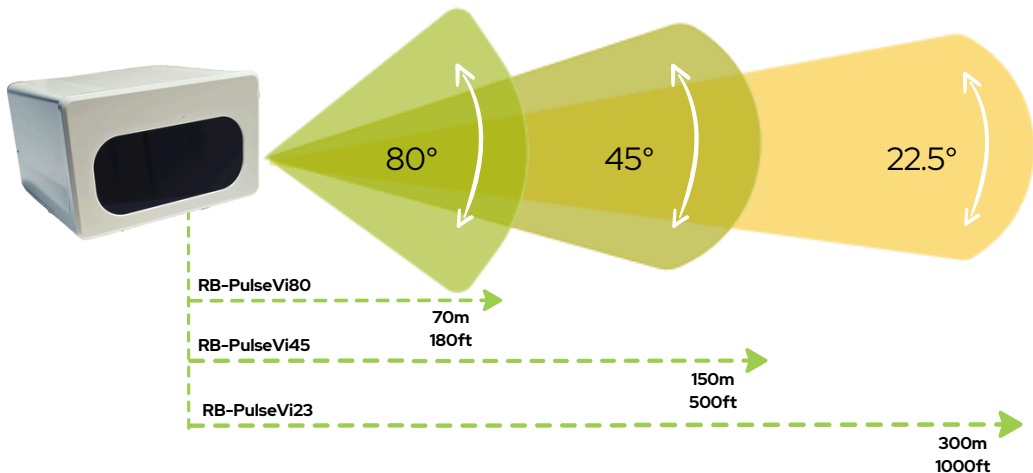# RBtec
Perimeter Security Systems

PulseVi
3D Solid State Scanning LiDAR

Perimeter Security with 3D Solid State Scanning LiDAR
3D Point Cloud (x,y,z) with intensity and ambient data

- **All-In-One LiDAR**: Operates independently with no computer or server required.
- **Dual Output**: Provides both point cloud data and a camera-like video feed.
- **Ultra-Fast Scanning**: Captures at 30 frames per second (FPS).
- **Energy Efficient**: Low power consumption of only 10W.
- **Quick and Easy Deployment**: Simple setup and configuration.
- **Advanced Detection**: AI-powered, signature-based detection for classification-based alerts.
- **Flexible Installation**: Operates effectively in vertical or horizontal positions.
- **Reliable Design**: No moving parts, ensuring durability and low maintenance.
- **Remote Control and Monitoring**: IP-based access with software-configurable zones.
- **Weather-Resistant**: IP65-rated enclosure for robust outdoor use.
- **PoE Available**: Power over Ethernet for streamlined power and data integration.
- **Works in extreme temperatures** and in all weather conditions

80°   45°   22.5°

RB-PulseVi80 — 70m / 180ft

RB-PulseVi45 — 150m / 500ft

RB-PulseVi23 — 300m / 1000ft

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3D LIDAR is Ideal for:

- Critical Infrastructure: Precise perimeter monitoring.
- Transportation: Airport, rail, and port security (runways, tracks).
- Border Security: National and coastal borders (illegal crossings).
- Industrial Facilities: Warehouses and manufacturing (theft detection).
- Data Centers: Perimeter and interior protection (server rooms).
- Prisons: Perimeter security (virtual fence, showers).
- Military Bases: Base and weapon storage (intrusion detection).

Technical Data

Technology	3D pure solid-state LiDAR, electrical scanning
Wavelength	905nm or 940nm
Laser classification	Laser Class 1, Eye-Safe (IEC/EN 60825-1)

	RB-PulseVi23	RB-PulseVi45	RB-PulseVi80
Field of View (FOV H x V)	22.5° x 6.5°	45° x 13°	80° x 22°
Range (typical) @ 10% reflective Lambertian target, 90klux	650f/200m	330f/100m	180f/55m
Maximum observable range	1000f/300m	500f/150m	230f/70m
Minimum range		1.3ft / 0.4m	
Range measurement accuracy	±0.1m <100m	±0.1m <100m	±0.05m <100m
Frane rate		Up to 30HZ	
Points per second (post average)		500,000 points/sec	

Operational Conditions

Voltage supply	Typ. 12vDC | Working Range 9-20vDC Max. 20 V POE
Power consumption	Typ. 9.5 W; max. 10.5 W
Operating temperature	-30°C - 65°C (-22°F to 149°F)
Storage temperature	-40°C - 75°C (-40°F to 167°F)
Ingress protection	IP65

Mechanical Specifications

Dimensions (W x H x D)	109 x 68 x 100mm (4.3 x 2.7 x 4")
Weight	750 g (1.6lbs)

Interface

DC Connection	4 Pin Connector
LAN Connection	Ethernet, 1 Gigabit
Supported PoE versions	PoE, PoE+, PoE++