

# TCG Opal and Enterprise Storage Device List December, 2011

TCG Opal Storage Devices					
Hitachi Consumer Storage Devices Supporting TCG Opal					
Family	Conn.	Size*	Type	FIPS	Model Numbers
Travelstar 5K750	SATA	500, 640, 750	Magnetic	No	HTS547575A9E385, HTS547564A9E385, HTS547550A9E385
Travelstar 7K750	SATA	500, 640, 750	Magnetic	No	HTS727575A9E365, HTS727564A9E365, HTS727550A9E365
Travelstar Z5K320	SATA	160, 250, 320	Magnetic	No	HTS543232A7A385, HTS543225A7A385, HTS543216A7A385
Travelstar Z7K320	SATA	160, 250, 320	Magnetic	No	HTS723232A7A365, HTS723225A7A365, HTS723216A7A365
Micron Consumer Storage Devices Supporting TCG Opal					
Family	Conn.	Size*	Type	FIPS	Model Numbers
RealSSD™ C400	SATA	128, 256, 512	SSD	No	MTFDDAA128MAM-1J12, MTFDDAA256MAM-1K12, MTFDDAA512MAM-1K12, MTFDDAC128MAM-1J12, MTFDDAC256MAM-1K12, MTFDDAC512MAM-1K12, MTFDDAK128MAM-1J12, MTFDDAK256MAM-1K12, MTFDDAK512MAM-1K12
Samsung Consumer Storage Devices Supporting TCG Opal					
Family	Conn.	Size*	Type	FIPS	Model Numbers
PM810	SATA	128	SSD	In Process <sup>2</sup>	MZ5PA128HMCD-010D7
PM810	SATA	256	SSD	In Process <sup>2</sup>	MZ5PA256HMDR-010D7
PM810	uSATA	128	SSD	In Process <sup>2</sup>	MZUPA128HMCD-000D7
Seagate Consumer Storage Devices Supporting TCG Opal					
Family	Conn.	Size*	Type	FIPS	Model Numbers
Momentum Thin	SATA	250, 320	Magnetic	No	ST250LT014, ST320LT014
Momentum Thin	SATA	250, 320	Magnetic	Yes <sup>1</sup>	ST250LT009, ST320LT009
Toshiba Consumer Storage Devices Supporting TCG Opal					
Family	Conn.	Size*	Type	FIPS	Model Numbers
MKxx61GSYD Series	SATA	160, 250, 320, 500, 640	Magnetic	No	MK1561GSYD, MK2561GSYD, MK3261GSYD, MK5061GSYD, MK6461GSYD
MKxx61GSYG Series	SATA	160, 250, 320, 500, 640	Magnetic	No	MK1561GSYG, MK2561GSYG, MK3261GSYG, MK5061GSYG, MK6461GSYG

TCG Opal Software Vendors (current or announced)	
Vendor	Site
Absolute	<a href="http://www.absolute.com">http://www.absolute.com</a>
CryptoMill	<a href="http://www.cryptomill.com">http://www.cryptomill.com</a>
McAfee	<a href="http://www.mcafee.com">http://www.mcafee.com</a>
Secude	<a href="http://www.secude.com">http://www.secude.com</a>
Softex	<a href="http://www.softexinc.com">http://www.softexinc.com</a>
Sophos	<a href="http://www.sophos.com">http://www.sophos.com</a>
Symantec	<a href="http://www.symantec.com">http://www.symantec.com</a>
Wave	<a href="http://www.wave.com">http://www.wave.com</a>
WinMagic	<a href="http://www.winmagic.com">http://www.winmagic.com</a>

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TCG Enterprise Storage Devices					
Hitachi Enterprise Storage Devices Supporting TCG Enterprise					
Family	Conn.	Size*	Type	FIPS	Model Numbers
Ultrastar SSD400M	SAS	200, 400	SSD	No	HUSML4040ASS601, HUSML4020ASS601
Ultrastar C10K600	SAS	300, 450, 600	HDD	No	HUC106060CSS601, HUC106045CSS601, HUC106030CSS601
Ultrastar 7K3000*	SAS	200, 300	HDD	No	HUS723030ALS641, HUS723020ALS641
Ultrastar 15K600	SAS	300, 450, 600	HDD	No	HUS156060VLS601, HUS156045VLS601, HUS156030VLS601
Ultrastar 15K600	FC-AL	300, 450, 600	HDD	No	HUS156060VLF401, HUS156045VLF401, HUS156030VLF401
Ultrastar C15K147	SAS	73, 147	HDD	No	HUC151414CSS601, HUC151473CSS601
Seagate Enterprise Storage Devices Supporting TCG Enterprise					
Family	Conn.	Size*	Type	FIPS	Model Numbers
Constellation ES.2	SATA, SAS	3TB	HDD	Yes <sup>1</sup>	ST33000652SS, ST33000652NS
Constellation ES.2	SATA, SAS	3TB	HDD	No	ST33000651SS, ST33000651NS
Constellation ES (64 bit)	SATA, SAS	500, 1TB, 2TB	HDD	In Process <sup>2</sup>	ST2000NM0041, ST1000NM0041, ST500NM0041, ST2000NM0051, ST1000NM0051, ST500NM0051
Constellation ES	SAS	500, 1TB, 2TB	HDD	Yes <sup>1</sup>	ST32000446SS, ST31000426SS, ST3500416SS
Constellation ES	SATA, SAS	500, 1TB, 2TB	HDD	No	ST2000NM0021, ST1000NM0021, ST500NM0021, ST32000445SS, ST31000425SS, ST3500415SS, ST2000NM0031, ST1000NM0031, ST500NM0031
Constellation	SAS	500	HDD	Yes <sup>1</sup>	ST9500432SS
Constellation	SAS	500	HDD	No	ST9500431SS
Cheetah 15K.7	SAS	300, 450, 600	HDD	Yes <sup>1</sup>	ST3600857SS, ST3450657SS, ST3300457SS
Cheetah 15K.7	SAS	300, 450, 600	HDD	No	ST3600957SS, ST3450757SS, ST3300557SS
Savvio 10K.5	SAS	300, 450, 600, 900	HDD	In Process <sup>2</sup>	ST9900605SS, ST9600005SS, ST9450205SS, ST9300405SS
Savvio 10K.5	SAS	300, 450, 600, 900	HDD	No	ST9900705SS, ST9600105SS, ST9450305SS, ST9300505SS
Savvio 10K.4	SAS	450, 600	HDD	Yes <sup>1</sup>	ST9600004SS, ST9450204SS
Savvio 10K.4	SAS	450, 600	HDD	No	ST9600104SS, ST9450304SS
Savvio 15K.3	SAS	146, 300	HDD	In Process <sup>2</sup>	ST9300453SS, ST9146653SS
Savvio 15K.3	SAS	146, 300	HDD	No	ST9300553SS, ST9146753SS
Savvio 15K.2	SAS	73, 146	HDD	Yes <sup>1</sup>	ST9146652SS, ST973252SS
Savvio 15K.2	SAS	73, 146	HDD	No	ST9146752SS, ST973352SS
Savvio 10K.3	SAS	146, 300	HDD	Yes <sup>1</sup>	ST9300403SS, ST9146603SS
Savvio 10K.3	SAS	146, 300	HDD	No	ST9300503SS, ST9146703SS
Pulsar XT SSD	SAS	800	SSD	No	ST800FM0012
Pulsar XT.2 SSD	SAS	400	SSD	No	ST400FX0012
Toshiba Enterprise Storage Devices Supporting TCG Enterprise					
Family	Conn.	Size *	Type	FIPS	Model Numbers
MK01GRRR Series	SAS	147 / 300	HDD	No	MK1401GRRR, MK3001GRRR

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## December, 2011

TCG Enterprise Storage Controller Cards		
LSI Enterprise Storage Controller Cards Supporting TCG Enterprise		
Family	Conn.	Model Numbers
MegaRAID	SATA, SAS	9260, 9280

## OEM Availability for Opal

Computers with Available (optional) TCG Opal Storage Device		
Dell Computers with Optional TCG Opal Storage Device		
Family	Type	Model Numbers
Latitude	Laptop	E5420, E5520, E6220, E6320, E6420, E6420 ATG, E6520
Optiplex	Desktop	XE, 780, 790, 990
HP Computers with Optional TCG Opal Storage Device		
Family	Type	Model Numbers
EliteBook	Laptop	8440w, 8460w, 8560w, 8740w, 8760w
Elite	Desktop	8100, 8200
Lenovo Computers with Optional TCG Opal Storage Device		
Family	Type	Model Numbers
ThinkPad	Laptop	T420, T520, X1, X220, and W520

## PC OEM Availability for Enterprise

Storage devices supporting TCG Enterprise may be available as an option from some OEMs. Refer to your OEM purchasing representative for availability.

## Storage Industry Support for TCG Storage Devices

Opal is supported by a range of storage industry leaders including (but not limited to) Marvell, Sandforce, and ULINK.

Marvell currently offers a selection of FIPS validated and FIPS pre-validated ASIC storage controllers for SSDs and HDDs.

Site: <http://www.marvell.com>

Sandforce also offers storage controllers supporting TCG Opal.

Site: <http://www.sandforce.com/index.php?id=177&parentId=2>

ULINK provides a software test tool for development and qualification testing.

Site: [http://www.ulinktech.com/product\\_tcg.asp](http://www.ulinktech.com/product_tcg.asp)

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## Storage Device Manufacturer Datasheets

Hitachi: <http://www.hitachigst.com/tech/techlib.nsf/pages/main>

Micron: <http://www.micron.com/get-document/?documentId=7031>

Samsung:

[http://www.samsung.com/global/business/semiconductor/products/SSD/Products\\_Client\\_SSD.html](http://www.samsung.com/global/business/semiconductor/products/SSD/Products_Client_SSD.html)

Seagate datasheets: <http://www.seagate.com/www/en-us/products/self-encrypting-drives/>

Toshiba datasheets: <http://storage.toshiba.com/main.aspx?Path=StorageSolutions/SpecialtyProducts/>

## OEM Links

Dell: <http://www.dell.com>

HP: <http://www.hp.com>

Lenovo: <http://www.lenovo.com>

## Enterprise Storage Systems

IBM: <http://www.ibm.com>

LSI: <http://www.lsi.com>

## Footnotes

<sup>1</sup> FIPS refers to FIPS 140. NIST maintains a list of commercially available products that have been FIPS 140-2 validated: <http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401vend.htm>.

Seagate certificates: 1299, 1451

<sup>2</sup>The status of FIPS validations in process can be found here:

<http://csrc.nist.gov/groups/STM/cmvp/inprocess.html>



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