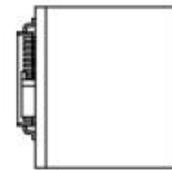
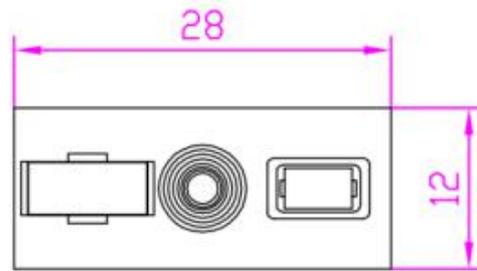
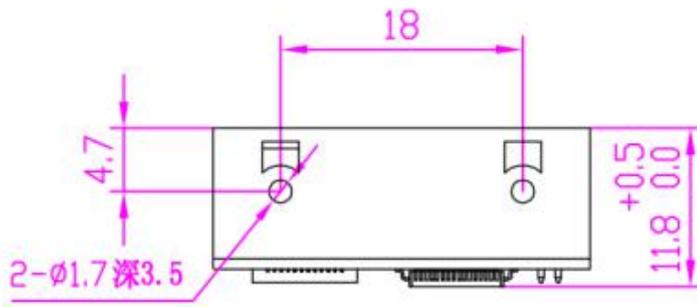
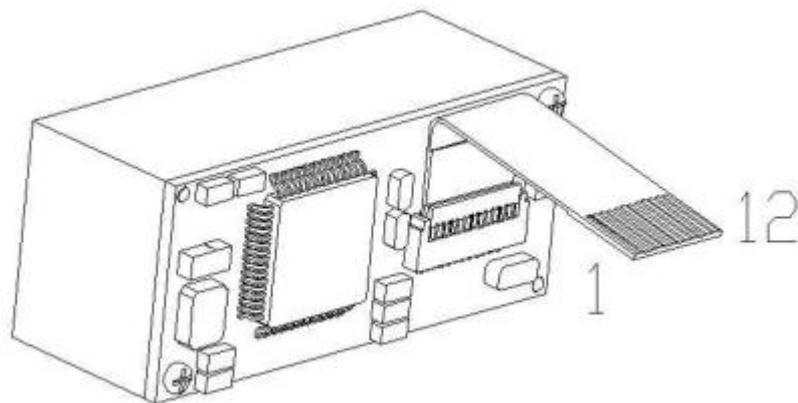


Module Size (mm)

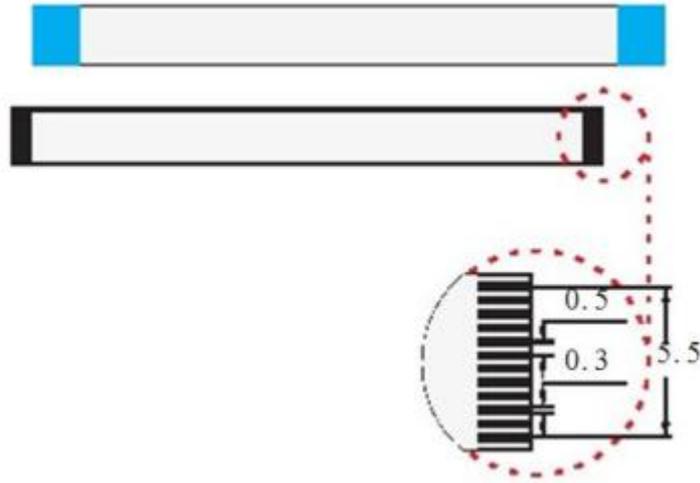


Weight: <7g

Dimension: 28mmx 11.8mm x 12mm L*W*H



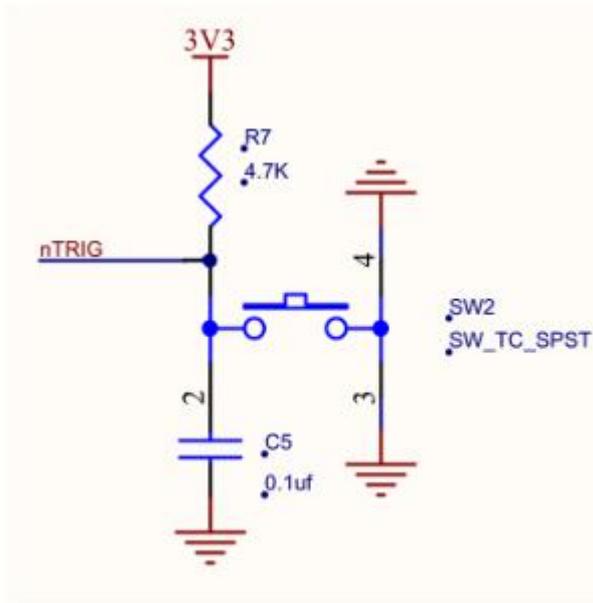
This Cable is 12PIN-12PIN (mm)



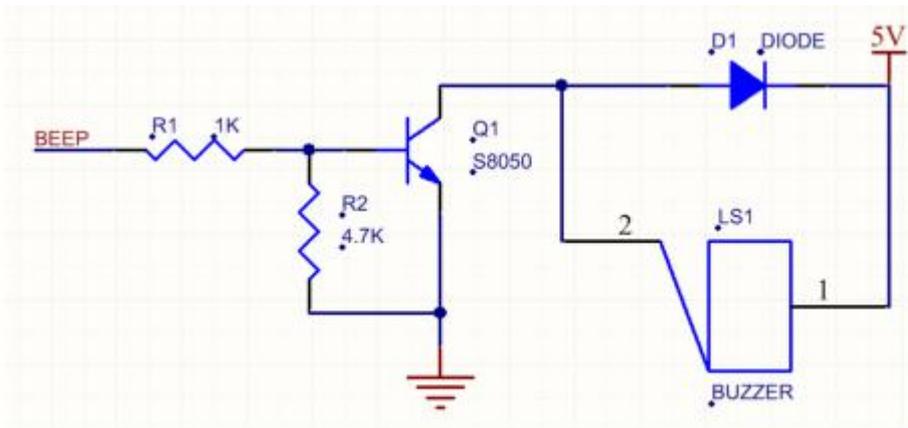
Pin	Input/Output	Define	Instruction
Pin1	-	NC	Suspension or low voltage, do not connect high voltage
Pin2	Power	VCC	Enter +3.3V. Lower than 3.1V engine reset
Pin3	Ground	GND	-
Pin4	Input	RX	Serial Port receive signal
Pin5	Output	TX	Serial Port Sent Signal
Pin6	Input	D-	USB Port is D- Signal
Pin7	Output	D+	USB Port is D+ Signal
Pin8	-	NC	-
Pin9	Output	Beeper	Passive buzzer output signal, idle low level
Pin10	Output	DLED	Decode successful indicator light, idle low level
Pin11	-	NC	-
Pin12	Input	Trig	Weak pull, low level trigger engine decode

The module power, TTL level, USB and other pins are directly connected to the external circuit. Trigger pins and buzzer pins need driving circuits.

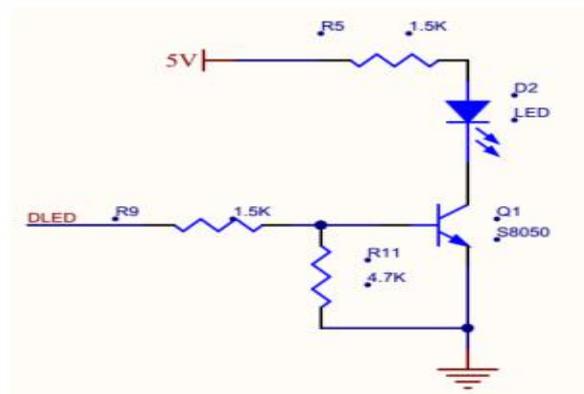
Trigger pin drive circuit:



Passive buzzer pin drive circuit:



DLED pin drive circuit



When the decoding is successful, the BEEPER and DLED pins will give a high level pulse. The duration of the high level pulse can be configured by the user to scan the code, and the default 60ms.

Interface: TTL-232

Voltage DC: +3.3V + 5%

Working current 135mA

Standby current: 58mA

Dormant current: 2mA

Light source: white light

Reading angle: rotation 360 degrees, tilt + 65 degrees, deflection + 60 degrees

Resolution: 648 (level) x 488 (vertical)

Scanning angle: 34 degrees (level), 26 degrees (vertical)

Working temperature: -20 C to 60 degree C

Relative humidity: 5% to 95% (not condensing)

Ambient light: direct radiation of normal indoor light source

Decode Ability:

	Readable	Default Readable
Codabar	✓	✓
Code 11	✓	✗
Code 39/Code 93	✓	✓
UPC/EAN	✓	✓
Code 128/EAN128	✓	✓
Interleaved 2 of 5	✓	✗
Matrix 2 of 5	✓	✗
MSI Code	✓	✗
Industrial 2 of 5	✓	✗
GS1 Databar	✓	✓
QR code	✓	✓
Data Matrix	✓	✓
PDF417	✓	✓

Thermal shock resistance

Maximum temperature: 60 C (140 F)

Minimum temperature: -20 C (-4 F)

Cycle times: 30 minutes of high temperature; 30 minutes of low temperature

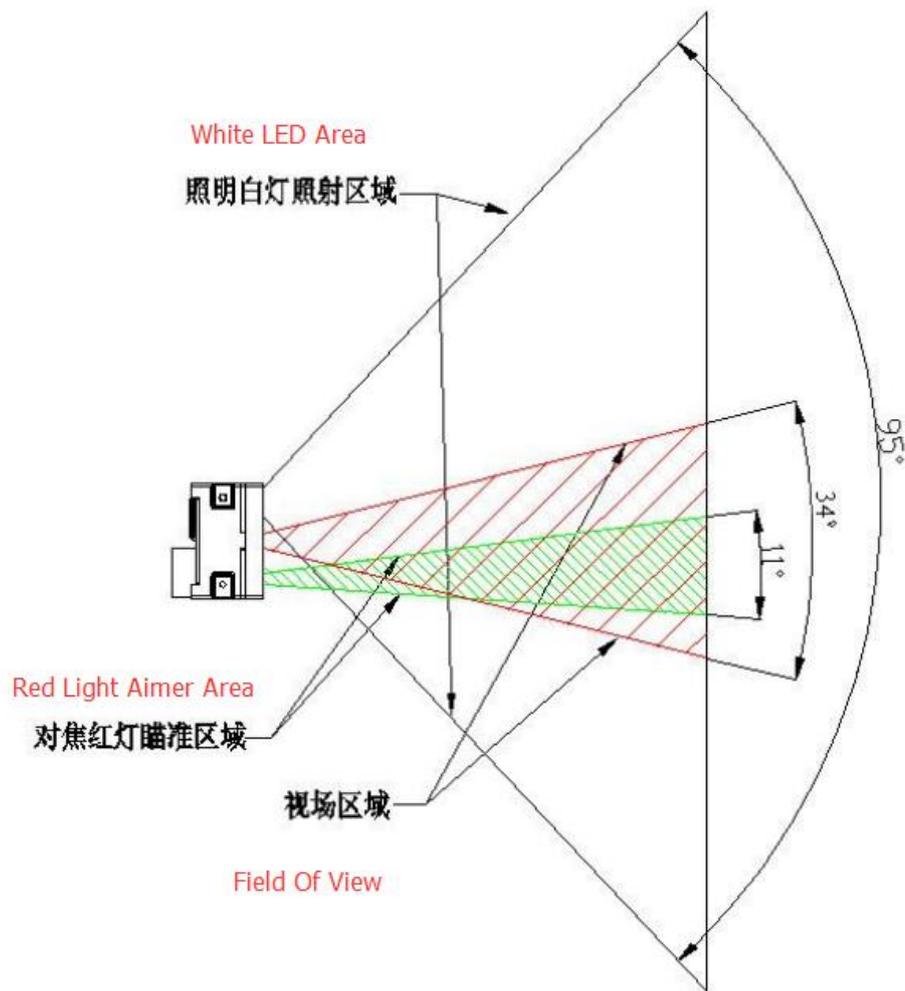
Cycle: 24

Resistance to mechanical impact

Vibration: 2000 G, 0.7 MS, half sinus, 3 axes

Fall: can bear 1.2 meters down to the cement ground

Reading distance: these distances are measured in the office environment (250 Lux)



Barcode Type Mils Minimum Distance Max Distance

Code 39	0.125 mm (5 mils)	4.0 cm	9.0 cm
	0.375 mm (15 mils)	4.0 cm	25.0cm
UPC/EAN	0.375 mm (15 mils)	4.0 cm	25.0cm
Code93	0.254 mm (10 mils)	4.0 cm	21.0cm

* the minimum distance depends on the length of the symbol and the scanning angle.

When you install a window, follow the following suggestions:

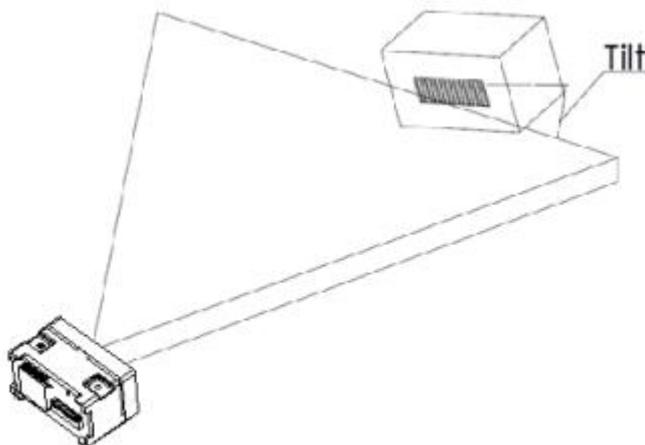
1. Do not paint the window
2. Check the surface of the window to ensure that they are not scratched, pits or dirty.
3. Recess the window into the shell of the device
4. Locate the window and make it parallel to the imager (no tilt). If the window position is
5. unsuitable, the imaging performance will be significantly reduced.
6. Try to close the window to the front of the module as much as possible, and don't touch it.
7. The gap protection module and window between the front of the module and the inner surface of the window are impacted by the fall. Distance depends on Integration Environmental Science.

Scanning one dimensional linear bar code and two dimensional bar code, you do not need too much tilt and skew when you scan the bar code.

Tolerance of oblique and pitching angles. The scanner makes the bar code acquisition easier in this area.

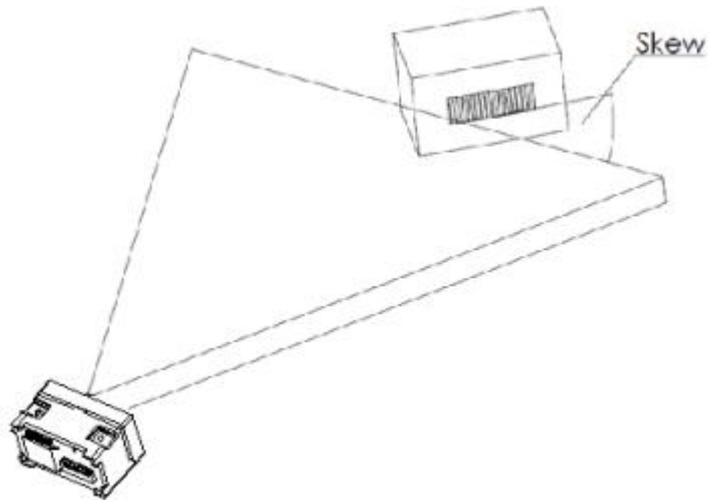
rotate

If all the bar codes are not in the readout beam, the module will not be able to read the bar code. But if the bar code is in the reading area, the inclination angle can be 360 degrees.



tilt

The slant strip width is the critical size for high density bar code. The angle of the bar code that the module can read can reach 65 degrees, but you should lower the tilt angle to improve the reading efficiency.



deflection

The deflection reduces the height of the bar code. The pitch angle of 2 to 3 degrees is the best because it prevents the bar code from reflecting directly. The module can read a bar code deflection angle of 60 degrees, but you should shorten the spacing in order to improve reading code efficiency.

