

temate® PXI Pulsar/Receiver

High-Power Ultrasonic Instrument

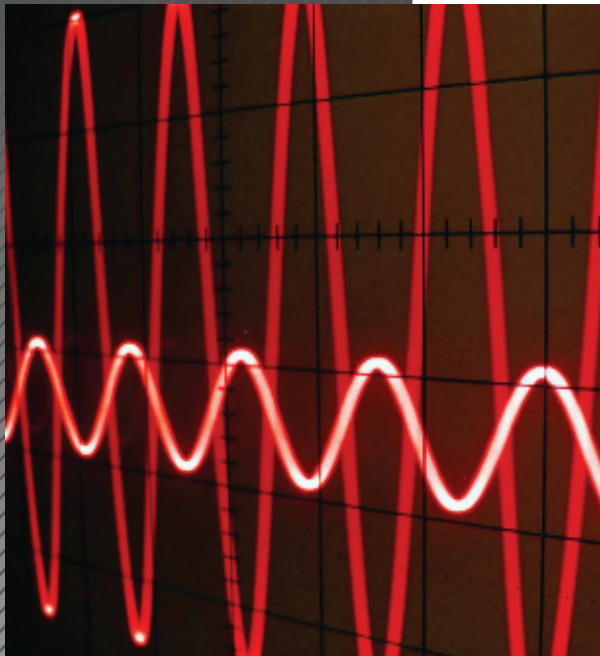
The **temate® PXI Pulsar/Receiver** is a high-power ultrasonic instrument designed to be installed on a standard PXI or Compact-PCI chassis. The instrument provides 8kW (1200Vpp toneburst) of power which is ideal for researchers and integrators interested in a compact, high-power ultrasonic instrument to drive both Electro Magnetic Acoustic Transducers (EMAT) and piezoelectric transducers (standard or air-coupled).

The pulser can be operated directly from any PXI compatible computer using dedicated software that permits modifying pulsing parameters. Additionally, factory provided drivers are available to set-up the equipment for use with a wide variety of third-party applications. The received signal can be viewed in a variety of ways including; display on the host computer, an external oscilloscope, or streamed to

another application. Data streaming can include time-of-flight (TOF) analysis and Peak-Amplitude for up-to three independent gates or the complete waveform of the signal, all at full Pulse Rate Frequency (PRF). Driver application examples are provided in both C++ and LabVIEW file formats to maximize third-party compatibility. The unit permits operation in Pitch-Catch or Pulse-Echo modes using a built-in Transmit/Receive switch.

The **temate® PXI Pulsar/Receiver** is the most power-dense instrument in the market and is the only high-power ultrasonic toneburst pulser available that can be integrated in both conventional PXI or CompactPCI chassis.

Innerspec Technologies is headquartered in Lynchburg, VA with offices in Europe, India, and Asia. With over 20 years experience, Innerspec is the world leader in designing, manufacturing, and fielding EMAT solutions. Additional information on this product and the complete line of portable and integrated systems is available at www.innerspec.com.



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temate® PXI Pulser/Receiver

Part Number	245A0235
Frequency Range*	100 kHz to 6 MHz
Output Power Peak	1 Channels x 0.17kW-8kW @50 Ohms
Max. Duty cycle	0.25% per Channel
Maximum PRF	2000 Hz
Output Power Average	20W per Channel (Maximum Power)
Voltage peak to peak	150V-1200V
High Power Signal Out	1 BNC
Receiver	50 Ω Input Impedance -10 dB to 70 dB Gain 0.3 dB Gain Resolution Additional 30dB Pre-Amplifier 8 Low Pass RF Filters; (Off, .1, .2, .5, 1, 2, 5, 10 MHz) 8 High Pass RF Filters; (Off, .1, .2, .5, 1, 2, 5, 10 MHz)
Monitor (O-Scope) connector	1 BNC
Indicators	Power on, Voltage out, Thermal and External Trigger indicator
Temperature	32°F (0°C) to 105°F (40°C)
Humidity	95% non-condensing Humidity
Protection	Thermal, fuse (including open & short circuit operation)
Electric Power Input	Provided by the PXI/cPCI chassis
Dimensions	4 Slot PXI/cPCI
Weight	0.8 kgs (1.76 lbs)

* Standard Frequency Configurations.
Other options available upon request.



Digital controller

Features

- Software Application based on our **temate®** technology to select and manage settings (Frequency, Number of Cycles, Delays and Other Configuration).
- Internal or External Trigger Mode.
- External 5VDC Trigger Input with Configurable Divider (e.g. Encoder Trigger).
- External Trigger Output for Electromagnet Pulser Control.
- Synchronized 5VDC Output.
- Drivers provided to allow parameter modification, A-Scan and C-Scan data streaming.
- User SDK with driver example code in both C++ and LabVIEW.

