

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

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.



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

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