



EB59HDRT-SN

6Gbps (UHD-SDI), 4K emSFP™ Coaxial Transceiver
Medium reach, Non-MSA, HD-BNC™

Features

- 6G UHD-SDI, 4K ready emSFP
- SMPTE ST 424M, ST 292M, and SMPTE ST 259M compliant
- HD BNC connectors (75Ω)
- Rx Equalizer:
 - Typical equalized length of Belden 1694A cable: 80m at 5.94Gbps, 140m at 2.97Gbps, 220m at 1.485Gb/s and 400m at 270Mb/s
- Integrated Tx Cable Driver
- Supports DVB-ASI at 270Mb/s
- Supports video pathological patterns for SD-SDI, HD-SDI, 3G-SDI and 6G-SDI
- Control via serial interface including:
 - Output slew rate (SD or HD/3G/6G)
 - Module Information
- Low Power Consumption - typical 442mW
- Single Supply +3.3V
56.6mm x 13.4mm x 8.6mm SFP Package

Summary of Benefits

- **Flexibility:** Build a totally optimized system by mixing video 4K or 3G electrical and 4K, 3G 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 non-MSA video optical SFP, 3G electrical SFP and 4K 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 EB59HDRT-SN is Pb-free and ROHS compliant. In addition, it has very low power consumption.

Applications

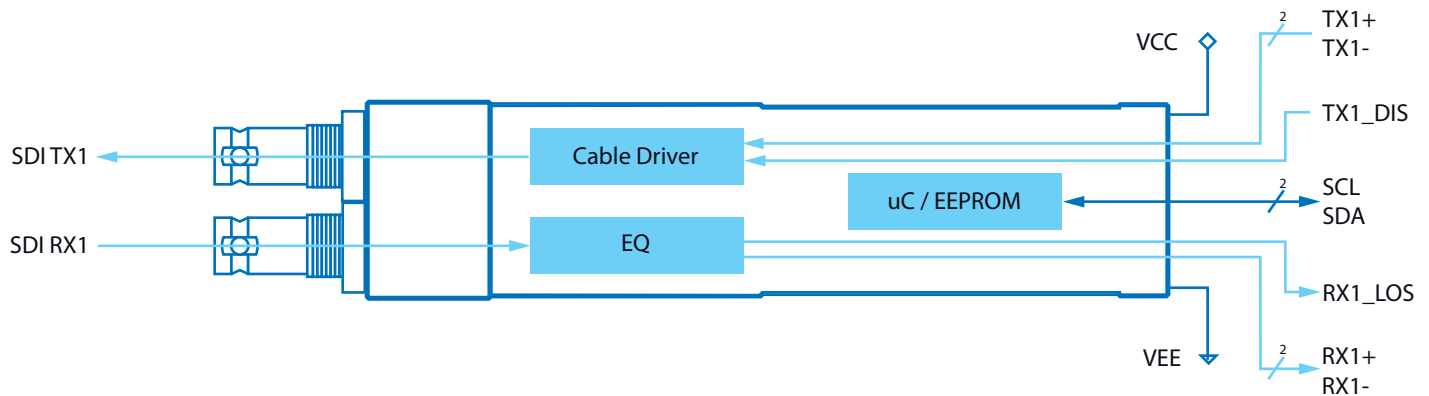
- Low cost video optical SFP replacement
- Distribution amplifiers
- Processing cards
- Video routers
- Broadcast cameras
- 4K applications

Overview

The EB59HDRT-SN is a electrical 4K (6G UHD-SDI) emSFP™ transceiver module designed to transmit and receive SDI signals up to 5.94Gbps over 75Ω coaxial cables via HD-BNC™ connectors. The EB59HD2R-SN emSFP doubles the data capacity per channel, and reduce the number of cables required for 4K transport.

The EB59HDRT-SN 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 EB59HDRT-SN is interchangeable with other non-MSA optical video SFP or 3G electrical 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 EB59HDRT-SN is Pb-free and ROHS compliant.



Related Products

Part Number	Type	Pinout	Package	Temperature Range
EB59HDRT-SM	Rx/Tx	MSA	SFP	-40°C to 80°C
EB59HD2R-SN	2Rx	Non-MSA	SFP	-40°C to 80°C
EB59HD2T-SN	2Tx	Non-MSA	SFP	-40°C to 80°C

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