

mSATA(mini PCIe) SSD Module
CSXXXXXR5-XXXXXXXXXX

1. Product Description

1.1 Product Overview

A+CPI mSATA SSD Module is the storage device based on NAND flash memory technology. This product complies with Serial ATA standard interface and suitable for data storage media and code storage device for embedded system and boot disk. By using **mSATA SSD Module**, it is possible to operate good performance for the systems, which have SATA interface. With small form factor, the applicable appliance can add or install SATA storage device on its Mother Board or Complete set.

- **Application Fields;**
- Netbook, mini PC, mobile PC.
- Other machines and Equipments with Serial ATA Interface

1.2 Product Features

- Small form factor with Serial ATA Standard Interface connector.
- Memory Capacities MLC: 8GBytes ~ 64GBytes , SLC: 1GBytes~32GBytes
- High performance and reliability
- Noiseless and stable installation to system
- Operating voltage 3.3V operation
- Operating as Boot Disk
- Speed: Read up to 150 MB/s Write up to 100 MB/s
(Intel flash MLC: 29F16B08JAMD2)
- Power Consumption < 1220mW

Datasheet

- Shock:
 - ◆ Operating: 1,500G, duration 0.5ms, half sine wave
 - ◆ Vibration: 20G peak, 10~2000Hz with 3axis

Reliability	Test Conditions	Reference Standards
Vibration	10Hz to 2K Hz, 20G, 3 axes	IEC 68-2-6
Mechanical Shock	Duration: 0.5ms, 1500G, 3 axes	IEC 68-2-27

Table 1: Shock/Vibration Testing for mSATA

- Humidity:
 - ◆ 0°C~55°C / 95% RH, 10cycles

- Temperature:
 - ◆ Operating Temperature:
 - Standard Grade: 0°C ~ +70°C
 - Industrial Grade: -40°C ~ +85°C

 - ◆ Storage Temperature:
 - Standard Grade: -55°C to +95°C

- Fully Compliant with RoHS directive
- CE and FCC Compatibility

1.3 System Requirement

The Host system which is connected to mSATA SSD Module should meet system requirements at minimum;

Datasheet

1.3.1 Power Requirement

- Voltage: DC +3.3V \pm 5%

Item	Symbol	Rating	Unit
Input voltage	VIN	+3.3DC +- 5% 500mA (max.)	V

Table 2: mSATA Power Requirement

1.3.2 Operating System

- Windows family.
- Linux family.
- DOS or embedded system.

1.3.3 Interface

- MiniPCle Interface

1.4 Specifications

- Compliant with Serial ATA Revision 2.6 specification.
- Compliant with ATA-7 V3 specification.
- Supports PIO modes 0,1,2,3 and 4
- Supports Multi-Word DMA Modes 0, 1 and 2
- Supports Ultra DMA Modes 0, 1, 2, 3, 4, 5, and 6
- Supports ECC (Error Correction Code)
- Supports Bad Block Management
- Supports Wear-leveling

2. Specification

2.1 Physical Specifications

2.1.1 Overlook

The overlook views of mSATA SSD Module are illustrated in Figure 1.

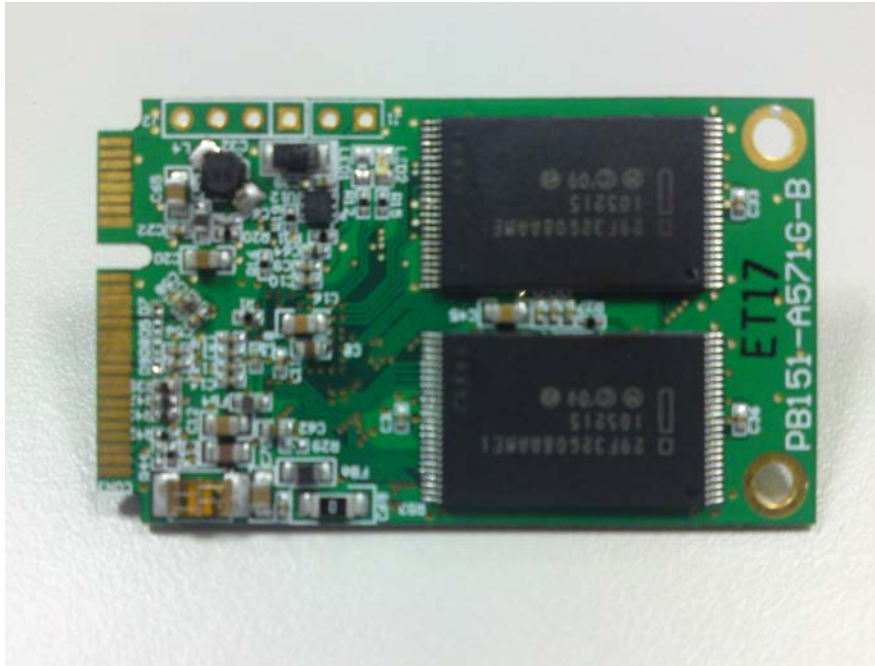


Figure 1: SATA MiniCard SSD Module Overlook Diagram

2.1.2 Dimension

The Dimensions of mSATA SSD Module are illustrated in Figure 1 and described in Table 1.

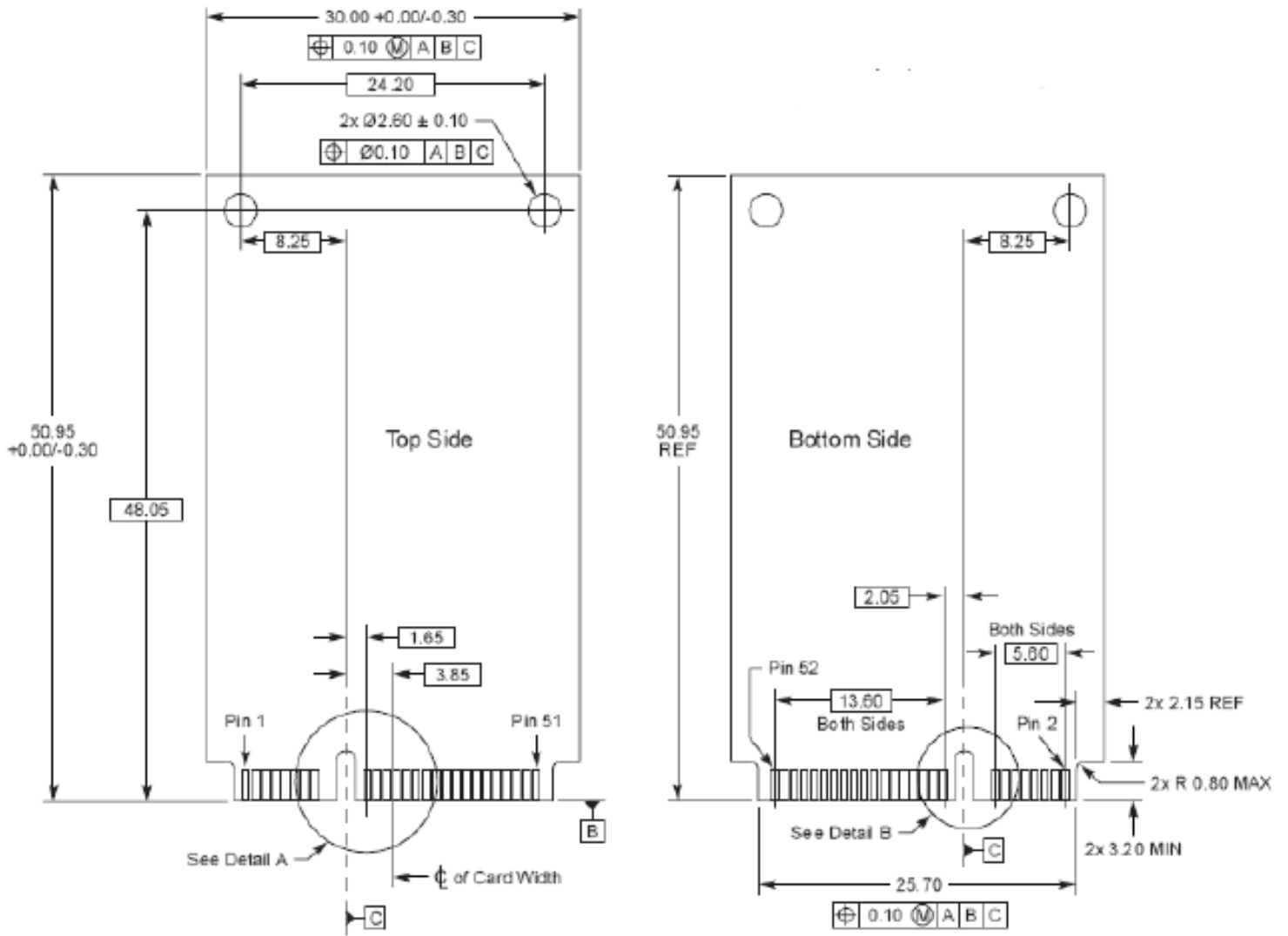


Figure 2: mSATA MiniPCIe SSD Module Dimensions

Length	50.95 ± 0.3 mm
Width	39.00 ± 0.3 mm
Thickness	3.90 ± 0.3 mm

Table 3: mSATA Mini PCIe SSD Module Physical Dimension

Datasheet

4. Ordering Information

P/N	Capacity(Max)	Remark
CSC008GR5-A503A002	8GB	INTEL MLC Normal
CSC016GR5-A503A002	16GB	
CSC032GR5-A603A002	32GB	
CSC064GR5-A703A003	64GB	
CSC001GR5-B103A001	1GB	Samsung SLC Normal
CSC002GR5-B203A001	2GB	
CSC004GR5-B303A001	4GB	
CSC008GR5-B403A001	8GB	
CSC016GR5-B503A005	16GB	
CSC032GR5-B603A005	32GB	
CSI001GR5-B103A001	1GB	Samsung SLC Wide-Temp
CSI002GR5-B203A001	2GB	
CSI004GR5-B303A001	4GB	
CSI008GR5-B403A001	8GB	
CSI016GR5-B503A005	16GB	
CSI032GR5-B603A005	32GB	

5. Contact Information



CPI Digital Co., Ltd.

TEL: 886-2-3234-0638

FAX: 886-2-3234-9253

E-mail: sales@cpidigital.com

Address: 4F-4, No. 351, Sec. 2, Zhongshan Rd.,
Zhonghe Dis., New Taipei City, 235 Taiwan (R.O.C.)

www.cpidigital.com