

# CRAB



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

C100 is a ultra-small video application processor targeting for video devices like medical/medical beauty equipment, micro camera, web camera, consumer camera, security camera, video analysis 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 successful applications in variety 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/TRANG
- Rich interfaces, I2C/I2S/SPI/USB/SDIO/DMIC/ADC
- Internal audio codec
- 400mW power consumption at typical application
- BGA85 5\*6 package
- Typical AI algorithms available: smart tracking, person detection, baby cry detection ...
- Fastboot on Linux OS, TTFF < 270ms

- Mature solution and reference design ready for: medical/medical beauty equipment, micro camera, web camera, consumer camera, security camera, video analysis ...

### 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.
- 300ms fast video – less than 300ms boot up time base on standard Linux OS.

### APPLICATION/SOLUTIONS

- medical/medical beauty – endoscopes, visual ear picks
- micro camera – industrial cameras, electronics Microscope
- Web camera – Usb cameras, video conferencing cameras
- Consumer/home/IoT camera – All IPcamera based products
- Surveillance camera – security cameras, IPC&NVR
- Battery camera – pure battery powered cameras
- Car recorder – single lens vehicle driving video recorders

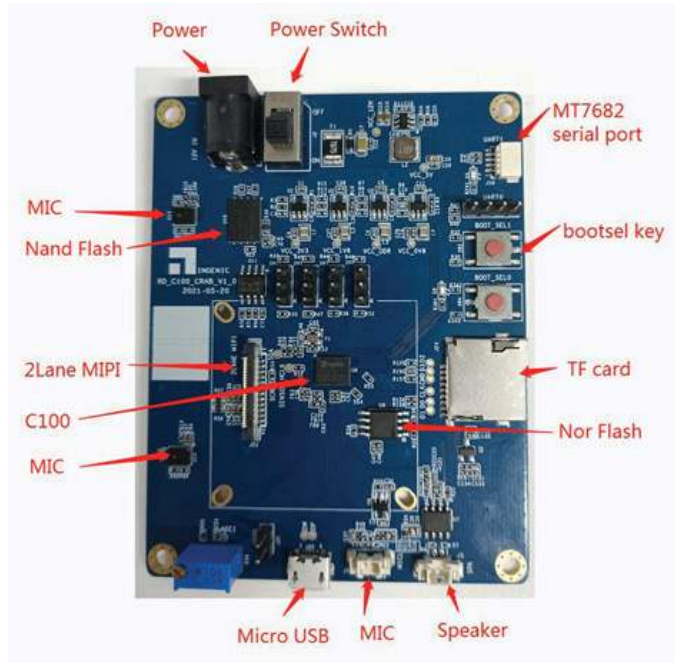
### ORDERING INFORMATION

Samples: TBD

### CHIP IMAGE

Please reference to datasheet.

**EVALUATION BOARD**



**SYSTEM DIAGRAM**

Please see hardware reference design.

**BLOCK DIAGRAM**



Questions or feedback may be sent to:  
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