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瑞萨电子公司网址：<http://www.renesas.com>

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瑞萨电子公司

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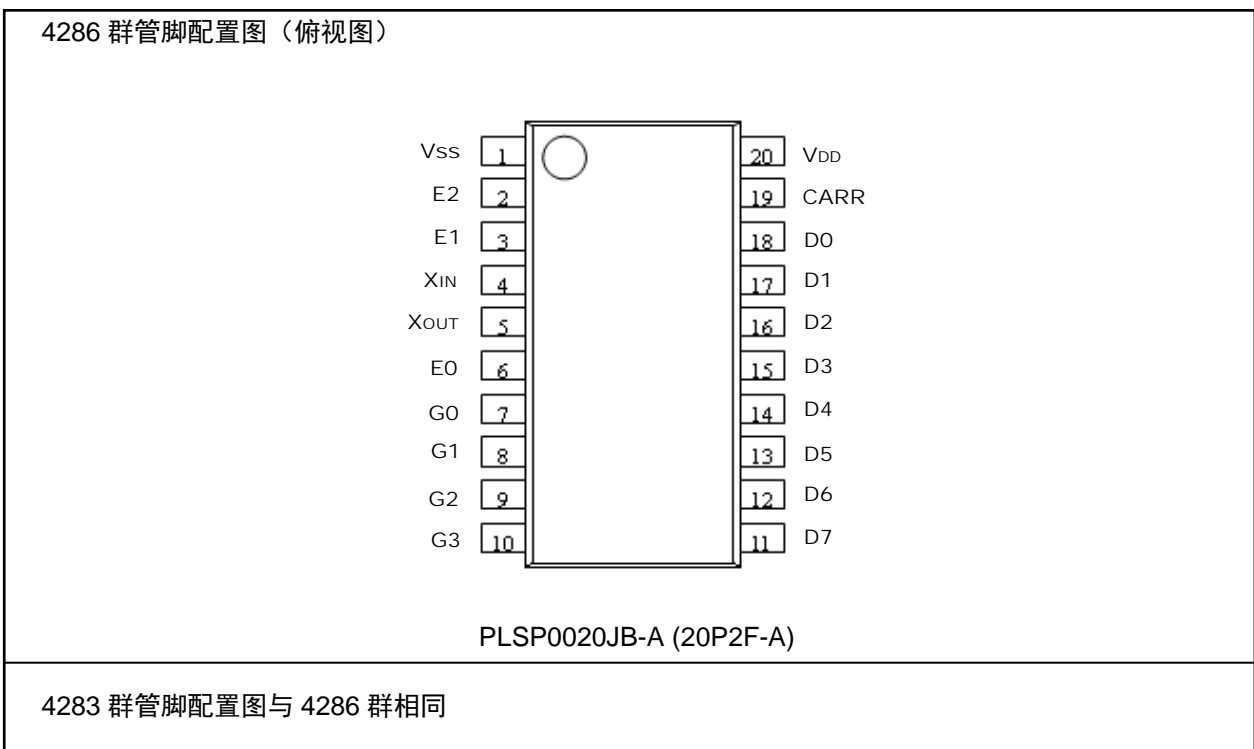
4286 群与 4283 群

4286 群与 4283 群的区别

1. 功能上的主要区别

项目		功能	
		4286 群	4283 群
基本指令数		72 (增加了 CCK2, CCK4, CLVD, TPU2A 指令)	68
最小指令执行时间		2 us	8 us
输入/输出端口	D0~D3	4 个独立的 I/O 端口并具有下拉和键唤醒功能	4 个独立的输出端口
系统时钟分频电路	不执行分频指令	$f(XIN)/8$	$f(XIN)/8$
	执行 CCK 指令	$f(XIN)$	$f(XIN)$
	执行 CCK2 指令	$f(XIN)/2$	—
	执行 CCK4 指令	$f(XIN)/4$	—
低电压检测电路	系统复位	不执行 CLVD 指令 1.5V (Ta = 25°C, 标准值)	1.5V (Ta = 25°C, 标准值)
		执行 CLVD 指令 1.7V (Ta = 25°C, 标准值)	
	复位解除	不执行 CLVD 指令 1.7V (Ta = 25°C, 标准值)	1.5V (Ta = 25°C, 标准值)
		执行 CLVD 指令 1.7V (Ta = 25°C, 标准值)	
工作环境温度		-40~85°C	-20~85°C

2. 管脚配置的区别



3. 控制寄存器的区别

下拉控制寄存器 PU2			4286 群			4283 群
			复位: 0000 ₂	RAM 备份模式: 保持原值	W	
PU23	端口 D3 下拉电阻控制位	0	断开下拉电阻, 键唤醒功能无效			4283 群无此寄存器
		1	连接下拉电阻, 键唤醒功能有效			
PU22	端口 D2 下拉电阻控制位	0	断开下拉电阻, 键唤醒功能无效			
		1	连接下拉电阻, 键唤醒功能有效			
PU21	端口 D1 下拉电阻控制位	0	断开下拉电阻, 键唤醒功能无效			
		1	连接下拉电阻, 键唤醒功能有效			
PU20	端口 D0 下拉电阻控制位	0	断开下拉电阻, 键唤醒功能无效			
		1	连接下拉电阻, 键唤醒功能有效			

4. 4286 群新增指令

指令	指令代码	功能	详细描述
CCK2	019 ₁₆	STCK 值改为 $f(XIN)/2$	系统时钟(STCK)从 $f(XIN)/8$ 改为 $f(XIN)/2$
CCK4	02D ₁₆	STCK 值改为 $f(XIN)/4$	系统时钟(STCK)从 $f(XIN)/8$ 改为 $f(XIN)/4$
CLVD	02E ₁₆	检测电压 VRST-:1.5V→1.7V	检测电压从 1.5V 改为 1.7V ($T_a = 25^\circ\text{C}$, 标准值)
TPU2A	08D ₁₆	(PU23-PU20)←(A3-A0)	把寄存器 A 的内容传递到寄存器 PU2

5. 参考文献

数据手册

4286 群硬件手册

4283 群硬件手册

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		页	要点
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