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RENESAS TECHNICAL UPDATE

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Product Category	System LSI		Document No.	TN-RIN-A010A/E	Rev.	1.00
Title	R-IN32M3-EC: Register setting during 10Base-T half-duplex mode		Information Category	Technical Notification		
Applicable Product	See following	Lot No. All lots	Reference Document	R-IN32M3 Series User's Manual R-IN32M3-EC (R18UZ0003EJ0400) R-IN32M3 Series User's Manual Peripheral Functions R-IN32M3-CL R-IN32M3-EC (R18UZ0007EJ0800)		

Restriction on 10Base-T half-duplex mode is removed. 2 registers have to be set correctly for normal operation. Please take the below measures into account whenever Ethernet switch feature of R-IN32M3-EC is used on your system.

1. Applicable Product

Product Type	Model Marking	Product Code
R-IN32M3-EC	MC-10287BF1	MC-10287BF1-HN4-A
		MC-10287BF1-HN4-M1-A

Be careful that products before revision (MC-10287F1) doesn't support 10Base-T half-duplex mode correctly. Please use the above products.

2. Measures

When using Ethernet Switch on 10Base-T half-duplex mode, set the target bits to "1" in the below two registers.

(1) Ethernet Switch 10-Mbps Half-Duplex Mode Setting Register (ETHSW10HDEN) (Newly added in the revised product)

Target bits: SW10HDEN1 (bit 1) and/or SW10HDEN0 (bit 0)

Note: Set the above bits to "0" in case of link status except 10Base-T half duplex mode

(2) Ethernet PHY register 27 – Special control/Status instruction register (each port)

Target bits: SQEOFF (bit 11)

Note: It is possible to set the above bit to "1" even in case of link status except 10Base-T half duplex mode

3. Sample software

Renesas updated sample software on Renesas Web site.

[R-IN32M3 sample software download site (English)]

Japan: http://www.renesas.com/products/soc/fa_lsi/multi_protocol_communication/peer/sample_software.jsp

Europe: http://www.renesas.eu/applications/industrial_equipment/industrial_communications/r-in/peer/sample_software.jsp

China: http://hk.renesas.com/products/soc/fa_lsi/multi_protocol_communication/peer/sample_software.jsp

Singapore: http://sg.renesas.com/products/soc/fa_lsi/multi_protocol_communication/peer/sample_software.jsp

India: http://in.renesas.com/products/soc/fa_lsi/multi_protocol_communication/peer/sample_software.jsp

[Sample software related to this notice]

Target	Issue Date	Data
TCP/IP,UDP/IP	March 11, 2016	r-in32m3_tcpip_evaluation.zip