ImageWriter

Silicon Storage Technology SST25xF Family Device Support Detail & Setup

ImageWriter Support Hierarchy

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

Device: SST25VF512, SST25VF512A, SST25VF010, SST25VF010A, SST25VF020, SST25LF020A, SST25VF040, SST25LF040A, SST25VF040B, SST25LF080A, SST25LF080B, SST25VF016B

Objects for SST25xF Family

Flow Object Name:	*Program / Execute*	*Verify*	*Load*	*Object Size (Bytes)*	
FLASH	•	•	•	SST25VF512	0X10000
				SST25VF512A	0X10000
				SST25VF010	0X20000
				SST25VF010A	0X20000
				SST25VF020	0X40000
				SST25LF020A	0X40000
				SST25VF040	0X80000
				SST25LF040A	0X80000
				SST25VF040B	0X80000
				SST25LF080A	0X100000
				SST25LF080B	0X100000
				SST25VF016B	0X200000
SECTOR ERASE	•			SST25VF512	0X10000
				SST25VF512A	0X10000
				SST25VF010	0X20000
				SST25VF010A	0X20000
				SST25VF020	0X40000
				SST25LF020A	0X40000
				SST25VF040	0X80000
				SST25LF040A	0X80000
				SST25VF040B	0X80000
				SST25LF080A	0X100000
				SST25LF080B	0X100000
				SST25VF016B	0X200000

Flow Object Name:	*Program / Execute*	*Verify*	*Load*	*Object Size (Bytes)*	
ERASE BLOCK[1]	●			SST25VF512	0X10000
				SST25VF512A	0X10000
				SST25VF010	0X20000
				SST25VF010A	0X20000
				SST25VF020	0X40000
				SST25LF020A	0X40000
				SST25VF040	0X80000
				SST25LF040A	0X80000
				SST25LF080A	0X100000
ERASE BLOCK[2]	●			SST25VF040B	0X80000
				SST25LF080B	0X100000
				SST25VF016B	0X200000
Status Register	●	●	●	0x01	
CHIP ERASE	●			0x00	
Read ID			●	0x2	
p_SPI[3]	●		●	0x8	

[1] 32 KByte overlay block

[2] 64 KByte overlay block

[3] Default SPI clock frequency = 8 MHz

Physical Layer Connector Setup for SST25xF Family

ImageWriter:		Target:
Connector Pin #	***Pin Name***	***Connections***
1	GND	GND
2	GND	GND
3	TXD (MOSI/TDO)	SI
4	RXD (MISO/TDI)	SO
5	RTS (TMS)	NOCONN
6	CTS	NOCONN
7	XCLK	SCK
8	RST	!CE
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 (See note 2.)
4. Sector ERASE will erase the addressed sector (See note 2.)
5. The protection bits of the status register are cleared in the initialization of each object.
6. !WP 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.