



聆思科技
LISTENAI

LS2100 BLE SoC Datasheet

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Prepared and Provided Under NDA

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Update History

| Version | Date | Update Description |
|---------|-------------------|--------------------|
| V1.0 | November 22, 2022 | Initial release. |

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Table of Contents

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No matter where you go, there you are.

—Banzai

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1 Footnotes

Autonumbered footnotes are possible, like using¹ and².

They may be assigned ‘autonumber labels’ - for instance,⁴ and³.

Footnote references, like⁵. Note that footnotes may get rearranged, e.g., to the bottom of the “page”.

Auto-symbol footnotes are also possible, like this:^{*0} and^{†0}.

¹ This is the first one.

² This is the second one.

⁴ a.k.a. *fourth*

³ a.k.a. *third*

⁵ A numerical footnote. Note there’ s no colon after the].

⁰ This is the first one.

⁰ This is the second one.

2 超链接

2.1 替换引用 (Substitution Reference)

替换引用就是用定义的指令替换对应的文字或图片，和内置指令 (inline directives) 类似。
这是 github 的 Logo，我的 github 用户名是:Who。

2.2 隐式超链接 (Implicit Hyperlink)

小节标题、脚注和引用参考会自动生成超链接地址，使用小节标题、脚注或引用参考名称作为超链接名称就可以生成隐式链接。

隐式超链接详细内容，参见隐式超链接 (*Implicit Hyperlink*)。

If CLOCK_MODE equals 1, there is no idle time between back-to-back characters if data is ready in the transmit FIFO. In this case, because *sync_delay* equals one pclk as described in Section ?? *Equation Example*, the requirement to avoid idle time between consecutive characters is met for all {DLH,DLL} values.

If CLOCK_MODE equals 1, there is no idle time between back-to-back characters if data is ready in the transmit FIFO. In this case, because *sync_delay* equals one pclk as described in Section ?? *Error*, the requirement to avoid idle time between consecutive characters is met for all {DLH,DLL} values.

3 简单表 (Simple Tables)

标题可合并单元格

| Inputs | | Output |
|--------|-------|--------|
| A | B | A or B |
| False | False | False |
| True | False | True |
| False | True | True |
| True | True | True |

行也可以合并单元格

| Inputs | | Output |
|--------|-------|--------|
| A | B | A or B |
| False | False | False |
| False | True | True |
| True | True | True |

合并方式？

| A | B | A or B |
|-------|-------|--------|
| False | False | False |
| False | True | True |
| False | True | True |
| True | True | True |

4 X

乘号 ×

4.1 分隔符

分隔符就是一条水平的横线，是由 4 个 - 或者更多组成，需要添加换行。

上面部分

下面部分

4.2 定义列表 (Definition Lists)

定义列表可以理解为解释列表，即名词解释。

条目占一行，解释文本要有缩进；多层可根据缩进实现。

定义 1 这是定义 1 的内容

定义定义 2 这是定义 2 的内容

4.3 文档测试块 (Doctest Blocks)

文档测试块是交互式的 Python 会话，以 >>> 开始，一个空行结束。

```
>>> print "This is a doctest block."  
This is a doctest block.
```

新的一行。

4.4 文字块 (Literal Blocks)

下面是文字块内容：

```
这是一段文字块  
同样也是文字块  
还是文字块
```

这是新的一段。

A paragraph containing only two colons indicates that the following indented or quoted text is a literal block.

```
Whitespace, newlines, blank lines, and
all kinds of markup (like *this* or
\this) is preserved by literal blocks.
```

The paragraph containing only `:::` will be omitted from the result.

The `::` may be tacked onto the very end of any paragraph. The `::` will be omitted if it is preceded by whitespace. The `:::` will be converted to a single colon if preceded by text, like this:

```
It's very convenient to use this form.
```

Literal blocks end when text returns to the preceding paragraph's indentation. This means that something like this is possible:

```
We start here
and continue here
and end here.
```

Per-line quoting can also be used on unindented literal blocks:

```
> Useful for quotes from email and
> for Haskell literate programming.
```

4.5 行块 (Line Blocks)

行块对于地址、诗句以及无装饰列表是非常有用的。

行块是以 `|` 开头，每一个行块可以是多段文本。

前后各有一个空格。

下面是行块内容：

这是一段行块内容

这同样也是行块内容还是行块内容

这是新的一段。

从此鲜花赠自己，纵马踏花向自由。

我与旧事归于尽，来年依旧迎花开。

Line blocks are useful for addresses, verse, and adornment-free lists. (显示为两行)

Each new line begins with a vertical bar (`|`).

Line breaks and initial indents are preserved.

Continuation lines are wrapped portions of long lines; they begin with spaces in place of vertical bars. (显示为一行)

4.6 块引用 (Block Quotes)

块引用是通过缩进来实现的，引用块要在前面的段落基础上缩进。

通常引用结尾会加上出处 (attribution)，出处的文字块开头是 —、—、—，后面加上出处信息。

块引用可以使用空的注释.. 分隔上下的块引用。

注意在新的块和出处都要添加一个空行。

下面是引用的内容：

“真的勇士，敢于直面惨淡的人生，敢于正视淋漓的鲜血。”

—鲁迅

“人生的意志和劳动将创造奇迹般的奇迹。”

—涅克拉索

Block quotes are just:

Indented paragraphs,
and they may nest.

4.7 选项列表 (Option Lists)

选项列表是一个类似两列的表格，左边是参数，右边是描述信息。当参数选项过长时，参数选项和描述信息各占一行。

选项与参数之间有一个空格，参数选项与描述信息之间至少有两个空格。

| | |
|--------------|--|
| -a | command-line option “a” |
| -b file | options can have arguments and long descriptions |
| --long | options can be long also |
| --input=file | long options can also have arguments |
| /V | DOS/VMS-style options too |

4.8 字段列表 (Field Lists)

标题 reStructuredText 语法说明

作者

- Alice
- Hank
- Wendy

时间 2016 年 06 月 21 日

概述 这是一篇关于 reStructuredText 的语法说明。

Authors Tony J. (Tibs) Ibbs, David Goodger

(and sundry other good-natured folks) (上面空一行，此处另起一行)

Version 1.0 of 2001/08/08

Dedication To my father.

4.9 符号列表 (Bullet Lists)

符号列表可以使用 -、*、+ 来表示。

不同的符号结尾需要加上空行，下级列表需要有空格缩进。

- 符号列表 1
- 符号列表 2
 - 二级符号列表 1
 - 二级符号列表 2
 - 二级符号列表 3
- 符号列表 3
- 符号列表 4

5 Glossary

UART Universal Receiver Transmitter

USB Universal Bus

6 加粗居中 Right-Aligned

6.1 居中

Confidential

6.2 居中加粗

Confidential

6.3 空格

space \

“ confidential “

empty math format Confidential

space

35656 space before

行内代码：“行内文本 (inline literal) 通常显示为等宽文本，空格可以保留，但是换行不可以。”

行内代码：vip_create_buffer()

行内代码：space before

行内代码：行内文本 (inline literal) 通常显示为等宽文本，空格可以保留，但是换行不可以。

7 版权所有

```
Copyright |copy| 2023, |MACAMACA (TM)| |---| all rights reserved.  
.. |copy| unicode:: 0xA9 .. copyright sign  
.. |MACAMACA (TM)| unicode:: MACAMACA U+2122 .. with trademark sign  
.. |---| unicode:: U+02014 .. em dash  
:trim:
```

Copyright © 2023, MACAMACA™—all rights reserved.

8 章节自动编号

```
.. numbered::  
.. sectnum::
```


9 Topic

标题 reStructuredText 语法说明

作者

- Alice
- Hank
- Wendy

时间 2016 年 06 月 21 日

概述 这是一篇关于 reStructuredText 的语法说明。

If CLOCK_MODE equals 1, there is no idle time between back-to-back characters if data is ready in the transmit FIFO. In this case, because *sync_delay* equals one pclk as described in Section ?? *Equation Example*, the requirement to avoid idle time between consecutive characters is met for all {DLH,DLL} values.

9.1 directive rubric

paragraph heading

9.2 directive container

This paragraph might be rendered in a custom way.

9.3 directive header

If CLOCK_MODE equals 1, there is no idle time between back-to-back characters if data is ready in the transmit FIFO. In this case, because *sync_delay* equals one pclk as described in Section ?? *Equation Example*, the requirement to avoid idle time between consecutive characters is met for all {DLH,DLL} values.

9.4 directive topic

試試行不行

If CLOCK_MODE equals 1, there is no idle time between back-to-back characters if data is ready in the transmit FIFO. In this case, because *sync_delay* equals one pclk as described in Section ??

Equation Example, the requirement to avoid idle time between consecutive characters is met for all {DLH,DLL} values.

9.5 directive sidebar

出现的位置

出现在哪里呢这个 sidebar

10 分栏（仅对 HTML 有效）

- good
- bad
- excellent
- normal
- qualified
- good
- bad
- excellent
- normal
- qualified
- good
- bad
- excellent
- normal
- qualified
- good
- bad
- excellent
- normal
- qualified
- good
- bad
- excellent
- normal
- qualified

11 Equation Example

11.1 公式中空格的实现方式

14\ (roundoff\ value)

\text{14 (roundoff value)}

14 (*roundoff value*)

14 (roundoff value)

11.2 Error

注意：如果 `text{}` 内有 “_”，这个命令的使用会导致报错。在 “_” 前面加上反斜线就 okay。

\frac{\text{Rate of SSI data transmission}}{\text{Rate of DW_ahb_dmac response to destination burst requests}}

$$\frac{\text{Rate of SSI data transmission}}{\text{Rate of DW_ahb_dmac response to destination burst requests}}$$

$$\frac{\text{Rate of SSI data transmission}}{\text{Rate of DW_ahb_dmac response to destination burst requests}}$$

11.3 公式中短线的实现方式

前面加 slash “/”

$$DLF = BRD_F * 2^{DLF_SIZE}$$

$$BRD_F * 2^{DLF_SIZE}$$

$$DLF = BRD_F * 2^{DLF_SIZE}$$

This equation `ref{equ1}` is not okay?

$$DLF = BRD_F * 2^{DLF_SIZE} = 0.866132364 * 16 = 13.858117824 = 14 \text{ (roundoff value)}$$

Therefore, the Generated Baud Rate (GBR) is as follows:

$$GBR = \frac{\text{Serial Clock}}{(16 \times GD)} = \frac{133}{16 \times 1.875} = 443333.333$$

$$\text{Error} = \frac{GBR - RBR}{RBR} = 0.004729$$

11.4 公式中% 前面要加 slash

$$Error\% = 0.004729 \times 100 = 0.473$$

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