Allegro 导出 Gerber 文件操作

1、首先检查 pcb 状态,操作如下:



弹出下面方框,关键看上面6项结果,全部为绿色即可;

symbols and nets	
Unplaced symbols:	0/1596 0%
Inrouted nets:	0/1408 0 %
Wnrouted connections:	0/4657 0%
Shapes	
Isolated shapes:	0
Jnassigned shapes:	0
Out of date shapes:	0/45 Update to Smoot
Dynamic fill: 🔘	Smooth 🔘 Rough 🔘 Disabled
DRCs	
📕 DRC errors: Out Of Date	102 Update DRC
Waived DRC errors:	0
🔽 On-Line DRC	

2、Database Check 检查, 该操作需要运行至少两遍;

💥 Allegro PCB Design XI: ZBJGLOOG50N2F11012V11_162.brd Project: C/ZBJGLOOG50N2F11012V11	
<u>File Edit View Add D</u> isplay Setup Shape Logic Place Route Analyze Manufacture RF-PCB <u>To</u>	ols <u>H</u> elp
	Create Module Padstack Pad P Derive Connectivity
	Reports Quick Reports
	<u>T</u> echnology File Compare Setup Ad <u>v</u> isor
	Database <u>C</u> heck
	<u>U</u> pdate DRC
	Design C <u>o</u> mpare
	Uti <u>l</u> ities ▶

选择如下,

🥦 DBDoctor (Database health monitor)	
VII. Lindate all DBC (including Batch)	Check
Check shape outlines	Close
	Viewlog
	Help

点击右侧 "check"; 3、gerber 输出设置: 点击 shape——>最后一项,如下图:



选择第二项,如下设置:

🐉 Global Dynamic Shape Parame	eters
Shape fill Void controls Clearance	ces Thermal relief connects
Artwork format:	Gerber RS274X 🔻
Minimum aperture for gap width:	4.00
Suppress shapes less than:	25.00 mils
	0.000625 (sq in)
Create pin voids:	
Acute angle trim control:	Round 👻
Snap voids to hatch grid	
OK Cancel Apply	/ Reset Help

点击 OK;

4、生成钻孔文件:

选择 Manufacture —>NC —>NC Drill;



设置如下:

💏 NC Drill	
Root file name: ZBJGL00GS0N2F11012V11. Scale factor: 1.00 Tool sequence: Increasing Auto tool select Separate files for plated/non-plated holes Prepeat codes Optimize drill head travel Drilling: Layer pair By layer Include backdrill	Drill NC Parameters Close Cancel View Log Help

设置完成,点击右侧 NC Parameters;

Parameter file:	ON2F11012V11	l/nc_para	am, txt	
utput file:				
Header:	none			
Leader:	12			
	the second secon			
Code: xcellon format: Format:	ASCII 5 . 5	© EIA		
Code: xcellon format: Format: Offset X:	ASCII 5 5 0.00 Absolute	© EIA		
Code: xcellon format: Format: Offset X: Coordinates: Output units:	 ASCII 5 5 0.00 Absolute English 	 EIA Y: Inc Me 	0.00 rementa	
Code: xcellon format: Format: Offset X: Coordinates: Output units: Leading zero su	 ASCII 5 . 5 0.00 Absolute English ppression 	 EIA Y: Inc Me 	0.00 rementa	
Code: xcellon format: Format: Offset X: Coordinates: Output units: Leading zero su Trailing zero su	 ASCII 5 . 5 0.00 Absolute English appression opression 	© EIA Y: © Inc © Me	0.00 rementa	
Code: xcellon format: Format: Offset X: Coordinates: Output units: Leading zero su Trailing zero su Equal coordinat	 ASCII 5 . 5 0.00 Absolute English ppression ppression e suppression 	© ElA Y: © Inc © Me	0.00 rementa tric	

🥻 NC Drill	
Root file name: ZBJGL00GS0N2F11012V11, Scale factor: 1.00 Tool sequence: Increasing Decreasing Auto tool select Separate files for plated/non-plated holes Repeat codes	Drill NC Parameters Close Cancel
Optimize drill head travel	View Log
Orilling: Layer pair By layer Include backdrill	Help

完成后,点击 CLOSE;

选择 Manufacture —>NC —>Drill Legend;

ech C/ZBJG	100	G50N2F11012V11				
ite Analy <u>z</u> e	Mar	ufacture RF-PC <u>B</u> Tools	He	lp		
		Dimension/Draft	•		🕥 💕 🏭 🍠 💣 🏢 🗶	1
	ø	<u>A</u> rtwork Stream <u>O</u> ut		1		
	ĺ.	NC	15		Drill <u>C</u> ustomization	
		Cut <u>M</u> arks		I	Drill Legend	C 1
		Via Array			Backdrill Setup and Analysis	Sub
		<u>C</u> reate Coupons		lø.	NC <u>P</u> arameters	uring
		D <u>F</u> x Check (legacy)			NC Drill	ələt
	8):	<u>S</u> ilkscreen			NC Route	pio(_
	盟	T <u>h</u> ieving		Ь		
an tha		Testprep	۲			
		Variants	۲			
to a constant	0					

🐉 Drill Legend			
Template file: defaul	t-mil.dlt		Browse
Drill legend title:	DRILL CHAP	T: \$lay_nams\$	
Backdrill legend title:	BACKDRILL	\$lay_nams\$	
Output unit: Hole sorting metho	Mils d:	•	
By hole size		By plating status	
 Ascending Descending 		Non-plated fir:	st
Legends:			
Layer pair	🔘 By layer		
🔄 Include backd	rill		
	Cancel	[Help

采用默认设置,点击OK;在鼠标上会出现一个浮动的矩形框,如下图:



将它放在合适的位置;



5、生成 GERBER 文件

1) 选择 Manufacture —>Artwork;



2) 设置第一项,如下图,除 ALL 外,其他项全部勾选;

Artwork Control Form	•	
Film Control General Parameters		
Available films Available films Au BOTTOM AU BOTTOM AU CONDI AU CONDI AU CONDI AU CONDI A	Film options Film name: A Rotation: Offset X: Y: Undefined line width: Shape bounding box: Plot mode:	ALL 0 ▼ 0.00 0.00 0.00 100.00 ● Positive
Select all Add Replace	 Film mirrored Full contact thermal- Suppress unconnect Draw missing pad at Use aperture rotation Suppress shape fill Vector based pad box 	Negative reliefs eted pads pertures n ehavior
OK Cancel Apertures	Viewlog	Help

设置第二项,如下图:

Film Control General Parar	neters	
Device type Gerber 6x00 Gerber 4x00 Gerber RS2748	Error action	Film size limits Max X: 500.00000 Max Y: 500
Barco DPF MDA	Format Integer places:	Suppress
Output units Inches Millimeters	Output options Not applicable	 Trailing zeroes Equal coordinates
Coordinate type Not applicable	Global film filename af Prefix: Suffix:	fixes
Continue with undefine	d apertures Sc	ale factor for output: 1.0000
		iewlog Help

点击 Apertures, 在弹出的对话框中点击 delete;

💙 Artı	🙀 Edit Aperture Wheels 🛛 🕞 🔍 🛞	
Film	Undo Delete	
Av	Wheel Operations	n options Im name: ALL otation: 0 Ifset X: 0.00 Y: 0.00
		ndefined line width: 0.00 hape bounding box: 100.00 lot mode: O Positive Negative Film mirrored
	OK Cancel Help	Full contact thermal-reliefs Suppress unconnected pads Draw missing pad apertures Use aperture rotation Suppress shape fill Vector based pad behavior
	DK Cancel Apertures (Viewlog Help

点击 add

🔁 Arty 🔂 Edit Aperture Wheels 🛛 💿 🛞	
Film Add Undo Delete	
Av Wheel Operations	n options Im name: ALL otation: 0 ▼
	ffset X: 0.00 Y: 0.00
	ndefined line width: 0.00 hape bounding box: 100.00
	lot mode: O Positive Interview Interview Interview Interview
	Film mirrored Full contact thermal-reliefs
	Suppress unconnected pags Draw missing pad apertures Use aperture rotation
OK Cancel Help	Suppress shape fill Vector based pad behavior
OK Cancel Apertures	Viewlog Help

点击 edit

Film Add	Undo Delete		
Av Wheel	Operations	n options Im name: A otation: [LL D 🔻
		ffset X: [Y: [D.00 D.00
		ndefined line width: hape bounding box:	0.00
		lot mode:	Positive Negative
		Film mirrored Full contact thermal-	reliefs
		Suppress unconnec Draw missing pad ar Use aperture rotation	ted pads pertures n
ОК	Cancel Help) Suppress shape fill Vector based pad be	ehavior

点击 Auto->,选择第二项;

Zedit Aperture Stations			- 8
Wheel number: 1 Ur Auto Without Rota Station ceomeny	its: ● Inches ○ tion Sort-> tion Height (orflash name)	Millimeters Rotation (degrees)	Undo Delete
	<u>a * a constata a statica * a</u>	*****	
ОК			Help

点击 Sort->,选择第二项;

Wheel nu	mber: 1	Units: 🔘) Inches 🛛 🔘	Millimeters	
A	Nuto ->	Add ->	Sort	lagnatry	
Station	Geometry	Width (or flash n	H By S Hame)	Station (degrees)	Undo Delete
D456	Line 🔻	0.98	0.98		Coov Delete
D443	Line 🔻	3.94	3.94		Coov Delete
D447	Line 👻	4.00	4.00		Copy Delete
D446	Line 💌	4.02	4.02		Copy Delete
D438	Line 💌	5.00	5.00		Coov Delete
D464	Line 🔻	5.10	5.10		Coov Delete
D441	Line 🔻	5.12	5.12		Copy Delete
D442	Line 🔻	5.91	5.91		Copy Delete
D445	Line 🔻	5.98	5.98		Copy Delete
D448	Line 🔻	6.00	6.00		Copy Delete
D463	Line 💌	6.20	6.20		Copy Delete
D457	Line 💌	7.00	7.00		Coov Delete
D462	Line 🔻	7.50	7.50		Copy Delete
D444	Line 🔻	7.87	7.87		Copy Delete
D 451	lino =	lo nn	0.00		Coou Doloto
OK					Help

点击 OK,

点击 OK,

点击下图中的"Create Artwork"

💱 Artwork Control Form	
Film Control General Parameters	
Available films	Film options
▶□ C ALL	Film name: ALL
	Rotation: 0 💌
	Offset X: 0.00
	Y: 0.00
Þ♥	Undefined line width: 0.00
▷··· ☑ ☐ MASKTOP ▷··· ☑ ☐ PASTBOT	Shape bounding box: 100.00
▷··· ☑ ☐ PASTTOP▷··· ☑ ☐ SILKBOT	Plot mode: Positive
	🔘 Negative
	E Film mirrored
	E Full contact thermal-reliefs
Select all Add Replace	Suppress unconnected pads
Check database before artwork	Draw missing pad apertures
	Use aperture rotation
	Suppress shape fill
Create Artwork	Vector based pad behavior
OK Cancel Apertures	Viewlog Help
	11

6、不规则焊盘输出

Ma	nufacture RF-PC <u>B</u> Tools	Help		
2	Dimension/Draft	•	💿 🚏 🏭 🍠 💣 🛄 🗴	1
ø	<u>A</u> rtwork Stream <u>O</u> ut			
	NC		Drill <u>C</u> ustomization	
	Cut Marks Via Array	1	Drill <u>L</u> egend <u>B</u> ackdrill Setup and Analysis	Sub
	<u>C</u> reate Coupons DEv Check (Legacy)	l/a	NC <u>P</u> arameters NC <u>D</u> rill	uring
	Silkscreen		NC <u>R</u> oute	plot_0
*	T <u>h</u> ieving			
	<u>T</u> estprep	•		
	Variants	•		

在弹出的对话框中,采用默认设置,点击 Route,生成*.rou 文件

File name:	ZBJGLOOGSON2F11012v	Route
Route feedrate:		NC Parameters.
		Close
		Cancel
		View Log
		Help

导出 IPC 356,设置默认,导出即可。