

Modular Approval Request

Sypes Canyon Communications

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Dear Application Examiner

Sypes Canyon Communications respectfully requests the grant of a modular approval certification with FCC ID allocation for the SCC-001 mobile earth-station transmitter. The SCC-001 radio transmitter will be integrated into a variety of mobile satellite service ("MSS") devices for remote telemetry applications, including domestic and international tracking. The SCC-001 will be operated at 30 cm or more from persons' bodies, transmitting in Globalstar, Inc.'s MSS service link at 1610-1618.725 MHz. As described in the FCC Office of Engineering and Technology's February 3, 2011 publication "Equipment Authorization Guidance for Part 25 Transmitters," certification of this mobile earth-station transmitter under Part 2 of the Commission's rules is optional and therefore permitted. See 273109 D01 Equip Auth Guide Part 25 TXReceiver v02r02 at 1.

In addition to the FCC modular approval being sought, Sypes Canyon is simultaneously securing international regulatory certifications. The FCC Part 25 modular approval will be followed by a filing with the ITU GMPCS MoU registry to permit freedom of use of this mobile earth-station transmitter in those countries that are signatories to the GPMCS MoU. To that end, pre-approval of the SCC-001 transmitter from a recognized regulatory body such as the FCC will help facilitate ITU approval in the various applications that will incorporate the SCC-001 for international use. A number of the signatory countries use the FCC reports and the FCCID as proof that the product is acceptable for use in their own country. The FCCID makes it possible for the other regulators to review the test reports directly online via the FCC website, fully confident that they are reviewing unaltered results.

The requirements of Public Notice DA00-1407 and 996369 D01 Module Equip Auth Guide v01 have been met and shown on the following statements.

1. "The final device is designed for mobile or fixed operation (Portable is not permitted – Reference TCB Exclusion List (17 July 2002)II(g))."

The SCC-001 is to be used as a mobile module embedded in mobile applications.

2. "The maximum antenna gain to allow compliance with RF exposure requirements is listed on the Grant of Certification for the module."

The "SCC-001 module has been tested and to be used with a 5 dBi (or lower) patch antenna. The SCC-001 with this antenna fulfills the requirements of the FCC CFR 47 part 25, IC RSS170, FCC §1.1310, §1.1310 for a mobile device, and IC RS102.

3. "The licensed module must have an FCC ID label on the module itself. That FCC ID label must be visible through a window on the final device or it must be visible when an access panel, door or cover is easily removed. If not, a second label must be placed on the outside of the final device that contains the following text: "Contains FCC ID:xxxxxyzzz"."

The SCC-001 module will be labeled with the FCC/IC ID numbers. All devices that use this device will be labeled with Contains FCCID: xxx-yyyzzz; IC:aaaabbbb.

Additionally, the SCC-001 radio transmitter complies with the requirements of Section 15.212(a)(1) as summarized below:

- i. **Shielded radio frequency assembly:** The SCC-001 contains a metal shield that completely encloses all radio frequency components.
- ii. **Buffered modulation/data inputs:** The SCC-001 uses industry standard I2C serial communications with the prescribed signal termination networks to minimize unintentional radiation compliant with Part 15 use.
- iii. **Power regulation:** The SCC-001 incorporates internal supply regulation as well as output radio power management networks to ensure repeatability of design.
- iv. **Unique antenna connector:** The SCC-001 incorporates a specific RF output connector (pad) that is specified out in the user's manual to operate with a specific antenna (Advanced Specialties Products antenna part number PA25-1615-025SA or PA451615-1575SA). The specified antenna gain and antenna gain pattern has been validated by verification testing. The antenna must meet operational and maximum gain limits of +5 dBi and remain compliant with the network operator strict antenna performance guidelines for envelope shape.
- v. **Compliance in stand-alone configuration:** The SCC-001 is designed as a slave radio module, but has been tested as compliant in stand-alone use using internal test-modes enabled by firmware command. Testing was performed on a bare-board test bed, exposing the transmitter to radiated environment (no secondary enclosure).
- vi. **Permanent FCC ID labeling:** The SCC-001 contains a permanent label containing the FCC ID with model number and network serial number. The label is shown and described in the user's manual.
- vii. **Specific use rules:** The SCC-001 user's manual describes all the use-rules for integrators, including applicable regulatory and network operator rules.
- viii. **RF Exposure requirements:** The SCC-001 complies with all applicable RF exposure requirements. SAR compliance is not required for this modular device and so noted in the user's manual.

Sypes Canyon Communications believes it has fully met the intent and letter of the requirements for modular approval and respectfully requests the grant of a modular approval for the SCC-001 mobile earth-station transmitter.



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