Abstract

Avionics display systems using CRTs as core of the projection system suffer from reliability issues added to increased weight and cost of the associated circuitry. Though CRTs offer some advantages in the form of good brightness and contrast ratio even in the high ambient light conditions, recent advancement in microelectromechanical system (MEMS) based display technology ushered in an era of miniature displays having low power consumption and better reliability. Digital Micromirror Device (DMD) array from Texas Instruments and Laser Scanning Displays (LSD) have shown enormous potential to be the suitable replacement to the CRTs in air-borne applications. Head up Displays (HUD) using DMD micromirror array and a novel Head Mounted Display (HMD) technology known as the Retinal Scanning Display (RSD) using LSDs are being tested and further improved to meet the military standards.

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