

# Star SAFIRE III AN/AAQ-22



Date Revised: 29 JAN 04

## VENDOR DESCRIPTION

The FLIR Systems, Inc. AN/AAQ-22 Star SAFIRE III is the latest version of FLIR Systems' AN/AAQ-22 series of thermal imaging systems, the most widely used gimballed FLIRs in the world. The Star SAFIRE III is an advanced multi-sensor thermal imaging system built to perform reconnaissance, search and rescue (SAR), navigation, border security, drug interdiction, maritime patrol, and law enforcement missions.

- Third-generation 640 x 480 InSb Focal Plane Array thermal imaging detector with microscanning – the best resolution available
- Very long range four Field-of-View (FOV) infrared telescope
- Autofocus in all IR and CCD channels
- 5-axis stabilized thermal imaging from a 3-axis gyro-stabilized 15" Turret FLIR Unit (TFU)
- Multiple payloads for mission-specific configuration, including Color zoom camera, image intensification (I2), 3-CCD and 3 FOV spotter scope, laser pointer, laser rangefinder and CALI laser illuminator (see below)
- Hermetically sealed TFU qualified to 55,000 feet and 405K IAS
- MIL-STD-810 and MIL-STD-461 qualified



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Business Category: Small Business

EOIR

Hardware – Central Electronic Unit (CEU)		Gimbal
RF Frequency: Ku-Band – N/A	Operating Temp.: -40°C to +55°C	Height: 1.46 ft    Weight: 44.5 kg
Power: 28VDC per MIL-STD-704D, 360 W maximum steady state	Storage Temp.: -55°C to +71°C	Stabilization: Proprietary
Weight: 29 lbs max.	Interface: RS-232, RS-422, & MIL-STD 1553	Pointing Accuracy: Proprietary
Dimensions: 194.3mm x 258.1mm x 320mm	Bandwidth Required: N/A	Angular Speed: N/A
Internal Volume: 0.54 ft <sup>3</sup>	TCDL Compatibility – Yes (1553, RS-422, RS-232, ARINC 429, additional interface capabilities available upon request)	Azimuth Coverage: 360° continuous
Cooling: Ambient air	MTBF: > 1500 hrs	Elevation Coverage: +30° - 120°
LOS Stabilization: N/A	MTTR: N/A (0.5 hrs to replace any component)	Slew Rate Azimuth: 0-60°/sec.
Auto Video Tracker: Yes	Maintainability: BIT @ O Level to Depot level	Slew Rate Elev: 0-60°/sec.
Operating Altitude: To 55,000' MSL	Pd: N/A	TLE: N/A
Operating Speed: 0 to 405 knots	Pr: N/A	ATC or ATR or ATI: ½ ATR

Electro-Optical (EO)	Infrared (IR)	Laser Pointer
Type: 1-chip CCD	Type: MWIR 3-5 InSb / Staring Array	Classification: IIIb
Resolution: 460 lines (H)	Resolution: 640x480 (microscanned to 1280x480)	Wavelength: 820-850 nm
Range: 26.5 km	Range: 26.3 km (APC target @ .82 trans, 50% POD)	Power: 100 mW
Zoom Rate: Fixed	Cooling Method: Closed cycle	Laser Rangefinder
Modes of Operation: Normal & Low-Light	Modes of Operation: Manual Gain, Auto Gain, Enhanced Gain, Inertial Point, Auto Track	Classification: 1 (Eyesafe)
Target Size: APC	Target Size: APC	Wavelength: 1.54 µm
Field of View: 0.4°(H) Wide – 0.3°(V) Narrow	WFOV: 25° H X 19° V	Max. Range: 20 km
Sensitivity: 4.5 lux @ f/1.2	MFOV: 5.7° H X 4.3° V	Laser Illuminator (CALI)
Color or B/W: Color	NFOV: 1.4° H X 1.0° V	Classification: 4
	SNFOV: 0.7° H X 0.5° V	Wavelength: 810 nm
		Power: 1.6 W