ImageWriter

Xilinx XCF16P Device Support Detail & Setup

ImageWriter Support Hierarchy

Manufacturer: Xilinx

Device: XCF16P

Objects for XCF16P

Flow Object Name:	*Program / Execute*	*Verify*	*Load*	*Object Size (Bytes)*
Flash	●	●	●	0x200000
Device ID			●	0x04
Erase	●			
Blank Check	●			0x01
CC	●	●	●	0x40
Done Bits	●	●	●	0x01
WRPT Bits	●	●	●	0x02

RDPT Bits	●	●	●	0x02
CCB Bits	●	●	●	0x02
SUCR Bits	●	●	●	0x02
BTS Bits	●	●	●	0x04
UC Bits	●	●	●	0x04
p_JTAG[1]	●		●	0x08

[1]Default Clock Frequency = 8MHz

Physical Layer Connector Setup for XCF16P

ImageWriter:		Target:
Connector Pin #	***Pin Name***	***Connections***
1	GND	GND
2	GND	GND
3	TXD (MOSI/TDO)	TDO
4	RXD (MISO/TDI)	TDI
5	RTS (TMS)	TMS
6	CTS	NOCONN
7	XCLK	TCLK
8	RST	NOCONN
9	SCL	NOCONN
10	SDA	NOCONN
11	GND	GND
12	GND	GND
13	VPP/EXT_IN	NOCONN
14	VPP/EXT_OUT	NOCONN
15*	Target V+ (7.0V max)	VCC I/O
16*	Target V+ (7.0V max)	VCC I/O
17	GND	GND
18	GND	GND
19	ImageWriter Power	Supply 9-24 VDC
20	ImageWriter Power	Supply 9-24 VDC

*Maximum Pin-Driver output voltage = 4.2V.

Support Notes:

1. For proper device operation, the Done Bits object must be properly programmed following successful programming of the device. Programming of the Done Bits object should be the last operation performed on the device. The Done Bits object is mapped into a Byte of ImageWriter memory as follows, a bit-value of 1 indicates the feature is programmed, a bit-value of 0 indicates the feature is not programmed (the erased state):

Bit 7	Bit 6	Bit5	Bit 4	Bit 3	Bit 2	Bit1	Bit0
		SUCR	GUCR	Block 3	Block 2	Block 1	Block 0

-note: Blocks are shown for XCF32 device. XCF16 does not implement Block2, Block 3. XCF08 does not implement Block1, Block2, or Block3.

2. The Blank Check object returns the same data-structure as shown above. A bit value of 1 indicates feature is Not Blank. A bit value of 0 indicates feature is Blank (erased).
3. A post-programming Verify operation is recommended to ensure data integrity.
4. ImageWriter JTAG parameters are adjustable via the p_JTAG object, see documentation for details.

Disclaimer

Typical implementation of **ImageWriter** includes but is not limited to external power provision to **ImageWriter**, device access restrictions on the target board, external hardware on the target board, or software changes created by the user affecting timing, device erasure, programming, or verification. Data I/O warranty coverage applies only when the product is used in conformance with technical specifications put forth by Data I/O and by the semiconductor device manufacturer.

In the interest of achieving the highest levels of safety and quality, Data I/O recommends that all programming processes be tested and documented in a prototype project prior to transition to volume manufacturing. For additional information see In-System Programming Design Guidelines (http://www.dataio.com/isp).

ImageWriter programs semiconductor devices through the use of circuits designed precisely to operate in accordance with specifications outlined by the device manufacturer. Provision and calibration of power supplies are critical for proper operation. **ImageWriter** has been fully tested by Data I/O Corporation for quality performance.