



LN882H GCC 编译添加自定义库使用说明

Revision 1.00

Nov 13, 2022

Copyright ©2022 Shanghai Lightning Semiconductor All Rights Reserved

Declaration

THIS DOCUMENTATION IS THE ORIGINAL WORK AND COPYRIGHTED PROPERTY OF LIGHTNING SEMICONDUCTOR ("LIGHTNING SEMI"). REPRODUCTION IN WHOLE OR IN PART MUST OBTAIN THE WRITTEN APPROVAL OF LIGHTNING SEMI AND GIVE CLEAR ACKNOWLEDGEMENT TO THE COPYRIGHT OWNER.

THE INFORMATION FURNISHED BY LIGHTNING SEMI IS BELIEVED TO BE ACCURATE AND RELIABLE. LIGHTNING SEMI RESERVES THE RIGHT TO MAKE CHANGES IN CIRCUIT DESIGN AND/OR SPECIFICATIONS AT ANY TIME WITHOUT NOTICE. LIGHTNING SEMI DOES NOT ASSUME ANY RESPONSIBILITY AND LIABILITY FOR ITS USE. NOR FOR ANY INFRINGEMENTS OF PATENTS OR OTHER RIGHTS OF THE THIRD PARTIES WHICH MAY RESULT FROM ITS USE. NO LICENSE IS GRANTED BY IMPLICATION OR OTHERWISE UNDER ANY PATENT OR PATENT RIGHTS OF LIGHTNING SEMI. THIS DATASHEET NEITHER STATES NOR IMPLIES WARRANTY OF ANY KIND, INCLUDING FITNESS FOR ANY PARTICULAR APPLICATION.

THIRD PARTY LICENCES MAY BE REQUIRED TO IMPLEMENT THE SOLUTION/PRODUCT. CUSTOMERS SHALL BE SOLELY RESPONSIBLE TO OBTAIN ALL APPROPRIATELY REQUIRED THIRD PARTY LICENCES. LIGHTNING SEMI SHALL NOT BE LIABLE FOR ANY LICENCE FEE OR ROYALTY DUE IN RESPECT OF ANY REQUIRED THIRD PARTY LICENCE. LIGHTNING SEMI SHALL HAVE NO WARRANTY, INDEMNITY OR OTHER OBLIGATIONS WITH RESPECT TO MATTERS COVERED UNDER ANY REQUIRED THIRD PARTY LICENCE.

目录

一、 概述	3
二、 放置源代码	3
三、 配置 components 目录下的 CMakeLists.txt 文件	4
四、 GCC 编译工程	5

一、概述

该文档用以说明亮牛 LN882H 系列芯片使用 GCC 编译器时如何添加自定义库文件支持；

二、放置源代码

相关源码放到 components 目录下，本例以 hello 为例，如下图所示；

GITEE > ln-fae > ln882h > components

在 components 中搜索

名称	修改日期	类型	大小
aws	2022/11/29 11:06	文件夹	
ble	2022/11/11 17:17	文件夹	
fota	2022/11/11 17:17	文件夹	
fs	2022/11/11 17:17	文件夹	
hello	2022/12/13 16:59	文件夹	
kernel	2022/11/11 17:17	文件夹	
libc	2022/11/11 17:17	文件夹	
ln_at	2022/12/9 9:43	文件夹	
ln_at_cmd	2022/12/9 18:57	文件夹	
net	2022/11/11 17:17	文件夹	
serial	2022/11/11 17:17	文件夹	
tencent	2022/11/29 11:06	文件夹	
utils	2022/11/29 11:06	文件夹	
wifi	2022/11/11 17:17	文件夹	
CMakeLists.txt	2022/11/28 14:36	TXT 文件	1 KB

其中 hello 文件夹中的文件内容如下：

components > hello

在 hello 中搜索

名称	修改日期	类型
base.c	2022/11/14 18:18	C Source file
base.h	2022/11/14 18:18	C++ Header file
CMakeLists.txt	2022/11/22 14:46	TXT 文件

base.c 中内容：

```
#include "base.h"
```

```
char* get_lib_ver(void)
```

```
{
```

```
    return AT_LIB_VERSION;
```

```
}
```

base.h 中内容:

```
#ifndef __BASE_H__
#define __BASE_H__

#include <stdbool.h>

#ifdef __cplusplus
    extern "C" {
#endif /* __cplusplus */

#define AT_LIB_VERSION    "V1.00D"

extern char* get_lib_ver(void);

#ifdef __cplusplus
}
#endif /* __cplusplus */
#endif /* __BASE_H__ */
```

CMakeLists.txt 中的内容:

```
file(GLOB_RECURSE HELLO_SRC ${CMAKE_CURRENT_SOURCE_DIR}/*.c)
set(hello_static_target "hello")

add_library(${hello_static_target} STATIC ${HELLO_SRC})
add_library(In::hello ALIAS ${hello_static_target})

target_include_directories(${hello_static_target}
    PUBLIC
    ${CMAKE_CURRENT_SOURCE_DIR}
)
```

三、配置 components 目录下的 CMakeLists.txt 文件

添加代码目录配置，如下图所示：

```

1  if (COMP_WIFI_SUPPORT)
2      ...add_subdirectory(wifi)
3  endif()
4
5  if (COMP_BLE_SUPPORT)
6      ...add_subdirectory(ble)
7  endif()
8
9  if (DEFINED THIRD_PARTY_LWIP AND (THIRD_PARTY_LWIP))
10     ...message (STATUS "LwIP: third-party build.")
11     else ()
12     ...message (STATUS "LwIP: LN SDK build as static library.")
13     if (COMP_LWIP_SUPPORT)
14     ...add_subdirectory (${COMP_LWIP_DIR})
15     endif ()
16     endif ()
17
18  if (COMP_DHCPD_SUPPORT)
19     ...add_subdirectory (${COMP_DHCPD_DIR})
20     endif ()
21
22  add_subdirectory (${LN_SDK_ROOT}/components/hello)

```

四、GCC 编译工程

参考 SDK 根目录下的 README.md 文件，命令行使用“python3 start_build.py rebuild”进行编译；

生成相关库文件地址如下：

