
 CUSTOM
POWER SUPPLIES
AND POWER
MANAGEMENT
SYSTEMS 

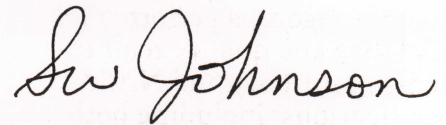
TO OUR CUSTOMERS

An industry leader in the development and manufacture of mil-spec and radiation hardened memories for more than twenty years, Quadri Electronics Corporation has more recently become established as a leading supplier of custom power supplies and power management systems. Applications of QUADRI products include torpedo guidance and control, avionics, missile systems and numerous DoD and NASA space applications.

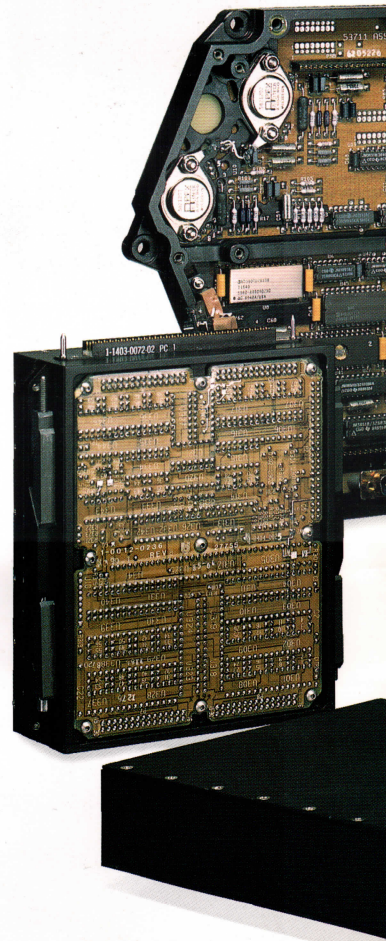
Increasingly severe operating environments place correspondingly greater demands on performance and reliability. Today's economic environment places greater demand for value from each product purchased. Quadri's management is dedicated to meeting these challenges through unsurpassed excellence from conceptual design, through product engineering to world-class manufacturing.

At Quadri, Total Quality Management (TQM) is not just a program, it is part of our culture and way of life. Our TQM program is a top-down commitment to our customers that we focus on continuous process improvement at every level in the company, not just in manufacturing.

Every Quadri employee is dedicated to providing our customers with total satisfaction in product quality, on-time delivery and unmatched customer service. We welcome the opportunity of proving it to you.



S. W. Johnson
President



Applications for Quadri's power products and systems include avionics and control systems; command and communication systems; missile guidance and launch systems including rad-hard designs for strategic and tactical applications; manned and unmanned spacecraft; and power inverters for special battle-field and shipboard applications.

In addition to custom power conversion systems, Quadri is a recognized leader in modular solid-state memories and electronic controls.

Quadri-developed products meet the rigorous performance, reliability and quality requirements of military and NASA specifications, including both manned and unmanned applications.

CUSTOM POWER SUPPLIES

- DC/DC and AC/DC Converters
- Distributed Power Supplies
- Solid State Inverters
- Battery Chargers
- Multiple Input/Multiple Output Power Converters
- High Voltage Power Supplies

POWER MANAGEMENT SYSTEMS

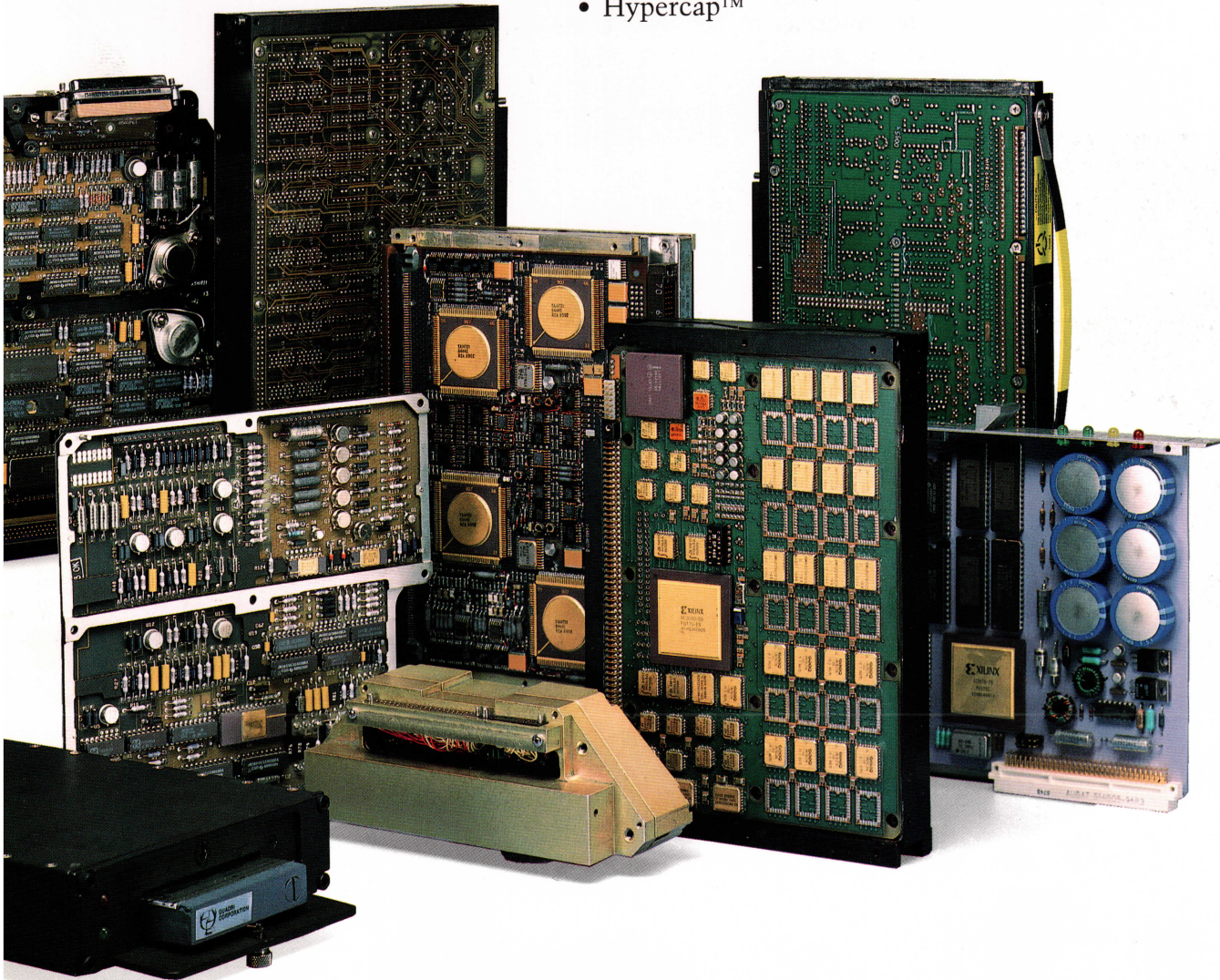
- Aircraft Power Control & Distribution
- Spacecraft Power Management Subsystems
- Vetronics Power Control/ Distribution

ENERGY STORAGE PRODUCTS

- Hypercap™

CUSTOM DESIGN

AND MANUFACTURING



UNSURPASSED

ENGINEERING

CAPABILITIES

Quadri's engineering staff has extensive experience in the design and development of electronic products for military and space applications.

Development skills in power circuit design, analog and digital design, magnetics, and radiation hardening are coupled with advanced ASIC design and surface mount technology. Quadri-developed products use a broad range of linear and digital techniques to provide optimum performance using discretely, bipolar, CMOS, power, and CMOS/SOS IC's and ASIC's. These products are mechanically packaged to function reliably and meet or exceed service life requirements in the most hostile military and space environments.

Quadri engineers employ state-of-the-art CAE and CAD tools. Electrical design is supported by Analog Workbench for synthesis and full simulation of analog, power, and digital circuits. Control system analysis and test is supported by MathCAD and Venable system design tools. A specialized program, Mark III, is used for magnetics design of Quadri's power conversion products. Printed wiring board design is supported by the P-CAD development tool which provides for Analog Workbench/SPICE-compatible schematic

capture, with either manual or auto placement and routing of components and traces at the designer's option, thereby optimizing both design flexibility and efficiency.

Mechanical and packaging design is supported by CAD-KEY, which provides 2 and 3-dimensional design synthesis, with provisions for shock, vibration, and thermal finite element analysis. The ALGOR finite element analysis tool is also utilized for these tasks. Reliability analysis is supported by RPP, a program that provides for the prediction of system MTBF and probability of success for simple and complex systems with varying electrical, temperature, and other environmental stresses.

EMI DESIGN

Quadri's military and space power converter designs are compliant with the conducted and radiated emissions and susceptibility requirements of MIL-STD-461. Special emphasis has been placed on producing converters with a high degree of input/output EMI filtering for applications in sensitive communications and sensor equipment. Special requirements such as Tempest can also be met.



DESIGN FOR RADIATION

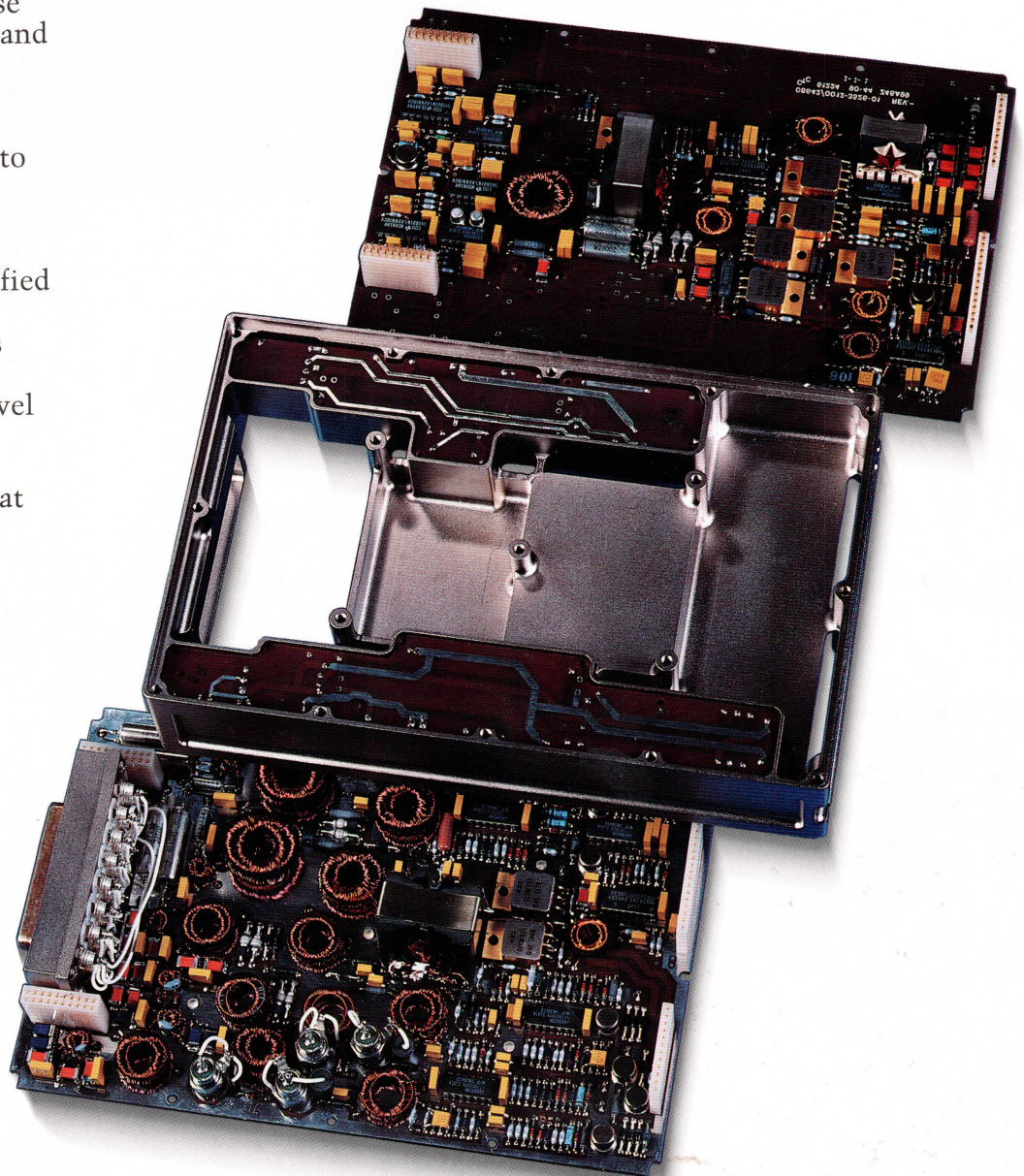
HARDNESS

Quadri is a recognized leader in the design of radiation hardened electronics. The objective of every Quadri rad-hard design is to achieve the required hardening with minimal impact on cost and performance.

Survivability levels of individual components are used to assess the ability of the power converter to meet radiation exposure requirements: neutron fluence, ionizing radiation dose rate, single event upset (SEU) and total ionizing dose.

Quadri design engineers address specific critical areas during the early design phase to

- assure that exposure to an event will not prevent the product from meeting specified performance,
- assure that recovery time is within established limits,
- identify the malfunction level of the product for expected radiation environments,
- design the electronics so that permanent damage due to radiation or EMP-induced stresses will not occur.



TOTAL QUALITY

MANAGEMENT

MANUFACTURING

Quadri occupies a modern 60,000 square-foot facility in Chandler, Arizona. Designed for efficiency and versatility, the plant provides a comfortable, productive work environment for manufacturing, engineering and administrative personnel.

Quadri's manufacturing organization is staffed with NASA and MIL-STD-2000 certified personnel, including three category "C" instructors for MIL-STD-2000 and space applications. All assembly and inspection personnel are certified to MIL-STD-2000.

Manufacturing Engineering plays a key role from the onset of product design, assuring a smooth transition from development to production. Production processes and documentation are finalized upon completion of the Critical Design Review and are validated and approved by Product Assurance, Engineering and Manufacturing before being released.

Quadri's manufacturing and quality systems are fully compliant with MIL-Q-9858A and MIL-STD-480 and have been audited and approved by the nation's largest prime contractors for military and aerospace systems.

Assembly aids and production test equipment include the Delta 4010 Tri-Temp Handler, Zehntel 1820 In-Circuit Tester, QRS-400T Programmable Random Vibration Test System, as well as both medium and large capacity environmental chambers. Both advanced surface mount techniques and conventional (through-hole) manufacturing methods are employed.

PRODUCT ASSURANCE

A cognizant quality engineer is assigned to each development program to assure that all military specifications and customer requirements are met. He takes part in all design reviews and, along with the assigned manufacturing engineer, provides continuity from the development phase to production.

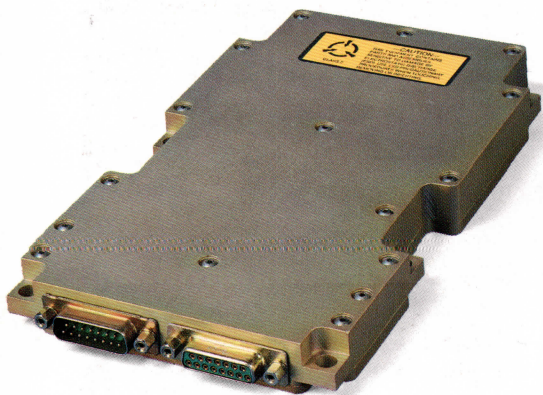
Quadri's quality and manufacturing systems comply with and are approved to:

- MIL-Q-9858A
- MIL-STD-45662
- NHB-5300.4 (3A-1) (NASA)
- MIL-STD-2000
- MIL-STD-1686
- IQUE (Quadri was one of the first firms in Arizona invited to participate in DoD's IQUE (In-Plant Quality Evaluation) program.)

Product assurance procedures provide control of material and product quality from material procurement through delivery of the finished product. Objective evidence of test compliance is formalized through product log books, and full component traceability is maintained throughout the development and production cycle. Consistent product quality is assured through

- verification that approved procurement sources were used,
- in-process and end-item inspection and test,
- verification of workmanship and compliance to customer requirements.

Statistical process control (SPC) is a key element of Quadri's program to assure continuous, consistent flow of quality product.



PROGRAM MANAGEMENT

At Quadri, effective program management is a vital key to meeting our primary goal: *Total Customer Satisfaction*.

To our customers, the Quadri program manager represents the company, with full authority to employ the resources needed to achieve timely delivery of a quality product.

To assure continuity, a program manager is assigned during the proposal stage. Upon contract award, he allocates resources and exercises total program control. Weekly program reviews with executive management assure adherence to the program plan and permit the most efficient use of assets to resolve problems quickly. Formal reviews are conducted in accordance with MIL-STD-1521.

Microframe Project Manager™ software is used for program cost and schedule control. The Work Breakdown Structure (WBS) creates the basis for program control and reporting and fully supports planning and analysis techniques including Line of Balance (LOB), Design to Cost (DTC) and Life Cycle Costing (LCC).

CUSTOMER SERVICE

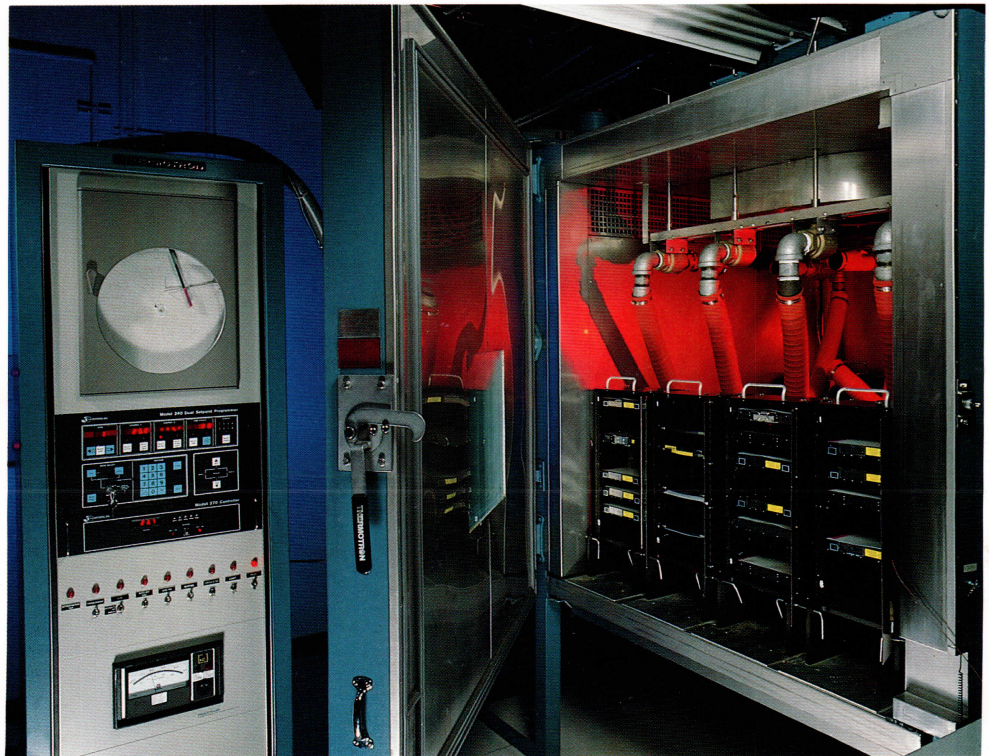
Quadri's Customer Service Department provides complete repair, refurbishment and upgrade capabilities for Quadri-manufactured products as well as many products of other manufacturers.

In order to be fully responsive to our customer's needs, Quadri's Customer Service Department operates as an independent functional entity, thereby avoiding the competition for resources that could otherwise detract from our ability to provide prompt, efficient service.

When needed the Customer Service Manager can draw upon the full technical and capital resources of Quadri's engineering, quality and manufacturing groups to support our customer's needs.

CUSTOMER

SATISFACTION





300 N. McKemy Ave.

Chandler, AZ 85226-2618

(602) 961-7000

Fax: (602) 961-7176