

TC-528 DIGITAL SEQUENCER MODULE FUNCTIONAL DESCRIPTION AND SPECIFICATIONS

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The TC-528 "Blinky Board" is a small, self contained, programmable sequencer module that can be used to control up to eight (8) digital output channels with two separate sequences or "programs" stored in EPROM. Each output channel can drive up to a 500 ma. load at 12 or 24 VDC. An on-board regulator provides the 5 VDC necessary for the internal logic. Three opto-isolator inputs are provided to start either sequence 1 or 2, and to provide a stop or freeze mode.

The sequence can be jumpered to stop based on the transition of any of the high address lines, or a transition on output bit 8. If no jumper is selected, the unit will repeat indefinitely. Data is nominally clocked out at an adjustable rate of 10 to 30 bytes or frames per second, although other clock rates may be configured for special applications. The clocks of multiple boards can be linked to achieve synchronized operation if required. If tight sync is required, a TC-690 Sync Stripper Module can be used to clock the sequencer based on the vertical interval of a video signal.

An LED bar graph indicator is used to display the status of each output, power on, the clock, and two additional LEDs display which sequence is running. The form factor is such that it can be slid into a Weiland 77mm snap track suitable for DIN rail mounting, or four standoffs can be used to mount to a back panel. The board is fully socketed, solder masked, and silk screened for high reliability and easy repair if required.

Pure binary data representing the output status for each bit (for each frame) is programmed into either the high or low half of the EPROM for each sequence. Triad has a program (currently for OS/9000) which allows on-screen editing of the data, including cut and paste functions. Please contact Triad for application specific programming.

A schematic diagram and component layout are included with each board to assist in the configuration, modification, or service of the sequencer.

APPLICATIONS

Although incredibly simple and "stupid", there are a wide range of applications where simple sequencing is needed, without the complexity or expense of a PLC or microprocessor based controller. Some examples are:

- Displays and exhibits
- Lighting chases
- Simple animation playback
- Power sequencing
- Special effects
- Test jigs, "exercisers", cam timer

Used in conjunction with other equipment, many more uses can be envisioned; i.e. using a D-A converter as a pattern or waveform generator, or if using a UART, repeatable serial data playback would be possible.

SPECIFICATIONS

Model	TC-528 Digital Sequencer Module
Input	6 pin Modu connector (+/- isolated input @5-24 VDC) for Start 1/2 and Stop
Output	20 pin (10x2) .1" keyed IDC header connector
Jumpers	Int/Ext Clock, Stop address/bit control
Size	3" x 6-1/4" (approx.)
Power	Phoenix screw termination, 24 VDC, current depends on load and duty cycle
EPROM	27C256 nominal; will accommodate most 28 pin EPROMS