Fingerprint module specification
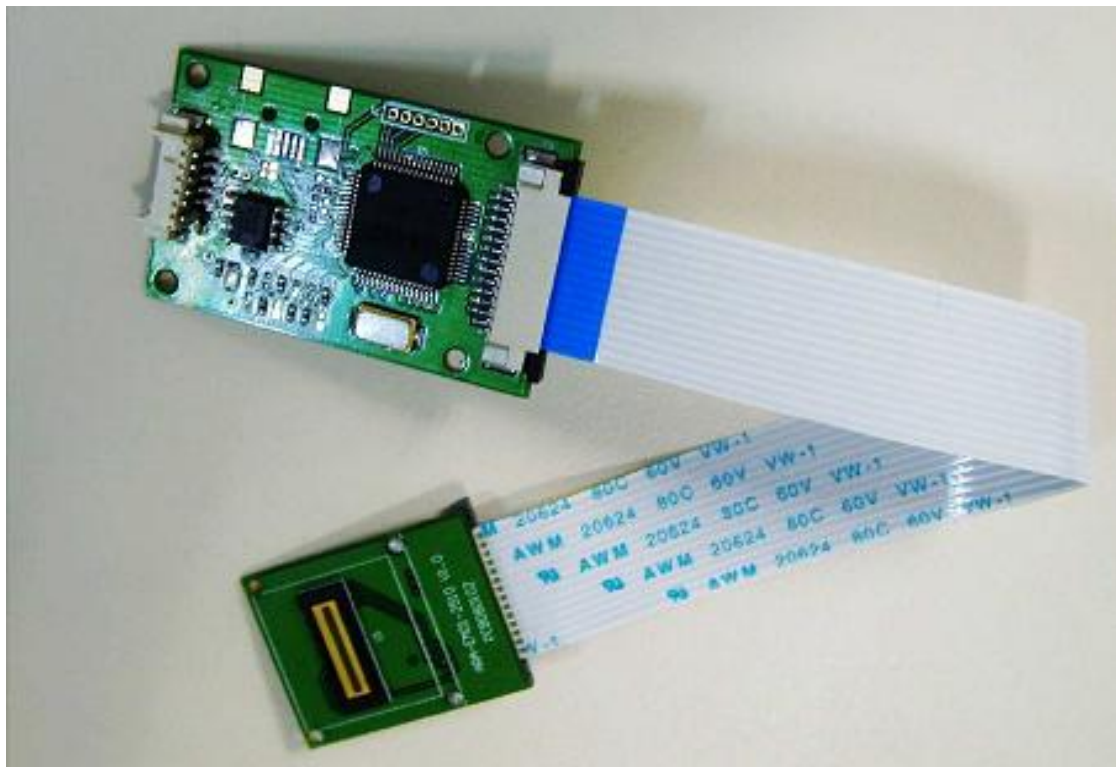
ARA-ME-01

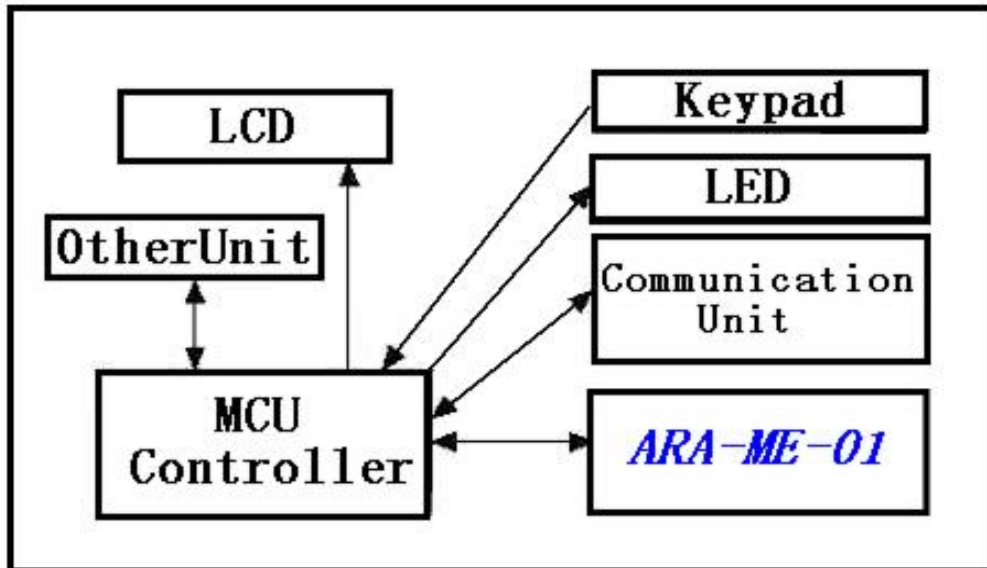Aratek Biometrics Technology Co. Ltd.

1 General view

The ARA-ME-01 is high performance fingerprint module developed by Aratek Biometrics Technology Co, Ltd .it has many features : easy restructure, powerful functions, compatible with PC，and multiple-functions in one module: Fingerprint enrollment, image process, characters acquisition, fingerprint template creation, fingerprint template storage, fingerprint compare (1: 1, 1: N), fingerprint delete. This module can work with different devices based on UAWRT such as PC, SCM and so on. Only easy circuits and fingerprint module can enhance your product into fingerprint authentication power. It is widely used by electronics business, information security, access control, identity authentication and other security industry.
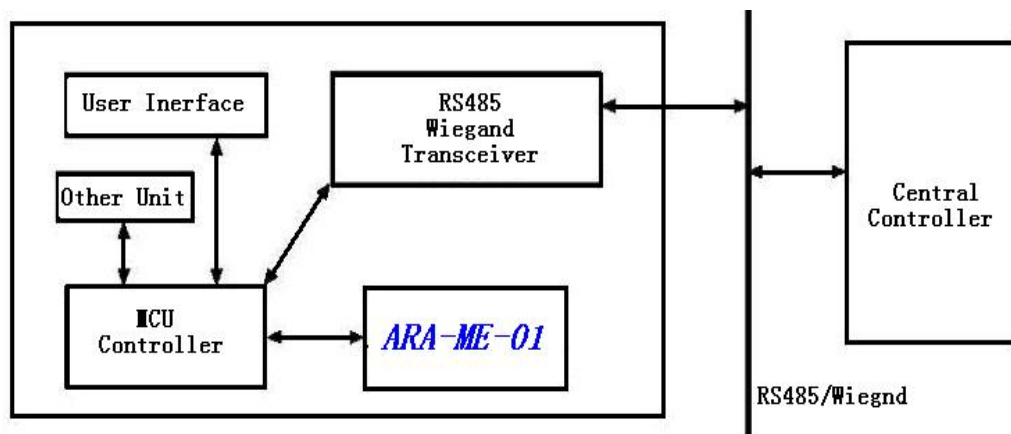
2 Photo

3 **Application solution**

1 When Ara-Me-01 is embedded into your system, the other functions will be controlled by MCU Controller, so developer can realize his own function logic, user interface and communication port through hard ware and soft ware development, such as fingerprint time and attendance and so on.

2 Expand the port such as RS485, Wiegand, even GPSS wireless communication with central controller outside by MCU in the central controller system.

4　hardware spec

pin	Name	spec
1、	GND	Grand
2、	Reset	Module reset control
3	TXD	Serial sender
4	RXD	Serial receiver
5、	PowerEN	Power control
6、	VCC	5V

5

software port spec

1.　Communication port UART (Universal Asynchronous Serial Port), 9600bps t0 115200bps (option), start with 1 bit, stop with 1 bit, no check bit.

2.　Communication protocol Module stays in slave mode, and host can direct the module work by different command. All the command of the host and response of the module and data transfer are in standard data pack. Host must pack and analyze the command and the data in standard format.

5　fingerprint authentication performance

item	spec
Sensor	AES2510
Image	256*288
Resolution	500DPI
Register time	<3 秒
Math time　（1：1）	<0.1 秒
Math time　（1：N）	<0.5 秒
FRR	<0.1%
FAR	<0.001%
Fingerprints capacity	120 fingerprints（max is 1024 fingerprints ）

6 other spec

item	Symbol	min	classic	max	Measure
Work Voltage	Vn	4.5	5	5.5	V
Work Current	In	50	60	80	mA
Sleep current	Is	9	10	12	uA
Work Temperature	Tn	－20		70	℃
Humility	Hn	30		120	℉
Module size	Ln	40mm*25mm 20mm*25mm			cm

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