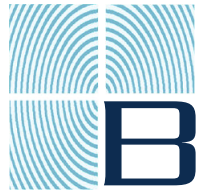




MB fingerMetrica

Intelligent Fingerprint Solutions



# B - FAMILY

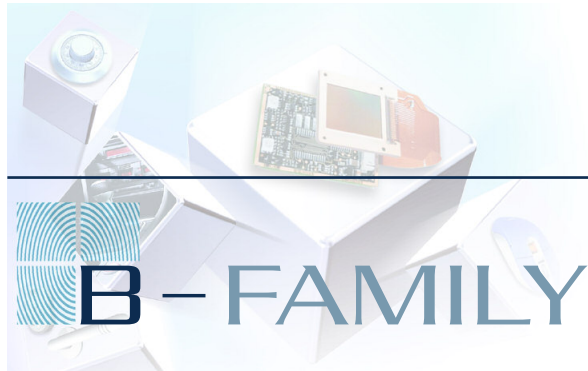
Application Examples

Reliable flexibility in embedded biometric fingerprint solutions.



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## General Informations

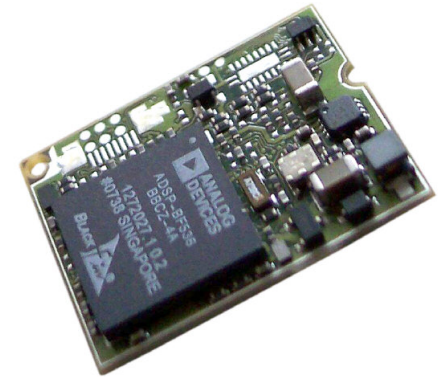
Embedded Components and Modes

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## Application Examples for the B – Family

The module can easily be built in to any application and be controlled by a host processor sending simple commands for enrolment, verification and identification via a serial interface.

Fingerprint templates are automatically created and stored by the module in its internal memory or can be retrieved from the module for external storage. The module can easily be used together with external storage of fingerprint templates from central databases, smart cards, portable flash memories, etc.

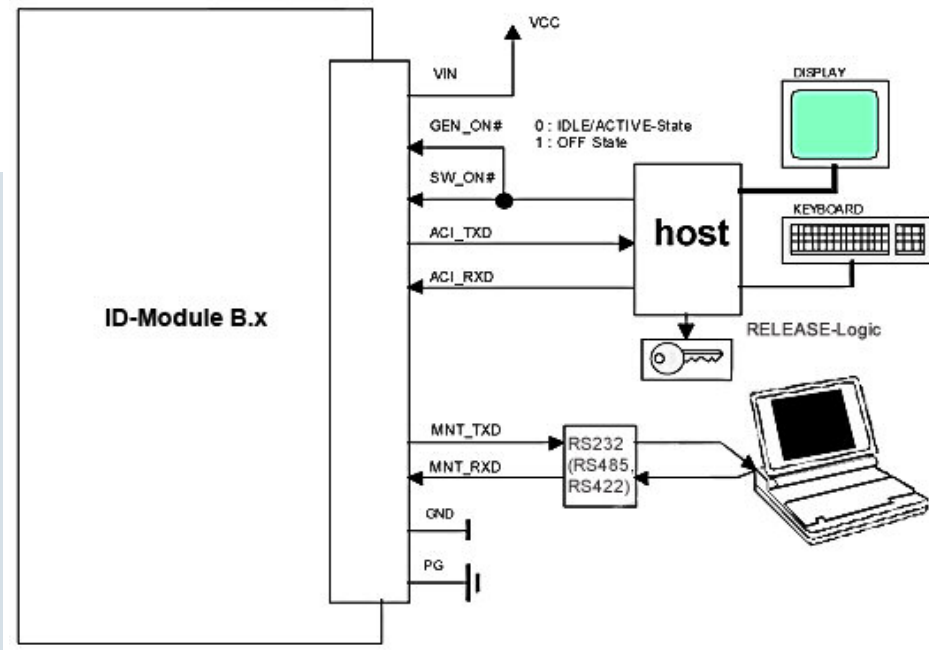




## Application Examples

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## Host controlled Mode

Application Example for a Double-Host-System

The ID Module supports two serial host interfaces. The ACI interface can be used for an embedded host system like a micro controller and the MNT can be used as maintenance interface for FW download from a PC for example.

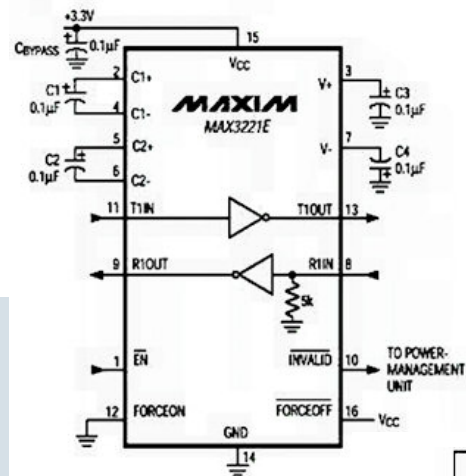
The figure shows a simple integration example for the ID Module to an embedded host system and PC system (double host system).



## Application Examples

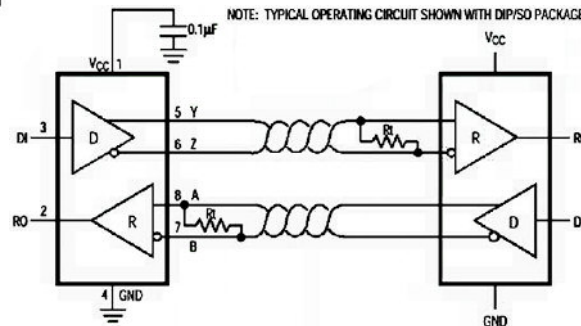
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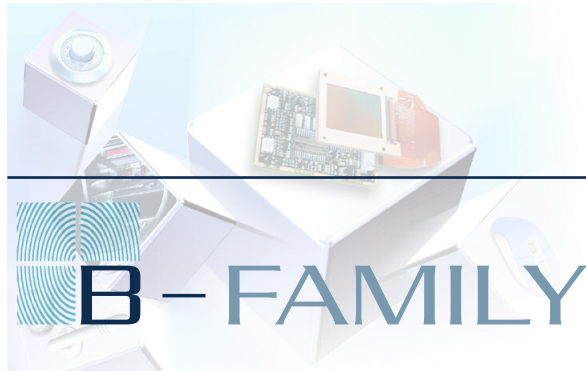
The RS232-interface can be realized by a single device like MAX3221E for example.

A RS485/RS422-interface can be realized by a single device like MAX488E for example.



## External RS232/RS485/RS422 Connectivity Interface Circuits

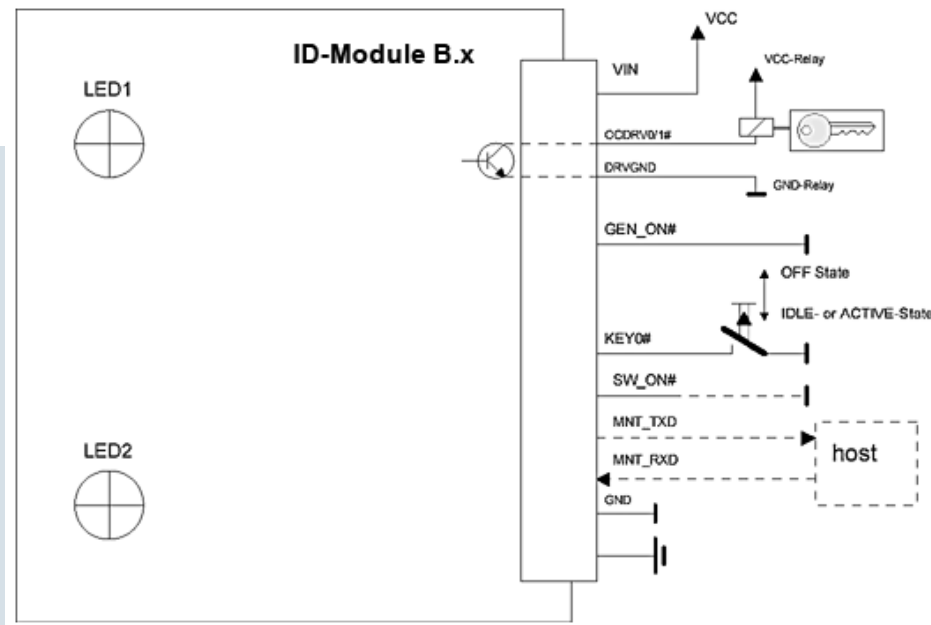
Both host interfaces of the ID Module (MNT, ACI) are specified for TTL-level. If the TopSec ID Module will be integrated to a host with a RS232, RS485 or RS422 interface, a few external components are necessary.



## Application Examples

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## Autonomous Mode Operation

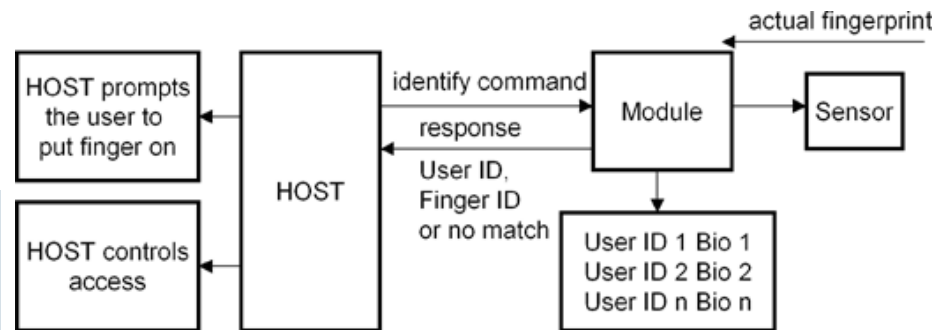
The autonomous mode of the ID Module can be used as quasi stand alone application of version A1. In this mode the module is able to execute the identification process without any host activities.



## Application Examples

Embedded Components and Modes

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## Module Biometric Function Modes

### Identification of a person(s)(finger) (Online Identify)

- 1) HOST sends command to module and prompts user
- 2) Module reads fingerprint and encodes fingerprint (encoding)
- 3) Module compares actual reference with all references in the data base (matching)
- 4) Module responds with match or no match
- 5) HOST controls further activities based on received result from module

The diagram shows how to control the TopSec ID Module for identification as an example; for both verification modes, the bio data extraction mode and all other available functions the TopSec ID Module is also controlled via commands.

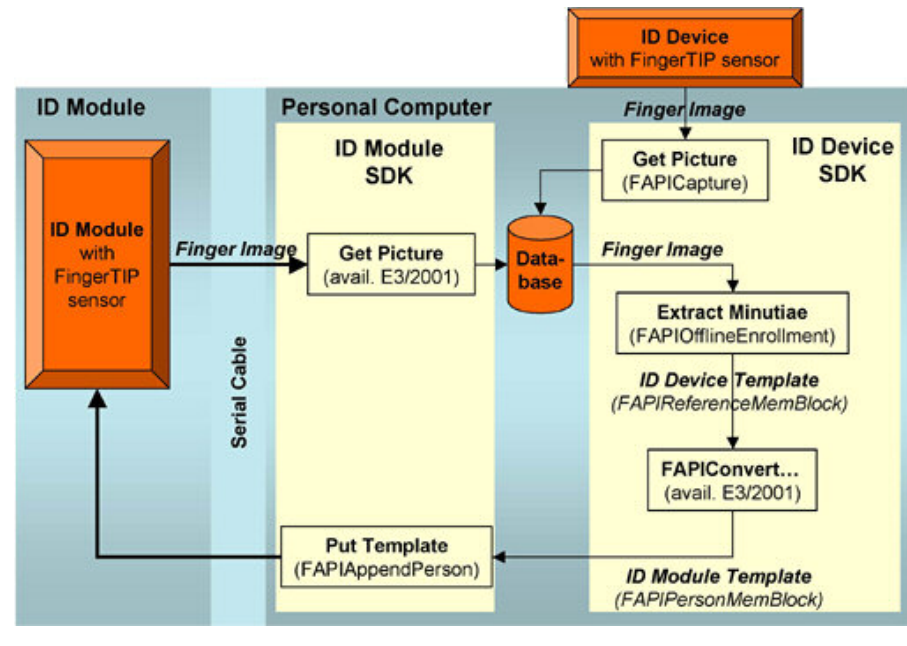




## Application Examples

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## Offline Enrolment for ID Module via ID Device SDK

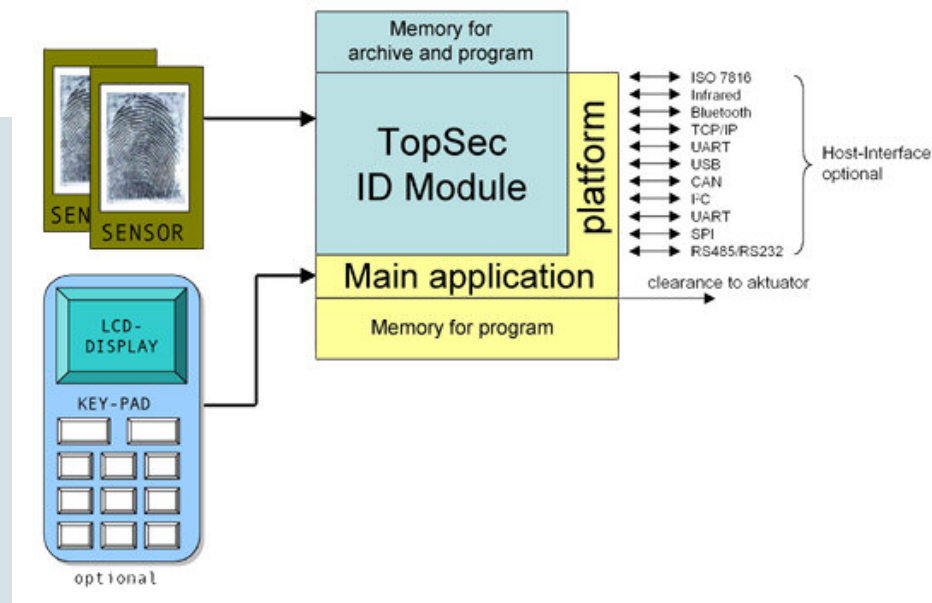
Biometric Data can also be enrolled at the PC as a central enrolment station using PC USB devices and the ID Device software development kit (SDK) and downloaded to the TopSec ID Module for verification and identification. In other direction the module can supply bio templates, which can be matched (verified or identified) in the PC based SDK – 100% template compatibility.using the ID converter tool.



## Application Examples

Embedded Components and Modes

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## Example for Customer Terminal or Safe Application

### Possible Application Configurations

The picture shows how to integrate the TopSec ID Module in a possible application environment.