

IPTV TRAINER KIT

ED-IPSTB

- Best solution for IPTV platform and IPTV Digital Broadcasting System in applications and experiments
- High-performance Microprocessor SIGMA EM8622 for powerful multimedia functions
- IPTV Set-top Box, Media Player, Digital Multimedia Processing
- Various types of media codec such as MPEG-4.10(H.264), WMV9, MP3, MPEG-2 and JPEG
- DEMUX API provided to help develop SD/HD class digital broadcasting service



> EXPERIMENTS

- **Development Environment**
 - » Configuration and connection of the target board and host PC
 - » Installation of development tool onto host PC and environment setup
 - » Setup of Minicom environment and NFS system
- **Kernel / Bootloader**
 - » Bootloader image fusing onto the target board
 - » Kernel config setup and Kernel compiling
- **File System**
 - » Kernel environment setup and compiling for the file system
 - » Creation of file system images
 - » Configuration of the file system environment for IPSTB
- **IPTV Server**
 - » Installation of Multicast server onto LINUX
 - » Installation of Web server onto LINUX for VOD and EPG
 - » Installation of Time server for synchronizing the service time
- **IPTV Application Programs**
 - » Design of XML and class for data communications
 - » IPTV application programs and GUI design
 - » Compiling and execution of IPTV application programs
 - » Creation of Main Menu
 - » Creation of Multicast Service
 - » Creation of VOD Service
 - » Creation of EPG Popup
 - » Creation of Media Players
- **LINUX Device Driver**
 - » Working environment for LINUX device driver
 - » Creation of device module program
 - » Creation of remote controller and application programs
 - » Creation of front panel driver
 - » Creation of network driver

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> SPECIFICATIONS

Hardware

- CPU
 - » SIGMA Vantage 8623L(200MHz)
- Memory
 - » FLASH : 32Mbyte(8bits Access)
 - » SDRAM : 128Mbyte(32bits Access)
- Display
 - » TFT LCD : 6.4", 16bits Color, 640 x 480
- Interface
 - » Ethernet : 10/100 Base T Ethernet(RJ45)
 - » UART : RS-232 serial port
 - » USB : USB2.0 high speed
- » IDE : IDE Connector(40-pin header)
- » LED : Status LED
- Audio/Video Interface
 - » AUDIO I/O : Stereo analog audio
Optical and coaxial SPDIF digital audio
 - » VIDEO I/O : NTSC/PAL Composite
YPbPr component video
HDMI v1.1 with audio
- Expansion
 - » VFDIR : Front panel button
 - » Receiver : Remote control receiver

Software

- Operating System
 - » Development kit : Armutils 2.5.102
MRUA Sigma Tool Kit
 - » OS : uClinux-2.4.22
 - » File System
 - › Romfs : Image Source
- Application
 - » IPTV APP
- » MRUA APP
- » Driver APP
- Driver
 - » Video/audio decoding driver
 - » Display driver
 - » Graphic driver
 - » Transport/Demux driver
 - » USB driver

GENERAL CHARACTERISTICS

- Input Voltage : 12V 3.5A DC
- Dimension : 490(W) x 160(H) x 320(D)mm

ACCESSORIES

- Remote Controller : 1ea
- Cables (Power, Serial, Cross Ethernet) : 1set
- User Manual : 1ea
- CD (Program Source, Circuit Diagram) : 1ea

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SOFTWARE

• Main Menu

Supports Multicast, VOD, Media Player, Setup functions in this Menu.



• Multi Cast Service

Channel List, Category Button, Current Time and Tuned Channel's EPG information



• VOD Service

Shows the list of VOD contents and makes the output of VOD contents's EPG information



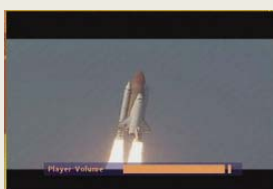
• Media Player Service

Replays the video file, audio file and picture file which was saved to ED-IPSTB hard disk



• Contents Replay

Replays the contents in Multicast, VOD and Media Player



• EPG(Electronic Program Guide)

Detailed information on the Multi Cast and VOD(Televising Time, Duration of Program, Director, Main Actors and Actress, and Scenarios)

