



GS2964 Short Reach Adaptive Cable Equalizer

Features

- SMPTE 424M, SMPTE 292M and SMPTE 259M compliant
- Automatic cable equalization
- Multi-standard operation from 19Mb/s to 2.97Gb/s
- Performance optimized for 270Mb/s, 1.485Gb/s and 2.97Gb/s. Maximum guaranteed equalized length of Belden 1694A cable:
 - ♦ 50m at 2.97Gb/s (0.4UI maximum)
 - ♦ 50m at 1.485Gb/s (0.25UI maximum)
 - ♦ 50m at 270Mb/s (0.2UI maximum)
- Supports DVB-ASI at 270Mb/s
- Manual bypass (useful for low data rates with slow rise/fall times)
- Single 3.3V power supply operation
- 150mW power consumption (typical)
- Small footprint QFN package (4mm x 4mm)
 - ♦ Drop-in compatible with GS2974
- Pb-free and RoHS compliant

Applications

- SMPTE 424M, SMPTE 292M and SMPTE 259M coaxial cable serial digital interfaces

Description

The GS2964 is a high-speed BiCMOS integrated circuit designed to equalize and restore signals received over 75Ω coaxial cable.

The device is designed to support SMPTE 424M, SMPTE 292M and SMPTE 259M, and is optimized for performance at 1.485Gb/s and 2.97Gb/s.

The GS2964 features DC restoration to compensate for the DC content of SMPTE pathological test patterns.

The Carrier Detect output pin ($\overline{CD}$) indicates whether a valid input signal has been detected. It can be connected directly to the MUTE pin to mute the output on loss of carrier.

The equalizing and DC restore stages are disengaged when the BYPASS pin is HIGH. No equalization occurs in Bypass mode.

The differential outputs can be DC-coupled to Gennum 3.3V cable drivers and reclockers and to industry-standard 3.3V CML logic.

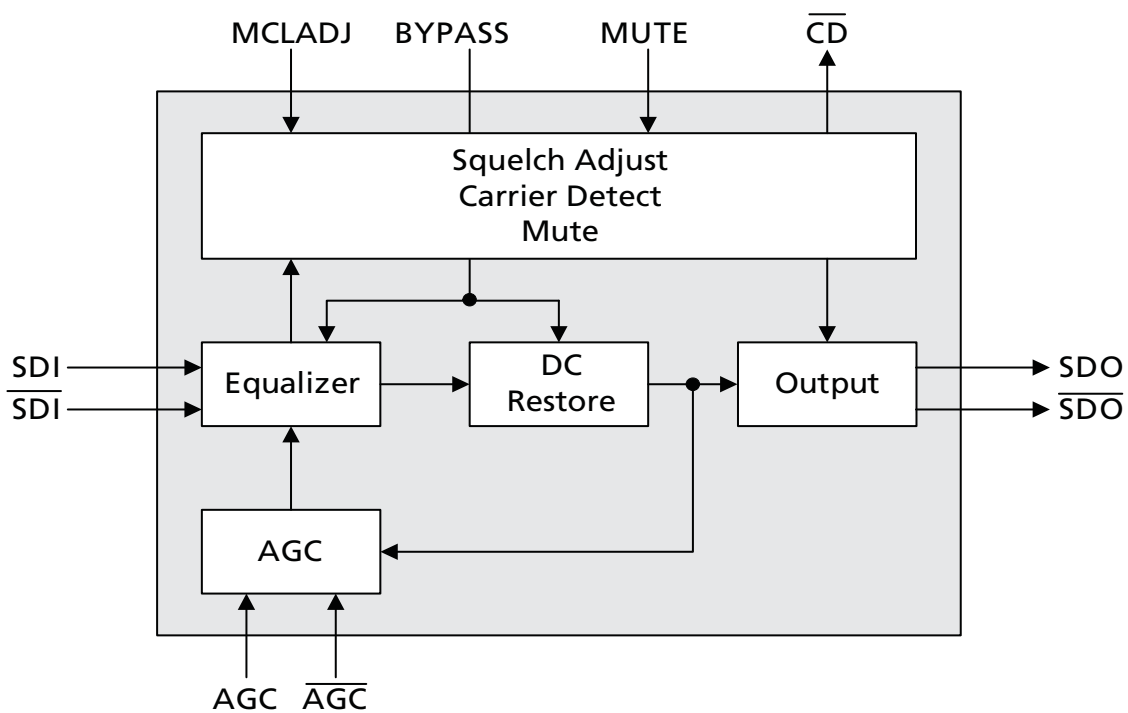
The GS2964 is footprint and drop-in compatible with existing GS2974 designs, with no additional application changes required.

The device is available in a 16-pin, 4mm x 4mm QFN package.

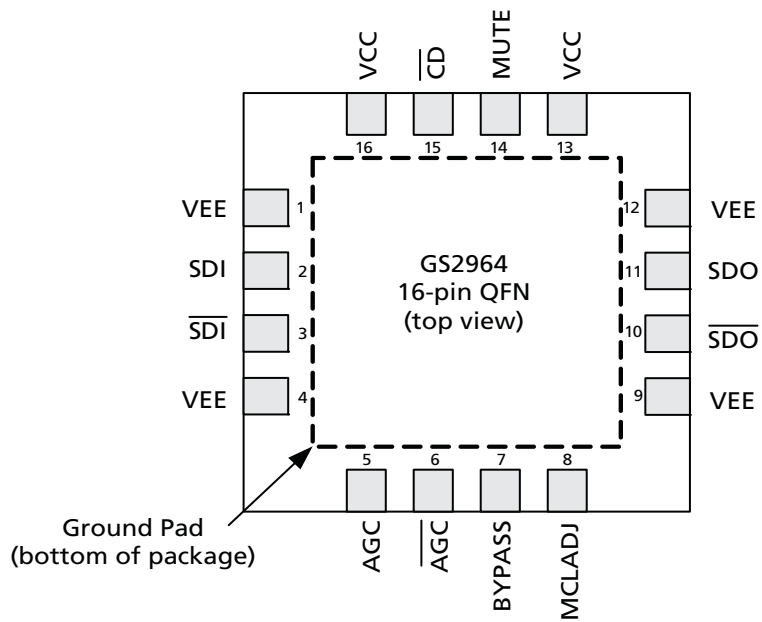
Power consumption of the GS2964 is typically 150mW.

The GS2964 is Pb-free, and the encapsulation compound does not contain halogenated flame retardant.

This component and all homogeneous subcomponents are RoHS compliant.



GS2964 Functional Block Diagram



GS2964 Pin Out

Revision History

Version	ECR	PCN	Date	Changes and/or Modifications
A	150290	–	August 2008	New document.

DOCUMENT IDENTIFICATION PRODUCT BRIEF

The product is in a development phase and specifications are subject to change without notice. Gennum reserves the right to remove the product at any time. Listing the product does not constitute an offer for sale.

CAUTION

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GENNUM CORPORATION

Mailing Address: P.O. Box 489, Station A, Burlington, Ontario L7R 3Y3 Canada
Street Addresses: 4281 Harvester Road, Burlington, Ontario L7L 5M4 Canada
Phone: +1 (905) 632-2996 Fax: +1 (905) 632-2055
Email: corporate@gennum.com www.gennum.com

OTTAWA DESIGN CENTRE

232 Herzberg Road, Suite 101
Kanata, Ontario K2K 2A1
Canada

Phone: +1 (613) 270-0458
Fax: +1 (613) 270-0429

UNITED KINGDOM DESIGN CENTRE

North Building, Walden Court
Parsonage Lane,
Bishop's Stortford Hertfordshire, CM23 6DB
Great Britain

Phone: +44 (1279) 714170
Fax: +44 (1279) 714171

JAPAN KK

Shinjuku Green Tower Building 27F
6-14-1, Nishi Shinjuku
Shinjuku-ku, Tokyo, 160-0023
Japan

Phone: +81 (03) 3349 5501
Fax: +81 (03) 3349 5505
Email: gennum-japan@gennum.com
Web Site: <http://www.gennum.co.jp>

SNOWBUSH IP - A DIVISION OF GENNUM

439 University Ave. Suite 1700
Toronto, Ontario M5G 1Y8
Canada

Phone: +1 (416) 925-5643
Fax: +1 (416) 925-0581

Web Site: <http://www.snowbush.com>

AGUASCALIENTES PHYSICAL DESIGN CENTER

Venustiano Carranza 122 Int. 1
Centro, Aguascalientes
Mexico CP 20000

Phone: +1 (416) 848-0328

GERMANY

Niederlassung Deutschland
Stefan-George-Ring 29
81929 München, Germany

Phone: +49 89 309040 290
Fax: +49 89 309040 293
Email: gennum-germany@gennum.com

UNITED STATES - WESTERN REGION

Bayshore Plaza
2107 N 1st Street, Suite #300
San Jose, CA 95131
United States

Phone: +1 (408) 392-9430
Fax: +1 (408) 392-9404

UNITED STATES - EASTERN REGION

4281 Harvester Road
Burlington, Ontario L7L 5M4
Canada

Phone: +1 (905) 632-2996
Fax: +1 (905) 632-2055

TAIWAN

6F-4, No.51, Sec.2, Keelung Rd.
Sinyi District, Taipei City 11502
Taiwan R.O.C.

Phone: (886) 2-8732-8879
Fax: (886) 2-8732-8870

KOREA

8F, Jinnex Lakeview Bldg.
65-2, Bangidong, Songpagu
Seoul, Korea 138-828

Phone: +82-2-414-2991
Fax: +82-2-414-2998

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Наши контакты:

Телефон: +7 812 627 14 35

Электронная почта: sales@st-electron.ru

Адрес: 198099, Санкт-Петербург,
Промышленная ул, дом № 19, литера Н,
помещение 100-Н Офис 331