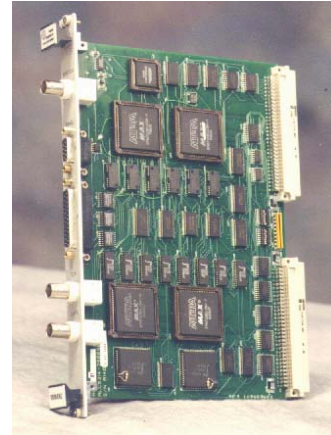


**PCM Simulator/Encoder
VSIM/ENC-950****Features**

- Tunable rates to 20 Mbps
- Programmable NRZ-L/M/S, BIØ-L/M/S, DM-M/S, and RNRZ-L PCM Codes
- Programmable SFID, FCC, URC Subframe Structure
- Any Combination Sub- and Super-commutation

**Introduction**

The dynamic PCM Simulator/Encoder board (VSIM/ENC-950) is a full, IRIG Class II, stand-alone PCM module. The VSIM/ENC-950 board fits into a single VME 6U slot with all external signals available to the user on the front panel for easy access. The PCM Simulator/Encoder is a powerful tool that is useful for system test and checkout as well as a means of generating a true PCM stream to be used for sending information to another data acquisition platform or test system.

The PCM Simulator/Encoder has two modes of operation: single CVT encoder or double-buffered CVT buffer. In the single CVT encoder mode, the host loads the instruction sequencer with the format of the frame of data to output and then loads the CVT with parameter values to output. Once the simulator is enabled to run, it pulls data from the same CVT locations each time through the sequencer instructions. A FIFO may also be used as a source of data for message type formats with fill inserted when the FIFO is empty.

In the double-buffered CVT mode the sequencer is loaded the same way, but the CVT is divided into two equal halves. The sequencer reads from the first CVT until a cycle bit is detected. If the other half of the CVT is updated it, can start outputting from this half. The FIFO can also be used as a source of data in this mode. Data in the CVT may be updated at any time without interfering with the output stream. An interrupt can be generated on any word in the PCM output stream. By setting the STOP bit the PCM stream can be halted until the user disables it.

Input Clock	Clock Source	Internal or external
	Clock Rate	1 kHz to 20 MHz (down to 1 Hz, external)
	External Clock Input	TTL, 75 ohms
Output Data	PCM Codes	Programmable NRZ-L/M/S, Bi \emptyset -L/ M/S, DM-M/S, RNRZ-L (forward and reverse, lengths 9,11, 15)
	Rate	1 Kbps to 20 Mbps, NRZ codes 500 bps to 10 Mbps all other codes
	Polarity	Normal or inverted per format
	Level	TTL compatible (single-ended) into 75 ohm load & RS-422 differential
Frame	Major Frame Size	Programmable up to 1,000,000 word locations
	Word Size	4 To 32 Bits, programmable
	Words per Minor Frame	1 to 250,000, programmable
	Frames per Major Frame	1 to 65,536 minor frames, programmable
	Frame Sync Length	4 to 64 bits, programmable
	Subframe Sync Method	None, SFID, URC, FCC; up to 16 bits
	Flat CVT Size	64K parameters (32 bits per parameter)
	Double-Buffer CVT Size	32K parameters per buffer
Encoder Processing	Source of Input Data	Real-time system parameters
	Control	Full VME compliant interrupts
	Data Flow	CVT, or FIFO, single or double-buffered frames
Output Clock	Type	Coherent with NRZ-L data output
	Clock Phase	Programmable 0 and 180 degrees
	Level	TTL compatible into 75 ohm load
Electrical and Environmental	Form Factor	6U Versa Module Europe (VME), single slot
	Connectors	BNC: TTL, programmable PCM data, and 180° clock output, external clock input DB9: RS-422, 180° clock, programmable PCM data DB25: TTL, programmable PCM data (x5), 0° clock, and 180° clock outputs; external clock input
	Temperature	0 °C to 50 °C operating; -20 °C to 80 °C storage
	Humidity	20 to 95% noncondensing
Ordering Codes	VSIM/ENC-950	Advanced Simulator/Encoder