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RS-3000

2D CMOS Imager

The RS-3000 is a very small, lightweight and hands-free Bluetooth ring scanner. The RS-3000 can easily be clicked onto a ring scanner bracket to transform it into a wearable. Comfortable for all day use allowing your mobile workforce to quickly and safely scan barcodes.

Highlights

- One of the smallest and lightest ring barcode scanners available
- Advanced ergonomic design allows for all day comfort and scanning efficiency regardless of hand size
- The scanner easily clicks onto a ring scanner bracket to transform into a wearable
- Adjustable finger strap allows for an easy and quick conversion for either right or left hand operation
- Bluetooth 4.2 compliant that supports Bluetooth low energy (BLE)
- NFC tag for easy Bluetooth pairing
- Wireless charging with any Qi compatible charging pad or charging via USB-C port
- Ideal companion scanner for Apple and Android mobile devices
- Accurate battery monitoring, lasts a full working day, up to 20 hours
- Extreme high-performance scan engine for stress-free scanning and fast response, even in the case of poor-quality barcodes. Up to 100 fps
- Barcode scanner is triggered via external thumb button
- Configurable and programmable with the free Software Development Kit to customize scanning behavior
- Made of durable, high impact-resistant polycarbonate plastic, survives 1.5 m drops to concrete
- Backed by a two year warranty

RS-3000

Product Specifications

Operation
CPU: 32-bit
O/S: Proprietary
Software: 4 applications available (more applications are programmable in C-language. Free software developement 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: 1 MB (>50,000 barcodes + time stamp)

Operating indicators
Visual: 2 LED (red/green/blue)
Non-visual: buzzer

Operating keys
Entry options: 2 keys total, 1 function key, 1 scan key
Strap: 1 scan trigger

Communication
USB: USB-C, supports USB-HID, USB-COM, USB-MSD
Bluetooth: Ver. 4.2 (BLE), SPP, HID, 1 to 1 connection, master & slave mode, authentication and encryption

Power
Rechargeable battery: Lithium-Ion 3.7V 400mAh
Operating time(Batch): 4.500 scans (1 scan / 5 sec)
Operating time(Batch, idle): 2 months
Operating time(Bluetooth): 3.500 scans (1 scan / 5 sec)
Operating time(Bluetooth, idle): 27 hours
Data retention time: Indefinite
Charge method: Wireless with any Qi compatible charging pad or with an USB-C cable

2D Imager optics
Light source: Aiming green LED, warm white illumination LED
Scan method: CMOS area sensor, 640 x 480 pixels, black and white
Scan rate: Up to 100 fps
Reading pitch angle: ± 65°
Reading skew angle: ± 65°
Reading tilt angle: 360°
Curvature: R>20 mm (EAN13)

Min. resolution at pcs 0.9: 0.1 mm / 4 mil
Min. pcs value: 0.2
Field of view: horizontal 38°, vertical 28.9°, diagonal 46.4°
Depth of field at code 39:
55 - 128 mm (0.127 mm) / 2.16 - 5.04 in (5 mil)
54 - 239 mm (0.254 mm) / 2.13 - 9.41 in (10 mil)
71 - 435 mm (0.508 mm) / 2.79 - 17.13 in (20 mil)
Depth of field at QR code:
62 - 113 mm (0.169 mm) / 2.44 - 4.45 in (6.7 mil)
24 - 252 mm (0.381 mm) / 0.94 - 9.92 in (15 mil)

Supported symbologies
Barcode (1D): JAN/UPC/EAN incl. add on, Codabar/NW-7, Code 11, Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1 Databar (RSS), IATA, Industrial 2of5, Interleaved 2of5, ISBN-ISSN-ISMN, Matrix 2of5, MSI/Plessey, S-Code, Telepen, Tri-Optic, UK/Plessey
Postal code: Chinese Post, Intelligent Mail Barcode, Korean Postal Authority code, POSTNET

2D code: Aztec Code, Aztec Runes, Chinese Sensible code, Codablock F, Composite codes, Data matrix (ECC200), Passport MRZ (OCR-B), maxi Code (mode 2-5), MicroPDF417, MicroQR Code, PDF417, QR Code

Durability
Temperature in operation: -20 to 60 ºC / -4 to 140 ºF
Temperature in storage: -40 to 70 ºC / -40 to 158 ºF
Humidity in operation: 5% to 90% (non-condensing)
Humidity in storage: 5% to 90% (non-condensing)
Ambient light immunity: Incandescent 10,000 lx max, Fluorescent 10,000 lx max, direct sun 100,000 lx
Drop test: 1.5 m / 5 ft drop onto concrete surface
Vibration test: 12 - 200Hz with 3.3G for 10 min
Protection rate: IP42

Physical
Dimensions (W x H x D):
32.3 x 20.8 x 47.7 mm / 1.27 x 0.82 x 1.88 in,
41 x 44.8 x 47.7 mm / 1.61 x 1.76 x 1.88 in (incl bracket)
Weight body: Ca. 26.2 g / 0.92 oz, ca. 34.4 g / 1.21 oz (incl. bracket)
Case: ABS+PC, black/grey

Regulatory & safety
Product compliance: CE, FCC, RoHS, IEC62471:2006

Items
Enclosed: Ring bracket, USB C cable

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