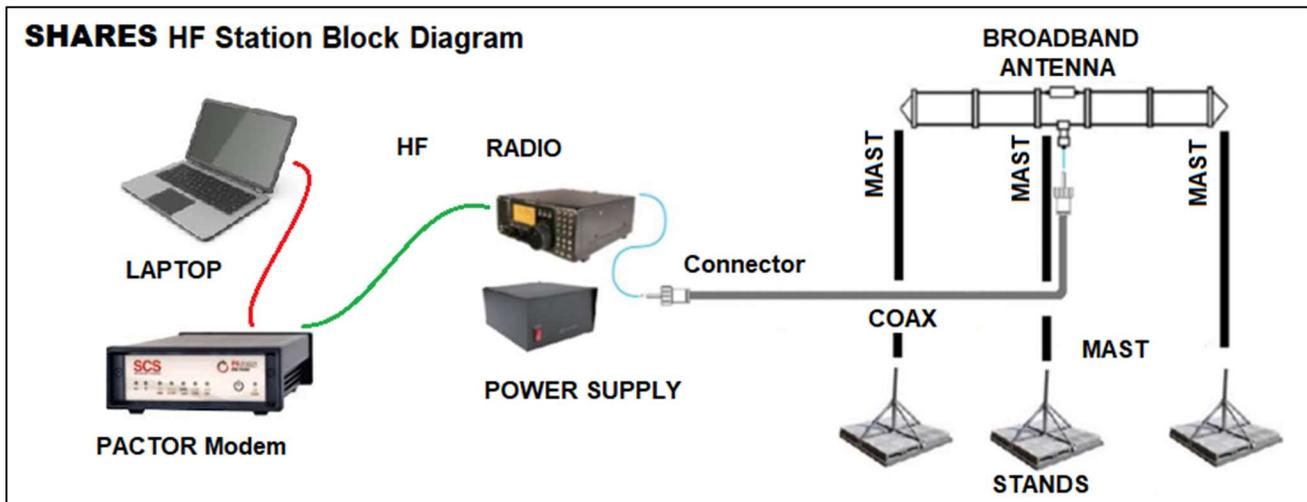




BILL OF MATERIAL(BOM) : HF RADIO BASE STATION ROOFTOP

Objective: Use this BOM to identify critical components necessary to creating a rooftop HF Radio Base Station.

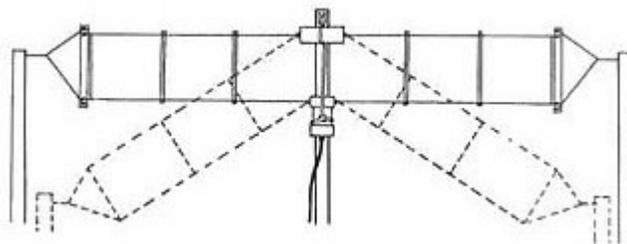


Note: BOM should be used as a guideline; MFR part numbers are starting points for investigating that individual component and alternatives may be used as appropriate for the site / build.

Rooftop Mounted Broadband Dipole Antenna:

1. Dipole Antenna:

- a) Quantity: 1 Bushcomm BBA-600V
Price Estimate : \$ 999.00





2. Mounting Hardware:

- Antenna Rope (Dacron or Polyester Rope)
 - a) Model: Synthetic Textiles (STI) ST-3/16-100
 - i. Size: 3/16" diameter
 - ii. Quantity: 100' per antenna
 - iii. Price estimate: \$30 (total)



- 10' Stand/Mast – Select a or b:
 - a) Penetrating (*Recommended*):
 - i. Model: 3Star Inc EZ TRI-10
 1. Quantity: 3
 2. Price estimate \$200 (total)



- ii. Model: 3Star Inc EZ46-5 Pitch Pad Kit with Screws
 1. Quantity: 3
 2. Price estimate: \$25





b) Non-Penetrating Stand:

i. Model: 3Star Inc 3S-FRM-16610 stand

1. Quantity: 3
2. Price Estimate: \$390 (total)



ii. Model: 3Star Inc FRMMAT stand mat

1. Quantity: 3
2. Price Estimate: \$90 (total)



iii. Model: Generic full-size Cinder block

1. Size: 8 x 8 x 16
2. Quantity: 20
3. Price Estimate: \$60



• Nuts, bolts, and washers (needed on either mast selection)

a) 1/4 x 8" Galvanized Eyebolt:

- i. Quantity: 3
- ii. Price Estimate: \$16





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- b) 1/4-20 Nuts
 - i. Quantity: 6
 - ii. Price Estimate: \$5



3. Coaxial Cable:

- **100' coax is provided with Antenna Kit.**
- If length required is greater than 100':
 - a) Type: RG-213 or equivalent
 - b) Length: [length as required]



- c) Connectors: PL-259 connectors (quantity 2)



- d) Price dependent on Coax selected, length required, and connectors required by coax size and type.

4. Lightning Protection:

- Model: Polyphase IS-NREMCO Surge protector
 - a) Quantity: 1
 - b) Price Estimate: 175.00



- Grounding rod and wire



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- a) Price dependent on rod size, wire gauge and length, and placement.

5. **Weatherproofing Materials:**

- Coaxial cable weatherproofing kit
 - a) Model: American Radio Supply Coax-Seal 104
 - b) Quantity: 1
 - c) Price Estimate: \$50



6. **Tools:**

- Wrenches – As required for mast stands
- Screwdrivers – As required for Mast / stands
- Drill with 1/4" HSS drill bit
- RF Cable stripping / crimping tools

7. **Documentation:**

- Antenna installation manual
- Coaxial cable and Connector specifications
- Lightning protection system documentation

HF Radio Base Station:

1. **HF Radio Transceiver:**

- Model: Icom IC718 with MARS/CAP modification
- Quantity: 1
- Price Estimate: \$950





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2. **Power Supply:**

- Model: Powerwerx SS-30DV 30Amp
- Quantity: 1
- Price Estimate: \$160



3. **Antenna Tuner: NOT REQUIRED WITH SELECTED ANTENNA**

- Model: N/A
- Quantity: N/A

4. **Data Modem: Required for SHARES; Not required for Voice-only**

- Model: Farallon SCS P4dragon DR-7400
- Quantity: 1
- Price Estimates. \$1700



5. **Laptop: Required for SHARES; Not required for Voice-only**

- Model: Any laptop may be configured for modem use.
- Quantity: 1
- Price Estimate: Model specific.- IT to supply

6. **AT-200PROII LDG Electronics Automatic Antenna Tuner 1.8-54 MHz, 5-250 Watts SSB and CW. 100 watts on 6M. 75**

Quantity: 1

Price Estimate: \$ 355.00





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6. **Power Backup (Optional):**
 - Uninterruptible Power Supply (UPS)
 - Battery backup system
7. **Tools:**
 - Wrenches
 - Screwdrivers
 - Cable stripping and crimping tools
 - Multimeter for testing
8. **Documentation:**
 - Radio transceiver manual
 - Antenna tuner manual
 - Power supply manual

Miscellaneous (Applicable to Both):

1. **Safety Equipment:**
 - Safety harness
 - Helmet
 - Gloves
2. **Personal Protective Equipment (PPE):**
 - Safety glasses
 - Ear protection (if required)
3. **First Aid Kit:**
 - Basic first aid supplies
4. **Documentation and Permits:**
 - Regulatory permits and licenses
 - Installation checklist

Total Estimate- Base Station: \$ 5202.00 plus tax if applicable

*** Does NOT include labor to install on roof @ Chehalis EM**