

DiscusTM MultiMedia Gate

HY-STB Show True Broadband



Pirelli has converged IPTV and digital terrestrial television into ONE powerful multimedia platform.

- **IP Television**
- **External Hard Drive for Personal Video Recording**
- **iDTT - MHP**
- **High Definition TV**
- **H.264**
- **CA/DRM**

The converged platform makes possible the transmission of interactive and bandwidth-intensive video services over the last mile while next-edge broadcasting technology, interactive-Digital Terrestrial Television, delivers additional digital-quality channels and new services. Today, Pirelli has merged these two powerful network solutions into one multimedia platform.

HY-STB can be connected to a USB 2.0 external hard drive. It's middleware enables assorted trick play, local video recording, recorded-services playback, and pause Live TV as well as time-shift recording. An integrated set-top box with advanced-chip technology designed to receive and decode streaming media from various sources, HY-STB will help you provide innovative services and combat competition. HY-STB is an extremely versatile platform.

With a dedicated, high-power media processor, HY-STB is capable of decoding all new encoding standards including standard definition and high definition H.264, and legacy coding standards such as MPEG-1 and MPEG-2. We know how important content protection is to you and your customers, so we have made it one of our top priorities. With multiple Digital Right Management (DRM) and Conditional Access (CA), your content is always protected.

HY-STB can be equipped with an external USB hard drive for media content storage and is compatible with selected USB digital cameras, making it the ultimate home entertainment platform. What's more, you can add video streams and up-sell services through a rich set of plug-in devices based on Pirelli's Wi-Fi and HomePlug technology.

Features subject to change - not contractually valid unless specifically authorized by Pirelli

© 2006 Pirelli Broadband Solutions S.p.A.
All rights reserved - Printed in Italy

PIRELLI
BROADBAND
SOLUTIONS

Discus™

MultiMediaGate

HY-STB Show True Broadband

- IP Television
- External Hard Drive for Personal Video Recording
- iDTT – MHP
- High Definition TV
- H.264
- CA/DRM

TECHNICAL SPECIFICATIONS

System

Operating system: Linux 2.4.x (Windows CE.net option)

System On Chip: Main 300MHz CPU is a MIPS "4KeC" 32-bit processor and Dedicated audio/video HW accelerators are embedded in the SoC

Memory: 128/192/256MB system DDR2 RAM + 32/64MB video DDR2 RAM, 4/32/64MB flash (flash less network boot version available)

Network Interfaces and control

1x RJ45, Ethernet 10/100 BaseT, auto sensing, full duplex

1 x RJ11 V.90 module (DVB-T module option)

2x USB2.0 type A master interface

I/R remote control with 4-color keys and VCR like functions

Options

I/R keyboard with integrated track ball or pointing dish

USB hard drive

Wi-Fi 802.11g dongle

Optional H. 263 Videoconference

Optional DVB-T module

Video Out

2x SCART connector (RGB, CVBS, Analog L/R bypass) [PAL/SECAM/NTSC]

1x S-video mini-DIN connector

1x HDMI type A (interface for HDTV 1080i, 720p, 480p, 576p)

1x RCA CVBS analog composite

Audio Out

1x S/PDIF (S/P DIF IEC958 Type II) digital sound coax RCA connector

1x S/PDIF (Sony/Philips Digital Interface) digital sound optical connector

2x Stereo output on RCA connectors

Audio/Video Codec	MPEG1 (ISO/IEC 11172-1 ISO/IEC 11172-2) Synch/multiplexing CBR, VBR support.
	MPEG2 (ISO/IEC 13818-3) PS, SPTS
	MPEG2 MP@ML (SD at 25fps 40Mbps)
	H.264 BP@L3 (SD at 25fps 40Mbps)
	H.264 MP@L4.1 (HD 1080i30,720p60)
	MPEG2 MP@HL (HD 1080i30,720p60)
Videoconferencing Video Telephony Option	MPEG4 ASP@L5 (HD 720p)
	WM9/VC1 MP@HL (HD 1080P30, 720P60)
	VC1 AP@L5 (HD 1080P30, 720P60)
	Audio decoder MPEG1 Layer 2 (models 32, 44, 48 Khz, mono and stereo)
	Audio decoder MPEG1 Layer 3, all models, including low-bandwidth profiles (from 8 kbps to 448 kbps; 16, 22.05, 24, 32, 44.1, 48 kHz)
	Audio decoder Dolby Digital 2.0 and AC3 5.1 (Framed within S/P DIF output) and downmixing to stereo.
Videoconferencing Video Telephony Option	Audio decoder MPEG-2 AAC-LC, MPEG-4 AAC-SBR stereo (sample rates of 32 kHz, 44.1 kHz, 48 kHz)
	Thru external USB camera
	Optional H.323 V2 stack (complete suite support with terminal identification, gatekeeper, gateway, MCU).
	Optional SIP stack support
	G.711, G.723, G.729 (G.7xx), AMR codec (videoconferencing upon request)
Videoconferencing Video Telephony Option	Opera 8.5
	HTML 4.01 / ECMA Javascript 1.5
	Cookies support / Electronic certificates
	Mime type support
	HTTPS support (SSL3, SSL2 128 bits)
	DOM level 2 / CSS level 2
Videoconferencing Video Telephony Option	Macromedia Flash 7.0 plug in
	PDF reader plug in (upon request)
Video Streaming Player	Trick play and RTSP support
	Open Video Client OMC/OMP Alcatel OVS
	Microsoft MSTV IPTV 1.1
	TandbergTV, Optibase multicast support
	Bitband, Kasenna n-Cube (upon request)
	HTTP streaming
Video Streaming Player	TCP/UDP support
	RTP/ RTCP support
	Unicast and multicast support
	IGMP V3 support
Authentication and Content protection	Dual Smartcard reader ISO7816 compatible
	Conditional access Support through smartcard and/or server oriented certifications
	NDS Synamedia certified
	Nagra (Nagravision CAK) and Irdeto Access (Softcell) (upon request)
	Macrovision® ACP (analog copy protection scheme)
	DRM (Digital Rights Management)
Interactive Digital Terrestrial TV Option	1x IEC-169-2F antenna Jack input for DVB-T tuner and digital demodulator
	Digital tuner bandwidth: VHF I,II,III and UHF 7/8Mhz channels
	Frequency range: 49-861MHz (channel center)
	MHP 1.0.3 with interactive broadcasting profiles

Hard Drive

Thru USB 2.0 External Hard drive

Management and Network configuration

DSL Forum TR-069

DHCP client

Static IP

PPPoE client

SOAP

Remote SW upgrade possible through the IP network

Applications

Time Shift TV

Pause TV

Local/Network PCR

TV Channel zapper application

VOD client

Live TV/Interactive TV with EPG

Web browser and T-mail

Video messaging / Chat

Digital radio

Physical Specs

Dimensions: 300mm X 200mm X 60mm (WxDxH)

Unit Weight: 2.5 Kg (with HD)

Power Adapter: 220Vac/50Hz, 12 Vdc, 25 W (typ)

Environmental conditions

+5 to +40°C (5% - 85% Humidity)

Indoor, temperature-controlled locations according to ETSI EN300 019-2-3 V2.1.2

CE Marking

European Community Directive for Low Voltage Electrical Equipment (73/23/EEC)

European Community Directive for Electromagnetic Compatibility EMC (89/336/EEC and 93/68/EEC)

European Community Directive on radio equipment and telecommunications terminal equipment (99/05/EEC) Audio, video and similar electronic apparatus

Safety requirements (EN 60065)