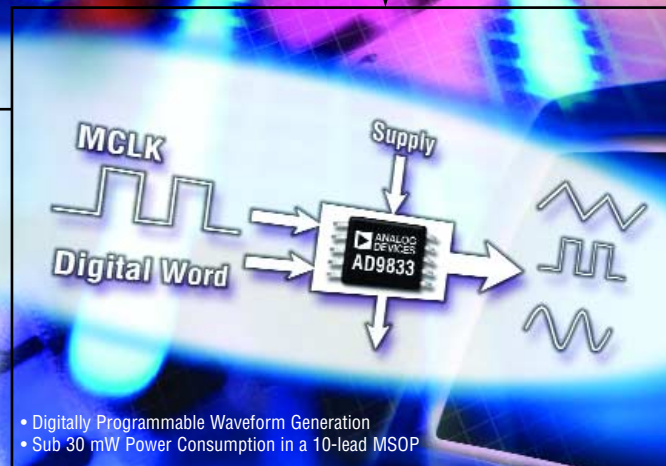
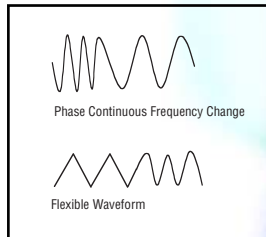


Low Power, Programmable Waveform Generation

Benefits

- Digitally programmable frequency and phase (phase/frequency adjusted digitally with no need for external components)
- Sine, square, triangular waveforms
- Simple 3-wire serial or parallel interface
- Low power consumption (20 mW typ at 3 V)
- Small 10-lead MSOP
- High amplitude and frequency stability
- Low temperature drift
- Ideal for frequency sweeping and resonating



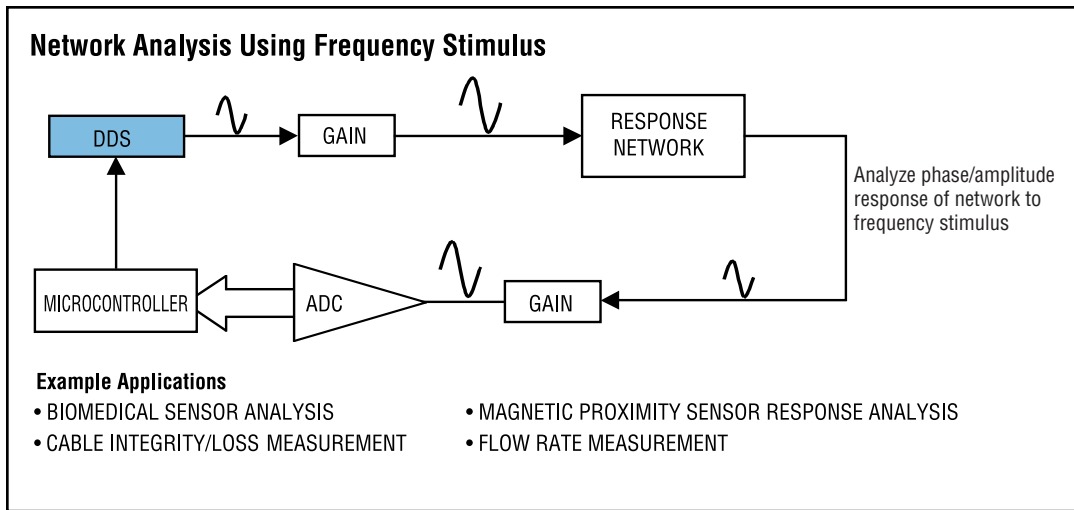
How It Works

Using direct digital synthesis techniques, these devices generate a flexible output frequency by digitally dividing down a master clock frequency based on a digital input word. The combination of the digital word and the fixed master clock determines the output frequency. Because the signal is digitally generated, it can easily be manipulated to provide differing frequencies, waveforms, and phase offsets.

Product Selection Guide

Part Number	Master Clock	Supply Voltage	Freq/Phase Registers	Max Power	Package	Interface	Notes
AD9830	50 MHz	5 V	4 Phase 2 Freq	330 mW	48 TQFP	Parallel	
AD9831	25 MHz	2.97 V–5.5 V	4 Phase 2 Freq	132 mW	48 TQFP	Parallel	
AD9832	25 MHz	2.97 V–5.5 V	4 Phase 2 Freq	132 mW	16 TSSOP	Serial	
AD9833	25 MHz	2.3 V–5.5 V	2 Phase 2 Freq	31 mW	10 MSOP	Serial	NEW
AD9834	50 MHz	2.3 V–5.5 V	2 Phase 2 Freq	44 mW	20 TSSOP	Serial	NEW On-Board Comparator
AD9835	50 MHz	5 V	4 Phase 2 Freq	220 mW	16 TSSOP	Serial	

Note: Max power based on maximum supply voltage and maximum supply current.

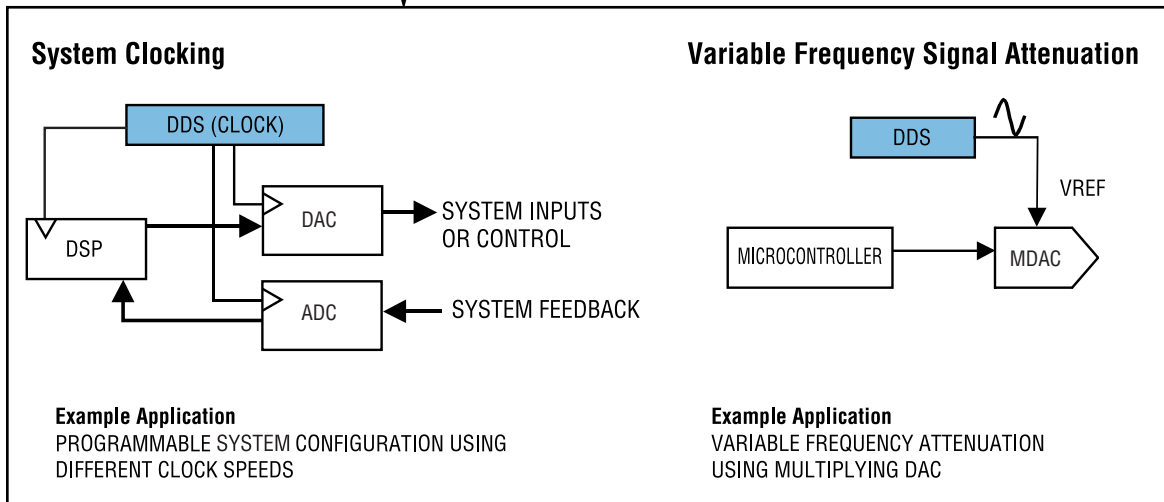


Worldwide Headquarters
 One Technology Way
 P.O. Box 9106
 Norwood, MA
 02062-9106 U.S.A.
 Tel: 781.329.4700,
 (1.800.262.5643,
 U.S.A. only)
 Fax: 781.326.8703

Analog Devices, Inc. Europe
 c/o Analog Devices SA
 17-19, rue Georges Besse
 Parc de Haute
 Technologie d'Antony
 F-92182
 Antony Cedex, France
 Tel: 33.1.46.74.45.00
 Fax: 33.1.46.74.45.01

Analog Devices, Inc. Japan Headquarters
 New Pier Takeshiba
 South Tower Building
 1-16-1 Kaigan,
 Minato-ku, Tokyo
 105-6891, Japan
 Tel: 813.5402.8210
 Fax: 813.5402.1063

Analog Devices, Inc. Southeast Asia Headquarters
 4501 Nat West Tower
 Times Square
 1 Matheson Street
 Causeway Bay
 Hong Kong, PRC
 Tel: 852.2.506.9336
 Fax: 852.2.506.4755



Simplify your design and check out the AD9833 and AD9834 interactive design tools at www.analog.com/tools