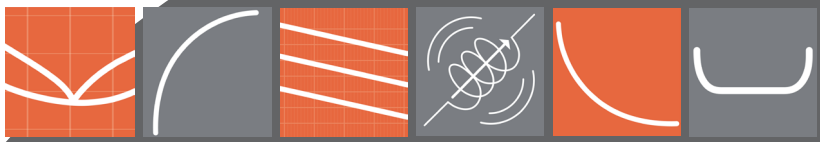
YAGEO GROUP

Computing & Enterprise Segment Enablement

Outlook

- AI integration from PCs to Servers
- Datacenters migrating to +/- 400V DC power distribution to racks
- Continuation of wide bandgap adoption
- x86 architecture continuing to migrate to ARM/RISC architecture
- Immersion cooling for Datacenters



Design Challenges

- Design densification
- Thermal and power efficiency
- Migration from horizontal to vertical power
- System cost

Why YAGEO Group

- Our $4 Billion global manufacturing operation
- Technical innovation across all product groups enabling miniaturization, power densification, and increased data throughput
- YAGEO Group supports 90% of the passive technologies utilized by the Computing and Enterprise Segment



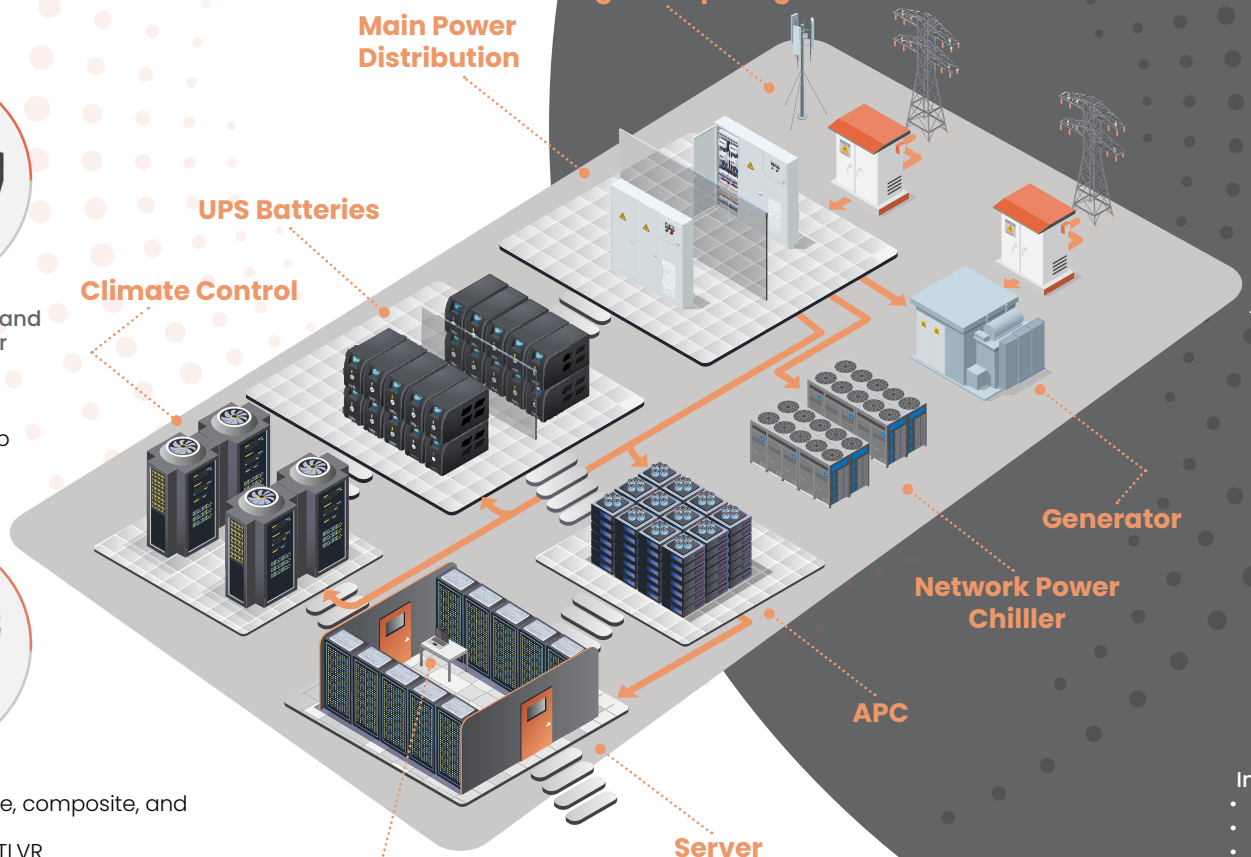
Polymer Alumnimun and Tantalum Capacitor

- CV dense
- Low ESR
- Long life
- H-Chip and V-Chip



Power Inductor

- Nanocrystalline, ferrite, composite, and nanoment
- 1 in 1, 2 in 1, 4 in 1, and TLVR
- Custom designs





Thick Film Resistors

- Market leader
- Chip size: 0075 to 2512
- Tolerance: > 0.1%
- TCR: > ±50ppm/°C

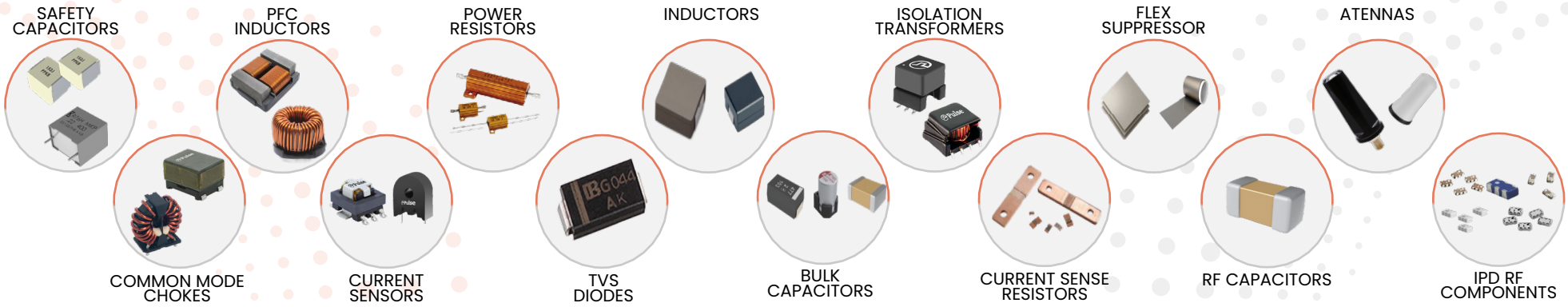


Integrated Connector Modules

- Integrated signal magnetics
- < 10GBase-T and HDBase-T
- POE
- Configuration: 1x1 to 2xN

Component Roadmap

- MLCCs: 01005 to 1210 case size, Class I and Class II, CV densification
- Aluminum Polymer and Hybrids: 125°C CV densification with longer life
- Tantalum Polymer Capacitors: 7343 and smaller footprints with CV densification, lower ESR, and longer life
- Film: PP increasing CV with THBIII and higher temperature/life
- Power Inductors: Ferrite, metal composite, and nanocrystalline materials with lower loss and higher frequency
- Power Chokes: Higher permeability ferrite and nanocrystalline materials
- Chip Resistors: 0075 to 2512 PB-free and anti-sulfur
- Environmental: Higher shock and vibration with evolving AEC-Q200



13.8KVAC to 800VDC (+/-400VDC)
- AC/DC
- Power Distribution

+/-400VDC
- DC/DC
- Power Distribution Bus

48VDC & 12VDC
- DC/DC
- Intermediary Voltage Busses
- Battery Backup

1 to 5VDC
- DC/DC
- Digital
- RF

I/O
- Interconnect
- RF Antennas

