SATCOM
400 Maple Grove Road
Ottawa, ON K2V 1B8
www.honeywell.com

November 20, 2020

Federal Aviation Administration
Spectrum Engineering Services Group, AJW-1C
Room 715E
800 Independence Ave., SW
Washington, DC 20591

Reference: **FAA Notification of FCC Equipment under FCC Part 87**
Small SATCOM, Aeronautical Earth Station, Satellite Communications Transceiver
FCC ID K6KSmallSATCOM

To Whom It May Concern:

In accordance with Federal Communications Commission (FCC) Rules and Regulations, Part 87.147(d), EMS Technologies Canada, Ltd. (EMS), a wholly owned subsidiary of Honeywell International Inc, hereby notifies the Federal Aviation Administration of its filing with the FCC of an application for certification of the Small SATCOM Aeronautical Earth Station Satellite Communications Transceiver model referenced above.

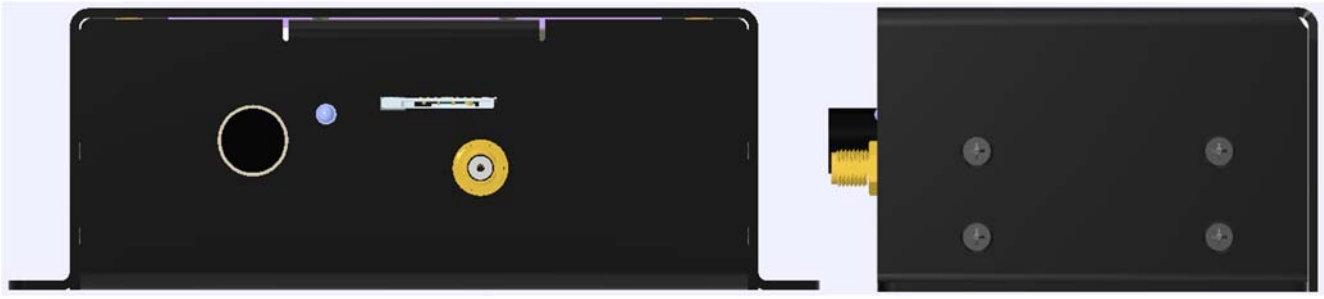
Please find below the information required pursuant to Part 87.147(d)(1).

1) Description of Equipment
The Small SATCOM Aeronautical Earth Station (AES) satellite communication transceiver supports the Inmarsat SwiftBroadband 200 aeronautical satellite communication service. It is intended for use on **Unmanned Aeronautical Vehicles only**, where size and weight are paramount.

The following provides a brief description of the Small SATCOM terminal.

The transceiver system comprises an indoor unit and an external active antenna connected by a single cable. The indoor unit requires a combined power input and ethernet cable. The Direct Current (DC) power input powers the whole system. A Universal Subscriber Identity Module (USIM) card needs to be inserted into the indoor unit for it to operate.

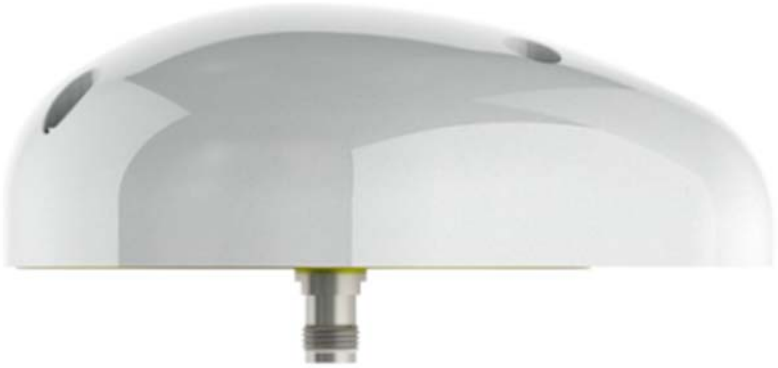
The Indoor Unit contains a stack of Radio Frequency (RF) card, digital cards and BGAN Radio Module (BRM). The USIM holder and power supply are mounted on the digital card. Coaxial cables provide the interconnection of the BRM with the RF board.



The BRM includes low power RF hardware, physical layer data processing, Universal Subscriber Identity Module (USIM), GNSS receiver, and high-level application interfaces.

An Ethernet interface supporting Network Address Translation (NAT) and Point-to-Point Protocol over Ethernet (PPPoE) protocols allows the Small SATCOM to be used in a wide range of network configurations. A secure RESTful command interface over Ethernet provides the command interface.

The active antenna unit is revision C of the established AeroAntenna AT1595-13. The connector is a female TNC.



2) Emission Types and Characteristics

The Small SATCOM emission types and characteristics are summarized below.

Inmarsat Service	Data Rate (kbps)	Symbol Rate ksym/s	Modulation Type	Signal States (S)	Performance Factor (K)	Necessary Bandwidth (kHz)	FCC Designator	Authorized Bandwidth (kHz)
SwiftBroadband	33.6	16.8	QPSK	4	0.74	25.0	25K0G1W	225
SwiftBroadband	67.2	33.6	QPSK	4	0.74	50.0	50K0G1W	225
SwiftBroadband	134.4	67.2	QPSK	4	0.74	100	100KG1W	225
SwiftBroadband	302.4	151.2	QPSK	4	0.66	200	200KG1W	225
SwiftBroadband	134.4	33.6	16 QAM	16	0.74	50.0	50K0D1W	225
SwiftBroadband	268.8	67.2	16 QAM	16	0.74	100	100KD1W	225
SwiftBroadband	604.8	151.2	16 QAM	16	0.66	200	200KD1W	225

3) Output Power

The nominal EIRP is 11.4 dBW.

4) Frequencies of Operation

The Small Satcom transceiver is capable of operation over the following frequency ranges:

- Transmitting: 1626.5 to 1660.5 MHz and 1668.0 to 1675.0 MHz
- Receiving: 1518.0 - 1559.0 MHz
- GNSS: 1559.0 to 1610 MHz

The operational frequencies of transmission and reception are controlled by frequency channel assignments from the Inmarsat satellite system. The Small Satcom will not transmit unless assigned a valid transmit frequency by the satellite system. Note that 1668.0 to 1675.0 MHz frequency band will not be used in USA/Canada.

5) Receiver Characteristics
The receiving characteristics of the Small SATCOM meet the applicable requirement of the lnmarsat System Definition Manuals (SDMs) for a class 15 terminal.

If this information meets with your approval, Honeywell herein requests that your office notify the FCC's Office of Engineering and Technology Laboratory, Authorization and Evaluation Division, in order to indicate that, pursuant to Section 87.147(dX2) of the FCC's rules, the FAA does not have an objection to the certification of the equipment described in this letter.

lf you have any questions on the above information, please feel free to contact me directly.

Sincerely,

Dennis Teske
Sr. Director Engineering
Honeywell International Inc.