Samsung Library Install Guide For HSpice
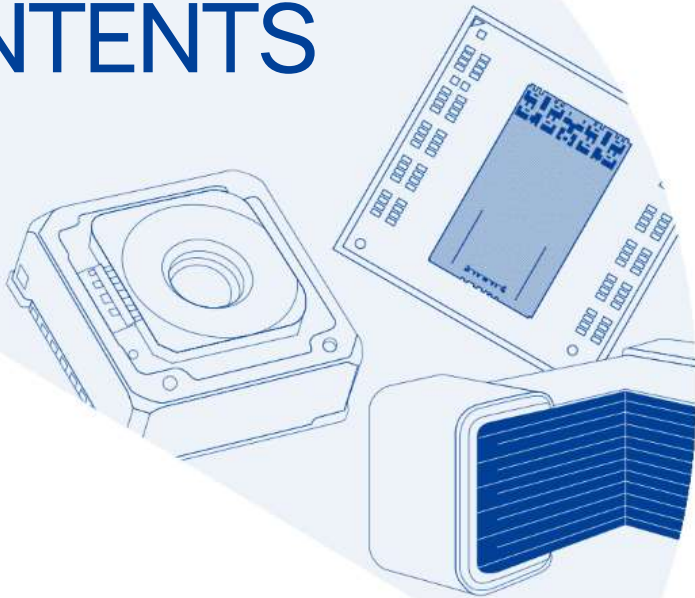
MARCH, 2024

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01. How to Install Samsung Library (1)

- If you have the previous version of Samsung Library, please uninstall the library at first and download the latest library in <u>our homepage</u>.

  * Main Page > SUPPORT > Software Library

02. How to Use Samsung Library (1)

- Download ' *_H.lib ' files in HSpice Library folder.

- Open the file as text document, Check the file path and the variable decared as subcircuit.

- Interactive precise model Example

  - file path name : /proj/hspice/CL32Y106KBJVPJ_Simple_Interactive_H.lib

  - subcircuit variable : CL32B475KCVZNW_DCtemp

```
* CL32B475KCVZNW Multilayer Ceramic Capacitor Interactive Precise Model for HSPICE
*-----------------------------------------------------------------------
* Model Generated by Samsung Electro-Mechanics
* Samsung Spice Model Version 4.0
* Products : Multilayer Ceramic Capacitor(High Reliability)
*-----------------------------------------------------------------------
* Characteristics :
*
*      Nominal Capacitance = 4.7uF
*      Capacitance Tolerance = +/-10%
*      TCC = X7R(-55 ~ +125 Cels.)
*      Rated Voltage = 100Vdc
*      Size = 1210(unit:inch), 3225(unit:mm)
*      Length = 3.20 +/-0.30 mm
*      Width = 2.50 +/-0.30 mm
*      Thickness = 2.50 +/-0.30 mm
* Applicable condition :
*      Frequency : 300Hz ~ 6GHz
*      Measurement Temperature : X7R(-55 ~ +125 Cels.)
*      DC bias Value = 0V ~ 40V
*      Small Signal as Network Analyzer
*-----------------------------------------------------------------------
* External Node Assignments :
*
*   1  o---||---o  2
*
*-----------------------------------------------------------------------
.SUBCKT CL32B475KCVZNW_DCtemp Port1 Port2          Subcircuit Variable
.PROT
```

Encrypt

02. How to Use Samsung Library (2)

- Open or Create Simulation Setting file (*.sp) and set the variables as shown below.

```
.OPTION LIST NODE POST                          Downloaded file path
.inc /proj/hspice/CL32Y106KBJVPJ_Simple_Interactive_H.lib
.ac dec 101 3e4 6e9
.Temp 48   Set Temperature (Interactive model case)
X1 n003 0 CL32Y106KBJVPJ_Dctemp
```
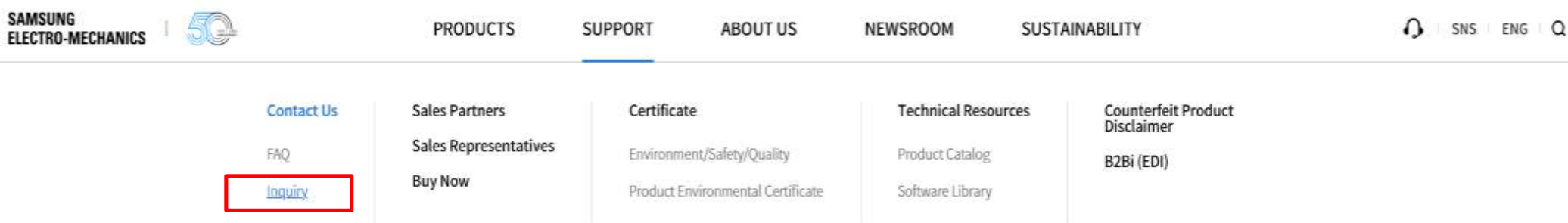
Set node   Subcircuit Variable

※ DC Voltage value is automatically detected in circuit

- Run Simulation.

03. **Contact**

- If you have any questions about this library, please contact our website

https://www.samsungsem.com/global/support/contact-us/inquiry.do