

ESD protection and signal booster for HDMI™ 1.3 Tx control links

Data Brief

Features

- HDMI 1.3. compliant from -40 to 85 °C
- CEC, DDC, 5 V and HPD 8 kV contact ESD protection
- Integrated I²C bi-directional reshaping circuit and level-shifter
- Integrated CEC bi-directional level-shifter with dV/dt limiter
- Supports direct connection to low-voltage HDMI ASICs (down to 1.8 V)
- Backdrive current protection on all I/O pins
- HDMI short-circuit and overcurrent protection on 5 V output
- Long HDMI cable drive support
- 500 µm pitch

Benefits

- Most stringent ESD standards compliance guaranteed at system level
- Full protection of ultra-sensitive HDMI ASICs
- Optimized HDMI control signal shapes guaranteed at connector level
- Signal booster for long HDMI cable support
- High integration
- Companion chip for HDMIULC6-xxx6 ultra-large bandwidth ESD protection for TMDS links
- Companion chip for STMicroelectronics' STixxxx HDMI HD decoders.
- Referenced in STi7111-SAT-MB-V1.2-011 reference design from STMicroelectronics

Complies with the following standards:

- IEC61000-4-2 level 4
- JESD22-A114D level 2



Applications

- Consumer and computer electronics
- HD set-top boxes, DVD and flat television sets
- PC graphic cards

Description

The HDMI2C1-5DIJ is a fully integrated ESD protection, level-shifting device and signal booster for control links of HDMI 1.3 transmitters.

This device is a bi-directional isolation buffer, integrating hysteresis and signal boosters for maximum system robustness and signal integrity. All these features are provided in a single 16-lead QFN package featuring straightforward routing.

The HDMI2C1-5DIJ is a simple plug and play device that provides HDMI designers with an easy way to gain full compliance with the stringent HDMI 1.3 CTS on a wide temperature range.

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1 Ordering information

Table 1. Ordering information

Order code	Marking	Package	Weight	Base qty	Delivery mode
HDMI2C1-5DIJ	HDM1	QFN 5x4 16-lead	60 mg	3000	Tape and reel

2 Revision history

Table 2. Document revision history

Date	Revision	Changes
05-Feb-2009	1	Initial release.

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