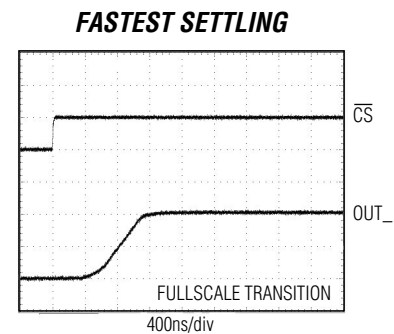
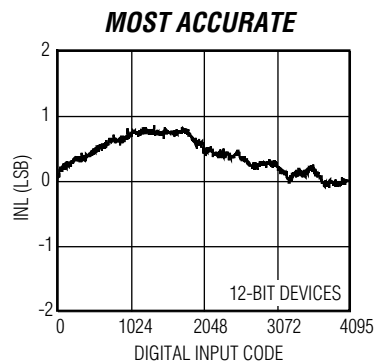
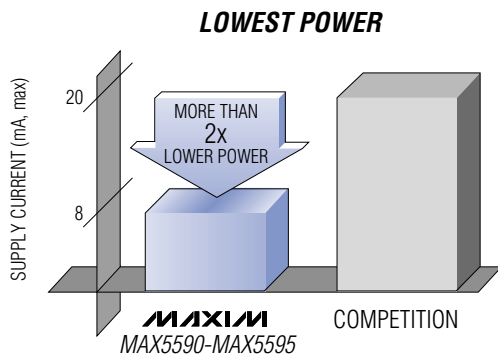


MOST ACCURATE, FAST SETTLING MULTICHANNEL V_{OUT} DACs

Lowest Power in Their Class!

New dual, quad, and octal 8-/10-/12-bit DACs use a fast output buffer that guarantees less than $3\mu\text{s}$ full-scale settling time to $1/2$ LSB and INL/DNL less than 1 LSB (max) at 12-bits. This makes them the lowest power DACs in the $3\mu\text{s}$ settling-time class. Each DAC features two custom programmable digital I/O's that increase flexibility by adding advanced functions such as data readback, shutdown logic inputs, and load DAC for asynchronously updating channels. When compared to buffered voltage-output devices with similar settling times, these DACs have the smallest footprint available (4mm x 4mm QFN) at half the size of competitors.



- ◆ Fast $3\mu\text{s}$ (max) Settling Time to $1/2$ LSB
- ◆ Low 1mA (max) Supply Current per DAC (Fast Mode)
- ◆ 2.7V to 5.25V Single-Supply Voltage Range
- ◆ Guaranteed 1LSB INL and DNL for All Resolutions
- ◆ Low 5mV (max) Offset and 4LSB (max) Gain Error
- ◆ Two Custom Programmable Digital I/O Pins
- ◆ Fast 20MHz SPI™-/QSPI™-/MICROWIRE™-, and DSP-Compatible Serial Interface
- ◆ Rail-to-Rail® Output Buffers Configured in Unity-Gain or Force-Sense

Unity-Gain or Force-Sense Output Configuration

Part	Resolution (Bits)	No. of Channels	INL (LSB max)	Smallest Package	Price† (\$)
MAX5290-5	8, 10, 12	2	1	14-TSSOP	1.85
MAX5580-5*	8, 10, 12	4	1	16-QFN (4mm x 4mm)	*
MAX5590-5	8, 10, 12	8	1	24-TSSOP	3.08



Rail-to-Rail is a registered trademark of Nippon Motorola, Ltd. SPI and QSPI are trademarks of Motorola, Inc. MICROWIRE is a trademark of National Semiconductor Corp.

*Future product—specifications are preliminary. Contact factory for pricing and availability.

†1000-up recommended resale (8-bit lowest grade). Prices provided are for design guidance and are FOB USA. International prices will differ due to local duties, taxes, and exchange rates. Not all packages are offered in 1k increments, and some may require minimum order quantities.



www.maxim-ic.com

FREE D/A Converters Design Guide—Sent Within 24 Hours!

CALL TOLL-FREE 1-800-998-8800 (6:00 a.m.–6:00 p.m. PT)

For a Design Guide or Free Sample



Distributed by Maxim/Dallas Direct!, Arrow, Avnet Electronics Marketing, Digi-Key, and Newark.

MAXIM is a registered trademark of Maxim Integrated Products, Inc. © 2003 Maxim Integrated Products.