SEE FIRST, UNDERSTAND FIRST, ACT FIRST AND FINISH DECISIVELY WITH ESA
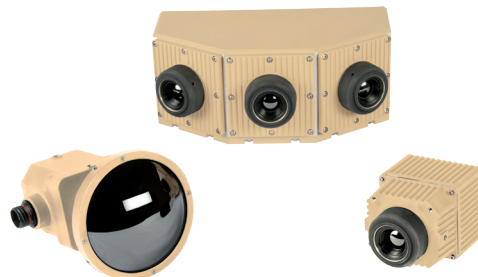
ENHANCED SITUATIONAL AWARENESS

Leonardo DRS' ESA system **improves survivability and mission capability** by providing users with enhanced coverage. DRS' Driver's Vision Enhancer (DVE) Wide camera module is at the heart of the ESA system. Featuring three 17-micron uncooled infrared cameras, it **outputs a stitched 107° x 30° field of view** video where each of the three internal and up to three external camera videos can be individually selected by the user.

The driver can electronically pan through the 107° total horizontal field of view the new camera provides. This unique capability allows the driver to **see the road edges** on both sides. The incorporated vehicle wheel track indicators aid the driver in clearly identifying any potential impediments to safe operation, whether driving forward or in reverse.

Currently fielded DVE systems can be **easily upgraded to an ESA system**, with its simple, drop-in replacement design. Any vehicle currently equipped with a DVE system can be readily upgraded to a DVE Wide in the field, without altering the system's current configuration. By using the existing Display Control Module (DCM), the user can avoid costly and time-consuming DCM upgrades and installation. DRS' ESA system **increases survivability**, **mobility**, **force protection**, and **safety** to **turn situational awareness into situational advantage**.

LEONARDO DRS

ENHANCED SITUATIONAL AWARENESS (ESA)

FOCAL PLANE ARRAY

COMPONENT	DVE ULTRALITE	DVE WIDE	DVE ULTRAWIDE
Detector Type	640 x 480	640 x 480	640 x 480
Detector Pitch	17 µm	17 µm	17 µm

OPTICS

Field Of View (FOV)	40° x 30°	3X 40° x 30° FOVs, electronically stitched to provide seamless 107° x 30° video	114° x 98°

PHYSICAL

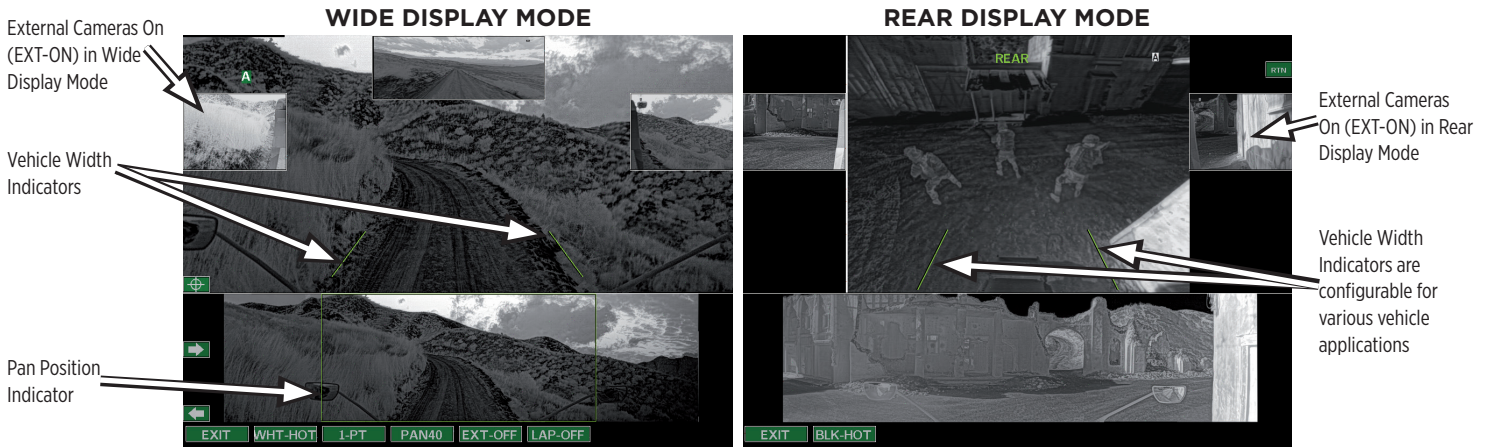|			
Weight	< 1.25 lbs.	< 7.5 lbs.	< 3 lbs.
Size	4.8 x 2.8 x 2.8 inches	8.8 x 5.7 x 3.7 inches	6.3 x 4.8 x 4.5 inches

POWER

Power Consumption	< 5.0 W	< 14.0 W	< 5.0 W

VIDEO

Communication Interface	RS-232 / USB 2.0	RS-232 / USB 2.0	RS-232 / USB 2.0
Video Interface	RS-170	RS-170, RGB, DVI	RS-170

ENVIRONMENTAL

Operating Temp	-37.0° C to 49.0° C plus solar load	-37.0° C to 49.0° C plus solar load	-37.0° C to 49.0° C plus solar load

WIDE DISPLAY MODE

External Cameras On (EXT-ON) in Wide Display Mode

Vehicle Width Indicators

Pan Position Indicator

REAR DISPLAY MODE

External Cameras On (EXT-ON) in Rear Display Mode

Vehicle Width Indicators are configurable for various vehicle applications

Wide display mode provides the user with the ability to pan 107° of the scene in the front of the vehicle.
The pan position indicator on the bottom half indicates what portion of the scene is displayed on the upper part of the display.
Pan40 display mode provides the user with the ability to pan the entire 107° scaled to the full display size.

Rear display mode provides the user with the ability to view what is behind the vehicle. The image in the bottom of the display shows the scene in front of the vehicle.
External cameras on (EXT-ON) and external cameras off (EXT-OFF) mode provides the user with the ability to turn on and off the left side, right side and rear camera in Wide, Pan40, and Rear display mode.

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