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TADAS ETHERNET — THERMAL DRIVING ASSISTANCE SYSTEM (ETHERNET/POE)

WTD640-9-E-42



- Reliable vision in near-zero visibility: High thermal sensitivity (<30 mK)
- Plug-and-play IP integration: Ethernet with PoE, ONVIF support and RTSP/H.264
- • Built for field deployment: Robust IP67 aluminium housing with certified vibration (3.0 Grms) and shock resistance (15G), plus a heated germanium front window to keep the view clear in adverse weather.

PRODUCT DESCRIPTION

Workswell TADAS Ethernet is a state-of-the-art thermal driving assistance camera designed to maintain situational awareness when visible-light systems fail—at night, in smoke, dust, rain or glare. Developed and manufactured in Europe as an ITAR-free solution, it combines a high-sensitivity 640 × 480 LWIR thermal core with advanced FPGA image processing and straightforward IP integration (Ethernet with PoE and ONVIF) for rapid deployment on demanding ground and maritime platforms.

Key features at a glance

- **Thermal core:** uncooled LWIR microbolometer, 8–14 µm, 640 × 480 px, 17 µm pixel pitch
- **Frame rate options:** 9 Hz or up to 60 Hz full frame rate (model/configuration dependent)
- **Scene temperature range:** −50 °C to +600 °C (gain modes)
- **Fast start:** boots in under 6 seconds
- **Image optimization:** AGC/MGC, spatial + temporal filtering, 14 palettes (2 user-definable)
- **Network & control:** DHCP/static IP, HTTPS support, remote update via web interface (configuration dependent)
- **Power:** PoE (IEEE 802.3af) or external 12–24 VDC

Mission-adaptive lens options

Choose the field of view that matches your mission: a wide 7.5 mm lens (approx. 91° × 74°) for close-range awareness, or a 14 mm lens (approx. 42° × 32°) for longer-range observation. With the 14 mm option, TADAS Ethernet can detect a person at up to ~520 m and a vehicle at up to ~1,260 m (indicative ranges; dependent on conditions and criteria).

Typical applications

- Unmanned ground vehicles (UGVs) and unmanned surface vehicles (USVs)
- Heavy-duty machinery and mining/construction vehicles
- Defence and border patrol platforms requiring robust thermal situational awareness
- Firefighting and emergency response vehicles operating in smoke/low visibility
- Security and surveillance systems needing IP video + PTZ control

Talk to us: Tell us your platform (UGV/USV/vehicle), preferred lens (7.5 mm vs. 14 mm), frame-rate requirement and network architecture. We'll recommend the best TADAS Ethernet configuration for fast integration and field-ready performance. Vision@OEM.co.uk

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, 14 mm f/1.2, FOV 42° (H) × 32° (V)

12588_Image rotation – Invert	Yes
12589_Image rotation – Mirror	Yes
12590_AGC	Yes
12590_Spatial image filter	Ja (Median, full frame 60 Hz)
12595_GigE plugin	Ja (Ethernet PoE)
12597_Video outputs	RTSP, H.264 via Ethernet (realtidsström i webklient)
12599_Dimensions (without lens)	70 (h) × 67 (b) × 155 (l) mm
12600_Weight (without lens)	1000 g
Certificate	RoHS
Current consumption	7,5 W
Frame Rate	9 Hz
IP class	IP67
Material of body	Aluminium
Operating temperature	-32 °C to +55 °C
Power supply	PoE via RJ45 or external 12–24 V DC
Rated voltage	12–24 V DC or PoE (IEEE 802.3af)
Storage temperature	-50 °C to +90 °C