

PHOENIX TESTLAB GmbH Product Certification Königswinkel 10 D 32825 Blomberg

Attn: Re

Reviewing Engineer

Subject: REQUEST FOR FCC Part 15 MODULAR TRANSMITTER APPROVAL

FCC ID: 2ASUZ003

To Whom It May Concern:

We, (The Nielsen Company), hereby request □ a modular / ☒ limited modular approval.

In CFR47 §15.212 "Modular Transmitters" and KDB 996369 D01 "Module Equip Auth Guide" there are following eight numbered requirements defined:

- 1. 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. There is no shielding on the module.
- 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.

Date: 12 November 2019

Modular transmitter modulation is performed by Nordic Semiconductor nRF52832 SoC and uses DMA for RX and TX data.

- 3. The modular transmitter must have its own power supply regulation on the module. *Modular transmitter uses on-chip LDO and DC/DC regulators, contained in nRF52832 BLE SoC.*
- 4. 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).

Permanently attached ceramic chip antenna Johanson Technology 2450AT18B100.

- 5. The module must demonstrate compliance in a stand-alone configuration. *FCC test report available.*
- 6. The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number (KDB 784748).

 There is a permanently affixed label on the modular transmitter.
- 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

No special requirements other than power supply requirements: VDC = 1.8 - 3.3 V, max. 10mA

8. The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.

The modular transmitter uses Bluetooth Low Energy technology for which exposure values are well below limits.

Yours sincerely,

Signatory

James Vitt, Engineering Manager