

AGC microphone pre-amp/amp

All parts available from Digikey.

- DigiKey parts *-ND.
 All resistors: 1/8W, 5%
 (value)EBK-ND, eg. 47KEBK-ND (47K)
 C (104): 0.1uF, cer. cap, 445-8421-ND/445-5303-ND
 478-5741-ND/399-4151-ND
 C (105): 1.0uF, 445-8410-ND/445-8405-ND/445-8417-ND
 VR: trimmer, 3362U-1-102 (1k), -103 (10k), -104 (100k)
 REG1: 78L08, TO-92, 8V, 0.1A
 (value)EBK-ND, eg. 47KEBK-ND (47K)
 C (10F): 10uF, 16-50V, electrolytic cap, 0.1" any type
 P813-ND, 10uF, 25V P5529-ND
 C (100uF): 16-50V, electrolytic cap, 0.1" any type
 P5529-ND, 100uF, 16V
 D1/D2: 1N4148/BAT42, signal diode
 LED1: any type
 MIC: electret condenser microphones
 2.2k, 10V max
 Q1: NPN, 2N3904 or 2N5088 (2N5088GDS-ND)
 Q2: J175 P-CH JFET, J175_D26ZCT-ND
 IC1: LM258N, LM258NGDS-ND/497-1554-5-ND

PEAGM application modules:

1. Microphone Pre-Amp.
2. R3: 10k for high sensitivity, 2.2k for low.
3. External audio input AGC control.
4. AGC microphone pre-amp/amp module.
5. Audio signal pulse/intensity output.

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PCB-PEAGM AGC audio module
 PCB: FR4, 1/16", double-sided, through-hole plated.
 SMOBC (tin, HASL finish), Lead-free, RoHS

Dimension: 2.22"x1.22" +/- 0.01", 110mil radius corners
 Holes: 4 x 100mil, 2.0"x1.0"
 Panel: V-scored, 6 PCBSSs/panel

VR3: 2.6-3.0V, LED1 signal peak/level/pulse out.

R15: to C= audio comparator frequency pulse digital out.
 to D= audio peak/level/intensity out

Test point A: audio AGC signal out, low current.

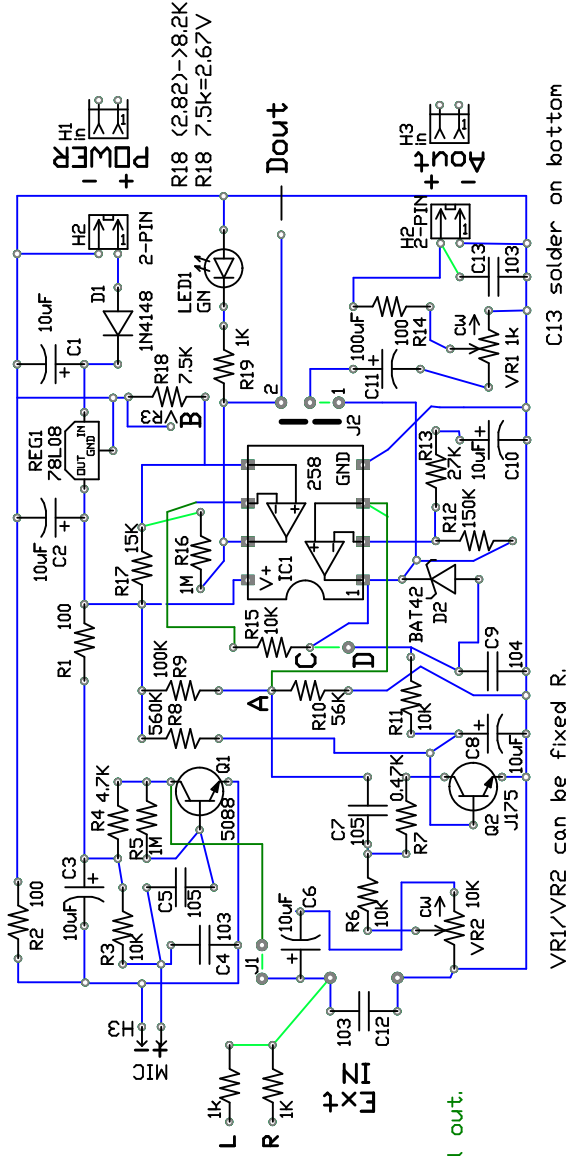
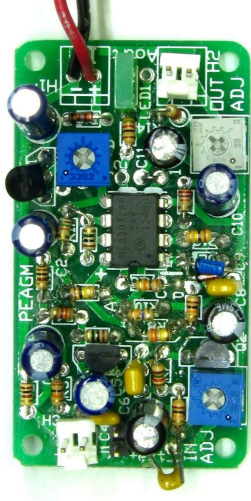
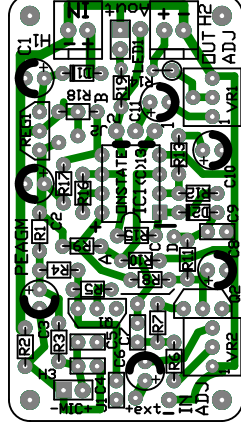
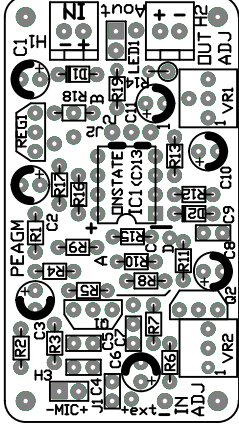
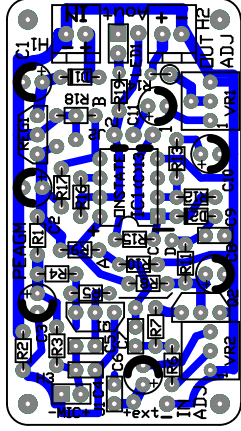
Aout: buffered, AGC audio signal.

0.1-3.0Vp-p nominal input

0.4-1.5 Vp-p nominal output

AGC, 0.85V IN, D=2.65V

5Vin->2.2Vout, 10Vin->3.5Vout.



VR1/VR2 can be fixed R.

C13 solder on bottom

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Rev. 1 File Name: SCHEMATIC PEAGM

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Description: AGC MIC control audio module

Part Code: PCB-PEAGM

Drawn By: D. H.