

## Ittiam H.264 Baseline Profile Encoder Datasheet

---

### Description

The baseline profile of ITU-T H.264 is extensively used for achieving good video quality at low bit-rates and reasonable computational complexity. It is used in applications such as video telephony, surveillance, and video streaming. This data sheet contains the features supported and the performance numbers for Ittiam H.264 baseline profile encoder on TI's C64x+ platform.

### Features

- Compliant with Baseline Profile – Level 1, 1.x, 2, 2.x, 3.
- Supports YUV420 and YUV422i raw video input formats.
- Configurable in-loop de-blocking filter.
- MB partition sizes – 16x16, 16x8, 8x16, 8x8.
- Quarter pixel accurate motion estimation.
- Ability to split the picture into multiple slices.
- Variable Bit Rate (VBR) control algorithm tuned for reducing the system latency in surveillance / DVR applications.
- Supports conserving bits when there is little or no activity targeting DVR applications.
- Support run time changes to target bit-rate; source and target frame-rates.
- Support for encoding IDR pictures on request.
- Supports horizontal scaling by a factor of 2.
- Supports splitting the generated bit-stream into multiple packets to ease transmission after insertion of RTP / TS headers on IP networks
- Configurable search range and toolsets to optimize the tradeoffs between the usage of the internal memory, encoder complexity and performance.

### Encoder Validation

The H.264 BP encoder implementation has been verified by decoding the streams produced by it with the JM reference decoder. The quality of the encoder has been verified by comparing against JM reference encoder running with similar tool sets.

#### Notice

Ittiam Systems reserves the right to make changes to its products or discontinue any of its products or offerings without notice. Ittiam warrants the performance of its products to the specifications applicable at the time of sale in accordance with Ittiam's standard warranty.