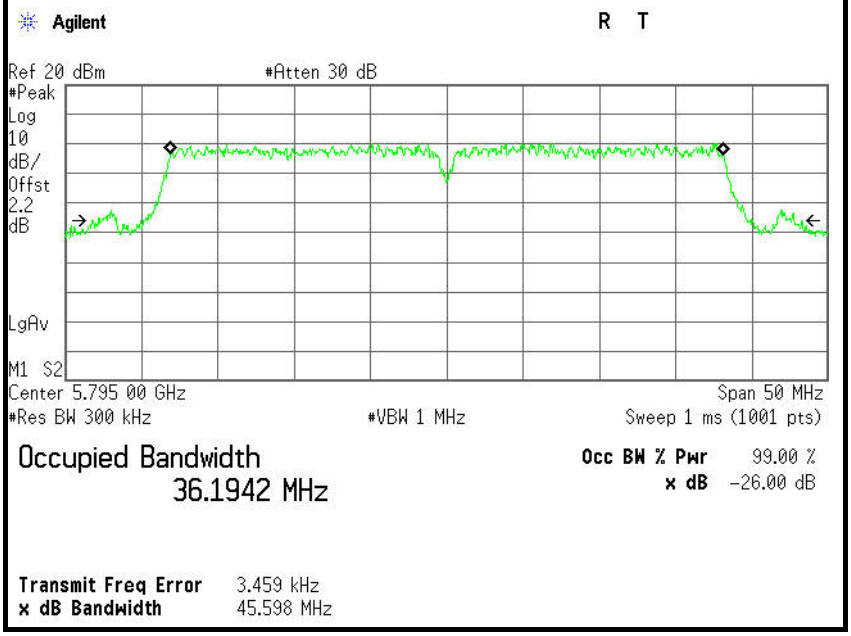
99% Bandwidth (CH High)

Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

7.2 26dB EMISSION BANDWIDTH

7.2.1LIMIT

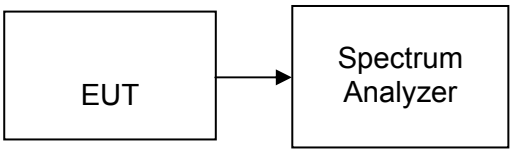
According to §15.303(c), for purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Compliance with the emissions limits is based on the use of measurement instrumentation employing a peak detector function with an instrument resolutions bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

7.2.2MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	E4446A	US44300399	03/01/2014	03/01/2015

Remark: *Each piece of equipment is scheduled for calibration once a year.*

7.2.3TEST CONFIGURATION



7.2.4TEST PROCEDURE

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low-loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW > 1%EBW, VBW > RBW, Span >226dB Bandwidth, and Sweep = auto.
4. Mark the peak frequency and –26dB (upper and lower) frequency.
5. Repeat until all the rest channels were investigated.

7.2.5TEST RESULTS

No non-compliance noted

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test Data

Test mode: IEEE 802.11a mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5180	23.060	23.545
Mid	5220	21.939	21.447
High	5240	21.179	22.624

Test mode: IEEE 802.11a mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5260	22.284	22.438
Mid	5280	24.829	22.912
High	5320	20.336	21.606

Test mode: IEEE 802.11a mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5500	20.336	19.636
Mid	5580	20.102	20.369
High	5700	22.587	19.697

Test mode: IEEE 802.11a mode / 5745 ~ 5805MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5745	21.146	19.685
Mid	5785	22.943	19.932
High	5805	29.032	19.535

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test mode: IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5180	25.511	24.594
Mid	5220	28.329	21.306
High	5240	22.240	22.289

Test mode: IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5260	24.264	20.307
Mid	5280	23.572	20.762
High	5320	25.451	23.376

Test mode: IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5500	19.925	21.028
Mid	5580	25.740	23.967
High	5700	22.287	21.418

Test mode: IEEE 802.11n HT 20 MHz mode / 5745 ~ 5805MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5745	25.764	19.841
Mid	5785	26.669	20.375
High	5805	28.032	22.973

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test mode: IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5190	46.803	49.440
High	5230	47.637	47.648

Test mode: IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5270	46.115	46.922
High	5310	46.057	46.067

Test mode: IEEE 802.11n HT 40 MHz mode / 5510 ~ 5670MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5510	46.038	45.715
Mid	5550	47.706	45.096
High	5670	46.714	44.863

Test mode: IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)	
		Antenna 0	Antenna 1
Low	5755	49.252	45.934
High	5795	49.963	45.598

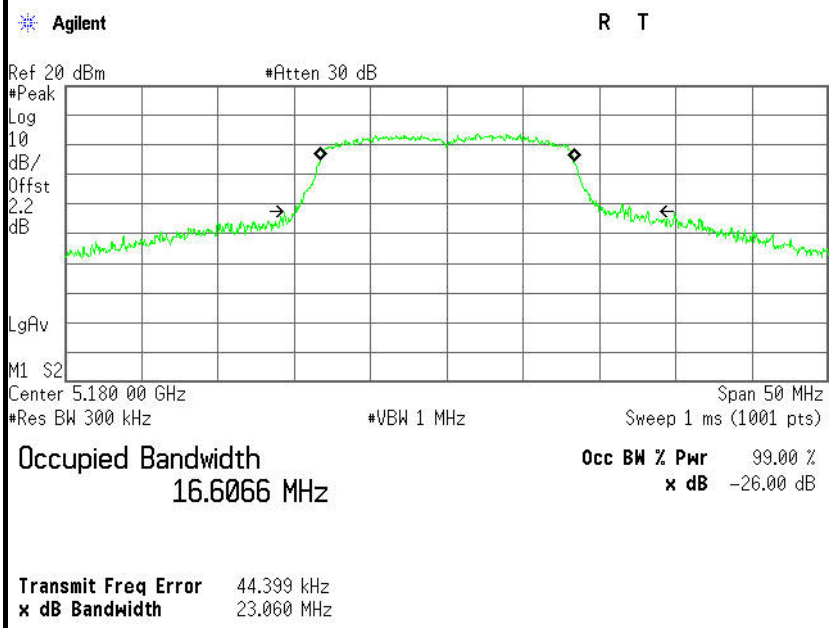
This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test Plot

IEEE 802.11a mode / 5180 ~ 5240MHz

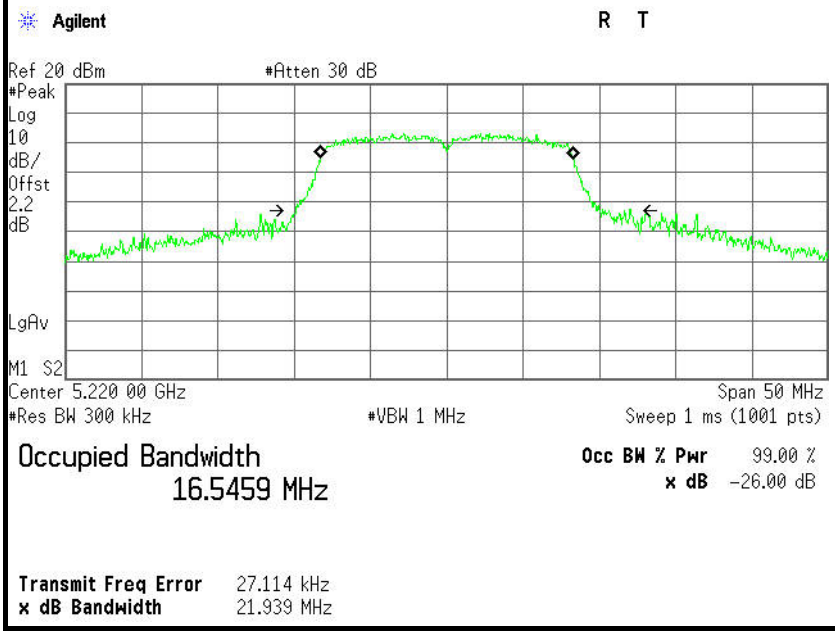
26dB Bandwidth (CH Low)

Antenna 0



26dB Bandwidth (CH Mid)

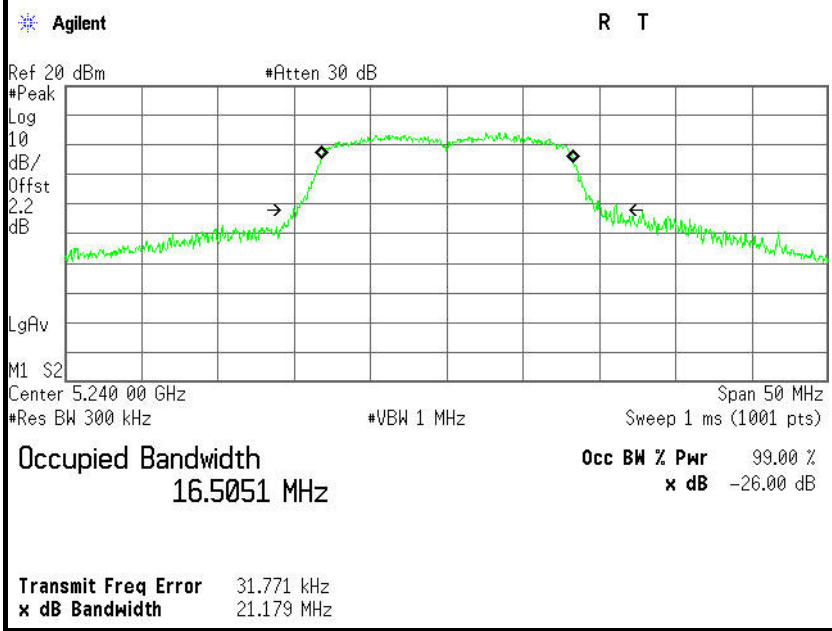
Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

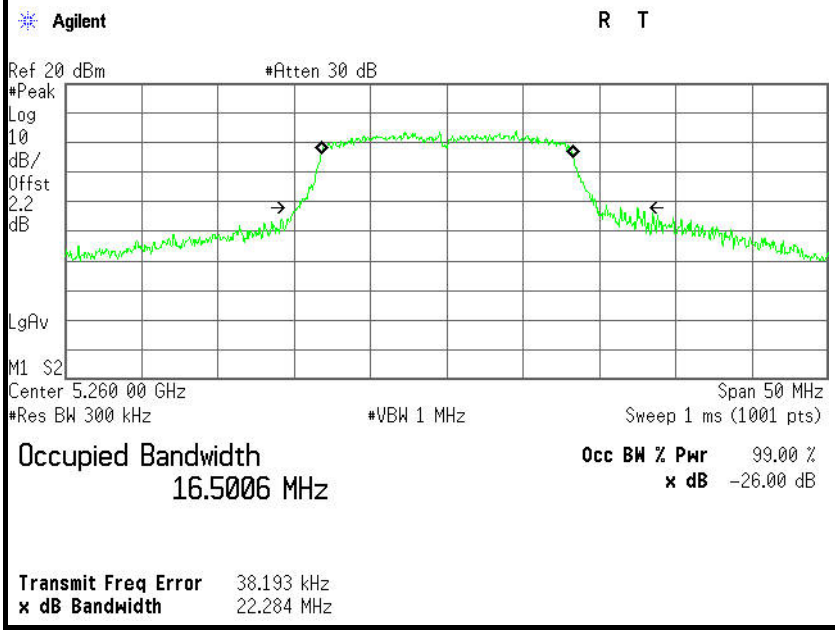
Antenna 0



IEEE 802.11a mode / 5260 ~ 5320MHz

26dB Bandwidth (CH Low)

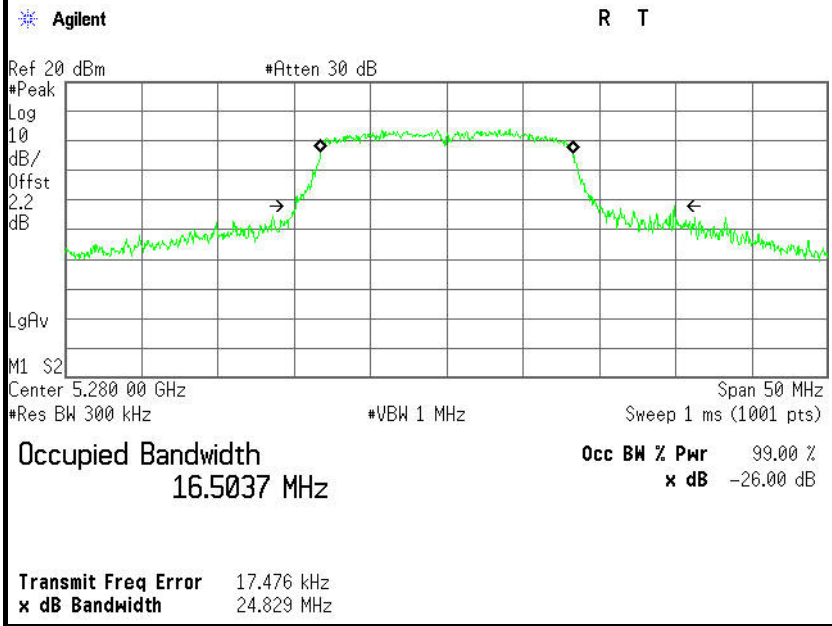
Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

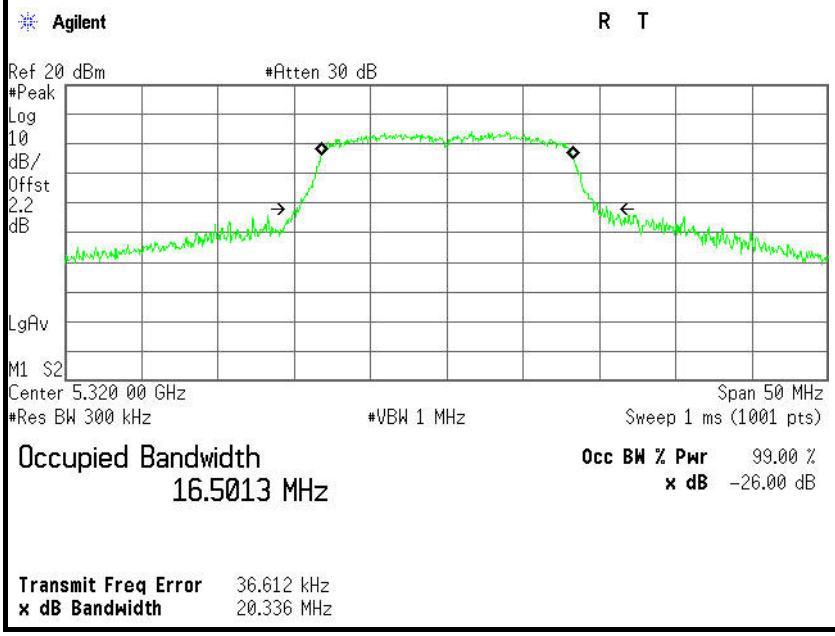
26dB Bandwidth (CH Mid)

Antenna 0



26dB Bandwidth (CH High)

Antenna 0

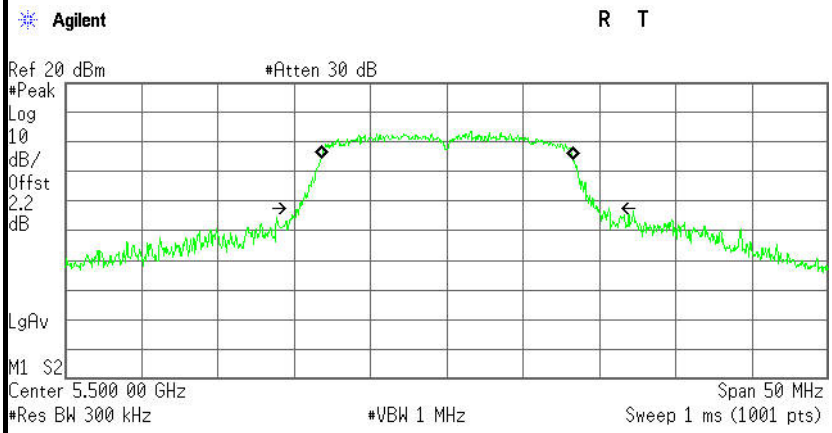


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11a mode / 5500 ~ 5700MHz

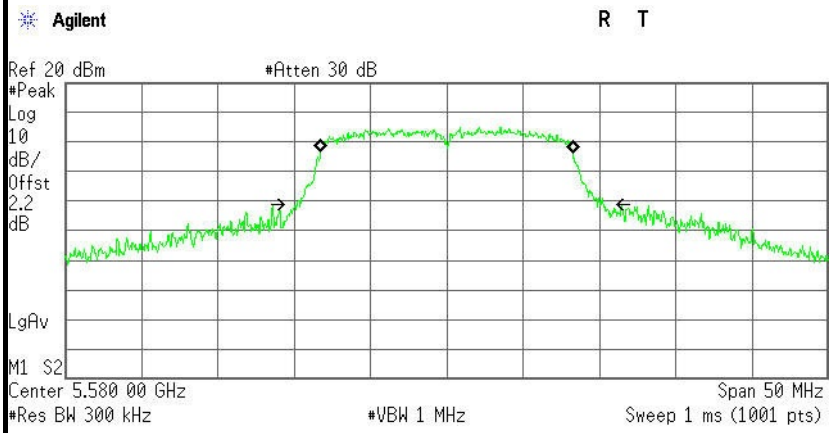
26dB Bandwidth (CH Low)

Antenna 0



26dB Bandwidth (CH Mid)

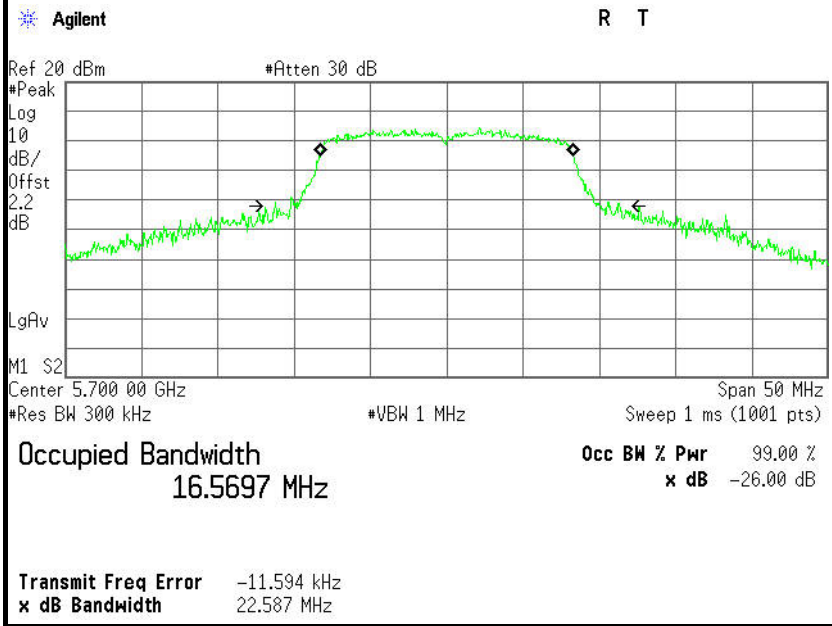
Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

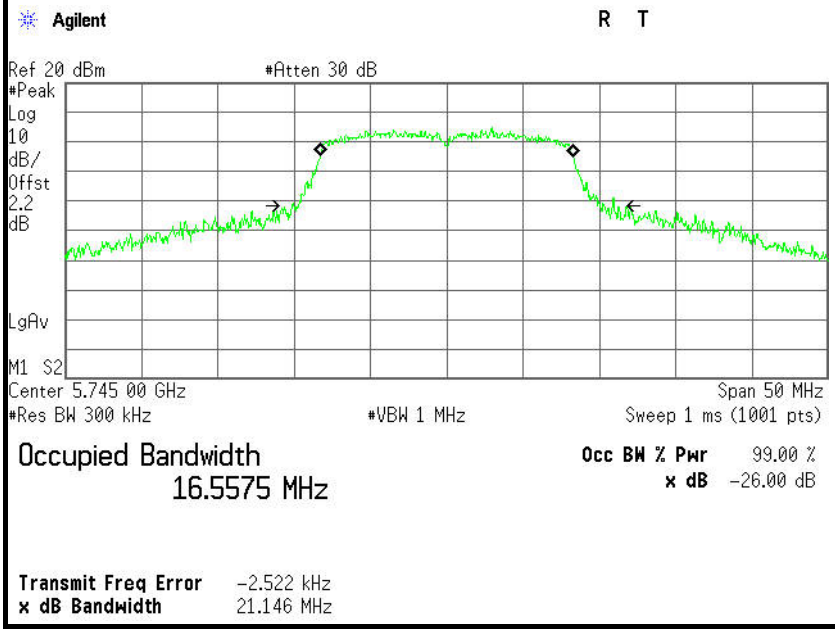
Antenna 0



IEEE 802.11a mode / 5745 ~ 5805MHz

26dB Bandwidth (CH Low)

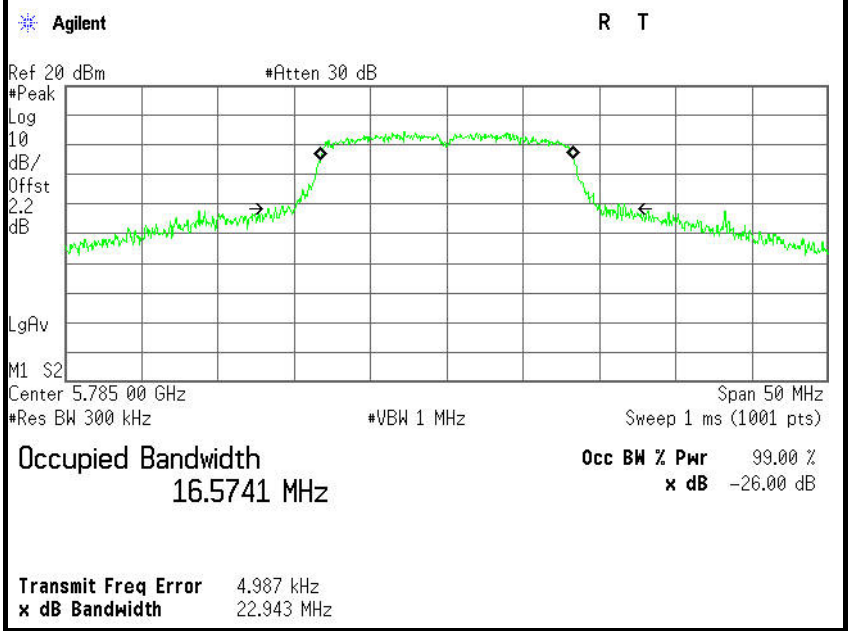
Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

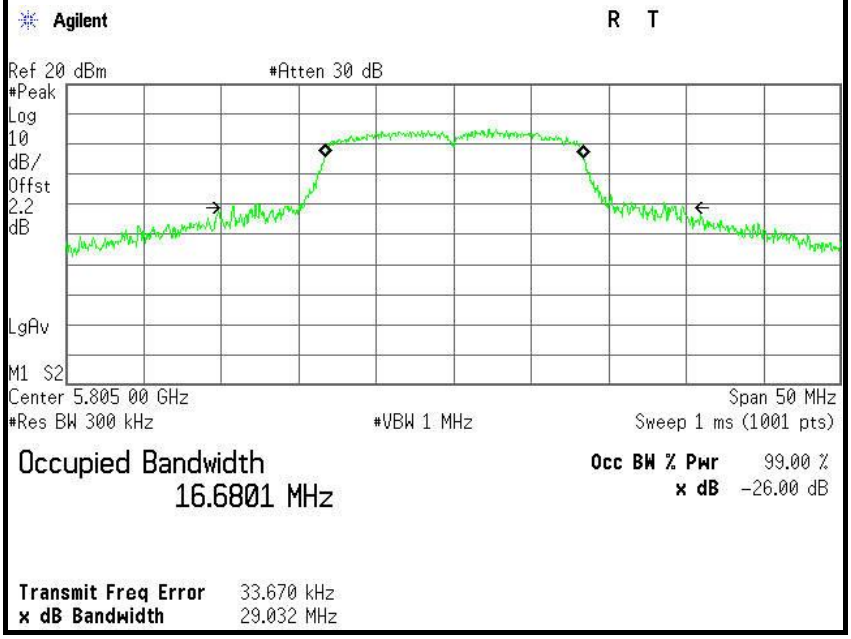
26dB Bandwidth (CH Mid)

Antenna 0



26dB Bandwidth (CH High)

Antenna 0

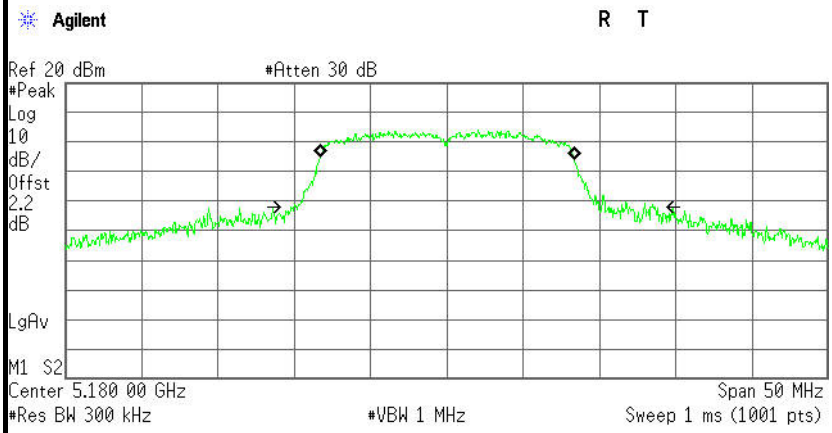


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11a mode / 5180 ~ 5240MHz

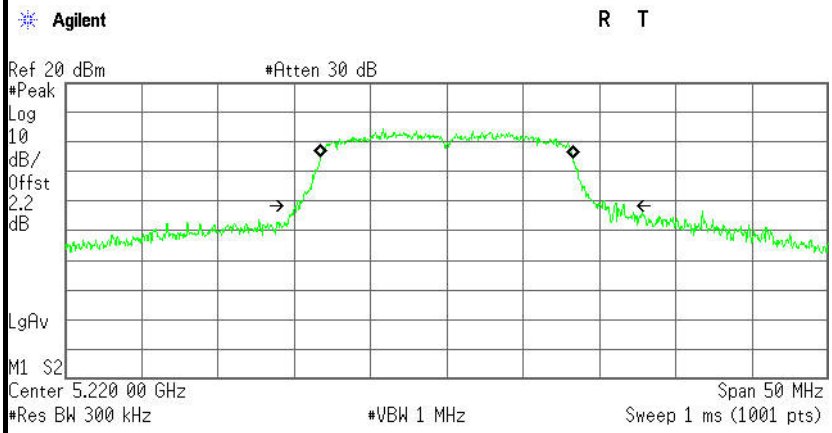
26dB Bandwidth (CH Low)

Antenna 1



26dB Bandwidth (CH Mid)

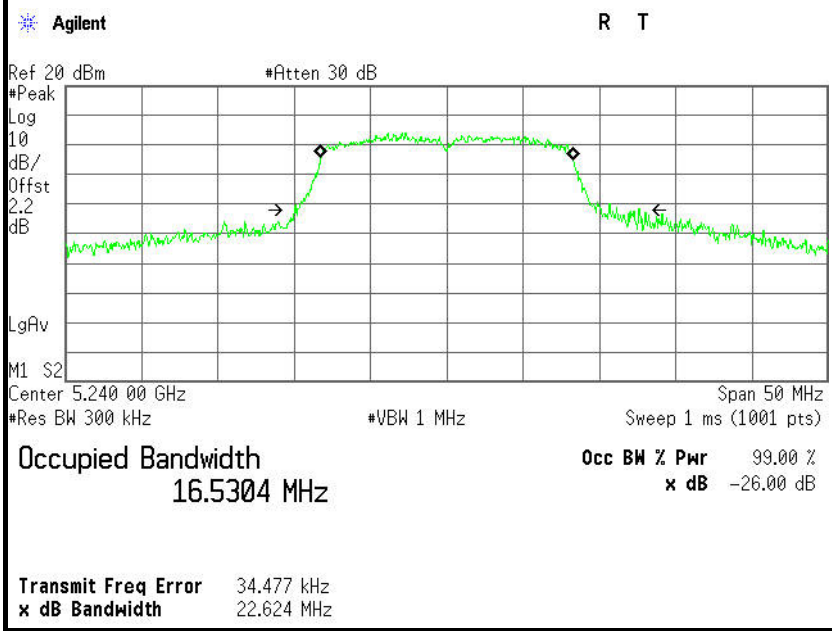
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

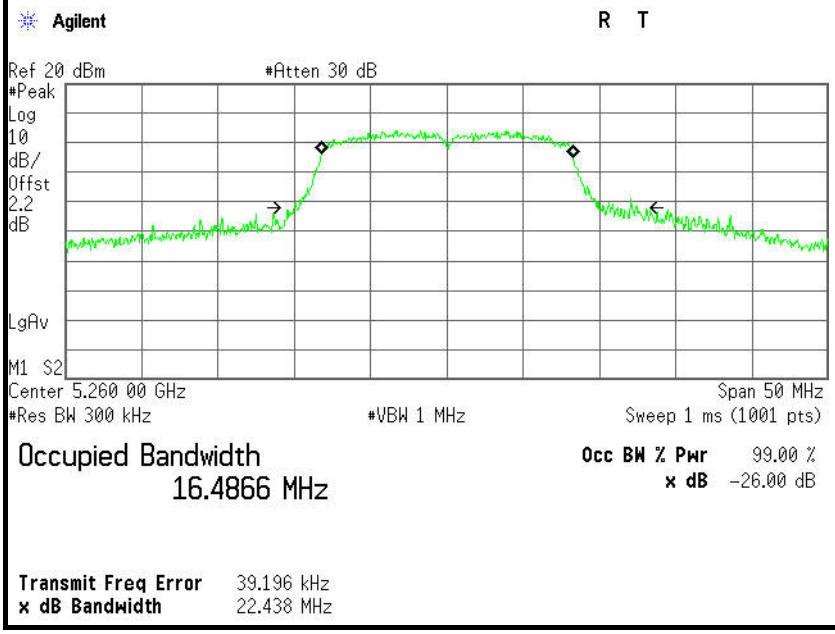
Antenna 1



IEEE 802.11a mode / 5260 ~ 5320MHz

26dB Bandwidth (CH Low)

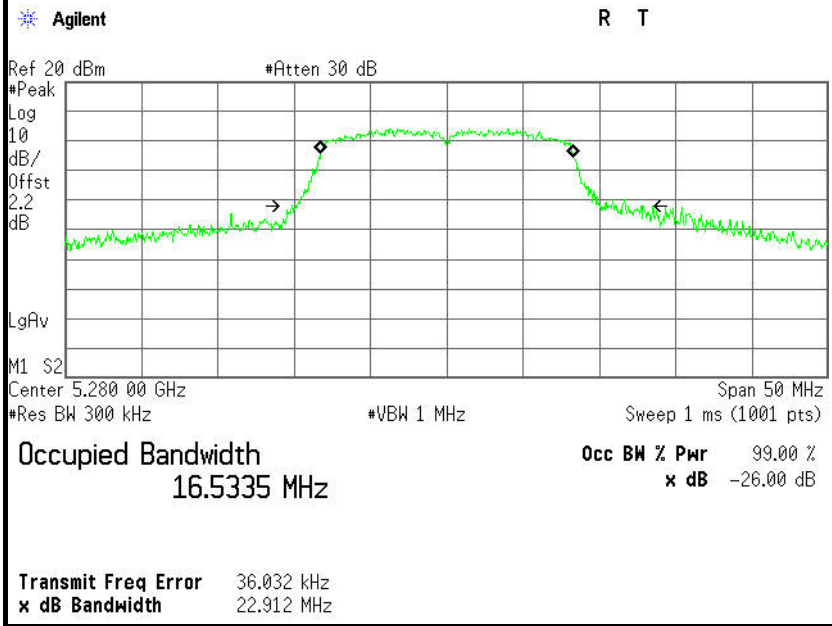
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

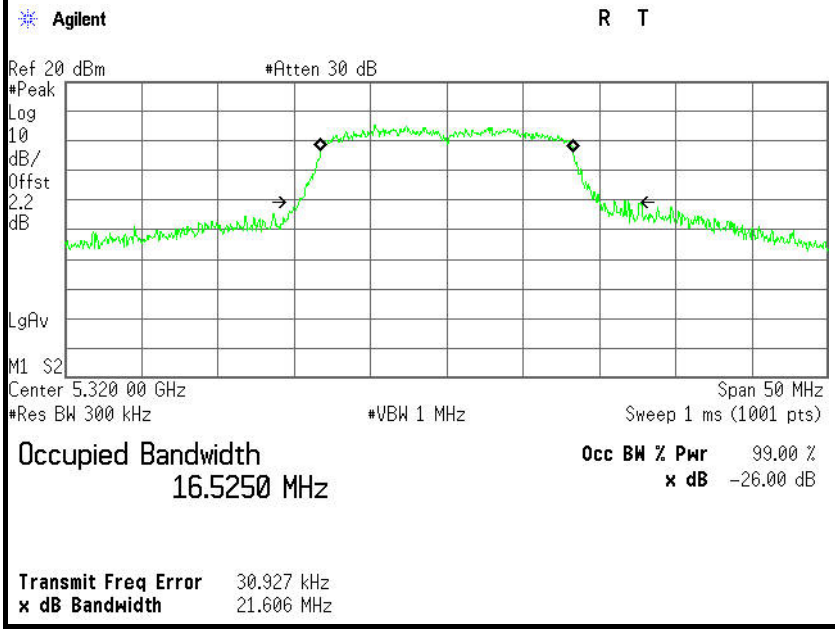
26dB Bandwidth (CH Mid)

Antenna 1



26dB Bandwidth (CH High)

Antenna 1

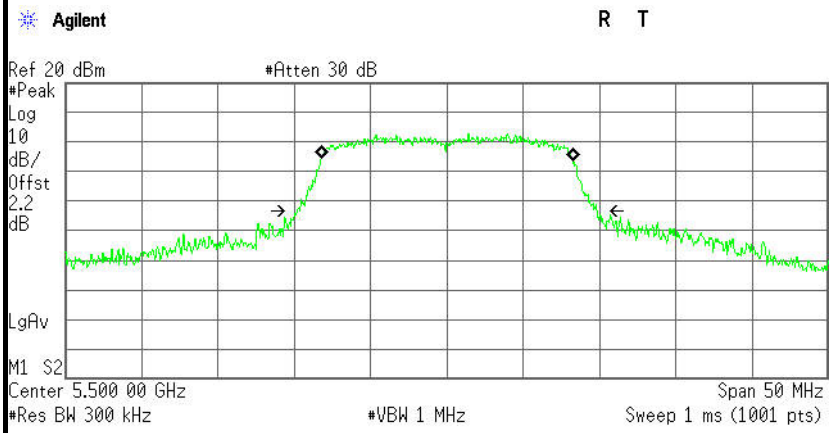


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11a mode / 5500 ~ 5700MHz

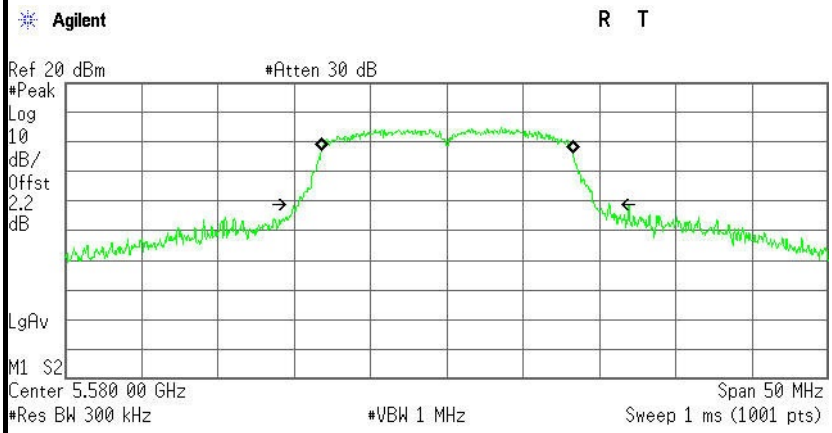
26dB Bandwidth (CH Low)

Antenna 1



26dB Bandwidth (CH Mid)

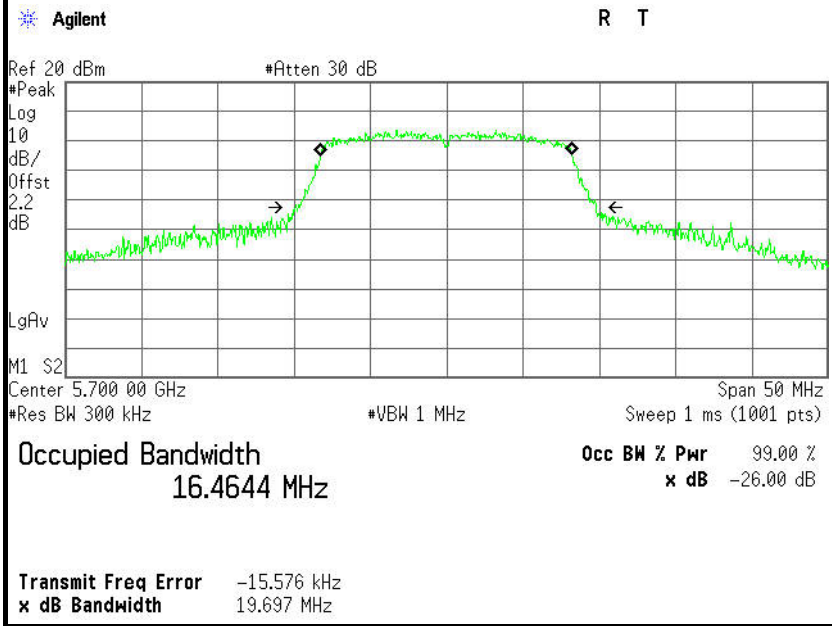
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

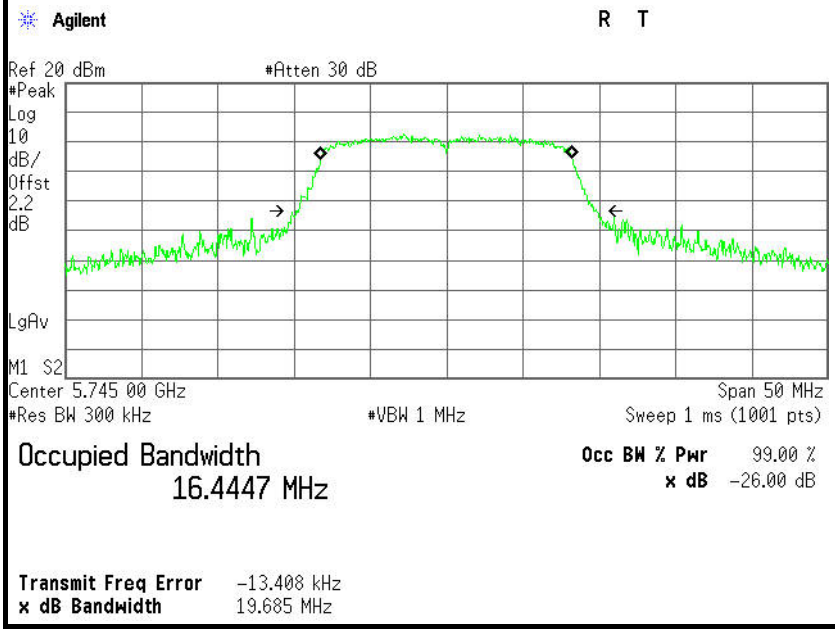
Antenna 1



IEEE 802.11a mode / 5745 ~ 5805MHz

26dB Bandwidth (CH Low)

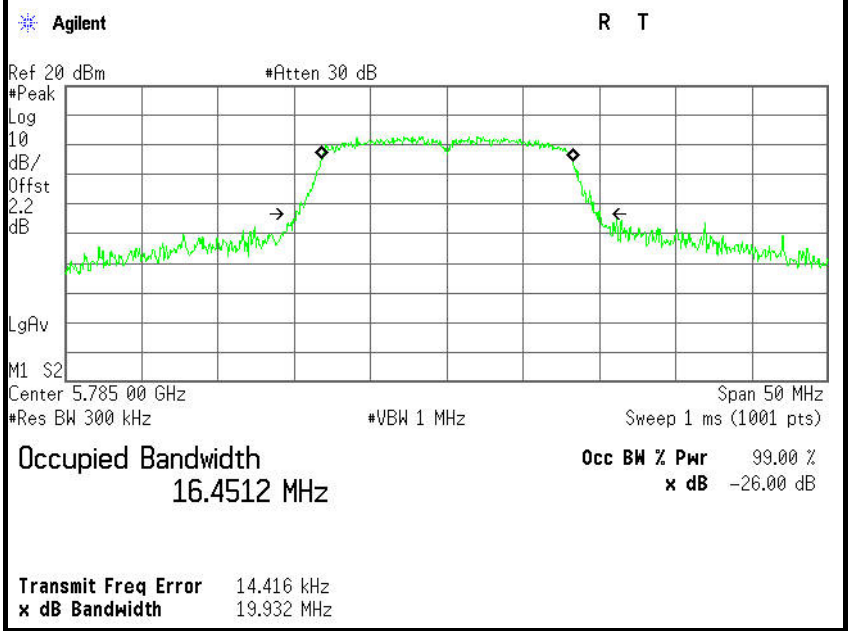
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

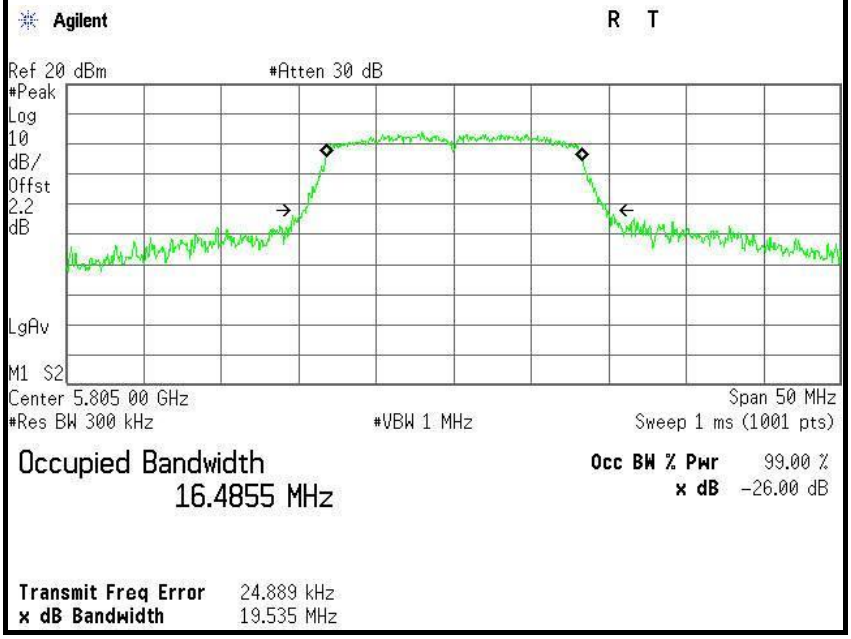
26dB Bandwidth (CH Mid)

Antenna 1



26dB Bandwidth (CH High)

Antenna 1

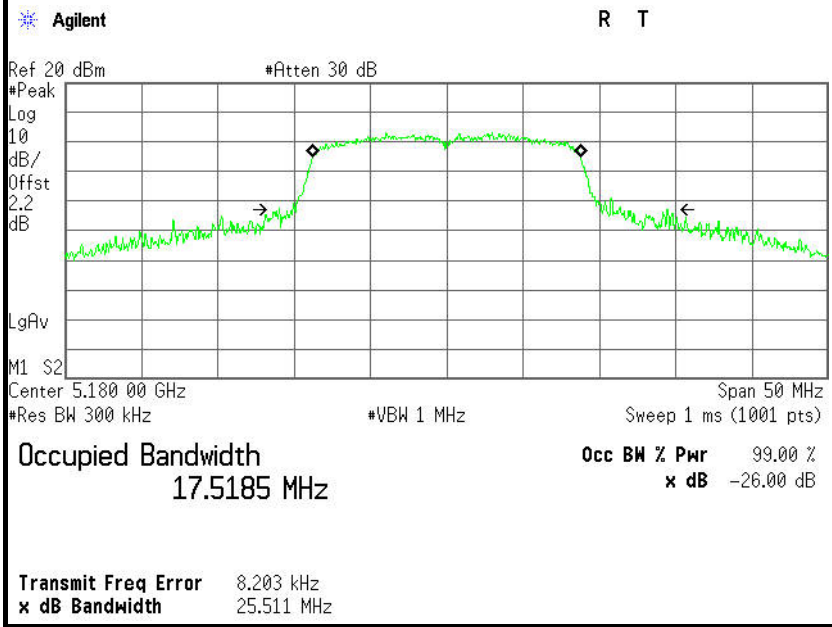


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

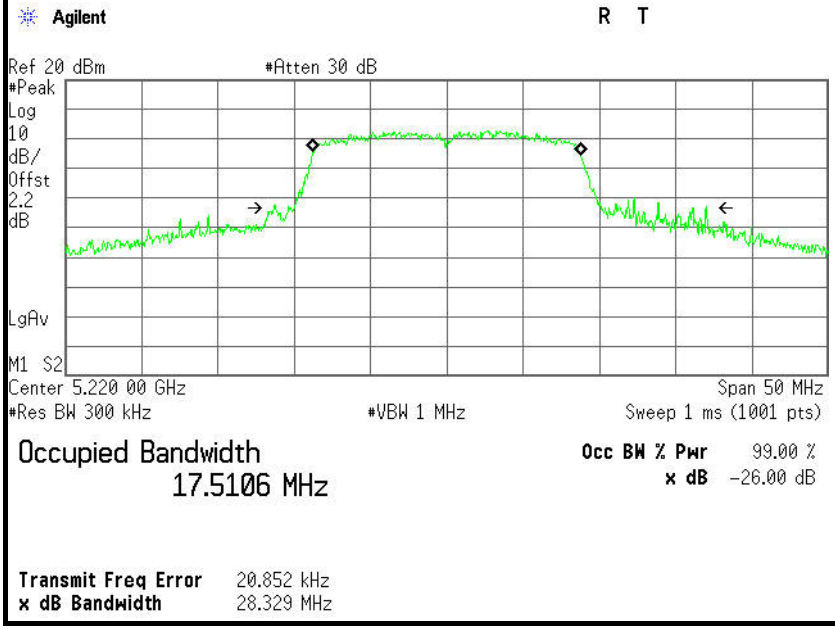
26dB Bandwidth (CH Low)

Antenna 0



26dB Bandwidth (CH Mid)

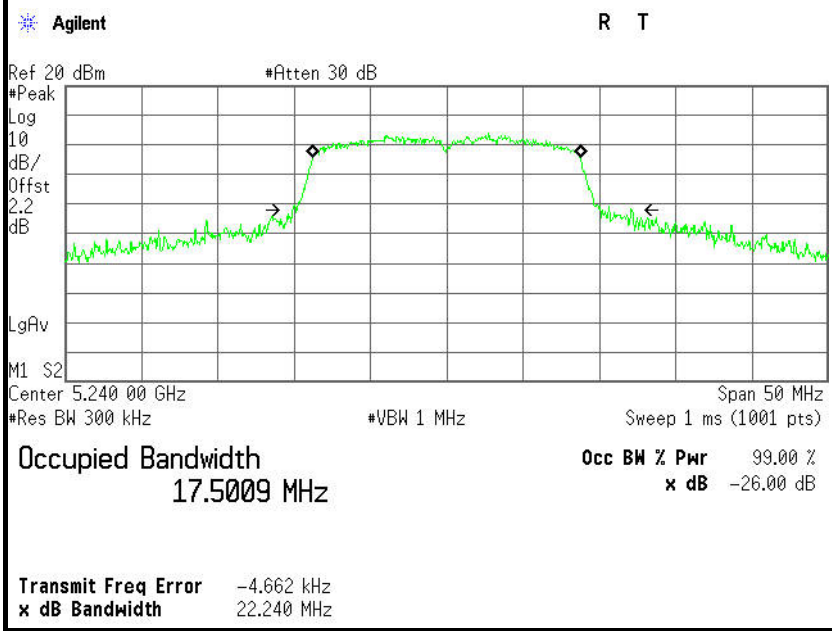
Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

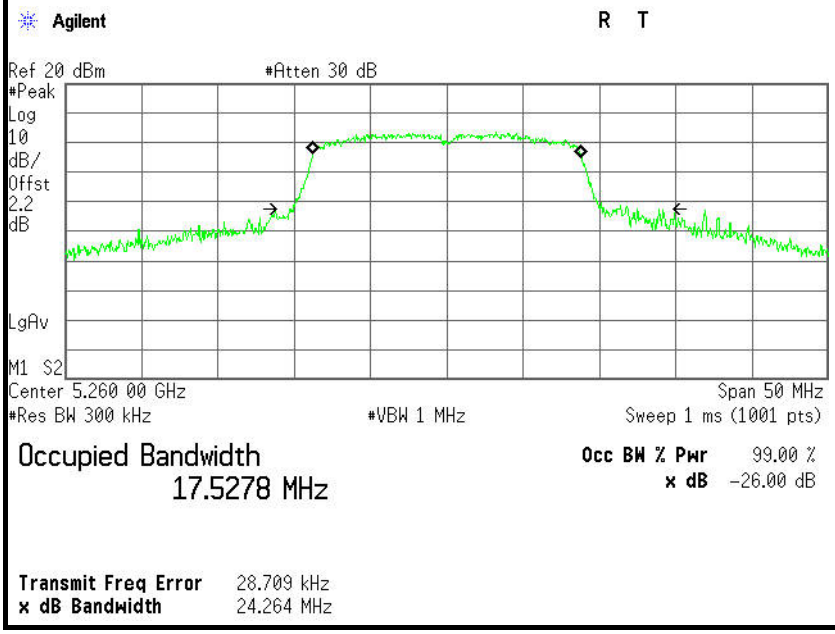
Antenna 0



IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

26dB Bandwidth (CH Low)

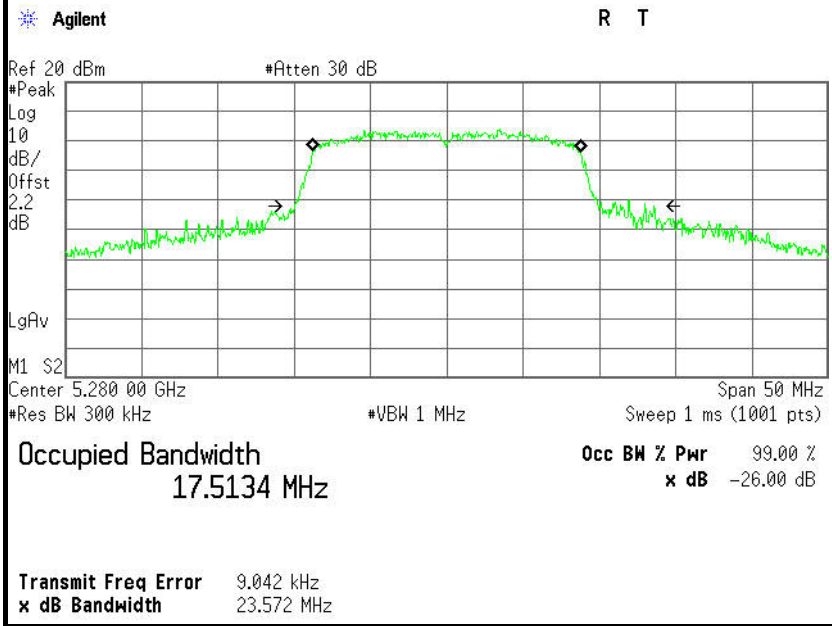
Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

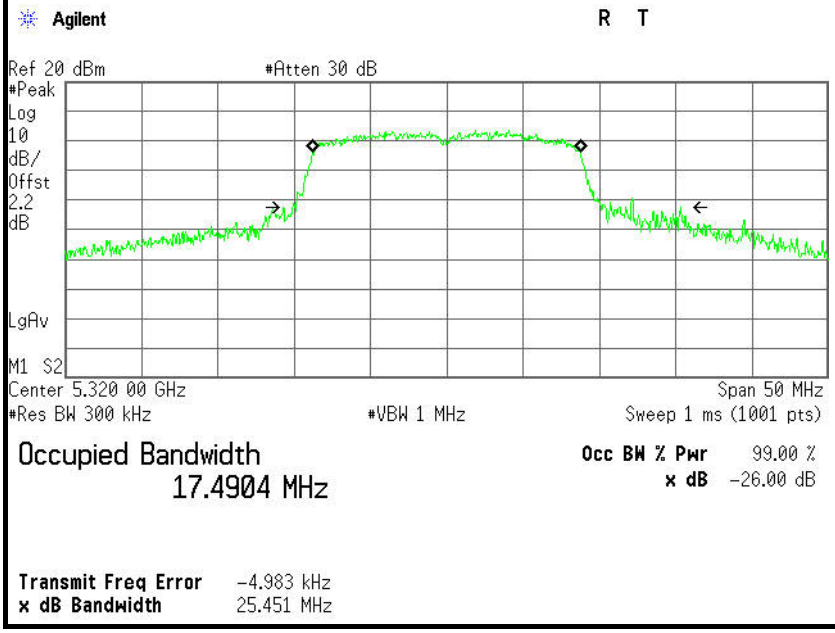
26dB Bandwidth (CH Mid)

Antenna 0



26dB Bandwidth (CH High)

Antenna 0

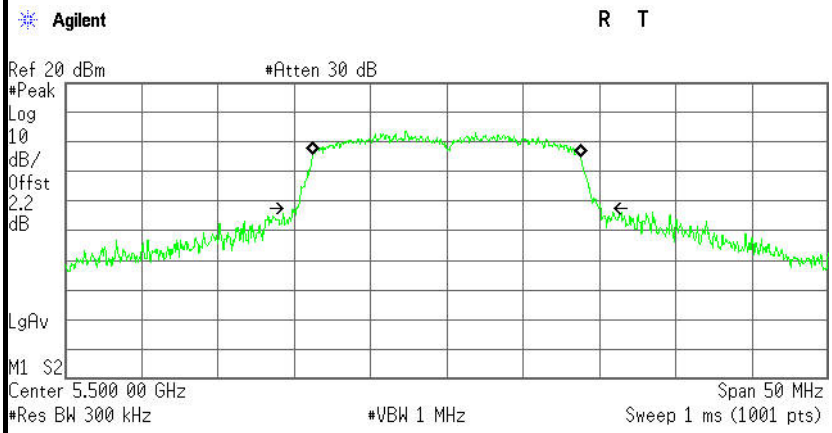


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

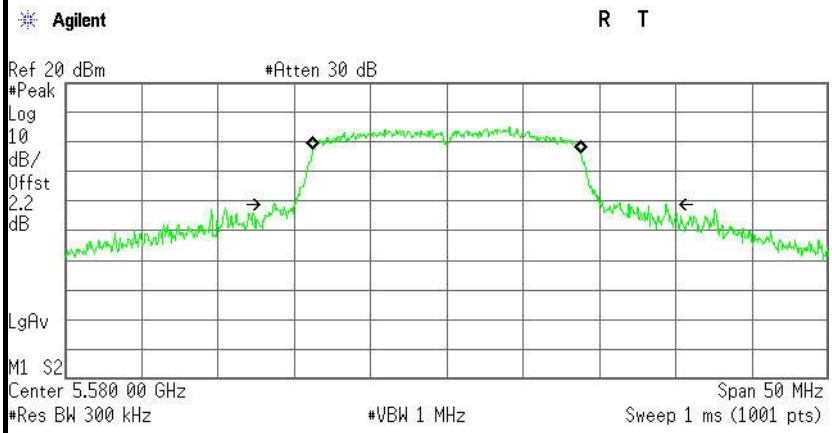
26dB Bandwidth (CH Low)

Antenna 0



26dB Bandwidth (CH Mid)

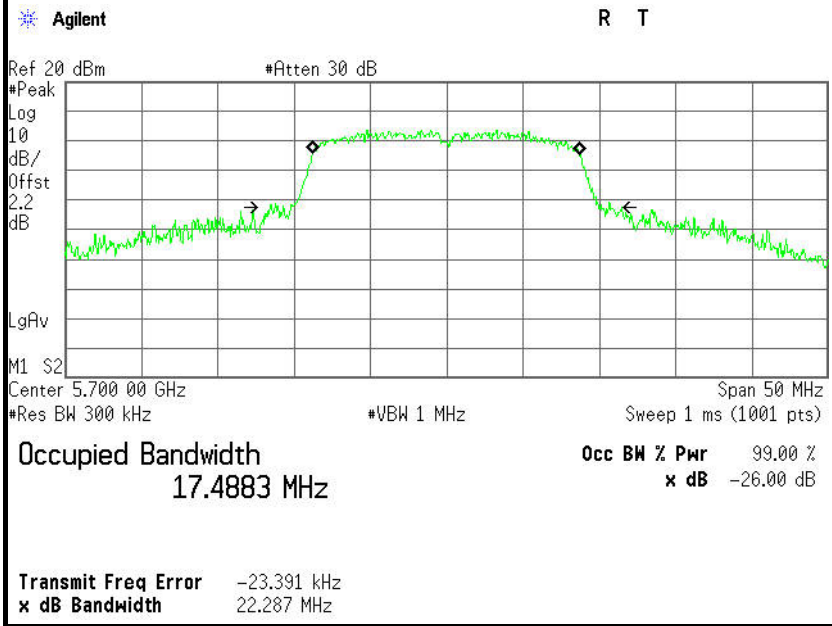
Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

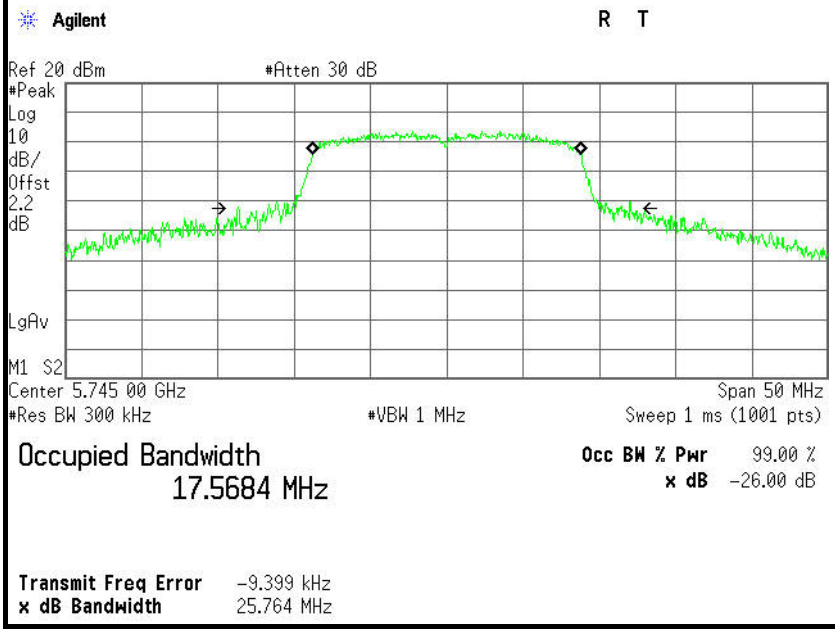
Antenna 0



IEEE 802.11n HT 20 MHz mode / 5745 ~ 5805MHz

26dB Bandwidth (CH Low)

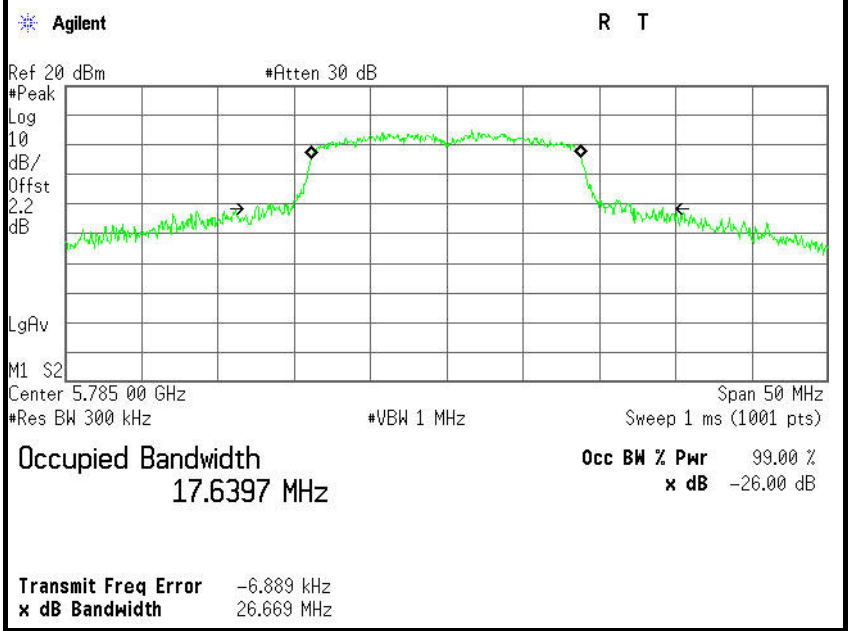
Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

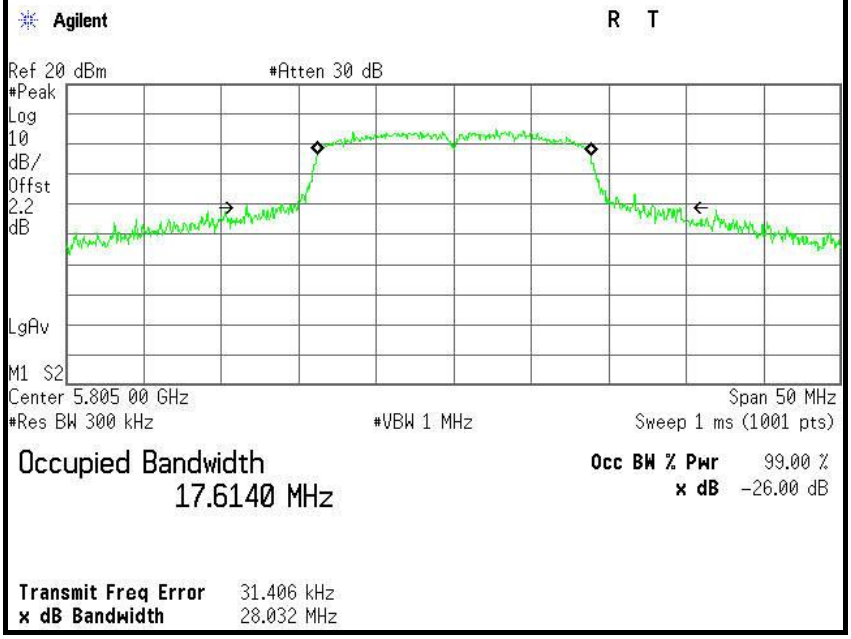
26dB Bandwidth (CH Mid)

Antenna 0



26dB Bandwidth (CH High)

Antenna 0

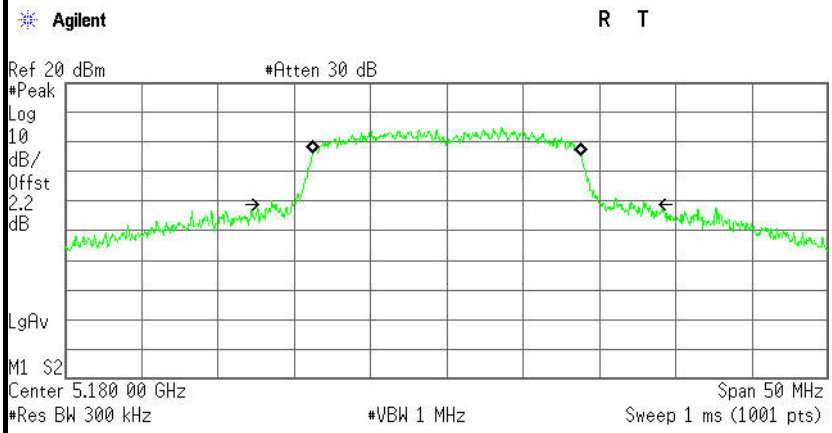


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

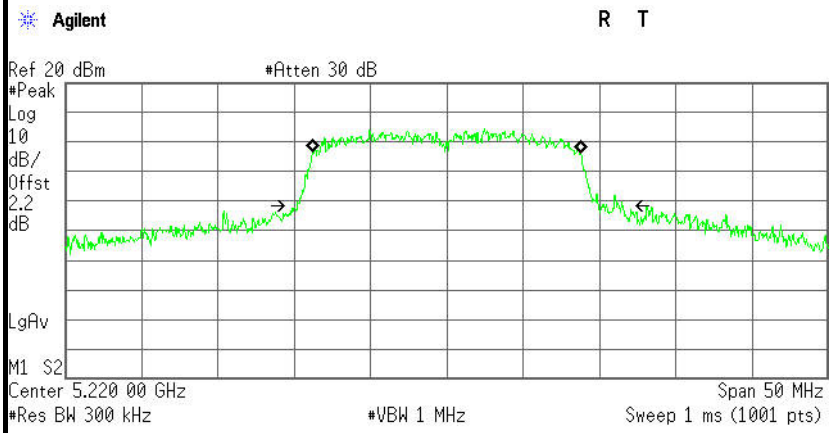
26dB Bandwidth (CH Low)

Antenna 1



26dB Bandwidth (CH Mid)

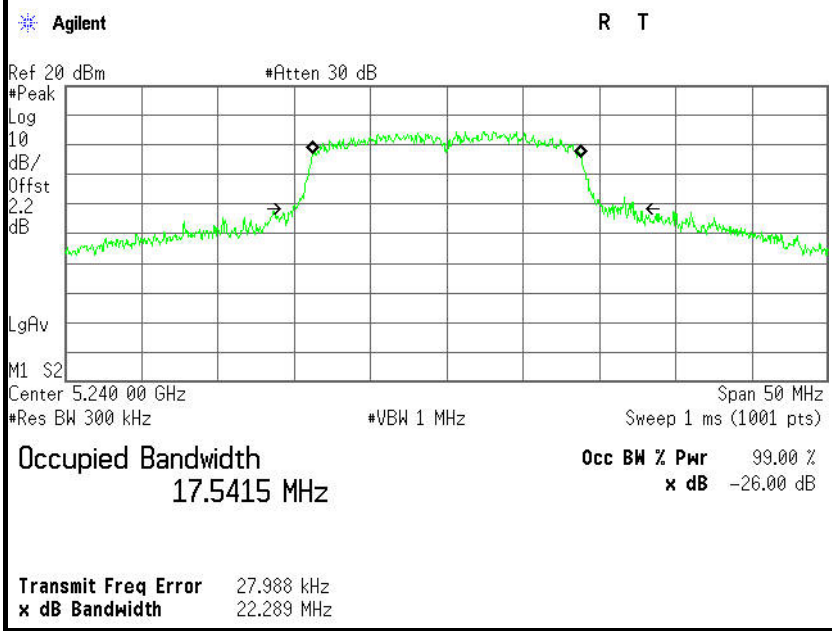
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

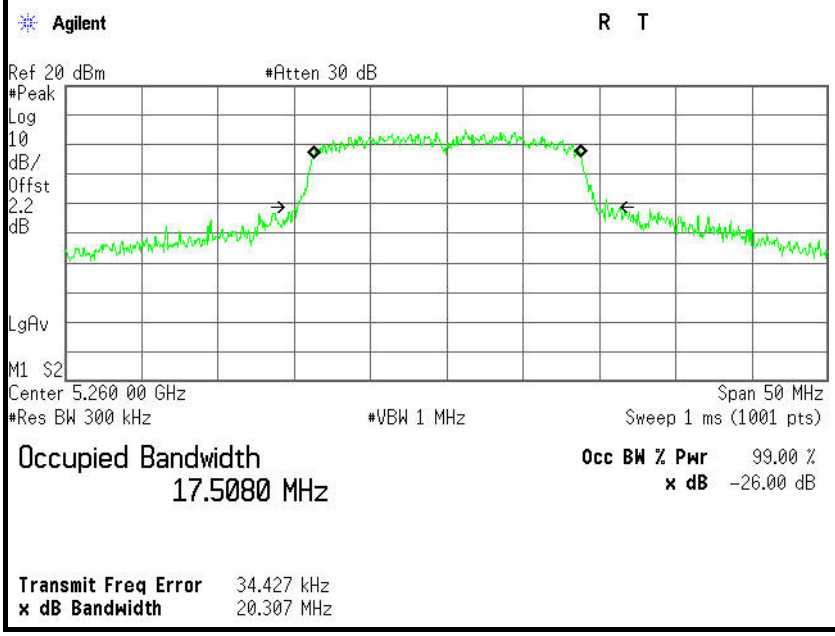
Antenna 1



IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

26dB Bandwidth (CH Low)

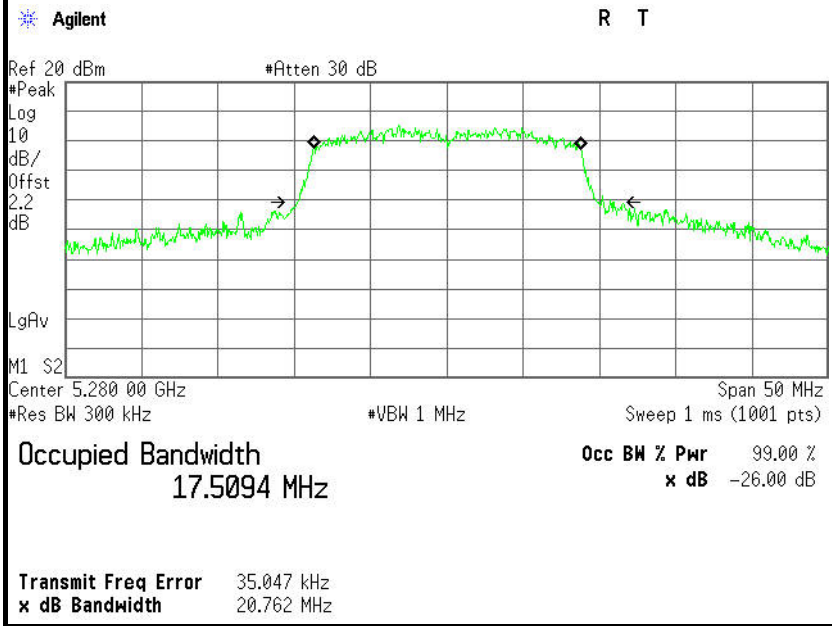
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

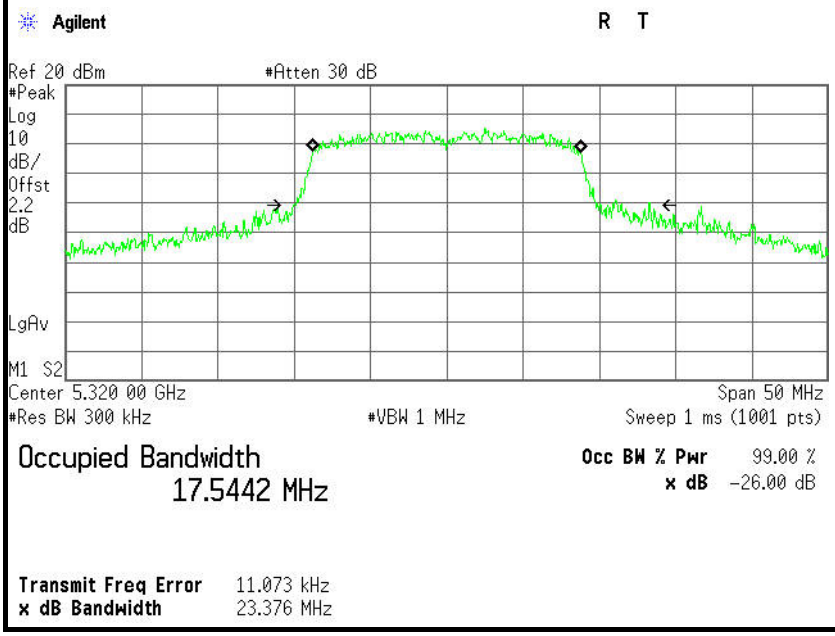
26dB Bandwidth (CH Mid)

Antenna 1



26dB Bandwidth (CH High)

Antenna 1

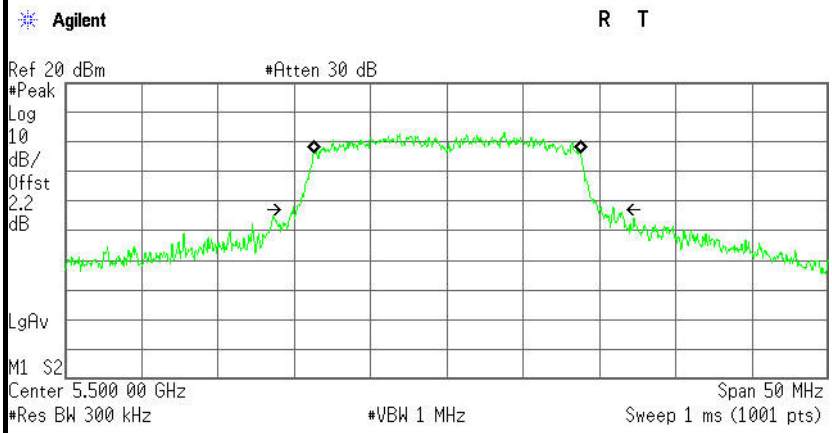


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

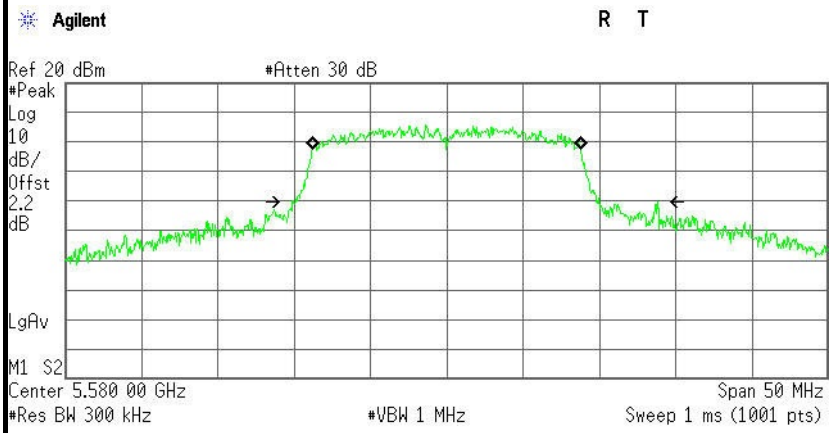
26dB Bandwidth (CH Low)

Antenna 1



26dB Bandwidth (CH Mid)

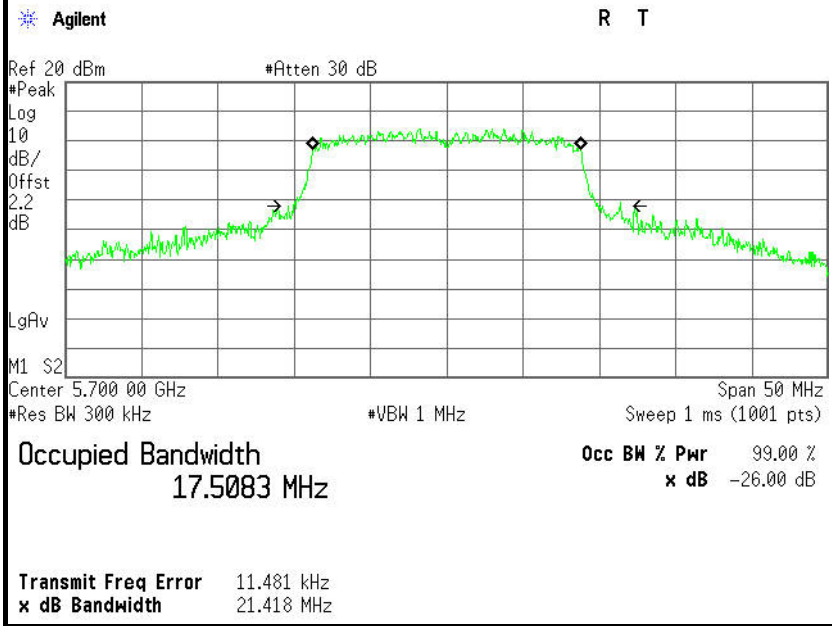
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

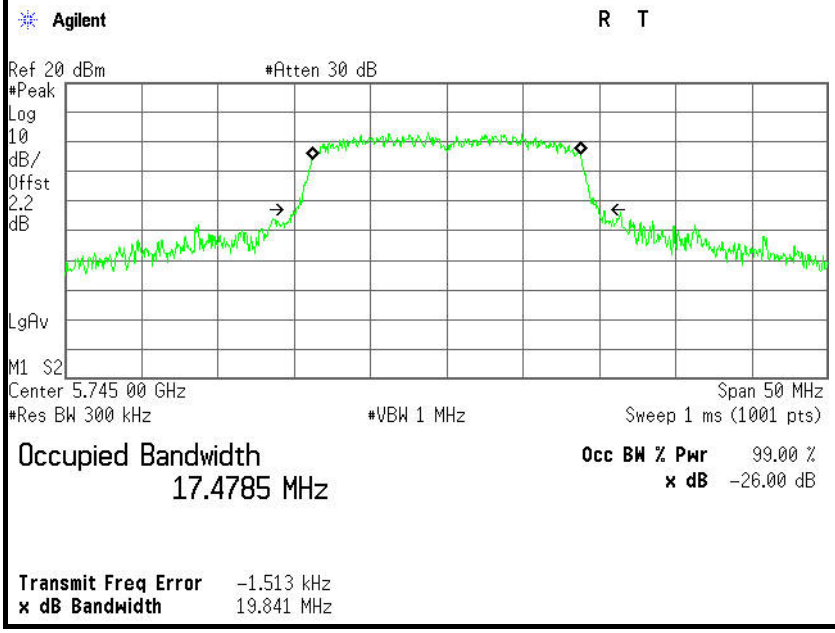
Antenna 1



IEEE 802.11n HT 20 MHz mode / 5745 ~ 5805MHz

26dB Bandwidth (CH Low)

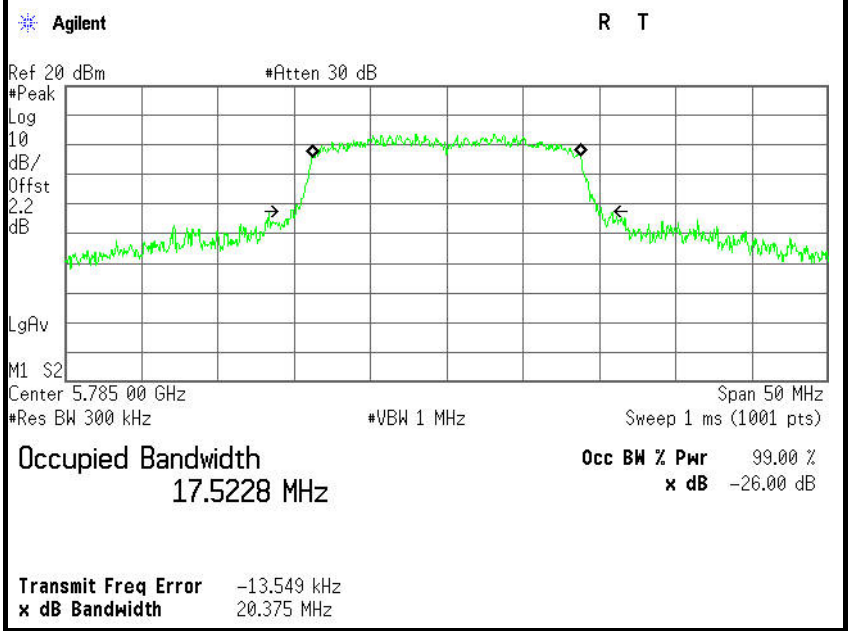
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

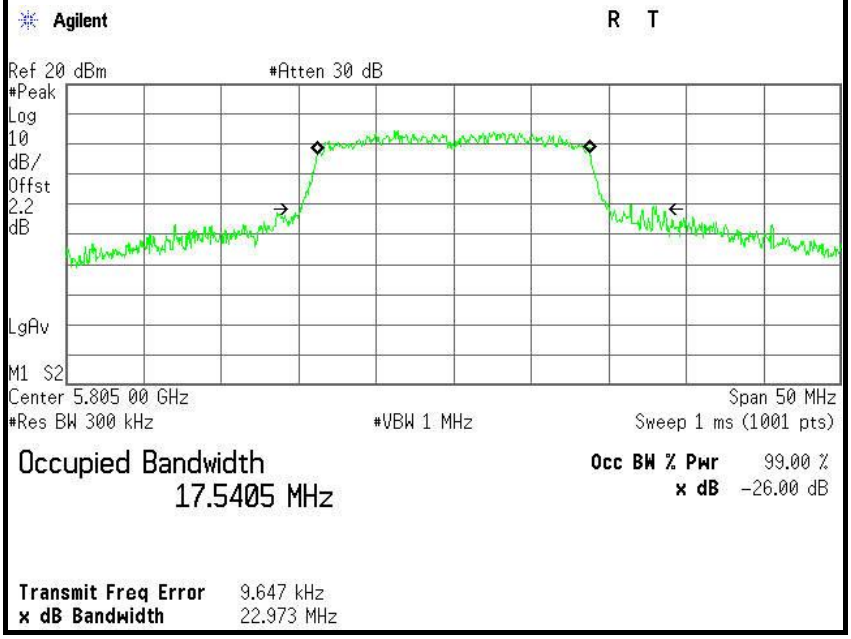
26dB Bandwidth (CH Mid)

Antenna 1



26dB Bandwidth (CH High)

Antenna 1

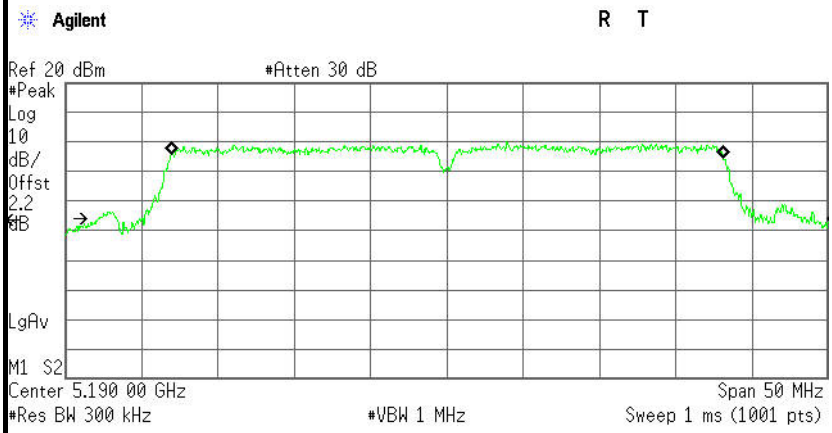


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

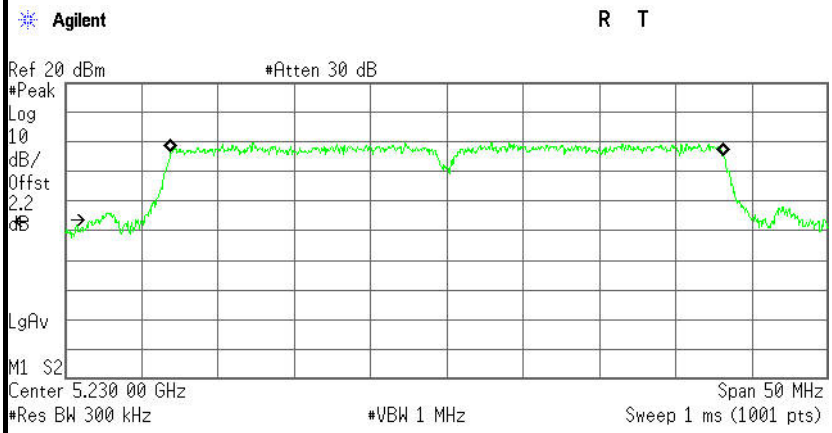
26dB Bandwidth (CH Low)

Antenna 0



26dB Bandwidth (CH High)

Antenna 0

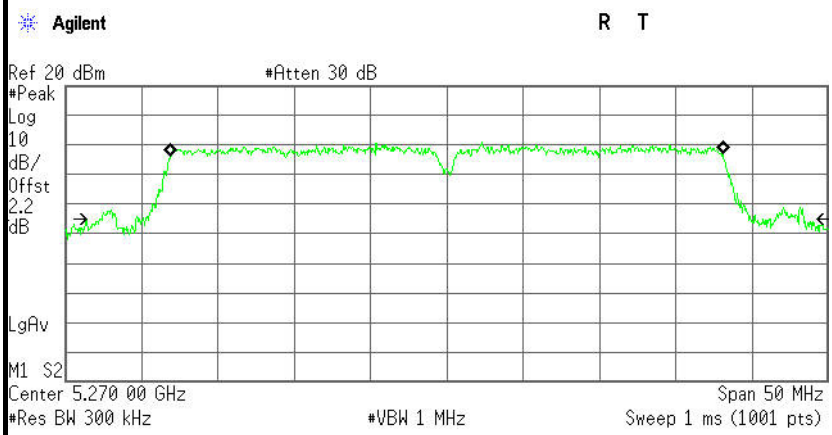


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 40 MHz mode / 5230 ~ 5310MHz

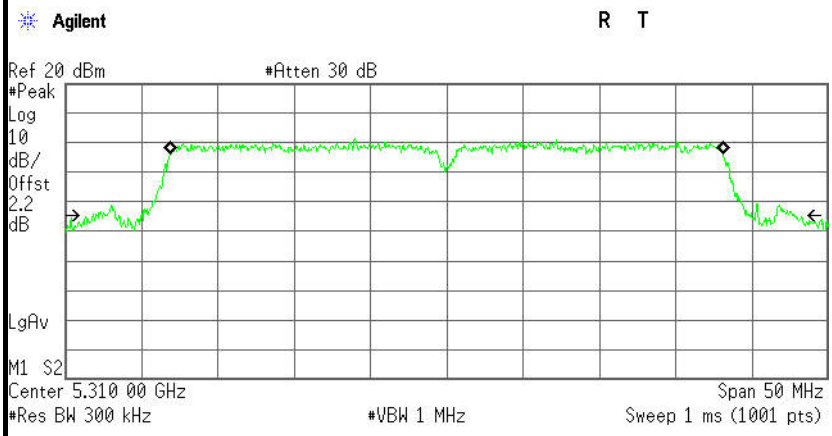
26dB Bandwidth (CH Low)

Antenna 0



26dB Bandwidth (CH High)

Antenna 0

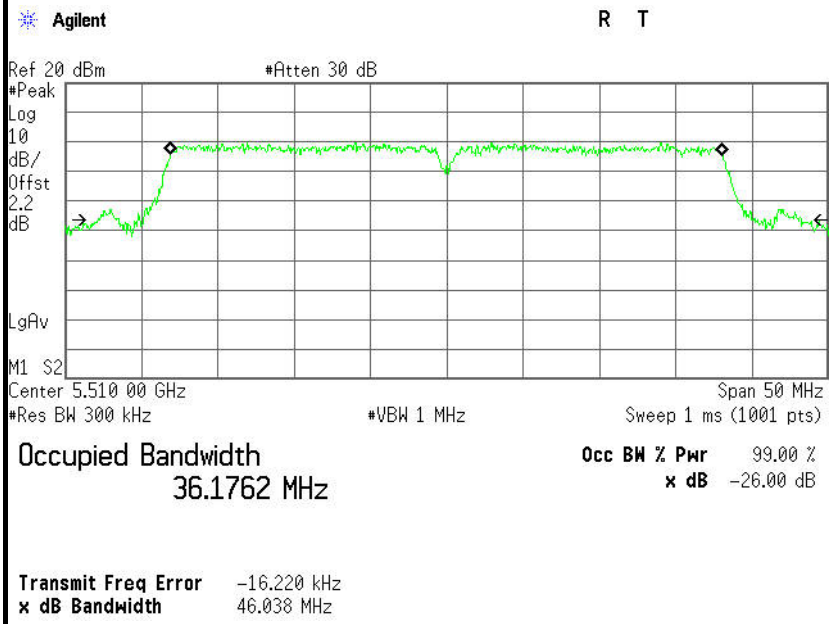


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 40 MHz mode / 5510 ~ 5670MHz

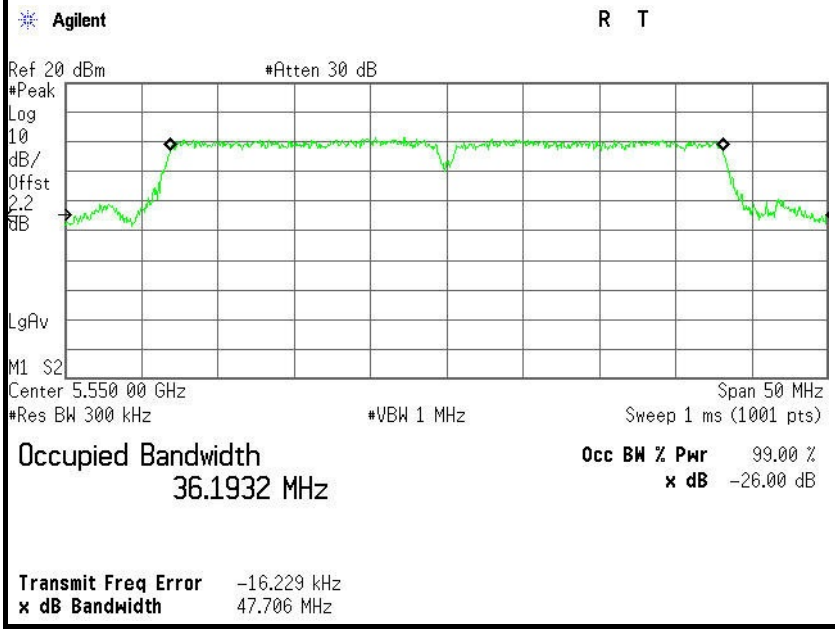
26dB Bandwidth (CH Low)

Antenna 0



26dB Bandwidth (CH Mid)

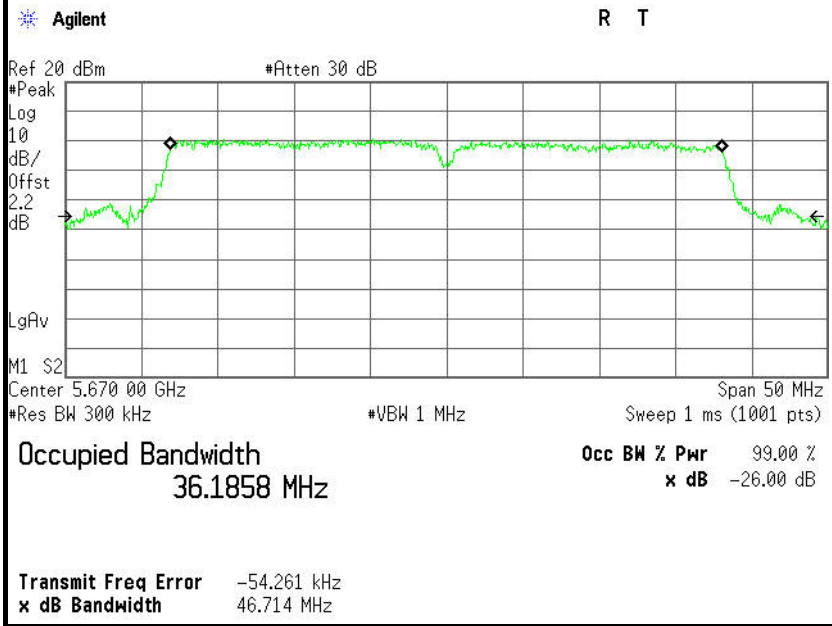
Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

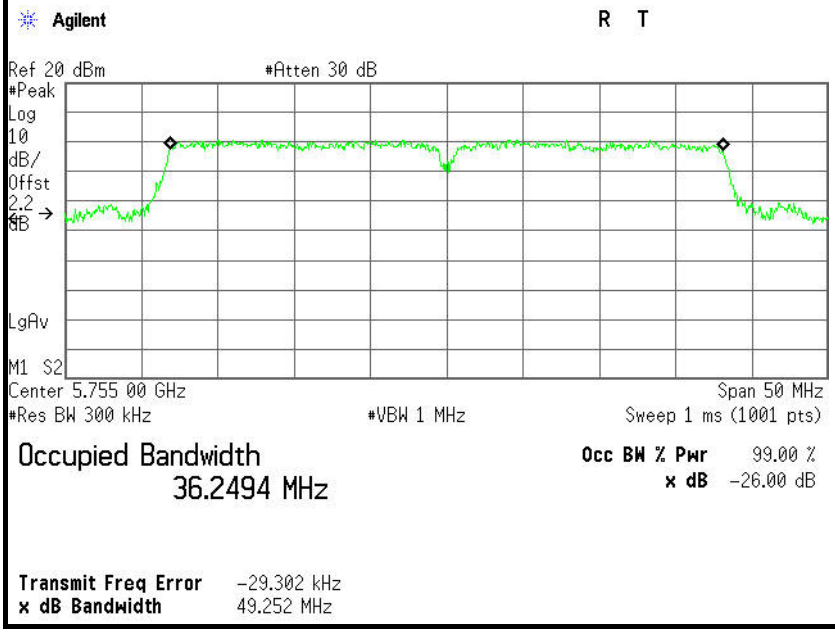
Antenna 0



IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

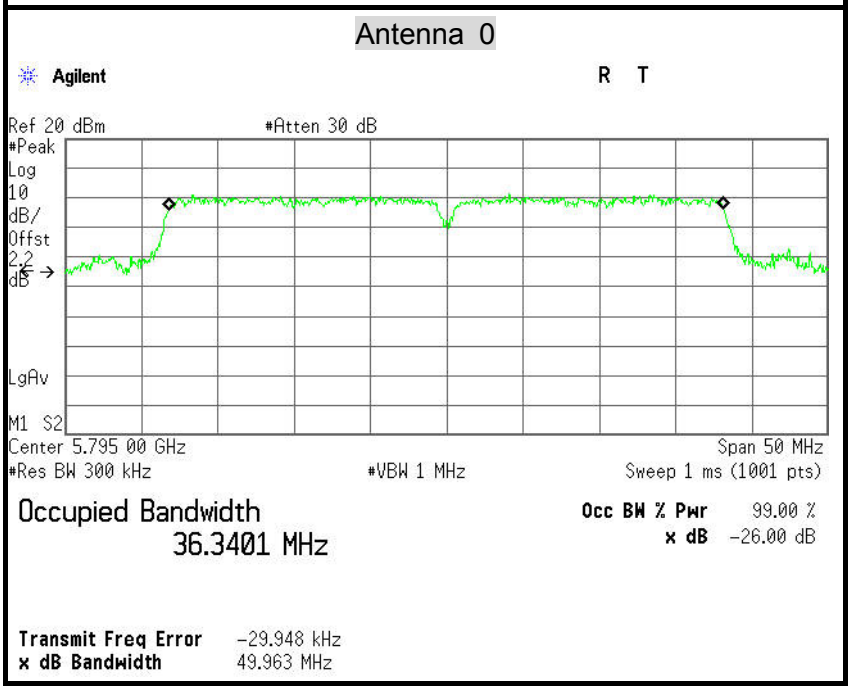
26dB Bandwidth (CH Low)

Antenna 0



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

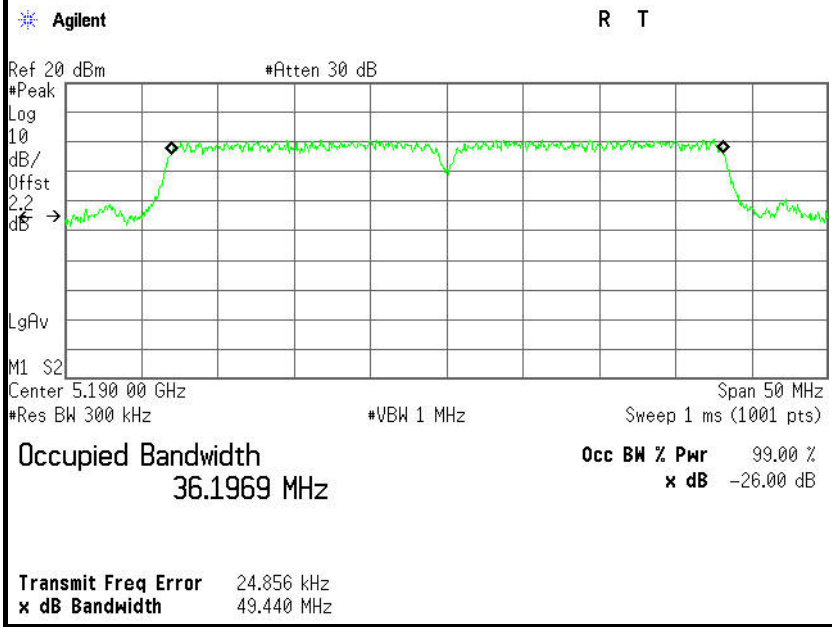


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

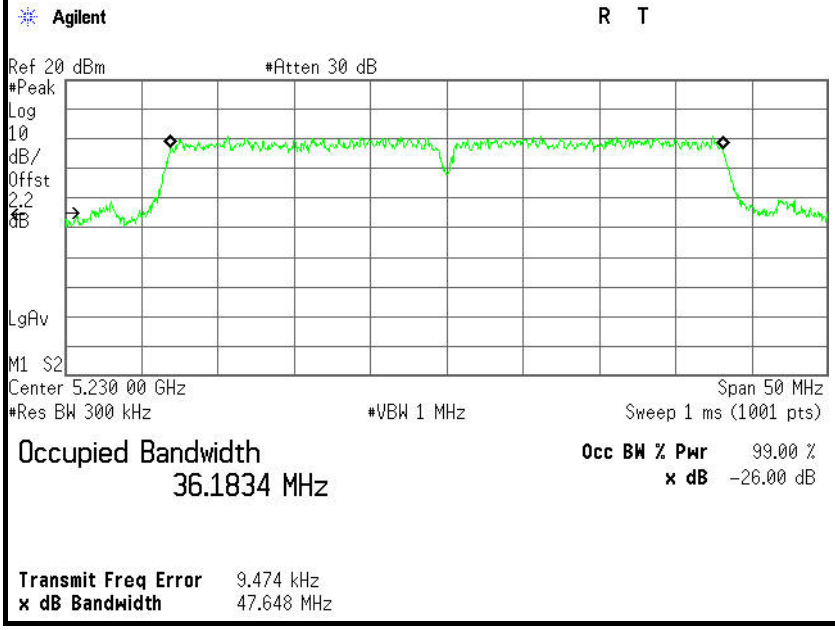
26dB Bandwidth (CH Low)

Antenna 1



26dB Bandwidth (CH High)

Antenna 1

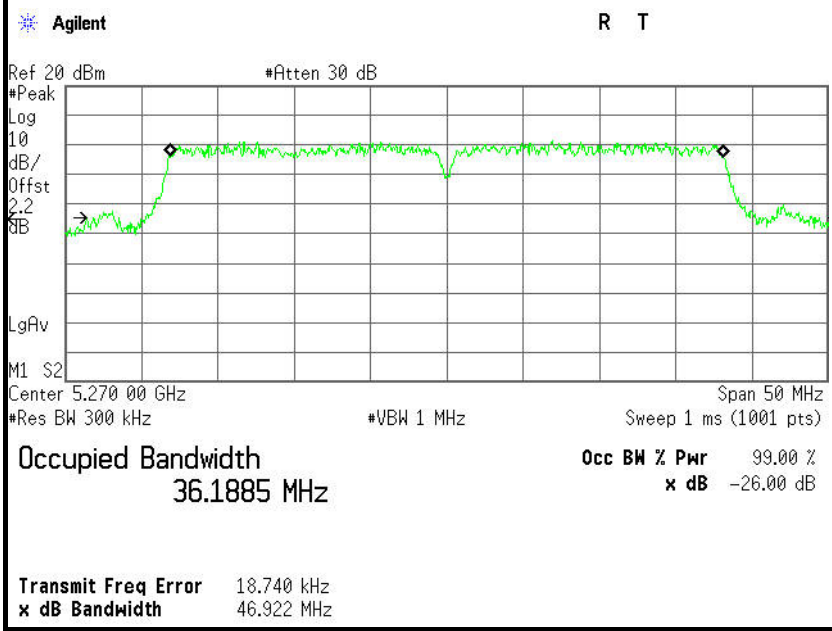


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

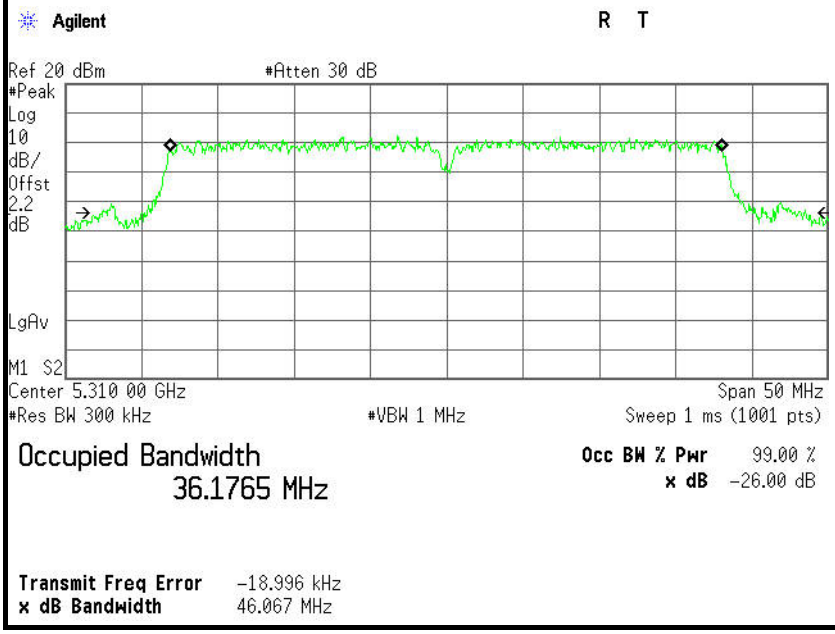
26dB Bandwidth (CH Low)

Antenna 1



26dB Bandwidth (CH High)

Antenna 1

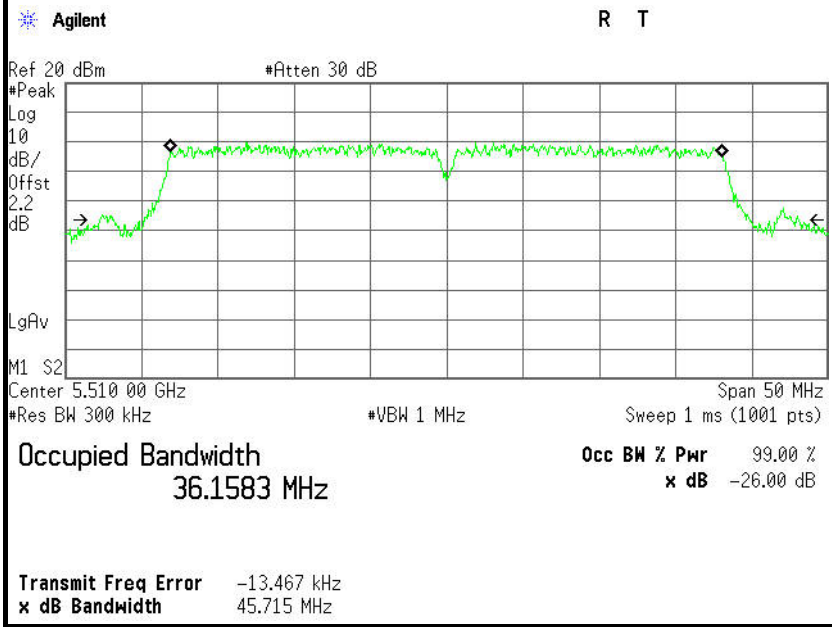


This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

IEEE 802.11n HT 40 MHz mode / 5510 ~ 5670MHz

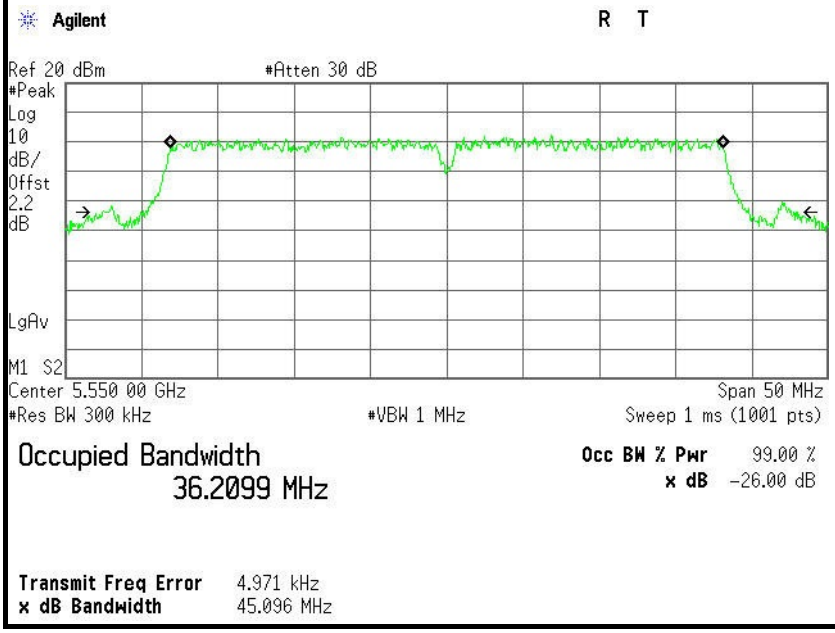
26dB Bandwidth (CH Low)

Antenna 1



26dB Bandwidth (CH Mid)

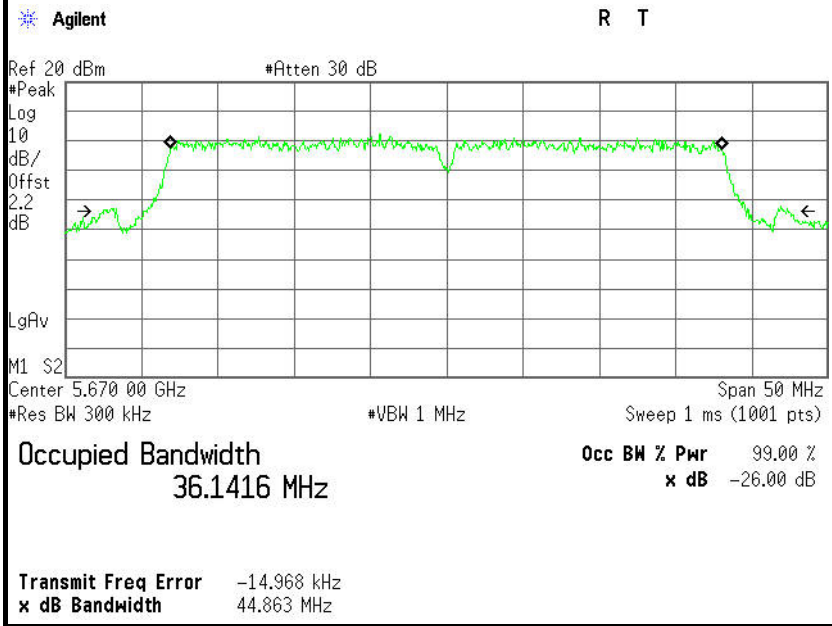
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

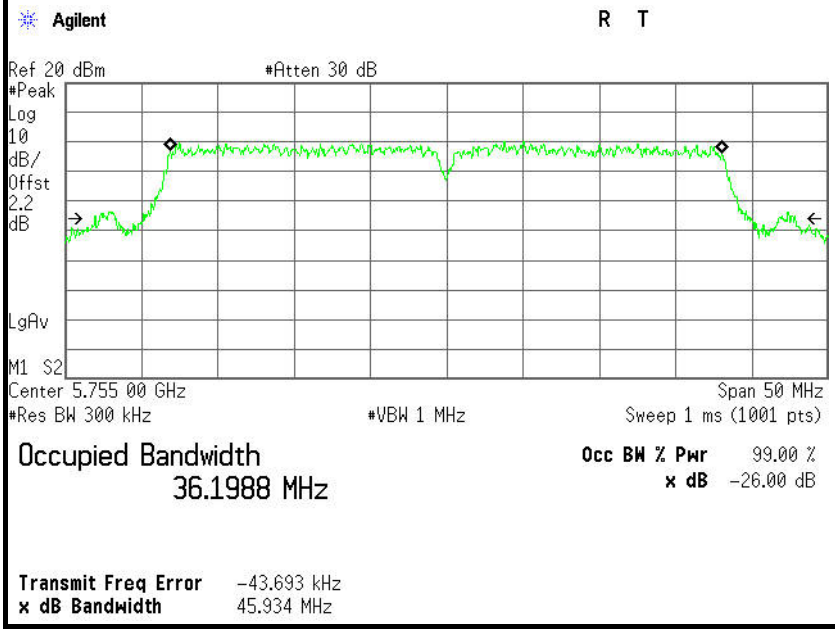
Antenna 1



IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

26dB Bandwidth (CH Low)

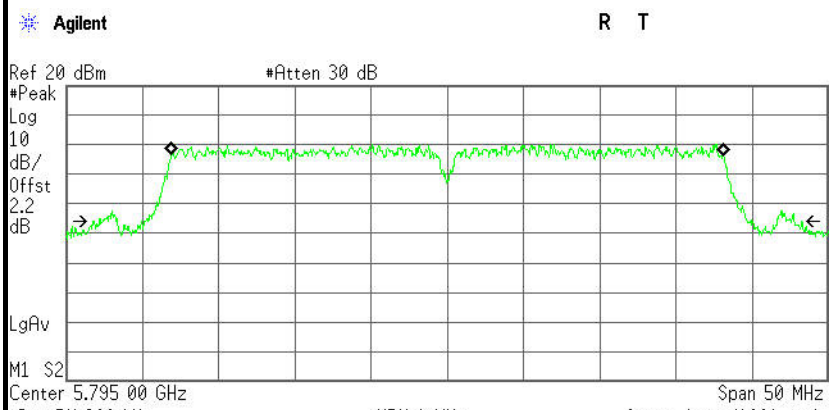
Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

26dB Bandwidth (CH High)

Antenna 1



This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

7.3 MAXIMUM CONDUCTED OUTPUT POWER

7.3.1LIMIT

According to §15.407(a),

(1) For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10log B, where B is the 26 dB emission bandwidth in MHz.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in MHz.

(3) For the band 5.725–5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz.

If transmitting antennas of directional gain greater than 6dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

According to RSS-210 §A9.2,

(1) For the band 5150-5250 MHz, the maximum equivalent isotropically radiated power (e.i.r.p.) shall not exceed 200 mW or 10 + 10 Log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

(2) For the band 5250-5350 MHz and 5470-5725 MHz, the maximum conducted output power shall not exceed 250 mW or 11 + 10 Log10 B, dBm, whichever power is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 Log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

(3) For the band 5725-5825 MHz, The maximum conducted output power shall not exceed 1.0 W or 17 + 10 log10 B, dBm, whichever power is less. The power spectral density shall not exceed 17 dBm in any 1.0 MHz band. The maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

In addition, devices with maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.
The peak power shall not exceed the limit as follow:

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Specified Limit of the Peak Power

Test mode: IEEE 802.11a mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		4 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5180	23.060	23.545	13.63	13.72	17.63	17.72	17	17
Mid	5220	21.939	21.447	13.41	13.31	17.41	17.31	17	17
High	5240	21.179	22.624	13.26	13.55	17.26	17.55	17	17

Test mode: IEEE 802.11a mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		11 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5260	22.284	22.438	13.48	13.51	24.48	24.51	24	24
Mid	5280	24.829	22.912	13.95	13.60	24.95	24.60	24	24
High	5320	20.336	21.606	13.08	13.35	24.08	24.35	24	24

Test mode: IEEE 802.11a mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		11 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5500	20.336	19.636	13.08	12.93	24.08	23.93	24	23.93
Mid	5580	20.102	20.369	13.03	13.09	24.03	24.09	24	24
High	5700	22.587	19.697	13.54	12.94	24.54	23.94	24	23.94

Test mode: IEEE 802.11a mode / 5745 ~ 5805MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		17 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5745	21.146	19.685	13.25	12.94	30.25	29.94	30	29.94
Mid	5785	22.943	19.932	13.61	13.00	30.61	30.00	30	30
High	5805	29.032	19.535	14.63	12.91	31.63	29.91	30	29.91

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test mode: IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		4 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5180	25.511	24.594	14.07	13.91	18.07	17.91	17	17
Mid	5220	28.329	21.306	14.52	13.29	18.52	17.29	17	17
High	5240	22.240	22.289	13.47	13.48	17.47	17.48	17	17

Test mode: IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		11 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5260	24.264	20.307	13.85	13.08	24.85	24.08	24	24
Mid	5280	23.572	20.762	13.72	13.17	24.72	24.17	24	24
High	5320	25.451	23.376	14.06	13.69	25.06	24.69	24	24

Test mode: IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		11 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5500	19.925	21.028	12.99	13.23	23.99	24.23	23.99	24
Mid	5580	25.740	23.967	14.11	13.80	25.11	24.80	24	24
High	5700	22.287	21.418	13.48	13.31	24.48	24.31	24	24

Test mode: IEEE 802.11n HT 20 MHz mode / 5745 ~ 5805MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		17 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5745	28.032	19.841	14.48	12.98	31.48	29.98	30	30
Mid	5785	25.764	20.375	14.11	13.09	31.11	30.09	30	30
High	5805	26.669	22.973	14.26	13.61	31.26	30.61	30	30

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test mode: IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		4 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5190	46.803	49.440	16.70	16.94	20.70	20.94	17	17
High	5230	47.637	47.648	16.78	16.78	20.78	20.78	17	17

Test mode: IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		11 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5270	46.115	46.922	16.64	16.71	27.64	27.71	24	24
High	5310	46.057	46.067	16.63	16.63	27.63	27.63	24	24

Test mode: IEEE 802.11n HT 40 MHz mode / 5510 ~ 5670MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		11 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5510	46.038	45.715	16.63	16.60	27.63	27.60	24	24
Mid	5550	47.706	45.096	16.79	16.54	27.79	27.54	24	24
High	5670	46.714	44.863	16.69	16.52	27.69	27.52	24	24

Test mode: IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)		10*Log(B) (dB)		17 + 10*Log(B) (dBm)		Maximum Conducted Output Power Limit (dBm)	
		Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1
Low	5755	49.252	45.934	16.92	16.62	33.92	33.62	30	30
High	5795	49.963	45.598	16.99	16.59	33.99	33.59	30	30

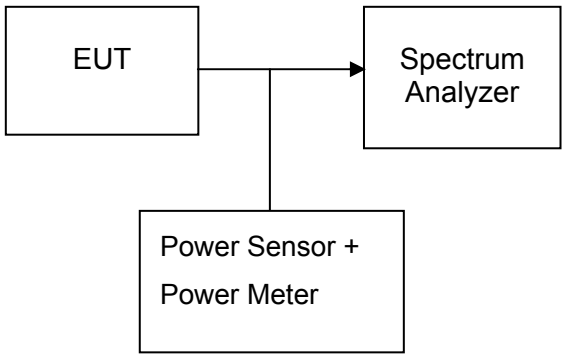
This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

7.3.2MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US44300399	03/01/2014	03/01/2015
Power Meter	Anritsu	ML2495A	1204003	03/01/2014	03/01/2015
Power Sensor	Anritsu	MA2411B	1126150	03/01/2014	03/01/2015

Remark: *Each piece of equipment is scheduled for calibration once a year.*

7.3.3TEST CONFIGURATIONS



7.3.4TEST PROCEDURE

Set span to encompass the entire emission bandwidth (EBW) of the signal.

Set RBW = 1 MHz / Set VBW = 3 MHz.

Use sample detector mode if bin width (i.e., span/number of points in spectrum display) < 0.5 RBW. Otherwise use peak detector mode. Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to “free run”.·Trace average 100 traces in power averaging mode. Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer’s band power measurement function with band limits set equal to the EBW band edges or by summing power levels in each 1 MHz band in linear power terms. The 1 MHz band power levels to be summed can be obtained by averaging, in linear power terms, power levels in each frequency bin across the 1 MHz.

7.3.5TEST RESULTS

No non-compliance noted

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

7.3.6TEST DATA

Test mode: IEEE 802.11a mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	Output Power (dBm)		Output Power (W)		Limit (dBm)	Result
		Antenna 0	Antenna 1	Antenna 0	Antenna 1		
Low	5180	11.08	12.25	0.01282	0.01679	17	PASS
Mid	5220	11.52	12.21	0.01419	0.01663		PASS
High	5240	11.88	12.39	0.01542	0.01734		PASS

Test mode: IEEE 802.11a mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	Output Power (dBm)		Output Power (W)		Limit (dBm)	Result
		Antenna 0	Antenna 1	Antenna 0	Antenna 1		
Low	5260	12.53	12.76	0.01791	0.01888	24	PASS
Mid	5280	13.71	13.17	0.02350	0.02075		PASS
High	5320	13.08	13.86	0.02032	0.02432		PASS

Test mode: IEEE 802.11a mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	Output Power (dBm)		Output Power (W)		Limit (dBm)	Result
		Antenna 0	Antenna 1	Antenna 0	Antenna 1		
Low	5500	12.37	11.62	0.01726	0.01452	23.93	PASS
Mid	5580	13.32	13.63	0.02148	0.02307		PASS
High	5700	12.69	12.30	0.01858	0.01698		PASS

Test mode: IEEE 802.11a mode / 5745 ~ 5805MHz

Channel	Frequency (MHz)	Output Power (dBm)		Output Power (W)		Limit (dBm)	Result
		Antenna 0	Antenna 1	Antenna 0	Antenna 1		
Low	5745	12.88	11.41	0.01941	0.01384	29.91	PASS
Mid	5785	13.46	12.27	0.02218	0.01687		PASS
High	5805	13.99	12.83	0.02506	0.01919		PASS

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test mode: IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (dBm)	Result
		Antenna 0	Antenna 1	Total			
Low	5180	11.28	12.33	14.85	0.03053	17	PASS
Mid	5220	11.60	12.13	14.88	0.03078		PASS
High	5240	11.92	12.38	15.17	0.03286		PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (dBm)	Result
		Antenna 0	Antenna 1	Total			
Low	5260	12.37	12.71	15.55	0.03592	24	PASS
Mid	5280	12.83	13.12	15.99	0.03970		PASS
High	5320	13.07	13.79	16.46	0.04421		PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (dBm)	Result
		Antenna 0	Antenna 1	Total			
Low	5500	12.21	11.69	14.97	0.03139	23.99	PASS
Mid	5580	13.46	13.52	16.50	0.04467		PASS
High	5700	12.88	12.24	15.58	0.03616		PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5745 ~ 5805MHz

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (dBm)	Result
		Antenna 0	Antenna 1	Total			
Low	5745	12.97	11.56	15.33	0.03414	30	PASS
Mid	5785	13.57	12.21	15.95	0.03939		PASS
High	5805	13.78	12.99	16.41	0.04378		PASS

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Test mode: IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (dBm)	Result
		Antenna 0	Antenna 1	Total			
Low	5190	11.00	12.03	14.56	0.02855	17	PASS
High	5230	11.28	11.97	14.65	0.02917		PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (dBm)	Result
		Antenna 0	Antenna 1	Total			
Low	5270	12.26	12.64	15.46	0.03519	24	PASS
High	5310	12.73	13.57	16.18	0.04150		PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5510 ~ 5670MHz

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (dBm)	Result
		Antenna 0	Antenna 1	Total			
Low	5510	12.18	11.79	15.00	0.03162	24	PASS
Mid	5550	13.48	13.44	16.47	0.04436		PASS
High	5670	12.51	12.40	15.47	0.03520		PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (dBm)	Result
		Antenna 0	Antenna 1	Total			
Low	5755	12.75	11.48	15.17	0.03290	30	PASS
High	5795	13.21	12.35	15.81	0.03812		PASS

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

7.4 BAND EDGES MEASUREMENT

7.4.1LIMIT

According to §15.407(b) & RSS-210 §A8.5,

(1) The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

(2) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency block edges as the design of the equipment permits.

7.4.2MEASUREMENT EQUIPMENT USED

Radiated Emission Test Site 966（2）					
Name of Equipment	**Manufacturer**	**Model Number**	**Serial Number**	**Last Calibration**	**Due Calibration**
PSA Series Spectrum Analyzer	Agilent	E4446A	US44300399	03/01/2014	03/01/2015
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	03/09/2014	03/08/2015
Amplifier	MITEQ	AM-1604-3000	1123808	03/18/2015	03/18/2015
High Noise Amplifier	Agilent	8449B	3008A01838	03/18/2015	03/18/2015
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	07/10/2013	07/09/2014
Bilog Antenna	SCHAFFNER	CBL6143	5082	03/01/2014	03/01/2015
Horn Antenna	SCHWARZBECK	BBHA9120	D286	03/01/2014	03/01/2015
Loop Antenna	COM-POWER	AL-130	121044	09/27/2013	09/26/2014
Turn Table	N/A	N/A	N/A	N.C.R	N.C.R
Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R
Controller	CT	N/A	N/A	N.C.R	N.C.R
Temp. / Humidity Meter	Anymetre	JR913	N/A	02/28/2014	02/28/2015
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2			

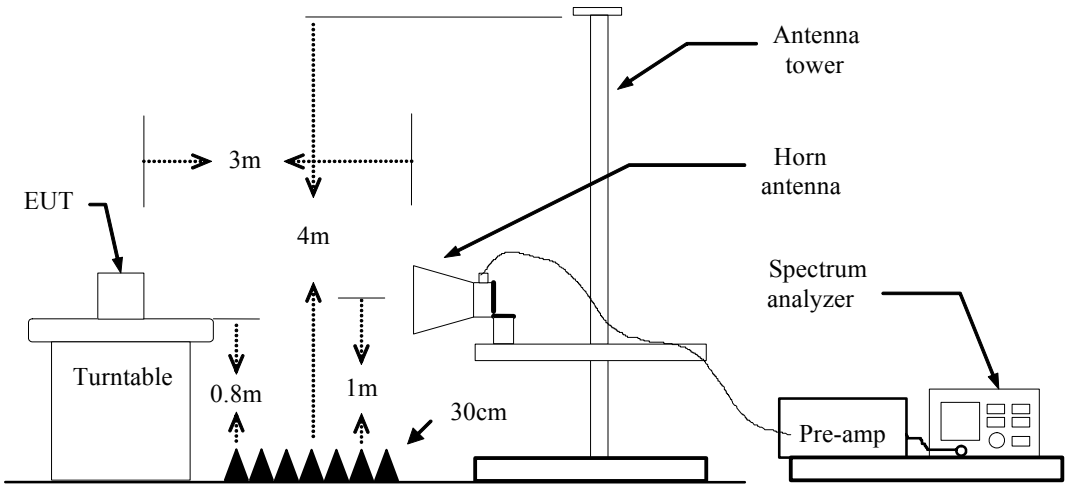
NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The FCC Site Registration number is 101879.

3. N.C.R = No Calibration Required.

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

7.4.3TEST CONFIGURATION



7.4.4TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above the ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
   (a) PEAK: RBW=1 / VBW=3MHz / Sweep=AUTO
   (b) AVERAGE: RBW=1MHz / VBW=11Hz / Sweep=AUTO
5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

7.4.5TEST RESULT

Test mode: IEEE 802.11a mode / 5500 ~ 5700MHz

Antenna 0:

1. Operating Frequency: 5500-5700MHz
2. CH Low: 5500MHz, CH High: 5700MHz
3. 26dB bandwidth: CH Low: 20.336MHz, CH High: 22.587MHz
4. Frequency Range: 5489.832MHz, 5711.2935MHz

Antenna 1:

1. Operating Frequency: 5500-5700MHz
2. CH Low: 5500MHz, CH High: 5700MHz
3. 26dB bandwidth: CH Low: 19.636MHz, CH High: 19.697MHz
4. Frequency Range: 5490.182MHz, 5709.8485MHz

Test mode: IEEE 802.11a mode / 5745 ~ 5805MHz

Antenna 0:

1. Operating Frequency: 5745-5805MHz
2. CH Low: 5745MHz, CH High: 5805MHz
3. 26dB bandwidth: CH Low: 21.146MHz, CH High: 29.032MHz
4. Frequency Range: 5734.427MHz, 5819.516MHz

Antenna 1:

1. Operating Frequency: 5745-5805MHz
2. CH Low: 5745MHz, CH High: 5805MHz
3. 26dB bandwidth: CH Low: 19.685MHz, CH High: 19.535MHz
4. Frequency Range: 5735.1575MHz, 5814.7675MHz

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.