45.93 48.22 37.48 31.10	30.12 28.50 30.96 34.28 32.65 31.85	43.50 43.50 46.00	-11.50

Report No.: SZEM141000589402 Page: 85 of 163

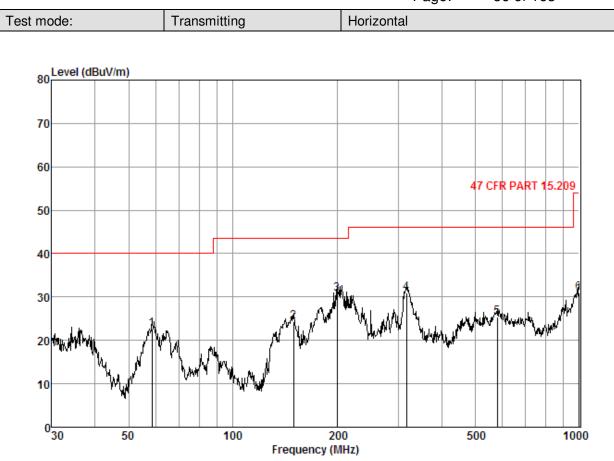
High Channel		
Test mode:	Transmitting	Vertical



Condition: 47 CFR PART 15.209 3m 3142C VERTICAL Job No. : 5894CR Mode : 2462 TX mode

	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	56, 59 96, 44 199, 29 394, 85 699, 30 881, 41	0.99 1.42 2.17 3.27 4.60 5.14	7.71 8.99 10.19 16.30 21.69 22.90	25.81 25.38 24.95 25.50 26.13 25.80	41. 94 39. 72 37. 88 36. 11 28. 46 27. 51	24.83 24.75 25.29 30.18 28.62 29.75	43.50 43.50 46.00 46.00	-15.17 -18.75 -18.21 -15.82 -17.38 -16.25

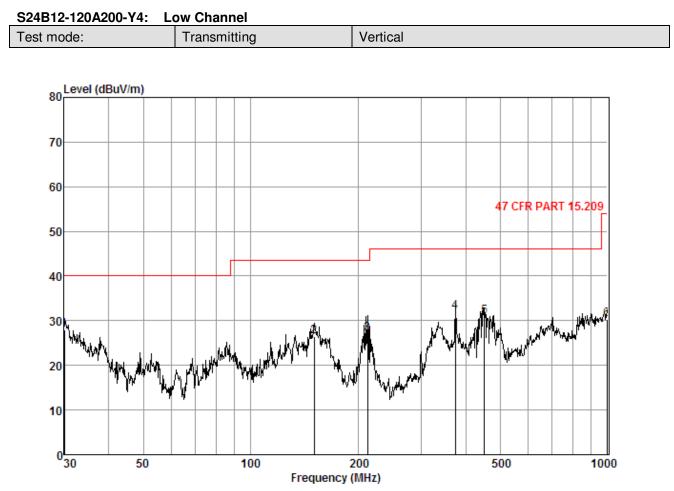
Report No.: SZEM141000589402 Page: 86 of 163



Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL Job No. : 5894CR Wode : 2462 TX mode

	Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	58.41 149.49 199.99 316.59 578.67 996.50	1.01 1.80 2.17 2.84 4.04 5.77	7.44 9.25 10.20 14.40 19.10 24.04	25. 91 25. 90 24. 95 24. 89 27. 29 25. 83	40.07 39.11 43.22 38.49 29.54 27.03	22.61 24.26 30.64 30.84 25.39 31.01	43.50 43.50 46.00 46.00	-17.39 -19.24 -12.86 -15.16 -20.61 -22.99

Report No.: SZEM141000589402 Page: 87 of 163

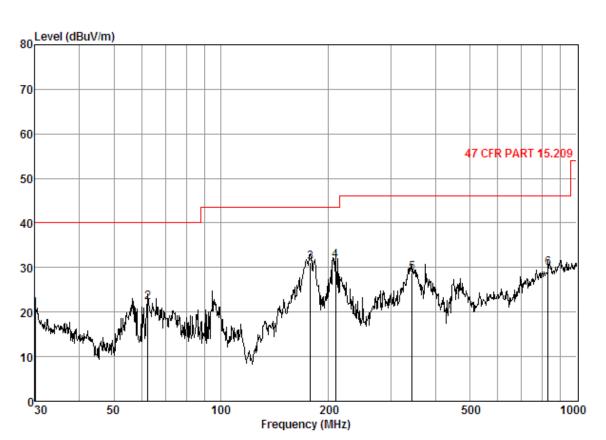


Condition: 47 CFR PART 15.209 3m 3142C VERTICAL Job No. : 5894CR Mode : 2412 TX mode

	Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30.00 150.54 212.27 374.62 451.14 996.50	0.64 1.81 2.23 3.13 3.55 5.77	18.70 9.32 10.79 15.89 16.94 24.04	25, 58 25, 00 24, 65 25, 42 25, 97 25, 83	34.17 40.40 38.70 38.35 36.39 26.36	27.93 26.53 27.07 31.95 30.91 30.34	43.50 43.50 46.00 46.00	-12.07 -16.97 -16.43 -14.05 -15.09 -23.66

Report No.: SZEM141000589402 Page: 88 of 163

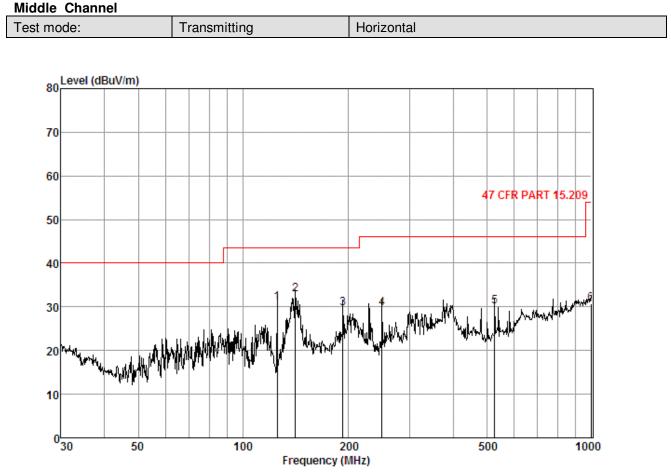




Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL Job No. : 5894CR Mode : 2412 TX mode

	Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30.00 62.21 178.13 210.05 344.39 830.40	0.64 1.09 2.02 2.22 3.00 5.20	18.70 7.13 9.83 10.68 15.34 22.22	25, 58 25, 45 25, 03 24, 90 24, 89 26, 24	27.02 39.40 44.25 43.63 35.29 28.64	20.78 22.17 31.07 31.63 28.74 29.82	40.00 43.50 43.50 46.00	-19.22 -17.83 -12.43 -11.87 -17.26 -16.18

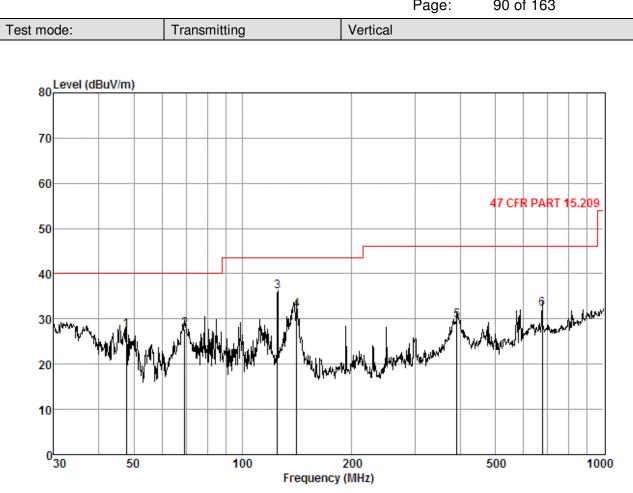
Report No.: SZEM141000589402 Page: 89 of 163



Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL Job No. : 5894CR Mode : 2437 TX mode

	Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	125.01 141.33 193.09 250.30 526.40 996.50	1.61 1.80 2.10 2.48 3.89 5.77	8.00 8.52 10.13 12.21 18.43 24.04	25, 62 25, 20 25, 01 24, 82 26, 52 25, 83	46.88 47.81 42.42 39.83 34.25 26.64	30.87 32.93 29.64 29.70 30.05 30.62	43.50 43.50 46.00 46.00	-12.63 -10.57 -13.86 -16.30 -15.95 -23.38

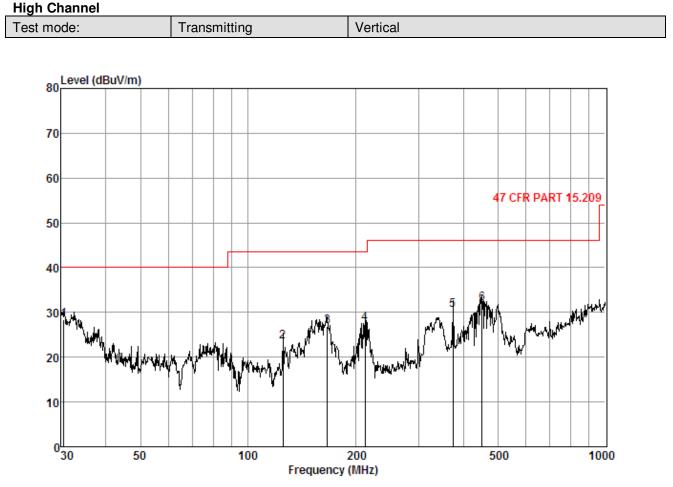
Report No.: SZEM141000589402 Page: 90 of 163



Condition: 47 CFR PART 15.209 3m 3142C VERTICAL Job No. : 5894CR Wode : 2437 TX mode

	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	47.66 69.11 124.99 141.33 392.10 675.21	0.91 1.15 1.61 1.80 3.25 4.44	9.73 6.93 8.00 8.52 16.24 21.30	25, 69 25, 51 25, 62 25, 20 25, 68 26, 42	42.60 45.20 52.00 46.94 35.78 32.80	27.55 27.77 35.99 32.06 29.59 32.12	40.00 43.50 43.50 46.00	-12.45 -12.23 -7.51 -11.44 -16.41 -13.88

Report No.: SZEM141000589402 Page: 91 of 163



Condition: 47 CFR PART 15.209 3m 3142C VERTICAL Job No. : 5894CR Mode : 2462 TX mode

	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30, 53 125, 01 166, 65 212, 27 374, 62 451, 14	0.65 1.61 1.94 2.23 3.13 3.55	18.40 8.00 9.57 10.79 15.89 16.94	25, 63 25, 62 25, 06 24, 65 25, 42 25, 97	34.90 39.44 40.51 39.14 36.95 37.44	28.32 23.43 26.96 27.51 30.55 31.96	43.50 43.50 43.50 46.00	-11.68 -20.07 -16.54 -15.99 -15.45 -14.04



Report No.: SZEM141000589402

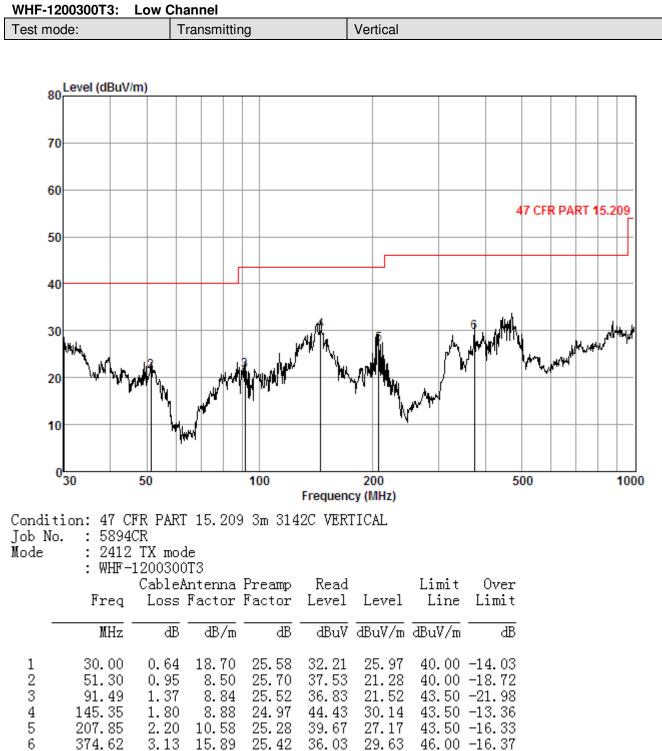


Frequency (MHz)

Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL Tob No. : 5894CR : 2462 TX mode Node.

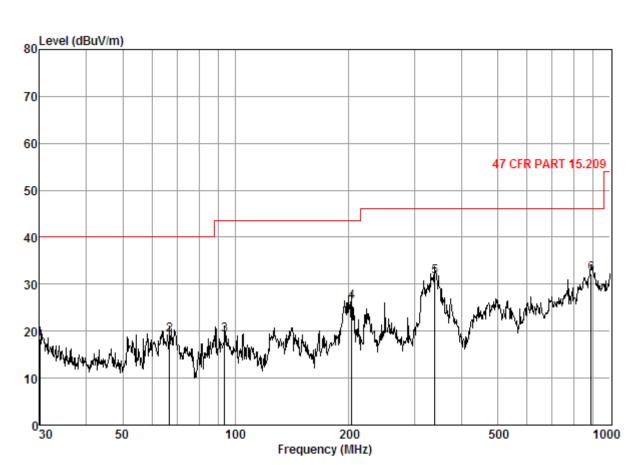
	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30.11 125.01 178.13 336.04 451.14 993.01	0.64 1.61 2.02 2.95 3.55 5.77	18.64 8.00 9.83 15.11 16.94 23.99	25, 58 25, 62 25, 03 24, 45 25, 97 25, 61	27.91 36.55 40.90 35.73 32.22 27.18	21.61 20.54 27.72 29.34 26.74 31.33	43.50 43.50 46.00 46.00	-18.39 -22.96 -15.78 -16.66 -19.26 -22.67

Report No.: SZEM141000589402 Page: 93 of 163



Report No.: SZEM141000589402 Page: 94 of 163





Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL

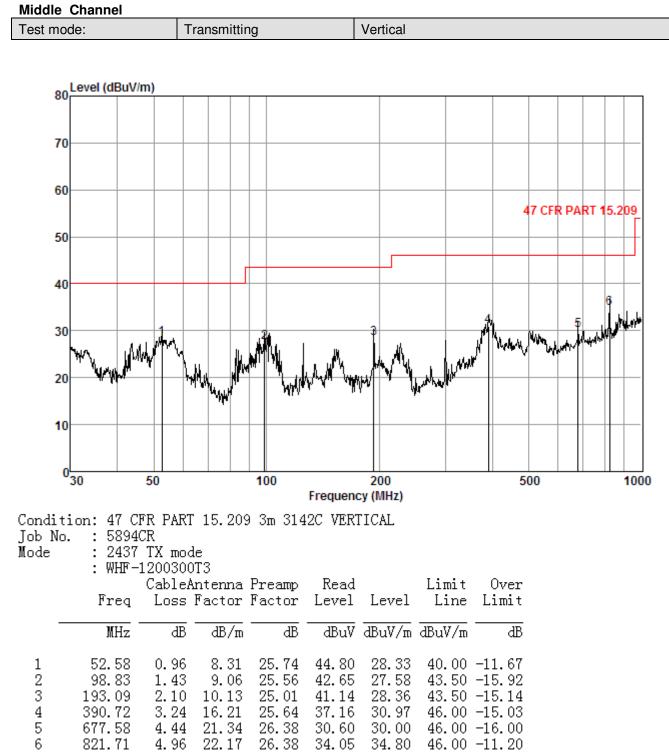
Job No. : 5894CR Mode : 2412 TX

:	2412	ТX	mode	

: WHF-1200300T3

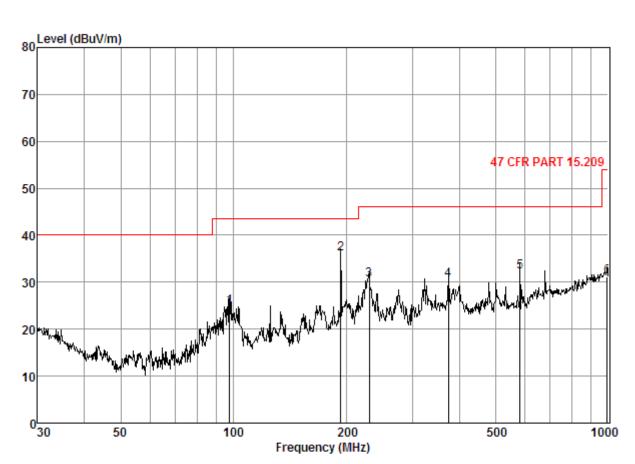
	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30.00 66.73 93.44 204.24 340.78 887.61	0.64 1.10 1.40 2.22 2.94 5.22	18.70 7.00 8.90 10.40 15.24 23.00	25, 58 25, 93 25, 52 24, 75 24, 77 25, 55		18.33 19.12 19.12 26.16 31.65 32.11	40.00 43.50 43.50 46.00	-21.67 -20.88 -24.38 -17.34 -14.35 -13.89

Report No.: SZEM141000589402 Page: 95 of 163



Report No.: SZEM141000589402 Page: 96 of 163





Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL

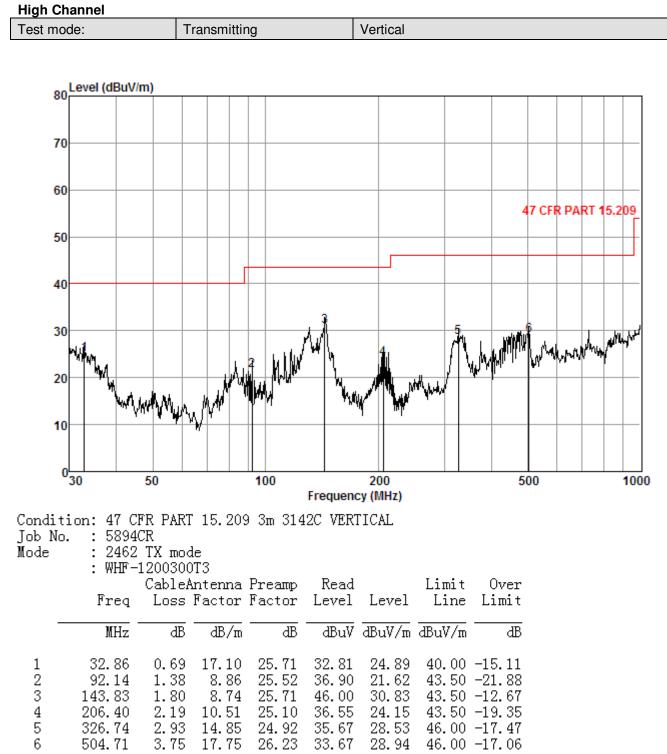
Job No. : 5894CR Mode : 2437 T

2437	TΧ	mode	
2401	10	mode	

: WHF-1200300T3

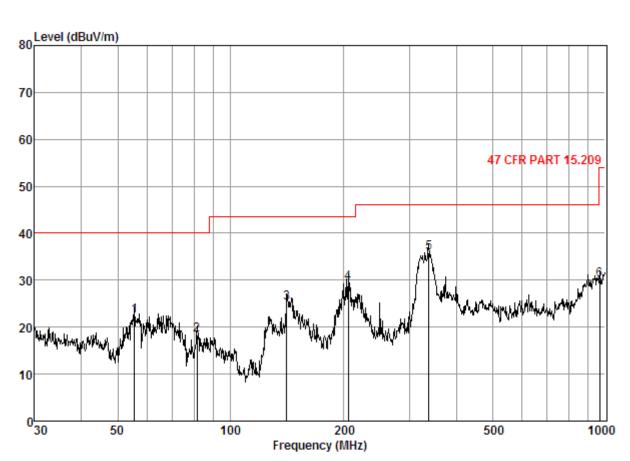
	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	97.46 193.09 230.10 374.62 580.70 993.01	1.42 2.10 2.34 3.13 4.06 5.77	9.02 10.13 11.56 15.89 19.16 23.99	25.50 25.01 24.76 25.42 27.11 25.61	39.79 48.88 41.34 36.95 36.00 27.10	24.73 36.10 30.48 30.55 32.11 31.25	43.50 46.00 46.00 46.00	-18.77 -7.40 -15.52 -15.45 -13.89 -22.75

Report No.: SZEM141000589402 Page: 97 of 163



Report No.: SZEM141000589402 Page: 98 of 163





Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL

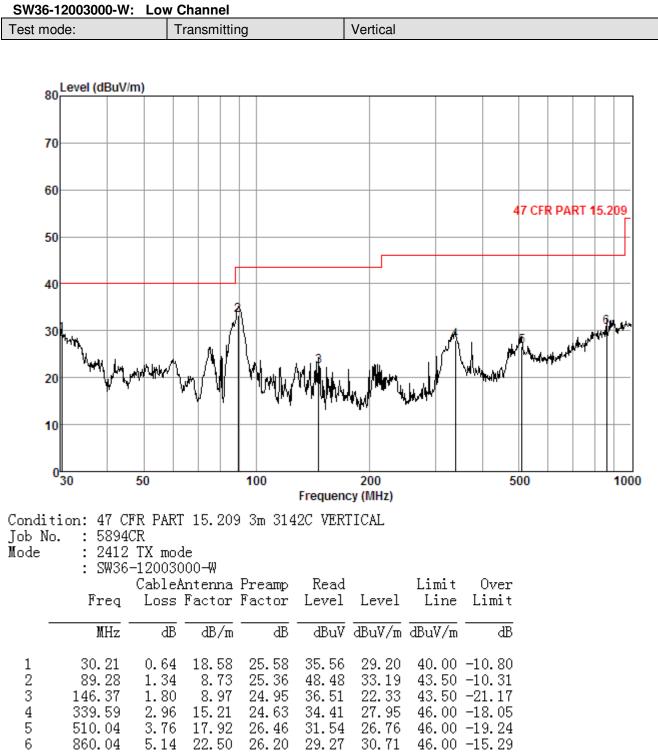
Job No. : 5894CR Mode : 2462 T

:	2462	ТΧ	mode	
---	------	----	------	--

: WHF-1200300T3

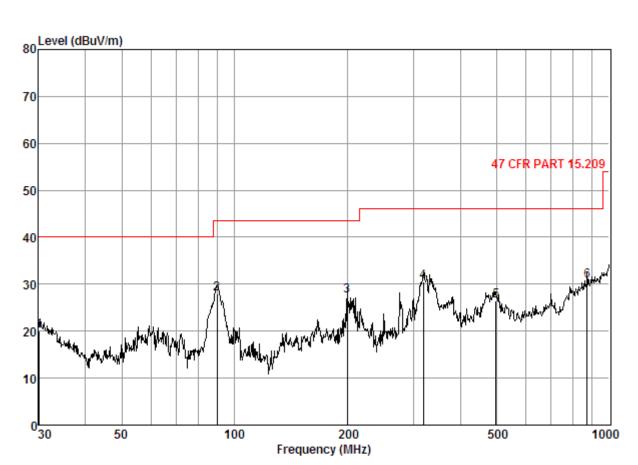
	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	55.41 81.50 141.33 206.40 338.40 965.54	0.99 1.29 1.80 2.19 2.97 5.47	7.89 7.95 8.52 10.51 15.18 23.51	25.34 25.20 25.10 24.50	39.96 41.76 42.12	22.38 18.25 25.08 29.36 35.77 30.05	40.00 43.50 43.50 46.00	-17.62 -21.75 -18.42 -14.14 -10.23 -23.95

Report No.: SZEM141000589402 Page: 99 of 163



Report No.: SZEM141000589402 Page: 100 of 163





Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL

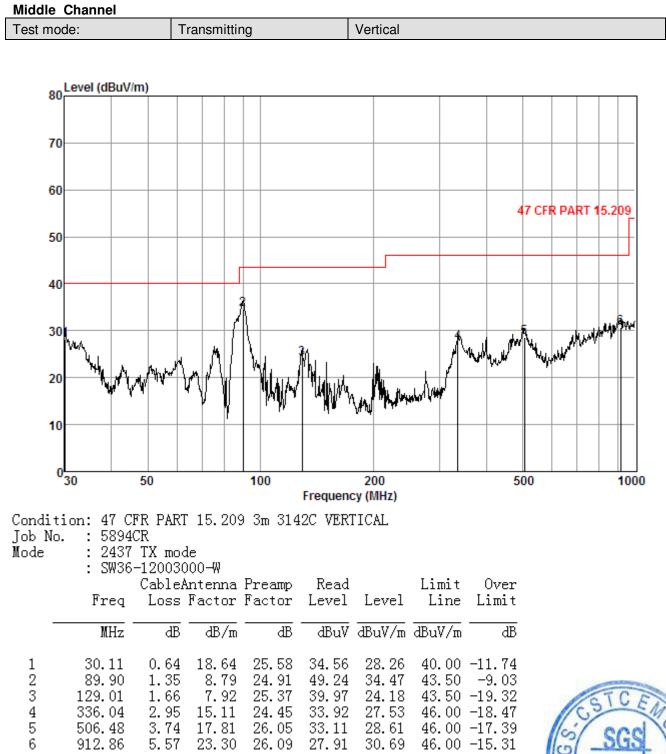
Job No. : 5894CR

Mode	:	2412	TΧ	mode

: SW36-12003000-W

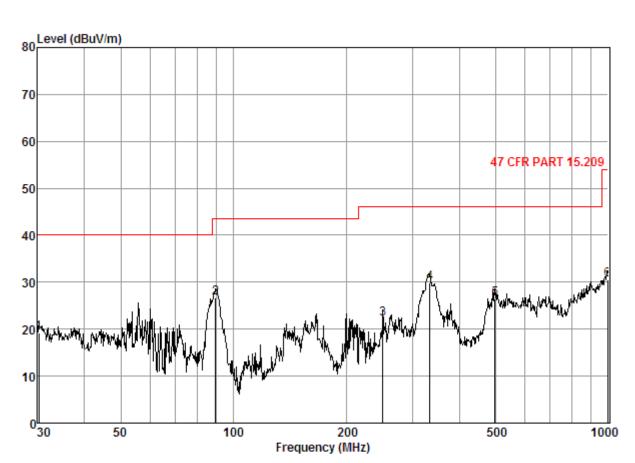
	Freq			Preamp Factor				Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30.11 89.90 199.99 318.82 497.68 872.18	2.17 2.89 3.70	18.64 8.79 10.20 14.50 17.61 22.74	24.91 24.95 24.93 26.19	42.62 40.08 37.98 31.23	20.02 27.85 27.50 30.44 26.35 30.66	43.50 43.50 46.00 46.00	-19.98 -15.65 -16.00 -15.56 -19.65 -15.34

Report No.: SZEM141000589402 Page: 101 of 163



Report No.: SZEM141000589402 Page: 102 of 163





Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL

Job No. : 5894CR

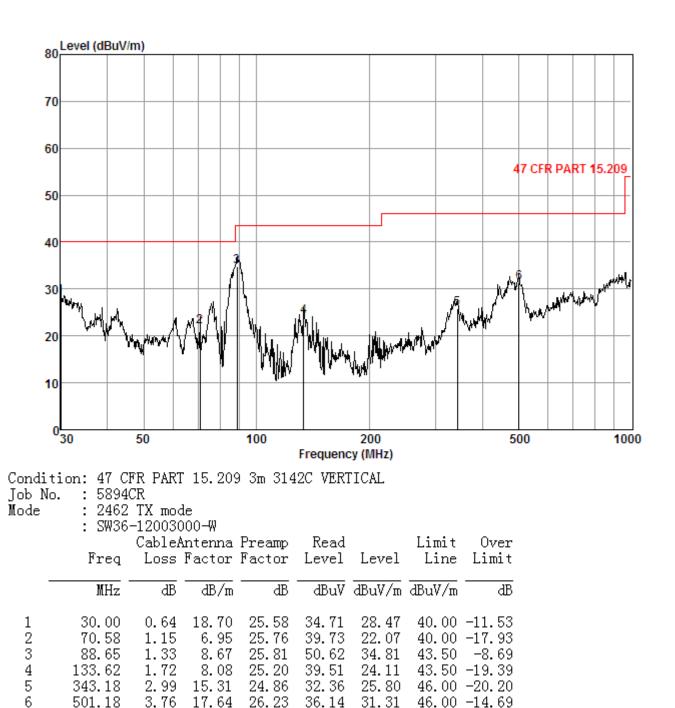
Mode :	2437	ТΧ	mode
--------	------	----	------

: SW36-12003000-W

	Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30, 21 89, 59 250, 30 333, 69 497, 68 996, 50	0.64 1.34 2.48 2.94 3.70 5.77	18.58 8.76 12.21 15.04 17.61 24.04	25, 58 25, 36 24, 82 24, 64 26, 19 25, 83	25.63 41.83 32.23 36.51 31.40 26.49	19.27 26.57 22.10 29.85 26.52 30.47	43.50 46.00 46.00 46.00	-20.73 -16.93 -23.90 -16.15 -19.48 -23.53

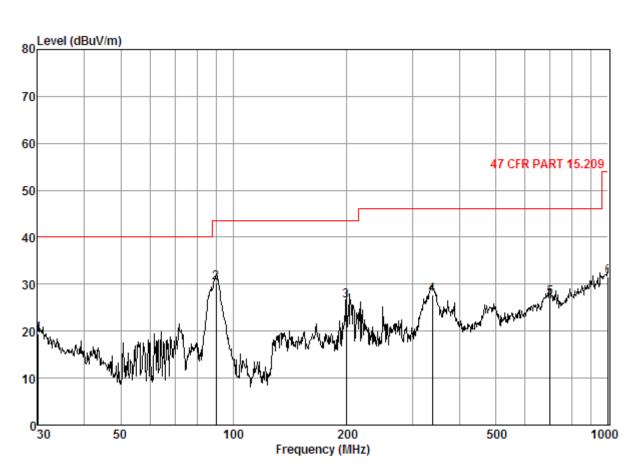
Report No.: SZEM141000589402 Page: 103 of 163

High Channel		
Test mode:	Transmitting	Vertical



Report No.: SZEM141000589402 Page: 104 of 163





Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL

Job No. : 5894CR

Mode	:	2462	TΧ	mode

: SW36-12003000-W

	. Enco			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30.11 89.90 199.99 339.59 699.30 1000.00	0.64 1.35 2.17 2.96 4.60 5.69	18.64 8.79 10.20 15.21 21.69 24.10	25, 58 24, 91 24, 95 24, 63 26, 13 26, 11	39.11 34.23 26.89	19.43 30.24 26.53 27.77 27.05 31.68	43.50 43.50 46.00 46.00	-20.57 -13.26 -16.97 -18.23 -18.95 -22.32

Report No.: SZEM141000589402 Page: 105 of 163

6.8.2 Transmitter emission above 1GHz

F12W3-120100SPAU:

Test mode: 80		.11b	Test ch	annel:	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
3387.708	7.18	32.75	38.69	48.48	49.72	74	-24.28	Vertical
4824.000	6.46	34.72	39.24	49.88	51.82	74	-22.18	Vertical
5947.702	8.00	36.20	39.19	47.71	52.72	74	-21.28	Vertical
7236.000	8.96	35.60	39.06	47.50	53.00	74	-21.00	Vertical
9648.000	9.97	37.45	37.91	43.37	52.88	74	-21.12	Vertical
11622.330	10.44	38.32	38.52	43.20	53.44	74	-20.56	Vertical
3225.082	7.51	32.32	38.61	49.77	50.99	74	-23.01	Horizontal
4824.000	6.46	34.72	39.24	49.05	50.99	74	-23.01	Horizontal
5828.433	7.81	35.97	39.20	47.99	52.57	74	-21.43	Horizontal
7236.000	8.96	35.60	39.06	48.28	53.78	74	-20.22	Horizontal
9648.000	9.97	37.45	37.91	42.66	52.17	74	-21.83	Horizontal
11757.650	10.50	38.46	38.59	42.65	53.02	74	-20.98	Horizontal

Test mode: 802.		.11b	Test channel:		Middle	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
3716.403	6.84	33.09	38.84	48.68	49.77	74	-24.23	Vertical
4874.000	6.57	34.77	39.26	47.92	50.00	74	-24.00	Vertical
5964.939	8.03	36.23	39.19	47.14	52.21	74	-21.79	Vertical
7311.000	9.06	35.52	39.06	47.98	53.50	74	-20.50	Vertical
9648.000	9.97	37.45	37.91	41.61	51.12	74	-22.88	Vertical
11723.670	10.49	38.43	38.57	42.04	52.39	74	-21.61	Vertical
3568.847	6.93	32.97	38.77	47.62	48.75	74	-25.25	Horizontal
4874.000	6.57	34.77	39.26	48.30	50.38	74	-23.62	Horizontal
6034.386	8.07	36.26	39.18	47.45	52.60	74	-21.40	Horizontal
7311.000	9.06	35.52	39.06	47.85	53.37	74	-20.63	Horizontal
9748.000	9.91	37.76	37.85	42.72	52.54	74	-21.46	Horizontal
11422.280	10.37	38.17	38.43	43.08	53.19	74	-20.81	Horizontal

Report No.: SZEM141000589402 Page: 106 of 163

						r age.	100 01	100
Test mode:	802	.11b	Test ch	annel:	Highest	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
3291.078	7.37	32.50	38.65	48.32	49.54	74	-24.46	Vertical
4924.000	6.68	34.82	39.28	47.81	50.03	74	-23.97	Vertical
6104.642	8.06	36.18	39.17	47.44	52.51	74	-21.49	Vertical
7386.000	9.16	35.44	39.05	46.87	52.42	74	-21.58	Vertical
9848.000	9.85	38.06	37.79	42.52	52.64	74	-21.36	Vertical
11860.170	10.55	38.56	38.64	43.26	53.73	74	-20.27	Vertical
3397.525	7.16	32.77	38.69	48.25	49.49	74	-24.51	Horizontal
4924.000	6.68	34.82	39.28	48.41	50.63	74	-23.37	Horizontal
6034.386	8.07	36.26	39.18	48.30	53.45	74	-20.55	Horizontal
7386.000	9.16	35.44	39.05	43.45	49.00	74	-25.00	Horizontal
9848.000	9.85	38.06	37.79	41.88	52.00	74	-22.00	Horizontal
11757.650	10.50	38.46	38.59	42.48	52.85	74	-21.15	Horizontal

Test mode: 80		.11g	Test ch	annel:	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
3641.878	6.89	33.03	38.80	47.90	49.02	74	-24.98	Vertical
4824.000	6.46	34.72	39.24	49.06	51.00	74	-23.00	Vertical
5921.940	7.96	36.15	39.19	47.71	52.63	74	-21.37	Vertical
7236.000	8.96	35.60	39.06	47.98	53.48	74	-20.52	Vertical
9648.000	9.97	37.45	37.91	42.23	51.74	74	-22.26	Vertical
11128.630	10.31	38.11	38.29	42.83	52.96	74	-21.04	Vertical
3368.157	7.22	32.70	38.68	47.13	48.37	74	-25.63	Horizontal
4824.000	6.46	34.72	39.24	48.46	50.40	74	-23.60	Horizontal
6034.386	8.07	36.26	39.18	47.20	52.35	74	-21.65	Horizontal
7236.000	8.96	35.60	39.06	47.86	53.36	74	-20.64	Horizontal
9648.000	9.97	37.45	37.91	41.92	51.43	74	-22.57	Horizontal
11128.630	10.31	38.11	38.29	42.49	52.62	74	-21.38	Horizontal

Report No.: SZEM141000589402 Page: 107 of 163

						Page:	107 01	103
Test mode:	802	.11g	Test ch	annel:	Middle	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
3631.354	6.89	33.02	38.80	48.44	49.55	74	-24.45	Vertical
4874.000	6.57	34.77	39.26	48.92	51.00	74	-23.00	Vertical
6211.563	8.03	36.07	39.16	48.05	52.99	74	-21.01	Vertical
7311.000	9.06	35.52	39.06	48.31	53.83	74	-20.17	Vertical
9748.000	9.91	37.76	37.85	41.92	51.74	74	-22.26	Vertical
11422.280	10.37	38.17	38.43	43.30	53.41	74	-20.59	Vertical
3457.032	7.05	32.84	38.72	48.37	49.54	74	-24.46	Horizontal
4874.000	6.57	34.77	39.26	49.20	51.28	74	-22.72	Horizontal
6193.614	8.04	36.09	39.16	48.68	53.65	74	-20.35	Horizontal
7311.000	9.06	35.52	39.06	44.25	49.77	74	-24.23	Horizontal
9748.000	9.91	37.76	37.85	41.92	51.74	74	-22.26	Horizontal
11422.280	10.37	38.17	38.43	43.30	53.41	74	-20.59	Horizontal

Test mode:	802	802.11g		annel:	Highest	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
3243.802	7.47	32.37	38.62	48.02	49.24	74	-24.76	Vertical
4824.000	6.46	34.72	39.24	48.97	50.91	74	-23.09	Vertical
5913.378	7.95	36.13	39.19	47.95	52.84	74	-21.16	Vertical
7386.000	9.16	35.44	39.05	48.19	53.74	74	-20.26	Vertical
9848.000	9.85	38.06	37.79	42.01	52.13	74	-21.87	Vertical
11757.650	10.50	38.46	38.59	43.24	53.61	74	-20.39	Vertical
3407.371	7.15	32.79	38.70	48.35	49.59	74	-24.41	Horizontal
4924.000	6.68	34.82	39.28	51.14	53.36	74	-20.64	Horizontal
5964.939	8.03	36.23	39.19	48.02	53.09	74	-20.91	Horizontal
7386.000	9.16	35.44	39.05	47.40	52.95	74	-21.05	Horizontal
9848.000	9.85	38.06	37.79	41.35	51.47	74	-22.53	Horizontal
11740.650	10.50	38.44	38.58	43.00	53.36	74	-20.64	Horizontal

Report No.: SZEM141000589402 Page: 108 of 163

						Page:	108 01	103
Test mode:	802	.11n(HT20)	Test ch	annel:	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
3647.151	6.88	33.04	38.81	48.41	49.52	74	-24.48	Vertical
4824.000	6.46	34.72	39.24	48.23	50.17	74	-23.83	Vertical
5999.562	8.08	36.30	39.18	47.73	52.93	74	-21.07	Vertical
7236.000	8.96	35.60	39.06	47.93	53.43	74	-20.57	Vertical
9648.000	9.97	37.45	37.91	41.21	50.72	74	-23.28	Vertical
10842.530	10.19	37.96	38.14	43.95	53.96	74	-20.04	Vertical
3673.633	6.87	33.06	38.82	48.83	49.94	74	-24.06	Horizontal
4824.000	6.46	34.72	39.24	50.18	52.12	74	-21.88	Horizontal
5999.562	8.08	36.30	39.18	46.81	52.01	74	-21.99	Horizontal
7236.000	8.96	35.60	39.06	47.41	52.91	74	-21.09	Horizontal
9648.000	9.97	37.45	37.91	42.15	51.66	74	-22.34	Horizontal
11825.890	10.53	38.53	38.62	42.65	53.09	74	-20.91	Horizontal

Test mode:	80)2.11n(HT20)	Test ch	annel:	Middle	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
3705.664	6.85	33.08	38.83	48.73	49.83	74	-24.17	Vertical
4874.000	6.57	34.77	39.26	49.36	51.44	74	-22.56	Vertical
5930.516	7.97	36.17	39.19	48.47	53.42	74	-20.58	Vertical
7311.000	9.06	35.52	39.06	47.39	52.91	74	-21.09	Vertical
9748.000	9.91	37.76	37.85	42.82	52.64	74	-21.36	Vertical
11422.280	10.37	38.17	38.43	43.15	53.26	74	-20.74	Vertical
3652.432	6.88	33.04	38.81	48.59	49.70	74	-24.30	Horizontal
4874.000	6.57	34.77	39.26	48.51	50.59	74	-23.41	Horizontal
5896.291	7.92	36.10	39.19	48.50	53.33	74	-20.67	Horizontal
7311.000	9.06	35.52	39.06	47.91	53.43	74	-20.57	Horizontal
9748.000	9.91	37.76	37.85	42.09	51.91	74	-22.09	Horizontal
11323.540	10.35	38.14	38.38	43.28	53.39	74	-20.61	Horizontal

Report No.: SZEM141000589402 Page: 109 of 163

						Page:	109 01	103
Test mode:	802	.11n(HT20)	Test ch	annel:	Highest	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
3694.956	6.86	33.07	38.83	46.34	47.44	74	-26.56	Vertical
4924.000	6.68	34.82	39.28	47.36	49.58	74	-24.42	Vertical
6008.249	8.08	36.29	39.18	48.58	53.77	74	-20.23	Vertical
7386.000	9.16	35.44	39.05	46.29	51.84	74	-22.16	Vertical
9848.000	9.85	38.06	37.79	43.32	53.44	74	-20.56	Vertical
11689.790	10.47	38.39	38.56	41.65	51.95	74	-22.05	Vertical
3319.774	7.32	32.57	38.66	49.22	50.45	74	-23.55	Horizontal
4924.000	6.68	34.82	39.28	49.36	51.58	74	-22.42	Horizontal
6175.716	8.04	36.11	39.17	48.05	53.03	74	-20.97	Horizontal
7386.000	9.16	35.44	39.05	46.70	52.25	74	-21.75	Horizontal
9848.000	9.85	38.06	37.79	42.52	52.64	74	-21.36	Horizontal
11422.280	10.37	38.17	38.43	43.15	53.26	74	-20.74	Horizontal

Test mode:	802	2.11n(HT40)	Test ch	annel:	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
3467.050	7.03	32.86	38.73	48.13	49.29	74	-24.71	Vertical
4844.000	6.51	34.74	39.25	49.31	51.31	74	-22.69	Vertical
6016.949	8.08	36.28	39.18	47.08	52.26	74	-21.74	Vertical
7266.000	9.00	35.57	39.06	47.43	52.94	74	-21.06	Vertical
9688.000	9.94	37.57	37.88	42.65	52.28	74	-21.72	Vertical
11825.890	10.53	38.53	38.62	42.63	53.07	74	-20.93	Vertical
3792.453	6.80	33.14	38.87	47.96	49.03	74	-24.97	Horizontal
4844.000	6.51	34.74	39.25	48.91	50.91	74	-23.09	Horizontal
5999.562	8.08	36.30	39.18	47.79	52.99	74	-21.01	Horizontal
7266.000	9.00	35.57	39.06	44.23	49.74	74	-24.26	Horizontal
9688.000	9.94	37.57	37.88	42.50	52.13	74	-21.87	Horizontal
11389.270	10.37	38.15	38.41	42.97	53.08	74	-20.92	Horizontal

Report No.: SZEM141000589402 Page: 110 of 163

						Page:	I I U Of	103
Test mode:	802	.11n(HT40)	Test ch	annel:	Middle	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
3417.246	7.13	32.80	38.70	48.97	50.20	74	-23.80	Vertical
4874.000	6.57	34.77	39.26	48.80	50.88	74	-23.12	Vertical
6016.949	8.08	36.28	39.18	48.08	53.26	74	-20.74	Vertical
7311.000	9.06	35.52	39.06	44.29	49.81	74	-24.19	Vertical
9748.000	9.91	37.76	37.85	42.46	52.28	74	-21.72	Vertical
11128.630	10.31	38.11	38.29	42.41	52.54	74	-21.46	Vertical
3548.251	6.94	32.94	38.76	48.07	49.19	74	-24.81	Horizontal
4874.000	6.57	34.77	39.26	48.85	50.93	74	-23.07	Horizontal
6016.949	8.08	36.28	39.18	48.08	53.26	74	-20.74	Horizontal
7311.000	9.06	35.52	39.06	48.26	53.78	74	-20.22	Horizontal
9748.000	9.91	37.76	37.85	43.07	52.89	74	-21.11	Horizontal
10811.200	10.17	37.93	38.13	43.72	53.69	74	-20.31	Horizontal

Test mode:	80	02.11n(HT40)	Test ch	annel:	Highest	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
3615.625	6.90	33.01	38.79	47.56	48.68	74	-25.32	Vertical
4904.000	6.64	34.81	39.27	49.99	52.17	74	-21.83	Vertical
6069.413	8.06	36.22	39.18	46.95	52.05	74	-21.95	Vertical
7356.000	9.12	35.47	39.05	42.34	47.88	74	-26.12	Vertical
9808.000	9.88	37.94	37.81	41.81	51.82	74	-22.18	Vertical
11571.990	10.42	38.28	38.50	41.97	52.17	74	-21.83	Vertical
3329.395	7.30	32.60	38.66	47.87	49.11	74	-24.89	Horizontal
4904.000	6.64	34.81	39.27	47.40	49.58	74	-24.42	Horizontal
5982.226	8.05	36.27	39.19	47.19	52.32	74	-21.68	Horizontal
7356.000	9.12	35.47	39.05	43.15	48.69	74	-25.31	Horizontal
9808.000	9.88	37.94	37.81	41.46	51.47	74	-22.53	Horizontal
12033.020	10.66	38.74	38.73	41.49	52.16	74	-21.84	Horizontal

Report No.: SZEM141000589402 Page: 111 of 163

Test mode:	802	.11b	Test ch	annel:	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
3781.495	6.81	33.14	38.86	46.33	47.42	74	-26.58	Vertical
4824.000	6.46	34.72	39.24	48.17	50.11	74	-23.89	Vertical
6025.661	8.07	36.27	39.18	46.94	52.10	74	-21.90	Vertical
7236.000	8.96	35.60	39.06	43.78	49.28	74	-24.72	Vertical
9648.000	9.97	37.45	37.91	41.25	50.76	74	-23.24	Vertical
11064.410	10.29	38.11	38.25	39.39	49.54	74	-24.46	Vertical
3786.970	6.80	33.14	38.86	47.35	48.43	74	-25.57	Horizontal
4824.000	6.46	34.72	39.24	49.59	51.53	74	-22.47	Horizontal
6078.201	8.06	36.21	39.18	47.43	52.52	74	-21.48	Horizontal
7236.000	8.96	35.60	39.06	42.22	47.72	74	-26.28	Horizontal
9648.000	9.97	37.45	37.91	41.92	51.43	74	-22.57	Horizontal
11307.170	10.35	38.14	38.37	42.79	52.91	74	-21.09	Horizontal

802.	.11b	Test ch	Test channel: Mie		Remark:		Peak
Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
6.94	32.96	38.77	46.69	47.82	74	-26.18	Vertical
6.57	34.77	39.26	46.21	48.29	74	-25.71	Vertical
8.07	36.26	39.18	47.20	52.35	74	-21.65	Vertical
9.06	35.52	39.06	44.09	49.61	74	-24.39	Vertical
9.91	37.76	37.85	43.28	53.10	74	-20.90	Vertical
10.47	38.39	38.56	41.61	51.91	74	-22.09	Vertical
6.78	33.22	38.89	47.48	48.59	74	-25.41	Horizontal
6.57	34.77	39.26	48.57	50.65	74	-23.35	Horizontal
8.05	36.16	39.17	47.36	52.40	74	-21.60	Horizontal
9.06	35.52	39.06	43.61	49.13	74	-24.87	Horizontal
9.91	37.76	37.85	41.85	51.67	74	-22.33	Horizontal
10.49	38.43	38.57	42.91	53.26	74	-20.74	Horizontal
	Cable Loss (dB) 6.94 6.57 9.06 9.91 10.47 6.78 6.57 8.05 9.06 9.91	Loss (dB) Factor (dB/m) 6.94 32.96 6.57 34.77 8.07 36.26 9.06 35.52 9.91 37.76 10.47 38.39 6.78 33.22 6.57 34.77 8.05 36.16 9.06 35.52	Cable Loss (dB) Antenna Factor (dB/m) Preamp Factor (dB) 6.94 32.96 38.77 6.57 34.77 39.26 8.07 36.26 39.18 9.06 35.52 39.06 9.91 37.76 37.85 10.47 38.39 38.56 6.57 34.77 39.26 8.05 35.52 39.06 9.91 37.76 37.85 10.47 38.39 38.56 6.57 34.77 39.26 8.05 36.16 39.17 9.06 35.52 39.06 9.91 37.76 37.85	Cable Loss (dB) Antenna Factor (dB) Preamp Factor (dB) Read Level (dBuV) 6.94 32.96 38.77 46.69 6.57 34.77 39.26 46.21 8.07 36.26 39.18 47.20 9.06 35.52 39.06 44.09 9.91 37.76 37.85 43.28 10.47 38.39 38.56 41.61 6.78 33.22 38.89 47.48 6.57 34.77 39.26 48.57 8.05 36.16 39.17 47.36 9.06 35.52 39.06 43.61 9.91 37.76 37.85 48.57 8.05 36.16 39.17 47.36 9.06 35.52 39.06 43.61 9.91 37.76 37.85 41.85	Cable Loss (dB)Antenna Factor (dB/m)Preamp Factor (dB)Read Level (dBuV)Level (dBuV)6.9432.9638.7746.6947.826.5734.7739.2646.2148.298.0736.2639.1847.2052.359.0635.5239.0644.0949.619.9137.7637.8543.2853.1010.4738.3938.5641.6151.916.7833.2238.8947.4848.596.5734.7739.2648.5750.658.0536.1639.1747.3652.409.0635.5239.0643.6149.139.9137.7637.8541.8551.67	Cable Loss (dB)Antenna Factor (dB/m)Preamp Factor (dB)Read Level (dBUV/m)Level (dBuV/m)Limit Line (dBuV/m)6.9432.9638.7746.6947.82746.5734.7739.2646.2148.29748.0736.2639.1847.2052.35749.0635.5239.0644.0949.61749.9137.7637.8543.2853.107410.4738.3938.5641.6151.91746.5734.7739.2648.5750.65746.5833.2238.8947.4848.59746.5734.7739.2648.5750.65748.0536.1639.1747.3652.40749.0635.5239.0643.6149.13749.0137.7637.8541.8551.6774	Cable Loss (dB)Antenna Factor (dB/m)Preamp Factor (dB)Read Level (dBuV)Level (dBuV/m)Limit Line (dBuV/m)Over Limit (dB)6.9432.9638.7746.6947.8274-26.186.5734.7739.2646.2148.2974-25.718.0736.2639.1847.2052.3574-21.659.0635.5239.0644.0949.6174-24.399.9137.7637.8543.2853.1074-20.9010.4738.3938.5641.6151.9174-22.096.7833.2238.8947.4848.5974-25.416.5734.7739.2648.5750.6574-23.358.0536.1639.1747.3652.4074-21.609.0635.5239.0643.6149.1374-24.879.9137.7637.8541.8551.6774-23.35

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. 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."

S24B12-120A200-Y4:

Report No.: SZEM141000589402 Page: 112 of 163

						i aye.	112 01	100
Test mode:	802	.11b	Test ch	annel:	Highest	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
3553.389	6.94	32.95	38.77	45.47	46.59	74	-27.41	Vertical
4924.000	6.68	34.82	39.28	46.67	48.89	74	-25.11	Vertical
6016.949	8.08	36.28	39.18	45.55	50.73	74	-23.27	Vertical
7386.000	9.16	35.44	39.05	44.14	49.69	74	-24.31	Vertical
9848.000	9.85	38.06	37.79	42.15	52.27	74	-21.73	Vertical
11706.720	10.48	38.41	38.56	40.29	50.62	74	-23.38	Vertical
3781.495	6.81	33.14	38.86	47.32	48.41	74	-25.59	Horizontal
4924.000	6.68	34.82	39.28	48.40	50.62	74	-23.38	Horizontal
6025.661	8.07	36.27	39.18	47.31	52.47	74	-21.53	Horizontal
7386.000	9.16	35.44	39.05	47.96	53.51	74	-20.49	Horizontal
9848.000	9.85	38.06	37.79	40.62	50.74	74	-23.26	Horizontal
11405.760	10.37	38.15	38.42	42.67	52.77	74	-21.23	Horizontal

Test mode:	802	.11g	Test ch	annel:	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
3776.027	6.81	33.13	38.86	47.15	48.23	74	-25.77	Vertical
4824.000	6.46	34.72	39.24	48.84	50.78	74	-23.22	Vertical
6043.124	8.07	36.25	39.18	48.62	53.76	74	-20.24	Vertical
7236.000	8.96	35.60	39.06	45.62	51.12	74	-22.88	Vertical
9648.000	9.97	37.45	37.91	41.05	50.56	74	-23.44	Vertical
11000.550	10.28	38.10	38.22	41.54	51.70	74	-22.30	Vertical
3748.808	6.83	33.11	38.85	46.47	47.56	74	-26.44	Horizontal
4824.000	6.46	34.72	39.24	48.04	49.98	74	-24.02	Horizontal
6078.201	8.06	36.21	39.18	48.51	53.60	74	-20.40	Horizontal
7236.000	8.96	35.60	39.06	46.50	52.00	74	-22.00	Horizontal
9648.000	9.97	37.45	37.91	40.93	50.44	74	-23.56	Horizontal
11605.530	10.44	38.31	38.52	41.27	51.50	74	-22.50	Horizontal

Report No.: SZEM141000589402 Page: 113 of 163

						Page:	113 01	103
Test mode:	802	.11g	Test ch	annel:	Middle	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
3920.787	6.73	33.36	38.92	47.67	48.84	74	-25.16	Vertical
4874.000	6.57	34.77	39.26	47.94	50.02	74	-23.98	Vertical
6140.076	8.05	36.15	39.17	48.56	53.59	74	-20.41	Vertical
7311.000	9.06	35.52	39.06	43.48	49.00	74	-25.00	Vertical
9748.000	9.91	37.76	37.85	42.77	52.59	74	-21.41	Vertical
11571.990	10.42	38.28	38.50	42.55	52.75	74	-21.25	Vertical
3721.784	6.84	33.09	38.84	47.13	48.22	74	-25.78	Horizontal
4874.000	6.57	34.77	39.26	47.61	49.69	74	-24.31	Horizontal
6043.124	8.07	36.25	39.18	48.62	53.76	74	-20.24	Horizontal
7311.000	9.06	35.52	39.06	45.08	50.60	74	-23.40	Horizontal
9748.000	9.91	37.76	37.85	40.02	49.84	74	-24.16	Horizontal
11405.760	10.37	38.15	38.42	42.82	52.92	74	-21.08	Horizontal

Test mode:	802	.11g	Test ch	annel:	Highest	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
3620.861	6.90	33.02	38.79	46.47	47.60	74	-26.40	Vertical
4924.000	6.68	34.82	39.28	49.11	51.33	74	-22.67	Vertical
5973.576	8.04	36.25	39.19	47.97	53.07	74	-20.93	Vertical
7386.000	9.16	35.44	39.05	47.39	52.94	74	-21.06	Vertical
9848.000	9.85	38.06	37.79	41.58	51.70	74	-22.30	Vertical
11471.960	10.38	38.20	38.45	42.23	52.36	74	-21.64	Vertical
3808.951	6.79	33.17	38.87	46.95	48.04	74	-25.96	Horizontal
4924.000	6.68	34.82	39.28	46.09	48.31	74	-25.69	Horizontal
6043.124	8.07	36.25	39.18	46.35	51.49	74	-22.51	Horizontal
7386.000	9.16	35.44	39.05	42.46	48.01	74	-25.99	Horizontal
9848.000	9.85	38.06	37.79	40.14	50.26	74	-23.74	Horizontal
11571.990	10.42	38.28	38.50	40.78	50.98	74	-23.02	Horizontal

Report No.: SZEM141000589402 Page: 114 of 163

						Fage.	114 01	105
Test mode:	80	2.11n(HT20)	Test ch	annel:	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
3748.808	6.83	33.11	38.85	47.95	49.04	74	-24.96	Vertical
4824.000	6.46	34.72	39.24	49.37	51.31	74	-22.69	Vertical
5947.702	8.00	36.20	39.19	48.44	53.45	74	-20.55	Vertical
7236.000	8.96	35.60	39.06	45.36	50.86	74	-23.14	Vertical
9648.000	9.97	37.45	37.91	42.21	51.72	74	-22.28	Vertical
11258.190	10.34	38.13	38.35	41.46	51.58	74	-22.42	Vertical
3657.721	6.88	33.04	38.81	46.98	48.09	74	-25.91	Horizontal
4824.000	6.46	34.72	39.24	47.75	49.69	74	-24.31	Horizontal
6016.949	8.08	36.28	39.18	48.26	53.44	74	-20.56	Horizontal
7236.000	8.96	35.60	39.06	47.36	52.86	74	-21.14	Horizontal
9648.000	9.97	37.45	37.91	41.80	51.31	74	-22.69	Horizontal
11488.580	10.39	38.22	38.46	42.22	52.37	74	-21.63	Horizontal

Test mode:	802	2.11n(HT20)	Test ch	annel:	Middle	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
3689.614	6.86	33.07	38.82	46.80	47.91	74	-26.09	Vertical
4874.000	6.57	34.77	39.26	47.54	49.62	74	-24.38	Vertical
6095.816	8.06	36.19	39.17	47.41	52.49	74	-21.51	Vertical
7311.000	9.06	35.52	39.06	46.64	52.16	74	-21.84	Vertical
9748.000	9.91	37.76	37.85	41.77	51.59	74	-22.41	Vertical
11588.750	10.43	38.29	38.51	42.06	52.27	74	-21.73	Vertical
3700.306	6.85	33.08	38.83	47.12	48.22	74	-25.78	Horizontal
4874.000	6.57	34.77	39.26	48.34	50.42	74	-23.58	Horizontal
6095.816	8.06	36.19	39.17	47.41	52.49	74	-21.51	Horizontal
7311.000	9.06	35.52	39.06	43.39	48.91	74	-25.09	Horizontal
9748.000	9.91	37.76	37.85	41.90	51.72	74	-22.28	Horizontal
11274.500	10.34	38.13	38.36	41.79	51.90	74	-22.10	Horizontal

Report No.: SZEM141000589402 Page: 115 of 163

						Page:	115 01	103
Test mode:	80	2.11n(HT20)	Test ch	annel:	Highest	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
3858.877	6.77	33.25	38.89	46.93	48.06	74	-25.94	Vertical
4924.000	6.68	34.82	39.28	48.71	50.93	74	-23.07	Vertical
6122.333	8.05	36.16	39.17	48.12	53.16	74	-20.84	Vertical
7386.000	9.16	35.44	39.05	43.98	49.53	74	-24.47	Vertical
9848.000	9.85	38.06	37.79	42.96	53.08	74	-20.92	Vertical
11356.360	10.36	38.14	38.40	42.33	52.43	74	-21.57	Vertical
3689.614	6.86	33.07	38.82	46.80	47.91	74	-26.09	Horizontal
4924.000	6.68	34.82	39.28	48.01	50.23	74	-23.77	Horizontal
5999.562	8.08	36.30	39.18	47.81	53.01	74	-20.99	Horizontal
7386.000	9.16	35.44	39.05	43.33	48.88	74	-25.12	Horizontal
9848.000	9.85	38.06	37.79	41.58	51.70	74	-22.30	Horizontal
11538.550	10.41	38.25	38.48	42.07	52.25	74	-21.75	Horizontal

Test mode:	802	2.11n(HT40)	Test ch	annel:	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
3770.567	6.81	33.13	38.86	46.65	47.73	74	-26.27	Vertical
4844.000	6.51	34.74	39.25	47.57	49.57	74	-24.43	Vertical
6060.637	8.07	36.23	39.18	48.78	53.90	74	-20.10	Vertical
7266.000	9.00	35.57	39.06	47.40	52.91	74	-21.09	Vertical
9688.000	9.94	37.57	37.88	41.03	50.66	74	-23.34	Vertical
11160.880	10.32	38.12	38.30	39.96	50.10	74	-23.90	Vertical
3467.050	7.03	32.86	38.73	47.10	48.26	74	-25.74	Horizontal
4844.000	6.51	34.74	39.25	48.08	50.08	74	-23.92	Horizontal
5999.562	8.08	36.30	39.18	47.38	52.58	74	-21.42	Horizontal
7266.000	9.00	35.57	39.06	44.37	49.88	74	-24.12	Horizontal
9688.000	9.94	37.57	37.88	41.89	51.52	74	-22.48	Horizontal
11389.270	10.37	38.15	38.41	42.69	52.80	74	-21.20	Horizontal

Report No.: SZEM141000589402 Page: 116 of 163

						Fage.	116.01	105
Test mode:	80	2.11n(HT40)	Test ch	annel:	Middle	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
3522.674	6.96	32.92	38.75	46.73	47.86	74	-26.14	Vertical
4874.000	6.57	34.77	39.26	48.13	50.21	74	-23.79	Vertical
6095.816	8.06	36.19	39.17	48.45	53.53	74	-20.47	Vertical
7311.000	9.06	35.52	39.06	43.06	48.58	74	-25.42	Vertical
9748.000	9.91	37.76	37.85	39.66	49.48	74	-24.52	Vertical
11656.010	10.46	38.36	38.54	42.89	53.17	74	-20.83	Vertical
3870.060	6.76	33.27	38.90	46.15	47.28	74	-26.72	Horizontal
4874.000	6.57	34.77	39.26	48.17	50.25	74	-23.75	Horizontal
6069.413	8.06	36.22	39.18	47.77	52.87	74	-21.13	Horizontal
7311.000	9.06	35.52	39.06	46.99	52.51	74	-21.49	Horizontal
9748.000	9.91	37.76	37.85	40.17	49.99	74	-24.01	Horizontal
11389.270	10.37	38.15	38.41	42.36	52.47	74	-21.53	Horizontal

Test mode:	80)2.11n(HT40)	Test ch	annel:	Highest	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
3432.112	7.10	32.82	38.71	45.98	47.19	74	-26.81	Vertical
4904.000	6.64	34.81	39.27	47.38	49.56	74	-24.44	Vertical
6034.386	8.07	36.26	39.18	48.70	53.85	74	-20.15	Vertical
7356.000	9.12	35.47	39.05	45.89	51.43	74	-22.57	Vertical
9808.000	9.88	37.94	37.81	41.40	51.41	74	-22.59	Vertical
11723.670	10.49	38.43	38.57	43.55	53.90	74	-20.10	Vertical
3636.612	6.89	33.03	38.80	47.03	48.15	74	-25.85	Horizontal
4904.000	6.64	34.81	39.27	48.10	50.28	74	-23.72	Horizontal
6113.481	8.05	36.17	39.17	48.71	53.76	74	-20.24	Horizontal
7356.000	9.12	35.47	39.05	41.98	47.52	74	-26.48	Horizontal
9808.000	9.88	37.94	37.81	40.59	50.60	74	-23.40	Horizontal
11555.260	10.41	38.27	38.49	41.33	51.52	74	-22.48	Horizontal

Report No.: SZEM141000589402 Page: 117 of 163

Test mode:	802	.11b	Test ch	annel:	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
3814.467	6.79	33.18	38.88	47.43	48.52	74	-25.48	Vertical
4824.000	6.46	34.72	39.24	48.69	50.63	74	-23.37	Vertical
6025.661	8.07	36.27	39.18	48.07	53.23	74	-20.77	Vertical
7236.000	8.96	35.60	39.06	43.54	49.04	74	-24.96	Vertical
9648.000	9.97	37.45	37.91	41.09	50.60	74	-23.40	Vertical
11258.190	10.34	38.13	38.35	41.66	51.78	74	-22.22	Vertical
3858.877	6.77	33.25	38.89	46.96	48.09	74	-25.91	Horizontal
4824.000	6.46	34.72	39.24	48.58	50.52	74	-23.48	Horizontal
6034.386	8.07	36.26	39.18	47.20	52.35	74	-21.65	Horizontal
7236.000	8.96	35.60	39.06	47.86	53.36	74	-20.64	Horizontal
9648.000	9.97	37.45	37.91	41.23	50.74	74	-23.26	Horizontal
11521.870	10.40	38.24	38.48	42.63	52.79	74	-21.21	Horizontal

WHF-1200300T3:

Test mode:	802	.11b	Test ch	annel:	Middle	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
3657.721	6.88	33.04	38.81	47.68	48.79	74	-25.21	Vertical
4874.000	6.57	34.77	39.26	48.92	51.00	74	-23.00	Vertical
5982.226	8.05	36.27	39.19	47.61	52.74	74	-21.26	Vertical
7311.000	9.06	35.52	39.06	47.11	52.63	74	-21.37	Vertical
9748.000	9.91	37.76	37.85	41.87	51.69	74	-22.31	Vertical
11422.280	10.37	38.17	38.43	43.30	53.41	74	-20.59	Vertical
3694.956	6.86	33.07	38.83	47.68	48.78	74	-25.22	Horizontal
4874.000	6.57	34.77	39.26	48.09	50.17	74	-23.83	Horizontal
5930.516	7.97	36.17	39.19	47.57	52.52	74	-21.48	Horizontal
7311.000	9.06	35.52	39.06	46.50	52.02	74	-21.98	Horizontal
9748.000	9.91	37.76	37.85	41.81	51.63	74	-22.37	Horizontal
11422.280	10.37	38.17	38.43	43.30	53.41	74	-20.59	Horizontal

Report No.: SZEM141000589402 Page: 118 of 163

						i aye.	110.01	100
Test mode:	802	.11b	Test ch	annel:	Highest	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
3497.281	6.98	32.89	38.74	47.98	49.11	74	-24.89	Vertical
4924.000	6.68	34.82	39.28	48.50	50.72	74	-23.28	Vertical
5913.378	7.95	36.13	39.19	47.95	52.84	74	-21.16	Vertical
7386.000	9.16	35.44	39.05	44.19	49.74	74	-24.26	Vertical
9848.000	9.85	38.06	37.79	41.58	51.70	74	-22.30	Vertical
11128.630	10.31	38.11	38.29	42.61	52.74	74	-21.26	Vertical
3803.444	6.80	33.16	38.87	47.22	48.31	74	-25.69	Horizontal
4924.000	6.68	34.82	39.28	46.92	49.14	74	-24.86	Horizontal
5964.939	8.03	36.23	39.19	48.02	53.09	74	-20.91	Horizontal
7386.000	9.16	35.44	39.05	45.48	51.03	74	-22.97	Horizontal
9848.000	9.85	38.06	37.79	41.35	51.47	74	-22.53	Horizontal
11656.010	10.46	38.36	38.54	41.94	52.22	74	-21.78	Horizontal

Test mode:	802	.11g	Test ch	annel:	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
3716.403	6.84	33.09	38.84	47.78	48.87	74	-25.13	Vertical
4824.000	6.46	34.72	39.24	49.14	51.08	74	-22.92	Vertical
5999.562	8.08	36.30	39.18	47.73	52.93	74	-21.07	Vertical
7236.000	8.96	35.60	39.06	46.77	52.27	74	-21.73	Vertical
9648.000	9.97	37.45	37.91	41.65	51.16	74	-22.84	Vertical
11538.550	10.41	38.25	38.48	42.46	52.64	74	-21.36	Vertical
3732.570	6.84	33.10	38.84	48.00	49.10	74	-24.90	Horizontal
4824.000	6.46	34.72	39.24	48.88	50.82	74	-23.18	Horizontal
5982.226	8.05	36.27	39.19	48.62	53.75	74	-20.25	Horizontal
7236.000	8.96	35.60	39.06	48.26	53.76	74	-20.24	Horizontal
9648.000	9.97	37.45	37.91	42.15	51.66	74	-22.34	Horizontal
11422.280	10.37	38.17	38.43	42.47	52.58	74	-21.42	Horizontal

Report No.: SZEM141000589402 Page: 119 of 163

						Page:	119.01	105
Test mode:	802	.11g	Test ch	annel:	Middle	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
3825.521	6.78	33.20	38.88	48.19	49.29	74	-24.71	Vertical
4874.000	6.57	34.77	39.26	49.36	51.44	74	-22.56	Vertical
6016.949	8.08	36.28	39.18	48.30	53.48	74	-20.52	Vertical
7311.000	9.06	35.52	39.06	45.68	51.20	74	-22.80	Vertical
9748.000	9.91	37.76	37.85	41.38	51.20	74	-22.80	Vertical
11639.160	10.45	38.34	38.53	42.30	52.56	74	-21.44	Vertical
3803.444	6.80	33.16	38.87	48.42	49.51	74	-24.49	Horizontal
4874.000	6.57	34.77	39.26	48.23	50.31	74	-23.69	Horizontal
6087.002	8.06	36.20	39.17	47.56	52.65	74	-21.35	Horizontal
7311.000	9.06	35.52	39.06	43.15	48.67	74	-25.33	Horizontal
9748.000	9.91	37.76	37.85	42.55	52.37	74	-21.63	Horizontal
11389.270	10.37	38.15	38.41	42.56	52.67	74	-21.33	Horizontal

Test mode:	802	.11g	Test ch	annel:	Highest	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
3737.975	6.83	33.10	38.84	47.07	48.16	74	-25.84	Vertical
4924.000	6.68	34.82	39.28	46.71	48.93	74	-25.07	Vertical
6220.557	8.03	36.05	39.16	47.83	52.75	74	-21.25	Vertical
7386.000	9.16	35.44	39.05	45.57	51.12	74	-22.88	Vertical
9848.000	9.85	38.06	37.79	43.21	53.33	74	-20.67	Vertical
11740.650	10.50	38.44	38.58	43.20	53.56	74	-20.44	Vertical
3748.808	6.83	33.11	38.85	45.14	46.23	74	-27.77	Horizontal
4924.000	6.68	34.82	39.28	47.02	49.24	74	-24.76	Horizontal
5999.562	8.08	36.30	39.18	46.79	51.99	74	-22.01	Horizontal
7386.000	9.16	35.44	39.05	44.95	50.50	74	-23.50	Horizontal
9848.000	9.85	38.06	37.79	43.22	53.34	74	-20.66	Horizontal
11656.010	10.46	38.36	38.54	42.10	52.38	74	-21.62	Horizontal

Report No.: SZEM141000589402 Page: 120 of 163

						Page:	120 01	103
Test mode:	802	.11n(HT20)	Test ch	annel:	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
3417.246	7.13	32.80	38.70	48.97	50.20	74	-23.80	Vertical
4824.000	6.46	34.72	39.24	49.39	51.33	74	-22.67	Vertical
5973.576	8.04	36.25	39.19	48.97	54.07	74	-19.93	Vertical
7236.000	8.96	35.60	39.06	47.44	52.94	74	-21.06	Vertical
9648.000	9.97	37.45	37.91	41.63	51.14	74	-22.86	Vertical
11521.870	10.40	38.24	38.48	42.27	52.43	74	-21.57	Vertical
3727.173	6.84	33.10	38.84	47.54	48.64	74	-25.36	Horizontal
4824.000	6.46	34.72	39.24	48.97	50.91	74	-23.09	Horizontal
5990.888	8.07	36.28	39.18	47.47	52.64	74	-21.36	Horizontal
7236.000	8.96	35.60	39.06	45.55	51.05	74	-22.95	Horizontal
9648.000	9.97	37.45	37.91	42.08	51.59	74	-22.41	Horizontal
11740.650	10.50	38.44	38.58	43.57	53.93	74	-20.07	Horizontal

Test mode:	802	2.11n(HT20)	Test ch	annel:	Middle	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
3497.281	6.98	32.89	38.74	47.98	49.11	74	-24.89	Vertical
4874.000	6.57	34.77	39.26	48.53	50.61	74	-23.39	Vertical
5973.576	8.04	36.25	39.19	47.97	53.07	74	-20.93	Vertical
7311.000	9.06	35.52	39.06	47.42	52.94	74	-21.06	Vertical
9748.000	9.91	37.76	37.85	41.65	51.47	74	-22.53	Vertical
11290.820	10.34	38.13	38.37	42.12	52.22	74	-21.78	Vertical
3329.395	7.30	32.60	38.66	47.87	49.11	74	-24.89	Horizontal
4874.000	6.57	34.77	39.26	48.85	50.93	74	-23.07	Horizontal
5964.939	8.03	36.23	39.19	47.79	52.86	74	-21.14	Horizontal
7311.000	9.06	35.52	39.06	47.44	52.96	74	-21.04	Horizontal
9748.000	9.91	37.76	37.85	42.30	52.12	74	-21.88	Horizontal
11323.540	10.35	38.14	38.38	42.96	53.07	74	-20.93	Horizontal

Report No.: SZEM141000589402 Page: 121 of 163

						Page:	121 01	103
Test mode:	802	2.11n(HT20)	Test ch	annel:	Highest	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
3548.251	6.94	32.94	38.76	48.07	49.19	74	-24.81	Vertical
4924.000	6.68	34.82	39.28	47.77	49.99	74	-24.01	Vertical
5879.252	7.89	36.07	39.20	47.44	52.20	74	-21.80	Vertical
7386.000	9.16	35.44	39.05	44.03	49.58	74	-24.42	Vertical
9848.000	9.85	38.06	37.79	40.97	51.09	74	-22.91	Vertical
11405.760	10.37	38.15	38.42	43.01	53.11	74	-20.89	Vertical
3568.847	6.93	32.97	38.77	47.95	49.08	74	-24.92	Horizontal
4924.000	6.68	34.82	39.28	49.11	51.33	74	-22.67	Horizontal
6016.949	8.08	36.28	39.18	48.08	53.26	74	-20.74	Horizontal
7386.000	9.16	35.44	39.05	44.26	49.81	74	-24.19	Horizontal
9848.000	9.85	38.06	37.79	42.28	52.40	74	-21.60	Horizontal
11689.790	10.47	38.39	38.56	43.22	53.52	74	-20.48	Horizontal

Test mode:	802	.11n(HT40)	Test ch	annel:	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
3599.965	6.91	33.00	38.79	47.30	48.42	74	-25.58	Vertical
4844.000	6.51	34.74	39.25	48.46	50.46	74	-23.54	Vertical
5964.939	8.03	36.23	39.19	48.87	53.94	74	-20.06	Vertical
7266.000	9.00	35.57	39.06	43.21	48.72	74	-25.28	Vertical
9688.000	9.94	37.57	37.88	43.96	53.59	74	-20.41	Vertical
11521.870	10.40	38.24	38.48	42.55	52.71	74	-21.29	Vertical
3892.524	6.75	33.31	38.91	47.46	48.61	74	-25.39	Horizontal
4844.000	6.51	34.74	39.25	48.63	50.63	74	-23.37	Horizontal
5896.291	7.92	36.10	39.19	48.83	53.66	74	-20.34	Horizontal
7266.000	9.00	35.57	39.06	46.39	51.90	74	-22.10	Horizontal
9688.000	9.94	37.57	37.88	42.01	51.64	74	-22.36	Horizontal
11706.720	10.48	38.41	38.56	43.55	53.88	74	-20.12	Horizontal

Report No.: SZEM141000589402 Page: 122 of 163

						Fage.	122 01	105
Test mode:	8	02.11n(HT40)	Test ch	annel:	Middle	Remark	:	Peak
Frequency (MHz)	Cable Loss (dB)		Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
3716.403	6.84	33.09	38.84	48.68	49.77	74	-24.23	Vertical
4874.000	6.57	34.77	39.26	47.48	49.56	74	-24.44	Vertical
6122.333	8.05	36.16	39.17	48.12	53.16	74	-20.84	Vertical
7311.000	9.06	35.52	39.06	43.83	49.35	74	-24.65	Vertical
9748.000	9.91	37.76	37.85	44.13	53.95	74	-20.05	Vertical
11656.010	10.46	38.36	38.54	42.89	53.17	74	-20.83	Vertical
3492.224	6.98	32.88	38.74	47.24	48.36	74	-25.64	Horizontal
4874.000	6.57	34.77	39.26	48.30	50.38	74	-23.62	Horizontal
6166.787	8.04	36.12	39.17	48.41	53.40	74	-20.60	Horizontal
7311.000	9.06	35.52	39.06	43.63	49.15	74	-24.85	Horizontal
9748.000	9.91	37.76	37.85	41.74	51.56	74	-22.44	Horizontal
11422.280	10.37	38.17	38.43	43.08	53.19	74	-20.81	Horizontal

Test mode:	802	2.11n(HT40)	Test ch	annel:	Highest	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
3748.808	6.83	33.11	38.85	47.17	48.26	74	-25.74	Vertical
4904.000	6.64	34.81	39.27	48.24	50.42	74	-23.58	Vertical
5921.940	7.96	36.15	39.19	47.60	52.52	74	-21.48	Vertical
7356.000	9.12	35.47	39.05	47.13	52.67	74	-21.33	Vertical
9808.000	9.88	37.94	37.81	42.87	52.88	74	-21.12	Vertical
11521.870	10.40	38.24	38.48	42.61	52.77	74	-21.23	Vertical
3673.633	6.87	33.06	38.82	47.76	48.87	74	-25.13	Horizontal
4904.000	6.64	34.81	39.27	48.38	50.56	74	-23.44	Horizontal
5728.107	7.65	35.74	39.21	49.02	53.20	74	-20.80	Horizontal
7356.000	9.12	35.47	39.05	47.16	52.70	74	-21.30	Horizontal
9808.000	9.88	37.94	37.81	42.16	52.17	74	-21.83	Horizontal
11290.820	10.34	38.13	38.37	42.41	52.51	74	-21.49	Horizontal

Report No.: SZEM141000589402 Page: 123 of 163

Test mode:	802	.11b	Test ch	annel:	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
3616.451	6.90	33.01	38.79	42.98	44.10	74	-29.90	Vertical
4824.000	6.46	34.72	39.24	41.85	43.79	74	-30.21	Vertical
6063.190	8.07	36.23	39.18	42.58	47.70	74	-26.30	Vertical
7236.000	8.96	35.60	39.06	41.41	46.91	74	-27.09	Vertical
9648.000	9.97	37.45	37.91	38.89	48.40	74	-25.60	Vertical
11457.210	10.38	38.19	38.45	40.52	50.64	74	-23.36	Vertical
3472.118	3.89	32.86	38.73	46.95	44.97	74	-29.03	Horizontal
4824.000	4.31	34.72	39.24	44.95	44.74	74	-29.26	Horizontal
6078.644	5.19	36.21	39.18	46.78	49.00	74	-25.00	Horizontal
7236.000	5.28	35.60	39.06	45.01	46.83	74	-27.17	Horizontal
9648.000	6.51	37.45	37.91	42.71	48.76	74	-25.24	Horizontal
11283.550	7.60	38.13	38.36	43.52	50.89	74	-23.11	Horizontal

Test mode:	802	.11b	Test ch	annel:	Middle	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
3653.463	4.12	33.04	38.81	46.76	45.11	74	-28.89	Vertical
4874.000	4.36	34.77	39.26	45.49	45.36	74	-28.64	Vertical
5986.509	5.32	36.27	39.19	46.64	49.04	74	-24.96	Vertical
7311.000	5.22	35.52	39.06	45.23	46.91	74	-27.09	Vertical
9648.000	6.51	37.45	37.91	41.92	47.97	74	-26.03	Vertical
11399.030	7.86	38.15	38.42	44.33	51.92	74	-22.08	Vertical
3653.463	4.12	33.04	38.81	46.76	45.11	74	-28.89	Horizontal
4874.000	4.36	34.77	39.26	44.63	44.50	74	-29.50	Horizontal
6032.401	5.31	36.26	39.18	46.73	49.12	74	-24.88	Horizontal
7311.000	5.22	35.52	39.06	45.23	46.91	74	-27.09	Horizontal
9748.000	6.49	37.76	37.85	42.91	49.31	74	-24.69	Horizontal
11515.680	7.62	38.24	38.47	43.96	51.35	74	-22.65	Horizontal

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. 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."

SW36-12003000-W:

Report No.: SZEM141000589402 Page: 124 of 163

						i aye.	124 01	100
Test mode:	802	.11b	Test ch	annel:	Highest	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
3728.625	4.05	33.10	38.84	46.83	45.14	74	-28.86	Vertical
4924.000	4.40	34.82	39.28	45.48	45.42	74	-28.58	Vertical
5971.290	5.24	36.24	39.19	47.08	49.37	74	-24.63	Vertical
7386.000	5.15	35.44	39.05	42.25	43.79	74	-30.21	Vertical
9848.000	6.62	38.06	37.79	42.06	48.95	74	-25.05	Vertical
11933.470	7.25	38.63	38.67	44.20	51.41	74	-22.59	Vertical
3719.146	4.06	33.09	38.84	45.15	43.46	74	-30.54	Horizontal
4924.000	4.40	34.82	39.28	43.80	43.74	74	-30.26	Horizontal
6032.401	5.31	36.26	39.18	45.31	47.70	74	-26.30	Horizontal
7386.000	5.15	35.44	39.05	43.11	44.65	74	-29.35	Horizontal
9848.000	6.62	38.06	37.79	40.34	47.23	74	-26.77	Horizontal
12556.750	6.82	39.24	39.17	44.50	51.39	74	-22.61	Horizontal

Test mode:	802	.11g	Test ch	annel:	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
3672.110	4.10	33.06	38.82	46.13	44.47	74	-29.53	Vertical
4824.000	4.31	34.72	39.24	45.33	45.12	74	-28.88	Vertical
6017.064	5.35	36.28	39.18	47.24	49.69	74	-24.31	Vertical
7236.000	5.28	35.60	39.06	44.16	45.98	74	-28.02	Vertical
9648.000	6.51	37.45	37.91	43.37	49.42	74	-24.58	Vertical
11283.550	7.60	38.13	38.36	44.05	51.42	74	-22.58	Vertical
3579.815	4.13	32.98	38.78	47.11	45.44	74	-28.56	Horizontal
4824.000	4.31	34.72	39.24	46.49	46.28	74	-27.72	Horizontal
6001.768	5.39	36.30	39.18	46.99	49.50	74	-24.50	Horizontal
7236.000	5.28	35.60	39.06	44.49	46.31	74	-27.69	Horizontal
9648.000	6.51	37.45	37.91	43.48	49.53	74	-24.47	Horizontal
11515.680	7.62	38.24	38.47	43.72	51.11	74	-22.89	Horizontal

Report No.: SZEM141000589402 Page: 125 of 163

Test mode:	802	.11g	Test ch	annel:	Middle	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
3561.636	4.09	32.96	38.77	46.66	44.94	74	-29.06	Vertical
4874.000	4.36	34.77	39.26	46.71	46.58	74	-27.42	Vertical
5940.967	5.08	36.19	39.19	47.88	49.96	74	-24.04	Vertical
7311.000	5.22	35.52	39.06	46.14	47.82	74	-26.18	Vertical
9748.000	6.49	37.76	37.85	42.27	48.67	74	-25.33	Vertical
11515.680	7.62	38.24	38.47	44.74	52.13	74	-21.87	Vertical
3598.087	4.17	33.00	38.78	46.41	44.80	74	-29.20	Horizontal
4874.000	4.36	34.77	39.26	44.99	44.86	74	-29.14	Horizontal
5940.967	5.08	36.19	39.19	47.88	49.96	74	-24.04	Horizontal
7311.000	5.22	35.52	39.06	43.08	44.76	74	-29.24	Horizontal
9748.000	6.49	37.76	37.85	42.71	49.11	74	-24.89	Horizontal
11903.140	7.27	38.60	38.66	43.88	51.09	74	-22.91	Horizontal

Test mode:	802	.11g	Test ch	annel:	Highest	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
3543.550	4.05	32.94	38.76	46.43	44.66	74	-29.34	Vertical
4924.000	4.40	34.82	39.28	52.51	52.45	74	-21.55	Vertical
6032.401	5.31	36.26	39.18	46.44	48.83	74	-25.17	Vertical
7386.000	5.15	35.44	39.05	45.38	46.92	74	-27.08	Vertical
9848.000	6.62	38.06	37.79	39.91	46.80	74	-27.20	Vertical
11633.540	7.43	38.33	38.53	43.35	50.58	74	-23.42	Vertical
3728.625	4.05	33.10	38.84	48.05	46.36	74	-27.64	Horizontal
4924.000	4.40	34.82	39.28	45.36	45.30	74	-28.70	Horizontal
6017.064	5.35	36.28	39.18	47.93	50.38	74	-23.62	Horizontal
7386.000	5.15	35.44	39.05	45.69	47.23	74	-26.77	Horizontal
9848.000	6.62	38.06	37.79	40.63	47.52	74	-26.48	Horizontal
11692.920	7.39	38.39	38.56	44.84	52.06	74	-21.94	Horizontal

Report No.: SZEM141000589402 Page: 126 of 163

						Page:	120 01	105
Test mode:	802	2.11n(HT20)	Test ch	annel:	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
3367.661	3.75	32.70	38.68	46.60	44.37	74	-29.63	Vertical
4824.000	4.31	34.72	39.24	46.82	46.61	74	-27.39	Vertical
6078.644	5.19	36.21	39.18	44.53	46.75	74	-27.25	Vertical
7236.000	5.28	35.60	39.06	44.18	46.00	74	-28.00	Vertical
9648.000	6.51	37.45	37.91	40.88	46.93	74	-27.07	Vertical
12178.980	6.92	38.93	38.85	43.69	50.69	74	-23.31	Vertical
3634.910	4.14	33.03	38.80	44.93	43.30	74	-30.70	Horizontal
4824.000	4.31	34.72	39.24	43.79	43.58	74	-30.42	Horizontal
6017.064	5.35	36.28	39.18	45.73	48.18	74	-25.82	Horizontal
7236.000	5.28	35.60	39.06	42.98	44.80	74	-29.20	Horizontal
9648.000	6.51	37.45	37.91	41.31	47.36	74	-26.64	Horizontal
11994.380	7.21	38.69	38.70	43.24	50.44	74	-23.56	Horizontal

Test mode:	80	2.11n(HT20)	Test ch	annel:	Middle	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
3690.853	4.08	33.07	38.82	45.53	43.86	74	-30.14	Vertical
4874.000	4.36	34.77	39.26	46.10	45.97	74	-28.03	Vertical
6032.401	5.31	36.26	39.18	46.06	48.45	74	-25.55	Vertical
7311.000	5.22	35.52	39.06	44.73	46.41	74	-27.59	Vertical
9748.000	6.49	37.76	37.85	41.73	48.13	74	-25.87	Vertical
11457.210	7.74	38.19	38.45	43.99	51.47	74	-22.53	Vertical
3561.636	4.09	32.96	38.77	45.16	43.44	74	-30.56	Horizontal
4874.000	4.36	34.77	39.26	43.86	43.73	74	-30.27	Horizontal
6032.401	5.31	36.26	39.18	45.30	47.69	74	-26.31	Horizontal
7311.000	5.22	35.52	39.06	43.67	45.35	74	-28.65	Horizontal
9748.000	6.49	37.76	37.85	40.79	47.19	74	-26.81	Horizontal
11692.920	7.39	38.39	38.56	42.18	49.40	74	-24.60	Horizontal

Report No.: SZEM141000589402 Page: 127 of 163

						Page:	127 01	103
Test mode:	802	2.11n(HT20)	Test ch	annel:	Highest	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
3672.110	4.10	33.06	38.82	45.88	44.22	74	-29.78	Vertical
4924.000	4.40	34.82	39.28	44.72	44.66	74	-29.34	Vertical
6001.768	5.39	36.30	39.18	46.18	48.69	74	-25.31	Vertical
7386.000	5.15	35.44	39.05	45.14	46.68	74	-27.32	Vertical
9848.000	6.62	38.06	37.79	41.38	48.27	74	-25.73	Vertical
11428.080	7.80	38.17	38.43	43.01	50.55	74	-23.45	Vertical
3672.110	4.10	33.06	38.82	45.88	44.22	74	-29.78	Horizontal
4924.000	4.40	34.82	39.28	46.03	45.97	74	-28.03	Horizontal
6063.190	5.23	36.23	39.18	46.65	48.93	74	-25.07	Horizontal
7386.000	5.15	35.44	39.05	45.14	46.68	74	-27.32	Horizontal
9848.000	6.62	38.06	37.79	41.21	48.10	74	-25.90	Horizontal
11283.550	7.60	38.13	38.36	42.84	50.21	74	-23.79	Horizontal

Test mode:	802	2.11n(HT40)	Test ch	annel:	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
3709.691	4.06	33.08	38.83	45.57	43.88	74	-30.12	Vertical
4844.000	4.33	34.74	39.25	47.38	47.20	74	-26.80	Vertical
6001.768	5.39	36.30	39.18	45.49	48.00	74	-26.00	Vertical
7266.000	5.25	35.57	39.06	43.42	45.18	74	-28.82	Vertical
9688.000	6.50	37.57	37.88	42.28	48.47	74	-25.53	Vertical
11933.470	7.25	38.63	38.67	42.69	49.90	74	-24.10	Vertical
3598.087	4.17	33.00	38.78	45.65	44.04	74	-29.96	Horizontal
4844.000	4.33	34.74	39.25	44.97	44.79	74	-29.21	Horizontal
5986.509	5.32	36.27	39.19	46.32	48.72	74	-25.28	Horizontal
7266.000	5.25	35.57	39.06	44.27	46.03	74	-27.97	Horizontal
9688.000	6.50	37.57	37.88	43.86	50.05	74	-23.95	Horizontal
12241.140	6.82	39.00	38.91	44.00	50.91	74	-23.09	Horizontal

Report No.: SZEM141000589402 Page: 128 of 163

						Fage.	120 01	105
Test mode:	8	302.11n(HT40)	Test ch	annel:	Middle	Remark	c :	Peak
Frequency (MHz)	Cabl Loss (dB)	Factor	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
3690.853	4.08	33.07	38.82	45.18	43.51	74	-30.49	Vertical
4874.000	4.36	34.77	39.26	49.44	49.31	74	-24.69	Vertical
5910.798	4.92	36.13	39.19	45.06	46.92	74	-27.08	Vertical
7311.000	5.22	35.52	39.06	42.94	44.62	74	-29.38	Vertical
9748.000	6.49	37.76	37.85	40.05	46.45	74	-27.55	Vertical
11056.090	7.32	38.11	38.25	42.13	49.31	74	-24.69	Vertical
3709.691	4.06	33.08	38.83	46.39	44.70	74	-29.30	Horizontal
4874.000	4.36	34.77	39.26	44.79	44.66	74	-29.34	Horizontal
6017.064	5.35	36.28	39.18	46.61	49.06	74	-24.94	Horizontal
7311.000	5.22	35.52	39.06	45.13	46.81	74	-27.19	Horizontal
9748.000	6.49	37.76	37.85	42.55	48.95	74	-25.05	Horizontal
11872.880	7.29	38.57	38.64	44.15	51.37	74	-22.63	Horizontal

Test mode:	80	2.11n(HT40)	Test ch	annel:	Highest	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
3672.110	4.10	33.06	38.82	46.58	44.92	74	-29.08	Vertical
4904.000	4.38	34.81	39.27	46.64	46.56	74	-27.44	Vertical
5986.509	5.32	36.27	39.19	47.48	49.88	74	-24.12	Vertical
7356.000	5.18	35.47	39.05	47.19	48.79	74	-25.21	Vertical
9808.000	6.50	37.94	37.81	42.23	48.86	74	-25.14	Vertical
12117.140	7.02	38.85	38.80	44.44	51.51	74	-22.49	Vertical
3672.110	4.10	33.06	38.82	46.58	44.92	74	-29.08	Horizontal
4904.000	4.38	34.81	39.27	46.64	46.56	74	-27.44	Horizontal
5986.509	5.32	36.27	39.19	46.30	48.70	74	-25.30	Horizontal
7356.000	5.18	35.47	39.05	45.08	46.68	74	-27.32	Horizontal
9808.000	6.50	37.94	37.81	42.23	48.86	74	-25.14	Horizontal
12117.140	7.02	38.85	38.80	44.44	51.51	74	-22.49	Horizontal

Report No.: SZEM141000589402 Page: 129 of 163

Remark:

1) 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

- 2) Scan from 9kHz to 25GHz, The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. 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."

AE EUT

(Turntable)

Test Receiv

Figure 2. Above 1 GHz

Report No.: SZEM141000589402 Page: 130 of 163

Antenna To

Controlle

6.9 Restricted bands around fundamental frequency

Controlles

EUT

Figure 1. 30MHz to 1GHz

(Turntah)

Test Requirement:	47 CFR Part 15C Section 15	5.209 and 15.205						
Test Method:	ANSI C63.10 2009							
Test Site:	Measurement Distance: 3m	(Semi-Anechoic Chambe	er)					
Limit:	Frequency	Limit (dBuV/m @3m)	Remark					
	30MHz-88MHz	40.0	Quasi-peak Value					
	88MHz-216MHz	43.5	Quasi-peak Value					
	216MHz-960MHz	46.0	Quasi-peak Value					
	960MHz-1GHz 54.0 Quasi-peak		Quasi-peak Value					
	Above 1011-	54.0	Average Value					
	Above 1GHz	74.0	Peak Value					
Test Setup:								

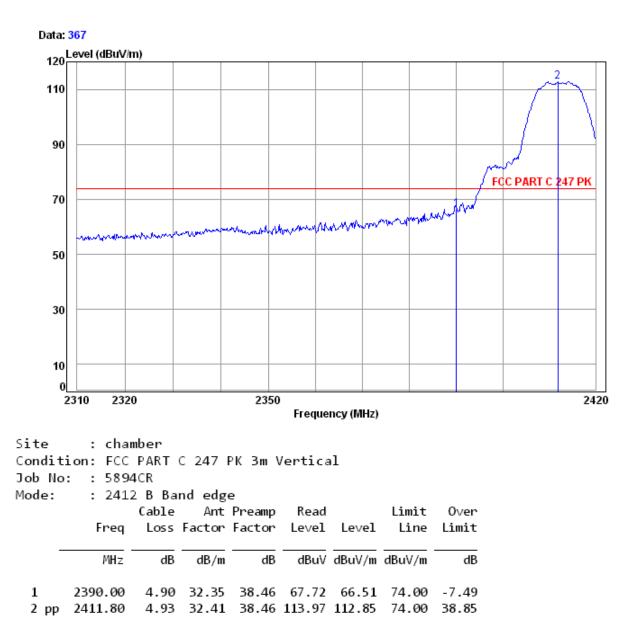
Report No.: SZEM141000589402 Page: 131 of 163

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. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel g. Test the EUT in the lowest channel , the Highest channel h. Repeat above procedures until all frequencies measured was complete. Transmitting with all kind of modulations, data rates. Transmitting mode Final Test Mode: Final Test Mode: Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report. Instruments Used: Refer to section 5.10 for details	Test Procedure:	the ground at a 3 meter semi-anechoic camber. The table was rotated
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. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channelg. Test the EUT in the lowest channel , the Highest channel h. Repeat above procedures until all frequencies measured was complete.Exploratory Test Mode:Transmitting with all kind of modulations, data rates. Transmitting modeFinal Test Mode:Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report.Instruments Used:Refer to section 5.10 for details		antenna, which was mounted on the top of a variable-height antenna
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. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel g. Test the EUT in the lowest channel , the Highest channel h. Repeat above procedures until all frequencies measured was complete.Exploratory Test Mode:Transmitting with all kind of modulations, data rates. Transmitting modeFinal Test Mode:Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report.Instruments Used:Refer to section 5.10 for details		ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make
Specified Bandwidth with Maximum Hold Mode.f.Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channelg.Test the EUT in the lowest channel , the Highest channel h. Repeat above procedures until all frequencies measured was complete.Exploratory Test Mode:Transmitting with all kind of modulations, data rates. Transmitting modeFinal Test Mode:Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report.Instruments Used:Refer to section 5.10 for details		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
transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel g. Test the EUT in the lowest channel , the Highest channel 		
h. Repeat above procedures until all frequencies measured was complete. Exploratory Test Mode: Transmitting with all kind of modulations, data rates. Transmitting mode Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report. Instruments Used: Refer to section 5.10 for details		transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for
complete.Exploratory Test Mode:Transmitting with all kind of modulations, data rates. Transmitting modeFinal Test Mode:Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report.Instruments Used:Refer to section 5.10 for details		g. Test the EUT in the lowest channel, the Highest channel
Transmitting mode Final Test Mode: Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report. Instruments Used: Refer to section 5.10 for details		
Final Test Mode: Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report. Instruments Used: Refer to section 5.10 for details	Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.
6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report. Instruments Used: Refer to section 5.10 for details		Transmitting mode
case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40) Only the worst case is recorded in the report. Instruments Used: Refer to section 5.10 for details	Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b;
Instruments Used: Refer to section 5.10 for details		6Mbps of rate is the worst case of 802.11g ; 6.5Mbps of rate is the worst case of 802.11n(HT20); 13.5Mbps of rate is the worst case of 802.11n(HT40)
Test Results: Pass	Instruments Used:	Refer to section 5.10 for details
	Test Results:	Pass



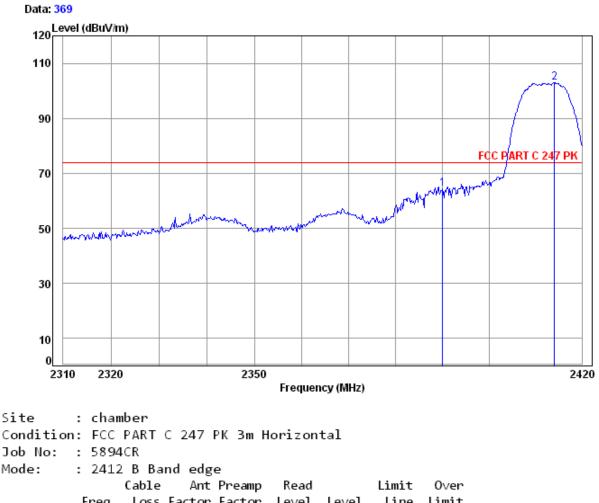
Report No.: SZEM141000589402 Page: 132 of 163

Test plot as follows:								
Worse case mode:	802.11b	Test channel:	Lowest	Remark:	Peak	Vertical		



Report No.: SZEM141000589402 Page: 133 of 163

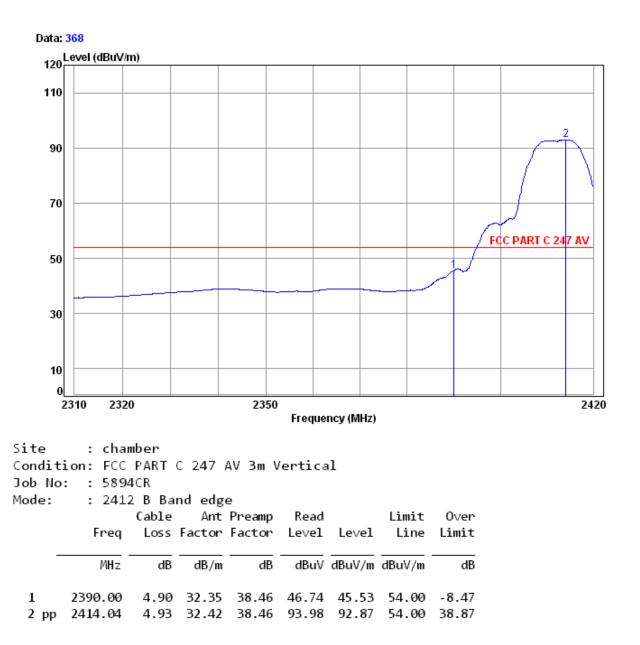
Worse case mode:	802.11b	Test channel:	Lowest	Remark:	Peak	Horizontal
------------------	---------	---------------	--------	---------	------	------------



	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 nn	2390.00 2414.04							

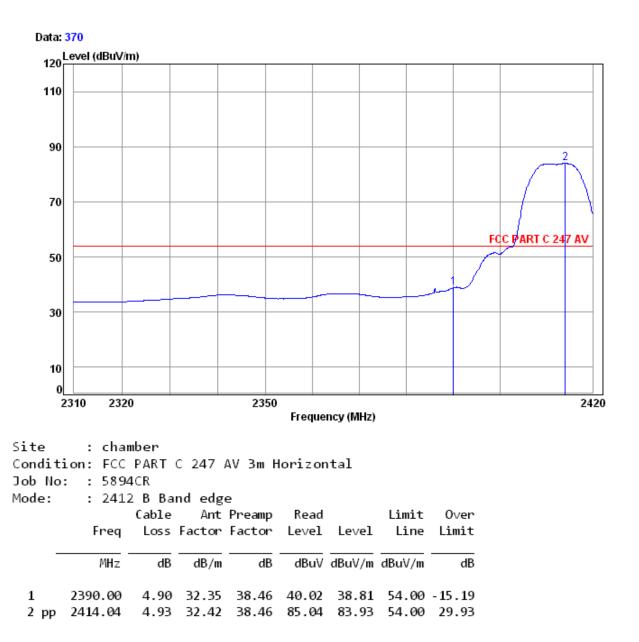
Report No.: SZEM141000589402 Page: 134 of 163

Worse case mode:	802.11b	Test channel:	Lowest	Remark:	Average	Vertical
------------------	---------	---------------	--------	---------	---------	----------



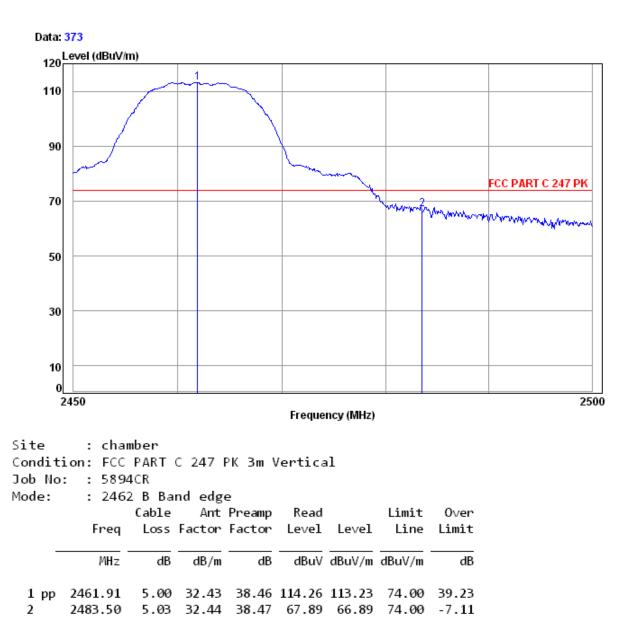
Report No.: SZEM141000589402 Page: 135 of 163

Worse case mode: 802.11b Test cha	nnel: Lowest	Remark: Averag	e Horizontal
-----------------------------------	--------------	----------------	--------------



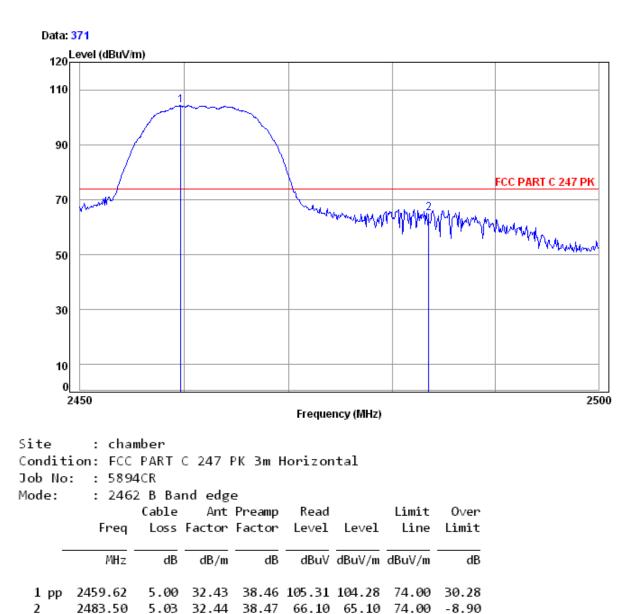
Report No.: SZEM141000589402 Page: 136 of 163

Worse case mode: 802.11b T	Test channel: Highes	t Remark:	Peak	Vertical
----------------------------	----------------------	-----------	------	----------



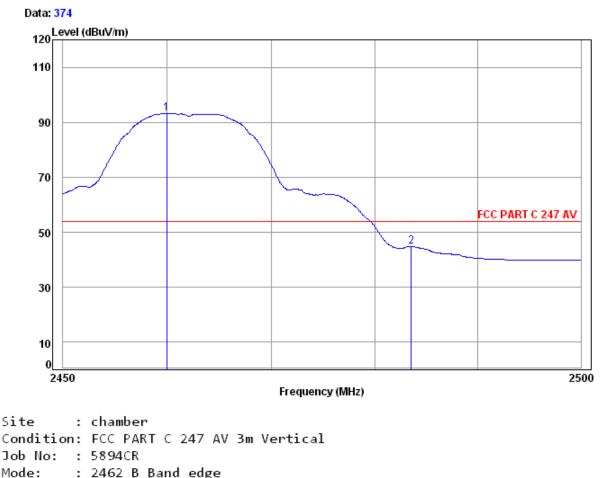
Report No.: SZEM141000589402 Page: 137 of 163

Worse case mode: 802.	.11b Test channel:	Highest	Remark:	Peak	Horizontal
-----------------------	--------------------	---------	---------	------	------------



Report No.: SZEM141000589402 Page: 138 of 163

Worse case mode:	802.11b	Test channel:	Highest	Remark:	Average	Vertical
------------------	---------	---------------	---------	---------	---------	----------



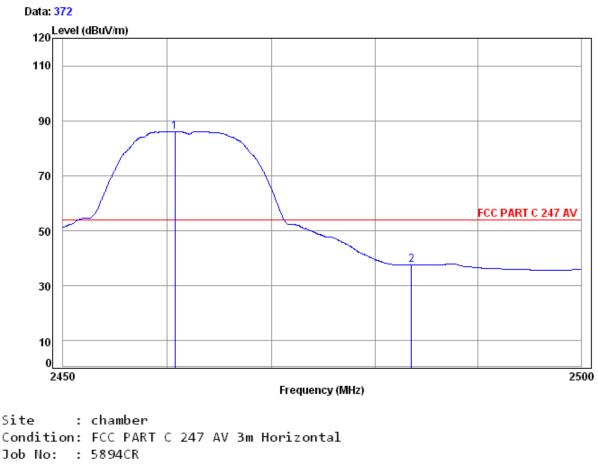
	Freq	Cable	Ant	Preamp			Limit Line	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp 2	2459.92 2483.50							

Limit

0ver

Report No.: SZEM141000589402 Page: 139 of 163

Worse case mode: 802.11	b Test channel:	Highest	Remark:	Average	Horizontal
-------------------------	-----------------	---------	---------	---------	------------

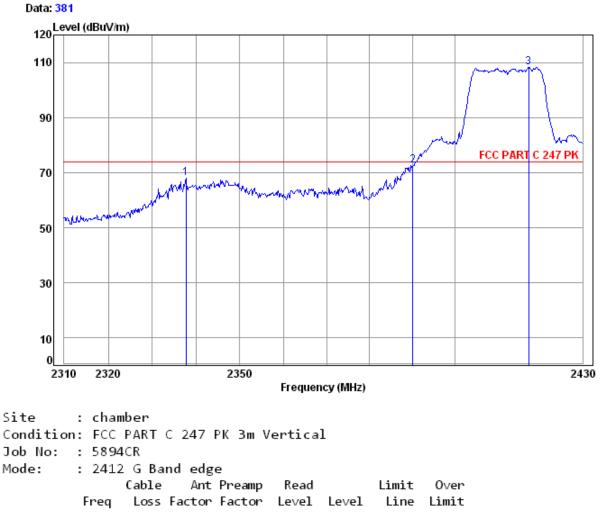


Mode: : 2462 B Band edge Cable Ant Preamp Read

	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
	2460.72 2483.50							

Report No.: SZEM141000589402 Page: 140 of 163

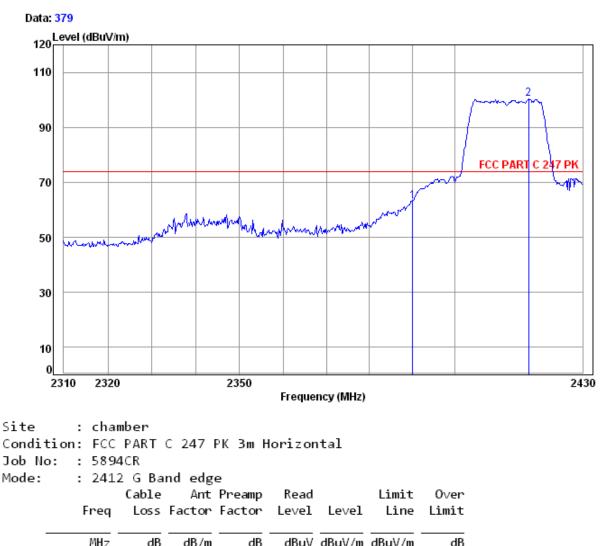
Worse case mode: 802.11g	Test channel:	Lowest	Remark:	Peak	Vertical
--------------------------	---------------	--------	---------	------	----------



	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2337.66	4.83	32.00	38.45	69.74	68.12	74.00	-5.88
2	2390.00	4.90	32.35	38.46	73.75	72.54	74.00	-1.46
3 рр	2417.24	4.94	32.42	38.46	109.32	108.22	74.00	34.22

Report No.: SZEM141000589402 Page: 141 of 163

Worse case mode: 802.11g	Test channel:	Lowest	Remark:	Peak	Horizontal
--------------------------	---------------	--------	---------	------	------------

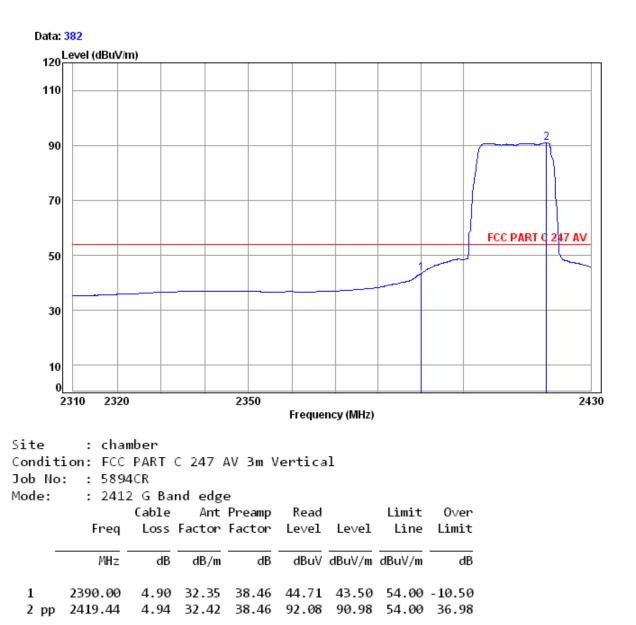


	6112	uD	ub/m	uD	ubuv	ubu v/m	ubuv/m	uD
1	2390.00	4.90	32.35	38.46	64 41	63.20	74.00	10.80
-	2000.00	4.20	52.55	20.40	01.11	05.20	/4.00	10.00
2 nn	2417.24	4.94	32.42	38.46	101.40	100.30	74.00	26.30
~ FF				20110				20.00

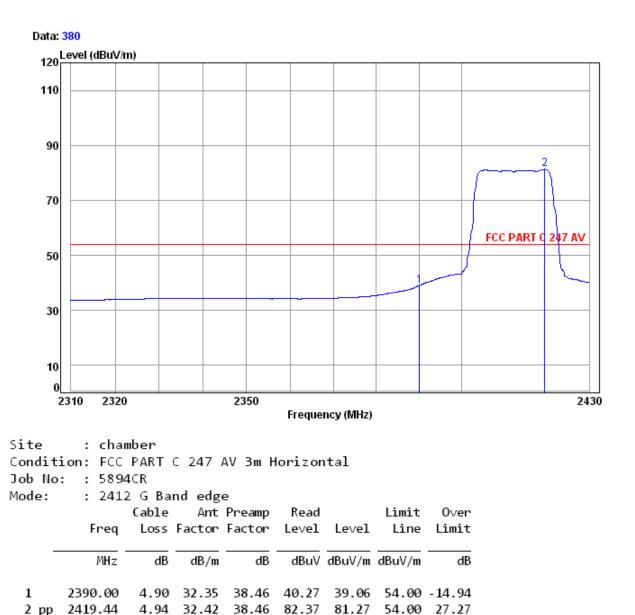


Report No.: SZEM141000589402 Page: 142 of 163

Worse case mode: 802.11g	Test channel:	Lowest	Remark:	Average	Vertical
--------------------------	---------------	--------	---------	---------	----------

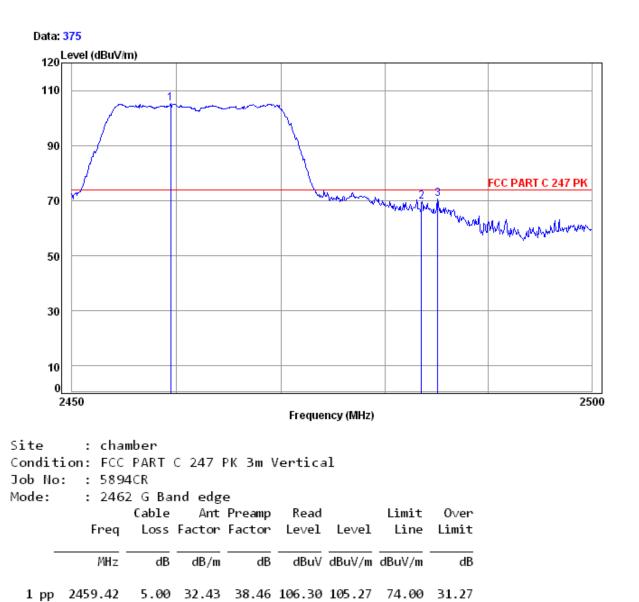


Report No.: SZEM141000589402 Page: 143 of 163



Report No.: SZEM141000589402 Page: 144 of 163

Worse case mode:	802.11g	Test channel:	Highest	Remark:	Peak	Vertical
------------------	---------	---------------	---------	---------	------	----------



"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. 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."

5.03

5.03

2483.50

2485.10

2

З

32.44

32.44

38.47

38.47

70.64

71.64

69.64

70.64

74.00

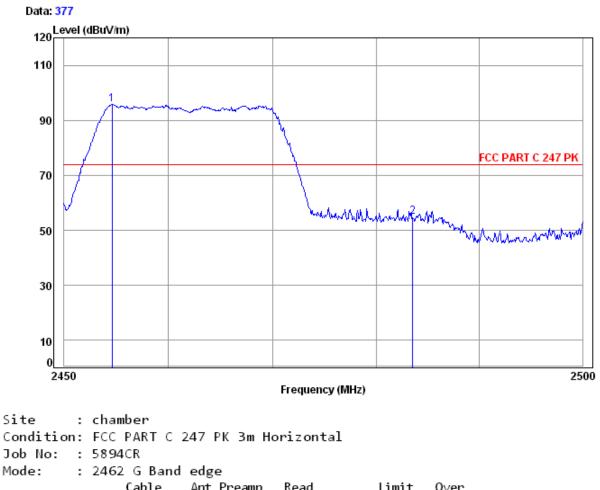
74.00

-4.36

-3.36

Report No.: SZEM141000589402 Page: 145 of 163

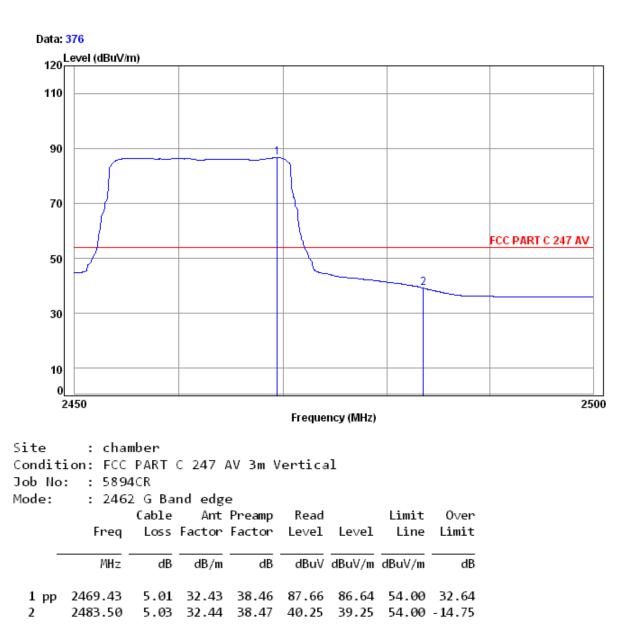
Worse case mode:	802.11g	Test channel:	Highest	Remark:	Peak	Horizontal
------------------	---------	---------------	---------	---------	------	------------



		Cable	Ant	Preamp	Read		Limit	0ver
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp 2	2454.61 2483.50							

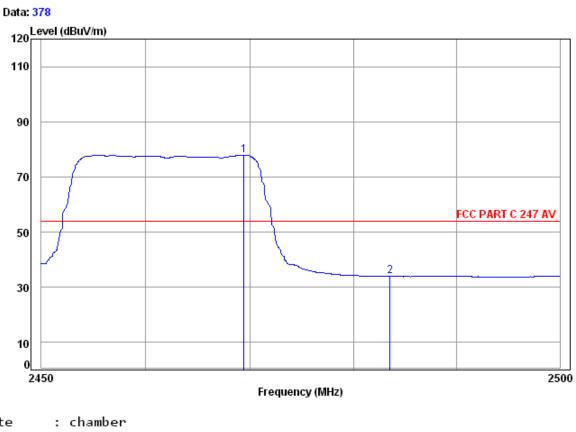
Report No.: SZEM141000589402 Page: 146 of 163

Worse case mode:	802.11g	Test channel:	Highest	Remark:	Average	Vertical
------------------	---------	---------------	---------	---------	---------	----------



Report No.: SZEM141000589402 Page: 147 of 163

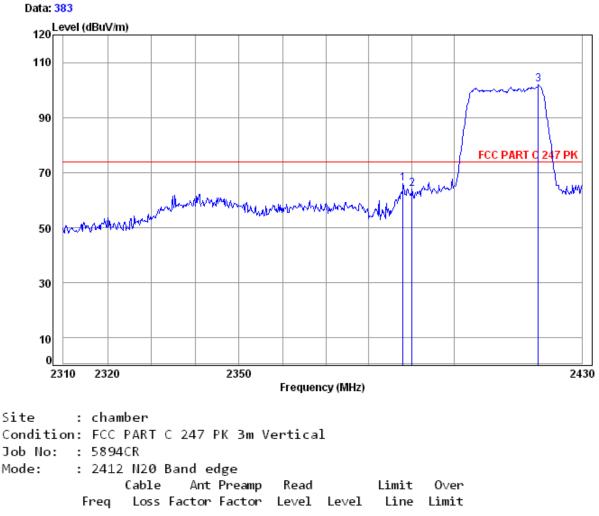
Worse case mode: 802.11g Test channel	Highest Remark:	Average Horizontal
---------------------------------------	-----------------	--------------------



Site	: cha	mber						
Condit	ion: FCC	PART	C 247	AV 3m H	lorizon	tal		
Job No	: : 5894	4CR						
Mode:	: 246	2 G Ba	nd edg	e				
		Cable	Ant	Preamp	Read		Limit	0ver
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
_								
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
							_	
1 pp	2469.43	5.01	32.43	38.46	79.00	77.98	54.00	23.98
2	2483.50	5.03	32.44	38.47	34.92	33.92	54.00	-20.08

Report No.: SZEM141000589402 Page: 148 of 163

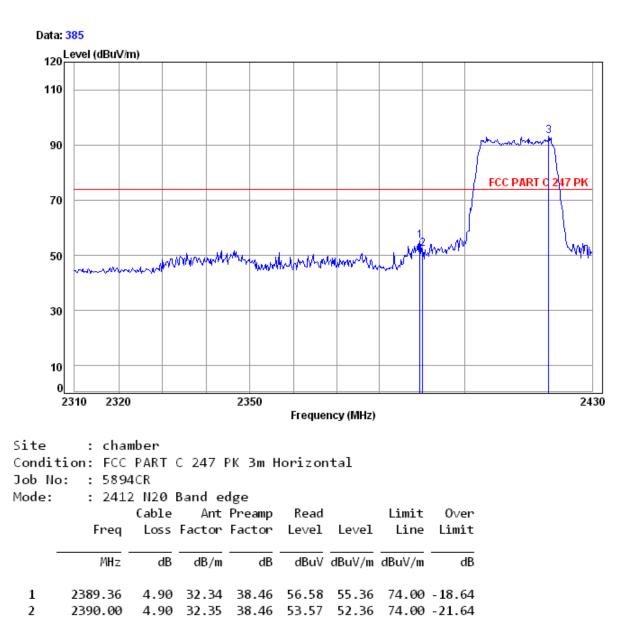
Worse case mode: 802.11n	HT20) Test channel:	802.11n(HT20)	Lowest	Remark:	Peak	Vertical
--------------------------	---------------------	---------------	--------	---------	------	----------



	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2387.91	4.90	32.33	38.46	67.22	65.99	74.00	-8.01
2	2390.00	4.90	32.35	38.46	65.27	64.06	74.00	-9.94
3 рр	2419.69	4.94	32.42	38.46	102.98	101.88	74.00	27.88

Report No.: SZEM141000589402 Page: 149 of 163

Worse case mode:	802.11n(HT20)	Test channel:	Lowest	Remark:	Peak	Horizontal
------------------	---------------	---------------	--------	---------	------	------------



"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. 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."

Зрр

2419.69

4.94

32.42

38.46

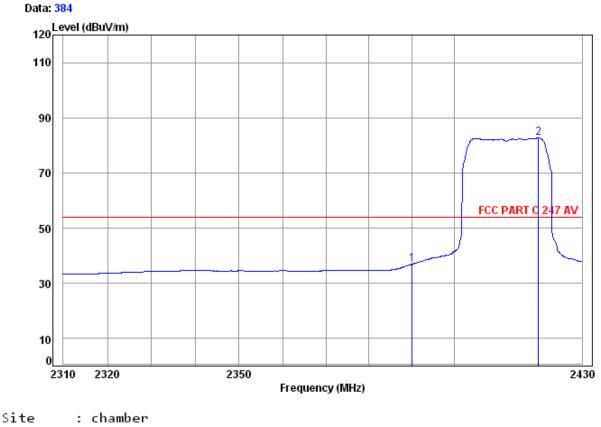
94.17

93.07

74.00 19.07

Report No.: SZEM141000589402 Page: 150 of 163

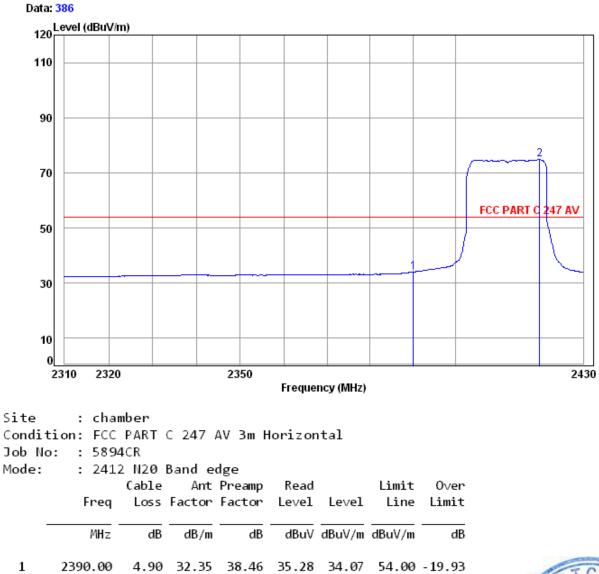
Worse case mode:	802.11n(HT20)	Test channel:	Lowest	Remark:	Average	Vertical
------------------	---------------	---------------	--------	---------	---------	----------

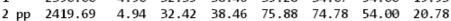


: char	nber						
on: FCC	PART	C 247 /	AV 3m V	ertica	1		
: 5894	1CR						
: 2412	2 N20 I	Band e	dge				
	Cable	Ant	Preamp	Read		Limit	0ver
Freq	Loss	Factor	Factor	Level	Level	Line	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
2390.00	4.90	32.35	38.46	38.02	36.81	54.00	-17.19
2419.69	4.94	32.42	38.46	83.75	82.65	54.00	28.65
	on: FCC : 5894 : 2412 Freq MHz 2390.00	: 5894CR : 2412 N20 Cable Freq Loss MHz dB 2390.00 4.90	on: FCC PART C 247 : 5894CR : 2412 N20 Band ed Cable Ant Freq Loss Factor MHz dB dB/m 2390.00 4.90 32.35	on: FCC PART C 247 AV 3m V : 5894CR : 2412 N20 Band edge Cable Ant Preamp Freq Loss Factor Factor MHz dB dB/m dB	on: FCC PART C 247 AV 3m Vertica : 5894CR : 2412 N20 Band edge Cable Ant Preamp Read Freq Loss Factor Factor Level MHz dB dB/m dB dBuV 2390.00 4.90 32.35 38.46 38.02	on: FCC PART C 247 AV 3m Vertical : 5894CR : 2412 N20 Band edge Cable Ant Preamp Read Freq Loss Factor Factor Level Level MHz dB dB/m dB dBuV dBuV/m 2390.00 4.90 32.35 38.46 38.02 36.81	on: FCC PART C 247 AV 3m Vertical : 5894CR : 2412 N20 Band edge Cable Ant Preamp Read Limit Freq Loss Factor Factor Level Level Line MHz dB dB/m dB dBuV dBuV/m dBuV/m

Report No.: SZEM141000589402 Page: 151 of 163

Worse case mode: 802.11n(HT20)	Test channel:	Lowest	Remark:	Average	Horizontal
--------------------------------	---------------	--------	---------	---------	------------

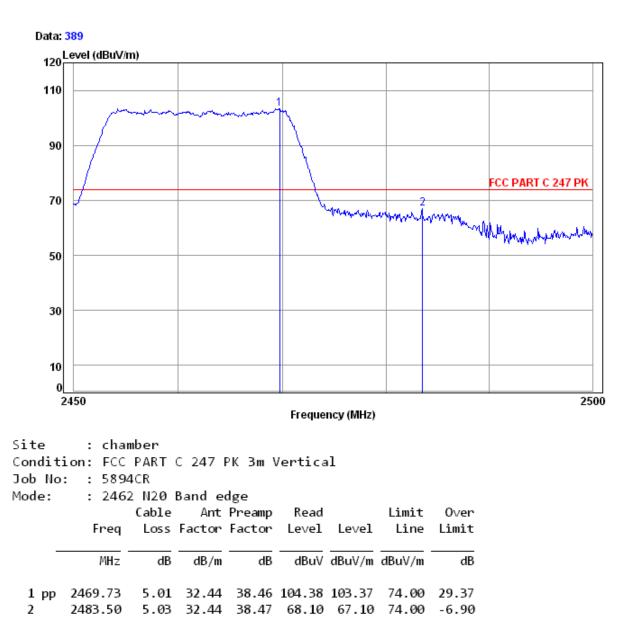






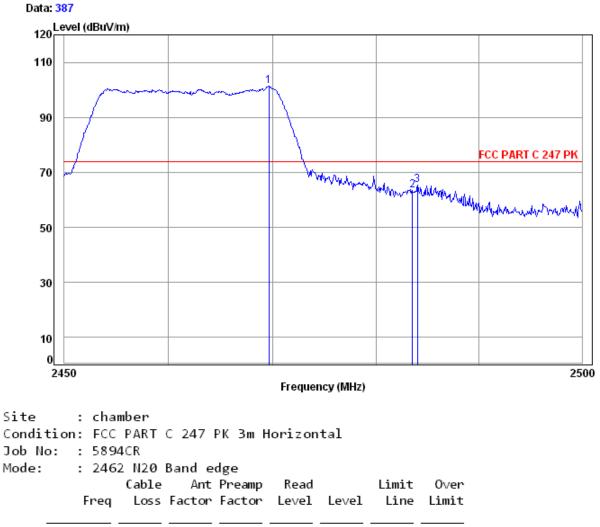
Report No.: SZEM141000589402 Page: 152 of 163

Worse case mode: 802.11n(HT20)	Test channel:	Highest	Remark:	Peak	Vertical
--------------------------------	---------------	---------	---------	------	----------



Report No.: SZEM141000589402 Page: 153 of 163

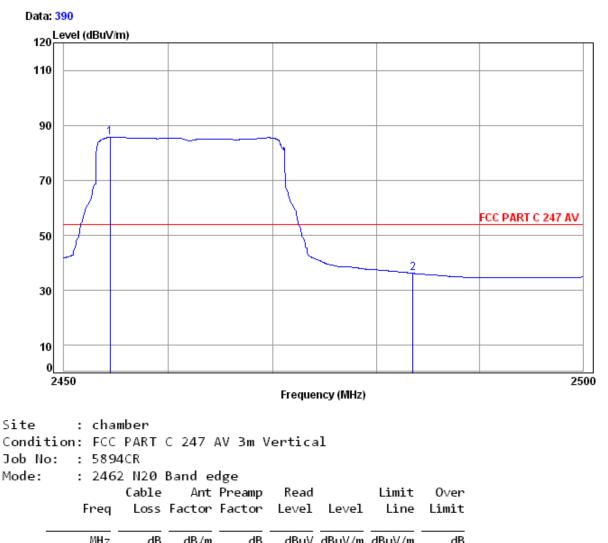
Worse case mode: 802.11n(HT2) Test channel:	Highest	Remark:	Peak	Horizontal
------------------------------	-----------------	---------	---------	------	------------



-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
2	2469.63 2483.50 2483.99	5.03	32.44	38.47	64.48	63.48	74.00	-10.52

Report No.: SZEM141000589402 Page: 154 of 163

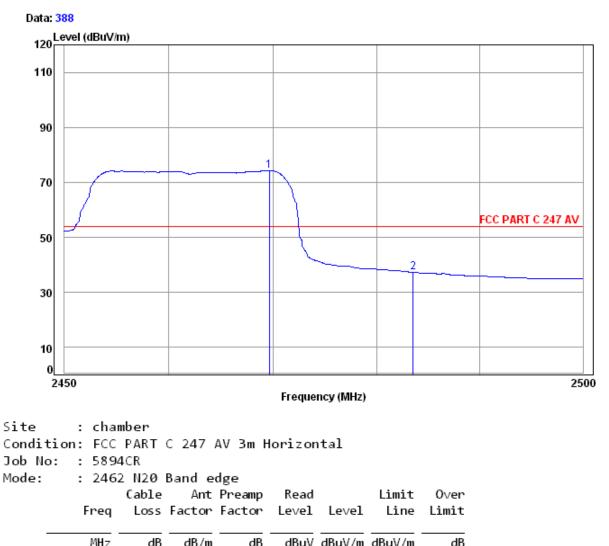
Worse case mode: 802.11n(HT20)	Test channel:	Highest	Remark:	Average	Vertical
--------------------------------	---------------	---------	---------	---------	----------



r1112	uD	ub/m	ub	ubuv	ubu v/m	ubuv/iii	ub
 2454.41 2483.50							

Report No.: SZEM141000589402 Page: 155 of 163

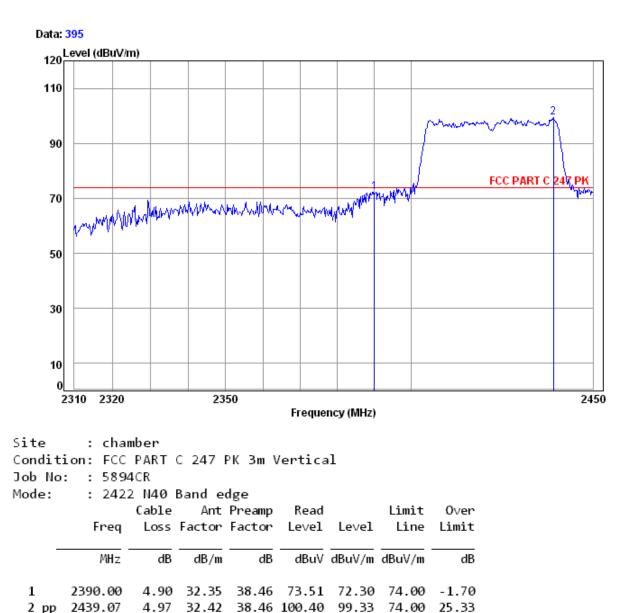
Worse case mode:	802.11n(HT20)	Test channel:	Highest	Remark:	Average	Horizontal
------------------	---------------	---------------	---------	---------	---------	------------



	7112	GD	GD/ III	ab	abav	abav/m	abav/m	ab
1 nn	2469.63	5 01	32 44	38 /6	75 33	74 31	5/ 00	20 31
түү	2409.05	5.01	52.44	50.40	75.52	74.51	54.00	20.51
2	2483.50	5 03	32 ///	38 /17	38 30	37 30	5/ 00	16 70
2	2405.50	5.05	52.44	50.47	50.50	57.50	54.00	-10.70

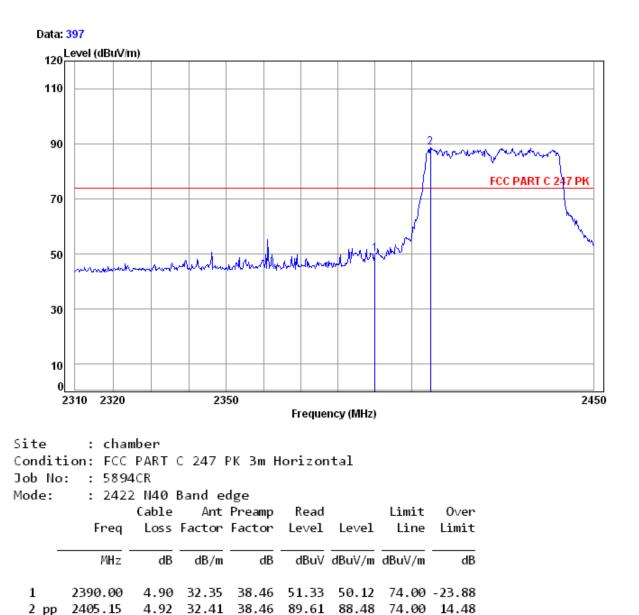
Report No.: SZEM141000589402 Page: 156 of 163

Worse case mode:	802.11n(HT40)	Test channel:	Lowest	Remark:	Peak	Vertical
------------------	---------------	---------------	--------	---------	------	----------



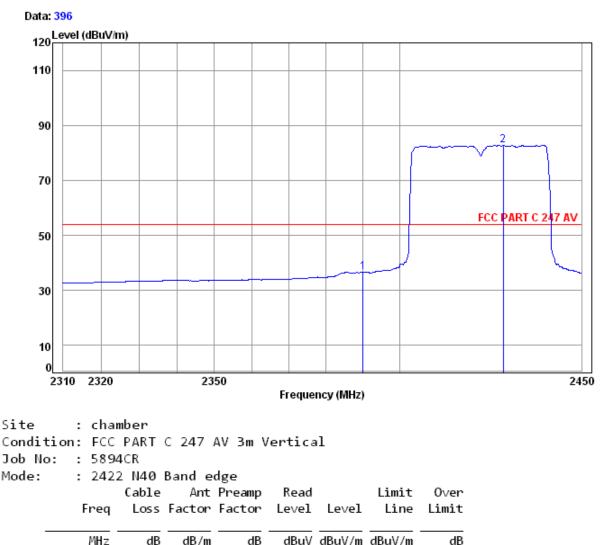
Report No.: SZEM141000589402 Page: 157 of 163

Worse case mode:	802.11n(HT40)	Test channel:	Lowest	Remark:	Peak	Horizontal
------------------	---------------	---------------	--------	---------	------	------------



Report No.: SZEM141000589402 Page: 158 of 163

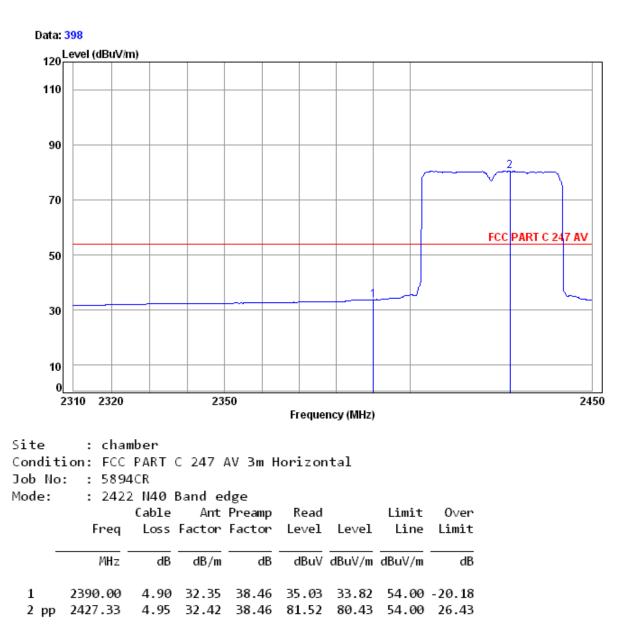
Worse case mode: 802.11n(HT40) Test cl	nannel: Lowest Remark:	Average Vertical
--	------------------------	------------------



1	2390.00	4.90	32.35	38.46	37.86	36.65	54.00	-17.35
2 pp	2428.33	4.95	32.42	38.46	83.82	82.73	54.00	28.73

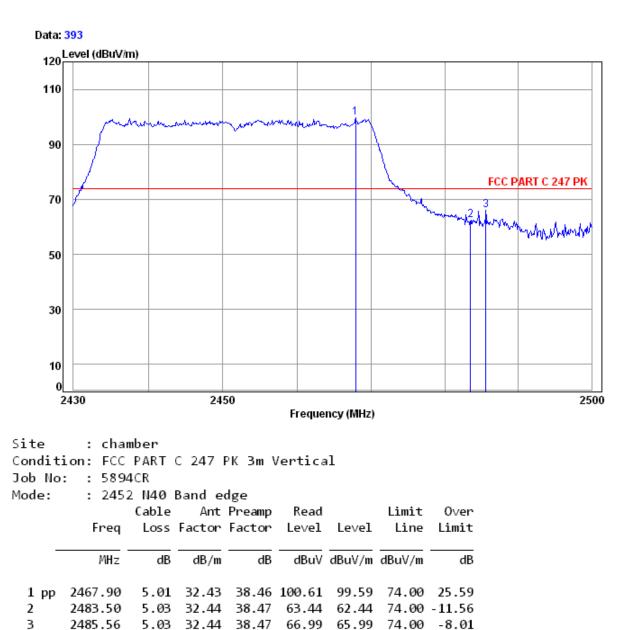
Report No.: SZEM141000589402 Page: 159 of 163

Worse case mode:	802.11n(HT40)	Test channel:	Lowest	Remark:	Average	Horizontal
------------------	---------------	---------------	--------	---------	---------	------------



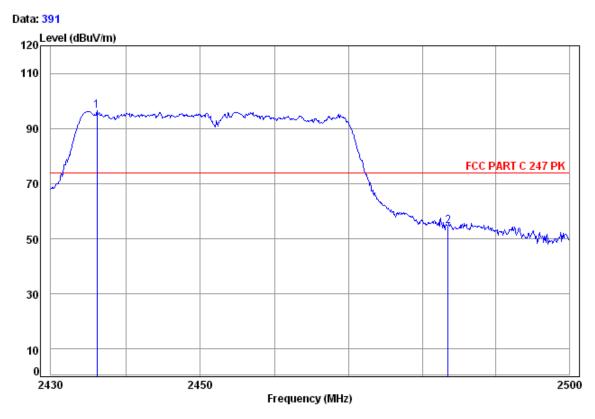
Report No.: SZEM141000589402 Page: 160 of 163

Worse case mode: 802.11n(HT40)	Test channel:	Highest	Remark:	Peak	Vertical
--------------------------------	---------------	---------	---------	------	----------



Report No.: SZEM141000589402 Page: 161 of 163

Worse case mode:	802.11n(HT40)	Test channel:	Highest	Remark:	Peak	Horizontal
------------------	---------------	---------------	---------	---------	------	------------

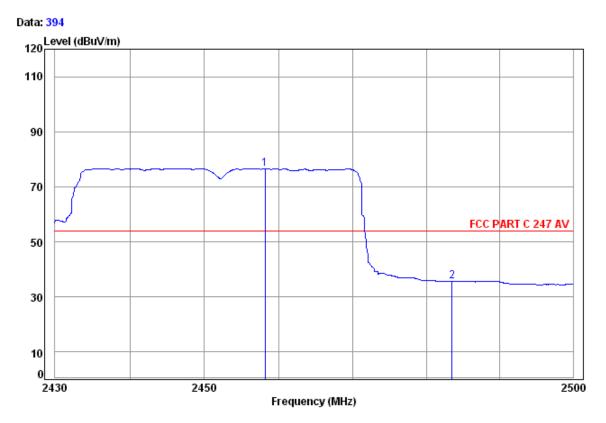


Site	: char	nber							
Condit	ion: FCC	PART	C 247	PK 3m H	orizor	ıtal			
Job No	: : 5894	4CR							
Mode:	: 2452	2 N40	Band e	dge					
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp 2	2436.15 2483.50			38.46 38.47				22.39 -19.53	



Report No.: SZEM141000589402 Page: 162 of 163

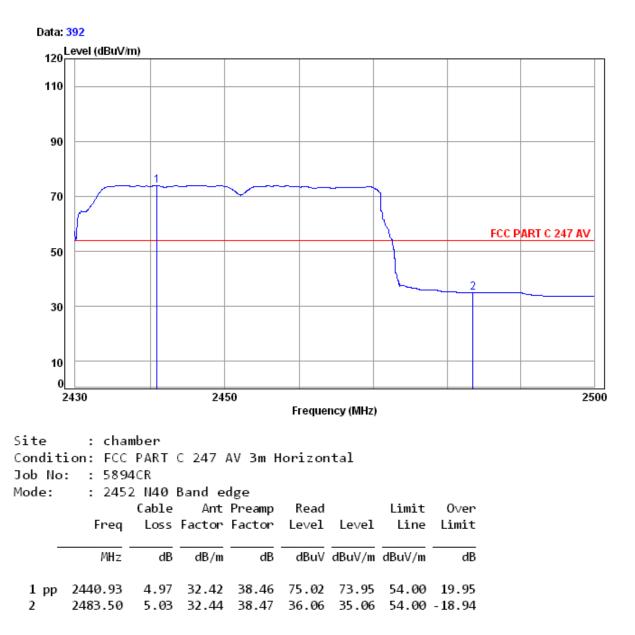
Worse case mode: 802.11n(HT40) Tes	channel: Highest	Remark:	Average	Vertical
------------------------------------	------------------	---------	---------	----------



Site	: char	nber						
Condit	ion: FCC	PART	C 247 /	AV 3m V	ertica	1		
Job No	: : 5894	4CR						
Mode:	: 2452	2 N40	Band e	dge				
		Cable	Ant	Preamp	Read		Limit	0∨er
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
_								
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	2458.18	4.99	32.43	38.46	77.70	76.66	54.00	22.66
2	2483.50	5.03	32.44	38.47	36.71	35.71	54.00	-18.29

Report No.: SZEM141000589402 Page: 163 of 163

Worse case mode: 802.11n(HT40	Test channel:	Highest	Remark:	Average	Horizontal
-------------------------------	---------------	---------	---------	---------	------------



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