

Title: A 1V operational, 20Ms/s and 57dB of S/N, Current-mode CMOS
Sample-and-hold IC

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75 Word Abstract:

A 1V operational, 20Ms/s MOS sample-and-hold IC, which is applicable to video signal processing, has been developed. The signal-to-noise ratio (S/N) reached 57dB under the application of $\pm 200\mu\text{A}$ of differential input signal current at an 1MHz frequency. S/N does not drastically degrade up to the Nyquist frequency. The fabrication process was the standard low- V_{th} 0.35 μm CMOS with a threshold voltage of +0.35V for an NMOS and -0.35V for a PMOS.