

## Next Generation High Performance Analog Broadcast Video Solutions

# M21202 SD-SDI Broadcast Video Co-axial Cable Driver

The M21202 is a next generation high performance analog SD-SDI 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 (>20dB) performance of the M21202 is complemented with a complete serial routing chipset that includes equalization (M21204) and reclocking (M21205) devices. These new devices further complement Mindspeed's unique HD/SD and SD-SDI quad channel reclocking and asynchronous switching devices:

- M21252 quad channel multi-rate video reclocker
- 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 GS9068/9068A SD-SDI cable driver, the M21202 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.

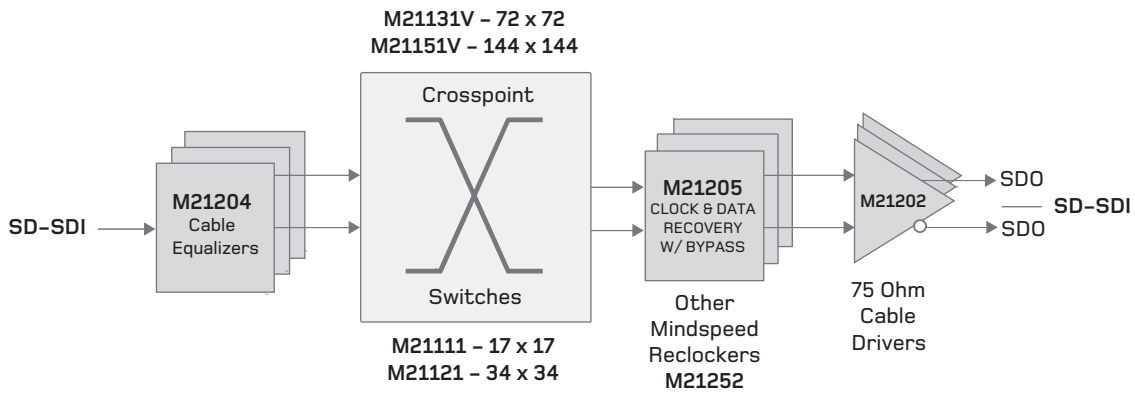
### KEY FEATURES

- > SMPTE 259M and SMPTE 344M compliant
- > Supports data rate operation of 143, 177, 270, 360, 540 Mbps and DVB-ASI at 270 Mbps
- > Fully differential signal paths
- > LVPECL compatible input
- > >20dB output return loss
- > Pin-to-pin, electrically, and functionally compatible with M21212, GS9068, GS9068A
- > 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

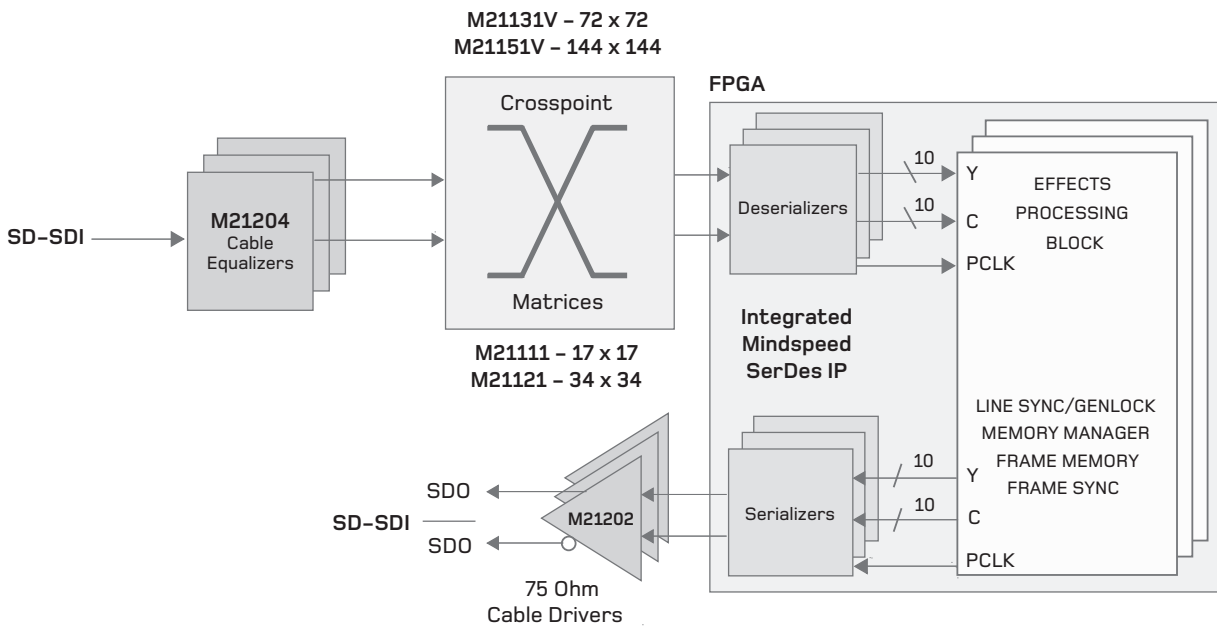
The M21202 is also pin-to-pin compatible with Mindspeed's M21212/21218 cable driver but has a reduced maximum output swing of 1200 mVp-p single ended vs. 1800 mVp-p for the M21218.

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).





SD Routing Switcher Application



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

- M21202-14: SD video cable driver  
(143 Mbps – 540Mbps)
- M21202G-14: SD video cable driver  
(143 Mbps – 540Mbps)  
[RoHS compliant package]

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

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