



Key Features

- ❖ High optical transparency
- ❖ Low reflectance
- ❖ Precise electrical resistivity
- ❖ Thermally uniform and stable

Applications

- ❖ Avionics displays
- ❖ Ruggedized displays
- ❖ Industrial Displays

High Performance and Reliability

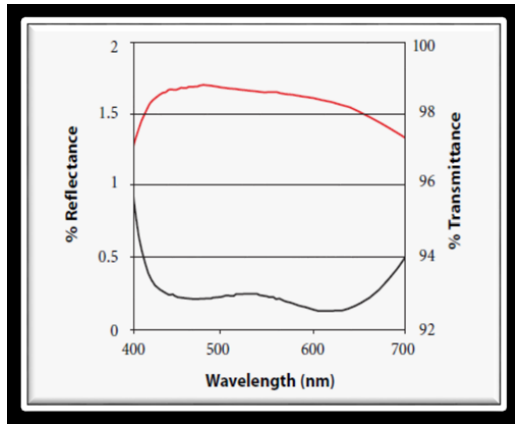
MAC Thin Films industry leading technology produces high transmission, low reflection, thermally stable LCD heater panels for applications where the performance and reliability of the LCD display is a critical element in design functionality.

Our LCD heaters are manufactured in large vacuum deposition chambers where our source materials are thermally evaporated with precisely controlled layers of dielectric materials and Transparent Conductive Oxide (TCO) to achieve highly optimized optical and electrical properties for demanding applications.

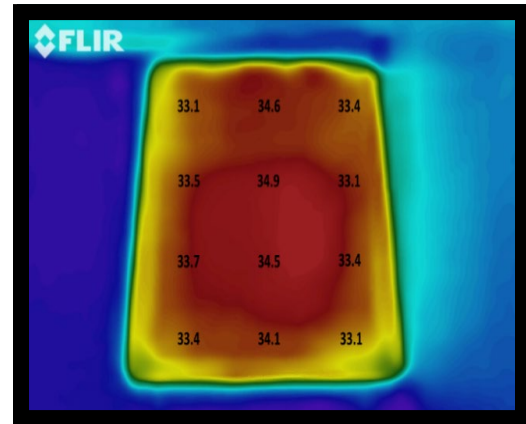
MAC Thin Films is committed to providing our customers with the expertise needed to navigate through the design and prototyping phases. We are also committed to delivering production units with unsurpassed product performance and complemented with superior customer service.

Construction & Performance Features

Optical Performance (IM 16 Ω/\square)



Thermal Uniformity



- Wide Range of Available Glass Substrates
- Environmental & Durability Tests Per MIL-C-675, MIL-C-14806 & MIL-M-13508

Typical Heater Panel Characteristics

Total Bus Bar Height (round AWG27 wire)	< 0.80 mm
Pull Strength	> 4N (square corner)
	> 2N (chamfer corner)
Power Density Rating	30.0 W / in ²
	4.7 W / cm ²
Thermal Uniformity	+/- 2°C

