



MT688K 2D Scan Module

MT688K 2D Scan Module is a high-resolution 2D scanning solution designed for self-service kiosks, bus ticketing systems, parking equipment, and other embedded applications. Equipped with a 1280 × 800 megapixel-class sensor, 100 frames per second imaging, and a 75° × 60.2° wide field of view, it provides fast and flexible barcode capture from different positions and angles. Its wide operating temperature range of -40°C to 70°C, built-in protective window, and multiple interface options make it suitable for reliable integration across a wide range of applications.

High-Resolution and High-Speed Scanning

- 1280 × 800 megapixel-class image sensor
- 100 frames per second scanning
- Wide field of view: 75° × 60.2°
- Supports all major 1D, 2D and Postal Codes
- Up to 3mil Code 39 resolution
- Supports up to 100,000 lux ambient light

Flexible and Reliable Integration

- Built-in protective window
- Built-in Micro USB port
- Wide operating temperature: -40°C to 70°C
- USB HID / USB VCP / UART TTL / RS232
- 9-pin Wafer and 12-pin ZIF connectors
- Auto-sensing and software trigger
- Operating voltage: 3.2~5.5VDC
- Ideal for self-service kiosks, bus ticketing, and parking systems



Optic & Performance

Light Source	White LED
Sensor	1280 x 800
Scan Rate	100 Frames / Sec
Resolution	3mil/ 0.075mm (Code 39)
Scan Angle	Horizontal 75° , Vertical 60.2°
Pitch / Skew / Roll Angle	±80° / ±80° / ±360°
Print Contrast Ratio	10%
Typical D.O.F. (@800 lux)	13 Mil UPC/EAN: 26 ~ 306mm

Physical Characteristics

Dimension	W61.7 x L65.2 x H26.8 mm
Weight	45g
Color	White
Material	ABS
Connector	9pin Wafer (pitch=1.0mm), 12pin ZIF (pitch=0.5mm) Micro USB Port
Trigger	Auto-sensing, Software Trigger
Indicator	Buzzer

Electrical

Operation Voltage	3.2 ~ 5.5 VDC
Working Current	< 350mA @3.3V

Connectivity

Interface/ Profile	UART TTL, RS232, USB HID, USB VCP
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User Environment

Operating Temperature	-40 ~ 70°C
Storage Temperature	-40 ~ 70°C
Humidity	5%~95% RH (Non-condensing)
Drop Durability	1.5M
Ambient Light	100,000 Lux (Sunlight)

Regulatory

ESD	Functional after 4KV contact, 8KV air discharge
EMC/RF	TBA
Environmental	RoHS 2.0

Symbologies

1D	Code128, Code39, Code 39 Full ASCII, Code 32, Code93, UPC-A, UPC-E, UPC-E1, UPC-E0, EAN-8, EAN-13, Bookland EAN/ISBN, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, Chinese 2 of 5, Codabar, Code 11, MSI, ISBT, GS1-128, GS1 Databar14, GS1 Databar Limited, GS1 Databar Expanded, Postal Codes
2D	QR Code, Data Matrix, PDF417, Micro QR Code, MicroPDF417, Han Xin, Grid Matrix, Aztec, MaxiCode, GS1 QR Code, GS1 Data Matrix, GS1 Composite(CC-A/CC-B/CC-C)

* All specifications are subject to change without notice.



MARSON TECHNOLOGY CO., LTD.

TEL: +886-2-2218-1633

FAX: +886-2-2218-6638

Web: www.marsonscan.com

