DATA SHEET 1019-0107-6

GENELEC® 1019A MONITORING SYSTEM

1019A APPLICATIONS

NEAR FIELD MONITORING FOR:
- SMALL CONTROL ROOMS
- MOBILE VANS
- TELEVISION CONTROL ROOMS
- POST PRODUCTION
- WORK STATIONS
- VIDEO AND FILM EDITING SUITES

PERSONAL MONITOR FOR:
- MUSICIANS
- COMPOSERS
- LOCATION ENGINEERS

GENERAL DESCRIPTION

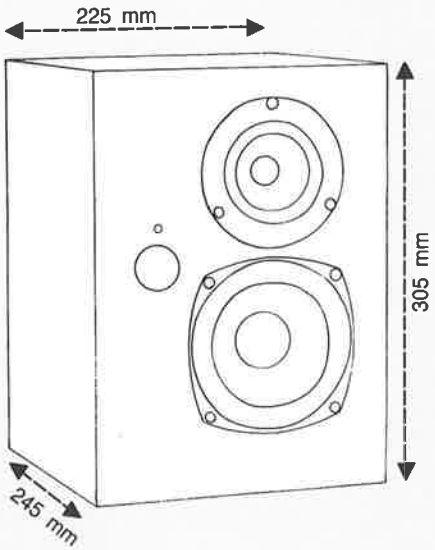
SYSTEM
The GENELEC 1019A is a compact two-way monitor that includes drivers, amplifiers and an active crossover. The 1019A is designed for locations where sound quality and compact size is essential. The 1019A is designed for monitoring in studios, work station environments, small post production facilities, mobile vans and ENG, where there are some space limitations and sound quality is of prime importance with reasonable demands on SPL level.

DRIVERS
The bass and midrange frequencies are reproduced with a 5" driver loaded in a 0.25 cubic foot (7 litres) vented box. The -3 dB point is 60 Hz and the low frequency response extends to 40 Hz. The crossover frequency to a 13/16" tweeter is 3.5 kHz. The high frequency response of the tweeter is quite flat to 20 kHz and then falls sharply after 22 kHz.

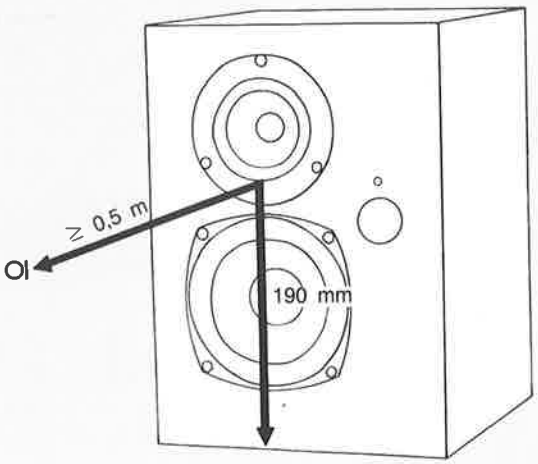
CROSSOVER
The active crossover network consists of two parallel bandpass filters. Acoustically the filters are complementary and the slopes are 24 dB/octave. Filters include delay compensation for the tweeter. Bass and treble tone controls with 2 dB steps are included in the crossover to balance the monitor in different acoustic conditions. The crossover network contains an active balanced input stage, a volume control and an optional mic input can be added.

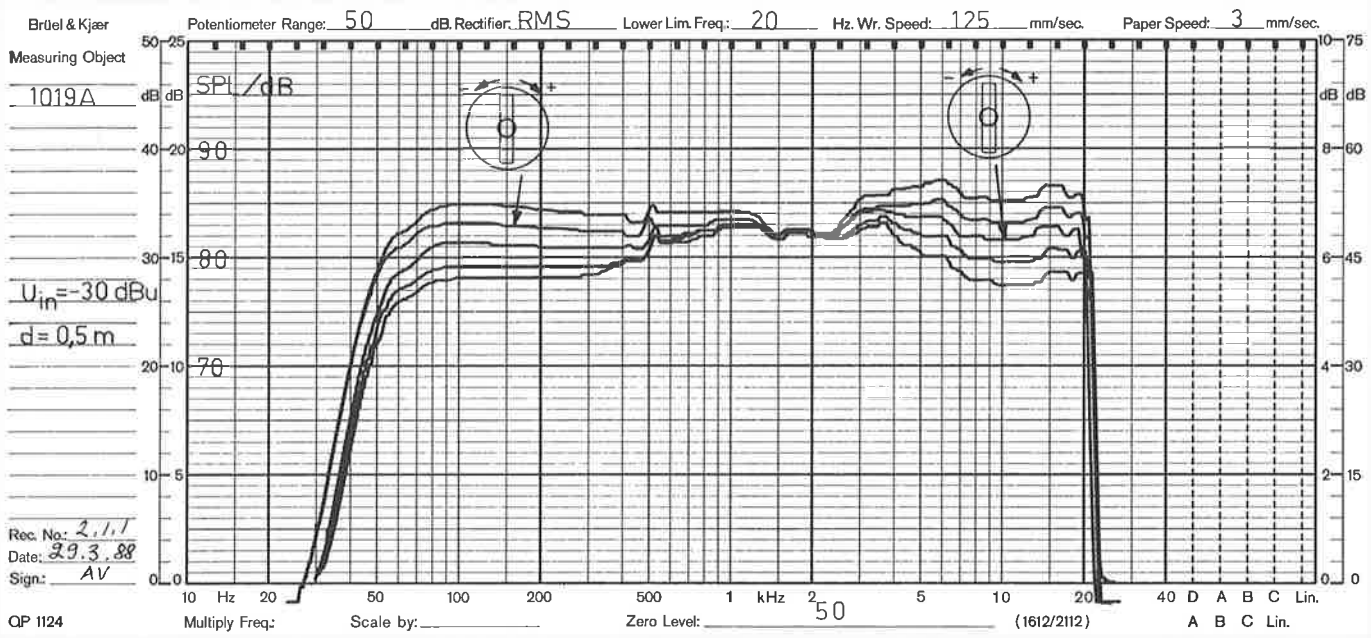
AMPLIFIERS
The bass and treble amplifiers produce 35 and 20 watts, respectively, of peak power. The bass amplifier has a continuous output of 22 watts and treble amplifier has 6 watts continuous. The lower levels of continuous power protect the drivers, but the amplifiers are capable of driving the system to peak levels of 115 dB SPL. THD and IM distortion are low in both amplifiers.

INTEGRATED CONSTRUCTION
Maintenance is straightforward and very easy due to rugged, but highly integrated simple construction. The amplifier chassis is mounted to into the enclosure with quick release hinges. A similar method is used to mount the amplifier circuit board to the amplifier chassis, giving easy access to both sides of the circuit board.

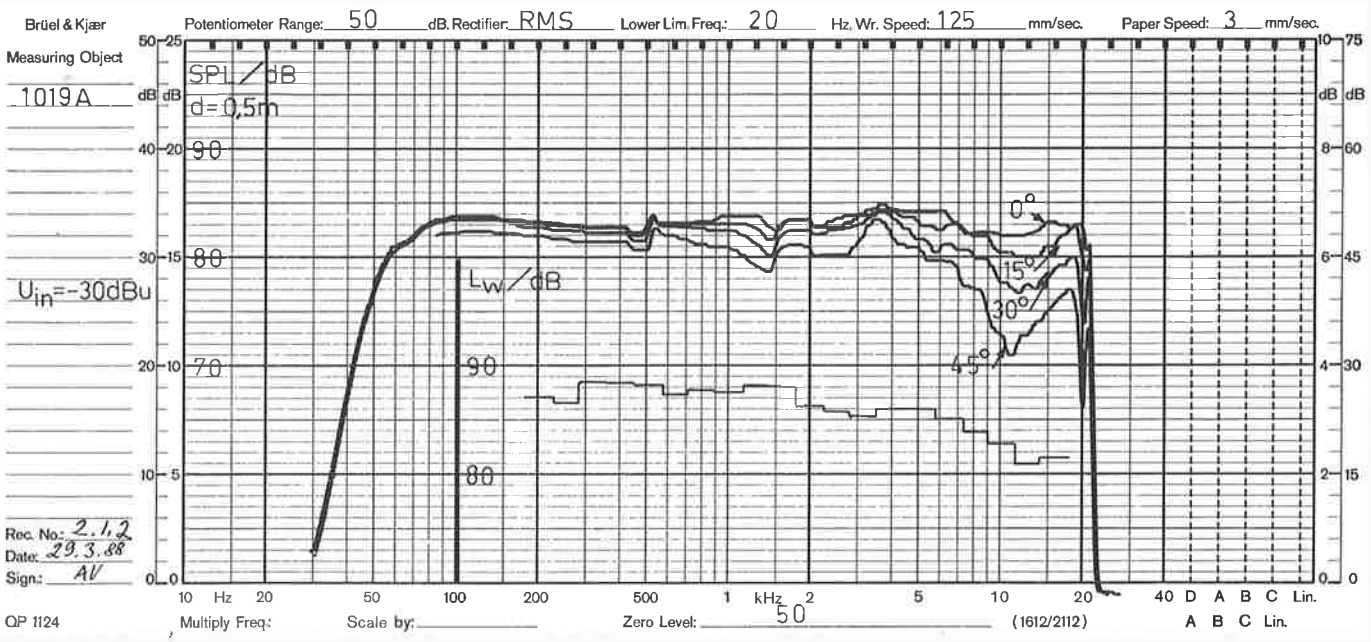


The system acoustical axis:





Effect of control settings measured in free field conditions:



Directional characteristics

SYSTEM SPECIFICATIONS

Lower cut-off frequency, -3 dB: ≤60 Hz

Upper cut-off frequency, -3 dB: ≥ 20 kHz

Free field frequency response tolerance of system: ± 3 dB

Maximum continuous sine wave acoustic output @ 1 m on axis in half space, averaged from 100 Hz to 2 kHz: ≥100 dB SPL

Maximum continuous RMS acoustic output in same conditions with IEC-weighted noise: ≥100 dB SPL

Maximum peak acoustic output per pair on top of a console, 1 m from the engineer, with music material: ≥ 115 dB

A -20 dBu signal input will produce 88 dB SPL in a free field @ 1 m on axis with all controls set at the "CAL" position. The "CAL" position is the 0 dB position of all tone controls and the maximum sensitivity position of the input level control. See specification in the Crossover Section.

Self generated noise level in free field @ 1 m on axis: ≤10 dB

Harmonic distortion at 85 dB SPL at 1 m on axis: Freq. ≤300 Hz ≤3 %
Freq. > 300 Hz ≤ 1 %

Directivity: see graphs

Drivers: Bass 5" cone (125 mm)
Treble 13/16" soft dome (21 mm)

Weight: 14.3 lb. (6.5 kg)

Dimensions: Height 12" (305 mm)
Width 8 7/8" (225 mm)
Depth 9 5/8" (245 mm)

AMPLIFIER SECTION

Bass amplifier output power at 4 ohm load:
continuous 22 W
momentary 35 W
Treble amplifier output power at 8 ohm load:
continuous 6 W
momentary 20 W

Treble channel continuous output power is limited by the electronic overload protection.

Slew rate 10 V/us

Amplifier system distortion at nominal output: THD ≤ 0.2 %
SMPTE-IM ≤ 0.2 %
CCIF-IM ≤ 0.2 %
DIM100 ≤ 0.2 %

Signal to Noise ratio, from shorted system input to channel output, referred to full output: bass 83 dB
treble 87 dB

Mains voltage: 110/220/240VAC

Voltage Operation Range ± 10 %

Power consumption:
idle 5 VA
full output 50 VA

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All data subject to change without prior notice.

CROSSOVER SECTION

Input connector: XLR female pin 2 +
pin 3 -

To feed from unbalanced output connect pin 3 to pin 1 (ground) in the cable connector.

Input impedance: 10 k balanced

Continuously variable input level for maximum output: from +12dBu to -8dBu

Subsonic filter: down 12 dB@25 Hz re 100 Hz level

Ultrasonic filter: down 12 dB@50 kHz re 10 kHz level

Crossover frequency: 3.5 kHz

Crossover acoustical slopes: >24 dB/octave

Tone control operation range in 2 dB steps:
bass from 0 dB to - 8 dB
treble from +4 dB to - 4 dB

The "CAL" position is 0 dB, the treble control slot set at vertical position and bass at 1 o'clock.