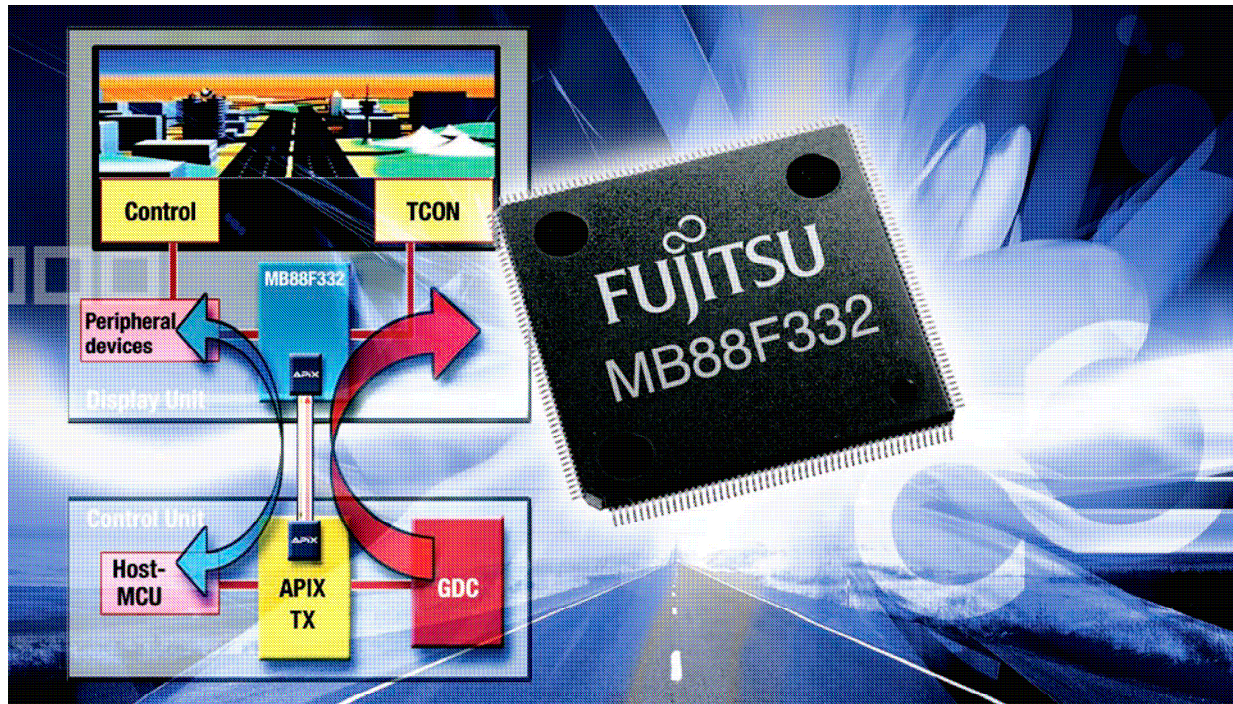


MB88F332 – Single-chip solution delivers sophisticated graphics and cost savings

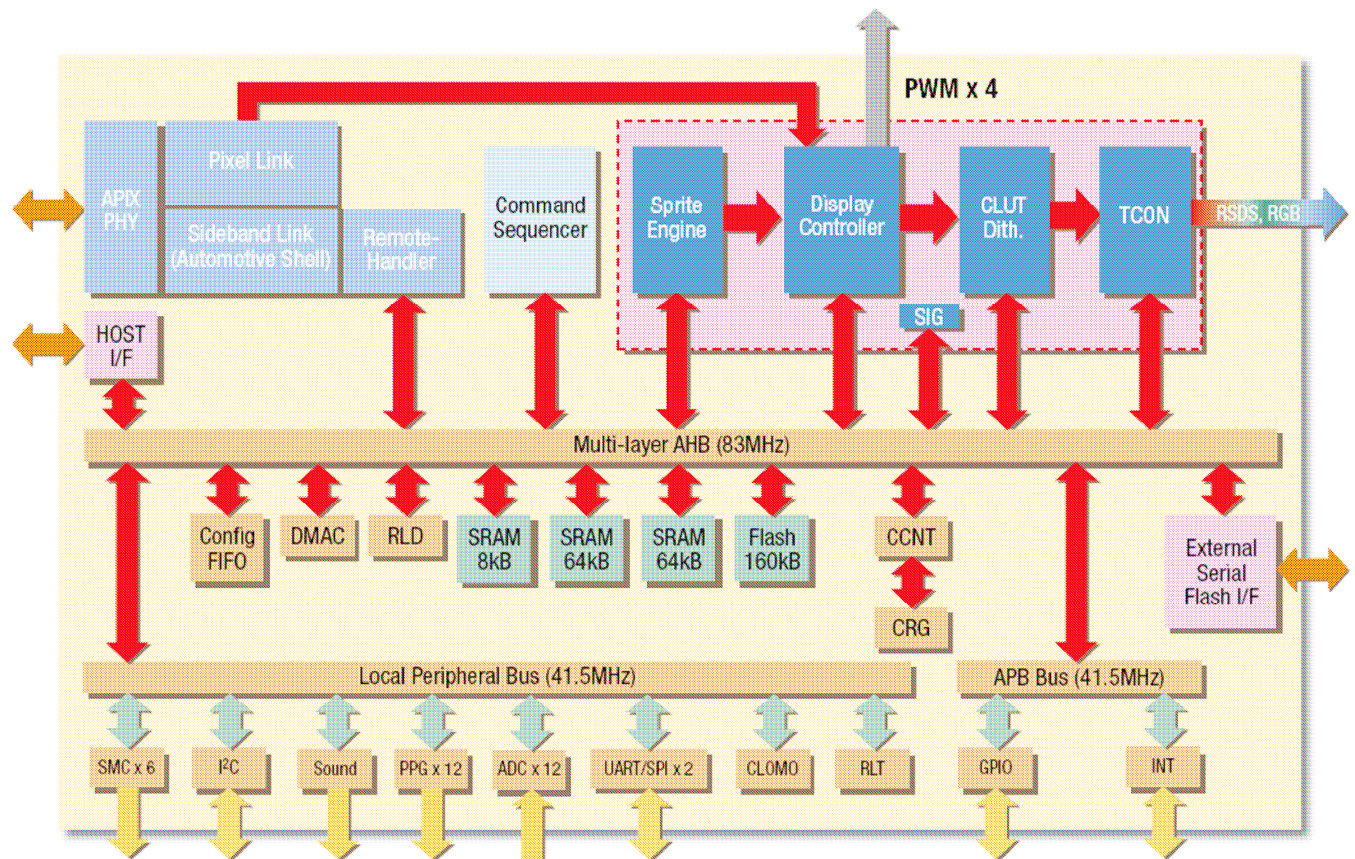


Description

The MB88F332, Fujitsu's new graphics controller opens-up new avenues for concept designers of graphics systems. Developed to meet the requirements of in-car applications such as hybrid cluster, RSE(rear-seat entertainment), HUD(head-up-display) and CID(central information display) in future vehicle generations, it provides a big potential for reducing system costs

In a modularised system the MB88F332 is installed close to the screen without external memory and external TCON, and can start up stand-alone up to a splash-screen display. The state-of-the-art APIX interface builds the serial video and command link to a remote control unit. The pixels are made by the internal sprite engine in an animated style, blending and overlaying internal sprites and external video data. With further peripherals such as ADC, I²C, SMC and GPIO, etc., to round-off the feature list, the MB88F332 is packaged into a low cost QFP.

| Features | |
|---|---|
| <ul style="list-style-type: none"> 80 MHZ system clock | <ul style="list-style-type: none"> Seamless direct connection to displays using TCON |
| <ul style="list-style-type: none"> CPU interface: synchronous serial peripheral interface(SPI) or APIX sideband link | <ul style="list-style-type: none"> Spread Spectrum clock modulation (for improved EMI ratings) |
| <ul style="list-style-type: none"> 160KB flash | <ul style="list-style-type: none"> Signature calculation function, required for Automotive Safety integration Level (ASIL) |
| <ul style="list-style-type: none"> 128KB + 8KB embedded SRAM | <ul style="list-style-type: none"> Data expansion for run length encoded (RLE) data |
| <ul style="list-style-type: none"> External video synchronisation functionality | <ul style="list-style-type: none"> Sprite Engine Dual channel DMA |



MB88F332 Block Diagram.

| Graphics core | |
|---|---|
| <ul style="list-style-type: none"> 1,2,4, 8bpp(indirect, i.e. colour palettes) or 16bpp, 24bpp(direct), colour depth Linebuffer technology: no need for external VRAM 18bpp TFT LCD panel(RSDS or TTL) Sprite technology:- Up to 512 sprites(including 32 special sprites) <ul style="list-style-type: none"> -Special sprites for blinking, movement and image switching, with priority property -Automatically animated sprites(command-list-based special sprite functions) -Horizontal reverse feature and Support for alpha blending | <ul style="list-style-type: none"> 4/8bpp alpha plane(256 level alpha blending) Maximum display resolution supported: 1280x480(max.42MHZ pixel clock) Dither and gamma unit (CLUT) |

| Peripherals | |
|--|---|
| <ul style="list-style-type: none"> SPI for connection to external SPI flash MCU peripherals: -16 PPGs(PWMs) -12 ADCs -2 SPI/UART -GPIOs | <ul style="list-style-type: none"> APIX RX interface -6 stepper motor controller -2 external interrupt input 4-channel -Sound generator module -watchdog and I2C |

| General information | |
|--|---|
| <ul style="list-style-type: none"> CMOS 180nm flash-Technology Supply voltage 3.3V(I/O), 5.0V(I/O MCU peripherals), 1.8V(internal) | <ul style="list-style-type: none"> Low-cost QFP package Extended temperature range -40°C bis +105°C |

Für weitere Informationen schreiben Sie an: info@ineltek.com
Oder wenden Sie sich an ein Ineltekbüro in Ihrer Nähe.