

# NVTS DVE AN/VAS-5B(V)2

## Thermal Driver Vision System

The NVTS DVE provides enhanced situational awareness in adverse weather, at night time and in battle-field operations. The DVE's low profile yoke positioner remotely operates using a joystick controller design for vehicles with Driver's Vision Enhancer (DVE) programs.

Drivers and crew are provided enhanced high resolution wide angle thermal vision allowing better vehicle mobility and increased safety. The Patriot DVE controls are manually accessed from the High Resolution Display Control Module (DCM-1) and NV-448 Controller.

NVTS DVEs are military hardened for in-theatre operations and withstand pressure change, extreme temperatures, exposure to solar radiation, humidity, dust, sand penetration, military ground shock vibration and water submersion.



### Features:

- High Resolution 640 x 480 Advanced UFPA Ultra Crisp Thermal Resolution
- Drop-in Replacement Kits for Existing Vehicles
- Simple Control of Polarity, Gain, Brightness and Sensor Selection
- Rapid Automatic "Return to Home" Function
- Certified to Military Environmental Test Criteria
- Mil-Spec Connectors
- Tough Metal Housing and Gearing for Durability in Harsh Environments
- Includes DCM-1 Adjustable Monitor Mounting Bracket

### Ruggedized Display DCM-1

Simple control of thermal polarity, gain, brightness and camera selection. Design is compliant with government issued performance specifications, and provides backward compatibility with legacy DVE system configurations (cables, sensors and adjustable angle folding mounting bracket)



# NVTS DVE AN/VAS-5B(V)2 Product Specifications



## Physical

Operating Voltage Range	16 – 32 VDC (24VDC nominal) MIL-STD-1275
Total Power	90 Watts (max) (motor / heater shared current) Standby power: < 0.200A at 24VDC (no heater current)
Pan-Axis Range	180°
Pan-Axis Speed (deg/sec)	35, centering @ 45
Tilt-Axis Range	70° (+30°/-25°)
Tilt-Axis Speed (deg/sec)	35, centering @ 45
Internal Heater	Included standard, Thermostatically controlled (32° on/35° off)
Operating Temperature	Without Heater: -15° C to 55° C (5° F to 131° F) With Heater: -30° C to 55° C (-22° F to 131° F)
Rotational Limits	Fixed tilt hard limit, adjustable soft limits on both axes
Feedback	Magnetic Encoders (0.044° readout)
Repeatability	0.25°
Materials Housing	6061-T6 Aluminum, stainless steel hardware, permanently sealed radial ball bearings
Finish/Color	PTU: Powder coat paint over alodined chromate
PTU/ Thermal Camera	Camera: Hard Coat Anodized Colors available upon request
Weight	16.6 lbs (7.53kg)
Dimensions	H: 9.62" (244.4mm) W: 8.84" (224.5mm) D: 5.78" (146.7mm)

## Environmental

Operational Altitude	Sea Level to 15,000 ft
Ambient Pressure Change	15,000 ft to 40,000 ft for 15 sec or less
Operational Temperatures	-37°C to 49°C (-35°F to 120°F)
Rapid Temperature Range	From 71°C to -46°C (159°F to -51°F) and from -46°C to 71°C (-51°F to 159° F)
Solar Radiation	Up to 1,120 Watts/m2
Transportation and Functional Vibration	Military Ground Levels
Shock Threshold	Functional, Weapon Firing, Transportation, Crash Safety and Ballistic

## Thermal Camera

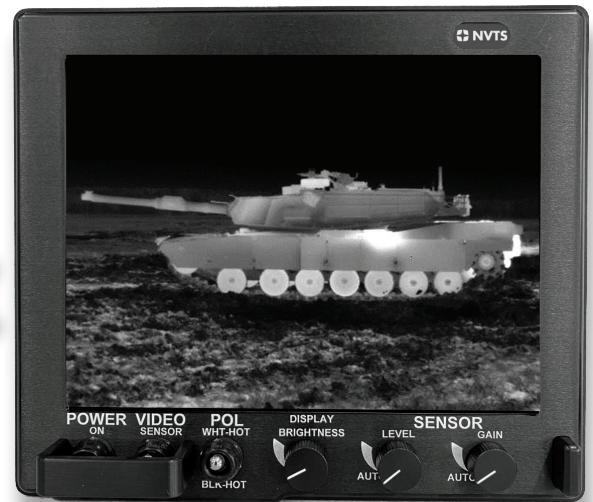
IR Detector:	640 x 512 LWIR
Frame Rate:	30hz
Spectral Band:	7.5µm-13.5µm
HFOV:	50° (FOV options available)
IR Image Polarity:	Manual White Hot/Black Hot Polarity Control via DCM Switch
Gain:	Manual via DCM Control
Focus:	Athermalized, Focus-Free, 5m to Infinity

## Controller

- Controller Module, Joystick Control, with Relay Activation.
- On/Off Switch Provides Power to the Pan/Tilt Power Relay
- Joystick with "Deadman Switch" Button
- Separate Return to Home Button
- Set Center Position Capability
- 8.99"L x 4.76"W x 2.04"H (228 x 121 x 52mm)
- Cables included



**NV-448 Controller**



**DCM-1 Display**

This product is controlled under the International Traffic in Arms Regulations (ITAR). This product cannot be exported without first complying with all the requirements of the ITAR (22 CFR 120-130), USML Category XII ©, including requirements for obtaining specific export authority from the United States Department of State.



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