

COMPACT FIXED-MOUNT · 1600 × 1200 IMAGE SENSOR · 1D ≥ 3.3 mil · 49 × 21 × 16.8 mm

G4503

Compact Fixed-Mount Barcode Scanner

Compact Fixed-Mount Design

1600 × 1200 CMOS

1D ≥ 3.3 mil · 2D ≥ 5 mil

USB / TTL / RS-232

49 × 21 × 16.8 mm

75 g

01 In-House Core Technology

An independently developed reading core handles wrinkled, curved, bent, damaged, worn, film-covered and low-contrast barcodes; custom development is available.

02 High Scanning Performance

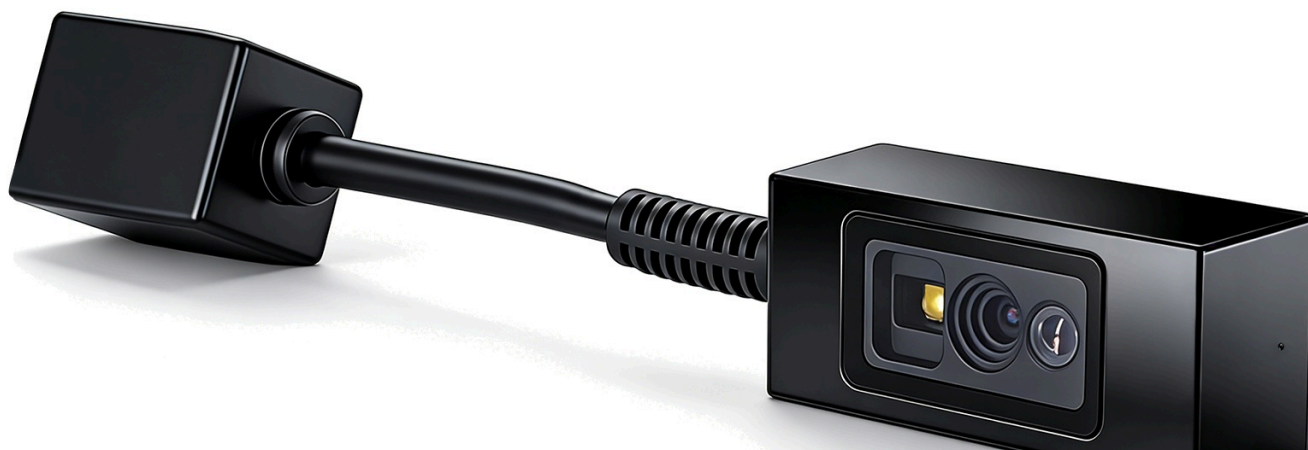
Paper barcodes and screen codes read quickly, and complex DPM, inkjet and difficult paper-label codes are handled just as efficiently.

03 Highly Integrated & Compact

High integration and reliability in a 49 × 21 × 16.8 mm body that fits tight installation spaces.

04 Flexible Interfaces & Trigger Modes

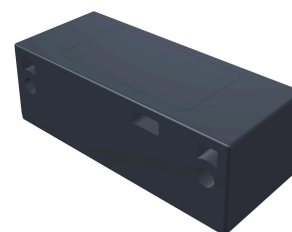
USB (default), TTL and RS-232, with manual, command trigger, sensing, continuous and IO trigger modes.



Scan window



Connector & cable



3D view

TYPICAL VERTICALS

G4503 reads paper barcodes on **3C fixture automation lines** and at **production-line workstations**. It also embeds into **outdoor self-service check-in terminals, parcel lockers, ticket gates, display kiosks and self-service cabinets** as a device accessory.

G4503 Compact Fixed-Mount Barcode Scanner

PRODUCT FEATURES

- **In-house decoding core** — reads wrinkled, curved, damaged, worn and low-contrast barcodes
- **Highly integrated** — stable and reliable, in a compact 49 × 21 × 16.8 mm body
- **Trigger modes** — manual, command trigger, sensing, continuous, plus IO trigger
- **High scanning performance** — paper barcodes, screen codes, complex DPM and inkjet codes
- **Host interfaces** — USB (default), TTL and RS-232
- **Easy setup** — ImageTool for configuration and OtaToolV for OTA firmware upgrade

READING PERFORMANCE

Image Sensor	1600 × 1200 CMOS
Illumination	White LED
Aimer	Red LED aimer
Resolution	1D ≥ 3.3 mil; 2D ≥ 5 mil
Print Contrast Signal (PCS)	≥ 20%
Pitch / Skew / Tilt	±60° / ±60° / ±360°
Field of View (FOV)	±43° / ±33°
Depth of Field (DOF)	30–300 mm (mobile payment code) 40–300 mm (EAN-13, 13 mil)
Ambient Light Immunity	0–100,000 lux

SUPPORTED SYMBOLOGIES

1D	EAN-13, EAN-8, UPC-A, UPC-E, Code 39, Code 128, ISBN, Code 93, Code 11, UCC/EAN-128, GS1 Databar, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, Codabar, Standard 2 of 5, MSI-Plessey, GS1 composite code
2D	PDF417, Data Matrix, QR Code, HanXin, Aztec, MaxiCode

MECHANICAL & ELECTRICAL

Host System Interfaces	USB (default), TTL, RS-232
Connector	8-pin FPC TXD / RXD, USB D+/D-, TRIG, VCC, GND
Input Voltage	5 V
Operating Current	< 200 mA at 5 V (typical)
Dimensions	49 (D) × 21 (W) × 16.8 (H) mm
Weight	75 g
Mounting Holes	Ø2 mm for 2.0 screws / Ø1.1 mm for 1.2 screws

ENVIRONMENTAL

Operating Temperature	–20 °C to +50 °C
Storage Temperature	–40 °C to +60 °C
Humidity	5–95% RH, non-condensing

THERMAL SHOCK RESISTANCE

High / Low Temperature	60 °C (140 °F) / –20 °C (–4 °F)
Cycles	30 min high / 30 min low, 24 cycles

CONFIGURATION & TRIGGER

Trigger Mode	Manual / Command / Sensing / Continuous / IO
Configuration	ImageTool OtaToolV for OTA firmware upgrade
Warranty	2 years

HOST INTERFACE

USB (default), TTL and RS-232 on an 8-pin FPC, with TRIG on PIN 4 shorted to GND to start a read.

MOUNTING

Ø2 mm and Ø1.1 mm mounting holes suit M2.0 and M1.2 screws in tight enclosures.

POWER

5 V input at under 200 mA typical; IO trigger and sensing modes keep the engine idle until a code arrives.