

# Building the F1BIU Transceiver

Phil Arnold G4CFG

# Sources of Components

- Roger: PCBs
- Barend Hendrikson HF Elektronica BV:
  - Boxes, Neosid coils, ceramic Filters
  - SMC capacitors, trimmer capacitors, trapezoidal capacitors
  - M66715, TSA511, 3SK183, BA479, BB405, BFR91a, BFY90, MC3356, Crystals
- GH Engineering: MAR-8
- Maplin: Resistors
- Rapid Electronics: The rest
- PIC code: F1BIUVictor Hassine

# Costs

- For 2 transceivers: £365
- A lot of work so far!

# Construction

- Notes by Jason Flynn G7OCD were useful
- Problems
  - Box for receiver was not high enough - should have got 40mm.
  - Managed to destroy TSA5511.
  - Tracks for trapezoidal caps near 3SK183 cut away.
  - Need BNC connectors with small intrusion into box.
  - Need metal spacer for RF module heatsink to avoid long legs.
  - PIC needs timing capacitor increasing to 68pF to slow its clock otherwise display does not work.

# Next Stage

- Connect Rx synthesizer control from Tx
  - Long wires suggested so Tx can be used to as signal source for Rx alignment.

No urgent demand for high speed radio links now that permanent Internet connections are cheap.