

# I. Introduction

## 1 Overview

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Dynac G310 PCIe 3x4 SSD is a high performance and high reliability storage device based on NAND Flash technology designed to solve the bottleneck of computing system by traditional hard disk drives.

Dynac G310 is a good storage device for NB and Tabletop PC.

Dynac G310 PCIe 3x4 SSD purely consists of semiconductor devices and NAND flash memories, which give rugged features against shock and vibration, used in extreme environment such as industrial PC to increase MTBF. Furthermore, Our PCIE SSD has highly advanced flash memory management algorithm to guarantee.

## 2 Part Type Introduction

This chapter is about the specifications of the M.2 2280 PCIe Solid State Drive with PCIe 3.0 interface.

Type	Capacity	Flash	Interface
G310	256GB-1TB	3D TLC	M.2 NVMe

Table 1 Capacity Specifications

Capacity	Available Capacity	CDM R / W (MB/s)	CDM Random R / W (IOPS)
256GB	238.47GB	2100/1000	5983/64627
512GB	476.94GB	2400/1600	188008/78161
1TB	953.86GB	2400/1800	190681/166029

# II. Product Specifications

## 2.1 Physical Dimensions

Parameter	Value
Length	80 mm
width	22 mm

height	0.8±0.1 mm
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Table 2 Physical dimensions of the driver

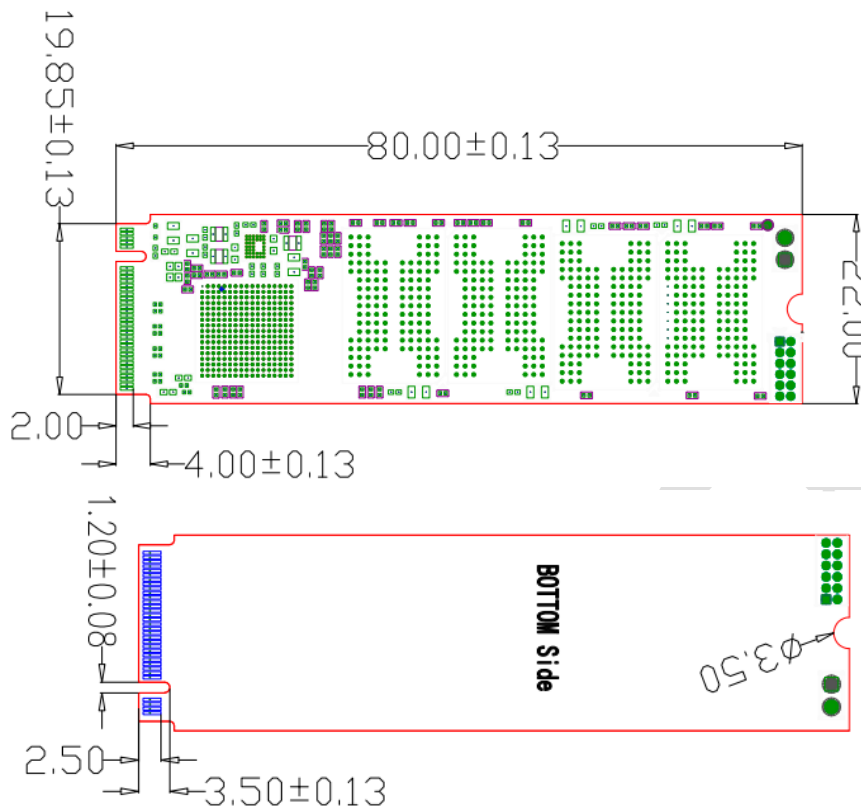


Figure 1 Physical dimensions

## 2.2 Interface Specification

### 2.2.1 Interface Mode

- Supports 4 flash channels with 4 chip enable (CE) pins per channel
- Supports ONFI 4.0/3.0 and Toggle 3.0/2.0 interface, frequency up to 667 MT/s
- Supports Asynchronous SDR, Synchronous DDR and Toggle DDR NAND
- Supports Flash I/O power 1.8V/1.2V operation
- Multi-plane operation
- Programmable driving strength fits different types of NAND configurations

<b>Based spec</b>	Interface	M.2 NVMe
	Dimension	80*22*0.8 mm
	Weight ①	5.6g
	Capacity	256GB-1TB

	Controller	SMI2263XT
	Flash typ	3D TLC NAND Flash
<b>Read/Write Performance</b> ②	ASSD Sequential Read	Up to 2000MB/s
	ASSD Sequential Write	Up to 1500MB/s
	ATTO Sequential Read	Up to 2300MB/s
	ATTO Sequential Write	Up to 1600MB/s
<b>Power Consumption</b>	Power Supply	3.3V $\pm$ 5%
	Standby	11.5mW
	Maximum Ripple	70 mV(peak to peak)
	4KB Random Write	2.5W
<b>Reliability</b>	TBW(endurance): 80-320TBW	
	Read endurance: unlimited	
	MTBF: >1,000,000 hours	
	Data retention: >20years @ 25°C	
	Data destroy do not support	
	Sudden power-off recovery support	
	S.M.A.R.T,NCQ,Trim and dynamic power management support	
	Static and dynamic wear-leveling	
	Bad block management algorithm	
	ECC: LDPC ECC	
<b>Environment</b>	Storage temperature: -55~95 °C	
	Operation temperature: 0~75°C	
	Humidity: 5%~95%	
	Vibration	15G (10 to 2000Hz)
	Shock	350G at 0.5ms
<b>Warranty</b>	3 years	

### III. Ordering Information

Model	Capacity	PN
G310	256GB	G310256GB/R
	512GB	G310512GB/R
	1TB	G3101TB/R