

FLIR ELARA™ R-290

FCC-Compliant Commercial Ground Security Radar

The FLIR Elara R-290 is a compact ground radar used to detect and provide early warning of intruders as part of a larger video surveillance system. Radars can track targets in all weather and lighting conditions and dynamically map them in real time for position intelligence. The Elara R-290 features a 90-degree field of view and up to 400-meter range for vehicle tracking and 200-meter range for human tracking, providing wide-area protection and situational awareness beyond the fence line. With simultaneous tracking of up to 32 targets and geolocation capability, the Elara R-290 can activate alarms and guide PTZ cameras for visual verification to maximize security coverage and increase the amount of time available to react to a threat.

PHYSICAL SECURITY
PERIMETER PROTECTION
OUTDOOR INTRUSION DETECTION
GEOLOCATION CAPABILITY
VMS COMPATIBILITY
CYBERSECURITY HARDENED



EXP

DETECT AND RESPOND TO INTRUSIONS FASTER

Receive advanced warning of human and vehicle intrusions beyond the fence line

- Scan field of view up to 10 times per second for fast target detection and smooth target tracking
- Detect humans at distances up to 200 m (656 ft) and vehicles up to 400 m (1312 ft)
- Long range and wide field of view enable a faster intrusion response than stand-alone camera systems

EXPAND SITUATIONAL AWARENESS

Continuously track and precisely locate up to 32 targets simultaneously, and quickly intercept threats in any environmental or weather condition

- Track targets in rain, snow, fog, light, and dark, while ignoring shadows and light reflections that trigger false alerts on visual-only systems
- Interact with radar tracks on the map to override automatic PTZ prioritizations and focus on certain high-interest targets*
- Video stream birds-eye map with overlaid masking zones, alarm areas, targets, and associated target range



Radar target tracking information is integrated with video management systems (VMS) for precise accuracy and full control

- Link multiple radars for large field-of-view requirements, and connect to a PTZ camera for seamless target tracking
- Combine multiple radars with overlapping coverage and no interference between units
- Compatible with FLIR Triton PT-Series HD, FLIR Elara DX Series, and FLIR Saros DM Series Thermal Security Cameras; and Quasar 4K IR PTZ Visible Security Cameras
- Compatible with FLIR United VMS and other third-party VMS using standard ONVIF S Conformant protocols





*Requires UVMS and the FLIR Detections System Module



ELARA R-290 RADAR (FCC VERSION)

Performance	
Field of View $[H \times V]$	90°×20°
Frequency Range	24.075-24.175 GHz ISM Band
RF Transmit Power	14 dBm (0.025 W)
Human Detection Range	200 m (656 ft)
Vehicle Detection Range	400 m (1312 ft)
Target Detection Speed	0.2 m/sec
Radar Targets	32
Range Resolution	1.5 m
Range Accuracy	<1 m
Angular Accuracy	0.6°
Refresh Rate	10 Hz
Coverage Area	Human Detection: 7.6 acres (30,000 m²)
Target Information	GPS coordinates, velocity, RCS, range, azimuth angle/direction, heading, course/track, target ID
Supported Protocols	AXML, ONVIF, FLIR Nexus SDK, FLIR Nexus CGI
Pan Range	±43°
Tilt Range	30° / -60°
Interface	
Connector Types	RJ45 Ethernet, Power Terminal Block
Connectivity	10/100 Ethernet
Mechanical	
Weight	2.4 kg / 5.3 lb
Height	161 mm / 6.34 in
Width	161 mm / 6.34 in
Depth	195 mm / 7.68 in
Box Contents	Radar, back box, back box cover, back box side cover, wall mount plate, RJ45 cover, screwdriver, hex wrench, 10-pin I/O connector
Optional Accessories	421-0067-00: Pole Mount Kit 421-0066-00: Corner Mount Kit 421-0083-00: 180° Dual Radar Wall Mount Kit 4210755: PoE+ Power Supply
Environmental	
Operating Temperature	-40°C to 70°C (-40°F to 158°F)
Non-operating Temp	-50°C to 85°C (-58°F to 185°F)
IP Rating	IP66
Power	
Input Voltage	12V DC, 24V AC, and POE+
Power Consumption	7.5 W

AMERICAS

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