First Sensor

Blue Eagle digital camera DC3K-1-LVD

The Blue Eagle DC3K-1-LVD is a HDR-CMOS image sensor camera with LVDS data interface. The camera has a cubic housing layout with a pig tail including a HSD connector. Key feature is its very high thermal and mechanical stability. The camera is resistant against harsh environmental conditions like mechanical shocks, vibrations and hazardous atmospheres. Due to its IP67 housing the camera is also suitable for outdoor applications.

Features

- LVDS data interface
- 12 VDC power supply
- Low power consumption
- Wide range of fixed focus optics available
  - $HFoV_{Min}$ = 52°
  - $HFoV_{Max}$ = 192°
- Water tight optic with anti-scratch
- IP67 protection class
- Extended operating temperature
  - T_{Min} = -40 °C
  - T_{Max} = +85 °C

Applications

- Front view, rear view, area view and blind spot detection
  - Cars
  - Heavy trucks
  - Forklifts
  - Agriculture equipment
  - Mining machines

Certificates

- ISO/TS 16949

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Specifications

Parameter	
Power supply	$V_{DC\ IN}$ = 12 VDC
Current consumption	120 mA @ 12 VDC and 30 fps
Operating temperature	-40 °C ... +85 °C

Technical data

Parameter	Aptina imager [DC3K-1-LVD...A]	OmniVision imager [DC3K-1-LVD...O]
Sensor type	1/3 inch HDR-CMOS sensor AR0132AT including AP0100 1.2 Mp (1280 x 960)	1/2.7 inch HDR-CMOS sensor OV10635 1.0 Mp (1280 x 860)
Supported picture size	WXGA (1280 x 800)	WXGA (1280 x 800) HD 720p (1280 x 720) WVGA (768 x 480) VGA (640 x 480)
Sensitivity	Dynamic range: >100 dB (including optic)	
	Max. S/N ratio: 44 dB	Max. S/N ratio: 39 dB
Data interface	FPD-link III serializer DS90UB913Q 10-100 MHz 10/20-bit DC-balanced Bi-directional (I²C-controller interface at 400 kHz)	
Format video stream	Pure transmission of raw signal	
General camera parameter	Automated gain control (AGC) High dynamic range (HDR) Automated white balance (AWB) Shutter: Electronic rolling shutter (ERS)	
Optics	52° ±2° horizontal field of view	
	105° ±2° horizontal field of view	112° ±2° horizontal field of view
	192° ±2° horizontal field of view	
	Anti-reflection coating (ARC), anti-scratch	