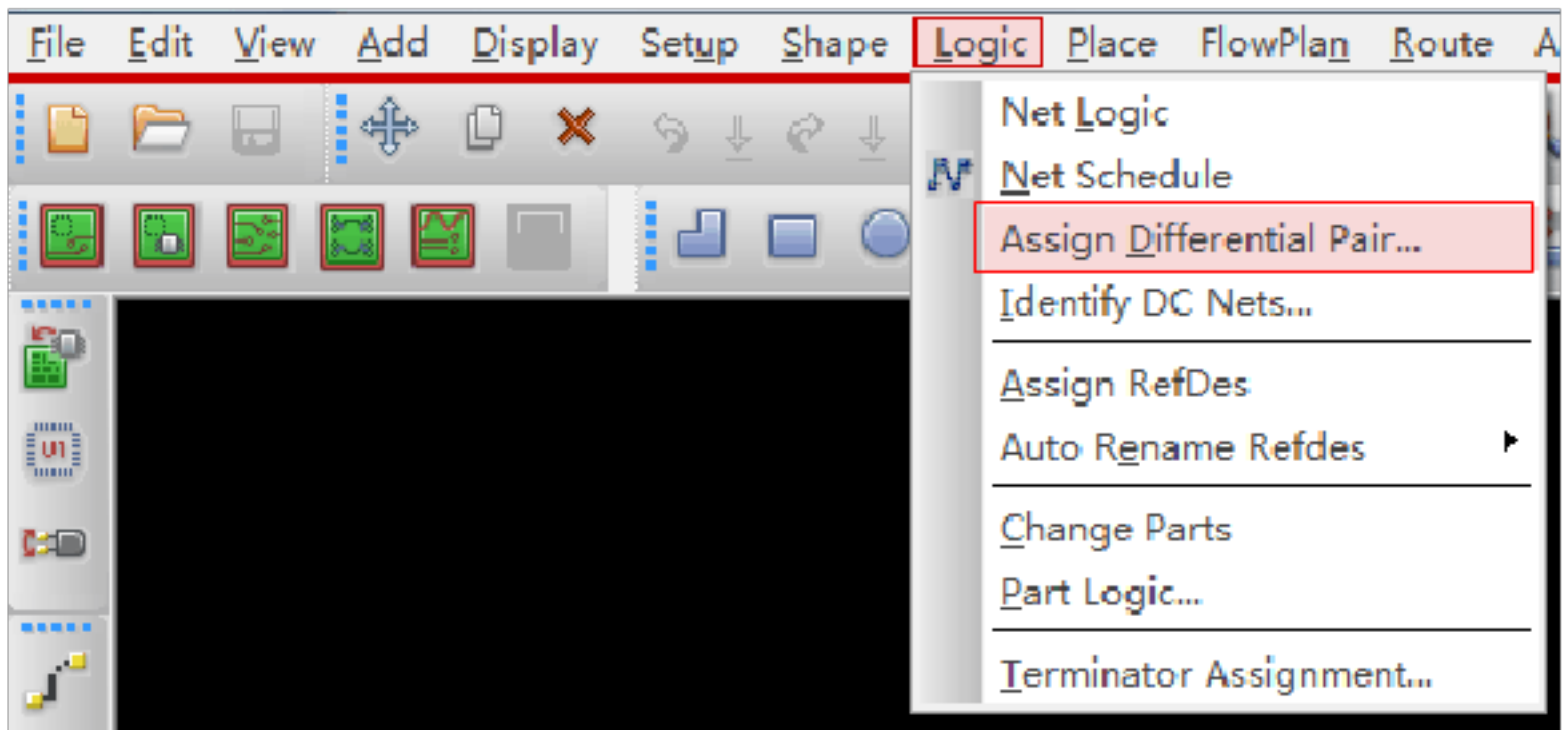
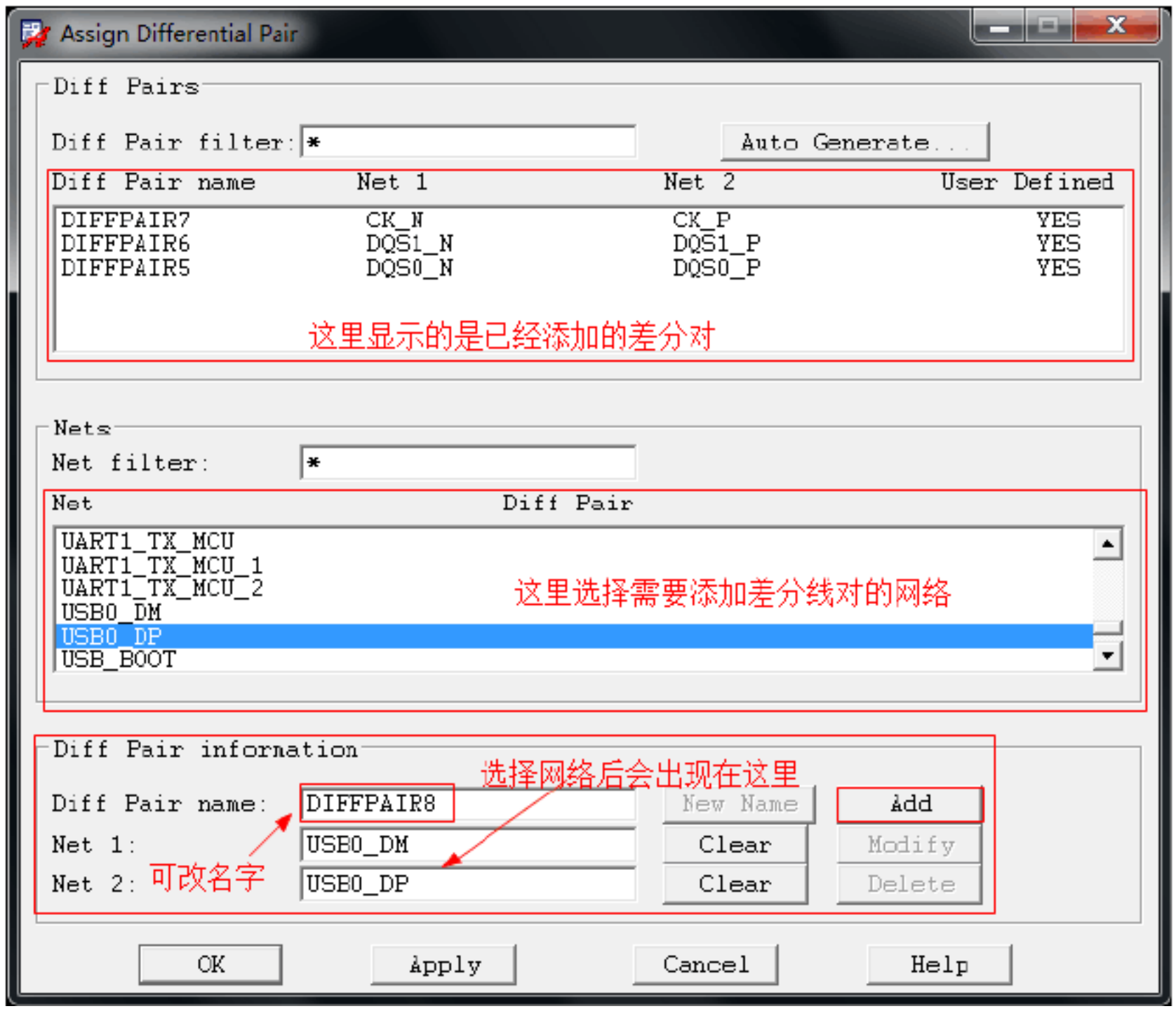
一、设置差分线的方法

方法一：

1、Logic→Assign Differenttial Pair



2、在弹出的对话框里选择需要添加的差分对，点击 Add 按钮，即可添加



方法二：

1、Setup→Constraints→Electrical

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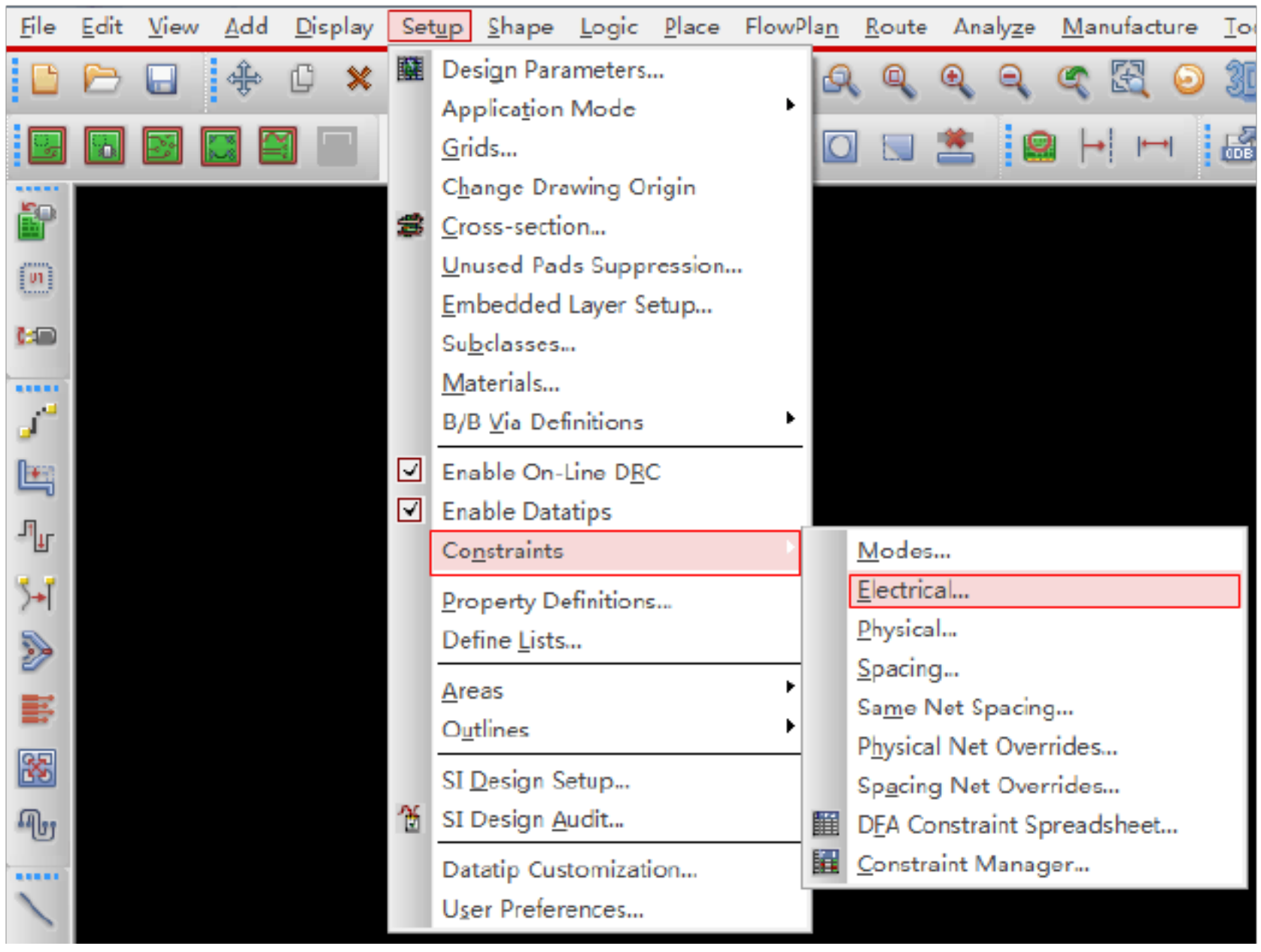
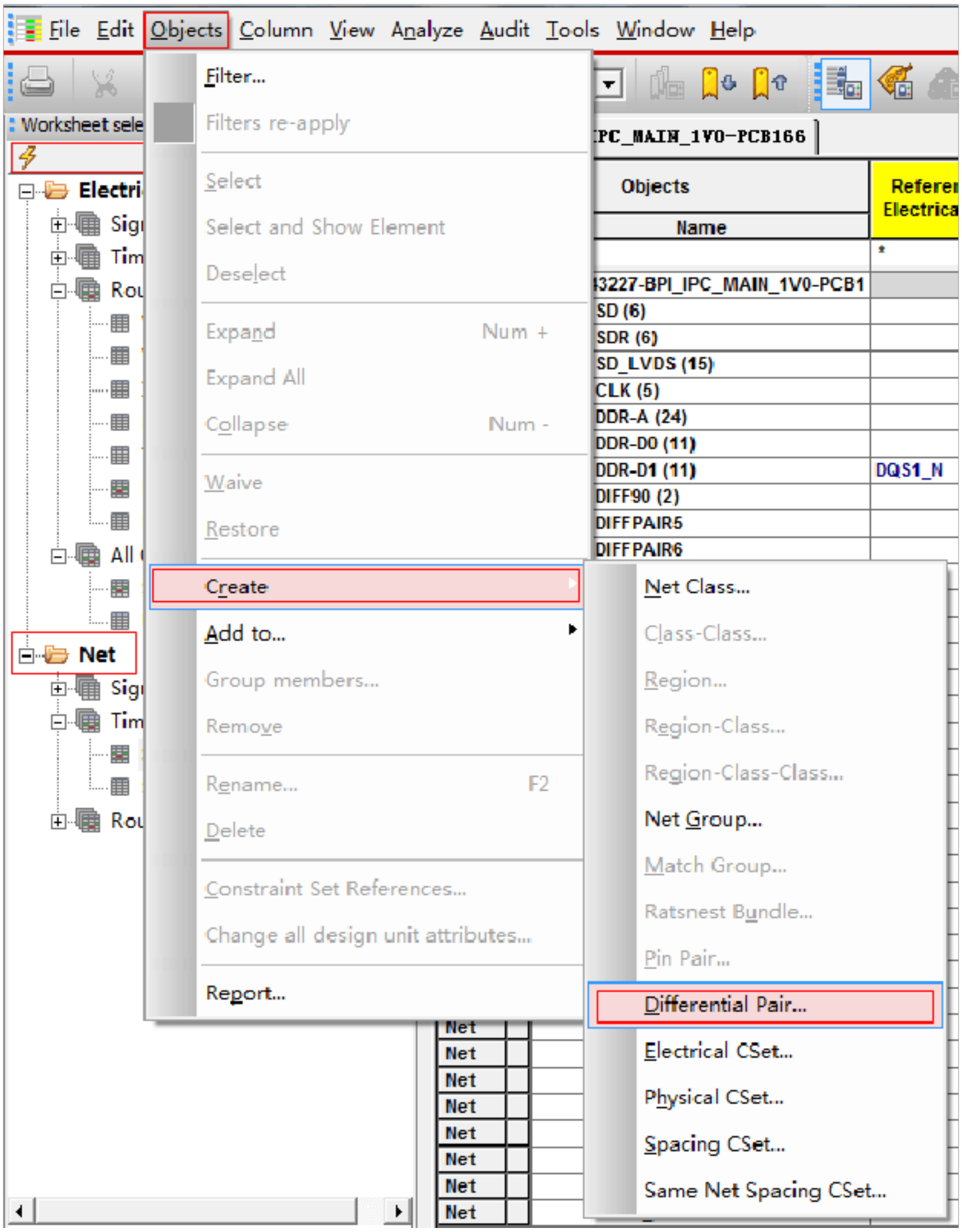
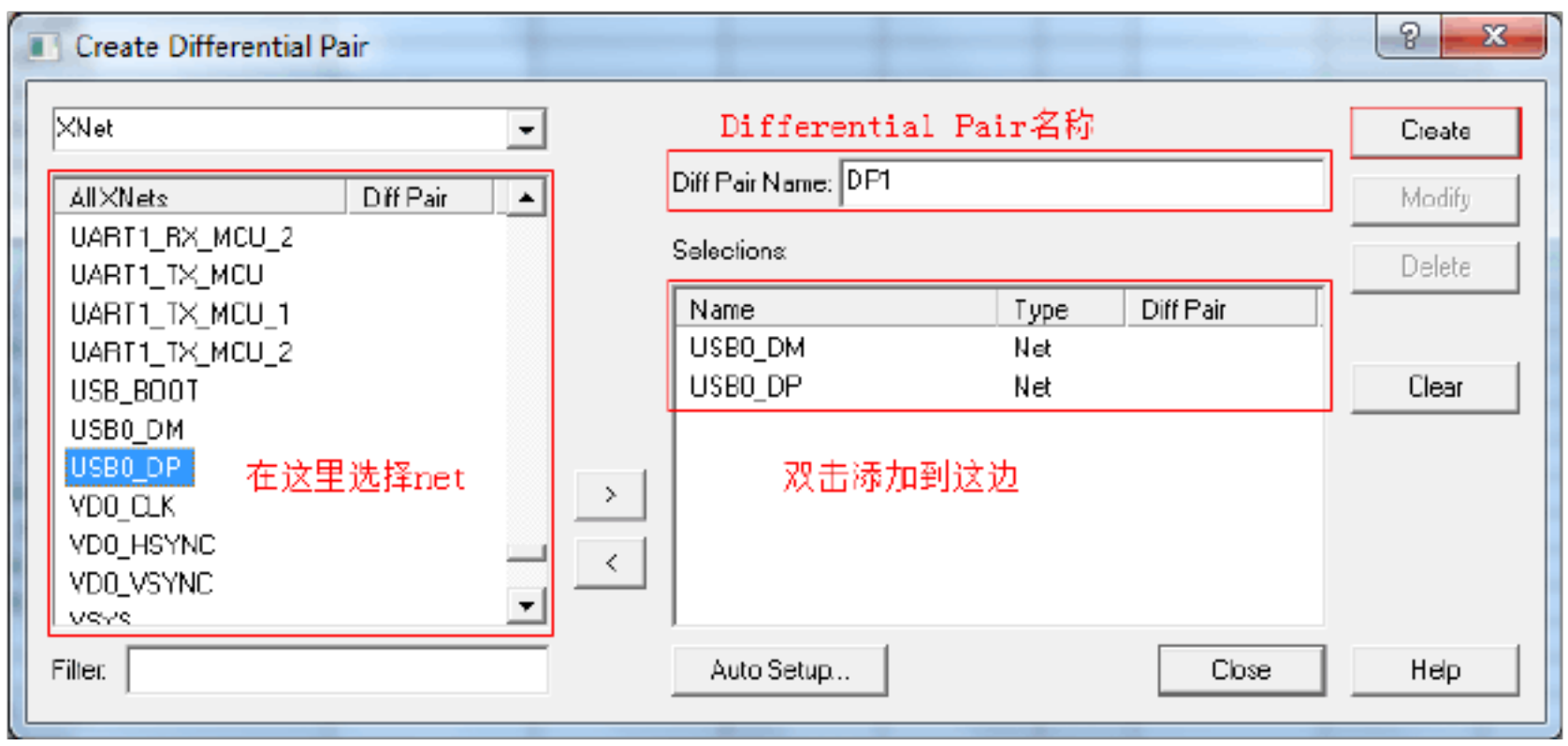


2、选择 Net，然后在 Objects→Create→Differenttial Pair



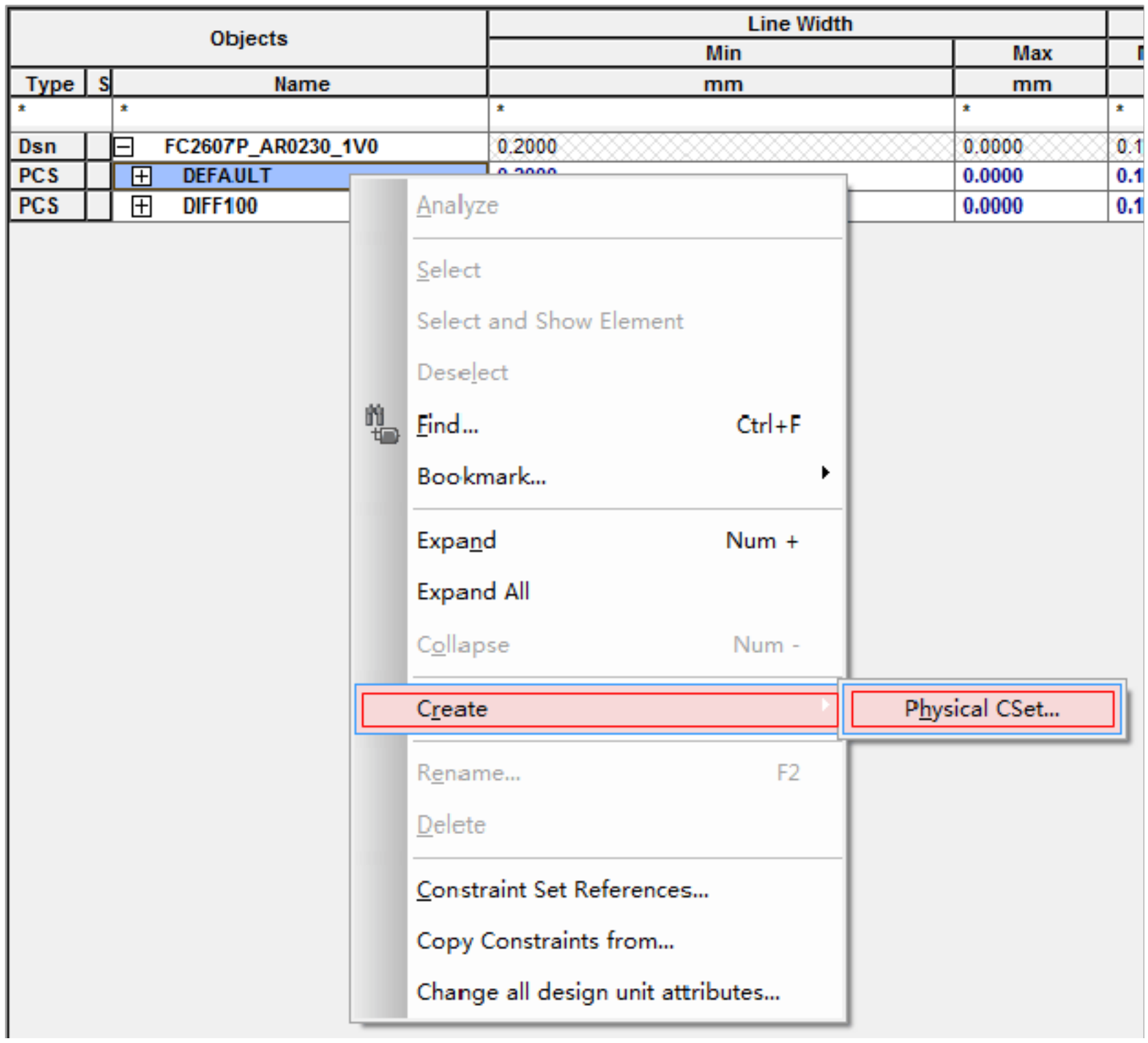
3、在弹出的对话框里选择需要添加的差分对，点击 Create 按钮，即可添加

标准文案



设置完差分线对后，需要设置其约束规则，方法如下：

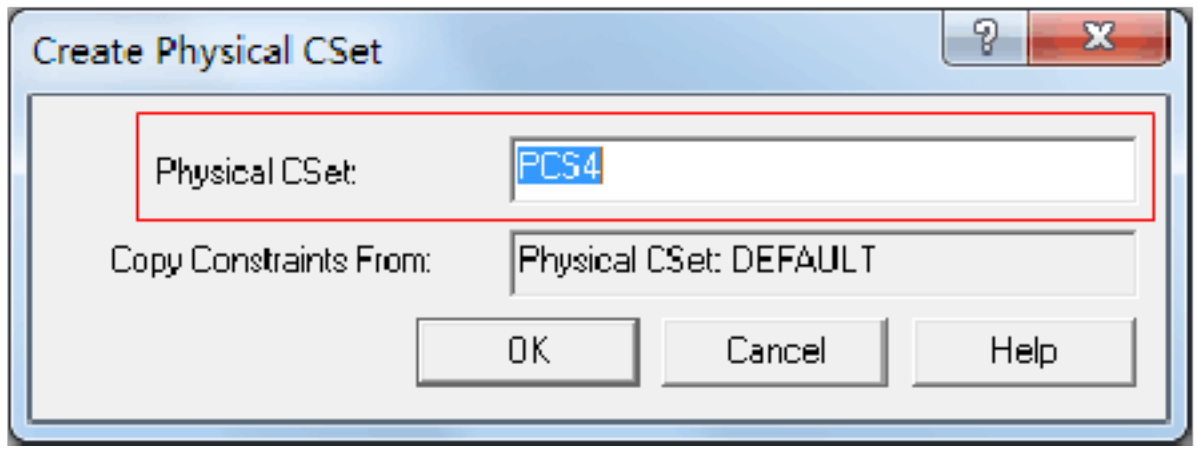
1、初始默认的有一个 DEFAULT 规则，右击 DEFAUlT，选择 Create→Physical CSet

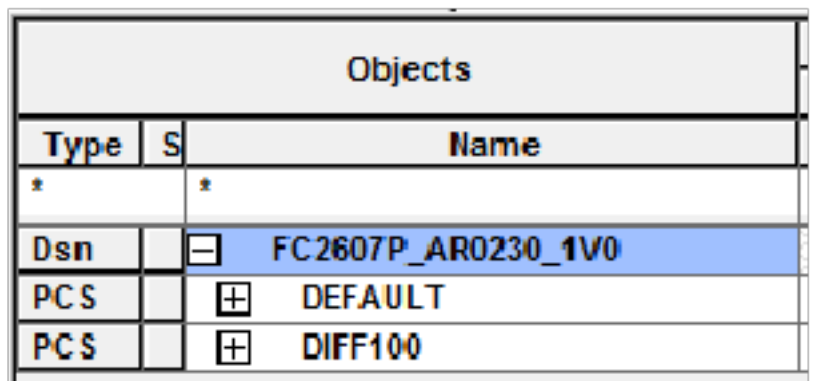


2、弹出一下对话框，在 Physical CSet 栏写上规则名称，建议根据差分线的阻抗描写，点击 OK，这里已经写好，规则名称为：DIFF100，就可以看到多了一行 PCS

大全

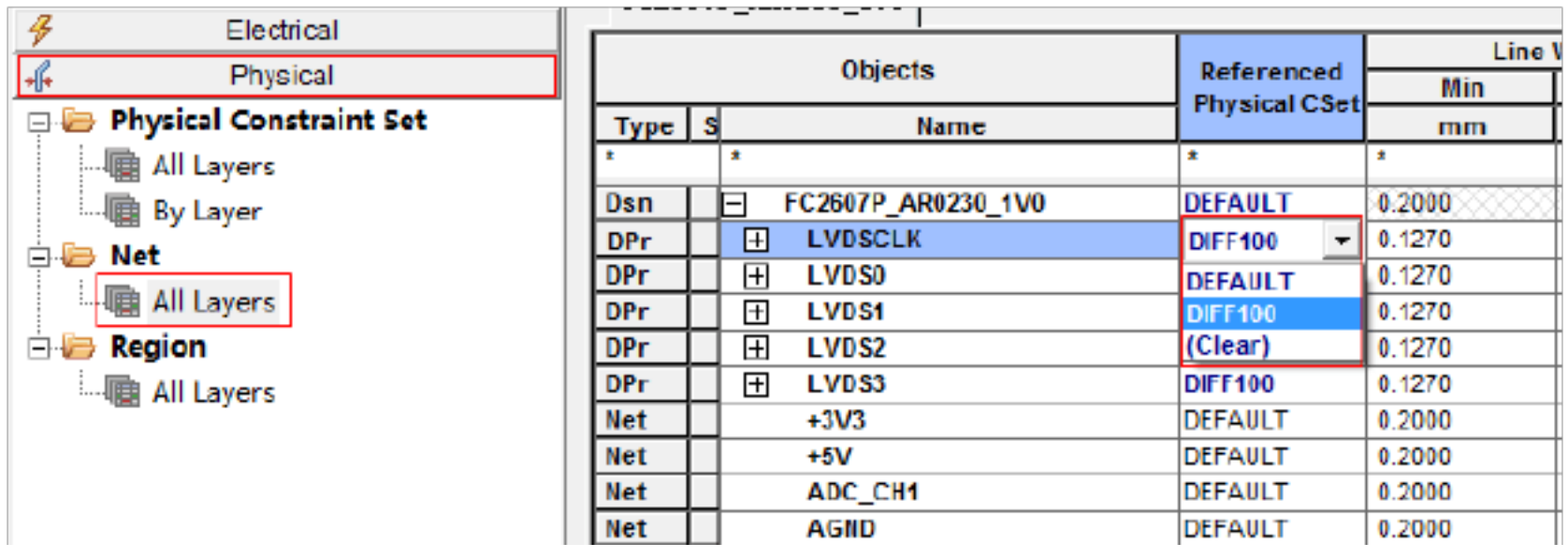
标准文案





3、设立好规则后就可以在这项规则里设置线宽间距等参数了

4、在 Net 一栏看到有已经设好的差分线，在 Referenced physical C Set 选项下选择刚刚设好的规则 DIFF100



规则设置中各个项目的含义

Line Width（设置基本走线宽度）

Min：最小线宽

Max：最大线宽，写 0 相当于无限大

Line Width	
Min	Max
mm	mm
*	*
0.2000	0.0000
0.2000	0.0000
0.1270	0.0000

Neck（neck 模式，一般在间距很小的时候用到）

Min Width：最小线宽

Max Length：最大线长

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Neck	
Min Width	Max Length
mm	mm
*	*
0.1270	0.0000
0.1270	0.0000
0.1270	0.0000

Differential Pair（差分线设置，单端线可不写）

Min Line Spacing：差分对的最小线间距

Primary Gap：差分对理想线间距

Neck Gap：差分对最小允许线间距

(+)Tolerance：差分线允许的误差+

(-)Tolerance：差分线允许的误差-

Differential Pair				
Min Line Spac	Primary Gap	Neck Gap	(+)Tolerance	(-)Tolerance
mm	mm	mm	mm	mm
*	*	*	*	*
0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.1524	0.0000	0.0000	0.0000

Vias（过孔选择）

Vias
*
VIA8-BGA-FULL:VIA
VIA8-BGA-FULL:VIA
VIA8-BGA-FULL

BB Via Stagger（设置埋/盲孔的过孔间距）

Min：最小间距

Max：最大间距

BB Via Stagger	
Min	Max
mm	mm
*	*
0.1270	0.0000
0.1270	0.0000
0.1270	0.0000

Allow

Pad-Pad Connect：/

Etch：/

Ts：/

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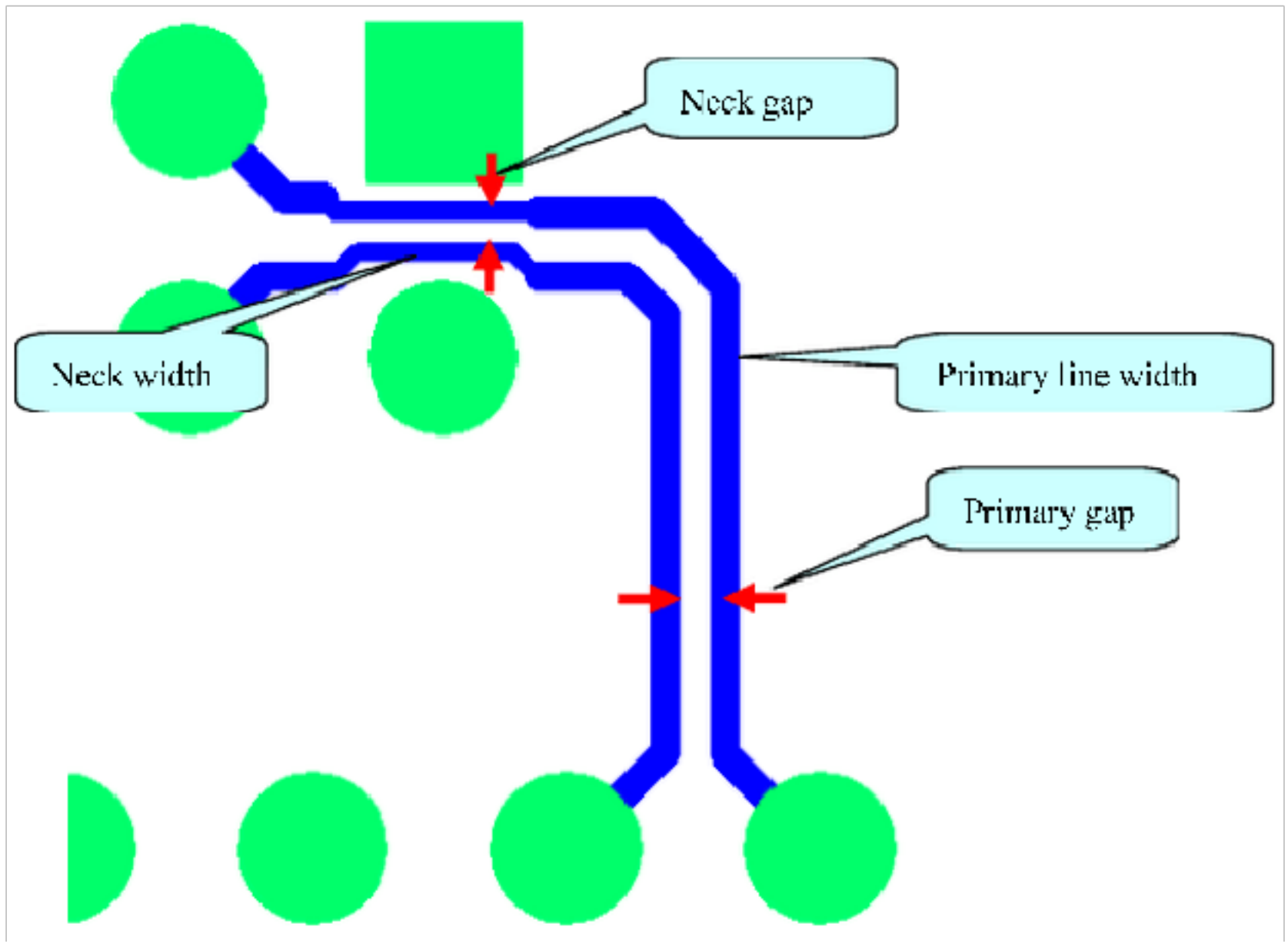
Allow		
Pad-Pad Connect	Etch	Ts
*	*	*
ALL_ALLOWED	TRUE	ANYWHERE
ALL_ALLO...	TRUE	ANYWHERE
ALL_ALLO...	TRUE	ANYWHERE

示意图：



二、设置等长

1、进入规则设置页面

Electrical→Net→Routing→Relative Propagation Delay

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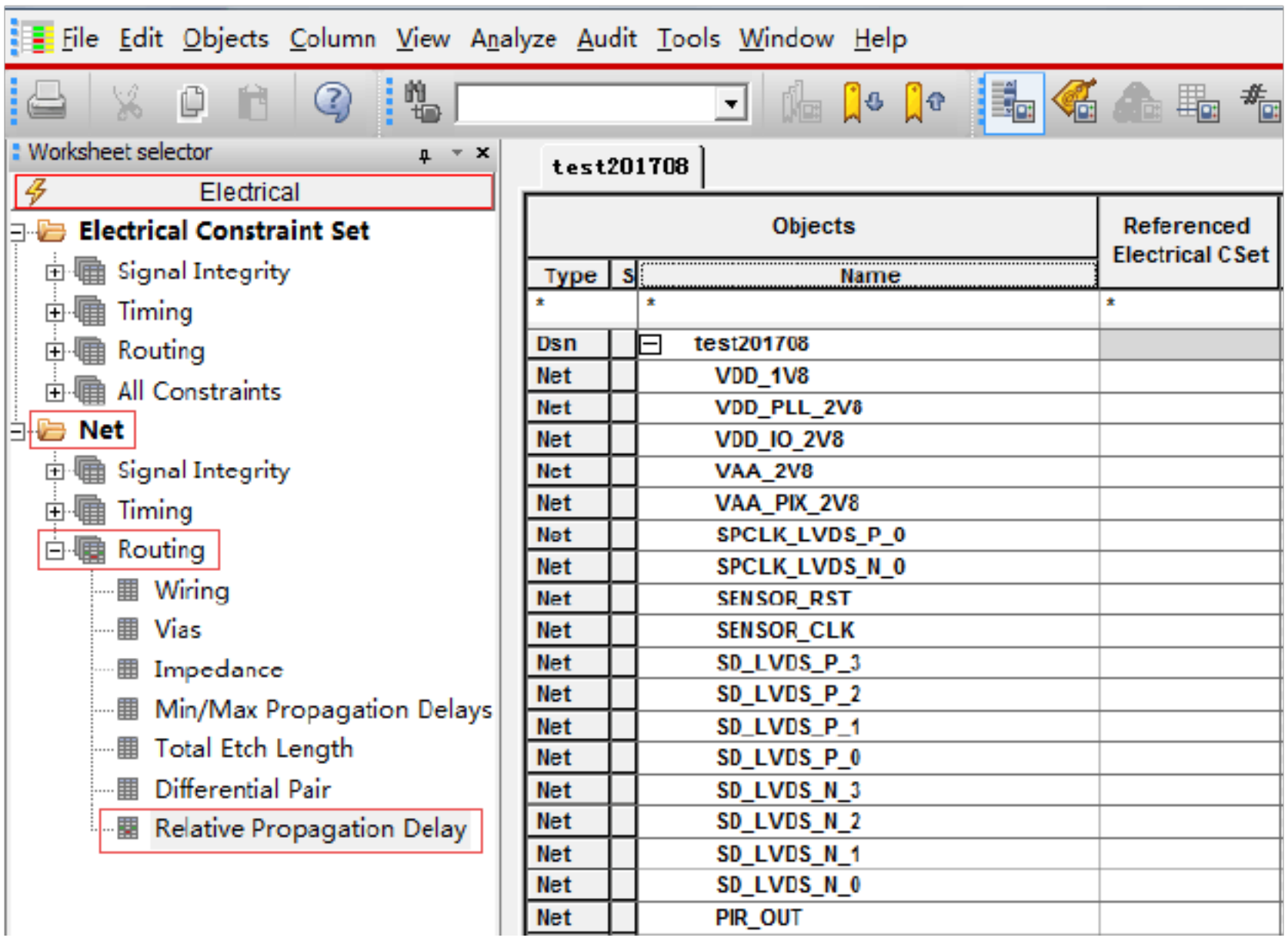
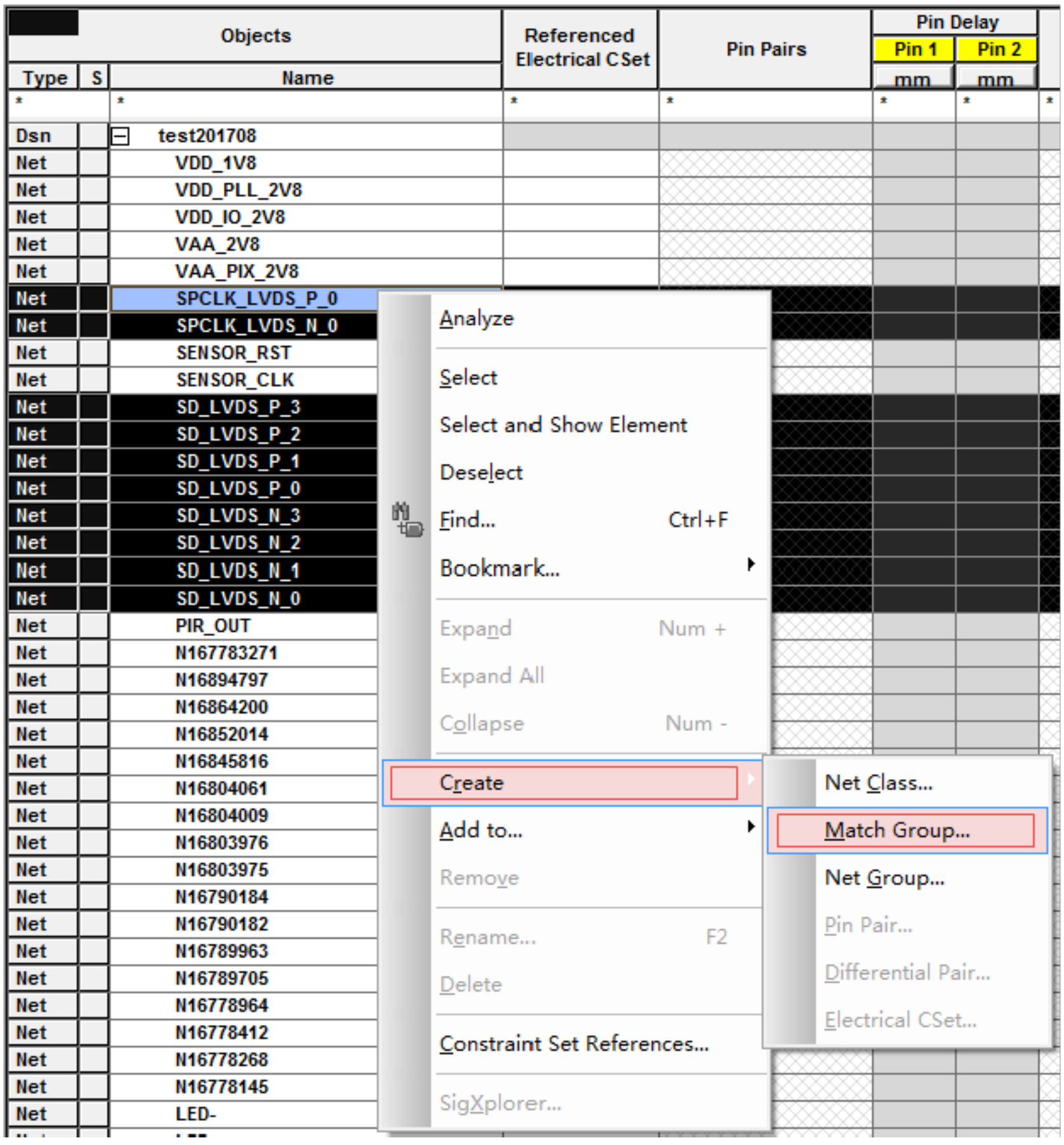
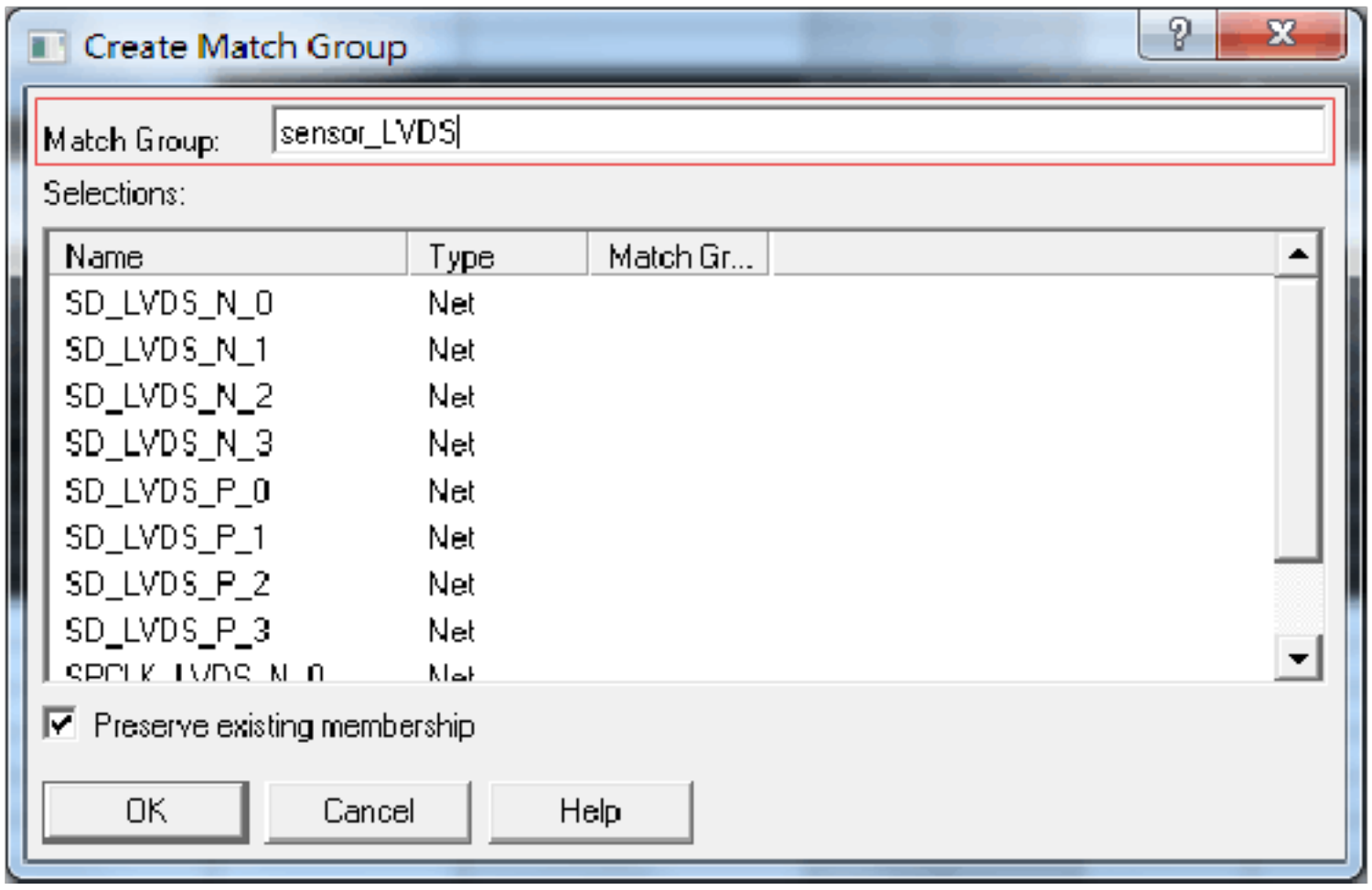


2、选中需要设置等长的网络，右击，选择 Create→Match Group


Objects
Type
S
Name
Referenced Electrical CSet
Pin Pairs
Pin Delay
Pin 1
Pin 2
mm
mm
Dsn
test201708
Net
VDD_1V8
VDD_PLL_2V8
VDD_IO_2V8
VAA_2V8
VAA_PIX_2V8
SPCLK_LVDS_P_0
SPCLK_LVDS_N_0
SENSOR_RST
SENSOR_CLK
SD_LVDS_P_3
SD_LVDS_P_2
SD_LVDS_P_1
SD_LVDS_P_0
SD_LVDS_N_3
SD_LVDS_N_2
SD_LVDS_N_1
SD_LVDS_N_0
PIR_OUT
N167783271
N16894797
N16864200
N16852014
N16845816
N16804061
N16804009
N16803976
N16803975
N16790184
N16790182
N16789963
N16789705
N16778964
N16778412
N16778268
N16778145
LED-
Analyze
Select
Select and Show Element
Deselect
Find... Ctrl+F
Bookmark...
Expand Num +
Expand All
Collapse Num -
Create
Add to...
Remove
Rename... F2
Delete
Constraint Set References...
SigXplorer...
Net Class...
Match Group...
Net Group...
Pin Pair...
Differential Pair...
Electrical CSet...

3、更改组名称



4、设置好后，会显示 MGrp，如下图。这样等长的线组就设好了，接下来是设置等长的约束规则

Objects			Referenced Electrical CSet	Pin Pairs
Type	S	Name		
*		*	*	*
Dsn		test201708		
MGrp		SENSOR_LVDS (10)		All Drivers/All Rece...
Net		SPCLK_LVDS_P_0		All Drivers/All Receivers
Net		SPCLK_LVDS_N_0		All Drivers/All Receivers
Net		SD_LVDS_P_3		All Drivers/All Receivers
Net		SD_LVDS_P_2		All Drivers/All Receivers
Net		SD_LVDS_P_1		All Drivers/All Receivers
Net		SD_LVDS_P_0		All Drivers/All Receivers
Net		SD_LVDS_N_3		All Drivers/All Receivers
Net		SD_LVDS_N_2		All Drivers/All Receivers
Net		SD_LVDS_N_1		All Drivers/All Receivers
Net		SD_LVDS_N_0		All Drivers/All Receivers
Net		VDD_1V8		
Net		VDD_PLL_2V8		
Net		VDD_IO_2V8		