Analog-to-Digital Converter

Analog Devices introduced three versions of a new high-speed, 10-bit supply analog-to-digital converter (ADC) offering a range of sampling rates and performance options. The AD9214BRS-105 is a 10-bit 3.3 V ADC at 105 Msps; the AD9214BRS-105 and AD921BRS-65 operate at 80 Msps and 65 Msps, respectively. All three deliver excellent dynamic performance, guarantee no missing codes and dissipate low amounts of power. Running from a single +3.3 V supply and digitizing an input frequency of 41 MHz, the AD9214BRC-80 delivers 57.1 dB signal-to-noise ratio (SNR) and 9.2 effective number of bits (ENOB). Typical power dissipation with a 10.3 MHz input frequency is 190 mW (65 Msps), 265 mW (80 Msps) and 285 mW (105 Msps). In sleep mode, the device consumes 30 mW.
Applications for the AD9214 include battery powered instruments, handheld scopemeters, low-cost digital oscilloscopes, ultrasound equipment, broadband communication subsystems, cable reverse paths, home powerline modems and wireless CPE (computer peripheral equipment).
Important features of the AD9214 are its wide analog input bandwidth, up to 300 MHz, and an input gain option to support either 1 V or 2 V peak-to-peak analog input signal swings. The combination of low power and wide bandwidth makes the AD9214 suitable for portable and multi-ADC communications applications where power dissipation is the critical design requirement.
The AD9214 is packaged in 28-pin SSOP and operates over the extended industrial temperature range (&#150 40&#176C to +85&#176C).

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