

AVO-6D-T-OS INSTRUCTIONS

- 1) A general description of the AVO-6D-T module is given in Fig. 3.
- 2) The AVO-6D-T module should be connected to the AVO-6D-C mainframe via the supplied 24" RG174 cable.
- 3) The laser diode is solder-connected between the OUT and GND terminals on the side of the AVO-6D-T module.
CAUTION: The lead lengths must not exceed one cm or pronounced ringing will be observed.
- 4) The mainframe provides a voltage pulse of up to 250 Volts to the AVO-6D-T module. The module transforms the pulse to 125 volts to 10 Ohms in series with the diode to yield a peak diode current of 10 Amps.
- 5) The MI output should be connected to 50 Ohms to provide a voltage pulse (V_{MI}) which is 0.1 of the amplitude of the voltage pulse applied to the 10 Ohms in series with the diode load. The diode current (I_D) is then given by (option):

$$I_D = \frac{10 (V_{MI} - V_{DIODE})}{10} \approx V_{MI} - 2.5$$

- 6) The diode current may also be monitored using a current probe (such as the TEKTRONIX CT-1, CT-2 series) or it may be monitored by placing a one Ohm resistor (to ground) in series with the laser diode. However, with this arrangement, the output waveform will exhibit pronounced overshoot and undershoot (but the amplitude and pulse width reading will be valid).
- 7) The DC bias current must not exceed 100 mA.
CAUTION: If the DC bias feature is not used, then the DC terminal must be shorted to ground.