

M08038

DEVICE OVERVIEW

3G/HD/SD Serial Digital Video Cable Driver

The M08038 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 M08038 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 M08038 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 M08038 is packaged in a new high performance 4x4 mm² 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.

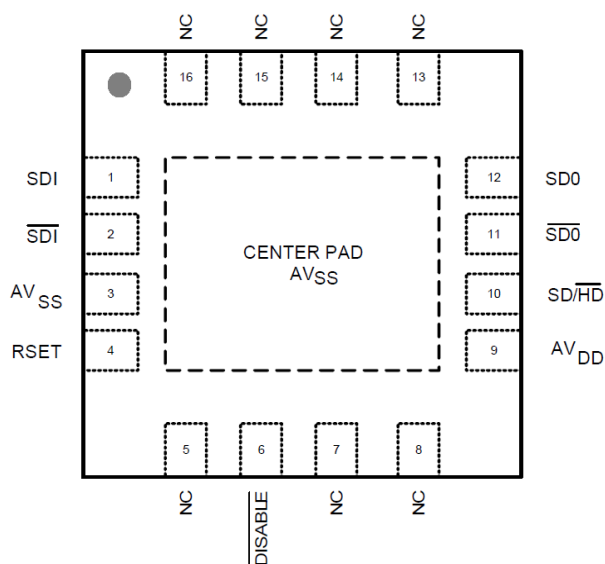


Figure 1 – M08038 Pin-out diagram



M08038

Serial Digital Video
Cable Driver 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
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
Single 3.3V power supply	Standard voltage supply supported
Small form factor and foot print (4x4 mm ² , 16-pin QFN package)	Industry standard package
Low power dissipation (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

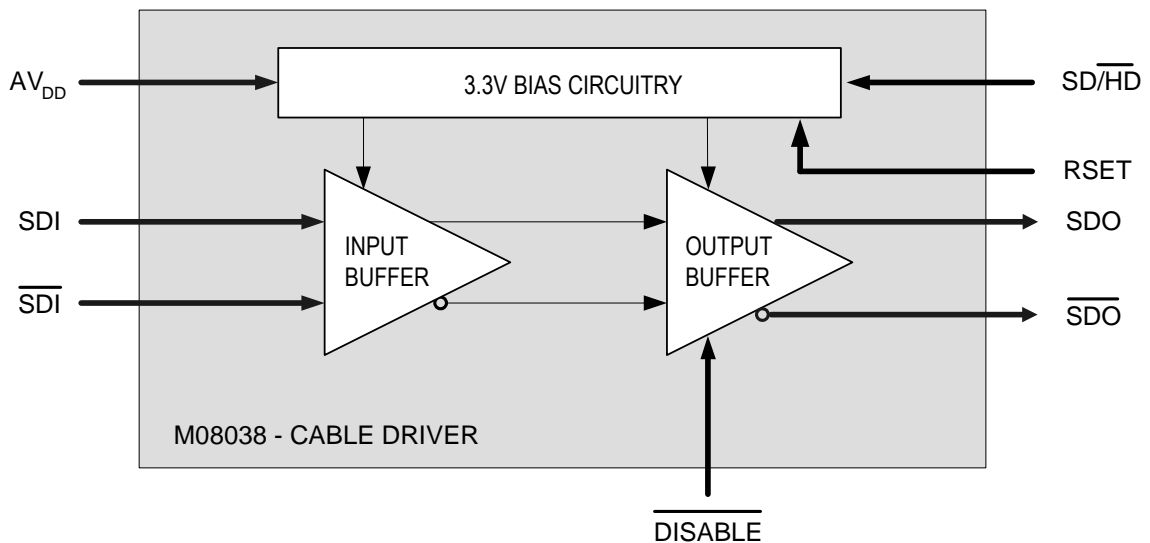


Figure 2 – M08038 Functional Block Diagram

Package (RoHS Compliant)

- 4x4 mm², 16-pin QFN



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