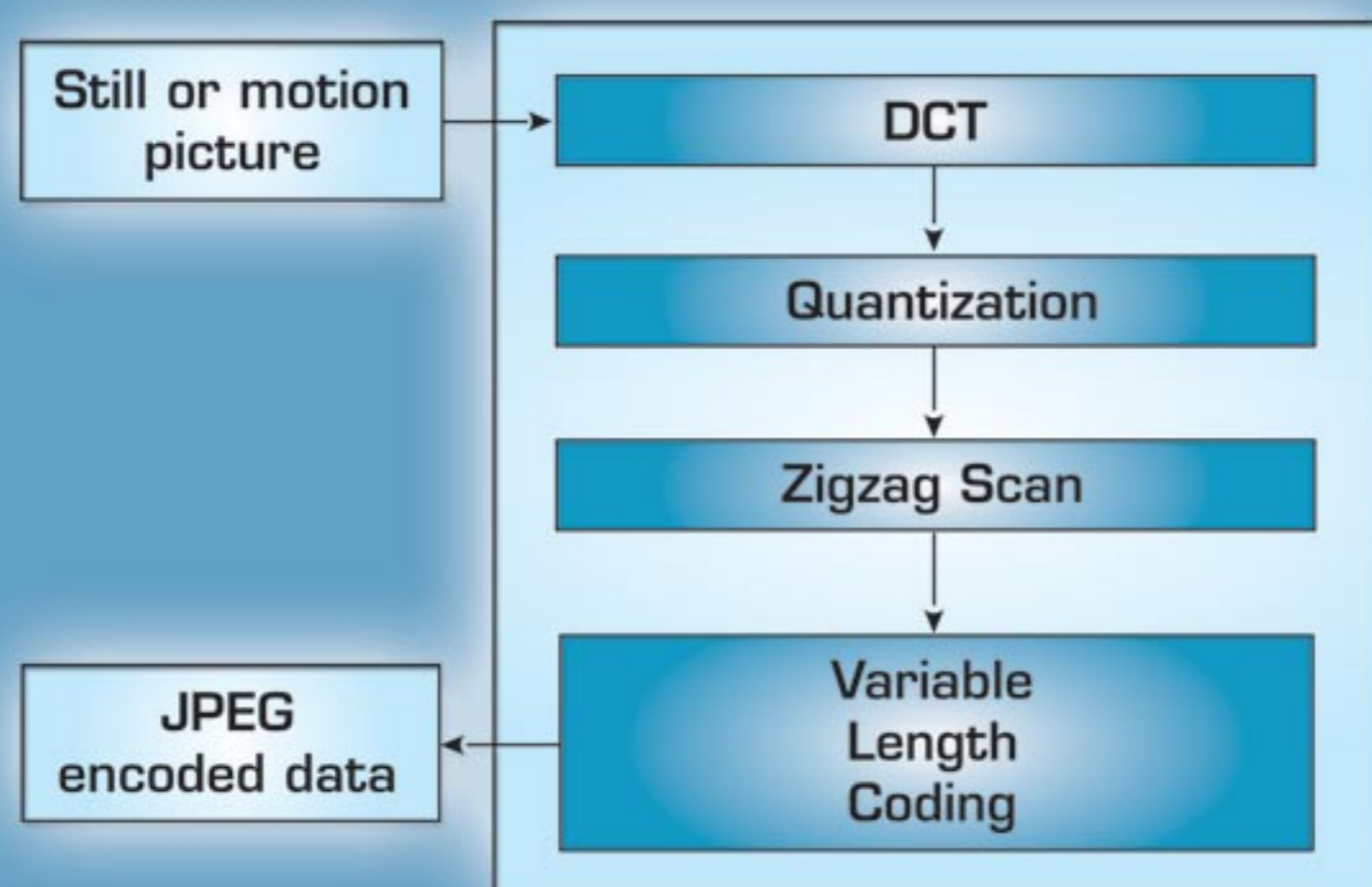


JPEG/MJPEG

Encoder & Decoder for 16- & 32-bits platforms



Codecs for
video and
still images

HARDWARE

- Imaging & Digital Evaluation Kits
- Dedicated to A/V algos evaluation
- Specific hardware integration
- Complete development platforms

FEATURES

- 16-bit and 32-bits platforms
- User-defined quantization tables
- User-defined restart markers
- YUV 4:2:2 and YUV 4:2:0 support
- eXpress DSP Software Technology compliant



This baseline implementation of JPEG and Motion JPEG standards is fully optimized for Texas Instruments 'C5000 and 'C6000 families.

Every JPEG parameter and bitstream feature is user-defined, making these algorithms very flexible.

For a C5000 low cost / low consumption implementation to a high end C6000 application, a large scalable offer is available to optimize the cost / performance ratio.



KEY FEATURES

- C5000 & C6000 platforms
- Flexibility
- x-DAIS compliance
- Hardware support

APPLICATIONS

- Observation systems
- Video security
- Medical imaging
- Portable Equipments
- Still images



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Performance

The measures shown in the following table were processed in pure JPEG standard, with no pixel ordering into the library.

Performance hereafter are provided in ms/frame.

Input	Image format	C5402 @ 100 MHz		C5509 @ 125 MHz		C6211 @ 150 MHz		C6416 @ 600 MHz	
		Encode	Decode	Encode	Decode	Encode	Decode	Encode	Decode
YUV 4:2:0	Full 720 x 480	1440	640	284	156	80	60	17	12,4
	CIF 352 x 240	360	160	71	39	20	15	4,1	3,1
	QCIF 176 x 120	90	82	17	10	5	3,7	1	0,7

Features

Targets

- 16-bits platforms: C5400 and C5500
- 32-bits platforms: C6200 and C6400

Input

- YUV 4:2:0
- YUV 4:2:2
- Others on request

Quantization tables

- User-definable
- JPEG Huffman tables

Misc

- eXpress DSP Software Technology compliant
- User-definable restart markers
- Zero-insertion can be disabled

Footprint

- The memory requirements are given in words for 16-bits platforms, in dwords for 32-bits platforms.

Platform	Library	Program	Const	Data
16-bits	Encode	5200	525	650
	Decode	4450	5300	135
32-bits	Encode	3400	700	550
	Decode	2300	3400	50

Related products

Hardware platforms

- Evaluation Kits: IEKC64x, IEKC6x11, DMEK/DMDK 642
- Applicative boards: Kompressor AMK4x0
- Development platform : VSIP

Emulation

- aDICE710 PCI JTAG emulator

To get more information about all those products, consult <http://extranet.ateme.com>



ATEME - 26 Burospace, route de Gisy - 91570 BIEVRES - FRANCE
Tel: 33 (0) 1.69.35.89.89 - Fax: 33 (0) 1.60.19.13.95

For more information, visit our website <http://www.ateme.com/products/> or contact our products team: products@ateme.com.