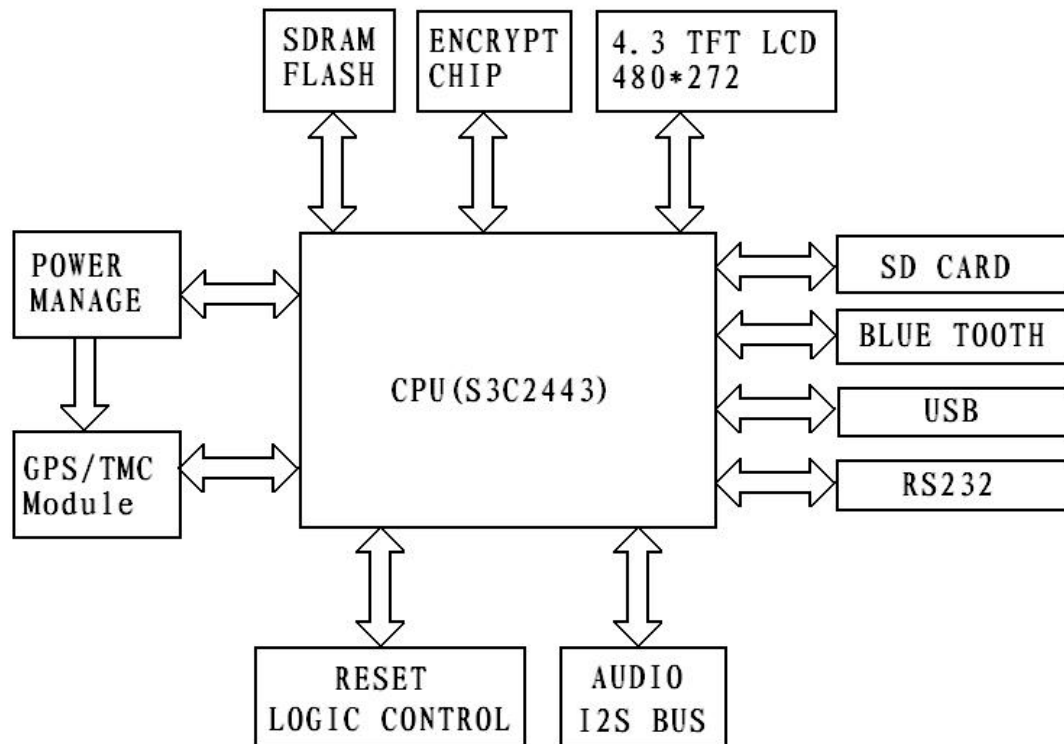


# GPS Navigator

WW-GPS-001-000

## A brief introduction of build-up and principle

The basic systems in GPS navigator include CPU, SDRAM, FLASH, GPS mode, blue tooth mode, SD card and LCD



CPU is Samsung S3C2443, which connect DDR DRAM (64M) and NandFlash (128M) via external data bus and external address bus

Audio Output: CPU connects audio D/A chip CS4344 (U8) via I2S connector. The output simulate audio signal is magnified via LM4853MM stereo function and then drive speaker or stereo earphone.

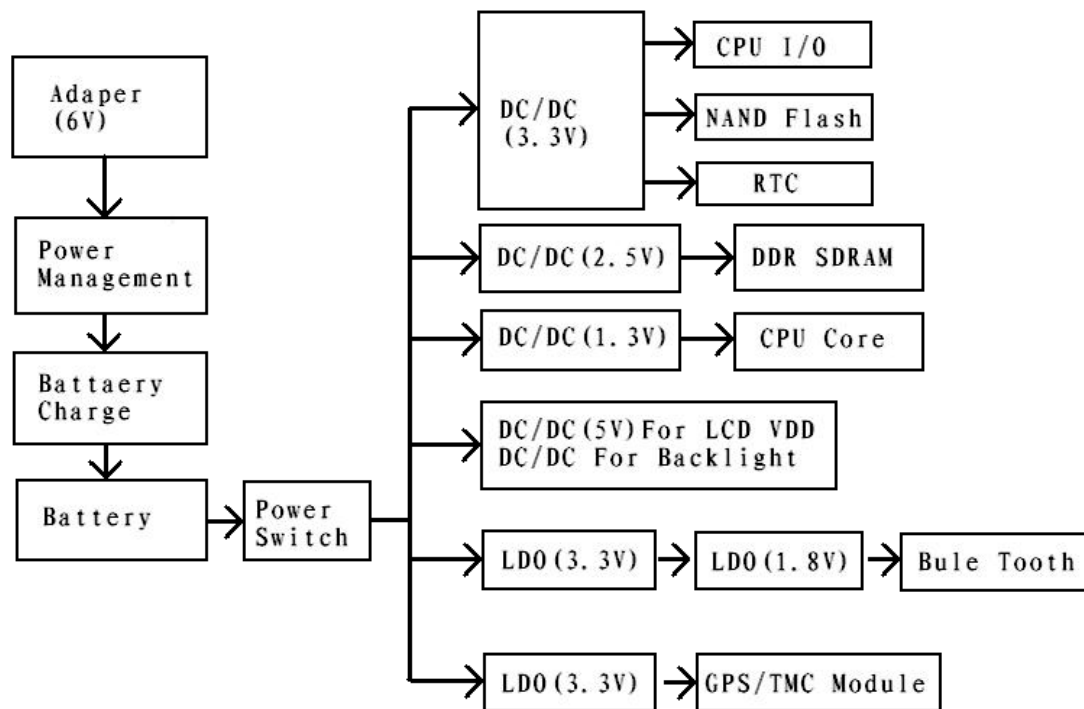
Bluetooth: the aviator can be recognized as a Bluetooth after the navigator starts Bluetooth function and is matched with Bluetooth mobile phone and then the user can make a call through navigator. CPU communicates with Bluetooth mode through UART. CPU will turn off the sound from navigator itself to avoid phone calling interference when the mobile phone makes a call through navigator.

SD card: SD card connector includes card power (3.3V), plug test, protection test, card data (4 digitals), clock and oder.

GPS: ET-316 mode, communicates CPU via COM 1.

RS232 connector: CPU COM 3 transfer chip ADM3101E (U28) via RS 232 level and then communicates RS 232 serial device after that (such as PC COM).

Power Supply Management:



Power adaptor transfer 200V AC to 6V DC needed by navigator. BQ24070 (U19) is power management IC, responsible for power supply of the whole navigator. It can charge the internal battery with external power, and supply power as a battery without external power.

3.3V is transferred via DC/DC chip RT8008 to supply IO, NAND Flash and RTC of CPU.

1.3V is transferred via DC/DC chip RT8008 to supply core part of CPU.

5V is transferred via charge pump to supply LCD.

3.3V and 1.8V is transferred via LDO chip RT9193 and RT9169 to supply Bluetooth mode.

1.8V is transferred via LDO chip RT9169 to supply video TVP5150A (U25) .

3.3V is transferred via LDO chip RT9193 to supply GPS mode and TMC mode.

## Bule tooth Antenna spec

working frequency range : 2490-2590MHz

impedance : 50 ohm

prak gain:2.5dBi

average gain : 0.5 dBi

VSWR : <2.0

polarization : linear

azimuth beamwidth : omni-directional

# GPS Navigator

WW-GPS-001-000

## Tech. Specification

CPU: S3C2443XL-40 , Core: ARM920T,Speed:400MHz,USB 2.0 High Speed.

Ram:64MByte DDR400 SDRAM.

Flash Rom:128MByte NAND FLASH.

GPS module: SiRF STAR III, Frequency: 1.575GHZ.

Supply Voltage:DC5V.

Supply Curent:360mA.

Power average:1.8W.