



SeaHawk Short Range Radar



Description

Our device is an active coherent short-range radar, which has high range and Doppler resolutions, but has no angle resolution at all - angle coordinates are calculated and determined by using monopulse methods.

This radar is used for detection of the moving objects on an open hard surface (people, animals, vehicles, etc.) or on a water surface (jet skis, boats, ships, etc.) within the detection zone.

The output information of the device provides tracking of objects in real time, with information including range, azimuth, vector of speed, radar cross section (RCS), and object type for each detected object.

A key advantage of the SeaHawk, is that it is a solid state, totally electronic device without moving parts with digital algorithms of the synthesis and signal processing based on a specialized microprocessor.



Radar specifications

Operating Frequency, MHz	2 300...2 450 (S-band)
Radiated power, mW, not more than	100
Maximum range, m	3 000
Minimum range, m	20
Operating sector width (azimuth beam width), not less than, degrees	90
Evaluation beam width, not less than, degrees	23
Maximum detection range:	
man, RCS 0,5 m ² , m	2 000
vehicle, RCS 3 m ² , m *	3 000
Range resolution, not more than, m	6
Doppler resolution, not more than, km/h	0,6
Range of radial speeds of detected objects, km/h	0,72...150
Range accuracy, not less than, m	1
Azimuth accuracy, not less than, degrees	0,5
Simultaneous objects detected, and trajectories calculated, not less than	32
Output track information refresh, not less than, Hz	12
Time for detection of new track, not more than, s **	3
Types of identified objects:	Animal, Person, Group of People, Vehicle
- Land	
- Water	Jet ski, boat, ship
External interfaces	RS-485, Ethernet
Operating temperature range, C	-40...+60
Dimensions, mm	360x360x150
Weight, kg	3
Voltage supply, V	+10...36
Power consumption, not more than, W	10
MTTF, hours	60 000

* - may require mounting at a height of up to 15 m

** - under decent operating conditions