

# VC33MODu

DSP Mezzanine Board with 2-channel UART,  
2 MByte Flash & 2 MByte SRAM based on  
Texas Instruments TMS320VC33



The **VC33MODu** mezzanine card is a complete DSP sub-system based on Texas Instruments' VC33 floating point DSPs.

The board is equipped with 2M x 8 flash memory and 512K x 32 SRAM (55nsec) enabling stand-alone operation and non-volatile data storage.

This DSP card requires no host processor, however, a host processor can communicate with the DSP operation through a customizable 128 macrocell CPLD.

If not required for host communication, the CPLD provides a total of 31 general purpose I/O pins are available at a 50 pin high-density connector. Each pin can be controlled by the DSP (through individual bit-wise or byte-wide Read or Write access, synchronous serial port, interrupt, timer).

Both flag pins (XF0, XF1) are also accessible directly through this connector. In addition, the VC33MODu card has two high-speed UART ports (460.8 kBd) with RI, CTS, RTS, DTR and DSR.

The standard configuration of the CPLD provides host (byte-wide) communication requiring only two ports from the host's I/O address space, one for data communication, the other for control and status.

## Specifications:

**Power consumption:** max. 1 Watt @ 3.3V  
(a single 3.3 Volt power supply is required)

**Host Interface:** 8-bit I/O, Intel/Motorola compliant

**GPIO:** 31 pins, individually configurable as input or output, interrupt, timer, serial port

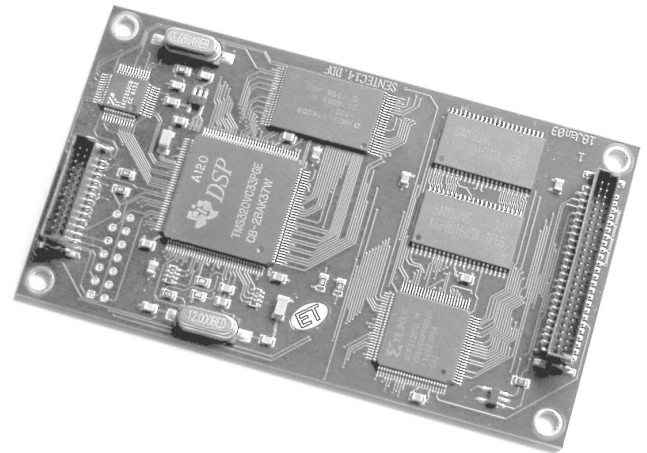
**DSP:** Texas Instruments TMS320VC33  
(60 or 75 MIPS)

**UART:** Exar ST16C550, supporting data rates up to 460.8kBd

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

**Pricing:** from EUR 229 (single unit, custom configuration is extra)

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



## Ingenieurbüro Bayer DSP Solutions

Originally specializing in the telecommunication field, the company has grown its DSP expertise to provide comprehensive services around Digital Signal Processing applications by using DSP chips from Analog Devices, Texas Instruments, NEC, Freescale and other renowned DSP vendors.

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.

Today we support many DSP families including Texas Instruments C54x, C55x, C3x, C6x, Analog Devices ADSP218x, SHARC and Blackfin, Motorola DSP56K as well as DSPs from other vendors.

Ingenieurbüro Bayer DSP Solutions is a registered and active Third Party of Analog Devices, Texas Instruments and other silicon vendors.



Ingenieurbüro Bayer DSP Solutions  
Andreas R. Bayer  
Vohwinkelallee 8  
40229 Düsseldorf / Germany  
Phone: +49-211-210 81 20  
Fax: +49-211-210 81 76  
Email: [solutions@dsp-bayer.net](mailto:solutions@dsp-bayer.net)  
Web: <http://www.dsp-bayer.net>