



General Description

The TRPP 5810 unit is a high-performance remote pulser/preamplifier dedicated to TOFD inspection and compatible with the Olympus NDT scanner line as well as PV-100 and PV-200 weld inspection systems.

This remote pulser/preamplifier provides an optimum signal-to-noise ratio for TOFD inspection by combining a 40 dB preamplifier with a remote high-voltage (200 V) pulse repeater in a single, small enclosure. The TRPP 5810 supports two UT channels, enabling simultaneous inspection with one or two pairs of TOFD probes.

Application

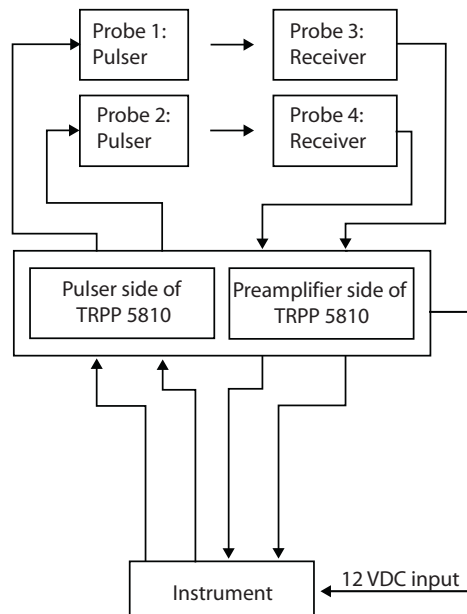
The TRPP 5810 can be used as a pulser and/or preamplifier.

TRPP 5810 as a Pulser

- Provides an additional pulse gain in order to generate a stronger signal when needed to reveal difficult-to-detect flaws.

TRPP 5810 as a Preamplifier

- Provides the additional gain or broadband signal-to-noise enhancement necessary for optimum signal acquisition on thick sections of material exhibiting high ultrasonic attenuation.
- Allows driving of long cables from remotely located sensors.



TRPP 5810

Remote Pulser/Preamplifier

Pulser

- Remote, high-voltage (200 V) pulse repeater
- PRF of up to 10 kHz at 100 ns per channel and up to 20 kHz at 50 ns for a single channel
- Pulser-side outputs are protected against misuse and improper connection from the instrument outputs.

Preamplifier (Receiver)

- 40 dB preamplifier
- Accommodates probe frequency range from 1 MHz to 15 MHz.
- Preamplifier-side inputs and outputs are protected against misuse and improper connection from the instrument outputs.

General Features

- Withstands pulsed voltages up to 300 V for pulse widths in excess of 500 ns at PRFs up to 10 kHz.
- Dimensions (W×H×L): 57 mm×32 mm×90 mm
- Weight: 300 g
- UT connectors: 8×LEMO (00) female coaxial
- Water/moisture resistance: NEMA 4-IP66 or better. Rustproof.
- Casing material: Aluminum
- Powered by an external 12 VDC source or from the instrument.
- Power connector: Compatible with standard Olympus NDT umbilical cables (male Fisher 103 type)
- Red power-on LED indicator
- Operating temperature range: -10°C to 60°C
- Storage temperature range: -20°C to 70°C

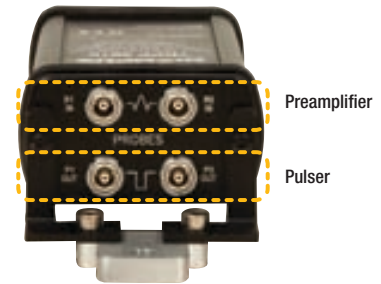
TRPP 5810 Specifications

Pulser

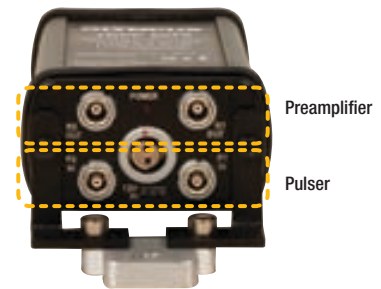
Output pulse voltage	Fixed, -200 V into 50 Ω load
Output impedance	≤6 Ω
Input impedance	50 Ω
Pulse width	30 ns to 500 ns
Maximum PRF, Hz	5 kHz @ 100 ns pw, both channels 10 kHz @ 100 ns pw, single channel 20 kHz @ 50 ns pw, single channel (Maximum duty cycle of 0.1% total)

Preamplifier (Receiver)

Voltage gain into 50 Ω load	Fixed, 40 dB
Bandwidth (-3 dB)	0.5 MHz to 30 MHz
Input-referred noise	≤2 nV, with source impedance = 50 Ω
Input/output HV protection	≥ -300 V
Input impedance	550 Ω
Output impedance	50 Ω
Crosstalk between channels	≥70 dB at 10 MHz sine wave



To probes



To instrument

Included Accessories

Quantity	Part Number	Description
4	TRPP-5810-A-02	0.6 m LEMO (00) male to Microdot male RG174 cable for probe connection
1	TRPP-5810-A-03	Transformer (120 to 240 VAC input to 12 VDC output) with 5 m power supply cable
1	TRPP-5810-A-04	5 m power supply cable linking to OmniScan
2	TRPP-5810-A-05	Mounting brackets for the HSMT scanner family
1	MVTX045	Hard carrying case
Option		
1	TRPP-5810-A-01	5 m power supply cable linking to TomoScan FOCUS LT
4	EWIX533	5 m LEMO (00) male to LEMO (00) male RG174 cable for TRPP connection to instrument

Recommended Probe Selection for CentraScan Composite Probes

Part Number	Description	Connector	Case Style
C542-SM	2.25 MHz, 6 mm element diameter	Top-mounted Microdot	6 mm / 4T
C540-SM	2.25MHz, 12 mm element diameter	Top-mounted Microdot	13 mm / 7T
C543-SM	5.0 MHz, 6 mm element diameter	Top-mounted Microdot	6 mm / 4T
C541-SM	5.0 MHz, 12 mm element diameter	Top-mounted Microdot	13 mm / 7T
C563-SM	10 MHz, 3 mm element diameter	Top-mounted Microdot	6 mm / 4T
C544-SM	10 MHz, 6 mm element diameter	Top-mounted Microdot	6 mm / 4T

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