

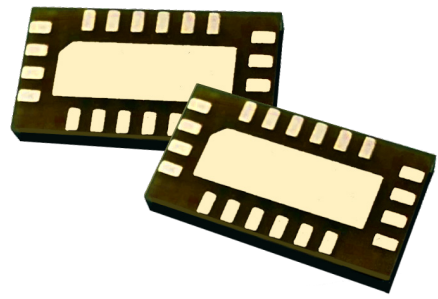


New Products

**RF, EMI/EMC, Optical and Power Solutions
from Spectrum Control**

RF • EMI • Power Solutions

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High Q 3D Glass SMT Filters

Ultra-miniature filters offer a dramatic reduction in size while maintaining exceptional performance

- Low loss and high selectivity
- Frequency range: 500 MHz–10 GHz
- Ideal for use in lowpass, highpass, and bandpass applications
- Standard products with custom derivatives available, including multiplexers and switched filter banks

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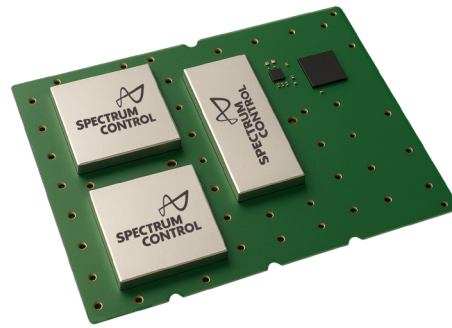


OptoXtreme™ Optical Transceivers

Rugged, surface-mount, micro-optical transceivers for high-speed digital data transfer in extreme environments

- Innovative pluggable optical connector interface stays secure under high shock and vibration conditions
- BGA solder ball base layer contacts for PCB mounting
- Hermetically sealed enclosure
- Higher operating temperature than other solutions (up to 125°C)
- Backward-compatible with legacy systems

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mmWave Block Converter SiPs

High Performance Up and Down Converters (18-40 GHz $\rightleftharpoons$ 2-18 GHz) in small, surface mount packages

- Integrated power management
- Integrated digital gateway
- Designed for high volume production and optimized to minimize supply chain risk
- Custom configurations available

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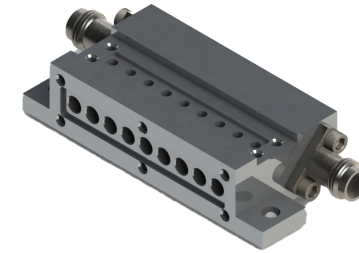


Power Distribution Units (PDUs)

Built for demanding applications where reliable, secure power and protection of high-value assets are paramount

- Local and remote management, customizable inputs/outputs, and flexible operation
- Secure remote access/control/local control (SNMPv1/2c/3)
- Temperature monitoring
- Programmable sequencing at power; common control across AC/DC
- Built to MIL-STD-810H and MIL-STD-461G standards

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Q-Band Gain Equalizer

Fixed and field-adjustable attenuation control for flattening frequency response from 40 to 50 GHz

- Compensate for gain variations associated with amplifiers, multiple component strings, and pre-leveling loops
- Compensate for loss variations associated with long cable runs and delay lines
- Supports linear, parabolic, and ripple correction with minimum parasitic loss
- Qualified per MIL-STD-202 environmental standards

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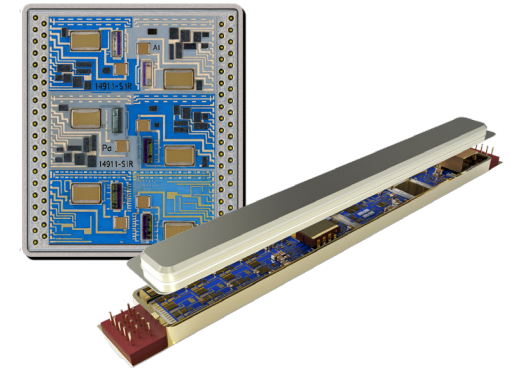


Attenuators for Cryogenic Applications

Resistive components engineered for extreme low temperatures, rated down to 4mK

- Includes coaxial and miniature chip formats
- Vertically integrated U.S. manufacturing ensures supply chain control and tariff immunity
- Fast thermal response with minimal self-heating
- Multiple solder finishes available (Au, Ag, SnPb, Pb-free)
- Design kits and samples available for rapid evaluation

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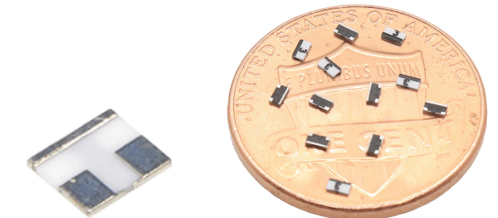


High Temperature Electronics

Custom multi-chip modules designed to operate continuously up to 225°C, under severe shock and vibration

- Thick-film ceramic interconnects rated to 225°C
- Hermetic packaging to block moisture & chemical ingress
- Proven reliability models: physics-of-failure + accelerated life testing
- MIL-PRF-38534 Class K and ISO-17025 certified

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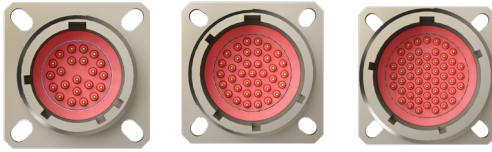


High-Performance, Miniature Chip Attenuators

Industry-leading specs in a 0603 pkg. (0.89 × 1.65 mm)

- Handles up to 1W power with low reflection across frequency
- Optimized for sub-6 GHz and mmWave 5G
- Proven superior to competing offerings in amplifier, receiver, converter, phased-array, and switching network circuits

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Filtered Connector Express

Custom MIL-DTL-38999 filtered connectors delivered in 12 weeks with no NRE

- Available with nickel or ODCAD finishes and multiple insert configurations (13–35, 15–35, 17–35)
- Easy-to-use online configurator streamlines prototype and production requests
- Filter EMI at the connector interface - the most space-efficient solution

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Dual Line EMI Filter

Space-saving, hermetically sealed design, filtering two lines in a single, compact package

- Attenuation of common- and differential-mode voltages from both lines on inputs and outputs of AC or DC systems
- Employs a common mode choke, line-to-ground, and line-to-line capacitance
- Compact 0.690" diameter for reduced size and weight
- Designed to meet MIL-PRF-15733

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Value-Added EMI/EMC Services

Use our expertise to successfully integrate EMI protection into your products

- Reduce scrap, improve yields, and accelerate delivery schedules
- Examples:
 - Integration of multiple filters into an assembly or box
 - Custom filter arrays with associated electronic products, interconnects, and/or housings
 - EMC evaluations on your equipment, proper placement of EMI/RFI filtering components

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Single-Phase EMI Power Filters

A standard family of MIL-STD-461 EMI filters with best-in-class lead times

- Choose from six catalog parts, available in either standard or elite insertion loss levels and rated for 5, 10, or 15 amps
- High-frequency attenuation up to 1 GHz common mode
- Convenient and environmentally sealed input interface
- Maximize performance in a compact design, up to 30% space-saving
- Ideal for communication, navigation, lighting, threat detection, fuel systems, flight and engine controls

Visit **[SpectrumControl.com/products/emi-protection](https://www.spectrumcontrol.com/products/emi-protection)** for information on all of our EMI protection solutions

To discuss your project, contact your local Spectrum Control sales office or email us at **sales@spectrumcontrol.com**

