Main Function

- Model：T581VT
- Applications：Video Door Phone(high-end)
- Digital Inputs：CCIR656/601
- Analog Inputs：CVBS
- Digital Output Signal：sRGB，RGB888，i80 Master. Support up to 800x600
- Analog Output Signal：RGB 3-independent DAC
- OSD：3K-word SRAM
- MCU：32-bit MIPS
- Other Peripherals：SAR，I2C，UART，SPI NOR flash，SD card
- Package：LQFP 100-pin

Details

- 32-bit RISC CPU with MMU

  -System control
  -Support 16-bit instruction set for smaller code foot-print
  -EJTAG interface for S/W development

- Memory subsystem

  -Built-in 80K SRAM for fast code execution
  -SPI NOR flash controller
      ➢Support code eXecution-In-Place(XIP) for smaller foot-print in SRAM
      ➢Can store snapshots
  -No SDRAM needed to save system cost

- SD/MMC card interface controller

-SD card supports up to 32GB SDHC

-Optimized FAT support for robust and reliable file access.

➢The file can keep intact when sudden power failure.

➢Quick file change when recording (less than 0.5 seconds)

- On-chip peripherals

-Interrupt controller, System Timer, Watch-Dog Timer

-UART*2, one with hardware flow control

➢to connect/control additional sensors, like g-sensor(acceleromter), GPS-mouse, etc.

-GPIOs

-I2C master/slave modes

-IR

-SAR for keypads

- System (Power) Management Unit

-Dynamic Clock frequency adjustment to save power consumption

-Operation, Suspend, Shutdown mode.

-Built-in Real-Time Clock (RTC) for embedding wall clock in record MJPEG.

-Internal LDO for core power 1.8V

- Hardwired JPEG, MJPEG encoder

-Support 720x480 30fps on-the-fly.

-Support embedding RTC time to JPEG directly.

-Support saving to SD storage directly and with standard FAT format

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- Hardwired JPEG, MJPEG decoder

-Support up to 720x480 30fps

- Motion Detection

  -Support motion detection either through digital CCIR input or analog CVBS input
  -Triggered event point can be saved in MJPEG file

- i80 Slave mode

  -i80 Slave mode

- On Screen Display(OSD)

  -A simple and easy-to-program OSD for UI

- Display processor with Scalar and OSD

  -Supports one channel 10-bits ADC for CVBS
  -Supports digital CCIR656 or 8-/16-bits CCIR601 for CMOS sensors
  -Live view on panel while encoding
  -Independent Horizontal/Vertical Scaling Up/Down, non-linear FIR scaling for 16:9 ⇔ 4:3 conversion
  -Image enhancement includes sharpness, BLE, DLTi, contrast, brightness, DCTi, hue, saturation, ….
  -Build-in patterns generator, Gamma correction, Dithering
  -Timing controller for LCD panel
  -Supported Panel types:
    ➢i80 vsync and command modes
    ➢Single channel TTL (Digital RGB, 6 or 8 bits) panel with TCON

➢Serial RGB panel

-DC-DC convert, LED/CCFL backlight convert, Open Lamp protection