

AG15C

PROGRAMMABLE LOW DISTORTION OSCILLATOR



General

The AG15C is a programmable low distortion oscillator which generates a sine wave signal from 5 Hz to 100 kHz. With harmonic distortion between 10 Hz and 10 kHz at less than -120 dB (0.0001%), this oscillator is an ideal signal source for testing and evaluating high-quality audio equipment and for other applications where low-distortion signals are required. A GP-IB interface is standard in this unit, making it ideal for automated testing applications. The AG15C is recommended for use with the AD725D Automatic Distortion Analyzer.

Features

- Harmonic distortion between 10 Hz and 10 kHz is less than -120 dB (0.0001%).
- Oscillator frequency is manually set using three 10-position rotary switches, a $\pm 1\%$ fine adjust dial, and a 4-range rotary switch.
- The output attenuator is adjustable from 0 to 99.99 dB in 0.01 dB increments and the ± 1 dB vernier dial.
- Quad output is continuously variable between 0 to 5 Vrms using the control knob on the rear panel.
- GP-IB interface allows settings to be made by remote control.
- Output frequency and attenuator settings are indicated on 4 digits displays.
- Main and quadrature output signals. (quad signal is phase advanced by 90° from the main signal output.)
- Output ON/OFF switch simplifies S/N measurements.
- Front/rear output connector selection switch.
- Selectable chassis or floating ground output.

Specifications

- Frequency range 5 Hz to 100.9 kHz, 3 digits / 4 ranges
- Frequency accuracy $\pm 1\%$
- Frequency fine adjustment range $\pm 1\%$ of the set frequency

- Output voltage
 - Main output Max.5 Vrms (600 Ω balanced)
Max.10 Vrms (unbalanced)
 - Quad output Max.5 Vrms (unbalanced)
- Frequency response
 - Main output 5 Hz to 50 kHz, ± 0.05 dB
50 to 100.9 kHz, ± 0.1 dB
 - Quad output 5 Hz to 100.9 kHz, ± 0.3 dB
- Output impedance 600 Ω $\pm 2\%$, unbalanced for both Main and Quad outputs
- Harmonic distortion
 - Main output 5 to 10 Hz: $< 0.00032\%$ (-110 dB)
10 Hz to 10 kHz: $< 0.0001\%$ (-120 dB)
10 to 20 kHz: $< 0.00032\%$ (-110 dB)
20 to 100 kHz: $< 0.001\%$ (-100 dB)
- Output attenuator
 - Main output 0 to 0.99 dB, ± 0.03 dB
1 to 9.99 dB, ± 0.05 dB
10 to 69.99 dB, ± 0.3 dB
70 to 99.99 dB, ± 0.5 dB
 - Quad output Continuously variable
- Interface
 - GP-IB
 - Standards conformance IEEE 488-1978
- General specifications
 - Power supply AC 100, 120, 220, 240 V $\pm 10\%$, 50/60 Hz
 - Power consumption Approx. 45 VA
 - Operating temperature range 0 $^\circ$ C to 40 $^\circ$ C
 - Relative humidity 25% to 95%RH (non-dewy)
 - Dimensions 426 (W) x 99 (H) x 360 (D) mm
 - Weight Approx. 8.6 kg

