Specification for PCB: .PcbDoc

The 4-layer PCB is intended for manual and automatic soldering of SMD parts on the top side.

General requirements
IPC-A-600/6010 class 2

Laminate
Laminate: IPC 4101/21 with minimum Tg=130°C
Flammability: V0 according to UL94
CTI index 3: 175 < CTI ≤ 400 or better
CTE: Pre-Tg. 60ppm/°C Post-Tg. 300ppm/°C

Copper plating
Hole plating: min. 20µm. and min. avg. 25µm according to IPC-6012 class 3

Dimensions and Marking
PCB Size (X,Y): 83.5x135 mm
Tolerances on outline dimensions: +/- 0.2mm

Layer stack-up
The PCB stack is in the picture below. The total thickness of the PCB is 1,6 mm ±10%.

Layer	Material Type	Thickness	
Top Layer	Copper	0.035mm	
Prepreg	7628*1	0.203mm	
Inner Layer L2	Copper	0.03mm	1.1mm 1/1OZ with copper
Core>	Core	1.03mm	
Inner Layer L3	Copper	0.03mm	
Prepreg	7628*1	0.203mm	
Bottom Layer	Copper	0.035mm	

Controlled impedance traces

Controlled impedance traces are as follows.

Layer	Impedance Structure	Trace width, mm	Diff line space, mm	1 ref. plane	2 ref. plane	Target Impedance, Ohm*
1	-	-	-		-	
1			-		-	
2						
3						
4						
5						
6						

*Tolerance on all impedances is ±10%.

Solder mask

Liquid film or electrostatic spray coating on top and bottom sides .
Colour: **Blue**
According to: IPC-SM-840E, Class T
Minimum thickness: 8µm
Maximum thickness: 30µm

Legend:

Silkscreen Colour: White on top and bottom layers.

Plugged via holes:

Via holes covered by solder mask on both sides must be plugged.

Via holes with solder mask opening on one side and covered by solder mask on the other side, must be plugged from the same side they are covered by solder mask – solder mask opening on the other side must remain.

Surface finish

ENIG – Au 0.05 µm / Ni 3.0 µm;
Solderability accordingly to IPC J-STD-003, test C1 PTH, SMD test F1 set A