



# 2D Scan Engine

## DP8402 Specification

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## Product Description



DP8402 is a professional 2D scanning platform, can read various screen brightness of the phones 1D 2D barcodes. Large window design, large viewing angle, support all kinds of screen size mobile phones. Excellent performance provides users with very comfortable using experience.

## Features

- ☆ Mini size, widely used in wireless machine, self-service terminal.
- ☆ Read all mainstream 1D 2D barcodes in the market easily.
- ☆ Support USB barcode information transmission. ( languages customization)
- ☆ High brightness, dark environment scanning, low power consumption.
- ☆ Interface: USB, TTL.
- ☆ Support multiple systems and languages, secondary development.

## Application

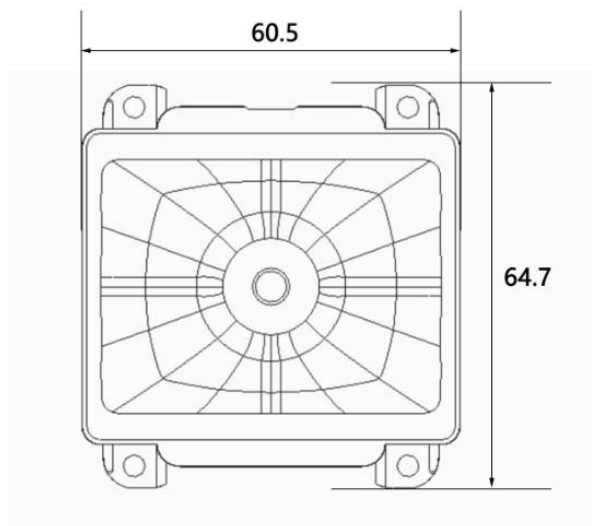
- Lockers
- Medical research
- Lottery machines
- Queuing calling equipment
- Microcontroller development
- Mobile coupons, tickets
- Mobile payment barcode scanning
- Self-service terminals
- Self-service vending machines



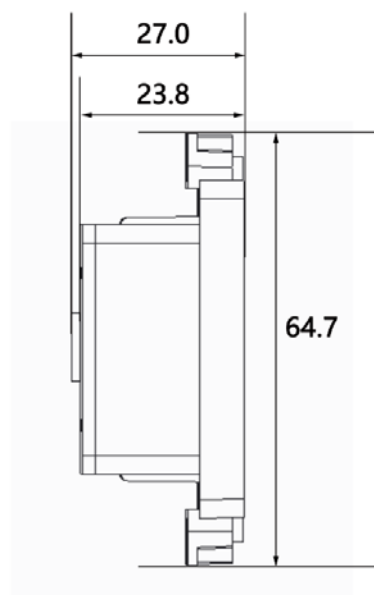
## Mounting

The illustrations below show the mechanical mounting dimensions for the DP8402. The structural design should leave some space between components.

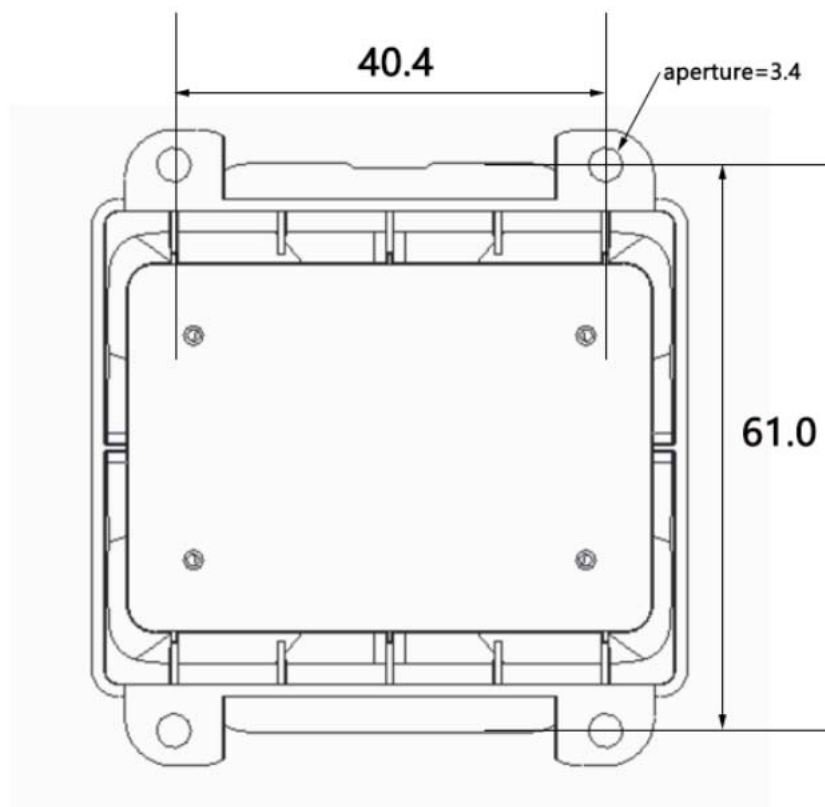
### Front View (unit: mm)



### Side View (unit: mm)

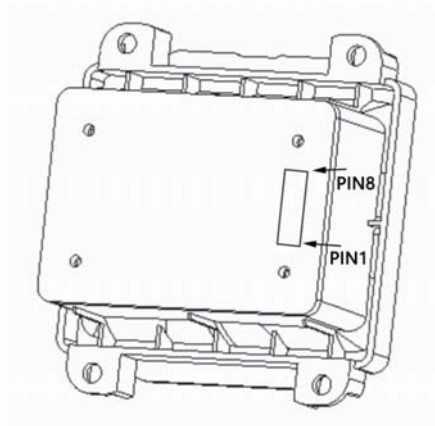


**Top View (unit: mm)**



## Host Interface Connector

The following table lists the pin functions of the ffc 12pin pitch 0.5,host interface connector on the DP8402



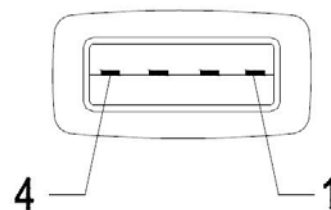
PIN#	Signal	Type	Definition
1	VCC	P	Power supply DC5V
2	GND	P	Ground
3	LED		LED
4	BEEP	Output	Buzzer Output, free Low level
5	TX	Input	TTL-RS232 receive
6	RX	Output	TTL-RS232 send
7	D-	Input/Output	USB D-N signal
8	D+	Input/Output	USB D-P signal

## Cable Interface

DP8402 scanner must be connected with terminals, PC host, POS and Android host etc.

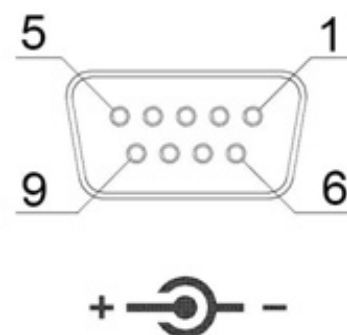
### USB

Pin No.	Function
1	Vcc
2	D-
3	D+
4	GND



### TTL/RS232

Pin No.	Function
2	TXD
3	RXD
5	GND
9	Vcc/+5V
Power Lead	Vcc/+5V





## Performance

<b>Scan Type</b>	CMOS
<b>Light Source</b>	5600K LEDs ( Lighting)
<b>CPU</b>	32-bit
<b>Field of view</b>	60° (H)x48° (V)
<b>Resolution</b>	640*480
<b>Resolution</b>	≥5mil/0.127mm(PCS90%,Code 39)
<b>Decoding speed</b>	25CM/S
<b>Depth of field</b>	10mm-200mm
<b>Scan Mode</b>	Auto Sense
<b>Scan angle</b>	Roll±360°, Pitch±65°, Skew±60° (PCS90%, Code 39, 10mil/0.25mm)
<b>Print Contrast Signal</b>	≥25%
<b>Ambient Light</b>	Dark environment, indoor natural light
<b>Symbologies</b>	<p>1D: UPC-A, UPC-E, EAN-8, EAN-13, ISSN, ISBN, Code 128, GS1-128, ISBT 128, Code 39, Code 93, Code 32, Code 11, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, Standard 2 of 5 (IATA) , Codabar (NW-7) , Plessey, MSI Plessey, GS1-Databar (RSS) , Itf-14, etc.</p> <p>2D: QR Code, Data Matrix, PDF 417, Aztec Code, Maxicode, Hanxin. etc.</p>

## Physical Parameter

<b>Weight</b>	≈30g
<b>Dimension</b>	(L)60.5mm * (W)64.7mm *(H)27.0mm
<b>Interface Type</b>	FFC 8PIN Pitch 1.25
<b>Communication</b>	USB, TTL
<b>Power Supply</b>	DC 5V@120mA(Max) ,100ma(work)

## Environmental

<b>Operating</b>	-20°C to 50°C
<b>Storage</b>	-40°C to 70°C
<b>Humidity</b>	5% to 95% (non-condensing)
<b>Drop Height</b>	1.2m
<b>Temp. Test</b>	30 minutes for high Temp., 30 minutes for low Temp.,
	<i>High Temp.</i> 60°C
	<i>Low Temp.</i> -20°C
<b>Transport</b>	10H@125RPM

## Accessories List

<b>Cable (Optional)</b>	USB Cable, used to connect the DP8402 to a host device.
	RS232 Cable, used to connect the DP8402 to a host device, with USB supply cable.
<b>Test board (Optional)</b>	With trigger button and buzzer, it has USB or RS232 output function.
<b>Power Adaptor</b>	Output: DC5V 1A, input: AC100~240V 50~60Hz (serial port optional).

## Depth of field

Barcode	Precision	near	far
Code 39	0.1mm(5mil)	10mm	60mm
EAN-13	0.33mm(13.0mil)	10mm	110mm
QR Code	20.0mil	5mm	80mm
WeChat payment code 6 inch screen		5mm	150mm
Alipay payment code 6 inch screen		30mm	200mm

**Test Condition: T=25°C, Illumination=200LUX, PCS=0.9**