

ADC1212D Series:

Single 12-Bit ADC; 65, 80, 105 or 125 Msps; CMOS or LVDS DDR Digital Outputs

Product Feature Sheet

Features

- SNR, 70 dBFS
- SFDR, 86 dBc
- Sample rate up to 125 Msps
- Clock input divided by 2 to reduce jitter contribution
- Single 3 V supply
- Flexible input voltage range: 1 V to 2 V (p-p)
- CMOS or LVDS DDR digital outputs
- Pin and software compatible with ADC1412D series and ADC1112D125.
- Input bandwidth, 600 MHz
- Power dissipation, 855 mW at 80 Msps
- Serial Peripheral Interface (SPI)
- Duty cycle stabilizer
- Fast Out-of-Range (OTR) detection
- Offset binary, two's complement, gray code
- Power-down and Sleep modes
- HVQFN64 package

Device Overview

The ADC1212D is a dual channel 12-bit Analog-to-Digital Converter (ADC) optimized for high dynamic performances and low power consumption at sample rates up to 125 Msps. Pipelined architecture and output error correction ensure the ADC1212D is accurate enough to guarantee zero missing codes over the entire operating range. Supplied from a single 3 V source, it can handle output logic levels from 1.8 V to 3.3 V in Complementary Metal Oxide Semiconductor (CMOS) mode, because of a separate digital output supply. It supports the Low Voltage Differential Signaling (LVDS) Double Data Rate (DDR) output standard. An integrated Serial Peripheral Interface (SPI) allows the user to easily configure the ADC. The device also includes a programmable full-scale SPI to allow a flexible input voltage range of 1 V (p-p) to 2 V (p-p). With excellent dynamic performance from the baseband to input frequencies of 170 MHz or more, the ADC1212D is ideal for use in communications, imaging and medical applications.

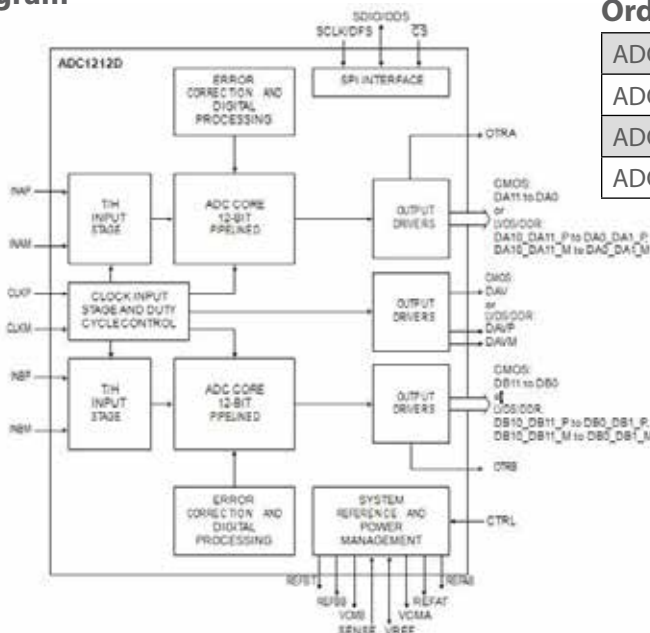
Typical Applications

- Wireless and wired broadband communications
- Spectral analysis
- Ultrasound equipment
- Portable instrumentation
- Imaging systems
- Software defined radio

Absolute Maximum Ratings:

Output Voltage	-0.4 V to +3.9 V
Analog Supply Voltage	-0.4 V to +3.9 V
Output Supply Voltage	-0.4 V to +3.9 V
Storage Temperature	-55 °C to +125 °C
Ambient Temperature	-40 °C to + 85 °C
Junction Temperature	125 °C

Block Diagram



Ordering Information

ADC1212D125HN-C1	125 Msps
ADC1212D105HN-C1	105 Msps
ADC1212D080HN-C1	80 Msps
ADC1212D065HN-C1	65 Msps