

BULLET4006 Antenna

Bullet™ End Fed OCF Antenna Configuration

Bands: 40-30-20-17-15-12-10-6

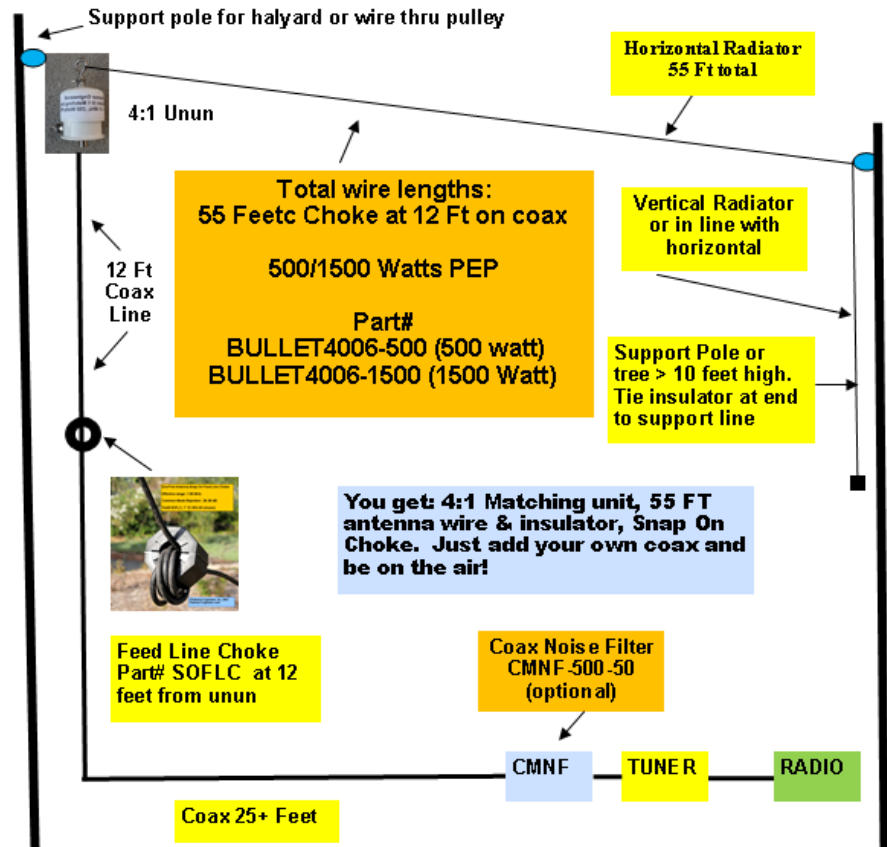
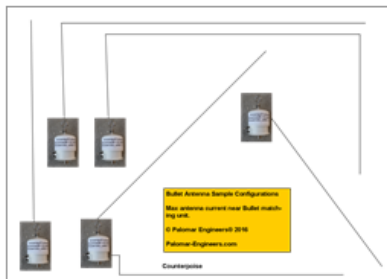
Coax feed line length > 25 feet

Feed Line Choke installed at 12 feet from matching unun

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Other Possible Configurations



Off Center Fed (OCF) antennas are very convenient as they will allow multiple bands of operation with a simple wire antenna which is fed off center. The Palomar Engineers 4010 OCF is a very popular antenna and consists of an off center fed dipole with sides of 55 feet and 11 feet and it will work all bands from 40-6 meters. The End Fed OCF uses the same dimensions but the wire section is 55 feet as in the OCF and the coax outer braid is used for the “other” part of the OCF dipole. We place a choke on the coax at the 12 foot distance from the matching unit and we essentially have an OCF antenna with its great frequency range, but with only a 55 foot wire length instead of the 66 feet required by the regular OCF. You feed the antenna from one end which may be more convenient for some installations. This antenna

will work on 40-30-20-17-15-12-10 and 6 meters. Most bands are under 3:1 SWR and easily tuned by your transceiver's internal antenna tuner or external tuner used with an amplifier.

These antennas are MUCH BETTER PERFORMERS than End Fed Half Wave antennas because they work the WARC bands, DO NOT HAVE A DANGEROUS HIGH VOLTAGE at the antenna connection and are shorter to fit in smaller spaces yet provide more band coverage up to 6 meters!

Installation

For best results raise the Bullet matching unit as high as possible (use a tree or vertical support) and then extend the antenna wire horizontally or as an "L" (horizontal with vertical end drop). The antenna may also be deployed as a sloper with the Bullet matching unit at the top (best) with the wire sloping toward the ground (with the end high enough to avoid contact by humans or animals), or at the bottom of the sloper with the antenna wire rising to a higher point.

Any length of 50 ohm feed line ok (over 25 feet minimum recommended) but longer feed lines over 50 feet may show reduced SWR on some bands due to soil conductivity, nearby objects, etc. Due to local ground conditions, antenna height and feed line length, SWR may vary and an antenna tuner may be required or some bands to bring SWR at end of feed line to acceptable levels. Position a feed line choke (part# SOFLC) 12 feet from the matching unit.

Use a good quality 50 ohm cable adequate for the power level of your station. The Bullet matching unit is rated for 500 or 1500 watts PEP (depending on model) for SSB and 50% for CW or digital modes. If the matching unit becomes warm to the touch after transmitting at high power, reduce the power output or the internal matching unit may become damaged.

NOTE: The matching unit output is DC grounded to bleed off static electricity, however it is not RF grounded. This antenna is a current fed antenna and has high voltage at the antenna insulator end so keep this end away from people, animals, etc. for their safety..

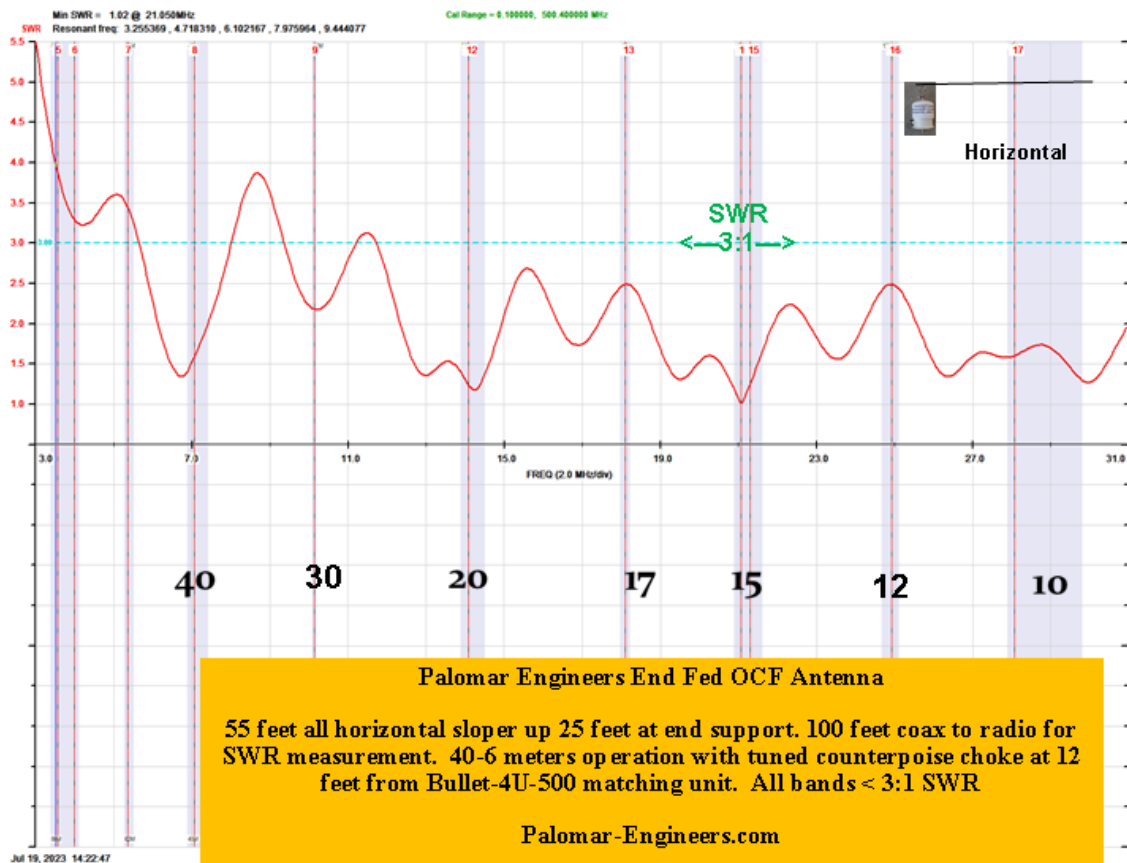
The BULLET4006-100, -500, -1500 are rated for 100, 500, 1500 (respectively) watts PEP ICAS at a maximum 50% duty cycle. Digital modes are approximately 50% of PEP ratings depending upon band.

Use a coax noise filter to reduce coax outer braid noise – see website for simple test to determine whether you need one to suppress coax braid noise on receive.

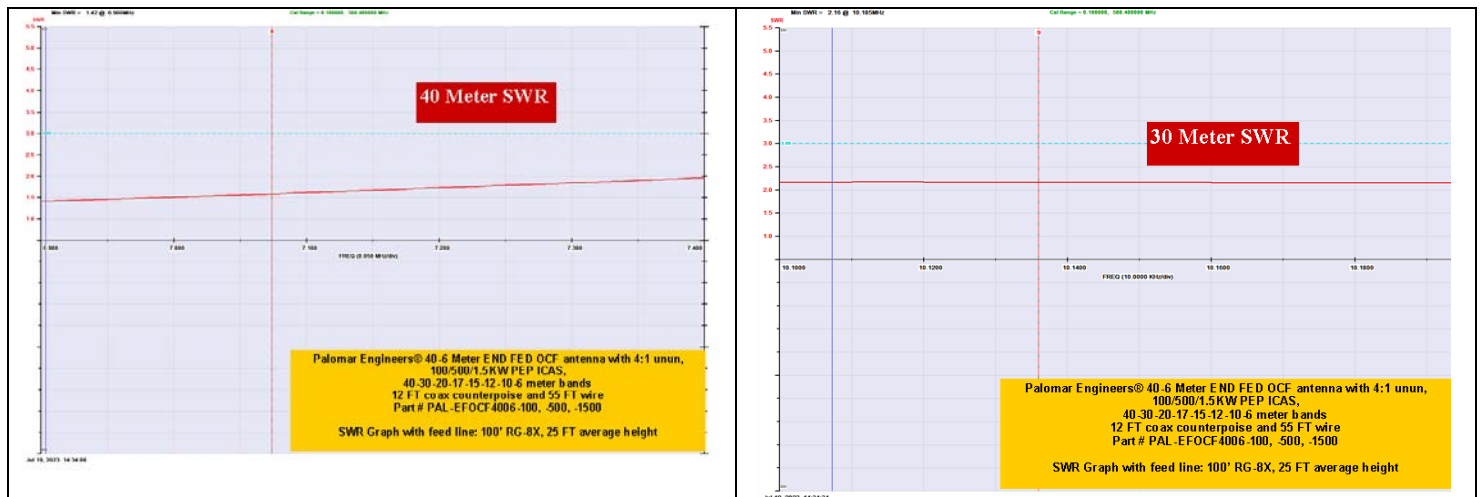
SWR

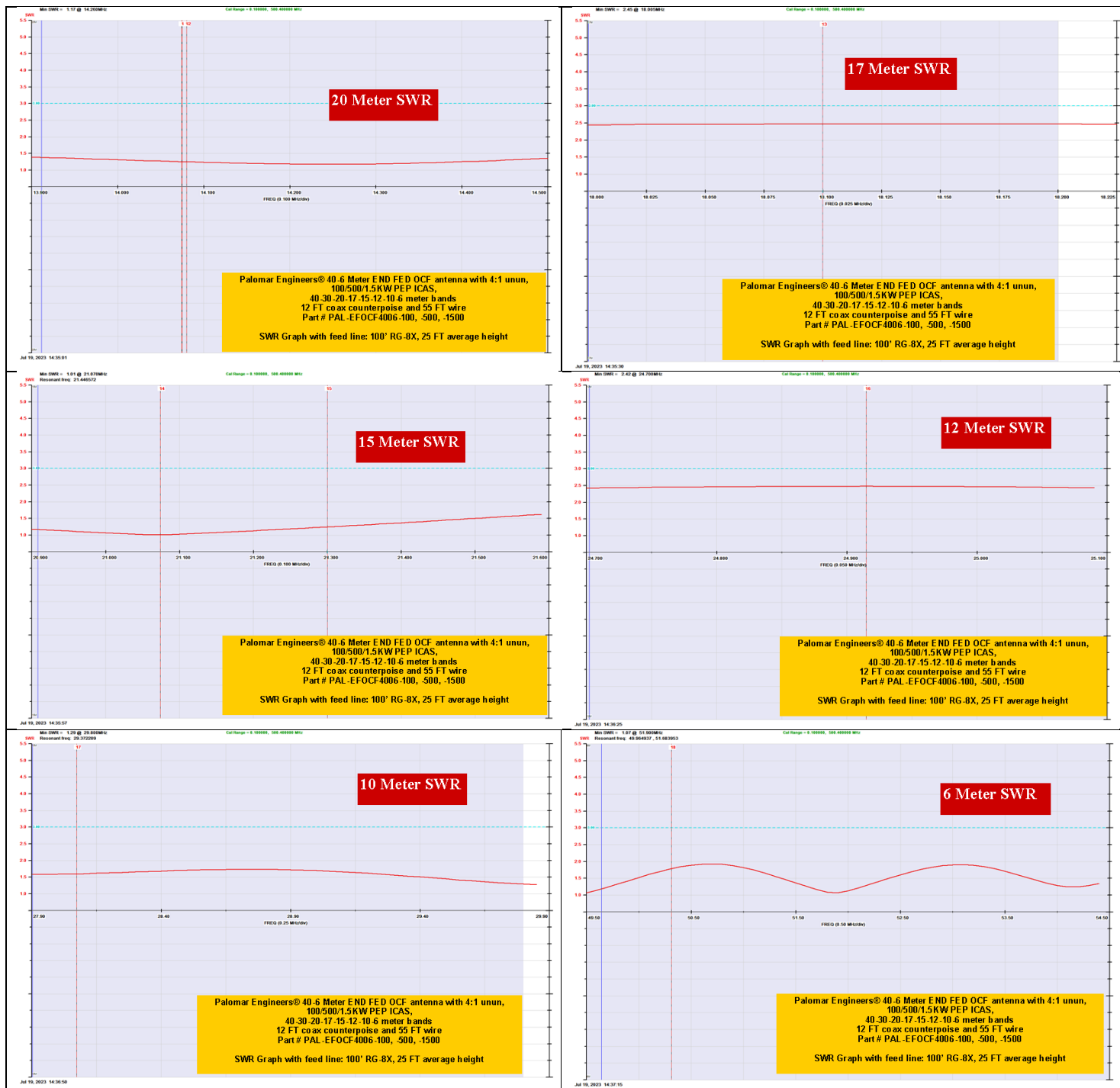
Due to local ground conditions, antenna height and feed line length, SWR may vary from samples shown and an antenna tuner may be required or some bands or portions of bands to bring SWR at end of feed line to acceptable levels. Use a good quality 52 ohm cable adequate for the power level of your station. (RG8X usually good up to 1000 watts PEP).

Typical SWR curves through 100 feet of RG-8X and 30 foot average height (Your curves may be different depending on terrains, ground conditions and surrounding object/antennas).



INDIVIDUAL BAND SWR SAMPLES – 30 FT Horizontal, 100 FT coax





CAUTION

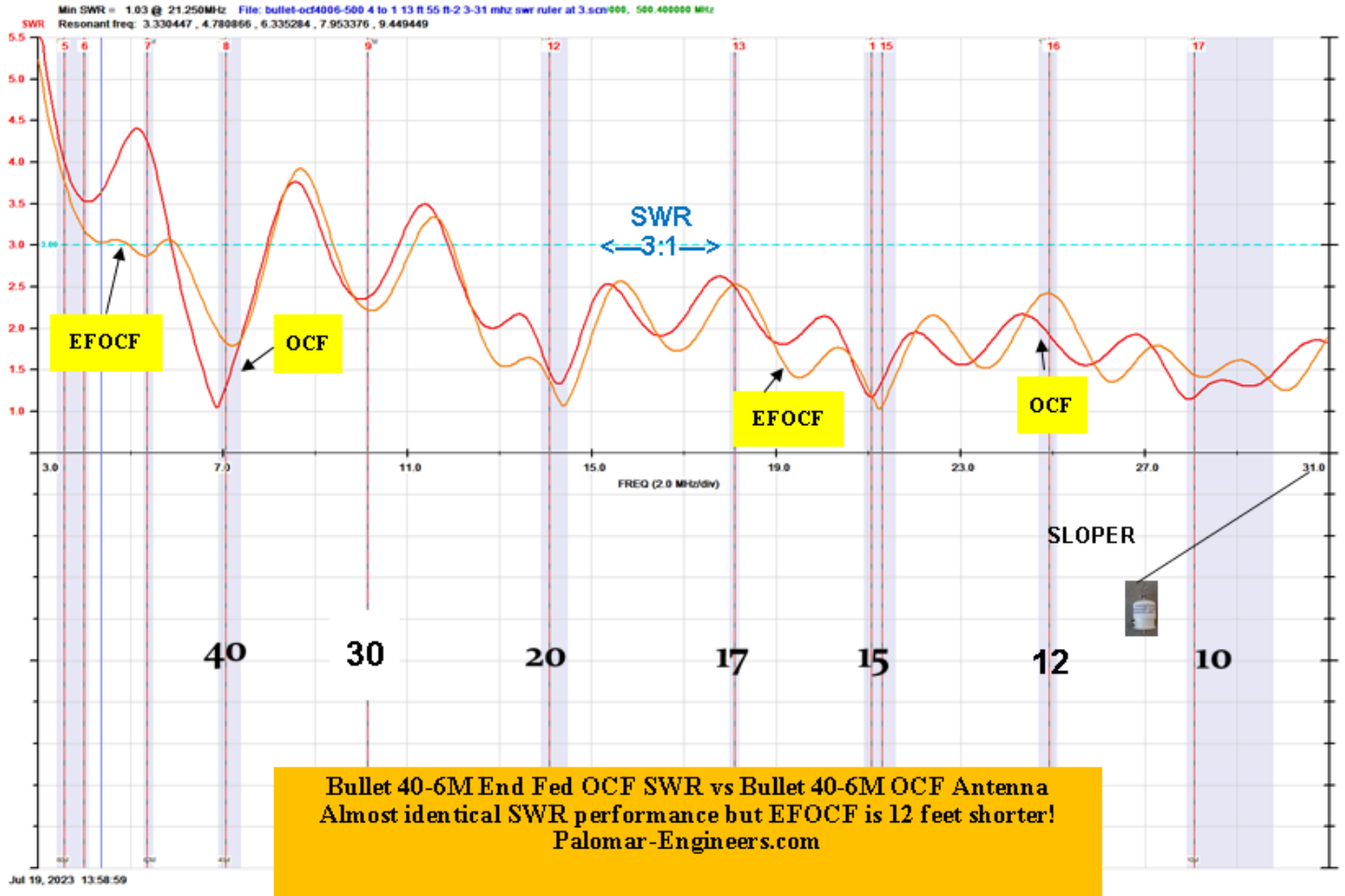
USE CAUTION WHEN INSTALLING ANTENNA AND KEEP AWAY FROM ANY POWER LINE WIRES!

Product specification subject to change – check website for latest updates.

Made in USA by hams for hams!

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Almost identical performance to our 40-6M OCF antenna but 12 feet shorter!



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Bullet OCF End Fed Antenna System
40-30-20-17-15-12-10-6 Meters
Wire: 55 FT, Choke at 12 FT
500 Watts PEP/300 Watts Digital

Part# BULLET-4006-500



500 Watt Version

PALOMAR
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Bullet OCF End Fed Antenna System
40-30-20-17-15-12-10-6 Meters
Wire: 55 FT, Choke at 12 FT
1500 Watts PEP/750 Watts Digital

Part# BULLET-4006-1500



1500 Watt Version