An ultra-contrast, constant brightness projector with unrivaled realism and reliability.

Your crews are responsible for piloting the world’s most sophisticated aircraft in the most demanding environments. Simulation training that provides the “train as you fight” realism of night unaided, night vision systems (NVS) and flight in adverse weather conditions is mission critical.

Our ProSim™ ultra contrast projector is designed to provide the darkest night and NVS capabilities while still providing full-bright light points. ProSim delivers the unprecedented contrast, dynamic range and black levels that are essential for full-capability, highly immersive night and night vision simulations.

KEY FEATURES
› Designed for professional civil and military simulation applications
› Simultaneous display of night vision and full-bright light points
› Electronic edge blending – without the need for optical or mechanical masks/filters
› Provides the highest contrast, with simultaneous true black and peak white
› Extreme dynamic range, comparable to CRT black levels
› Improved NVIS Radiance (NRb) contrast for best-in-class night vision response
› Ease of use and field maintenance

KEY BENEFITS
› Industry-leading sequential contrast, exceeding 500,000:1 without apertures or light source dimming, achieved through patented technology exclusive to Rockwell Collins
› Market-leading >50,000:1 NRb contrast ratio
› Constant brightness – day-to-day brightness variance controls maintain blending quality and reduce maintenance
EXTENDED PROJECTOR LIFE FOR LOWER COSTS

Several enhanced capabilities of the ProSim extend the life of the projector:

- Lamp power managed by the Intensity Management System (IMS) for intensity based on required brightness. Fewer lamp changes and improved lifetime, consistency and performance.
- IMS protects optics from excessive brightness
- Filtration improvements prevent ingress of dust particles

SPECIFICATIONS

Four LCD panels 2048 x 1536 native resolution, Rockwell Collins’ patented four-panel RGBK optics technology

Video input DVI 8 bits per color, 10 or 12 bit inputs available with two DVI inputs

Light source 330 W ultra-high performance lamp (two in landscape model)

Latency 17 ms typical

PERFORMANCE

Brightness Capable of maintaining up to 1,100 lumens over 15,000 hours lifetime (with lamp changes)

Sequential contrast* 500,000:1 minimum (simultaneous light point contrast) without any aperture or iris

ANSI contrast* >150:1

ANSI uniformity* >80 percent

NRb contrast* >50,000:1

Color uniformity* Variation of 0.01 in u’ and v’ in the 1976 CIE color space, at 9 ANSI points

Convergence* Color convergence error 0.5 pixels in quality area, 0.8 pixel to corners

Motion blur reduction

*Image performance specifications are met in factory test at Rockwell Collins production facility. Some degradation will naturally occur over lifetime.

ENVIRONMENTAL

Dimensions 400 mm (w) x 450 mm (h) x 400 mm (d), excluding lens

Weight 30 kg (66 lb) excluding lens

Temperature Operating +15°C to +30°C

Storage -20°C to +40°C

Motion compatible Qualified in FAA Level D simulator systems

Power 600 W, input voltage 115/230 V auto ranging

Landscape version Light source 2 x 330 W ultra-high performance lamps, singular operation, dual redundancy for landscape, one lamp for portrait

SYSTEM INTEGRATION FEATURES

- Compatible with Rockwell Collins auto-alignment system
- Seamless electronic edge blending in multichannel configurations
- No need to reconfigure for day, night or night vision goggle modes
- Wide range of lenses available
- Full control of all projectors with Cobra graphical user interface (GUI) software. Each projector has embedded Cobra control software built in.
- Color space remapping (patented), color uniformity/shading, scan conversion
- Precise distortion correction through tri-linear image remapping
- Enhanced gamma correction, adjustable

For more information, contact:

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