



SGS-CSTC Standards Technical Services Ltd.

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.: SZEM141100618205
Page: 1 of 52

FCC REPORT

Application No: SZEM1411006182CR
Applicant: NVIDIA Corporation
Manufacturer: NVIDIA Corporation
Factory: MEGAFORCE CORP
Product Name: Development Platform
Model No.(EUT): P1860
Trade Mark: NVIDIA
FCC ID: VOB-P1860
Standards: 47 CFR Part 15, Subpart E (2014)
Date of Receipt: 2014-11-13
Date of Test: 2015-02-09 to 2015-02-15
Date of Issue: 2015-03-25

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.

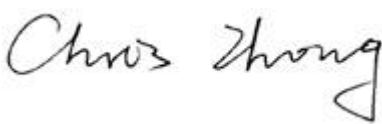
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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



2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2015-03-25		Original

Authorized for issue by:			
Tested By			2015-02-15
		(Chris Zhong) /Project Engineer	Date
Prepared By			2015-03-25
		(Vivi Zhou) /Clerk	Date
Checked By			2015-03-25
		(Owen Zhou) /Reviewer	Date



3 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Section 15.203	ANSI C63.10: 2009	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Section 15.207	ANSI C63.10: 2009	PASS
Duty Cycle	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	ANSI C63.10: 2009	--
Conducted Peak Output Power	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
6dB Occupied Bandwidth	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
26 dB Emission Bandwidth & 99% Occupied Bandwidth	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
Power Spectral Density	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
Radiated Spurious Emissions	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15 Section 15.407(b)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS





4 Contents

	Page
1 COVER PAGE	1
2 VERSION	2
3 TEST SUMMARY	3
4 CONTENTS	4
5 GENERAL INFORMATION	5
5.1 CLIENT INFORMATION	5
5.2 GENERAL DESCRIPTION OF EUT	5
5.3 TEST ENVIRONMENT AND MODE	7
5.4 DESCRIPTION OF SUPPORT UNITS	7
5.5 TEST LOCATION	8
5.6 TEST FACILITY.....	9
5.7 DEVIATION FROM STANDARDS.....	9
5.8 ABNORMALITIES FROM STANDARD CONDITIONS.....	9
5.9 OTHER INFORMATION REQUESTED BY THE CUSTOMER	9
5.10 EQUIPMENT LIST	10
6 TEST RESULTS AND MEASUREMENT DATA	13
6.1 ANTENNA REQUIREMENT	13
6.2 CONDUCTED EMISSIONS.....	14
6.3 DUTY CYCLE	16
6.4 CONDUCTED OUTPUT POWER.....	18
6.5 26dB EMISSION BANDWIDTH AND 99% OCCUPIED BANDWIDTH	20
6.6 6dB OCCUPY BANDWIDTH.....	22
6.7 POWER SPECTRAL DENSITY.....	24
6.8 RADIATED SPURIOUS EMISSIONS.....	26
6.8.1 Transmitter emission above 1GHz.....	29
6.9 RESTRICTED BANDS EDGE.....	45
7 PHOTOGRAPHS.....	47
7.1 CONDUCTED EMISSION TEST SETUP	47
7.2 RADIATED DISTURBANCE(30MHz-1GHz) TEST SETUP.....	49
7.3 RADIATED DISTURBANCE(ABOVE 1GHz) TEST SETUP.....	51
7.4 EUT CONSTRUCTIONAL DETAILS	52



5 General Information

5.1 Client Information

Applicant:	NVIDIA Corporation
Address of Applicant:	2701 San Tomas Expressway, Santa Clara, CA 95050, USA
Manufacturer:	NVIDIA Corporation
Address of Manufacturer:	2701 San Tomas Expressway, Santa Clara, CA 95050, USA
Factory:	MEGAFORCE CORP
Address of Factory:	2035 OTOOLE AVE, San Jose CA 95131-1301, USA

5.2 General Description of EUT

Product Name:	Development Platform
Model No.:	P1860
Trade Mark:	NVIDIA
Operation Frequency:	IEEE 802.11a/ n(HT20/40): 5150MHz to 5250MHz IEEE 802.11a/ n(HT20/40): 5725MHz to 5850MHz
Type of Modulation:	IEEE for 802.11a: OFDM(BPSK/QPSK/16QAM/64QAM) IEEE for 802.11n : OFDM(BPSK/QPSK/16QAM/64QAM)
Sample Type:	Mobile production
Product Description:	Development Platform
Antenna Type:	Integral
Antenna Gain:	4dBi
Number of transmitter chains	1
Power Supply:	Input: AC100-240V 50/60Hz 1.2A Output: DC12V 6.25A MAX
EUT Cables & Ports:	AC cable:140cm unshielded DC cable:120cm unshielded with 2 ferrite core. USB cable: 150cm shielded



Operation Frequency of channel			
Band I (5.15-5.25GHz)		Band IV(5.725-5.85 GHz)	
Channel	Frequency	Channel	Frequency
36	5180MHz	149	5745MHz
38	5190MHz	151	5755MHz
40	5200MHz	153	5765MHz
42	5210MHz	155	5775MHz
44	5220MHz	157	5785MHz
46	5230MHz	159	5795MHz
48	5240MHz	161	5805MHz
		165	5825MHz

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 802.11a/n(HT20):

Channel	Frequency	Channel	Frequency
36	5180MHz	149	5745
40	5200MHz	157	5785
48	5240MHz	165	5825

For 802.11 n(HT40):

Channel	Frequency	Channel	Frequency
38	5190MHz	151	5755
46	5230MHz	159	5795



5.3 Test Environment and Mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	52 % 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.

5.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.
PC	DELL(Linux operating system)	PP18L



Cable:

No.	Description	Length	Screen
C1	Keyboard cable	150cm	Unshielded
C2	Mouse cable	120cm	Unshielded
C3	HDD USB cable	15cm	Unshielded
C7	Earphone	120cm	Unshielded
C9	HDMI cable	150cm	Unshielded
C10	Laptop DC cable	50cm	Unshielded with 1 ferrite core
C11	MITSUBISHI Television AC cable	120cm	Unshielded
C13	PC AC cable	120cm	Unshielded

Support units			
No.	Description	Manufacturer	Model No.
E-1	MITSUBISHI Television	MITSUBISHI	AX025
E-3	Removable hard disk	Supply by client	N/A
E-5	PC	Lenovo	T430u
E-6	Headphone	Supply by client	Unshielded
E-7	Keyboard	DELL	SK-8115
E-8	Mouse	Lenovo	MO28UOL
E-10	PC adapter	Lenovo	92P1158
E-11	USB stick	SanDisk	4G

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.



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.

**5.10 Equipment List**

Conducted Emission					
Item	Test Equipment	Manufacturer	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	Shanghai Qixiang Meteorological Industry Factory	ZJ1-2B	SEL0103	2015-10-24
11	Barometer	Chang Chun Meteorological Industry Factory	DYM3	SEL0088	2015-05-16



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205
Page: 11 of 52

RE in Chamber					
Item	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 Meteorological Industry Factory	DYM3	SEL0088	2015-05-16
15	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2015-10-24
16	Humidity/ Temperature Indicator	Shanghai Qixiang Meteorological Industry Factory	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
20	Horn Antenna(26.5GHz-40GHz)	A.H.Systems, inc.	SAS-573	SEL0349	2016-03-20
21	Pre-amplifier(26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEL0350	2016-03-20
22	Spectrum Analyzer	Rohde & Schwarz	FSU43	SEL0270	2015-07-28

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



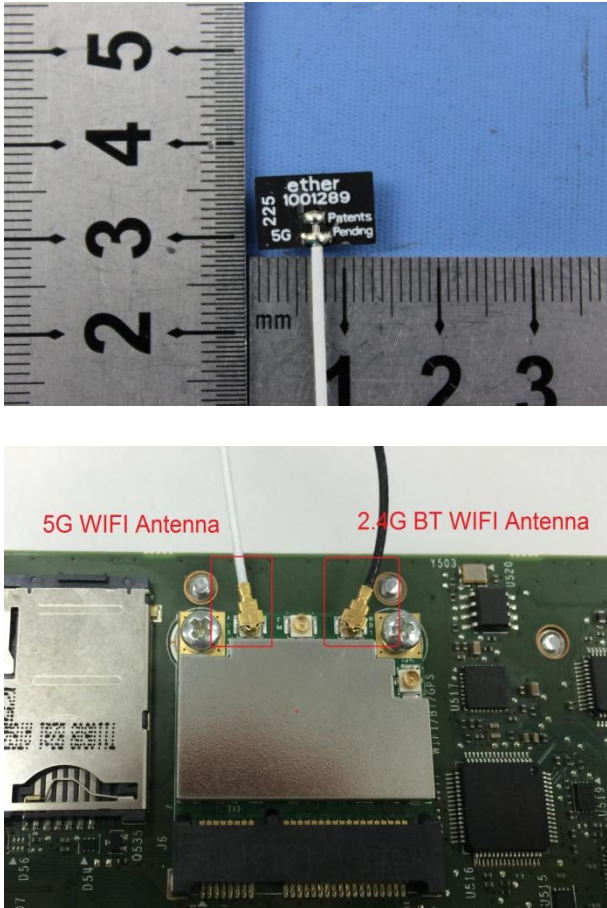
RF connected test					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)
1	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2015-10-24
2	Humidity/ Temperature Indicator	HYGRO	ZJ1-2B	SEL0033	2015-10-24
3	Spectrum Analyzer	Rohde & Schwarz	FSP	SEL0154	2015-10-24
4	Coaxial cable	SGS	N/A	SEL0178	2015-05-29
5	Coaxial cable	SGS	N/A	SEL0179	2015-05-29
6	Barometer	ChangChun Meteorological Industry Factory	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
12	Spectrum Analyzer	Rohde & Schwarz	FSU43	SEL0270	2015-07-28

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



6 Test results and Measurement Data

6.1 Antenna Requirement

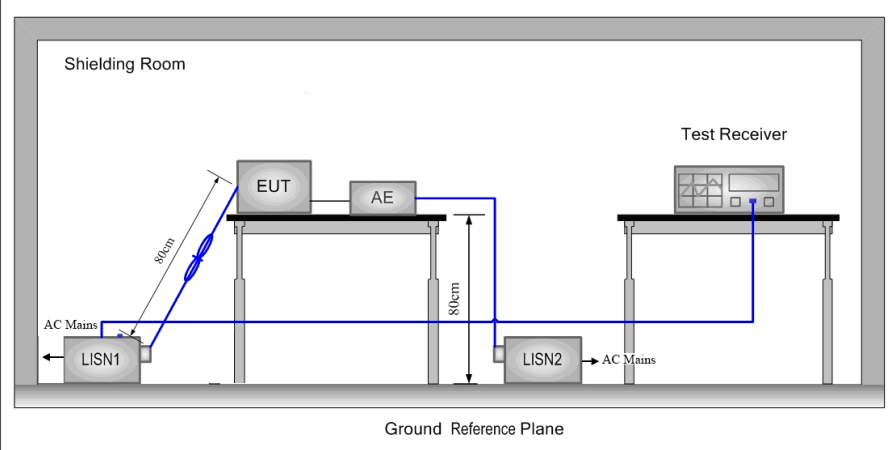
Standard requirement:	47 CFR Part 15C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
EUT Antenna:	
The antenna is integrated antenna and no consideration of replacement. The best case gain of the antenna is 4dBi.	





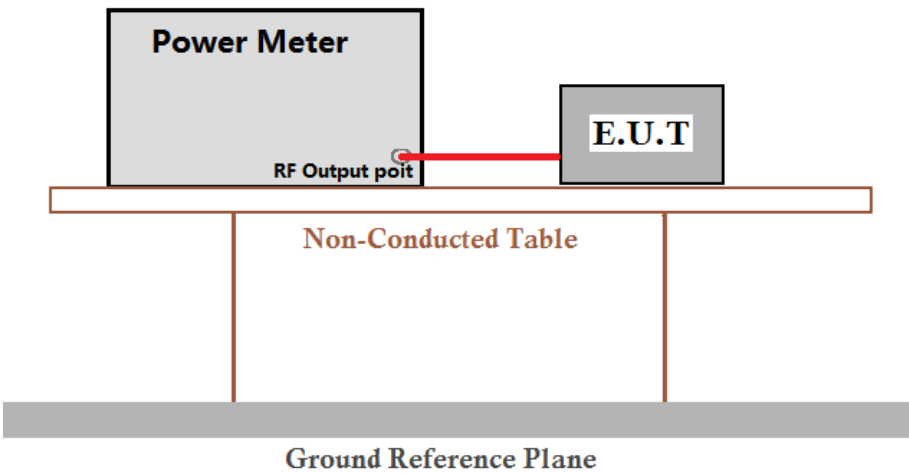
6.2 Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.207		
Test Method:	ANSI C63.10: 2009		
Test Frequency Range:	150kHz to 30MHz		
Limit:	Frequency range (MHz)	Limit (dBuV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
* Decreases with the logarithm of the frequency.			
Test Procedure:	1) The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu\text{H} + 5\Omega$ linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane. 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2009 on conducted measurement.		

Test Setup:	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates at lowest, middle and highest channel. Transmitting mode
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate of 802.11a at lowest channel is the worst case. Transmitting mode Only the worst case is recorded in the report.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass Remark: Please refer to the Appendix B.



6.3 Duty Cycle

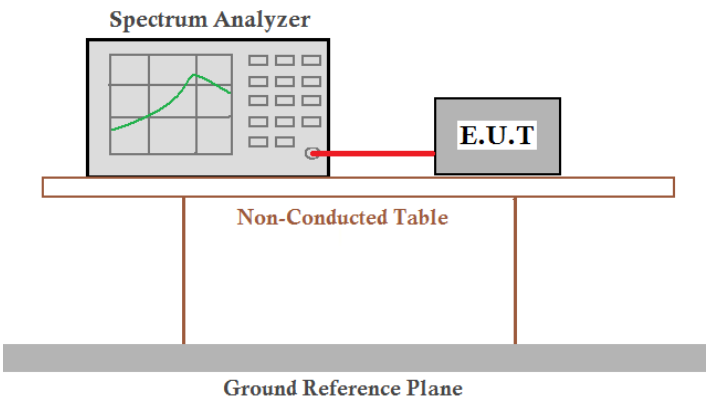
Test Requirement:	47 CFR Part 15C 15.407 and 789033 D02 General UNII Test Procedures New Rules v01, Section (B)
Test Method:	ANSI C63.10: 2009
Test Setup:	 The diagram illustrates the test setup. A Power Meter is connected to an E.U.T. (Equipment Under Test) via an RF Output port. Both the Power Meter and the E.U.T. are placed on a Non-Conducted Table. The table is supported by two vertical legs. Below the table is a Ground Reference Plane.
Limit:	N/A
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40).
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass
	Remark: Please refer to the Appendix B.



Measurement Data

802.11a mode			
Test channel	On time	Period	Duty Cycle
36	100	100	1
802.11n(HT20) mode			
Test channel	On time	Period	Duty Cycle
36	100	100	1
802.11n(HT40) mode			
Test channel	On time	Period	Duty Cycle
38	100	100	1

6.4 Conducted Output Power

Test Requirement:	47 CFR Part 15C Section 15.407 (a)
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v01 Section E, 3, a
Test Setup:	 <i>Remark:</i> 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 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40). Only the worst case is recorded in the report.
Limit:	For 5.15GHz~5.25GHz band:24dBm For 5.725GHz~5.85GHz band:30dBm
Test Results:	Pass <i>Remark:</i> 1. Please refer to the Attachment B. 2. Conducted output power= measurement power+10log(1/x) X is duty cycle=1, so 10log(1/1)=0 Conducted output power= measurement power

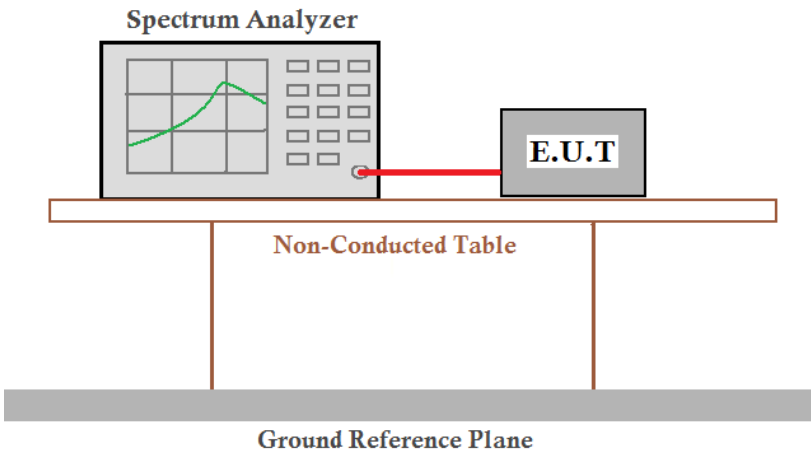
**Measurement Data of band I(5150-5250MHz)**

802.11a mode			
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result
36	6.20	24.00	Pass
40	6.27	24.00	Pass
48	5.77	24.00	Pass
802.11n(HT20) mode			
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result
36	6.01	24.00	Pass
40	6.05	24.00	Pass
48	5.59	24.00	Pass
802.11n(HT40) mode			
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result
38	4.34	24.00	Pass
46	3.78	24.00	Pass

Measurement Data of band IV(5725-5850MHz)

802.11a mode			
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result
149	5.28	30.00	Pass
157	6.00	30.00	Pass
165	6.07	30.00	Pass
802.11n(HT20) mode			
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result
149	5.31	30.00	Pass
157	6.04	30.00	Pass
165	5.81	30.00	Pass
802.11n(HT40) mode			
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result
151	4.68	30.00	Pass
159	4.85	30.00	Pass

6.5 26dB Emission Bandwidth and 99% Occupied Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.407 (a)
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v01 Section C, 1 and Section D
Test Setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T (Equipment Under Test) via a red cable. Both are placed on a Non-Conducted Table, which is supported by two vertical legs. Below the table is a 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 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40). Only the worst case is recorded in the report.
Limit:	No restriction limits
Test Results:	Pass
	Remark: Please refer to the Appendix B.

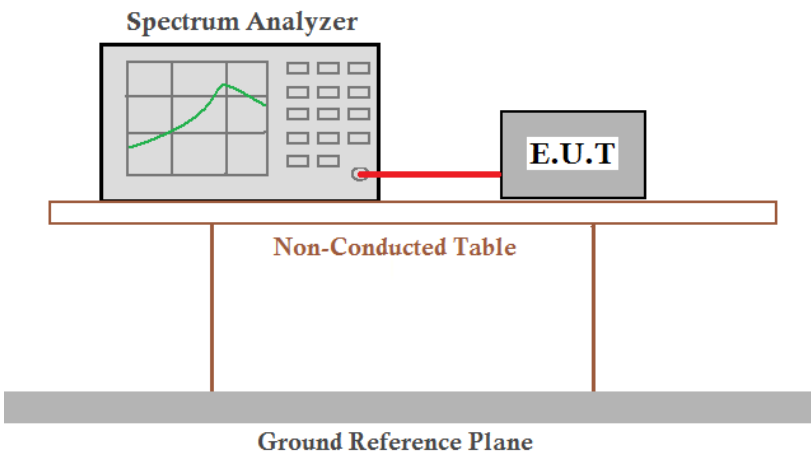
**Measurement Data of band I(5150-5250MHz)**

802.11a mode		
Test channel	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	19.808	16.442
40	19.567	16.442
48	19.519	16.442
802.11n(HT20) mode		
Test channel	26dB Occupy Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	19.856	17.452
40	19.904	17.452
48	19.808	17.452
802.11n(HT40) mode		
Test channel	26dB Occupy Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	41.106	36.538
46	41.106	36.538

Measurement Data of band IV(5725-5850MHz)

802.11a mode		
Test channel	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
149	19.519	16.442
157	19.712	16.442
165	19.615	16.442
802.11n(HT20) mode		
Test channel	26dB Occupy Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
149	19.808	17.452
157	19.856	17.452
165	19.760	17.452
802.11n(HT40) mode		
Test channel	26dB Occupy Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
151	41.026	36.458
159	41.186	36.538

6.6 6dB Occupy Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.407 (e)
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v01 Section C, 2
Test Setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T are placed on a Non-Conducted Table. The table is supported by two vertical legs. Below the table is a 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 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40). Only the worst case is recorded in the report.
Limit:	≥ 500 kHz
Test Results:	Pass Remark: Please refer to the Appendix B.

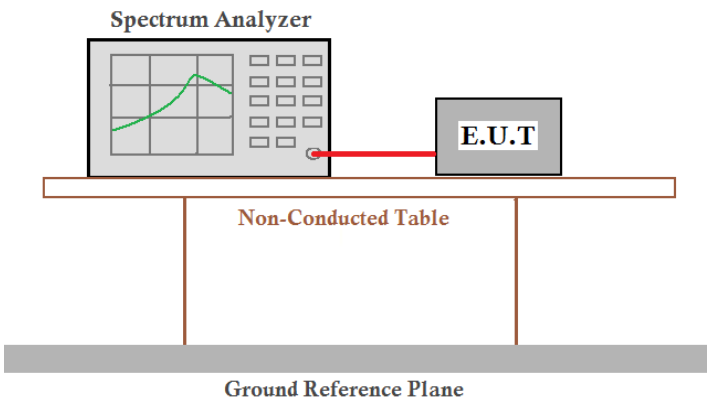


Measurement Data of band IV(5725-5850MHz)

802.11a mode			
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
149	16.442	≥500	Pass
157	16.490	≥500	Pass
165	16.490	≥500	Pass
802.11n(HT20) mode			
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
149	17.019	≥500	Pass
157	17.067	≥500	Pass
165	17.067	≥500	Pass
802.11n(HT40) mode			
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
151	36.619	≥500	Pass
159	36.603	≥500	Pass



6.7 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.407 (a)
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v01, Section F
Test Setup:	 <i>Remark:</i> 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 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40). Only the worst case is recorded in the report.
Limit:	$\leq 11.00\text{dBm/MHz}$ for Operation in the band I(5150MHz-5250MHz)of device $\leq 30.00\text{dBm/500KHz}$ for Operation in the band IV(5725MHz-5850MHz)of device
Test Results:	Pass <i>Remark:</i> Please refer to the Appendix B.

**Measurement Data of Band I (5150-5250MHz)**

802.11a mode			
Test channel	Power Spectral Density (dBm/MHz)	Limit (11dBm/MHz)	Result
36	4.32	≤11.00/MHz	Pass
40	4.07	≤11.00/MHz	Pass
48	4.08	≤11.00/MHz	Pass
802.11n(HT20) mode			
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result
36	4.37	≤11.00/MHz	Pass
40	4.25	≤11.00/MHz	Pass
48	4.32	≤11.00/MHz	Pass
802.11n(HT40) mode			
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result
38	-0.15	≤11.00/MHz	Pass
46	-0.78	≤11.00/MHz	Pass

Measurement Data of Band IV (5725-5850MHz)

802.11a mode			
Test channel	Power Spectral Density (dBm/MHz)	Limit (30dBm/MHz)	Result
149	4.08	≤30dBm	Pass
157	4.44	≤30dBm	Pass
165	4.59	≤30dBm	Pass
802.11n(HT20) mode			
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result
149	3.48	≤30dBm	Pass
157	4.03	≤30dBm	Pass
165	3.97	≤30dBm	Pass
802.11n(HT40) mode			
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result
151	0.24	≤30dBm	Pass
159	0.39	≤30dBm	Pass

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



6.8 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.407 (b) and 15.205 and 15.209				
Test Method:	ANSI C63.10: 2009				
Test Site:	Measurement Distance: 3m (Semi-Anechoic 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 1GHz	Peak	1MHz	3MHz	Peak
		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
	Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.				

Test Setup:

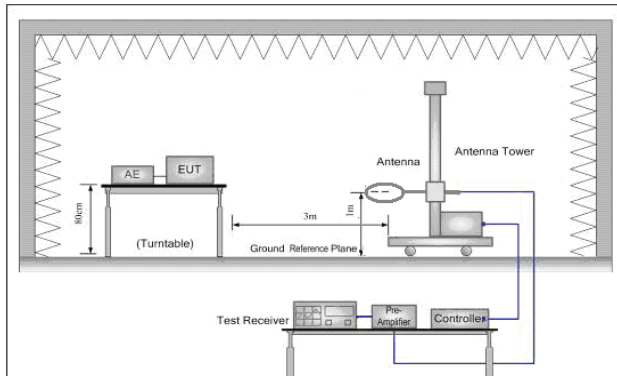


Figure 1. Below 30MHz

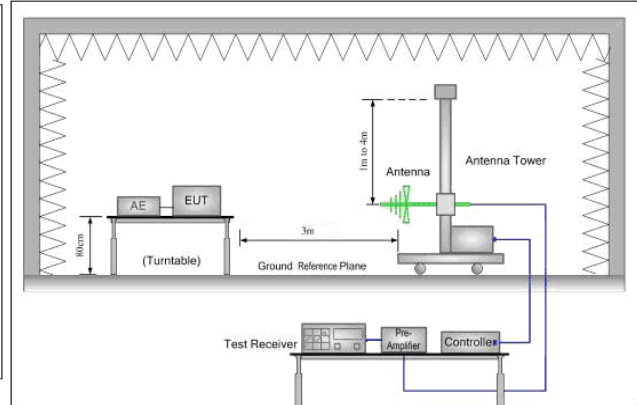


Figure 2. 30MHz to 1GHz

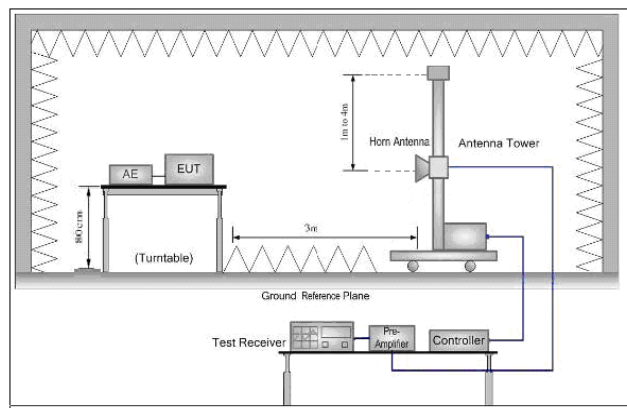


Figure 3. Above 1 GHz

Test Procedure:

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the middle channel, the Highest



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 28 of 52

	channel h. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO 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

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



6.8.1 Transmitter emission above 1GHz

Test mode:		802.11a		Test channel:		36		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			
1547.199	4.20	26.30	34.70	48.40	44.20	74	-29.80	Vertical			
3186.869	5.50	32.10	35.10	45.40	47.90	74	-26.10	Vertical			
6414.166	8.00	34.90	33.70	43.90	53.10	74	-20.90	Vertical			
7541.114	8.80	36.10	34.00	45.00	55.90	74	-18.10	Vertical			
10360.000	11.40	37.40	31.60	40.00	57.20	74	-16.80	Vertical			
15540.000	15.40	41.10	32.60	36.10	60.00	74	-14.00	Vertical			
1813.786	5.00	26.90	34.90	47.60	44.60	74	-29.40	Horizontal			
3159.355	5.40	32.10	35.20	46.40	48.70	74	-25.30	Horizontal			
6874.906	8.40	35.40	33.80	43.90	53.90	74	-20.10	Horizontal			
9613.357	11.10	37.20	32.50	43.30	59.10	74	-14.90	Horizontal			
10360.000	11.40	37.40	31.60	44.80	62.00	74	-12.00	Horizontal			
15540.000	15.40	41.10	32.60	38.50	62.40	74	-11.60	Horizontal			

Test mode:		802.11a		Test channel:		36		Remark:		Average	
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			
1547.199	4.20	26.30	34.70	33.30	29.10	54	-24.90	Vertical			
3186.869	5.50	32.10	35.10	33.00	35.50	54	-18.50	Vertical			
6414.166	8.00	34.90	33.70	32.10	41.30	54	-12.70	Vertical			
7541.114	8.80	36.10	34.00	32.40	43.30	54	-10.70	Vertical			
10360.000	11.40	37.40	31.60	28.00	45.20	54	-8.80	Vertical			
15540.000	15.40	41.10	32.60	23.70	47.60	54	-6.40	Vertical			
1813.786	5.00	26.90	34.90	31.70	28.70	54	-25.30	Horizontal			
3159.355	5.40	32.10	35.20	33.20	35.50	54	-18.50	Horizontal			
6874.906	8.40	35.40	33.80	31.50	41.50	54	-12.50	Horizontal			
9613.357	11.10	37.20	32.50	29.60	45.40	54	-8.60	Horizontal			
10360.000	11.40	37.40	31.60	29.00	46.20	54	-7.80	Horizontal			
15540.000	15.40	41.10	32.60	23.90	47.80	54	-6.20	Horizontal			

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 30 of 52

Test mode:		802.11a		Test channel:		40		Remark:		Peak	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1547.395	4.20	26.30	34.70	49.00	44.80	74	-29.20	Vertical			
3186.521	5.50	32.00	35.10	44.10	46.50	74	-27.50	Vertical			
6415.236	8.00	34.90	33.60	42.80	52.10	74	-21.90	Vertical			
7541.896	8.80	36.10	34.00	45.40	56.30	74	-17.70	Vertical			
10400.000	11.40	37.40	31.60	40.10	57.30	74	-16.70	Vertical			
15600.000	15.60	41.10	32.60	36.10	60.20	74	-13.80	Vertical			
1812.759	5.00	26.90	34.80	49.40	46.50	74	-27.50	Horizontal			
3158.652	5.50	32.10	35.20	47.10	49.50	74	-24.50	Horizontal			
6874.526	8.50	35.40	33.80	43.70	53.80	74	-20.20	Horizontal			
9613.652	11.10	37.20	32.50	42.40	58.20	74	-15.80	Horizontal			
10400.000	11.40	37.40	31.60	44.30	61.50	74	-12.50	Horizontal			
15600.000	15.60	41.10	32.60	38.00	62.10	74	-11.90	Horizontal			

Test mode:		802.11a		Test channel:		40		Remark:		Average	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1547.395	4.20	26.30	34.70	34.40	30.20	54	-23.80	Vertical			
3186.521	5.50	32.00	35.10	32.80	35.20	54	-18.80	Vertical			
6415.236	8.00	34.90	33.60	31.60	40.90	54	-13.10	Vertical			
7541.896	8.80	36.10	34.00	33.00	43.90	54	-10.10	Vertical			
10400.000	11.40	37.40	31.60	27.90	45.10	54	-8.90	Vertical			
15600.000	15.60	41.10	32.60	22.80	46.90	54	-7.10	Vertical			
1812.759	5.00	26.90	34.80	32.70	29.80	54	-24.20	Horizontal			
3158.652	5.50	32.10	35.20	33.70	36.10	54	-17.90	Horizontal			
6874.526	8.50	35.40	33.80	31.30	41.40	54	-12.60	Horizontal			
9613.652	11.10	37.20	32.50	29.10	44.90	54	-9.10	Horizontal			
10400.000	11.40	37.40	31.60	29.00	46.20	54	-7.80	Horizontal			
15600.000	15.60	41.10	32.60	23.50	47.60	54	-6.40	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 31 of 52

Test mode:		802.11a		Test channel:		48		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			
1654.256	4.70	26.40	34.80	48.00	44.30	74	-29.70	Vertical			
3845.269	5.60	33.30	35.50	44.80	48.20	74	-25.80	Vertical			
6545.287	8.20	35.40	33.60	43.30	53.30	74	-20.70	Vertical			
7542.225	8.80	36.10	34.00	45.30	56.20	74	-17.80	Vertical			
10480.000	11.40	37.40	31.60	39.10	56.30	74	-17.70	Vertical			
15720.000	16.00	41.10	32.60	35.70	60.20	74	-13.80	Vertical			
1814.526	5.00	26.90	34.80	47.70	44.80	74	-29.20	Horizontal			
3256.235	5.60	32.00	34.90	46.50	49.20	74	-24.80	Horizontal			
6956.325	8.40	35.50	33.90	44.10	54.10	74	-19.90	Horizontal			
9254.236	10.40	37.10	33.00	43.70	58.20	74	-15.80	Horizontal			
10480.000	11.40	37.40	31.60	44.00	61.20	74	-12.80	Horizontal			
15720.000	16.00	41.10	32.60	37.40	61.90	74	-12.10	Horizontal			

Test mode:		802.11a		Test channel:		48		Remark:		Average	
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			
1654.256	4.70	26.40	34.80	33.00	29.30	54	-24.70	Vertical			
3845.269	5.60	33.30	35.50	32.70	36.10	54	-17.90	Vertical			
6545.287	8.20	35.40	33.60	32.50	42.50	54	-11.50	Vertical			
7542.225	8.80	36.10	34.00	32.70	43.60	54	-10.40	Vertical			
10480.000	11.40	37.40	31.60	27.30	44.50	54	-9.50	Vertical			
15720.000	16.00	41.10	32.60	23.20	47.70	54	-6.30	Vertical			
1814.526	5.00	26.90	34.80	31.80	28.90	54	-25.10	Horizontal			
3256.235	5.60	32.00	34.90	33.40	36.10	54	-17.90	Horizontal			
6956.325	8.40	35.50	33.90	31.60	41.60	54	-12.40	Horizontal			
9254.236	10.40	37.10	33.00	30.30	44.80	54	-9.20	Horizontal			
10480.000	11.40	37.40	31.60	28.40	45.60	54	-8.40	Horizontal			
15720.000	16.00	41.10	32.60	22.80	47.30	54	-6.70	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205
Page: 32 of 52

Test mode:		802.11a		Test channel:		149		Remark:	Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamplifier factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization	
1547.202	4.20	26.30	34.70	48.50	44.30	74	-29.70	Vertical	
3186.689	5.50	32.00	35.10	45.40	47.80	74	-26.20	Vertical	
6414.521	8.00	34.90	33.60	43.90	53.20	74	-20.80	Vertical	
7449.568	8.70	35.80	34.00	44.40	54.90	74	-19.10	Vertical	
11490.000	12.30	37.60	31.60	37.90	56.20	74	-17.80	Vertical	
17400.000	17.20	43.30	31.00	30.30	59.80	74	-14.20	Vertical	
1813.665	5.00	26.90	34.80	48.30	45.40	74	-28.60	Horizontal	
3159.655	5.50	32.10	35.20	46.20	48.60	74	-25.40	Horizontal	
6845.741	8.50	35.30	33.80	43.80	53.80	74	-20.20	Horizontal	
9613.542	11.10	37.20	32.50	42.80	58.60	74	-15.40	Horizontal	
11490.000	12.30	37.60	31.60	42.90	61.20	74	-12.80	Horizontal	
17235.000	17.10	42.90	30.30	32.70	62.40	74	-11.60	Horizontal	

Test mode:		802.11a		Test channel:		149		Remark:	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamplifier factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization	
1547.202	4.20	26.30	34.70	33.40	29.20	54	-24.80	Vertical	
3186.689	5.50	32.00	35.10	33.00	35.40	54	-18.60	Vertical	
6414.521	8.00	34.90	33.60	32.10	41.40	54	-12.60	Vertical	
7449.568	8.70	35.80	34.00	32.30	42.80	54	-11.20	Vertical	
11490.000	12.30	37.60	31.60	26.20	44.50	54	-9.50	Vertical	
17400.000	17.20	43.30	31.00	17.70	47.20	54	-6.80	Vertical	
1813.665	5.00	26.90	34.80	31.80	28.90	54	-25.10	Horizontal	
3159.655	5.50	32.10	35.20	33.00	35.40	54	-18.60	Horizontal	
6845.741	8.50	35.30	33.80	31.40	41.40	54	-12.60	Horizontal	
9613.542	11.10	37.20	32.50	29.50	45.30	54	-8.70	Horizontal	
11490.000	12.30	37.60	31.60	27.20	45.50	54	-8.50	Horizontal	
17235.000	17.10	42.90	30.30	19.10	48.80	54	-5.20	Horizontal	

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 33 of 52

Test mode:		802.11a		Test channel:		157		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			
1548.192	4.20	26.30	34.70	47.40	43.20	74	-30.80	Vertical			
3188.256	5.50	32.00	35.10	45.40	47.80	74	-26.20	Vertical			
6414.166	8.00	34.90	33.60	43.50	52.80	74	-21.20	Vertical			
7542.122	8.80	36.10	34.00	43.90	54.80	74	-19.20	Vertical			
11600.000	12.40	37.70	31.60	38.40	56.90	74	-17.10	Vertical			
17400.000	17.20	43.30	31.00	29.40	58.90	74	-15.10	Vertical			
1813.254	5.00	26.90	34.80	47.10	44.20	74	-29.80	Horizontal			
3155.251	5.40	32.10	35.20	45.60	47.90	74	-26.10	Horizontal			
6994.112	8.30	35.60	34.00	44.20	54.10	74	-19.90	Horizontal			
9612.502	11.10	37.20	32.50	42.80	58.60	74	-15.40	Horizontal			
11600.000	12.40	37.70	31.60	42.70	61.20	74	-12.80	Horizontal			
17400.000	17.20	43.30	31.00	32.30	61.80	74	-12.20	Horizontal			

Test mode:		802.11a		Test channel:		157		Remark:		Average	
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			
1548.192	4.20	26.30	34.70	33.70	29.50	54	-24.50	Vertical			
3188.256	5.50	32.00	35.10	33.20	35.60	54	-18.40	Vertical			
6414.166	8.00	34.90	33.60	32.00	41.30	54	-12.70	Vertical			
7542.122	8.80	36.10	34.00	32.00	42.90	54	-11.10	Vertical			
11600.000	12.40	37.70	31.60	26.30	44.80	54	-9.20	Vertical			
17400.000	17.20	43.30	31.00	16.30	45.80	54	-8.20	Vertical			
1813.254	5.00	26.90	34.80	31.80	28.90	54	-25.10	Horizontal			
3155.251	5.40	32.10	35.20	32.80	35.10	54	-18.90	Horizontal			
6994.112	8.30	35.60	34.00	31.70	41.60	54	-12.40	Horizontal			
9612.502	11.10	37.20	32.50	29.30	45.10	54	-8.90	Horizontal			
11600.000	12.40	37.70	31.60	26.80	45.30	54	-8.70	Horizontal			
17400.000	17.20	43.30	31.00	17.60	47.10	54	-6.90	Horizontal			



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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 34 of 52

Test mode:		802.11a		Test channel:		165		Remark:		Peak	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1574.652	4.30	26.40	34.80	48.40	44.30	74	-29.70	Vertical			
3521.120	5.30	32.30	35.40	45.00	47.20	74	-26.80	Vertical			
6992.111	8.30	35.60	34.00	44.30	54.20	74	-19.80	Vertical			
8542.126	9.60	36.60	33.70	42.70	55.20	74	-18.80	Vertical			
11650.000	12.50	37.60	31.70	38.70	57.10	74	-16.90	Vertical			
17475.000	17.30	43.40	31.30	30.20	59.60	74	-14.40	Vertical			
1812.225	5.00	26.90	34.90	47.20	44.20	74	-29.80	Horizontal			
3255.241	5.60	32.00	34.90	45.80	48.50	74	-25.50	Horizontal			
6954.251	8.40	35.50	33.90	43.80	53.80	74	-20.20	Horizontal			
9856.231	11.20	37.30	32.10	42.20	58.60	74	-15.40	Horizontal			
11650.000	12.50	37.60	31.70	43.70	62.10	74	-11.90	Horizontal			
17475.000	17.30	43.40	31.30	33.10	62.50	74	-11.50	Horizontal			

Test mode:		802.11a		Test channel:		165		Remark:		Average	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1574.652	4.30	26.40	34.80	33.90	29.80	54	-24.20	Vertical			
3521.120	5.30	32.30	35.40	32.70	34.90	54	-19.10	Vertical			
6992.111	8.30	35.60	34.00	32.60	42.50	54	-11.50	Vertical			
8542.126	9.60	36.60	33.70	30.40	42.90	54	-11.10	Vertical			
11650.000	12.50	37.60	31.70	26.70	45.10	54	-8.90	Vertical			
17475.000	17.30	43.40	31.30	17.80	47.20	54	-6.80	Vertical			
1812.225	5.00	26.90	34.90	31.90	28.90	54	-25.10	Horizontal			
3255.241	5.60	32.00	34.90	32.50	35.20	54	-18.80	Horizontal			
6954.251	8.40	35.50	33.90	31.20	41.20	54	-12.80	Horizontal			
9856.231	11.20	37.30	32.10	28.70	45.10	54	-8.90	Horizontal			
11650.000	12.50	37.60	31.70	27.90	46.30	54	-7.70	Horizontal			
17475.000	17.30	43.40	31.30	18.50	47.90	54	-6.10	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 35 of 52

Test mode:		802.11n(HT20)		Test channel:		36		Remark:		Peak	
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
1568.258	4.30	26.40	34.80	48.20	44.10	74	-29.90	Vertical			
3255.236	5.60	32.00	34.90	44.50	47.20	74	-26.80	Vertical			
6636.332	8.40	35.40	33.70	43.70	53.80	74	-20.20	Vertical			
7695.236	9.20	36.30	33.80	43.10	54.80	74	-19.20	Vertical			
10360.000	11.30	37.40	31.70	39.20	56.20	74	-17.80	Vertical			
15540.000	15.40	41.00	32.60	35.50	59.30	74	-14.70	Vertical			
1845.255	5.00	27.10	34.80	46.90	44.20	74	-29.80	Horizontal			
3669.352	5.40	32.60	35.50	46.70	49.20	74	-24.80	Horizontal			
7254.254	8.70	35.80	33.80	41.80	52.50	74	-21.50	Horizontal			
9532.236	11.00	37.20	32.80	43.20	58.60	74	-15.40	Horizontal			
10360.000	11.30	37.40	31.70	45.20	62.20	74	-11.80	Horizontal			
15540.000	15.40	41.00	32.60	38.70	62.50	74	-11.50	Horizontal			

Test mode:		802.11n(HT20)		Test channel:		36		Remark:		Average	
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			
1658.258	4.70	26.40	34.80	33.00	29.30	54	-24.70	Vertical			
3255.236	5.60	32.00	34.90	32.50	35.20	54	-18.80	Vertical			
6636.332	8.40	35.40	33.70	32.00	42.10	54	-11.90	Vertical			
7695.236	9.20	36.30	33.80	31.10	42.80	54	-11.20	Vertical			
10360.000	11.30	37.40	31.70	27.80	44.80	54	-9.20	Vertical			
15540.000	15.40	41.00	32.60	23.10	46.90	54	-7.10	Vertical			
1845.255	5.00	27.10	34.80	31.60	28.90	54	-25.10	Horizontal			
3669.352	5.40	32.60	35.50	32.60	35.10	54	-18.90	Horizontal			
7254.254	8.70	35.80	33.80	30.20	40.90	54	-13.10	Horizontal			
9532.236	11.00	37.20	32.80	29.70	45.10	54	-8.90	Horizontal			
10360.000	11.30	37.40	31.70	29.10	46.10	54	-7.90	Horizontal			
15540.000	15.40	41.00	32.60	24.10	47.90	54	-6.10	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 36 of 52

Test mode:		802.11n(HT20)	Test channel:		40		Remark:	Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization
1554.258	4.20	26.40	34.70	48.20	44.10	74	-29.90	Vertical
3188.259	5.50	32.00	35.10	45.10	47.50	74	-26.50	Vertical
6415.286	8.00	34.90	33.60	43.60	52.90	74	-21.10	Vertical
7656.325	9.10	36.30	33.90	44.10	55.60	74	-18.40	Vertical
10400.000	11.40	37.40	31.60	39.60	56.80	74	-17.20	Vertical
15600.000	15.60	41.10	32.60	35.50	59.60	74	-14.40	Vertical
1845.256	5.00	27.10	34.80	47.50	44.80	74	-29.20	Horizontal
3655.258	5.40	32.60	35.50	46.40	48.90	74	-25.10	Horizontal
6988.552	8.30	35.60	34.00	44.30	54.20	74	-19.80	Horizontal
9854.211	11.20	37.30	32.10	42.20	58.60	74	-15.40	Horizontal
10400.000	11.40	37.40	31.60	44.90	62.10	74	-11.90	Horizontal
15600.000	15.60	41.10	32.60	38.00	62.10	74	-11.90	Horizontal

Test mode:		802.11n(HT20)		Test channel:		40		Remark:		Average	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1554.258	4.20	26.40	34.70	33.30	29.20	54	-24.80	Vertical			
3188.259	5.50	32.00	35.10	32.70	35.10	54	-18.90	Vertical			
6415.286	8.00	34.90	33.60	31.50	40.80	54	-13.20	Vertical			
7656.325	9.10	36.30	33.90	32.30	43.80	54	-10.20	Vertical			
10400.000	11.40	37.40	31.60	27.70	44.90	54	-9.10	Vertical			
15600.000	15.60	41.10	32.60	22.70	46.80	54	-7.20	Vertical			
1845.256	5.00	27.10	34.80	31.60	28.90	54	-25.10	Horizontal			
3655.258	5.40	32.60	35.50	33.10	35.60	54	-18.40	Horizontal			
6988.552	8.30	35.60	34.00	32.20	42.10	54	-11.90	Horizontal			
9854.211	11.20	37.30	32.10	28.50	44.90	54	-9.10	Horizontal			
10400.000	11.40	37.40	31.60	29.10	46.30	54	-7.70	Horizontal			
15600.000	15.60	41.10	32.60	23.40	47.50	54	-6.50	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 37 of 52

Test mode:		802.11n(HT20)		Test channel:		48		Remark:		Peak	
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
1565.220	4.30	26.40	34.80	48.20	44.10	74	-29.90	Vertical			
3212.111	5.50	32.00	35.00	45.00	47.50	74	-26.50	Vertical			
6889.552	8.40	35.40	33.90	43.70	53.60	74	-20.40	Vertical			
8523.236	9.50	36.50	33.80	43.00	55.20	74	-18.80	Vertical			
10480.000	11.40	37.40	31.60	40.40	57.60	74	-16.40	Vertical			
15720.000	16.00	41.10	32.60	36.70	61.20	74	-12.80	Vertical			
1814.252	5.00	26.90	34.80	47.40	44.50	74	-29.50	Horizontal			
3255.252	5.60	32.00	34.90	45.90	48.60	74	-25.40	Horizontal			
6956.236	8.40	35.50	33.90	43.80	53.80	74	-20.20	Horizontal			
9523.233	11.00	37.20	32.80	43.10	58.50	74	-15.50	Horizontal			
10480.000	11.40	37.40	31.60	44.60	61.80	74	-12.20	Horizontal			
15720.000	16.00	41.10	32.60	37.60	62.10	74	-11.90	Horizontal			

Test mode:		802.11n(HT20)		Test channel:		48		Remark:		Average	
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
1565.220	4.30	26.40	34.80	33.40	29.30	54	-24.70	Vertical			
3212.111	5.50	32.00	35.00	32.60	35.10	54	-18.90	Vertical			
6889.552	8.40	35.40	33.90	32.30	42.20	54	-11.80	Vertical			
8523.236	9.50	36.50	33.80	30.40	42.60	54	-11.40	Vertical			
10480.000	11.40	37.40	31.60	29.60	46.80	54	-7.20	Vertical			
15720.000	16.00	41.10	32.60	22.70	47.20	54	-6.80	Vertical			
1814.252	5.00	26.90	34.80	31.70	28.80	54	-25.20	Horizontal			
3255.252	5.60	32.00	34.90	32.70	35.40	54	-18.60	Horizontal			
6956.236	8.40	35.50	33.90	31.30	41.30	54	-12.70	Horizontal			
9525.233	11.00	37.20	32.80	28.80	44.20	54	-9.80	Horizontal			
10480.000	11.40	37.40	31.60	28.80	46.00	54	-8.00	Horizontal			
15720.000	16.00	41.10	32.60	23.00	47.50	54	-6.50	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 38 of 52

Test mode:		802.11n(HT20)		Test channel:		149		Remark:		Peak	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preampl factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1602.236	4.40	26.40	34.80	48.90	44.90	74	-29.10	Vertical			
3251.121	5.60	32.00	34.90	45.10	47.80	74	-26.20	Vertical			
6552.255	8.20	35.40	33.60	43.20	53.20	74	-20.80	Vertical			
7669.326	9.10	36.30	33.90	45.30	56.80	74	-17.20	Vertical			
11490.000	12.30	37.60	31.60	39.90	58.20	74	-15.80	Vertical			
17235.000	17.10	42.90	30.30	30.50	60.20	74	-13.80	Vertical			
1845.540	5.00	27.10	34.80	47.80	45.10	74	-28.90	Horizontal			
3569.666	5.40	32.30	35.50	46.00	48.20	74	-25.80	Horizontal			
6874.569	8.50	35.40	33.80	42.50	52.60	74	-21.40	Horizontal			
9885.254	11.20	37.30	32.20	43.30	59.60	74	-14.40	Horizontal			
11490.000	12.30	37.60	31.60	43.50	61.80	74	-12.20	Horizontal			
17235.000	17.10	42.90	30.30	32.40	62.10	74	-11.90	Horizontal			

Test mode:		802.11n(HT20)		Test channel:		149		Remark:		Average	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1602.236	4.40	26.40	34.80	33.80	29.80	54	-24.20	Vertical			
3251.121	5.60	32.00	34.90	32.50	35.20	54	-18.80	Vertical			
6552.255	8.20	35.40	33.60	31.80	41.80	54	-12.20	Vertical			
7669.326	9.10	36.30	33.90	32.30	43.80	54	-10.20	Vertical			
11490.000	12.30	37.60	31.60	27.80	46.10	54	-7.90	Vertical			
17235.000	17.10	42.90	30.30	17.50	47.20	54	-6.80	Vertical			
1845.540	5.00	27.10	34.80	31.80	29.10	54	-24.90	Horizontal			
3569.666	5.40	32.30	35.50	33.00	35.20	54	-18.80	Horizontal			
6874.569	8.50	35.40	33.80	31.70	41.80	54	-12.20	Horizontal			
9885.254	11.20	37.30	32.20	29.50	45.80	54	-8.20	Horizontal			
11490.000	12.30	37.60	31.60	27.40	45.70	54	-8.30	Horizontal			
17235.000	17.10	42.90	30.30	17.80	47.50	54	-6.50	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 39 of 52

Test mode:		802.11n(HT20)		Test channel:		157		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			
1588.696	4.40	26.40	34.80	48.80	44.80	74	-29.20	Vertical			
3255.285	5.60	32.00	34.90	46.80	49.50	74	-24.50	Vertical			
6521.254	8.10	35.30	33.60	43.00	52.80	74	-21.20	Vertical			
7569.326	8.90	36.10	33.90	44.30	55.40	74	-18.60	Vertical			
11600.000	12.40	37.70	31.60	38.60	57.10	74	-16.90	Vertical			
17400.000	17.20	43.30	31.00	29.80	59.30	74	-14.70	Vertical			
1835.125	5.00	27.10	34.80	46.90	44.20	74	-29.80	Horizontal			
3459.585	5.30	32.10	35.30	46.50	48.60	74	-25.40	Horizontal			
6855.235	8.50	35.30	33.80	43.80	53.80	74	-20.20	Horizontal			
9963.332	11.20	37.40	32.20	43.10	59.50	74	-14.50	Horizontal			
11600.000	12.40	37.70	31.60	43.00	61.50	74	-12.50	Horizontal			
17400.000	17.20	43.30	31.00	33.00	62.50	74	-11.50	Horizontal			

Test mode:		802.11n(HT20)		Test channel:		157		Remark:		Average	
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			
1588.696	4.40	26.40	34.80	33.60	29.60	54	-24.40	Vertical			
3255.285	5.60	32.00	34.90	33.40	36.10	54	-17.90	Vertical			
6521.254	8.10	35.30	33.60	31.40	41.20	54	-12.80	Vertical			
7569.326	8.90	36.10	33.90	32.00	43.10	54	-10.90	Vertical			
11600.000	12.40	37.70	31.60	26.80	45.30	54	-8.70	Vertical			
17400.000	17.20	43.30	31.00	17.30	46.80	54	-7.20	Vertical			
1835.125	5.00	27.10	34.80	31.20	28.50	54	-25.50	Horizontal			
3459.585	5.30	32.10	35.20	33.00	35.20	54	-18.80	Horizontal			
6855.235	8.50	35.30	33.80	32.10	42.10	54	-11.90	Horizontal			
9963.332	11.20	37.40	32.20	28.80	45.20	54	-8.80	Horizontal			
11600.000	12.40	37.70	31.60	26.70	45.20	54	-8.80	Horizontal			
17400.000	17.20	43.30	31.00	18.00	47.50	54	-6.50	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 40 of 52

Test mode:		802.11n(HT20)		Test channel:		165		Remark:		Peak	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1555.254	4.20	26.40	34.70	47.90	43.80	74	-30.20	Vertical			
3556.652	5.30	32.30	35.40	44.60	46.80	74	-27.20	Vertical			
6525.326	8.20	35.30	33.60	44.20	54.10	74	-19.90	Vertical			
7565.652	8.90	36.10	33.90	43.70	54.80	74	-19.20	Vertical			
11650.000	12.50	37.60	31.70	38.40	56.80	74	-17.20	Vertical			
17475.000	17.30	43.40	31.30	29.20	58.60	74	-15.40	Vertical			
1913.236	4.90	27.50	34.80	46.60	44.20	74	-29.80	Horizontal			
3225.236	5.60	32.00	35.00	45.60	48.20	74	-25.80	Horizontal			
6956.325	8.40	35.50	33.90	44.10	54.10	74	-19.90	Horizontal			
9885.265	11.20	37.30	32.20	43.20	59.50	74	-14.50	Horizontal			
11650.000	12.50	37.60	31.70	42.80	61.20	74	-12.80	Horizontal			
17400.000	17.20	43.30	31.00	33.00	62.50	74	-11.50	Horizontal			

Test mode:		802.11n(HT20)		Test channel:		165		Remark:		Average	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1555.254	4.20	26.40	34.70	32.70	28.60	54	-25.40	Vertical			
3556.652	5.30	32.30	35.40	33.00	35.20	54	-18.80	Vertical			
6525.326	8.20	35.30	33.60	32.20	42.10	54	-11.90	Vertical			
7565.652	8.90	36.10	33.90	31.50	42.60	54	-11.40	Vertical			
11650.000	12.50	37.60	31.70	26.40	44.80	54	-9.20	Vertical			
17475.000	17.30	43.40	31.30	19.10	48.50	54	-5.50	Vertical			
1913.236	4.90	27.50	34.80	31.00	28.60	54	-25.40	Horizontal			
3225.236	5.60	32.00	35.00	32.50	35.10	54	-18.90	Horizontal			
6956.325	8.40	35.50	33.90	31.80	41.80	54	-12.20	Horizontal			
9885.265	11.20	37.30	32.20	28.80	45.10	54	-8.90	Horizontal			
11650.000	12.50	37.60	31.70	27.40	45.80	54	-8.20	Horizontal			
17400.000	17.20	43.30	31.00	18.00	47.50	54	-6.50	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 41 of 52

Test mode:		802.11n(HT40)		Test channel:		38		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			
1648.458	4.70	26.40	34.80	47.20	43.50	74	-30.50	Vertical			
3584.258	5.40	32.40	35.50	44.80	47.10	74	-26.90	Vertical			
6885.233	8.40	35.40	33.90	42.40	52.30	74	-21.70	Vertical			
7688.257	9.20	36.30	33.80	44.20	55.90	74	-18.10	Vertical			
10380.000	11.40	37.40	31.60	39.60	56.80	74	-17.20	Vertical			
15570.000	15.50	41.10	32.60	34.60	58.60	74	-15.40	Vertical			
1856.249	5.00	27.20	34.80	46.80	44.20	74	-29.80	Horizontal			
3255.254	5.60	32.00	34.90	45.40	48.10	74	-25.90	Horizontal			
6849.562	8.50	35.30	33.80	43.20	53.20	74	-20.80	Horizontal			
9889.659	11.20	37.30	32.20	41.90	58.20	74	-15.80	Horizontal			
10380.000	11.40	37.40	31.60	44.00	61.20	74	-12.80	Horizontal			
15570.000	15.50	41.10	32.60	37.80	61.80	74	-12.20	Horizontal			

Test mode:		802.11n(HT40)		Test channel:		38		Remark:		Average	
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			
1648.458	4.70	26.40	34.80	32.10	28.40	54	-25.60	Vertical			
3584.258	5.40	32.40	35.50	32.90	35.20	54	-18.80	Vertical			
6885.233	8.40	35.40	33.90	30.90	40.80	54	-13.20	Vertical			
7688.257	9.20	36.30	33.80	31.20	42.90	54	-11.10	Vertical			
10380.000	11.40	37.40	31.60	27.40	44.60	54	-9.40	Vertical			
15570.000	15.50	41.10	32.60	24.10	48.10	54	-5.90	Vertical			
1856.249	5.00	27.20	34.80	31.70	29.10	54	-24.90	Horizontal			
3255.254	5.60	32.00	34.90	32.40	35.10	54	-18.90	Horizontal			
6849.562	8.50	35.30	33.80	31.20	41.20	54	-12.80	Horizontal			
9889.659	11.20	37.30	32.20	28.50	44.80	54	-9.20	Horizontal			
10380.000	11.40	37.40	31.60	28.60	45.80	54	-8.20	Horizontal			
15570.000	15.50	41.10	32.60	22.80	46.80	54	-7.20	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 42 of 52

Test mode:		802.11n(HT40)		Test channel:		46		Remark:		Peak	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamplifier factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1658.259	4.70	26.40	34.80	46.90	43.20	74	-30.80	Vertical			
3569.236	5.40	32.30	35.50	44.00	46.20	74	-27.80	Vertical			
6996.521	8.30	35.60	34.00	42.90	52.80	74	-21.20	Vertical			
7845.214	9.10	36.20	34.00	42.90	54.20	74	-19.80	Vertical			
10460.000	11.40	37.40	31.60	39.10	56.30	74	-17.70	Vertical			
15690.000	15.90	41.00	32.60	34.30	58.60	74	-15.40	Vertical			
1815.299	5.00	26.90	34.80	45.40	42.50	74	-31.50	Horizontal			
3552.215	5.30	32.30	35.40	45.30	47.50	74	-26.50	Horizontal			
7211.125	8.60	35.80	33.80	43.60	54.20	74	-19.80	Horizontal			
9856.632	11.20	37.30	32.10	42.00	58.40	74	-15.60	Horizontal			
10460.000	11.40	37.40	31.60	44.00	61.20	74	-12.80	Horizontal			
15690.000	15.90	41.00	32.60	37.50	61.80	74	-12.20	Horizontal			

Test mode:		802.11n(HT40)		Test channel:		46		Remark:		Average	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization			
1658.259	4.70	26.40	34.80	31.80	28.10	54	-25.90	Vertical			
3569.236	5.40	32.30	35.50	32.30	34.50	54	-19.50	Vertical			
6996.521	8.30	35.60	34.00	32.90	42.80	54	-11.20	Vertical			
7845.214	9.10	36.20	34.00	31.30	42.60	54	-11.40	Vertical			
10460.000	11.40	37.40	31.60	27.00	44.20	54	-9.80	Vertical			
15690.000	15.90	41.00	32.60	22.50	46.80	54	-7.20	Vertical			
1815.299	5.00	26.90	34.80	31.00	28.10	54	-25.90	Horizontal			
3552.215	5.30	32.30	35.40	32.60	34.80	54	-19.20	Horizontal			
7211.125	8.60	35.80	33.80	31.50	42.10	54	-11.90	Horizontal			
9856.632	11.20	37.30	32.10	28.50	44.90	54	-9.10	Horizontal			
10460.000	11.40	37.40	31.60	28.40	45.60	54	-8.40	Horizontal			
15690.000	15.90	41.00	32.60	22.50	46.80	54	-7.20	Horizontal			

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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205

Page: 43 of 52

Test mode:		802.11n(HT40)		Test channel:		151		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			
1558.241	4.30	26.40	34.70	47.80	43.80	74	-30.20	Vertical			
3458.269	5.40	32.10	35.30	45.00	47.20	74	-26.80	Vertical			
6414.221	8.00	34.90	33.60	43.50	52.80	74	-21.20	Vertical			
7648.521	9.10	36.30	33.90	43.30	54.80	74	-19.20	Vertical			
11510.000	12.30	37.70	31.60	36.80	55.20	74	-18.80	Vertical			
17265.000	17.10	43.00	30.40	28.90	58.60	74	-15.40	Vertical			
1812.256	5.00	26.90	34.90	47.20	44.20	74	-29.80	Horizontal			
3255.214	5.60	32.00	34.90	45.50	48.20	74	-25.80	Horizontal			
6974.523	8.30	35.50	34.00	43.40	53.20	74	-20.80	Horizontal			
9648.254	11.10	37.20	32.40	42.30	58.20	74	-15.80	Horizontal			
11510.000	12.30	37.70	31.60	42.10	60.50	74	-13.50	Horizontal			
17265.000	17.10	43.00	30.40	31.80	61.50	74	-12.50	Horizontal			

Test mode:		802.11n(HT40)		Test channel:		151		Remark:		Average	
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
1558.241	4.30	26.40	34.70	32.60	28.60	54	-25.40	Vertical			
3458.269	5.40	32.10	35.30	32.90	35.10	54	-18.90	Vertical			
6414.221	8.00	34.90	33.60	31.00	40.30	54	-13.70	Vertical			
7648.521	9.10	36.30	33.90	31.00	42.50	54	-11.50	Vertical			
11510.000	12.30	37.70	31.60	24.80	43.20	54	-10.80	Vertical			
17265.000	17.10	43.00	30.40	16.00	45.70	54	-8.30	Vertical			
1812.256	5.00	26.90	34.90	31.30	28.30	54	-25.70	Horizontal			
3255.214	5.60	32.00	34.90	32.50	35.20	54	-18.80	Horizontal			
6974.523	8.30	35.50	34.00	31.50	41.30	54	-12.70	Horizontal			
9648.254	11.10	37.20	32.40	29.20	45.10	54	-8.90	Horizontal			
11510.000	12.30	37.70	31.60	27.40	45.80	54	-8.20	Horizontal			
17265.000	17.10	43.00	30.40	16.50	46.20	54	-7.80	Horizontal			



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

SGS-CSTC Standards Technical Services Ltd.



Report No.: SZEM141100618205
Page: 44 of 52

Test mode:		802.11n(HT40)		Test channel:		159		Remark:	Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization	
1658.254	4.70	26.40	34.80	47.80	44.10	74	-29.90	Vertical	
3255.252	5.60	32.00	34.90	43.50	46.20	74	-27.80	Vertical	
6585.569	8.30	35.40	33.60	41.70	51.80	74	-22.20	Vertical	
7698.554	9.20	36.30	33.80	43.10	54.80	74	-19.20	Vertical	
11590.000	12.40	37.70	31.60	37.60	56.10	74	-17.90	Vertical	
17385.000	17.20	43.30	30.90	29.00	58.60	74	-15.40	Vertical	
1758.287	5.10	26.40	34.90	46.60	43.20	74	-30.80	Horizontal	
3586.239	5.40	32.40	35.50	45.50	47.80	74	-26.20	Horizontal	
6985.265	8.30	35.60	34.00	42.90	52.80	74	-21.20	Horizontal	
9856.236	11.20	37.30	32.10	41.80	58.20	74	-15.80	Horizontal	
11590.000	12.40	37.70	31.60	41.70	60.20	74	-13.80	Horizontal	
17385.000	17.20	43.30	30.90	31.60	61.20	74	-12.80	Horizontal	

Test mode:		802.11n(HT40)		Test channel:		159		Remark:	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization	
1658.254	4.70	26.40	34.80	32.20	28.50	54	-25.50	Vertical	
3255.252	5.60	32.00	34.90	32.40	35.10	54	-18.90	Vertical	
6585.569	8.30	35.40	33.60	30.10	40.20	54	-13.80	Vertical	
7698.554	9.20	36.30	33.80	30.80	42.50	54	-11.50	Vertical	
11590.000	12.40	37.70	31.60	25.80	44.30	54	-9.70	Vertical	
17385.000	17.20	43.30	30.90	15.60	45.20	54	-8.80	Vertical	
1758.287	5.10	26.40	34.90	31.60	28.20	54	-25.80	Horizontal	
3586.239	5.40	32.40	35.50	31.90	34.20	54	-19.80	Horizontal	
6985.265	8.30	35.60	34.00	30.60	40.50	54	-13.50	Horizontal	
9856.236	11.20	37.30	32.10	28.10	44.50	54	-9.50	Horizontal	
11590.000	12.40	37.70	31.60	26.60	45.10	54	-8.90	Horizontal	
17385.000	17.20	43.30	30.90	16.90	46.50	54	-7.50	Horizontal	

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 .

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

6.9 Restricted bands edge

Test Requirement:	47 CFR Part 15C Section 15.407
Test Method:	ANSI C63.10: 2009
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Limit:	(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (2) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.
Test Setup:	

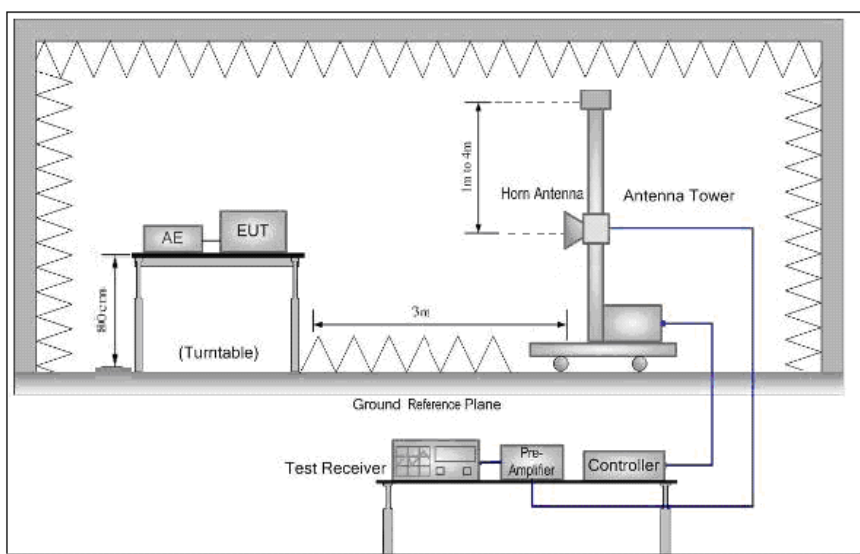


Figure 1.



Test Procedure:	a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. 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.
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO 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
	Remark: Please refer to the Appendix B.

7 Photographs

Test model No.: P1860

7.1 Conducted Emission Test Setup

Front View



Left View



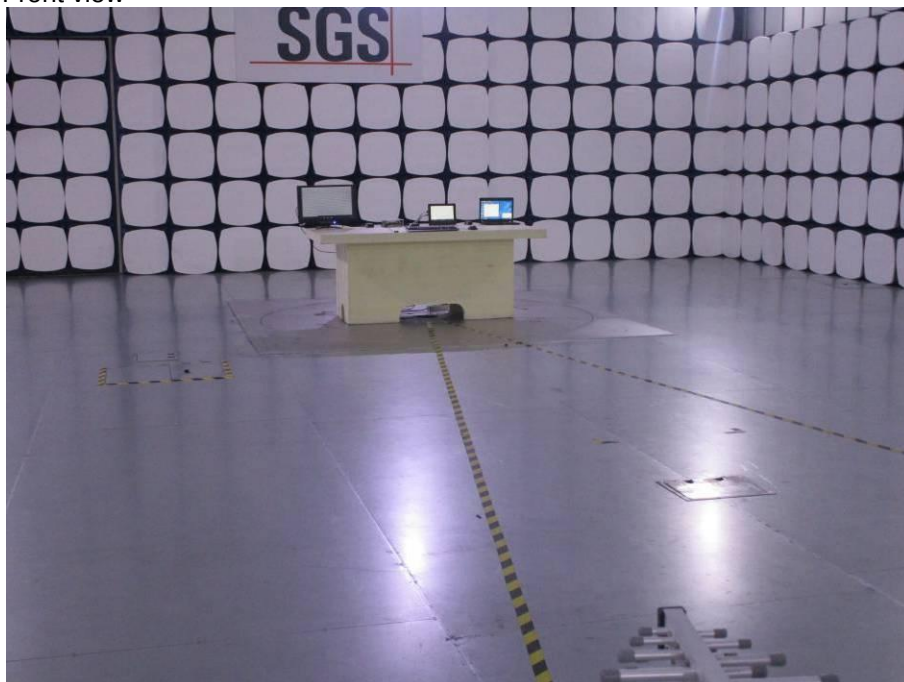
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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

Right view



7.2 Radiated Disturbance(30MHz-1GHz) Test Setup

Front view





Back view



Left view



7.3 Radiated Disturbance(above 1GHz) Test Setup

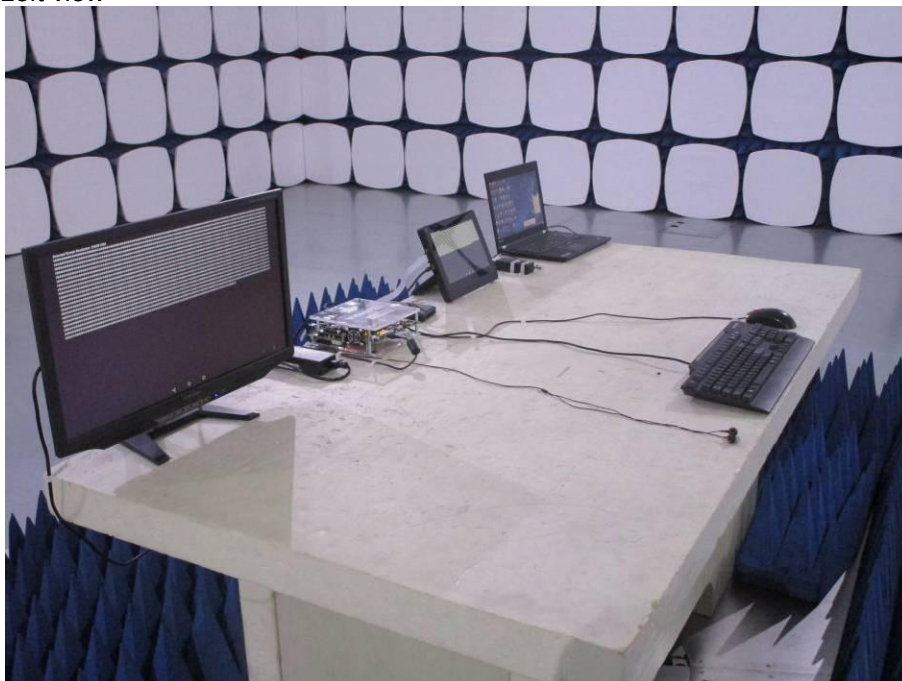
Front view



Back view



Left view



Right view



7.4 EUT Constructional Details

Refer to Appendix A for Photographs of EUT Constructional Details SZEM1411006182CR.

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



Appendix B

RF Conducted Test Data



2 Contents

1	COVER PAGE.....	1
2	CONTENTS.....	2
3	TEST DATA.....	3
3.1	CONDUCTED EMISSIONS	3
3.2	DUTY CYCLE	7
3.3	26dB EMISSION BANDWIDTH AND 99% OCCUPIED BANDWIDTH.....	9
3.3.1	26dB Emission Bandwidth	9
3.3.2	99% Occupied Bandwidth.....	13
3.4	6dB EMISSION BANDWIDTH.....	17
3.5	POWER SPECTRAL DENSITY	21
3.6	RADIATED SPURIOUS EMISSIONS.....	29
3.6.1	Radiated emission below 1GHz.....	29
3.7	RESTRICTED BANDS AROUND FUNDAMENTAL FREQUENCY	33-50



3 Test Data

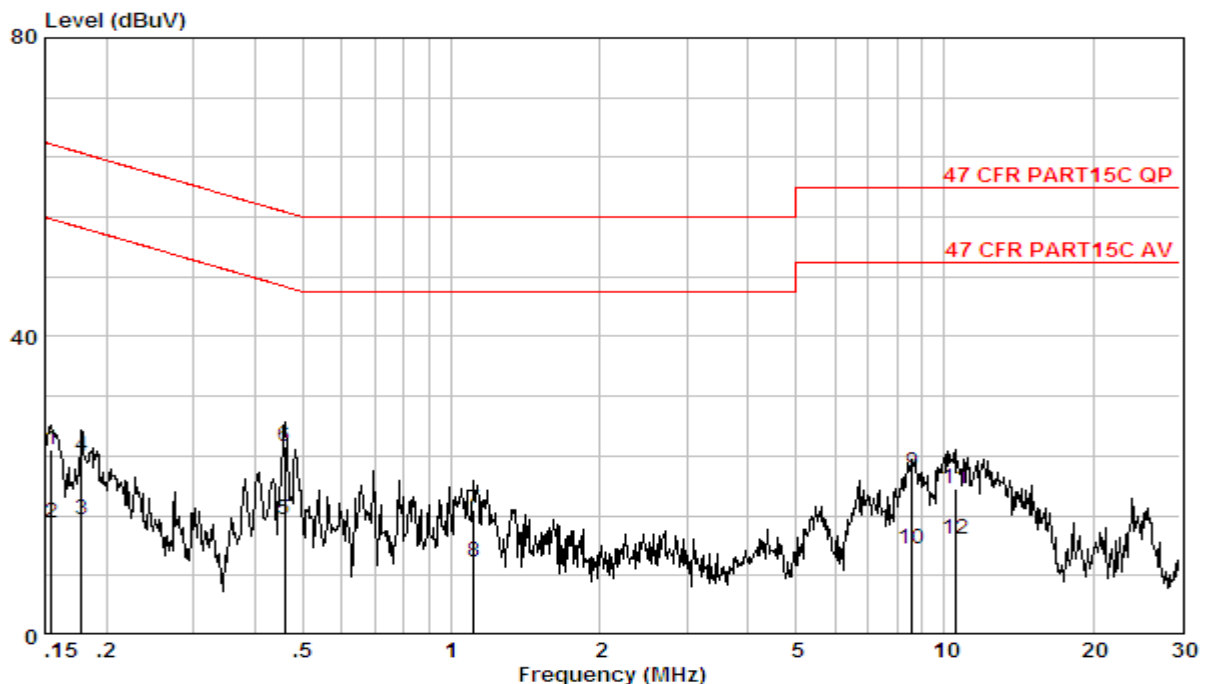
3.1 Conducted Emissions

Measurement Data

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

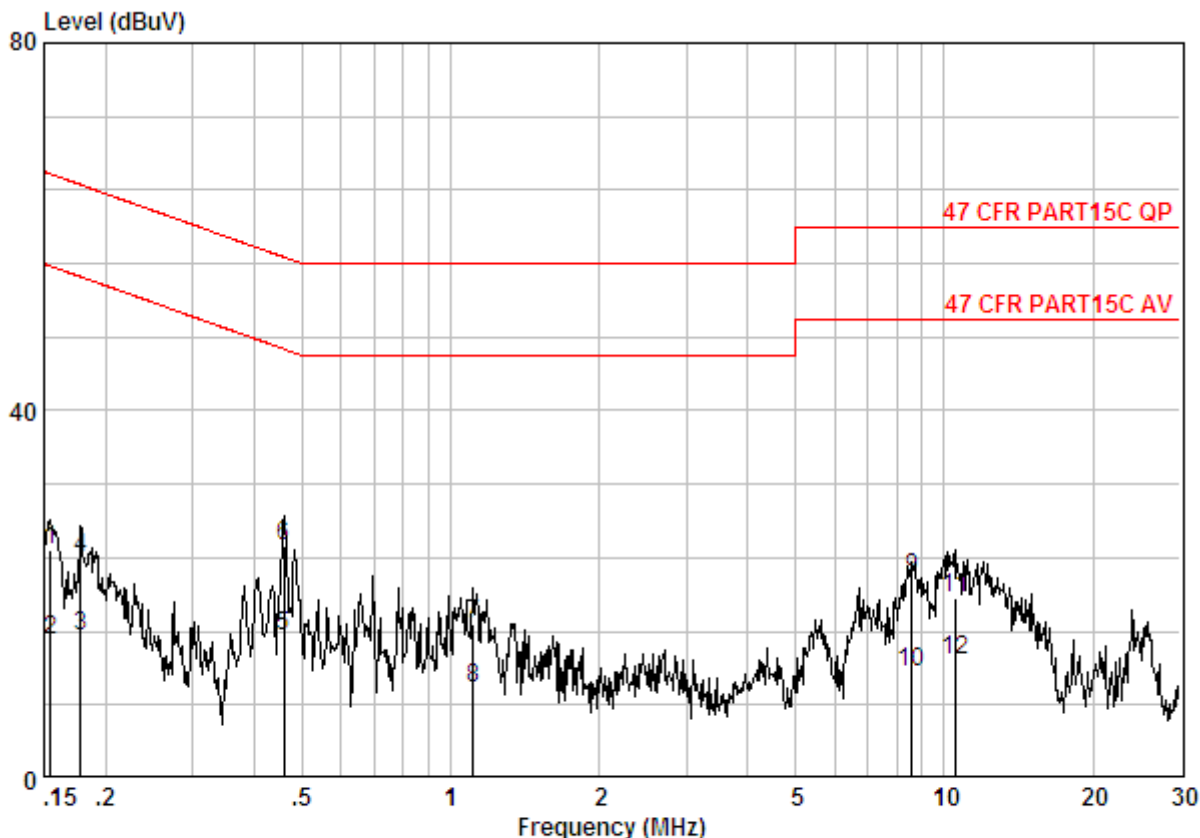
Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Live Line:



Site : Shielding Room
Condition : 47 CFR PART15C QP CE LINE
Job.No : 6182CR
Mode : TX mode

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15485	0.02	9.70	15.04	24.76	65.74	-40.98	QP
2	0.15485	0.02	9.70	5.35	15.07	55.74	-40.67	Average
3	0.17772	0.02	9.70	5.78	15.50	54.59	-39.09	Average
4	0.17772	0.02	9.70	14.16	23.88	64.59	-40.71	QP
5 @	0.45878	0.01	9.80	5.68	15.49	46.71	-31.22	Average
6 @	0.45878	0.01	9.80	15.54	25.35	56.71	-31.36	QP
7	1.111	0.02	9.80	7.00	16.82	56.00	-39.18	QP
8	1.111	0.02	9.80	-0.03	9.79	46.00	-36.21	Average
9	8.592	0.01	9.90	11.95	21.86	60.00	-38.14	QP
10	8.592	0.01	9.90	1.56	11.47	50.00	-38.53	Average
11	10.508	0.01	9.92	9.62	19.56	60.00	-40.44	QP
12	10.508	0.01	9.92	3.00	12.93	50.00	-37.07	Average

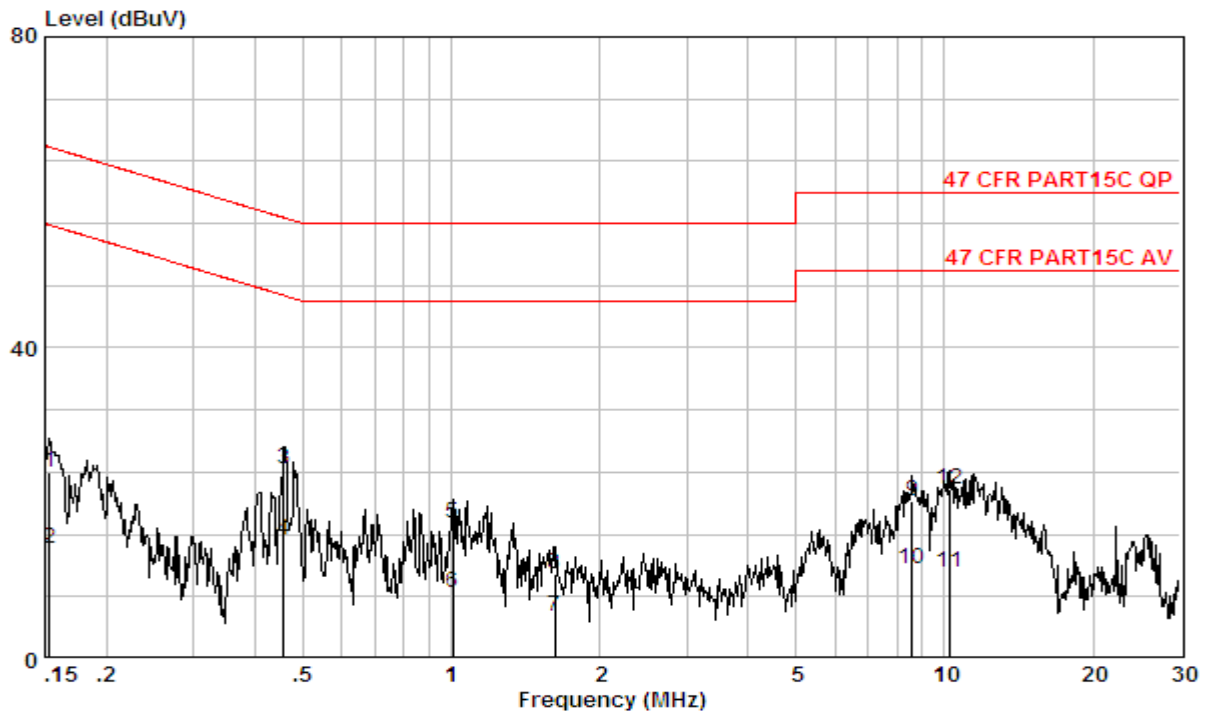


Site : Shielding Room
Condition : 47 CFR PART15C QP CE LINE
Job.No : 6182CR
Mode : TX mode

	Freq	Cable Loss	LISN Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dB	
1	0.15485	0.02	9.70	15.04	24.76	65.74	-40.98 QP
2	0.15485	0.02	9.70	5.35	15.07	55.74	-40.67 Average
3	0.17772	0.02	9.70	5.78	15.50	54.59	-39.09 Average
4	0.17772	0.02	9.70	14.16	23.88	64.59	-40.71 QP
5 @	0.45878	0.01	9.80	5.68	15.49	46.71	-31.22 Average
6 @	0.45878	0.01	9.80	15.54	25.35	56.71	-31.36 QP
7	1.111	0.02	9.80	7.00	16.82	56.00	-39.18 QP
8	1.111	0.02	9.80	-0.03	9.79	46.00	-36.21 Average
9	8.592	0.01	9.90	11.95	21.86	60.00	-38.14 QP
10	8.592	0.01	9.90	1.56	11.47	50.00	-38.53 Average
11	10.508	0.01	9.92	9.62	19.56	60.00	-40.44 QP
12	10.508	0.01	9.92	3.00	12.93	50.00	-37.07 Average

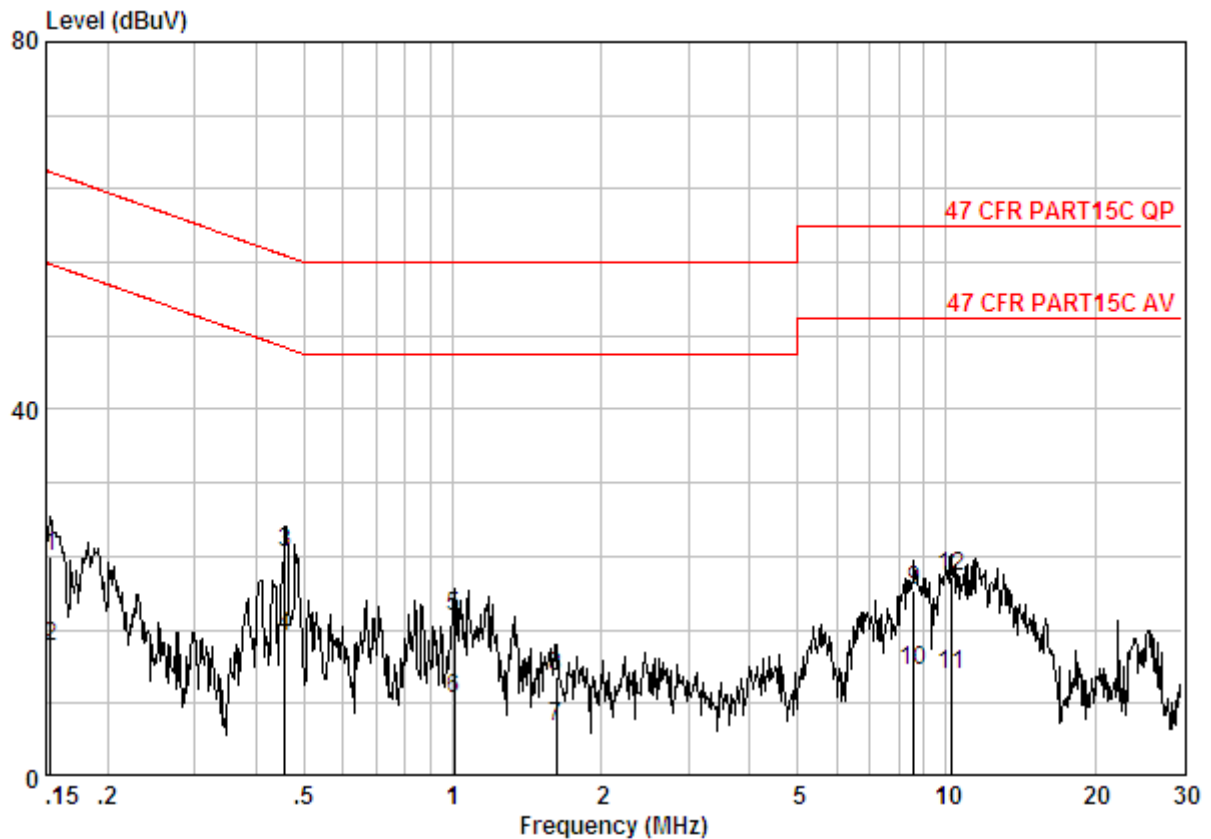


Neutral Line:



Site : Shielding Room
Condition : 47 CFR PART15C QP CE NEUTRAL
Job.No : 6182CR
Mode : TX mode

	Freq	Cable	LISN	Read	Level	Limit	Over	
	MHz	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15321	0.02	9.70	14.29	24.01	65.82	-41.81	QP
2	0.15321	0.02	9.70	4.51	14.23	55.82	-41.59	Average
3	0.45636	0.01	9.80	14.54	24.35	56.76	-32.41	QP
4 @	0.45636	0.01	9.80	5.36	15.17	46.76	-31.59	Average
5	1.005	0.02	9.80	7.62	17.44	56.00	-38.56	QP
6	1.005	0.02	9.80	-1.28	8.54	46.00	-37.46	Average
7	1.619	0.02	9.80	-4.43	5.39	46.00	-40.61	Average
8	1.619	0.02	9.80	1.14	10.96	56.00	-45.04	QP
9	8.592	0.01	10.00	10.27	20.28	60.00	-39.72	QP
10	8.592	0.01	10.00	1.53	11.54	50.00	-38.46	Average
11	10.233	0.01	10.00	1.11	11.12	50.00	-38.88	Average
12	10.233	0.01	10.00	11.68	21.69	60.00	-38.31	QP



Site : Shielding Room
Condition : 47 CFR PART15C QP CE NEUTRAL
Job.No : 6182CR
Mode : TX mode

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15321	0.02	9.70	14.29	24.01	65.82	-41.81	QP
2	0.15321	0.02	9.70	4.51	14.23	55.82	-41.59	Average
3	0.45636	0.01	9.80	14.54	24.35	56.76	-32.41	QP
4 @	0.45636	0.01	9.80	5.36	15.17	46.76	-31.59	Average
5	1.005	0.02	9.80	7.62	17.44	56.00	-38.56	QP
6	1.005	0.02	9.80	-1.28	8.54	46.00	-37.46	Average
7	1.619	0.02	9.80	-4.43	5.39	46.00	-40.61	Average
8	1.619	0.02	9.80	1.14	10.96	56.00	-45.04	QP
9	8.592	0.01	10.00	10.27	20.28	60.00	-39.72	QP
10	8.592	0.01	10.00	1.53	11.54	50.00	-38.46	Average
11	10.233	0.01	10.00	1.11	11.12	50.00	-38.88	Average
12	10.233	0.01	10.00	11.68	21.69	60.00	-38.31	QP

Notes:

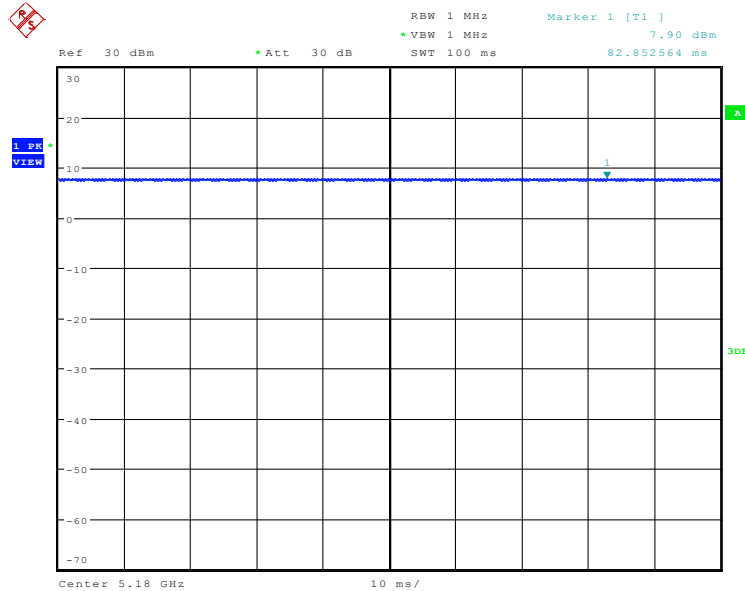
1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.



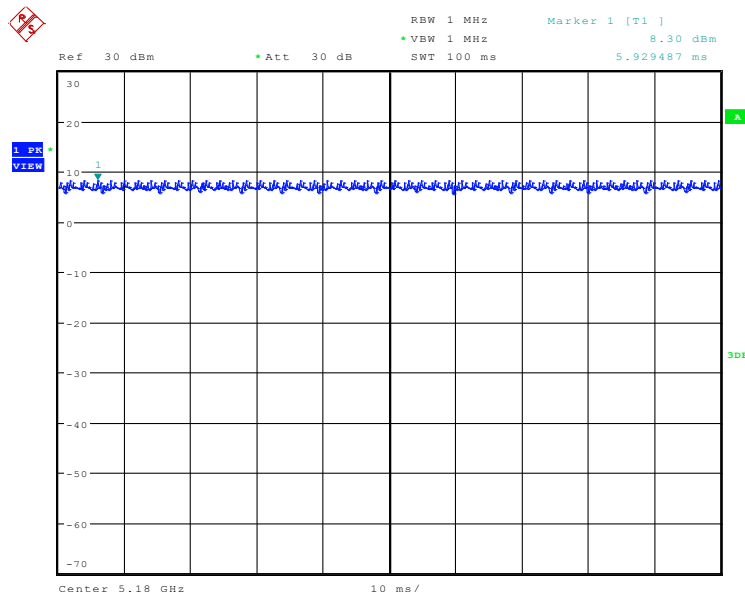
3.2 Duty Cycle

Test plot as follows:

Test mode:	802.11a
------------	---------

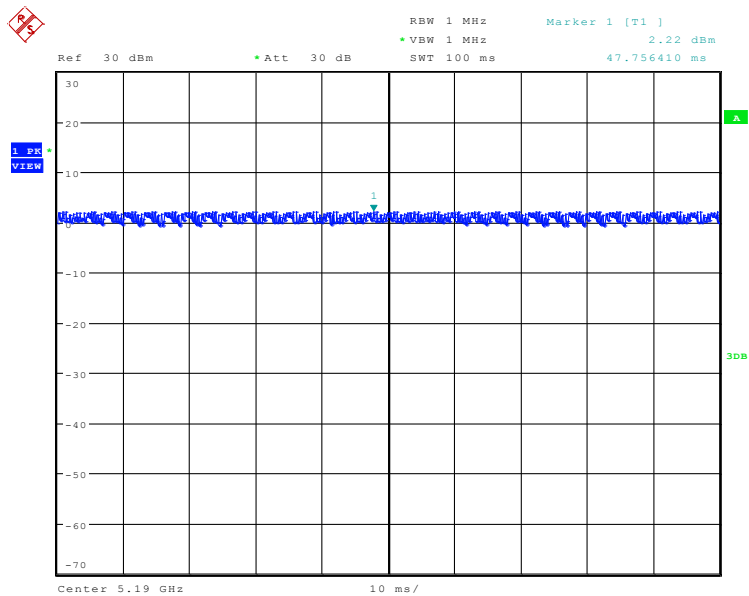


Test mode:	802.11n(HT20)
------------	---------------





Test mode:	802.11n(HT40)
------------	---------------



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

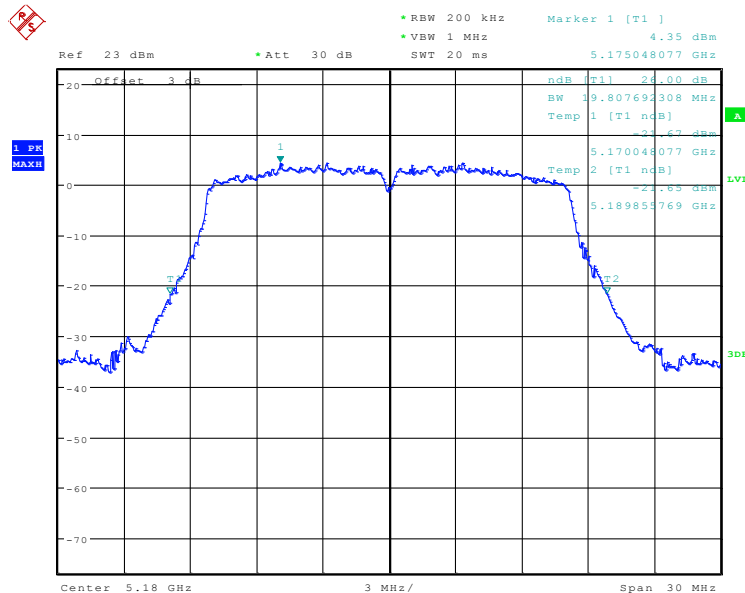


3.3 26dB Emission Bandwidth and 99% Occupied Bandwidth

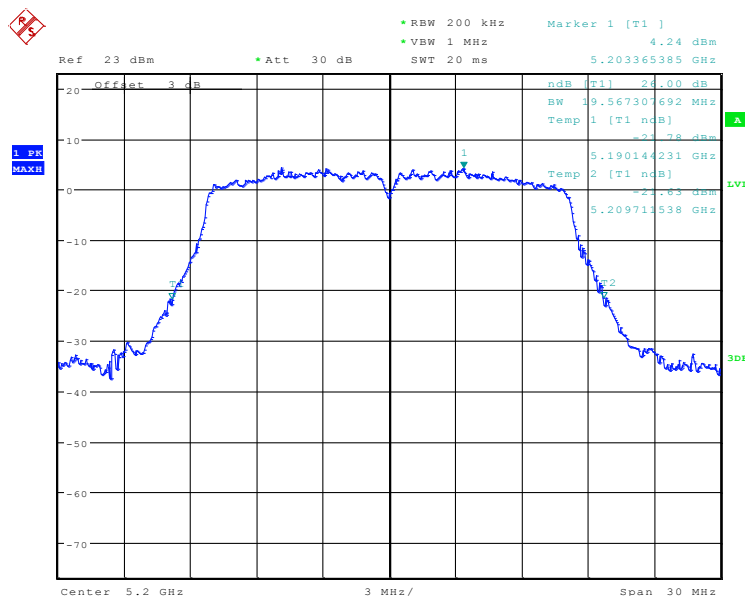
3.3.1 26dB Emission Bandwidth

Test plot as follows:

Test mode:	802.11a	Test channel:	36
------------	---------	---------------	----



Test mode:	802.11a	Test channel:	40
------------	---------	---------------	----



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

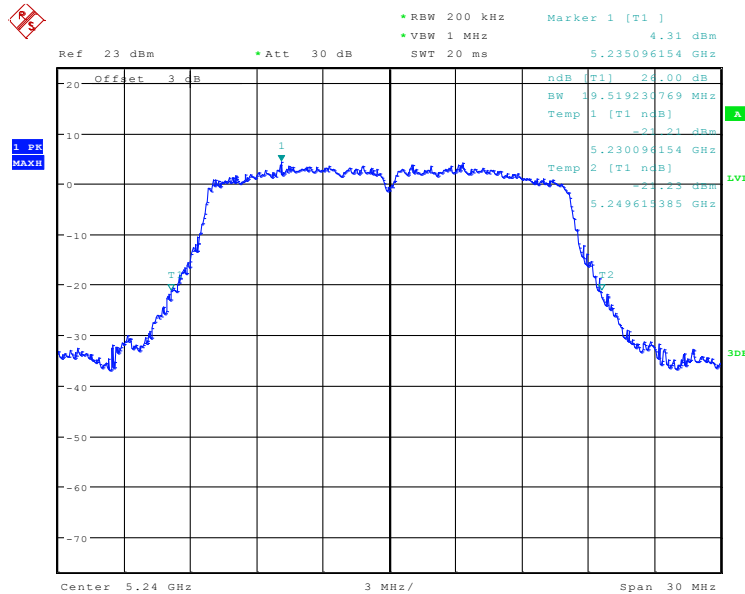


SGS-CSTC Standards Technical Services Ltd.

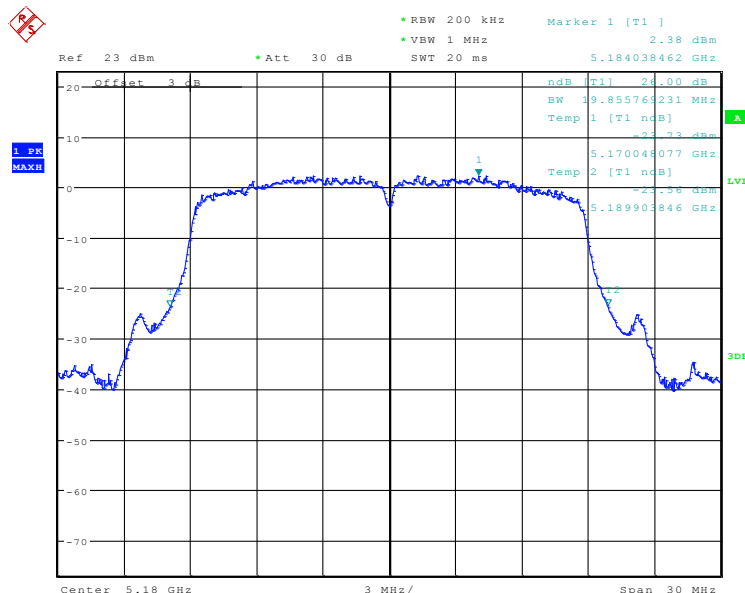
Report No.: SZEM141100618205

Page: 10 of 50

Test mode:	802.11a	Test channel:	48
------------	---------	---------------	----



Test mode:	802.11n(HT20)	Test channel:	36
------------	---------------	---------------	----



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

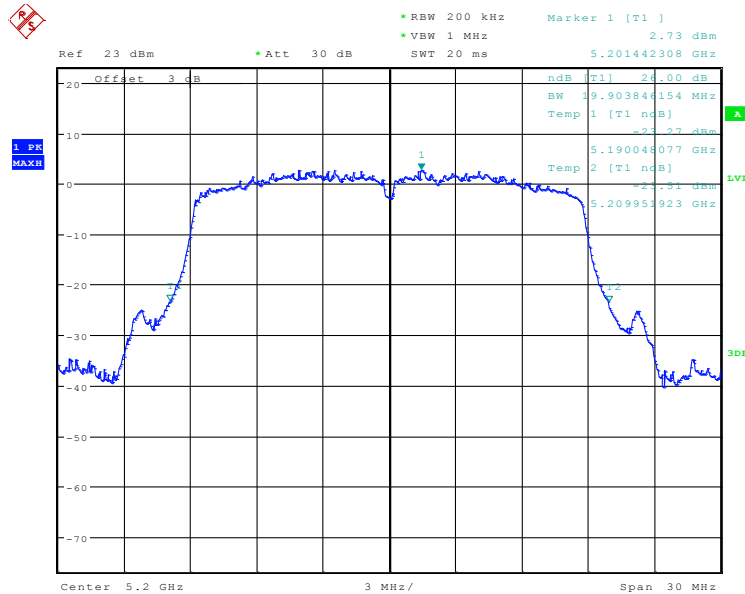


SGS-CSTC Standards Technical Services Ltd.

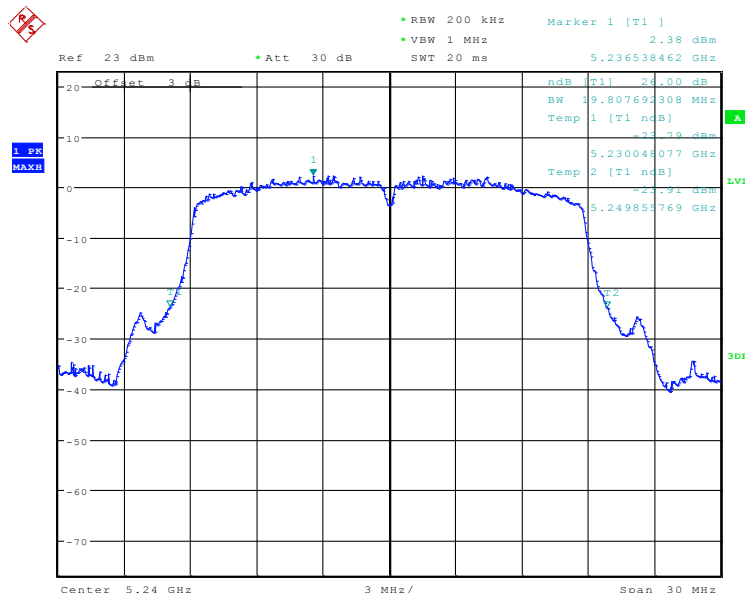
Report No.: SZEM141100618205

Page: 11 of 50

Test mode:	802.11n(HT20)	Test channel:	40
------------	---------------	---------------	----



Test mode:	802.11n(HT20)	Test channel:	48
------------	---------------	---------------	----



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

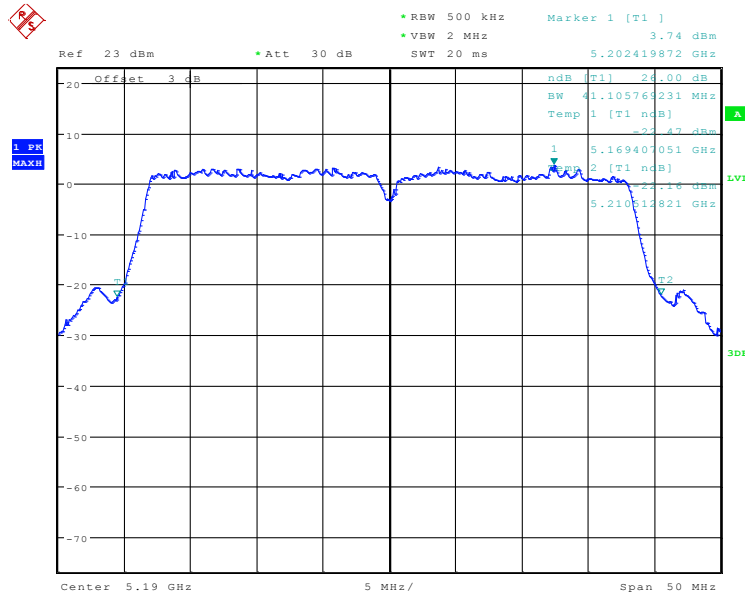


SGS-CSTC Standards Technical Services Ltd.

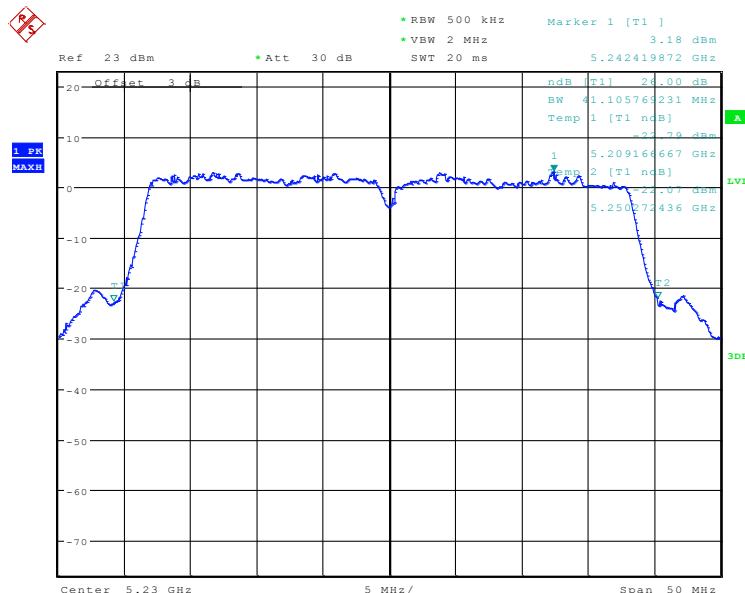
Report No.: SZEM141100618205

Page: 12 of 50

Test mode:	802.11n(HT40)	Test channel:	38
------------	---------------	---------------	----



Test mode:	802.11n(HT40)	Test channel:	46
------------	---------------	---------------	----



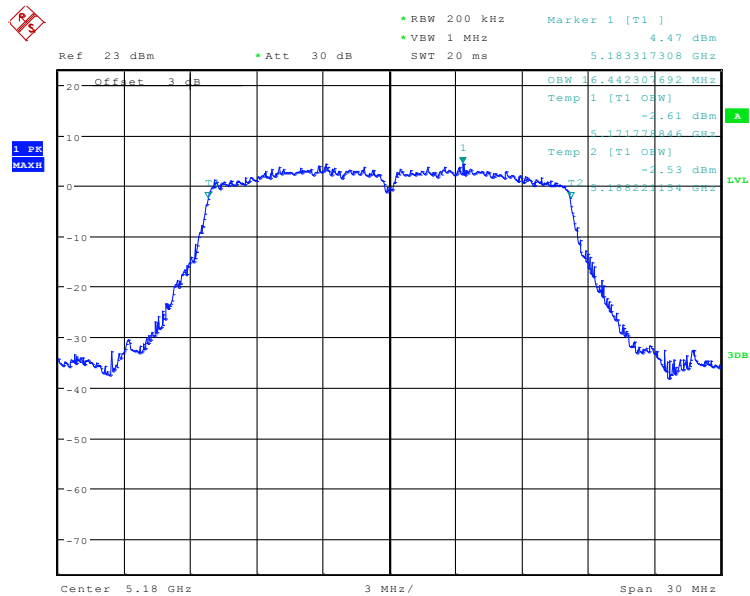
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



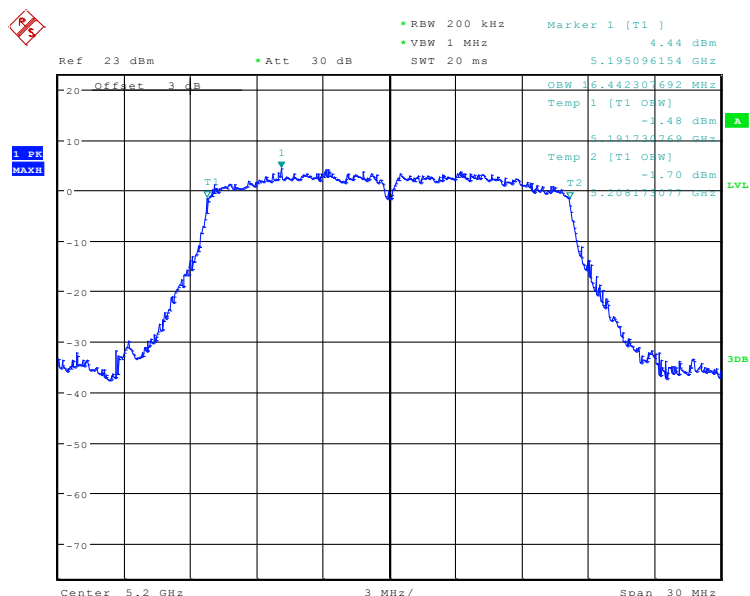
3.3.2 99% Occupied Bandwidth

Test plot as follows:

Test mode:	802.11a	Test channel:	36
------------	---------	---------------	----



Test mode:	802.11a	Test channel:	40
------------	---------	---------------	----



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

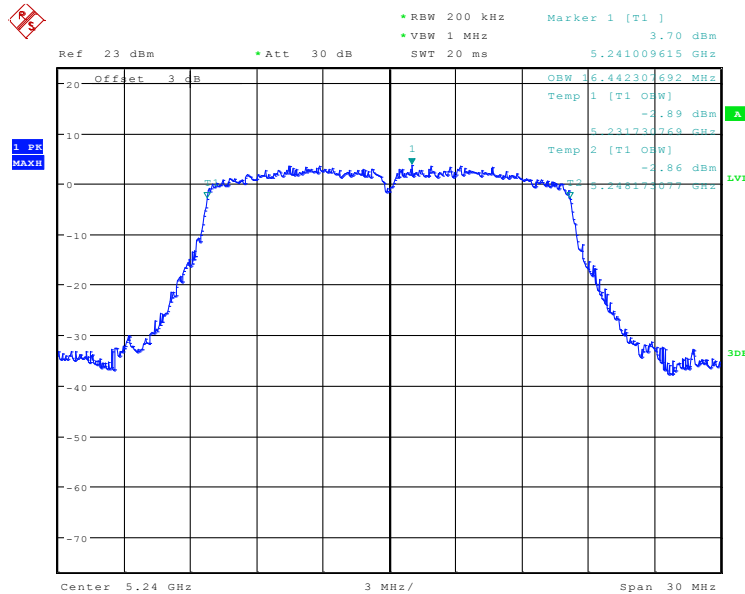


SGS-CSTC Standards Technical Services Ltd.

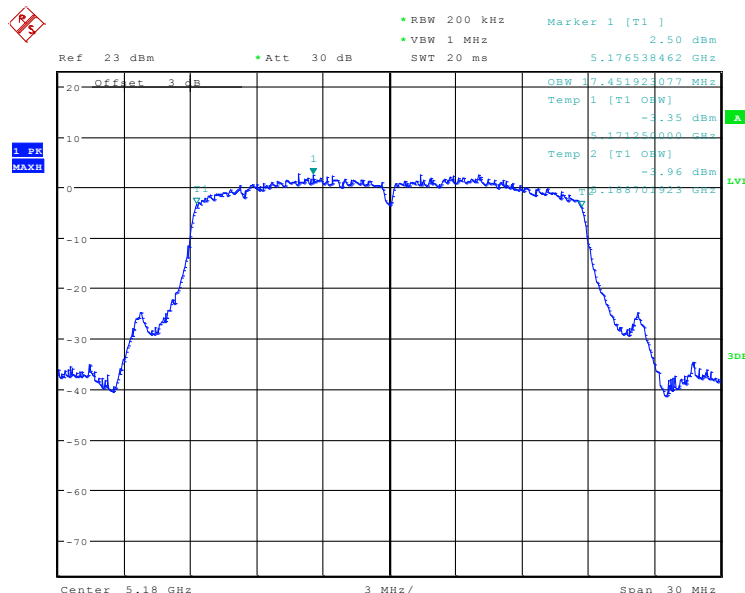
Report No.: SZEM141100618205

Page: 14 of 50

Test mode:	802.11a	Test channel:	48
------------	---------	---------------	----



Test mode:	802.11n(HT20)	Test channel:	36
------------	---------------	---------------	----



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

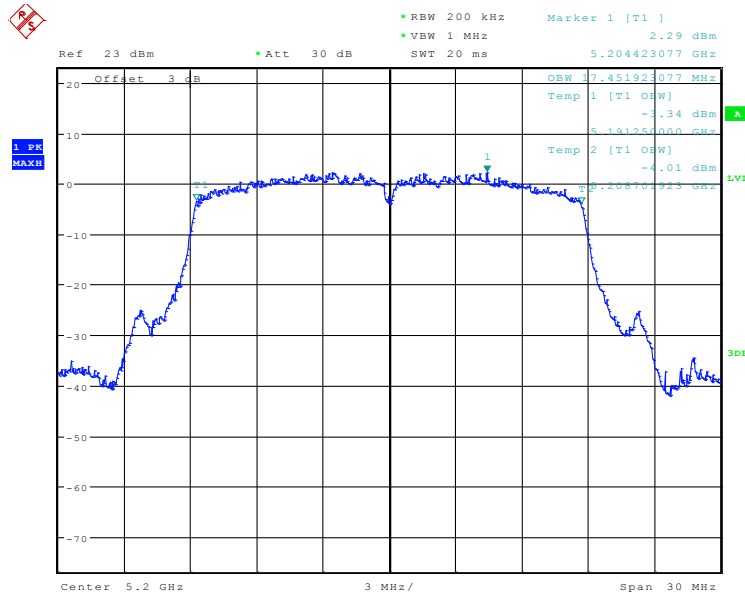


SGS-CSTC Standards Technical Services Ltd.

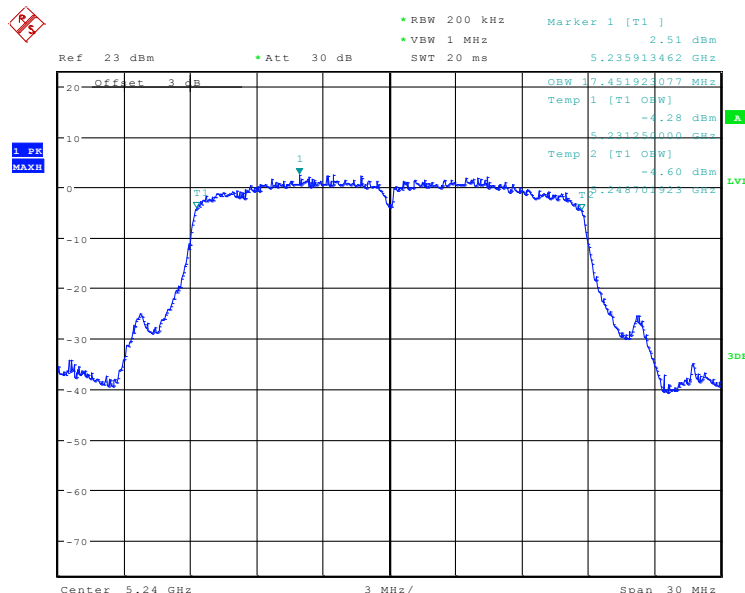
Report No.: SZEM141100618205

Page: 15 of 50

Test mode:	802.11n(HT20)	Test channel:	40
------------	---------------	---------------	----



Test mode:	802.11n(HT20)	Test channel:	48
------------	---------------	---------------	----



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

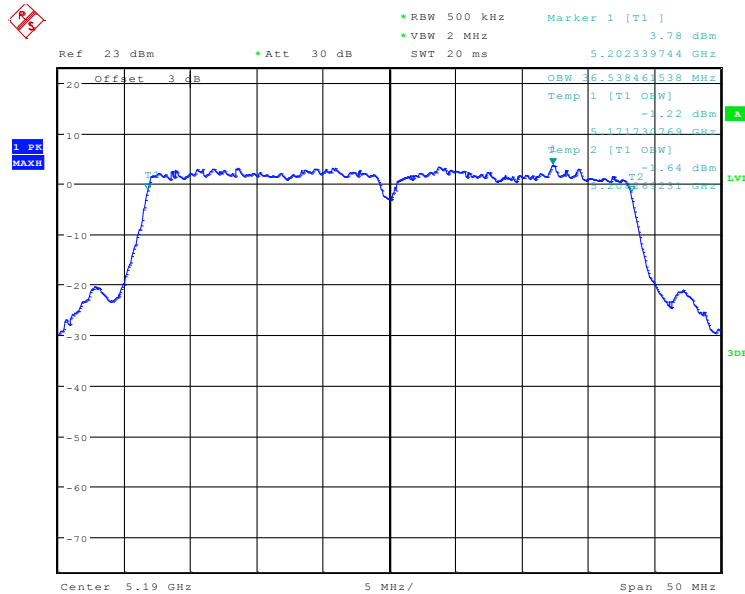


SGS-CSTC Standards Technical Services Ltd.

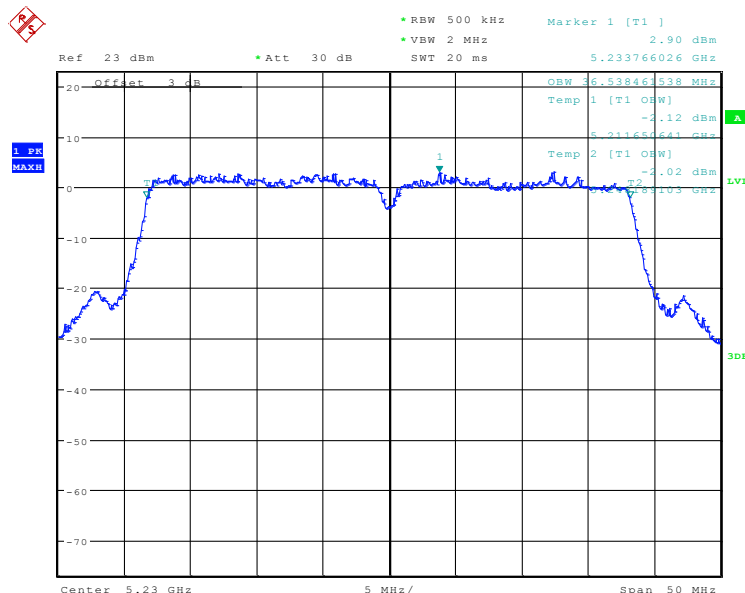
Report No.: SZEM141100618205

Page: 16 of 50

Test mode:	802.11n(HT40)	Test channel:	38
------------	---------------	---------------	----



Test mode:	802.11n(HT40)	Test channel:	46
------------	---------------	---------------	----



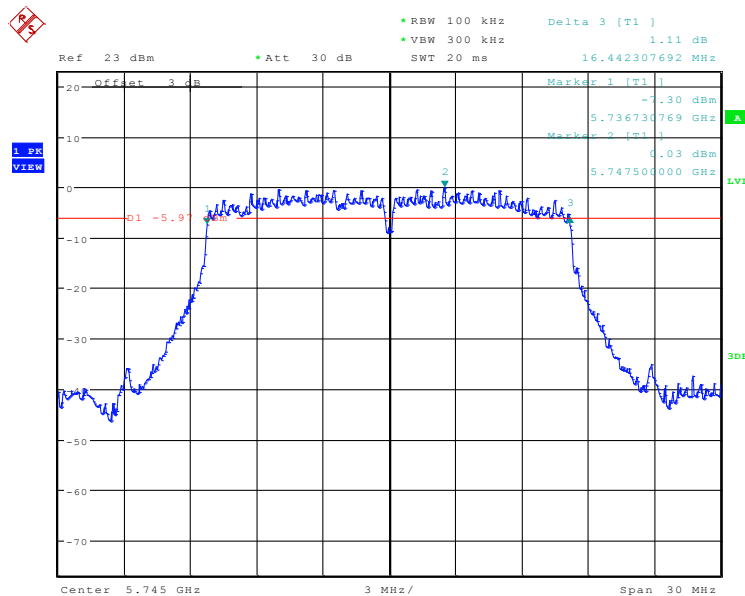
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



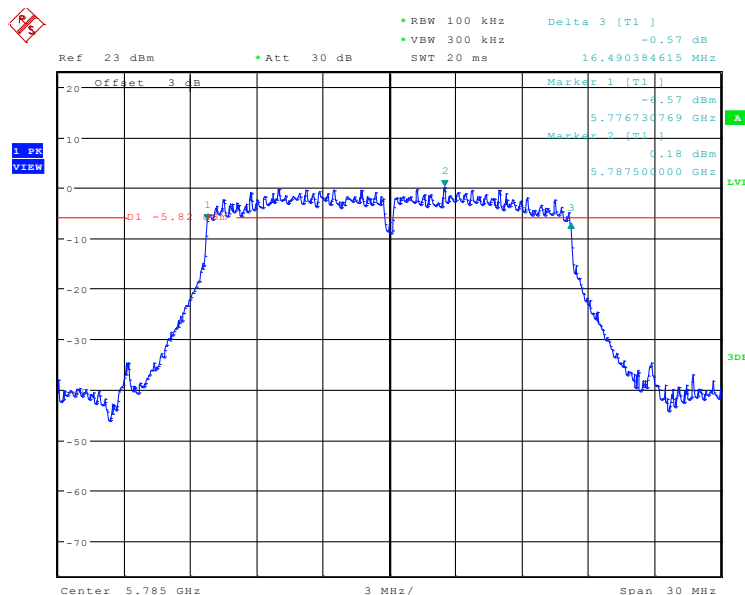
3.4 6dB Emission Bandwidth

Test plot as follows:

Test mode:	802.11a	Test channel:	149
------------	---------	---------------	-----



Test mode:	802.11a	Test channel:	157
------------	---------	---------------	-----



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

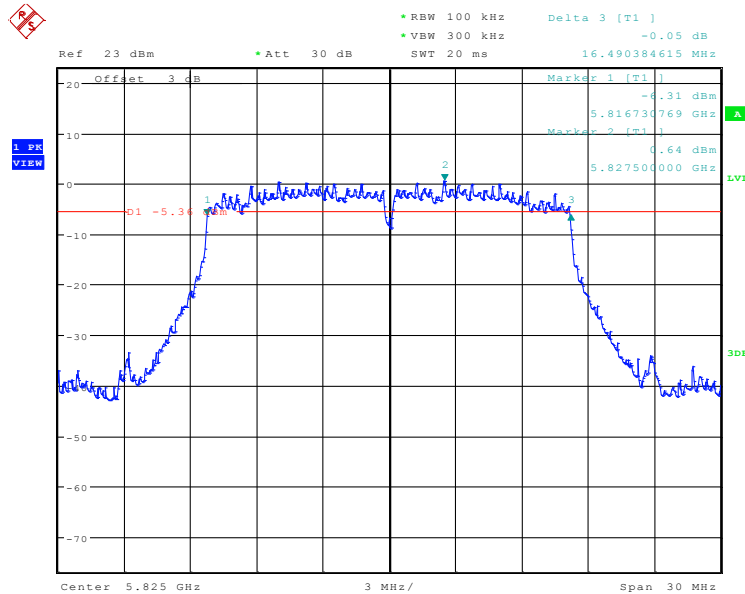


SGS-CSTC Standards Technical Services Ltd.

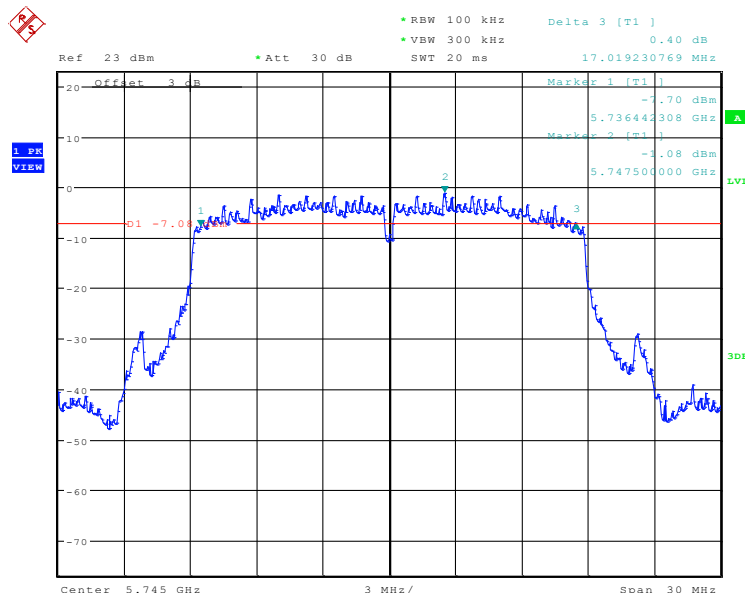
Report No.: SZEM141100618205

Page: 18 of 50

Test mode:	802.11a	Test channel:	165
------------	---------	---------------	-----



Test mode:	802.11n(HT20)	Test channel:	149
------------	---------------	---------------	-----



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

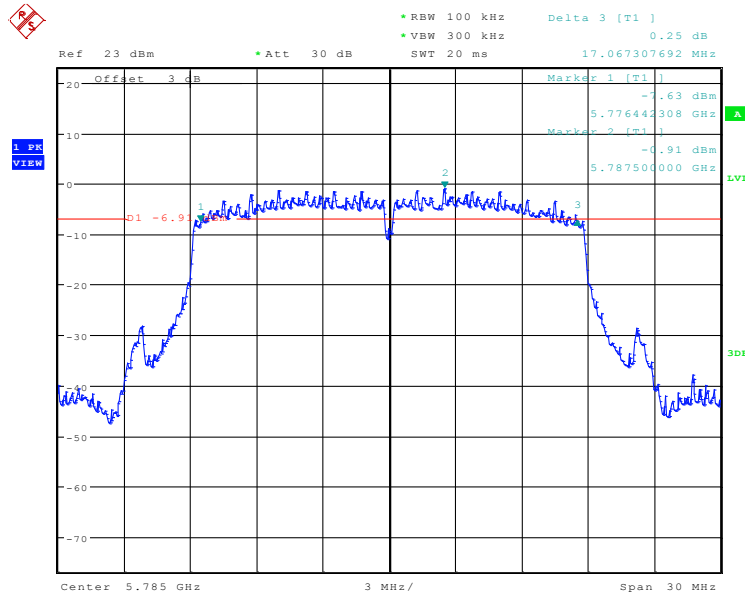


SGS-CSTC Standards Technical Services Ltd.

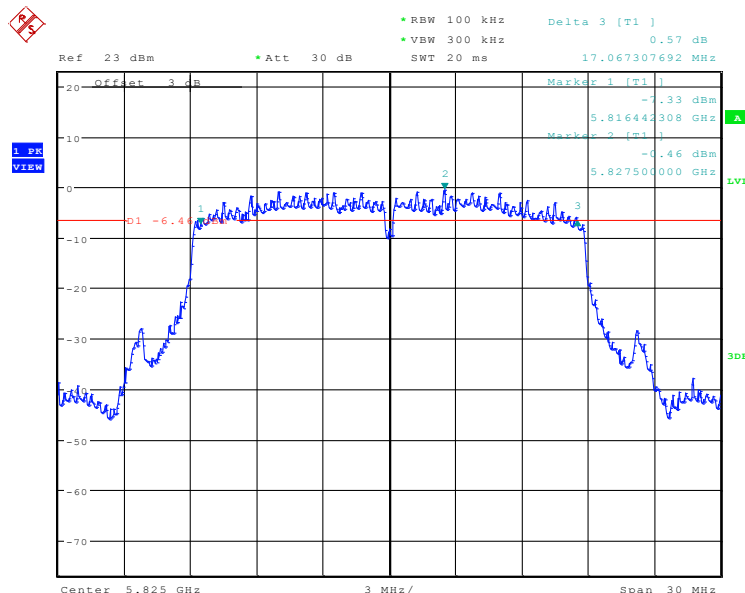
Report No.: SZEM141100618205

Page: 19 of 50

Test mode:	802.11n(HT20)	Test channel:	157
------------	---------------	---------------	-----



Test mode:	802.11n(HT20)	Test channel:	165
------------	---------------	---------------	-----



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

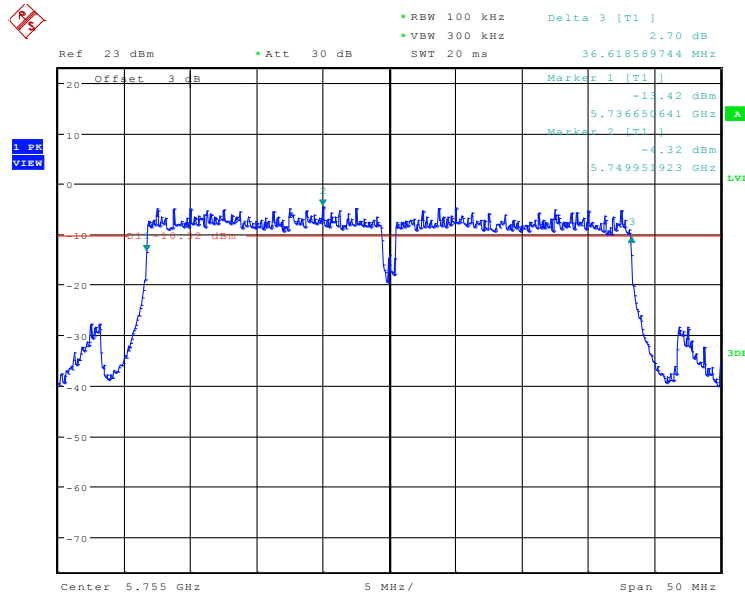


SGS-CSTC Standards Technical Services Ltd.

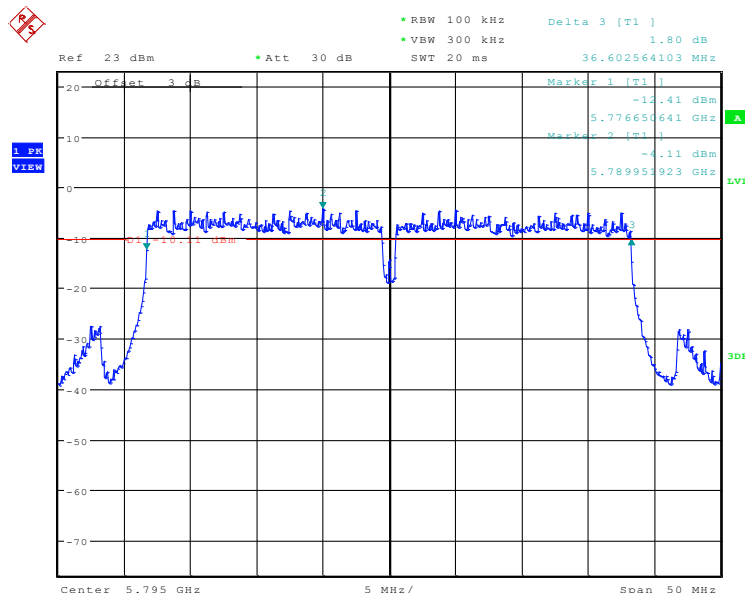
Report No.: SZEM141100618205

Page: 20 of 50

Test mode:	802.11n(HT40)	Test channel:	151
------------	---------------	---------------	-----



Test mode:	802.11n(HT40)	Test channel:	159
------------	---------------	---------------	-----



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

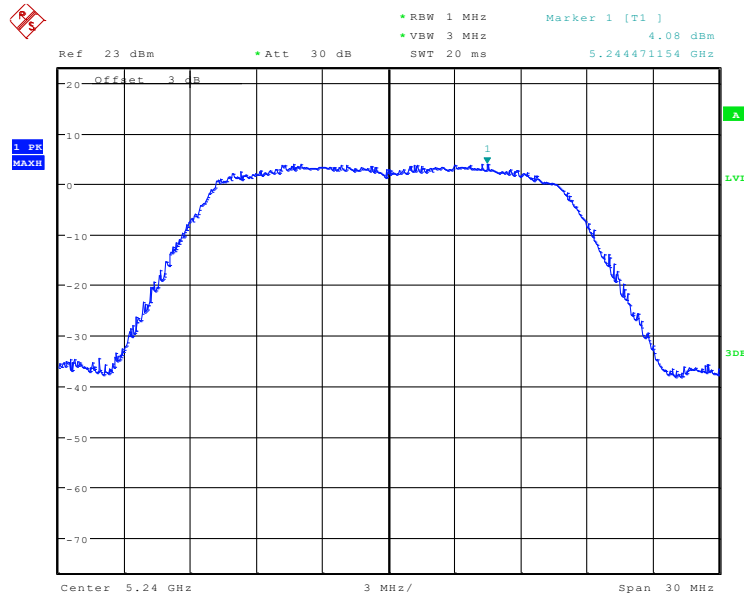


SGS-CSTC Standards Technical Services Ltd.

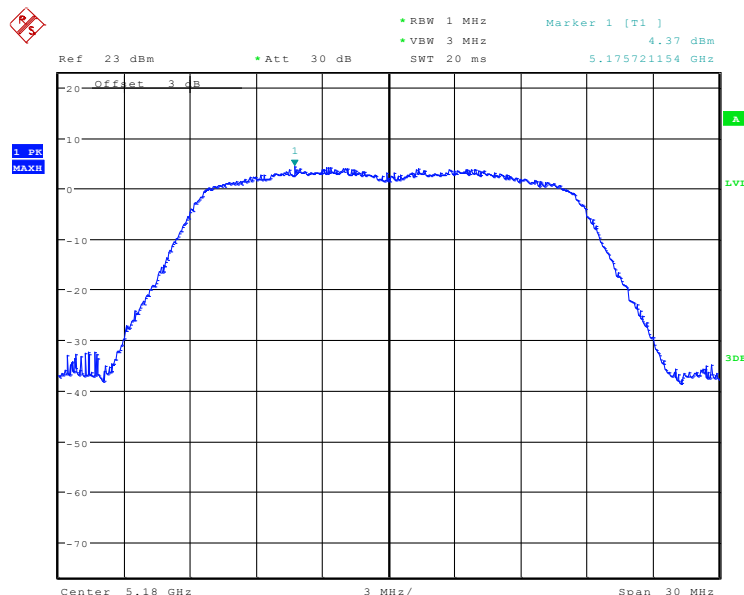
Report No.: SZEM141100618205

Page: 22 of 50

Test mode:	802.11a	Test channel:	48
------------	---------	---------------	----



Test mode:	802.11n(HT20)	Test channel:	36
------------	---------------	---------------	----



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

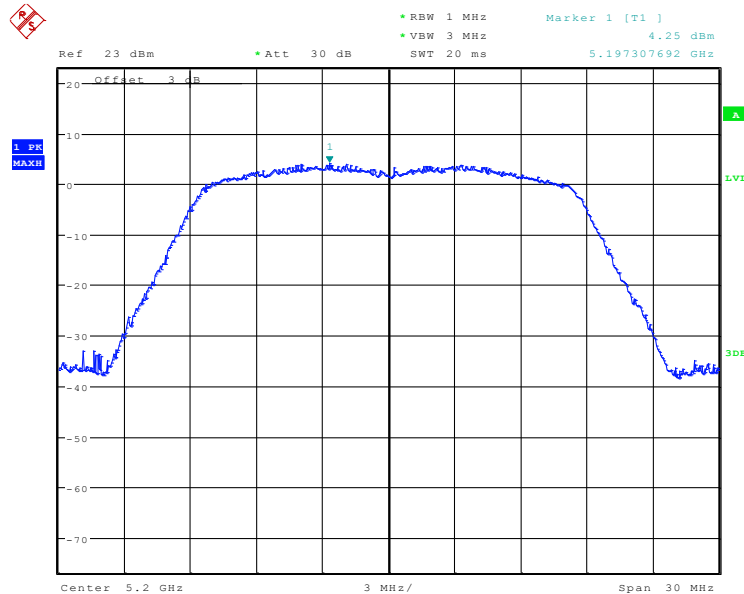


SGS-CSTC Standards Technical Services Ltd.

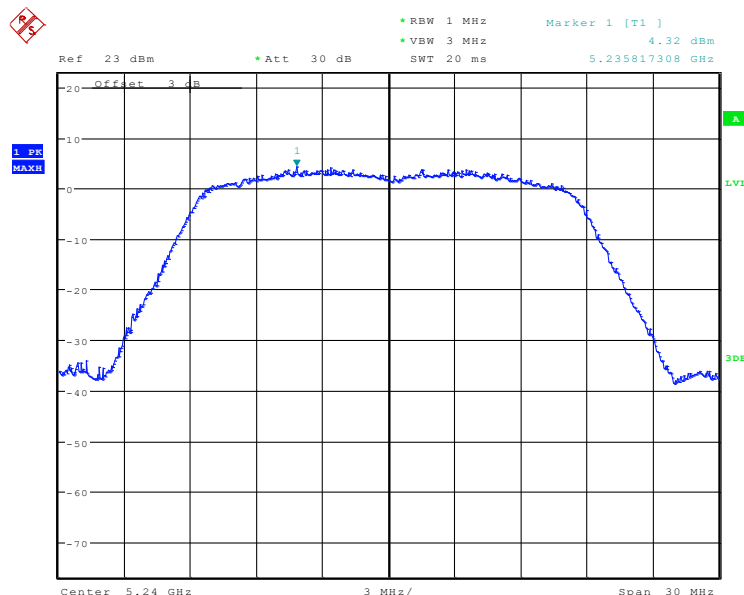
Report No.: SZEM141100618205

Page: 23 of 50

Test mode:	802.11n(HT20)	Test channel:	40
------------	---------------	---------------	----



Test mode:	802.11n(HT20)	Test channel:	48
------------	---------------	---------------	----



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

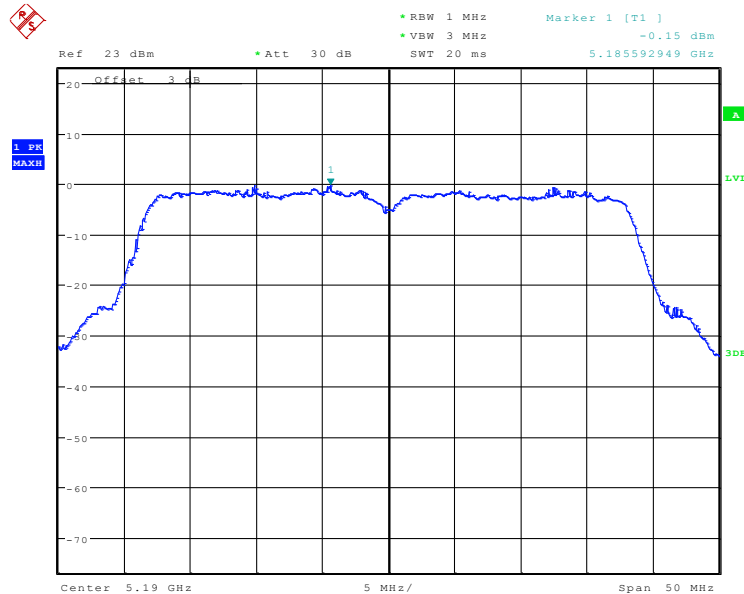


SGS-CSTC Standards Technical Services Ltd.

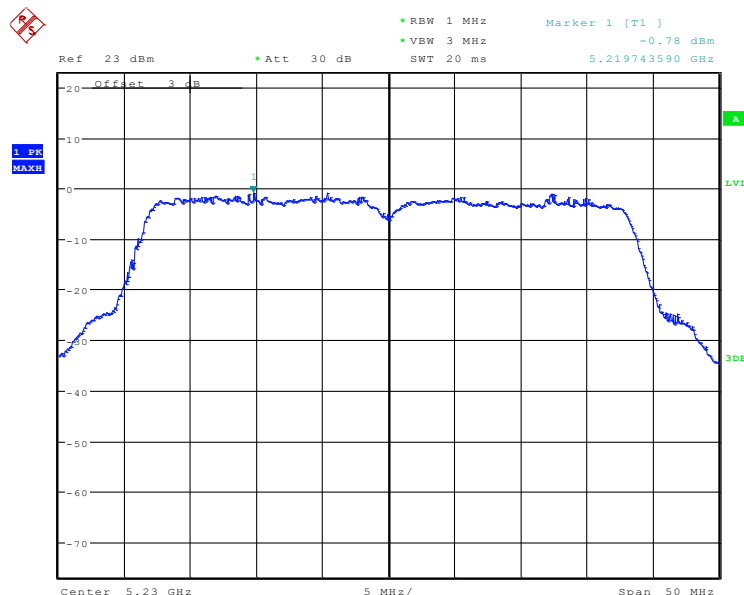
Report No.: SZEM141100618205

Page: 24 of 50

Test mode:	802.11n(HT40)	Test channel:	38
------------	---------------	---------------	----



Test mode:	802.11n(HT40)	Test channel:	46
------------	---------------	---------------	----



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

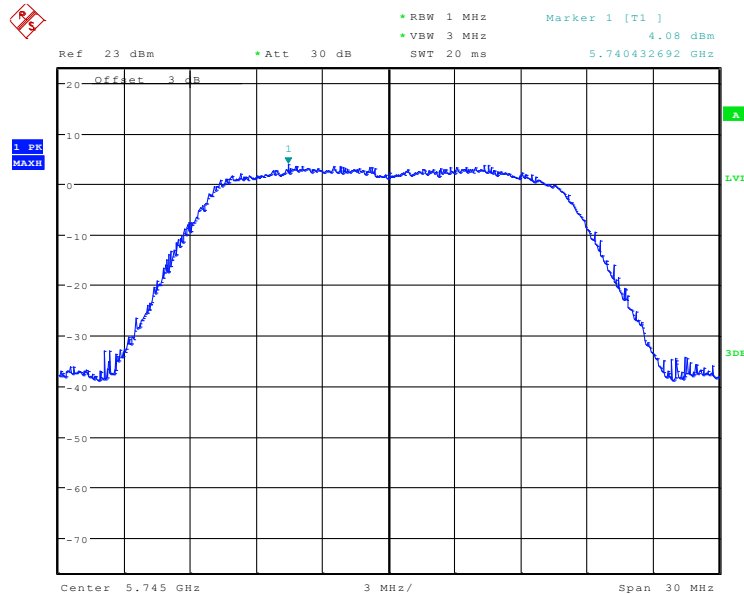


SGS-CSTC Standards Technical Services Ltd.

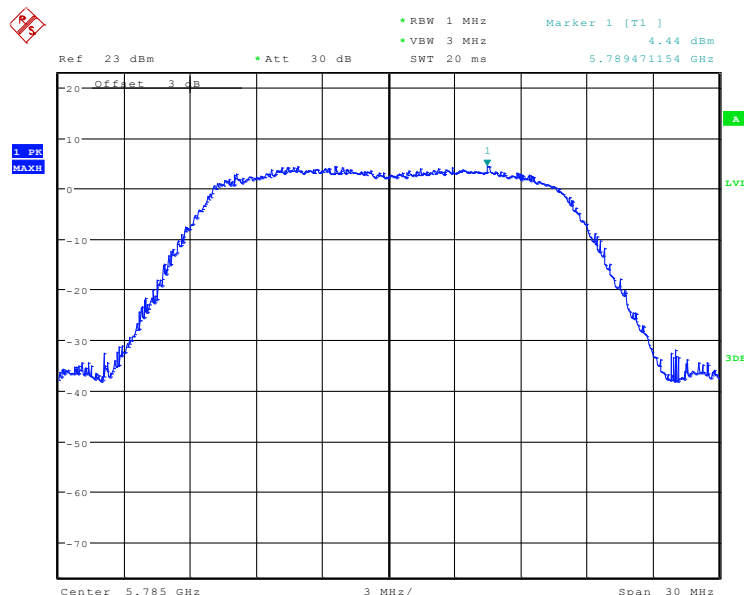
Report No.: SZEM141100618205

Page: 25 of 50

Test mode:	802.11a	Test channel:	149
------------	---------	---------------	-----



Test mode:	802.11a	Test channel:	157
------------	---------	---------------	-----



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

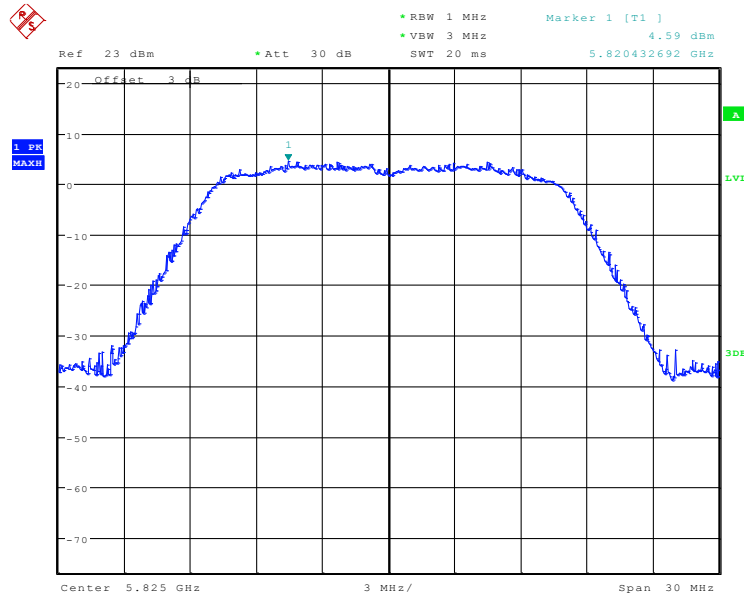


SGS-CSTC Standards Technical Services Ltd.

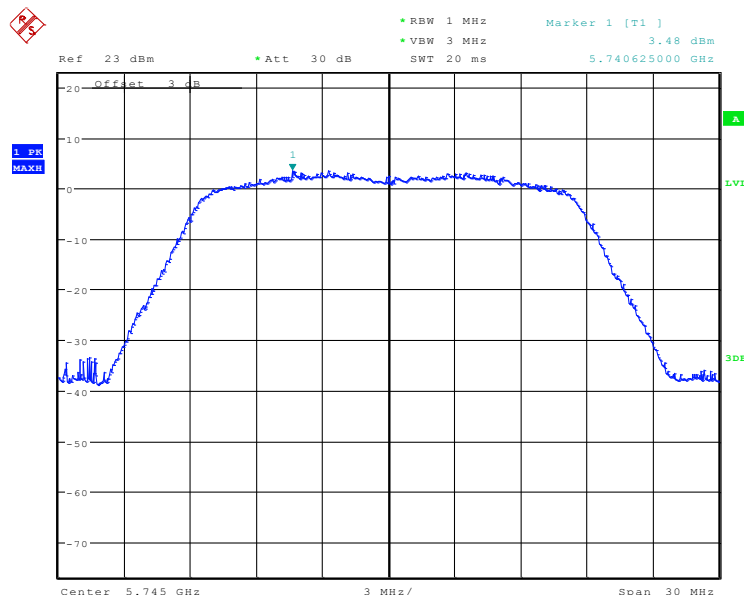
Report No.: SZEM141100618205

Page: 26 of 50

Test mode:	802.11a	Test channel:	165
------------	---------	---------------	-----



Test mode:	802.11n(HT20)	Test channel:	149
------------	---------------	---------------	-----



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

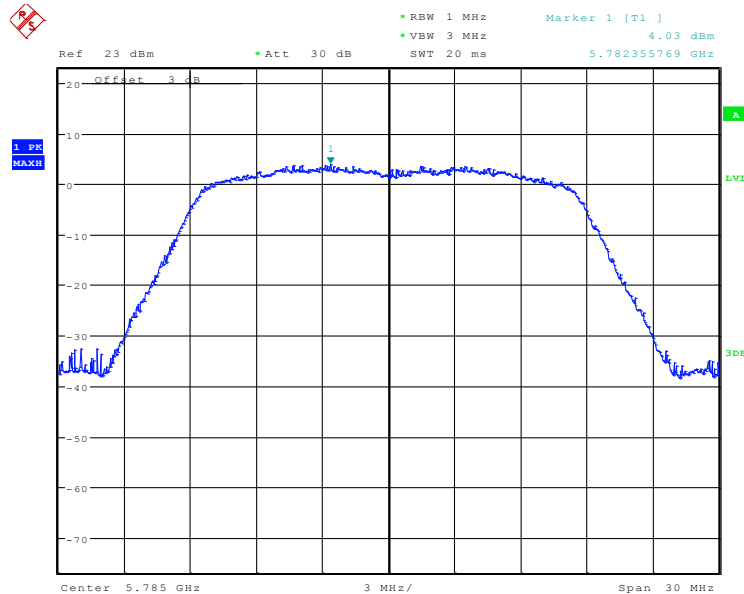


SGS-CSTC Standards Technical Services Ltd.

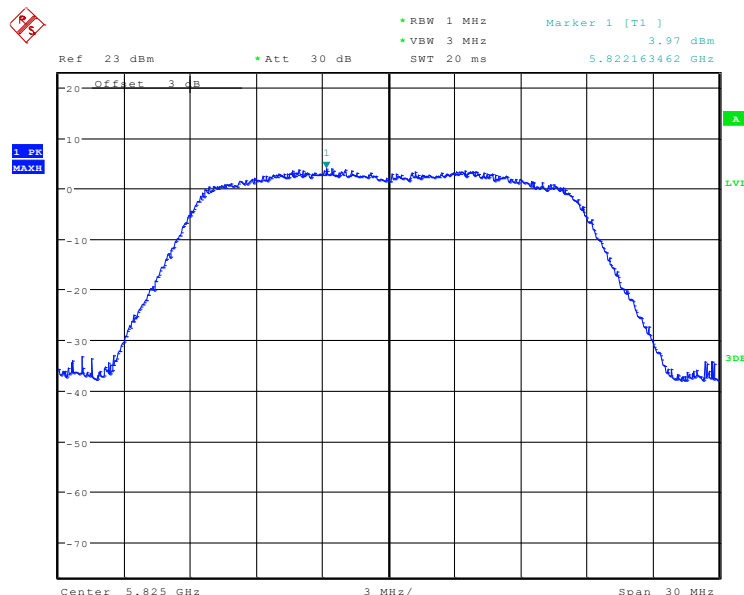
Report No.: SZEM141100618205

Page: 27 of 50

Test mode:	802.11n(HT20)	Test channel:	157
------------	---------------	---------------	-----



Test mode:	802.11n(HT20)	Test channel:	165
------------	---------------	---------------	-----



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

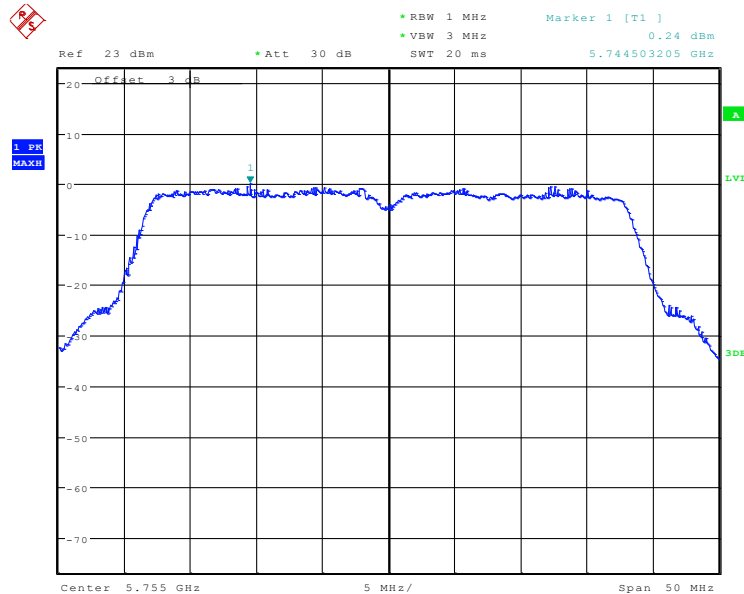


SGS-CSTC Standards Technical Services Ltd.

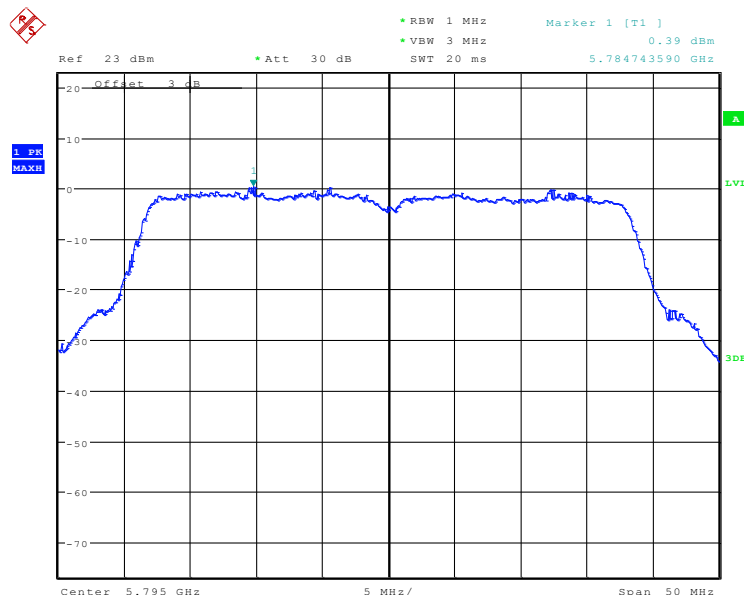
Report No.: SZEM141100618205

Page: 28 of 50

Test mode:	802.11n(HT40)	Test channel:	151
------------	---------------	---------------	-----



Test mode:	802.11n(HT40)	Test channel:	159
------------	---------------	---------------	-----



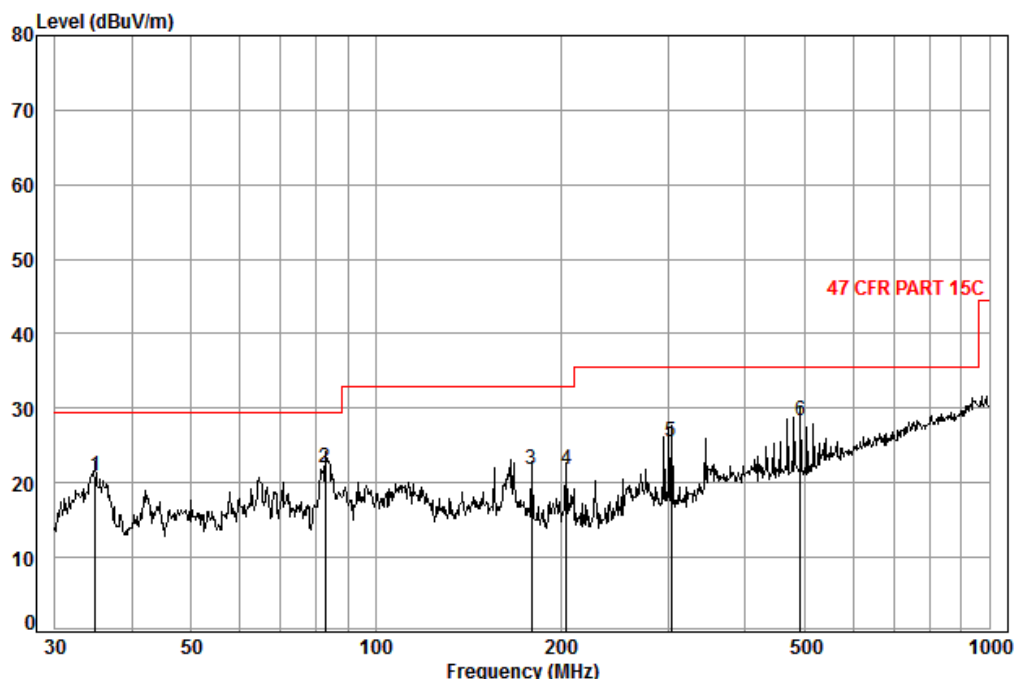
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



3.6 Radiated Spurious Emissions

3.6.1 Radiated emission below 1GHz

30MHz~1GHz (QP)		
Test mode:	Transmitting mode	Vertical

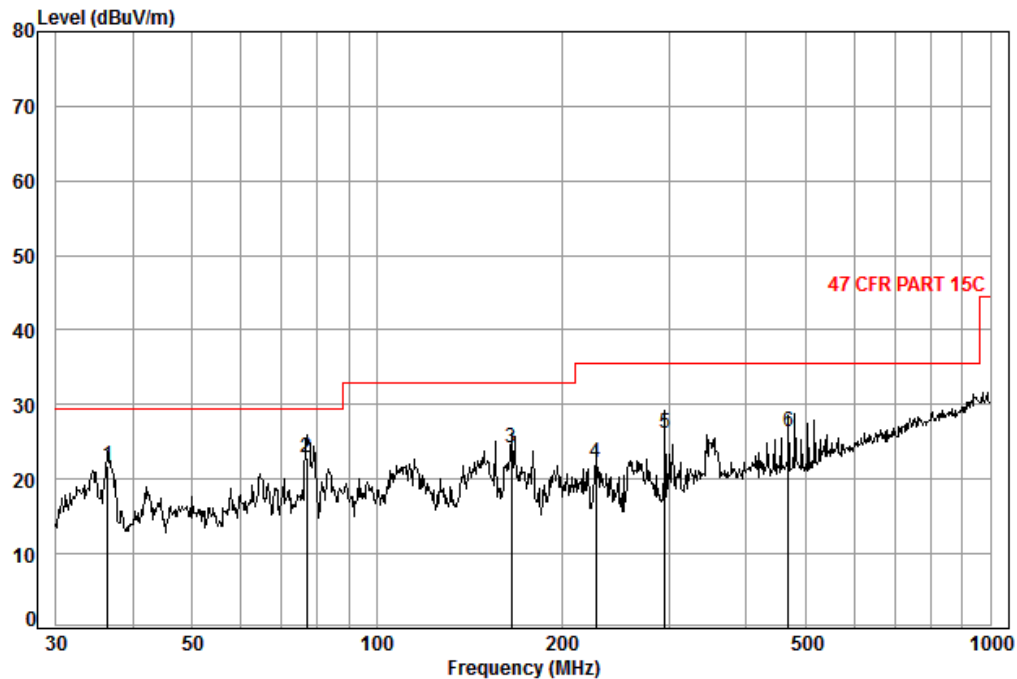


Condition: 47 CFR PART 15C 10m Vertical

Job No. : 6182CR

Test Mode: TX mode

	Freq	Cable Loss	Ant Factor	Preamplifier Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	34.88	6.70	11.68	32.65	35.17	20.90	29.50	-8.60
2	82.65	7.13	7.99	32.64	39.62	22.10	29.50	-7.40
3	179.39	7.50	11.76	32.60	35.16	21.82	33.00	-11.18
4	204.24	7.62	9.91	32.59	36.80	21.74	33.00	-11.26
5	303.54	8.06	13.16	32.55	36.92	25.59	35.60	-10.01
6 pp	492.47	8.56	17.27	32.59	35.06	28.30	35.60	-7.30



Condition: 47 CFR PART 15C 10m Vertical

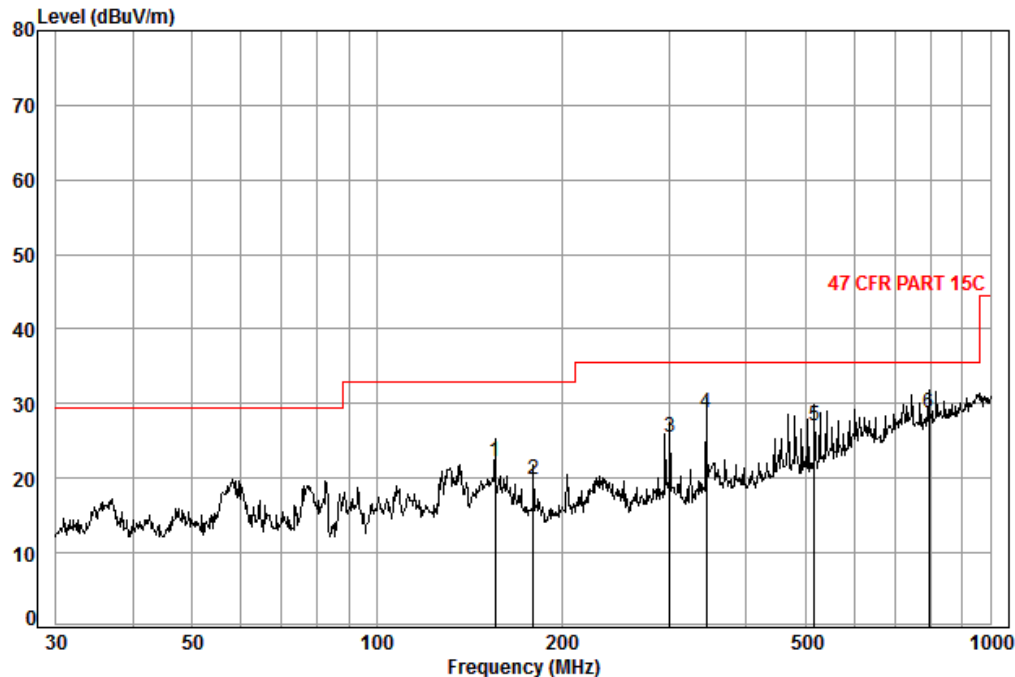
Job No. : 6182CR

Test Mode: TX mode

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	36.38	6.73	11.74	32.65	35.99	21.81	29.50	-7.69
2 pp	76.78	7.04	8.74	32.64	39.74	22.88	29.50	-6.62
3	165.49	7.50	12.84	32.61	36.43	24.16	33.00	-8.84
4	227.69	7.74	10.71	32.58	36.45	22.32	35.60	-13.28
5	295.15	8.04	12.97	32.55	37.79	26.25	35.60	-9.35
6	468.88	8.47	16.92	32.57	33.64	26.46	35.60	-9.14



Test mode:	Transmitting mode	Horizontal
------------	-------------------	------------

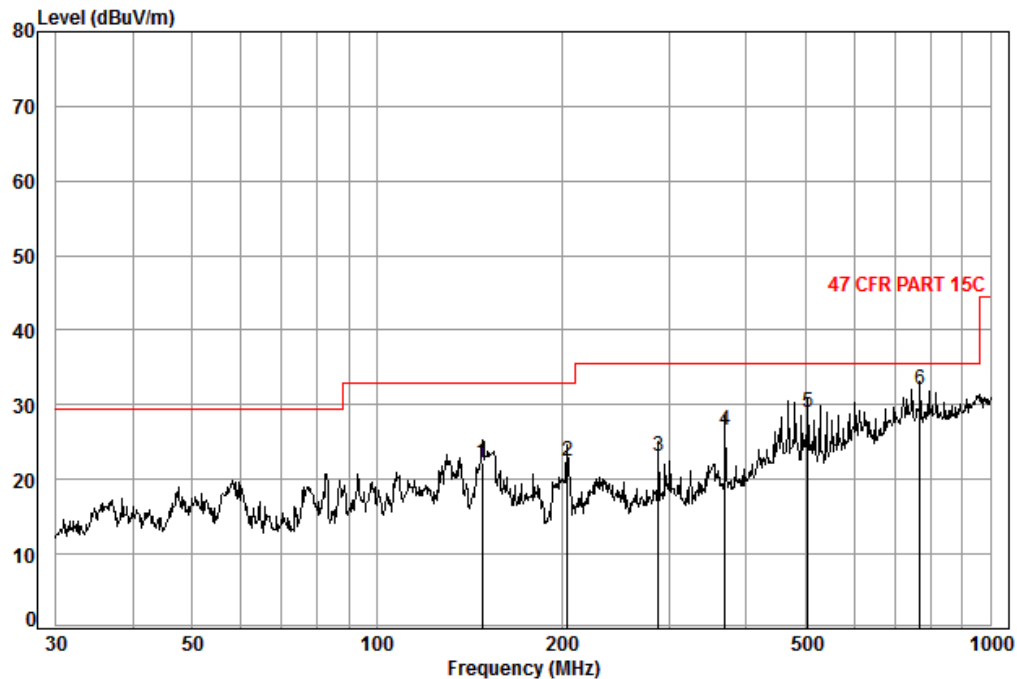


Condition: 47 CFR PART 15C 10m Horizontal

Job No. : 6182CR

Test Mode: TX mode

	Freq	Cable Loss	Ant Factor	Preamplifier Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	155.91	7.48	13.16	32.61	34.18	22.21	33.00	-10.79
2	180.02	7.50	11.71	32.60	33.14	19.75	33.00	-13.25
3	300.37	8.05	13.08	32.55	36.82	25.40	35.60	-10.20
4 pp	344.39	8.22	14.16	32.54	39.00	28.84	35.60	-6.76
5	517.25	8.69	17.61	32.60	33.26	26.96	35.60	-8.64
6	793.40	9.28	22.20	32.38	29.63	28.73	35.60	-6.87



Condition: 47 CFR PART 15C 10m Horizontal

Job No. : 6182CR

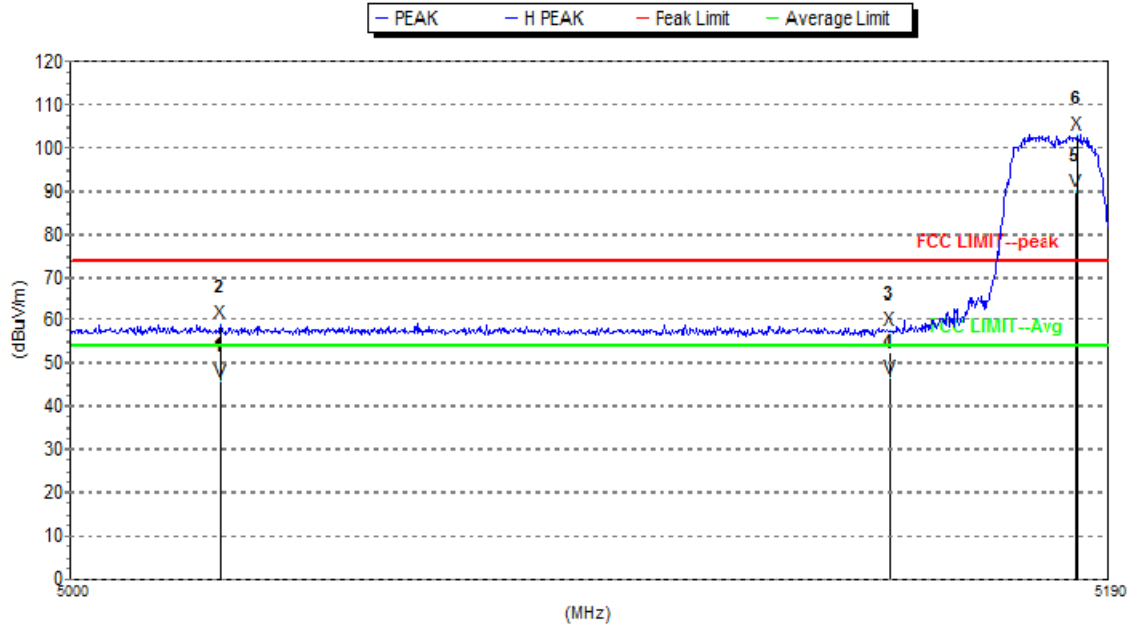
Test Mode: TX mode

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	148.44	7.44	13.09	32.62	34.30	22.21	33.00	-10.79
2	204.24	7.62	9.91	32.59	37.62	22.56	33.00	-10.44
3	287.99	8.02	12.81	32.55	34.77	23.05	35.60	-12.55
4	369.40	8.30	14.69	32.54	36.10	26.55	35.60	-9.05
5	504.71	8.63	17.41	32.59	35.55	29.00	35.60	-6.60
6 pp	768.75	9.22	21.91	32.44	33.35	32.04	35.60	-3.56

3.7 Restricted bands around fundamental frequency

Test plot as follows:

802.11a:



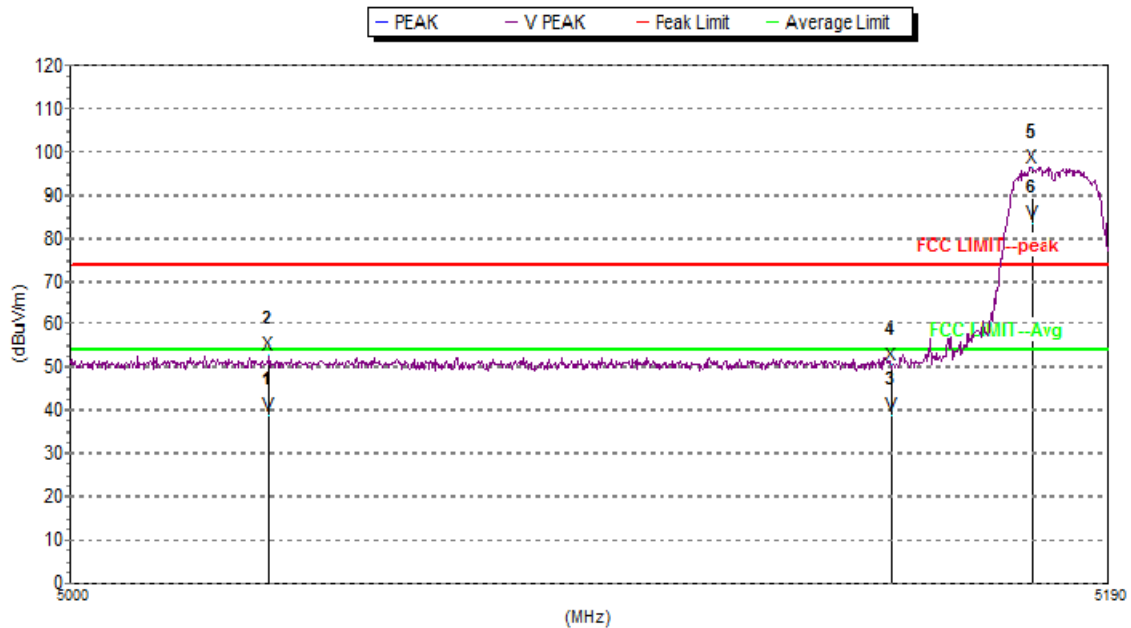
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5027.170	59.3	74.0	14.7	34.4	35.3	6.8	H
2	5149.720	57.6	74.0	16.4	34.1	35.2	6.8	H
3 F	5184.300	103.3	74.0	-29.3	34.1	35.1	6.8	H
Avg								
1	5027.170	45.9	54.0	8.1	34.4	35.3	6.8	H
2	5149.720	46.6	54.0	7.4	34.1	35.2	6.8	H
3 F	5184.3	89.9	54.0	-35.9	34.1	35.1	6.8	H



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 34 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5035.910	52.8	74.0	21.2	34.4	35.3	6.8	V
2	5150.000	50.4	74.0	23.6	34.1	35.2	6.8	V
3 F	5175.750	96.5	74.0	-22.5	34.1	35.1	6.8	V
Avg								
1	5035.910	38.8	54.0	15.2	34.4	35.3	6.8	V
2	5150.000	38.9	54.0	15.1	34.1	35.2	6.8	V
3 F	5175.750	83.4	54.0	-29.4	34.1	35.1	6.8	V

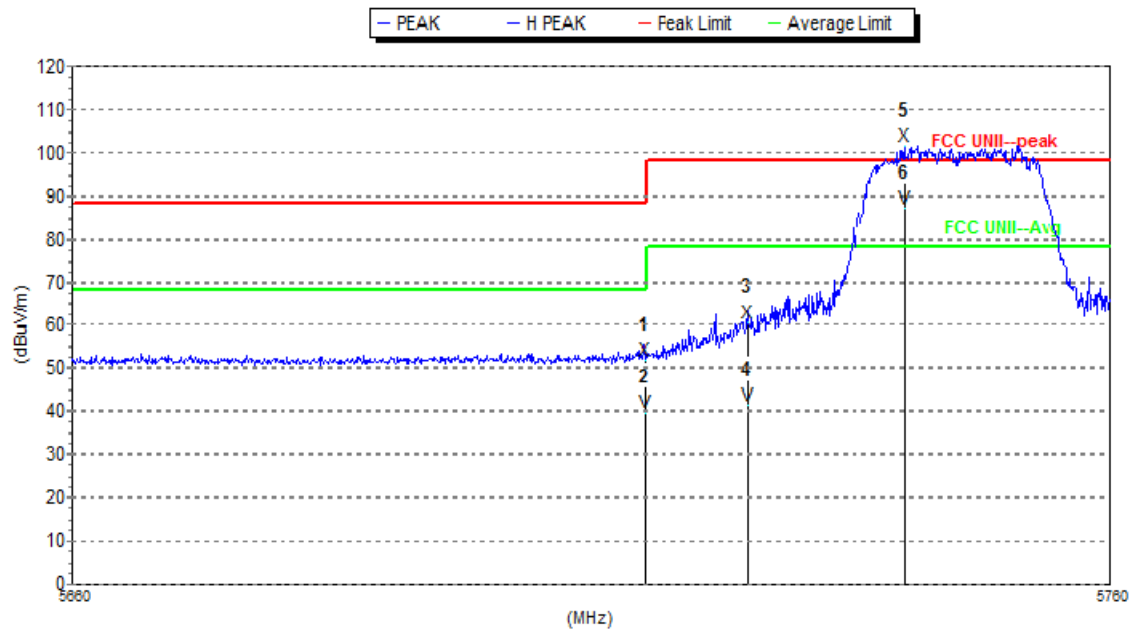
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 35 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	51.6	88.2	36.6	34.3	34.6	7.2	H
2	5725.000	60.8	98.2	37.4	34.2	34.6	7.2	H
3 F	5740.100	101.6	98.2	-3.4	34.2	34.6	7.2	H
Avg								
1	5715.000	39.9	68.2	28.3	34.3	34.6	7.2	H
2	5725.000	41.3	78.2	36.9	34.2	34.6	7.2	H
3 F	5740.100	87.0	78.2	-8.8	34.2	34.6	7.2	H

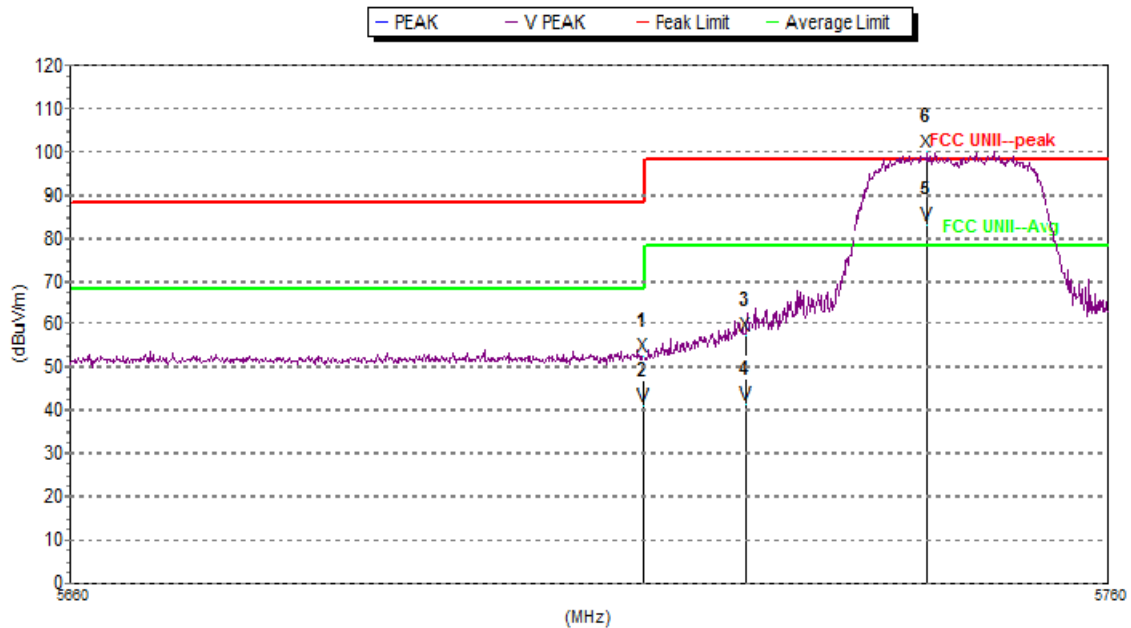
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 36 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	52.4	88.2	35.8	34.3	34.6	7.2	V
2	5725.000	57.3	98.2	40.9	34.2	34.6	7.2	V
3 F	5742.500	100.1	98.2	-1.9	34.2	34.6	7.2	V
Avg								
1	5715.000	41.0	68.2	27.2	34.3	34.6	7.2	V
2	5725.000	41.3	78.2	36.9	34.2	34.6	7.2	V
3 F	5742.500	83.1	78.2	-4.9	34.2	34.6	7.2	V

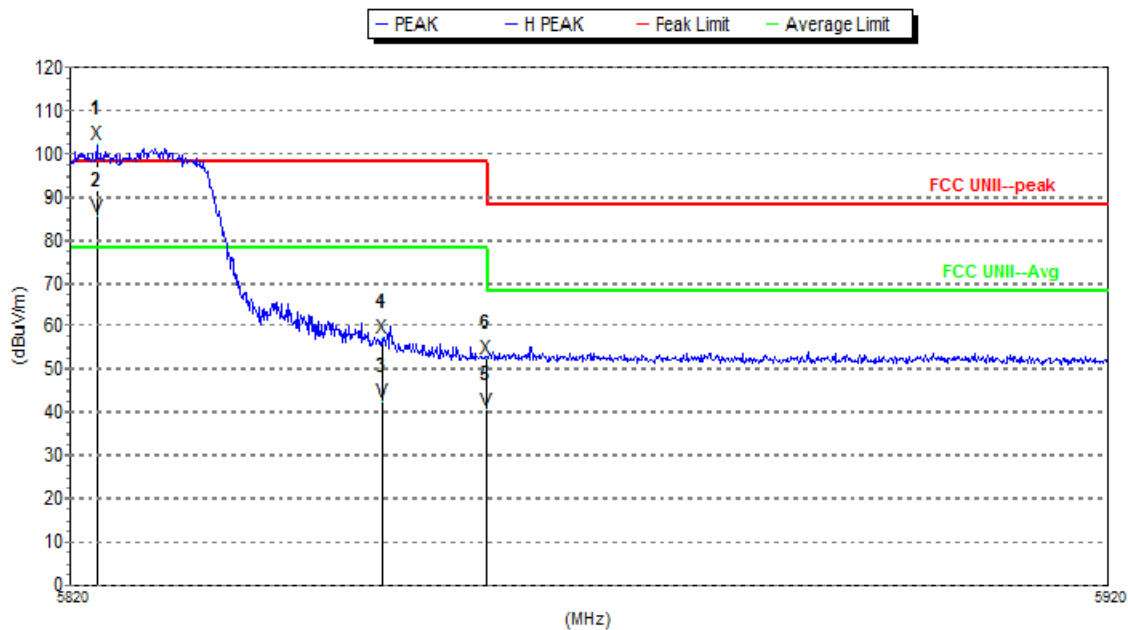
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 37 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1 F	5822.700	102.3	98.2	-4.1	34.3	34.6	7.4	H
2	5850.000	57.5	98.2	40.7	34.4	34.5	7.4	H
3	5860.000	52.5	98.2	45.7	34.5	34.5	7.4	H
Avg								
1 F	5822.700	85.4	78.2	-7.2	34.3	34.6	7.4	H
2	5850.000	42.7	78.2	35.5	34.4	34.5	7.4	H
3	5860.000	40.7	78.2	37.5	34.5	34.5	7.4	H

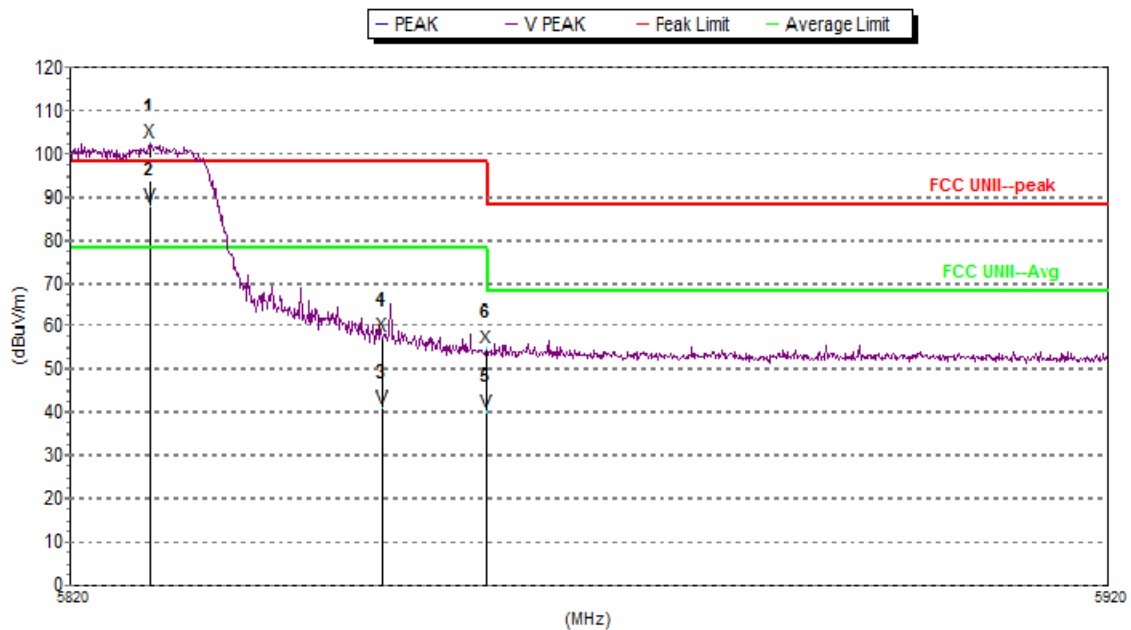
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 38 of 50

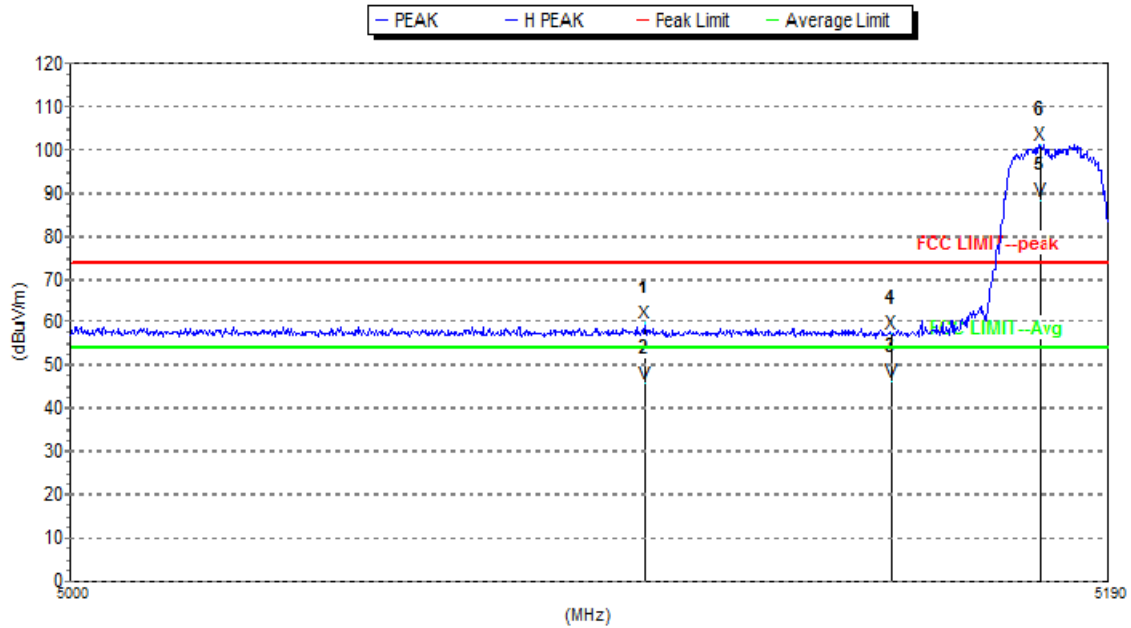


Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1 F	5827.800	102.9	98.2	-4.7	34.4	34.6	7.4	V
2	5850.000	57.7	98.2	40.5	34.4	34.5	7.4	V
3	5860.000	55.0	98.2	43.2	34.5	34.5	7.4	V
Avg								
1 F	5827.800	87.9	78.2	-9.7	34.4	34.6	7.4	V
2	5850.000	40.9	78.2	37.3	34.4	34.5	7.4	V
3	5860.000	40.2	78.2	38.0	34.5	34.5	7.4	V

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



802.11n(HT20):



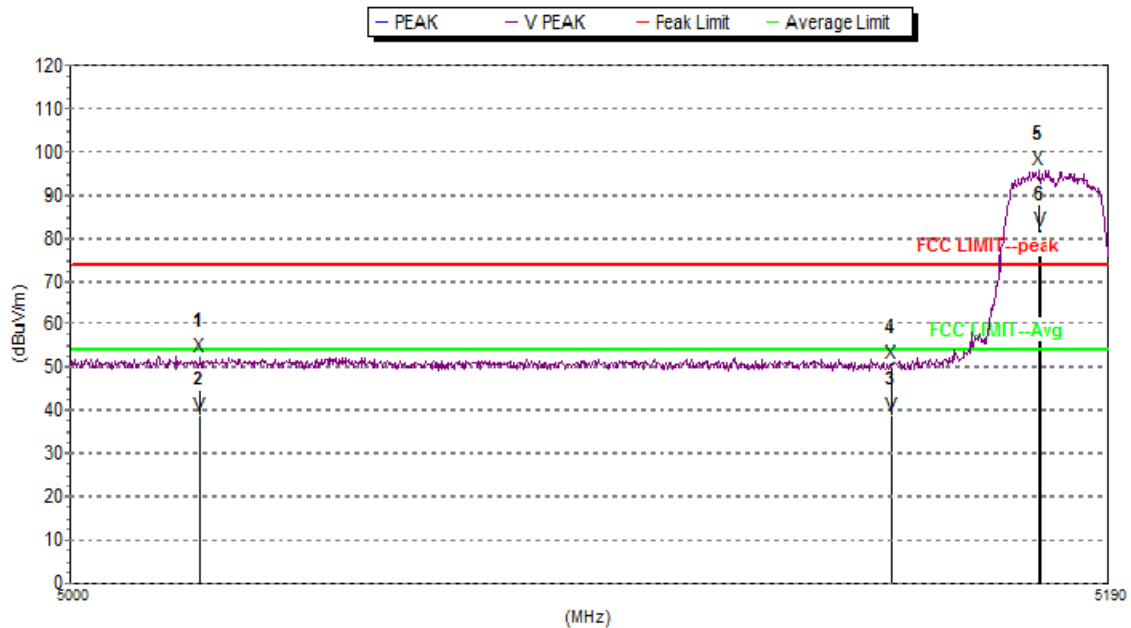
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5104.310	59.6	74.0	14.4	34.2	35.2	6.8	H
2	5150.000	57.5	74.0	16.5	34.1	35.2	6.8	H
3 F	5177.270	101.3	74.0	-27.3	34.1	35.1	6.8	H
Avg								
1	5104.310	45.8	54.0	8.2	34.2	35.2	6.8	H
2	5150.000	46.2	54.0	7.8	34.1	35.2	6.8	H
3 F	5177.270	88.1	54.0	-34.1	34.1	35.1	6.8	H



SGS-CSTC Standards Technical Services Ltd.

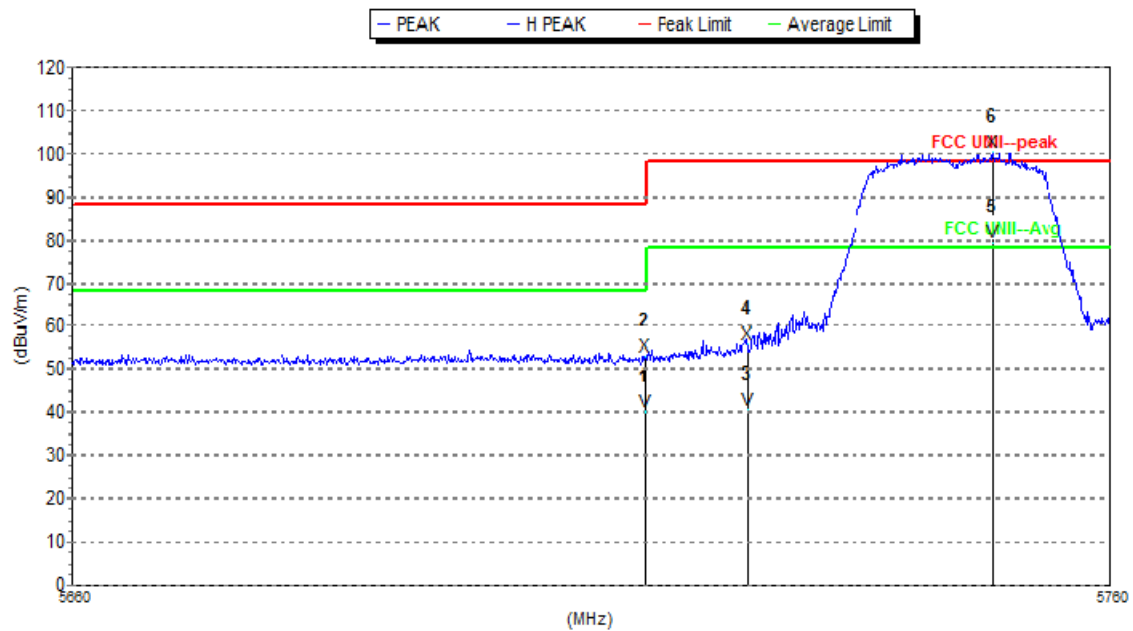
Report No.: SZEM141100618205

Page: 40 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5023.560	52.7	74.0	21.3	34.5	35.3	6.8	V
2	5150.000	50.8	74.0	23.2	34.1	35.2	6.8	V
3 F	5177.080	95.9	74.0	-21.9	34.1	35.1	6.8	V
Avg								
1	5023.560	39.1	54.0	14.9	34.5	35.3	6.8	V
2	5150.000	38.9	54.0	15.1	34.1	35.2	6.8	V
3 F	5177.08	81.7	54.0	-27.7	34.1	35.1	6.8	V

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



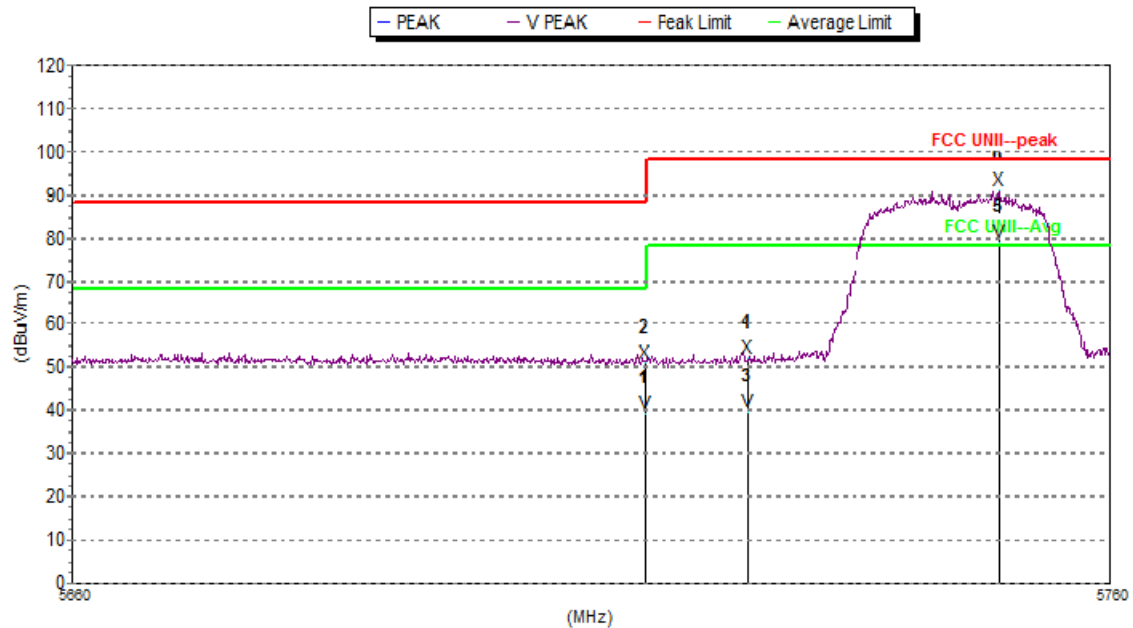
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	52.8	88.2	35.4	34.3	34.6	7.2	H
2	5725.000	55.8	98.2	42.4	34.2	34.6	7.2	H
3 F	5748.600	100.2	98.2	-2.0	34.2	34.6	7.2	H
Avg								
1	5715.000	40.0	68.2	28.2	34.3	34.6	7.2	H
2	5725.000	40.4	78.2	37.8	34.2	34.6	7.2	H
3 F	5748.600	79.5	78.2	-1.3	34.2	34.6	7.2	H



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 42 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	50.9	88.2	37.3	34.3	34.6	7.2	V
2	5725.000	52.1	98.2	46.1	34.2	34.6	7.2	V
3	5749.200	91.2	98.2	7.0	34.2	34.6	7.2	V
Avg								
1	5715.000	39.4	68.2	28.8	34.3	34.6	7.2	V
2	5725.000	39.8	78.2	38.4	34.2	34.6	7.2	V
3 F	5749.200	79.2	78.2	-1.0	34.2	34.6	7.2	V

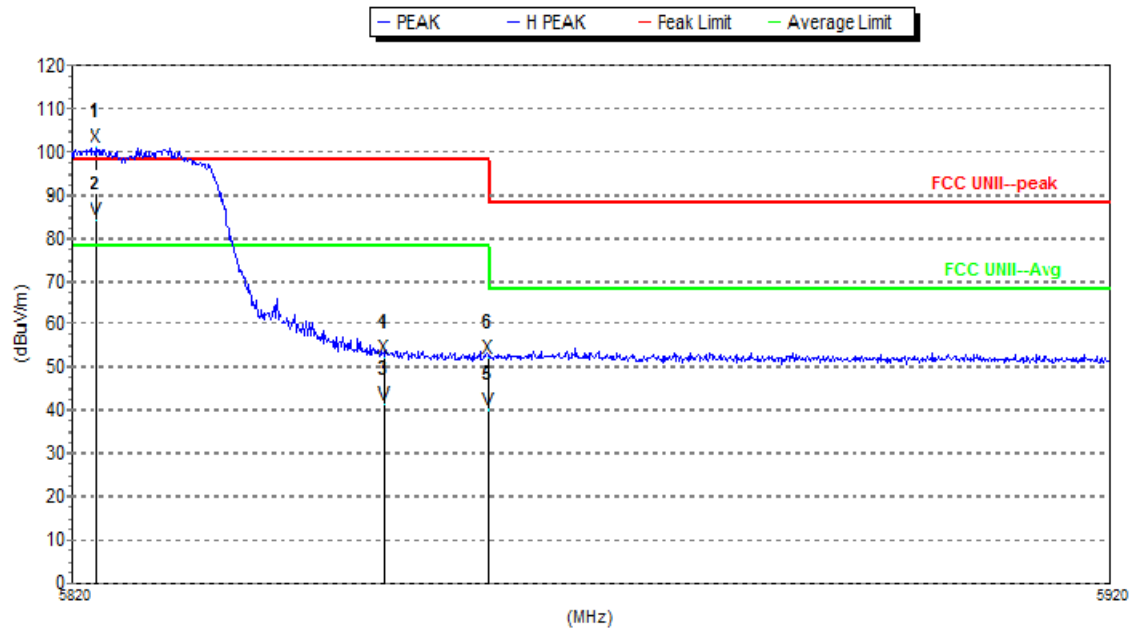
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 43 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1 F	5822.500	101.2	98.2	-3.0	34.3	34.6	7.4	H
2	5850.000	52.1	98.2	46.1	34.4	34.5	7.4	H
3	5860.000	52.0	98.2	46.2	34.5	34.5	7.4	H
Avg								
1 F	5822.500	84.1	78.2	-5.9	34.3	34.6	7.4	H
2	5850.000	41.3	78.2	36.9	34.4	34.5	7.4	H
3	5860.000	40.2	78.2	38.0	34.5	34.5	7.4	H

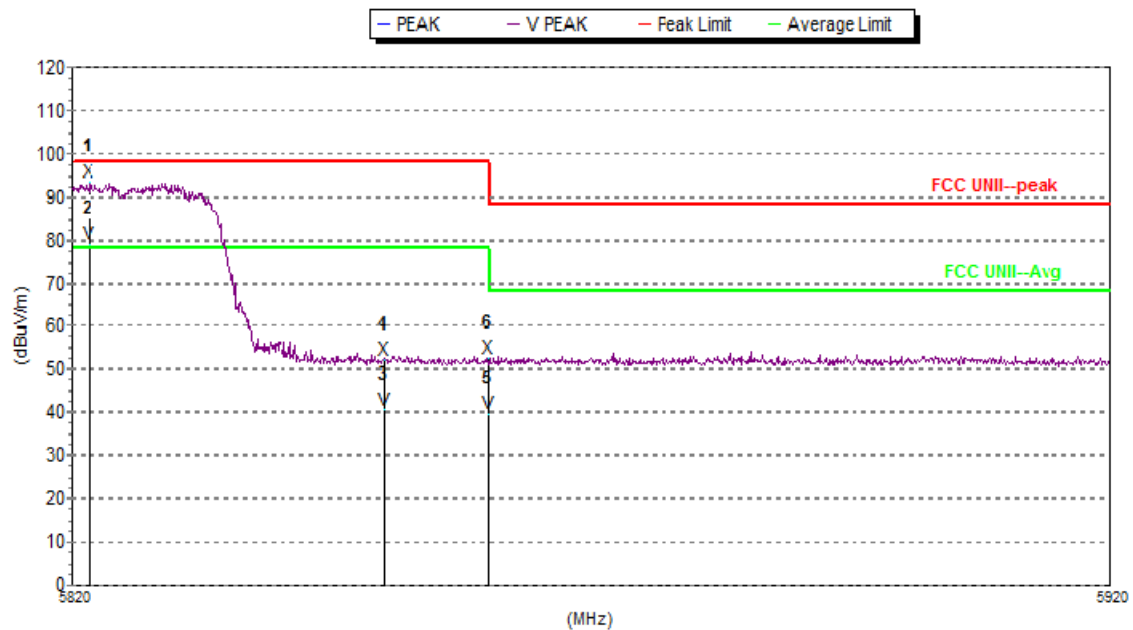
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 44 of 50

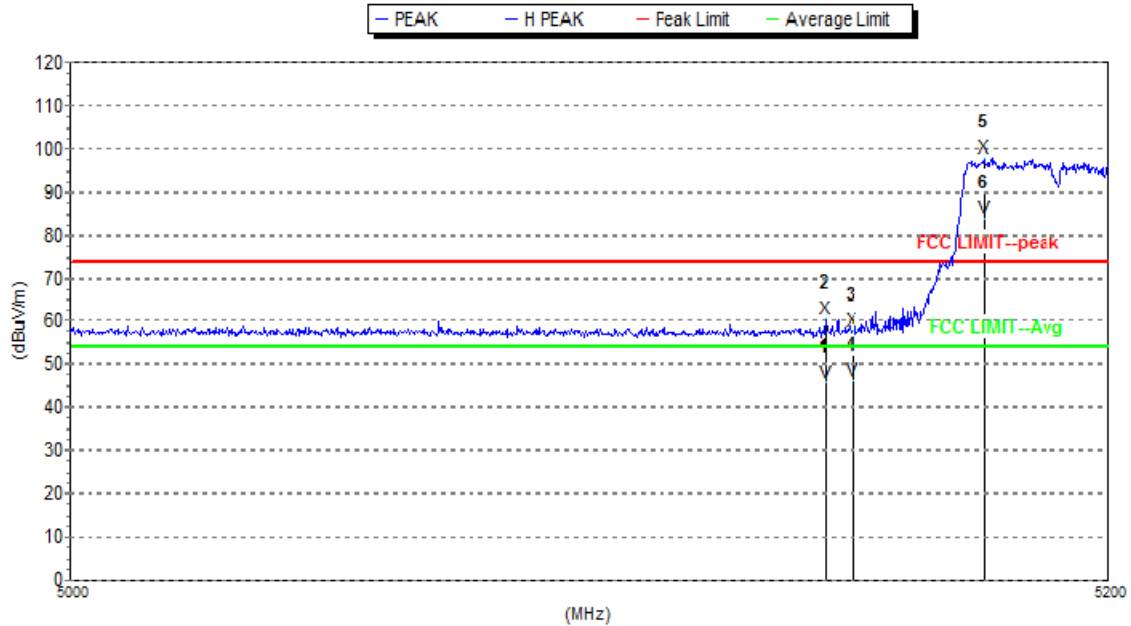


Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5821.700	93.5	98.2	4.7	34.3	34.6	7.4	V
2	5850.000	52.2	98.2	46.0	34.4	34.5	7.4	V
3	5860.000	52.4	98.2	45.8	34.5	34.5	7.4	V
Avg								
1 F	5821.700	79.1	78.2	-0.9	34.3	34.6	7.4	V
2	5850.000	40.4	78.2	37.8	34.4	34.5	7.4	V
3	5860.000	39.9	78.2	38.3	34.5	34.5	7.4	V

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



802.11n(HT40):



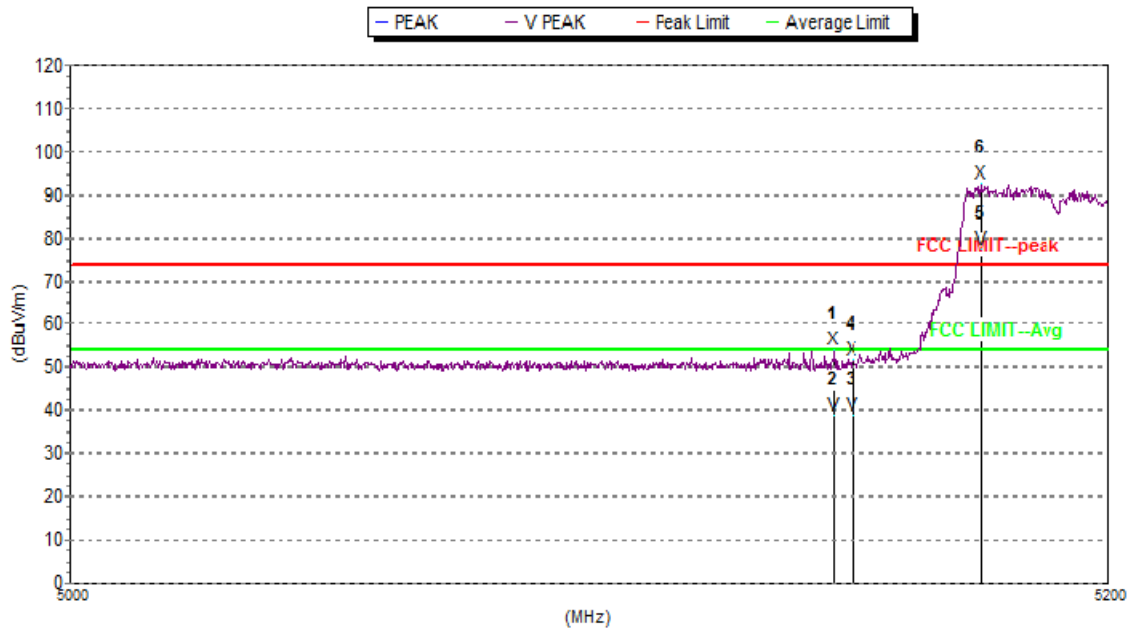
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5144.800	60.6	74.0	13.4	34.1	35.2	6.8	H
2	5150.000	57.7	74.0	16.3	34.1	35.2	6.8	H
3 F	5175.600	98.0	74.0	-24.0	34.1	35.1	6.8	H
Avg								
1	5144.800	45.9	54.0	8.1	34.1	35.2	6.8	H
2	5150.000	46.1	54.0	7.9	34.1	35.2	6.8	H
3 F	5175.600	84.0	54.0	-30.0	34.1	35.1	6.8	H



SGS-CSTC Standards Technical Services Ltd.

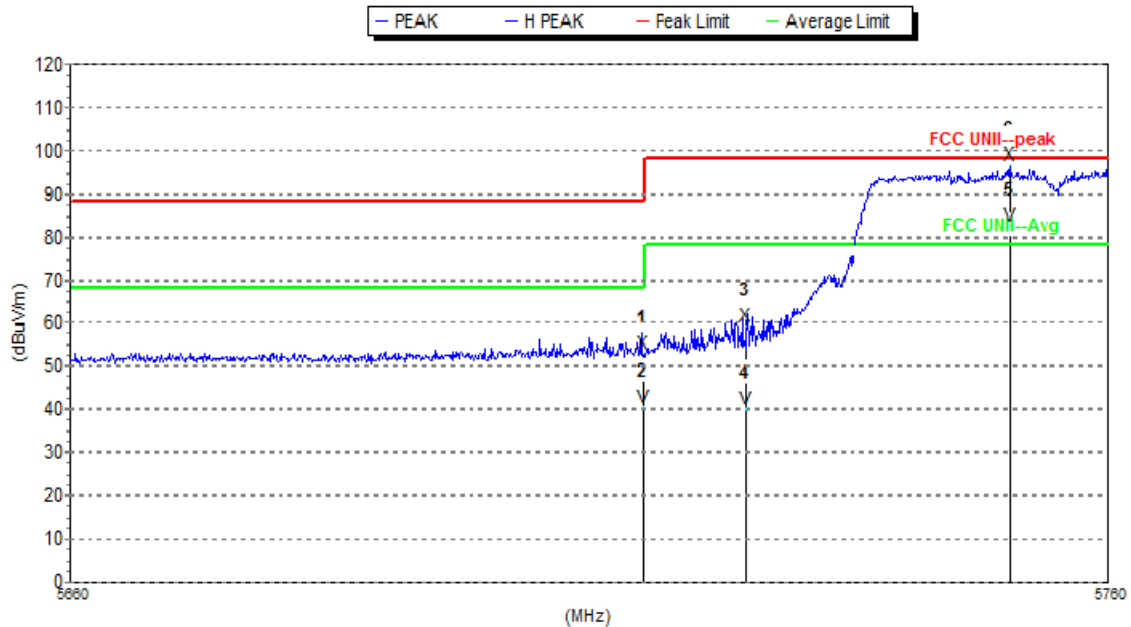
Report No.: SZEM141100618205

Page: 46 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5146.400	54.0	74.0	20.0	34.1	35.2	6.8	V
2	5150.000	51.9	74.0	22.1	34.1	35.2	6.8	V
3 F	5175.000	92.6	74.0	-18.6	34.1	35.1	6.8	V
Avg								
1	5146.400	38.8	54.0	15.2	34.1	35.2	6.8	V
2	5150.000	39.0	54.0	15.0	34.1	35.2	6.8	V
3 F	5175.000	77.3	54.0	-23.3	34.1	35.1	6.8	V

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



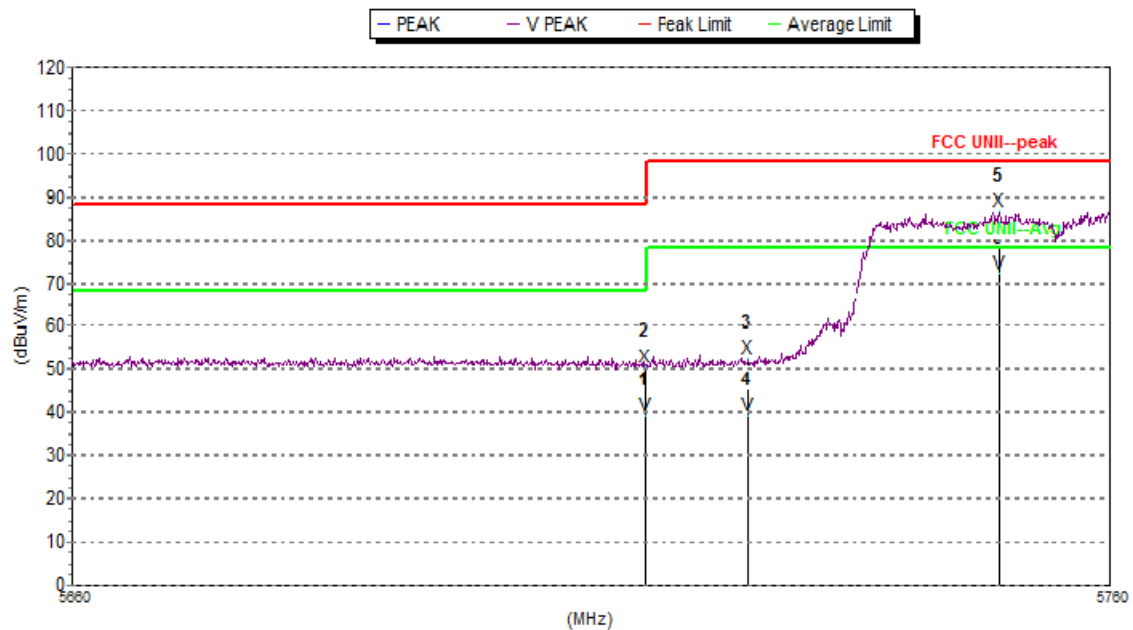
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	52.9	88.2	35.3	34.3	34.6	7.2	H
2	5725.000	59.5	98.2	38.7	34.2	34.6	7.2	H
3	5750.400	96.6	98.2	1.6	34.2	34.6	7.2	H
Avg								
1	5715.000	40.6	68.2	27.6	34.3	34.6	7.2	H
2	5725.000	40.3	78.2	37.9	34.2	34.6	7.2	H
3 F	5750.400	82.7	78.2	-4.5	34.2	34.6	7.2	H



SGS-CSTC Standards Technical Services Ltd.

Report No.: SZEM141100618205

Page: 48 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	50.6	88.2	37.6	34.3	34.6	7.2	V
2	5725.000	52.6	98.2	45.6	34.2	34.6	7.2	V
3	5749.200	86.8	98.2	11.4	34.2	34.6	7.2	V
Avg								
1	5715.000	39.3	68.2	28.9	34.3	34.6	7.2	V
2	5725.000	39.5	78.2	38.7	34.2	34.6	7.2	V
3	5749.200	72.3	78.2	5.9	34.2	34.6	7.2	V

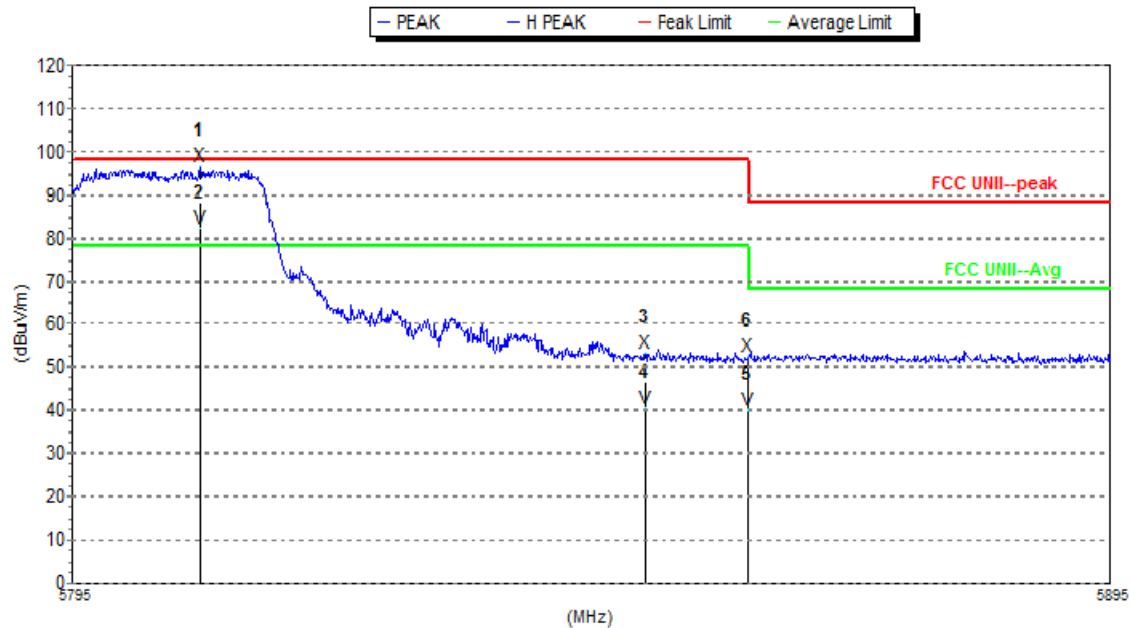
"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm.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



SGS-CSTC Standards Technical Services Ltd.

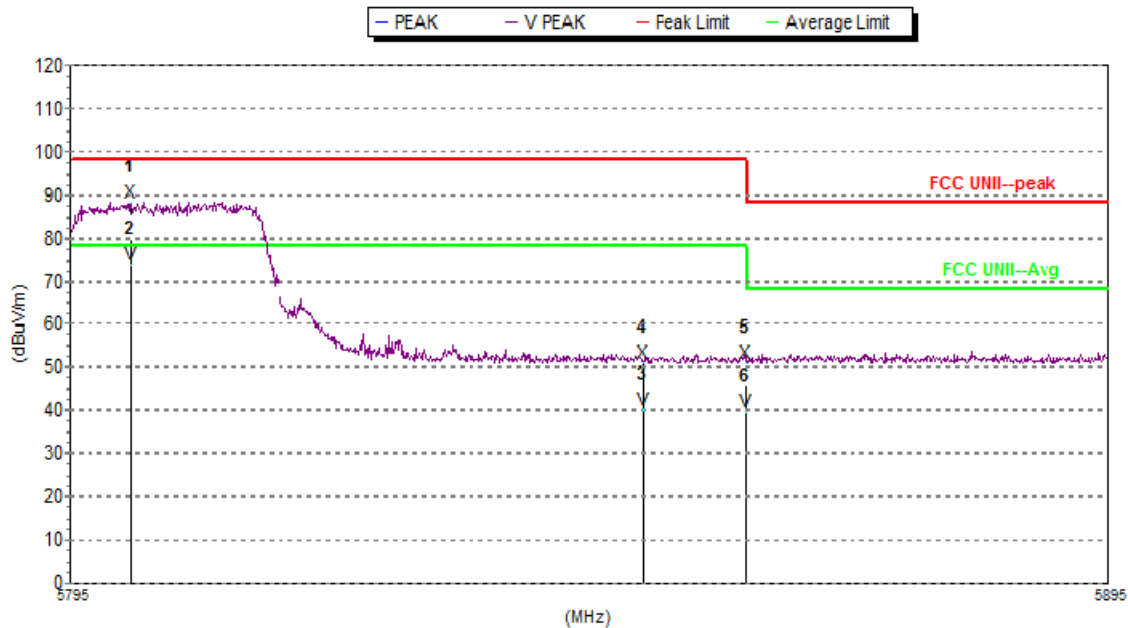
Report No.: SZEM141100618205

Page: 49 of 50



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5807.300	96.8	98.2	1.4	34.3	34.6	7.3	H
2	5850.000	53.4	98.2	44.8	34.4	34.5	7.4	H
3	5860.000	52.4	98.2	45.8	34.5	34.5	7.4	H
Avg								
1 F	5807.300	82.1	78.2	-3.9	34.3	34.6	7.3	H
2	5850.000	40.5	78.2	37.7	34.4	34.5	7.4	H
3	5860.000	40.0	78.2	38.2	34.5	34.5	7.4	H

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



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5800.900	88.4	98.2	9.8	34.3	34.6	7.3	V
2	5850.000	51.1	98.2	47.1	34.4	34.5	7.4	V
3	5860.000	50.9	98.2	47.3	34.5	34.5	7.4	V
Avg								
1	5800.900	73.9	78.2	4.3	34.3	34.6	7.3	V
2	5850.000	40.1	78.2	38.1	34.4	34.5	7.4	V
3	5860.000	39.9	78.2	38.3	34.5	34.5	7.4	V

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