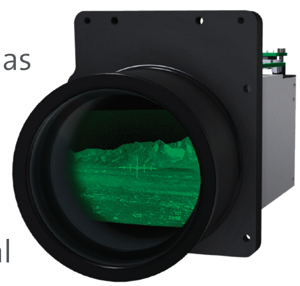
PRODUCT LISTING

DIGITAL HD NEXTGEN BIOCULAR DISPLAYS

NEXT-GENERATION DISPLAY TECHNOLOGY FOR ARMORED VEHICLE SIGHTING SYSTEMS

HIGHLIGHTS



- Fully digital, high resolution biocular displays featuring Thomas Global's Adaptive Display Architecture 2.0™
- Applicable to M1A1, M2 Bradley and other form-factors of M1A2 or Stryker, as well as new vehicles
- Available as Retrofit (drop-in display kit replacement) or forward-fit LRU Solution
- Superior image readability:
  - Ultra high pixel density, ruggedized AMLCD panel
  - Intelligent video enhancement and upscaling of legacy thermal RS170 or digital sources for optimization of existing sensors
  - Long life, high brightness, wide color gamut
  - Far-field focused image plane provides optimum targeting conditions for viewer
  - Form-fit-function for coupling with CCD/CVO/Reticule optics
- Real-time thermal data overlay onto legacy Gunners Primary Sight (GPS)
- Record and After-Action Replay (AAR)
- High MTBF - Lower cost than existing CRT based systems
- Eliminates risk of CRT obsolescence
- Multiple DVI/HDMI/SDI/Composite Inputs
- Configurable DVI/HDMI outputs
- Multiple RS232/422/USB/CAN/Ethernet control for external sensor control and networking
- Significantly lower weight and power consumption
- On-board image processing including reticules, symbology
- Software feature expandable upon request
- Option for extended zoom capability using an externally mounted 4K camera
- Option for assistive threat detection using machine learning algorithms
- Option for FLIR and Day camera fusion

FEATURING
THOMAS ADA 2.0
ADAPTIVE DISPLAY ARCHITECTURE™

TECHNICAL DESCRIPTION

Underpinned by the world's most advanced biocular display engines, our family of high-resolution tactical targeting display technology is the superior choice for legacy, second and third generation FLIR sighting systems. Available for both new vehicles and as a plug-and-play upgrade for legacy turreted and mobile weapon platforms, this is your competitive edge for mission success – no other biocular display system comes close. Thomas Global's NextGen Biocular (BIOC) Technology can record mission engagements and replay back post-mission for review. Upgrade options include image fusion and advanced threat detection firmware.

Thomas Global's NextGen BIOC technology provides superior image quality combining ultra high pixel densities, HD resolution AMLCD, rich color gamut, relaxed eye far-field focused optics, and high ambient light readability, providing optically stabilized long term viewing and reliable performance.

With the risk of legacy cathode ray tube (CRT) based biocular units becoming obsolete and flat panel displays taking up valuable vehicle real estate without relaxed focused optics, Thomas Global's NextGen BIOC technology provides the optimal viewing image in a customizable package. It is also supportable for the long term and can be supplied either as an LRU or a display kit.

Incorporating Thomas Global's Adaptive Display Architecture™, the display solution is fully configurable to handle both legacy (RS-170) and current video (HDMI, SDI) standards, and offers intelligent video enhancement to incoming video, optimizing the capability of existing sensors as a CRT never could. Furthermore, the optional Image Fusion feature and Threat Detection algorithms puts our NextGen BIOCs at the forefront of sighting system technology, providing an unmatched solution for today's armored vehicles.

DIGITAL HD NEXTGEN BIOCULAR SPECIFICATIONS

SYSTEM DETAIL	FULLY DIGITAL COLOR ULTRA HD ACTIVE MATRIX LCD RETROFIT DISPLAY	**VIDEO INPUTS**	3HD DVI/HDMI,1RS-170, 2SH/HD-SDI VIDEO SOURCES ON REQUEST, UP TO 4 HD DVI, 4 RS-170, 4 SH/HD-SDI, 1 COMPONENT RGB VIDEO SOURCE
POWER	24 VDC NOMINAL, 16-40 VDC MIL-STD-1275	**VIDEO OUTPUT**	1 HDMI/DVI ON REQUEST, UP TO 2 DVI/HD-SDI OUTPUTS AND RS-170
POWER CONSUMPTION	NOMINAL 45 WATTS MAX 60 WATTS	**MECHANICAL**	PER CUSTOMER SPECIFICATION AVAILABLE AS LRU OR DISPLAY KIT FOR RETROFIT
RESOLUTION	720P, 1080P AND 1440P	**COMMUNICATION**	UP TO 4 RS232/RS422, 1 USB UART, 2 CAN, ETHERNET INTERFACES, UP TO 40 CONFIGURABLE DISCRETE GPIO, ADC INTERFACE
COLORS CHROMATICITY	RGB - 10 BITS PER COLOR, >80% OF NTSC, NVIS COMPATIBLE	**ASPECT RATIO**	16:9, 4:3
BRIGHTNESS	>200FL/685 NITS	**CONNECTORS**	PER CUSTOMER SPECIFICATION
CONTRAST RATIO	800:1	**MTBF**	20,000 HOURS
FOCAL DISTANCE	450 MM UP TO 6 METERS	**FUNCTIONALITY**	DIRECT VIEW OVERLAYS, SYMBOLOGY, RETICULES, SENSOR CONTROL, INTELLIGENT VIDEO ENHANCEMENT AND UPSCALE OF LOW RES MONOCHROME ANALOG OR DIGITAL SIGNAL, UPGRADES FOR ADVANCED DETECTION ALGORITHMS, SENSOR FUSION, PIP AVAILABLE
EYE RELIEF	UP TO 152.4 MM (6.0 INCHES)	**UPGRADES**	FIELD PROGRAMMABLE, FIRMWARE BASED
OPTICAL APERTURE	82 MM (3 INCHES)	**QUALIFICATION**	QUALIFIABLE TO MIL-STD 810G, 461F
RECORD & REPLAY	2 MINUTES AT 720P	**CENTRAL PROCESSING POWER**	32 TOPS OF AI PERFORMANCE AND 750 GBPS OF HIGH-SPEED I/O
WITH DAY-SIGHT CAMERA VEHICLE THREAT DETECTION AT LONG DISTANCE SUCH AS TRUCK DETECTION (2M HEIGHT)	16KM USING NATIVE 4K IMAGE FROM EXTERNAL CAMERA AT 13XTRU FOV	**RECOGNITION OF SMALL TARGETS (0.5M HEIGHT) SUCH AS WEAPON/ARTILLERY AT SHORT DISTANCE**	1125M
		BROW-PAD	AVAILABLE ON REQUEST

ABOUT THOMAS GLOBAL

Thomas Global Systems designs, manufactures, and supports highly engineered and reliable electronic systems solutions for commercial aviation, defense and other high-integrity transportation applications. For more than 65 years, Thomas Global has thrived by providing customers with trusted, innovative, and best value products and services. The company focuses on avionics, armored vehicle electronics, and specialized mission-critical electronics and training systems. Thomas Global operates high technology R&D, advanced manufacturing, and support facilities in Sydney, Australia and Irvine, California.

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