



COMPUTEX
TAIPEI

ROUND UP

FOREWORD

As the tech industry dissipates from one of the largest trade shows of the year in Taipei, we reflect upon the many releases and exciting announcements at Computex 2018. Running from June 5th to June 9th – the 5-day event gave us a glimpse of the latest technology and product releases including the latest Deep Learning solution from Supermicro® featuring NVIDIA® HGX-2. Attracting around 42,000 international visitors from 168 countries, and up by 3% from its previous year, Computex featured 6 important themes, AI, 5G, Blockchain, IoT, Innovations & Start-ups and Gaming & VR.



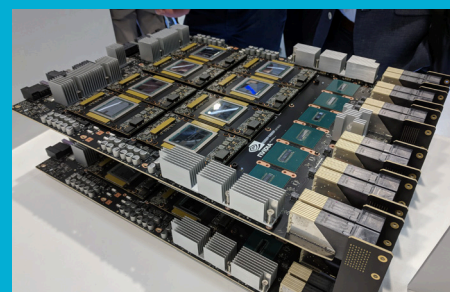
Major industry players such as Intel®, AMD®, Supermicro® and Samsung® all had strong presences on the exhibition floor despite the speculation in recent

years that the show has attempted to shift its focus away from IoT and AI to attract innovators in the gaming industry. Whilst there was certainly a stronger gaming influence than say 5 years ago, the news that dominated the headlines was still around major hardware plays.

Experts from Boston Labs were in attendance at Computex and have summarised the hot-topics below.

FEATURED TECHNOLOGIES

NVIDIA® HGX-2



Possibly the most exciting, and timely announcement was from Supermicro, as one of the launch partners for the NVIDIA HGX-2 deep learning and AI building block. Once again leading the way to market, Supermicro showcased the internal workings of this technical marvel at their booth. The feat of engineering has sixteen Volta 100 GPU's and twelve NVSwitches. It's capable of a 2 petaFLOPS of tensor operations and has a staggering 2.4TB/s of bisectional bandwidth via the NVSwitch setup. Stay tuned to the Boston Blog and Digital channels for more news on the upcoming release of Supermicro's platform based on HGX-2.

ONE FORM FACTOR TO RULER THEM ALL

With Intel and Samsung both positioning new NVMe form factors, Supermicro are remaining agnostic and are offering servers featuring both technologies.

You can see how Intel's "Ruler" compares with Samsung's smaller NF1 devices in the pictures below. Both offer extreme density and performance NVME storage, with clear advantages on both sides around cooling and density respectively.

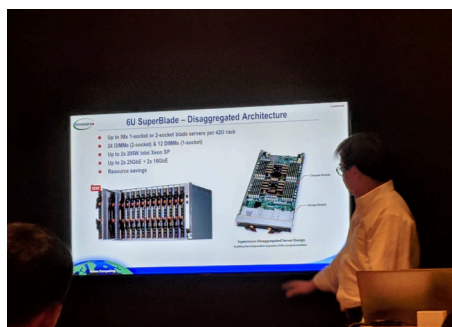


High density Ultra servers, storage bridge bay dual ported NVMe servers and JBOF's [Just a Bunch Of Flash] are available in Supermicro's range of NVMe platforms, there is something for every application, regardless of which camp you are in. It can be difficult to navigate the options available and know which is the right choice for you, fortunately Boston Labs are on hand with their expertise to steer you towards the right choice for your needs.

A BLADE OF TWO HALVES

It's been a while since the

industry talked about Blade...simply because there have been so many other exciting announcements and technology releases. Computex however brought the blade back to light with a showcase of the latest Supermicro Blade. The new Supermicro disaggregated blade separates the processor and memory portion of their blade from the storage.



This more modular approach enables customers to purchase a blade today, and when new processor, or storage elements are released, to upgrade them separately, without the need to purchase a complete new platform. A simple, but effective solution for those who regularly upgrade their hardware. It's available as a single dual processor Intel® Xeon® Scalable blade, with a single enclosure supporting 14 blades in 6U- that's dense!

12 X 3.5" HDD'S IN A 1U - HOW?

The 6019P-ACR12L from Supermicro is a box full of surprises! Pull the two tabs on the front of the server and a tray of 12 disks slides out on a cable arm for easy maintenance. Great for high density storage applications, data analytics / Hadoop or object storage, it can be paired with huge 12TB HDD's, delivering a total of a staggering 144TB in 1U.

Additional to the hot swappable spinning disks, there are also four slim form factor 2.5" NVMe drive bays at the front for caching or high speed O/S storage.

ONE PROCESSOR OR TWO?

With the launch of the AMD® EPYC™ 7000 series processors, a discussion in the industry opened up regarding the necessity of dual processor systems as a standard platform. With up to 32 cores, 8 memory channels and 128 PCI Express lanes per processor from EPYC, many of the traditional applications where dual processor servers are used, can be satisfied with just one processor. Supermicro have now launched a pair of servers with this thought in mind. A 1U system with just one EPYC processor but still delivering all the performance and I/O you need.

There's a 1U with 10 NVMe drive bays, and a 2U with 24, both feature PCI-Express x16 generation 3 slots for fast networking too.



CORE WARS

It seems that the battle for the extreme core count desktop processor is on. Both Intel and AMD touted XCC processors at Computex. Intel showcased a 28

core processor during their keynote with an overclocked frequency of 5GHz which is expected to be formally launched at the end of 2018 - although the final chip is not expected to run at 5GHz. Details are a little thin on the ground at the moment, but it appears a new platform is necessary for this chip due to increased power requirements. Soon after, AMD announced its own XCC processor based on its 2nd generation Ryzen architecture, a 32 core gen 2 Threadripper. Due in Q3, so slightly ahead of Intel, this processor is backwards compatible with existing X399 motherboards, so should be an easy upgrade.

Whilst both processors are extreme feats of engineering, and certainly will make the headlines when they launch, in our experience, most consumer or even semi-pro-visualisation applications struggle to take advantage of such high core counts. We'd be keen to hear your thoughts - will you be buying one?

SMART DIAPERS - NO WE AREN'T FULL OF IT, IT'S TRUE!

We're not sure about this one...but it caught our attention at the Taiwan Excellence showcase. Powered by Bluetooth, the Opro9 SmartDiaper will tell you when you change your baby

via a smartphone app, so you can make sure they're comfortable and save money on needlessly changing nappies. Great for the environment, and also a safety device, another useful function is that if your baby moves out of range then you get an instant alert on your phone. Will it catch on? Only time will tell.



GAMIFICATION

Due to the ever-growing revenue opportunities, organisations that historically distanced themselves from gaming have started to develop their hardware offerings to attract a piece of the action. With solutions that have the benefit of being compact, lightweight and promising to deliver on quality, all the major brands seem to be getting a piece of the action. Critical hardware elements for eSport players, brands such as Asus, MSI and ZOTAC rolled out smaller devices with high performance specs in the past few years and featured many of these at the event.

WANT TO LEARN MORE ABOUT ANY OF THE ABOVE OR FIND OUT ABOUT TEST-DRIVING THE LATEST HARDWARE?

On site test facilities at Boston Labs are available for your use. New and improved technologies are emerging all the time, and this can be a daunting situation for customers planning their future projects. Making the right decision about new hardware is a difficult proposition, made even harder when clients are unable to test and understand the hardware first before making their purchase. We recognise this challenge, so to help our clients make informed decisions about new technologies, we have opened up our research & development facilities and actively encourage customers to try the latest platforms using their own tools and if necessary together with their existing hardware. Understandably, some customers may not be able to visit our labs in person. Therefore arrangements can be made for test systems to be set up in our labs with remote access via RDP, SSH or other means; enabling you to trial our solutions from wherever you are in the world. Contact us for more information