

## OPTICAL HELMET TRACKING SYSTEM

Developed to complement the range of Display Helmet systems the GEC-Marconi Avionics Optical Helmet Tracking system is fast and accurate. It is not influenced by any metal structure within the aircraft or vehicle nor by sunlight. The installation is dependent upon the location of the optical sensors relative to the helmet. Multiple sensors may be used to ensure that there is no obscuration of the helmet. No cockpit mapping is required.

The Optical Tracking system may also be used to track objects in similar military and civil applications.

### **Tracker Operation**

One or more optical sensors located rigidly on the aircraft detect the position of several helmet-mounted light emitting diodes (LEDs). A multiplexer energises each LED in turn. The position of the helmet is calculated from the relative position of each LED. The system does not require to be aligned or boresighted after initial installation.

### **Tracker Electronics**

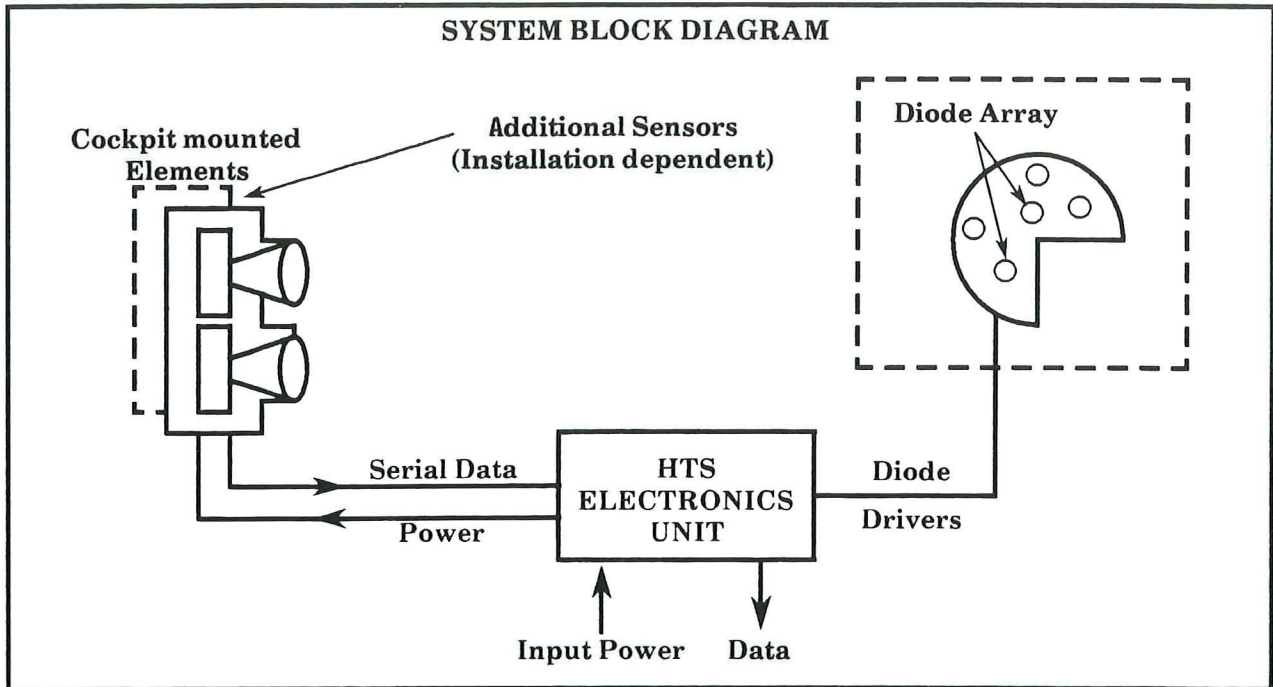
Electronics can be supplied as a stand-alone unit (for example, packaged as a  $\frac{1}{2}$ -ATR box) or as a card-set for installing in an existing electronics unit or host computer.



### **FEATURES**

- **No cockpit mapping**
- **No boresighting**
- **No calibration**
- **Unaffected by sunlight and internal room lighting**

DISPLAYS DIVISION



### PRINCIPAL FEATURES

- High accuracy (< 6 mrad rms)\*
- High resolution (1 mrad rms)\*
- Fast update rate (200 Hz)\*
- Low latency (< 10 ms)\*
- 6 Degrees of freedom
- Unlimited angular range†
- Large head motion box†

\* Parameters measured simultaneously

† Dependent upon installation

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