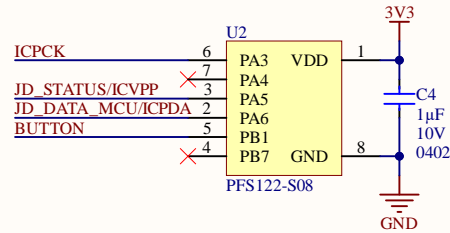
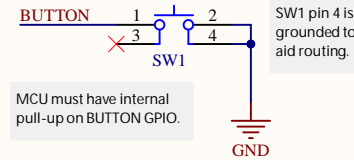


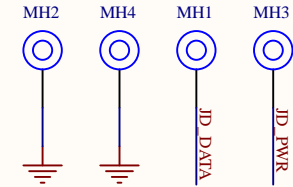
MCU



Button



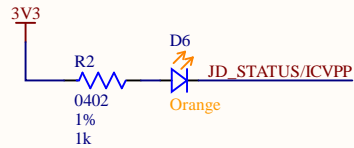
Mounting holes



Mounting holes are electrically connected to the Jacdac bus nets so they can be used as an alternative to the PCB edge connector. Please use the following reference designators and net mapping:

MH1: JD_DATA
MH2 & MH4: GND
MH3: JD_PWR

Status LED



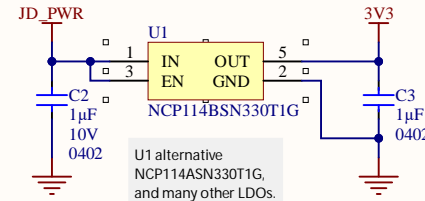
D6 alternative parts:
SML-D12D
E6C0603SEAC1UDA
NCD0603O1

Place a status LED adjacent to edge connector. If using alternative part check R2 value.

3V3 regulator

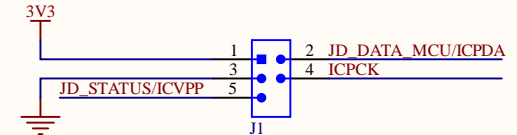
Consider using an LDO that is robust to spikes over 6V on input in case of noise on JD_PWR.

This component is a power-consumer.



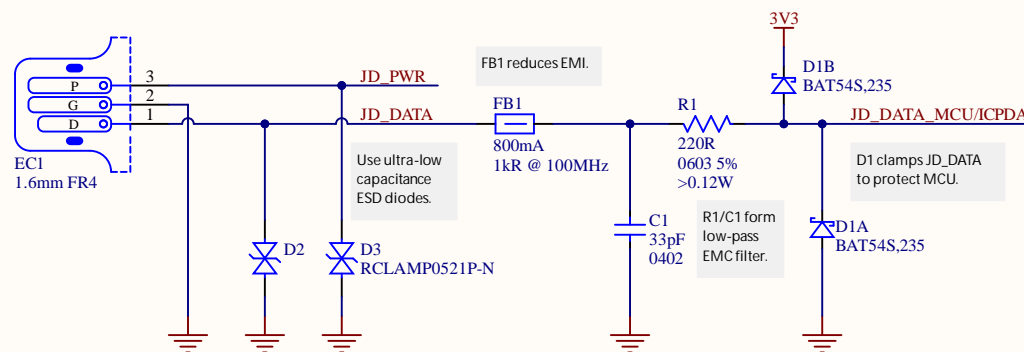
U1 alternative
NCP114ASN330T1G,
and many other LDOs.

Programming header



"JacConnect" programming adapter for PATAUK.
<https://microsoft.github.io/jacdac-docs/ddk/firmware/jac-connect/>

Jacdac connector



FB1 reduces EMI.

Use ultra-low capacitance ESD diodes.

D1 clamps JD_DATA to protect MCU.

R1/C1 form low-pass EMC filter.

This reference design is a guideline. Please refer to the Jacdac docs online at <https://aka.ms/jacdac> for the definitive and most up-to-date information.

Silkscreen should include manufacturer & module name and identify the version number and optionally a QR code.

This design uses the 'EC30' board shape.

Silkscreen & layout notes

Block name

Design notes

This information is provided "as-is". You bear the risk of using it. Some information relates to pre-released specification which may change without notice. Microsoft makes no warranties, express or implied, with respect to the information provided here.

When this PDF is viewed with Adobe Reader, clicking on components shows part numbers and other details.

PROJECT FILENAME JacdacTactButtonEcBc30 132.PrjPCB

PROJECT CODENAME JacdacTactEcBc30

Microsoft

PROJECT DESCRIPTION
Jacdac tact button with both EC and BC mounting

SHEET DESCRIPTION
Complete design

SHEET FILENAME JacdacTactEcBc30 132.SchDoc

LICENCE Attribution 4.0 International (CC BY 4.0)

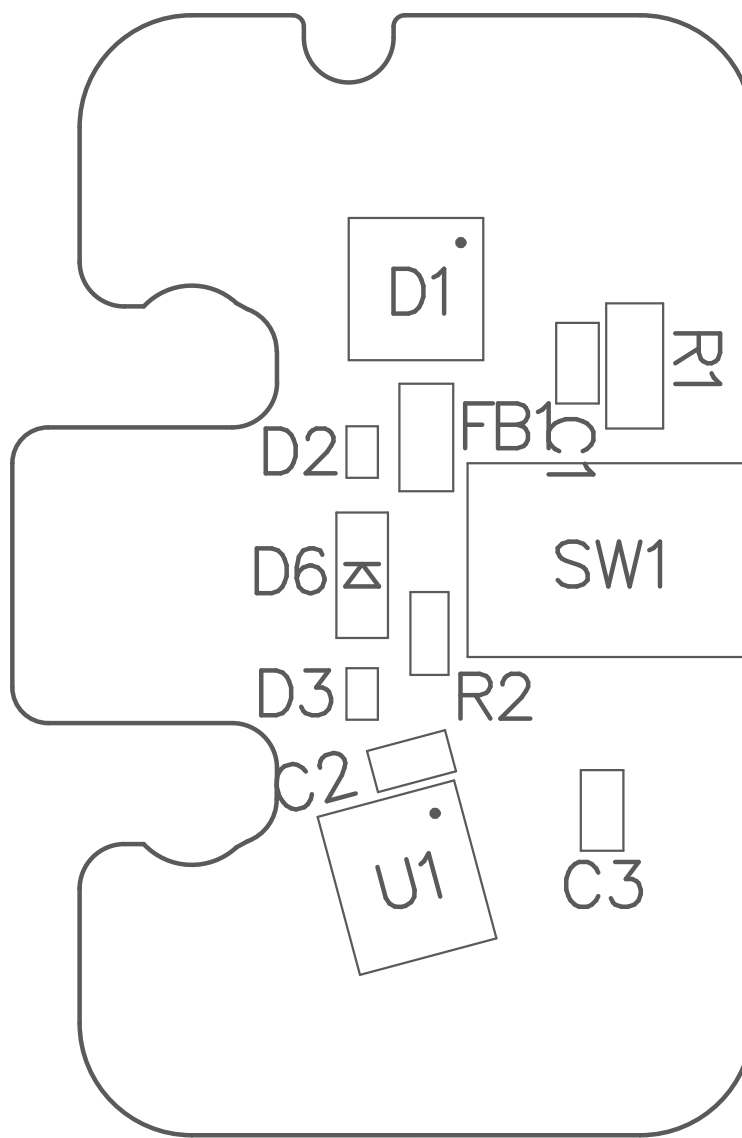
LAST MODIFIED 24/11/2022

PAGE 1 OF 1

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REVISION 0.1

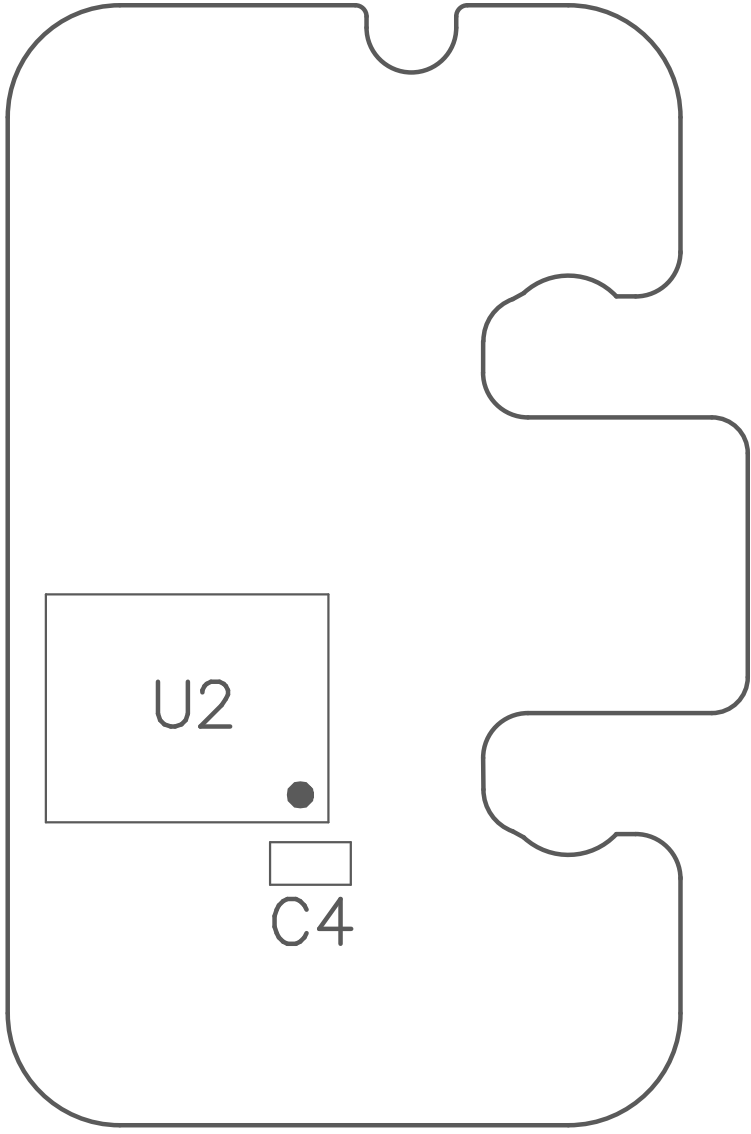
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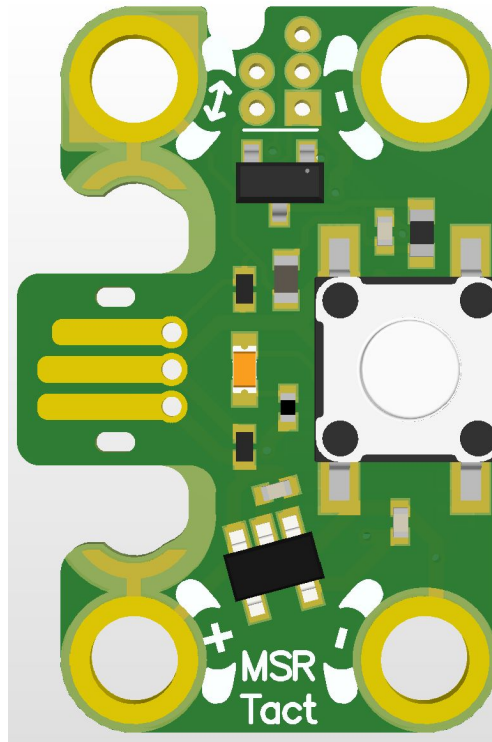


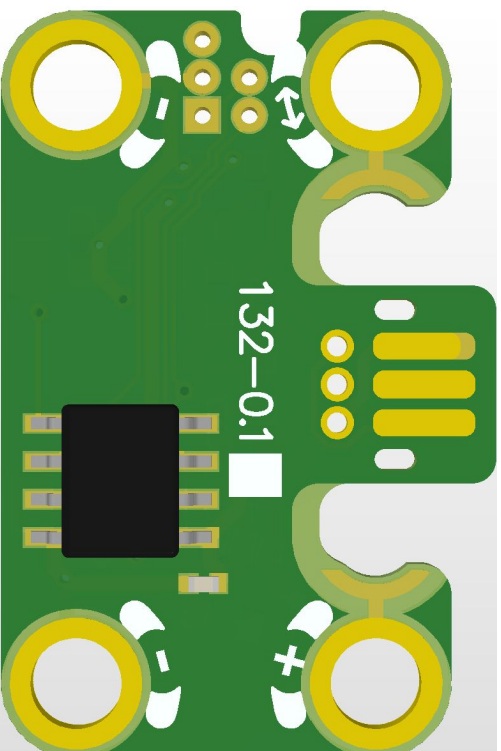
GM15 - Top Assy

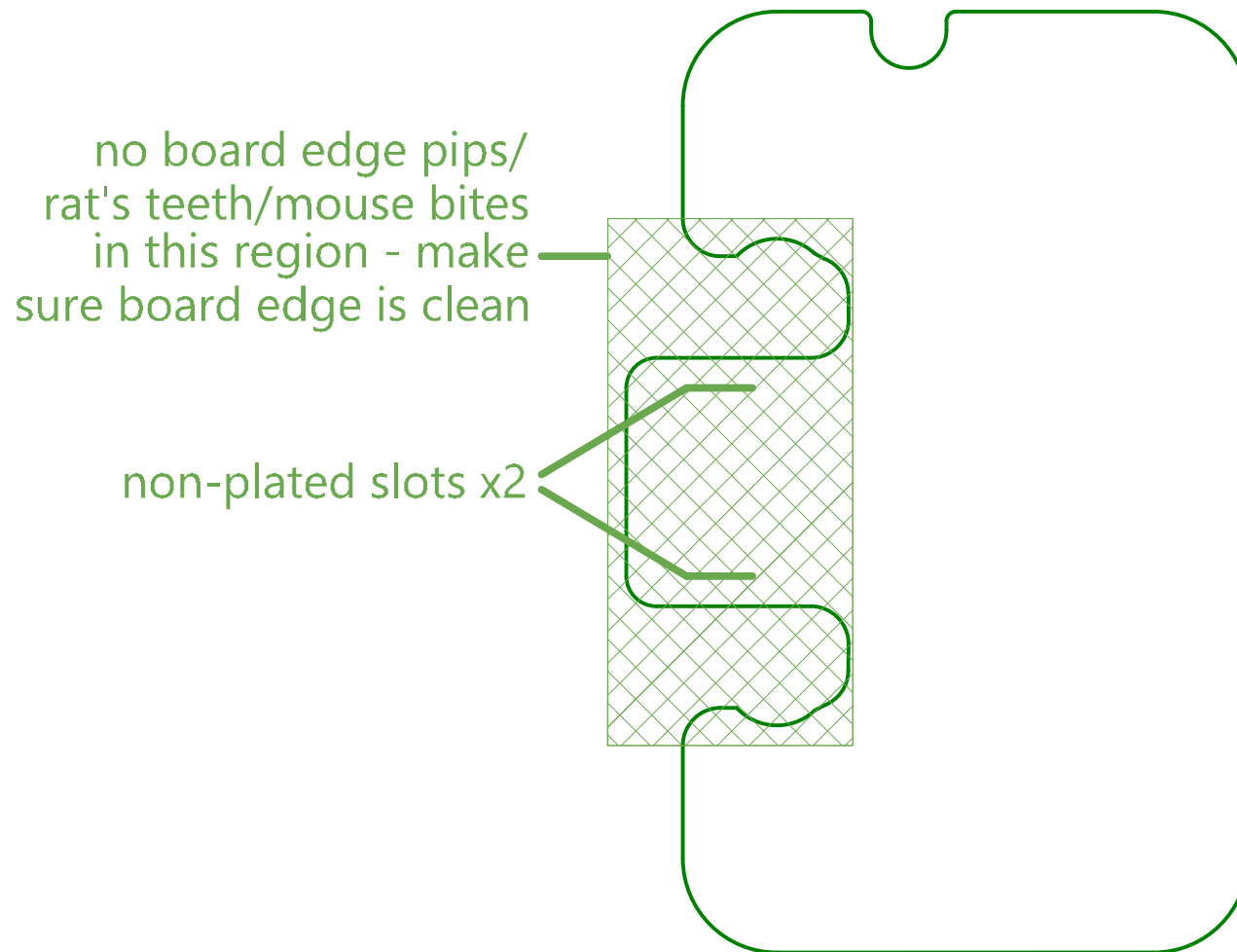
GM11 - Board Outline + Cutouts

GM16 - Bottom Assy





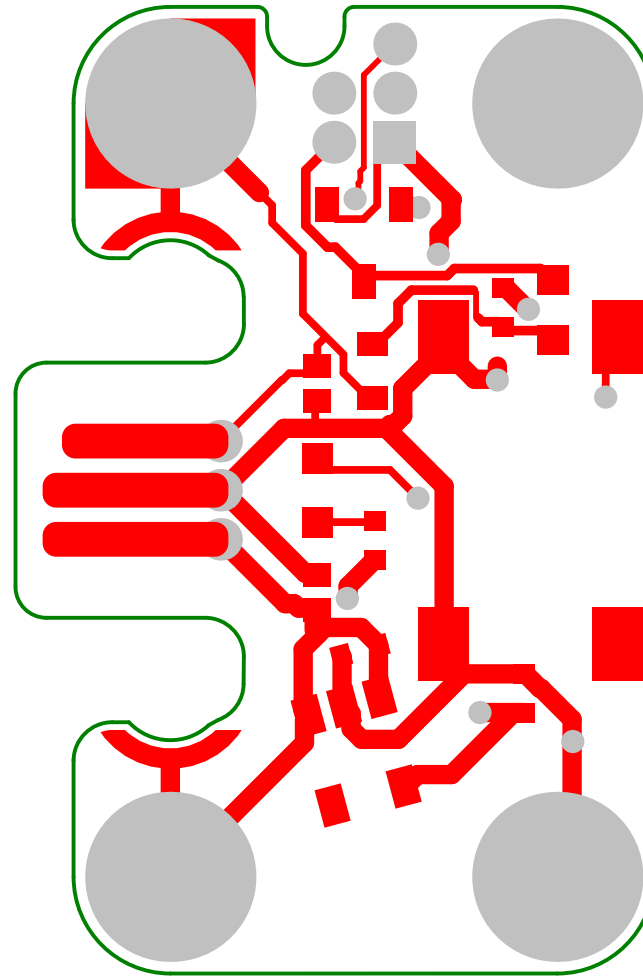




GTL - Top Layer
GBL - Bottom Layer
GTO - Top Overlay
GBO - Bottom Overlay
GTP - Top Paste
GBP - Bottom Paste
GTS - Top Solder (resist)
GBS - Bottom Solder (resist)
GM3 - Fabrication Notes
GM6 - Board Outline Only
GM9 - V Score
GM11 - Board Outline + Cutouts
GM15 - Top Assy
GM16 - Bottom Assy

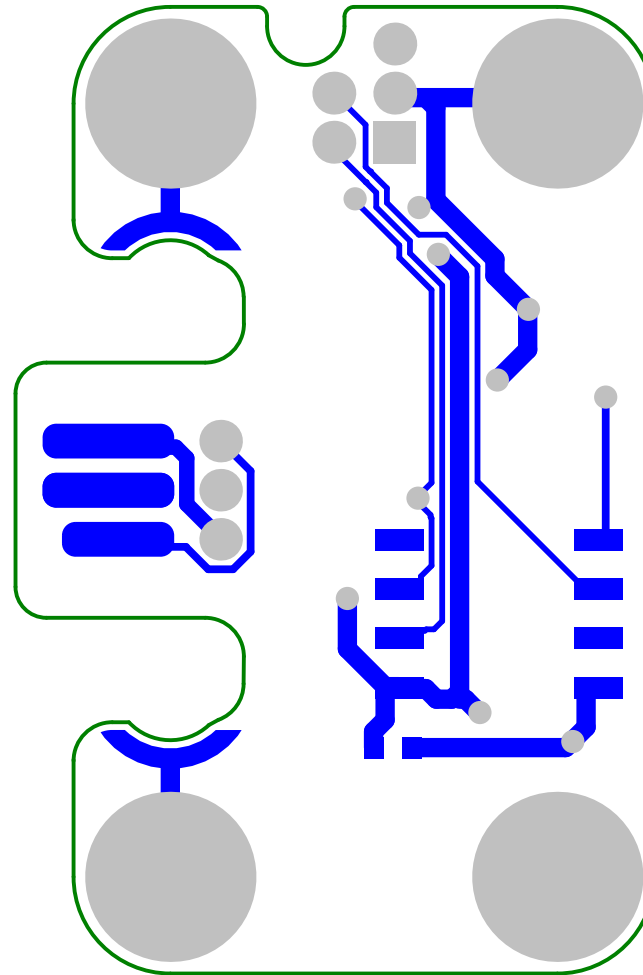
GM3 - Fabrication Notes

GM11 - Board Outline + Cutouts



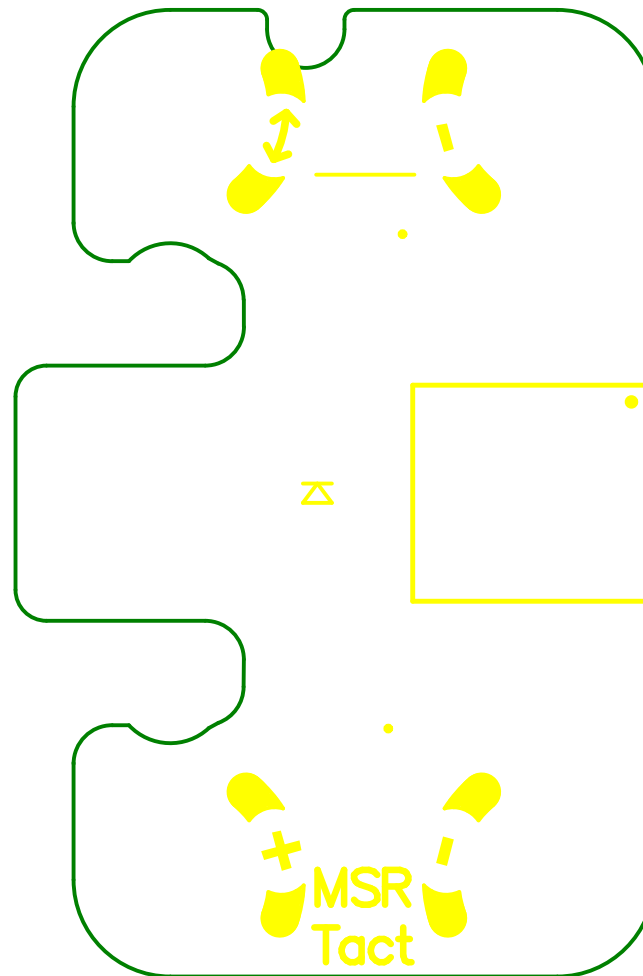
GTL - Top Layer

GM11 - Board Outline + Cutouts



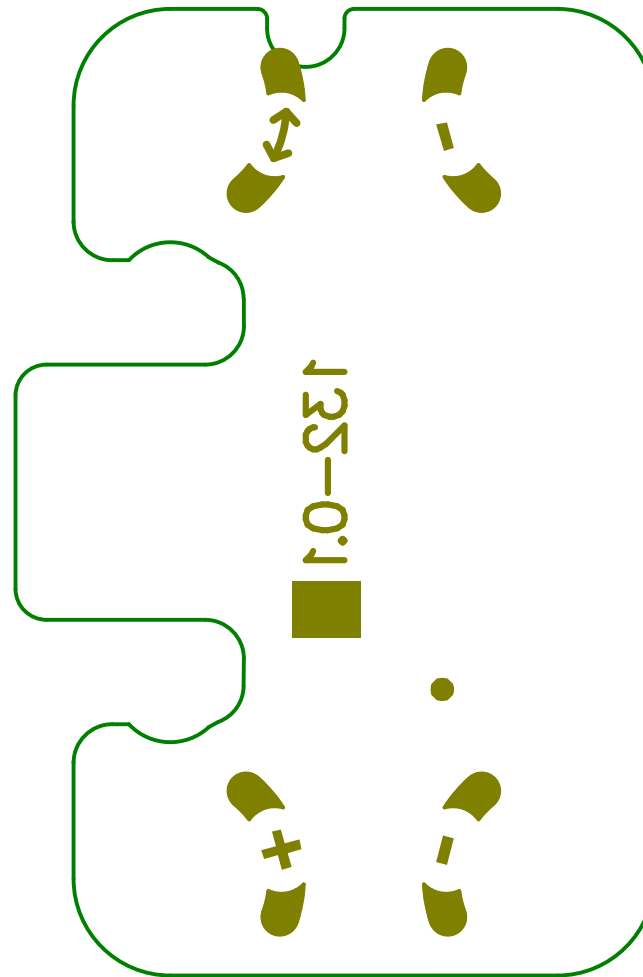
GBL - Bottom Layer

GM11 - Board Outline + Cutouts



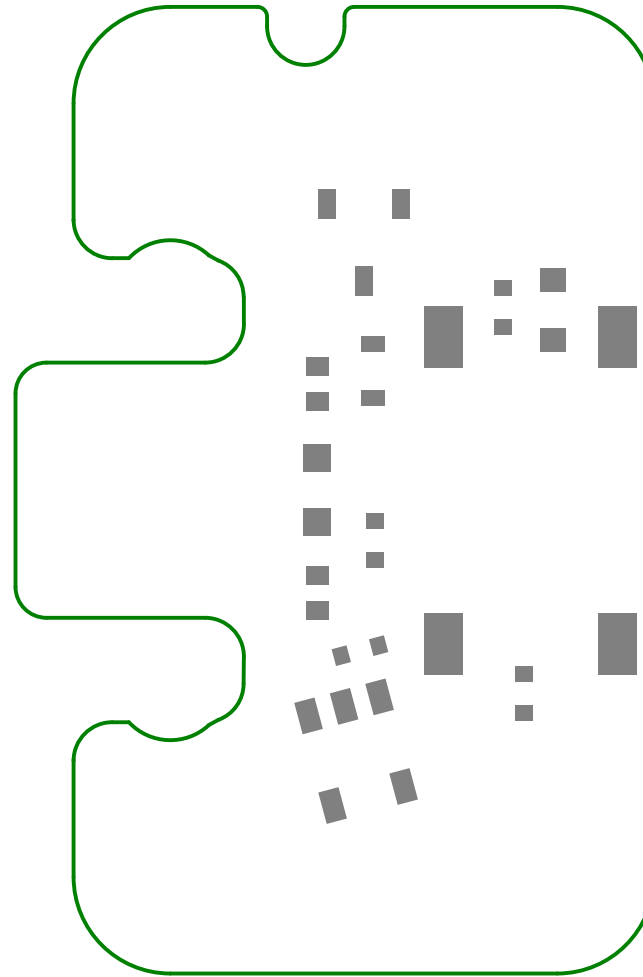
GTO - Top Overlay

GM11 - Board Outline + Cutouts



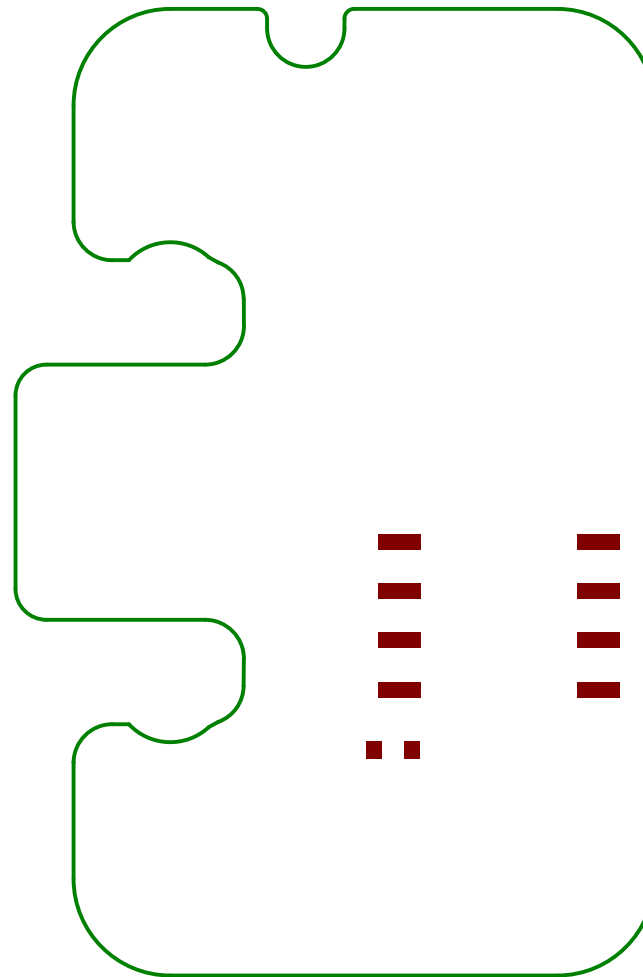
GM11 - Board Outline + Cutouts

GBO - Bottom Overlay



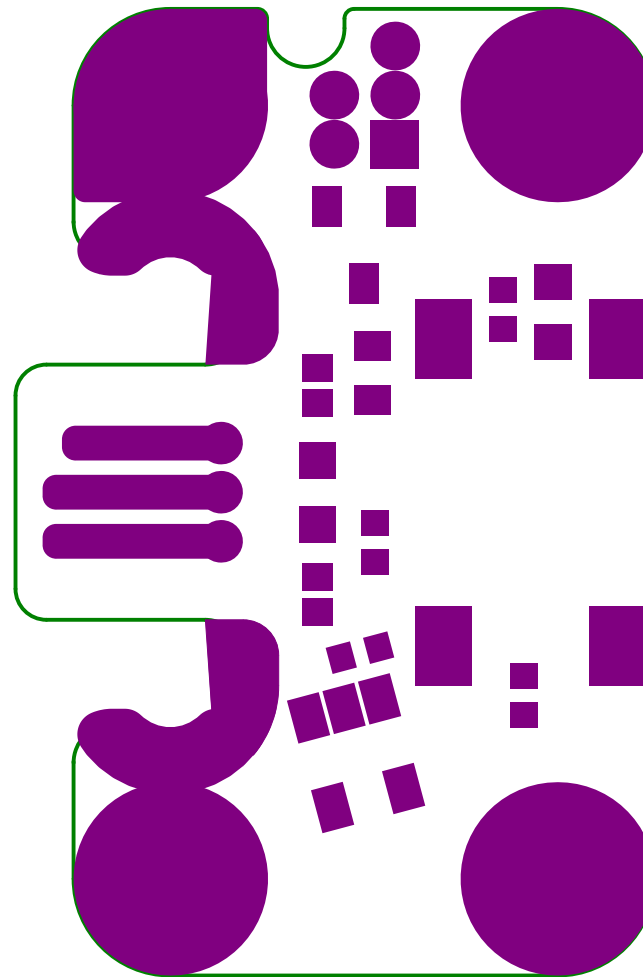
GTP - Top Paste

GM11 - Board Outline + Cutouts



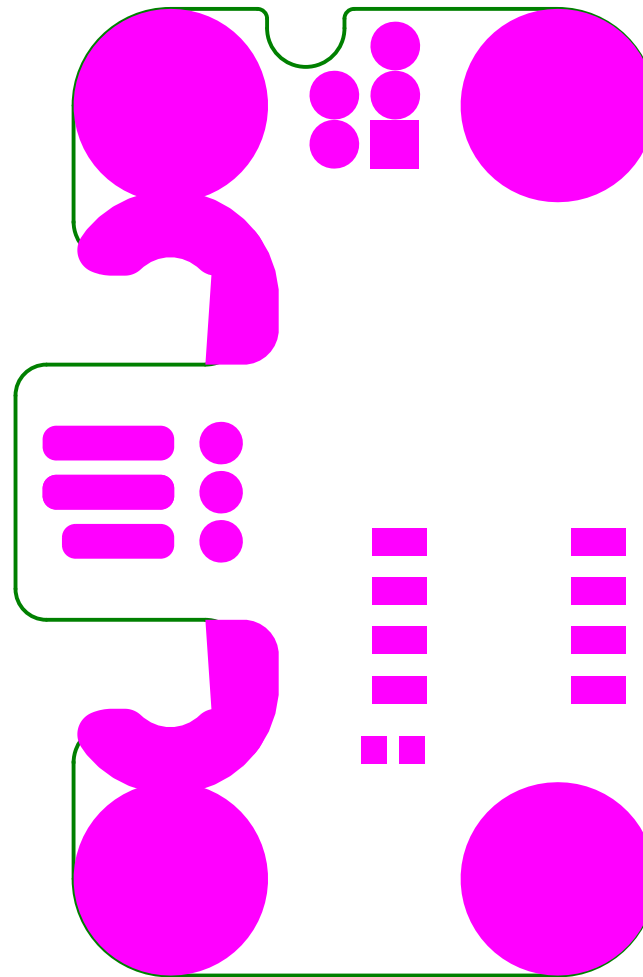
GBP - Bottom Paste

GM11 - Board Outline + Cutouts



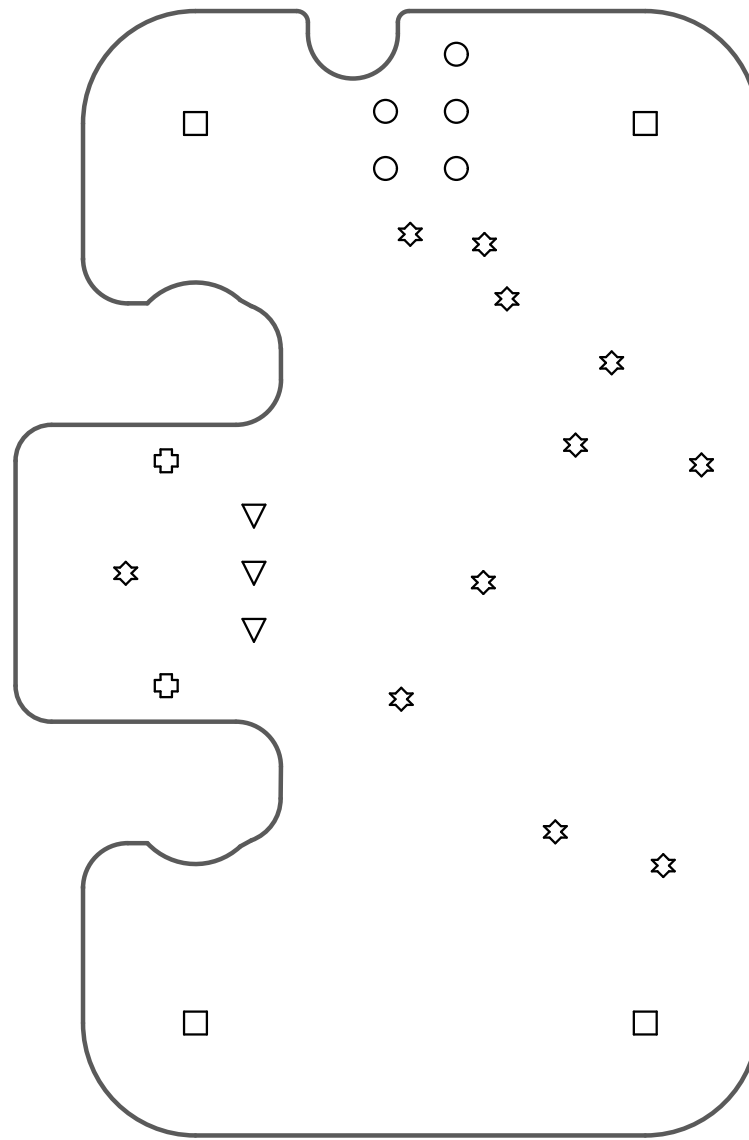
GTS - Top Solder (resist)

GM11 - Board Outline + Cutouts



GM11 - Board Outline + Cutouts

GBS - Bottom Solder (resist)



GM11 - Board Outline + Cutouts