

To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: <http://www.renesas.com>

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Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

Send any inquiries to <http://www.renesas.com/inquiry>.

RENESAS TECHNICAL UPDATE

Classification of Production	Standard Logic IC		No	TN-SLG-099A/E	Rev	1
THEME	Addition of $V_{cc}=3.3V\pm 0.3V$ specification the Uni-Logic IC's HD74LV1GT**A / LV2GT**A	Classification of Information	① Spec change 2. Supplement of Documents 3. Limitation of Use 4. Change of Mask 5. Change of Production Line			
PRODUCT NAME	Uni-Logic IC HD74LV1GT**A / LV2GT**A series	Lot No.	Reference Documents	Data sheet and data book of Uni-Logic IC HD74LV1GT**A / LV2GT**A series	term of validity	
		-			permanently	

1. Purpose of $3.3V\pm 0.3V$ specification addition

This product are only a $5.0V\pm 0.5V$ action guarantee ($3.3V$ to $5V$ level shifter function).
 $1.8V$ or $2.5V$ to $3.3V$ level shifter function possibility, by adding $3.3V\pm 0.3V$ specification.

2. $3.3V\pm 0.3V$ specification addition contents

(1) Recommended Operating Condition

Item	Before change	After change
V_{cc}	$4.5V$ to $5.5V$	$3.0V$ to $5.5V$

(2) Electrical Characteristics addition item

· All the products other than HD74LV1GT14A, HD74LV2GT14A

Item	Condition	V_{cc} (V)	Specification			Unit
			min	typ	max	
V_{IH}		3.0 to 3.6	1.5	-	-	V
V_{IL}		3.0 to 3.6	-	-	0.6	
V_H		3.3	-	0.10	-	
V_{OH}	$I_{OH}=-6mA$	3.0	2.48	-	-	
V_{OL}	$I_{OL}=6mA$	3.0	-	-	0.44	

· HD74LV1GT14A, HD74LV2GT14A

Item	Condition	Vcc (V)	Specification			Unit
			min	typ	max	
V _{T+}		3.0	-	-	1.5	V
		3.6	-	-	1.6	
V _{T-}		3.0	0.3	-	-	
		3.6	0.4	-	-	
ΔV _T		3.0	0.3	-	1.2	
		3.6	0.3	-	1.3	
V _{OH}	I _{OH} =-6mA	3.0	2.48	-	-	
V _{OL}	I _{OL} =6mA	3.0	-	-	0.44	

(3) Switching Characteristics

Add the specification of Vcc=3.3V±0.3V each product.

3. Others

There is no change regarding the product chip, Mark specification, Reliability and Vcc=5.0V±0.5V specification.

4. Applied timing

It applies from the production in December, 2003.

Also, this specification addition applies to all the packages of the object products.