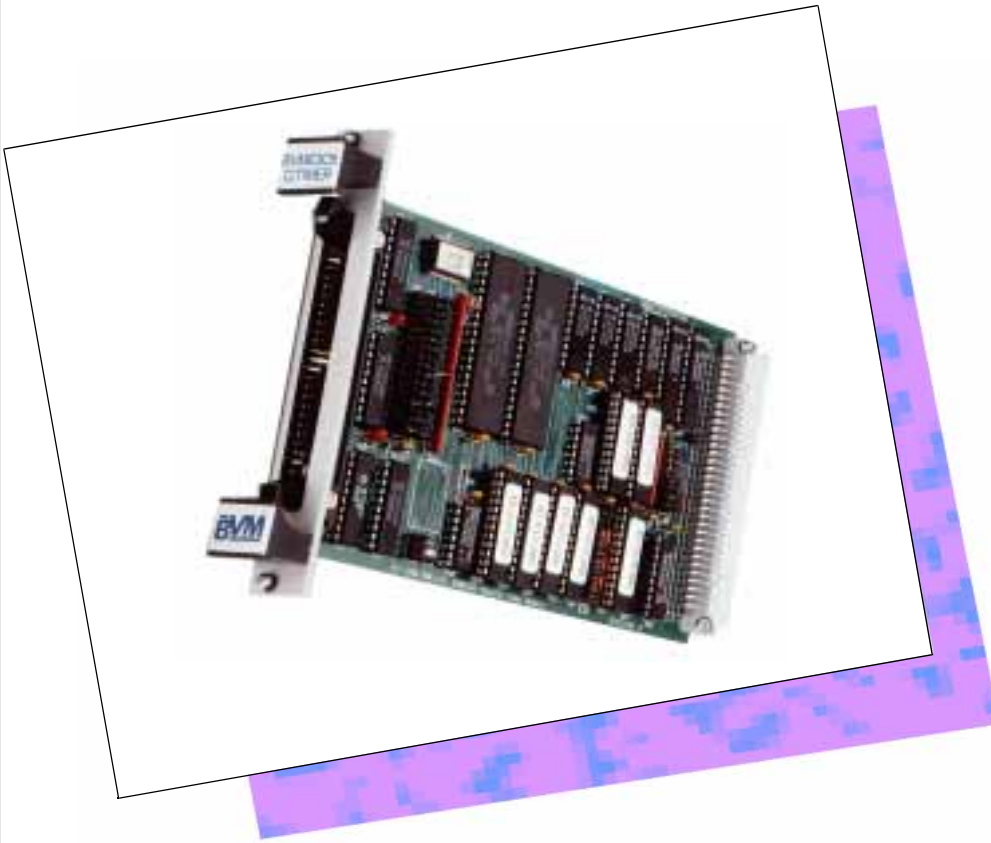
BVME305

Counter/Timer Module

- Dual AM9513A Counter/Timers
- 10 Independent 16bit counters
- Up/down binary or BCD counting
- Frequency scaler
- Alarm comparators
- Complex duty cycle outputs
- One shot or continuous outputs
- Programmable gating of inputs and outputs
- Programmable output polarity
- 4 Independent vectored trigger edge polarity
- Fully buffered TTL inputs and outputs
- Single Eurocard 3U form factor with 6U front panel option
- Extensive software support under the OS-9 Operating System

The BVME305 is a 3U VMEbus module featuring a pair of AM9513A counter/timer chips. These provide ten 16 bit counters which can be concatenated to give up to 80bit resolution. All the features of the AM9513A are available to the user.



The BVME305 can be used in a wide variety of applications such as pulse counting, event timing, complex waveform generation or clock generation. It provides a flexible interrupt structure allowing up to four interrupts with individual software selectable vectors.

BVME305

System Timing Controllers

Two AM9513A devices are provided giving a total of ten 16bit up/down counters. These may be concatenated to give 80bit resolution when required. Counting may be binary coded decimal or hexadecimal.

The local 4MHz oscillator may be used as the counting source or alternatively one of the 2 x 5 external sources. These may be gated by the external GATE signals.

Outputs are provided from various configurable events to allow complex duty cycle signals of programmable polarity.

All input/output is buffered by 74F244 devices and pulled high by 1K terminating resistors.

VMEbus Operation

Access to the AM9513A registers is via a 256byte address block which can be link selectable to any address in the VMEbus short I/O address space as are the interrupt vector registers. This gives 4 words of AM9513A control register and 4bytes of Interrupt ID registers on word boundaries.

The BVME305 supports address pipelining by holding VMEbus data independently of the VMEbus address strobe.

Interrupts

Four independent VMEbus interrupts are provided with individual software selectable vectors.

Any of the interrupts can be on any of the seven VMEbus interrupt levels. There are no restrictions requiring interrupts to occupy exclusively different VMEbus levels.

Interrupt may be configured to be triggered on rising edges, falling edges or on transitions of polarity of any of the I/O lines.

Specification

Dual AM9513A timing controllers
- 4MHz Clock

VMEbus slave interface
- A16:D16,D8(OE)
- AM6RMW

SYSRESET monitor
- Address pipelining compatible

Interrupter
- ROAK D08(O)
- I(1-7) hardware selectable
- 4 Software selectable vectors

Registers
- 4 Words AM9513A control registers
- 4 Byte interrupt ID registers

Links
- VMEbus short I/O base address
- 4 VMEbus interrupt level select
- Interrupt trigger source select
- Local address clock source select

Dimensions
- 160mm x 100mm Single Slot
- 3U single slot

Power
- +5V 1.08A max. 0.8A typ
- ±12V 0A

Environmental
- 0 to 70° C
- 95% relative humidity non-condensing
- (extended specification to special order).

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