

## DS38EP100-EVKH HDMI Tiny Kit User Guide

### General Description

The DS38EP100-EVKH HDMI Tiny Kit upgrades the existing HDMI Category 1 cable to the higher grade HDMI Category 2 cable using three National's DS38EP100 - Power-Saver Equalizers.

The kit has an HDMI female receptacle connector to connect to an HDMI cable, and an HDMI male plug connector to connect to an HDMI source or sink unit.

The Clock signal, DDC signals, Hot Plug, 5V Power and 5V Ground are directly connected between two HDMI connectors on the kit. Three DS38EP100 devices on the kit compensate for transmission medium losses and minimize medium-induced deterministic jitter for the high speed TMDS signals.

No power is required for this tiny kit, making a perfect demonstration for passive cable assemblies or connector manufacturers.

### Features

- Fully support HDMI v1.3a with DC to 3.4 Gbps operation
- No power or ground required
- Equalization effective anywhere in the cable
- Easy to handle 6 pin LLP with symmetric I/O's
- 7 dB maximum boost

### Application

- Passive HDMI / DVI cable assembly
- HDMI / DVI connector manufacture

### Ordering Information

Part: DS38EP100SD

HDMI Tiny Kit: DS38EP100-EVKH

### Typical Application



### Quick Start Guide

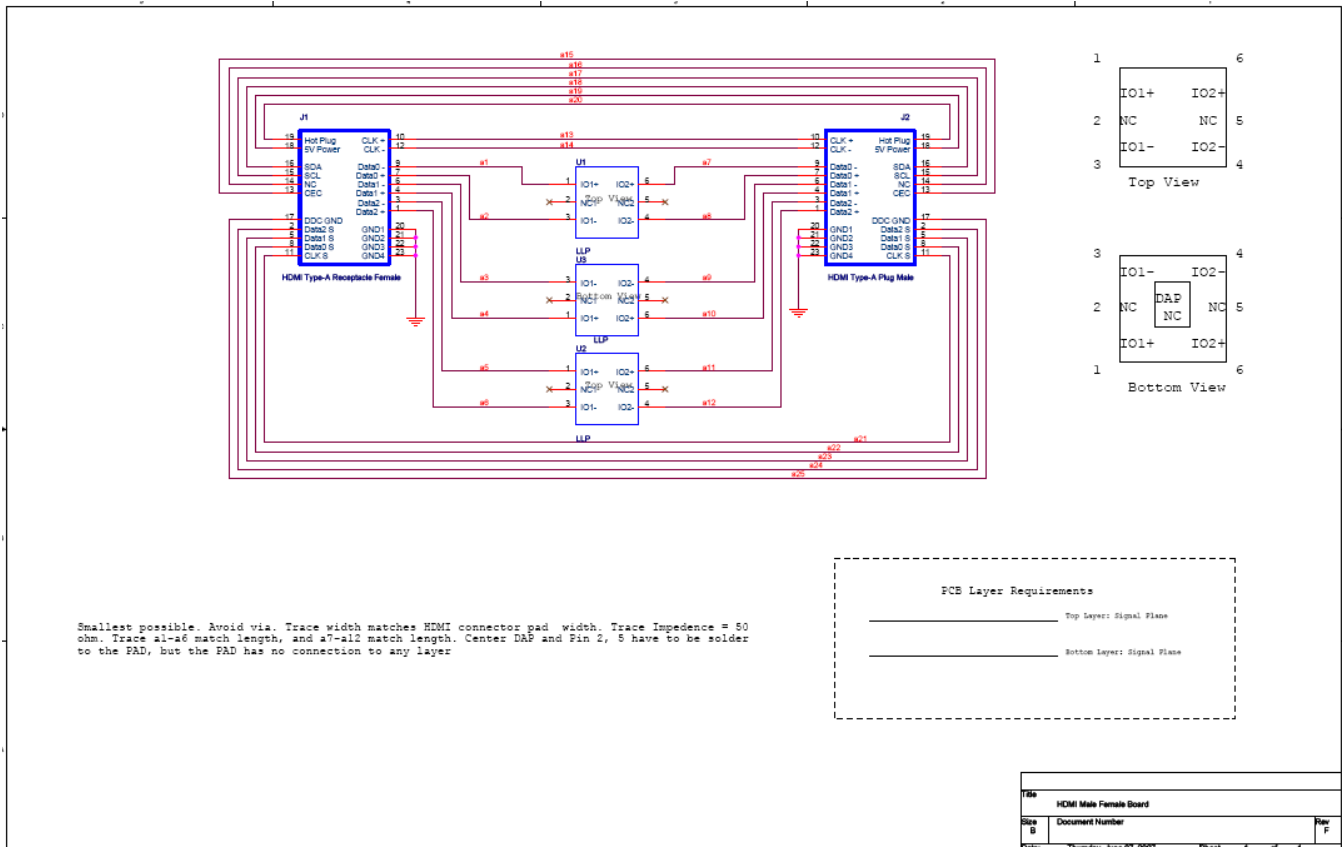
1. Connect one end of HDMI cable male plug to the female receptacle connector of the DS38EP100-EVKH HDMI Tiny Kit.
2. Connector male plug of the DS38EP100-EVKH HDMI Tiny Kit to either the source (ic. DVD player) or the sink (ic. HDTV) unit.
3. Connect the other end of HDMI cable male plug to either the source or the sink unit.

Note: The symmetrical I/O and liner compensation features of the Power-Saver equalizer make the kit operating either as a driver or a receiver at the either cable end.

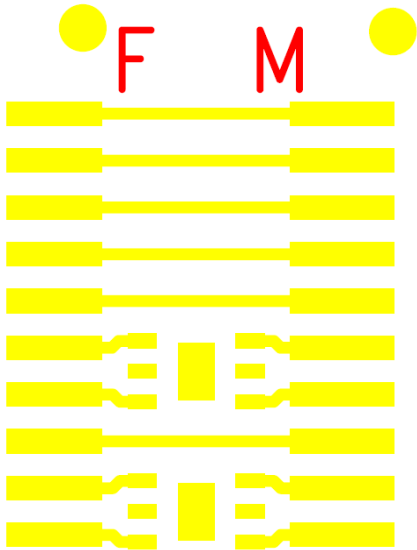
### Bill of Materials

DESIGNATION	QTY	DESCRIPTION
J1	1	HDMI Female Receptacle Connectors
J2	1	HDMI Male Plug Connectors
U1, U2, U3	3	DS38EP100SD

### Schematics

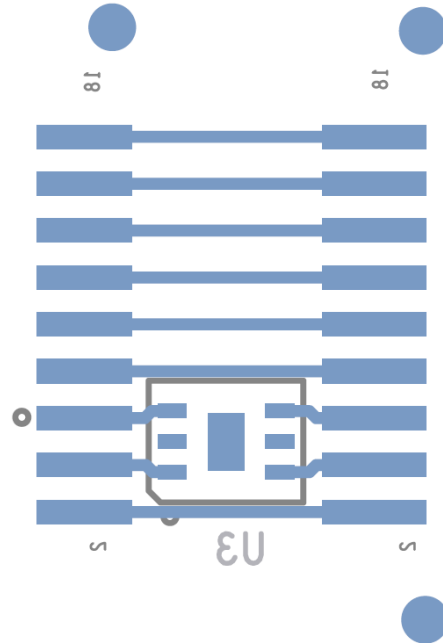


**Top Layer**



DS38EP100EVKH  
 National Semiconductor  
 Interface Division

**Bottom Layer**



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