

# 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/ $\mu$ 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 $\Omega$  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 $\mu$ 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 warranty. 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.

#### **CORPORATE HEADQUARTERS**

9 Hattatia St. P.O.Box404,  
Tel Hanan, Israel 20302  
**T**+972 (4) 8213393  
**F**+972 (4) 8213388  
[www.taborelec.com](http://www.taborelec.com)

#### **EUROPE**

**Austria**  
UET-Viena  
**T**+43 15451 588  
**F**+43 15451 464

**Benelux** (Belgium, The Netherlands and Luxembourg)  
BFI Optilas B.V.  
**T**+31 172 44 60 60  
**F**+31 172 44 34 14

**Bulgaria**  
New-Tek Ltd.  
**T**+359 296 25286  
**F**+359 268 7110

**Cyprus**  
Sprel Ltd.  
**T**+357 2237 7159  
**F**+357 2237 7284

**Czech Republic & Slovakia**  
Testovaci Technika s.r.o.  
**T**+420 2 7478 2237  
**F**+420 2 7478 1285

**Denmark**  
Altimo AS  
**T**+45 8625 8899  
**F**+45 8625 5889

**France**  
Racial Instruments SAS  
**T**+33 1 3923 2205  
**F**+33 1 3923 2225

**Germany**  
CompuMess Elektronik GmbH  
**T**+49 89 321501-0  
**F**+49 89 321501-11

**Greece**  
American Technical Enterprises S.A.  
**T**+30 210 5240 740  
**F**+30 210 5249 995

**Hungary**  
ProMet Merestechnika  
**T**+36 24 521 240  
**F**+36 24 521 253

**Italy**  
LP Instruments srl  
**T**+39 2 4840 1713  
**F**+39 2 4840 1852

**Norway**  
Nortelco AS  
**T**+47 2257 6100  
**F**+47 2257 6130

**Poland**  
Heimat  
**T**+48 22 436 3106  
**F**+48 22 436 3110

**Romania**  
InterNET SRL  
**T**+40 21 312 1662  
**F**+40 21 312 1663

**Russia**  
CDIP  
**T**+7 0959 56 2022  
**F**+7 0959 56 2022

**Spain & Portugal**  
Instrumentos De Media SL  
**T**+34 91 300 0191  
**F**+34 91 388 5433

**Sweden & Finland**  
Ferner Elektronik AB  
**T**+46 8 760 8360  
**F**+46 8 760 8341

**Switzerland**  
Eistar Elektronik AG  
**T**+41 56 427 1888  
**F**+41 56 427 1976

**United Kingdom & Ireland**  
SEMATRON UK Ltd.  
**T**+44 1256 812222  
**F**+44 1256 812666

**Yugoslavia (Bosnia, Croatia, Macedonia, Montenegro, Serbia, Slovenia)**  
Mechanic & Electronic Measurement  
**T**+38 1943 4254  
**F**+38 1943 4251

**ASIA PACIFIC & JAPAN**  
**Australia**  
Trio Test & Measurement Solutions  
**T**+61 8 8234 0504  
**F**+61 8 8234 0130

**India**  
AIMIL Ltd.  
**T**+91 11 2695 0001  
**F**+91 11 2695 0011

**Japan**  
TOYO Corporation  
**T**+81 3 3279 0771  
**F**+81 3 3246 0645

**Korea**  
ITB Corporation  
**T**+82 2 549 8501  
**F**+82 2 549 8502

**New Zealand**  
Electrotest Ltd.  
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**F**+64 9 448 2611

**Philippines**  
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**Singapore, Thailand & Vietnam**  
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**F**+65 6273 5006

**Taiwan, China & Hong Kong**  
Precision International Corp.  
**T**+886 2 85124888  
**F**+886 2 85124900

**Taiwan**  
**China & Hong Kong**  
**T**+86 21 64401300  
**F**+86 21 64400524

#### **AFRICA**

**South Africa**  
Channels Measurement  
**T**+27 11 254 8362  
**F**+27 11 254 8451

#### **MIDDLE EAST**

**Israel**  
Dan-El Technologies Ltd.  
**T**+972 3 9271888  
**F**+972 3 9271666

**Turkey**  
Alfatek Test & Automation Ltd.  
**T**+90 216 474 7355  
**F**+90 216 474 7357

#### **UNITED STATES US SALES & SUPPORT OFFICE**

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**T**+1 847 670 1680  
**F**+1 847 670 1737

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**F**+1 972 490 0836

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#### **HAW, NV, CA**

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**F**+1 510 713 9958

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Tera Technologies Inc.  
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**F**+1 888 449 2799

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Test-Rep Associates, Inc.  
**T**+1 972 692 8000  
**F**+1 407 839 0337

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WA Brown Instruments  
**T**+1 407 648 9660  
**F**+1 407 839 0337

#### **CA, NV**

W5 Inc.  
**T**+1 949 212 1199  
**F**+1 714 281 0767

#### **CANADA**

Testforce Systems Inc.  
**T**+1 514 856 0970  
**F**+1 514 856 6983

#### **LATIN AMERICAS SALES & SUPPORT OFFICE**

**T**+1 440 543 7710  
**F**+1 440 543 9681

**TABOR ELECTRONICS Ltd.**

# Specification Single-Channel High-Voltage WideBand Amplifier

## Model 9100



-Net-  
THE INTERNATIONAL CERTIFICATION NETWORK

### INPUT CHARACTERISTICS

Number of channels:	1
Connector:	BNC
Impedance:	1MΩ, 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:	0.1Ω, 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:	<1.5μs
Aberrations:	<15%

### SINE WAVE CHARACTERISTICS

Bandwidth:	-3dB
Small Signal	1MHz, at 20Vp-p
Large Signal	500KHz, at 300Vp-p
Accuracy:	±(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** <sup>(1)</sup>

**Gain:** **10** through **20**, fixed <sup>(2)</sup>

**Signal Ground:** **G** = Tied to Ground;  
**F** = Floated Ground

<sup>(1)</sup> Standard Configuration

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