



## 3G, HD & SD Dual-Output Cable Equalizer

# M21424

The M21424 is high-speed, low-power, adaptive co-axial cable equalizers designed to increase the maximum low jitter transmission distance of serial digital interface (SDI) video signals and DVB-ASI across commonly used bandwidth-limiting 75Ω coaxial cable. These devices automatically optimize their transfer function based on the bit rate and cable length to minimize the inter-symbol interference (ISI) jitter caused by the cable as well as remove the DC offset components introduced with the pathological test pattern and AC coupling in systems.

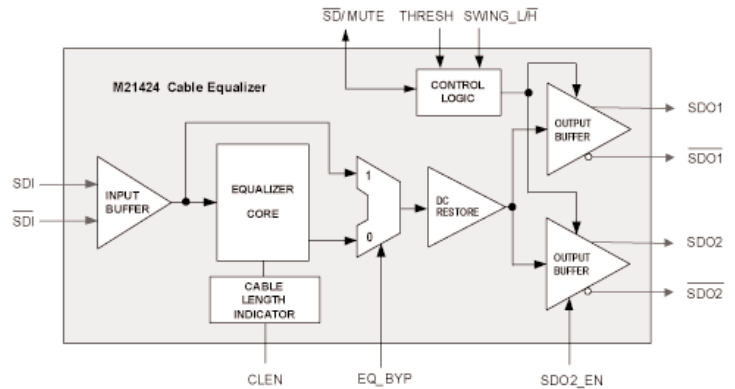
The M21424 is designed to support SMPTE 292M, 259M, 344M and 424M at 3G, HD and SD data rates between 143 Mbps and 2970 Mbps.

The low-noise, high-gain equalizer allows for low jitter 3G transmissions up to 100m (Belden 1694A) and HD transmissions up to a length of 175m (Belden 1694A) and 120m (Belden 8281). For SD data rates, cable lengths up to 400m (Belden 1694A) and 300m (Belden 8281) are supported.

The M21424 further complements Mindspeed's 3G, HD, SD video and crosspoint families. The M21428 dual-output cable driver and the M21250 quad video reclocker are optimized for multi-rate applications including video standards between 42 Mbps to 2.97 Gbps

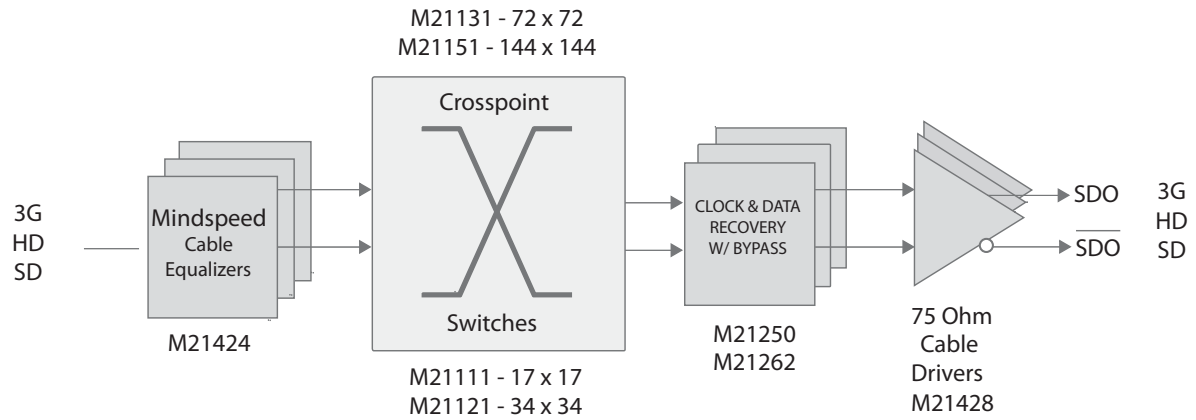
### Key Features

- > SMPTE/DVB-ASI compliant at 3G, HD and SD
- > Enabled for second CML output
- > Dual CML outputs, with selectable high amplitude
- > Low power dissipation
- > Improved distance: cable EQ up to 400m SD, 175m HD, 100m 3G
- > RoHS compliant package
- > Extended temperature range: -10°C to 85 °C

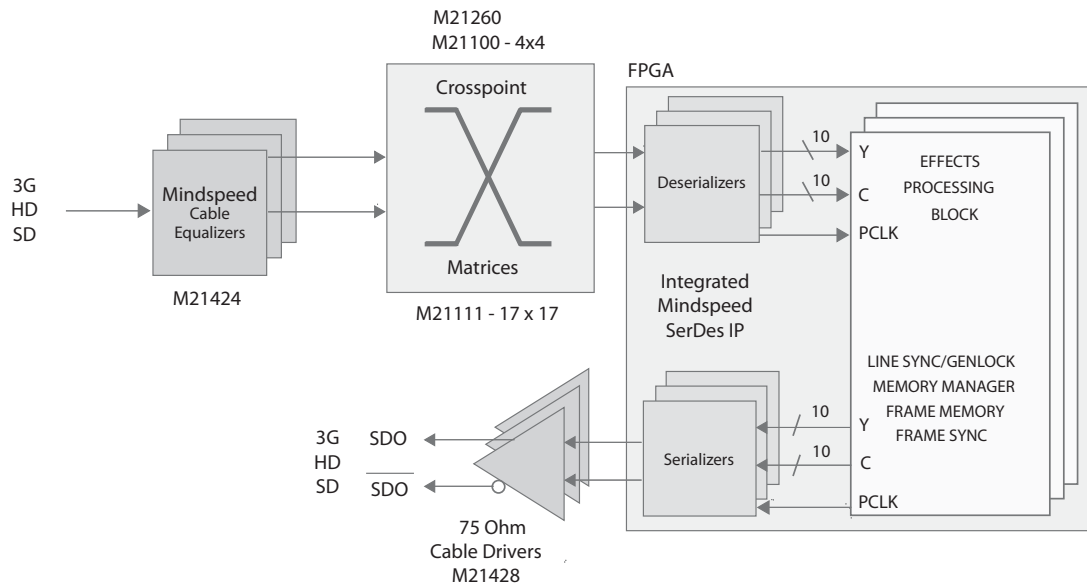


M21424 Block Diagram





3G/H/SD Routing Switcher Application



3G/H/SD Production & Master Control Switcher Application

## Product Features

### Applications

- SMPTE Coaxial Cable Interface
- Studio video applications
- Broadcast video applications
- Distribution video applications

### Standards Compliance

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

### Ordering Information

M21424G-11P, 32-pin MLF (RoHS compliant), 143 - 2970 Mbps

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