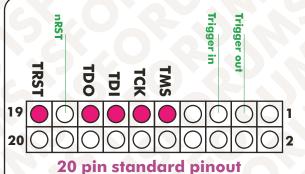
# ً راهنمای پورت جیتگ در بردهای مختلف (ویرایش ۴ )

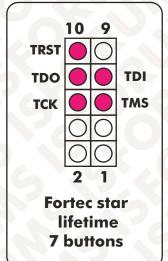
### **JTAG CONNECTIONS AND PINOUTS V4.0**

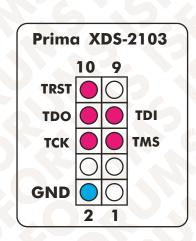
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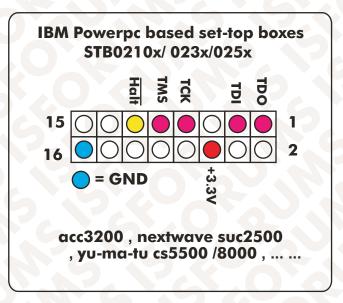


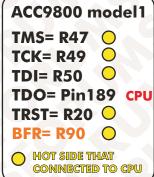
درگاه استاندارد ۲۰ پین در رسیورهای جدید samsung - next -supermax - fortec star kaon - lazer - sunny - metabox - vision starsat - daewoo - citizen - rex - strong techstar - mediacom - ..... etc.

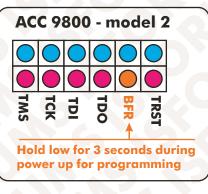


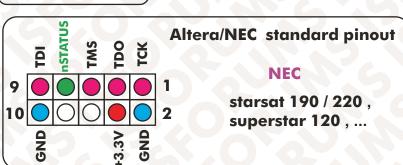


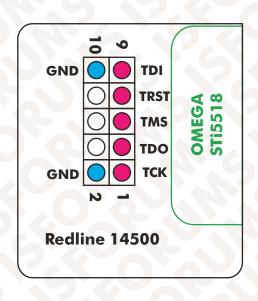


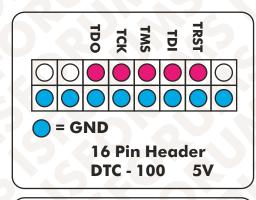


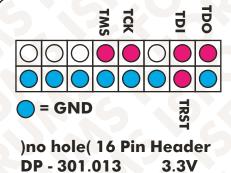


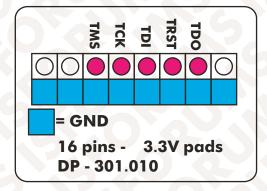


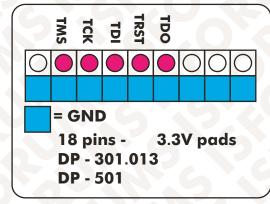


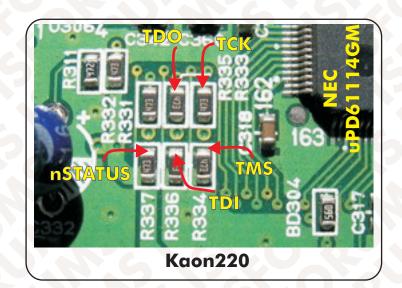


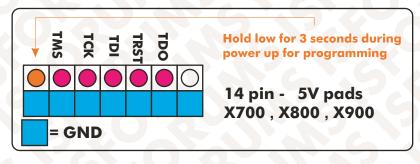


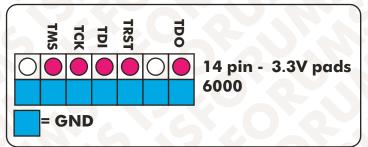


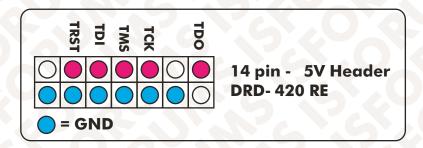












#### ALTERA BYTEBLASTER MV AND II 10-PIN (JTAG)

AMONTEC REF: ALTERA10JTAG

**TCK** 2 **GND** NAME: ALTERA ByteBlaster MV and II (JTAG) TDO 0 3 4 **VREF** p **CATEGORY:** 5 6 **TMS** i nc 8 nc nc TARGET: All ALTERA CPLDs and FPGAs

COMMENT: See ALTERA ByteBlaster MV or II datasheet for more details

CONNECTOR: 10-pin Header (2.54mm)

**CONNECTOR TYPE: dual** 

#### ALTERA BYTEBLASTER MV AND II 10-PIN (PS MODE)

AMONTEC REF: ALTERA10PS

ALTERA ByteBlaster MV and II (PS MODE) NAME: DCLK 2 GND p CATEGORY: CONF DONE 3 4 **VREF** 

A large part of ALTERA CPLDs and FPGAs TARGET: nCONFIG 5 6 nc **nSTATUS** 8 nc 0 COMMENT: See ALTERA ByteBlaster MV or II datasheet for more details

DATA0 9 10 p gnd CONNECTOR: 10-pin Header (2.54mm)

**CONNECTOR TYPE: dual** 

## **ALTERA BYTEBLASTER II 10-PIN (AS MODE)**

AMONTEC REF: ALTERA10AS

**DCLK** p **GND** NAME: ALTERA ByteBlaster MV and II (AS MODE) CONF DONE 0 3 4 **VREF** p **CATEGORY: nCONFIG** i 5 6 nCONFIG **nSTATUS** 7 8 **TARGET:** A large part of ALTERA FPGAs 0 nCS

DATA0 10 gnd See ALTERA ByteBlaster II datasheet for more details COMMENT:

CONNECTOR: 10-pin Header (2.54mm)

**CONNECTOR TYPE: dual** 

#### IBM 4XX 16-PIN(JTAG RISCWATCH)

TDO 0 2 nc AMONTEC REF: IBM16 TDI i 3 4 TRST N i **VREF** HALTED 5 6 NAME: 0 р IBM 4xx **TCK** 8 nc CATEGORY: **JTAG TMS** 10 nc TARGET: IBM 4xx HALT i 11 12 **GND** р IBM also calls this RISCWatch. **COMMENT: KFY** SRST N 13 14 od k CONNECTOR: 16-pin Header (2.54mm) 15 16 **GND** 

**CONNECTOR TYPE: dual** 

## IBM / MOTOROLA PPC "COP" INTERFACE 16-PIN(JTAG)

AMONTEC REF: COP16 **COP Interface** NAME:

CATEGORY: **JTAG** 

**TARGET:** MOTOROLA Freescale PowerPC 6xx, 7xx, 8xxx and IBM PowerPC 6xx and 7xx

IBM also refers to this connection as RISCWatch. COMMENT:

**CONNECTOR:** 16-pin Header (2.54mm) QACK\_N TDO 1 2 0 TDI 3 4 TRST N

CONNECTOR TYPE: dual

**HALTED** 6 **VREF** 0 5 р **TCK** 8 nc 9 10 **TMS** nc 12 SRST N od 11 р GND HRST N 13 14 od nc CKSTP OUT o 15 16 **GND** 

9

0

TDI

10

р

p

and

## **ARM 14-PIN (JTAG)**

AMONTEC REF:	ARM14	VREF	р	1	2	р	GND
		TRST_N	i	3	4	р	GND
NAME:	ARM 14-pin	TDI	i	5	6	р	GND
CATEGORY:	JTAG	TMS	i	7	8	p	GND
TARGET:	ARM7, ARM9, ARM10, XSCALE	TCK	i	9	10	р	GND
COMMENT:	20 pin specification.	TDO	0	11	12	od	SRST_N
CONNECTOR:	14-pin Header(2.54mm)	VREF	р	13	14	р	GND

**CONNECTOR TYPE:** dual

#### **ARM 20-PIN (JTAG)**

		11/21_1/	- 1	J	4	Ρ	GIVD
AMONTEC REF:	ARM20	TDI	i	5	6	р	GND
NAME:	ARM 20-pin	TMS	i	7	8	р	GND
CATEGORY:	JTAG	TCK	i	9	10	р	GND
		-	nc	11	12	р	GND
TARGET:	ARM7, ARM9, ARM10, XSCALE	TDO	0	13	14	р	GND
COMMENT:	20 pin specification.	SRST_N	od	15	16	р	GND
CONNECTOR:	20-pin Header (2.54mm)	-	nc	17	18	р	GND
CONNECTOR TYPE	dual	_	nc	19	20	р	GND

**VREF** 

1 2 nc

#### **ARM 20-PIN WITH RTCK FEATURE (JTAG)**

AMONTEC REF: ARM20RTCK

NAME: ARM 20-pin with RTCK feature

**CATEGORY: JTAG** 

**TARGET:** ARM7-s, ARM9-s, ARM10-s. ARMx-s processor series use the RTCK JTAG Baudrate feature.

COMMENT:

CONNECTOR: 20-pin Header (2.54mm) **VREF** nc TRST\_N **GND** 3 4 **CONNECTOR TYPE: dual** р TDI 5 6 **GND** р **TMS GND** TCK 10 GND RTCK 12 0 11 GND TDO 13 14 **GND** 0 SRST N od 16 **GND** 

> **GND** nc р 19 20 **GND**

> > 13 14

nc

**GND** 

GND

## MIPS - EJTAG-2.5 14-PIN (JTAG)

AMONTEC REF: MIPS14 TRST N TDI 3 MIPS - EJTAG 2.5 NAME:

р TDO 6 **GND** 0 p **CATEGORY: JTAG** 

TMS 8 **GND** TARGET: MIPS, MIPS32, MIPS64, MIPS-32, MIPS-64, TCK 10 **GND** COMMENT: There are many MIPS JTAG headers in use. SRST\_N od 11 12 **KEY** 

CONNECTOR: 14-pin Header (2.54mm) DINT 13 14 **VREF** 

**CONNECTOR TYPE: dual** 

#### TI MSP430 14-PIN (JTAG)

**VREF** TDO 0 AMONTEC REF: MSP43014 4 TDI р nc NAME: TI MSP430 JTAG 6 **TMS** i 5 **TCLK TCK** i 7 8 TST\_VPP

**CATEGORY: JTAG** 

10 GND 9 **TARGET:** Texas Instruments TI MSP430 р nc RST\_NMI 11 12 COMMENT:

CONNECTOR: 14-pin Header (2.54mm)

**CONNECTOR TYPE: dual** 

#### AMD - ATHLON 16-PIN (JTAG) **VREF** р **TCK** AMONTEC REF: AMD16ATHLON nc 3 4 **TMS** 5 6 nc NAME: AMD - Athlon nc 8 nc TDI CATEGORY: **JTAG** 9 10 i TRST N nc TARGET: AMD - Athlon TDO **GND** 11 12 0 р COMMENT: See AMD's Athlon datasheet for more details DBREQ N 13 14 **DBRDY** 0 CONNECTOR: 16-pin Header (1.27mm) SRST N 15 16 od PLLTEST N **CONNECTOR TYPE:** dual AMD -ELAN SC520 12-PIN (JTAG) AMONTEC REF: AMD12ELAN **GND VREF** р **TCK** NAME: AMD -Elan SC520 3 4 **CMDACK** 0 TMS 5 6 BR/TC **CATEGORY: JTAG** 8 STOP/TX TDI 0 TARGET: TDO 9 10 TRIG/TRACE COMMENT: See AMD's Elan SC520 datasheet for more details SSRST\_N od 11 12 k **KEY** CONNECTOR: 12-pin Header (2mm) **CONNECTOR TYPE: dual GND** 2 **GND** AMD – OPTERON 26-PIN (JTAG) р p RSVD1 3 4 **GND** 0 р AMONTEC REF: AMD26OPTERON RSVD0 5 6 **GND** р NAME: AMD - Opteron DBREQ N i 8 р **GND CATEGORY: JTAG DBRDY** 0 10 р **GND** TCK **GND** 11 12 р TARGET: AMD - Opteron 13 14 **TMS GND** р COMMENT: See AMD's Opteron datasheet for more details TDI 15 16 **GND** CONNECTOR: 26-pin Header (1.27mm) TRST N 17 18 **GND** р **CONNECTOR TYPE: dual** TDO 0 19 20 р **GND VREF** р 21 22 **GND** р 23 24 **VREF** р nc 25 **KEY** 26 nc PHILLIPS'S MIPS 20-PIN (JTAG) TRST N p **GND** TDI **GND** AMONTEC REF: MIPS20PHILLIPS p TDO 0 5 6 **GND** p PHILLIPS's MIPS NAME: 8 **TMS GND** p CATEGORY: **JTAG** 9 TCK i 10 **GND** TARGET: MIPS, MIPS32, MIPS64, MIPS-32, MIPS-64 SRST N 12 **GND** od p COMMENT: See PHILLIPS's MIPS datasheet for more details 13 14 **GND** nc р 15 16 GND CONNECTOR: nc p 20-pin Header (2.54mm) 17 18 **GND** nc p **CONNECTOR TYPE: dual** 19 20 **GND**

#### ATMEL ATDH2081 DOWNLOAD CABLE 10-PIN (ISP)

AMONTEC REF: ATDH208110

NAME: ATMEL ATDH2081 Download Cable

CATEGORY: ISP

TARGET: Atmel's ATDH2081 download cable allows designers to configure Atmel's family of AT6K/40K Field

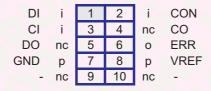
Programmable Gate Array )FPGA( and AT94K Field Programmable System Level Integrated Circuit

(FPSLIC) devices. Download Cable

**COMMENT:** See CYPRESS UltraISR JTAG download cable datasheet for more details.

**CONNECTOR:** 10-pin Header (2.54mm)

**CONNECTOR TYPE:** dual



#### ATMEL AVR STKX00 ISP DOWNLOAD CABLE 10-PIN (ISP)

AMONTEC REF: STKx0010

NAME: ATMEL AVR STKx00 ISP Download Cable (STK200 and STK300)

CATEGORY: ISP

TARGET: ATMEL AVR micro-processor

**COMMENT:** See ATMEL AVR STK200 or STK300 download cable datasheet for more details.

**CONNECTOR:** 10-pin Header (2.54mm)

**CONNECTOR TYPE: dual** 

MOSI	i	1	2	р	VREF
LED	i	3	4	р	GND
RST	i	5	6	р	GND
SCK	i	7	8	р	GND
MISO	0	9	10	р	GND

SMODE

SCLK

p

i

3

4

## CYPRESS ULTRAISR DOWNLOAD CABLE 10-PIN (ISR)

AMONTEC REF: ULTRAISR10

NAME: CYPRESS UltraISR Download cable (ISR)

CATEGORY: ISP GND

TARGET: All Cypress CPLD Types ISRVPP

 COMMENT:
 ISR i
 5 6 i
 6 SDI

 CONNECTOR:
 10-pin Header (2.54mm)
 VREF p
 7 8 k

 SDO o
 9 10 p
 GND

**CONNECTOR TYPE:** dual

## CYPRESS ULTRAISR DOWNLOAD CABLE 10-PIN (JTAG)

AMONTEC REF: ULTRAISR10

NAME: CYPRESS UltraISR Download cable (JTAG)

 CATEGORY:
 JTAG
 GND p JTAGen i JTAGen i JTAGen i SISR i 5 6 i TDI
 1 2 i TMS i TCK i TCK i TDI

COMMENT: VREF p 7 8 k

 CONNECTOR:
 10-pin Header (2.54mm)
 TDO o 9 10 p GND

 CONNECTOR TYPE: dual
 GND p 1 2 i TMS

## LATTICE ISPDOWNLOAD 8-PIN(JTAG AND ISP)

AMONTEC REF: LATTICE8

NAME: LATTICE ispDOWNLOAD 8-pin connector

CATEGORY: JTAG ISP

TARGET: All LATTICE CPLDs

COMMENT:

CONNECTOR: 8-pin Header (2.54mm)

**CONNECTOR TYPE: inline** 

**VREF** 

SDO\_TDO SDI TDI ISPEN\_N

**TCK** 

**TMS** 

TDI

TDO

TRST

i

2

2

4

6

8

5

nc

p

p

р

GND

**VREF** 

**GND** 

ISPEN N

3 4

5 nc 6 MODE\_TMS GND 7 p SCLK\_TCK 8

## LATTICE ISPDOWNLOAD 10-PIN (JTAG AND ISP)

AMONTEC REF: LATTICE10

NAME: LATTICE ispDOWNLOAD 10-pin header

CATEGORY: JTAG ISP

TARGET: All LATTICE CPLDs

CONNECTOR: 10-pin Header (2.54mm)

**CONNECTOR TYPE: dual** 

COMMENT:

## **TOSHIBA'S MIPS 20-PIN (JTAG)**

AMONTEC REF: MIPS20TOSHIBA NAME: TOSHIBA's MIPS

**CATEGORY: JTAG** 

TARGET: MIPS, MIPS32, MIPS64, MIPS-32, MIPS-64 COMMENT: See TOSHIBA's MIPS datasheet for more details

CONNECTOR:

**CONNECTOR TYPE:** dual

20-pin Header (1.27mm)

TRST N **GND** 1 2 TDI 3 4 **GND** р

TDO 5 6 **GND** 0 p TMS 7 8 **GND** p

9 10 TCK nc 12 **VREF** p 11 nc

SRST N od 13 14 nc 15 16 nc nc

> 18 17 nc nc 19 20 nc nc

#### MOTOROLA FREESCALE COLFIRE 26-PIN (BDM P&E) BKPT N nc AMONTEC REF: COLDFIRE26 3 4 DSCLK **GND** p **GND** 5 6 р nc NAME: MOTOROLA Freescale Colfire BDM P&E (cable cf) SRST N od 8 DSI CATEGORY: **VREF** 10 DSO p 0 TARGET: MOTOROLA Freescale Colfire 12 PST3 11 **GND** 0 See COLDFIRE P&E BDM debug product datasheet for more details. COMMENT: PST2 13 14 0 PST1 0 PST0 16 CONNECTOR: 26-pin Header (2.54mm) 0 nc (D3) (D2) 17 18 nc nc (D1) **CONNECTOR TYPE: dual** 19 20 (D0) GND nc p 21 22 nc nc **GND** 23 24 **CPUCLK** p 0 25 26 **VREF** p TEA N

### **MOTOROLA FREESCALE MPCXXX 10-PIN (BDM)**

AMONTEC REF: BDM10

NAME: BDM for MOTOROLA Freescale

CATEGORY: BDM

TARGET: MOTOROLA Freescale MPC8xx, MPC5xx

COMMENT: It is vital that pins 1 and 6 properly reflect the status of the target processor immediately following

RESET. Some processors have configurable pins )MPC8xx, etc.( that are specified by a reset configuration word at the time of reset. These pins must be set properly and must ALWAYS reflect the status of the processor correctly. Check the 'hardware reset configuration word' in the MOTOROLA

Freescale User's manual.

CONNECTOR: 10-pin Header (2.54mm)

CONNECTOR TYPE: dual FRZ\_VFLS0 0 1 2 0 SSRST\_N

4 3 DSCK GND p 6 **GND** 5 0 FRZ VFLS1 p SRST N 8 DSDI od 9 **VREF** 10 0 DSDO

TDI

JEN\_N

2

1

od

2

od

p

p

**GND** 

GND

**GND** 

TRST N

#### MOTOROLA "ONCE", ON CHIP EMULATION 14-PIN (JTAG)

AMONTEC REF: ONCE14

NAME: OnCe, On Chip Emulation

CATEGORY: JTAG TDO o 3 4

TARGET: MOTOROLA Freescale DSP, M\*CORE TCK i 5 6

TARGET: MOTOROLA Freescale DSP, M\*CORE TCK i 5 6 p

COMMENT: - nc 7 8 nc

CONNECTOR: 14-pin Header (2.54mm) SRST\_N od 9 10 i TMS

VREF p 11 12 p GND connector type: dual - nc 13 14 i TRST N

## ST PSD FLASHLINK PROGRAMMER 14-PIN (JTAG)

AMONTEC REF: PSD14

NAME: ST PSD FlashLINK programmer

р3 4 **GND** od i **CNTL JTAG** CATEGORY: TDI i 5 6 0 **TSTAT VREF** р 7 8 RST N **TARGET:** All ST PSD Flash products

COMMENT: See ST PSD FlashLINK JTAG cable datasheet for more details.

TMS i 9 10 p GND
TCK i 11 12 p GND

CONNECTOR: 14-pin Header (2.54mm)

TDO 0 13 14 0 TERR N

**CONNECTOR TYPE:** dual

## **XILINX PARALLEL CABLE III AND IV 9-PIN (JTAG)**

AMONTEC REF: XILINX9INLINE

NAME: XILINX Parallel Cable III and IV (JTAG)

CATEGORY: JTAG

TARGET: A large part of XILINX CPLDs, FPGAs and Flash. CoolRunner, CoolRunner-II, SPARTAN, SPARTAN-

XL, SPARTAN3, VIRTEX, VIRTEX-II, VIRTEX-PRO.

**COMMENT:** See XILINX Parallel Cable III or IV for more details

**CONNECTOR:** 9-pin inline Header (2.54mm)

**CONNECTOR TYPE: inline** 

VREF	р	1
GND	р	2
-	nc	3
TCK (CCLK)	i	4
-	nc	5
TDO (DONE)	bod	6
TDI (DIN)	i	7
-	nc	8
TMS(PROG)	i	9

#### XILINX PARALLEL IV 14-PIN(JTAG AND SLAVE SERIAL)

AMONTEC REF: XILINX14

NAME: XILINX Parallel IV (JTAG and Slave Serial)

CATEGORY: JTAG ISP

TARGET: A large part of XILINX CPLDs, FPGAs and Flash. CoolRunner, CoolRunner-II, SPARTAN, SPARTAN-

XL, SPARTAN3, VIRTEX, VIRTEX-II, VIRTEX-PRO.

**COMMENT:** See XILINX USB PlatformCable for more details.

CONNECTOR: 14-pin Header (2mm)

**CONNECTOR TYPE:** dual

VGND	io	1	2	р	VREF
GND	р	3	4	i	TMS(PROG)
GND	р	5	6	i	TCK(CCLK)
GND	р	7	8	0	TDO(DONE)
GND	р	9	10	i	TDI(DIN)
GND	р	11	12	nc	
GND	р	13	14	io	NC(INIT)

## **XILINX PARALLEL CABLE III 9-PIN(SLAVE SERIAL)**

AMONTEC REF: XILINX9SERIAL

NAME: XILINX Parallel Cable III (Slave Serial)

CATEGORY: ISP

TARGET: A large part of XILINX FPGAs. SPARTAN, SPARTAN-XL, SPARTAN3, VIRTEX, VIRTEX-II, VIRTEX-

PRO

**COMMENT:** See XILINX Parallel Cable III for more details

**CONNECTOR:** 9-pin Header (2.54mm)

**CONNECTOR TYPE: inline** 

**VRFF** 2 **GND CCLK** 3 4 nc 5 nc DONE 6 bod DIN 7 8 nc **PROG**