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Key Features

Intel Chief River Platform
• Intel® Ivy Bridge processors – up to 3920XM
• Mobile Intel® HM77 Express chipset

32GB RAM Support
• 4 RAM slots – dual channel DDR3 1333/1600/1866MHz
• 2 DIMMS per channel with quad core processors only

Backlit keyboard
• Controllable via software or hotkeys
• Seven selectable colours
• Multiple lighting patterns - e.g. wave, breathing, flashing
Key Technology – Ivy Bridge

Ivy Bridge

• 3\textsuperscript{rd} generation of Intel\textsuperscript{®} Core processors
• 22nm evolution of Sandy Bridge micro-architecture
• \(~20\%\) performance increase over Sandy Bridge

Generation indicator – based on model #

<table>
<thead>
<tr>
<th>1\textsuperscript{st} gen</th>
<th>2\textsuperscript{nd} gen</th>
<th>3\textsuperscript{rd} gen</th>
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<td>i7 xxx</td>
<td>i7 2xxx</td>
<td>i7 3xxx</td>
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Key Technology - Chipset

Intel® HM77 Express Chipset
• Ivy Bridge processor support
• Native USB 3.0 support
• Two SATA 6Gbp/s ports (HDD 0,1)
• mSATA support (SATA 3Gbp/s)

Intel® Rapid Start Technology
• Resume system state in 5-6 seconds from hibernate
• Remembers computer state with zero power
• Requires SSD
Key Technology - VGA

Dual VGA ready

• Two MXM 3.0b slots
• Full SLI or CrossfireX support
• Support for the newest video cards
  – NVIDIA GTX 680M 4GB
  – AMD HD 7970M 2GB
  – NVIDIA Quadro K5000M 4GB
  – NVIDIA Quadro K4000M 4GB
  – NVIDIA Quadro K3000M 2GB

NO switchable graphics – Intel HD 4000 is NOT available
Key Technology - mSATA

mSATA

- Small footprint SSD
- Factory option – Crucial M4 or Intel 310/313 series
- Ready for Intel® Rapid Start – fast system resume
- Ready for Intel® Smart Response – SSD caching
Key Technology - Sound

Creative Sound Blaster X-Fi onboard
• Superior sound processing
• External 7.1CH support
• S/PDIF output

Onkyo Speakers
• Premium sound quality
• 2 x 2W speakers + subwoofer
Key Technology - TPM

**Trusted Platform Module 1.2**

- Hardware that securely stores passwords & keys
- Each TPM has a unique & secret RSA key
- Can be used to verify that system accessing is the ‘expected’ system
- TPM = more secure than software – hack resistant

TPMs are used in many fields including:

- Military
- Finance
- R&D
- Telecom
Design Principles

• Optimized for extreme VGA performance

• Long lifespan

• Fully upgradeable

• Heavy duty – designed for occasional abuse
Product Roles

High end gaming platform
• Support for dual VGA cards (up to 8GB GDDR5)
• Scalable to meet current and next-gen game needs
• Capable of reaching max settings on current games

OpenGL workstation powerhouse
• Support for latest Quadro cards
• Ideal for engineers, 3D modelers, photo & video pros
Ports List

Left to right

Kensington lock slot
Gigabit LAN
SDXC/MMC/MS card reader
S/PDIF out
Line-in
Microphone in
Headphones/Speakers
------------------------
Optical drive
USB 2.0/eSATA Combo
USB 3.0  x3
------------------------
HDMI 1.4
DisplayPort 1.2
AC Power port
USB 3.0