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PX-20

2D CMOS Imager

The PX-20 enables real-time barcode scanning into any Bluetooth device. It is extremely small, making it an ideal solution for field sales and service, retail point-of-sale (POS), inventory management, asset tracking and many more.

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≥20 mm (12 digits), R≥16 mm (10 digits)
Reading pitch angle: ± 50⁰
Reading skew angle: ± 50⁰
Reading tilt angle: 360⁰
Field of view: Horizontal 40.6⁰, Vertical 26.4⁰
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 ºC / 14 to 122 ºF
Temperature in storage: -20 to 60 ºC / -4 to 140 ºF
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

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