

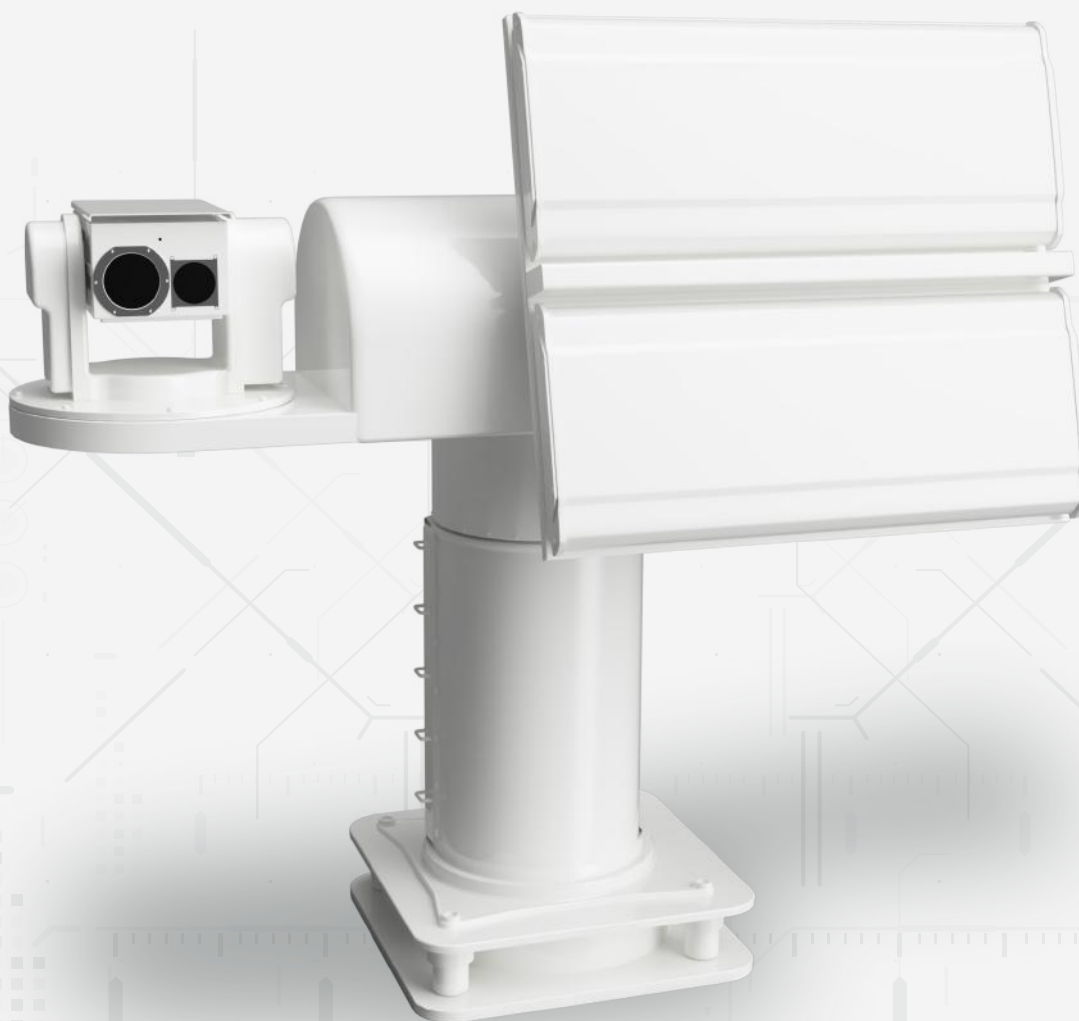


MANTA 3D

FIRE CONTROL RADAR OPTICAL

Precision Control for Naval Dominance

The MANTA 3D system represents a cutting-edge advancement in Fire Control Radar Optical technology, specifically engineered to ensure pinpoint accuracy in directing naval assets against a wide array of targets, including those in the air, on the surface, and along the shorelines. At its core, the system harnesses the power of an advanced 3D Antenna and FMCW Doppler radar, which enables unparalleled detection, tracking, and engagement capabilities. This radar functionality is further enhanced by the integration of thermal imaging and daylight TV Camera systems, which provide crucial target identification capabilities, ensuring that naval operators can effectively differentiate between potential threats and friendly entities with precision and confidence.



Key Features



Target Tracking and acquisition in both radar and EO



Multi-Sensor Integration for a comprehensive and multi-sensor approach to target tracking and identification



Day and Night Target Identification by high performance Day and TV Camera



Range and Altitude Measurement for effective fire control



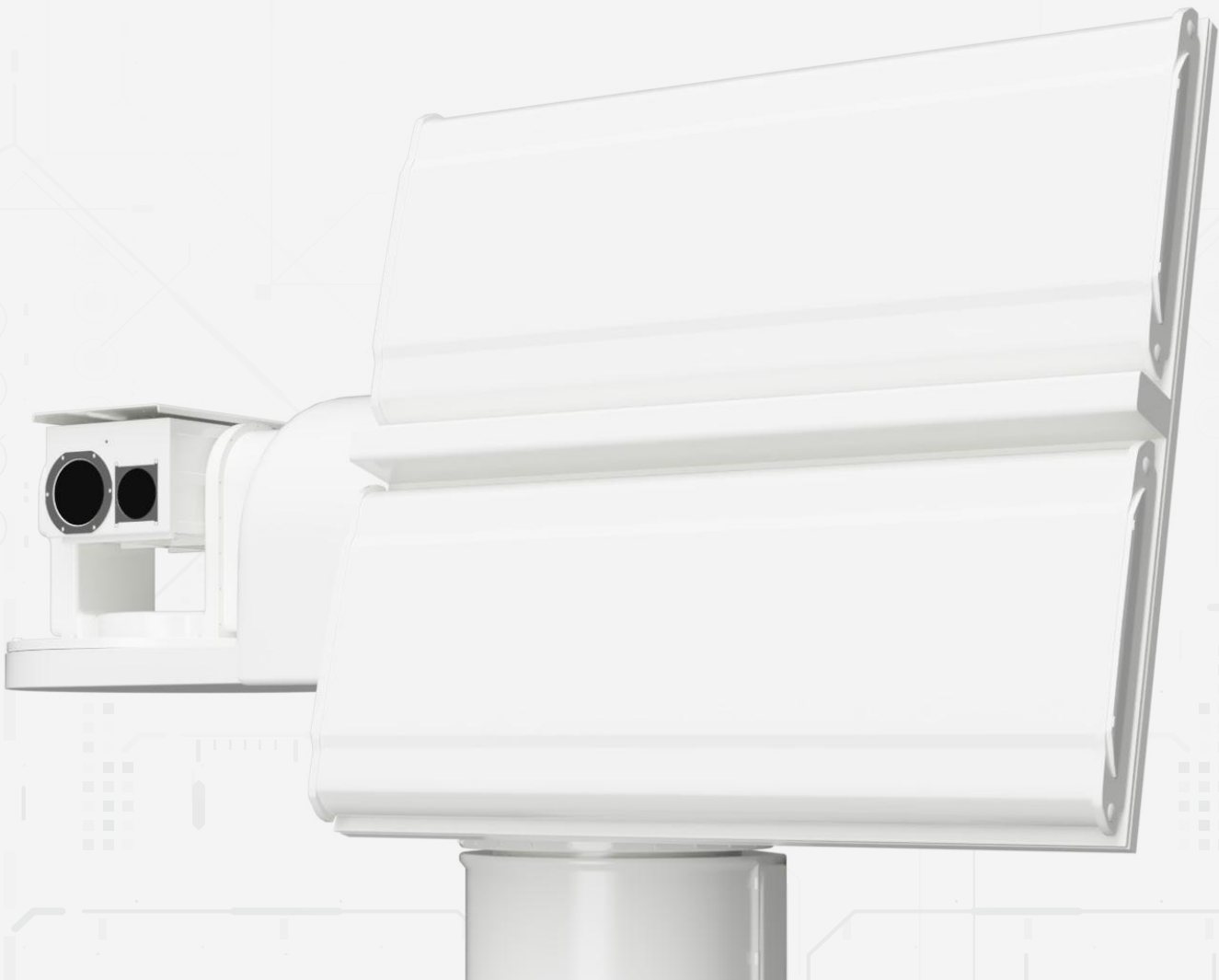
Stabilization System for platform motion and ensure steady tracking



Automated adjustment to scan radar contact signals



Low Probability of Intercept (LPI) through low transmitter power



Technical Specifications

Radar		Electro Optics		
Radar Type	Frequency Modulation Continuous Wave (FMCW) Low Probability of Intercept (LPI) Radar	Day-Light Camera		
Frequency Band	X-Band (9400 MHz + 40 MHz)	Sensor Type	1/2.8" Progressive Scan CMOS	
Detection work sector	360° in azimuth -10° to +45° in elevation	Field of View (FOV)	1.2°~ 42°	
Detection Distance (max)	30 km (16 NM)	Fog penetrating	Open /Close is optional	
Resolution	6 m - in range 1°- in azimuth 3°- in elevation	Video resolution	1080p	
Peak Power Transmit	10 Watts	Monitoring distance	Object	Human (1.8m×0.5m) Vehicle (2.3m×2.3m)
Rotator Platform			Detection	4000m 6000m
Angle	360° Azimuth		Recognition	2000m 4000m
Speed	0.01°- 72°/s Azimuth	Thermal Imaging Camera		
Period Rotation	5 Sec per rotation	Detector	Cooled	
		FOV	1.8°×1.5°~20.6°×15.5°	
		Pixel	640×512	
		Spectrum Range	3.7~4.8μm	
		Monitoring distance	Object	Human (1.8m×0.5m) Vehicle (2.3m×2.3m)
			Detection	11000m 18000m
			Recognition	3400m 7670m
			Identification	1650m 4100m
		Pan and Tilt Motor		
		Angle	Pan motor: +1° to +360° Tilt Motor: -45° to +45°	
		Speed	0.01°- 60°/s Tilt	
		Stabilization	2 - axis	



C9-C11,
Jalan TKS 2, Taman Kajang Sentral
43000 Kajang, Selangor

+603-8741 2707
www.mindmatics.com.my