

Overview

The **Modelithics COMPLETE Library** for Cadence AWR Design Environment brings incredible flexibility and accuracy to electronic designs. Modelithics models are scalable, allowing design details, such as substrate and pad characteristics, to be specified and simulated. The Modelithics COMPLETE Library includes thousands of popular passive and active devices with modeling accuracy to deliver first-pass design success.

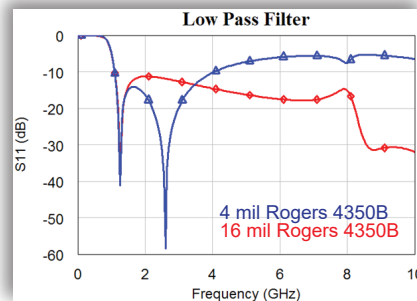
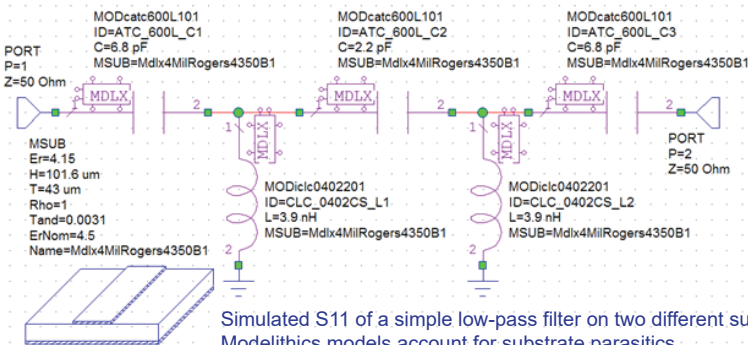
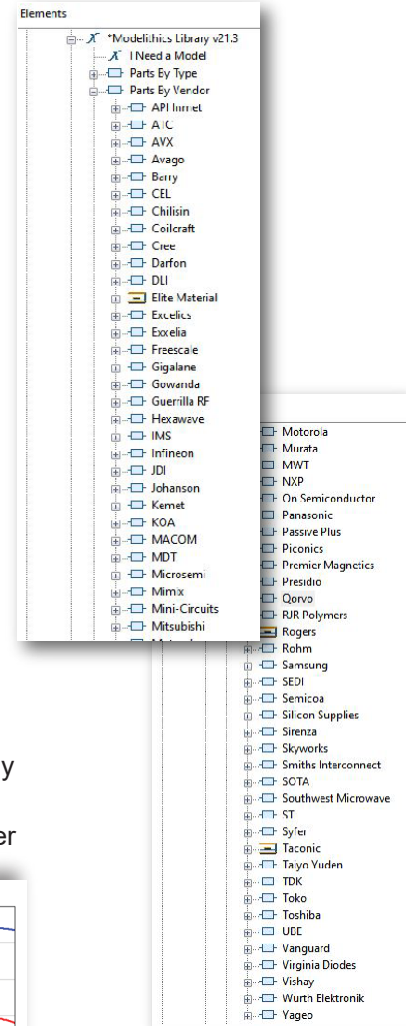
Library Features

The Modelithics COMPLETE Library for Cadence AWR Design Environment offers an extensive selection of models, representing thousands of components. The installed models are fully integrated with Cadence AWR electronic design automation (EDA) software. Modelithics COMPLETE also features a substrate library containing measurement-based substrate parameters for many of the most commonly used substrates.

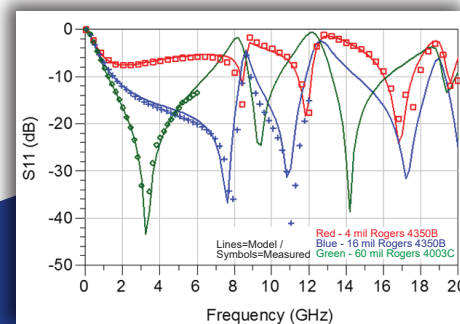
- **Measurement-based** — Each model is developed using specialized measurements under device-specific test conditions.
- **Scalability** — Part-value, substrate, pad-size and temperature scalability are incorporated into many models.
- **Model documentation** — Each model contains a model datasheet that lists recommended model validity parameters, measurement and test fixture details, and model-to-measurement data comparisons.

Sub-Libraries of the Modelithics COMPLETE Library

- **Modelithics CLR Library** — Contains all passive components from the Modelithics COMPLETE Library. It includes simulation models for various component body-sizes and part values for capacitor, inductor, and resistor families (RLC) from many popular vendors.
- **mmWave & 5G Library** — A collection of models focused on supporting the next generation of cellular communication standards. All models in the mmWave & 5G Library are validated to a minimum of 30 GHz, with some validated up to 125 GHz!
- **System Components Library** — Models for discrete die, surface mount and packaged devices.
- **Small Parts Sub-Library** — A sub-library of the Modelithics CLR Library of components with body sizes smaller than 0502, including 0402, 0201 and 01005.
- **Single-Vendor Sub-Library** — Includes all models for one selected vendor. Choose from the over 70 vendors within the Modelithics COMPLETE Library.



(Below) Model vs. measured S11 of a 3.3pF 0805 capacitor on three different substrates.



- Highly accurate and versatile Modelithics models reduce design time and costs, increasing productivity.
- Modelithics models are measurement-based equivalent circuit models, and will exhibit physical behavior, even beyond the measurement frequency.
- Concept to product faster and easier.

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| Amotech |
| CAPACITORS A602, A60L, A60S, A60F, A80B |
| Aeroflex/Metelics |
| DIODES MSSP25250-70, MMP7065-11, MLP7100, -7110, -7120, -7101, MSD710 |
| API-Inmet |
| RESISTORS ANC50-100W, ANC50-50W, NPC20-40S, NPC50-100W, NPC50-50W, PPC100-200AW |
| ATTENUATORS PCA, PCAA, PCAF, PCAF, TCAF |
| Avago |
| AMPLIFIER MGA86576 |
| PNPNBT PACKAGES AT-41511, AT-41533, AT-64023 |
| Barry Industries |
| ATTENUATORS AK045CB, AT0904CB |
| RESISTORS REC0805CT, RE11005CT, REC1206CT, RK0803ZZ, RY0805CT, RY11005CT, RYC1206CT, RZC1206CT(1-port), RZC1206CT(2-port) |
| PACKAGE QFN5532-050x |
| CEL |
| LOW NOISE FET CE3512K2, CE3514M4, CE3520K3 |
| Chilisin |
| INDUCTORS CLH1608, CLH2012, CL2012 |
| FERRITE BEADS GBY160808T, PBY160808T, SBY160808T |
| Coilcraft |
| INDUCTORS 0201DS, 0201HL, 0302CS, 0402AF, 0402CS, 0402DC, 0402DF, 0402HP, 0403HQ, 0603CS, 0603CT, 0603HL, 0603HP, 0603LS, 0604HQ, 0805CS, 0805HP, 0805HQ, 0805HT, 0805LS, 0806SQ, 0807SQ, 0906, 0908SQ, 1008CS, 1008CT, 1008HQ, 1008HS, 1010VS, 1111SQ, 1206CS, 1212VS, 132-xxSM, 132-xxSM, 1508, 1515SQ, 1606, 1812CS, 1812SMS, 2222SQ, 2508, 2929SQ, 4310LC, AxxT, BCL, BCR, BxxT, GA309X |
| Cree |
| PACKAGED PHEMT CGH35030F |
| Darfon |
| CAPACITORS C0402NFO, C0603NPO |
| Excelics |
| MESFET EFA060BS5 |
| PHEMT EPA1200A, EPA240BV |
| Exxelia |
| CAPACITORS CLE, CLX, SHF251 |
| Freescale |
| MOSFET MRF1517, MRF1518, MRF281, MRF9030 |
| Gigalyn |
| CONNECTOR PSF-S00-000 |
| Gowanda |
| INDUCTORS C050FL, C050SMC, C100FL, C100SM, C100SMC, C225FL, CC0603 |

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| Guerrilla RF |
| AMPLIFIERS GRF2070DS, GRF2071DS, GRF2072DS, GRF2073DS, GRF2093, GRF2100, GRF2106, GRF2501DSR, GRF4002, GRF4014 |
| Hexaware |
| MESFET HWC27NC |
| IMS |
| RESISTORS NDX-1020EZW, RC3-0402PWW, PCA-0302PW |
| ATTENUATORS A-0402WA-C, A-0603-C, IA3-0805WA, IA3-1206WA, IMS2533, IMS2652, VDR3725SG |
| Infineon |
| DIODES BAR64-03W, BAR88-02V, BAS40, BAS40-04, BAS40-05, BAS40-06, BAS70, BAS70-04, BAS70-05, BB535, BB639, BB833, BBY51-02W, BBY52-02L |
| PNPNBT BF9420, BFR949F, BFY420, BFY420 |
| MOSFET BF999, PTF080101S, PTF04A3002E |
| JDI |
| Capacitors R14, R15 |
| Johnson |
| CAPACITORS R05L, R07S, R14S, R15S, R15G, S42E |
| INDUCTORS L-05Czzz, L-07Cxxx, L-07Wxxx, L-14C, L-14W |
| KEMET |
| CAPACITORS C0402(C0G), C0402(X5R), C0402(X7R), C0603, C0805(BX), C0805(C0G), C0805(NP0), C0805(X5R), C0805(X7R), C802, CBR04, CBR04 Auto, CBR05, CBR06, CBR06 Auto, CBR08 |
| Knowles |
| CAPACITORS (Siyfer) HighQUltraLowESR |
| CAPACITORS (Dielectric Labs) C04BL, C04UL, C06BL, C06CF, C06UL, C08BL, C11UL, Milli-cap, Opti-cap |
| KOA |
| RESISTORS RK73B1(RK73H), RK73B2A, RK73B2B, RK73x1E(RK73H), RK73x1H(RK73B), RK73x1J, RK73x2E, RK73x3A, RK73H, WK73S3A |
| CAPACITOR HFC1005 |
| Kyocera-AVX |
| CAPACITORS 0101YA, 02013A, 0201YC, 0201YD, 0402xU, 550Z, 550u, 0603x(C0G), 0603x(CX7R), 0603xU, 08051A, 0805xU, 08051C, 12101U, 1206xC, Accu-L(L0201), Accu-L(L0402), Accu-L(L0603), Accu-L(L0805), Accu-P, AQ12, CU01, DLA09024, DLA09025, ML03, MP01, MP02, MP03, SQCA(NP0), SQCA(P90), SQCA(X7R), SQCB(NP0), SQCB(X7R), SQCF, SQCS(NP0), UQCA(NP0), UQCB, UQCF, UQCL(NP0), UQCR(NP0), UQCS(NP0) (ATC) 100A, 100B, 200A, 200B, 400L, 400S, 400Z, 504L, 520L, 530L, 600F, 600L, 600S, 700A, 700B, 800A, 800B, 800R |

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| Kyocera-AVX (Cont'd) |
| COUPLERS CP0402AxxxxAN, CP0402AxxxxBN, CP0402AxxxxCN, CP0402AxxxxDN, CP0402AxxxxEN, CP0402AxxxxFN, CP0402W2700FN, CP0603, DB0603N2140AN, DB0603N2400AN, DB0603N3000AN, DB0603N3500AN, PC2025A2100, PC2025A2700 |
| RESISTORS RP4201R00050GTTR, RP4201R0100GTTR, RP43737, RP5201R00050GTTR, RP5201R0100GTTR, RP53725R0050GTTR, RP53725R0100GTTR, RP81020T0050, RP9201T00050GTTR, RP03725T0050GTTR, RP93737T0050GTTR (ATC) CS1210T0050GBK, CS1210T0100GBK, CS13737T, CT11020T0050, CW1201T0050GBK, CW1201T0100GBK, CW13725T0050GBK, CW13725T0100GBK, CZ1201T0050GBK, CZ13725T0050GBK, CZ13737T0050GBK |
| DIPLEXERS DP03A5425, DP03B5425, DP03C1580, DP05A1920, DP05A1940, DP05A5250, DP05B5425, DP06A1945, DP06A2180, DP06B2180 |
| ATTENUATOR RP10975AxxDB (ATC) FA10975PxxDB |
| MACOM |
| DIODES MA4PH225-1072, MA4P504-132, MAVR-000230-1141, MA4E1317, MAVR-001330-1279, MLP7100, MLP7101, MLP7110, MLP7120, MMP7065-11, MSD710, SMW20413 |
| LIMITER 2690-1011 |
| MDT |
| DIODE MP6250-P2715 |
| Microsemi |
| DIODE UPP9401 |
| PNPNBT SD1495-03 |
| Mimix |
| MESFET CF003-01 |
| Mini-Circuits |
| AMPLIFIERS AVA-183+, PGA-103+, PMA2-133LN+, PMA2-33LN+, PMA2-43LN+, PMA3-83LN+, PMA-545+, PMA-5451+, PMA-5452+, PMA-5453+, PMA-5454+, PMA-5455+, PMA-5456+, GVA-62+, GVA-63+, GVA-84+, PGA-102+, PGA-103+, PGA-105+, PHA-1+, PSA4-5043+ |
| BAND PASS FILTERS XBF-Series |
| TRANSFORMERS NCS1-422+, NCS1-63+, NCS2-392+, NCS2-83+ |
| ATTENUATORS RCAT, YAT, KAT, YATA |
| LOW PASS FILTERS LFCN-1000+, LFCN-120+, LFCN-1200+, LFCN-1200D+, LFCN-1700+, LFCN-1800+, LFCN-1800D+, LFCN-2250+, LFCN-3000+, LFCN-3800+, LFCN-400+, LFCN-4400+, LFCN-490+, LFCN-630+, LFCN-80+ |
| HIGH PASS FILTERS HFCN-2700+, HFCN-3800+, HFCN-5500+, HFCN-740+, HFCN-880+, XHF-Series, XHF2-Series |
| HEMT SAV-331+, SAV-541+, SAV-551+, SAV-581+, TAV2-14LN+ |

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| Mini-Circuits (Cont'd) |
| SPLITTERS EP2C+, EP2K1+, EP2K+, EP2W1+, EP2W+, EPQ133+ |
| Mitsubishi |
| HEMT MGF4953A, MGF4953B |
| MOSFET RD01MUS1, RD07MUS2B, RD07MWS1, RD12MWS1, MRF1513, MRF1570 |
| Motorola |
| MOSFET MRF1513, MRF1570 |
| Murata |
| INDUCTORS LOG15HS, LOG18, LQP02HQ, LQP02T, LQP02TQ, LQP03HQ, LQP03TN, LQP15M, LQP18M, LQW04A, LQW15AN_00, LQW18AN_00 |
| BAND-PASS FILTER SFLA10M7/GAA0_B0 |
| RESONATORS DRM020KER93, DRR02011G45, DRR0201G350, DRR204G100, DRR030KE1R2 |
| CAPACITORS GJM022, GJM03, GJM115, GQM1555C, GQM187, GQM188, GQM219, GQM22M, GRM022, GRM022 (XSR, X7R), GRM0335, GRM1555C1H, GRM1557R1E, GRM1557R1H, GRM1885C1H, GRM1887R1H, GRM1887R2A, GRM2165C2A, GRM219, GRM32ER71J, GRP033, UBSC_935_151_423_510, UBSC_935_151_424_610, UBSC_935_151_723_510, XBSC_939_118_492_510-xxS |
| TRIPLEXER LMP733A148 |
| FERRITE BEADS BLM15AG, BLM15EG, BLM18A, BLM18HG102SN1, BLM21P, BLM31P, BLM21P, BLM31P, BLM41P |
| ON Semiconductor |
| DIODES MBD330DWT1, MMBD301LT1 |
| JFET MMF50J10LT1 |
| PNPNBT MMBT3904LT1 |
| MWT |
| MESFET MWT-1, MWT-7 |
| NXP |
| JFET BF861B, BF862 |
| PNPNBT BFQ540, BFF505, BFF520, BFF540, PBR941 |
| MOSFET BLF542, BLF548 |
| Panasonic |
| INDUCTORS ELJRE, ELJRF, ELJRG, ERJ2GEOR00X |
| Piconics |
| INDUCTOR CCxxxTxk240G5-C |
| Passive Plus |
| CAPACITORS 01005BB104, 0201BB104, 0201N-ultra-low-ESR, 0402N-ultra-low-ESR, 0505C, 0603N-ultra-low-ESR, 0708N, 0805N-ultra-low-ESR, 1111C, 1111N-ultra-low-ESR |
| RESISTORS R35-1209B, R35-201BB |
| Presidio |
| CAPACITORS 0402UP, 0505UP, 0603UP, BB0201X7R103M, BB0402X7R104M2, BB0502X7R104M, BB0502X7R104M |

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| Qorvo |
| AMPLIFIERS AH101, RFS110G |
| HEMT TGF2040 |
| RJR |
| PACKAGE QFN01 |
| Rohm |
| PNPNBT EMT1, EMX1, UMT1NR |
| DIODES RB715F |
| Samsung |
| CAPACITORS CL02CxxxxxA, CL02CxxxxxG, CL03C, RC0402 |
| SEDI |
| GaN HEMT EGN010MK, EGN030MK |
| MESFET FLL120MK, FLL800IG, FSX017X |
| Semicon |
| PNPNBT ZC2857 |
| Silicon Supplies |
| BJT 2SC3356, 2SC3356 |
| Sirenza |
| MOSFET SLD-1083CZ, SLD-2083CZ |
| Skyworks |
| DIODES SMP1324-087LF, SMS3927-023, SMS3940-029LF, SMS7621-005, SMS7621-015, SMS7621-079, SMS7630-005LF, SMS7630-006LF, SMS7630-061, SMS7630-079LF, SMV1147, SMV1253-079, SMV1763-040LF, SMV2201-040LF, SMV2202-040LF, SMV2203-040LF, SMV2204-040LF, SMV2205-040LF |
| Smiths Interconnect |
| RESISTORS CT0404ALN1WB1, CT0404ALN2WB1, CT0603ALN1SMTF |
| SOTA |
| RESISTORS S0202AF50R0FEB, S0303AF50R0FEB, S0505AF50R0FEB, S0505CF50R0FEB, S0505DF50R0FEB, S0505EF50R0FEB, S0603CF50R0FEB |
| Southwest Microwave |
| INTERCONNECTS 1092-01A-5, 1093-04A-5 |
| ST Micro |
| CAPACITOR PTIC |
| Taiyo Yuden |
| CAPACITORS EMK042, EMK063, JMK063, LMK042, and JMK042, TMK063, TVS042, UMK105 |
| INDUCTORS HK0603, HK1005, HK1608, HK2125, HK0603S, HKQ0603U, HKQ0603W |
| TDK |
| CAPACITORS C0402C0G, C0603C0G, C1005CH, C1005X5R, C3225, CGA1A2C0G, CGA1A2X7R, CGB1T3X5R0J104M |
| RESISTORS |
| INDUCTORS MHQ0402PSA, MHQ1005P, MLF2012, MLG0402Q, MLG0603P, MLG0603S, MLG1005S, MLG1608B, MLG1608B, MLK1005S, NLV25T |

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| Toko |
| INDUCTORS LL1005-FHL, LL1608-FSL, LL2012-FHL, LL2012-FHL, LLV0603-F |
| TRANSFORMER 617DB-1007 |
| Toshiba |
| DIODES 1SV229, 1SV279, 1SV280, 1SV282, 1SV305, 1SV325, 1SV329, JDV2507FS, JDV2541FS |
| MOSFET 2SK3078A, 2SK3476, RFM03U3CT, RFM04U6P |
| UBE |
| RESONATORS AO-K016-08, K020-03 |
| Vanguard |
| TRANSFORMERS 100205, KSeries, MSeries, RSeries, SSeries |
| INDUCTORS Series26000, Series26200, Series27000, Series30000, Series33000, Series34000, Series50000 |
| Virginia Diodes |
| DIODES WBandSingleAnode, WBandZBD |
| Vishay |
| RESISTORS CRCW01005, CRCW1206, D10, D11, MC70603, MMA0204, CH02016, CH0402, MCT0603 |
| CAPACITORS HPC0402AVJ0402, VJ0402D, VJ0603D |
| Würth Elektronik |
| Ferrite Beads 74272923560, WE-CBA0402HighCurrent, WE-CBA0402WideBand, WE-CBA0603HighCurrent, WE-CBA0603HighSpeed, WE-CBA0603WideBand, WE-CBA0805HighCurrent, WE-CBA0805HighSpeed, WE-CBA1206HighCurrent, WE-CBA1206WideBand, WE-CBA1808HighCurrent |
| Capacitors WCAP-CSM(NP0), WCAP-CSM(X7R), WCAP-CSM(X7R) 0.8mm, WCAP-CSM(X7R) 1.25mm, WCAP-CSRF(NP0) |
| Inductors WE-ACH, WE-CAR, WE-KI, WE-KHC, WE-MK, WE-TCI |
| Yageo |
| RESISTOR RC0100 |
| CAPACITORS CQ0201, CQ0402, AQ0402, CQ0603, AQ0603 |

What's in YOUR DREAM LIBRARY?

Help us build YOUR dream library! Pre-Release models are added based on customer demand. Share your desired models with sales@modelithics.com!

Email sales@Modelithics.com or visit www.Modelithics.com to request a FREE trial!