AVIATOR 700D

COBHAM

Cockpit and Cabin Connectivity

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A Complete Solution For Multiple Applications

Access the Inmarsat Aero H+ and SwiftBroadband services in one powerful, integrated system. Designed for multiple application flexibility, AVIATOR 700D is engineered for use in business, VIP, air transport, government and military aircraft platforms. From cockpit to cabin, AVIATOR 700D delivers the features and functionality you need in a package of no more than eight MCU.

Cabin Services - SwiftBroadband

- SwiftBroadband channel for simultaneous data and voice
- Up to eight simultaneous voice calls
- Wired and wireless web browsing and corporate VPN access
- Wireless use of smartphones and tablets for email services
- Built-in router and ethernet switch for intelligent connectivity support and multiple user support
- Built-in wireless access point option to support numerous wireless laptops, smartphones EFBs and/or tablets

- Built-in PBX to support numerous handsets and in-flight calls
- ISDN connectivity

Cockpit Services

Cobham's AVIATOR 700D seamlessly brings critical safety, navigational and performance data directly into the cockpit, reducing pilot workload, increasing efficiency and overall operational safety.

- Inmarsat H+ services
- MCDU and cockpit audio interface
- Multivoice channels
- Cockpit data channel
- AFIS/ACARS
- Flight-deck data link
- FANS/CPDLC ready

Swift64 (for fallback)

The Inmarsat Swift64 service offers fast data transmission. It provides both the high quality and speed of a full ISDN service and the cost-effective flexibility of a full IP service (MPDS). For VIP, corporate and government users, this combination offers unmatched access to modern communications.

The Swift64 channels of the Aero-HSD+ works equally well with both. ISDN traffic is charged by the length of time the user remains online, whereas MPDS charges are per megabit.

High Gain Antenna (HGA)

For users requiring the highest performance from their SwiftBroadband service, AVIATOR 700D utilizes an HGA antenna providing data rates up to 432 kbps. For more information on antenna options available, please contact your Cobham sales representative.
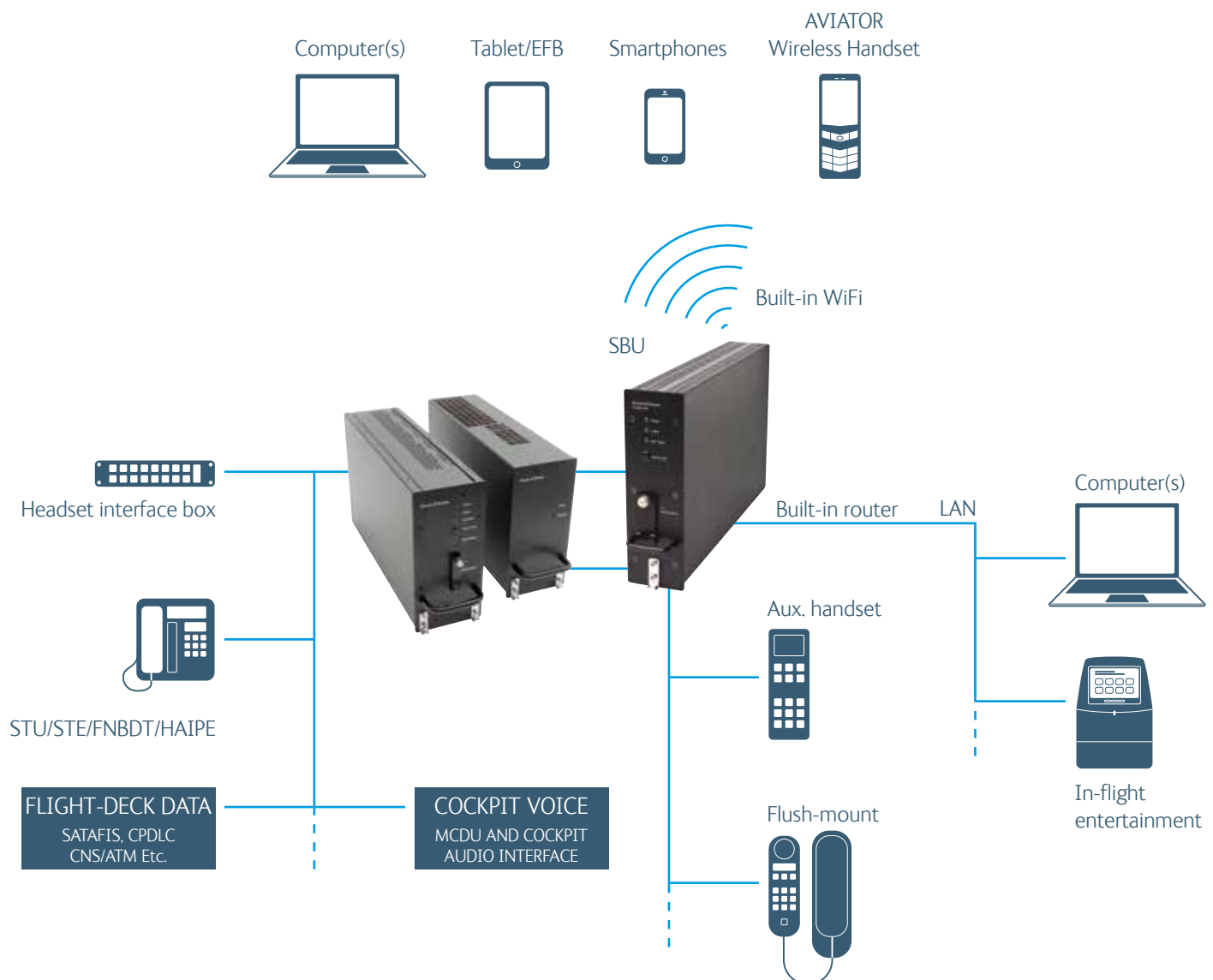
SB X-Stream Service

The Inmarsat SB X-Stream service provides streaming data at rates above 256Kbps, enabling a higher quality of service and more data to be streamed at a faster rate. SB X-Stream supports a wide-range of applications requiring a steady data flow including video streaming and inputs from various sensors.

Strong Foundation - More Possibilities
The Satellite Data Unit serves the cockpit with safety data and voice services including two two-wire connections for connecting fax machines, headset interface boxes etc. Ethernet, ISDN and Serial Interfaces secure easy connections directly to laptop PC's or a router/server.

The SwiftBroadband Unit serves both the cockpit and cabin with voice and data services and has a built-in wireless access point for easy connection of laptops, Smartphones or VoIP handsets. The detachable configuration modules contain all settings making it very easy to replace the satellite data unit (SDU) or SwiftBroadband Unit (SBU). ARINC 741/781 compatibility ensures a straightforward interface to all current high gain antennas.

Computer(s)   Tablet/EFB   Smartphones   AVIATOR Wireless Handset

Built-in WiFi

SBU

Headset interface box

Computer(s)

Built-in router   LAN

Aux. handset

STU/STE/FNBDT/HAIPE

FLIGHT-DECK DATA
SATAFIS, CPDLC
CNS/ATM Etc.

COCKPIT VOICE
MCDU AND COCKPIT
AUDIO INTERFACE

Flush-mount

In-flight entertainment

Global Coverage with Inmarsat H+ and SwiftBroadband Services

Inmarsat's satellite network, provides both voice and broadband data. It is the world's leading commercial mobile broadband satellite service.

With three satellites placed in geostationary orbit 36,000 kilometers (22,000 miles) above the Atlantic, Indian and Pacific Oceans respectively, they facilitate a reliable global coverage.

Combined with AVIATOR terminals this solution offers high quality voice and data connectivity with the functionality of traditional terrestrial networks.
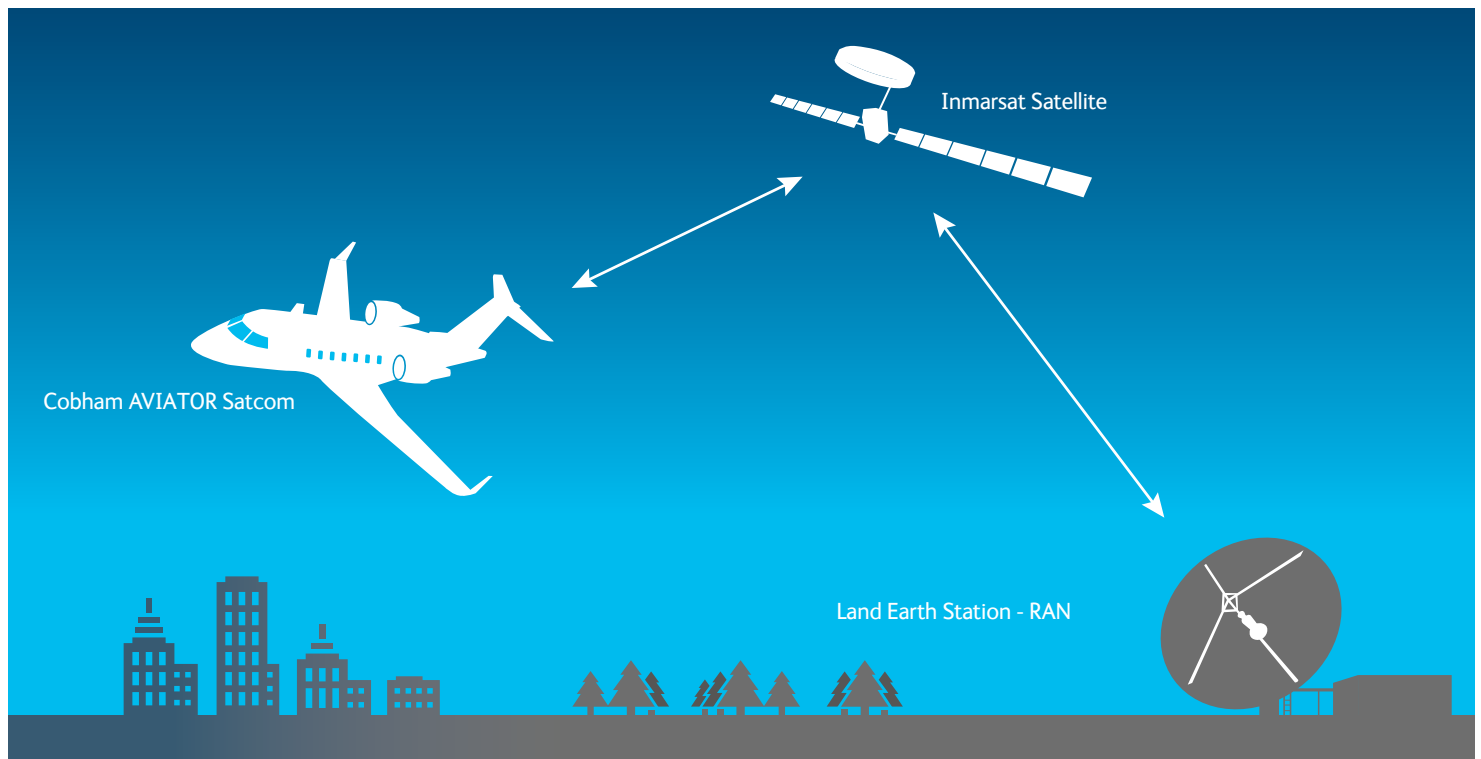
SwiftBroadband (HGA)

The Cobham AVIATOR 700D system is engineered to take advantage of the latest technologies, such as, SwiftBroadband for increased reliability and connectivity. The SwiftBroadband Background Data and Standard Voice channel allow users to access a shared data channel and a compressed high-quality voice channel at the same time.

AVIATOR 700D is an Inmarsat SwiftBroadband HGA (Class 6) System supporting:

- Single Channel SwiftBroadband
- Circuit-switched standard voice
- Background IP up to 432 kbps
- Streaming IP at 8/16/32/64/128 kbps
- SB X-Stream services
- ISDN service or 3.1 kHz audio

COBHAM SATCOM HAS DEVELOPED BOTH THE SATCOM SYSTEMS AND THE NETWORK GROUND INFRASTRUCTURE

Inmarsat Satellite

Cobham AVIATOR Satcom

Land Earth Station - RAN

SwiftBroadband Unit (SBU)

Features

- Up to eight simultaneous voice calls
- IP Packet or streaming SwiftBroadband data
- Ethernet connectivity
- Built-in router with six ethernet interfaces
- Built-in wireless access point
- Low weight and power consumption
- Compact two MCU size
- No forced cooling required
- Easy integration
- FAA PMA

Specifications

Part Number	405040A
Dimensions Total L / W / H	320.5 / 193.5 / 57.2 mm 12.62 / 7.62 / 2.25 in
Mass	2.8 kg / 6.2 lbs
Power	28 V DC, 30 W typ. Max 83 W
Altitude	MSL to 55,000 ft
Temperature	-25 C to +55 C
Connectors Rear Front	ARINC 404A RJ-45

Environmental Qualification

DO-160E
[(A1)(F1)X]CAB[SB2M]ExxxxxZ[AB]A[RB][ZC][RR]M[A3J33]XXAX

Satellite Data Unit (SDU)

Features

- Seamless integration of Aero-H+ and Swift64 services into one unit
- No forced cooling required
- Built-in CTU connects up to six (standard or wireless) handsets incl. two 2-wire (RJ-11/ POTS) interfaces - no converter box required. Detachable Configuration Module (CM)
- Built-In Test Equipment (BITE)
- ARINC 429 for IRS, AHRS, ACARS, MCDU, CMU, AFIS, CPDF
- RS-232C port for Portable Data
- Loader/Configuration Management Terminal (PDL/CMT)
- Ethernet connectivity
- ISDN connectivity
- RS422 connectivity
- FAA PMA

Specifications

Part Number	405035A-THD
Dimensions Total L / W / H	320.5 / 90.4 / 193.5 mm 12.62 / 3.56 / 7.62 in
Mass	3.5 kg / 7.2 lbs
Power (max.)	28 V DC, 30 W typ. 50 W (incl. handsets and DLNA)
Altitude	MSL to 55,000 ft
Temperature	-25 C to +55 C
Connectors Rear Front	ARINC 404A SUB-D 15 Female

Environmental Qualification

DO-160D

[(A1)(F1)X]CAB[(S2B2)(SM)]EXXXXXZ[A()B]A[A()B]Z[RR]M[A3E3]XXA

High Power Amplifier (HPA)

Features

- Small size (three MCU) and low weight
- No external forced cooling required
- Installation outside pressure area
- FAA PMA

Specifications

Part Number	405040A-THD
Dimensions Total L / W / H	320.5 / 93 / 193.5 mm 12.62 / 3.66 / 7.79 in
Mass	5.1 kg / 11.2 lbs
Altitude	MSL to 55,000 ft
Temperature	-55 C to +70 C
Connectors Rear	ARINC 404A

Environmental Qualification

DO-160E

[(A2)(F2)Z]BBB[SCL]EXXXXXZ[A()B]A[A()B]Z[RRM[A3E3]XXA

AVIATOR 700D Key (HGA)

Software key allowing system use with a High Gain Antenna

Part Number	405040A-005

Cobham SATCOM - The Powerhouse of Airborne Satcom

Cobham SATCOM is the largest manufacturer of Inmarsat antennas, terminals and land earth station RAN (Radio Access Network) equipment. Cobham SATCOM uses state-of-the-art technologies to design affordable, reliable and high performance satellite communication systems.

Cobham SATCOM

- Has a global footprint with offices in USA, Europe, Africa and Asia

- Has 20 years of experience developing satellite communication technology for the aviation industry, for cockpit, aircraft operational and cabin services

- Has more than 3500 Aeronautical systems delivered and installed (+80.000 BGAN Terminals)

- Supplies terminals for land, maritime and aeronautical markets and also the network and ground stations for mobile satellite services

- Designs the full technology stack from modulation to radio core technology

- Cobham SATCOM has developed both the satcom systems as well as the network ground infrastructure

The most important thing we build is trust

For further information please contact Cobham SATCOM Aero:

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