

Blue Eagle digital camera DC3K-1-EAP

The Blue Eagle DC3K-1-EAP is a HDR-CMOS image sensor camera with automotive Power over Ethernet (automotive PoE) 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

- Quiet-wire data interface
- 12 VDC automotive PoE
- Low power consumption
- Wide range of fixed focus optics available
 - $\text{HFoV}_{\text{Min}} = 52^\circ$
 - $\text{HFoV}_{\text{Max}} = 192^\circ$
- Water tight optic with anti-scratch
- IP67 protection class
- Extended operating temperature
 - $T_{\text{Min}} = -40^\circ\text{C}$
 - $T_{\text{Max}} = +85^\circ\text{C}$

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 (PoE)	$V_{DC\ IN - PoE} = 12\ VDC$ 4 port PoE switch according to automotive power supply
Current consumption	115 mA @ 12 VDC
Operating temperature	-40 °C ... +85 °C

Technical data

Parameter	Aptina imager [DC3K-1-EAP...A]	OmniVision imager [DC3K-1-EAP...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	Microchip KSZ8061MNX	Marvell 88E6321
	MJPEG Scalable data rate (15 ... 70 MBit/sec) Compression factor: 500/(15 ... 70 MBit/sec) 30 fps	
Format video stream ⁽¹⁾	UDP (MJPEG-video compression) or 1722 AVB-Package ⁽²⁾	
Band width	~60 MBit per sec and camera	
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

Specification notes

- (1) Firmware allows to change format during use.
 (2) IEEE 802.1Qat, IEEE 802.1AS, IEEE 802.1Qav and IEEE 802.1 BA are not included.