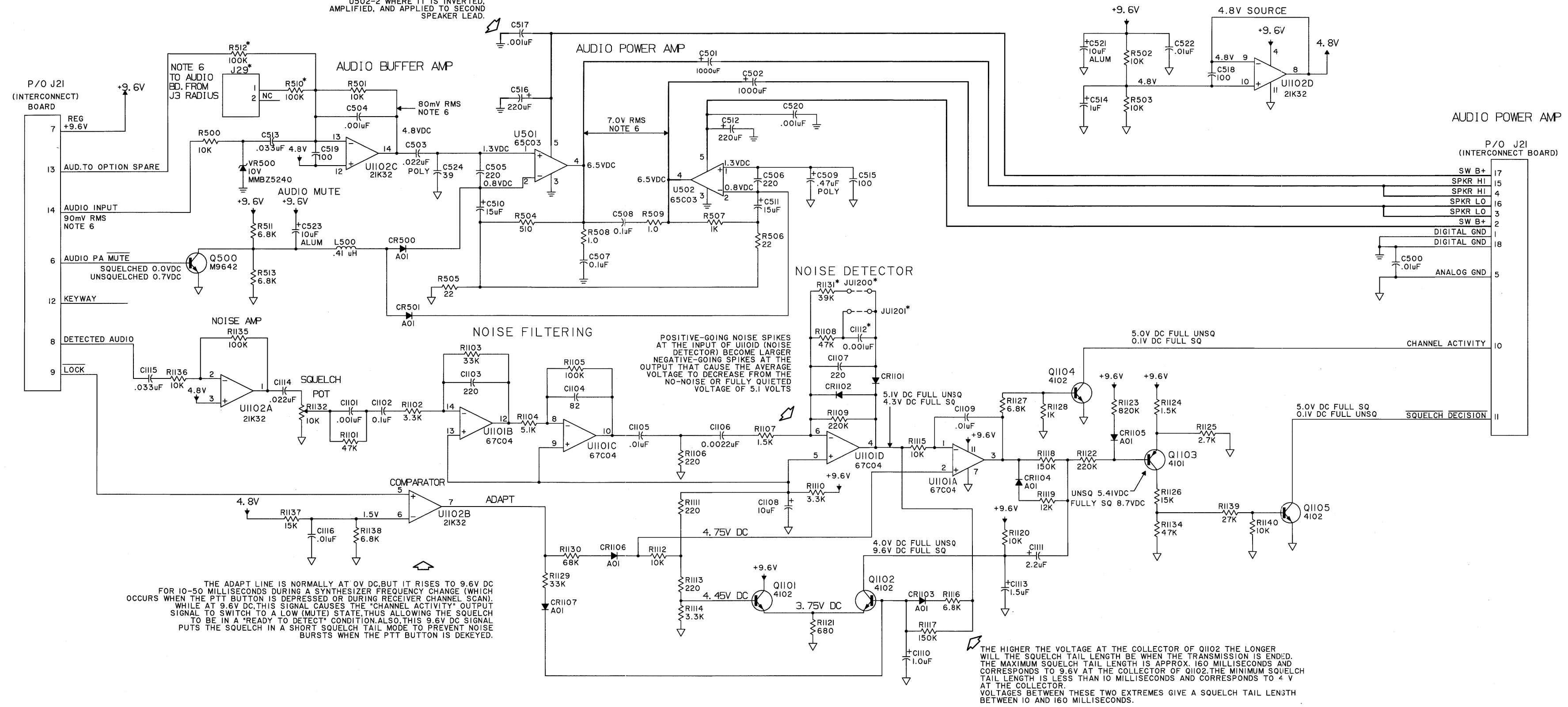


AUDIO SIGNAL IS AMPLIFIED BY U501 AND APPLIED TO ONE SPEAKER LEAD. OUTPUT OF U501-4 ALSO APPLIED TO U502-2 WHERE IT IS INVERTED, AMPLIFIED, AND APPLIED TO SECOND SPEAKER LEAD.

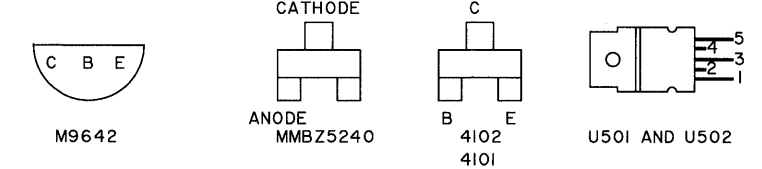


NOTES:

- UNLESS OTHERWISE INDICATED RESISTOR VALUES ARE IN OHMS; CAPACITOR VALUES ARE IN PICOFARADS, INDUCTOR VALUES ARE IN MICROHENRIES.
 - TYPES AND CONNECTORS FOR THE INTEGRATED CIRCUITS USED ON THIS BOARD ARE AS FOLLOWS:
- | REF DESIG | TYPE | VCC(PIN) | GND(PIN) | DESC. |
|-----------|-------|------------|----------|------------|
| U1101 | 67C04 | +9.6V (11) | (7) | QUAD OPAMP |
| U1102 | 21K32 | +9.6V (4) | (11) | QUAD OPAMP |
- NON-POLARIZED CAPACITORS ARE CHIP TYPE UNLESS OTHERWISE INDICATED.
 - POLARIZED CAPACITORS ARE TANTALUM ELECTROLYTIC TYPE UNLESS OTHERWISE INDICATED.
 - DC VOLTAGES ARE MEASURED WITH A HIGH IMPEDANCE (10 MEGOHM) DC VOLTMETER.
 - MEASURED IN THE RECEIVE MODE WITH AN ON CHANNEL SQUELCH SIGNAL AT A LEVEL OF -20dBm MODULATED WITH 1KHZ AT 3KHZ DEVIATION. MEASURED WITH AN AC RMS VOLTMETER. VOLUME SET TO GIVE 10 ACROSS 3.2 OHM LOAD.

SOLDER SIDE VIEW

COMPONENT SIDE VIEW



JUMPER TABLE

	JUI200	JUI201
CONVENTIONAL	OUT	IN
SECURENET	IN	OUT

* ASTERISK PARTS NOT USED ON LATER VERSION BOARDS: C112 REPLACED WITH 0-OHM CHIP JUMPER P/N 06-11077A01.

GXW-5180-B

THE HIGHER THE VOLTAGE AT THE COLLECTOR OF Q1102 THE LONGER WILL THE SQUELCH TAIL LENGTH BE WHEN THE TRANSMISSION IS ENDED. THE MAXIMUM SQUELCH TAIL LENGTH IS APPROX. 160 MILLISECOND AND CORRESPONDS TO 9.6V AT THE COLLECTOR OF Q1102. THE MINIMUM SQUELCH TAIL LENGTH IS LESS THAN 10 MILLISECOND AND CORRESPONDS TO 4 V AT THE COLLECTOR. VOLTAGES BETWEEN THESE TWO EXTREMES GIVE A SQUELCH TAIL LENGTH BETWEEN 10 AND 160 MILLISECOND.

THE ADAPT LINE IS NORMALLY AT 0V DC, BUT IT RISES TO 9.6V DC FOR 10-50 MILLISECOND DURING A SYNTHESIZER FREQUENCY CHANGE (WHICH OCCURS WHEN THE PTT BUTTON IS DEPRESSED OR DURING RECEIVER CHANNEL SCAN). WHILE AT 9.6V DC, THIS SIGNAL CAUSES THE "CHANNEL ACTIVITY" OUTPUT SIGNAL TO SWITCH TO A LOW (MUTE) STATE, THUS ALLOWING THE SQUELCH TO BE IN A "READY TO DETECT" CONDITION. ALSO, THIS 9.6V DC SIGNAL PUTS THE SQUELCH IN A SHORT SQUELCH TAIL MODE TO PREVENT NOISE BURSTS WHEN THE PTT BUTTON IS DEKEYED.