

■ MasterDrive KX Series

uSATA Solid State Drive



The MasterDrive KX series SSD is the perfect product for customers wishing to integrate full featured SATA-II based SSDs into form factor limited applications like Ultra Mobile PCs and Embedded Systems.

The MasterDrive KX is available with MLC or SLC Flash and is capable of delivering read speeds of up to 170MB/sec and write speeds of up to 130MB/sec. Super Talent'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 MasterDrive KX SSD. SuperTalent offers a 2 year warranty for the MLC MasterDrive KX and a 3 year warranty for the SLC MasterDrive KX.

Physical Specifications

Form Factor	1.8" uSATA Connector	
Capacity	SLC	16GB – 64GB
	MLC	16GB – 128GB
Dimension	78.50mm x 54.00mm x 5.00mm	
Interface	Serial ATA 3.0Gb (SATA-II)	
Power Supply	3.3Vcc ± 5%	
Package	Complete Metal Housing	

Reliability Specifications

MTBF	>1,000,000 hours	
Data Integrity	SLC	10 years
	MLC	5 years
Write-erase cycles	SLC	100,000 typical
	MLC	10,000 typical
Warranty	SLC	3 years
	MLC	2 years
Interface	Patent Pending	
Package	Complete Metal Housing	

Environmental Specifications

Operating Shock	1500G
Operating Vibration	16G
Operating Temp.	0°C to +70°C (Commercial)

Endurance Specifications

Device	Read	Sequential Write Max (MB/Sec)
16GB MLC	Unlimited	8.7 yrs @ 50GB write-erase/day
32GB MLC		17.3 yrs @ 50GB write-erase/day
64GB MLC		34.6 yrs @ 50GB write-erase/day
128GB MLC		70.2 yrs @ 50GB write-erase/day
16GB SLC		87 yrs @ 50GB write-erase/day
32GB SLC		173 yrs @ 50GB write-erase/day
64GB SLC		346 yrs @ 50GB write-erase/day

Performance Specifications

Device	Sequential Read Max (MB/Sec)	Sequential Write Max (MB/Sec)
FUM16GL18H	150	100
FUM32GL18H	150	100
FUM64GL18H	150	100
FUM28GL18H	150	100
FUD16GL18H	170	130
FUD32GL18H	170	130
FUD64GL18H	170	130

Ordering Information

Capacity	Flash	Part Number
16GB	MLC	FUM16GL18H
32GB	MLC	FUM32GL18H
64GB	MLC	FUM64GL18H
128GB	MLC	FUM28GL18H
16GB	SLC	FUD16GL18H
32GB	SLC	FUD32GL18H
64GB	SLC	FUD64GL18H

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SATA Flash Drive Pin Assignment

Signal Segment Key			
Signal Segment	S1	GND	2 nd mate
	S2	A+	Differential Pair A from PHY
	S3	A-	
	S4	GND	
	S5	B-	Differential Pair B from PHY
	S6	B+	
	S7	GND	2 nd 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 nd 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

April 17, 2009 Rev-C Part numbers changed, introduced SLC, updated specifications

April 21, 2009 Rev-D corrected signal S6 definition in Signal Segment

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