

Myung Solid State Drive  
3.5 Inch SCSI 50P MIT Series

# Product Specification

Sep 2012  
Rev. 0.5



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## 1. Revision History

- Rev. 0.1 (2008.12.12) : SCSI 50P Product Preliminary Specification
- Rev. 0.2 : Add SCSI 68P Product
- Rev. 0.2 : Add SCSI 80P Product
- Rev. 0.4 (2012.05.16) : Image Design & Specification Modified.  
Add capacity information and Block Diagram.
- Rev. 0.5 (2012.09.18) : Datasheet Reconfirm.

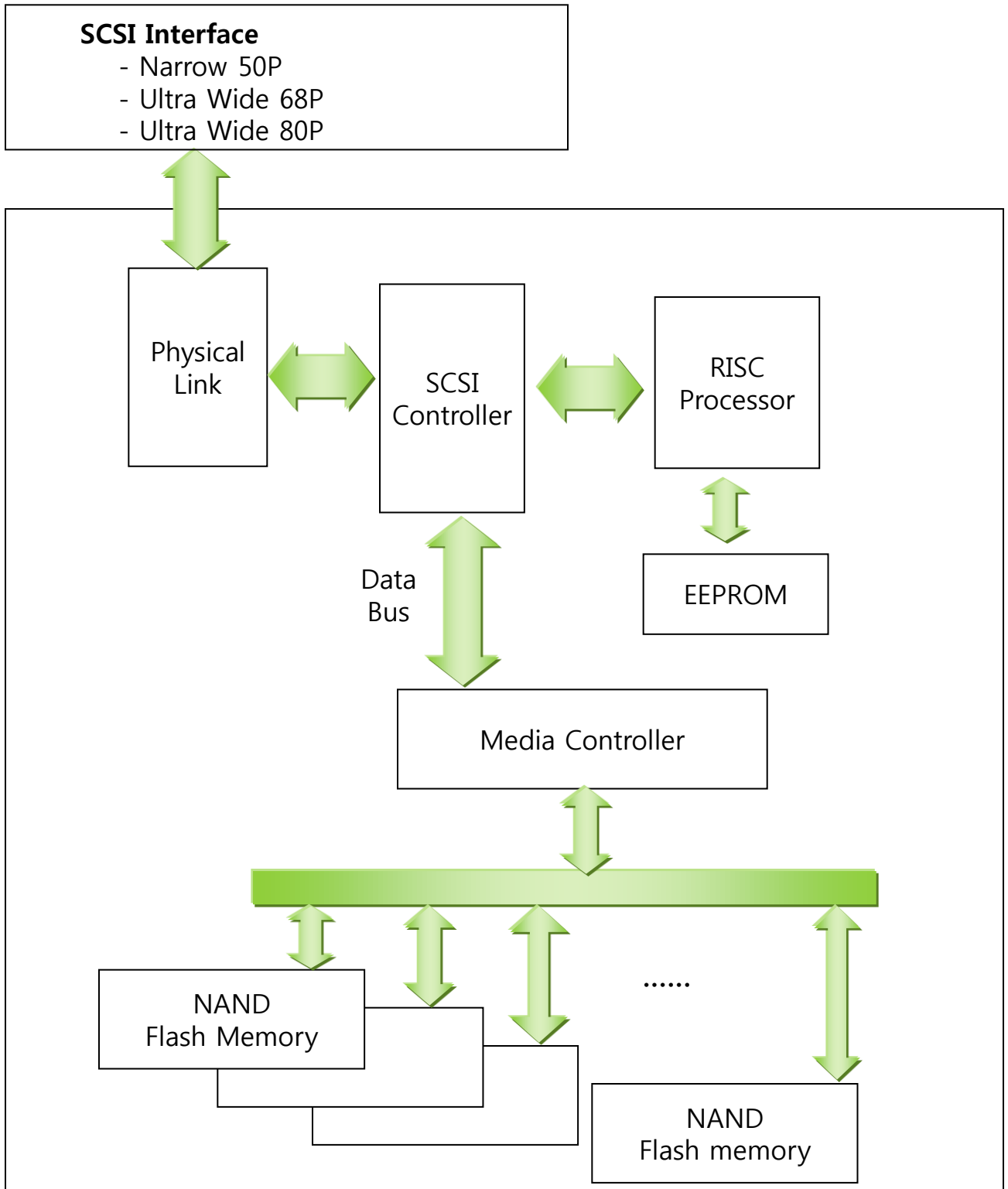
## 2. General Description

Myung Information Technology SSD is designed to solve the replacement of traditional HDD. It is fully consists of semiconductor device and using NAND flash memory, which has a high reliability and a high stability. AS the SSD doesn't have a moving part such as platter(HDD) and head media, it gives a good solution in a any System for a storage device with high performance and low power consumption and small form factor.SSD gives rugged features in industrial PC with an extreme environment and on increased MTBF. For and easy adoption, it has a same host interface with HDD and has a same physical dimension.

## 3. Features

- Interface :
  - SCSI Narrow 50p / Ultra Wide - 68P
  - Ultra Wide – 80P
- Uses NAND flash memory Single Level Cell (SLC) components
- Built-in Hardware ECC
  - Corrects up to 8 random single-bit errors per 512-byte sector
- Standard Capacity
  - Max 32GB
- ※ OEM production and production capacity are available other than the standard capacity.
  - ex) 3.3GB , 2.8GB
- Temperature
  - storage Temp : -55°C ~ 95°C
  - operating Temp : - 40°C ~ 85°C
- Equipment being used
  - NEC PC
  - Adventech Computer
  - Workstation (Sun Ultra 5, HP, IRM, Intel, DELL, etc, ...)
  - Beck Hoff Rack Mount System
  - etc

## 4. Block Diagram



## 5. Specifications

### Physical Dimension

<b>Form Factor</b>		SCSI 50Pin
<b>Dimensions (mm)</b>	<b>Length</b>	146
	<b>Width</b>	101.6
	<b>Height</b>	25.3
<b>Weight</b>		270g ~ 280g

### Electrical Specifications

Parameter	Symbol	MIN	TYP	MAX	UNIT
<b>Voltage Input</b>	<b>VCC</b>	4.75	5.0	5.25	V

### Performance

Interface	Read	Write
<b>Narrow 50P</b>	Max 20MB/s	Max 20MB/s
<b>Access Time</b>	0.5 ms or less	

### User Addressable Sectors

Capacity	Total User Addressable Sectors in LBA Mode
<b>1GB</b>	According to the base
<b>2GB</b>	
<b>4GB</b>	
<b>8GB</b>	
<b>16GB</b>	
<b>32GB</b>	
<b>64GB</b>	

## 6. Reliability Characteristics

Temperature	
Commercial Operating	0°C ~ 70°C
Industrial Operating	- 40°C ~ 85°C
Non-operation	- 40°C ~ 95°C
Humidity	
Operating	5% to 95% (60°C)
Altitude	
Non-Operating	80,000feet (24.384Km)
Random Vibration	
Non-Operating	20Hz ~ 2,000Hz
Shock	
Non-Operating	1,500g / 0.5ms

### Wear-Leveling algorithm

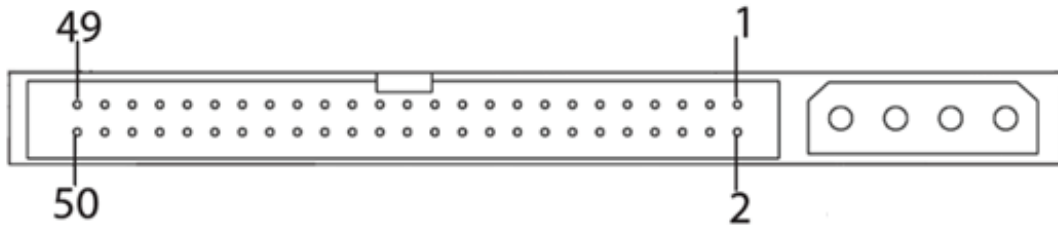
Myung's SSD supports static wear leveling. When the free blocks' erase count is higher than the data blocks', it will activate the static wear leveling, replacing the not so frequently used user blocks with the high erase count free blocks.

### ECC algorithm

The ATA Flash Disk Controller uses BCH Error Detection Code (EDC) and Error Correction Code (ECC) algorithms which correct up to eight random single-bit errors for each 512-byte block of data. High performance is achieved through hardware-based error detection and correction.

## 7. SCSI Connector Descriptions

### 7-1 Narrow 50P Connector Description

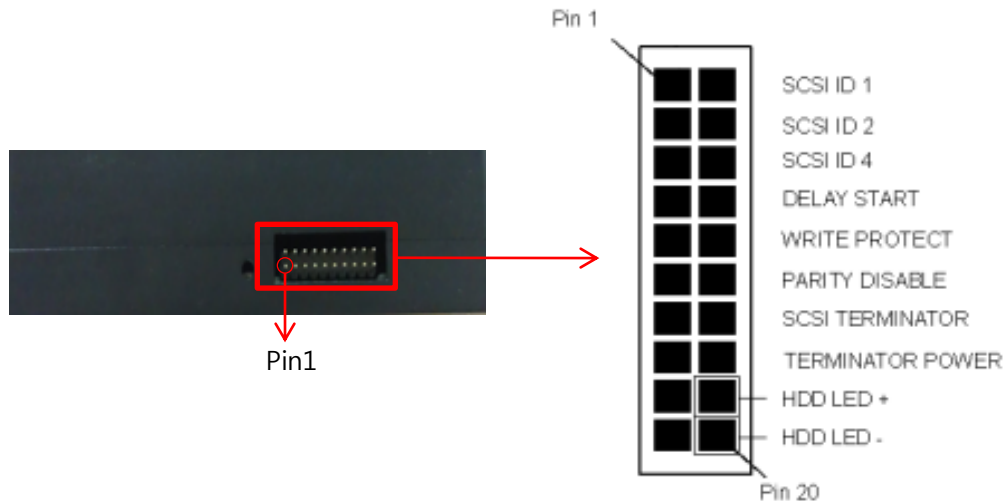


50 Pin Assignments of SCSI

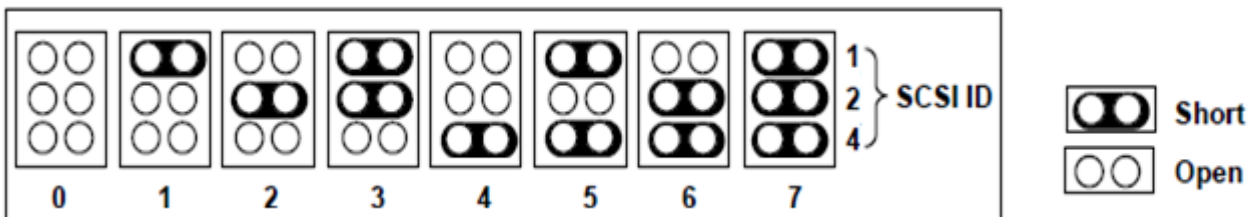
Signal	Pin Number		Signal
Ground	1	2	/DB0
Ground	3	4	/DB1
Ground	5	6	/DB2
Ground	7	8	/DB3
Ground	9	10	/DB4
Ground	11	12	/DB5
Ground	13	14	/DB6
Ground	15	16	/DB7
Ground	17	18	/DBP
Ground	19	20	Ground
Ground	21	22	Ground
Reserved	23	24	Reserved
NC	25	26	TERM POWER
Reserved	27	28	Reserved
Ground	29	30	Ground
Ground	31	32	/ATN
Ground	33	34	Ground
Ground	35	36	/BSY
Ground	37	38	/ACK
Ground	39	40	/RST
Ground	41	42	/MSG
Ground	43	44	/SEL
Ground	45	46	/CD
Ground	47	48	/REQ
Ground	49	50	/IO



## 7-2 Set the Jumper (50PIN)

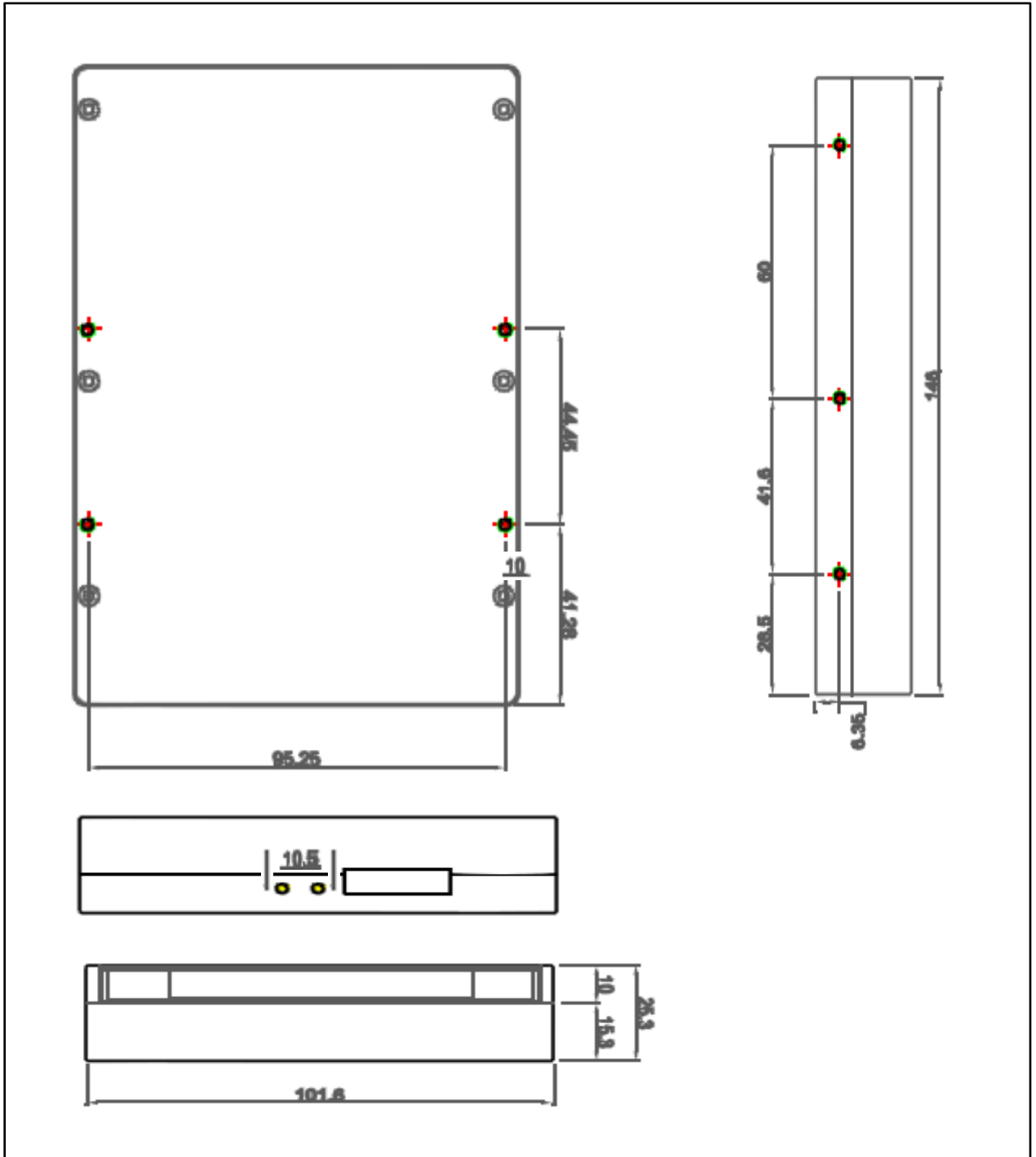


The (J1) setting of SCSI ID



	Open	Short
SCSI ID1	SCSI ID No Change	SCSI ID + 1
SCSI ID2	SCSI ID No Change	SCSI ID + 2
SCSI ID4	SCSI ID No Change	SCSI ID + 4
Delay Start	Normal Start	Delay Start
Write Protect	Normal Read/Write	Read Only
Parity Disable	Parity Enabled	Parity Disabled
SCSI Terminator	Built-in Terminator Disabled	Built-in Terminator Enabled
Terminator Power	Terminator Power Disabled	Terminator Power Enabled

## 8. Package Dimensions



➤Note : All Dimensions are in Millimeters.

## MIT Series

MITS3001GN2-S, MITS3002GN2-S, MITS3004GN2-S, MITS3008GN2-S, MITS3016GN2-S,  
MITS3032GN2-S, MITS3064GN2-S

## 9. MIT Series Ordering Information

MIT    S    3    016G    N    2    -    S  
1        2        3        4        5        6        7

### 1. MITS : Myung Info. Tech

### 2. S : SSD

### 3. Form factor

Form factor	Content
3	3.5 Inch Drive

### 4. Capacity

Capacity	Content
001G	001GB
002G	002GB
004G	004GB
008G	008GB
016G	016GB
032G	032GB
064G	064GB

### 5. Bus Architecture

Interface	Content
N	SCSI Narrow 50p

### 6. Product Generation

Generation	Content
2	SMI

### 7. Product Memory Type

Memory	Content
S	SLC

Sample)

**MITS3002GN2-S**

### Product Spec

Form factor : 3.5 Inch Drive

Capacity : 2GB

Interface : SCSI 50P

Controller : SMI

Memory : SLC

## 10. Contact

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# Thanks you.

