



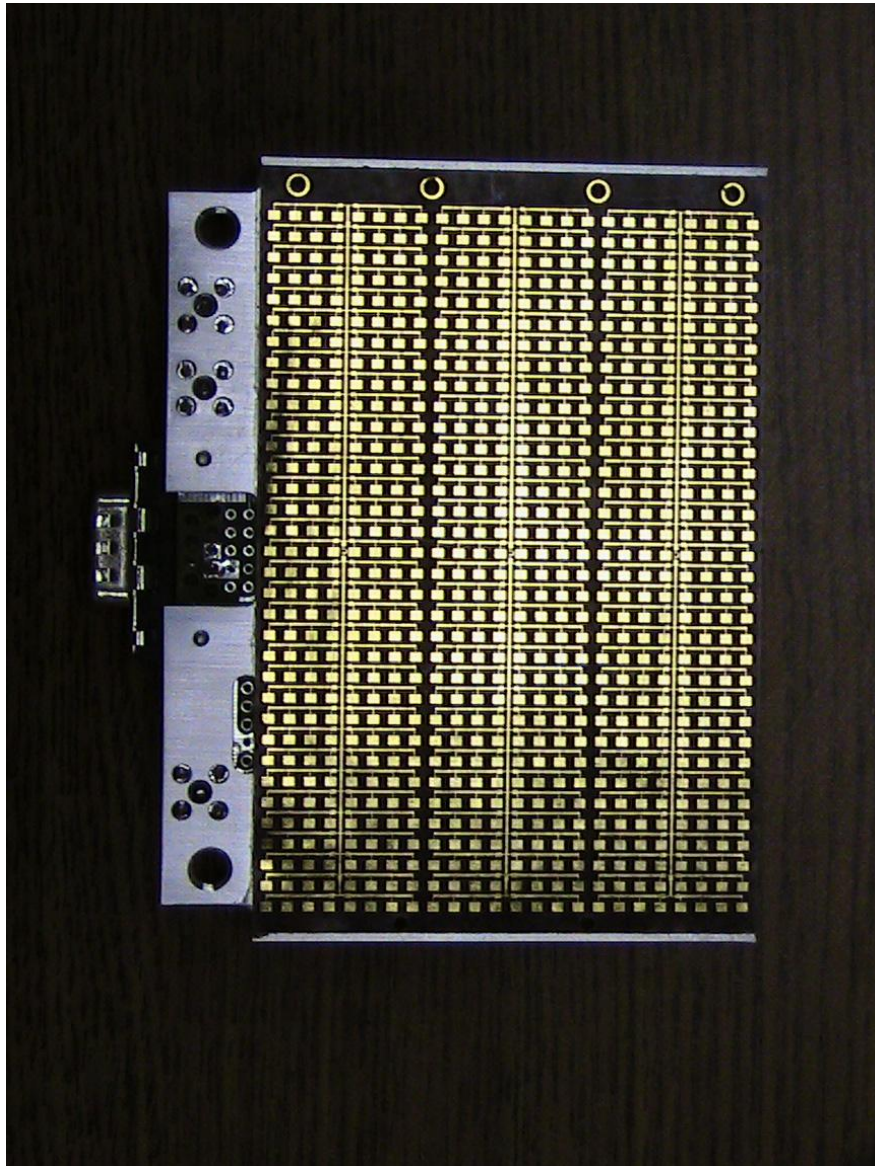
# **Epsilon Lambda Electronics**

**Since 1974**

**Celebrating 36 Years as the Millimeter Wave Industry  
Technology Leader**

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Epsilon Lambda Electronics  
Two Dimensional Object or Obstacle Detection  
Radar Sensor at 94 GHz



## FEATURES

- FM-CW Ranging Radar – Millimeter Wavelength (High Resolution)
- High Gain Antenna with range up to 100 meter (10 dB RCS)
- Azimuth Object Angle Determination without mechanical scan
- Low Phase Noise Transceiver
- Operable from Battery Supply Voltages
- Compact Size, Rugged Construction
- Code embedded to DSP Circuit Card
- F.O.V. Image maps displayed on Laptop

This high resolution 2D radar object detection sensor is suitable as infrastructure for area surveillance of vehicles or humans or can be mounted as an obstacle sensor upon vehicles, such as highway vehicles, off road vehicles, helicopters, etc. Object data reported includes range, azimuth angle, relative velocity, and signal return amplitude. The model ELSO92-2A(1) provides highest range resolution to 25 meter distance.

## Model ELSO92-2A(1) Specifications

Transmitter Power	+10 dBm
Center Frequency	94 ± 0.5 GHz
Modulation Bandwidth	4000 MHz
Number of Obstacles in Image Map	16 in beam width
Temperature Range	-20 to +85 degree C
Antenna Gain	>27 dB
Azimuth FOV	Fixed by antenna beam angle
Azimuth Beam Angle	8.2 degree
Azimuth Angle Accuracy	1.0 degree by monopulse processor
Elevation Beam Angle (and FOV)	2.0 degree
Elevation Angle Resolution	1.8 degree
Polarization	Linear
Maximum Operating Range (Rmax*)	25 meters (10 dB RCS)
Obstacle List Update Rate (Ts*)	0.2 s
Typical Range Resolution (dR*)	0.05 m
DC Power (Electronics)	9-16 V / max 1.5 A
Size	4.3 X 3.3 X 0.5 in
Weight	3.5 Kg
DSP Board	Supplied
I/O Connection	USB to Laptop computer for map display

- Please contact Epsilon Lambda Electronics sales department for further information regarding this innovative radar sensor product.

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