

BUYING A Notebook or Tablet?

READ THIS FIRST !



BUYER BEWARE: There are 2 different Portable Computer designs for 2 different uses....

Home (Retail) Grade and Business(Commercial) Grade

Home Grade portables are designed to provide the most power for the lowest price whereas Business Grade focuses on power combined with strength and reliability, reducing ongoing costs, limiting repair downtime and providing better data protection and security. Commercial Grade portables are built stronger, minimise heat/dust production, have enhanced security/interface options and usually have much longer battery replacement life. Business Grade is highly recommended for Schools, Universities and Businesses. Retail Grade portables are designed for occasional mobility, Commercial Grade are for regular portability with a focus on reducing need for repair. Commercial (Business) Grade portables have a variety of design improvements over Retail Grade such as HDD drop protection, water resistant keyboards, extended temperature range, toughened hinges, crack resistance, impact resistance, scratch resistance, Security hardware and software, dust protection along with advanced features such as Smartcard, Mil Spec, 3/4G, Thunderbolt, Replicator/Docking support and replaceable drive bays. Thus if you are a student or mobile professional, Commercial grade is the best option as you are more assured of long life with less issues. A recent study showed Home Grade notebooks used in a Business Grade environment can have failure rates 50% to 100% higher than Business Grade Notebooks per year. If you ever use a portable outside the Home, Business Grade is the best long term recommendation.

Notebook vs Tablet: Touch screen based Tablet computers come in many shapes and sizes along with different performance characteristics. Windows 10 allows a Tablet computer to provide an ease of use touch screen interface combined with the multitasking, multi-window compatibility, power and security of the regular Windows desktop. A Notebook/Laptop computer has the keyboard attached to the screen and is more sturdy. Some clever designs have the keyboard able to rotate around the screen, turning it into a tablet computer.

Intel Mobile Core i3/i5/i7 series CPU: A clever, power conserving design that runs at slower clock speeds whilst providing high speed and low heat. The best CPU for portable use. Many mobile Intel CPU designs had 2 CPU cores for enhanced computational/multitasking performance but now the 8th Generation Intel Mobile Core i5/i7 have 4 CPU cores enabling extreme performance benefits particularly in computation intensive applications such as modelling, data analysis, gaming and video editing. If you are performance focused, insist on a quad core 8th generation Core i5/i7 CPU.

Intel Mobile Atom/Celeron/Pentium series CPU: These are noticeably slower CPU's and are approximately a third of the speed of an base Intel Core i Processor. Not suitable for much more than basic Word-processing, Email and Website viewing.

Which is best ?: The Intel Core i series are a marvel of processor design, combining multiple CPU cores providing excellent multitasking performance and is the best choice for notebook use. Choose the Core i7 for the highest performance followed by the Core i5 and Core i3 depending on budget and computational needs. Insist on a quad core CPU if you are using computational intense applications or video editing software. Choose the dual core i3 or the faster i5 for best overall performance and battery life. The Intel Celeron, Pentium and Atom are only recommended for basic computing tasks but are used mainly in low end tablet computers. Avoid these in regular notebooks.

TURBO BOOST ? This is a clever way of dynamically speeding up a CPU core when other cores are unused. Only with Intel Core i5 and Core i7.

BUYER BEWARE: The clock speed of the microprocessor (CPU) does not necessarily translate to the performance level of the computer system. Poor video design, hard disk, cache design/size, bus and memory sub-systems can reduce overall performance as much as 50%. Do not fall for the concept that the higher the clock speed, the faster the computer. Also note the faster the speed, the shorter the battery life.

A new deception is to provide a high speed CPU with a low speed graphics chip and/or hard disk, eliminating any overall speed advantages.

Don't be caught with less than you paid for. Check with a supplier that can do benchmark comparisons. – Now more important than ever!

BUYER BEWARE - BATTERY LIFE: Many portables provide as little as half the battery life that their manufacturers state. Ask for benchmark tests.

HD vs FHD vs UHD vs 4K: Instead of the screen resolution being WSXGA 1366*768, they have been improved to FHD 1920x1080, UHD 2880x1440 and 4K 3840x2160. The higher resolution provides more displayable information than the regular XGA screens. This means more of your spreadsheet, documents and graphics will be displayed on screen. Be aware that the increase in number of pixels results in smaller image size. Make sure your graphics adapter has 512MB discrete video memory or better. 3D graphic accelerators vary in greatly in speed The correct choice of graphics card is critical for 3D modelling work and games – mobile graphic cards cannot be upgraded –choose the fastest graphics accelerator you can afford for future software support and performance but be aware the faster the graphics the lower the battery life. Always see if there are benchmark comparisons as this is a major area of confusion and disappointment.

DVD Burner vs Bluray : A DVD drive reads and creates CD and DVD disks. These are available in capacities up to 8.5GB. The new Bluray drives are backward compatible with DVD and can create 50GB disks. These larger capacities are great for backups and high definition movies.

Hard disk drive/SSD speed : Most notebook computers use a 5400rpm speed. 7200rpm drives can be 50% faster. SSD drives have no moving parts and are up to 30x faster, however they are more expensive but highly recommended. If you want to noticeably speed up your computer – use SSD.

Bluetooth: A radio based interface standard for communicating with devices in close proximity - within 5 meters. Useful for mobile phone connection.

Wifi Wireless a/b/g/n AC: A new radio standard for connection computer networks without cables – high speed - superior to Bluetooth – 300M range The new WiFi AC standard allows for much higher speeds and more users than any of the previous standards – Highly Recommended

USB 3, 3.1 and Thunderbolt 3: These are new serial based high speed interfaces – USB 3.1 has a new connector and is the future standard for most computing devices. USB 3.1 can be twice as fast as USB 3.0. Thunderbolt 3 can be 4x faster than USB 3.1 and uses the same connector as USB 3.1

Warranty: The standard Warranty period is 1 year. Notebooks have higher failure rates than desktops due to their portability and warranty extensions can protect your investment. The higher the warranty period the better, as notebooks can be very expensive to repair.

Connection to a Domain: Vista Home, Windows 7 Home, Windows 8 and Windows 10 Home will not work with most domain server networks – only Vista Business, Vista Ultimate, Windows 7 Pro, Windows 7 Ultimate, Windows 8 Pro and Windows 10 Pro are suitable.

Insist on Support: Portable computers contain leading edge technologies. Check that your supplier can provide knowledgeable and experienced advice as there are usually more idiosyncrasies with notebook designs than desktops. TPM, Bluetooth, SpeedStep, USB3.1/Thunderbolt 3, WIDI, Touchscreens, Blu-ray, WiFi a/b/g/n/ac, Cardbus, ePCI, eSATA, HDMI, Displayport, Firewire, 3D accelerators, CPU versions, SSD upgrades, docking station and LCD screens require specialized knowledge and support. Suppliers that locally specialize in notebook computer sales, service and support are the best recommendation, as this can speed up repairs and support considerably as portables DO fail due to their regular mobility.

.... And remember, if you don't recognize the notebook brand – BEWARE of reliability and long term parts availability issues

Support and service is vital to the successful long term operation of a portable computer – never purchase a portable computer based on price alone