

## C100

### Ultra-small 5MP H.265 video processor



C100 is an ultra-small video application processor targeting video devices like medical/medical beauty equipment, micro camera, web camera, and so on. C100 is the smallest H264/H265 video encoding chip in the industry. This SoC introduces a kind of innovative architecture to fulfill both high-performance computing and high-quality image and video encoding requirements addressed by video devices. C100 provides high-speed CPU computing power, excellent image signal process, fluent 5MP resolution video encoding. There are plenty of successful applications in a variety of video markets and endorsed by many famous brands.

#### FEATURES

- 1.2 GHz XBurst1 CPU with 64KB+128KB cache
- SIMD128 ISA
- Professional ISP, extremely low light enhanced
- Advanced 2D/3D de-noise, 3A, DRC
- Maximum 5M(2560\*1920)@25fps H.265/H.264 video encoder, JPEG encoder
- 1Gb(128MB) DDR inside
- AES/RSA/SHA/TRANG
- Rich interfaces, I2C/SPI/USB/SDIO/DMIC/ADC
- Internal audio codec, supports one analog microphone input and speaker output
- 350mW power consumption at typical application
- BGA85 5mm\*6mm package
- Typical AI algorithms available: smart tracking, person detection, face detection...
- Mature solution and reference design ready for: medical/medical beauty equipment, micro camera, web camera...

#### BENEFITS

- **Ultra-small package** – Ultra-small video processing chip.
- **Professional video quality** – starlight vision, low bitrate live video stream.
- **Low power consumption** – 22nm process, long term on-chip consumption optimization.
- **Lite-AI capability** – lite neural network algorithms powered by SIMD128 ISA.

#### APPLICATION/SOLUTIONS

- Medical/medical beauty – endoscopes, visual ear picks
- Micro camera – industrial cameras, electronics Microscope
- Web camera – USB cameras, video conferencing cameras

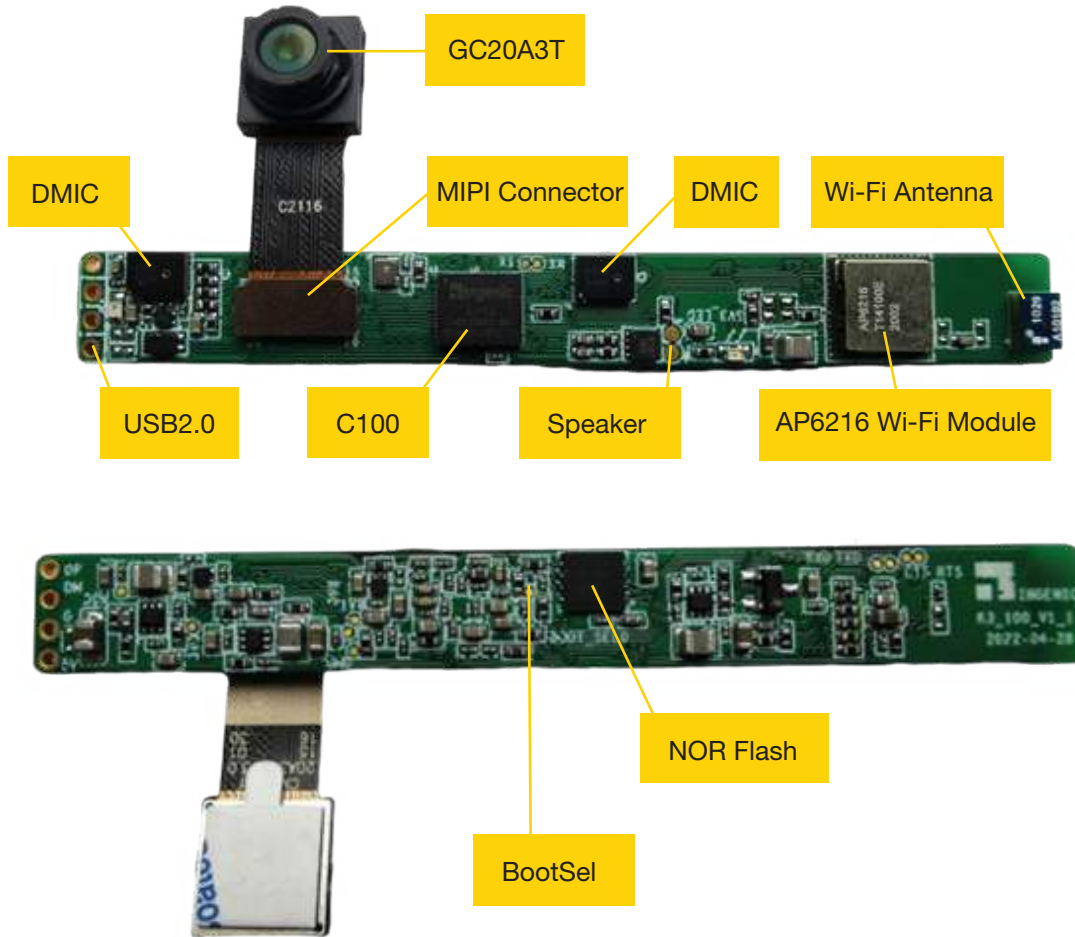
#### CHIP IMAGE

Please refer to the datasheet.

#### SYSTEMS DIAGRAM

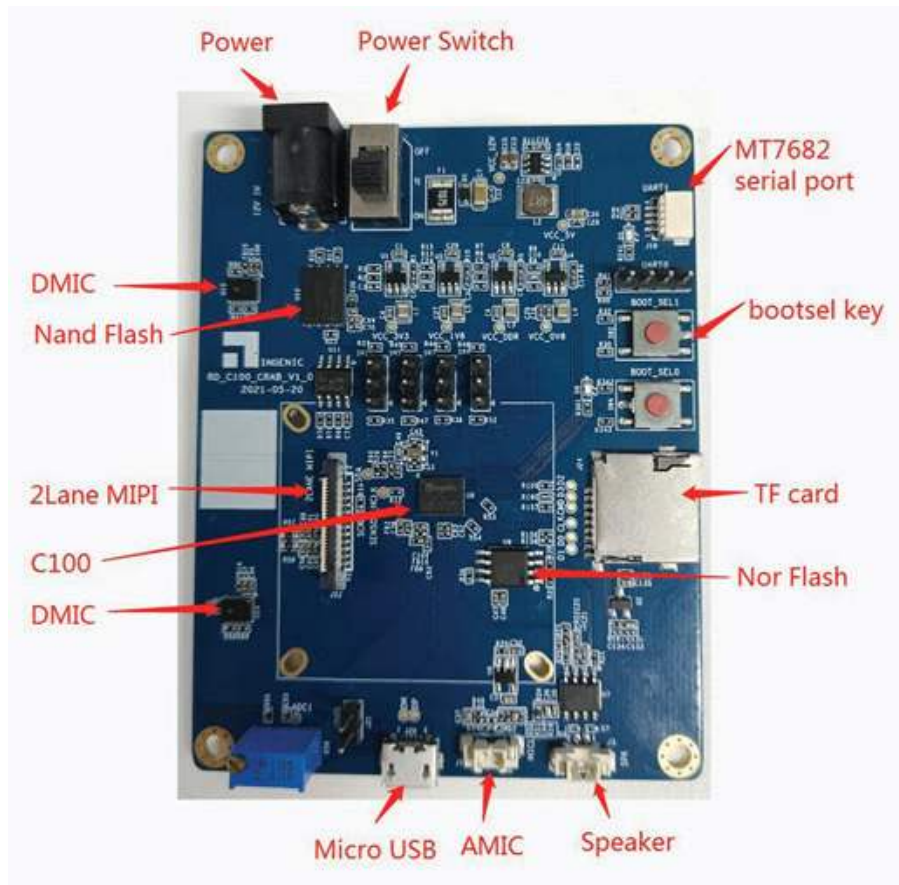
Please see hardware reference design.

**EVALUATION BOARD IMAGE**



C100\_K3\_Board

EVALUATION BOARD IMAGE



C100\_CRAB\_Board

BLOCK DIAGRAM

