

# POWERING AMAZING EXPERIENCES IN POWERFUL LAPTOPS

MOBILE INTEL® 100 SERIES CHIPSETS HM170 AND QM170



The Mobile Intel® 100 Series Chipset Family line brings in fast I/O capabilities with greater flexibility and a host of other power packed features to compliment the performance benefits of 6th generation Intel® Core™ mobile processor. The 100 series PCH introduces a number of new technologies and several feature enhancements that offer visibly improved performance.



## NEW SENSOR- ENHANCED CAPABILITIES

With 100 series, Intel brings Gen 3 PCIe support for the first time to a PCH. Gen 3 PCIe offers higher data transfer rates of 8 GT/s compared with PCIe Gen 2 speeds of 5 GT/s. In addition, the 100 series PCH offers twice the number of PCIe lanes compared to the 9 series PCH. The increased number of ports at a higher data transfer speeds enable snappier systems. In addition, the latest Intel® Rapid Storage Technology 14 with 100 series PCH now supports NVMe PCIe x4 Solid State Drives. The 100 series PCH also offer Intel® Integrated Sensor Solution dedicated to managing the inertial and environmental sensors, performing sensor fusion and delivering advanced algorithms that add innovative new sensor-enhanced capabilities. Intel has also released the Context Sensing SDK so that third party software vendors can develop exciting sensor-enhanced applications, from gaming to productivity to wellness apps, which benefit from the contextual and sensor information provided by the device.

Finally, the 100 series PCH offers a host of incremental features compared to the 9 series PCH such as additional USB 3.0 ports, improved audio capabilities, faster data transfer between the processor and the PCH with DMI 3.0 to name a few. In addition, it offers the same great security features as prior generations while providing enhancements such as Platform Intel® Platform Trust Technology 3.0.



## MOBILE INTEL® 100 SERIES HM170 & QM170 CHIPSETS FEATURES AT A GLANCE

FEATURES	BENEFITS
Support for Mobile 6th generation Intel® Core™ processors	Support for 6th generation Intel® Core™ mobile processors with great gen over gen power and performance improvement.
Intel® Rapid Storage Technology	Offers excellent levels of performance, responsiveness, and expandability. Take advantage of the enhanced performance and low power consumption available with Intel® RST with one or more SATA or PCIe storage drives. With additional SATA drives, Intel® RST provides quick access to digital photo, video, and data files with RAID 0, 5, and 10, and excellent data protection against a storage disk drive failure with RAID 1, 5, and 10. Dynamic Storage Accelerator unleashes the maximum performance of Solid State Drives (SSD) when multitasking. <sup>1</sup>
Intel® Identity Protection Technology <sup>2</sup>	<p>Help protect your one-time-password (OTP) credentials and PKI certificates<sup>3</sup> and add a layer of encrypted second factor authentication for online transactions.</p> <p>Log into your system or make secure credit card purchases on your system using near-field communication (NFC) enabled cards.</p>
Intel® High Definition Audio <sup>4</sup>	Integrated audio support enables premium digital surround sound and delivers advanced features such as multiple audio streams and jack re-tasking.
Universal Serial Bus 3.0	Integrated USB 3.0 support, provides excellent performance with a design data rate of up to 5 gigabits per second (Gbps) with up to 8 USB 3.0 ports. <sup>6</sup>
Universal Serial Bus 2.0	Hi-Speed USB 2.0 support with a design data rate of up to 480 megabits per second (Mbps) with up to 12 USB 2.0 ports.
Serial ATA (SATA) 6 Gb/s	Next-generation high-speed storage interface supporting up to 6 Gb/s transfer rates for optimal data access with up to 4 SATA 6Gb/s ports <sup>6</sup> . The PCH SATA controller also supports SATA 3 Gb/s and 1.5 Gb/s transfer capabilities.
eSATA	SATA interface designed for use with external SATA devices. Provides a link for 3 Gb/s data speeds to eliminate bottlenecks found with current external storage solutions.
SATA Port Disable	Enables individual SATA ports to be enabled or disabled as needed. This feature provides added protection of data by preventing malicious removal or insertion of data through SATA ports. Especially targeted for eSATA ports.
PCI Express* 3.0 Interface	Offers up to 8 GT/s for fast access to peripheral devices and networking with up to 16 PCI Express 3.0 ports <sup>6</sup> , configurable as x1, x2 and x4 depending on motherboard designs.
USB Port Disable	Enables individual USB ports to be enabled or disabled as needed. This feature provides added protection of data by preventing malicious removal or insertion of data through USB ports.
Intel® Integrated 10/100/1000 MAC	Support for the Intel® I219LM and Intel® I219V Gigabit Network Connection.
Green Technology	Manufactured with lead-free and halogen-free component packages

## MOBILE INTEL® 100 SERIES HM170 & QM170 CHIPSETS SPECIFICATIONS AT A GLANCE

CHIPSET NAME	MOBILE INTEL® HM170 & QM170 CHIPSETS
Processor Support	6th Generation Intel® Core™ Mobile Processor i7, i5, and i3 (35W, 45W)
Category	Storage & Enhanced
Halogen Free	Yes
USB Ports	Up to 8 USB 3.0† and 14 USB 2.0
PCIe Gen3 Ports	Up to 16†
SATA Ports	Up to 4 SATA Gen 3†
Intel® AMT 11.01	on QM170 only
Intel® Small Business Advantage	Yes
Intel® Performance Tuning Utility	Yes
Intel® Wireless Display	Yes <sup>2</sup> , WiDi 6.0
Intel® Rapid Storage Technology	Yes, RST 14
RAID Support	Yes
Intel® Smart Response Technology	Yes
Intel® High Definition Audio	Yes

† Enabled with Flexible I/O

1 Available only with processors supporting Intel® vPro™ Technology

2 Available only with Intel® Core™ Processor Family



Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at [intel.com](http://intel.com).

Intel, the Intel logo, Core are trademarks of Intel Corporation in the U.S. and/or other countries.

\*Other names and brands may be claimed as the property of others.

See Trademarks on [intel.com](http://intel.com) for full list of Intel trademarks or the Trademarks & Brands Names Database.

© 2015 Intel Corporation. All Rights Reserved.

1 Requires a select Intel® Core™ processor, an enabled chipset, Intel® Rapid Storage Technology software, and a properly configured storage device.

2 No system can provide absolute security under all conditions. Requires an Intel® Identity Protection Technology-enabled system, including a 2nd gen or higher Intel® Core™ processor enabled chipset, firmware and software, and participating website. Consult your system manufacturer. Intel assumes no liability for lost or stolen data and/or systems or any resulting damages. For more information, visit <http://ipt.intel.com/>

3 Requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results dependent upon hardware, setup and configuration. For more information, visit Intel® Active Management Technology.

4 Requires an Intel® HD Audio enabled system. Consult your PC manufacturer for more information. Sound quality will depend on equipment and actual implementation. For more information about Intel HD Audio, refer to Intel® High Definition Audio.

5 Intel® Smart Connect Technology requires an Intel® processor, Intel® software and BIOS update, and Internet connectivity. Solid-state memory or drive equivalent may be required. Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

6 Actual number of ports available may vary by system configuration. Please consult your system vendor for more information.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors.

Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more complete information visit <http://www.intel.com/performance>.

