▣ Test Plots(802.11ac(VHT80))

Note:

In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 42)	UNII 2A (Ch. 58)
	

UNII 2C (Ch. 122)	UNII 3 (Ch. 155)
	

10.6 FREQUENCY STABILITY.

10.6.1 20MHz BW

Startup after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,180,000,000 Hz

CHANNEL: 36

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5180078.03	78.03
100%		-30	5180077.51	77.51
100%		-20	5180038.10	38.10
100%		-10	5180055.93	55.93
100%		0	5180067.51	67.51
100%		+10	5180047.51	47.51
100%		+30	5180068.39	68.39
100%		+40	5180097.81	97.81
100%		+50	5180054.02	54.02
End. Point	3.60	+20	5180018.30	18.30

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5260038.61	38.61
100%		-30	5260046.43	46.43
100%		-20	5260025.63	25.63
100%		-10	5260045.51	45.51
100%		0	5260078.51	78.51
100%		+10	5260018.49	18.49
100%		+30	5260054.05	54.05
100%		+40	5260057.75	57.75
100%		+50	5260061.89	61.89
End. Point	3.60	+20	5260061.18	61.18

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,500,000,000 Hz

CHANNEL: 100

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5500039.91	39.91
100%		-30	5500058.20	58.20
100%		-20	5500086.59	86.59
100%		-10	5500087.20	87.20
100%		0	5500094.21	94.21
100%		+10	5500076.98	76.98
100%		+30	5500071.13	71.13
100%		+40	5500082.27	82.27
100%		+50	5500087.54	87.54
End. Point	3.60	+20	5500049.32	49.32

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5745033.95	33.95
100%		-30	5745075.69	75.69
100%		-20	5745050.26	50.26
100%		-10	5745098.87	98.87
100%		0	5745051.21	51.21
100%		+10	5745070.55	70.55
100%		+30	5745086.87	86.87
100%		+40	5745097.21	97.21
100%		+50	5745008.16	8.16
End. Point	3.60	+20	5745084.11	84.11

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

2 minutes after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,180,000,000 Hz
CHANNEL: 36
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5180052.12	52.12
100%		-30	5180007.08	7.08
100%		-20	5180023.05	23.05
100%		-10	5180060.41	60.41
100%		0	5180094.26	94.26
100%		+10	5180063.26	63.26
100%		+30	5180018.58	18.58
100%		+40	5180058.12	58.12
100%		+50	5180067.34	67.34
End. Point	3.60	+20	5180089.70	89.70

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5260027.82	27.82
100%		-30	5260054.11	54.11
100%		-20	5260003.71	3.71
100%		-10	5260089.30	89.3
100%		0	5260091.44	91.44
100%		+10	5260017.38	17.38
100%		+30	5260001.21	1.21
100%		+40	5260036.26	36.26
100%		+50	5260014.22	14.22
End. Point	3.60	+20	5260022.67	22.67

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,500,000,000 Hz

CHANNEL: 100

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5500013.94	13.94
100%		-30	5500069.16	69.16
100%		-20	5500040.39	40.39
100%		-10	5500050.40	50.4
100%		0	5500032.26	32.26
100%		+10	5500015.79	15.79
100%		+30	5500035.26	35.26
100%		+40	5500010.35	10.35
100%		+50	5500090.41	90.41
End. Point	3.60	+20	5500001.43	1.43

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5745073.96	73.96
100%		-30	5745001.98	1.98
100%		-20	5745089.20	89.2
100%		-10	5745099.15	99.15
100%		0	5745074.42	74.42
100%		+10	5745028.36	28.36
100%		+30	5745053.07	53.07
100%		+40	5745049.16	49.16
100%		+50	5745026.31	26.31
End. Point	3.60	+20	5745032.35	32.35

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

5 minutes after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,180,000,000 Hz
CHANNEL: 36
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5180044.20	44.20
100%		-30	5180020.07	20.07
100%		-20	5180072.06	72.06
100%		-10	5180022.77	22.77
100%		0	5180008.35	8.35
100%		+10	5180038.10	38.10
100%		+30	5180066.61	66.61
100%		+40	5180041.29	41.29
100%		+50	5180091.60	91.60
End. Point	3.60	+20	5180097.82	97.82

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5260048.22	48.22
100%		-30	5260055.50	55.50
100%		-20	5260035.74	35.74
100%		-10	5260015.80	15.8
100%		0	5260077.36	77.36
100%		+10	5260050.41	50.41
100%		+30	5260072.74	72.74
100%		+40	5260026.15	26.15
100%		+50	5260094.35	94.35
End. Point	3.60	+20	5260057.84	57.84

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,500,000,000 Hz

CHANNEL: 100

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5500034.24	34.24
100%		-30	5500067.06	67.06
100%		-20	5500087.67	87.67
100%		-10	5500009.56	9.56
100%		0	5500068.73	68.73
100%		+10	5500070.44	70.44
100%		+30	5500001.36	1.36
100%		+40	5500072.55	72.55
100%		+50	5500014.50	14.50
End. Point	3.60	+20	5500016.72	16.72

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5745013.47	13.47
100%		-30	5745092.71	92.71
100%		-20	5745064.18	64.18
100%		-10	5745063.84	63.84
100%		0	5745027.48	27.48
100%		+10	5745089.58	89.58
100%		+30	5745099.77	99.77
100%		+40	5745075.95	75.95
100%		+50	5745084.76	84.76
End. Point	3.60	+20	5745073.72	73.72

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10 minutes after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,180,000,000 Hz
CHANNEL: 36
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5180031.51	31.51
100%		-30	5180075.88	75.88
100%		-20	5180002.55	2.55
100%		-10	5180005.49	5.49
100%		0	5180071.42	71.42
100%		+10	5180014.40	14.40
100%		+30	5180077.16	77.16
100%		+40	5180054.37	54.37
End. Point	3.60	+20	5180042.84	42.84

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5260080.84	80.84
100%		-30	5260036.56	36.56
100%		-20	5260079.47	79.47
100%		-10	5260036.58	36.58
100%		0	5260044.35	44.35
100%		+10	5260002.76	2.76
100%		+30	5260069.65	69.65
100%		+40	5260004.56	4.56
100%		+50	5260074.33	74.33
End. Point	3.60	+20	5260058.98	58.98

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,500,000,000 Hz

CHANNEL: 100

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5500065.92	65.92
100%		-30	5500096.96	96.96
100%		-20	5500043.63	43.63
100%		-10	5500076.15	76.15
100%		0	5500029.34	29.34
100%		+10	5500074.83	74.83
100%		+30	5500059.36	59.36
100%		+40	5500020.26	20.26
100%		+50	5500084.59	84.59
End. Point	3.60	+20	5500008.09	8.09

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5745010.94	10.94
100%		-30	5745075.75	75.75
100%		-20	5745061.39	61.39
100%		-10	5745010.78	10.78
100%		0	5745045.47	45.47
100%		+10	5745077.68	77.68
100%		+30	5745049.06	49.06
100%		+40	5745044.70	44.7
100%		+50	5745047.74	47.74
End. Point	3.60	+20	5745019.82	19.82

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10.6.2 40MHz BW

Startup after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,190,000,000 Hz
CHANNEL: 38
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5190069.96	69.96
100%		-30	5190064.64	64.64
100%		-20	5190039.94	39.94
100%		-10	5190049.77	49.77
100%		0	5190034.67	34.67
100%		+10	5190017.08	17.08
100%		+30	5190081.30	81.30
100%		+40	5190040.54	40.54
100%		+50	5190083.44	83.44
End. Point	3.60	+20	5190079.20	79.20

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5270004.78	4.78
100%		-30	5270003.40	3.40
100%		-20	5270039.60	39.6
100%		-10	5270048.37	48.37
100%		0	5270095.54	95.54
100%		+10	5270072.87	72.87
100%		+30	5270068.51	68.51
100%		+40	5270090.82	90.82
100%		+50	5270076.16	76.16
End. Point	3.60	+20	5270054.66	54.66

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,510,000,000 Hz

CHANNEL: 102

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5510020.77	20.77
100%		-30	5510074.10	74.10
100%		-20	5510026.19	26.19
100%		-10	5510016.77	16.77
100%		0	5510050.85	50.85
100%		+10	5510041.51	41.51
100%		+30	5510097.12	97.12
100%		+40	5510089.69	89.69
100%		+50	5510022.09	22.09
End. Point	3.60	+20	5510068.32	68.32

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,755,000,000 Hz

CHANNEL: 151

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5755067.57	67.57
100%		-30	5755008.52	8.52
100%		-20	5755042.96	42.96
100%		-10	5755016.19	16.19
100%		0	5755023.78	23.78
100%		+10	5755082.78	82.78
100%		+30	5755064.73	64.73
100%		+40	5755045.29	45.29
100%		+50	5755044.22	44.22
End. Point	3.60	+20	5755079.76	79.76

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

2 minutes after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,190,000,000 Hz
CHANNEL: 38
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5190033.61	33.61
100%		-30	5190044.89	44.89
100%		-20	5190089.26	89.26
100%		-10	5190056.57	56.57
100%		0	5190013.52	13.52
100%		+10	5190086.10	86.10
100%		+30	5190020.86	20.86
100%		+40	5190025.91	25.91
100%		+50	5190078.54	78.54
End. Point	3.60	+20	5190015.88	15.88

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5270028.60	28.60
100%		-30	5270001.51	1.51
100%		-20	5270083.94	83.94
100%		-10	5270034.31	34.31
100%		0	5270073.31	73.31
100%		+10	5270004.18	4.18
100%		+30	5270099.98	99.98
100%		+40	5270034.16	34.16
100%		+50	5270026.63	26.63
End. Point	3.60	+20	5270042.57	42.57

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,510,000,000 Hz

CHANNEL: 102

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5510090.32	90.32
100%		-30	5510038.27	38.27
100%		-20	5510038.31	38.31
100%		-10	5510038.76	38.76
100%		0	5510069.52	69.52
100%		+10	5510045.27	45.27
100%		+30	5510016.90	16.9
100%		+40	5510068.12	68.12
100%		+50	5510056.99	56.99
End. Point	3.60	+20	5510065.69	65.69

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,755,000,000 Hz

CHANNEL: 151

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5755040.28	40.28
100%		-30	5755028.58	28.58
100%		-20	5755005.71	5.71
100%		-10	5755089.85	89.85
100%		0	5755051.88	51.88
100%		+10	5755016.67	16.67
100%		+30	5755032.78	32.78
100%		+40	5755075.20	75.2
100%		+50	5755027.61	27.61
End. Point	3.60	+20	5755038.89	38.89

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

5 minutes after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,190,000,000 Hz
CHANNEL: 38
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5190011.25	11.25
100%		-30	5190089.54	89.54
100%		-20	5190047.78	47.78
100%		-10	5190034.11	34.11
100%		0	5190004.89	4.89
100%		+10	5190037.20	37.20
100%		+30	5190031.49	31.49
100%		+40	5190027.81	27.81
100%		+50	5190060.71	60.71
End. Point	3.60	+20	5190088.39	88.39

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5270025.99	25.99
100%		-30	5270008.74	8.74
100%		-20	5270029.75	29.75
100%		-10	5270084.68	84.68
100%		0	5270007.62	7.62
100%		+10	5270065.70	65.7
100%		+30	5270030.91	30.91
100%		+40	5270082.64	82.64
100%		+50	5270007.05	7.05
End. Point	3.60	+20	5270067.64	67.64

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,510,000,000 Hz

CHANNEL: 102

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5510016.63	16.63
100%		-30	5510050.75	50.75
100%		-20	5510008.23	8.23
100%		-10	5510022.41	22.41
100%		0	5510048.28	48.28
100%		+10	5510048.33	48.33
100%		+30	5510001.71	1.71
100%		+40	5510005.95	5.95
100%		+50	5510045.25	45.25
End. Point	3.60	+20	5510055.38	55.38

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,755,000,000 Hz

CHANNEL: 151

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5755071.17	71.17
100%		-30	5755016.62	16.62
100%		-20	5755005.86	5.86
100%		-10	5755094.69	94.69
100%		0	5755041.42	41.42
100%		+10	5755077.88	77.88
100%		+30	5755066.09	66.09
100%		+40	5755060.42	60.42
100%		+50	5755018.67	18.67
End. Point	3.60	+20	5755021.18	21.18

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10 minutes after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,190,000,000 Hz
CHANNEL: 38
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5190026.79	26.79
100%		-30	5190082.58	82.58
100%		-20	5190020.30	20.30
100%		-10	5190069.05	69.05
100%		0	5190069.46	69.46
100%		+10	5190015.47	15.47
100%		+30	5190087.72	87.72
100%		+40	5190039.96	39.96
100%		+50	5190035.85	35.85
End. Point	3.60	+20	5190024.93	24.93

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A
OPERATING FREQUENCY: 5,270,000,000 Hz
CHANNEL: 54
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5270023.53	23.53
100%		-30	5270024.40	24.40
100%		-20	5270075.76	75.76
100%		-10	5270044.05	44.05
100%		0	5270041.34	41.34
100%		+10	5270009.29	9.29
100%		+30	5270076.62	76.62
100%		+40	5270083.90	83.9
100%		+50	5270079.59	79.59
End. Point	3.60	+20	5270004.52	4.52

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,510,000,000 Hz

CHANNEL: 102

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5510070.87	70.87
100%		-30	5510092.86	92.86
100%		-20	5510059.12	59.12
100%		-10	5510056.02	56.02
100%		0	5510023.67	23.67
100%		+10	5510030.56	30.56
100%		+30	5510031.71	31.71
100%		+40	5510004.16	4.16
100%		+50	5510016.96	16.96
End. Point	3.60	+20	5510068.63	68.63

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,755,000,000 Hz

CHANNEL: 151

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5755059.88	59.88
100%		-30	5755010.79	10.79
100%		-20	5755006.13	6.13
100%		-10	5755092.57	92.57
100%		0	5755090.72	90.72
100%		+10	5755004.06	4.06
100%		+30	5755098.71	98.71
100%		+40	5755018.54	18.54
100%		+50	5755041.18	41.18
End. Point	3.60	+20	5755022.31	22.31

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10.6.3 80MHz BW

Startup after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,210,000,000 Hz
CHANNEL: 42
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5210078.53	78.53
100%		-30	5210018.48	18.48
100%		-20	5210020.44	20.44
100%		-10	5210096.64	96.64
100%		0	5210046.91	46.91
100%		+10	5210059.20	59.20
100%		+30	5210061.31	61.31
100%		+40	5210082.10	82.10
100%		+50	5210072.49	72.49
End. Point	3.60	+20	5210063.88	63.88

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A
OPERATING FREQUENCY: 5,290,000,000 Hz
CHANNEL: 58
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5290055.13	55.13
100%		-30	5290074.19	74.19
100%		-20	5290092.78	92.78
100%		-10	5290008.72	8.72
100%		0	5290087.69	87.69
100%		+10	5290022.16	22.16
100%		+30	5290049.69	49.69
100%		+40	5290089.51	89.51
100%		+50	5290005.23	5.23
End. Point	3.60	+20	5290079.46	79.46

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,530,000,000 Hz

CHANNEL: 106

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5530003.77	3.77
100%		-30	5530080.33	80.33
100%		-20	5530005.28	5.28
100%		-10	5530094.64	94.64
100%		0	5530030.37	30.37
100%		+10	5530098.10	98.1
100%		+30	5530095.65	95.65
100%		+40	5530040.35	40.35
100%		+50	5530001.11	1.11
End. Point	3.60	+20	5530001.23	1.23

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5775090.52	90.52
100%		-30	5775003.60	3.60
100%		-20	5775070.67	70.67
100%		-10	5775038.26	38.26
100%		0	5775065.30	65.3
100%		+10	5775004.34	4.34
100%		+30	5775065.49	65.49
100%		+40	5775020.12	20.12
100%		+50	5775090.32	90.32
End. Point	3.60	+20	5775078.80	78.8

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

2 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,210,000,000 Hz

CHANNEL: 42

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5210061.66	61.66
100%		-30	5210024.59	24.59
100%		-20	5210042.16	42.16
100%		-10	5210045.02	45.02
100%		0	5210097.56	97.56
100%		+10	5210043.76	43.76
100%		+30	5210051.94	51.94
100%		+40	5210081.88	81.88
100%		+50	5210003.46	3.46
End. Point	3.60	+20	5210004.36	4.36

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5290065.37	65.37
100%		-30	5290090.12	90.12
100%		-20	5290037.19	37.19
100%		-10	5290063.98	63.98
100%		0	5290087.85	87.85
100%		+10	5290016.14	16.14
100%		+30	5290021.52	21.52
100%		+40	5290018.86	18.86
100%		+50	5290046.25	46.25
End. Point	3.60	+20	5290020.27	20.27

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,530,000,000 Hz

CHANNEL: 106

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5530005.11	5.11
100%		-30	5530027.83	27.83
100%		-20	5530095.07	95.07
100%		-10	5530080.98	80.98
100%		0	5530002.71	2.71
100%		+10	5530044.13	44.13
100%		+30	5530050.69	50.69
100%		+40	5530031.30	31.3
100%		+50	5530015.95	15.95
End. Point	3.60	+20	5530091.37	91.37

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5775031.58	31.58
100%		-30	5775095.09	95.09
100%		-20	5775067.30	67.3
100%		-10	5775099.57	99.57
100%		0	5775063.64	63.64
100%		+10	5775057.74	57.74
100%		+30	5775011.77	11.77
100%		+40	5775008.94	8.94
100%		+50	5775093.91	93.91
End. Point	3.60	+20	5775083.43	83.43

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

5 minutes after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,210,000,000 Hz
CHANNEL: 42
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.8	+20(Ref)	5210030.08	30.08
100%		-30	5210074.52	74.52
100%		-20	5210025.32	25.32
100%		-10	5210098.51	98.51
100%		0	5210003.61	3.61
100%		+10	5210064.74	64.74
100%		+30	5210067.58	67.58
100%		+40	5210075.11	75.11
100%		+50	5210087.64	87.64
End. Point	3.60	+20	5210037.62	37.62

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.8	+20(Ref)	5290081.91	81.91
100%		-30	5290001.75	1.75
100%		-20	5290055.16	55.16
100%		-10	5290093.08	93.08
100%		0	5290060.88	60.88
100%		+10	5290026.64	26.64
100%		+30	5290083.37	83.37
100%		+40	5290002.89	2.89
100%		+50	5290054.43	54.43
End. Point	3.60	+20	5290070.85	70.85

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,530,000,000 Hz

CHANNEL: 106

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.8	+20(Ref)	5530068.72	68.72
100%		-30	5530081.86	81.86
100%		-20	5530049.78	49.78
100%		-10	5530014.14	14.14
100%		0	5530062.71	62.71
100%		+10	5530068.39	68.39
100%		+30	5530031.91	31.91
100%		+40	5530075.94	75.94
100%		+50	5530077.73	77.73
End. Point	3.60	+20	5530092.89	92.89

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.8	+20(Ref)	5775083.40	83.40
100%		-30	5775044.62	44.62
100%		-20	5775015.76	15.76
100%		-10	5775067.60	67.6
100%		0	5775074.93	74.93
100%		+10	5775020.85	20.85
100%		+30	5775007.73	7.73
100%		+40	5775015.30	15.3
100%		+50	5775053.35	53.35
End. Point	3.60	+20	5775083.04	83.04

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10 minutes after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,210,000,000 Hz
CHANNEL: 42
REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5210032.52	32.52
100%		-30	5210086.10	86.10
100%		-20	5210037.80	37.80
100%		-10	5210063.81	63.81
100%		0	5210002.30	2.30
100%		+10	5210052.39	52.39
100%		+30	5210028.76	28.76
100%		+40	5210025.47	25.47
100%		+50	5210097.41	97.41
End. Point	3.60	+20	5210061.73	61.73

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5290076.40	76.40
100%		-30	5290035.05	35.05
100%		-20	5290091.96	91.96
100%		-10	5290019.68	19.68
100%		0	5290084.51	84.51
100%		+10	5290015.96	15.96
100%		+30	5290096.83	96.83
100%		+40	5290033.70	33.7
100%		+50	5290067.53	67.53
End. Point	3.60	+20	5290022.84	22.84

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,530,000,000 Hz

CHANNEL: 106

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5530029.97	29.97
100%		-30	5530065.18	65.18
100%		-20	5530055.57	55.57
100%		-10	5530006.08	6.08
100%		0	5530023.68	23.68
100%		+10	5530075.81	75.81
100%		+30	5530062.06	62.06
100%		+40	5530069.32	69.32
100%		+50	5530004.13	4.13
End. Point	3.60	+20	5530070.88	70.88

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.85	+20(Ref)	5775018.55	18.55
100%		-30	5775054.15	54.15
100%		-20	5775079.66	79.66
100%		-10	5775041.71	41.71
100%		0	5775075.13	75.13
100%		+10	5775073.61	73.61
100%		+30	5775087.50	87.5
100%		+40	5775031.26	31.26
100%		+50	5775044.49	44.49
End. Point	3.60	+20	5775039.75	39.75

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10.7 STRADDLE CHANNEL

10.7.1 26dB Bandwidth

Mode	Frequency [MHz]	Channel No.	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11a	5720 (UNII 2C Band)	144	5710.16	14.84
802.11n(HT20)			5710.12	14.88
802.11ac(VHT20)			5710.04	14.96
802.11a	5720 (UNII 3 Band)	144	5729.64	4.64
802.11n(HT20)			5732.28	7.28
802.11ac(VHT20)			5732.64	7.64

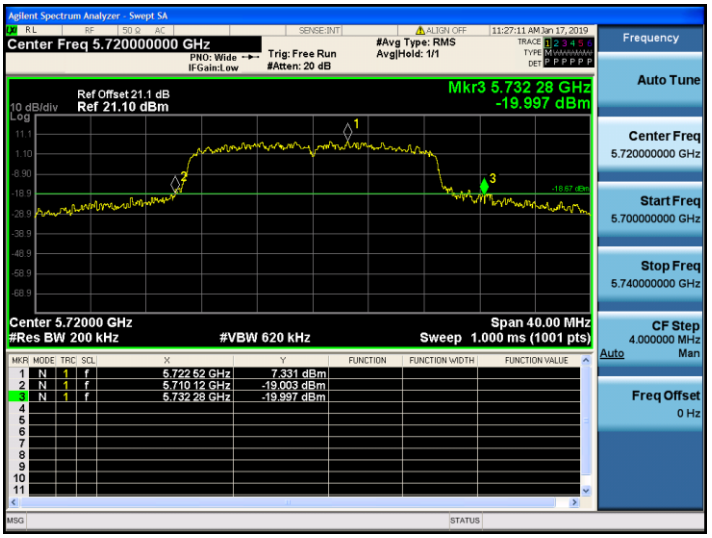
Mode	Frequency [MHz]	Channel No.	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11n(HT40)	5710 (UNII 2C Band)	142	5681.52	43.48
802.11ac(VHT40)			5689.36	35.64
802.11n(HT40)	5710 (UNII 3 Band)	142	5745.84	20.84
802.11ac(VHT40)			5732.00	7.00

Mode	Frequency [MHz]	Channel No.	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11ac(VHT80)	5690 (UNII 2C Band)	138	5641.68	83.32
	5690 (UNII 3 Band)	138	5730.80	5.80

▣ Test Plots (26dB Bandwidth)

802.11a UNII Band

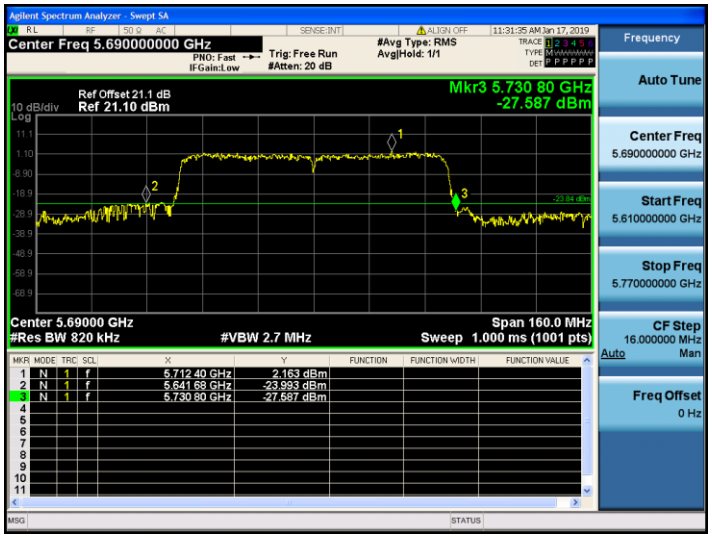
802.11n(HT20) UNII Band



802.11ac(VHT20) UNII Band

▣ Test Plots (26dB Bandwidth)

802.11n(HT40) UNII Band	802.11ac(VHT40) UNII Band
	

802.11ac(VHT80) UNII Band


10.7.2 6dB Bandwidth

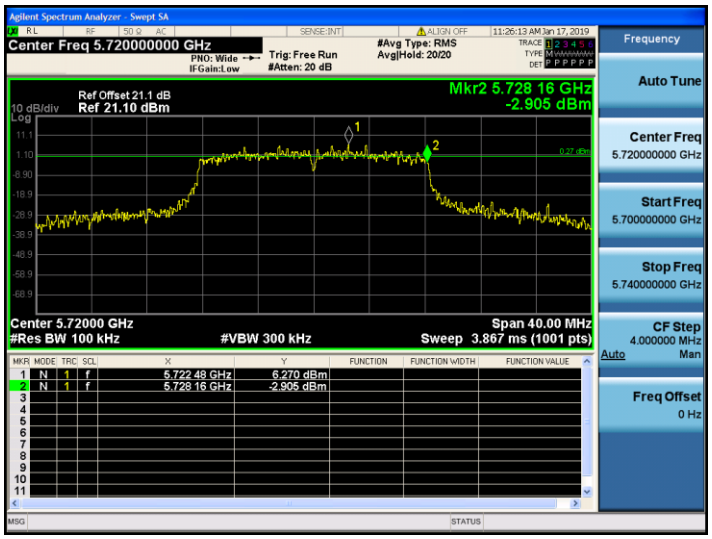
Mode	Frequency [MHz]	Channel No.	Measured Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11a	5720 (UNII 3 Band)	144	5728.16	3.16	> 0.5
802.11n(HT20)			5728.20	3.20	> 0.5
802.11ac(VHT20)			5727.64	2.64	> 0.5

Mode	Frequency [MHz]	Channel No.	Measured Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11n(HT40)	5710 (UNII 3 Band)	142	5727.68	2.68	> 0.5
802.11ac(VHT40)			5727.60	2.60	> 0.5

Mode	Frequency [MHz]	Channel No.	Measured Frequency [MHz]	6dB Bandwidth [MHz]	Limit [MHz]
802.11ac(VHT80)	5690 (UNII 3 Band)	138	5727.76	2.76	> 0.5

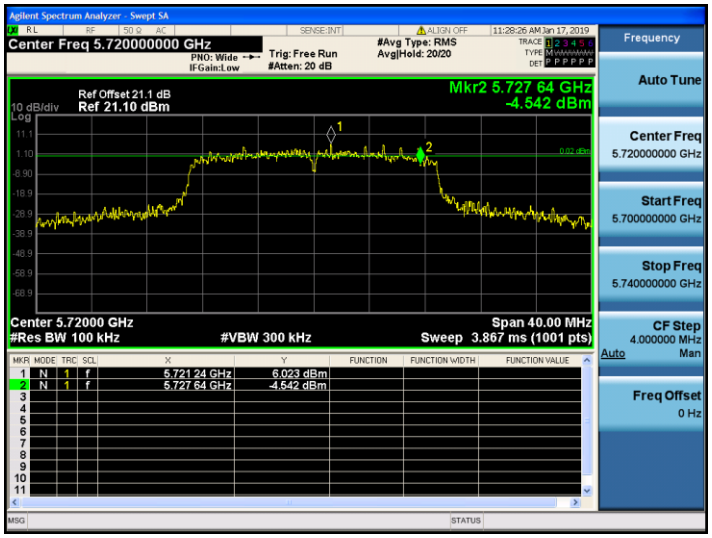
▣ Test Plots(UNII 3 Band 6dB Bandwidth)

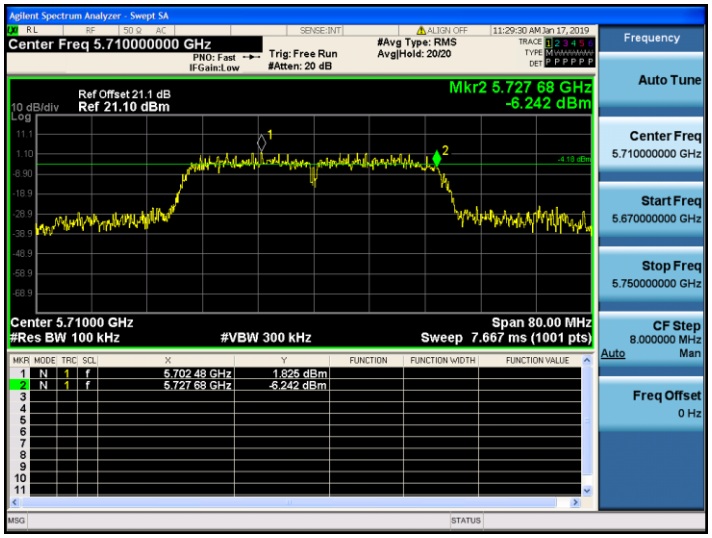
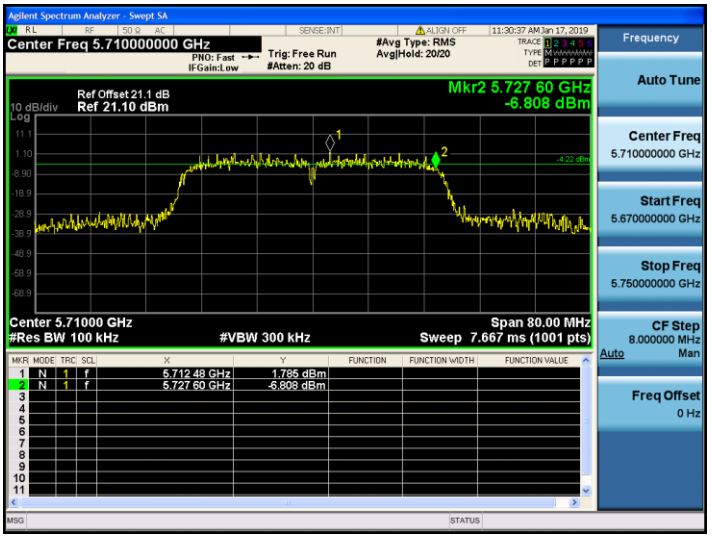
802.11a CH.144

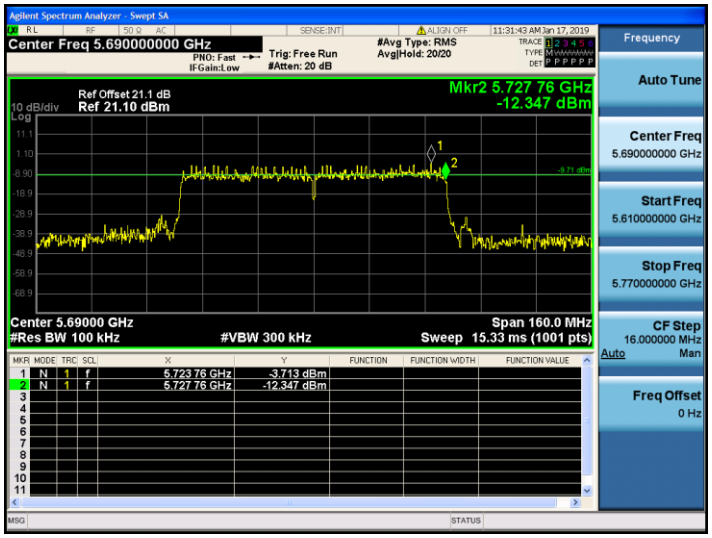


802.11n_HT20 CH.144

802.11ac_VHT20 CH.144



802.11n_HT40 CH.142	802.11ac_VHT40 CH.142
	

802.11ac_VHT80 CH.138


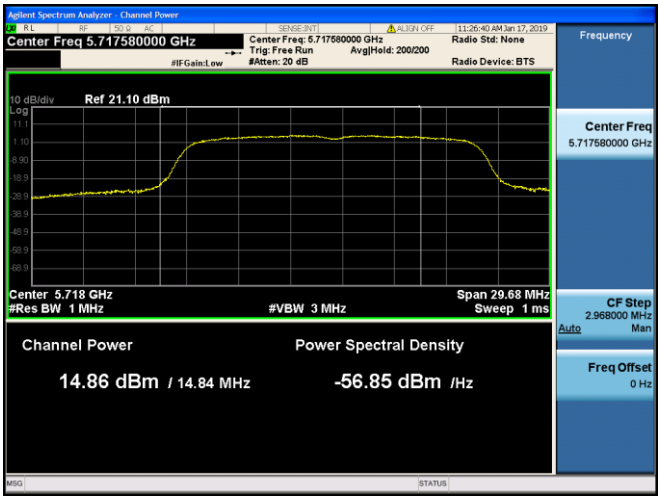
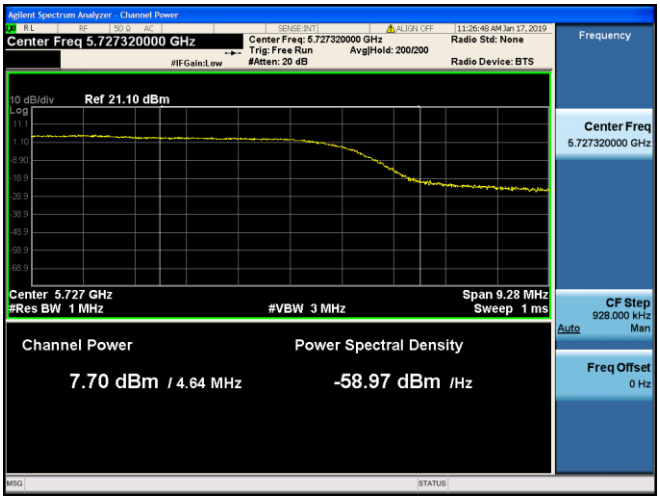
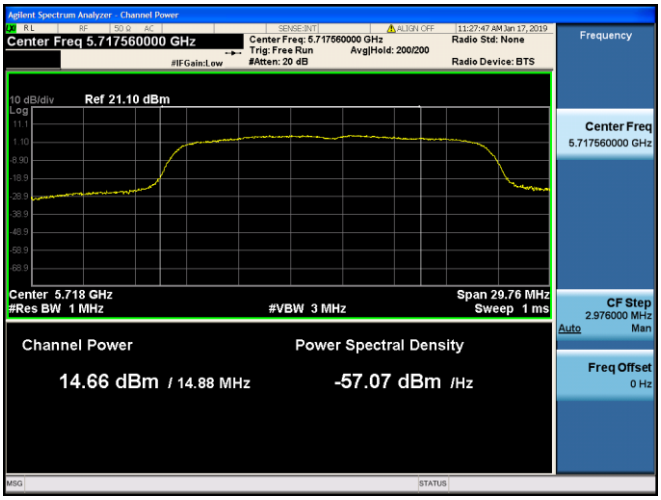
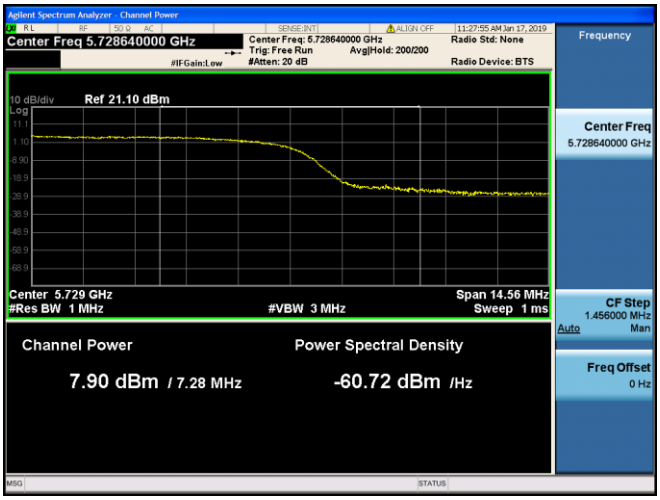
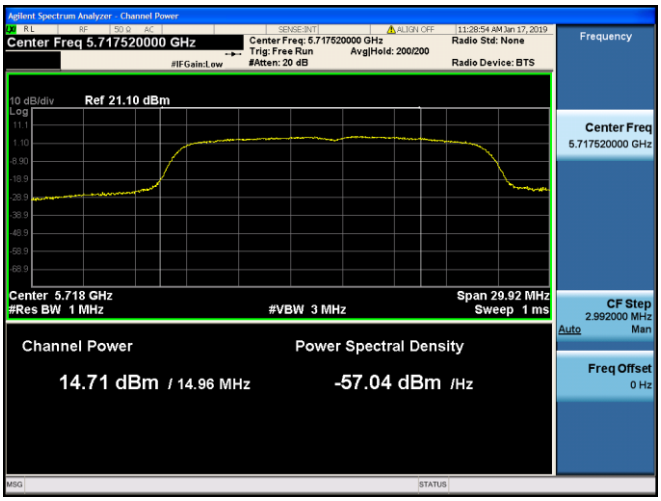
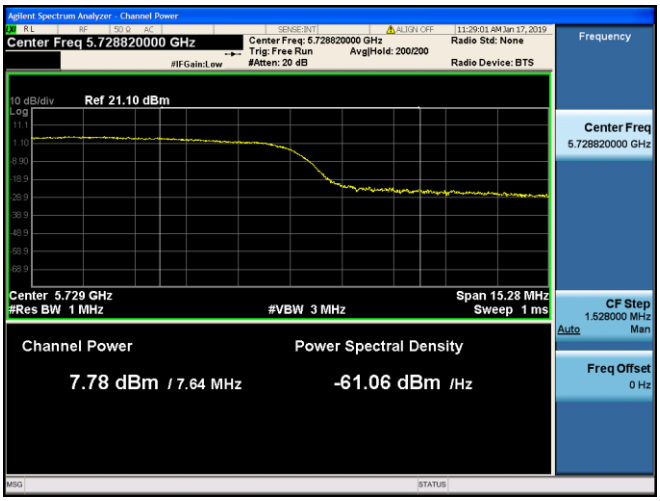
10.7.3 Output Power

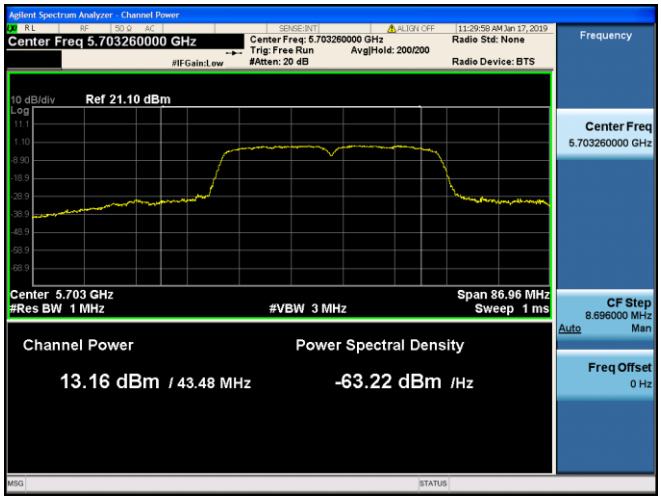
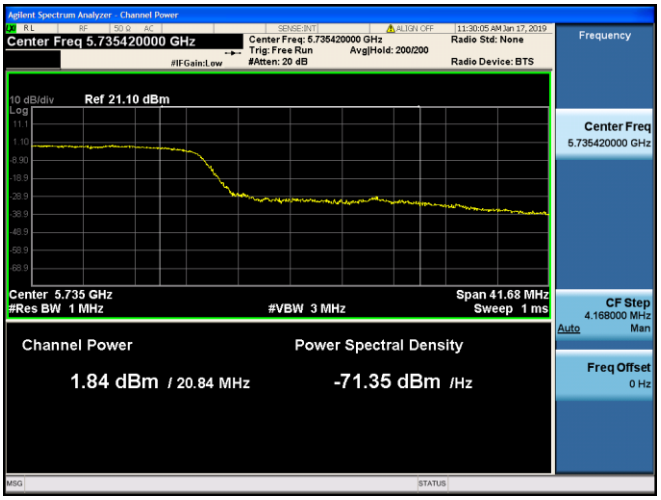
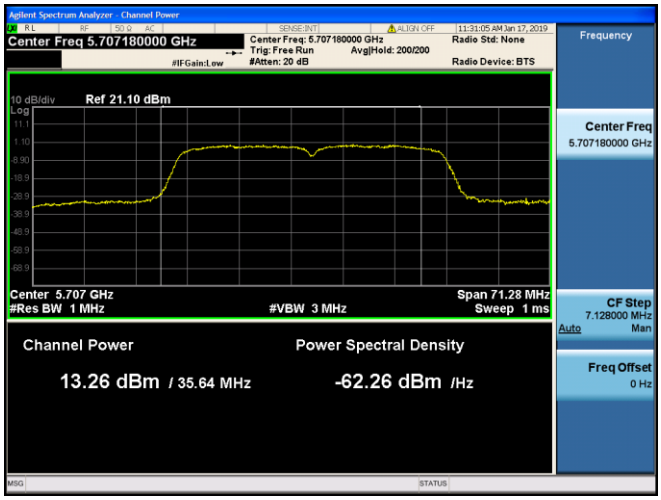
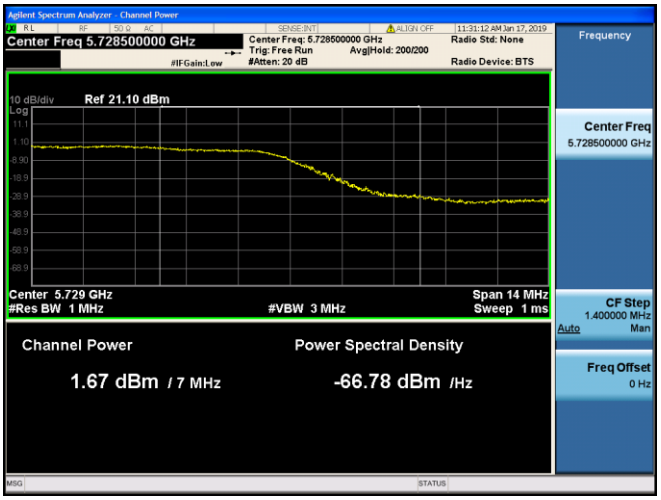
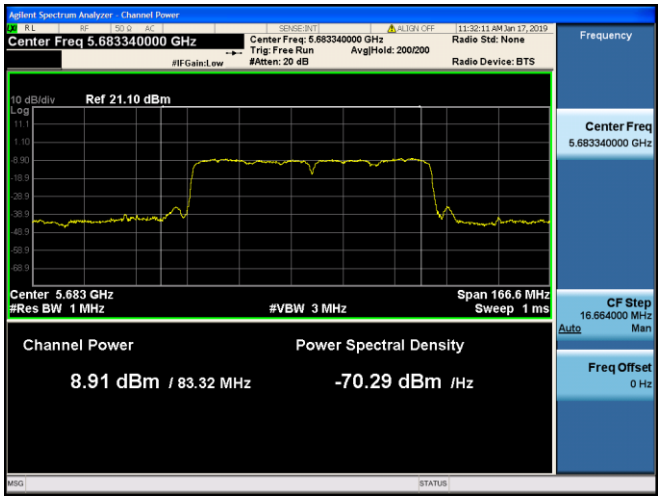
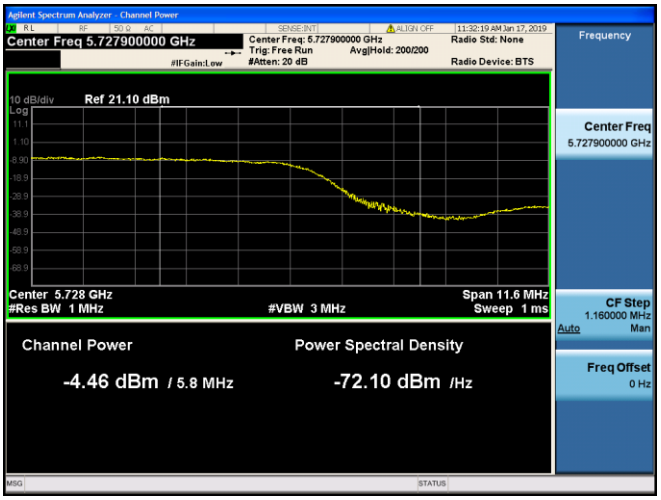
Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)
802.11a	5720 (UNII 2C Band)	144	14.86	1.665	16.53	22.71
802.11n(HT20)			14.66	1.673	16.33	22.73
802.11ac(VHT20)			14.71	1.549	16.26	22.75
802.11a	5720 (UNII 3 Band)	144	7.70	1.665	9.36	30.00
802.11n(HT20)			7.90	1.673	9.58	30.00
802.11ac(VHT20)			7.78	1.549	9.32	30.00

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)
802.11n(HT40)	5710 (UNII 2C Band)	142	13.16	2.533	15.70	23.98
802.11ac(VHT40)			13.26	2.480	15.74	23.98
802.11n(HT40)	5710 (UNII 3 Band)	142	1.84	2.533	4.37	30.00
802.11ac(VHT40)			1.67	2.480	4.15	30.00

Mode	Frequency [MHz]	Channel	Measured Power (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)	Limit (dBm)
802.11ac(VHT80)	5690 (UNII 2C Band)	138	8.91	2.679	11.59	23.98
	5690 (UNII 3 Band)	138	-4.46	2.679	-1.78	30.00

▣ Test Plots

802.11a UNII 2C Band	802.11a UNII 3 Band
	
802.11n(HT20) UNII 2C Band	**802.11n(HT20) UNII 3 Band**
	
802.11ac(VHT20) UNII 2C Band	**802.11ac(VHT20) UNII 3 Band**
	

802.11n(HT40) UNII 2C Band	802.11n(HT40) UNII 3 Band
	
802.11ac(VHT40) UNII 2C Band	**802.11ac(VHT40) UNII 3 Band**
	
802.11ac(VHT80) UNII 2C Band	**802.11ac(VHT80) UNII 3 Band**
	

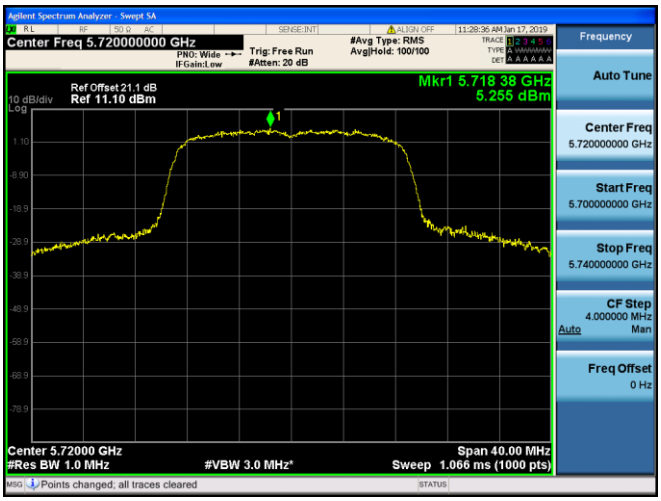
10.7.4 Power Spectral Density

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)
802.11a	5720 (UNII 2C Band)	144	5.589	1.665	7.253	11.00
802.11n(HT20)			5.013	1.673	6.687	11.00
802.11ac(VHT20)			5.255	1.549	6.804	11.00
802.11a	5720 (UNII 3 Band)	144	1.368	1.665	3.033	30.00
802.11n(HT20)			1.314	1.673	2.988	30.00
802.11ac(VHT20)			1.563	1.549	3.112	30.00

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)
802.11n(HT40)	5710 (UNII 2C Band)	142	-0.348	2.533	2.184	11.00
802.11ac(VHT40)			-0.189	2.480	2.291	11.00
802.11n(HT40)	5710 (UNII 3 Band)	142	-3.032	2.533	-0.499	30.00
802.11ac(VHT40)			-2.922	2.480	-0.442	30.00

Mode	Frequency [MHz]	Channel	Measured Density (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Limit (dBm)
802.11ac(VHT80)	5690 (UNII 2C Band)	138	-7.147	2.679	-4.469	11.00
	5690 (UNII 3 Band)	138	-10.521	2.679	-7.842	30.00

▣ Test Plots

802.11a UNII 2C Band	802.11a UNII 3 Band
	
802.11n(HT20) UNII 2C Band	**802.11n(HT20) UNII 3 Band**
	
802.11ac(VHT20) UNII 2C Band	**802.11ac(VHT20) UNII 3 Band**
	

802.11n(HT40) UNII 2C Band	802.11n(HT40) UNII 3 Band
	
802.11ac(VHT40) UNII 2C Band	**802.11ac(VHT40) UNII 3 Band**
	
802.11ac(VHT80) UNII 2C Band	**802.11ac(VHT80) UNII 3 Band**
	

10.8 RADIATED SPURIOUS EMISSIONS

Frequency Range : 9 kHz – 30MHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

Note:

1. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor = 40*log (specific distance / test distance) (dB)
3. Limit line = specific Limits (dBuV) + Distance extrapolation factor
4. The test results for below 30 MHz is correlated to an open site.
   The result on OATS is about 2 dB higher than semi-anechoic chamber(10 m chamber)

Frequency Range : Below 1 GHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

Note:

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode

Frequency Range : Above 1 GHz

Band :	UNII 1
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10360	55.58	-2.65	V	52.93	68.20	15.27	PK
15540	67.19	-1.94	V	65.25	73.98	8.73	PK
15540	52.76	-1.94	V	50.82	53.98	3.16	AV
10360	55.37	-2.65	H	52.72	68.20	15.48	PK
15540	66.56	-1.94	H	64.62	73.98	9.36	PK
15540	51.93	-1.94	H	49.99	53.98	3.99	AV

Band :	UNII 1
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5200 MHz
Channel No.	40 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10400	55.93	-1.87	V	54.06	68.20	14.14	PK
15600	68.59	-3.09	V	65.50	73.98	8.48	PK
15600	53.84	-3.09	V	50.75	53.98	3.23	AV
10400	55.84	-1.87	H	53.97	68.20	14.23	PK
15600	67.77	-3.09	H	64.68	73.98	9.30	PK
15600	53.66	-3.09	H	50.57	53.98	3.41	AV

Band :	UNII 1
Operation Mode:	802.11 a
Transfer Rate:	6 Mbps
Operating Frequency	5240 MHz
Channel No.	48 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10480	56.93	-3.26	V	53.67	68.20	14.53	PK
15720	67.92	-3.27	V	64.65	73.98	9.33	PK
15720	53.92	-3.27	V	50.65	53.98	3.33	AV
10480	55.99	-3.26	H	52.73	68.20	15.47	PK
15720	66.48	-3.27	H	63.21	73.98	10.77	PK
15720	52.19	-3.27	H	48.92	53.98	5.06	AV

Band :	UNII 1
Operation Mode:	802.11 n(HT20)
Transfer MCS Index:	MCS0
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10360	55.63	-2.65	V	52.98	68.20	15.22	PK
15540	67.68	-1.94	V	65.74	73.98	8.24	PK
15540	52.49	-1.94	V	50.55	53.98	3.43	AV
10360	55.42	-2.65	H	52.77	68.20	15.43	PK
15540	66.68	-1.94	H	64.74	73.98	9.24	PK
15540	52.34	-1.94	H	50.40	53.98	3.58	AV

Band :	UNII 1
Operation Mode:	802.11 n(HT20)
Transfer MCS Index:	MCS0
Operating Frequency	5200 MHz
Channel No.	40 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10400	55.74	-1.87	V	53.87	68.20	14.33	PK
15600	69.81	-3.09	V	66.72	73.98	7.26	PK
15600	53.63	-3.09	V	50.54	53.98	3.44	AV
10400	55.49	-1.87	H	53.62	68.20	14.58	PK
15600	68.85	-3.09	H	65.76	73.98	8.22	PK
15600	53.50	-3.09	H	50.41	53.98	3.57	AV

Band :	UNII 1
Operation Mode:	802.11 n(HT20)
Transfer MCS Index:	MCS0
Operating Frequency	5240 MHz
Channel No.	48 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10480	55.69	-3.26	V	52.43	68.20	15.77	PK
15720	69.25	-3.27	V	65.98	73.98	8.00	PK
15720	53.75	-3.27	V	50.48	53.98	3.50	AV
10480	54.99	-3.26	H	51.73	68.20	16.47	PK
15720	68.79	-3.27	H	65.52	73.98	8.46	PK
15720	53.61	-3.27	H	50.34	53.98	3.64	AV

Band :	UNII 1
Operation Mode:	802.11 ac(VHT20)
Transfer MCS Index:	MCS0
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10360	55.95	-2.65	V	53.30	68.20	14.90	PK
15540	68.55	-1.94	V	66.61	73.98	7.37	PK
15540	52.17	-1.94	V	50.23	53.98	3.75	AV
10360	55.16	-2.65	H	52.51	68.20	15.69	PK
15540	68.46	-1.94	H	66.52	73.98	7.46	PK
15540	52.11	-1.94	H	50.17	53.98	3.81	AV

Band :	UNII 1
Operation Mode:	802.11 ac(VHT20)
Transfer MCS Index:	MCS0
Operating Frequency	5200 MHz
Channel No.	40 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10400	55.60	-1.87	V	53.73	68.20	14.47	PK
15600	68.72	-3.09	V	65.63	73.98	8.35	PK
15600	53.42	-3.09	V	50.33	53.98	3.65	AV
10400	55.24	-1.87	H	53.37	68.20	14.83	PK
15600	68.32	-3.09	H	65.23	73.98	8.75	PK
15600	53.35	-3.09	H	50.26	53.98	3.72	AV

Band :	UNII 1
Operation Mode:	802.11 ac(VHT20)
Transfer MCS Index:	MCS0
Operating Frequency	5240 MHz
Channel No.	48 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10480	55.85	-3.26	V	52.59	68.20	15.61	PK
15720	69.53	-3.27	V	66.26	73.98	7.72	PK
15720	53.53	-3.27	V	50.26	53.98	3.72	AV
10480	55.31	-3.26	H	52.05	68.20	16.15	PK
15720	68.49	-3.27	H	65.22	73.98	8.76	PK
15720	53.35	-3.27	H	50.08	53.98	3.90	AV

Band :	UNII 1
Operation Mode:	802.11 n(HT40)
Transfer MCS Index:	0
Operating Frequency	5190 MHz
Channel No.	38 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10380	56.12	-2.37	V	53.75	68.20	14.45	PK
15570	61.95	-3.21	V	58.74	73.98	15.24	PK
15570	48.32	-3.21	V	45.11	53.98	8.87	AV
10380	55.48	-2.37	H	53.11	68.20	15.09	PK
15570	60.95	-3.21	H	57.74	73.98	16.24	PK
15570	48.20	-3.21	H	44.99	53.98	8.99	AV

Band :	UNII 1
Operation Mode:	802.11 n(HT40)
Transfer MCS Index:	0
Operating Frequency	5230 MHz
Channel No.	46 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10460	55.95	-3.06	V	52.89	68.20	15.31	PK
15690	64.17	-2.89	V	61.28	73.98	12.70	PK
15690	49.71	-2.89	V	46.82	53.98	7.16	AV
10460	55.19	-3.06	H	52.13	68.20	16.07	PK
15690	63.58	-2.89	H	60.69	73.98	13.29	PK
15690	49.55	-2.89	H	46.66	53.98	7.32	AV

Band :	UNII 1
Operation Mode:	802.11 ac(VHT40)
Transfer MCS Index:	0
Operating Frequency	5190 MHz
Channel No.	38 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10380	55.74	-2.37	V	53.37	68.20	14.83	PK
15570	64.05	-3.21	V	60.84	73.98	13.14	PK
15570	48.13	-3.21	V	44.92	53.98	9.06	AV
10380	55.10	-2.37	H	52.73	68.20	15.47	PK
15570	63.85	-3.21	H	60.64	73.98	13.34	PK
15570	48.05	-3.21	H	44.84	53.98	9.14	AV

Band :	UNII 1
Operation Mode:	802.11 ac(VHT40)
Transfer MCS Index:	0
Operating Frequency	5230 MHz
Channel No.	46 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L.-A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10460	56.21	-3.06	V	53.15	68.20	15.05	PK
15690	64.18	-2.89	V	61.29	73.98	12.69	PK
15690	49.52	-2.89	V	46.63	53.98	7.35	AV
10460	55.84	-3.06	H	52.78	68.20	15.42	PK
15690	63.58	-2.89	H	60.69	73.98	13.29	PK
15690	49.42	-2.89	H	46.53	53.98	7.45	AV