

JDI屏幕+LB551调试使用说明

概述

该文档使用硬件：

SiFli LB551核心板+EI_LB55XXXXXX001_V1.1底板+JDI屏幕(JDI387A)

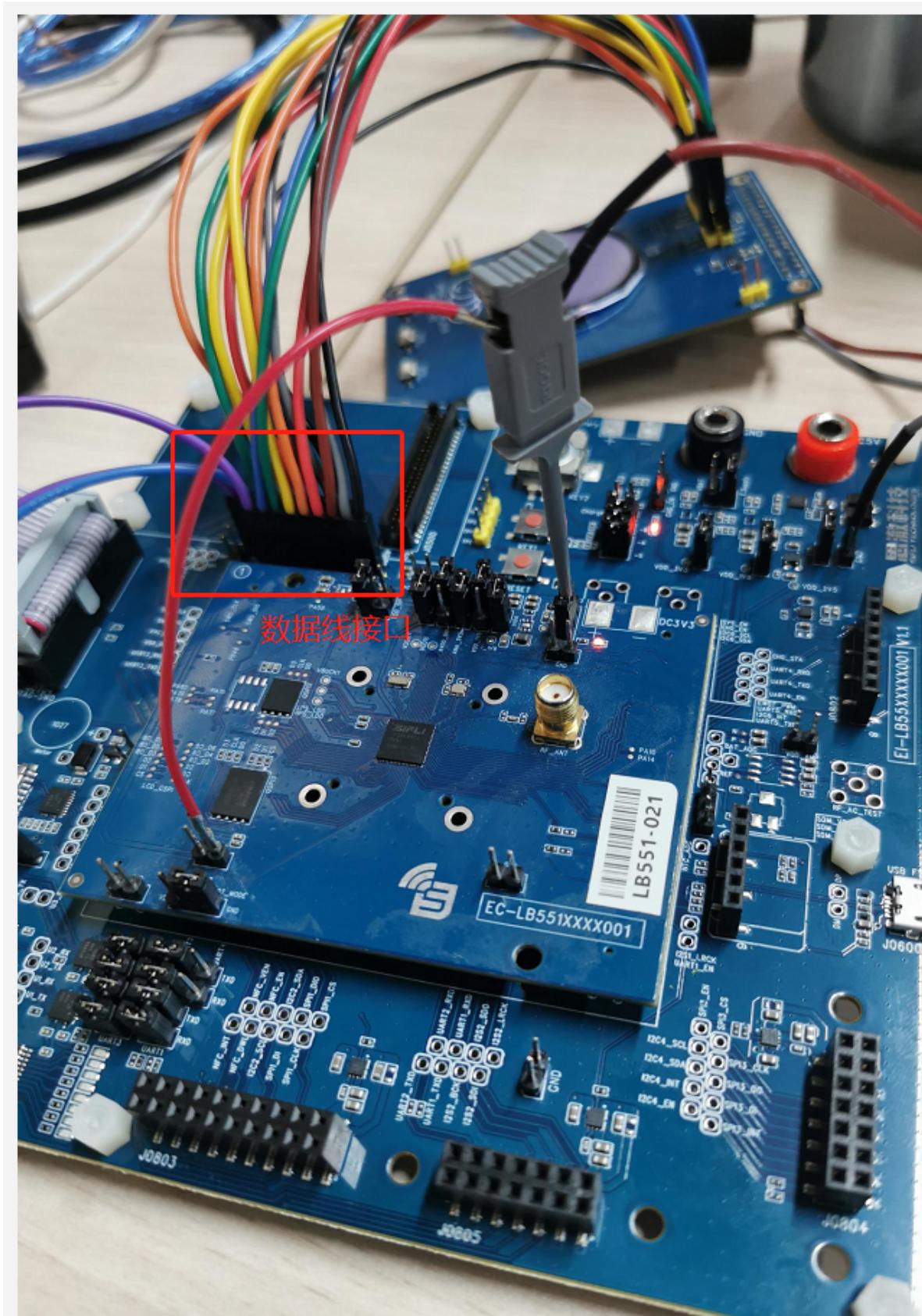
Jlink调试器

使用的软件：

SiFli SDK V1.0.4版本以及相关的开发环境

硬件

数据线连线



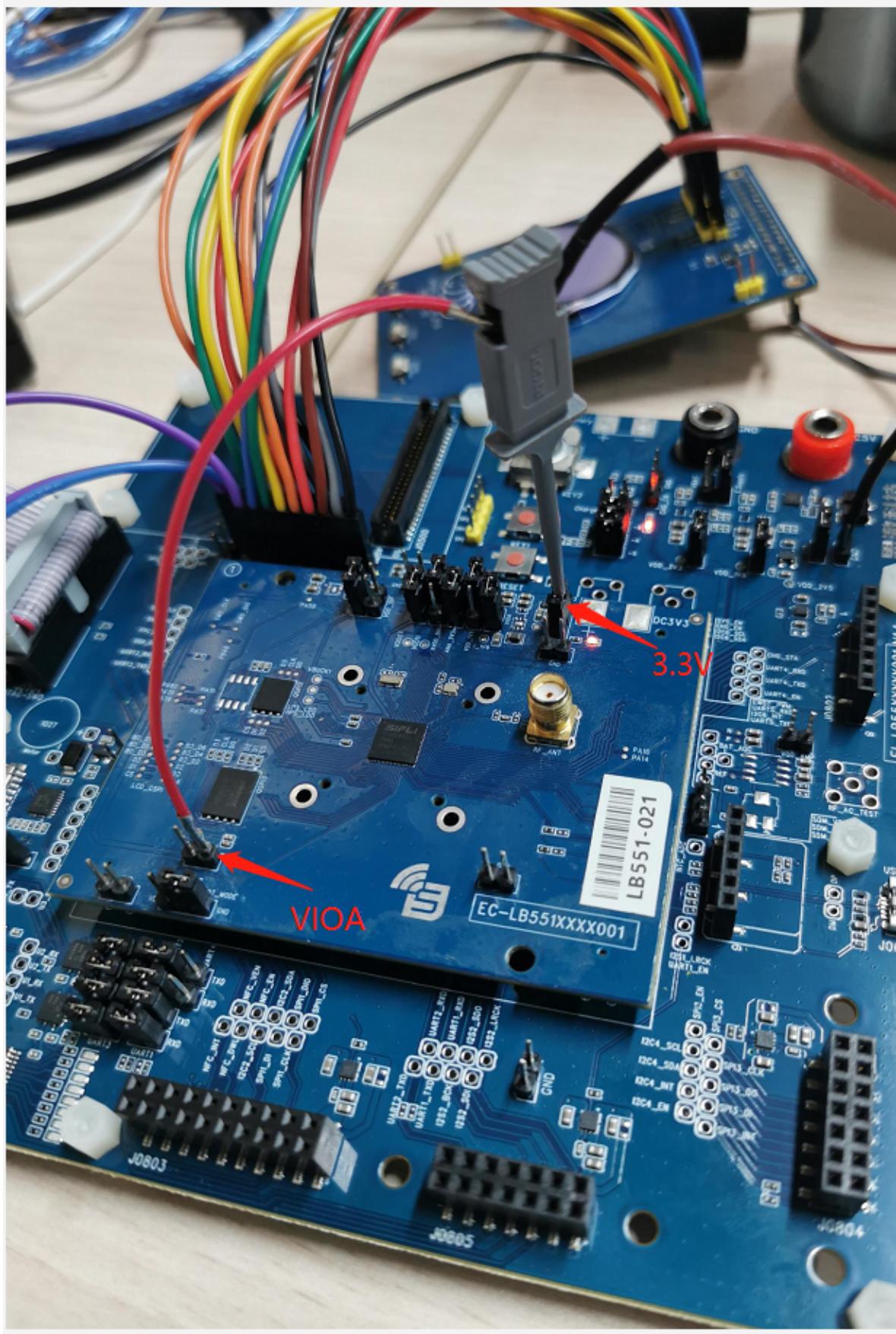
Function 0	V1.1底板管脚丝印	JDI
GPIO_A51	D6	R2
GPIO_A47	D4	VCOM
GPIO_A44	D2	FRP
GPIO_A38	QD2	HST
GPIO_A20	CLK	VCK
GPIO_A34	QD0	XRST
GPIO_A77	TE	G2
GPIO_A79	EN	B2

Function 0	V1.1底板管脚丝印	JDI
GPIO_A55	D7	G1
GPIO_A49	D5	R1
GPIO_A45	D3	XFRP
GPIO_A42	QD3	ENB
GPIO_A31	CS	VST
GPIO_A36	QD1	HCK
GPIO_A78	RST	B1

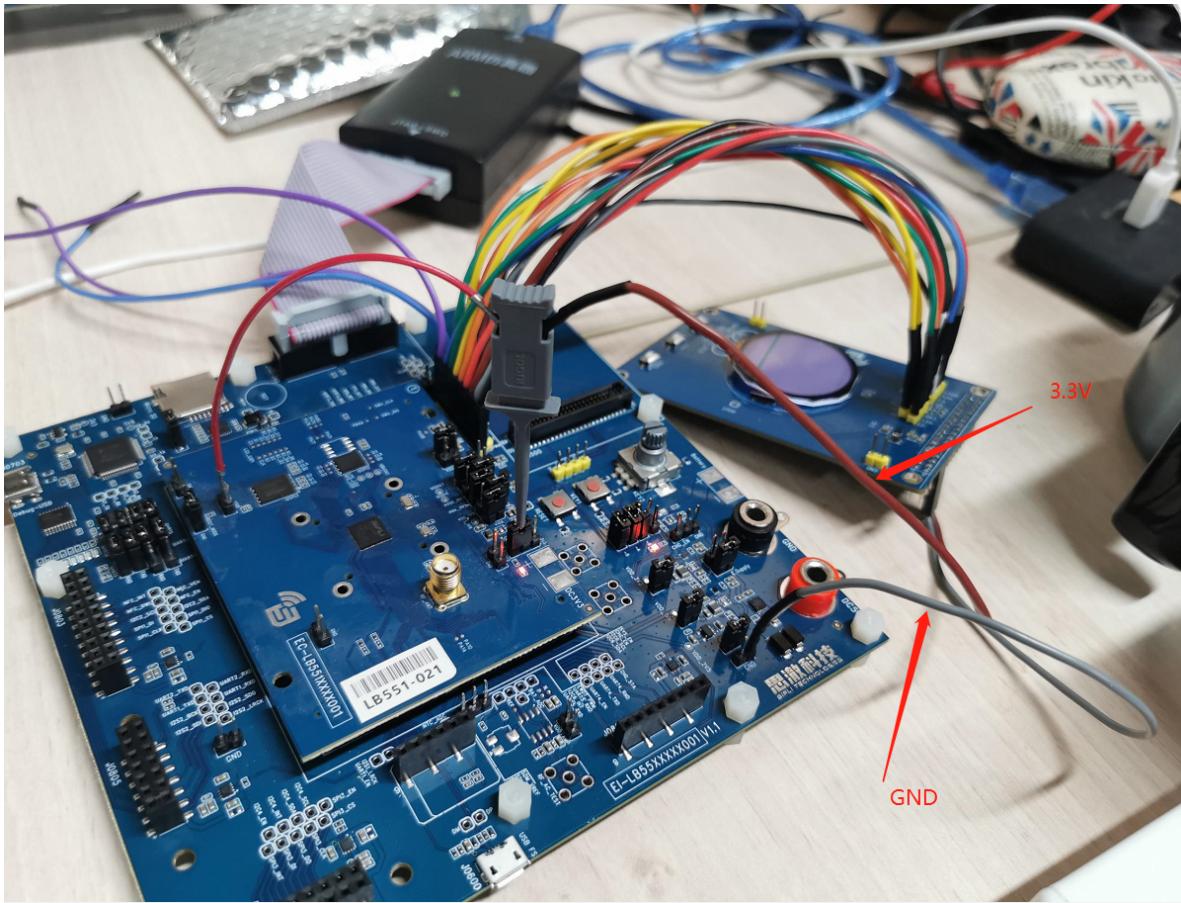
电源

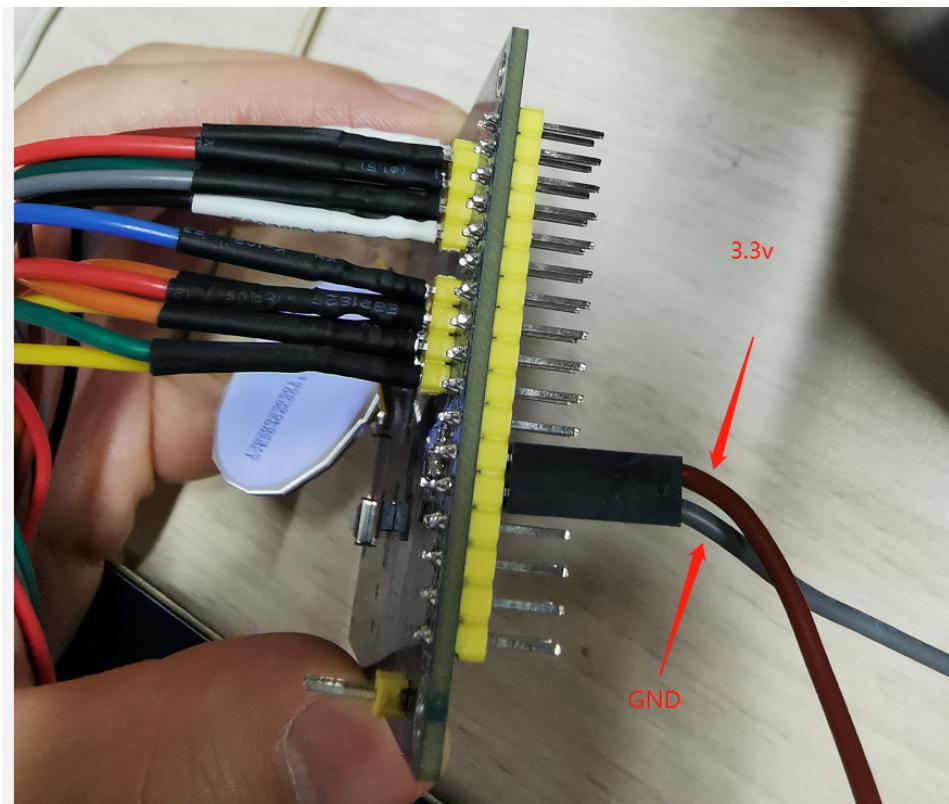
开发板的VIOA电平改为3.3V

(因为这边用到的JDI接口是3.3V)



屏幕电源





软件

有2个工程可供调试：

rt_driver工程 - 用来调试屏幕触控的一个简单工程

watch_demo工程 - 该工程是手表方案的一个示例工程，较复杂

跑rt_driver工程

工程路径

SiFli_Release_V1.0.4\example\rt_driver\project\ec-lb551

menuconfig配置

cmd - menuconfig

cmd <1> cmd - menuconf

(Top) → Select board peripherals → Select LCD

Sifli Configuration

() 1.78 rect QAD-SPI LCD(ED-LB55DSI17801)
() 1.78 rect QAD-SPI LCD(ED-LB55SPI17801)
() 1.72 rect QAD-SPI LCD(ED-LB55SPI17201)
() 1.78 rect QAD-SPI ramless LCD ST77903(Test only)
(X) 1.2 round JDI LCD(Test only)
() RECT SPI LCDDED-LB55QADSPI17801(Green)
() 1.77 rect QAD-SPI LCD(ED-LB55SPI17701)

↓↓↓↓↓↓↓↓↓↓↓↓↓↓

[Space/Enter] Toggle/enter [ESC] Leave menu [S] Save
[O] Load [?] Symbol info [/] Jump to symbol
[F] Toggle show-help mode [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)

menuconfig.exe[64]:16152

效果图





跑watch_demo工程

工程路径

`SiFi_Release_V1.0.4\example\watch_demo\project\ec-lb551`

menuconfig配置

cmd - menuconfig

<1> cmd - menuconf <2> cmd

(Top) → Select board peripherals → Select LCD

Sifli Configuration

```
( ) 1.78 rect QAD-SPI LCD(ED-LB55DSI17801)
( ) 1.78 rect QAD-SPI LCD(ED-LB55SPI17801)
( ) 1.72 rect QAD-SPI LCD(ED-LB55SPI17201)
( ) 1.78 rect QAD-SPI ramless LCD ST77903(Test only)
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( ) 1.77 rect QAD-SPI LCD(ED-LB55SPI17701)
```

↓↓↓↓↓↓↓↓↓↓↓↓↓↓

[Space/Enter] Toggle/enter [ESC] Leave menu [S] Save
 [O] Load [?] Symbol info [/] Jump to symbol
 [F] Toggle show-help mode [C] Toggle show-name mode [A] Toggle show-all mode
 [Q] Quit (prompts for save) [D] Save minimal config (advanced)

menuconfig.exe[64]:16152

cmd - menuconfig

<1> cmd - menuconf <2> cmd

.config - Sifli Configuration

→ Third party packages → LittlevGL2RTT: The LittlevGL gui lib adapter RT-Thread → littlevGL2RTT Options

LittlevGL2RTT Options

Arrow keys navigate the menu. <Enter> selects submenus ---> (or empty submenus ----). Highlighted letters are hotkeys. Pressing <V> includes, <N> excludes, <M> modularizes features. Press <Esc><Esc> to exit, <?> for Help, </> for Search. Legend: [*] built-in [] excluded <M> module < > module capable

```
Memory management mode (dynamic) --->
  color depth (16bit) --->
    (240) horizontal pixels
    (240) vertical pixels
    (150) DPI(dot per inch)
    (0) 16bit color swap
    (240) Frame Buffer Line Number
```

GPD configuration (enable GPD) --->
 Frame Buffer Scheme (Scheme 0, one screen sized buffer + compressed frame buffer for LCD) --->
 [*] Use on-the-fly ezip decoder

<Select> < Exit > < Help > < Save > < Load >

kconfig-mconf.exe[32]:16192

修改代码关闭PSRAM framebuffer

The screenshot shows the Source Insight 4.0 interface with the file 'drv_lcd.c' open. A red box highlights a specific line of code in the editor:

```
66: #define DEBUG_PRINTF(...)  
67: #endif  
68:  
69: ///////////////////////////////////////////////////////////////////  
70: ///////////////////////////////////////////////////////////////////  
71:  
72: #if defined(PKG_USING_LITTLEVGL2RTT) && defined(LV_FRAME_BUF_SCHEME_0)  
73: /*  
74: LVGL defined compress buffer macros  
75: */  
76:  
77: //##define COPY2COMPRESS_FB_AND_SEND  
78:  
79: #if LV_COLOR_DEPTH == 16  
80: #define COMPRESSED_FRAME_BUF_FMT EXTDMA_CMPCR_SRCFMT_RGB565  
81: #elif LV_COLOR_DEPTH == 24  
82: #define COMPRESSED_FRAME_BUF_FMT EXTDMA_CMPCR_SRCFMT_RGB888  
83: #else  
84: #define COMPRESSED_FRAME_BUF_FMT EXTDMA_CMPCR_SRCFMT_ARGB8888  
85: #endif  
86:  
87:  
88: #define SRC_FRAME_BUF_BPP LV_COLOR_DEPTH  
89: #define MAX_SRC_FRAMEBUFFER_BYTES (LV_HOR_RES_MAX * LV_VER_RES_MAX * LV_COLOR_DEPTH)  
90: #define MAX_LINEBUFFER_BYTES (LV_HOR_RES_MAX * LV_COLOR_DEPTH / 8)  
91: #define MAX_LINE_NUM LV_VER_RES_MAX  
92:
```

A tooltip '关闭该宏' (Close this macro) is shown over the highlighted line.

修改代码的一个bug

将文件

[SiFli_Release_V1.0.4\example\watch_demo\resource\images\common\ezip\kaleidoscope.png](#)

移动到

[SiFli_Release_V1.0.4\example\watch_demo\resource\images\common\no_ezip\kaleidoscope.png](#)

效果图

