

## HYPER-SPEED ULTRA DATA SHEET



### OVERVIEW

BIOS IT, in partnership with Supermicro, present the innovative range of Hyper-Speed Solutions, combining record-setting performance from Hyper-Speed technology with the evolutionary Ultra system architecture, providing unparalleled flexibility, density, manageability, and serviceability.

This new and improved 5th generation of Supermicro Hyper-Speed technology is the only enterprise-class hardware acceleration solution on the market providing lockstep hardware acceleration of the CPUs, Memory, and PCI-E network controllers for maximized performance with mission critical reliability.

## BEST ENTERPRISE-CLASS HARDWARE ACCELERATION FOR MISSION CRITICAL APPLICATIONS

Based on a Supermicro motherboard, BIOS IT is able to enhance the highest performance Intel Xeon Processor Scalable Family CPUs with Hyper-Speed in order to achieve application performance improvements of up to 30%. Hyper-Speed Solutions are available in a 1U rack-mount configuration, and are beneficial to a variety of different workloads, tasks and applications.

HARDWARE OPTIMISATIONS	MANAGEMENT FEATURES:	HYPERSPEED KEY APPLICATIONS
<ul style="list-style-type: none"> <li>Board-level Hyper-Speed circuitry</li> <li>Latest VRMs for flexible tuning plus additional VRM phase for stability</li> <li>Highest quality capacitors for reliability at extreme operating temperatures</li> <li>Airflow optimized designs and custom heat-sinks for optimized thermal distribution</li> </ul>	<ul style="list-style-type: none"> <li>Show real time voltage and power consumption</li> <li>System Event log to track system status</li> <li>IPMI command support, Remote management tool support</li> <li>Remote firmware upgrades</li> </ul>	<ul style="list-style-type: none"> <li>Financial Analysis</li> <li>Business Critical Applications</li> <li>Enterprise Server</li> </ul>

### GET IN TOUCH

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## HYPERSPEED BENEFITS



PERFORMANCE  
IMPROVEMENTS



AIR FLOW  
OPTIMISED DESIGN



EXTREME  
EXPANDIBILITY

## CUSTOMISED, IMPACT CERTIFIED SERVERS

BIOS IT delivered ultra-fast performance for one of the largest global exchanges – Deutsche Börse AG, with its customised range of HyperSpeed Servers. These bespoke servers were put through BIOS IT's accelerated methodology process 'IMPACT' (Improved & Modified Performance by Accelerating, Customising & Tuning). Featuring a custom motherboard, the specialised BIOS IT servers were designed to deliver ultra-fast performance for high frequency trading within Deutsche Borse's mission critical and latency sensitive environments. Additional benefits of these BIOS IT IMPACT systems include world record performance with permanent accelerated mode, extreme expandability for versatile configurations and an optimized cooling design, providing enterprise reliability.

Visit [www.bios-it.com](http://www.bios-it.com) for more information.

SYSTEM	LL1*	LL2*	LL3*
CPU	Dual Intel Xeon Processor Scalable Family 6144 (16 cores @ 4.223 GHz)	Dual Intel Xeon Processor Scalable Family 6146 (24 cores @ 4.07 GHz)	Dual Intel Xeon Processor Scalable Family 6154 (TBC)
MEMORY	12x 16GB 2756MHz** DDR4 (Included) (16 DIMM, up to 2TB DDR4 2756MHz**)		
CPU HEATSINK	2 x 1U Passive Heatsink		
I/O EXPANSION	2 PCI-E 3.0 x16(FHFL), 1 PCI-E 3.0 x8 (LP), 1 PCI-E 3.0 x8 (internal SAS3 integrated)		
STORAGE EXPANSION	8x SAS3 Hot-swap 2.5" HDD bays (SAS3 3108), 2x NVMe Hot-swap 2.5" HDD Bays		
STORAGE CONTROLLER	Integrated SAS3 LSI 3108 (Optional Supercap Support)		
I/O	4x USB 3.0 (Front and Rear), One VGA port, 1 COM port		
LAN	Quad GbE LAN, 1x IPMI		
PSU	750W High-efficiency (Platinum Level) digital power supply		
MANAGEMENT SW	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; Watchdog; NMI		

CUSTOMISED CONFIGURATIONS ARE ALSO AVAILABLE

\*Customised SKU – our solutions feature bespoke customisations such as overclocking, custom motherboards and are BIOS IT IMPACT certified.

\*\*Overclocked RAM

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