AD-080 CL
2 CCD Multi-spectral camera

- Multi-spectral 2-channel CCD camera
- Advanced series 2 x 1/3” progressive scan camera
- Simultaneously captures Visible and Near-IR through the same optical path
- 1024 (h) x 768 (v) active pixels per channel
- 4.65 µm square pixels
- 30 frames/second with full resolution
- Increased frame rate with partial scan
- Programmable exposure from 20µs to 33ms
- Pre-select and Pulse width trigger modes
- LVAL Synchronous/-asynchronous operation (auto-detect)
- Auto-iris lens video output allows a wider range of light
- RGB 24-bit or Raw Bayer 10 or 8-bit output for visible
- 10 or 8-bit output for Near-IR
- Setup by Windows NT/2000/XP via serial communication
Specifications for AD-080CL

Sensor
Visible 1/3" color Bayer mosaic IT CCD
Near-IR 1/3" Monochrome interline transfer CCD

Pixel Clock
33.75 MHz

Frame rate full frame
30 frames/sec.

Active area
4.76 (h) x 3.57 (v) mm

Cell size
4.65 (h) x 4.65 (v) µm

Active pixels
1024 (h) x 768 (v)

Color visible
Raw Bayer output or RGB 24-bit

Read-out modes
Full 1024 (h) x 768 (v) 30 fps
1/2 partial scan 1024 (h) x 384 (v) 48 fps
1/4 partial scan 1024 (h) x 192 (v) 68 fps
1/8 partial scan 1024 (h) x 96 (v) 86 fps

Sensitivity
Visible 1.4 Lux (On sensor, max. gain, shutter off, 50% video)
Near-IR 0.44W/cm2 at 800nm (On sensor, max. gain, shutter off, 50% video)

S/N ratio
>54dB (Gain 0 dB, shutter off)

Input
Camera Link

Gain
-3dB to +12dB

Auto Iris lens video output
-3dB to +12dB

Trigger modes
Pre Select, Pulse Width

Electronic shutter
Pre-set shutter 1/30 to 1/50,000 sec. in 12 steps
Programmable exposure 0.5L to 792L (1LVAL unit)

White balance
Only for RGB 24-bits output

Knee function
Near-IR 8 or 10 bit Knee point, Knee slope

Control interface
Camera Link

Functions controlled by serial communication
Gain, shutter, trigger modes, read-out modes, bit depth

Indicators on rear panel
LED for power and trigger input

Operating Temperature
-5°C to +45°C

Humidity (operation)
20 - 80% non-condensing

Storage temp./humidity
-25°C to +60°C / 20 % to 80%

Vibration
3G (15 Hz to 200 Hz XYZ)

Shock
0.5G

Regulations
CE (EN 61000-6-2, EN-65000-6-3), FCC part 15 class B, RoHS/WEEE

Power
12V DC ±10%, 4 W

Lens mount
C-mount

Dimensions (H x W x L)
55(H) x 55(W) x 80(D) mm

Weight
400 g

2CCD Prism

Color bayer mosaic CCD sensor

Near-IR (monochrome) CCD sensor

DC In / Trigger

HIROSE HR10A-10B-12PB-01

Pin Function
1 Ground
2 +12V DC
3 Ground
4 Auto Iris lens video output
5 Ground
6 XEEN 1 out
7 XEEN 2 out
8 Ground
9 Not used
10 Trigger 1 in
11 Trigger 2 in
12 Ground

Camera Link Interface
26 pin MDR connector 3M 10226-1A10JL

Pin Signal Function
1 14 GND
15 +/Tx0 CL Data
16 +/Tx1 CL Data
17 +/Tx2 CL Data
18 +/Tclk CL clk
19 +/T3 CL Data
20 SerTC+/SerTC- Serial in*
21 SerTFG+/SerTFG- Serial out*
22 CC1-/CC1+ Ext. trig*
23 Clk., FVAL, LVAL, Data, EEN
26 GND

Pin 2

Camera Link medium configuration.

Ordering Information

AD-08oCL Digital 2CCD Progressive Scan Multi-Spectral Camera

Visit our web site on www.jai.com