

CHROMA™ Visible-Infrared Focal Plane Electronics

CHROMA™ (Configurable Hyperspectral Readout for Multiple Applications) is an advanced focal plane array (FPA) developed for visible-infrared spectral imaging applications.

The CHROMA Focal Plane Electronics (FPE) board provides interface, control, and I/O support for CHROMA and other ROIC-based sensors. Based on a Xilinx Virtex-6 FPGA, the board interfaces to the analog outputs and timing signals of the CHROMA ROIC, samples the output signals, and converts the data to a Camera Link compatible signal.



FPE CHARACTERISTICS

Supports up to 8 analog outputs from a CHROMA ROIC

Independent 16-bit A/D converter for each analog channel

10 MHz pixel clock frequency (can be customized in FPGA logic)

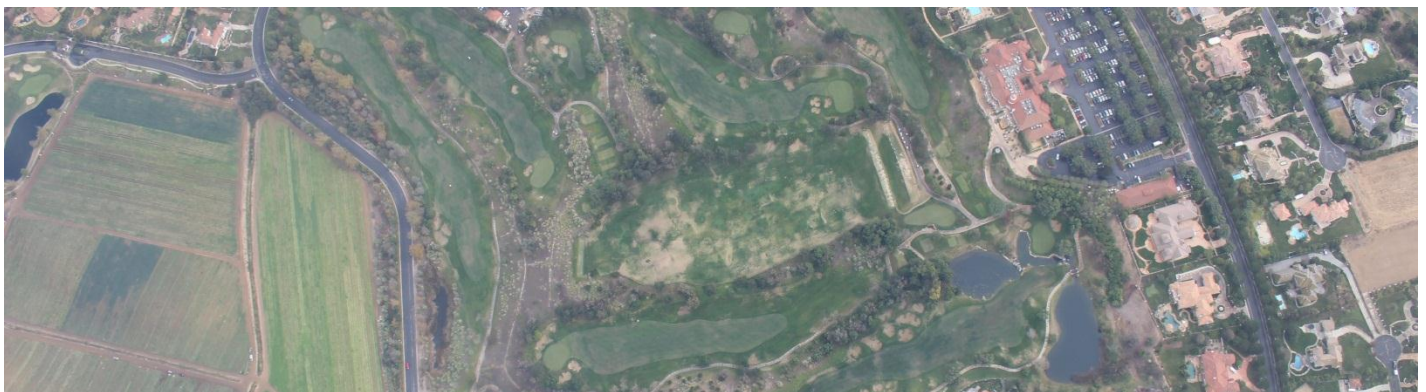
Support for full frame or sub-frame window sizes

Full Camera Link interface with mini-sized connectors

Two onboard A/D converters for generation of DSUB & REF bias diagnostics

Host control Camera Link serial port (COM port drivers eases development of host control software)

Four low noise ROIC power supplies



SPECIFICATIONS

Input/Output Connectors

ROIC I/O	Samtec ERF8-style connector (8 ROIC outputs)
	Micro-D 37-pin connector (4 or 8 ROIC outputs)
Control/Data out	Camera Link/ 2x 3M Shrunk Delta Ribbon connectors
	Camera Link Full pinout
Power input	4 channel: +5 VDC at 1.2 amp nominal, 2 amp maximum
	8 channel: +5 VDC at 1.7 amp nominal, 2 amp maximum
Board dimensions	4.3x6.25 inch / 10.9x15.9 cm
Enclosure dimensions	4.9x7.6x1.5 inch / 12.4x19.3x3.8 cm

