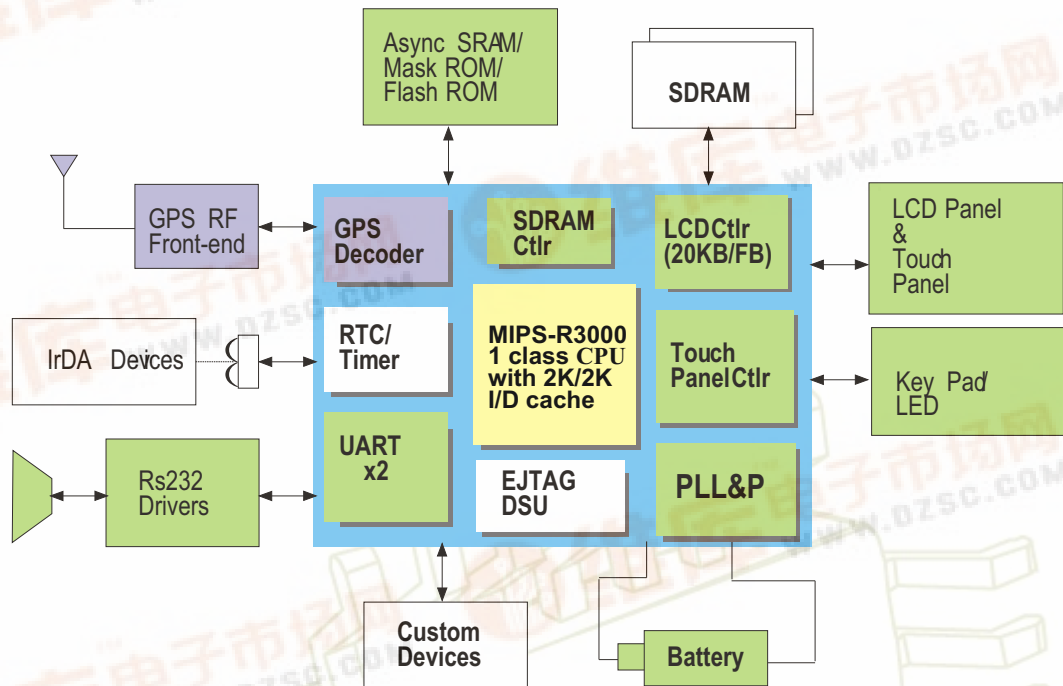


GPS Controller SoC

AR2010

The AR2010 GPS controller SoC is a single chip integrated processor with peripherals suitable for all GPS receiver related products, GPS engine board, GPS mouse, GPS CF-card, GPS watch, GPS handheld navigator/locator, PDA with GPS receiver, add-on notebook PC and other specific designs.

Ar2010 Block Diagram



FEATURES:

The AR2010 controller SoC includes the following functions and capabilities:

- CPU: MIPS 1 class R3000 level, 32-bit RISC processor with 2 KB Instruction cache and 2 KB data cache, and up to 100 MHz CPU Clock rate
- Built-in 64 KB SRAM
- SDRAM Controller supports two SDRAM banks of 16-bit data bus
- Up to 32 MB address space
- GPS Base-band decoder with 12 channel correlators and built-in carrier/code tracking loops
- LCD display interface driver
- ADC with touch screen interface controller
- Supports GPIOs for multi-purpose peripherals
- 2 UART channels for serial communications
- Real time clock with alarm

- Stop watch timer for synchronization control
- Watch dog timer support
- Crystal oscillator and clock generation PLL
- Sophisticated power management modes supports active power down And self refresh power saving
- Package: 176-pin LQFP

◎ BENEFITS:

- High Accuracy: 12 channel correlators and built-in carrier/code tracking loops for rapid and precise positioning
- High Performance: MIPS 1 class R3000 level, 32-bit RISC processor
- High Speed: up to 100 MHz CPU clock rate
- High Integration: built-in GPS decoder, mono/color STN LCD controller, SDRAM/RAM/Flash interfaces, touch panel controller, UART, SPI, and RTC.
- Supports product oriented development platform for shortest Development cycle
- Full range technical support (Including RF, base band and software Platform)
- Supports all-in-one functions for product differentiation requirements.
- Low Power consumption, full rate operation:

◎ APPLICATIONS:

- Vehicle navigation and security system
- Vehicle dispatch
- Outdoor activities mountaineering, fishing and boating
- Child/elderly/personal locator and security system
- GPS watches and digital camera
- Mobile and navigation consumer applications