# Johanson Technology Inc.

# JTI S42E Library Installation Instructions for ADS 2009 Update1

Johanson Technology Inc. Applications Support

http://www.johansontechnology.com/en/ask-a-technical-question.html

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JTI S42E Version 1.5

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These instructions will briefly cover the installation of Johanson Technology libraries for Agilent's Advanced Design System (ADS) version 2009 Update 1





- Agilent ADS 2009 Update 1
- Johanson Technology Inc. libraries

Libraries located on

http://www.johansontechnology.com/en/ designer-libraries/agilent-adslibraries.html





#### Important Notes

- During testing of libraries, it was observed file paths with spaces (e.g. c:\folder here\libraries) caused trivial errors
  - It is highly recommended to download and save libraries in a root folder with <u>no</u> <u>spaces</u> (e.g. c:\jti\...)





- Download all libraries from Johanson Technology website
- Silver Series Libraries are distributed in \*.zip format





# Installing Files in ADS 2009U1

- Launch ADS 2009U1
- In the ADS main window click on "DesignKits" and Select "Install Design Kits..."

	Install Design Kits		
File View Project View	List Design Kits		
A Cas C	Setup Project		
<ul> <li>SRecycle.Bin</li> <li>ADS2009U1</li> <li>ads_design_kits</li> <li>ADS_Libraries</li> <li>ads_workspaces</li> <li>Agilent</li> <li>dell</li> <li>Documents and Set</li> </ul>	ttings		
D D D D D D D D D D D D D D D D D D D		<ul> <li>Double click to open</li> </ul>	



### **Browse for Zipped Library File**

- The library file will need to be unzipped prior to installing in ADS
- Click on "Unzip Design Kit Now" in the ADS Main window.
- Select S42E\_SILVER\_SERIES\_ADS2009U1.zip
- Select a directory where to unzip library

1 Unzin Decign Kit		-	
1. Unzip Design Kit			
This step may be sk	ipped if the Design Ki	t is already unz	
	Unzip Design Kit N	ow	
2. Define Design Kit			
- Enter full Path to th	e directory of the de	sired Design Kit.	
If available, the ren	aining info will be au	tomatically filled	in.
Path			
		Br	owse
Name			
Boot File (optional)			
Boot File (optional)		Br	owse
Boot File (optional)		Br	owse
Boot File (optional) Version		Br	owse
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#### **Finalizing Import**

If library was successfully selected the "Define Design Kit" section is populated with applicable information about the

library file	📅 Install ADS Design Kit
indiary inc.	1. Unzip Design Kit
	This step may be skipped if the Design Kit is already unzipped.
	Unzip Design Kit Now
	2. Define Design Kit
	If available, the remaining info will be automatically filled in.
	Path
	\$HOME/ADS_Libraries/test1/S42E_SILVER_SERIE Browse
	Name
	S42E_SILVER_SERIES
	Boot File (optional)
	de/ael/boot Browse
Click "OK" to	Version
	1.5
complete the import	Warning: Design Kit warnings and information.
	3. Install Design Kit
	Select Installation Level : USER LEVEL
	OK Cancel Help





 The library import performs two tasks
 Import Library into the ADS "Component Library List"

Import pallet of S42E Series

Component Library List

Analog/RF Libraries	Search	Search	Search	Search	Search	Е
Projects	Component	Description	Library	Vendor	Placement	i.
<ul> <li>Analog Parts Librar</li> <li>Analog/RF</li> </ul>	S42E	S42E 1111 E-Series Low ESR Capacitor Multi-Layer High-Q	S42E_SILVER_SE	Johanson Tech	Both	4
Block Text Fonts						
IDF Components						
Measurement Base						
Microwave Transist						
RF Passive SMT Libr						
▷ RF Transistor Library						
S Parameter Library						
S42E_SILVER_SERIES						
V System Library						

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S42E Pallet



#### **S42E Model Usability**

- The latest variations of the S42E capacitors are available in 1- ADS part.
- Different values are selected inside part parameters.
- Click on "Type=" in the "Select Parameter" list
- Choose any of the available values of capacitance

S42E 1111 E-Series Low ESR Capacitor Mul	ti-Layer High-Q Capacitors:2		S42E 1111 E-Series Low ESR Capacitor Mul	ti-Layer High-Q Capacitors:2
Instance Name (name[ <start:stop>])</start:stop>	0.3pF 👻		Instance Name (name[ <start:stop>])</start:stop>	0.3pF   0.3pF
SNP1			Select promo	0.4pF
Select Parameter (File="S42E0R3_SER.s2p") (Temp=25) Type=0.3pF Add Cut Paste Type : Component type	<ul> <li>Display parameter on schematic</li> <li>Component Options</li> </ul>	Note: The <u>Help</u> menu links to the S42E website,	(File="S42E0R3_SER.s2p")       (Temp=25)       Type=0.3pF       Add     Cut       Paste       Type : Component type       OK     Apply       Cancer	el Reset Help
OK Apply Can	cel Reset Help			JOHANSON

#### Validate 10 pF Model

# Using the 10pF value of a S42E MLCC Sweep from 1-10GHz, S11 and S21

🔝 [ new_ADS_2009_proje	ct_prj ] first_simulation * (Schematic):2			
<u>File Edit Select Vie</u>	w <u>I</u> nsert <u>O</u> ptions <u>T</u> ools <u>L</u> ayout Si <u>m</u> ulate <u>W</u> i	indow D <u>y</u> namicLink Design(	Guide <u>H</u> elp	
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	S Param			
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	Stop=10 GHz			
	Step=			
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Select: Enter the starting p	oint	0 items wire	1.875, -2.625 0.000, 0.000	in A/RF SimSchem



#### **Sample Correlation**

 Response plots in ADS correlate with Johanson Technology JTISoft tool\*.



\*JTISoft can be downloaded from http://www.johansontechnology.com/en/modeling-software.html



For: Questions, Samples, Comments

We welcome your feedback

http://www.johansontechnology.com/en/as
k-a-technical-question.html

