Convert SOF file to JIC and Flashing EclaireXL V2 PCB core Document rev1. By Nir Dary – June 2017

- 1. You need a USB Blaster, you can purchase one from EBay
- 2. Download the and install Quartus Prime software from Altera website: <u>http://dl.altera.com/?edition=lite</u>
- 3. Connect the USB Blaster on one side to your PC USB port, Windows should detect the hardware immediately, and on the other side to the JTAG port on the EclaireXL board
- 4. Start the Quartus Prime software

At the Hardware setup menu make sure that the currently selected hardware is set to point to you USB Blaster device as shown in the image below

Hardware Settings JTA	G Settings	11.211	14 W
Select a programming hard hardware setup applies on	dware setup to use when ly to the current program	n programming devices. mmer window.	This programming
Currently selected hardwar	e: USB-Blaster [USB-	0]	-
Available hardware items			
Hardware	Server	Port	Add Hardware
USB-Blaster	Local	US8-0	Remove Hardware
-			

5. In Quartus Prime programmer tool go to file => convert programming files

Select programming file type 'jtag indirect programming file' Select configuration device (EPCS128) Select mode: Active serial Set appropriate file name to output

Convert Programming File			and the second second			HAR BO
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Specify the input Nee to convert an rise can also import input file infor- future use.	d the type of programming file to gen mattern from other files and seen the c	ende onvenion verspiriformation create	d have for			
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	Construction from a free series	response is and instance dat.				
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6. In 'Input files to convert' clock on 'Flash Loader' to select it then click 'Add Device' on the right

File/Data area	Properties	Start Address	Add Hes Da
Flash Loader			Add Sof Pa

Select 'Cyclone V' on left and the correct FPGA from the right (5CEBA4)

Device family		Device name		
Arria GX	*	SCEBA2	4	New
Arria II GX	-	SCEBA4	- S.	
Arria II GZ		SCEBA5	3	\$mport_
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Cyclone	=	SCEFA2		Edit
Cyclone 10 LP		SCEFA4		Bernow
Cyclone II		SCEFA5		- marine -
Cyclone III		SCEFA7		Uncheck Al
Cyclone III LS		SCEFA7ES		
Cyclone IV E		SCEFA9		
Cyclone IV GX		SCGTEDSCS		
Cyclone V		SCGTED5E5		
HardCopy II		SCGTED785		
HardCopy III		SCGTFD7C5		
C. Devil and M.	-	Decembras		

7. In 'input files to convert' click on 'SOF Data' to select it and click 'Add File'

Then select the .sof file you want to convert

File/Data area	Properties	Start Address	Add Hex Data
Flash Loader		~	Add Sof Page
SOF Data	Page 0	<auto></auto>	Add Eile
1 v10.sof	5CEBA4F23		Remove
			Up
			Down
			Properties

Select properties on the new line and enable 'compression' and select "ok"

ි SOF File Properties	×
Compression	
Enable decompression during Partial Reconfiguration (The attached SOF does not enable Partial Reconfiguration	n)
OK Cancel	

8. When all done click on 'Generate' to generate the JIC file

		Up
	[Down
1		Properties
Generate	Close	Help

You will be prompt with a successful message and click 'Close'

9. In the Quartus Prime programmer tool click on "Add File" button and select the JIC file you created

File Edit View Prov	cessing Tools W	ndow Help		
📥 Hardware Setup	No Hardware			
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wilk Stop				
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And select the JIC file you created\

Check the "Program / Configure" Check box and click on the "START" button to start programming

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Wait until you complete the process and exit the software

	Search altera.com
Progress:	100% (Successful)