OPN-3102i

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, 1.42 x 3.27 x 0.85 in (WxHxD)

- Audible, visual, and vibrate feedback options following a successful scan

- USB rechargeable, high capacity Lithium-Ion battery

- Extremely durable: IP54 rating against dust and moisture and survives 5 ft drop test

- Two year warranty protects your investment

Made for
iPod iPhone iPad

≡ OPTICON

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Product Specifications

OPERATION

CPU: 32 bit CISC / 96 MHz, from 512 Kbytes + 32 Kbytes
SRAM: 96 Kbyte, from (storage) 1 Mbyte

MEMORY

SYSTEM FLASH: 512 KB + 32KB
STORAGE FLASH: 1 MB
RAM: 96 KB

OPERATING KEYS

ENTRY OPTIONS: 2 key: Trigger, function

OPERATING INDICATORS

VISUAL: LED, 2 colors (red / green), 1 color (blue)
AUDIBLE: Buzzer, volume adjustable (3 levels)
PHYSICAL: Vibrator, strength adjustable (3 levels)

RTC

CONTENTS: Date, hour, minute, second
ERROR: ± 90 seconds or less difference per month

COMMUNICATION

BLUETOOTH:
Frequency: 2402 to 2480 MHz
Specification: Bluetooth standard Ver 2.1 conforming
Communication distance: 10 m
Output level: Class 2 (maximum 4 dBm)
Profile: SPP / HID
BUILT-IN NFC TAG: ISO / IEC 14443 type A, type B, JIS X 631 - 4
USB: Full-speed 12 Mbps (HID / COM), hi-power bus-powered

POWER

CURRENT CONSUMPTION (DURING CHARGING): Less than 500 mA
BATTERY: Lithium polymer, 600 mAh (typ.)
CONTINUOUS USE TIME: 10 hours or more
CHARGING METHOD: Electromagnetic induction type non-contact power feed, micro-USB
OPERATING (CHARGING) VOLTAGE RANGE: 4.5 ~ 5.5V

2D IMAGER OPTICS

LIGHT SOURCE (ILLUMINATION): Light bulb color LED × 1 piece
LIGHT SOURCE (AIMING): 1 green LED
SENSOR: VGA CMOS area sensor
SCAN RATE: 100 fps (fastest value)
NUMBER OF READ PIXELS: 300 thousand pixels
FOCUS DISTANCE: 4.3 in (109.2 mm) (distance from the tip of the scanner)
READING PITCH ANGLE: ± 70°
READING SKEW ANGLE: ± 70°
READING TILT ANGLE: 360°
MINIMUM PCS VALUE: 0.2 or more
MINIMUM RESOLUTION AT PCS 0.9:
0.1 mm (Code 39)
0.169 mm (GS 1 Databar, Composite Code, PDF 417)
0.212 mm (QR Code, Data Matrix)
FIELD OF VIEW: Horizontal: 38°, Vertical: 28°

CURVED SURFACE READING:
R ≥ 16 mm (Codabar 0.15 mm 10 digits)
R ≥ 20 mm (UPC 12 digits)

SUPPORTED SYMBOLOGIES

BARCODE (1D): EAN - 8, EAN - 8 Add - on, JAN - 8, JAN - 8, EAN - 13 Add - on, EAN - 8, EAN - 8 Add - on, UPC - A Add - on, UPC - E, UPC - 13, Code 39, Tri-Optic, NW-7, Industrial 2 of 5, Interleaved 2 of 5, S-Code, IATA, Code 93, Code 128, MSI / Plessey, UK / Plessey, TELEPEN, Matrix 2 of 5, Chinese Post Matrix 2 of 5, Code 11, Korean Postal Authority code, Postal Code

BARCODE (2D): PDF417, MicroPDF 417, Codablock F, ata Matrix (ECC 0-140 / ECC 200), DotCode, QR code, Micro QR code, Data Matrix, MaxiCode (Modes 2 to 5), Aztec Code, Chinese-sensible code

BARCODE (POSTAL CODES): GS 1 DataBar, GS 1 DataBar Limited, GS 1 DataBar Expanded, Composite GS 1 DataBar, Composite GS 1 - 128 , Composite EAN, Composite UPC

DURABILITY

TEMPERATURE:
Operation: 14 to 122 °F (-10 to 50 °C)
Storage: -4 to 140 °F (-20 to 60 °C)
HUMIDITY:
Operation: 20 to 85% RH (non-condensing, non-freezing)
Storage: 20 to 85% RH (non-condensing, non-freezing)
AMBIENT LIGHT IMMUNITY:
Fluorescent: 10,000 lx
Direct sun: 100,000 lx
STATIC ELECTRICITY RESISTANCE:
Nondestructive: ± 15 kV (air discharge, direct)
Non-malfunction: ± 8 kV (air discharge, direct)
DROP TEST: 5 ft (1.5 m) drop onto concrete surface
PROTECTION RATE: IP 54

PHYSICAL

DIMENSIONS (WXHXD): 1.42 x 3.27 x 0.85 in (36.0 x 83.0 x 21.6 mm)
BODY WEIGHT: 2 oz (60 g)

REGULATORY AND SAFETY

LED SAFETY STANDARD: IEC 62471: 2006 Risk exemption group
PRODUCT SAFETY: EN 60950-1: 2006, IEC 60950-1: 2005
EMC: EN 55024: 2010, EN 55032: 2012 + AC: 2013 EN 301 489 - 1 V 1, .9 2, EN 301 489 - 17 V 2. 2. 1., 300 300 328 V 1 .9 1 EN 302 291 - 2 V 1. 1. 1, FCC Part 15 Subpart C, Subpart B Class B, VCCI Class B
CERTIFICATION STANDARD: CE marking, construction design certification (radio law)
OTHER: Bluetooth logo authentication, MFi license (OPN-3102i only)
SUPPRESS ENVIRONMENTAL IMPACT: RoHS directive

ENCLOSED ITEMS

USB cable, neck strap

SOLD SEPARATELY

28-OPNBOOT02-01: Silicone cover / attachment
OPA-3201-USB: OPN dedicated wireless USB adapter