



MSF201

单指指纹光学模块



MDF201 光学指纹模块是指纹科技推出的高性能安全指纹模块，支持 Windows、Android、嵌入式设备的半导体指纹识别模块，具有指纹采集、特征处理、指纹比对、搜索和特征存储等功能，满足指纹识别需求，产品采用标准 USB/UART 通信，配有 SDK 开发工具包。

它在易用性和耐用性指标上表现突出，传感器稳定，使用寿命长，对低温、砂石等恶劣条件的适应性好，结合我们的指纹算法，正常情况下在干、裂、脏、湿手指条件下都能采集并具有良好的比对效果。

指纹采集:采集手指的图像，以 RAW、BMP 等数据格式存储

指纹比对和查询:与模块内存储的指纹比对和查询，支持 1:1 和 1:n

特征处理:对采集到的指纹进行处理，生成指纹特征数据

特征存储:指纹特征存储在模块中

防伪性高:对假指纹的辨别能力强

适应性强:采集正常，对干、裂、脏、湿手指的适应能力好

Product specification 产品规格

电气参数	
供电电压	5V (典型值), 供电范围: 4.2V-7.0V
Supply current	3.3V (custom version), range is: 3.0V-3.6V
Lowest power consumption	60mA (typical), peak current: 80mA
Maximum power consumption	Standby 5uA
Fingerprint image recording time	Operating state 64mA
Operating temperature	<0.5sec
Storage temperature	-30℃~+70℃
Working Humidity	-40℃~+80℃
Operating Humidity	20%-90%
Performance Parameters	
Window size	165x21.0(W x L mm)
Effective Size	17.6 x 23. 0mm(W x H mm)
Housing size	59.0x31. 8x13. 6mm
Image size	300*400pixel
Image pixels	500DPI
Matching method	Comparison method (1:1) Search method (1:N)
Fingerprint feature	512 bytes
Fingerprint template	512 bytes
Storage capacity	1000pcs
Security Level	256-bit AES fingerprint data encryption technology
False Recognition Rate (FAR)	<0.001% (at security level 3)
False Rejection Rate (FRR)	<0.005% (at security level 3)
Search Time	<1.0 sec (at 1:1000, average value)
Communication Interface	UART (TTL logic level) or USB1.1 compatible
Communication baud rate (UART)	(9600×N)bps, where N=1-12 (default factory N=6, i.e. 57600bps)
Special function	With fingerprint self-learning function