

## Datasheet for JPEG Encoder

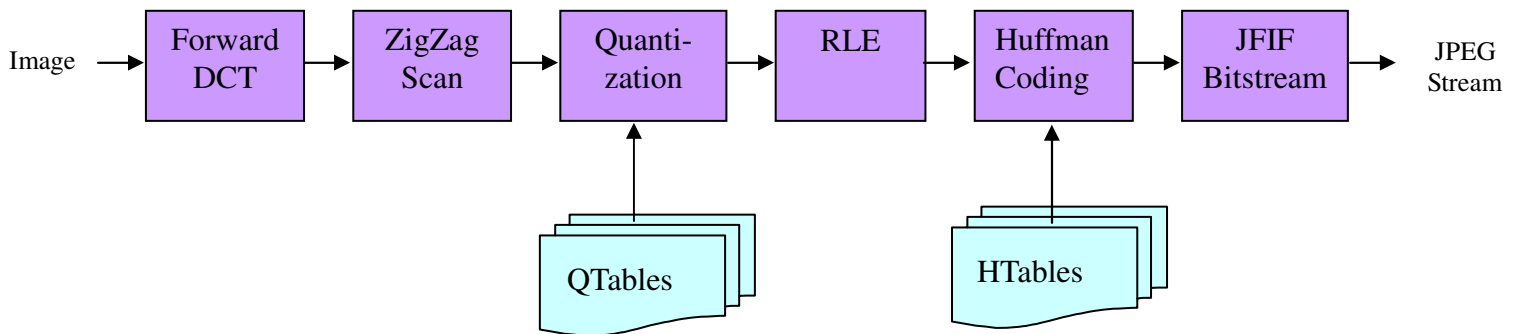
### Functional Description

Implements image compression according baseline ISO/IEC 10918-1 JPEG Standard. The core is suitable for applications such as digital camera, medical imaging etc. The core accepts image data from sensors and generates the compressed image in JPEG JFIF format. It supports FIFO interface which enables simpler integration with other system components.

### Features:

- Baseline ISO/IEC 10918-1 standard
- 8x8 two dimensional DCT using fixed-point numbers
- Configurable Huffman tables (two AC, two DC) and four quantization tables
- Supports color components
- Encodes one pixel per cycle
- 8-bit data per pixel

### Block Diagram:



### Performance:

Device	Slice Count	Frequency
Spartan-3A (xc3s700a-4fg484)		
Virtex-4 (xc4vlx25-ff668)		

### Verification:

The JPEG Encoder core has been verified with following approaches:

- Exhaustive Functional/Timing simulation
- Prototyped on Xilinx Spartan-3A development board

### Deliverables:

- Verilog RTL source code
- Test benches
- Synthesis and Simulation scripts
- Detailed user documentation, including RTL source code documentation