ADVANCED THREAT DISPLAY

Full color multifunction threat display for all types of military aircraft

The Advanced Threat Display (ATD) is a 3ATI dedicated self-protection display with the capability of providing a real-time correlated threat environment picture to the pilot.

The ATD Option Select Buttons on the front bezel make the display a single point control panel for the operation of the entire self-protection suite of subsystems, saving real estate in the cockpit, and providing a capable intuitive user interface to the pilot. Different page views can be selected by the user in order to format the requested data and present views for each operational mode.

The display is based on LCD technology with impressive characteristics such as excellent sunlight performance and night vision capabilities.

Technical description

The ATD design is based on a modular concept allowing for a family of configurations with different data interfaces and front bezels to accommodate optimal installation in specific cockpit environments.
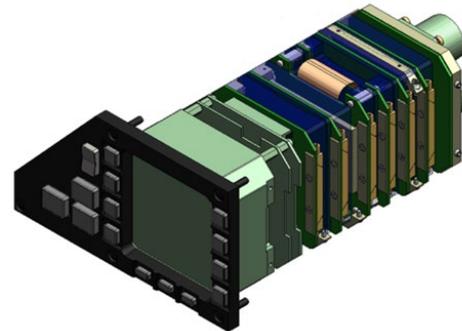
Baseline design of the ATD utilizes powerPC controller design for advanced display functions.

ATD interfaces allow for operation either as standard display (digital video from external source), as intelligent display with only data interface to external world, or even as controller for, e.g. a chaff/flare dispenser and a Missile Warning System.
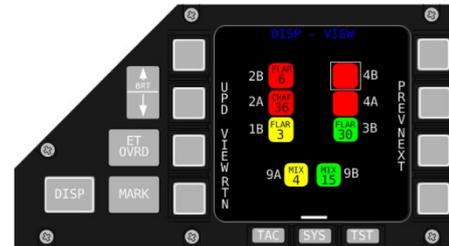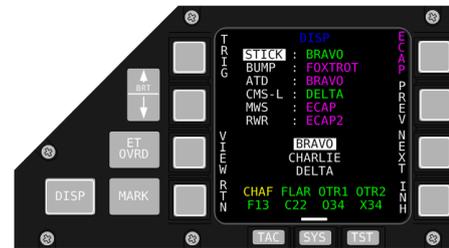
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General technical overview

NVIS compatibility	MIL-L-85762A Type II Class B
Panel Illumination	MIL-P-7788
Display	Active Matrix Liquid Crystal Display (AMLCD)
Viewing Angle	Primary Viewing Envelope (PVE): +/- 25° up-down +/- 38° transverse Extended Viewing Envelope (EVE) +/- 30° up-down +/- 40° transverse
Resolution	300 x 300 pixels
Color Depth	24 bit
Luminance	150 fL
Contrast Ratio	At Eye reference point (orthogonal): 500:1 Within the PVE: 90:1 Within the EVE: 20:1
Power Consumption	40 watt max @ 28 volt DC (70 watt max w. heater activated)
Weight	2.65 lbs. max
Dimensions (l x w x h)	7.87" x 3.27" x 3.27" (3x3" version) 7.87" x 3.63" x 3.27" (4x3" version) 7.87" x 6.08" x 3.46" (6x3" version)
Supported Video Interfaces	TMDS (DVI) RS-170A (option) Stroke Video (option)
Supported Data Interfaces	EIA-422/485 2 x Ethernet, 10BASE-T & 100BASE-TX MIL-STD-1553B (option) ARINC-429 (option) Dispense Station Data Bus (option)
Embedded Processing Capability Processor	PowerPC @ 300MHz RAM: 128 MByte Flash: 192 Mbyte

Modular design

Data presentation

Currently integrated on and certified for

AH-64D Apache	F-16
CH-47D&F Chinook	P-8A
C-160 Transall	Mi-17/Mi-24
AS532 Cougar	Falcon 2000
C-295 Joint Cargo Aircraft	Archangel
NH-90	C-130H/J
Bombardier Challenger 650	

ATD in F-16

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