

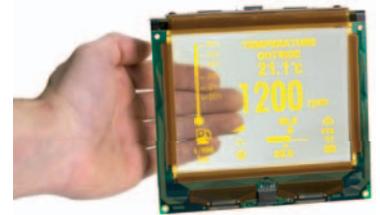
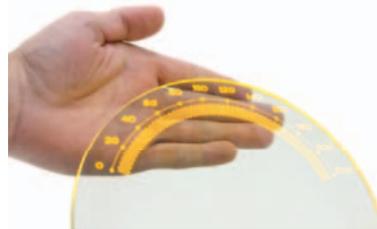
TRANSPARENT EL

See-Through Electroluminescent Display

Embedded Display for UPSCALE Applications

Break display design boundaries! See-through display technology that is ideal for applications that require an upscale, fresh new look with wide angle and crisp viewing characteristics. The easily customizable glass panel can be drilled, curved, or cut in other unusual shapes to help bring innovative, easily manufacturable products to life. A perfect solution for designs in transportation, premier pro-consumer electronics and architectural applications.

- Upscale viewing performance of standard Planar electroluminescent (EL) displays, but with transparency
- Affordable custom display text or graphics layouts possible
- Upgrades product appearance from LED or TN LCD display technologies
- Holes can be drilled directly into the panel. Curved glass is possible.
- RoHS compliant



	TRANSPARENT EL
Part Numbers	Custom Projects
Display Type	Electroluminescent (EL)
Viewable Size	Custom up to 10.4" diagonal - curved shapes possible
Display Resolution	Up to VGA
Brightness	150 cd/m ²
Viewing Angle (Typical)	>160°
Transmission	84%
Response Time (Typical)	<1ms
Video Inputs	4 bit AMLCD
Dimensions	Custom up to 10.4" diagonal - curved shapes possible
Approvals	CE, UL/cUL, TUV, FCC Class B
Operating Temperature	-50°C ~ +85°C
Service and Support/Warranty	1 year
Customization Options	Dimming Locking connector Performance films - anti-glare, anti-reflective Conformal coating

Thin Film EL Displays

Thin film electroluminescent displays (TFEL) are based on depositing insulating layers and light emitting phosphor layer between transparent and metal electrodes (Picture 1). Typically a thin film EL display is built on 1.1 mm thick soda lime glass substrate (size 195 mm x 265 mm) and encapsulated with 1.1 mm thick cover glass. Light is generated by exciting Mn atoms in ZnS phosphor with an applied AC voltage. The exciting voltage can be sinusoidal or pulse waveform.

Each time when a voltage of approximately 200V is applied, a short light pulse with less than 1 ms decay time constant is generated and thus brightness is roughly proportional to the driving frequency. In typical matrix display applications the driving frequency can generate up to 150 cd/m². Higher brightness is achievable for small matrix displays or segmented displays. Due to the true solid state structure, all EL displays are inherently rugged and capable of handling wide temperature ranges and wide viewing angles.

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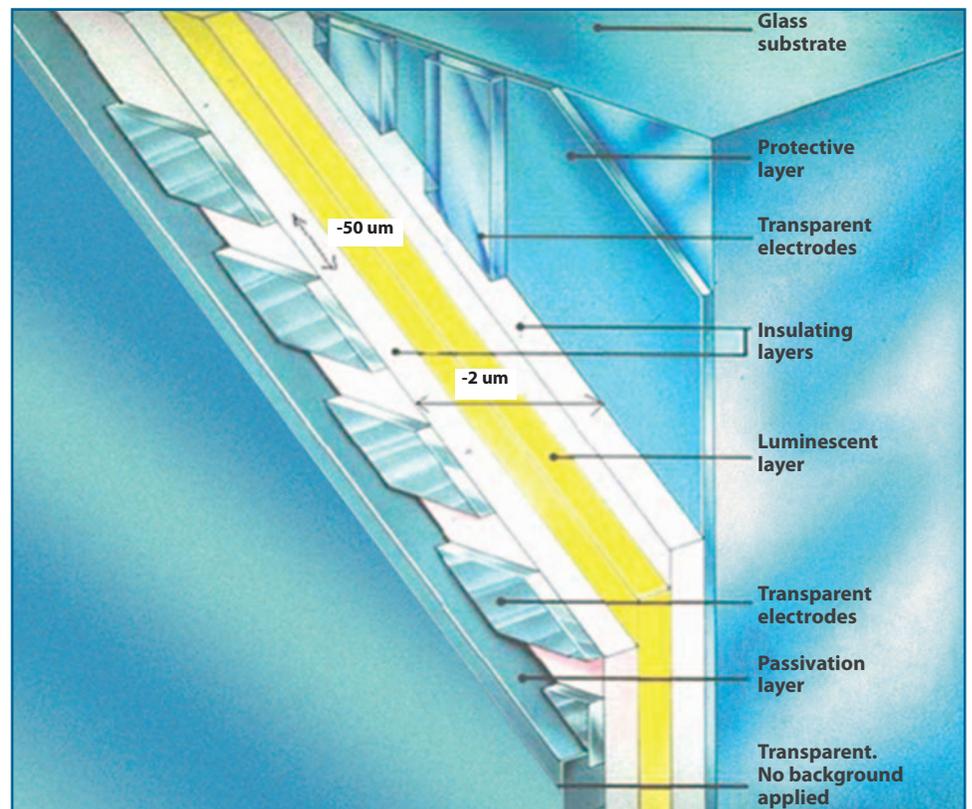
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Thin film electroluminescent (TFEL) display in matrix display configuration