



SHIPBORNE HELICOPTER APPROACH SURVEILLANCE RADAR



## Main characteristics

- 200 W of peak power
- High PRF and rotation speed
- Full Solid State coherent transceiver
- Pulse compression and Doppler filtering
- Automatic representation of weather data
- Highly accurate position and corrections reporting
- Fully integration with Combat Management Systems (CMS)
- Squintless antenna with cosecant square elevation beam shape
- Automatic integration with SAOL charts for wind direction and strength
- Built-in test equipment (BITE) for the continuous control of the system functions
- External IMU aid for automatic control of spot decking position for landing security
- Advanced clutter filtering and small target detection and tracking in adverse weather conditions

H A S R - 1 0 0 is a lightweight and advanced X-band radar system featuring helicopter helo decking aid. Based on state-of-art solid state technology and Pulse Compression with Doppler filtering, HASR-100 is able to track an helicopter from 12 n.m. down to ship deck and assist the pilot to land safely.



# HASR-100

## Antenna

Antenna polarization:	Horizontal
Horizontal beamwidth:	1.2°, squintless
Antenna gain:	≥ 31 dB
Azimuth coverage:	360° (with continuous rotation)
Elevation coverage:	15° fan-beam shape up to +7.5° quasi-cosec <sup>2</sup> shape from +7.5° to +35°
Rotation speed:	11/22 rpm in surveillance mode 30 rpm during helicopter landing operation

## Transceiver

Operating frequency:	9200-9500 MHz (X-Band)
Peak power:	200 W
Duty cycle:	up to 10%
Pulse width:	from 0.05 µs to 93 µs
PRF:	from 350 to 3200 Hz
Selectable channels:	up to 30
MTBF:	> 50,000 hours

## Radar Processor

ARPA compliance:	included (track-while-scan TWS capability)
BITE:	included
Interface:	Fiber Optic (or Ethernet)
Instrumented range:	96 n.m.
Helicopter detection and tracking range:	from 40 m up to 12 n.m.

## Radar Display

Presentation:	Head-up
Multi-window:	Integrated representation of surveillance and traffic control, helo approach window for landing operations

## System composition

- Antenna group (upmast transceiver and cosecant antenna)
- Radar processor
- Touch Screen 19" Radar LED display 1280x1024 px resolution or other optional end user request

Weight:	antenna group 220 kg
Environmental conditions:	IEC 60945

Dimensions in mm

