



HOKUYO

UCT-10LCM

3D LiDAR



10 METRE RANGE



100° FIELD OF VIEW



0.125°
ANGULAR
RESOLUTION



ETHERNET
1000BASE-T

A compact, ultra-slim 3D LiDAR

The Hokuyo UCT-10LCM is an ultra compact 3D LiDAR designed for high performance automation in applications requiring a small footprint. With a slim 20 mm thick housing, it integrates effortlessly into AGVs, AMRs, forklifts, and fixed installations where space is limited.

Featuring a three layer scanning system with a wide 100° field of view, the UCT-10LCM delivers precise detection of steps, pallet lifting points, and low lying obstacles, enhancing navigation, safety, and operational efficiency. Its advanced filtering modes ensure stable performance indoors and outdoors, even in rain, fog, or dusty environments.

With five configurable detection outputs, the UCT-10LCM supports flexible zone creation for presence monitoring and intelligent triggering. A self-diagnostic function monitors sensor health, helping to prevent/ reduce downtime.

Compact and adaptable, the UCT-10LCM brings reliable 3D awareness to applications where traditional sensors won't fit, making it an ideal choice for industrial and robotic systems.

Model Number	UCT-10LCM
Range	0.06m to 10m
Scan angle	100°
Light source	Laser semiconductor (905nm)
Supply voltage	12V/24V DC $\pm 10\%$
Power consumption	3W
Detection range and object (*1)	Scan angle range: -50° to +50° 0.05 ~ 10m (White Kent Sheet) 0.05m ~ 4m (10% reflectivity) Scan angle range: -50° to -45° and +45° to +50° 0.05 ~ 8m (White Kent Sheet) 0.05m ~ 3m (10% reflectivity) Maximum measurement distance: 30m Minimum detectable size: 35mm (at 4m), 90mm (at 10m)
Measurement accuracy (*1)	$\pm 40\text{mm}$
Vertical angles	Layer 1: 0° Layer 2: +3° Layer 3: -3° (Vertical angle in the front step)
Scan speed	Multi-layer mode: 16.7 ms (motor speed: 2400 rpm / 3 layers) Single-layer mode: 50 ms
Measurement resolution	1mm
Angular resolution	0.125°
Ambient light (*2)	Less than 100,000lx (indirect light)
Interface	Ethernet 1000BASE-T
Protective structure	IP65
Vibration resistance	10~55Hz double amplitude 1.5mmp-p each 2 hours. 55~200Hz 98m/s ² (10G) sweep 2min each 1 hour in X, Y and Z directions
Shock resistance	196m/s ² (20G) each 10 times in X, Y and Z directions
Operation temperature	-10°C to +50°C. Less than 85% humidity (without dew, frost)
Weight	100g (excluding cable)
Dimensions	80mm(w) x 65mm(d) x 20mm (h)
Laser safety class	Class 1 (compliant with IEC-60825-1)

(*1) Under standard test conditions (accuracy not guaranteed under direct sunlight).

(*2) Detection is not guaranteed under direct sunlight or strong ambient light conditions.



For more information:

Sentek Solutions Ltd,

Unit 13 Weston Barns Business Centre,
Hitchin Road, Weston, Herts SG4 7AX, U.K.

Tel: +44 1223 923 930

Email: info@sentekeurope.com

sentekeurope.com



VERSION V1.1

Subject to change without notice