T23 Series:Dual Camera Low Power Video Processor

CPU
- XBurst-1 core 1.2-1.4GHz
- 16kB L1 Cache, 64kB L2 Cache

MCU
- 600Mhz RISC-V coprocessor
- RV32IMC instruction set architecture

Video Processor Unit
- H264 Encoder(I/P slices)
- H264 baseline main high profile encoding up to 50M bit/s, 3MP@40fps
- H264 maximum size up to 2308x* resolution
- JPEG compressing/decompressing up to 100Mega-pixels per second(baseline)

Image Signal Processor
- Maximum performance 3M@30fps
- Defog, Scaler, Sharpen
- 3A(AE,AWB,AF) function
- Auto Dynamic Range
- BLC, LSC, DPC
- Demosaic Processing
- Purple Edge Correction
- Horizontal Lens Distortion Correction
- Time Domain / Space Domain Denoising
- 3A Statistical Information Output
- 3 different resolution outputs at the same time

Video Input Interface
- 8/10/12 bits RGB bayer format
- Maximum resolution up to 2308x2048
- Maximum performance up to 3MP@30fps
- DVP/BT1120/BT656/BT601

- MIPI CSI(2 lane up to 1.5Gbps)
- Dual-sensor input by switch

Video Output Interface
- Smart LCD interface 6800 and 8080
- Display size up to 800x600@60Hz,24BPP
- Support up to 16,777,216(16M) colors

Audio System
- Integrated Audio Codec
- 8K/12K/16K/24K/32K/44.1K/48K/96K sampling rate
- Audio 3A function(AEC/ANR/AGC)

Security Engine
- AES, DES , RSA and HASH
- Digital True Random Number Generator

Memory Interface
- Integrated 512M bit DDR2 on chip
- Static memory interfaces

Peripherals
- I²C, SPI, UART and GPIO interface
- OTG
- High Speed Synchronous Serial Interfaces
- POR
- MSC Controller
- Ethernet Media Access controller

Boot
- Boot Option
  SPI NOR/NAND Flash SD Card, USB
- Security Boot

Physical Specifications
- Power: 350mw(1080P@30fps+D1@30fps)
- Package: QFN88, 9mmx9mm, 0.35pitch