City dwellers and other flat dwellers know the practical difficulties they encounter when they try to put up an antenna for 40 meters. Finding space enough to accommodate 67 feet of wire is a real problem for them and most of them have to be satisfied by the inverted V. Whatever the book say, in practice the inverted V does not come up to the standard of a dipole antenna.

The Shorty Forty Antenna can be put up in the space required for a 20 meter dipole. It is a compact 40 meter dipole for limited space application by Jact Sobel W5VM. It is a center loaded antenna with a loading coil at the center. The two arms are 18 feet 6 inches long connected to the two ends of an inductor at the middle. The inductor consists of 30 turns of 12 SWG enamelled copper wire wound on 2.5 inch diameter PVC tube 5 inches long. There is six turns per inch so 30 turns will require 5 inches long. The shield of 50 ohms coaxial cable is connected to the center of the coil. The center conductor is connected to 2 or 3 turns away from the center, to a point which gives the lowest SWR. Compare this to a 67 feet dipole the saving in space is substantial.
| Ham Radio |
|-----------------|-----------------|-----------------|
| Amateur Radio Station Operators Certificate Examination, ASOC Syllabus | ASOC Examination | How to become a Ham |
| Morse code Tutor | Digital Modes | Listening to Ham Radio |
| Ham Radio Frequencies | Ham Radio Sites | Using Ham Radio During Emergency |

### 7 MHz SSB Transceiver

#### 7MHz SSB Transceiver Circuit Diagram

| Ham (Amature) Radio - Advice for Beginners | Winding Coils | Test Equipments |
| Power Supply | VFO - Variable Frequency Oscillator | Carrier Oscillator | Af Amplifier For Amature ( Ham ) Radio |
| Microphone Amplifier | Receiver Front End RF Amplifier for SSB Transceiver | MC1496 Double Balanced Modulator | Ladder Filter used in 7MHz SSB Ham Radio Transceiver |
| 1F Amplifier for 7MHz SSB Ham Radio Transceiver | Linear Amplifier used in 7MHz SSB Ham Radio Transceiver using 2N2222A, SL100B and BD139 | Power Amplifier | Block Diagram of 7MHz SSB Transceiver |
| 7MHz SSB Transceiver VU3PRX | Circuit Diagram of 7MHz SSB Ham Radio Transceiver - Part 2 | Antenna For Ham Radio | Tcvr |

### Hobby Circuits - Ham ( Amature ) Radio

**7MHz SSB Transceiver** - Circuit diagram and brief description of 7MHz SSB Transceiver for Hams. The circuit is designed around two numbers of MC1496. It can push around 80 Watts with IRF840 in the final. You can download HTML version or the printer friendly word document.

**Morse Code Tutor** - A program (23kb) written in C++. Morse code uses dot and dash for communication. Still it is popularly used for communication is short wave bands. The Archive contains program source code and executable.

**AM DSB Transmitter for Hams** - circuit diagram of simple double side band suppressed carrier (DSBSC) transmitter for hams. Circuit uses crystal oscillator, crystal can be switched for multi band operation.

**Antennas for Ham Transmitters** - Describes how to construct various type of antenna for Ham Radio Transmitters.

**600 Volt Power Supply** - simple 600 Volt DC power supply. Convert 230V AC to 300V and 600V DC.

**Ham Radio BFO** - circuit diagram of beat frequency oscillator using BF494 and how to listen amateur radio communication on ordinary BC receiver.

**Miniature MW Transmitter** - circuit diagram of simple medium wave transmitter using BF494B. This simple transmitter have a range of 200 meters.
807 and 1625 Valves - data on vacuum tubes 807 and 1625 used in ham radio transmitters. Describes various pin voltages and different operation modes.

FM Wireless Mike - low power frequency modulated transmitter using two transistors. The circuit works with 9v power supply.

60 Watt RF Amplifier - Solid state RF power amplifier using IRF840. Simple and easy to construct. IRF840 can handle a maximum power output of 125 Watts.

Simple RF Power Meter - simple RF power meter cum dummy load for low power transmitters.

Touch CPO - touch operated code practice oscillator using popular timer IC555. Practice Morse code in a different way.

Modulation Monitor - very simple and useful circuit used to monitor on air transmission of your low power amplitude modulated transmitter.

Cheap Crystal filter - Ladder filter using six 4.43MHz Crystals. Building cheap side band filter for your home brew SSB Rig.

RF Dummy Load - make this simple RF Dummy Load for off-air testing of your radio transmitter.

Mosquito Repellant - very simple and easy to assemble mosquito repellant using two transistors and handy components.

Ceramic Filter BFO - Receive SSB and CW transmissions on your BC receiver. Simple BFO is build around 455 KHz Ceramic Filter.

SSB ADAPTOR - Build this simple adaptor to receive single side band SSB on short wave AM receivers.

QRP Keyer - very simple keyer circuit using only one transistor.

Designing RF Probe - make your self simple and heigly useful RF probe. An essential tool for every home brewer.

Shorty Forty Antenna - Do you have space limitaion to put a 40 meter dipole. Try this Compact 40 meter antenna.