MPAG Submission Details

FCC ID: SBVRM041 (TCB ref AN22T0503) PAG KDB: 538830

U-NII devices authorized in U-NII bands 5.925-7.125 GHz (Wi-Fi 6E), PAG ITEM UN6GHZ, Equipment Code 6XD This is a mobile client device requesting approval under equipment code **6XD** for indoor operations.	
Attestation Letter	Refer to the attestation letter ***20 Attestation Letter for Low Power Indoor Client Devices 6XD 9-14-2022*** or the grantee attestations as required by KDB 987594 section.
Label	This is a client-only device, Indoor Use Only warning is not required
Internal Photos and/or External Photos Test report	**Antenna Gain information** The antenna is shown on pages 4-6 of the internal photos exhibit. Antenna gain information is based on the antenna manufacturer/host system manufacturer test report for the antenna installed in the device. Gain information can be found in the Test report exhibit ***15- S41 Antenna Test Report 9-26-2022***. The Part 15 test report uses the appropriate values from the antenna exhibit.
Test Report	Test report exhibits: ***14093500-E7V2 FCCISED Report UNII WLAN 6E_non-ax_1 of 2*** and ***1 of 2*** ***14093500-E8V2 FCCISED Report UNII WLAN 6E_ax_1 of 8*** through ***8 of 8*** • PSD meets 15.407(a)(8) – Section 9.4 (pages 37-45) for the **non-ax** report and Section 9.4 (pages 76 of 377 - 146 of 377) for **ax** report. • Mask based on Full RU for 802.11ax / OFDMA. Partial RU also tested. Top of mask adjusted to top of signal – Sections 9.5.1-9.5.12 (pages 148-186). • RBW used for the mask was 1 MHz. This is acceptable as it is >= required measurement bandwidth; • Width of the mask based on 99% bandwidth. This is acceptable as it is <= 26dB bandwidth; • 99% bandwidth contained within the allocated band for indoor operations section 9.3 (pages 28-36) for **non-ax** report and section 9.3 (pages 53-75) for **ax** report; • Spurious emissions: o Correct antenna height range used per ANSI C63.10 – Section 10 (page 52) for the **non-ax** report; Section 10 (page 187) for **ax** report o Tested in X/Y/Z orientations consistent with intended installation/use (The EUT can only be set up in desktop orientation - page 22 (for **non-ax** and **ax** reports) and test set up photos exhibits. • The power output and density were measured by the radiated method instead of conducted measurements.
Test Report	**CBP -** test report exhibit ***14093500-E60V2 FCCISED REPORT CBP*** • Performed on one channel in each sub-band of operation for both narrowest (20MHz) and widest (80 MHz) bandwidths • 10 MHz wide AWGN signal is used - page 16 o 80MHz channel tested with three different AWGN signals at the lower, upper, and center of the channel – see pages 38, 61, 85, and 109 o 20MHz performed at the center of the channel only – see pages 24, 46, 69, and 93

	• **Detection threshold adjusted to consider lowest gain antenna** - page 16
	  ○ MIMO device – detection threshold is evaluated based on the lowest gain antenna value for all chains (see section 8.1 (page 16) for minimum gain per subband)
	  ○ Report includes calculation showing the Required Detection Level = Injected AWGN Power (dBm) – Antenna Gain (dBi) + Path Loss (dB) on page 16
	• Lowest detection level is reported for each test – see tables on pages 22, 36, 44, 59, 67, 83, 91, and 107
	  ○ Level at which some detection occurs and point at which no detection occurs are to be provided. Lab followed the D02 procedure but was not aware of the D03 question 16 modification. Margins are very high (detection levels << -62dBm + Gain, worst case margin is -0.54 dBm (page 59).
	  ○ The tables show the incumbent power thresholds at which the EUT stopped transmitting, the level at which transmissions were impacted and the level at which the incumbent was not detected and the EUT transmitted normally. Those tables can be found on pages 24, 38, 46, 61, 69, 85, 93, and 109 of the test report. The power delta between no detection to full detection is > 8dB.
	• Test is performed by starting at a level much lower than the required detection level and then increased - page 16 declares the KDB procedure was followed.
	• Plots showing the device stopped transmitting - pages 21, 33-35, 43, 56-58, 66, 80-82, 90, and 104-106
	• Channel puncturing/bandwidth reduction: Not supported

Attestation Letter	**Client Device** Refer to the attestation letter ***20- Attestation Letter for Low Power Indoor Client Devices 6XD 5-13-2022*** for the grantee attestations as required by KDB 987594 D01 section including: • confirming that the device will not connect directly to other clients and does not have its own direct internet connection; • device can only operate under the control of a low-power indoor access point or subordinate AP in all bands
RF Exposure exhibit	**RF Exposure** – exhibit ***14093500-E10V2 FCC Report RF Exposure*** Classification is mobile. This is consistent with the intended use. Simultaneous transmissions with other co-located transmitters is addressed on page 9, total exposure ratio remains < 1.0.
Operational Description	Operational Description Exhibit ***6-KDB 594280 D02 v01r03 U-NII Device SW Security Statement for S41 10-21-2022*** contains the 15.407(i) security information.