



Lumineq® transparent displays have unique performance and optical characteristics, enabling deployment as an overlay to optics. Compared to other display technologies, LUMINEQ transparent displays enables you to design augmented reality night-vision devices that bring digital information to the line-of-sight with a simplified and robust construction.

By using one unified display glass that is optimized to the size of the optical path you can accomplish optical uniformity and eliminate the glare, light scattering and light pollution in general and achieve the best possible image.

LUMINEQ display technology is a perfect fit for night-vision devices like goggles and optical/observation devices using image intensifier tubes.

Benefits:

- ✚ Simplifies the design compared to other display technologies by eliminating the need for a prism/projection - can be placed directly to the line-of-sight.
- ✚ Optical uniformity and elimination of glare, light scattering and pollution with one unified display glass optimized to the size of the optical path.
- ✚ Display brightness can be set to very low and adjusted to match the image intensifier tube.
- ✚ LUMINEQ yellow color contrasts perfectly with green and white colors of the night-vision device.
- ✚ Uniquely high transmission, fully customizable and the most durable display on the market.

Technology Demonstrator

LUMINEQ® Transparent Display

300m

Product Capabilities

The ELT32S-RETICLE-BAT is designed to demonstrate and to help you to evaluate the unique capabilities of transparent Lumineq displays. This technology demonstrator enables you to do concepting, prototyping and to adapt the technology to your application.

Product features:

- ✦ Turnkey demonstrator consisting of transparent reticle display with flex and driving electronics with casing.
- ✦ 32 individually addressable segments – range in numbers, crosshair (10 or 20µm) and drop dots.
- ✦ Comes optionally with traditional chrome reticle
- ✦ Scripted demo modes and brightness control with trimknob interface.
- ✦ Fully transparent reticle display glass cut to round shape ready for integrations to line of sight of optics.
- ✦ Fully customizable

Technical Specifications

Technology	Transparent Thin Film Electroluminescence. Solid state, inorganic, emissive.
Color	TFEL-yellow
Type	Segmented, 32 predefined icons
Transparency	~85% (where transparent). ~90% when with AR (on special request).
Viewing angle	360°, fully transparent
Response time	< 1 ms
Luminance	Adjustable – from daylight to night time
Glass diameter	20.5 mm (plus contact area)
Glass thickness	2.2mm (Total - encapsulated with cover glass)
Flex (FPC)	Straight, length 250mm
PCB size	75x34x44mm (not optimized for size)
Power	Typical few milliwatts – depends on the brightness
Input voltage	3V/CR123A battery
Interface	Trimknob (scripted modes). UART for custom scripting
Warranty	3 months (Demonstrator/development kit)

Ordering Information

Product	Part number	Features
ELT32S-RETICLE-BAT-10CH-CR	EL00109700	Reticle display with 10µm crosshair and traditional chrome reticle
ELT32S-RETICLE-BAT-10CH	EL00109800	Reticle display with 10µm crosshair
ELT32S-RETICLE-BAT-20CH-CR	EL00109900	Reticle display with 20µm crosshair and traditional chrome reticle
ELT32S-RETICLE-BAT-20CH	EL00110000	Reticle display with 20µm crosshair