



MODEL 5627RPP-1

REMOTE PULSER PREAMPLIFIER

FEATURES

- High Frequency broadband receiver (10-150MHz)
- 24dB gain
- Low noise
- Switchable energy control
- Pulsar repetition rate 0 to 20KHz
- Rise Time < 2nS
- Compatible with Model 5900PR Pulsar-Receiver
- Able to drive 500 ft. (152m) cable

The performance of high frequency ultrasonic transducers can be significantly affected by the length of the cable between the transducer and pulser-receiver. The Panametrics Model 5627RPP-1 Remote Pulser Preamplifier permits use of an optimum short cable in applications when setup requirements would otherwise dictate a cable length that would degrade transducer performance.

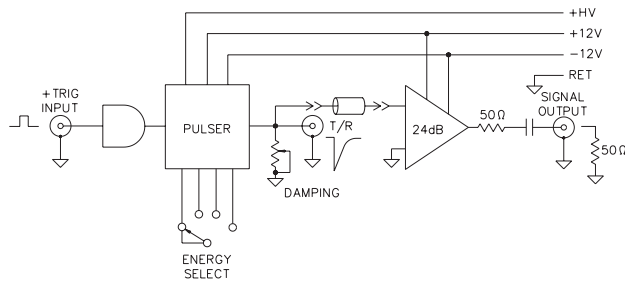
APPLICATIONS

The Model 5627RPP-1 is designed for imaging, flaw detection, thickness gaging, and material characterization applications in the frequency range of 20 to 125MHz. It is used with a host instrument, normally a Panametrics Model 5900PR Pulsar-Receiver. Receiving power and an external trigger command from the host instrument, the Model 5627RPP-1 generates an excitation pulse of selectable energy. The excitation pulse is transmitted to the transducer through a very short (typically 12 inch/305mm) coaxial cable. Returning echoes are amplified by a high frequency broadband preamplifier, and then sent to the host instrument for further processing. Cable length between the Model 5627RPP-1 and the host instrument can be as great as 500 ft./152m.

Because the cable connecting the Model 5627RPP-1 to the transducer is very short, undesirable cable effects are minimized. However, the instruments' ability to drive a very long cable to the host instrument provides great mechanical flexibility in setups. For immersion applications, the Model 5627RPP-1 can be mounted directly on a search tube holder. For contact applications it can be easily hand-carried. Mechanical dimensions and an interconnection diagram are on the reverse side of this data sheet.

PULSER

Repetition Rate:	0 to 20KHz by external trigger pulse.
Pulse Type (Main Bang):	Negative impulse.
Maximum Pulse Amplitude:	-150 Volts at minimum damping (damping control fully ccw).
Damping:	6 to 50 ohms \pm 10% continuously adjustable.
Rise Time:	<2nS (50 ohms damping).
Available Pulse Energy:	1, 2, 4, and 8uJoules, switch selectable.
Ext. Trig. Requirements:	TTL COMPATIBLE. Rise Time: <20nS. Pulse Width: $200nS \leq PW \leq 1\mu S$. When used with Panametrics Model 5900PR compatible trigger is furnished by the host instrument.



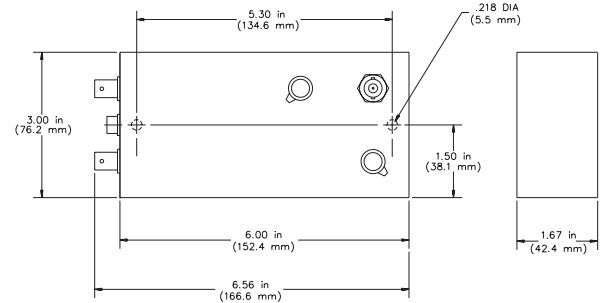
BLOCK DIAGRAM MODEL 5627RPP REMOTE PULSER PREAMPLIFIER

RECEIVER

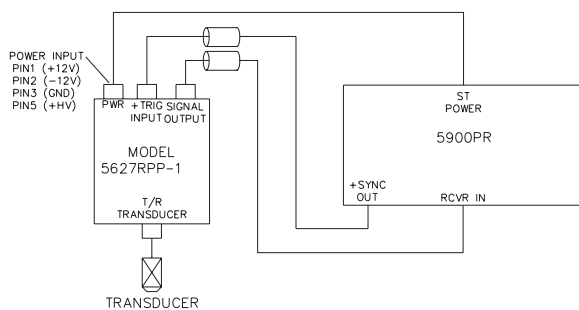
Voltage Gain: (Non-Inverting)	24dB \pm 2dB ($R_L = 50$ ohms & 4ft. RG58/U cable)
Bandwidth (-3dB):	10MHz to 150MHz.
Noise:	Typically 60uV pk-pk referred to the input (BW = 150MHz), 100uV pk-pk max.
Output Impedance:	50 ohms.
Maximum Output Voltage:	± 0.3 Volt peak ($R_L = 50$ ohms).
Cable Length:	10 ft. (3m) standard cable length. 500 ft (152m) recommended max.

UNIT

Power Requirements:	
Pin 5:	+260V to 300V at 10ma.
Pin 1:	+12V \pm 5% at 170ma.
Pin 2:	-12V \pm 5% at 60ma.
Pin 3:	Ground.
Connectors:	
Power Input:	HIROSE HR10A-7R-6P.
Trigger Input:	BNC.
Signal Output:	BNC.
Transducer:	BNC.
Operating Temperature:	0° to 50°C ambient.
Dimension:	SEE FIGURE (below).
Weight:	1.3 lbs. (590 grams).



DIMENSIONS



5627RPP CONNECTED TO HOST INSTRUMENT MODEL 5900PR

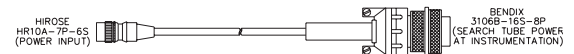
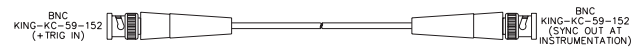
TRANSDUCERS

The 5627RPP-1 is designed for use with Panametrics Transducers in the frequency range of 20 to 125MHz. Consult Panametrics for details

ORDERING INFORMATION

The 5627RPP-1 is used with a cable set, part number 5627CS (sold separately). Standard cable length is 10 ft. (3m). Other lengths are available on special order. Consult Panametrics for details

*Note: Unless otherwise noted, specifications are typical at 20°C. All specifications are subject to change without notice.



5627CS CABLE SET