

AMP CHANNEL-1

The schematic shows the input stage of the amplifier. It starts with a +5.6V supply connected to a 2.3V divider (R272, R279) and a 4700pF capacitor (C197). The input signal is coupled through a 470pF capacitor (C182) to the non-inverting input of the first op-amp, U108-A (TLC081). The op-amp is configured with a voltage divider (R248, R249) and a bypass capacitor (C175) at its non-inverting input. The output of the op-amp is connected to a 1kΩ resistor (R23) and a 6800pF capacitor (C215) to ground. The op-amp is powered by a 5.6V supply and a 470pF capacitor (C197). The output of the op-amp is connected to a 1kΩ resistor (R23) and a 6800pF capacitor (C215) to ground. The op-amp is powered by a 5.6V supply and a 470pF capacitor (C197).

FREQ-ADJ (CHANNEL-1)

The frequency adjustment section consists of a 1kΩ resistor (R23) connected to the output of the first op-amp. The output is connected to a 6800pF capacitor (C215) to ground. The op-amp is powered by a 5.6V supply and a 470pF capacitor (C197).

AT INITIAL POWER OF REBUILT AMPLIFIER

ADJUST EACH AMPLIFIER OPERATING FREQUENCY FOR 480KHz +/-10KHz WITH THE OPPOSITE AMPLIFIER DEFEATED VIA J3 OR J4. THEN WITH BOTH AMPS OPERATING, CAREFULLY ADJUST R19 AND R23 TOGETHER FOR THE SAME FREQUENCY ON BOTH AMPS (AMPS BEING FREQUENCY LOCKED).

The diagram shows a feedback loop between two amplifier stages. A 50V source is connected to a 220PF capacitor, which is connected to the input of the second stage (R271, R273, R271). The output of the second stage is connected to the input of the first stage (R15, R20K0, .25W).

| Component | Value |
|-----------|-----------|
| R15 | 20K0 .25W |
| R273 | 20K0 .25W |
| R271 | 20K0 .25W |
| R271 | 20K0 .25W |

AMP CHANNEL-2

OVERALL AMP GAIN = 20dB

The schematic diagram illustrates the internal circuitry of the AMP CHANNEL-2. It features a +5.6V supply connected to a network of resistors and capacitors. Key components include:

- Resistors:** R209 (470pF, 2%), R208 (4700pF, 5%), R292 (100), R246 (499, 1%), R259 (499, 1%), R258 (100), R301 (6R81, .25W), R310 (6R81, .25W), R303 (1K00, 1%), R293 (1K00, 1%), R214 (01, 5%).
- Capacitors:** C209 (470pF, 2%), C208 (4700pF, 5%), C179 (.33UF, 16V), C184 (4.7UF, 25V), C200 (47pF, 200V), C214 (01, 5%), C24 (100UF, 25V).
- Diodes:** D152 (IN4148W), D156 (BAT54S), D159 (IN4148W), D162 (IN4148W), D167 (ES1G, 1A 400V).
- Integrated Circuits:** U107-A (SN74LVC1G17), U111-A (TLC081), U110 (IRS20957S), U100 (CSD).

The circuit is powered by a +15V supply and includes a speaker (S177) connected to the output. The overall amp gain is specified as 20dB.