T-Keyboard-S3-Pro_STM32G0_IIC_Register

Date: 20240910
Board: T-Keyboard-S3-Pro_Keyboard_V1.0-V1.1
Software name: Original_Test (STM32G0)
Firmware version: V1.0.0
Organization: LILYGO Laboratory

1.T-Keyboard-S3-Pro_STM32G0_IIC_Register General Description

REGISTER NAME	COMMAND ADDRESS	RD/WR	DESCRIPTION	DEFAULT
LCD CS	01xH	WR	用于写入STM32G0板子上的屏幕CS值 Writing the screen CS value to the STM32G0 board	0000 0000
KEY Trigger	02xH	RD	读取STM32G0板子上的按键的历史触发状态 Reading the historical trigger status of the button on the STM32G0 board	0000 0000
LED Mode	03xH	WR	LED模式 LED mode	0000 0001
LED Brightness	04xH	WR	LED亮度设置（值范围：0-100） LED brightness setting (value range: 0-100)	0000 1010
LED Color Hue_H	05xH	WR	LED颜色的Hue高位值 （Hue值范围：0-360） LED color Hue high bit value (Hue value range: 0-360)	0000 0001
LED Color Hue_L	06xH	WR	LED颜色的Hue低位值（Hue值范围：0-360） The lower bit value (Hue value range: 0-360) of the LED color	1111 1111
LED Color Saturation	07xH	WR	LED颜色的Saturation值（Hue值范围：0-100） The Saturation value of the LED color (Hue value range: 0-100)	0000 0000
LED Control 1	08xH	WR	LED控制 1 LED Control 1	0000 0000
LED Control 2	09xH	WR	LED控制 2 LED Control 2	0000 0000
Drive Firmware Version	10xH	RD	驱动固件版本 Driver firmware version	0000 0000

2.T-Keyboard-S3-Pro_STM32G0_IIC_Register Partial Description

2.1 [LCD CS] Register - Memory Location: 01xH. Reset State: 0000 0000

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	0		
6	0		
5	0		
4	0	WR	LCD CS1 Operate Value
3	0	WR	LCD CS2 Operate Value
2	0	WR	LCD CS3 Operate Value
1	0	WR	LCD CS4 Operate Value
0	0	WR	LCD CS5 Operate Value

2.2 [KEY Trigger] Register - Memory Location: 02xH. Reset State: 0000 0000

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	0		
6	0		
5	0		
4	0	RD	KEY1 Historical Trigger Status
3	0	RD	KEY2 Historical Trigger Status
2	0	RD	KEY3 Historical Trigger Status
1	0	RD	KEY4 Historical Trigger Status
0	0	RD	KEY5 Historical Trigger Status

2.3 [LED Mode] Register - Memory Location: 03xH. Reset State: 0000 0001

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	0		
6	0		
5	0		
4	0		
3	0		
2	0	WR	0000 0001: LED_Normal_Mode 0000 0010: LED_Free_Mode 0000 0011: LED_Test_Mode_1 0000 0100: LED_Test_Mode_2
1	0	WR	
0	1	WR	

2.4 [LED Brightness] Register - Memory Location: 04xH. Reset State: 0000 1010

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	0		
6	0	WR	0000 0000: Set LED brightness to 0% 0110 0100: Set LED brightness to 100%
5	0	WR	
4	0	WR	
3	1	WR	
2	0	WR	
1	1	WR	
0	0	WR	

2.5 [LED Color Hue_H] Register - Memory Location: 05xH. Reset State: 0000 0001

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	0		
6	0		
5	0		
4	0		
3	0		
2	0		
1	0		
0	1	WR	Set LED Color Hue_H Value

2.6 [LED Color Hue_L] Register - Memory Location: 06xH. Reset State: 1111 1111

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	1	WR	Set LED Color Hue_L Value
6	1	WR	
5	1	WR	
4	1	WR	
3	1	WR	
2	1	WR	
1	1	WR	
0	1	WR	

2.7 [LED Color Saturation] Register - Memory Location: 07xH. Reset State: 0000 0000

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	0		
6	0	WR	Set LED Color Staturation Value
5	0	WR	
4	0	WR	
3	0	WR	
2	0	WR	
1	0	WR	
0	0	WR	

2.8 [LED Control 1] Register - Memory Location: 08xH. Reset State: 0000 0000

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	0	WR	LED Clear All Select
6	0	WR	LED Show
5	0	WR	Select LED 1
4	0	WR	Select LED 2
3	0	WR	Select LED 3
2	0	WR	Select LED 4
1	0	WR	Select LED 5
0	0	WR	Select LED 6

2.9 [LED Control 2] Register - Memory Location: 09xH. Reset State: 0000 0000

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	0	WR	Select LED 7
6	0	WR	Select LED 8
5	0	WR	Select LED 9
4	0	WR	Select LED 10
3	0	WR	Select LED 11
2	0	WR	Select LED 12
1	0	WR	Select LED 13
0	0	WR	Select LED 14

2.10 [Drive Firmware Version] Register - Memory Location: 10xH. Reset State: 0000 0000

BIT	DEFAULT VALUE	RD/WR	FUNCTION
7	0	RD	Drive Firmware Version
6	0	RD	
5	0	RD	
4	0	RD	
3	0	RD	
2	0	RD	
1	0	RD	
0	0	RD	