Separate Sheet

Product Specifications of the RL78/G11

Group name		RL78/G11		
Pin count		20 pins	24 pins	25 pins
Part name		R5F1056AASP R5F1056AGSP	R5F1057AASP R5F1057AGSP	R5F1058AASP R5F1058AGSP
Package (Body size (mm))		LSSOP (4.4 x 6.5)	HWQFN (4 x 4)	WFLGA (3 x 3)
Flash ROM (KB)		16		
Data Flash (KB)		2		
RAM (KB)		1.5		
Power supply voltage	V_{DD}	1.6 V to 5.5 V		
	EV_{DD0}	—		1.6 - V_{DD}
CPU operating frequency		24 MHz (max.)		
Clock	Main system	・X1 oscillation / External input: 1 to 20 MHz ・High-speed on-chip oscillator: 1 to 24 MHz (Accuracy: ±1% (Note 1), Only Timer KB0 can be operated at 48 MHz)		
	Middle-speed	Middle-speed on-chip oscillator: 1 to 4 MHz (Accuracy: ±12%)		
	Low-speed	Low-speed on-chip oscillator: 15 kHz (TYP.)		
CPU		RL78 CPU (Multiplication and Division / Multiplication and Accumulation instructions are supported)		
I/O ports		17	21	
Timer (Note 2)		16-bit：5ch, 12-bit：1ch, 8-bit：2ch, WDT:1ch		
10-bit A/D		10 channels	11 channels	
8-bit D/A		2 channels		
Comparator		2 channels		
PGA		1 channels		
Serial I/F (Note 3)	CSI	3 channels	4 channels	
	UART	2 channels		
	Simplified I^2C	3 channels	4 channels	
	I^2C	2 channels		
External interrupt terminal		10	13	
Other peripheral functions		Data transfer controller (DTC), event link controller (ELC), internal voltage reference (V_{BGR}), interrupt flag output (INTFO), low voltage detector (LVD), power-on-reset circuit (POR), safety functions		
Operating ambient		T_A= -40°C to +85°C (A: Consumer applications)		

temperature	T_A= -40°C to +105°C (G: Industrial applications)

(Note 1) Accuracy is for the ambient temperature range of –20 to +85°C, VDD ≥ 1.8V.
(Note 2) The two 8-bit interval timers can be connected to operate as a 16-bit timer.
(Note 3) The CSI, UART, and Simplified I^2C interfaces utilize a common module and are used exclusively in one- or two-channel units.

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