ImageWriter

Atmel AT45DB642D Device Support Detail & Setup

ImageWriter Support Hierarchy

Manufacturer: Atmel

Device: AT45DB642D

Objects for Atmel AT45DB642D

Flow Object Name:	*Program / Execute*	*Verify*	*Load*	*Object Size (Bytes)*
FLASH	●	●	●	0x840000
ERASE	●			
Device ID			●	0x03
Security Reg OTP	●	●	●	0x40
Security Reg ID		●	●	0x40
Status Register			●	0x1
p_SPI[1]	●		●	0x8

[1] Default SPI clock frequency = 8 MHz

Physical Layer Connector Setup for AT45DB642D

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)	!CS
6	CTS	NOCONN
7	XCLK	SCK
8	RST	!RESET
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

*Maximum Pin-Driver output voltage = 4.2V.

Support Notes:

1. This algorithm implements 1056-byte page size (factory defaults). Device 1024-byte page feature (“power of 2”) is not implemented by this algorithm.
2. Data verification does not automatically occur during program, a post-programming Flash Verify operation is highly recommended to ensure data integrity.
3. Full random addressing to device FLASH is supported by ImageWriter.
4. ERASE All is not required to reprogram a device, as the FLASH object erases during programming.
5. 128 byte Device Security Register is split into two 64 bytes objects, the OTP section and the read-only, Unique-ID section.

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.