



BETA903A

Mobile Data Terminal

Features

- 400MHz 32bit RISC architecture ARM926EJ CPU core
- 2GB NAND Flash / 64 MB DDRII / 512KB SRAM
- WINCE5.0 OS
- 8interruptible key pad
- 8 x IO / 1 x Host USB / 1 x Device USB / 3 x RS232
- On board GSM / GPS module
- 7" TFT 16:9 display with 800 x 480 resolution
- DSP based audio codec via IIS-bus
- Built-in 2W amplifier / earphone
- Support SD / HS-MMC card
- 4-wired touch panel interface (option)
- 9V~28V DC requirement
- Backup charger circuit inside
- With car holder

Hardware Specifications

Processor

- 32 bit RISC architecture ARM926EJ CPU core
- 64-way associative cache with I-cache (16KB) and D-cache (16KB)
- 400MHz CPU clock

OS Memory

- WINCE 5.0 with 2GB NAND Flash memory

System Memory

- 16-bit 64MB / 133MHz DDRII memory

SD / MMC Card Socket

- Support SD / MMC host interface
- Compatible with SD memory protocol and SD media card protocol

External Setting Connector

- Support JTAG for debug and USB (device) for system setting

Serial Ports

- Support 2 x 2-wired DMA-based operation UART
- One UART fully compatible 16C550

USB Ports

- Support 1 x USB host compatible with USB 1.1

Audio Codec

- Support DSP based processing stereo codec with SNR 102dB DAC / differential microphone input
- Software programmable volume control and mute control
- Single channels 2 watts speaker output

GPIO

- Support 4 photo-couple input and 4 photo-couple output

Key Pads

- Support 8 interrupted based capacitive touch sensor keys with LED backlight

Display

- Support 16M color TFT at 18bpp mode with resolution 800 x 480 or equivalence
- LED backlight supported

GSM Module

- Siemens Tri-Band wireless module supporting 900/1800/1900MHz default (or 850 / 1800 / 1900MHz)
- Support Voice / SMS / CS Date / GPRS mode
- Built-in TCP / IP stack speed design of M2M application
- Support passive antenna

GPS Module

- Support GPS module with 16 channels ANTARIS 4 receiver engine (or 50 channels receiver engine) with passive antenna
- Support GGA / RMC / TXT / GLL / GSA / GSV / VTG message
- Sensitivity of tracking -158dBm~-160dBm
- Support active antenna

Chassis

- Provide ABS 94V0 chassis with 2 x serial ports, 1 x USB device, 1 x USB host, 1 x Power switch

Power Requirement

- DC9V~DC28V power requirement with short-circuit protection

Battery Power (option Top: TFT -20°C - 70°C)

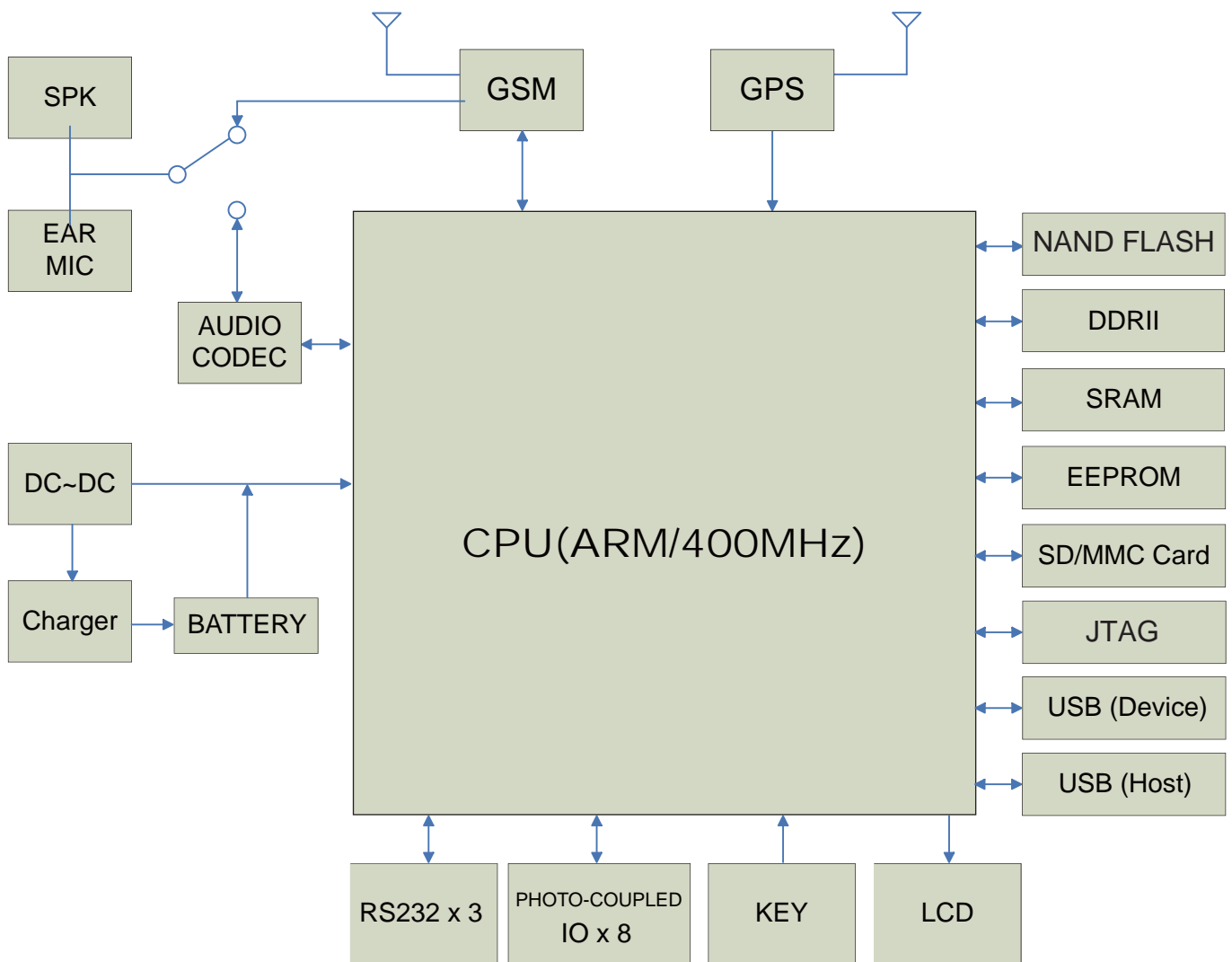
- Support 2200 / 4400mAh polymer battery with low voltage and thermal protection
- Support constant voltage regulation / constant current charging and auto-termination charger

Operating Temperature

- Industrial: TFT -20°C ~ 85°C T/P -20°C ~ 60°C
- Car: TFT -30°C ~ 80°C T/P -30°C ~ 80°C



BETA903A BLOCK DIAGRAM



Order Information

| Parts NO. | Touch Panel | Battery | LCD | Touch Panel |
|-----------|-------------|---------|--------------|--------------|
| BETA903A | | | -30°C ~ 80°C | |
| BETA903A1 | ☆ | | -30°C ~ 80°C | -30°C ~ 80°C |
| BETA903A2 | | ☆ | -30°C ~ 80°C | |
| BETA903A3 | ☆ | ☆ | -30°C ~ 80°C | -30°C ~ 80°C |
| BETA903A4 | | | -20°C ~ 70°C | |
| BETA903A5 | ☆ | | -20°C ~ 70°C | -20°C ~ 60°C |
| BETA903A6 | | ☆ | -20°C ~ 70°C | |
| BETA903A7 | ☆ | ☆ | -20°C ~ 70°C | -20°C ~ 60°C |