



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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Model AV-141A (S.N. 7353)

Specifications

The Model AV-141 amplifier is designed to amplify bipolar nanosecond rise time baseband pulses in the pulse width range of about 0.5 ns and higher and CW signals in the frequency range of DC to 2500 MHz. The basic specifications for the unit are as follows:

Gain:	≥ 20 db (inverting)
Peak output voltage:	+1.0 volt
Rise time:	< 0.2 ns
Impedance level:	50 Ohms nominal
Bandwidth:	DC to 2500 MHz
Input VSWR:	< 2.0:1
Output VSWR:	< 2.0:1
Max. noise figure:	6.0 db
Prime power:	+5.0 VDC, 130 mA -5.0 VDC, 60 mA
Connectors:	SMA
Size:	1.4 x 1.1 x 2.3 inches

- 1) The output DC offset is controlled by the 10 turn pot (OS) on the output end of the module. The DC offset may require several minutes to attain its final steady state value after DC prime power is first applied. The module should be bolted to a heat sink to minimize the drift of DC offset with temperature.
- 2) An example of the pulse response is shown on the attached. We believe that the gain is constant with +1 dB but we could not positively confirm this due to some erratic performance by our aging network analyzer.
- 3) CAUTION: The unit may be damaged if the power supply voltages of ± 5.0 Volts are exceeded. If a low-level oscillation is observed at the output, reduce the +5.0 V supply by a few hundred millivolts.

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