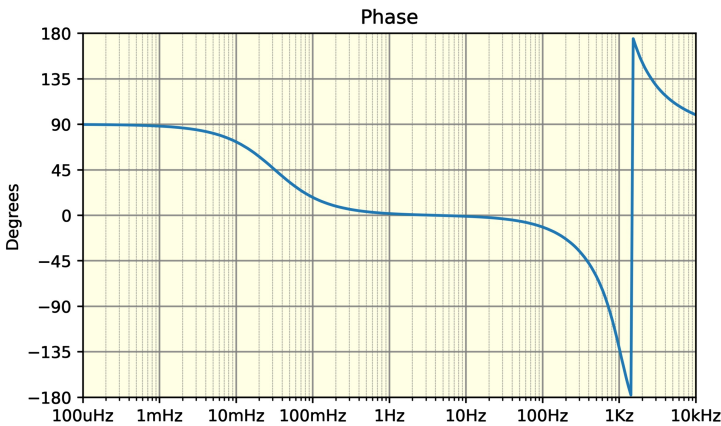
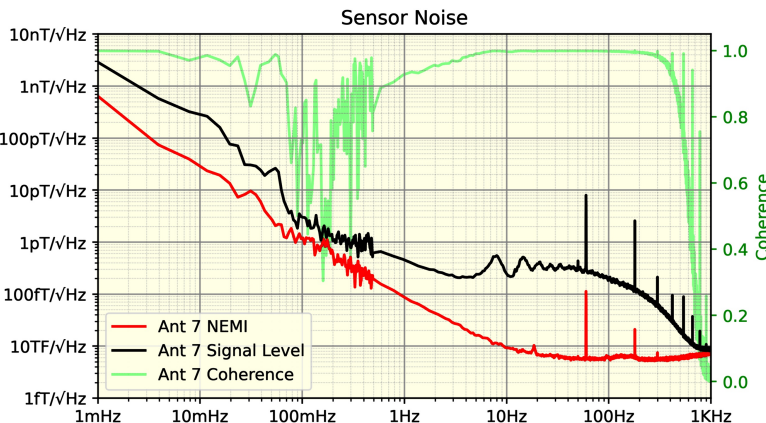


The ANT/7 magnetic field sensors are extremely low noise instruments designed to withstand the difficult conditions encountered in the field environment. By utilizing high-permeability cores and transformer coupled feedback the Ant 7 has a very flat and stable transfer function across a wide bandwidth. It is designed for the lowest noise levels while keeping the length to a minimum. This makes it especially appealing to use as the Z channel alongside the Ant/4



Specifications

Optimal Frequency Range	100uHz to 1kHz
Length	959mm / 37.75"
Weight	4.75kG / 10.5lbs
High Pass Corner Frequency	0.031Hz
Low Pass Corner Frequency	1 kHz, 3 pole
Sensitivity	100mV/nT
Noise at 1Hz	85fT/√Hz
Power Supply	Split Supply +-9.5V to +-18V
Power Supply Current	7.5mA
Standard Connector	PT07A-12-8S



Zonge Headquarters: 3475 N Dodge Blvd,
 Tucson, AZ 85716 USA
 Tel: (520) 327 5501
 (800) 523 9913
 Email zonge@zonge.com
 Web: <http://www.zonge.com>
 Fax: (520) 325 1588



Ant 7 Operating Instructions

Turning on the Antenna

This version of the Ant/7 does not have an on-off switch. To turn it on plug it in to a suitable power source as specified on the specifications page.

Polarity

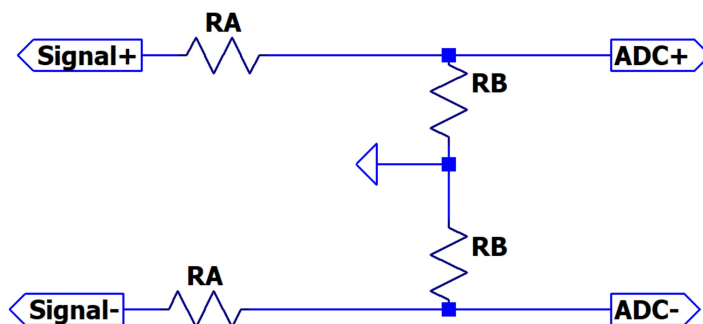


The box end of the antenna is negative and the other end is positive, if we align the positive end with B field direction, the measured voltage signal is in phase with the B field. If we align the negative end with B field direction, the measured voltage signal is out of phase

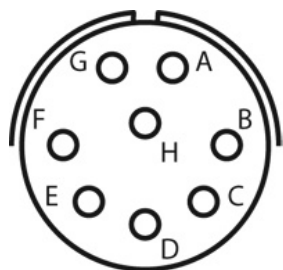
Output

The Ant 6 features a differential output and is determined by the supply voltage. The supply voltage is split in the middle to create a positive and negative rail. Each of the two outputs can swing from the positive rail minus 1.5V to the negative power rail + 1.5V. With a 24V split supply, +12V and -12V, this equates to +/- 10.5V or 21pp. The differential signal is then +21V or 48Vpp. This voltage level is often impractical and a simple voltage divider as shown in the circuit to the right can be used to attenuate the output. There is 49.9 ohms in series with each phase of the output.

$$V_{out} = \frac{100mV}{nT} \cdot \frac{RB}{RA + RB + 49.9}$$



Connector Pin out



- A) Power +
- B) Power -
- C) Signal - phase
- D) Signal + phase
- E) Ground
- F) NC
- G) NC
- H) NC

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