Date: May 16, 2024

RENESAS TECHNICAL UPDATE

TOYOSU FORESIA, 3-2-24, Toyosu, Koto-ku, Tokyo 135-0061, Japan
Renesas Electronics Corporation

Product Category	MPU/MCU		Document No.	TN-RZ*-A0137A/E	Rev.	1.00
Title	A-format master (AFMT) function issues		Information Category	Technical Notification		
Applicable Product	RZ/T2L Group	Lot No. All	Reference Document	RZ/T2L Group User's Manual: Hardware Rev.1.20 (R01UH0985EJ0120)		

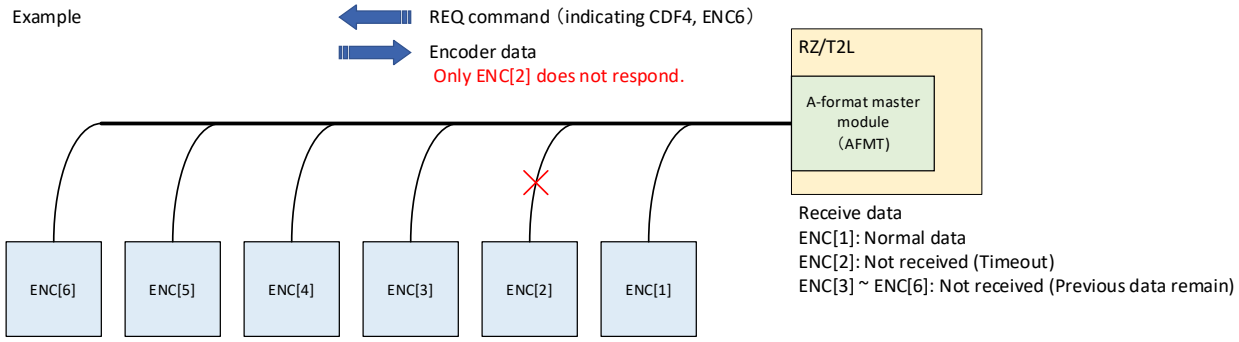
We would like to inform the A-format master (AFMT) module issues.

1. Issues

In case of bus connection with multiple transmission mode, encoder data can't be received normally in specific conditions. These issues do not happen in point-to-point connection or bus connection with individual transmission mode.

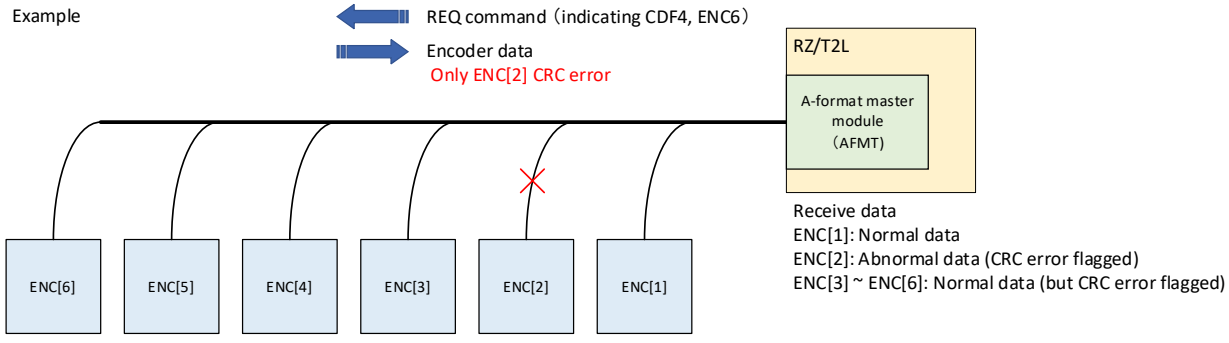
(1) Data reception issue

In case of bus connection with multiple transmission mode (ENC[1] to ENC[n], 2≦n≦8), when ENC[m] (m=1 to n-1) encoder doesn't respond REQ command and AFMT module detects timeout for ENC[m], AFMT module doesn't receive data from ENC[m+1] and larger address encoders. Data for ENC[m] stored in the register is undefined except for CA[3:0]. Previous reception data remain in the registers for ENC[m+1] and larger address encoders.



(2) CRC error detection issue

In case of bus connection with multiple transmission mode (ENC[1] to ENC[n], 2≦n≦8), when ENC[m] (m=1 to n-1) encoder responds REQ command but AFMT module detects CRC error for ENC[m] data, AFMT module detects CRC errors for ENC[m+1] and larger address encoder data even if data is normal.



2. Workaround

No workaround is available. Use of bus connection with multiple transmission mode is prohibited.

Use point-to-point connection or bus connection with individual transmission mode.

The below commands and subcommands for CDF31 are not supported due to the prohibition of bus connection with multiple transmission mode.

Command code

Data request (multiple): CDF4, CDF5, CDF6, CDF7, CDF22, CDF28, CDF30

Subcommand ID for CDF31

Data request (multiple): SID1, SID3, SID5, SID7