

## PCBA REQUIREMENTS

This document has been written as a guide for the requirements needed in order to complete an assembly process for a PCBA. Further information may be needed upon request.

Please notice that currently only lead free process is available

### 1.- PCB Requirements:

- If your PCBs is a non-rectangle, we require at least two parallel edges. Which can be added as breakoff rails or can be part of the PCB itself. The same to circular PCBs. Any of them must have a minimum clearance of 5mm.
- All PCBs must have been electrical tested and defect free before shipment to us.
- If your PCBs are 2X2 or less they must be in an array/panelized format or it could increase the assembly cost. The minimum dimension of the panel is: 120x80x0.4 mm and the maximum size is 420x350x4 mm.
- All leadless type devices and vias under BGA are tented with solder mask to ensure there are no solder shorts created during the reflow process.

### 2.- Data Requirements:

Please include as an attachment the following files:

- Bill of Materials: (BOM) which must contain --> for example

Quantity	Designator	Description	Value	Manufacture	Part Number	Distributor Part #
31	C1, C2, C3, C4, C6, C7, C8, C9, C10, C11, C12, C14, C36, C46, C47, C48, C49, C52, C53, C54, C59, C60, C61, C63, C64, C65, C66, C67, C68, C69, C70	Capacitor (Semiconductor SIM Model)	0.1uF	Kemet	C0603C104K8RACTU	399-1095-1-ND
1	C5	Capacitor (Semiconductor SIM Model)	2.2uF	Panasonic	ECJ-1VB0J225K	PCC2273CT-ND
1	C16	Capacitor (Semiconductor SIM Model)	0.47uF	Kemet	C0603C474K8PACTU	399-3114-1-ND
5	C17, C33, C34, C35, C38	Capacitor (Semiconductor SIM Model)	0.1uF	Kemet	C0603C104K5RACTU	399-5089-1-ND
1	C18	Polarized Capacitor (Radial)	220uF	Nichicon	UVR1H221MPD	493-1108-ND
1	C19	Capacitor (Semiconductor SIM Model)	270pF	TDK	C1608C0G1H271J	445-1286-1-ND
1	C20	Capacitor (Semiconductor SIM Model)	4700pF	AVX	06031C472KAT2A	478-1203-1-ND

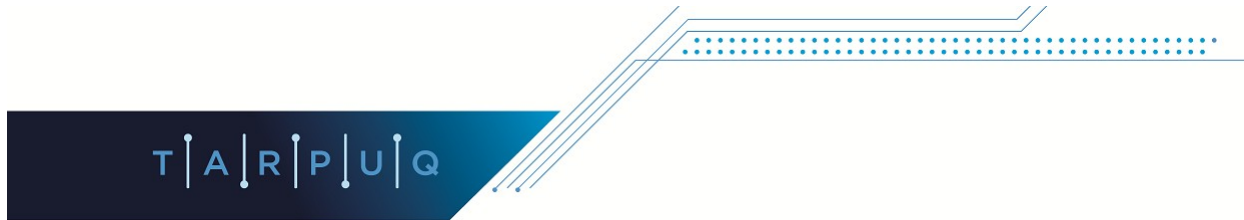
\*\* The BOM should also indicate any DNI ("Do not install") locations.

Component Placement List or Centroids List: (CPL) must contain the following: X and Y location, rotation, reference designator, and board side (top/bottom). We prefer the CPL to be in Excel or CSV (Comma-Separated Values) format.

- Gerber files: We require the Gerber files for Top, Bottom, component mask for each side, test points if used, adhesive if used, solder paste for each side.
- Drawings and pictures of the finished assembly: are requested and will help to ensure correct component placement. If not available, documentation must be provided that indicates orientation and polarity of all components, detailing any safety critical components.
- Physical Sample assembled units, are mandatory prior defining prices and lead production times.

## Tools.

- If board is already in production we need the necessary tooling used by the manufacturer, which are:
  - Solder paste stencils (29x29 " standard)
  - Adhesive stencil if used



- Fixtures for ICT and details on test points and values
  - Tooling or Jigs used in production.
- If functional test is required please provide detailed information about procedures and equipment used.

If any question please contact:  
e-mail: [tsarmiento@tarpuq-ems.com](mailto:tsarmiento@tarpuq-ems.com)  
ph: 593-74106205  
ph: 593-74106204