

RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-RZ*-A0077A/E	Rev.	1.00
Title	RZ/G2H, RZ/G2M V1.3, RZ/G2M V3.0, RZ/G2N and RZ/G2E specification change for Electrical Characteristic		Information Category	Technical Notification		
Applicable Product	RZ/G Series, 2nd Generation RZ/G2H, G2M V1.3, G2M V3.0, G2N and G2E	Lot No.	Reference Document	RZ/G Series, 2nd Generation User's Manual: Hardware Rev.1.01 (R01UH0808EJ0101)		
		All lots				

This technical update describes specification change of RZ/G Series, 2nd Generation product.

[Summary]

Specification change for "Hardware Electrical Characteristics Common to RZ/G Series, 2nd Generation products".

[Priority level]

Importance: "Normal"

Urgency: "Normal"

[Products]

RZ/G2H

RZ/G2M V1.3

RZ/G2M V3.0

RZ/G2N

RZ/G2E

[Section number and title]

73.4 DC Characteristics

[Correction]

- Section 73.4 DC Characteristics, Page 73-29, Table 73.4.10 DC Characteristics (1.8-V I/O [MMC, SD]). Removed SD specification, and added RZ/G2H, RZ/G2M V1.3, RZ/G2M V3.0, and RZ/G2N. For RZ/G2E VIH (Min) specification is changed.

Current (from):

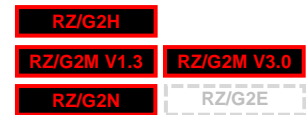
Table 73.4.10 DC Characteristics (1.8-V I/O [MMC, SD])



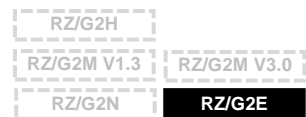
Item	Symbol	Min.	Typ.	Max.	Unit	Measurement conditions	Remarks
Input high voltage	VIH	1.27	—	VDDQ_SDn + 0.3	V	VDDQ_SDn (n = 0, 1, 3) = 1.7 to 1.9 V	—
Input low voltage	VIL	VSS – 0.3	—	0.58	V	VSS = 0 V	—
Output high voltage	VOH	1.4	—	—	V		IOH = -2 mA
Output low voltage	VOL	—	—	0.45	V		IOL = 2 mA
Pin capacitance	CL	—	—	10	pF		—
Pull-up current	IPU	-19	—	-195	μA		Vin = VSS
Pull-down current	IPD	19	—	195	μA		Vin = 1.7 to 1.9V
Input leakage current	ILI	—	—	1	μA	VSS = 0 V	—
Output leakage current	ILO	—	—	1	μA	Without pull-up or pull-down resistor	Hi-Z output

Correction (to):

Table 73.4.10 DC Characteristics (1.8-V I/O [MMC])



Item	Symbol	Min.	Typ.	Max.	Unit	Measurement conditions	Remarks
Input high voltage	VIH	VDDQVA_SDn - 0.45	—	VDDQVA_SDn + 0.3	V	VDDQVA_SDn (n = 0 to 3) = 1.7 to 1.9 V	—
Input low voltage	VIL	VSS - 0.3	—	0.58	V	VSS = 0 V	—
Output high voltage	VOH	1.4	—	—	V	VSS = 0 V	IOH = -2 mA
Output low voltage	VOL	—	—	0.45	V		IOL = 2 mA
Pin capacitance	CL	—	—	10	pF		—
Pull-up current	IPU	-20	—	-65	μA		Vin = VSS
Pull-down current	IPD	20	—	65	μA		Vin = 1.7 to 1.9V
Input leakage current	ILI	—	—	10	μA	VSS = 0 V	—
Output leakage current	ILO	—	—	10	μA	Without pull-up or pull-down resistor	Hi-Z output resistor



Item	Symbol	Min.	Typ.	Max.	Unit	Measurement conditions	Remarks
Input high voltage	VIH	VDDQ_SDn - 0.45	—	VDDQ_SDn + 0.3	V	VDDQ_SDn (n = 0, 1, 3) = 1.7 to 1.9 V	—
Input low voltage	VIL	VSS - 0.3	—	0.58	V	VSS = 0 V	—
Output high voltage	VOH	1.4	—	—	V	VSS = 0 V	IOH = -2 mA
Output low voltage	VOL	—	—	0.45	V		IOL = 2 mA
Pin capacitance	CL	—	—	10	pF		—
Pull-up current	IPU	-19	—	-195	μA		Vin = VSS
Pull-down current	IPD	19	—	195	μA		Vin = 1.7 to 1.9V
Input leakage current	ILI	—	—	1	μA	VSS = 0 V	—
Output leakage current	ILO	—	—	1	μA	Without pull-up or pull-down resistor	Hi-Z output resistor

[Description]

RZ/G2H, RZ/G2M V1.3, RZ/G2M V3.0 and RZ/G2N products specification are newly added.
Regarding RZ/G2E, SD is removed and input high voltage (VIH) minimum value is changed.

[Reason for Correction]

RZ/G2H, RZ/G2M V1.3, RZ/G2M V3.0 and RZ/G2N products specification are added because of the lack of the specification.
Input high voltage (VIH) minimum value of RZ/G2E is specification change.

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