

A.8 CONTENTION BASED PROTOCOL

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|--------------|-------------------------------|------------|--------------------|
| Test Date | 2023/10/17 ~ 12/22 | Temp./Hum. | 18 ~ 25°C/58 ~ 65% |
| Cable Loss | N/A | Tested By | Sam Chang |
| Test Voltage | AC 120V 60Hz (Via AC Adapter) | | |

A.8.1 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 | -76.50 | -4.391 | -72.109 | -62 | OFF |
| | | | 6135 | -81.50 | -4.391 | -77.109 | -62 | Minimum |
| | | | 6135 | -86.50 | -4.391 | -82.109 | -62 | ON |
| | 6 | 6455 | 6455 | -76.50 | -4.391 | -72.109 | -62 | OFF |
| | | | 6455 | -80.50 | -4.391 | -76.109 | -62 | Minimum |
| | | | 6455 | -83.50 | -4.391 | -79.109 | -62 | ON |
| | 7 | 6695 | 6695 | -75.50 | -4.391 | -71.109 | -62 | OFF |
| | | | 6695 | -78.50 | -4.391 | -74.109 | -62 | Minimum |
| | | | 6695 | -81.50 | -4.391 | -77.109 | -62 | ON |
| | 8 | 7015 | 7015 | -78.00 | -4.391 | -73.609 | -62 | OFF |
| | | | 7015 | -86.00 | -4.391 | -81.609 | -62 | Minimum |
| | | | 7015 | -89.00 | -4.391 | -84.609 | -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 | |
|----------------|------------|---------------------|----------------------|---------------------------|--|----------------------|-----------------------|---------------|---------|
| 802.11ax-HE160 | 5 | 6185 | 6110 | -78.00 | -4.391 | -73.609 | -62 | OFF | |
| | | | 6110 | -80.00 | -4.391 | -75.609 | -62 | Minimum | |
| | | | 6110 | -82.00 | -4.391 | -77.609 | -62 | ON | |
| | | | 6185 | -78.00 | -4.391 | -73.609 | -62 | OFF | |
| | | | 6185 | -81.00 | -4.391 | -76.609 | -62 | Minimum | |
| | | | 6185 | -84.00 | -4.391 | -79.609 | -62 | ON | |
| | | | 6260 | -78.00 | -4.391 | -73.609 | -62 | OFF | |
| | | | 6260 | -81.00 | -4.391 | -76.609 | -62 | Minimum | |
| | 6-7 | 6505 | 6430 | -82.50 | -4.391 | -78.109 | -62 | OFF | |
| | | | 6430 | -84.50 | -4.391 | -80.109 | -62 | Minimum | |
| | | | 6430 | -87.50 | -4.391 | -83.109 | -62 | ON | |
| | | | 6505 | -74.00 | -4.391 | -69.609 | -62 | OFF | |
| | | | 6505 | -78.00 | -4.391 | -73.609 | -62 | Minimum | |
| | | | 6505 | -81.00 | -4.391 | -76.609 | -62 | ON | |
| | | | 6580 | -79.00 | -4.391 | -74.609 | -62 | OFF | |
| | | | 6580 | -81.00 | -4.391 | -76.609 | -62 | Minimum | |
| | 7 | 6665 | 6580 | -83.00 | -4.391 | -78.609 | -62 | ON | |
| | | | 6590 | -83.00 | -4.391 | -78.609 | -62 | OFF | |
| | | | 6590 | -85.00 | -4.391 | -80.609 | -62 | Minimum | |
| | | | 6590 | -87.00 | -4.391 | -82.609 | -62 | ON | |
| | | | 6665 | -72.00 | -4.391 | -67.609 | -62 | OFF | |
| | | | 6665 | -79.00 | -4.391 | -74.609 | -62 | Minimum | |
| | | | 6665 | -81.00 | -4.391 | -76.609 | -62 | ON | |
| | | | 6740 | -78.00 | -4.391 | -73.609 | -62 | OFF | |
| | 8 | 6985 | 6740 | -81.00 | -4.391 | -76.609 | -62 | Minimum | |
| | | | 6740 | -83.00 | -4.391 | -78.609 | -62 | ON | |
| | | | 6910 | -81.50 | -4.391 | -77.109 | -62 | OFF | |
| | | | 6910 | -85.50 | -4.391 | -81.109 | -62 | Minimum | |
| | | | 6910 | -87.50 | -4.391 | -83.109 | -62 | ON | |
| | | | 6985 | -73.00 | -4.391 | -68.609 | -62 | OFF | |
| | | | 6985 | -75.00 | -4.391 | -70.609 | -62 | Minimum | |
| | | | 6985 | -78.00 | -4.391 | -73.609 | -62 | ON | |
| | | | | 7060 | -74.50 | -4.391 | -70.109 | -62 | OFF |
| | | | | 7060 | -80.50 | -4.391 | -76.109 | -62 | Minimum |
| | | | | 7060 | -82.50 | -4.391 | -78.109 | -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 | 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 | 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 | 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.8.2 Measurement Plots





