

TSRI PCB Fabrication Layout Softwares Illustrations

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PCB / PADS Question?
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Versions

Versions	Effective Date	Author	Remarks
3.0	2023.09	Eli Li	English 1 st Version. Translated from Chinese version 3.0. The version number will follow Chinese version.

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1. Preface

This manual is provided by TSRI to academia.

The designer can use PCB processes of TSRI FR4 2-layer board, FR4 4-layer board and RO4003 high frequency board.

Layout software

This manual includes Allegro software Gerber and Drill Gerber files output generation setup..

The designer can use other PCB software to do design, and provides relevant Gerber files to TSRI for fabrication.

About PCB fabrication details, please refer to PCB web.

Gerber and Drill setup and output

After layout, Gerber and Drill files output is the last steps to fabrication.

Remarks:

(a) Gerber output: version isRS274X.

(b) Output Gerber data relevant parameter setup.

Check the Table below.

Output Units	<input type="checkbox"/> Inches (English)
	<input type="checkbox"/> Millimeters (Metric)
Format (I:D)	Integral (Leading) =
	Decimal (Trailing) =
Coordinates	<input type="checkbox"/> Absolute
	<input type="checkbox"/> Incremental
	<input type="checkbox"/> Not applicable
Zeros suppression	<input type="checkbox"/> Leading Zeros suppression
	<input type="checkbox"/> Trailing Zeros suppression
	<input type="checkbox"/> None (Keeping leading and trailing zeros)

Table 0-1 Output Gerber data parameter setup

(c) Output NC Drill Data parameter setup

Check the Table below.

Output Units	<input type="checkbox"/> Inches (English)
	<input type="checkbox"/> Millimeters (Metric)
Format (I:D)	Integral (Leading) =
	Decimal (Trailing) =
Coordinates	<input type="checkbox"/> Absolute
	<input type="checkbox"/> Incremental
	<input type="checkbox"/> Not applicable
Zeros suppression	<input type="checkbox"/> Leading Zeros suppression
	<input type="checkbox"/> Trailing Zeros suppression
	<input type="checkbox"/> None (Keeping leading and trailing zeros)

Table 0-2 Output NC Drill Data parameter setup

The following chapter is for Allegro software.

2. Allegro software

2.1 Allegro Gerber output format

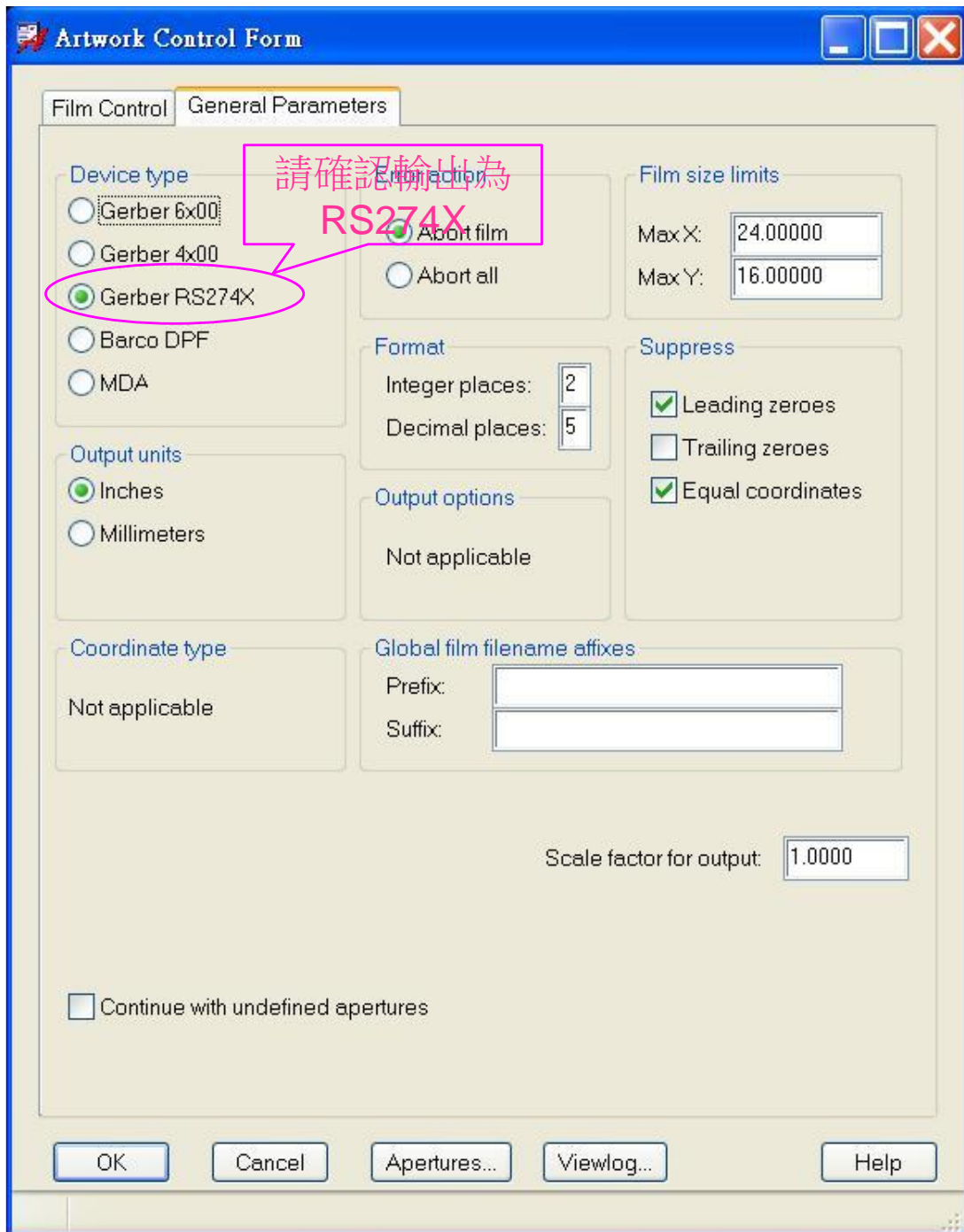


Figure 2.1-1 Allegro PCB Gerber output format (RS274 X)



Figure 2.2-1 Allegro output Gerber data relevant parameters setup

Output Units	<input checked="" type="checkbox"/> Inches (English)
	<input type="checkbox"/> Millimeters (Metric)
Format (I:D)	Integral (Leading) = 2
	Decimal (Trailing) = 5
Coordinates	<input type="checkbox"/> Absolute
	<input type="checkbox"/> Incremental
	<input checked="" type="checkbox"/> Not applicable
Zeros suppression	<input checked="" type="checkbox"/> Leading Zeros suppression
	<input type="checkbox"/> Trailing Zeros suppression
	<input type="checkbox"/> None (Keeping leading and trailing zeros)

Table 2.2-1 Allegro output Gerber data parameters setup (PCB Design e-file)

2.2 Allegro output NC Drill Data parameters setup



Figure 2.3-1 Allegro output NC Drill data parameters setup

Output Units	<input checked="" type="checkbox"/> Inches (English)
	<input type="checkbox"/> Millimeters (Metric)
Format (I:D)	Integral (Leading) = 2
	Decimal (Trailing) = 3
Coordinates	<input checked="" type="checkbox"/> Absolute
	<input type="checkbox"/> Incremental
	<input type="checkbox"/> Not applicable
Zeros suppression	<input type="checkbox"/> Leading Zeros suppression
	<input type="checkbox"/> Trailing Zeros suppression
	<input checked="" type="checkbox"/> None (Keeping leading and trailing zeros)

Table 2.3-1 Allegro output NC Drill data parameters setup (PCB Design e-file)

3. English Chinese Terminology Contrast

English symbol / Abbreviation	English full Name	Chinese Name
DR	Design Rule	設計規範
DRM	Design Rule Manual	設計規範手冊
	Drill	鑽孔
	Stackup	堆疊

4. References

TSRI PCB Fabrication web:

<https://www.tsri.org.tw/tw/commonPage.jsp?kindId=C0003>