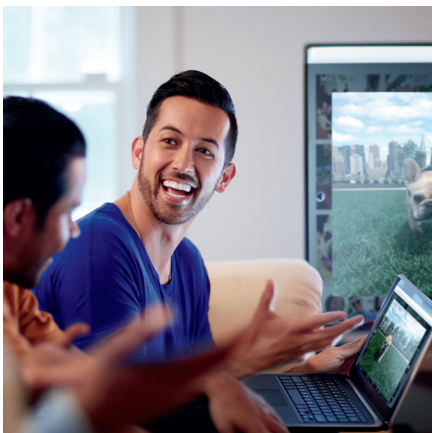


POWERING AMAZING EXPERIENCES IN POWERFUL LAPTOPS

MOBILE INTEL® CM238 CHIPSET



The mobile Intel® CM238 chipset line brings in fast I/O capabilities with great flexibility and a host of other power packed features to compliment the performance benefits of mobile 7th Gen Intel® Core™ processor and the Intel® Xeon® processor E3-1500M v6 family. The Intel® CM238 chipset introduces a number of new technologies and several feature enhancements that offer visibly amazing performance.



EXCITING SENSOR- ENHANCED APPLICATIONS

With Intel® CM238 chipset, 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 chipset offers more than 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 15 with Intel® CM238 chipset supports NVMe PCIe x4 Solid State Drives. The chipset 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 Intel® CM238 chipset offers a host of incremental features compared to the 9 series PCH such as additional USB 3.0 ports, and faster data transfer between the processor and the PCH with DMI 3.0. 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® CM238 CHIPSET FEATURES AT A GLANCE

FEATURES	BENEFITS
Support for Mobile 6 th & 7 th Gen Intel® Core™ Processors and Intel® Xeon® Processor E3-1500M v5 & v6	Support for 6 th & 7 th Gen Intel® Core™ processors and Intel® Xeon® processor E3-1500M v5 & v6 with great power and performance.
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. ¹
Intel® Identity Protection Technology ²	Help protect your one-time-password (OTP) credentials and PKI certificates ³ and add a layer of encrypted second factor authentication for online transactions.
Intel® High Definition Audio ⁴	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 a design data rate of up to 5 gigabits per second (Gbps) with up to 10 USB 3.0 ports. ⁵
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 14 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 8 SATA 6Gb/s ports ⁶ . 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 helping to prevent 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 20 PCI Express 3.0 lanes ⁶ , 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® CM238 CHIPSET SPECIFICATIONS AT A GLANCE

CHIPSET NAME MOBILE INTEL® CM238 CHIPSET

Processor Support	7 th Gen Intel® Core™ i7, i5, and i3 processors (35W, 45W) Intel® Xeon® processor E3-1500M v6 family (45W) 6 th Gen Intel® Core™ i7, i5, and i3 processors (35W, 45W) Intel® Xeon® processor E3-1500M v5 family (45W)
Category	Mobile Workstation
Max TDP	3.67W
Halogen Free	Yes ¹
USB Ports	Up to 10 USB 3.0 [†] and 14 USB 2.0
PCIe Gen3 Lanes	Up to 20 [†]
SATA Ports	Up to 8 SATA Gen 3 [†]
Intel® AMT 11.6 ²	Yes
Intel® Performance Tuning Utility	Yes
Intel® Rapid Storage Technology	Yes, RST 15
RAID Support	Yes
Intel® Smart Response Technology	Yes
Intel® High Definition Audio	Yes

† Enabled with Flexible I/O

1 Applies only to halogenated flame retardants and PVC in components. Halogens are below 900 PPM bromine and 900 PPM chlorine.

2 Available only with processors supporting Intel® vPro™ Technology.

1 Requires a select Intel® Core™ or Intel® Xeon™ 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™ or Intel® Xeon™ 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 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/content/www/us/en/chipsets/performance-chipsets/cm238-chipset-brief.html>

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