

### AEI SYSTEMS POWER IC MODEL LIBRARY LISTINGS - Release 2.0b

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\* Indicates New for V2.0

	Vendor	Library	Part Description	Application Schematic File Name	Topology	Analysis	Simulation Details
<b>Power MOS/IGBT Drivers</b>							
IR2110	IR	IR_Driver	Hi and Lo Side Drivers	IR2110Test			
IR2110S	IR	IR_Driver	Hi and Lo Side Drivers	IR2110STest			
RIC7113	IR	IR_Driver	Hi and Lo Side Drivers	RIC7113Test			
SI4724CY	Vishay	Vishay	N-Channel Synchronous MOSFETs with Break-Before-Make, See SI4724CY.pdf	SI4724CYTest	MOSFET Driver Test Circuit		Nonlinear capacitor. TANT
SI4768CY	Vishay	Vishay	N-Channel Synchronous MOSFETs with Break-Before-Make	SI4768CYTest	MOSFET Driver Test Circuit		Nonlinear capacitor. TANT
SI4770CY	Vishay	Vishay	N-Channel Synchronous MOSFETs with Break-Before-Make	SI4770CYTest	MOSFET Driver Test Circuit		Nonlinear capacitor. TANT
SIc710DD *	Vishay	Vishay	Half-Bridge FET Driver	SIc710DD			
SIc720DD *	Vishay	Vishay	Half-Bridge FET Driver	SIc720DD			
SIP41101 *	Vishay	Vishay	Half-Bridge FET Driver	SIP41101			
HIP2100	Intersil	Intersil	100VDC - 2A Half Bridge Driver	HP2100Test		Transient	Requires FET model insertion/library definition
HIP2101	Intersil	Intersil	100V Half Bridge N-Channel	HP2101Test	Capacitive load	Transient	
HIP6601B	Intersil	Intersil	MOSFET Driver, Dual N-Channel	HP6601BTest	Capacitive load	Transient	
HIP6602B	Intersil	Intersil	Synchronous Rectified Buck MOSFET	HP6602BTest	Capacitive load	Transient	
UCC37324	TI	TI_Driver	Dual 4 A Peak High Speed Low-Side Power MOSFET Drivers				
MIC4416 *	Micrel	Micrel	1.2A-Peak Low-Side MOSFET Driver				
MIC4417 *	Micrel	Micrel	1.2A-Peak Low-Side MOSFET Driver				
MIC4420 *	Micrel	Micrel	6A-Peak Low-Side MOSFET Driver				
MIC4429 *	Micrel	Micrel	6A-Peak Low-Side MOSFET Driver				
MIC4421	Micrel	Micrel	9A-Peak Low-Side MOSFET Driver				
MIC4422	Micrel	Micrel	9A-Peak Low-Side MOSFET Driver				
MIC4421A *	Micrel	Micrel	9A-Peak Low-Side MOSFET Driver				
MIC4422A *	Micrel	Micrel	9A-Peak Low-Side MOSFET Driver				
MIC4423 *	Micrel	Micrel	3A-Peak Low-Side MOSFET Driver				
MIC4424 *	Micrel	Micrel	3A-Peak Low-Side MOSFET Driver	MIC4424, MICREL_Test	Capacitive load	Transient	
MIC4451 *	Micrel	Micrel	12A-Peak Low-Side MOSFET Driver				
MIC4452 *	Micrel	Micrel	12A-Peak Low-Side MOSFET Driver				
<b>Linear</b>	Vendor	Library	Part Description	Application Schematic File Name	Topology	Analysis	Simulation Details
AD524S	AD	ADI_Linear	Analog Multiplier, See AD524S.pdf	NA			
AD534	AD	ADI_Linear	Instrumentation Amp, See AD534T.pdf	NA			
AD8099	AD	ADI_Linear	Op-amp, See AD8099.pdf	AD8099Test	Gain of 10	AC analysis	
AD8137 *	AD	ADI_Linear	Low Cost, Low Power 12-Bit Differential ADC Driver	AD8137	Pulse Test	Transient analysis	
AD8139 *	AD	ADI_Linear	Ultra Low Noise Fully Differential ADC Driver	AD8139	Gain of 1	AC analysis	
AD8206 *	AD	ADI_Linear	Single-Supply 42V System Difference Amplifier	AD8206		AC analysis	
AD8330 *	AD	ADI_Linear	Low Cost DC to 150 MHz Variable Gain Amplifier	AD8330_App	Series of opamp test circuits	Transient and AC analysis	
AD8331 *	AD	ADI_Linear	Single VGA with Ultralow Noise Preamp and Programmable Rin	AD8331	VGA Test Circuit	Transient analysis	
AD8332 *	AD	ADI_Linear	Dual VGA with Ultralow Noise Preamp and Programmable Rin	AD8332	VGA Test Circuit	Transient analysis	
AD8333 *	AD	ADI_Linear	DC to 50 MHz Dual I/Q Demodulator and Phase Shifter	ad8333p, AD8333TEST2, AD8333TEST3	General, Quadrature Phase Error, Channel To Channel Phase Error	Transient analysis	
AD8334 *	AD	ADI_Linear	Quad VGA with Ultralow Noise Preamp and Programmable Rin	AD8334	VGA Test Circuit	AC analysis	
AD536A *	AD	ADI_Linear	Integrated Circuit True RMS to DC Converter	AD536A Test dB, AD536A Test	Normal and dB output Connection Test Circuits	Transient analysis, Operating point analysis	Convert RMS input to DC output or output in dB, remote controller/battery powered instruments
AD636C *	AD	ADI_Linear	Low Level, True RMS to DC Converter	AD636C, AD636C_dB	Normal and dB output Connection Test Circuits	Transient analysis, Operating point analysis	Convert RMS input to DC output or output in dB, battery powered hand-held instruments
AD637H *	AD	ADI_Linear	High Precision, Wideband RMS to DC Converter	dB Test, Test	Normal and dB output Connection Test Circuits	Transient analysis, Operating point analysis	Convert RMS input to DC output or output in dB, remote/hand-held applications
AD736G *	AD	ADI_Linear	Low Cost, Low Power, True RMS to DC Converter	Test	DC output test circuit	Transient analysis, Operating point analysis	Convert RMS input to DC output without dB output conversion feature, battery powered applications
AD737F *	AD	ADI_Linear	Low Cost, Low Power, True RMS to DC Converter	Test	DC output test circuit	Transient analysis, Operating point analysis	Convert RMS input to DC output without dB output conversion feature, battery powered applications
<b>Power IC Models</b>	Vendor	Library	Part Description	Application Schematic File Name	Topology	Analysis	Simulation Details
HS117RH *	Intersil	Intersil	Radiation Hardened Adjustable Positive Voltage Linear Regulator	HS117, HS117_AC		Transient, AC	
ISL6225	Intersil	Intersil	PWM Controller, Dual, Regulated Output Voltage 0.9V-5.5V	ISL6225Avg	Average model	AC analysis	
ISL6520a	Intersil	Intersil	PWM Controller, +5V Input, VOUT 0.8V Min @ 1.5%, 300kHz	ISL6520ATRAN	synchronous buck regulator, low voltage high current	state space, bode plot	300kHz synchronous rectifier
ISL6520Assa	Intersil	Intersil	Average model	ISL6225AVG		AC analysis	
ISL6721	Intersil	Intersil	Single-Ended Current Mode PWM controller	ISL6721TRAN	ISL6721 flyback	Startup transient	350kHz current mode flyback converter
ISL6721Av	Intersil	Intersil	Single-Ended Current Mode PWM controller, Average model	ISL6721AVG		AC analysis	
ISL6740	Intersil	Intersil	PWM controller for half bridge and bus converter, See ISL6740switching.pdf	NA			
ISL6740av	Intersil	Intersil	Average model, See ISL6740average.pdf	ISL6740Avg		AC analysis	
ISL6741av	Intersil	Intersil	PWM controller for hard-switched full bridge and push-pull applications, Average model	ISL6741Avg		AC analysis	
ML4863	Microlinear	Microlinear	Boost Regulators for Battery Powered Applications	ML4863Test	high efficiency flyback	steady state transient	300kHz synchronous rectifier flyback
LT1242	Linear Tech	LT_Power	High Speed Current Mode Pulse Width Modulators	LT1242Test	Discontinuous Flyback	Startup transient	110 kHz current mode flyback
LT1242S	Linear Tech	LT_Power	State space average model				
LT1243	Linear Tech	LT_Power	High Speed Current Mode Pulse Width Modulators	LT1243	Discontinuous Flyback	Startup transient	110 kHz current mode flyback
LT1243S	Linear Tech	LT_Power	State space average model				
LT1244	Linear Tech	LT_Power	High Speed Current Mode Pulse Width Modulators	LT1244	Discontinuous Flyback	Startup transient	110 kHz current mode flyback
LT1244S	Linear Tech	LT_Power	State space average model				
LT1245	Linear Tech	LT_Power	High Speed Current Mode Pulse Width Modulators	LT1245	Discontinuous Flyback	Startup transient	110 kHz current mode flyback
LT1245S	Linear Tech	LT_Power	State space average model				
TPS40055 *	TI	TI_Power	Wide-Input Synchronous Buck Controller	TPS40055	Buck, TPS40055EVM	Startup	12-V Bus to 1.8 V at 15 A
40055MOD2 *	TI	TI_Power	State Space Model	TPS40055_SSA	Buck	State space AC analysis	12-V Bus to 1.8 V at 15 A
UC1524 *	TI	TI_Power	Advanced Regulating Pulse Width Modulators	UC1524Test	Buck	Startup transient	140 kHz voltage mode buck
UC1524A *	TI	TI_Power	Advanced Regulating Pulse Width Modulators				
UC1525 *	TI	TI_Power	Advanced Regulating Pulse Width Modulators				
UC1525A *	TI	TI_Power	Advanced Regulating Pulse Width Modulators				
UC1637	TI	TI_Power	Switched Mode Controller for DC Motor Drive	UC1637SplitSupply, UC1637SingleSupply			
UC1823	TI	TI_Power	High Speed PWM Controller	UC1823Test	Forward Converter	Startup transient	160 kHz current mode forward
UC1824	TI	TI_Power	High Speed PWM Controller	UC1824Test			
UC1825	TI	TI_Power	High Speed PWM Controller	UC1825Test			
UC1842	TI	TI_Power	Current Mode PWM Controller				
UC1842A	TI	TI_Power	Current Mode PWM Controller	UC1842StateSpace, UC1842Test	Forward Converter	AC analysis	
UC3842B	On Semi	TI_Power	Current Mode, See UC384x.pdf				
UC1842S	TI	TI_Power	State Space Average Model				
UC1842AS	TI	TI_Power	State Space Average Model				
UC1843	TI	TI_Power	Current Mode PWM Controller				
UC1843A	TI	TI_Power	Current Mode PWM Controller				
UC3843B	On Semi	TI_Power	Current Mode, See UC384x.pdf	UC3843BFW	Forward Converter	Startup transient	250kHz current mode forward converter
UC1843S	TI	TI_Power	State Space Average Model				
UC1843AS	TI	TI_Power	State Space Average Model	UC1843ASTest	Flyback	AC analysis	
UC1844	TI	TI_Power	Current Mode PWM Controller				
UC1844A	TI	TI_Power	Current Mode PWM Controller				
UC3844B	On Semi	TI_Power	Current Mode, See UC384x.pdf				
UC1844S	TI	TI_Power	State Space Average Model				

UC1844AS	TI	TI_Power	State Space Average Model					
UC1845	TI	TI_Power	Current Mode PWM Controller					
UC1845A	TI	TI_Power	Current Mode PWM Controller					
UC3845B	On Semi	TI_Power	Current Mode, See UC384x.pdf	UC384XFlyback	Flyback			
UC1845S	TI	TI_Power	State Space Average Model					
UC1845AS	TI	TI_Power	State Space Average Model					
UC1846	TI	TI_Power	Current Mode PWM Controller	UC1846TRAN, UC1846Test	Push-Pull	Startup transient	100kHz current mode push-pull	
UC3854s	TI	TI_Power	Enhanced High Power Factor Preregulator, State space					
UC3854Bs	TI	TI_Power	Enhanced High Power Factor Preregulator, State space	UC3854Test	Boost PFC	State Space Transient simulation	Front end PFC regulation	
UC1871	TI	TI_Power	Resonant Fluorescent Lamp Driver	UC1871Test	Buck-fed push pull and flyback fluorescent ballast, current fed push-pull	Startup with initial conditions, transient	resonant mode fluorescent driver, 200kHz voltage mode buck, current mode flyback	
UC1872	TI	TI_Power	Resonant Fluorescent Lamp Ballast Controller	UC1872Test	Buck-fed push pull and flyback fluorescent ballast, current fed push-pull	Startup with initial conditions, transient	resonant mode fluorescent driver, 200kHz voltage mode buck, current mode flyback	
UC1875	TI	TI_Power	Phase Shift Resonant Controller	UC1875Test		Simple Switching test		
UC1876	TI	TI_Power	Phase Shift Resonant Controller					
UCC1806	TI	TI_Power	Low Power, Dual Output, Current Mode PWM Controller	UCC1806Test		Simple Switching test		
UCC3800 *	TI	TI_Power	Low-Power BICMOS Current-Mode PWM					
UCC3801 *	TI	TI_Power	Low-Power BICMOS Current-Mode PWM					
UCC3802 *	TI	TI_Power	Low-Power BICMOS Current-Mode PWM	UCC3802Test	Flyback	Steady State with initial conditions, transient	10W Flyback converter powered from a 100V input voltage	
UCC3803 *	TI	TI_Power	Low-Power BICMOS Current-Mode PWM					
UCC3804 *	TI	TI_Power	Low-Power BICMOS Current-Mode PWM					
UCC3805 *	TI	TI_Power	Low-Power BICMOS Current-Mode PWM	UCC3805Test	Discontinuous Flyback	Startup transient	current mode flyback	
UCC3895	TI	TI_Power	BICMOS Advanced Phase Shift PWM Controller	UCC3895Test, UCC3895			48V 500W	
UCC3809-1 *	TI	TI_Power	Economy Primary Controller including state space model	FLYBACKStartup, FLYBACKLoop	Flyback	Startup, Bode Plot	48V to 3.3V @ 5A CCM Flyback	
UCC3809-2 *	TI	TI_Power	Economy Primary Controller including state space model	FLYBACKStartup, FLYBACKLoop	Flyback	Startup, Bode Plot	48V to 3.3V @ 5A CCM Flyback	
UA723	TI	TI_Power	Precision Voltage Regulator	UA723Test	TIP42 Pass, switching	Transient, Steady State		
<b>Power IC Models</b>	<b>Vendor</b>	<b>Library</b>	<b>Part Description</b>	<b>Application Schematic File Name</b>	<b>Topology</b>	<b>Analysis</b>	<b>Simulation Details</b>	
CS322	On Semi	ON Power	High Speed PWM Controller	CS322Test	Sepic	Startup transient	Hysteretic current mode control	
CS324	On Semi	ON Power	High Speed PWM Controller	CS324Test				
CS51220	On Semi	ON Power	Feed Forward Voltage Mode PWM Controller with Programmable Synchronization					
CS51411	On Semi	ON Power	1.5A, 260kHz Low Voltage Buck Regulators	CS51411Test	Buck	Transient, Steady State	260 kHz low voltage buck regulator	
CS5155	On Semi	ON Power	CPU 5-Bit Synchronous Buck Controller	CS5155Test	VID Buck	Transient, Steady State	V <sup>2</sup> control	
CS5156	On Semi	ON Power	CPU 5-Bit Nonsynchronous Buck Controller	CS5165Test	VID Buck	Transient, Steady State	V <sup>2</sup> control	
CS5171	On Semi	ON Power	1.5 A 280kHz Boost Positive Feedback Regulators	cs517x.dsn	Boost	Transient, Startup	280 kHz current model controller	
CS5172	On Semi	ON Power	1.5 A 280kHz Boost Negative Feedback Regulators					
CS5173	On Semi	ON Power	1.5 A 560kHz Boost Positive Feedback Regulators					
CS5174	On Semi	ON Power	1.5 A 560kHz Negative Feedback Boost Regulators					
CS5307	On Semi	ON Power	Four-Phase VRM 9.0 Buck Controller					
CS5308	On Semi	ON Power	Two-Phase PWM Controller with Integrated Gate Drivers for VRM 8.5	CS5308Test	CS5308 VID Buck, CPU power	Transient, Startup	2-phase 300kHz synchronous rectifier buck	
CS5322	On Semi	ON Power	Two-Phase Buck Controller with Integrated Gate Drivers and 5-Bit DAC	CS5322TEST	CS5322 VID Buck, CPU power	Transient, Startup	2-phase 300kHz synchronous rectifier buck	
CS5323	On Semi	ON Power	Three-Phase Buck Controller with 5-Bit DAC					
MC33063	On Semi	ON Power	1.5A, Step-Up/Down/Inverting Switching Regulator	MC33063BOOSTTEST, MC33063BUCKTest	Boost, Buck, and Buck Boost	Transient, Steady State	Pulse Modulated	
MC33064	On Semi	ON Power	1.5A, Step-Up/Down/Inverting Switching Regulator					
MC33161	On Semi	ON Power	Universal Voltage Monitor	MC33161TEST	Buck	Transient, Steady State	Pulse Modulated	
MC33363 *	On Semi	ON Power	High Voltage Switching Regulator	AF2	Flyback	Transient, Startup	5V	
MC34063 *	On Semi	ON Power	3.4A, Step-Up/Down/Inverting Switching Regulator	MC34063 PSpice, MC34063BUCKBOOSTTest	Buck, Boost, Buck-Boost	Transient, Steady State	Pulse Modulated	
MC34163	On Semi	ON Power	3.4A, Step-Up/Down/Inverting Switching Regulator	MC34163Test	Buck	Transient, Steady State	Pulse Modulated	
MC33262	On Semi	ON Power	Power Factor Controller	MC33262Test	Boost PFC, worldwide input PFC	Transient, Steady State	Critical Conduction Controller	
NCP100	On Semi	ON Power	Adjustable 0.9-6V ±1.7% Output Voltage 0.1-20mA Shunt Regulator	NCP100ACTest, NCP100PULSETest, NCP100SERIESPASS		AC, Transient		
NCP1000	On Semi	ON Power	Fixed-100kHz Switching Regulator with 700V / 0.5A Switch	NCP1000Test	High voltage switching regulator, low power off-line adapters. Worldwide input	Transient, Steady State	100kHz off line flyback	
NCP1000A	On Semi	ON Power	Fixed-100kHz Switching Regulator with 700V / 0.5A Switch, average mode	NCP1000AVG#1, NCP1000AVG#2, NCP1000AVGTEST		AC analysis		
NCP1001	On Semi	ON Power	Fixed-100kHz Switching Regulator with 700V / 1A Switch					
NCP1002	On Semi	ON Power	Fixed-100kHz Switching Regulator with 700V / 1.5A Switch					
NCP1203P40	On Semi	ON Power	40kHz PWM Current-Mode Controller for Universal Off-Line Supplies	NCP1203	Flyback	Transient, Steady State, AC analysis	100kHz off line flyback	
NCP1203P60	On Semi	ON Power	60kHz PWM Current-Mode Controller for Universal Off-Line Supplies					
NCP1203P100	On Semi	ON Power	100kHz PWM Current-Mode Controller for Universal Off-Line Supplies					
NCP1203AV	On Semi	ON Power	PWM Current-Mode Controller average model					
NCP1400ASN19T1	On Semi	ON Power	Up to 100mA, 1.9V, 180kHz Boost PWM Switching Regulator with Enable	NCP1400ASN19Test	Boost	State	160kHz voltage mode boost	
NCP1400ASN30T1	On Semi	ON Power	Up to 100mA, 3.0V, 180kHz Boost PWM Switching Regulator with Enable	NCP1400ASN30Test	Boost	State	160kHz voltage mode boost	
NCP1400ASN50T1	On Semi	ON Power	Up to 100mA, 5.0V, 180kHz Boost PWM Switching Regulator with Enable	NCP1400ASN50Test	Boost	State	160kHz voltage mode boost	
NCP1653 *	On Semi	ON Power	Compact, Fixed-Frequency, Continuous Conduction Mode PFC Controller	Switching	Current Mode PFC switching	Transient, Steady State		
NCP1653Avg *	On Semi	ON Power	Compact, Fixed-Frequency, Continuous Conduction Mode PFC Controller	Average	Current Mode PFC average			
NCP1570	On Semi	ON Power	Low Voltage Synchronous Buck Controller	NCP1570Test	Synchronous buck regulator, low voltage high current	Transient, Steady State	V <sup>2</sup> control	
NCP1571	On Semi	ON Power	Low Voltage Synchronous Buck Controller	NCP1571Test				
TL431	On Semi	ON Power	Adjustable 2.5-36V ±1% Tolerance 1-100mA Shunt Regulator	LDOREGULATOR	linear reg	operating point	Bipolar Voltage Regulator	
TLV431A	On Semi	ON Power	Low Voltage Precision Adjustable Shunt Regulator	LDOREGULATOR, TLV431Test		Transient, AC analysis		
MC3320T	On Semi	ON Power	Low Voltage, Rail-to-Rail, Single Operational Amplifier	MC3320XACTEST				
MC33202	On Semi	ON Power	Low Voltage, Rail-to-Rail, Single Operational Amplifier					
MC33204	On Semi	ON Power	1V, Rail-to-Rail, Single Operational Amplifier					
MC33501	On Semi	ON Power	1V, Rail-to-Rail, Single Operational Amplifier	MC3350XACTEST				
MC33502	On Semi	ON Power	1V, Rail-to-Rail, Single Operational Amplifier					
MC33503	On Semi	ON Power	1V, Rail-to-Rail, Single Operational Amplifier					
NCV4269	On Semi	ON Power	Micropower 150mA LDO Linear Regulator	NCV4269 LINE TRANSIENT, NCV4269 LOADTRANSIENT, NCV4269		Line Transient, Load Transient		
HA16163	Renesas	Renesas	Synchronous Phase Shift Full-Bridge Control IC, 480 kHz, See Application Circuit.pdf					
LM78S40	National	Nat_Power	Universal Switching Regulator Subsystem	78S40Test	Buck	Transient simulation, Startup	Variable frequency PCM Buck	
LP2953	National	National_LDO	Adjustable Micropower Low-Dropout Voltage Regulator, See LP2953A.pdf	LM2953ATest	Output Impedance	AC or DC Analysis		
LM117 *	National	Nat_Power	3-terminal adjustable regulator	LM117, LM177_AC		Load Step Transient, AC		

Part Name	PI	PI_Power	Part Description	Application Schematic File Name	Topology	Transient simulation, Startup	5.5 W AC Adapter with Universal Input (85-265 VAC)
TNY256	PI	PI_Power	TinySwitch with line under-voltage lockout, auto-restart	TNY256Test	Offline Flyback		
<b>Semiconductors</b>							
77034, 57130, 57230	IR	IR_Semi	Power Mosfets, See Improved Mosfet Model.pdf				
CMPD2004, CMPD3003, CMPD6001, CMDSH2-3, CMDSH-3, CMPD6263, CMHSH5-4, CMHSH5-2L, CMSH1-40M, CMSH1-60M, CMSH5-40, CMSH5-60, CMSH2-40M, CMSH2-60M, CSHD10-45L	CS	CS_Diodes	Diodes, General				
CCL0035, CCL0130, CCL0300, CCL0500, CCL0750, CCL1000, CCL1500, CCL2000, CCL2700, CCL3500, CCL4500, CCL5750, CCLH080, CCLH100, CCLH120, CCLH150	CS	CS_Current_D	JFET Current Regulators				
CMPTA44, CMPTA94, CMPT404A	CS	CS_BJTs	BJTs				
MI1020T	Marlow	Misc	Thermal-Electro Cooler, See TEC.pdf		TEC TEST_TEC_APP	Transient	Simple Application
53259, 53111, 53124, 53253, 53250	Micropac	Micropac_Rel	Solid-State Relays, Switches, See 53111.pdf & 53250.pdf	53111Test, 53250Test	On/Off	Transient	
8CLJQ045, 8CLJQ045_Sub	IR	IR_Semi	Power Schottky, See 8CLJQ045.pdf				
RHRP1540 *	Fairchild	Misc	Soft Recovery Diode				
SSR8045P *	SSDI	Misc	Power Schottky				
SFH615A-1, SFH615A-2, SFH615A-3, SFH615A-4	Vishay	Vishay	Optocoupler, Hi-Rel 5300Vrms				
SFH610A-1, SFH610A-2, SFH610A-3, SFH610A-4	Vishay	Vishay	Optocoupler, Hi-Rel 5300Vrms				
MOC8101, MOC8107, MOC8108	Fairchild	Fairchild	Optocoupler, Hi-Rel 5300Vrms				
CNY17F-1, CNY17F-2, CNY17F-3, CNY17F-4	Fairchild	Fairchild	Optocoupler, Hi-Rel 5300Vrms				
Misc FETs: MTD1N60E, MTD3022T4, HAT2168H, HAT2167H *							
Misc Diodes: MBR140p2, DN752a, KBPC808, MUR1620, SSR8045, D1N6642US, D1N5819, 30BQ040							
Misc BJTs: MPS750 *							
<b>Magnetics</b>							
MP55xxx	Magnetics	AEIMPP55	Molypermalloy Powder core models, Part numbers 55014 - 55933				
MP58xxx	Magnetics	AEIMPP58	High Flux powder core models, Part numbers 58018 - 58933				
MPP	Generic	Mags	Molypermalloy Powder (MPP) core model. See also MP55 Series	N= # of turns U= Permeability AL= Inductance reference of the core mHy/1000T^2 LM=Magnetic Path Length in cm DCR=Series resistance in ohms IC=Initial Conditions			
MPP2	Generic	Mags	High Flux powder core model. See also MP58 Series	N= # of turns U= Permeability AL= Inductance reference of the core mHy/1000T^2 LM=Magnetic Path Length in cm DCR=Series resistance in Ohms			
Core *	Generic	Mags	Generic Saturable Core model. See Magnetics Modeling.pdf Ex. SVSEC=25U IVSEC=.25U LMAG=10MHY LSAT=20UHY FEDDY=25KHZ	SVSEC=Core Capacity in Volt-Sec IVSEC Initial Condition in Volt-Sec LMAG Magnetizing Inductance in Henries LSAT Saturation Inductance in Henries FEDDY Frequency when LMAG Reactance = Loss Resistance in Hz	SATURABLE_CORE_TEST_227		Transient simulation core flux
CoreX *	Generic	Mags	Generic Saturable Core model. See Magnetics Modeling.pdf	ACORE=Magnetic cross section area in cm2 LPATH=Magnetic path length in cm FEDDY=Frequency when Lmag Reactance=Loss resistance LMAX=Maximum Permeability, dB/dH USAT=Saturation Permeability, dB/dH BR=Flux density in gauss at H = 0 for saturated B-H loop BI=Initial Flux density, default = 0 N=Number of Turns			
CorewHyst *	Generic	Mags	Generic Saturable Core model. See Magnetics Modeling.pdf Ex. SVSEC=25U IHYST=10m IVSEC=1 LMAG=10MHY LSAT=20UHY RFEDDY=25KHZ	SVSEC=Volt-sec at Saturation = BSAT * AE * N IVSEC=Volt-sec Initial Condition = B * AE * N LMAG=Unsaturated Inductance = $\mu O \cdot \mu R \cdot N^2 \cdot AE / LM$ LSAT=Saturation Inductance = $\mu O \cdot N^2 \cdot AE / LM$ IHYST=Magnetizing I @ 0 Flux = H * LM / N REDDY=Eddy Current Loss Resistance			
Transformers	Generic	Mags	Transformers, Various topologies, 1:1, Center tapped, etc.	Series resistance and turns ratio	Dualout, Triout		
<b>Generic Models</b>							
<b>Sandler State Space Average Models</b>							
	Vendor	Library	Description	Parameters	Application Schematic File Name	Topology	Analysis
Flyback	Generic	PowerSS	State Space average model for Flyback converters.	L=Primary inductance in Henries NC=Current transformer turns ratio NP=Power transformer turns ratio F=Switching frequency in Hz EFF=Efficiency RB=Current transformer burden resistor in ohms TS=Propagation delay time in the current loop in secs			
Forward	Generic	PowerSS	State Space average model for Forward converters.	L=Primary inductance in Henries NC=Current transformer turns ratio NP=Power transformer turns ratio F=Switching frequency in Hz EFF=Efficiency RB=Current transformer burden resistor in ohms TS=Propagation delay time in the current loop in secs			
Boost	Generic	PowerSS	State Space average model for Boost converters.	L=Primary inductance in Henries F=Switching frequency in Hz NC=Current transformer turns ratio NP=Power transformer turns ratio EFF=Efficiency RB=Current transformer burden resistor in ohms TS=Propagation delay time in the current loop in secs			
<b>Basso PWM Switching Models *</b>							
PWMCCMVM	Generic	Basso	PWM switching model	RE=Parasitic resistance in Ohms	PWM SWITCH.DSN	Various	AC and Transient
PWMDCMVM	Generic	Basso	PWM switching model	L=Primary inductance in Henries FS=Switching frequency in Hz	PWM SWITCH.DSN	Various	AC and Transient
PWMVM	Generic	Basso	PWM switching model	L=Primary inductance in Henries FS=Switching frequency in Hz RE=Parasitic resistance in Ohms	PWM SWITCH.DSN	Various	AC and Transient

				L=Primary inductance in Henries FS=Switching frequency in Hz RI=Current Sense Element SE=External ramp in V/s	PWM SWITCH.DSN	Various	AC and Transient
<b>PWCMCM</b>	Generic	Basso	PWM switching model				
<b>PWBCMVM</b>	Generic	Basso	PWM switching model	L=Primary inductance in Henries	PWM SWITCH.DSN	Various	AC and Transient
<b>PWBCMCM</b>	Generic	Basso	PWM switching model	L=Primary inductance in Henries RI=Current Sense Element	PWM SWITCH.DSN	Various	AC and Transient
<b>PWBCMCM2</b>	Generic	Basso	PWM switching model	L=Primary inductance in Henries RI=Current Sense Element	PWM SWITCH.DSN	Various	AC and Transient
<b>Other Generic Models</b>	<b>Vendor</b>	<b>Library</b>	<b>Part Description</b>	<b>Parameters</b>	<b>Application Schematic File Name</b>	<b>Topology</b>	<b>Analysis</b>
<b>CPWR</b>	Generic	Misc	Constant Power Load	VKnee=Load is resistive below knee and then constant power for all voltages above that Power=Constant Power			
<b>SWhyste</b>	Generic	Misc	Switch with hysteresis	Ron=On Resistance Roff=Off resistance VT=Threshold voltage (On/Off @ VT+VH, VT-VH) VH=Hysteresis voltage			
<b>CATS</b>	Generic	Misc	Category 5 Cable	L=Length in meters			
<b>DBEHAV *</b>	Generic	Misc	Soft Recovery Diode, See subcircuit netlist for more information	IS1, TM, TAU, RMO, VTA, CAP, ISE			
<b>Tant, TANTwIC</b>	Generic	TantCap	Tantulum Capacitor Model with and w/o Initial Conditions, See Capacitor.pdf	C= capacitance ESR1K= ESR at 1KHz ESL=Series Inductance RLEAK=Leakage Resistance IC=Initial Conditions			
<b>DeadDrv *</b>	Generic	Dead	Dead Time for Synchronous Rectification, variable output voltage	DT = Dead time in seconds	DeadTime, HalfBridge	Drive Waveform Test, Half Bridge Setup	Transient
<b>DeadSync *</b>	Generic	Dead	Dead Time for Synchronous Rectification	DT = Dead time in seconds RS = GateUpper to SourceUpper resistance	DeadSync, DeadSyncRect	Sample Sync Rect	Transient
<b>DeadTime *</b>	Generic	Dead	Dead Time Signal Generator, Floating	DT = Dead time in seconds VHIGH = High voltage output in Volts VLOW = Low voltage output in Volts RS = GateUpper to SourceUpper resistance	DeadTime, HalfBridge	Drive Waveform Test, Half Bridge Setup	Transient
<b>NewDT *</b>	Generic	Dead	Dead Time Signal Generator similar to Deadtime but not floating	DT = Dead time in seconds VHIGH = High voltage output in Volts VLOW = Low voltage output in Volts RS = GateUpper to SourceUpper resistance			
<b>Sparkgap2 *</b>	Generic	Misc	Highly nonlinear device whose function is to stop transient surges on DC or AC power supply lines.	V_GLOW = Glow discharge voltage VARC = Arc voltage ISUS = Minimum sustaining current V_BREAKDN = Break down voltage I_ARC = Minimum arc current	Sparkgap2	Simple Switching test	
<b>Ftube *</b>	Generic	Misc	Flourescent Tube	VTHRES = Cold voltage at which the lamp strikes in Volts VARC = Voltage corresponding to the lamp arc voltage in Volts ISUS = Current under which the arc is stopped in Amps			