



October 11th, 2023

Federal Communications Commission
7435 Oakland Mills Road
Columbia, MD 21046

Re: Class II Permissive Change Request

To Whom It May Concern,

Enclosed please find an application for a Class II Permissive Change certification of Equipment Model **471-0008-01**, FCC ID: **2AVRK-XBS6BTH**, under Rule Part FCC 15.247.

Athena GTX is requesting use of the same module (exactly equivalent to FCC ID: **2AVRK- XBS6BTH**) within 20 cm of the body; which may be safely done based on the information provided below:

Frequency Range
2.4 GHz (2412-2462 MHz)
<p><i>*If the duty cycle is less than 100%, provide a justification. Consider, during normal operation, what is the maximum possible duty cycle for transmission in any portion of the band during any 6-minute period?</i></p> <p>The device only transmits 5680 bytes per 5 seconds which is less than 1% at 1Mb/s (The slowest data rate of 802.11bgn). Assuming use at the maximum power of 26.81 dBm at the 802.11b 1 Mbps rate, this results in a mW output power that is below the SAR exclusion limits per KDB 447498 D04 Interim General RF Exposure Guidance v01 pg. 39-40. The radio sends no beacon signals.</p>

In addition, the module may be used simultaneously with the following radios in the HsPro series devices:

- BLE modules authorized to be used in co-location with Model 471-0008-01 Wi-Fi Module identified above are, two (2) BLE radios FCC IDs: 2AVRK-BMD301. These radios are also transmitting at a duty cycle of less than 1%.

This is based on the Simultaneous Transmission SAR Test Exemption (per KDB 447498 D04 Interim General RF Exposure Guidance v01 pg. 41). All three radios transmitting in the HsPro series devices at duty cycles of less than 1% results in a summation of less than 1 per the criteria.

The Bluetooth Low Energy (BLE) radio will be used with a Taoglas FXP73.07.0100A, 2.5dBi, 1/4 Wave Dipole antenna in Athena GTX's Holistic Sensing – Professional Version (HsPro) family of devices. The HsPro is intended to be used as an adult physiological and environmental monitor including heart rate,



SpO₂, respiration rate, acceleration, pressure, temperature and several calculated parameters to assess physiological state. The monitor uses wireless communications to transmit data to a mobile device or personal computer.

Updated documents and RF exposure testing/analysis performed by Element Materials Technology has also been included, as required. If you have any questions regarding this application, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Sean Mahoney', with a large, sweeping flourish at the end.

Sean Mahoney

Vice President of Operations and Regulatory Affairs, Athena GTX