

# OmniPreSense Electromagnetic Lens Enclosure

OmniPreSense's Electromagnetic Lens enclosures provide optional beam widths for the OPS241-A and OPS242-A radar sensor. A new enclosure is available providing a beam width of 26° compared to the standard 76-78°. In addition to a tighter beam width, the signal is more focused providing additional antenna gain for increased detection range. The simple 3D printed enclosure protects the radar sensor board and can be easily placed on drones, robotics, or IoT devices. With the tighter beam width, the OPS241-A or OPS242-A can be tailored for a particular usage case.

## Features

- 1-35m (3-115') detection range
- Narrow 26° beam width (-3 dB) in azimuth/elevation
- Increased antenna gain (+3-5dB)
- Speed reporting up to 348mph
- Direction reporting (Inbound/Outbound)
- Simple API control over USB interface
- Industrial temp operation (-40 to +85°C)
- 1.4W Active power, 0.6W Idle power
- Small form factor

## Applications

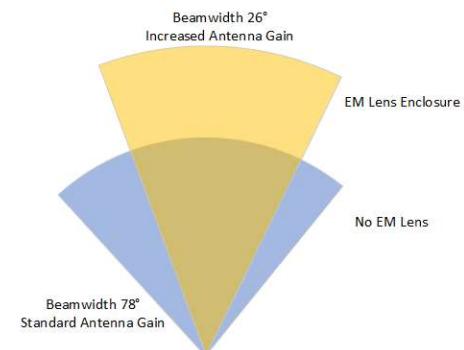
- IoT Sensor
- Robotics
- Drones

## Functionality

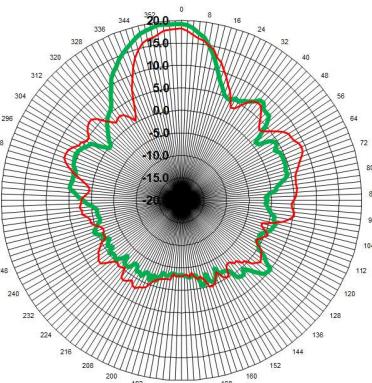
- Traffic Monitoring
- Presence Detection
- Speed/Direction Reporting
- Collision Avoidance



**OPS242 with EM Lens Enclosure**



**Beamwidth and Gain Comparison**



**Antenna Pattern**

## Ordering Part Number

| Radar Sensor | Beamwidth (H/V) | Enclosure       |
|--------------|-----------------|-----------------|
| OPS241-CW-RP | 26° x 26°       | OPS241-A-CW-L26 |
| OPS242-CW-RP | 26° x 26°       | OPS242-A-CW-L26 |