聆思科技
LISTENAI

CSK6012 Voice Recognition SoC Datasheet

CSDS-22001-021_V1.0 November 22, 2022

LISTENAI Proprietary and Confidential

Prepared and Provided Under NDA

DISCLAIMER

The information presented in this document belongs to Anhui LISTENAI Co., Ltd. and/or its affiliates (LISTENAI). Without prior written permission of LISTENAI, no entity or individual shall copy, modify, or distribute part or all of the document in any way.

The information provided in this document is for reference only. LISTENAI does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information. LISTENAI shall have no liability for any errors contained in this document.

LISTENAI reserves the right to make corrections, modifications, enhancements, improvements, and other changes to the content at any time without notice. LISTENAI reserves all the right for the final explanation.

LISTENAI, 聆思科技, and other LISTENAI icons are trademarks of Anhui LISTENAI Co., Ltd. All other trademarks and trade names mentioned in this document are the property of their respective holders.

Update History

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

Table of Contents

1 鏈接 1

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

Section 3 *Equation Example* is okay,

Section 3 *Equation Example* is okay.

Section 3 *Equation Example* is not okay.

Section 3 *Equation Example* is not okay.

Section 3 *Equation Example* is not okay.

refer to `dmas` *DMA Support*.

2 鏈接 2

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

3 Equation Example

3.1 Error

說明：如果 text 大括號內有短線，這個命令的使用會導致報錯。在前面加上反斜線就 okay.

$$\frac{\text{Rate of SSI data transmission}}{Rateof DW\_ahb\_dmacresponsetodestinationburstrequests}$$

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

3.2 空格的寫法

$$14\ (roundoff\ value)$$

$$14\ (\text{roundoff value})$$

3.3 短線的寫法

前面加 slash

$$\text{DLF} = BRD_F * 2^{DLF\_SIZE}$$

$$BRD_F * 2^{DLF\_SIZE}$$

$$\text{DLF} = BRD_F * 2^{DLF\_SIZE}$$

This equation ref{equ1} is not okay?

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

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

$$GBR = \frac{\text{Serial Clock}}{(16 \times GD)} = \frac{133}{16 \times 1.875} = 4433333.333$$

Now the error is calculated as follows:

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

The error percentage is as follows:

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