

# SBS-1™

## Real-Time Virtual Radar

The **SBS-1™** is a portable low-cost Mode-S/ADS-B receiver that decodes transponder signals from aircraft. Designed for low cost training and the aviation enthusiast it enables real-time aircraft tracking on your PC. Using the powerful supplied **Basestation** software the **SBS-1™** displays ADS-B aircraft on a **VIRTUAL RADAR SCREEN** and identifies Mode S traffic with squawk and altitude.

Combining state-of-the art electronics and new technological advances has enabled Kinetic Avionic Products Limited to produce the revolutionary **SBS-1™**.

### Advanced Functionality

For the first time aircraft enthusiasts worldwide are able to directly monitor the skies in an unprecedented fashion. Additionally the **SBS-1™** provides small and medium sized airfields many of the safety and operational benefits previously only available to large international airports – at a fraction of current radar costs. Coupled with the K.A.P.L Lightweight Aviation SSR Transponder, the **SBS-1™** becomes an invaluable tool in flight training operations. Furthermore, it can also be used for ATC training.

### Hardware Interfaces

The receiver apparatus connects to your PC via USB 1.1 or 2.0. An external magnetic mount antenna and external low voltage power supply are provided. The **SBS-1™** is designed for portable use and can be powered directly from a suitable PC via the USB port without the requirement for an external power supply. Additional tuned antennas, mounts, extension cables and amplifiers are available. Compatible air-band radio receivers can be linked to the **SBS-1™** via RS232 for audio output through the PC, controlled by the Basestation software.

### Software Interfaces

The **SBS-1™** ships with the **SBS-1™ Basestation** application providing an on-screen virtual radar display. This powerful application provides functionality including identification of aircraft by callsign, altitude, speed and other parameters where such information is transmitted. **SBS-1™ Basestation** provides the ability to assign notes with history to each aircraft. The note files are stored in a standard XML format to facilitate easy information exchange with colleagues and friends. **SBS-1™ Basestation** can be customised by adding waypoint and outline information available from the Forums:

[www.kinetic-avionics.co.uk/forums](http://www.kinetic-avionics.co.uk/forums)

### MapMode-S

MapMode-S is a unique sharing network to which the **SBS-1™** can be connected in order to contribute data. The received data stream is then consolidated and distributed back to connected users as a broadband data stream. MapMode-S users are then able to view data from the whole community of connected users. MapMode-S is a separate subscription service.



To discover more:

[www.kinetic-avionics.co.uk](http://www.kinetic-avionics.co.uk)



# SBS-I™ Receive, process and display Mode-S/ADS-B Transmissions

## Main Features

- Track ADS-B aircraft and identify Mode-S traffic in Real-Time\*
- An invaluable tool for ATC training and aircraft enthusiasts
- Enhances operational efficiency at airfields
- Easy to install, portable and lightweight
- Connect to laptop/desktop PC via USB
- Powerful **SBS-I™** Basestation software included
- Package includes all necessary components to connect to your PC

\*The UK Civil Aviation Authority (CAA) has required IFR flights operating as General Air Traffic (GAT) within designated UK Mode S airspace (London TMA) to be Mode S equipped from 31 March 2005, with a 2-year transition period until 31 March 2007. Additionally, the CAA is about to begin a Regulatory Impact Assessment to mandate Mode S (Elementary) carriage outside of current designated Mode S airspace from 31 March 2008, with a proposed 2-year transition period to 31 March 2010.

## Application Areas

The **SBS-I™** is being used by a number of organisations including Eurocontrol, NATS, BAE Systems, Thales, Irish Air Corps and Rockwell Collins.

### Area of use

- Airfield Safety
- Flying Schools
- Environmental Support
- Enthusiasts
- Educational

### Example uses

- Circuit management
- ATZ management
- Cross-country navigation management
- Circuit evaluation
- Traffic pattern management
- Airspace infringement
- Out-of-hours movements
- Aircraft detection
- Aircraft monitoring
- Support of ATC education and training



## Technical Specifications

### Receiver Box

- Frequency 1090MHz
- Sensitivity -90dBm at rear connector (greater than 250 miles effective range achieved with supplied antenna).
- Antenna connector 50Ω (50 Ohm) BNC (Standard antenna included)

### General

- Interface USB 1.1 or 2.0
- Power Supply Requires 5V @ 350mA from external power adaptor (included) or stand alone power from USB port
- Status Indication Signal strength, USB detect and operational indicators

### Software

- System PC based architecture
- OS Microsoft Windows (USB support required)
- Requirements CD-ROM Drive • USB Port • Super VGA or higher resolution monitor • Internet connectivity to obtain firmware and software updates and to connect to the MapMode-S network

### Dimensions/Weight

- Receiver Box 150mm wide • 200mm deep • 50mm high
- Antenna 270mm high
- Weight 415g



E&OE. Specifications may change from time to time

**About Kinetic Avionic Products Limited** Kinetic Avionic Products Limited specialises in the design, development and deployment of innovative products for the avionics and aviation community. Umbrellaed as part of an ISO 9001-2000 company group with a global customer base, our engineers have designed, developed and deployed state of the art avionics within the UK and overseas territories.



**Kinetic House** : 44 Hatton Garden • London • EC1N 8ER T: +44 (0)20 7404 1941 F: +44 (0)20 7404 1916  
**Elstree Aerodrome** : Borehamwood • Hertfordshire • WD6 3AR T: +44 (0)20 8953 8855  
W: [www.kinetic-avionics.co.uk](http://www.kinetic-avionics.co.uk) • E: [info@kinetic-avionics.co.uk](mailto:info@kinetic-avionics.co.uk)  
Innovative products for the avionics community

