



TECHNICAL CHARACTERISTICS

a. DISPLAY

The 3-Scope is a digital binocular display which positions itself in front of the eyes of the viewer. It allows experiencing 2D and 3D data visualization in full privacy.

The device is stereoscopic (3D), and the technology used is Passive **Stereoscopy** which stands for not losing any resolution during the stereoscopic experience, and requires two cables for the input. The video card required for having an optimal and functional stereoscopic experience is NVIDIA

The displays used are **micro-displays** with the following characteristics:

- 800*600 resolution; 480,000 pixels and 18-bit display colors each. With both micro-displays the pixels equal to 1.4 million.
- Displays are Liquid Crystal On Silicon (**LCOS**), one of the best quality of image. The image has an excellent sharpness, brightness, and contrast which allow a comfortable reading visibility without getting your eyes tired.
- Brightness and contrast are adjusted with the control unit (please see "power unit" section below for info about the control unit).

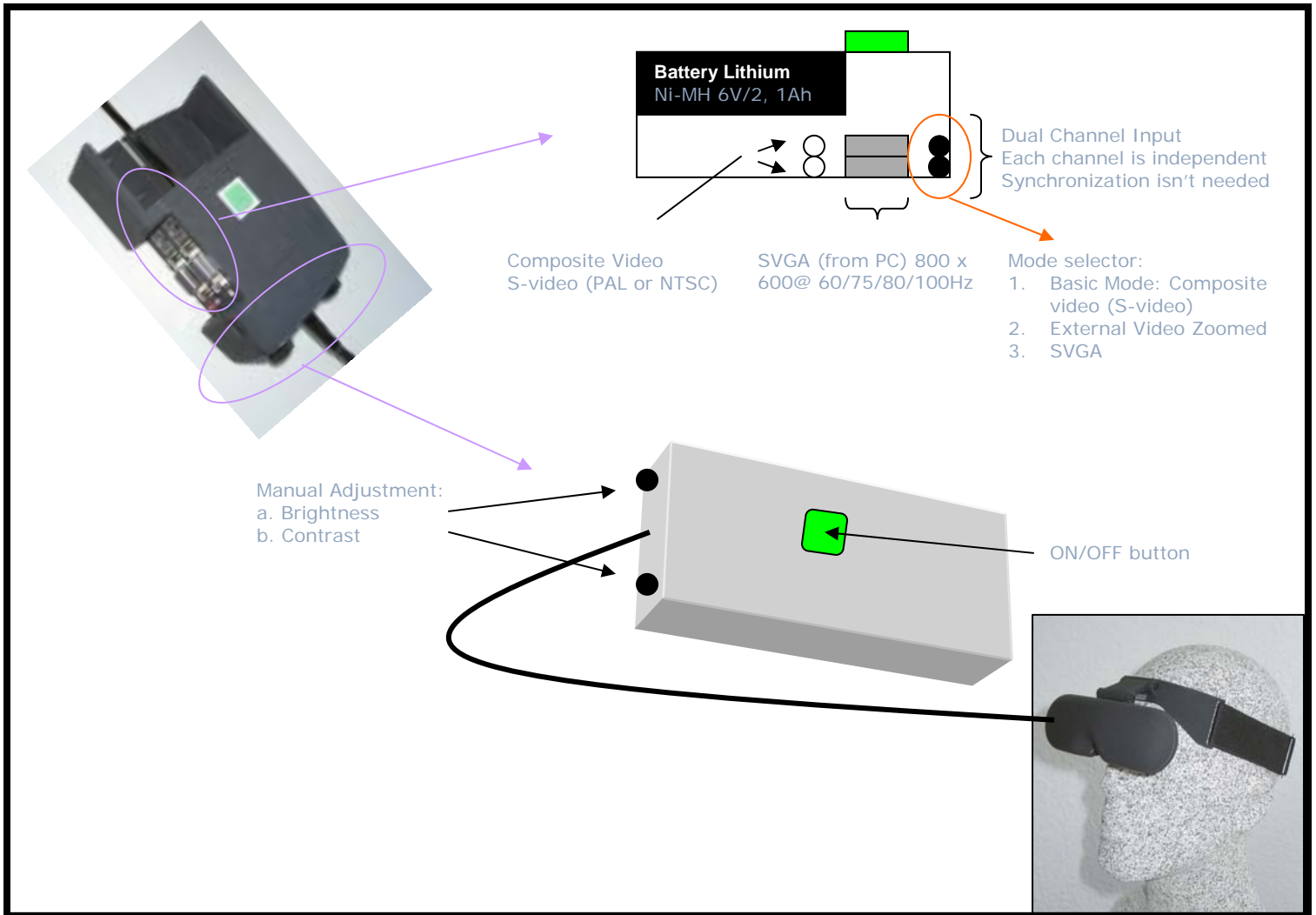
The rate (speed) of appearance of the images in the display is 120Hz per color (Yellow, Red, Blue), which accounts for a rate of 360Hz with all colors. We call this feature the **refresh rate**. The display and appearance is without flickering; flickering being a sort of shaking of the images.

The 3-Scope gives the viewer a maximum **Real Field of View** of 40 degrees diagonally. Tracking and programming solutions will allow you to increase the **Virtual Field of View** to 360 degrees diagonally.

The **eye relief** of this binocular is 18 millimeters. We call eye relief the distance from the eyepiece the eye can be placed at which the exit pupil is approximately the same size as the eye's pupil. In optics, the **exit pupil** is a virtual opening in an optical system. Only rays which pass through this virtual opening can exit the system.

b. POWER UNIT: Connectivity

The 3-scope is equipped with a power unit which is used as controller for display adjustments and as power feeder with a Ni-MH rechargeable and removable battery for plugged power supply.



SIZE (W/H/D): 105mm * 155 mm * 43 mm

WEIGHT: ~ 480 grams, including the battery

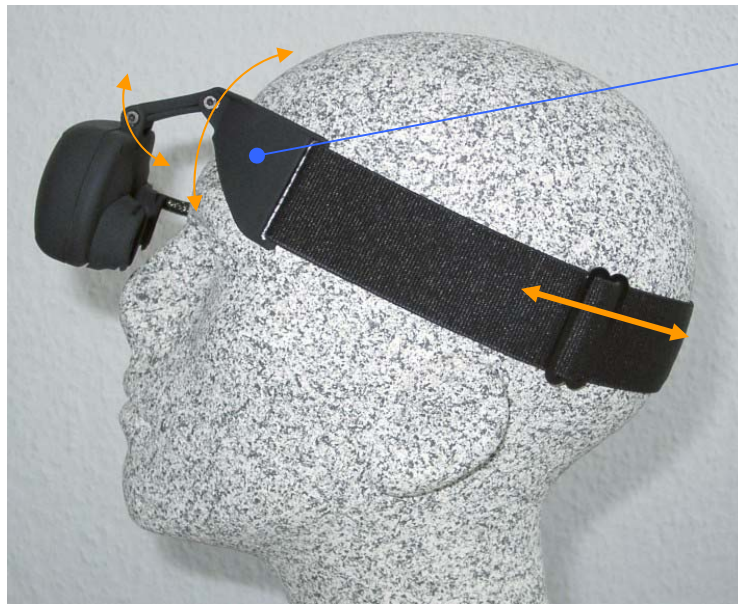
BATTERY Ni-MH 6V/2, 1Ah: Charges in 50 minutes with the provided battery plug adapter; allows 4 hours of operating time.

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c. Attachment and Mechanical Adjustment of the HMD.

- Adjustment to the eye in two steps

1. The HMD adjustment to your face and your eyes.

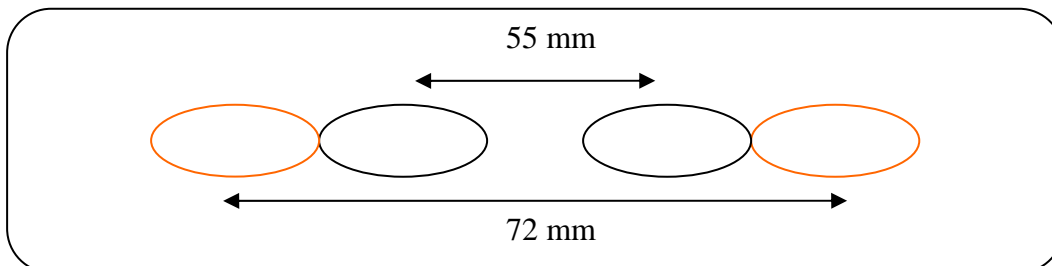


The contact points with the head are equipped with foam cushions

2. The adjustment of distance between the oculars comes in two versions in order to match each individual's *interpupillary distance* (IPD).

Standard IPD adjustment: 60-70 mm

Option extended IPD adjustment: 55-72 mm



d. The HMD

The HMD comes with a basic cable length of 1.2 meters, but can be extended upon request.

The weight on the head from the device is 120 grams.

The rectangular size (W/H/D) of the HMD is 155mm * 50mm * 50mm

The operating temperature of the device is from -10 degree Celsius up to +40 degrees Celsius