ImageWriter

Winbond W25P Family Device Support Detail & Setup

ImageWriter Support Hierarchy

Manufacturer: Winbond **Library:** SPI-Serial_Memory.cab

Device: W25P10, W25P20, W25P40, W25B40, W25P80, W25P16, W25P32

Objects for W25P Family

Flow Object Name:	*Program / Execute*	*Verify*	*Load*	*Object Size (Bytes)*	
FLASH	•	•	•	W25P10	0x20000
				W25P20	0x40000
				W25P40	0x80000
				W25B40	0x80000
				W25P80	0x100000
				W25P16	0x200000
				W25P32	0x400000
Status Register	•	•	•	0x01	
CHIP ERASE	•			0x00	
BLOCK ERASE	•			W25P10	0x20000
				W25P20	0x40000
				W25P40	0x80000
				W25B40	0x80000
				W25P80	0x100000
				W25P16	0x200000
				W25P32	0x400000
ERASE ALL	•				
Read ID			•	0x3	
p_SPI[1]	•		•	0x8	

[1] Default SPI clock frequency = 8 MHz

Physical Layer Connector Setup for W25P Family

ImageWriter:		Target:
Connector Pin #	***Pin Name***	***Connections***
1	GND	GND
2	GND	GND
3	TXD (MOSI/TDO)	D
4	RXD (MISO/TDI)	Q
5	RTS (TMS)	NOCONN
6	CTS	NOCONN
7	XCLK	C
8	RST	!S
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+	Supply 2.7 - 3.6V
16*	Target V+	Supply 2.7 - 3.6V
17	GND	GND
18	GND	GND
19	Pod Power	Supply 9-24 VDC
20	Pod Power	Supply 9-24 VDC

Support Notes:

1. A post-programming Flash Verify operation is highly recommended to ensure data integrity.
2. Erase & Program operations are dependent on Block Protect Bit settings in the Status Register. See manufacturer documentation for more details.
3. CHIP ERASE will bulk-erase entire device, **except** for the Status Register (See note 2.)
4. BLOCK ERASE will erase the addressed sector, 64KB except for the W25B40 (See note 2.)
5. ERASE ALL will bulk-erase entire device **including** the Status Register.
6. !W and !HOLD must be tied to VCC.

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.