ImageWriter

Phillips Semiconductors PCF7921_7941

Device Support Detail & Setup

ImageWriter Support Hierarchy

Manufacturer: Phillips Semiconductors **Library:** PHL-PCF-CUSTOM.cab
Device: PCF7921, PCF7941

Objects for PCF7921, PCF7941

Flow Object Name:	*Program / Execute*	*Verify*	*Load*	*Object Size (Bytes)*
EEPROM	●	●	●	0x200
FLASH	●	●	●	0x200
SIG ROM			●	0x03
SIG EROM			●	0x03
SIG EEPROM			●	0x03
CHIP ERASE	●			0x0
SET BREAK	●			0x00
PROTECT	●			0x00

Default Clock Speed = 125KHz

I/O Multi Connector Setup for PCF7921_7941

ImageWriter:		Target:
Connector Pin #	***Pin Name***	***Connections***
1	GND	GND
2	GND	GND
3	TXD (MOSI/TDO)	See note 1
4	RXD (MISO/TDI)	PGD
5	RTS (TMS)	NOCONN
6	CTS	MSCL
7	XCLK	NOCONN
8	RST	WakeUp, See note 2
9	SCL	NOCONN
10	SDA	NOCONN
11	GND	GND
12	GND	GND
13	VPP/EXT_IN	2.1-3.6
14	VPP/EXT_OUT	VCC
15*	Target V+ (7.0V max)	Supply 4.5-5.5 V, see support note 3
16*	Target V+ (7.0V max)	Supply 4.5-5.5 V, see support note 3
17	GND	GND
18	GND	GND
19	ImageWriter Power	Supply 9-24 VDC
20	ImageWriter Power	Supply 9-24 VDC

[1] Pin 3 must be connect to Pin 4 with an external 1K Ohm resistor in series.

[2] Pin 5 needs to be connected to one of the Wakeup Sense pins; for Data I/O testing P10 was used.

*Maximum Pin-Driver output voltage = 4.2V.

Support Notes:

1. Inputs for Transponder Interface must be grounded if present in device. IN1 and IN2 on device PCF7941
2. First and last page of EEPROM are protected from programming. In order to ensure proper operation, these eight bytes must be represented in the Data Image file by all 0xFF. This is also how they will appear in a load operation.
3. VPP is used to power the device during operation, so Target V+ should **not** be wired to provide constant supply to the device.

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.