MOMENTUM DATA SYSTEMS

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TM-1300 IREF

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

It uses the 166 MHz Philips TriMedia TM-1300 media processor (run at 166 MHz on this board) which is a 32 bit fixed and floating point VLIW processor with integrated video, audio and telecoms interfaces.

The TM-1300 IREF provides video I/O in both CVBS and S-Video formats, stereo audio I/O, and telecoms I/O through a modem interface and DAA (2 wire phone line connector). The I/O peripherals are also brought out to a daughter board connector for custom interfaces.

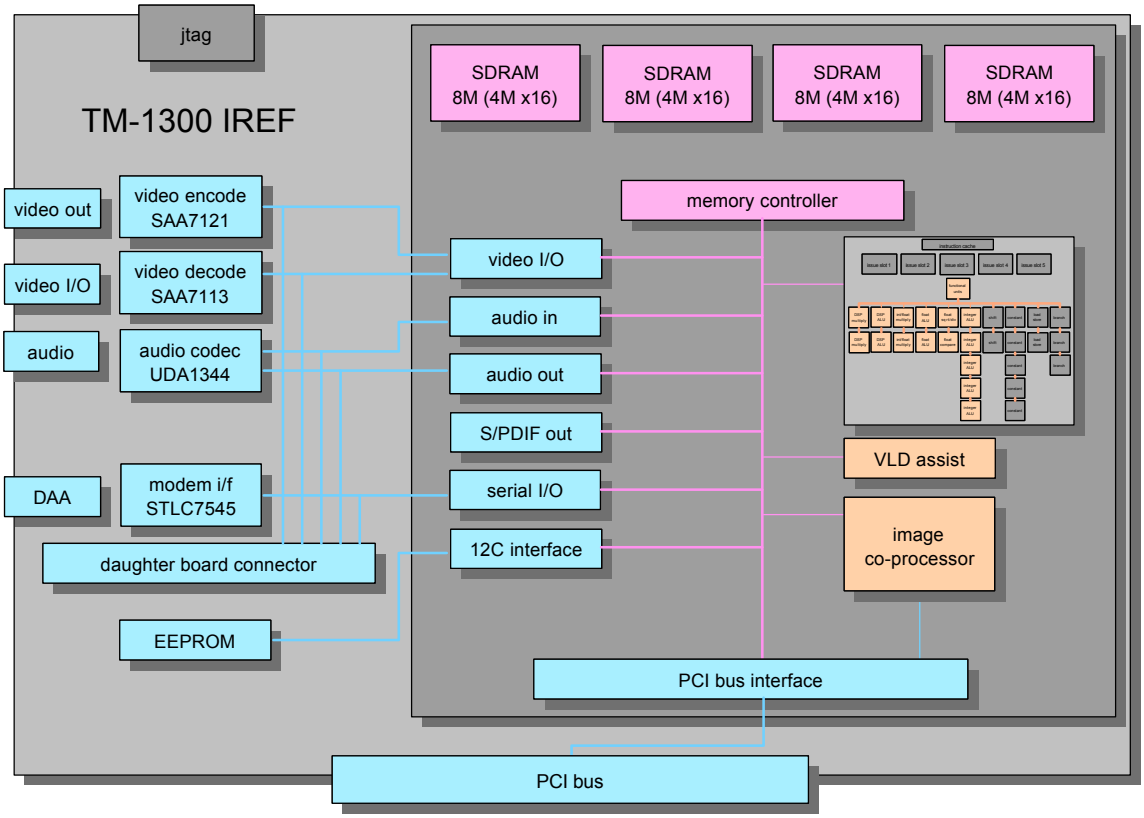
The TriMedia processor is programmed in C or C++ using an optimizing compiler and scheduler which includes special operations for efficient real time video processing.

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 telecoms I/O
- CVBS and S-Video I/O formats
- 166 MHz 32 bit VLIW processor with integrated I/O
- stereo audio analog I/O
- modem interface and 2 wire DAA
- 32 Mbyte SDRAM
- scheduling C/C++ compiler support
- Windows 9x/NT drivers



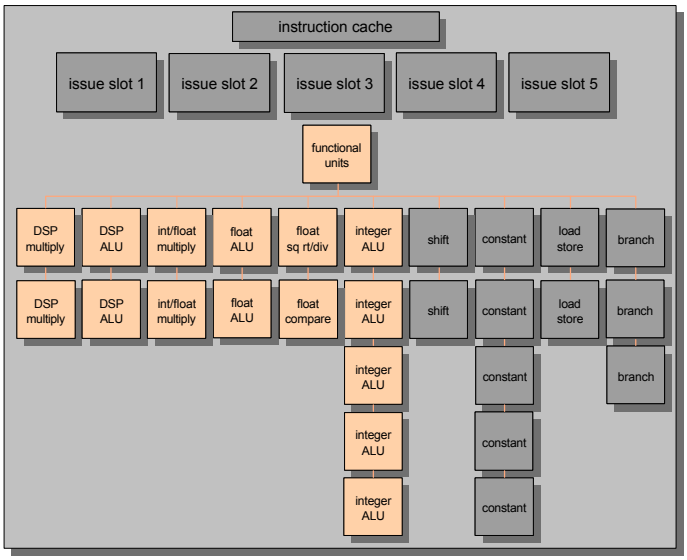
TM-1300 IREF data sheet

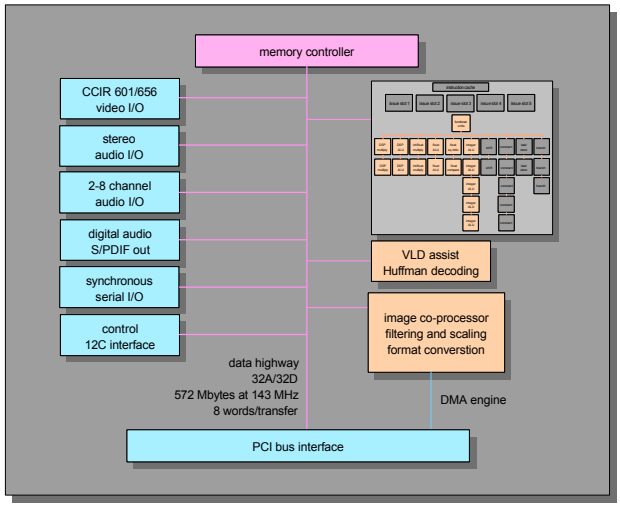
The DSP

The TriMedia TM-1300 is a 166 MHz, 32 bit processor for multitasking applications using video, audio and telecoms I/O in real time. It has a VLIW architecture and an optimizing 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 has 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 telecoms I/O

The TM-1300 has integrated peripherals for concurrent real time video, audio and telecoms 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.

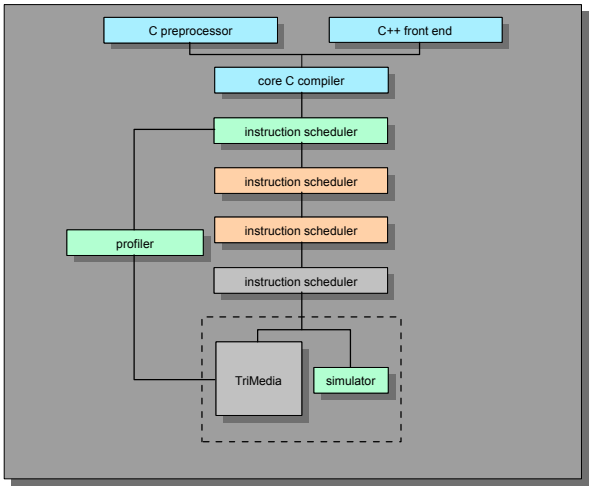
Software Development Environment

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

The compiler optimizes 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.



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