

GÜCÜNÜ BİLGİDEN ALIR

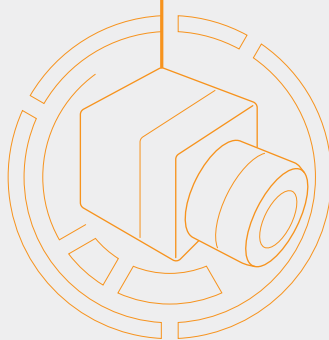


Lightweight
Low Power

Electro Optic
Systems

AIK^{LP}

INFRARED
IMAGING MODULE





AIR^{LP}

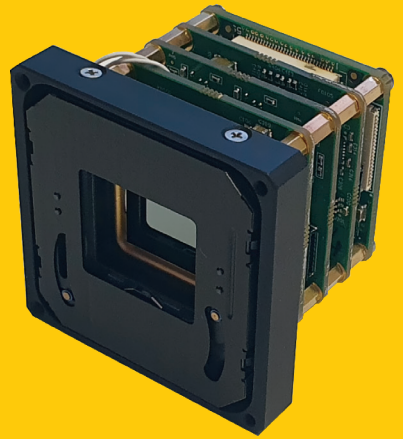
ALTAY Infrared Imaging Module

GENERAL

- High range performance
- Advance image processing algorithms
- Low power consumption
- Compact size
- Light weight
- Robust structure
- Fast start up time
- Different lens alternatives available
- Video and control interface for Day TV

APPLICATION

- Thermal Sights
- Hand Held Systems
- Driver Vision Systems
- Reconnaissance and Surveillance Systems
- Situational Awareness Systems





SPECIFICATIONS

Array Specifications

Array Type	Uncooled Microbolometer
Material	ASi
Detector Pitch	(A) 17 μm x 17 μm (B) 12 μm x 12 μm
Spectral Band	8 μm to 14 μm
Resolution	640 (Horizontal) x 480 (Vertical)
Sensitivity (f#1.0, 300 K)	< 50 mK (for A) < 30 mK (for A) < 60 mK (for B) < 50 mK (for B)
Pixel Operability	> 99.5 %

Mechanical Interface

Dimensions	42 mm x 42 mm x 40 mm
PCB Dimensions	32 mm x 32 mm
Weight	< 60 gr

Performance

Frame Rate	25 Hz (configurable up to 60 Hz)
Time-to-image	< 2 sec
Digital Zoom	X1, X2, X3, X4
Digital Zoom Continuous	From X1 to X4 with 0.02 steps.
Power Supply	Standard Version: 2.8 V to 5.5 V Extended Version: 6 V to 17 V
Power Consumption	Video Output: Cameralink video < 1 W Video Output: Cameralink video + Analog Video < 1.2 W Video Output: Parallel video < 0.6 W Video Output: Parallel video + Analog Video < 0.72 W Video Output: Parallel video + Analog Video Ethernet (optional) < 1.2 W

Note: In all modes, image processing algorithms except local contrast enhancement are active. When local contrast enhancement is enabled, power consumption will be increased by 40 mW.

Noise Cancellation	Adaptive Temporal and Spatial Noise Cancellation
Detail Enhancement	Edge Aware Adaptive Digital Detail Enhancement
Image Enhancement	Plateau-based Adaptive Histogram Equalization / Linear / Manual
Contrast Enhancement	Local Contrast Enhancement
Color Palette	Up to 8 different palettes
Live Calibration	With Shutter (periodic or externally controllable)

Interfaces

Day TV	LVDS or Parallel Video Interface RS232 control interface
Connectors	DF20G-40DP-IV (56) Hirose 40 pin board-to-cable. USL00-30L-B (Sony Connector for Day TV option)
Mating Connectors	DF20A-40DS-1C (Main connector, 40 pin) USL20-30SS-012.0-B (Sony connector for Day TV option)
Communication	RS-232 (9600/19200/38400/57600/115200) Ethernet (1 Gbps) (optional) GPIO

Note: In GPIO mode, only basic controls are available.

Digital Video Output	Parallel Video 1.8 V or 3.3 V LVCMOS: 8 Data + Vsync + Hsync + Pixclk Ethernet (optional): Real-Time Transport Protocol. Payload type is RFC4175 Cameralink (optional)
Analog Video Output	PAL
GPIO	5 pins 1.8 V or 3.3 V LVCMOS (Configurable with respect to customer requirements)
External Trigger	Yes (controlled with 1 GPIO)

Environmental Conditions

Working Temperature	[-40 $^{\circ}\text{C}$, +71 $^{\circ}\text{C}$]
Storage Temperature	[-40 $^{\circ}\text{C}$, +75 $^{\circ}\text{C}$]

Specifications are subject to change without notice.

