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Technical Note

Design Kit (for AWR Microwave Office) User's Manual

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Major Revisions in This Edition

Page	Description
Throughout	Modification of Microwave Office installation directory C:\Program Files\AWR\AWR2004\
p.5	**1. INTRODUCTION** • Change of OS to Windows XP™ Professional • Modification of Microwave Office Version • Modification of **Caution**
pp.11, 12	**4. DESIGN KIT APPLICATION** • Addition of explanation for layout display command • Addition of **Caution**

The mark ★ shows major revised points.

CONTENTS

1. INTRODUCTION

This manual describes how to use the design kit (kit that provides the device model parameters and layout information for NEC Compound Semiconductor Devices products for use in Microwave Office, hereafter referred to as “design kit”) from installation to performing simulation on the Designer schematic screen.

Although the required operations can basically be performed by operating the design kit in accordance with the figures in this manual, some operations may differ partially depending on the environment used.

This manual is described based on the following environment. See the manuals for the PC, etc. used in the actual environment.

<Environment used in this manual>

	Platform	:PC
★	OS	:Windows™ XP Professional
★	Microwave Office	:Version 6.51
★	Microwave Office installation directory	:C:\Program Files\AWR\AWR2004\

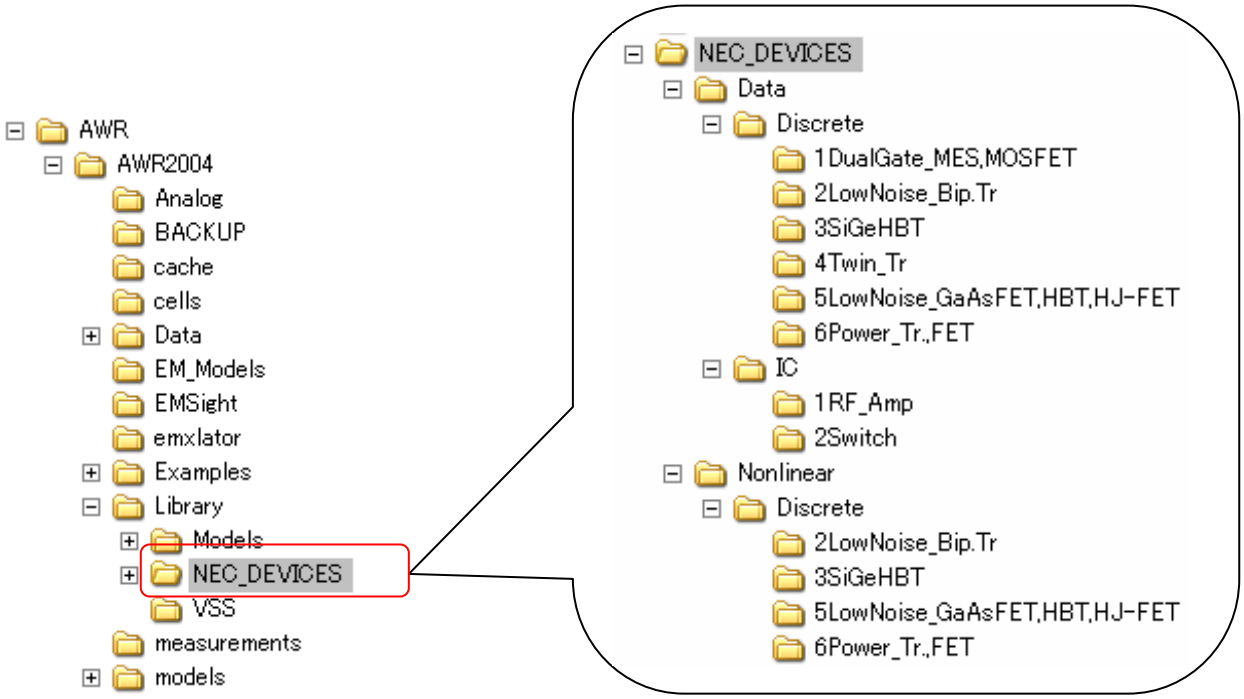
★ **Caution If you are using Microwave Office in an environment that is always connected to the Internet, then you do not need to install this design kit. Device parameters and layout information that is identical to that provided by this design kit can be used by selecting Circuit Elements – XML Library – *AWR web site in the Microwave Office element browser. (However, it may not be possible to use the XML Library depending on the network environment.)**

2. DESIGN KIT DOWNLOAD AND UNZIPPING FILE

Download the design kit and unzip it using the compression/extraction application included with the kit.

3. DESIGN KIT INSTALLATION

★ (1) Move the unzipped design kit (all files in \NEC_DEVICES) to C:\Program Files\AWR\AWR2004\Library.

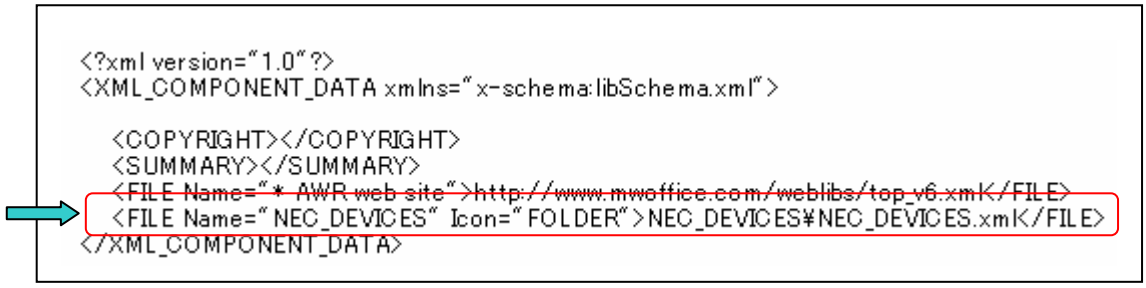


The directory in the figure above is included in \NEC_DEVICES.

Caution If the NEC_DEVICES folder already exists in this Library folder, delete the NEC_DEVICES folder before moving the decompressed design kit.

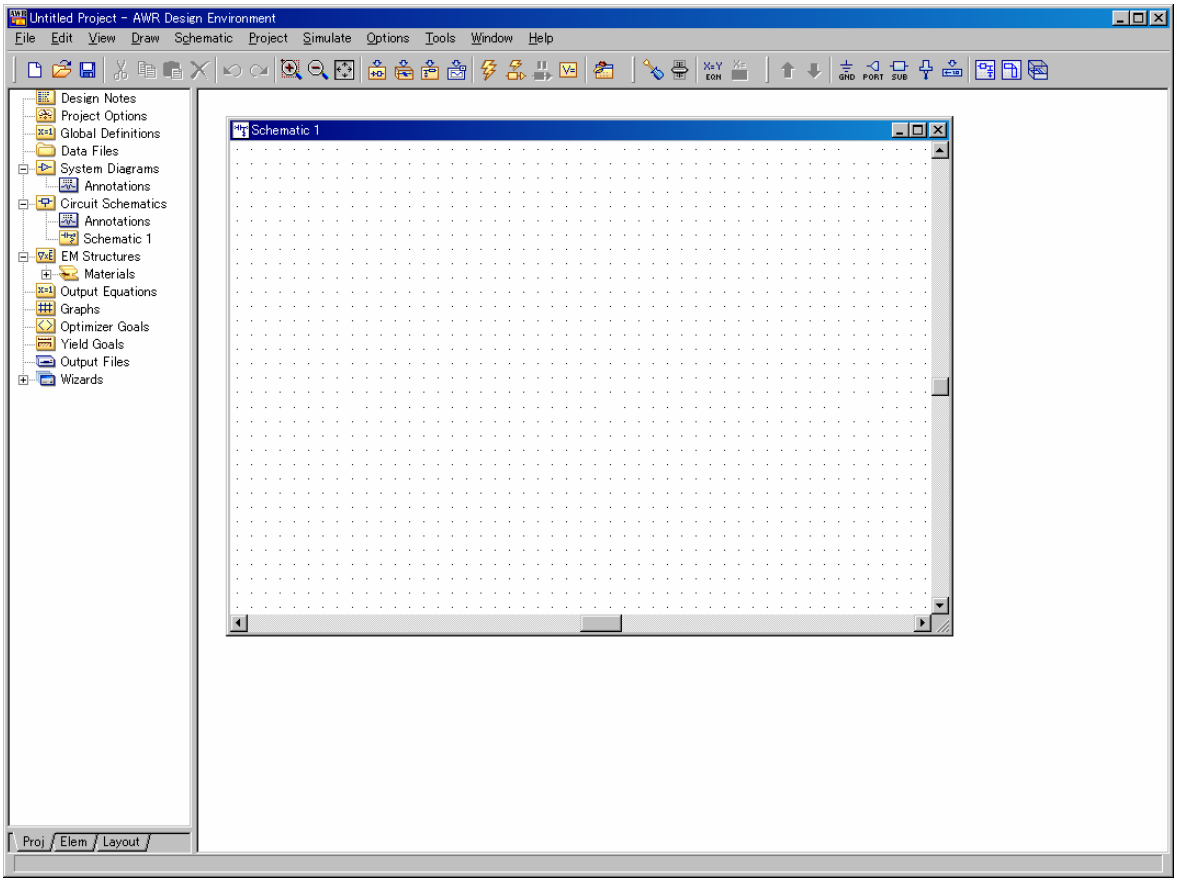
★ (2) Open lib.xml in C:\Program Files\AWR\AWR2004\Library using a text editor such as MemoPad and add the line shown in the figure below. Save this file and close the text editor.

Caution If the design kit has been installed before and this added line already exists, do not change lib.xml.

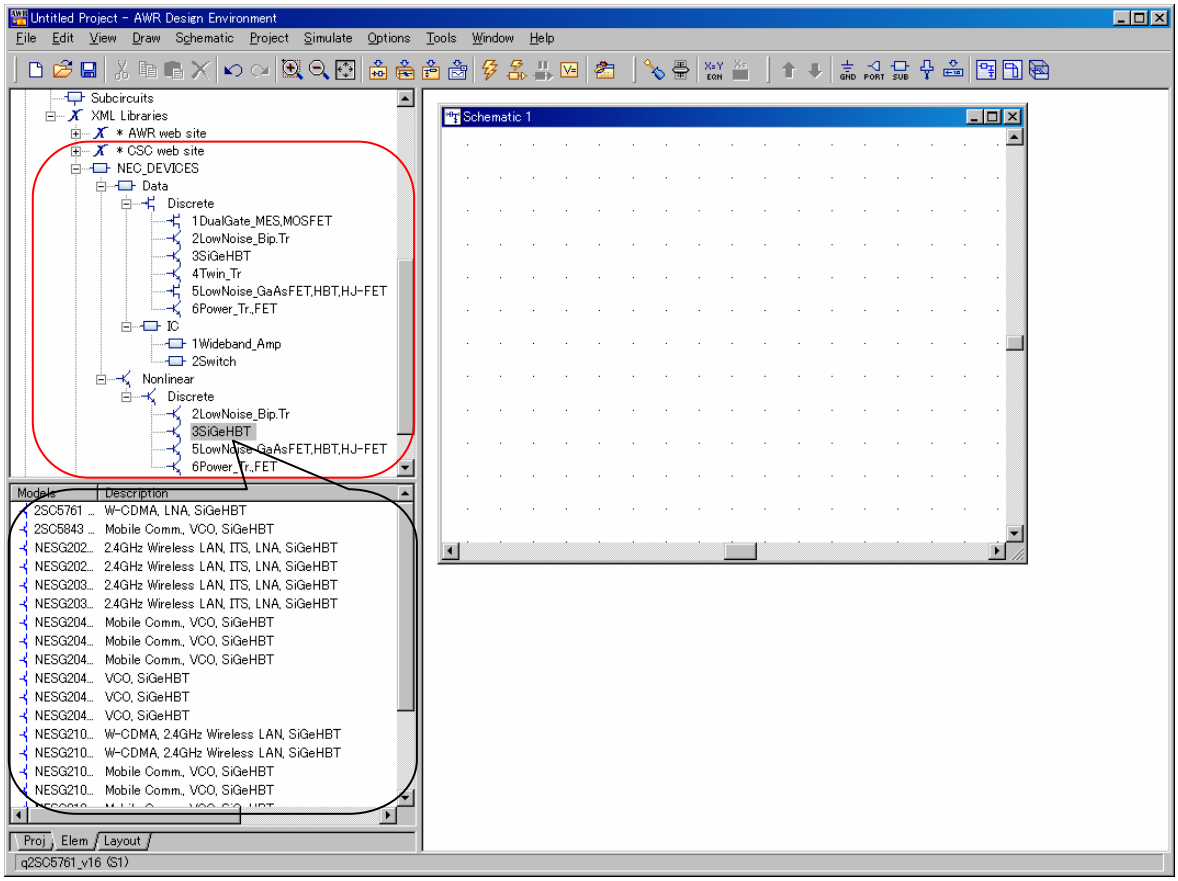


4. DESIGN KIT APPLICATION

(1) Start up Microwave Office (or restart it if it is already running) and open a circuit diagram screen (Schematic).

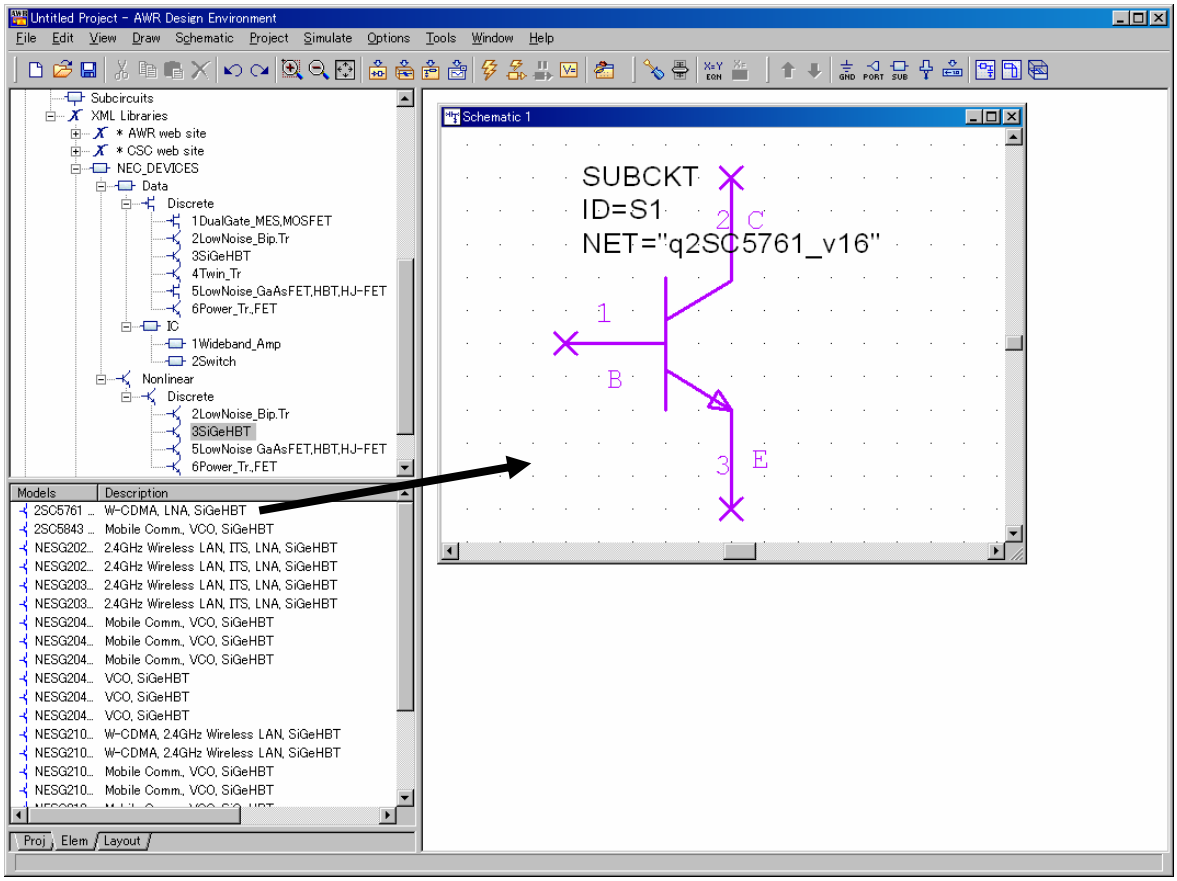


(2) Open the element browser and select [Circuit Elements] → [XML Libraries] → [NEC_DEVICES]. The device model categories included in this design kit are displayed in the upper panel. When a category is selected, a list of the device models included in that category is displayed in the lower panel.

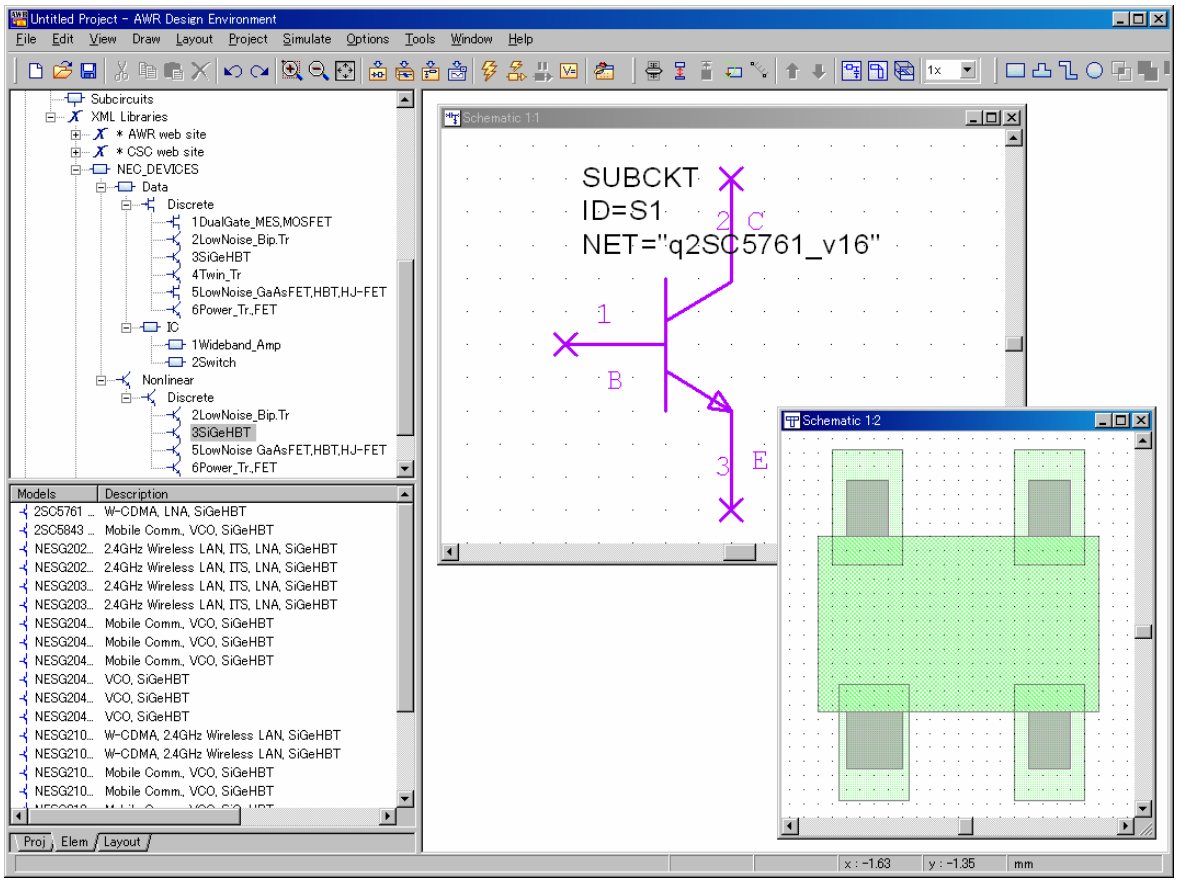


(3) Drag the device model and place it on the schematic.

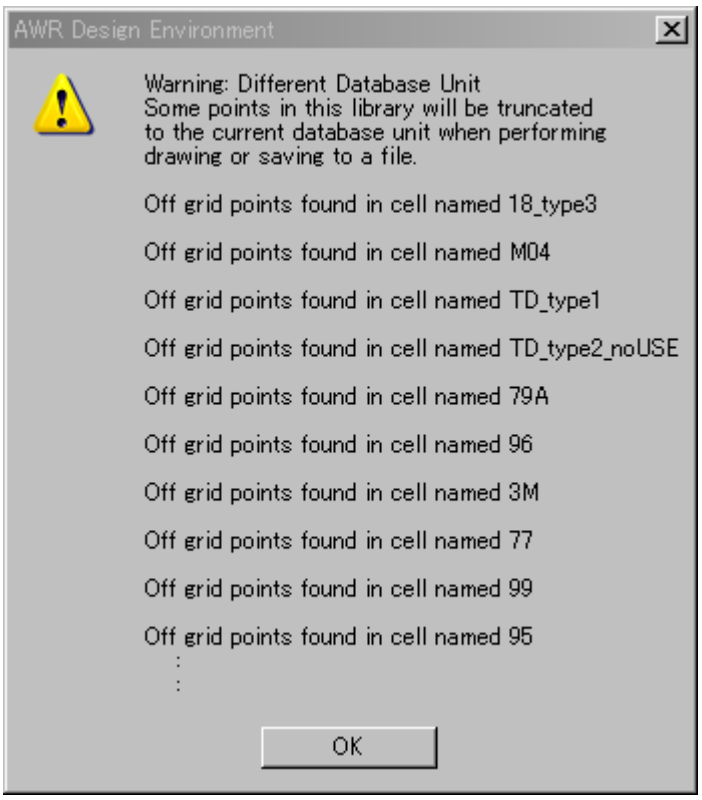
Select the device to be simulated from the lower frame of the element browser and drag it to the schematic. The device can be placed as shown below by clicking it.



★ (4) When the layout display command is selected, the corresponding package is displayed.

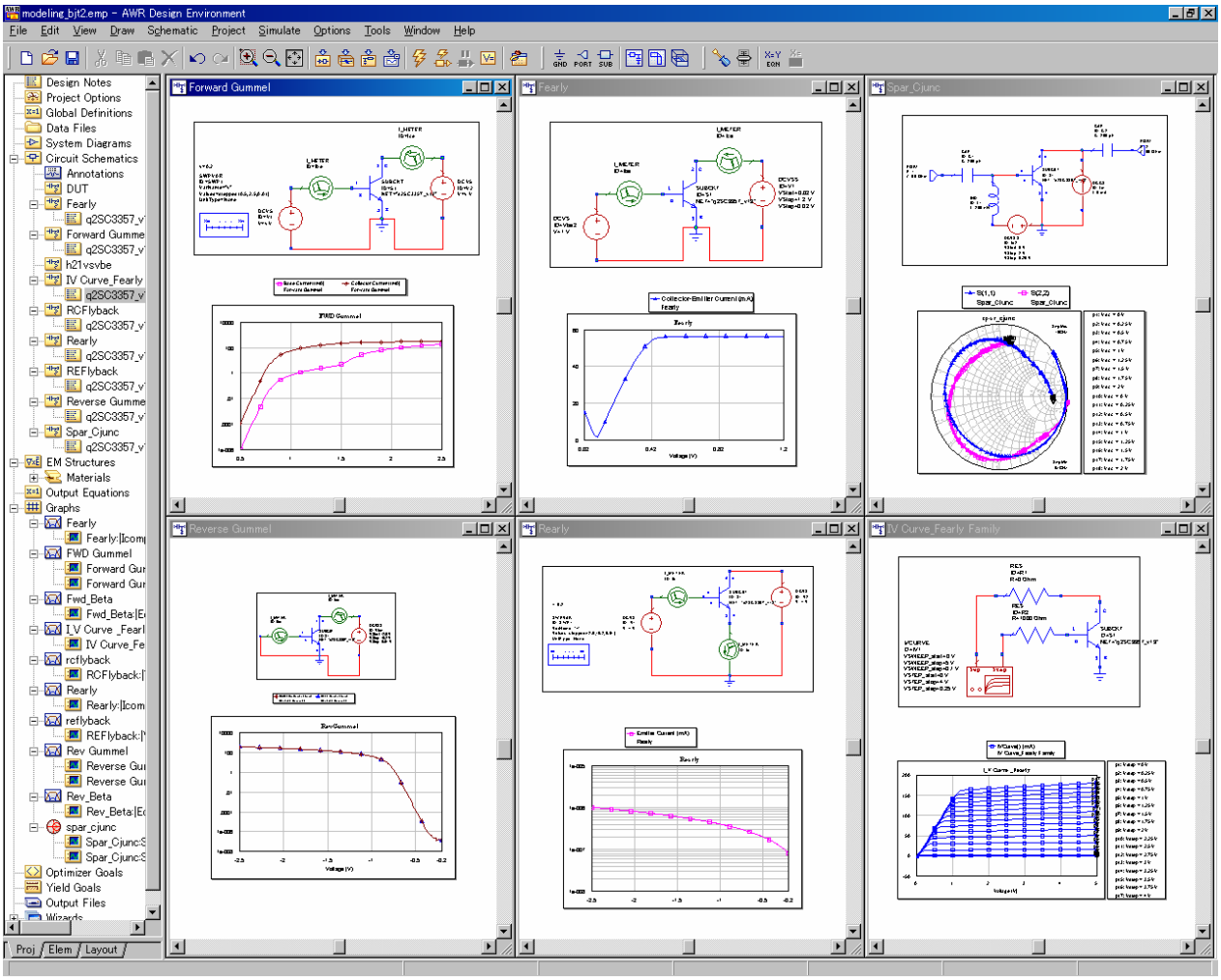


★ **Caution When the NEC_DEVICES library is called on the circuit diagram, the following warning message may be displayed. This warning message is displayed as a result of a mismatch between the size of the layout database currently in use and the database size of the NEC_DEVICES library. The database size of the NEC_DEVICES library is 0.0005 mm.**



Otherwise, the basic part usage is the same as for the standard component of Microwave Office.

5. SIMULATION EXAMPLE



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