

Tracking Sample-Hold (A/D Converter)

This circuit, also mentioned in the chapter on sample-holds, is especially useful as a track-and-infinite-hold device. It can acquire the analog signal within a minimum of 1 count and maximum of 2^n counts, and, upon command, *hold* it indefinitely without degradation, providing both digital and analog readout. Since it uses an up-down counter, it will track the analog signal at a constant rate (2^{-n} FS per count), and "hunt" between the two digital values that straddle the analog value, if it remains constant.

