



# EB34TD1R-SM

emSFP™ HDMI/DVI to 3Gbps SDI converter  
Single Receiver, HDCP, MSA, Type D connector

## Features

- SMPTE 424M, 292M and 259M compliant
- Supported format: 525/625, 720p/1080i (50/59.94/60Hz), 1080p (23.98/24/15/29.97/30/50/59.94/60Hz)
- HDMI/DVI Input:
  - 24 bit (3x8 bits)
  - RGB 4:4:4, YCbCr 4:2:2, YCbCr 4:4:4
  - BW = 150Mhz
  - RGB Range (Full/SMPTE)
  - Up to 8 channel audio de-embedding (PCM)
  - HDMI 1.4 Type D connector
  - HDMI Type D plug with retention (EB00CB04 & EB00CB05 series)
  - HDCP supported
- Control via serial interface including:
  - Voltage & Temperature Monitoring
  - HDMI/DVI interface configuration
  - EDID reading, Audio mapping
  - Module Information
- Low Power Consumption - typical tbd mW
- Single Supply +3.3V  
58.5mm x 13.4mm x 8.6mm SFP Package  
Operating temperature: 0°C to 70°C

## Summary of Benefits

- **Flexibility:** Build a totally optimized system by mixing electrical SDI, NTSC/PAL converter, HDMI/DVI 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 SDI to HDMI/DVI and HDMI/DVI to SDI converters;
- **Time-to-market:** Reduce development cost and risk;
- **Interchangeable:** Fully compatible with existing MSA video optical SFP, SDI emSFP™ and emSFP™ converters;
- **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 EB34TD1R-SM is Pb-free and ROHS compliant.

## Applications

- Cost effective SDI monitoring solution
- Processing cards
- SDI switchers
- Video routers
- Broadcast cameras

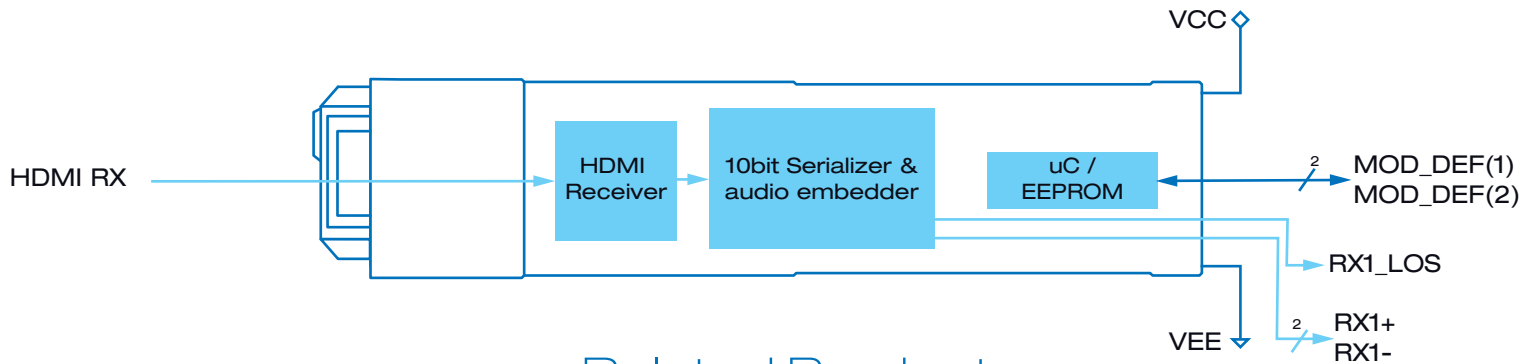
# Overview

The EB34TD1R-SM is an electrical emSFP™ receiver module designed to convert HDMI/DVI (High definition multimedia interface®) to an SDI signal output without scaling artifacts. The EB34TD1R-SM could support HDCP, by programming a key inside. Up to 8 channel of audio is supported and de-embedded from the HDMI signal.

The EB34TD1R-SM provides module identification information, configuration and diagnostic monitoring through a 2 wire serial interface. It is also a hot-pluggable solution for field system upgrade and maintenance.

The EB34TD1R-SM is interchangeable with other MSA optical video emSFP, coaxial emSFP™ and emSFP™ converter improving product flexibility. Ganged cages, belly-to-belly and superposed cages mounting are supported. The module provides a quick time-to-market solution and reduced development risk and cost. The EB34TD1R-SM is Pb-free and ROHS compliant.

Patent pending



## Related Products

Part Number	Type (HDMI)	Pinout	Package	Temperature Range
EB34TD1R-SN	Rx	Non-MSA	SFP	-20°C to 80°C
EB00CB04-03A*	HDMI type D plug to HDMI type A jack cable adaptor (3 feets)			
EB00CB05-03A*	HDMI type D connector to DVI jack cable adaptor (3 feets)			

\* To order your cable with different lengths, please contact us.



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