TriMeleon® DT1108 Starter Kit

Video, Audio and Telecommunication
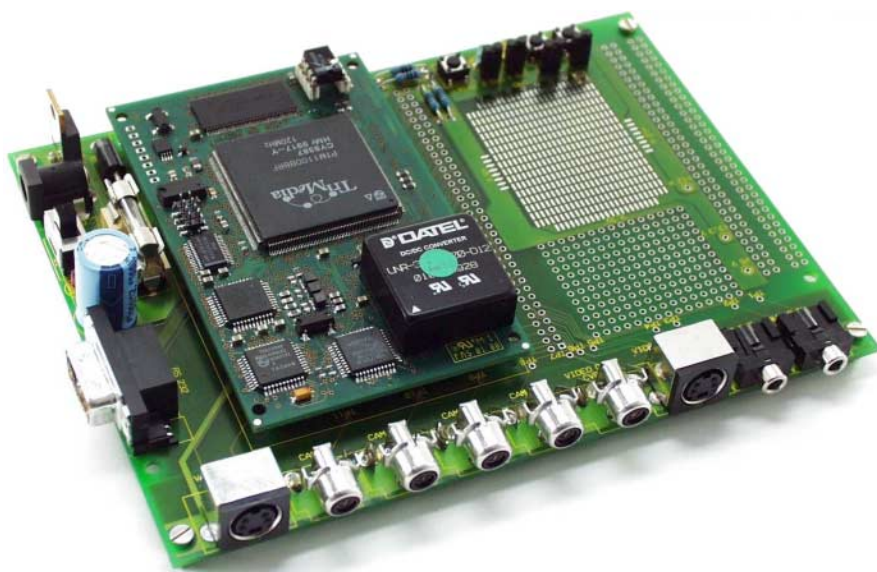
TriMeleon DT1108 Starter Kit

The TriMeleon DT1108 Starter Kit contains the TriMeleon DT1108 board, an Evaluation Board, a manual and CD-ROM with instructions, board service package software for Philips SDE 2.1, a flash loader via serial interface, a demo program and detailed documentation about the TriMeleon.

TriMeleon DT1108

The TriMeleon DT1108 Board is a compact, high-performance board for video, audio and telecommunication applications. It integrates on a small area (62 mm x 98 mm) the Philips TriMedia Multimedia Processor, up to 16 Mbytes (standard 4 Mbytes) SDRAM, up to 16 Mbytes (standard 4 Mbytes) flash memory, and analog audio and video I/O interfaces including all necessary A/D and D/A converters.

With its compact, power-saving and cost-effective design, the board expands into regions previously reserved for expensive and difficult to program custom design DSP solutions.

The board can be easily connected to widespread multimedia devices e.g. cameras, TV and audio sets

Fields of Application

In combination with the powerful TriMedia processor and the universal and multipurpose interface, the system can be used for a variety of multimedia applications.

- Example: video and audio filter with text overlay
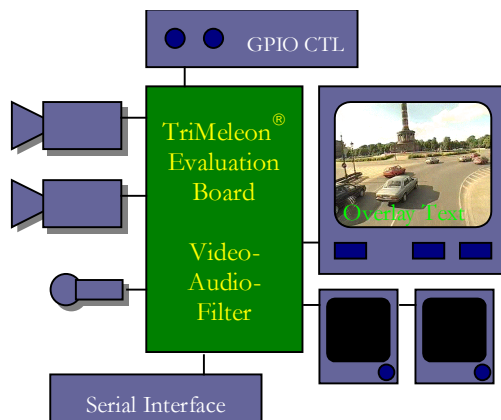
- video signal conversion (PAL to NTSC and vice versa)

- digitalization of analog audio and video data sources

- audio and video compression for use in conferencing systems

Evaluation Board

The TriMeleon Evaluation Board is a compact support module for the TriMeleon DT1108 Board. It was created for users to work with or to develop around the TriMeleon DT1108 Board. Located near the experiment area are the numerous audio and video connectors. The Evaluation Board is especially suited for the development of prototypes.

Web Information:

www.dresearch.de

www.trimedia.philips.com

Environmental Conditions

temperature:	operation storage	0°C to +60°C (32°F to 140°F) −10°C to +85°C (14°F to 185°F)
maximum humidity:	operation storage	10% to 90% (not condensing) 5% to 95% (not condensing)

Technical Features of the TriMeleon DT1108

size (length x width x height)	98 x 62 x 19 mm³ (3.8 x 2.4 x 0.7 in³)
power supply	12 V (±10%)
consumption	typ. 6 W
power supply for real time clock	3 V, 1μA
clock frequency (standard: 100 MHz)	**100** MHz / 120 MHz
transfer rate (RS232 level)	max. 230 kbps
analog video inputs (PAL and NTSC)	4 CVBS / 2 SVHS
analog video outputs (PAL and NTSC)	1 CVBS / 1 SVHS
analog audio inputs /outputs (16 bit, up to 48kHz))	2 / 2
RAM (standard: 8 Mbyte)	**8**/16 Mbyte
Flash memory: (standard: 4 Mbyte)	2/**4**/8/16 Mbyte
Flash memory: read velocity	max. 1 Mbyte/s
Flash memory: write velocity	max. 500 Kbyte/s
Flash memory: guaranteed clear and rewrite series	min. 100.000
I/O extension bus: data buswidth / address buswidth / data throughput rate	8 bit / 10 bit / max. 2 Mbyte/s
versatile usable digital inputs / outputs (3.3V CMOS logic-level)	2 / 2
real time clock (year 2000-compatible) time division	1 s
JTAG Debugging Interface	JTAG IEEE 1149.1

Technical Features of the Evaluation Board

power supply	in: +12V DC stabilized on pin of the small voltage jack out: 3.3V; 5V; 12V and GND at the experiment area
size	120 mm x 160 mm (4.7 in x 6.3 in)
size without audio/video connectors	100 mm x 160 mm (3.9 in x 6.3 in)
video inputs	4x Cinch / 1x Mini-DIN
video outputs	1x Cinch / 1x Mini-DIN
audio input / output	each 1x 3.5 phone jack
experiment area	SMD-Pads; 100th grid
serial interface	RS 232

Software Libraries

Board Support Package Software	for Philips TriMedia SDE 2.1
TriMeleon Utility library	support of: serial interface, watchdog and real time clock
test program with source code	self test of all interfaces
optional: video-codecs	MJPG, H.261, H.263
optional: audio-codecs	G.711, G.723.1, G.729