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### TEST REPORT

Application No.:	SZEM1804003478CR
Applicant:	Furrion Ltd.
Address of Applicant:	Units 503c & 505-508, Level 5, Core D, Cyberport 3, 100 Cyberport Road, Hong Kong
Manufacturer:	Furrion Ltd.
Address of Manufacturer:	Units 503c & 505-508, Level 5, Core D, Cyberport 3, 100 Cyberport Road, Hong Kong
Factory:	Furrion Ltd.
Address of Factory:	Units 503c & 505-508, Level 5, Core D, Cyberport 3, 100 Cyberport Road, Hong Kong
Equipment Under Test (EU	T):
EUT Name:	LTE WiFi Router
Model No.:	FAN17B8B, FAN17B83 🜲
÷.	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Trade mark:	FURRION
FCC ID:	2ABH3-FAN17
Standard(s) :	47 CFR Part 15, Subpart C 15.247
Date of Receipt:	2018-05-22
Date of Test:	2018-05-24 to 2018-06-15
Date of Issue:	2018-06-20
Test Result:	Pass*

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



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.



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2018-06-20		Original

Authorized for issue by:		
	Relisonti	
	Edison Li /Project Engineer	
	Evic Fu	
	Eric Fu /Reviewer	



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### 2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(c)	Pass

Radio Spectrum Matter Part					
Item	Standard	Method	Requirement	Result	
Minimum 6dB	47 CFR Part 15,	ANSI C63.10 (2013)	47 CFR Part 15, Subpart	Pass	
Bandwidth	Subpart C 15.247	Section 11.8.1	C 15.247a(2)		
Conducted Peak	47 CFR Part 15,	ANSI C63.10 (2013)	47 CFR Part 15, Subpart	Pass	
Output Power	Subpart C 15.247	Section 11.9.1	C 15.247(b)(3)		
Power Spectrum	47 CFR Part 15,	ANSI C63.10 (2013)	47 CFR Part 15, Subpart	Pass	
Density	Subpart C 15.247	Section 11.10.2	C 15.247(e)		
Conducted Band	47 CFR Part 15,	ANSI C63.10 (2013)	47 CFR Part 15, Subpart	Pass	
Edges Measurement	Subpart C 15.247	Section 11.13.3.2	C 15.247(d)		
Conducted Spurious	47 CFR Part 15,	ANSI C63.10 (2013)	47 CFR Part 15, Subpart	Pass	
Emissions	Subpart C 15.247	Section 11.11	C 15.247(d)		
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass	
Radiated Spurious	47 CFR Part 15,	ANSI C63.10 (2013)	47 CFR Part 15, Subpart	Pass	
Emissions	Subpart C 15.247	Section 6.4,6.5,6.6	C 15.209 & 15.247(d)		

#### **Declaration of EUT Family Grouping:**

Model No.: FAN17B8B, FAN17B83

Only the model FAN17B8B was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for all the above models, only the difference as below:

Model	Description
FAN17B8B	Internet Access Point, LTE and Wi-Fi Booster, with ceiling mount bracket
FAN17B83	Internet Access Point, LTE and Wi-Fi Booster, without ceiling mount bracket



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### 4 General Information

#### 4.1 Details of E.U.T.

Power supply:	DC 12V
Internal source:	More than 108MHz
Type of Modulation:	IEEE for 802.11b: DSSS (CCK, DQPSK, DBPSK)
	IEEE for 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK)
	IEEE for 802.11n (HT20/HT40): OFDM (64QAM, 16QAM, QPSK, BPSK)
Operating Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz
	IEEE 802.11n(HT40): 2422MHz to 2452MHz
Channel Number:	IEEE 802.11b/g, IEEE 802.11n(HT20): 11 Channels
	IEEE 802.11n(HT40): 7 Channels
Channels Step:	Channels with 5MHz step
Sample Type:	Fixed production
Antenna Type:	Integral
Antenna Gain:	Antenna1/Antenna2:2dBi

#### 4.2 Description of Support Units

Description Manufacturer		Model No.	Serial No.
DC power	ZHAOXIN	RXN-305D	REF. No.SEA2700

#### 4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	± 7.25 x 10 <sup>-8</sup>
2	Duty cycle	± 0.37%
3	Occupied Bandwidth	± 3%
4	RF conducted power	± 0.75dB
5	RF power density	± 2.84dB
6	Conducted Spurious emissions	± 0.75dB
7	7 RF Radiated power	± 4.5dB (below 1GHz)
/		± 4.8dB (above 1GHz)
8	Radiated Spurious emission test	± 4.5dB (Below 1GHz)
0		± 4.8dB (Above 1GHz)
9	Temperature test	± 1 ℃
10	Humidity test	± 3%
11	Supply voltages	± 1.5%
12	Time	± 3%



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#### 4.4 Test Location

All tests were performed at:

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

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.

#### 4.5 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.

#### A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

#### • VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

#### FCC – Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

#### Industry Canada (IC)

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

#### 4.6 Deviation from Standards

None

#### 4.7 Abnormalities from Standard Conditions

None



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### 5 Equipment List

RF Conducted Test					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2017-09-27	2018-09-26
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2018-04-02	2019-04-01
Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2017-07-13	2018-07-12
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2017-09-27	2018-09-26
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2017-09-27	2018-09-26
Power Sensor	KEYSIGHT	U2021XA	SEM009-13	2018-04-13	2019-04-12
Power Sensor	KEYSIGHT	U2021XA	SEM009-14	2018-04-13	2019-04-12
Power Sensor	KEYSIGHT	U2021XA	SEM009-15	2018-04-13	2019-04-12
Power Sensor	KEYSIGHT	U2021XA	SEM009-16	2018-04-13	2019-04-12

Radiated Emissions which fall in the restricted bands					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018-03-13	2021-03-12
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2017-07-13	2018-07-12
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2018-04-02	2019-04-01
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017-06-27	2020-06-26
Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2018-04-13	2021-04-12
Horn Antenna (15GHz-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017-10-17	2020-10-16
Pre-amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2017-09-27	2018-09-26
Low Noise Amplifier (100MHz-18GHz)	Black Diamond Series	BDLNA-0118- 352810	SEM005-05	2017-09-27	2018-09-27
Pre-amplifier(18-26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2018-04-02	2019-04-01
Pre-amplifier (26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2018-04-02	2019-04-01
DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2017-09-27	2018-09-26
Active Loop Antenna	ETS-Lindgren	6502	SEM003-08	2017-08-22	2020-08-21
Band filter	N/A	N/A	SEM023-01	N/A	N/A

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Radiated Spurious Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018-03-13	2021-03-12
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2017-07-13	2018-07-12
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2018-04-02	2019-04-01
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017-06-27	2020-06-26
Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2018-04-13	2021-04-12
Horn Antenna (15GHz-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017-10-17	2020-10-16
Pre-amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2017-09-27	2018-09-26
Low Noise Amplifier (100MHz-18GHz)	Black Diamond Series	BDLNA-0118- 352810	SEM005-05	2017-09-27	2018-09-27
Pre-amplifier(18-26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2018-04-02	2019-04-01
Pre-amplifier (26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2018-04-02	2019-04-01
DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2017-09-27	2018-09-26
Active Loop Antenna	ETS-Lindgren	6502	SEM003-08	2017-08-22	2020-08-21
Band filter	N/A	N/A	SEM023-01	N/A	N/A

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-03	2017-09-29	2018-09-28
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-04	2017-09-29	2018-09-28
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2017-09-29	2018-09-28
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2018-04-08	2019-04-07



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### 6 Radio Spectrum Technical Requirement

#### 6.1 Antenna Requirement

#### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(c)

#### 6.1.2 Conclusion

#### Standard Requirement:

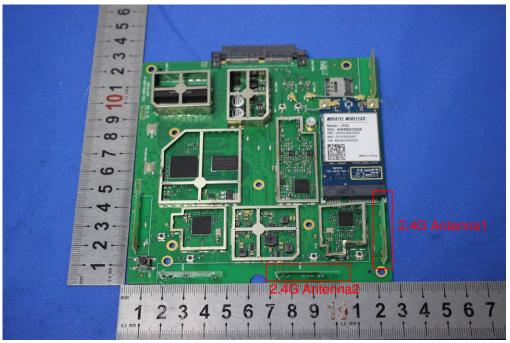
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit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

#### 15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 2dBi.





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### 7 Radio Spectrum Matter Test Results

#### 7.1 Minimum 6dB Bandwidth

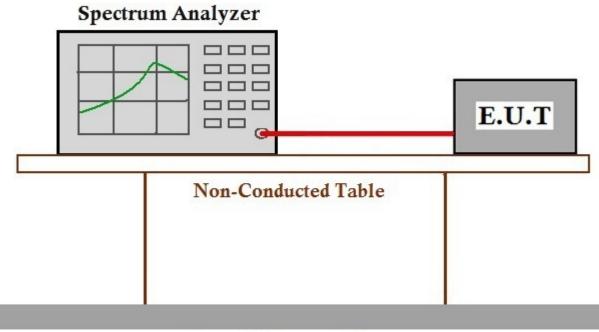
Test Requirement	47 CFR Part 15, Subpart C 15.247a(2)
Test Method:	ANSI C63.10 (2013) Section 11.8.1
Limit:	≥500 kHz

#### 7.1.1 E.U.T. Operation

Operating Environment:

Temperature:23.3 °CHumidity:64.3 % RHAtmospheric Pressure:1010mbarTest modeb:TX mode\_Keep the EUT in continuously transmitting mode with all modulation<br/>types. All data rates for each modulation type have been tested and found the<br/>data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the<br/>worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE<br/>802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).<br/>Only the data of worst case is recorded in the report.

#### 7.1.2 Test Setup Diagram



### **Ground Reference Plane**

#### 7.1.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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#### 7.2 Conducted Peak Output Power

Test Requirement	47 CFR Part 15, Subpart C 15.247(b)(3)
Test Method:	ANSI C63.10 (2013) Section 11.9.1
Limit:	

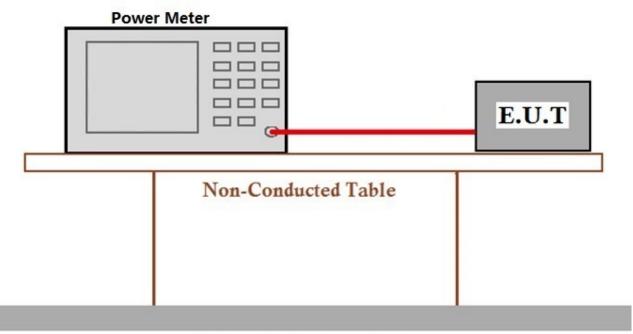
Frequency range(MHz)	Output power of the intentional radiator(watt)
	1 for ≥50 hopping channels
902-928	0.25 for 25≤ hopping channels <50
	1 for digital modulation
	1 for ≥75 non-overlapping hopping channels
2400-2483.5	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

#### 7.2.1 E.U.T. Operation

Operating Environment:

Temperature:23.3 °CHumidity:64.3 % RHAtmospheric Pressure:1010mbarTest modeb:TX mode\_Keep the EUT in continuously transmitting mode with all modulation<br/>types. All data rates for each modulation type have been tested and found the<br/>data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the<br/>worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE<br/>802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).<br/>Only the data of worst case is recorded in the report.

#### 7.2.2 Test Setup Diagram



### **Ground Reference Plane**

#### 7.2.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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#### 7.3 Power Spectrum Density

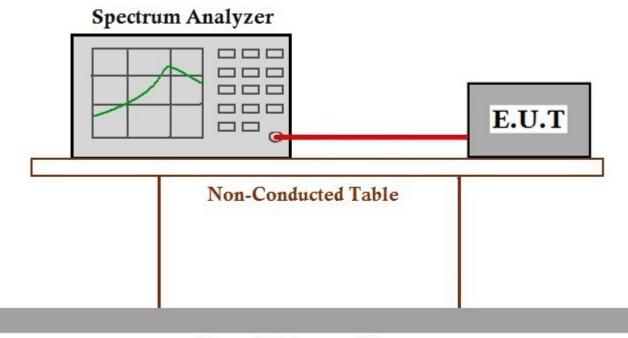
Test Requirement	47 CFR Part 15, Subpart C 15.247(e)
Test Method:	ANSI C63.10 (2013) Section 11.10.2
Limit:	${\leq}8\text{dBm}$ in any 3 kHz band during any time interval of continuous transmission

#### 7.3.1 E.U.T. Operation

**Operating Environment:** 

Temperature:	23.3 °C	Humidity:	64.2 % RH	Atmospheric Pressure:	1010	mbar
Test mode	types. All data i data rate @ 1N worst case of IE 802.11n(HT20)	rates for eac lbps is the w EEE 802.11( ; data rate @	h modulation type orst case of IEEE g; data rate @ 6.5	Ansmitting mode with all r have been tested and fo 802.11b; data rate @ 61 Mbps is the worst case o worst case of IEEE 802. e report.	ound the Mbps is of IEEE	e the

#### 7.3.2 Test Setup Diagram



### **Ground Reference Plane**

#### 7.3.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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#### 7.4 Conducted Band Edges Measurement

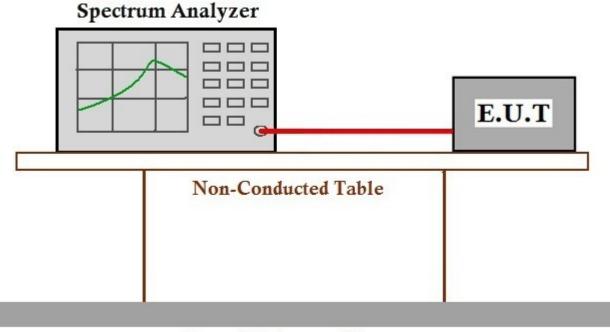
Test Requirement Test Method: Limit:	47 CFR Part 15, Subpart C 15.247(d) ANSI C63.10 (2013) Section 11.13.3.2 In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)
	§15.209(a) (see §15.205(c)

#### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature:23.3 °CHumidity:64.2 % RHAtmospheric Pressure:1010mbarTest modeb:TX mode\_Keep the EUT in continuously transmitting mode with all modulation<br/>types. All data rates for each modulation type have been tested and found the<br/>data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the<br/>worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE<br/>802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).<br/>Only the data of worst case is recorded in the report.

#### 7.4.2 Test Setup Diagram



### **Ground Reference Plane**



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#### 7.4.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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#### 7.5 Conducted Spurious Emissions

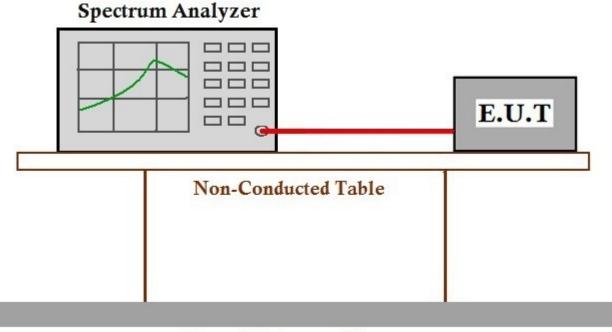
Test Requirement	47 CFR Part 15, Subpart C 15.247(d)
Test Method:	ANSI C63.10 (2013) Section 11.11
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)

#### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature:23.3 °CHumidity:64.2 % RHAtmospheric Pressure:1010mbarTest modeb:TX mode\_Keep the EUT in continuously transmitting mode with all modulation<br/>types. All data rates for each modulation type have been tested and found the<br/>data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the<br/>worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE<br/>802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).<br/>Only the data of worst case is recorded in the report.

#### 7.5.2 Test Setup Diagram



### **Ground Reference Plane**



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#### 7.5.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247



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#### 7.6 Radiated Emissions which fall in the restricted bands

Test Requirement47 CFR Part 15, Subpart C 15.209 & 15.247(d)Test Method:ANSI C63.10 (2013) Section 6.10.5Measurement Distance:3mLimit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

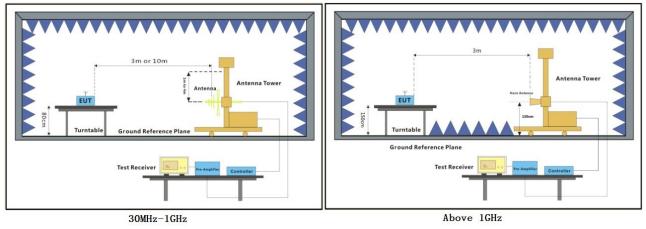
Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

#### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature:23.5 °CHumidity:56.7 % RHAtmospheric Pressure:1010mbarTest modeb:TX mode\_Keep the EUT in continuously transmitting mode with all modulation<br/>types. All data rates for each modulation type have been tested and found the<br/>data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the<br/>worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE<br/>802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).<br/>Only the data of worst case is recorded in the report.

#### 7.6.2 Test Setup Diagram





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#### 7.6.3 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d. 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.

e. 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.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. 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.

h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

j. Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

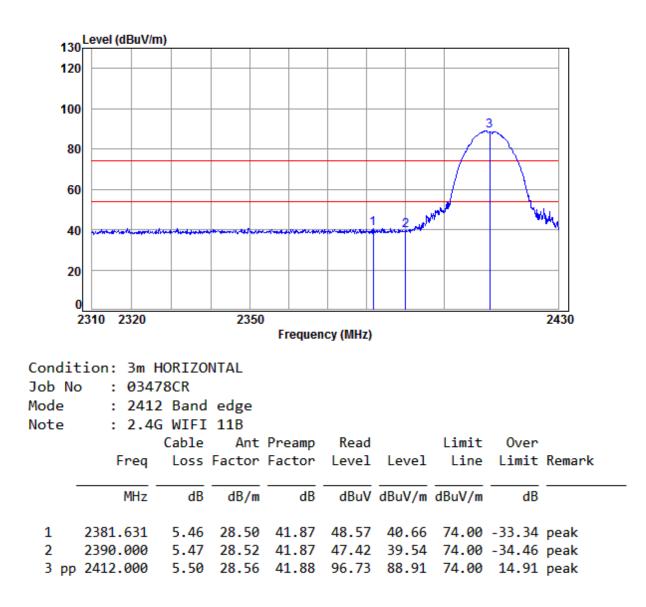
Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



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Antenna1:

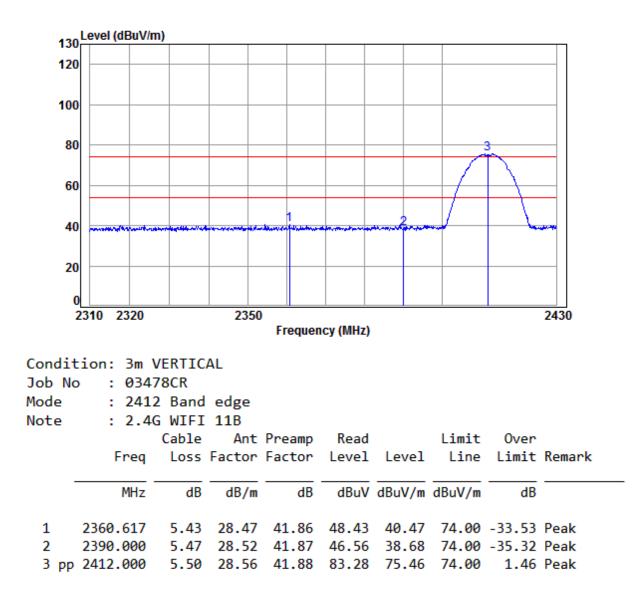
Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:Low





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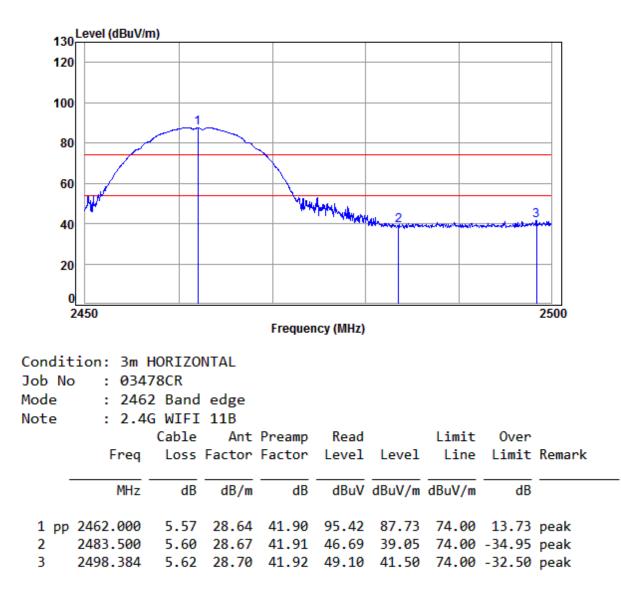
Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:Low





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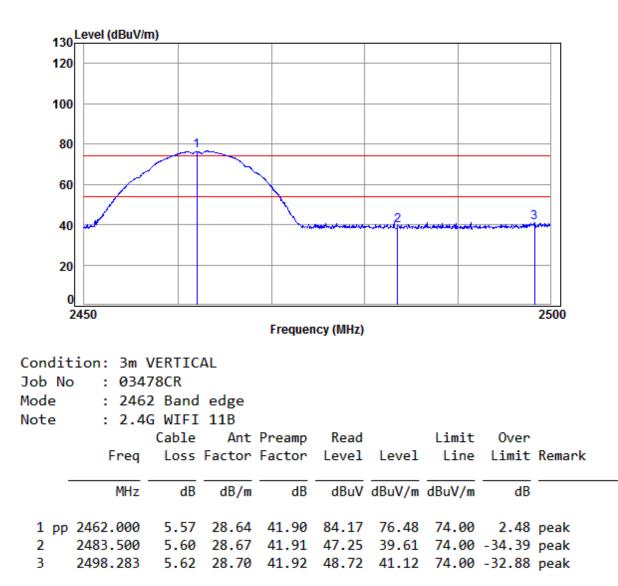
Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:High





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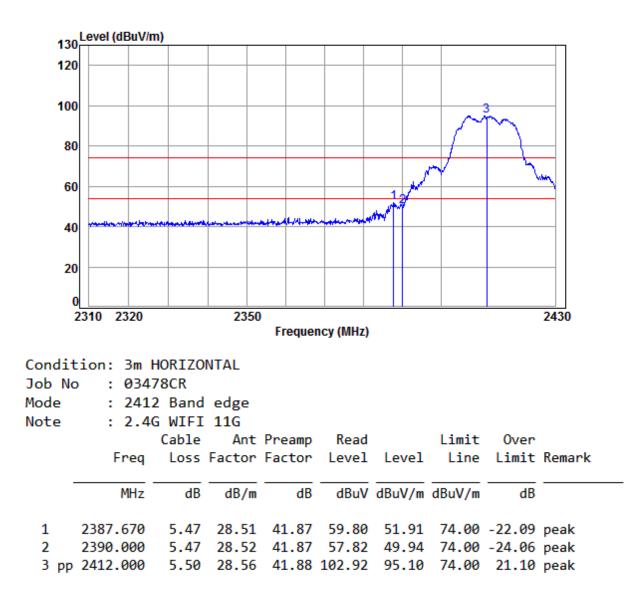
Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:High





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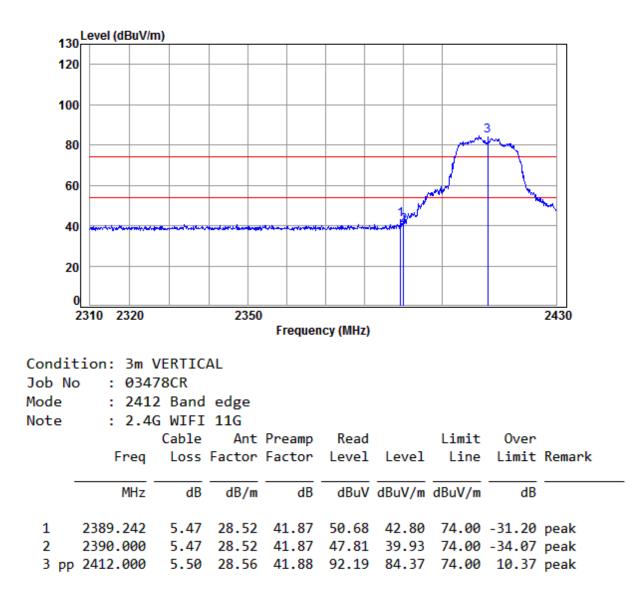
Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:Low





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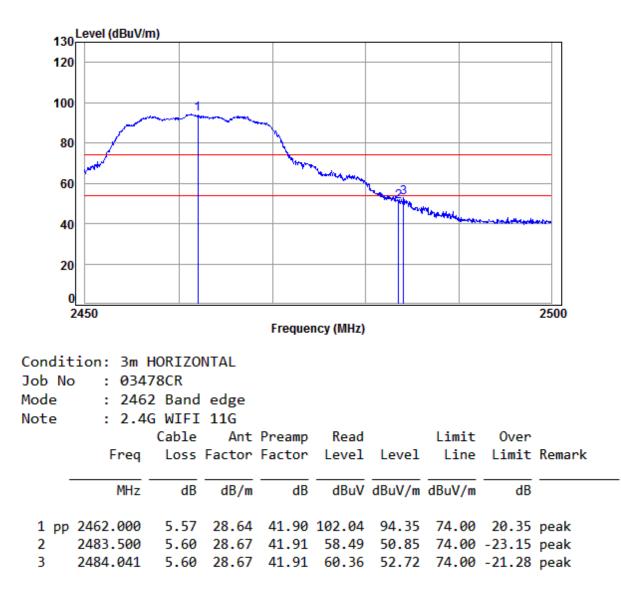
Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:Low





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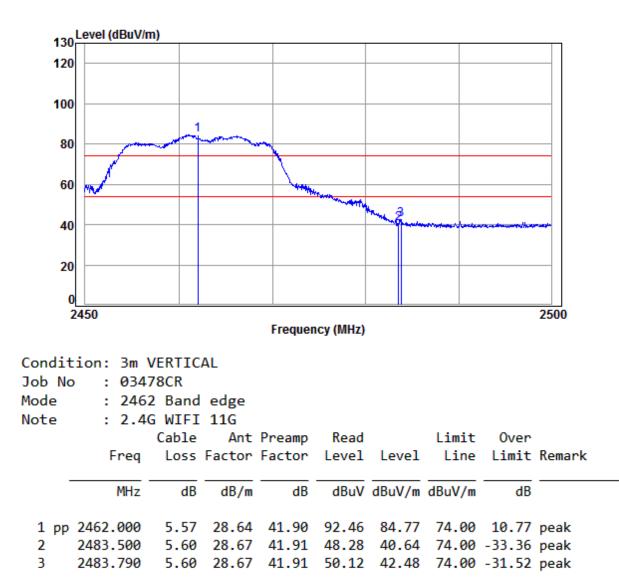
Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:High





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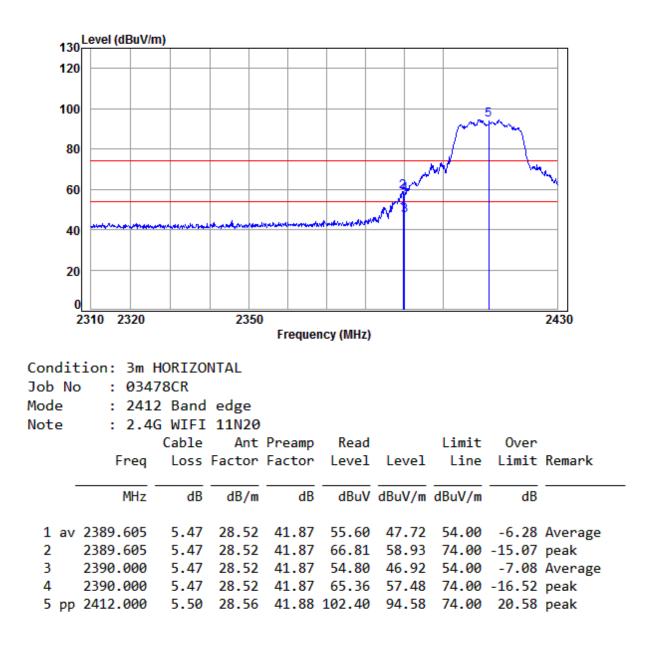
Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:High





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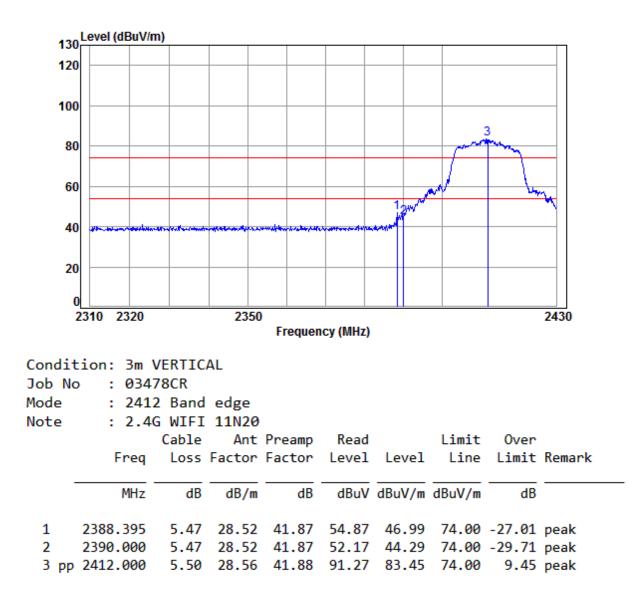
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:Low





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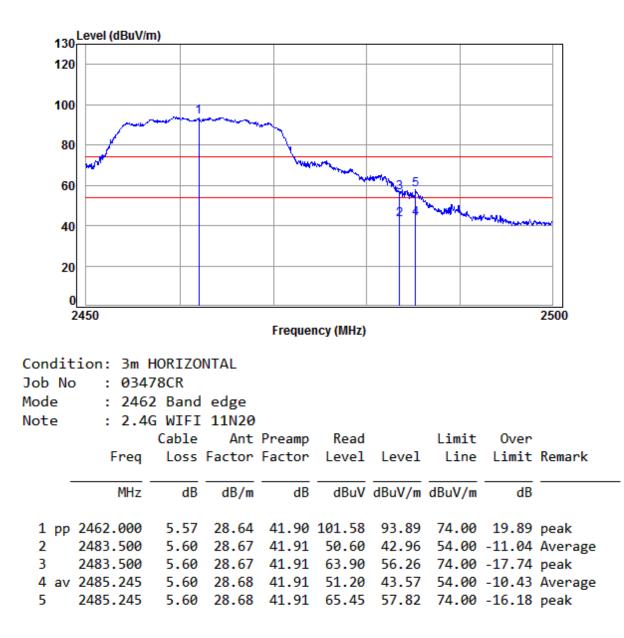
Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:Low





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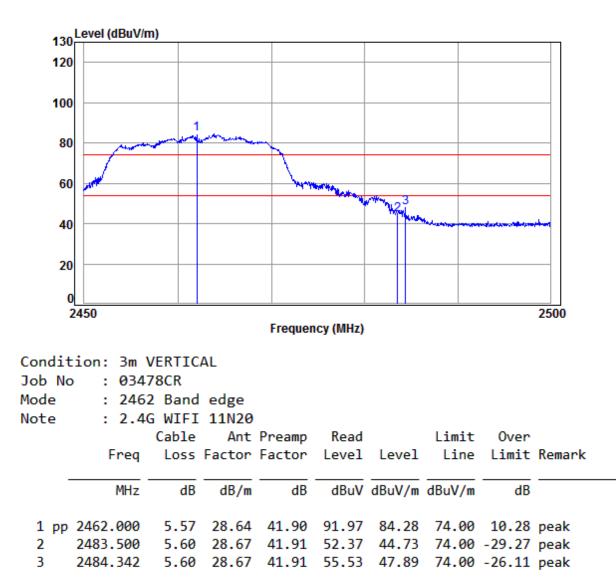
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:High





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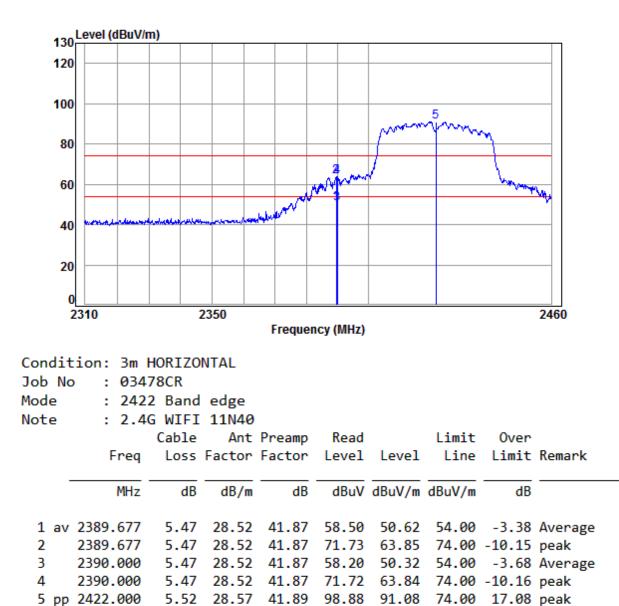
Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:High





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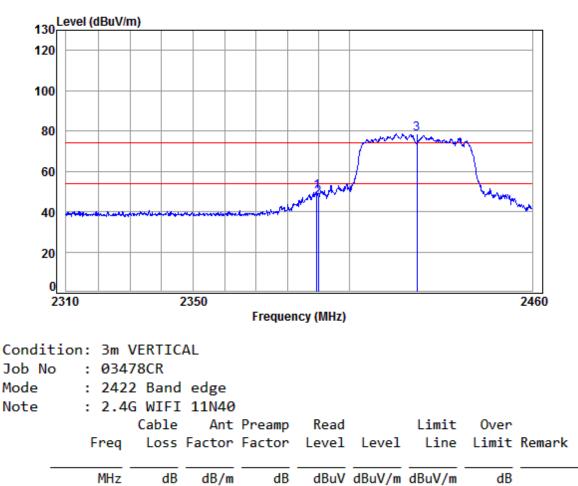
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:Low





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Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:Low

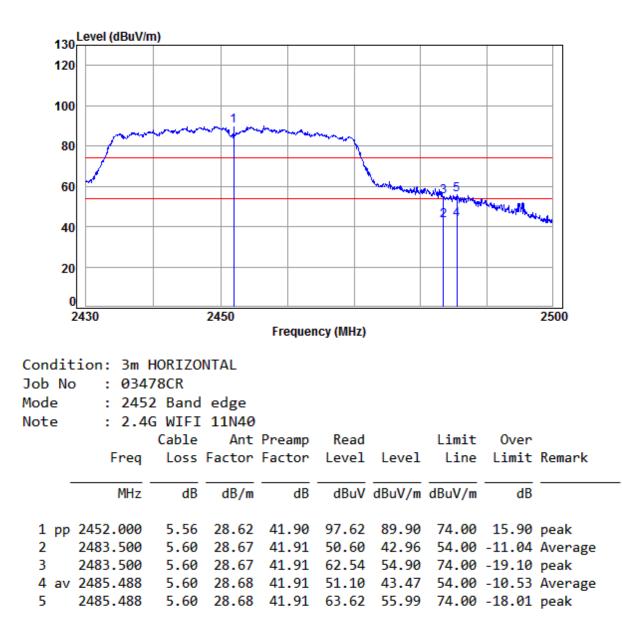


1	2389.526	5.47	28.52	41.87	57.89	50.01	74.00	-23.99 peak
2	2390.000	5.47	28.52	41.87	55.08	47.20	74.00	-26.80 peak
3 pp	2422.000	5.52	28.57	41.89	86.22	78.42	74.00	4.42 peak



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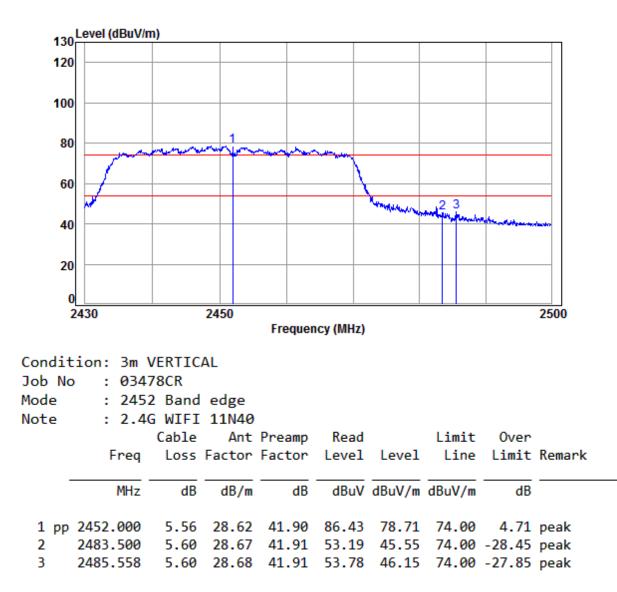
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:High





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Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:High

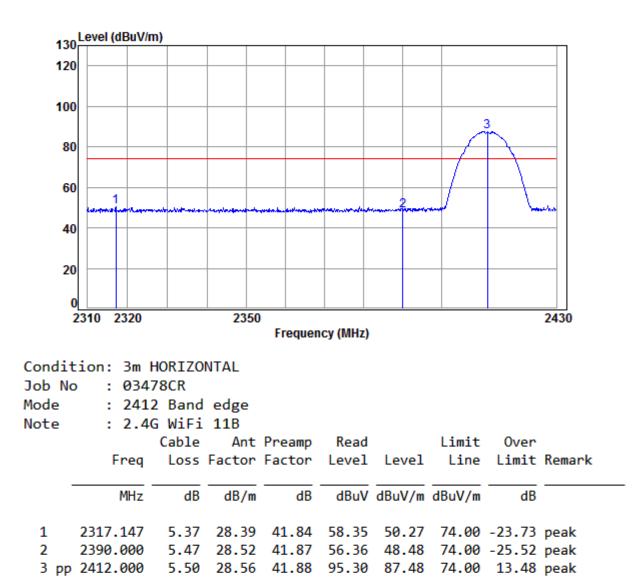




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Antenna2:

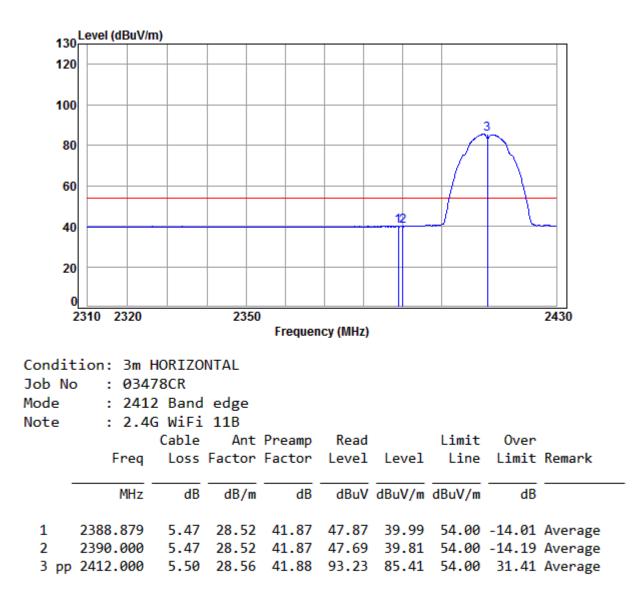
Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:Low; Peak Detector





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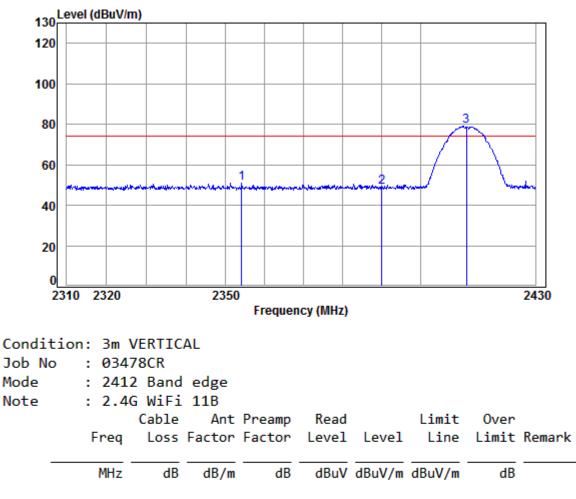
Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:Low; Average Detector





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Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:Low; Peak Detector

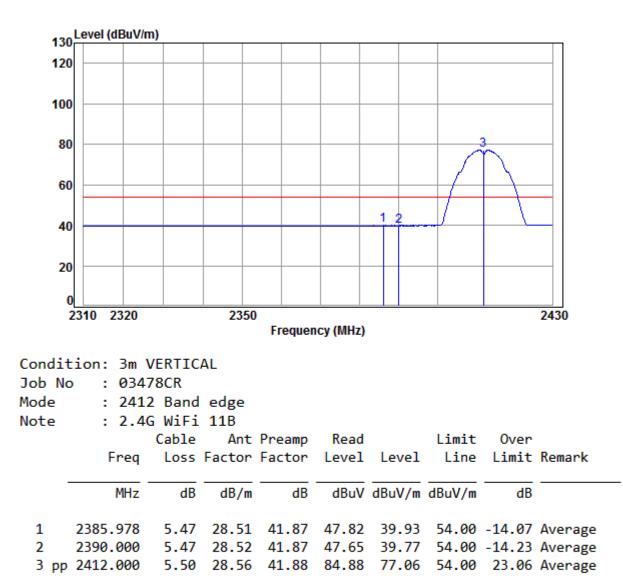


1	2354.170	5.43	28.46	41.86	59.04	51.07	74.00	-22.93 Peak
2	2390.000	5.47	28.52	41.87	56.97	49.09	74.00	-24.91 Peak
3 pp	2412.000	5.50	28.56	41.88	86.67	78.85	74.00	4.85 Peak



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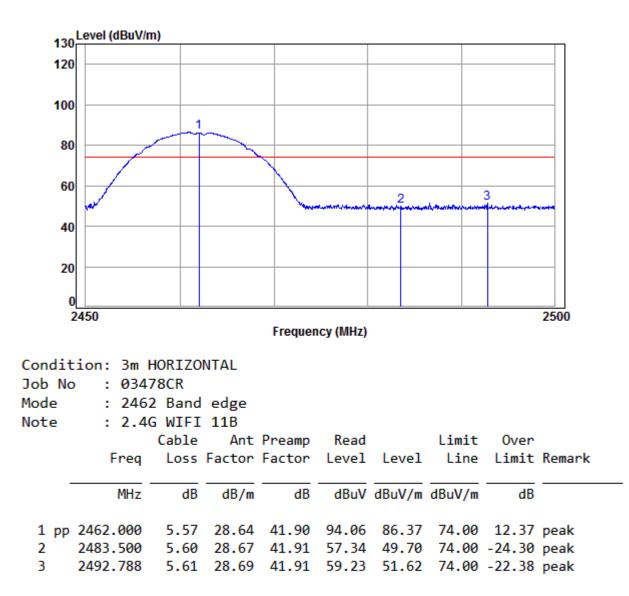
Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:Low; Average Detector





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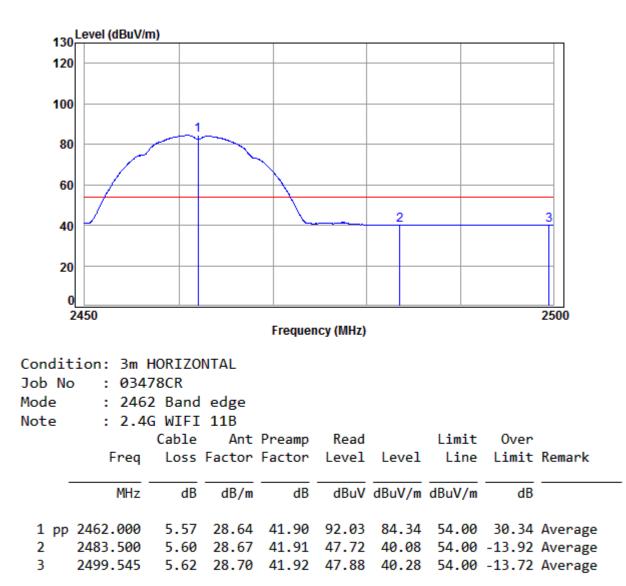
Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:High; Peak Detector





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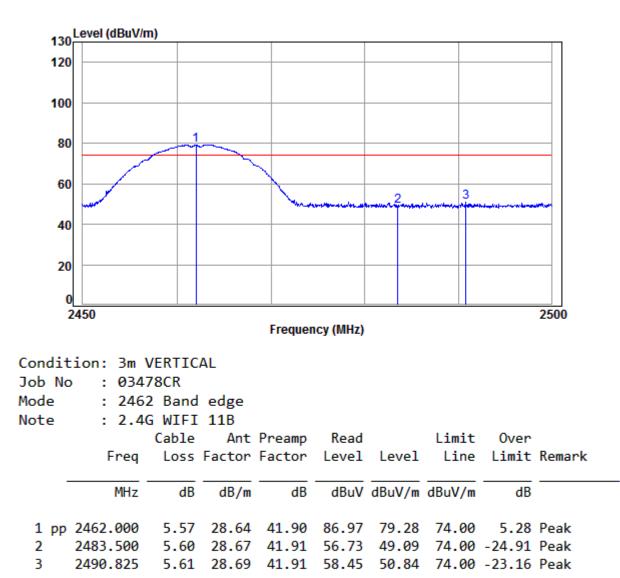
Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:High; Average Detector





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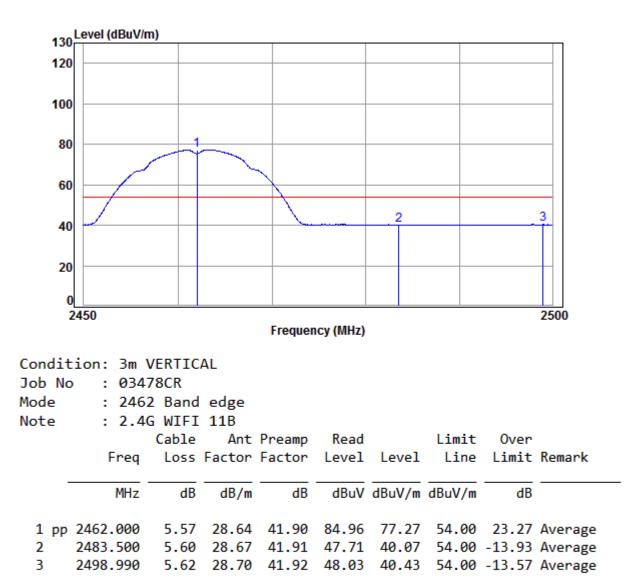
Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:High; Peak Detector





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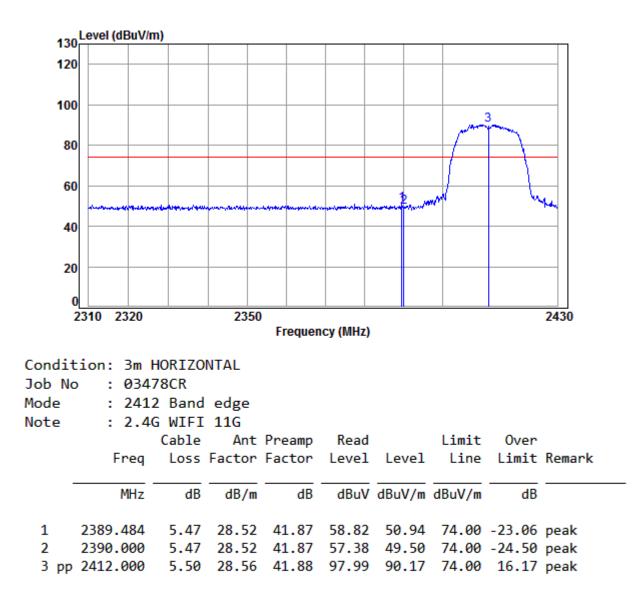
Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:High; Average Detector





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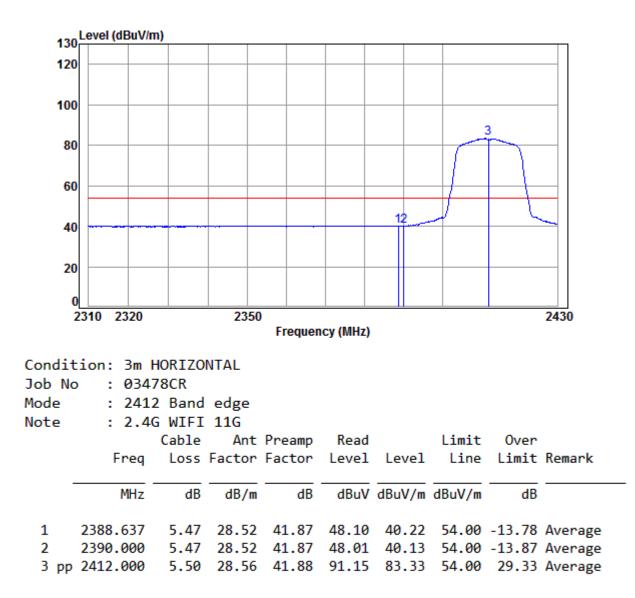
Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:Low; Peak Detector





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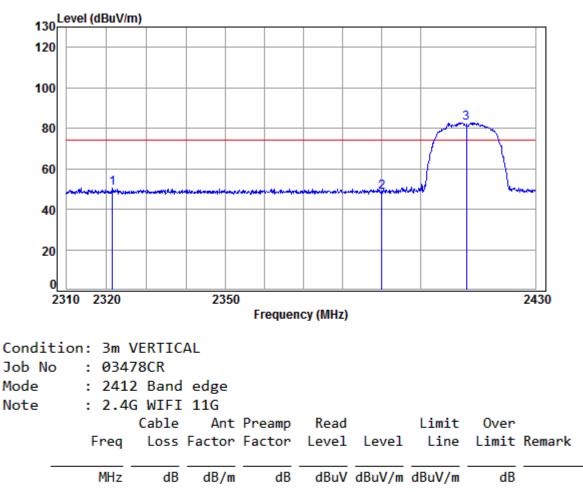
Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:Low; Average Detector





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Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:Low; Peak Detector

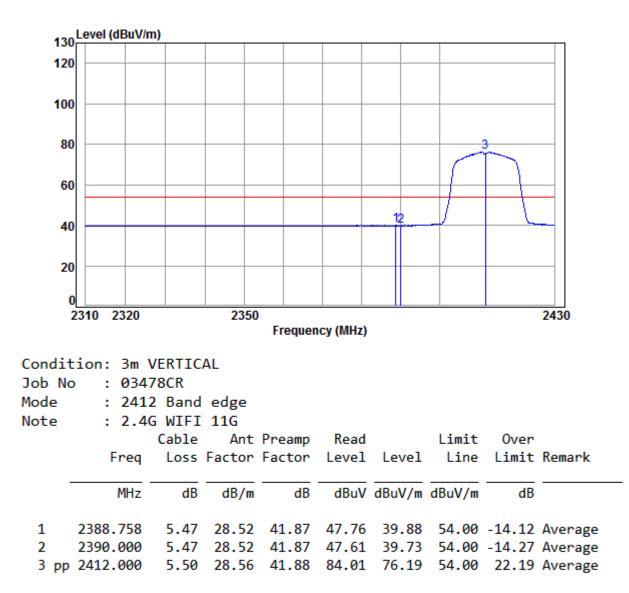


1	2321.493	5.38	28.40	41.84	58.32	50.26	74.00	-23.74 Peak
2	2390.000	5.47	28.52	41.87	56.24	48.36	74.00	-25.64 Peak
3 pp	2412.000	5.50	28.56	41.88	90.55	82.73	74.00	8.73 Peak



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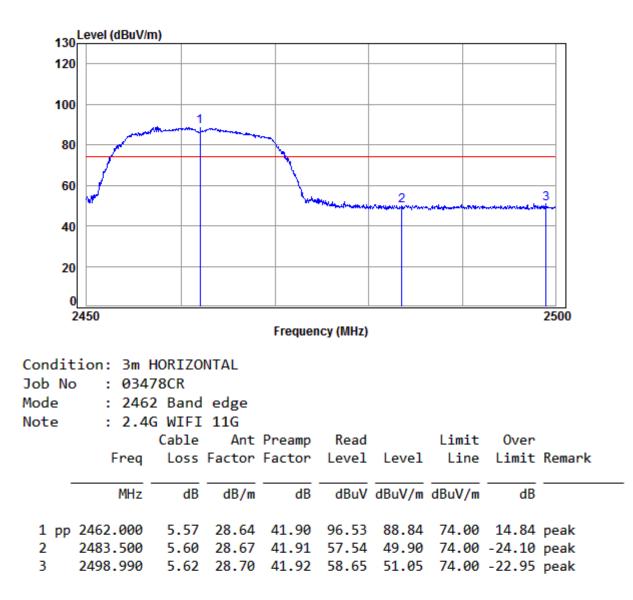
Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:Low; Average Detector





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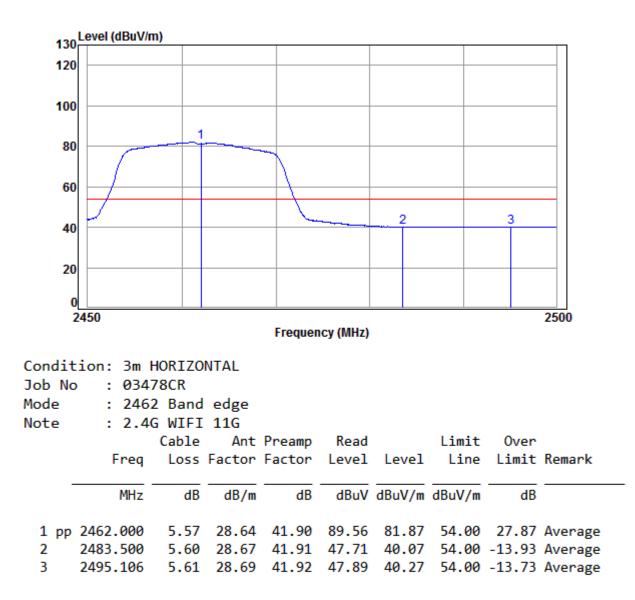
Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:High; Peak Detector





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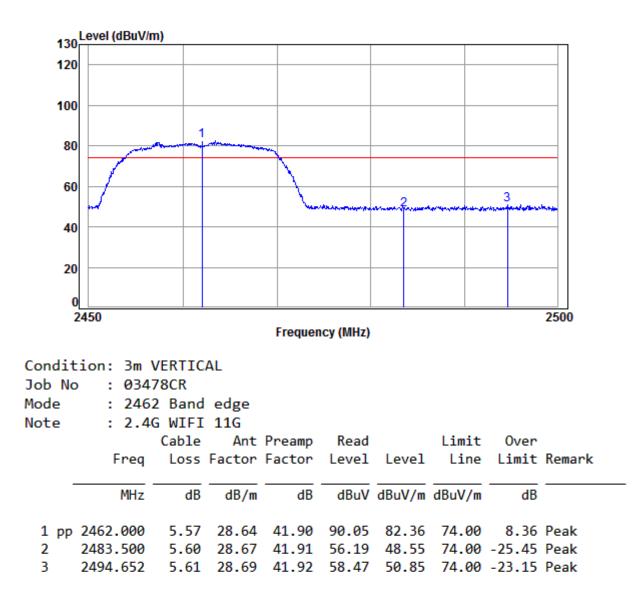
Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:High; Average Detector





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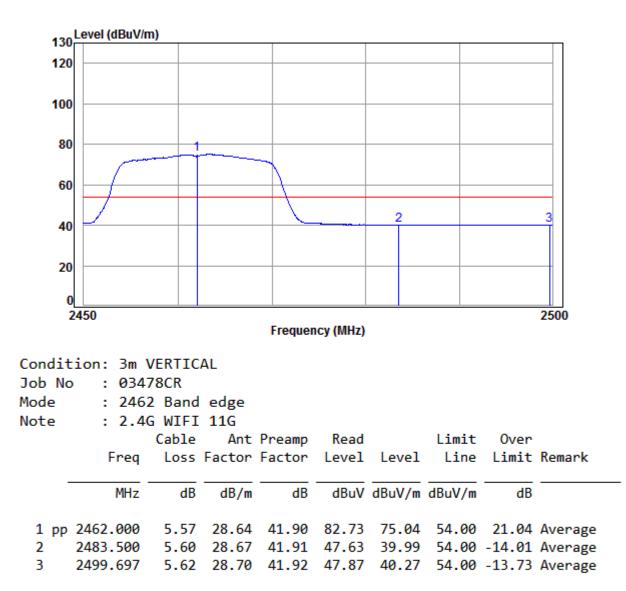
Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:High; Peak Detector





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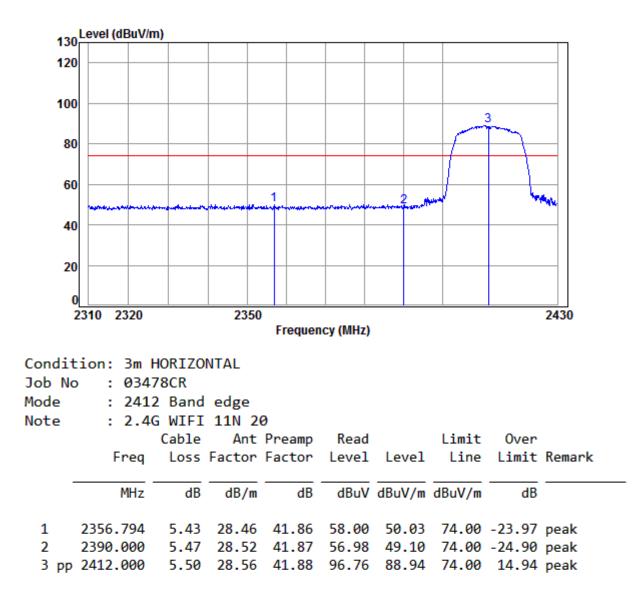
Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:High; Average Detector





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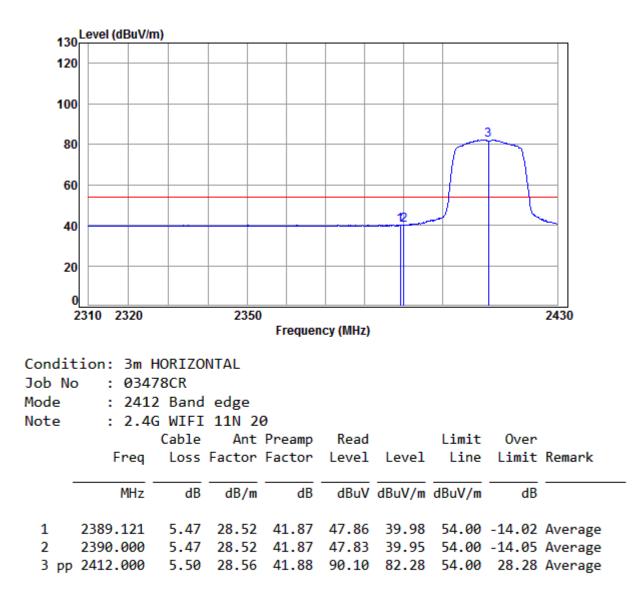
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:Low; Peak Detector





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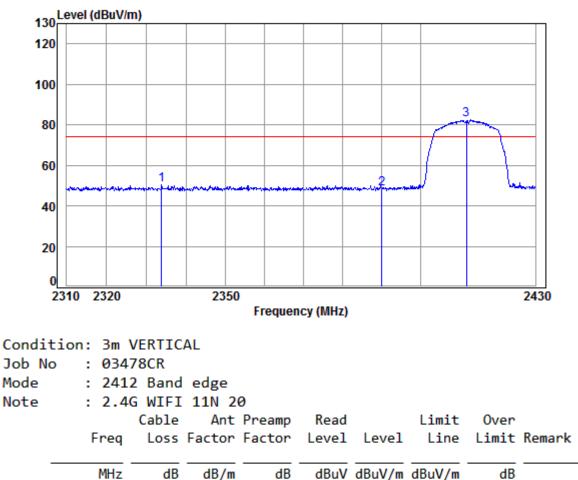
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:Low; Average Detector





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Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:Low; Peak Detector

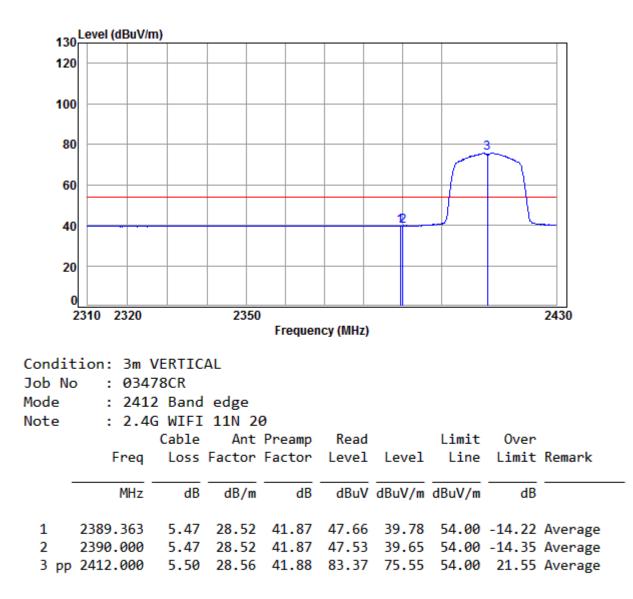


1	2333.871	5.40	28.42	41.85	58.22	50.19	74.00	-23.81	Peak
2	2390.000	5.47	28.52	41.87	56.38	48.50	74.00	-25.50 H	Peak
3 pp	2412.000	5.50	28.56	41.88	90.25	82.43	74.00	8.43 H	Peak



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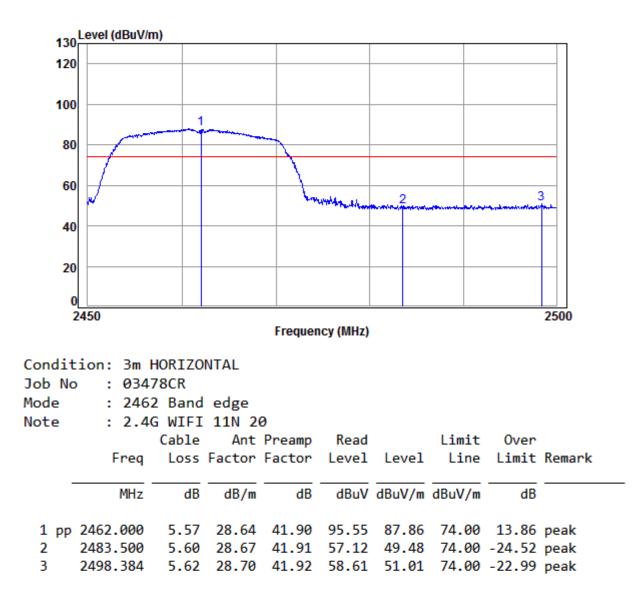
Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:Low; Average Detector





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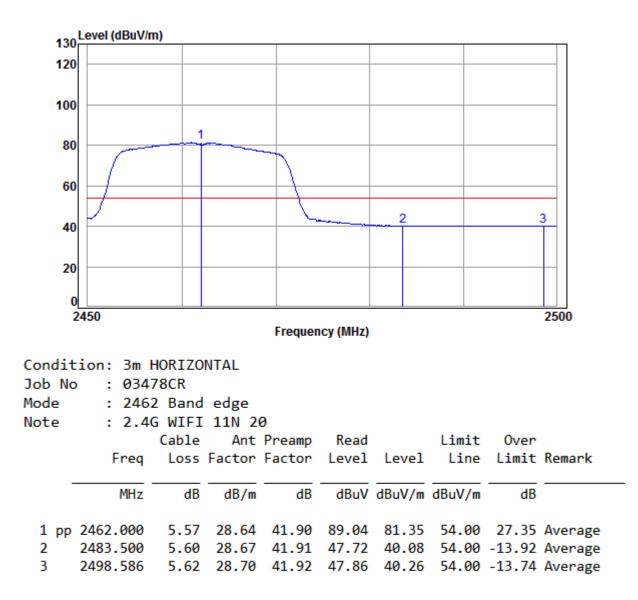
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:High; Peak Detector





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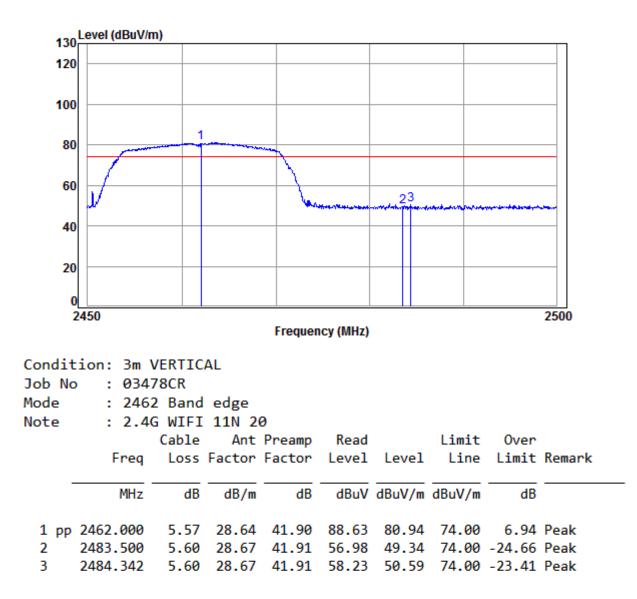
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:High; Average Detector





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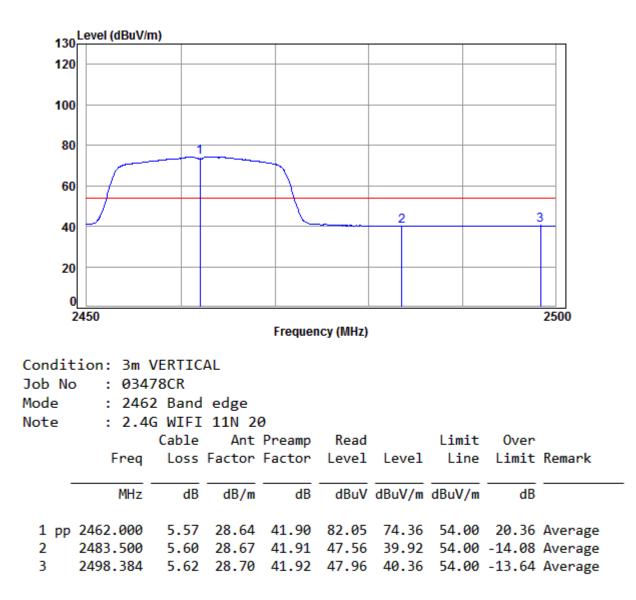
Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:High; Peak Detector





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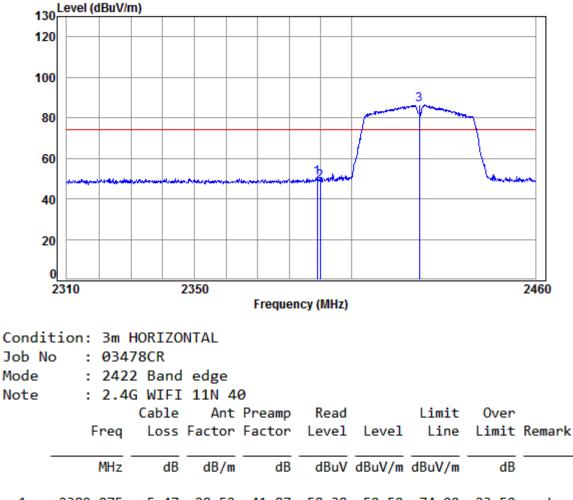
Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:High; Average Detector





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Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:Low; Peak Detector

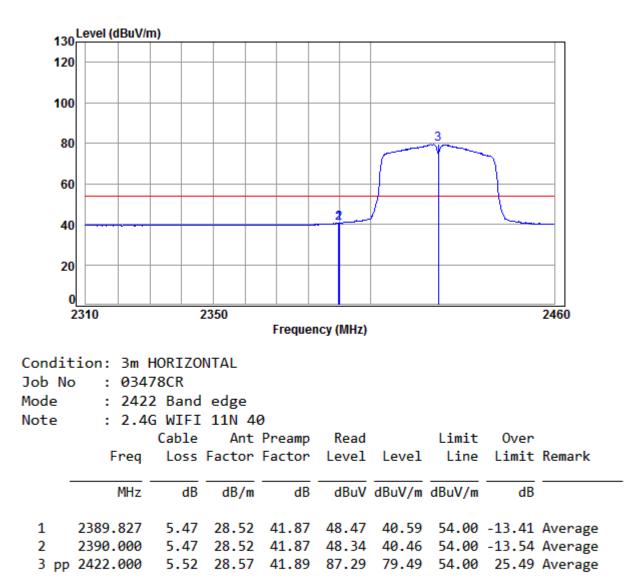


12389.0755.4728.5241.8758.3850.5074.00-23.50peak22390.0005.4728.5241.8756.1248.2474.00-25.76peak3pp2422.0005.5228.5741.8994.0686.2674.0012.26peak



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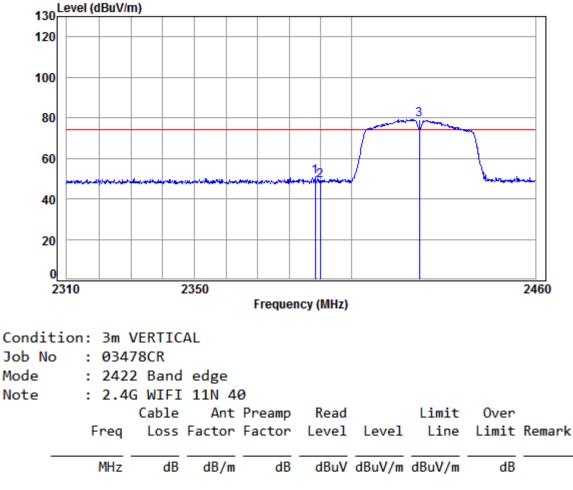
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:Low; Average Detector





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Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:Low; Peak Detector



1	2388.324	5.47	28.52	41.87	58.70	50.82	74.00 -	23.18 Peak
2	2390.000	5.47	28.52	41.87	56.67	48.79	74.00 -	25.21 Peak
3 pp	2422.000	5.52	28.57	41.89	86.74	78.94	74.00	4.94 Peak



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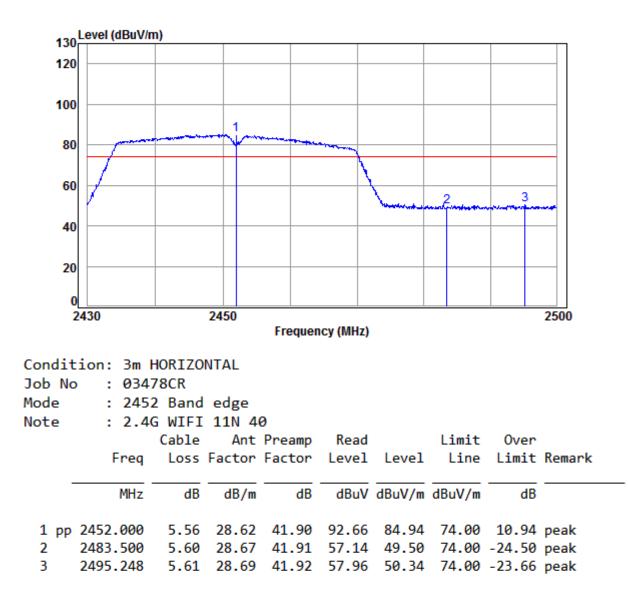
Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:Low; Average Detector





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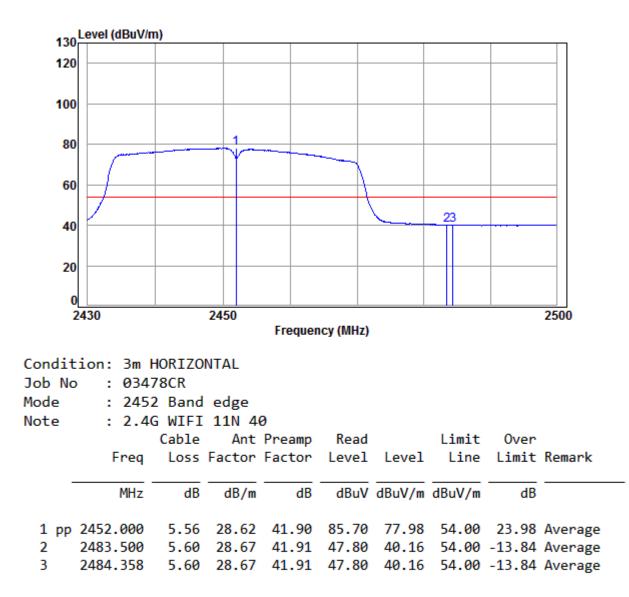
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:High; Peak Detector





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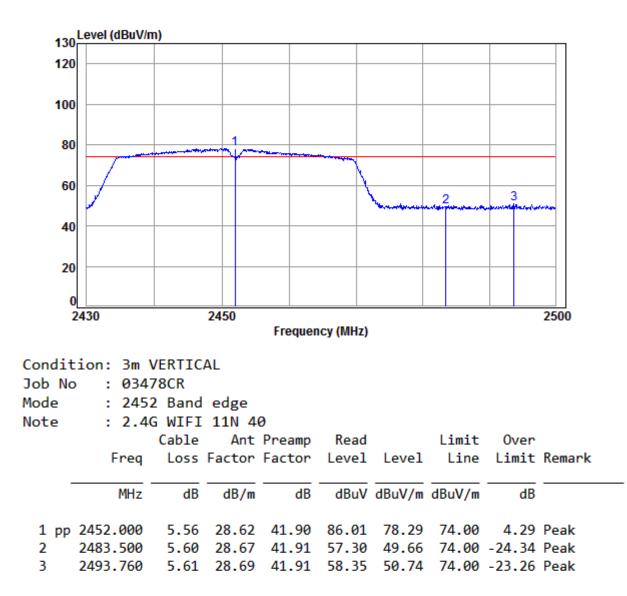
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:High; Average Detector





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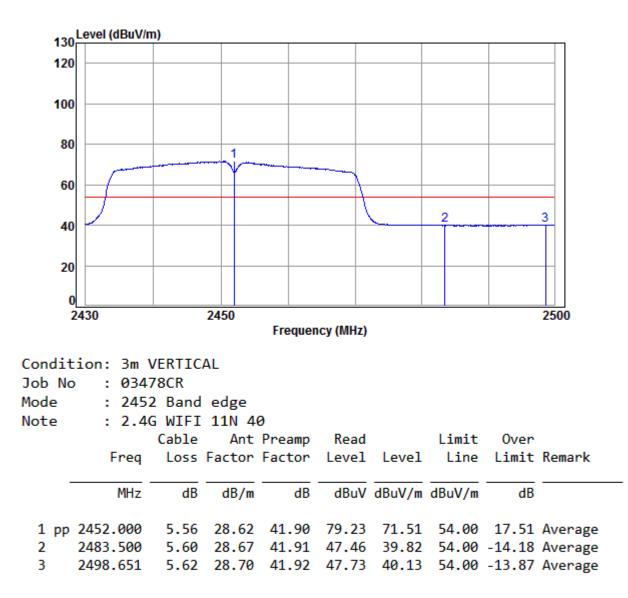
Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:High; Peak Detector





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Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:High; Average Detector





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#### 7.7 Radiated Spurious Emissions

Test Requirement	47 CFR Part 15, Subpart C 15.209 & 15.247(d)
Test Method:	ANSI C63.10 (2013) Section 6.4,6.5,6.6
Measurement Distance:	3m
Limit:	

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.



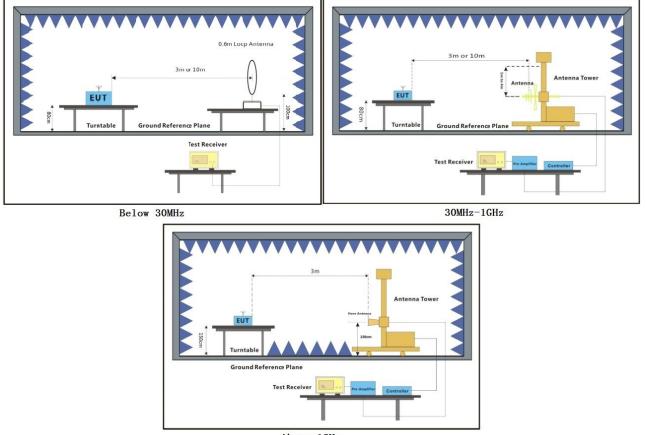
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#### 7.7.1 E.U.T. Operation

**Operating Environment:** 

Temperature:26 °CHumidity:53.4 % RHAtmospheric Pressure:1015mbarTest modeb:TX mode\_Keep the EUT in continuously transmitting mode with all modulation<br/>types. All data rates for each modulation type have been tested and found the<br/>data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the<br/>worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE<br/>802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).<br/>Only the data of worst case is recorded in the report.

#### 7.7.2 Test Setup Diagram



Above 1GHz



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#### 7.7.3 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d. 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.

e. 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.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. 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.

h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

j. Repeat above procedures until all frequencies measured was complete.

#### Remark:

1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.

2) 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

3) Scan from 9kHz to 25GHz, the disturbance above 18GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

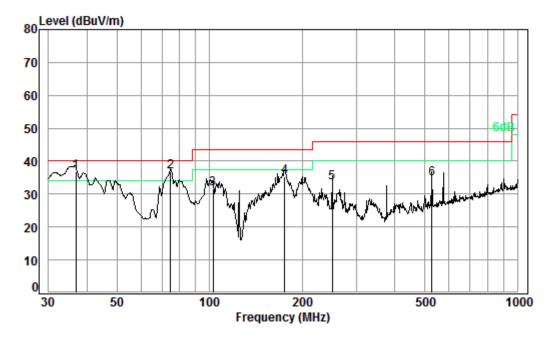
4) For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



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#### Radiated emission below 1GHz

Mode:b ; Horizontal



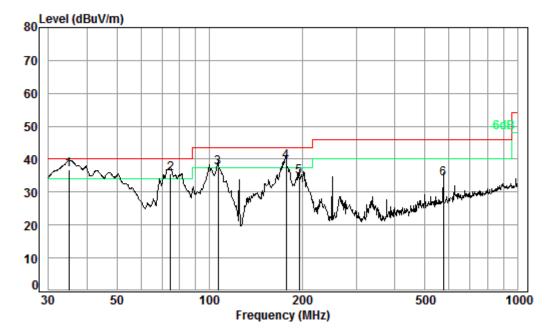
#### Condition: 3m HORIZONTAL Job No. : 03478CR Test mode: b

	Freq			Preamp Factor				Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp 2 3 4 5 6	36.77 74.66 102.72 175.65 250.30 528.25	0.94 1.21 1.36	12.41 13.87 15.82 18.96	27.64 27.51 27.51 27.53 27.54 27.83	50.83 44.22 45.76 40.45	36.67 31.79 35.41 33.55	40.00 43.50 43.50 46.00	-3.33 -11.71 -8.09 -12.45



Report No.: SZEM180400347802 Page: 72 of 195

Mode:b ;Vertical



#### Condition: 3m VERTICAL Job No. : 03478CR Test mode: b

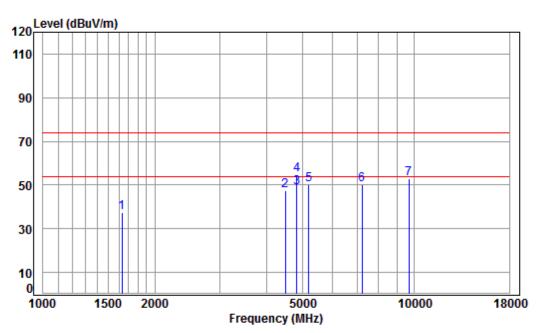
	Freq			Preamp Factor				Over Limit
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp 2 3 4 5 6	34.88 74.66 106.76 177.51 195.82 574.63	1.37	12.41 13.68 15.85 16.38	27.65 27.51 27.51 27.53 27.53 27.53 27.74	49.68 50.04 49.59 44.52	35.52 37.43 39.28 34.76	40.00 43.50 43.50 43.50	-6.07 -4.22



Report No.: SZEM180400347802 Page: 73 of 195

#### Transmitter emission above 1GHz for Antenna1

Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:Low

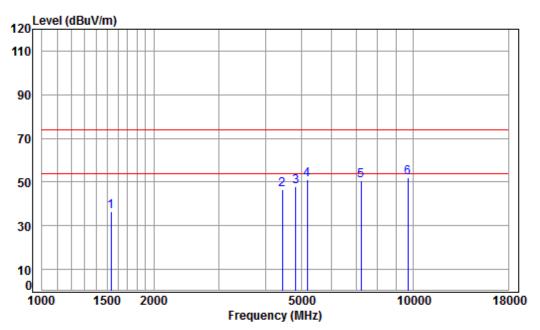


Condition: 3m HORIZONTAL Job No : 03478CR Mode : 2412 TX SE Note : 2.4G WIFI 11B											
		Cable		Preamp	Read		Limit	0ver			
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB			
1	1634.543	5.31	26.40	41.49	47.17	37.39	74.00	-36.61	peak		
2	4495.125	7.55	33.59	42.42	48.88	47.60	74.00	-26.40	peak		
3 pp	4824.000	7.92	34.01	42.47	49.41	48.87	54.00	-5.13	Average		
4 pk	4824.000	7.91	34.00	42.47	55.17	54.61	74.00	-19.39	peak		
5	5194.041	8.39	34.36	42.31	49.85	50.29	74.00	-23.71	peak		
6	7236.000	10.07	36.09	40.69	44.92	50.39	74.00	-23.61	peak		
7	9648.000	10.77	37.69	37.68	42.17	52.95	74.00	-21.05	peak		



Report No.: SZEM180400347802 Page: 74 of 195

Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:Low

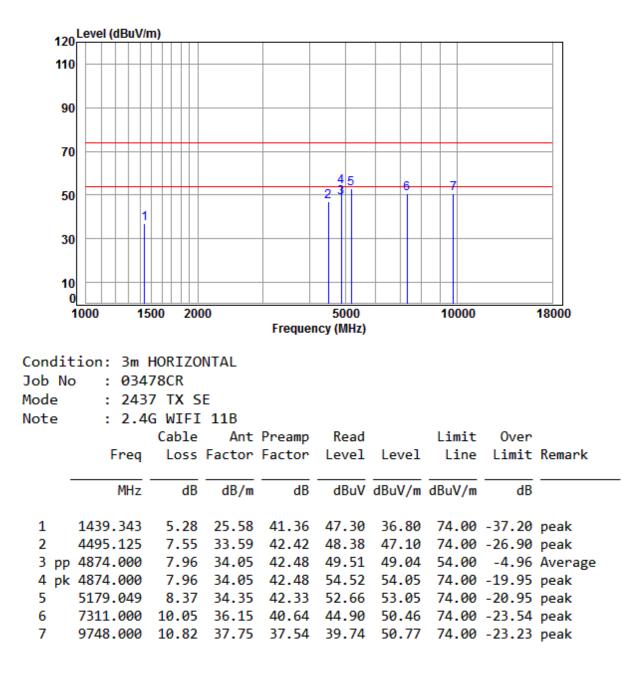


Condition: 3m VERTICAL Job No : 03478CR Mode : 2412 TX SE Note : 2.4G WIFI 11B											
		Cable	Ant	Preamp	Read		Limit	0ver			
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB			
1	1533.841	5.44	25.96	41.43	46.59	36.56	74.00	-37.44	peak		
2	4430.628	7.48	33.48	42.41	48.12	46.67	74.00	-27.33	peak		
3	4824.000	7.91	34.00	42.47	48.31	47.75	74.00	-26.25	peak		
4	5179.049	8.37	34.35	42.33	50.69	51.08	74.00	-22.92	peak		
5	7236.000	10.07	36.09	40.69	44.96	50.43	74.00	-23.57	peak		
6 pp	9648.000	10.77	37.69	37.68	41.15	51.93	74.00	-22.07	peak		



Report No.: SZEM180400347802 Page: 75 of 195

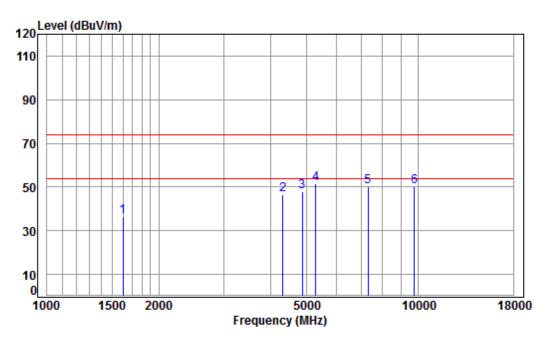
Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:middle





Report No.: SZEM180400347802 Page: 76 of 195

Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:middle

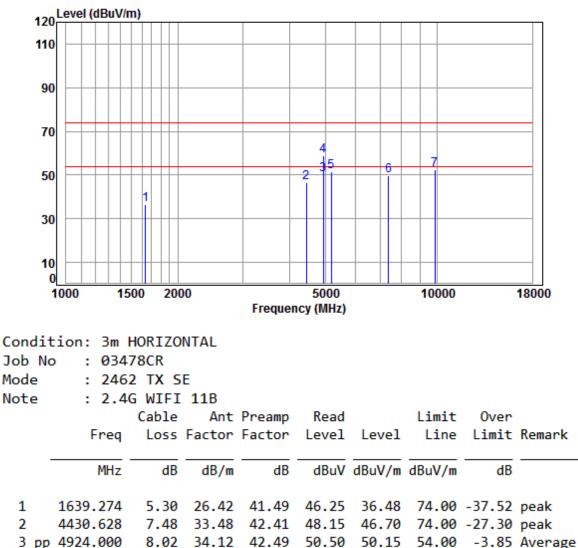


Condition: 3m VERTICAL Job No : 03478CR Mode : 2437 TX SE Note : 2.4G WIFI 11B											
		Cable	Ant	Preamp	Read		Limit	0ver			
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB			
1	1601.804	5.35	26.26	41.47	46.44	36.58	74.00	-37.42	peak		
2	4316.859	7.36	33.28	42.38	48.10	46.36	74.00	-27.64	peak		
3	4874.000	7.96	34.05	42.48	48.50	48.03	74.00	-25.97	peak		
4 pp	5284.902	8.53	34.43	42.23	50.63	51.36	74.00	-22.64	peak		
5	7311.000	10.05	36.15	40.64	44.45	50.01	74.00	-23.99	peak		
6	9748.000	10.82	37.75	37.54	39.17	50.20	74.00	-23.80	peak		



Report No.: SZEM180400347802 Page: 77 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:High

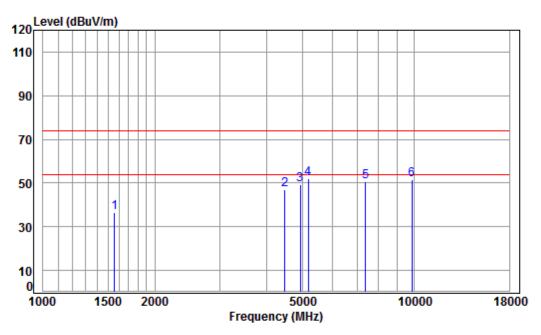


3	рр	4924.000	8.02	34.12	42.49	50.50	50.15	54.00	-3.85	Averag
4	pk	4924.000	8.01	34.11	42.49	59.40	59.03	74.00	-14.97	peak
5		5179.049	8.37	34.35	42.33	51.29	51.68	74.00	-22.32	peak
6		7386.000	10.03	36.21	40.59	44.28	49.93	74.00	-24.07	peak
7		9848.000	10.87	37.81	37.41	40.99	52.26	74.00	-21.74	peak



Report No.: SZEM180400347802 Page: 78 of 195

Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:High

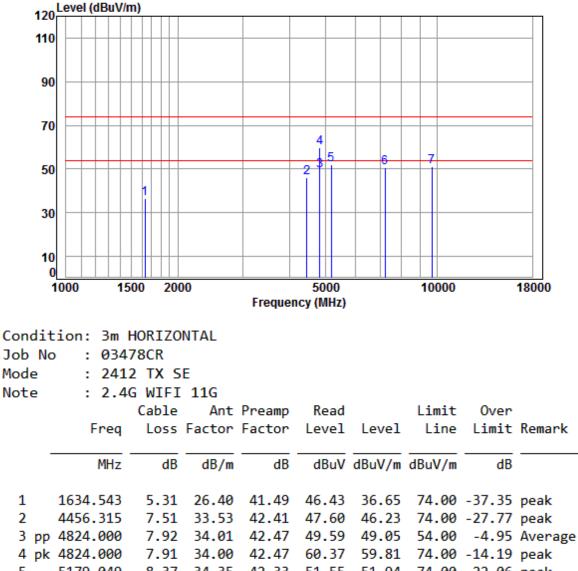


Condition: 3m VERTICAL Job No : 03478CR Mode : 2462 TX SE Note : 2.4G WIFI 11B											
		Cable	Ant	Preamp	Read		Limit	0ver			
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB			
1	1560.673	5.40	26.08	41.45	46.63	36.66	74.00	-37.34	peak		
2	4482.150	7.54	33.57	42.41	48.35	47.05	74.00	-26.95	peak		
3	4924.000	8.01	34.11	42.49	49.42	49.05	74.00	-24.95	peak		
4 pp	5179.049	8.37	34.35	42.33	51.59	51.98	74.00	-22.02	peak		
5	7386.000	10.03	36.21	40.59	44.96	50.61	74.00	-23.39	peak		
6	9848.000	10.87	37.81	37.41	40.07	51.34	74.00	-22.66	peak		



Report No.: SZEM180400347802 Page: 79 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:Low



 4 pk
 4824.000
 7.91
 54.00
 42.47
 60.37
 59.81
 74.00
 -14.19
 peak

 5
 5179.049
 8.37
 34.35
 42.33
 51.55
 51.94
 74.00
 -22.06
 peak

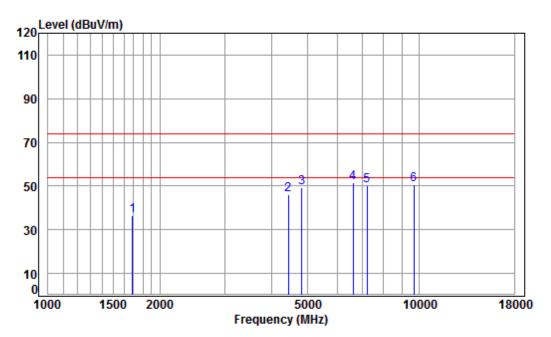
 6
 7236.000
 10.07
 36.09
 40.69
 45.23
 50.70
 74.00
 -23.30
 peak

 7
 9648.000
 10.77
 37.69
 37.68
 40.53
 51.31
 74.00
 -22.69
 peak



Report No.: SZEM180400347802 Page: 80 of 195

Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:Low

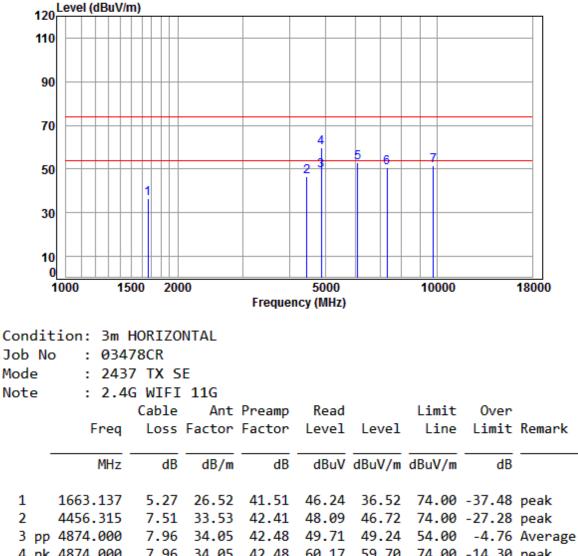


Job No Mode	Condition: 3m VERTICAL Job No : 03478CR Mode : 2412 TX SE Note : 2.4G WIFI 11G											
		Cable	Ant	Preamp	Read		Limit	0ver				
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark			
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB				
1	1687.347	5.24	26.62	41.52	46.01	36.35	74.00	-37.65	peak			
2	4430.628	7.48	33.48	42.41	47.37	45.92	74.00	-28.08	peak			
3	4824.000	7.91	34.00	42.47	49.94	49.38	74.00	-24.62	peak			
4 pp	6621.375	11.19	35.67	41.13	45.81	51.54	74.00	-22.46	peak			
5	7236.000	10.07	36.09	40.69	44.51	49.98	74.00	-24.02	peak			
6	9648.000	10.77	37.69	37.68	39.83	50.61	74.00	-23.39	peak			



Report No.: SZEM180400347802 Page: 81 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:middle



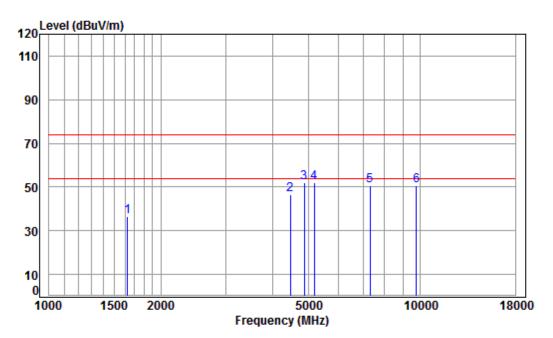
4 pk 4874.000 7.96 34.05 42.48 60.17 59.70 74.00 -14.30 peak 5 6088.991 10.75 35.19 41.54 48.57 52.97 74.00 -21.03 peak 6 7311.000 10.05 40.64 44.89 50.45 74.00 -23.55 peak 36.15 7 10.82 37.75 37.54 40.76 51.79 74.00 -22.21 peak 9748.000

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Report No.: SZEM180400347802 Page: 82 of 195

Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:middle

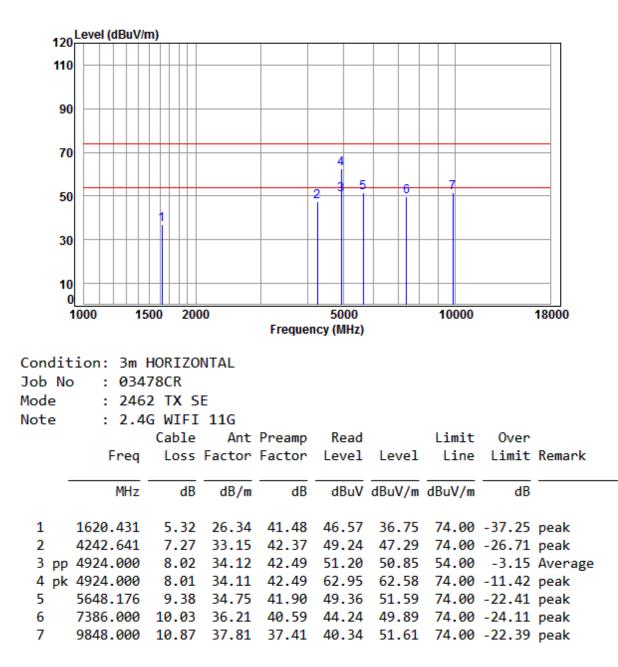


Job No Mode	Condition: 3m VERTICAL Job No : 03478CR Mode : 2437 TX SE Note : 2.4G WIFI 11G											
		Cable	Ant	Preamp	Read		Limit	0ver				
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark			
-												
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB				
1	1625.121	5.32	26.36	41.49	46.30	36.49	74.00	-37.51	peak			
2	4469.214	7.53	33.55	42.41	48.04	46.71	74.00	-27.29	peak			
3	4874.000	7.96	34.05	42.48	52.54	52.07	74.00	-21.93	peak			
4 pp	5179.049	8.37	34.35	42.33	51.70	52.09	74.00	-21.91	peak			
5	7311.000	10.05	36.15	40.64	44.88	50.44	74.00	-23.56	peak			
6	9748.000	10.82	37.75	37.54	39.61	50.64	74.00	-23.36	peak			



Report No.: SZEM180400347802 Page: 83 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:High

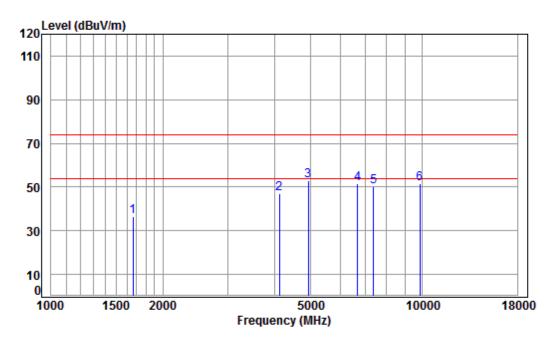


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Report No.: SZEM180400347802 Page: 84 of 195

Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:High



Job No	Note : 2.4G WIFI 11G										
		Cable	Ant	Preamp	Read		Limit	0ver			
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB			
1	1663.137	5.27	26.52	41.51	46.11	36.39	74.00	-37.61	peak		
2	4121.768	7.13	32.93	42.35	49.34	47.05	74.00	-26.95	peak		
3 pp	4924.000	8.01	34.11	42.49	53.50	53.13	74.00	-20.87	peak		
4	6698.373	10.97	35.72	41.07	46.16	51.78	74.00	-22.22	peak		
5	7386.000	10.03	36.21	40.59	44.34	49.99	74.00	-24.01	peak		
6	9848.000	10.87	37.81	37.41	40.24	51.51	74.00	-22.49	peak		



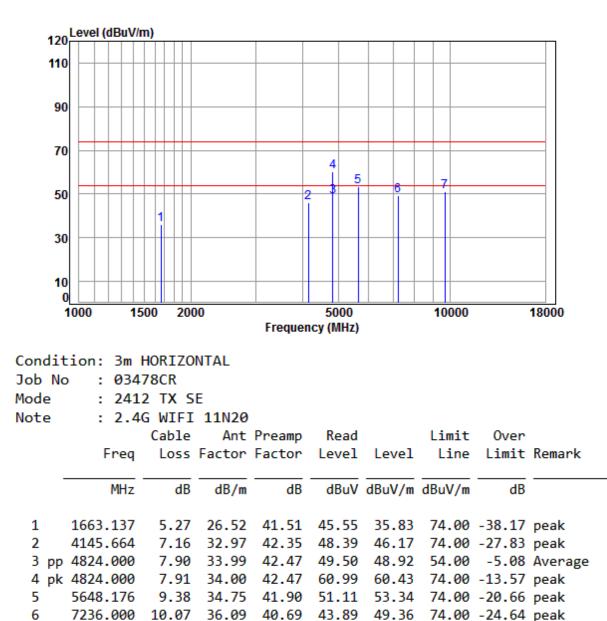
7

9648.000

# SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM180400347802 Page: 85 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:Low



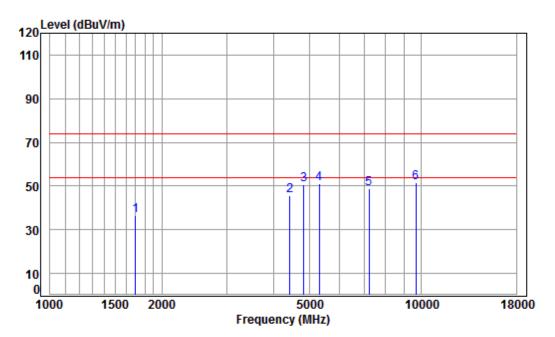
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10.77 37.69 37.68 40.28 51.06 74.00 -22.94 peak



Report No.: SZEM180400347802 Page: 86 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:Low

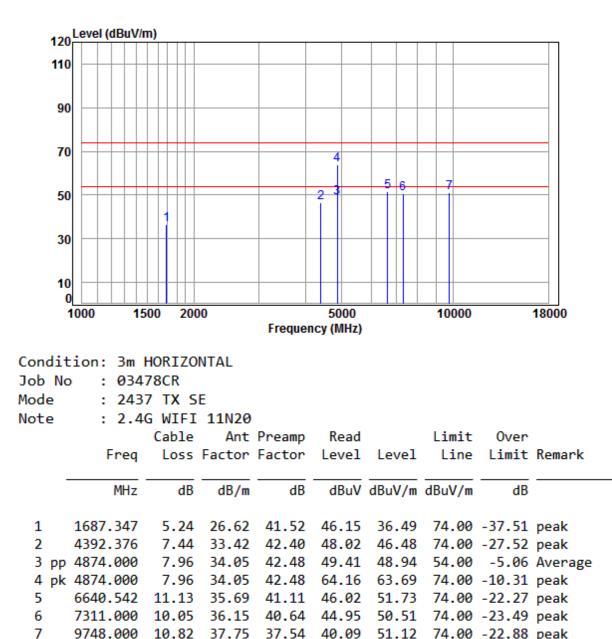


Job No												
		Cable	Ant	Preamp	Read		Limit	0ver				
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark			
-												
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB				
1	1697.129	5.23	26.66	41.53	46.03	36.39	74.00	-37.61	peak			
2	4417.841	7.47	33.46	42.40	47.13	45.66	74.00	-28.34	peak			
3	4824.000	7.91	34.00	42.47	51.02	50.46	74.00	-23.54	peak			
4	5300.200	8.55	34.44	42.21	50.12	50.90	74.00	-23.10	peak			
5	7236.000	10.07	36.09	40.69	43.40	48.87	74.00	-25.13	peak			
6 pp	9648.000	10.77	37.69	37.68	40.78	51.56	74.00	-22.44	peak			



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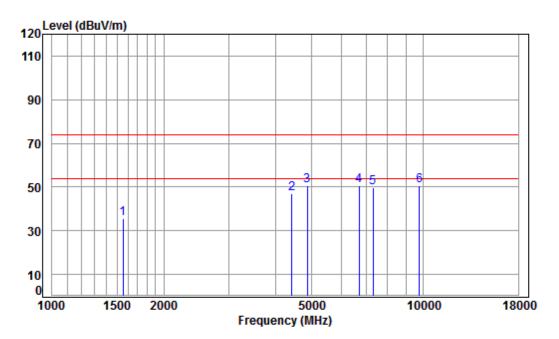
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:middle





Report No.: SZEM180400347802 Page: 88 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:middle

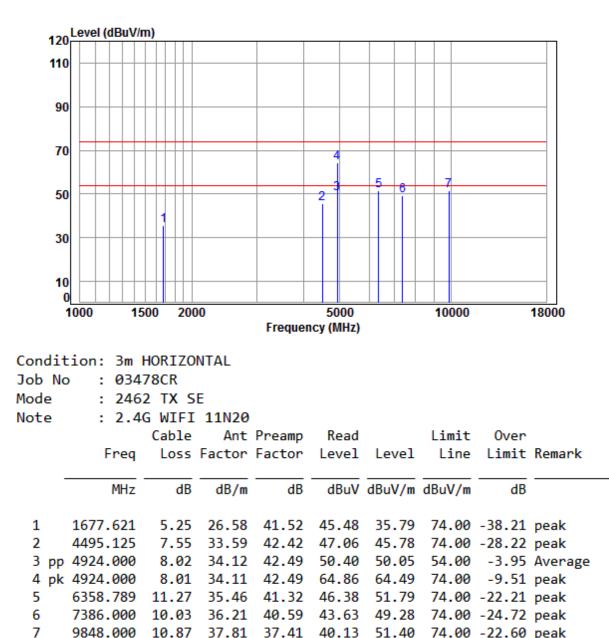


Condition: 3m VERTICAL Job No : 03478CR Mode : 2437 TX SE Note : 2.4G WIFI 11N20										
		Cable	Ant	Preamp	Read		Limit	0ver		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
1	1551.677	5.41	26.04	41.44	45.52	35.53	74.00	-38.47	peak	
2	4417.841	7.47	33.46	42.40	48.58	47.11	74.00	-26.89	peak	
3 pp	4874.000	7.96	34.05	42.48	51.34	50.87	74.00	-23.13	peak	
4	6717.762	10.91	35.73	41.05	45.09	50.68	74.00	-23.32	peak	
5	7311.000	10.05	36.15	40.64	44.37	49.93	74.00	-24.07	peak	
6	9748.000	10.82	37.75	37.54	39.40	50.43	74.00	-23.57	peak	



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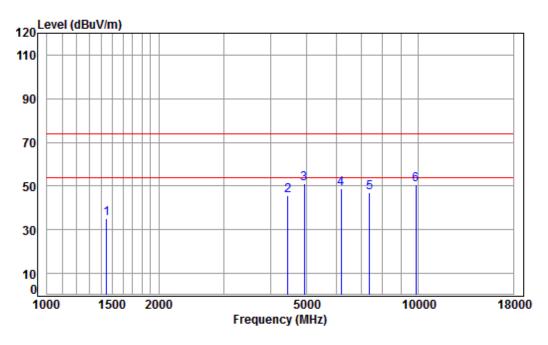
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:High





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Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:High

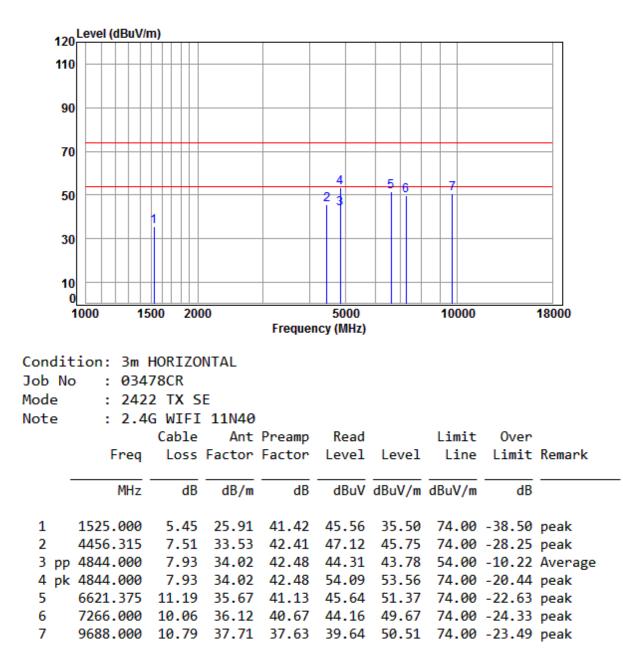


Condit	Condition: 3m VERTICAL										
Job No	b : 034	78CR									
Mode	: 246	2 TX S	E								
Note	: 2.4	G WIFI	11N20								
		Cable	Ant	Preamp	Read		Limit	0ver			
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB			
1	1447.688	5.31	25.61	41.37	45.70	35.25	74.00	-38.75	peak		
2	4456.315	7.51	33.53	42.41	47.15	45.78	74.00	-28.22	peak		
3 pp	4924.000	8.01	34.11	42.49	51.61	51.24	74.00	-22.76	peak		
4	6195.508	10.96	35.30	41.45	44.07	48.88	74.00	-25.12	peak		
5	7386.000	10.03	36.21	40.59	41.30	46.95	74.00	-27.05	peak		
6	9848.000	10.87	37.81	37.41	39.19	50.46	74.00	-23.54	peak		



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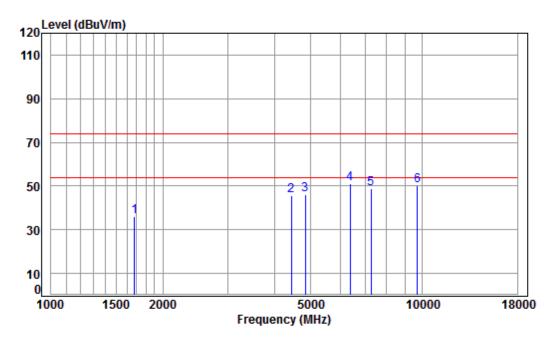
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:Low





Report No.: SZEM180400347802 Page: 92 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:Low

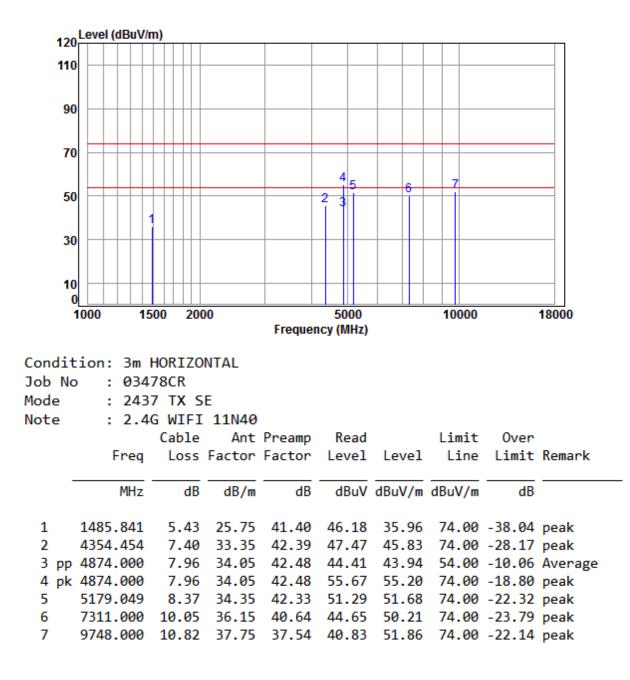


Job No											
		Cable	Ant	Preamp	Read		Limit	0ver			
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark		
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB			
1	1677.621	5.25	26.58	41.52	45.85	36.16	74.00	-37.84	peak		
2	4430.628	7.48	33.48	42.41	46.99	45.54	74.00	-28.46	peak		
3	4844.000	7.93	34.02	42.48	46.62	46.09	74.00	-27.91	peak		
4 pp	6395.654	11.34	35.50	41.30	45.38	50.92	74.00	-23.08	peak		
5	7266.000	10.06	36.12	40.67	43.28	48.79	74.00	-25.21	peak		
6	9688.000	10.79	37.71	37.63	39.16	50.03	74.00	-23.97	peak		



Report No.: SZEM180400347802 Page: 93 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:middle

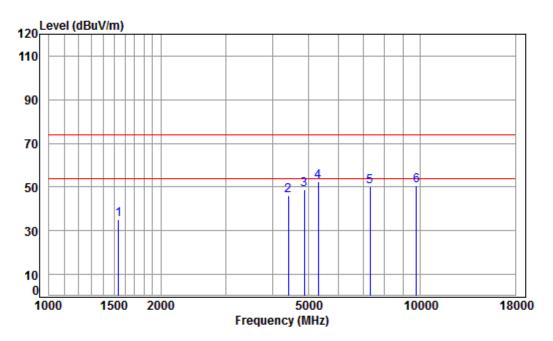


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Report No.: SZEM180400347802 Page: 94 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:middle

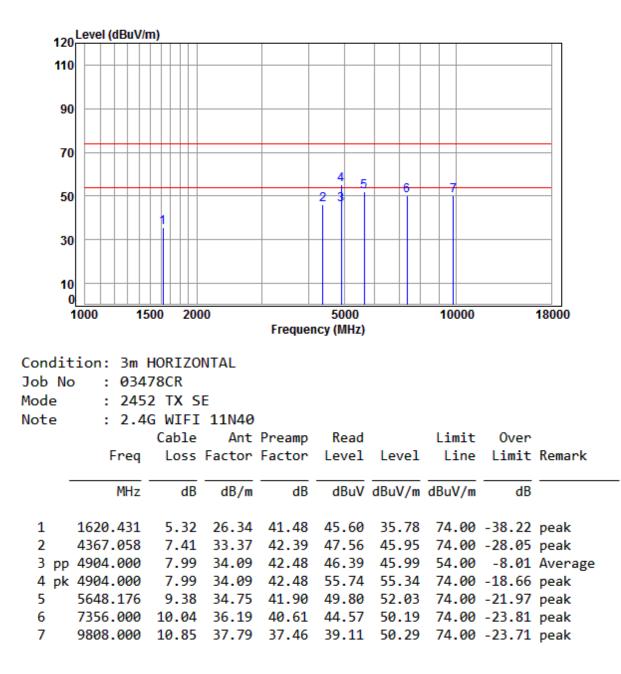


Condition: 3m VERTICAL Job No : 03478CR Mode : 2437 TX SE Note : 2.4G WIFI 11N40									
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1538.281	5.43	25.98	41.43	45.28	35.26	74.00	-38.74	peak
2	4405.090	7.46	33.44	42.40	47.62	46.12	74.00	-27.88	peak
3	4874.000	7.96	34.05	42.48	49.49	49.02	74.00	-24.98	peak
4 pp	5300.200	8.55	34.44	42.21	51.58	52.36	74.00	-21.64	peak
5	7311.000	10.05	36.15	40.64	44.59	50.15	74.00	-23.85	peak
6	9748.000	10.82	37.75	37.54	39.55	50.58	74.00	-23.42	peak



Report No.: SZEM180400347802 Page: 95 of 195

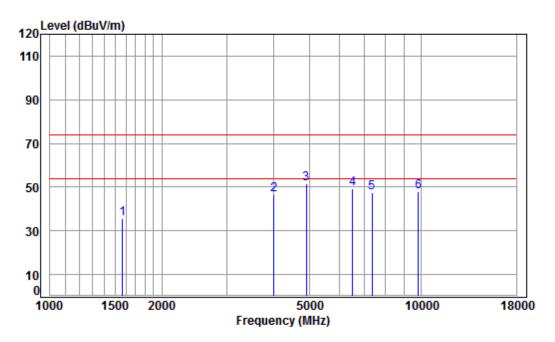
Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:High





Report No.: SZEM180400347802 Page: 96 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:High



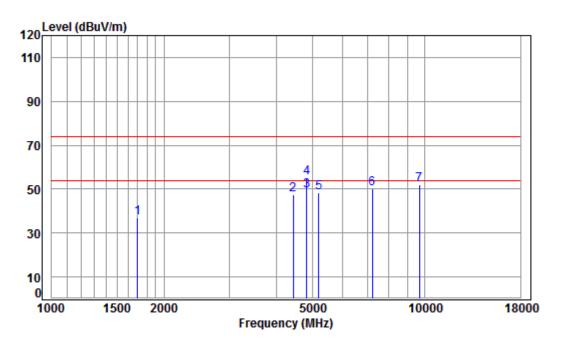
Condit Job No Mode Note	: 245	78CR 2 TX S							
		Cable		Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1569.721	5.39	26.12	41.45	45.75	35.81	74.00	-38.19	peak
2	4004.339	6.99	32.71	42.33	48.94	46.31	74.00	-27.69	peak
3 pp	4904.000	7.99	34.09	42.48	52.11	51.71	74.00	-22.29	peak
4	6526.373	11.46	35.62	41.20	43.51	49.39	74.00	-24.61	peak
5	7356.000	10.04	36.19	40.61	41.77	47.39	74.00	-26.61	peak
6	9808.000	10.85	37.79	37.46	36.55	47.73	74.00	-26.27	peak



Report No.: SZEM180400347802 Page: 97 of 195

#### Transmitter emission above 1GHz for Antenna2

Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:Low



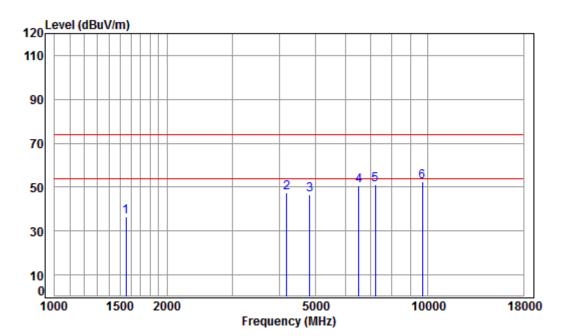
Condition:	3m HORIZONTAL
Job No :	03478CR
Mode :	2412 TX RSE
Note :	2.4G WIFI 11B

		G 11111	110						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1697.129	5.23	26.66	41.53	46.42	36.78	74.00	-37.22	peak
2	4443.453	7.50	33.50	42.41	48.82	47.41	74.00	-26.59	peak
3 p	p 4824.000	7.91	34.00	42.47	49.80	49.24	54.00	-4.76	Average
4 p	k 4824.000	7.91	34.00	42.47	55.60	55.04	74.00	-18.96	peak
5	5194.041	8.39	34.36	42.31	47.97	48.41	74.00	-25.59	peak
6	7236.000	10.07	36.09	40.69	44.83	50.30	74.00	-23.70	peak
7	9648.000	10.77	37.69	37.68	41.28	52.06	74.00	-21.94	peak



Report No.: SZEM180400347802 Page: 98 of 195

Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:Low



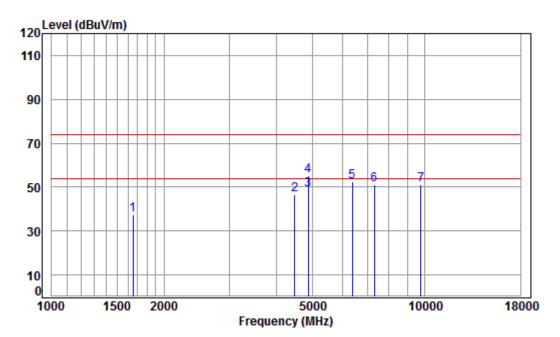
Condition:	3m VERTICAL
Job No :	03478CR
Mode :	2412 TX RSE
Note ·	2.4G WTET 11B

Note	: 2.4	G WIFI	11B						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1551.677	5.41	26.04	41.44	46.57	36.58	74.00	-37.42	peak
2	4181.768	7.20	33.04	42.36	49.60	47.48	74.00	-26.52	peak
3	4824.000	7.91	34.00	42.47	46.99	46.43	74.00	-27.57	peak
4	6526.373	11.46	35.62	41.20	44.54	50.42	74.00	-23.58	peak
5	7236.000	10.07	36.09	40.69	45.41	50.88	74.00	-23.12	peak
6 p	9648.000	10.77	37.69	37.68	41.76	52.54	74.00	-21.46	peak



Report No.: SZEM180400347802 Page: 99 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:middle



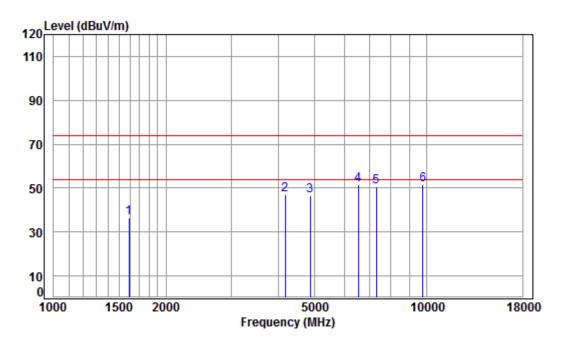
Condition:	3m HORIZONTAL
Job No :	03478CR
Mode :	2437 TX RSE
Note :	2.4G WIFI 11B

	_									
			Cable	Ant	Preamp	Read		Limit	0ver	
		Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	_									
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1		1653.550	5.28	26.48	41.50	47.26	37.52	74.00	-36.48	peak
2		4482.150	7.54	33.57	42.41	47.71	46.41	74.00	-27.59	peak
3	рр	4874.000	7.96	34.05	42.48	49.26	48.79	54.00	-5.21	Average
4	pk	4874.000	7.96	34.05	42.48	55.59	55.12	74.00	-18.88	peak
5		6377.195	11.31	35.48	41.31	46.95	52.43	74.00	-21.57	peak
6		7311.000	10.05	36.15	40.64	45.60	51.16	74.00	-22.84	peak
7		9748.000	10.82	37.75	37.54	39.87	50.90	74.00	-23.10	peak
										-



Report No.: SZEM180400347802 Page: 100 of 195

Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:middle



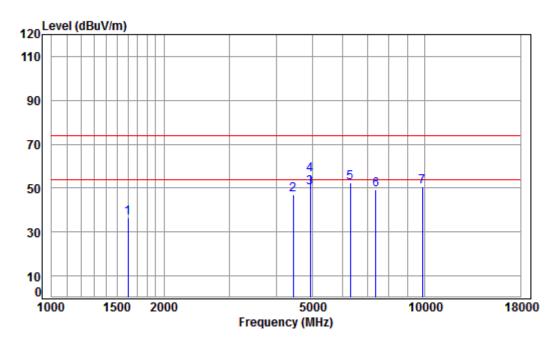
Condition:	3m VERTICAL
Job No :	03478CR
Mode :	2437 TX RSE
Note :	2.4G WIFI 11B

Note	: 2.4	G WIFI	11B						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1592.571	5.36	26.22	41.47	46.31	36.42	74.00	-37.58	peak
2	4169.698	7.18	33.02	42.36	48.99	46.83	74.00	-27.17	peak
3	4874.000	7.96	34.05	42.48	46.82	46.35	74.00	-27.65	peak
4 pp	6545.263	11.41	35.63	41.18	45.70	51.56	74.00	-22.44	peak
5	7311.000	10.05	36.15	40.64	45.21	50.77	74.00	-23.23	peak
6	9748.000	10.82	37.75	37.54	40.48	51.51	74.00	-22.49	peak



Report No.: SZEM180400347802 Page: 101 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11b; bandwidth:20MHz; Channel:High



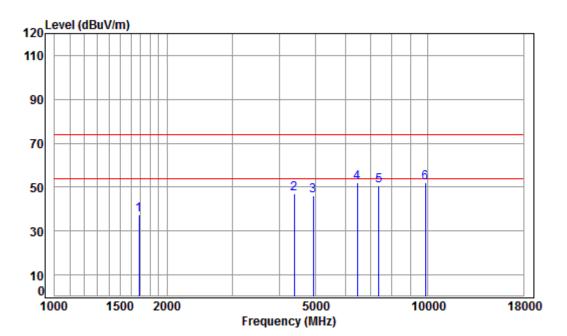
Condition:	3m HORIZONTAL
Job No :	03478CR
Mode :	2462 TX RSE
Note :	2.4G WIFI 11B

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1601.804	5.35	26.26	41.47	46.18	36.32	74.00	-37.68	peak
2	4430.628	7.48	33.48	42.41	48.27	46.82	74.00	-27.18	peak
3	pp 4924.000	8.01	34.11	42.49	50.36	49.99	54.00	-4.01	Average
4	pk 4924.000	8.01	34.11	42.49	56.38	56.01	74.00	-17.99	peak
5	6303.890	11.17	35.41	41.37	47.25	52.46	74.00	-21.54	peak
6	7386.000	10.03	36.21	40.59	43.65	49.30	74.00	-24.70	peak
7	9848.000	10.87	37.81	37.41	39.52	50.79	74.00	-23.21	peak



Report No.: SZEM180400347802 Page: 102 of 195

Mode:b; Polarization:Vertical; Modulation:802.11b; bandwidth:20MHz; Channel:High



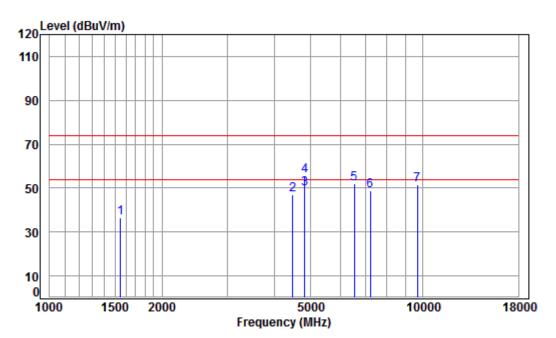
Condition:	3m VERTICAL
Job No :	03478CR
Mode :	2462 TX RSE

Note	: 2.4	G WIFI	11B						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1682.477	5.25	26.60	41.52	46.88	37.21	74.00	-36.79	peak
2	4379.699	7.43	33.39	42.40	48.39	46.81	74.00	-27.19	peak
3	4924.000	8.01	34.11	42.49	46.37	46.00	74.00	-28.00	peak
4	6470.026	11.48	35.57	41.24	46.11	51.92	74.00	-22.08	peak
5	7386.000	10.03	36.21	40.59	44.91	50.56	74.00	-23.44	peak
6 p	9848.000	10.87	37.81	37.41	40.77	52.04	74.00	-21.96	peak



Report No.: SZEM180400347802 Page: 103 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:Low



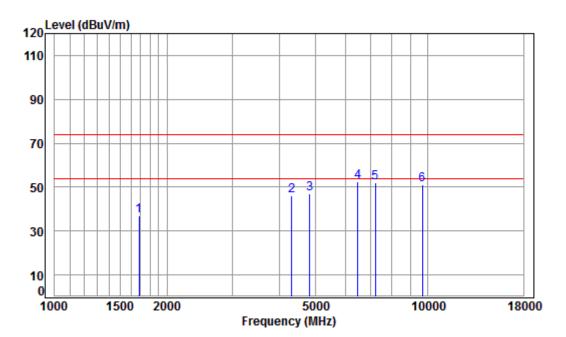
Condition:	3m HORIZONTAL
Job No :	03478CR
Mode :	2412 TX RSE
Note :	2.4G WIFI 11G

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1547.199	5.42	26.02	41.44	46.54	36.54	74.00	-37.46	peak
2	4482.150	7.54	33.57	42.41	48.28	46.98	74.00	-27.02	peak
3 p	p 4824.000	7.91	34.00	42.47	50.18	49.62	54.00	-4.38	Average
4 p	k 4824.000	7.91	34.00	42.47	56.01	55.45	74.00	-18.55	peak
5	6545.263	11.41	35.63	41.18	46.14	52.00	74.00	-22.00	peak
6	7236.000	10.07	36.09	40.69	43.29	48.76	74.00	-25.24	peak
7	9648.000	10.77	37.69	37.68	40.58	51.36	74.00	-22.64	peak



Report No.: SZEM180400347802 Page: 104 of 195

Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:Low



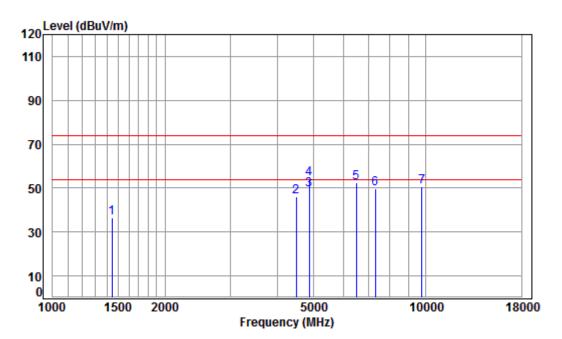
Condition:	3m VERTICAL
Job No :	03478CR
Mode :	2412 TX RSE

: 2.40	G WIFI	11G						
	Cable	Ant	Preamp	Read		Limit	0ver	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1682.477	5.25	26.60	41.52	46.42	36.75	74.00	-37.25	peak
4316.859	7.36	33.28	42.38	47.93	46.19	74.00	-27.81	peak
4824.000	7.91	34.00	42.47	47.71	47.15	74.00	-26.85	peak
6488.754	11.52	35.59	41.22	46.66	52.55	74.00	-21.45	peak
7236.000	10.07	36.09	40.69	46.45	51.92	74.00	-22.08	peak
9648.000	10.77	37.69	37.68	40.28	51.06	74.00	-22.94	peak
	Freq MHz 1682.477 4316.859 4824.000 6488.754 7236.000	Cable Freq Loss MHz dB 1682.477 5.25 4316.859 7.36 4824.000 7.91 6488.754 11.52 7236.000 10.07	Freq         Loss         Factor           MHz         dB         dB/m           1682.477         5.25         26.60           4316.859         7.36         33.28           4824.000         7.91         34.00           6488.754         11.52         35.59           7236.000         10.07         36.09	Cable         Ant         Preamp           Freq         Loss         Factor         Factor           MHz         dB         dB/m         dB           1682.477         5.25         26.60         41.52           4316.859         7.36         33.28         42.38           4824.000         7.91         34.00         42.47           6488.754         11.52         35.59         41.22           7236.000         10.07         36.09         40.69	Cable         Ant         Preamp         Read           Freq         Loss         Factor         Factor         Level           MHz         dB         dB/m         dB         dBuV           1682.477         5.25         26.60         41.52         46.42           4316.859         7.36         33.28         42.38         47.93           4824.000         7.91         34.00         42.47         47.71           6488.754         11.52         35.59         41.22         46.66           7236.000         10.07         36.09         40.69         46.45	Cable         Ant         Preamp         Read           Freq         Loss         Factor         Factor         Level         Level           MHz         dB         dB/m         dB         dBuV         dBuV/m           1682.477         5.25         26.60         41.52         46.42         36.75           4316.859         7.36         33.28         42.38         47.93         46.19           4824.000         7.91         34.00         42.47         47.71         47.15           6488.754         11.52         35.59         41.22         46.66         52.55           7236.000         10.07         36.09         40.69         46.45         51.92	Cable       Ant       Preamp       Read       Limit         Freq       Loss       Factor       Factor       Level       Level       Line         MHz       dB       dB/m       dB       dBuV       dBuV/m       dBuV/m         1682.477       5.25       26.60       41.52       46.42       36.75       74.00         4316.859       7.36       33.28       42.38       47.93       46.19       74.00         4824.000       7.91       34.00       42.47       47.71       47.15       74.00         6488.754       11.52       35.59       41.22       46.66       52.55       74.00         7236.000       10.07       36.09       40.69       46.45       51.92       74.00	Cable Ant Preamp Read Limit Over Freq Loss Factor Factor Level Level Line Limit



Report No.: SZEM180400347802 Page: 105 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:middle



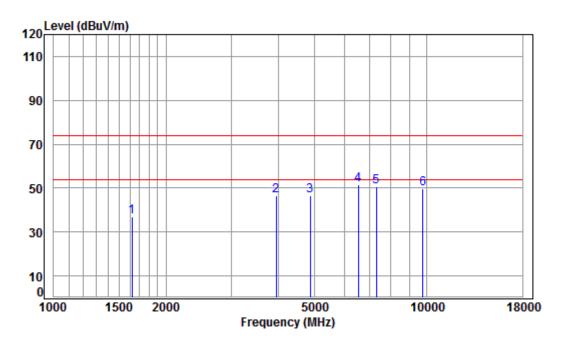
Condition:	3m HORIZONTAL						
Job No :	03478CR						
Mode :	2437 TX RSE						
Note :	2.4G WIFI 11G						

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1443.509	5.30	25.59	41.37	46.99	36.51	74.00	-37.49	peak
2	4495.125	7.55	33.59	42.42	47.53	46.25	74.00	-27.75	peak
3 p	4874.000	7.96	34.05	42.48	49.88	49.41	54.00	-4.59	Average
4 pl	c 4874.000	7.96	34.05	42.48	54.98	54.51	74.00	-19.49	peak
5	6507.536	11.52	35.60	41.21	46.54	52.45	74.00	-21.55	peak
6	7311.000	10.05	36.15	40.64	44.09	49.65	74.00	-24.35	peak
7	9748.000	10.82	37.75	37.54	39.45	50.48	74.00	-23.52	peak



Report No.: SZEM180400347802 Page: 106 of 195

Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:middle



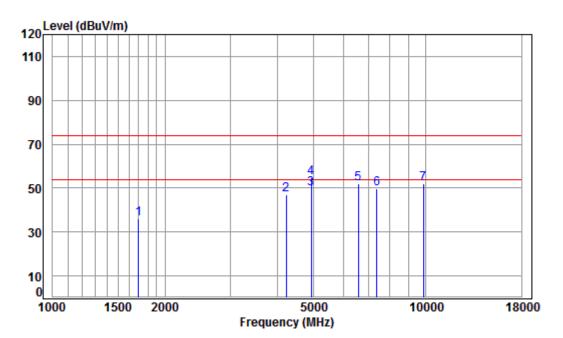
Condition:	3m VERTICAL
Job No :	03478CR
Mode :	2437 TX RSE

: 2.4	G WIFI	11G						
	Cable	Ant	Preamp	Read		Limit	0ver	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1620.431	5.32	26.34	41.48	46.63	36.81	74.00	-37.19	peak
3946.885	6.93	32.60	42.31	49.40	46.62	74.00	-27.38	peak
4874.000	7.96	34.05	42.48	47.08	46.61	74.00	-27.39	peak
6545.263	11.41	35.63	41.18	45.65	51.51	74.00	-22.49	peak
7311.000	10.05	36.15	40.64	45.13	50.69	74.00	-23.31	peak
9748.000	10.82	37.75	37.54	38.81	49.84	74.00	-24.16	peak
	Freq MHz 1620.431 3946.885 4874.000 6545.263 7311.000	Cable Freq Loss MHz dB 1620.431 5.32 3946.885 6.93 4874.000 7.96 6545.263 11.41 7311.000 10.05	Freq         Loss         Factor           MHz         dB         dB/m           1620.431         5.32         26.34           3946.885         6.93         32.60           4874.000         7.96         34.05           6545.263         11.41         35.63           7311.000         10.05         36.15	Cable         Ant         Preamp           Freq         Loss         Factor         Factor           MHz         dB         dB/m         dB           1620.431         5.32         26.34         41.48           3946.885         6.93         32.60         42.31           4874.000         7.96         34.05         42.48           6545.263         11.41         35.63         41.18           7311.000         10.05         36.15         40.64	Cable         Ant         Preamp         Read           Freq         Loss         Factor         Factor         Level           MHz         dB         dB/m         dB         dBuV           1620.431         5.32         26.34         41.48         46.63           3946.885         6.93         32.60         42.31         49.40           4874.000         7.96         34.05         42.48         47.08           6545.263         11.41         35.63         41.18         45.65           7311.000         10.05         36.15         40.64         45.13	Cable         Ant         Preamp         Read           Freq         Loss         Factor         Factor         Level         Level           MHz         dB         dB/m         dB         dBuV         dBuV/m           1620.431         5.32         26.34         41.48         46.63         36.81           3946.885         6.93         32.60         42.31         49.40         46.62           4874.000         7.96         34.05         42.48         47.08         46.61           6545.263         11.41         35.63         41.18         45.65         51.51           7311.000         10.05         36.15         40.64         45.13         50.69	Cable       Ant       Preamp       Read       Limit         Freq       Loss       Factor       Factor       Level       Level       Line         MHz       dB       dB/m       dB       dBuV       dBuV/m       dBuV/m         1620.431       5.32       26.34       41.48       46.63       36.81       74.00         3946.885       6.93       32.60       42.31       49.40       46.62       74.00         4874.000       7.96       34.05       42.48       47.08       46.61       74.00         6545.263       11.41       35.63       41.18       45.65       51.51       74.00         7311.000       10.05       36.15       40.64       45.13       50.69       74.00	Cable Ant Preamp Read Limit Over Freq Loss Factor Factor Level Level Line Limit



Report No.: SZEM180400347802 Page: 107 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11g; bandwidth:20MHz; Channel:High



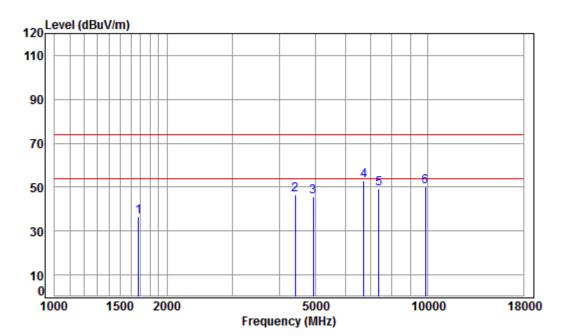
Condition:	3m HORIZONTAL						
Job No :	03478CR						
Mode :	2462 TX RSE						
Note :	2.4G WIFI 11G						

			110						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1697.129	5.23	26.66	41.53	45.76	36.12	74.00	-37.88	peak
2	4218.186	7.24	33.11	42.37	49.22	47.20	74.00	-26.80	peak
3 p	p 4924.000	8.01	34.11	42.49	50.13	49.76	54.00	-4.24	Average
4 pl	k 4924.000	8.01	34.11	42.49	55.26	54.89	74.00	-19.11	peak
5	6583.209	11.30	35.65	41.15	46.37	52.17	74.00	-21.83	peak
6	7386.000	10.03	36.21	40.59	44.10	49.75	74.00	-24.25	peak
7	9848.000	10.87	37.81	37.41	40.75	52.02	74.00	-21.98	peak



Report No.: SZEM180400347802 Page: 108 of 195

Mode:b; Polarization:Vertical; Modulation:802.11g; bandwidth:20MHz; Channel:High



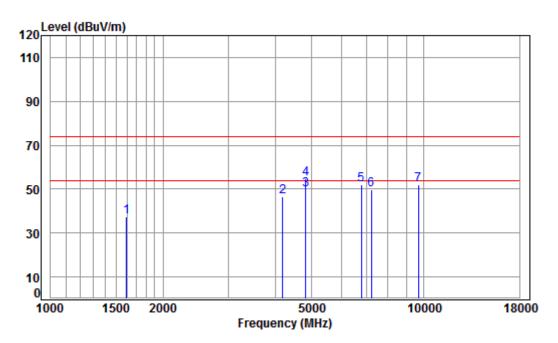
Condition:	3m VERTICAL					
Job No :	03478CR					
Mode :	2462 TX RSE					
Note ·	2.46 WTET 116					

Note	: 2.4	G WIFI	11G						
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1677.621	5.25	26.58	41.52	46.26	36.57	74.00	-37.43	peak
2	4405.090	7.46	33.44	42.40	48.03	46.53	74.00	-27.47	peak
3	4924.000	8.01	34.11	42.49	46.14	45.77	74.00	-28.23	peak
4 pp	6737.207	10.86	35.75	41.04	47.14	52.71	74.00	-21.29	peak
5	7386.000	10.03	36.21	40.59	43.59	49.24	74.00	-24.76	peak
6	9848.000	10.87	37.81	37.41	39.10	50.37	74.00	-23.63	peak



Report No.: SZEM180400347802 Page: 109 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:Low



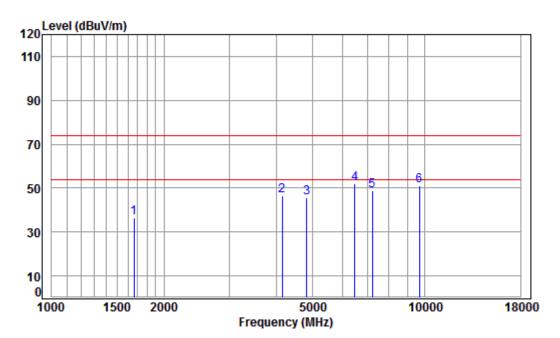
Condition:	3m HORIZONTAL
Job No :	03478CR
Mode :	2412 TX RSE
Note :	2.4G WIFI 11N 20

	_			Preamp					
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1597.181	5.35	26.24	41.47	47.44	37.56	74.00	-36.44	peak
2	4181.768	7.20	33.04	42.36	48.49	46.37	74.00	-27.63	peak
3 pp	4824.000	7.91	34.00	42.47	50.37	49.81	54.00	-4.19	Average
4 pk	4824.000	7.91	34.00	42.47	55.22	54.66	74.00	-19.34	peak
5	6795.879	10.69	35.78	41.00	46.53	52.00	74.00	-22.00	peak
6	7236.000	10.07	36.09	40.69	44.39	49.86	74.00	-24.14	peak
7	9648.000	10.77	37.69	37.68	41.20	51.98	74.00	-22.02	peak



Report No.: SZEM180400347802 Page: 110 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:Low



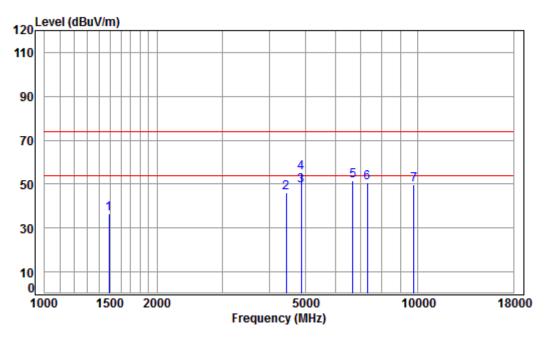
Condition	3m VERTICAL
Job No :	03478CR
Mode :	2412 TX RSE
Note :	2.4G WIFI 11N 20

MHz         dB         dB/m         dB         dBuV/m         dBuV/m         dBuV/m         dB           1         1663.137         5.27         26.52         41.51         46.28         36.56         74.00         -37.44 p           2         4145.664         7.16         32.97         42.35         48.65         46.43         74.00         -27.57 p	
2 4145.664 7.16 32.97 42.35 48.65 46.43 74.00 -27.57 p	
	eak
	eak
3 4824.000 7.91 34.00 42.47 46.32 45.76 74.00 -28.24 p	eak
4 pp 6488.754 11.52 35.59 41.22 46.08 51.97 74.00 -22.03 p	eak
5 7236.000 10.07 36.09 40.69 43.13 48.60 74.00 -25.40 p	eak
6 9648.000 10.77 37.69 37.68 40.39 51.17 74.00 -22.83 p	eak



Report No.: SZEM180400347802 Page: 111 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:middle



Condition:	3m HORIZONTAL
Job No :	03478CR
Mode :	2437 TX RSE
Note :	2.4G WIFI 11N 20

	[non			Preamp					Pomonic
	Freq	LOSS	Factor	Factor	Level	Level	Line	LIMIC	кетагк
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1490.142	5.45	25.76	41.40	46.76	36.57	74.00	-37.43	peak
2	4430.628	7.48	33.48	42.41	47.45	46.00	74.00	-28.00	peak
3 pp	4874.000	7.96	34.05	42.48	49.82	49.35	54.00	-4.65	Average
4 pk	4874.000	7.96	34.05	42.48	55.58	55.11	74.00	-18.89	peak
5	6698.373	10.97	35.72	41.07	45.85	51.47	74.00	-22.53	peak
6	7311.000	10.05	36.15	40.64	45.21	50.77	74.00	-23.23	peak
7	9748.000	10.82	37.75	37.54	38.93	49.96	74.00	-24.04	peak



5

6

7311.000

9748.000

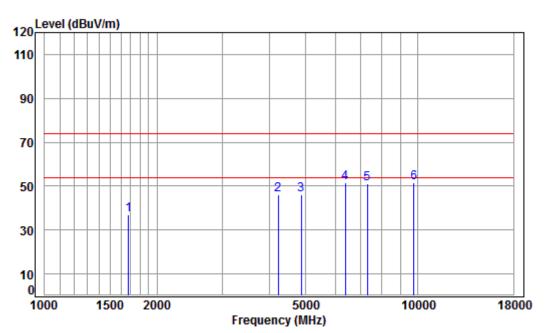
10.05

36.15

## SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM180400347802 Page: 112 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:middle



Job No	: 243	78CR 7 TX R		0					
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1677.621	5.25	26.58	41.52	46.67	36.98	74.00	-37.02	peak
2	4218.186	7.24	33.11	42.37	48.26	46.24	74.00	-27.76	peak
3	4874.000	7.96	34.05	42.48	46.42	45.95	74.00	-28.05	peak
4 pp	6395.654	11.34	35.50	41.30	46.15	51.69	74.00	-22.31	peak

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40.64 45.37

50.93

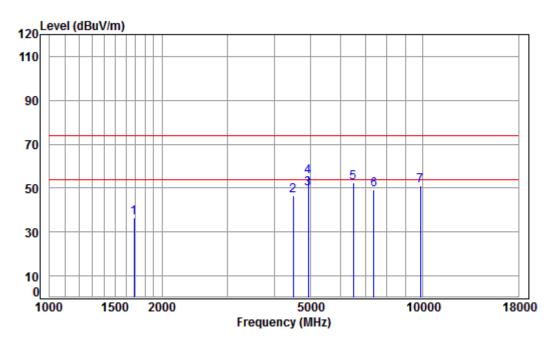
10.82 37.75 37.54 40.49 51.52 74.00 -22.48 peak

74.00 -23.07 peak



Report No.: SZEM180400347802 Page: 113 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:20MHz; Channel:High



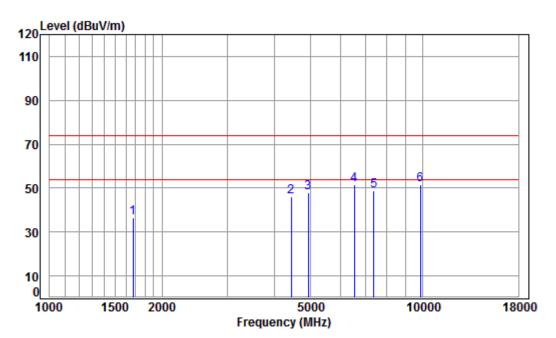
Condition:	3m HORIZONTAL
Job No :	03478CR
Mode :	2462 TX RSE
Note :	2.4G WIFI 11N 20

	_			Preamp					<b>.</b> .
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Kemark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1682.477	5.25	26.60	41.52	45.98	36.31	74.00	-37.69	peak
2	4495.125	7.55	33.59	42.42	47.70	46.42	74.00	-27.58	peak
3 pp	4924.000	8.01	34.11	42.49	50.32	49.95	54.00	-4.05	Average
4 pk	4924.000	8.01	34.11	42.49	55.68	55.31	74.00	-18.69	peak
5	6507.536	11.52	35.60	41.21	46.48	52.39	74.00	-21.61	peak
6	7386.000	10.03	36.21	40.59	43.77	49.42	74.00	-24.58	peak
7	9848.000	10.87	37.81	37.41	39.92	51.19	74.00	-22.81	peak



Report No.: SZEM180400347802 Page: 114 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:20MHz; Channel:High

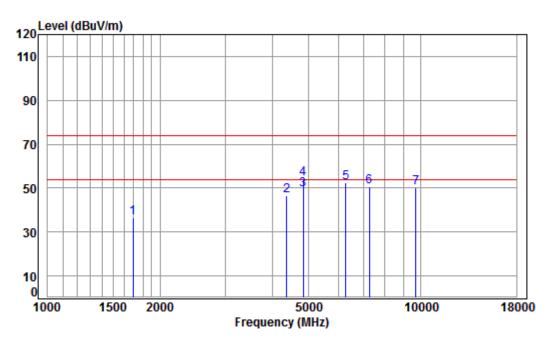


Condit Job No Mode Note	: 2462		5E	3					
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
-									
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1672.779	5.26	26.56	41.52	46.19	36.49	74.00	-37.51	peak
2	4430.628	7.48	33.48	42.41	47.73	46.28	74.00	-27.72	peak
3	4924.000	8.01	34.11	42.49	48.07	47.70	74.00	-26.30	peak
4 pp	6545.263	11.41	35.63	41.18	45.93	51.79	74.00	-22.21	peak
5	7386.000	10.03	36.21	40.59	43.12	48.77	74.00	-25.23	peak
6	9848.000	10.87	37.81	37.41	40.39	51.66	74.00	-22.34	peak



Report No.: SZEM180400347802 Page: 115 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:Low



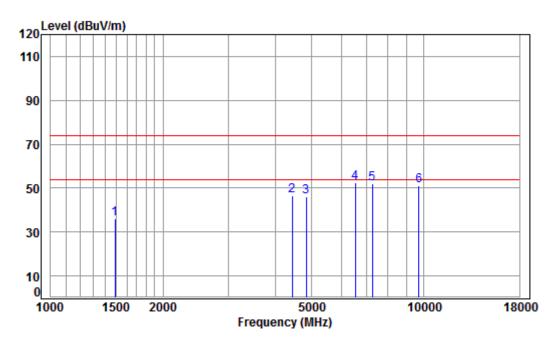
Condition	:	3m HORIZONTAL
Job No	:	03478CR
Mode	:	2422 TX RSE
Note	:	2.4G WIFI 11N 40

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1692.231	5.24	26.64	41.53	45.97	36.32	74.00	-37.68	peak
2	4367.058	7.41	33.37	42.39	48.21	46.60	74.00	-27.40	peak
3 pp	4844.000	7.93	34.02	42.48	49.68	49.15	54.00	-4.85	Average
4 pk	4844.000	7.93	34.02	42.48	54.79	54.26	74.00	-19.74	peak
5	6285.695	11.13	35.39	41.38	47.11	52.25	74.00	-21.75	peak
6	7266.000	10.06	36.12	40.67	45.34	50.85	74.00	-23.15	peak
7	9688.000	10.79	37.71	37.63	39.52	50.39	74.00	-23.61	peak



Report No.: SZEM180400347802 Page: 116 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:Low



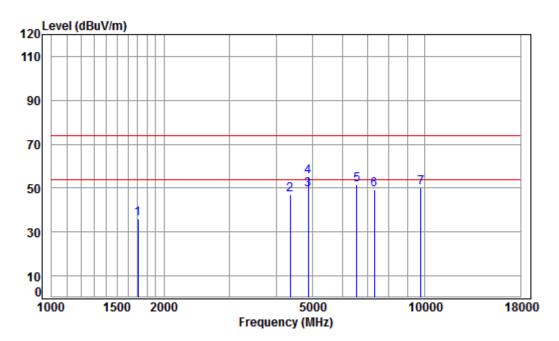
Condition	:	3m VERTICAL
Job No	:	03478CR
Mode	:	2422 TX RSE
Note	:	2.4G WIFI 11N 40

				Preamp					
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1490.142	5.45	25.76	41.40	46.16	35.97	74.00	-38.03	peak
2	4430.628	7.48	33.48	42.41	48.09	46.64	74.00	-27.36	peak
3	4844.000	7.93	34.02	42.48	46.56	46.03	74.00	-27.97	peak
4 pp	6545.263	11.41	35.63	41.18	46.77	52.63	74.00	-21.37	peak
5	7266.000	10.06	36.12	40.67	46.37	51.88	74.00	-22.12	peak
6	9688.000	10.79	37.71	37.63	40.03	50.90	74.00	-23.10	peak



Report No.: SZEM180400347802 Page: 117 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:middle



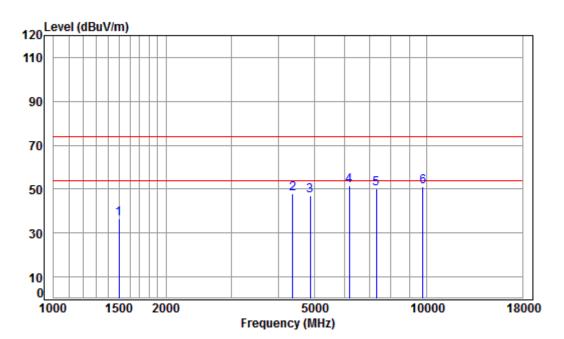
Condition:	3m HORIZONTAL
Job No :	03478CR
Mode :	2437 TX RSE
Note :	2.4G WIFI 11N 40

	<b>F</b>			Preamp					D I
	Freq	LOSS	Factor	Factor	Level	Level	Line	Limit	Kemark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1702.042	5.23	26.68	41.53	45.66	36.04	74.00	-37.96	peak
2	4354.454	7.40	33.35	42.39	48.45	46.81	74.00	-27.19	peak
3 pp	4874.000	7.96	34.05	42.48	49.82	49.35	54.00	-4.65	Average
4 pk	4874.000	7.96	34.05	42.48	55.80	55.33	74.00	-18.67	peak
5	6564.209	11.35	35.64	41.17	45.81	51.63	74.00	-22.37	peak
6	7311.000	10.05	36.15	40.64	43.89	49.45	74.00	-24.55	peak
7	9748.000	10.82	37.75	37.54	39.08	50.11	74.00	-23.89	peak



Report No.: SZEM180400347802 Page: 118 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:middle



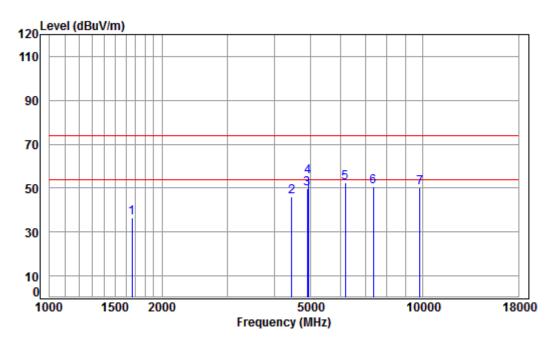
Condition:	3m VERTICAL
Job No :	03478CR
Mode :	2437 TX RSE
Note :	2.4G WIFI 11N 40

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1498.781	5.48	25.80	41.41	46.66	36.53	74.00	-37.47	peak
2	4367.058	7.41	33.37	42.39	49.68	48.07	74.00	-25.93	peak
3	4874.000	7.96	34.05	42.48	47.65	47.18	74.00	-26.82	peak
4 pp	6195.508	10.96	35.30	41.45	46.64	51.45	74.00	-22.55	peak
5	7311.000	10.05	36.15	40.64	44.47	50.03	74.00	-23.97	peak
6	9748.000	10.82	37.75	37.54	40.20	51.23	74.00	-22.77	peak
									-



Report No.: SZEM180400347802 Page: 119 of 195

Mode:b; Polarization:Horizontal; Modulation:802.11n; bandwidth:40MHz; Channel:High



Condition:	3m HORIZONTAL
Job No :	03478CR
Mode :	2452 TX RSE
Note :	2.4G WIFI 11N 40

	Freq			Preamp Factor					Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1663.137	5.27	26.52	41.51	46.09	36.37	74.00	-37.63	peak
2	4456.315	7.51	33.53	42.41	47.33	45.96	74.00	-28.04	peak
3 pp	4904.000	7.99	34.09	42.48	50.09	49.69	54.00	-4.31	Average
4 pk	4924.000	7.99	34.09	42.48	55.73	55.33	74.00	-18.67	peak
5	6195.508	10.96	35.30	41.45	47.58	52.39	74.00	-21.61	peak
6	7356.000	10.04	36.19	40.61	44.86	50.48	74.00	-23.52	peak
7	9808.000	10.85	37.79	37.46	38.90	50.08	74.00	-23.92	peak



6

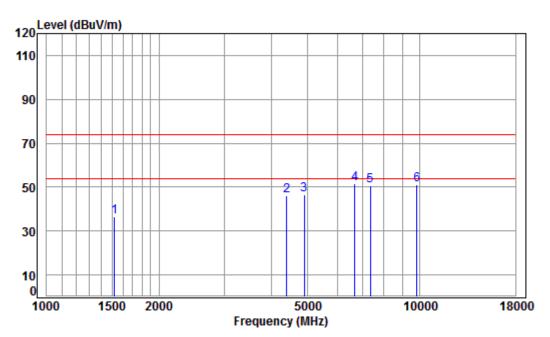
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## SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM180400347802 Page: 120 of 195

Mode:b; Polarization:Vertical; Modulation:802.11n; bandwidth:40MHz; Channel:High



Condi Job No Mode Note	: 245	78CR 2 TX R	-	а					
		Cable		Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1520.598	5.45	25.89	41.42	46.60	36.52	74.00	-37.48	peak
2	4392.376	7.44	33.42	42.40	47.76	46.22	74.00	-27.78	peak
3	4904.000	7.99	34.09	42.48	46.98	46.58	74.00	-27.42	peak
4 pp	6698.373	10.97	35.72	41.07	45.98	51.60	74.00	-22.40	peak
5	7356,000	10.04	36.19	40.61	11 88	50 50	74 00	23 50	nook

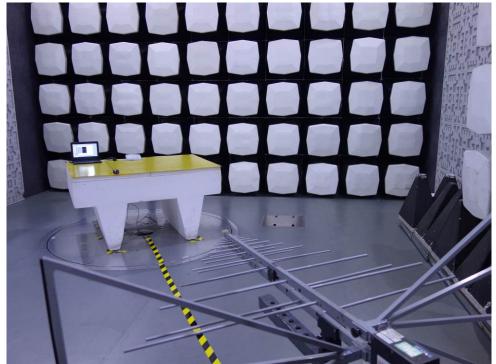
37.79 37.46 40.13 51.31 74.00 -22.69 peak

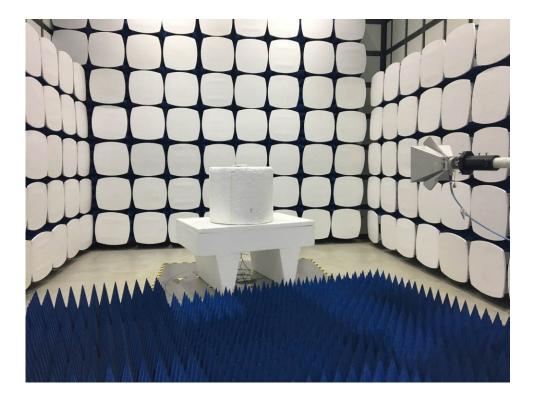


Report No.: SZEM180400347802 Page: 121 of 195

#### 8 Photographs

8.1 Radiated Spurious Emissions Test Setup







Report No.: SZEM180400347802 Page: 122 of 195

#### 8.2 EUT Constructional Details (EUT Photos)

Please Refer to external and internal photos for details.



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#### 9 Appendix

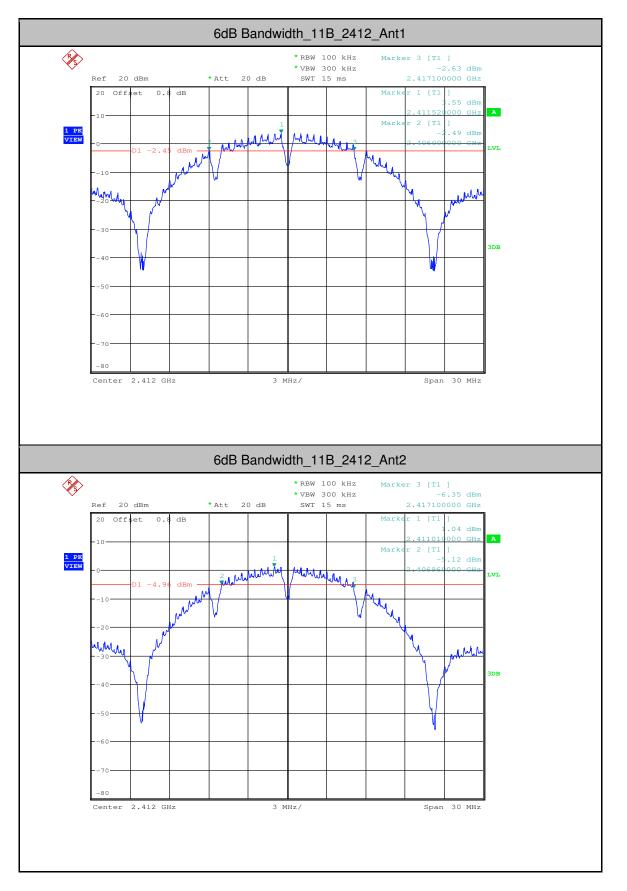
#### 9.1 Appendix 15.247

1.6dB Bandwidth

Test Mode	Test Channel	Ant	EBW[MHz]	Limit[MHz]	Verdict
11B	2412	Ant1	11.100	>=0.5	PASS
11B	2412	Ant2	10.140	>=0.5	PASS
11B	2437	Ant1	11.130	>=0.5	PASS
11B	2437	Ant2	10.170	>=0.5	PASS
11B	2462	Ant1	11.130	>=0.5	PASS
11B	2462	Ant2	10.110	>=0.5	PASS
11G	2412	Ant1	15.120	>=0.5	PASS
11G	2412	Ant2	15.120	>=0.5	PASS
11G	2437	Ant1	15.180	>=0.5	PASS
11G	2437	Ant2	15.180	>=0.5	PASS
11G	2462	Ant1	15.105	>=0.5	PASS
11G	2462	Ant2	15.120	>=0.5	PASS
11N20SISO	2412	Ant1	15.150	>=0.5	PASS
11N20SISO	2412	Ant2	15.150	>=0.5	PASS
11N20SISO	2437	Ant1	15.180	>=0.5	PASS
11N20SISO	2437	Ant2	15.180	>=0.5	PASS
11N20SISO	2462	Ant1	15.150	>=0.5	PASS
11N20SISO	2462	Ant2	15.120	>=0.5	PASS
11N40SISO	2422	Ant1	33.900	>=0.5	PASS
11N40SISO	2422	Ant2	35.160	>=0.5	PASS
11N40SISO	2437	Ant1	32.700	>=0.5	PASS
11N40SISO	2437	Ant2	32.700	>=0.5	PASS
11N40SISO	2452	Ant1	32.700	>=0.5	PASS
11N40SISO	2452	Ant2	32.700	>=0.5	PASS

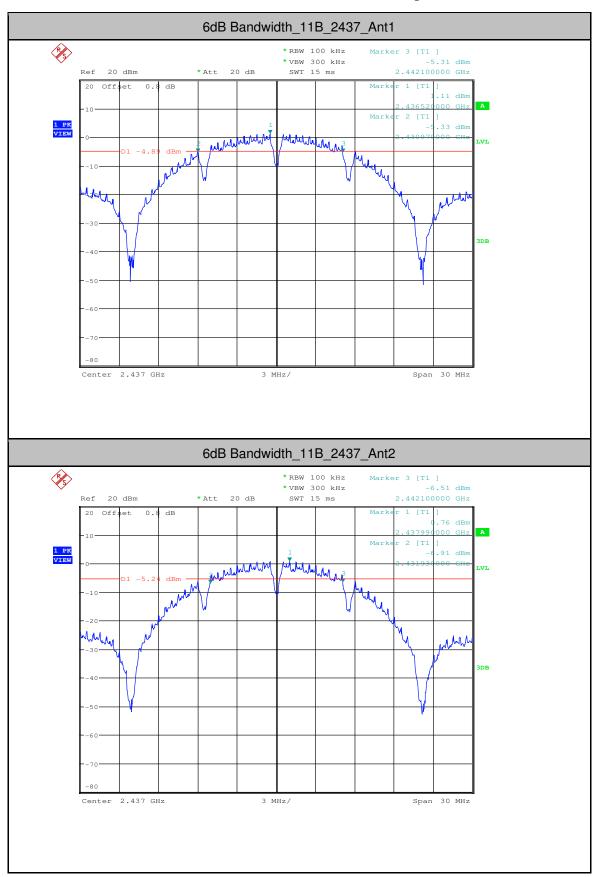


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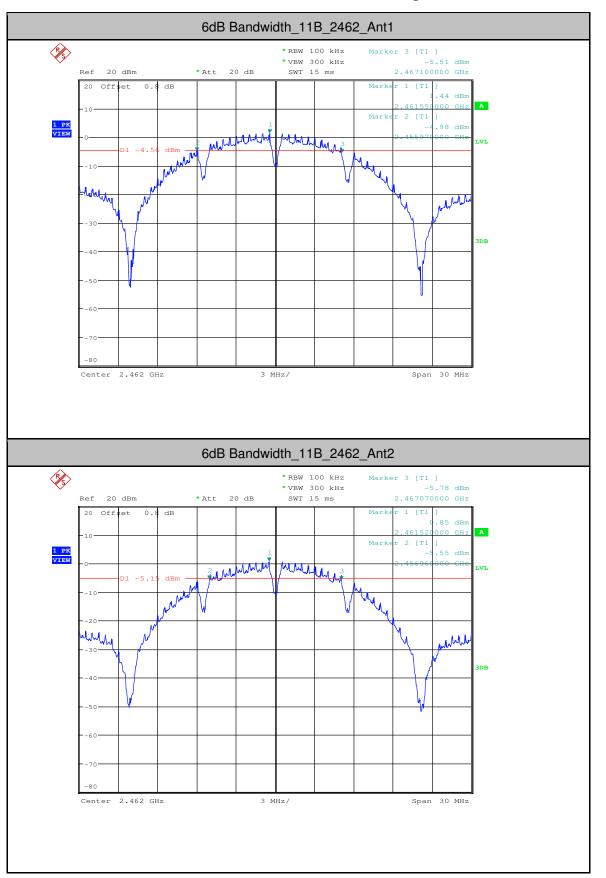


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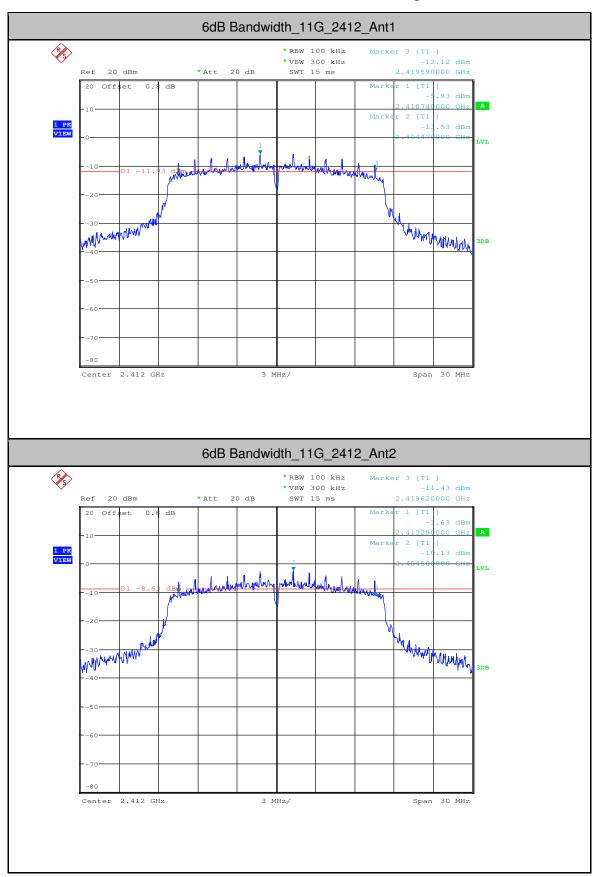


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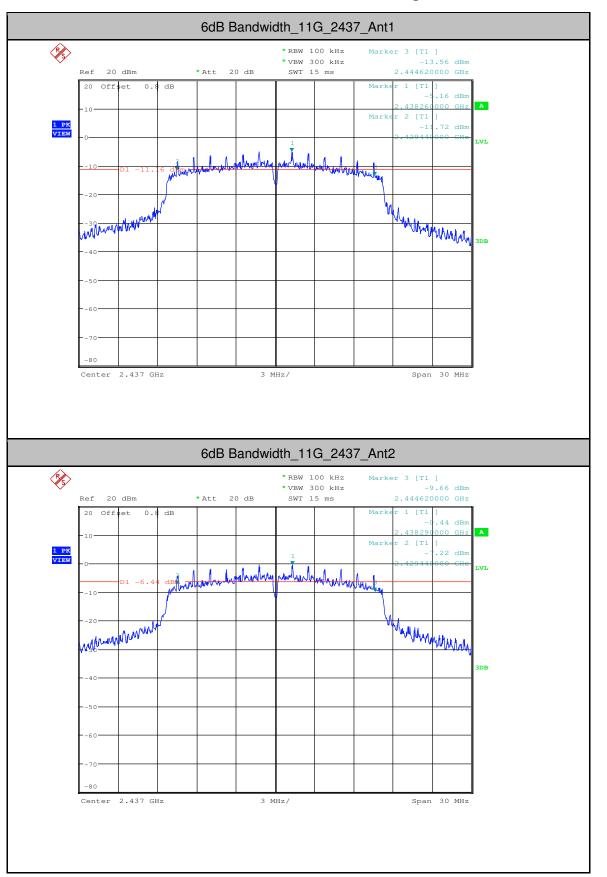


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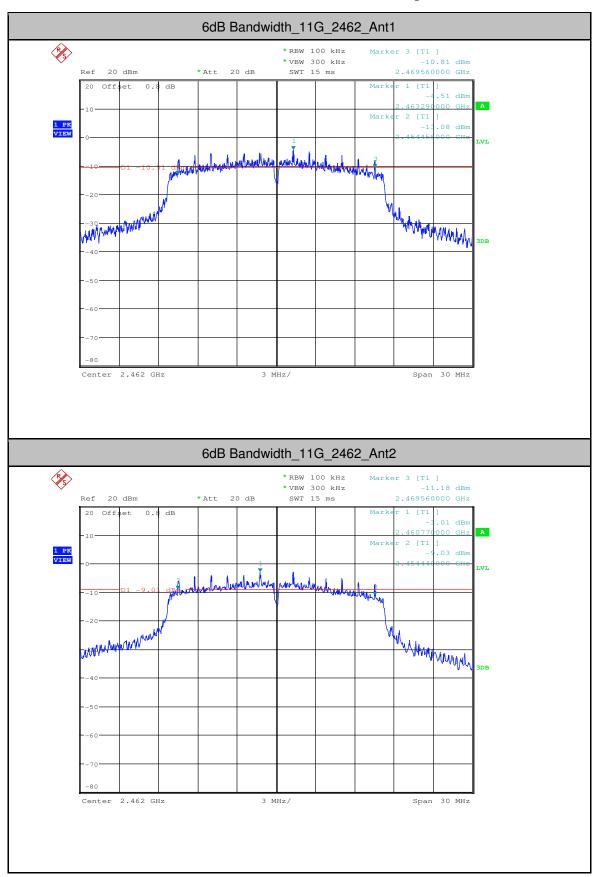


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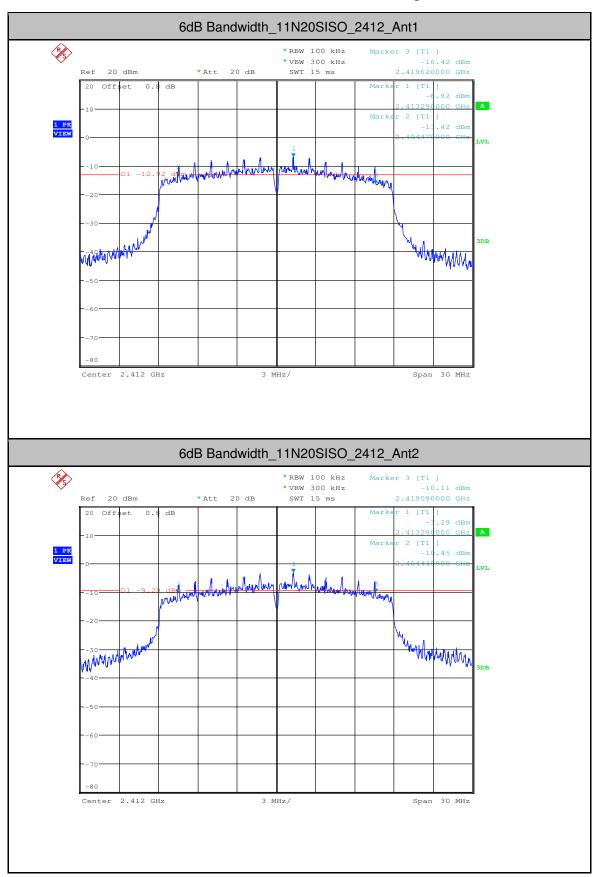


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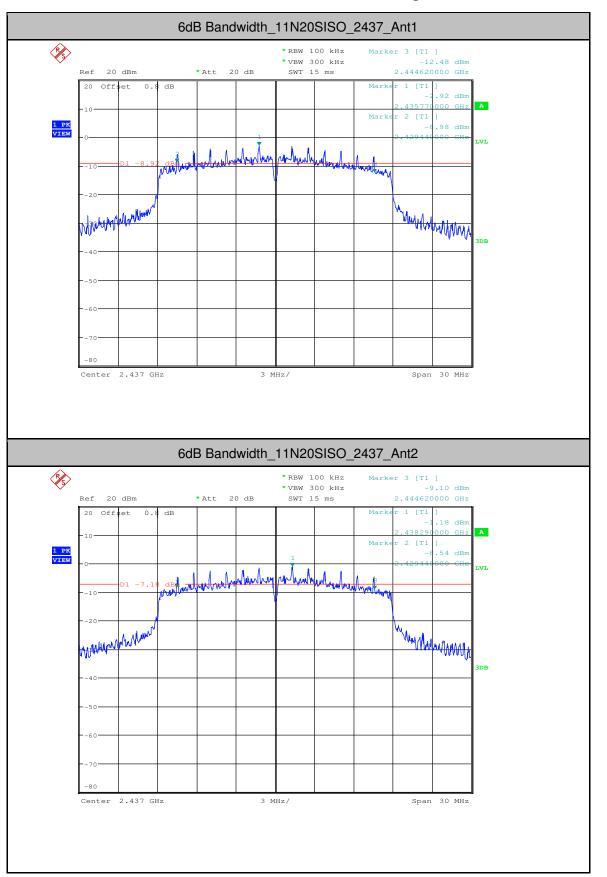


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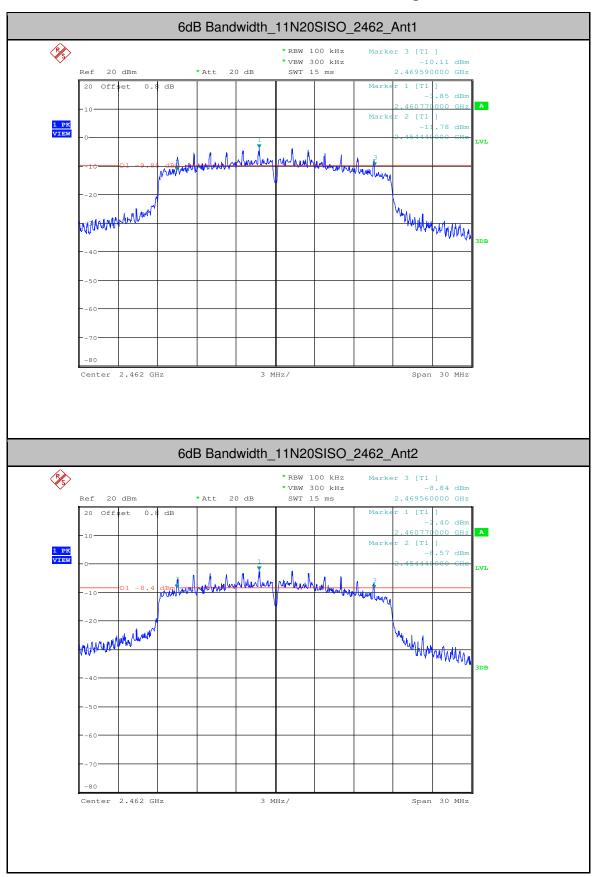


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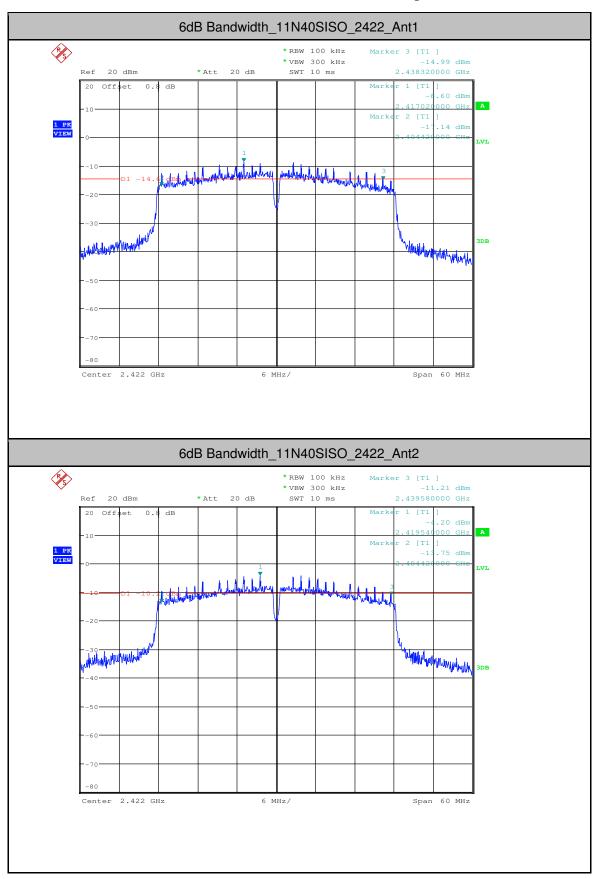


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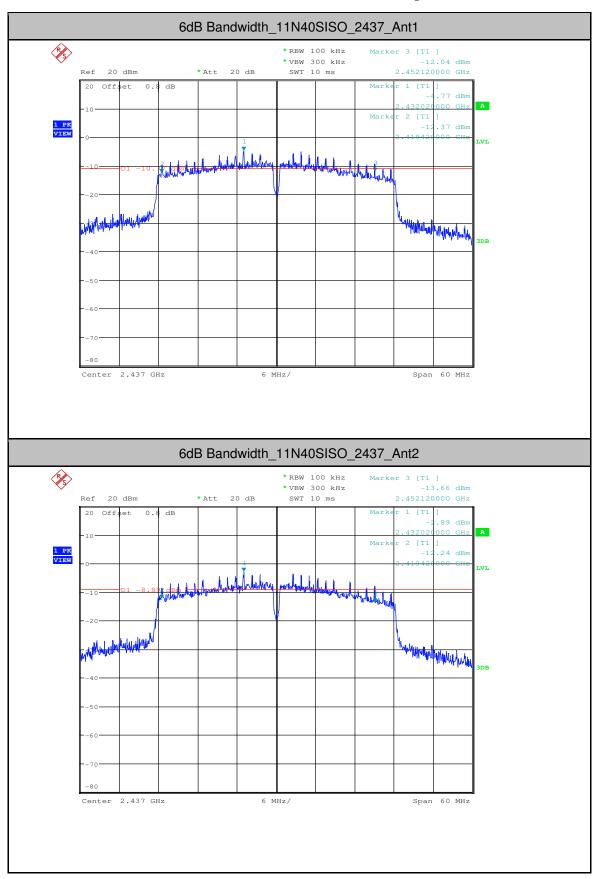


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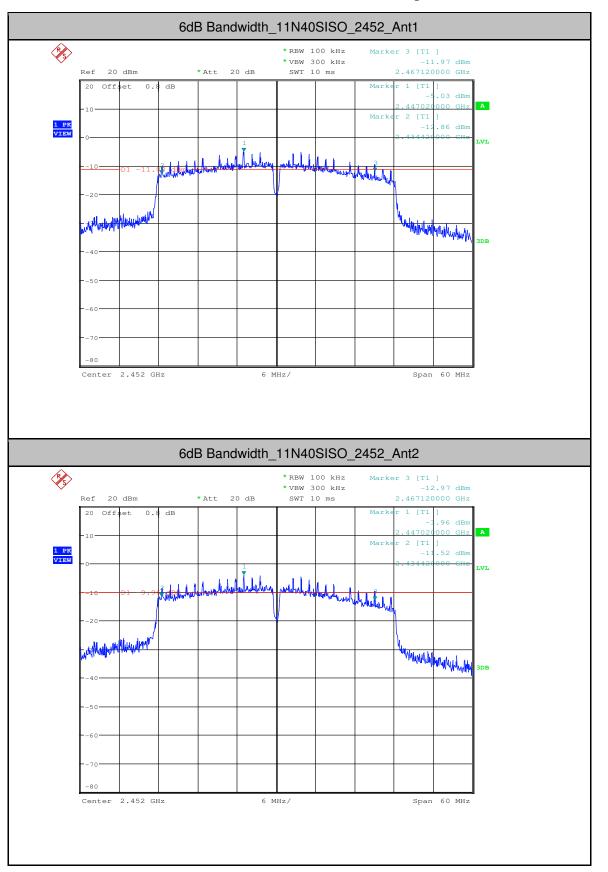


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Test Mode	Test Channel	Ant	Power[dBm]	Limit[dBm]	Verdict
11B	2412	Ant1	17.57	<30	PASS
11B	2412	Ant2	16.58	<30	PASS
11B	2437	Ant1	17.44	<30	PASS
11B	2437	Ant2	16.11	<30	PASS
11B	2462	Ant1	14.99	<30	PASS
11B	2462	Ant2	15.51	<30	PASS
11G	2412	Ant1	16.65	<30	PASS
11G	2412	Ant2	15.79	<30	PASS
11G	2437	Ant1	15.84	<30	PASS
11G	2437	Ant2	17.78	<30	PASS
11G	2462	Ant1	15.86	<30	PASS
11G	2462	Ant2	16.4	<30	PASS
11N20SISO	2412	Ant1	15.56	<30	PASS
11N20SISO	2412	Ant2	16.32	<30	PASS
11N20SISO	2437	Ant1	16.27	<30	PASS
11N20SISO	2437	Ant2	16.95	<30	PASS
11N20SISO	2462	Ant1	15.47	<30	PASS
11N20SISO	2462	Ant2	16.32	<30	PASS
11N40SISO	2422	Ant1	16.89	<30	PASS
11N40SISO	2422	Ant2	16.74	<30	PASS
11N40SISO	2437	Ant1	17.07	<30	PASS
11N40SISO	2437	Ant2	17.74	<30	PASS
11N40SISO	2452	Ant1	16.14	<30	PASS
11N40SISO	2452	Ant2	16.67	<30	PASS

#### 3.Maximum peak conducted output power



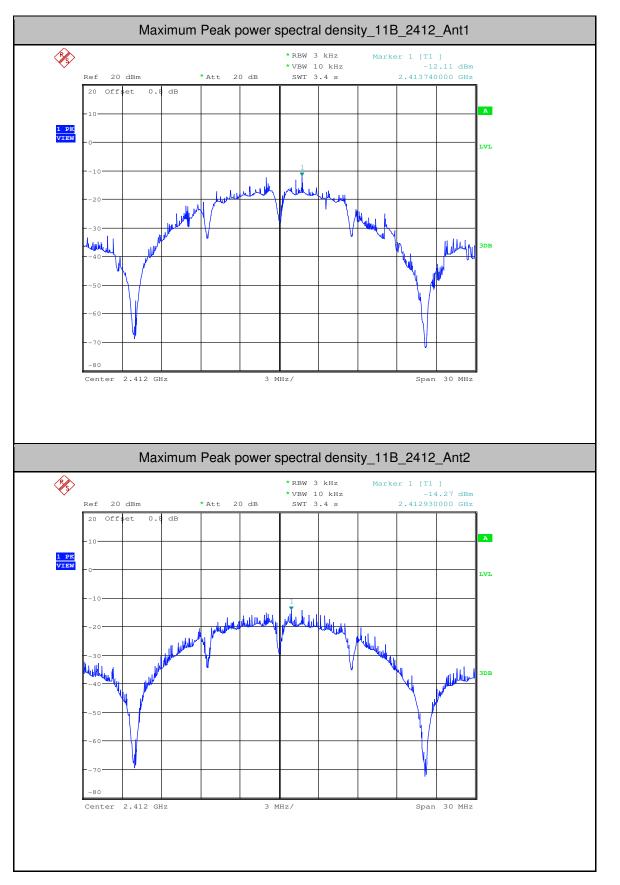
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Test Mode	Test Channel	Ant	PSD[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	2412	Ant1	-12.11	<8.00	PASS
11B	2412	Ant2	-14.27	<8.00	PASS
11B	2437	Ant1	-15.62	<8.00	PASS
11B	2437	Ant2	-14.2	<8.00	PASS
11B	2462	Ant1	-15.08	<8.00	PASS
11B	2462	Ant2	-15.44	<8.00	PASS
11G	2412	Ant1	-18.57	<8.00	PASS
11G	2412	Ant2	-18.63	<8.00	PASS
11G	2437	Ant1	-19	<8.00	PASS
11G	2437	Ant2	-17	<8.00	PASS
11G	2462	Ant1	-19.46	<8.00	PASS
11G	2462	Ant2	-17.63	<8.00	PASS
11N20SISO	2412	Ant1	-18.34	<8.00	PASS
11N20SISO	2412	Ant2	-17.81	<8.00	PASS
11N20SISO	2437	Ant1	-17.25	<8.00	PASS
11N20SISO	2437	Ant2	-17.33	<8.00	PASS
11N20SISO	2462	Ant1	-18.68	<8.00	PASS
11N20SISO	2462	Ant2	-18.26	<8.00	PASS
11N40SISO	2422	Ant1	-21.7	<8.00	PASS
11N40SISO	2422	Ant2	-21.8	<8.00	PASS
11N40SISO	2437	Ant1	-20.57	<8.00	PASS
11N40SISO	2437	Ant2	-19.28	<8.00	PASS
11N40SISO	2452	Ant1	-21.07	<8.00	PASS
11N40SISO	2452	Ant2	-20.22	<8.00	PASS

#### 4. Maximum Peak power spectral density

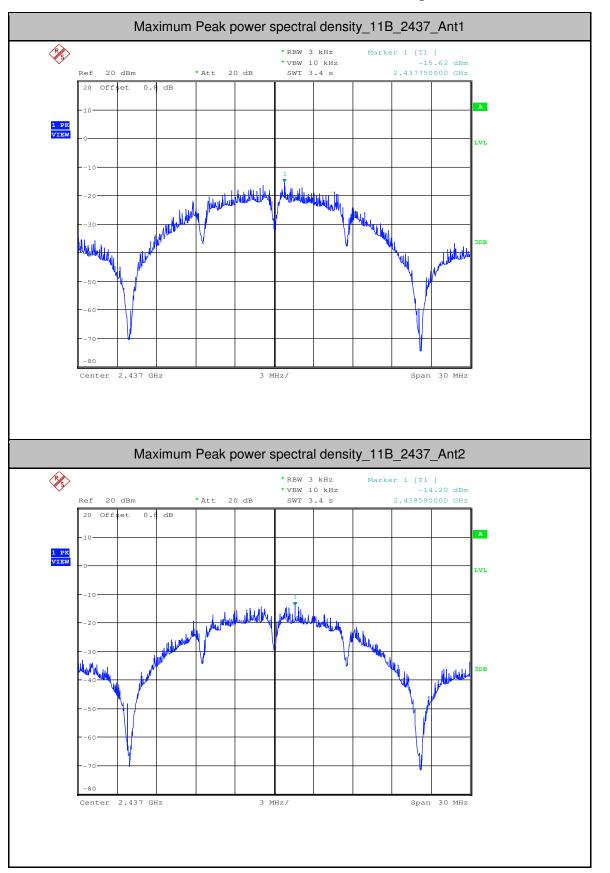


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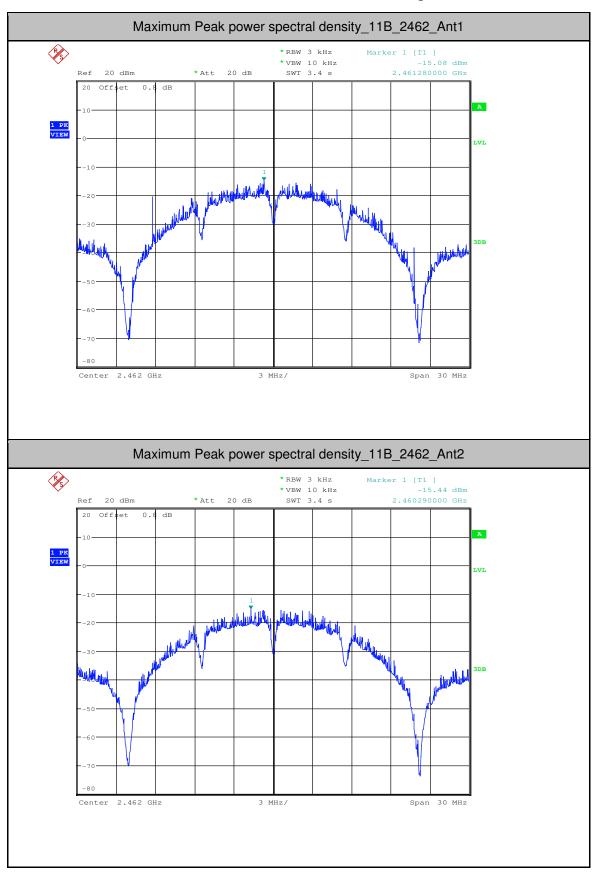


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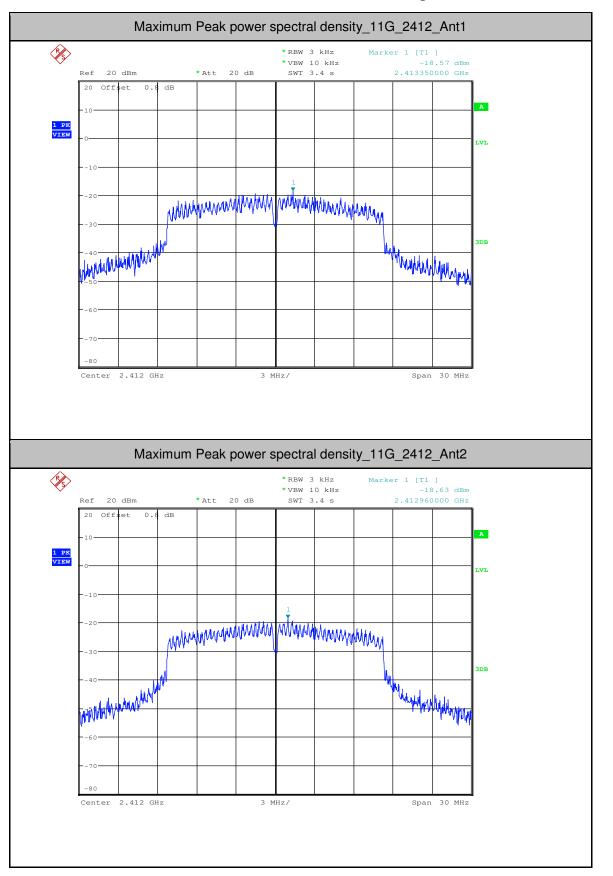


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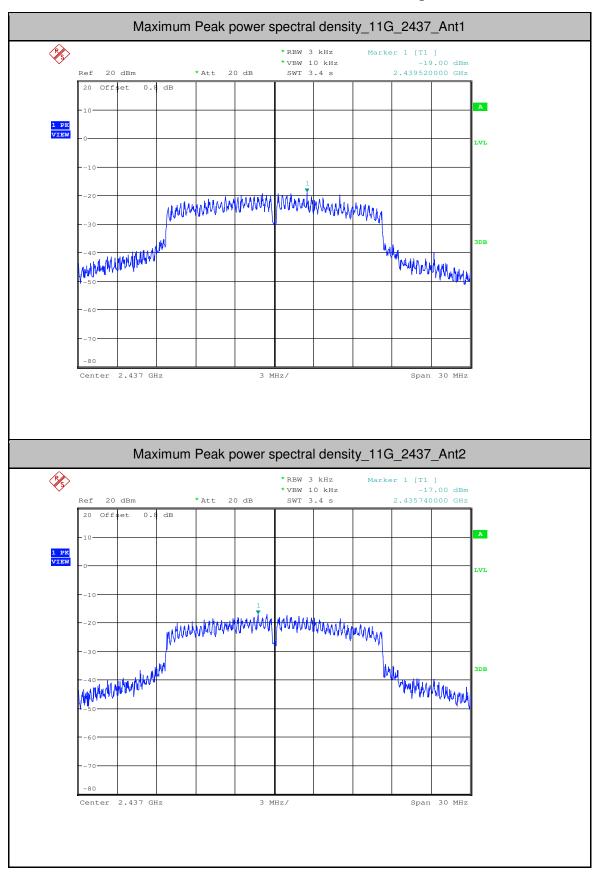


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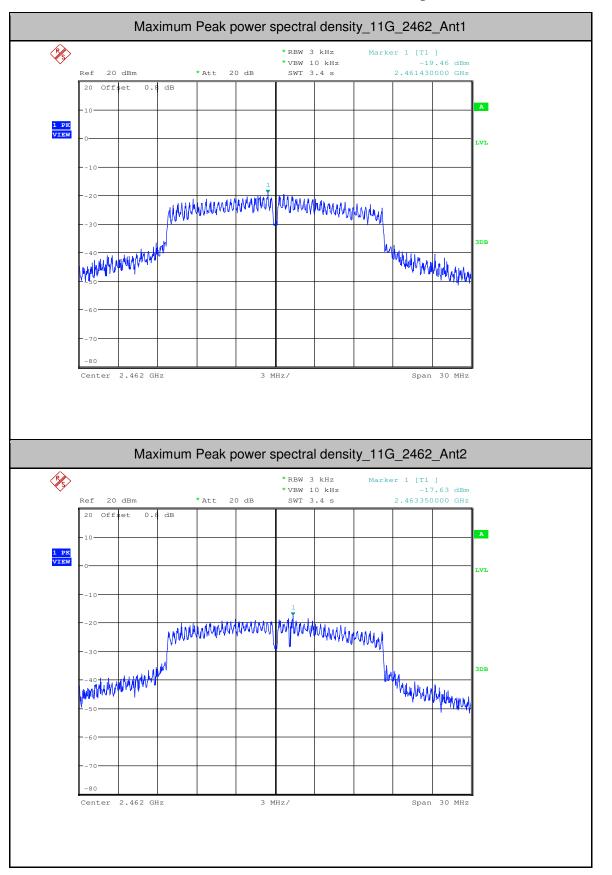


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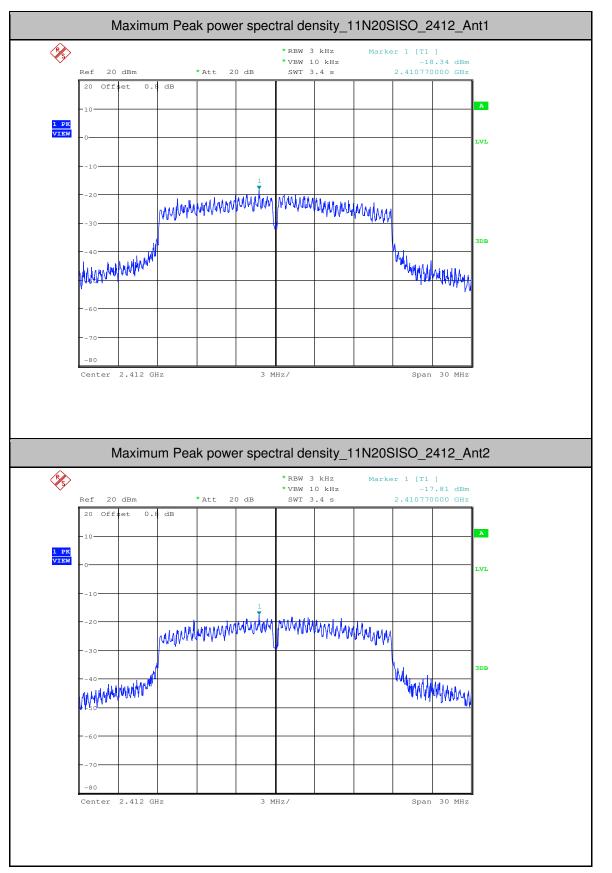


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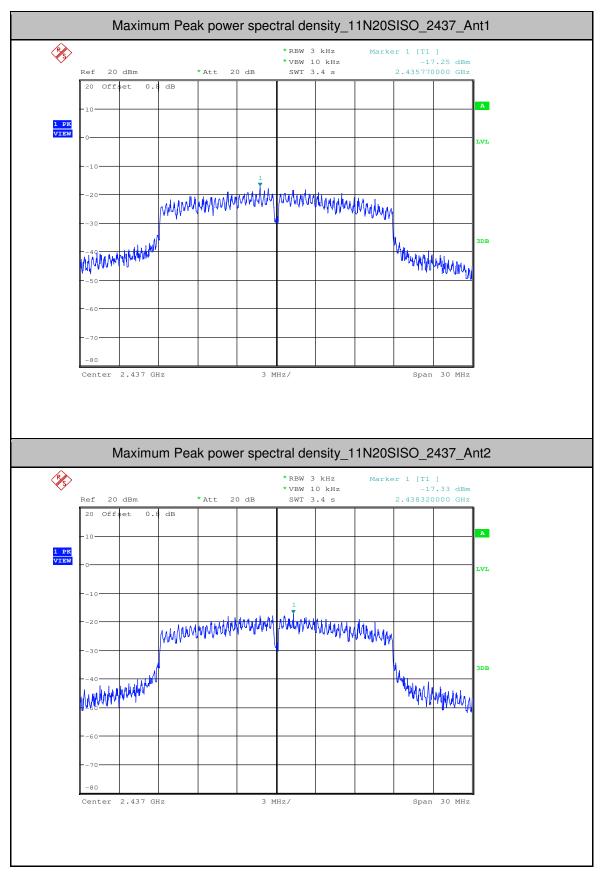


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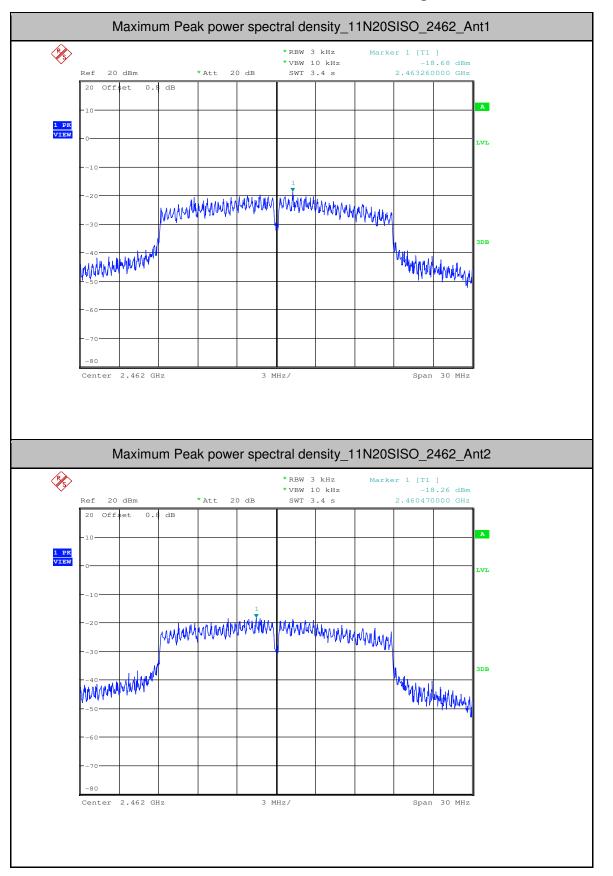


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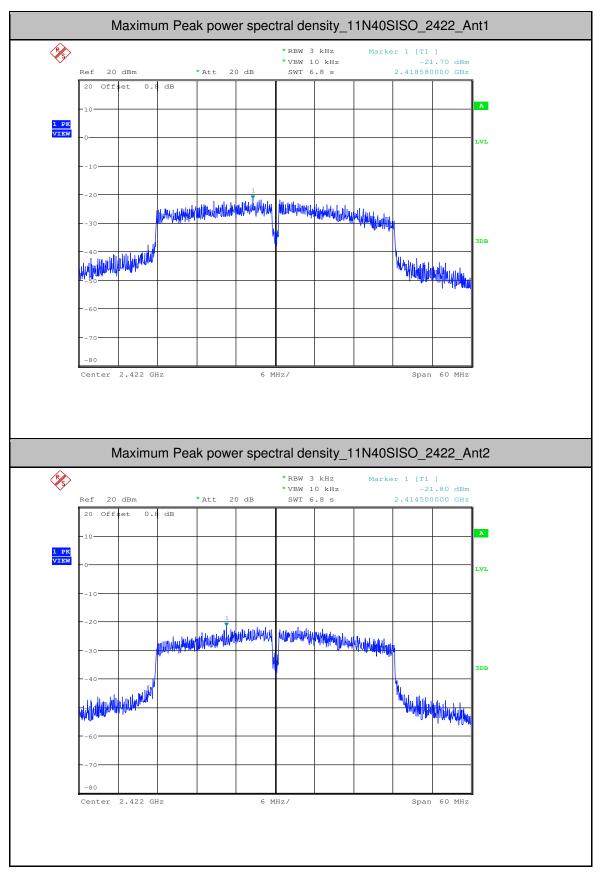


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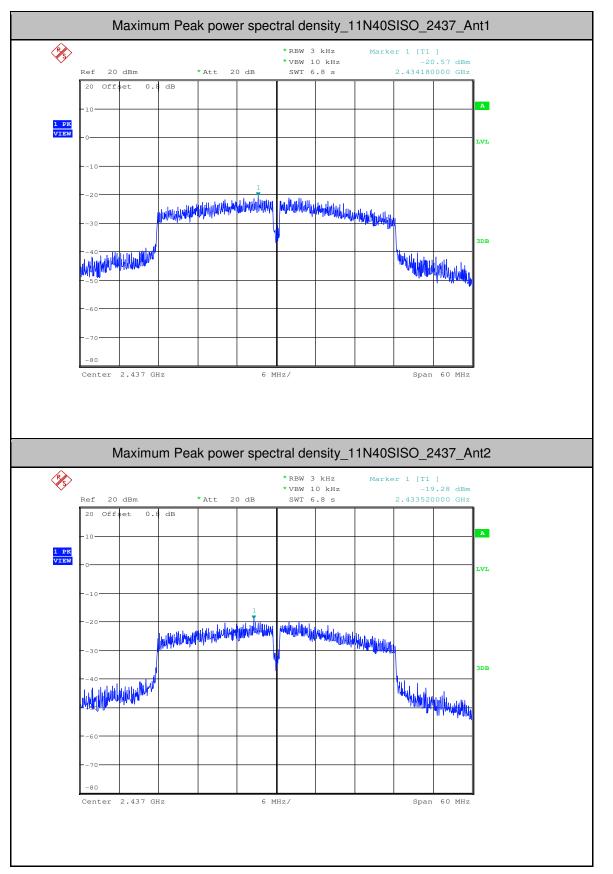


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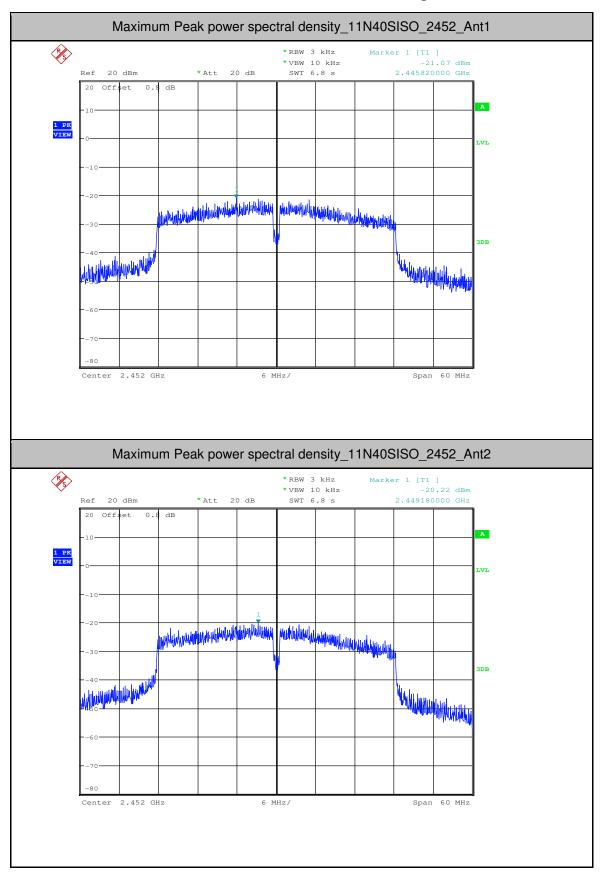


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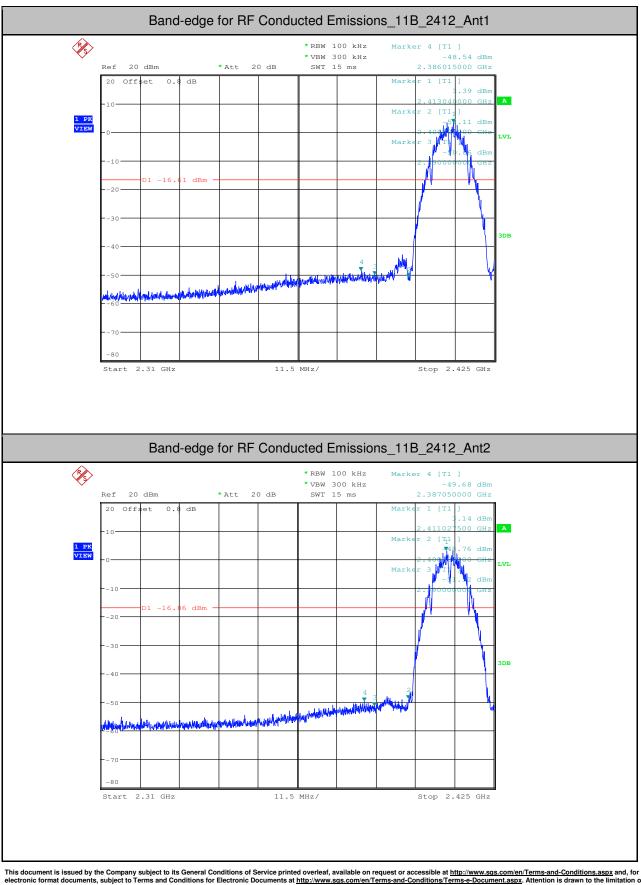
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Test Mode	Test Channel	Ant	Carrier Power[dBm] Max. Spurious Level [dBm]		Limit [dBm]	Verdict
11B	2412	Ant1	3.390	-48.541	<-16.61	PASS
11B	2412	Ant2	3.140	-49.682	<-16.86	PASS
11B	2462	Ant1	3.810	-49.761	<-16.19	PASS
11B	2462	Ant2	3.800	-48.955	<-16.2	PASS
11G	2412	Ant1	-2.850	-42.338	<-22.85	PASS
11G	2412	Ant2	-3.150	-49.422	<-23.15	PASS
11G	2462	Ant1	-3.400	-43.093	<-23.4	PASS
11G	2462	Ant2	-1.740	-43.428	<-21.74	PASS
11N20SISO	2412	Ant1	-2.760	-42.166	<-22.76	PASS
11N20SISO	2412	Ant2	-1.580	-41.762	<-21.58	PASS
11N20SISO	2462	Ant1	-1.800	-40.004	<-21.8	PASS
11N20SISO	2462	Ant2	-1.980	-40.845	<-21.98	PASS
11N40SISO	2422	Ant1	-4.260	-27.248	<-24.26	PASS
11N40SISO	2422	Ant2	-6.390	-32.964	<-26.39	PASS
11N40SISO	2452	Ant1	-5.110	-33.220	<-25.11	PASS
11N40SISO	2452	Ant2	-4.000	-35.335	<-24	PASS

#### 5.Band-edge for RF Conducted Emissions

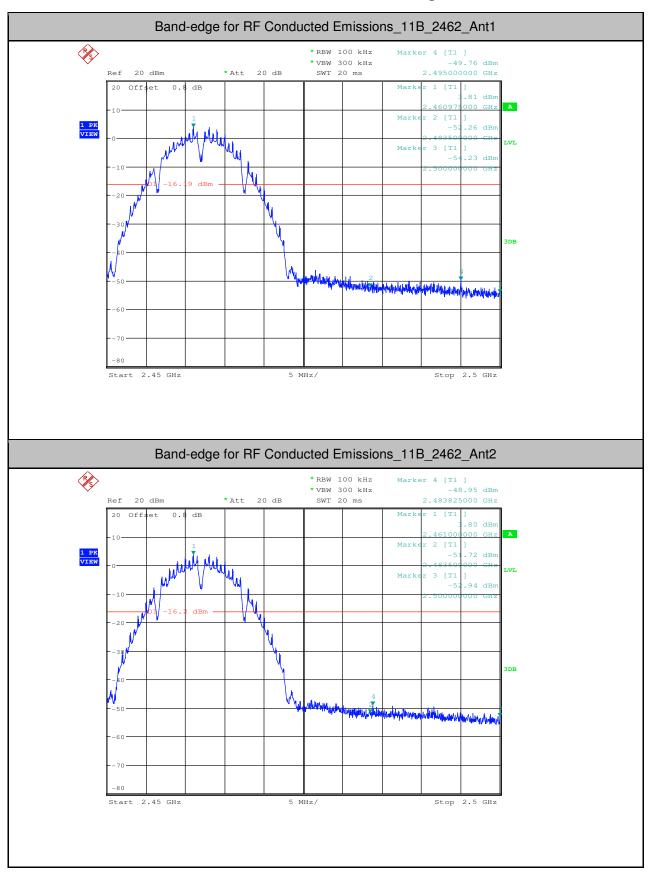


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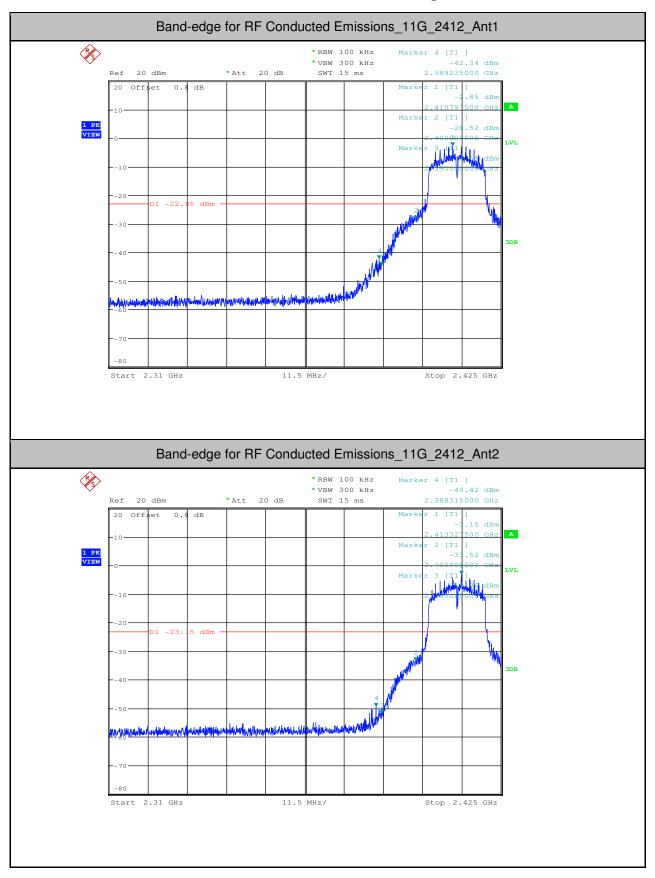


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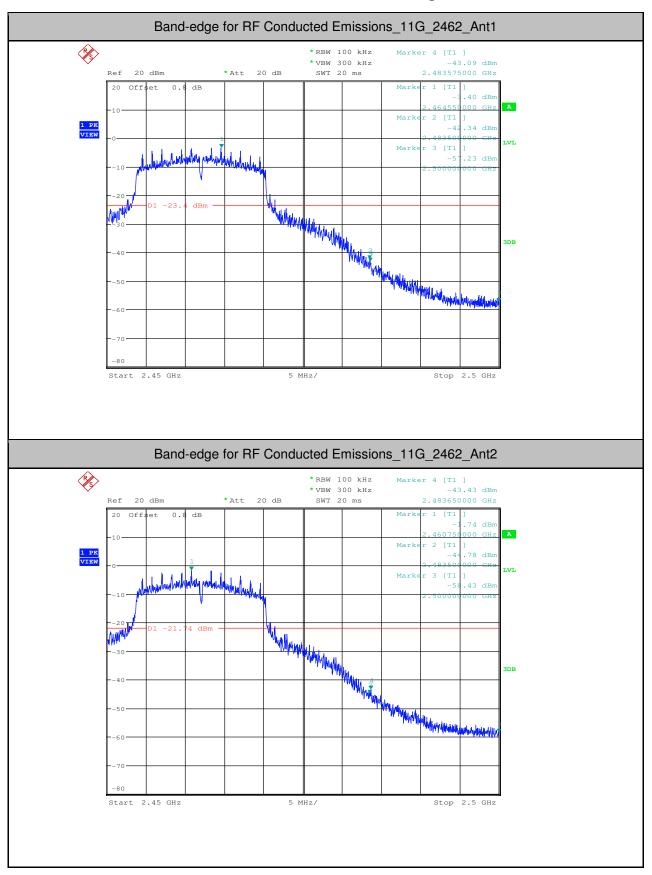


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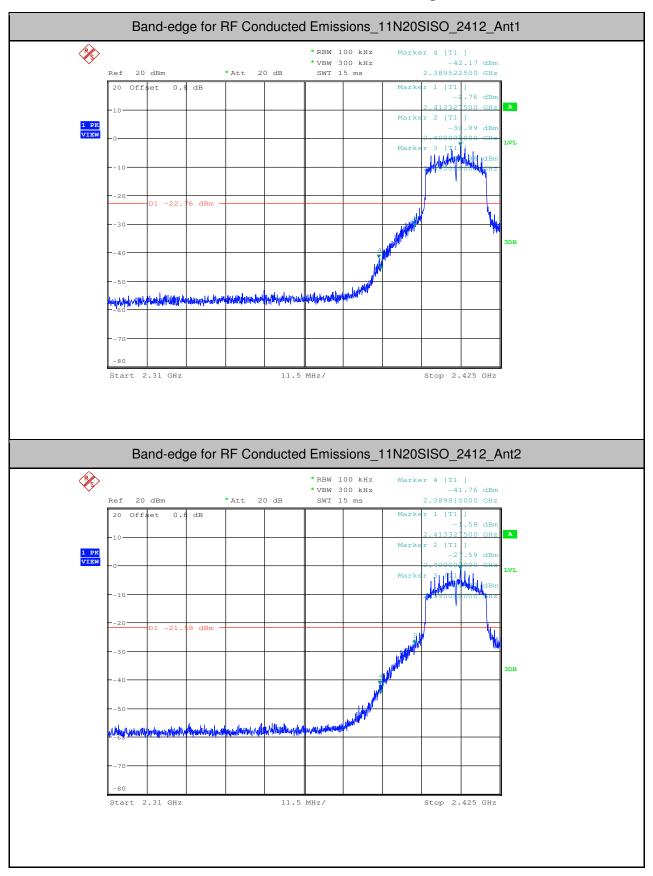


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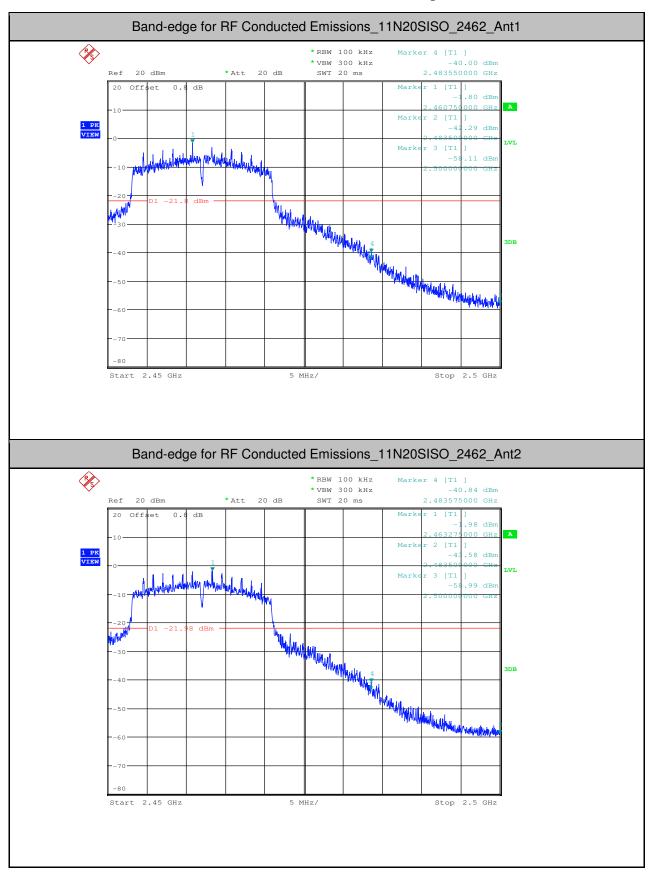


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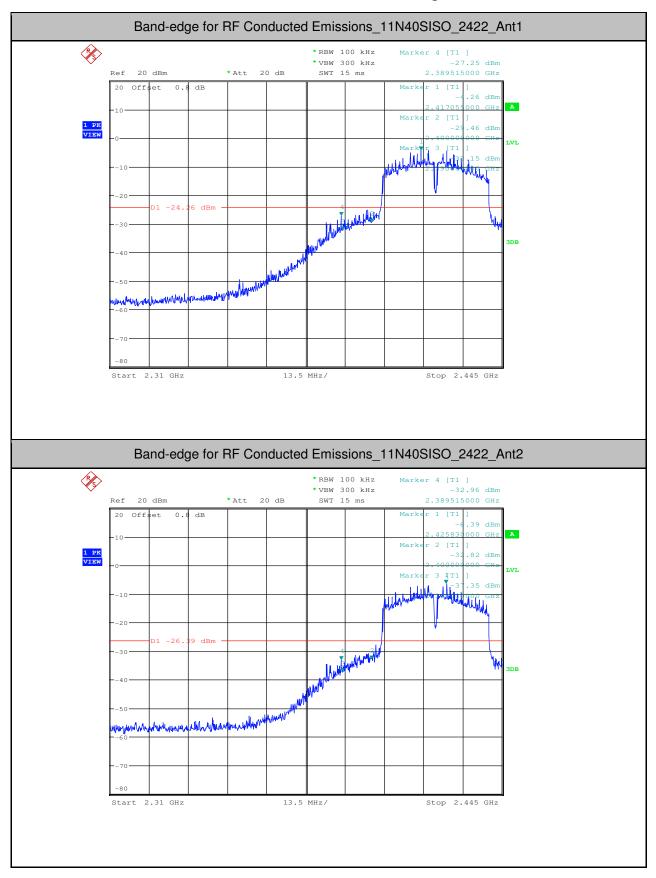


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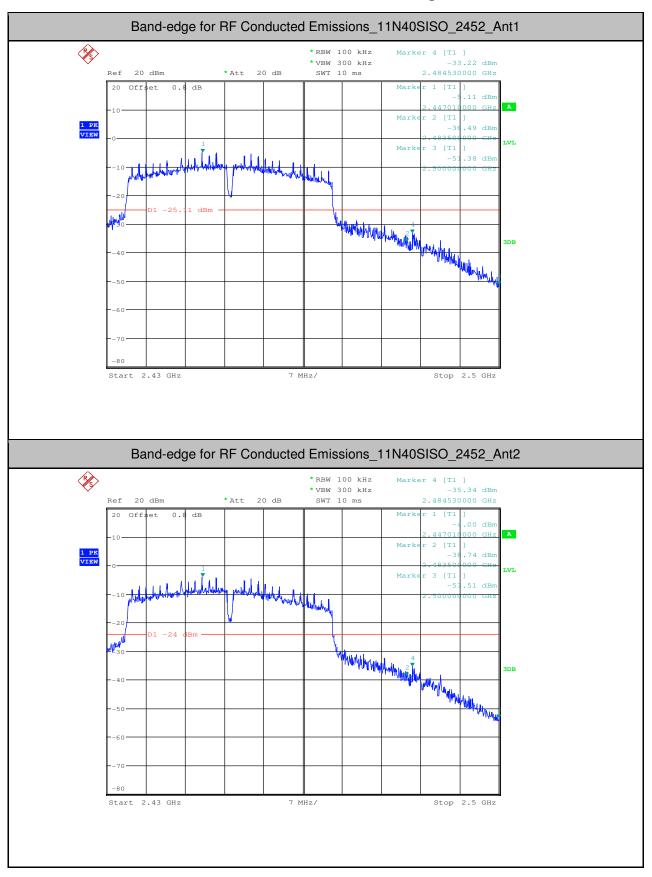


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#### 6.RF Conducted Spurious Emissions

Test Mode	Test Channel	StartFre [MHz]	StopFre [MHz]	RBW [kHz]	VBW [kHz]	Pref[dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	2412	30	10000	1000	3000	5.96	-42.590	<-14.04	PASS
11B	2412	10000	25000	1000	3000	5.96	-41.030	<-14.04	PASS
11B	2412	30	10000	1000	3000	5.86	-42.410	<-14.14	PASS
11B	2412	10000	25000	1000	3000	5.86	-39.750	<-14.14	PASS
11B	2437	30	10000	1000	3000	6.03	-42.550	<-13.97	PASS
11B	2437	10000	25000	1000	3000	6.03	-40.120	<-13.97	PASS
11B	2437	30	10000	1000	3000	6.55	-42.530	<-13.45	PASS
11B	2437	10000	25000	1000	3000	6.55	-40.430	<-13.45	PASS
11B	2462	30	10000	1000	3000	6.15	-42.470	<-13.85	PASS
11B	2462	10000	25000	1000	3000	6.15	-40.750	<-13.85	PASS
11B	2462	30	10000	1000	3000	5.91	-42.590	<-14.09	PASS
11B	2462	10000	25000	1000	3000	5.91	-40.120	<-14.09	PASS
11G	2412	30	10000	1000	3000	-2.84	-42.230	<-22.84	PASS
11G	2412	10000	25000	1000	3000	-2.84	-60.480	<-22.84	PASS
11G	2412	30	10000	1000	3000	-5.94	-43.610	<-25.94	PASS
11G	2412	10000	25000	1000	3000	-5.94	-58.910	<-25.94	PASS
11G	2437	30	10000	1000	3000	-2.27	-44.870	<-22.27	PASS
11G	2437	10000	25000	1000	3000	-2.27	-60.200	<-22.27	PASS
11G	2437	30	10000	1000	3000	-0.1	-39.140	<-20.1	PASS
11G	2437	10000	25000	1000	3000	-0.1	-60.100	<-20.1	PASS
11G	2462	30	10000	1000	3000	-2.51	-43.890	<-22.51	PASS
11G	2462	10000	25000	1000	3000	-2.51	-59.900	<-22.51	PASS
11G	2462	30	10000	1000	3000	-1.58	-40.810	<-21.58	PASS
11G	2462	10000	25000	1000	3000	-1.58	-60.420	<-21.58	PASS
11N20SISO	2412	30	10000	1000	3000	-2.67	-42.240	<-22.67	PASS
11N20SISO	2412	10000	25000	1000	3000	-2.67	-60.200	<-22.67	PASS
11N20SISO	2412	30	10000	1000	3000	-1.73	-40.710	<-21.73	PASS
11N20SISO	2412	10000	25000	1000	3000	-1.73	-59.800	<-21.73	PASS
11N20SISO	2437	30	10000	1000	3000	-1.74	-41.680	<-21.74	PASS

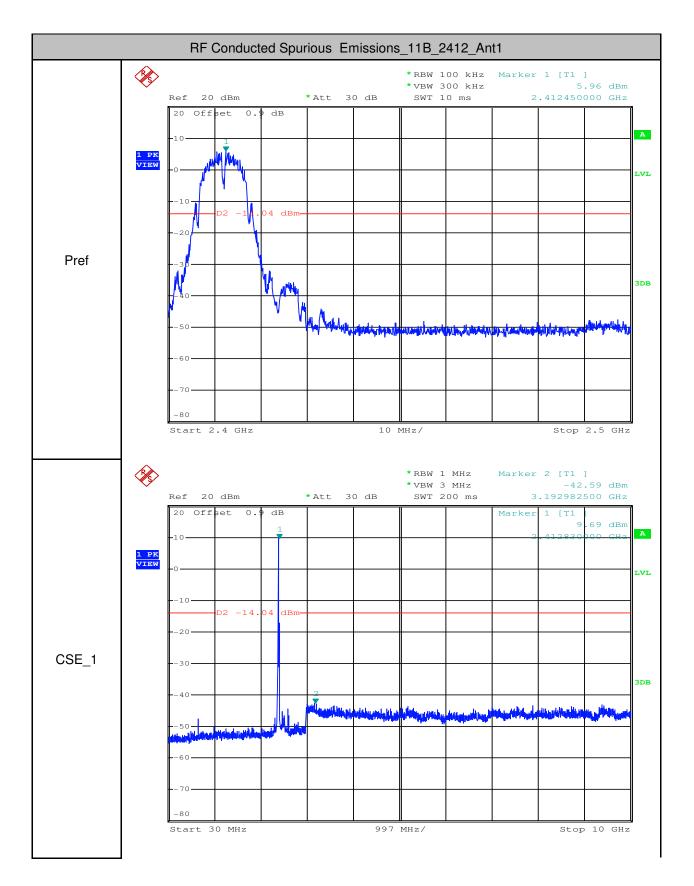


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11N20SISO	2437	10000	25000	1000	3000	-1.74	-60.290	<-21.74	PASS
11N20SISO	2437	30	10000	1000	3000	-1.08	-39.310	<-21.08	PASS
11N20SISO	2437	10000	25000	1000	3000	-1.08	-59.540	<-21.08	PASS
11N20SISO	2462	30	10000	1000	3000	-2.96	-42.690	<-22.96	PASS
11N20SISO	2462	10000	25000	1000	3000	-2.96	-59.860	<-22.96	PASS
11N20SISO	2462	30	10000	1000	3000	-2.23	-42.150	<-22.23	PASS
11N20SISO	2462	10000	25000	1000	3000	-2.23	-60.120	<-22.23	PASS
11N40SISO	2422	30	10000	1000	3000	-4.25	-44.590	<-24.25	PASS
11N40SISO	2422	10000	25000	1000	3000	-4.25	-59.830	<-24.25	PASS
11N40SISO	2422	30	10000	1000	3000	-6.28	-44.710	<-26.28	PASS
11N40SISO	2422	10000	25000	1000	3000	-6.28	-59.770	<-26.28	PASS
11N40SISO	2437	30	10000	1000	3000	-5.97	-44.490	<-25.97	PASS
11N40SISO	2437	10000	25000	1000	3000	-5.97	-59.690	<-25.97	PASS
11N40SISO	2437	30	10000	1000	3000	-3.42	-42.780	<-23.42	PASS
11N40SISO	2437	10000	25000	1000	3000	-3.42	-59.820	<-23.42	PASS
11N40SISO	2452	30	10000	1000	3000	-4.03	-38.770	<-24.03	PASS
11N40SISO	2452	10000	25000	1000	3000	-4.03	-60.070	<-24.03	PASS

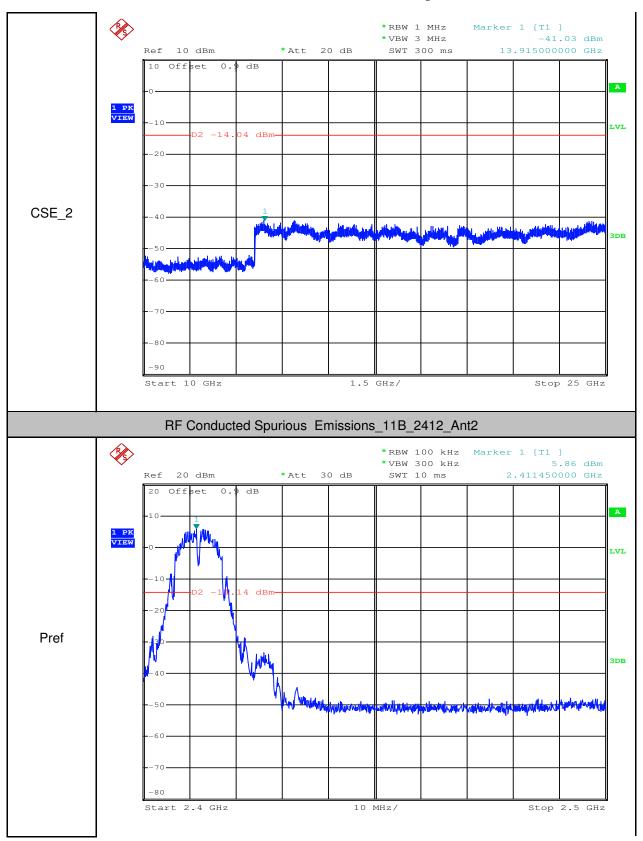


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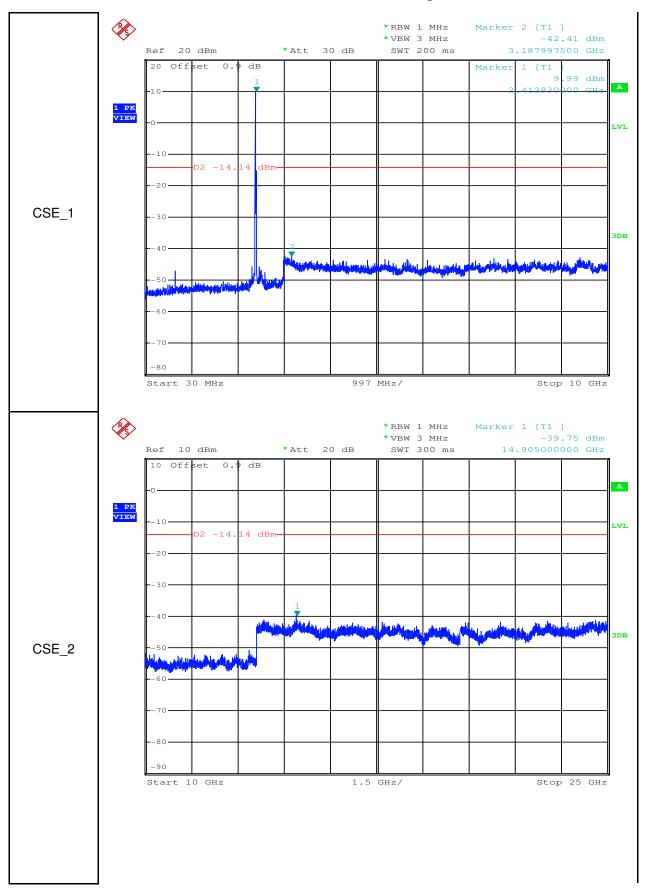


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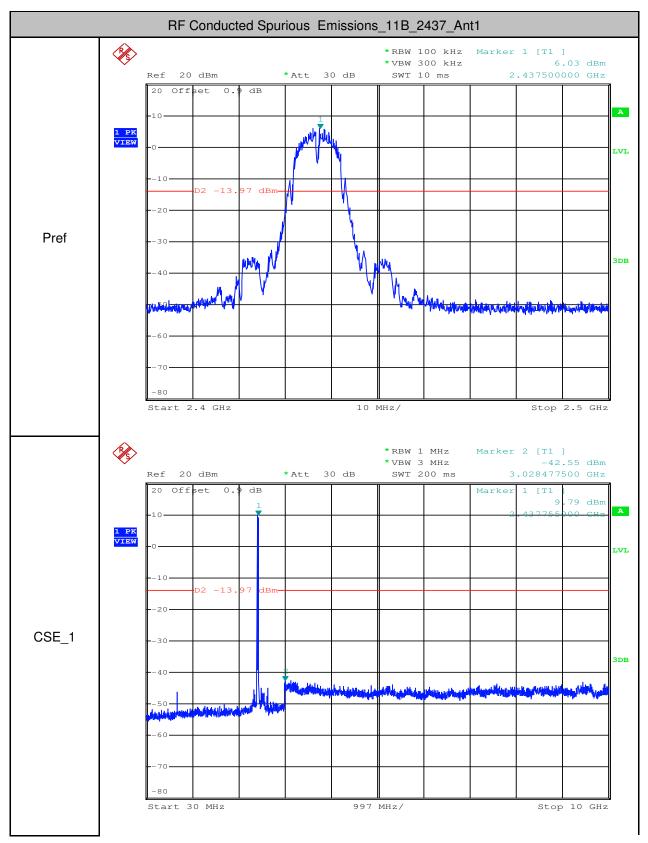


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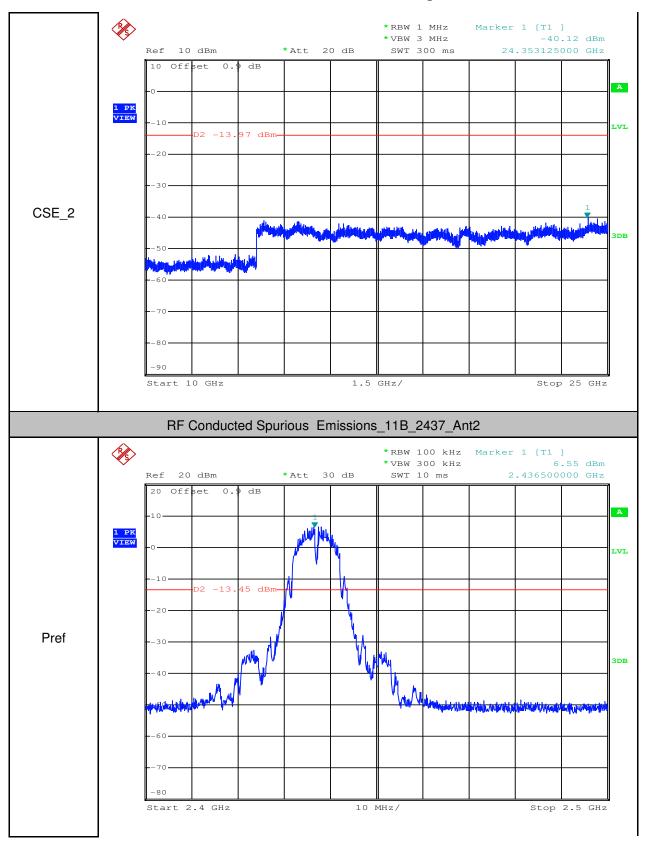


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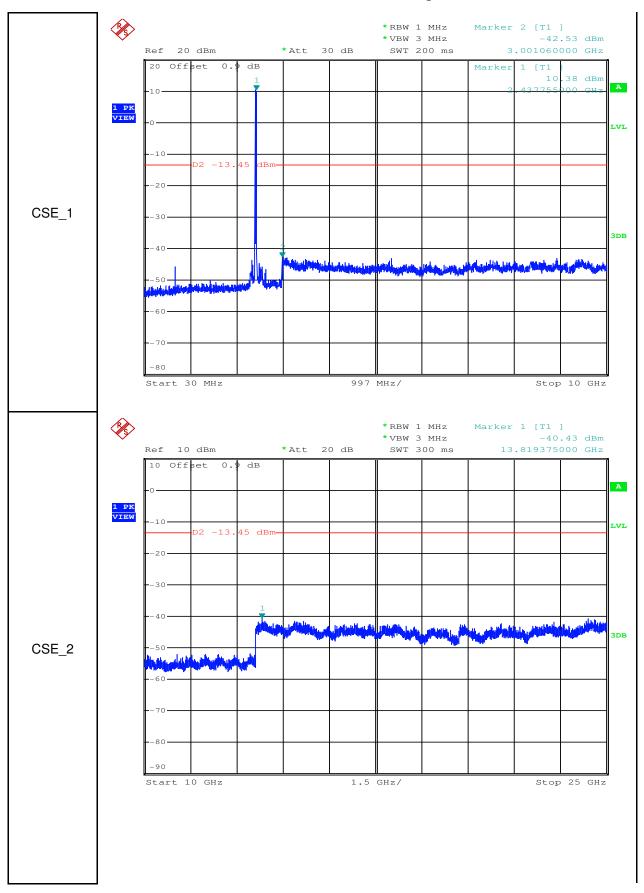


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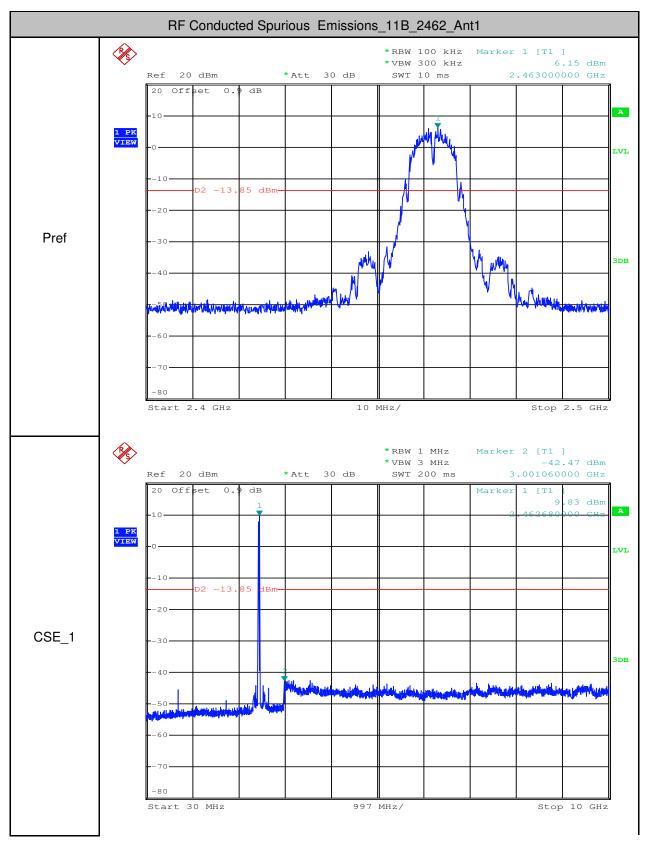


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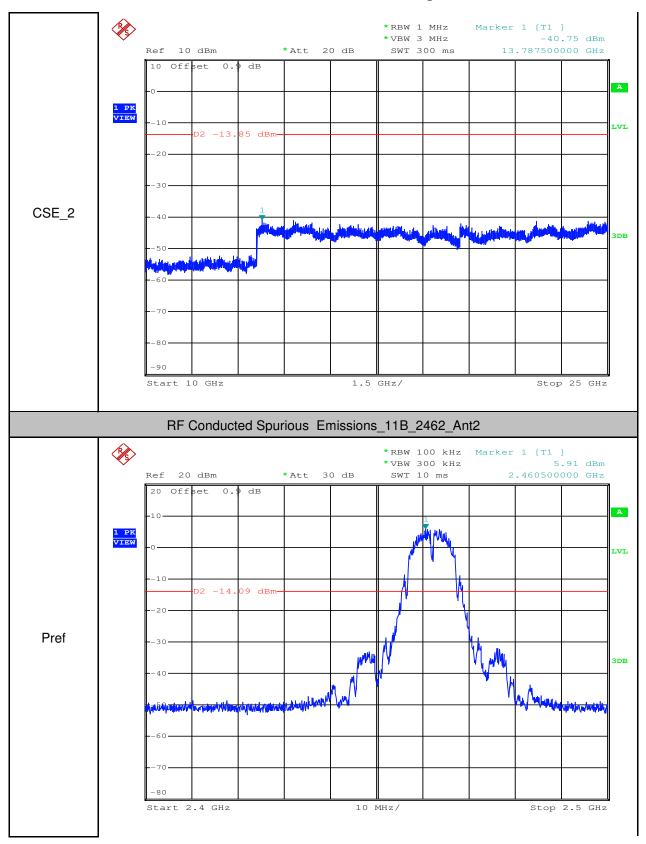


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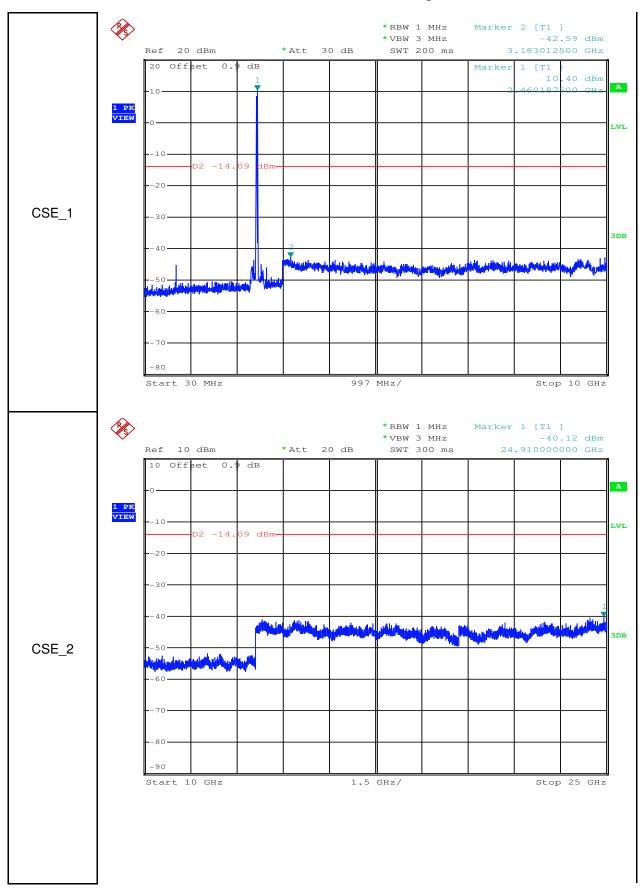


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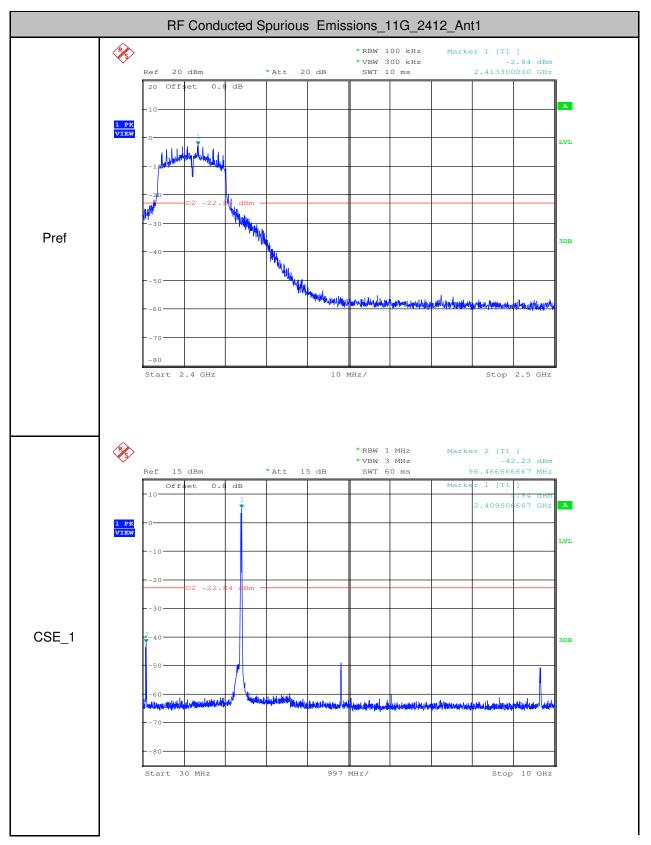


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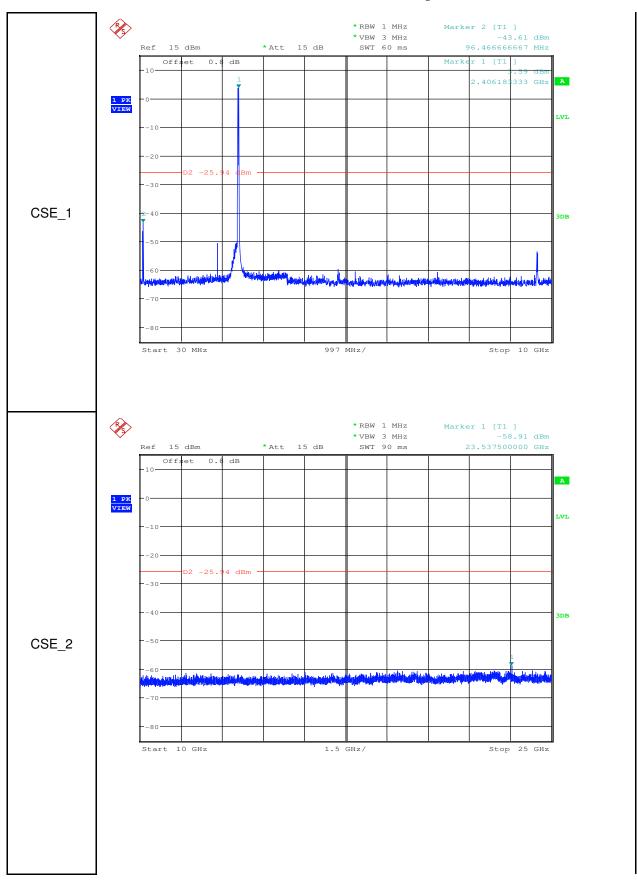




Report No.: SZEM180400347802 171 of 195 Page: \*RBW 1 MHz Marker 1 [T1 ] -60.48 dBm 22.258750000 GHz \* VBW 3 MHz SWT 90 ms Ref 15 dBm \* Att 15 dB Offs et Ο. dB А 1 PK VIEW LVL .10 20. -22. 4 dBm CSE 2 3DB . 6 0 وبارا يتقتر المرابع and to the والوروقار فيلا وفقا والمتحد والمتلح ومقاربه والمعارية الأراهما بالله فلسأزوار -70 80 10 GHz 1.5 GHz/ 25 GHz Start Stop RF Conducted Spurious Emissions\_11G\_2412\_Ant2 \*RBW 100 kHz Marker 1 [T1 ] \* VBW 300 kHz 5.94 dBm Ref 20 dBm \* Att 20 dB SWT 10 ms 2.409450000 GHz 20 Offset 0.8 dB А L PR /IEW LVL and and -25 dBm WUL Pref зпв Unlaman A. A. Bully antiput of all the second Manapples 9.0 Center 2.45 GHz 10 MHz/ Span 100 MHz

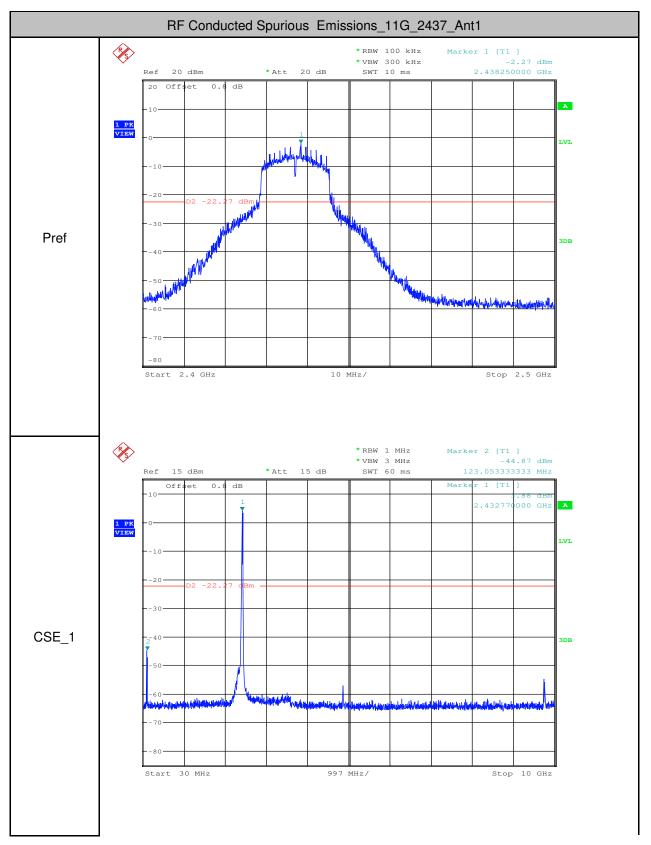


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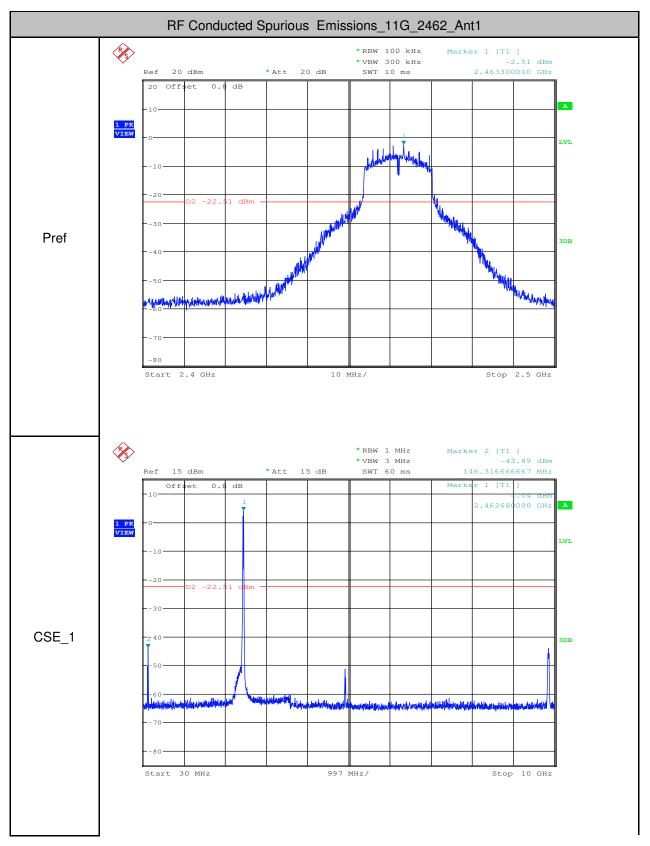
Report No.: SZEM180400347802 174 of 195 Page: \*RBW 1 MHz Marker 1 [T1 ] -60.20 dBm \* VBW 3 MHz SWT 90 ms 22.495000000 GHz Ref 15 dBm \* Att 15 dB Offs et Ο. dB А 1 PK VIEW LVL dBn CSE 2 3DB .60 الأخد العد and the second ما الله م dept.o.th -70 80 10 GHz 1.5 GHz/ 25 GHz Start Stop RF Conducted Spurious Emissions\_11G\_2437\_Ant2 \*RBW 100 kHz Marker 1 [T1 ] \* VBW 300 kHz -0.10 dBm Ref 20 dBm \* Att 20 dB SWT 10 ms 2.438250000 GHz 20 Offset 0.8 dB А L PR /IEW - Tall la LVL LL 1ml WW Pref зпв the superior and the second second second second WW Start 2.4 GHz 10 MHz/ Stop 2.5 GHz



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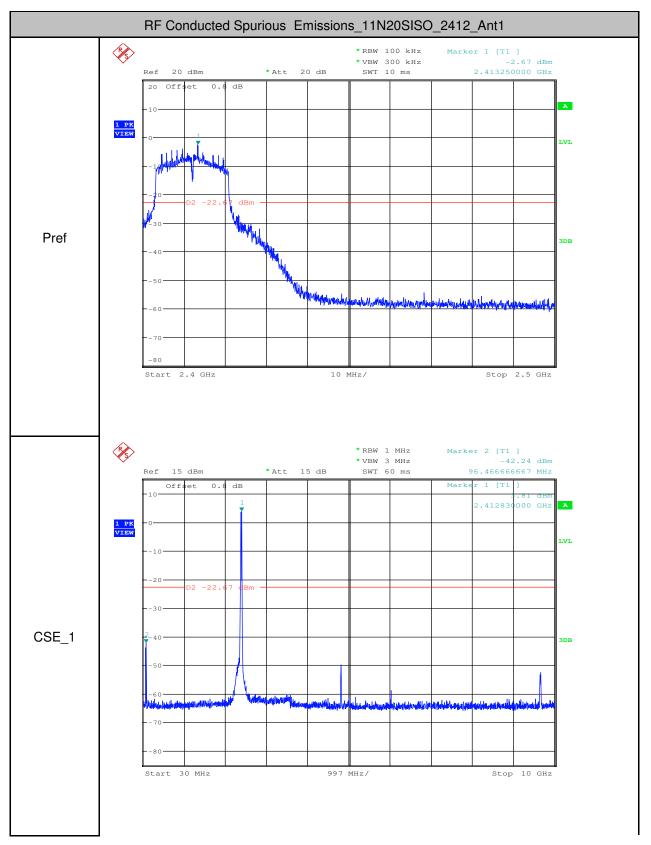
Report No.: SZEM180400347802 177 of 195 Page: \*RBW 1 MHz Marker 1 [T1 ] -59.90 dBm 24.715000000 GHz \* VBW 3 MHz SWT 90 ms Ref 15 dBm \* Att 15 dB Offs et Ο. dB А 1 PK VIEW LVL -22. dBm CSE 2 3DB .60 der al la al de la contrata de L. Alle Halank والمؤاذة وملاورة العالم والمرادة ومعرفا أستنه al both di -70 80 10 GHz 1.5 GHz/ 25 GHz Start Stop RF Conducted Spurious Emissions\_11G\_2462\_Ant2 \*RBW 100 kHz Marker 1 [T1 ] \* VBW 300 kHz 1.58 dBm Ref 20 dBm \* Att 20 dB SWT 10 ms 2.463300000 GHz 20 Offset 0.8 dB А L PR /IEW LVL l lable de la 1 dBm Pref зпв MMM My company Start 2.4 GHz 10 MHz/ Stop 2.5 GHz



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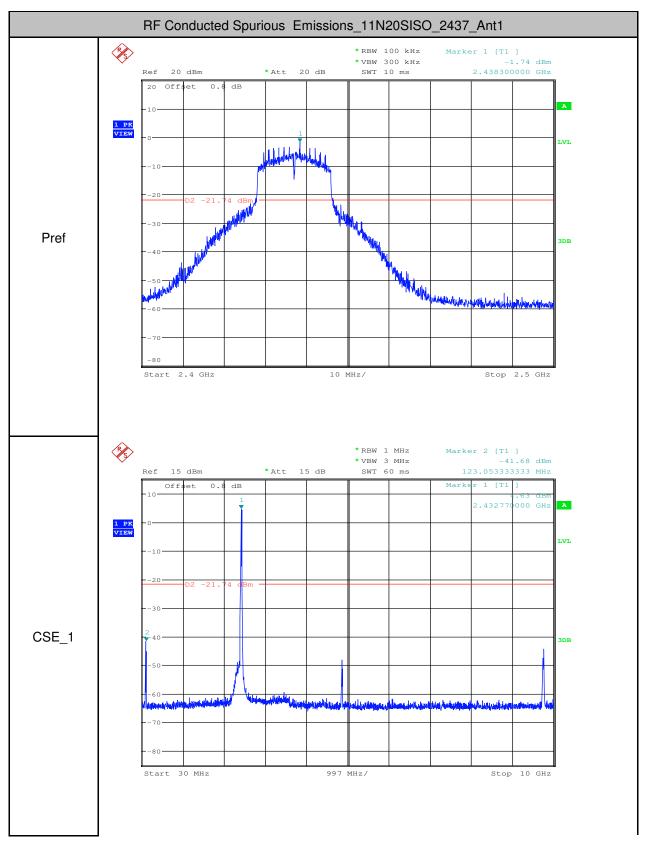
Report No.: SZEM180400347802 180 of 195 Page: \*RBW 1 MHz Marker 1 [T1 ] -60.20 dBm \* VBW 3 MHz SWT 90 ms 22.388125000 GHz Ref 15 dBm \* Att 15 dB Offs et Ο. dB А 1 PK VIEW LVL .10 20 dBm CSE 2 3DB . 6 0 All a state of the Mar Liber aliter light والمتعطية والمتعادية والمتعادية a distanti -70 80 10 GHz 1.5 GHz/ 25 GHz Start Stop RF Conducted Spurious Emissions\_11N20SISO\_2412\_Ant2 \*RBW 100 kHz Marker 1 [T1 ] \* VBW 300 kHz 1.73 dBm Ref 20 dBm \* Att 20 dB SWT 10 ms 2.413200000 GHz 20 Offset 0.8 dB А L PR /IEW LVL Heley pely hal MILL.L Pref зпв Willed much and atominia 9.0 Start 2.4 GHz 10 MHz/ Stop 2.5 GHz



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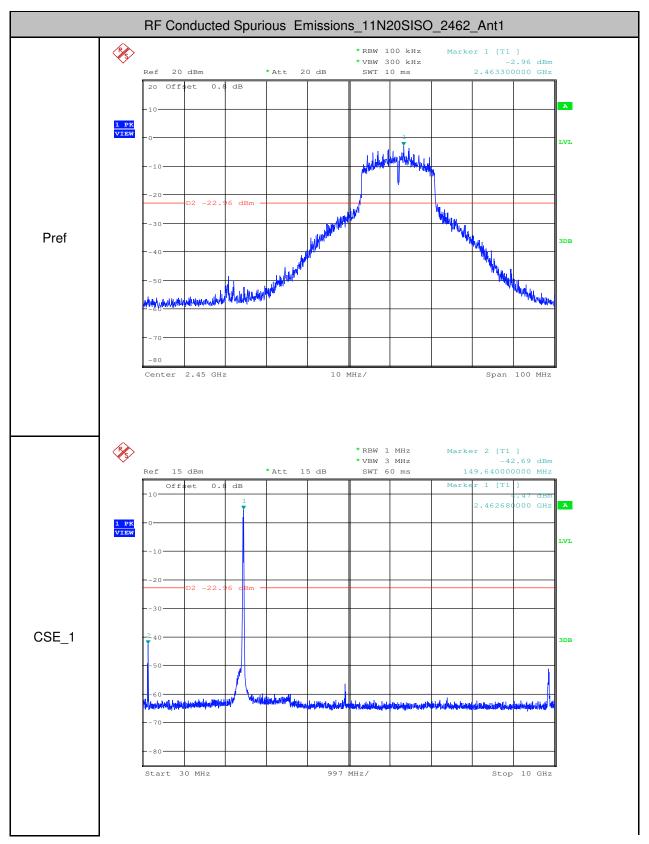
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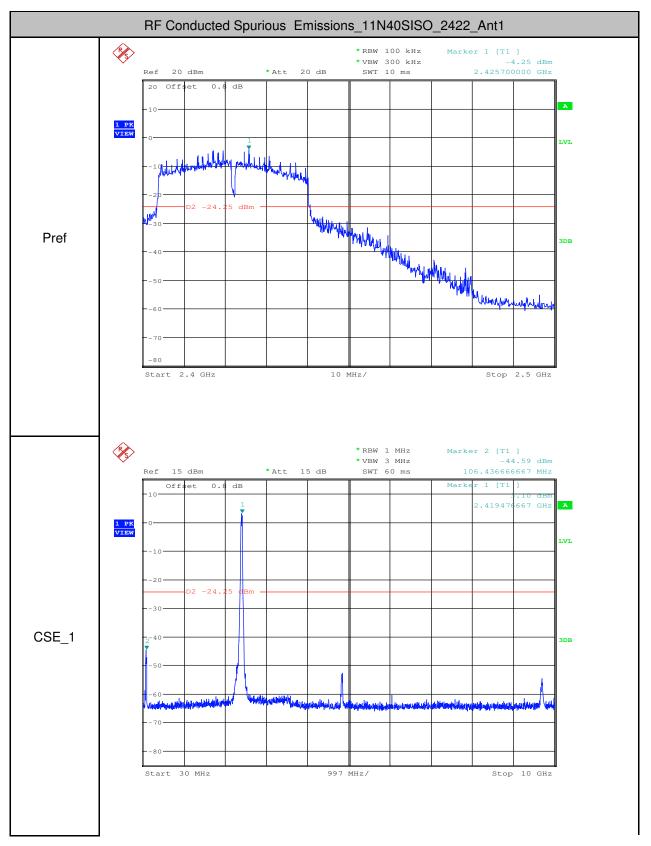
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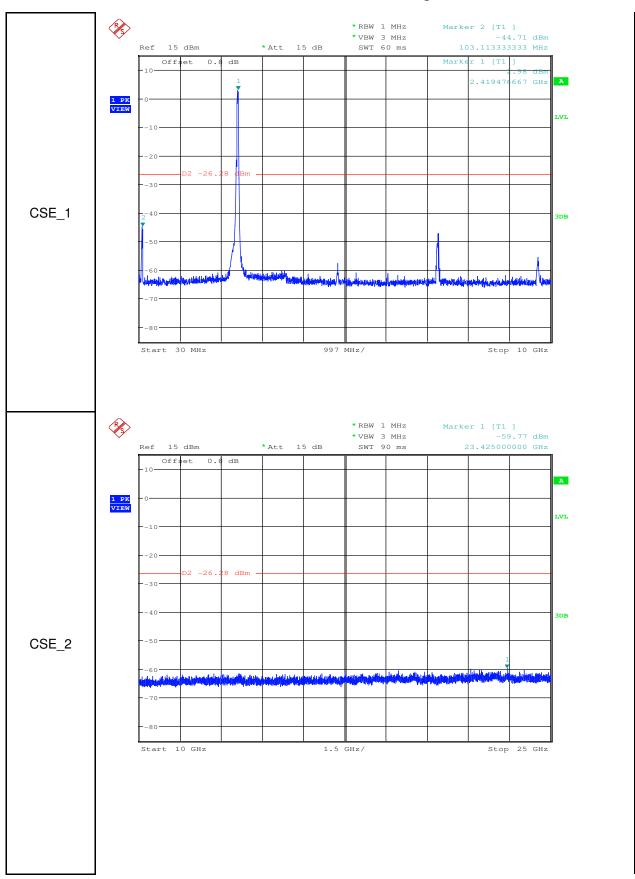




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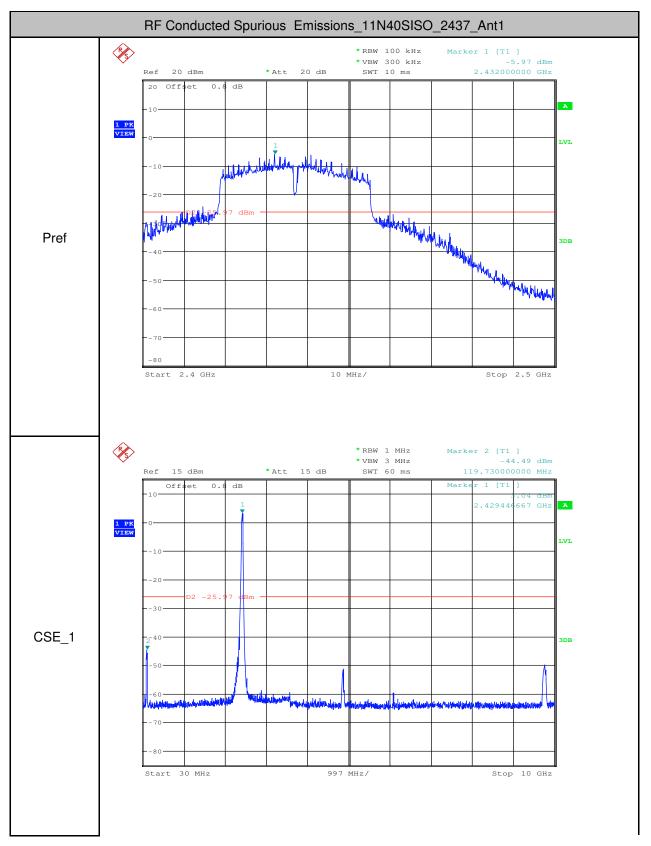


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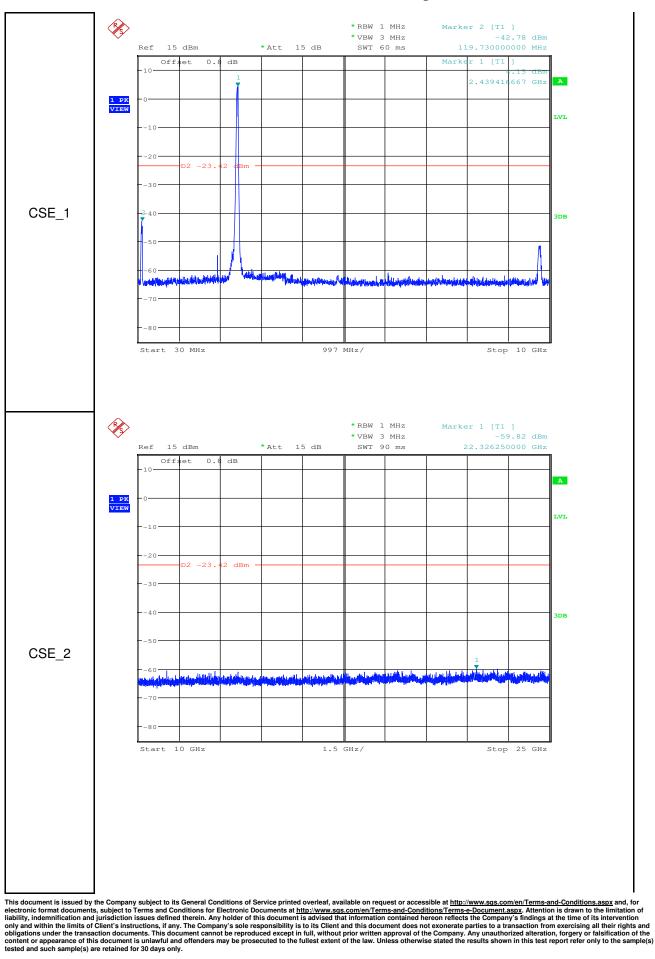




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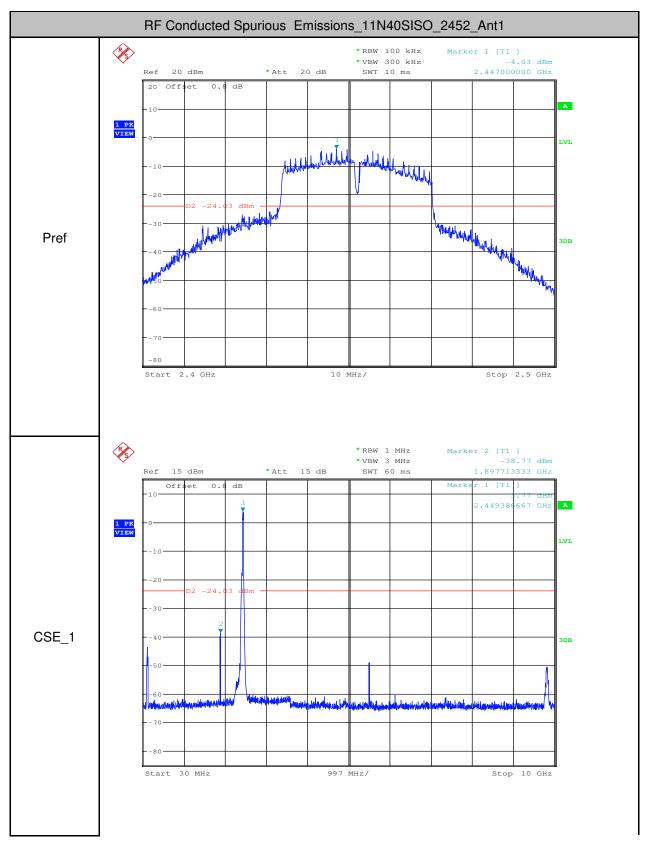


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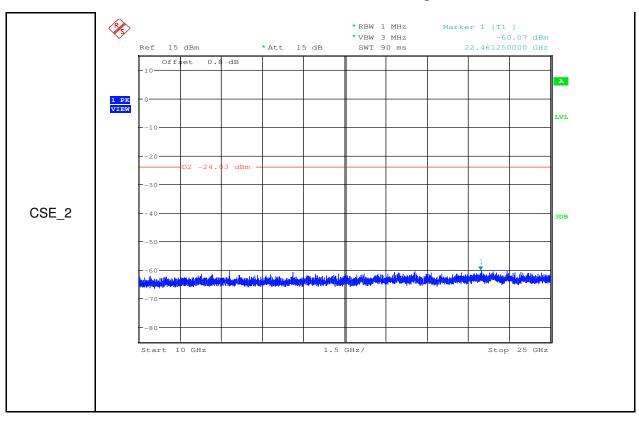


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