

Ranger® R20SS

SOLID STATE, ELECTRONIC SCANNING, LONG RANGE
GROUND SURVEILLANCE RADAR



APPLICATIONS

SECURE BORDERS

FORCE PROTECTION

INDUSTRIAL FACILITY SECURITY

CRITICAL INFRASTRUCTURE SECURITY

AIR & SEA PORTS

VEHICLE & MAN PORTABLE CAPABILITIES

BENEFITS

Next generation "track while scan" performance

Fast electronic scan rate

Low weight man portable and vehicle mounted options

Mil-spec design and qualification

Camera integration

High reliability with no moving parts

Persistent wide area surveillance

Early warning of intruders

Low false alarm rates

State-of-the-art electronics and algorithms

OVERVIEW

The Ranger® R20SS is a ground-surveillance radar specifically designed to detect and track personnel and vehicles within a 20 kilometer range. With its electronic scanning capability and fast refresh rate, the Ranger R20SS has class leading target detection and acquisition performance.

The Ranger R20SS utilizes advanced tracking algorithms which enable fast detection and track initiation resulting in highly accurate target location with a low false alarm rate. The system operates in the X-band for all weather operation and minimal effects from adverse weather and precipitation.

The Ranger R20SS provides fast 90-degree, fixed sector coverage. Incorporating the next generation "track while scan" capabilities, the entire 90-degree coverage area is covered twice per second. When deployed on an optional pan/tilt device, the Ranger R20SS can provide 360-degree coverage.

Its low weight and easy implementation make it an ideal candidate for military vehicle applications and deployable in a man portable configuration.

As with the entire line of Ranger ground surveillance radars, the Ranger R20SS provides high reliable system performance and 24/7 persistent surveillance, both within and beyond the fence.



Ranger® R20SS

Target Types	Moving, > 0.1 m/s min Vehicles and personnel
Target Velocity	0.1 to 44 m/s
Scan Rate	2 Hz (90 degree sector)
Coverage	90° in sector mode 360° in scan mode (with optional pan/tilt device)
Elevation Control	Yes with optional Pan/Tilt
Input Power	20-32 VDC, 24 nominal
Communications	Ethernet, wireless, fiber
XML	Yes (ICD-0100 compliant)
Mask Zone(s)	Unlimited polygons
Dimensions	18.1" h x 30.1" w x 4.1" d
Weight	46 lbs (21 kg)
Power Consumption	<200 watts
Operating Range	10 – 21 500 m
Detection Range	10 – 8 000 m, personnel walking 10 – 15 000 m, light vehicles 10 - 20,000 m, large vehicles
Temperature	-30° to +60°C (operating) -40° to +70°C (storage)
Humidity	50% to 95%, non-condensing
Weather Sealing	IP 66 Rating
Altitude	Up to 15 000 ft (operating and storage)
Mil Spec	Complies with MIL-STD-810 and MIL-STD-461

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