## MOM

User Guide - APAC

ArrowSeed product

# SEED-XDS200 仿真器安装、使用指南-Linux

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前目

简介:

此手册描述了 SEED-XDS200 仿真器驱动的安装、使用。SEED-XDS200 是适用 TI 大部分平台包括 DM816x、C66xx 等芯片的调试与仿真的仿真器。

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#### 更多帮助:

请浏览以下网址:<u>www.arrowseed.cn</u>或通过该网址的相关信息联系相关办事处和销售人员。

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	商标:	
	更多帮助	] :
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### 1.1.安装环境

为了使用SEED-XDS200 仿真器,系统应安装Code Composer Studio 5.4 及其以上版本。

由于Linux版本众多,关于CCSv5.x及以上版本所支持的Linux版本,以及Linux版本的 CCS软件支持的芯片的具体情况及对应不同版本Linux在安装CCS软件及驱动所需要安装的 依赖文件。请参考以下网页说明

http://processors.wiki.ti.com/index.php/Linux\_Host\_Support\_CCSv5 http://processors.wiki.ti.com/index.php/Linux\_Host\_Support\_CCSv6 http://processors.wiki.ti.com/index.php/Linux\_Host\_Support\_CCSv7

## 1.2.SEED-XDS200 仿真器所支持的芯片系列

- ≻ C2000
- ≻ C54xx
- ≻ C55xx
- ≻ C64x+
- ➢ C66xx
- ≻ C674x
- > DaVinci
- > OMAP
- > Hercules
- Sitara
- > Stellaris

## 1.3.SEED-XDS200 仿真器特点

- ▶ 支持高速USB 2.0 主机接口
- ▶ USB启动,无需外接电源
- > 三个状态灯
- > 高速抗干扰仿真电缆
- > 支持传统的JTAG协议IEEE 1149.1 与IEEE 1149.7 协议
- ▶ 支持嵌入跟踪(ETB Trace)
- ▶ 支持+1.8 V至+3.3 V的JTAG接口
- ▶ 支持CCS 5.4 版本及更高版本
- > 支持 32Bit/64Bit Windows XP/Win7/win8.1/win10/Linux操作系统

## Chapter 2 安装步骤

### 2.1.安装 CCS 软件

自定义英文路径安装CCS7.2,本文所使用的CCS版本为CCS7.2.0.00013\_linux-x64。

## 2.2.安装 SEED-XDS200 仿真器驱动

- 注意:在安装驱动之前,需要在系统终端运行:
  - sudo apt-get update

sudo apt-get install libc6:i386 libx11-6:i386 libstdc++6:i386

- 1. 安装前,需要修改安装文件SEED-XDS2xx Driver-Linux的权限。如下图所示,勾
  - 选"Allow executing file as program";

😣 🖨 🗊 SEE	D-XDS2xx Driver-Linux Properties		
Basic Perr	nissions Open With		
Owner:	Me	•	
Access:	Read and write	•	
Group:	root 💌		
Access:	Read and write	•	
Others			
Access:	Read and write	•	
Execute:	Allow executing file as program		
Help			Close

2. 双击SEED-XDS2xx Driver-Linux,在弹出的界面中选择"Yes";



#### 3. 单击"Next"按钮;

😣 😑 SEED-XDS2xx Di	river Setup
	Welcome to the InstallJammer Wizard for SEED-XDS2xx Driver
	This will install SEED-XDS2xx Driver version 1.0.0.1 on your computer.
	It is recommended that you close all other applications before continuing.
	Click Next to continue or Cancel to exit Setup.
	Next > Cancel



4. 选择"I accept the terms of the license agreement",单击"Ne	xt" ;
😣 🔵 SEED-XDS2xx Driver Setup	
License Agreement	
Please read the following license agreement carefully.	
END-USER LICENSE AGREEMENT FOR THE SEED-XDS2xx Emulator	
IMPORTANT-READ CAREFULLY: This Arrow SEED End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and Arrow SEED Corporation for t SEED-XDS200 Emulator software product identified above, which includes computer software and may include associated media, printed materials, additional computer software applications, a "online" or electronic documentation ("SOFTWARE PRODUCT"). By downloading, installing, copying, or otherwise using the SOFTWA PRODUCT, you agree to be bound by the terms of this EULA. If y do not agree to the terms of this EULA, do not install or use t SOFTWARE PRODUCT; you may however, return it to your place of purchase for a full refund.	he nd RE pou he
This program is protected by copyright law and international treaties.	
<ul> <li>I accept the terms of the license agreement.</li> <li>I do not accept the terms of the license agreement.</li> </ul>	
InstallJammer	
全审限据所安表的CCS版本远洋到相应的CCS_Dase这一层。本例使用	立ているが文字
/JCC37.2.0.00015_IIIIux-x84 ,	
SEED-XDS2XX Driver Secup	
Choose De 😣 🗢 🗊 Browse for Folder	
Setup wil Please choose a directory, then select OK. der.	
To instal /home/seed/ticcs7,2/ccsv7/ccs_base ffere	nt
Polder, t Public Pub	
InstallJar Make New Folder OK Cancel	
<pre> Back Next &gt; Can</pre>	cel



6 . 单击"Next" ;	
😣 🔵 SEED-XDS2xx Dri	iver Setup
Choose Destination Locat	;ion
Where should SEED-XDS2	2xx Driver be installed?
Setup will install SEED To install to this folde folder, click Browse and	-XDS2xx Driver in the following folder. er, click Next. To install to a different d select another folder.
Destination Folder	sv7/ccs_base
InstallJammer	
	<pre></pre>
7. 开始进行仿真器的驱动多	安装,在弹出的界面中单击"Finish",安装完成。
🙁 😑 SEED-XDS2xx Dri	iver Setup
	InstallJammer Wizard Complete
	The InstallJammer Wizard has successfully installed SEED-XDS2xx Driver. Click Finish to exit the wizard.
	Finish Cancel

\ccsv7\ccs\_base".

# Chapter 3 SEED-XDS200 仿真器的使用

SEED-XDS200 仿真器可以通过USB对目标板进行仿真,以下将通过简单的例程对此展开说明。在本例程中,所使用的PC机操作系统为ubuntu14.04 64bit, Ubuntu14.04 要以root权限进行登录,所使用的CCS版本为CCS7.2.0.00013\_linux-x64,目标板为SEED-DEC2812,目标板所使用芯片为TI的TMS320F2812。

#### 3.1.硬件连接

- 1、 用所提供的 USB 电缆将 SEED-XDS200 仿真器与电脑主机相连;
- 2、 将仿真器的 JTAG 端插入板卡的 JTAG 端;
- 3、 PGD 绿灯和 ST0 红灯亮,则仿真器已经准备就绪;
- 4、 给板卡上电。

### 3.2.软件仿真调试

 打开 Code Composer Studio 7.2.0,菜单栏里选择 "File\New\Target Configuration File"(注意:菜单栏是自动隐藏的,需要鼠标放到上边才显示);

	File Edit View Navigate Project Run Scrip	ots Window He			
Ø	New Open File	•	CCS Project Project		
	Open Projects from File System Close Close All		Source File Header File Class		
٢			File from Template Folder		
			Target Configuration File DSP/BIOS v5.x Configuration RTSC Configuration File	File	
	Move Rename Refresh Convert Line Delimiters To	F2 F5 ▶	Other	Ctrl+N	
		Ctrl+P			
A	Switch Workspace Restart	•			
<u>a</u> ,	Import Export				
1	Properties	Alt+Enter			
	1 NewTargetConfiguration.ccxml [root/]			Resource	Path
	Exit				

2、可使用默认文件名称,也可以重新命名配置文件的名字,单击 "Finish" 按钮;

😣 💷 New Target Configuration	
Target Configuration	
Create a new Target Configuration file.	
File name: NewTargetConfiguration.ccxml	
🗹 Use shared location	
Location: /root/ti/CCSTargetConfigurations	File System Workspace
?	Cancel Finish
3、Connection 选择"SEED XDS2xx USB I TMS320F2812 选项前进行勾选,单击"	Emulator";Device 上写"2812", 'Save";

🗂 🕶 🔛 📴 🕒 💷 🔳 🤉 🗇 .22	1 2 % 0 • 10 10 <b>%</b> • 3		Access
후 Debug X	× (	🚧 Variables 🛿 👯 Expressions 🕮 Registers 🏦 🖄 👘 📑	8 % <b>~</b> • •
2 *NewTargetConfiguration.ccxml 83			
General Setup		Advanced Setup	
This section describes the general configuration a Connection SEED XDS2xx USB Emulator	bout the target.	Target Configuration: lists the configuration options for the target.	
Board or Device 2812		Save Configuration	
<ul> <li>EZDSPF2812</li> <li>TMS320C2812</li> </ul>		Save	
<ul> <li>✓ TM5320F2812</li> <li>□ TM5320R2812</li> </ul>		Test Connection           To test a connection, all changes must have been saved, the configuration file contains no errors and the connection type supports to Test Connection	his function.
		Alternate Communication	
asic Advanced Source			
2 Console 업	🗹 🔍 🔻 📑 🔻 '	🖻 🗈 Problems 🕅 Target Configurations 🛛 🕅	( X   🦑 🖻 🖳
o consoles to display at this time		altist at 1 at a 1 a	

4、单击 SEED XDS2xx USB Emulator\_0,可看到一些配置,根据芯片的不同可以选择不同的参数;

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₩ Debug 🛙	💥 🗢 🗖 (X)= Variab	eles 🗱 🕸 Expressions 👬 Registers	🖆 🐗 📄 📑 📧 👘 🔻 🗖 🗖
R *NewTargetConfiguration.ccxml 없			
Target Configuration			
All Connections		Connection Properties	
K SEED XDS2xx USB Emulator_0	Import	Set the properties of the selected connection	
TMS320F2812_0	New	Board Data File	auto generate
- C28xx	<u></u>	Emulator I/O Port Number	0
	<u>A</u> dd	The JTAG nTRST Boot-Mode	Disabled - Both EMU pins remain hi-z
	Delete	The Power-On-Reset Boot-Mode	Disabled - Both EMU pins remain hi-z
	Up	The JTAG TCLK Frequency (MHz)	Fixed with user specified faster value
	Down	– Enter a value from 0.5MHz to 20.0MHz	10.0MHz
	Test Connection	The JTAG Signals Isolation Upon Disconnect	Isolate JTAG signals when last client disco
	Save	Apply nRESET/SRST pin on the emulation hea	der no NOT oulse this oin on emulator startur
Basic Advanced Source			
Console X	2 🖸 - 🔁 - 🖻	🖹 Problems 🗟 Target Configurations 🛙	🗑 🗶 🔶 🗖 🗖
No consoles to display at this time		and the second	e la el altra contrato
		<u></u>	

5、单击"C28XX",通过"Browse..."选择所需的 gel 文件,而后单击"Save"按钮;

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拳 Debug 题	💥 🗢 🗖 (xi>- Varia	bles 없 해? Expressions 배가 Registers	n 4 8 1 3 3 4 7 8 0
*NewTargetConfiguration.ccxml   Target Configuration			
All Connections ▼ 3, SEED XDS2xx USB Emulator_0 ▼ 4, TMS320F2812_0 G C28xx	Import <u>New</u> <u>A</u> dd <u>D</u> elete <u>Up</u> <u>Down</u> Test Connection <u>Save</u>	Cpu Properties CPU Set the properties of the selected cpu. Bypass Initialization script//emulation/gel/f281 Slave Processor	2.gel Browse
Basic Advanced Source Source ∞	e 🖸 🕫 🖬 🖛 🗖	😰 Problems 🖹 Target Configurations 업	🕅 X 🔗 🗖 🗖 🗖
No consoles to display at this time			en on en altil o tribute

6、单击"View\Target Configurations",右键 NewTargetConfiguration.ccxml 文件,选中"Launch Selected Configuration";

	R I 🗘 🗘 🔹	⇔ ▼		Quick Access
<i>⊕ ⊕ ∎</i>				<ul> <li>☑ Target Configurations X</li> <li>☑ X</li> <li>⊘ E</li> </ul>
All Connections ▼ 🕄 SEED XDS2xx USB Emulator_0	Import	Cpu Properties CPU		type filter text  B Projects
▼ IMS20F2812_0	New Add Delete Up	Set the properties of the selected Bypass initialization script//emulatic Slave Processor	New Target Configuration Import Target Configuration Delete Rename	Ver Defined     NewTargetConfiguration.ccxml     Delete     F2
Partie & Advanced Foruma	Down Test Connection Save		Refresh Launch Selected Configuration Set as Default Link File To Project	F5 aw button to create a new target on file. Click <u>here</u> to hide this

7、加载过程中, ST1 红灯闪烁, 加载完成后, 如下图所示。此时, ST0、ST1 红灯 灭;

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∜ Debug ⊠	×	(x)= Variables 🖾	🛠 Expressions 🚟 Registers	<u>*</u>	•t ⊟ 📑 🖻 🍫 🔻	- 0
🖲 🕸 NewTargetConfiguration.ccxml [Code Composer	Studio - Device Debugging]	Name	Туре	Value	Location	
SEED XDS2xx USB Emulator_0/C28xx (Disconne)	ted : Unknown)					
4	))))					
🖹 NewTargetConfiguration.ccxml 😫						
Target Configuration					8	
All Connections		Cpu	Properties			
▼ 🕄 SEED XDS2xx USB Emulator_0	Import	CPU				
TMS320F2812_0	New	Set t	he properties of the selected	cpu.		
C28xx	Ivew		Bypass			
	Add	initi	alization script//emulation	n/ael/f2812.ael	Province	-
Basic Advanced Source						
🖳 Console 🛱	🛃 🔍 🔻 📑 🔻	🖻 🗈 🖹 Pro	blems 🕄 Target Configurations	22	🗑 🗶 🤣 🖃	- 0
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		🔻 👝 L	Jser Defined			
		2	NewTargetConfiguration.ccx	ml		
		Click	he New button to create a ne	w target configuration	file. Click <u>here</u> to hide this me	ssage.
			80			

8、单击"SEED XDS2xx USB Emulator\_0/C28xx (Disconnected : Unknown)",而 后右键选择"Connect Target"连接板卡,SEED-XDS200的ST1 红灯闪烁;

▼ NewTargetConfiguration.ccxml [Code Composer Studio - Device Debugging]     Name     Type     Value     Location       P SEED XDS2xx USB Emulator_0/C28xx (Disconnected : Indexamin P SeeD XDS2xx USB Emulator_0/C28xx (Disconnect Target Connect Target RewTargetConfiguration.ccxml IS     Ctrl+Alt+C Disconnect Target Enable Global Breakpoints Enable Global Breakpoints Enable Global Breakpoints Enable Global Breakpoints Enable Global Breakpoints Enable Global Breakpoints SeeD XDS2xx USB Emulator_0	枠 Debug ¤	×	(x)= Variables &	3 😚 Expres	sions 1111 Registers		🗄 🐗 🖹 🛅 🛃 🚳 🔻	- 5
SEED XDS2xx USB Emulator_0/C28xx (Disconnected : Intervania)             Connect Target             Ctrl+Alt+C             Disconnect Target             Ctrl+Alt+C             Enable Clobal Breakpoints             Enable Clobal Breakpointes             Enable Clobal Breakpoints	🕫 NewTargetConfiguration.ccxml [Cod	e Composer Studio - Device Debugging]	Name		Туре	Value	Location	
Connect Target     Ctrl+Alt+C       Disconnect Target     Ctrl+Alt+C       Target Configuration.cxml IX     Enable OS Debugging       Disconnect Target     Disconnect Target       Target Configuration     Open GEL Files View       Niconnections     Hide core(s)       Show all cores     Group core(s)       Sync group core(s)     Sync group core(s)       Ungroup core(s)     Dt       Disc. Advanced Source     Dt	SEED XDS2xx USB Emulator 0/C28	(X (Disconnected : Unknown)						
Disconnect Target     Ctr1+Alt+D       Enable Global Breakpoints     Enable Global Breakpoints       RewBrgetConfiguration.ccxml I2     Enable Alt On Reset       Enable Global Breakpoints     Enable Global Breakpoints       All Connections     Hide core(s)       Y SEED XX52xx USB Emulator_0     Show all cores       Y C2EBX X     Group core(s)       Wingroup core(s)     Sync group core(s)       Rename     Int/./emulation/oel/f2812.gel		<u>C</u> onnect Target		Ctrl+Alt+C				
Enable Global Breakpoints       All Connections       Hide core(s)       Sync group core(s)       Group core(s)       Sync group core(s)       Basic Advanced Source		Disconnect Target						
RewBargetConfiguration.ccxml IS     Enable Halt On Reset Enable OS Debugging     Image: Configuration.ccxml IS       Target Configuration     Open GEL Files View     Image: Configuration.ccxml IS       All Connections     Hide core(s)       Y S. SEED XDS2xx USB Emulator_0     Show all cores       Y G. SEED XDS2xx USB Emulator_0     Group core(s)       Y G. SEED XDS2xx     Sync group core(s)       Ungroup core(s)     Ungroup core(s)       Rename     Pt/. /emulation/oel/f2812.gel		Enable Global Breakpoi						
WewtargetConfiguration.ccxml IX     Enable OS Debugging       Target Configuration     Open GEL Files View       All Connections     Hide core(s)       Sketz XUSS Benulator_0     Show all cores       Group core(s)     Group core(s)       Gename     Basic Advanced Source		Enable Halt On Reset			-			
Target Configuration     Open GEL Files View     Image: Configuration       All Connections     Hide core(s)       * Case: Show all cores     Show all cores       * TMS320F2812_0     Group core(s)       * C28xx     Ungroup core(s)       Ungroup core(s)     Interme       Basic Advanced Source     Interme	🖹 NewTargetConfiguration.ccxml 🛿	Enable OS Debugging						- 6
All Connections     Hide core(s)       Y S SEED XXUSB Emulator_0     Group core(s)       Y CaseD XXUSB Emulator_0     Group core(s)       Y CaseD XXUSB Emulator_0     Group core(s)       Y CaseD XXUSB Emulator_0     Sync group core(s)       Y CaseD XXUSB Emul	Target Configuration	Open CEL Files View						1 80
All Connections     Hide core(s)       * % SEED XDS2xx USB Emulator_0     Show all cores       * M TMS320F2812_0     Show all cores       # C28xx     Sync group core(s)       Ungroup core(s)     Ungroup core(s)       Basic Advanced Source     Ipt _/./emulation/gel/f2812.gel	larger configuration	Open GEL Files View						
* % SEED XDS2xx USB Emulator_0     Show all cores       * M TMS320F2812_0     Group core(s)       * C28xx     Ungroup core(s)       Ungroup core(s)     Ename       Basic Advanced [Source]     Ipt ./. /emulation/oel/f2812.eel	All Connections	Hide core(s)						
Image: C28xx     Group core(s)     so of the selected cpu.       Image: C28xx     Ungroup core(s)     Ungroup core(s)       Basic Advanced [source]     Rename     Ipt. /. /emulation/oel/f2812.eel	SEED XDS2xx USB Emulator 0	Show all cores						
Sync group core(s)     Ungroup core(s)     Rename     Ipt     Ipt     Ipt     Ipt     Ipt	TMS320F2812 0	Group core(s)			es of the selected cpu.	1 cou		
Basic Advanced [Source]	A CONV	Sync group core(s)				repu.		
Basic Advanced Source Rename Ipt . / . /emulation/oel/f2812.oel	- C20AA	Ungroup core(s)						
Basic Advanced Source		Rename			ipt / /emulatio	on/ael/f2812 ael	Desure	
	Basic Advanced Source	- Net Harrison					Promeo	

#### 9、此时,板卡已经和仿真器连接完毕,可以进行仿真操作。

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₩ Debug 🛛	×	(×)= Varia	ibles 🛛 🕸 E	pressions IIII Registers	20 - <b>&gt;t</b> a	⊟ ⊡ ≅   🌼 🔻	
NewTargetConfiguration.ccxml [Code Composer Studio - Device Debugging]		Name		Туре	Value	Location	
<ul> <li>W SEED XDS2xx USB Emulator_0/C28xx (Suspended)</li> <li>0x3FFC00 (no symbols are defined)</li> </ul>							
	)))						
RewTargetConfiguration.ccxml	© 0x3ffc00 23						- 8
No source available for "0x3ffc00"							
View Disassembly							
⊊ Console ¤	r 🖓 v 📬 v	- 0	Problems	🕄 Target Configurations 🕱		x × 00 E	- 0
No consoles to display at this time.			type filter I	text			6
			😂 Projec	ts			
			V User D	erined			
			Click the Ne	w button to create a new tar	get configuration file	. Click <u>here</u> to hide this me	essage.
				ا			

#### 附:SEED-XDS200 仿真器 LED 介绍

标识	颜色	功能描述
PGD	绿色	电源灯
ST0		亮 XDS200 仿真器开始自启,准备下载程序
	红色	灭 CCS 目标板加载完成, XDS200 驱动加载完成
ST1	红色	闪烁 正在执行 XDS200 驱动

销售热线:400-0481-230 转 1 E-mail:<u>seeddsp@arrowasia.com</u> 技术支持:400-0481-230 转 2 E-mail:<u>support.seed@arrowasia.com</u> 维修中心:400-0481-230 转 3

