

February 27, 2012

Main Specifications of Renesas' RL78/L12 MCUs

Item		Specifications				
Group Name		RL78/L12				
Pin-count		32-pin	44-pin	48-pin	52-pin	64-pin
Code flash memory (Bytes)		8 K, 16 K, 32 K				16 K, 32 K
Data flash memory (Bytes)		2 K				
RAM		1 K, 1.5 K				
Clock	Main system clock	External main system clock input: 1 to 20 MHz High speed on-chip oscillator clock: 24/16/12/8/4/1 MHz				
	Sub system clock	—	XT1 (crystal) oscillation, external subsystem clock 32.768 kHz (TYP.): VDD = 1.6 to 5.5 V			
	Low-speed on-chip oscillator clock	Internal oscillation 15 kHz (TYP.)				
CPU		RL78 CPU core (16-bit CISC CPU) 30 DMIPS (24 MHz operation)				
I/O		20	29	33	37	47
Timer		16-bit timer: 6 ch "16-bit timer / 8-bit timer: 2 ch": 2 ch				
8/10-bit A/D		4 ch	7 ch	9 ch	10 ch	10 ch
Serial I/F		UART (LIN-bus supported): 1ch / CSI: 2 ch I ² C: 1 ch				
LCD controller/driver		Selectable LCD drive power supply (internal voltage boosting method / capacitor split method / external resistance division).				
	Segment signal output	13	22 (18) ^{Note 1}	26 (22) ^{Note 1}	30 (26) ^{Note 1}	39 (35) ^{Note 1}
	Common signal	4	4 (8) ^{Note 1}			

Item		Specifications				
	output					
External interrupt sources		4	6	7	7	9
DMA		2 ch				
Other features		Multiplier and divider/multiply accumulator Clock output/buzzer output Watchdog timer (WDT), real-time clock (RTC) Low voltage detection (LVD), power-on reset (POR) Safety functions, on-chip debug function				
Power supply voltage		1.6 to 5.5 V				
Operating ambient temperature		-40°C to +85°C				

*Note 1: The value inside the parentheses () is the number of segment signal outputs during 8COM operation.

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