KLASTA

Bringing Reliablity to ISDN Satellite Networks

Introduction

KlasTA is the industry's leading ISDN Terminal Adaptor (TA) designed specifically for secure and reliable First-In Communications. Combined with Type-1 encryption devices, such as the KIV-7 and OMNIxi, KlasTA converts the encrypted serial link into a managed ISDN signal that can be sent over an INMARSAT M4 satellite phone. Additionally, KlasTA is the only TA with the ability to reliably provide higher bandwidths by combining multiple encrypted 64K channels using Klas' unique multiplexing protocol, called AERO. As mobility and reliability continue to play an increasing role in the First-In Communicator's mission, KlasTA presents the perfect union of form and functionality to suit their vital network requirements.

KLAS

KLASTA

Small and Light with Incredible Port Density

Since space and weight are as important as performance to the First-In Communicator, KlasTA combines all interface options into a compact and lightweight package. The original KlasTA, which has two 128K S/T ports and an RS-530 Serial interface, weighs less than a pound and fits in the palm of your hand! Even fully loaded with four S/T ports, two U-ports, an RS-530 interface and an RS-366 interface, KlasTA is a slim 6.7 x 4.9 x 1.1 inches. Perfect for integration into a customized fly-away case, KlasTA provides the physical efficiency needed for modular and deployable remote access solutions.

Designed for use in Secure Networks

Through its RS-530 serial port, KlasTA is completely interoperable with all Type-1 serial encryption devices. Klas has tested extensively with the KIV-7 and OMNIxi to understand the clocking and exact signaling requirements to initiate and maintain a solid Type-1 secure connection. KlasTA even has a unique splitter option that takes the 128K ISDN output from a STE, divides it into two 64K channels and then forwards each secure channel to an individual M4 terminal. With KlasTA, First-In Communicators can feel confident that their Type-1 encrypted communications work as reliably over satellite as they do in their home networks.

Multiplex up to Eight 64K Channels

KlasTA is the first TA that overcomes the high error rate found in ISDN satellite sessions that inevitably causes them to break down and fail. Historically, ISDN over satellite was confined to 64K, because even small errors would cause problems with multiplexing more than one 64K channel. Our custom protocol, called Klas AERO, continually monitors and manages each link looking for errors and inconsistencies. With KlasTA, up to eight channels can be combined for a remarkable 512K of bandwidth! If a channel is lost, KlasTA will detect the failure and automatically renegotiate the session without any additional commands or reconfiguration steps. KlasTA expands the number of options available by giving First-In Communicators the bandwidth and reliability necessary for modern applications.

Flexible and Easy-to-Learn Configuration

KlasTA continues Klas' tradition of customer-friendly configuration options designed for the non-technical user. Using the serial console port, users can connect their laptop to KlasTA and run a configuration wizard that will step through each of the options in terms that are clear and easy to understand. If using a terminal is a concern for security purposes, KlasTA also has a companion keypad containing all of the same parameters in a simple menu-based format. Once configured, all of the settings can be saved as a profile for future use in similar scenarios. Lastly, KlasTA comes with a special DTR hot-dial cable to initiate the satellite connection with the flick of a switch.

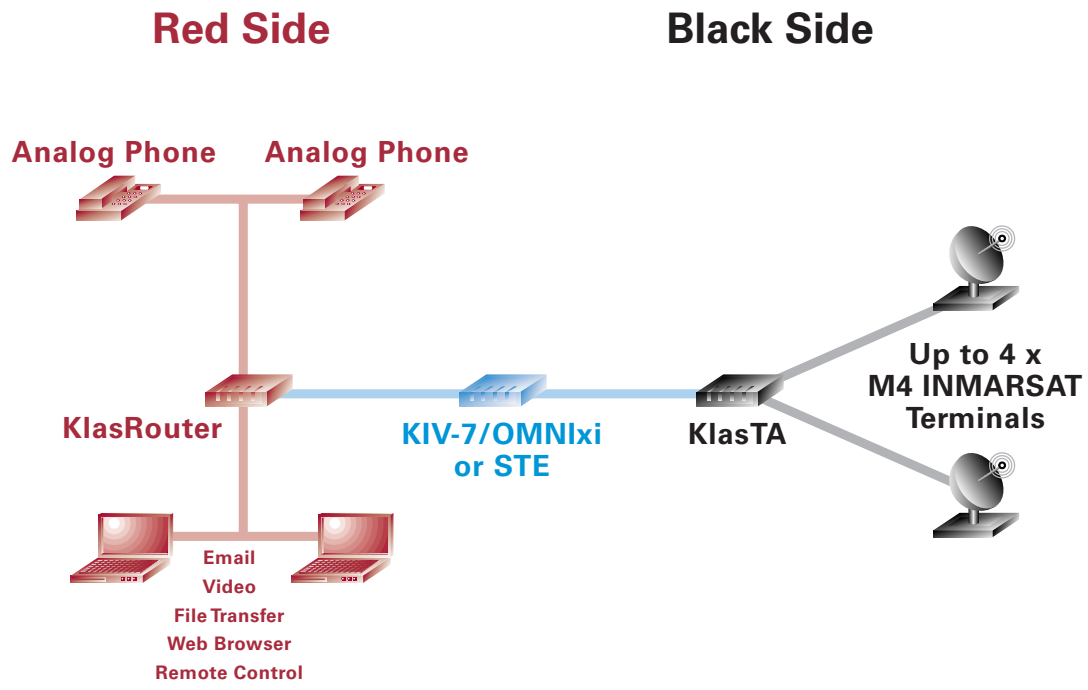
Interoperable with Existing ISDN Architecture

Although KlasTA is one of a kind over satellite links, it is also just as effective with existing terrestrial-based ISDN infrastructures. KlasTA can be configured for Bonding Mode 1 over land-line connections in order to communicate with an ADTRAN TA at speeds up to 384K. Using 64K Clear Channel, KlasTA is interoperable with any ISDN device, even over satellite. Also, KlasTA has two embedded ISDN U-Interfaces removing the need for external NT-1 devices. For ISDN VTC architectures, KlasTA supports the H.320 protocol as well as RS-366 dialing and dial-isolator functionality. First-In Communicators now have a single source in KlasTA for reliable, high-bandwidth communications whether at home or deployed abroad.

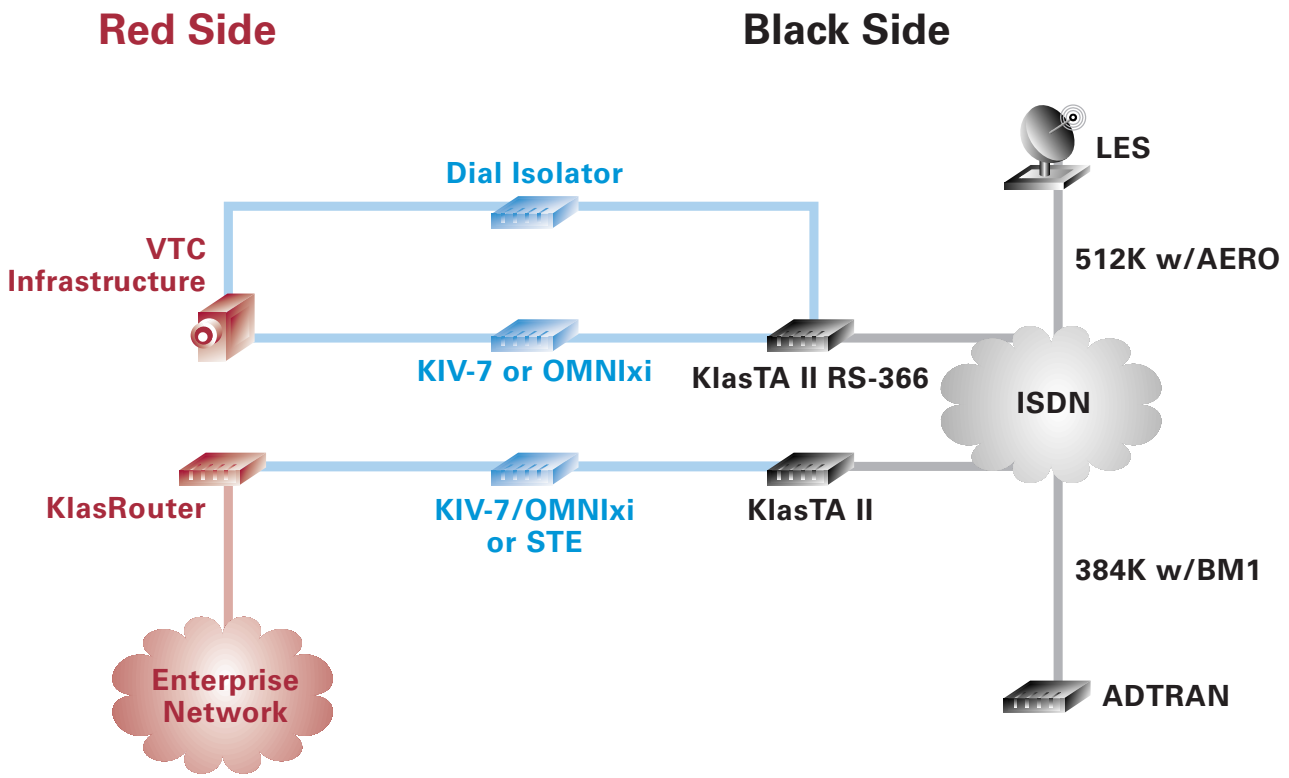
Comparison Chart	KlasTA	KlasTA AERO-256K	KlasTA II	KlasTA II RS-366
Size	6.7" x 4.9" x 1.1"	6.9" x 4.9" x 2.7"	8.6" x 4.9" x 1.1	8.6" x 4.9" x 1.85"
Weight	.9 lbs	1.5 lbs	1.1 lbs	1.5 lbs
H.320 Capable	Yes	Yes	Yes	Yes
DTR Dialing	Yes	Yes	Yes	Yes
KlasSplitter Option	Yes	Yes	No	No
Serial RS-530 Port	Yes	Yes	Yes	Yes
KeyPad Configurable	Yes	Yes	Yes	Yes
S/T Interfaces	2	4	4	4
Max BM 1 Speed	128K	128K	384K	384K
Klas AERO Protocol	Yes	Yes	Yes	Yes
Max Klas AERO Speed	256K	256K	512K	512K
RS-366 Dialing	No	No	No	Yes
U Interfaces	0	0	2	2

Schematic

Mobile Network



Home Network



Technical Specifications

All KlasTAs

Encryption Devices
- KIV-7
- OMNIxi
- STE

B Channel Protocols
- AERO
- Clear Channel 64K
- Bonding Mode 1
- Bonding Mode 2

D Channel Protocols
- EuroISDN
- National ISDN 1/2
- AT&T 5ESS

Configuration
- RS-232 DB-9 Console Port
- Configuration Application for Windows 2000/XP
- Configuration KeyPad (sold separately)

M4 Terminals Supported
- All Single Channel (64K) units
- All Dual Channel (128K) units
- All Land, Maritime and Aeronautical Terminals

Cables Available
- ISDN Cables with RJ-45 Connectors
- RS-232 Console Cable with DB-9 Connectors
- KIV-7 Black RS-530 Cable
- KIV-7 Red RS-232 Cable
- KIV-7 Red RS-530 Cable
- RS-530 Cable
- X.21 Cable
- RS-449 Cable
- RS-366 Cable
- OMNIxi Red RS-530 Cable
- OMNIxi Black RS-530 Cable
- KlasTA II RS-366 Cable

Contact

Klas Telecom, Inc.
1101 30th Street NW
Suite 320
Washington, DC 20007

USA
Toll Free Phone: 1-866-263-5467
Toll Free Fax: 1-866-532-3091

KlasTA

Interfaces
- 2 x RJ-45 S/T BRI ports
- 1 x RJ-45 Splitter port
- 1 x RS-530 DB-25 Synchronous Serial Port

Physical
- Size: 6.7" x 4.9" x 1.1"
- Weight: 0.9 lbs

Power
- Universal External 110-240V Power Supply
- 5V DC, 800 mA

Satellite Bandwidths
- 256K with AERO
- 64K Clear Channel
- 128K with Bonding Mode 2

Terrestrial Bandwidths
- 256K with AERO
- 128K with Bonding Mode 1
- 64K Clear Channel

KlasTA AERO256K

Interfaces
- 4 x RJ-45 S/T BRI ports
- 2 x RJ-45 Splitter port
- 1 x RS-530 DB-25 Synchronous Serial Port

Physical
- Size: 6.9" x 4.9" x 2.7"
- Weight: 1.5 lbs

Power
- Universal External 110-240V Power Supply
- 5V DC, 800 mA

Satellite Bandwidths
- 256K with AERO
- 64K Clear Channel
- 128K with Bonding Mode 2

Terrestrial Bandwidths
- 256K with AERO
- 128K with Bonding Mode 1
- 64K Clear Channel

KlasTA II

Interfaces
- 4 x RJ-45 S/T BRI Ports
- 2 x RJ-45 U BRI Ports
- 1 x RS-530 DB-25 Synchronous Serial Port

Physical
- Size: 8.6" x 4.9" x 1.85"
- Weight: 1.5 lbs

Power
- Universal External 110-240V Power Supply
- 5 - 12V DC, 1A

Satellite Bandwidths
- 512K with AERO
- 64K Clear Channel
- 128K with Bonding Mode 2

Terrestrial Bandwidths
- 512K with AERO
- 384K with Bonding Mode 1
- 64K Clear Channel

KlasTA II RS-366

Interfaces
- 4 x RJ-45 S/T BRI Ports
- 2 x RJ-45 U BRI Ports
- 1 x RS-530 DB-25 Synchronous Serial Port
- 1 x RS-366 DB-25 Dial Port

Physical
- Size: 8.6" x 4.9" x 1.85"
- Weight: 1.5 lbs

Power
- Universal External 110-240V Power Supply
- 5 - 12V DC, 1A

Satellite Bandwidths
- 512K with AERO
- 64K Clear Channel

Terrestrial Bandwidths
- 512K with AERO
- 384K with Bonding Mode 1
- 64K Clear Channel