A 1.8V Digital A/D Converter in 0.18µm CMOS

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A digital A/D converter (DAD) for audio applications is presented. The whole converter consists only of digital CMOS logic and some resistors and capacitors. No linear amplifier is needed. This kind of AD converter is mostly a pure digital design, hence the name and title. A prototype for 20KHz audio applications with a 80dB dynamic range and 44.1KHz output sample rate was designed and processed in 0.18-µm CMOS.