ViSight-3

AUTOMOTIVE 4D IMAGING RADARS

ViSight-3 is a high performance, W-band, 4D imaging radar designed and built by Veldar for automotive and traffic monitoring applications.

ViSight-3 is ideal for applications that require high resolution all-weather vision, like autonomous trucking, pedestrian detection, and collision avoidance.

4D IMAGING
Delivers range, azimuth, elevation, and velocity data for all points in the radar point cloud.

FLEXIBLE CONFIGURATIONS
Provides several modes of operation, allowing the user to select the range, resolution, frame rate, and data rate combination.

MULTIPLE PROCESSING OPTIONS
Process onboard or stream images and raw radar data to a host computer through the built-in 1 to 10 GbE interface.

CAMERA

RADAR POINT CLOUD

TWO MODELS

ViSight-3D Optimized for small object detection at long range

ViSight-3C Balanced range and resolution for general use

RADAR POINT CLOUD
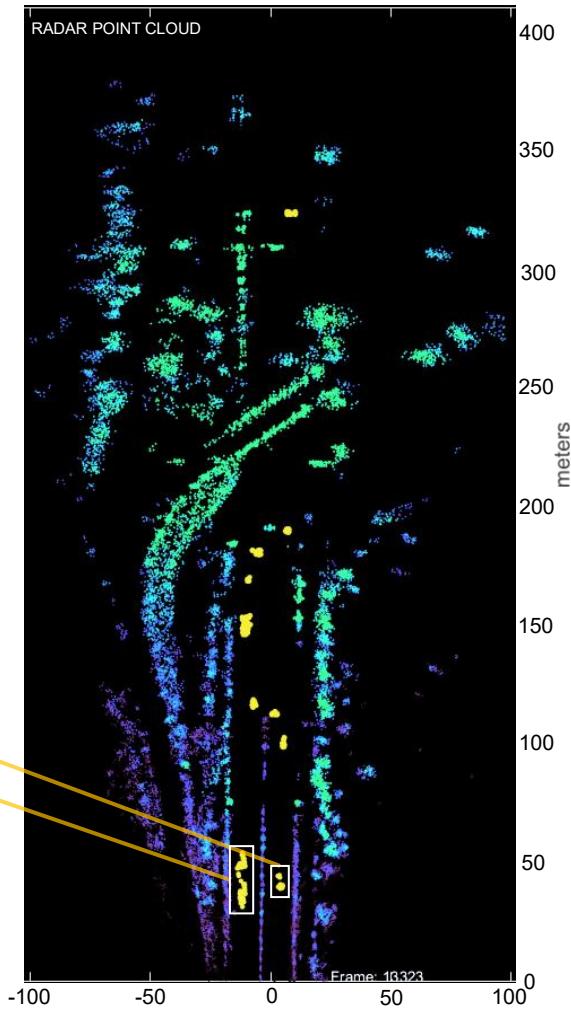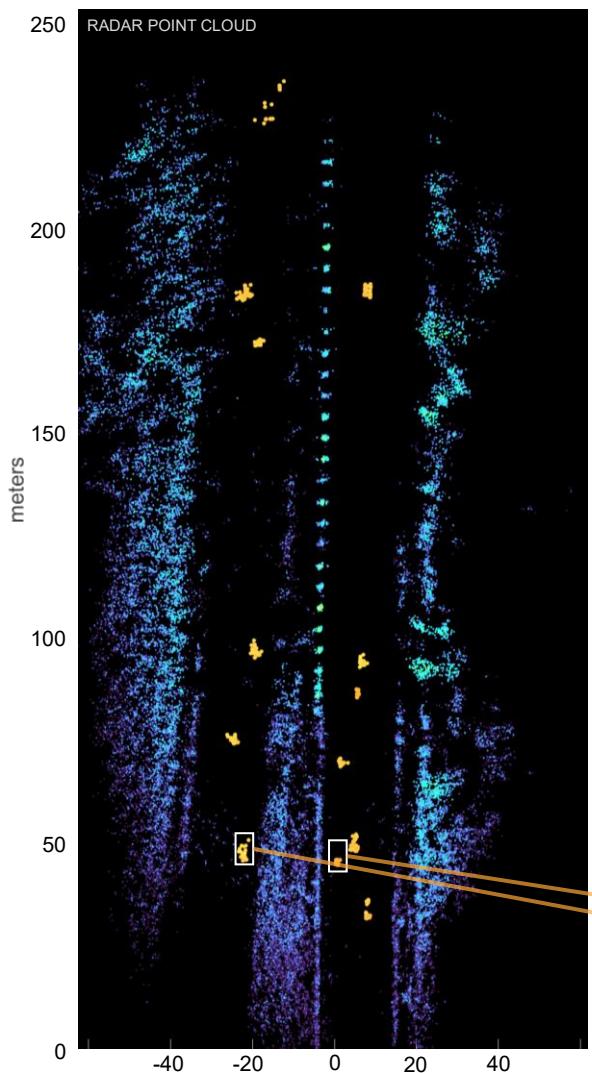
RADAR RANGE MODES

Six preset configurations available for quick deployment

Extra Long	600 m
Very Long	400 m
Long	250 m
Medium	100 m
Short	50 m
Ultra Short	25 m

DETECTION PERFORMANCE

Traffic cones (-15 dBsm)	150 m	
Pedestrians (-5 dBsm)	300 m	
Small cars (10 dBsm)	600 m	

ALL-WEATHER OPERATION

Vehicle and pedestrian imaging and obstacle detection in degraded visual environments including low light, fog, smoke, rain, and snow.

CAMERA

Radar detections in Long Range Radar (LRR)
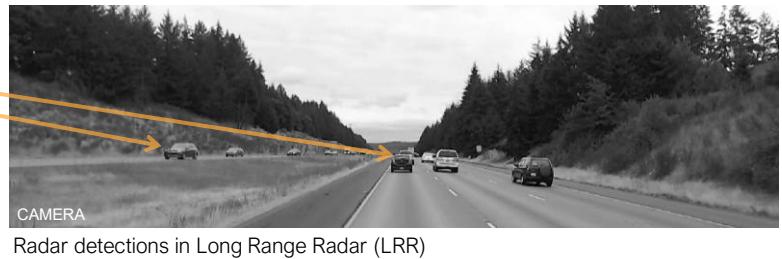
ViSight-3 Specifications

PERFORMANCE

	ViSight-3C	ViSight-3D
Azimuth Resolution	1.25 deg	1.0 deg
Elevation Resolution	3.0 deg	3.0 deg
Azimuth FoV	90 deg	60 deg
Range Resolution	0.1 - 2.5 m (user selectable)	
Velocity Resolution	0.5 - 2.5 m/s (user selectable)	
Velocity Max Unambiguous	5 - 100 m/s (user selectable)	
Azimuth Accuracy	0.25 deg	
Elevation FoV	15 deg	
Frame Rate	10 - 16 fps	
Max points / frame	4,000 points	

PHYSICAL & ELECTRICAL

	ViSight-3C	ViSight-3D
Dimensions (cm)	14 x 10 x 4	17 x 12 x 4
Weight	< 650 g	< 900 g
Power Consumption	< 20 W	
Input Voltage	12 – 48 VDC	
Data Interface	1 – 10 GbE	

ENVIRONMENT

Dust and Water	IP67
Operating Temperature	-40 to +85 deg C
Vibration	High vibration environments

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