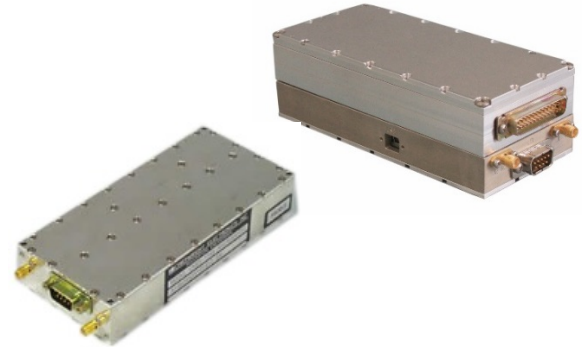


## DATA SHEET

# ProTrak Scoring System

## Projectile tracking



### 01 Description

Meggitt Defense Systems' ProTrak provides a cost effective solution for projectile tracking and scoring requirements.

The ProTrak product line is a highly flexible projectile tracking system that can be configured via the use of modular hardware and embedded software for a wide variety of air-to-air, surface-to-air and air-to-surface projectile tracking applications. It can be used for applications such as bullet counting, scalar miss distance indication (MDI), sector scoring or vector scoring. The radar scorer can be programmed based on customer requirements for any dead zone or scoring volume in excess of 40 meters.

In its baseline radar configuration, the ProTrak target set is a small ultra-lightweight, low-cost scorer consisting of one RF module, a telemetry transmitter, radar and telemetry antennas along with associated cabling. This configuration, when paired with a suitable remote processing station such as our GSQ-109 or GSQ-110, provides scalar miss distance scoring for supersonic as well as subsonic rounds of all types. P or L band telemetry is available.

Another variant of the radar configuration includes a ProTrak Digital Signal Processor (DSP) which can be directly mated to the RF module. In this configuration it is possible to determine the miss distance of fused weapons within the selected scoring volume even when the projectile does not pass the target as often occurs with a detonating warhead weapon. Use of the ProTrak DSP module permits additional system options such as on-target scoring and low band width data link configurations. Additional, non radar, sensors can be integrated with the DSP module for special customer requirements. Contact Meggitt Defense Systems for more information regarding system configuration options.

### 02 Key features and benefits

- Operates on airborne, ground or surface target platforms
- Compatible with reduced size tow target requirements
- Programmable scoring range to 40 m (131.2 ft)
- Operating frequency 3245 MHz
- Relative velocity 244 to 1829 m/s (800 to 6000 ft/s)
- Multiple drone capability

### 03 Applications

- Projectile tracking for training and evaluation missions

### 04 Contact

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**DATA SHEET**

**ProTrak Scoring System, Projectile tracking**

**05 Specifications**

Performance

<b>Weapon types</b>	missiles and projectiles (5.56 mm and larger)
<b>System configurations</b>	scalar, sector or vector (Contact MDSI)
<b>Scoring range</b>	0-40 m (0-131.2 ft) Max range depends on projectile size

**Accuracy**

<b>Range</b>	10% of range 1% of velocity
<b>Closing velocity</b>	244-1829 m/s (800-6000 ft/s)

**Closing velocity range**

Electrical Characteristics

<b>Radar operating mode</b>	pulsed doppler, non-cooperative
<b>Operating frequency</b>	3245 MHz
<b>Power (peak pulse)</b>	1 watt
<b>Pulse repetition frequency</b>	Up to 5MHz (configurable)

**Telemetry**

<b>Power</b>	5 watts
<b>Modulation</b>	
<b>RF module only</b>	analog FM
<b>RF + DSP modules</b>	analog FM or PCM

**Frequency**

<b>RF module only</b>	P band
<b>RF + DSP modules</b>	P, L or S band

**Input voltage** 12-32 vdc

**Power dissipation** 14 watts

**RF module only** 28 watts

**RF + DSP modules**

**Mechanical** RF module: 0.5 kg (16.9 oz)

**Weight** DSP module: 0.5 kg (16.9 oz)

**Length** RF module: 16.3 cm (6.375 in)

DSP module: 16.3 cm (6.375 in)

**Width** RF module: 7 cm (2.75 in)

DSP module: 7 cm (2.75 in)

**Height** RF module: 2.9 cm (1.16 in)

DSP module: 2.9 cm (1.16 in)