

## A.4 CONTENTION BASED PROTOCOL

Test Date	2023/06/26	Temp./Hum.	26°C/41%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Sam Chang

### A.4.1 Contention-based Protocol

● Contention-based Protocol Threshold Incumbent Signal & Mini. Detection level

Mode	U-NII Band	EUT Frequency (MHz)	AWGN Frequency (MHz)	Injected AWGN Power (dBm)	Min. Antenna Gain (Include path loss) (dBi) *Note1	Adjusted Power (dBm)	Detection Limit (dBm)	EUT Tx Status
802.11ax-HE20	5	6135	6135	-76.20	0.11	-76.31	-62	OFF
			6135	-83.20	0.11	-83.31	-62	Minimum
			6135	-86.20	0.11	-86.31	-62	ON
	6	6455	6455	-75.90	0.11	-76.01	-62	OFF
			6455	-81.90	0.11	-82.01	-62	Minimum
			6455	-83.90	0.11	-84.01	-62	ON
	7	6695	6695	-75.00	0.11	-75.11	-62	OFF
			6695	-81.00	0.11	-81.11	-62	Minimum
			6695	-83.00	0.11	-83.11	-62	ON
	8	7015	7015	-75.00	0.11	-75.11	-62	OFF
			7015	-81.00	0.11	-81.11	-62	Minimum
			7015	-83.00	0.11	-83.11	-62	ON

Note 1: the listed Min. gain of EUT was included path loss.

Note 2: Detected level (Adjusted Power) = Injected AWGN Power (dBm) – (Antenna Gain (dBi) + Path loss (dB)) \*Note1.

Note 3: The AWGN level is reported for the following conditions:

- 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.

Note 4: The EUT don't support channel puncturing or BW reduction mechanism.

Note 5: Per FCC TCB workshop April 2022, The Injected AWGN power is actual power of AWGN injected into the antenna port.

Mode	U-NII Band	EUT Frequency (MHz)	AWGN Frequency (MHz)	Injected AWGN Power (dBm)	Min. Antenna Gain (Include path loss) (dBi) *Note1	Adjusted Power (dBm)	Detection Limit (dBm)	EUT Tx Status
802.11 ax-HE160	5	6185	6110	-78.50	0.11	-78.61	-62	OFF
			6110	-80.50	0.11	-80.61	-62	Minimum
			6110	-81.50	0.11	-81.61	-62	ON
			6185	-70.50	0.11	-70.61	-62	OFF
			6185	-75.50	0.11	-75.61	-62	Minimum
			6185	-77.50	0.11	-77.61	-62	ON
			6260	-71.90	0.11	-72.01	-62	OFF
			6260	-74.90	0.11	-75.01	-62	Minimum
	6-7	6505	6430	-74.30	0.11	-74.41	-62	OFF
			6430	-80.30	0.11	-80.41	-62	Minimum
			6430	-81.30	0.11	-81.41	-62	ON
			6505	-73.00	0.11	-73.11	-62	OFF
			6505	-75.00	0.11	-75.11	-62	Minimum
			6505	-78.00	0.11	-78.11	-62	ON
			6580	-71.80	0.11	-71.91	-62	OFF
			6580	-73.80	0.11	-73.91	-62	Minimum
	7	6665	6580	-75.80	0.11	-75.91	-62	ON
			6590	-75.80	0.11	-75.91	-62	OFF
			6590	-81.80	0.11	-81.91	-62	Minimum
			6590	-83.80	0.11	-83.91	-62	ON
			6665	-70.60	0.11	-70.71	-62	OFF
			6665	-75.60	0.11	-75.71	-62	Minimum
			6665	-78.60	0.11	-78.71	-62	ON
			6740	-73.00	0.11	-73.11	-62	OFF
	8	6985	6740	-75.00	0.11	-75.11	-62	Minimum
			6740	-77.00	0.11	-77.11	-62	ON
			6910	-80.00	0.11	-80.11	-62	OFF
			6910	-82.00	0.11	-82.11	-62	Minimum
			6910	-84.00	0.11	-84.11	-62	ON
			6985	-73.30	0.11	-73.41	-62	OFF
			6985	-76.30	0.11	-76.41	-62	Minimum
			6985	-78.30	0.11	-78.41	-62	ON
	8	6985	7060	-73.50	0.11	-73.61	-62	OFF
			7060	-75.50	0.11	-75.61	-62	Minimum
			7060	-77.50	1.60	-79.10	-62	ON

Note 1: the listed Min. gain of EUT was included path loss.

Note 2: Detected level (Adjusted Power) = Injected AWGN Power (dBm) – (Antenna Gain (dBi) + Path loss (dB)) \*Note1.

Note 3: The AWGN level is reported for the following conditions:

- 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.

Note 4: The EUT don't support channel puncturing or BW reduction mechanism.

Note 5: Per FCC TCB workshop April 2022, The Injected AWGN power is actual power of AWGN injected into the antenna port.

● Summary table

Mode	U-NII Band	Centre Frequency (MHz)	Incumbent Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Possibility (%)	Limit (%)	
802.11ax-HE20	5	6135	6135	1	1	1	1	1	1	1	1	1	1	100	90	
	6	6455	6455	1	1	1	1	1	1	1	1	1	1	100	90	
	7	6695	6695	1	1	1	1	1	1	1	1	1	1	100	90	
	8	7015	7015	1	1	1	1	1	1	1	1	1	1	100	90	
802.11ax-HE160	5	6185	6110	1	1	1	1	1	1	1	1	1	1	100	90	
			6185	1	1	1	1	1	1	1	1	1	1	100	90	
			6260	1	1	1	1	1	1	1	1	1	1	100	90	
	6-7	6505	6430	1	1	1	1	1	1	1	1	1	1	1	100	90
			6505	1	1	1	1	1	1	1	1	1	1	100	90	
			6580	1	1	1	1	1	1	1	1	1	1	100	90	
	7	6665	6590	1	1	1	1	1	1	1	1	1	1	1	100	90
			6665	1	1	1	1	1	1	1	1	1	1	100	90	
			6740	1	1	1	1	1	1	1	1	1	1	100	90	
	8	6985	6910	1	1	1	1	1	1	1	1	1	1	1	100	90
			6985	1	1	1	1	1	1	1	1	1	1	100	90	
			7060	1	1	1	1	1	1	1	1	1	1	100	90	

Note: CBP Detection Trials (1= Detection, 0= No Detection)

A.4.2 Measurement Plots





