

Dual 31-Band Constant Q Equalizer

GKAPHIG EQUALIZEK



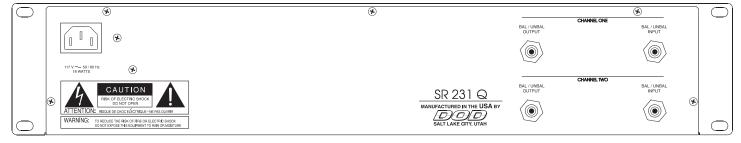
The DOD SR231Q is a powerful 2 rack space stereo/dual mono 31-band graphic equalizer of uncompromising quality, performance, and features. It allows the user to see a graphic representation of equalization applied to the audio spectrum of a sound source, and offers the flexibility to provide solutions to many EQ problems. The SR231Q offers up to 12 dB of cut or boost per band, and switchable low cut filters for each channel. Electronic filter switching minimizes transients (loud pops or clicks when the switch is depressed), and up to

±12 dB of level control is available to compensate for gain changes due to equalization boost or cut. Constant Q constant bandwidth from each filter throughout the full audio spectrum. The SR231Q can be used as a stereo equalizer or as two independent channels of equalization, providing maximum flexibility for all sound systems. Connections to the SR231Q may be either impedance balanced (1/4" tip-ring-sleeve phone plug) or unbalanced (mono 1/4" phone plug) with XLR connectors available as a factory option.

- 31 1/3 Octave Standard ISO Center Frequencies Bands per channel
- Constant Q Filter
- **Noise Potentiometers**
- LED Bargraph Level Indicators
- Low Cut and EQ In/Out Switches with Front Panel Power Switch **LED Indicators**
- 12dB of Boost/Cut per Band using Low Balanced/Unbalanced input and impedance bal/unbal outputs for each

channel

- 1/4" Phone connectors (XLR Optional)
- 2 Unit Rack Space
- One Year Limited Warranty



Low Cut Filter: 12 dB/octave rolloff, 3 dB down @ 50 Hz,

switchable in or out.

Frequency Response: 20 Hz-20 kHz, ±0/-0.5 dB.

Frequency Center Tolerance: 5%. Slider Control Range: 12 dB cut/boost.

Input Impedance: $40k\Omega$ balanced, $20k\Omega$ unbalanced.

Maximum Input Level: +21 dBu.

Output Impedance: 102Ω balanced, 51Ω unbalanced.

Maximum Output Level: +21 dBu. Input Gain Control: ±12 dB.

Harmonic Distortion: 0.004% at 1 kHz typical. Signal-To-Noise Ratio: Greater than 90 dB.

Note: 0 dBu = 0.775 Vrms.

Input Common Mode Rejection: >75 dB@60Hz

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ARCHITECT & ENGINEER SPECIFICATIONS

The graphic equalizer shall be a two-channel 31band type with frequency centers on standard ISO one-third octave frequencies with 12 dB of boost and cut for each slider. Equalization sliders shall have a center detent at 0 dB with a protective dust cover behind the front panel. Low-noise sliders shall be utilized having a travel of 20 mm. Each channel shall have a slider input gain control with +/-12 dB range with center detent at 0 dB. Bypassing each EQ channel shall be accomplished by a frontpanel switch utilizing electronic FET switching to avoid transients and shall have an LED to indicate that the EQ is in. A frontpanel low-cut filter per channel at 50 Hz with 12 dB/ octave slope shall incorporate electronic FET switching and shall have an LED to indicate that the filter is engaged. Output level shall

SR231Q Block Diagram

LOW CUT LED TO 18 dB + 10 dB + 1

be monitored on each channel by a four-LED peak-reading bar graph calibrated to read -10,0+10, and +17 dBu.

The input section shall have one input per channel—electronically balanced/unbalanced 1/4" TRS jacks (optional electronically balanced/unbalanced 1/4" TRS and XLR jacks) The output section shall have one output per channel—impedance balanced/unbalanced 1/4" TRS and balanced Jacks (optional impedance balanced/unbalanced 1/4" TRS and balanced XLR jacks).

A front-panel rocker-type power switch shall provide visual indication with red marking. The power supply shall be internal with two thermally-fused transformers mounted in low hum orientations. The transformers and primary side of the power supply shall be isolated from the secondary and electronics by means of a steel hum isolation shield. The power cord shall be detachable from an international standard IEC 320 power inlet receptacle. Unit shall be constructed to meet or exceed all applicable international safety and regulatory agencies. Unit shall be powered from 120 VAC 60 Hz (or 100 VAC 50/60 Hz, 230 VAC 50 Hz, 240 VAC 50 Hz). Unit housing shall be of all steel construction and shall be rack-mountable in an IEC standard 19" rack and shall occupy a 2U (3.5") rack space. An optional security cover must be available.

The unit shall be a DOD SR231Q (or SR231QXLR) Graphic Equalizer.

SR231Q

