

# RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-H8*-A413A/E	Rev.	1.00
Title	H8SX/1544: Amendment for Hardware Manual		Information Category	Technical Notification		
Applicable Product	H8SX/1544 Group	Lot No.	Reference Document	H8SX/1544 Group Hardware Manual (REJ09B0381-0200, Rev. 2.0)		
		All Lots				

Thank you for your consistent patronage of Renesas semiconductor products.

We would like to inform you about the amendment for the H8SX/1544 Group Hardware Manual

## 1. DC Characteristics

Before

Item	Symbol	Min.	Typ.	Max.	Unit
Input pull-up MOS current	Ports D, E, F, H, I, J, K -I <sub>p</sub>	50		300	μA

After

Item	Symbol	Min.	Typ.	Max.	Unit
Input pull-up MOS current	Ports D, E, F, H, I, J, K -I <sub>p</sub>	10		300	μA

## 2. Bus Timing

Before

Item	Symbol	Min.	Max.	Unit
Read data hold time 1	t <sub>RDH1</sub>	0	—	ns
Read data hold time 1	t <sub>RDH2</sub>	0	—	ns

After

Item	Symbol	Min.	Max.	Unit
Read data hold time 1	t <sub>RDH1</sub>	5	—	ns
Read data hold time 1	t <sub>RDH2</sub>	5	—	ns

## 3. DMAC Timing

Before

Item	Symbol	Min.	Max.	Unit
$\overline{TEND}$ delay time	t <sub>ED</sub>	—	15	ns
$\overline{DACK}$ delay time 1	t <sub>DACD1</sub>	—	15	ns
$\overline{DACK}$ delay time 2	t <sub>DACD2</sub>	—	15	ns

After

Item	Symbol	Min.	Max.	Unit
$\overline{TEND}$ delay time	t <sub>ED</sub>	—	40	ns
$\overline{DACK}$ delay time 1	t <sub>DACD1</sub>	—	40	ns
$\overline{DACK}$ delay time 2	t <sub>DACD2</sub>	—	40	ns