

Myung Solid State Drive
3.5 Inch SCSI 80P MIT Series

Product Specification

Sep 2012
Rev. 0.5



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

Table of Contents

1. Revision History 3

2. General Description 4

3. Features 4

4. Block Diagram 5

5. Specifications 6

6. Reliability Characteristics 7

7. SCSI Connector Descriptions 8

 7-1 Narrow 50P Connector Description 8

 7-2 Set the Jumper 9

8. Package Dimensions 10

9. MITS Series Ordering Information 11

10. Contact 12

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.

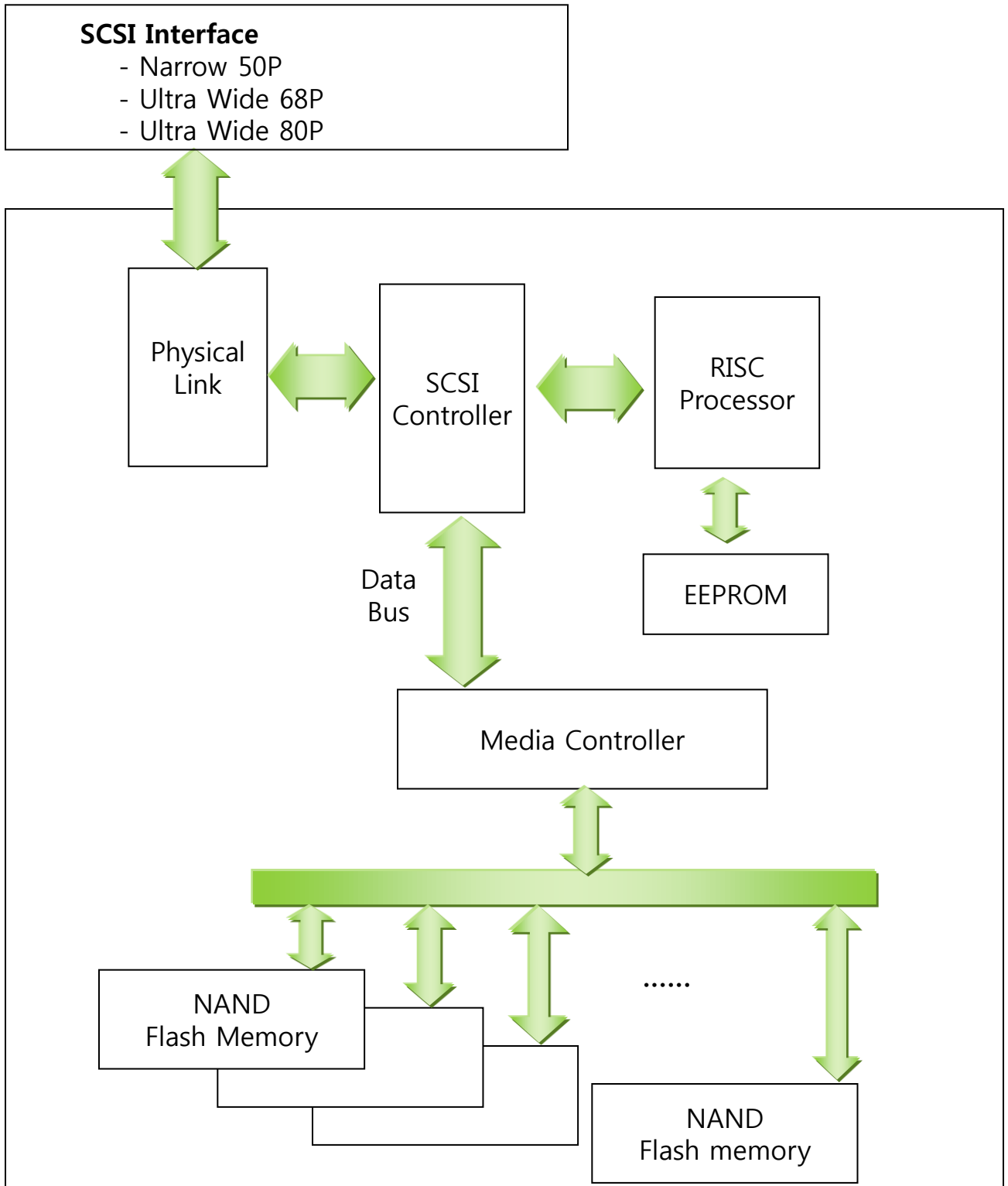
2. General Description

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 80Pin
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

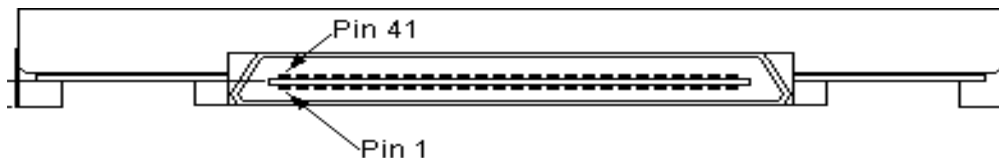
Myung's SSD supports static wear leveling. When the free blocks' erase count is higher than the data blocks', it will activate the static wear leveling, replacing the not so frequently used user blocks with the high erase count free blocks.

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

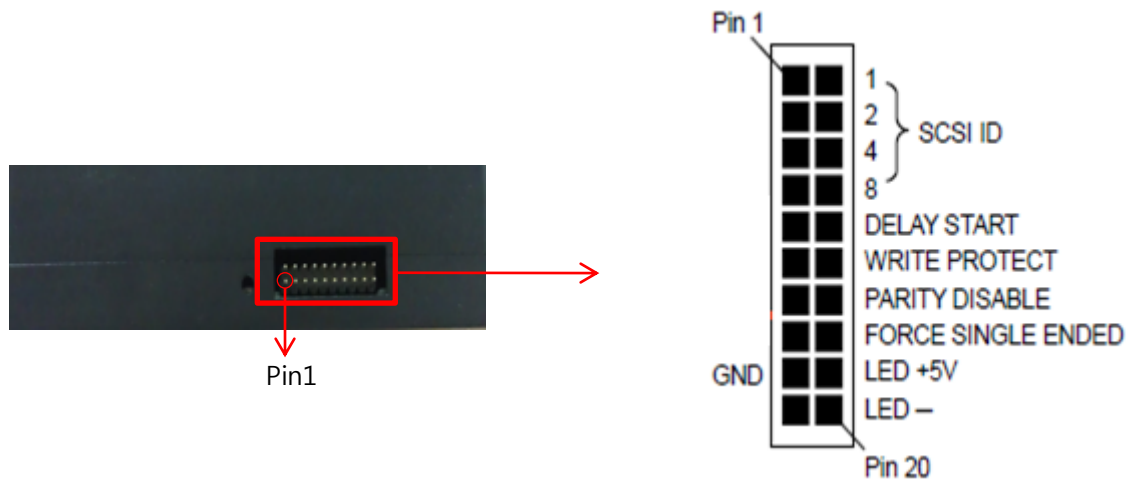
7-1 Ultra Wide 80P Description(SCA)



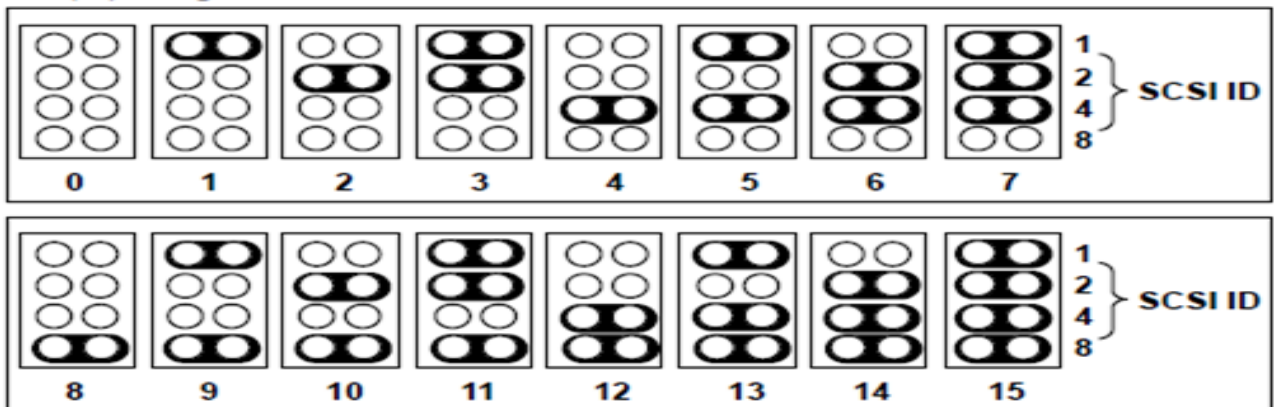
80 Pin SE Assignments of SCSI

Signal name	Pin		Signal name
12 V Charge	1	41	12 V Ground
12 Volt	2	42	12 V Ground
12 Volt	3	43	12 V Ground
12 Volt	4	44	Mated 1
Opt 3.3 V/NC	5	45	Opt 3.3 V charge/NC
Opt 3.3 V/NC	6	46	DIFFSENS (*1)
-DB(11)	7	47	+DB(11)
-DB(10)	8	48	+DB(10)
-DB(9)	9	49	+DB(9)
-DB(8)	10	50	+DB(8)
-I/O	11	51	+I/O
-REQ	12	52	+REQ
-C/D	13	53	+C/D
-SEL	14	54	+SEL
-MSG	15	55	+MSG
-RST	16	56	+RST
-ACK	17	57	+ACK
-BSY	18	58	+BSY
-ATN	19	59	+ATN
-P_CRCA	20	60	+P_CRCA
-DB(7)	21	61	+DB(7)
-DB(6)	22	62	+DB(6)
-DB(5)	23	63	+DB(5)
-DB(4)	24	64	+DB(4)
-DB(3)	25	65	+DB(3)
-DB(2)	26	66	+DB(2)
-DB(1)	27	67	+DB(1)
-DB(0)	28	68	+DB(0)
-DB(P1)	29	69	+DB(P1)
-DB(15)	30	70	+DB(15)
-DB(14)	31	71	+DB(14)
-DB(13)	32	72	+DB(13)
-DB(12)	33	73	+DB(12)
5 Volt	34	74	Mated 2
5 Volt	35	75	5 V Ground
5 V Charge	36	76	5 V Ground
Spindle Sync/NC	37	77	Active LED Out
RMT Start	38	78	Delayed Start
-SCSI ID(0)	39	79	-SCSI ID(1)
-SCSI ID(2)	40	80	-SCSI ID(3)

7-2 Set the Jumper (80PIN)



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.



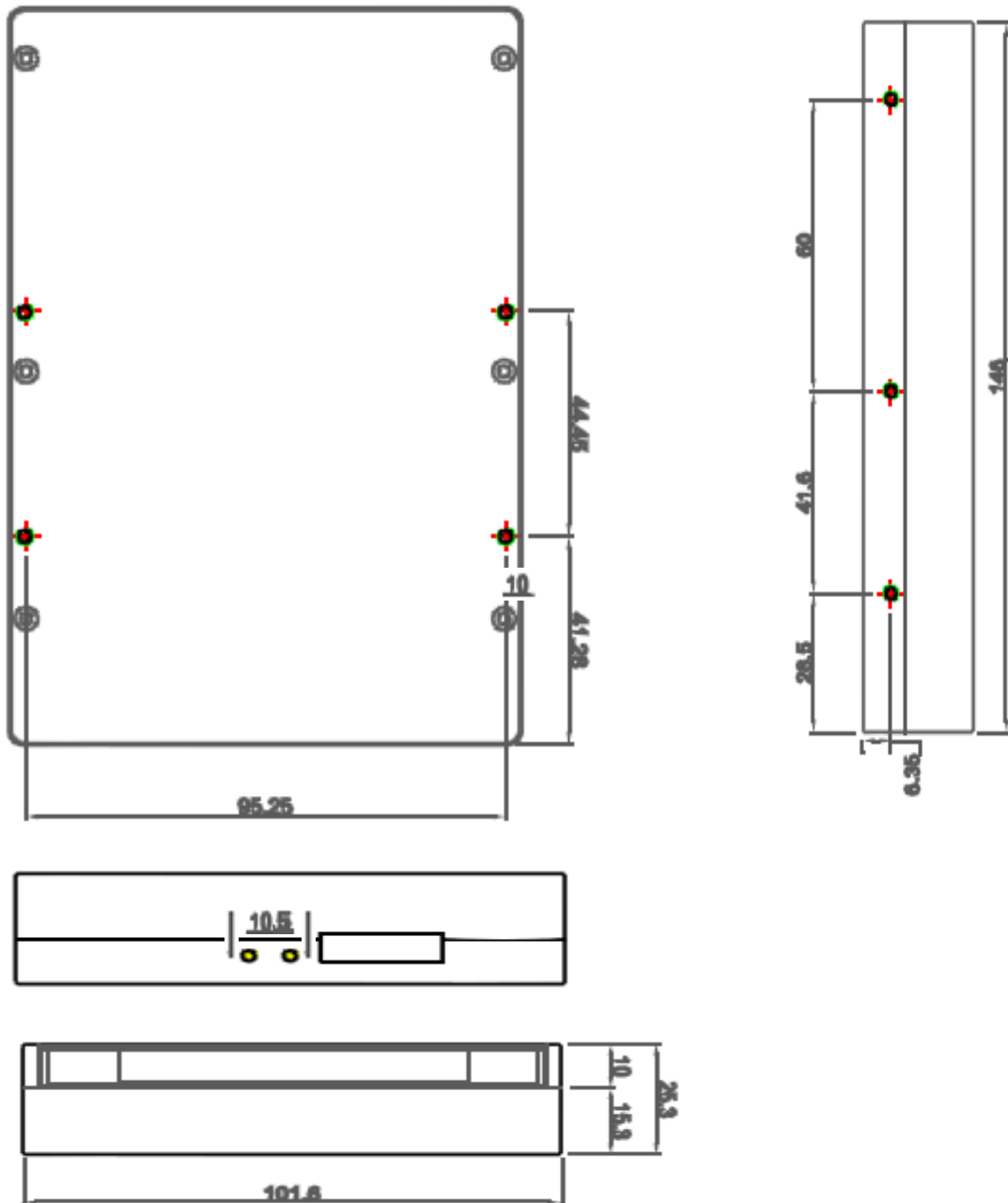
Short



Open

	Short	Open
DELAY START	Delay Start	Normal Start
WRITE PROPECT	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** **U** **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
U	SCA 80Pin

6. Product Generation

Generation	Content
2	SMI

7. Product Memory Type

Memory	Content
S	SLC

Sample)

MITS3002GU2-S

Product Spec

Form factor : 3.5 Inch Drive

Capacity : 2GB

Interface : SCSI 80P

Controller : SMI

Memory : SLC

10. Contact

Myung Information Technologies Co., Ltd.

Headquarters : 82-43-218-8400

644-5 Gakri Ochang Cheongwon Chungbuk Korea

Customer service : 82-2-3273-9700

82-2-1577-1377

102 Terminal Electronic Market 40-696 Hangangro 3Ga Yongsangu Seoul Korea

Home page : <http://www.myung.co.kr>

<http://www.my-ssd.com>

Thanks you.

