

Reference:

When to Use a 4:1 Balun

Impedance matching: It steps down a 200-ohm balanced load to match a standard 50-ohm unbalanced transmitter.

Antenna types: Ideal for symmetrical antennas with higher feed point resistance, like folded dipoles, loops, and certain beam antennas.

Reduced tuner stress: Lowers the reactance and stress on your antenna tuner by bringing the impedance closer to 50 ohms.

When to Use a 1:1 Balun

Equal impedance: Used when the antenna feed point is already close to 50 ohms, such as a standard resonant half-wave dipole.

Choking common-mode current: Acts primarily as a line isolator or current choke to keep RF off the outside of your coaxial cable shield.

Notes:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.