通过JTAG固化EPCS

明德扬科技•教育出品



QQ群: 97925396

- 官网: http://www.mdy-edu.com
- 淘宝: http://mdy-edu.taobao.com

步骤1 转化

在Quartus II中,单击File->Convert Programming Files。打开编程文件转 换程序,如图2所示。

Convert Programming File - I:// File Tools Window	X/AX301/CD/12_DEMO_H/HEI	TO - HEITO		
Specify the input files to convert and the type You can also import input file information from future use.	of programming file to generate. other files and save the conversion	setup information created her	e for	
Open Conversion Set	up Data	Save	e Conversion Setup	
Output programming file				
Programming file type: JTAG Indirect Confi	iguration File (.jic)			•
Options Configuration device	EPCS16	Mode:	Active Serial	V
File name: output_file.jic				
Advanced Remote/Local updat	e difference file: NONE			V
Memory Map File	•			
Input files to convert				
File/Data area	Properties	Start Address		Add He <u>x</u> Data
Flash Loader SOF Data	Page_0	<auto></auto>		Add <u>S</u> of Page
				Add <u>Fi</u> le
				Remove
				Up
				Down
				Properties
			<u>G</u> enerate Close	Help
				111

图2 编程文件转换程序界面

在此界面中。在Programming file type:标签后选择JTAG Indirect Configuration File (.jjc);

在Configuration device:标签后选择你所使用的EPCS型号,此外我选择 EPCS16。

在Input file to convert方框中,单击Flash Leader,再单击Add Device.., 如图3一样选择EP4CE6(请根据自己的FPGA型号自行选择);单击SOF Data, 再单击Add File,选择Quartus II编译后的sof文件。配置完成界面如图4所 示。

🖗 Select Devices		×
Device family	Device name	
APEX20K Arria GX Arria II GX Arria II GZ Cyclone Cyclone II Cyclone III Cyclone III S Cyclone IV E Cyclone IV CY HardCopy II HardCopy II HardCopy IV MAX II MAX V Stratix Stratix GX Stratix II Stratix II GX Stratix II GX	 □ EP4CE10 □ EP4CE15 □ EP4CE22 □ EP4CE30 □ EP4CE40 □ EP4CE65 □ EP4CE75 	New Import Export Edit Remove
	ОК	Cancel

图3 Add Device

		1.1
🖥 Select In	aput File	×
Look in:	I:\AX\AX301\CD\13_DEMO_V	- 0 0 📑 🗉 🗉
My Cor	nputer trator db incremental_db itop_module.sof	
File <u>n</u> ame:	top_module.sof	Open
Files of type:	SRAM Object Files (*.sof)	Cancel

图4 配置完成界面

单击Generate,开始生成jic文件。成功界面如图5。



图5 成功界面

关闭Convert Programming Files界面,进入下一步骤。

步骤2 烧写

在Quartus II中,单击Tools->Programmer,进入下载界面,如图6所示。

Programmer - I File Edit View Proc	:/AX/AX301/CD/13_DEBO essing Tools Window Help	_V/top_module - t	op_module -	[top	
Hardware Setup.	USB-Blaster [USB-0]	Mode: JTAG	V V devices)	Progress:	0
	r to allow background program	Initing (FOL PIAN II and PIA			
🔊 Start	File	Device	Checksum	Usercode	Pr Cc
■ [™] Stop					
Auto Detect					
🗙 Delete					
🖄 Add File					
🖺 Change File					•
Save File					-
Add Device					
🜓 Up					- 25
🖊 Down					
			15		
	图6	下载界面	イン		

在此界面,单击Hardware Setup,选择下载线缆。双击选择Usb-Blaster,如 图7所示。

ardware Setup	1	_	
ardware Settings JTAG Settings			
elect a programming hardware setup t ardware setup applies only to the curr	o use when prog ent programmer	ramming device: window.	s. This programming
urrently selected hardware: USB-Bl	aster [USB-0]		
Available hardware items			
Hardware	Server	Port	Add Hardware
USB-Blaster	Local	USB-0	Remove Hardware
			Close

图7 选择Usb-Blaster

回到下载界面,单击led_water.sof,再单击Change File,选择刚才转换的 output_file.jic。添加完成后,安装图8所示勾选选项,选择jic文件。



单击Start,开始下载。下载完成后,请点击复位键或者重启开发板,就会看见 固化的程序了。