

# TinyDM642

High-Performance Digital Media Board  
with 400K Spartan3-FPGA based on  
Texas Instruments' TMS320DM642



The **TinyDM642** board is a miniature size subsystem based on a Texas Instruments Fixed-Point Digital Signal Processor DM642. The high performance video and imaging DSP is clocked with 600 MHz. For industrial applications, the clock rate is limited to 500 MHz.

A companion Xilinx Spartan3-FPGA can be used to interface and pre-process incoming data. With its abundance of logic and on-chip-memory, it is possible to build a high performance number-cruncher for a variety of applications. Up to I/O-Ports are accessible via the FPGA and are free to use for the customer (input, output and I/O, different standards, including LVDS).

Example projects for Code Composer Studio available, demonstrating how to start up the DSP and the FPGA and how to boot the DSP.

Also available is a motherboard with all pins accessible at 100mil header plus JTAG headers for easy evaluation.

## Specifications:

**Power consumption:** 3 Watts @ 3V (a single 3.3 Volt supply is required)

**Memory:** up to 32MBytes SDRAM, 16 Mbit serial flash

**FPGA:** Xilinx Spartan 3, 400kGates equivalent

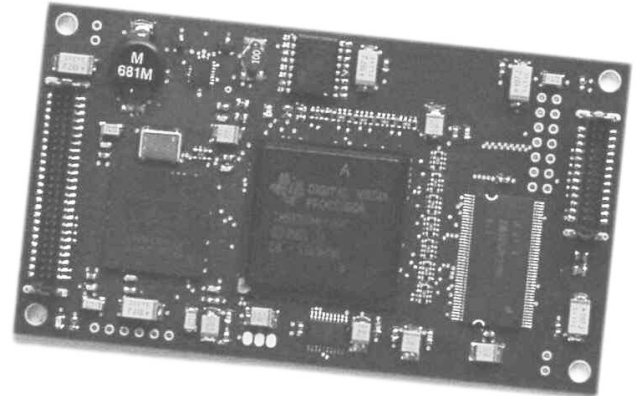
**I/O:** Up to 50 general purpose I/O pins, connected to the FPGA w/ different I/O standards

**DSP:** TI TMS320DM642 and footprint compatible devices, 600MHz max

**Physical Dimensions:** 100.4mm x 57.2 mm x 12.2mm (includes connectors)

**Pricing:** from EUR329 (single unit, BSP included)

*All prices are excluding VAT, packaging and shipping.*



## Ingenieurbüro Bayer DSP Solutions

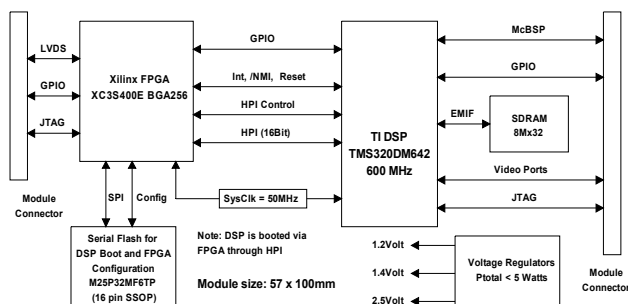
Ingenieurbüro Bayer DSP Solutions was founded in 1995 by Andreas Bayer, a first hour DSP specialist. The company has been a third party of several DSP vendors since 1996.

Our goal is to provide comprehensive coverage of all Digital Signal Processing topics, including hardware design, FPGA design, DSP algorithms, software integration, tools and complete products.

We support many DSP families including Texas Instruments C54x, C55x, C3x, C6x, Analog Devices ADSP-218x, SHARC and Blackfin, Freescale DSP56K as well as DSPs from other vendors, ARM, MSP430 and Xilinx FPGA.

Our products are sold through  
A.R. Bayer DSP Systeme GmbH ([www.dsp-sys.de](http://www.dsp-sys.de)).

A.R. Bayer DSP Systeme GmbH provides JTAG emulation solutions for Texas Instruments DSP by EWA, Inc. ([www.blackhawk-dsp.com](http://www.blackhawk-dsp.com)) as well as boundary scan test systems by Corelis ([www.corelis.com](http://www.corelis.com)) and complex DSP/FPGA boards by Sundance ([www.sundance.com](http://www.sundance.com)).



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