



EMS Technologies Canada Ltd.  
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14th Nov 2013

Federal Aviation Administration  
Spectrum Engineering Services, AJW-1C  
800 Independence Avenue, SW  
Washington D.C. 20591  
Phone: (202) 267-9710  
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Reference: FAA Notification of FCC Equipment under FCC Part 87  
**HSD-128, HSD-440, HSD-X, HSD-Xi, HSD-MK2, HSD-MK3, A781, A781-MK2, and A781-MK3**  
Aeronautical Earth Station Satellite Communications Transceivers FCC ID's **K6KHSD-128, K6KHSD-440, K6KHSD-X, K6KHSD-Xi, , K6KHSD-MK2, K6KHSD-MK3, K6KA781, K6KA781-MK2, and K6KA781-MK3**

Dear Mr. Biggs,

This is a reply to your letter, dated Oct 30<sup>th</sup>, 2013, sent to EMS Technologies Canada Ltd., via fax, in reference to a letter sent from EMS Technologies Canada Ltd. on the 22<sup>nd</sup> October, 2013.

Your office has requested for assurances that our terminals, when using the new emission types, meet the requirements of appropriate RTCA, Inc. Minimum Operational Performance Standards (MOPS), in particular with respect to emissions into the frequency bands utilized by the Global Positioning System (GPS).

EMS Technologies Canada Ltd assures that the Satcom terminals, when operating with the new emission types, meet the applicable requirements of RTCA/DO-210 MOPS. It is noted, however, that the new emission types are not defined in DO-210 and their use is subject to a waiver request to Part 87 of the Federal Communications Commission (FCC) regulations.

EMS Technologies Canada Ltd. must certify our terminals with Inmarsat, the Satellite Network service provider, for the Full Type Approval requirements established by Inmarsat. As part of this certification process, EMS Technologies Canada Ltd will test the terminals to validate conformance with the following RTCA requirement:

- RTCA/DO-210D, Minimum Operational Performance Standards for Geosynchronous Orbital Aeronautical Mobile Satellite Services (AMSS) Avionics, Change Number 3, Issued Sep 19, 2006, Section 2.2.4.2.5.2 – Harmonics, Discrete Spurious and Noise Density for Equipment without Intermodulation Frequency Control.

The in-band unwanted emission measurement exclusion is changed from  $\pm 35$  kHz to  $\pm 560$  kHz to accommodate the higher symbol rate of the new emission types.

It is also noted, that Inmarsat imposes additional emission requirements within the GPS, GLONASS, and Radio Astronomy frequency bands. In particular, RTCA/DO-210D, CN3, Section 2.2.4.2.5.2 and ETSI EN 301 473<sup>1</sup>, v1.4.1, issued March 2013, Section 6, Requirements for AES transmitting in the band 1626.5 MHz to 1660.5MHz are applicable. Compliance with these emission limits are verified as part of Inmarsat's Mandatory Test Requirement N°16, Spurious and Harmonics. If requested, this test data can be provided to your office when the test results become available.



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If you have any further questions, you can contact me via email at:

[Steven.Mills2@Honeywell.com](mailto:Steven.Mills2@Honeywell.com)

Sincerely,

Steven Mills  
Director of Engineering  
EMS Technologies Canada Ltd

A handwritten signature in dark ink, appearing to read "Steven Mills". The signature is written over a horizontal line.

ETSI EN 301 473 Satellite Earth Stations and Systems; Aircraft Earth Stations (AES) operating below 3 GHz under the Aeronautical Mobile Satellite Service (AMSS)/Mobile Satellite Service (MSS) and/or the Aeronautical Mobile Satellite on Route Service (AMS(R)S)/Mobile Satellite Service (MSS). V1.4.1 March 2013.