embrionix

EB30HDRT-LMR
3Gbps SDI emSFP Coaxial Transceiver
Long reach with Reclockers, MSA, HD-BNC™

Features

- SMPTE 424M, SMPTE 344M, SMPTE 292M and SMPTE 259M compliant

- HD-BNC™ connectors (75Ω)

- Integrated Reclocker and Equalizer:
  - Typical equalized length of Belden 1694A cable: 140m at 2.97Gb/s, 200m at 1.485Gb/s and 400m at 270Mb/s

- Integrated Reclocker and Cable Driver

- Supports DVB-ASI at 270Mb/s

- Supports video pathological patterns for SD-SDI, HD-SDI and 3G-SDI

- Control via serial interface including:
  - Input signal detection
  - Reclocker Rate & Lock
  - Voltage & Temperature Monitoring
  - Bypass Reclocker stage
  - Module Information

- Power Consumption - typical 1216mW

- Single Supply +3.3V
  56.6mm x 13.4mm x 8.6mm SFP Package

- Extended Temperature Range
  -40℃ to 80℃

Summary of Benefits

- **Flexibility:** Build a totally optimized system by mixing electrical and optical video SFP;

- **Cost:** Design cost effective system;

- **Modularity:** Allow hot scalability and replacement of critical components wherever possible;

- **Density:** Highest density ever achieved for standard 75Ω coaxial SDI interface;

- **Time-to-market:** Reduce development cost and risk;

- **Interchangeable:** Fully compatible with existing MSA video optical SFP;

- **Hot-Pluggable:** Swap without affecting system behaviour;

- **Advanced Packaging:** Support ganged cages, belly-to-belly and superposed cages mounting;

- **Inventory:** Just in time inventory management;

- **Green:** The EB30HDRT-LMR is Pb-free and ROHS compliant. In addition, it has very low power consumption.
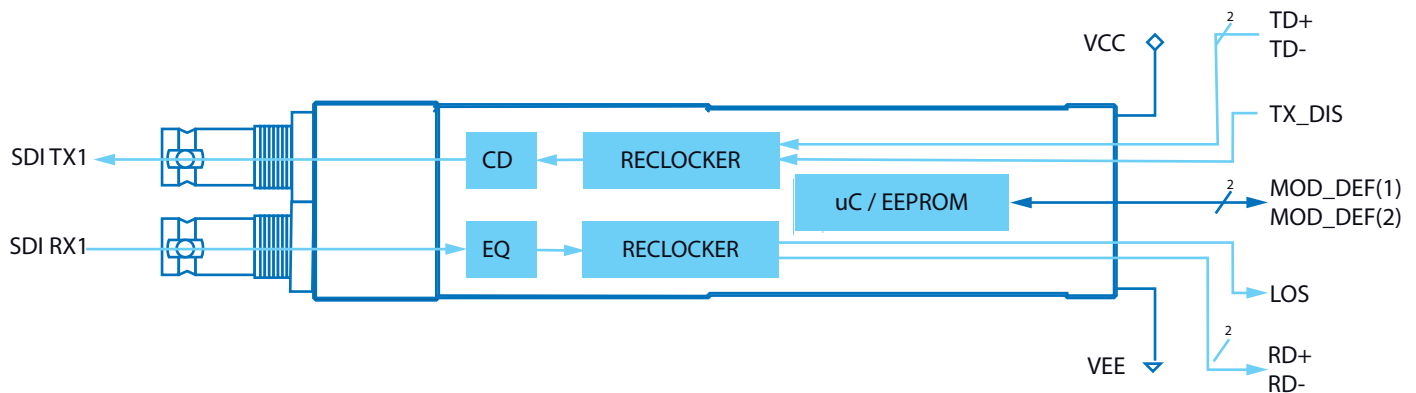
Applications

- Low cost video optical SFP replacement
- Distribution amplifiers
- Processing cards
- Video routers
- Broadcast cameras

Overview

he EB30HDRT-LMR is a medium reach electrical emSFP transceiver module designed with reclockers to transmit and receive SDI signals up to 2.97Gbps over 75Ω coaxial cables via HD-BNC™ connectors. The cable driver slew rate is automatically configured in order to achieve compliance to SMPTE 424M, SMPTE 292M and SMPTE 259M. The equalizer features DC restoration to compensate for the DC content of SMPTE pathological test patterns.By suppressing accumulated jitter, each reclocker procures optimal input & output jitter performance.

The EB30HDRT-LMR provides module identification information and configuration through a two wire serial interface. It is also a hot-pluggable solution for field system upgrade and maintenance.

The EB30HDRT-LMR is interchangeable with other MSA optical video SFP improving product flexibility. Ganged cages, belly-to-belly and superposed cages mounting are supported. The module is SMPTE compliant resulting in quick time-to-market and reduced development effort and cost. The EB30HDRT-LMR is Pb-free and ROHS compliant.

Related Products

Part Number	Type	Pinout	Package	Temperature Range
EB30HDRT-LNR	Rx/Tx	Non-MSA	SFP	-40°C to 80°C
EB30HD2R-LNR	2Rx	Non-MSA	SFP	-40°C to 80°C
EB30HD2T-LNR	2Tx	Non-MSA	SFP	-40°C to 80°C

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