关于 Altium Designed 极坐标的使用图文教程

—兰本峰(原创)

PS: 极坐标这个功能只有 AD10 以上才有, AD09 以下是没有这个功能的

1、新建一个 PCB,放置一个过孔定位好原点(方便后面设置),然后右键 Options》Grid Manager (快捷键:OG)

	Fi <u>n</u> d Similar Objects Build Query <u>F</u> ilter	Shift+F Shift+B ►	<u>B</u> oard Options Layer Stac <u>k</u> Manager D <u>r</u> ill Pairs Drill Symbols
t'	Interactive Routing Interactive Differential F Interactive Multi-Routin	F2 Pair Routing	<u>M</u> echanical Layers Board Layers & Colors Board Layers Transparency
		- Chilly	<u>G</u> rid Manager
a second a second de	Cu <u>t</u>	Ctri+X	Sheet
	<u>С</u> ору	Ctrl+C	Show/Hida (ttd+D
	<u>P</u> aste	Ctrl+V	show/m <u>d</u> e Currb
	Clear	Del	Preterences
	Snap <u>G</u> rid <u>V</u> iew <u>D</u> esign) 	D <u>i</u> splay Defa <u>u</u> lts Board Insig <u>h</u> t Bo <u>a</u> rd Insight Display
	<u>O</u> ptions	۲.	Board Insight Lens

2、操作完上一步后,出现下图界面,然后点击左下方的 Menu

Grid Manager						×
Priority /	Name	Description	Fine	Coarse	Non Comp	Comp
Default C	Global Board Sna	p Gr Imperial, Origin(0; 0) Steps(5; 5)			~	
🚍 Menu				ОК	Cancel	Apply
	1000					

3、操作完上一步后,出现下图界面,然后点击 Add polar Grid...

Grid Manager						×
Priority /	Name	Description	Fine	Coarse	Non Comp	Comp
Default	C Global Board	Snap Gr Imperial, Origin(0: 0) Steps(5:	5)		•	~
-						
Add Cart	esian Grid					
Add Pola	r Grid					
Incremen	t Priority					
Decreme	nt Priority					
Enable Al	ll Custom Grids					
Disable A	Il Custom Grids					
Delete						
Set Fine (Color for All					
Set Coars	se Color For All					
Reset All	To System Grid C	Colors				
Duplicate	Selected Grids					
Propertie	5					
Import G	rids					
Export Se	elected					
Export Al	l			ОК	Cancel	Apply

4、操作完上一步后,出现下图界面,然后双击第一行任意处

Priority / 1 P Default C	Name New Polar Grid Global Board Snap Gr	Description Imperial, Origin(0: 0) Steps(20: 5 Deg r Imperial, Origin(0: 0) Steps(5: 5)	Fine	Coarse	Non Comp	Comp
1 P Default C	New Polar Grid Global Board Snap G	Imperial, Origin(0: 0) Steps(20: 5 Deg r Imperial, Origin(0: 0) Steps(5: 5)				
Default C	Global Board Snap G	r Imperial, Origin(O; O) Steps(5; 5)				V
🖺 Menu				ОК	Cancel	Apply

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Polar Grid Editor [mil]		? ×
Settings	Display	
New Polar Grid	Fine Lines V Reset to Default	
Unit Imperial 🗸	Coarse Lines V Lighter Darker	显示参数设置
单位	Multiplier 5x Grid Step ~	
Steps	<u>A</u> ngular Range	1
Angular Step 5.000 角度	Start Angle 0.000 极坐标起始角度	
Radial Step 20mil ~ 步长	End Angle 90.000 极坐标终止角度	
Set Radial Step in PCB View		1
Origin	Radial Range	
Origin X Omil 超坐标面占坐	Min 100mil 极坐标起始半径	
Origin Y Omil	Max 500mil 极坐标终止半径	
Set Origin in PCB View		_
点击此项可以任意处选择极坐标原点		
	OK	el Apply

6、下面以一个实例来进行介绍,比如我们要设置一个起始半径为0,终止半径为500mil,角度为15度,步长为100mil, 极坐标原点为前面我们设置好的坐标为原点即0,0的圆形极坐标,进行放置LED灯,设置如下图:

Settings Name New Polar Grid Unit Imperial Imperial Steps Lighter Darker Angular Step 15.000 Badial Step 100mil Set Radial Step in PCB View Angular Range Storigin Start Angle Origin Onil Origin X Onil Set Origin in PCB View Min	💐 Polar Grid Ec	ditor [mil]		? ×
Name New Polar Grid Fine Lines Reset to Default Unit Imperial Coarse Lines Lighter Darker Multiplier 5x Grid Step Multiplier Sx Grid Step Multiplier Steps Angular Step 15.000 Eadial Step Multiplier Sx Grid Step Norgin Set Radial Step in PCB View Start Angle 0.000 这个角度0-360度才为圆形 Origin X Origin Y Omil Max Stomil Max	<u>S</u> ettings		Display	
Unit Imperial Coarse Lines Lighter Darker Multiplier 5x Grid Step Multiplier 5x Grid Step Multiplier Sx Grid Step Steps Angular Step 15.000 Estart Angle 0.000 这个角度0-360度才为圆形 Badial Step 100mil Set Radial Step in PCB View Radial Range Mir 0mil Origin Origin X 0mil Omil Max 500mil Max 500mil	<u>N</u> ame	New Polar Grid	Fine Lines V Reset to Defau	lt
Steps Angular Step 15.000 Angular Step 15.000 Start Angle 0.000 Image Start Angle 0.000 这个角度0-360度才为圆形 End Angle 360.000 Origin X 0mil Origin X 0mil Mir 0mil Set Origin in PCB View Mir 0mil	Unit	Imperial ~	Coarse Lines V Lighter Darker	
Steps Angular Step 15.000 Manual Step 15.000 Start Angle 0.000 这个角度0-360度才为圆形 Badial Step 100mil Set Radial Step in PCB View Start Angle 360.000 Storp 100mil Start Angle 360.000 Origin Origin X 0mil Min 0mil Max 500mil Max 500mil			Multiplier Sx Grid Step ~	
Angular Step 15.000 Start Angle 0.000 这个角度0-360度才为圆形 Radial Step 100mil Image: Start Angle 360.000 Image: Start Angle 360.000 Origin Origin X Omil Image: Start Angle Image: Start Angle <td>Steps</td> <td></td> <td>Angular Range</td> <td></td>	Steps		Angular Range	
Radial Step 100mil Set Radial Step in PCB View Origin Origin X Origin Y Omil Set Origin in PCB View Min Omil Max 500mil	<u>A</u> ngular Step	15.000	Start Angle 0.000 这个角度0-360	度才为圆形
Origin Origin X Omil Min Omil Origin Y Omil Max 500mil	<u>R</u> adial Step	100mil ~	End Angle 360.000	
Origin X Omil Radial Range Origin X Omil Min Omil Origin Y Omil Set Origin in PCB View		Set Radial Step in PCB View		
Origin X Omil Min Omil Origin Y Omil Max 500mil Set Origin in PCB View	Origin		Radial Range	
Origin Y Omil Max 500mil Set Origin in PCB View	Origin X	Omil	Min Omil	
Set Origin in PCB View	Origin Y	Omil	Max 500mil	
	10	Set Origin in PCB View		
			ок	Cancel Apply
OK Cancel Apply				

7、操作完上一步, 画一个半径为 500mil 的圆形板框后, 界面如下



8、在前面操作知道,我们设的角度是 15 度,这里我们以 15 度放置成圆形的 LED 灯来为例,要想放置 15 度的 LED 灯,我们还要设置一下旋转角度,放置方法如下

PCB Legacy 3D C Defaults Reports	 Protect Locked Objects ☐ Confirm Selection Memory Clear ☑ Click Clears Selection 	Polygon Rebuild
 Layer Colors Models Text Editors Scripting System CAM Editor 	 ☐ Shift Click To Select Primitive ☑ Smart Track Ends ☐ Display popup selection dialog 	File Format Change Report ✓ Disable opening the report from older versions ✓ Disable opening the report from newer versions
Simulation	Other	Paste from other applications
🛛 🧰 Wave 📄 🛅 Draftsman	Undo/Redo 30	Preferred Format Metafile ~
	Rotation Step 15	Collaboration
	Cursor Type Large 90	Shared file

9、操作完上一步后,我们进行 LED 的放置,发现放置元件时极坐标就不见了,这时我们快捷键 OG 回到这个界面对 Comp 进行勾上即可,如下图



Grid Manager					-	×
Priority /	Name	Description	Fine	Coarse	Non Comp	Comp
1 P	New Polar Grid	Imperial, Origin(0: 0) Steps(100: 15 [V
Default C	Global Board Snap Gr	Imperial, Origin(0: 0) Steps(100: 100)				~
📑 Menu			<u> </u>	OK	Cancel	Apply

10、设置好后,这下就可以愉快的放置器件了,来试试吧,放置好后的效果如下图



- lan-创造未来,成就梦想!—