Hanchett Entry Systems
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December 16, 2022

To: Federal Communications Commission
7435 Oakland Mills Road
Columbia, MD 21046-1609

CC: Curtis-Straus LLC TCB

Re: Single Limited Modular Approval Request

To Whom It May Concern:

We, Hanchett Entry Systems, Inc. (HES), are applying for a **limited modular approval** for our device with;

FCC ID: VC3-DR100V3

Please note that, this module is to be installed only by us in our end products and will not be marketed to any other party. Installation will be under our control and therefore full compliance of the end product will always be ensured.

The following information is being provided regarding **single limited modular approval** per the requirements of CFR 47 FCC 15.212(b).

This transceiver is a complete RF module with an integral reference oscillator. External connections are provided for power and data communication. Antennas are external to our module.

The following numbered items correspond to requirements listed in 15.212 of the FCC rules.

1) 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.

- There is no shielding on the module PCB.
- This module is to be installed only by us in our end products and will not be marketed to any other party. Installation will be under our control and therefore full compliance of the end product will always be ensured.

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.

- The module is designed using a System on Chip (SoC) solution. There are no exposed modulation inputs.

3) The modular transmitter must have its own power supply regulation.

- The power source is two lithium AA batteries. The module has its own internal regulated power supply to allow for this input.

4) The modular transmitter must comply with the antenna and transmission system requirements of Sec. Sec. 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 between the module and the antenna, including the cable). The ``professional installation'' provision of Sec. 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.

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- The antennas are permanently attached to the module. They are not detachable and therefore our module complies with this requirement.

5) 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. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in Sec. 15.207. AC or DC power lines and data input/output lines connected to the module must not contain ferrites, unless they will be marketed with the module (see Sec. 15.27(a)). The length of these lines shall be the length typical of actual use or, if that length is unknown, at least 10 centimeters to insure that there is no coupling between the case of the module and supporting equipment. Any accessories, peripherals, or support equipment connected to the module during testing shall be unmodified and commercially available (see Sec. 15.31(i)).

- For all radiated tests, the module was inside its intended host, DR100. In addition, it was tested for AC power line conducted emissions in the same 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. If using a permanently affixed label, the modular transmitter must be labeled with its own FCC identification number, and, if the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: “Contains Transmitter Module FCC ID: XYZMODEL1” or “Contains FCC ID: XYZMODEL1.” Any similar wording that expresses the same meaning may be used. The Grantee may either provide such a label, an example of which must be included in the application for equipment authorization, or, must provide adequate instructions along with the module which explain this requirement. In the latter case, a copy of these instructions must be included in the application for equipment authorization.

- Our module has a label as described in the label exhibit that complies with this requirement. End-product labeling warnings can be found in the installation manual of the module.

7) 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.

- Our module complies with this requirement.

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

- Our module complies with this requirement. This module is to be installed only by us in our end products and will not be marketed to any other party. Installation will be under our control and therefore full compliance of the end product will always be ensured.

Additional Q&A Related to Limited Modular Approval Pre-Approval Guidance (PAG) (KDB 388624 D01 v11r04)

Q. *How will new hosts in the future be handled?*
RFID fundamental levels and all radiated spurious emissions will be checked for each future host.

Q. *Will the module be certified as stand alone or host dependent?*
The module will be certified as host dependent with test results in a specific host.

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Q. *Will this module be available for sale or will it be used solely by the grantee?*
The module will be used by the grantee (HES) in their end products only. Installation will be under full control of the grantee in the end product only.

Q. *Will there be clear and complete module integration instructions in the module manual?*
The module will be integrated by the grantee (HES) at their manufacturing plant, therefore detailed installation instructions should not be necessary in the module user manual that will be part of the certification application package to the TCB. HES does not, nor does it intend to, sell or supply the module to any other divisions, factories, or plants within ASSA ABLOY.

If you have any questions, please do not hesitate to contact us at +1 623-582-4626.

Sincerely,

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