RENESAS

Separate Sheet

Product Specifications of the RL78/I1C

Group name		RL78/I1C			
Pin number		64-pin	80-pin	80-pin	100-pin
Device name		R5F10NLE/G	R5F10NME/G	R5F10NMJ	R5F10NPJ/G
Code flash memory (KB)		64K-128K	64K-128K	256K	128K-256K
Data flash memory (KB)		4 K			
RAM (KB)		6K-8K	6K-8K	16K	8K-16K
System Clock	External	High Speed Clock 1 MHz-20 MHz, Low Speed Clock 32.768KHz			
	On Chip Oscillator Clock	HS 1.5 MHz-24 MHz, MS 1 MHz-4 MHz, LS 15 kHz			
	PLL Clock	-		32 KHz	
HOCO Clock Frequency Correction Function		Support			
24-bit ΔΣ A/D Convertor	Input Channel Number	4 ch	3 ch	3 ch	4 ch
	SNDR	-80 dB (Gain x 1)			
	Sampling Frequency	3.906 kHz/1.953 kHz			
	PGA	x1, x2, x4, x8, x16, x32			
	Internal Ref. (Temperature coefficient)	0.8 V (10ppm/°C)			
	Zero Cross Detection	HW Zero Cross Detection			
8/10-bit A/D Convertor		4 ch			6 ch
32-bit Multiply- Accumulator		Support			
LCD	Segment//COM	15/8, 19/4	30/8, 34/4	30/8, 34/4	38/8, 42/4
	LCD Drive Voltage Generation Method	Int. Voltage Boost/ Capacitor Split/ Ext. Resistance Split Division			
Timer Function		16-bit Timer Array Unit : 8 ch, 12-bit Interval Timer: 1 ch, 8-bit Interval Timer: 4 ch			
Independent Power Supply RTC		1 ch			
Serial I/F	CSI0/UART0/Simple I2C0	1 ch			
	CSI1/UART1/ Simple I2C1	1 ch			
	UART2/IrDA	-	1 ch		
	CSI3/UART3/ Simple I2C3				1 ch
	Multi-Master I2C	1 ch			
Data Transfer Controller		29 Sources	31 Sources		
Event Link Controller		Event Generator 22 Types, Event Output Selection 5 Types			
Battery Backup Function	CPU	VDD/VBAT			
	ΔΣ A/D Convertor	VDD/VBAT			
	RTC	VRTC (Independent Power Supply)			

Voltage Detection (LVD)	Internal VDD, VDD pin, VBAT pin, VRTC pin, External pin	
AES HW	Cipher Modes GCM/ECB/CBC, Encryption key length 128/192/256-bit	
Key Interrupt Function	5-pin	8-pin
Other Peripheral Function	Watch Dog Timer, Power On Reset (POR), Safety Functions	
Power Supply Voltage Range	1.7 V-5.5 V	
Operating Ambient Temperature	-4°C-85°C	

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