



17330 Brookhurst St., Suite 140, Fountain Valley, CA 92708  
 Phone: 714-378-5805 / Fax: 714-378-5985  
 email: [dsp@mds.com](mailto:dsp@mds.com) / web URL: <http://www.mds.com>

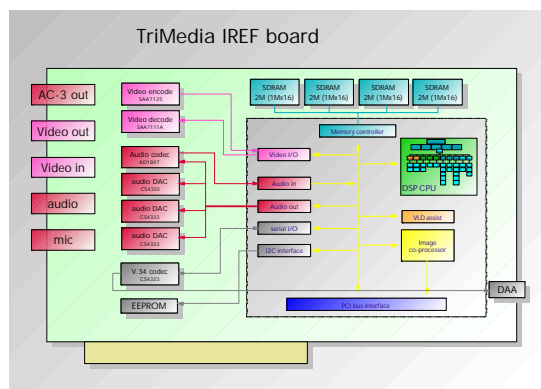
## TM-1300 IREF

The TM-1300 IREF is a **PCI** bus board for real time video, audio and telecomms processing.

It uses the **133 MHz** Philips TriMedia TM-1300 media processor which is a **32 bit** fixed and floating point **VLIW** processor with integrated **video, audio and telecomms** interfaces.

The TM-1300 IREF provides **video I/O** in both **CVBS** and **S-Video** formats, **stereo audio I/O**, and telecomms I/O through a modem interface and **DAA** (4 wire phone line connector). The I/O peripherals are also brought out to a **daughter board connector** for custom interfaces.

The TriMedia processor is programmed in **C or C++** using an **optimising compiler** and **scheduler** which includes **special operations for efficient real time video** processing.

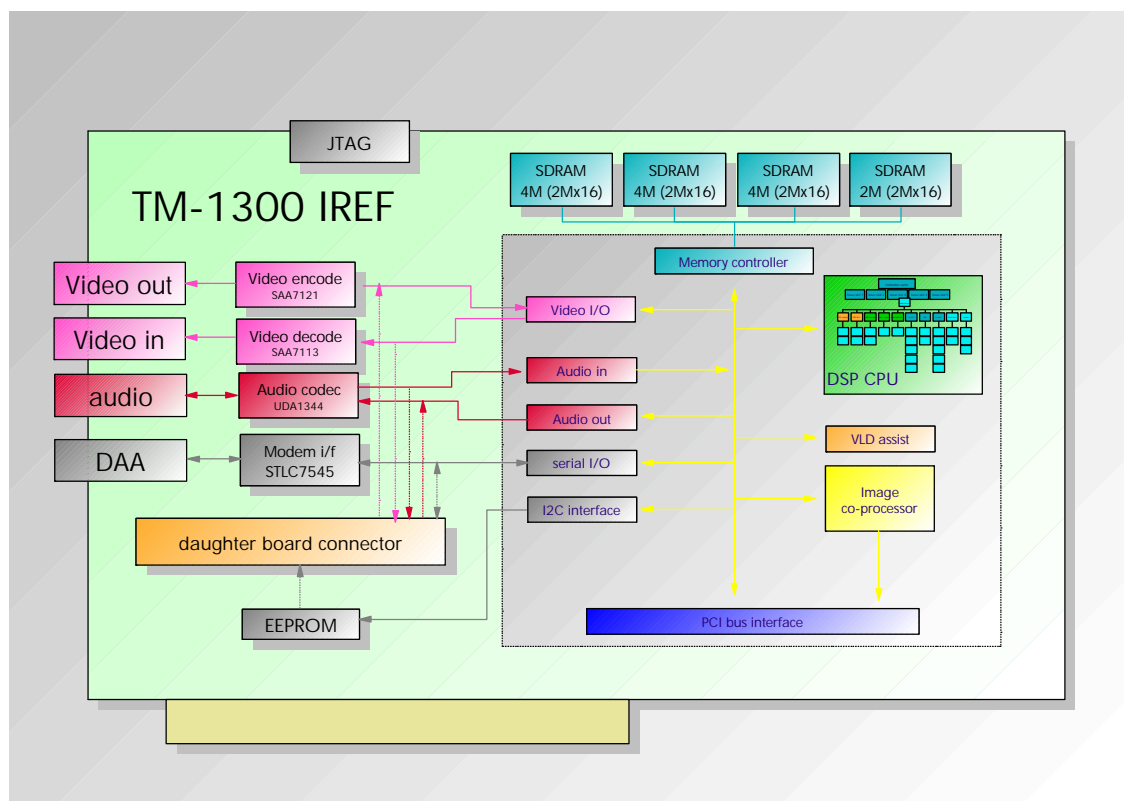


The TM-1300 also has a built in **dedicated image co-processor** and variable length decoder (**VLD** - used in MPEG video compression).

The TM-1300 IREF is also suitable for use as an OEM component in small to medium scale production.

### Features:

- real time video, audio and telecomms I/O
- CVBS and S-Video formats
- 32 bit VLIW processor with integrated I/O
- optimising C and C++ compiler
- structured software architecture
- real time I/O software device drivers
- highly developed software architecture



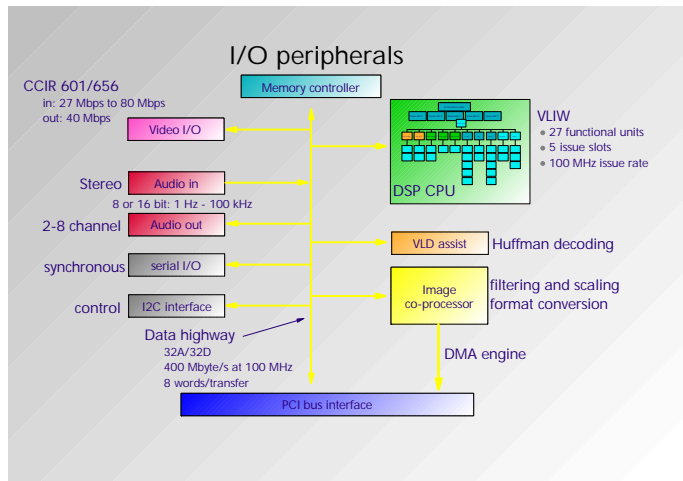
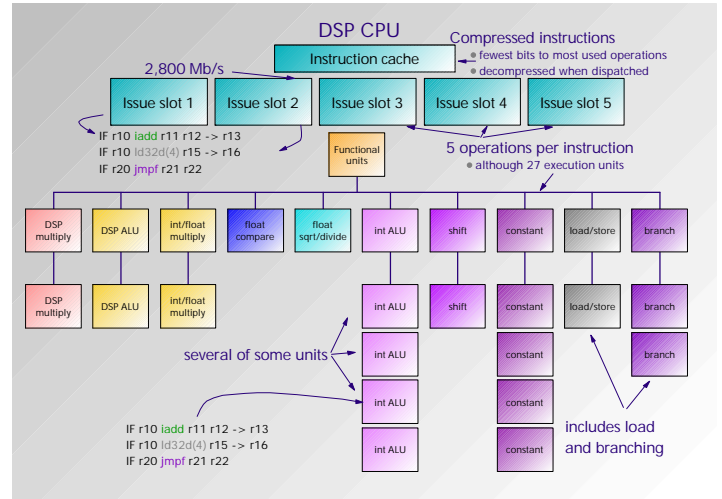
# TM-1300 IREF data sheet

## The DSP

The TriMedia **TM-1300** is a **133 MHz, 32 bit** processor for **multitasking** applications using video, audio and telecomms I/O in real time. It has a **VLIW** architecture and an optimising **C/C++ compiler** with scheduler to produce efficient code.

The TM-1300 has **27 functional units**, five of which can be in use at any one time - some units can perform multiple operations (**SIMD**) in parallel.

The TM-1300 also a dedicated **image co-processor** for image scaling and filtering; and a Variable Length Decoder (**VLD assist**) for Huffman decoding - used in MPEG video compression.



## Video, audio and telecomms I/O

The TM-1300 has **integrated peripherals** for concurrent **real time video, audio and telecomms I/O**. The TM-1300 IREF board brings these peripherals out to codecs, and to a **daughter board connector** which allows custom interfaces.

The I/O peripherals communicate directly with TM-1300 memory without loading the core VLIW processor.

The I/O peripherals are supported by library software **device drivers**, and **C and C++ constructs** which make programming I/O, and especially **multitasking I/O**, easier.

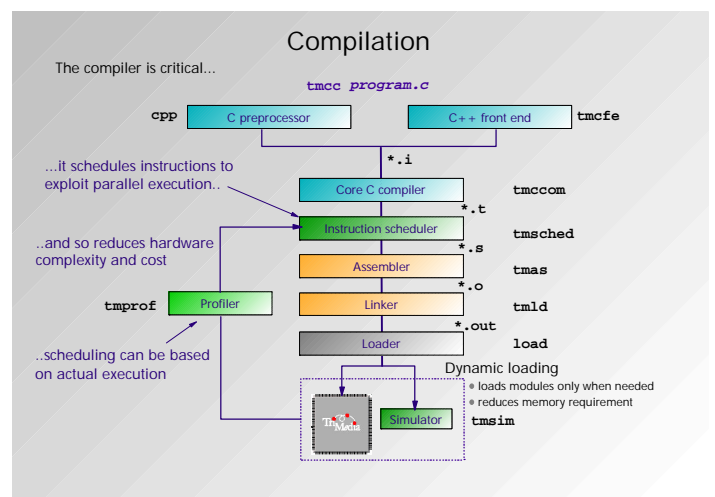
## Software Development Environment

The Philips Software Development Environment (SDE) supports real time video, audio and telecomms application **development directly in C and C++**.

The compiler **optimises and schedules** C and C++ code to run efficiently on the TM-1300's VLIW architecture.

The SDE also includes **library device drivers** for on chip peripherals, at several levels from the lowest to a **multitasking C++ model**.

**Application library functions** including **MPEG, motion JPEG, 2D text and graphics**, are available.



TM1300 IREF data sheet 102999.fm - preliminary, subject to change

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