

PXI Bus 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 50Ω.

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 the 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.



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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.

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The measure of perfection

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, 250°C, Ground Benign Designed to meet IEC EN61010-1, UL 3111-1
Safety:	
Workmanship Standard:	Conform to IPC-A-610D
Warranty:	3 years standaard.

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.