BUYING A Notebook or Tablet?
READ THIS FIRST !

BUYER BEWARE: There are 2 <u>different</u> 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 <u>occasional</u> mobility, Commercial Grade are for <u>regular</u> portability with a focus on reducing need for repair.
Commercial (Business) Grade portables have a variety of design improvements over Retail Grade such as drop protection, water resistant keyboards,
extended temperature range, toughened hinges, crack resistance, impact resistance, scratch resistance, security hardware, dust protection along with
advanced features such as Smartcard, Mil Spec, 4/5G, Thunderbolt, GPU, USB-C,Replicator/Docking support and replaceable drive bays.
Thus if you are a student or mobile professional, Commercial/Business grade is the best option as you are more assured of long life with less issues.
A detailed 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. <u>If you ever use a portable outside the Home, Business Grade is the best long term recommendation.</u>
Notebook vs Tablet: Touch screen based Tablet computers come in many shapes and sizes along with different performance characteristics.
Windows 10/11 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 sturdier.
Intel Mobile Core i3/i5/i7/i9/Ultra series CPU: A clever, power conserving design that runs at slower clock speeds whilst providing high speed and
low heat. The best overall CPU for portable use. These CPU's have multiple performance cores for enhanced computational/multitasking and now
there are CPU's with up to 22 CPU cores enabling extreme performance benefits particularly in computation intensive applications such as modelling,
data analysis, AI, gaming and video editing. If good performance is a must, insist on a Core i5/i7/i9 or Ultra CPU.
Intel Mobile Celeron/Pentium/N series CPU: These are noticeably slower CPU's and are approximately <u>a third</u> of the speed of a 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 and Ultra 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/Ultra 7 for the high performance followed by the i5/Ultra 5 and i3 depending
on budget and computational needs. Ultimate performance comes with the higher CPU core count i9/Ultra 9. The Intel N series, Celeron and Pentium
are only recommended for basic computing tasks but are used mainly in low end and slower computers. Avoid these for regular use in notebooks.
AMD Ryzen CPU ? AMD has vastly improved their designs to compete directly with Intel CPU's. They now provide excellent performance with good
battery life. Different performance depends on the different model of CPU. Insist on benchmark comparisons to confirm appropriate performance.
BUYER BEWARE: The clock speed of the microprocessor (CPU) <u>does not</u> 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 <u>the faster the speed, the shorter the battery life.</u>
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<u>.</u> Make
sure your graphics adapter has 2GB 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 if you chose the wrong graphics accelerator as they cannot be changed.
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.
SSD speed :. Most notebook computers use SSD drives with varying speeds. SSD drives are very reliable, have no moving parts and are up to 50x
faster than hard disk drives. It is always best to check the SSD drive speed with suppliers that do benchmark comparisons.
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/AX: A new radio standard for connection computer networks without cables – high speed - superiour to Bluetooth – 300M
range The new WiFi AC/AX standard allows for much higher speeds and more users than any of the previous standards **–** Highly Recommended
USB 3, C and Thunderbolt 3/4: These are new serial based high speed interfaces – USB-C has a new connector and is the future standard for most
computing devices. USB 3.2 can be twice as fast as USB 3.0. Thunderbolt 3/4 can be 4x faster than USB 3.2 and uses the same USB-C connector.
Warranty: The standard Warranty period is 1 year. Many Business Grade notebooks come with 3 year international warranties. Notebooks have
higher failure rates than desktops due to their portability and warranty extensions can protect your investment and speed your repair. 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 10/11 Home <u>will not work</u> with most domain server networks –
only Vista Business, Vista Ultimate, Windows 7 Pro, Windows 7 Ultimate, Windows 8 Pro and Windows 10/11 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, USB-C /Thunderbolt 4, WIDI,
Touchscreens, Blu-ray, WiFi a/b/g/n/ac/ax, PCIe, eSATA, HDMi, Displayport, 3D GPU 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, <u>if you don't recognize the notebook brand – BEWARE of reliability and long term parts availability issues</u>
Support and service is vital to the successful long term operation of a portable computer – <u>never purchase a portable computer based on price alone</u>