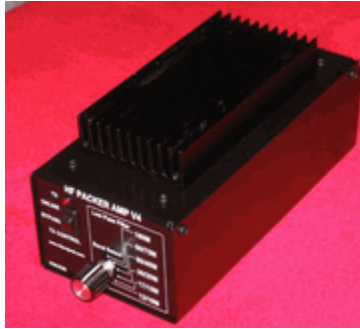


# HF PROJECTS

## QRP to 30-35W HF Packer Amp Version 4 Edition



Build the HF Packer Amp Version 4 Class AB1 Amplifier Project. You receive all the circuit boards and parts. A fabricated and finished case with a drilled and tapped heat sink is standard. Our project options reduce the complexity to match your skill level. The fabricated cable and coil sets options assist your abilities to build this amp. Surface mount components are pre-installed. You download a comprehensive construction manual with step-by-step instructions, pictures and theory of operation and test. We are here to help you have a positive building experience with our email support and safety net service. You are rewarded with a clean more powerful output signal from your QRP transceiver with a good balance between output power, physical size and battery power consumption.

The rugged case is heavy-duty steel construction. The finish is a black powder coat and silk screen. The heat sink is drilled and tapped. Assembly consists of a class AB1 linear amplifier circuit board with two IRF510 MOSFETs attached to a heat sink, a RF activated Power Supply module is integral to the amp and boosts 12 to 29.5VDC at 5A maximum. The module requires very low standby and operate current. The amplifier will provide full output on as little as 9VDC input making it very tolerant to battery operation. The amp design is set up to deliver full output power with 5W RF input but may be user configured. A front panel switch selects a low pass filter setting to match the exciter.

The mode switch allows you to operate QRP or Boots On. The rear panel has the RF connections and DC Power input. Options include: (1) fan; (2) fabricated cable set; (3) fabricated coil set (4) Amp inductors fabricated and mounted; (5) Wide-range user-selectable RF Input: 1/2.5/5W. Options designed to reduce the build complexity for first-time builders or extend the specifications.



### Specifications

- Drive: 0.1 - 5W RF 160-10M (build option)
- Input impedance: 50 ohms
- Control: Carrier operated or PTT (RCA jack)
- DC Input: 12VDC, 10A max (9-16V range)
- Standby current: 26mA; Operate: 6A average
- Chassis mount Power Pole Connector 30A contacts
- Power Switch: Rocker Power Switch
- RF In: BNC; RF Out: SO-239
- Power Out: nominal 30-35W Average 160 - 10M.
- 100% Modulation without distortion (according to 2-tone tests)
- Weight: 1lb 15 oz.
- Case Size: 6.5 x 3 x 2.25 inch (excluding knobs and connectors)
- Heat sink; Black Anodize, low profile, 0.8 inch
- Option Fan/Sink: Square 2.25 inch with 12V, 24 CFM fan
- LP Filter Switch: 6 position 160, 80/75, 60/40, 30/20, 17/15, 12/10
- Front panel mode switch: ON/BYPASS
- TX LED Indicator
- Two piece 20ga galvanized steel case,
- Rubber Feet
- CW/SSB Mode Jumper for optimum hold time of T/R relay
- Digital control, RF sense and sequencing of T/R relay and Intelligent Power Switch.
- Amplifier: High Voltage IRF510 MOSFET Push-Pull Class AB1 Linear Amplifier.
- Bias set to 10mA per transistor. Easy pot adjustment. Test jumper activated.
- Fan option required for Digital mode operation (or reduce drive).
- Spurious products -40 dB or better @ 35 watts
- Harmonic content -45 dB or better @ 35 watts
- Load tolerance 2:1 or better SWR recommended
- Controller quiet operation utilizing sleep technology in standby.

Site: [http://site.hfprojectsyahoo.com/hf\\_packer-amp](http://site.hfprojectsyahoo.com/hf_packer-amp)

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