

## Next Generation High Performance Analog Broadcast Video Solutions

# M21212 HD/SD Broadcast Video Co-axial Cable Driver

The M21212 is a next generation high performance analog HD/SD video co-axial cable driver solution that is pin-to-pin, electrically, and functionally compatible with existing legacy single channel cable drivers.

Superior next generation cable driving and output return loss (ORL) performance of the M21212 is complemented with a complete serial routing chipset that includes equalization (M21214) and reclocking (M21215) devices. These new devices further complement Mindspeed's unique HD/SD quad channel reclocking and asynchronous switching devices:

- M21250, M21251, M21252 quad channel multi-rate video reclockers
- M21260 4x4 1.6 Gbps video crosspoint switch with quad multi rate reclockers
- M21261 1:4 1.6 Gbps video fanout with HD/SD multi-rate reclocking
- M21262 4:1 1.6 Gbps video selector with HD/SD multi-rate reclocker

In addition to being drop in compatible with the GS1528 multi-rate SDI dual slew-rate cable driver, the M21212 provides enhanced performance such as improved differential input sensitivity (100mVpp to 2000mVpp) and a typical device output return loss (ORL) of 20dB for easier board development and increased margin or headroom to the SMPTE specs.

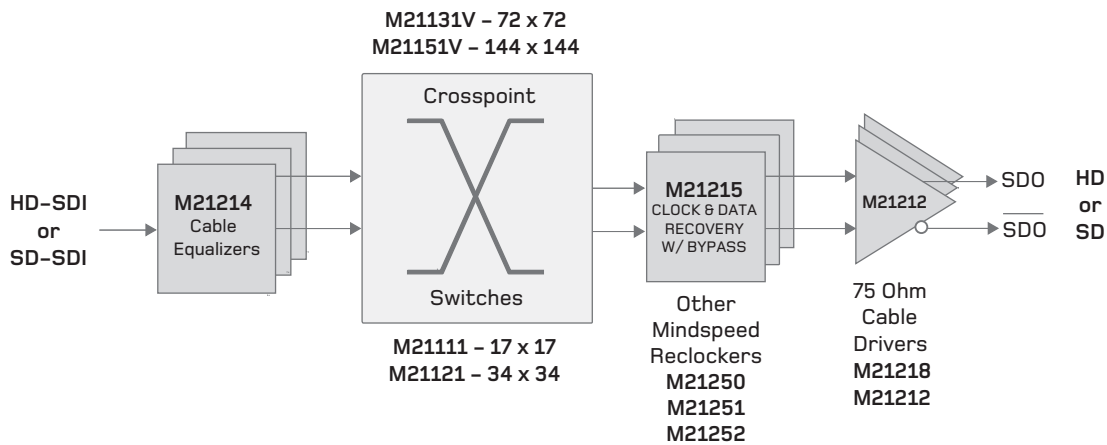
### KEY FEATURES

- SMPTE 292M, SMPTE 259M, SMPTE 344M compliant
- Supports data rate operation of 143, 177, 270, 360, 540, 1483.5/1485 Mbps and DVB-ASI at 270 Mbps
- Fully differential signal paths
- LVPECL compatible input
- HD/SD Slew rate control input
- Pin-to-pin, electrically, and functionally compatible with M21218, GS1528/1528A
- 2.5V or 3.3V Operation
- Reduced power dissipation
  - 90mW typical @ 2.5V
  - 120mW typical @ 3.3V
- 100mVp-p differential input voltage sensitivity
- Increased operating temperature range: -10°C to +85°C
- 500-1200mVpp output amplitude range

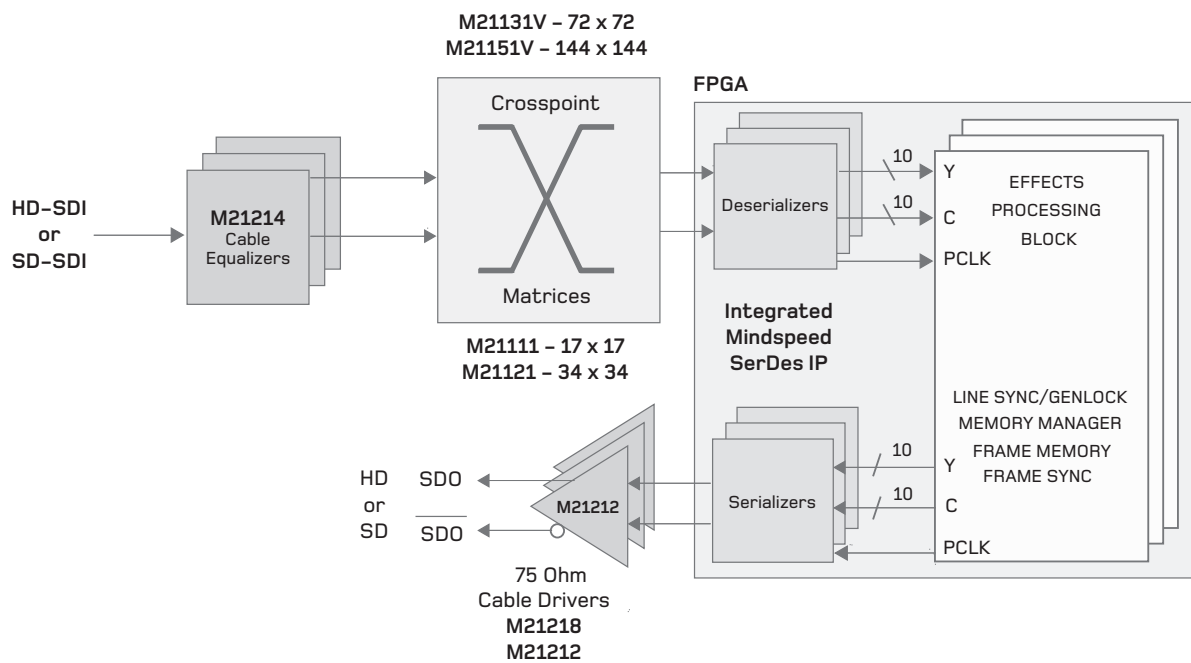
The M21212 is also pin-to-pin compatible with Mindspeed's M21218 cable driver but has a reduced maximum output swing of 1200 mVp-p single ended vs. 1800 mVp-p for the M21218.

Mindspeed's innovative circuit architecture enables next generation systems with flexible power supply operation of 2.5V or 3.3V and a wider operating temperature range (-10° to + 85°C). Power dissipation is significantly reduced @ 3.3V (25%-42% typ/max) with further reductions possible @ 2.5V supply (40%-50% typ/max).





HD/SD Routing Switcher Application



HD/SD Production & Master Control Switcher Application

## Product Features

### Applications

- Small to large serial routing switchers
- Master control switchers
- Productions switchers
- Distribution amplifiers
- SD-SDI processing gear

### Ordering Information

- M21212-14: HD/SD video cable driver  
(143 Mbps – 1600Mbps)
- M21212G-14: HD/SD video cable driver  
(143 Mbps – 1600Mbps)  
[RoHS compliant package]

Package: 8 pin SOIC  
8 pin SOIC [RoHS compliant package]

[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  
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