ROM number	

RENESAS ELECTRONICS
SINGLE-CHIP 16-BIT MICROCOMPUTER
R5F2LA87ADXXXFA

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 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   ☐ R5F2LA87ADXXXFA

   File Code | | | | | | | | | (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

C A U T I O N :

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.

```
R5F2LA87AD
   yyyFA
XXXXXX
XXXXXX
```
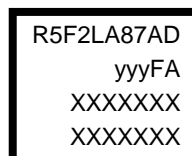
yyy : ROM number
XXXXXX : Lot number.

Fig. 1

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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. = ＿＿＿℃   Min. = [＿＿＿]℃   Max. = [＿＿＿]℃

(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?

☐ Use   ☐ Not use

A/D input pin   Number of A/D input pins used =_____ pins

Conversion mode   ☐ 8bit A/D   ☐ 10bit A/D

A/D clock source   ☐ f1   ☐ fOCO-F

Division ratio   ☐ No division   ☐ In frequency/2   ☐ In frequency/4   ☐ In frequency/8

A/D Trigger   ☐ Software   ☐ Timer RH   ☐ Timer RC   ☐ External Trigger
                          ☐ Not use

A/D Operation mode   ☐ Single mode   ☐ Repeat mode0   ☐ Repeat mode1
                          ☐ Single sweep mode ☐ Repeat sweep mode   Sweep pin =_____ pins

Disconnection-detection assistance   ☐ Use   ☐ Not use

Gain amplifier   ☐ Use   ☐ Not use

   Gain amplifier selection   ☐ Gain1   ☐ Gain2   ☐ Gain4
                              ☐ Gain6   ☐ Gain8

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

☐ Use   ☐ Not use

Gain amplifier   ☐ Use   ☐ Not use

   Gain amplifier selection   ☐ Gain1   ☐ Gain2   ☐ Gain4
                              ☐ Gain6   ☐ Gain8

(16) On which condition will you use ComparatorB?

Comparator B1   ☐ Use   ☐ Not use

   Digital Filter   ☐ Use   ☐ Not use

Comparator B3   ☐ Use   ☐ Not use

   Digital Filter   ☐ Use   ☐ Not use

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

☐ Use   ☐ Not use

Usage of LCD pins   Number of common pins used =_____ pins   Number of segment pins used =_____ pins

Bias   ☐ 1/2   ☐ 1/3

Usage of LCD panel   ☐ 5V faction   ☐ 3V faction
                     ☐ Memory-Type Liquid Crystal Panel ☐ Others(   )

LCD Clock Source   ☐ f32   ☐ fC-LCD

Division ratio   ☐ In frequency/2   ☐ In frequency/4   ☐ In frequency/8   ☐ In frequency/16
                     ☐ In frequency/32   ☐ In frequency/64   ☐ In frequency/128

External division resister   ☐ Use   ☐ Not use

   Range of LCD power supply voltage (VL3)   Min. =_____ V   Max. =_____ V

   Division resistance   One Resister 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.