

# BEGA220A

## Display Embedded System



### Features

- 400MHz 32 bit RISC architecture ARM926EJ CPU core
- 2GB NAND Flash / 64MB DDRII memory
- WINCE 5.0 OS
- LCD controller supporting RGB maximum 16M color at 24bpp
- On board 10 / 100Mbps high performance Ethernet with RJ45
- 1 x Host USB / 1 x Device USB
- 1 x isolated RS485 / 422
- 3 x RS232 / 1 x SPI
- Audio codec with dual channels amplifiers
- 10 x Channels ADC and 4 x channel for 4-wired touch panel
- 12 programmable IO
- 12V~28V DC requirement

### Hardware Specifications

#### Processor

- 16 / 32 bit RISC architecture ARM926EJ RISC 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

- 64 KB internal SRAM buffer
- 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

#### Serial Port

- Support 2 x 3-wired DMA-based operation UART
- 1 x RS485 / 422 isolated communication port
- 1 x high speed SPI interface

#### 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
- Dual channels 2 watts speaker output
- Built-in headphones and microphone

#### GPIO

- Support 12 x interrupted based IO sharing with Key board interface

#### ADC

- Support 6 x channel 12-bit high speed A / D converter

#### Key Pads (option)

- Support 12 Interrupted based IO

#### Touch Panel Interface

- Support 4-wired resistive type touch panel interface

#### Display

- Support 16M color TFT at 24bpp mode with resolution 640 x 480
- LED backlight supported

#### Ethernet Controller

- High performance 16-bit 10 / 100 Ethernet controller fully compliant with IEEE 802.3 / 802.3u standards
- RJ45 connector with active and link LED indicators

#### WLAN Module(option)

- Support WLAN module compliant with IEEE 802.11b/g
- Operating on 2.4GHz ISM radio band
- Wi-Fi compliant

#### Power Requirement

- DC9V~DC28V power requirement with short circuit protection



BEGA220A BLOCK DIAGRAM

