



DVIULC6-2x6 HDMIULC6-2x and SATAULC6-2x6

Ultra Low Capacitance 2 line ESD protection

Data Brief

Main applications

- DVI and HDMI ports up to 1.65 Gb/s
- SATA port up to 3.2 Gb/s
- IEEE1394a, b or c port up to 3.2 Gb/s
- Portable electronics

Description

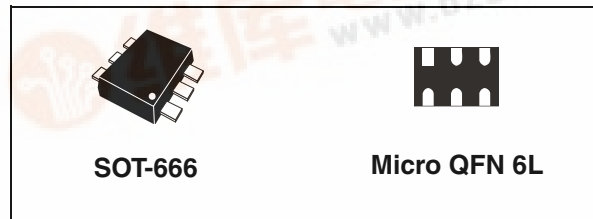
The DVIULC6-2x6, HDMIULC6-2x6 and SATAULC6-2x6 are a monolithic Application Specific Discrete dedicated to ESD protection of high speed interfaces. Its ultra low line capacitance secures a high level of signal integrity without compromising in protecting downstream sensitive chips against the most stringent characterized ESD strikes.

Features

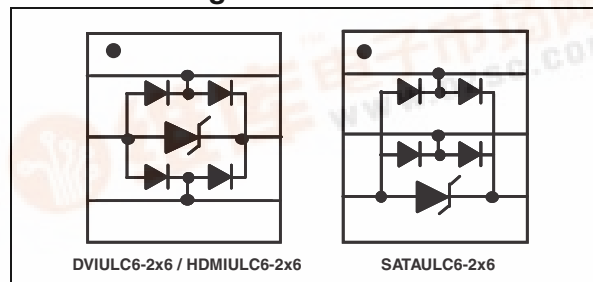
- 2 data lines \pm 15kV ESD protection
- Protect 5 V V_{BUS} when applicable
- Ultra low capacitance: 0.6 pF at $F = 825$ MHz
- Very low leakage current: 0.5 μ A max.
- Fast response time compared with varistor
- SOT-666 package: 1.60 x 1.60 x 0.55 mm
- μ QFN 6 leads package: 1.45 x 1.00 x 0.55 mm
- RoHS compliant

Benefits

- ESD protection, IEC 61000-4-2 level 4 compliant
 - $> \pm 15$ kV Contact discharge
 - $> \pm 15$ kV Air discharge
- Minimized rise and fall times for maximum data integrity
- **Consistent D+ / D- signal balance:**
 - Best capacitance matching tolerance I/O to GND = 0.015 pF for ultra low inter pair skew
 - Best capacitance matching tolerance I/O to I/O = 0.007 pF for ultra low intra pair skew
 - Matching high bit rate DVI, HDMI, SATA and IEEE 1394 requirements
- Low PCB space consuming
- Low leakage current for longer operation of battery powered devices
- High reliability offered by monolithic integration



Functional diagram



Complies with these standards:

- IEC 61000-4-2 level 4
 - 15 kV air discharge
 - 8 kV (and up to 15 kV) contact discharge

Order code

Part Number	Marking
DVIULC6-2P6	R
DVIULC6-2M6	T
HDMIULC6-2P6	R
HDMIULC6-2M6	T
SATAULC6-2P6	U
SATAULC6-2M6	S



1 Revision history

Date	Revision	Description of Changes
14-Nov-2006	1	First Issue

DVIULC6-2x6, HDMIULC6-2x6 and SATAULC6-2x6

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2006 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com