

September 25, 2013

## Main Specifications of Renesas' RL78/L1C MCUs

<b>Group name</b>	<b>RL78/L1C</b>			
<b>Pin-count</b>	80-pin		100-pin	
<b>Part name</b>	R5F110M	R5F111M	R5F110P	R5F111P
<b>Code flash memory (KB)</b>	64 to 256			
<b>Data flash memory (KB)</b>	8			
<b>RAM (KB)</b>	8 to 16			
<b>Main system clock</b>	High-speed system clock 1 to 20 MHz High-speed on-chip oscillator clock 1 to 24 MHz PLL clock 6, 12, 24 MHz			
<b>Subsystem clock</b>	32.768 kHz			
<b>Low-speed on-chip oscillator clock</b>	15 kHz			
<b>I/O port</b>	59		77	
<b>Timer</b>	16-bit: 11 channels, 12-bit: 1 channel			
<b>12-bit A/D converter</b>	9 channels		13 channels	
<b>8-bit D/A converter</b>	2 channels			
<b>Comparator</b>	1 channel		2 channels	
<b>Serial interface</b>	<ul style="list-style-type: none"> <li>• CSI: 1channel/UART (UART supporting LIN-bus): 1channel/simplified I2C: 1 channel</li> <li>• CSI: 1 channel/UART: 1 channel/simplified I2C: 1 channel</li> <li>• CSI: 1 channel/UART: 1 channel/simplified I2C: 1 channel</li> <li>• CSI: 1 channel/UART: 1 channel/simplified I2C: 1 channel</li> </ul>			
	<b>I2C bus</b>	1 channel		
<b>USB</b>	<b>Function</b>	1 channel	–	1 channel
			–	

<b>LCD controller/driver</b>		Internal voltage boosting method, capacitor split method, and external resistance division method are switchable.	
	<b>Segment signal output</b>	44 (40)	56 (52)
	<b>Common signal output</b>	4 (8)	
<b>Data transfer controller (DTC)</b>		32 sources	33 sources
<b>Event link controller (ELC)</b>		Event input: 30, Event trigger output: 22	Event input: 31, Event trigger output: 22
<b>Vectored interrupt sources</b>	<b>Internal</b>	37	38
	<b>External</b>	9	
<b>Other features</b>		Low voltage detection (LVD), power-on reset (POR), Key return, real-time clock (RTC), Safety functions	
<b>Power supply voltage</b>		1.6 to 3.6 V	
<b>Operating ambient temperature</b>		-40 to +85°C, -40 to +105°C	