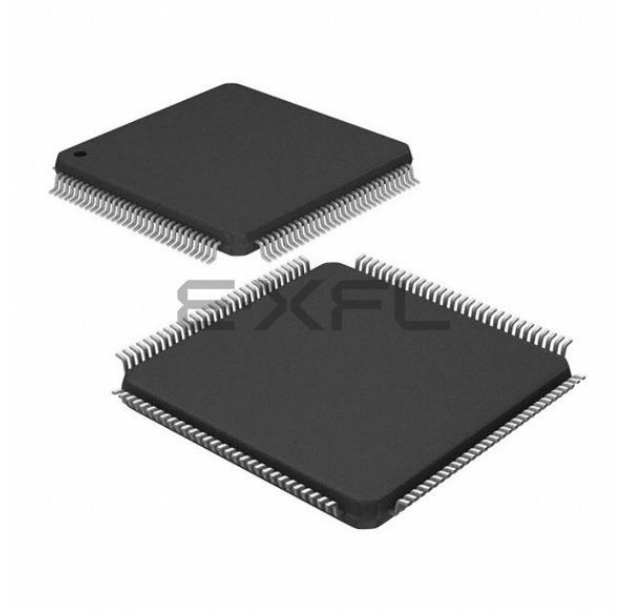
Renesas Electronics America Inc - R5S726A1D216FP#V0 Datasheet



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What is "Embedded - Microcontrollers"?

"Embedded - Microcontrollers" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

Applications of "Embedded - Microcontrollers"

Details	
Product Status	Active
Core Processor	SH2A-FPU
Core Size	32-Bit Single-Core
Speed	216MHz
Connectivity	CANbus, EBI/EMI, I²C, IEBus, SCI, SIO, SPI, USB
Peripherals	DMA, POR, PWM, WDT
Number of I/O	73
Program Memory Size	-
Program Memory Type	ROMless
EEPROM Size	-
RAM Size	1.3M x 8
Voltage - Supply (Vcc/Vdd)	3V ~ 3.6V
Data Converters	A/D 6x10b
Oscillator Type	External
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	120-LQFP
Supplier Device Package	120-LQFP (16x16)
Purchase URL	https://www.e-xfl.com/product-detail/renesas-electronics-america/r5s726a1d216fp-v0

Figure 7.1 shows a block diagram.

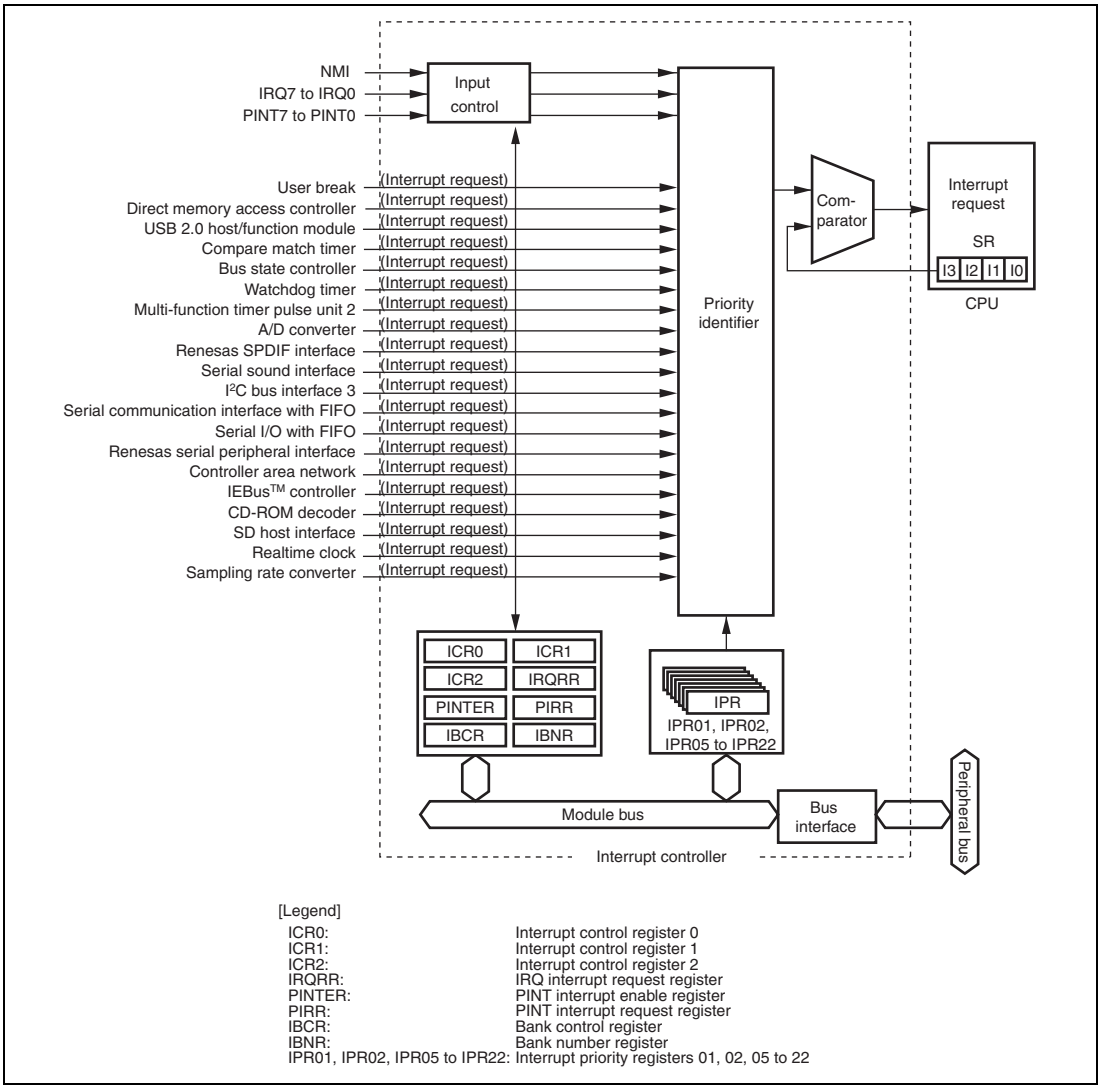
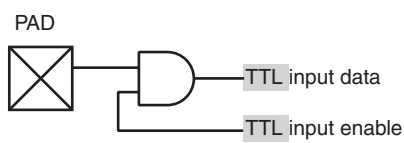


Figure 7.1 Block Diagram

Main Revisions and Additions in this Edition

Item	Page	Revision (See Manual for Details)
Table 1.1 SH726A/726B Features	6	Table amended **Items** / **Specification** Renesas serial peripheral interface • SH726A: two channels (channels 0 and 1), SH726B: three channels • SPI operation • Master mode and slave mode selectable • Programmable bit length, clock polarity, and clock phase can be selected. • Consecutive transfers • MSB first/LSB first selectable • Maximum transfer rate: 36 Mbps
Table 1.3 Pin Functions	18	Table amended **Classification** / **Symbol** / **I/O** / **Name** / **Function** Multi-function timer pulse unit 2 / TIOC4A, TIOC4B, TIOC4C, TIOC4D / I/O / Input capture/ output compare (channel 4) / The TGRA_4 to TGRD_4 input capture input/output compare output/PWM output pins.
Figure 1.3 (2) Simplified Circuit Diagram (TTL AND Input Buffer)	33	Figure amended