

## SPCR-0450 Pulse Navigation Radar



### Product overview:

The SPCR-0450 pulsed navigation radar can be installed in all kinds of medium-sized and large vessels to detect various objects around, such as boats, buoys, piers, embankments, floating ice, islands, icebergs and shorelines, provide the crew with visual distance and location of the targets, and give the warning information as needed to avoid different hazard obstacles and collision accidents, so as to ensure marine navigational safety.

### Application:

This product applies to various kinds of medium-sized and large vessels, ground-based surveillance radar and wave measurement/oil spill/avian detection.

### Main functions:

- Solid-state transmitter.
- Digital IF (intermediate frequency) sampling and pulse compression;
- Coherent Doppler processing;
- Range resolution of 6 meters and range blind zone of 20 meters;
- Integrating chart, radar and AIS display;
- Automatic Radar Plotting Aids (ARPA);
- Frequency selecting and random frequency hopping;
- Detecting moving targets.

### Features:

- Solid-state transmitter.
- Digital IF (intermediate frequency) sampling and pulse compression;
- Coherent Doppler processing;
- Range resolution of 6 meters and range blind zone of 20 meters;
- Integrating chart, radar and AIS display;
- Automatic Radar Plotting Aids (ARPA);
- Frequency selecting and random frequency hopping;
- Detecting moving targets.

### Advantages over magnetron radar:

- Reliability up to 50,000 hours (magnetron: 3,000 hours);
- Higher safety due to low-voltage transmitter and no need of preheating due to the instantaneous start and stop of the transmitter;
- Peak transmitting power reduced by at least a hundredfold, with low out-of-band radiation, causing little effect on other devices;
- Longer operating distance, while range resolution being enhanced;
- Better target detectivity, with function of coherent signal processing;
- Wider operating beamwidth and capable of interference suppression with either frequency selecting or frequency hopping.

**Technical specifications:**

Operating frequency range	9.3GHz~9.5GHz
Measuring range	1/16nm~96nm
Rotating speed of antenna	24rpm, 48rpm
Peak transmitting power	50W
Horizontal beamwidth	1.8°
Vertical beamwidth	22°
Tracking object capacity	50 for automatic and 50 for manual
Tracking distance range	0.1nm~32nm
Power consumption	80W for typical base
Overall dimension	1300mm×198mm×125mm(antenna) 432.5mm×328mm×382.5mm(base)
Base weight	37kg
Screen size of display terminal	19 inches/22 inches
Nominal voltage	DC 12V/24V
Supply range	DC 10~32V
Operating temperature	-25°C~+55°C(radar); -15°C~+55°C(display unit)