

# Discus™ MultiMedia Gate

## HY100 STB Show True Broadband



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

Pirelli HY100 STB is an integrated **high definition** set top box with advanced chip technology designed to receive and decode various streaming media formats. HY100 STB will help you provide innovative services thanks to its versatile System on a Chip architecture. The converged platform makes possible the transmission of interactive Digital Terrestrial Television and bandwidth-intensive video services over the last mile.

HY100 STB can be connected to a USB 2.0 external hard drive. Its 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, HY100 STB will help you provide innovative services and combat competition.

With a dedicated, high-power media processor, HY100 is capable of decoding all **new video formats**, standard and high definition H.264, legacy coding such as MPEG-1 and MPEG-2.

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

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.

HY100 STB supports 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 Power Line Adapters technology, supporting bandwidth intensive Applications, such as IPTV distribution and high-speed data traffic. Based on Pirelli's expertise in CPE remote management, the HY100 offers an advanced Assurance and Performance Monitoring data model, which allows Operators to remotely troubleshoot Quality of Service issues via TR-069 compliant Management Systems such as the Pirelli Management Platform (PMP).

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### MAIN FEATURES

- 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 , 4/32/64MB flash

##### Network Interfaces and control

1x RJ45, Ethernet 10/100 BaseT, auto sensing, full duplex  
 1x RJ11 V.90 module E(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  
 Optional H.263 Videoconference  
 Optional DVB- T module  
 Wi-Fi 802.11 g external adapter

##### Video Out

2x SCART connectors (RGB, CVBS, Analog L/R bypass) [PAL/SECAM/NTSC]  
 1x HDMI / HDCP 1.1 type A (interface for HDTV 1 080i, 720p, 480p, 576p)  
 1x S-video mini-DIN connector  
 1x RCA CVBS analog composite

##### Audio Out

1x S/PDIF (Sony/Philips Digital Interface) digital sound optical connector  
 2x Stereo output on RCA connectors

<b>Audio/Video Codec</b>	MPEG1 (ISO/IEC 11172-1 ISO/IEC 11172-2) Synch/multiplexing CBR, VBR support.
	MPEG2 (ISO/IEC 13818-3) PS, SPTS
	MPEG2 <a href="#">MP@ML</a> (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)
	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)
<b>Videoconferencing Video Telephony Option</b>	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
	Audio decoder MPEG-2 AAC-LC, MPEG-4 AAC-SBR stereo (sample rates of 32 kHz, 44.1 kHz, 48 kHz)
<b>IPTV and Web browsing</b>	Through external USB camera
	Optional H.323 V2 stack
	SIP stack support
	H.263 / G.7xx audio video codecs (upon request)
	Opera 8.5
<b>Video Streaming Player</b>	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
	Macromedia Flash 7.0 plug in
	Trick play and RTSP support
	Open Video Client OMC/OMP Alcatel OVS
	Microsoft MSTV IPTVe 1.1 / 1.2
	TandbergTV, Optibase, Harmonic multicast support
<b>Authentication and Content protection</b>	Bitband, Kasenna n-Cube (upon request)
	HTTP streaming
	TCP/UDP support
	RTP/ RTCP support
	Unicast and multicast support
<b>Interactive Digital Terrestrial TV (option)</b>	IGMP V3 support
	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)
	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: 49-861 MHz (channel center)
	MHP 1.0.3 with interactive broadcasting profiles

##### Hard Drive

Through 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  
 Power: 220Vac, 50Hz, 12 Vdc, 50W (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 telecommunication terminal equipment (99/05/EEC) Audio, video and similar electronic apparatus  
 Safety requirements (EN 60065 / EN 60950)