

Overview – ATRI

ATRI designs and develops a range of Thermal Driver Viewer Enhancement (DVE) solutions used to increase safety, performance and situational awareness when operating vehicles during periods of limited visibility. With offices in Europe (Lithuania) and the United States, ATRI can provide products and supporting services in either region.

The application for our solutions include wheeled and tracked vehicles used for security, border and defense purposes. ATRI DVE systems come in three primary configurations:

- Basic DVE – ATIC Series
- Standard DVE – ADSC-90 Series
- AN-VAS-5B(V)2 Series

System Overview:

The VAS-5B(V)2 is an integration of the following systems to create a seamless, high performing driver viewer solution.

Thermal Imaging Camera

High performance 640 x 480, 17 um uncooled long-wave IR camera with 90° FOV (H) standard (other FOV Options on request). The 60Hz frame rate and low thermal sensitivity make the TIC ideal for driver applications.

Rugged Display

The Display Control Monitor provides clear and precise thermal imagery, presenting information under rugged (shock and vibration) and harsh weather conditions (rain, sand, dust or smoke). The DCM design is compliant to government-issued performance specification MIL-PRF-49256D and ICD A3325865, providing backwards compatibility with legacy DVE system configurations (cables, sensors and mounting).

Electronic Pan & Tilt Unit

Lightweight, low-profile positioner designed to remotely operate thermal and/or visible cameras mounted on vehicles for Driver’s Vision Enhancer (DVE) applications. Highly durable and reliable in harsh environments. The unit is certified to withstand pressure change, extreme temperatures, exposure to solar radiation, humidity, dust and sand penetration, military ground shock and vibration levels.



ATRI TINDS DVE Increases Survivability and Mobility



DVE Sensor Module: ATIC Thermal Imaging Camera

IR Detector	640 x 480, LWIR
Detector Type	Uncooled VOx Microbolometer
Pixel Pitch	17 micron
Frame Rate	60 Hz
Spectral Band	7.5 – 13.5 micron
Thermal Sensitivity	≤ 30mK
Focal Length	7.5 mm / F1.2
Field of View	90° (H) x 69° (V) NOTE: Other FOV Available
Video Output	NTSC / PAL
Video Color	Black-Hot / White-Hot / Green-Hot
Digital Zoom	Up to 8X
Size (H x W x D)	78 x 80 x 118 (mm)
Weight	0.63 kg
Video Output Format	CVBS, NTSC / PAL

Display Control Module (DCM):

Display	10.4" TFT AMLCD; SVGA (800 x 600)
Viewing Angle	160° (H) x 160° (V)
Housing	Milled Aluminum; Black Hard Anodized
DC Power Input	10 – 36 VDC (12, 24, 28 VDC Nominal)
Power Consumption	30W Maximum
Temperature	Operating: -40°C to 71°C Storage: -51°C to 71°C
NOTE:	See DCM Datasheet for full specifications

Electronic Component Assembly: DVE Positioner

Range	Pan: 180°; Tilt: -25° to +30°
Speed	35° per second
Housing	6061-T6 Aluminum; Stainless steel connectors
Weight	16.8 lb (7.6 kg)
Size	Inches: 9.6 (H) x 8.9 (W) x 5.8 (D) Centimeters: 24.4 (H) x 22.6 (W) x 14.7 (D)
DC Power Input	10 – 32 VDC (24 VDC Nominal)
Power Consumption	90W Maximum




Environmental Specifications:

High Temperature	Operating: 60°C; Storage: 71°C
Low Temperature	Operating: -40°C; Storage: -55°C
Rain	Rate: 1.7 mm/min (4 in/hr)
Humidity	95% Relative Humidity at 60°C
Salt / Fog	Method 509.5 (5% Salt, ± 1%)
Vibration	5-5000 Hz, 2.0 Grms
Functional Shock	10G, 11ms duration
IP Rating	IP67 (Dust Tight / Water 1m for 30 minutes)

Other Specifications

Power	10– 36 VDC
Power Consumption	ATIC: 3W standard, 10W with heater

Standard Components – Included

DVE Sensor Module	
Display Control Module	
Electronics Component Assembly Includes Joystick controller	
Bracket Assembly	Based on vehicle type and installation location.

