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TOSHIBA INTRODUCES HARD DISK DRIVES ENGINEERED FOR RUGGED OPERATING ENVIRONMENTS

2.5-inch Hard Disk Drives Deliver Reliable Data Storage for 24/7 Operations in the Toughest Environments Including Ruggedized PCs and Industrial Equipment

IRVINE, Calif., November 15, 2010 – Toshiba Storage Device Division (SDD), the pioneer in small form factor hard disk drives (HDDs), today announced two new 2.5-inch HDD models designed for rugged 24-hour continuous operation in computing, industrial, and other extreme environments. The new models – the 100GB¹ SATA interface MK1060GSCX and the 80GB¹ PATA interface MK8050GACY – offer exceptional reliability and performance across wide temperature, altitude, and vibration ranges, making them excellent choices for use in industrial equipment such as ATMs, digital surveillance, factory automation, and ruggedized PCs.

Designed for extended periods of operation, the MK1060GSCX and MK8050GACY feature a "case temperature" range of -15 to +70 degrees Celsius² – the widest temperature range for 24/7* power-on operation in the HDD market. Both drives also have an expanded operating altitude range and offer better resistance to vibration when compared to standard HDD models.

"The reliability and performance of today's hard disk drives continue to expand the applications for digital storage technologies beyond traditional markets," said Scott Wright, Product Manager, Toshiba Storage Device Division. "These new models provide both the extended operating range for commercial applications as well as a longer model production window to better fit commercial design and business cycles."

The two new models build upon Toshiba's long-standing design expertise in automotive-grade HDD technology, a market in which Toshiba has held 75 percent market share since 2003. In addition, as part of Toshiba's commitment to the environment, the MK1060GSCX is halogen free and both drives are compliant with the European Union's Directive on the Restriction of the

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Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

The MK1060GSCX and MK8050GACY will begin volume production in December 2010. For more information on Toshiba's line of industry-leading mobile and enterprise-class, small form factor hard drives, visit www.toshibastorage.com.

Product specifications:

Model number	MK1060GSCX	MK8050GACY
Maximum capacity	100GB	80GB
(formatted) ¹		
Number of platters	1	1
Number of heads	1	2
Average seek time	12msec	16msec
Interface	Serial ATA 2.6	ATA-7
Interface speed	1.5 Gb/s	100MB/s
Rotational speed	4,200 rpm	4,200 rpm
External dimensions	69.85x100.0x9.5	69.85x100.0x9.5
(WxDxH in mm)		
Weight (g)	96g (typ.)	96g (typ.)
Energy consumption	0.0080	0.010
efficiency (watt/GB)		
Classification	D	D
Temperature		
Operating	-30 – +85°C	-20 – +70°C
Non-operating	-40 – +95°C	-40 – +95°C
Altitude		
Operating	-300 – 5650m	-300 – 5500m
Non-operating	-300 – 12000m	-40 – 12000m
Vibration	29.4m/s^2 , $3G(8 - 50 \text{Hz})$	29.4m/s^2 , $3\text{G}(5-50\text{Hz})$
Operating	24.5m/s^2 , $2.5 \text{G}(50 - 200 \text{Hz})$	19.6m/s^2 , $2 \text{G} (50 - 200 \text{Hz})$
	19.6m/s², 2.0 G($200 - 500$ Hz)	9.8m/s ² , 1.0G(200 – 500 Hz)
Non-operating	49m/s^2 , $5\text{G}(10 - 500\text{Hz})$	49m/s^2 , $5 \text{G} (10 - 500 \text{Hz})$
Shock resistance:	2,940m/s ² , 300G(2.0ms, 1/2sine)	2,940m/s ² , 300G(2.0ms, 1/2sine)
Operating	980m/s², 100G(11ms, 1/2sine)	980m/s ² , 100G(11ms, 1/2sine)
Non-operating	7,840m/s ² , 800G(1.0ms, 1/2sine)	7,840m/s ² , 800G(1.0ms, 1/2sine)
24x7 operation	Yes ²	Yes ²

About Toshiba Storage

Toshiba is a one-of-a-kind global storage company, offering hard disk drives (HDDs), optical disk drives (ODDs), solid state drives (SSDs) and NAND flash memories – technologies that drive a wide range of consumer electronics, computer and automotive applications, as well as enterprise solutions for the global marketplace. Toshiba leads in the development, design and manufacture of mobile, retail and enterprise hard disk drives. In North America, Toshiba's Storage Device Division markets high-quality storage peripherals to original equipment manufacturers, original design manufacturers, value-added resellers, value-added dealers, systems integrators, distributors and retailers worldwide. Inherent in the Toshiba storage family are the high-quality engineering and manufacturing

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capabilities that have established Toshiba products as innovation leaders worldwide. For more information, visit www.toshibastorage.com.

About Toshiba America Information Systems Inc. (TAIS)

Headquartered in Irvine, Calif., TAIS is comprised of four business units: Digital Products Division, Imaging Systems Division, Storage Device Division and Telecommunication Systems Division. Together, these divisions provide mobile products and solutions, including industry-leading portable computers; televisions, TV/DVD Combination products, Blu-ray Disc and DVD products and portable devices; imaging products for the security, medical and manufacturing markets; storage products for automotive, computer and consumer electronics applications; and telephony equipment and associated applications.

TAIS provides sales, marketing and services for its wide range of products in the United States and Latin America. TAIS is an independent operating company owned by Toshiba America, Inc., a subsidiary of Toshiba Corporation. Toshiba is a world leader and innovator in pioneering high technology, a diversified manufacturer and marketer of advanced electronic and electrical products spanning information & communications systems; digital consumer products; electronic devices and components; power systems, including nuclear energy; industrial and social infrastructure systems; and home appliances. Toshiba was founded in 1875, and today operates a global network of more than 740 companies, with 204,000 employees worldwide and annual sales surpassing 6.3 trillion yen (US\$68 billion). For more information on Toshiba's leading innovations, visit the company's web site at www.toshiba.com.

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- 1. One Gigabyte (1 GB) means 10⁹ =1,000,000,000 bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1 GB = 2³⁰ = 1,073,741,824 bytes and, therefore, shows less storage capacity. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software, and operating system. Examples of the number of photos, songs, movies, and any other files that can be stored on a hard drive are provided for illustrative purposes only. Your results will vary based on file size and format, settings, features, operating system, software and other factors.
- 2. Operational temperature range of -15 to 70°C intended for low-duty applications. Contact your Toshiba representative for additional details about product specifications.
- * See product specification for details.