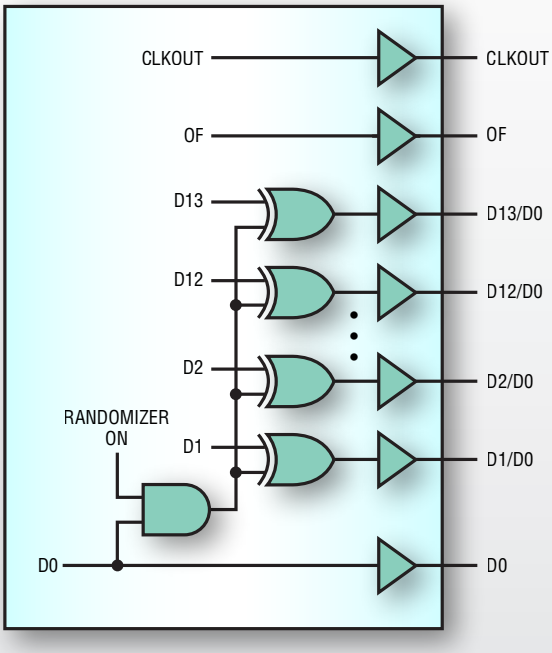
# 14-/12-Bit 150Msps 1.8V ADC Family

| | 25Msps | 40Msps | 65Msps | 80Msps | 105Msps | 125Msps | 150Msps |
|---|---|---|---|---|---|---|---|
| **14-Bit 73.2dB SNR** | 2256-14 | 2257-14 | 2258-14 | 2259-14 | 2260-14 | 2261-14 | 2262-14 |
| **12-Bit 70.6dB SNR** | 2256-12 | 2257-12 | 2258-12 | 2259-12 | 2260-12 | 2261-12 | 2262-12 |
| Power Consumption | 35mW | 49mW | 81mW | 89mW | 106mW | 127mW | 149mW |

6x6 QFN — 1.8V Single ADCs, CMOS, DDR CMOS or DDR LVDS Outputs

## Features

- Pin-Compatible Family of 14- /12-Bit, 25Msps to 150Msps ADCs
- Single 1.8V Supply
- Flexible Digital Interface: CMOS, DDR CMOS or DDR LVDS
- Selectable Input Ranges: $1V_{P-P}$ to $2V_{P-P}$
- 800MHz Full-Power Bandwidth S/H
- Optional Data Output Randomizer
- Alternate Bit Polarity Mode
- Optional Clock Duty Cycle Stabilizer
- Shutdown and Nap Modes
- Serial SPI Port for Configuration
- Easy Evaluation Using PScope™ Tool

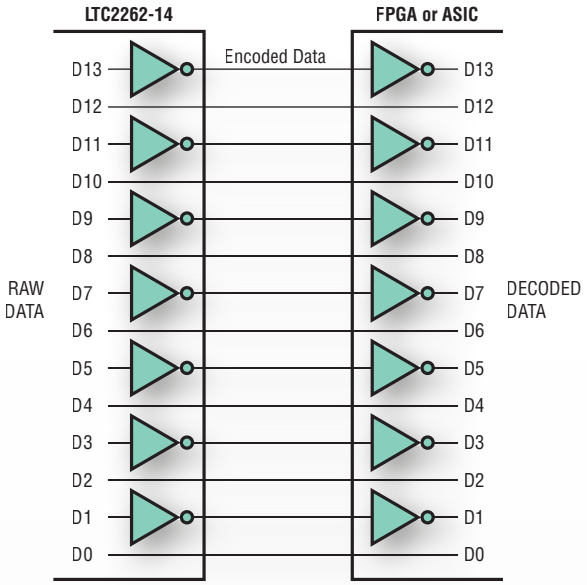


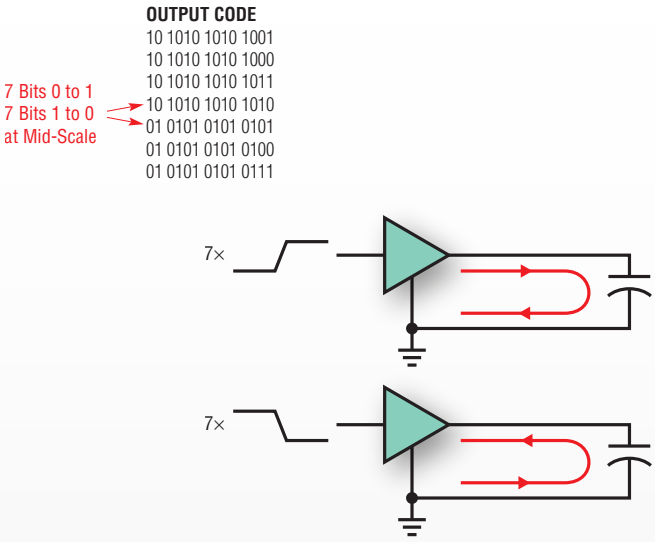

Digital Output Randomizer Reduces Digital Feedback

LINEAR TECHNOLOGY

## Alternate Bit Polarity Mode

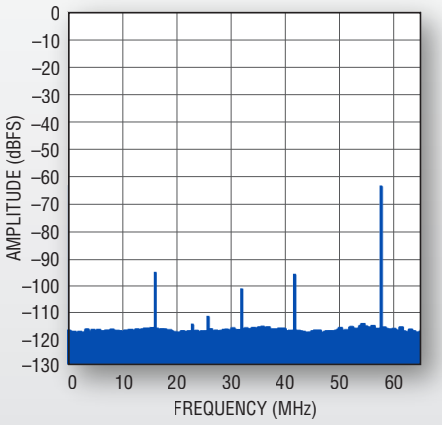
The LTC®2262 family offers a new, proprietary feature to reduce digital feedback on the circuit board. The alternate bit polarity mode inverts all of the odd bits before the output buffers to equalize the number of ones and zeroes switching. This method effectively cancels the large ground plane currents that contribute to digital feedback when sampling small input signals crossing mid-scale.



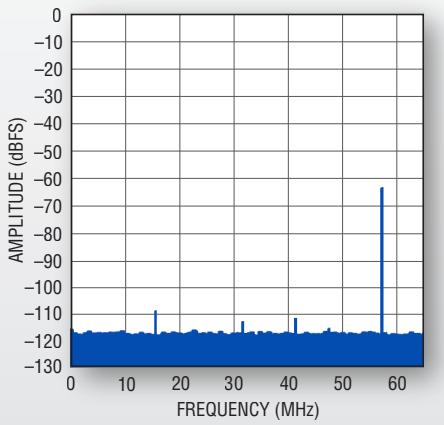




When alternate bit polarity (ABP) mode is enabled, all of the odd bits are inverted before the output buffers. The even bits are not affected. This method can work in combination with the digital output randomizer to help reduce digital currents in the circuit board ground plane that cause digital noise, particularly for very small analog input signals.

ABP = Off, RAND = Off




ABP = On, RAND = On




LTC2261-14, 125Msps, $A_{IN}$ = 70MHz, –65dBFS
Averaged 128k Point FFTs