Qb2 - Product Information Sheet

Qb2

Qb2 is an integrated smart LiDAR that allows capturing and processing of 3D data on a single device.

By incorporating Blickfeld's cutting-edge technologies and research, customers benefit from an intuitive and cost-effective system while drastically simplifying installation and operation in various use-cases.

TECHNICAL DATA

Technology	3-dimensional Laser Ranging (LiDAR) with edge processing
Maximum field-of-view a	90° x 50° (Horizontal x vertical) a
Typ. application range b	1 - 100 m
Coverage a	Installation height, Tilt angle — Coverage (Width x Depth) 3 m / 9.8 ft, 30° — 15 x 12 m / 49.2 x 39.4 ft 5 m / 16.4 ft, 30° — 28 x 22 m / 91.9 x 72.2 ft 10 m / 32.8 ft, 35° — 35 x 28 m / 115 x 91.9 ft 15 m / 49.2 ft, 40° — 41 m x 28 m / 135 x 91.9 ft 20 m / 65.6 ft, 40° — 56 m x 45 m / 184 x 148 ft
Typical range precision (1 sigma)	< +-2 cm
Frame rate	1 – 50 Hz depending on configured scan pattern
Sensor mounting orientation	Any
Laser class	Class 1, eye-safe (IEC 60825-1:2014)
Laser wavelength	Infrared, 905 nm
Laser beam divergence	0.25° x 0.25°
Multiple returns	3
Vertical resolution	2 – 400 scan lines per frame c (user-configurable)
Horizontal resolution	0.25°; 0.5°; 0.75° (user-configurable)
Integrated web interface	Cross-platform graphical web interface with interactive 3D LiDAR data visualization
Integrated Inertial Measurement Unit (IMU)	TDK InvenSense ICM-20600

DATA PROCESSING AND OUTPUT DATA

Embedded environment perception engine	Blickfeld Percept
Central Processing Unit	Broadcom Quad-core (ARM v8) 64-bit, 1.5 GHz
Perception modes	Volume Monitoring, Intrusion Detection
LiDAR data	Cartesian coordinates and Intensity per return; timestamp per acquisition
IMU data	3 axis accelerometer

OPERATIONAL

Dimensions (H x W x D) d	Ca. 75 mm x 111 mm x 50 mm
Weight d	Ca. 400 g
Voltage input	Power over Ethernet (PoE) IEEE 802.3at Type 1
Ingress Protection (IEC 60529)	IP67 e
Operating ambient temperature	-30 °C ... +40 °C
Storage temperature	-30 °C ... +60 °C

Blickfeld
LiDAR ⁄ scan your world

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Document No.:
#51204-STX-v1.6-EN

INTERFACES	
LAN connection	Ethernet 1000 Base-T (1 Gbit/s)
WiFi connectivity	2.4 GHz: IEEE 802.11b/g/n
Ethernet connector	M12x1 Industrial Ethernet connector, 8-pole, X-coded (EN 61076-2-109); IP67 [f]
Mounting	Back side: 4x M4 tapped holes
Protocols	ARP, ICMP, DHCP, DNS, TLS, 802.1X, UDP, NTP, IPv4, IPv6, TCP/IP, HTTP, HTTPS, gRPC, MQTT
Security	User & API-key authentication (multiple access levels, read-only access), 802.1X & WPA2 (EAP)

INCLUDED ACCESSORIES	
Antenna	Matching WiFi antenna. WiFi operation only permitted with Blickfeld-authorized antenna.

a non-rectangular field-of-view

b Range performance depends on many factors including but not limited to object reflectivity, orientation, surface texture, ambient light level, and ambient temperature. Reduced accuracy and resolution in small areas of the field of view in close distance to the sensor.

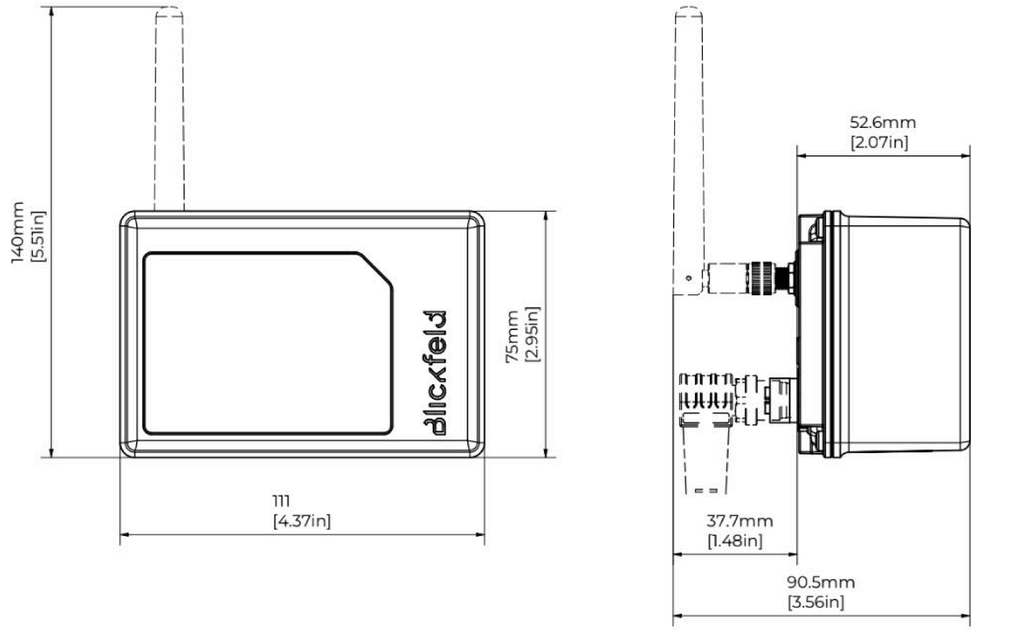
c Less than 50 scan lines requires reduced field-of-view

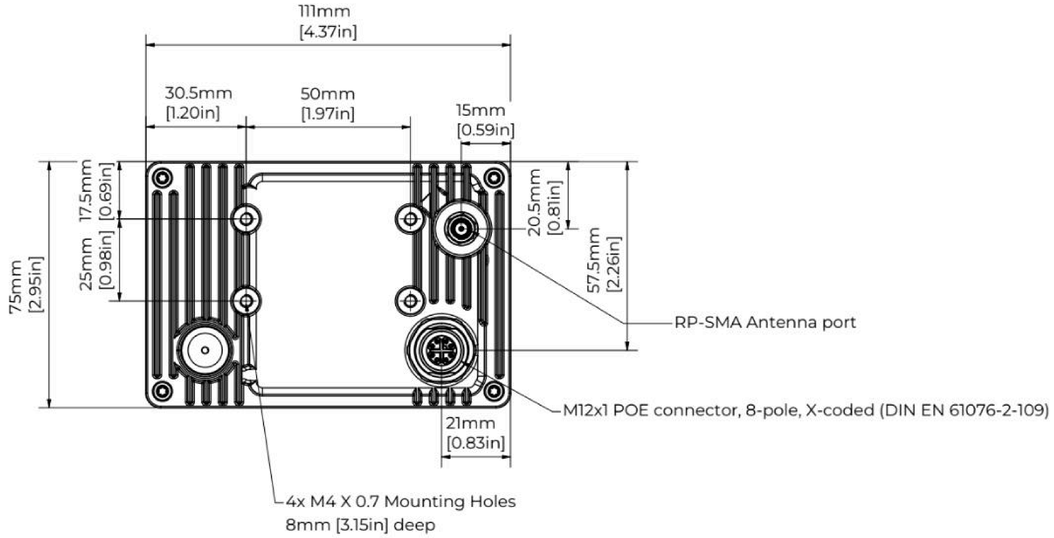
d without antenna or cables attached

e with antenna and Ethernet cable attached or with protective caps attached

f IP67 with cable and protective cap attached

DIMENSIONS





values in brackets are calculated and may contain round-off errors

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