

# Amplicon Core i5/i7 Ventrix and Impact-R new Systems



# What's New?

- Intel Processor Core i5 / i7 equipped upgrades to Ventrrix, Impact-R from 2U to 4U.

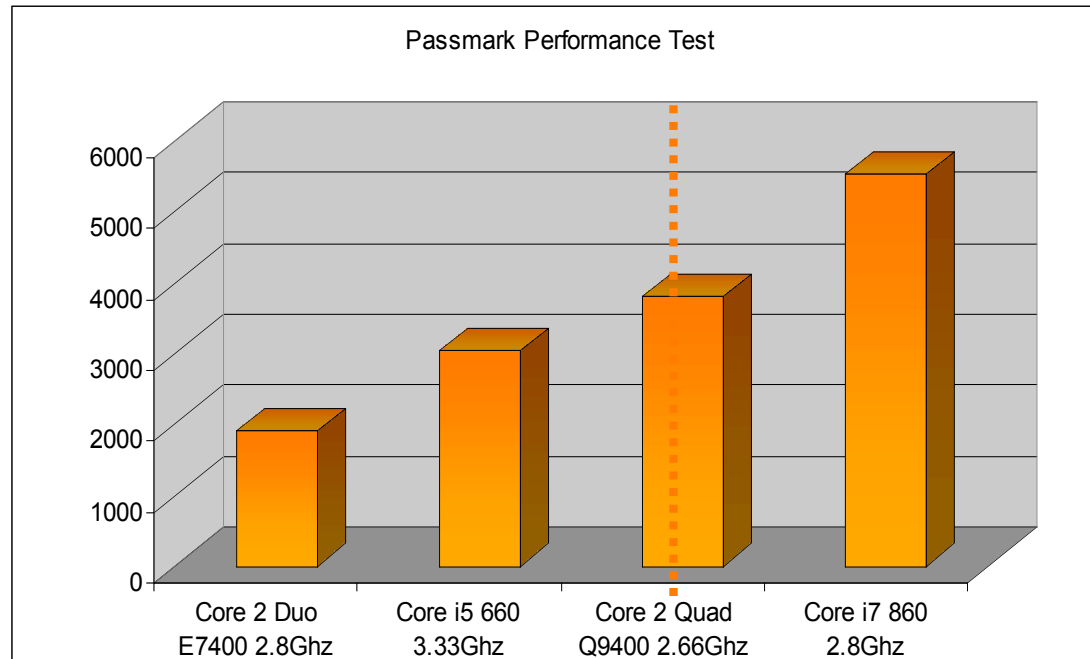


Range	i5 CPU DUAL CORE 3.33Ghz (xx20)	i7 CPU QUAD CORE 2.8Ghz (xx21)
Impact R 4U	4020	4021
Impact R 3U	3020	3021
Impact R 2U	2020	2021
Ventrrix 4U	4020 E5.7	4021 E5.7
Ventrrix 4U	4020 E2.10	4021 E2.10
Ventrrix 2U	2020	2021

# Why Core i5 / i7?

- Significant Increases in processor Performance when compared to previous generation of Ventrix, Impact-R.
- Increased memory performance with DDR3 Integrated memory controller.
- Scalable performance with Hyper-Threading, TurboBoost.
- Remote System Management built in (iAMT)
- Trusted Platform Module (iTPM) for Ventrix models.
- Intel RAID available on all models.
- Display port available in Impact-R models.

# Increases in processing performance



## Dual Core (xx20)

Dual Core (E7400 to i5 660)  
has a performance gain of **60%**

## Quad Core (xx21)

Quad Core (Q9400 to i7 860)  
has a performance gain of **45%**





# Integrated Memory Controller / DDR 3 RAM

- The new systems use DDR 3 - 1333 Memory, in place of DDR 2 667 used in Core 2 systems.
- Integrated Memory controller within the CPU provides a more direct link to memory, reducing latency, and increasing available bandwidth.
- Both features attribute to the system's performance, and will be of particular benefit for customers with applications with intensive memory usage.

# Scalable Performance – Single Thread

- **Intel Turboboost**, effectively increases the clock speed of 1 or more cores, by shutting down unused cores.
- Maximum increase is achieved when a single core is operating.
- Turboboost is therefore most effective for applications which don't make use of all the available Cores, often this case with many older applications.

<b>(xx20) i5 Systems</b> 	Dual Core Standard Speed 3.33Ghz	Max. Turboboosted clock speed 3.6Ghz
<b>(xx21) i7 Systems</b> 	Quad Core Standard Speed 2.8Ghz	Max. Turboboosted Clock speed 3.46Ghz

# Scalable Performance – Multiple Thread

- **Intel Hyperthreading**, doubles the number of threads each processor can run simultaneously.
- The previous generation of Core 2 Duo / Quad processors don't have this feature.
- Hyperthreading allows more fluid multitasking and benefits applications where several independent programs are run simultaneously, or frequently switched.

(xx20) i5 Systems	Two Cores	Four Threads
(xx21) i7 Systems	Four Cores	Eight Threads

# Remote Management -iAMT

- **Intel Active Management Technology** allows remote control of a system over a local area network. This includes;-
- Being able to turn the PC on and off, and reset it and force it to boot off an alternative device, such as a backup disk.
- The management console also reports the inventory of the PC.
- Full system remote control with a RealVNC Plus viewer (including bios level support).
- Remote Image mounting, allowing a local ISO to be booted onto the remote machine. (Real VNC Plus)
- **Real VNC Plus is only supported on Core i5 (xx21) systems.**



## iTPM (Ventrrix Only)

- **Intel Trusted Platform Module (iTPM)** allows the system to produce an encryption key, used in many applications, such as full disk encryption.

## Display Port (Impact-R Only)

- **Display port** is a digital video output, and is higher bandwidth an alternative to HDMI and DVI. The bandwidth will allow future displays with high refresh rates, and colour depths.
- Devices using display port are likely to be cheaper those with HDMI as its royalty free.

