

FCC PART 15.407 TEST REPORT

For

KYOCERA Corporation

Yokohama Office 2-1-1 Kagahara, Tsuzuki-ku Yokohama-shi, Kanagawa, Japan

Model Number: JA32

Report Type: Original Report	Product Name: Smart Phone
Report Number: RDG181026006-00D	
Report Date: 2018-11-16	
Reviewed By:	Jerry Zhang EMC Manager
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:	Smart Phone
EUT Model:	JA32
Grant:	JOY
FCC ID:	JOYJA32
Hardware Version:	JA32
SW version:	Sdm660_64-userdebug 9
Serial Number:	JA32125479850089K0860
EUT Received Date:	2018.10.26

Objective

This type approval report is prepared on behalf of *KYOCERA Corporation* in accordance with Part 2-Subpart J, Part 15-Subparts A, and E of the Federal Communications Commission's rules.

The tests were performed in order to determine compliance with FCC Rules Part 15, Subpart E, section 15.205, 15.209 and 15.407 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And KDB 789033 D02 General U-NII Test Procedures New Rules v02r01.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan).

Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	30M~200MHz: 4.55 dB, 200M~1GHz: 5.92 dB, 1G~6GHz: 4.98 dB, 6G~18GHz: 5.89 dB, 18G~26.5G: 5.47 dB, 26.5G~40G: 5.63 dB
Unwanted Emissions, conducted	±1.5 dB
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062D.

FINAL

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The EUT was configured for testing in an engineering mode which was provided by the manufacturer.

EUT Exercise Software

The software “QATool_Dbg” was used for testing, which was provided by manufacturer. The worst-case data rates are determined to be as follows for each mode based upon investigations by measuring the average power and PSD across all data rates bandwidths, and modulations. The maximum power was configured as below table, that provided by the manufacturer:

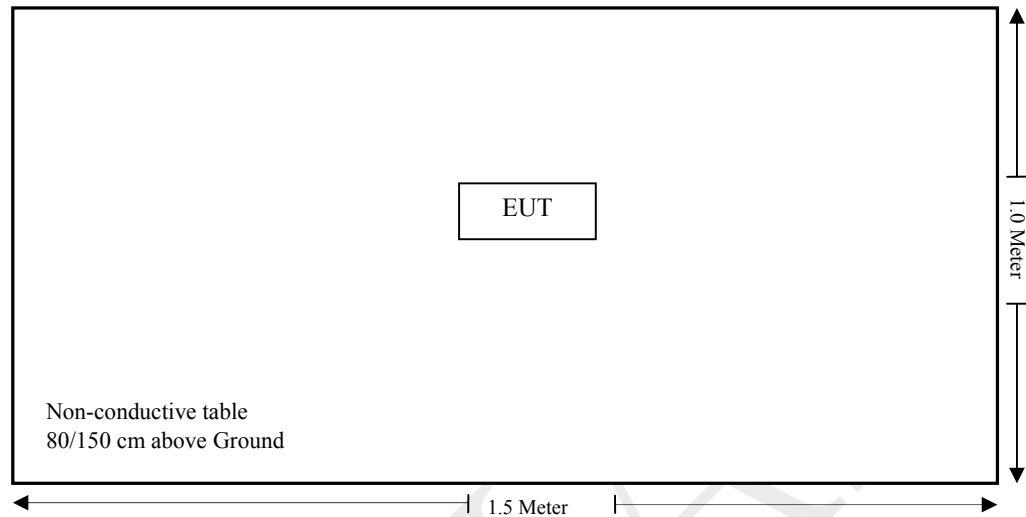
Band	Mode	Channel	Frequency (MHz)	Power level
U-NII-1	a	Low	5180	17
		Middle	5200	17
		High	5240	17
	n20	Low	5180	17
		Middle	5200	17
		High	5240	17
	n40	Low	5190	15
		High	5230	15
	ac20	Low	5180	17
		Middle	5200	17
		High	5240	17
	ac40	Low	5190	15
		High	5230	15
U-NII-2A	a	Low	5260	17
		Middle	5280	17
		High	5320	17
	n20	Low	5260	17
		Middle	5280	17
		High	5320	17
	n40	Low	5270	15
		High	5310	15
	ac20	Low	5260	17
		Middle	5280	17
		High	5320	17
	ac40	Low	5270	15
		High	5310	15
	ac80	Middle	5290	15

Band	Mode	Channel	Frequency (MHz)	Power level
U-NII-2C	a	Low	5500	17
		Middle	5580	17
		High	5700	17
	n20	Low	5500	17
		Middle	5580	17
		High	5700	17
	n40	Low	5510	15.5
		Middle	5550	15.5
		High	5670	15.5
	ac20	Low	5500	17
		Middle	5580	17
		High	5700	17
	ac40	Low	5510	15.5
		Middle	5550	15.5
		High	5670	15.5
	ac80	Low	5530	15
		High	5610	15

Equipment Modifications

No modification was made to the EUT.

Block Diagram of Test Setup



FCC §15.209, §15.205 & §15.407(b) –UNWANTED EMISSION

Applicable Standard

FCC §15.407; §15.209; §15.205;

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.

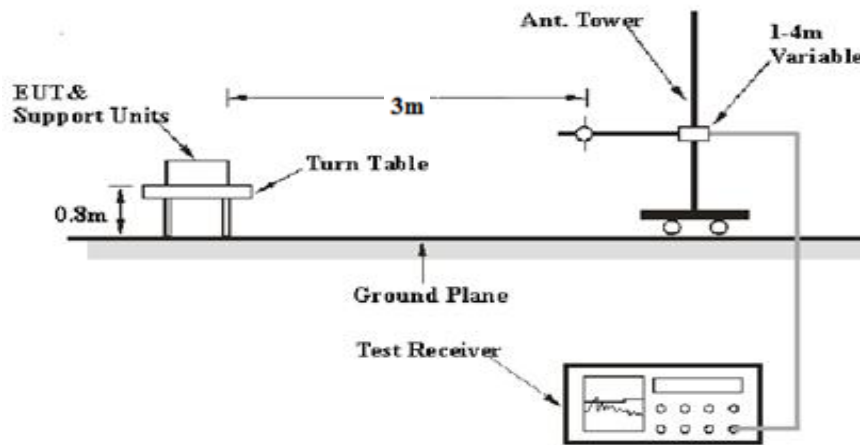
(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

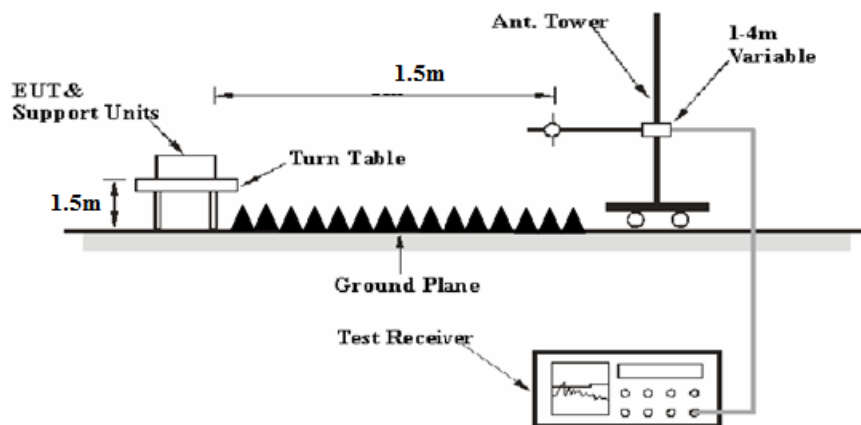
(7) The provisions of §15.205 apply to intentional radiators operating under this section.

EUT Setup

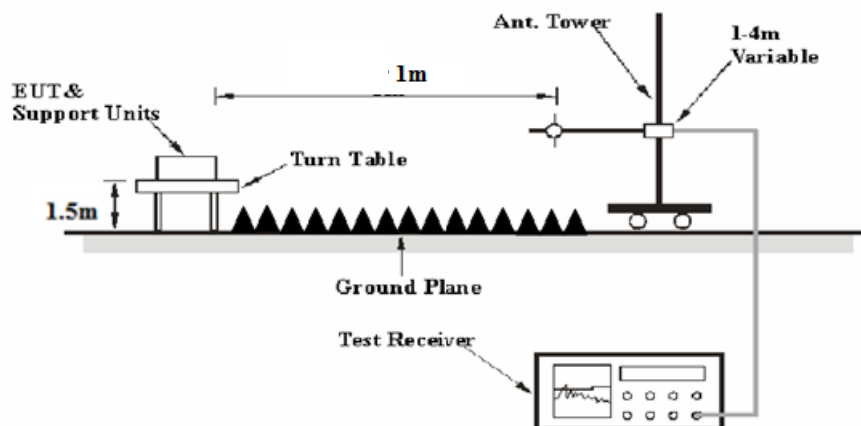
Below 1 GHz:



1-26.5 GHz:



26.5-40 GHz:



The radiated emission Below 1GHz tests were performed in the 10 meters chamber test site , above 1GHz tests were performed in the 3 meters chamber test site B, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

30-1000MHz:

Measurement	RBW	Video B/W	IF B/W
QP	120 kHz	300 kHz	120kHz

1GHz- 40GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
Ave.	>98%	1MHz	10 Hz
	<98%	1MHz	1/T

Test Procedure

During the radiated emission test, the adapter was connected to the first AC floor outlet.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz, peak and Average detection modes for frequencies above 1GHz.

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: $E [dB\mu V/m] = EIRP[dBm] + 95.2$, for $d = 3$ meters.

According to C63.10, the above 1G test result shall be extrapolated to the specified distance using an extrapolation factor of 20dB/decade from 3m to 1.5m or 1m

Distance extrapolation factor = $20 \log (\text{specific distance } [3m]/\text{test distance } [1.5m])$ dB= 6.02 dB

or

Distance extrapolation factor = $20 \log (\text{specific distance } [3m]/\text{test distance } [1m])$ dB= 9.54 dB

All emissions under the average limit and under the noise floor have not recorded in the report.

Corrected Amplitude & Margin Calculation

For the range 30MHz-1GHz, the Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

For the range 1GHz-40GHz, Test performed at 1.5m or 1m, the Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading and the Distance extrapolation factor. The basic equation is as follows:

$$\begin{aligned} &\text{Corrected Amplitude} \\ &= \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain} - \text{Distance extrapolation factor} \end{aligned}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100224	2017-12-11	2018-12-11
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2018-09-05	2019-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2018-09-05	2019-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2018-09-05	2019-09-05
HP	Amplifier	8447D	2727A05902	2018-09-05	2019-09-05
Agilent	Spectrum Analyzer	E4440A	SG43360054	2018-01-04	2019-01-04
TDK RF	Horn Antenna	HRN-0118	130 084	2016-01-05	2019-01-04
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-01 1304	2016-11-18	2019-11-18
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-01 1302	2016-11-18	2019-11-18
Unknown	Coaxial Cable	C-SJSJ-50	C-0800-01	2018-09-05	2019-09-05
Unknown	Coaxial Cable	C-2.4J2.4J-50	C-0700-02	2018-06-27	2019-06-27
MITEQ	Amplifier	AFS42-00101800- 25-S-42	2001271	2018-09-05	2019-09-05
Quinstar	Amplifier	QLW-18405536-JO	15964001001	2018-06-27	2019-06-27
Sinoscite	Bandstop Filters	BSF5150-5850MN- 0899-003	0899003	2018-05-06	2019-05-06
Mini Circuits	High Pass Filter	VHF-6010+	31118	2018-06-16	2019-06-16

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data**Environmental Conditions**

Temperature:	27.1°C
Relative Humidity:	45 %
ATM Pressure:	100 kPa

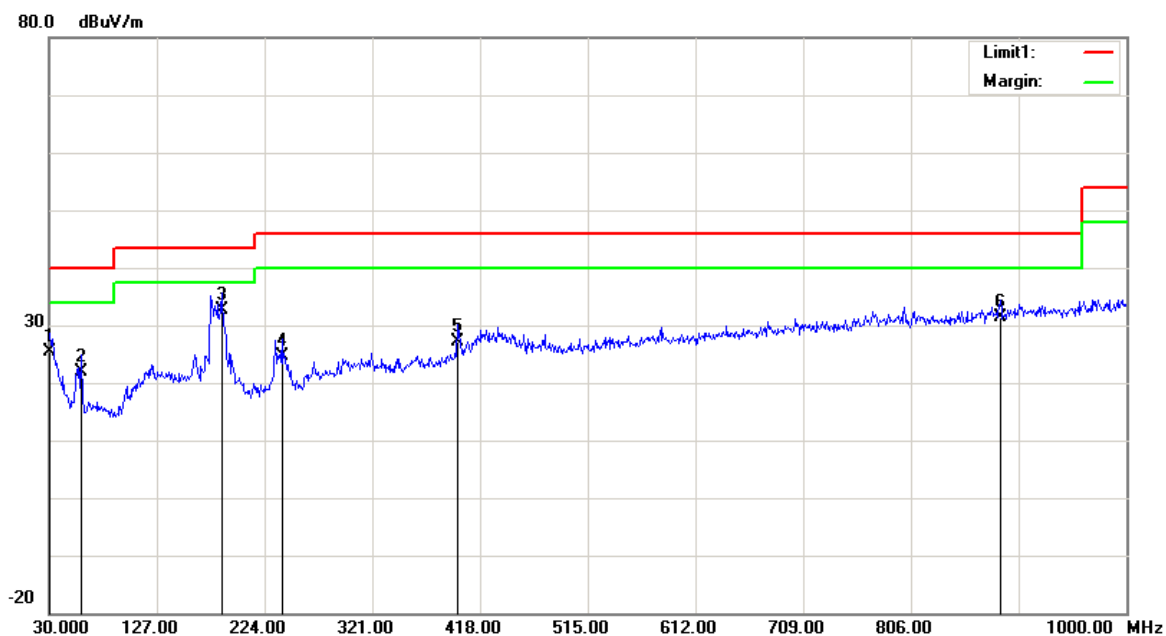
* The testing was performed by Tyler Pan & Vern Shen on 2018-11-09.

Test Result: Pass

Test Mode: Transmitting

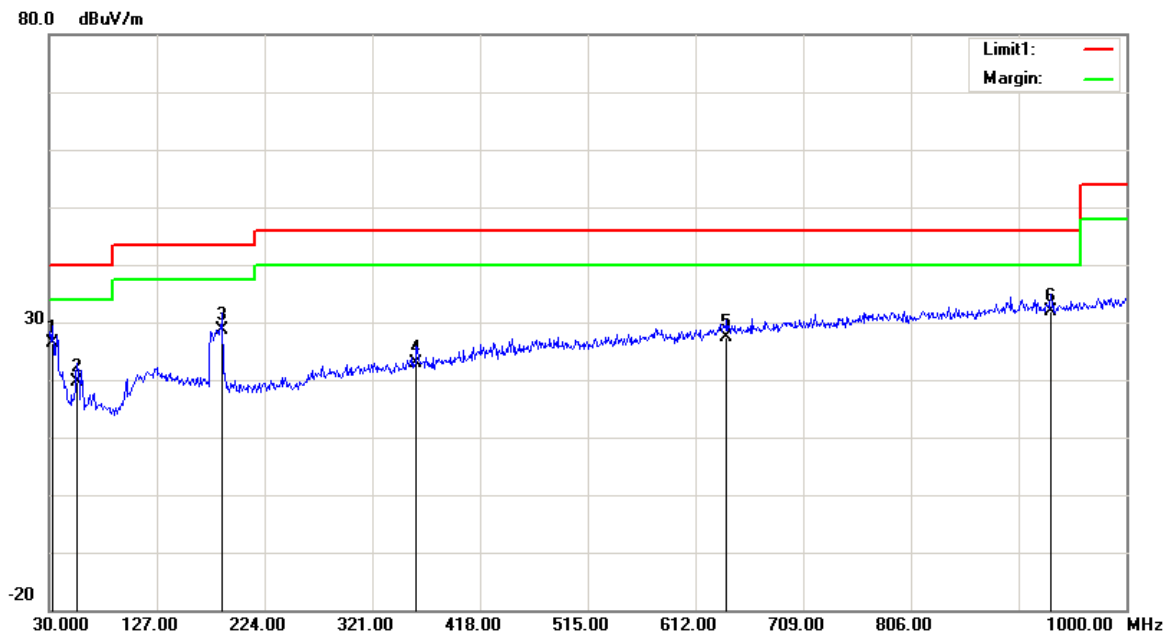
1) Below 1GHz(802.11a 5180 MHz was the worst):

Horizontal



Frequency (MHz)	Receiver Reading (dBμV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
30.9700	24.55	QP	0.95	25.50	40.00	14.50
59.1000	33.95	QP	-12.15	21.80	40.00	18.20
185.2000	40.01	QP	-7.41	32.60	43.50	10.90
239.5200	30.58	QP	-5.98	24.60	46.00	21.40
397.6300	29.14	QP	-2.04	27.10	46.00	18.90
886.5100	35.48	QP	-4.08	31.40	46.00	14.60

Vertical



Frequency (MHz)	Receiver Reading (dBμV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
32.9100	26.90	QP	-0.50	26.40	40.00	13.60
55.2200	31.78	QP	-12.08	19.70	40.00	20.30
186.1700	36.07	QP	-7.37	28.70	43.50	14.80
360.7700	25.59	QP	-2.79	22.80	46.00	23.20
640.1300	25.14	QP	2.26	27.40	46.00	18.60
932.1000	35.37	QP	-3.47	31.90	46.00	14.10

802.11a U-NII-1

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5180 MHz										
5180.00	70.05	PK	H	33.59	3.58	0.00	107.22	101.2	N/A	N/A
5180.00	60.46	AV	H	33.59	3.58	0.00	97.63	91.61	N/A	N/A
5180.00	72.02	PK	V	33.59	3.58	0.00	109.19	103.17	N/A	N/A
5180.00	62.50	AV	V	33.59	3.58	0.00	99.67	93.65	N/A	N/A
5150.00	28.27	PK	V	33.54	3.56	0.00	65.37	59.35	74.00	14.65
5150.00	15.16	AV	V	33.54	3.56	0.00	52.26	46.24	54.00	7.76
10360.00	45.12	PK	V	38.17	6.29	36.85	52.73	46.71	74.00	27.29
10360.00	33.10	AV	V	38.17	6.29	36.85	40.71	34.69	54.00	19.31
15540.00	48.18	PK	V	38.06	8.85	39.04	56.05	50.03	74.00	23.97
15540.00	35.72	AV	V	38.06	8.85	39.04	43.59	37.57	54.00	16.43
Middle Channel: 5200 MHz										
5200.00	70.10	PK	H	33.62	3.60	0.00	107.32	101.3	N/A	N/A
5200.00	61.54	AV	H	33.62	3.60	0.00	98.76	92.74	N/A	N/A
5200.00	72.06	PK	V	33.62	3.60	0.00	109.28	103.26	N/A	N/A
5200.00	62.63	AV	V	33.62	3.60	0.00	99.85	93.83	N/A	N/A
10400.00	45.21	PK	V	38.18	6.32	36.86	52.85	46.83	74.00	27.17
10400.00	33.00	AV	V	38.18	6.32	36.86	40.64	34.62	54.00	19.38
15600.00	47.73	PK	V	38.00	8.83	39.09	55.47	49.45	74.00	24.55
15600.00	35.36	AV	V	38.00	8.83	39.09	43.10	37.08	54.00	16.92
High Channel: 5240 MHz										
5240.00	69.86	PK	H	33.68	3.52	0.00	107.06	101.04	N/A	N/A
5240.00	60.24	AV	H	33.68	3.52	0.00	97.44	91.42	N/A	N/A
5240.00	71.63	PK	V	33.68	3.52	0.00	108.83	102.81	N/A	N/A
5240.00	61.78	AV	V	33.68	3.52	0.00	98.98	92.96	N/A	N/A
5350.00	25.76	PK	V	33.86	3.52	0.00	63.14	57.12	74.00	16.88
5350.00	14.65	AV	V	33.86	3.52	0.00	52.03	46.01	54.00	7.99
10480.00	45.31	PK	V	38.20	6.37	36.88	53.00	46.98	74.00	27.02
10480.00	32.89	AV	V	38.20	6.37	36.88	40.58	34.56	54.00	19.44
15720.00	48.10	PK	V	37.88	8.79	39.18	55.59	49.57	74.00	24.43
15720.00	35.74	AV	V	37.88	8.79	39.18	43.23	37.21	54.00	16.79

802.11n20 U-NII-1

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5180 MHz										
5180.00	70.42	PK	H	33.59	3.58	0.00	107.59	101.57	N/A	N/A
5180.00	60.33	AV	H	33.59	3.58	0.00	97.50	91.48	N/A	N/A
5180.00	72.03	PK	V	33.59	3.58	0.00	109.20	103.18	N/A	N/A
5180.00	61.83	AV	V	33.59	3.58	0.00	99.00	92.98	N/A	N/A
5150.00	26.64	PK	V	33.54	3.56	0.00	63.74	57.72	74.00	16.28
5150.00	15.04	AV	V	33.54	3.56	0.00	52.14	46.12	54.00	7.88
10360.00	45.63	PK	V	38.17	6.29	36.85	53.24	47.22	74.00	26.78
10360.00	33.24	AV	V	38.17	6.29	36.85	40.85	34.83	54.00	19.17
15540.00	47.86	PK	V	38.06	8.85	39.04	55.73	49.71	74.00	24.29
15540.00	35.34	AV	V	38.06	8.85	39.04	43.21	37.19	54.00	16.81
Middle Channel: 5200 MHz										
5200.00	70.54	PK	H	33.62	3.60	0.00	107.76	101.74	N/A	N/A
5200.00	60.60	AV	H	33.62	3.60	0.00	97.82	91.8	N/A	N/A
5200.00	72.13	PK	V	33.62	3.60	0.00	109.35	103.33	N/A	N/A
5200.00	62.08	AV	V	33.62	3.60	0.00	99.30	93.28	N/A	N/A
10400.00	45.26	PK	V	38.18	6.32	36.86	52.90	46.88	74.00	27.12
10400.00	33.05	AV	V	38.18	6.32	36.86	40.69	34.67	54.00	19.33
15600.00	47.98	PK	V	38.00	8.83	39.09	55.72	49.7	74.00	24.30
15600.00	35.45	AV	V	38.00	8.83	39.09	43.19	37.17	54.00	16.83
High Channel: 5240 MHz										
5240.00	70.61	PK	H	33.68	3.52	0.00	107.81	101.79	N/A	N/A
5240.00	60.54	AV	H	33.68	3.52	0.00	97.74	91.72	N/A	N/A
5240.00	72.53	PK	V	33.68	3.52	0.00	109.73	103.71	N/A	N/A
5240.00	62.44	AV	V	33.68	3.52	0.00	99.64	93.62	N/A	N/A
5350.00	27.35	PK	V	33.86	3.52	0.00	64.73	58.71	74.00	15.29
5350.00	14.56	AV	V	33.86	3.52	0.00	51.94	45.92	54.00	8.08
10480.00	45.38	PK	V	38.20	6.37	36.88	53.07	47.05	74.00	26.95
10480.00	33.10	AV	V	38.20	6.37	36.88	40.79	34.77	54.00	19.23
15720.00	47.86	PK	V	37.88	8.79	39.18	55.35	49.33	74.00	24.67
15720.00	35.36	AV	V	37.88	8.79	39.18	42.85	36.83	54.00	17.17

802.11ac20 U-NII-1

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5180 MHz										
5180.00	70.56	PK	H	33.59	3.58	0.00	107.73	101.71	N/A	N/A
5180.00	60.04	AV	H	33.59	3.58	0.00	97.21	91.19	N/A	N/A
5180.00	72.36	PK	V	33.59	3.58	0.00	109.53	103.51	N/A	N/A
5180.00	62.13	AV	V	33.59	3.58	0.00	99.30	93.28	N/A	N/A
5150.00	27.45	PK	V	33.54	3.56	0.00	64.55	58.53	74.00	15.47
5150.00	15.44	AV	V	33.54	3.56	0.00	52.54	46.52	54.00	7.48
10360.00	45.63	PK	V	38.17	6.29	36.85	53.24	47.22	74.00	26.78
10360.00	33.26	AV	V	38.17	6.29	36.85	40.87	34.85	54.00	19.15
15540.00	47.73	PK	V	38.06	8.85	39.04	55.60	49.58	74.00	24.42
15540.00	35.29	AV	V	38.06	8.85	39.04	43.16	37.14	54.00	16.86
Middle Channel: 5200 MHz										
5200.00	70.33	PK	H	33.62	3.60	0.00	107.55	101.53	N/A	N/A
5200.00	60.20	AV	H	33.62	3.60	0.00	97.42	91.4	N/A	N/A
5200.00	72.17	PK	V	33.62	3.60	0.00	109.39	103.37	N/A	N/A
5200.00	62.05	AV	V	33.62	3.60	0.00	99.27	93.25	N/A	N/A
10400.00	45.76	PK	V	38.18	6.32	36.86	53.40	47.38	74.00	26.62
10400.00	33.35	AV	V	38.18	6.32	36.86	40.99	34.97	54.00	19.03
15600.00	48.11	PK	V	38.00	8.83	39.09	55.85	49.83	74.00	24.17
15600.00	35.77	AV	V	38.00	8.83	39.09	43.51	37.49	54.00	16.51
High Channel: 5240 MHz										
5240.00	69.94	PK	H	33.68	3.52	0.00	107.14	101.12	N/A	N/A
5240.00	59.65	AV	H	33.68	3.52	0.00	96.85	90.83	N/A	N/A
5240.00	72.20	PK	V	33.68	3.52	0.00	109.40	103.38	N/A	N/A
5240.00	61.59	AV	V	33.68	3.52	0.00	98.79	92.77	N/A	N/A
5350.00	26.73	PK	V	33.86	3.52	0.00	64.11	58.09	74.00	15.91
5350.00	13.91	AV	V	33.86	3.52	0.00	51.29	45.27	54.00	8.73
10480.00	45.55	PK	V	38.20	6.37	36.88	53.24	47.22	74.00	26.78
10480.00	33.10	AV	V	38.20	6.37	36.88	40.79	34.77	54.00	19.23
15720.00	47.85	PK	V	37.88	8.79	39.18	55.34	49.32	74.00	24.68
15720.00	35.30	AV	V	37.88	8.79	39.18	42.79	36.77	54.00	17.23

802.11n ht40 U-NII-1

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5190 MHz										
5190.00	66.00	PK	H	33.60	3.59	0.00	103.19	97.17	N/A	N/A
5190.00	56.65	AV	H	33.60	3.59	0.00	93.84	87.82	N/A	N/A
5190.00	68.70	PK	V	33.60	3.59	0.00	105.89	99.87	N/A	N/A
5190.00	59.21	AV	V	33.60	3.59	0.00	96.40	90.38	N/A	N/A
5150.00	31.58	PK	V	33.54	3.56	0.00	68.68	62.66	74.00	11.34
5150.00	20.87	AV	V	33.54	3.56	0.00	57.97	51.95	54.00	2.05
10380.00	45.33	PK	V	38.18	6.31	36.85	52.97	46.95	74.00	27.05
10380.00	32.89	AV	V	38.18	6.31	36.85	40.53	34.51	54.00	19.49
15570.00	47.55	PK	V	38.03	8.84	39.06	55.36	49.34	74.00	24.66
15570.00	35.13	AV	V	38.03	8.84	39.06	42.94	36.92	54.00	17.08
High Channel: 5230 MHz										
5230.00	67.99	PK	H	33.67	3.54	0.00	105.20	99.18	N/A	N/A
5230.00	58.43	AV	H	33.67	3.54	0.00	95.64	89.62	N/A	N/A
5230.00	70.31	PK	V	33.67	3.54	0.00	107.52	101.5	N/A	N/A
5230.00	60.87	AV	V	33.67	3.54	0.00	98.08	92.06	N/A	N/A
5350.00	28.27	PK	V	33.86	3.52	0.00	65.65	59.63	74.00	14.37
5350.00	15.93	AV	V	33.86	3.52	0.00	53.31	47.29	54.00	6.71
10460.00	45.67	PK	V	38.19	6.36	36.87	53.35	47.33	74.00	26.67
10460.00	33.31	AV	V	38.19	6.36	36.87	40.99	34.97	54.00	19.03
15690.00	47.88	PK	V	37.91	8.80	39.15	55.44	49.42	74.00	24.58
15690.00	35.30	AV	V	37.91	8.80	39.15	42.86	36.84	54.00	17.16

802.11 ac40 U-NII-1

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5190 MHz										
5190.00	66.87	PK	H	33.60	3.59	0.00	104.06	98.04	N/A	N/A
5190.00	57.31	AV	H	33.60	3.59	0.00	94.50	88.48	N/A	N/A
5190.00	68.39	PK	V	33.60	3.59	0.00	105.58	99.56	N/A	N/A
5190.00	58.74	AV	V	33.60	3.59	0.00	95.93	89.91	N/A	N/A
5150.00	31.49	PK	V	33.54	3.56	0.00	68.59	62.57	74.00	11.43
5150.00	20.74	AV	V	33.54	3.56	0.00	57.84	51.82	54.00	2.18
10380.00	45.53	PK	V	38.18	6.31	36.85	53.17	47.15	74.00	26.85
10380.00	33.11	AV	V	38.18	6.31	36.85	40.75	34.73	54.00	19.27
15570.00	47.70	PK	V	38.03	8.84	39.06	55.51	49.49	74.00	24.51
15570.00	35.22	AV	V	38.03	8.84	39.06	43.03	37.01	54.00	16.99
High Channel: 5230 MHz										
5230.00	68.76	PK	H	33.67	3.54	0.00	105.97	99.95	N/A	N/A
5230.00	59.21	AV	H	33.67	3.54	0.00	96.42	90.4	N/A	N/A
5230.00	70.45	PK	V	33.67	3.54	0.00	107.66	101.64	N/A	N/A
5230.00	61.01	AV	V	33.67	3.54	0.00	98.22	92.2	N/A	N/A
5350.00	27.80	PK	V	33.86	3.52	0.00	65.18	59.16	74.00	14.84
5350.00	15.68	AV	V	33.86	3.52	0.00	53.06	47.04	54.00	6.96
10460.00	45.69	PK	V	38.19	6.36	36.87	53.37	47.35	74.00	26.65
10460.00	33.21	AV	V	38.19	6.36	36.87	40.89	34.87	54.00	19.13
15690.00	47.68	PK	V	37.91	8.80	39.15	55.24	49.22	74.00	24.78
15690.00	35.24	AV	V	37.91	8.80	39.15	42.80	36.78	54.00	17.22

802.11 ac80 U-NII-1

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5210 MHz										
5210.00	62.77	PK	H	33.64	3.58	0.00	99.99	93.97	N/A	N/A
5210.00	53.61	AV	H	33.64	3.58	0.00	90.83	84.81	N/A	N/A
5210.00	65.89	PK	V	33.64	3.58	0.00	103.11	97.09	N/A	N/A
5210.00	55.70	AV	V	33.64	3.58	0.00	92.92	86.9	N/A	N/A
5150.00	31.45	PK	V	33.54	3.56	0.00	68.55	62.53	74.00	11.47
5150.00	21.06	AV	V	33.54	3.56	0.00	58.16	52.14	54.00	1.86
5350.00	27.76	PK	V	33.86	3.52	0.00	65.14	59.12	74.00	14.88
5350.00	15.64	AV	V	33.86	3.52	0.00	53.02	47	54.00	7.00
10420.00	45.22	PK	V	38.18	6.33	36.86	52.87	46.85	74.00	27.15
10420.00	32.70	AV	V	38.18	6.33	36.86	40.35	34.33	54.00	19.67
15630.00	47.01	PK	V	37.97	8.82	39.11	54.69	48.67	74.00	25.33
15630.00	34.86	AV	V	37.97	8.82	39.11	42.54	36.52	54.00	17.48

802.11a U-NII-2A

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5260 MHz										
5260.00	70.72	PK	H	33.72	3.49	0.00	107.93	101.91	N/A	N/A
5260.00	61.35	AV	H	33.72	3.49	0.00	98.56	92.54	N/A	N/A
5260.00	72.53	PK	V	33.72	3.49	0.00	109.74	103.72	N/A	N/A
5260.00	63.05	AV	V	33.72	3.49	0.00	100.26	94.24	N/A	N/A
5150.00	28.65	PK	V	33.54	3.56	0.00	65.75	59.73	74.00	14.27
5150.00	15.34	AV	V	33.54	3.56	0.00	52.44	46.42	54.00	7.58
10520.00	45.66	PK	V	38.21	6.39	36.89	53.37	47.35	74.00	26.65
10520.00	33.21	AV	V	38.21	6.39	36.89	40.92	34.9	54.00	19.10
15780.00	47.35	PK	V	37.82	8.76	39.22	54.71	48.69	74.00	25.31
15780.00	34.80	AV	V	37.82	8.76	39.22	42.16	36.14	54.00	17.86
Middle Channel: 5280 MHz										
5280.00	70.22	PK	H	33.75	3.45	0.00	107.42	101.4	N/A	N/A
5280.00	60.79	AV	H	33.75	3.45	0.00	97.99	91.97	N/A	N/A
5280.00	72.10	PK	V	33.75	3.45	0.00	109.30	103.28	N/A	N/A
5280.00	62.66	AV	V	33.75	3.45	0.00	99.86	93.84	N/A	N/A
10560.00	45.25	PK	V	38.24	6.40	36.90	52.99	46.97	74.00	27.03
10560.00	32.81	AV	V	38.24	6.40	36.90	40.55	34.53	54.00	19.47
15840.00	47.63	PK	V	37.76	8.74	39.27	54.86	48.84	74.00	25.16
15840.00	35.10	AV	V	37.76	8.74	39.27	42.33	36.31	54.00	17.69
High Channel: 5320 MHz										
5320.00	70.82	PK	H	33.81	3.45	0.00	108.08	102.06	N/A	N/A
5320.00	61.17	AV	H	33.81	3.45	0.00	98.43	92.41	N/A	N/A
5320.00	72.43	PK	V	33.81	3.45	0.00	109.69	103.67	N/A	N/A
5320.00	62.89	AV	V	33.81	3.45	0.00	100.15	94.13	N/A	N/A
5350.00	28.27	PK	V	33.86	3.52	0.00	65.65	59.63	74.00	14.37
5350.00	16.10	AV	V	33.86	3.52	0.00	53.48	47.46	54.00	6.54
10640.00	45.55	PK	V	38.28	6.43	36.93	53.33	47.31	74.00	26.69
10640.00	32.15	AV	V	38.28	6.43	36.93	39.93	33.91	54.00	20.09
15960.00	47.86	PK	V	37.64	8.70	39.36	54.84	48.82	74.00	25.18
15960.00	35.34	AV	V	37.64	8.70	39.36	42.32	36.3	54.00	17.70

802.11n20 U-NII-2A

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5260 MHz										
5260.00	69.94	PK	H	33.72	3.49	0.00	107.15	101.13	N/A	N/A
5260.00	60.64	AV	H	33.72	3.49	0.00	97.85	91.83	N/A	N/A
5260.00	72.33	PK	V	33.72	3.49	0.00	109.54	103.52	N/A	N/A
5260.00	62.54	AV	V	33.72	3.49	0.00	99.75	93.73	N/A	N/A
5150.00	27.37	PK	V	33.54	3.56	0.00	64.47	58.45	74.00	15.55
5150.00	15.28	AV	V	33.54	3.56	0.00	52.38	46.36	54.00	7.64
10520.00	45.66	PK	V	38.21	6.39	36.89	53.37	47.35	74.00	26.65
10520.00	33.26	AV	V	38.21	6.39	36.89	40.97	34.95	54.00	19.05
15780.00	47.89	PK	V	37.82	8.76	39.22	55.25	49.23	74.00	24.77
15780.00	35.31	AV	V	37.82	8.76	39.22	42.67	36.65	54.00	17.35
Middle Channel: 5200 MHz										
5280.00	70.12	PK	H	33.75	3.45	0.00	107.32	101.3	N/A	N/A
5280.00	60.31	AV	H	33.75	3.45	0.00	97.51	91.49	N/A	N/A
5280.00	72.10	PK	V	33.75	3.45	0.00	109.30	103.28	N/A	N/A
5280.00	62.34	AV	V	33.75	3.45	0.00	99.54	93.52	N/A	N/A
10560.00	45.34	PK	V	38.24	6.40	36.90	53.08	47.06	74.00	26.94
10560.00	33.05	AV	V	38.24	6.40	36.90	40.79	34.77	54.00	19.23
15840.00	47.69	PK	V	37.76	8.74	39.27	54.92	48.9	74.00	25.10
15840.00	35.10	AV	V	37.76	8.74	39.27	42.33	36.31	54.00	17.69
High Channel: 5240 MHz										
5320.00	70.33	PK	H	33.81	3.45	0.00	107.59	101.57	N/A	N/A
5320.00	60.31	AV	H	33.81	3.45	0.00	97.57	91.55	N/A	N/A
5320.00	72.42	PK	V	33.81	3.45	0.00	109.68	103.66	N/A	N/A
5320.00	62.35	AV	V	33.81	3.45	0.00	99.61	93.59	N/A	N/A
5350.00	28.45	PK	V	33.86	3.52	0.00	65.83	59.81	74.00	14.19
5350.00	16.70	AV	V	33.86	3.52	0.00	54.08	48.06	54.00	5.94
10640.00	45.35	PK	V	38.28	6.43	36.93	53.13	47.11	74.00	26.89
10640.00	32.78	AV	V	38.28	6.43	36.93	40.56	34.54	54.00	19.46
15960.00	47.96	PK	V	37.64	8.70	39.36	54.94	48.92	74.00	25.08
15960.00	35.54	AV	V	37.64	8.70	39.36	42.52	36.5	54.00	17.50

802.11ac 20U-NII-2A

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5260 MHz										
5260.00	70.24	PK	H	33.72	3.49	0.00	107.45	101.43	N/A	N/A
5260.00	60.47	AV	H	33.72	3.49	0.00	97.68	91.66	N/A	N/A
5260.00	72.54	PK	V	33.72	3.49	0.00	109.75	103.73	N/A	N/A
5260.00	62.33	AV	V	33.72	3.49	0.00	99.54	93.52	N/A	N/A
5150.00	28.17	PK	V	33.54	3.56	0.00	65.27	59.25	74.00	14.75
5150.00	16.13	AV	V	33.54	3.56	0.00	53.23	47.21	54.00	6.79
10520.00	45.10	PK	V	38.21	6.39	36.89	52.81	46.79	74.00	27.21
10520.00	32.66	AV	V	38.21	6.39	36.89	40.37	34.35	54.00	19.65
15780.00	47.80	PK	V	37.82	8.76	39.22	55.16	49.14	74.00	24.86
15780.00	35.34	AV	V	37.82	8.76	39.22	42.70	36.68	54.00	17.32
Middle Channel: 5280 MHz										
5280.00	70.12	PK	H	33.75	3.45	0.00	107.32	101.3	N/A	N/A
5280.00	60.22	AV	H	33.75	3.45	0.00	97.42	91.4	N/A	N/A
5280.00	72.11	PK	V	33.75	3.45	0.00	109.31	103.29	N/A	N/A
5280.00	62.35	AV	V	33.75	3.45	0.00	99.55	93.53	N/A	N/A
10560.00	45.58	PK	V	38.24	6.40	36.90	53.32	47.3	74.00	26.70
10560.00	33.20	AV	V	38.24	6.40	36.90	40.94	34.92	54.00	19.08
15840.00	47.86	PK	V	37.76	8.74	39.27	55.09	49.07	74.00	24.93
15840.00	35.36	AV	V	37.76	8.74	39.27	42.59	36.57	54.00	17.43
High Channel: 5320 MHz										
5320.00	70.40	PK	H	33.81	3.45	0.00	107.66	101.64	N/A	N/A
5320.00	60.64	AV	H	33.81	3.45	0.00	97.90	91.88	N/A	N/A
5320.00	72.23	PK	V	33.81	3.45	0.00	109.49	103.47	N/A	N/A
5320.00	62.44	AV	V	33.81	3.45	0.00	99.70	93.68	N/A	N/A
5350.00	27.88	PK	V	33.86	3.52	0.00	65.26	59.24	74.00	14.76
5350.00	15.87	AV	V	33.86	3.52	0.00	53.25	47.23	54.00	6.77
10640.00	45.31	PK	V	38.28	6.43	36.93	53.09	47.07	74.00	26.93
10640.00	32.87	AV	V	38.28	6.43	36.93	40.65	34.63	54.00	19.37
15960.00	48.10	PK	V	37.64	8.70	39.36	55.08	49.06	74.00	24.94
15960.00	35.76	AV	V	37.64	8.70	39.36	42.74	36.72	54.00	17.28

802.11n ht40 U-NII-2A

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5270 MHz										
5270.00	68.54	PK	H	33.73	3.47	0.00	105.74	99.72	N/A	N/A
5270.00	59.20	AV	H	33.73	3.47	0.00	96.40	90.38	N/A	N/A
5270.00	70.33	PK	V	33.73	3.47	0.00	107.53	101.51	N/A	N/A
5270.00	61.03	AV	V	33.73	3.47	0.00	98.23	92.21	N/A	N/A
5150.00	28.30	PK	V	33.54	3.56	0.00	65.40	59.38	74.00	14.62
5150.00	15.76	AV	V	33.54	3.56	0.00	52.86	46.84	54.00	7.16
10540.00	45.52	PK	V	38.22	6.40	36.89	53.25	47.23	74.00	26.77
10540.00	33.10	AV	V	38.22	6.40	36.89	40.83	34.81	54.00	19.19
15810.00	47.68	PK	V	37.79	8.75	39.25	54.97	48.95	74.00	25.05
15810.00	35.20	AV	V	37.79	8.75	39.25	42.49	36.47	54.00	17.53
High Channel: 5310 MHz										
5310.00	65.63	PK	H	33.80	3.43	0.00	102.86	96.84	N/A	N/A
5310.00	56.10	AV	H	33.80	3.43	0.00	93.33	87.31	N/A	N/A
5310.00	67.10	PK	V	33.80	3.43	0.00	104.33	98.31	N/A	N/A
5310.00	57.65	AV	V	33.80	3.43	0.00	94.88	88.86	N/A	N/A
5350.00	32.58	PK	V	33.86	3.52	0.00	69.96	63.94	74.00	10.06
5350.00	21.75	AV	V	33.86	3.52	0.00	59.13	53.11	54.00	0.89
10620.00	45.02	PK	V	38.27	6.43	36.92	52.80	46.78	74.00	27.22
10620.00	32.66	AV	V	38.27	6.43	36.92	40.44	34.42	54.00	19.58
15930.00	47.75	PK	V	37.67	8.71	39.34	54.79	48.77	74.00	25.23
15930.00	35.23	AV	V	37.67	8.71	39.34	42.27	36.25	54.00	17.75

802.11 ac40 U-NII-2A

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5270 MHz										
5270.00	68.79	PK	H	33.73	3.47	0.00	105.99	99.97	N/A	N/A
5270.00	59.23	AV	H	33.73	3.47	0.00	96.43	90.41	N/A	N/A
5270.00	70.40	PK	V	33.73	3.47	0.00	107.60	101.58	N/A	N/A
5270.00	61.04	AV	V	33.73	3.47	0.00	98.24	92.22	N/A	N/A
5150.00	27.86	PK	V	33.54	3.56	0.00	64.96	58.94	74.00	15.06
5150.00	15.67	AV	V	33.54	3.56	0.00	52.77	46.75	54.00	7.25
10540.00	45.10	PK	V	38.22	6.40	36.89	52.83	46.81	74.00	27.19
10540.00	32.73	AV	V	38.22	6.40	36.89	40.46	34.44	54.00	19.56
15810.00	47.58	PK	V	37.79	8.75	39.25	54.87	48.85	74.00	25.15
15810.00	35.10	AV	V	37.79	8.75	39.25	42.39	36.37	54.00	17.63
High Channel: 5230 MHz										
5310.00	64.86	PK	H	33.80	3.43	0.00	102.09	96.07	N/A	N/A
5310.00	55.99	AV	H	33.80	3.43	0.00	93.22	87.2	N/A	N/A
5310.00	67.39	PK	V	33.80	3.43	0.00	104.62	98.6	N/A	N/A
5310.00	57.80	AV	V	33.80	3.43	0.00	95.03	89.01	N/A	N/A
5350.00	32.68	PK	V	33.86	3.52	0.00	70.06	64.04	74.00	9.96
5350.00	21.69	AV	V	33.86	3.52	0.00	59.07	53.05	54.00	0.95
10620.00	45.38	PK	V	38.27	6.43	36.92	53.16	47.14	74.00	26.86
10620.00	32.78	AV	V	38.27	6.43	36.92	40.56	34.54	54.00	19.46
15930.00	47.77	PK	V	37.67	8.71	39.34	54.81	48.79	74.00	25.21
15930.00	35.21	AV	V	37.67	8.71	39.34	42.25	36.23	54.00	17.77

802.11 ac80 U-NII-2A

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5290 MHz										
5290.00	63.10	PK	H	33.76	3.43	0.00	100.29	94.27	N/A	N/A
5290.00	53.22	AV	H	33.76	3.43	0.00	90.41	84.39	N/A	N/A
5290.00	64.49	PK	V	33.76	3.43	0.00	101.68	95.66	N/A	N/A
5290.00	54.50	AV	V	33.76	3.43	0.00	91.69	85.67	N/A	N/A
5150.00	27.87	PK	V	33.54	3.56	0.00	64.97	58.95	74.00	15.05
5150.00	15.87	AV	V	33.54	3.56	0.00	52.97	46.95	54.00	7.05
5350.00	32.79	PK	V	33.86	3.52	0.00	70.17	64.15	74.00	9.85
5350.00	21.86	AV	V	33.86	3.52	0.00	59.24	53.22	54.00	0.78
10580.00	44.88	PK	V	38.25	6.41	36.91	52.63	46.61	74.00	27.39
10580.00	32.34	AV	V	38.25	6.41	36.91	40.09	34.07	54.00	19.93
15870.00	47.59	PK	V	37.73	8.73	39.29	54.76	48.74	74.00	25.26
15870.00	35.10	AV	V	37.73	8.73	39.29	42.27	36.25	54.00	17.75

802.11a U-NII-2C

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5500 MHz										
5500.00	69.82	PK	H	34.10	3.54	0.00	107.46	101.44	N/A	N/A
5500.00	60.11	AV	H	34.10	3.54	0.00	97.75	91.73	N/A	N/A
5500.00	71.89	PK	V	34.10	3.54	0.00	109.53	103.51	N/A	N/A
5500.00	62.46	AV	V	34.10	3.54	0.00	100.10	94.08	N/A	N/A
5470.00	28.31	PK	V	34.05	3.56	0.00	65.92	59.9	74.00	14.10
5470.00	12.51	AV	V	34.05	3.56	0.00	50.12	44.1	54.00	9.90
11000.00	45.20	PK	V	38.50	6.57	37.06	53.21	47.19	74.00	26.81
11000.00	32.76	AV	V	38.50	6.57	37.06	40.77	34.75	54.00	19.25
16500.00	47.80	PK	V	38.20	8.63	39.30	55.33	49.31	74.00	24.69
16500.00	35.28	AV	V	38.20	8.63	39.30	42.81	36.79	54.00	17.21
Middle Channel: 5600 MHz										
5600.00	70.12	PK	H	34.14	3.57	0.00	107.83	101.81	N/A	N/A
5600.00	60.75	AV	H	34.14	3.57	0.00	98.46	92.44	N/A	N/A
5600.00	72.00	PK	V	34.14	3.57	0.00	109.71	103.69	N/A	N/A
5600.00	61.56	AV	V	34.14	3.57	0.00	99.27	93.25	N/A	N/A
11200.00	45.13	PK	V	38.70	6.58	37.18	53.23	47.21	74.00	26.79
11200.00	32.63	AV	V	38.70	6.58	37.18	40.73	34.71	54.00	19.29
16800.00	47.49	PK	V	39.40	8.68	38.98	56.59	50.57	74.00	23.43
16800.00	35.05	AV	V	39.40	8.68	38.98	44.15	38.13	54.00	15.87
High Channel: 5700 MHz										
5700.00	70.31	PK	H	34.18	3.68	0.00	108.17	102.15	N/A	N/A
5700.00	60.87	AV	H	34.18	3.68	0.00	98.73	92.71	N/A	N/A
5700.00	72.17	PK	V	34.18	3.68	0.00	110.03	104.01	N/A	N/A
5700.00	62.70	AV	V	34.18	3.68	0.00	100.56	94.54	N/A	N/A
5725.00	28.13	PK	V	34.19	3.69	0.00	66.01	59.99	74.00	14.01
5725.00	16.70	AV	V	34.19	3.69	0.00	54.58	48.56	54.00	5.44
11400.00	45.22	PK	V	38.90	6.59	37.30	53.41	47.39	74.00	26.61
11400.00	32.86	AV	V	38.90	6.59	37.30	41.05	35.03	54.00	18.97
17100.00	47.70	PK	V	40.78	8.75	38.70	58.53	52.51	74.00	21.49
17100.00	35.23	AV	V	40.78	8.75	38.70	46.06	40.04	54.00	13.96

802.11n20 U-NII-2C

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5500 MHz										
5500.00	70.21	PK	H	34.10	3.54	0.00	107.85	101.83	N/A	N/A
5500.00	60.69	AV	H	34.10	3.54	0.00	98.33	92.31	N/A	N/A
5500.00	72.05	PK	V	34.10	3.54	0.00	109.69	103.67	N/A	N/A
5500.00	62.47	AV	V	34.10	3.54	0.00	100.11	94.09	N/A	N/A
5470.00	28.10	PK	V	34.05	3.56	0.00	65.71	59.69	74.00	14.31
5470.00	16.23	AV	V	34.05	3.56	0.00	53.84	47.82	54.00	6.18
11000.00	45.30	PK	V	38.50	6.57	37.06	53.31	47.29	74.00	26.71
11000.00	32.85	AV	V	38.50	6.57	37.06	40.86	34.84	54.00	19.16
16500.00	47.69	PK	V	38.20	8.63	39.30	55.22	49.2	74.00	24.80
16500.00	35.26	AV	V	38.20	8.63	39.30	42.79	36.77	54.00	17.23
Middle Channel: 5600 MHz										
5600.00	70.30	PK	H	34.14	3.57	0.00	108.01	101.99	N/A	N/A
5600.00	60.87	AV	H	34.14	3.57	0.00	98.58	92.56	N/A	N/A
5600.00	72.14	PK	V	34.14	3.57	0.00	109.85	103.83	N/A	N/A
5600.00	63.59	AV	V	34.14	3.57	0.00	101.30	95.28	N/A	N/A
11200.00	45.26	PK	V	38.70	6.58	37.18	53.36	47.34	74.00	26.66
11200.00	32.74	AV	V	38.70	6.58	37.18	40.84	34.82	54.00	19.18
16800.00	47.58	PK	V	39.40	8.68	38.98	56.68	50.66	74.00	23.34
16800.00	35.22	AV	V	39.40	8.68	38.98	44.32	38.3	54.00	15.70
High Channel: 5700 MHz										
5700.00	70.22	PK	H	34.18	3.68	0.00	108.08	102.06	N/A	N/A
5700.00	60.72	AV	H	34.18	3.68	0.00	98.58	92.56	N/A	N/A
5700.00	72.34	PK	V	34.18	3.68	0.00	110.20	104.18	N/A	N/A
5700.00	62.81	AV	V	34.18	3.68	0.00	100.67	94.65	N/A	N/A
5725.00	27.67	PK	V	34.19	3.69	0.00	65.55	59.53	74.00	14.47
5725.00	16.24	AV	V	34.19	3.69	0.00	54.12	48.1	54.00	5.90
11400.00	45.11	PK	V	38.90	6.59	37.30	53.30	47.28	74.00	26.72
11400.00	32.67	AV	V	38.90	6.59	37.30	40.86	34.84	54.00	19.16
17100.00	47.46	PK	V	40.78	8.75	38.70	58.29	52.27	74.00	21.73
17100.00	34.97	AV	V	40.78	8.75	38.70	45.80	39.78	54.00	14.22

802.11ac20 U-NII-2C

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5500 MHz										
5500.00	70.14	PK	H	34.10	3.54	0.00	107.78	101.76	N/A	N/A
5500.00	60.68	AV	H	34.10	3.54	0.00	98.32	92.3	N/A	N/A
5500.00	72.40	PK	V	34.10	3.54	0.00	110.04	104.02	N/A	N/A
5500.00	62.77	AV	V	34.10	3.54	0.00	100.41	94.39	N/A	N/A
5470.00	27.84	PK	V	34.05	3.56	0.00	65.45	59.43	74.00	14.57
5470.00	15.77	AV	V	34.05	3.56	0.00	53.38	47.36	54.00	6.64
11000.00	45.21	PK	V	38.50	6.57	37.06	53.22	47.2	74.00	26.80
11000.00	33.05	AV	V	38.50	6.57	37.06	41.06	35.04	54.00	18.96
16500.00	47.70	PK	V	38.20	8.63	39.30	55.23	49.21	74.00	24.79
16500.00	35.18	AV	V	38.20	8.63	39.30	42.71	36.69	54.00	17.31
Middle Channel: 5600 MHz										
5600.00	69.96	PK	H	34.14	3.57	0.00	107.67	101.65	N/A	N/A
5600.00	60.43	AV	H	34.14	3.57	0.00	98.14	92.12	N/A	N/A
5600.00	72.06	PK	V	34.14	3.57	0.00	109.77	103.75	N/A	N/A
5600.00	62.45	AV	V	34.14	3.57	0.00	100.16	94.14	N/A	N/A
11200.00	45.36	PK	V	38.70	6.58	37.18	53.46	47.44	74.00	26.56
11200.00	32.84	AV	V	38.70	6.58	37.18	40.94	34.92	54.00	19.08
16800.00	47.43	PK	V	39.40	8.68	38.98	56.53	50.51	74.00	23.49
16800.00	34.89	AV	V	39.40	8.68	38.98	43.99	37.97	54.00	16.03
High Channel: 5700 MHz										
5700.00	70.03	PK	H	34.18	3.68	0.00	107.89	101.87	N/A	N/A
5700.00	60.83	AV	H	34.18	3.68	0.00	98.69	92.67	N/A	N/A
5700.00	72.12	PK	V	34.18	3.68	0.00	109.98	103.96	N/A	N/A
5700.00	62.64	AV	V	34.18	3.68	0.00	100.50	94.48	N/A	N/A
5725.00	28.15	PK	V	34.19	3.69	0.00	66.03	60.01	74.00	13.99
5725.00	15.86	AV	V	34.19	3.69	0.00	53.74	47.72	54.00	6.28
11400.00	45.40	PK	V	38.90	6.59	37.30	53.59	47.57	74.00	26.43
11400.00	33.05	AV	V	38.90	6.59	37.30	41.24	35.22	54.00	18.78
17100.00	47.52	PK	V	40.78	8.75	38.70	58.35	52.33	74.00	21.67
17100.00	35.10	AV	V	40.78	8.75	38.70	45.93	39.91	54.00	14.09

802.11n ht40 U-NII-2C

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5510 MHz										
5510.00	65.87	PK	H	34.10	3.54	0.00	103.51	97.49	N/A	N/A
5510.00	56.13	AV	H	34.10	3.54	0.00	93.77	87.75	N/A	N/A
5510.00	67.98	PK	V	34.10	3.54	0.00	105.62	99.6	N/A	N/A
5510.00	58.11	AV	V	34.10	3.54	0.00	95.75	89.73	N/A	N/A
5470.00	33.34	PK	V	34.05	3.56	0.00	70.95	64.93	74.00	9.07
5470.00	21.18	AV	V	34.05	3.56	0.00	58.79	52.77	54.00	1.23
11020.00	45.28	PK	V	38.52	6.57	37.07	53.30	47.28	74.00	26.72
11020.00	32.76	AV	V	38.52	6.57	37.07	40.78	34.76	54.00	19.24
16530.00	47.63	PK	V	38.32	8.64	39.27	55.32	49.3	74.00	24.70
16530.00	35.14	AV	V	38.32	8.64	39.27	42.83	36.81	54.00	17.19
Middle Channel:5590 MHz										
5590.00	67.88	PK	H	34.14	3.57	0.00	105.59	99.57	N/A	N/A
5590.00	58.90	AV	H	34.14	3.57	0.00	96.61	90.59	N/A	N/A
5590.00	70.30	PK	V	34.14	3.57	0.00	108.01	101.99	N/A	N/A
5590.00	60.64	AV	V	34.14	3.57	0.00	98.35	92.33	N/A	N/A
11180.00	45.36	PK	V	38.68	6.58	37.17	53.45	47.43	74.00	26.57
11180.00	32.87	AV	V	38.68	6.58	37.17	40.96	34.94	54.00	19.06
16770.00	47.89	PK	V	39.28	8.68	39.01	56.84	50.82	74.00	23.18
16770.00	35.41	AV	V	39.28	8.68	39.01	44.36	38.34	54.00	15.66
High Channel: 5670 MHz										
5670.00	67.65	PK	H	34.17	3.65	0.00	105.47	99.45	N/A	N/A
5670.00	57.80	AV	H	34.17	3.65	0.00	95.62	89.6	N/A	N/A
5670.00	69.84	PK	V	34.17	3.65	0.00	107.66	101.64	N/A	N/A
5670.00	60.11	AV	V	34.17	3.65	0.00	97.93	91.91	N/A	N/A
5725.00	28.40	PK	V	34.19	3.69	0.00	66.28	60.26	74.00	13.74
5725.00	16.45	AV	V	34.19	3.69	0.00	54.33	48.31	54.00	5.69
11340.00	45.37	PK	V	38.84	6.58	37.26	53.53	47.51	74.00	26.49
11340.00	32.70	AV	V	38.84	6.58	37.26	40.86	34.84	54.00	19.16
17010.00	47.66	PK	V	40.26	8.72	38.76	57.88	51.86	74.00	22.14
17010.00	35.23	AV	V	40.26	8.72	38.76	45.45	39.43	54.00	14.57

802.11 ac40 U-NII-2C

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5510 MHz										
5510.00	66.10	PK	H	34.10	3.54	0.00	103.74	97.72	N/A	N/A
5510.00	56.41	AV	H	34.10	3.54	0.00	94.05	88.03	N/A	N/A
5510.00	67.80	PK	V	34.10	3.54	0.00	105.44	99.42	N/A	N/A
5510.00	58.00	AV	V	34.10	3.54	0.00	95.64	89.62	N/A	N/A
5470.00	32.74	PK	V	34.05	3.56	0.00	70.35	64.33	74.00	9.67
5470.00	21.23	AV	V	34.05	3.56	0.00	58.84	52.82	54.00	1.18
11020.00	45.42	PK	V	38.52	6.57	37.07	53.44	47.42	74.00	26.58
11020.00	32.04	AV	V	38.52	6.57	37.07	40.06	34.04	54.00	19.96
16530.00	47.66	PK	V	38.32	8.64	39.27	55.35	49.33	74.00	24.67
16530.00	35.21	AV	V	38.32	8.64	39.27	42.90	36.88	54.00	17.12
Middle Channel:5590 MHz										
5590.00	67.76	PK	H	34.14	3.57	0.00	105.47	99.446	N/A	N/A
5590.00	57.90	AV	H	34.14	3.57	0.00	95.61	89.59	N/A	N/A
5590.00	70.16	PK	V	34.14	3.57	0.00	107.87	101.85	N/A	N/A
5590.00	60.34	AV	V	34.14	3.57	0.00	98.05	92.03	N/A	N/A
11180.00	45.17	PK	V	38.68	6.58	37.17	53.26	47.24	74.00	26.76
11180.00	32.74	AV	V	38.68	6.58	37.17	40.83	34.81	54.00	19.19
16770.00	47.80	PK	V	39.28	8.68	39.01	56.75	50.73	74.00	23.27
16770.00	35.36	AV	V	39.28	8.68	39.01	44.31	38.29	54.00	15.71
High Channel: 5670 MHz										
5670.00	68.02	PK	H	34.17	3.65	0.00	105.84	99.82	N/A	N/A
5670.00	58.13	AV	H	34.17	3.65	0.00	95.95	89.93	N/A	N/A
5670.00	70.24	PK	V	34.17	3.65	0.00	108.06	102.04	N/A	N/A
5670.00	60.43	AV	V	34.17	3.65	0.00	98.25	92.23	N/A	N/A
5725.00	28.69	PK	V	34.19	3.69	0.00	66.57	60.55	74.00	13.45
5725.00	16.33	AV	V	34.19	3.69	0.00	54.21	48.19	54.00	5.81
11340.00	45.36	PK	V	38.84	6.58	37.26	53.52	47.5	74.00	26.50
11340.00	32.87	AV	V	38.84	6.58	37.26	41.03	35.01	54.00	18.99
17010.00	47.48	PK	V	40.26	8.72	38.76	57.70	51.68	74.00	22.32
17010.00	35.04	AV	V	40.26	8.72	38.76	45.26	39.24	54.00	14.76

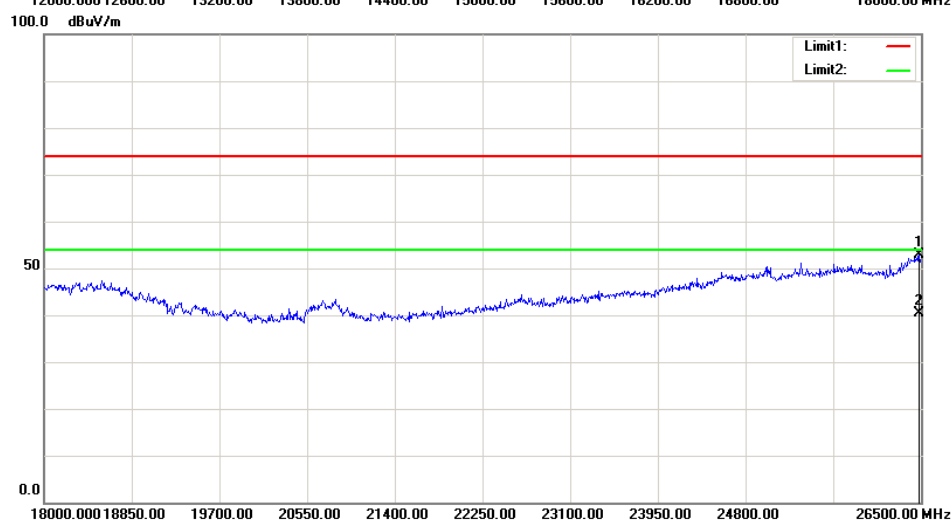
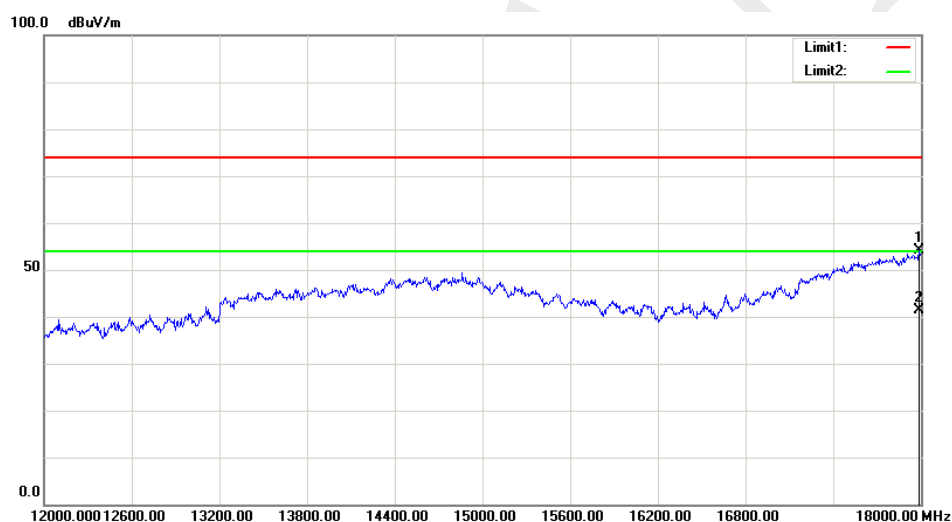
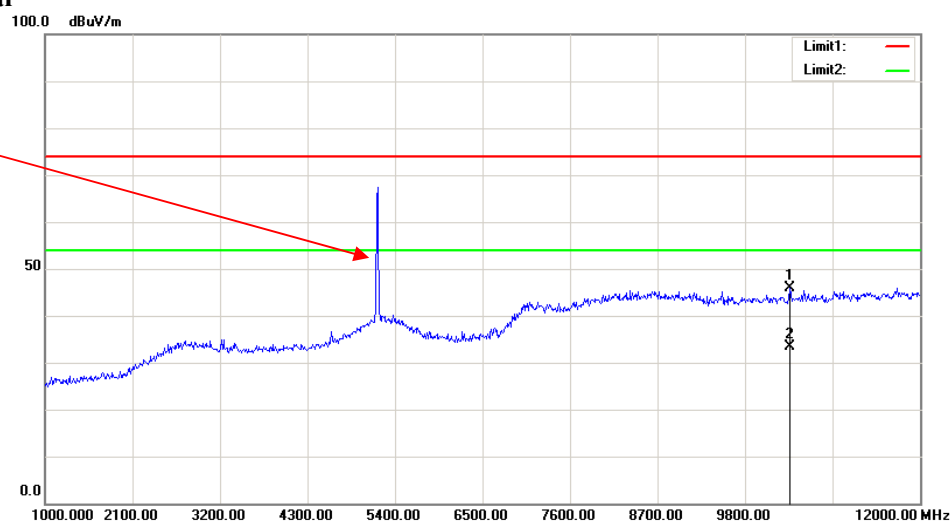
802.11 ac80 U-NII-2C

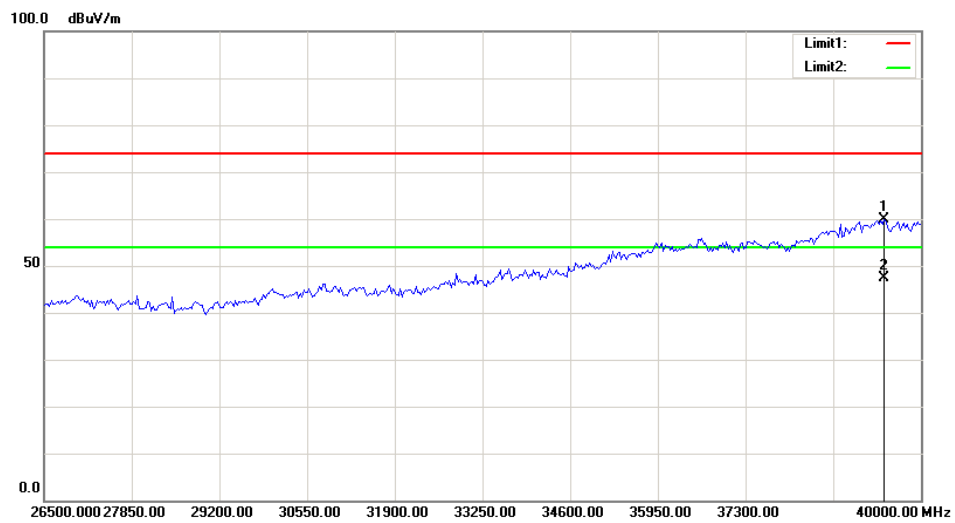
Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5530 MHz										
5530.00	59.96	PK	H	34.11	3.55	0.00	97.62	91.6	N/A	N/A
5530.00	50.21	AV	H	34.11	3.55	0.00	87.87	81.85	N/A	N/A
5530.00	67.32	PK	V	34.11	3.55	0.00	104.98	98.96	N/A	N/A
5530.00	57.60	AV	V	34.11	3.55	0.00	95.26	89.24	N/A	N/A
5470.00	34.41	PK	V	34.05	3.56	0.00	72.02	66	74.00	8.00
5470.00	21.21	AV	V	34.05	3.56	0.00	58.82	52.8	54.00	1.20
11060.00	44.80	PK	V	38.56	6.57	37.10	52.83	46.81	74.00	27.19
11060.00	32.41	AV	V	38.56	6.57	37.10	40.44	34.42	54.00	19.58
16590.00	47.26	PK	V	38.56	8.65	39.20	55.27	49.25	74.00	24.75
16590.00	34.87	AV	V	38.56	8.65	39.20	42.88	36.86	54.00	17.14
High Channel: 5610 MHz										
5610.00	67.64	PK	H	34.14	3.58	0.00	105.36	99.34	N/A	N/A
5610.00	57.80	AV	H	34.14	3.58	0.00	95.52	89.5	N/A	N/A
5610.00	69.76	PK	V	34.14	3.58	0.00	107.48	101.46	N/A	N/A
5610.00	60.65	AV	V	34.14	3.58	0.00	98.37	92.35	N/A	N/A
5725.00	34.60	PK	V	34.19	3.69	0.00	72.48	66.46	74.00	7.54
5725.00	16.84	AV	V	34.19	3.69	0.00	54.72	48.7	54.00	5.30
11220.00	45.21	PK	V	38.72	6.58	37.19	53.32	47.3	74.00	26.70
11220.00	32.80	AV	V	38.72	6.58	37.19	40.91	34.89	54.00	19.11
16830.00	47.35	PK	V	39.52	8.69	38.95	56.61	50.59	74.00	23.41
16830.00	34.86	AV	V	39.52	8.69	38.95	44.12	38.1	54.00	15.90

Test Plots (For worst mode 802.11a 5180MHz)

Horizontal

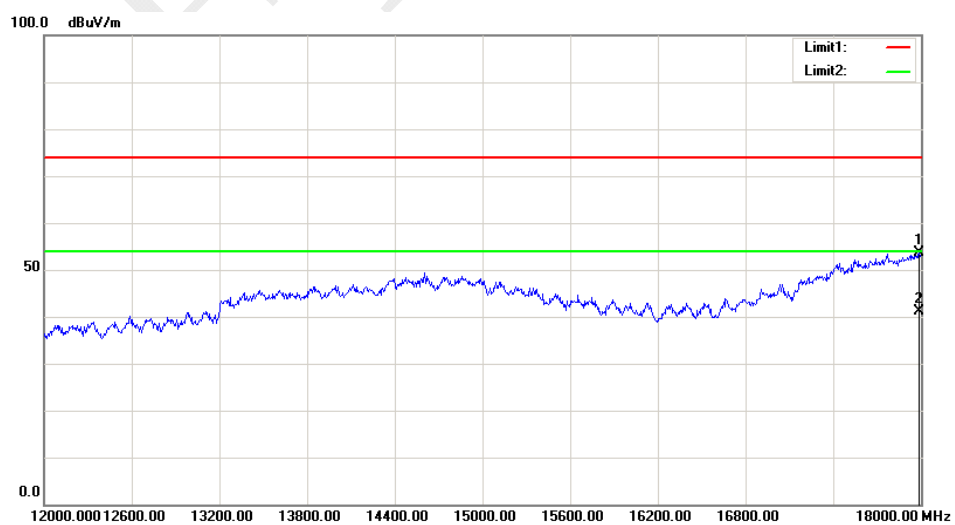
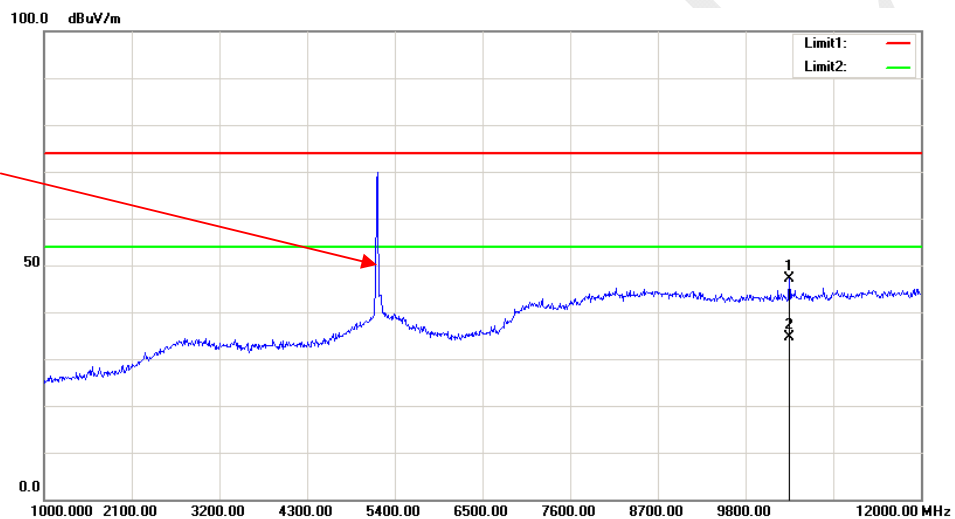
Fundamental
Test with Band
Rejection Filter

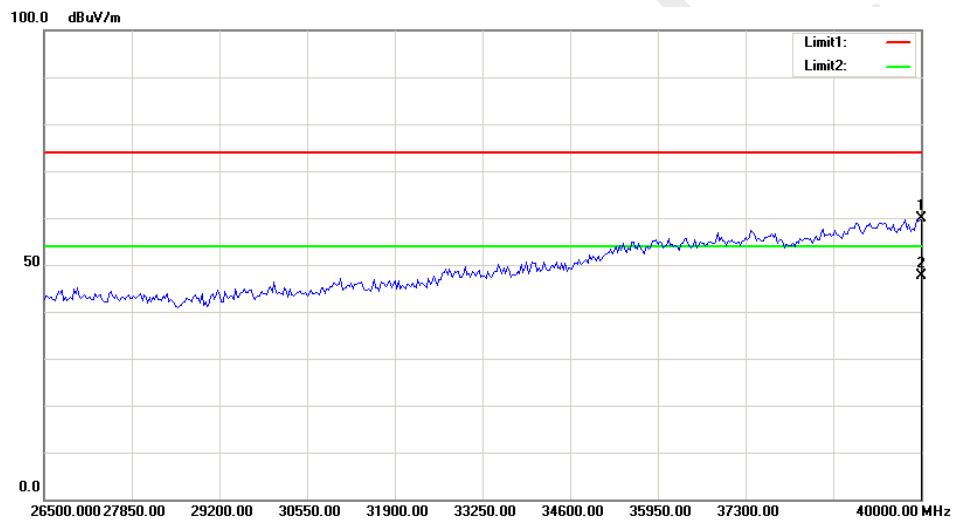
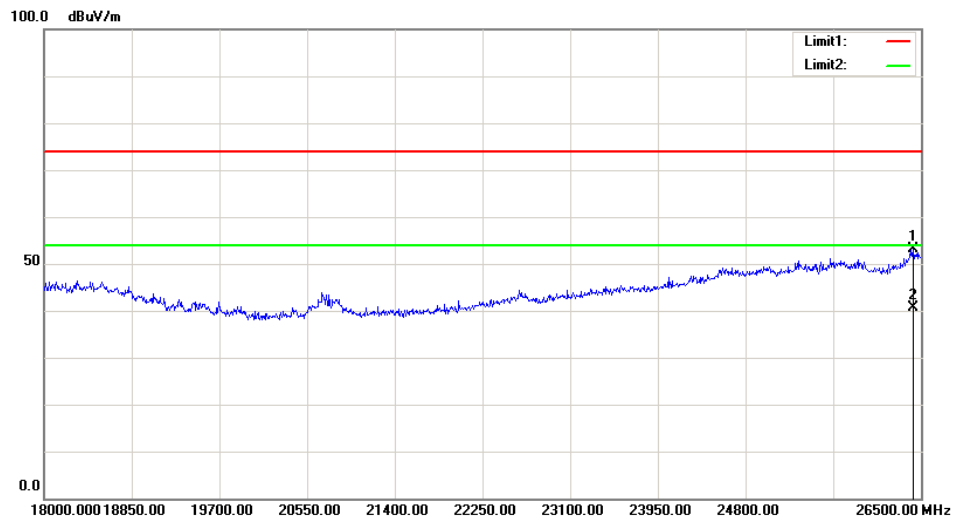




Vertical

Fundamental
Test with Band
Rejection Filter





***** END OF REPORT *****