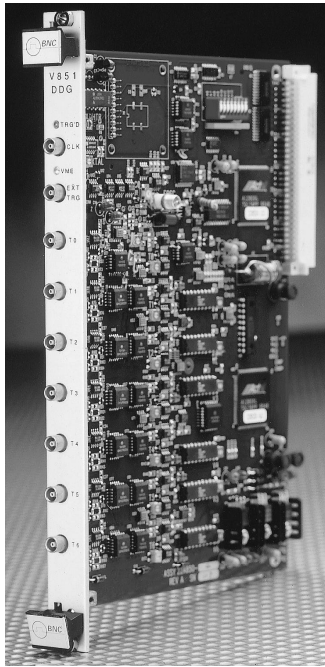


MODEL B980 VME TIME-to-DIGITAL CONVERTER 8 CHANNELS



Features

- ▼ Measure time-of-trigger to your reference (time relative mode)
- ▼ Measure time-of-event accurately (time stamp mode)
- ▼ Resolution - < 50 pS/LSB
- ▼ Range - 48 bits: 13,743 S unipolar
- ▼ Jitter - < 70 pS

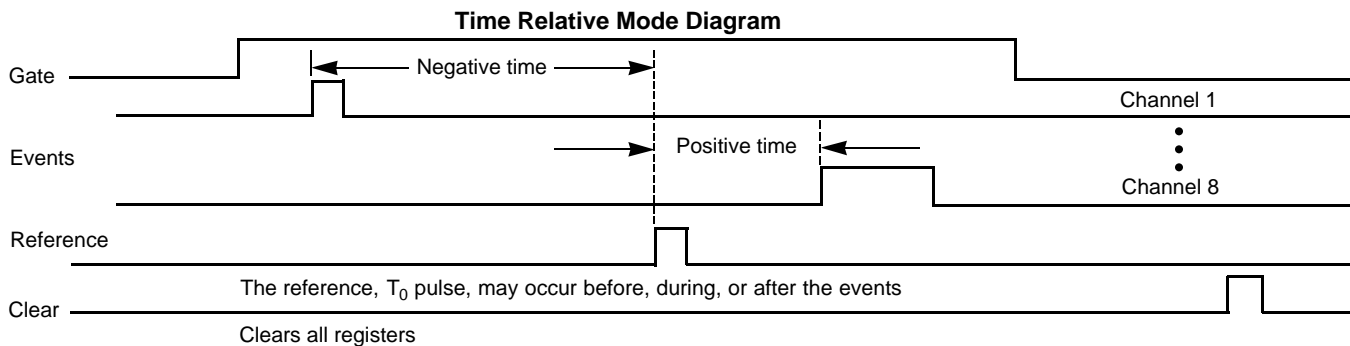
The B980 is an 8 channel time measurement module packaged as a single width, 6U VME module. This precise TDC offers two modes of operation. In Time Relative mode, time-of-trigger of eight input channels are measured relative to the reference channel's input. In Time Stamp mode, the time-of-event is recorded on all 9 inputs.

BNC's Model B980 offers several options for retrieving the data out of the module. An optional Microengine is available for high data rate applications. This Microengine offers functions like qualify or discard events, reset channel hits, and store and buffer 'good event' data.

The Model B980 also provides a common inhibit gate. A double hit status register indicates whether a channel receives more than one input during a measurement cycle, status registers indicate this.

Specifications

Inputs	Nine channels, 8 standard inputs, 1 reference channel, 1 Gate input, 1 Clock TTLinput/output, 2 special-purpose TTL-level AU inputs/outputs
Levels:	Timing channels - switch selectable as a group for TTL, ECL, NIM or user-set thresholds Gate channel- Switch selectable for TTL, ECL, NIM or user-set thresholds
Polarity:	Switch selectable for each channel.
Termination:	Selectable 50 ohms to ground or Hi Z for each channel.
Packaging	Single width, 6U Eurocard, 16-bit VME module
Resolution	48.828125 pS/LSB, equivalent to 20.48 GHz clock.
Range	48 bits: $\pm 6,871$ seconds bipolar or +13,743 seconds unipolar.
Jitter	< 70 pS + timebase jitter, RMS. Internal clock jitter < 1×10^{-9} measured time.
Integral Linearity	< 1 LSB
Differential Linearity	< 2%
Conformance	Conforms with ANSI/IEEE 1014-1987 VMEbus spec. Meets VXIC VXI spec rev 1.4 for 'B'-size VXI module.
Device Type	16-bit VME register-based slave: A16:D16:D08(EO)
Timebase	Internal ovenized crystal oscillator. TC below $2 \times 10^{-9}/^{\circ}\text{C}$, aging below 1 PPM/year, lockable to external 10 MHz TTL reference or to another B980 or B950 module. Clock I/O is TTLcompatible.
AUX1 AUX2	TTL/HCMOS compatible. These are spare I/O functions that can be programmed to provide or receive application specific information. Contact factory for your requirements.
Connector Options	Lemo, SMAor SMB



Berkeley Nucleonics Corporation **BNC**