

POWERFILM™


**SPECTRUM
CONTROL™**

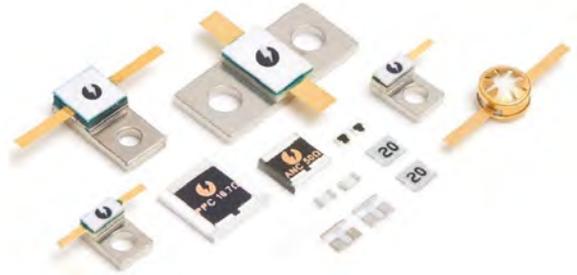


Powerfilm™ Surface Mount Resistive Products

Powerfilm™ Surface Mount Resistive Products

Resistors, Terminations, and Attenuators

- Up to 40GHz for High-frequency
- Up to 1250W for High Power
- Selectable Finishes and Packaging Options



The Powerfilm™ team is ready to help you with product selection, engineering and application support, product testing including MIL-spec qualification, and on-time delivery, all from our US based facility.

Industries and Applications

Spectrum Control's Powerfilm™ resistive products are used in dozens of different applications, and this list continues to grow longer. Contact us to help you find the best Powerfilm™ product for your application!

Military and Government



- Integrated Microwave Assemblies
- E/W and T/R modules
- Phased-Array Radars

Space



- Satellite Communications including GPS III and NISAR-ISRO

Avionics and Transportation



- Traffic Collision Avoidance and Proximity Warning systems

Wireless Communications



- FM and TV Signal Transmitters
- High-Power Terminations for Isolators & Amplifiers

Medical



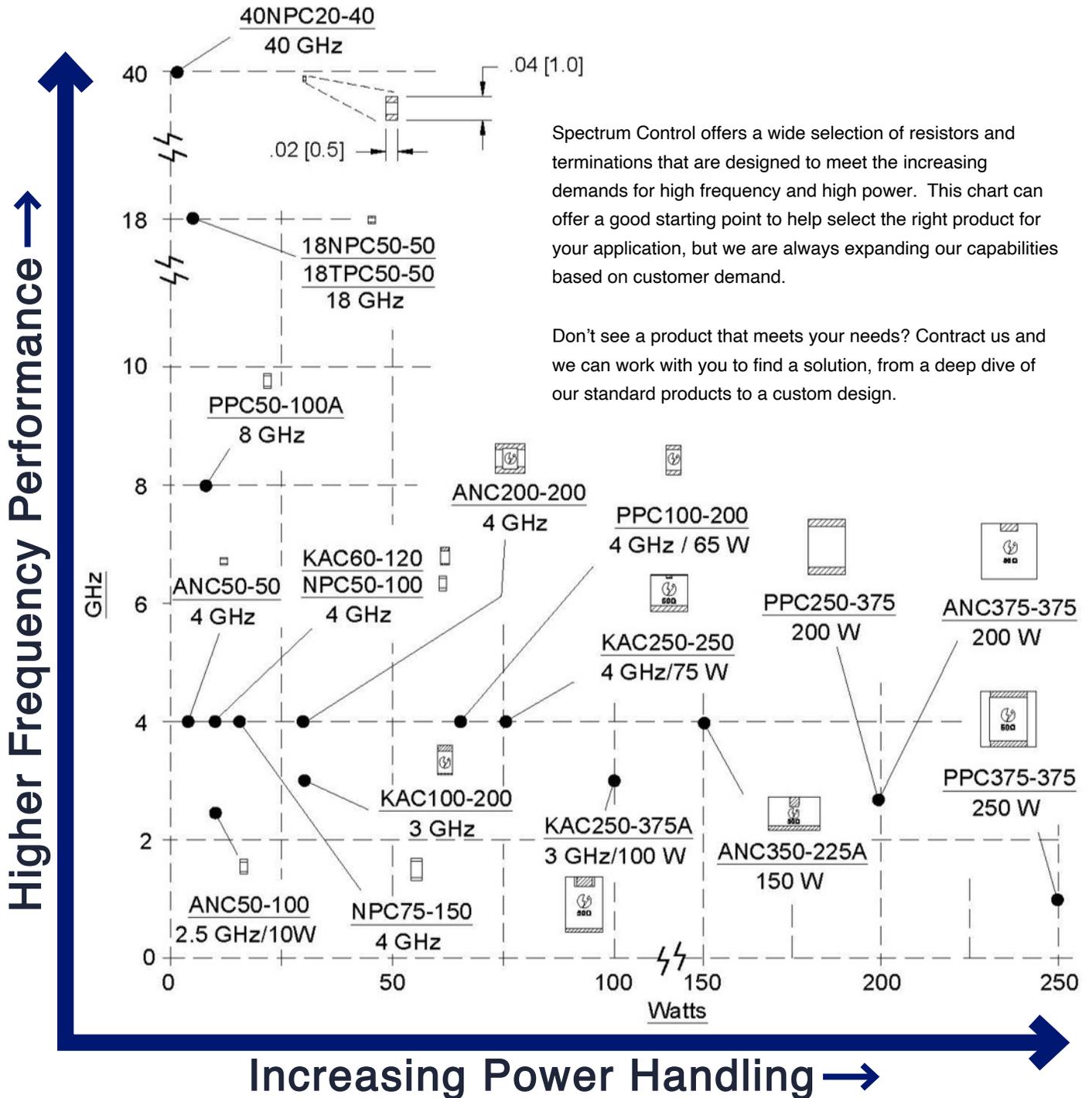
- Flanged Resistors for RF power and Plasma generation
- MRI Power Electronics

More...



- Test and Measurement
- Cryogenic Computing

Chip Resistor and Termination Selection Guide



Spectrum Control offers a wide selection of resistors and terminations that are designed to meet the increasing demands for high frequency and high power. This chart can offer a good starting point to help select the right product for your application, but we are always expanding our capabilities based on customer demand.

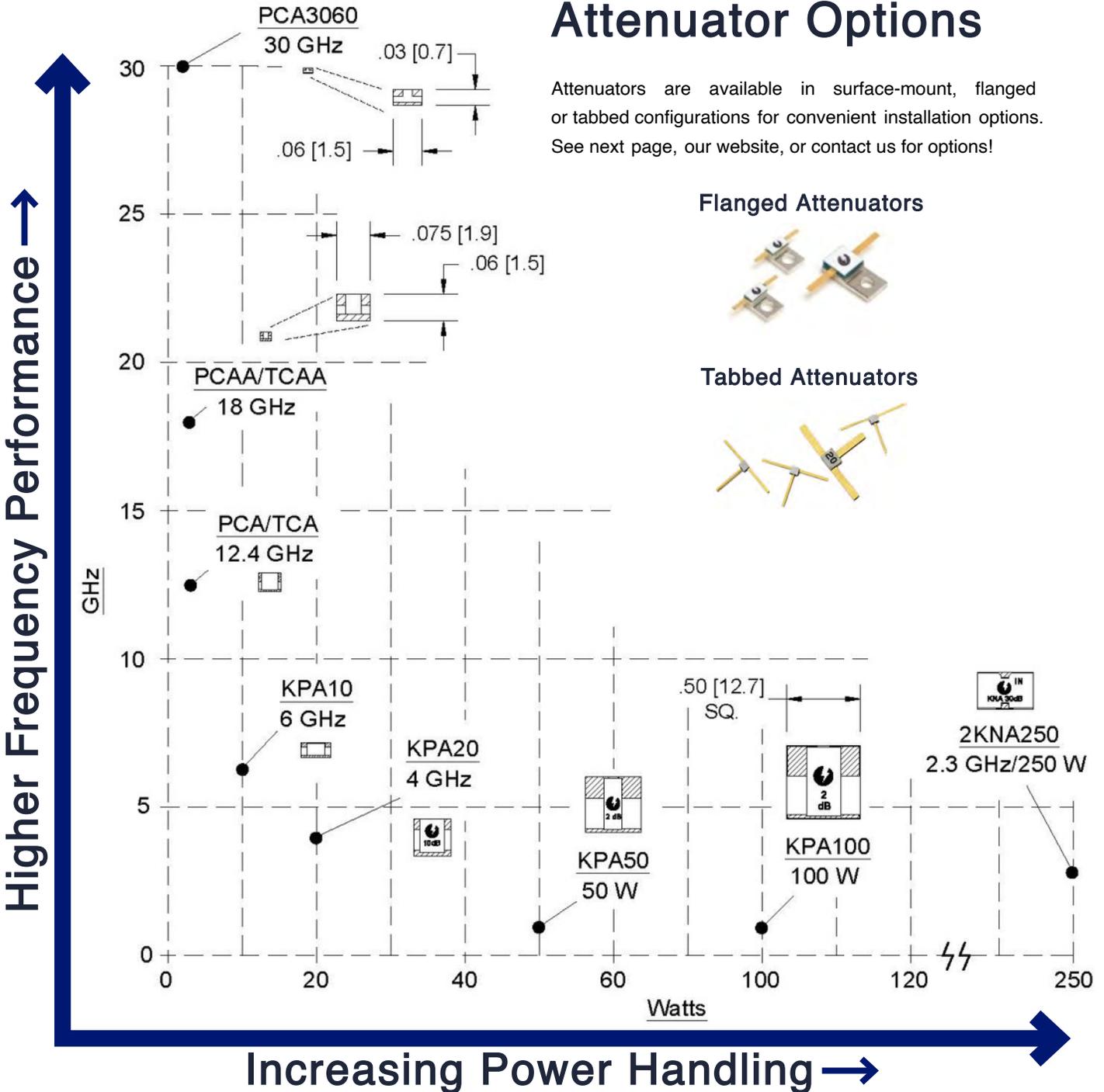
Don't see a product that meets your needs? Contract us and we can work with you to find a solution, from a deep dive of our standard products to a custom design.

Chip Attenuator Selection Guide

Don't see a product that meets your needs? Contract us and we can work with you to find a solution, from a deep dive of our standard products to a custom design.

Attenuator Options

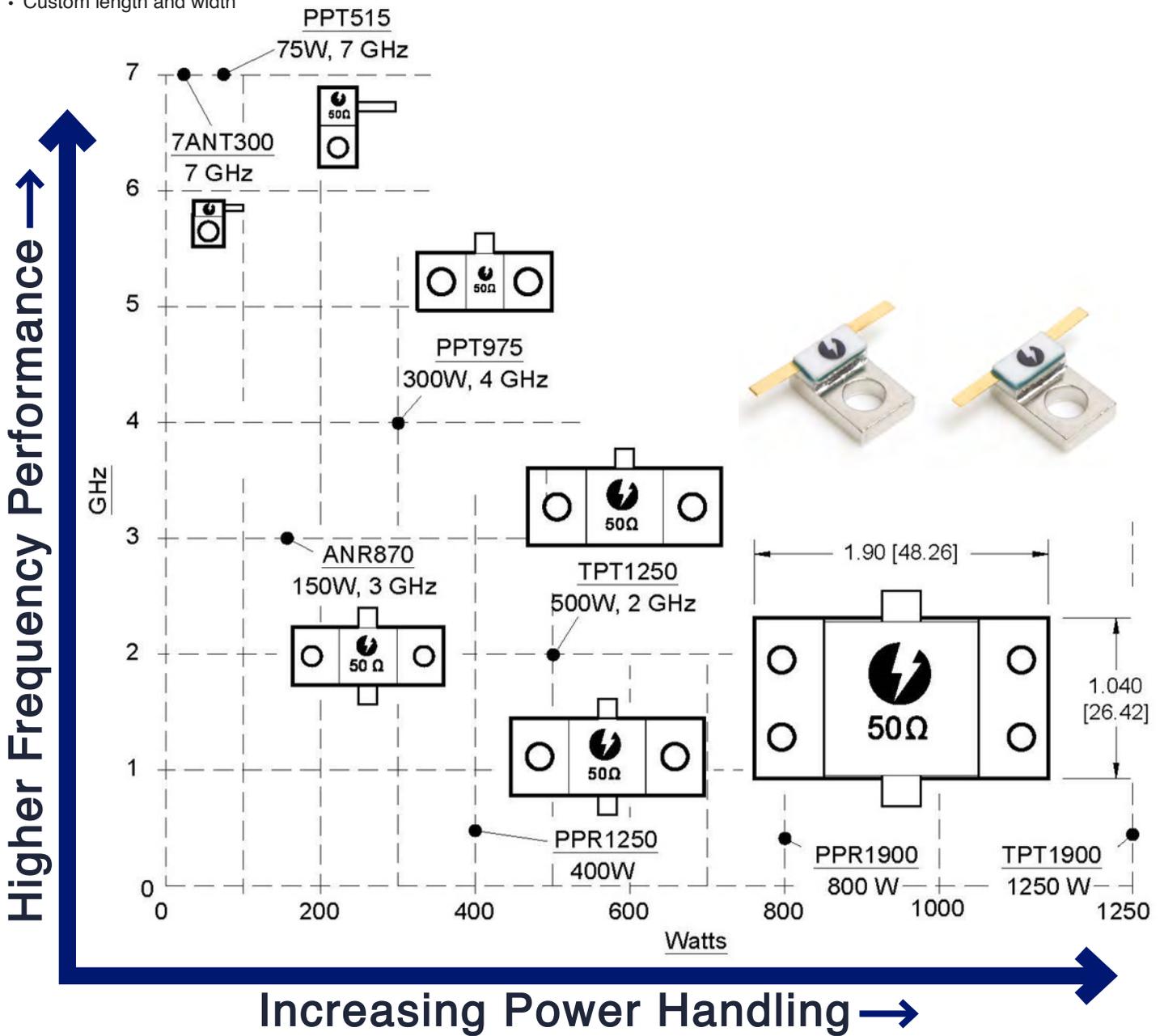
Attenuators are available in surface-mount, flanged or tabbed configurations for convenient installation options. See next page, our website, or contact us for options!



Flange Termination and Resistor Guide

Tab Options

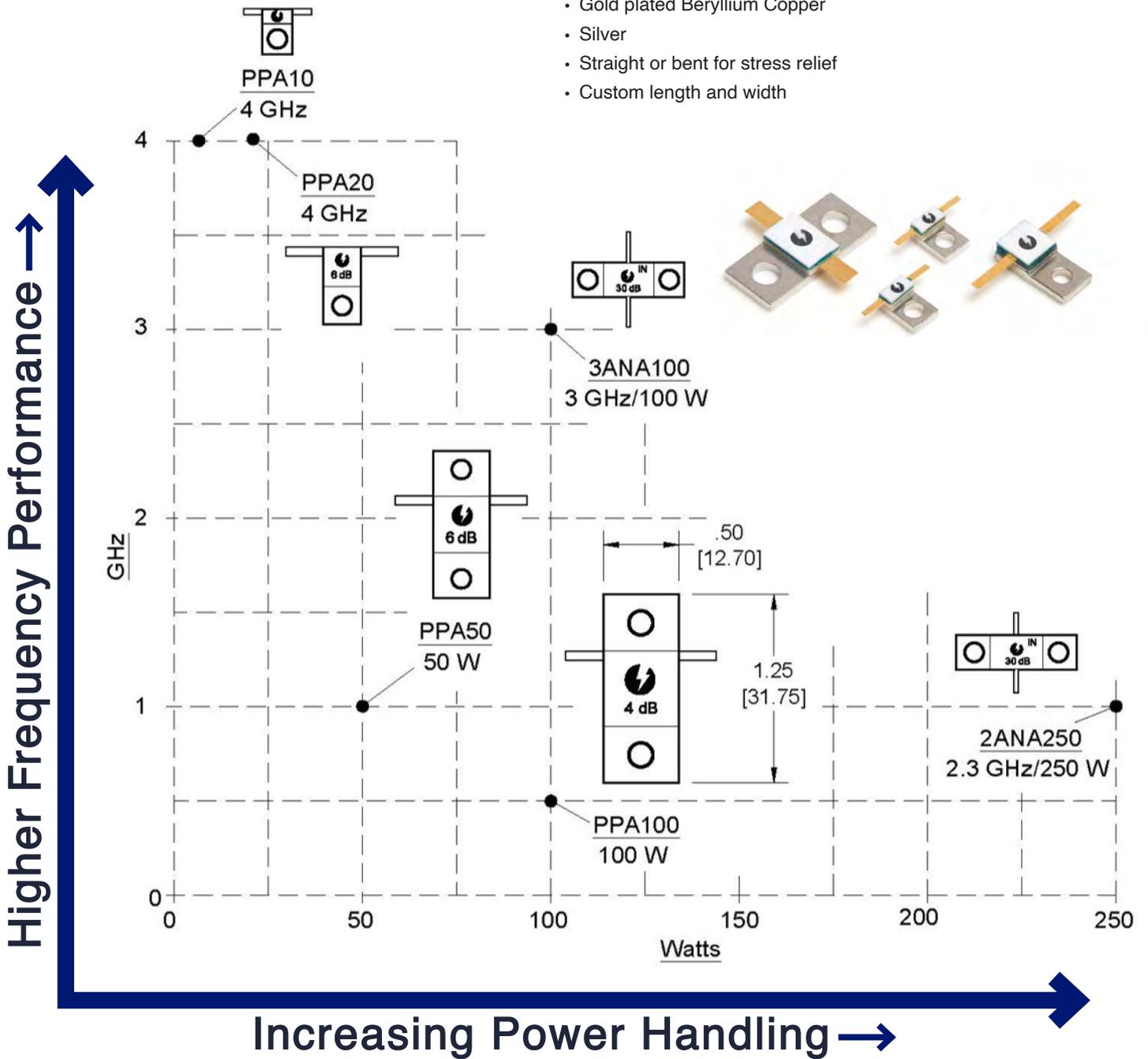
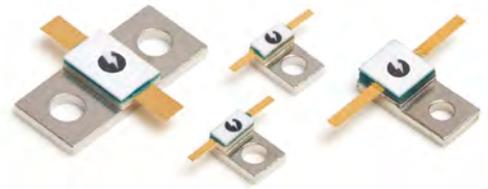
- Gold plated Beryllium Copper Silver
- Straight or bent for stress relief
- Custom length and width



Flange Attenuator Selection Guide

Tab Options

- Gold plated Beryllium Copper
- Silver
- Straight or bent for stress relief
- Custom length and width



Substrate Options

Spectrum Control Powerfilm™ products are available in a variety of substrates.

BeO: BeO (Beryllium Oxide) offers a high thermal conductivity to enable best performing products.

AIA: AlN (Aluminum Nitride) offers a balance of thermal performance and cost – best value power products.

Alumina: Offers best value and performance for high-frequency applications with lower power requirements.



Terminal Options

Silver over Nickel: Best value

Gold: Best for Wire-bonding

Tinned with Lead-free solder: Best solderability

Tinned with Tin-Lead solder: RoHS compliant solder

Pills

Spectrum Control also offers pill terminations for high frequency and high powers.



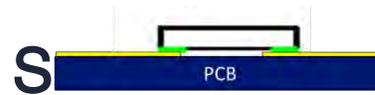
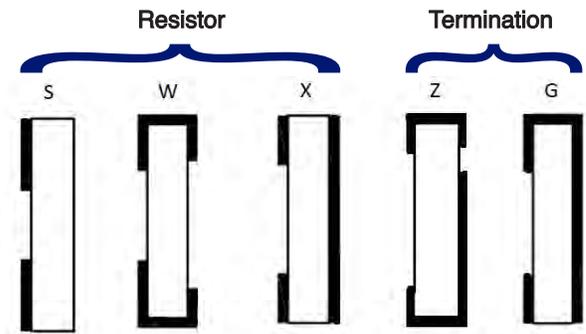
Rods

Spectrum Control also offers rod resistors in various sizes for both high frequency and hi



Contact us or visit our website for more details.

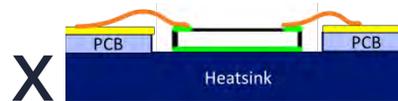
Resistor & Termination Wrap Styles



- Best RF performance
- Lowest cost



- Improved soldering
- Resistor can face up or down



- Best power handling, with full backplane to transfer heat



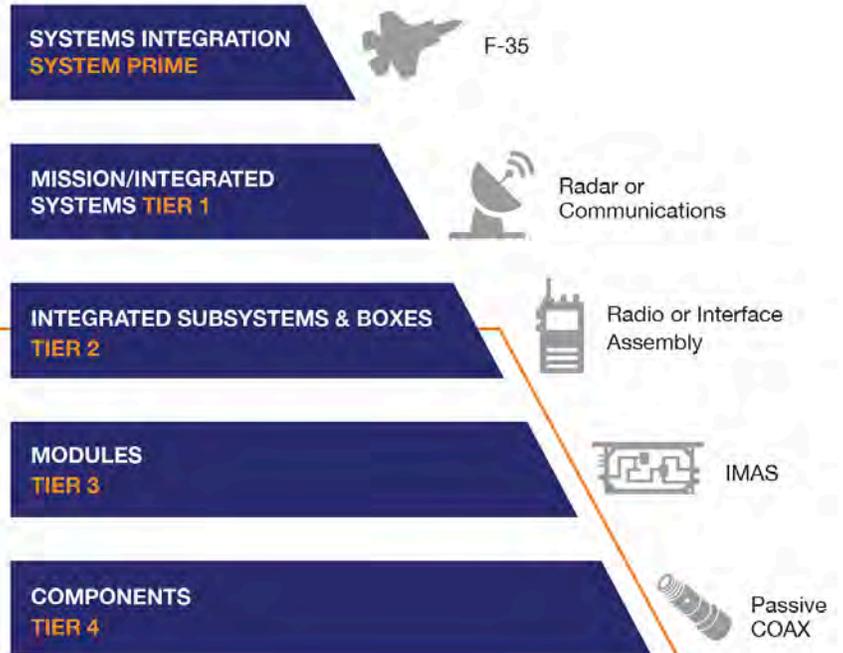
- Best power handling, with full backplane to transfer heat



- Combines ease of installation with high power performance

**Value-added Integration
from Components to
Subsystem Solutions**

Spectrum Control provides rugged, reliable, and efficient subsystems, assemblies, and components for use in the most mission critical defense and military applications, supporting government programs throughout the world. With diverse program experience and preferred supplier status with some of the industry's top premier contractors, our precision-engineered MIL-grade products are ideal for applications where uncompromised reliability and uninterrupted performance is required. Spectrum Control is the Electromagnetic Spectrum Innovator at Tier 2.5-4 in the supply chain.



The Electromagnetic Spectrum Innovator

Spectrum Control is an innovative designer and manufacturer of high performance systems, subsystems, assemblies and components for technically demanding RF, microwave, millimeter-wave, electromagnetic, power, and security applications.

A high reliability technology pioneer with over 70 years of heritage, Spectrum Control's products are used by global defense, industrial, and commercial customers in applications spanning radar, electronic warfare, unmanned systems, missile defense, harsh environments, space, communications, medical, test and instrumentation, and more.



www.SpectrumControl.com

Contact US