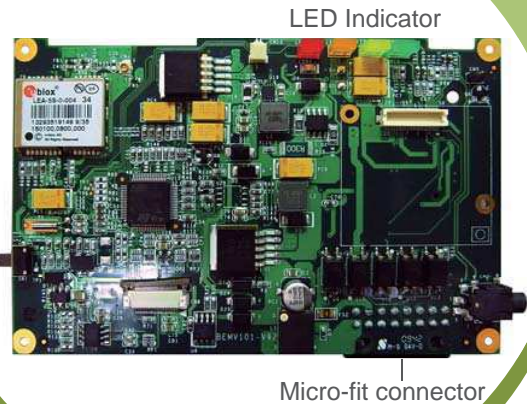


BEMA103A

Automatic Vehicle Locator



Features

- Low power ARM 32-bit Cortex-M3 CPU
- 256KB Flash and 48KB SRAM
- On board GSM
- GPS Module (option)
- Built-in Battery Charger circuit
- 5 x IO port / 1 x AD-in port / 2 x RS232 port
- Key-matrix (or touch panel) interface
- 128 x 64 STN LCD
- Wide temperature operation

Hardware Specifications

Processor

- ARM 32-bit Cortex-M3 CPU

Memory

- 128KB Flash Memory
- 16KB SRAM Memory
- 64K-bit no delay RAM (option)

GSM Module with Antenna

- Tri-Band wireless module supporting 900 / 1800 / 1900MHz default (or 850 / 1800 / 1900MHz option)
- Support Voice / SMS / CS Data / GPRS mode
- Built-in TCP / IP with stack-speed design, for M2M application
- Support passive antenna
- Hand-free design (option)

GPS Module Antenna

- Support GPS module (with 50-channel receiver engine), and active antenna
- Support GGA / RMC / TXT / GLL / GSA / GSV / VTG message
- Sensitivity of tracking: -158~-160dBm

System Indicators

- Low battery / Event occurred / GSM TX / GPS active

External Connectors

- Support 1 x power-in, 1 x AD-in, 1 x RS232, and 5 x IO ports on Micro-fit connector

IO

- 5 photocoupler IO port (2 x input ports and 3 output ports, with external power support)

Serial Ports

- Support 1 x DMA-based operation three wired serial port, for update and system configuring

Keypad / Touch panel Interface

- Support one interface for 4 x 4 key-matrix or 4-wired resistive touch panel

STN LCD Display

- Support 8-bit single scan 128 x 64 resolution monochrome STN LCD

Battery Charger (option)

- Support +4.2V / 1400mAh polymer battery and Auto Battery Charger circuit

Power Requirement

- DC +9V~32V power requirement with short-circuit protection

Operating Temperature

- -20°C to +80°C



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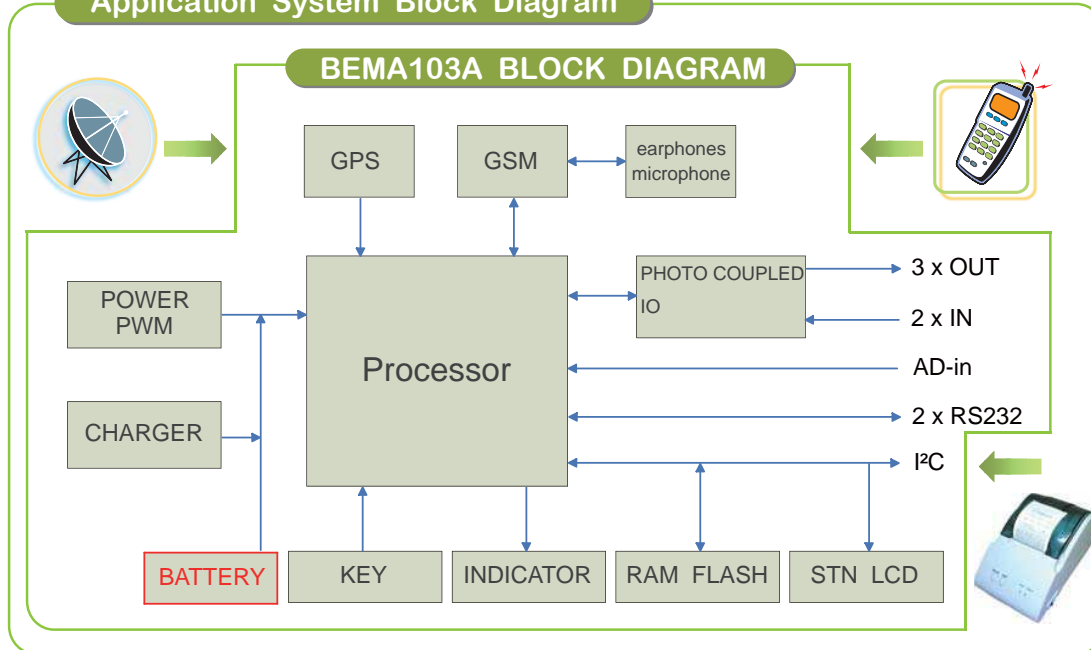
Software Specification

- Voice / SMS / CS Data / GPRS Mode
- 7 pre-defined SMS number setting
- Remote Output Control
- Voice Wire-tapping
- Triggered report
- Tracking report by Interval / Mileage / Intelligent Mode
- Analog input measurement
- Device ID / Password setting
- Remote configuration
- Battery-Low alarm
- Specified-Event alarm
- Time / Date setting

Accessories

- Micro-fit IO cable set with power-in / IO port / RS232 / AD-in
- System configuring utility program
- User manual

Application System Block Diagram



Order Information

Parts NO.	GPS	Battery	Subject application
BEMA103A	☆	☆	AVL
BEMA103A1		☆	Home Security
BEMA103A2			Data Terminal

