

# M08048

DEVICE OVERVIEW

## 3G/HD/SD Serial Digital Video Cable Driver With Dual Outputs

The M08048 is a high-speed, low-power, low-jitter cable driver that is designed to drive serial digital video data through commonly used bandwidth-limiting 75Ω coaxial cable applications. The device is optimized for data rates at 2.97 Gb/s, 1.485 Gb/s, and 270 Mb/s to support serial digital video transmission for standard definition (525i and 625i) and high definition (720p, 1080i, and 1080p) component video. The M08048 also supports 8-bit or 10-bit component digital video (RGB or YCbCr 4:4:4 sampled and YCbCr 4:2:2 or 4:2:0 sampled).

The M08048 has selectable slew rates for HD and SD applications. The typical output rise/fall time of the device is 100 ps at 2.97 Gb/s and 1.485 Gb/s, and 600 ps at 270 Mb/s. It also supports a maximum single ended output swing of 1600 mVp-p with appropriate configurations which can be used in cascade applications.

The M08048 is packaged in a new high performance 3x3 mm<sup>2</sup> QFN package to simplify the PCB and reduce package parasitics which provides improvements in Output Return Loss (ORL). The device is available in a RoHS compliant package, which is backwards compatible with standard JEDEC SnPb processes.

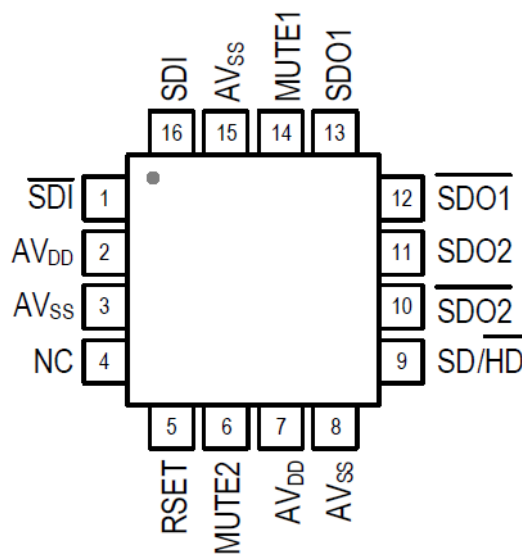


Figure 1 – M08048 Pin-out diagram



### M08048

Serial Digital Video Cable Driver with Dual Outputs for 2.97 Gb/s, 1.485 Gb/s, and 270 Mb/s data rates

#### > Applications

- Surveillance / CCTV Cameras
- Industrial and Professional Cameras
- Digital Video Recorders (DVR)
- Video Mixers and Switchers
- Digital Image Transmitter Devices
- Distribution Amplifiers
- Repeaters

Features	Benefits
Dual differential outputs with individual mute control	High speed outputs with low cost integration
Optimized data rates at 270 Mb/s, 1.485 Gb/s, and 2.97 Gb/s	Single Chip Solution for multiple data rates
800 mVp-p single ended output swing (typical) and 1600 mVp-p maximum single ended output swing	Offers router cascade applications through output splitting
Output disable control	Power down capability when not in use
Slew rate control	Application specific 3G/HD and SD operations
2.5V or 3.3V power supply	Standard voltage supply supported
Small form factor and foot print (3x3 mm <sup>2</sup> , 16-pin QFN package)	Industry standard package
Low power dissipation (122mW at 2.5V, 144mW at 3.3V)	Low power and thermal management costs
Extended operating temperature range: -10°C to +85 °C	Provides additional margin for various applications

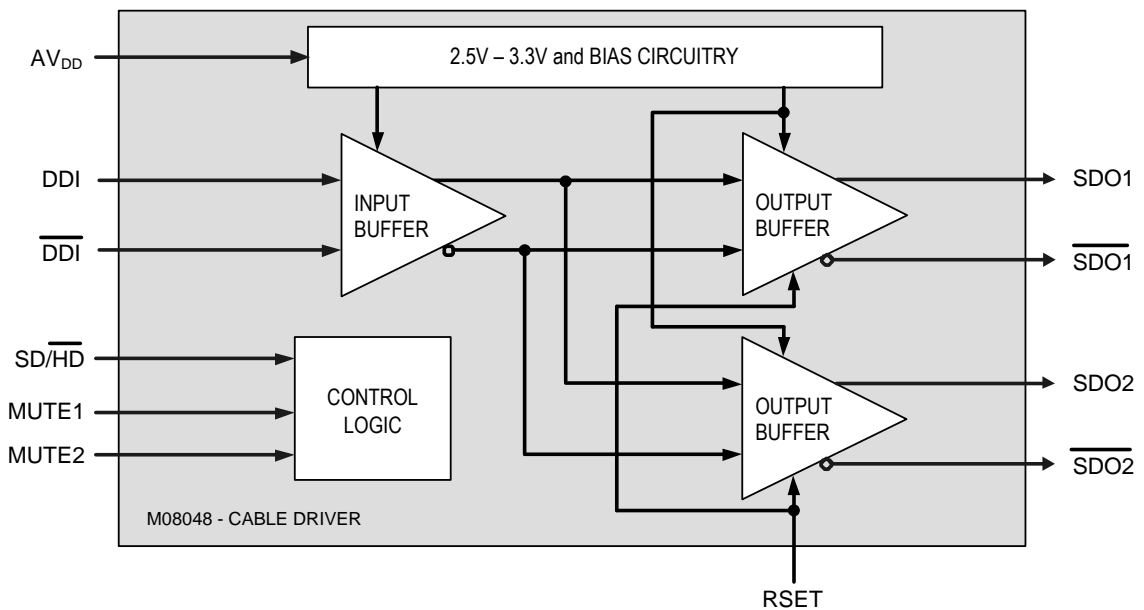


Figure 2 – M08048 Functional Block Diagram

### Package (RoHS Compliant)

- 3x3 mm<sup>2</sup>, 16-pin QFN



For more product information, please visit [www.mindspeed.com](http://www.mindspeed.com)



[www.mindspeed.com/salesoffices](http://www.mindspeed.com/salesoffices)  
 General Information: (949) 579-3000  
 Headquarters – Newport Beach  
 4000 MacArthur Blvd., East Tower  
 Newport Beach, CA 92660-3007

© 2011 Mindspeed Technologies, Inc. All rights reserved. Mindspeed and the Mindspeed logo are trademarks of Mindspeed Technologies. All other trademarks are the property of their respective owners. Although Mindspeed Technologies strives for accuracy in all its publications, this material may contain errors or omissions and is subject to change without notice. This material is provided as is and without any express or implied warranties, including merchantability, fitness for a particular purpose and non-infringement. Mindspeed Technologies shall not be liable for any special, indirect, incidental or consequential damages as a result of its use.