

A Still Image Encoder Based on Adaptive Resolution Vector Quantization with Needless Calculation Elimination Architecture Realizing Compression Ratio over 1/200

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We have developed an advanced vector quantization (VQ) processor for a still image encoding systems. By utilizing needless calculation elimination method, computational cost of VQ encoding is reduced to 40% or less, while maintaining the accuracy of full-search VQ. We have successfully implemented the advanced VQ encoding method into a still image encoder. The VQ processor can compress still image of 1600 x 2400 pixels within one second, which is 60 times faster than currently PC.