

## [1] Basic specification

LAYERS	LAMINATE TYPE	BOARD THICKNESS <sup>[1]</sup>	EXTERNAL COPPER THICKNESS <sup>[2]</sup>
<b>4</b>	<b>FR4</b>	<b>1.60[mm] ± 10%</b>	<b>35 [um]</b> <b>see PCB stackup on detailed drawing section</b>

SURFACE TREATMENT	NON PLATED TH	VIAS	CTI
<b>ENIG</b>	<b>YES</b>	<b>TH</b>	<b>NOT SPECIFIED</b>

- Board thickness refers to the final PCB, unless otherwise specified in the further parts of the document.
- External copper thickness refers to the final copper, unless otherwise specified in the further parts of the document.

## [2] Special layers

SOLDERMASK TYPE	SOLDERMASK TOP	SOLDERMASK BOTTOM
<b>MATT</b>	<b>BLUE</b>	<b>BLUE</b>

GRAPHITE COATING	SILKSCREEN TOP	SILKSCREEN BOTTOM
<b>NO</b>	<b>WHITE</b>	<b>WHITE</b>

MANUFACTURER'S LOGO & DATE CODE	UL LOGO
<b>YES</b> <b>silkscreen bottom</b>	<b>YES</b> <b>silkscreen bottom</b>

## [3] Additional requirements

FULL PANELS ONLY	ELECTRICAL TEST REQUIRED
<b>NO</b>	<b>YES</b>
UL CETRIFICATE REQUIRED	ROHS COMPLIANT
<b>YES</b>	<b>YES</b>
CONTROLLED IMPEDANCE TRACKS	
<b>YES</b>	

## [4] Layer set and documentation

Name	File name	Comment
LAYER L1 (TOP)	*.GTL	Gerber RS274X (4.4 metric, no suppression)
LAYER L2 (internal)	*.G1	Gerber RS274X (4.4 metric, no suppression)
LAYER L3 (internal)	*.G2	Gerber RS274X (4.4 metric, no suppression)
LAYER L4 (BOTTOM)	*.GBL	Gerber RS274X (4.4 metric, no suppression)
SOLDERMASK TOP	*.GTS	Gerber RS274X (4.4 metric, no suppression)
SOLDERMASK BOTTOM	*.GBS	Gerber RS274X (4.4 metric, no suppression)
SILKSCREEN TOP	*.GTO	Gerber RS274X (4.4 metric, no suppression)
SILKSCREEN BOTTOM	*.GBO	Gerber RS274X (4.4 metric, no suppression)
BOARD OUTLINE	*.GM1	Gerber RS274X (4.4 metric, no suppression)
DRILL PLATED	*-RoundHoles-Plated.TXT	NC Drill, Excellon (4.4 metric, abs., no suppression)
DRILL NON PLATED	*-RoundHoles-NonPlated.TXT	NC Drill, Excellon (4.4 metric, abs., no suppression)
SLOT PLATED	*-SlotHoles-Plated.TXT	NC Drill, Excellon (4.4 metric, abs., no suppression)

## [5] Remarks

1. See chapter 6 for the required PCB board stackup.
2. Manufactured board shall align to IPC-2615 (Printed Board Dimensions and Tolerances) unless otherwise specified in other parts of the document.
3. PCB board has impedance control of the differential pairs and should be manufactured as 90 and 100 Ohm with tolerance  $\pm 10\%$  – see the detailed requirements described in chapter [7].
4. PCB Marking - proposed field position for Manufacturer Logo, Date Code and UL-marking for single PCB board and PCB panel was described in chapter [9].

## [6] Required board stackup

Stackup name = **JLC2313**

Total board thickness = **1.60mm  $\pm 10\%$** .

Core => **FR4**, thickness = **1.265 mm**.

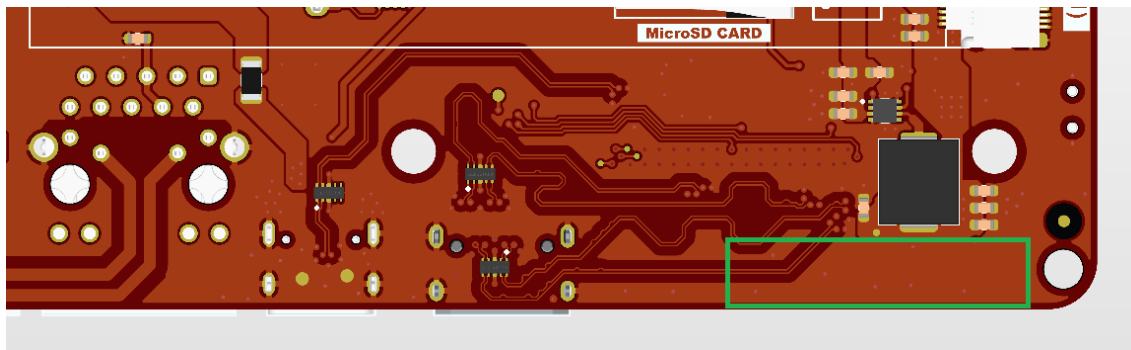
Prepreg => **1x 2313**, thickness = **0.1 mm**.

Layer	Material Type	Thickness	
Top Layer1	Copper	0.035 mm	
Prepreg	2313*1	0.1 mm	
Inner Layer2	Copper	0.0175 mm	1.3 mm (with copper core)
Core	Core	1.265 mm	
Inner Layer3	Copper	0.0175 mm	
Prepreg	2313*1	0.1 mm	
Bottom Layer4	Copper	0.035 mm	

Fig. 1. Required PCB board stackup

## [7] Marking

Proposed field position for Manufacturer Logo, Date Code and UL-marking.



Dra. 5. – Proposed field position for Manufacturer Logo, Date Code and UL-marking. GREEN marked, SILKSCREEN BOTTOM LAYER (detail of the bottom side of the PCB)