APRS

Automatic
Packet
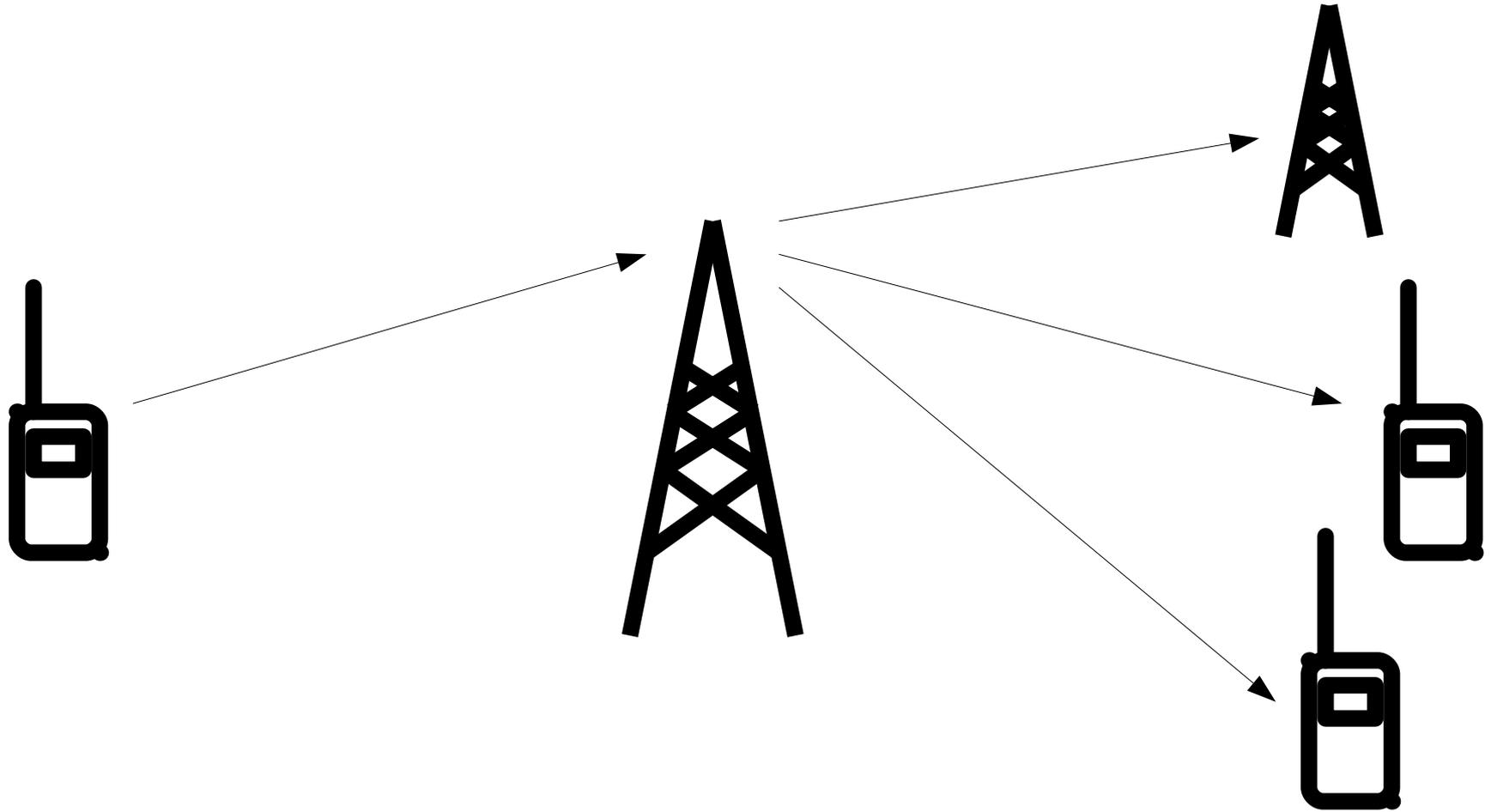**R**eporting
System

APRS

- Developed by Bob Bruninga WB4APR

- Development started in the 1980s.

- Uses the frequency 144.390 MHz in the USA

- It is a form of packet radio.

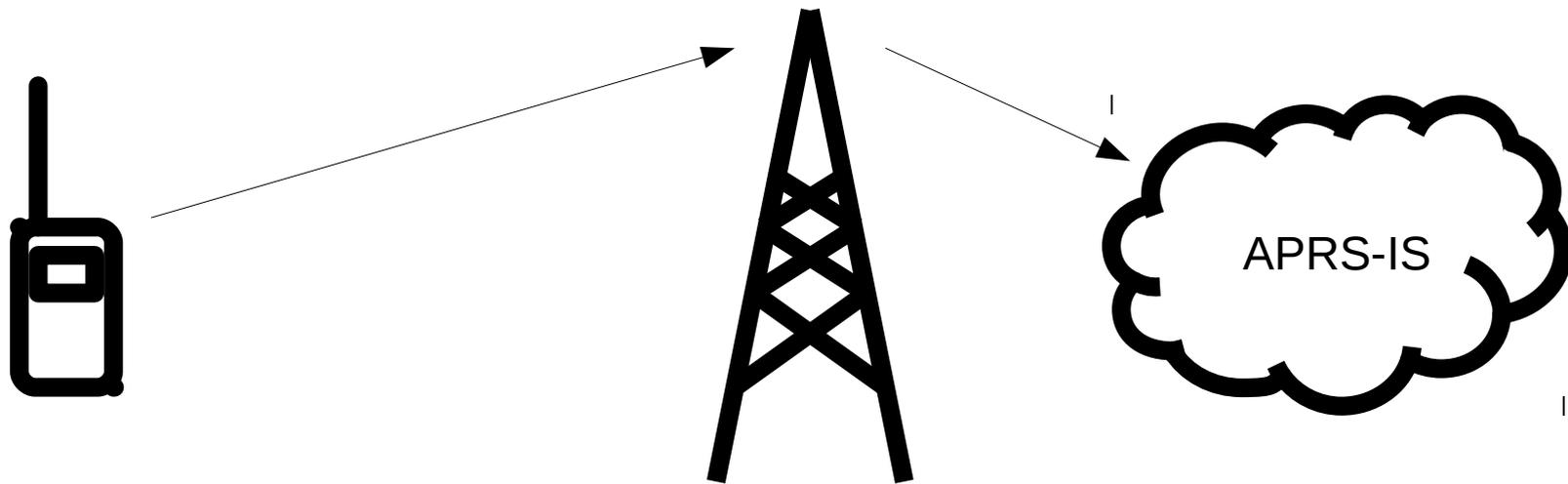- Packets are carried over both RF and internet paths.

Definitions – APRS-IS

- APRS-Internet Service

- Internet servers that collect and store APRS packets

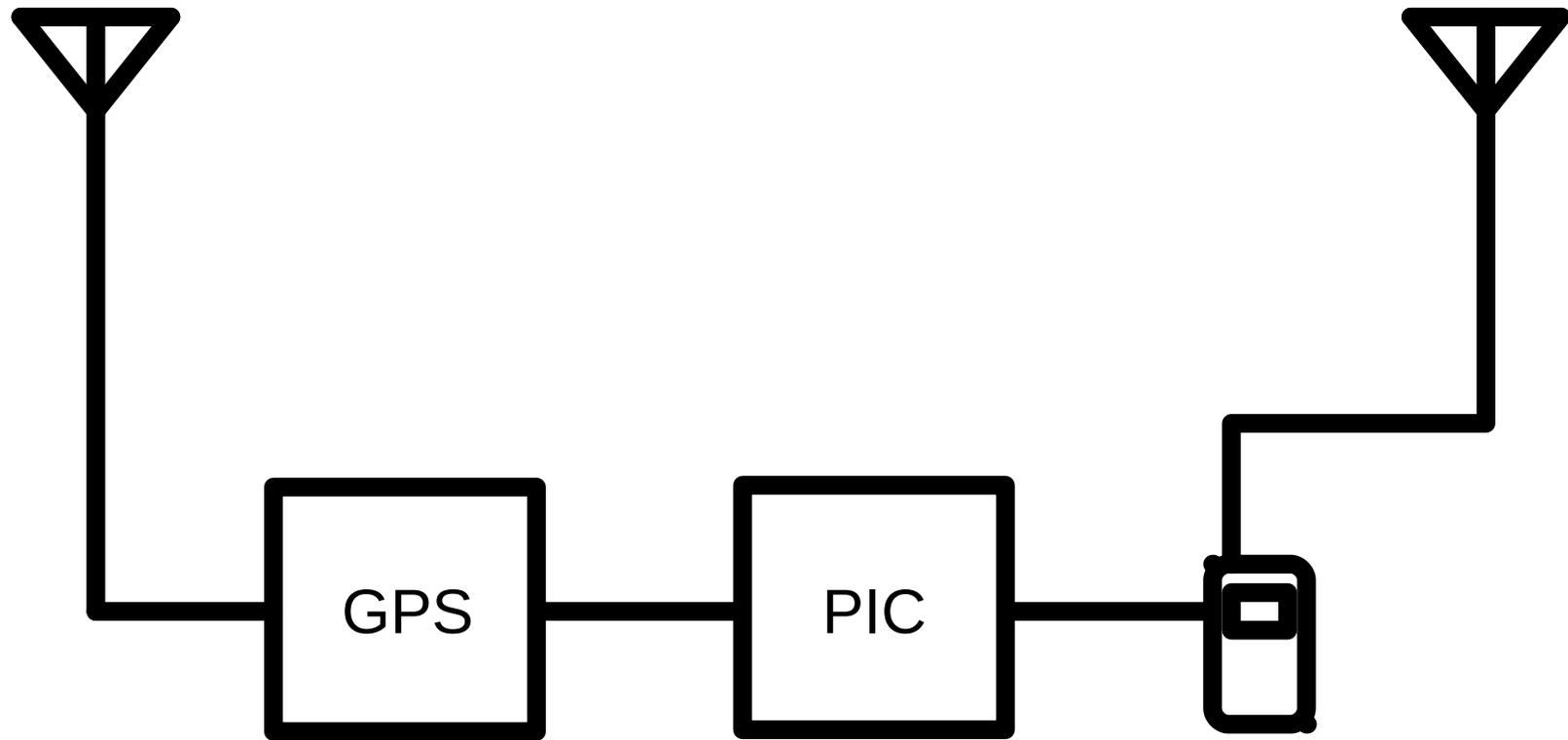- Most well-known user interface is aprs.fi website
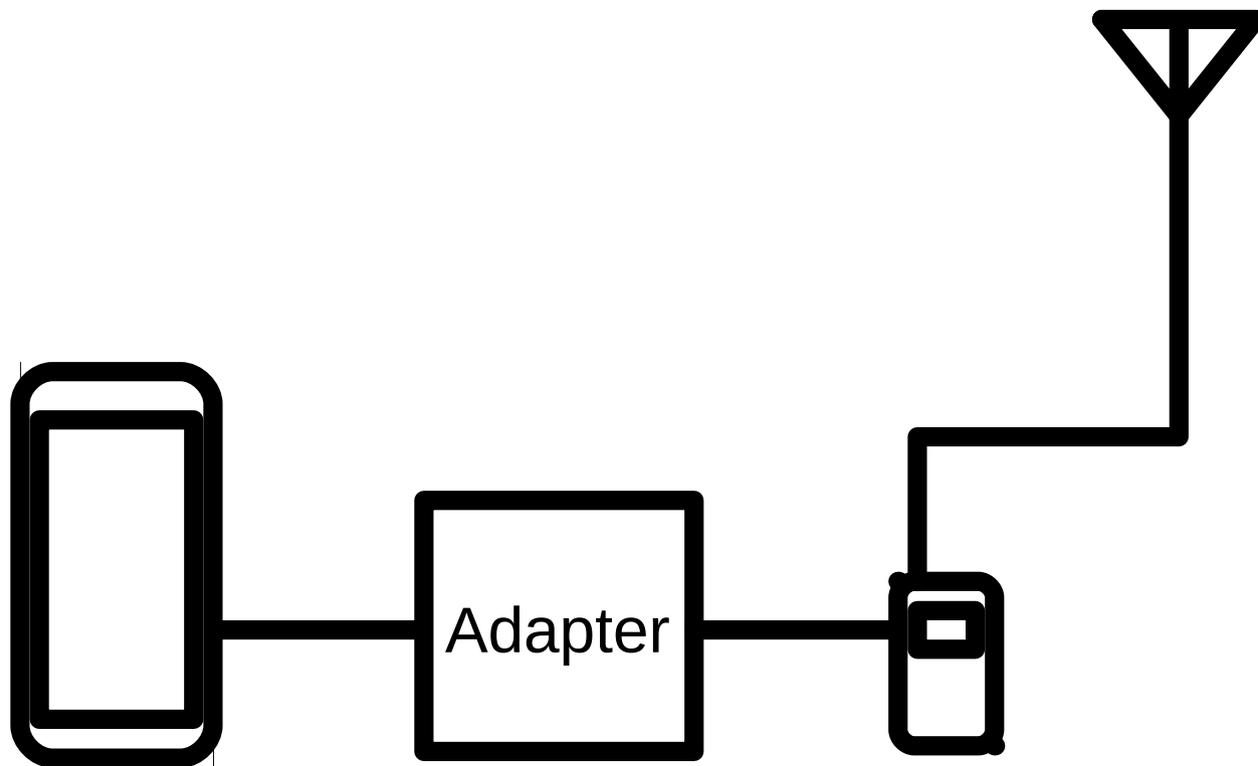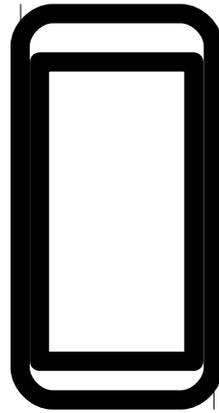
Definitions - Digipeater

Definitions - iGate

My Original APRS Solution

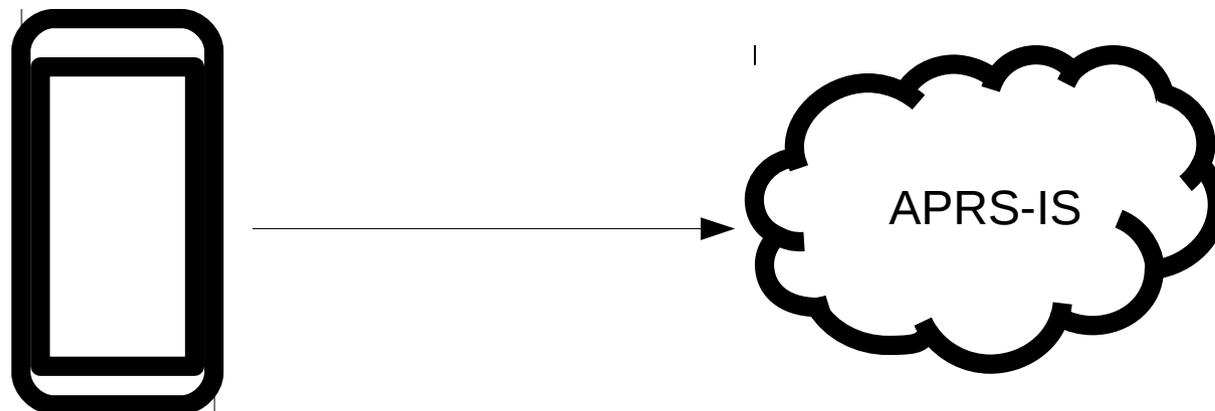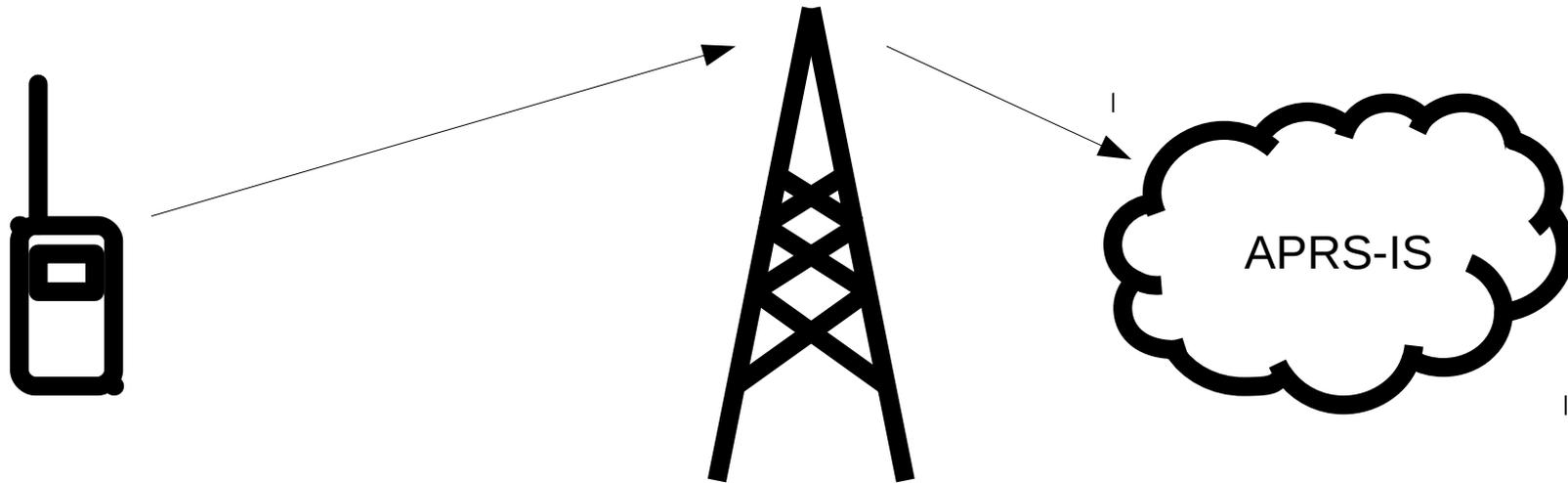# APRS with a Smartphone

...or just this

What You Need

- Android smartphone (with or without data plan)

- APRSDroid software

- 2m FM transceiver with VOX capability

- Adapter cable

- (Optional) external antenna

...or just this

- Android smartphone with data plan or other data access

- APRSDroid software

What's the Difference?

Baofeng UV-3R / UV-200

- 2m / 70cm FM handheld

- Inexpensive on eBay

- Has VOX support

- 2W output

- Single 3.5mm 4-pole connector for signal

- Takes 5V power on barrel connector
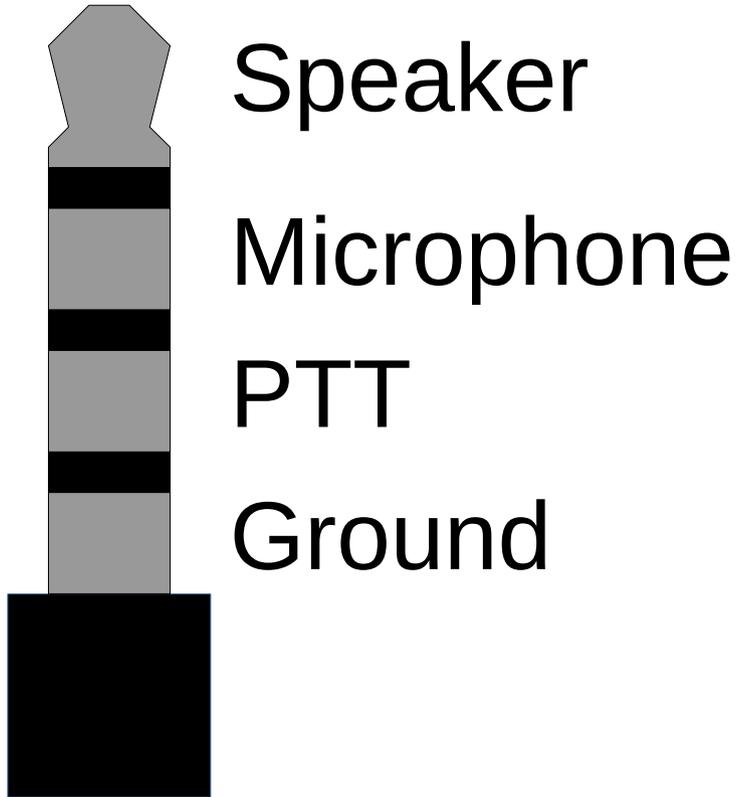
Android Smartphone

- Required: Android 1.5 or later

- Recommended: Android 2.0 or later

- Connector: Single 3.5mm 4-pole connector

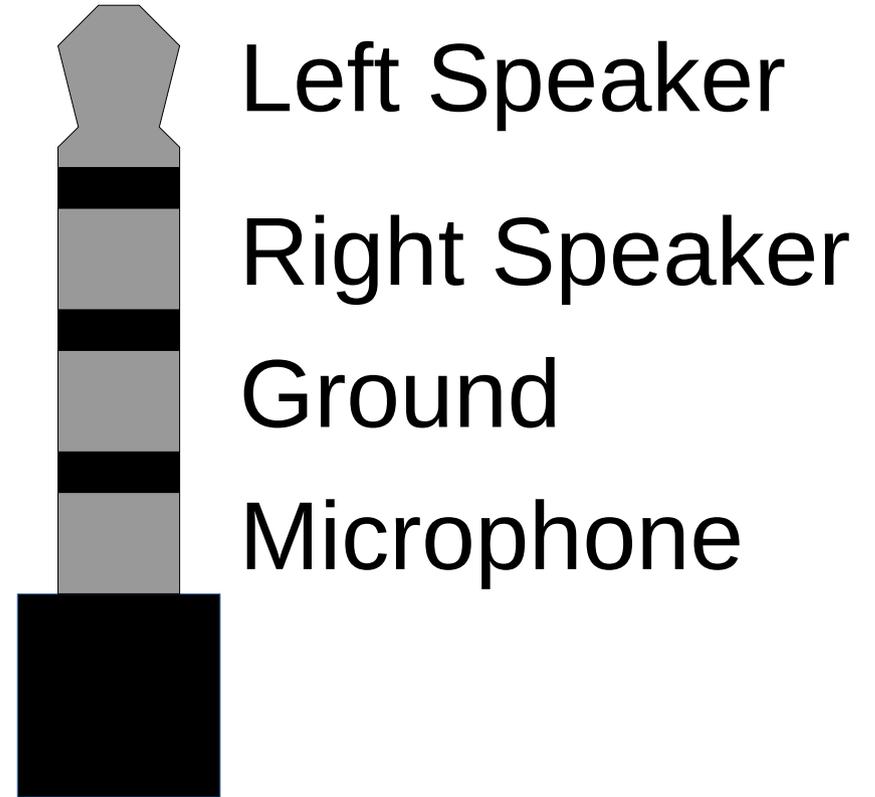- Microphone: High impedance required (around 1kΩ to 1.5kΩ or greater)

Adapter Cable

- Matches phone pinout to radio pinout

- Attenuates audio in both directions

- Sets correct impedance

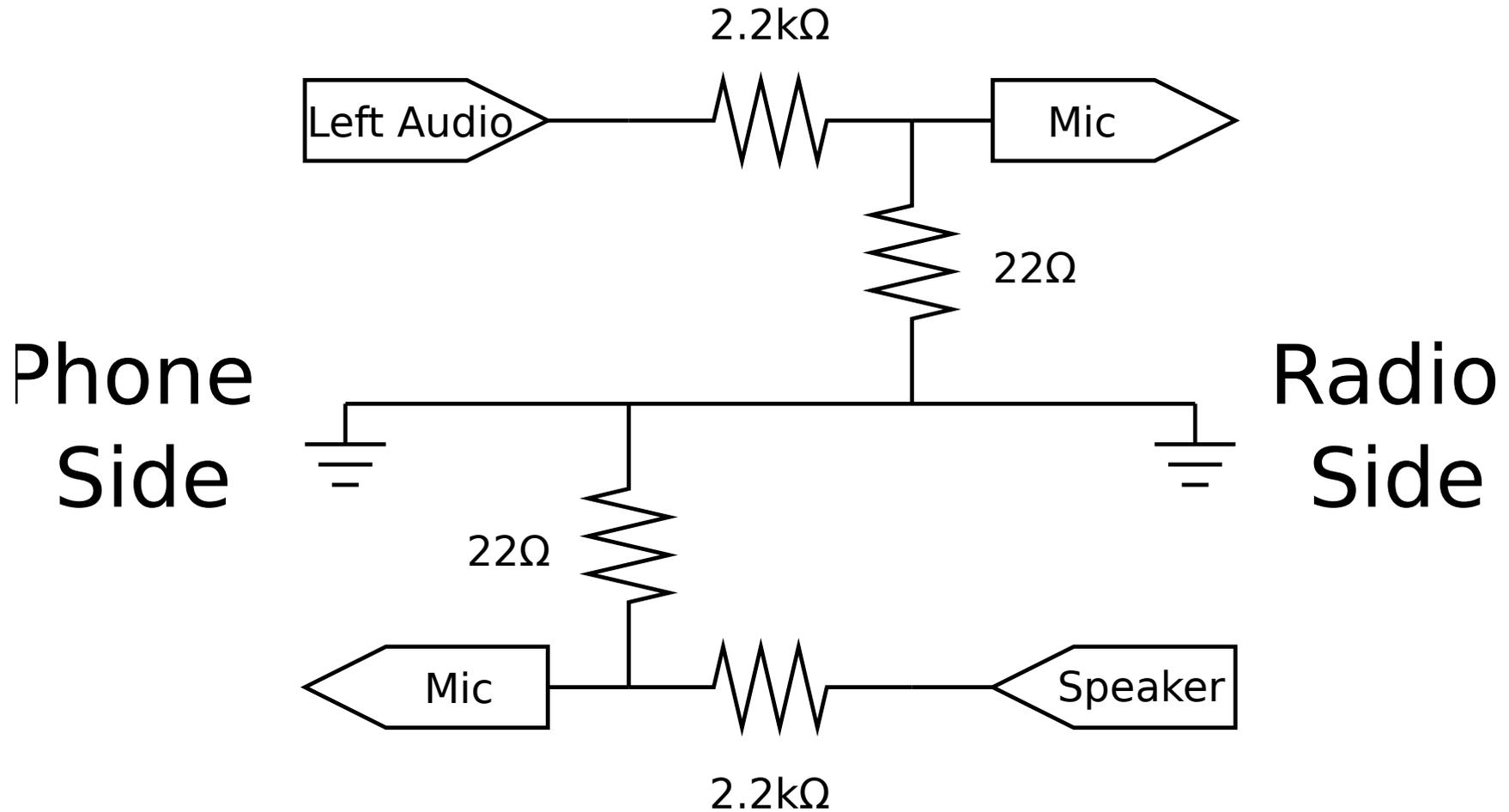- (Optionally) isolates grounds with transformers
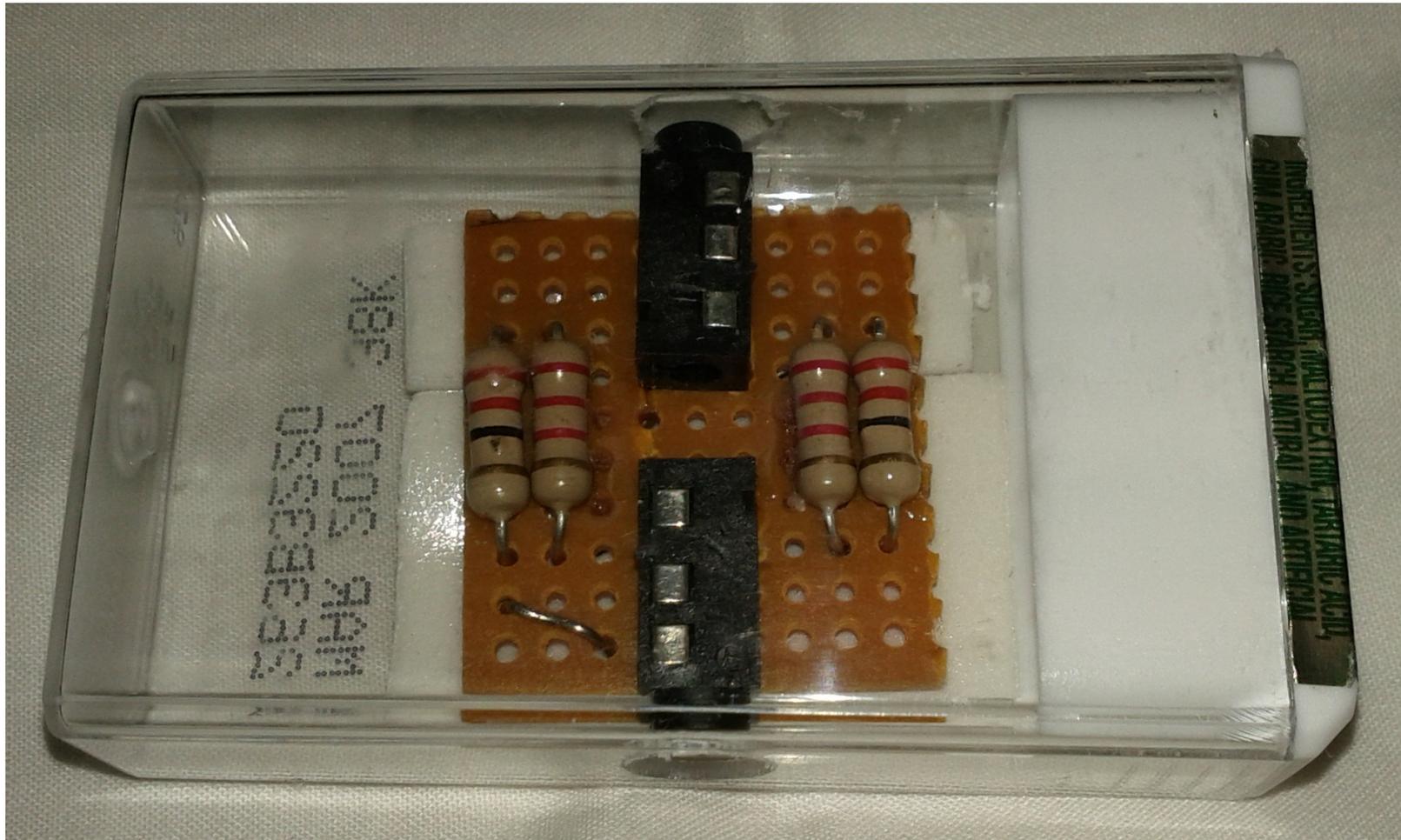
Pinouts

UV-3R
- Speaker
- Microphone
- PTT
- Ground

Smartphone
- Left Speaker
- Right Speaker
- Ground
- Microphone

My Adapter Attempt

My Adapter Attempt

Easy Digi Adapter

APRSDroid

- Available for $5 in the Google Play store (includes automatic updates)

- Available for free at aprsdroid.org (requires a security compromise)

- Has AFSK mode (speaker/microphone)

- Has APRS-IS mode

- Has other modes (Bluetooth TNC, etc.)

- Versions available with Google Maps and OpenStreetMap support