UN6GHZ PRE-APPROVAL GUIDANCE CHECKLIST

1. Antennas

1.1 Information for all the antennas, i.e., type, gain and relative positions within host, must be included in the filing.

Please refer to page 8 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for antenna information. Please refer to document "EUT Internal Photo" for the antenna positions.

1.2 Show how the (aggregate, if applicable) antenna gain was computed/measured (as in TCB Workshop Presentation Aggregate Antenna Gain Review, April 2021). Provide equation(s) used to calculate Directional Gain and provide example calculation showing how the DG was calculated with the antenna gain of individual antennas. Provide details (references or attached documents) on how the individual antenna gains were derived, i.e., declared by the host manufacturer, based on data sheet, or measured. Since the CBP needs to detect a small signal, the worst case scenario to consider is when the receiver has the lowest antenna gain.

Please refer to page 8 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for antenna information.

According to FCC KDB 662911 D01v02r01:

CDD Mode

For power measurements: Array Gain = 0 dB for $N_{ANT} \leq 4$, the directional gain = max antenna gain + array gain

For power spectral density (PSD) measurements:

the directional gain = max antenna gain + array gain; Array Gain = 10 log (N_{ANT}/ N_{SS}) dB

The CBP was performed by conducted test. The minimum antenna gains (3.0dBi) of each band (NII-5/-6/-7/-8) (as follow picture) was selected to perform CBP test. Please refer to page 16 and 24 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for CBP test result.

Antenna Type	Frequency Band (MHz)	Tx Paths	Number of spatial streams	Antenna Gain (dBi)		Beamforming Directional Gain(dBi)	CDD Directional Gain (dBi)	
				Ant 0	Ant 1		For Power	For PSD
Dipole	5955 ~ 7-95	2	1	3.0	3.0	6.01	3.0	6.01
		2	2	3.0	3.0	--	3.0	3.0

Remark:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
   If all antennas have the same gain, G_{ANT}, Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.
   - For power spectral density (PSD) measurements on all devices,

   Array Gain = 10 log (N_{ANT}/ N_{SS}) dB;
   - For power measurements on IEEE 802.11 devices,

   Array Gain = 0 dB for $N_{ANT} \leq 4$;
2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11ac/ax/be, not include 802.11a/b/g/n. BF Directional gain = G_{ANT} + 10 log (N_{ANT}).
3. The information as above is from the antenna report.

Test Mode	Tx Paths	CDD Mode	Beamforming Mode
802.11ax/be (6ID / 6PP)	2	√	√

1.3 For conducted test in MIMO cases, show that the testing was done for that path that has the lowest antenna gain.

EUT supports CDD and Beamforming modes, and the CBP was performed by conducted test. The minimum antenna gains of each band (NII-5/-6/-7/-8) (as follow picture) was selected to perform CBP test. Please refer to page 16 and 24 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for CBP test result.

Antenna Type	Frequency Band (MHz)	T_X Paths	Number of spatial streams	Antenna Gain (dBi)		Beamforming Directional Gain(dBi)	CDD Directional Gain (dBi)	
				Ant 0	Ant 1		For Power	For PSD
Dipole	5955 ~ 7-95	2	1	3.0	3.0	6.01	3.0	6.01
		2	2	3.0	3.0	--	3.0	3.0

Remark:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
   If all antennas have the same gain, G_{ANT}, Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.
   - For power spectral density (PSD) measurements on all devices,

   Array Gain = 10 log (N_{ANT}/ N_{SS}) dB;
   - For power measurements on IEEE 802.11 devices,

   Array Gain = 0 dB for $N_{ANT} \leq 4$;
2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11ac/ax/be, not include 802.11a/b/g/n. BF Directional gain = G_{ANT} + 10 log (N_{ANT}).
3. The information as above is from the antenna report.

Test Mode	T_X Paths	CDD Mode	Beamforming Mode
802.11ax/be (6ID / 6PP)	2	√	√

2. Contention Based Protocol (CBP)

2.1 CBP testing shall be performed on one channel in each sub-band of operation for both narrowest and widest bandwidths.

Please refer to page 16 and 24 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for the test channel and bandwidth information as follows. The narrowest and widest bandwidths were test for each UNII band.

6ID

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2024-05-16 ~ 2024-05-24	Test Mode	AP mode

Test Channel	Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	AWGN Power (dBm)	Ant. Gain (dBi)	Adjust Power (dBm)	Detection Limit (dBm)	Detected Number	Detection Probability (%)	Limit (%)	Test Result
Operation Band: U-NII 5											
37	20	6135	6135	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
63	320	6265	6110	-75.0	3.0	-78.0	≤ -62.0	10	100	90	Pass
63	320	6265	6265	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
63	320	6265	6420	-65.0	3.0	-68.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 6											
101	20	6455	6455	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
95	320	6425	6270	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
95	320	6425	6425	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
95	320	6425	6580	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 7											
165	20	6775	6775	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
127	320	6585	6430	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
127	320	6585	6585	-77.0	3.0	-80.0	≤ -62.0	10	100	90	Pass
127	320	6585	6740	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 8											
213	20	7015	7015	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass
191	320	6905	6750	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
191	320	6905	6905	-78.0	3.0	-81.0	≤ -62.0	10	100	90	Pass
191	320	6905	7060	-71.0	3.0	-74.0	≤ -62.0	10	100	90	Pass

Note 1: Adjust Power (dBm) = AWGN Power (dBm) – Antenna Gain (dBi).

Note 2: Conducted measurements are used.

Note 3: As the Grantee's declaration, this device supports one configuration only in 802.11ax/be full RU mode and doesn't support BW reduction mechanism, channel puncturing and multi-link operation.

6PP

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2024-05-24 ~ 2024-05-25	Test Mode	Mesh mode

Test Channel	Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	AWGN Power (dBm)	Ant. Gain (dBi)	Adjust Power (dBm)	Detection Limit (dBm)	Detected Number	Detection Probability (%)	Limit (%)	Test Result
Operation Band: U-NII 5											
37	20	6135	6135	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
63	320	6265	6110	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
63	320	6265	6265	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
63	320	6265	6420	-78.0	3.0	-81.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 6											
101	20	6455	6455	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass
95	320	6425	6270	-74.0	3.0	-77.0	≤ -62.0	10	100	90	Pass
95	320	6425	6425	-75.0	3.0	-78.0	≤ -62.0	10	100	90	Pass
95	320	6425	6580	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 7											
165	20	6775	6775	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
127	320	6585	6430	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
127	320	6585	6585	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
127	320	6585	6740	-77.0	3.0	-80.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 8											
213	20	7015	7015	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
191	320	6905	6750	-79.0	3.0	-82.0	≤ -62.0	10	100	90	Pass
191	320	6905	6905	-73.0	3.0	-76.0	≤ -62.0	10	100	90	Pass
191	320	6905	7060	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass

Note 1: Adjust Power (dBm) = AWGN Power (dBm) – Antenna Gain (dBi).

Note 2: Conducted measurements are used.

Note 3: As the Grantee's declaration, this device supports one configuration only in 802.11ax/be full RU mode and doesn't support BW reduction mechanism, channel puncturing and multi-link operation.

2.2 Use three separate 10 MHz AWGN signals when testing a 160 MHz channel. The simulated incumbent signal must be a 10 MHz wide AWGN signal

Please refer to page 16 and 24 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for the test summary information.

6ID

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2024-05-16 ~ 2024-05-24	Test Mode	AP mode

Test Channel	Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	AWGN Power (dBm)	Ant. Gain (dBi)	Adjust Power (dBm)	Detection Limit (dBm)	Detected Number	Detection Probability (%)	Limit (%)	Test Result
Operation Band: U-NII 5											
37	20	6135	6135	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
63	320	6265	6110	-75.0	3.0	-78.0	≤ -62.0	10	100	90	Pass
63	320	6265	6265	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
63	320	6265	6420	-65.0	3.0	-68.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 6											
101	20	6455	6455	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
95	320	6425	6270	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
95	320	6425	6425	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
95	320	6425	6580	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 7											
165	20	6775	6775	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
127	320	6585	6430	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
127	320	6585	6585	-77.0	3.0	-80.0	≤ -62.0	10	100	90	Pass
127	320	6585	6740	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 8											
213	20	7015	7015	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass
191	320	6905	6750	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
191	320	6905	6905	-78.0	3.0	-81.0	≤ -62.0	10	100	90	Pass
191	320	6905	7060	-71.0	3.0	-74.0	≤ -62.0	10	100	90	Pass

Note 1: Adjust Power (dBm) = AWGN Power (dBm) – Antenna Gain (dBi).

Note 2: Conducted measurements are used.

Note 3: As the Grantee's declaration, this device supports one configuration only in 802.11ax/be full RU mode and doesn't support BW reduction mechanism, channel puncturing and multi-link operation.

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Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2024-05-24 ~ 2024-05-25	Test Mode	Mesh mode

Test Channel	Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	AWGN Power (dBm)	Ant. Gain (dBi)	Adjust Power (dBm)	Detection Limit (dBm)	Detected Number	Detection Probability (%)	Limit (%)	Test Result
Operation Band: U-NII 5											
37	20	6135	6135	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
63	320	6265	6110	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
63	320	6265	6265	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
63	320	6265	6420	-78.0	3.0	-81.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 6											
101	20	6455	6455	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass
95	320	6425	6270	-74.0	3.0	-77.0	≤ -62.0	10	100	90	Pass
95	320	6425	6425	-75.0	3.0	-78.0	≤ -62.0	10	100	90	Pass
95	320	6425	6580	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 7											
165	20	6775	6775	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
127	320	6585	6430	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
127	320	6585	6585	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
127	320	6585	6740	-77.0	3.0	-80.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 8											
213	20	7015	7015	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
191	320	6905	6750	-79.0	3.0	-82.0	≤ -62.0	10	100	90	Pass
191	320	6905	6905	-73.0	3.0	-76.0	≤ -62.0	10	100	90	Pass
191	320	6905	7060	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass

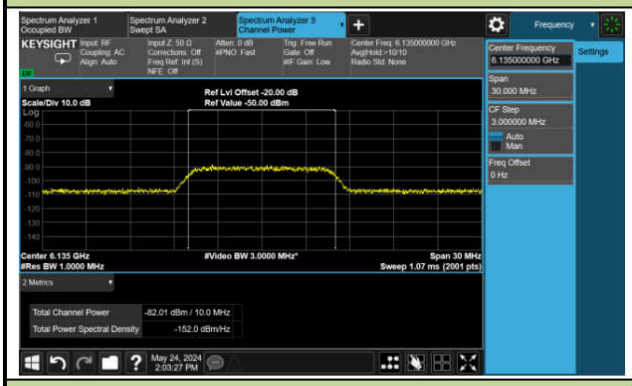
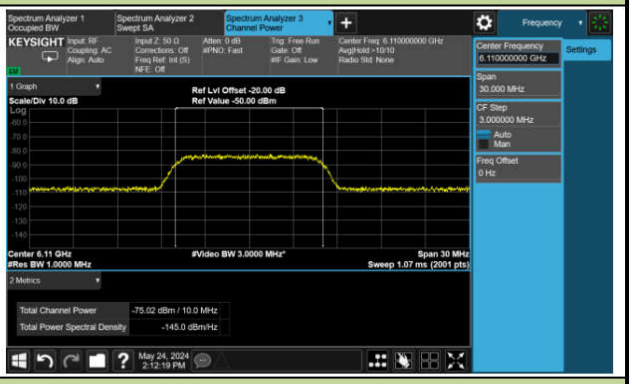
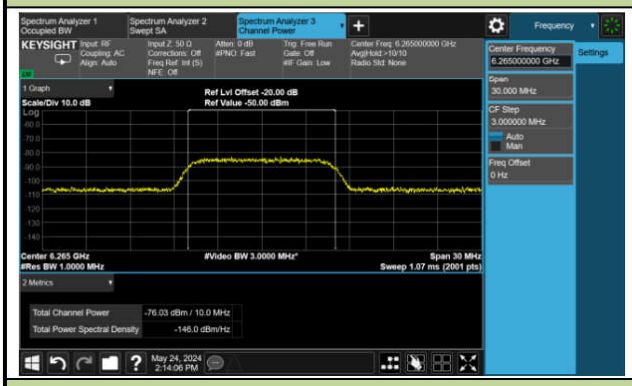
Note 1: Adjust Power (dBm) = AWGN Power (dBm) – Antenna Gain (dBi).

Note 2: Conducted measurements are used.

Note 3: As the Grantee's declaration, this device supports one configuration only in 802.11ax/be full RU mode and doesn't support BW reduction mechanism, channel puncturing and multi-link operation.

Please refer to page 20-21 and 28-29 of “2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1” for the AWGN signal plots.

6ID

Incumbent Signal Calibration Plots (NII-5 Band)	
802.11be-EHT20 / CH37	802.11be-EHT320 / CH63 (Low Edge)
	
802.11be-EHT320 / CH63 (Middle)	802.11be-EHT320 / CH63 (High Edge)
	
Incumbent Signal Calibration Plots (NII-6 Band)	
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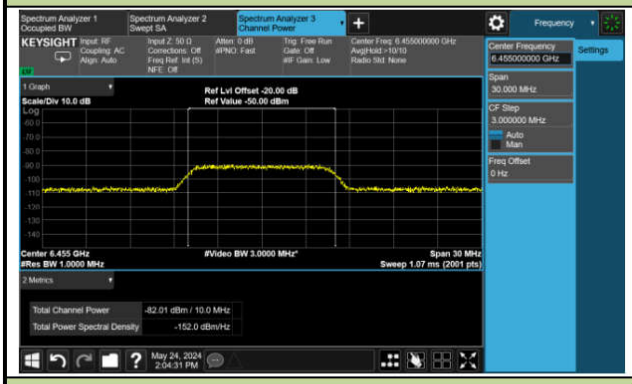
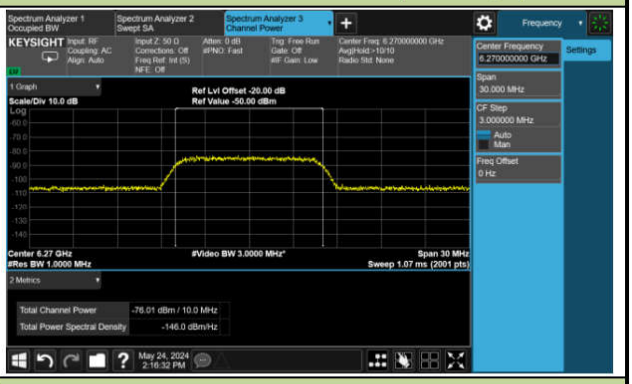
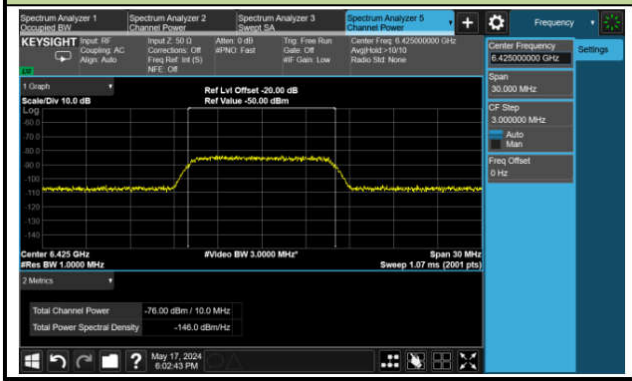
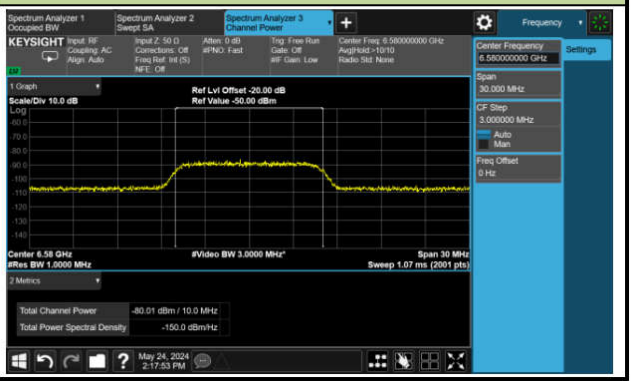
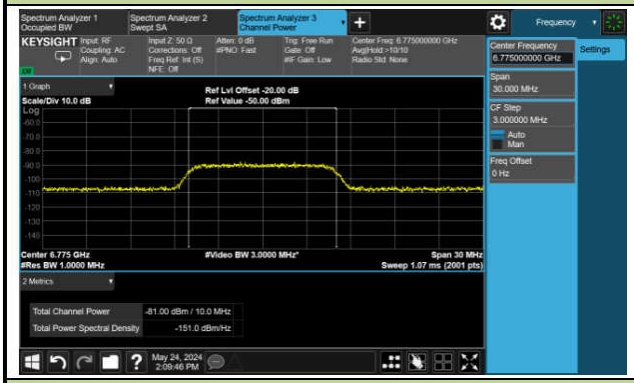
	
802.11be-EHT320 / CH95 (Middle)	802.11be-EHT320 / CH95 (High Edge)
	

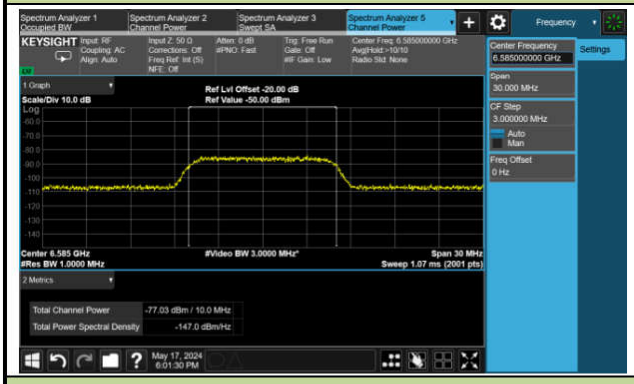
Incumbent Signal Calibration Plots (NII-7 Band)

802.11be-EHT20 / CH165



802.11be-EHT320 / CH127 (Low Edge)

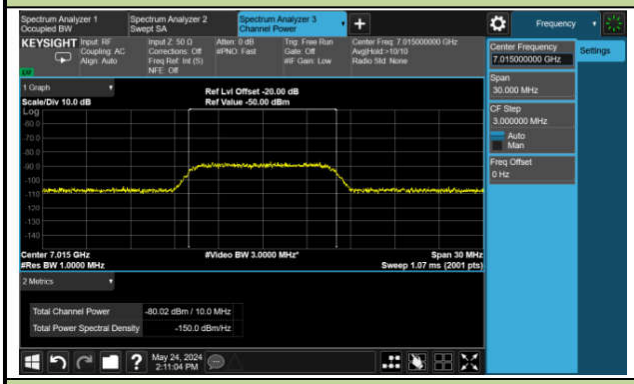
802.11be-EHT320 / CH127 (Middle)



802.11be-EHT320 / CH127 (High Edge)

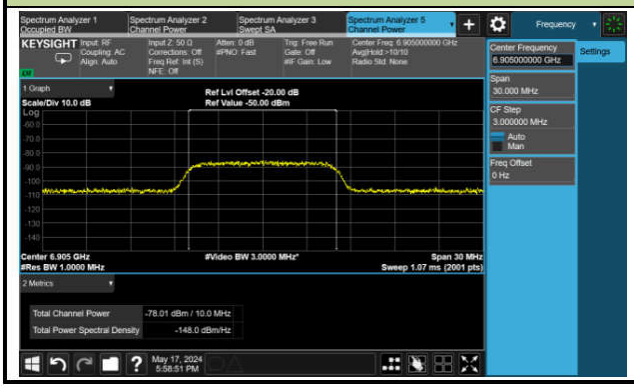
Incumbent Signal Calibration Plots (NII-8 Band)

802.11be-EHT20 / CH213

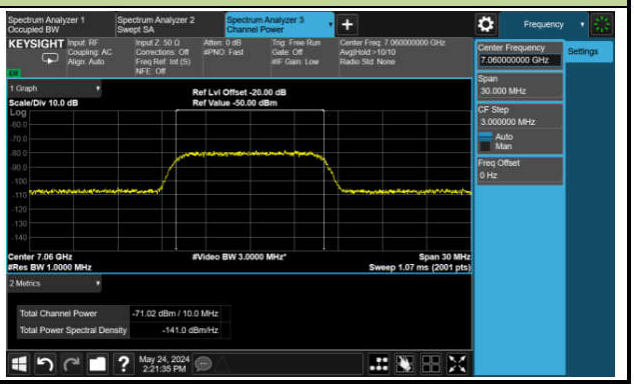


802.11be-EHT320 / CH191 (Low Edge)

802.11be-EHT320 / CH191 (Middle)



802.11be-EHT320 / CH191 (High Edge)



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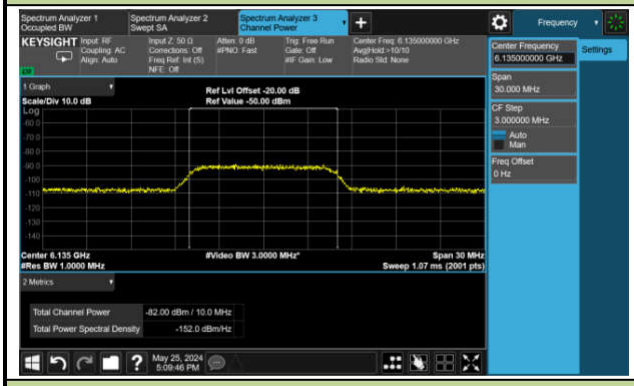
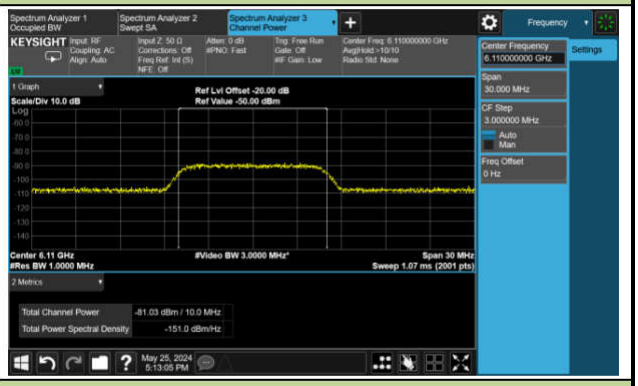
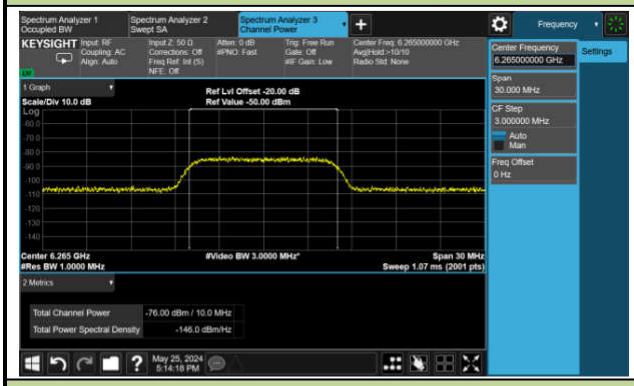
Incumbent Signal Calibration Plots (NII-5 Band)	
802.11be-EHT20 / CH37	802.11be-EHT320 / CH63 (Low Edge)
	
802.11be-EHT320 / CH63 (Middle)	802.11be-EHT320 / CH63 (High Edge)
	
Incumbent Signal Calibration Plots (NII-6 Band)	
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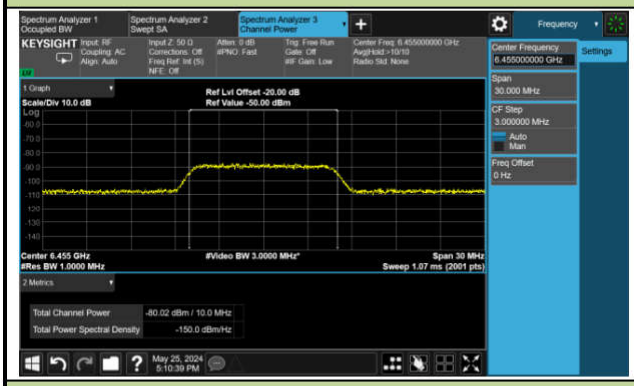
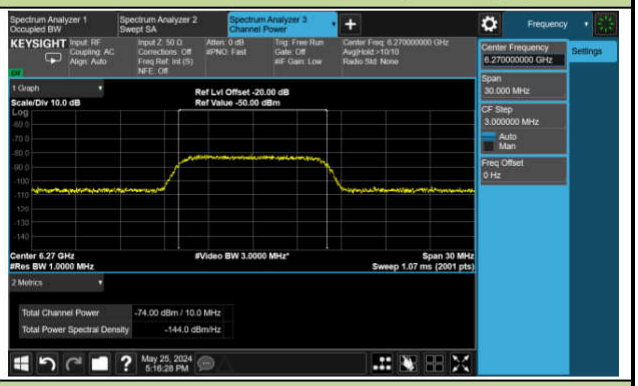
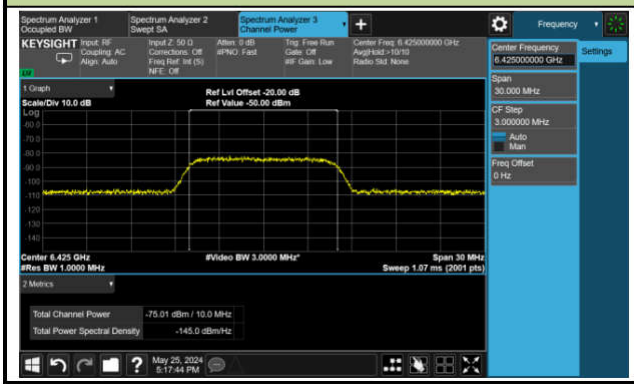
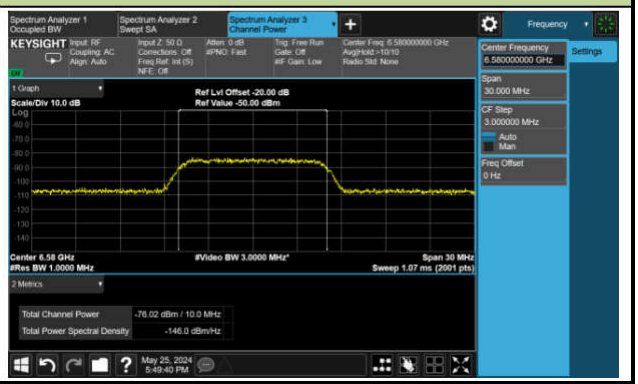
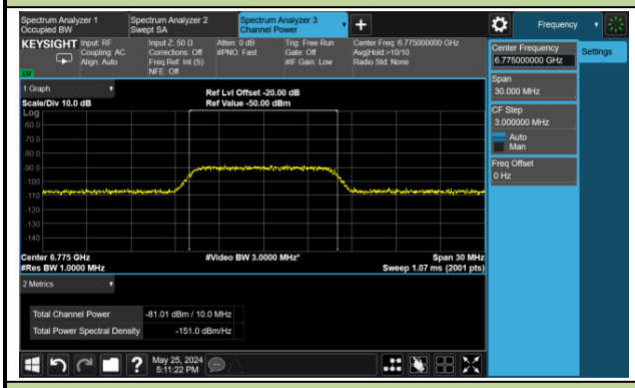
	
802.11be-EHT320 / CH95 (Middle)	802.11be-EHT320 / CH95 (High Edge)
	

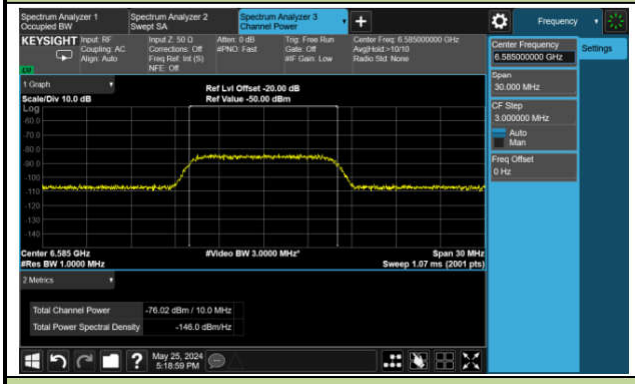
Incumbent Signal Calibration Plots (NII-7 Band)

802.11be-EHT20 / CH165

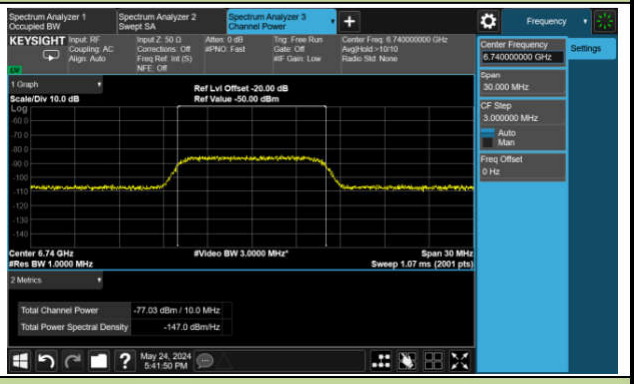


802.11be-EHT320 / CH127 (Low Edge)

802.11be-EHT320 / CH127 (Middle)

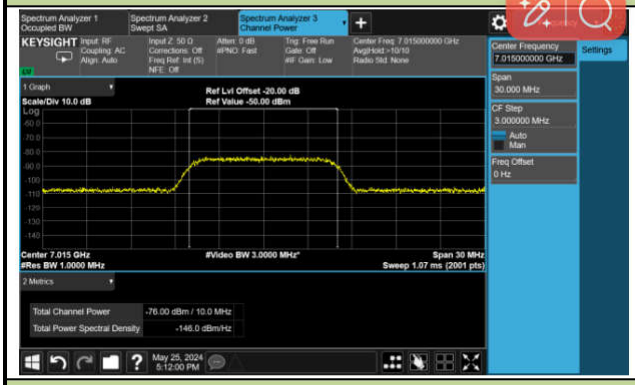


802.11be-EHT320 / CH127 (High Edge)

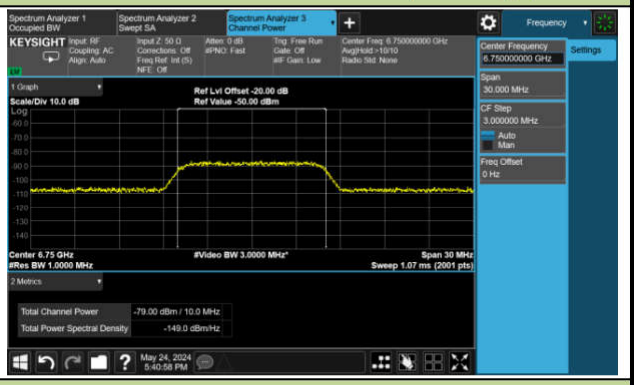


Incumbent Signal Calibration Plots (NII-8 Band)

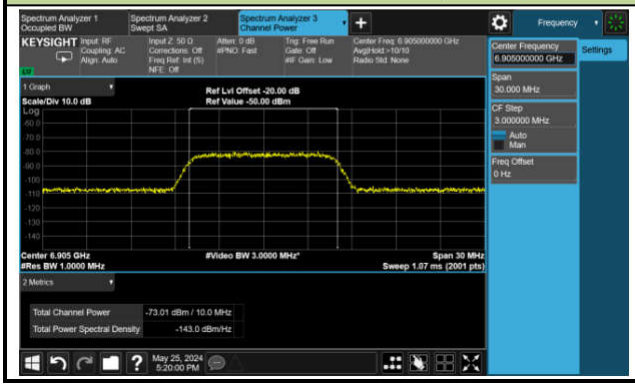
802.11be-EHT20 / CH213



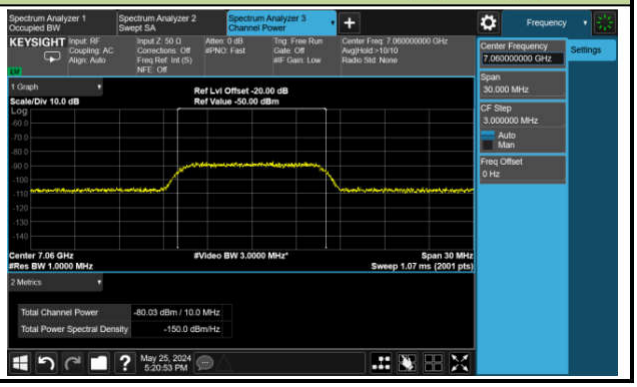
802.11be-EHT320 / CH191 (Low Edge)



802.11be-EHT320 / CH191 (Middle)



802.11be-EHT320 / CH191 (High Edge)



2.3 Report lowest AWGN signal detectable by EUT

Please refer to page 17-18 and 25-26 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for lowest AWGN signal detectable by EUT.

6ID

Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	Adjust Power (dBm)	EUT Tx Status
Operation Band: U-NII 5				
20	6135	6135	-96	ON
			-95	Minimal
			-85	OFF
320	6265	6110	-90	ON
			-89	Minimal
			-78	OFF
320	6265	6265	-85	ON
			-84	Minimal
			-79	OFF
320	6265	6420	-88	ON
			-87	Minimal
			-68	OFF
Operation Band: U-NII 6				
20	6455	6455	-92	ON
			-91	Minimal
			-85	OFF
320	6425	6270	-86	ON
			-85	Minimal
			-79	OFF
320	6425	6425	-84	ON
			-83	Minimal
			-79	OFF
320	6425	6580	-88	ON
			-87	Minimal
			-83	OFF

Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	Adjust Power (dBm)	EUT Status
Operation Band: U-NII 7				
20	6775	6775	-88	ON
			-87	Minimal
			-84	OFF
320	6585	6430	-89	ON
			-88	Minimal
			-79	OFF
320	6585	6585	-88	ON
			-87	Minimal
			-80	OFF
320	6585	6740	-89	ON
			-88	Minimal
			-79	OFF
Operation Band: U-NII 8				
20	7015	7015	-89	ON
			-88	Minimal
			-83	OFF
320	6905	6750	-84	ON
			-83	Minimal
			-79	OFF
320	6905	6905	-85	ON
			-84	Minimal
			-81	OFF
320	6905	7060	-90	ON
			-89	Minimal
			-74	OFF

Note:

OFF: AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds

Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently

ON: AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds

6PP

Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	Adjust Power (dBm)	EUT Tx Status
Operation Band: U-NII 5				
20	6135	6135	-92	ON
			-91	Minimal
			-85	OFF
320	6265	6110	-89	ON
			-88	Minimal
			-84	OFF
320	6265	6265	-83	ON
			-82	Minimal
			-79	OFF
320	6265	6420	-90	ON
			-89	Minimal
			-81	OFF
Operation Band: U-NII 6				
20	6455	6455	-93	ON
			-92	Minimal
			-83	OFF
320	6425	6270	-88	ON
			-87	Minimal
			-77	OFF
320	6425	6425	-84	ON
			-83	Minimal
			-78	OFF
320	6425	6580	-88	ON
			-87	Minimal
			-79	OFF

Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	Adjust Power (dBm)	EUT Status
Operation Band: U-NII 7				
20	6775	6775	-88	ON
			-87	Minimal
			-84	OFF
320	6585	6430	-89	ON
			-88	Minimal
			-84	OFF
320	6585	6585	-90	ON
			-89	Minimal
			-85	OFF
320	6585	6740	-92	ON
			-91	Minimal
			-80	OFF
Operation Band: U-NII 8				
20	7015	7015	-89	ON
			-88	Minimal
			-79	OFF
320	6905	6750	-87	ON
			-86	Minimal
			-82	OFF
320	6905	6905	-86	ON
			-85	Minimal
			-76	OFF
320	6905	7060	-91	ON
			-90	Minimal
			-83	OFF

Note:

OFF: AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds

Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently

ON: AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds

2.4 Verify that the testing was performed with the AWGN signal set to lowest level (for example, -100 dBm) and increased until the EUT detects and stops transmitting.

The test was performed with a lowest AWGN signal level and increased until the EUT detects and stop transmission. Please refer to page 17-18 and 25-26 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for lowest AWGN signal detectable by EUT.

6ID

Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	Adjust Power (dBm)	EUT Tx Status
Operation Band: U-NII 5				
20	6135	6135	-96	ON
			-95	Minimal
			-85	OFF
320	6265	6110	-90	ON
			-89	Minimal
			-78	OFF
320	6265	6265	-85	ON
			-84	Minimal
			-79	OFF
320	6265	6420	-88	ON
			-87	Minimal
			-68	OFF
Operation Band: U-NII 6				
20	6455	6455	-92	ON
			-91	Minimal
			-85	OFF
320	6425	6270	-86	ON
			-85	Minimal
			-79	OFF
320	6425	6425	-84	ON
			-83	Minimal
			-79	OFF
320	6425	6580	-88	ON
			-87	Minimal
			-83	OFF

Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	Adjust Power (dBm)	EUT Status
Operation Band: U-NII 7				
20	6775	6775	-88	ON
			-87	Minimal
			-84	OFF
320	6585	6430	-89	ON
			-88	Minimal
			-79	OFF
320	6585	6585	-88	ON
			-87	Minimal
			-80	OFF
320	6585	6740	-89	ON
			-88	Minimal
			-79	OFF
Operation Band: U-NII 8				
20	7015	7015	-89	ON
			-88	Minimal
			-83	OFF
320	6905	6750	-84	ON
			-83	Minimal
			-79	OFF
320	6905	6905	-85	ON
			-84	Minimal
			-81	OFF
320	6905	7060	-90	ON
			-89	Minimal
			-74	OFF

Note:

OFF: AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds

Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently

ON: AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds

6PP

Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	Adjust Power (dBm)	EUT Tx Status
Operation Band: U-NII 5				
20	6135	6135	-92	ON
			-91	Minimal
			-85	OFF
320	6265	6110	-89	ON
			-88	Minimal
			-84	OFF
320	6265	6265	-83	ON
			-82	Minimal
			-79	OFF
320	6265	6420	-90	ON
			-89	Minimal
			-81	OFF
Operation Band: U-NII 6				
20	6455	6455	-93	ON
			-92	Minimal
			-83	OFF
320	6425	6270	-88	ON
			-87	Minimal
			-77	OFF
320	6425	6425	-84	ON
			-83	Minimal
			-78	OFF
320	6425	6580	-88	ON
			-87	Minimal
			-79	OFF

Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	Adjust Power (dBm)	EUT Status
Operation Band: U-NII 7				
20	6775	6775	-88	ON
			-87	Minimal
			-84	OFF
320	6585	6430	-89	ON
			-88	Minimal
			-84	OFF
320	6585	6585	-90	ON
			-89	Minimal
			-85	OFF
320	6585	6740	-92	ON
			-91	Minimal
			-80	OFF
Operation Band: U-NII 8				
20	7015	7015	-89	ON
			-88	Minimal
			-79	OFF
320	6905	6750	-87	ON
			-86	Minimal
			-82	OFF
320	6905	6905	-86	ON
			-85	Minimal
			-76	OFF
320	6905	7060	-91	ON
			-90	Minimal
			-83	OFF

Note:

OFF: AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds

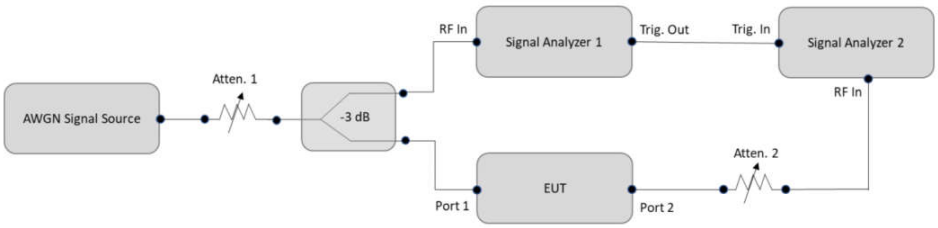
Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently

ON: AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds

2.5 If conducted measurements are used, the detection threshold needs to be corrected to refer to a 0 dBi gain antenna and include all the applicable losses (cables, etc.). For instance, the report should show (at least): Detection Level = Injected AWGN Power (dBm) – Antenna Gain (dBi) + Path Loss (dB)

Conducted test is performed for this device.

Please refer to page 15 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for the test setup diagram as below.



Please refer to page 16 and 24 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1" for the test result summary.

The minimum antenna gains of each band (NII-5/-6/-7/-8) (as follow picture) was selected to perform CBP test

Adjust Power (dBm) = AWGN Power (dBm) – Antenna Gain (dBi).

Adjust Power (dBm) ≤ Detection Limit (-62dBm)

All Detection Power in the report comply with the -62dBm threshold.

6ID

6ID

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2024-05-16 ~ 2024-05-24	Test Mode	AP mode

Test Channel	Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	AWGN Power (dBm)	Ant. Gain (dBi)	Adjust Power (dBm)	Detection Limit (dBm)	Detected Number	Detection Probability (%)	Limit (%)	Test Result
Operation Band: U-NII 5											
37	20	6135	6135	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
63	320	6265	6110	-75.0	3.0	-78.0	≤ -62.0	10	100	90	Pass
63	320	6265	6265	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
63	320	6265	6420	-65.0	3.0	-68.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 6											
101	20	6455	6455	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
95	320	6425	6270	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
95	320	6425	6425	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
95	320	6425	6580	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 7											
165	20	6775	6775	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
127	320	6585	6430	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
127	320	6585	6585	-77.0	3.0	-80.0	≤ -62.0	10	100	90	Pass
127	320	6585	6740	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 8											
213	20	7015	7015	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass
191	320	6905	6750	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
191	320	6905	6905	-78.0	3.0	-81.0	≤ -62.0	10	100	90	Pass
191	320	6905	7060	-71.0	3.0	-74.0	≤ -62.0	10	100	90	Pass

Note 1: Adjust Power (dBm) = AWGN Power (dBm) – Antenna Gain (dBi).

Note 2: Conducted measurements are used.

Note 3: As the Grantee's declaration, this device supports one configuration only in 802.11ax/be full RU mode and doesn't support BW reduction mechanism, channel puncturing and multi-link operation.

6PP

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2024-05-24 ~ 2024-05-25	Test Mode	Mesh mode

Test Channel	Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	AWGN Power (dBm)	Ant. Gain (dBi)	Adjust Power (dBm)	Detection Limit (dBm)	Detected Number	Detection Probability (%)	Limit (%)	Test Result
Operation Band: U-NII 5											
37	20	6135	6135	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
63	320	6265	6110	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
63	320	6265	6265	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
63	320	6265	6420	-78.0	3.0	-81.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 6											
101	20	6455	6455	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass
95	320	6425	6270	-74.0	3.0	-77.0	≤ -62.0	10	100	90	Pass
95	320	6425	6425	-75.0	3.0	-78.0	≤ -62.0	10	100	90	Pass
95	320	6425	6580	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 7											
165	20	6775	6775	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
127	320	6585	6430	-81.0	3.0	-84.0	≤ -62.0	10	100	90	Pass
127	320	6585	6585	-82.0	3.0	-85.0	≤ -62.0	10	100	90	Pass
127	320	6585	6740	-77.0	3.0	-80.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 8											
213	20	7015	7015	-76.0	3.0	-79.0	≤ -62.0	10	100	90	Pass
191	320	6905	6750	-79.0	3.0	-82.0	≤ -62.0	10	100	90	Pass
191	320	6905	6905	-73.0	3.0	-76.0	≤ -62.0	10	100	90	Pass
191	320	6905	7060	-80.0	3.0	-83.0	≤ -62.0	10	100	90	Pass

Note 1: Adjust Power (dBm) = AWGN Power (dBm) – Antenna Gain (dBi).

Note 2: Conducted measurements are used.

Note 3: As the Grantee's declaration, this device supports one configuration only in 802.11ax/be full RU mode and doesn't support BW reduction mechanism, channel puncturing and multi-link operation.

6PP

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2024-05-17 ~ 2024-05-18	Test Mode	Mesh mode

Test Channel	Bandwidth (MHz)	Freq. (MHz)	AWGN Freq. (MHz)	AWGN Power (dBm)	Ant. Gain (dBi)	Adjust Power (dBm)	Detection Limit (dBm)	Detected Number	Detection Probability (%)	Limit (%)	Test Result
Operation Band: U-NII 5											
37	20	6135	6135	-66.0	3.0	-69.0	≤ -62.0	10	100	90	Pass
63	320	6265	6110	-63.0	3.0	-66.0	≤ -62.0	10	100	90	Pass
63	320	6265	6265	-67.0	3.0	-70.0	≤ -62.0	10	100	90	Pass
63	320	6265	6420	-63.0	3.0	-66.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 6											
101	20	6455	6455	-70.0	3.0	-73.0	≤ -62.0	10	100	90	Pass
95	320	6425	6270	-66.0	3.0	-69.0	≤ -62.0	10	100	90	Pass
95	320	6425	6425	-67.0	3.0	-70.0	≤ -62.0	10	100	90	Pass
95	320	6425	6580	-71.0	3.0	-74.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 7											
165	20	6775	6775	-69.0	3.0	-72.0	≤ -62.0	10	100	90	Pass
127	320	6585	6430	-65.0	3.0	-68.0	≤ -62.0	10	100	90	Pass
127	320	6585	6585	-68.0	3.0	-71.0	≤ -62.0	10	100	90	Pass
127	320	6585	6740	-64.0	3.0	-67.0	≤ -62.0	10	100	90	Pass
Operation Band: U-NII 8											
213	20	7015	7015	-67.0	3.0	-70.0	≤ -62.0	10	100	90	Pass
191	320	6905	6750	-63.0	3.0	-66.0	≤ -62.0	10	100	90	Pass
191	320	6905	6905	-67.0	3.0	-70.0	≤ -62.0	10	100	90	Pass
191	320	6905	7060	-65.0	3.0	-68.0	≤ -62.0	10	100	90	Pass

Note 1: Adjust Power (dBm) = AWGN Power (dBm) – Antenna Gain (dBi).

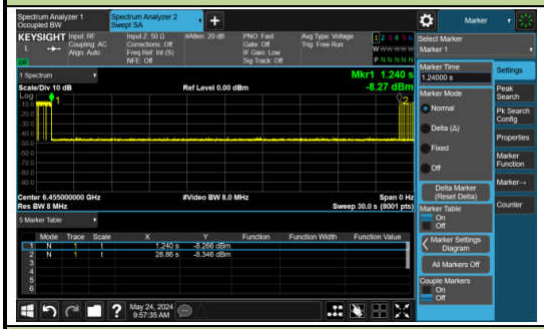
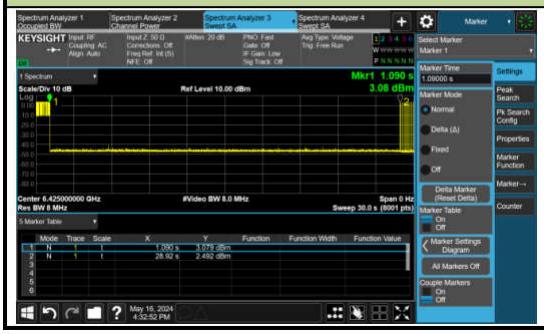
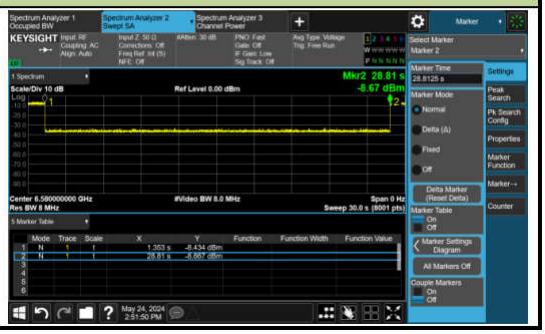
Note 2: Conducted measurements are used.

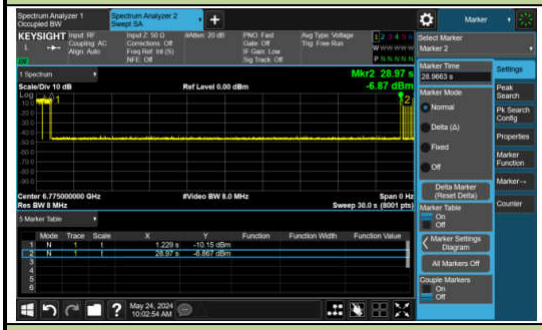
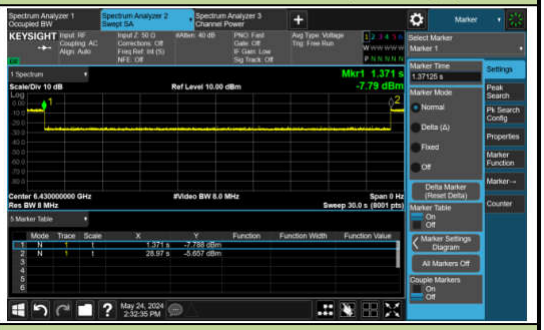
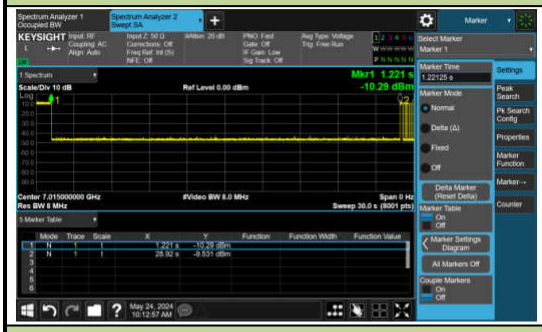
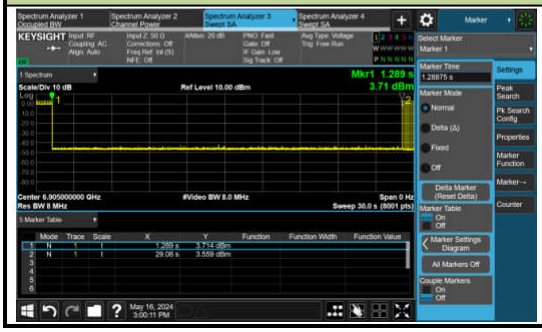
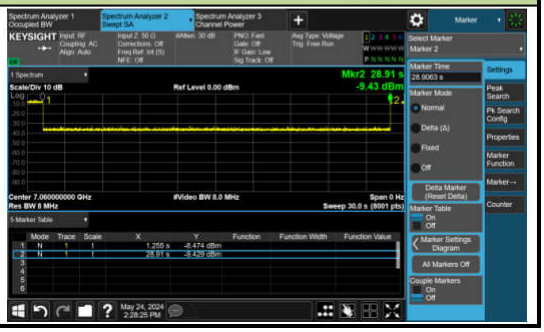
Note 3: As the Grantee's declaration, this device supports one configuration only in 802.11ax/be full RU mode and doesn't support BW reduction mechanism, channel puncturing and multi-link operation.

2.6 Include plots showing EUT has stopped transmitting after detection of AWGN signal.

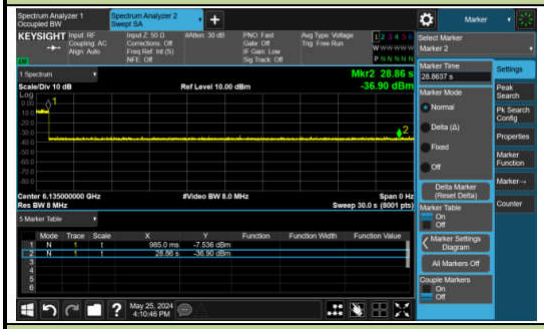
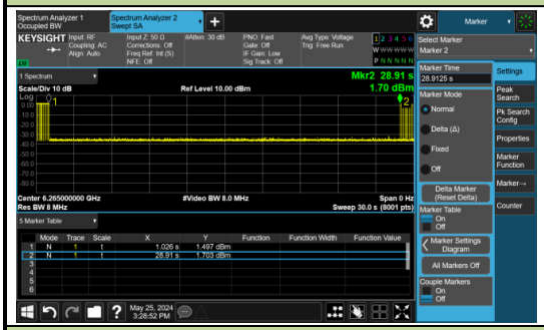
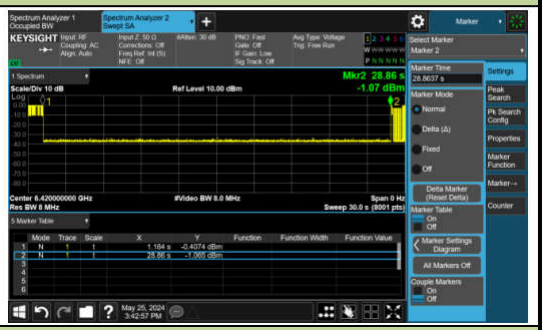
The plots of UNII-5/-6/-7/-8 On page 22-23~295 and 302~303 of "2405RSU009-U1-FCC 6ID 6PP-CBP Test Report_Part1"

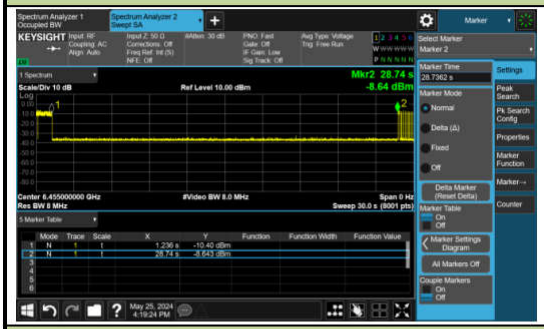
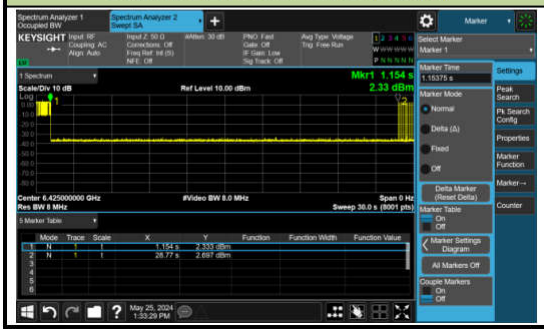
6ID

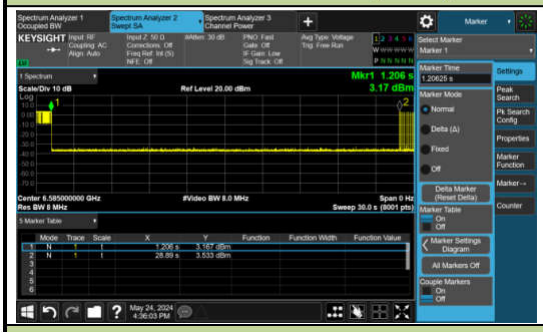
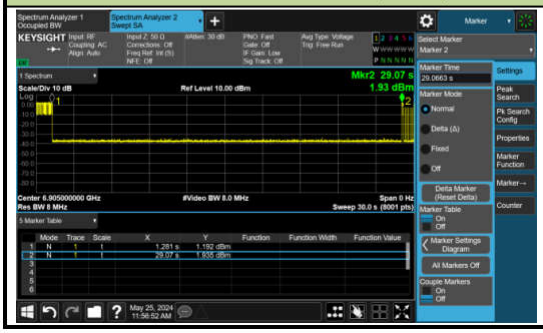
Test Result of EUT ceased transmission (NII-5 Band)	
802.11be-EHT20 / CH37	802.11be-EHT320 / CH63 (Low Edge)
	
802.11be-EHT320 / CH63 (Middle)	802.11be-EHT320 / CH63 (High Edge)
	
Test Result of EUT ceased transmission (NII-6 Band)	
802.11be-EHT20 / CH101	802.11be-EHT320 / CH95 (Low Edge)
	
802.11be-EHT320 / CH95 (Middle)	802.11be-EHT320 / CH95 (High Edge)
	

Test Result of EUT ceased transmission (NII-7 Band)	
802.11be-EHT20 / CH165	802.11be-EHT320 / CH127 (Low Edge)
	
802.11be-EHT320 / CH127 (Middle)	802.11be-EHT320 / CH127 (High Edge)
	
Test Result of EUT ceased transmission (NII-8 Band)	
802.11be-EHT20 / CH213	802.11be-EHT320 / CH191 (Low Edge)
	
802.11be-EHT320 / CH191 (Middle)	802.11be-EHT320 / CH191 (High Edge)
	

6PP

Test Result of EUT ceased transmission (NII-5 Band)	
802.11be-EHT20 / CH37	802.11be-EHT320 / CH63 (Low Edge)
	
802.11be-EHT320 / CH63 (Middle)	802.11be-EHT320 / CH63 (High Edge)
	

Test Result of EUT ceased transmission (NII-6 Band)	
802.11be-EHT20 / CH101	802.11be-EHT320 / CH95 (Low Edge)
	
802.11be-EHT320 / CH95 (Middle)	802.11be-EHT320 / CH95 (High Edge)
	

Test Result of EUT ceased transmission (NII-7 Band)	
802.11be-EHT20 / CH165	802.11be-EHT320 / CH127 (Low Edge)
	
802.11be-EHT320 / CH127 (Middle)	802.11be-EHT320 / CH127 (High Edge)
	
Test Result of EUT ceased transmission (NII-8 Band)	
802.11be-EHT20 / CH213	802.11be-EHT320 / CH191 (Low Edge)
	
802.11be-EHT320 / CH191 (Middle)	802.11be-EHT320 / CH191 (High Edge)
	

2.7 Describe whether channel puncturing and/or bandwidth reduction mechanisms supported. The report needs to include a plot as an example for at least one of the AWGN signals used.
Not Support.

2.8 If radiated testing is used, show that spot-checks were done to identify which side of the EUT has the lowest sensitivity to the incumbent signal detection, and that side was indeed chosen for the test.
Conducted test is performed for this device.

3. Client Device Limitations

This device is not a client device.

4. Emission Mask

4.1 Power spectral density suppression complies with 47 CFR § 15.407(b)(6).
Please refer to section 6.4.5 (Page 56 ~ 123) of "2401TW0114-U5-FCC Part 15.407-WiFi 6G_V1.0_Part2 ~ Part6" for the test result of power spectral density suppression.

4.2 If EUT supports OFDMA discuss testing of partial Resource Unit (RU) configurations. In any case the shape of the mask shall be based on full RU.
This device supports one configuration only in 802.11ax/be full RU mode.
Please refer to note 1 of Operation Description for this information (On Page 2), and this information is also noted on page 12 (the table of section 2.5) of "2401TW0114-U5-FCC Part 15.407-WiFi 6G_V1.0_Part1"

4.3 OOBE limits only apply outside of the 5.925-7.125 GHz band. All in-band emissions need to meet the channel mask. In case a higher RBW for the in-Band Emissions Mask is used (i.e., a more conservative case) that should be noted.
Please refer to section 6.5.5 (Page 126 ~ 185) of "2401TW0114-U5-FCC Part 15.407-WiFi 6G_V1.0_Part7~ Part11" for the test result of channel mask.

5. Filing

99% of the occupied bandwidth must be contained within all the U-NII sub bands authorized for that equipment class.
Please refer to section 6.2.5 (Page 22 ~ 40) of "2401TW0114-U5-FCC Part 15.407-WiFi 6G_V1.0_Part1 ~ Part2" for the 99% OBW test result. The result satisfies this requirement.

6. Hearing Aid Compatibility (HAC)

Not Applicable.

7. Labelling

7.1 Label showing indoor only for Subordinate and APs.

Please refer to the document “FCC ID Label”. The label showing “Indoor User only”.

Archer GE550

Archer GE650

7.2 E-labelling may be acceptable if proper justification is provided

Not Applicable.

8. Modular Certifications (when applicable)

Not Applicable.

9. RF Exposure

9.1 Demonstrate applicable classification (portable/mobile/fixed) in reference to worst-case scenario use cases

Please refer report “FCC RF Exposure Report” for RF Exposure information.

Section 2.3 of the report (2401TW0114-U6-FCC RF Exposure Report_V1.0) states that this device is a mobile device.

9.2 Address $f > 6$ GHz RF exposure via most recent applicable KDB or TCB Workshop procedures.

Section 2.4 of “2401TW0114-U6-FCC RF Exposure Report_V1.0” showed that the most recent KDB (KDB 447498 D04 v01) was used.

9.3 Address all applicable simultaneous transmission conditions using the compliance condition $TER \leq 1$.

Please refer to section 3.3 of “FCC RF Exposure Report” for this information.

This device supports 2.4GHz WLAN, 5GHz WLAN and UN6GHz RLAN.

The 2.4GHz WLAN, 5GHz WLAN and 6GHz RLAN can transmit simultaneously.

The Max. Exposure Ratio = 0.9668 < 1.

10. Security

Provide specific exhibit with device security description is required (complying with 47 CFR § 15.407(i))

Please refer to the document “Software Security Requirements Cover Letter” for security information.

11. Spurious Emissions

Show that measurements are made at the prescribed antenna heights, per KDB Publication 987594 D01, including

measurements along all three axes, as per ANSI C63.10.

Spurious Emissions test items refer to section 6.8 and 6.9 of "2401TW0114-U5-FCC Part 15.407-WiFi 6G_V1.0_Part1".

Spurious Emissions test results refer to Section 6.8.5 (Page 194 ~ 365) and Section 6.9.5 (Page 369 ~ 440) of "2401TW0114-U5-FCC Part 15.407-WiFi 6G_V1.0_ Part11~Part 12".

According to ANSI C63.10 - Section 6.3.1: "*Where EUTs are designed to be installed in one of two orientations (such as wireless access points that can be located horizontally on a table or mounted vertically to the wall), these devices shall be tested in both orientations".*

This device is designed to be located horizontally on a table, so only this orientation was tested. Please refer to "EUT Test Setup Photos" for detailed information.

12. Standard Power Access Points and Fixed Client

Provide Geolocation General Description document and Geolocation Justification Report. Additionally, if applicable provide Geolocation Accuracy After a Power Cycle description.

It's not applicable for this device since it's only a Low Power Indoor Access Point (6ID) & Subordinate Indoor Device (6PP).

13. AFC DUT Test Harness Report

A separate test report showing EUT meets the AFC testing requirements including the Tool Report that is provided from the AFC DUT test harness and the applicable DUT spectrum inquiry request/response logs as appendices.

It's not applicable for this device since it's only a Low Power Indoor Access Point (6ID) & Subordinate Indoor Device (6PP).

14. Operating Modes

List all modes of operation, such as:

1. Is channel puncturing supported?

Not Support.

2. If indoor AP is a composite of LPI and St. power, does it support dividing a single channel between LPI client and Standard client? And if so, is power boosting supported?

It's not applicable for this device since it's only a Low Power Indoor Access Point (6ID) & Subordinate Indoor Device (6PP).

3. Partial RU configurations supported?

Not Support.