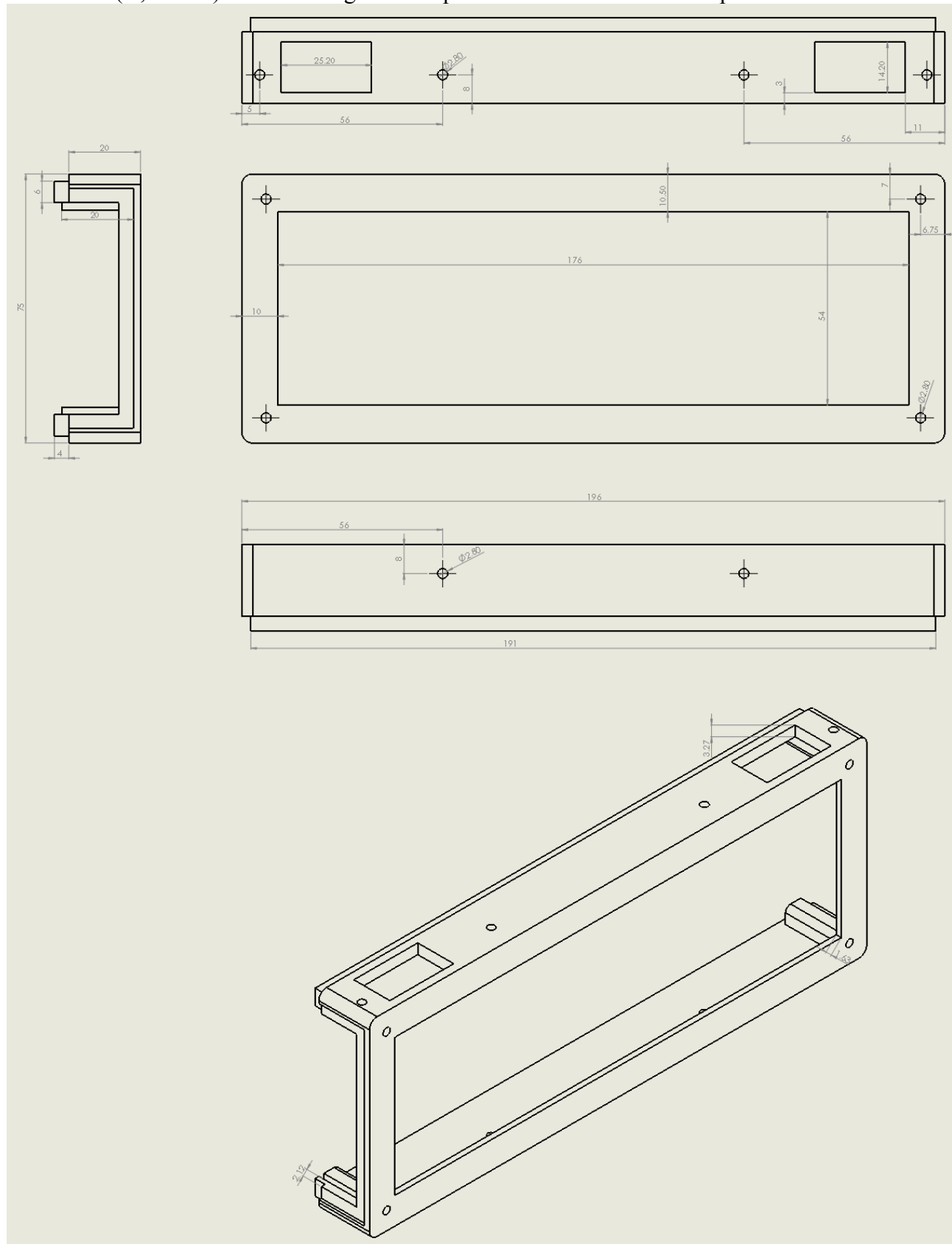
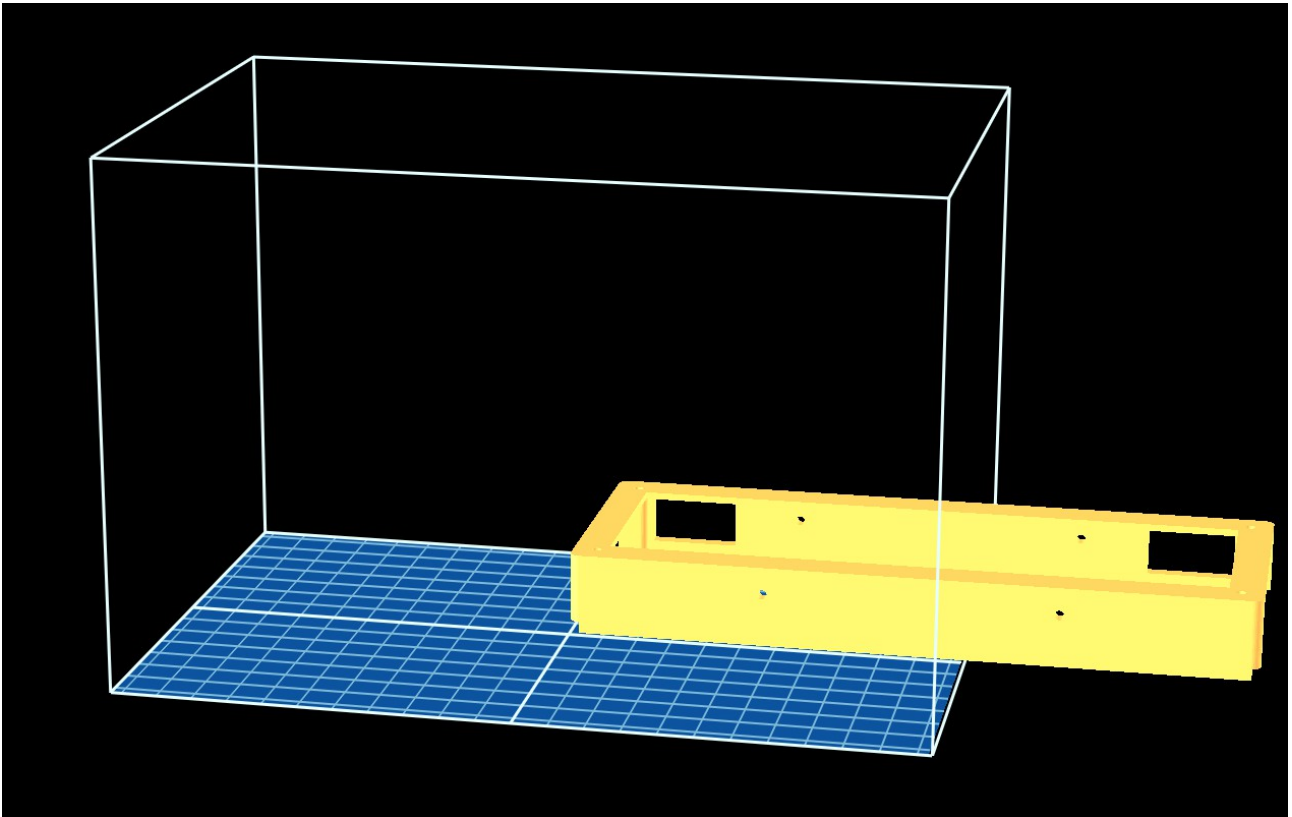


mcHF back support shell

This part of the mcHF assembly, together with the front support shell provides the means for mounting both boards. The reason it is split in two parts is simple – easier CNC machining, although there is no problem to 3D print complex shapes, machining requires access from only one of the axes (X, Y or Z) so the milling tool can produce it from block of Perspex or Aluminium.



This part is quite complex and is not easy to describe by simple hand drawn diagram, so it is best to open the STL file in a graphics program and check specific dimensions and shape. Also it is worth noting that it has to be rotated 180 deg via the Y axis before 3D printing, as the way it is drawn is not suitable for print. Here is an example of the STL file opened in ReplicatorG.



Post printing processing

If you print it, there are a small number of operations that need to be performed before it is ready for assembly. Apart from removing excess plastic, there are ten knurled plastic inserts, M2.5x3mm to be inserted in the holes.



This could be easily done with the hot tip of the soldering iron, but please be very slow and do not use excessive force



All holes need one of those, as it is the means to attach the rest of the panels to the assembly



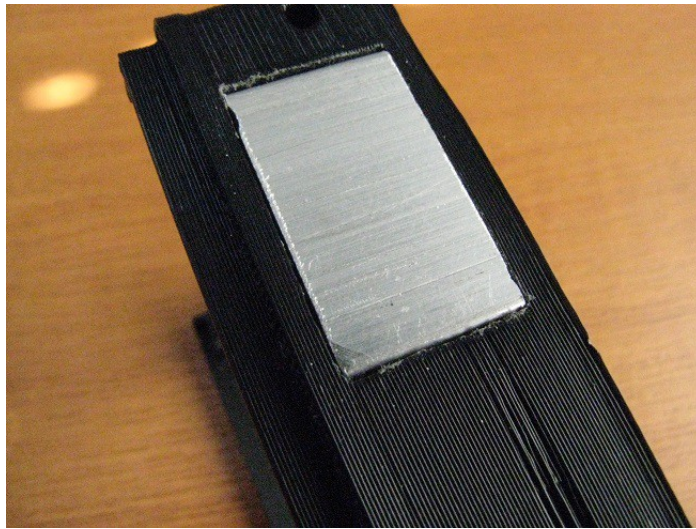
Although 5mm inserts could be used, 3mm is best as it doesn't stick out (5mm are used for PCB spacers).



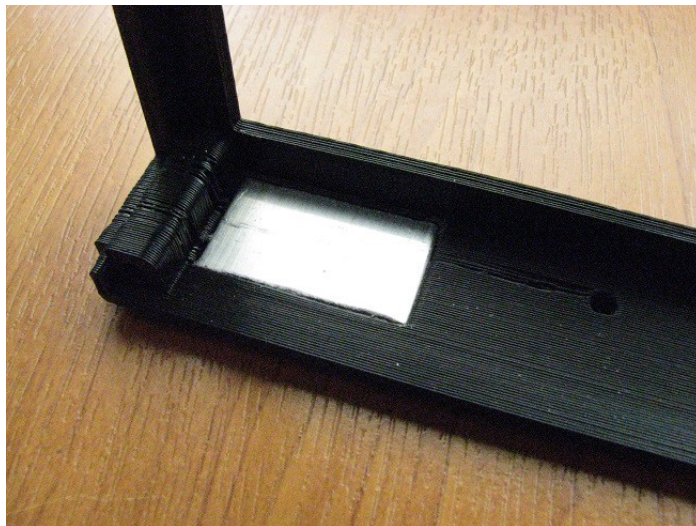
The result should look like this. If there is plastic leak into the thread canal you might have to drill carefully into the hole with 2mm drill bit.



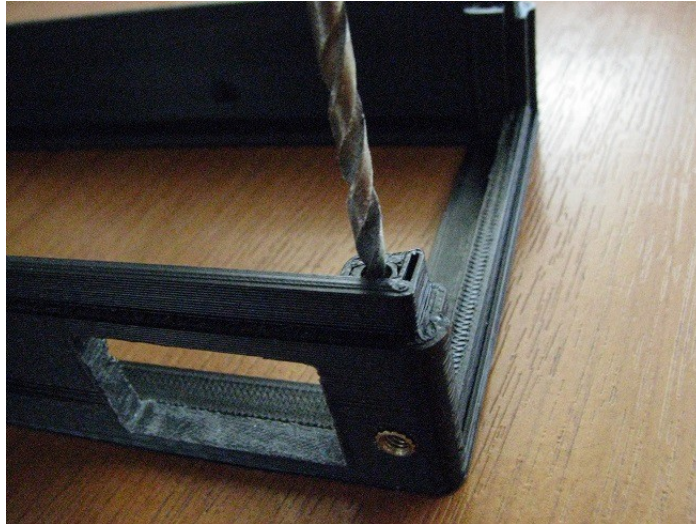
A little bit of filing would be needed on the heatsink stud pieces holes, so the aluminium studs could fit into place without splitting the plastic layers due to forcing it in.



In any case, the stud piece should perfectly align flushed with the plastic part on both sides, so it will not cause the transistors to bent from its PCB position or keep the top panel assembly offset from the support structure.



Finally it is a good idea to pre-drill the four holes on the inside of the part. Those will accept the M2.5 bolts sticking from the bottom of the RF board. Please make sure you use 2.5mm drill bit and do not drill for more than 15mm down.



73, Chris
M0NKA