

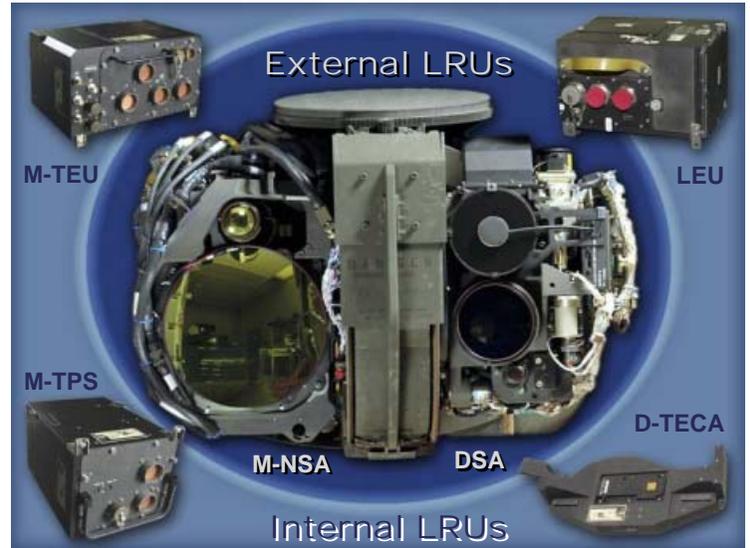
Modernized TADS



Date Revised: 29 JAN 04

VENDOR DESCRIPTION

The Modernized Target Acquisition Designation Sight (M-TADS) is an upgrade to the legacy TADS targeting system that has been in service on the Apache helicopter since 1981. This modernized system includes a night side assembly containing the targeting FLIR. It also has a day side assembly containing the LRF/D, the day targeting CCD camera, and a laser spot tracker. The FLIR is an 8.0" aperture, 3-FOV long-wave scanning IR system that uses the US Army NVL's 4x480 SADA I (TDI) IDCA. The FLIR sensor contains a FLIR receiver LRM that is common to both Apache and Comanche EO targeting systems and could be used separately on smaller turrets. The sensors are mounted on a stabilized 2-axis gimbal assembly. The power supply and electronics are separate line-replaceable units (LRUs) that mount internally to the air vehicle.



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Business Category: Large Business

EOIR

Hardware		Gimbal Mount
Power: 815 watts DC and 1800 watts AC	Operating Temp.: -31°C to +55°C	Height: 20 in. Weight: 97 lbs
Weight: Internal 65 lbs; External 130 lbs *	Storage Temp.: -55°C to +71°C	Stabilization: Classified
Dimensions: *	Control Interface: 1553/Discretes	Pointing Accuracy: Classified
Internal Volume: *	TCDL Compatibility: Yes	Angular Speed: See Slew Rate, below
Cooling: Ambient & forced air	MTBF: (System) 310 operating hrs	Azimuth Coverage: ±120°
LOS Stabilization: Classified	MTTR: 0.5 hrs	Elevation Coverage: +30°/-60°
Auto Video Tracker: 1 Primary, 5 Secondary	Maintainability: 2-Level, BIT to LRM Level	Slew Rate Azimuth: 60°/sec
Operating Altitude: 0 to 14,000 ft AGL	Pd: Classified	Slew Rate Elevation: 55°/sec
Operating Speed: 0 to 200 kts	Pr: Classified	TLA: Classified
*See details on page 2		ATC or ATR: Full ATR provisions

Electro-Optical (EO)	Infrared (IR)
Type: CCD Day Targeting Camera	Type: HgCdTe 4 x 480 Scanning TDI
Resolution: Classified	Resolution: Classified
Range: Classified	Range: Classified
Angular Coverage: 2.4° x 3.2° FOV	Angular Coverage: 30 x 40 FOV
Zoom Rate: N/A; Zoom mode is electronic, not continuous	Cooling Method: 1.5 Watt Cryo Cooler
Modes of Operation: View, Track (Manual & Auto) & Designate	Modes of Operation: View, Track (Manual & Auto)
Target Size: APC	Target Size: APC
Field of View: 54° x .72° (N); 2.4° x 3.2° (W)	WFOV: 30° x 40°
Sensitivity: Classified	MFOV: 5.5° x 7.3°
Color or B/W: B/W	NFOV: 1.5° x 2.0°

DETAILED DIMENSIONS

■ LRUs Internal to A/V:

- M-TEU = 12.55" x 7" x 12.5"; Wt = 19.9 lbs
- M-TPS = 8" x 7" 13"; Wt = 18.5 lbs
- D-TECA (Servo Drive Elec) = x y z; Wt = 6 lbs
- Laser Elec Unit = 7" x 11.5" x 8.5"; Wt = 18.7 lbs

■ External/Gimbal-Mounted LRUs

- Gimbal = 20" high x 29" wide (both sensors mounted) and ~18.5" deep; Gimbal/Centerpost Wt = 97 lbs
- Each sensor turret ~18" diameter x 11" deep
- Day Sensor (Incl. Laser, LST, and Day TV) = 62 lbs
- Night Sensor (FLIR) = 62 lbs