

PXIBus WideBand Amplifier

MODEL 3222

- Single-width PXI card
- Wideband range to 20 MHz
- Low distortion
- High amplitude to 40Vp-p (into high impedance)
- Custom Configuration of:
 - Gain
 - Input Impedance
 - Output Impedance
 - Output Polarity
 - Signal Ground



Model 3222 is a 3U single-slot, PXI-based power amplifier designed for signal amplification. Offering unmatched signal purity, Model 3222 amplifies signals from dc to over 20 MHz. The unit has a fixed gain of x10, however, the same amplifier is available with custom gain, with no signal purity or performance degradation.

Solves common problems

A common problem with PXI equipment is the inability to produce high voltages resulting from low power supply rails. For example, waveform generators or similar signal source devices draw power from 12V rails. Consequently, they cannot produce signals above 16Vp-p. Model 3222 solves this problem by using dc/dc converters to increase rail voltages which, along with custom components and unique design, enable amplification of input signals to 40Vp-p into high impedance, or 20Vp-p into 50 Ω .

Allows full current rating to other devices

The power amplifier draws current only from the +5V rail, leaving the other power supply rails free to supply their full current rating to other devices.

Ground level

Model 3222 can be supplied with input and output connectors that are isolated from case ground allowing the amplifier to float from case ground level up to 250Vdc.

The only limitation is that both the input and output grounds must connect to the same ground 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

Although the Model 3222 wideband amplifier occupies a single PXI slot, its performance is unique and outstanding by any standards. With 40Vp-p and over 20 MHz bandwidth one can use Model 3222 for virtually any application. A common application is in the automotive industry where signals need to be in the 12V to 28V range. Another application would be in the aviation industry where even higher levels are required to route signals throughout the aircraft body.

Cost effective solution

Priced around \$1000 Model 3222 is a cost-effective, versatile power amplifier that opens the door to numerous applications, specifically implemented with PXI equipment.

PXIBus WideBand Amplifier

Model 3222



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.

CORPORATE HEADQUARTERS

9 Hattiasia St. P.O.Box404,
Tel Hanan, Israel 20302
☎ +972 (4) 8213393
☎ +972 (4) 8213388
www.taborelec.com

EUROPE

Austria
UEI-Viena
☎ +43 15451 588
☎ +43 15451 464

Benelux (Belgium, The Netherlands
and Luxembourg)
BFI Optilas B.V.

☎ +31 172 44 60 60
☎ +31 172 44 34 14

Bulgaria
New-Tek Ltd.
☎ +359 296 25286
☎ +359 268 7110

Cyprus
Sprel Ltd.
☎ +357 2237 7159
☎ +357 2237 7284

Czech Republic & Slovakia
Testovací Technika s.r.o.
☎ +420 2 7478 2237
☎ +420 2 7478 1285

Denmark
Atimco AS
☎ +45 8625 8899
☎ +45 8625 5889

France
Racal Instruments SAS
☎ +33 1 3923 2205
☎ +33 1 3923 2225

Germany
Compuless Elektronik GmbH
☎ +49 89 321501-0
☎ +49 89 321501-11

Greece
American Technical
Enterprises S.A.
☎ +30 210 5240 740
☎ +30 210 5249 995

Hungary
ProMet Merestechnika
☎ +36 24 521 240
☎ +36 24 521 253

Italy
LP Instruments srl
☎ +39 2 4840 1713
☎ +39 2 4840 1852

Norway
Nortelco AS
☎ +47 2257 6100
☎ +47 2257 6130

Poland
Helmar
☎ +48 22 436 3106
☎ +48 22 436 3110

Romania
InterNET SRL
☎ +40 21 312 1662
☎ +40 21 312 1663

Russia
CDIP
☎ +7 0959 56 2022
☎ +7 0959 56 2022

Spain & Portugal
Instrumentos De Media SL
☎ +34 91 300 0191
☎ +34 91 388 5433

Sweden & Finland
Ferner Elektronik AB
☎ +46 8 760 8360
☎ +46 8 760 8341

Switzerland
Elstar Elektronik AG
☎ +41 56 427 1888
☎ +41 56 427 1976

United Kingdom & Ireland
SEMATRON UK Ltd.
☎ +44 1256 812222
☎ +44 1256 812666

Yugoslavia (Bosnia, Croatia,
Macdonia, Montenegro, Serbia, Slovenia)
Mechanic & Electronic
Measurement
☎ +43 1943 4254
☎ +43 1943 4251

ASIA PACIFIC & JAPAN

Australia
Trio Test & Measurement
Solutions
☎ +61 8 8234 0504
☎ +61 8 8234 0130

India
AIMIL Ltd.
☎ +91 11 2695 0001
☎ +91 11 2695 0011

Japan
TOYO Corporation
☎ +81 3 3279 0771
☎ +81 3 3246 0645

Korea
ITB Corporation
☎ +82 2 549 8501
☎ +82 2 549 8502

New Zealand
Electrotest Ltd.
☎ +64 9 448 2600
☎ +64 9 448 2611

Philippines
Sunley Inc.
☎ +63 2751 1216
☎ +63 2815 0730

**Singapore,
Thailand & Vietnam**
Gold Lite Engineering Pte Ltd.
☎ +65 6273 0487
☎ +65 6273 5006

Taiwan, China & Hong Kong
Precision International Corp.

Taiwan
☎ +886 2 85124888
☎ +886 2 85124900

China & Hong Kong
☎ +86 21 64401300
☎ +86 21 64400524

AFRICA

South Africa
Channels Measurement
☎ +27 11 254 8362
☎ +27 11 254 8451

MIDDLE EAST
Israel
Dan-EI Technologies Ltd.
☎ +972 3 9271888
☎ +972 3 9271666

Turkey
Alfatok Test &
Automation Ltd.
☎ +90 216 474 7355
☎ +90 216 474 7357

UNITED STATES US SALES & SUPPORT OFFICE

☎ +1 909 7970484
☎ +1 909 7974955

**IL, IN, IA, KS, KY, MN, MO,
NE, ND, SD, WI**
Base Eight, Inc.
☎ +1 847 670 1680
☎ +1 847 670 1737

**AZ, CO, ID, MT, NM, TX, EI
Paso, UT, WY**

Berry Technical Sales Inc.
☎ +1 303 665 9116
☎ +1 303 833 1294

AR, LA, OK, TX
Data Marketing Associates Inc.
☎ +1-972 661 0300
☎ +1 972 490 0836

OH, WV, PA, MI
Dytec EAST
☎ +1-330 405 8311
☎ +1 330 405 8313

DC, MD, VA
Eastern Instrumentation Corp.
☎ +1 410 884 7303
☎ +1 410 884 7306

PA, NJ
EI Philly
☎ +1 856 231 0668
☎ +1 856 231 9022

HAW, NV, CA
Sierra Technical Sales
☎ +1 510 713 9957
☎ +1 510 713 9958

NJ, NY
Tera Technologies Inc.
☎ +1 888 921-TERA
☎ +1 888 449 2799

CT, ME, MA, NH, RI, VT
Test-Rep Associates, Inc.
☎ +1 978 692 8000
☎ +1 407 839 0337

AL, FL, GA, MS, NC, SC, TN
W.A Brown Instruments
☎ +1 407 648 9660
☎ +1 407 839 0337

CA, NV
W5 Inc.
☎ +1 949 212 1199
☎ +1 714 281 0767

CANADA
Testforce Systems Inc.
☎ +1 514 856 0970
☎ +1 514 856 6983

**LATIN AMERICAS
SALES & SUPPORT
OFFICE**

☎ +1 440 543 7710
☎ +1 440 543 9681

Specification PXIBus WideBand Amplifier

Model 3222



INPUT CHARACTERISTICS

Connector: BNC
Impedance: 50Ω or 1MΩ, DC coupled
Damage Level: 50Ω, ±2V; 1MΩ, ±5V
Frequency Range: DC to 20MHz

OUTPUT CHARACTERISTICS

Specification is given for the standard configuration only

GENERAL

Connector: BNC
Impedance: 50Ω, 75Ω or 600Ω, DC coupled
Protection: Short-circuit, 10 seconds
Gain: x10, fixed (can be ordered from factory with different gain setting)
Polarity: Output normal, or inverted
Amplitude: 0 to 20Vp-p into matching impedance (50Ω, 75Ω, or 600Ω);
 0 to 40Vp-p into high impedance

SQUARE WAVE CHARACTERISTICS

Transition Time: <20ns
Aberrations: <7%

SINE WAVE CHARACTERISTICS

Bandwidth: -3dB
 Small Signal 50MHz, at 2Vp-p
 Large Signal 20MHz, at 20Vp-p
Gain Accuracy: ±(2% of full-scale amplitude range +25mV), 1KHz
Flatness (10Vp-p): 5% of amplitude to 1MHz;
 10% of amplitude to 20MHz
THD: 0.1%, 10Hz to 100KHz
Harmonics: <-50dBc, 100KHz to 5MHz;
 <-40dBc, 5MHz to 20MHz (10Vp-p)

ENVIRONMENTAL

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

GENERAL

Physical Size: Single-slot,
 3U high PXI module
Power Requirements: 7.2W maximum
Current Consumption: +5V, 3.5A maximum.
Signal Ground: Floated to the same level as the source,
 250V dc+ Peak ac maximum
EMC Certification: CE marked
Reliability: MTBF per MIL-HDBK- 217E, 25°C, Ground Benign
 Designed to meet IEC EN61010-1, UL 3111-1
Safety:
Workmanship Standard: Conform to IPC-A-610D
Warranty: 3 years standard.

ORDERING INFORMATION MODEL

MODEL 3222-50-50-10-I-G ⁽¹⁾

PXIBus WideBand Amplifier

Input Impedance:	50 = 50Ω 1M = 1MΩ ⁽³⁾
Output Impedance:	50 = 50Ω 75 = 75Ω 600 = 600Ω
Gain:	1 through 10 , fixed ⁽²⁾
Output Polarity:	I = Inverted N = Normal
Signal Ground:	G = Tied to Ground F = Floated Ground

⁽¹⁾ Standard configuration. Custom configuration may change amplifier characteristics, and may affect minimum quantity, price and delivery time. please contact the factory for a quotation before placing an order for any configuration other than standard.

⁽²⁾ Custom gain above x10 is available for special requirements.

⁽³⁾ 1MΩ is option available with none inverting (N) output polarity only.



TABOR ELECTRONICS Ltd.