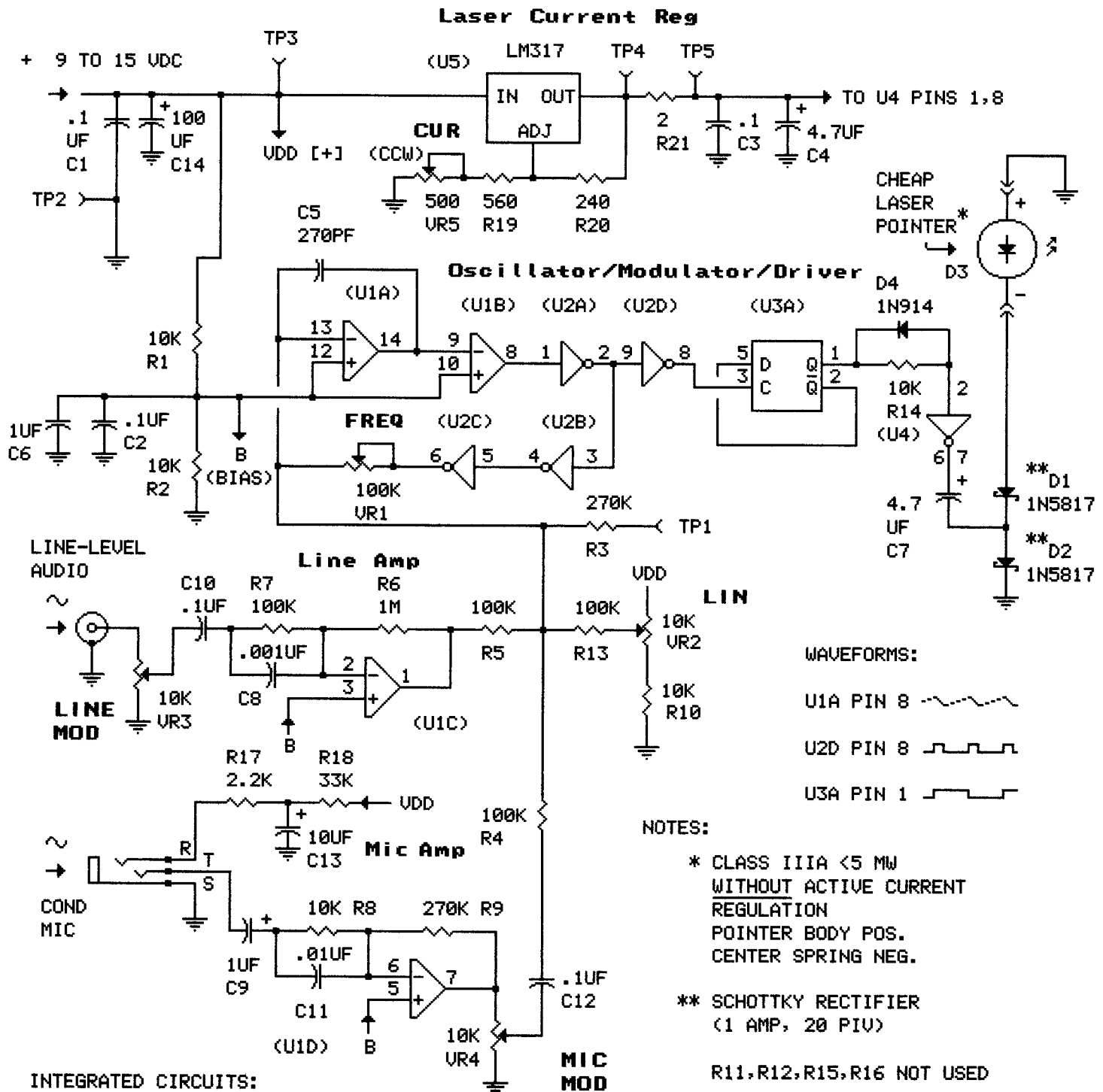
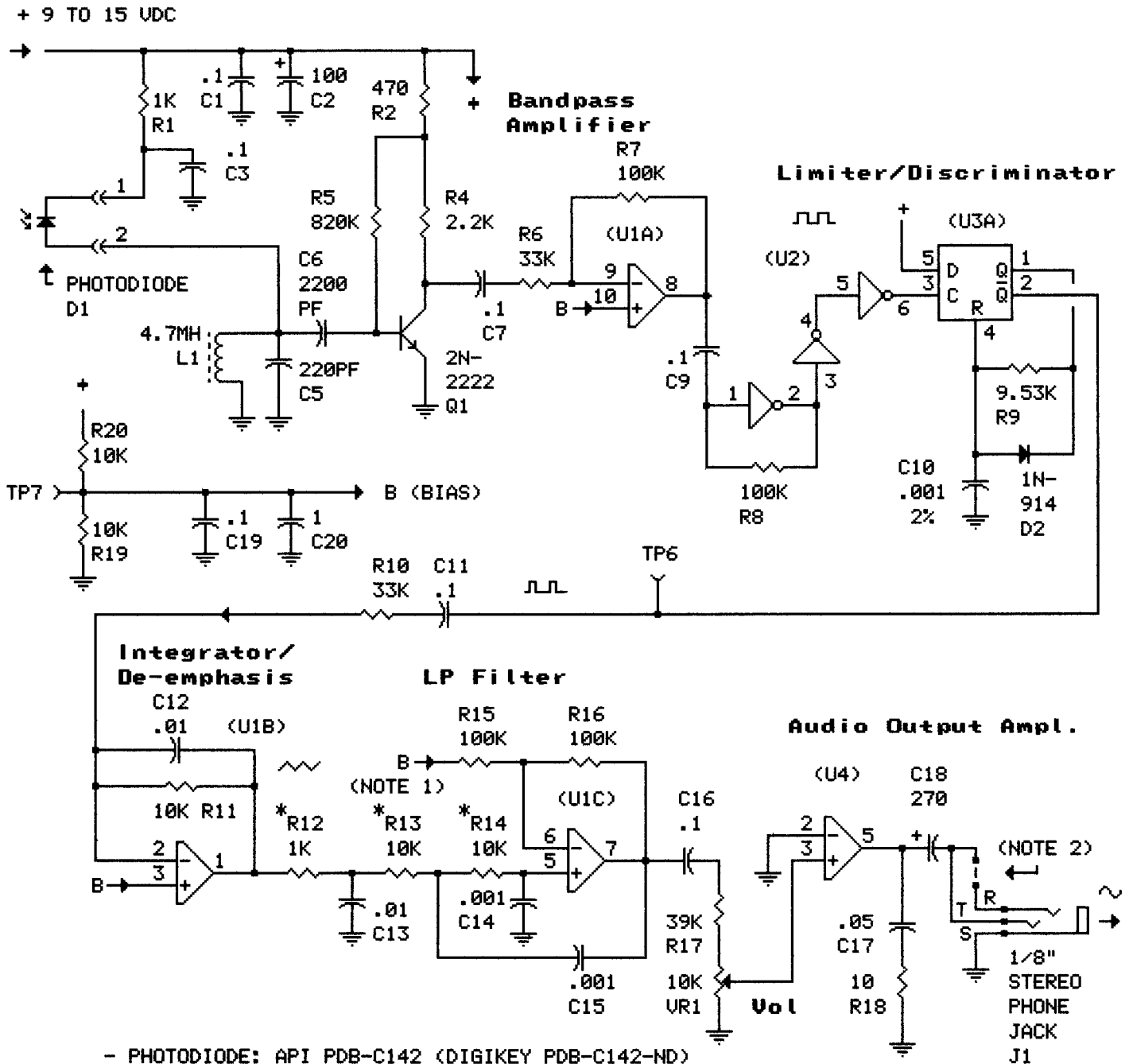


FM Subcarrier Generator/ Audio Modulator and Laser Pointer Driver



- INTEGRATED CIRCUITS:**
- U1: LF347 QUAD JFET GP OP-AMP (UDD [+] PIN 4 / GND PIN 11)
 - U2: CD4069B CMOS HEX INVERTER (UDD [+] PIN 14 / GND PINS 7,9,11,13)
 - U3: CD4013B CMOS D FLIP-FLOP (UDD [+] PIN 14 / GND PINS 4,6,7,8,9,10,11)
 - U4: TC1411 HIGH-SPEED MOSFET DRIVER (DIGIKEY TC1411CPA-ND)(GND PINS 4,5)
 - U5: LM317 ADJUSTABLE VOLTAGE REGULATOR

Laser Beam Detector/FM Subcarrier Demodulator



- PHOTODIODE: API PDB-C142 (DIGIKEY PDB-C142-ND)
- INDUCTOR: JW MILLER RL622-472K-RC (DIGIKEY M10013-ND)
- U1: LF347 QUAD JFET GP OPAMP (+ PIN 4 / GND PIN 11)
- U2: CD4069 CMOS HEX INVERTER (+ PIN 14, GND PINS 7,9,11,13)
- U3: CD4013 CMOS D FLIP-FLOP (+ PIN 14, GND PINS 6,7,8,9,10,11)
- U4: LM386-4 (+ PIN 6, GND PIN 4)
- CAPACITORS: UF

NOTES:

- (1) MULTIPLY (*) RESISTOR VALUES BY 3.3 FOR VOICE-FREQUENCY RESPONSE
- (2) REMOVE JUMPER TO ACCOMODATE TIP/SLEEVE (MONO) PLUG
- (3) R3,C4,C8 NOT USED

Alignment Connections

**FM Subcarrier
Generator/
Audio Modulator -
Laser Pointer
Driver**

**Laser Beam
Detector/
FM Subcarrier
Demodulator**

