MINDSPEED
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Next Generation High Performance Analog Broadcast Video Solutions

M21204 SD-SDI Broadcast Video Adaptive Co-Axial Cable Equalizer

The M21204 is a next generation high performance analog SD-SDI video cable adaptive equalizer that provides > 350m Belden 1694A cable length performance in a drop in solution that is pin-to-pin, electrically, and functionally compatible with existing legacy single channel cable equalizers.

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

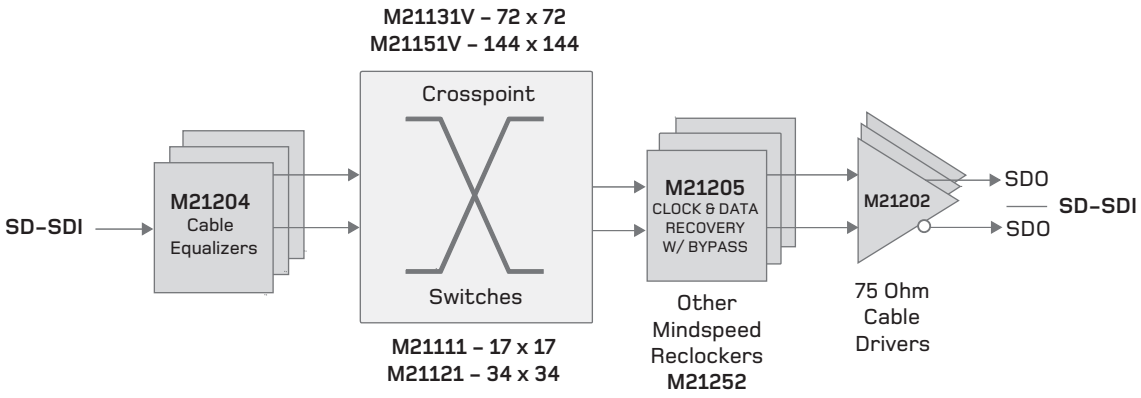
- M21252 quad channel multi-rate SD-SDI video reclocker
- M21260 4x4 1.6 Gbps video crosspoint switch with quad multi-rate reclockers
- M21261 1:4 1.6 Gbps video fanout with HD/SD multi-rate reclocking
- M21262 4:1 1.6 Gbps video selector with HD/SD multi-rate reclocker

DC restoration to compensate for pathological signal DC content, cable length indication for data rates to 360 Mbps, and a voltage programmable mute threshold are included for full compatibility with the GS9064 multi-rate SD-SDI cable equalizer.

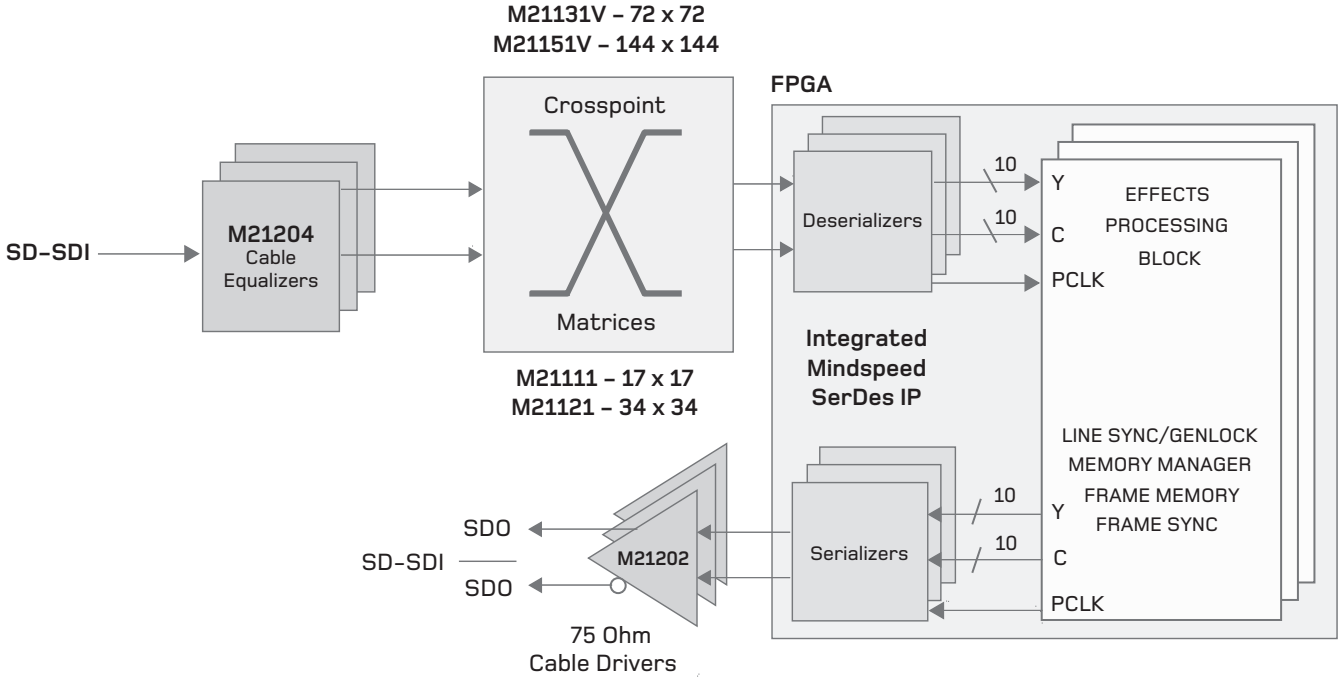
KEY FEATURES

- SMPTE 259M and SMPTE 344M compliant
- Adaptive, multi-rate, and automatic co-axial cable equalization
- Supports operation from 143 Mbps to 540 Mbps and DVB-ASI at 270 Mbps
- Selectable manual BYPASS mode
- Optimized cable equalization for SD and HD data rates
  - 350m typical @ SD-SDI with Belden 1694A
- Output mute at maximum equalized cable length with manual override
- Integrated differential 50 Ω output terminations
- 2.5V or 3.3V operation
- Reduced power dissipation
  - 175mW typical @ 2.5V
  - 230mW typical @ 3.3V
- Increased operating temperature range: -10°C to +85°C
- Pin-to-pin, electrically, and functionally compatible with M21214, GS9064

Mindspeed's innovative circuit architecture enables next generation systems with flexible power supply operation of 2.5V or 3.3V with a 35% power reduction at 2.5V supply rails and a wider operating temperature range (-10°C to +85°C) for outdoor applications such as camcorders and edit decks.



SD Routing Switcher Application



SD Production & Master Control Switcher Application

Product Features

Applications

- Small to large serial routing switchers
- Production and master control switchers
- Non linear editors
- Processing and terminating equipment
- Broadcast video to SONET/SDH, Fibre Channel, or Gigabit Ethernet transport line card/modules for DWDM or CWDM applications
- Distribution amplifiers,
- Backplane reach extension

Additional Features

- Fully SMPTE 259, SMPTE 292, and SMPTE 344 compliant
- Equalizer BYPASS operation

Ordering Information

M21204-15P: SD video cable equalizer (143 Mbps – 540 Mbps)

M21204G-15P: SD video cable equalizer (143 Mbps – 540 Mbps) [RoHS compliant package]

Package: 16 pin narrow SOIC
16 pin narrow SOIC
[RoHS compliant package]

www.mindspeed.com/salesoffices

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