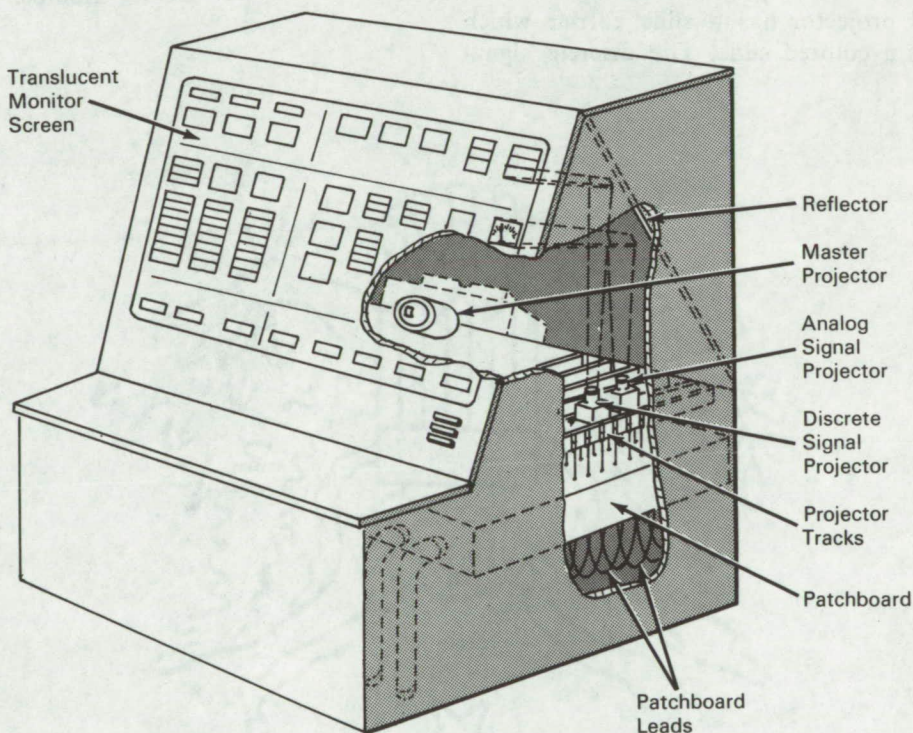


NASA TECH BRIEF



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Optical Monitor Panel Provides Flexible Test Panel Configurations



The problem:

To develop a multipurpose monitor panel that can be easily configured for various test monitoring objectives, especially in rapidly changing test programs. Present panels are fabricated from sheet metal or other permanent materials and require sheet metal work, engraving, and installation of monitor indicators.

Such panels are inflexible, and they are expensive to fabricate or modify.

The solution:

An optical monitor panel that projects a chosen panel configuration upon a translucent screen by using a master projector and appropriate slide to project panelboard nomenclature and a series of

(continued overleaf)

smaller individual projectors to superimpose monitor indicators upon the projected panel board.

How it's done:

In operation, a slide of the panel layout is inserted in the master projector and projected on the translucent monitor screen. Monitor projectors are clipped onto the projector tracks at locations indicated by the panel layout. Electrical power and the signals to be monitored are patched into the patchboard, and the patchboard leads are electrically connected to the monitor projectors. After a press-to-test circuit confirms that all components are working and correctly located, the panel is ready for use. Monitor projector images are projected on the screen by the reflector.

Two types of monitor projectors are used, the analog signal projector and the discrete signal projector. Each analog signal projector has a meter with a transparent face so light can be projected through it. Each discrete signal projector has a slide carrier which accommodates a colored slide. The discrete signal

projector is used for colored light indications, such as "28 VDC ON" or "SYSTEM READY" lights. The projectors clip onto the track at the conductive segments, which are separated by insulation. Power and signal voltage for the projection lamps and meters are received from the conductive segments.

Note:

Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Kennedy Space Center
Kennedy Space Center, Florida 32899
Reference: B66-10494

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

Source: Francis D. Griffin
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