

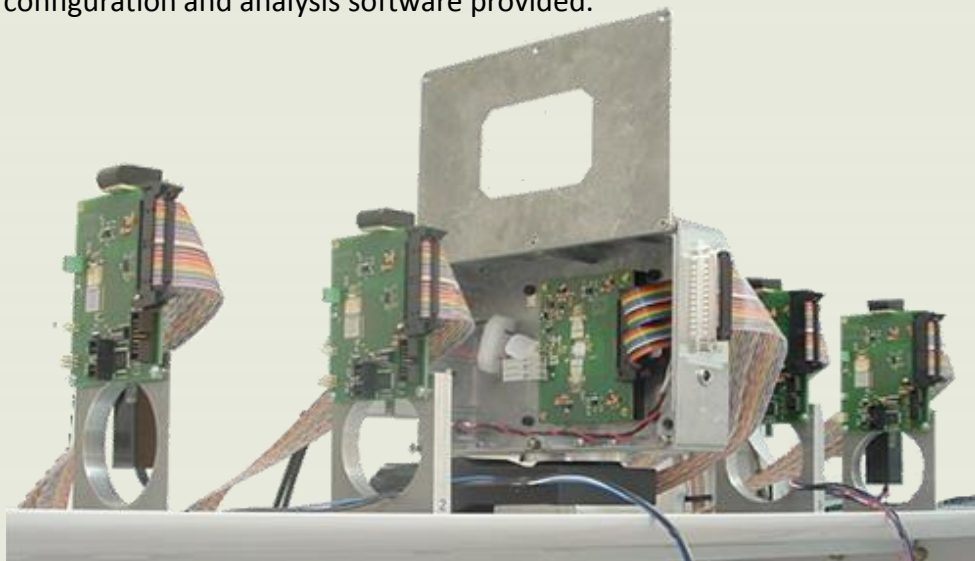


Compact Tracker Telescope

Compact tracking system for high energy particles with fine resolution.

- Up to 16 planes for positioning.
- Based on Alibava boards with synchronous readout.
- 10x10 mm² silicon microstrip detectors at each station (sizes and shapes will be adapted to the user's application).
- High trigger rate capability.

Full configuration and analysis software provided.



OVERVIEW

The **ALIBAVA Telescope** has been successfully operated at the **DESY** and **CERN-SPS** beam lines.

The telescope consists of at least three planes (stations). The stations use ALIBAVA daughter boards to take the tracking information from two 90 degrees-turned strip sensors for XY positioning. The stations act as reference frame and allow **precise track reconstruction**. Each daughter connects to an ALIBAVA mother board to process the information and they to a unique master board that synchronizes and controls the whole system. The system is triggered by two scintillators located at both ends.

Several devices can be tested simultaneously. Analysis of **charge collection, cluster width, efficiency, resolution, time profile** and other parameters of the devices under test with the software provided.

The telescope provides accurate **particle tracking and hit point projection on device under test**.

FEATURES

- Sensor: Microstrip Silicon, P-on-N silicon.
- Sensor size: 10x10 mm²
- Thickness: 300 μ m
- Read-out channels: 128
- Pitch: 80 μ m
- Spatial resolution: < 10 μ m
- Chip BEETLE (technology from CERN/LHC)
- Clock speed: 40 MHz
- Dynamic range: 4 MIP
- Synchronous external trigger. Trigger boards available.
- Analysis software for Windows, Linux, Mac.
- Station dimensions: 100x80 mm²
- Mother and Master board dimensions: 247x172x32 mm³
- Voltage supply: +5 V
- Mechanical structure and cooling available



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APPLICATIONS

Trajectory reconstruction for improved imaging.

Characterization of sensors for particle tracking.

The Telescope will be designed for the customer's specific needs. Thus, the development will be done in on-demand basis.

Alibava Systems,
EDIFICI EUREKA,
Campus UAB
08193 Bellaterra
BARCELONA (Spain)
Ph +34 932 222 777

