AVIATOR SP

COBHAM

The most important thing we build is trust

Special Purpose
Product Range

AVIATOR SP

Special Purpose Product Range

SDU-7315

SDU-7320

SDU-7330

Cobham SATCOM's AVIATOR Special Purpose range is a product range for special applications where there are enhanced requirements to environmental specifications, or multi-channel SwiftBroadband channel configurations. AVIATOR Special Purpose range consists of the SDU-7315, the SDU-7320, the SDU-7330 and, depending on the system configuration, is deployed with the HLD-7260 (single channel systems), or the HPA-7450 and the DAU-7070 (multi-channel systems).

SwiftBroadband is an Inmarsat packet-switched service that offers in-flight connectivity access to the Internet, email, voice-calls and any other application used at home or in the office. It can also support video streaming, video conferencing and aerial surveillance. Background data rates are of up to 432kbps per channel, depending on the class of service, which in turn is determined by the class of antenna - LGA, IGA or HGA.

The Satellite Data Unit (SDU) provides the radio modem and system control function-ality of the SwiftBroadband system and has one or more of the following unique differentiators:

- **Multi-channel SwiftBroadband support**
- **Available in a flange mount configuration**
- **Available with ARINC 600 connector interfaces**
- **Offer extended temperature and vibration qualifications**

With the **SDU-7315**, even the most space-restricted aircraft can have L-band SATCOM. This flange mount SDU does not require ARINC 600 trays and employs circular connectors, saving on space, weight and installation costs. The flange mount form factor is available in both single and dual channel versions and can be installed in any orientation, offering unmatched installation flexibility. It is ideal for installation on any aircraft, but preferred by small bizjets, helicopters and UAVs.

The **SDU-7320** is a single or dual channel SDU packaged in a 2 MCU ARINC 600 enclosure. This unit fits into an ARINC 600 tray and is ideal for installation in the aircraft avionics bay.

The **SDU-7330** is available in single, dual or four channel configurations, packaged in a 3 MCU ARINC 600 enclosure. The 4 channel SDU is ideal for bandwith hungry and flexible application requirements.

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SDU-7315

Specifications

Length	333mm/13.1"
Width	194mm/7.6"
Height	51mm/2.0"
Weight	3.0kg/6.6 lbs
Temperature	-55 to + 70 C
Altitude	55000 ft
Power Consumption	49W
Environmental Qualification	DO 160F

Features:

- The flange mount package reduces installation costs and increases flexibility
- Suitable for installation outside the aircraft pressure vessel
- Integrated SIP Server
- Routing of internal calls between handsets
- PPPoE Internet access
- Power Over Ethernet on all ports (configurable)
- 1 or 2 channel option
- Class 6, 7 and Class 15 system configurations

User Interfaces:

Ethernet	2 x 10BaseT user ports
POTS	2 x two-wire phone interfaces (Two handsets per interface)

RS232 for remote monitoring and control
Radio silence discrete input.

Inmarsat Approvals:

S6CH08	November 2010
S7CH03	November 2010

SDU-7320 2 channels

Specifications

Length	320mm/12.6"
Width	61mm/2.4"
Height	194mm/7.6"
Weight	3.2kg/ 7.0 lbs
Temperature	-55 to +70 C
Altitude	55000 ft
Power Consumption	61W
Environmental Qualification	DO-160E

Features:

- 2 MCU package
- Integrated SIP Server
- Single and dual channel configurations available
- Different interface options to suit your application installation in non-pressurized and non-temperature controlled environments

User Interfaces:

Ethernet	4 x 10BaseT user ports DHCP Server Power Over Ethernet (16W Group 1) PPPoE Server Front panel maintenance port
ISDN	2 ports support up to 8 terminals
POTS	4 x two-wire phone interfaces

Inmarsat Approvals:

Class 6 Multi Channel
B6CH01	May 2009

Class 7 Multi Channel
B7CH01	June 2010

SDU-7330 4 channels

Specifications

Length	343.7mm/13.53"
Width	94.4mm/3.72"
Height	194mm/7.64"
Weight	4kg/8.8 lbs
Temperature	55 to +55 deg Celcius
Altitude	55000 ft
Power Consumption	81W
Environmental Qualification	DO-160E

Features:

- 3 MCU package enables plug and play upgrade from Swift64
- Four channels allow maximum throughput in a flexible system topology
- Satisfies the requirements of high bandwidth users
- Different interface options to suit your applications
- Integrated SIP server
- Qualified for installation in non-pressurized and non-temperature controlled environments
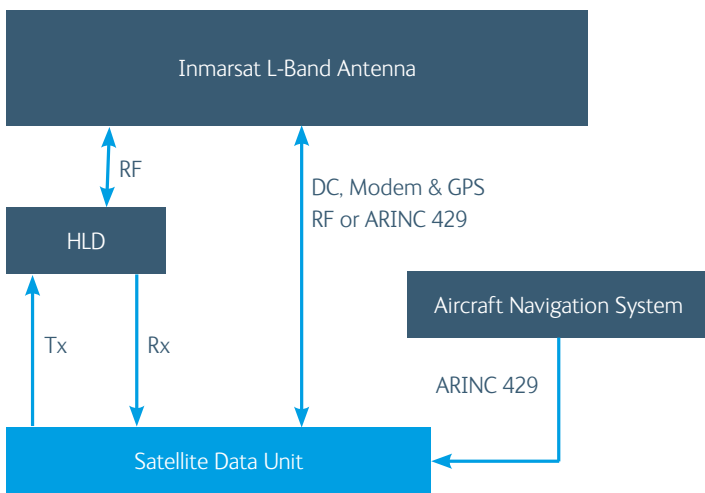
User Interfaces:

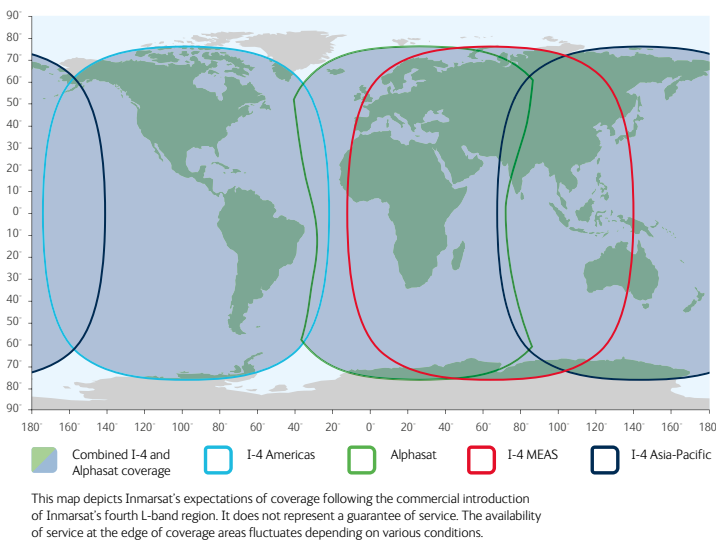|	
Ethernet	4 x 10BaseT user ports DHCP Server Power Over Ethernet (16W Group 1) PPPoE Server Front panel maintenance port
ISDN	2 ports support up to 8 terminals
POTS	4 x two-wire phone interfaces

Inmarsat Approvals:

Class 6 Multi Channel
B6CH03	April 2012

Class 7 Multi Channel
B7CH03	May 2012

Single Channel SwiftBroadband

Inmarsat L-Band Antenna

RF

HLD

DC, Modem & GPS
RF or ARINC 429

Tx   Rx

Aircraft Navigation System

ARINC 429

Satellite Data Unit

SwiftBroadband Coverage

| Combined I-4 and Alphasat coverage | I-4 Americas | Alphasat | I-4 MEAS | I-4 Asia-Pacific |

This map depicts Inmarsat's expectations of coverage following the commercial introduction of Inmarsat's fourth L-band region. It does not represent a guarantee of service. The availability of service at the edge of coverage areas fluctuates depending on various conditions.
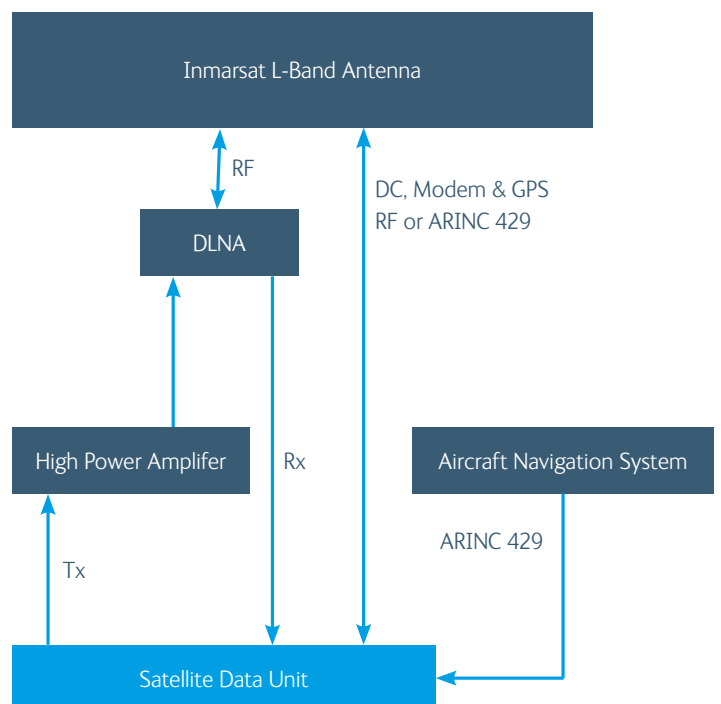
Wi-Fi:

Wi-Fi is offered as an optional external extra. Depending on your requirements we have a number of partners that supply plug 'n play, aircraft-certified, Wi-Fi devices. Please contact Cobham SATCOM for further information on the available options.

Dual/Four Channel SwiftBroadband Block Diagram

Inmarsat L-Band Antenna

RF

DLNA

DC, Modem & GPS
RF or ARINC 429

High Power Amplifer

Rx

Aircraft Navigation System

ARINC 429

Tx

Satellite Data Unit

AVIATOR Special Purpose Range System Configurations

AVIATOR SP Single Channel System
is highly suitable for helicopters and large UAVS and consists of the HLD-7260, the SDU-7315 and the HGA-6500 antenna. This ruggedised solution is qualified to meet helicopter vibrations and will give the user access to Inmarsat Class 6 SwiftBroadband services, allowing up to 432kbps.

HLD-7260

SDU-7315

HGA-6500

AVIATOR SP Multi Channel System
consists of an SDU-7320/7330 along with an HPA-7450, DAU-7070 and a choice of Intermediate or High Gain Antenna. This will give the user access to Inmarsat Class 6 or Class 7 SwiftBroadband service, allowing up to 432kbps data throughput.

2MCU SDU-7320

HPA-7450

2 Channels or
4 Channels

3MCU SDU-7330

DAU-7070

Together with a choice of any Cobham High Gain Antenna or the IGA-5001 Intermediate Gain Antenna.

HGA-6000

HGA-7001

IGA-5001