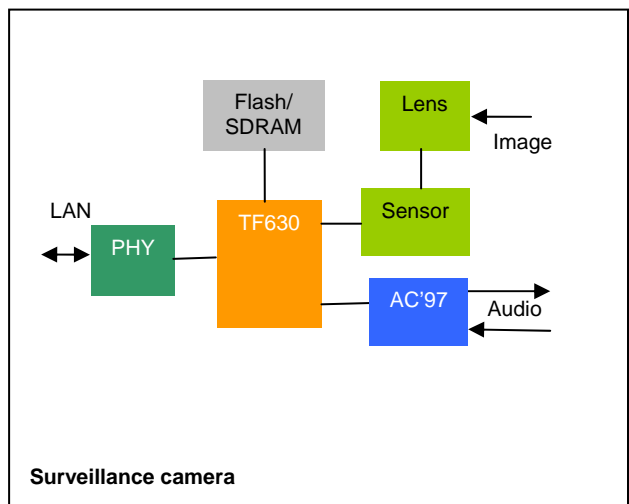
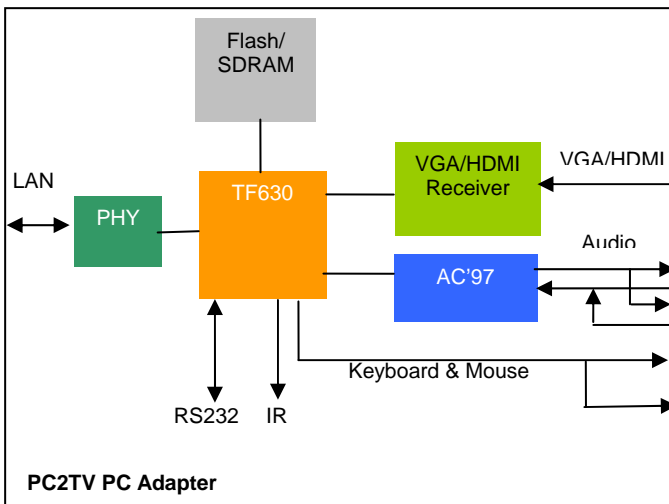
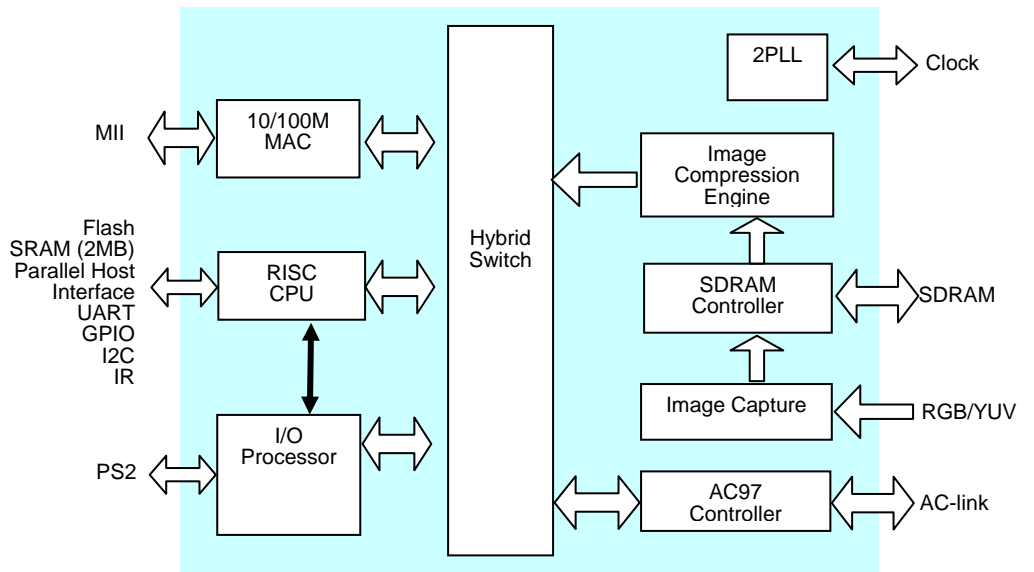


TF-630

TF-630 is a multifunction encoder SoC dedicated for network capture with many extra functions. It can compress video and audio files and deliver them to Ethernet. Image compression engine in TF-630 can encode JPEG or run-length compressed files up to HDTV resolution. The compressed data format can be JPEG or run-length. Comparing with other compression methods such as MPEG1/2/4 and H.264, JPEG and run-length delivers very low latency bidirectional interactive mechanism which is the best solution for PC2TV and intercom. Special lip sync mechanism designed in the TF-630 guarantees video and audio are in of sync. An embedded scalar can scale down the captured pictures to deliver them into network.

The TF-630 has two IR which can be receivers or transmitters, two PS2 for keyboard and mouse and I2C. It also supports AC'97 bi-direction. The TF-630 has two embedded PLL, one is to generate different timing for different resolution display requirements and the other one is dedicated for SDRAM high performance operations.



TF-630**HARDWARE FEATURES**

- ◆ **RISC Core**
 - Pipeline RISC TF-390 core, 65MHz operating frequency
 - 16KB memory for data, packet buffer and program mirroring
 - Supports up to total 4MB external Flash and SRAM
 - Supports 32 GPIO ports
- ◆ **Image compression engine, 130MHz operating frequency**
 - Supports input from 16 x 16 to 2M pixel image, maximum pixel clock rate at 166MHz.
 - Input image format
 - RGB: 888
 - YUV: 422 (8/16-bit), gray
 - Run-length Output frame rate
 - 1920 x 1080 @ 10 fps
 - JPEG compression engine output supports from 16 x 16 to 2M pixel image resolution including the following popular resolutions:
 - 640X480 @ 85fps
 - 800X600 @ 85fps
 - 1024X768 @ 75fps
 - 1280X1024 @ 30fps
 - 1600X1200 @ 30fps
 - 720X480 @ 60fps
 - 720X576 @ 50fps
 - 1280X720 @ 30fps
 - 1920X1080 @ 25fps
- ◆ **SDRAM controller**
 - 64-bit data bus
 - 8/16MB for video, audio and CPU SRAM
 - SDRAM clock rate: 166MHz
- ◆ **Scalar to scale down the pictures any size**
- ◆ **AC'97 for audio operating**
- ◆ **Lip-sync mechanism guarantees audio and video are in of sync**

- ◆ **Two PS2 for keyboard and mouse**
- ◆ **Supports DDC**
- ◆ **Supports single bit IR controller**
- ◆ **Built-in 10/100Mbps Ethernet MAC**
 - MII interface
 - 802.3x jamming control for full duplex mode and jamming for half duplex mode
- ◆ **16-entry Layer2 DA/Ether Type filtering table for incoming packets filtering**
- ◆ **16-entry L2 IP/Port Number filtering table for incoming packets filtering**
- ◆ **Two PLL**
 - Input: 12MHz & output: 166MHz
 - Input: 12MHz & output: 130MHz and 65MHz
- ◆ **TF-630-ACL complies with RoHS.**

SOFTWARE FEATURES

- Embedded TCP/IP Protocol Stack
- Bundled HTTP Server Software
- IP, UDP, TCP, ICMP and IGMP Protocol support

BENEFITS

- ◆ **Supports up to HDTV resolution**
- ◆ **A lot of hardware engines to increase overall performance without increasing CPU utilization**
- ◆ **Very low latency mechanism for interactive applications**
- ◆ **Highly integrated encoder SoC to reduce BOM cost**
- ◆ **Wide spectrum of applications**
 - PC2TV
 - Digital signage
 - Digital media head end
 - Building entry system
 - Security system

For additional information please visit us at www.taifatech.com or send email to sales@taifatech.com.