






2D Scan Engine Comparison

Product Photo					
Model No	MT84G	MT82Ag	MT82VB	MT89M	MT82M
Product Name	2D Mini Scan Engine	2D Entry-Level Scan Engine	2D Long Range Scan Engine	2D Low-Profile Scan Engine	2D High Performance Scan Engine
Optic & Performance					
Light Source	White LED, Visible red LED	White LED, Visible red LED	White LED, Visible red LED	White LED, Visible red LED	White LED, Visible red LED
Resolution	5mil/ 0.125mm (1D) 10mil/ 0.25mm (2D)	5mil / 0.125mm	4mil / 0.1 mm	4mil / 0.1 mm (1D) 10mil / 0.25 mm (2D)	3mil/ 0.075mm (1D) 7mil/ 0.178mm (2D)
Scan Angle	Horizontal 37° , Vertical 27.5°	Horizontal 35° , Vertical 27°	Horizontal 38° , Vertical 29°	Horizontal 37° , Vertical 28°	Horizontal 46° , Vertical 29°
Print Contrast Ratio	25%	10%	30%	15%	20%
Width of Field (13Mil Code39)	141 mm	156 mm (13Mil Code39)	161 mm (13Mil Code39)	141 mm (13Mil Code39)	250 mm (13Mil Code39)
Typical D.O.F (Various barcodes)	27 ~ 310mm	22 ~ 324mm	27 ~ 361mm	31 ~ 291mm	38 ~ 464mm
Physical Characteristics					
Dimension	W14 x L9.5 x H9.3 mm (H7.8 mm, when mounted on PCB)	W21.5 x L14.5 x H11 mm	W21.3 x L14.5 x H11.3 mm	W21.7 x L9 x H7.2 mm	W21.6 x L16.1 x H11.9 mm
Weight	1.2 g	2.6 g	3.1 g	1.4 g	3.7g
Connector	10pin Gold Finger	12pin ZIF (pitch=0.5mm)	12pin flex cable (pitch=0.5mm)	13pin ZIF (pitch=0.3mm)	12pin ZIF (pitch=0.5mm)
Electrical					
Operation Voltage	3.3±0.15VDC	3.3±0.15VDC	3.3±0.15VDC	3.3 ± 0.15VDC	3.3 VDC ± 5%
Working Current	< 156mA	< 170mA	< 170mA	< 170mA	< 400mA
Standby Current	< 85mA	< 70mA	< 25mA	< 90mA	< 70mA
Idle Current (Sleep Mode)	< 1.5mA	< 1mA	< 10mA	< 800uA	< 10mA ± 5%
Connectivity					
Interface/ Profile	UART TTL / USB HID / USB VCP	UART TTL / USB HID / USB VCP	UART TTL / USB HID / USB VCP	UART TTL / USB HID / USB VCP	UART TTL / USB HID / USB VCP
User Environment					
Operating Temperature	-20°C ~ 60°C	-20 ~ 60 °C	-20°C ~ 60°C	-20°C ~ 60°C	-10 ~ 50 °C
Storage Temperature	-40°C ~ 70°C	-40 ~ 70 °C	-40°C ~ 70°C	-40°C ~ 70°C	-40 ~ 70 °C
Ambient Light	100,000 Lux (Sunlight)	100,000 Lux (Sunlight)	100,000 Lux (Sunlight)	100,000 Lux (Sunlight)	100,000 Lux (Sunlight)
Decode Capability					
Symbologies	1D Symbologies: UPC-A/ UPC-E0/ UPC-E1, EAN-8/ EAN-13, Code128, Code39, Code93, Codabar, Interleaved 2 of 5, Industrial 2 of 5, Matrix 2 of 5, Standard 2 of 5, China Post 25, Code11, MSI Plessey, Plessey, GS1 Databar 2D Symbologies: QR Code, Micro QR Code, PDF417, MicroPDF417, Data Matrix, Aztec, MaxiCode, Han Xin, Code16K	1D Symbologies: UPC-A/UPC-E, EAN-8/EAN-13, Codabar, Matrix 2 of 5, Code 93, Code 128, Code 39, Interleaved 2 of 5 2D Symbologies: QR Code, Micro QR Code, Data Matrix, PDF417, Aztec	1D Symbologies: UPC-A/UPC-E, EAN-8/EAN-13, ISBN, Code 128, GS1-128, Code 39, Code 93, Code 11, Interleaved 2 of 5, Industrial 2 of 5, Matrix 2 of 5, Standard 2 of 5, Codabar, MSI Plessey, GS1 Databar, GS1 Composite 2D Symbologies: QR Code, Micro QR Code, Data Matrix, PDF417, Aztec, MaxiCode, Han Xin	1D Symbologies: UPC-A/ UPC-E0/ UPC-E1, EAN-8/ EAN-13, Code128, Code39, Code93, Codabar, Interleaved 2 of 5, Industrial 2 of 5, Matrix 2 of 5, Standard 2 of 5, China Post 25, Code11, MSI Plessey, Plessey, GS1 Databar, GS1 Databar Limited, GS1 Databar Expanded 2D Symbologies: QR Code, Micro QR Code, PDF417, MicroPDF417, Data Matrix, QR Code, Micro QR Code, Aztec, MaxiCode, DotCode	1D Symbologies: UPC-A, UPC-E, EAN-8, EAN-13, Code 128, Code39, Code 93, Code 32, Code11, Codabar , Plessey, MSI, Interleaved 2 of 5, IATA 2 of 5, Matrix 2 of 5, Straight 2 of 5, Pharmacode , GS1 Databar, Composite CC-A/B/C 2D Symbologies: PDF417, MicroPDF417, Data Matrix, QR Code, Micro QR Code, Aztec, MaxiCode, DotCode

2D Scan Engine Comparison

Product Photo



MT82W



MT684

Model No	MT82W	MT684
Product Name	2D Wide Angle Scan Engine	2D Close Range Scan Engine

Optic & Performance

Light Source	White LED, Visible red LED	White LED
Resolution	3.9 mil/ 0.0975 mm (1D) 5mil/ 0.125mm (2D)	5mil / 0.125 mm (1D) 10mil / 0.25 mm (2D)
Scan Angle	Horizontal 74° , Vertical 58°	Horizontal 68° , Vertical 50°
Print Contrast Ratio	20%	25%
Width of Field (13Mil Code39)	87 mm (13Mil Code39)	155 mm (13Mil Code39)
Typical D.O.F (Various barcodes)	19 ~ 109mm	2 ~ 181mm

Physical Characteristics

Dimension	W22 x L14.6 x H11.7 mm	W61.5 x L65 x H37 mm
Weight	3.3g	30 g
Connector	12pin ZIF (pitch=0.5mm)	Micro USB/12 pin ZIF /9pin Wafer

Electrical

Operation Voltage	3.3 ± 0.15VDC	3.3VDC ± 5% , 5V (USB)
Working Current	< 220mA	< 125mA
Standby Current	Typ. 140mA	< 85mA (Trigger Mode only)
Idle Current (Sleep Mode)	Typ. 20mA	N/A

Connectivity

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

Operating Temperature	-10°C ~ 70°C	-20 ~ 60 °C
Storage Temperature	-40°C ~ 70°C	-40 ~ 70 °C
Ambient Light	100,000 Lux (Sunlight)	15,000 Lux (Fluorescent Light)

Decode Capability

Symbologies	<p>1D Symbologies: Codabar, Code 39, Code 32, Interleaved 2 of 5, Code 93, Matrix 2 of 5, Industrial 2 of 5, Code 11, Code 128, GS1-128, UPC-A, UPC-E, EAN/JAN-8, EAN/JAN-13, GS1 DataBar(RSS14), MSI Plessey Expanded</p> <p>2D Symbologies: QR Code, Micro QR, Data Matrix, PDF417, MicroPDF417, Aztec, Han Xin</p>	<p>1D Symbologies: UPC-A/ UPC-E0/ UPC-E1, EAN-8/ EAN-13, Code128, Code39, Code93, Codabar, Interleaved 2 of 5, Industrial 2 of 5, Matrix 2 of 5, Standard 2 of 5, China Post 25, Code11, MSI Plessey, Plessey, GS1 Databar, GS1 Databar Limited, GS1 Databar Expanded</p> <p>2D Symbologies: QR Code, Micro QR Code, PDF417, MicroPDF417, Data Matrix, Aztec, MaxiCode, Han Xin, Code16K</p>
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1D Scan Engine Comparison

Product Photo					
Model No	MT15	MT10	MT780	MT40	MT40W
Product Name	Mini Scan Engine	Mini Scan Engine	Long Range Mini Scan Engine	Long Range Mini Scan Engine	Wide Angle Scan Engine
Optic & Performance					
Light Source	625 nm visible red LED	625 nm visible red LED	625 nm visible red LED	625 nm visible red LED	625 nm visible red LED
Scan Rate	500 Scans/ sec	650 Scans/ sec	620 Scans/ sec	510 Scans/ sec	510 Scans/ sec
Resolution	5mil/ 0.125mm	4mil/ 0.1mm	3mil 0.075 mm	4mil/ 0.1mm	3mil / 0.075 mm
Scan Angle	41°	41°	53°	40°	65°
Print Contrast Ratio	30%	30%	30%	30%	30%
Width of Field (13Mil Code39)	171 mm	140 mm (13Mil Code39)	200 mm (13Mil Code39)	200 mm (13Mil Code39)	110mm (13Mil Code39)
Typical D.O.F (Various barcodes)	33 ~ 322 mm	21 ~ 285 mm	25 ~ 437 mm	27 ~ 518 mm	13 ~ 295mm
Physical Characteristics					
Dimension	W11.5 x L10 x H7.2 mm (H5.5 mm: when mounted on PCB)	W14 x L11.9 x H7 mm	W23.7 x L12.2 x H7.5 mm	W32 x L24 x H11.6 mm	W32 x L24 x H11.6 mm
Weight	0.7g	1g	2g	8g	8g
Connector	8pin Gold Fingers	13pin ZIF (pitch=0.3mm)	10pin ZIF (pitch=0.5mm)	12pin ZIF (pitch=0.5mm)	12pin ZIF (pitch=0.5mm)
Electrical					
Operation Voltage	3.3±0.15VDC	3.3±0.15VDC	3.3±0.15VDC	3.3~5VDC±5%	3.3~5VDC±5%
Working Current	< 55mA	< 85mA (USB); < 75mA (UART)	< 170mA	< 160mA	< 160mA
Standby Current	< 30mA	< 45mA (USB); < 35mA (UART)	< 55mA	< 80mA	< 80mA
Idle Current (Sleep Mode)	< 500uA	< 500uA (USB); < 300uA (UART)	< 100uA	< 1uA	< 1uA
Connectivity					
Interface/ Profile	UART TTL	UART TTL USB HID USB VCP	UART TTL USB HID USB VCP	UART TTL USB HID USB VCP	UART TTL USB HID USB VCP
User Environment					
Operating Temperature	0°C ~ 50°C	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C
Storage Temperature	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C	-25°C ~ 60°C	-25°C ~ 60°C
Ambient Light	100,000 Lux (Sunlight)	100,000 Lux (Sunlight)	100,000 Lux (Sunlight)	70,000 Lux (Sunlight)	70,000 Lux (Sunlight)
Decode Capability					
Symbologies	All major 1D symbologies including GS1 Databar				