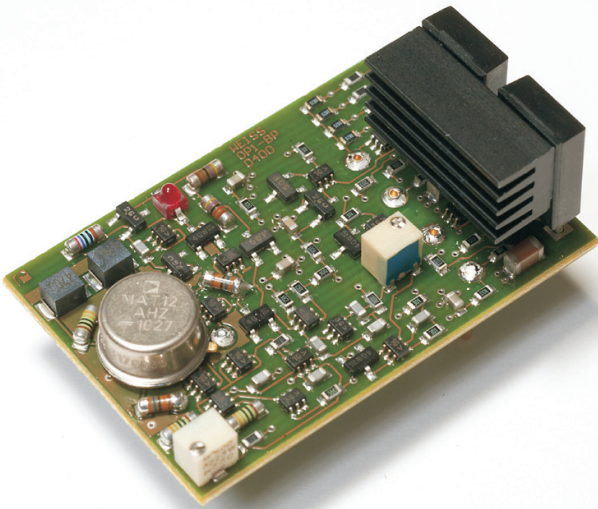


Discrete OpAmp Module for OEMs

The Weiss OP1-BP – a truly transparent, discrete operational amplifier



Applications:

- high performance audio
- low noise, low distortion preamplifiers
- high resolution ADC drivers
- high resolution DAC current-to-voltage converters
- headphone amplifiers and line drivers
- low distortion active filters
- high resolution instrumentation

JFET version in development

Superb noise performance:

- 1 nV/ $\sqrt{\text{Hz}}$ voltage noise density (1 kHz)
- 30 nV_{pp} voltage noise (0.1–10 Hz)
- 0.7 pA/ $\sqrt{\text{Hz}}$ current noise density (1 kHz)
- 80 pA_{pp} current noise (0.1–10 Hz)
- no common-mode current noise from bias cancellation

Outstanding distortion specifications:

- THD+N –152 dB (+20 dBu, 1 kHz, 22 kHz BW, 600 Ω load)
- THD+N –148 dB (+20 dBu, 10 kHz, 80 kHz BW, 600 Ω load)
- distortion spectrum consists almost entirely of 2nd and 3rd harmonic
- no significant crossover distortion, even with 200 Ω load
- no significant common mode distortion, even with very high source impedances

Impressive AC performance:

- 50 V/ μs slew rate, highly symmetrical
- 95 MHz gain bandwidth product
- 700 kHz power bandwidth (20 V_{pp} into 600 Ω)
- 300 kHz power bandwidth (20 V_{pp} into 200 Ω)

Superior DC precision:

- offset 10 μV
- input bias current ± 60 nA
- input offset current 10 nA

Excellent load driving capability:

- 27 V_{pp} (+21.8 dBu) into 200 Ω (± 15 V supply)
- 20 V_{pp} (+19.2 dBu) into 100 Ω (± 15 V supply)
- 10 V_{pp} (+13.2 dBu) into 50 Ω (± 15 V supply)
- adjustable class A output current, factory trimmed to 30 mA
- very low output impedance
- extensive short-circuit protection

Salient insensitivity to power supply deficiencies:

- very high PSRR with little degradation towards high frequencies
- individual RC decoupling of amplifier subcircuits eliminates the interaction of the various amplifier stages and makes the amplifier insensitive to power supply inductance
- high performance on-board decoupling capacitors, 2.4 μF total
- no need for additional external decoupling capacitors
- recommended power supply range from ± 5 V to ± 18 V

Careful thermal design:

- excellent stability of any bias condition
- full thermal isolation of the sensitive input stage from the power output stage
- fast settling of bias conditions after start up

Dimensions:

- 42 x 28 x 17 mm (1.65 x 1.1 x 0.67 inches)
- API 2520 standard pinout

Competitively priced:

Swiss Francs 120 in small quantities

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