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TADAS CVBS THERMAL DRIVING ASSISTANCE SYSTEM

WTD640-9-C-90



- High image quality: < 30 mK, 640 × 480, FPGA processing.
- Wide range of application: UGV, rescue, defence, heavy machinery; EU-made & ITAR-free.
- The right optics for the mission: 7.5/14 mm (91×74° / 42×32°); Person 520 m, vehicle 1,260 m.
- Quick & easy operation: boot < 6 s, RS-485, WEOM GUI, deadpixel correction.
- Compact & robust: 70×65×114 mm, 0.6 kg, IP67, heated germanium glazing

PRODUCT DESCRIPTION

Workswell TADAS is a high-performance thermal ADAS (Advanced Driving Assistance System) engineered and manufactured in Europe to improve safety, reliability and operational efficiency in challenging conditions. As an ITAR-free solution, TADAS supports global deployment and is ideal for platforms such as UGVs, heavy machinery, defence and patrol vehicles, and rescue systems where visibility can change rapidly.

FPGA-based image processing enhances scene clarity in low visibility, while the thermal core delivers <30 mK sensitivity at 640 × 480 px to reveal subtle temperature differences. With a measurement span from −50 °C to +600 °C, TADAS supports everything from navigation and obstacle awareness to search-and-rescue decision support and threat detection.

Built for harsh environments, TADAS features a robust aluminium chassis with IP67 protection and verified resistance to vibration (3.0 Grms) and shock (15G) for stable operation in the field. A front germanium window with an integrated de-icing heater helps keep the optics clear of ice, rain and debris to preserve image quality. The compact, lightweight housing and flexible mounting options simplify integration across a wide range of vehicles and platforms.

For rapid readiness, TADAS starts in under six seconds. Operators can fine-tune output using AGC/MGC, spatial and temporal filtering, and 14 colour palettes (including two user-defined). Configuration is handled via the WEOM GUI, and connection to host systems is supported through a MIL-spec connector, CVBS video output and an RS-485 interface—helping streamline integration into defence, security and autonomous solutions.

By combining rugged hardware, advanced image processing and fast commissioning, Workswell TADAS delivers a dependable thermal driving assistance capability—designed to enhance safety and operational precision when it matters most.

TECHNICAL DATA

12101_Pixel size	17 µm
12580_Detector type	Okyld LWIR-mikrobolometer
12581_Spectral Band	8–14 µm
12582_Resolution (sensor)	640 × 480 px
12583_Thermal sensitivity (NETD)	< 30 mK
12584_Temperature range – High Gain	-50 °C till +160 °C
12585_Temperaturområde – Low Gain	-50 °C till +600 °C
12586_Focus (lens)	Fast, 7,5 mm f/1.2, FOV 91° (H) × 74° (V)
12588_Image rotation – Invert	Yes
12589_Image rotation – Mirror	Yes
12590_AGC	Yes

12590_Spatial image filter	Ja (Median, full frame 60 Hz)
12592_MGC	Yes
12593_CVBS plugin	Ja (CVBS via MIL-KPT02E10-6P, 6 ledare)
12597_Video outputs	CVBS (komposit) via MIL-KPT02E10-6P
12598_Dead Pixel Correction	Yes
12599_Dimensions (without lens)	70 (h) × 65 (b) × 114 (l) mm
12600_Weight (without lens)	600 g
Certificate	RoHS
Current consumption	3,5 W
Frame Rate	9 Hz
IP class	IP67
Material of body	Aluminium
Operating temperature	-32 °C to +65 °C
Rated voltage	12–24 V DC
Start-up time	< 6 s
Storage temperature	-50 °C to +90 °C

