



AIR AND GROUND DRONE SURVEILLANCE RADAR

FLIR Ranger® R8SS-3D

The man-portable FLIR Ranger® R8SS-3D has the vertical coverage, low minimum detection velocity and algorithms to detect and track up to 512 threats simultaneously, including drones, while filtering bird detections. The R8SS-3D can monitor the coverage area four times per second, running 24/7, detecting all ground and aerial threats in virtually any climate, day and night. Compact and lightweight, it fits in a backpack, draws only 135 W, while costing much less than its vehicle-sized counterparts.

R8SS-3D detects micro UAS targets up to 1.2 km out, pedestrians up to 3 km out, and light vehicles up to 6.5 km out. Multiple scan mode options include fixed sector, alternating sector, and continuous scan. An optional pan-tilt mount enables full 360° fast scanning. Depending on configuration, total backpack weight maxes out at 38.6 pounds. Fast 4-Hz refresh improves detection and tracking of micro drones. One cable, four mounting bolts, an XML command set make it easy to integrate.

FEATURES

FULL PERIMETER PROTECTION

Wide 45° beam elevation provides complete hemispherical detection of virtually every land and aerial target, including micro UAS. With the pan/tilt mount, the R8SS-3D covers 360°.

TARGET CLASSIFICATION

R8SS-3D mitigates bird false alarms and informs the operator if the target is a person, vehicle, UAS, bird, or unknown.

INTEGRATION WITH OTHER SENSORS

R8SS-3D reports target elevation and automatically points cameras and countermeasures to target.

FAST, ACCURATE THREAT DETECTION

R8SS-3D quickly detects one or up to 512 ground and airborne threats simultaneously while accurately displaying each target's location and elevation – whether it's alone or part of a drone swarm.

MAN PORTABLE

R8SS-3D can be transported in a backpack of a dismounted soldier and draws only 135W giving it extreme deployment flexibility.

APPLICATIONS

FORCE PROTECTION

BORDER SECURITY

VEHICLE DISMOUNT

ARTILLERY AND MORTAR FIRE CORRECTION

UAS DETECTION

SPECIFICATIONS

Parameters	R8SS-3D
Instrumented range	7,800 m
Detection Range	
Person	3.0 km
Light Vehicle	6.5 km
Large Vehicle	7.8 km
MicroUAS	1.2 km
MiniUAS	2.1 km
Small UAS	4.0 km
Minimum Detection Range	10m
Scan sector	± 45° (fixed) - 360° with P/T
Vertical coverage	≥ 40°
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)	< 0.8 degree
Angular accuracy (elevation)	< 3 degrees
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



AMERICAS

FLIR Systems, Inc.
Corporate Headquarters
27700 SW Parkway Ave
Wilsonville OR 97070
Office: +1 877.773.3547

FLIR Systems, Inc.
DC Headquarters
1201 S. Joyce Street
Suite C006
Arlington, VA 22202
Office: +1 703.682.3400

EUROPE

FLIR Systems
2 Kings Hill Avenue - Kings Hill
West Malling, Kent ME19 4AQ
United Kingdom
Office: +44 (0)1732 220 011
Fax: +44 (0)1732 843 707

FLIR Systems AB
Antennvägen 6,
PO Box 737
SE-187 66 Täby
Sweden
Office: +46 (0)8 753 25 00

MIDDLE EAST

FLIR Systems B.V. - Abu Dhabi
Wadi Al Fey St.
Building 60, Office # 302
New Ministries Exit / Khalifa Park Area
Abu Dhabi, U.A.E.
Office: +971 2 666 1561
e-Fax: +1 503 914 1591

FLIR Systems Saudi Arabia
Office 127, First Floor
Akaria Plaza Building, Olaya Street
Riyadh, 11481, Saudi Arabia
Office: +966 11 464 5323
Fax: +966 11 464 0438

ASIA

FLIR Systems Japan K.K.
Meguro Tokyu Bldg. 5F,
2-13-17
Kami-Osaki, Shinagawa-ku.
Tokyo, 141-0021, Japan
Office: +81-3-6721-6648

For More Information contact
surveillance_sales@flir.com

www.flir.com
NASDAQ: FLIR

Equipment described herein is subject to US export regulations and may require a license prior to export. Diversion contrary to US law is prohibited. Imagery for illustration purposes only. Specifications are subject to change without notice. ©2019 FLIR Systems, Inc. All rights reserved. 01/02/19

18-2746-SUR-LND-Ranger R8SS-3D SpecsSheet LTR



The World's Sixth Sense®