Virtual Binocular SX

Hand-Held Display

The Virtual Binocular SX is a handheld, interactive, immersive display system that combines high-resolution microdisplays with adjustable, wide field-of-view optics in the familiar form of a pair of binoculars.

Mechanical features include focus adjustment, interpupillary distance adjustment, and mouse-compatible buttons on the top of the unit. The buttons can be programmed using any software tool kit that supports mouse gestures. Uses for the buttons include toggling reticules and indicators, zoom control, and motion control in virtual environments.

The Virtual Binoculars are housed in a rugged, lightweight plastic housing. A wheel in the top center of the shell adjusts interpupillary distance. Underneath is a standard-threaded tripod mount for statically mounting the binoculars using off-the-shelf fixtures. The binocular display system is designed for easy and unobtrusive mounting of tracking sensors internally or externally. The system can be adapted on a custom basis to simulate practically any binocular optical instrument.

Successful implementations include simulated endoscope eyepieces, spotting scopes, and a number of vehicle-mounted sighting systems.

PRODUCT SPECIFICATIONS

optical

Vertical FOV	25°
Total HFOV	32°
Exit Pupil (mm)	5
Eye Relief (mm)	20
Focus/convergence	+/- 4
Monocular FOV (diagonal)	40°
Geometric Distortion	< 15%

mechanical

IPD Range (mm)	53 to 72
Weight (g)	865

performance

Resolution	1280x1024
Contrast	100:1
Brightness (fL)	40
Visual Acuity (arc-min/pixel)	1.5

COMPATIBLE PRODUCTS

Video Control Units

- **Advanced Stereoscopic Video Control Unit**
- **Single Input / Dual Output SX Video Control Unit**
- **Stereoscopic SX Video Control Unit**

Optional Accessories

- **InertiaCube 2+**
- **Reusable Shipping Case**

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