

M1 HEAD MOUNT DISPLAY

The M1 has several unique features making it the most suitable HMD for ultrasonic applications, enabling simultaneous views of the screen and working environment.



FEATURES:

- ▶ **Small and Lightweight**
- ▶ **Robust Design**
- ▶ **Monocular eyepiece**
- ▶ **Pocket sized control box (plus belt clip)**
- ▶ **Adjustable arm for left or right eye use**
- ▶ **LCD screen - fast data response giving real time sharp images**
- ▶ **Obscure screen, reduces eye fatigue**

APPLICATIONS

Overhead environments - underside of aircraft wings

Limited access/confined spaces - through manhole covers

Outdoor sites - railtrack inspection, where good visibility is crucial

Operators have reported up to a 50% reduction in overhead inspection times – simply due to not having to look up at the subject and then down at the set repeatedly.



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Technical Specification

Field of View	16° Horizontal
Video Resolution	76,800 pixels (320 x 240)
Pixel Density	1,700 Lines Per Inch
Input Signal	VGA or NTSC Composite
Video Rate	60 Hz or 72 Hz
Display Format	Monocular
Connectors	VGA: 15 pin D-Sub NTSC: RCA Jack or 15 pin D-Sub
Contrast	80:1
Grayscale	Continuous over 256 levels
Visual Luminance	Up to 20 foot-Lamberts - user adjustable
Operating Temperature	0° C to +70° C
Storing Temperatures	-20° C to +80° C
Shock and Vibration	Industrial Environment
Weight	Display and Head Assembly: less than 4 oz. Electronic Driver Package: less than 6 oz.
Controls (M1 only)	Picture Position - Up, Down, Left, Right Picture Property - Brightness /Contrast
Power Consumption	Display, 20mW @ 20 foot-Lamberts
Input Voltage	Less than 300 mAmp @ 9 VDC

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Are we becoming Borg? No, not yet, anyway-- we're just looking at the futuristic M1 personal display from Liquid Image, a monocular, head-mounted display for augmented reality applications. Confused by all that jargon? So were we until we took a closer look. Based on a backlit active-matrix LCD, the M1 displays in continuous grayscale at a resolution of 320x240. The headset sports a flexible arm that holds a small box containing the display and a magnifying glass. When the display is adjusted properly, its image merges with the viewer's natural field of vision.

The M1 has a belt pack that supplies power and converts video input for the specialized display. The M1 will accept VGA or NTSC input via a standard PC video cable or composite video NTSC input. While we had no problem with the NTSC composite input, we noticed that, unless the computer's input was set to 640x480, we just got lines. Why would anyone want such a thing? Why not just a full-field display that immerses the viewer? The M1 isn't aimed at gaming or average consumers; it's for technicians who need hands-free access to technical manuals, or for security officers. In addition to the technology's obvious uses in industrial, military, and medical applications, we expect it to migrate to cell phones, PDAs, and other consumer products. So take a look and see what the future holds.

For further information call:

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