

Main Features

- 10-bit Resolution
- 1.2 Gsps Guaranteed Conversion Rate, 1.4 Gsps Typical
- 4:1 Integrated Parallel MUX
- PECL/LVDS Differential Data and Clock Inputs
- Programmable DSP Clock
- 2 Vpp Differential Analog Output Swing
- Output Impedance: 50Ω Single-ended, 100Ω Differential
- Power Up Reset for Easy Synchronization of Several DACs
- Dual Power Supply : ±5V
- CBGA 255 Package for “C” and “V” Grades
- Evaluation Board TSEV86101G2BGL

Performance

- Broadband
 - NPR: 49 dB at Fs = 1.2 Gsps: 9.5 bits equivalent (20 MHz to 580 MHz Broadband Pattern, 25 MHz Notch Centered Around 250 MHz)
- Single Tone
 - SFDR Baseband:
 - 69 dBFS at Fs = 1.2 Gsps and Fout = 25 MHz
 - 69 dBFS at Fs = 1.2 Gsps and Fout = 575 MHz
 - SFDR in Third Nyquist Zone:
 - 63 dBFS at Fs = 1.2 Gsps and Fout = 1650 MHz with Fout = Fs + 450 MHz Image Frequency
- Multi-tone
 - Eight-tone IMD: 70 dBFS at Fs = 1.2 Gsps and 500 MHz Baseband
- Total Power Dissipation = 3.6W

Applications

- Direct Digital Synthesis (DDS) for Broadband Applications
- Automatic Test Equipment (ATE)
- Instrumentation: Arbitrary Waveform Generator Screening

Screening

- Temperature Range:
 - C grade: 0°C < Tc; Tj < 90°C
 - V grade: -40°C < Tc, Tj < 110°C

Description

The TS86101G2B is a 10-bit 1.2 Gsps DAC with an integrated 4:1 multiplexer, allowing easy interfacing with standard FPGAs. The enhanced linearity and Noise Power Ratio (NPR) performance (9.5 bits equivalent at 1.2 Gsps) and over 550 MHz instantaneous bandwidth make this product particularly suitable for high-end applications such as arbitrary waveform generators and broadband DDS systems.



**4:1 10-bit
1.2 Gsps
MUX-DAC**

TS86101G2B

Summary

For more information please contact
hotline-bdc@gfo.atmel.com

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This is a summary document. A complete document is not available at this time. For more information, please contact your local Atmel sales office.



Atmel Corporation

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 487-2600

Regional Headquarters

Europe

Atmel Sarl
Route des Arsenalux 41
Case Postale 80
CH-1705 Fribourg
Switzerland
Tel: (41) 26-426-5555
Fax: (41) 26-426-5500

Asia

Room 1219
Chinachem Golden Plaza
77 Mody Road Tsimshatsui
East Kowloon
Hong Kong
Tel: (852) 2721-9778
Fax: (852) 2722-1369

Japan

9F, Tonetsu Shinkawa Bldg.
1-24-8 Shinkawa
Chuo-ku, Tokyo 104-0033
Japan
Tel: (81) 3-3523-3551
Fax: (81) 3-3523-7581

Atmel Operations

Memory

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 436-4314

Microcontrollers

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 436-4314

La Chantrerie
BP 70602
44306 Nantes Cedex 3, France
Tel: (33) 2-40-18-18-18
Fax: (33) 2-40-18-19-60

ASIC/ASSP/Smart Cards

Zone Industrielle
13106 Rousset Cedex, France
Tel: (33) 4-42-53-60-00
Fax: (33) 4-42-53-60-01

1150 East Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906, USA
Tel: 1(719) 576-3300
Fax: 1(719) 540-1759

Scottish Enterprise Technology Park
Maxwell Building
East Kilbride G75 0QR, Scotland
Tel: (44) 1355-803-000
Fax: (44) 1355-242-743

RF/Automotive

Theresienstrasse 2
Postfach 3535
74025 Heilbronn, Germany
Tel: (49) 71-31-67-0
Fax: (49) 71-31-67-2340

1150 East Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906, USA
Tel: 1(719) 576-3300
Fax: 1(719) 540-1759

Biometrics/Imaging/Hi-Rel MPU/ High Speed Converters/RF Datacom

Avenue de Rochepleine
BP 123
38521 Saint-Egreve Cedex, France
Tel: (33) 4-76-58-30-00
Fax: (33) 4-76-58-34-80

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www.atmel.com/literature

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