

OPN-3002i

2D CMOS Imager Bluetooth® Companion Scanner



Highlights

- 2D CMOS imager rapidly scans and decodes 1D and 2D barcodes
- Price point makes real-time barcode scanning with an Android™, Apple® or Windows® devices affordable
- Ready-to-go out of the box, just pair it with your Bluetooth device
- Supports Apple MFi, SPP and HID Bluetooth profiles for added flexibility
- Memory: 1 MB Storage Flash, 96 KB RAM and 512 KB + 32 KB System Flash
- Small form factor: weighs only 2 oz, 3.27 x 1.42 x 0.85 in (LxWxD)
- Audible and visible feedback after a successful scan
- USB rechargeable, high capacity Lithium-Ion battery
- Extremely durable: IP42 rating against dust and moisture and survives 5 ft drop test
- Two year warranty protects your investment



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Product Specifications

OPERATION

CPU: 32 bit CISC, 96 MHz

OS: Proprietary

SOFTWARE: Proprietary

RTC: Supported

MEMORY

SYSTEM FLASH: 512 KB + 32 KB

STORAGE FLASH: 1 MB

RAM: 96 KB

OPERATING INDICATORS

VISUAL: LEDs (red, green, blue)

AUDIBLE: Buzzer, volume adjustable

PHYSICAL: Vibrator, strength adjustable

OPERATING KEYS

ENTRY OPTIONS: 1 Trigger key and 1 multi-function key

COMMUNICATION

USB: Full Speed, HID/VCP

BLUETOOTH: 2.1 (Secure Simple Pairing support), HID/SPP, Class 2 (10 meter range)

POWER

RECHARGEABLE BATTERY: Lithium-Ion polymer 3.7V 600 mAh

OPERATING TIME: 10 hours (1 scan/5 seconds, Bluetooth connected)

CHARGING METHOD: USB

2D IMAGER OPTICS

LIGHT SOURCE (ILLUMINATION): 2 Red LED floodlights

LIGHT SOURCE (AIMING): 1 Green LED (bar shape)

SENSOR: WVGA (752 w x 480 h) 2D CMOS

SCAN RATE: 60 fps

MOTION TOLERANCE: Up to 2m/sec

READING PITCH ANGLE: $\pm 50^\circ$

READING SKEW ANGLE: $\pm 50^\circ$

READING TILT ANGLE: 180°

FOCUS DISTANCE: 4.9 in (124.8 mm)

MINIMUM PCS: 0.30

MINIMUM RESOLUTION:

1D Barcode: 5 mils (0.127 mm)

Composite Barcode: 6.65 mils (0.169 mm)

2D Barcode: 8.35 mils (0.212 mm)

FIELD OF VIEW: horizontal 41° , vertical 26.4°

CURVE TOLERANCE (PCS 0.9): Codabar (10 digit): $R \geq 0.63$ in (16 mm),

UPC (12 digit): $R \geq 0.79$ in (20 mm)

2D IMAGER OPTICS *Cont.*

DEPTH OF FIELD:

Code 39 at 5 mils (0.127 mm): 3.54 - 4.33 in (90 - 110 mm)

Code 39 at 10 mils (0.254 mm): 2.56 - 7.28 in (65 - 185 mm),

Code 39 at 20 mils (0.508 mm): 2.56 - 10.24 in (65 - 260 mm)

Code 128 at 7.87 mils (0.20 mm): 3.35 - 6.50 in (85 - 165 mm)

UPC at 13 mils (0.33 mm): 2.17 - 7.68 in (55 - 195 mm)

PDF417 at 6.65 mils (0.169 mm): 3.35 - 5.31 in (85 - 135 mm)

PDF417 at 10 mils (0.254 mm): 2.56 - 7.09 in (65 - 180 mm)

QR Code at 8.35 mils (0.212 mm): 3.54 - 4.33 in (90 - 110 mm)

QR Code at 15 mils (0.381 mm): 2.17 - 7.09 in (55 - 180 mm)

Data Matrix at 10 mils (0.254 mm): 3.35 - 5.31 in (85 - 135 mm)

SUPPORTED SYMBOLOGIES

BARCODE (1D): UPC/EAN/JAN (standard, composite, addon), Code 39, Codabar (NW7), Industrial 2 of 5, Interleaved 2 of 5, Code 128, Code 93, IATA, MSI/Plessey, UK/Plessey, Telepen, Code 11, Matrix 2 of 5, JPN, GS1-Databar (Limited, Expanded, Composite), GS1-128 (standard, composite)

BARCODE (2D): PDF417, micro PDF417, Codablock F, QR Code, Micro QR Code, Data Matrix (ECC 000-140 & ECC 200), Aztec Code, Aztec Runes, Chinese Sensible Code, Maxicode

BARCODE (POSTAL CODES): Chinese Post Matrix 2 of 5, Korean Postal Authority, Intelligent Mail Barcode, Postnet

DURABILITY

TEMPERATURE: Operation: $32^\circ - 122^\circ$ F ($0^\circ - 50^\circ$ C), Storage: $-4^\circ - 140^\circ$ F ($-20^\circ - 60^\circ$ C)

HUMIDITY:

Operation: 20 - 85% RH (non-condensing, non-freezing)

Storage: 20 - 85% RH (non-condensing, non-freezing)

AMBIENT LIGHT IMMUNITY:

Fluorescent: 10,000 lx max

Incandescent: 10,000 lx max

Sunlight: 100,000 lx max

DROP TEST: 5 ft (1.5 m) onto to concrete

VIBRATION TEST: 1 hour at 10 - 100Hz

PROTECTION RATE: IP42

PHYSICAL

DIMENSIONS (WXHXD): 1.42 x 3.27 x 0.85 in (36 x 83 x 21.5 x mm)

BODY WEIGHT: 2 oz (57 g)

REGULATORY AND SAFETY

LED SAFETY: IEC 62471-1:2006 Risk License Group

PRODUCT SAFETY STANDARDS: EN60950-1:2005, IEC60950-1:2006

EMC: EN55022, EN55024, FCC Part 15 Subpart C (Subpart B Class B), Class B VCCI

CERTIFICATION STANDARDS: CE

OTHER: Apple MFi License, Bluetooth Logo Authenticator

ENCLOSED ITEMS

OPN-3002i, USB cable (data/charging), Lanyard (neck strap)

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