Head-up Displays (HUDs)

Head up Displays (HUD) exhibit information in several selectable modes in collimated form so that pilots can view this information superimposed on their view of the outside world without having to change their line of sight or visual accommodation. This allows pilots to fly aircraft "head - up" thereby reducing workload and enhancing their operational and aiming capability.

View large pic

Symbology viewed through HUD

HUD-FEATURES

- Compact, light weight & reliable
- Wide field of view
- Customized up-front control panel
- Antiglare
- Automatic brightness control
- Low power consumption
- Military/Commercial Aircraft applications
- Built in test capability

SHDS TECHNOLOGY – FEATURES

- Optical quality plastic material and aspherics for reduction of weight and better performance
- New combiner technology based on Rugate thin film coating
- Mechanical housing - MIL qualified lightweight aluminum alloyImage source - CRT (Any Flat Panel mono-chromatic source)

TYPICAL SPECIFICATIONS

Modes of operation	Cursive Raster Mixed mode
CRT	High resolution, high brightness
Optical system	Aspherical Optics 170mm Exit lens Dual Beam Combiners Color - Green Phosphor Combiner Transmission: 80±10%
Brightness	Full readability in ambient light of 10,000fL Automatic Brightness Control
Power Supply	28V DC, 120Watts MIL-STD-461F
Environment	MIL-STD-810F
MTBF	>3000hrs
Physical	Weight: Approx. 20 kgs
Total Field of View Instantaneous Field of View	28° 22° Azimuth ; 22.5° Elevation
Writing Speeds	
Cursive Cursive in raster fly back	0.43rad/m.sec 4.7rad/msec
Symbol Line Width	0.8+0.4/-0.3mRad
Parallax With in TFOV With in IFOV	 Vertical ±1 mRad Converging Azimuth 2.3mRad Diverging Azimuth ±0.3mRad Vertical ±0.5mRad Converging Azimuth <2.3mRad Diverging Azimuth ±0.3mRad
Photometric Characteristics	
Symbol Brightness Uniformity Within 10° Diameter Within TFOV	 ±20% ±30%
Combiner bandwidth	20nm
Contrast	>1.2 for a Back Ground Illumination of 75,000Lux

Symbol Positional Accuracy In the center of field of View Within a diameter of 10° In the rest of the FOV	 <1.0 mRad <2.8 mRad <4.0 mRad
Video Standard	STANAG 3350B
Digital Interface	RS 422