A Silicon Microstrip Tracker (SMT) was built for the Penetrating-particle Analyzer demonstrator, under the framework of EU H2020 FET-OPEN grant. The SMT characteristics and construction technology are described, the quality and performances of the detector will be reported.

Mini.PAN main components:
- 2 permanent magnets
- 3 silicon tracker modules
- 2 pixel detectors
- 2 TOF modules

Total dimensions: 20cm x 30cm x 20cm
Weight: max. 10kg
Total Power consumption: < 30W

SILICON MICROSTRIP MODULE
- Two Strip-X sensors with 2048 channels readout by 32 VA1140 chips on all four sides. Fine pitch of 25μm
- One Strip-Y sensor with 128 channels readout by one VATAGP7.2 chip. Readout pitch 400μm

SMT Beam Tests

SMT single module Space Qualification - Mechanical Tests