

# PRO.SIS.TEL.

Produzione Sistemi Telecomunicazioni

## PST-524FP (15-20-40m)

### **Introduction**

This antenna is a multi-band of four paralleled dipoles ending on a center-fed 1:1 balun capable of 1500 Watts. An SO239 connector is provided for 50ohm coax fed-line.

### **Tools And Time Requirements**

This antenna requires no assembly. The time needed for installation will vary with your skill and equipment.

No special tools are required to install this antenna. Nylon ropes are needed to support the ends of the antenna from a suitable structure or tree. If a tree is used, you will need a way to get ropes over it. The most common method is to use a weighted arrow or a fishing rod and a heavy sinker to place a small line over a tree. A larger line is then pulled up and used to pull the support rope over the tree.

***WARNING:*** Always mount this antenna so that it is out of the reach of adults and children. Contact with any part of this antenna can cause RF burns or other injuries.

### **Installing The Antenna**

***Please read the following suggestions and examples.***

The best location for this antenna is as high and far away as possible from utility wires, other antennas, and other structures. It is difficult to find a perfect location, so the best compromise usually must be accepted. The antenna can be installed in two basic ways:

#### ***Horizontal Antenna:***

This method requires two tall supports separated by at least 22m (66 ft). Suspend the antenna with at least a 100 kg or 45 pound working load nylon rope or another equivalent strength UV weather resistant non-metallic rope.

Never use wire or wire core rope to support the ends of the antenna. Attach the rope to the end insulators through the empty holes.

Try to keep the antenna as horizontal as possible. The antenna must be more than 10m or 35' above ground level to give acceptable performance. The coax line should drop vertically from the horizontal section.

#### ***Inverted "V" Antenna:***

This method requires only one tall support and also places the least strain on the antenna. Hang the antenna from the support using a nylon rope or other non-conductive rope tied to the center hole of the center insulator. The center insulator should be the highest point of the antenna and should have **90 to 120 degrees** between the antenna's legs. The antenna ends should be secured with nylon or UV weather resistant non-metallic rope to suitable supports.

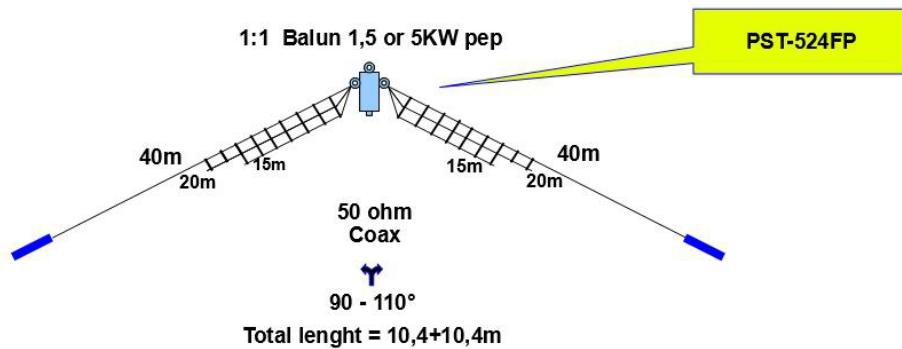
### **S.W.R. diagrams.**

The S.W.R. diagrams were detected with the antenna installed as inverted V having the center top at 9m from the ground and at an angle of 95 degrees

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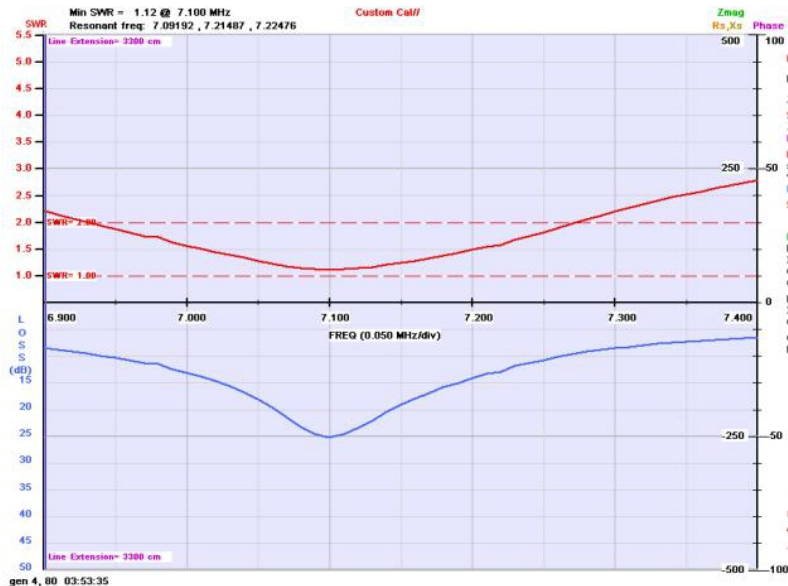
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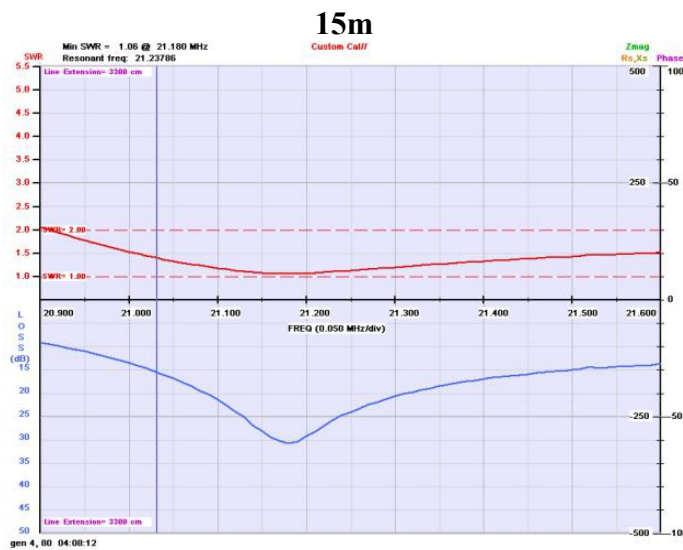
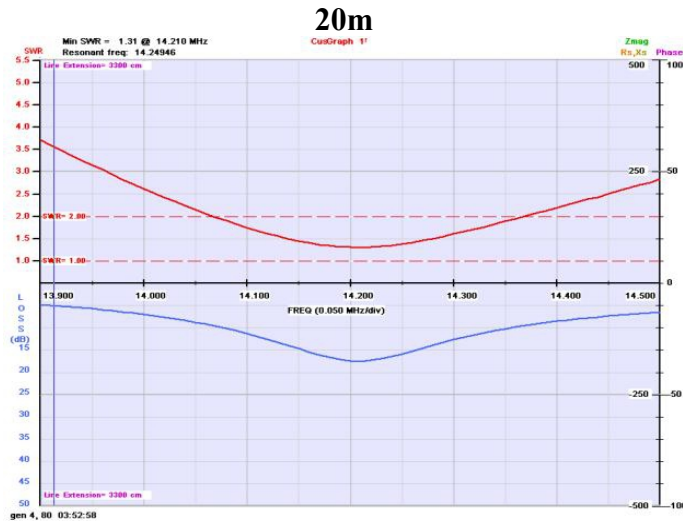
Multiband  
Full size 15-20-40m  
Parallel dipoles



### Single band S.W.R. diagrams

#### 40m





#### Antenna tuning.

If due to operational or environmental influences, would be necessary to adjust the tuning, just lengthens if resonates too high or shorten the leads of each band if it resonates too low. If too long, do not cut the excess, but wrap it tightly on itself and secure it with adhesive tape, so you can re-tune the antenna whenever you want or if necessary moving it in a different place.

#### Maintenance

This antenna is constructed of heavy duty materials and should withstand normal climates for many years. The use of some type of coaxial connector moisture protection is recommended at the top coax connection. This is especially true in coastal areas where salty mist is common place.

#### Features:

Performance may change due environmental conditions in which is installed.

**Bands: 15-20-40m**

**Impedance: 50 ohm**

**SWR: =< 1:1,5**

**Length = 10,4 + 10,4m (34+34ft)**

**Weight = about 2Kg (4.4lbs)**

**Average gain = 0 Db**

**Maximum power = 1.5KW pep ssb**

**Wind survive: 130Km/h**

## **Safety Precautions:**

### ***WARNING:***

- This antenna is an electrical conductor.
- Contact with power lines can result in death or serious injuries.
- Don't install this antenna where there is any possibility of contact with power cables.
- The antenna should not be close to power lines during installation, operation, or removal.
- Follow the guidelines for antenna installation recommended by your local safety rules.
- Keep this antenna out of reach of adults, children, and animals.
- Any contact with this antenna while transmitting can cause RF burns.
- Never place this antenna close to electric power lines or utility wires.
- Install the antenna away from living areas to reduce levels of electromagnetic fields
- Never operate this antenna near RF sensitive medical devices such as pacemakers
- Keep this antenna away from buildings or metallic objects.
- Use a UV weather resistant rope to support the tension and wind load of this antenna.

**Dear customer,**

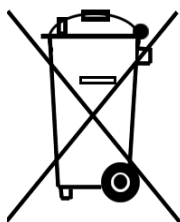
**thank you for purchase a Pro.Sis.Tel. antenna if you are happy with it please talk to everybody, if you are unhappy with it please talk with us.**

**Your feed back and suggestions, will be very appreciated, to improve our products.**

**Annamaria Fiume  
IK7MWR**

***MADE IN ITALY***

Protect your environment, in case of discontinuing of this unit, consign it to specialized metal waste collector in according with your national rules.



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