

## IRIG Time Code Translator/Reader VTIM-500

### Features

- **Accepts IRIG-A, -B, and -G**
- **Wide Dynamic Performance**
- **Outputs Time to Recorders**
- **Active Status Monitoring**
- **Timing Resolution to 1 Microsecond**

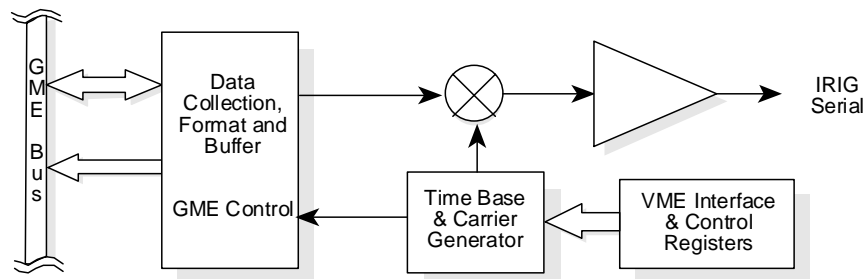
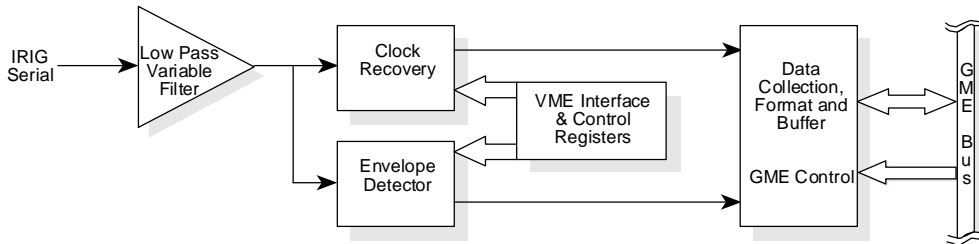


### Introduction

The IRIG Time Code Translator/Reader module supports IRIG-A, IRIG-B, and IRIG-G translation and generation over a wide dynamic band of performance. The full-slot module implements time code-detection from 2 volts to 10 volts and carrier detection from 500 Hz to 10 MHz. Carrier modulation ratios are supported over a wide range as well with levels from 2:1 to a high of 6:1. The IRIG card also supports both the users' need for high accuracy (1 microsecond) data-to-time reconstruction and reproduction of serial IRIG streams for highly accurate data and time reconstruction.

Also available for use are lines of GPS receivers that work in conjunction with the VTIM module. These enable an airborne IMUX and recorder to provide complete system timing.

#### Record Side



**Reproduce Side  
(IMUX only)**

<b>Inputs</b>	Sources	Single
	Data Impedance	10,000 ohms
	Signal Levels	2 – 10V peak-to-peak
	Input Codes	IRIG-A (10,000 Hz)
		IRIG-B (1,000 Hz)
		IRIG-G (100,000 Hz)
		Rates: ¼, ½, 1, 2, 4
	Input Modulation	2:1 to 6:1 (3:1 typical)
Operating Range	250 Hz to 400 KHz	
Input Stability	2% total drift and jitter	
<b>Processing</b>	Time Control	Both real/decode and seed/generate
	Generate	Translate/generate through software-selectable error correction counter
<b>Outputs</b>	Sources	Two
	Signal Levels	0-10V peak-to-peak, ±2.5V offset, software adjustable
		(offset ±2.5V – software adjustable)
	Output Codes (Source 1)	IRIG-B (1,000 Hz)
	Output Codes (Source 2)	IRIG-A (10,000 Hz)
		IRIG-B (1,000 Hz)
		IRIG-G (100,000 Hz)
		Rates: ¼, ½, 1, 2, 4
Output Modulation	3:1	
Operating Range	250 Hz to 400 KHz	
Output Stability	.1% Total drift and jitter	
<b>Electrical &amp; Environmental</b>	Form Factor	6U (VME) single slot
	Connectors	D-subminiatures
	Indicators	In-sync, signal level, frame lock, time error
	Operating Temperature	32 °F - 158 °F (0 °C - 70 °C)
	Storage Temperature	14 °F – 185 °F (-10 °C – 85 °C)
	Operating Altitude	0 to 10,000 feet (0 – 3,100 meters)
	Storage Altitude	-1,000 to 20,000 feet (-300 to 6,200 meters)
	Humidity	20 –95% noncondensing
<b>Ordering Codes</b>	VTIM-500	Time Code Translator/Reader