

# SwiftBroadband Safety for Business Jets

*COBHAM*



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**AVIATOR 300D**  
**AVIATOR 350D**

# AVIATOR 300D & 350D

SwiftBroadband Safety (SB-S) for Business Jets



## FANS 1/A compliant global, secure, broadband-speed connection for the cockpit & cabin.

Without a FANS 1/A compliant system, soon the higher skies across the Atlantic will be off limits. Over oceanic routes, radar and traditional comms such as high frequency radio are very limited. Satcom technology is now widely used in oceanic airspace around the world to meet the RCP (Required Communications Performance) and RSP (Required Surveillance Performance) of operating in that airspace.

If you cross the Atlantic more than a couple of times a year, it will be impractical not to use FANS routes. Many business jets will simply not have the range to make the trip directly without using the North Atlantic Tracks. Ultimately, anyone wishing to operate over the Atlantic regularly will need to be FANS 1/A compliant.

## Built for SwiftBroadband-Safety

AVIATOR 300D was the only product used by the FAA to certify SwiftBroadband-Safety (SB-S) for FANS operation, and offers a global, secure, broadband-speed connection to the cockpit, and to the cabin through the use of an Aircraft Interface Device (AID).

## Simple system architecture

The system's built-in ACARS Aero GateWay (AAGW) facilitates messaging over Inmarsat's SB-S network. The system architecture is simple to install with a 2 MCU SBU and flange-mount HLD, and either an Intermediate Gain Antenna for the AVIATOR 300D or High Gain Antenna for the AVIATOR 350D system.

## Cockpit communications fit for the digital age

The AVIATOR 300D and 350D systems provide a cockpit IP network for easy interfacing, including the provision of CPDLC, satcom voice, ICAO voice, ACARS over satcom, ADS-C, AIDs, EFBs and more.

## Upgrades

Both systems offer significant size, cost and weight savings over legacy satcom solutions and are an ideal replacement for larger Aero H/H+ terminals such as Rockwell Collins SAT-906, Honeywell MCS-3000 & MCS-6000.

The systems are also type certified with existing antennas such as our HGA-6000 series and HGA-7001, or Honeywell's AMT-50 and AMT-700.

## FANS and office in the sky

Business jet passengers can enjoy all the benefits of cockpit connectivity & FANS routes, whilst simultaneously using the securely segregated broadband connectivity for internet and phone in the cabin.

## AVIATOR 300D

Weighing just 10kg and consisting of only two boxes plus the antenna, AVIATOR 300D provides SwiftBroadband Safety Services, cabin voice and IP data connectivity for your flight deck at up to 332 kbps.

The IGA-5001 is a fuselage mount electronically steered, phased array antenna. It is rugged, reliable, fully compliant with the Inmarsat SDM, and is considered to be the optimum antenna solution for Inmarsat's SwiftBroadband Class 7 service.

### Features

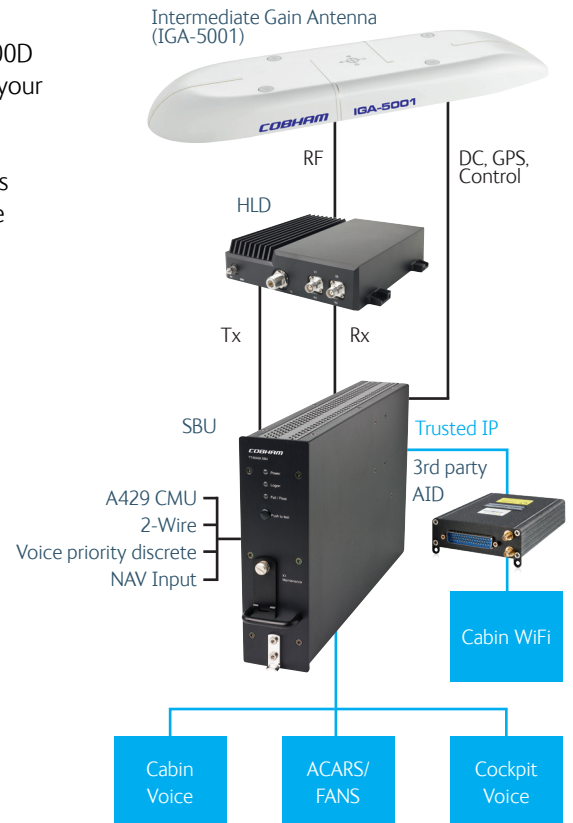
- Up to 332 kbps SwiftBroadband data
- Simultaneous FANS, voice and cabin data
- Built-in 6 port router and WLAN
- Integral SwiftBroadband-Safety service
- DO178B Level D software and DO254 Level D hardware
- Supports ICAO voice via external dialler (such as Cobham PTA12)

### Cockpit Interfaces

- 2 x 2-Wire Voice
- Wired Ethernet (LAN)
- 1 x CMU
- 1 x ATSU

### Cabin Interfaces

- Built in SIP server for VOIP calls\*
- 2 x 10/100 Mbit Ethernet ports\*
- 802.11a/b/g/n access point\*



## AVIATOR 350D

Weighing just 8.2kg including the antenna, AVIATOR 350D provides all the same capabilities and benefits of the AVIATOR 300D but with additional connectivity speed at up to 432 kbps.

The HGA-6000 is the smallest and lightest mechanically steered SwiftBroadband antenna, specifically designed for mounting under the tail radome of an aircraft. Antenna options also include HGA-6000 slim, the ruggedised fuselage mount HGA-6500 or the fuselage mount, phased array, electronically steered, HGA-7001.

### Features

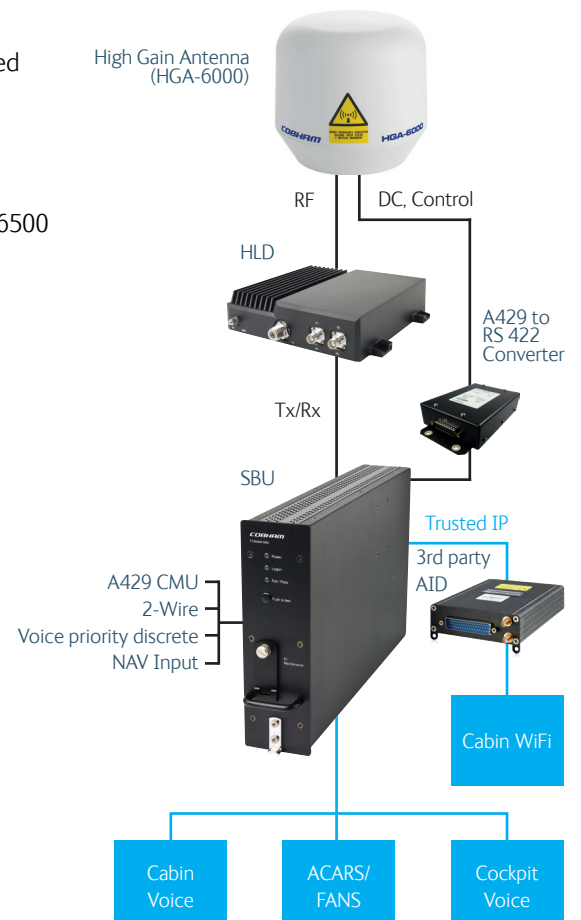
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### Cockpit Interfaces

- 2 x 2-Wire Voice
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### Cabin Interfaces

- Built in SIP server for VOIP calls\*
- 2 x 10/100 Mbit Ethernet ports\*
- 802.11a/b/g/n access point\*



\*requires the use of a 3rd party AID for secure segregation between cockpit and cabin



**SwiftBroadband Unit (SBU)**



**Features**

- Low weight and power consumption
- Compact 2 MCU size
- No forced cooling required
- Easy integration
- FAA PMA

**Specifications**

Part Number	405040A-THD
<b>Dimensions</b>	
Total L / W / H	320.5 / 57.2 / 193.5 mm 12.62 / 2.25 / 7.62 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
<b>Connectors</b>	
Rear	ARINC 404A
Front	RJ-45

**High Power Amplifier, Low Noise Amplifier and Diplexer (HLD)**



**Features**

- Small and light
- Powered through SBU - no power wires to HLD required
- No forced cooling required
- FAA PMA

**Specifications**

Part Number	405016A-THD
<b>Dimensions</b>	
Total L / W / H	228 / 200 / 50 mm 8.98 / 7.87 / 1.97 in
Mass	2.6 kg / 5.7 lbs
Power	Powered through SBU
Altitude	MSL to 55,000 ft
Temperature	-55 °C to +70 °C

**Intermediate Gain Antenna (IGA-5001)**



**Features**

- Low profile, small footprint
- Solid state highly reliable design
- Integrated GPS antenna
- TSO-C132 certified
- Fuselage mount with simple connection

**Specifications**

Part Number	677-A0181 or 405001A-PMA
<b>Dimensions</b>	
Total L / W / H	581 / 175 / 49 mm 22.87 / 6.89 / 1.93 in
Mass	3.5 kg / 7.7 lbs
Altitude	MSL to 70,000 ft
Temperature	-65 °C to +70 °C

**High Gain Antenna (HGA-6000)**



**Features**

- Lightest High Gain Antenna available on the market
- Smallest swept volume available for a mechanically steered HGA
- Higher gain than single helix antenna designs
- Excess gain can be used for longer RF cable runs between antenna and HLD
- Integral Beam Steering Unit with ARINC 429 interface

**Specifications**

Part Number	677-A016-xxx or 405009A
<b>Dimensions</b>	
Total L / W / H	256 / 256 / 246 mm 10 / 10 / 9.7 in
Mass	1.8 kg / 3.96 lbs
Altitude	MSL to 70,000 ft
Temperature	-65 °C to +70 °C