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Federal Communications Commission
Equipment Authorization Division
7435 Oakland Mills Road
Columbia, MD 21046
USA

Date: 5 Aug 2019

Subject; **Modular Transmitter Application**

Company name: Alien Technology
Model Number: ALR-M702-FCC
FCC ID: P65ALRM702

Dear Sir/Madam,

This letter includes the FCC application requirements for Modular Transmitter Approval Request for-

FCC KDB 996369 D01 'Module Certification Guide v02; and
FCC KDB 996369 D03 OEM Manual v01

In accordance with 47CFR 15.212 Modular Transmitters and KDB 996369 D01 'Module Equip Auth Guide v02'. FCC ID P65ALRM702 has been examined against the following requirements.

Requirement per 15.212 and KDB 996369 D01	**Explanation from Grantee** (do not write yes/no, but explain why product complies/how it is achieved)
The radio elements must have the radio frequency circuitry shielded. Physical components and tuning capacitor(s) may be located external to the shield, but must be on the module assembly.	Module PCB is enclosed in aluminum clamshell that encloses the RF circuitry. PCB has plated through holes between the top and bottom elements of the clamshell.
The module must have buffered modulation/data inputs to ensure that the device will comply with Part 15 requirements with any type of input signal.	All control signals are supplied over a serial bus that is directly connected to the internal microprocessor. All modulation signals are generated internally to the module under the control of the microprocessor.
The module must contain power supply regulation on the module.	External DC voltage passes through a switching regulator U10 in the schematic where it is converted to 3.7 VDC
The module must contain a permanently attached antenna, or contain a unique antenna connector, and be marketed and operated only with specific antenna(s), per §§ 15.203, 15.204(b), 15.204(c), 15.212(a), 2.929(b).	The module RF connector is an MMCX-50KE snap on connector. Integration instructions specify the required antenna.
The module must demonstrate compliance in a stand-alone configuration.	Module was tested IAW Part 15.247 using a module development board to power and communicate with the EUT. Test Report ALNT91 documents compliance with the requirements.
The module must be labeled with its permanently affixed FCC ID label, or use an electronic display (see KDB Publication 784748).	Alien has defined a label that is permanently printed on the module.

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The module must comply with all specific rules applicable to the transmitter, including all the conditions provided in the integration instructions by the grantee.	Module has been tested/verified in accordance with Part 15.247. The antenna is specified in the integration manual.
The module must comply with RF exposure requirements	Module MPE report is included in the filing

Integration Instructions for host product manufacturers

The following items are submitted in support of application for Modular Transmitter FCC ID as noted above as required by the FCC KDB 996369 D03 OEM Manual v01.

These items are provided as integration instructions for host product manufacturers (e.g., OEM instruction manual) to use when integrating a module in a host product.

Any requirements that are not applicable to the Module are as indicated below.

Summary of requirements and Checklist. Refer to the KDB for description of the complete requirements;

KDB Ref Sect	Requirements of KDB 996369 D03	User Manual Page Number reference
2.2	List of applicable FCC rules	Page 2 of OEM Integration Guide
2.3	Summarize the specific operational use conditions	Page 2 of OEM Integration Guide
2.4	Limited module procedures	Page 2 of OEM Integration Guide
2.5	Trace antenna designs	Page 2 of OEM Integration Guide
2.6	RF exposure considerations	Page 2 of OEM Integration Guide
2.7	Antennas	Page 2 of OEM Integration Guide
2.8	Label and compliance information	Page 3 of OEM Integration Guide
2.9	Information on test modes and additional testing requirements	Page 3 of OEM Integration Guide
2.10	Additional testing, Part 15 Subpart B disclaimer	Page 3 of OEM Integration Guide

Name: John Hattick **Date:** 9 August 2019

Title: Senior Director of Hardware Engineering

Signature of applicant: John Hattick