

Modular Approval Compliance

Date: September 12, 2022
Applicant: Digi International
FRN: 0010283307

To: Federal Communications Commission

Authorization and Evaluation Division

7435 Oakland Mills Road Columbia, Maryland 21046

Product: XBee 3 LTE Cat 1 FCC ID: MCQ-XB3C2

To whom it may concern:

The radio meets the requirements for modular approval pursuant to Section 15.212(a)(1) of FCC rules. Compliance to each of the requirements is described below:

Single Modular Approval Requirement		Justification	
(i)	The radio elements of the modular transmitter must have their own shielding.	The module has a factory-installed RF shield that covers both the radio IC and the 38.4 MHz crystal reference. See internal photos exhibit.	
(ii)	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 overmodulation.	The module buffers and processes its data inputs prior to transmission. The transmit modulation is under the control of the module not the integrator or host unit and will comply with Part 15 requirements. See schematics exhibits.	
(iii)	The modular transmitter must have its own power supply regulation.	The module includes power supply regulation to ensure compliance to Part 15 requirements independent of the level or quality of the DC power supplied by the host unit. See schematics exhibit.	
(iv)	The modular transmitter must comply with the antenna and transmission system requirements of §§ 15.203, 15.204(b) and 15.204(c).	The default mode of operation uses a permanently attached antenna (integral PCB antenna). In circumstances where the module is contained in a larger assembly (and not accessible to the end user), the integrator may update the software configuration of the module to allow connection to one of the approved external antennas. See antenna information exhibit and internal photos exhibit.	
(v)	The modular transmitter must be tested in a stand-alone configuration.	The module was tested in a stand-alone configuration using a minimal test jig to allow power and serial connections to the module. The host device that provided power and communicated with the module was >10 cm from the module. See test setup photos exhibit and technical report exhibit.	
(vi)	The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.	The module will have a label affixed with the FCC ID. Additionally, for cases where the module's label is not externally visible, the user manual contains language for the integrator to apply an external label (or use an electronic display) with the language "Contains FCC ID" See FCC ID label and location exhibit and user manual exhibit.	

(vii)	The modular transmitter must comply with any specific rules or operating requirements that ordinarily apply to a complete transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements.	The module is compliant with all applicable FCC rules. Detailed instructions for maintaining compliance are given in the user manual. See user manual exhibit.
(viii)	The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.	The module is compliant with all RF exposure requirements. Instructions for maintaining RF exposure compliance are listed in the user manual. See RF exposure exhibit and user manual exhibit.

Sincerely,

Bradley Ferguson Principal Electrical Engineer Digi International