Exceeding Expectations

Spectrum Microwave, a leader in RF Component design, continues this rich microwave heritage with its line-up of broadband, high isolation switches. We believe that designing switches which exceed customer expectations is paramount to building strong supplier relationships. That’s why we selectively employ double ball bonds on critical connections for added integrity and run our hybrids over temperature as part of our final test procedure.

Fast Switching

For challenging system requirements demanding fast switching, Spectrum Microwave offers GaAs FET switches exhibiting switching speeds as low as 6 nsec. When the design cannot support GaAs semiconductors, our proprietary high-speed PIN diode driver circuits embedded in our diode line offer another option. From SPST to SP5T, the variety of these switches in board mountable packages makes selecting the perfect switch the easiest part of your design.

Spectrum Microwave designs PIN diode switches for exceptional High Isolation and Low Loss performance. The exceptionally broad array of PIN diode switches range from low frequency TO style cans and DIPs to broadband 22 GHz low loss units equipped with removable connectors.

PIN Diode Switches

Our Ultra-Broadband models offer exceptional performance, even at higher frequencies.

Our PIN Diode designs achieve surprisingly High Isolation
Flawless Performance
When you purchase a switch, whether GaAs or PIN Diode, SPST to SP5T, the device should perform flawlessly. Our design engineers make certain this happens by including features in the construction, including:

- 100% Testing
- Hermetic Sealing
- Minimum 16 hour stabilization bake at 150°C
- Gold or durable Nickel plating
- Gold Plated Substrates

Full Performance Switch Guide

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Frequency (MHz)</th>
<th>Isolation (dB)</th>
<th>Switching Speed</th>
<th>Insertion Loss (dB)</th>
<th>Control</th>
<th>Termination (ohms)</th>
<th>Voltage (DC)</th>
<th>Current (mA)</th>
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- PIN Diode
- GaAs

All specifications listed are typical at 25°C

- Our line of thick and thin film switches is designed and tested to meet the reliability of MIL-PRF-38534 and the screening requirements MIL-STD-883. Spectrum Microwave is also equipped to perform Groups A, B, C, and D QCI qualification of our hybrid microelectronic devices.

- We routinely perform MIL-PRF-38534 Class H qualification testing on switches intended for extreme environments.

- High reliability designs are Spectrum Microwave’s industry calling card.
Spectrum Microwave offers Form, Fit & Function Cross Referenced Units to other manufacturers’ old, obsolete and long lead-time switches.

**Total Satisfaction**
Spectrum Microwave has always understood that customer service is what breeds customer loyalty. So, in keeping with our “customer first” policy, we maintain this active Cross Reference Guide to make it easier to find alternate sources for your switch requirements.

**Advanced Product Quality Planning**
Our key manufacturing facilities also incorporate strategic disciplined processes including APQP (Advanced Product Quality Planning) to ensure that a specific, structured sequence of operations are completed to prevent potential quality issues before they become a reality.

**M/A-Com (Anzac) Cross Reference List**

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<table>
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**Better Pricing • Better Delivery • Better Service**
Spectrum Microwave offers Form, Fit & Function Cross Referenced Units to other manufacturers’ old, obsolete and long lead-time switches.

For more information or to let us know how we may help you, please contact us at 888.553.7531
Design Resources

SpectrumMicrowave.com
Spectrum Microwave’s website features complete information on all their standard products with updated versions of more than 900 product datasheets. There are also FREE engineering tools, tours, application notes, white papers, and the ability to create a custom designed product per your individual specifications.

Cascade Design Suite
With over 750 datasheets on Spectrum Microwave’s Amplifiers, Mixers, Oscillators & Control Products, this CD also offers the industry’s best manufacturer’s cross reference. The System Simulator lets you optimize your design by viewing an individual component’s contribution to overall system performance. You can also quickly evaluate trade-offs in component selection and their impact on system performance (e.g. Gain, Noise, P1dB, IP3, Dynamic Range......)

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