InGaAs Sensor Evaluation Kit

CRITICAL LINK

High performance InGaAs Sensors from Sensors Unlimited:

- ○ Accelerate Development

- ○ Reduce Technical Risk

- ○ Reduce Project Cost

The InGaAs Sensor Evaluation Kit by Critical Link is a complete hardware and software framework designed to accelerate the development of vision applications. By utilizing standard USB 2.0 and 10/100 Ethernet interfaces product development time is decreased while ease of is increased. The Sensors Unlimited Evaluation Kit features a dual board design with your selected sensor.

The Evaluation Kit includes:

- ○ **Sensor Options**
  - ○ SU256LSB (256 x 1 pixel) 1.7um Spectral Range
  - ○ SU256LSB (256 x 1 pixel) 2.2um Spectral Range
  - ○ SU512LSE (512 x 1 pixel) 1.7um Spectral Range
  - ○ SU512LSE (512 x 1 pixel) 2.2um Spectral Range
- ○ **Integrated TE cooling** - 30C below ambient
- ○ **On-board processing** – FPGA and DSP
- ○ **Standard Interfaces** – USB 2.0, Ethernet 10/100 Mbit
- ○ **Software** – MityViewer DK software for setup, acquisition, viewing and data analysis
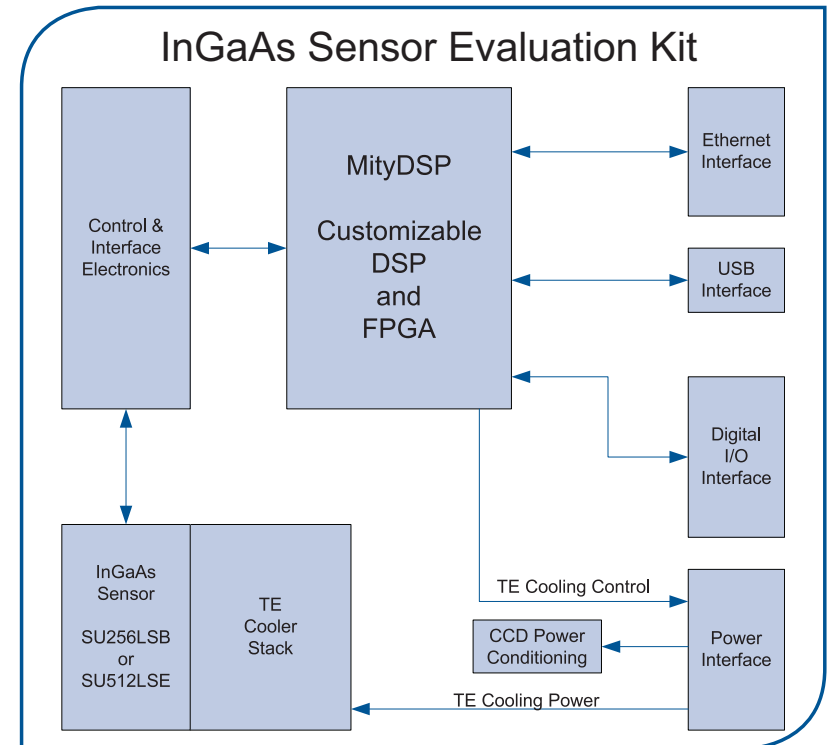

Applications:

- ○ Embedded Instrumentation
- ○ Raman Spectroscopy
- ○ Portable Scientific Instrumentation
- ○ IR Applications
- ○ Sorting Applications

TEXAS INSTRUMENTS
Design Network
Platinum Member

InGaAs Sensor Evaluation Kit

The InGaAs Evaluation Kit from Critical Link features your choice of either a SU256LSB (256 x 1 pixels) or a SU512LSE (512 x 1 pixels) InGaAs sensor with a spectral range of 1.7um or 2.2um. The complete kit includes the sensor of your choice and a MityDSP processing engine with both a DSP and an FPGA for algorithm development. With standard high speed 100 Mbit Ethernet and USB 2.0 interfaces interfacing with the evaluation kit is easy. A simple to use user interface allows for quick evaluation of the Sensors Unlimited products.

The SU256LSB / SU512LSE Evaluation Kits integrate thermoelectrically cooled high performance InGaAs infrared photodiode sensors suitable for scientific instrumentation. These sensors offer a nominal Quantum Efficiency of 70% and depending on the sensors selected it can exceed 80%. Coupled with Critical Link's MityDSP processing engine algorithm evaluation on a Sensors Unlimited sensor is faster and easier than ever.

With any Sensors Unlimited sensor, the Critical Link InGaAs Sensor Evaluation Kit is a winning platform for your IR development.

InGaAs Sensor Evaluation Kit

	SU256LSB	SU512LSE
Active Pixels	256 (H) x 1 (V)	512 (H) x 1 (V)
Pixel Size	50 um x 500 um	50 um x 500 um
Frame Rate	20 FPS	20 FPS
Readout Noise High Sensitivity (25Khz)	800 e-	800 e-
Readout Noise High Dynamic Range (25Khz)	10,000 e-	10,000 e-
Dark current e- /pixel / sec @ 20C	<5.0 e-	<5.0 e-
Peak Quantum efficiency 1.7um	>80%	>80%
Peak Quantum efficiency 2.2um	>65%	>65%