

PCI Decommutator/Simulator Card

PLR

Information Systems Ltd.

- **PCI-based Data Decommutation**
- **Data Rates from 10 bps to 10 Mbps**
- **Support for Multiple PCM Streams**
- **8 to 16 bit Word Length**
- **Accepts TTL or RS-422 inputs**
- **IRIG A, B, & G Time Input**
- **Onboard Minor Frame Time Tag**
- **Supports IRIG Chapter 8 1553 Data**
- **Supports embedded PCM Frame/Asynchronous Blocks**



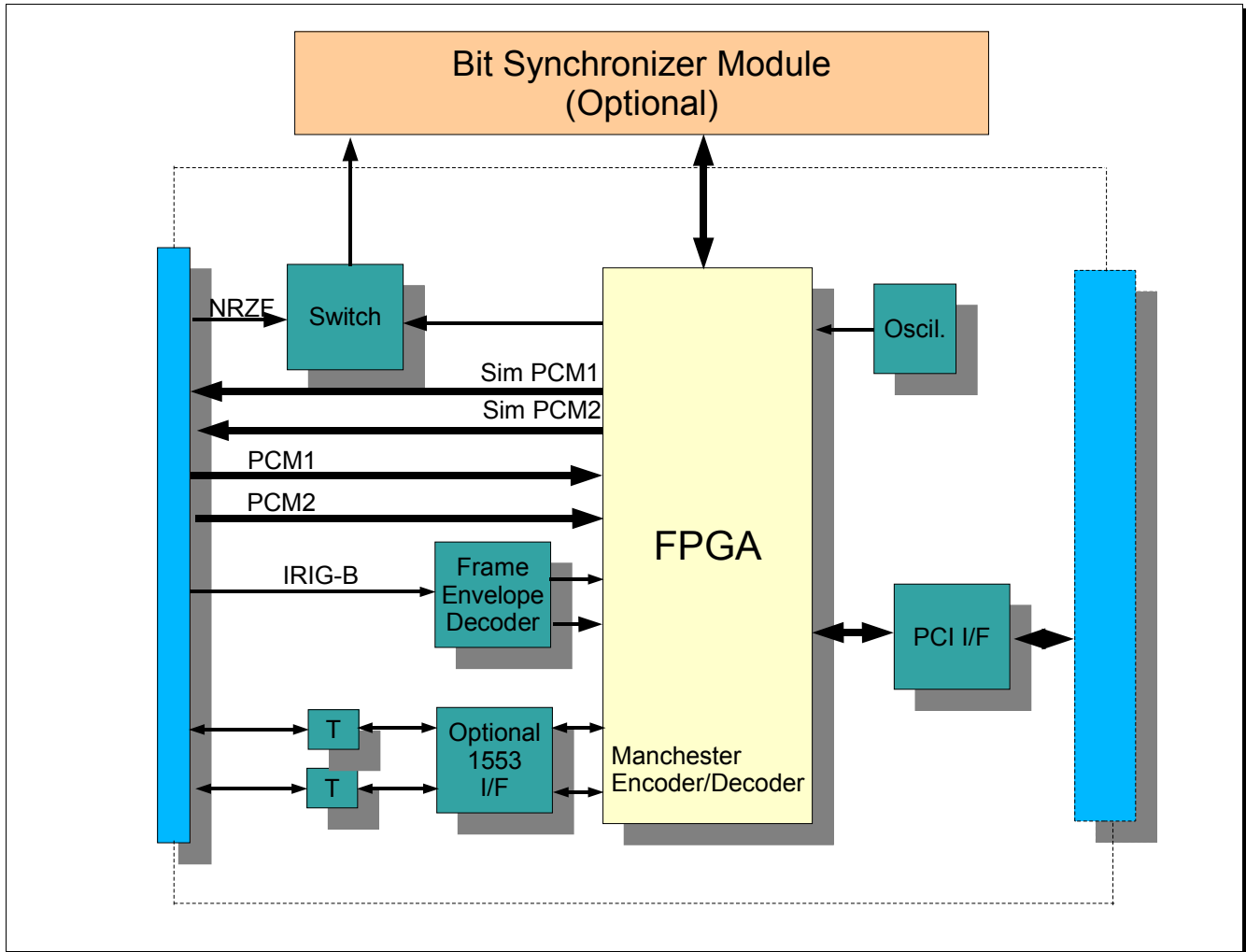
The TMC-10127-01 is a complete $\frac{3}{4}$ length PCM Telemetry Card for the PCI bus. It contains two PCM decommutator (NRZ-L and B.R) via RS-422 differential receivers or an analog PCM input data stream using an optional Bit synchronizer (*) piggy-back card, IRIG time code reader and two channels PCM simulator. Each decommutator selects one input PCM channel for decommutation out of 3 available: (Output of the Bit synchronizer or differential PCM input or single ended PCM input). The simulator features dynamic counter and unique data words generation. The time code reader accepts IRIG B time code and can be programmed to utilize system time in the absence of an IRIG time source. It has a DMA engine to facilitate high-speed data transfers across the PCI bus. Setup parameters for each function are programmed via the PCI bus. Read back (status) is available over the same bus in a status word.

The TMC10127-01 card is fully supported by the PLR IDE software package thus providing all the required control such as: Setup, PCM streams recording and playback, real time display, data base management including calibration and scaling, reports preparation and generation and various search functions.

The TMC10127-01 card also includes an optional MUX-BUS 1553B monitor or R/T interface and two analog MANCHESTER – 50-Ohm single ended interfaces.

* Lumistar LS-040, SBS 4400-TF





Specifications:

- PC Interface: ¼ size standard PCI, Rev. 2.1
- Bit Rate: 250 bps to 10 Mbps
- Word Length: 8 to 16 bits.
- Minor Frame Length: Up to 16384 Bits per Minor Frame
- Bit Order: MSB-first.
- Frame Sync Pattern: Up to 32 bits. Any combination of 0, 1. any bit can be Don't Care bits.
- Sync Strategy: Adaptive Mode: (Search<—>Verify<—>Lock).
- Sync Error Tolerance: none.
- Data Polarity: Normal, Inverted.
- Major Frame Length: Up to 256 frames
- Subframe Sync: SFID (count up/down).
- SFID Location: Any contiguous bits on a PCM word boundary in minor Frame.
- External Time:
 - Input format: IRIG B, with flywheel optional
 - Carrier: 1 KHz
 - Input Level: 1 – 5 V p-p
 - Outputs: Automatic Time Tags for PCM data blocks
- PCM Simulator:
 - Output Codes: PCM Output codes NRZ-L, RNRZ-15
 - Bit Rate: 250 bps-10 Mbps NRZ codes. 5 Mbps for other codes
 - Word Length : 8 to 16 bits
 - Transmission Order:MSB first.
 - Minor Frame Length:Up to 16384 Bits per Minor Frame
 - Frame Sync Pattern:Up to 32 consecutive bits may be declared as sync.
 - Frame sync pattern must begin and end on word boundaries.