Variable gain Telemetry line amplifier

For 608 ~ 614 MHz, Model NP-6030

1. General description

The NP-6030 is a telemetry line amplifier designed for an antenna system used in medical telemetry applications to overcome line loss between the telemetry antenna and the receiver.

The line amplifier passes power from the output to the input, thus allowing several units to operate with a single power supply at the receiver.

⚠ CAUTION
* To prevent fire or shock hazard, do not expose this device to rain or moisture.
* Use the power supply which provides short circuit protection.
* Don't use too much of amplifier or too much gain. Too much of amplifier may cause self-oscillation or over input to the receiver.

2. Specifications

1. Frequency range:	608 to 614 MHz
2. Gain:	8 to 36dB Typical
3. Noise Figure:	1.5 dB Typical when max gain
4. 1 dB compression input	91 to 104 dBuEMF Typical
5. Line Power thru coax cable	70 mA Typical
6. Power requirements:	+8 to +24 V DC thru coax cable
7. Connector:	F-type female 75 ohm
8. Power lamp	Yes
9. Size:	0.98 (T) x 4.5 (W) x 2.7 (D) inches
10. Weight:	0.29 lbs +/- 0.022 lbs
11. Operating temperature:	-10 to + 60 degrees C
12. Humidity range:	30 to 95% RH, no condensation
13. Accessories:	Installation manual

3. Installation

Step 1. Mount the line amplifier on the wall or on a hanging screw in the ceiling with using screws or wire ties.

Fig. 1 Wall mounts

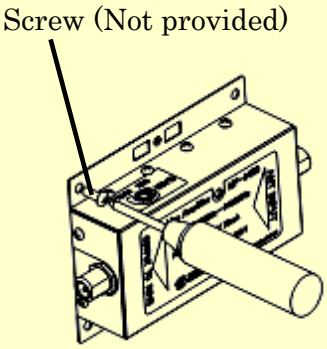


Fig. 2 Hanging Screw mounts

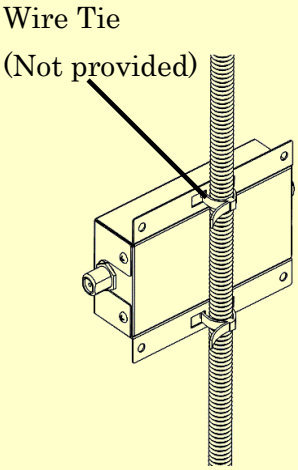
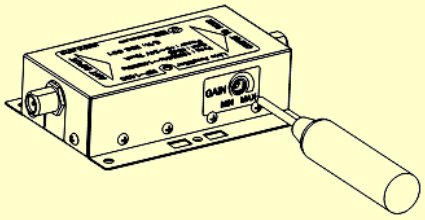


Fig. 3 Gain alignment



⚠ CAUTION
* Do not place near electrical transformers, such as LED lights, or electrical power cables. * Route all cables away from these and other sources of electrical noise.

Step 2. Attach the cable from the antenna to the jack marked "ANT INTPUT" on the amplifier. Also attach the cable for the receiver to the jack marked “OUTPUT TO RCVR” on the amplifier.
Make sure to use low loss, high quality 75 ohm coaxial cable for connection of the amplifier and antenna system to the receiver.
Since DC current is passed thru the cable to power the amplifier, the DC resistance of the cable should be as low as possible.
Cable that incorporates a solid copper center conductor and copper braid should be selected over those with a steel Center conductor and aluminum braid.

Step 3. While observing the field strength input to the receiver using a spectrum analyzer etc., align the gain so that the levels from each antenna branch are equal and the receiver is not over input.

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