# QUASAR PROJECT KIT # 3090 - STEREO 3W AMPLIFIER MODULE

This Kit contains the essential components to build a low voltage, high power stereo 3W amplifier module using the Rohm 12V Dual Power Amplifier, BA5406. Not included are a heatsink, speakers or speaker cables. This is not only to save weight in the Kit but also because such items are often a matter of personal preference by the user. Some users may choose to spend money to buy the top quality speaker cables, connectors and speakers. While others may have all these items already in their junk box

The kit is constructed on single-sided printed circuit boards. Protel Autotrax & Schematic were used.

**Construction.**
Add the lowest height components to the board first - the resistors. Be careful to get the electrolytic capacitors in the correct way around. The positive lead is marked on the overlay. The negative lead is marked on the body of each capacitor. The four MPE (metallized polyester) capacitors can go in either way around. You may supply a heatsink of greater than 8 $^{o}$C/W. Never operate the amplifier without a heatsink attached.

The following items have to be supplied by you:
- suitable 3, 4 or 8 ohm speakers
- suitable cables

Solder the power & audio cables direct to the pads provided on the PCB.

**Operation.**
The BA5406 contains two sets of AF power amplifiers. It delivers 5W x 2 into 3 ohm loads with a 12V supply. It has minimal power-on pop noise and has immunity to supply voltage drop. It also has minimal RF radiation.

Recommended supply voltage: 5-15V max. Typical 12V. Quiescent current 20-70mA, typically 40mA.

**COMPONENTS**

| | | |
|---|---|---|
| Resistors 1/2W or 1W carbon film, 5%: | | |
| 2R2 red red gold | R3 R4 | 2 |
| 120R brown red brown | R1 R2 | 2 |
| Capacitors: | | |
| 0.22uF, 224 MPE | C1 C2 C11 C12 | 4 |
| 47uF/16V | C3 C4 C5 C6 C7 C8 | 6 |
| 470uF/16V | C9 C10 | 2 |
| | | |
| 12mm screw & nut | | 2sets |
| BA5406 IC | | 1 |
| 3090 PCB | | 1 |
| Documentation | | |

See the data sheet for further details.

**Web Address & Email**
Email us at **support@quasarelectronics.com** for any problems or requests you have. See our Web page at:

**http://www.quasarelectronics.com/3090.htm**