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RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-RZ*-A0096A/E	Rev.	1.00
Title	Withdrawal of SCI/USB authentication function		Information Category	Technical Notification		
Applicable Product	RZ/T2M Group RZ/N2L Group	Lot No.	Reference Document	RZ/T2M Group User's Manual: Hardware Rev.1.00 (R01UH0916EJ0100) RZ/N2L Group User's Manual: Hardware Rev.1.10 (R01UH0955EJ0110)		
		All				

User's manual shows descriptions in terms of SCI/USB authentication on RZ/T2M and RZ/N2L Group. However, will remove the description for next release because SCI/USB authentication cannot be supported due to a functional issue.

1.   Section 3 Operating Modes

-     Revises descriptions on SCI/USB authentication

[Original]

3.5.8 (or 9) SCI/USB Authentication

SCI/USB authentication mechanism checks access permission for SCI (UART) boot mode and USB boot mode.

In order to enable connection, a pass result of the authentication mechanism is required if authentication is required.

Authentication level is selectable from 3 states by setting SCI/USB Boot Authentication Mode area (AUTHMODES) in

OTP:

● No authentication

● Authentication

● Permanent prohibition

When authentication is selected, 128-bit authentication ID must be written to SCI/USB Boot Authentication Plaintext ID area (SIDP)

in OTP in advance.

If authentication is selected, this LSI requests to input 128-bit authentication ID from SCI/USB at the beginning of the boot.

If authentication fails, then no connection is permitted and boot fails. RES# pin reset is required to retry boot.

If permanent prohibition is selected, this LSI prohibits connection by SCI/USB boot mode permanently and boot fails.

[Revised]

3.5.8 (or 9) SCI/USB Boot Disable

The SCI/USB boot can be disabled by setting SCI/USB Boot Mode Disable area (SUDIS) in OTP.

If disable is selected, this LSI prohibits connection by SCI/USB boot mode permanently and boot fails.

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2.   Section 44 One-Time Programmable Memory (OTP)

-   Removes descriptions of SCI/USB boot authentication plaintext ID (SIDP)

-   Revises descriptions of SCI/USB boot authentication mode (AUTHMODES)

[Original]

44.3.5 SCI/USB Boot Authentication Mode (AUTHMODES)

Specifies how to authenticate SCI/USB boot connection.

Address(es):   0x18D

Bit position	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Bit field	—	—	—	—	—	—	—	—	—	—	—	—	—	—	MODE[1:0]	
Value after reset	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bit	Symbol	Function	R/W
1:0	MODE[1:0]	Specifies SCI/USB boot authentication mode	R/W
		0 0: No authentication	
		0 1: Authentication	
		1 x: Permanent prohibition of SCI/USB boot connection	
15:2	—	Reserved	—

[Revised]

44.3.5 SCI/USB Boot Disable (SUDIS)

SCI/USB whether SCI/USB boot enable or disable.

Address(es):   0x18D

Bit position	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Bit field	—	—	—	—	—	—	—	—	—	—	—	—	—	—	DIS	—
Value before write	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bit	Symbol	Function	R/W
0	—	Reserved	—
1	DIS	Specifies SCI/USB boot disable	R/W
		0: SCI/USB boot enable	
		1: SCI/USB boot disable. Permanent prohibition of connection.	
15:2	—	Reserved	—

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