

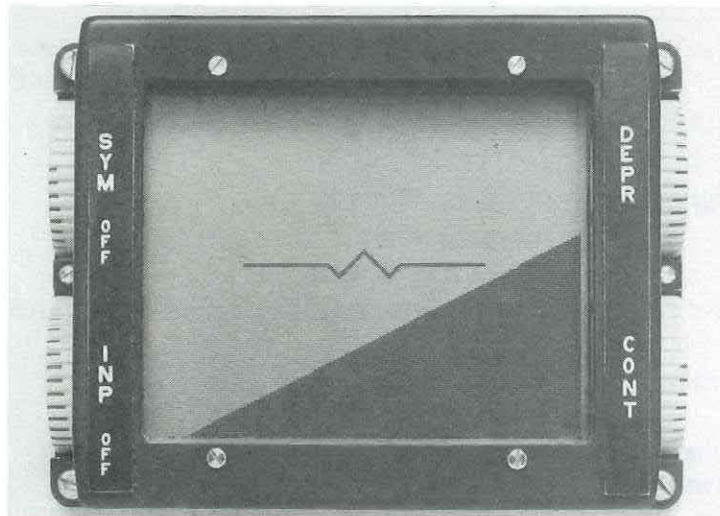


RCT Polysilicon Active Matrix LCDs

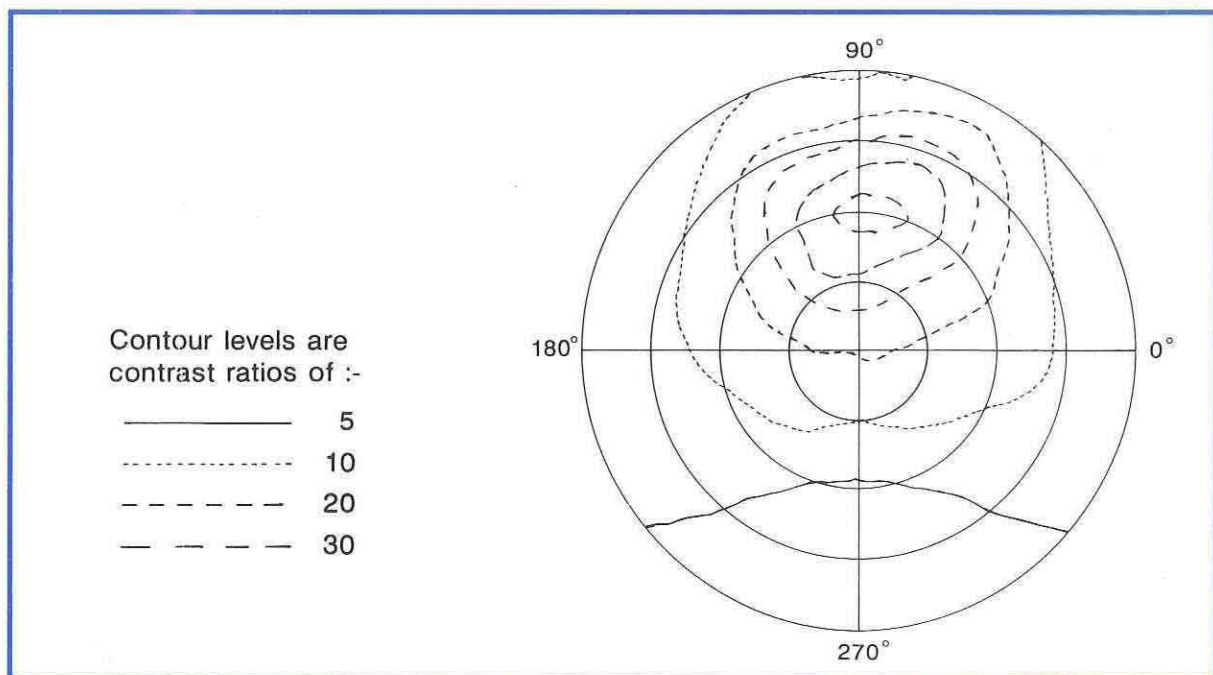
GEC's active matrix technology offers significant advantages for high end product applications, such as avionics.

A resistively coupled transistor (RCT) architecture provides fault tolerance and therefore superior 'in the field' reliability.

The glass compatible polysilicon process gives devices with high speed, stability to light and electrical stress, and the potential for integrated drive electronics.



Example of attitude indicator — display type 7RAMB (reflective mode)



Character isocontrast plot for above display in transmissive mode

Note: optimised for non-normal viewing





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Specification for display 7RAMB (glass only)

<i>Type:</i>	monochrome bilevel
<i>Pixels:</i>	224 columns × 180 rows
<i>Resolution:</i>	pixel pitch: 0.38 mm both axes
<i>Size:</i>	effective display area: 85.1 mm × 68.4 mm (4.3 inch diagonal) glass size: 100 × 85 mm
<i>Cell configuration:</i>	transmissive mode normally white off-normal viewing (Alternative configurations available including reflective / transfective etc)
<i>Contrast ratio:</i>	max pix > 50:1 max character > 30:1
<i>Viewing angle: (from normal)</i>	angle over which character contrast > 10:1 horizontal ±65° vertical +20/-70°
<i>% Transmission: (550nm)</i>	display area > 15%, pixel > 25%
<i>Response time:</i>	<50 msec @ 20°C
<i>Operational temperature:</i>	~ 0° to 65° (glass only)

- Notes:*
1. Considerable LC cell modelling and design expertise is available to optimise performance to suit application
 2. Non-avionic modules available for demonstration
 3. Other designs available — please see associated literature

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