Modular Approval Request FCC (KDB 996369 D01 & Part 15.212)

FCC ID: X8WBM840

Items to be covered by ***Single modular transmitters.***	*Answer from applicant*
1. The modular transmitter must have its own RF shielding.	Yes. The modular transmitter has its own RF shielding.
2. The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with Part 15 requirements under conditions of excessive data rates or over-modulation.	Yes. The module has buffered modulation/data inputs to ensure that the device will comply with Part 15 requirements with any type of input signal.
3. The modular transmitter must have its own power supply regulation.	Yes. The module contains power supply regulation. There are LDO and DCDC Regulator in chip nRF52840. Please refer to chip spec.
4. The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(b)(c). The antenna must either be permanently attached or employ a "unique" antenna coupler (at all connections between the module and the antenna, including the cable).	Yes. The module contains a unique antenna connector, per Sections 15.203, 5.204(c)
5. The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing. This is intended to demonstrate that the module is capable of complying with Part 15 emission limits regardless of the device into which it is eventually installed.	Yes. The demonstrates compliance in a stand-alone configuration
6. The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number in accordance with 15.212 (a)(1)(vi)(A) / (B).	Yes. The module is labelled with its permanently affixed FCC ID label.
7. The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization. For example, there are very strict operational and timing requirements that must be met before a transmitter is authorized for operation under Section 15.231. For instance, data transmission is prohibited, except for operation under Section 15.231(e), in which case there are separate field strength level and timing requirements. Compliance with these requirements must be assured.	Yes. The module complies with all specific rules applicable to the transmitter including all the conditions provided in the integration instructions by the grantee.
8. The modular transmitter must comply with any applicable RF exposure requirements. For example, FCC Rules in Sections 1.1310, 2.1091, 2.1093, and specific Sections of Part 15, including 15.319(i), 15.407(f), 15.253(f) and 15.255(g), require that Unlicensed PCS, UNII and millimeter wave devices perform routine environmental evaluation for RF Exposure to demonstrate compliance. In addition, spread spectrum transmitters operating under Section 15.247 are required to address RF Exposure compliance. Modular transmitters approved under other Sections of Part 15, when necessary, may also need to address certain RF Exposure concerns, typically by providing specific installation and operating instructions for users, installers and other interested parties to ensure compliance.	Yes. The module complies with RF exposure requirements.

Items to be covered by Split modular transmitters.	*Answer from applicant*
1. The modular transmitter must comply with all requirements of a single modular transmitter except for items (1) & (5) of the above single modular approval requirements.	
2. Only the radio front end must be shielded. The physical crystal and tuning capacitors may be located external to the shielded radio elements. The interface between the split sections of the modular system must be digital with a minimum signalling amplitude of 150 mV peak-to-peak.	
3. Control information and other data may be exchanged between the transmitter control elements and radio front end.	
4. The sections of a split modular transmitter must be tested installed in a host device(s) similar to that which is representative of the platform(s) intended for use.	
5. Manufacturers must ensure that only transmitter control elements and radio front end components that have been approved together are capable of operating together. The transmitter module must not operate unless it has verified that the installed transmitter control elements and radio front end have been authorized together. Manufacturers may use means including, but not limited to, coding in hardware and electronic signatures in software to meet these requirements, and must describe the methods in their application for equipment authorization.	

Note: A limited modular approval (LMA) may be granted for *single* or *split* modular transmitters that comply partially with the requirements above.

Name and surname of applicant (or authorized representative): Paudy Tung / Engineer

Date: 2022/02/22

Signature: Paudy Tung