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TMPA910CRAXBG

Core: ARM926EJ-S



The new Toshiba TMPA910CRAXBG microcontroller is a 32-bit ARM926EJ-S core with 200 MHz performance that is perfect for multimedia applications. TMPA910CRAXBG is packed with rich peripherals such as a touch screen controller,

STN/TFT color LCD controller, LCD data process accelerator, 10-bit A/D converter, NAND Flash controller,

SD host controller, USB device (high speed), 56 KB RAM, and numerous other commonly used peripherals to deliver a highly-integrated processing solution that can greatly reduce system component count and development time compared to less integrated products. Target applications for the TMPA910CRAXBG are broad and include networking systems, industrial applications, and a wide variety of consumer electronics including game consoles, set-top boxes, portable GPS systems and handheld media players.

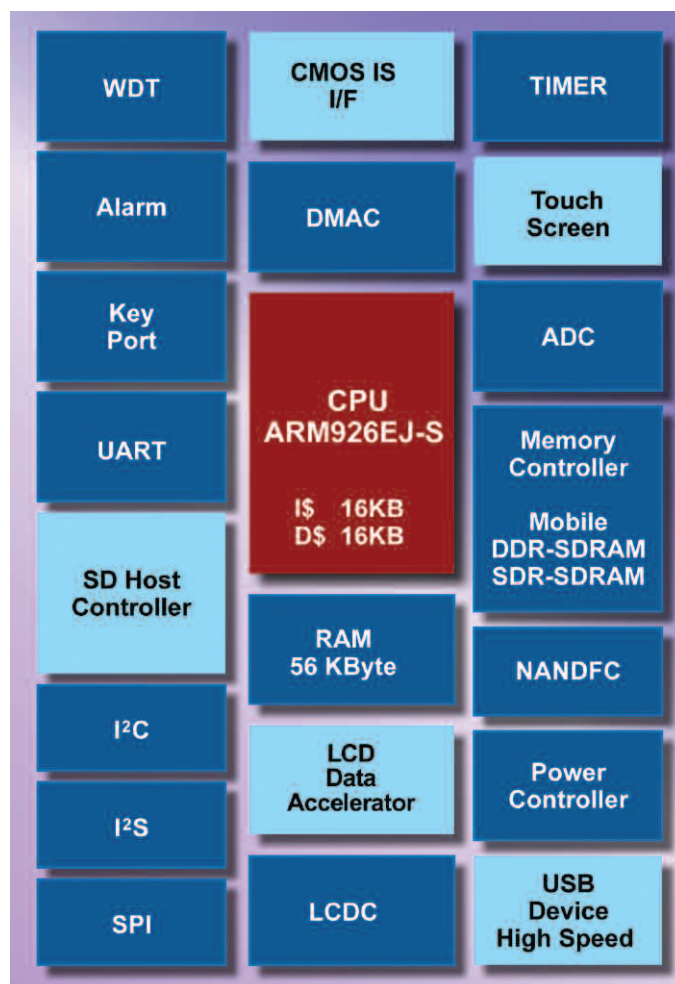
Features ▶

- ARM926EJ-S core (200 MHz)
- 7-layer multi bus system
- Touch screen controller
- STN/TFT color LCD controller
- LCD data process accelerator
- 10-bit A/D converter
- SD (host) controller
- USB device (high speed)

Benefits ▶

- 32-bit RISC CPU capable of running all major operating systems
- Enables efficient transfer of code and data, excellent for color movies, scaling and sound decode
- Touch detection and X/Y measurement
- Allows users to specify status of the pixels in the LCD display and display, 16.77 million colors in TFT mode, and 3,375 colors in STN mode

TMPA910CRAXBG Block Diagram



Family Comparative Features Matrix ▶

| Part Number | Memory | | Temperature | Package | Core Variant | Frequency (MHz) | A/D (channel/bits) | Timers (channels/bits) | Serial Interface(s) (#/Type) | GPIO | USB (#/Type) | Other Key Peripherals |
|---------------|----------------|----------|-------------|---------|--------------|-----------------|--------------------|------------------------|--|------|--------------|--|
| | Flash/ROM (KB) | RAM (KB) | | | | | | | | | | |
| TMPA910CRAXBG | ROMLESS | 56 | 0°C - 70°C | BGA361 | ARM926EJ-S | 200 | 6 channel/10-bit | 6 channel/16-bit | SPI_UART_I ² C_I ² S | 108 | High-speed | Touch screen controller, LCD data process accelerator, STM/TFT color LCD controller, SD. |

Development Tools Matrix ▶

| Type | Description | Part Number |
|-------------|---------------------------------|--------------------|
| Starter Kit | TOPAS Starter Kit TMPA910CRAXBG | BMSKTOPASA910(DCE) |

- The LCDDA supports the scaler function that scales up/down display data including the filter (Bi-Cubic method) processing, and the image rotation function that rotates and mirror-inverts display data, as well as the function of superimposing two pictures (Gray level adjustment: α Blend, Inserting picture into picture: Picture in Picture, Superimposing text: Font Draw)
- A/D converter is an electronic integrated circuit, which converts continuous signals to discrete digital numbers
- The standard Host Controller controls both SD Memory Cards and a variety of SDIO Cards. Further, the specification provides a sophisticated Direct Memory Access (DMA) function to achieve high performance of data transfer between an SD host system and an SD Card
- Conforming to Universal Serial Bus Specification Rev.2.0, enables maximum speed of 480 Mb (high speed)

**BMSKTOPASA910(DCE),
TOPAZ Starter Kit for TMPA910CRAXBG**

With Toshiba Starter Kits you can significantly reduce the risk of choosing the wrong device by evaluating Toshiba microcontrollers early in your design cycle. The Starter Kit enables you to evaluate features and performance, and do system design with much less initial investment and effort. Each kit contains a ready-to-use evaluation board, a complete development software tool set, documentation, helpful applications notes and more.

For more information on Arrow's ARM solutions, pricing, and availability, visit www.arrow.com/arm or call 1-866-910-3650.