

# Schematic Capture File Format

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### 1 - Units

Sizes and coordinates are given in mils (1/1000 inch)

### 2 - Heading

Format :

**EESchema Schematic File Version 1**

**LIBS:** *libraries list* (not used, for information only).

**EELAYER** *nn mm* (*nn mm* not used, reserved)

**EELAYER END**

**\$Descr** Sheet size *dimx dimy* (sheet size = A4..A0 ou A..E)

*Title block description* (Texts of the title block)

**\$EndDescr**

```
EESchema Schematic Spins Version 1
LIBS:brooktre, cypress, ttl, power, linear, memory, xilinx, idiot, aaci, INTEL, special, device, dsp
EELAYER 20 0
EELAYER END
$Descr A3 16535 11700
Sheet 1 4
""
Date "28 DEC 1996"
Rev ""
Comp ""
Comment1 ""
Comment2 ""
Comment3 ""
Comment4 ""
$EndDescr
```

### 3 - Description of a component

Format:

**\$Comp**

**L** name *reference*

**U** *N mm time\_stamp*

**P** *posx posy*

*List of fields:*

**F** *field\_number "text" orientation posX posY size Flags* (see below)

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1 posx posy (redundant: not used)

A B C B ( orientation matrix with A, B, C, D = - 1, 0 or 1)

**\$EndComp**

Description of the fields:

F n "text" orientation posx posy dimension flags

with n = field number (reference field = 0, value field = 1, N = 0..11)

orientation = H (horizontal) or V (vertical).

Example:

```
Comp
L CONN_3 JP3
U 1 1 329879E1
P 1200 2000
F 0 "JP3" H 1250 2200 60 0000
F 1 "CONN_3" V 1350 2000 50 0000
1 1200 2000
- 1 0 0 - 1
$EndComp
```

## 4 - Description of a NoConnect symbol

Format: **NoConn** ~ *posx posy*

Example:

```
NoConn ~ 13400 5500
```

## 5 - Description of a hierarchical sheet symbol

Format:

**\$Sheet**

**S** *posx posy dimx dimy*

*List of Sheet Labels*

**\$EndSheet**

Format of Sheet Labels

Fn "text" forms side posx posy dimension

With:

n = sequence number (0..x).

n = 0: name of the corresponding schematic file.

n = 1: name of the sheet of hierarchy.

form = I (input) O (output)

side = R (right) or L (left).

Example:

```
$Sheet
S 1800 1600 1500 1500
F0 "PROGALIM.SCH" 60
F1 "PROGALIM.SCH" 60
F2 "CLK" O R 3300 1800 60
F3 "/RESET" O R 3300 2000 60
F4 "VPWR" O R 3300 2700 60
F5 "/HALT" O R 3300 2100 60
F6 "TRANSF1" I L 1800 1900 60
F7 "TRANSF2" I L 1800 2000 60
F8 "3.84MH" O R 3300 2200 60
$EndSheet
```

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### 6 - Description of a text note

Format: **Text Notes** *posx posy orientation dimension ~*  
*Text*

Example:

```
Text Notes 2100 3250 1 60 ~  
TOTO
```

### 7 - Description of a Global Label

Format: **Text GLabel** *posx posy orientation dimension shape*  
*Text*

Example:

```
Text GLabel 3100 2500 2 60 UnSpc  
TITI  
Text GLabel 3150 2700 1 60 3State  
3STATES  
Text GLabel 2750 2800 0 60 UnSpc  
BIDI  
Text GLabel 2750 2650 0 60 Output  
GLABELOUT  
Text GLabel 2750 2400 0 60 Input  
RESET
```

### 8 - Description of a label

Format: **Text Label** *posx posy orientation dimension ~*  
*Text*

Example:

```
Text Label 3400 2000 0 60 ~  
/RESET
```

### 9 - Description of a junction

Format: **Connection** *~ posx posy*

Example:

```
Connection ~ 13300 6500
```

### 10 - Description of a wire segment (Wire)

Format:

**Wire Wire Line**

*startx starty endx endy*

Example:

```
Wire Wire Line  
3300 1800 3900 1800
```

### 11 - Description of a Bus segment

Format:

**Wire Bus Line**

*startx starty endx endy*

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Example:

```
Wire Bus Line  
3900 5300 4500 5300
```

## 12 - Description of a dotted line segment

Format:

**Wire Notes Line**

*startx starty endx endy*

Example:

```
Wire Notes Line  
2850 3350 2850 3050
```

## 13 - Description of a bus entry

Format:

- For an entry wire/bus :

**Wire Wire Bus**

*startx starty endx endy*

- For an entry bus/bus :

**Wire Bus Bus**

*startx starty endx endy*

Example:

```
Entry Wire Bus  
4100 2300 4200 2400  
Entry Bus Bus  
4400 2600 4500 2700
```