



RFI Solutions from KHz to GHz

## Product Manual

### Bullet-1B-500, 500LF SBullet-1B-1500, -5000 Feed Line Choke Balun



**Figure 1**  
**Bullet-1B-500 (500 watt PEP)**

receiver noise floor reduction due to common mode current pickup by the coaxial braid), use this balun to suppress TRANSMIT RFI on the coax braid at the antenna feed point and a CMNF-500HF, CMNF-1500 or CMNF-5000 coax noise filter at the radio shack equipment end of the coax to reduce RECEIVE common mode noise. In some difficult RFI cases, additional common mode chokes are needed between equipment such as linear amps and antenna tuners, and transceivers.

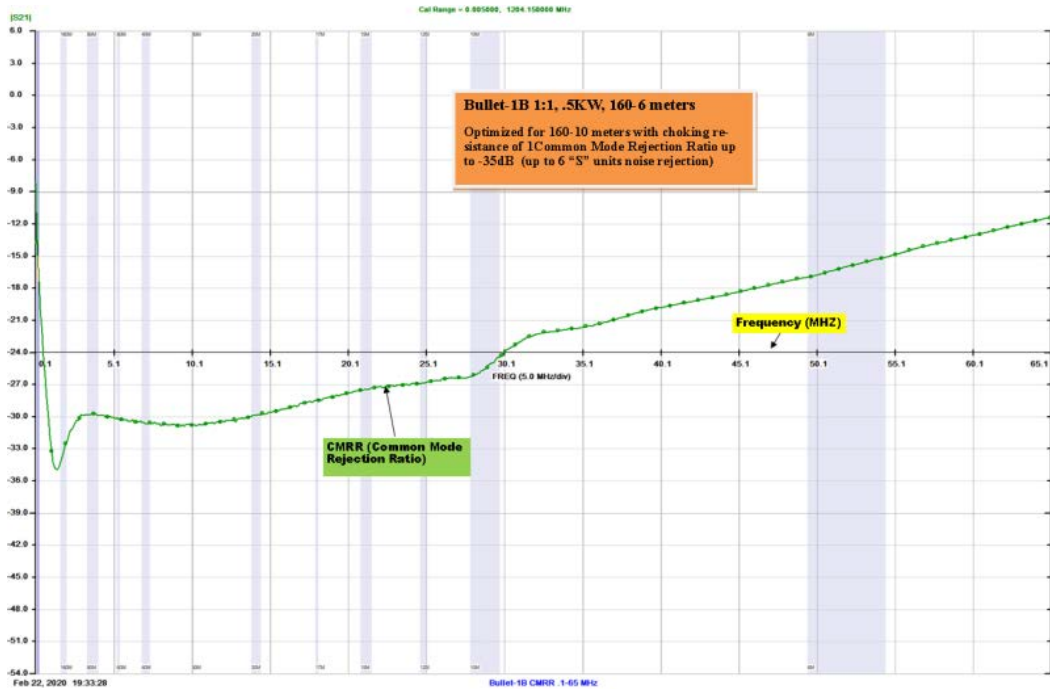
This balun designed to work with 50 ohm loads and the balun will be damaged if you use at high impedances and high power such as driving a 40 meter antenna with an 80 meter transmitter signal where the load impedance on the antenna is very high. Best use is with antennas having a load impedance in the 30-75 ohm range such as a resonant dipole or loop antenna, 1/4 wave vertical, or corner-fed half square.

**Purpose.** The Bullet-1B-500/500LF, -1500, -5000 are rated at 500, 1500 and 5000 watts PEP into a matched load, and they are used as a 1:1 current balun/line isolator/feed line choke for 50 ohm coax fed antennas from 1.8-61 Mhz. The balun is designed to have a common mode rejection to current flowing on the outside braid while passing RF currents on the inside of the coax braid to the antenna. This 500/500LF watt balun features up to 35dB/42dB of common mode rejection and the 1500 and 5000 watt version are up to 60 dB (10 "S" units) over the 1-61 MHz frequency range.

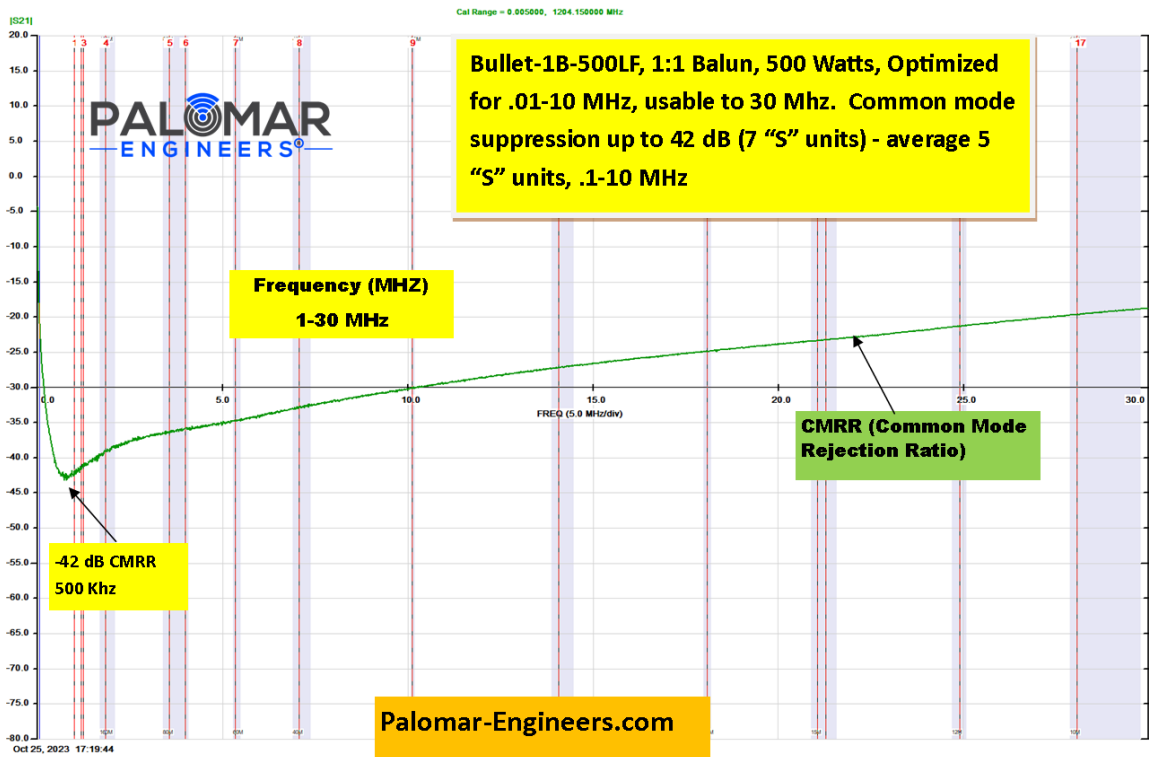
For maximum common mode current protection (and

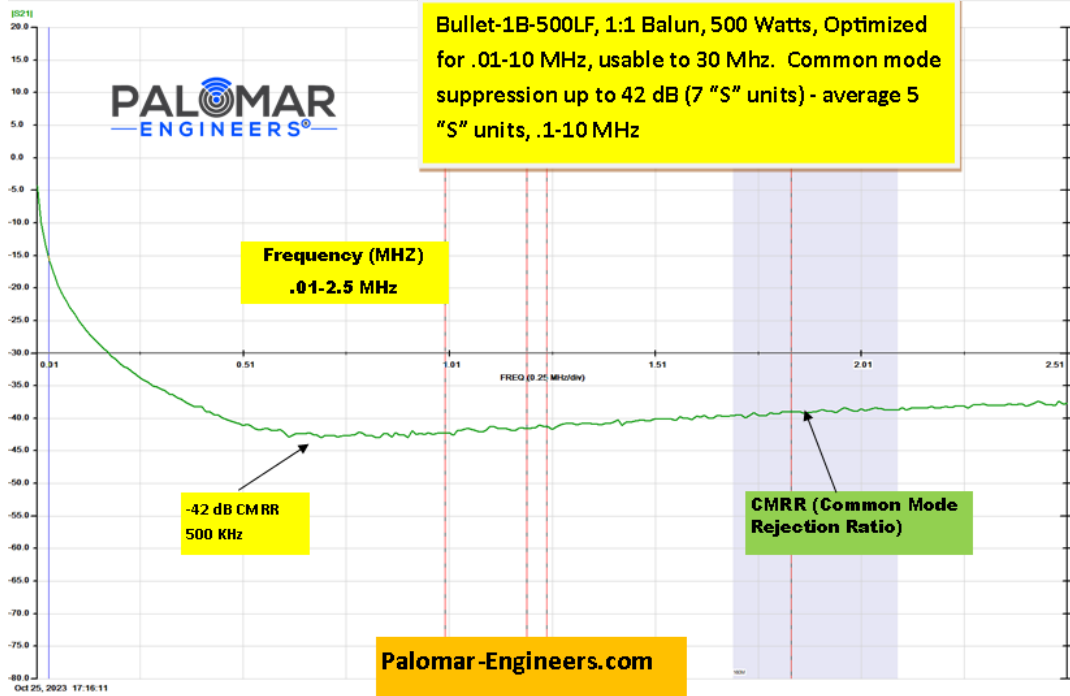


**Figure 2**  
**SBullet-1B-5000 (5KW PEP)**

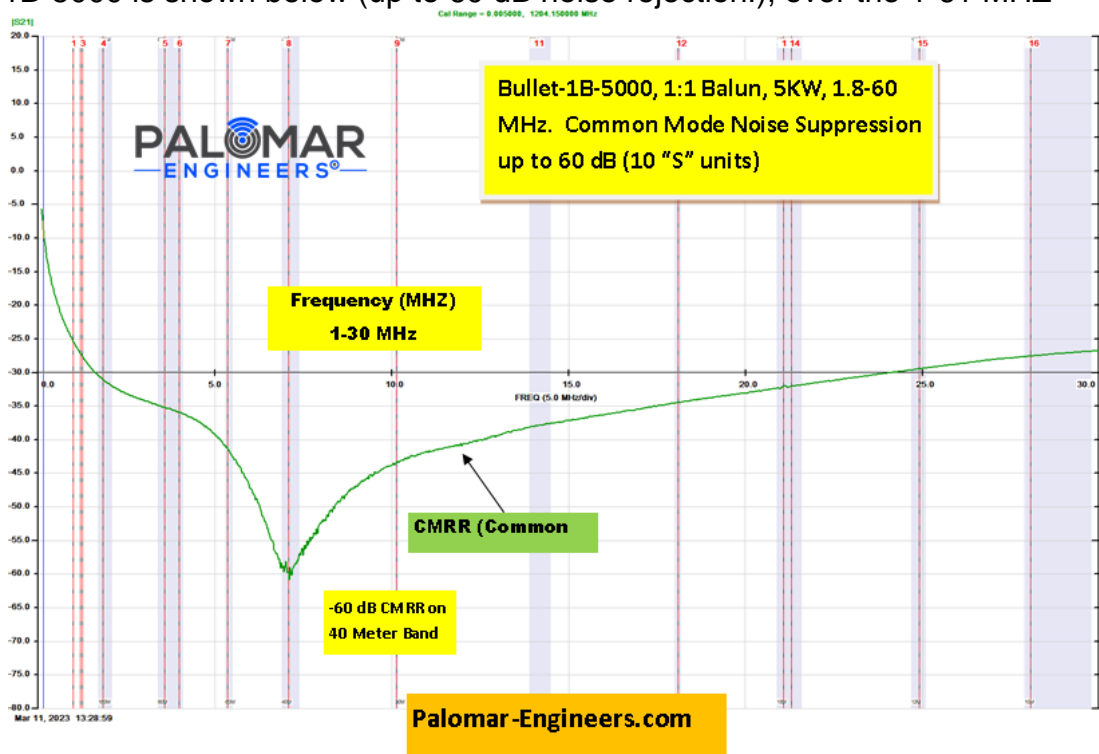


The Common Mode Rejection Ratio for the BULLET-1B-500 is shown above and the CMRR for the BULLET-1B-500LF (Low frequency) is shown below for .01-30 MHz and on the next page for .01-2.5 MHz.





SBullet-1B-5000 is shown below (up to 60 dB noise rejection!), over the 1-61 MHz



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