



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

Electro Optics		
Day-Light Camera		
<b>Sensor Type</b>	1/2.8"Progressive Scan CMOS	
<b>Field of View (FOV)</b>	1.2°~ 42°	
<b>Fog penetrating</b>	Open /Close is optional	
<b>Video resolution</b>	1080p	
<b>Monitoring distance</b>	Object	Human (1.8m×0.5m)
	Detection	4000m
	Recognition	2000m
Thermal Imaging Camera		
<b>Detector</b>	Cooled	
<b>FOV</b>	1.8°×1.5°~20.6°×15.5°	
<b>Pixel</b>	640×512	
<b>Spectrum Range</b>	3.7~4.8μm	
<b>Monitoring distance</b>	Object	Human (1.8m×0.5m)
	Detection	11000m
	Recognition	3400m
	Identification	1650m
Photoelectronic platform		
<b>Angle</b>	-45° to +45°	
<b>Speed</b>	0.01°- 60°/s Elevation	
<b>Stabilization</b>	1 - axis	



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