

# Jackson Labs Technologies Inc.

**92-13210** Professional GPS Antenna Kit

**92-13220** Professional GPS Antenna Kit w/Lightning Surge protector

## Antenna Specifications

Voltage Range: 2.5Vdc to 5.5Vdc

Gain: 30dB gain

Center Frequency: 1575.42 MHz

Bandwidth: 2 MHz min.

Operating Temp: -40° C to +85° C

Suitable for use with any JLT GPS disciplined oscillator product.

## Kit Contents:

- 100 Ft roll quad-shield RG6 cable with F connectors
- 50 Ft roll quad shield RG6 cable with F connectors
- GPS Antenna **JLT PN: 92-13510**
- Antenna Mounting Bracket **JLT PN: 92-13520**
- TNC male to F female adapter
- N male to F female adapter
- Polyphaser Impulse Suppressor **JLT PN: 92-13530 (Supplied with kit 92-13220 Only)**
- N female to F female adapter
- F female to F female adapter
- BNC male to F female adapter
- 1 Ft roll of Scotch 2228 Moisture Sealing Electrical tape (not shown)
- 3 Ft roll of Scotch 88 Vinyl Electrical tape
- (2) 1" pipe clamps
- (4) #8-10 x 1-1/4" screws with plastic anchors
- 1 Ft length of 1" PVC pipe



## Quick Start Instructions

Find a suitable mounting location for the Jackson Labs Technologies antenna. It should be mounted as high as possible to avoid obstructions. Antenna should be located so it will have a view of as much of the sky as possible. It may be possible to use just the mounting bracket alone, or a length of PVC pipe, to be mounted vertically, is included to raise the antenna above a nearby obstruction.

Use #8-10 x 1-1/4" screws included along with pipe clamps to mount PVC pipe. The plastic anchors require a 1/4" drill size.

Attach antenna bracket to top of pipe.

Attach antenna to antenna bracket through hole in top of bracket. Use large washer underneath bracket along with large plastic nut. Tighten carefully. Next screw smaller metal nut on bottom of antenna to secure large plastic nut in place.

Attach TNC to F adapter on bottom of antenna.

Connect 50 Ft length of RG6 cable to antenna.

Use a short length of thick Scotch 2228 moisture sealing electrical tape to cover the TNC and F connectors. Fully cover the moisture sealing tape with Super 88 Vinyl Electrical tape for extra weather protection.

It is recommended to locate the PolyPhaser impulse suppressor in a small weather proof box outside of building. The PolyPhaser unit needs to be properly grounded! Be sure to read instructions in PolyPhaser box for proper installation of this unit.

Run the other end of the 50 Ft length of RG6 to the PolyPhaser impulse suppressor. Connect the RG6 cable to F female to N male adapter and then to impulse suppressor. The output side of the impulse suppressor connects to N female to F female adapter and then to the 100 Ft length of coax.

If not using the impulse suppressor (92-1310 kit), a F female to F female splice adapter is included to connect lengths of RG6 cable.

Finally, use the F to BNC cable adapter to connect antenna to board under test.

Various vendor splitters are available to connect multiple boards to one antenna. Care should be taken if using splitters, that DC block adapters may be needed. Different boards may be supplying a different DC voltage to the antenna. If the splitter outputs are DC coupled, a 5V board may interfere with a 3V board operation.

The antenna itself will operate with any voltage between 2.5Vdc to 5.5Vdc. It is compatible with any GPS disciplined oscillator from Jackson Labs Technologies Inc.

Extra quad shielded RG6 cable, F connectors, and moisture sealing electrical tape are available from Home Depot. F connector adapters are from ShowMeCables.com



L-R Antenna bracket, antenna plastic nut with washer, metal locking nut, TNC to F adapter, moisture sealing tape, and vinyl electrical tape.



Polyphaser impulse suppressor. Included in kit PN:92-1330 only. Input is on the left and output is on the right. Grounding connection nut is connected on bottom.



Antenna mounted in bracket and attached to pipe.