Cameras for UAV Missions
Piloting and Payload Operation
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Kappa offers you DO-160/MLSTD 704-qualified camera solutions for every UAV and UAS use requirement and range (Tactical, MALE, HALE). High resolution imaging is a key factor in UAV missions such as piloting, targeting, surveillance and search & rescue. Our high performance cameras provide you with precise information for target identification, topography, location and movement of assets, even under extreme low light conditions. The day & night visions are perfectly suited for long-range applications from VIS up to extended vision with SWIR and LWIR. Our Retrofit Design cameras for swapping out existing older camera technology in drones fit seamlessly into the elaborate systems of our military customers with complete investment security for the obsolescence management. These SWaP-C-optimized, highly robust cameras are integrated into gimbals/payloads or mounted externally onto the aircraft. Various small and lightweight versions, such as miniaturized cameras or remote head cameras, are available.

- **Crisp Clear Videos**
- **H.264 - Dual Streaming**
- **Power Gap Survival**
- **Visibility under Low Light Conditions**

### Kappa optronics: Your Partner for Aviation Cameras

Kappa is your partner for application-specific cameras with a strong emphasis on aerospace applications. We have decades of intensive experience with aerospace cameras in uses of all kinds, and we know our customers’ requirements inside and out. Kappa cameras are perfectly designed for the environmental conditions of aviation applications. Our state-of-the-art camera solutions integrate seamlessly into your application, even with specific modifications for your specialized use. As one of the few camera suppliers worldwide in this field, Kappa is EN/AS 9100 certified.

### Maximum Safety!

EN / AS / JISQ 9100 certified camera supplier
RTCA / DO-178C
RTCA / DO-254 (up to DAL B)
DO-160 / MIL-STD 704
ED-312A, ED-153 and all other applicable standards.

### Features/Benefits

#### UAV Piloting Cameras

**Features**
- Full HD 1080, color version
- Full HD 1080, B/W version
- H.264 compression inside the camera
- Dual stream compression
- 250 ms power gap survival
- Extensive set of commands
- Automatic de-icing & de-misting
- Various FoV for different tasks/positions

**Benefits**
- Crisp clear videos during take-off, flight, taxiing and landing
- Visiblity under extreme low light (quarter moon) conditions
- Low bandwidth usage configurable 250 Kb to 8 Mb
- Bandwidth flexibility for telemetry and onboard recording
- No frame lost even at short time power interrupt
- Control and command of any camera function and setting from ground station
- Clear view even in extreme low temperature zone
- Camera for tail fin & wing tip (full sight of whole aircraft during flight)
- Camera for nose wheel (detail view of taxiing area)
- Various FoV 48° up to 130° FoV

#### UAV Payload Operation Cameras

**Features**
- Sensors: 1080p60 up to 4K VIS, SWIR, LWIR
- 4K sensor featuring unrivalled digital zoom up to 16x compared to PAL/NTSC
- Sensor unit detachable from electronics
- Smart light weight design
- Various FoV for different tasks
- Motorized zoom 30x

**Benefits**
- Global shutter sensor for sharp video even when following fast moving objects
- Small size Full HD sensor for minimized space when using telezoom lens
- 4K sensor featuring unrivalled digital zoom up to 16x compared to PAL/NTSC
- Optimum usage of available space inside gimbal
- Payload integration, various FoVs down to 2°
- DRi: Detection (4pix vertical): range-person data up to 48.4 km, range car/vehicle data up to 63.6 km
Kappa camera solutions
Your benefits at a glance

- Latest sensor technology up to 4K
- Extremely rugged design
- Day & night vision under demanding light conditions
- Low-Latency
- Distortion-free imaging of fast-moving scenes
- Maximum safety (e.g., DO-254, DO-178C)
- High integration capability
- Complete systems for your requirements
- Long-term availability & functional warranty over the life cycle