

# R5F72867D100FA

User's Manual: Hardware

SH7285,SH7286 group are high-end single chip microcontroller incorporating an SH-2A core which realized up to 100MHz operation. The SH7286 and SH7285 incorporates large capacity Flash memory (SH7286:1MB, SH7285:768KB). The SH7286 also incorporates register banks. When an interrupt occurs, CPU internal register information is stored in registers at high speed. This makes it possible to improve real-time control performance greatly. The SH7286 also incorporates various peripheral functions suitable for industrial application AC servos, general-purpose inverters and robots, such as a 1 channel USB2.0 Full Speed, CAN(SH7286 only), 5 channel serial interface, a multifunction timer unit, a 12-bit A/D converter, etc. The SH7286realizes high speed operation of 100MHz, and 5V single power supply or 3.3Vsingle power supply operation. (Analog power supply is 5V)

Overview	Design Support	Documentation	Sample Code	Software & Tools	Ordering
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**Recommended Product**

**R5F72867D100FA#U2**

Production Status: Mass Production

## PARAMETRICS

Parameters	R5F72867D100FA
<b>Package</b>	
Pin Count	176
Package Type	LFQFP
<b>Memory</b>	
Program memory	1024 KB Flash memory
RAM	32 KB
Cache Memory Remark	ROM cache
<b>CPU (Bit, Clock, DMA, External Bus etc)</b>	
CPU	SH-2A (32-bit)
Max. Frequency	100 MHz
PLL	YES
Power-On Reset	YES
DMA Remarks	DMAC x 8 ch, DTC
External Address/Data Bus	YES
External Interrupt Pins	9
I/O Ports	113
<b>Timers</b>	
16-bit Timers	11 ch
Watchdog Timers	1 ch
PWM Output	24
3-Phase PWM Output Function	YES
<b>Analog</b>	
A/D Converters	12-bit x 12 ch
D/A Converters	8-bit x 2 ch
<b>Interfaces</b>	
CAN	1 ch
USB Ports	1
USB Peripheral	YES
CSIs	5 ch
SPIs	1 ch
UARTs	5 ch
I2Cs	1 ch
Serial Interface Remarks	SCI (CSI:4ch/UART:4ch), SCIF (CSI:1ch/UART:1ch), SSU (SPI)
<b>Operating Conditions</b>	
Operating Voltage	3 to 5.5 V
Power Supply	VCC=3.0- 5.5V, AVCC=AVREF=4.5-5.5V, VSS=PLLVSS=AVREFVSS=AVSS=0V
Operating Temperature	-40 to 85 °C (Ambient Temperature)

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