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Key Features of Renesas Electronics' New R8C/3NT Group MCUs

Item	Specifications			
Group name	R8C/3NT			
Product no.	R5F213NCTNBX	R5F213NATNBX	R5F213N8TNBX	R5F213N7TNBX
CPU core	R8C 16-bit CPU core			
Max. operating frequency/ power supply voltage	20 MHz/2.7 to 5.5 V 5 MHz/1.8 to 5.5 V			
Operating temperature range	−20 to 85℃			
Flash memory	128KB	96KB	64KB	48KB
Data flash	1 KB × 4 blocks			
RAM	10KB	8KB	6KB	4KB
On-chip peripheral functions	SCU (Sensor Control Unit) for touch sensor × 5 channels			
	16-bit timers (Timer RC) × 1 channel			
	8-bit timers (Timer RA, Timer RB, Timer RE) × 3 channels			
	10-bit A/D converter with 12 inputs			
	I2C bus interface/synchronous serial communication unit × 4 channels			
	Serial interfaces × 3 channels • UART (for clock synchronous and asynchronous serial I/O): 3 channels			
	Real time clock			
	Programmable I/O ports			

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	• CMOS I/O ports: 43 pins (with selectable pull-up resistors), CMOS input port: 1 pin • Large-current drive ports: 43 pins
	Power-on reset circuit
	Voltage detection: 3 points (detection level of voltage detection 0 and voltage detection 1 selectable)
	Oscillator circuits: • Four circuits: XIN clock oscillator circuit, XCIN sub-clock oscillator circuit, high-speed on-chip oscillator (with frequency adjustment function), low-speed on-chip oscillator • Oscillator stop detection: XIN clock oscillator stop detection function • Frequency divider circuit: A divisor of 1, 2, 4, 8, or 16 can be selected. • Low power consumption modes: standard operating modes (XIN clock, high-speed on-chip oscillator, low-speed on-chip oscillator), wait mode, stop mode.
	Interrupts • Number of interrupt vectors: 69 • External interrupt inputs: 9 (INT × 5, key input × 4) • Interrupt priority levels: 7 levels
	Watchdog timer
Package	48-pin WPP (3.05mm × 3.05mm) 0.4mm pin pitch