

PX-20 2D CMOS Imager

The PX-20 enables real-time barcode scanning into any Bluetooth® device. It is extremely small, lightweight and durable making it an ideal solution for a variety of mobile applications in retail, healthcare, manufacturing, logistics, hospitality and field operations.



Highlights

- 2D CMOS imager rapidly scans and decodes 1D and 2D barcodes
- Price point makes real-time barcode scanning with an Android, Apple iOS or Windows host device affordable
- Ready-to-go out of the box—just pair it with your Bluetooth device
- Supports Secure Simple Pairing (SSP), Serial Port Profile (SPP) and Human Interface Device (HID) Bluetooth profiles for added flexibility
- Bluetooth Low Energy
- Free SDK allows customized scanning behavior
- Memory: FlashROM 512 kB, RAM 96 kB, External FlashROM 1024 kB
- Small form factor: weighs only 40 grams, 36 x 74 x 16 mm (W x H x D)
- Audible and visible feedback after a successful scan
- USB rechargeable, high capacity Lithium-Ion battery
- Extremely reliable and durable (IP54, 1.8 m drop to concrete)
- Two year warranty protects your investment

PX-20

Product Specifications



Operation

CPU: 32-bit

O/S: Proprietary

Software: Multiple applications available (also programmable in C-language. Free software development kit with free RX compiler)

RTC: Supports year, month, day, hour, minute, second (leap year supported)

Memory

Flashrom: 512 kB

Ram: 96 kB

External flashrom: 1024 kB

Operating indicators

Visual: 1 LED (red/green/blue/orange)

Non-visual: buzzer

Operating keys

Entry options: 2 keys total, 1 function key, 1 scan key

Communication

USB: MicroUSB, HID/VCP/MSD

Bluetooth: Ver. 4.2 (classic and BLE), HID, SSP, 1 to 1 connection, master / slave mode, authentication and encryption

Power

Operating time: 20 hours (1 scan / minute incl.

Bluetooth communication), 35 hours (1 scan / minute, Bluetooth not activated)

Charging method: Enclosed USB cable

2D Imager Optics

Light source: Green aiming LED, 2 illumination red LEDs

Scan method: CMOS area sensor, 752 x 480 pixels

Scan rate: up to 60 fps

Focal distance: 130 mm / 5.12 in from the front

Curvature: $R \geq 20$ mm (12 digits), $R \geq 16$ mm (10 digits)

Reading pitch angle: $\pm 50^\circ$

Reading skew angle: $\pm 50^\circ$

Reading tilt angle: 360°

Field of view: Horizontal 40.6° , Vertical 26.4°

Min. resolution at PCS 0.9: 0.127 mm / 5 mil min

Min. PCS value: 0.30

Depth of field at code 39:

90 - 130 mm / 3.54 - 5.11 in (0.127 mm / 5 mil)

70 - 210 mm / 2.75 - 8.26 in (0.254 mm / 10 mil)

65 - 300 mm / 2.55 - 11.81 in (0.508 mm / 20 mil)

Depth of field at QR Code:

95 - 120 mm / 3.74 - 4.72 in (0.212 mm / 8.4 mil)

60 - 200 mm / 2.36 - 7.87 in (0.381 mm / 15 mil)

*The depth of field depends on the view angle and symbol length

Supported symbologies

Barcode (1D): UPC-A, UPC-A Add-on, UPC-E, UPC-E Add-on, EAN-13, EAN-13 add-on, EAN-8, EAN-8 Add-on, JAN-8, JAN-13, Codabar / NW-7, Code 11, Code 39, Code 93, Code 128, GS1 DataBar, GS1 DataBar Limited, GS1 DataBar Expanded, Composite GS1-DataBar, Composite GS1-128, Composite EAN, Composite UPC, IATA, Industrial 2of5, Interleaved 2of5, Matrix 2of5, MSI/Plessey, UK/Plessey, S-Code, Telepen, Tri-Optic

Postal code: Chinese Post, Korean Postal Authority code

2D code: Aztec Code, Codablock F, Data Matrix (ECC 0 - 140 / ECC 200), Maxi Code (mode 2-5), MicroPDF417, Micro QR Code, PDF417, QR Code, Chinese Sensible Code

Durability

Temperature in operation: -10 to 50 °C / 14 to 122 °F

Temperature in storage: -20 to 60 °C / -4 to 140 °F

Humidity in operation: 20% to 85% (non-condensing)

Humidity in storage: 20% to 85% (non-condensing)

Ambient light immunity: Fluorescent 10,000 lx max, direct sun 100,000 lx max, Incandescent 10,000 lx max

Drop test: 1.8 m / 6 ft drop onto concrete surface

Protection rate: IP54

Physical

Dimensions (W x H x D): 36 x 74 x 16 mm / 1.42 x 2.41 x 0.62 in

Weight body: Ca. 40 g / 1.4 oz (incl. battery)

Case: ABS, Black

Regulatory & safety

Product compliance: CE, FCC, VCCI, RoHS, IEC62471-1, EN60950-1, IEC60950-1, EN55022, EN55024

Items

Enclosed: USB cable, Neck strap