

M7 Build code and Flash  
tool download

- Generate S-Record/Intel HEX/Binary file
- Use DCD Tool To Create A Device Configuration Data Image
- IVT Tool Image S32G274A

# Generate S-Record/Intel HEX/Binary file

workspaceS32DS.3.4 - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7/Project\_Settings/Startup\_Code/startup\_cm7.s - S32 Design Studio for S32 Platform

File Edit Source Refactor Navigate Search Project 配置工具 Run Window Help

Project Explorer

- Siul2\_Dio\_Ip\_Example\_S32G274A\_M7: Debug
- Binaries
- Includes
- Project\_Settings
- RTD
- board
- generate
- generate/include
- generate/src
- src
- Debug\_RAM
- board
- generate
- Project\_Settings
- RTD
- src
- Siul2\_Dio\_Ip\_Example\_S32G274A\_M7
- makefile
- objects.mk
- Siul2\_Dio\_Ip\_Example\_S32G274A\_M7
- Siul2\_Dio\_Ip\_Example\_S32G274A\_M7
- Siul2\_Dio\_Ip\_Example\_S32G274A\_M7
- sources.mk
- include

Dashboard

- Project Creation
- S32DS Application Project
- S32DS Library Project
- Build/Debug
- Build (All)
- Clean (All)
- Debug
- Settings
- Project settings
- Build settings
- Debug settings
- Miscellaneous
- Getting Started
- Quick access

Properties

- New
- Go Into
- Open in New Window
- Show In Alt+Shift+W
- Show in Local Terminal
- Copy Ctrl+C
- Delete Delete
- Paste Ctrl+V
- Rename... F2
- Source
- Move...
- Import...
- Export...
- Build Project
- Clean Project
- Refresh F5
- Close Project
- Close Unrelated Project
- Build Targets
- Index
- Build Configurations
- Build path
- Build Configurations Explorer
- SDKs
- Migrate...
- Show in Remote Systems view
- Run As
- Debug As
- Restore from Local History...
- S32 Configuration Tools
- Team
- Compare With
- Configure
- Source
- Validate
- Properties Alt+Enter

main.c

```
/*
 * RTD AUTOSAR 4.4
 * CORTEXM
 *
 * : 4.4.0
 * : ASR_REL_4_4_REV_0000
 *
 * : 2.0.0
 * : S32_RT2_2_0_0_HF02_D2106_ASR_REL_4_4_REV_0000_20210609
 *
 * 21 NXP Semiconductors
 * ved.
 *
 * This software is owned or controlled by NXP and may only be
 * accordance with the applicable license terms. By expressly
 * erms or by downloading, installing, activating and/or otherwise
 * re, you are agreeing that you have read, and that you agree to
 * are bound by, such license terms. If you do not agree to be
 * licable license terms, then you may not retain, install,
 * wise use the software.
 *
 * =====*/

```

Outline

- MAIN\_CORE
- CM7\_ITCMCR
- CM7\_DTCMCR
- SBAF\_BOOT\_MARKER
- CM7\_0\_ENABLE\_SHIFT
- CM7\_1\_ENABLE\_SHIFT
- CM7\_0\_ENABLE
- CM7\_1\_ENABLE
- CM7\_0\_VTOR\_ADDR
- CM7\_1\_VTOR\_ADDR
- XRDC\_CONFIG\_ADDR
- LF\_CONFIG\_ADDR
- \_core\_loop
- \_start
- Reset\_Handler
- MCAL\_LTB\_TRACE\_OFF
- \_end\_of\_eunit\_test
- startup\_getControlRegisterValue
- startup\_getAipsRegisterValue

Build Targets

Problems Tasks Console Properties

CDT Build Console [Siul2\_Dio\_Ip\_Example\_S32G274A\_M7]

```
Finished building: ../Project_Settings/Startup_Code/startup.c
Finished building: ../Project_Settings/Startup_Code/system.c

Building target: Siul2_Dio_Ip_Example_S32G274A_M7.elf
Invoking: Standard S32DS C Linker
arm-none-eabi-gcc -o "Siul2_Dio_Ip_Example_S32G274A_M7.elf" "@Siul2_Dio_Ip_Example_S32G274A_M7.elf

Invoking: Standard S32DS Create Flash Image
Invoking: Standard S32DS Print Size
arm-none-eabi-objcopy -O srec Siul2_Dio_Ip_Example_S32G274A_M7.elf "Siul2_Dio_Ip_Example_S32G274A_M7.srec"
arm-none-eabi-size --format=berkeley Siul2_Dio_Ip_Example_S32G274A_M7.elf
text data bss dec hex filename
277028 0 12288 289316 46a24 Siul2_Dio_Ip_Example_S32G274A_M7.elf
Finished building: Siul2_Dio_Ip_Example_S32G274A_M7.siz
Finished building: Siul2_Dio_Ip_Example_S32G274A_M7.srec

11:31:55 Build Finished. 0 errors, 0 warnings. (took 9s.38ms)

```

Siul2\_Dio\_Ip\_Example\_S32G274A\_M7

428M of 1432M

上午 11:42  
2022/2/10

type filter text

- > Resource Builders
- ✓ C/C++ Build
  - Build Variables
  - Environment
  - Logging
  - Settings
  - Tool Chain Editor
- > C/C++ General
- EmbSys Register View
- Project Natures
- Project References
- Run/Debug Settings
- S32 Configuration Tools
- SDKs
- Task Tags
- > Validation

## Settings

Tool Settings Build Steps Build Artifact Binary Parsers Error Parsers

Cross Settings	Prefix	arm-none-eabi-
Target Processor	Path	<input type="text" value="{S32DS_G2_ARM32_GNU_9_2_TOOLCHAIN_DIR}"/> Browse...
Standard S32DS C Compiler	Suffix	
Dialect	C compiler	gcc
Preprocessor	Hex/Bin converter	objcopy
Includes	Listing generator	objdump
Optimization	Size command	size
Debugging	Build command	make
Warnings	Remove command	rm -rf
Miscellaneous	<input checked="" type="checkbox"/> Create flash image	
Standard S32DS C Linker	<input type="checkbox"/> Create extended listing	
General	<input checked="" type="checkbox"/> Print size	
Libraries		
Miscellaneous		
Shared Library Settings		
Link Order		
Standard S32DS Assembler		
General		
Preprocessor		
Debugging		
Standard S32DS Create Flash Image		
General		
Standard S32DS Print Size		
General		
Standard S32DS C Preprocessor		
Settings		
Standard S32DS Disassembler		
Settings		

Restore Defaults

Apply

Apply and Close

Cancel

(1)

(2)

type filter text

- > Resource
- Builders
- ✓ C/C++ Build
  - Build Variables
  - Environment
  - Logging
  - Settings**
  - Tool Chain Editor
- > C/C++ General
- EmbSys Register View
- Project Natures
- Project References
- Run/Debug Settings
- S32 Configuration Tools
- SDKs
- Task Tags
- > Validation

## Settings

- Tool Settings**
- Build Steps
- Build Artifact
- Binary Parsers
- Error Parsers

- Cross Settings
- Target Processor
- ✓ Standard S32DS C Compiler
  - Dialect
  - Preprocessor
  - Includes
  - Optimization
  - Debugging
  - Warnings
  - Miscellaneous
- ✓ Standard S32DS C Linker
  - General
  - Libraries
  - Miscellaneous
  - Shared Library Settings
  - Link Order
- ✓ Standard S32DS Assembler
  - General
  - Preprocessor
  - Debugging
- ✓ **Standard S32DS Create Flash Image**
  - General**
- ✓ Standard S32DS Print Size
  - General
- ✓ Standard S32DS C Preprocessor
  - Settings
- ✓ Standard S32DS Disassembler
  - Settings

Output file format (-O)

Motorola S-record

☐ Section: -j .text

☐ Section: -j .data

Other sections (-j)

Other flags

Restore Defaults

Apply

Apply and Close

Cancel

(1)

(2)

Debug\_RAM

檔案 常用 共用 檢視

← → ↕ ↑ 本機 > Acer (C:) > 使用者 > fvt21092 > workspaceS32DS.3.4 > Siul2\_Dio\_Ip\_Example\_S32G274A\_M7 > Debug\_RAM

★ 快速存取

- 桌面
- 下載
- 文件
- 圖片
- M7 Build code and Flash tool download
- NXP S32 Design Studio
- S32 G-M7 document
- 修改 BSP 31 u-boot 並且 flash BSP31 OK

OneDrive - Personal

本機

- 3D 物件
- 下載
- 文件
- 音樂
- 桌面
- 圖片
- 影片
- Acer (C:)
- Data (D:)
- Ubuntu-18.04 (\\wsl\$) (Z:)

名稱	修改日期	類型	大小
board	2022/2/10 上午 11:52	檔案資料夾	
generate	2022/2/10 上午 11:52	檔案資料夾	
Project_Settings	2022/2/10 上午 11:52	檔案資料夾	
RTD	2022/2/10 上午 11:52	檔案資料夾	
src	2022/2/10 上午 11:52	檔案資料夾	
makefile	2022/2/10 上午 11:52	檔案	3 KB
objects.mk	2022/2/10 上午 11:52	MK 檔案	1 KB
Siul2_Dio_Ip_Example_S32G274A_M7.args	2022/2/10 上午 11:52	ARGS 檔案	2 KB
Siul2_Dio_Ip_Example_S32G274A_M7.elf	2022/2/10 上午 11:52	ELF 檔案	1,553 KB
Siul2_Dio_Ip_Example_S32G274A_M7.map	2022/2/10 上午 11:52	MAP 檔案	243 KB
Siul2_Dio_Ip_Example_S32G274A_M7.srec	2022/2/10 上午 11:52	SREC 檔案	812 KB
sources.mk	2022/2/10 上午 11:52	MK 檔案	1 KB

# Use DCD Tool To Create A Device Configuration Data Image

The screenshot displays the S32 Design Studio IDE interface. The 'Project Explorer' on the left shows the project structure for 'Siul2\_Dio\_Ip\_Example\_S32G274A\_M7'. The 'Project Settings' window is open, and the 'Open DCD' option is highlighted in the 'Open Pins' menu. The main editor shows the 'startup\_cm7.s' file, which contains device configuration macros and assembly code. The 'Build Targets' panel on the right lists the target components. The 'Console' at the bottom shows the build output, indicating a successful incremental build of the configuration debug RAM.

```
#define MAIN_CORE 4
#define CM7_ITCMCR 0xE000EF90
#define CM7_DTCMCR 0xE000EF94

#define SBAF_BOOT_MARKER (0x5AA55AA5)
#define CM7_0_ENABLE_SHIFT (0)
#define CM7_1_ENABLE_SHIFT (1)

#define CM7_0_ENABLE (1)
#define CM7_1_ENABLE (0)
#define CM7_0_VTOR_ADDR (__ROM_INTERRUPT_START)
#define CM7_1_VTOR_ADDR (0)
#define XRDC_CONFIG_ADDR (0)
#define LF_CONFIG_ADDR (0)

.syntax unified
.arch armv7-m
/* Table for copying and zeroing */
/* Copy table:
- Table entries count
- entry one ram start
- entry one rom start
- entry one rom end
...
- entry n ram start
- entry n rom start
- entry n rom end
Zero Table:
- Table entries count
- entry one ram start
- entry one ram end
*/
.section ".init_table", "a"
.long 4
.long __RAM_CACHEABLE_START
.long __ROM_CACHEABLE_START
```

CDT Build Console [Siul2\_Dio\_Ip\_Example\_S32G274A\_M7]  
13:16:35 \*\*\*\* Incremental Build of configuration Debug\_RAM for project Siul2\_Dio\_Ip\_Example\_S32G274A\_M7  
make -j8 all  
Invoking: Standard S32DS Print Size  
arm-none-eabi-size --format=berkeley Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf  
text data bss dec hex filename  
277028 0 12288 289316 46a24 Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf  
Finished building: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.siz  
13:16:36 Build Finished. 0 errors, 0 warnings. (took 1s.6ms)





☐ 自测 DCD 镜像

新的命令

命令类型：

置位

## 配置工具概述

## 配置 - 通用信息

名称: example\_Siul2\_Dio.mex

通路: C:\Users\ft21092\workspac...Dio\_Ip\_Example\_S32G274A\_M7

## 配置 - 硬件信息

处理器: S32G274A\_Rev2

部件编号: S32G274A\_Rev2\_525bga

内核: Cortex-M7 (Core #0)

SDK 版本: PlatformSDK\_S32XX\_2021\_05

## 工程

工程名称: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7

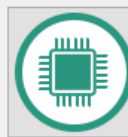
工具链: NXP GCC 9.2 for Arm 32-bit Bare-Metal

处理器: S32G274A\_Rev2

部件编号: S32G274A\_Rev2\_525bga

内核: Cortex-M7 (Core #0)

## 引脚



配置引脚路由，包括功能和电气引脚特性，电压/电源轨，以及运行时引脚配置。



## 生成代码

☒ 更新代码已启用☒ board\Siul2\_Ip\_Cfg.c☒ board\Siul2\_Ip\_Cfg.h

## 功能组

☒ VS\_0

## 时钟



进行内核、系统、总线、和外设时钟的初始化配置。



## 生成代码

☒ 更新代码已启用☒ board\Cl...Ip\_Cfg.c☒ board\Cl...Ip\_Cfg.h☒ board\Cl...PBcfg.c☒ board\Cl...PBcfg.h☒ generate...efines.h

## 功能组

☒ BOARD\_...ockRUN

## 外设



进行 SDK 外设驱动程序程序的初始化配置。



## 生成代码

☒ 更新代码已启用☒ generate...odules.h☒ generate...If\_Cfg.h☒ generate...Ip\_Cfg.h☒ generate...efines.h☒ generate...If\_Cfg.c

## 功能组

☒ VS\_0

## DCD



设备配置数据是 DCD 镜像中包含的配置信息，BootROM 用以在设备上配置外设。



## IVT



配置 IVT，IVT 是 Boot ROM 代码从启动设备中读取的第一个数据结构。一个 IVT 所需的组件包括，一个镜像入口点，指向 DCD 的指针，以及 Boot ROM 在启动过程中使用的其他指针。



## QuadSPI



QuadSPI 工具允许配置参数和在闪存中进行编程所需的详情。结果配置将导出为 bin 文件，该文件将导入 IVT 工具的 QuadSPI 参数段中。



## DDR



DDR 工具为用户提供了一个友好的初始化配置，用户可以使用不同场景来验证这些配置。



关闭和更新源代码

Close

写

新的命令

命令类型

Write

置位

DCD 命令

Press here

☒ 自测 DCD 镜像

## DCD 命令

命令类型:  
WRITE命令长度:  
4 字节

目标宽度:

4 bytes

操作:

Write value

+ 添加寄存器

在以下插入命令

X 删除

新的命令

命令类型:

Write

置位

新的命令

命令类型:

置位

## DCD 命令

命令类型:  
WRITE命令长度:  
20 字节目标宽度:  
操作:

4 bytes

Write value

## 标准视图

外设: SRAMC

寄存器: PRAMCR

位域: INITREQ

说明: Initialization Request  
0x1-An initialization is

位数: 00 1

## 高级视图

地址: 0x4019c000

数值/掩码: 0x1

☐ 仅高级

添加以上

删除

## 标准视图

外设: SRAMC\_1

寄存器: PRAMCR

位域: INITREQ

说明: Initialization Request  
0x1-An initialization is

位数: 00 1

## 高级视图

地址: 0x401a0000

数值/掩码: 0x1

☐ 仅高级

添加以上

删除

## DCD 二进制

镜像长度: 24 字节

字节0

字节1

SRAMC / SRAMC\_1

☒ 自测 DCD 镜像

DCD 命令

DCD 二进制  
镜像长度: 24 字节

导入  
导出

命令类型: WRITE 命令长度: 20 字节 目标宽度: 操作:

标准视图

外设: SRAMC 地址: 0x401  
寄存器: PRAMCR 数值/掩码: 0x1  
位域: INITREQ ☐ 仅高级  
说明: Initialization Request 0x1-An initialization is  
位数: 00 1

标准视图

外设: SRAMC\_1 地址: 0x401  
寄存器: PRAMCR 数值/掩码: 0x1  
位域: INITREQ ☐ 仅高级  
说明: Initialization Request 0x1-An initialization is  
位数: 00 1

- 配置 - 硬件信息
- 处理器: S32G274A\_Rev2  
部件编号: S32G274A\_Rev2\_525bga  
内核: Cortex-M7 (Core #0)  
SDK 版本: PlatformSDK\_S32XX\_2021\_05
- 工程
- 工程名称: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7  
工具链: NXP GCC 9.2 for Arm 32-bit Bare-Metal  
处理器: S32G274A\_Rev2  
部件编号: S32G274A Rev2 525bga
- 2\_Dio\_Ip\_Example\_S32G274A\_M7

导出文件

支持的格式:  
C 格式  
二进制格式

```
1 /*
2 * Copyright 2018-2021 NXP.
3 * This software is owned or controlled by NXP and may only be used strictly in accordance with the applicable license terms.
4 * By expressly accepting such terms or by downloading, installing, activating and/or otherwise using the software
5 * you are agreeing that you have read, and that you agree to comply with and are bound by, such license terms.
6 * If you do not agree to be bound by the applicable license terms, then you may not retain, install, activate or otherwise use the softw
7 */
8
9 #include "stdint.h"
10
11 const uint8_t dcd_self_test_commands[40] = {
12
13     /* 头 */
14     0xd3, 0x0, 0x18, 0x60,
15
16     /* 命令 */
17     /* 写命令 */
18     0xcc, 0x0, 0x14, 0x14,
19     /* 写入寄存器: 外设: SRAMC, 寄存器: PRAMCR */
20     0x40, 0x19, 0xc0, 0x0, 0x0, 0x0, 0x0, 0x1,
21     /* 写入寄存器: 外设: SRAMC_1, 寄存器: PRAMCR */
22     0x40, 0x1a, 0x0, 0x0, 0x0, 0x0, 0x0, 0x1,
23
24     /* 已保留 */
25     /* GMAC */
26     0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff,
27     0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff,
28
29 };
30
```

OK Cancel

Press

←

✓ 自测 DCD 镜像

DCD 命令

?

DCD 二进制

镜像长度: 24 字节

命令类型:  
WRITE

命令长度:  
20 字节

目标宽度:  
操作:

标准视图

外设:  
SRAMC

寄存器:  
PRAMCR

位域:  
INITREQ

说明:  
Initialization Request  
0x1--An initialization is

位数:  
001

地址:  
0x401

数值/掩码:  
0x1

☐ 仅高级

标准视图

外设:  
SRAMC\_1

寄存器:  
PRAMCR

位域:  
INITREQ

说明:  
Initialization Request  
0x1--An initialization is

位数:  
001

地址:  
0x401

数值/掩码:  
0x1

☐ 仅高级

导出文件

支持的格式:

C 格式

二进制格式

Press

Offset	0x00	0x01	0x02	0x03	0x04	0x05	0x06	0x07	0x08	0x09	0x0A	0x0B	0x0C	0x0D	0x0E	0x0F
0x00000000	0xD3	0x00	0x18	0x60	0xCC	0x00	0x14	0x14	0x40	0x19	0xC0	0x00	0x00	0x00	0x00	0x01
0x00000010	0x40	0x1A	0x00	0x00	0x00	0x00	0x00	0x01	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF
0x00000020	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF								

概述

问题

配置 - 硬件信息

处理器: S32G274A\_Rev2

部件编号: S32G274A\_Rev2\_525bga

内核: Cortex-M7 (Core #0)

SDK 版本: PlatformSDK\_S32XX\_2021\_05

工程

C 格式

C 格式

**Press**

Cancel

支持的格式：

C 格式

## 二进制格式

[illegible]

Press

OK

Cancel



Design Studio for S32 Platform interface showing a file save dialog.

The background window is titled "DCD 二进制" (DCD Binary). It displays a memory view with "4 bytes" and "Write value" fields. The "高级视图" (Advanced View) section shows a value of "0c000".

The foreground window is titled "保存文件" (Save File). It shows the file path: << Siul2\_Dio\_Ip\_Example\_S32G27... > Debug\_RAM. The file name "Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.bin" is highlighted in the "檔案名稱(N):" field. The file type is "ZH|Binary file (\*.bin)".

Red annotations indicate the save location and name:

- Save here**: Points to the file path in the address bar.
- Save name**: Points to the file name in the "檔案名稱(N):" field.

The "保存文件" dialog also shows a list of files in the "Debug\_RAM" directory, including "board", "generate", "Project\_Settings", "RTD", "src", and "Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.bin".

Buttons at the bottom of the dialog include "存檔(S)" (Save) and "取消" (Cancel).

Debug\_RAM

檔案 常用 共用 檢視

← → ↕ ↑ > 本機 > Acer (C:) > 使用者 > fvt21092 > workspaceS32DS.3.4 > Siul2\_Dio\_Ip\_Example\_S32G274A\_M7 > Debug\_RAM

★ 快速存取

桌面

下載

文件

圖片

M7 Build code and Flash tool download

NXP S32 Design Studio

S32 G-M7 document

修改 BSP 31 u-boot 並且 flash BSP31 OK

OneDrive - Personal

本機

3D 物件

下載

文件

名稱

修改日期

類型

大小

board

2022/2/10 下午 01:47

檔案資料夾

generate

2022/2/10 下午 01:47

檔案資料夾

Project\_Settings

2022/2/10 下午 01:47

檔案資料夾

RTD

2022/2/10 下午 01:47

檔案資料夾

src

2022/2/10 下午 01:47

檔案資料夾

makefile

2022/2/10 下午 01:47

檔案

3 KB

objects.mk

2022/2/10 下午 01:47

MK 檔案

1 KB

Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.args

2022/2/10 下午 01:47

ARGS 檔案

2 KB

Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.bin

2022/2/10 下午 02:26

BIN 檔案

1 KB

Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf

2022/2/10 下午 01:47

ELF 檔案

1,554 KB

Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.map

2022/2/10 下午 01:47

MAP 檔案

245 KB

Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.srec

2022/2/10 下午 01:47

SREC 檔案

812 KB

sources.mk

2022/2/10 下午 01:47

MK 檔案

1 KB

# IVT Tool Image S32G274A

workspaceS32DS.3.4 - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7/Project\_Settings/Startup\_Code/startup\_cm7.s - S32 Design Studio for S32 Platform

File Edit Source Refactor Navigate Search Project 配置工具 Run Window Help

Project Explorer

- Siul2\_Dio\_Ip\_Example\_S32G274A\_M7: Debug\_RAM
  - Binaries
  - Includes
  - Project\_Settings
  - Depend
  - board
  - generate
  - generate/include
  - generate/src
  - src
  - Debug\_RAM
  - include
  - description.txt
  - example\_Siul2\_Dio.mex

main.c

```
/*=====*/
/* Project
 * Platfo
 * Periph
 * Depend
 * Autosa
 * Autosa
 * SW Ver
 * Build Version : S32_RTD_2_0_0_HF02_D2106_ASR_REL_4_4_REV_0000_20210609
 *
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 *
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 * comply with and are bound by, such license terms. If you do not agree to be
 * bound by the applicable license terms, then you may not retain, install,
 * activate or otherwise use the software.
 *=====*/

#define MAIN_CORE 4
#define CM7_ITCMCR 0xE000EF90
#define CM7_DTCMCR 0xE000EF94

#define SBAF_BOOT_MARKER (0x5AA55AA5)
#define CM7_0_ENABLE_SHIFT (0)
#define CM7_1_ENABLE_SHIFT (1)

#define CM7_0_ENABLE (1)
#define CM7_1_ENABLE (0)
#define CM7_0_VTOR_ADDR (_ROM_INTERRUPT_START)
#define CM7_1_VTOR_ADDR (0)
#define XRDC_CONFIG_ADDR (0)
#define LF_CONFIG_ADDR (0)

.syntax unified
.arch armv7-m
/* Table for copying and zeroing */
/* Copy table:
- Table entries count
- entry one ram start
- entry one rom start
- entry one rom end
...
- entry n ram start
- entry n rom start
- entry n rom end
Zero Table:
- Table entries count
- entry one ram start
- entry one ram end
*/
.section ".init_table", "a"
.long 4
.long __RAM_CACHEABLE_START
.long __ROM_CACHEABLE_START
```

Outline

- MAIN\_CORE
- CM7\_ITCMCR
- CM7\_DTCMCR
- SBAF\_BOOT\_MARKER
- CM7\_0\_ENABLE\_SHIFT
- CM7\_1\_ENABLE\_SHIFT
- CM7\_0\_ENABLE
- CM7\_1\_ENABLE
- CM7\_0\_VTOR\_ADDR
- CM7\_1\_VTOR\_ADDR
- XRDC\_CONFIG\_ADDR
- LF\_CONFIG\_ADDR
- \_core\_loop
- \_start
- Reset\_Handler
- MCAL\_LTB\_TRACE\_OFF
- \_end\_of\_eunit\_test
- startup\_getControlRegisterValue
- startup\_getAipsRegisterValue

Build Targets

Problems Tasks Console Properties

CDT Build Console [Siul2\_Dio\_Ip\_Example\_S32G274A\_M7]

```
Invoking: Standard S32DS Assembler
Building file: ../Project_Settings/Startup_Code/exceptions.c
Building file: ../Project_Settings/Startup_Code/nvic.c
arm-none-eabi-gcc "@Project_Settings/Startup_Code/Vector_Table.args" -o "Project_Settings/Star
Finished building: ../RTD/src/OSIf_Timer_System.c
Finished building: ../RTD/src/OSIf_Timer_System.c
Invoking: Standard S32DS C Compiler
Finished building: ../RTD/src/SchM_Mcu.c
arm-none-eabi-gcc "@Project_Settings/Startup_Code/exceptions.args" -MMD -MP -MF"Project_Settin

Invoking: Standard S32DS C Compiler
Building file: ../Project_Settings/Startup_Code/startup.c
Building file: ../Project_Settings/Startup_Code/startup_cm7.s
arm-none-eabi-gcc "@Project_Settings/Startup_Code/exceptions.args" -MMD -MP -MF"Project_Settin
Finished building: ../RTD/src/Siul2_Dio_Ip.c
Building file: ../Project_Settings/Startup_Code/system.c
Invoking: Standard S32DS Assembler
Building file: ../Project_Settings/Startup_Code/exceptions.args" -MMD -MP -MF"Project_Settin
Finished building: ../Project_Settings/Startup_Code/Vector_Table.s
arm-none-eabi-gcc "@Project_Settings/Startup_Code/exceptions.args" -MMD -MP -MF"Project_Settin
arm-none-eabi-gcc "@Project_Settings/Startup_Code/Vector_Table.args" -o "Project_Settings/Star
```

Siul2\_Dio\_Ip\_Example\_S32G274A\_M7

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## Boot Configuration

Boot Target M7\_0

☐ BOOTSEQ: Secured boot mode☐ Boot Target Watchdog

## GMAC Generation

ADKP File N/A

## Life Cycle

Life Cycle Keep existing configuration

## Interface selection

Boot device type QuadSPI Serial Flash

☐ Configure QuadSPI parameters

QuadSPI parameters N/A

## IVT 镜像地址

IVT 镜像起始地址

0x0

## 自动调整

自动调整起始地址: 0x0

调整

导入 IVT 镜像

导出 IVT 镜像

导出 Blob 镜像

## 镜像表

Reserved

Self-Test DCD

N/A

起始地址 0x100

大小 (字节) 4

Reserved

Self-Test DCD (backup)

N/A

起始地址 0x108

大小 (字节) 4

On

DCD

N/A

起始地址 0x110

大小 (字节) 4

Reserved

DCD (backup)

N/A

起始地址 0x118

大小 (字节) 4

Reserved

HSE

N/A

起始地址 0x120

大小 (字节) 4

开始

0x0

0x110

Siul2\_Dio\_Ip\_Example\_S32G27

更新源代码

IVT 视图

Boot Configuration

Boot Target

M7\_0

☐

BOOTSEQ: Secured boot mode

☐

Boot Target Watchdog

GMAC Generation

ADKP File

N/A

Life Cycle

Life Cycle

Keep existing configuration

Interface selection

Boot device type

QuadSPI Serial Flash

☐

Configure QuadSPI parameters

QuadSPI parameters

N/A

IVT 镜像地址

IVT 镜像起始地址

0x0

自动调整

自动调整起始地址 :

0x0

调整

导入 IVT 镜像

导出 IVT 镜像

导出 Blob 镜像

DCD (backup)

N/A

起始地址

0x118

大小 (字节)

4

Reserved

HSE

N/A

起始地址

0x120

大小 (字节)

4

HSE FW Configuration

Reserved

HSE (backup)

N/A

起始地址

0x128

大小 (字节)

4

On

Application bootloader

N/A

起始地址

0x130

大小 (字节)

4

Application Boot Code Image

Reserved

Application bootloader (backup)

N/A

起始地址

0x138

大小 (字节)

4

Application Boot Backup Code Image

## Boot Configuration

Boot Target M7\_0

☐ BOOTSEQ: Secured boot mode☐ Boot Target Watchdog

## GMAC Generation

ADKP File N/A

## Life Cycle

Life Cycle Keep existing configuration

## Interface selection

Boot device type QuadSPI Serial Flash

☐ Configure QuadSPI parameters

QuadSPI parameters N/A

## IVT 镜像地址

IVT 镜像起始地址

0x0

## 自动调整

自动调整起始地址: 0x0

调整

导入 IVT 镜像

导出 IVT 镜像

导出 Blob 镜像

导出 Blob 镜像

Reserved

Self-Test DCD (backup)

N/A

起始地址 0x108

大小 (字节)

4

On

DCD

N/A

起始地址 0x110

大小 (字节)

4

选择文件

&lt;&lt; Siul2\_Dio\_Ip\_Example\_S32G274A\_M7 &gt;&gt; Debug\_RAM

搜索 Debug\_RAM

组合管理

新增资料夹

快速存取

桌面

下载

文件

图片

M7 Build code and Fl

NXP S32 Design Stud

S32 G-M7 document

修改 BSP 31 u-boot 重

OneDrive - Personal

本机

名称

board

generate

Project\_Settings

RTD

src

Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.bin

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2022/2/10 下午 02:26

檔案名稱(N):

ZH|Binary file (\*.bin)

開啟(O)

取消

## 工程

工程名称: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7

工具链: NXP GCC 9.2 for Arm 32-bit Bare-Metal

## Boot Configuration

Boot Target M7\_0

☐ BOOTSEQ: Secured boot mode☐ Boot Target Watchdog

## GMAC Generation

ADKP File N/A

## Life Cycle

Life Cycle Keep existing configuration

## Interface selection

Boot device type QuadSPI Serial Flash

☐ Configure QuadSPI parameters

QuadSPI parameters N/A

## IVT 镜像地址

IVT 镜像起始地址

0x0

## 自动调整

自动调整起始地址: 0x0

导入 IVT 镜像

导出 IVT 镜像

导出 Blob 镜像

导出 Blob 镜像

Reserved

## Self-Test DCD (backup)

N/A

起始地址 0x108

大小 (字节)

4

On

## DCD

N/A

起始地址 0x110

大小 (字节)

4

Reserved

## DCD (backup)

N/A

起始地址 0x118

大小 (字节)

4

无效的文件

文件包含无效头文件值。  
image header tag的期望值: 0xD2  
实际值: 0xD3

OK

Reserved

## HSE (backup)

N/A

起始地址 0x128

大小 (字节)

4

开始

存储器布局

结束

0x0

IVT 镜像 - 256 bytes

0xff

0x110

16 bytes

DCD - 4 bytes

0x113

28 bytes

## 工程

工程名称: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7

工具链: NXP GCC 9.2 for Arm 32-bit Bare-Metal

处理器: S32G274A\_Rev2

部件编号: S32G274A\_Rev2\_525bga

DCD Can't save