

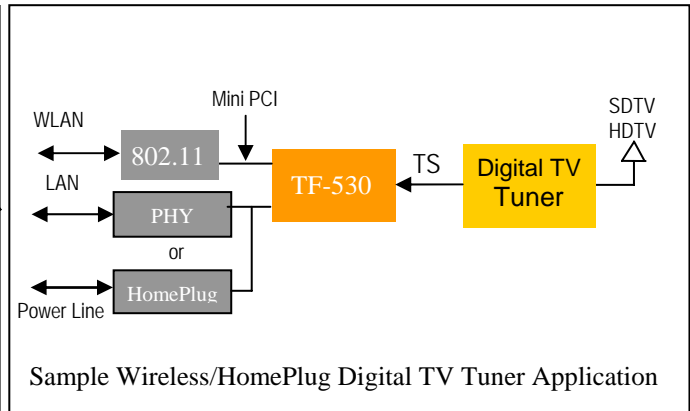
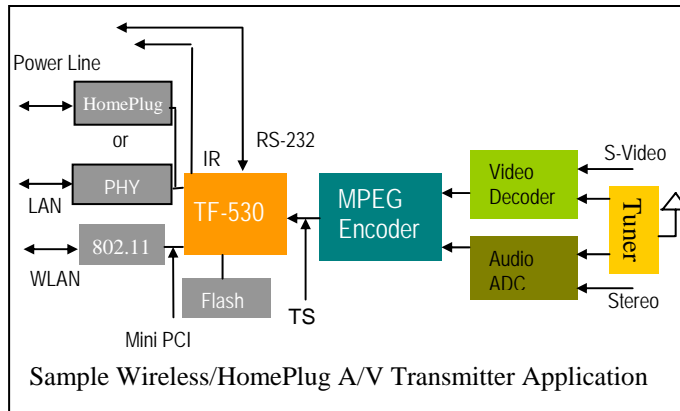
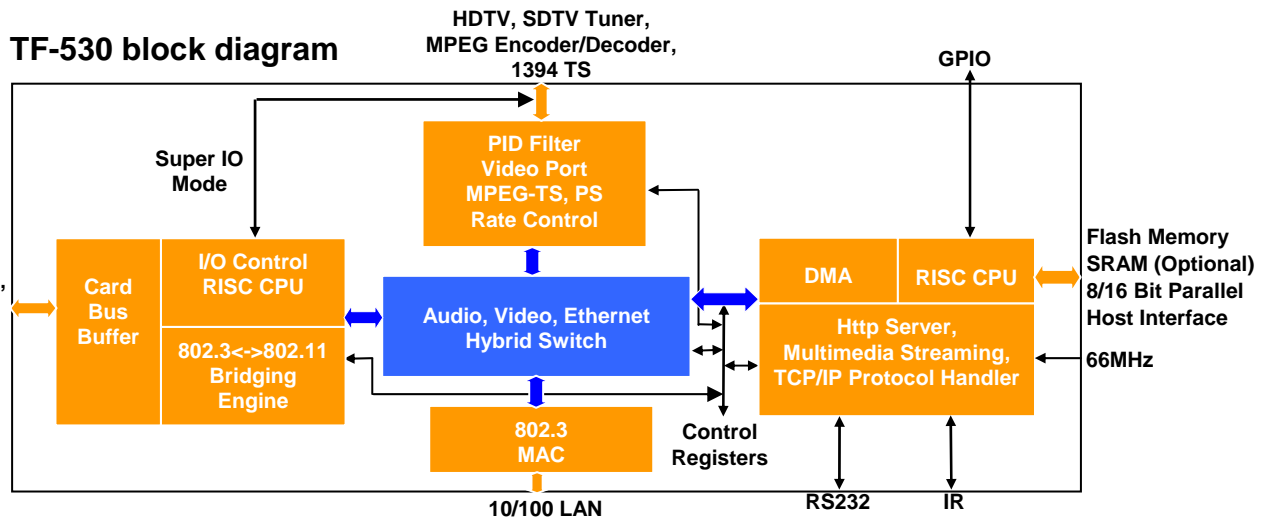
TF-530 Digital TV Streaming Controller



Taifatech's TF-530 Digital TV Streaming Controller provides a very cost effective, high performance SoC solution for consumer electronics, set top box and network video camera manufacturers that need to stream digital TV broadcasts or multimedia contents using Transport Stream via the LAN or WLAN. To meet the bandwidth of 802.11a/b/g technology, TF-530 has embedded PID filtering function which can filter multiple digital programs in Digital Video Broadcasts and deliver the selected program to your wireless local area network. The controller has a built-in 10/100 Ethernet MAC, Card Bus interface, streaming video host interface, WLAN to LAN Bridging Engine and is bundled with TCP/IP Protocol, real time streaming, and Web Server software. The Card Bus interface supports Card Bus, PCMCIA or Mini-PCI mode which allows the use of different WiFi wireless cards.

The unique architecture of the TF-530 allows different design possibilities whether it is wired or wireless. The built-in 10/100Mbps MAC on the TF-530 allows easy connection to the LAN and the Card Bus interface allows connectivity to WLAN using off the shelf 802.11a/b/g WLAN Cards. Multimedia contents such as MPEG-1, 2 or 4 can be streamed via the video interface in Transport Stream or Program Stream format. Maximum throughput is achieved with the built-in audio, video, WLAN and Ethernet hybrid switch. The TF-530 is the most cost effective solution for implementing systems such as Wireless Network Video Camera, Digital Media Receiver, Networked DVD Player or Wireless A/V Transport devices.

The MII interface of TF-530 can also be connected with HomePlug chipset. Take the advantage of Ethernet over power line technology, HomePlug, Taifatech's A/V transmitter and Digital TV transmitter can deliver video to multi-users who use PC or A/V receiver to watch TV anywhere in PowerLine Network.



TF-530 Digital TV Streaming Controller

HARDWARE FEATURES

- **Ethernet/WLAN Hybrid Switch**
 - High speed inter-connectivity with 32KB buffer
 - 256-entry L2 address table for packet filtering & forwarding with port-based direct route support
 - 100 Mbps throughput for each port
- **I/O RISC Processor**
 - Card Bus Interface
 - Selectable Card Bus, PCMCIA or Mini-PCI mode
 - Pipelined RISC core dedicated to card bus driver processing
 - WLAN to LAN Bridging Engine
 - Hardware 802.11 & 802.3 format translation
 - 32KB program, 4KB data & 20KB packet buffer
- **Streaming Video Interface**
 - Hardware support for TS and PS packets & rate control
 - Two DMA channels
 - Hardware PID filter
- **10/100Mbps Ethernet MAC**
 - Selectable MII or Reverse MII interface
 - 802.3x flow control for full duplex mode and Jamming for half duplex mode
- **HTTP Server, Multimedia Streaming & TCP/IP Protocol Handler**
 - HW Internet Protocol Accelerator
 - Pipelined RISC TF-390 core, 66MHz operating frequency, single cycle per instruction
 - 16KB memory for data, packet buffer & program mirroring (4K, 8K or 12KB)
 - Supports up to 2MB External Flash/ROM/SRAM
 - External Flash write support
- **Embedded 106.5K bytes SRAM for packet buffer, data memory, PC Card and Layer 2 filtering table**
- **Embedded 4KB ROM**
- **Two sets of Extended I/O**
- **8-bit customer ID support through bonding option**

- **0.18 um CMOS technology, 1.8V internal operation, 3.3V IOs**
- **144-pin LQFP package**
- **TF-530-ACL complies with RoHS.**

SOFTWARE FEATURES

- **Bundled TCP/IP Protocol Stack and HTTP Server software**
- **IP, UDP, TCP and ICMP Protocol Accelerator support**
- **Supports Atheros silgne chip WLAN card**
- **Wireless bridge function**

BENEFITS

- **Transport Stream over Ethernet or 802.11 Network**
- **Enables wireless streaming of audio & video over industry standard 802.11 WLAN**
- **Offers flexibility for either wired or wireless connectivity**
- **Enables a new generation of digital A/V transport devices with superior quality and performance compared with current analog designs**
- **External video host interface offers flexibility in selecting MPEG2/4 encoders & decoders using TS**
- **Ability to manage devices via Web browser over LAN or Internet**
- **Uses the built-in Internet Protocol Accelerator to increase Internet Protocol processing performance**
- **Wide spectrum of applications**
 - Wireless A/V digital transport devices
 - Wireless/HomePlug Digital TV tuners
 - HomePlug A/V distribution devices
 - Digital Media Receivers (DMR)
 - Networked DVD Players
 - PVR/DVR

Evaluation Kit

Please send requests for evaluation kits to sales@taifatech.com

For additional information on the TF-530 please visit us at www.taifatech.com.