



MANTA 2D

FIRE CONTROL RADAR OPTICAL

Mastering Control, Securing Seas

MANTA 2D represents a basic groundbreaking radar and electro-optical fire control system, intricately engineered to provide precise command over naval assets in their operations against surface and coastal targets. Through a meticulously designed fusion of FMCW radar and EO technologies, this system serves to elevate naval capabilities, delivering peak performance in the critical tasks of tracking and neutralizing a wide array of threats encountered at sea and along shorelines.



Key Features



Target Tracking and acquisition in both radar and EO



Stabilization System for platform motion and ensure steady tracking



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



Automated adjustment to scan radar contact signals



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



Low Probability of Intercept (LPI) through low transmitter power



Range Measurement for effective fire control



Surveillance Mode with adjustable scan sector for the radar



Technical Specifications

Radar	
Radar Type	Frequency Modulation Continuous Wave (FMCW) Low Probability of Intercept (LPI) Radar
Frequency Band	X-Band (9400 MHz +- 40 MHz)
Detection work sector	1° to 360° in azimuth
Detection Distance (max)	30 km (16 NM)
Resolution	6 meter in range 1° in azimuth
Peak Power Transmit	10 Watts
Rotator Platform	
Angle	360° Azimuth
Speed	0.01°- 72°/s Azimuth
Period Rotation	5 Sec per rotation

Electro Optics		
Day-Light Camera		
Sensor Type	1/2.8"Progressive Scan CMOS	
Field of View (FOV)	1.2°~ 42°	
Fog penetrating	Open /Close is optional	
Video resolution	1080p	
Monitoring distance	Object	Human (1.8m×0.5m)
	Detection	4000m
	Recognition	2000m
Thermal Imaging Camera		
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)
	Detection	11000m
	Recognition	3400m
	Identification	1650m
Photoelectronic platform		
Angle	-45° to +45°	
Speed	0.01°- 60°/s Elevation	
Stabilization	1 - axis	



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