Key Features

- Complete awareness in any lighting or weather conditions, with dual thermal/visible camera coverage as well as 90° field-of-view ground radar
- Device-to-device communication, including alarm triggering, through FLIR Nexus
- Compatible with FLIR United VMS and other third-party VMS using standard ONVIF S Conformant protocols

Main Applications

- Complete security coverage across critical infrastructure or remote locations
- Perimeter-focused security with the flexibility to cover everything from parking lots to utility substations

What is Nexus?

Nexus allows FLIR edge devices to communicate to each other in real time to allow for a faster, more accurate response.

Nexus key advantages include:

- Accurate detection and object tracking across cameras and radars.
- Connectivity that supports seamless handoff for smooth transitions between devices.
- Enhanced precision in target detection and geotracking.

ELARA R-290 SPECIFICATIONS

Performance	
Field of view (H × 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 (4.92 ft)
Range accuracy	<1 m (<3.28 ft)
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

Specifications subject to change. For the most up-to-date specifications, please visit flir.com.

Mechanical	
Weight	2.4 kg (5.29 lb)
Dimensions (H x W × D)	161 ×161 ×195 mm (6.34 × 6.34 × 7.68 in)
Environmental	
Temperature range	Operating: -40°C to 70°C (-40°F to 158°F) Storage: -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
General	
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

ELARA DX-6xx SPECIFICATIONS

Thermal Sensor & Optics	
Array Format	640 × 480 pixels
Thermal sensitivity	<50 mK@ 25°C

SPECIFICATIONS, CONT.

Detector type	Long-life, uncooled VOx microbolometer
Pixel pitch	12 µm
Thermal frame rate	NTSC: 30 Hz or PAL: 25 Hz / 8.3 Hz
Fields of view (FOV)	DX-650: 50° × 38° DX-624: 24° × 18° DX-612: 12° × 9° DX-608: 8° × 6° DX-606z: 30° × 23° to 6° × 3°
Focal lengths	DX-650: 8.7 mm DX-624: 18 mm DX-612: 36 mm DX-608: 55 mm DX-606z: 15 mm to 75 mm
f/number	DX-650: f/1.0 DX-624: f/1.0 DX-612: f/1.0 DX-608: f/1.0 DX-606z: f/1.2
E-Zoom	Continuous E-zoom to 4×
Spectral range	7.5 µm to 13.5 µm
Focus range	Athermalized, focus-free DX-606z: motorized continuous zoom; autofocus with minimum focus range of 7 m (wide) to 18 m (narrow)

Video

Video compression	Thermal: one channel of H.264 & M-JPEG Visible: two independent channels of H.264 & M-JPEG
Streaming resolution	Thermal: QVGA to VGA Visible: VGA to 4k
Thermal image settings	Auto AGC, Dynamic Detail Enhancement (DDE) , Brightness, Sharpness, Contrast
Thermal AGC region of interest (ROI)	Default, Presets and User Definable to ensure optimal image quality on subjects of interest
Image uniformity optimization	Automatic Flat Field Correction (FFC) — thermal and temporal triggers

Visible Light Camera

Sensor type	Full HD 4K, 1/1.8-type CMOS
Lens field of view	HFOV: 61.8° to 2.15°; VFOV: 36.65° to 1.2°
Focal length	6.5 mm–202 mm
Zoom	Optical zoom: 31 Continuous e-zoom to 8x
f/number	f/1.55 (wide) to f/4.8 (tele)
Sensitivity	Color: 0.25 Lux (@ f/1.6 AGC On, 30 fps) B/W: 0.10 Lux (@ f/1.6 AGC On, 30 fps)

System Integration

Ethernet	10/100/1000 Mbps
Network APIs	FLIR SDK, FLIR CGI, ONVIF Profile S
Digital I/O	Input: 4 Sets / 5 V 10 kΩ pull up Output: 2 Set / Relay output, max. 130 mA 24 VDC/AC
Audio I/O	Bi-directional audio - connection - terminal block
Illumination	Up to 200 m NIR illumination; Distance: up to 200 m (656 ft)	6° / 30 / 90° Peak emission wavelength: 850 nm

Wiper	Wiper as standard and camera is compatible with a washer accessory

Network

Supported protocols	IPV4, HTTP, UPnP, DNS, NTP, RTSP, RTP, TCP, UDP, ICMP, IGMP, DHCP, ARP

Pan/Tilt Performance

Pan angle/speed	Continuous 360°– 0.1° to 90° /sec
Tilt angle/speed	-10° to 190°– 0.1° to 60°/sec
Programmable presets	256

Mechanical

Weight	9.1 kg (20.1 lb)
Dimensions	Diameter: 275 mm (10.83 in), Height: 368 mm (14.49 in)

Power

Power consumption	24 VAC max: 61 W, PoE max: 43 W
Input voltage	24 VAC (±10%), Universal PoE injector

Environmental

IP Rating	IP66
Temperature range	Operating: -40°C to 60°C (-40°F to 140°F) Storage: -55°C to 85°C (-50°F to 185°F)
Humidity	0–95% relative
Shock	IEC 60068-2-27
Vibe	IEC 60068-2-64
Vandalism	IK10 except for windows

Compliance & Certifications

Compliance	FCC Part 15 (Subpart B, class A), CE Marked, RoHS, IP66, WEEE, NEMA 4X, IEC 62368, ONVIF Profile S
Cybersecurity	IEEE 802.1x TLS/HTTPS User authentication Access control via firewall User credentials with policy enforcement Digest authentication

Specifications subject to change. For the most up-to-date specifications, please visit flir.com.

ORDERING INFO

Model	Description
427-0300-50-R290	DX-650 (8.7 mm) & R-290 Radar (FCC-Compliant) Bundle
427-0300-60-R290	DX-624 (18 mm) & R-290 Radar (FCC-Compliant) Bundle
427-0300-70-R290	DX-612 (36 mm) & R-290 Radar (FCC-Compliant) Bundle
427-0300-80-R290	DX-608 (55 mm) & R-290 Radar (FCC-Compliant) Bundle
427-0300-90-R290	DX-606Z (15 – 75 mm) & R-290 Radar (FCC-Compliant) Bundle

For more information about FLIR Nexus Security Bundle, please scan or visit: