

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 (Horizontal x vertical)^a	90° x 50°	
Typical 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
Perception data delivery protocol	MQTT
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
Power consumption	Typ. 10 W; max. 13 W
Ingress Protection (IEC 60529)	IP67 ^e
Operating ambient temperature	-30 °C ... +40 °C
Storage temperature	-30 °C ... +60 °C

INTERFACES

LAN connection	Ethernet 1000 Base-T (1 Gbit/s)
WiFi connectivity	2.4 GHz: IEEE 802.11b/g/n 5 GHz: IEEE 802.11n/ac
Ethernet connector	M12x1 Industrial Ethernet connector, 8-pole, X-coded (EN 61076-2-109); IP67 ^f
Mounting	Back side: 4x M4 tapped holes
Time synchronization protocols	NTPv4

INCLUDED ACCESSORIES

Antenna	Matching WiFi antenna. WiFi operation only permitted with Blickfeld-authorized antenna.
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^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. Below 2 m reduced resolution

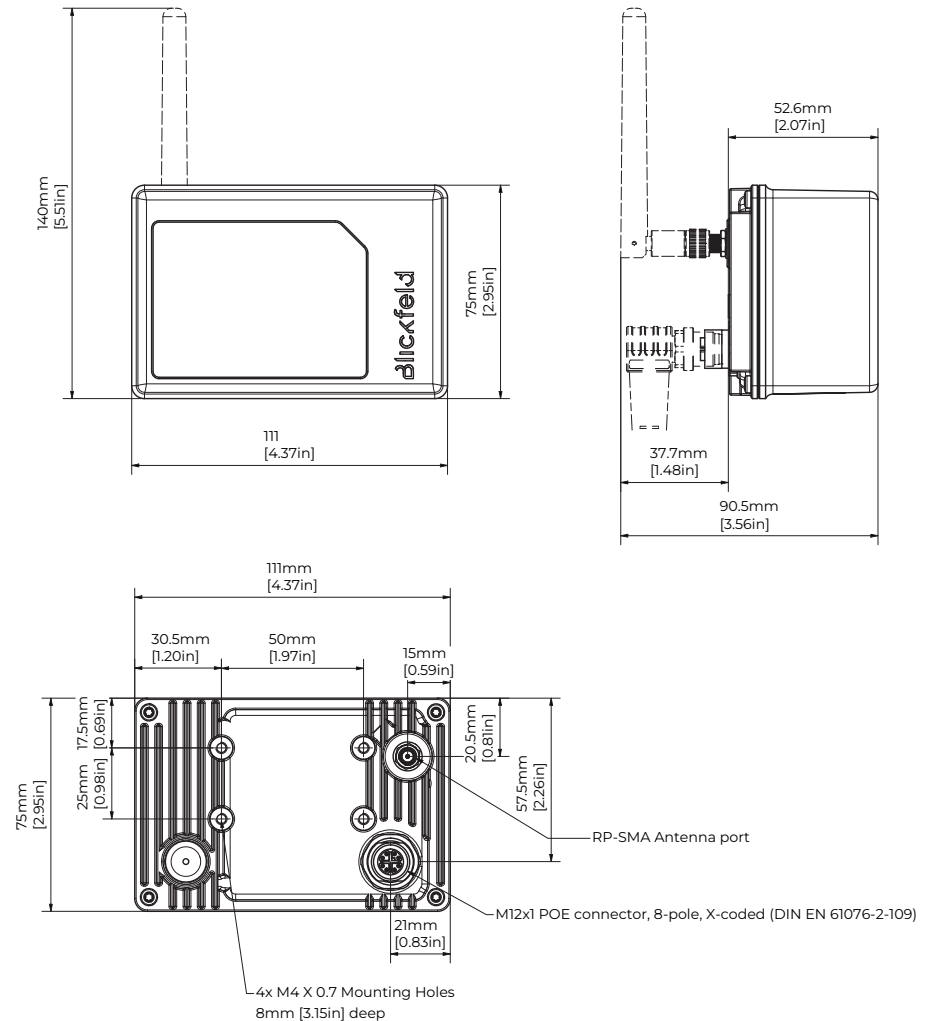
^c Less than 50 scan lines requires reduced field-of-view

^d Without antenna and cables attached

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

^f IP67 with cable or protective cap attached

DIMENSIONS



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