



MAN-PORTABLE MID-RANGE GROUND SURVEILLANCE RADAR

FLIR Ranger® R8SS

The man-portable FLIR Ranger® R8SS electronically-scanned, mid-range radars detect and track personnel and vehicles up to 15 kilometer ranges. Light and small, the Ranger R8SS and provides best-in-class target detection and acquisition performance in a form factor that fits in a backpack or is easily mounted to a vehicle or permanent structure as part of an integrated solution. The low false alarm rate and extremely reliable operation builds operator trust and yields high operational availability.

The R8SS has a low minimum detection target velocity that allows detection of slow-moving threats such as walkers or crawlers. It uses a $\pm 45^\circ$ scan sector to monitor a perimeter. Adding a pan and tilt provides a full 360° coverage every second. The R8SS provides fast and accurate detection of up to 512 threats simultaneously, allowing large areas to be continuously monitored in real time.

FEATURES

COMPLETE PERIMETER SECURITY

Extremely fast scanning at 4 times a second per panel, nothing is missed. The Ranger Panel Radars can scan a full 360° every second with a pan tilt mount, quickly detecting any ground threat from any direction.

HIGH-PERFORMANCE GROUND SURVEILLANCE

Built-in GPS and North finding capability, automatic target tracker and classification, and low false alarm rate deliver best-in-class performance.

BUILT FOR RUGGED ENVIRONMENTS

Panel Radars are MIL-STD-810G qualified and IP67 certified.

FAST, ACCURATE THREAT DETECTION

Panel Radars quickly detects up to 512 threats simultaneously while accurately displaying each target's location.

MAN-PORTABLE AND EASY TO INTEGRATE

R8SS can be transported in a backpack of a dismounted soldier and draws only 135W, giving it extreme deployment flexibility. With four mounting bolts and a single cable, the radar is easy to install in fixed installations.

APPLICATIONS

FORCE PROTECTION

BORDER SECURITY

VEHICLE DISMOUNT

ARTILLERY AND MORTAR FIRE CORRECTION

UAS DETECTION

SPECIFICATIONS

Parameters	R8SS
Instrumented range	15,000 m
Detection Range	
Person	8 km
Light Vehicle	12 km
Large Vehicle	18 km
MicroUAS	N/A
MiniUAS	N/A
Small UAS	N/A
Minimum Detection Range	10m
Scan sector	± 45° (fixed) - 360° with P/T
Vertical coverage	≥ 4°
Number of simultaneously displayed tracks	Up to 512
Electronic scan rate	2 Hz or 4 Hz
Minimum Detection Velocity (MDV)	< 0.1 m/s
Accuracy	
Range Accuracy	± 3 m
Angular Accuracy (azimuth)	< 0.2 degree
Angular accuracy (elevation)	N/A
Power	
Power consumption	135 W nominal
Operating voltage	20 - 48 VDC
Overview	
Size (in)	14.7" x 14.4" x 4.3" (37 x 36 x 11 cm)
Weight	≤ 23.1 lbs (10.5 kg)
Operating frequency	X-Band
Connectivity	Ethernet
Environmental	MIL-STD-461F, IP67, MIL-STD-810G, FCC/CE
Other Features	
Built-in GPS	Yes
Built-in compass	Yes



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Specsheet A4



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