

BETA903A

Mobile Data Terminal



Features

- 400 / 533MHz 32bit RISC architecture CPU core
- 2GB NAND Flash / 64 DDRII / 32MB SRAM
- WINCE5.0 OS
- 8 interruptible key pad
- 4 x IO / 4 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 interface
- Built-in 2W amplifier / earphone
- Support SD / HS-MMC card
- 4-wired touch panel interface or 8 keys(option)
- 9V~28 DC requirement
- Auto charger with 1300ma-H polymer battery

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 5.0.2 with 2G NAND Flash

System Memory

- 32bit 64MB / 133MHz DDRII memory

SD / MMC Memory (option)

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

External Setting Connector

- Support JTAG for debug and I²C for system setting

Serial Ports

- Support 2 x 3-wired DMA-based operation UART
- One UART fully compatible 16C660

USB Ports

- Support 1 x USB host compatible with USB 1.1
- Support 1 x USB device compatible USB 2.0

Audio Codec

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

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 640 x 480
- LED backlight supported

GSM Module

- Siemens Tri-Band wireless module supporting 900/1800/1900MHz default(or 850 / 1800 / 1900MHz)
- Support Voice / SMS / CS Data / 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 8 isolated IO, 2 x USB device , 1 x USB host , 1 x DC Power port and 1 x Power switch
- Built-in metal or equivalence for EMC / EMI

Power Requirement

- DC9V~DC28V power requirement with short-circuit protection

Battery Power(option)

- Support 1300mAh polymer battery with low voltage and thermal protection
- Support constant voltage regulation / constant current charging and auto-termination charger

Operating Temperature

- -10°C to +80°C



BOLYMIN, INC.

BETA903A BLOCK DIAGRAM

