



TACTRON ELEKTRONIK

Bunsenstraße 5 / II

D - 82152 Martinsried

Tel.: +49 (0)89 895 569 0

Fax: +49 (0)89 895 569 29

[www.tactron.de](http://www.tactron.de) – [info@tactron.de](mailto:info@tactron.de)

Modelithics, Inc.

3802 Spectrum Blvd, Suite 130

Tampa, Florida 33612, USA

P: (813) 866-6335

F: (813) 866-6334

[www.modelithics.com](http://www.modelithics.com) – [sales@modelithics.com](mailto:sales@modelithics.com)

## Modelithics MVP Connections and TACTRON ELEKTRONIK Partners



### **Modelithics Microwave Global Models™ for APITECH/Inmet Components**

Modelithics Microwave Global Models™ reliably track how each component's performance will change with substrate characteristics, as illustrated in the model data sheet for the component. Microwave Global Models™ automatically scale all substrate-sensitive parasitics with nominal part value, enabling a single model to generate accurate simulations of a complete component family. The data sheet also demonstrates the excellent measured-to-modeled agreement that can be expected using this model with the appropriate pads and substrate settings.

Microwave Global Models™ are available for Keysight ADS, AWR Microwave Office, Keysight GENESYS, Ansys HFSS and Sonnet EM. The models listed below can be purchased as part of the Modelithics COMPLETE Library or CLR Library.

To purchase Modelithics Library Models, or for more information, please contact: [info@tactron.de](mailto:info@tactron.de)

[APITECH/Inmet Model Request](#) - Complimentary (free) use available to qualified requestors.

For more information on APITECH/Inmet products or to request samples please [contact TACTRON Elektronik](#).

# Modelithics MVP Connections and TACTRON ELEKTRONIK Partners



Part Number	Model	Body Style	Max Freq (GHz)	Part Values	Downloads	Features *
<a href="#">ANC50-100W</a>	<a href="#">RES-AFE-50100W-002</a>	50x100	30	50 Ohms	<a href="#">S-Parameters</a>	SS, PS, EM
<a href="#">ANC50-50W</a>	<a href="#">RES-AFE-5050W-002</a>	50x50	30	50 Ohms	<a href="#">S-Parameters</a>	SS, PS, EM
<a href="#">NPC20-40S</a>	<a href="#">RES-AFE-2040S-001</a>	20x40	30	50 and 100 Ohms	<a href="#">S-Parameters</a>	SS, PS, VS, EM
<a href="#">NPC50-100W</a>	<a href="#">RES-AFE-50100W-001</a>	50x100	20	50 and 100 Ohms	<a href="#">S-Parameters</a>	SS, PS, VS, EM
<a href="#">NPC50-50W</a>	<a href="#">RES-AFE-5050W-001</a>	50x50	20	50 and 100 Ohms	<a href="#">S-Parameters</a>	SS, VS, PS, EM
<a href="#">PPC100-200AW</a>	<a href="#">RES-AFE-100200AW-001</a>	100x200	12	50 and 100 Ohms	<a href="#">S-Parameters</a>	SS, PS, VS, EM
<a href="#">PCA</a>	<a href="#">ATTSP-AFE-PCA-001</a>		20	1-20 dB	<a href="#">S-Parameters</a>	SP
<a href="#">PCAA</a>	<a href="#">ATTSP-AFE-PCAA-001</a>		20	1-20 dB	<a href="#">S-Parameters</a>	SP
<a href="#">PCAAF</a>	<a href="#">ATT-AFE-PCAAF-001</a>		20	1-20 dB	<a href="#">S-Parameters</a>	SS, VS, PS
<a href="#">PCAF</a>	<a href="#">ATT-AFE-PCAF-001</a>		18	1-20 dB	<a href="#">S-Parameters</a>	SS, VS, PS
<a href="#">TCAF</a>	<a href="#">ATT-AFE-TCAF-001</a>		18	2 - 6 dB	<a href="#">S-Parameters</a>	SS, VS, PS, TS

\* Features

BB - Broad Band Capacitor	FL - Flicker Noise (1/F)	IM - 3rd order IMD validated	LP - Load Pull	NL - Non-Linear
NP - Noise Parameter	PD - Pad de-embedding	OS - Orientation Selectable	PS - Pad Scaling	SS - Substrate Scalable
TS - Temperature Scalable	VS - Part Value Scalable/Selectable		EM - also electromagnetic Simulators	
BW - Bondwire de-embedding	SP - S-Parameter Data Model	XP - X-Parameter model		

## Modelithics Components and TACTRON ELEKTRONIK Partners



### **Modelithics Microwave Global Models™ for Aeroflex/Metelics Components**

Modelithics high accuracy measurement-based models reliably track how component performance will change with various input parameters over a specified frequency range documented in a model information data sheet for each component. Modelithics surface-mount diode models covers varactor, Schottky and PIN diodes of different capacitance ranges and package sizes.

The equivalent circuit models are extracted from precision DC-IV, capacitance and S-parameter measurements. The models also include features such as substrate scaling, and are validated over temperature and RF input power. Shown on this page are specific Aeroflex/Metelics diode models developed for the benefit of designers seeking improved simulation accuracy and more rapid design success.

[Contact TACTRON Elektronik](#) for more Information

## Modelithics Components and TACTRON ELEKTRONIK Partners



Part Number	Model	Body Style	Component	Max Freq (GHz)	Downloads	Features
<a href="#">MLP7100</a>	<a href="#">PIN-AFE-VARP-001</a>	Chip or CS19-1	PIN Diode	10		NL, TS
<a href="#">MLP7101</a>	<a href="#">PIN-AFE-VARP-004</a>	Chip	PIN Diode	10		NL, TS
<a href="#">MLP7110</a>	<a href="#">PIN-AFE-VARP-002</a>	Chip or CS19-1	PIN Diode	10		NL, TS
<a href="#">MLP7120</a>	<a href="#">PIN-AFE-VARP-003</a>	Chip or CS19-1	PIN Diode	10		NL, TS
<a href="#">MMP7065-11</a>	<a href="#">PIN-AFE-MMP-001</a>	Chip	PIN Diode	20		NL, TS
<a href="#">MMP7065-11</a>	<a href="#">PIN-AFE-MMP-101</a>	Chip	PIN Diode	20		NL, TS
<a href="#">MSD710</a>	<a href="#">SRD-AFE-E25-001</a>	E25	Step Recovery Diode	6		NL, SS
<a href="#">MSSP25250-70</a>	<a href="#">PIN-AFE-0603-001</a>	0603	PIN Diode	14		NL,

\* Features

BB - Broad Band Capacitor	FL - Flicker Noise (1/F)	IM - 3rd order IMD validated	LP - Load Pull	NL - Non-Linear
NP - Noise Parameter	PD - Pad de-embedding	OS - Orientation Selectable	PS - Pad Scaling	SS - Substrate Scalable
TS - Temperature Scalable	VS - Part Value Scalable/Selectable		EM - also electro-magnetic Simulators	
BW - Bondwire de-embedding	SP - S-Parameter Data Model	XP - X-Parameter model		

## Modelithics MVP Connections and TACTRON ELEKTRONIK Partners



**Piconics** is a world-class supplier of high-quality microelectronic coil inductors for a wide variety of applications in the space, military, telecom, test & measurement and medical electronics industries. **Piconics** specializes in miniature MIL-Spec grade inductors along with tight tolerance, fine awg windings such as the Broad-band Conical and Microwave Air Coil Inductors. **Piconics** keeps the innovative spirit alive by continuing to work with industry leaders in microelectronics to provide inductor solutions to the most challenging problems. The Engineering team at Piconics continues the philosophy of promoting and innovating high-quality microelectronic inductors for the industries most cutting edge applications. Piconics is an ISO 9001:2008 certified company with all manufacturing taking place in Tyngsboro, MA USA.

**Modelithics Microwave Global Models™** reliably track how each component's performance will change with substrate characteristics, as illustrated in the model data sheet for the component. Microwave Global Models™ automatically scale all substrate-sensitive parasitics with nominal part value, enabling a single model to generate accurate simulations of a complete component family. The data sheet also demonstrates the excellent measured-to-modeled agreement that can be expected using this model with the appropriate pads and substrate settings.

Microwave Global Models™ are available for Keysight EEsof ADS, AWR Microwave Office, and Keysight GENESYS. The models listed below can be purchased as part of the Modelithics COMPLETE Library or Modelithics CLR Library.

Complimentary (free) use available to qualified requestors. For Samples, please contact [TACTRON Elektronik](#)

# Modelithics MVP Connections and TACTRON ELEKTRONIK Partners



Part Number	Model	Body Style	Component	Max Freq (GHz)	Part Values	Downloads	Features *
<a href="#">CCxxxTxxK240G5-C</a>	<a href="#">IND-PIC-CONE-SERS-001</a>	SMT Conical	Inductor	50	0.22-8uH		BB, SS, VS
<a href="#">CCxxxTxxK240G5-C</a>	<a href="#">IND-PIC-CONE-SHNT-001</a>	SMT Conical	Inductor	65	0.22-8uH	<a href="#">S-Parameters</a>	BB, VS
<a href="#">CCxxxTxxK240G5-C</a>	<a href="#">IND-PIC-CONE-SHNT-101</a>	SMT Conical	Inductor	40	0.22-8uH		BB, VS
<a href="#">CCxxxTxxK240G5-C</a>	<a href="#">IND-PIC-CONE-SERS-101</a>	SMT Conical	Inductor	50	0.22-8uH		BB, SS, VS

\* Features

- BB - Broad Band Capacitor
- NP - Noise Parameter
- TS - Temperature Scalable
- BW - Bondwire de-embedding
- FL - Flicker Noise (1/F)
- PD - Pad de-embedding
- VS - Part Value Scalable/Selectable
- SP - S-Parameter Data Model
- IM - 3rd order IMD validated
- OS - Orientation Selectable
- LP - Load Pull
- PS - Pad Scaling
- EM - also electro-magnetic Simulators
- NL - Non-Linear
- SS - Substrate Scalable
- XP - X-Parameter model

## Modelithics MVP Connections and TACTRON ELEKTRONIK Partners



**Presidio Components**, Inc. established in 1980 is the leader in high quality ceramic capacitor products, because of our uncompromising dedication to the highest standards of manufacturing, quality control and service. Our state-of-the-art manufacturing technology utilizes the latest designs in machine automation and clean room environment. All manufacturing takes place in our modern 60,000 square-foot facility in San Diego, California. This extensive manufacturing capability, combined with broad experience in ceramic materials, insures the highest quality products for your application.

Start your next design with the most accurate and well documented models in the industry! Our passive and active model libraries contain up-to-date, measurement-based models that are fully integrated with the latest electronic design automation (EDA) simulation tools. Our goal is to help you achieve your design goals and make part selection and design optimization decisions more quickly and with more confidence.

[Presidio Model Download Request](#) - Complimentary (free) use available to qualified requestors.



## Modelithics MVP Connections and TACTRON ELEKTRONIK Partners



Part Number	Model	Body Style	Max Freq (GHz)	Part Values	Downloads	Features *
<a href="#">BB0502X7R104M</a>	<a href="#">CAP-PRS-0502-001</a>	0502	50	100 nF		BB, SS, EM
<a href="#">BB0502X7R104M</a>	<a href="#">CAP-PRS-0502-001-S</a>	0502	50	DC Block		BB, SS, EM
<a href="#">MVP 0505</a>	<a href="#">CAP-PRS-0505-001</a>	0505	20	0.33 pF - 250 pF		SS, VS, EM

\* Features

BB - Broad Band Capacitor

NP - Noise Parameter

TS - Temperature Scalable

BW - Bondwire de-embedding

FL - Flicker Noise (1/F)

PD - Pad de-embedding

VS - Part Value Scalable/Selectable

SP - S-Parameter Data Model

IM - 3rd order IMD validated

OS - Orientation Selectable

XP - X-Parameter model

LP - Load Pull

PS - Pad Scaling

EM - also electro-magnetic Simulators

NL - Non-Linear

SS - Substrate Scalable

## Software Partners and Vendors Represented in the Modelithics Library

Aeroflex/Metelics  
[American Technical Ceramics Corp.](#)  
Ansys  
Alpha  
[Apitech/Inmet](#)  
Avago  
[AVX](#)  
AWR Microwave Office  
[Barry Industries](#)  
Cadence  
[CEL](#)  
[Chilisin](#)  
[Coilcraft](#)  
Cree  
Darfon  
EMC RF Labs  
Epcos  
Excelics  
Florida RF Labs/EMC Technology

Freescale  
[Gowanda](#)  
Hexawave  
Infineon  
[IPDIA](#)  
JDI  
[Johanson Technology](#)  
[KEMET](#)  
Keysight ADS  
Keysight Genesys  
[Knowles](#) (Syfer, DLI)  
KOA  
M/A-COM Technology Solutions  
Maxim  
MDT  
Microsemi  
Mimix  
[Mini-Circuits](#)  
Mitsubishi

Motorola  
Murata  
NEC  
Nitronex Corp.  
Nuhertz  
[Passive Plus](#)  
[Piconics](#)  
[Presidio Components](#)  
[Qorvo](#)  
[RJR Polymers, Inc.](#)  
[Rogers Corporation](#)  
Sonnet  
[Taconic](#)  
Taiyo Yuden  
TDK  
Temex-Ceramics  
TriQuint Semiconductor  
[Vanguard](#)  
Virginia Diodes, Inc.  
[Vishay](#)  
[Würth Elektronik](#)

Current Model Vendor Partners (MVPs) are underlined. Click to open the relevant MVP page.