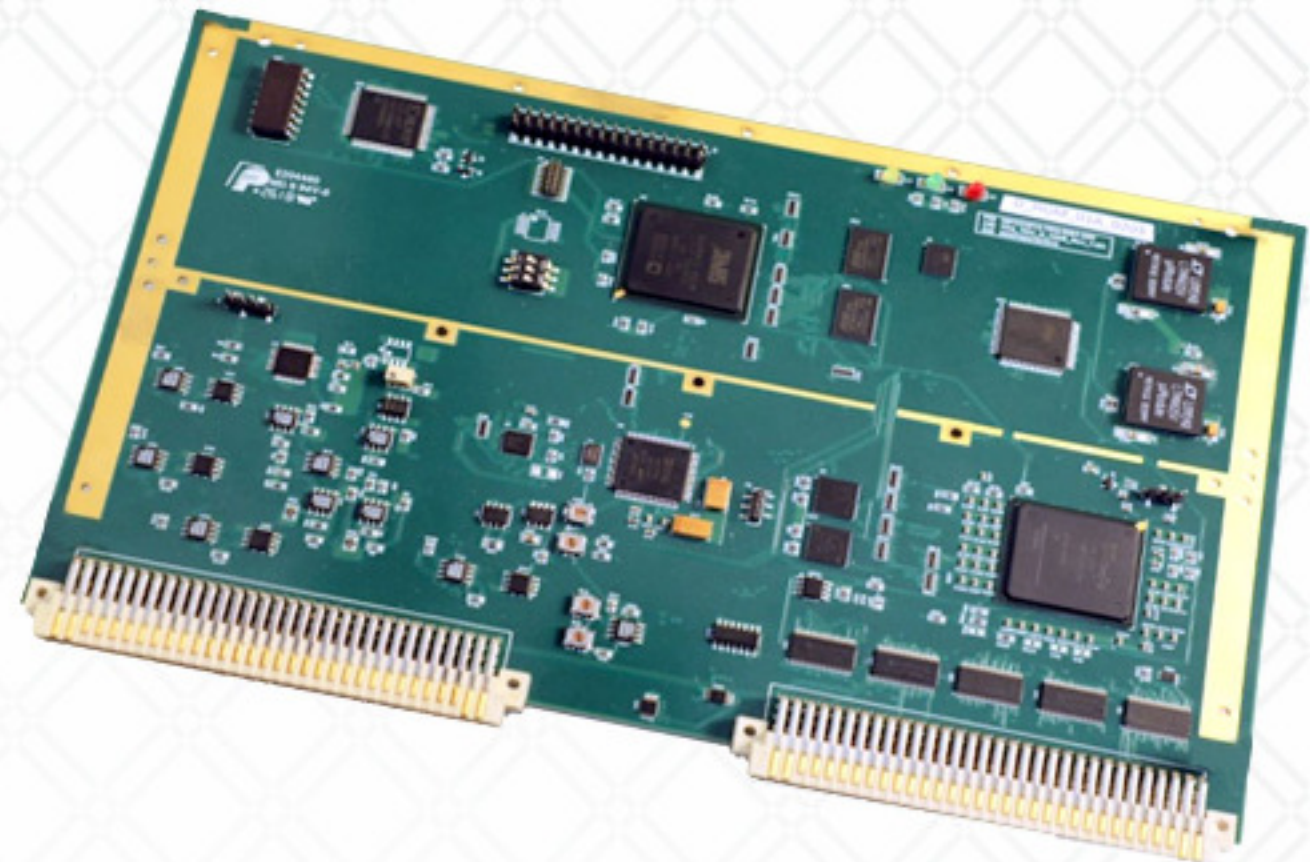
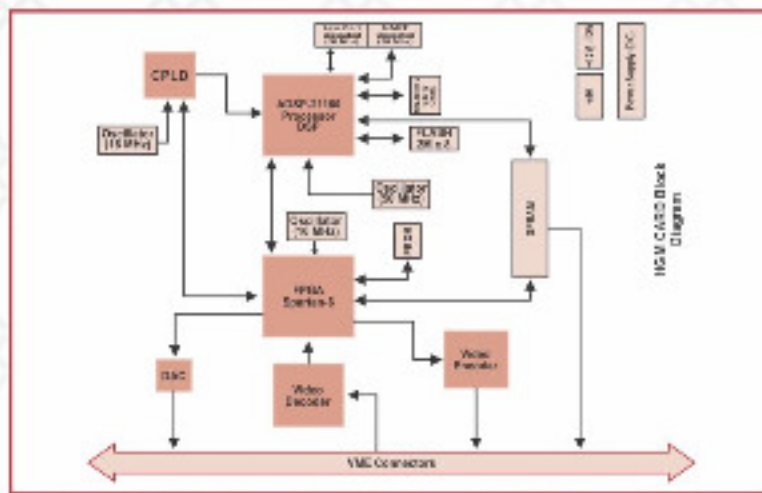


HEAD UP GRAPHIC SYMBOL GENERATION MODULE CARD



BLOCK DIAGRAM



HEAD UP GRAPHIC MODULE CARD

Specifications

Analog Devices Processor

- ADSP-21160(100 MHz Core Clock)
- 10.5ns Core Instruction Rate
- Single-Cycle Instruction Execution
- Including SIMD Operations in Both Computational Unit)
- Dual Data Address Generators with Bit reverse addressing

Random Access Memory

- 2x HIGH-SPEED 512K x 32 ASYNCHRONOUS CMOS STATIC RAM
- Arranged in High/Low Order 32-bit word each

Flash Memory

- 1x 16Mbit (x8) CMOS Multi-Purpose Flash Plus (MPF+) manufactured with SST proprietary
- High performance CMOS SuperFlash® technology

Video Encoder

- 1x Low Power, scale able 10 bit SD/HD video encoder
- Multi format video input support 4:2:2 YCrCb (SD, ED, and HD and 4:4:4 RGB (SD))
- 3 High quality 10 bit DACs
- NTSC M, PAL B/D/G/H/I/M/N, PAL 60 support

Video Decoder

- 1x Low Power, scale able 10 bit SD/HD video encoder
- Four 12-bit Noise Shaped Video ADCs sampling up to 140 MHZ
- 12 analog input channel mux & SCART fast blank support
- NTSC/PAL/SECAM color standards support
- 24-bit digital input port supports data from DVI/HDMI Rx IC
- 12-bit 4:4:4/8-bit 4:2:2 DDR pixel output interface

DAC Interface

- 1x Dual, 12-Bit, 125MSPS Digital-to-Analog Converter for generating desired analog signals
- 125MSPS update rate
- Single Supply: +3.3V or +5V

Discrete Signals

- 4 Discrete Differential Out Signals

Other Interfaces

- 1x Link Port interface with speed up to 50Mhz on standard male header
- 1x UART interface with speed up to 50Mhz

Voltage Monitor

- On board voltage monitor
- I2C Interface

Voltage Supplies

- 5V main
- +12V and -12V for analog signal generations

Features

- 6U VME form factor
- ADSP-21160 SIMD (Single Instruction Multiple Data) Processor with 10.5ns instruction rate
- Onboard Xilinx 6 Series high-end FPGA for ASICs design
- Xilinx CPLD for power sequencing and reset management
- 2x HIGH-SPEED 512K x 32 ASYNCHRONOUS CMOS STATIC RAM
- 1x 16 Mbit (2Mx8) Multi-Purpose Flash Plus memory for new application storage/modification
- 2x Synchronous Ports (50 MHz speed max)
- 2x Link Ports (50 MHz speed max)
- VCR Interface includes 1x Low Power Video Encoder (ADV7393) and 1x Multi format Video Decoder
- 1x 12 Bit DAC for Analog Signal Generation

Optional Accessories

- 6U Standard backplane
- Temperature management
- Wedge Locks

Standards

- MIL-STD-454G
- ANSI/VITA/1994 VME64
- MIL-STD-801D
- MIL-STD-461B

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