

PRODUCT CHANGE NOTICE

PCN 编号	PCN20200820-001_HC32 手册勘误 (F07x, L07x, L19x, F19x, L17x, F17x, F030, L130, L136, L110, F003, F005)	发行人: 夏成君	发行日期: 2020/08/20
客户名称	NA	联系人: NA	

受影响产品	商业名称	规格型号	备注
	HC32F07x/L07x 系列	ALL	
	HC32L19x/F19x/L17x/F17x 系列	ALL	
	HC32F030/L136/L130 系列	ALL	
	HC32L110/F003/F005 系列	ALL	

- 变更原因描述
1. 用户手册及数据手册电气参数章节【RESETB 引脚特性】不正确;
 2. 用户手册描述文字与电气参数不匹配;
 3. HC32F030/L136/L130 系列, HC32L110/F003/F005 系列 RCH 精度修改;
 4. HC32F072FAUA-QN32TR/HC32L072FAUA-QN32TR,OPA 数量错误。

变更方法描述	用户手册																																																																																																				
	商业编号	章节名称	修改前	修改后																																																																																																	
	HC32L110	1.4 时钟系统	全电压全温度范围内的 频率偏差小于 ±2.5% , 无需外接昂贵的高频晶体	全电压全温度范围内的 频率偏差小 , 可以 不外接 昂贵的高频晶体																																																																																																	
		29.3.8 内部时钟源特性	<p>内部 RCH 振荡器</p> <table border="1"> <thead> <tr> <th>Symbol</th> <th>Parameter</th> <th>Conditions</th> <th>Min</th> <th>Typ</th> <th>Max</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>Dev</td> <td>RCH 精度/频率容差</td> <td>Use trimming step for given VCC and TA conditions VCC = 1.8 ~ 5.5V T_{amb} = -40 ~ 85°C</td> <td>-2.5</td> <td>0.25</td> <td>+2.5</td> <td>%</td> </tr> <tr> <td></td> <td></td> <td>VCC = 1.8 ~ 5.5V T_{amb} = -20 ~ 50°C</td> <td>-2.0</td> <td></td> <td>+2.0</td> <td>%</td> </tr> <tr> <td>F_{CLK}</td> <td>振荡频率</td> <td></td> <td>4.0</td> <td>4.0 8.0 16.0 22.12 24.0</td> <td>24.0</td> <td>MHz</td> </tr> <tr> <td>I_{CLK}</td> <td>功耗</td> <td>F_{CLK} = 4MHz F_{CLK} = 8MHz F_{CLK} = 16MHz F_{CLK} = 24MHz</td> <td></td> <td>80 100 120 140</td> <td></td> <td>µA</td> </tr> <tr> <td>DC_{CLK}</td> <td>占空比⁽¹⁾</td> <td></td> <td>45</td> <td>50</td> <td>55</td> <td>%</td> </tr> </tbody> </table>	Symbol	Parameter	Conditions	Min	Typ	Max	Unit	Dev	RCH 精度/频率容差	Use trimming step for given VCC and TA conditions VCC = 1.8 ~ 5.5V T _{amb} = -40 ~ 85°C	-2.5	0.25	+2.5	%			VCC = 1.8 ~ 5.5V T _{amb} = -20 ~ 50°C	-2.0		+2.0	%	F _{CLK}	振荡频率		4.0	4.0 8.0 16.0 22.12 24.0	24.0	MHz	I _{CLK}	功耗	F _{CLK} = 4MHz F _{CLK} = 8MHz F _{CLK} = 16MHz F _{CLK} = 24MHz		80 100 120 140		µA	DC _{CLK}	占空比 ⁽¹⁾		45	50	55	%	<p>内部 RCH 振荡器</p> <table border="1"> <thead> <tr> <th>Symbol</th> <th>Parameter</th> <th>Conditions</th> <th>Min</th> <th>Typ</th> <th>Max</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>Dev</td> <td>RCH 精度/频率容差</td> <td>Use trimming step for given VCC and TA conditions VCC = 1.8 ~ 5.5V T_{amb} = -40 ~ 85°C</td> <td>-3.5</td> <td>0.25</td> <td>+3.5</td> <td>%</td> </tr> <tr> <td></td> <td></td> <td>VCC = 1.8 ~ 5.5V T_{amb} = -20 ~ 50°C</td> <td>-2.0</td> <td></td> <td>+2.0</td> <td>%</td> </tr> <tr> <td>F_{CLK}</td> <td>振荡频率</td> <td></td> <td>4.0</td> <td>4.0 8.0 16.0 22.12 24.0</td> <td>24.0</td> <td>MHz</td> </tr> <tr> <td>I_{CLK}</td> <td>功耗</td> <td>F_{CLK} = 4MHz F_{CLK} = 8MHz F_{CLK} = 16MHz F_{CLK} = 24MHz</td> <td></td> <td>80 100 120 140</td> <td></td> <td>µA</td> </tr> <tr> <td>DC_{CLK}</td> <td>占空比⁽¹⁾</td> <td></td> <td>45</td> <td>50</td> <td>55</td> <td>%</td> </tr> </tbody> </table>	Symbol	Parameter	Conditions	Min	Typ	Max	Unit	Dev	RCH 精度/频率容差	Use trimming step for given VCC and TA conditions VCC = 1.8 ~ 5.5V T _{amb} = -40 ~ 85°C	-3.5	0.25	+3.5	%			VCC = 1.8 ~ 5.5V T _{amb} = -20 ~ 50°C	-2.0		+2.0	%	F _{CLK}	振荡频率		4.0	4.0 8.0 16.0 22.12 24.0	24.0	MHz	I _{CLK}	功耗	F _{CLK} = 4MHz F _{CLK} = 8MHz F _{CLK} = 16MHz F _{CLK} = 24MHz		80 100 120 140		µA	DC _{CLK}	占空比 ⁽¹⁾		45	50	55	%													
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数据手册

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变更生效日期或产品 Date Code 说明: 2020/9/30

华大半导体 MCU 事业部工程部经理签署:

孙广军



日期: 2020.8.21

客户 部确认意见:

签署: 日期: