

Single-Channel High-Voltage WideBand Amplifier

MODEL 9100

- High voltage output to 300Vp-p ($\pm 150V$)
- Output current to 150 mA
- Wideband range to over 500 KHz
- Slew rate to 200V/ μ s
- Low distortion
- Low cost
- Custom Configuration of:
 - Gain
 - Signal Ground



Model 9100 is a Single-Channel, 2U, half-rack size, bench-top power amplifier designed for signal amplification. With unprecedented signal purity, Model 9100 amplifies signals from dc to over 500KHz. The unit has a fixed gain of x15 however the same amplifier is available with custom gain and no signal purity or performance degradation whatsoever.

Solves common problems

Model 9100 operates as an amplifying buffer for signals emitted from waveform, function, or pulse generators. Most of these generators produce signals limited to 20Vp-p into high impedance. Model 9100 can convert these voltages to levels as high as 300Vp-p. The amplifier has a current driving capability of $\pm 150mA$ from a 0.1 Ω source. While the output can drive small capacitive or inductive loads, for full high speed potential it is recommended that the load characteristics should be mainly resistive. Model 9100 can withstand load capacitance and inductance up to 0.01 μ F and 0.5mH without any performance deterioration.

Ground level

The advanced power amplifier is supplied with floating input and output connectors allowing flotation from ground level up to 250Vdc. The only limitation is that both the input and output grounds must connect to the same level. This capability is extremely important in applications where the amplifying device must reside on the same ground level as its source. The floating capability can be added or removed using a simple, user-accessible, jumper connection.

Target applications

The amplifier case was designed to stack on top or below other Tabor products. It also can be mounted alongside a Tabor generator in a standard 19" rack. The waveform-amplifier combo is an ideal solution for virtually any high-voltage, wide bandwidth application.

Cost effective solution

Priced at around \$2000, the Model 9100 power amplifier is yet another of Tabor's cost-effective solutions for a full range of high voltage applications.

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Service and Support

Beyond providing precision Test & Measurement instruments, Tabor Electronics provides unparalleled service and support, and is continuously finding new ways to bring added value to its customers.

Our after-sales services are comprehensive. They include all types of repair and calibration, and a single point of contact that you can turn to whenever you need assistance. As part of our extensive support, we offer individualized, personal attention Help Desk, both online and offline, via e-mail, phone or fax.

Tabor Electronics maintains a complete repair and calibration lab as well as a standards laboratory in Israel and USA. Service is also available at regional authorized repair/calibration facilities.

Contact Tabor Electronics for the address of service facilities nearest you.

Applications

For expert technical assistance with your specific needs and objectives, contact your local sales representative or our in-house applications engineers.

Manuals, Drivers, and Software Support

Every instrument comes equipped with a dedicated manual, developer libraries, IVI drivers, and software. However, if your specific manual is lost or outdated, Tabor Electronics makes it possible to log-on to its Download Center and get the latest data "in a click".

Product Demonstrations

If your application requires that you evaluate an instrument before you purchase it, a hands-on demonstration can be arranged by contacting your local Tabor Electronics representative or the Sales Department at our Corporate Headquarters.

Three-year Warranty

Every Tabor Electronics instrument comes with a three-year warrantee. Each one has full test results, calibration certificate, and CD containing product's manual and complete software package. Our obligation under this warranty is to repair or replace any instrument or part thereof which, within three years after shipment, proves defective upon examination. To exercise this warranty, write or call your local Tabor representative, or contact Tabor Headquarters and you will be given prompt assistance and shipping instructions.

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TABOR ELECTRONICS Ltd.

Specification Single-Channel High-Voltage WideBand Amplifier

Model 9100



INPUT CHARACTERISTICS

Number of channels: 1
Connector: BNC
Impedance: 1M Ω , DC coupled
Damage Level: 50Vp-p
Frequency Range: DC to 500KHz

OUTPUT CHARACTERISTICS

Specification is given for the standard configuration only

GENERAL

Connector: BNC
Impedance: 0.1 Ω , DC coupled
Protection: Short-circuit, 10 seconds
Gain: x15, fixed (can be ordered from factory with different gain setting)
Polarity: Output normal
Amplitude: 0 to 300Vp-p ($\pm 150V$)

SQUARE WAVE CHARACTERISTICS

Transition Time: <1.5 μ s
Aberrations: <15%

SINE WAVE CHARACTERISTICS

Bandwidth: -3dB
 Small Signal 1MHz, at 20Vp-p
 Large Signal 500KHz, at 300Vp-p
Accuracy: \pm (2% of full-scale amplitude range + 25mV), Square wave at 1KHz
THD: <0.1%, 10Hz to 10KHz<1.2%, 10KHz to 200KHz

ENVIRONMENTAL

Operating Temperature: 0 - 50°C
Humidity: RH 80% (non-condensing)
Storage Temperature: -30°C - 80°C

GENERAL

Physical Size: 2U, half-rack size
Power Requirements: 100V/115V/230V, 47-63Hz, <60W
Dimensions: 3.5" x 8.3" x 15.4" (HxWxL)
Weight: Approximately 13Lbs
Signal Ground: Floated to the same level as the source, 250V dc maximum
EMC Certification: CE marked
Reliability: MTBF per MIL-HDBK- 217E, 25°C, Ground Benign
Safety: Designed to meet IEC EN61010-1, UL 3111-1
Workmanship Std: Conform to IPC-A-610D
Supplied Accessories: Power Cord, CD containing Operating Manual
Warranty: 3 years standard

ORDERING INFORMATION

Single-Channel, High-Voltage WideBand Amplifier,

MODEL	9100-15-G ⁽¹⁾
Gain:	10 through 20 , fixed ⁽²⁾
Signal Ground:	G = Tied to Ground; F = Floated Ground

⁽¹⁾ Standard Configuration

⁽²⁾ Custom gain from x10 to x20 can be ordered however, bandwidth cannot be maintained. Consult the factory before ordering gain above 15.



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