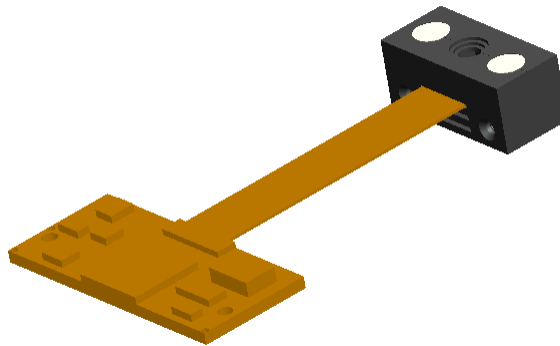


NT031E-S 条码识读引擎

NT031E-S Decode Engine

集成手册



● 产品实图



● 12 PIN 接口 (0.5mm 间距)

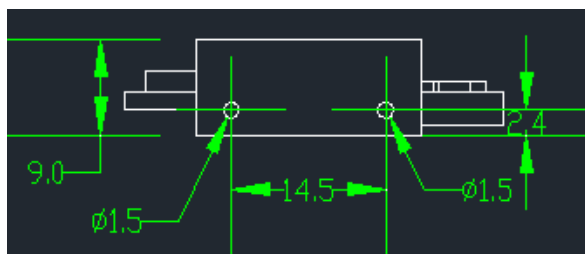
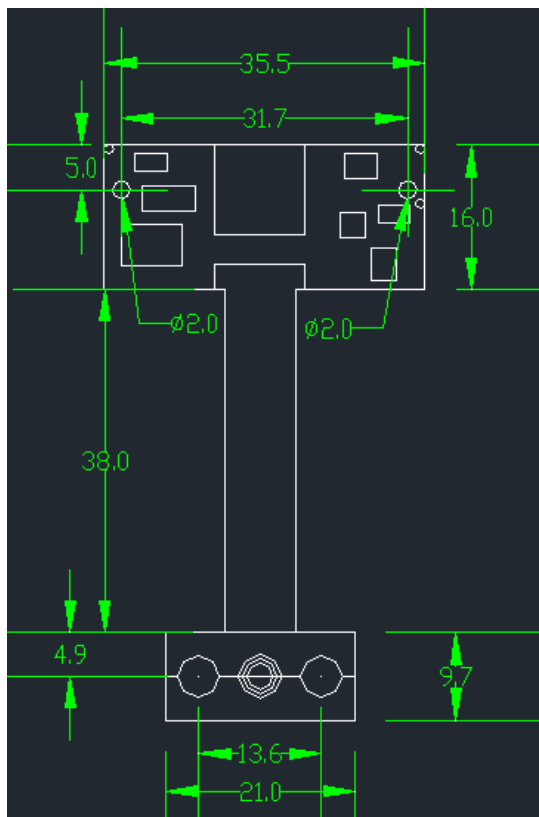
Pin No.	Signal Name	Type	Description
1	VDD1	Input	Power supply: 4V to 5.5VDC, the typical is 5VDC
2	VDD2	Input/output	Power supply: 3.15 to 3.45VDC, the typical is 3.3VDC; Or 3.3V output (max 100mA output current) when VDD1 is 5VDC input
3	GND	Input	Power/signal ground: 0V reference
4	RX	Input	Serial data receive input port, 3.3V TTL
5	TX	Output	Serial data transmit port, 3.3V TTL
6	USB_D-	Input/Output	USB_D- signal
7	USB_D+	Input/Output	USB_D+ signal
8	Power_en/ Ext_input	Input	Power_en or ext_input, please choose your needed type. Power_en: the high level shut down the model, the low level turn on the module, the high level turn off the module, the function only work when vdd1 power input. Ext_input: can be used as external input such as external trigger control input or other input.
9	BEEP	Output	Beeper output control pin, the logic high indicates to open beeper, the driving current is 20mA.
10	LED	Output	LED output control pin, the logic high indicates to open LED, the driving current is 20mA
11	Ext_output	Output	External output: can used as external illumination or other output indication; support PWM or GPIO mode
12	TRIG	Input	Hardware triggering line, driving the pin low more than 10ms causes the engine to start to capture the image and decode.

Note: About power supply there are two application case, case1:VDD1 is 5VDC input and VDD2 is used as 3.3V output or null; case2: VDD1 is null and VDD2 is 3.3VDC input.

● 6 PIN 接口 (1.5mm 间距)

Pin No.	Signal Name	Type	Description
1	VDD1	Input	Power supply: 4V to 5.5VDC, the typical is 5VDC
2	TX	Output	Serial data transmit port, 3.3V TTL
3	RX	Input	Serial data receive input port, 3.3V TTL
4	GND	Input	Power/signal ground: 0V reference
5	Ext_output	Output	External output: can used as external illumination or other output indication; support PWM or GPIO mode
6	Power_en/ Ext_input	Input	Power_en or ext_input, please choose your needed type. Power_en: the high level shut down the module, the low level turn on the module. Ext_input: can be used as external input such as external trigger control input or other input.

● 定位尺寸



● 模块视场角

水平视场角：66°

垂直视场角：52°

对称视场角：78°

● 规格参数 Parameters

传感器 Sensor	CMOS sensor, pixels: 640*480,30 fps
照明 Illumination	LED 白光/White LED
扫描视角 Field of view Angle	80 (水平) , 60(垂直) 度 (单位) 80 (H) , 60 (V) degree (unit)
倾角 / 仰角 / 斜角 Tilt /Pitch / Skew	360 / ±65 / ±65 度 (单位) 360 / ±65 / ±65 degree (unit)
识别速度 Motion Tolerance	最大 20 厘米/秒 (13mil UPC) Up to 20cm per second for 13mil UPC
电源 / 电流 Voltage / Current	3.3VDC±5% / 210mA(Max.),120mA(Typical)
码制 Code	1D: Code 39, Code 32, Code 128, UPC/EAN/JAN, Code 93, Interleaved 2 of 5, Codabar, Matrix 2 of 5, Industrial 2 of 5 等 2D: QR Code, Data Matrix, PDF417 等
识读景深	QR Code , 4*4cm , 350 字节 , 25-150mm
识读精度	QR Code ≥8mil
识读响应时间	虚拟串口模式下识读距离在 25-150mm 范围内数据响应时间 80ms 左右
加密	支持 DES 和 RSA
识读环境	室内和室外场景
典型性能 Typical Performance	13mil UPC (25-170mm) 5mil Code128 (26-60mm) 10mil Code128 (25-130mm) 20mil QR (20-170mm)
工作温度 Operating temperature	-25°C ~ +60°C
储存温度 Storage temperature	-40°C ~ +85°C
工作湿度 Humidity	5% ~ 95% (非凝结态) 5% ~ 95% (non-condensing)

● 出厂设置 Factory default settings :

接口 Interface	USB HID、 USB COM
打开码制 Enabled Codes	1D: Code 39 ,Code 32, Code 128, UPC, EAN, JAN, Code 93, Codabar, Matrix 2 of 5, Industrial25 2D: QR Code