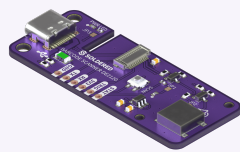


PRODUCT DATASHEET



Soldered Barcode Scanner DE2120

333384

DE2120 breakout that reads 1D barcodes and QR codes from 25 to 400 mm. UART or USB-C, with a trigger button, buzzer and status LED.

Full product documentation, files and tutorials: solde.red/333384

CORE ATTRIBUTES

SKU 333384

ORIGIN HR

BARCODE 732388640805

DESCRIPTION

The **Barcode Scanner DE2120** breakout reads **1D and 2D barcodes**: UPC, EAN, Code 128 and Code 39 as well as **QR Code**, Data Matrix, PDF417 and Aztec, more than 20 symbologies in total. It scans from **25 to 400 mm** away, with white LEDs to light the code and a red aiming light to point at it.

Plug it into a computer over **USB-C** and it works as a USB scanner straight away, the mode it ships in. To read codes from a microcontroller, scan one configuration barcode to switch it to **UART**, then connect TX, RX, 3V3 and GND. You can choose between manual, continuous and motion-sense scanning.

The board adds a trigger button, a buzzer and a blue LED that confirm each successful scan, and a STAT pin that goes low on every decode so your code can react in hardware. Jumpers switch off the buzzer and both LEDs. Arduino and MicroPython libraries with examples help you get started.

TECHNICAL DETAILS

- **Scan engine:** DE2120
- **1D symbologies:** UPC-A, UPC-E, EAN-8, EAN-13, Code 128, GS1-128, Code 39, Code 93, Code 11, Interleaved 2 of 5, Codabar, MSI Plessey, GS1 DataBar
- **2D symbologies:** QR Code, Data Matrix, PDF417, Micro PDF417, Aztec
- **Image sensor:** CMOS, 640 × 480 px
- **Scan distance:** 25 to 400 mm
- **Scan angles:** pitch ±45°, skew ±40°, roll 360°
- **Illumination:** 5600 K white LEDs, 625 nm red aiming LED
- **Scanning modes:** manual, continuous, motion sense
- **Interfaces:** UART (TTL, 9600 baud), USB-C

- **Supply voltage:** 5 V over USB-C, or 3.3 V on the header
- **Current consumption:** under 190 mA while scanning
- **Operating temperature:** -20 to 50 °C
- **On board:** trigger button, buzzer, status LED, power LED
- **Connectors:** USB-C, 6-pin 2.54 mm header
- **Dimensions:** 55 × 23 mm / 2.16 × 0.9 inch
- **Mounting:** 2x M3 holes

Note:

- The scanner ships in USB mode. Scan the POR232 configuration barcode once to switch it to UART.
- The 3V3 header pin takes 3.3 V only. Do not connect it to 5 V.

SPECIFICATIONS

INTERFACE	Uart, Digital Gpio, Usb
QWIIC COMPATIBLE	No
BREADBOARD COMPATIBLE	Yes
MEASUREMENT RANGE	Scan distance 25 to 400 mm
IC PART NUMBER	DE2120
SUPPLY VOLTAGE MIN V	3.3
SUPPLY VOLTAGE MAX V	3.3
LOGIC LEVEL	3V3 Only
OPERATING CURRENT (mA)	190 mA
PROTECTION FEATURES	Overcurrent

DOCUMENTS

Main IC Datasheet · EN	https://cms.soldered.com/products/333384/documents/ic-datasheet/333384_ic-datasheet_e27a3f.pdf
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LINKS

Arduino Library	https://github.com/SolderedElectronics/Soldered-Barcode-Scanner-DE2120-Arduino-Library
Arduino Library Documentation	https://docs.soldered.com/barcode-scanner-de2120/arduino/examples/
Arduino: Get Started	https://docs.soldered.com/barcode-scanner-de2120/arduino/getting-started/
Full Documentation	https://docs2.soldered.com/soldered-barcode-scanner-de2120/ https://github.com/SolderedElectronics/Soldered-DE2120-MicroPython-Library

**GitHub Hardware
Repository**

MicroPython: Get Started <https://docs.soldered.com/barcode-scanner-de2120/micropython/getting-started/>**MicroPython Module** <https://github.com/SolderedElectronics/Soldered-DE2120-MicroPython-Library>**Hardware Details** <https://docs.soldered.com/barcode-scanner-de2120/hardware/>**Pinout** https://cms.soldered.com/products/333384/media/333384_pinout-png_2b7df5.png

GALLERY

