



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-20	Duty Cycle (%):	98.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	4.90
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	GMH
Engineering Test Notes:	Mac Address 204C0380E4BE		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+0.09 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5745.0	-0.538	0.776	---	---	3.267	28.1	-24.8
5785.0	-0.897	0.600	---	---	2.965	28.1	-25.1
5825.0	-1.137	0.412	---	---	2.732	28.1	-25.4

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).



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To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-40	Duty Cycle (%):	98.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	4.90
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	GMH
Engineering Test Notes:	Mac Address 204C0380E4BE		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+0.09 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5755.0	-3.331	-1.869	--	--	0.486	28.1	-27.6
5795.0	-3.940	-2.196	--	--	0.037	28.1	-28.1

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

9.5. Frequency Stability

Test Procedure

The manufacturer of the equipment is responsible for ensuring that the frequency stability is such that emissions are always maintained within the band of operation under all conditions.

Manufacturer Declaration

The frequency stability of the reference oscillator sets the frequency stability of the RF transceiver signals. Therefore, all RF signals should have better than ± 20 ppm stability.

This stability accounts for room temperature tolerance of the crystal oscillator circuit, frequency variation across temperature, and crystal ageing.

± 20 ppm at 5.250 GHz translates to a maximum frequency shift of ± 105 KHz. As the channel band-edge is at least 1 MHz from either of the band edges, ± 105 KHz is more than sufficient to guarantee that the intentional emission will remain in the band over the entire operating range of the EUT.

Specification

Limits

§15.407 (g) Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

9.6. Dynamic Frequency Selection (DFS)

Test Conditions for Dynamic Frequency Selection (DFS)			
Standard:	Taiwan LP0002	Ambient Temp. (°C):	20.0 - 24.5
Test Heading:	Dynamic Frequency Selection (DFS)	Rel. Humidity (%):	32 - 45
Standard Section(s):	KDB 905462	Pressure (mBars):	999 - 1001
EUT Type:	Slave without Radar Detection	Frequency Bands:	5,250 – 5,350 MHz 5,470 – 5,725 MHz
Test Environment:	Radiated	Antenna Gain used for Testing:	0 dBi
Detection Threshold:	n/a	Test Radar Level: (Threshold + Gain)	n/a
Number of Antenna Chains:	2	Duty Cycle Target:	≥ 30.00%
802.11a Transmit Power:	+15 dBm	Minimum Data Rate:	6 Mbit/s
802.11ac-80 Transmit Power:	+15 dBm	Minimum Data Rate:	MCS0
Uniform Loading:	For the above frequency band(s) the manufacturer declared that the device provides an aggregate uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.		
Communication Method:	The requisite MPEG video file ("TestFile.mpg" available on the NTIA website at the following link http://ntiacsd.ntia.doc.gov/dfs/) is used during this video stream.		
Engineer Notes:			
Reference Document(s):	See Normative References		

Client Devices

- A Client Device will not transmit before having received appropriate control signals from a Master Device.
- A Client Device will stop all its transmissions whenever instructed by a Master Device to which it is associated and will meet the Channel Move Time and Channel Closing Transmission Time requirements. The Client Device will not resume any transmissions until it has again received control signals from a Master Device.
- If a Client Device is performing In-Service Monitoring and detects a Radar Waveform above the DFS Detection Threshold, it will inform the Master Device. This is equivalent to the Master Device detecting the Radar Waveform and d) through f) of section 5.1.1 apply.
- Irrespective of Client Device or Master Device detection the Channel Move Time and Channel Closing Transmission Time requirements remain the same.
- The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes.
Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shutdown (rather than moving channels), no beacons should appear.

9.6.1. DFS Detection Thresholds

The table below provides the DFS Detection Thresholds for Master Devices as well as Client Devices incorporating In-Service Monitoring.

DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (see Notes 1, 2 and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP $>$ 200 milliwatt and power density $\leq$ 10 dBm/MHz	-62 dBm
EIRP $>$ 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

NOTE 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna

NOTE 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

NOTE 3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

9.6.2. Response Requirements

The following table provides the response requirements for Master and Client Devices incorporating DFS.

DFS Response Requirement Values

Parameter	Value
Non-Occupancy Period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds, see NOTE 1
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period, see NOTES 1 and 2
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth, see NOTE 3

NOTE 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

NOTE 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

NOTE 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

9.6.3. Radar Test Waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

9.6.3.1. Short Radar Pulses

Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μS)	PRI (μS)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	$\text{Roundup} \left\{ \left(\frac{1}{360} \right), \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{SEC}}} \right) \right\}$	60%	30
		Test B: 15 unique PRI values randomly selected in the range 518-3066 μS, with a minimum increment of 1 μS, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Note 1: Short Radar Pulse Type 0 should be used for the Detection Bandwidth test, Channel Move Time and Channel Closing Time tests

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

9.6.3.2. Long Radar Pulse Test

Long Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	Chirp Width (MHz)	PRI (μsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse radar test signal. If more than 30 waveforms are used for the Long Pulse radar test signal, then each additional waveform must also be unique and not repeated from the previous waveforms.

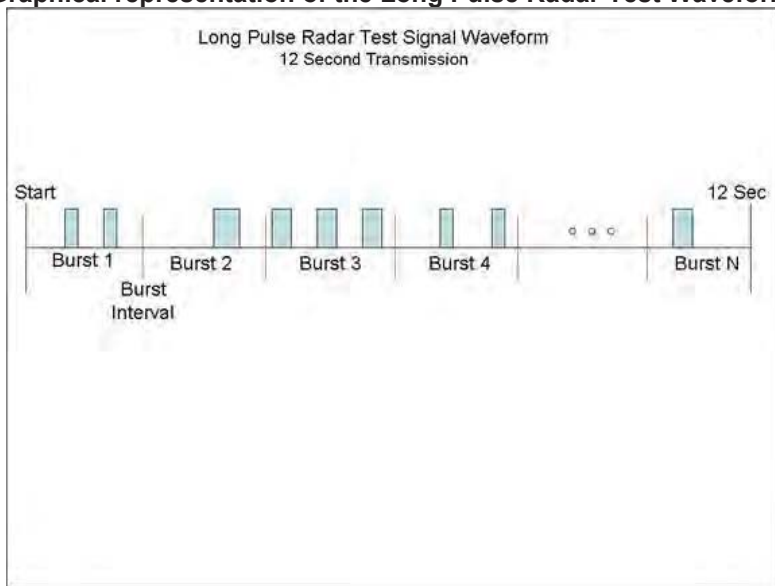
Each waveform is defined as follows:

1. The transmission period for the Long Pulse Radar test signal is 12 seconds.
2. There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst Count.
3. Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
4. The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.
5. Each pulse has a linear FM chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a Burst will have the same chirp width. Pulses in different Bursts may have different chirp widths. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz.
6. If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the time between the first and second pulses is chosen independently of the time between the second and third pulses.
7. The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst_Count. Each interval is of length $(12,000,000 / \text{Burst_Count})$ microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and $[(12,000,000 / \text{Burst_Count}) - (\text{Total Burst Length}) + (\text{One Random PRI Interval})]$ microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen independently.

A representative example of a Long Pulse radar test waveform:

1. The total test signal length is 12 seconds.
2. 8 Bursts are randomly generated for the Burst_Count
3. Burst 1 has 2 randomly generated pulses.
4. The pulse width (for both pulses) is randomly selected to be 75 microseconds.
5. The PRI is randomly selected to be at 1213 microseconds.
6. Bursts 2 through 8 are generated using steps 3 – 5.
7. Each Burst is contained in even intervals of 1,500,000 microseconds. The starting location for Pulse 1, Burst 1 is randomly generated (1 to 1,500,000 minus the total Burst 1 length + 1 random PRI interval) at the 325,001 microsecond step. Bursts 2 through 8 randomly fall in successive 1,500,000 microsecond intervals (i.e. Burst 2 falls in the 1,500,001 – 3,000,000 microsecond range).

Graphical representation of the Long Pulse Radar Test Waveform.



9.6.3.3. Frequency Hopping Radar Test Waveform

Radar Type	Pulse Width (μsec)	PRI (μsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	.333	300	70%	30

For the Frequency Hopping Radar Type, the same Burst parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected from the hopping sequence defined by the following algorithm:

The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.

9.6.4. Radar Waveform Calibration

The following equipment setup was used to calibrate the Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) mode at the frequency of the Radar Waveform generator. Peak detection was utilized. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz.

The signal generator amplitude was set so that the power level measured at the spectrum analyzer was equal to the DFS detection threshold +1dB (Ref Section 9.2).

9.6.5. Channel Close / Transmission Time

The steps below define the procedure to determine the above-mentioned parameters when a radar burst with a level of up to 10 dB above the DFS Detection threshold is injected on the Operating Channel of the EUT.

Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results to the limits defined in the DFS Response requirement values table.

Channel Closing Transmission Time - Measurement

The reference radar signature was introduced to the EUT, from which a 11 second transmission record was captured, as well as 1000ms of pre-trigger data. The Reference radar type was triggered to play at the exact time allowing the end of the pulse to occur at time $t=0$.

The system was setup to capture data for all transmission events above a given threshold level as determined and adjusted by the test engineer. The system time stamps all captured events with respect to T0 (zero time indicating the start of the measurement sequence) starting at the end of the radar pulse indicated by the purple vertical marker line in the Plot (on the next page).

The system captured data over a 12 second period at 10 points per microsecond. The data is analyzed by counting all "bursts" that occur above the threshold limit and aggregating the time each burst is on. The data is then compressed for presentation in one 12 second segment showing all of the activity recorded over the period.

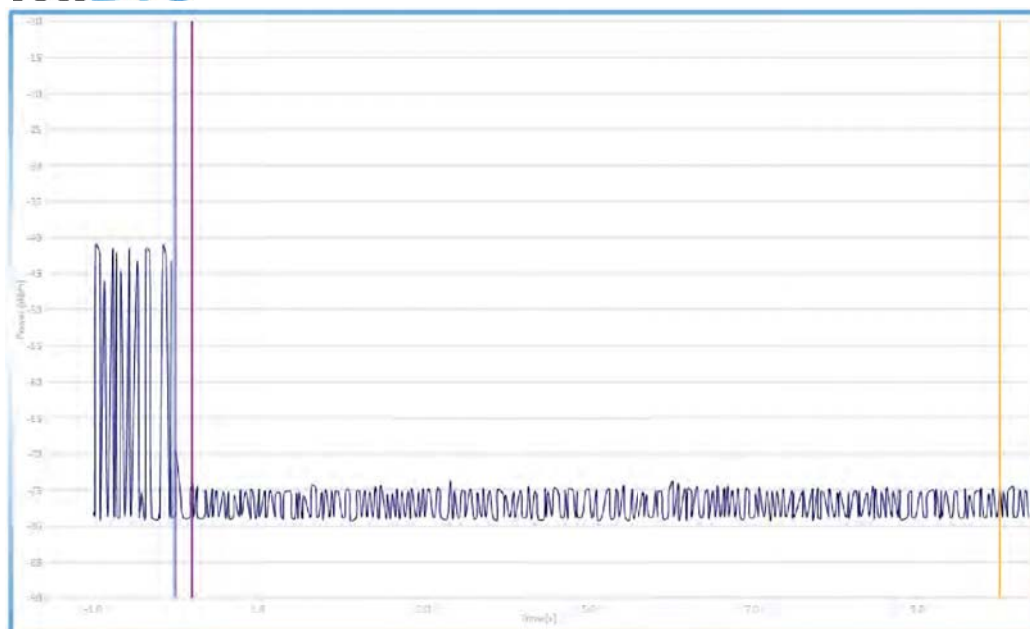
802.11ac-80 Channel 5530 MHz; Observed Frequency 5500 MHz

The system measures and aggregates the pulses occurring after the end of the radar pulse to determine the following parameters: -

Test Heading	Time (Secs)	Limit (Secs)	Status
Channel Closing Transmission Time	0.000000	0.260	Complies
Channel Move Time	0.000000	10.0	Complies



Channel Move Time, Channel Closing Transmission Time 0-12 Second Capture



Calculation Threshold: -70

Marker Info	
Start Waveform	-0.024275
End Waveform	0.000000
First Boundary	0.200000
Main Boundary	10.000000
Channel Move Time	-1.000000

Aggregates

First Boundary:	0.000000
Burst Quantity:	0
Second Boundary:	0.000000
Burst Quantity:	0
Total:	0.000000
Burst Quantity:	0

9.6.6. Non-Occupancy Period

The EUT is monitored for more than 30 minutes following the channel close/move time to verify no transmissions resume on this Channel.

The device when triggered by the radar signature vacates the channel for a minimum period of 30 minutes per the standard. During this period the device can (assuming compliance to full DFS regulations) move to another frequency channel. It could also remain on the same channel and if this is the case the transmitter must remain muted for a period of 30 minutes.

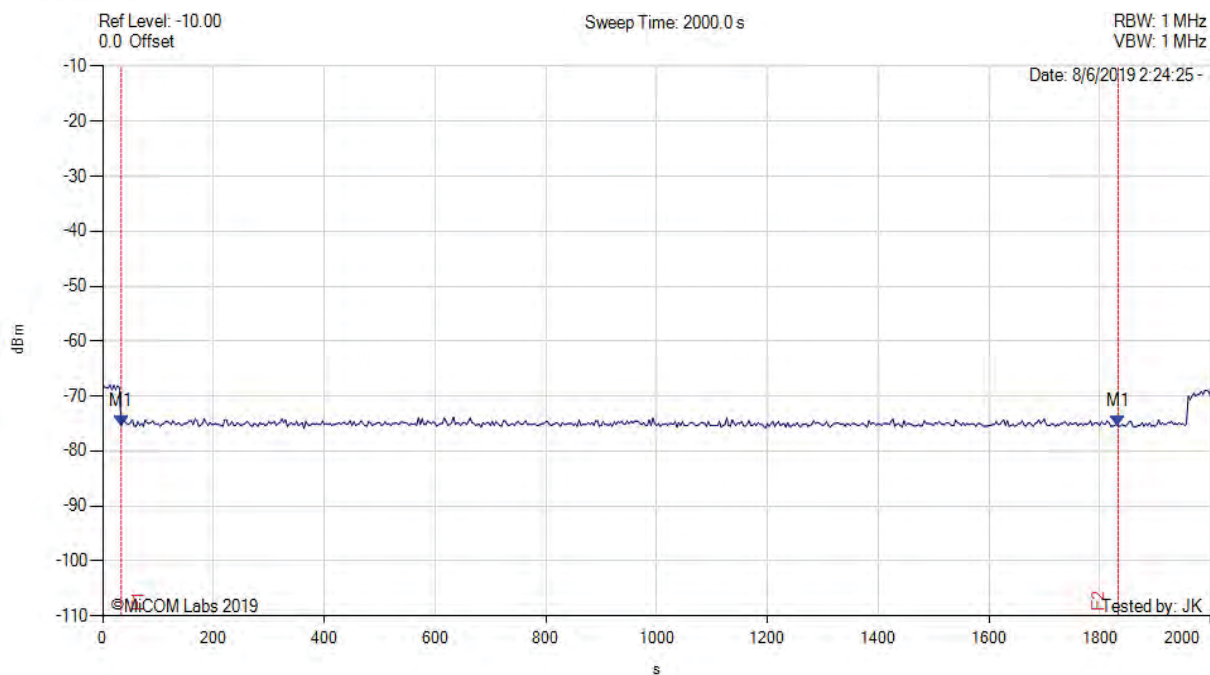
If the transmitter has moved to another channel it cannot return and transmit on the original channel for an elapsed period of 30 minutes.

In the measured plots the period between the vertical frequency lines F1 and F2 = 30 minutes and therefore no EUT transmissions should occur between these two markers.

NON-OCCUPANCY PERIOD



Variant: 802.11ac-80, Channel: 5530.00 MHz, Data Rate: MCS0, Duty Cycle: 30.00%, Antenna Gain: 4.90 dBi



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = POS Sweep Count = View RF Atten (dB) = 0 Trace Mode = 0	M1 : 33.333 s : -75.330 dBm M1 : 1833.333 s : -75.500 dBm	Observed Frequency: 5500.00 MHz F2 - F1 = 1833.333 s - 33.333 s = 1800 s

9.7. Radiated: Transmitter Spurious and Band-Edge

Radiated Test Conditions for Radiated Spurious and Band-Edge Emissions			
Standard:	Taiwan LP0002	Ambient Temp. (°C):	20.0 - 24.5
Test Heading:	Radiated Spurious and Band-Edge Emissions	Rel. Humidity (%):	32 - 45
Standard Section(s):	2.7, 2.8	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Radiated Spurious and Band-Edge Emissions

Radiated emissions for restricted bands above 1 GHz are measured in the anechoic chamber at a 3-meter distance on every azimuth in both horizontal and vertical polarities. The emissions are recorded and maximized as a function of azimuth by rotation through 360° with a spectrum analyzer in peak hold mode. Depending on the frequency band spanned a notch filter was used to remove the fundamental frequency. The highest emissions relative to the limit are listed for each frequency spanned. Measurements on any restricted band frequency or frequencies above 1 GHz are based on the use of measurement instrumentation employing peak and average detectors. All measurements were performed using a resolution bandwidth of 1 MHz.

Limits for Restricted Bands

Peak emission: 74 dBuV/m

Average emission: 54 dBuV/m

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. All factors are included in the reported data.

FS = R + AF + CORR - FO

where:

FS = Field Strength

R = Measured Spectrum analyzer Input Amplitude

AF = Antenna Factor

CORR = Correction Factor = CL - AG + NFL

CL = Cable Loss

AG = Amplifier Gain

FO = Distance Falloff Factor

NFL = Notch Filter Loss

Example:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength (dBuV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \text{ } \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz equates to 68.23 dBuV/m

Conversion between dBmV/m (or dBmV) and mV/m (or mV) are as follows:

Level (dBmV/m) = 20 * Log (level (mV/m))

40 dBmV/m = 100 mV/m

48 dBmV/m = 250 mV/m

Restricted Bands of Operation

Section 2.7 Additional regulations shall apply except for this standard. The fundamental frequency of any low-power radio-frequency devices shall be restricted in any of the operation bands listed below; spurious emissions shall be permitted in any of frequency band listed below and shall meet the field strength requirement of 2.8:

Section 2.8 Additional regulations shall apply except for this standard, the emissions from the low-power radio-frequency devices shall be less than or equal the field strength levels specified in the following table and the level of any unwanted emissions shall not exceed the level of the fundamental emission. The tighter limit applies at the band edges.

9.7.1. TX Spurious & Restricted Band Emissions

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5180.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2589.82	56.86	-1.84	-12.03	42.99	Peak (NRB)	Horizontal	100	0	--	--	Pass
#2	2589.89	54.55	-1.84	-12.03	40.68	Peak (NRB)	Vertical	158	0	--	--	Pass
#3	4586.04	75.17	-2.50	-12.04	60.63	Max Peak	Vertical	98	0	68.2	-7.6	Pass
#4	4586.04	48.91	-2.50	-12.04	34.37	Max Avg	Vertical	98	0	54.0	-19.6	Pass
#5	5181.30	83.89	-2.67	-11.99	69.23	Fundamental	Vertical	150	30	--	--	
#6	6137.98	58.09	-2.86	-9.65	45.58	Peak (NRB)	Vertical	150	30	--	--	Pass
#7	6477.90	63.25	-2.94	-8.91	51.40	Peak (NRB)	Vertical	150	30	--	--	Pass
#8	10359.75	59.73	-3.86	-5.61	50.26	Peak (NRB)	Horizontal	150	30	--	--	Pass

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Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5200.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2599.72	59.18	-1.85	-11.92	45.41	Peak (NRB)	Horizontal	154	48	--	--	Pass
#2	4596.03	76.70	-2.46	-12.00	62.24	Max Peak	Vertical	145	357	68.2	-6.0	Pass
#3	4596.03	50.93	-2.46	-12.00	36.47	Max Avg	Vertical	145	357	54.0	-17.5	Pass
#4	5206.20	88.09	-2.64	-11.98	73.47	Fundamental	Vertical	154	0	--	--	
#5	6492.79	63.00	-2.95	-8.91	51.14	Peak (NRB)	Vertical	154	48	--	--	Pass
#6	10395.81	62.80	-3.99	-5.69	53.12	Peak (NRB)	Horizontal	154	48	--	--	Pass

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Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5240.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2618.64	55.48	-1.83	-11.95	41.70	Peak (NRB)	Horizontal	100	0	--	--	Pass
#2	4563.06	73.38	-2.44	-11.92	59.02	Max Peak	Vertical	195	323	68.2	-9.2	Pass
#3	4563.06	47.83	-2.44	-11.92	33.47	Max Avg	Vertical	195	323	54.0	-20.5	Pass
#4	5244.33	87.79	-2.62	-12.19	72.98	Fundamental	Vertical	100	0	--	--	
#5	6547.52	59.17	-3.00	-8.71	47.46	Peak (NRB)	Vertical	100	0	--	--	Pass
#6	10481.21	54.82	-3.82	-6.22	44.78	Peak (NRB)	Vertical	100	0	--	--	Pass

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Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5260.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2630.40	54.01	-1.86	-12.00	40.15	Peak (NRB)	Vertical	100	0	--	--	Pass
#2	4561.82	75.98	-2.44	-11.91	61.63	Max Peak	Vertical	178	1	68.2	-6.6	Pass
#3	4561.82	49.58	-2.44	-11.91	35.23	Max Avg	Vertical	178	1	54.0	-18.8	Pass
#4	5260.48	89.90	-2.62	-12.13	75.15	Fundamental	Vertical	155	0	--	--	
#5	6573.56	59.62	-2.97	-8.61	48.04	Peak (NRB)	Vertical	155	0	--	--	Pass
#6	10526.08	53.05	-3.92	-5.94	43.19	Peak (NRB)	Horizontal	155	0	--	--	Pass
#7	15981.62	58.41	-4.90	-1.03	52.48	Max Peak	Vertical	161	3	68.2	-15.8	Pass
#8	15981.62	45.17	-4.90	-1.03	39.24	Max Avg	Vertical	161	3	54.0	-14.8	Pass

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5300.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2649.83	59.28	-1.83	-11.95	45.50	Peak (NRB)	Horizontal	100	0	--	--	Pass
#2	2650.23	57.96	-1.83	-11.95	44.18	Peak (NRB)	Horizontal	159	40	--	--	Pass
#3	2650.23	58.19	-1.83	-11.95	44.41	Peak (NRB)	Vertical	159	40	--	--	Pass
#4	3533.32	57.85	-2.14	-11.88	43.83	Max Peak	Horizontal	142	357	68.2	-24.4	Pass
#5	3533.32	43.97	-2.14	-11.88	29.95	Max Avg	Horizontal	142	357	54.0	-24.1	Pass
#6	3533.42	58.03	-2.14	-11.88	44.01	Peak (NRB)	Vertical	159	40	--	--	Pass
#7	3534.18	60.14	-2.14	-11.86	46.14	Peak (NRB)	Vertical	100	0	--	--	Pass
#8	4659.05	66.07	-2.50	-12.31	51.26	Peak (Scan)	Horizontal	159	40	68.2	-17.0	Pass
#9	4672.02	57.83	-2.47	-12.26	43.10	Peak (Scan)	Horizontal	159	40	68.2	-25.1	Pass
#10	5298.32	80.04	-2.66	-12.11	65.27	Peak (NRB)	Horizontal	159	40	--	--	Pass
#11	6630.85	61.36	-2.96	-8.52	49.88	Peak (NRB)	Vertical	159	40	--	--	Pass
#12	10596.61	66.53	-3.82	-5.61	57.10	Peak (NRB)	Horizontal	159	40	--	--	Pass

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
 To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
 Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5320.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2659.83	58.34	-1.84	-11.88	44.62	Peak (NRB)	Horizontal	100	0	--	--	Pass
#2	3546.94	60.44	-2.14	-11.68	46.62	Peak (NRB)	Vertical	100	0	--	--	Pass
#3	4569.08	61.49	-2.48	-11.97	47.04	Max Peak	Horizontal	194	0	68.2	-21.2	Pass
#4	4569.08	46.15	-2.48	-11.97	31.70	Max Avg	Horizontal	194	0	54.0	-22.3	Pass
#5	4862.07	67.22	-2.53	-12.40	52.29	Max Peak	Vertical	145	54	68.2	-15.9	Pass
#6	4862.07	46.45	-2.53	-12.40	31.52	Max Avg	Vertical	145	54	54.0	-22.5	Pass
#7	5317.19	83.49	-2.67	-12.18	68.64	Peak (NRB)	Vertical	100	0	--	--	Pass
#8	6277.03	61.23	-2.88	-9.15	49.20	Peak (NRB)	Vertical	100	0	--	--	Pass
#9	10634.98	69.86	-4.08	-5.07	60.71	Max Peak	Horizontal	128	73	68.2	-7.5	Pass
#10	10634.98	55.25	-4.08	-5.07	46.10	Max Avg	Horizontal	128	73	54.0	-7.9	Pass
#11	10639.94	68.63	-4.19	-5.02	59.42	Max Peak	Vertical	123	342	68.2	-8.8	Pass
#12	10639.94	54.24	-4.19	-5.02	45.03	Max Avg	Vertical	123	342	54.0	-9.0	Pass

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
 To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
 Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5500.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2000.16	49.49	-1.59	-12.85	35.05	Peak (NRB)	Horizontal	139	0	--	--	Pass
#2	2749.81	60.42	-1.91	-11.95	46.56	Max Peak	Vertical	175	355	68.2	-21.7	Pass
#3	2749.81	54.95	-1.91	-11.95	41.09	Max Avg	Vertical	175	355	54.0	-12.9	Pass
#4	2749.88	60.54	-1.91	-11.95	46.68	Max Peak	Horizontal	178	41	68.2	-21.6	Pass
#5	2749.88	54.96	-1.91	-11.95	41.10	Max Avg	Horizontal	178	41	54.0	-12.9	Pass
#6	3666.54	63.44	-2.15	-11.67	49.62	Max Peak	Vertical	165	13	68.2	-18.6	Pass
#7	3666.54	51.15	-2.15	-11.67	37.33	Max Avg	Vertical	165	13	54.0	-16.7	Pass
#8	4122.18	66.94	-2.34	-12.33	52.27	Max Peak	Vertical	160	34	68.2	-16.0	Pass
#9	4122.18	54.69	-2.34	-12.33	40.02	Max Avg	Vertical	160	34	54.0	-14.0	Pass
#10	4537.64	75.25	-2.44	-11.92	60.89	Max Peak	Vertical	116	340	68.2	-7.3	Pass
#11	4537.64	55.83	-2.44	-11.92	41.47	Max Avg	Vertical	116	340	54.0	-12.5	Pass
#12	4537.64	68.55	-2.44	-11.92	54.19	Max Peak	Horizontal	98	306	68.2	-14.0	Pass
#13	4537.64	48.87	-2.44	-11.92	34.51	Max Avg	Horizontal	98	306	54.0	-19.5	Pass
#14	5507.60	73.38	-2.69	-11.59	59.10	Fundamental	Vertical	139	34	--	--	
#15	6455.11	57.88	-2.91	-9.17	45.80	Peak (NRB)	Vertical	139	34	--	--	Pass
#16	7332.95	68.76	-3.00	-7.89	57.87	Max Peak	Vertical	151	346	68.2	-10.4	Pass
#17	7332.95	62.76	-3.00	-7.89	51.87	Max Avg	Vertical	151	346	54.0	-2.1	Pass
#18	7332.95	69.45	-3.00	-7.89	58.56	Max Peak	Horizontal	194	293	68.2	-9.7	Pass
#19	7332.95	63.40	-3.00	-7.89	52.51	Max Avg	Horizontal	194	293	54.0	-1.5	Pass
#20	11002.99	70.96	-3.92	-6.27	60.77	Max Peak	Horizontal	135	47	68.2	-7.5	Pass
#21	11002.99	57.83	-3.92	-6.27	47.64	Max Avg	Horizontal	135	47	54.0	-6.4	Pass
#22	11004.90	70.10	-3.92	-6.28	59.90	Max Peak	Vertical	127	323	68.2	-8.3	Pass
#23	11004.90	56.16	-3.92	-6.28	45.96	Max Avg	Vertical	127	323	54.0	-8.0	Pass
#24	16180.72	58.11	-4.90	0.26	53.47	Max Peak	Horizontal	174	145	68.2	-14.8	Pass
#25	16180.72	45.10	-4.90	0.26	40.46	Max Avg	Horizontal	174	145	54.0	-13.5	Pass

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
 To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
 Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5580.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2789.89	59.26	-1.88	-11.80	45.58	Max Peak	Vertical	134	37	68.2	-22.7	Pass
#2	2789.89	52.52	-1.88	-11.80	38.84	Max Avg	Vertical	134	37	54.0	-15.2	Pass
#3	2789.89	57.68	-1.88	-11.80	44.00	Max Peak	Horizontal	140	333	68.2	-24.2	Pass
#4	2789.89	50.06	-1.88	-11.80	36.38	Max Avg	Horizontal	140	333	54.0	-17.6	Pass
#5	4180.38	65.06	-2.34	-12.36	50.36	Max Peak	Horizontal	123	353	68.2	-17.9	Pass
#6	4180.38	52.10	-2.34	-12.36	37.40	Max Avg	Horizontal	123	353	54.0	-16.6	Pass
#7	4180.38	70.20	-2.34	-12.36	55.50	Max Peak	Vertical	122	357	68.2	-12.7	Pass
#8	4180.38	58.46	-2.34	-12.36	43.76	Max Avg	Vertical	122	357	54.0	-10.2	Pass
#9	4625.32	71.80	-2.47	-12.08	57.25	Max Peak	Vertical	195	51	68.2	-11.0	Pass
#10	4625.32	51.53	-2.47	-12.08	36.98	Max Avg	Vertical	195	51	54.0	-17.0	Pass
#11	5576.07	70.43	-2.75	-11.50	56.18	Fundamental	Horizontal	100	0	--	--	
#12	6432.70	51.29	-2.93	-9.03	39.33	Peak (NRB)	Horizontal	100	0	--	--	Pass
#13	11152.64	68.80	-4.04	-4.73	60.03	Max Peak	Vertical	115	340	68.2	-8.2	Pass
#14	11152.64	55.08	-4.04	-4.73	46.31	Max Avg	Vertical	115	340	54.0	-7.7	Pass
#15	11162.53	70.19	-4.07	-4.56	61.56	Max Peak	Horizontal	163	71	68.2	-6.7	Pass
#16	11162.53	57.06	-4.07	-4.56	48.43	Max Avg	Horizontal	163	71	54.0	-5.6	Pass

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
 To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
 Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5720.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2860.46	56.82	-1.92	-11.91	42.99	Max Peak	Vertical	189	357	68.2	-25.2	Pass
#2	2860.46	47.24	-1.92	-11.91	33.41	Max Avg	Vertical	189	357	54.0	-20.6	Pass
#3	4293.24	76.44	-2.36	-12.31	61.77	Max Peak	Vertical	169	1	68.2	-6.5	Pass
#4	4293.24	62.82	-2.36	-12.31	48.15	Max Avg	Vertical	169	1	54.0	-5.9	Pass
#5	4293.24	71.64	-2.36	-12.31	56.97	Max Peak	Horizontal	185	348	68.2	-11.3	Pass
#6	4293.24	60.73	-2.36	-12.31	46.06	Max Avg	Horizontal	185	348	54.0	-7.9	Pass
#7	5713.16	73.63	-2.79	-11.03	59.81	Fundamental	Vertical	154	0	--	--	
#8	6191.45	60.92	-2.87	-9.19	48.86	Peak (NRB)	Vertical	154	0	--	--	Pass
#9	11440.90	70.77	-4.03	-6.28	60.46	Max Peak	Vertical	146	18	68.2	-7.8	Pass
#10	11440.90	57.34	-4.03	-6.28	47.03	Max Avg	Vertical	146	18	54.0	-7.0	Pass
#11	11446.16	72.99	-4.04	-6.30	62.65	Max Peak	Horizontal	172	309	68.2	-5.6	Pass
#12	11446.16	59.29	-4.04	-6.30	48.95	Max Avg	Horizontal	172	309	54.0	-5.1	Pass

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5745.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	2872.51	60.41	-1.91	-11.85	46.65	Max Peak	Vertical	189	13	68.2	-21.6	Pass
#2	2872.51	54.86	-1.91	-11.85	41.10	Max Avg	Vertical	189	13	54.0	-12.9	Pass
#3	4301.89	67.93	-2.38	-12.40	53.15	Max Peak	Horizontal	185	355	68.2	-15.1	Pass
#4	4301.89	56.63	-2.38	-12.40	41.85	Max Avg	Horizontal	185	355	54.0	-12.2	Pass
#5	4315.50	73.00	-2.36	-12.49	58.15	Max Peak	Vertical	146	23	68.2	-10.1	Pass
#6	4315.50	62.01	-2.36	-12.49	47.16	Max Avg	Vertical	146	23	54.0	-6.8	Pass
#7	5739.39	60.38	-2.75	-10.96	46.67	Fundamental	Horizontal	151	0	--	--	
#8	6297.95	56.84	-2.90	-9.36	44.58	Peak (NRB)	Vertical	151	26	--	--	Pass
#9	11489.07	74.71	-4.03	-6.66	64.02	Max Peak	Horizontal	171	305	68.2	-4.2	Pass
#10	11489.07	60.37	-4.03	-6.66	49.68	Max Avg	Horizontal	171	305	54.0	-4.3	Pass
#11	11490.17	72.43	-4.04	-6.66	61.73	Max Peak	Vertical	107	332	68.2	-6.5	Pass
#12	11490.17	58.67	-4.04	-6.66	47.97	Max Avg	Vertical	107	332	54.0	-6.0	Pass

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5785.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	3857.04	59.51	-2.21	-11.60	45.70	Max Peak	Horizontal	153	1	68.2	-22.5	Pass
#2	3857.04	45.42	-2.21	-11.60	31.61	Max Avg	Horizontal	153	1	54.0	-22.4	Pass
#3	3859.24	62.80	-2.21	-11.57	49.02	Max Peak	Vertical	138	1	68.2	-19.2	Pass
#4	3859.24	49.10	-2.21	-11.57	35.32	Max Avg	Vertical	138	1	54.0	-18.7	Pass
#5	4336.53	67.85	-2.39	-12.43	53.03	Max Peak	Horizontal	126	352	68.2	-15.2	Pass
#6	4336.53	57.00	-2.39	-12.43	42.18	Max Avg	Horizontal	126	352	54.0	-11.8	Pass
#7	4341.26	72.69	-2.38	-12.41	57.90	Max Peak	Vertical	115	354	68.2	-10.3	Pass
#8	4341.26	60.76	-2.38	-12.41	45.97	Max Avg	Vertical	115	354	54.0	-8.0	Pass
#9	5792.24	67.75	-2.75	-10.81	54.19	Fundamental	Vertical	100	0	--	--	
#10	6263.07	61.19	-2.88	-9.35	48.96	Peak (NRB)	Vertical	100	0	--	--	Pass
#11	11570.20	73.15	-4.07	-6.27	62.81	Max Peak	Horizontal	167	79	68.2	-5.4	Pass
#12	11570.20	59.20	-4.07	-6.27	48.86	Max Avg	Horizontal	167	79	54.0	-5.1	Pass
#13	11575.17	71.15	-4.04	-6.13	60.98	Max Peak	Vertical	111	339	68.2	-7.3	Pass
#14	11575.17	57.36	-4.04	-6.13	47.19	Max Avg	Vertical	111	339	54.0	-6.8	Pass

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	7.9	Duty Cycle (%):	99
Channel Frequency (MHz):	5825.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	3884.18	63.21	-2.24	-11.75	49.22	Max Peak	Vertical	149	0	68.2	-19.0	Pass
#2	3884.18	49.61	-2.24	-11.75	35.62	Max Avg	Vertical	149	0	54.0	-18.4	Pass
#3	4366.30	72.26	-2.37	-12.27	57.62	Max Peak	Vertical	183	26	68.2	-10.6	Pass
#4	4366.30	60.21	-2.37	-12.27	45.57	Max Avg	Vertical	183	26	54.0	-8.4	Pass
#5	4376.28	67.69	-2.38	-12.30	53.01	Max Peak	Horizontal	152	343	68.2	-15.2	Pass
#6	4376.28	56.76	-2.38	-12.30	42.08	Max Avg	Horizontal	152	343	54.0	-11.9	Pass
#7	5828.02	68.75	-2.81	-10.81	55.13	Fundamental	Vertical	150	26	--	--	
#8	6369.53	55.85	-2.92	-9.16	43.77	Peak (NRB)	Vertical	150	26	--	--	Pass
#9	11648.80	71.37	-4.18	-4.43	62.76	Max Peak	Vertical	131	23	68.2	-5.5	Pass
#10	11648.80	58.53	-4.18	-4.43	49.92	Max Avg	Vertical	131	23	54.0	-4.1	Pass
#11	11649.71	71.23	-4.20	-4.41	62.62	Max Peak	Horizontal	169	71	68.2	-5.6	Pass
#12	11649.71	58.63	-4.20	-4.41	50.02	Max Avg	Horizontal	169	71	54.0	-4.0	Pass

Note: click the links in the above matrix to view the graphical image (plot).

9.7.2. Restricted Edge & Band-Edge Emissions

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5150 - 5250 MHz

Aruba AB1		Band-Edge Freq	Limit 68.2dBμV/m	Limit 54.0dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11a	5180.00	5150.00	67.89	51.30	15
802.11ac-80	5210.00	5150.00	68.14	53.87	12
802.11n HT-20	5180.00	5150.00	67.89	51.30	14
802.11n HT-40	5190.00	5150.00	67.64	53.34	11

5250 - 5350 MHz

Aruba AB1		Band-Edge Freq	Limit 68.2dBμV/m	Limit 54.0dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11a	5320.00	5350.00	67.89	51.64	13
802.11ac-80	5290.00	5350.00	66.23	51.24	9
802.11n HT-20	5320.00	5350.00	67.89	51.64	12
802.11n HT-40	5310.00	5350.00	67.85	50.44	11

5470 - 5725 MHz

Aruba AB1		Restricted-Edge Freq	Limit 68.2dBμV/m	Limit 54.0dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11a	5500.00	5460.00	61.89	45.87	14
802.11ac-80	5530.00	5460.00	66.77	51.40	9
802.11n HT-20	5500.00	5460.00	58.85	45.14	12
802.11n HT-40	5510.00	5460.00	59.80	47.17	11

Note: click the links in the above matrix to view the graphical image (plot).

5470 - 5725 MHz – UNII Band 2C and UNII Band 3 Straddle Channels

Aruba AB1		Restricted-Edge Freq	Limit 68.2dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	
802.11a	5720.00	5470.00	59.93	18
	5720.00	5850.00	45.87	18
802.11ac-80	5690.00	5470.00	67.30	17
	5690.00	5850.00	67.63	14
802.11n HT-20	5720.00	5470.00	60.26	18
	5720.00	5850.00	60.16	18
802.11n HT-40	5710.00	5470.00	60.52	18
	5710.00	5850.00	67.19	17

Note: click the links in the above matrix to view the graphical image (plot).

5725 MHz Radiated Lower Band-Edge Emissions

Aruba AB1		Band-Edge Freq	Limit 68.2dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	
802.11a	5745.00	5725.00	72.99	18
802.11ac-80	5775.00	5725.00	77.58	18
802.11n HT-20	5745.00	5725.00	72.12	18
802.11n HT-40	5755.00	5725.00	77.22	18

5850 MHz Radiated Higher Band-Edge Emissions

Aruba AB1		Band-Edge Freq	Limit 122.2dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	
802.11a	5825.00	5850.00	65.48	18
802.11ac-80	5775.00	5850.00	70.50	18
802.11n HT-20	5825.00	5850.00	68.09	18
802.11n HT-40	5755.00	5850.00	66.57	18

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5180.00	Data Rate:	6.00 MBit/s
Power Setting:	15	Tested By:	SB

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5147.80	33.68	0.00	34.21	67.89	Max Peak	Vertical	150	11	68.2	-0.3	Pass
#2	5150.00	19.70	-2.61	34.21	51.30	Max Avg	Vertical	150	11	54.0	-2.7	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11ac-80
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5210.00	Data Rate:	29.30 MBit/s
Power Setting:	12	Tested By:	SB

Test Measurement Results

4500.00 - 5300.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5137.17	36.56	-2.61	34.19	68.14	Max Peak	Horizontal	150	11	68.2	-0.1	Pass
#2	5146.79	22.27	-2.61	34.21	53.87	Max Avg	Horizontal	150	11	54.0	-0.1	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5180.00	Data Rate:	6.50 MBit/s
Power Setting:	14	Tested By:	SB

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5148.50	33.68	0.00	34.21	67.89	Max Peak	Vertical	150	11	68.2	-0.3	Pass
#2	5150.00	19.70	-2.61	34.21	51.30	Max Avg	Vertical	150	11	54.0	-2.7	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5190.00	Data Rate:	13.50 MBit/s
Power Setting:	11	Tested By:	SB

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5146.99	21.74	-2.61	34.21	53.34	Max Avg	Vertical	150	11	54.0	-0.7	Pass
#2	5148.50	36.03	-2.60	34.21	67.64	Max Peak	Vertical	150	11	68.2	-0.6	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.00	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5500.00	Data Rate:	6.00 MBit/s
Power Setting:	14	Tested By:	SB

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5456.09	30.07	-2.70	34.52	61.89	Max Peak	Vertical	156	1	68.2	-6.3	Pass
#2	5460.00	14.03	-2.69	34.53	45.87	Max Avg	Vertical	156	1	54.0	-8.1	Pass
#4	5466.99	35.63	-2.68	34.55	67.50	Max Avg	Vertical	156	1	68.2	-0.7	Pass
#3	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11ac-80
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5530.00	Data Rate:	29.30 MBit/s
Power Setting:	9	Tested By:	SB

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5435.65	34.96	-2.70	34.51	66.77	Max Peak	Vertical	156	1	68.2	-1.5	Pass
#2	5455.79	19.58	-2.70	34.52	51.40	Max Avg	Vertical	156	1	54.0	-2.6	Pass
#4	5467.90	34.37	-2.68	34.55	66.24	Max Avg	Vertical	156	1	68.2	-2.0	Pass
#3	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5500.00	Data Rate:	6.50 MBit/s
Power Setting:	12	Tested By:	SB

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5458.80	27.02	-2.69	34.52	58.85	Max Peak	Vertical	156	1	68.2	-9.4	Pass
#2	5460.00	13.30	-2.69	34.53	45.14	Max Avg	Vertical	156	1	54.0	-8.9	Pass
#4	5465.79	31.08	-2.68	34.54	62.94	Max Avg	Vertical	156	1	68.2	-5.3	Pass
#3	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5510.00	Data Rate:	13.50 MBit/s
Power Setting:	11	Tested By:	SB

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5458.80	15.34	-2.69	34.52	47.17	Max Avg	Vertical	156	1	54.0	-6.8	Pass
#2	5458.80	27.97	-2.69	34.52	59.80	Max Peak	Vertical	156	1	68.2	-8.4	Pass
#4	5468.50	33.22	-2.68	34.55	65.09	Max Avg	Vertical	156	1	68.2	-3.1	Pass
#3	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#5	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5320.00	Data Rate:	6.00 MBit/s
Power Setting:	13	Tested By:	SB

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5350.00	19.87	-2.69	34.46	51.64	Max Avg	Vertical	160	1	54.0	-2.4	Pass
#3	5350.96	33.43	0.00	34.46	67.89	Max Peak	Vertical	160	1	68.2	-0.3	Pass
#2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5470 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5720.00	Data Rate:	6 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5350.00 - 5725.00 MHz

Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5365.78	28.14	-2.69	34.48	59.93	Max Peak	Vertical	155	355	68.2	-8.3	Pass
#2	5470.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: 68.23 Limit



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5850 Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5720.00	Data Rate:	6 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5690.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5865.53	27.11	-2.76	35.00	59.35	Max Peak	Vertical	157	7	68.2	-8.9	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: 68.23 Limit

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5460 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5720.00	Data Rate:	6.5 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5350.00 - 5725.00 MHz

Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5453.71	28.45	-2.70	34.51	60.26	Max Peak	Vertical	155	355	68.2	-8.0	Pass
#2	5470.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: 68.23 Limit

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5850 Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11-HT20
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5720.00	Data Rate:	6.5 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5690.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5850.62	28.00	-2.80	34.96	60.16	Max Peak	Vertical	157	7	68.2	-8.1	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: 68.23 Limit

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5460 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5710.00	Data Rate:	13.5 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5350.00 - 5725.00 MHz

Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5419.89	28.67	-2.67	34.52	60.52	Max Peak	Vertical	155	355	--	-7.7	Pass
#2	5470.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: 68.23 Limit

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5850 Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11-HT40
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5710.00	Data Rate:	13.5 MBit/s
Power Setting:	17	Tested By:	JMH

Test Measurement Results

5690.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5856.21	35.00	-2.78	34.97	67.19	Max Peak	Vertical	157	7	68.2	-1.0	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: Power Reduced to meet Out of Band Limit

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5460 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11-ac80
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5690.00	Data Rate:	29.3 MBit/s
Power Setting:	17	Tested By:	JMH

Test Measurement Results

5350.00 - 5725.00 MHz

Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5464.72	35.44	-2.68	34.54	67.30	Max Peak	Vertical	155	355	68.23	-0.9	Pass
#2	5470.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: Power Reduced to meet Out of Band Limit

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5850 Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11-ac80
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5690.00	Data Rate:	29.3 MBit/s
Power Setting:	14	Tested By:	JMH

Test Measurement Results

5690.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5853.11	35.45	-2.79	34.97	67.63	Max Peak	Vertical	157	7	68.2	-0.7	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: Power Reduced to meet Out of Band Limit

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11ac-80
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5290.00	Data Rate:	29.30 MBit/s
Power Setting:	9	Tested By:	SB

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5353.85	19.46	-2.69	34.47	51.24	Max Avg	Vertical	160	1	54.0	-2.8	Pass
#3	5363.79	34.45	-2.70	34.48	66.23	Max Peak	Vertical	160	1	68.2	-2.0	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5320.00	Data Rate:	6.50 MBit/s
Power Setting:	12	Tested By:	SB

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5350.00	19.87	-2.69	34.46	51.64	Max Avg	Vertical	160	1	54.0	-2.4	Pass
#3	5356.41	36.11	-2.69	34.47	67.89	Max Peak	Vertical	160	1	68.2	-0.3	Pass
#2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5310.00	Data Rate:	13.50 MBit/s
Power Setting:	11	Tested By:	SB

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5353.53	18.66	-2.69	34.47	50.44	Max Avg	Vertical	160	1	54.0	-3.6	Pass
#3	5358.66	36.08	-2.70	34.47	67.85	Max Peak	Vertical	160	1	68.2	-0.4	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5745.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5715.00	29.68	-2.78	34.71	61.61	Max Avg	Vertical	148	46	109.4	-47.8	Pass
#2	5725.00	41.01	-2.74	34.72	72.99	Max Avg	Vertical	148	46	122.2	-49.2	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11ac-80
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5775.00	Data Rate:	29.30 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5718.97	44.27	-2.76	34.71	76.22	Max Avg	Vertical	148	46	110.5	-34.3	Pass
#2	5723.56	45.60	-2.74	34.72	77.58	Max Avg	Vertical	148	46	119.9	-42.3	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5745.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5722.21	40.15	-2.75	34.72	72.12	Max Avg	Vertical	148	46	115.4	-43.2	Pass
#2	5725.00	38.97	-2.74	34.72	70.95	Max Avg	Vertical	148	46	122.2	-51.3	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5755.00	Data Rate:	13.50 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5718.97	43.06	-2.76	34.71	75.01	Max Avg	Vertical	148	46	110.5	-35.5	Pass
#2	5723.92	45.24	-2.74	34.72	77.22	Max Avg	Vertical	148	46	119.9	-42.7	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11a
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	Not applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5825.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5851.84	33.32	-2.80	34.96	65.48	Max Avg	Horizontal	153	54	117.6	-52.2	Pass
#3	5857.70	30.19	-2.77	34.98	62.40	Max Avg	Horizontal	153	54	110.0	-47.6	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11ac-80
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5775.00	Data Rate:	29.30 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

5735.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	38.35	-2.81	34.96	70.50	Max Avg	Vertical	153	54	122.2	-51.7	Pass
#3	5860.00	38.06	-2.77	34.99	70.28	Max Avg	Vertical	153	54	109.4	-39.1	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5825.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	SB

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5851.84	35.93	-2.80	34.96	68.09	Max Avg	Vertical	153	54	117.6	-49.6	Pass
#3	5856.77	33.58	-2.78	34.98	65.78	Max Avg	Vertical	153	54	110.2	-44.5	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).



Title: Hewlett Packard Enterprise, Aruba User Experience Insight
To: Taiwan LP0002 January 2018 (UNII Bands, Section 4.7)
Serial #: HPEN141-T6 Rev B (Wi-Fi)

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba AB1	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.90	Modulation:	OFDM
Beam Forming Gain (Y):	3.00	Duty Cycle (%):	99
Channel Frequency (MHz):	5795.00	Data Rate:	13.50 MBit/s
Power Setting:	18	Tested By:	SB

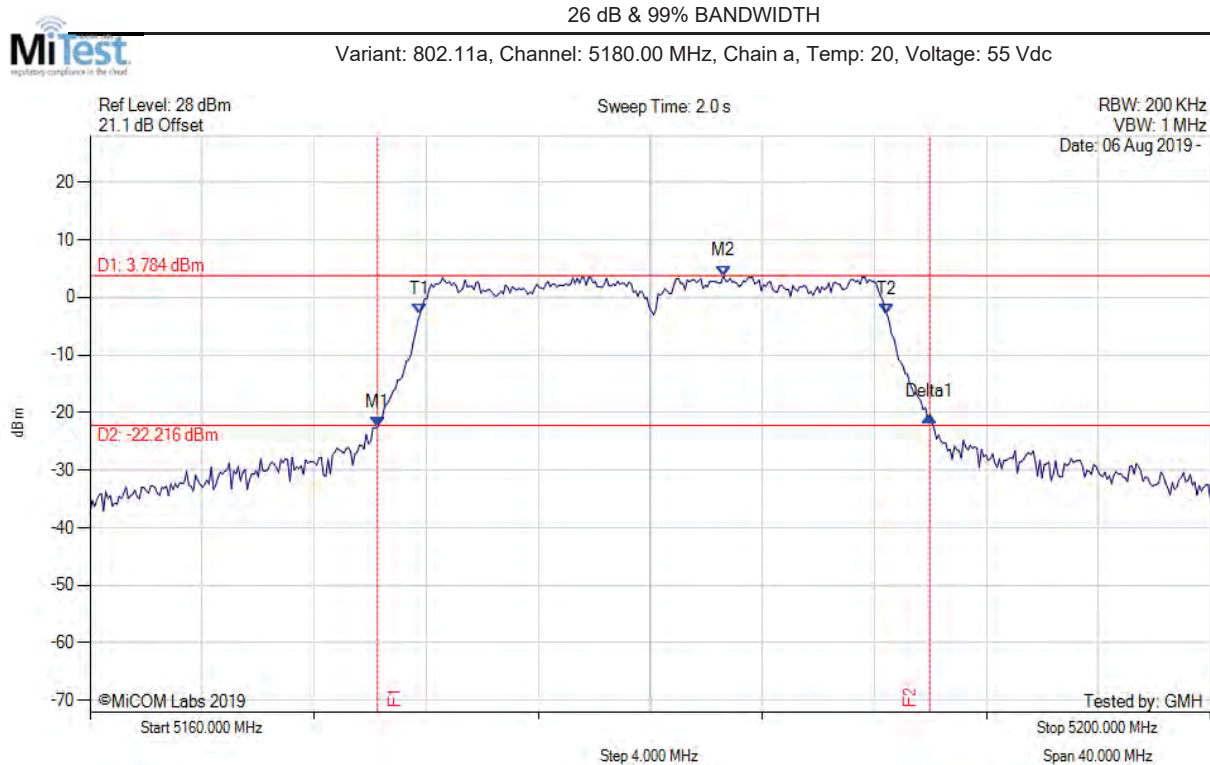
Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5851.84	34.41	-2.80	34.96	66.57	Max Avg	Vertical	153	54	117.6	-51.1	Pass
#3	5857.70	33.14	-2.77	34.98	65.35	Max Avg	Vertical	153	54	110.0	-44.6	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Note: click the links in the above matrix to view the graphical image (plot).

A. APPENDIX - GRAPHICAL IMAGES

A.1. 26 dB & 99% Bandwidth



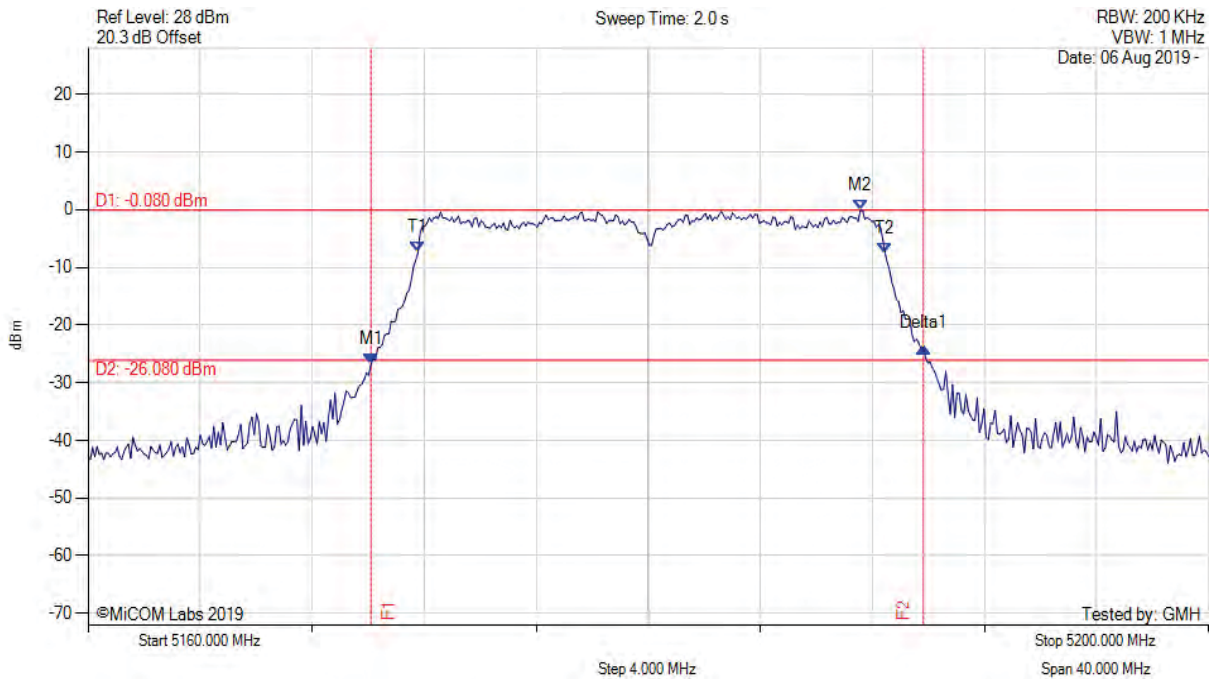
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5170.261 MHz : -22.530 dBm M2 : 5182.605 MHz : 3.784 dBm Delta1 : 19.719 MHz : 1.928 dB T1 : 5171.784 MHz : -2.911 dBm T2 : 5188.457 MHz : -2.945 dBm OBW : 16.673 MHz	Channel Frequency: 5180.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11a, Channel: 5180.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



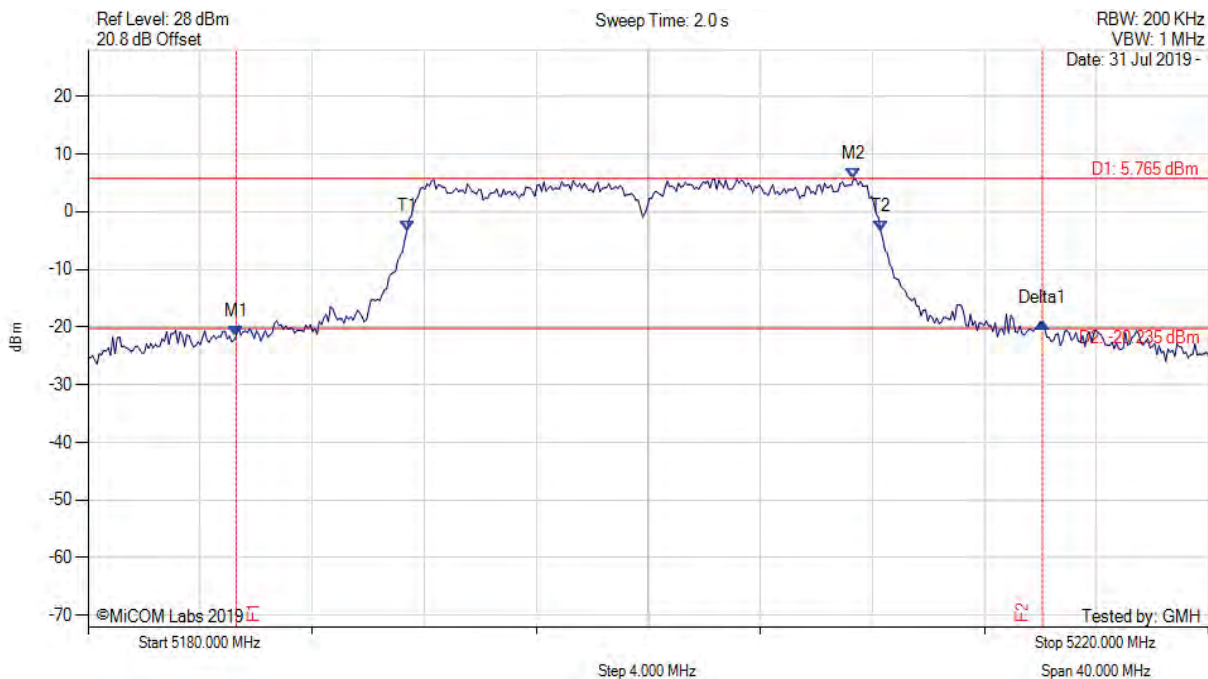
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5170.100 MHz : -26.759 dBm M2 : 5187.575 MHz : -0.080 dBm Delta1 : 19.719 MHz : 2.890 dB T1 : 5171.784 MHz : -7.369 dBm T2 : 5188.457 MHz : -7.595 dBm OBW : 16.673 MHz	Channel Frequency: 5180.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11a, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



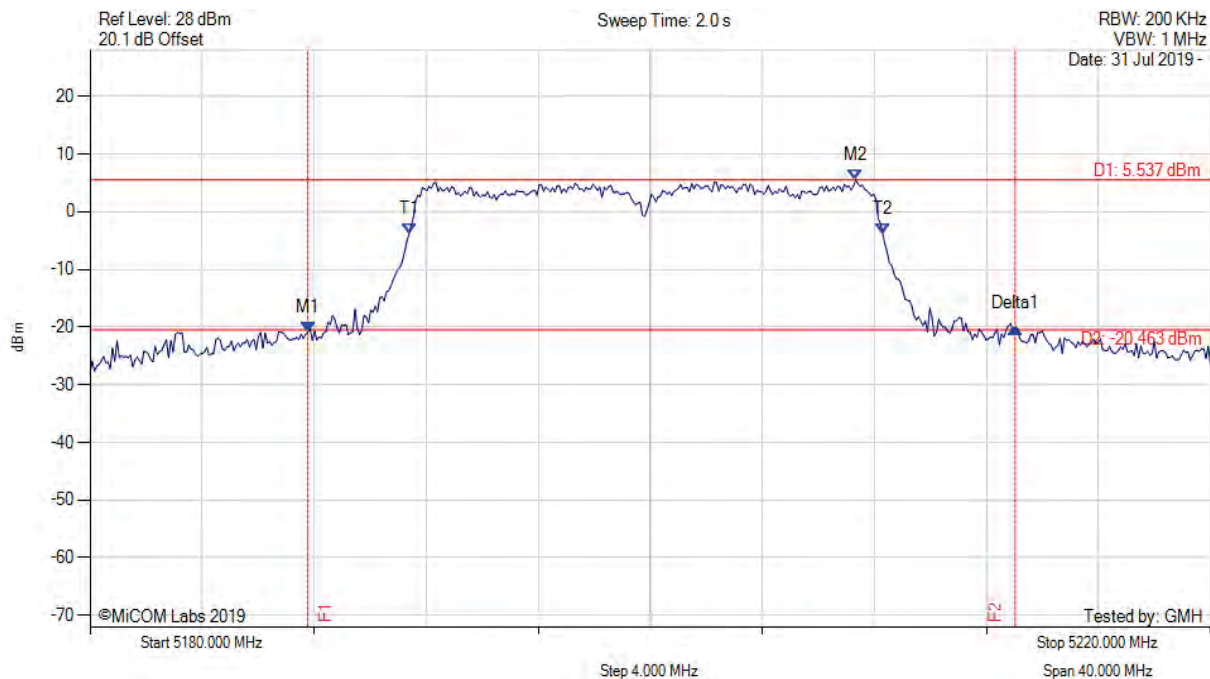
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5185.291 MHz : -21.479 dBm M2 : 5207.335 MHz : 5.765 dBm Delta1 : 28.778 MHz : 2.182 dB T1 : 5191.383 MHz : -3.328 dBm T2 : 5208.297 MHz : -3.377 dBm OBW : 16.914 MHz	Channel Frequency: 5200.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11a, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



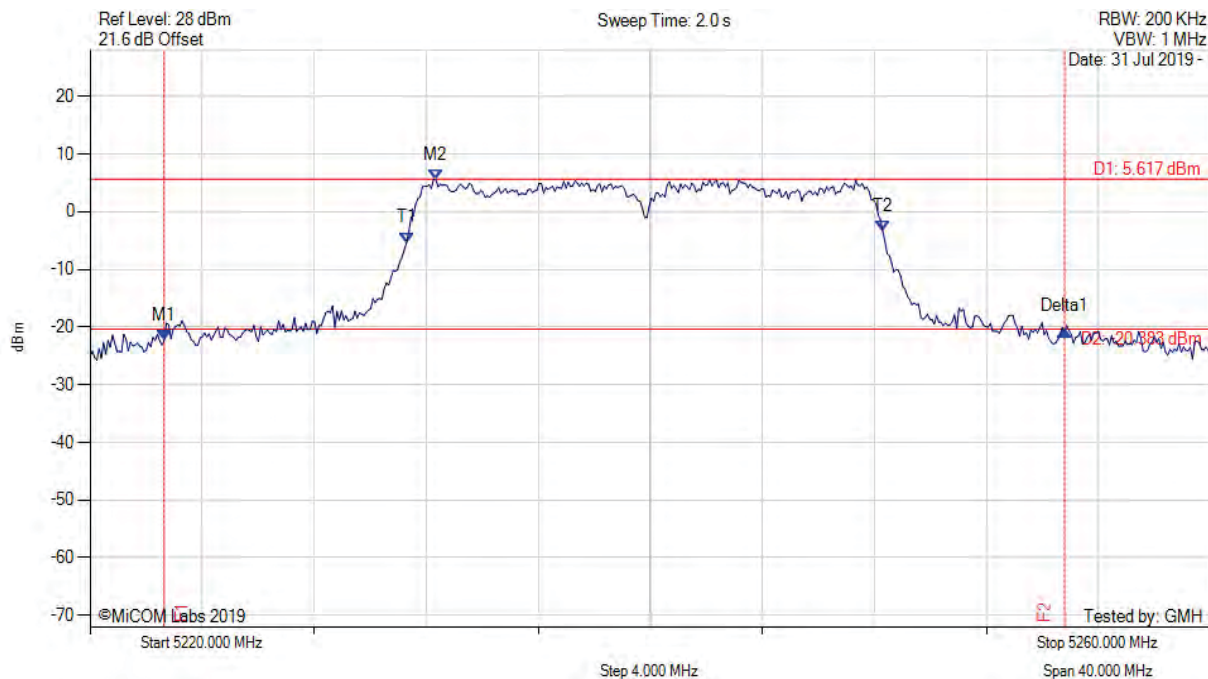
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5187.776 MHz : -20.859 dBm M2 : 5207.335 MHz : 5.537 dBm Delta1 : 25.251 MHz : 0.773 dB T1 : 5191.383 MHz : -3.857 dBm T2 : 5208.297 MHz : -3.767 dBm OBW : 16.914 MHz	Channel Frequency: 5200.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11a, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



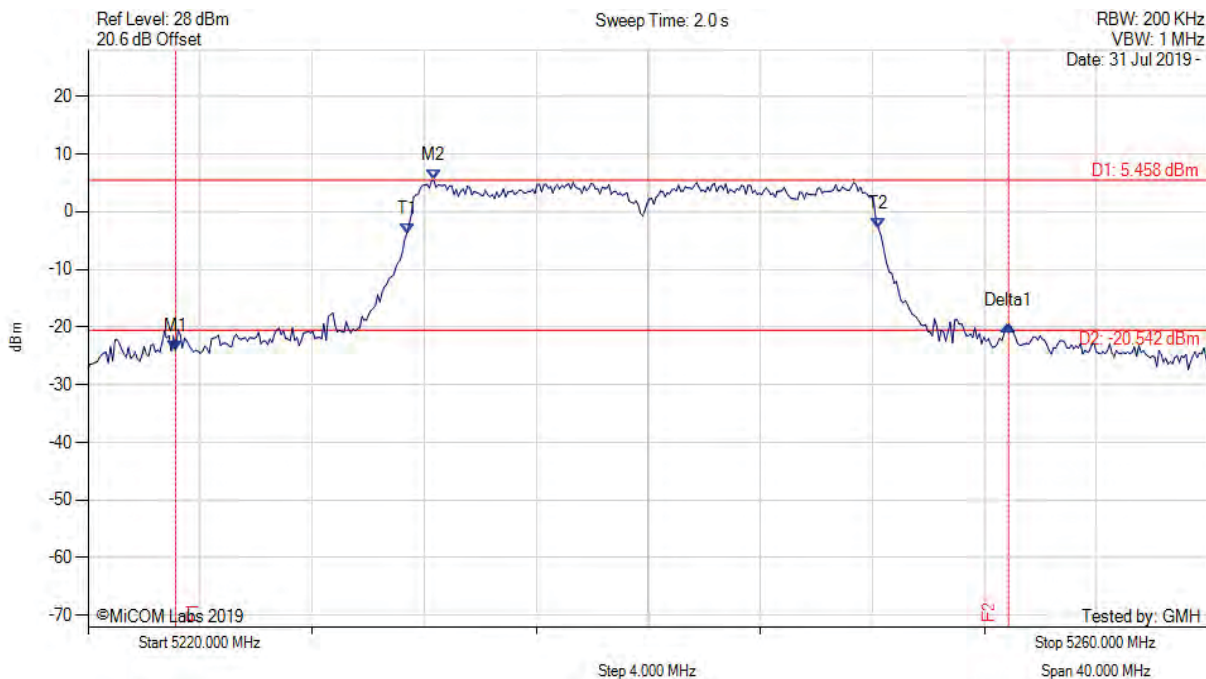
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5222.645 MHz : -22.278 dBm M2 : 5232.345 MHz : 5.617 dBm Delta1 : 32.144 MHz : 1.590 dB T1 : 5231.303 MHz : -5.325 dBm T2 : 5248.297 MHz : -3.338 dBm OBW : 16.994 MHz	Channel Frequency: 5240.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11a, Channel: 5240.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



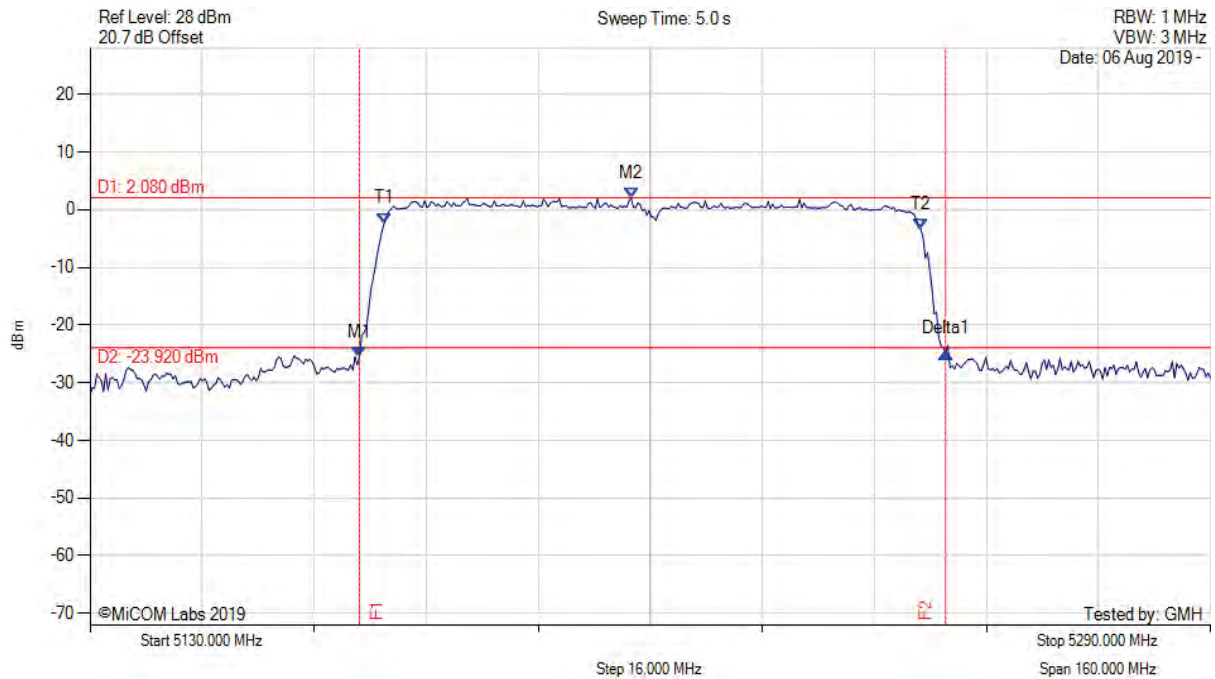
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5223.126 MHz : -24.208 dBm M2 : 5232.345 MHz : 5.458 dBm Delta1 : 29.739 MHz : 4.521 dB T1 : 5231.383 MHz : -3.741 dBm T2 : 5248.216 MHz : -2.870 dBm OBW : 16.834 MHz	Channel Frequency: 5240.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11ac-80, Channel: 5210.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



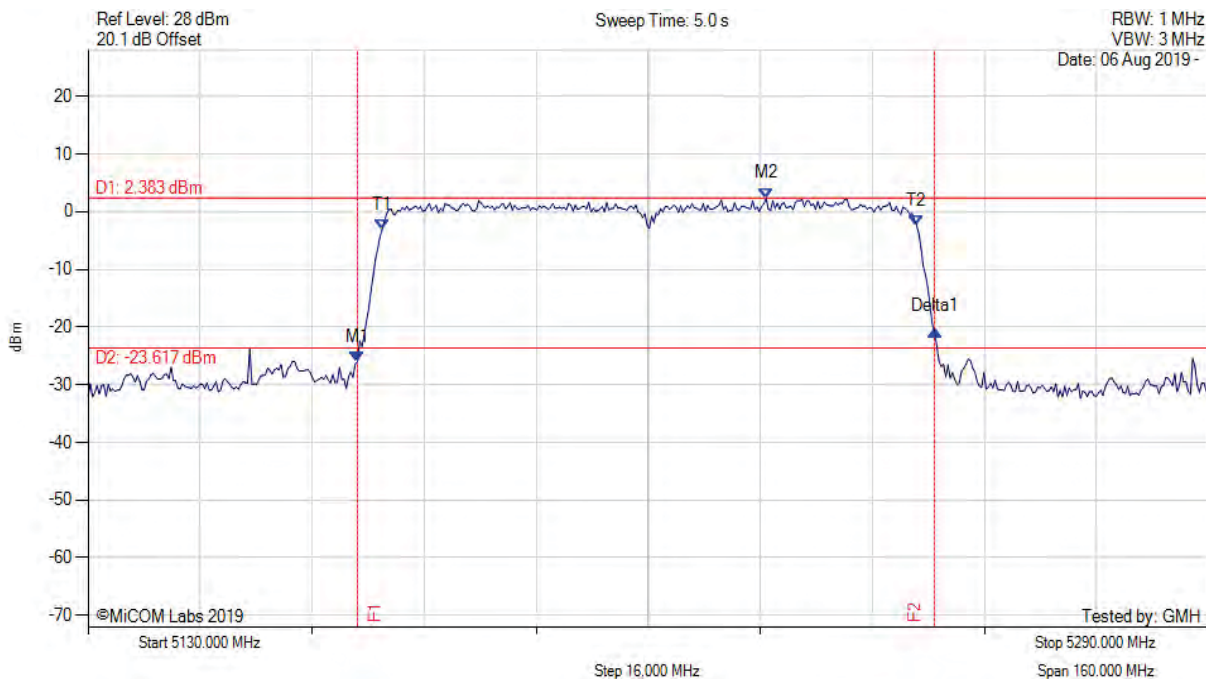
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.477 MHz : -25.451 dBm M2 : 5207.275 MHz : 2.080 dBm Delta1 : 83.687 MHz : 0.667 dB T1 : 5172.004 MHz : -2.299 dBm T2 : 5248.637 MHz : -3.397 dBm OBW : 76.633 MHz	Measured 26 dB Bandwidth: 83.687 MHz Measured 99% Bandwidth: 76.633 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11ac-80, Channel: 5210.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



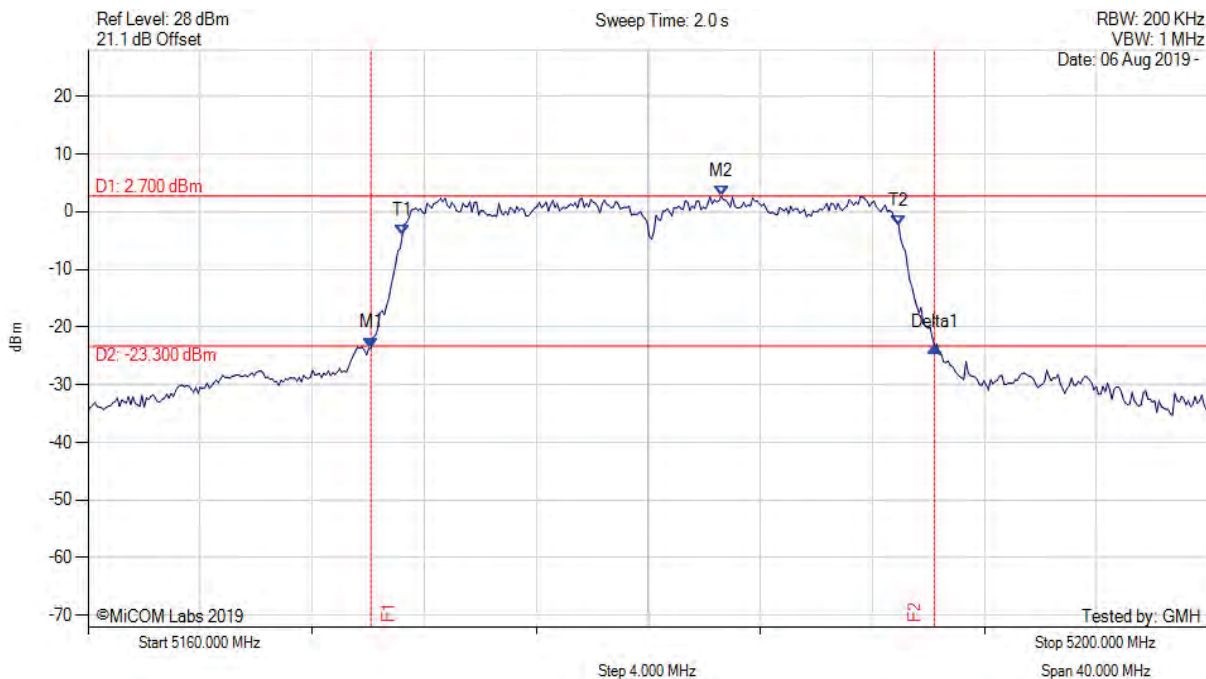
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5168.477 MHz : -25.972 dBm M2 : 5226.834 MHz : 2.383 dBm Delta1 : 82.405 MHz : 5.278 dB T1 : 5172.004 MHz : -3.126 dBm T2 : 5248.317 MHz : -2.337 dBm OBW : 76.313 MHz	Measured 26 dB Bandwidth: 82.405 MHz Measured 99% Bandwidth: 76.313 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



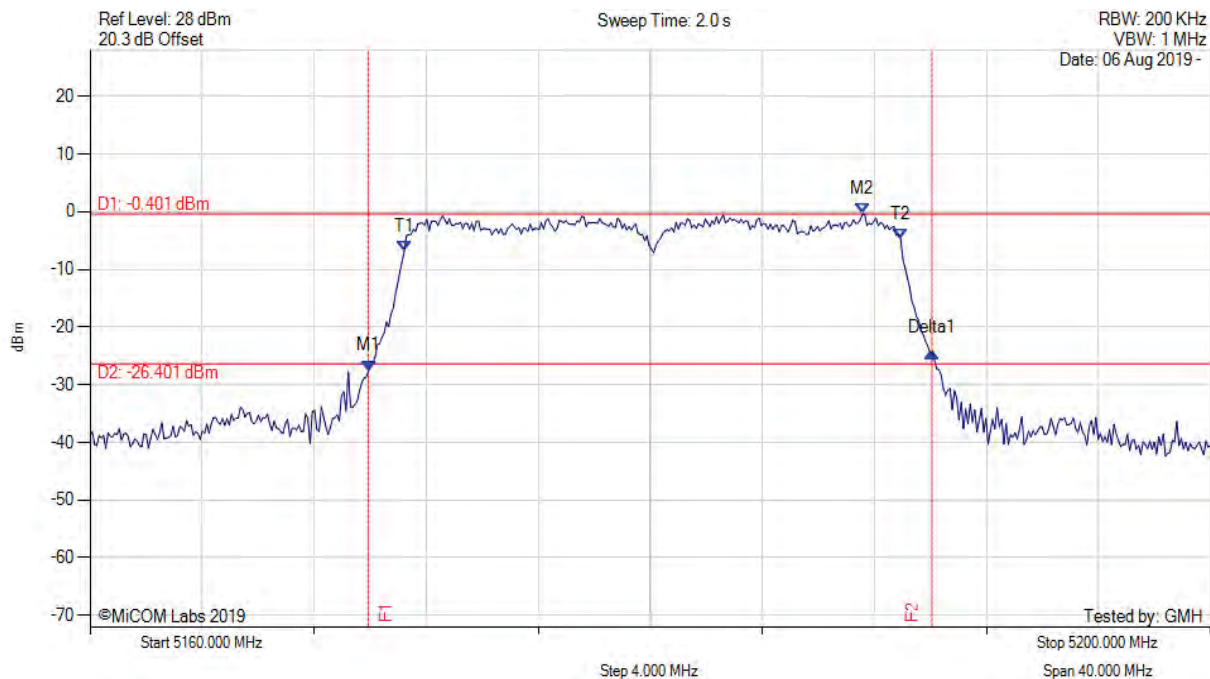
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5170.100 MHz : -23.568 dBm M2 : 5182.605 MHz : 2.700 dBm Delta1 : 20.120 MHz : 0.201 dB T1 : 5171.222 MHz : -3.962 dBm T2 : 5188.938 MHz : -2.360 dBm OBW : 17.715 MHz	Measured 26 dB Bandwidth: 20.120 MHz Measured 99% Bandwidth: 17.715 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



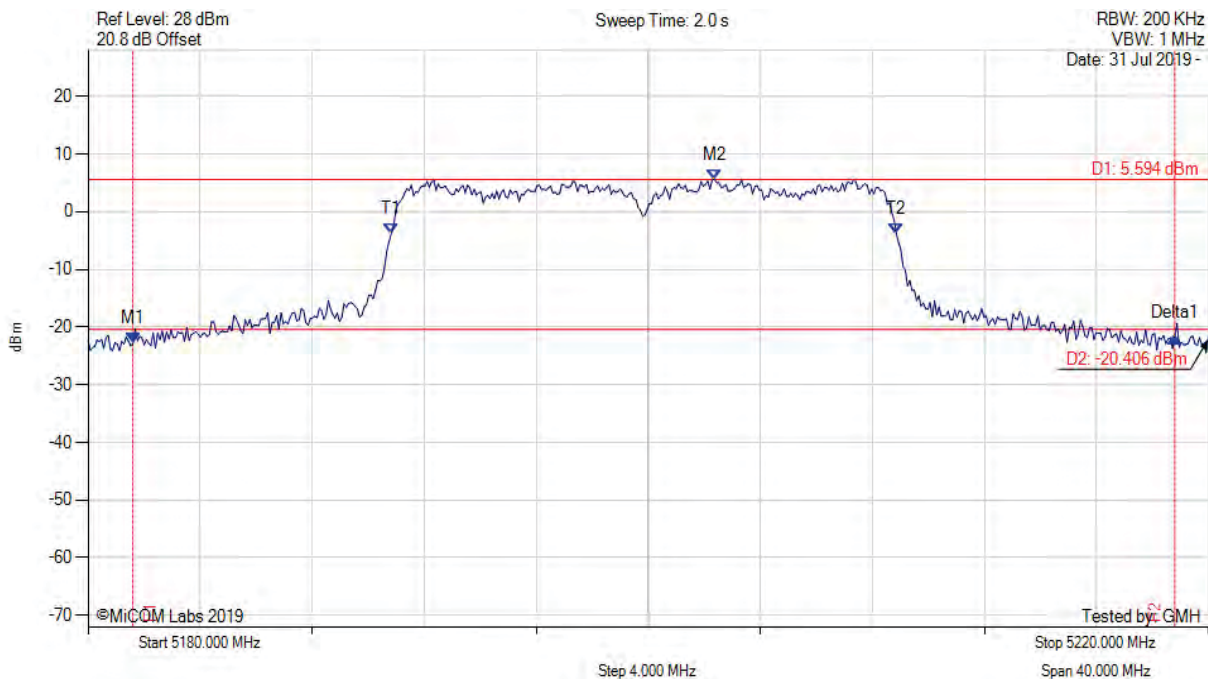
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5169.940 MHz : -27.546 dBm M2 : 5187.575 MHz : -0.401 dBm Delta1 : 20.120 MHz : 3.091 dB T1 : 5171.222 MHz : -6.775 dBm T2 : 5188.938 MHz : -4.741 dBm OBW : 17.715 MHz	Measured 26 dB Bandwidth: 20.120 MHz Measured 99% Bandwidth: 17.715 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



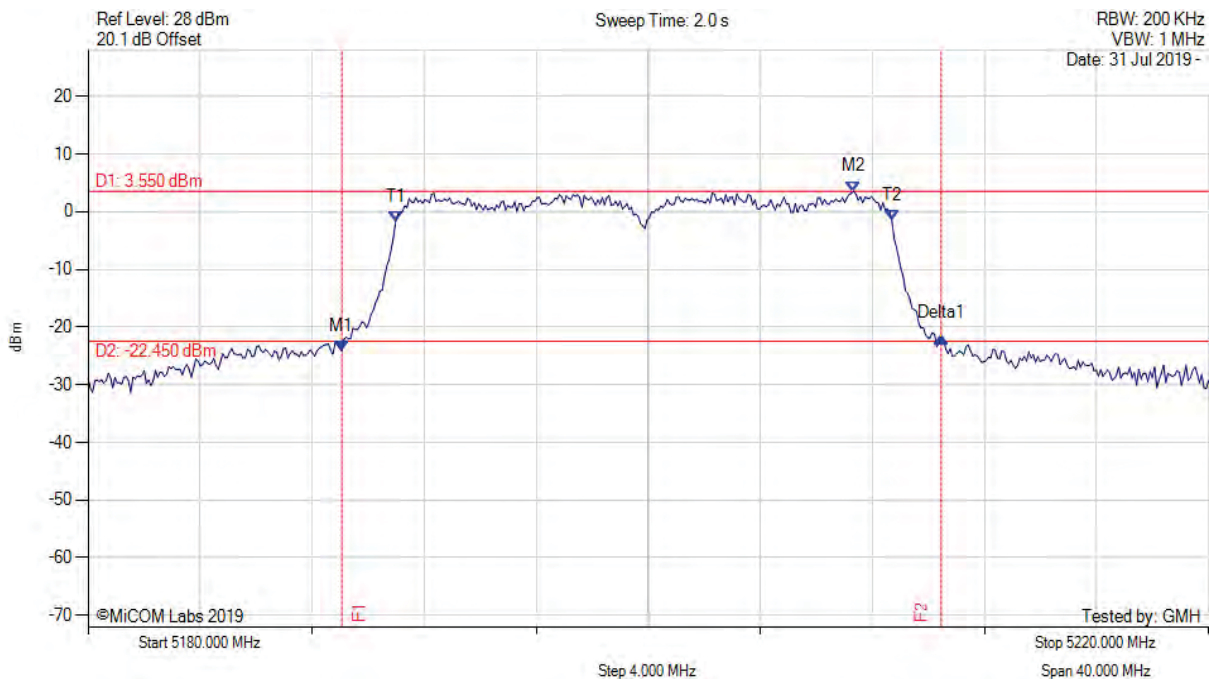
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5181.603 MHz : -22.801 dBm M2 : 5202.365 MHz : 5.594 dBm Delta1 : 37.194 MHz : 1.041 dB T1 : 5190.822 MHz : -3.787 dBm T2 : 5208.858 MHz : -3.844 dBm OBW : 18.036 MHz	Measured 26 dB Bandwidth: 37.194 MHz Measured 99% Bandwidth: 18.036 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



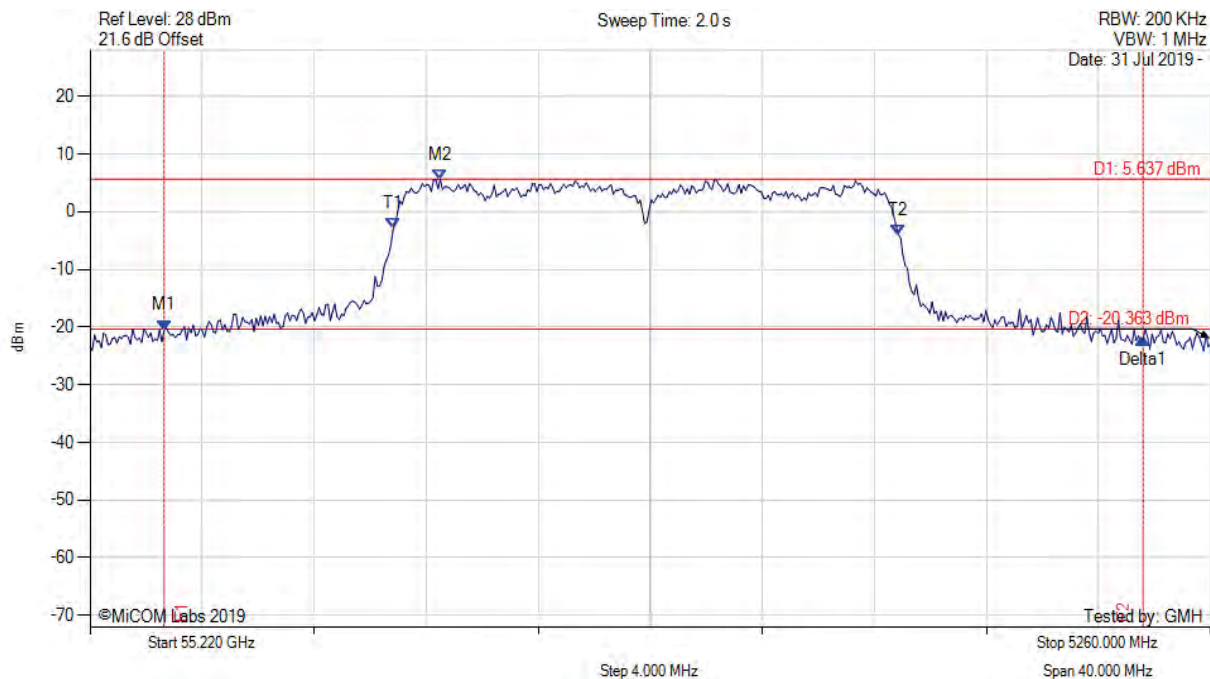
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5189.058 MHz : -24.135 dBm M2 : 5207.335 MHz : 3.550 dBm Delta1 : 21.403 MHz : 2.361 dB T1 : 5190.982 MHz : -1.678 dBm T2 : 5208.697 MHz : -1.483 dBm OBW : 17.715 MHz	Measured 26 dB Bandwidth: 21.403 MHz Measured 99% Bandwidth: 17.715 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



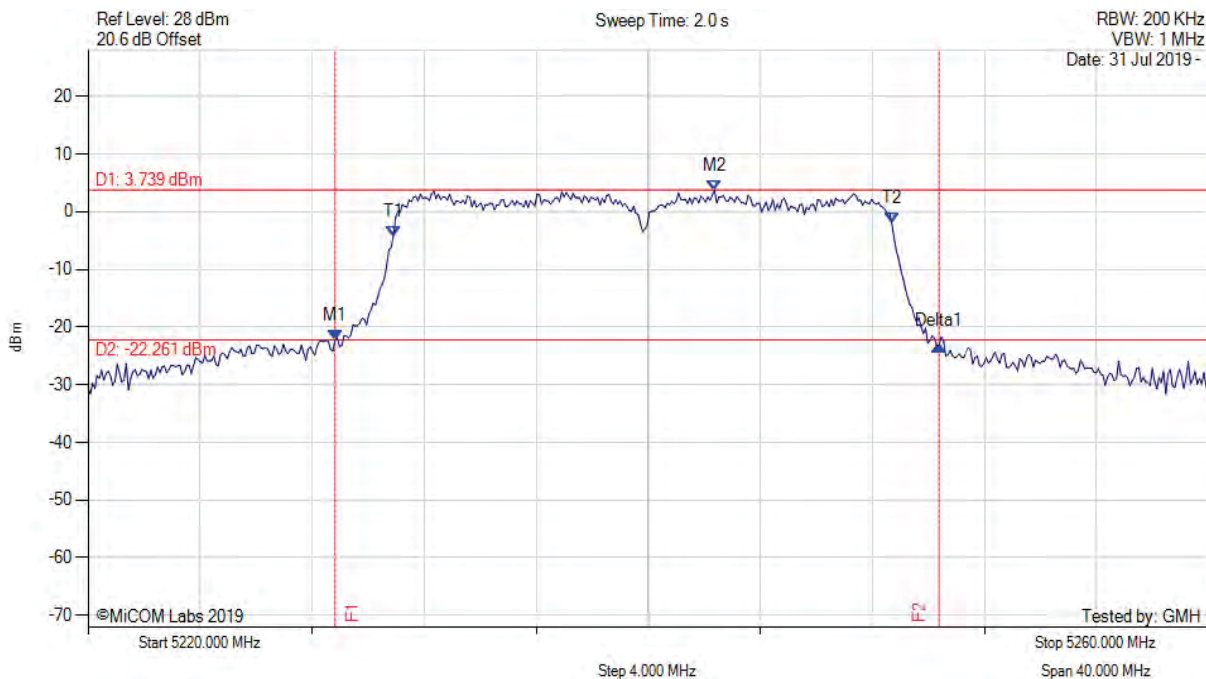
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5222.645 MHz : -20.531 dBm M2 : 5232.505 MHz : 5.637 dBm Delta1 : 34.950 MHz : -1.607 dB T1 : 5230.822 MHz : -2.956 dBm T2 : 5248.858 MHz : -3.954 dBm OBW : 18.036 MHz	Channel Frequency: 5240.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



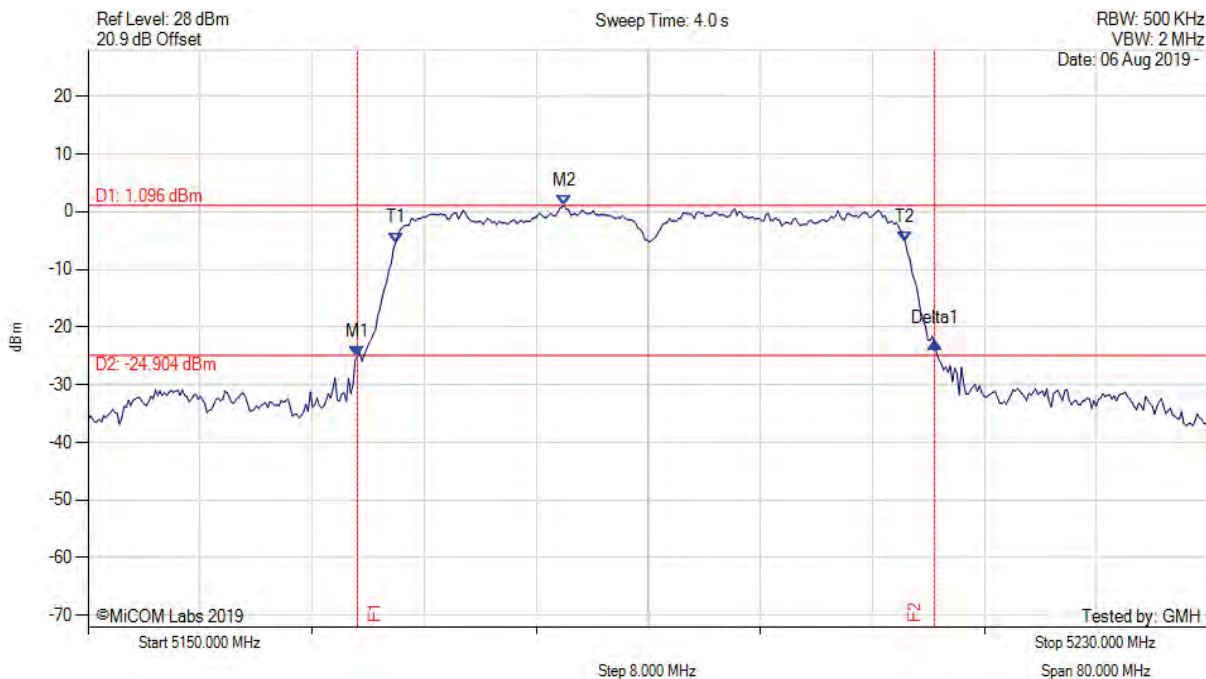
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	ERROR!!! MULTIPLE TEST RESULTS MATCHES...	Measured 26 dB Bandwidth: 21.563 MHz Measured 99% Bandwidth: 17.796 MHz ERROR!!! MULTIPLE TEST RESULTS MATCHES...

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26 dB & 99% BANDWIDTH



Variant: 802.11n HT-40, Channel: 5190.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



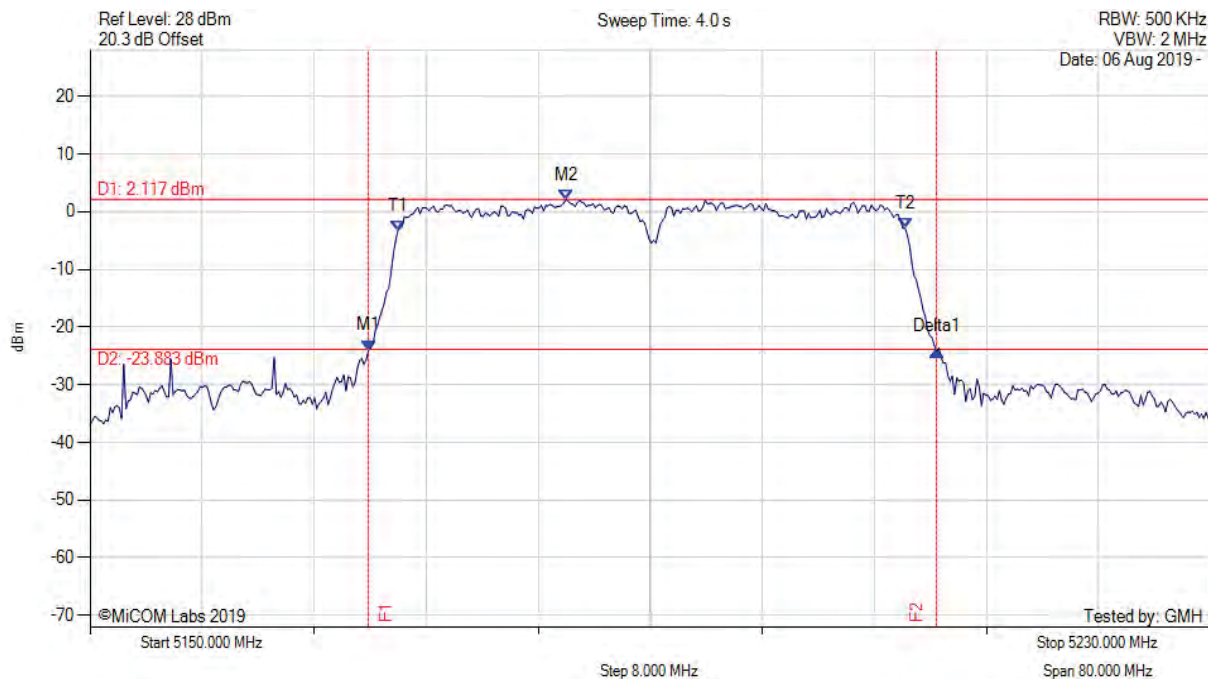
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5169.238 MHz : -25.028 dBm M2 : 5183.988 MHz : 1.096 dBm Delta1 : 41.202 MHz : 2.276 dB T1 : 5171.964 MHz : -5.329 dBm T2 : 5208.357 MHz : -5.256 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.202 MHz Measured 99% Bandwidth: 36.393 MHz

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26 dB & 99% BANDWIDTH



Variant: 802.11n HT-40, Channel: 5190.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5169.880 MHz : -24.042 dBm M2 : 5183.988 MHz : 2.117 dBm Delta1 : 40.561 MHz : -0.130 dB T1 : 5171.964 MHz : -3.320 dBm T2 : 5208.196 MHz : -2.860 dBm OBW : 36.232 MHz	Measured 26 dB Bandwidth: 40.561 MHz Measured 99% Bandwidth: 36.232 MHz

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