10. DUAL CLIENT TEST/ CLIENT DEVICE - POWER ADJUSTMENT

LIMITS

FCC §15.407(a) (7), (8)

(7) For client devices, except for fixed client devices as defined in this subpart, operating under the control of a standard power access point in 5.925–6.425 GHz and 6.525–6.875 GHz bands, the maximum power spectral density must not exceed 17 dBm e.i.r.p. in any 1-megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm and the device must limit its power to no more than 6 dB below its associated standard power access point's authorized transmit power.

(8) For client devices operating under the control of an indoor access point in the 5.925–7.125 GHz bands, the maximum power spectral density must not exceed −1 dBm e.i.r.p. in any 1-megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm.

(II) (K) . Dual Client Test, Demonstration of Proper Power Adjustment based on Associated AP
A client device may connect to a Standard Power AP with a maximum power level of 30 dBm EIRP. A client may also connect to a Low Power indoor AP, but the power level is limited to a maximum of 24 dBm EIRP. If a client has the flexibility to connect to both APs, verification is needed to show that it can distinguish between the two configurations and then control the power levels accordingly.

(II) (L). Proper Power Adjustment, Client Devices Connected to a Standard Power Access Point
A client device that connects to a Standard Power AP must limit its power to a minimum of 6 dB lower than its associated Standard Power access point's authorized transmit power. The term "authorized" means the AFC-approved power level for the AP to use on a particular channel.

TEST PROCEDURE

Per KDB 987594 D02 (II) (K) and (II) (L)

SET UP

The following setup shown in section 6.6 was used as an alternate method to meet requirements for sections (II)(K) and (II)(L) for a dual client device. It verifies EUT ability to distinguish between an LPI AP and SP AP and operate at the power level permitted for each.

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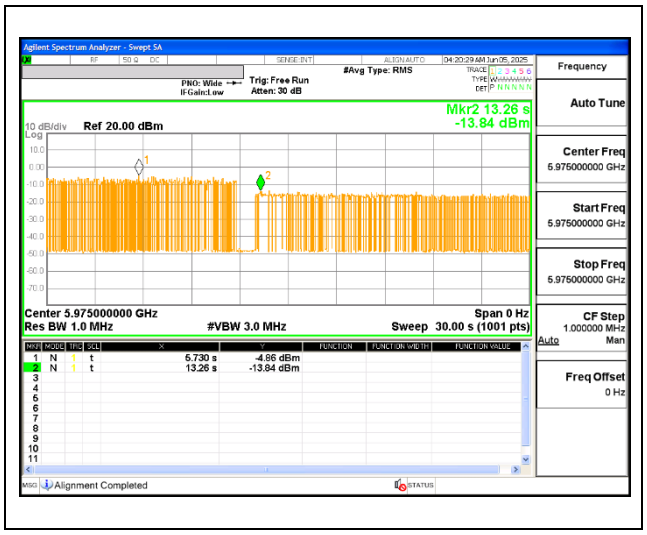
RESULTS FOR DUAL CLIENT TEST

Tested By:	GA 12485
Date:	2025-06-04

EUT Frequency (MHz)	AFC Authorized EIRP Power for AP (dBm)	Dual Client MIMO EIRP (dBm)	Results (Pass/Fail) (EUT-AFC Authorized AP Power <= -6dB)
5975	36	18.80	Pass
	28	18.67	Pass
	21	14.67	Pass

The plot below demonstrates the EUT's ability to distinguish between SP mode and LP mode connections, and to reduce power when transitioning from standard client mode to LPI client mode.

The EUT is connected to an AP simulator as an SP client. After 12 seconds, the simulator switches to LP AP mode. The EUT's power is measured in SP client mode at Marker 1, and again after transitioning to LP client mode at Marker 2. The delta between Marker 2 and Marker 1 is ≥ -6 dB, demonstrating the EUT's ability to reduce power when switching from SP mode to LP mode.



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11. VERY LOW POWER TRANSMIT POWER CONTROL (TPC)

LIMITS

FCC §15.407 (d) (10)

(10) Very low power devices operating in the 5.925-6.425 and 6.525-6.875 GHz bands shall employ a transmit power control (TPC) mechanism. A very low power device is required to have the capability to operate at least 6 dB below the maximum EIRP power spectral density (PSD) value of −5 dBm/MHz.

PROCEDURE

1. Configure EUT and companion device for peer-to-peer communication (refer to section 6.6)
2. Set variable attenuator to 0dB (noise free spectral environment, high RSSI simulation)
3. Establish a link and start communication between EUT and companion device
4. Capture PSD spectrum analyzer trace (2)
5. Set variable attenuator to 40dB (noisy spectral environment, low RSSI simulation)
6. Capture PSD spectrum analyzer trace (1)
7. For MIMO operations use the sum of the highest PSD from each individual antenna

SA Settings: 1MHz RBW/ 3MHz VBW
Span: 240MHz
Sweep: 1ms, trace averaging enabled for 100 sweeps with rms detector enabled.

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RESULTS

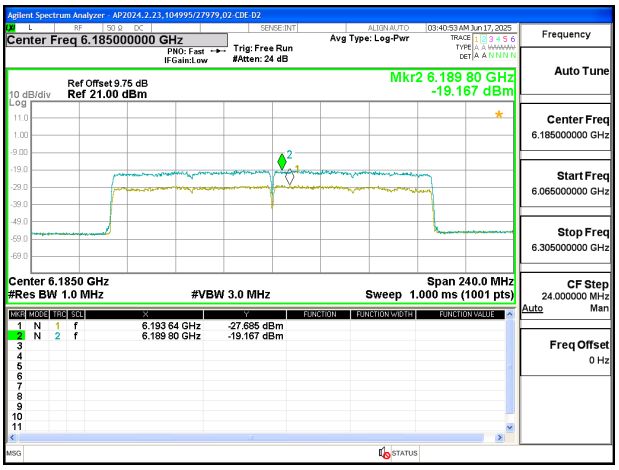
Tested By:	104995/27979
Date:	2025-06-17

2TX	UNII-5 band
Correlated Chains Directional Gain (dBi)	2.16
DCCF (dB)	0

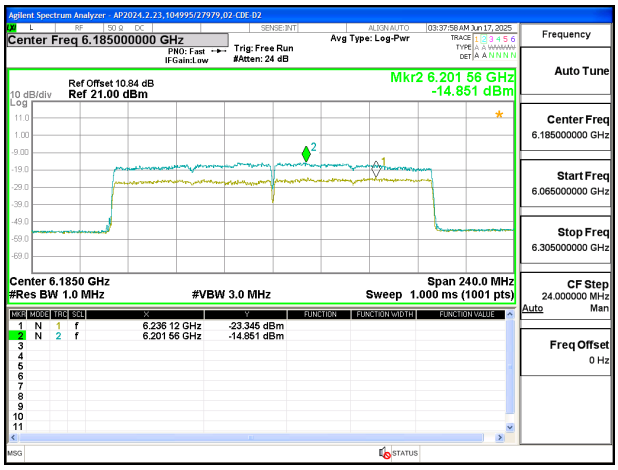
BW (MHz)	Frequency (MHz)	ANT 6		ANT 5		ANT 6 + ANT 5	
		Trace 2 Low RSSI PSD (dBm/MHz)	Trace 1 High RSSI PSD (dBm/MHz)	Trace 2 Low RSSI PSD (dBm/MHz)	Trace 1 High RSSI PSD (dBm/MHz)	2Tx Low RSSI EIRP PSD (dBm/MHz)	2Tx High RSSI EIRP PSD (dBm/MHz)
160	6185 (CH47)	-19.167	-27.685	-14.851	-23.345	-11.32	-19.82

Device complies because it can operate at a power less than -11dBm/MHz.

VLP TPC POWER LEVEL REDUCTION



TPC PSD CH47@ 6185-160MHz – ANT 6



TPC PSD CH47@ 6185-160MHz – ANT 5

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12. SETUP PHOTOS

Refer to 15496282-EP1 FCC IC Setup_Photo for setup photos.

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13. APPENDIX A – SPOT CHECK EVALUATION

13.1. MODEL DIFFERENCES

The manufacturer hereby declares the following for models A3260, A3516, A3517 and A3518.

These models have the same PCB layout, design, common components, antennas, antenna locations and housing cases, except for the cellular bands that are enabled/disabled by software as shown below.

Model	FCC ID	IC ID	Feature Difference	Sim Support	Reference Model
A3260	BCG-E8948A	579C-E8948A	_No B11/21	eSIM	-
A3516	BCG-E8954A	579C-E8954A	_Added B11/21 _No B14/29/71		A3260
A3517	BCG-E8955A	579C-E8955A	_No B11/21/14/29/71		
A3518	BCG-E8956A	579C-E8956A	_No B11/21/14/29/71/53 _No MSS		

The spot check plan, approved by the FCC inquiry, allows for data reuse from the reference model where the variant model data meets the limits and has not changed by more than the criteria from KDB 484596 D01 v03 equation (4).

$$d_{dB\max}(M_{dB}) = \begin{cases} (3 + M_{dB}/20)\ \text{dB}, \text{for } 0 \le M_{dB} \le 60\ \text{dB} \\ 6\ \text{dB}, \text{for } M_{dB} > 60\ \text{dB} \end{cases} \quad (4)$$

Where: d_{dBmax} is the maximum deviation d_{dB} allowed, M_{dB} is the margin in dB
d_{dB} deviation from Reference data, V_{dB} variant spot check level, and R_{dB} measurement level

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13.2. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3516

A3516 SPOT CHECK RESULTS												
Equipment Class	Frequency (MHz)	Mode	Data Rate	Test Item		Channel	Measured Frequency (GHz)	Original Model: A3260 FCC ID : BCG-E8948A IC : 579C-E8948A	Sub Model: A3516 FCC ID : BCG-E8954A IC : 579C-E8954A	Delta (dB)	Margin	Remarks
6CD / 6VL (UNII-5/6/7/8)	5925 - 6425 UNII-5	11be EHT160 SU (CDD)	MCS11	Radiated Bandedge (dBm)	Vertical Low Bandedge	15	5.900735	-30.45	-27.42	3.03	-3.45	Note 1
		11be EHT20 106T (CDD) SP	MCS0	RSE (dBuV/m) Avg	1 to 18	1	17.786975	45.98	44.02	-1.96	-8.02	Note 1
	6425 - 6525 UNII-6	11be EHT160 SU (ANT 6) VLP	MCS0	EIRP Power (dBm)	Fundamental	111	6.505	12.95	12.89	-0.06	-1.05	Note 1
		11be EHT160 (SDM) LP	MCS0	EIRP Power (dBm)	Fundamental	111	6.505	18.10	18.06	-0.04	-5.90	Note 1
	6525 - 6875 UNII-7	11be EHT160 SU (ANT 5) VLP	MCS0	EIRP Power (dBm)	Fundamental	143	6.665	12.95	12.91	-0.04	-1.05	Note 1
		11be EHT80 (SDM) SP	MCS0	EIRP Power (dBm)	Fundamental	119	6.545	21.82	21.76	-0.06	-8.18	Note 1
	6875 - 7125 UNII-8	EHT40 SU (CDD) VLP	MCS11	Radiated Bandedge (dBm)	Horizontal High Bandedge	227	7.126001	-29.72	-28.35	1.37	-2.72	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

13.3. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3517

A3517 SPOT CHECK RESULTS												
Equipment Class	Frequency (MHz)	Mode	Data Rate	Test Item		Channel	Measured Frequency (GHz)	Original Model: A3260 FCC ID : BCG-E8948A IC : 579C-E8948A	Sub Model: A3517 FCC ID : BCG-E8955A IC : 579C-E8955A	Delta (dB)	Margin	Remarks
6CD / 6VL (UNII-5/6/7/8)	5925 - 6425 UNII-5	11be EHT160 SU (CDD)	MCS11	Radiated Bandedge (dBm)	Vertical Low Bandedge	15	5.900735	-30.45	-28.19	2.26	-3.45	Note 1
		11be EHT20 106T (CDD) SP	MCS0	RSE (dBuV/m) Avg	1 to 18	1	17.786975	45.98	43.59	-2.39	-8.02	Note 1
	6425 - 6525 UNII-6	11be EHT160 SU (ANT 6) VLP	MCS0	EIRP Power (dBm)	Fundamental	111	6.505	12.95	12.91	-0.04	-1.05	Note 1
		11be EHT160 (SDM) LP	MCS0	EIRP Power (dBm)	Fundamental	111	6.505	18.10	18.07	-0.03	-5.90	Note 1
	6525 - 6875 UNII-7	11be EHT160 SU (ANT 5) VLP	MCS0	EIRP Power (dBm)	Fundamental	143	6.665	12.95	12.90	-0.05	-1.05	Note 1
		11be EHT80 (SDM) SP	MCS0	EIRP Power (dBm)	Fundamental	119	6.545	21.82	21.77	-0.05	-8.18	Note 1
	6875 - 7125 UNII-8	EHT40 SU (CDD) VLP	MCS11	Radiated Bandedge (dBm)	Horizontal High Bandedge	227	7.126001	-29.72	-31.46	-1.74	-2.72	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

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13.4. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3518

A3518 SPOT CHECK RESULTS												
Equipment Class	Frequency (MHz)	Mode	Data Rate	Test Item		Channel	Measured Frequency (GHz)	Original Model: A3260 FCC ID : BCG-E8948A IC : 579C-E8948A	Sub Model: A3518 FCC ID : BCG-E8956A IC : 579C-E8956A	Delta (dB)	Margin	Remarks
6CD / 6VL (UNII-5/6/7/8)	5925 - 6425 UNII-5	11be EHT160 SU (CDD)	MCS11	Radiated Bandedge (dBm)	Vertical Low Bandedge	15	5.900735	-30.45	-27.60	2.85	-3.45	Note 1
		11be EHT20 106T (CDD) SP	MCS0	RSE (dBuV/m) Avg	1 to 18	1	17.786975	45.98	43.18	-2.80	-8.02	Note 1
	6425 - 6525 UNII-6	11be EHT160 SU (ANT 6) VLP	MCS0	EIRP Power (dBm)	Fundamental	111	6.505	12.95	12.88	-0.07	-1.05	Note 1
		11be EHT160 (SDM) LP	MCS0	EIRP Power (dBm)	Fundamental	111	6.505	18.10	18.03	-0.07	-5.90	Note 1
	6525 - 6875 UNII-7	11be EHT160 SU (ANT 5) VLP	MCS0	EIRP Power (dBm)	Fundamental	143	6.665	12.95	12.92	-0.03	-1.05	Note 1
		11be EHT80 (SDM) SP	MCS0	EIRP Power (dBm)	Fundamental	119	6.545	21.82	21.79	-0.03	-8.18	Note 1
	6875 - 7125 UNII-8	EHT40 SU (CDD) VLP	MCS11	Radiated Bandedge (dBm)	Horizontal High Bandedge	227	7.126001	-29.72	-29.17	0.55	-2.72	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

END OF REPORT

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