# JSX UglyBalun
## (HF bands 1:1 coax RF choke)

by N6JSX/8                                                                                  06/2013

The UglyBalun is not a true transforming balun but a 1:1 coax decoupling RF Choke. Many HAM Commercial antennas require an RF choke like Cushcraft A3/A4/AW3S. I've added a JSX-UB to my Hy-Gain 18AVT HF vertical getting great results. This decoupling choke '*KC7AVA UglyBalun*' invention is very easy to make and per the article in HamUniverse.com can be configured to connect to coax or ladder-line feeds. More words are not needed the pictures/drawings speak for themselves – simplicity!

**Coil electrical data:**
> **26 coils within 7"**
> **Resonant Fo: 0.948 MHz**
> **Coil Q: 216**
> **Resonant impedance: 198 KΩ**
> **Trap inductance: 154.1 uH**
> **Shunt capacitance: 182.7 pfd**

*Credits: "Building Coaxial Cable Traps" by W8WWV & 'COAXTRAP.exe' by G4FGQ*

**Construction items:**
> **26 coax (RG-8x) coil turns (~33' of RG-8x) w/PL259**
> ¼" eye-ring crimp 14-16AWG wire (blue) 2ea    T&B #14RB-14X
> **Hot glue gun & electrical tape**
> **4"x 12" PVC**
> **SO-239 barrel ~1.25" long w/nuts**
> **Brackets 2ea (as picture) Lowes '2x4 Simpson Strong-Tie model RTU2'**
> **1"x¼-20 bolts 2ea**
> **Radiator clamps 2ea**



**JSX-UB mounted to my fence post tuning mast**

# N6JSX HF Ugly-Balun

4.00 in

2.00 in

2.00 in

0.75 in

Bracket

1.50 in

2.50 in

2x 0.38 dia hole

26 turns RG-8X coax

12.00 in

7.00 in

2.50 in

SO-239 1.15" barrel 2x nuts

1.00 in

Bracket

2x 1/4-20 bolt/nut/lockw

4" dia PVC x 12"