WORKSWELL®
INFRARED CAMERAS AND SYSTEMS

640PX THERMAL RESOLUTION

30MK SENSITIVITY

60HZ FRAME RATE

INTEL FPGA

MICRO HDMI

MADE IN EU EU QUALITY GUARANTEED

TÜV SÜD ISO 9001

WORKSWELL WEOM HDMI

ITAR-FREE THERMAL IMAGING CAMERA CORE

Datasheet

Release date: 29th of June 2024

Version: 290624

WORKSWELL®
INFRARED CAMERAS AND SYSTEMS

WEOM HDMI thermal core specification

WEOM HDMI thermal imaging camera core key features description

ITAR-free thermal imaging camera core designed and produced in Europe with unmatched quality suitable for all types of demanding applications such an unmanned vehicle (UAV/UGV), thermal monocular/binocular, thermal fixed industrial and security cameras, maritime thermal cameras, machine vision thermal cameras, monitoring and intelligent systems, defence, security and many more.

Advanced FPGA processing provides outstanding image quality and scene visualization with high performance **sensitivity of 30mK and resolution of the sensor 640 x 480 px**. WEOM HDMI offers small dimensions, weight, variety of lenses and different standard industrial exchangeable interfaces directly attached on the thermal core (HDMI, CVBS, USB3, CMOS, GigE) for integrators that allow to use **WEOM in any desired application**.

Technical specification

Sensor type	Uncooled LWIR sensor
Spectral band	8 – 14 µm
Sensor resolution	640 x 480 px, microbolometer
Sensor pixel size	17 µm (up to 30% higher sensitivity than 12 µm sensors)
Detector sensitivity	<30 mK or <50 mK
Image frame rate	9 Hz (non-dual-use), 30 Hz or 60 Hz full frame rate
Scene temperature range	High Gain mode -50 °C to +160 °C, Low Gain mode -50 °C to 600 °C)
Non-uniformity correction (NUC)	Integrated, factory calibrated
Fixed focus lenses (M25)	FOV 42° (H) x 32° (V) - 52° (diagonal), focal length 14 mm f/1.20 FOV 24° (H) x 18° (V) - 30° (diagonal), focal length 25 mm f/1.20 FOV 17° (H) x 13° (V) - 22° (diagonal), focal length 35 mm f/1.10
Fixed focus lenses (M34)	FOV 91° (H) x 75° (V) - 104° (diagonal), focal length 7,5 mm f/1.20 FOV 44° (H) x 34° (V) - 54° (diagonal), focal length 14 mm f/1.20 FOV 25° (H) x 19° (V) - 31° (diagonal), focal length 25 mm f/1.20 FOV 18° (H) x 13° (V) - 22° (diagonal), focal length 35 mm f/1.20
Version without the lens	Delivery of WEOM is available without lens (M25 or M34 lens holder)
Image orientation	Invert (Flip the image vertically), Mirror (Flip the image horizontally)
Control software	Control software Thermal Core GUI
Temperature drift compensation	Factory calibrated for temperature drift compensation
AGC	Automatic Gain Control function
MGC	Manual Gain Control function (Brightness, Contrast)
Spatial image filter	Median full frame 60Hz spatial filter for improved image quality
Temporal image filters	Time-domain 2x, 4x moving average filter for improved image quality

Workswell WEOM

Phone numbers
+420 602 540 331
+420 725 955 464

E-mail and Web
info@workswell.eu
www.workswell.eu

ID
Reg. No.: 29048575
VAT No. CZ29048575

Headquarters
Na Okraji 335/42
Prague, Czech Republic

WEOM HDMI video outputs and control	
HDMI output (digital video)	Micro-HDMI connector for video output
Camera control	1x JST connector for AUX signals 1x JST control & power supply 1x USB-C connector for camera control & power supply
Image palettes	14 image palettes available in total (2 of them definable by the user)
Dead Pixel Correction	User Dead Pixel correction wizard
Time to start	< 5 sec
Physical attributes	
Mounting holes	6 x M2 mounting holes
Size	40.1 (h) x 37.8 (w) x 42.6 (l) mm (1.57 x 1.48 x 2.03 in) without the lens
Weight	< 85 grams (2.99 oz) without the lens
Power supply	
Input voltage	5 VDC
Primary electronic interface	CMOS (50-pin Hirose)
Power dissipation	1.9 W
Environmental data	
IP protection (Encapsulation)	IP67 (at front of lens)
Operating temperature	-40°C to +80°C (-40 °F to 176 °F)
Storage temperature	-50°C to +90°C (-58 °F to 194 °F)
Humidity	5% to 95% non-condensing
Housing material	Durable aluminum body
ROHS, REACH, WEEE, CE	Compliant

Phone numbers
+420 602 540 331
+420 725 955 464

E-mail and Web
info@workswell.eu
www.workswell.eu

ID
Reg. No.: 29048575
VAT No. CZ29048575

Headquarters
Na Okraji 335/42
Prague, Czech Republic

Contact information

WORKSWELL IN THE WORLD

Find our partners worldwide

www.workswell.eu/where-to-buy

SALES DEPARTMENT

Website: www.workswell.eu

E-mail: sales@workswell.eu

Mobile: +420 737 547 622

COMPANY CONTACT

Website: www.workswell.eu

E-mail: info@workswell.eu

Mobile: +420 725 877 063

OFFICE LOCATIONS

Europe - Prague

United States of America

Global partner network

www.workswell.eu