

## SC199 Cheetah U-Series

## 1.8" SATA Solid State Drives



The SC199 Cheetah U-Series SSD is the perfect product for customers wishing to integrate full featured SATA-II based SSDs into small form factor and high reliable applications like rugged mobile PCs and Embedded Systems.

The SC199 Cheetah U-Series is made with SLC Flash and is capable of delivering read speeds of up to 250MB/sec and write speeds of up to 220MB/sec. Foremay's patented Flash management techniques increase reliability and endurance, and continue to provide unprecedented vibration and shock tolerance.

Our software and hardware testing ensures the utmost quality of each SC199 Cheetah U-Series SSDs. Foremay offers a 3 year warranty for the SC199 Cheetah U-Series 1.8" SATA SSDs.

### Physical Specifications

<b>Form Factor</b>	1.8" SATA Connector	
<b>Capacity</b>	SLC	16GB – 64GB
<b>Dimension</b>	78.50mm x 54.00mm x 5.00mm	
<b>Interface</b>	Serial ATA 3.0Gb (SATA-II)	
<b>Power Supply</b>	3.3Vcc ± 5%	
<b>Package</b>	Complete Metal Housing	

### Reliability Specifications

<b>MTBF</b>	>1,000,000 hours	
<b>Data Integrity</b>	SLC	10 years
<b>Write-erase cycles</b>	SLC	100,000 typical
<b>Warranty</b>	SLC	3 years
<b>Interface</b>	Patent Pending	
<b>Package</b>	Complete Metal Housing	

### Environmental Specifications

<b>Operating Shock</b>	1500G
<b>Operating Vibration</b>	16G
<b>Operating Temp.</b>	0°C to +70°C

### Endurance Specifications

Device	Read	Sequential Write Max (MB/Sec)
<b>16GB SLC</b>	Unlimited	87 yrs @ 50GB write-erase/day
<b>32GB SLC</b>		173 yrs @ 50GB write-erase/day
<b>64GB SLC</b>		346 yrs @ 50GB write-erase/day

### Performance Specifications

Device	Sustained Read Max (MB/Sec)	Sustained Write Max (MB/Sec)
<b>GSUS16C18C</b>	250	220
<b>GSUS32C18C</b>	250	220
<b>GSUS64C18C</b>	250	220

### Ordering Information

Capacity	Flash	Part Number
<b>16GB</b>	SLC	<b>GSUS16C18U</b>
<b>32GB</b>	SLC	<b>GSUS32C18U</b>
<b>64GB</b>	SLC	<b>GSUS64C18U</b>

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### SATA Flash Drive Pin Assignment

Signal Segment Key			
Signal Segment	S1	GND	2 <sup>nd</sup> mate
	S2	A+	Differential Pair A from PHY
	S3	A-	
	S4	GND	
	S5	B-	Differential Pair B from PHY
	S6	B+	
	S7	GND	2 <sup>nd</sup> mate
Signal Segment "L"			
Central Connector Polarizer			
Power Segment "L"			
Power Segment	P1	V33	3.3V Power
	P2	V33	3.3V Power pre-charge
	P3	GND	
	P4	GND	
	P5	V5	5V Power pre-charge 2 <sup>nd</sup> mate
	P6	V5	5V Power
	P7		*Reserved
	P8		Optional
	P9		Optional
Power Segment Key			
* The corresponding pin to be mated with pin P7 in the power Internal Micro receptacle. Connector shall always be grounded			
Note: This drive only uses the 3.3V power; the 5V power is unused.			

#### Revision History

May 19, 2008 Rev-A Preliminary Product Specification Released

July 14, 2008 Rev-B Changed write speed value

Nov 17, 2008 Rev-C Part numbers changed, introduced SLC, updated specifications

Nov 21, 2008 Rev-D corrected signal S6 definition in Signal Segment

May 7, 2009 Rev. 5.0 updated speed with new design, and part # system changed to numerical

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### Mechanical Specifications

