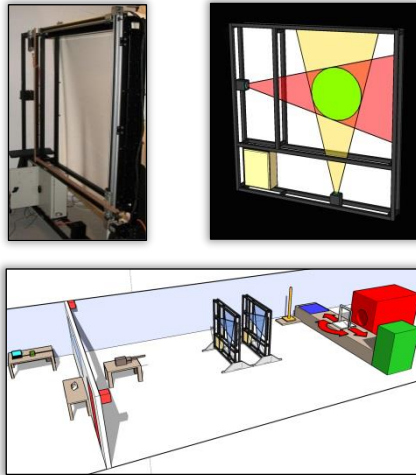




## Modern Versatility



### OPTICAL TARGET TYPE 546

The MSI Optical Target Type 546 target provides developers, testers, and manufacturers with a highly accurate and cost-effective method of checking the performance of weapons and ammunition by measuring the coordinates of shots fired under test.

MSI's Optical Targets have been designed for the rapid testing of a wide range of calibre weapons, both new and repaired. The Type 546 target is a high precision instrument with a small

detection area, which is ideal for weapons with lower dispersion patterns.

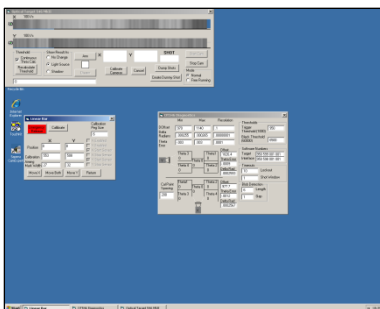
This precision electronic target replaces traditional methods of measurement, and removes all the associated problems, thus saving time, reducing error, and increasing safety.

The MSI Optical Target Type 546 is an easy piece of equipment with which to work, and makes weapons testing faster and better.

## SAVING TIME, REDUCING ERROR, AND INCREASING SAFETY

### Simple and Versatile Equipment:

- Accommodates a variety of ammunition
- Suitable for indoor and enclosed field trials
- Provides a range of possible calculations



### Accurate and Easy Data Recording:

- Instant graphical representation of data
- Results can be stored and graphically printed
- Comprehensive, user-friendly software

### Time and Effort Saving:

- Simple calibration
- Requires little maintenance
- Easily transportable



## HARDWARE

- **Rigid framework** can be easily dismantled for transportation.
- **Two industrial line scan cameras** are mounted at known angles to each other on the framework.
- **Each camera views a linear light source** and when a projectile enters the field of view of the cameras, it causes a change in light intensity that is detected by the cameras.
- **Industrial PC** is also fitted to the frame, and controls the cameras.
- **X and Y positions of the projectile** are related to the change in light intensity, which is then processed and converted in to true XY-coordinates by software running on the industrial PC.
- **Small LCD display** allows the user to quickly monitor the status of the target, and also helps the user to calibrate the target in a few easy steps.
- **Simple calibration device** allows regular absolute checking of the target performance, and is removed for firing.
- **Step-by-step instructions** guide the user through the calibration procedure.

## SOFTWARE

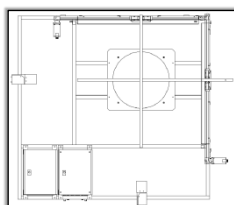
- **Target interfaces** with a modern PC with our software, Ballistics DB, installed.
- **Ballistics DB** offers the user a range of statistical calculations on trial results, and allows for full control of the target's operation.
- **Data is transmitted** from the Optical Target as a serial data stream, after being stored locally.
- **Communication** is established using either radio or cable link.

## SPECIFICATION

POWER/COMMS	
Power	110 or 230 VAC $\pm 10\%$ (50/60Hz, 300VA)
Communication	Radio link or cable link (RS232/RS485)
Output Data	True XY Cartesian coordinate data in ASCII code
HIT SENSING	
Projectile Velocity	10 – 2000 m/s
Hit Frequency	Up to 15000 rpm
Active Target Area	600mm diameter circle 1 x 1m, 1.5m x 1.5m and 2m x 2m
Calibre Type	4.5 – 50 mm

Measurement Accuracy	Up to $\pm 0.5\text{mm}$
ENVIRONMENT	
Operating Temperature	$-10^{\circ}\text{C} - +60^{\circ}\text{C}$ [ $+14^{\circ}\text{F} - +122^{\circ}\text{F}$ ]
DIMENSIONS	
L x W x (H range)	Standard: 790mm x 1720mm x (1925 – 2175)mm [31.1in x 67.7in x (75.8 – 85.6)in]

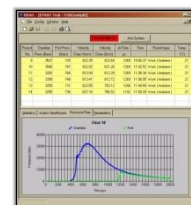
## USED WITH



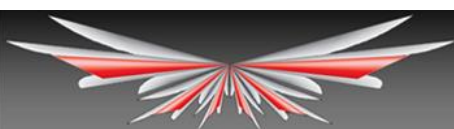
*Moving Aiming Mark Type 546-190*



*Universal Receiver Type 681-700*



*Ballistics DB Control Software Type 950-571*



## MS INSTRUMENTS Range Consultancy

*Precision, Expertise, Quality*

- Professional Bespoke Range Designs
- State-of-the-Art Product Rendering
- Only the Latest Standards



### MS Instruments Ltd.

Unit 4, Ravensquay Business Centre, Cray Avenue  
Orpington, Kent, BR5 4BQ, United Kingdom  
Tel: +44 (0)1689 883 020

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msi-sales@msinstruments.co.uk  
www.msinstruments.co.uk

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