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CAGE Code: 1UL05

USERS GUIDE AND REGULATORY STATEMENT

FOR

4G Cell Modem

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PROPRIETARY AND CONFIDENTIAL

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1 INTRODUCTION

1.1 Purpose

The 4G Cell Modem (CM) is a component of the X-Series IFE system and the GCS system, which is provided to airline customers that PAC operates. The 4G Cell Modem (CM) enables a cellular wireless IP network connection between an equipped aircraft and the Panasonic Ground Network.

1.2 Reference Document

CM Component Maintenance Manual

1.3 Acronyms and Abbreviations

DoC	Declaration of Conformity
FCC	Federal Communications Commission
IC	Industry Canada
IFE	In-Flight Entertainment
IFES	In-Flight Entertainment System
IFEC	In-Flight Entertainment and Connectivity
IPSC	Integrated Passenger Seat Controller
MPEG	Moving Picture Experts Group
RF	Radio Frequency
R&TTE	Radio and Telecommunications Terminal Equipment
SAR	Specific Absorption Rate
TRA	Telecommunications Regulatory Authority
TX/RX	Transmitter/Receiver

2 EQUIPMENT/SYSTEM DESCRIPTION

2.1 IFE Environment

The eX3 System is an electronic control data and audio/video distribution system providing digital video and audio on demand to the passenger seat. The system architecture is modular in design, allowing for additional components to be integrated without aircraft-side wiring changes. eX3 System employs MPEG encoding techniques for audio/video data compression providing high-resolution digital video and quality audio to the seats without using excessive system bandwidth. eX3 system also provides broadband Ethernet network connectivity between the passenger-computing device at the seat and the head-end network equipment. The system is used for internet data application and streaming digital audio/video content distribution.

2.2 4G Cell Modem

The 4G CM is a component of the X series In-Flight Entertainment (IFE) and Global Communication Services Systems. It is designed to provide a communication link between aircraft and Panasonic media control center while the aircraft is on the ground. The 4G Cell Modem (CM) cellular connectivity enables a cellular wireless IP network connection between an equipped aircraft and the Panasonic Ground Network.

The 4G CM is show in Figure 1:

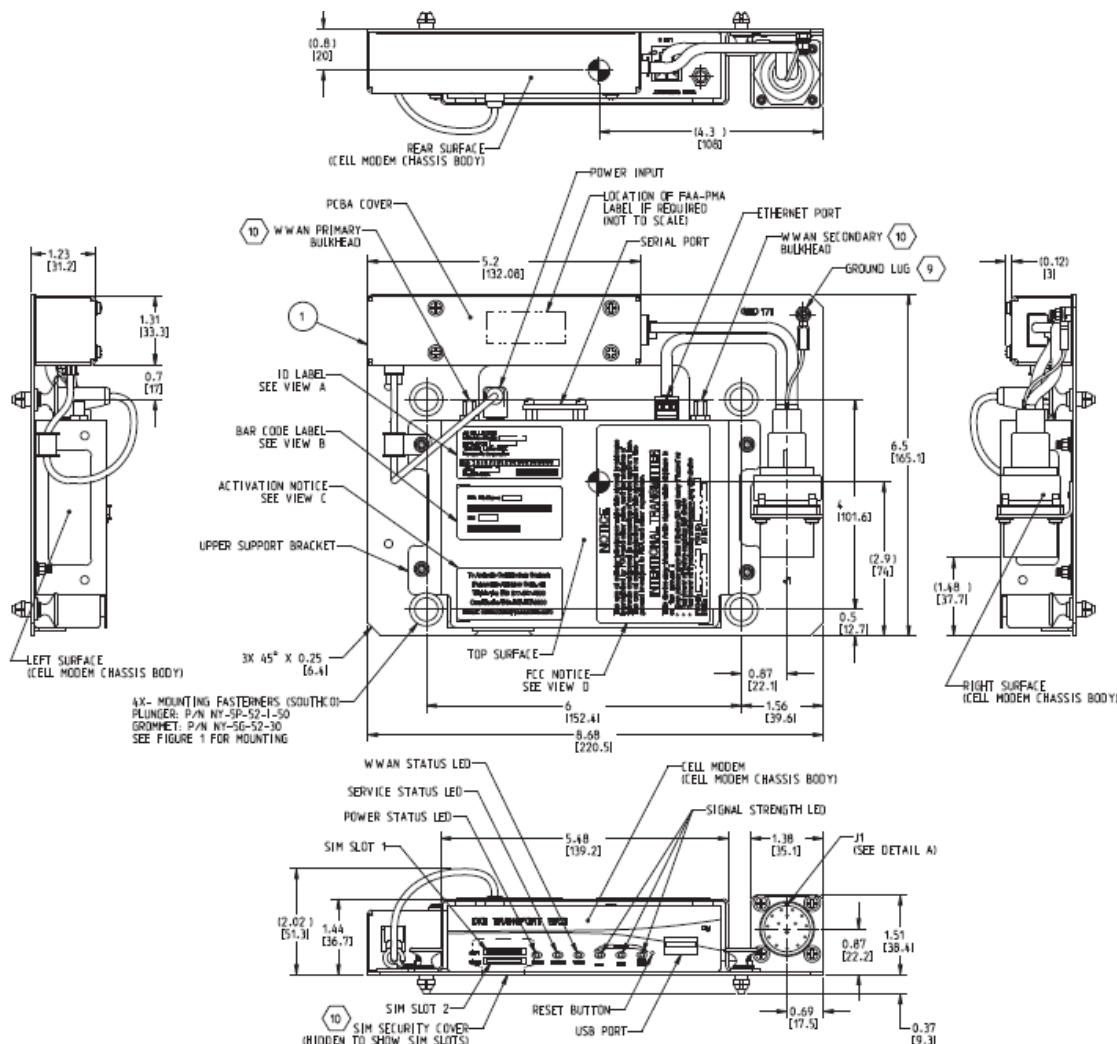


Figure 1: 4G Cell Modem Outline Drawing

3 REGULATORY INFORMATION

The 4G CM has been tested and complies with the specifications for a digital device pursuant to the specifications below.

3.1 USA - FCC Radio Frequency Interference Statement

FCC ID: U6Y-RDAA8110

FCC Part 15.21 Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must be at least 20 cm from the user and must not be collocated or operating in conjunction with any other antenna or transmitter.

FCC Receivers and Class B Digital Statement:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment or devices
- Connect the equipment to an outlet other than the receiver's
- Consult a dealer or an experienced radio/TV technician for assistance

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

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3.2 SAR Compliance Statement

The 4G CM is compliant with SAR limits specified for General Population/Uncontrolled exposure.

3.3 Canada / Pour le Canada

IC ID: 216P-RDAA8110

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CAN ICES-3(B) / NMB-3(B)

From section 7.1.5 of RSS-GEN. Operation is subject to the following two conditions: 1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation.

De la section 7.1.5 de RSS - GEN . Son fonctionnement est soumis aux deux conditions suivantes : 1) Ce dispositif ne doit pas provoquer d'interférences nuisibles , et 2) Ce dispositif doit accepter toute interférence reçue , y compris les interférences qui peuvent causer un mauvais fonctionnement .

3.4 Europe – R&TTE Directive 1999/5/EC

Hereby, Panasonic Avionics Corporation declares that this cell modem is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A copy of the DoC can be obtained from the following Web site:

<http://www.ptc.panasonic.de>

Intended use: This 4G CM is intended to be used on Panasonic IFEC Systems.

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