BAE SYSTEMS

Ka-Band monopulse tracking system

# Compact Tracking Radar (CTR-4850-KA)

baesystems.com

The Compact Tracking Radar (CTR) is a Ka-Band monopulse tracking system designed to be installed on existing electro-optical tracking mounts similar to the KTM and MPS-2000/3000 series mounts.

The CTR not only provides a single station TSPI solution for optical mounts but also provides significant enhancements in mission support capability. Enhancements, such as greater range coverage, tracking in poor visibility and provision of Doppler data (Coherent-On-Receive) on one or multiple targets in the beam will increase the versatility, capability, and usefulness of your optical platform and range instrumentation capabilities.

**Accuracy** (for a 12 dB or greater signal-to-noise target excluding the effects of glint, scintillation, multipath and target induced errors)

Angles (Azimuth and Elevation): 0.1 mil 1 SIGMA

Range: 1.0 meters 1 SIGMA

**Maximum Tracking Range:** (Skin) on a 1m2 target @ 12 dB S/N in 0.15 microsecond µsec pulse width: 34 Kilometers, excluding atmospheric attenuation

**A-Scope:**

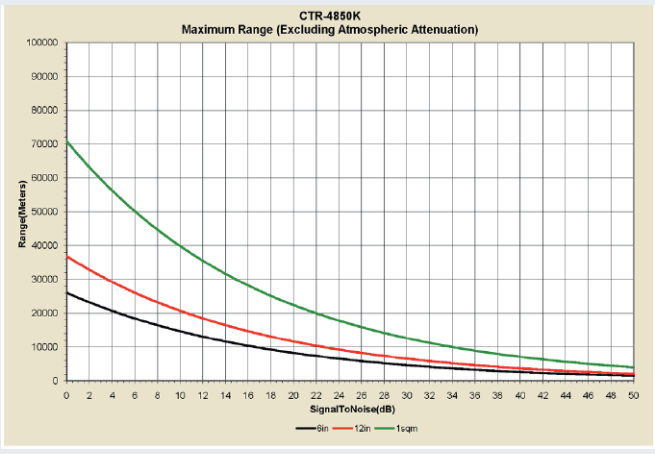
**Type:** Color A-Scope display on standard RGB monitor. Composite video output for recording on a standard VCR

**Range Traces:** 4 range traces, two full PRF and two moving expanded traces

**Alphanumeric Overlay:** 4 lines of 28 characters each for programmed alphanumeric presentation

## Key Features

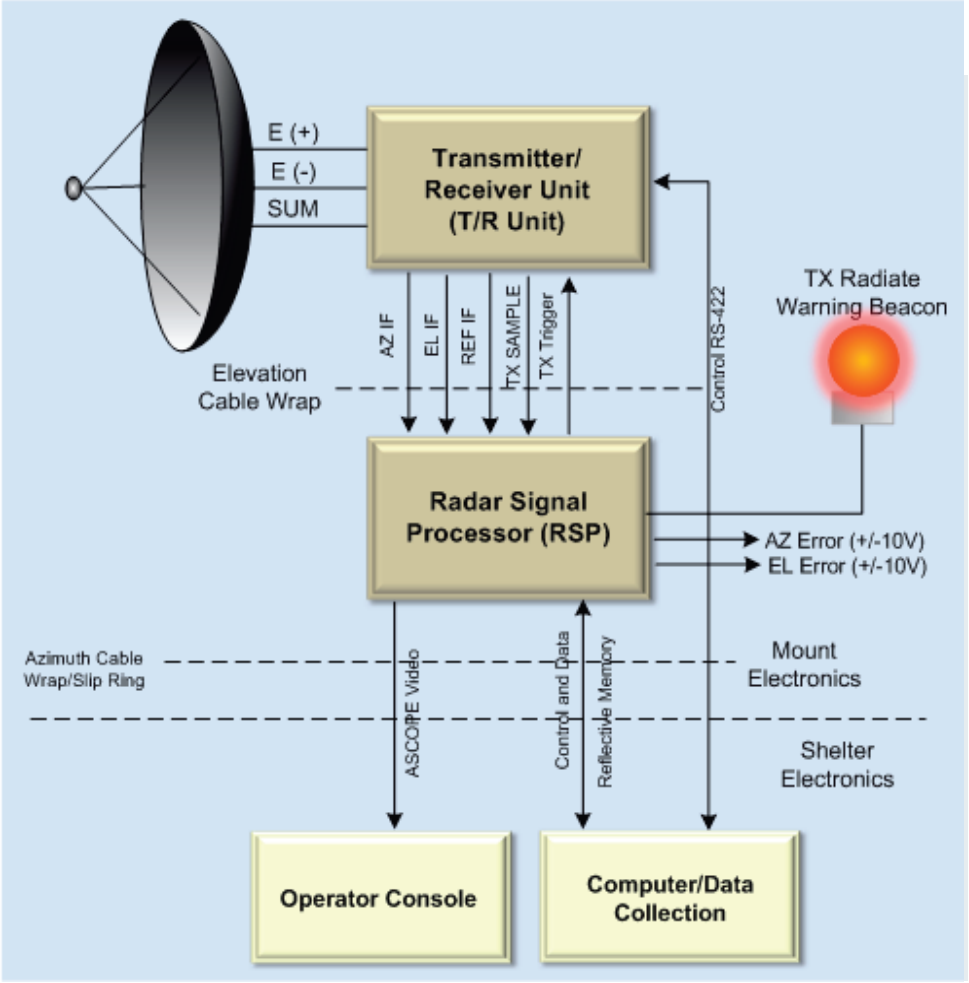
- Radar angle/range solution for your OTM
- Coherent processing
- Compact design
- Remotely controlled



BAE SYSTEMS

## Typical System Configuration

Angle Precision: 0.1 mil 1 SIGMA
Range Precision: 1.0 meter 1 SIGMA
Max Range: 75km
Frequency : 34.0, -34.4 GHz
Transmitter Power: 50 kilowatts peak at output of magnetron
Antenna Size: 1.0 meter
Antenna Beamwidth: 0.6 degrees
PRF: 2000
Pulse Width: 0.150µs
Clutter Rejection: 30dB




## Integrating the CTR modification involves installing four major elements into the existing system:

- Antenna: Monopulse, Cassegrain fed, 1.0 meter diameter
- Transmitter/Receiver Unit (T/R Unit): Incorporates the transmitter, microwave receiver and local oscillator synthesizer into a single environmental, controlled chassis.
- Radar Signal Processor: Provides all IF receiver and range tracking functions within a single 19-inch rack mounted VME enclosure.
- Operator Console: Consists of an industrial grade computer, flat panel touchscreen, and joystick mounted into a single 19˝ rack mountable chassis. (May be remotely located over extended distances)


BAE Systems, Inc.
Intelligence & Security

For more information contact
jeremy.jeffery@baesystems.com