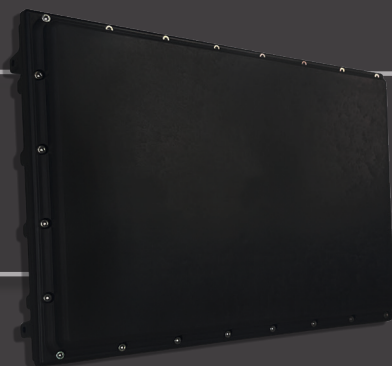


# TRUGRD® | Premium Line

## TRUGRD®

3D/UHD+ SENSOR

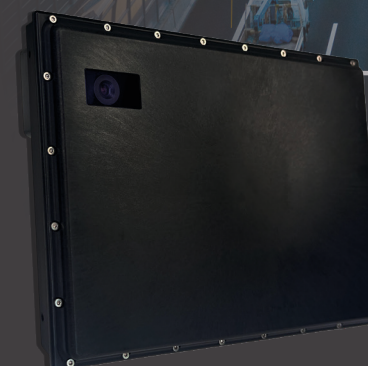
Range of up to 300m | 984ft



## TRUGRD® LR

3D/UHD+ SENSOR

Range of up to 500m | 1640ft



## TRUGRD® STREAM

3D/UHD+ SENSOR

combined with video

### RECOMMENDED FOR:



SMART  
CITIES



INTERSECTION  
MANAGEMENT



HIGHWAY  
MANAGEMENT



STATIONARY  
ENFORCEMENT



BRIDGE  
MONITORING



RED-LIGHT  
ENFORCEMENT



TUNNEL  
MONITORING

## Traffic Management Sensors



## OPTIMIZING TRAFFIC FLOW

- ✓ 3D/UHD+ resolution
- ✓ Fail-safe features
- ✓ Multi-lane, multi-object detection
- ✓ Detects moving and stopped traffic
- ✓ Reliable tracking of pedestrians and cyclists (VRUs)
- ✓ Works in all weather conditions

	TRUGRD <sup>®</sup>	TRUGRD <sup>®</sup> Stream	TRUGRD <sup>®</sup> LR
<b>CAMERA MODULE</b>		Color camera with IR cut filter and supreme low light performance	
Resolution, Frame Rate		1920 x 1080 px, up to 30 fps	
Video Codec		H.265, H.264, MJPEG	

## PERFORMANCE

Operating Frequency <sup>1</sup>	24.0 ... 24.25 GHz	24.0...24.25 GHz
Resolution	3D measurement with UHD+ resolution	3D measurement with UHD+ resolution
Detection Range Pedestrian	125 m   410 ft	229 m   751 ft
Detection Range Passenger Car	260 m   853 ft	500 m   1640 ft
Detection Range min ... max	1.5 ... 300 m   4.9 ... 984 ft	3 m...510 m   10 ft...1673 ft
Range Separation	2 m   6.6 ft	4.8 m   15.74 ft
Range Accuracy	< ± 0.25 m   < ± 0.82 ft	± 0.5 m   ± 1.64 ft
Speed min ... max	-320 ... +320 km/h   -199 ... +199 mph	-210...+210 km/h   -130...+130 mph
Speed Separation	0.23 m/s	0.24 m/s
Speed Accuracy	< ± 0.1 m/s	< ± 0.1 m/s
Number of Lanes	Up to 12 lanes	Up to 8 lanes
Field of View Azimuth	-55° ... +55°	-20...+20°
Field of View Elevation	-10° ... +10°	-9...+9°
Angle Separation Azimuth	< 6°	< 2.5°
Angle Accuracy Azimuth	< 0.5°	< 0.25°

## MECHANICAL

Weight	1290 g   45.5 oz	1575 g   55.5 oz	1290 g   45.5 oz
Dimensions	213 x 155 x 32 mm or 8.4 x 6 x 1.3 in + connector	213 x 155 x 32 mm or 8.4 x 6 x 1.3 in + camera module	213 x 155 x 32 mm or 8.4 x 6 x 1.3 in + connector

## GENERAL

Update Cycle Time	50 <sup>2</sup> ms		100 ms
Operating Voltage / Power Consumption	7 ... 32 V / 9.5 W	7 ... 32 V / 11 W	7...32 V / 9.5 W
Operating Temperature	-40 ... +80°C or -40 ... +176°F		-40...+80°C   -40...+176°F
Interfaces	RS485 full duplex; Ethernet 10/100; 1x CAN V2.0b (passive)	Ethernet <sup>3</sup>	RS485 full duplex; Ethernet 10/100; 1xCAN V2.0b (passive)
Connector	Hirose LF10 series	Hirose LF10 series	Hirose LF10 series
IP	67	67	67

<sup>1</sup> In certain regions, frequency intervall starts at 24.05 GHz.

<sup>2</sup> Depending on the application - Speed Enforcement 50 ms; Intersection and Highway Management 100 ms.

<sup>3</sup> Necessary for video output.

