#### **Super Talent - OEM Solution Provider**

Headquartered in the heart of Silicon Valley, Super Talent provides OEM Customers a competitive advantage by enabling them to outsource the design, layout, manufacturing and qualification processes. Our ultimate goal is provide innovative solutions, decrease your time to market and reduce costs.



#### Design

Super Talent designs are produced by a talented team of Silicon Valley engineers to satisfy most of the customers data storage needs.



#### Manufacturing

Super Talent uses state-ofthe art ISO 9001 certified technical equipment and leading-edge components to manufacture it's memory products.



#### Testing

All Super Talent products are rigorously tested for quality within our own labs and then tested and approved by top motherboard manufacturs and other industry partners to assure compatibility.



#### Logistics

Super Talent logisticservices are very flexible to meet various customer needs that include retail and bulk packaging, procurement, inventory management, transportation, and more.

🔘 New Jersey

Georgia

Costa Rica

 $\bigcirc$ 

Miami



#### SUPER TALENT LOCATIONS INCLUDE:

SUPER \* TALENT<sup>®</sup> THE BEST MEMORY

www.supertalent.com

- San Jose
- Los Angeles
- Chicago
- New Jersey
- Georgia
- Miami
- Brazil
- Europe
- Shenzhen & Guang Zhou
- Wuhan
- Taiwar
- Hong Kong
- Japan
- Mexico

#### Headquarters

- Sales Representative
- **O** Sales, Warehouse
- ♦ Sales, Purchasing
- □ Factory

## **Corporate Headquarters**

#### **United States**

2077 North Capitol Avenue San Jose, CA 95132 U.S.A Tel: 1.408.934.2560 Fax: 1.408.719.5020 Support: support@supertalent.com Sales: sales@supertalent.com OEM Sales: oemsales@supertalent.com

## **ST Solid State Drives -**





**Enterprise Server** 

#### Industrial / Military

May/2012

SUPER \* TALENT®

# 2012 **Product Overview**

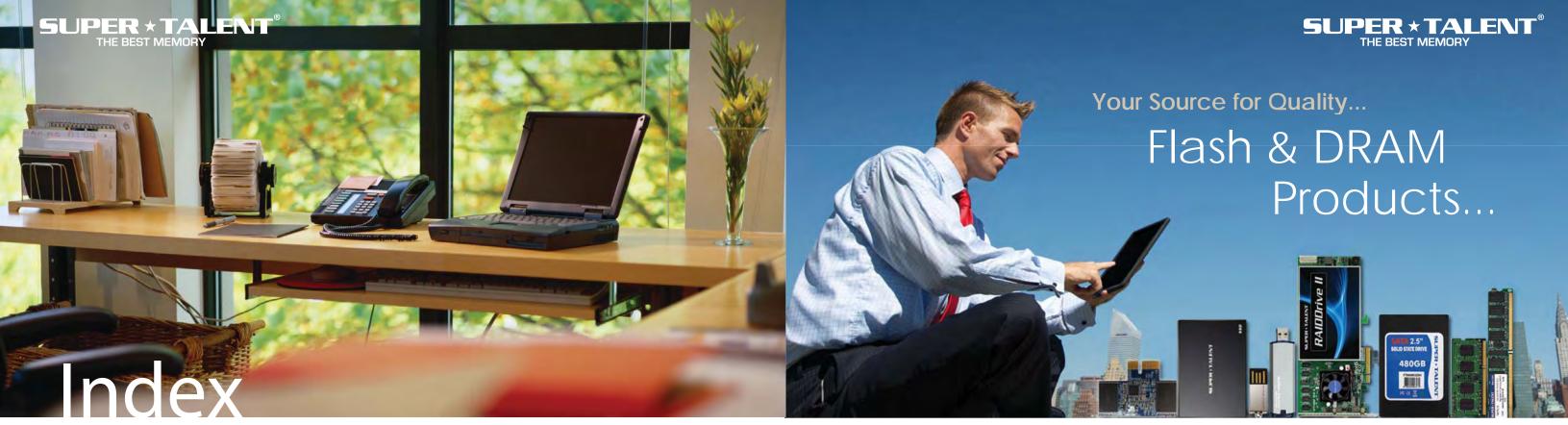




Laptop / Desktop

Embedded

## www.supertalent.com



#### **FLASH PRODUCTS**

Solid State Drives - Enterprise Server, Industrial/Military, Laptop/Desktop	3
USB Drives - USB 3.0 Series, Pico Series, Elite Series, Eco Series	11
Flash Cards - MicroSDHC Cards, MicroSD Cards, SDHC Cards, SD Cards	15
CF Cards - CFast, High Speed CF Cards, I-Temp CF Cards	16

## MEMORY PRODUCTS

Memory Modules - Overclocking, Server, Desktop, Laptop Memory	17
Green Memory - Unbuffered DDR3, Unbuffered DDR2	19
Apple Memory - Mac DDR3, Mac DDR2	20

#### \* Patent # - USA (Protected by U.S Patents)-

#### DDR DIMM:

5,841,686 ; 5,982,653 ; 5,996,880 ; 6,542,393 ; 6,775,139 ; 6,993,209 ; 7,023,700 ; 7,215,551 ; 7,365,985

#### USB Flash Drives:

6,547,130; 6,854,984; 6,874,044; 6,993,618; 7,004,780; 7,004,794; 7,021,971; 7,044,802; 7,052,287; 7,073,010; 7,074,052; 7,082,055; 7,094,074; 7,055,617; 7,103,684; 7,104,848; 7,108,550; 7,125,287; 7,126,559; 7,182,646; 7,186,147; 7,235,423; 7,243,185; 7,249,978; 7,252,518; 7,257,714; 7,259,967; 7,269,004; 7,297,024; 7,318,117; 7,428,605; 7,347,736

#### Flash Cards:

6,547,130; 6,874,044; 7,009,846; 7,032,827; 7,069,369; 7,082,056; 7,103,684; 7,104,807; 7,126,873; 7.173.826 : 7.174.628 : 7.243.185 : 7.257.714 : 7.296.345 : 7.299.316

#### Solid State Drives:

7,243,185 ; 6,547,130 ; 6,874,044 ; 7,004,780 ; 7,082,056 ; 7,073,010 ; 7,104,807 ; 7,126,873 ; 7,130,958 ; 7,243,185 ; 7,257,714 ; 7,299,316 ; 7,318,117

\* Taiwan Patents

164,796 ; 095,968 ; 145,103 ; 178,818 ; 178,779 ; 178,845 ; 206,035 ; 216,173 ; 216,933 ; 201,112 ; 246,923 ; 205,100 ; 230,947 ; I252,981 ; I264,152 ; I264,678

#### Solid State Drives

USB 3.0 Flash Drives





#### Memory Products





**Overclocking Memory** 

Server Memory

\*China Patents: 107,391 ; 255,645



UltraDrive



DuraDrive



FDM





www.supertalent.com



# Industrial / Embedded







Industrial Temp (-40°C to +85°C)



Secure Erase

Variety of Form Factors



CF, DOMs, FDMs, SATA, mSATA, PCIe & more





**PCIe RAID Solutions** 

SATA III SSD

Enterprise





480GB 











PCIe RAID Solutions

Enterprise SSDs

DDR3 RDIMMs

USB 3.0 SSDs

PATA/ IDE (2.5" & 1.8")

SATA II SSD

www.supertalent.com









DDR3 DIMMs

USB 3.0 Flash Drives



DDR2 DIMMs



USB 2.0 Flash Drives

# Solid State Drives

SSDs (solid state drives) are the latest in high performance data storage devices. Using NAND Flash memory, SSDs consume less power, perform faster, produce less noise, and weigh less than conventional hard disk drives.

Replacing HDDs with SSDs is an easy choice since they are 100% compatible. While standard spinning HDDs are the first component to fail in extreme conditions, SSDs are durable, reliable and bring unparalleled performance to your system.

#### Enterprise Server - Server, Workstation, Extreme Performance



	RAIDDrive	TeraDrive
Form Factor	PCIe	2.5"
Interface	PCIe x8	SATA-II, III
Density	256GB - 2TB	55GB - 480GB
Flash Type	MLC	MLC

## Industrial / Military / Embedded - Military, Aerospace, Industrial, Medical, Embedded Systems



	DuraDrive	FDM	CoreStore
		NOTE: A State of the second se	
Form Factor	2.5", 1.8″	7-44 Pin Vertical or Horizontal, USB	PCle and Mini PCle
Interface	SATA-II, IDE/PATA	SATA-II, IDE/PATA	PCle and Mini PCle
Density	16GB - 256GB	4GB - 32GB	16GB - 64GB
Flash Type	SLC/MLC	SLC/MLC	SLC/MLC

## Laptop / Desktop - High Performance Storage



	UltraDrive	VSSD	Netbook SSDs
	H PRE-TRUM	WIFEI-ININY	
Form Factor	2.5"	2.5"	1.3", 1.8", mini PCle
Interface	SATA-II	SATA-II	SATA-II, IDE/PATA
Density	32GB - 480GB	8GB - 64GB	8GB - 128GB
Flash Type	SLC/MLC	MLC	SLC/MLC

# RAIDDrive SSDs *Enterprise Server* - Server, Workstation, Extreme Performance

Built for the Enterprise server, our RAIDDrive SSD increases application performance and reduces latency by providing unparalleled bandwidth of up to 2GB/s. Designed to fit into a low profile server, the SuperTalent RAIDDrive can simplify your IT infrastructure while reducing operating and capital costs.

## **RAIDDrive upStream**





 PCle x8 link host interface • Burst Speed (max) : Read 950MB/s, Write 800MB/s\*\* • Capacities of up to 1TB

• PCle x8 (Gen2) host interface • Burst Speed (max) : Read 2.4GB/s, Write 2.8GB/s\* • Supports RAID 0 or RAID 5 Capacities of up to 2TB

65 Arres en 68 6344 Arr 68 6344 Arr 68 6444 69 6444 69 6444	

Specification	1	RAIDDrive upStream	RAIDDrive II	RAIDDrive GS
Interface		PCIe x8	PCIe x8	PCIe x8
Controller		LSI 1064E	LSI ROC 2108	Intel IOP 348
Form Factor		PCIe	PCle	PCle
Capacities		256GB - 2TB	480GB - 2TB	256GB - 2TB
NAND Flash		MLC	MLC	MLC
Performance	Access Time	0.1ms	0.1ms	0.1ms
Burst Speed	Read/Write (MB/sec)	950/900**	2400/2800*	1400/1200*
RAID Function	ı	0/1	0/5	0/5
RAID Cache Si	ze	N/A	1GB	512MB
Number of Po	rt	4ports	8ports	4ports/8ports with Expander
Battery Backu	р	No	No	No
MTBF		>1,500,000 hrs	>1,500,000 hrs	>1,500,000 hrs
Dimension	mm	167.5 x 107 x 17	231.5 x 94 x 20.6	255 x 107 x 25.4
Part Number		TBD	R2Sxxxx	RGSxxxx

registered trademark of Microsoft, \*\* Based on ATTO and ASUS P6T M/B.

# CoreStore SSDs Industrial / Military / Embedded - Military, Aerospace, Industrial, Medical, Embedded Systems

Specification		PCle FDM	CoreStore MV	CoreStore MP
Interface		PCle FDM	PCle Gen2 x1	PCle Gen2 x1
Form Factor		PCIe	Mini PCle	PCle x 1
Capacities		8GB-64GB	16 - 128GB(MLC)	16 - 128GB(MLC)
			16 - 64GB(SLC)	16 - 64GB(SLC)
DRAM Cache		N/A	DDR2 64MB	DDR2 64MB
NAND Flash		MLC/SLC	ONFI2.0 MLC/SLC	ONFI2.0 MLC/SLC
Performance	Access Time	0.2ms	0.1ms	0.1ms
	Read/Write (MB/sec)	160/80	350/80	
Dimension	mm	26.2 X 0.25	30 x 50.95	PCIe Card
Warranty		4 x 0.25		
		2 years(MLC)	2 years(MLC)	2 years(MLC)
Part Number		3 years(SLC)	3 years(SLC)	3 years(SLC)
		<b>SNxxN6AME</b>	SRxxCxMME(MLC)	SRxxCxMP1(MLC)
			SRxxDxMME(SLC)	SRxxDxMP1(SLC)





#### **RAIDDrive GS**



PCIe x8 link host interface

- Burst Speed (max) : Read 1.4GB/s, Write 1.2GB/s\*
- Support 140K IOPS
- Capacities up to 2TB

\* Based on CrystalDiskMark v.3.0 and Asus P6T Motherboard. Perfomance may vary. Usable capacity is less than specified after formatting. Windows is a



- Boots Windows 7 in 11 seconds
- ONFi DDR (Double Data Rate)
- Capacities of up to 128GB
- Read 350MB/s, Write 220MB/s

# TeraDrive SSDs (SATA III) Enterprise Server - Server, Workstation, Extreme Performance

The TeraDrive™ line is our Enterprise offering. Exclusively featuring SandForce™ controllers, the TeraDrive represents the pinnacle of performance in Enterprise storage. Designed to deliver exceptional performance, the TeraDrive line also features state of the art algorithms to increase reliability and reduce performance degradation over time. Supporting up to 50,000 IOPS, the TeraDrive is ideal for database servers.





#### **Features**

- Impressively fast Random R/W Speeds
- Up to 500 Read, 500 Write (MB/sec)
- Capacities up to 480GB

Specification		Super Nova	TeraNova	TeraDrive CT3	TeraDrive CT2
		SALE STATE	2.5" Read Date and 48008	18.9 Kint Have 1800 B	NA ANDIN' FALENCY 480
Controller		SandForce 22xx	SandForce 22xx	SandForce 22xx	SandForce 12xx
Interface		SATA-III	SATA-III	SATA-III	SATA-II
Form Factor		2.5 "	2.5 "	2.5 "	2.5 "
Capacities		128GB,256GB	60GB,120GB,240GB,480GB	60GB,120GB,240GB,480GB	55GB,115GB,240GB,480GB
NAND Flash		ONFi MLC	MLC	MLC	MLC
Internal Cach	e Size	N/A	N/A	N/A	N/A
Power Supply	,	5V ± 10%	5V ± 10%	5V ± 10%	5V ± 10%
Reliability	MTBF	>2,000,000 hrs	>1,000,000 hrs	>2,000,000 hrs	>1,000,000 hrs
Dimension	mm	69.85 x 100.20 x 7.00 mm	69.85 x 100.20 x 9.00 mm	69.85 x 100.20 x 9.00 mm	69.85 x 100.20 x 9.50 mm
Warranty		3 years	2 years	2 years	2 years
Part Number		FTMxxS325H	FTMxxN325H	FTMxxC325H	FTMxxC225H

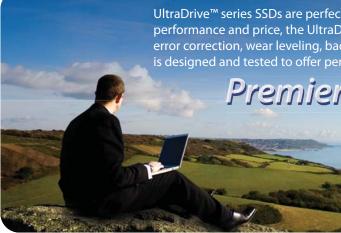
## Garbage Collection and TRIM Support



Garbage Collection is an odd term for a feature that will keep your SSD drive running at optimum performance throughout its life and Trim is its close companion. Both features run in the background, seeking out invalid blocks of data and preparing them to be written to both quickly and efficiently. While Trim requires Operating System awareness and currently only works with Windows 7, Windows Server 2008 RC2, Linux (kernel 2.6.33+), Garbage Collection does not require OS participation and will work with everything from XP, Vista, Linux, Macintosh, you name it. All of our 2.5" SSDs support both Garbage Collection and Trim to keep your drive running at its best.



TRIM is an operating system feature in which the OS will pass down commands to an SSD controller to erase deleted pages from the SSD. When the TRIM command is enabled, it will execute automatically in the background to always keep the SSD performing like new. TRIM is generally the best method for maintaining SSD performance because it is built into the OS and happens automatically. TRIM is supported by Windows<sup>®</sup> 7 and Windows Server 2008 R2. It will be integrated into Linux in the near future. Other operating systems do not support TRIM.





**UltraDrive Features** 

Capacities up to 480GB

• Impressively fast Random R/W Speeds

• Up to 250 Read, 180 Write (MB/sec)

**MasterDrive Features** 

Operates at industrial temperatures

• SATA-II interface and 128MB

• Up to 250MB/sec Read speeds

• Up to 130MB/sec Write speeds

internal cache

(-40°C - +85°C)

Specification



Form Factor	
Capacities	
NAND Flash	
Performance	
Internal Cache	5
Power Supply	
I	

#### Environment Reliability

Noise Dimension Warrantv

#### Part Number

Specifications subject to change without notice. Usable capacity is less than specified after formatting. Actual performance varies. \*Preliminary specs. \* US Patents #7,243,185; 7,301,776; 7,318,117.



Laptop / Desktop - High Performance Storage

Super Talent's VSSD brings performance and solid-state technology together at one incredible price. By upgrading to the VSSD from traditional hard disks, shorter OS booting up time, faster application loading, and less system power consumption can be achieved. The VSSD also takes full advantage of the 3Gbps SATA-II bandwidth showing off sequential read speeds of up to 160MB/sec and sequential write speeds of up to 80MB/sec.





Solid State Drives

UltraDrive<sup>™</sup> series SSDs are perfect SSD for the workstation. Designed to strike a balance between performance and price, the UltraDrive products represent our best value. Featuring advanced error correction, wear leveling, bad block management technologies and Trim, the UltraDrive is designed and tested to offer performance, endurance and reliability.

## **Premier Storage Solution...**

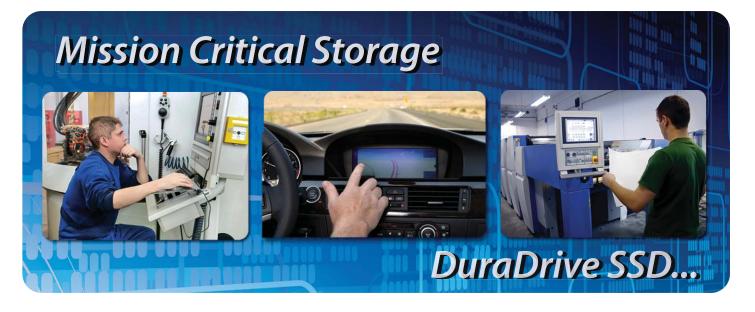
**UltraDrive MX2** MasterDrive KX3 SATA-II, SATA-II mini-USB connector 2.5" 1.8"uSATA 60GB - 480GE 32GB - 256GB MLC/SLC MLC 0.1ms 0.1ms Access Time 64MB 128MB Size 5V ± 10% 3.3V ± 10% Vibration 16G 16G 1500G 1500G Shock 0-70 °C 0-70 °C Op Temperatur >1,000,000 hrs MTBF >1,000,000 hrs Active 0dB 0dB mm 69.85 x 100.20 x 9.50 mm 78.5 X 54.0 X 5.0 mm 3 years (SLC) 2 years 2 years (MLC) FTDxxM225H (SLC) FUMxxG818H FTMxxM225H (MLC)



Specification		VSSD-G5
Interface		SATA-II
Form Factor		2.5 "
Capacities		8GB - 64GB
NAND Flash		MLC
	Access Time	0.1ms
	8GB R/W (MB/s)	35/10
Performance	16GB R/W (MB/s)	70/25
	32GB R/W (MB/s)	115/45
	64GB R/W (MB/s)	160/80
Power Supply		5V ± 5%
	Vibration	16G
Enviroment	Shock	1500G
	OP temperature	0°C ~ 70°C
Reliability	MTBF	>1,000,000 hrs
Dimension	mm	69.9 x 100.2 x 9.5
Warranty		2 years
Part Number		FTMxxG525V

#### **DuraDrive SSDs** Industrial / Military / Embedded - Military, Aerospace, Industrial, Medical, Embedded Systems

Super Talent's DuraDrive SSDs represent the state-of-the-art solid-state storage solutions for Industrial, Embedded, Military and Mission Critical applications. Available in a variety of configurations. Features include: i-Temp (-40°C to +85C) and Commercial Temp, SLC and MLC, Secure Erase, SATA, PATA and ZIF. When reliability becomes mission critical, think DuraDrive.



Specification		DuraDrive AT2	DuraDrive ET2	DuraDrive AT3	DuraDrive ZT2
			REZET FAMILINE TO LEVY	2.5° 168 100 1001 256 05 1001	
Interface		SATA-II	IDE/PATA	SATA-II	IDE/ZIF
Form Factor		2.5"	2.5"	2.5"	1.8"
Capacities		32GB - 256GB (MLC) 16GB - 128GB (SLC)	32GB - 256GB (MLC) 16GB - 128GB (SLC)	32GB - 256GB (MLC)	32GB - 256GB (MLC) 16GB - 128GB (SLC)
NAND Flash		MLC/SLC	MLC/SLC	MLC	MLC/SLC
Performance	Access Time	0.1ms	0.1ms	0.1ms	0.1ms
	Read/Write (MB/sec)	Up to 125/110	Up to 125/110	Up to 250/170	Up to 125/110
Internal Cache	Size	64MB	64MB	128MB	64MB
Power Supply		5V ± 10%	5V ± 10%	5V ± 10%	3.3V ± 10%
	Vibration	16G	16G	16G	16G
Environment	Shock	1500G	1500G	1500G	1500G
	Op Temperature	0°C~70°C (l-temp: -40°C~85 °C)	0°C~70°C (I-temp: -40°C~85 °C)	0°C~70°C (l-temp: -40°C~85 °C)	0°C~70°C (l-temp: -40°C~85 °C)
Reliability	MTBF	>1,000,000 hrs	>1,000,000 hrs	>1,000,000 hrs	>1,000,000 hrs
Noise	Active	0dB	OdB	0dB	0dB
Dimension	mm	69.9 x 100.2 x 9.5 mm	69.9 x 100.2 x 9.5 mm	69.85 x 100.20 x 9.00 mm	51.97 x 69.97 x 5.10 mm
Warranty		2 years(MLC) 3 years (SLC)	2 years(MLC) 3 years (SLC)	2 years(MLC)	2 years(MLC) 3 years (SLC)
Part Number		FTDxxGW25x* (SLC) FTMxxGW25x*(MLC)	FHDxxGW25x* (SLC) FHMxxGW25x* (MLC)	FTMxxG825x* (MLC)	FZDxxGW18x* (SLC) FZMxxGW18P (MLC)

\* Commecial- Temp: H, Industrial-Temp: I

## • I-Temp CF Cards



Capacity: 32GB,16GB, 8GB, 4GB, 2GB, 1GB - Operating shock rating of 2,000Gs impact-resistance. - Power requirements: 3.3V or 5.0V. - Supports ATA command set. - Dimensions (approx.): 42.8 x 36.4 x 3.3mm - Weight: 13g (max.). - Operating temperature: -40° to 85° C.

- Warranty: 1 Year.



# **Netbook SSDs**

As companies compete to release thinner netbooks, Super Talent produces custom solid state drives (SSDs) to advance the netbook industry's desires. The slimmer, lightweight designs present a cost-effective alternative to hard drives in the Ultra Mobile Personal Computing (UMPC) market. Besides portability, Super Talent netbook SSDs fulfill the two most important features for netbook consumers: outstanding reliability and endurance.



Specification	n	CoreStore MV	Mini PCle GW	Half Mini PCle GW	1.3" IDE ZIF	SATA Mini 2 PCIe
Interface		PCle Gen2x1	IDE/PATA	IDE/PATA	IDE/PATA	SATA-II
Form Factor		Mini PCle	Mini PCle	Half miniPCle	1.3" ZIF	Mini PCle
Capacities		16 - 128GB(MLC)	16 - 128GB	16 - 64GB	8-128GB	16-64GB(MLC)
		16 - 64GB(SLC)				16-32GB(SLC)
DRAM Cache		N/A	N/A	N/A	N/A	N/A
NAND Flash		MLC/SLC	MLC	MLC	MLC	MLC/SLC
Performance	Access Time	0.1ms	0.1ms	0.1ms	0.1ms	0.1ms
MLC	Read/Write (MB/sec)	350/80	110/40	110/40	80/40	150/100
SLC	Read/Write (MB/sec)	350/220				170/130
Netbook Com	patibility	N/A	Asus Eee PC	Dell Inspiron	Acer Aspire 1	Asus Eee PC
			70x, 90x, 1000			900, 900A, 901, S101
Dimension	mm	30 x 51	32.1 x 69.5	30 x 51	32.1 x 54.1	32.1 x 69.5
Warranty		2 years(MLC)	2 years	2 years	2 years(MLC)	2 years(MLC)
		3 years(SLC)				3 years(SLC)
Part Number		SRxxCxMME(MLC)	FPMxxGWAE	FEMxxGWDL	FEMxxGF13M	FPMxxGLSE (MLC)
		SRxxDxMME(SLC)				FPDxxGLSE (SLC)

Specification	۱	mSATA (MO-300B)	mSATA 2 (MO-300B)	mSATA 3 (MO-300B)	Half Mini 2 PCIe
Interface		SATA-II	SATA-II	SATA-II	Custom IDE/PATA
Form Factor		mSATA	mSATA	mSATA	Half miniPCle
Capacities		16-128GB(MLC)	30-120GB(MLC)	30-120GB(MLC)	8-128GB(MLC) 8-16GB(SLC)
DRAM Cache		N/A	N/A	N/A	N/A
NAND Flash		MLC	MLC	MLC	MLC/SLC
Performance	Access Time	0.1ms	0.1ms	0.1ms	0.1ms
MLC	Read/Write (MB/sec)	160/80	280/255	550/500	80/40
SLC	Read/Write (MB/sec)	N/A	N/A	N/A	80/60
Netbook Com	patibility	JEDEC MO-300B compatible	JEDEC MO-300B compatible	JEDEC MO-300B compatible	Dell Inspiron Mini 9
Dimension	mm	30 x 51	30 x 51*	30 x 51*	30 x 51
Warranty	1	2 years(MLC)	2 years(MLC)	2 years(MLC)	2 years(MLC) 3 years(SLC)
Part Number		SGxxNx5SM	SGxxNx4(8)SM	SGxxNx3SM	FEMxxGFDL (MLC) FEDxxGFDL (SLC)

\* World 1st custom offer.

NAND Flash based IDE Flash Disk Modules (FDMs) are ideal for embedded computing applications. The industry standard IDE connector plugs directly into a motherboard using a 40- or 44-pin IDE connector, and uses a 5V power input.





#### **IDE Flash Disk Modules**

Specification	ı	40-pin IDE Horizontal	40-pin IDE Vertical	44-pin IDE Horizontal	44-pin IDE Vertical
		Machine Facan V Filse Disk Model States and States	A PERS * TALENT MADE AND A PARTY AND A PARTY A	ALL TO ALL ALL ALL ALL ALL ALL ALL ALL ALL AL	NLIPER-TALENT model DE Flash Model Protection of the flash and the flash of the flash and the flash of the flash and the flash
Interface		IDE/PATA	IDE/PATA	IDE/PATA	IDE/PATA
Capacities		4-64GB	4-64GB	4-64GB	4-64GB
NAND Flash		MLC/SLC	MLC/SLC	MLC/SLC	MLC/SLC
Performance	Access Time	0.1ms	0.1ms	0.1ms	0.1ms
MLC	Read/Write (MB/sec)	110/40	110/40	110/40	110/40
SLC	Read/Write (MB/sec)	110/50	110/50	110/50	110/50
Internal Cache	Size	N/A	N/A	N/A	N/A
Power Supply		5V ± 10%	5V ± 10%	5V ± 10%	5V ± 10%
Dimension	mm	49.5 x 31.0	58.2 x 33.6	48.0 x 31.0	55.8 x 33.0
Warranty		2 years(MLC)	2 years(MLC)	2 years(MLC)	2 years(MLC)
		3 years(SLC)	3 years(SLC)	3 years(SLC)	3 years(SLC)
Part Number		SFxxNxW41 (MLC)	SFxxNxW40 (MLC)	SFxxNxW45 (MLC)	SFxxNxW44 (MLC)
		SFxxAxW41 (SLC)	SFxxAxW40 (SLC)	SFxxAxW45 (SLC)	SFxxAxW44 (SLC)

#### SATA Flash Disk Modules

Specificatio	n	7-pin SATA FDM	7-pin SATA DOM	22-pin SATA Horizontal	USB 3.0 FDM	USB FDM
Interface		SATA-II	SATA-II	SATA-II	USB 3.0 FDM	USB 2.0
Capacities		4-128GB	4-32GB	4-128GB	8GB-32GB	4-16GB
NAND Flash		MLC/SLC	MLC/SLC	MLC/SLC	MLC/SLC	MLC/SLC
Performance	Access Time	0.1ms	0.1ms	0.1ms	0.2ms	0.1ms
	Read/Write (MB/sec)	150/80 (MLC) 165/125 (SLC)	45/11	150/80 (MLC) 165/125 (SLC)	85/40	25/10 (MLC) 32/29 (SLC)
Internal Cache	e Size	N/A	N/A	N/A	N/A	N/A
Power Supply		5V ± 10%	5V ± 10%	5V ± 10%	5V ± 10%	5V ± 10%
Dimension	mm	55 x 33	21.4 x 40.5	55.2 x 30	26.2 X 0.25 4 x 0.25	19 x 46 35 x 21.2
Warranty	<u>.</u>	2 years(MLC) 3 years(SLC)	2 years(MLC) 3 years(SLC)	2 years(MLC) 3 years(SLC)	2 years(MLC) 3 years(SLC)	2 years(MLC) 3 years(SLC)
Part Number		SMxxNx57R/L(MLC) SMxxAx57R/L(SLC)	SMxxNx57V/H (MLC) SMxxAx57V/H (SLC)	SMxxNx52H (MLC) SMxxAx52H (SLC)	SMxxNx52H (MLC) SMxxAx52H (SLC)	ST3UxxFDM1



#### Super Talent is already on the road!

• Major manufacturers have already qualified our product for their IVI (in-vehicle infotainment) systems

Our SSDs are currently in mass production to meet your needs today



## All terrain means our SSDs are durable

• Rated for industrial level temperatures (-40°C to 85°C)

- Integrated SPOR (Sudden Power Off Recovery) algorithm
- Withstands vibration and shock because it has no moving parts
- Supports various form factors to fit into your vehicle or device (2.5", 1.8", mini PCle and custom BGA)

## Standard SSD options

- Capacities from 4GB to 240GB
- Built in ECC (error correcting code) for reliability
- Lasts longer using the wear leveling algorithm
- Currently supports Windows CE operating system
- Android, GENIVI and MeeGo support coming soon
- Available in MCP (multi-chip packaging) for a smaller footprint in your system

## SSDs perform at highway speeds

- Uses high bandwidth connections such as SATA II
- High read/write speeds

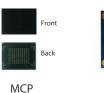




#### **Product lines**



DuraDrive AT3





Half Mini PCle

www.supertalent.com 10

# **USB 3.0** Flash Drives

Super Talent is committed to the USB 3.0 standard and offers the largest selection of USB 3.0 flash drives. Whether you need speed, style, security or affordability, you'll find the perfect drive at Super Talent.

# SSD Performance & Reliability... Largest Selection of USB 3.0 Drives...



#### **USB 3.0 Express RC8**

- 8 channels SSD controller
- Virtual caching system elevates small block writes
- Perfect for running portable operating systems

#### RAIDDrive DUAL 8-CH SSDs provide over 370MB/sec





SuperCrypt

8-CH SSD Hardware

Express ST2



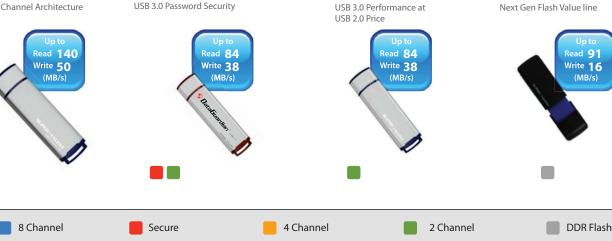
Express ST1

**Express RAM Cache** 

Express ST4 New 4 Channel Architecture



**Express RC8** 



#### What's a channel?

A channel of flash is a unit of flash memory in the USB drive. Having more channels means the drive can have more capacity and an increase in performance.

#### What is the difference between ST (standard) vs DDR (double data rate) flash?

Straight flash means that the performance you receive out of your flash drive is at the optimal rate the flash memory can provide. Double data rate flash can outperform straight flash because it allows you to access the flash at twice the number of intervals.

## **Express RC8**

Using 8 channels of flash, virtual caching system and a SSD controller, the Express RC8 is an SSD in USB 3.0 flash drive form factor.



#### **Features**

• 8 channels SSD controller



#### **Features**

- 8 channels SSD controller
- Hardware Encrypted
- AES 256bit XTS/ AES 128bit ECB

## USB 3.0 Storage POD

enclosure to put your own 2.5" drive into.

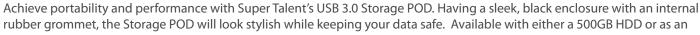


• Virtual caching system elevates small block writes • Perfect for running portable operating systems

SuperCrypt USB 3.0 drives are extremely fast, include hardware encryption to keep your data secure, and are offered in a wide range of capacities.

Perfect combination of performance and security

Watch the video



- Converts 2.5" SATA drives to USB 3.0
- USB 3.0 interface allows for SATA Read/Write speeds
- Mountless rubber grommet protects from shock and vibration

Watch video of the Storage POD HDD









Watch the video

# Pico USB Drives Pico Series

Pico Series USB drives are incredibly small and stylish flash drives offering up to 64GB data storage. Not only are Pico drives ideal for transporting data, digital images, and presentations, they are also the perfect accessory to adorn keychains, mobile phones, or wear as a necklace.

# Water Resistant

Pico B

World's smallest 64GB USB Drive...

#### **Ordering Information**

	2GB	4GB	8GB	16GB	32GB	64GB
A	STU2GPAS	STU4GPAS	STU8GPAS	STU16GPAS		
В	STU2GPBS	STU4GPBS	STU8GPBS	STU16GPBS		
С	STU2GPCS	STU4GPCS	STU8GPCS	STU16GPCS		STU64GPCG
C Gold		STU4GPCG	STU8GPCG	STU16GPCG	STU32GPCG	
C Nickel	STU2GPCN	STU4GPCN	STU8GPCN	STU16GPCN	STU32GPCN	

Pico A -Swivel Lid 38.7 x 12.4 x 3.9mm





Pico C





Pico C Gold

- Ultra Small Capless

31.3 x 12.4 x 3.4mm



Pico C Nickel

- Ultra Small Capless

# **Pico mini USB Drives**

Pico mini drives are amazingly small USB drives that weigh only a few grams, but hold up to 4,000 MP3 songs or all your mobile data. Pico mini drives are water resistant, colorful and trendy, and are offered in capacities of up to 32GB.



#### **Pico mini B** Dimension: 30.5 x 15.4 x 3.4 mm





#### **Ordering Information**

	Pico mini A	Pico mini B	Pico mini D
2GB	STU2GMAP	STU2GMBP	STU2GMDU
4GB	STU4GMAG	STU4GMBG	STU4GMDU
8GB	STU8GMAB	STU8GMBB	STU8GMDU
16GB	STU16GMAK	STU16GMBK	STU16GMDU
32GB	STU32GMAK	STU32GMBK	STU32GMDU

# USB Flash Drives Elite Series, Eco Series





Nickel Metal Capacity: 2GB - 32GB Dimension: 64 x 18 x 11 mm

Ordering	Information
Capacity	Nickel Metal
2GB	STU2NIKB
4GB	STU4NIKB
8GB	STU8NIKB
16GB	STU16NIKB
32GB	STU32NIKB

Eco Swivel	Capacit Dimens
Ordering Inform	nation

	-		
Capacity	Black	Red	Silver
2GB	STU2GSWD-K	STU2GSWD-R	TU2GSWD-S
4GB	STU4GSWD-K	STU4GSWD-R	STU4GSWD-S
8GB	STU8GSWD-K	STU8GSWD-R	STU8GSWD-S
16GB	STU16GSWD-K	STU16GSWD-R	STU16GSWD-S
32GB	STU32GSWD-K	STU32GSWD-R	STU32GSWD-S
64GB	STU64GSWD-K	STU64GSWD-R	STU64GSWD-S





CKB Capacity: 2GB - 32GB Dimension: 40 x 25.9 x 3.7mm

#### **Ordering Information**

Capacity	Silver	Nickel
2GB	STU2GCKBS	STU2GCKBN
4GB	STU4GCKBS	STU4GCKBN
8GB	STU8GCKBS	STU8GCKBN
16GB	STU16GCKBS	STU16GCKBN
32GB	STU32GCKBS	STU32GCKB

-

RRT	Capacit Dimens
Order	ing Inf

Capacity	W
8GB	STU8
16GB	STU1
32GB	STU3

## **Encryption Solutions**

customer databases, or other secrets that you wouldn't want to fall into the wrong hands. By encrypting your data, it will be inaccessible to anyone without your encryption password (beware, do not lose your password!). Super Talent now offers two easy ways to protect the contents of your USB drive. Our state-of-the-art 256-bit encryption solutions conform to AES-256 standards.

#### USBENC-H1

- USBENC-S1
- EncryptX SecurFlash® AES-256 compliant software encryption
- Factory enabled only; specify when ordering

- AES-256 compliant hardware encryption

- Supported on most USB models

- FIPS 140-1certified
- Factory pre-load only

pacity: 2GB - 64GB mension: 66 x 18 x 12 mm



Capacity: 2GB - 32GB RM Dimension: 57.6 x 19 x 10.4 mm

#### **Ordering Information**

9			
Black	Blue	Red	White
STU2GRMBK	STU2GRMBL	STU2GRMRR	STU2GRMRW
STU4GRMBK	STU4GRMBL	STU4GRMRR	STU4GRMRW
STU8GRMBK	STU8GRMBL	STU8GRMRR	STU8GRMRW
STU16GRMBK	STU16GRMBL	STU16GRMRR	STU16GRMRW
STU32GRMBK	STU32GRMBL	STU32GRMRR	STU32GRMRW
	STU2GRMBK STU4GRMBK STU8GRMBK STU16GRMBK	STU2GRMBK STU2GRMBL STU4GRMBK STU4GRMBL STU8GRMBK STU8GRMBL	STU2GRMBK STU2GRMBL STU2GRMRR STU4GRMBK STU4GRMBL STU4GRMRR STU8GRMBK STU8GRMBL STU8GRMRR STU16GRMBK STU16GRMBL STU16GRMRR





ty: 8GB - 32GB sion: 68.0 x 18.0 x 11.0mm

#### formation

hite	
GRR2W	
GRR2W	
GRR2W	

#### **Ordering Information**

RM2 Capacity: 2GB - 32GB Dimension: 61 x 19 x 11.6 mm

Capacity	Black	Blue	Red	White
2GB	STU2GRM2-K	STU2GRM2-B	STU2GRM2-R	STU2GRM2-W
4GB	STU4GRM2-K	STU4GRM2-B	STU4GRM2-R	STU4GRM2-W
8GB	STU8GRM2-K	STU8GRM2-B	STU8GRM2-R	STU8GRM2-W
16GB	STU16GRM2-K	STU16GRM2-B	STU16GRM2-R	STU16GRM2-W
32GB	STU32GRM2-K	STU32GRM2-B	STU32GRM2-R	STU32GRM2-W
64GB	STU64GRM2-K	STU64GRM2-B	STU64GRM2-R	STU64GRM2-W

- Your USB Flash drive holds all your most valuable data. Maybe it contains your personal financial records, confidential medical or legal records,

  - Supported on all USB models



# Flash Media Cards

Super Talent offers a full range of Flash media cards to suit all your mobile storage needs. These products have been tested extensively to ensure compatibility with every conceivable consumer gadget. These cards are all backed with Super Talent's 1-year warranty.



## **MicroSDHC Cards**

Capacity: 32GB, 16GB, 8GB, 4GB



#### Features:

- Power requirements: 2.7V to 3.6V. - Operating temperature: -25° to 85° C. - Dimensions (approx.): 15 x 11 x 1mm - Weight: 0.5g. - Warranty: 1 Year. - Optional SD adapter for use in SD devices.

## **MicroSD** Cards

Capacity: 8GB, 4GB, 2GB, 1GB



Features: - Power requirements: 2.7V to 3.6V.

- Operating temperature: -25° to 85° C. - Dimensions (approx.): 15 x 11 x 1mm
- Weight: 0.5g. - Warranty: 1 Year.
- Optional SD adapter for use in SD devices.

## **SDHC Cards**

Capacity: 32GB,16GB,8GB,4GB



#### Features:

- Erase protection switch to prevent accidental deleting of data. - Operating shock rating of 2,000Gs impact-resistance. - Power requirements: 2.7V to 3.6V. - Dimensions (approx.): 32 x 24 x 2.1mm

- Weight: 2.0g (max.). - Power consumption: Active < 35mA;

Standby < 100uA. - Operating temperature: -25° to 85° C.

- Warranty: 1 Year.

## **SD** Cards

Capacity: 4GB,2GB,1GB



Features: - Erase protection switch to prevent

- accidentaldeleting of data. - Operating shock rating of 2,000Gs impact-resistance.
- Power requirements: 2.7V to 3.6V.
- Dimensions (approx.): 32 x 24 x 2.1mm - Weight: 2.0g (max.).
- Power consumption: Active < 35mA; Standby < 100uA.
- Operating temperature: -25° to 85° C.

- Warranty: 1 Year.

# **CF** Cards



## • CFast



OMPACT

LASH

**64GB** 

600X

Super Talent CFast Storage Card is a revolution to the traditional CompactFlash Card, satisfying mobile digital devices storage needs, like PDAs, digital cameras, etc. Super Talent CFast Storage Card has a maximum transfer rate of 100MB/s while still keeping the small original CF mechanical form factor. The new CFast Storage Card breaks the speed bottleneck between the SSD and the device by using SATA interface. With Super Talent CFast Storage Card installed, there will be no waiting time for camera to catch up, and it will be much swifter to view pictures on camera or to copy them to computer.

#### Capacity: 64GB, 32GB, 16GB

- Seq. Read & Write speed: 120MB/s, 90MB/s - Operating shock rating of 1600Gs -
- impact-resistance.
- Power requirement: 3.3V.
- Supports ATA command set

## • High Speed CF Cards

CompactFlash Cards are a fast, reliable, and affordable storage device based on Flash technology. Designed into next-generation consumer products, these cards are used in a wide range of consumer devices including digital cameras, handheld PCs, digital video camcorders, digital music players, car navigation systems, and electronic books. CF cards are used widely in professional digital SLR cameras as well as in embedded computing applications.

#### Capacity: 64GB, 32GB, 16GB, 8GB, 4GB, 2GB

- Operating shock rating of 1600Gs impact-resistance.
- Speed 600x, 533x, 450x, 350x, 80x
- Power requirements: 3.3V or 5.0V.

## I-Temp CF Cards



Industrial-grade cards are made to endure severe operating conditions, like high and low operating temperature, continuous vibration, shock, high altitudes, humidity, etc. These products have been tested extensively to ensure high-performance and stability, and support both 3.3V and 5V operation systems.

#### Capacity: 32GB,16GB, 8GB, 4GB, 2GB, 1GB

- Operating shock rating of 2,000Gs -
- impact-resistance. Power requirements: 3.3V or 5.0V.
- Supports ATA command set.

- Dimensions (approx.): 42.8 x 36.4 x 3.3mm.
- Weight: 13g (max.).
- Operating temperature: 0°C 70°C
- Warranty: 1 Year
- SATA II 3Gbps interface

- Supports ATA command set.
- Dimensions (approx.): 42.8 x 36.4 x 3.3mm
- Weight: 13g (max.).
- Warranty: 1 Year.

- Dimensions (approx.): 42.8 x 36.4 x 3.3mm
- Weight: 13g (max.).
- Operating temperature: -40° to 85° C.
- Warranty: 1 Year.

# Super Talent Excels at **OverClocking Memory**



...........

Up to 2400 MHz Clock Speeds XMP-pre-tuned for Low Latencies 8GB Dual-and 12GB, 24GB Triple-Channel Kits, 32GB Quad Channel kits

Super Talent understands your need for speed. Our Overclocking Memory excels in engineering design on all fronts. Our DDR3 memory is tuned to speeds of up to 2400MHz and are optimized for dual and triple channel kits for capacities of up to 16GB. Rigorously tested on the latest gamer and PC enthusiast motherboards, you'll notice the difference in a flash.

#### Features

- Exceptional speeds
- Reliable
- Aggressively tuned latencies
- Efficient
- High capacities
- Superior heat dissipation

#### **Performance Series** Designed for Core i7

## **Ouad Series**

Quad Channel support for DDR3



## Chrome Series

Optimized for triple channel configurations



## Gold series Advanced heat dispersion

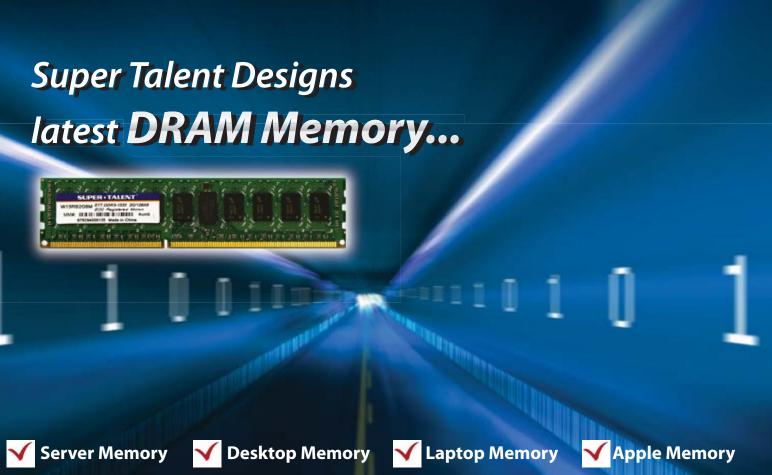
Extreme Performance DDR3

Speed

**Speed Series** 

SUPER • TALENT

# 



#### Our selection includes:

- DDR, DDR2, DDR3
- RDIMM, ECC UDIMM, VLP UDIMM, SODIMM,
- UDIMM, VLP-RDIMM, LRDIMM
- Space and material saving modules
- Low power consumption modules starting at 1.35V
- Speeds from 1333MHz and 1600MHz to 2400MHz
- Sizes from 1GB to 32GB and available in dual and triple channel kits

#### Server Memory



- 1GB, 2GB, 4GB, 8GB, 16GB, 32GB ECC Registered DIMMs 1GB, 2GB, 4GB, 8GB ECC **Unbuffered DIMMs**
- Ultra-Reliable-Ideal for Mission-Critical Servers

#### Laptop Memory



- DDR, DDR2, DDR3 - SO-DIMM module up to 8GB
- JEDEC Compliant
- 100% Tested

17 Memory Module

#### We test for:

- Compliance with JEDEC standards
- Apple compatibility by verifying with the latest Apple products
- The highest performance at the lowest latencies Reliability under stress

## **Desktop Memory**



- DDR1, DDR2, DDR3
- DIMM modules up to 8GB
- Dual and Triple Channel Kits/
- **Quad Channel Kits** - Available with or without ECC
- exceptional thermal dissipation

## Apple<sup>®</sup> Memory



- 1GB, 2GB, 4GB, and 8GB DDR3-1066, 1333 SO-DIMMs for MacBook Pro, Mac mini, iMac - 1GB, 2GB, 4GB, and 8GB DDR3-1066 ECC
- Unbuffered DIMMs for Mac Pro
- Certified in Apple Compatibility Labs

# Do more with less. **Green** Memory

- Fully JEDEC compliant

- 100% Tested to ensure optimum quality DDR, DDR2 & DDR3 DIMMs in capacities up to 16GB
- Very Low Profile modules (0.72" tall) DDR3 DIMMs offer 1.35V backward compatible to 1.5V

Leading studies suggest that the explosive growth we've seen in computing power has been matched by growing power demands and cooling costs. Experts predict that power-related costs within the data center will soon be larger than the IT equipment cost contained within them. The realization that power demands have been running largely unchecked has created a new movement within the computing industry, that of "Green IT". We, at SuperTalent, want to go beyond being a DDR3 manufacturer by supporting the effort and creating a comprehensive line of "Green Memory".

# Apple Memory

## Super Talent has Apple-approved DIMMs!



Super Talent memory modules are designed for 100% compatibility with the latest Mac computers. Super Talent tests its memory on all the leading Apple systems in Apple's certification labs.

## DDR3 Apple-approved DIMM

#### Mac Mini

(1.66/1.83GHz, Core2 Duo 2.0/2.26GHz) 1GB, 2GB DDR3 SODIMM

Mac Pro (Dual, Quad & 8-Core) 1GB, 2GB, 4GB, 8GB DDR3 ECC

#### 13" MacBook Pro (MC700, MC724, MD101)) 2GB, 4GB, 8GB DDR3 SODIMM

15" MacBook Pro (MC721, MC723, MD104) 2GB, 4GB, 8GB DDR3 SODIMM

## **DDR2** Apple-approved DIMM

#### MacBook/ MacBook Pro/ iMac G5

1GB, 2GB DDR2 SODIMM

## Guaranteed 100% Compatible!

Check your system's user manual to find out the allowed maximum memory and the type that is supported. To maximize your Mac's performance, using more memory is better.

Choosing Super Talent's Apple approved DIMMs guarantees compatibility to your Mac system.

### DDR3 RDIMM

Ē	SUPER TALENT -		1	6	and been	
	W13RB208 577 03-1333 20-12848 ECA	20				
	12160 INC. 1000100100100100100000000000000000000	•				A 13
= 3	ි ගේ මා ගේ මා ගේ මා					1 E. 18 Fi
	AT REAL FOR AN ADDRESS AND ADDRESS ADDR		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Same and a second	Statistics .

## DDR3 ECC UDIMM



### **DDR2 RDIMM**

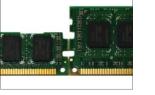


#### DDR3 SODIMM



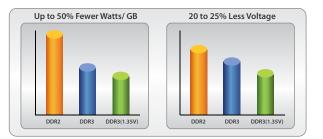
#### **Our Green Memory:**

- Uses less voltage Needs 1.35V
- Has a smaller form factor Only 0.72" tall
- Requires less cooling
- Performs more efficiently
- Runs at higher speeds Up to 1600MHz



#### New type of Memory -

Offering twice the data rate of its predecessor, DDR3 also typically uses 30% less power.





iMac (iMac Intel Core2Duo,QC i520/21.5/24/27"DDR3) 1GB,2GB,4GB, 8GB DDR3 SODIMM

17" MacBook Pro (MC725) 2GB, 4GB DDR3 SODIMM

1111

