

KAZHAN-3K10 Optoelectronic Module

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Devices of KAZHAN series are multispectral optoelectronic devices intended for use as a part of surveillance, reconnaissance and fire control systems.

Depending on the model type, KAZHAN devices are used in stationary look-out stations; as a part of autonomous combat modules; on armored vehicles; as a part of shipboard surveillance and fire control systems.

KAZHAN has several detection channels (1-3) in different spectral bands (visible, SWIR, MWIR, LWIR) and a rangefinder channel.

Digital processing unit as a part of OEM KAZHAN provides primary and secondary digital image processing; automatic target detection; target tracking; raw data recording; data transfer to a central observation post in digital and analog form.

KAZHAN devices are equipped with standard interfaces and can be easily integrated with other hardware.



TECHNICAL CHARACTERISTICS

THERMAL IMAGING CHANNEL	T5
Type of camera	uncooled
Detector	640 x 512 17 μ 8-14 μ
Sensitivity	< 30 mK
Focal length	100 mm
Objective F number	F/1.0
Angular field of view (H x V)	6.2° x 5.0°
Recognition / Identification (human)	2.8/0.7 km
Recognition / Identification (vehicle)	8.0/2.3 km
DAYTIME CHANNEL	C1
Type of camera	CMOS
Detector	1/4" CMOS 1280 x 1024 60fps
Lens focal length	3.5 ÷ 150.5 mm
Angular field of view (wide)	H : 45.92° x V : 38.2°
Angular field of view (narrow)	H : 2.7° x V : 1.8°
Sensitivity	chromatic image: 0.5 Lux/F1.4, monochromatic image: 0.05 Lux/F1.4
RANGE FINDER CHANNEL	R2
Maximum distance	3.5 km
Wavelength	1550 nm, safe for vision, invisible for night vision
Beam divergence angle	0.8 x 0.8 mrad
Measuring frequency	0.5 Hz
DIGITAL SIGNAL PROCESSING MODULE	E1
Formation of the auxiliary video information	aiming marks: textual and graphical
Movement detector	automatic detection of moving objects
Automatic target tracking	acquisition and tracking of an indicated target
Contrast / size / target speed	> 0.4 / 10x10 pixel / <150 pixel/sec

Digital image processing	combination of 2 channels by different algorithms
PERFORMANCE CHARACTERISTICS	
Protection class	IP67, ice protection
Operating temperature range	-30°C ÷ +55°C
Dimensions (L x W x H)	229 x 201 x 228 mm
Weight	8 kg



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