MTCA once and then…

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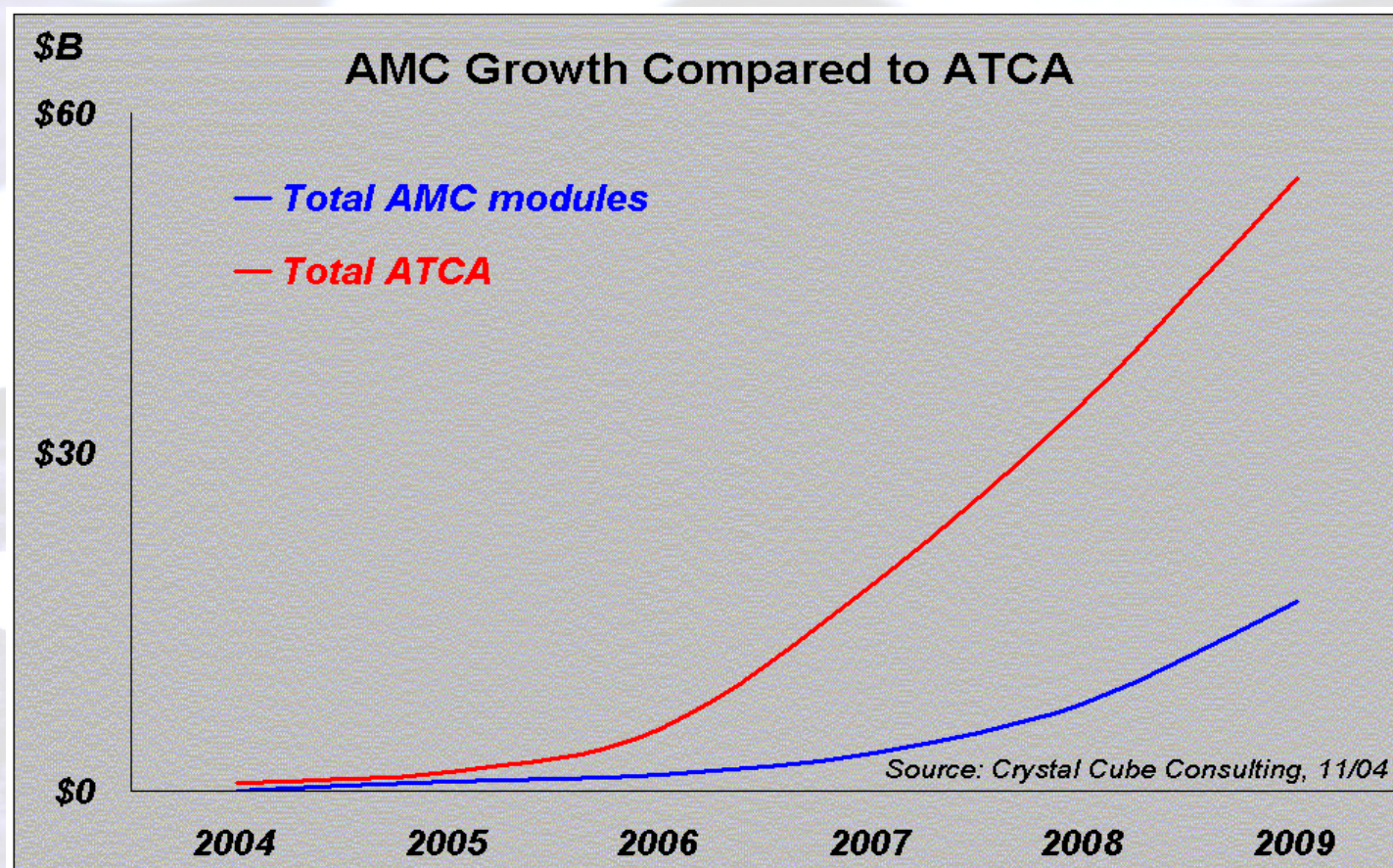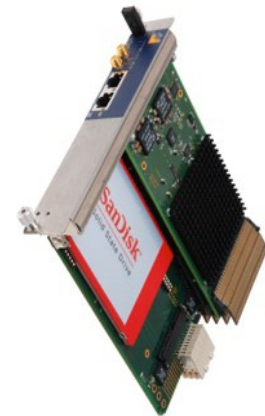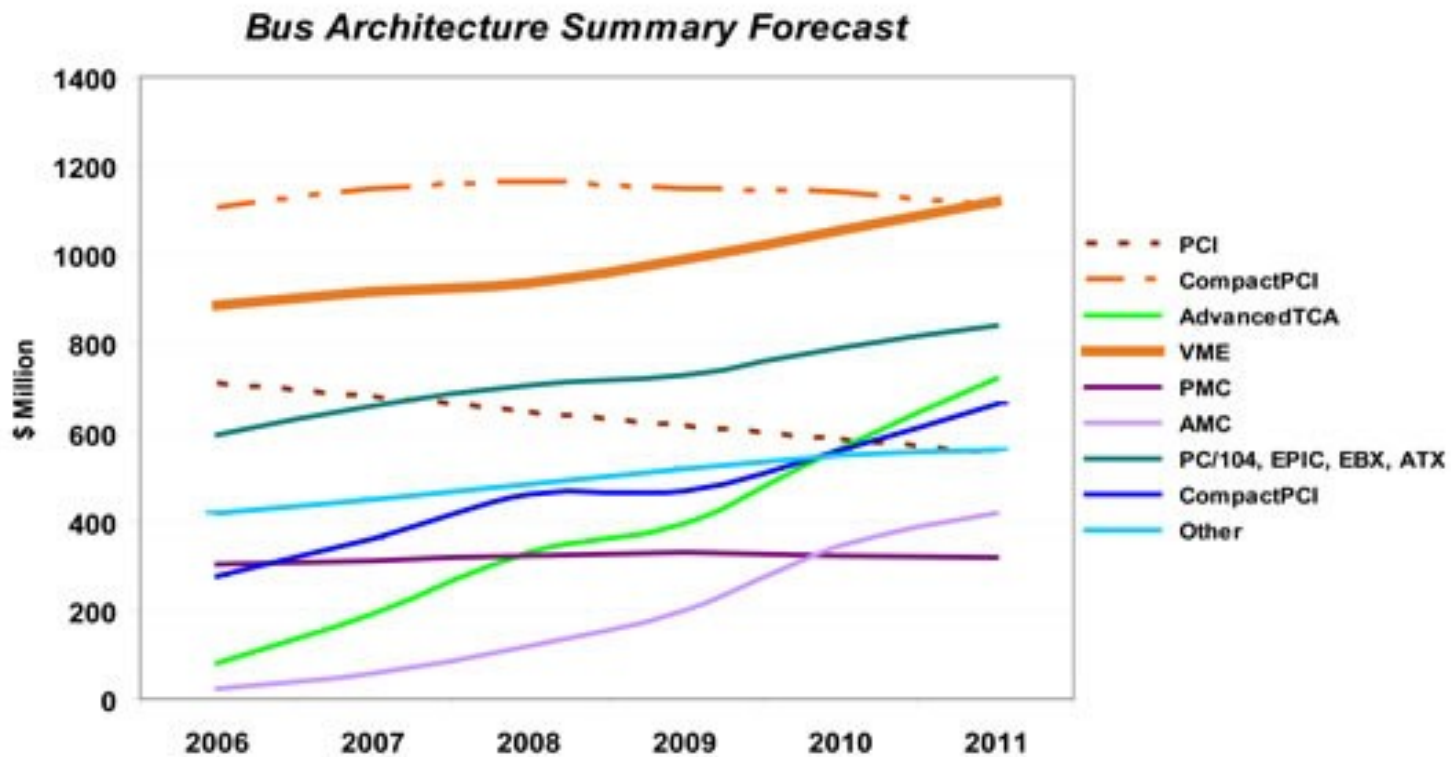
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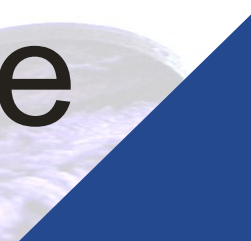
2004

"More telecom equipment manufacturers are taking advantage of the cost savings that they and their customers can achieve from using open industry standards such as AdvancedTCA and SA Forum," said Lee Doyle, Group Vice President, Network Infrastructure, International Data Corp., a leading industry analyst firm. "ATCA enables telecom equipment manufacturers to get to market faster so that service providers can benefit from open standards much sooner than was possible using the traditional building block approach to communications computing platform integration."

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Huge expectations in 2004

AMC Growth Compared to ATCA

— **Total AMC modules**

— **Total ATCA**

Source: Crystal Cube Consulting, 11/04

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Architecture prognosis 2006

Bus Architecture Summary Forecast

- PCI
- CompactPCI
- AdvancedTCA
- VME
- PMC
- AMC
- PC/104, EPIC, EBX, ATX
- CompactPCI
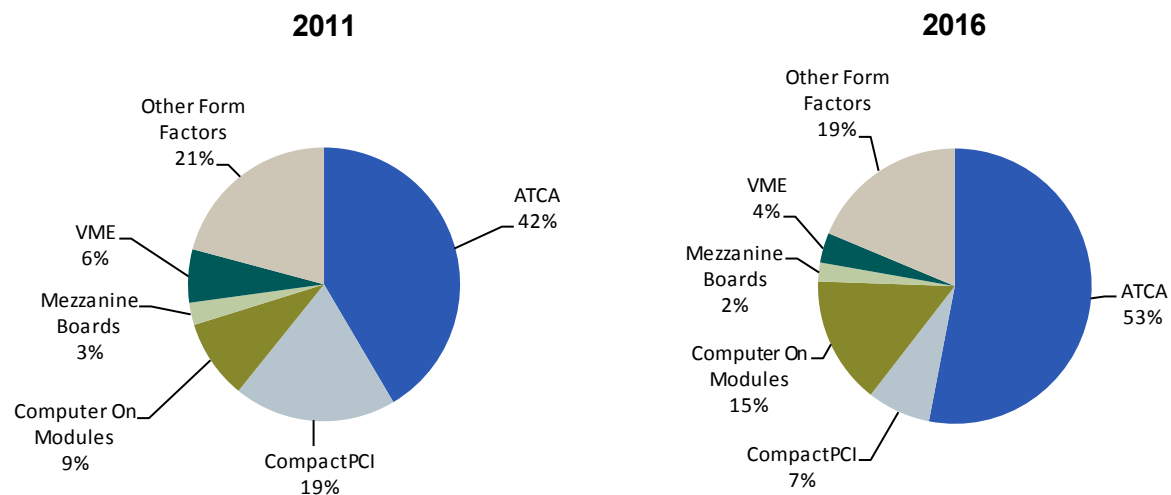- Other

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Latest market report

conducted by IHS (formerly IMS research)

Figure 8

Market Share of Form Factors Used in Communication and Networking Applications
Revenues ($M) 2011 and 2016

2011

Other Form Factors 21%
VME 6%
Mezzanine Boards 3%
Computer On Modules 9%
CompactPCI 19%
ATCA 42%

2016

Other Form Factors 19%
VME 4%
Mezzanine Boards 2%
Computer On Modules 15%
CompactPCI 7%
ATCA 53%

Source: IMS Research

May-12

VME is going to decline.
ATCA is still growing (which includes MTCA), while is expected to reach peak in 2016
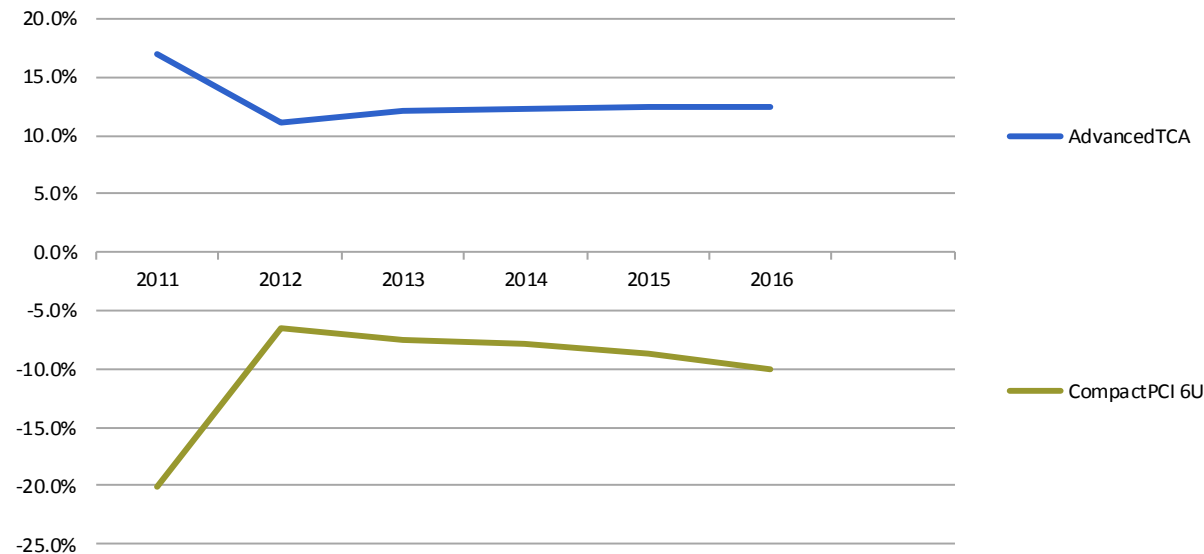ATCA is expected to be the dominating standard until 2016

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Advanced TCA market trends

Figure 3
ATCA vs CompactPCI 6U Growth
Revenue Growth - 2011 to 2016

Source: IMS Research   May-12

- ATCA is replacing CompactPCI in communication applications.
- Some small ATCA growth in applications outside communications
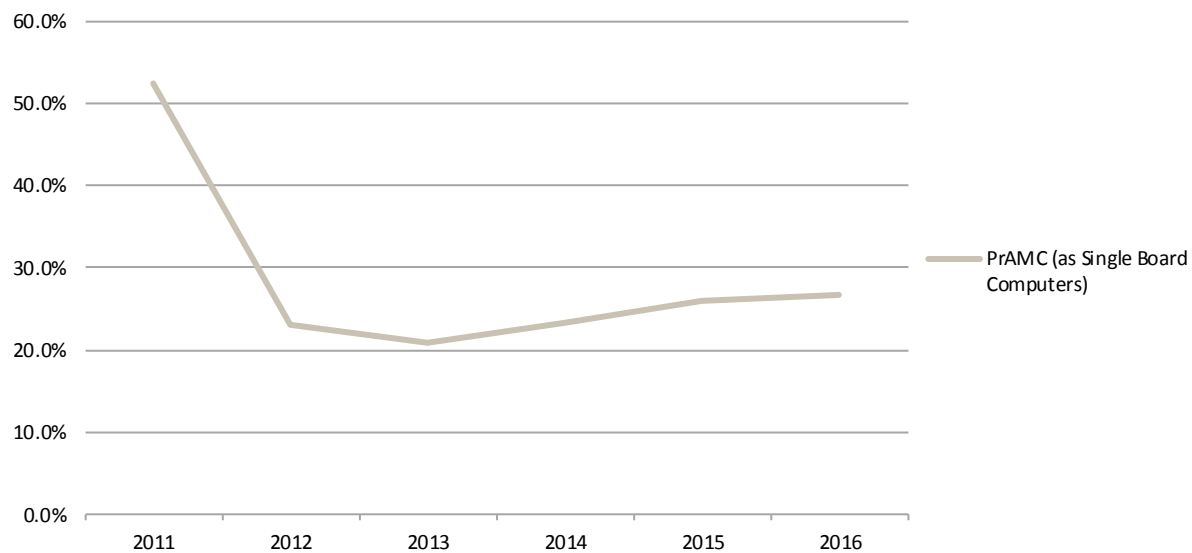- ATCA undergoing a transition to 40 GB, maybe even 100 GB Ethernet

MicroTCA Trends

Figure 4

The World Market for PrAMCs

Revenue Growth Profile - 2012 to 2016

PrAMC (as Single Board Computers)

Source: IMS Research

May-12

- Some promising potential niches outside of traditional communications.
- MicroTCA .4 specification has helped.
- Price could still be a concern.
- Some regional variation in uptake.

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Market shares (by Technologies)

- IMS research did a very good market report
- full report has approx. 150 tables, each with multiple data points
- it also forecasts the market for the coming years

Report Author: Toby Colquhoun
Toby.Colquhoun@ihs.com

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AMC Module Market Overview (1)

Supplier	Type	Specifics
Adlink	Processor	Core 2 Duo, SATA HDD, Fibre Channel
Advanced IO Systems	I/O	10GbE
Advantech	Processor, Storage, I/O	Intel, QorIQ, SATA HDD, GbE
Aixsolve	I/O	FPGA (Xilinx), Broadcast, DAC
Bittware	I/O	FPGA (Altera Stratix)
Commagility	I/O	FPGA (Xilinx) + DSP, CPRI, OBSAI
Concurrent Tech.	Processor & Storage	Core i7 (second & third gen.), Core 2 Duo, Xeon, SATA HDD
DDC	I/O	MIL-1553
Embedded Planet	Processor	PowerQUICC, QorIQ
ESD	I/O	Analog Digital IO, CAN, PCIe AMC carrier
GateWare	MCH & I/O	MCH, Load module

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AMC Module Market Overview (2)

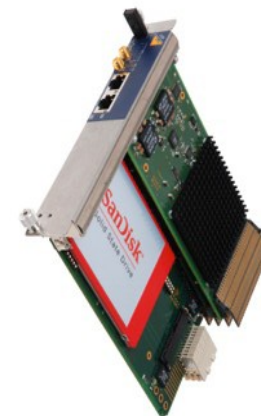| Supplier	Type	Specifics
GE Intelligent Platforms	Processor & Storage	Packet processing, Storage
Instrumentation Technologies	I/O	ADC, Sync
Interphase	Processors & I/O	Network processors, E1/T1, ATM modules
Interphase Concept	I/O	FPGA, ADC, DAC
Jumpgen	Processor & Network	Intel, Tilera TILE, Storage, Packetprocessor
Kontron	Processor & I/O	Intel, QorIQ, PowerQuicc, Storage (SATA, SAS), Network processors, Network (1, 10GbE)
Nutaq (former Lyrtech)	I/O	Clock & Trigger, FPGA (Xilinx)
Nallatech	I/O	FPGA (Xilinx)
NAT	MCH, Processor, PEM & I/O	MCH, QorIQ, PowerQuicc, FPGA, IO, EtherCat, Extender modules, DSP Tigershark, Load Module
Performance Technology	MCH, Processor	MCH, Intel, PowerPC, IO & COMMS, Graphics Storage combined
Prodrive	Processor & I/O	PowerQuicc 3, Multi-I/O, Optical Link (SFP)

AMC Module Market Overview (3)

Supplier	Type	Specifics
RadiSys	Processor & I/O	Storage, STM-1/OC-3, Packet Processing
Samway	MCH, PEM, I&O	MCH, Load Module
SanBlaze	Storage	SATA RAID Controller, Fibre Channel, SATA HDD/SSD
Scan Engineering Telecom	Processor, MCH, I/O	Intel, SATA HDD, FPGA, DSP, serial COMMS, GbE,
SPDevices	I/O	ADC
Struck Innovative Systeme	I/O	ADC
Surf	I/O	DSPs TI C648X (Voice and Video)
Tews	I/O	IP-Carrier, PMC Carrier, FPGA, high-speed ADC, Serial Comms, I/O
Vadatech	MCH, Processor, PEM & I/O	MCH, QorIQ, PMC/XMC Carrier, Network (1/10G), Packet processing, Graphics, Serial Comms, FireWire, Infiniband, Digital I/O, Storage, FPGA (Xilinx, Altera, ADC, DAC), Development, Load module
X-ES	Processor & I/O	Core 2 Duo, MPC7448

alph. order

PEM Module Market Overview

Supplier	Specifics
BlueTek	Double, 600W, AC, MTCA.4
NAT	Single, 780W, DC, 600W, AC
Samway	Single, DC
Telkoor	Double, 600W, 1.000W, AC, MTCA.4
Vadatech	Single, 460, DC, Double, 780W, DC
WIENER Plein + Baus	800W, AC, MTCA.4

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Chassis Market Overview 2012

Supplier	Specifics
CURTISS WRIGHT Controls Defense Solutions	Hardened, ATR, 19", wall mount, customer specific (Hybricon)
ELMA Your Solution Partner	19", development chassis, wall mount, customer specific, MTCA.4
N.A.T.	19", small 1U or 2U chassis
B	19", customer specific, Simple MTCA chassis, wall mount, MTCA.4
Schroff®	19", development chassis, wall mount, customer specific, MTCA.4
vadatech inc. THE POWER OF VISION	19", customer specific, MTCA.4

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Real market applications 2012

test and measurement

- testbeds for avoinics
- high speed visual inspection
- NDT
- spectral analysis

telecommunication applications, such as

- PABX
- gateways
- LTE basestation (CPRI, OBSAI)
- conferencing platforms

medical has adopted MTCA for

- high speed data aquisition
- image processing

others

- Broadcast
- homeland security and defence

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Let´s discuss your requirements and test our performance!

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How to Fix Anything

Does it move?

YES ← → NO

Should it?   Should it?

NO   YES   NO   YES

No problem!