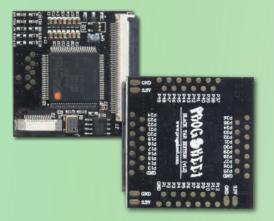


### PROGSKEET 1.2 Main board



PROGSKEET 1.2 Slave board



Packing: 1
Progskeet 1.2 "no programmer" + Adaptor Pcb



Packing: 2 Progskeet 1.2 FULL KIT (incl. Injectus)



# PROGSKEET V1.2 DATASHEET - rev.0.1 - 15/10/12

Announcing ProgSkeet 1.2, Black Tar Edition

- Smallest footprint EVER
- Special 4 layer 35um design (separate ground and power planes)
- Increased sturdiness thanks to FR4 polymer based PCB (bulletproof! go ahead and try to shoot it with rubber bullets, we did!)
- Improved stability for novice users (we understand that sometimes wiring can be subpar)
- Consumes much less power (even during operation, U MAD NINTENDO?)
- Backwards compatible, including clip support (legacy bitstream)
- Customly crafted CPU to meet hobbyist demand (upcoming bitstream)
- Contains SPI flash (upcoming bitstream)
- Partially open source (upcoming bitstream)
- Switch & LED (Dual-Boot available in legacy, can be controlled by user as well in upcoming bitstream)
- Streaming over several ports (upcoming bitstream)
- Hardware Serial Engine (upcoming bitstream)
- SPI Slave (which can also be used by user, upcoming bitstream)

#### Hardware specifications:

#### Main board

- Powerful Actel A3P125 FPGA
- High Quality Branded 48.000Mhz Crystal
- 1Mbit SPI FLASH on board (to store settings and more ...)
- ZIF connector 50 pin expansion port (compatible NOR / NAND connections)
- ZIF 15 pin connector with these signals:
  - LED (slave board)
  - Switch (slave board)
  - USB slave (slave board)
  - SPI line (for future expansion tools)
  - JTAG line (injectus compatible, necessary to update ACTEL on board)

### Slave board

- Switch on board for future uses (DUAL NAND / NOR SELECTION)
- Status LED on board
- Mini usb slave port.

PROGSKEET 1.2 available packages on the market:

### PROGSKEET 1.2 "no programmer"

This kit is ok for who has already an actel programmer. Remember that progskeet's firmware need to be updated! To use progskeet an actel programmer is necessary!

- Main board PROGSKEET 1.2
- Slave board PROGSKEET 1.2
- Adaptor PCB

### **PROGSKEET 1.2 FULL KIT**

The official progskeet kit that include all what you need to enjoy progskeet features.

- Main board PROGSKEET 1.2
- Slave board PROGSKEET 1.2
- Adaptor PCB
- Injectus JTAG actel programmer

### **PROGSKEET 1.2 FULL KIT is compatible with:**

- NAND PCB 16 Mbytes PROGSKEET
- NAND PCB 16 Mbytes SQUIRT TEAM
- NAND PCB 128 Mbytes PROGSKEET
- NAND PCB 512 Mbytes SQUIRT TEAM
- NAND CLIPS WIICLIP TEAM (we discourage to use them)
- NOR CLIPS WIICLIP TEAM (we discourage to use them)
- QSB CORONA SQUIRT TEAM
- QSB TRINITY SQUIRT TEAM
- QSB PROGSKEET NOR / NAND (coming soon)

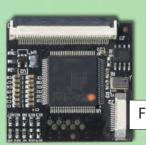


# PROGSKEET V1.2 USER MANUAL - rev.0.1 - 15/10/12

### **Chapter 1. "How to UPDATE the bitstream of PROGSKEET":**

- Connect the flat FCC 15 pin to the INJECUTS programmer

- Connect USB cable from INJECTUS to the USB port of your Windows based PC

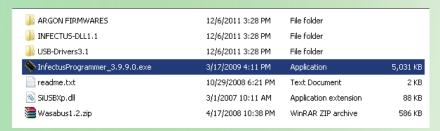


FCC Flat 15pin

USB CABLE (mini usb)

e drivers.

After connected the INJECTUS programmer to the PC windows will ask you the drivers. Download the INFECTUS PROGRAMMER PACKAGE 3.9.9.0 from this location: http://www.progskeet.com/forum/viewtopic.php?f=10&t=3948 Inside you will find the USB drivers of the Silabs USB IC installed on INJECUTS. After Injectus is correctly recognized just load INFECTUS PROGRAMMER software



## **Procedure to update PROGSKEET with Injetus:**

- run injectus programmer software

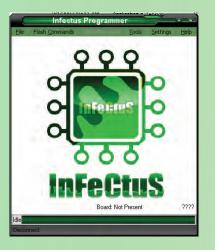
click tools

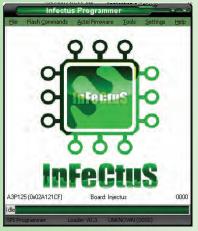
open infectus (at bottom of pulldown)

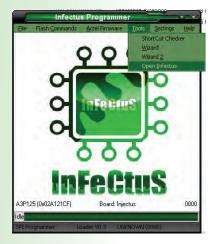
load dat file

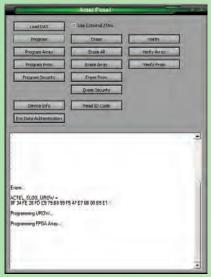
click program

Note: can be done when already connected to console flash. Here some screenshot of the procedure:









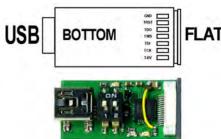




In this picuture below the injecuts PINOUT (good to know if you have to program other devices actel).

Also you see a yellow wire solder on the injecuts. This is necessary only to bring more power to jtag.

Not necessary for progskeet!





# PROGSKEET V1.2 USER MANUAL - rev.0.1 - 15/10/12

### Chapter 2. "The PINOUT of PROGSKEET V1.2":

- Connect the flat FCC 15 pin to the INJECUTS programmer

- Connect USB cable from INJECTUS to the USB port of your Windows based PC

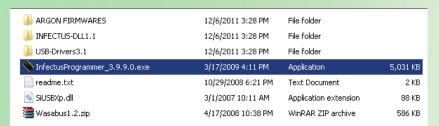


FCC Flat 15pin

USB CABLE (mini usb)

After connected the INJECTUS programmer to the PC windows will ask you the drivers. Download the INFECTUS PROGRAMMER PACKAGE 3.9.9.0 from this location: http://www.progskeet.com/forum/viewtopic.php?f=10&t=3948 Inside you will find the USB drivers of the Silabs USB IC installed on INJECUTS. After Injectus is correctly recognized just load INFECTUS PROGRAMMER software

PROGSKEET 1.2 is sold EMPTY, you should download the bitstream you need on www.progskeet.com website



### **Procedure to update PROGSKEET with Injetus:**

- run injectus programmer software

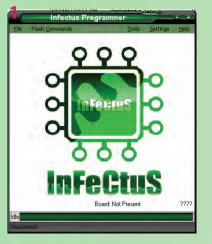
click tools

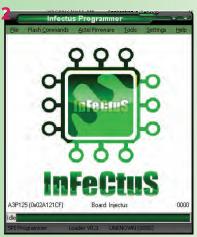
open infectus (at bottom of pulldown)

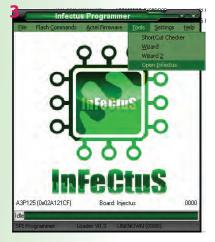
load dat file

click program

Note: can be done when already connected to console flash. Here some screenshot of the procedure:









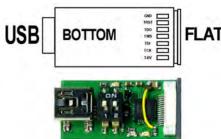




In this picuture below the injecuts PINOUT (good to know if you have to program other devices actel).

Also you see a yellow wire solder on the injecuts. This is necessary only to bring more power to jtag.

Not necessary for progskeet!



P11 = A00



# PROGSKEET V1.2 USER MANUAL - rev.0.1 - 15/10/12

### **Chapter 2. "The PINOUT of PROGSKEET V1.2":**

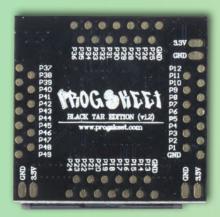
The best source of informations regarding PROGSKEET is available on this website:

http://www.ps3devwiki.com/wiki/Progskeet

During next days this manual will be updated with more infos regarding the features of progskeet 1.2

Right now PROGSKEET 1.2 is able to read and write NAND and NOR FLASH exactly like PROGSKEET 1.1, we will add soon the support of DUAL NOR and DUAL NAND together with the release of easy QSB pcb that can be attached solderless by FCC cables directly to PROGSKEET (NOR QSB) or throught ADAPTOR PCB (NAND QSB).

On PS3DEVWIKI you can find all the diagrams to connect PROGSKEET to several devices (consoles etc). The urgent info that our customers needs is the PINOUT of the pads on the back of PROGSKEET, here the pinout:



<b>NAND1 Connection:</b>	NAND2 Connection:	NOR connection:
Data signals	Data signals	Data signals Address Signals
P41 = IO7 / DQ7	P49 = IO15 / DQ15	P49 = D15 P33= A22
P40 = 106 / DQ6	P48 = IO14 / DQ14	P48 = D14 P32 = A21
P39 = IO5 / DQ5	P47 = IO13 / DQ13	P47 = D13 P31 = A20
P38 = IO4 / DQ4	P46 = IO12 / DQ12	P46 = D12 P30 = A19
P37 = IO3 / DQ3	P45 = IO11 / DQ11	P45 = D11 P29 = A18
P36 = IO2 / DQ2	P44 = IO10 / DQ10	P44 = D10 P28 = A17
P35 = IO1 / DQ1	P43 = IO9 / DQ9	P43 = D09 P27 = A16
P34 = IO0 / DQ0	P42 = 108 / DQ8	P42 = D08 P26 = A15
Control signals	Control signals	P41 = D07  P25 = A14
P09 = CLE	P33 = CLE	P40 = D06 P24 = A13
P08 = ALE	P32 = ALE	P39 = D05 P23 = A12
P07 = WE	P31 = WE	P38 = D04 P22 = A11
P06 = RE	P30 = RE	P37 = D03 P21 = A10
P05 = CE_A	P29 = CE_A	P36 = D02  P20 = A09
P04 = WP	P28 = WP	P35 = D01 P19 = A08
P03 = CE_B	P27 = CE_B	P34 = D00 P18 = A07
P02 = R/B#	P26 = R/B#	Control signals P17 = A06
		P10= OE P16 = A05
		P9 = WE P15 = A04
		P8 = RDY P14 = A03
		P7 = CE P13 = A02
		P4 = WP P12 = A01

We apologize for the few infos right now present in this manual, our first target is give to customers all the infos necessary for basic NAND / NOR operation.

We remember also that SQUIRT QSB TRINITY and CORONA are already compatible with PROGSKEET, with the NAND ADAPTOR you can easy connect them to progskeet to read and write nands by FCC cables. The DUAL NAND function will be added soon and the switch & led on slave board will be able to notificate the status of NAND / NOR selection.

We plan a major update of this manual during the week of 22th oct.

Thanks for the your patience