



Exceptional energy conversion solutions
for mission critical applications in:

Medical



Telecom



Datacom



Industrial



Transportation



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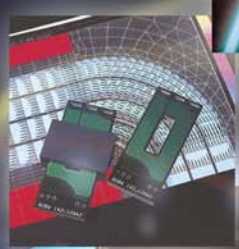
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PERFORMANCE

Innovative



Global



Reliable



Agile

power for networks and infrastructure



cherokee[™]
INTERNATIONAL



Innovation is a tradition at Cherokee International, pioneer of the switch mode technologies in the late 1960s. Today our focus on the implementation of new technologies and components plus creative topologies delivers a constant flow of enhancements to product performance and functionality.



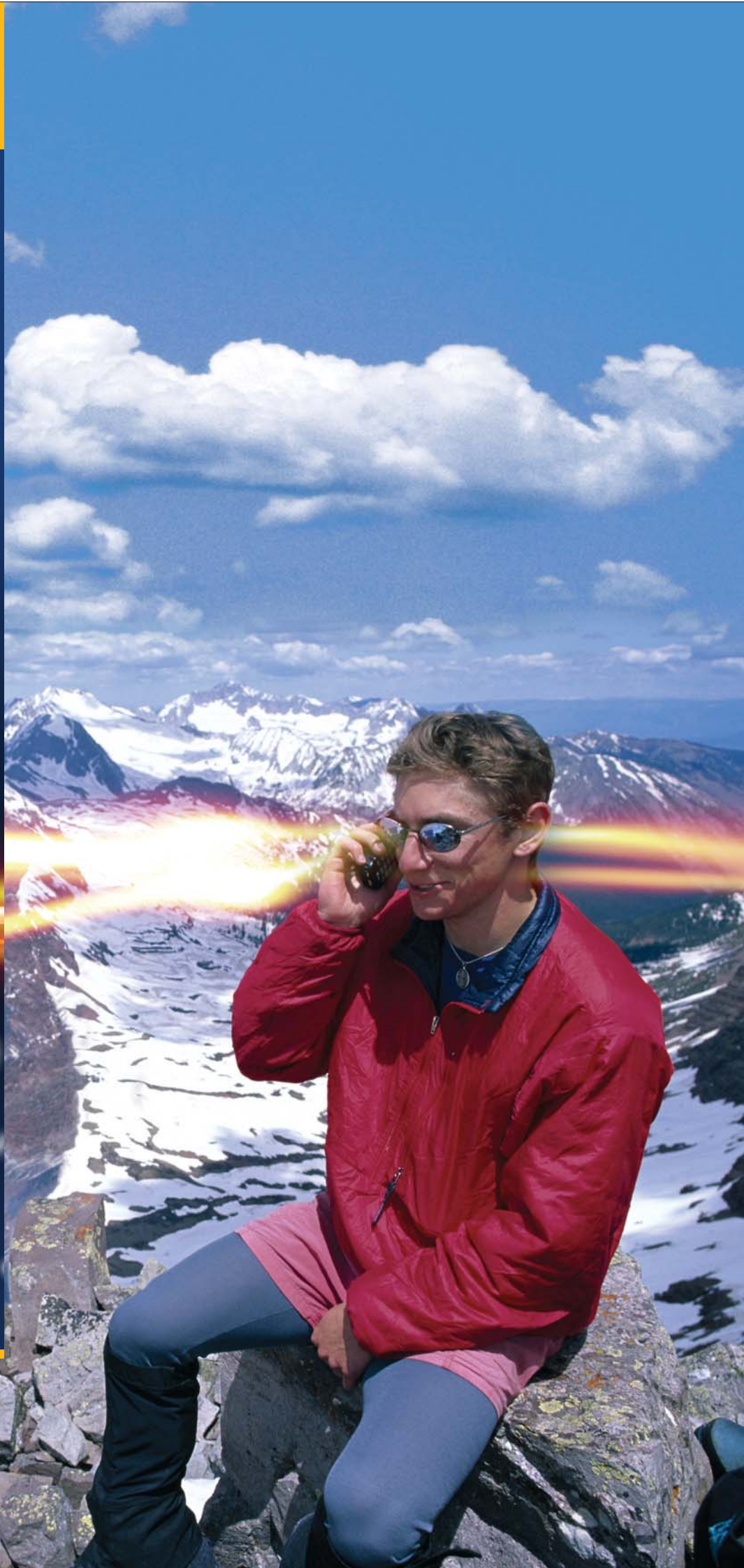
For Cherokee International, reliability is the cornerstone of product performance. It receives constant attention, from design right through to exhaustive product testing.



Other key factors are flexibility and cost savings. We achieve breakthrough flexibility by designing distribution systems and configurations to meet customers' needs precisely. Real estate savings and ease of use are further major Cherokee benefits.



With manufacturing facilities in all major areas of the world, Cherokee International combines global competences and strengths with local services right to your locations.



Energy solutions for the world's networks

Our energy conversion solutions power telecommunications infrastructure and equipment around the world.

Millions of subscribers worldwide rely on our power conversion systems in central exchanges, mobile switch centers, base stations, xDSL equipment, PBXs, servers, routers and storage systems. The world's largest telecom manufacturers and main operators enjoy Cherokee's total solutions to their stringent demands for competitive products and services.

Competitive and customer-driven

Our customers demand solutions that combine reliability and low cost of ownership. With design and manufacturing facilities around the world, Cherokee International offers an international capability and more than thirty years' experience in the development, production and servicing of telecom energy conversion solutions:

- Developing innovative, effective power conversion technologies that make your system more competitive
- Designing and producing standard, custom-configured and custom designed solutions, meeting your demands within short timeframes
- Working globally and acting locally, providing you with the necessary services to create added value at local level
- Deploying Total Quality Management programs for continuous performance improvement and achievement of recognized standards

The right solutions for your power needs

Every network, equipment or site has specific requirements. Meeting flexibility demands, our solutions are custom configured. They integrate expertise in AC/DC conversion (rectifiers, single- and multiple-output), DC/DC conversion (on board and central converters) and inverters. Monitoring and control functions ensure total energy supply mastery.

Cherokee develops the controllers that enhance network reliability. These monitor and control basic functions such as redundancy, mains availability, battery management and distribution monitoring. They also evolve with your changing needs to include battery testing and remote control.



Cherokee International maintains continuous and effective collaboration with specialists in all key components of total energy conversion solutions: cabinets, batteries, thermal devices and auxiliary equipment.

The experience to build future networks

Involvement in the early stages of system design for telecom OEMs and operators, Cherokee International has taken the lead in solutions for access network wireless and wireline.

Flexibility and cost savings in cellular networks

Our product solutions include central DC/DC converters from 48V to multiple output, embedded conduction cooled AC/DC and DC/DC for power amplifiers, rectifiers and telecom subsystems integrated in BTS. All these units are custom configured to meet demands for mechanical fitting in various configurations, to maintain perfect thermal stability and to ensure low EMC levels of integrated systems.

Operators benefit from the excellent performance of the Cherokee standard modular platform through vertical integration in indoor or outdoor cabinets. Several subsidiaries of major wireless operators have selected Cherokee cabinets to power their networks with great flexibility and cost savings.

Flexibility in the design of distribution systems, cabinets and configurations meets your needs precisely. Scalability supports optimization of investments. Superior power density of converters maximizes space for operators to install

additional site support equipment without increasing the number of cabinets. It also lowers floor space demands and leads to real estate savings. We share our knowledge with local integrators: preferred partners chosen by us or by the operator. Within these partnerships, we supply modules and help integrators offer total solutions with local content and support to maximize benefits to all parties.

Innovative leadership in wired access loop

Cherokee International has taken the lead in powering broadband access networks, with operators launching innovative solutions to power networks. A breakthrough innovation is the Magellan Remote Feeding Power System. Since we were first chosen as the sole source for the first major deployment of VDSL technology in Europe, we are currently involved in many major programs around the world.

Mastering major trunk network projects

Cherokee rectifiers and systems power numerous central office equipment

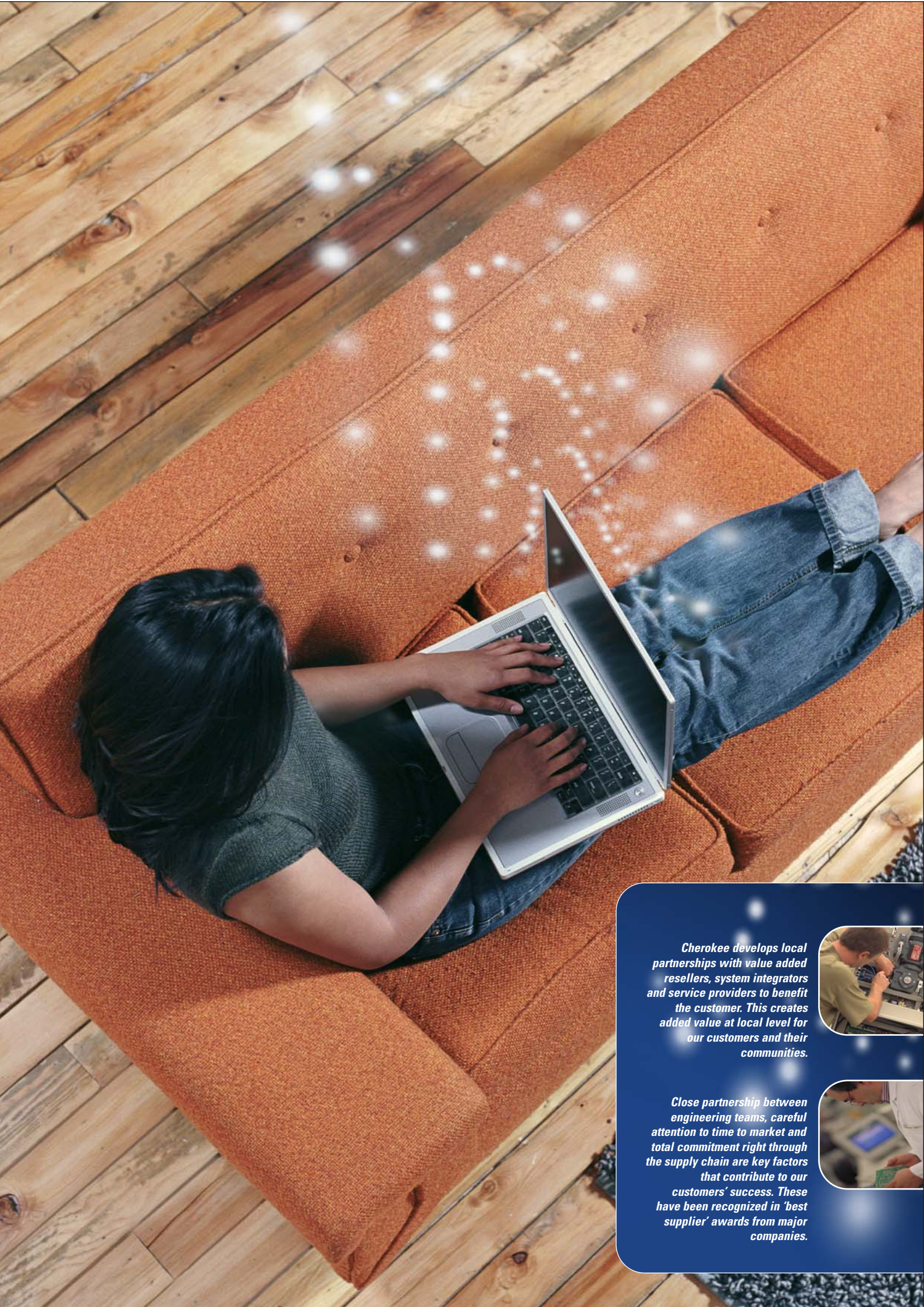
installations and points of presence in the latest IP networks. Our ability to deliver total solutions is shown by the project management of the energy sites for a major fiber network across Western Europe. Cherokee led a team of four companies installing and commissioning around 100 SDH repeater stations with eight hours autonomy. One order line was sufficient for Cherokee and our partners to respond to the customers' needs, installing and commissioning high availability power at the specified locations.

High power density for central office equipment

Our long involvement in powering central office equipment has led to major innovations in power density. When thyristor cabinets were used to power highly centralized networks, each two-meter-high cabinet supplied a 100A load. Today, a power shelf only a few centimeters high delivers more than twice that power, meeting the much higher power demands of the latest IP networks.

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Cherokee develops local partnerships with value added resellers, system integrators and service providers to benefit the customer. This creates added value at local level for our customers and their communities.



Close partnership between engineering teams, careful attention to time to market and total commitment right through the supply chain are key factors that contribute to our customers' success. These have been recognized in 'best supplier' awards from major companies.



Total solutions for controlled power: Building blocks for AC and DC systems

Product category	Part number	Typical Applications
Rectifiers	CAR1548TN CAR1848TN	Indoor and outdoor BTS Soft switches
	CAR0548TN CAR0948TN CAR1248TN	VDSL cabinet Satellite earth stations
	CAR3010 CAR4010	Central Exchange Mobile switch centres
	Remote Access feeding	Magellan
Inverters	PE368 platform	Billing systems, data equipment
Controllers	SCU platform	Local and remote control of energy systems
System sub-racks	ACE platform	Integrated for you
Indoor and Outdoor cabinets	ERA platform	BTS Central Office Equipment

The table shows some of the capabilities that Cherokee International can offer telecommunications OEMs and network operators. These products are the building blocks of our AC and DC power solutions. Combining our ability to listen to your needs with state-of-the-art building blocks delivers the optimal power solution.



Brief Description

With some of the world's highest power densities, these universal input single rectifiers offer 1500W or 1800W constant power. Their small profile packs up to 10.8kW, with superior modularity in line with the latest cellular network requirements, leaving space to integrate the application in the same cabinet.

The low profile 500W to 1200W constant output power pack up to 6000W in a 19" rack. With a depth of 220mm the 850W rectifier supports up to 3400W compliant with ETSI 300mm requirement.

Up to 12kW in 3U and 50kW in a cabinet not much higher than a desk makes these rectifiers the best way to pack a lot of power in a small space. Hot swap with no installation procedure and a light weight of 8 kg make our solutions the preferred choice of installers and maintenance teams.

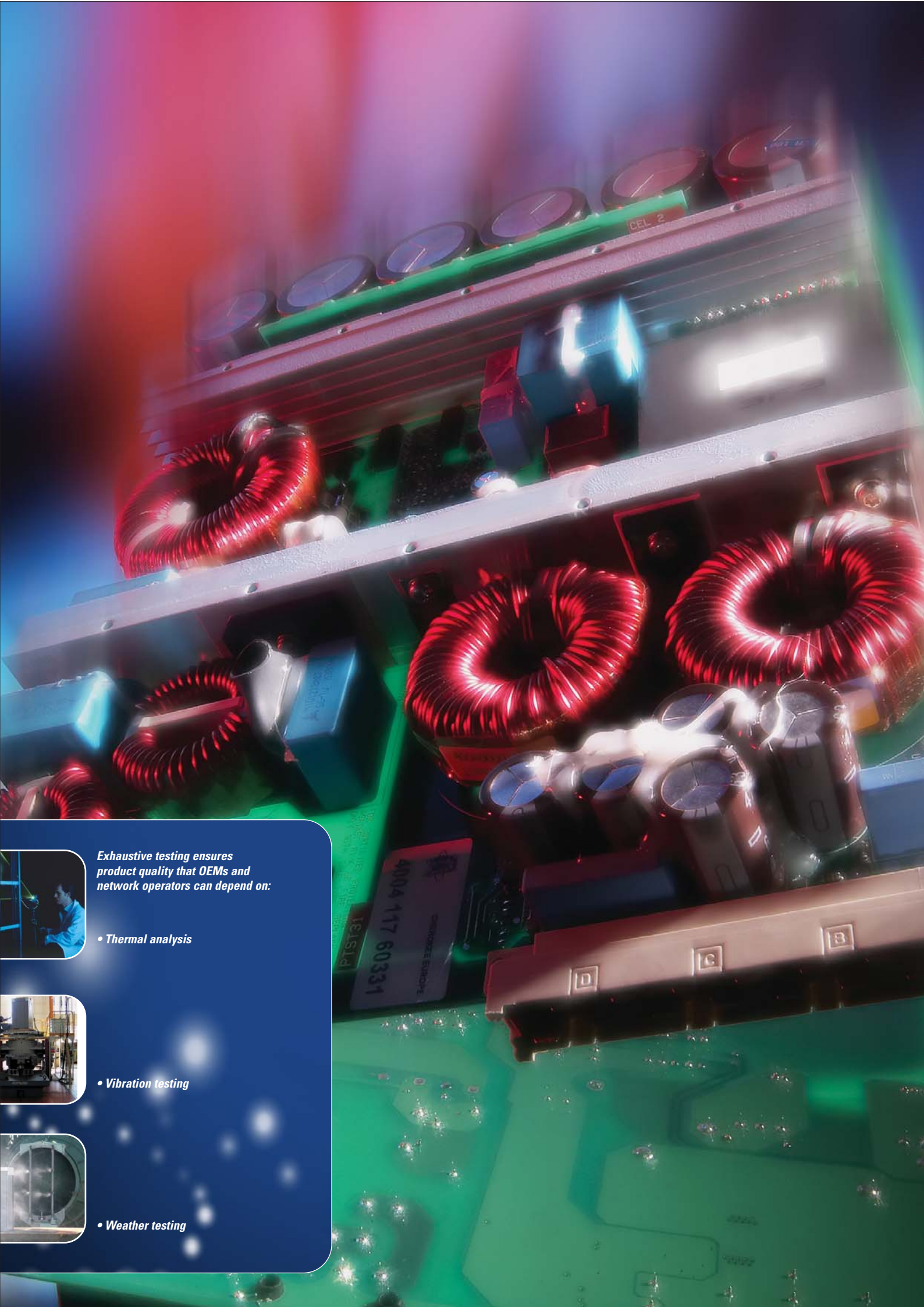
This unique solution is the ideal way to power remote street cabinets or equipment at the curb using the battery back up in the central exchange. As a complete, end-to-end solution, the Magellan product range simplifies network deployment and brings significant savings to the maintenance of network power.

Nothing is more important to keep alive than the billing system for your networks. Our modular redundant inverters connect to the 48V battery back-up supply, ensuring the highest availability for your mission-critical equipment.

The SCU platform is the perfect example of what our customers request: a reliable and cost-effective controller that can be upgraded at any time with an IP communication card for remote monitoring and control in the open IP environment.

All our system sub-racks include hot swap rectifiers, battery connection and management and controllers. These are preferred solutions to make your life easier. They are ready to operate and simple to install in existing cabinets, bringing significant savings and flexibility for a wide range of distribution needs.

The ultimate solution. Combines all the expertise of Cherokee and its partners in a product that is thoroughly tested and ready to be connected to your most critical equipment.



Exhaustive testing ensures product quality that OEMs and network operators can depend on:

• Thermal analysis

• Vibration testing

• Weather testing

Uninterrupted power delivery: Maximum effectiveness

Each new product generation further improves performance and cost-effectiveness, aimed at strengthening your competitive position.

Innovation: the cornerstone of performance

Our success in product development is based on a thorough analysis of the needs of the telecommunications market. Cherokee International works closely together with renowned universities, supporting leading edge innovations and resulting in regular scientific papers, patent applications, nominations and awards in the specialized press.

Intensive focus on reliability

For Cherokee International, reliability is the cornerstone of product performance. It receives constant attention, from design right through to exhaustive testing. Reliability involves suppliers, the latest manufacturing technologies and the product creation process from design to manufacture.

Statistical Process Control (SPC) and constant analysis of field failures creates a corrective feedback loop to both R&D and manufacturing.

- Latest manufacturing technologies combined with SPC (Statistical Process Control) reduce stress on components and ensure high reliability.
- 100% burn-in and full specification automatic testing on all products leaving our manufacturing facilities provides a guarantee of performance right from the start.
- Standard testing such as thermal and EMC behaviour are combined with verification of product performance under extreme conditions during the design phase.
- Field return analysis based on the recognized TL9000 standard allows abnormal failure rates to be anticipated and potential corrective actions to be implemented, ensuring reliability of services.

Meeting international standards

As a global company, Cherokee International complies with major international and standard requirements. Cherokee products carry labels of compliance with the international safety standards UL, CSA and CE marking, including both the low-voltage and EMC (Electro Magnetic Compatibility) directives. Module specifications are also aligned with relevant telecommunication standards from ETSI or Telcordia.

Cherokee International is one of the very few manufacturers in the industry to own full EMC testing facilities. These permit our engineers to measure both conducted and radiated EMC at an early phase in the design process. We also share facilities and knowledge with our customers, enabling testing of complete systems and, wherever necessary, optimization of solutions to comply with the latest legislation.

Products meet the RoHS Directive of the EC. The CAR rectifier and rack systems ranges have approval from the Russian Ministry of Post and Telecommunications.



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Get more from Cherokee

**Cost-effective power means much more than converters alone. Your success drives our solutions.
Reduction of opex is a major driver for our innovation process.**

Each increase in efficiency means a reduction in energy costs and a further step to reduce CO₂ emissions.

Our products are designed for easy installation and maintenance. Front access is standard for every Cherokee design. Supplied with detailed installation and operation manuals, our equipment is so clear and easy to integrate that installers quickly understand connection and operation principles.

Cherokee offers high flexibility in the supply chain. For example, by including equipment and auxiliary materials such that all power-related components are in the same package. Flexible delivery schedules aligned with your network or manufacturing planning will contribute to your operational improvements.

Wherever it benefits the customer, Cherokee develops local partnerships with value added resellers, system integrators and service providers. This creates added value at local level for our customers and their communities. Our support means you're never alone. We provide hands on training and direct access to our experts for all customers

and partners. Because getting the right answers when you need them is a key success factor.

Acting locally in a global world

With around 1,500 employees worldwide, Cherokee International owns facilities in Tustin and Irvine (California), Wavre (Belgium), Guadalajara (Mexico), Mumbai (India) and Shanghai (China). All our factories are ISO 9001 or 9002 and ISO14000 certified, based on a uniform quality manual. Our customers enjoy the same high level of standards in our processes at every one of our facilities.

Energy system requirements frequently differ between customers. Cherokee International partners with integrators in many countries to offer energy systems locally. These partners add value to Cherokee modules by integrating them with distribution and batteries. They also handle customer service requirements and first line calls, and provide local language customer support. Cherokee provides these integrators with first class modules, training and support in integration.

Dedicated to your satisfaction

Nothing is more important to us than your satisfaction. Customer quality awards prove that Cherokee International considers customer satisfaction to be the No. 1 quality indicator. Proactive use of vendor ratings is the best way to achieve continuous improvement of our products and services, which is a basic requirement for long-term customer relationships. Thanks to our customers who have renewed their confidence in our company year on year, Cherokee International is one of the fastest growing companies in the industry, outperforming competitors on visible results. That's the way we earn the right to work with you on implementing your next generation networks.

Our customers enjoy the same high level of standards in our processes at every one of our facilities.





CARE: from the design-in phase to the end of life of the products, your satisfaction is our driver and care our method.



Our solutions power networks around the world - 24 hours a day, all year round.

