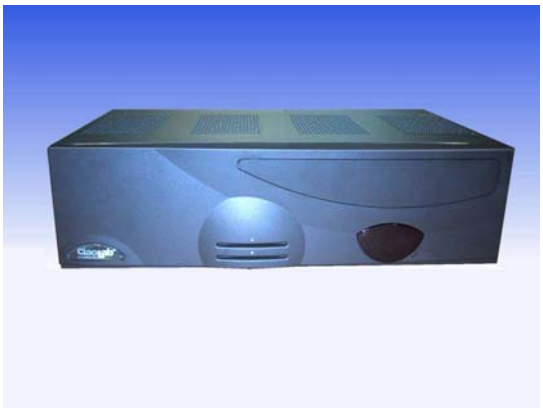
STB-X

DVB-S Platform for Multimedia Services

Dual receiver Set Top Box Client system with TV-oriented interactive applications and IP data routing.

THE PRODUCT

STB-X is a *Ciaolab Technologies* advanced DVB-S Platform for multimedia service provision.
It exploits the dual receiver FE capability to accomplish TV-oriented interactive applications and IP data routing at the same time.
Main components of STB-X are two processor devices.
The first (PR1) decodes the transport stream and provides standard definition MPEG video decode.
The second (PR2) provides interactive applications and high speed on-screen graphics.
Powerful graphics effects, contemporary access up to 3 MPEG TS (watch and record) and adoption of system on a chip solution are the main attractive characteristics of the STB-X.
Its modular approach for both HW and SW with the capability to be customer upgradable in field, make the STBX uptodate toward the today emerging standards and those appearing in the future.
STB-X box will provide end user with access to broadcasting services today offered by DTV providers and satellite network management.
This means that STB-X will be a powerful platform to deliver both TCP/IP based applications (FTP, Web TV, Web browsing, audio and video streaming etc..) and DTV contents.
STB-X mainly offers a powerful enhancement with respect to the performances today offered by DTV decoder and LAN router.



THE APPLICATIONS

Dual receiver Set Top Box Client system with TV-oriented interactive applications and IP data routing.

Advanced DVB-S Platform for multimedia service provision.

IP packets on Transport Stream Payload

Powerfull Platform to deliver both TCP/IP based application and DTV content.

Openness to DVB Return Channel (RCS)

Multiple modular WAN & LAN options

Dual environment RTOS/Linux 2.4

Windows® CE on demand

CiaoLab

System Configuration

To guarantee scalability, evolution and modularity, STBX is based on a concept of :

- Mother board- "Basic Self Standing functional Block" - and
- HW "Plugs" for optional functionality

Basic Self Standing Platform

- PR1 & PR2 CPU running @ 166/200 MHz
- S/PDIF output with coaxial interface
- V90 hardware modem
- Audio and Video interfaces (SCART)
- 16/32 Mbytes asynchronous flash
- 32/64 Mbytes DDR SDRAM,
- ATAPI/EIDE hard disk drive (HDD)

Optional plugs – Customer Installable

- **Up to two DVB FE,** each one integrates:
  - Tuner + QPSK demodulation chip (NIM) with the attached female RF IEC 169-24 antenna connector.
  - Receiving frequency: 950 MHz to 2150 MHz
  - Input signal level: -25 dBm to -65 dBm nominal
  - RF input impedance: 75.
  - LNBP20 chips associated with the demodulation chip
  - Symbol Rates: 1.5 -45 Msps-variable
  - Viterbi Inner Code: K=7, R=1/2, 2/3, 3/4,5/6, 7/8
  - Reed-Solomon Outer Code: (204, 188), T=8
  - DiSEqC: 1.0, 1.1, 1.2 supported
- **ADSL PCI PLUG " ST UNICORN"**
  - Low cost, PCI based, Full Rate Controllerless ADSL modem
  - up to 8 Mbits ATM Stack on CPU
- "**MULTIMEDIA" COPROCESSOR**

To improve the execution of multimedia codec algorithms in order to achieve a full rendering functionality of: MPEG4 Enc/Dec, H263 (CIF 25f/s enc/dec),

- **LAN SWITCH**

LAN switch module among 3 +1 ETH 10/100 and 1 HomePlug POWERLINE 14 Mb/sec

Optional plugs – Manufacturing Options

- **Common Interface (CI)**
  It supports 1 plug-in Conditional Access Module (CAM) compliant with standard EN 50221 or alternatively a PCMCIA 802.11b Wireless LAN.
- **20/40/80 GB Hard Disk Drive.**
  To support:
  - Watch and record functionality
  - Time shift
  - Linux file system
  - Visible through NFS

Available Interfaces:

Front panel:

- 2 (ISO 7816-1,2,3 standard) smartcard connector
- 1 series A USB connector (USB host) provided to allow connection of USB device peripherals (host mode)
- IR receiver

Rear panel:

- 2 audio outputs (RCA type connectors)
- 1 coaxial S/PDIF connector,
- 1 SCART connector
- RJ11 type modem connector,
- 1 USB series B connector
- 1 serial data RS232 connector
- ETH 10/100(RJ45)
- Power On Button
- Optional interface attached to optional plus: (FE antennas, PCMCIA/CAM, ADSL, Additional ETHs, Powerline ...)

Body text (Arial 10 pt)

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