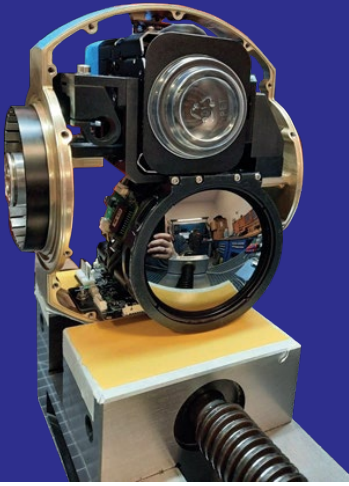


# GÖKGÖRÜ DRONE GIMBAL 180



ISTANBUL  
DEFENCE  
SYSTEMS



# GÖKGÖRÜ DRONE GIMBAL 180

The main features of the GÖKGÖRÜ DRONE GIMBAL 180 are:



Special for Unmanned Vehicles



Built-in INS/GPS

Maximum Weight	2,400 g
Maximum Height	250 mm
Maximum Diameter	180 mm
Thermal Camera	
Detector Type	LWIR (uncooled)
Detector Size	640x480
Lens	f→15-75 mm, F1.2
Pixel Size	12 µm
FoVs	43.3° - 8.2°(h) x 30.9° - 6.7° (v)
Spectral Band	8-14 µm
NETD (F#1.0)	≤20mK
Optic/Digital Zoom	5x Optical
Focus	Continuous
Day TV Camera	
Sensor Type	CMOS (Sony FCB-9520L)
Optic Zoom	30X
Focus	Continuous
FoVs	63.7° to 2.3° @ 1080 p (h)
Resolution	1920x1080px
Frame Rate	60 Hz
Illumination	<.001 Lux
Pixel Size	<3,5 µm
Digital Zoom	12X
Image Stabilisation	✓
Anti Blooming	✓
Auto Focus	✓
Laser Range Finder	✓
Resolution	1550 nm
Max. Range (Static Application)	Up to 5.0km
Max. Range (Dynamic Application)	Up to 2.5km
Accuracy	±1m
Resolution	±0,5 m
Classification	Class I (eyesafe)
Laser Pointer	✓
Power	50 mW
Wavelength	830 nm
Cooling	Uncooled
Classification	Class I (eyesafe)
Pan & Tilt Systems	✓
System Type	2 axis mechanical stabilization / 3 axis electronical stabilization
Pan	n x 360°
Pan Velocity	120°/s
Pan Acceleration	>10 rad/s <sup>2</sup>
Pan Accuracy	20 arcsec
Pan Repeatability	10 arcsec
Pan Angular Velocity Error	≤ 0.1°/s
Tilt	+10° / -80°
Tilt Velocity	45°/s
Tilt Acceleration	>10 rad/s <sup>2</sup>
Tilt Accuracy	20 arcsec
Tilt Repeatability	10 arcsec
Tilt Angular Velocity Error	≤ 0.1°/s
Position Accuracy without power	±0.01°
Pressurization	✓
Joystick Control	✓

SW Control	✓
Position Control	✓
Velocity Control	✓
Tracker Control	✓
Image Tracker	Day TV + IR Tracker
Stabilization	100 Hz
Gyro Noise	6 uRad
Stabilization	<100 µrad RMS
Motors	Direct Drive
Electronic Units	✓
P&T Status Control	✓
Digital Video Output	Ethernet (>3Mbps)
Video Source	Selective
Controls	RS232/RS485/Ethernet
Built-In-GPS	Dual
GPS Antenna Connector	SMA
Interface Connector	15 pin high density Dsub IP67
Built-In-INS	Dual MEMS
Temperature Sensor	✓
Pressure Sensor	✓
BIT	✓
USB Ports	✓
Min Time for Operation	< 30 s
Max Operational Time	120 min
Voltage	24-33 VDC
Power Consumption	17W typical / 75W peak
Internal Navigation System	✓
IMU and GPS	Fully integrated, tightly coupled for Geo Pointing and real timeTarget GEO location
Accuracy	0.3° RMS heading / 0.1° RMS roll/pitch
Navigation data computing frequency	400Hz
System Support	MGRS and decimal degree system support
Software	Uploaded
Gimbal Controls	✓
Video Display	✓
Video Enhancement	✓
Video Recording	32GB
Video Encoder	H.264 and H.265
Picture-in-Picture Dual Video	✓
Adjustable bitrate and resolution	✓
Image Capture	✓
DHCP or static IP addressing	✓
Unicast and Multicast video stream	Unicast/Multicast
Firmware Upgrade	✓
Sky Up Functionality	✓
Thermal Camera White Hot Black Hot	✓
Thermal Camera Colored Imaging	✓
Operator API	✓
Map	✓
Moving Map	Optional
Moving Target Detection	✓
Auto Object Tracking	✓
Moving Target Tracking	✓
Multiple Target Tracking	✓
Target Location	±0.01°
Geo Location	Independent
Ballistic Calculation	✓