



HD Video with different focal lenses. Panoramic view from 17° up to 95° FOV. Full protection against icing and fogging. IP 67 housing for gimbals mounting. Kappa is your experienced partner in cameras for aerospace uses. Harsh environments and seamless integration are our forte. We are certified to EN/AS 9100.

HD-SDI ✓

Aircraft Outdoor Tasks ✓

### Sensor-specific data

Type	2/3" interline transfer CCD progressive scan with micro lenses (OnSemi KAI 02150)
Pixel size (H x V)	5.5 µm x 5.5 µm
Light-sensitive area (H x V)	10.56 mm x 5.94 mm (16:9)
Number of pixels (H x V)	1920 x 1080 active, 2004 x 1144 total
Spectral sensitivity (without IR filter)	350 nm – 1050 nm
Full well capacity	20 000 e <sup>-</sup>
A/D-conversion factor	1,2 e <sup>-</sup> / increment
Filter	RGB Bayer filter / IR filter
Dynamic range	62 dB (measured in a dark image, at 40 ms exposure and 0 dB gain)
Sensitivity	0,5 lx at target

### Interface-specific data

Video output signals	Electrical digital video output: HD-SDI, high definition digital video (HDTV), 1920 x 1080 p/25
Communication interface	RS 485 half duplex

### Signal processing data

System	14 bit digital
Gain	Manual/automatic (AGC): 0 to 20 dB
Exposure	1/25 to 1/100 000 s
Color processing	14 Bit color DSP
Gamma	0.3 to 2.2, loadable
Diagnostics	Integrated self-test
Line generator	2 reticles: position, color and size adjustable
Measurement window	Position and size adjustable
Mirror	Horizontal image mirror

### General technical data

FOV, field of view (different camera versions)	Lenses 35 mm 23 mm 12 mm 8 mm 6 mm 4,8 mm H/V / FOV 17°/10° 26°/15° 48°/28° 67°/41° 83°/53° 95°/64°
Compliance	ROHS, RTCA DO-160
Reliability	MIL-HDBK-217; MTBF AUC 25°C: >57.000 h; MTBF AUC 50°C: >31.000 h
Altitude	DO-160, Section 4, Category D2; 50.000 ft
Interfaces	MIL-C 26482 (Power); MIL-DTL-38999 Series II (Control); BNC (HD-SDI)
Temperature	DO-160, Section 4, Category D2; Operational: -55°C..+70°C; Storage: -55°C..+85°C
Temperature Variation	DO-160, Section 5, Category A
Relative Humidity	DO-160, Section 6, Category C
Power Supply	MIL-STD 704A; 15V..50V DC, galvanic isolation, camera electronics ~7 W, heating element ~ 13 W
Dimensions / Weight	Ø 60 x 140 [mm] (without connectors) / 620 g
EMI (Emission)	DO-160, Section 21, Category M; Conducted and Radiated
EMI (Susceptibility)	Conducted : DO-160, Section 20, Category T; Radiated: 100 MHz – 8 GHz
EMI (ESD)	DO-160, Section 25, Category A
Shock	Operational: DO-160, Section 7, Category D; 6 g for 20 ms on the 3 axes Crash Safety: DO-160, Section 7, Category E
Vibration	DO-160, Section 8, Category R, Curve B
Lightning Indirect effect	Pin injection WF3; pin injection WF 5A: DO-160, Section 22, pin injection, Category B2
Protection Type	IP67, de-icing system, sapphire glass
Acceptability for Electronic Assemblies	IPC-A-610 Class 3 (optional)

Technical data are subject to change without notice.

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### Headquarters

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