D64 TR

Aerora™ Multi Sensor and Lens AI Camera

The Ultimate NDAA–Compliant AI Camera + Thermal for UAVs

The Aerora™ Dual Sensor AI Camera combines 64MP RGB and FLIR thermal imaging with real-time AI processing, delivering exceptional clarity and precision for first responders, industrial inspections, and defence operations. Built to withstand extreme conditions, its rugged, lightweight design ensures easy drone integration, outstanding reliability, and full NDAA compliance—so you can operate confidently in any environment.

- **NDAA Compliance & Secure Manufacturing**

  Meets NDAA security & supply chain standards
  Assembled & tested in the USA

- **Dual High-Resolution Imaging**

  64MP RGB Camera – Crystal-clear details, 4K video at 60/30 fps
  FLIR Boson® 640R Thermal Sensor – Sharp infrared vision, 640 × 512 resolution

- **Powerful AI & Real-time Processing**

  15 TOPS AI Engine – Enables real-time object detection & analytics
  Qualcomm® QRB5165 SoC – Octa-core CPU & Adreno™ 650 GPU

- **Ultimate Stability & Seamless Integration**

  3-Axis Gimbal – Supports up to 31mph wind resistance
  Multiple Interfaces – CAN, UART, SBUS, PPM, Ethernet, USB 3.0, HDMI, Mavlink

- **Reliable & Rugged Design**

  IP44 Enclosure, IP54 Camera – Operates in harsh environments
  Operating Temperature: –10°C to 50°C

- **White-labeling**
  Customizable branding options.

KEY SPECIFICATIONS

Hardware	W101mm x H110mm x D90.64mm (4.0" x 4.3" x 3.6") 262g (9.2oz), Aluminum 12V	
Camera	**RGB**	**Thermal**
Resolution	64MP (1/2" sensor)	FLIR Boson® 640 x 512
Field of View (FOV)	67°HFOV	32°HFOV
F Value	F2.3	F1.0
Picture Size	64MP (9248 x 6944) 16MP (4624 x 3472)	640 x 512
Digital Zoom	924 x 694 zoom crop in 64MP mode 462 x 347 zoom crop in 16MP mode	
Picture Format	JPEG	RJPEG
Video Size	4K (3840x2160) @ 60fps or 30fps FHD (1920x1080) @ 60fps or 30fps	640 x 512 @ 30fps
Video Format	MP4 with H.264 encoding	
Live Video Stream	H.264 1280 x 720 at 30fps	
IR Image Display	Side-by-Side, Picture-by-Picture	
IR Color Modes	White hot, Black hot, Rainbow, RainHC, Ironbow, Lava, Arctic, Glowbow, Graded Fire, Hottest	
Processing & AI	**AI Engine:** 15 Tera Operations Per Second (TOPS)	
	Processor: Qualcomm QRB5165 Octa-core	
Gimbal System	**Stabilization:** 3-axis with ±0.02° precision	
	Movement: Pan/Yaw ±90°, Tilt -90° to +10°, Roll ±45°	
	Wind Resistance: Level 6 (max 14 m/s)	
SD card Support	exFAT with 64GB or larger V30 100MB/s	
Connectivity	CAN, UART, SBUS, PPM, Ethernet (10/100 Mbps), USB 3.0, HDMI	
Environmental	**Operating Temperature:** -10°C to 50°C	
	Certification: FCC, IP44	
NDAA Compliance	Meets NDAA requirements	
	Assembled, tested, and manufactured in the USA	

Aerora™ has you future proofed

Accelerating Drone & Robotics Innovation

Empowering your products with NDAA-compliant propulsion, advanced ground control stations, and precision AI payload systems — ready to rapidly scale your solutions.

Faster Time-to-Market | 100% NDAA Compliant | Effortless Scaling

Let's get started
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