

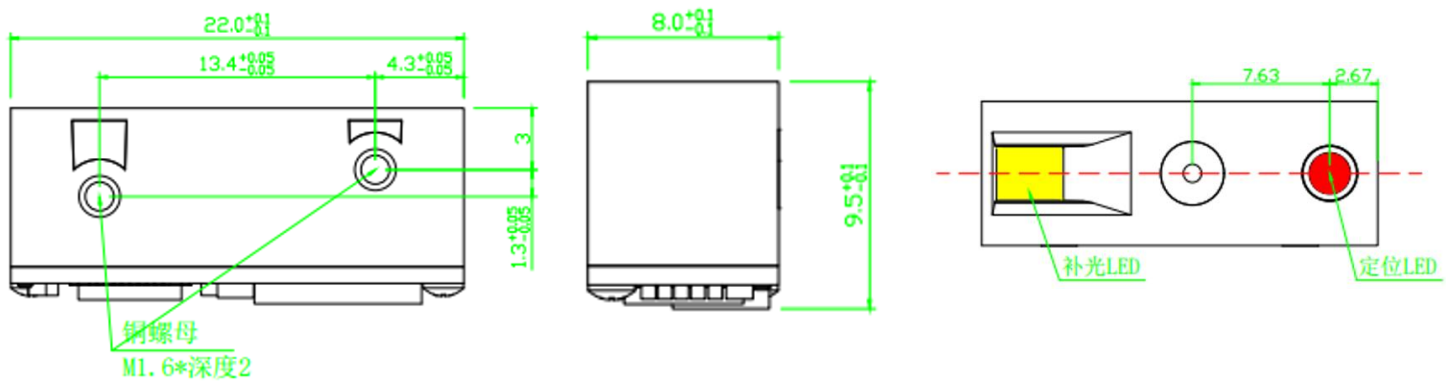
## HW-1220

### FEATURES & BENEFITS

- 300,000 pixels resolution
- Decoding min barcode density:5mil
- Support 1D/2D barcode on paper and screen
- Interface TTL232 and USB by 12pin FFC
- Small size, fast and convenient installation

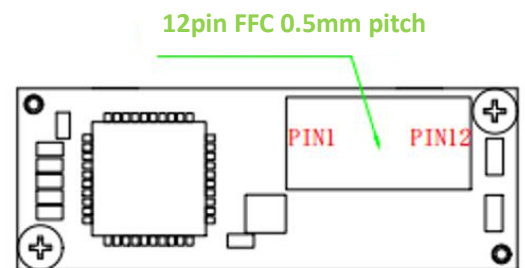


### Installation Dimensions and Interface definition



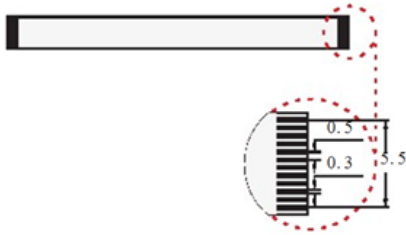
### Interface definition

PIN	I/O	Definition	Description
1	-	NC	floating
2	-	VCC	3.3VDC power
3	-	GND	ground
4	Input	RX	TTL serial port reception
5	Output	TX	TTL serial port transmission
6	I/O	D-	USB D-
7	I/O	D+	USB D+
8	-	GND	ground
9	Output	BEEPER	Control external buzzer Output high level pulse 60ms
10	Output	DLED	Control external Indicator LED Output high level pulse 100ms
11	-	NC	floating
12	Input	TRIG	Trigger signal, low level available



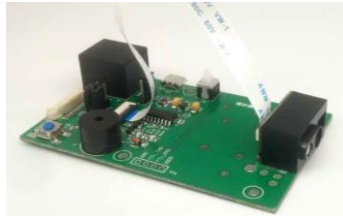
## Connection

1. Directly connect to MCU board by 12 pin FFC(Actual usage)



12pin FFC flat cable  
0.5pitch  
Co-directional transmission

2. Connect with test board



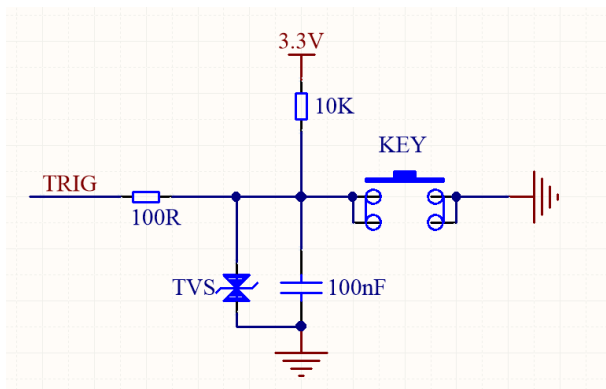
Test board has multiple output interface, 5VDC/3.3VDC power

3. Connect to GPIO of RPI

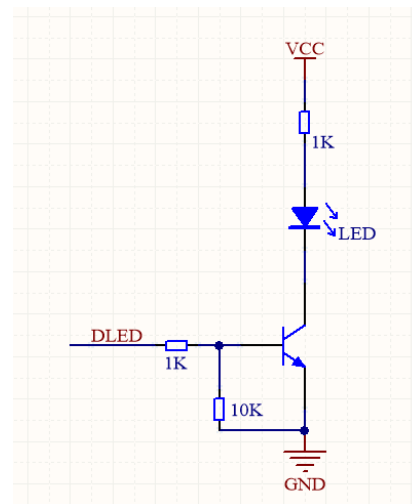


Can connect by ribbon connector  
Also need use test board

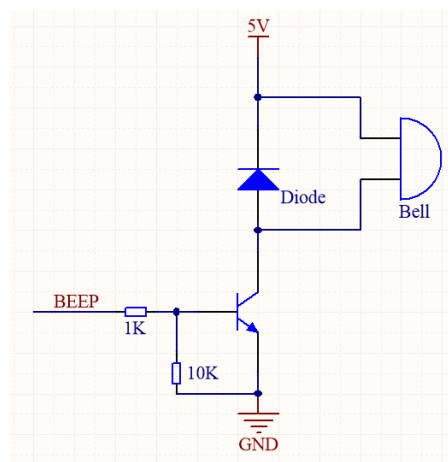
It is for pin9(buzzer control), pin10(LED indicator control), Pin12(trigger pin)



(1) Pin12 trigger pin



(2) Pin10 LED indicator



(3) Pin9 Passive buzzer

**Note:**

If the module is installed in the window

1. If the module is installed in the window, the window needs to use glass, you can use the anti-reflection layer, the red light transmission rate is not less than 90%, and the blur degree is less than 1%.
2. The window material should be anti-scratch and anti-fouling, choose high wear-resistant materials or add wear-resistant coatings.
3. Check the window surface to make sure it is not scratched, pitted or dirty.
4. The window should be on the inside of the device's housing
5. The window should be parallel to the scanner.

## Application Scenario



HHT,POS,PDA etc.



Cabinet for logistic



self-order machine



Self-service machine



Factory traceability



Vending machine

# Technical Specification

## HW-1220 Parameters

Reading performance	Image Sensor	CMOS	
	Resolution	300,000 pixels,640*480pixels,30fps	
	Decoding capacity	Support paper and screen barcodes	
		2D: QR Code、PDF417、DataMatrix (ECC200)、Micro QR	
		Micro PDF417,Maxi Code, Aztec, Hanxin	
		1D: EAN13、EAN8、UPC-A、UPC-E0、UPC-E1、Code128、Code39、Code93、CodaBar 、Interleaved 2 of 5、Industrial 25、Matrix 2 of 5、Code11、MSI Plessey 、RSS-14、limited RSS、Expanded RSS、Standard 2 of 5、Plessey、ChinaPost 25 etc. all normal 1D	
	Precision	1D $\geq 5\text{mil}$ ; 2D $\geq 8\text{mil}$	
	Light Source	Visible Red Diode, White LED for illumination	
	View Angle	32° (H) x24° (V)	
	Scan Angle	Rotation360° ,tilt $\pm 60$ skew $\pm 60$	
Mechanical and electrical	Min Contrast	20	
	Trigger Mode	Manual, Continuous, Auto sensing, Host Mode	
	Typical DOF	EAN13 (13mil) 45-300mm	Code 128(15mil)50-390mm
		QR code(15mil)30-230mm	Code39(5mil)45-120mm
	Performance may be impacted by bar code quality and environmental conditions		
	Interface	TTL232,USB(HID-KBW,virtual serial port)by 12pin FFC flat cable	
	Working Voltage	DC 3.3V	
Environment Request	Current	170mA(working)	800uA(standby)
	Dimensions	22(W)×13.2(D)×8(H)mm	
	Weight	5g	
	Indication	LED(fill light),can trigger external buzzer and LED indicator	
	Working Tem	-20~60℃	
	Storage Tem	-40~70℃	
	Humidity	5%-95%(Non-condensing)	

