

Myung Solid State Drive
3.5 Inch SCSI 68P MIT Series

Product Specification

Sep 2012
Rev. 0.5



MYUNG INFO.TECH.
Myung Information Technologies Co., Ltd.

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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.

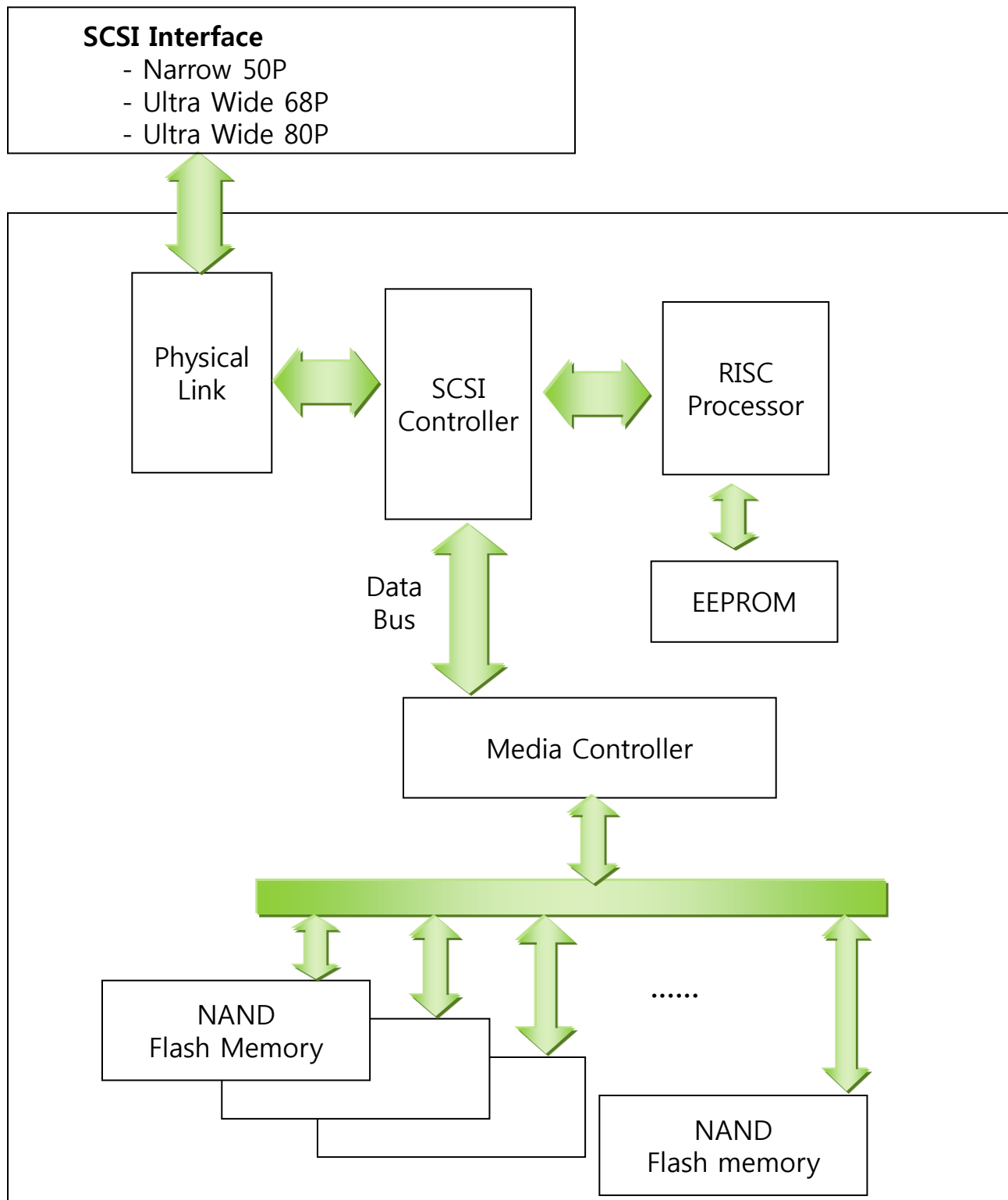
2. General Description

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		
Form Factor		SCSI 68Pin
Dimensions (mm)	Length	146
	Width	101.6
	Height	25.3
Weight		270g ~ 280g

Electrical Specifications					
Parameter	Symbol	MIN	TYP	MAX	UNIT
Voltage Input	VCC	4.75	5.0	5.25	V

Performance		
Interface	Read	Write
Narrow 50P	Max 38MB/s	Max 38MB/s
Access Time	0.5 ms or less	

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

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

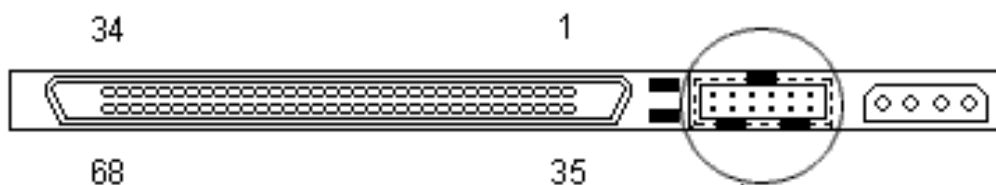
Myung's SSD supports static wear leveling. When the free blocks' erase count is higher than the data blocks', it will activate the static wear leveling, replacing the not so frequently used user blocks with the high erase count free blocks.

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

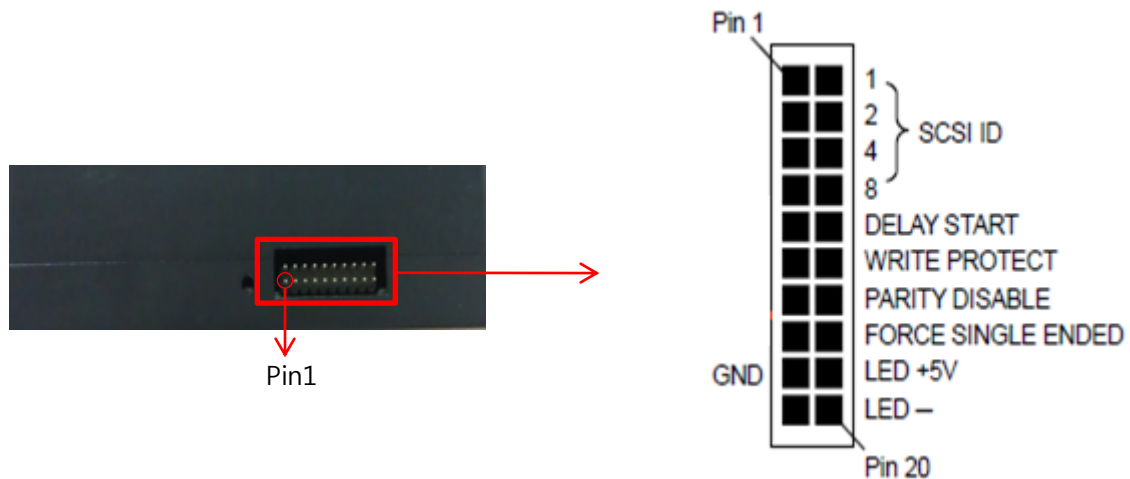
7-1 Ultra Wide 68P SE Connector Description



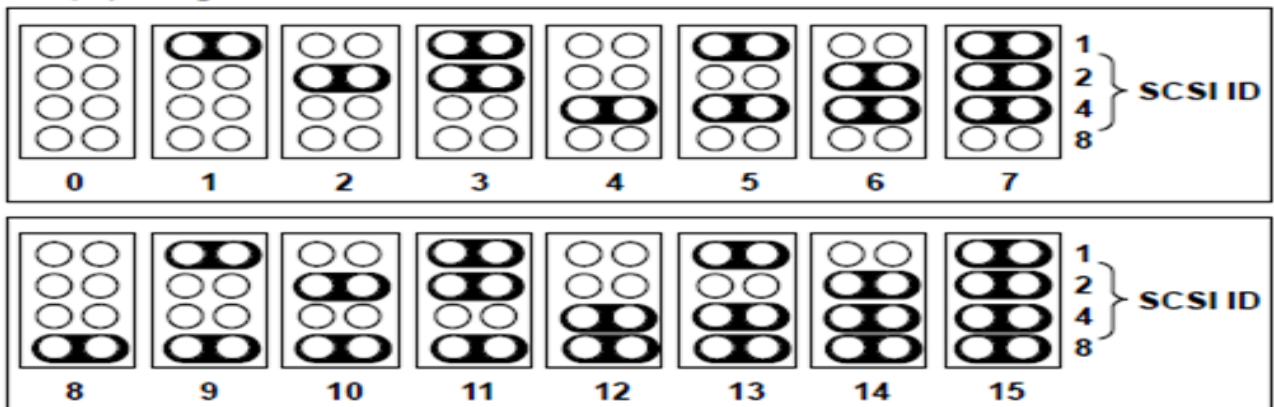
68 Pin SE Assignments of SCSI

Signal Name	Pin Number	Pin Number	Signal Name
Ground	1	35	-DB(12)
Ground	2	36	-DB(13)
Ground	3	37	-DB(14)
Ground	4	38	-DB(15)
Ground	5	39	-DB(P1)
Ground	6	40	-DB(0)
Ground	7	41	-DB(1)
Ground	8	42	-DB(2)
Ground	9	43	-DB(3)
Ground	10	44	-DB(4)
Ground	11	45	-DB(5)
Ground	12	46	-DB(6)
Ground	13	47	-DB(7)
Ground	14	48	-DB(P)
Ground	15	49	Ground
Ground	16	50	Ground
TERMPWR	17	51	TERMPWR
TERMPWR	18	52	TERMPWR
Reserved	19	53	Reserved
Ground	20	54	Ground
Ground	21	55	-ATN
Ground	22	56	Ground
Ground	23	57	-BSY
Ground	24	58	-ACK
Ground	25	59	-RST
Ground	26	60	-MSG
Ground	27	61	-SEL
Ground	28	62	-C/D
Ground	29	63	-REQ
Ground	30	64	-I/O
Ground	31	65	-DB(8)
Ground	32	66	-DB(9)
Ground	33	67	-DB(10)
Ground	34	68	-DB(11)

7-2 Set the Jumper (68PIN)



The (J1) setting of SCSI ID



ID 7 is reserved for SCSI host, so don't set the ID of your SCSI drive as 7.



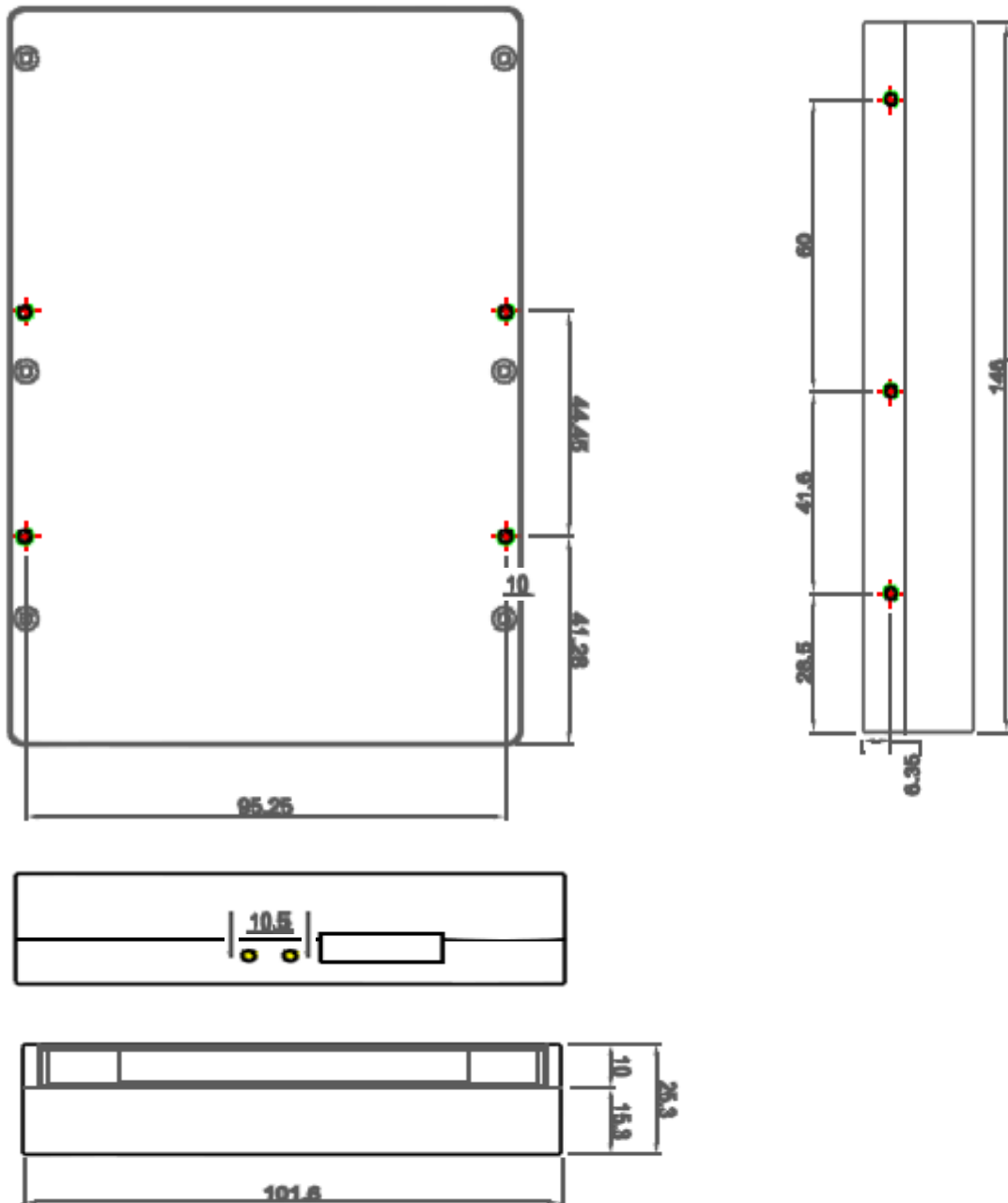
Short



Open

	Short	Open
DELAY START	Delay Start	Normal Start
WRITE PROTECT	Write Protect	Normal read/write
PARITY DISABLE	Parity Disable	Parity Enable
FORCE SINGLE ENDED	SE SCSI mode	LVD SCSI mode

8. Package Dimensions



➤Note : All Dimensions are in Millimeters.

9. MIT Series Ordering Information

MIT **S** **3** **016G** **W** **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
W	Ultra Wide 68P

6. Product Generation

Generation	Content
2	SMI

7. Product Memory Type

Memory	Content
S	SLC

Sample)

MITS3002GW2-S

Product Spec

Form factor : 3.5 Inch Drive

Capacity : 2GB

Interface : SCSI 68P

Controller : SMI

Memory : SLC

10. Contact

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Thanks you.

