## FCC PART 15 SUBPART C TEST REPORT

for

## **Modular WLAN Access Point**

Model No.: WEJ-11n

**FCC ID: YEI-N305210** 

of

Applicant: Equaline Corporation

Address: 9F, No. 234, Sec. 4, Cheng-De Road, Taipei 111, Taiwan

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1

A2LA Accredited No.: 2732.01





Report No.: W6M21004-10574-P-15

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C. TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wts@wts-lab.com

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### 1 General Information

### 1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that is performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.5.

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## Specific Conditions:

Usage of the hereunder tested device in combination with other integrated or external antennas requires at least additional output power measurements, spurious emission measurements, conducted emission measurements (AC supply lines) and radio frequency exposure evaluations for each individual configuration performed, for certification by FCC.

The test sample is able to work according IEEE 802.11 b/g/n.

This report is related to FCC Part 15 C (DSSS and OFDM device).

### **Tester:**

May 13, 2010 Robert Ren Hole Korn

Date WTS-Lab. Name Signature

## Technical responsibility for area of testing:

May 13, 2010 Chang Tse-Ming

Date WTS Name Signature

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## 1.2 Testing laboratory

#### 1.2.1 Location

**OATS** 

No.5-1, Shuang Sing Village, LiShuei Rd., Wanli Township,

Taipei County 207, Taiwan (R.O.C.)

Company

Worldwide Testing Services(Taiwan) Co., Ltd. 6F, NO. 58, LANE 188, RUEY-KUANG RD. NEIHU, TAIPEI 114, TAIWAN R.O.C.

Tel : 886-2-66068877 Fax : 886-2-66068879

#### 1.2.2 Details of accreditation status

Accredited testing laboratory

A2LA accredited number: 2732.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1





#### Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd.:

Name: ./.
Accredited number: ./.
Street: ./.
Town: ./.
Country: ./.
Telephone: ./.
Fax: ./.

### 1.3 Details of approval holder

Name: Equaline Corporation

Street: 9F, No. 234, Sec. 4, Cheng-De Road,

Town: Taipei 111, Country: Taiwan

Telephone: +886-2-2880-4100 Fax: +886-2-2880-4101

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## 1.4 Application details

Date of receipt of test item: April 22, 2010

Date of test: from April 22, 2010 to May 11, 2010

1.5 General information of Test item

Type of test item: Modular WLAN Access Point

Model Number: WEJ-11n

Brand Name: Karo

Hardware: WL-WEJ-03-03

Software: V2.1

Multi-listing model number: without

Photos: see Appendix

**Technical data:** 

Frequency band: 2.4 GHz – 2.4835 GHz

11b, 11g, 11n 20MHz

Frequency (ch 1 or A): 2.412 GHz Frequency (ch 6 or B): 2.437 GHZ Frequency (ch 11 or C): 2.462 GHz

11n 40MHz

Frequency (ch 1 or A): 2.422 GHz Frequency (ch 4 or B): 2.437 GHZ Frequency (ch 7 or C): 2.452 GHz

Number of Channels: 11b, 11g, 11n 20MHz: 11

11n 40MHz: 7

Operation modes: duplex

Modulation Type: DSSS / OFDM Fixed point-to-point operation:  $\square$  Yes /  $\square$  No

Type of Antenna: Antenna a: Dipole Antenna ; Antenna b: Dipole Antenna

Antenna gain: Antenna a: 2 dBi; Antenna b: 2 dBi

Power supply: Adaptor ( I/P: AC 100-240 V / 50-60 Hz / 0.6 A,

O/P: 48 V / 0.4 A)

Emission designator: 11b: DSSS: 17M3G1D

11g: OFDM: 19M4W7D

11n 20MHz: OFDM: 19M2W7D 11n 40MHz: OFDM: 37M8W7D

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Host device: none

Classification :

Fixed Device	
Mobile Device (Human Body distance > 20cm)	
Portable Device (Human Body distance < 20cm)	
Modular Radio Device	

### <u>Transmitter</u> <u>Unom</u>

Mode A (DSSS)

Power (ch 1 or A): Conducted: 26.47 dBm
Power (ch 6 or B): Conducted: 26.12 dBm
Power (ch 11 or C): Conducted: 29.37 dBm

Mode B (OFDM)

Power ( ch 1 or A): Conducted: 23.02 dBm Power ( ch 6 or B): Conducted: 27.29 dBm Power ( ch 11 or C): Conducted: 24.17 dBm

Mode C (OFDM)

Power ( ch 1 or A): Conducted: 23.55 dBm
Power ( ch 6 or B): Conducted: 23.64 dBm
Power ( ch 11 or C): Conducted: 23.54 dBm

Mode D (OFDM)

Power ( ch 1 or A): Conducted: 22.95 dBm Power ( ch 4 or B): Conducted: 22.95 dBm Power ( ch 7 or C): Conducted: 23.02 dBm

**Manufacturer: (if different from Approval Holder)** 

 Name:
 ./.

 Street:
 ./.

 Town:
 ./.

 Country:
 ./.

#### 1.6 Test standards

Technical standard: FCC RULES PART 15 SUBPART C § 15.247 (2009-10)

Additional Information:

(1) The provided test sample WEJ-11n is be able to work with modulation DSSS, OFDM.

(2) There are four testing modes in the test report.

Mode A: IEEE 802.11b Mode B: IEEE 802.11g

Mode C: IEEE 802.11n 20 MHz Mode D: IEEE 802.11n 40 MHz

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## 2 Technical test

## 2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.	×
or	
The deviations as specified in 2.5 were ascertained in the course of the tests performed.	

### 2.2 Test environment

Temperature: 23 °C

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Power supply: Adaptor ( I/P: AC 100-240 V / 50-60 Hz / 0.6 A,

O/P: 48 V / 0.4 A)

Extreme conditions parameters: ./.



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## 2.3 Test Equipment List

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2009/9/10	2010/9/9
ETSTW-CE 004	ZWEILEITER-V- NETZNACHBILDUNG TWO- LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2010/3/2	2011/3/1
ETSTW-CE 005	Line-Impedance Stabilisation Network	NNBM 8126D	137	Schwarzbeck	2009/9/9	2010/9/8
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2010/5/8	2011/5/7
ETSTW-CE 007	SPECTRUM ANALYZER 5GHz	FSB	849670/001	R&S	Pre-test 1	Use NCR
ETSTW-CE 008	HF-EICHLEITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Functi	on Test
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2009/7/21	2010/7/20
ETSTW-CE 015	CISPR 22 TWO BALANCED	FCC-TLISN-T8-02	20307	FCC	2009/9/12	2010/9/11
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2009/9/9	2010/9/8
ETSTW-RE 002	Function Generator	33220A	MY43004982	Agilent	Function	on Test
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2009/10/1	2010/9/30
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2009/9/18	2010/9/17
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2009/9/11	2010/9/10
ETSTW-RE 006	Attenuator 10dB	50HF-010-5N-1	None	STEP	2010/3/5	2011/3/4
ETSTW-RE 010	ABSORBING CLAMP	MDS 21	3469	Schwarzbeck	2009/9/11	2010/9/10
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function	on Test
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function	on Test
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2009/10/1	2010/9/30
ETSTW-RE 020	MICROWAVE HORN ANTENNA	AT4002A	306915	AR	Function	on Test
ETSTW-RE 021	SWEEP GENERATOR	SWM05	835130/010	R&S	2009/8/19	2010/8/18
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	EMCO	2009/8/14	2011/8/13
ETSTW-RE 028	Log-Periodic Dipole Array Antenna	3148	34429	EMCO	2010/4/14	2011/4/13
ETSTW-RE 029	Biconical Antenna	3109	33524	EMCO	2010/4/14	2011/4/13
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	EMCO	2010/3/2	2011/3/1
ETSTW-RE 032	Millivoltmeter	URV 55	849086/013	R&S	2009/8/23	2010/8/22
ETSTW-RE 033	WaveRunner 6000A Serise Oscilloscope	WAVERUNNER 6100A	LCRY0604P14508	LeCroy	2009/6/15	2010/6/14
ETSTW-RE 034	Power Sensor	URV5-Z4	839313/006	R&S	2009/8/23	2010/8/22
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2010/1/13	2011/1/12
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2010/4/29	2011/4/28
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2009/5/21	2010/5/20
ETSTW-RE 047	PSA SERIES SPECTRUM ANALYZER	E4445A	MY46181369	Agilent	2009/6/15	2010/6/14
ETSTW-RE 048	Triple Loop Antenna	HXYZ 9170	HXYZ 9170-134	Schwarzbeck	2009/8/31	2010/8/30
ETSTW-RE 049	TRILOG Super Broadband test Antenna	VULB 9160	9160-3185	Schwarzbeck	2010/4/13	2011/4/12



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ETSTW-RE 053         Attenuator 3dB         50HF-003-1         None         JFW         2010/3/5         201           ETSTW-RE 055         SPECTRUM ANALYZER         FSU 26         200074         R&S         2009/6/10         2010/6/10           ETSTW-RE 060         Attenuator 30dB         5015-30         F651012z-01         ATM         Pre-test Use NCR           ETSTW-RE 061         Amplifier Module         CHC 1         None         ETS         2009/11/12         2010/6/12           ETSTW-RE 062         Amplifier Module         CHC 2         None         KMIC         2009/11/12         2010/6/12           ETSTW-RE 064         Bluetooth Test Set         MT8852B-042         6K00005709         Anritsu         Function Test           ETSTW-RE 065         Amplifier         AMF-6F-18002650-25-10P         941608         MITEQ         2010/4/13         201           ETSTW-RE 066         Highpass Filter         H1G013G1         206015         MICROWAVE CIRCUITS, INC.         2010/3/5         201	1/3/4 1/3/4 1/6/09 /11/11	
ETSTW-RE 055         SPECTRUM ANALYZER         FSU 26         200074         R&S         2009/6/10         2010/6/10           ETSTW-RE 060         Attenuator 30dB         5015-30         F651012z-01         ATM         Pre-test Use NCR           ETSTW-RE 061         Amplifier Module         CHC 1         None         ETS         2009/11/12         2010/11/12           ETSTW-RE 062         Amplifier Module         CHC 2         None         KMIC         2009/11/12         2010/11/12           ETSTW-RE 064         Bluetooth Test Set         MT8852B-042         6K00005709         Anritsu         Function Test           ETSTW-RE 065         Amplifier         AMF-6F-18002650-25-10P         941608         MITEQ         2010/4/13         201           ETSTW-RE 066         Highpass Filter         H1G013G1         206015         MICROWAVE CIRCUITS, INC.         2010/3/5         201	//6/09 //11/11 //11/11	
ETSTW-RE 060         Attenuator 30dB         5015-30         F651012z-01         ATM         Pre-test Use NCR           ETSTW-RE 061         Amplifier Module         CHC 1         None         ETS         2009/11/12         2010/1/12           ETSTW-RE 062         Amplifier Module         CHC 2         None         KMIC         2009/11/12         2010/1/12           ETSTW-RE 064         Bluetooth Test Set         MT8852B-042         6K00005709         Anritsu         Function Test           ETSTW-RE 065         Amplifier         AMF-6F-18002650-25-10P         941608         MITEQ         2010/4/13         201           ETSTW-RE 066         Highpass Filter         H1G013G1         206015         MICROWAVE CIRCUITS, INC.         2010/3/5         201	/11/11	
ETSTW-RE 061         Amplifier Module         CHC 1         None         ETS         2009/11/12         2010/11/12           ETSTW-RE 062         Amplifier Module         CHC 2         None         KMIC         2009/11/12         2010/11/12           ETSTW-RE 064         Bluetooth Test Set         MT8852B-042         6K00005709         Anritsu         Function Test           ETSTW-RE 065         Amplifier         AMF-6F-18002650-25-10P         941608         MITEQ         2010/4/13         201           ETSTW-RE 066         Highpass Filter         H1G013G1         206015         MICROWAVE CIRCUITS, INC.         2010/3/5         201	/11/11	
ETSTW-RE 062 Amplifier Module CHC 2 None KMIC 2009/11/12 2010  ETSTW-RE 064 Bluetooth Test Set MT8852B-042 6K00005709 Anritsu Function Test  ETSTW-RE 065 Amplifier AMF-6F- 18002650-25-10P 941608 MITEQ 2010/4/13 201  ETSTW-RE 066 Highpass Filter H1G013G1 206015 MICROWAVE CIRCUITS, INC. 2010/3/5 201	/11/11	
ETSTW-RE 064         Bluetooth Test Set         MT8852B-042         6K00005709         Anritsu         Function Test           ETSTW-RE 065         Amplifier         AMF-6F-18002650-25-10P         941608         MITEQ         2010/4/13         201           ETSTW-RE 066         Highpass Filter         H1G013G1         206015         MICROWAVE CIRCUITS, INC.         2010/3/5         201		
ETSTW-RE 065         Amplifier         AMF-6F-18002650-25-10P         941608         MITEQ         2010/4/13         201           ETSTW-RE 066         Highpass Filter         H1G013G1         206015         MICROWAVE CIRCUITS, INC.         2010/3/5         201		
ETSTW-RE 065 Amplifier 18002650-25-10P 941608 MITEQ 2010/4/13 201  ETSTW-RE 066 Highpass Filter H1G013G1 206015 MICROWAVE CIRCUITS, INC. 2010/3/5 201		
ETSTW-RE 066 Highpass Filter HIG013G1 206015 CIRCUITS, INC. 2010/3/5 201	/4/12	
ETSTW DE 072   CELL SITE TEST SET   9021A   2220A00275   IIB   2000/10/2   2011	1/3/4	
E151 W-RE 0/2 CELL 511E 1E51 5E1 6921A 5339A003/5 HP 2009/10/2 2010	/10/1	
ETSTW-RE 073 Power Meter N1911A MY45100769 Agilent 2010/1/7 201	1/1/6	
ETSTW-RE 074 Power Sensor N1921A MY45241198 Agilent 2010/1/7 201	1/1/6	
ETSTW-RE 081 Highpass Filter H03G13G1 4260-02 DC0428 MICROWAVE CIRCUITS, INC. 2010/3/5 201	1/3/4	
ETSTW-RE 091 Match Pad MDCS1500 None WOKEN Function Test		
ETSTW-RE 092 Match Pad MDCS1510 None WOKEN Function Test		
ETSTW-RE 096         SIGNAL GENERATOR         SMIQ 03B         102274         R&S         2009/6/5         201	0/6/4	
ETSTW-RE 099 DC Block 50DB-007-1 None JFW 2010/3/5 201	1/3/4	
ETSTW-RE 105 2.4GHz Notch Filter NO124411 39555 MICROWAVE CIRCUITS, INC. 2010/3/25 201	/3/24	
ETSTW-RE 106         Humidity Temperature Meter         TES-1366         091011113         TES         2010/3/25         201	/3/24	
ETSTW-GSM 002 Universal Radio Communication Tester CMU 200 109439 R&S 2009/9/22 2010	/9/21	
ETSTW-GSM 019 Band Reject Filter	Function Test	
ETSTW-GSM 020 Band Reject Filter WRCD1747/1748- 1743/1752-32/5SS 1 WI Function Test		
ETSTW-GSM 021 Band Reject Filter WRCD1879.5/1880 .5-1875.5/1884.5- 3 WI Function Test 32/5SS	Function Test	
ETSTW-GSM 022 Band Reject Filter WRCT901.9/903.1- 904.25-50/8SS 1 WI Function Test		
ETSTW-GSM 023 Power Divider 4901.19.A None SUHNER 2009/9/21 2010	/9/20	
ETSTW-Cable 002 Microwave Cable SUCOFLEX 104 (S_Cable 7) 238093 HUBER+SUHNER 2009/9/16 2010	/9/15	
ETSTW-Cable 003 Microwave Cable SUCOFLEX 104 (S_Cable 11) 209953 HUBER+SUHNER 2009/9/16 2010	/9/15	
SUCCELEX 104	1/3/4	
	1/3/4	
ETSTW-Cable 011 BNC Cable BNC Cable 1 None JYE BAO CO.,LTD. 2009/8/20 2010	/8/19	
ETSTW-Cable 012 BNC Cable BNC Cable 2 None JYE BAO CO.,LTD. 2009/8/20 2010	/8/19	
ETSTW-Cable 013 Microwave Cable SUCOFLEX 104 (S_Cable 5) 232345 HUBER+SUHNER 2010/3/5 201	1/3/4	
	1/3/4	
ETSTW-Cable 039 Microwave Cable SUCOFLEX 104 (S_Cable 19) 316739 HUBER+SUHNER 2010/3/5 201	1/3/4	
WTSTW-SW 001 EMI TEST SOFTWARE Harmonics-1000 None EMC PARTNER HARCS Version 4. Firmware Version 2		



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WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMC	None	Farad	Version ETS-03A1
WTSTW-SW 003	EMS TEST SOFTWARE	i2	None	AUDIX	Version 3.2007-8-17b
WTSTW-SW 005	GSM Fading Level Correction	GSMFadLevCor	None	R&S	Version 1.66

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#### 2.4 General Test Procedure

**POWER LINE CONDUCTED INTERFERENCE:** The procedure used was ANSI STANDARD C63.4-2003 using a 50µH LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

**RADIATION INTERFERENCE:** The test procedure used was according to ANSI STANDARD C63.4-2003 employing a spectrum analyzer. For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of  $dB\mu V$ ) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq (MHz) METER READING + ACF + CABLE LOSS(to the receiver) = FS

33  $20 dB\mu V + 10.36 dB + 6 dB = 36.36 dB\mu V/m @3m$ 

The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table) and arranged according to ANSI C63.4-2003 Section 13.1.2. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
- (3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.
- (4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1)-(a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this Section, whichever is the higher frequency range of investigation.

For hand-held devices, a exploratory test was performed with three (3) orthogonal planes to determine the highest emissions.

Measurements were made by Worldwide Testing Services(Taiwan) Co., Ltd. at the registered open field test site located at No.5-1, Shuang Sing Village, LiShuei Rd., Wanli Township, Taipei County 207, Taiwan (R.O.C.) The Registration Number: 930600.

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

When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

The formula is as follows: Average = Peak + Duty Factor Duty Factor = 20 log (dwell time/T) T = 100ms when the pulse train period is over 100 ms or the period of the pulse train.

Modified Limits for peak according to 15.35 (b) = Max Permitted average Limits + 20dB



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### 3 Test results (enclosure)

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b)(3)	×	×	
Equivalent radiated Power	15.247(b)(3)	×	×	
Spurious Emissions radiated – Transmitter	15.247(c):	×	×	
operating	15.209			
Band Edge Measurement	15.247(c)	×	×	
Minimum 6 dB Bandwidth	15.247(a)(2)	×	×	
Peak Power Spectral Density	15.247(d)	×	×	
Radiated Emission from Digital Part	15.109			
Power Line Conducted Emission	15.207	×	×	

#### Note:

- 1. This EUT is 2\*2 spatial MIMO (2Tx&2Rx) without beam forming function. That operates dual chain configuration. The Pre-test was performed to determine the worst case mode from all possible combinations between all available modulations, data rates, bandwidths, and spatial stream modes.
- 2. The worst case mode was base on the investigations by measuring the peak and average power according to the description above. The detail of chosen mode for full testing are as below:

Mode	Available	Chosen	Modulation	Modulation	Data Rate
Mode	channel	Channel	Technology	Type	(Mbps)
802.11b	1 to 11	1 6 11	DSSS	DQPSK,	un to 11
802.116	1 to 11	1,6,11	מממע	DBPSK	up to 11
				BPSK,	
802.11g	1 to 11	1,6,11	OFDM	QPSK,	up to 54
802.11g	1 10 11		OlyDivi	16QAM,	
				64QAM	
				BPSK,	
802.11n (20MHz)	1 to 11	1,6,11	.11 OFDM	QPSK,	up to 300
802.11II (20MHZ)			OFDM	16QAM,	
				64QAM	
				BPSK,	
802.11n (40MHz)	1 to 7	1 1 7	OFDM	QPSK,	un to 200
602.1111 (40MHZ)		1,4,7	OFDM	16QAM,	up to 300
				64QAM	

3. For 802.11n both antennas operate simultaneously, when performed the relevant conducted measurement(ex. RF output power, peak power spectral density....and so on), we basically use a splitter to combine each antenna port in order to get the total measuring results.

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## 3.1 Peak Output Power (transmitter)

FCC Rule: 15.247(b)(3)

This measurement applies to equipment with an integral antenna and to equipment with an antenna connector and equipped with an antenna as declared by the applicant.

The power was measured with modulation (declared by the applicant).

### Mode A:

#### **Antenna Port I:**

Test condition		(	Conducted Powe	r
		Channel A	Channel B	Channel C
T. 220G	$T_{nom}$ = 23°C $V_{nom}$ = 120 V	[dBm]	[dBm]	[dBm]
I <sub>nom</sub> = 23 C		26.47	26.12	29.37

### **Antenna Port II:**

Test condition		(	Conducted Power	r
		Channel A	Channel B	Channel C
T - 22°C	V - 120 V	[dBm]	[dBm]	[dBm]
$T_{nom} = 23^{\circ}C$	$V_{nom} = 120 \text{ V}$	26.10	26.01	26.33

#### Mode B:

### **Antenna Port I:**

Test condition		(	Conducted Power	r
		Channel A	Channel B	Channel C
T <sub>nom</sub> = 23°C	V - 120 V	[dBm]	[dBm]	[dBm]
	$V_{nom} = 120 \text{ V}$	22.99	27.18	23.44

### **Antenna Port II:**

Test con		Conducted Power	r	
Test condition		Channel A	Channel B	Channel C
T - 22°C	V - 120 V	[dBm]	[dBm]	[dBm]
$T_{nom}=23^{\circ}C$	$V_{\text{nom}} = 120 \text{ V}$	23.02	27.29	24.17

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### **Mode C:**

### **Antenna Port I+II:**

Tost con	Conducted Power			
Test condition		Channel A	Channel B	Channel C
T <sub>nom</sub> = 23°C	V 120 V	[dBm]	[dBm]	[dBm]
	$V_{nom} = 120 \text{ V}$	23.55	23.64	23.54

### **Mode D:**

### **Antenna Port I+II:**

Tost con	Conducted Power			
Test condition		Channel A	Channel B	Channel C
T <sub>nom</sub> = 23°C	$V_{nom} = 120 V$	[dBm]	[dBm]	[dBm]
		22.95	22.95	23.02

## Mode A

$ \begin{array}{cccc} Test \ condition \\ T_{nom} = \ \ ^{\circ}C, \ \ V_{nom} = \ \ \ V \end{array} $	Signal Field strength TX highest power mode dB $\mu$ V/m
Frequency [MHz]	
	_

## Mode B

	Signal Field strength TX highest power mode dB $\mu$ V/m
Frequency [MHz]	

## Mode C

	Signal Field strength TX highest power mode dB $\mu$ V/m
Frequency [MHz]	

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#### Mode D

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Signal Field strength TX highest power mode dB $\mu$ V/m
Frequency [MHz]	

#### Limits:

Frequency	Power
MHz	dBm
902 - 928	30
2400 – 2483.5	30
5725 – 5850	30

In case of employing transmitter antennas having antenna gain > 6 dBi and using fixed point-to point operation consider \$15.247 (b)(4)

Test equipment used: ETSTW-RE 055

Explanation: The diagrams for the peak output power measurements are included in Appendix.

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## 3.2 Equivalent isotropic radiated power

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

EIRP = 29.37 dBm + 2 dBi

= 31.37 dBm

Limit: EIRP = +36 dBm for Antenna gain < 6dBi

Test equipment used: ETSTW-RE 055

## 3.3 RF Exposure Compliance Requirements

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a "worst case" or conservative prediction.

$$S = \frac{PG}{4 \pi R^2}$$

S – Power Density

P – Output power ERP

R – Distance

D – Cable Loss

AG – Antenna Gain

710 7 michina Gam			
Item	Unit	Value	Remarks
P	mW	864.968	Peak value
D	dB		
AG	dBi	2	
G		1.6	Calculated Value
R	cm	20	Assumed value
S	mW/cm <sup>2</sup>	0.2753	Calculated value

### Limits:

Limit for General Population / Uncontrolled Exposure							
Frequency Power Density (MHz) (mW/cm <sup>2</sup> )							
1500 – 100.000	1.0						

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#### 3.4 Transmitter Radiated Emissions in Restricted Bands

FCC Rules: 15.247 (c), 15.205, 15.209, 15.35

Radiated emission measurements were performed from 30 MHz to 26500 MHz.

For radiated emission tests, the analyzer setting was as followings:

Frequency ≤ 1 GHz, RBW:100 kHz, VBW: 100 kHz (Peak measurements)
Frequency > 1 GHz, RBW: 1 MHz, VBW: 1 MHz (Peak measurements)
Frequency > 1 GHz, RBW:1 MHz, VBW: 10 Hz (Average measurements)

Limits.

For frequencies below 1GHz:

Frequency of Emission	Field strength	Field Strength		
(MHz)	(microvolts/meter)	(dB microvolts/meter)		
30 - 88	100	40.0		
88 - 216	150	43.5		
216 - 960	200	46.0		
Above	500	54.0		

For frequencies above 1GHz (Average measurements).

Guidance on Measurement of Digit Transmission Systems:

"If the emission is pulsed, modify the unit for continuous operation, use the setting shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation."

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty cycle correction = 20 log (dwell time/ 100ms)

Note: No duty cycle correction was added to the reading of this EUT.

Explanation: see attached diagrams in Appendix.

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## 3.5 Spurious Emissions (tx)

Spurious emission was measured with modulation (declared by manufacturer).

In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB 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. 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))

FCC Rule: 15.247(c), 15.35

For out of band emissions that are close to or that exceed the 20 dB attenuation requirement described in the specification, radiated measurements were performed at a 3 m separation distance to determine whether these emissions complied with the general radiated emission requirement.

#### Limits:

For frequencies above 1GHz (Peak measurements). Modified Limit for peak according to 15.35 (b) = Max Permitted average Limits + 20dB

For frequencies above 1GHz (Average measurements).

Max. reading – 20dB

Max. reading - 20 dB

Guidance on Measurement of Digit Transmission Systems:

"If the emission is pulsed, modify the unit for continuous operation, use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation."

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty Cycle correction = 20 log (dwell time/100ms)

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 018, ETSTW-RE 028,

ETSTW-RE 029, ETSTW-RE 030, ETSTW-RE 042, ETSTW-RE 043,

ETSTW-RE 044

Note: No duty cycle correction was added to the reading of EUT.

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SAMPLE CALCULATION OF LIMIT. All results will be updated by an automatic measuring system in accordance with point 2.3.

#### Calculation of test results:

Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

The peak and average spurious emission plots was measured with the average limits.

In the Table being listed the critical peak and average value and exhibit the compliance with the above calculated Limits.

If in the column's correction factor states a value then the max. Field strength in the same row is corrected by a value gained from the "Correction Factor".

### Summary table with radiated data of the test plots

### Mode A Antenna Port I with antenna a:

Model: WEJ-11n Date: 2010/4/23

Mode: 802.11b CH1 Temperature: 24 °C Engineer: Robert

Polarization: Horizontal Humidity: 60 %

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.47	peak	15.21	37.68	43.50	-5.82	140	150
406.6132	12.39	peak	19.01	31.40	46.00	-14.60	120	150
984.5691	6.37	peak	29.02	35.39	54.00	-18.61	340	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	51.11		-3.26	47.85		74.00	54.00	-26.15	180	150
4825.6510	63.40	54.40	-4.25	59.15	50.15	74.00	54.00	-3.85	180	150
7236.0000	47.64		-0.76	46.88		74.00	54.00	-27.12	230	150

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
170.6813	25.42	peak	14.80	40.22	43.50	-3.28	130	150
406.6132	13.22	peak	19.01	32.23	46.00	-13.77	170	150
983.1662	7.47	peak	29.00	36.47	54.00	-17.53	230	150



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Frequency	Rea	ding	Factor			Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	48.82		-3.26	45.56		74.00	54.00	-28.44	110	150
4825.6510	59.34	52.34	-4.25	55.09	48.09	74.00	54.00	-5.91	200	150
7236.0000	47.47		-0.76	46.71		74.00	54.00	-27.29	310	150

Mode: 802.11b CH6

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.48	peak	15.21	37.69	43.50	-5.81	170	150
406.6132	13.74	peak	19.01	32.75	46.00	-13.25	120	150
981.7635	5.40	peak	28.98	34.38	54.00	-19.62	180	150

Frequency	Rea	ding	Factor	Result @3m		Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.80		-3.08	47.72		74.00	54.00	-26.28	180	150
4873.7480	60.65	52.76	-2.09	58.56	50.67	74.00	54.00	-3.33	190	150
7311.0000	47.56		1.07	48.63		74.00	54.00	-25.37	260	150

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
168.5170	25.66	peak	14.98	40.64	43.50	-2.86	170	150
403.8077	12.87	peak	18.93	31.80	46.00	-14.20	160	150
610.0200	6.15	peak	23.67	29.82	46.00	-16.18	120	150

Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	48.71		-3.08	45.63		74.00	54.00	-28.37	120	150
4873.7480	56.33	50.83	-4.09	52.24	46.74	74.00	54.00	-7.26	160	150
7311.0000	48.30		-0.93	47.37		74.00	54.00	-26.63	230	150



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Mode: 802.11b CH11

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.62	peak	15.21	37.83	43.50	-5.67	180	150
406.6132	12.93	peak	19.01	31.94	46.00	-14.06	260	150
978.9578	6.06	peak	28.95	35.01	54.00	-18.99	150	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	48.75		-2.89	45.86		74.00	74.00	-28.14	230	150
4927.7020	65.33	54.90	-4.03	61.30	50.87	74.00	54.00	-3.13	190	150
7386.0000	47.74		-1.03	46.71		74.00	54.00	-27.29	160	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8937	24.63	peak	15.08	39.71	43.50	-3.79	100	150
405.2105	12.65	peak	18.97	31.62	46.00	-14.38	240	150
976.1522	5.93	peak	28.91	34.84	54.00	-19.16	270	150

Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	47.87		-2.89	44.98		74.00	54.00	-29.02	170	150
4923.9220	67.11	54.49	-4.03	63.08	50.46	74.00	54.00	-3.54	250	150
7386.0000	46.71		-1.03	45.68		74.00	54.00	-28.32	120	150

### Antenna Port I with antenna b:

Mode: 802.11b CH1

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.47	peak	15.21	37.68	43.50	-5.82	170	150
405.2105	12.67	peak	18.97	31.64	46.00	-14.36	160	150
973.3467	6.70	peak	28.87	35.57	54.00	-18.43	200	150



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Frequency	Rea	ding	Factor	Result @3m		Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	50.61		-3.26	47.35		74.00	54.00	-26.65	200	150
4827.6360	63.90	52.88	-4.25	59.65	48.63	74.00	54.00	-5.37	320	150
7236.0000	46.68		-0.76	45.92		74.00	54.00	-28.08	210	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.3528	26.28	peak	15.11	41.39	43.50	-2.11	160	150
406.6132	13.22	peak	19.01	32.23	46.00	-13.77	160	150
978.9578	6.08	peak	28.95	35.03	54.00	-18.97	200	150

Frequency	Rea	ding	Factor	Result	@3m	Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	49.77		-3.26	46.51		74.00	54.00	-27.49	320	150
4827.6430	66.94	54.71	-4.25	62.69	50.46	74.00	54.00	-3.54	210	150
7236.0000	47.02		-0.76	46.26		74.00	54.00	-27.74	110	150

Mode: 802.11b CH6

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.48	peak	15.21	37.69	43.50	-5.81	180	150
405.2105	13.01	peak	18.97	31.98	46.00	-14.02	220	150
962.1242	5.76	peak	28.73	34.49	54.00	-19.51	170	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.67		-3.08	47.59		74.00	54.00	-26.41	160	150
4873.9300	63.59	49.75	-4.09	59.50	45.66	74.00	54.00	-8.34	320	150
7311.0000	47.28		-0.93	46.35		74.00	54.00	-27.65	350	150



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Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
168.5170	25.66	peak	14.98	40.64	43.50	-2.86	190	150
409.4190	15.78	peak	19.09	34.87	46.00	-11.13	340	150
971.9438	7.86	peak	28.86	36.72	54.00	-17.28	280	150

Frequency	Rea	ding	Factor	Result	@3m	Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	49.51		-3.08	46.43		74.00	54.00	-27.57	170	150
4873.8720	66.54	54.81	-4.09	62.45	50.72	74.00	54.00	-3.28	220	150
7311.0000	47.31		-0.93	46.38		74.00	54.00	-27.62	120	150

Mode: 802.11b CH11

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.62	peak	15.21	37.83	43.50	-5.67	120	150
406.6132	12.93	peak	19.01	31.94	46.00	-14.06	160	150
960.7214	8.38	peak	28.71	37.09	54.00	-16.91	250	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	49.43		-2.89	46.54		74.00	54.00	-27.46	120	150
4924.1490	62.53	49.45	-4.03	58.50	45.42	74.00	54.00	-8.58	320	150
7386.0000	47.38		-1.03	46.35		74.00	54.00	-27.65	100	150

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8937	26.13	peak	15.08	41.21	43.50	-2.29	140	150
406.6132	13.72	peak	19.01	32.73	46.00	-13.27	140	150
973.3467	7.62	peak	28.87	36.49	54.00	-17.51	180	150



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Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	48.10		-2.89	45.21		74.00	54.00	-28.79	170	150
4923.9240	66.24	53.51	-4.03	62.21	49.48	74.00	54.00	-4.52	220	150
7386.0000	47.42		-1.03	46.39		74.00	54.00	-27.61	130	150

## Antenna Port II with antenna a

Mode: 802.11b CH1

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.1884	22.40	peak	15.25	37.65	43.50	-5.85	310	150
406.6132	13.57	peak	19.01	32.58	46.00	-13.42	340	150
983.1662	6.33	peak	29.00	35.33	54.00	-18.67	240	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	49.40		-3.26	46.14		74.00	54.00	-27.86	170	150
4824.1770	65.36	53.81	-4.26	61.10	49.55	74.00	54.00	-4.45	190	150
7236.0000	46.52		-0.76	45.76		74.00	54.00	-28.24	140	150

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8937	25.96	peak	15.08	41.04	43.50	-2.46	170	150
406.6132	13.19	peak	19.01	32.20	46.00	-13.80	120	150
973.3467	5.72	peak	28.87	34.59	54.00	-19.41	130	150

Frequency	Rea	ding	Factor	Result	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	48.35		-3.26	45.09		74.00	54.00	-28.91	190	150
4825.6510	60.91	52.91	-4.25	56.66	48.66	74.00	54.00	-5.34	320	150
7236.0000	46.48		-0.76	45.72		74.00	54.00	-28.28	240	150



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FCC ID: YEI-N305210

Mode: 802.11b CH6

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2705	22.48	peak	15.18	37.66	43.50	-5.84	240	150
405.2105	12.26	peak	18.97	31.23	46.00	-14.77	150	150
978.9578	6.37	peak	28.95	35.32	54.00	-18.68	190	150

Frequency	Rea	ding	Factor	Factor Result @3m		Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)	′   ` ′   ` ·		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.11		-3.08	47.03		74.00	54.00	-26.97	120	150
4872.9230	67.08	54.24	-4.09	62.99	50.15	74.00	54.00	-3.85	190	150
7311.0000	47.90		-0.93	46.97		74.00	54.00	-27.03	280	150

Polarization: Vertical

Frequ (MF	-	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
171.2	2224	24.73	peak	14.74	39.47	43.50	-4.03	340	150
406.6	5132	12.91	peak	19.01	31.92	46.00	-14.08	140	150
988.7	7776	6.74	peak	29.07	35.81	54.00	-18.19	190	150

Frequency	Rea	ding	Factor	Factor Result @3r		Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	48.71		-3.08	45.63		74.00	54.00	-28.37	170	150
4873.8780	66.81	54.98	-4.09	62.72	50.89	74.00	54.00	-3.11	250	150
7311.0000	46.66		-0.93	45.73		74.00	54.00	-28.27	130	150

Mode: 802.11b CH11

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.52	peak	15.21	37.73	43.50	-5.77	240	150
408.0160	13.90	peak	19.05	32.95	46.00	-13.05	140	150
978.9578	5.37	peak	28.95	34.32	54.00	-19.68	320	150



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Frequency	Rea	ding	Factor	Factor Result @		Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	48.75		-2.89	45.86		74.00	54.00	-28.14	140	150
4927.7020	67.83	54.90	-4.03	63.80	50.87	74.00	54.00	-3.13	190	150
7386.0000	47.74		-1.03	46.71		74.00	54.00	-27.29	160	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8937	25.92	peak	15.08	41.00	43.50	-2.50	300	150
406.6132	13.25	peak	19.01	32.26	46.00	-13.74	300	150
980.3606	5.41	peak	28.96	34.37	54.00	-19.63	180	150

Frequency	Rea	ding	Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	47.87		-2.89	44.98		74.00	54.00	-29.02	170	150
4921.8440	67.11	53.11	-4.03	63.08	49.08	74.00	54.00	-4.92	190	150
7386.0000	46.71		-1.03	45.68		74.00	54.00	-28.32	120	150

## Antenna Port II with antenna b

Mode: 802.11b CH1

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.1884	22.40	peak	15.25	37.65	43.50	-5.85	310	150
406.6132	13.57	peak	19.01	32.58	46.00	-13.42	150	150
990.1803	6.01	peak	29.09	35.10	54.00	-18.90	340	150

Frequency	Rea	ding	Factor	or Result @3m		Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)			(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	49.40		-3.26	46.14		74.00	54.00	-27.86	170	150
4824.1770	65.36	51.81	-4.26	61.10	47.55	74.00	54.00	-6.45	190	150
7236.0000	46.52		-0.76	45.76		74.00	54.00	-28.24	290	150



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FCC ID: YEI-N305210

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8937	25.96	peak	15.08	41.04	43.50	-2.46	170	150
405.2105	12.92	peak	18.97	31.89	46.00	-14.11	340	150
1000.0000	10.06	peak	29.22	39.28	54.00	-14.72	120	150

Frequency	Rea	ding	Factor	Result	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	48.35		-3.26	45.09		74.00	54.00	-28.91	190	150
4824.0030	70.92	54.08	-4.26	66.66	49.82	74.00	54.00	-4.18	250	150
7236.0000	46.48		-0.76	45.72		74.00	54.00	-28.28	240	150

Mode: 802.11b CH6

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2705	22.48	peak	15.18	37.66	43.50	-5.84	240	150
408.0160	13.76	peak	19.05	32.81	46.00	-13.19	140	150
978.9578	6.37	peak	28.95	35.32	54.00	-18.68	170	150

Frequency	Rea	ding	Factor	Result @3m		Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.11		-3.08	47.03		74.00	54.00	-26.97	120	150
4873.9230	67.08	54.24	-4.09	62.99	50.15	74.00	54.00	-3.85	190	150
7311.0000	47.90		-0.93	46.97		74.00	54.00	-27.03	280	150

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
171.2224	24.73	peak	14.74	39.47	43.50	-4.03	340	150
408.0160	13.88	peak	19.05	32.93	46.00	-13.07	140	150
970.5411	6.16	peak	28.84	35.00	54.00	-19.00	190	150



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Frequency	Rea	ding	Factor	Result	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	48.71		-3.08	45.63		74.00	54.00	-28.37	170	150
4873.8780	71.81	55.98	-4.09	67.72	51.89	74.00	54.00	-2.11	250	150
7311.0000	46.66		-0.93	45.73		74.00	54.00	-28.27	130	150

Mode: 802.11b CH11

Polarization: Horizontal

	-							
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.52	peak	15.21	37.73	43.50	-5.77	240	150
406.6132	13.15	peak	19.01	32.16	46.00	-13.84	320	150
973.3467	5.62	peak	28.87	34.49	54.00	-19.51	140	150

Frequency	Rea	ding	Factor	Result	@3m	Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	48.75		-2.89	45.86		74.00	54.00	-28.14	230	150
4927.7020	67.83	54.90	-4.03	63.80	50.87	74.00	54.00	-3.13	190	150
7386.0000	47.74		-1.03	46.71		74.00	54.00	-27.29	160	150

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8937	25.92	peak	15.08	41.00	43.50	-2.50	300	150
406.6132	13.25	peak	19.01	32.26	46.00	-13.74	250	150
984.5691	6.26	peak	29.02	35.28	54.00	-18.72	340	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	` '   ` '		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	47.87		-2.89	44.98		74.00	54.00	-29.02	170	150
4923.9220	70.61	54.49	-4.03	66.58	50.46	74.00	54.00	-3.54	250	150
7386.0000	46.71		-1.03	45.68		74.00	54.00	-28.32	120	150



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Mode B

Antenna Port I with antenna a:

Mode: 802.11g CH1

Polarization: Horizontal

	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	164.7295	22.65	peak	15.21	37.86	43.50	-5.64	220	150
	405.2105	11.76	peak	18.97	30.73	46.00	-15.27	340	150
Ī	960.7214	8.30	peak	28.71	37.01	54.00	-16.99	270	150

Frequency	Rea	ding	Factor	Result @3m		Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	51.33		-3.26	48.07		74.00	54.00	-25.93	170	150
4825.6510	63.92	51.79	-4.25	59.67	47.54	74.00	54.00	-6.46	35	150
7236.0000	46.19		-0.76	45.43		74.00	54.00	-28.57	120	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.3528	27.09	peak	15.11	42.20	43.50	-1.30	110	150
406.6132	13.27	peak	19.01	32.28	46.00	-13.72	200	150
984.5691	6.01	peak	29.02	35.03	54.00	-18.97	130	150

Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	49.25		-3.26	45.99		74.00	54.00	-28.01	190	150
4825.4300	58.38	49.62	-4.25	54.13	45.37	74.00	54.00	-8.63	35	150
7236.0000	48.15		-0.76	47.39		74.00	54.00	-26.61	300	150

Mode: 802.11g CH6

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.67	peak	15.21	37.88	43.50	-5.62	120	150
405.2105	12.93	peak	18.97	31.90	46.00	-14.10	320	150
981.7635	5.84	peak	28.98	34.82	54.00	-19.18	140	150



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Frequency	Rea	ding	Factor	Result @3m		Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	49.59		-3.08	46.51		74.00	54.00	-27.49	300	150
4875.3130	60.33	52.85	-4.08	56.25	48.77	74.00	54.00	-5.23	35	150
7311.0000	47.80		-0.93	46.87		74.00	54.00	-27.13	150	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2706	26.00	peak	15.18	41.18	43.50	-2.32	280	150
406.6132	12.88	peak	19.01	31.89	46.00	-14.11	230	150
964.9298	5.64	peak	28.76	34.40	54.00	-19.60	180	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	49.08		-3.08	46.00		74.00	54.00	-28.00	290	150
4865.7310	56.37	50.37	-4.12	52.25	46.25	74.00	54.00	-7.75	35	150
7311.0000	47.83		-0.93	46.90		74.00	54.00	-27.10	130	150

Mode: 802.11g CH11

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2706	22.80	peak	15.18	37.98	43.50	-5.52	300	150
403.8077	12.62	peak	18.93	31.55	46.00	-14.45	200	150
964.9298	6.17	peak	28.76	34.93	54.00	-19.07	190	150

Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.54		-3.08	47.46		74.00	54.00	-26.54	250	150
4881.2160	59.89	49.45	-4.06	55.83	45.39	74.00	54.00	-8.61	100	150
7386.0000	47.93		-1.03	46.90		74.00	54.00	-27.10	170	150



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Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
167.9760	26.04	peak	15.01	41.05	43.50	-2.45	190	150
403.8077	11.69	peak	18.93	30.62	46.00	-15.38	300	150
967.7355	6.14	peak	28.80	34.94	54.00	-19.06	170	150

Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	49.86		-2.89	46.97		74.00	54.00	-27.03	200	150
4921.8440	59.14	50.14	-4.03	55.11	46.11	74.00	54.00	-7.89	260	150
7386.0000	47.16		-1.03	46.13		74.00	54.00	-27.87	320	150

## **Antenna Port I with antenna b:**

Mode: 802.11g CH1

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.65	peak	15.21	37.86	43.50	-5.64	180	150
406.6132	12.94	peak	19.01	31.95	46.00	-14.05	270	150
976.1522	5.55	peak	28.91	34.46	54.00	-19.54	340	150

Frequency	Rea	ding	Factor	Result @3m		Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	50.79		-3.26	47.53		74.00	54.00	-26.47	130	150
4825.5660	57.57	46.26	-4.25	53.32	42.01	74.00	54.00	-11.99	320	150
7236.0000	46.97		-0.76	46.21		74.00	54.00	-27.79	330	150

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.3528	25.59	peak	15.11	40.70	43.50	-2.80	180	150
406.6132	13.27	peak	19.01	32.28	46.00	-13.72	200	150
981.7635	7.97	peak	28.98	36.95	54.00	-17.05	130	150



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Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	49.49		-3.26	46.23		74.00	54.00	-27.77	190	150
4825.6470	61.55	49.26	-4.25	57.30	45.01	74.00	54.00	-8.99	35	150
7236.0000	47.70		-0.76	46.94		74.00	54.00	-27.06	150	150

Mode: 802.11g CH6

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.67	peak	15.21	37.88	43.50	-5.62	290	150
408.0160	13.08	peak	19.05	32.13	46.00	-13.87	320	150
987.3748	7.03	peak	29.06	36.09	54.00	-17.91	140	150

Frequency	Rea	ding	Factor	Result	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.62		-3.08	47.54		74.00	54.00	-26.46	170	150
4873.7480	55.58	49.58	-4.09	51.49	45.49	74.00	54.00	-8.51	35	150
7311.0000	47.75		-0.93	46.82		74.00	54.00	-27.18	120	150

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2705	24.50	peak	15.18	39.68	43.50	-3.82	260	150
410.8217	15.78	peak	19.13	34.91	46.00	-19.09	270	150
970.5411	5.87	peak	28.84	34.71	54.00	-19.29	110	150

Frequency	Rea	ding	Factor	Result	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	49.58		-3.08	46.50		74.00	54.00	-27.50	140	150
4877.8450	59.33	49.39	-4.08	55.25	45.31	74.00	54.00	-8.69	35	150
7311.0000	46.70		-0.93	45.77		74.00	54.00	-28.23	130	150



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

Mode: 802.11g CH11

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2705	22.80	peak	15.18	37.98	43.50	-5.52	170	150
408.0160	14.24	peak	19.05	33.29	46.00	-12.71	190	150
980.3606	6.28	peak	28.96	35.24	54.00	-18.76	200	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	49.43		-2.89	46.54		74.00	54.00	-27.46	120	150
4928.0550	58.36	47.85	-4.03	54.33	43.82	74.00	54.00	-10.18	35	150
7386.0000	47.46		-1.03	46.43		74.00	54.00	-27.57	170	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
167.9760	25.04	peak	15.01	40.05	43.50	-3.45	170	150
406.6132	12.83	peak	19.01	31.84	46.00	-14.16	170	150
977.5551	5.00	peak	28.93	33.93	54.00	-20.07	300	150

Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	47.97		-2.89	45.08		74.00	54.00	-28.92	120	150
4925.7650	58.66	48.70	-4.03	54.63	44.67	74.00	54.00	-9.33	35	150
7386.0000	47.23		-1.03	46.20		74.00	54.00	-27.80	130	150

### Antenna Port II with antenna a

Mode: 802.11g CH1

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
159.8598	21.11	peak	15.51	36.62	43.50	-6.88	270	150
406.6132	12.94	peak	19.01	31.95	46.00	-14.05	340	150
973.3467	5.56	peak	28.87	34.43	54.00	-19.57	270	150



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

Frequency	Rea	ding	Factor	Result @3m		Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	50.79		-3.26	47.53		74.00	54.00	-26.47	130	150
4825.5660	57.57	49.26	-4.25	53.32	45.01	74.00	54.00	-8.99	320	150
7236.0000	46.97		-0.76	46.21		74.00	54.00	-27.79	330	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
171.2222	25.13	peak	14.74	39.87	43.50	-3.63	140	150
405.2105	13.03	peak	18.97	32.00	46.00	-14.00	130	150
981.7635	7.97	peak	28.98	36.95	54.00	-17.05	210	150

Frequency	Reading		Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB) (dBuV/m)		(dBuV/m)			Degree	High	
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	49.49		-3.26	46.23		74.00	54.00	-27.77	190	150
4817.6350	59.58	50.29	-4.28	55.30	46.01	74.00	54.00	-7.99	35	150
7236.0000	47.70		-0.76	46.94		74.00	54.00	-27.06	150	150

Mode: 802.11g CH6

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.67	peak	15.21	37.88	43.50	-5.62	290	150
406.6132	12.80	peak	19.01	31.81	46.00	-14.19	320	150
974.7495	5.64	peak	28.89	34.53	54.00	-19.47	140	150

Frequency	Reading		Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	(dBuV)		(dB)	(dBu	V/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	52.62		-3.08	49.54		74.00	54.00	-24.46	300	150
4873.7480	55.58	48.58	-4.09	51.49	44.49	74.00	54.00	-9.51	35	150
7311.0000	47.75		-0.93	46.82		74.00	54.00	-27.18	120	150



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FCC ID: YEI-N305210

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2705	24.50	peak	15.18	39.68	43.50	-3.82	260	150
406.6132	12.88	peak	19.01	31.89	46.00	-14.11	270	150
971.9438	6.00	peak	28.86	34.86	54.00	-19.14	140	150

Frequency	Reading Factor		Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB) (dBuV/m)		(dBuV/m)			Degree	High	
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	49.58		-3.08	46.50		74.00	54.00	-27.50	140	150
4877.8450	59.33	49.39	-4.08	55.25	45.31	74.00	54.00	-8.69	35	150
7311.0000	46.70		-0.93	45.77		74.00	54.00	-28.23	130	150

Mode: 802.11g CH11

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2705	22.80	peak	15.18	37.98	43.50	-5.52	170	150
405.2105	12.29	peak	18.97	31.26	46.00	-14.74	190	150
978.9578	5.71	peak	28.95	34.66	54.00	-19.34	200	150

Frequency	Reading		Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	(dBuV)		(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	49.43		-2.89	46.54		74.00	54.00	-27.46	120	150
4928.0550	58.36	49.85	-4.03	54.33	45.82	74.00	54.00	-8.18	250	150
7386.0000	47.46		-1.03	46.43		74.00	54.00	-27.57	170	150

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
167.9760	25.04	peak	15.01	40.05	43.50	-3.45	170	150
405.2105	12.34	peak	18.97	31.31	46.00	-14.69	300	150
980.3606	5.80	peak	28.96	34.76	54.00	-19.24	170	150



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Frequency	Rea	ding	Factor			Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	47.97		-2.89	45.08		74.00	54.00	-28.92	120	150
4925.7650	58.66	47.70	-4.03	54.63	43.67	74.00	54.00	-10.33	35	150
7386.0000	47.23		-1.03	46.20		74.00	54.00	-27.80	130	150

### Antenna Port II with antenna b

Mode: 802.11g CH1

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.75	peak	15.21	37.96	43.50	-5.54	190	150
405.2105	12.29	peak	18.97	31.26	46.00	-14.74	140	150
967.7355	5.60	peak	28.80	34.40	54.00	-19.60	320	150

Frequency	Rea	ding	Factor	Factor Result @3m		Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	49.43		-3.26	46.17		74.00	54.00	-27.83	190	150
4825.7020	59.38	50.29	-4.25	55.13	46.04	74.00	54.00	-7.96	35	150
7236.0000	47.60		-0.76	46.84		74.00	54.00	-27.16	190	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.3528	26.20	peak	15.11	41.31	43.50	-2.19	270	150
406.6132	13.12	peak	19.01	32.13	46.00	-13.87	160	150
981.7635	5.62	peak	28.98	34.60	54.00	-19.40	140	150

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Frequency	Rea	ding	Factor Result @3m		Limit	Limit @3m		Table	Ant.	
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	48.82		-3.26	45.56		74.00	54.00	-28.44	190	150
4824.8430	64.47	54.03	-4.26	60.21	49.77	74.00	54.00	-4.23	35	150
7236.0000	46.45		-0.76	45.69		74.00	54.00	-28.31	120	150



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Mode: 802.11g CH6

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8937	14.75	peak	15.08	29.83	43.50	-13.67	320	150
413.6272	16.37	peak	19.20	35.57	46.00	-10.43	190	150
992.9860	7.65	peak	29.13	36.78	54.00	-17.22	320	150

Frequency	Rea	ding	Factor	ctor Result @3m		Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.33		-3.08	47.25		74.00	54.00	-26.75	140	150
4877.9650	59.85	48.83	-4.07	55.78	44.76	74.00	54.00	-9.24	180	150
7311.0000	47.11		-0.93	46.18		74.00	54.00	-27.82	260	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
167.4348	25.30	peak	15.05	40.35	43.50	-3.15	130	150
413.6272	16.08	peak	19.20	35.28	46.00	-10.72	230	150
984.5691	7.04	peak	29.02	36.06	54.00	-17.94	320	150

Frequency	Rea	ding	Factor	Factor Result		Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	48.55		-3.08	45.47		74.00	54.00	-28.53	160	150
4875.7470	63.34	53.22	-4.08	59.26	49.14	74.00	54.00	-4.86	35	150
7311.0000	46.70		-0.93	45.77		74.00	54.00	-28.23	160	150

Mode: 802.11g CH11

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	22.74	peak	15.21	37.95	43.50	-5.55	320	150
405.2105	12.27	peak	18.97	31.24	46.00	-14.76	140	150
974.7495	6.01	peak	28.89	34.90	54.00	-19.10	330	150



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Frequency	Rea	ding	Factor	Result @3m		Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	49.30		-2.89	46.41		74.00	54.00	-27.59	350	150
4925.6660	61.12	51.66	-4.03	57.09	47.63	74.00	54.00	-6.37	190	150
7386.0000	48.13		-1.03	47.10		74.00	54.00	-26.90	120	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.8117	23.47	peak	15.15	38.62	43.50	-4.88	180	150
408.0160	14.65	peak	19.05	33.70	46.00	-12.30	190	150
987.3748	7.26	peak	29.06	36.32	54.00	-17.68	210	150

Frequency	Rea	ding	Factor	Result	@3m	Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	48.37		-2.89	45.48		74.00	54.00	-28.52	130	150
4927.7300	62.97	52.39	-4.03	58.94	48.36	74.00	54.00	-5.64	250	150
7386.0000	47.25		-1.03	46.22		74.00	54.00	-27.78	130	150

### Mode C

#### Antenna Port I + II with antenna a

Mode: 802.11n 20 CH1

Polarization: Horizontal

Frequer (MHz	-	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.729	95	22.95	peak	15.21	38.16	43.50	-5.34	290	150
413.62	72	15.39	peak	19.20	34.59	46.00	-11.41	120	150
969.13	82	6.28	peak	28.82	35.10	54.00	-18.90	340	150

Frequency	Rea	ding	Factor	Factor Result @3m		Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	51.27		-3.26	48.01		74.00	54.00	-25.99	160	150
4825.6510	62.01	50.26	-4.25	57.76	46.01	74.00	54.00	-7.99	210	150
7236.0000	47.84		-0.76	47.08		74.00	54.00	-26.92	290	150



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.8117	26.23	peak	15.15	41.38	43.50	-2.12	180	150
408.0160	14.10	peak	19.05	33.15	46.00	-12.85	350	150
970.5411	6.21	peak	28.84	35.05	54.00	-18.95	150	150

Frequency	Rea	ding	Factor	Result @3m		Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	47.93		-3.26	44.67		74.00	54.00	-29.33	120	150
4817.6350	58.86	50.85	-4.28	54.58	46.57	74.00	54.00	-7.43	210	150
7236.0000	47.05		-0.76	46.29		74.00	54.00	-27.71	320	150

Mode: 802.11n 20 CH6

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
167.4348	14.81	peak	15.05	29.86	43.50	-13.64	130	150
406.6132	12.75	peak	19.01	31.76	46.00	-14.24	170	150
976.1522	6.61	peak	28.91	35.52	54.00	-18.48	240	150

Frequency	Rea	ding	Factor	Result	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)			(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.52		-3.08	47.44		74.00	54.00	-26.56	180	150
4877.8250	59.36	50.25	-4.08	55.28	46.17	74.00	54.00	-7.83	100	150
7311.0000	47.89		-0.93	46.96		74.00	54.00	-27.04	160	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	26.42	peak	15.21	41.63	43.50	-1.87	180	150
409.4190	14.31	peak	19.09	33.40	46.00	-12.60	170	150
983.1662	5.63	peak	29.00	34.63	54.00	-19.37	250	150



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Frequency	Rea	ding	Factor	Result	@3m	@3m   Limit		Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	49.53		-3.08	46.45		74.00	54.00	-27.55	260	150
4873.7480	55.40	45.40	-4.09	51.31	41.31	74.00	54.00	-12.69	260	150
7311.0000	47.47		-0.93	46.54		74.00	54.00	-27.46	110	150

Mode: 802.11n 20 CH11

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	14.40	peak	15.21	29.61	43.50	-13.89	140	150
402.4048	11.60	peak	18.90	30.50	46.00	-15.50	170	150
960.7214	6.80	peak	28.71	35.51	54.00	-18.49	300	150

Frequency	Rea	ding	Factor	Result	@3m	Limit @3m		Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	49.07		-2.89	46.18		74.00	54.00	-27.82	120	150
4928.8600	61.81	54.80	-4.03	57.77	50.77	74.00	54.00	-3.23	180	150
7356.0000	47.40		-0.99	46.41		74.00	54.00	-27.59	140	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8937	25.48	peak	15.08	40.56	43.50	-2.94	170	150
406.6132	13.68	peak	19.01	32.69	46.00	-13.31	160	150
978.9578	5.50	peak	28.95	34.45	54.00	-19.55	140	150

Frequency	Rea	ding	Factor Result @3m		Limit	@3m	Margin	Table	Ant.	
	(dB	uV)	(dB) (dBuV/m)		(dBu	(dBuV/m)		Degree	High	
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	46.96		-2.89	44.07		74.00	54.00	-29.93	100	150
4921.8440	58.83	50.83	-4.03	54.80	46.80	74.00	54.00	-7.20	180	150
7356.0000	47.39		-0.99	46.40		74.00	54.00	-27.60	250	150



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

Antenna Port I + II with antenna b

Mode: 802.11n 20 CH1

Polarization: Horizontal

Eroguanav	Reading		Factor	Result	Limit	Margin	Table	Ant.
Frequency (MHz)	(dBuV)	Detector	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Degree	High
(IVITIZ)	(ubuv)		(ub)	(ubu v/III)	(ubu v/III)	(ub)	(Deg.)	(cm)
164.7295	22.95	peak	15.21	38.16	43.50	-5.34	340	150
412.2243	15.29	peak	19.17	34.46	46.00	-11.36	120	150
987.3748	6.18	peak	29.06	35.24	54.00	-18.76	340	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	50.34		-3.26	47.08		74.00	54.00	-26.92	190	150
4825.6820	60.22	48.30	-4.25	55.97	44.05	74.00	54.00	-9.95	350	150
7236.0000	47.50		-0.76	46.74		74.00	54.00	-27.26	110	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.8117	26.23	peak	15.15	41.38	43.50	-2.12	130	150
412.2243	16.12	peak	19.17	35.29	46.00	-10.71	350	150
978.9578	7.52	peak	28.95	36.47	54.00	-17.53	140	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	48.43		-3.26	45.17		74.00	54.00	-28.83	190	150
4825.9470	64.58	53.53	-4.25	60.33	49.28	74.00	54.00	-4.72	35	150
7236.0000	46.85		-0.76	46.09		74.00	54.00	-27.91	290	150

Mode: 802.11n 20 CH6

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	14.39	peak	15.21	29.60	43.50	-13.90	300	150
406.6132	12.75	peak	19.01	31.76	46.00	-14.24	270	150
987.3748	5.68	peak	29.06	34.74	54.00	-19.26	140	150



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FCC ID: YEI-N305210

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	51.82		-3.08	48.74		74.00	54.00	-25.26	180	150
4873.7480	58.20	47.61	-4.09	54.11	43.53	74.00	54.00	-10.47	180	150
7311.0000	47.59		-0.93	46.66		74.00	54.00	-27.34	350	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.3528	24.35	peak	15.11	39.46	43.50	-4.04	320	150
406.6132	13.84	peak	19.01	32.85	46.00	-13.15	170	150
981.7635	6.01	peak	28.98	34.99	54.00	-19.01	260	150

Frequency	Rea	ding	Factor			Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	´   ` ´		(dBu	(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	48.60		-3.08	45.52		74.00	54.00	-28.48	230	150
4873.7480	62.75	53.38	-4.09	58.66	49.30	74.00	54.00	-4.70	210	150
7311.0000	46.18		-0.93	45.25		74.00	54.00	-28.75	260	150

Mode: 802.11n 20 CH11

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	14.40	peak	15.21	29.61	43.50	-13.89	140	150
406.6132	12.90	peak	19.01	31.91	46.00	-14.09	300	150
980.3606	5.85	peak	28.96	34.81	54.00	-19.19	170	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	49.34		-2.89	46.45		74.00	54.00	-27.55	130	150
4921.8440	60.60	49.06	-4.03	56.57	45.03	74.00	54.00	-8.97	190	150
7386.0000	47.01		-1.03	45.98		74.00	54.00	-28.02	170	150



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FCC ID: YEI-N305210

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8937	25.48	peak	15.08	40.56	43.50	-2.94	190	150
405.2105	12.76	peak	18.97	31.73	46.00	-14.27	140	150
966.3327	5.06	peak	28.78	33.84	54.00	-20.16	160	150

Frequency	Rea	ding	Factor	Result	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3282.5650	47.29		-2.89	44.40		74.00	54.00	-29.60	130	150
4921.8440	62.93	52.45	-4.03	58.90	48.42	74.00	54.00	-5.58	210	150
7386.0000	47.20		-1.03	46.17		74.00	54.00	-27.83	140	150

#### Mode D

### Antenna Port I + II with antenna a

Mode: 802.11n 40 CH1

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
166.8938	23.21	peak	15.08	38.29	43.50	-5.21	160	150
408.0160	14.24	peak	19.05	33.29	46.00	-12.71	320	150
980.3606	5.84	peak	28.96	34.80	54.00	-19.20	170	150

Frequency	Rea	ding	Factor	Result	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3230.4610	51.42		-3.19	48.23		74.00	54.00	-25.77	190	150
4841.6830	56.95	46.97	-4.20	52.75	42.77	74.00	54.00	-11.23	110	150
7266.0000	47.12		-0.83	46.29		74.00	54.00	-27.71	250	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2706	25.38	peak	15.18	40.56	43.50	-2.94	120	150
406.6132	12.73	peak	19.01	31.74	46.00	-14.26	190	150
980.3606	5.12	peak	28.96	34.08	54.00	-19.92	140	150



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Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3218.4370	47.98		-3.26	44.72		74.00	54.00	-29.28	340	150
4825.6510	57.26	45.26	-4.25	53.01	41.01	74.00	54.00	-12.99	220	150
7266.0000	46.52		-0.83	45.69		74.00	54.00	-28.31	170	150

Mode: 802.11n 40 CH4

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.8117	23.47	peak	15.15	38.62	43.50	-4.88	320	150
405.2105	12.26	peak	18.97	31.23	46.00	-14.77	110	150
977.5551	5.81	peak	28.93	34.74	54.00	-19.26	170	150

Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.57		-3.08	47.49		74.00	54.00	-26.51	170	150
4855.2910	62.38	50.76	-4.15	58.23	46.61	74.00	54.00	-7.39	100	150
7311.0000	47.01		-0.93	46.08		74.00	54.00	-27.92	300	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.8117	27.07	peak	15.15	42.22	43.50	-1.28	170	150
405.2105	12.59	peak	18.97	31.56	46.00	-14.44	170	150
983.1662	7.30	peak	29.00	36.30	54.00	-17.70	240	150

Frequency	Rea	ding	Factor	Result	Result @3m		@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	48.91		-3.08	45.83		74.00	54.00	-28.17	120	150
4881.7640	54.05		-4.06	49.99		74.00	54.00	-24.01	170	150
7311.0000	46.97		-0.93	46.04		74.00	54.00	-27.96	350	150



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Mode: 802.11n 40 CH7

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2706	23.12	peak	15.18	38.30	43.50	-5.20	180	150
406.6132	12.94	peak	19.01	31.95	46.00	-14.05	230	150
980.3606	6.82	peak	28.96	35.78	54.00	-18.22	160	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3270.5410	48.49		-2.96	45.53		74.00	54.00	-28.47	180	150
4905.8120	59.29	50.29	-4.01	55.28	46.28	74.00	54.00	-7.72	210	150
7356.0000	47.45		-0.99	46.46		74.00	54.00	-27.54	230	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.7295	25.60	peak	15.21	40.81	43.50	-2.69	180	150
408.0160	13.80	peak	19.05	32.85	46.00	-13.15	100	150
974.7495	6.92	peak	28.89	35.81	54.00	-18.19	290	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3270.5410	48.89		-2.96	45.93		74.00	54.00	-28.07	190	150
4905.7260	58.53	47.25	-4.01	54.52	43.24	74.00	54.00	-10.76	210	150
7356.0000	49.91		-0.99	48.92		74.00	54.00	-25.08	140	150

#### Antenna Port I + II with antenna b

Mode: 802.11n 40 CH1

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
172.8456	24.20	peak	14.54	38.74	43.50	-4.76	170	150
405.2105	12.04	peak	18.97	31.01	46.00	-14.99	320	150
978.9578	6.46	peak	28.95	35.41	54.00	-18.59	170	150



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Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3230.4610	50.91		-3.19	47.72		74.00	54.00	-26.28	160	150
4847.7970	57.27	45.03	-4.18	53.09	40.85	74.00	54.00	-13.15	180	150
7266.0000	47.82		-0.83	46.99		74.00	54.00	-27.01	130	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2705	25.87	peak	15.18	41.05	43.50	-2.45	240	150
408.0160	14.02	peak	19.05	33.07	46.00	-12.93	140	150
978.9578	5.21	peak	28.95	34.16	54.00	-19.84	100	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3230.4610	48.79		-3.19	45.60		74.00	54.00	-28.40	320	150
4842.9900	61.36	48.64	-4.19	57.17	44.45	74.00	54.00	-9.55	210	150
7266.0000	46.68		-0.83	45.85		74.00	54.00	-28.15	120	150

Mode: 802.11n 40 CH4

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.8117	23.47	peak	15.15	38.62	43.50	-4.88	170	150
408.0160	14.18	peak	19.05	33.23	46.00	-12.77	140	150
981.7635	5.66	peak	28.98	34.64	54.00	-19.36	170	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	·   `   -		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	50.59		-3.08	47.51		74.00	54.00	-26.49	130	150
4874.1640	58.83	46.76	-4.09	54.74	42.67	74.00	54.00	-11.33	180	150
7311.0000	47.09		-0.93	46.16		74.00	54.00	-27.84	230	150



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Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
171.2223	23.31	peak	14.74	38.05	43.50	-5.45	170	150
406.6132	13.94	peak	19.01	32.95	46.00	-13.05	170	150
973.3467	5.07	peak	28.87	33.94	54.00	-20.06	240	150

Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3250.5010	49.90		-3.08	46.82		74.00	54.00	-27.18	130	150
4874.3610	61.59	51.14	-4.09	57.50	47.05	74.00	54.00	-6.95	210	150
7311.0000	46.65		-0.93	45.72		74.00	54.00	-28.28	250	150

Mode: 802.11n 40 CH7

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
165.2705	23.12	peak	15.18	38.30	43.50	-5.20	180	150
406.6132	12.94	peak	19.01	31.95	46.00	-14.05	230	150
973.3467	5.44	peak	28.87	34.31	54.00	-19.69	160	150

Frequency	Rea	ding	Factor			Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3270.5410	50.60		-2.96	47.64		74.00	54.00	-26.36	230	150
4907.7620	57.41	46.30	-4.01	53.40	42.29	74.00	54.00	-11.71	180	150
7356.0000	46.71		-0.99	45.72		74.00	54.00	-28.28	130	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
164.1884	23.70	peak	15.25	38.95	43.50	-4.55	180	150
403.8077	12.68	peak	18.93	31.61	46.00	-14.39	290	150
981.7635	6.62	peak	28.98	35.60	54.00	-18.40	100	150



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Frequency	Rea	ding	Factor	Result	@3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
3270.5410	47.86		-2.96	44.90		74.00	54.00	-29.10	190	150
4908.197	60.34	50.86	-4.01	56.33	46.85	74.00	54.00	-7.15	250	150
7356	47.12		-0.99	46.13		74.00	54.00	-27.87	140	150

Note

- 1. Correction Factor = Antenna factor + Cable loss Preamplifier
- 2. The formula of measured value as: Test Result = Reading + Correction Factor
- 3. Detector function in the form: PK = Peak, QP = Quasi Peak, AV = Average
- 4. All not in the table noted test results are more than 20 dB below the relevant limits.
- 5. See the attached diagram as appendix.

**TEST RESULT** (**Transmitter**): The unit DOES meet the FCC requirements.

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 018, ETSTW-RE 028,

ETSTW-RE 029, ETSTW-RE 030, ETSTW-RE 042, ETSTW-RE 043,

ETSTW-RE 044



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### 3.6 Radiated Emission on the band edge

According to FCC rules part 15 subpart C §15.247(c) in any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB 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. Attenuation below the general limits specified in § 15.209(a) is not required.

In addition radiated emission which fall in the restricted bands, as defined in section 15.205(a), must also with the radiated emission limits.

#### Mode A: Antenna Port I:

Test co	nditions	Attenuation at or outside band-edges		
Test conditions		Lower Band-edge	Upper Band-edge	
$T_{nom} = 23^{\circ}C$	$V_{nom} = 120 \text{ V}$	40.75 dB	47.96 dB	

#### **Antenna Port II:**

Test co	nditions	Attenuation at or outside band-edges		
Test conditions		Lower Band-edge	Upper Band-edge	
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 \text{ V}$	41.24 dB	48.18 dB	

#### Mode B:

#### **Antenna Port I:**

Test co	nditions	Attenuation at or outside band-edges		
1 est conditions		Lower Band-edge	<b>Upper Band-edge</b>	
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 \text{ V}$	35.82 dB	43.93 dB	

#### **Antenna Port II:**

Test co	nditions	Attenuation at or outside band-edges		
1 est conditions		Lower Band-edge	Upper Band-edge	
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 \text{ V}$	35.46 dB	44.85 dB	

#### **Mode C:**

#### **Antenna Port I+II:**

Test co	nditions	Attenuation at or outside band-edges		
Test conditions		Lower Band-edge	<b>Upper Band-edge</b>	
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	34.19 dB	37.05 dB	

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#### **Mode D:**

#### **Antenna Port I+II:**

Test co	nditions	Attenuation at or outside band-edges		
1 est conditions		Lower Band-edge	<b>Upper Band-edge</b>	
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	32.35 dB	30.14 dB	

#### Limit:

Frequency Range / MHz	Limit
902 –928	
2400 – 2483.5	- 20 dB
5725 - 5850	

Test equipment used: ETSTW-RE 055

Explanation: Please see attached diagram as appendix.

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#### 3.7 Minimum 6 dB Bandwidth

The analyzer ResBW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK reading was taken, two markers were set 6 dB below the maximum level on the right and the left side of the emission.

The 6 dB bandwidth is the frequency difference between the two markers.

#### Mode A:

#### **Antenna Port I:**

Test co	nditions	6 dB Bandwidth			
1 est containons		Channel 1	Channel 6	Channel 11	
$T_{nom} = 23^{\circ}C$	$V_{nom} = 120 \text{ V}$	11.582051282MHz	11.08974358MHz	11.570512821MHz	

#### **Antenna Port II:**

Test co	nditions	6 dB Bandwidth		
1 cst containing		<b>Channel 1</b>	Channel 6	Channel 11
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	11.987179487MHz	11.314102564MHz	11.730769231MHz

#### Mode B:

#### **Antenna Port I:**

Test conditions		6 dB Bandwidth			
		<b>Channel 1</b>	nel 1 Channel 6 Chan		
$T_{nom} = 23^{\circ}C$	$V_{nom} = 120 \text{ V}$	16.538461538MHz	16.634615385MHz	16.66666667MHz	

#### **Antenna Port II:**

Test co	nditions	6 dB Bandwidth		
2 450 4021421025		<b>Channel 1</b>	Channel 6	Channel 11
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	16.602564103MHz	16.538461538MHz	16.634615385MHz

#### Mode C:

#### **Antenna Port I+II:**

Test conditions		6 dB Bandwidth		
		<b>Channel 1</b>	Channel 4	Channel 7
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	17.788461538MHz	17.756410256MHz	17.724358974MHz

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#### **Mode D:**

#### **Antenna Port I+II:**

Test conditions		6 dB Bandwidth		
		Channel 1	Channel 4	Channel 7
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 \text{ V}$	35.897435897MHz	35.833333333MHz	35.897435897MHz

### **Limits:**

Frequency Range MHz	Limits
902-928	min 500 kHz
2400-2483.5	min 500 kHz
5725-5850	min 500 kHz

Test equipment used: ETSTW-RE 055

Explanation: see attached diagrams in Appendix.

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### 3.8 Peak Power Spectral Density

Peak Power Spectral density is a measured at low, middle and high channel.

The peak output power is measured with a measurement bandwidth of 10 MHz and displayed on diagram together with Peak Power Spectral Density result which was measured with a bandwidth of 3 kHz, appreciate frequency span and sweep time.

### Mode A: Antenna Port I:

		Peak Power Spectral Density (3 kHz)		
Test co	nditions	Channel 1 [dBm]	Channel 6 [dBm]	Channel 11 [dBm]
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	-5.08	-7.30	-7.14

#### **Antenna Port II:**

		Peak Power Spectral Density (3 kHz)		
Test co.	nditions	Channel 1 [dBm]	Channel 6 [dBm]	Channel 11 [dBm]
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	-6.12	-4.97	-7.17

#### **Mode B:**

#### **Antenna Port I:**

Test conditions		Peak Power Spectral Density (3 kHz)		
		Channel 1	Channel 6	Channel 11
		[dBm]	[dBm]	[dBm]
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 V$	-11.32	-11.50	-11.34

#### **Antenna Port II:**

			Peak Power Spectral Density (3 kHz)		
Test conditions		Channel 1	Channel 6	Channel 11	
		[dBm]	[dBm]	[dBm]	
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 \text{ V}$	-11.73	-11.42	-11.05	

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#### **Mode C:**

#### **Antenna Port I+II:**

Test conditions		Peak Power Spectral Density (3 kHz)		
		Channel 1	Channel 6	Channel 11
		[dBm]	[dBm]	[dBm]
$T_{nom} = 23^{\circ}C$	$V_{nom} = 120 \text{ V}$	-11.79	-12.41	-11.60

#### **Mode D:**

### Antenna Port I+II:

Test conditions		Peak Power Spectral Density (3 kHz)		
		Channel 1	Channel 4	Channel 7
		[dBm]	[dBm]	[dBm]
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 V$	-14.12	-13.17	-12.76

#### **Limits:**

Frequency Range MHz	dBm
902-928	8
2400-2483.5	8
5725-5850	8

Test equipment used: ETSTW-RE 055

Explanation: see attached diagrams in Appendix.

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### 3.9 Radiated Emission from Digital Part

FCC Rule: 15.109

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission	Field Strength	Field Strength
(MHz)	(microvolts/meter)	(dBmicrovolts/meter)
30 - 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.0
Above 960	500	54.0

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 028, ETSTW-RE 029,

ETSTW-RE 030, ETSTW-RE 042, ETSTW-RE 043

Explanation: The test results are listed in the separated test report no. W6M21004-10574-P-15B.

FCC ID: YEI-N305210

### 3.9 Power Line Conducted Emission

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the table bellows with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.

Engage av	Level (dBμV)		
Frequency	quasi-peak	average	
150 kHz	lower limit line	Lower limit line	

Model: Mode:	WEJ-1		Oate: 'emperature		0/5/4 °C	F.	ngineer:	Robert
Polarization:	N	1	Humidity:	60	%	L.	ngmeer.	Robert
Frequency	Rea	ding	Factor	Res	sult	Liı	mit	Margin
	(dBuV)		(dB)	(dBuV)		(dBuV)		
(MHz)	QP	Ave.	Corr.	QP	Ave.	QP	Ave.	(dB)
0.1502	43.36	19.42	10.74	54.10	30.16	65.99	55.99	-11.89
0.2164	37.60	22.54	10.75	48.35	33.29	62.96	52.96	-14.61
0.3620	29.00	23.52	10.70	39.70	34.22	58.68	48.68	-14.46
1.4487	26.39	21.99	10.25	36.64	32.24	56.00	46.00	-13.76
4.8467	31.28	27.12	10.19	41.47	37.31	56.00	46.00	-8.69
7.7428	30.83	27.33	10.24	41.07	37.57	60.00	50.00	-12.43

Polarization: L1

Frequency	Reading		Factor	Result		Limit		Margin
	(dBuV)		(dB)	(dBuV)		(dBuV)		
(MHz)	QP	Ave.	Corr.	QP	Ave.	QP	Ave.	(dB)
0.1501	43.39	17.03	10.75	54.14	27.78	65.99	55.99	-11.85
0.2892	32.15	20.20	10.72	42.87	30.92	60.55	50.55	-17.68
1.2320	29.18	20.48	10.32	39.50	30.80	56.00	46.00	-15.20
2.1444	30.40	29.07	10.10	40.50	39.17	56.00	46.00	-6.83
4.8487	20.92	15.73	10.22	31.14	25.95	56.00	46.00	-20.05
15.2441	20.86	14.30	10.84	31.70	25.14	60.00	50.00	-24.86

FCC ID: YEI-N305210

Note: 1. The formula of measured value as: Test Result = Reading + Correction Factor

- 2. The Correction Factor = Cable Loss + LISN Insertion Loss + Pulse Limit Loss
- 3. Detector function in the form: PK = Peak, QP = Quasi Peak, AV = Average
- 4. All not in the table noted test results are more than 20 dB below the relevant limits.

#### **Limits:**

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

Test equipment used: ETSTW-CE 001, ETSTW-CE 004, ETSTW-CE 006

Explanation: see attached diagrams in Appendix.

FCC ID: YEI-N305210

### **Appendix**

### **Measurement diagrams**

- 1. Peak Output Power
- 2. Spurious Emissions radiated
- 3. Band Edge Measurement
- 4. Minimum 6dB Bandwidth
- 5. Peak Power Spectral Density
- 6. Power Line Conducted Emission



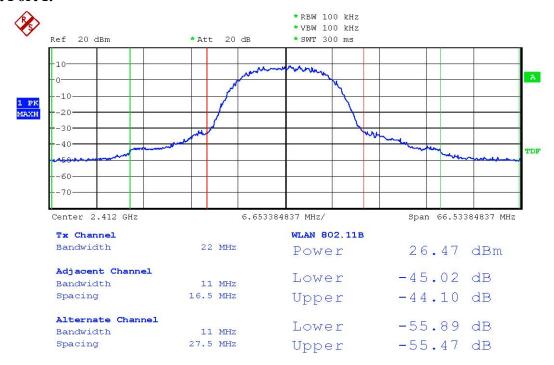
Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

### Peak Output Power

Mode A:

#### **Antenna Port I:**

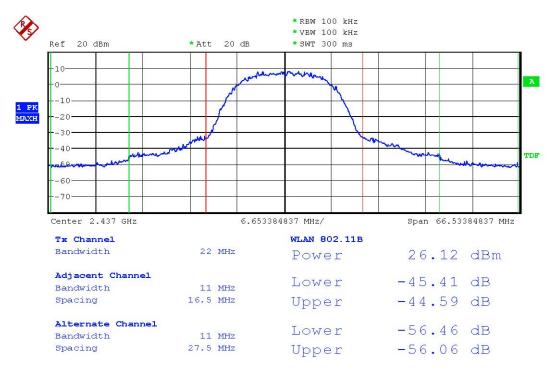


MAX OUTPUT POWER 802.11b CH1 Date: 7.MAY.2010 08:23:54



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

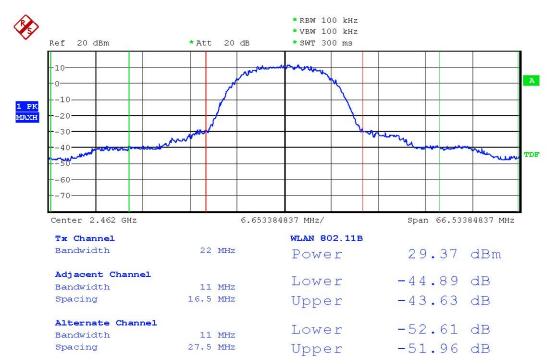


MAX OUTPUT POWER 802.11b CH6
Date: 7.MAY.2010 08:32:09



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210



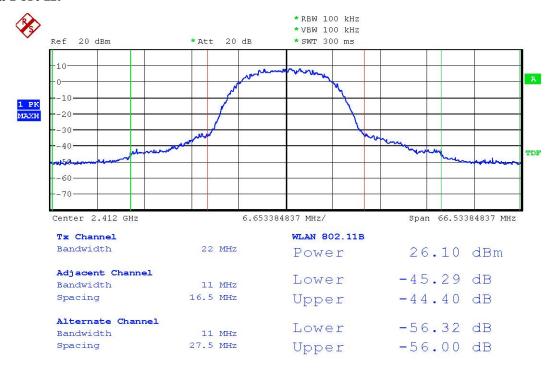
MAX OUTPUT POWER 802.11b CH11 Date: 7.MAY.2010 08:32:58



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

#### **Antenna Port II:**

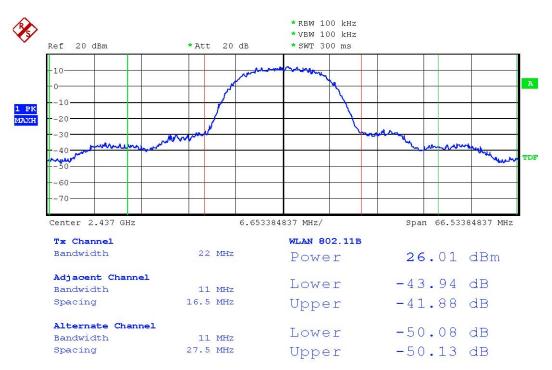


MAX OUTPUT POWER 802.11b CH1 Date: 7.MAY.2010 09:29:51



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

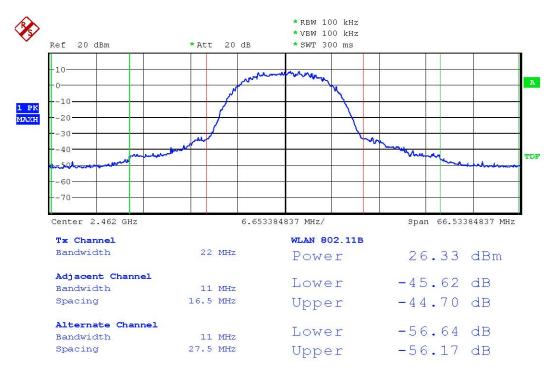


MAX OUTPUT POWER 802.11b CH6 Date: 7.MAY.2010 09:30:34



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210



MAX OUTPUT POWER 802.11b CH11 Date: 7.MAY.2010 09:30:59

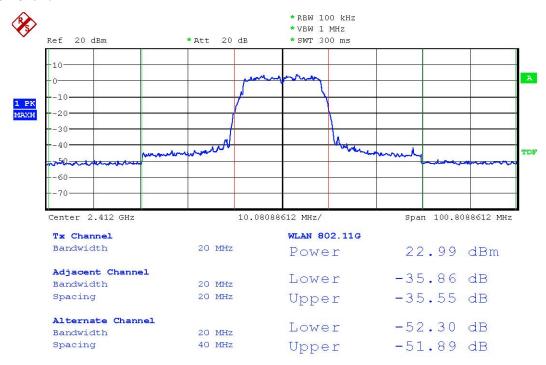


Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

#### **Mode B:**

#### **Antenna Port I:**

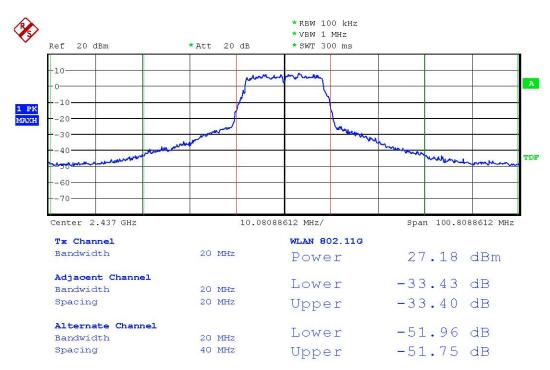


MAX OUTPUT POWER 802.11g CH1 Date: 7.MAY.2010 08:37:51



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

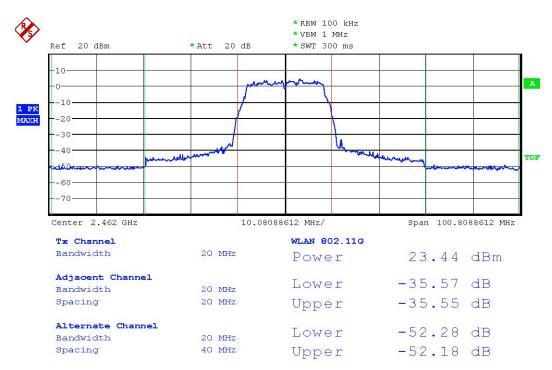


MAX OUTPUT POWER 802.11g CH6 Date: 7.MAY.2010 08:38:29



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210



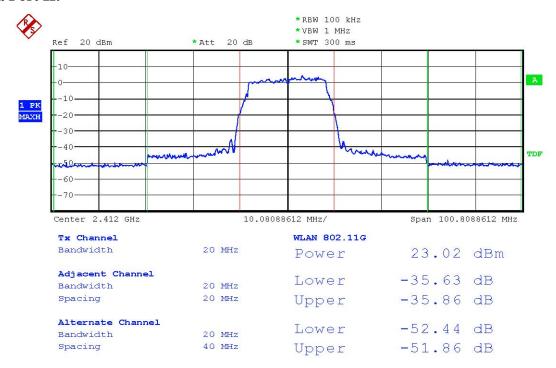
MAX OUTPUT POWER 802.11g CH11 Date: 7.MAY.2010 08:38:55



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

#### **Antenna Port II:**

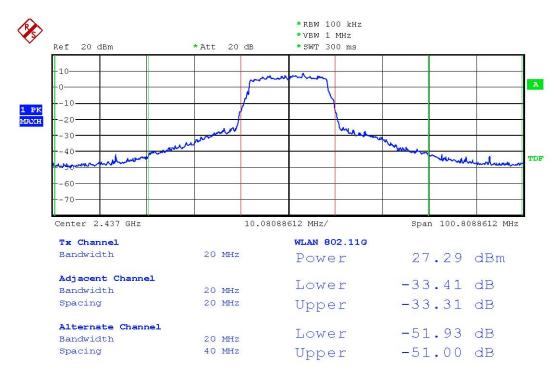


MAX OUTPUT POWER 802.11g CH1 Date: 7.MAY.2010 09:28:56



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

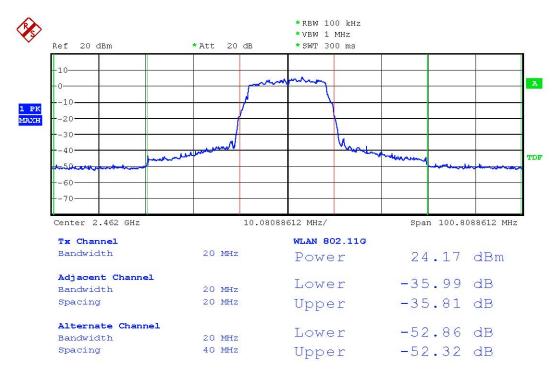


MAX OUTPUT POWER 802.11g CH6
Date: 7.MAY.2010 09:28:37



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210



MAX OUTPUT POWER 802.11g CH11 Date: 7.MAY.2010 09:28:13

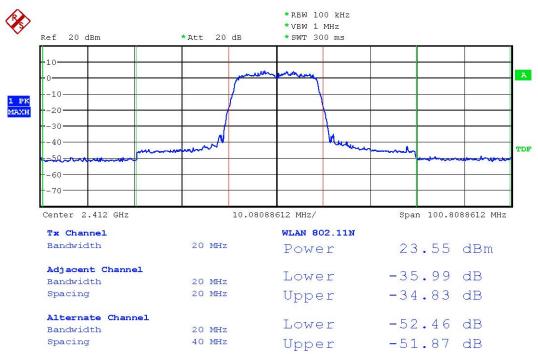


Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

#### **Mode C:**

#### **Antenna Port I+II:**

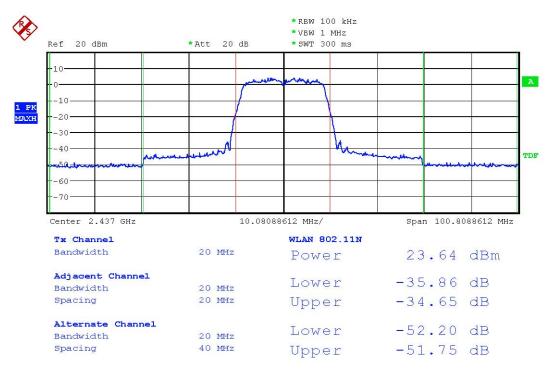


MAX OUTPUT POWER 802.11n 20MHz CH1 Date: 7.MAY.2010 09:48:59



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

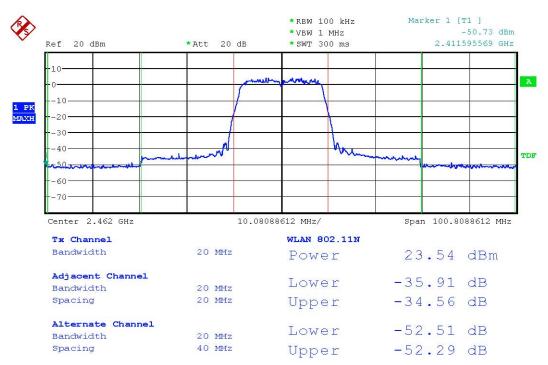


MAX OUTPUT POWER 802.11n 20MHz CH6 Date: 7.MAY.2010 09:48:13



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210



MAX OUTPUT POWER 802.11n 20MHz CH11 Date: 7.MAY.2010 09:50:08

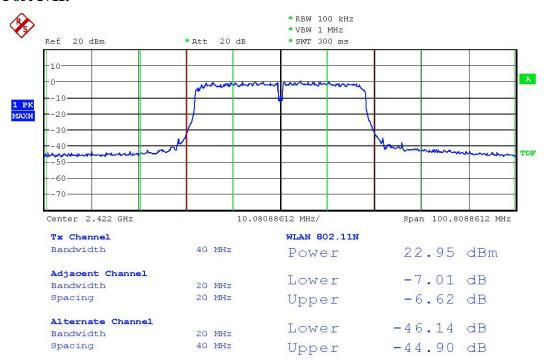


Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210

#### **Mode D:**

#### **Antenna Port I+II:**

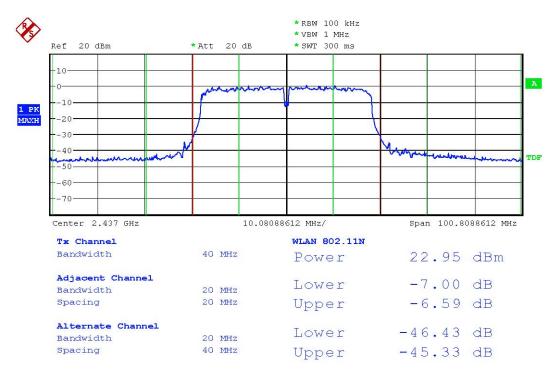


MAX OUTPUT POWER 802.11n 40MHz CH1
Date: 7.MAY.2010 09:52:01



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210



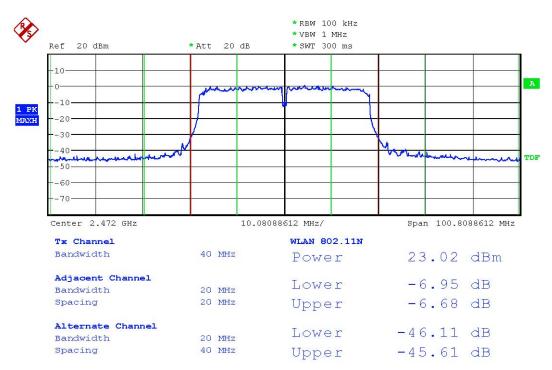
MAX OUTPUT POWER 802.11n 40MHz CH4

Date: 7.MAY.2010 09:52:37



Registration number: W6M21004-10574-P-15

FCC ID: YEI-N305210



MAX OUTPUT POWER 802.11n 40MHz CH7

Date: 7.MAY.2010 09:53:46