

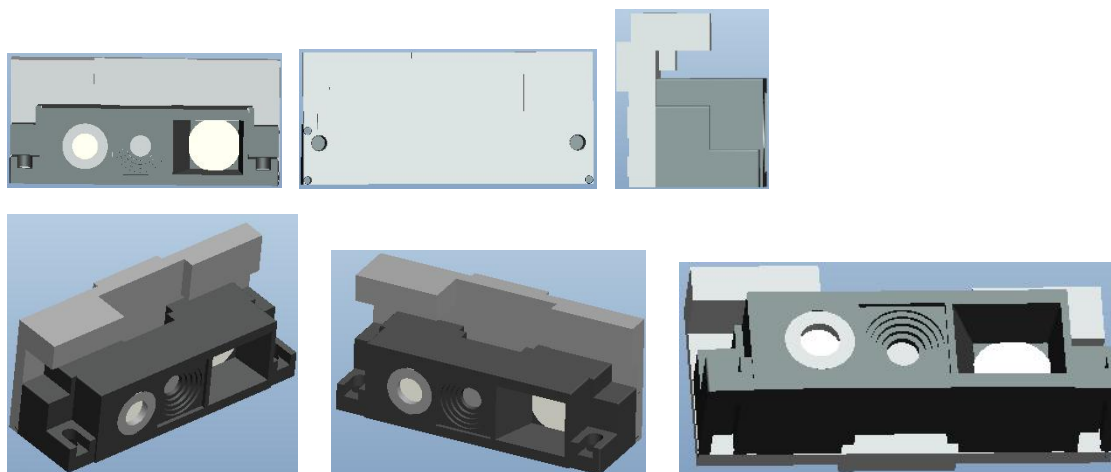
NT0331(NT0310V31)条码识读模组

NT0331(NT0310V31) Decode Module

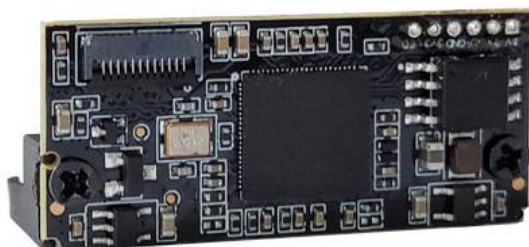
集成手册



1. 外观图 2D Scan Engine



2. 接口定义



● 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

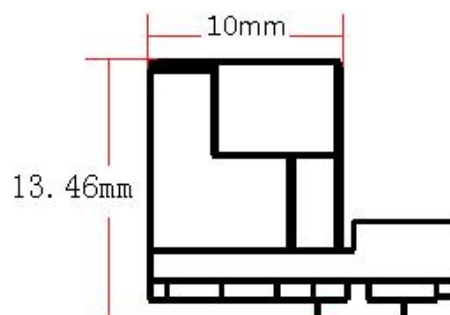
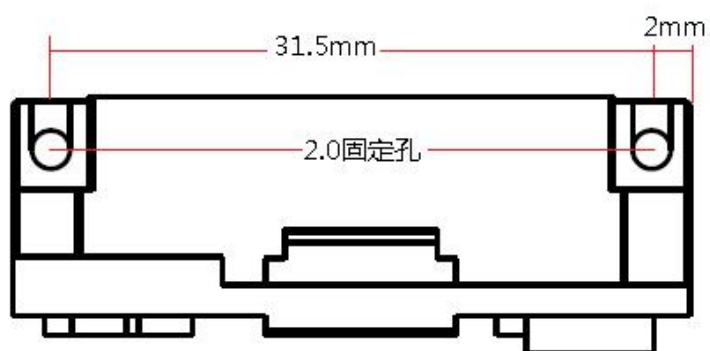
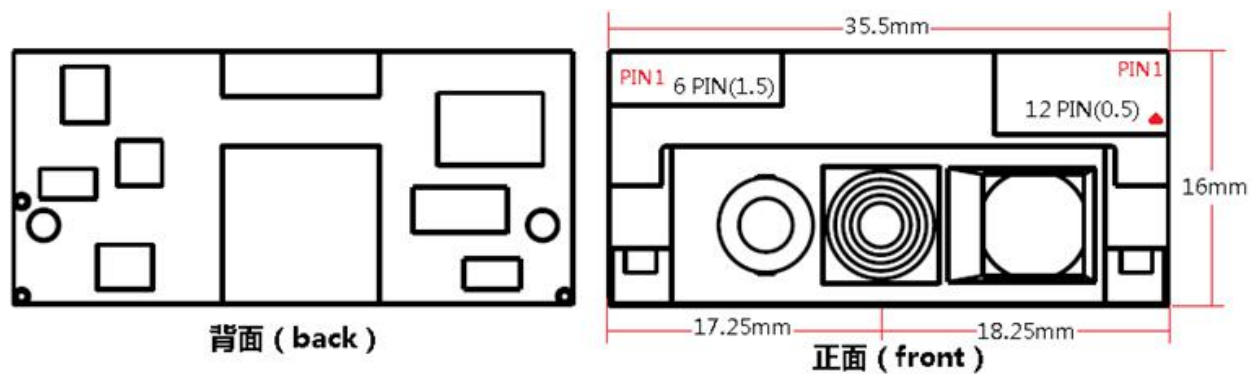
6	USB_D-	Input/ Output	USB_D- signal
7	USB_D+	Input/ Output	USB_D+ signal
8	Power_en/ Ext_input	Input	Power_en or ext_input, please choose your needed type. Power_en: the high level shut down the model, the low level turn on the module, the high level turn off the module, the function only work when 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. It is recommended to use the passive beeper.
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	LED_STROBE+	Output	Led_strobe positive polarity,3.3V
6	LED_STROBE-	Input	Led_strobe negative polarity,3.3V

3. 定位尺寸



底面 (bottom)

侧面 (left)

● 规格参数 Parameters

物理/电气参数		
外观尺寸		35.5mm×13.46mm×16mm
重量		6g
触发方式		命令触发, 自动感应触发, 连续触发
设置方式		扫码设置, 命令设置
物理接口		12-Pin 接口 (12*0.5mm), 6-Pin 接口 (6*1.5mm)
通讯接口		TTL-232, USB HID 键盘, USB 虚拟串口
工作电压		直流 5±5%V
电流 (3.3V)		260mA (最大), 180mA (待机)
性能参数		
图像传感器		640×480, 90FPS
照明		LED 白光/White LED
瞄准		624nm LED 红光, 圆点
视场角度		水平 39°, 垂直 29°
识读角度		转动 360°, 左右倾斜±60°, 前后倾斜±60°
打印对比度		≥20%反射差
解码响应时间		20ms (4cm*4cmQR 包含 350 字节)
运动容差		每秒 50cm
识别精度		≥4mil
识读码制	1D	UPC-A, UPC-E, UPC-E1, EAN-13, EAN-8, ISBN, ISSN, ITF-14, Code 39, Code 39 full ASCII, Code 32, Interleaved 2 of 5, Industrial 2 of 5, Matrix 2 of 5, Codabar, Code 128, ISBT 128, Code 93, Code 11, MSI-Plessey, UCC/EAN 128, China Post, GS1 DataBar 等
识读码制	2D	QR Code, Micro QR code, Data Matrix, PDF417, Micro PDF417, Aztec Code, Maxi Code, HanXin Code
识读景深		13mil UPC-A (35-255mm) (6 chars) 5mil Code39 (45-100mm) (5 chars) 20mil Code39 (60-365mm) (1 chars) 6.7mil PDF417 (50-100mm) (20 chars) 10mil Data Matrix (20-115mm) (20 chars) 21mil QR (20-300mm) (20 chars)
环境参数		
工作温度		-20° C ~ +50° C
储存温度		-40° C ~ +70° C
工作湿度		5% ~ 95% (非凝结态)
环境光照度		0~100,000 LUX