**TAIYO YUDEN** 

# TAIYO YUDEN Component Library for Keysight PathWave RF Synthesis

Installation manual -

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### **System requirements**

This library is available under the following environment.

OS : All operating systems that PathWave RF Synthesis supports

PathWave RF Synthesis : Above 2020



- **Step 1.** Unzip "GE\_TY\*\*.zip".
- Step 2. Copy each TaiyoYuden folder in Data and Model(\*) folder in the library to Data and Model folder in <My Documents>¥My Models folder.
  - \* In case of PathWave RF synthesis 2020 (reffered to as Genesys), copy TaiyoYuden folder in Model\_2020 folder instead of Model folder.



- **Step 3.** Launch Genesys.
- Step 4. Select Tools > Library Manager in toolbar to open Library Manager window.
- **Step 5.** Click "Add From File..." button.

醛 Genesys 2023		Library Manager	×
File Edit View Schematic Action	Tools Window Help Library Manager	Use Add From File to load additional Libraries into Genesys. Check the box next to a Library to in search order of the Libraries. Save As can also be used to save encrypted libraries.	ndude it in the search path. Up and Down modify the
Workspace Tree	Footprint Editor > License Manager Options	Only Show Libraries of Type:   Design - Schematic, Model, Symbol, etc.     Library   File Path     Models   Lumped     Symbols   SymbolsQtr     TitteBlocks   OscillatorsOt	~
" <u>K"</u> Holes	l 	OscillatorsQtr Mixers Mixers MixersQtr ADS Nonlinear Models Avago XP Models XP Symbols	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
	Step 5.	Add From File   Use Add From File to load additional Genesys XML libraries, ADS Nonlinear model dlls, and VerilogA model files.     K   Remove Library	▲ Up Properties   ✓ Down Save As
		Hide Built-in Libraries	Close 😢 Help

### Step 6. Open "TaiyoYuden\_Ceramic\_Capacitor.xml" in <My Documents>¥My Model¥TaiyoYuden folder created in Step 2.

<u> </u>	Open Library							×
	ファイルの場所( <u>l</u> ):	TaiyoYuden		~	G 🦻	🖻 🛄		
	Step 6.	名前 TaiyoYuden_Cera TaiyoYuden_Ferr	mic_Capacitorxml Ite_Bead_Inductorxml	更新日時 2023/11/20 2023/11/20	10:45 10:45	種類 XMLドキュメン XMLドキュメン	<b>ル</b> ル	サイズ 8,462 KI 185 KI
	デスクトップ	📄 TaiyoYuden_Indu	ctorxml	2023/11/20	10:45	XML ドキュメン	ハ	3,255 KI
	ライブラリ							
	PC							
	🧊 ネットワーク							
		<						>
		ファイル名( <u>N</u> ):				~	開く(	<u>O</u> )
		ファイルの種類( <u>T</u> ):	Supported types (*.xml	;*.dll;*.cml)		~	キャン	セル
	Show Library Info	rmation						
l								

- Step 7. Select "Part" from "Only Show Libraries of Type" on Library Manager window.
- **Step 8.** Confirm that "TaiyoYuden\_Ceramic\_Capacitor" is appeared in the list.
- Step 9. Repeat Step 5 to Step 8 for "TaiyoYuden\_Inductor", "TaiyoYuden\_Ferrite\_Bead\_Inductor" to complete the installation.

	Step 7. Only Show Libra	ries of Type: 🛲 Part		~
ſ	Library	File Path		
	Modelithics Filters Library v23.0	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo	delithics_Filters_Librar	y.xml
	Modelithics Inductors Library	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo	odelithics_Inductors_Lib	orary.xml
	Modelithics Packages Library	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo	odelithics_Packages_Lib	rary.xml
	Modelithics Resistors Library	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo	delithics_Resistors_Lib	rary.xml
	Modelithics Resonators Librar	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo	delithics_Resonators_L	.ibrary.xml
	Modelithics Select (+) Library	C:#Program Files#Keysight#Genesys2023#Autoload#Mo	delithics_SELECI_Libra	iry.xml
	Modelithics Transformers Libr	C:#Program Files#Keysight#Genesys2023#Autoload#Mc	delithics_Spiriters_clore	Library.xml
	Modelithics Transistors Librar	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo	delithics_Transistors_L	.ibrary.xml
	X-Microwave	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥X-	Microwave.xml	
Step 8.	TaiyoYuden Ceramic Capacitor	C:¥Users¥ ¥Documents¥My Models¥Model¥Ta	iyoYuden¥TaiyoYuden_	_Ceramic_Capacitor.xml
	٢			>
	Add From File	Use Add From File to load additional Genesys XML libraries.	A Up	Properties
	M Description	and the second se	V Down	Call Sounda

### How to use Component Library

- **Step 1.** Select View > PartSelector in toolbar to open PartSelector window.
- **Step 2.** Select TaiyoYuden\_\*\*

(\*\* = Ceramic\_Capacitor, Inductor, Ferrite\_Bead\_Inductor) from Current Library menu on Part Selector A window.

**Step 3.** Select the part from the list and drop it onto your schematic.



### How to use Component Library

### **Step 4.** Perform the simulation.



### How to narrow down components in Library

You can narrow down components by selecting Taiyo Yuden product series from "Category" menu on Part Selector A window.

Part Selector A	-	џ	×
Current Library:			
TaiyoYuden Ceramic Capacitor			$\sim$
Category:			
<all></all>			$\sim$
<all></all>			
Automotive (Body & Chasis / Infotainment) Automotive (Powertrain / Safety) General Equipment Medical (International Class I/II) Medical (International Class III)			
Only for Mobile devices Telecommunication / Industrial			

Part Selector A	🗢 🏚 🗙
Current Library:	
TaiyoYuden Ceramic Capacitor	~
Category:	
Automotive (Body & Chasis / Infotainment)	~
Filter By:	
	→
Name	^
H MCARQ105SCG010BFRA01	
H → MCARQ105SCG010CFRA01	
H MCARQ105SCG020BFRA01	
MCARQ105SCG020CFRA01	
MCARQ105SCG030BFRA01	
☐	

## How to narrow down components in Library

You can perform partial match retrieval of Taiyo Yuden part number from "Filter By" input box on Part Selector A window.

You can use "Filter By" and "Category" functions together at the same time.

An example retrieving capacitors having X5R temperature characteristics and 0.1uF capacitance by specifying some symbols of capacitor part number



An example retrieving inductors of 5mm square size in Automotive (Powertrain / Safety) series by specifying some symbols of inductor part number

Part Selector A	🗕 🛧 🛧
Current Library:	
TaiyoYuden Inductor	~
Category:	
Automotive (Powertrain / Safety)	~
0 💣 🍪	
Filter By:	
5050	→
Name	
-3930-LAXHG5050XAT3R3NMR	
-mm-LAXHG5050XKT151MMR	
-mm-LAXHG5050XKT470MMR	

### How to narrow down components in Library

You can narrow down components by putting the information of part descriptions to "Filter By" input box on Part Selector A window.

An example retrieving capacitors of 630V rated voltage by specifying "630V" written in part descriptions

Part Selector A 🚽 🗸	ιx
Current Library:	
TaiyoYuden Ceramic Capacitor	$\sim$
Category:	
<all></all>	$\sim$
1 🚔 🍪	
Filter By:	
630V	Þ
Name	^
MBASS31LAB7333KTNA01	
H MBASS31LAB7333MTNA01	
H MBASS31LAB7473KTNA01	
H MBASS31LAB7473MTNA01	
H MBASS31LSB7153KTNA01	
MBASS31LSB7153MTNA01	~
Name: MBASS31LAB7333KTNA01 Library: TaiyoYuden Ceramic Capacitor Description: 0.033uF(+/-10%), 3.2 x 1.6mm(LxW), 1.6mm(T), 630V, X7R, 100kHz - 3GHz	^

An example retrieving inductors of 1mm thickness in General Equipment series by specifying "1.0mm(T)" written in part descriptions

Part Selector A 💦 🦷	ч×
Current Library:	
TaiyoYuden Inductor	~
Category:	
General Equipment	$\sim$
1 🖆 😂	
Filter By:	
1.0mm(T)	$\rightarrow$
Name	^
-300-LSANB2016KKT1R5M	
-3980-LSANB2016KKT2R2M	
-mm-LSANB2016KKT3R3M	
-300-LSANB2016KKTR24M	~
Name: LSANB2016KKT1R0M Library: TaiyoYuden Inductor Description: 1uH(+/-20%), 2.0 x 1.6mm(LxW), 1.0mm(T), 2200mA (dL = 30%), 2200mA (dT = 40degC), 0.075Ohm(DCR, max), 100kHz - 159.254811MHz	^

### How to view component descriptions

You can find component information of the selected part at the bottom of Part Selector A window. You can access further more component information by clicking information icon to guide you to our component search website TY-COMPAS on your browser under the internet environment.

Part Selector A 🛛 🗸 🗸	ф×	
Current Library:		
TaiyoYuden Ceramic Capacitor	~	
Category:		
<all></all>	$\sim$	
1 2 4		
Filter By:		
	⇒	t
Name	^	1
MAASE063SB7101KFCA01		
H MAASE063SB7101MFCA01		
MAASE063SB7102KFCA01		
MAASE063SB7102MFCA01		
MAASE063SB7151KFCA01		
H MAASE063SB7151MFCA01	~	
Name: MAASE063SB7101KFCA01 Library: TaiyoYuden Ceramic Capacitor Description: 100pF(+/-10%), 0.6 x 0.3mm(LxW), 0.3mm(T), 16V, X7R, 100kHz - 3GHz	^	

TY-COMPAS (Taiyo Yuden COM	IPonent Assist System)	Select Region Oversion info. OPRECAUTIONS AND DISCLAIME
MAASE063SB7101KF (Previous Part Number : EM	F <b>CA01</b> IR063B7101KP-F)	12 S 🖏
CERAMIC CAPACITORS [Mu electrode products)]	ultilayer Ceramic Capa	citors (High dielectric type) for Automotive Powertrain and Safety (Cu external
Specifications		Appearance
Status	Mass Production (Preferred)	
Capacitance	100 pF ± 10 %	
Case Size (EIA/JIS)	0201/0603	
Rated Voltage	16 V	
tanð (max)	3.5 %	
Temperature Characteristic (EIA)	X7R	
Operating Temp. Range (EIA)	-55 to +125 °C	
Insulation Resistance (min)	10 GΩ	
Dimension L	0.6 ±0.03 mm	
Dimension W	0.3 ±0.03 mm	
Dimension T	0.3 ±0.03 mm	Fastures
Dimension e	0.15 ±0.05 mm	Teatures
RoHS Compliance (10 subst.)	Yes	AEC-Q200 qualified
REACH Compliance (235 subst.)	Yes	
IEC62474 (Ver. D26.00) Compliance	Yes	Cu external electrode + plating structure contributes to the excellent soldering heat resistance
Halogen Free	Yes	A High reliability application part
Soldering	Reflow	
AL 1 A. 10	Trains Draw 15000	Note: The products are tested based on the test conditions and

- Step 1. Select Tools > Library Manager from toolbar to open Library Manager window.
- Step 2. Select "Part" from "Only Show Libraries of Type" on Library Manager window.

🥸 Genesys 2023		Library Manager X
File Edit View Schematic Action	Tools Window Help Library Manager	Step 2. load additional Libraries into Genesys. Check the box next to a Library to include it in the search path. Up and Down modify the Libraries. Save As can also be used to save encrypted libraries.
Workspace Tree     Image: Second Secon	Footprint Editor > License Manager Options	Library   File Path
		Add From File   Use Add From File to load additional Genesys XML   Image: Description of the second sec

- Step 3. Select "TaiyoYuden\_Capacitors" from component library list on Library Manager window.
- **Step 4.** Click "Remove Library" button.
- Step 5. Repeat Step 3 and 4 for "Taiyo Yuden\_Inductor", "Taiyo\_Yuden\_Ferrite\_Bead\_Inductor".

	Library Manager			×
	Use Add From File to load additiona search order of the Libraries. Save	Libraries into Genesys. Check the box next to a Library As can also be used to save encrypted libraries.	to include it in the search path. Up and Down modify t	he
	<u>Only</u> Show Libra	ries of Type: Part	~	
	Library	File Path		^
	Modelithics Packages Library	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo	delithics_Packages_Library.xml	
	Modelithics Resonators Librar	C:#Program Files#Keysight#Genesys2023#Autoload#Mo C:#Program Files#Keysight#Genesys2023#Autoload#Mo	delithics_Resonators_Library.xml	
	Modelithics SELECT(+) Library	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo	delithics_SELECT_Library.xml delithics_Splitters_Library.xml	
	Modelithics Transformers Libr	C:¥Program Files¥Keysight¥Genesys2023¥Autoload¥Mo	delithics_Transformers_Library.xml	
	X-Microwave	C:#Program Files#Keysight#Genesys2023#Autoload#Mo C:#Program Files#Keysight#Genesys2023#Autoload#X-N	delithics_fransistors_Library.xmi Microwave.xml	
Step 3.	TaiyoYuden Ceramic Capacitor	C:¥Users¥ ¥Documents¥My Models¥Model¥Tai	iyoYuden¥TaiyoYuden_Ceramic_Capacitor.xml	
	TaiyoYuden Inductor	C:¥Users¥ ¥Documents¥My Models¥Model¥Tai	iyoYuden¥TaiyoYuden_Inductor.xml	
	٢		>	
	🙆 Add From File	Use Add From File to load additional Genesys XML libraries.	▲ Up Properties	
Step 4.	X <u>R</u> emove Library	D	V Down	

Step 6. Delete each TaiyoYuden folder in Data and Model folder located in <My Documents>¥My Models folder to complete the uninstallation.

