

OTUS - LWIR CAMERA

Full HD, monochrome camera - driver assistance camera armored vehicles

The OTUS M-Series is a series of Military Off The Shelf (MOTS) full-HD monochrome cameras. The OTUS has been developed to ensure that drivers of military vehicles can safely navigate and manoeuvre during both day and night in poor-visibility conditions without the use of lighting equipment on vehicles, supplementary infra-red lighting, or lasers.

Suitable for any application where reliability is a must, OTUS is housed in a weatherproof, hermetically sealed enclosure to withstand extreme environmental conditions.



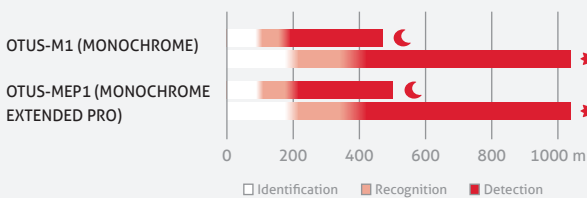
KEY FEATURES

- Safe driving: excellent vision
- Military Off The Shelf product, no ITAR components involved
- Multiple fusion modes
- Plug & Play, user friendly module
- Integrated driving and distance lines
- Low latency ≤ 20 ms
- Optional motorized protection cover

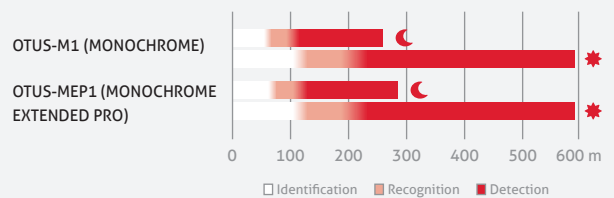
DETECTION | RECOGNITION | IDENTIFICATION



NATO standard test target (2.3 x 2.3 m)



MAN (1.8 x 0.9 m)



TECHNICAL SPECIFICATIONS – OTUS LWIR MONOCHROME

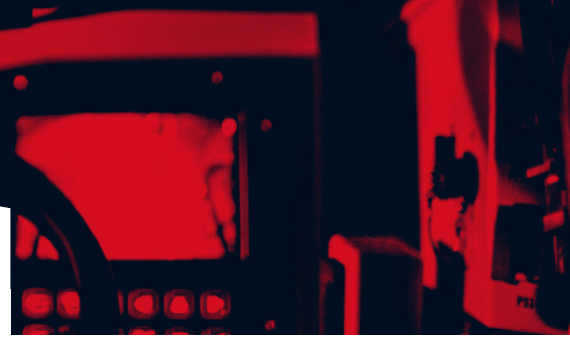
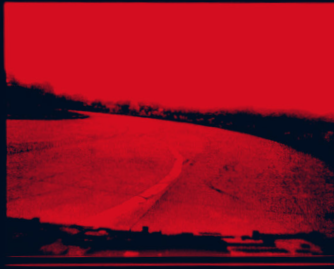
	OTUS-M1 Monochrome	OTUS-MEP1 Monochrome Extended Pro
OPTICAL – DAY SIGHT		
Field Of View - HxV		85° x 51°
Image size (pixels)		1920 x 1080
F#		2
Sensor type		CMOS Monochrome
Sensitivity		< 0.02 lx (full moon)
Wavelength		400-1000 nm
OPTICAL – THERMAL		
Field of View by night - HxV	60° x 43°	85° x 51°
Sensor size (pixels)	640 x 480	1024 x 768
F#		1.4
Sensor (LWIR)		uncooled 17 µm
NETD		< 50 mK
CAMERA SPECIFICATIONS		
Latency		≤ 20 ms (720p60 / 1080i60)
Driving direction lines		Yes
Driving distance lines		5, 10, 20, 50 m
Fusion modes		0 - 100% blending false color 0 - 100% blending monochrome Edge fusion Auto (enhanced fusion)
Thermal mode		White hot / black hot
Temperature - Operational high - MIL-STD-810G, method 501.5, procedure III, A1		+63°C
Temperature - Operational low- MIL-STD-810G, method 502.5, procedure II, C1		-46°C
Ingress protection		IP-67
Shock/vibration		MIL-STD-810
EMC		MIL-STD-461
Communication		RS485/CAN
Supply voltage		18-32 VDC
Power	8 W	10 W
MECHANICAL DIMENSIONS		
Camera (WxHxL)		195 x 95 x 200 mm (7.7 x 3.7 x 7.9 inch)
Monitor (optional)		See Technical Specifications OTUS Monitor
Weight ⁽³⁾	3.0 kg (6.6 lb)	3.4 kg (7.5 lb)



TECHNICAL SPECIFICATIONS – OTUS MONITOR

	7" FFT	10.6"FFT	13.3"FFT
MECHANICAL DIMENSIONS			
Weight	3 kg (6.6 lb)	5 kg (11 lb)	7 kg (15.4 lb)
Dimensions (WxHxL)	245 x 165 x 35 mm (9.6 x 6.5 x 1.4 inch)	300 x 210 x 35 mm (11.8 x 8.3 x 1.4 inch)	360 x 245 x 40 mm (14.2 x 9.6 x 1.6 inch)
GRAPHICS			
Resolution		1920 x 1080	
Brightness	500 cd/m ² (typical)	400 cd/m ² (typical)	300 cd/m ² (typical)
Viewing angle		85°	
Functions		Brightness, contrast, etc	
Latency		≤ 20 ms typical	
INPUT, OUTPUT & CONTROL			
Input		2 x HD-SDI (1080p30 minimal)	
Output		1 x HD-SDI	
Communication		RS485	
Supply Voltage		18 - 32 VDC	
Power	20 W (< -30°C: +20W)	30 W (< -10°C: +40W)	40 W (< -20°C: +40W)
ENVIRONMENTAL			
Shock/Vibration		MIL-STD-810	
EMC		MIL-STD-461	
Operational temperature	-46°C...+63°C (< -30°C with heater)	-46°C...+63°C (< -10°C with heater)	-46°C...+63°C (< -20°C with heater)
Storage temperature		-46°C...+71°C	
Ingress protection		IP-65	





OTUS - LWIR CAMERA

Full HD, color camera - driver assistance for armored vehicles

The OTUS-C Series is a series of Military Off The Shelf (MOTS) full-HD, colour cameras. The OTUS-C has been developed to ensure that drivers of military vehicles can safely navigate and manoeuvre during both day and night in poor-visibility conditions without the use of lighting equipment on vehicles, supplementary infra-red lighting, or lasers.

Suitable for any application where reliability is a must, OTUS is housed in a weatherproof, hermetically sealed enclosure to withstand extreme conditions.



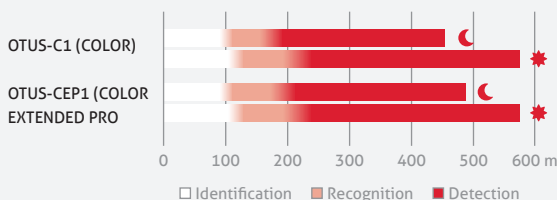
KEY FEATURES

- Safe driving in difficult visibility conditions
- Military Off The Shelf, ITAR free
- Multiple fusion modes
- Plug & Play, user friendly module
- Integrated driving and distance lines
- Low latency ≤ 20 ms
- Optional motorized protection cover & wiper

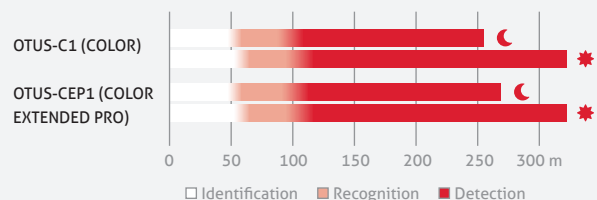
DETECTION | RECOGNITION | IDENTIFICATION



NATO standard test target (2.3 x 2.3 m)



MAN (1.8 x 0.9 m)





TECHNICAL SPECIFICATIONS – OTUS LWIR COLOR

	OTUS-C1 (Color)	OTUS-CEP1 (Color Extended Pro)
OPTICAL – DAY SIGHT		
Field Of View - HxV	85° x 51°	
Image size (pixels)	1920 x 1080	
F#	2	
Sensor type	CMOS Color	
Sensitivity	< 0.02 lx (full moon)	
Wavelength	400-700 nm	
OPTICAL – THERMAL		
Field of View by night - HxV	60° x 43°	85° x 51°
Sensor size (pixels)	640 x 480	1024 x 768
F#	1.4	
Sensor (LWIR)	uncooled 17 µm	
NETD	< 50 mK	
CAMERA SPECIFICATIONS		
Latency	≤ 20 ms (720p60 / 1080i60)	
Driving direction lines	Yes	
Driving distance lines	5, 10, 20, 50 m	
Fusion modes	0 - 100% blending false color 0 - 100% blending monochrome Edge fusion Auto (enhanced fusion)	
Thermal mode	White hot / black hot	
Temperature - Operational high - MIL-STD-810G, method 501.5, procedure III, A1	+63°C	
Temperature - Operational low- MIL-STD-810G, method 502.5, procedure II, C1	-46°C	
Ingress protection	IP-67	
Shock/vibration	MIL-STD-810	
EMC	MIL-STD-461	
Communication	RS485 / CAN	
Supply voltage	18-32 VDC	
Power	8 W	10 W
MECHANICAL DIMENSIONS		
Camera (WxHxL)	195 x 95 x 200 mm (7.7 x 3.7 x 7.9 inch)	
Monitor (optional)	See Technical Specifications OTUS Monitor	
Weight ⁽³⁾	3.0 kg (6.6 lb)	3.4 kg (7.5 lb)



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