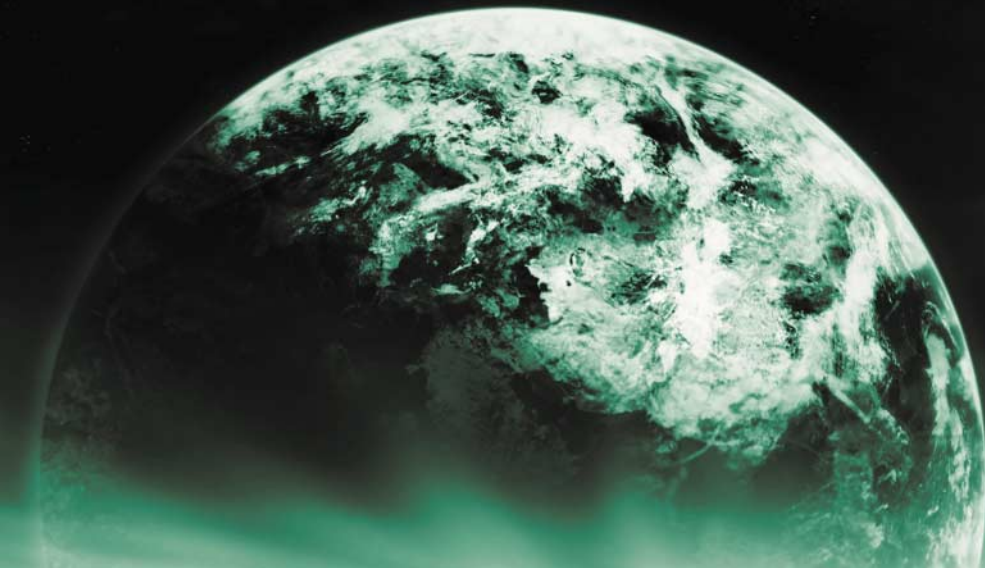# SABRE™ I

wideye™
liberating communications

Next-Generation Portable Broadband Communicator

bgan via inmarsat

The SABRE™ I is a sub-laptop sized fully self-contained satellite terminal certified to operate on the Inmarsat-4 BGAN network. It brings a high speed satellite link to your brief case, anywhere, anytime. It supports all your communication needs in areas beyond the reach of modern terrestrial coverage; it provides reliable Internet, voice, VoIP, FoIP, VPN, live media streaming and other communication services. With the SABRE™ I in your travel kit, you are always fully in touch. It is robust, easy to carry and easy to use.

Link setup is simple. Facilitated by its built-in compass, GPS receiver and LCD display, a user can quickly orientate the antenna and establish a communication link with the satellite.

FEATURES & BENEFITS

- Voice & data communications via satellite link
- Transmission rate of up to 384 kbps
- Support voice, broadband data, Internet, VoIP, FoIP and live media streaming
- Highly portable (weighs 1.2 kg / 2.65 lbs inclusive of battery & antenna)
- USB, Ethernet, Bluetooth and RJ11 interfaces
- Built in with a comprehensive menu-driven user interface, supporting operation without laptop
- Swiveled antenna mount facilitates rapid and easy pointing
- Wide range of optional accessories to meet your need
- Robust and reliable design

Broadband Satellite Connection

The SABRE™ I utilizes the Inmarsat-4 satellite to connect to the Broadband Global Area Network (BGAN) service, supporting voice and data communications via a satellite link.

Circuit Switched (CS) Service

The SABRE™ I is designed with Inmarsat low bit rate (4Kbps) AMBE+ speech codec, supporting voice call to/from PSTN/2G/2.5G/3G terrestrial network.

Packet Switched (PS) Service

In addition to circuit switching, the SABRE™ I satellite terminal also supports packet switching, allowing connection to/from the Internet/Intranet, GPRS PLMNs, UMTS PS PLMNs, and other BGAN users.

Support Wide Range of PS Services

The SABRE™ I has been designed to support a wide range of packet switched services such as IP telephony/facsmile, email and messaging, Internet access, video conferencing, multimedia streaming and other applications based on standard TCP/IP.

Built-in User Interface

Apart from the software-based Launch Pad, the SABRE™ I is built in with a comprehensive menu-driven user interface, allowing the user to establish a connection without the use of any computer. It consists of an LCD and navigation buttons.

Making Voice Calls

The SABRE™ I provides several options for making voice calls: (1) the user may connect a PSTN phone to the RJ11 port of the SABRE™ I and make a voice call, or (2) the user may make a voice call using the built-in user interface of SABRE™ I and communicate via the optional Bluetooth headset, or (3) the user may make a voice call using an optional Bluetooth handset with cordless telephone profile.

Internet Connection via PPP

The SABRE™ I also provides options for the user to connect to the Internet using PPP authentication: (1) via the USB port, (2) via the wireless Bluetooth interface, (3) via the Ethernet interface. At any time, the SABRE™ I allows up to two PPP sessions via any two of the three interfaces stated above.

Operating Mode of Ethernet Interface

The Ethernet interface of the SABRE™ I is capable of operating at 2 different modes, the PPP mode and IP mode. While PPP mode allows the user to connect to the Internet using PPP authentication, the IP mode enables the user to connect to the Internet using standard TCP/IP. It is also possible to establish another Internet connection via USB or Bluetooth interface using PPP authentication.

Support for IP Devices

If operating in IP mode, the SABRE™ I supports IP devices such as wired/wireless router, firewall or IP encryption box between the SABRE™ I and the host or local network.
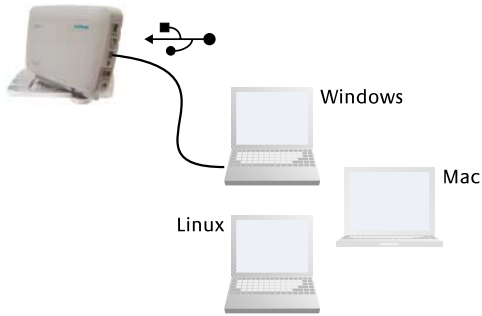
Highly Portable

Designed with high portability in mind, the SABRE™ I satellite terminal is enclosed in an A5-size (approximately 384 mm x 180 mm x 59 mm) casing that can be easily fit into your laptop bag.
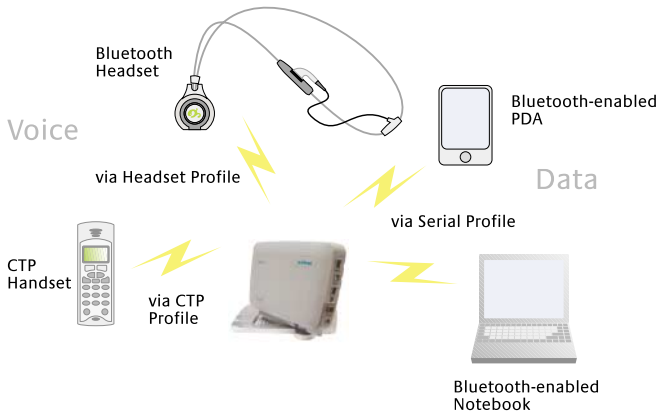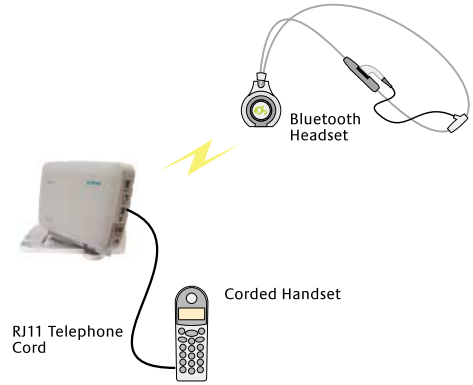
Rugged & Stylish Design

The SABRE™ I is enclosed in a stylish casing with swiveling hinge, allowing the user to easily position the built-in antenna towards the satellite. In addition, it also conforms to the IP44 standard; it will withstand the most challenging environment that a user may encounter.
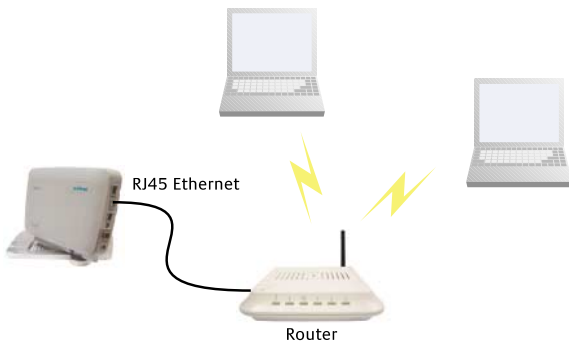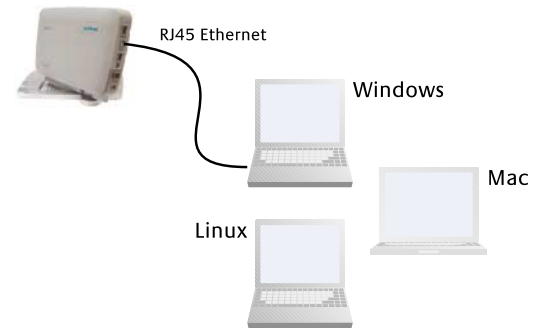
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applications

A user computer may be connected to the SABRE™ I via the USB interface. To connect to the Internet, the user shall establish dial-up connection with the username and password for authentication.

Windows

Mac

Linux

Bluetooth Headset

The user may make phone calls via a PSTN phone connected to the RJ11 interface of the SABRE™ I. Alternatively, the user may switch the call to the optional Bluetooth headset.
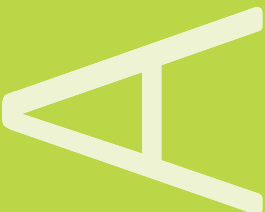
Corded Handset

RJ11 Telephone Cord

Bluetooth Headset

Voice

via Headset Profile

Bluetooth-enabled PDA

via Serial Profile

Data

CTP Handset

via CTP Profile

Bluetooth-enabled Notebook

The Bluetooth interface of SABRE™ I is capable of supporting data & voice connection. You may communicate via a Bluetooth headset or CTP handset for voice call and simultaneously establish Internet connection via Bluetooth interface.

RJ45 Ethernet

Windows

Mac

Linux

The user may establish an Internet connection via the Ethernet interface by establishing a PPP session, provided that the Ethernet interface is configured with PPP mode.

RJ45 Ethernet

In IP mode, the SABRE™ I can be connected to other IP device for various application. In this example, it shows that the SABRE™ I is connected to a wireless router for Internet sharing.

Router

S A B R E

specifications

RADIO

Frequency
Receive: 1525MHz - 1559MHz
Transmit: 1626.5MHz - 1660.5MHz

Channel Modulation
Receive: QPSK and 16QAM
Transmit: pi/4 QPSK

Antenna
Type: Built-in patch antenna
Gain: 8.5dBic

Maximum Bearer Data Rate
Receive: Up to 384 kbps
Transmit: Up to 240 kbps

GPS
Integrated GPS receiver and antenna

INTERFACES

Universal Serial Bus (USB)
Standard: USB Specification 1.1
Driver Support: Windows 2000, Windows XP, Mac OS 9.2,
                    Mac OS 10.1 & above, Redhat 6.0 & above
Connector: Type B USB connector
Cable Length: 5 m / 16.4 ft (maximum)

Phone
Standard: 600 Ohms CCITT Rec 473
Connector: RJ11

Ethernet / LAN
Standard: IEEE 802.3 10Base-T
Data Rate: 10Mbps
OS Support: Windows 2000, Windows XP, Mac OS 10.1
                    & above, Redhat 6.0 & above
Connector: RJ45
Cable Length: 100 m / 328 ft on CAT5 (maximum)

Bluetooth Access Point
Standard: Bluetooth Specification 1.1
Band: 2.4GHz ISM Band
Data Rate: 1Mbps
RF Range: 100 m / 328 ft (outdoor)
Supported Profile: Generic Access Profile
                    Service Discovery Application Profile
                    Serial Port Profile
                    Dial-Up Networking Profile
                    Headset Profile (Audio Gateway)
                    Cordless Telephony Profile (Gateway)

BATTERY

Type: Lithium ion
Transmit Time: 1 hour continuous transmission at data
                    rate <= 72Kbps (without recharging)
Receive Time: 3 hour continuous receive without
                    transmit requirement (without
                    recharging)
Standby Time: 36 hours typical
(minimum)

ELECTRICAL

DC Input: 10 ~ 15 V$_{DC}$ (using power adapter)
                    12 ~ 28 V$_{DC}$ (using car charger)

Power Consumption
Standby: 0.67 watts
Operating: 22 watts (without charging)
                    42 watts (with charging)

Power Adapter
Input: 100 ~ 240 V$_{AC}$, 47 ~ 63 Hz
Output: 15 V$_{DC}$

SUPPORTED TCP/IP APPLICATIONS

VPN Client: Based on PPTP, L2TP and IPSec
VoIP: H.323 and SIP
FoIP: T.37 and T.38
MPEG Streaming: H.263 and H.264
Email: POP3, SMTP and IMAP
Messaging: Yahoo! Messenger, MSN Messenger
Conferencing: Microsoft Netmeeting
Web Browsing: HTTP and HTTPS

PHYSICAL

Dimensions: 254 mm x 180 mm x 59 mm
                    10 in x 7.06 in x 2.32 in
Weight: 1.2 kg / 2.65 lbs

ENVIRONMENTAL

Operating Temperature (ambient)
Charging: 0°C to 40°C
                    32°F to 104°F
On Battery: 5°C to 40°C
                    41°F to 104°F

Storage Temperature (ambient)
Without Battery: -40°C to 80°C
                    -40°F to 176°F
With Battery: -20°C to 60°C
                    -4°F to 140°F

Humidity
Operating: 95% non-condensing at 40°C or 104°F
Storage: 5%RH to 95%RH