

FCC Modular Approval Request Cover Letter

FCC ID: 2AS58-BT01

We hereby request Limited Modular Approval for this device with the following limitations:

- The Product (Module + Host) shall be spot-checked to ensure that their RF output is similar to that of the module alone (i.e. that near field coupling has not altered the RF behavior). This module is not marketed and limited to internal use with ALO / Campfire products, so it will be possible to control the design process and minimize any RF complications.
- *Due to the extremely small size of the module and the intended end products it is not practical to include separate shielding.*

The submitted module meets the following requirements of a Single Modular Transmitter within 47 CFR 15.212 as described below:

Item	Requirement	Method of Compliance
1.i	The radio elements of the modular transmitter must have their own shielding. The physical crystal and tuning capacitors may be located external to the shielded radio elements.	The vast majority of the radio elements are encapsulated within the body of an integrated circuit. The only external elements are the bandpass filter and antenna connector, and a very short transmission line between them. There is little opportunity for coupling between the module and the host which could adversely affect the operation of the transmitter.
1.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 over-modulation.	The transmitter is encapsulated within an integrated circuit which does not provide external modulation input or direct data input to the Bluetooth radio.
1.iii	The modular transmitter must have its own power supply regulation.	The transmitter's local oscillator and power amplifier are supplied by separate, dedicated on-chip low-dropout regulators.
1.iv	The modular transmitter must comply with the antenna and transmission system requirements of §§ 15.203, 15.204(b) and 15.204(c). The antenna must either be permanently attached or employ a "unique" antenna coupler (at all connections	The transmitter will only be approved for use with the single antenna with which it was tested. This requirement will be made clear in any product documentation we provide.

	between the module and the antenna, including the cable).	
1.v	The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing for compliance with part 15 requirements.	Test documentation will show that the module was tested in a stand-alone configuration.
1.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 transmitter will have a sticker affixed, which indicates its FCC ID. In addition, the FCC ID will be listed in the owner's manual and on the body of any finished product which incorporates the module.
1.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. A copy of these instructions must be included in the application for equipment authorization.	The module complies with the FCC portable device class requirements and instructions to maintain compliance are provided in the module integrator's manual.
1.viii	The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.	The module's RF exposure will not be increased in its final configuration, instructions for compliance are provided.