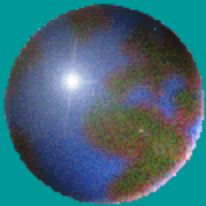


Welcome To



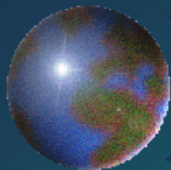
Clemson University Capacitor Consortium Planning Meeting

January 21, 2009

Andy Ritter

Senior Member of Technical Staff
AVX Advanced Product and Technology Center
2200 AVX Drive, Myrtle Beach, SC 29577

aritter@avxus.com



AVX is...

A world-wide passive electronics manufacturer

- Capacitors
- Connectors
- Resistors, Inductors, Filters

Headquartered in Myrtle Beach, SC

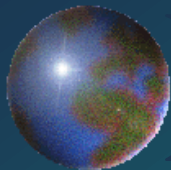
Incorporated in 1972 from division of Aerovox, Inc.

Merged in 1990 With Kyocera Corporation

Manufactures over 90,000,000,000 devices per year

Annual sales over \$1B





Active in Five Business Units

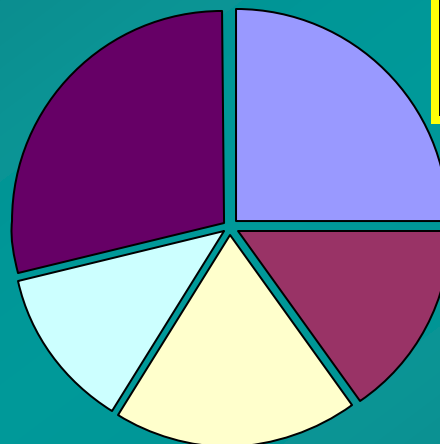
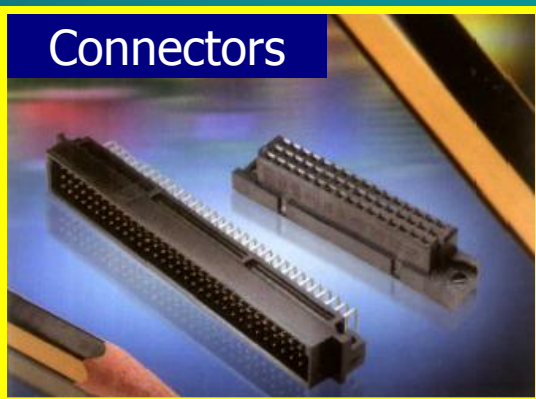
KED Resale



Advanced



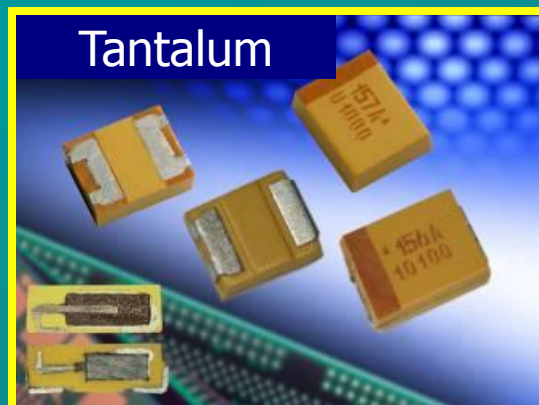
Connectors

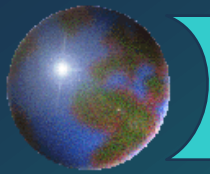


Ceramics



Tantalum





Consortium Opportunities

Exponential growth in transportation industry “electronic content”

- Power generation / storage / delivery systems

- Data processing

- Smart systems

- “Green” technologies

Components must be

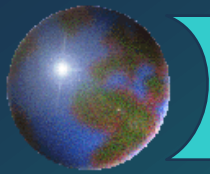
- Low cost

- Rugged - Thermal, Vibration, ESD, Humidity

- Fault tolerant

- Low cost

Don't underestimate *mundane* manufacturing processes



Consortium Challenges

Clemson university must lead technical programs

- Emerging technologies

- Protect industrial IP interests

- Manage joint IP

- Models already exist

Dilemma of 2009 economics

- Economy is contracting, but....

- Real potential for growth in automotive applications

- Spin-off to related industries

Challenges become opportunities