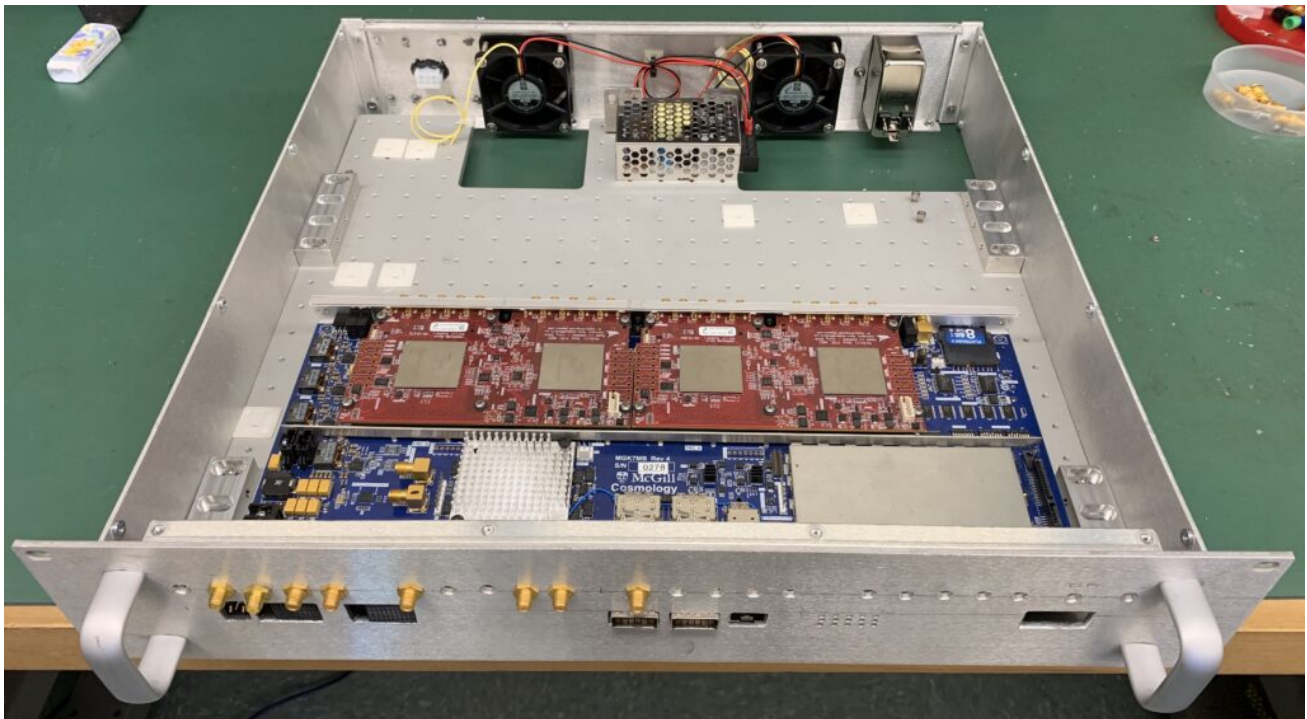
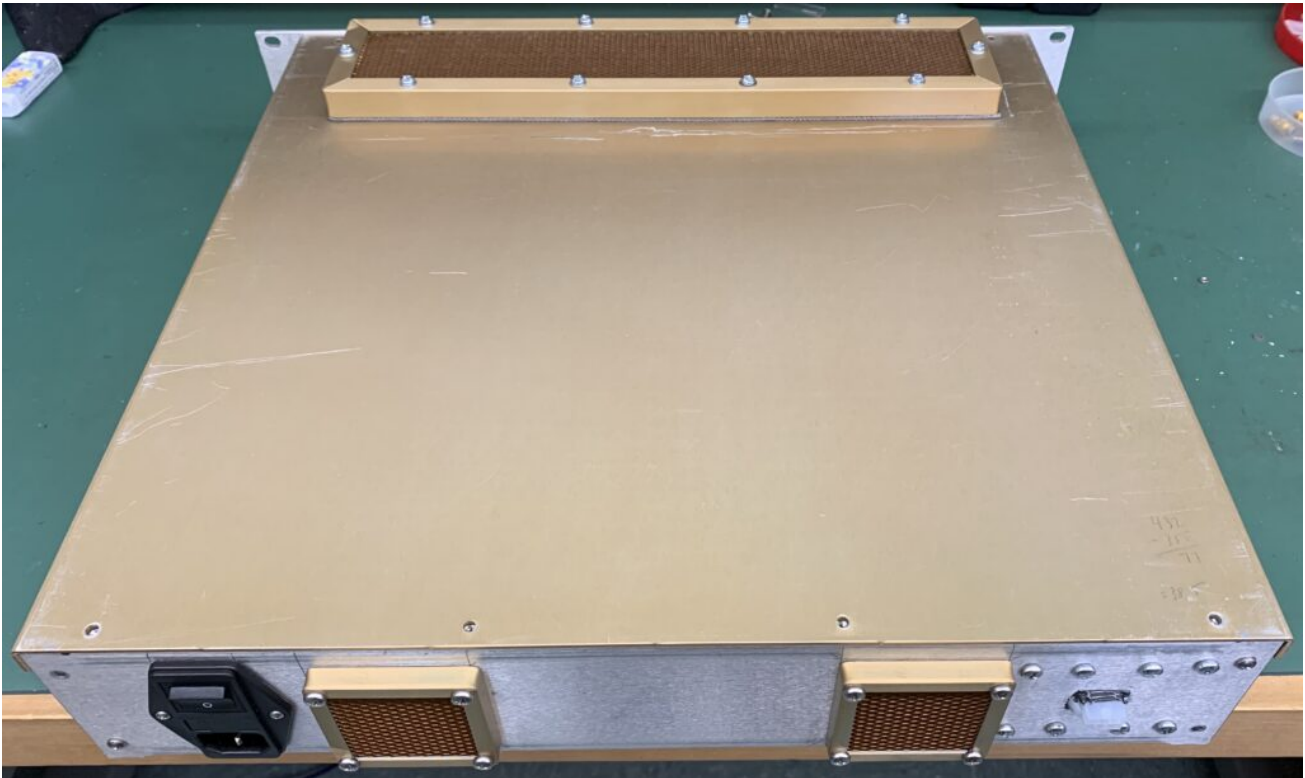


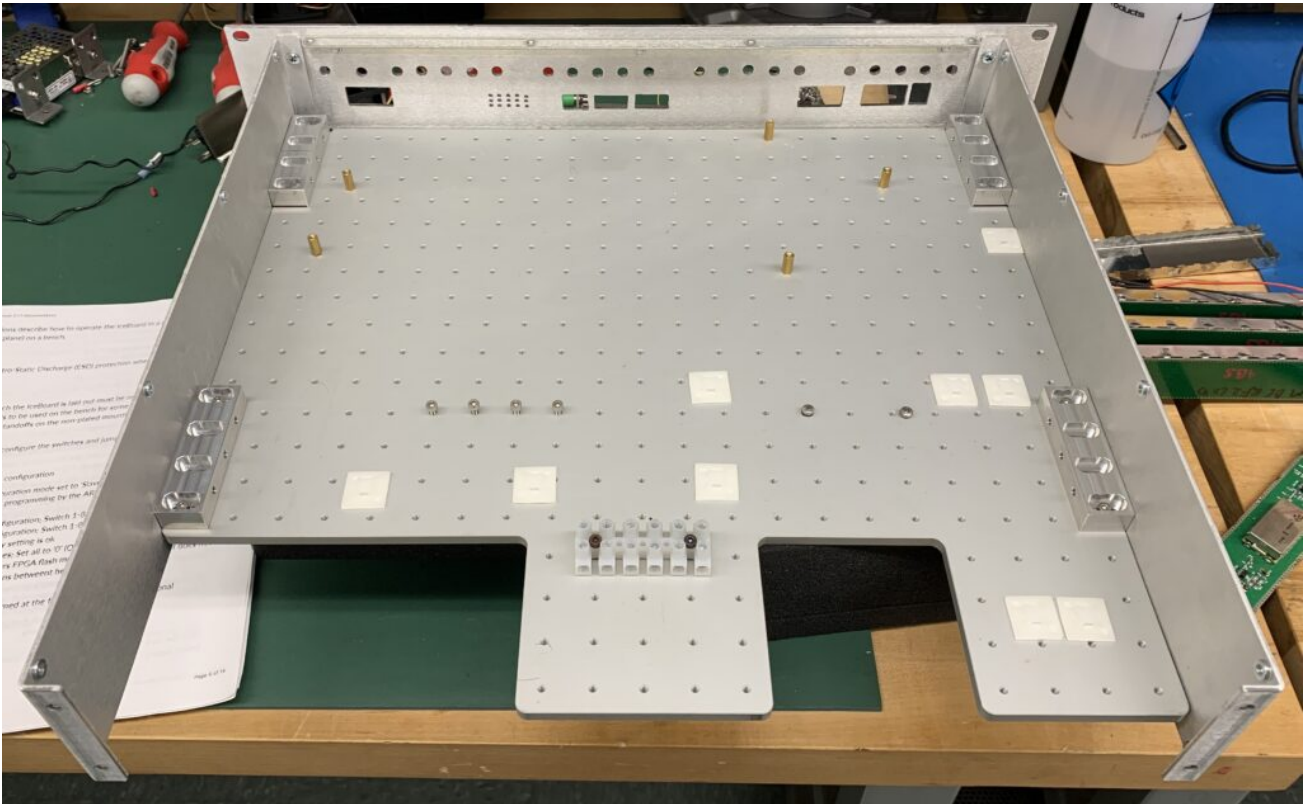
EMI Chassis for ICE Board



ICE board mounted into Par-Metal EMI chassis. This unit is force air cooled using a pair of Orion brushless 24 VDC fans that delivery 25 CFM for each. The deck plate and 4 mounting brackets were fab'd in Taiwan (left over from GLT). With the exception of AC power (120 VAC) and DC power (16 VDC), all I/O is via the front panel.



Left to right – 120 VAC input (RFI shielded), EMI honeycomb intake filters, and 16 VDC connector. note the EMI exhaust filter at the far end of the top cover.



View of universal deck plate with tapped M3 holes with 20 mm spacing. This is normally used for heat-sinking of components and for thermal stability (long time constant) but in this application is it used only for a mounting surface.

The EMI chassis is a stand 19" wide rack mount unit that is 2U high (3.5") manufactured by Par-metal. We modified the front, rear, and top cover using a drill press, jigsaw, and files. As mentioned earlier, the universal deck plate was fabricated in Taipei (ask Johnson if you want more) along with the mounting brackets. And finally the honeycomb EMI vents were purchased from DB Roberts.

We made some EMI design compromises on the rear panel with the white DC connector (should have used 9-pin D-sub) along with a number of non-shielded cutouts on the front panel meant for I/O. We plan to foil up any unused ports then conduct an EMI test.

Peter, Ryan, Derek

May 4, 2023 Derek Kubo Announcements EMI chassis, filter, honeycomb, ICE

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