Analog Sensor Electronics

Evaluation and Demo System for Analog FPAs

The ASE-8 and ASE-16 electronics systems are high performance camera electronics platforms for evaluation and demonstration of analog infrared FPAs. They were created to simplify and accelerate the evaluation and test cycle associated with focal plane array (FPA) development.

Two systems are available: the ASE-8 has eight analog-to-digital (ADC) converter channels and the ASE-16 has sixteen channels.

The ASE-8 and ASE-16 systems can be configured to support many industry standard FPAs including the Teledyne FLIR products: ISC0002, ISC0209, ISC0309, ISC0403, ISC0404, ISC0802, ISC0804, ISC1202, ISC1308, ISC1901, ISC1902, ISC9705, ISC9809.

The picture shown above illustrates an ASE-8 unit in the lower left of the picture. The ASE-8 power supply (supplied as part of the system) is shown in the upper left. On the lower right hand side is the 10GigE frame grabber unit that is also supplied as part of the system. The picture also shows a Senseeker LN2 pour-fill Dewar Sensor Test Unit (STU) in the lower center. The STU and computer are sold separately from the ASE-8 and ASE-16 system.

ASE-8 and ASE-16 Features Table

Feature	ASE-8	ASE-16
Input Channels	8	16
FPA Clocks	8	8
Bias Supplies	12	12
Form factor	Half-rack	Rack
Frame grabber	10 GigE, 160 MSPS	10 GigE, 320 MSPS

The ASE systems consist of three units—the ASE electronics in a rack (ASE-16) or half-rack sized (ASE-8) housing, a power supply unit and a frame grabber unit.

The FPA to be tested will reside in a STU that can be supplied by Senseeker. The output of the STU is connected to the input of the ASE unit. The output of the ASE unit is connected to a computer that can be supplied by Senseeker. This computer will run the CamIRa-ASE software package and the CamIRa configuration file that is required to configure the specific parameters for the FPA to be tested. The CamIRa-ASE software package and the CamIRa configuration file are sold separately from the ASE hardware.

The electronics hardware is configured for a particular FPA by a factory set-up to install timing files and bias settings to support the specific FPA to be tested. Senseeker shall conduct the set-up prior to shipment.

ASE-8

The 8-channel Analog Sensor Electronics system (ASE-8) supports a broad range of industry standard small-to-mid sized FPAs (that have eight or fewer output channels). The frame grabber unit is shown on the left of the picture. The ASE-8 electronics cards can be seen slotted into the electronics enclosure that is sitting on top of the power supply unit.

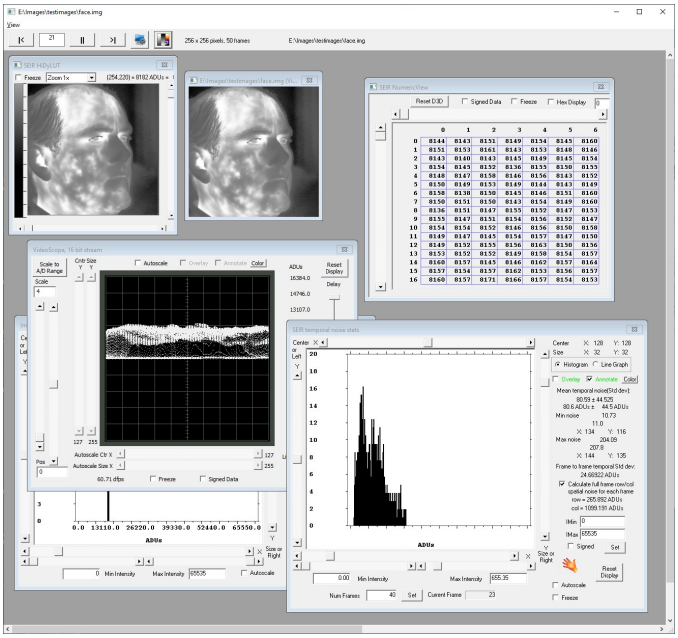
ASE-16

The 16-channel Analog Sensor Electronics system (ASE-16) supports a broad range of industry standard mid-to-large sized FPAs (that have up to 16 output channels). The electronics enclosure is shown sitting above the power supply. The frame grabber unit is shown above the electronics enclosure.

CamIRa®-ASE Software

The ASE-8 and ASE-16 electronics systems operate with windows-based CamIRa® software that is supplied separately.

The CamIRa-ASE software includes all of the resources needed to operate and control FPAs through the hardware. The software is used to setup, control and perform analysis on image data coming from the FPA.



CamIRa application software showing multiple windows open to analyze images and data from an FPA.

CamIRa-ASE includes 2-point correction, image subtraction, image statistics, FPA parameter setup (inc. frame rate and integration time), image setup and orientation, image capture functions, display control and many other functions. Image processing filters for creating real-time DirectShow processing chains are included. The filter chain editor allows construction of image processing chains used to evaluate image processing techniques on live and stored data. A TCP/IP socket interface allows for remote control of camera settings along with remote data capture.

Availability and Contact Information

Available to order now
Contact sales for pricing information:
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