

# MicroLED Applications - Microdisplays

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5 June 2020









# Pilot Helmet / HMD Applications

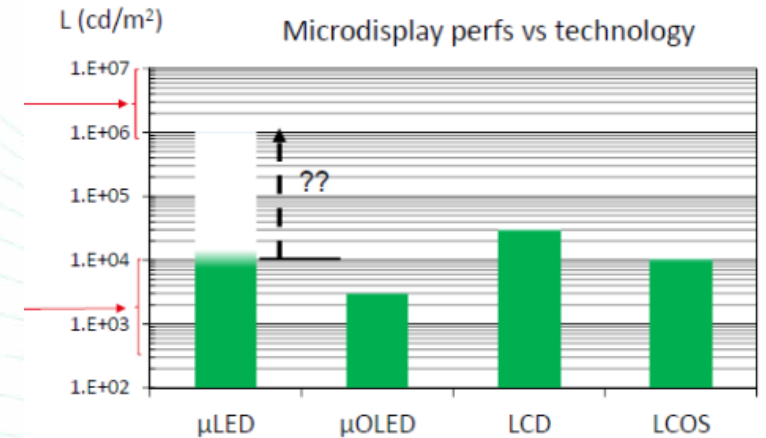
- **Pioneered use of LCD microdisplay for pilot's integrated helmet mounted display**
  - Key component of rotary-wing HMD systems
  - Enabler for fixed-wing HMD systems
- **On-going supplier to nearly all operational pilot HMD prime contractors / programs**
- **First generation systems incorporate monochrome imagery**
  - Black and green or black and white
  - VGA to SXGA resolution
  - 30Hz to 60Hz update
- **Recent migration to color with limited performance**
  - Marginal contrast against bright ambient
  - High power consumption
  - Remains at VGA to SXGA resolution
  - 30Hz to 60Hz update rates





# MicroLED Enables Next Generation

- **Increased brightness and wide dimming range provides full color imagery under all conditions**
  - High symbol contrast against bright daylight ambient
  - Dimmable to low brightness for night operation
  - Significantly improved power and lifetime performance
- **Increased switching speeds and high dynamic range support digital night vision**
  - 120Hz update rates to minimize sensor image smear
  - Maximizes sensor low light level performance
  - Dynamic range enhances low grayscale visibility
- **High resolution increases system visual acuity**
  - 2K x 2K over 40 degrees provides near eye-limiting resolution
- **What can we do for you?**
  - Understand the microdisplay industry and requirements: One of very few companies in the World that has produced and shipped 10s of millions of microdisplays
  - Backplanes: Successfully designed and produced 100+ different silicon backplanes for LCD, LCOS and MicroOLED
  - Customers and requirements: Have strong, long term customer relationships with companies that need new microdisplays
- **What can you do for us?**
  - MicroLED arrays







**FORTH  
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