



## GS2988 Multi-Rate Dual-Slew-Rate Cable Driver

### Features

- SMPTE 424M, SMPTE 292M and SMPTE 259M compliant
- Supports DVB-ASI at 270Mb/s
- Supports data rates from 270Mb/s to 2.97Gb/s
- Wide common-mode range input buffer
  - ◆ 100mV sensitivity
  - ◆ supports DC coupling to industry-standard differential logic
  - ◆ on-chip 100Ω differential data input termination
- Input signal trace equalization
- Differential coaxial-cable-driving outputs
  - ◆ selectable slew rates
  - ◆ adjustable output swing from 500mV<sub>pp</sub> to 1800mV<sub>pp</sub>
  - ◆ DISABLE control
- Robust output signal presence function
- Excellent output eye quality
- Power supply operation at 3.3V or 2.5V
- 125mW power consumption (2.5V supply)
- Operating temperature range: -40°C to +85°C
- Small footprint QFN package (4mm x 4mm)
  - ◆ Drop-in compatible to the GS2978
- Pb-free and RoHS compliant

### Applications

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

### Description

The GS2988 is a high-speed BiCMOS integrated circuit designed to drive one to two 75Ω coaxial cables.

The GS2988 may drive data rates up to 2.97Gb/s and provides two selectable slew rates in order to achieve compliance to SMPTE 424M, SMPTE 292M and SMPTE 259M.

The GS2988 accepts industry-standard differential input levels including LVPECL and CML.

Input trace equalization compensates for up to 10 inches of FR4 trace loss. This feature can be disabled using the  $\overline{\text{EQ\_EN}}$  pin.

The  $\overline{\text{DISABLE}}$  pin powers-down the output driver, leaving the serial data output in a high-impedance state.

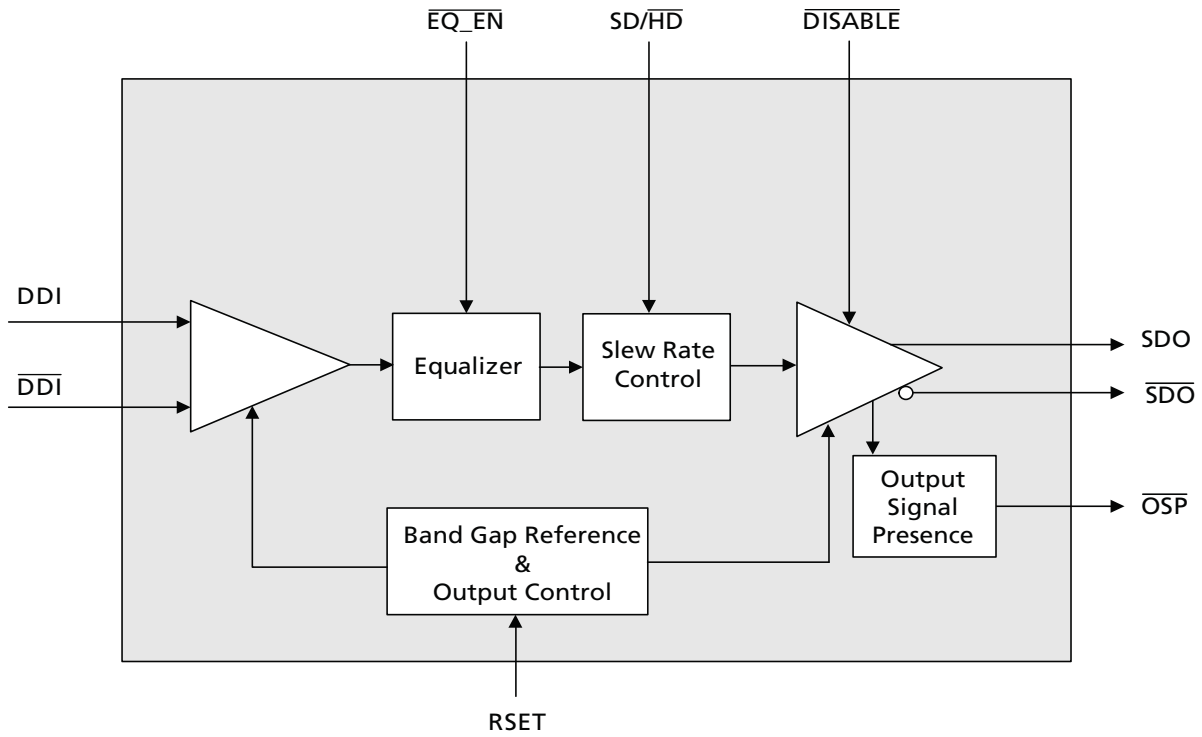
The GS2988 features adjustable output swing using an external bias resistor. The single-ended output swing is adjustable from 500mV<sub>pp</sub> to 1800mV<sub>pp</sub>.

An output signal presence function, the  $\overline{\text{OSP}}$  pin, indicates whether an active signal is present at the output of the GS2988.

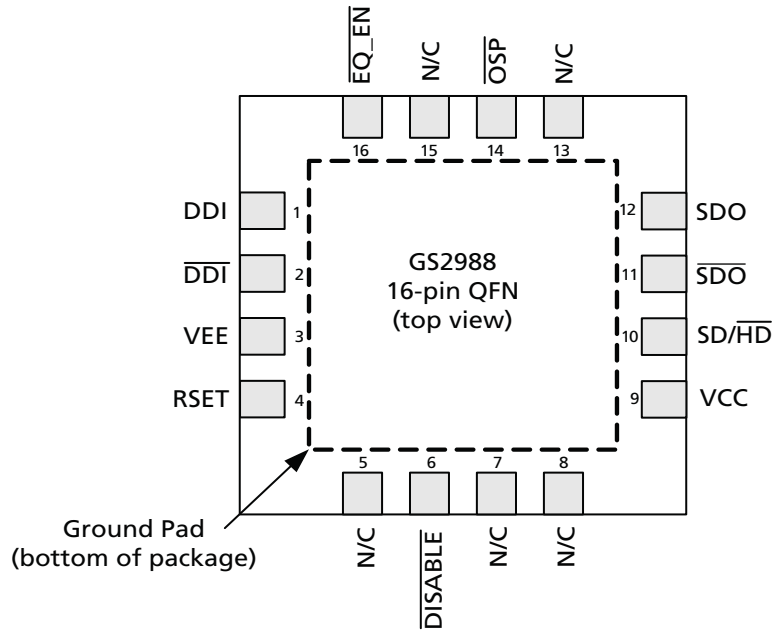
The GS2988 can be powered from either a 3.3V or a 2.5V supply. Power consumption is typically 125mW using a 2.5V power supply.

The GS2988 is Pb-free, and the encapsulation compound does not contain halogenated flame retardant.

This component and all homogeneous subcomponents are RoHS compliant.



GS2988 Functional Block Diagram



GS2988 Pin Out

## Revision History

Version	ECR	PCN	Date	Changes and/or Modifications
C	152036	-	June 2009	Removed 'Proprietary & Confidential' from document footer.
B	151791	-	May 2009	Updates.
A	150291	-	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

ELECTROSTATIC SENSITIVE DEVICES  
DO NOT OPEN PACKAGES OR HANDLE EXCEPT AT A  
STATIC-FREE WORKSTATION



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