BAE SYSTEMS

# Digital light engine

## Head-up display

Military aircraft around the world rely heavily upon head-up displays to provide the level of situational awareness required for the safe handling of aircraft and accurate delivery of weapons. Declining budgets have driven the requirement for improved reliability of equipment on such platforms.

### Offers significantly improved reliability

The elimination of Cathode Ray Tube technology improves both the reliability and supportability of the equipment by removing the high-maintenance and obsolete items. Digital light engine (DLE) technology provides a significant improvement in reliability – enabling a future-proof solution and significantly reduced through-life costs. DLE can be seamlessly integrated into existing aircraft systems, mitigating the need for costly cabling and computer changes.

| What it does | What's the benefit |
|---|---|
| Replaces legacy CRT and analogue drive electronics | Significantly improved reliability with no planned maintenance |
| Enables a form, fit and functions upgrade | Requires no changes to existing aircraft systems and cockpit mounting |
| Provides an optimized all-digital display solution symbology | Maintains situational awareness, with high-resolution viewable in all flight conditions |
| Backward compatible to any exisiting aircraft | Eliminates costly changes to aircraft systems – including wiring – and avoids the introduction of latency |
| Provides daylight video capability and compatability with in-service night-vision goggles | Improved presentation of sensor imagery |

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# Future-proof solution

## Digital light engine head-up display

No changes required to optics or control panel

Conventional Cathode-Ray Tube image source is removed and replaced with Digital Light Engine (DLE) technology

**Offering significant improvement in reliability and reduced maintenance costs**

### Typical performance specification

| | |
|---|---|
| Specification display source | Existing avionics (unchanged) |
| Display surface resolution | 1280 x 1024 pixels |
| Field of view | 25° x 22° |
| Display luminance | 0 to > 2500 ftL |
| Display contrast | > 1.2:1 against an ambient of 10,000 ftL |
| Outside world transmission | > 75% |
| Image positional accuracy | < 1.3 mR at CTFoV, 3mR at 9° |
| Mass | < 44 lbs / 20kg |
| Operating temperature | -40°C to +71°C |
| Storage temperature | -40°C to +85°C |
| Operating altitude | 0 to 70,000 ft |
| Power | <85 Watts |
| Latency | <2mS |
| Dimensions | Form fit function |

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Cleared for open publication on 05/18