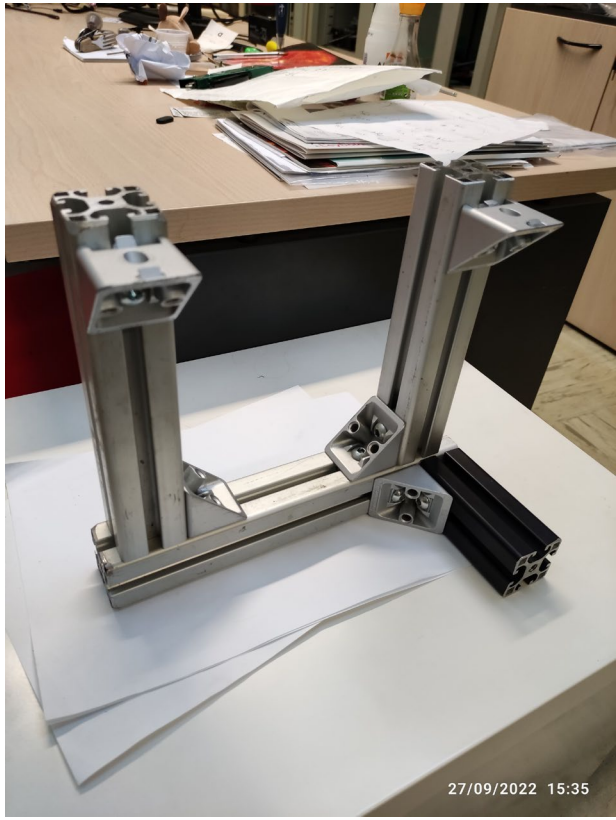
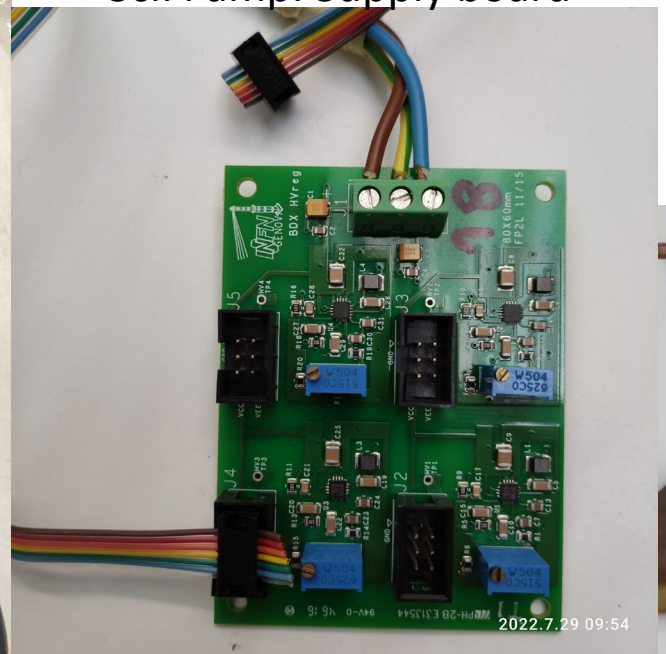
Genova preparation for CERN T10 testbeam

1. Scintillating fiber beam monitor with support, amplifier and bias PCBs
2. Cables for beam monitor: 2 twisted pairs (HV+LV), 2 Lemo (output), 2 cut Lemo for power supply +-5 V (amp-panel) + 2 Lemo + 2 Lemo-banana (panel-supply)
3. Mechanical Support for MCP
4. x4 8ch-amplifiers with Lemo LV connectors, + 4 Lemo cables (amp-panel) + 4 Lemo cables + 4 Lemo-banana (panel-supply)
5. SIS3305 5 Gs/s (2 ch) 2 GHz digitizer + cooling board
6. Waveform generator Tabor WW1281
7. ~~Windows laptop –~~ not needed anymore, Deb took windows PC

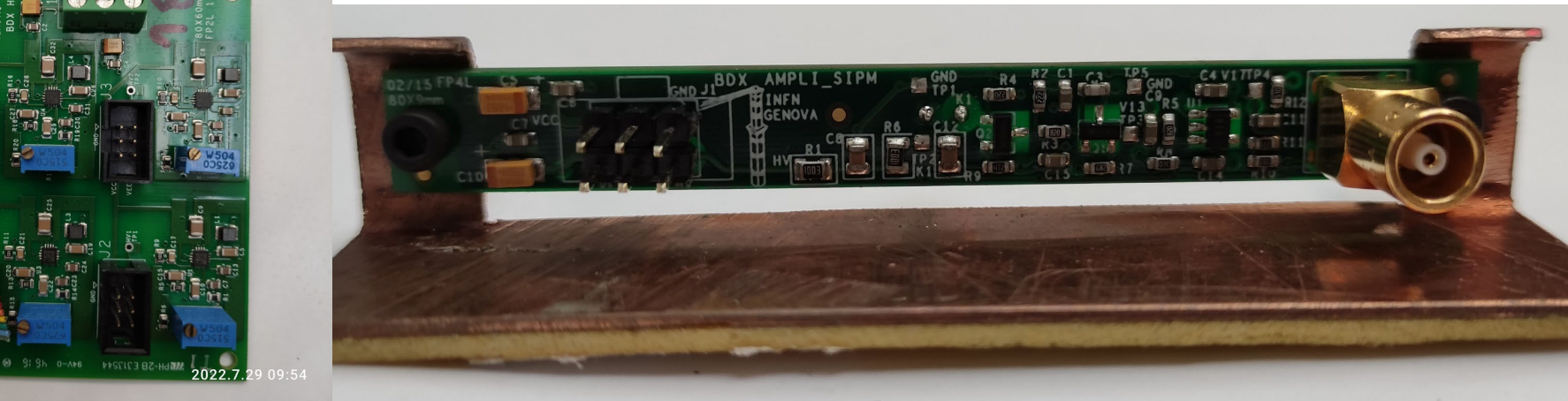


SciFi Beam monitor

SciFi amp. Supply board



SciFi amplifier



LAPPD amplifier assembly

1. PCBs were glued into aluminum cases with electrically conductive glue
2. Signal SMA connectors and LV Lemo connector mounted
3. Connectors were soldered
4. Amplifiers were tested for all 32 channels - OK
5. Measured gain around x10 (20 dB)
6. Measured noise of 0.22 mV at output (0.5 GHz BW), or 1 mV for 1 GHz BW
7. Cross talk of neighborhood channels <0.2%
8. Current consumption =410 mA (below RG174 current rating of 2 A DC, RG58 has higher rating 6 A DC)
9. Amplifier operation temperature is about 40 deg.
10. Cover must be isolated, otherwise induce signal suppression up to 30%