

	Proposed image compression	Traditional image compression
Line buffer	0	$3 \times 512 \times 8 = 1536$ Bytes
Demosaicking	Not required	Required
Color-space transform	Not required	Required
Ping-pong buffer	$2 \times 8 \times 8 \times 8 = 128$ Bytes	$2 \times 8 \times 512 \times 24 = 24576$ Bytes
Transpose memory in 2D-DCT	$8 \times 8 \times 12 = 96$ Bytes	$3 \times 8 \times 8 \times 12 = 288$ Bytes
8*8 memory between quantizer and LZ encoder	$8 \times 8 \times 8 = 64$ Bytes	$3 \times 8 \times 8 \times 8 = 192$ Bytes
Operation Frequency	f1D-DCT =1.57 MHz	f1D-DCT =1.57 MHz
	fLZ =12.58 MHz	fLZ =12.58 MHz
Average CR	79.65%	67.12%
Quality Degradation	32.51 dB	31.51 dB
Average power dissipation	14.92 mW	0.876 W