**ABOUT TOMCOD**

Tomcod is a FPGA Mezzanine Card (FMC) that simplifies the implementation of SDI video interfaces on FMC FPGA development boards. The board utilizes integrated SDI transceivers that perform all SDI processing and serialization-deserialization functions. It allows the user to quickly integrate SDI interfaces into a design without dealing with all the low-level complexities of SDI.

**STANDARD INTERFACES**

- 1x SDI Transmitter interface that supports 3G, HD, and SD modes
- 1x SDI Receiver interface that supports 3G, HD, and SD modes
- 75Ω BNC connectors
- User selectable 10 or 20 bit digital interfaces at 13.5 to 148.5 MHz (depending on mode) single or double data-rate

**CONFORMS TO MAJOR PORTIONS OF THE FPGA MEZZANINE CARD (FMC) VITA 57 STANDARD**

- Compatible with I/O voltages of 1.8V and 3.3V
- Suitable in low pin count (LPC) and high pin count (HPC) configurations
- Adheres to FMC PCB form factor
3G Capable SDI TRANSMITTER

- Utilizes the Semtech (previously Gennum) GS2962 IC
- Contains complete SDI processing path including SMPTE processing, NRZ/NRZI SMPTE scrambling, DVB-ASI 8b-10b encoding, parallel-to-serial conversion, and a SMPTE cable driver
- Supports SMPTE 425M (A & B), 424M, 292, 259M-C, DVB-ASI, and data-through modes
- Typical total power consumption: 515 mW

3G Capable SDI RECEIVER

- Utilizes the Semtech (previously Gennum) GS2961A IC
- Contains complete SDI processing path including cable equalization, reclocking, serial-to-parallel conversion, descrambling, word alignment, DVB-ASI decoding, and SMPTE processing
- Supports SMPTE 425M (A & B), 424M, 292M, 259M-C, DVB-ASI, and data-through modes
- Typical total power consumption: 400 mW

Board Features

- Exposed test points for all FMC I/O and assorted other important signals
- Locked LEDs to visually show the SDI signaling status
- Due to limited FMC I/O, 2 Rx and 2 Tx control signals are controlled by a user DIP switch