DFI | Design For Innovation

DFI presents first COM Express Type 7 modules based on Intel Atom® server-grade processor

Nowadays, data will be generated and copied quicker from IoT, fog computing, and big data analysis. Central clouds, data centers, micro servers, and other server oriented applications play an important role in processing and transmitting the massive data. However, the current COM Express type was designed to fulfill embedded solutions. The specifications and standards are mostly general features rather than server oriented features. Therefore, the latest system-on-module standard "COM Express Type 7", developed by PICMG (www.picmg.org), has been released to respond to and achieve those inquiries.

First, the most critical innovation of COM Express Type 7 module is that it exchanges all audio and video interfaces for four 10GbE-KR. It is developed for reducing the latency of internet traffic and enhancing applications that require fast response. Moreover, Type 7 modules are implanted in the Network Controller Sideband Interface (NC-SI) to let administrators take corrective action by using remote control. It saves operating cost of the network and ensures reliability. Also, compared to the Type 6, Type 7, which is defined in COM Express specification rev. 3.0, added 8 more PCIe to support mass storage capacity and multiple expansions. With server-grade processor, it offers more DRAM capacity, efficient power consumption, and higher performance level. As a result, COM Express Type 7 standard is the ideal solution for fulfilling the requirements in the IoT and Industrial 4.0.

Comparison

	COM Express	
	Type 6	Type 7
PCIe	24	32
10GbE	N/A	4
1GbE	1	1
Display	VGA, LVDS, PEG, DDI	N/A
USB 2.0	8	4
USB 3.0	4	4
SATA 3.0	4	2

COM Express Type 7 - DV970

DFI is glad to introduce "DV970", the first COM Express Basic Type 7 module board based on Intel Atom® processor C3000 series server-grade platform (code name: Denverton). DV970 is aimed at the market of micro server, and it offers impressive CPU performance with up to 16 cores, 4 ports of 10 GbE-KR, 16 PCIe, 3.0 lanes, and low 8.5W power consumption. This Type 7 module is perfectly suitable for inexpensive storage servers, NAS applications, and emerging appliances.

DV970 – COM Express Type 7 Features:

- Intel Atom® Processor C3000 Series up to 16 Cores
- 2 DDR4 SODIMM up to 32GB (ECC support)
- 4 Ports 10 GbE-KR, 16 PCIe 3.0 Lanes
- Cloud Remote Monitoring Platform: BMC
- Support Extended Temperature Ranges: -40℃ ~ +85℃

Learn More about DV970 ›