JPEG and Motion JPEG IP Cores Family

Compact, Scalable-Throughput Encoders & Decoders for Image & Video Compression

Still & Motion Image Compression	JPEG Encoders				JPEG Decoders		
	JPEG-E-T Tiny Encoder	JPEG-E-S Baseline Encoder	JPEG-EX-S Extended Encoder	JPEG-EX-F Ultra-Fast Ext. Encoder	JPEG-D-S Baseline Decoder	JPEG-DX-S Extended Decoder	JPEG-DX-F Ultra-Fast Ext. Decoder
Compression Standard	JPEG — ISO/IEC 10918-1						
Supported Standard Modes	Baseline Sequential DCT		Baseline & Extended Sequential DCT		Baseline Seq. DCT	Baseline & Extended Sequential DCT	
Motion JPEG Payload	✓	✓	✓	✓	✓	✓	✓
Sub-sampling Formats	Any with up to four components including Single−color, 4:4:4, 4:2:2, 4:2:0						
Max. Image Resolution	64k x 64k						
Max. Sample Depth	8	8	12	12	8	12	12
Rate control	X	✓	✓	✓	N/A	N/A	N/A
Raster Conversion	Included − Optionally Instantiated						
Color Samples/Cycle	1	1	1	1 to 32	1	1	1 to 32
ASIC Area (eq. Gates)	40k	70k	80k	120k[1]	65k	75k	110k[1]
Available in RTL Source Code	X	X	✓	✓	X	✓	✓
Available as targeted netlist	✓	✓	✓	✓	✓	✓	✓

Notes:
1) Silicon Resources for two samples/cycle configuration, and 12 bits per color sample

CAST