The M21215 is a next generation high performance analog HD/SD video reclocker solution that is pin-to-pin, electrically, and functionally compatible with existing legacy single channel reclockers.

Superior next generation reclocking/retiming performance of the M21215 is complemented with a complete serial routing chipset that includes equalization (M21214) and cable drivers (M21212/M21218) devices. These new devices further complement Mindspeed's unique HD/SD quad channel relocking and asynchronous switching devices:
- M21250, M21251, M21252 quad channel multi-rate video relockers
- M21260 4x4 1.6Gbps video crosspoint switch with quad multi-rate relockers
- M21261 1:4 1.6 Gbps video fanout with HD/SD multi-rate relocking
- M21262 4:1 1.6 Gbps video selector with HD/SD multi-rate relocker

A robust and proven telecom/datacom reclocker architecture with a custom and proprietary phase detector topology results in exceptional input jitter tolerance well into the high frequency band.

Mindspeed’s innovative circuit architecture enables next generation systems with flexible power supply operation of 2.5V to 3.3V with a >60% max power reduction at 2.5V (50% at 3.3V) supply rails and a wider operating temperature range (-10°C to +85°C).

In addition to being drop in compatible with the legacy GS1535 multi-rate SDI reclocker, the M21215 provides additional functionality using the RSVD pins to provide new features for flexibility in new designs. This includes a 12MHz or 14.140MHz crystal reference frequency selection, auto rate detect search order optimization, additional loop bandwidth control, ability to reduce the output amplitude, and shift the output common mode for DC coupling to LVPECL.
Applications
- Small to large serial routing switchers
- Distribution amplifiers

Additional Features
- Crystal Reference Frequency selection:
  - 12MHz or 14.140MHz
- Auto rate detect sequence optimization
- Loop bandwidth control to 5 MHz
- Output swing amplitude control
- Common mode shift for DC coupling to LVPECL

Ordering Information
M21215–15P: HD/SD video reclocker
[143 Mbps – 1485 Mbps]
M21215G–15P: HD/SD video reclocker
[143 Mbps – 1485 Mbps]
[RoHS compliant package]
Package: 64 pin LQFP
64 pin LFQFP [RoHS compliant package]