

# RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-RA*-A0161A/E	Rev.	1.00
Title	The addition of USBFS/USBHS/MIPI Power-on sequence		Information Category	Technical Notification		
Applicable Product	RA8P1 Group	Lot No.	Reference Document	Refer table at the end of this document		
	RA8T2 Group RA8M2 Group RA8D2 Group					

This document adds the USBFS/USBHS/MIPI power-on sequence specification to the DC characteristics of the electrical characteristics.

## 1. The following will be added to RA8P1 and RA8D2.

Table VCC\_USB rise gradient characteristics at power on

Parameter	Symbol	Min	Typ	Max	Unit	Test condition
VCC_USB rising gradient at power on	SrVCC_USB	8.4	—	—	μs/V	

Table VCC\_USBHS、AVCC\_USBHS rise gradient characteristics at power on

Parameter	Symbol	Min	Typ	Max	Unit	Test condition
VCC_USBHS(=AVCC_USBHS) rising gradient at power on	SrVCC_USBHS	8.4	—	—	μs/V	

Table VCC18\_MIPI、AVCC\_MIPI rise gradient characteristics at power on

Parameter	Symbol	Min	Typ	Max	Unit	Test condition
VCC18_MIPI rising gradient at power on	SrVCC18_MIPI	8.4	—	—	μs/V	
AVCC_MIPI rising gradient at power on	SrAVCC_MIPI	8.4	—	—	μs/V	

## 2. The following will be added to RA8M2.

Table VCC\_USB rise gradient characteristics at power on

Parameter	Symbol	Min	Typ	Max	Unit	Test condition
VCC_USB rising gradient at power on	SrVCC_USB	8.4	—	—	μs/V	

Table VCC\_USBHS、AVCC\_USBHS rise gradient characteristics at power on

Parameter	Symbol	Min	Typ	Max	Unit	Test condition
VCC_USBHS(=AVCC_USBHS) rising gradient at power on	SrVCC_USBHS	8.4	—	—	μs/V	

## 3. The following will be added to RA8T2.

Table VCC\_USB rise gradient characteristics at power on

Parameter	Symbol	Min	Typ	Max	Unit	Test condition
VCC_USB rising gradient at power on	SrVCC_USB	8.4	—	—	μs/V	

**[Reference document]**

Applicable Product	Manual Title	Document Number	Chapter No
RA8P1	RA8P1 Group User's Manual: Hardware Rev.1.20	R01UH1064EJ0120	70.2 DC Characteristics
RA8T2	RA8T2 Group User's Manual: Hardware Rev.1.20	R01UH1067EJ0120	60.2 DC Characteristics
RA8M2	RA8M2 Group User's Manual: Hardware Rev.1.20	R01UH1066EJ0120	62.2 DC Characteristics
RA8D2	RA8D2 Group User's Manual: Hardware Rev.1.20	R01UH1065EJ0120	69.2 DC Characteristics