

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

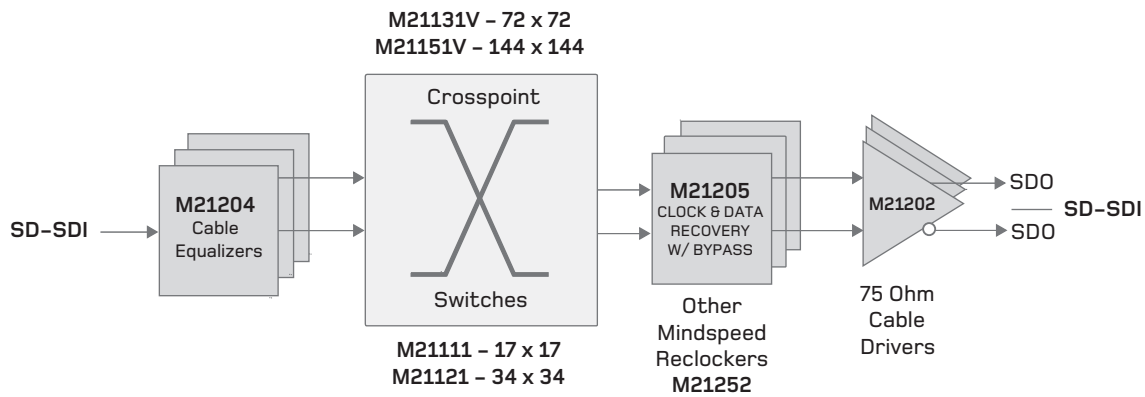
DC restoration to compensate for pathological signal DC content, cable length indication for data rates to 360 Mbps, and a voltage programmable mute threshold are included for full compatibility with the GS9064 multi-rate SD-SDI cable equalizer.

KEY FEATURES

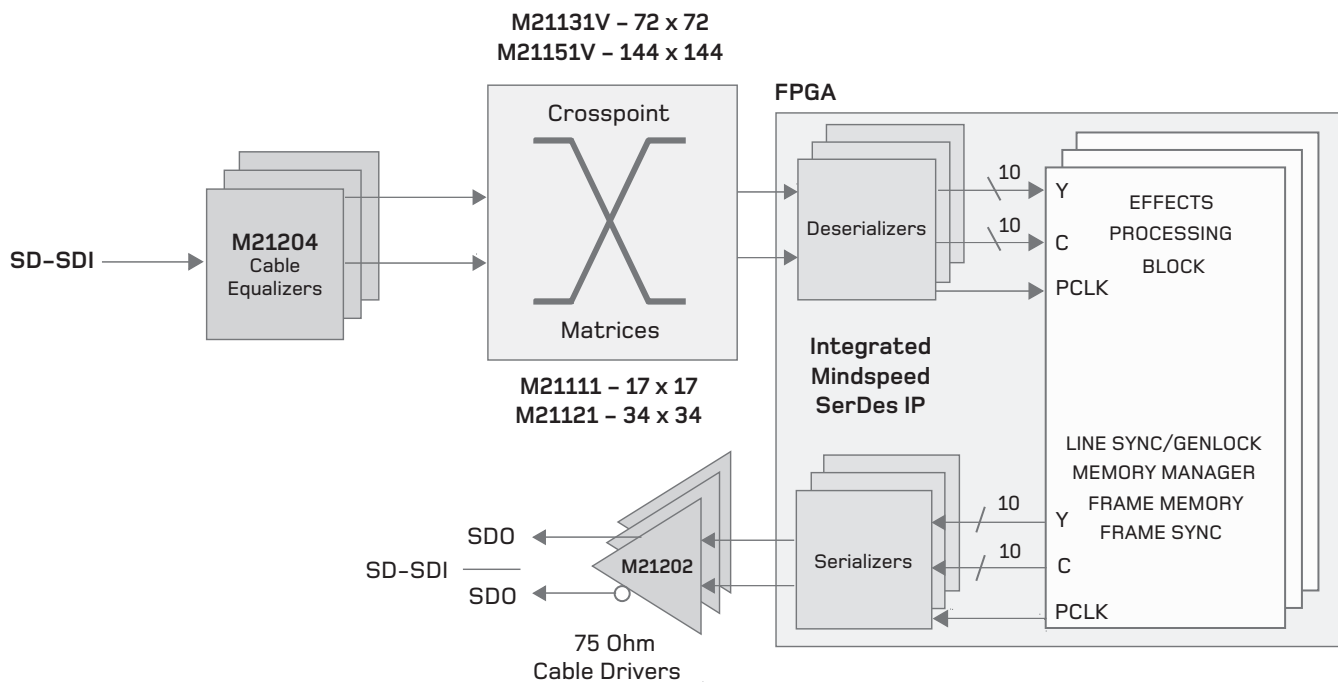
- SMPTE 259M and SMPTE 344M compliant
- Adaptive, multi-rate, and auto-matic co-axial cable equalization
- Supports operation from 143 Mbps to 540 Mbps and DVB-ASI at 270 Mbps
- Selectable manual BYPASS mode
- Optimized cable equalization for SD and HD data rates
 - 350m typical @ SD-SDI with Belden 1694A
- Output mute at maximum equalized cable length with manual override
- Integrated differential 50 Ω output terminations
- 2.5V or 3.3V operation
 - 175mW typical @ 2.5V
 - 230mW typical @ 3.3V
- Reduced power dissipation
- 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
 General Information: (949) 579-3000
 Headquarters – Newport Beach
 4000 MacArthur Blvd., East Tower
 Newport Beach, CA 92660-3007
 12104-BRF-001-B.PDF

© 2005 Mindspeed Technologies™. All rights reserved. Mindspeed and the Mindspeed logo are trademarks of Mindspeed Technologies. All other trademarks are the property of their respective owners. Although Mindspeed Technologies strives for accuracy in all its publications, this material may contain errors or omissions and is subject to change without notice. **This material is provided as is and without any express or implied warranties, including merchantability, fitness for a particular purpose and non-infringement.** Mindspeed Technologies shall not be liable for any special, indirect, incidental or consequential damages as a result of its use.

MINDSPEED
 BUILD IT FIRST™