

Impedance control

How to create a clear specification for impedance control

MMAB can assist in an early stage of the development process and suggest a suitable stack up.

We have software for calculation of impedance controlled traces and stack up. We also conduct measurement of impedance prior to delivery of the Printed Circuit Board.

Some recommendations for impedance control:

- Specify signal layers and reference planes.
- Specify impedance value and trace width including gap distance for differential pairs.
- Specify dielectric distance in the stack up. Prepreg style do not need to be specified.
- Assure that layers and traces in the specification corresponds to actual Gerber
- Allow minor adjustments of stack up, trace width and gap distance for impedance match

Differential 100 Ohm +/- 10%

Layer	Ref Layer	Width μm	Gap μm
1	2	150	200
4	3	150	200

Example of table with all impedance controlled pairs. Assure that the table is updated if you make layout adjustments.

_____	L1 SIGN 42 μm
120 μm	L2 GND 35 μm
1060 μm	L3 PWR 35 μm
120 μm	L4 SIGN 42 μm

The stackup do not need additional information. MMAB can also provide you with a standard stack up based on the values in the table above.

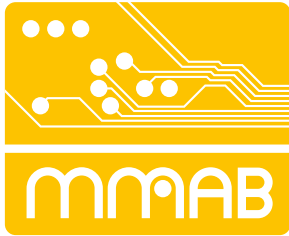
Get in touch with the team at MMAB if you need assistance in the calculation of impedance and stack up, based on our actual material and process parameters.

More information about our products and technical support can be found at www.mmabgroup.com

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Stefan Nordeng - Production Manager

Stefan joined MMAB as our new Production Manager during the autumn. Stefan most recently came from the company SETRAB where he also had a position as Production Manager for many years.

With his solid background within automotive, Stefan will bring his experience and knowledge, with a daily work with tough challenges within delivery precision, quick adaption and not least product quality.

With Stefans leadership and LEAN-knowledge, he will be a very important resource for MMABs further development of our Swedish factory.

Tomas Jeansson - Production engineer / CAM

Tomas is our latest contribution to the MMAB staff and he started working for MMAB in January. Tomas is for sure a well-known name in the PCB business, most recently from the PCB supplier ME PCB.

Tomas will mainly work within CAM and production engineering for our Swedish factory. With 30 years of knowledge from the PCB business area, Tomas will for sure contribute with his knowledge.

Both positions are a vital step forward in MMABs further development. Stefan and Tomas suits the organisation very well and will contribute both with personality and competence!

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