Intel® Solid-State Drive 530 Series
Non-Volatile Memory Storage Solutions

PRODUCT BRIEF

Lose the Lag. Lose the Limits.

The Next Generation of Consumer Computing

Utilizing its new small form factor, higher performance, and low idle power, the 530 Series is the next evolution of Intel® Solid-State Drives.

Intel Evolving Storage Technology

Intel® Solid-State Drives (Intel® SSDs) continue to evolve with the introduction of the Intel® SSD 530 Series.

Aimed at a wide array of consumer platforms, including Ultrabook™, traditional desktops and laptops, as well as the latest tablets and small form factor mobile systems, Intel® Solid-State Drive 530 Series offers high quality, reliable performance and low power consumption for space conscious computing using M.2, mSATA and 2.5" (7mm) form factors.

New Small Form Factor Introduction

The Intel SSD 530 Series product paves the way for thin and light computing devices by introducing the latest M.2 form factor.

Intel's SSD M.2 form factor shrinks the total storage area significantly versus traditional 2.5" form factor storage devices. Along with the M.2 form factor, Intel SSD 530 Series is also available in mSATA and traditional 2.5" form factors enabling the technology in a variety of solutions.

The Intel SSD 530 series product line comes in a wide range of capacities from 80GB to 480GB.

Latest NAND Technology

Intel® SSD 530 Series uses the latest 20nm Intel NAND technology.

You also benefit from the high quality and reliability you've come to expect from Intel. In addition to the power, space savings, reliability, and peace of mind, the Intel SSD 530 Series is supported with Intel's outstanding warranty and customer support.

A New Generation of Power Efficient Performance

With the Intel SSD 530 Series, your computer will blaze through the most demanding consumer client applications and easily handle intense multi-tasking.

The Intel SSD 530 Series accelerates platform performance with sequential read and write performance up to 540 and 490 megabytes per second (MB/s) Random read and write input/output operations per second (IOPs) reach up to 41K and 80K respectively.

In addition to strong performance gains, Intel SSD 530 Series provides extended battery life through new lower power modes. Idle power consumption of Intel SSD 530 Series is reduced by >90% in comparison to a typical hard disc drive reducing power from watts to milliwatts. When the Intel SSD 530 Series is coupled with a 4th generation Intel® Core based platform, advanced power mode settings reduce power dissipation, another order of magnitude – from milliwatts to microwatts.

Product Spotlight

- High performance for demanding applications
- High quality and reliability
- Low power consumption
- Space-conscious form factors
- Latest 20nm Intel® NAND technology
- Wide range of capacities

Intel® Solid-State Drive 530 Series

Technical Specifications[1]						
Model Name	Intel® Solid-State Drive 530 Series					
Capacity (GB)[2]	**M.2–** 80, 120, 180, 240, 360 **mSATA –** 80, 120, 180, 240 **2.5" –** 80, 120, 180, 240, 360, 480					
NAND Flash Memory	20nm Intel® NAND Flash Memory Multi-Level Cell (MLC)					
Bandwidth[2, 3]	**Form Factor** Capacity Point	Sequential Read (up to)	Sequential Write (up to)	Random Read (up to)	Random Write (up to)	
	M.2 80GB, 120GB, 180GB, 240GB, 360GB	540 MB/s	490 MB/s	41K IOPs	80K IOPs	
	mSATA 80GB, 120GB, 180GB, 240GB	540 MB/s	490 MB/s	41K IOPs	80K IOPs	
	2.5" 80GB, 120GB, 180GB, 240GB, 360GB, 480GB	540 MB/s	490 MB/s	41K IOPs	80K IOPs	
Interface	SATA 6Gb/s, compatible with SATA 3Gb/s					
Form Factor, Height and Weight	**Form Factor**	**Height/Weight**				
	M.2 (80mm)	Up to 3.7mm / up to 10 grams				
	mSATA	Up to 3.8mm / up to 10 grams				
	2.5"	Up to 7mm / up to 78 grams				
Life Expectancy	1.2 million hours Mean Time Between Failures (MTBF)					
Power Consumption M.2	Active: 140 mW Typical[5]	Idle: 55 mW Typical[6]	DevSleep: 200µW			
Power Consumption mSATA	Active: 140 mW Typical[5]	Idle: 55 mW Typical[6]	DevSleep: 200µW			
Power Consumption 2.5"	Active: 195 mW Typical[5]	Idle: 125 mW Typical[6]	DevSleep: 5mW			
Operating Temperature	0° C to 70° C					
RoHS Compliance	Meets the requirements of European Union (EU) RoHS Compliance Directives					
Software Tools	Intel® Solid-State Drive Toolbox with Intel® SSD Optimizer at www.intel.com/go/ssdtoolbox Intel® Data Migration Software at www.intel.com/go/ssdinstallation					

[1] Based on the Intel® Solid-State Drive 530 Series Product Specification.

[2] All capacities and form factors will not be available at launch.

[3] Performance varies by capacity and is measured using Iometer* with Queue Depth 32.

[4] Performance measured using Iometer with Queue Depth 32. Measurements are performed on 8GB of logical block address (LBA) range on a full SSD.

[5] Active power measured during execution of MobileMark* 2007 Workload with SATA Link Power Management (LPM) enabled.

[6] Idle power defined as SSD at idle with SATA Link Power Management (LPM) enabled.

Solid-State Computing Starts with Intel Inside® For more information, visit **www.intel.com/ssd**