

## M08026

## **HD/SD Serial Digital Video Cable Equalizer**

The M08026 is a high-speed, low-power, adaptive co-axial cable equalizer designed to increase the maximum low-jitter transmission distance of serial digital video signals across commonly used bandwidth-limiting  $75\Omega$  coaxial cable.

The M08026 is designed for data rates at 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 device 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).

This device automatically optimizes the transfer function based on the bit rate and cable length to minimize the inter-symbol interference (ISI) jitter caused by the cable and to remove the DC offset components introduced with the pathological video pattern and AC coupling in systems.

The low-noise, high-gain equalizer allows for low jitter HD transmissions up to a length of 200m (Belden 1694A) and 120m (Belden 8281). For SD data rate, cable lengths up to 400m (Belden 1694A) and 300m (Belden 8281) are supported.

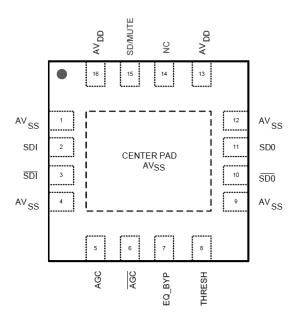


Figure 1 - M08026 Pin-out diagram



| Features   | Benefits  |
|--|---|
| Adaptive cable equalization  | Design flexibility and control                      |
| Optimized data rates at 270 Mb/s to 1.485 Gb/s   | Single Chip Solution for multiple data rates        |
| Allows typical equalized length of up to 200m (Belden 1694A) and 120m (Belden 8281) for transmission at 1.485 Gb/s | Extend industry standard cable lengths              |
| Allows typical equalized length of up to 400m (Belden 1694A) and 300m (Belden 8281) for transmission at 270 Mb/s   | Extend industry standard cable lengths              |
| Mute and manual bypass mode  | Supports non standard rates                         |
| Differential CML outputs (50 $\Omega$ on-chip terminations)  | Low cost integration                                |
| Single 3.3V power supply   | Standard voltage supply supported                   |
| Small form factor and foot print (4x4 mm², 16-pin QFN package)   | Industry standard package                           |
| Low power dissipation  | Low power and thermal management costs              |
| Extended operating temperature range: -10°C to +85 °C  | Provides additional margin for various applications |

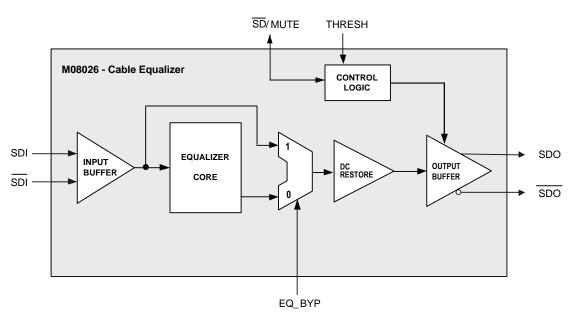


Figure 2 – M08026 Functional Block Diagram

## **Package (RoHS Compliant)**

• 4x4 mm², 16-pin QFN



For more product information, please visit www.mindspeed.com



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