TAIYO YUDEN Component Library for Analog Devices LTspice (Standard Model)

- Installation manual -

Contents

- * How to install Component Library to LTspice24 (P3-P4)
- * How to install Component Library to LTspice XVII (P5-P6)
- * How to use Component Library (P7-P9)
- * About component category (P10-P18)
- * How to uninstall Component Library from LTspice24 (P19)
- * How to uninstall Component Library from LTspice XVII (P20)

How to install Component Library to LTspice24

The following instruction is for LTspice24.

Step 1. Unzip "LT_STD_TY**.zip".

Step 2. Copy each "TY_Standard" folder located in unzipped sub and sym folder into the following folder respectively.

destination folder to copy "TY_Standard" folder in sub folder C:¥Users¥<Windows login user name>¥AppData¥Local¥LTspice¥lib¥sub

destination folder to copy "TY_Standard" folder in sym folder C:¥Users¥<Windows login user name>¥AppData¥Local¥LTspice¥lib¥sym



How to install Component Library to LTspice24

Step 3. Launch LTspice and click control panel button on the toolbar.

Step 4. Select "Search Paths" tab on the control panel.

Step 5. Describe the full install path at Step 2 into "Library Search Path" pane as shown below.

C:¥Users¥<Windows login user name>¥AppData¥Local¥LTspice¥lib¥sub¥TY_Standard

Step 6. Click OK to finish the installation.

Relaunch LTspice to use the library.



How to install Component Library to LTspice XVII

The following instruction is for LTspice XVII.

Step 1. Unzip "LT_STD_TY**.zip".

Step 2. Copy each "TY_TempDC" folder located in unzipped sub and sym folder into the following folder respectively.

destination folder to copy "TY_Standard" folder in sub folder C:¥Users¥<Windows login user name>¥Documents¥LTspiceXVII¥lib¥sub

destination folder to copy "TY_Standard" folder in sym folder C:¥Users¥<Windows login user name>¥Documents¥LTspiceXVII¥lib¥sym



How to install Component Library to LTspice XVII

Step 3. Launch LTspice and click control panel button on the toolbar.

Step 4. Select "Sym. & Lib. Search Paths" tab on the control panel.

Step 5. Describe the full install path at Step 2 into "Library Search Path" pane as shown below.

C:¥Users¥<Windows login user name>¥Documents¥LTspiceXVII¥lib¥sub¥TY_Standard

Step 6. Click OK to finish the installation.

Relaunch LTspice to use the library.





How to use Component Library

Step 1. Open the schematic window.

Step 2. Click the component icon from the toolbar or the menu bar and double-click [TY_Standard] folder.

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Resistor	R		[Contrib] [CurrentMonitors]	cap ISO16750-2 csw ISO7637-2	2 pmos volt pmos4 zene
Capacitor	с		[DAC] [Digital]	current LED diode load	pnp pnp2
3 Inductor	L		[Misc] [OpAmps]	e Dadz e2 lpnp f ltline	polcap res
Diode	D		[Optos] [PowerProducts]	FerriteBead mesfet FerriteBead2 njf	res2 schottky
Component	F2		[References] [SpecialFunctions]	fra nmos fraprobe nmos4	SOAtherm-HeatSink SOAtherm-NMOS
Rotate	Ctrl+R		[TY_Standard]	g npn g2 npn2 b npn3	SUATHERM-PCB SW tline
Mirror	Ctrl+E	Get Product Inf	fo		>
Draw <u>W</u> ire	F3	Open Example Cir	rcuit		Cancel Place
Label <u>N</u> et	F4				

How to use Component Library

Step 3. Continue to follow the folders to find and select the component to use.

*1,2 : Please also refer to pages from 10 to 18 about component category.

🥲 Component	×		
Top Directory: C:¥Users¥ ¥AppData¥Local¥LTspice¥ Search: [TY_Standard] C:¥Users¥ ¥AppData¥Local¥LTspi [] [ACapacitor] [ACapacitor] [FerriteBeads] [Inductor] Y Component Top Directory:	lib¥sym ✓ Go to analog.com ce¥lib¥sym¥TY_Standard¥	×	
C:¥Users¥ ¥AppData¥Lc Search: [Capacitor]	ocal¥LTspice¥lib¥sym	✓	X
C:¥Users¥ ¥AppDat [] [HVC_E] [CF_LD_L] [HVC_M] [CF_LD_S] [HVC_M] [CFCAP_L] [HVC_S] [CLS1_B] [LWDC_B] [CLS1_B] [LWDC_M] [CLS1_M] [LWDC_M] [CLS1_S] [MHV_B] [HFC_S] [MHV_C] [HFMH_B] [MHV_L] [HFMH_M] [MHV_S] [HFM_M] [STC_C] [HVC_B] [STC_C] [HVC_C] [STC_M]	Get Product Info	Top Directory: C:¥Users¥ ¥AppData¥Local×LTspice¥lb¥s Search: [HVC_S] C:¥Users¥ ¥AppData¥Local×LTspice¥lb C:¥Users¥ ¥AppData¥Local×LTspice¥l MSASA021SB5223_WNA01MSASA168BC62476_RC MSASA042SB5104_WNA01MSASA168BC6476_RC MSASA042SB5104_WNA01MSASA168BC6476_RC MSASA042SB5224_WNA01MSASA168BC6476_RC MSASA042SB5224_WNA01MSASA1L3YB5225_FN MSASA042SC6103_WNA01MSASA1L4XB5105_RN MSASA042SC6103_WNA01MSASA1L4XB5105_RN MSASA042SC6103_WNA01MSASA11BS5476_TN MSASA042SC6103_WNA01MSASA219LB5476_TN MSASA042SC6105_FNA01MSASA219LB5476_TN MSASA063BB5225_FNB46 MSASA216BC6107_TC MSASA063BE5475_FNA01 MSASA216BC6476_TN MSASA063BC6475_FNA01 MSASA31LAC6107_TN MSASA105EC6106_FNC12 MSASA105EC6176_FNA01 MSASA11LAC6476_TN MSASA105EB5226_FNA01 MSASA11LAC6476_TN MSASA105EB5226_FNA01 MSASA11LAC6476_TN MSASA105EB5226_FNA01 MSASA11LAC6476_TN MSASA105EB5226_FNA01 MSASA11LAC6476_TN MSASA105EB5226_FNA01 MSASA11LAC6476_TN MSASA105EB5226_FNA01 MSASA11LAC6476_TN MSASA105EB5226_FNA01 MSASA11LAC7476_TN C	Sym Go to analog.com lib¥sym¥TY_Standard¥Capacitor¥HVC. 1846 MSASA31LBB5157_TNA01 MSAS 1A01 MSASA31LBB5157_TNB36 MSAS 1A01 MSASA32MAB5157_PNDT1 MSAS 1A01 MSASA32MAB5277_PNDT1 MSAS 1A01 MSASA32MAB5337_PNDT1 MSAS 1A01 MSASA32MAC6157_PNDT1 MSAS 1A01 MSASA32MAC6157_PNDT1 MSAS 1A01 MSASA32MAC6337_PCDT1 MSAS 1A01 MSASA32MAC6337_PCDT1 MSAS 1A01 MSASA32MAC6337_PCDT1 MSAS 1A01 MSASA45MSB5477_TNA01 MSAS 1A01 MSASA2021SB5102_WNA01MSAS 1A01 MSASE021SB5471_WNA01MSAS 1A01 MSASE042SB5101_WNA01MSAS 1A01 MSASE042SB5103_WNA01MSAS 1A01 MSASE042SB5151_WNA01MSAS 1A01 MSASE042SB5151_WN
	Open Example Circuit		Cancel Place

How to use Component Library

- **Step 4.** Place the component on the schematic.
- **Step 5.** Perform the simulation.



There are 4 product categories just under "TY_Standard" folder as show below.

Category name	Product categories
Capacitor	Multilayer Ceramic Capacitors
Inductor	Inductors
FerriteBeads	Ferrite Bead Inductors
AlCapacitor	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors

🥙 Component		×
	Top Directory: C:¥Users¥ ¥AppData¥Local¥LTspice¥lib¥sym Search: [TY_Standard] Go to analog.com € C:¥Users¥ ¥AppData¥Local¥LTspice¥lib¥sym¥TY_Standard¥ [] [AlCapacitor] [Capacitor] [FerriteBeads] [Inductor]	~

The name of component category folders located directly under Capacitor folder is composed of series abbreviation and application symbol as follows.



The name of component category folders located directly under Inductor and FerriteBeads folder, itself, represents series abbreviation.

The second letter of series abbreviation should be treated as application symbol.



There are application name folders under AlCapacitor folder.

In the next folder, you can select series abbreviation after selecting one of the applications.

😕 Component		×	
Top Directory:			
C:¥Users¥ ¥AppDa	ata¥Local¥LTspice¥lib¥sym	<u> </u>	
Search: []	Go to analog.com	1	
€ C:¥Users¥ ¥Ap	pData¥Local¥LTspice¥lib¥sym¥TY_Standard¥AlCaj	pacitor¥	
[] [Automotive_Body_Chasis_i	and_Infotainm.		
[Automotive_Powertrain_an [General_Equipment]	d_Safety] Applicatio	on	
	(ジン) Component		×
		Top Directory:	
		C:¥Users¥ ¥AppData¥Local¥LTspice¥	/lib¥sym ~
		Search: [General_Equipment]	Go to analog.com
		E C:¥Users¥ ¥AppData¥Local¥LTsp	ice¥lib¥sym¥TY_Standard¥AlCapacitor¥Ger
Get Product Info		[HT1]	
Open Example Circuit		[HTK]	
	-	[HTQ] [HTX]	
		[HTY] Serie	es abbreviation
		[HVQ] [HVX]	
		[HVY]	
	Get Product Info		
	Open Example Circuit		Cancel Place

Application symbols describe the categories where the components are intended to use according to the following chart.

Also, the reference chart of application name lists under AlCapacitor folder is shown below.

Please confirm our product catalog or product specification for details.

Application symbol	Application	Equipment
A	Automotive	Automotive Electronic Equipment (POWERTRAIN, SAFETY)
С		Automotive Electronic Equipment (BODY & CHASSIS, INFOTAINMENT)
В	Industrial	Telecommunications Infrastructure and Industrial Equipment
М	Medical	Medical Devices classified as GHTF Class C (Japan Class III)
L		Medical Devices classified as GHTF Classes A or B (Japan Classes I or II)
S	Consumer	General Electronic Equipment
E		Only for Mobile Devices

Application name	Application	Equipment
Automotive_Powertrain_and_Safety	Automotive	Automotive Electronic Equipment (POWERTRAIN, SAFETY)
Automotive_Body_Chasis_and_Infotainment		Automotive Electronic Equipment (BODY & CHASSIS, INFOTAINMENT)
General_Equipment	Consumer	General Electronic Equipment

Series abbreviations describe the following product series. Please confirm our product catalog or product specification for details.

Series abbreviation	Product series
HVC	Multilayer Ceramic Capacitors (High dielectric type)
CLS1	Multilayer Ceramic Capacitors (Temperature compensating type)
HFC	High frequency/Low loss Multilayer Ceramic Capacitors
HFMH	High frequency/Low loss Medium-High Voltage Multilayer Ceramic Capacitors
CFCAP	Low distortion design/Audible/Good bias Multilayer Ceramic Capacitors (CFCAP)
CFLD	Low distortion design/Audible/Good bias Multilayer Ceramic Capacitors (CF_LD)
MHV	Medium-High Voltage Multilayer Ceramic Capacitors
STC	Soft Termination Multilayer Ceramic Capacitors
LWDC	LW Reversal Decoupling Low ESL Capacitors (LWDC™)
HRC	High Reliability Multilayer Ceramic Capacitors

Multilayer Ceramic Capacitors

Inductors

Series abbreviation	Product series
L_EN	Wire-wound Metal Power Inductors MCOIL [™] L_EN series
L_EP	Wire-wound Metal Power Inductors MCOIL [™] L_EP series
L_EU	Wire-wound Metal Power Inductors MCOIL [™] L_EU series
L_CN	Wire-wound Metal Power Inductors MCOIL [™] L_CN series
L_DN	Wire-wound Metal Power Inductors MCOIL [™] L_DN series
L_AN	Wire-wound Metal Power Inductors MCOIL [™] L_AN series
L_AP	Wire-wound Metal Power Inductors MCOIL [™] L_AP series
L_BH	Wire-wound Metal Power Inductors MCOIL [™] L_BH series
L_XN	Wire-wound Ferrite Power Inductors L_XN series
L_XP	Wire-wound Ferrite Power Inductors L_XP series
L_XH	Wire-wound Ferrite Power Inductors L_XH series
L_XA	Wire-wound Ferrite Power Inductors L_XA series
L_XBH10050	Wire-wound Ferrite Power Inductors L_XBH10050
L_RN	Wire-wound Ferrite Power Inductors L_RN series
L_YP	Wire-wound Ferrite Power Inductors L_YP series

* "_" in the series abbreviation should be replaced by the character representing the application of the product either "A", "C", "B", "M", "L" or "S".

Inductors

Series abbreviation	Product series
L_QPB	Wire-wound Ferrite Power Inductors L_QPB series
L_QN	Wire-wound Ferrite Power Inductors L_QN series
L_QPA	Wire-wound Ferrite Power Inductors L_QPA series
L_QB	Wire-wound Ferrite Inductors L_QB series
L_QBA	Wire-wound Ferrite Inductors L_QB series
L_QBB	Wire-wound Ferrite Inductors L_QB series
L_QC	Wire-wound Ferrite Inductors L_QC series
L_QE	Wire-wound Ferrite Inductors L_QE series
L_QM	Wire-wound Ferrite Inductors for Signal Lines L_QM series

* "_" in the series abbreviation should be replaced by the character representing the application of the product either "A", "C", "B", "M", "L" or "S".

Ferrite Bead Inductors

Series abbreviation	Product series
L_MC	Wire-wound Ferrite Bead Inductors for Power Lines L_MC series
L_MG	Wire-wound Ferrite Bead Inductors for Power Lines L_MG series

* "_" in the series abbreviation should be replaced by the character representing the application of the product either "A", "C", "B", "M", "L" or "S".

Conductive Polymer Hybrid Aluminum Electrolytic Capacitors

Series abbreviation	Product series
HT1	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HT1 series
НТК	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HTK series
HTL	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HTL series
HTQ	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HTQ series
НТХ	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HTX series
HTY	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HTY series
HV1	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HV1 series
HVK	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HVK series
HVL	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HVL series
HVQ	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HVQ series
HVX	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HVX series
HVY	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HVY series

How to uninstall Component Library from LTspice24

Delete each "TY_Standard" folder respectively from the folder where you installed them.

sub folder

C:¥Users¥<Windows login user name>¥AppData¥Local¥LTspice¥lib¥sub

sym folder

C:¥Users¥<Windows login user name>¥AppData¥Local¥LTspice¥lib¥sym



How to uninstall Component Library from LTspice XVII

Delete each "TY_Standard" folder respectively from the folder where you installed them.

sub folder

C:¥Users¥<Windows login user name>¥Documents¥LTspiceXVII¥lib¥sub

sym folder

C:¥Users¥<Windows login user name>¥Documents¥LTspiceXVII¥lib¥sym

