



## Kingston Technology SSDNow V Series (Generation II) Flash Storage Drive

### Introduction

This product description of the SSDNow Solid State flash drive is provided by Kingston, and is applicable for all Kingston's V series SSDNow products based on flash.

### Features

- Interface: SATA 1.5Gb/s and 3.0Gb/s
- Form factor: 2.5" Standard HDD Form Factor
  
- Certifications
  - FCC
  - C-Tick
  - BSMI
  - VCCI
  - CE

### Part Number(s)

### Performance

SNV425-S2/64GB	Seq. Read: 200 MB/s - Seq. Write: 110 MB/s
SNV425-S2/128GB	Seq. Read: 200 MB/s - Seq. Write: 160 MB/s

## Functional Block Diagram

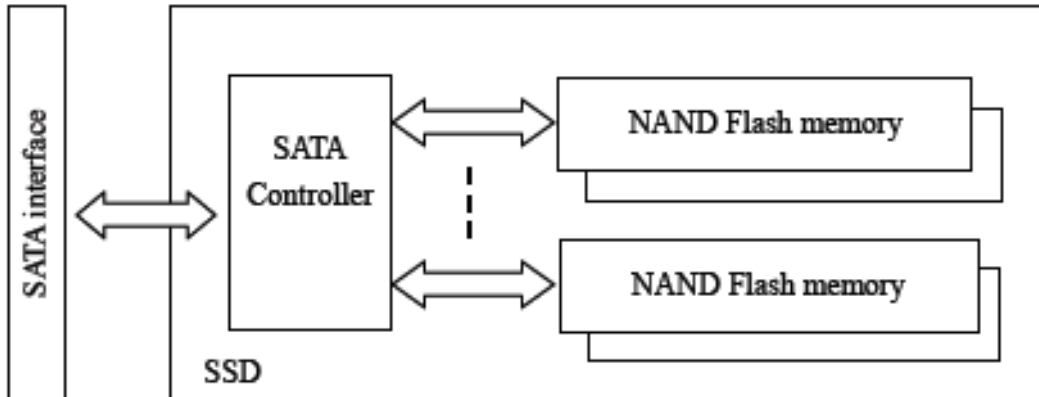


Figure 1: Kingston SSDNow V series Block Diagram

## Pin Assignment

	Name	Type	Description	
<b>Signal Segment</b>	S1	GND		
	S2	A+	Differential Signal Pair A	
	S3	A-		
	S4	GND		
	S5	B-	Differential Signal Pair B	
	S6	B+		
	S7	GND		
<b>Key and Spacing separate signal and power segments</b>				
<b>Power Segment</b>	P1	V33	3.3V Power (Unused)	
	P2	V33	3.3V Power (Unused)	
	P3	V33	3.3V Power, Pre-charge (Unused)	
	P4	GND		
	P5	GND		
	P6	GND		
	P7	V5	5V Power, Pre-charge	
	P8	V5	5V Power	
	P9	V5	5V Power	
	P10	GND		
	P11	DAS/DSS	Device Activity Signal / Disable Staggered Spinup	
	P12	GND		
	P13	V12	12V Power, Pre-charge	
	P14	V12	12V Power	
	P15	V12	12V Power	

## DC specification

### Absolute Maximum Ratings;

Parameter	Symbol	Value	Unit	Note
All input/output voltages	$V_{in}, V_{out}$	- 5 % to 5V to + 5 %	V	
VCC voltage	$V_{CC}$	-0.3 to +6.5	V	
Operating temperature range	$T_{opr}$	0 to +70	°C	
Storage temperature range	$T_{stg}$	-40 to +85	°C	

### Recommended Operating Conditions;

Parameter	Symbol	Min	Typ	Max	Unit	Note
Operating temperature	$T_a$	0	25	70	°C	
VCC voltage	$V_{CC}$	4.5	5	5.5	V	

### Capacitance ( $T_a = 25^\circ\text{C}$ , $f = 1\text{MHz}$ );

Parameter	Symbol	Min	Typ	Max	Unit	Test conditions
Input capacitance	$C_{in}$	-	-	12	pF	$V_{in} = 0V$
Output capacitance	$C_{out}$	-	-	12	pF	$V_{out} = 0V$

## Power Consumption

### 128GB

Parameter	Symbol	Min	Typ	Max	Unit	Test conditions	Note
Operation current	$I_{cc2}$		5.2	10.3	W		
Idle (Slumber)	$I_{cc3}$		1500		mW		
Stand-by (S3)	$I_{cc1}$		700		mW		
Sleep (S4)	$I_{cc0}$		700		mW		

### 64GB

Parameter	Symbol	Min	Typ	Max	Unit	Test conditions	Note
Operation current	$I_{cc2}$		5.2	9.5	W		
Idle (Slumber)	$I_{cc3}$		1300		mW		
Stand-by (S3)	$I_{cc1}$		700		mW		
Sleep (S4)	$I_{cc0}$		700		mW		

## **Environmental Specifications**

- Operating temperature: 0°C ~ 70°C
- Storage temperature: -40° ~ 85°C
- Storage humidity: 95% (max)
  
- Vibration Operating: 20G Peak (10-2000Hz)
- Vibration Non-Operation: 20G Peak (10-2000Hz)
- Shock: 1500G Acceleration force (0.5ms - Half-sine waveform)
- MTBF: 1,000,000 Hrs

**Form Factor Dimensions (measurement in mm.)**

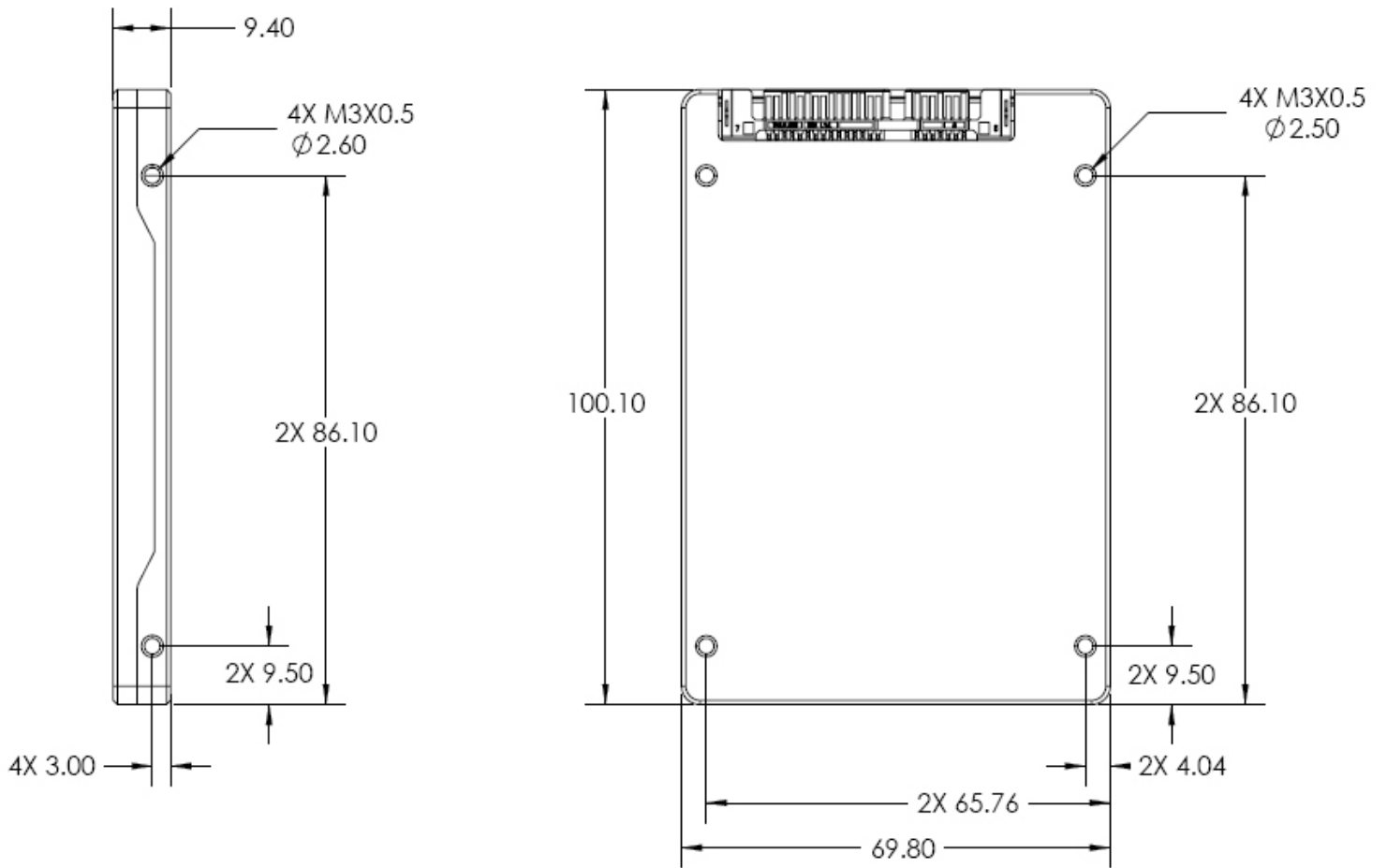


Figure 2: Kingston SSDNow V series Mechanical Drawing