

Technical Specification

FEATURES:

- 7 ACTIVE FILTERS
- 1 OCTAVE EQUALIZATION
- CONSTANT "Q" EQUALIZATION
- ± 12 DB BOOST OR CUT
- OPERATES ON 24VDC



- EQ BYPASS SWITCH
- HI IMPEDANCE INPUT
- 600 OHM OUTPUT
- HI IMPEDANCE OUTPUT

DESCRIPTION:

A seven band modified one octave equalizer used to enhance the sound quality of a paging or sound reinforcement system where acoustical conditions may present a problem. The equalizer allows more usable gain from the sound system by allowing adjustments to frequency levels that cause feedback. Seven slide controls on the front panel provide an immediate visual indication of the response curve. The equalizer provides up to 12 dB of boost or cut to seven different frequencies at or about one octave apart. A bypass switch allows the user to compare the sound before and after response curve correction. The unit will sit on a shelf or may be mounted in a 19-inch equipment cabinet with the optional rack mount kit SEQ-RMK. Two units may be mounted side by side in a 19-inch rack.

Specifications:

Input Specifications

10 k Ohm @ 250 mV RMS

Output Specifications

Line Output 600 Ohm 250 mV RMS

Hi Impedance 10 k Ohm @ 250 mV RMS

Filter Frequencies

Band 1 60 Hz	Band 5 2200 Hz
Band 2 200 Hz	Band 6 4500 Hz
Band 3 560 Hz	Band 7 10.0 kHz
Band 4 1100 Hz	

Filter "Q"

Filter "Q" = 1.8

Frequency Response

Bypass Mode

20 Hz to 20kHz $\pm .5$ dB

-10 dB in = -10 dB out

"Flat" Curve

All filters set to 0 dB gain:

20 Hz to 20 kHz $\pm .5$ dB

Distortion

Less than 0.1 %

Signal To Noise Ratio

> 80 dB

Power Requirements

24Vdc, 100ma maximum

HOUSING AND FINISH

Steel housing constructed from 24-gauge material finished in Metallic Gray with white graphics.

ENVIRONMENT

Temperature: 0 to 50 °C (32 to 122 °F)

Humidity: 0 to 85% Non-Precipitating

DIMENSIONS AND WEIGHT

8.6" (21.8 cm) W x 3.5" (8.96 cm) H x 5.5" (14.0 cm) D

Weight: 4.0lbs (1.80kg)

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ARCHITECTS' AND ENGINEERS

The seven band 1 Octave Equalizer shall have 7 active constant "Q" filters providing up to 12 dB of gain or attenuation. The center frequencies shall be 60 Hz, 200 Hz, 560 Hz, 1100 Hz, 2200 Hz, 4500 Hz and 10.0 kHz.

The frequency response of the equalizer shall be 20 Hz to 20 kHz. Distortion shall be less than 0.1% in any operating mode. The signal to noise ratio shall be > than 80 dB with the equalizer in the 0 dB position. The equalizer shall have 2 Hi impedance inputs and a 600-ohm line input. A hi impedance output and a line output shall be provided.

There shall be seven slide controls provided to allow adjustment of the frequencies and also provide a visual display of the response curve. An EQ in/out shall be provided to allow the equalized signal to be compared to the un-equalized signal. A power on/off switch and an indicator light shall be provided.

The housing shall be constructed of cold rolled steel and finished in a metallic gray with white graphics. The dimensions shall be 8.6" (21.8 cm) W x 3.5" (8.96 cm) H x 5.5" (14.0 cm) D. Approximate weight shall be 4.0lbs (1.80kg). A rack mount kit shall be available that will allow two equalizers to be mounted side by side in a 19 inch equipment cabinet.

The equalizer shall be model number SEQ-1 manufactured by Clarity.

Limited Warranty

Clarity warrants its products to be free from defects in materials and workmanship under conditions of normal use and service for a period of one year from the date of shipment. The obligation under this warranty shall be limited to the replacement, repair or refund of any such defective device within the warranty period, provided that:

1. inspection by Clarity indicates the validity of the claim,
2. the defect is not the result of damage, misuse, or negligence after the original shipment,
3. the product has not been in any way repaired by others and that factory sealed units are unopened.
(A service charge plus parts and labor will be applied to units defaced or physically damaged).
4. freight charges for the return of products to Clarity are prepaid,
5. all units "out of warranty" are subject to a service charge. The service charge will cover minor repairs
(*major repairs will be subject to additional charges for parts and labor*).

This warranty is in lieu of and excludes all other warranties expressed or implied, and in no event shall Clarity be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, operation or use of the product.

This warranty specifically excludes damage incurred in shipment. In the event a product is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved in accordance with the F.O.B. point.