GBS SATCOM Solutions

GBS Secure Media Router

Key Features

HW Performance:

- Ability to Handle Full Transponder Stream Via Low Power IBM 405 Processor
- Hardware Decryption Support for 128 bit AES Up To 40 Mbps
- Hardware PID Filtering Support

I/O:

- Digital I/O - Ethernet 10/100 (Black)
- RF Input - 950 MHz - 2150 MHz
- RS-232 Serial Interface (Maintenance Port)
- Smart Card Slot (Irdeto Access Smart Card)
- 802.11x Interface Option Available

Data Handling:

- Demo Unit—DVB-S > Production Goal DVB-S2
- Protocol Translation—UDP to TCP
- Multicast IP Packet Forwarding

Supports:

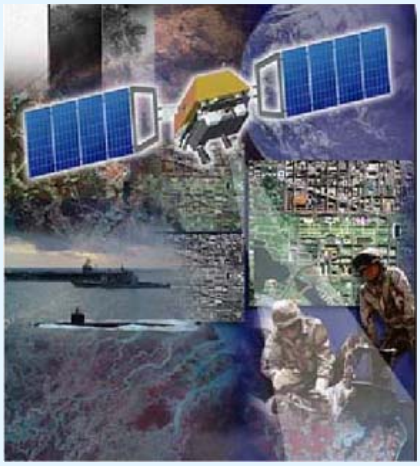
- Legacy GBS video and Data streaming support
- High Speed IP decryption—decrypt and route a full transponder of scrambled IP services
- Integrated Irdeto Access Cyphercast Content Security Encryption System
- HAIPE Embedment

OS:

- OS - Linux v2.4 Kernel

Usage:

- Usage/Interface model similar to Existing GBS IRD Equipment

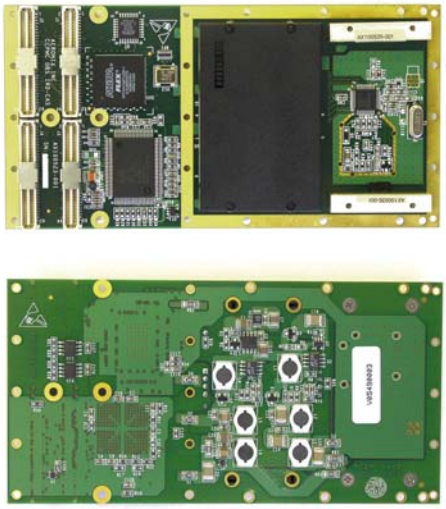


Aeronix has developed a Global Broadcast Service (GBS) satellite receiver which receives conditional access transmissions from source locations in US. The product receives, descrambles, and provides the data as IP.

GBS IP Receiver

The Irdeto Conditional Access (CA) descrambler runs on the device, supporting stream definitions entitled on the Smartcard. The MPEG data stream is then converted into IP packets which are exported onto a network to authorized clients.

Ground-based (vehicle) operation is currently supported. Miniaturization to a half-size man-portable version is viable using a PCMCIA Type III form factor already developed and demonstrated as a prototype.



GBS Circuit Card
Showing
Optional Processor,
GBS Processor,
Smartcard,
GBS RF,
and 802.11 Interface

GBS Background

The GBS system is a space to ground, high data rate communications link. It provides a worldwide high data rate broadcast capability that "pushes" a high volume of information to widely dispersed, low cost receive terminals.

GBS provides efficient high data rate connectivity to many distributed information sinks and who receive the broadcast directly on small, inexpensive user terminals. Examples of data to be distributed include digitized imagery, logistics data, weather data, maps, operational orders (e.g., Air Tasking Order), and video.

GBS is an extension of the Defense Information Systems Network (DISN) and a part of the overall DoD MILSATCOM Architecture. As such, it employs an open architecture which can accept a variety of input formats. It exploits commercial off-the-shelf (COTS) technology. It interfaces with, and augments other major DoD information systems, such as the Global Command and Control System (GCCS), as well as other theater information management systems.

GBS Unit Specifications	
Classification	Unclassified
Cryptography	Conditional access algorithms (AES, Blowfish, DES)
Data Channels/Rate	1-2 video channels at 3-5 Mbps
OS	Linux 2.4 Kernel
Size	1.5” x 7” x 10”, Less than 5lb
Low Power	Less than 5 Watts

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