ARIES AR-314 VOLTAGE CONTROLLED FILTER MODULE

The AR-314 is a basic 12db-per octave low pass filter with voltage controllable cut-of frequency and variable resonance (Q). This filter modifies the harmonic content, or spectrum, of an incoming signal by damping all frequency components of the waveform above a certain cut-off point. The resonance control boosts the amplitude of the frequency, or harmonic of the incoming wave, closest to the cut-off frequency, by a variable amount according to the manual setting. The control input varies the cut-off frequency at 1 octave per volt of input signal: positive voltage will raise the cut-off and negative voltage will lower it.

SPECIFICATIONS:

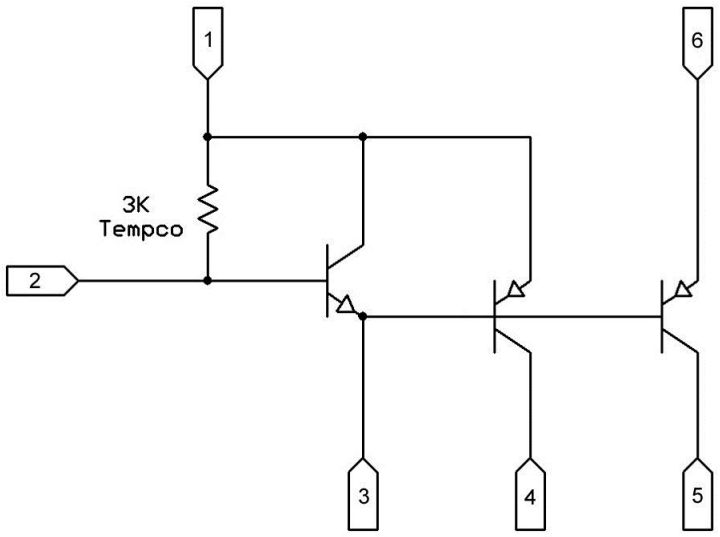
- Frequency Response: 16Hz to 16KHz
- Q (Gain at Cut-off Freq.): 0.5 to 50
- Maximum Signal Level: +/-10v. peak
- Signal-to-Noice Ratio: 70db min.
- Control Input: +/-10v; 0v-1v./octave
- Signal Input Impedance: 50 ohms min.
- Control Input Impedance: 50 ohms min.
- Output Impedance: 1K ohms

CONTROLS:

- Initial Freq., Resonance (Q), Signal 1 Input Attenuator Control 1 Input Attenuator
- Connectors: • 4 Signal Inputs
- 4 Control Inputs
- 2 Outputs

POWER CONSUMPTION

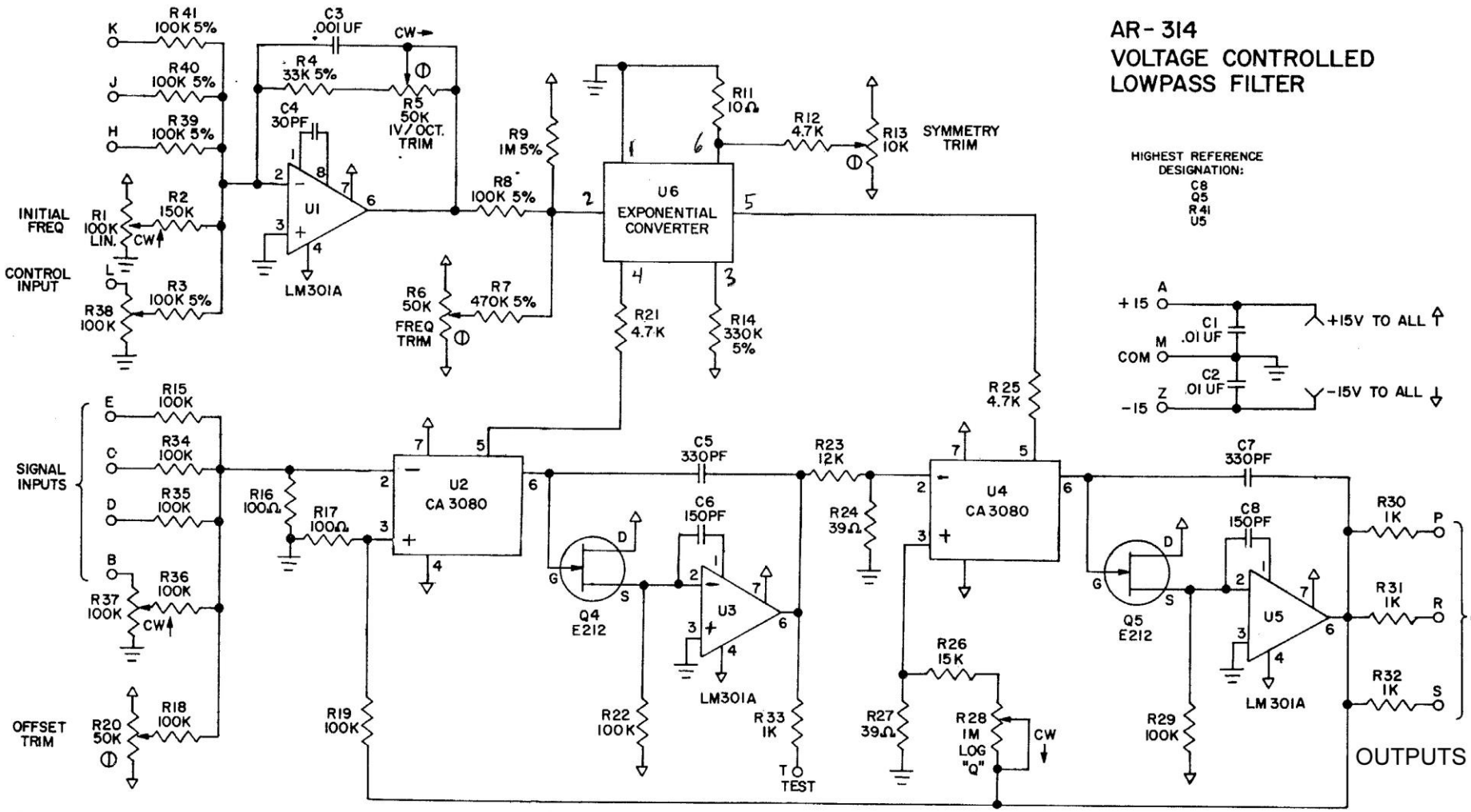
- 4 mA at +15V
- 2 mA at -15V



U6 Exponential Converter schematic


VCF
64
4K
16
16K
FREQ.(HZ.)
MIN.
MAX.
RESONANCE
AUDIO 1
CONTROL 1
1
2
3
4
TEST
AUDIO
CONTROL
OUTPUTS
AR-314


AR-314


AR-314
VOLTAGE CONTROLLED
LOWPASS FILTER
HIGHEST REFERENCE DESIGNATION:
C8
Q5
R41
U5
INITIAL FREQ
CONTROL INPUT
SIGNAL INPUTS
OFFSET TRIM
SYMMETRY TRIM
FREQ TRIM
U1
LM301A
U2
CA 3080
U3
LM301A
U4
CA 3080
U5
LM301A
U6
EXPONENTIAL CONVERTER
Q4
E212
Q5
E212
+15V TO ALL
-15V TO ALL
COM
+15
-15
TEST
OUTPUTS