

XDS100V2



Product description

DSP emulator

XDS100V2 official version

Support TI DSP ARM

CCSV4 and higher versions are supported, CCSV3.3 is not supported!

Simulation debugger XDS100V2 supports DSP TMS320F28335 upgraded high-speed interface

产品介绍

XDS100V2 仿真器是XDS100V1仿真器的升级版，是XDS100 JTAG仿真技术的第二个版本，与XDS100V1相比XDS100V2的速度更快，支持的DSP芯片型号也更多，还支持TI的ARM芯片，是一款性价比非常高的DSP仿真器。

XDS100V2 仿真器支持USB2.0高速接口，通过14PIN的接口进行仿真调试，支持Code Composer Studio (CCS) V4 和更高的版本。

产品特点

- <1>USB2.0 高速接口(480 Mbit/s)
- <2>14PIN的标准JTAG接口
- <3>支持高速USB代码下载功能
- <4>支持断电检测
- <5>支持多种 FTDI 设备驱动
- <6>支持自适应时钟
- <7>支持的Code Composer Studio v4(CCS4)和更高版本
- <8>支持LED灯显示控制USB连接情况

支持芯片

✓TMS320C28x 系列

常见有：TMS320F2812、TMS320F2810、TMS320F28335、
TMS320F2802、TMS320F2806、TMS320F2808、
TMS320F2809、TMS320F28232、TMS320F28027、
TMS320F28035 等等

✓TMS320C54x 系列

常见有：TMS320C5402、TMS320C5409、TMS320C5416等

✓TMS320C55x 系列

常见有：TMS320C5502、TMS320C5509、TMS320C5509A等

✓TMS320C64x+系列

常见有：TMS320C6421、TMS320C6424、TMS320C6455等

✓TMS320C674x系列

常见有：TMS320C6745、TMS320C6747、TMS320C6748等

✓ARM 9系列

✓ARM Cortex R4系列

✓ARM Cortex A8系列

**Support WINXP/7/10 32&64bit
Simulation debugging:**

File Edit View Navigate Project Target Tools Scripts Window Help

Debug X C/C++

Texas Instruments XDS100v2 USB Emulator_0/C54xx [Non-Project Debug Session]

Device

- Thread [main] (Suspended)
 - 0 main() at dsp.c:3 0x002118
 - 1 _args_main() at args_main.c:25 0x002080
- Texas Instruments XDS100v2 USB Emulator_0/C54xx (20:30:02)
- Texas Instruments XDS100v2 USB Emulator_0/C54xx: CIO (20:30:02)

Name Value Address Type

dsp.ccxml dsp.c

```

1 void main()
2 {
3
4     printf("welcom to ccs 4.2!!");
5 };

```

Disassembly (main)

Enter location here

```

main:
0x002118:  EEFF    FRAME -1
0x002119:  F274    CALLD printf
0x00211B:  F020    LD #0ba2h,0,A
0x00211D:  EE01    FRAME 1
0x00211E:  FC00    RET
register_unlock:
0x00211F:  80F8    STL A,*(_unlock)
0x002121:  FC00    RET
register_lock:

```

Console

Texas Instruments XDS100v2 USB Emulator_0/C54xx [Non-Project Debug Session] Texas Instruments XDS100v2 USB Emulator_0/C54xx (20:30:02)

C54xx: GEL Output: Gel StartUp Complete.

C54xx: GEL Output: C5402_Init Complete.

Debug - LED.c - Code Composer Studio (Licensed)

File Edit View Navigate Project Target Tools Scripts Window Help

LED.c DSP2833x_CodeStartBranch.asm DSP2833x_SysCtrl.c

Disassembly (main + 0x1c) Local (1) Watch (1)

Enter location here

```

0x00852A:  E80218B0 MOVIZ R0, #0x4316
0x00852C:  E80A8001 MOVXI R1H, #0x5000
0x00852E:  764085C8 LCR ConfigCpuTimer
0x008530:  761F0030 MOVW DP,#0x0030
0x008532:  1804FFEF AND @4,#0xFFEF
0x008534:  76230001 OR IER,#0x0001
0x008536:  761F0033 MOVW DP,#0x0033
0x008538:  1A220040 OR @34,#0x0040
0x00853A:  2910 CLRC INTM
0x00853B:  2920 CLRC DBGM
0x00853C:  FF69 SPM 0
0x00853D:  7640857B LCR configtestled
0x00853F:  761F01BF MOVW DP,#0x01BF
0x008541:  1809EFFF AND @9,#0xEFFF
0x008543:  1809DFFF AND @9,#0xDFFF
0x008545:  761F0304 MOVW DP,#0x0304
0x008547:  2B20 MOV @32,#0
C$DWSL$_main$2$B, C$L1:
0x008548:  6F00 SB C$LL,UNC
C$DWSL$_main$2$E, ISRTimer0:
0x008549:  761B ASP
0x00854A:  FFF0 PUSH RB

```

Registers (1)

Name	Value
Core Registers	
FPFPU	
ADC	
ADCMIRROR	
SYSCTRL	
CSM	
PWL	
CPUTIMER	
DEVEMU	
DMA	
eCANA	
eCANA_LAM	
eCANA_MOTS	
eCANA_MOTO	
eCANA_MBX_CONTENT	
eCANA	
eCANA_LAM	
eCANA_MOTS	
eCANA_MOTO	
eCANA_MBX_CONTENT	
eCAP1	
eCAP2	
eCAP3	
eCAP4	
eCAP5	
eCAP6	
ePWM1	
ePWM2	
ePWM3	
ePWM4	
ePWM5	

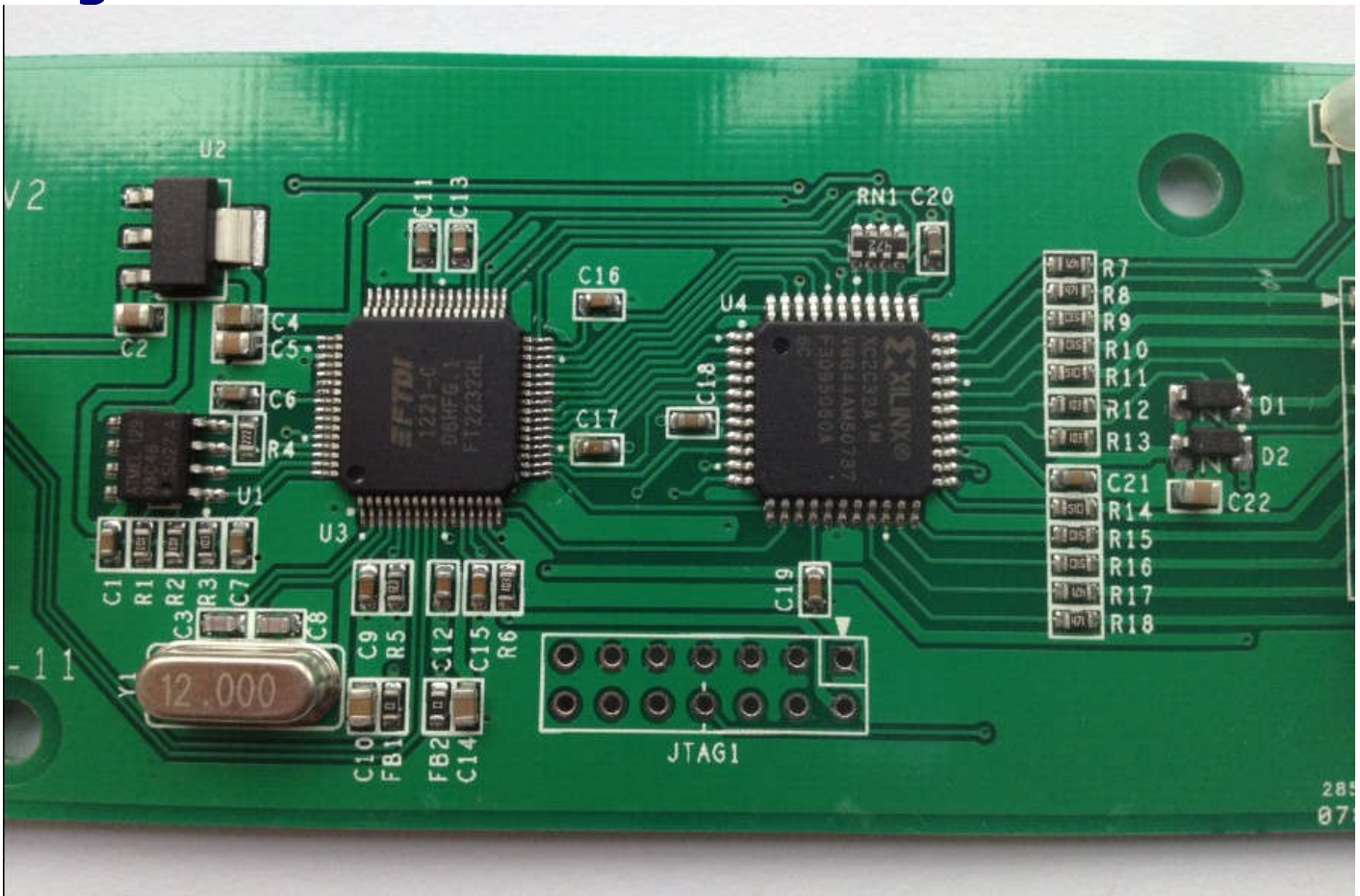
Console

Texas Instruments XDS100v2 USB Emulator_0/C28xx [Non-Project Debug Session]

Device

- Thread [main] (Suspended)
 - 0 main() at LED.c:86 0x008548
 - 1 _args_main() at args_main.c:43 0x0086ab
- Texas Instruments XDS100v2 USB Emulator_0/C28xx (22:50:44)
- Texas Instruments XDS100v2 USB Emulator_0/C28xx: CIO (22:50:44)

The internal circuit is exactly the same as the original:



Packing List:

- 1. 1 host**
- 2. 1 USB cable as a gift**
- 3. One 14P gray cable is given as a gift**

The CCS software can be downloaded from the TI official website (you can register an account), and the driver is integrated (copied to the browser):

http://processors.wiki.ti.com/index.php/Download_CCS

Reference material download address (copy to browser):

<http://pan.baidu.com/s/1mgDQeUW>

Support Chip:

- 1, TMS320C28x series
- 2, TMS320C54x series
- 3, TMS320C55x series
- 4, TMS320C64x + Series
- 5, TMS320C674x series
- 6, TMS320C66x series
- 7, ARM 9 Series
- 8, ARM Cortex A9 Series
- 9, ARM Cortex A8 Series
- 10, ARM Cortex M3/M4 Series
- 11, ARM Cortex R4 Series

Product Features:

- 1 , debug function (connect / disconnect , read / write memory , read registers, loader , run / stop steps to support the breakpoint debugging , real-time mode) .
- 2, USB2.0 high speed interface, compatible with USB 2.0 full-speed , and low-speed USB1.1 .
- 3,14 PIN standard JTAG interface, support for TI chip processor .
- 4, support Hi-Speed USB code download.
- 5 , support for power-on reset startup mode , JTAG reset , wait and then reset the startup mode.
- 6 , support for outage detection .
- 7 , support for multiple FTDI device driver .
- 8, support adaptive clock , adaptive target board voltage.
- 9 , support for Code Composer Studio v4 and later versions , the latest version CCS5.2 has passed rigorous testing.
- 10 LED lights display controller supports USB connections.
- 11, SRV05-4 do ESD protection . Protect expensive DSP chip to prevent static electricity from the human body burn JTAG DSP chip .

FY-XDS100V2 仿真器输出接口:

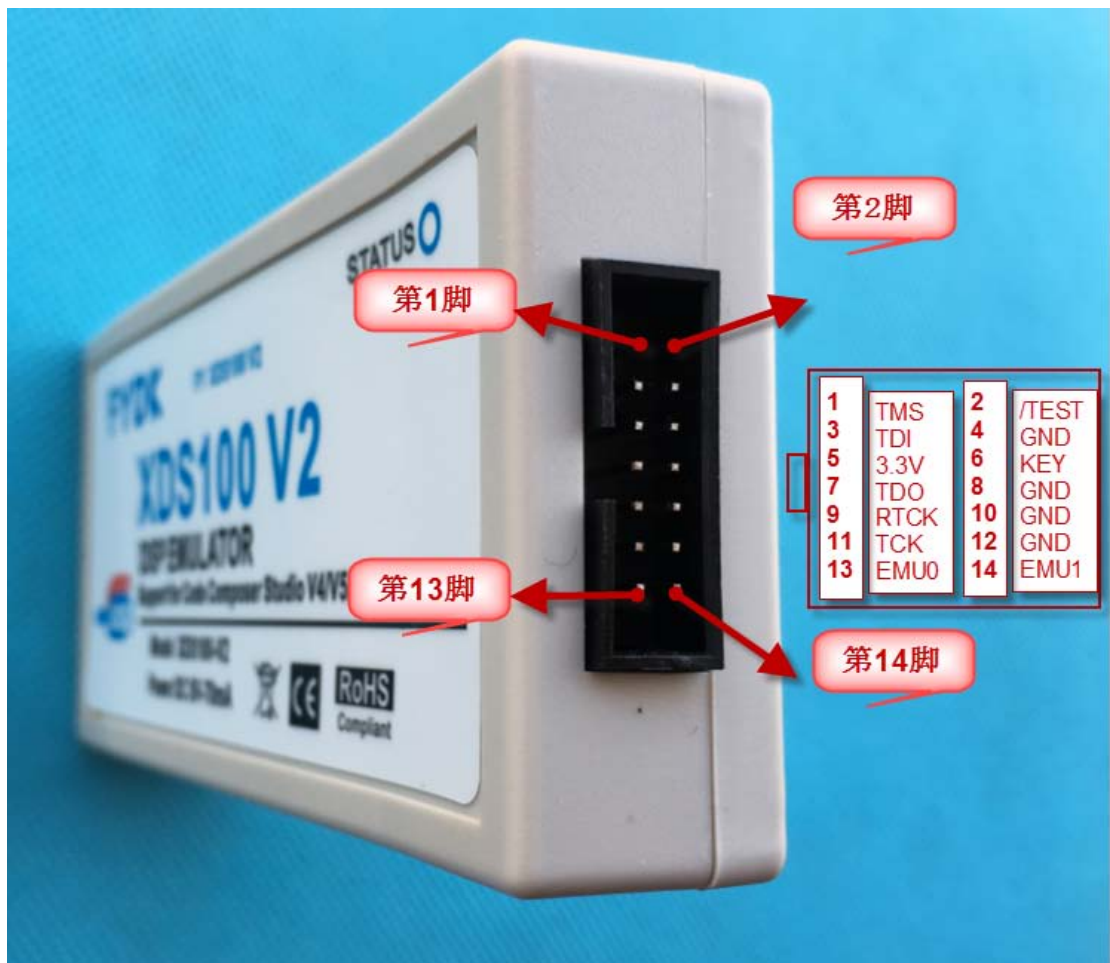
设备输出默认标准的 14 针 JTAG 口
定义如下:

TMS	1	2	/TEST
TDI	3	4	GND
PD(+3.3V)	5	6	KEY
TDO	7	8	GND
TCK-RET	9	10	GND
TCK	11	12	GND
EMU0	13	14	EMU1

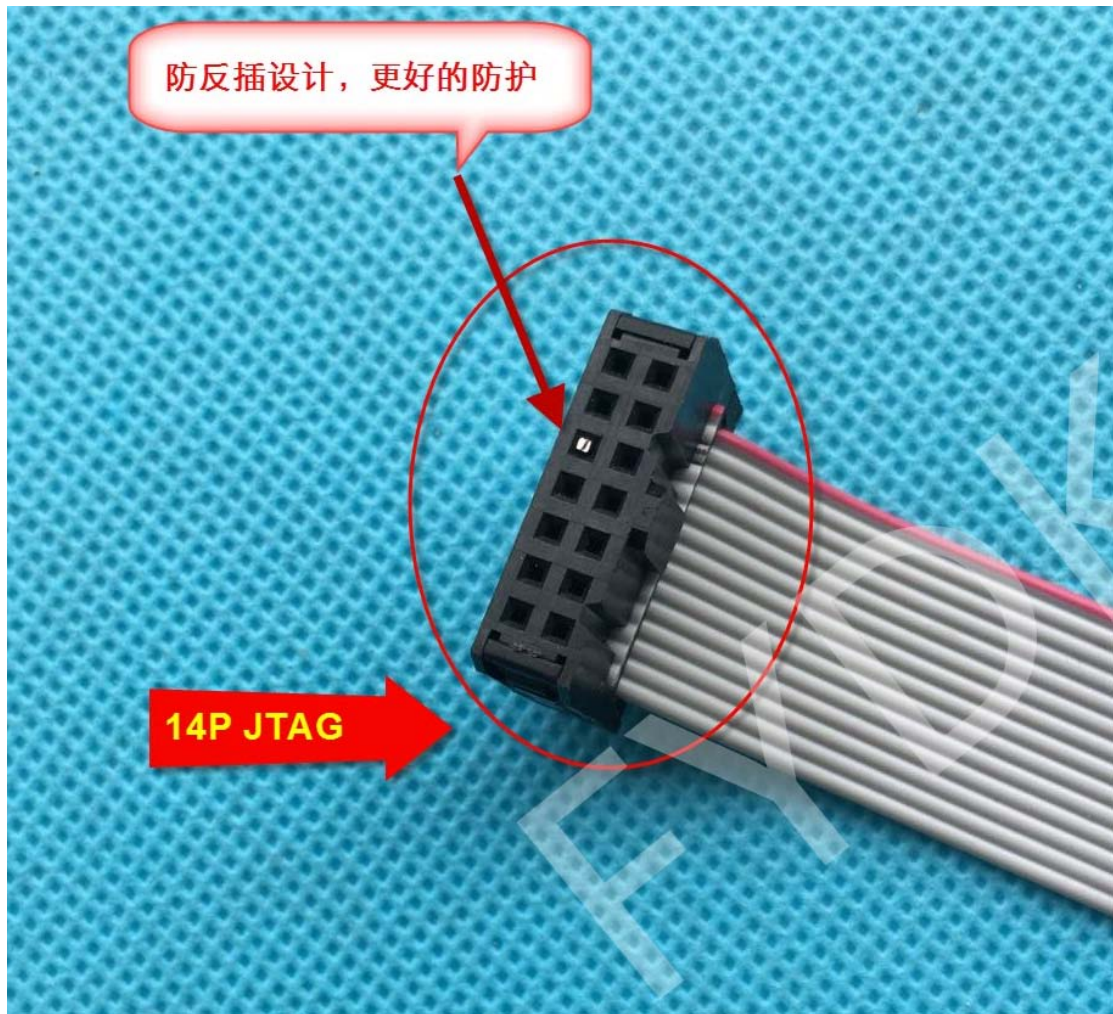
其中第 9 脚即 RTCK

注意: 下载器不向外提供电源: 其中 5 脚不输出电源,此脚需要接目标板的电源,否则无法工作!

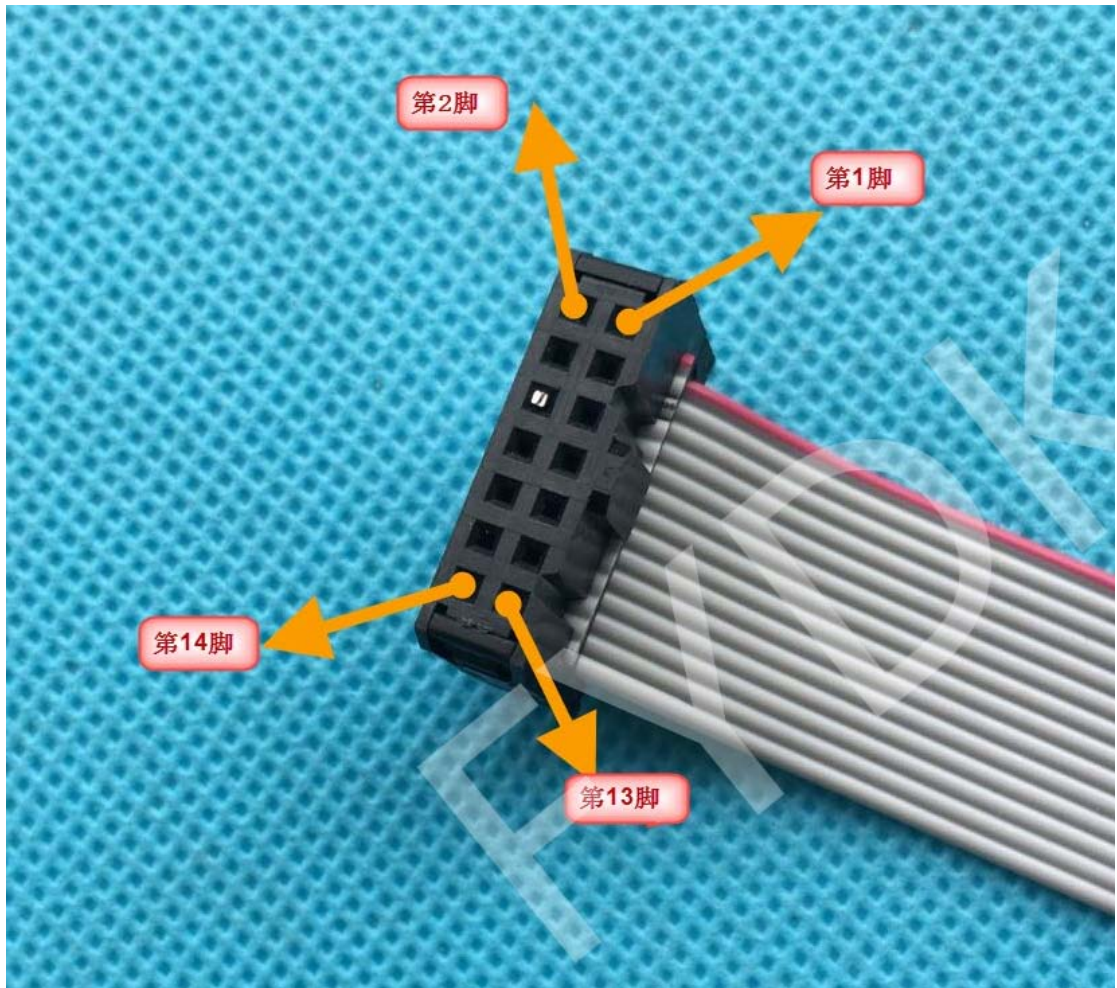
设备对应:



14P 排线识别:



排线输出引脚顺序:



如何识别第 1 脚:

三角形位置为 1 脚,一排顺下来是单数 1.3.5.7.9.....

另一排顺下来是双数: 2.4.6.8.10.12.....

