

# RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-SH7-A824A/E	Rev.	1.00
Title	Note on Operation of Input/Output Pins at Reset by Internal Source		Information Category	Technical Notification		
Applicable Product	See Below.	Lot No.	Reference Document	See below.		
		All lots				

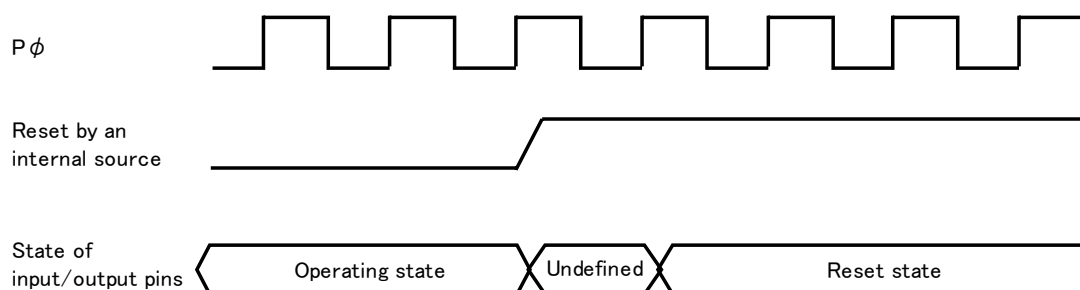
The applicable products listed below had missing usage notes in the user's manual regarding internal reset. The following notes have been added to the user's manual.

## [ Usage Note ]

When the microcontroller is changing to reset status caused by an internal reset, there will be a period of up to one peripheral clock ( $P\phi$ ), where I/O ports will be undefined. Undefined state could be either high level output or low level output or high impedance states.

The microcontroller, including I/O ports, will correctly transfer to reset status after this period.

\* Internal resets can be caused by either an internal watchdog timer reset or H-UDI reset during debug.



## [ Additional Information ]

The phenomenon described above does not occur on any of dedicated input or output pins.

Reset by inputting a low signal to  $\overline{\text{RES}}$  pin is not an internal reset.

## [ Applicable Products and Reference Documents ]

Series	Group	Reference Documents	Rev.	Document No.
SH7250	SH72531	SH72531 Hardware Manual	1.00	REJ09B0443-0100
	SH72533	SH72533 User's Manual: Hardware	0.50	REJ09B0614-0050
	SH7254R	SH7254R Group Hardware Manual	2.00	REJ09B0419-0200
	SH7256	SH7256 Group User's Manual: Hardware	1.00	REJ09B0475-0100
	SH72546R	SH72546R User's Manual: Hardware	1.00	R01UH0235EJ0100