PCRS
POINT CLOUD RADAR SYSTEM

VELDAR
REVEALING WHAT'S AHEAD

The ViSight Point Cloud Radar System (PCRS) is a 4D imaging radar system that enables new users to start using VELDAR's automotive radar, ViSight Auto, within minutes. It provides range, azimuth, elevation, and velocity data in popular point cloud formats, and it delivers those point clouds through a gigabit Ethernet connection. PCRS also includes a data viewing and recording application so the user can start working with ViSight data immediately.

4D IMAGING
PCRS delivers range, azimuth, elevation, and velocity data for all points in the radar point cloud.
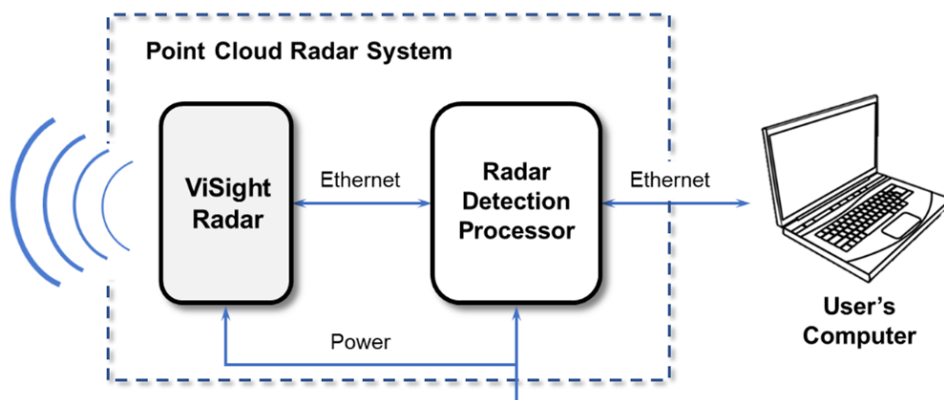
FLEXIBLE CONFIGURATIONS
PCRS provides several modes of operation, allowing the user to select the range, resolution, frame rate, and data rate combination that best matches their application.

COMMON OUTPUT FORMATS
PCRS delivers data in a variety of common formats, including PCD, PLY, and ROS sensor messages.

SIMPLE CONFIGURATION
PCRS is an out-of-the-box (OOTB) product that allows new users to start working with ViSight Auto quickly and with no custom setup requirements. The user can connect the Ethernet output cable directly to their data display computer, or to their network for remote access.
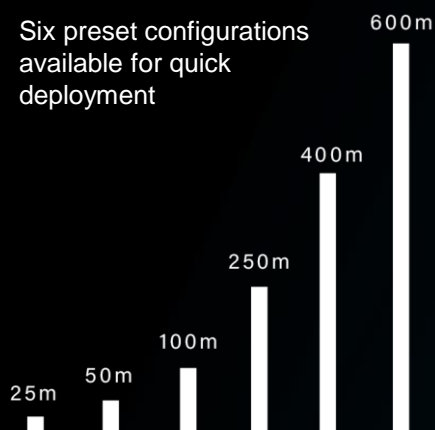

Point Cloud Radar System

PCRS Specifications

Point Cloud Rate	Up to 150,000 points/sec		**ViSight Operating Temperature**	-40 to +85 C
Frame Rate	16 frames/s		**RDP Operating Temperature**	0 to 30 C
Points Per Frame	Up to 10,000		**Input Voltage**	110 VAC, with power supply bricks (included), or 12-30 VDC
Point Cloud Data Format	ROS compatible, PCD, PLY, or VELDAR format		**Power Consumption**	< 60 W
Output	Gigabit Ethernet			

Radar Range Modes

Six preset configurations available for quick deployment

600m

400m

250m

100m

50m

25m

600
500
400
300
200
100
0
meters

ViSight Radar Specifications

Range Resolution	0.1 - 2.5 m (user selectable)
Azimuth Resolution	1 deg
Elevation Resolution	2 deg
Velocity Resolution	0.5 - 2.5 m/s (user selectable)
Velocity Max Unambiguous	5 - 100 m/s (user selectable)
Azimuth FoV	100 deg
Elevation FoV	16 deg
Frame Rate	10 - 30 fps

In The Box

ViSight PCRS includes everything needed to collect radar point clouds and view them on a user's computer.

- ViSight W-Band 4D Imaging Radar
- Radar Detection Processor
- Viewer application
- Corner reflector
- Ethernet cables
- Power supplies