

ROM number	
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**RENESAS ELECTRONICS
SINGLE-CHIP 16-BIT MICROCOMPUTER
R5F2LA87ANXXXFP
ROM PROGRAMMING CONFIRMATION FORM**

Receipt	Date:	
	Section mgr signature	PIC signature

Note: Please fill in all items marked *.

* Applicant	Company Name	TEL	Applicant signature	Submitted by
	Date issued	Year / Month / Date		

*** 1. Mask file**

Please kindly verify and confirm the mask file in the submitted CD-R prior to submission.
Please submit mask files on CD-R. And the number of the mask file must be 1 mask file per one CD-R.

Part Number R5F2LA87ANXXXFP

File Code

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 (hexadecimal notation)

Mask file name

--	--	--	--	--	--	--	--

 .MSK (no more than 8 characters)

*** 2. Mask option**

Set the mask option in the mask file generating utility as follows:

Address : 10h Data : 01h

*** 3. ROM data which must be set by user**

Check the option function select registers (OFS, OFS2) and ID code areas to be set for appropriate values as ROM data.

OFS register OFS2 register ID code areas

CAUTION:

Note 1 : ROM order of this product programs the Data Flash area.

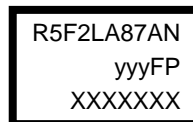
Note 2 : ROM data confirmation request

ROM programming will be processed based on the mask file generated by the mask file generating utility. Only in case when ROM data programmed in the actual mass produced product differs from that of above mentioned mask file, RENESAS takes the responsibility. There is no Engineering Sample, thus please confirm the ROM data at the receipt of the Initial product delivery.

Should you find any problem, please return immediately. 2 weeks without technical error feedback towards RENESAS will automatically be regarded as acceptance of products.

Note 3 : Mark specification

Please refer to Fig. 1 about mark specification.



yyy : ROM number XXXXXXX : Lot number.

Fig. 1

RENESAS ELECTRONICS SINGLE-CHIP 16-BIT MICROCOMPUTER R5F2LA87ANXXXFP

Usage conditions

For our reference of new products, please reply to the following questions about the usage of the products you ordered.

(1) What is the voltage of power supply (Vcc) you use?

Typ. = V Min. = V Max. = V

(2) What is the ambient temperature you use?

Typ. = °C Min. = °C Max. = °C

(3) On which condition will you use Reset? (Plural answers are possible.)

Hardware Reset Power-on reset Reset Voltage monitor 0 Reset
 Watchdog timer Reset Software Reset

(4) On which condition will you use Voltage monitor 0 Circuit?

Use Not use
Voltage Detection 0 Level Select 3.80V 2.85V 2.35V 1.90V

(5) On which condition will you use Voltage monitor 1 Circuit?

Use Not use
Voltage Detection 1 Level Select 2.20V 2.35V 2.50V 2.65V
 2.80V 2.95V 3.10V 3.25V
 3.40V 3.55V 3.70V 3.85V
 4.00V 4.15V 4.30V 4.45V

(6) Will you use Voltage monitor 2 Circuit?

Use Not use

(7) On which condition will you use High-speed clock?

High-Speed On-Chip Oscillator Use Not use
Frequency 20MHz 18.432MHz
Division ratio Divide-by- mode

XIN-XOUT Oscillates Use Not use External clock input
Oscillator type Crystal Oscillator Ceramic resonator Others ()
Frequency f(XIN) = MHz
Load capacity XIN side = pF XOUT side = pF
Internal feedback resistance Use Not use
Oscillation stop detection Use Not use

(8) On which condition will you use Low-speed clock?

Use Not use Low-speed on-chip oscillator
Oscillator type Crystal Oscillator Others ()
Frequency f(XCIN) = kHz
Load capacity XCIN side = pF XCOUT side = pF
Internal feedback resistance Use Not use

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(9) On which condition will you use System clock division ratio?

- No division mode Divide-by-2 mode Divide-by-4 mode
 Divide-by-8 mode Divide-by-16 mode

(10) Which Power control mode will you use? (Plural answers are possible.)

- Wait mode Stop mode
 Power-off 0 mode Power-off 2 mode

(11) Will you use Flash memory?

- CPU rewrite mode Use Not use
ROM code protect Use Not use

(12) Which timer mode will you use?

- Timer RB Use Not use
Operation mode Timer mode Programmable one-shot generation mode
 Programmable waveform generation mode Programmable wait one-shot generation mode
Count source f1 f2 f8 Timer RJ under flow

- Timer RC Use Not use
Operation mode Timer mode Input capture function Output compare function
 PWM mode PWM2 mode
Count source f1 f2 f4 f8 f32 fOCO20M
 fOCO-F TRCCLK

- Timer RH Use Not use
Operation mode Output compare mode Real-time clock mode
Count source f8 f32 f256 f512 f2048 f4096
 f8192 fc-TRH

- Timer RJ Use Not use
Operation mode Timer mode Pulse output mode Event counter mode
 Pulse width measurement mode Pulse period measurement mode
Count source f1 f2 f8 fOCO fC32 fC
 Timer RJ under flow

(13) On which condition will you use UART?

- UART0 Use Not use
Operation mode Clock synchronous serial I/O mode Clock non-synchronous serial I/O mode

- UART2 Use Not use
Operation mode Clock synchronous serial I/O mode Clock non-synchronous serial I/O mode
 I2C mode Multiprocessor communication function

- Synchronous Serial Communication Unit (SSU) Use Not use
Operation mode Clock synchronous communication mode 4 lines bus communication mode

- I2C bus Interface Use Not use
Operation mode I2C bus interface mode Clock synchronous serial mode

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(14) On which condition will you use A/D converter?

- | | | | |
|------------------------------------|--|--|---|
| | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |
| A/D input pin | Number of A/D input pins used = _____ pins | | |
| Conversion mode | <input type="checkbox"/> 8bit A/D | | <input type="checkbox"/> 10bit A/D |
| A/D clock source | <input type="checkbox"/> f1 | | <input type="checkbox"/> fOCO-F |
| Division ratio | <input type="checkbox"/> No division | <input type="checkbox"/> In frequency/2 | <input type="checkbox"/> In frequency/4 <input type="checkbox"/> In frequency/8 |
| A/D Trigger | <input type="checkbox"/> Software | <input type="checkbox"/> Timer RH | <input type="checkbox"/> Timer RC <input type="checkbox"/> External Trigger |
| | <input type="checkbox"/> Not use | | |
| A/D Operation mode | <input type="checkbox"/> Single mode | <input type="checkbox"/> Repeat mode0 | <input type="checkbox"/> Repeat mode1 |
| | <input type="checkbox"/> Single sweep mode | <input type="checkbox"/> Repeat sweep mode | Sweep pin = _____ pins |
| Disconnection-detection assistance | | <input type="checkbox"/> Use | <input type="checkbox"/> Not use |
| Gain amplifier | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |
| Gain amplifier selection | <input type="checkbox"/> Gain1 | <input type="checkbox"/> Gain2 | <input type="checkbox"/> Gain4 |
| | <input type="checkbox"/> Gain6 | <input type="checkbox"/> Gain8 | |

(15) On which condition will you use Temperature Sensor?

- | | | | |
|--------------------------|--------------------------------|--------------------------------|----------------------------------|
| | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |
| Gain amplifier | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |
| Gain amplifier selection | <input type="checkbox"/> Gain1 | <input type="checkbox"/> Gain2 | <input type="checkbox"/> Gain4 |
| | <input type="checkbox"/> Gain6 | <input type="checkbox"/> Gain8 | |

(16) On which condition will you use ComparatorB?

- | | | | |
|----------------|------------------------------|--|----------------------------------|
| Comparator B1 | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |
| Digital Filter | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |
| Comparator B3 | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |
| Digital Filter | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |

(17) On which condition will you use LCD Drive Control Circuit?

- | | | | |
|---|---|--|--|
| | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |
| Usage of LCD pins | Number of common pins used = _____ pins | | Number of segment pins used = _____ pins |
| Bias | <input type="checkbox"/> 1/2 | <input type="checkbox"/> 1/3 | |
| Usage of LCD panel | <input type="checkbox"/> 5V faction | | <input type="checkbox"/> 3V faction |
| | <input type="checkbox"/> Memory-Type Liquid Crystal Panel | | <input type="checkbox"/> Others() |
| LCD Clock Source | <input type="checkbox"/> f32 | | <input type="checkbox"/> fC-LCD |
| Division ratio | <input type="checkbox"/> In frequency/2 | <input type="checkbox"/> In frequency/4 | <input type="checkbox"/> In frequency/8 <input type="checkbox"/> In frequency/16 |
| | <input type="checkbox"/> In frequency/32 | <input type="checkbox"/> In frequency/64 | <input type="checkbox"/> In frequency/128 |
| External division resistor | <input type="checkbox"/> Use | | <input type="checkbox"/> Not use |
| Range of LCD power supply voltage (VL3) | Min. = _____ V | | Max. = _____ V |
| Division resistance | One Resistor Value = _____ kΩ | | |
| Frame frequency = _____ Hz | | | |

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(18) On which condition will you use Watchdog Timer?

Use Not use

Count Source CPU clock Low-speed on-chip oscillator clock for the watchdog timer clock

Division ratio of the prescaler

1/2 1/16 1/128

Watchdog timer underflow period set bit

03FFh 0FFFh 1FFFh 3FFFh

Watchdog timer refresh acknowledgement period set bit

25% 50% 75% 100%

Watchdog timer start select bit

Watchdog timer automatically starts after reset

Watchdog timer is stopped after reset

Count source protection mode after reset select bit

Count source protection mode enabled after reset

Count source protection mode disabled after reset

Thank you for your cooperation.