ATCA, AMC, & MicroTCA Market Forecast: Revenue Surge Ahead

EXECUTIVE SUMMARY

Although first-generation products based on the Advanced Telecom Computing Architecture (ATCA) standard fell short of meeting original optimistic revenue expectations, the second generation of ATCA, MicroTCA, and advanced mezzanine card (AMC) systems now coming to market are poised to fulfill first-gen ATCA's revenue promise. The availability of second-gen ATCA, AMC, and MicroTCA components and systems is accelerating a major shift in the telecom and networking equipment supply chain, with systems integrators taking on much of the development previously kept in-house by original equipment manufacturers (OEMs). ATCA opens up new opportunities for silicon vendors, systems integrators, OEMs, and service providers.

ATCA is not only the first standardized platform for high-availability applications, but also the first platform to support the relatively large blades and power consumption required in many storage, computing, and telecom applications today. Together with the smaller ATCA300 and MicroTCA platforms and AMCs, ATCA provides an excellent platform for a wide range of applications across all these industries. Telecom equipment vendors are now using ATCA for control-plane applications in the wireless infrastructure market, and they have committed to its use across multiple markets, encompassing both the control and data planes.

Telecom equipment providers are now shifting onto second-generation ATCA platforms with 10-Gbit/s Ethernet switching and high-performance multicore processors. The capacity and performance of these systems are significantly greater than first-generation systems. But the more significant market growth for ATCA will start in 2009, as second-generation systems enter volume production. *Heavy Reading* projects that the number of ATCA systems shipped will grow from less than 10,000 in 2008 to nearly 100,000 in 2011. Second-generation systems will continue to ship in growing numbers during 2012, when we expect third-generation systems to enter volume production. Third-generation systems will include 40-Gbit/s switch blades, again significantly increasing system capacity.

*ATCA, AMC, & MicroTCA Market Forecast: Revenue Surge Ahead* identifies and analyzes the full spectrum of vendors developing ATCA, AMC, and MicroTCA components and systems. The report includes not only granular information on the components and systems themselves – of interest to system OEMs and service providers – but also insights into how the overall market is likely to develop – of interest to a wide audience, including investors. The report offers an exclusive and updated market forecast for ATCA products through 2012, providing deep insight into how ATCA and related technologies will continue to reshape the telecom and networking equipment industries.
The report evaluates and analyzes the products and strategies of 11 systems integrators and 39 component suppliers and presents information on the usage of ATCA, MicroTCA, and AMC modules by ten leading telecom equipment providers.

In addition to detailed market forecasts, ATCA, AMC, & MicroTCA Market Forecast: Revenue Surge Ahead provides a complete accounting of all ATCA, MicroTCA, and AMC systems now available or announced by suppliers, including more than 360 products from 45 different suppliers. All told, the report provides more than 1,500 data points covering the ATCA sector, representing the most comprehensive accounting of this vital market available to date.

Excerpt 1: 14-Slot ATCA Chassis

<table>
<thead>
<tr>
<th>COMPANY/PRODUCT</th>
<th>HEIGHT</th>
<th>HOR./VIR.</th>
<th>FABRIC SPEED</th>
<th>POWER</th>
<th>INPUT</th>
<th>NEBS</th>
<th>AVAILABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asis Perform series 14-slot ATCA Chassis</td>
<td>12U</td>
<td>V</td>
<td>10 Gbit/s</td>
<td>300W/slot 5W RTM</td>
<td>48VDC</td>
<td>✓</td>
<td>Shipping</td>
</tr>
<tr>
<td>Asis Effective series 14-slot ATCA Chassis</td>
<td>12U</td>
<td>V</td>
<td>5 Gbit/s</td>
<td>200W/slot 5W RTM</td>
<td>48VDC</td>
<td>✓</td>
<td>Shipping</td>
</tr>
<tr>
<td>Asis Effective series 14-slot ATCA Chassis Horizontal</td>
<td>12U</td>
<td>H</td>
<td>5 Gbit/s</td>
<td>200W/slot 5W RTM</td>
<td>48VDC</td>
<td>✓</td>
<td>Shipping</td>
</tr>
<tr>
<td>Carlo Gavazzi 633CDDS/ FM14FK-100</td>
<td>13U</td>
<td>V</td>
<td>6.25 Gbit/s</td>
<td>200W/slot 30W RTM</td>
<td>48VDC</td>
<td>✓</td>
<td>Shipping</td>
</tr>
<tr>
<td>Comtel ATCA CO14 14-Slot 13U</td>
<td>13U</td>
<td>V</td>
<td>6.25 Gbit/s</td>
<td>245W/slot 30W RTM</td>
<td>48VDC</td>
<td>✓</td>
<td>N/D</td>
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<tr>
<td>Continuous Computing FlexChassis ATCA-12U-14</td>
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<td>V</td>
<td>10 Gbit/s</td>
<td>200W/slot</td>
<td>48VDC</td>
<td>✓</td>
<td>Shipping</td>
</tr>
<tr>
<td>Continuous Computing FlexChassis ATCA-12U-14 AC</td>
<td>12U</td>
<td>H</td>
<td>10 Gbit/s</td>
<td>200W/slot 20W RTM</td>
<td>AC</td>
<td>✓</td>
<td>Shipping</td>
</tr>
<tr>
<td>Diversified Tech Targa-14</td>
<td>12U</td>
<td>V</td>
<td>3.125 Gbit/s</td>
<td>200W/slot</td>
<td>48VDC</td>
<td>✓</td>
<td>Shipping</td>
</tr>
<tr>
<td>Elma ATCA 13U</td>
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<td>V</td>
<td>3.125 Gbit/s</td>
<td>N/D</td>
<td>48VDC</td>
<td>✓</td>
<td>Shipping</td>
</tr>
<tr>
<td>Emerson Centellis CO 31KX</td>
<td>13U</td>
<td>V</td>
<td>3.125 Gbit/s</td>
<td>200W/slot, 5W RTM</td>
<td>48VDC</td>
<td>✓</td>
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<tr>
<td>Emerson AXP1406</td>
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<tr>
<td>Emerson Centellis 41KX</td>
<td>13U</td>
<td>V</td>
<td>10 Gbit/s</td>
<td>200W/slot, 5W/ rear slot 48VDC</td>
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<tr>
<td>Infranet UniPlat 3000</td>
<td>12U</td>
<td>V</td>
<td>3.125 Gbit/s</td>
<td>200W/slot 15W RTM</td>
<td>48VDC</td>
<td>N/D</td>
<td>Shipping</td>
</tr>
<tr>
<td>Kaparel 13U ATCA Chassis 14-slot</td>
<td>13U</td>
<td>V</td>
<td>3.125 Gbit/s</td>
<td>200W/slot 30W RTM</td>
<td>48VDC</td>
<td>✓</td>
<td>Shipping</td>
</tr>
<tr>
<td>Knurr 12U 14-slot</td>
<td>12U</td>
<td>V</td>
<td>3.125 Gbit/s</td>
<td>200W/slot</td>
<td>48VDC</td>
<td>✓</td>
<td>N/D</td>
</tr>
</tbody>
</table>
### COMPANY/PRODUCT
#### Height
- RadiSys Promentum ATCA-6000: 12U
- Schroff AdvancedTCA 12U 11592-4xx: 12U
- Schroff AdvancedTCA 12U VEN12ATCA-014DSDCDFR: 12U
- Tracewell CO-Star ATCA: 13U
- Westek Performance 12U: 12U
- Westek 12U Horizontal: 12U

#### Hor./Vr.
- V

#### Fabric Speed
- 3.125 Gbit/s

#### Power
- 200W/slot

#### Input
- 48-60VDC

#### NEBS Availability
- Shipping

#### Source: Heavy Reading

### Excerpt 2: Gigabit Ethernet Fabric Switch Blades

<table>
<thead>
<tr>
<th>COMPANY/PRODUCT</th>
<th>FABRIC PORTS</th>
<th>FRONT I/O</th>
<th>REAR I/O</th>
<th>MEZZANINE</th>
<th>POWER</th>
<th>AVAILABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adlink ATCA-3110</td>
<td>14xGE</td>
<td>8xGE base, 2xGE fabric, GE, RS-232</td>
<td>8GE fabric</td>
<td>None</td>
<td>87W</td>
<td>Shipping</td>
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<tr>
<td>Continuous Computing FlexCore ATCA-FM30-SX*</td>
<td>14xGE</td>
<td>10xGE</td>
<td>4xGE, 2x10GE</td>
<td>None</td>
<td>N/D</td>
<td>Shipping</td>
</tr>
<tr>
<td>Diversified ATS1160</td>
<td>15xGE</td>
<td>1xGE base, 1xGE fabric, 2xE/FE</td>
<td>7xGE base, 8xGE fabric</td>
<td>None</td>
<td>100W max</td>
<td>Shipping</td>
</tr>
<tr>
<td>Emerson ATCA-F300</td>
<td>14xGE</td>
<td>RS-232, E/FE</td>
<td>8xGE base, 1xGE fabric</td>
<td>None</td>
<td>58W typ</td>
<td>Shipping</td>
</tr>
<tr>
<td>Emerson ATCA-F101</td>
<td>14xGE</td>
<td>USB, RS-232, E/FE</td>
<td>4xGE base, 8xGE fabric</td>
<td>None</td>
<td>N/D</td>
<td>Shipping</td>
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<tr>
<td>Emerson ATCA-F102</td>
<td>14xGE</td>
<td>USB, RS-232, E/FE</td>
<td>4xGE base, 8xGE fabric</td>
<td>None</td>
<td>N/D</td>
<td>Shipping</td>
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<tr>
<td>Infranet USPS-3000</td>
<td>14xGE</td>
<td>4xGE, FE, USB</td>
<td>4xGE</td>
<td>None</td>
<td>N/D</td>
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<tr>
<td>Infranet USPS-3200</td>
<td>20xGE, 2x10GE</td>
<td>2xGE, FE, USB</td>
<td>12xGE</td>
<td>None</td>
<td>N/D</td>
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<tr>
<td>Kontron AT8902</td>
<td>18xGE</td>
<td>4xGE base, 4xGE fabric, RS-232, E/FE</td>
<td>SATA</td>
<td>2xAMC</td>
<td>60W</td>
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<tr>
<td>Sun CP3140</td>
<td>24xGE</td>
<td>2x GE, FE, 2xRS232</td>
<td>15x GE, FE, 2xRS232</td>
<td>None</td>
<td>200W max</td>
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<tr>
<td>COMPANY/PRODUCT</td>
<td>FABRIC PORTS</td>
<td>FRONT I/O</td>
<td>REAR I/O</td>
<td>MEZZA-NINE</td>
<td>POWER</td>
<td>AVAILABILITY</td>
</tr>
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<tr>
<td>ZNYX ZX7000</td>
<td>14xGE</td>
<td>4-12xGE, USB, E/FE, RS-232</td>
<td>2xRS-232, 2xE/FE, 6xGE</td>
<td>2xPMC/PTMC</td>
<td>N/D</td>
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<tr>
<td>ZNYX ZX7100</td>
<td>40xGE</td>
<td>4xGE base, 4xGE fabric</td>
<td>3xGE base, 4xGE fabric</td>
<td>None</td>
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<td>N/D</td>
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<tr>
<td>ZNYX ZX7120/30</td>
<td>40xGE</td>
<td>1 or 2x10GE</td>
<td>3xGE base, 4xGE fabric, 10GE</td>
<td>None</td>
<td>N/D</td>
<td>N/D</td>
</tr>
</tbody>
</table>

* Plus 2.5” IDE storage

Source: Heavy Reading

Report Scope & Structure

ATCA, AMC, & MicroTCA Market Forecast: Revenue Surge Ahead is structured as follows:

Section I is an introduction to the report, with complete report key findings.

Section II examines the dynamics of the ATCA market, providing a five-year market forecast, analysis of the supply chain, ATCA usage, and the leading applications for ATCA-based systems.

Section III focuses on the development of ATCA, AMC, and MicroTCA technology, including physical format, system management and application software, and operating systems. This section includes details on basic ATCA chassis and systems available from 20 vendors.

Section IV covers ATCA switching architectures and technology, including Gigabit Ethernet (GE), 10-Gigabit Ethernet (10GE), and high-speed alternatives such as InfiniBand and RapidIO. This section includes analysis of announced ATCA switch blades from ten vendors.

Section V analyzes ATCA node blade functionality, including feature comparisons for current and announced CPU/server, storage, carrier, networking, and DSP blades from 17 vendors.

Section VI provides feature comparisons for announced AMC modules from 25 vendors.

Section VII explores MicroTCA architectures and technology, with comparisons of MicroTCA chassis, systems, MicroTCA carrier hubs (MCHs), and power modules from 11 vendors.

Section VIII presents detailed product and strategy analyses for 11 companies that integrate ATCA systems, and in many cases develop ATCA components.

Section IX presents detailed product and strategy analyses for 34 companies that manufacture ATCA components, but not full systems.

The report is essential reading for a wide range of industry participants, including the following:

- **Telecom equipment manufacturers:** How does your ATCA/MicroTCA deployment strategy match up to your competition? Which component and subsystem vendors are taking the lead in ATCA, AMC, and MicroTCA product availability? Which products are available, and which are still vaporware? Are your suppliers stepping up to meet your anticipated timetable for ATCA and related products?

- **Component and subsystem manufacturers:** Are you ahead of the curve in ATCA and MicroTCA deployment, or are you falling behind? Which product areas present the most
attractive opportunities? How is demand for ATCA, AMC, and MicroTCA likely to develop in the systems market?

- **Systems integrators:** How do your partnership channels for ATCA, AMC, and MicroTCA deployment measure up? Are there other potential partners that are capable of delivering the products that you need now to meet your clients' needs?

- **Network operators:** How will ATCA's continued development affect your supply-chain relationships? When can you expect to see meaningful cost reductions from the move to ATCA, and how big a cost benefit will you get? Which vendors will be in the best position to deliver the products you need to build your next-generation network?

- **Investors:** Which equipment makers are in the best position to capture market share in this important telecom industry sector? When will this sector begin to show meaningful and sustainable growth?

*ATCA, AMC, & MicroTCA Market Forecast: Revenue Surge Ahead* is published in PDF format.