

## M21328 3G/HD/SD SDI MLF Compatible Cable Driver

### Product Overview

#### 3G/HD/SD SDI MLF Compatible Cable Driver

The M21328 is a high-speed, low-power, low-jitter cable driver. It is designed to drive serial digital video data through 75Ω coaxial cable typically used in SMPTE and DVB-ASI video applications. The M21328 cable driver is optimized for performance from 143 Mbps up to 2970 Mbps. It has selectable slew rates for SD and 3G/HD applications.

The typical output rise/fall time of the M21328 is 100 ps for HD and 2xHD rates. It has a typical set slew rate of 600 ps at SD rates. The default output voltage swing is compliant with SMPTE 292M, 259M, 344M and 424M using a 750Ω ±1% resistor.

The M21328 device is packaged in a new high performance 4x4 mm MLF package to simplify the PCB and reduce package parasitics with resulting improvements in Output Return Loss (ORL). It is available in an RoHS compliant package, that is backwards compatible with standard JEDEC SnPb processes.

The M21328 is pin compatible with the GS2978 by supporting a 2.97 Gbps data rate and it also fits into the footprints for GS9078, GS1578, LMH0302, LMH0001, and LMH0002.

| Features   | Benefits   |
|--|--|
| <ul style="list-style-type: none"> <li>2xHD, HD and SD operation</li> </ul>                                  |  |
| <ul style="list-style-type: none"> <li>SMPTE 424M, 292M, 344M, 259M compliant, DVB-ASI (270 Mbps)</li> </ul> | Robust standard compliant cable drivers                |
| <ul style="list-style-type: none"> <li>800 mVp-p single ended output swing (typical)</li> </ul>              | SMPTE compliant swing supporting cable reach           |
| <ul style="list-style-type: none"> <li>3.3V Supply</li> </ul>  | Standard Industry Rail supported                       |
| <ul style="list-style-type: none"> <li>SD/HD Slew Rate control</li> </ul>                                    | Enables automatic selection of slew rate               |
| <ul style="list-style-type: none"> <li>Extended temp. range: -10°C to 85°C</li> </ul>                        | Provides higher tolerance and additional design margin |
| <ul style="list-style-type: none"> <li>Low PDISS (144 mW @ 3.3V)</li> </ul>                                  | Margin for Power Budget                                |
| <ul style="list-style-type: none"> <li>Output disable</li> </ul>   | Power Down capability when not in use                  |



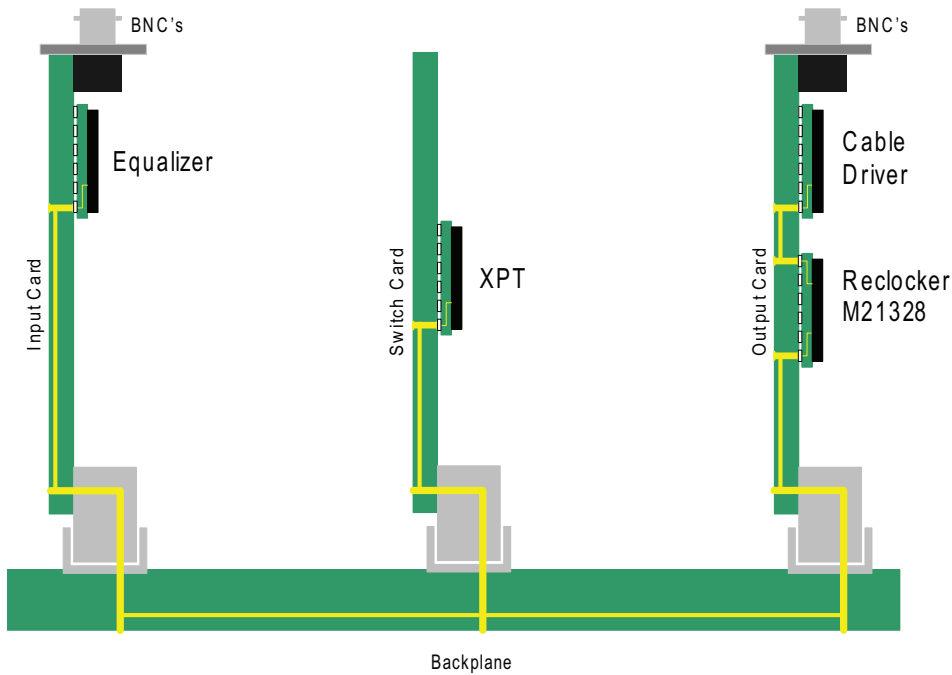


Fig. 1 - Routing Switcher Application Diagram

## Product Features

### Applications

- Serial Routing Switchers
- Production/Master Control Switchers
- Distribution Amplifiers
- Broadcast video applications
- SMPTE Coaxial Cable Interface

### Standards Compliance

- SMPTE 424M, 259M, 292M, 344M
- Supports DVB-ASI (270 Mbps)

### Package (RoHS Compliant)

- 4x4 mm, 16-pin ML

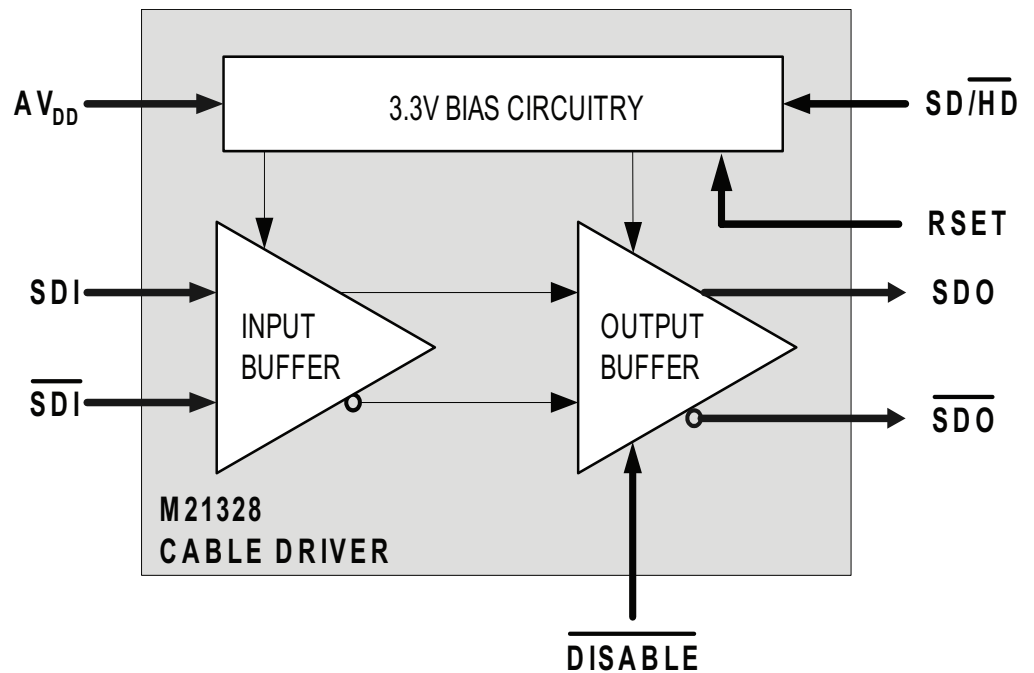


Fig. 2 - Block Diagram (M21328 Cable Driver)

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

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Ordering Info:  
 M21328G-12