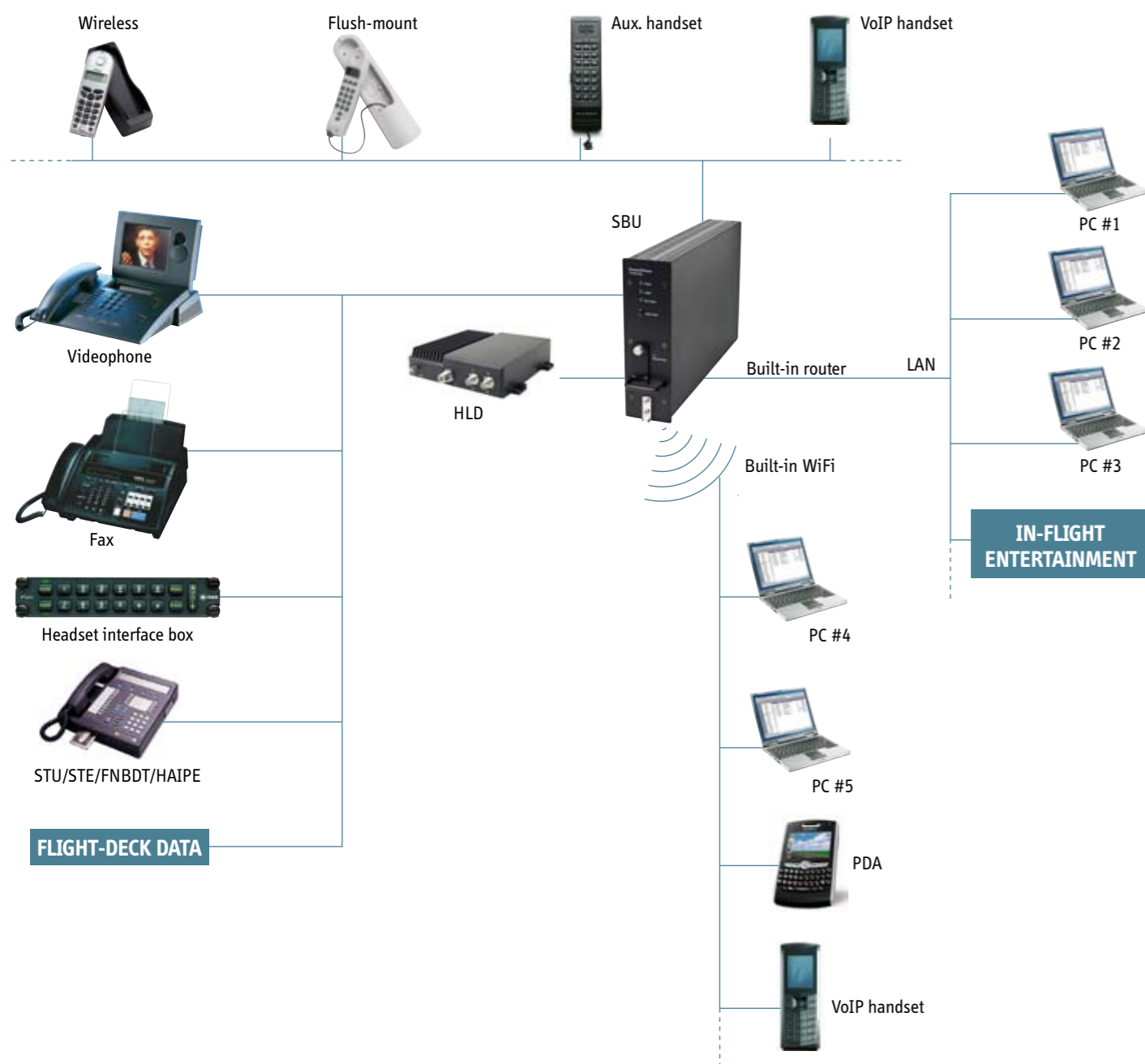


**The Aero-SB Lite system has many interfaces and possibilities**

The core unit of Thrane & Thrane's SwiftBroadband systems, the SwiftBroadband Unit (SBU), has an optional built-in wireless access point for easy connection of laptop, PDA or VoIP handsets. The optional built-in router makes it easy to connect up to 6 laptops and the ISDN interface can be connected to phones, routers, PCs or secure devices. Two 2-wire interfaces enables the connection of standard or wireless handsets, fax machines, headset interface boxes etc.

The detachable configuration modules contain all settings making it very easy to replace the High power amplifier, Low noise amplifier and Diplexer (HLD) or SwiftBroadband Unit (SBU). ARINC 741/781 compatibility ensures a straightforward interface to many Intermediate Gain (IGA) and High Gain (HGA) antennas.



**THRANE & THRANE – THE BROADBAND EXPERTS**

Thrane & Thrane is the world's leading manufacturer of terminals and land earth stations for global mobile satellite communications and has delivered close to 400,000 terminals to the land mobile, maritime and aeronautical markets.

After years of BGAN terminal development, Thrane & Thrane possesses the key technology that will be reused in the aeronautical, maritime and land mobile segments.

Having delivered the ground infrastructure (the Radio Access Network) for the I-4 satellites to run Inmarsat's

BGAN services, Thrane & Thrane was also contracted to further develop the ground infrastructure for aeronautical, maritime and land mobile services.

Thrane & Thrane today provides the entire ground infrastructure for all aeronautical services, such as the classic aeronautical services (H, H+, I and M) as well as the Swift64 and SwiftBroadband services.

We truly are the only aeronautical supplier to deliver both the aeronautical terminals and the ground infrastructure they operate on.

**AERO-SB LITE**  
Compact and lightweight SwiftBroadband



**Thrane & Thrane has widened the possibilities of SwiftBroadband with the introduction of the Aero-SB Lite system. As the lightest, most compact SwiftBroadband solution on the market the Aero-SB Lite enables cost effective broadband suitable for the widest range of aircraft possible.**

**Full featured office-in-the-sky at low cost**

With the Aero-SB Lite you can take your office anywhere at speeds up to 332/432 kbps. As a light version of the Aero-SB+ SwiftBroadband solution, the Aero-SB Lite provides a complete solution for both voice and data, with a wide array of embedded features, including:

- SwiftBroadband channel for simultaneous data and voice
- Extremely compact and lightweight
- VoIP connectivity
- High speed Internet
- High quality, low cost voice
- Fax capable

- Built-in router for intelligent connectivity support and multiple user support
- Built-in Ethernet switch for supporting numerous wired laptops and/or EFBs
- Built-in wireless access point for supporting numerous wireless laptops and/or PDAs (this function can be disabled)
- Built-in PBX for supporting numerous handsets and in-plane calls
- ARINC 741/781 antenna compatibility
- ISDN connectivity
- Supports all current standards for secure voice and data transmission (FNBDT, STE, STU, HAIPE, etc.)



# AERO-SB LITE



## All in one package

The Aero-SB Lite system is a total cabin solution that exceeds the ongoing requirement to provide a true office-in-the-sky by harnessing the power of the internet, e-mail, VPN, fax and telephony in one compact and lightweight package with features including:

- Built-in PBX
- Built-in Router
- Built-in Ethernet switch
- Built-in WiFi access point

## Inmarsat aeronautical satellite communications services

Inmarsat is a global satellite communications system based on geostationary satellites orbiting along the Equator. Inmarsat provides fast and reliable contact through a worldwide network of Land and Ground Earth Stations, which can be reached from any destination except the extreme North and South Poles.

## SwiftBroadband

The Aero-SB Lite is a lightweight aeronautical broadband solution with wireless capabilities and speeds up to 432 kbps. Featuring cutting edge technologies such as SwiftBroadband Background Data and SwiftBroadband Low Cost Voice channel, the Aero-SB Lite allows users to access a shared data channel and a compressed high quality voice channel at the same time. Additionally, the Aero-SB Lite offers a streaming IP service for customers who require a fixed bandwidth of 32kbps, 64kbps, or 128kbps.

## Antenna Options

Previously, complete communications solutions have been limited to larger aircraft due to high initial investment, expensive usage and large, heavy antennas. These limitations are no longer an issue with the innovative Aero-SB Lite. The system can be installed with either an Intermediate Gain Antenna (IGA) or a High Gain Antenna (HGA) depending on application needs, or available space on aircraft, making broadband data and high quality voice available for the widest range of aircraft possible.

## Intermediate Gain Antenna (IGA)

To comply with installations on smaller aircraft, the Aero-SB Lite system can be used with an IGA antenna. This ensures a lightweight package with low profile/drag and small antenna footprint on the fuselage, typically less than one-third that of a high gain antenna, making it suitable for use on light aircrafts. The IGA installation provides full SwiftBroadband capabilities with data speeds up to 332 kbps. For more information on antenna options available, please contact your Thrane & Thrane sales representative.

## High Gain Antenna (HGA)

For users requiring the highest performance from their SwiftBroadband service, the Aero-SB Lite system can be installed with an HGA antenna. The HGA installation takes full advantage of the SwiftBroadband service by providing data rates up to 432 kbps.

## Upgrade from Aero-M and Aero-I

With built-in NRS capability, Aero-SB Lite is the perfect upgrade path for legacy Aero-M and Aero-I installations. When upgrading these systems to Aero-SB Lite, the TT-5006A antenna installation can be reused, making the upgrade simple and cost effective. For more information on how to get Aero-SB Lite onboard, please contact your Thrane & Thrane sales representative.

## Navigational Reference System (NRS)

The Aero-SB Lite system has self steering capabilities when used with an antenna that incorporates the NRS functions, such as the TT-5006A. For more information on this feature please contact your Thrane & Thrane sales representative.

## TT-5040A SwiftBroadband Unit (SBU)

- Features**
- IP packet or streaming SwiftBroadband data.
  - Ethernet connectivity
  - ISDN connectivity
  - Built-in router with six Ethernet interfaces
  - Built-in wireless access point
  - Low weight and power consumption
  - Compact 2 MCU size
  - No forced cooling required
  - Easy integration

### Characteristics

TT-5040A SBU	
Dimensions:	ARINC 404A 1/4 ATR short, 2 MCU.
(L x W x H):	12.62" x 7.62" x 2.25" (320,5 mm x 193,5 mm x 57,15 mm)
Mass:	6.0 lbs (2,7 kg)
Power:	28 V DC, 30 W typ. 106 W max.
Connectors:	Rear: ARINC 404A
Front:	RJ-45
Environmental:	Temperature: -25°C to +55°C
	Altitude: MSL to 55.000 ft
DO-160E string:	[A1F1]CAB[S2B2SM]ExxxxZ[AB]A[RB][ZC][RR]M[A3]33]XXAC

## TT-5016A High Power Amplifier, Low Noise Amplifier and Diplexer (HLD)

### Features

- Small size, low weight and low power Consumption
- Powered through SBU
  - no power wires to HLD required
- No forced cooling required

### Characteristics

TT-5016A HLD	
Dimensions:	8.98" x 7.87" x 1.97"
(L x W x H):	(228,0 mm x 200,0 mm x 50,0 mm)
Mass:	5.7 lbs (2,6 kg)
Environmental:	Temperature: -25 °C to +55 °C
Altitude:	MSL to 55.000 ft
DO-160E String:	DO-160E String: [(A2)(F2)X]BBB[SCL]E[(Y)(W)]XXFXZXXX[ZC][RR]M[A3]33]XXAC
Power:	Powered through SBU

## TT-5040A-001 Configuration Module (CM)

### Features

- Stores system configuration parameters
- Located at the rear of the SBU
- Contains the SIM card
- Configured through SBU web interface
- Contains phone book
- CM may be removed/ inserted for easy SBU exchange

### Characteristics

TT-5040A-001 CM	
Dimensions:	1.85" x 1.79" x 0.79"
(L x W x H):	(47,0 mm x 45,5 mm x 20,0 mm)
Mass:	0.15 lb (70 g)
Environmental:	Temperature: -25°C to +55°C
	Altitude: MSL to 55.000 ft
DO-160E String:	[(A1)(F1)X]CAB[SB2M]ExxxxZ[AB]A[RB][ZC][RR]M[A3]33]XXAC

## TT-5040A-004 Wireless Antenna

### Features

- Meet and exceed the requirements of IEEE 802.11a/b/g
- Multi-band antenna (802.11a/b/g)
- Low profile housing
- TNC Connector

### Characteristics

TT-5040A-004 Wireless Antenna	
Dimensions:	4.7 x 0.48 x 0.5"
(L x W x H):	(119,4 x 12,2 x 12,7 mm)
Mass:	1 ounce (28 g)
DO-160C String:	[A1X]CAB[RC/C1]XXXXXXZ[A(CF)]A[A(CF)]ZCTTXXXXAC

## TT-5624B Wireless IP Handset

### Features

- Handset with large color display
- Access to basic configuration and system status
- Noise cancellation
- Speaker for hands-free operation
- Headset jack

### Characteristics

TT-5624B Wireless IP Handset	
Dimensions:	6.10 x 2.17 x 1.04"
(L x W x H):	(152 x 55 x 26,5 mm)
Mass:	0.39 lbs (175 g)

## TT-5626A Wireless IP Cradle

### Features

- Charges wireless IP handset
- 28 VDC

### Characteristics

TT-5626A Wireless IP Cradle	
Dimensions:	6.97 x 2.73 x 2.13"
(L x W x H):	(177 x 69,3 x 54 mm)
Mass:	0.33 lbs (150 g)

## TT-5621B/TT-5622B Aux. Handset and Cradle

### Features

- Auxiliary handset and cradle
- 600W ETSI TBR 21 interface
- Adjustable ringer
- 10 memory locations (speed dial)
- Stand-alone use (i.e. no cradle)
- Available in black or white

### Characteristics

TT-5621B Handset	
Dimensions:	78.74 x 20.47 x 18.70"
(L x W x H):	(200 x 52 x 47,5 mm)
Mass:	0.49 lbs (220 g)

### TT-5622B Cradle

Dimensions:	63.19 x 24.02 x 7.36"
(L x W x H):	(160,5 x 61 x 28,4 mm)
Mass:	0.43 lbs (200 g)
DO-160D String:	[A1X]CAB[(SMB2)(SM)(UFF1)]XXXXXXAXXB[RRR]M[A2E3]XXA