

RENESAS TECHNICAL UPDATE

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Product Category	MPU & MCU		Document No.	TN-RH8-B0258A/E	Rev.	1.00
Title	RH850 RLIN3 Self-Test Mode constraints		Information Category	Technical Notification		
Applicable Product	RH850 series	Lot No.	Reference Document	Show Section 3.		
		All lot				

The following descriptions about the usage conditions of the RLIN3 Self-Test Mode in User's Manual will be added and modified. (Change points are **Red** character.)

1. Adding descriptions

1.1. RH850/E2x

Regarding the target chapter, R01UH0641EJ0120(FCC1/E2M) is 19 and R01UH0770EJ0100(FCC2/E2H/E2UH) is 20.

[After]

19.5.5 LIN Self-Test Mode

Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps].
(The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

(The LPRS bits in the RLN3nLWBR register should be set to 000_B.)

19.5.5.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 **000**_{XB}

RLN3nLBRP0 register = xxxx xxxx_B*₁

RLN3nLBRP1 register = xxxx xxxx_B*₁

RLN3nLMD register = 00xx xx00_B*₁

.

Note 1. The following register settings are not reflected to the operation of the LIN Self-Test mode.

The RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register.

Therefore, those settings are not necessary.

19.5.5.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000xB

RLN3nLBRP0 register = xxxx xxxxB*1

RLN3nLBRP1 register = xxxx xxxxB*1

RLN3nLMD register = 00xx xx00B*1

.

Note 1. The following register settings are not reflected to the operation of the LIN Self-Test mode.

The RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

19.5.5.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000B

RLN3nLBRP0 register = xxxx xxxxB*1

RLN3nLBRP1 register = xxxx xxxxB*1

RLN3nLMD register = 00xx 0011B*1

.

Note 1. The following register settings are not reflected to the operation of the LIN Self-Test mode.

The RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, those settings are not necessary.

19.5.5.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000B

RLN3nLBRP0 register = xxxx xxxxB*1

RLN3nLBRP1 register = xxxx xxxxB*1

RLN3nLMD register = 00xx 0011B*1

.

Note 1. The following register settings are not reflected to the operation of the LIN Self-Test mode.

The RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

[Before]

19.5.5 LIN Self-Test Mode

Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps].

(The NSPB bits in the RLN3nLWBR register should be set to 0000B or 1111B.)

19.5.5.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxxB*₁

RLN3nLBRP0 register = xxxx xxxxB*₁

RLN3nLBRP1 register = xxxx xxxxB*₁

RLN3nLMD register = 00xx xx00B*₁

.....

Note 1. The following register settings are not reflected to the operation of the LIN Self-Test mode.

The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register. Therefore, those settings are not necessary.

19.5.5.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxxB*₁

RLN3nLBRP0 register = xxxx xxxxB*₁

RLN3nLBRP1 register = xxxx xxxxB*₁

RLN3nLMD register = 00xx xx00B*₁

.....

Note 1. The following register settings are not reflected to the operation of the LIN Self-Test mode.

The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register.

19.5.5.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0B*₁

RLN3nLBRP0 register = xxxx xxxxB*₁

RLN3nLBRP1 register = xxxx xxxxB*₁

RLN3nLMD register = 00xx 0011B*₁

.....

Note 1. The following register settings are not reflected to the operation of the LIN Self-Test mode.

The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, those settings are not necessary.

19.5.5.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B*₁

RLN3nLBRP0 register = xxxx xxxx_B*₁

RLN3nLBRP1 register = xxxx xxxx_B*₁

RLN3nLMD register = 00xx 0011_B*₁

.....

Note 1. The following register settings are not reflected to the operation of the LIN Self-Test mode.

The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

1.2. RH850/C1M-A

[After]

13.9 LIN Self-Test Mode

In LIN self-test mode, the operate is at the fastest baud rate, regardless of the setting of the baud rate generator.

Regardless of the setting of the baud rate related registers, the baud rate operates at the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

(The LPRS bits in the RLN3nLWBR register should be set to 000_B.)

13.9.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_x_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register. Therefore, those settings are not necessary.

13.9.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_x_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

13.9.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, those settings are not necessary.

13.9.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

[Before]

13.9 LIN Self-Test Mode

In LIN self-test mode, the operate is at the fastest baud rate, regardless of the setting of the baud rate generator.

Regardless of the setting of the baud rate related registers, the baud rate operates at the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

13.9.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register. Therefore, those settings are not necessary.

13.9.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

13.9.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, those settings are not necessary.

13.9.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

1.3. F1x

1.3.1. F1L, F1K, F1KH/F1KM

Regarding the target chapter, R01UH0390EJ0133(F1L) is 17, R01UH0562EJ0110(F1K) is 19 and R01UH0684EJ0110(F1KH/F1KM) is 22.

[After]

17.9 LIN Self-Test Mode

In LIN self-test mode, the operation is performed at the fastest baud rate, regardless of the setting of the baud rate generator.

Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000B or 1111B.)

(The LPRS bits in the RLN3nLWBR register should be set to 000_B.)

17.9.2 Transmission in LIN Master Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_xB

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register.

Therefore, configuration of these registers is not necessary.

17.9.3 Reception in LIN Master Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_xB

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register.

Therefore, configuration of these registers is not necessary.

17.9.4 Transmission in LIN Slave Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the RLN3nLBRP0 register, and the RLN3nLBRP1 register.

Therefore, configuration of these registers is not necessary.

17.9.5 Reception in LIN Slave Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the RLN3nLBRP0 register, and the RLN3nLBRP1 register.

Therefore, configuration of these registers is not necessary.

[Before]

17.9 LIN Self-Test Mode

In LIN self-test mode, the operation is performed at the fastest baud rate, regardless of the setting of the baud rate generator.

Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

17.9.2 Transmission in LIN Master Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register.

Therefore, configuration of these registers is not necessary.

17.9.3 Reception in LIN Master Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register.

Therefore, configuration of these registers is not necessary.

17.9.4 Transmission in LIN Slave Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}
 RLN3nLMD register = 00xx 0011_B

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, and the RLN3nLBRP1 register.
 Therefore, configuration of these registers is not necessary.

17.9.5 Reception in LIN Slave Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B^{*1}
 RLN3nLBRP0 register = xxxx xxxx_B^{*1}
 RLN3nLBRP1 register = xxxx xxxx_B^{*1}
 RLN3nLMD register = 00xx 0011_B

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, and the RLN3nLBRP1 register.
 Therefore, configuration of these registers is not necessary.

1.3.2. F1M, F1H, F1H-100

[After]

18.9 LIN Self-Test Mode

In LIN self-test mode, operation is performed at the fastest baud rate, regardless of the setting of the baud rate generator.

Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

(The LPRS bits in the RLN3nLWBR register should be set to 000_B.)

18.9.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_x_B
 RLN3nLBRP0 register = xxxx xxxx_B^{*1}
 RLN3nLBRP1 register = xxxx xxxx_B^{*1}
 RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register.
 Therefore, those settings are not necessary.

18.9.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_x_B
 RLN3nLBRP0 register = xxxx xxxx_B^{*1}
 RLN3nLBRP1 register = xxxx xxxx_B^{*1}
 RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register.

Therefore, those settings are not necessary.

18.9.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The RLN3nLBRP0 register, and the RLN3nLBRP1 register.

Therefore, those settings are not necessary.

18.9.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register.

Therefore, those settings are not necessary.

[Before]

18.9 LIN Self-Test Mode

In LIN self-test mode, operation is performed at the fastest baud rate, regardless of the setting of the baud rate generator.

Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

18.9.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register.

Therefore, those settings are not necessary.

18.9.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

.

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register.

Therefore, those settings are not necessary.

18.9.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, and the RLN3nLBRP1 register.

Therefore, those settings are not necessary.

18.9.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

.

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register.

Therefore, those settings are not necessary.

1.4. R1L

[After]

14.9 LIN Self-Test Mode

In LIN self-test mode, the operation is performed at the fastest baud rate, regardless of the setting of the baud rate generator. Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000B or 1111B.)

(The LPRS bits in the RLN3nLWBR register should be set to 000_B.)

14.9.2 Transmission in LIN Master Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_xB

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register.

Therefore, configuration of these registers is not necessary.

14.9.3 Reception in LIN Master Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_xB

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register.

Therefore, configuration of these registers is not necessary.

14.9.4 Transmission in LIN Slave Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, configuration of these registers is not necessary.

14.9.5 Reception in LIN Slave Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000_B

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode:

the RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register.

Therefore, configuration of these registers is not necessary.

[Before]

14.9 LIN Self-Test Mode

In LIN self-test mode, the operation is performed at the fastest baud rate, regardless of the setting of the baud rate generator.

Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

14.9.2 Transmission in LIN Master Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode: **the LPRS bit in the RLN3nLWBR register,**

the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register.

Therefore, configuration of these registers is not necessary.

14.9.3 Reception in LIN Master Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode: **the LPRS bit in the RLN3nLWBR register,**

the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register.

Therefore, configuration of these registers is not necessary.

14.9.4 Transmission in LIN Slave Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode: the LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, configuration of these registers is not necessary.

14.9.5 Reception in LIN Slave Self-Test Mode

- Configure the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx 0011_B

Note 1. The settings of the following registers are not reflected to the operation of the LIN self-test mode: the LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register.

Therefore, configuration of these registers is not necessary.

1.5. P1x

1.5.1. P1M, P1M-E

[After]

16.9 LIN Self-Test Mode

Regardless of the setting of the baud rate related registers, the baud rate operates at the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

(The LPRS bits in the RLN3nLWBR register should be set to 000_B.)

16.9.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_{XB}

RLN3nLBRP0 register = xxxx xxxxB*₁

RLN3nLBRP1 register = xxxx xxxxB*₁

RLN3nLMD register = 00xx xx00_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register. Therefore, those settings are not necessary.

16.9.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_{XB}

RLN3nLBRP0 register = xxxx xxxxB*₁

RLN3nLBRP1 register = xxxx xxxxB*₁

RLN3nLMD register = 00xx xx00_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register. Therefore, those settings are not necessary.

[Before]

16.9 LIN Self-Test Mode

Regardless of the setting of the baud rate related registers, the baud rate operates at the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

16.9.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B*₁

RLN3nLBRP0 register = xxxx xxxx_B*₁

RLN3nLBRP1 register = xxxx xxxx_B*₁

RLN3nLMD register = 00xx xx00_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register. Therefore, those settings are not necessary.

16.9.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B*₁

RLN3nLBRP0 register = xxxx xxxx_B*₁

RLN3nLBRP1 register = xxxx xxxx_B*₁

RLN3nLMD register = 00xx xx00_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

1.5.2. P1x-C, P1L-C

Regarding the target chapter, R01UH0517EJ0130 (P1x-C) is 18 and R01UH0592EJ0110 (P1L-C) is 16.

[After]

18.5.5 LIN Self-Test Mode

Regardless of the setting of the baud rate related registers, the baud rate operates at the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

(The LPRS bits in the RLN3nLWBR register should be set to 000_B.)

18.5.5.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_{XB}

RLN3nLBRP0 register = xxxx xxxxB*₁

RLN3nLBRP1 register = xxxx xxxxB*₁

RLN3nLMD register = 00xx xx00_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register. Therefore, those settings are not necessary.

18.5.5.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_{XB}

RLN3nLBRP0 register = xxxx xxxxB*₁

RLN3nLBRP1 register = xxxx xxxxB*₁

RLN3nLMD register = 00xx xx00_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

18.5.5.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_B

RLN3nLBRP0 register = xxxx xxxxB*₁

RLN3nLBRP1 register = xxxx xxxxB*₁

RLN3nLMD register = 00xx 0011_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, those settings are not necessary.

18.5.5.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000_B

RLN3nLBRP0 register = xxxx xxxx_B*₁

RLN3nLBRP1 register = xxxx xxxx_B*₁

RLN3nLMD register = 00xx 0011_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

[Before]

18.5.5 LIN Self-Test Mode

Regardless of the setting of the baud rate related registers, the baud rate operates at the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000_B or 1111_B.)

18.5.5.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B*₁

RLN3nLBRP0 register = xxxx xxxx_B*₁

RLN3nLBRP1 register = xxxx xxxx_B*₁

RLN3nLMD register = 00xx xx00_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register. Therefore, those settings are not necessary.

18.5.5.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B*₁

RLN3nLBRP0 register = xxxx xxxx_B*₁

RLN3nLBRP1 register = xxxx xxxx_B*₁

RLN3nLMD register = 00xx xx00_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

18.5.5.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B*₁

RLN3nLBRP0 register = xxxx xxxx_B*₁

RLN3nLBRP1 register = xxxx xxxx_B*₁

RLN3nLMD register = 00xx 0011_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The **LPRS bit in the RLN3nLWBR register,** the RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, those settings are not necessary.

18.5.5.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0_B*₁

RLN3nLBRP0 register = xxxx xxxx_B*₁

RLN3nLBRP1 register = xxxx xxxx_B*₁

RLN3nLMD register = 00xx 0011_B*₁

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The **LPRS bit in the RLN3nLWBR register,** the RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

1.6. D1x

[After]

20.9 LIN Self-Test Mode

In LIN self-test mode, the operate is at the fastest baud rate, regardless of the setting of the baud rate generator.

Regardless of the setting of the baud rate related registers, the baud rate operates at the LIN communication clock source/16 [bps]. (The NSPB[3:0] bits in the RLN3nLWBR register should be set to 0000B or 1111B.)

(The LPRS[2:0] bits in the RLN3nLWBR register should be set to 000_B.)

20.9.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_{x_B}

RLN3nLBRP0 register = xxxx xxxxB^{*1}

RLN3nLBRP1 register = xxxx xxxxB^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS[1:0] bit in the RLN3nLMD register. Therefore, those settings are not necessary.

20.9.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000_{x_B}

RLN3nLBRP0 register = xxxx xxxxB^{*1}

RLN3nLBRP1 register = xxxx xxxxB^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS[1:0] bit in the RLN3nLMD register. Therefore, those settings are not necessary.

[Before]

20.9 LIN Self-Test Mode

In LIN self-test mode, the operate is at the fastest baud rate, regardless of the setting of the baud rate generator.

Regardless of the setting of the baud rate related registers, the baud rate operates at the LIN communication clock source/16 [bps]. (The NSPB[3:0] bits in the RLN3nLWBR register should be set to 0000B or 1111B.)

20.9.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxxB^{*1}

RLN3nLBRP0 register = xxxx xxxxB^{*1}

RLN3nLBRP1 register = xxxx xxxxB^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The LPRS[2:0] bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS[1:0] bit in the RLN3nLMD register. Therefore, those settings are not necessary.

20.9.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxx_B^{*1}

RLN3nLBRP0 register = xxxx xxxx_B^{*1}

RLN3nLBRP1 register = xxxx xxxx_B^{*1}

RLN3nLMD register = 00xx xx00_B^{*1}

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.

The LPRS[2:0] bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS[1:0] bit in the RLN3nLMD register, and the IBS[1:0] bit in the RLN3nLSC register. Therefore, those settings are not necessary.

1.7. RH850/U2Ax

[After]

21.4.6 LIN Self-Test Mode

Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000B or 1111B.)

(The LPRS bits in the RLN3nLWBR register should be set to 000B.)

21.4.6.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000xB

RLN3nLBRP0 register = xxxx xxxxB*1

RLN3nLBRP1 register = xxxx xxxxB*1

RLN3nLMD register = 00xx xx00B*1

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.
The RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register.
Therefore, those settings are not necessary.

21.4.6.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 000xB

RLN3nLBRP0 register = xxxx xxxxB*1

RLN3nLBRP1 register = xxxx xxxxB*1

RLN3nLMD register = 00xx xx00B*1

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.
The RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

21.4.6.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000B

RLN3nLBRP0 register = xxxx xxxxB*1

RLN3nLBRP1 register = xxxx xxxxB*1

RLN3nLMD register = 00x x0011B

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.
The RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, those settings are not necessary.

21.4.6.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 0000B

RLN3nLBRP0 register = xxxx xxxxB*1

RLN3nLBRP1 register = xxxx xxxxB*1

RLN3nLMD register = 00xx 0011B

.

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode.
 The RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register.
 Therefore, those settings are not necessary.

[before]

21.4.6 LIN Self-Test Mode

Regardless of the setting of the baud rate related registers, the baud rate setting is the LIN communication clock source/16 [bps]. (The NSPB bits in the RLN3nLWBR register should be set to 0000B or 1111B.)

21.4.6.2 Transmission in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxxB*1

RLN3nLBRP0 register = xxxx xxxxB*1

RLN3nLBRP1 register = xxxx xxxxB*1

RLN3nLMD register = 00xx xx00B*1

.

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register and the LCKS bit in the RLN3nLMD register. Therefore, those settings are not necessary.

21.4.6.3 Reception in LIN Master Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxxxB*1

RLN3nLBRP0 register = xxxx xxxxB*1

RLN3nLBRP1 register = xxxx xxxxB*1

RLN3nLMD register = 00xx xx00B*1

.

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, the LCKS bit in the RLN3nLMD register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

21.4.6.4 Transmission in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0B*¹

RLN3nLBRP0 register = xxxx xxxxB*¹

RLN3nLBRP1 register = xxxx xxxxB*¹

RLN3nLMD register = 00x x0011B

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, and the RLN3nLBRP1 register. Therefore, those settings are not necessary.

21.4.6.5 Reception in LIN Slave Self-Test Mode

- Set the baud rate, noise filter, and interrupt output related registers.

RLN3nLWBR register = 0000 xxx0B*¹

RLN3nLBRP0 register = xxxx xxxxB*¹

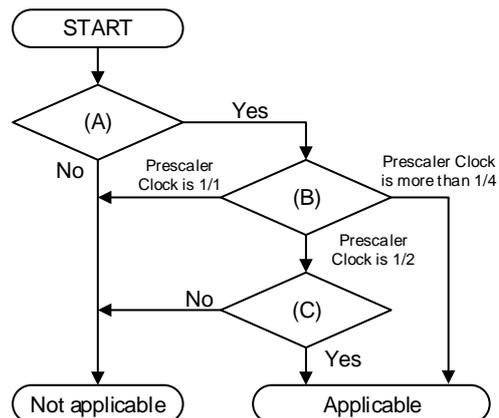
RLN3nLBRP1 register = xxxx xxxxB*¹

RLN3nLMD register = 00xx 0011B

.....

Note 1. The following register settings are not reflected to the operation of the LIN self-test mode. The LPRS bit in the RLN3nLWBR register, the RLN3nLBRP0 register, the RLN3nLBRP1 register, and the IBS bit in the RLN3nLSC register. Therefore, those settings are not necessary.

2. Judgment Flow



Judgement	Details
(A)	Using Self-Test mode Function. <ul style="list-style-type: none"> LSTM bit = 1 in RLN3nLSTC register.
(B)	What is the Prescaler Clock select in Self-Test mode? <ul style="list-style-type: none"> RLN3nLWBR.LPRS = 000_B (Prescaler Clock is 1/1.) RLN3nLWBR.LPRS = 001_B (Prescaler Clock is 1/2.) Other than those above. (Prescaler Clock is more than 1/4.)
(C)	Using noise filter setting in Self-Test mode. <ul style="list-style-type: none"> RLN3nLMD.LRDNFS = 0 (The noise filter is enabled.) RLN3nLMD.LRDNFS = 1 (The noise filter is disabled.)

3. Reference Document

Series	Product	Manual
E2x	FCC1/E2M	R01UH0641EJ0120
	FCC2/E2H/E2UH	R01UH0770EJ0100
C1M-A	C1M-A1/C1M-A2	R01UH0607EJ0120
F1x	F1L	R01UH0390EJ0133
	F1M	R01UH0518EJ0103
	F1H	R01UH0445EJ0112
	F1H-100	R01UH0631EJ0100
	F1K	R01UH0562EJ0110
	F1KH/F1KM	R01UH0684EJ0110
R1L	R1L	R01UH0411EJ0131
P1x	P1M	R01UH0436EJ0140
	P1M-E	R01UH0585EJ0120
	P1x-C	R01UH0517EJ0130
	P1L-C	R01UH0592EJ0110
D1x	D1x	R01UH0451EJ0220
U2Ax	EVA/U2A16/U2A8	R01UH0864EJ0070

Fin.