WORKSWELL®
INFRARED CAMERAS AND SYSTEMS



640PX THERMAL RESOLUTION

30MK SENSITIVITY

60HZ FRAME RATE

CVBS

WORKSWELL TADAS

THERMAL ADVANCED DRIVING ASSISTANCE SYSTEM

CVBS (ANALOG VIDEO) VERSION

Datasheet

Release date: 12th of July 2026

Version: 260712

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TADAS Thermal Advanced Driving Assistance system

Workswell TADAS CVBS key features description

ITAR-free thermal advanced driving assistance system (TADAS CVBS) designed and produced in Europe with unmatched quality suitable for all types of demanding applications for unmanned vehicles (UGV), heavy trucks, defence vehicles, safety patrols and fire trucks for easy operation of a vehicle deployed in the field. Workswell TADAS helps, with other technologies, increasing the car and road safety during the mission.

Advanced FPGA processing provides outstanding image quality and scene visualization with high **sensitivity of 30 mK and resolution of 640 x 480 px (VGA)**. TADAS offers small dimensions in the robust IP67/IP68 housing, internal heating including extended vibration resistance (MIL standard), low weight, variety of lenses.

TADAS CVBS Technical specification	
Detector type	Uncooled LWIR detector, microbolometer
Spectral band	8 – 14 µm
Detector resolution	640 x 480 px
Detector pixel size	17 µm
Detector sensitivity	<30 mK
Image frame rate	9 Hz or 60 Hz full frame rate
Scene temperature range	Super Gain mode -32 °C to 80 °C (-25.6 °F to +176 °F) High Gain mode up to +160 °C (up to +320 °F)
Non-uniformity correction (NUC)	Integrated shutter, factory calibrated
Fixed focus lenses available	FOV 90° (H) x 70° (V), focal length 7 mm, f/1.0 FOV 50° (H) x 37° (V), focal length 13 mm, f/1.0
Image orientation	Invert (Flip the image vertically), Mirror (Flip the image horizontally)
Control software	Control software WEOM GUI
Smart Spatial image filter	Median full frame 60Hz spatial filter for improved image quality
Smart Temporal image filters	Advanced 2nd-Generation Temporal Filter for Enhanced Image Quality
AGC	Automatic Image Gain Control (Plateau Histogram equalization)
MGC	Manual Gain Control function (Brightness, Contrast)
Temperature drift compensation	Factory calibrated for temperature drift compensation
TADAS video output and control	
Circular MIL connector	MIL-KPT02E10-6P connector with 6 wires - CVBS video output - Power supply - RS-485 camera control
Image palettes	14 image palettes available in total (2 definable by the user)

Workswell TADAS

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Prague, Czech Republic

All pictures are only for illustration.
Real values may vary.

Dead Pixel Correction	User Dead Pixel correction wizard
Time to start	< 6 sec
Physical attributes	
Mounting holes	4 x M4 each side 4 x M3 front and back side 14 x M5 bottom side
Dimensions	70 (h) x 65 (w) x 114 (l) mm (2.76 x 2.56 x 4.49 in)
Weight	0,6 kg (21.2 oz)
Power supply	
Input voltage	12-24 VDC
Power dissipation	Typically 3 W, 3.5 W peak (without deicing heater)
Environmental data	
IP rating (Encapsulation)	IP67/IP68
Housing color	Black (optional army green or army sand color)
Operating temperature	-32°C to +65°C (- 25°F to 149 °F) according to MIL-810
Storage temperature	-50°C to +90°C (-58 °F to 194 °F)
Vibration	Operating Random Vibration Test 5-500Hz, 3.0Grms
Shock	Operating Shock Test 15G, 11ms duration
Front view Heater	Integrated Germanium window with deicing heater
Housing material	Durable aluminum body
ROHS, REACH, WEEE, CE	Compliant

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DRI information for TADAS lenses

The calculations are based on the "Johnson Criteria" that is used for DRI (Detection, Recognition, and Identification). According to the Johnson Criteria, the minimum resolution, pixels on target, required to achieve a 50% probability for an observer to discriminate an object are:

(D) Detection:
If a target is found in the field of view, the image of the target must account for more than 1.5 pixels in the critical dimension direction.
(R) Recognition:
The target is classified to identify whether the target is a car, truck or person, which means that the image of the target must occupy more than 6 pixels in the critical dimension direction.
(I) Identification:
The definition of identification is that the model and other characteristics of the target can be distinguished. The image of the target must occupy more than 12 pixels in the critical dimension direction.

Lens	Human (1.8 m x 0.5 m) (5.90 ft x 1.64 ft)			Vehicle (2.3 m x 2.3 m) (7.54 ft x 7.54 ft)			Drone (0.5 m x 0.5 m) (1.64 ft x 1.64 ft)		
	D	R	I	D	R	I	D	R	I
7 mm	280 m	70 m	35 m	675 m	170 m	85 m	150 m	35 m	25 m
13 mm	480 m	120 m	60 m	1 170 m	290 m	150 m	250 m	60 m	30 m

* Real values may vary based on environmental conditions and integration.

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