



FEATURES

- Compact design: easy to mount on scanners and other equipment
- Wide receiver bandwidth: up to 100 MHz
- Can be used as a stand-alone device or as a computer-controlled unit
- Dimensions: 7.25" x 2.75" x 1.3" (185mm X 70mm X 33mm)
- Can be triggered with high voltage initial pulse
- Long distance operation: works up to 300 feet from a computer
- Low-noise pulser shuts down while acquiring data
- Includes control software and source code for Windows 2000/XP
- Optional built-in 30 dB pre-amplifier for high signal-to-noise ratio
- Optional extreme-environment design for temperatures as low as -40°C

DESCRIPTION

Compact Pulser is an ultrasonic pulser/receiver that can be used as a remote pulser or a standard desktop pulser/receiver. The Compact Pulser transmits a high voltage pulse with a user specified pulse voltage and width when triggered by an external trigger signal or by the internal PRF timer. The receiver on the Compact Pulser then processes the received signal through the amplifier and the low and high filters.

For high-frequency ultrasonic inspections, the long cable from the transducer to the UT instrument may cause the signal to attenuate significantly. Because the Compact Pulser is smaller than other remote pulser/receivers, you can mount the device on the scanner near the transducer and run a long cable from the RF output of the Compact Pulser to the UT instrument. The Compact Pulser is able to preserve and drive the signal through up to 300 feet of cable.

The Compact Pulser can be triggered with a TTL trigger source as well as a pulse from other UT instrument. This feature enables you to easily integrate the Compact Pulser into your existing UT system without any extra hardware. The device can also trigger itself at rates from 10 to 5000 Hz. The trigger connector will then generate sync out pulses for other instruments.

Programmable parameters include pulse voltage, pulse width, transducer mode, trigger mode, damping resistors, gain, pulse repetition rate (PRF), high voltage switcher shut down time, and low and high pass filters. All the parameters can be controlled from a host computer through an RS232 serial communication port. The parameters can be saved in the on-board memory and can be retrieved as the default parameters when it powers up, allowing the device to function as a stand alone unit.

The control program for Windows 2000/NT/XP enables you to save your settings and parameters to files and quickly load them in the future, allowing you to easily switch between applications.

SPECIFICATIONS

Pulse Voltage	40V to 300V (optional 350V)	Receiver Bandwidth	100 MHz
Pulse Width	20 ns to 484ns (optional 10)	Serial Port Settings	9600 baud rate / 8 bit data / no parity / 1 stop bit / no flow control
Trigger Source	Software trigger, internal trigger, and external trigger	Power Requirement	12VDC@500mA
External Trigger Level	Up to +/-300V	Dimensions	7.25" x 2.75" x 1.3" (185mm X 70mm X 33mm) including the connectors
Damping Resistor	8.4, 8.5, 9.9, 10.1, 48, 52, 375, and 750 ohms	Weight	1 pound
PRF Internal Trigger	10 Hz to 5000 Hz in 10 Hz increments	Working Temperature	0 to 50°C (or optional -40°C to 50°C)
Receiver Gain	-12 dB to 84 dB in 0.1dB increments	Options	- Output Voltage: -350V - 10 ns pulse width - Industrial temperature (-40°C) - Customized low and high pass filters - Built-in 30 dB pre-amplifier - USB to RS232 serial port adapter
Low Pass Filter	All, 48MHz, 28MHz, 18MHz, 8.8MHz, 7.5MHz, 6.7MHz, or 5.9MHz		
High Pass Filter	4.8MHz, 1.8MHz, 0.8MHz, or 0.6MHz (special filter available upon request)		