

BR-1022, 10.5GHz Doppler Radar System



Overview

The BR-1022 continuous wave (CW) Doppler Radar System can provide accurate data on a variety of ballistic targets such as standard projectiles, projectiles with tracer or basebleed, APDS/FSAPDS projectiles, rockets, mortars, etc. The system basically consists of a radar head, a junction box for data recording, the TestCenter Doppler Processor software and related accessories.

BR-1022 Doppler Radar Antenna

- Solid state transmitter and receiver;
- 10.5GHz transmitter frequency;
- Low noise figure receiver (< 1.8dB);
- 28 dBi antenna gain;
- Selectable 0.2W and 2W transmitter output power;
- Antenna technology based on microstrip flat panels;
- Lightweight enclosure resistant to dust, dirt and water;
- Integrated AC-DC power supply;
- Telescope included for easy alignment;
- Typical range performance: > 500m on 5.56mm;



BR-1022 Doppler Radar

JB-6e Junction box (data acquisition)

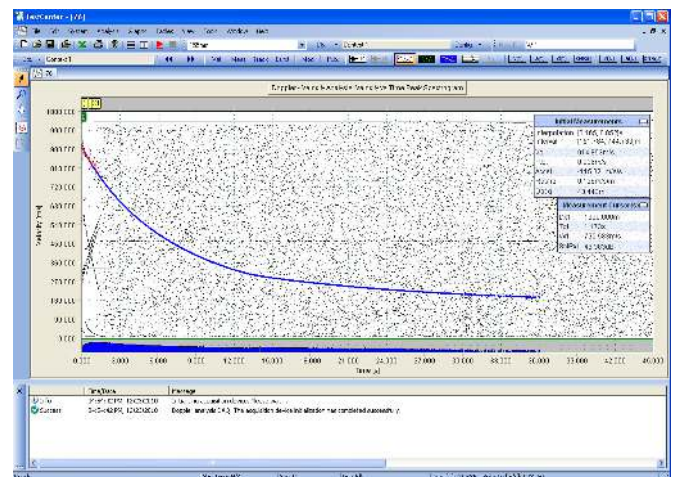
- 16 bit Analog to Digital converters with integral filtering;
- Dual antenna inputs;
- 100Mb/s Ethernet connectivity;
- Analog trigger input, TTL trigger output;
- 30 to 5000 m/s velocity acquisition;
- Virtually unlimited recording time;



JB-6e Junction Box (data acquisition)

TestCenter Doppler Processing

- Velocity analysis based on the Doppler principle;
- Range measurement using Integrated Velocity Ranging (IVR);
- Spin analysis on projectiles and rockets (optional);
- Drag analysis and trajectory prediction based on PM or MPM ballistic models (optional);
- Burst (rate-of-fire) measurement;
- In-bore measurement (optional);
- Muzzle velocity accuracy better than 0.1%;
- Velocity tracking on multiple projectiles/objects;
- Advanced report generation using Microsoft Excel;
- Runs on a standard desktop or laptop computer under Windows XP, 7 or 8;



TestCenter Doppler Processor Software

Accessories

- Optical (flash) detector or acoustic detector (trigger device);
- Cables and tripods;