Genelec 1032A
Bi-amplified Monitoring System
1032A Bi-amplified Active Monitoring System

APPLICATIONS
Near Field Monitoring
Broadcast Monitoring
TV Control Rooms
Mobile Vans
Video Post Production
Project Studios
Digital Workstations

SYSTEM
The Genelec 1032A is a two-way active monitoring system including magnetically shielded loudspeaker drivers, speaker enclosure, multiple power amplifiers and active, low signal level crossover. Based on the famous 1031A near field monitor, the 1032A offers extended low frequency response and an increased maximum SPL. Due to its compact size, this system is ideal for high power near field monitoring. Furthermore, it is well suited to general purpose broadcasting applications, TV control rooms, mobile vans and CD mastering as well as home studios.

The unique Directivity Control Waveguide (DCW) Technology used provides excellent stereo imaging and frequency balance even in difficult acoustic environments. The fast, low distortion amplifiers are capable of driving the stereo system to peak output levels in excess of 124 dB SPL at 1 m with program signals.

VERSATILE CROSSOVER CONTROLS
Versatile crossover controls allow for precise matching of the speaker system to different acoustic conditions. The system can be used in both vertical and horizontal orientation by simply rotating the DCW unit.

INTEGRATED CONSTRUCTION
The system is very easy to use as only mains power and input signal are needed. Uniform performance is obtained through the integration of the loudspeakers and amplifiers as a complete matched and calibrated package. The rugged amplifier is mounted into the enclosure with vibration isolators which also act as quick release hinges making maintenance operations very easy and straightforward. The speaker cabinet is constructed of veneered MDF, which is heavily braced to eliminate structural resonances.

AMPLIFIERS
The bass and treble amplifiers each produce 180 W and 120 W respectively of short term power with very low THD and IM distortion. Special attention has been paid to the electronic design to ensure the highest subjective sound quality currently possible. The system incorporates special circuitry for driver overload protection. Thermal protection is included for the amplifiers.

Two channel amplifier is housed in the speaker cabinet

The block diagram showing active crossover filters, power amplifiers and driver units.
The upper curves show the effect of the 'bass tilt' and 'bass roll-off' controls. Each of these controls allow for adjustment in 2 dB increments and also provide the possibility of muting the channel for test purposes. A high pass filter is included in the LF channel to protect the woofer from subsonic signals. The crossover network is driven by an active balanced input stage. Variable input sensitivity allows for accurate level matching to the mixing console.

The reference axis lies between bass and tweeter drivers.

CROSSOVER FILTERS

The crossover frequency of the active crossover is 1.8 kHz. In order to obtain uniform frequency balance in differing acoustic conditions, special calibrated controls are included in the crossover. Three such controls are at the users disposition including treble and bass tilt, and bass roll-off switch. Each of these controls allow for adjustment in 2 dB increments and also provide the possibility of muting the channel for test purposes. A high pass filter is included in the LF channel to protect the woofer from subsonic signals. The crossover network is driven by an active balanced input stage. Variable input sensitivity allows for accurate level matching to the mixing console.

The upper curve group shows the horizontal directivity characteristics of the 1032A in its vertical configuration measured at 1 m. The lower curve is a 1/3 octave band power response, measured in an IEC approved reverberation chamber.

The upper curves show the effect of the 'bass tilt' control on the free field response. The lower curves show the effect of the 'treble tilt' and 'bass roll-off' controls.

DRIVERS

The bass frequencies are reproduced by a 250 mm (10") bass driver loaded by a 24 litre vented box. The -3 dB point is 40 Hz and the low frequency response extends down to 36 Hz.

The high frequency driver is a 25 mm (1") metal dome, with pistonic behavior up to 23 kHz, is loaded by a proprietary DCW. Both drivers are magnetically shielded for applications where the stray magnetic field must be minimized.

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**SYSTEM SPECIFICATIONS**

Lower cut-off frequency, -3 dB: < 40 Hz  
Upper cut-off frequency, -3 dB: ≥ 22 kHz  

Free field frequency response of system:  
42 Hz - 21 kHz (± 2.5 dB)

Maximum short term sine wave acoustic output on axis in half space, averaged from 100 Hz to 3 kHz:  
@1m ≥ 113 dB SPL  
@0.5m ≥ 119 dB SPL

Maximum long term RMS acoustic output in same conditions with IEC weighted noise (limited by driver unit protection circuitry):  
@1m ≥ 103 dB SPL  
@0.5m ≥ 109 dB SPL

Maximum peak acoustic output per pair on top of console, @1 m from the engineer with music material: ≥ 124 dB

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

Maximum harmonic distortion at 90 dB SPL @1 m on axis:  
Freq: 50...100 Hz < 1%  
> 100 Hz < 0.5%

Drivers:  
Bass 250 mm (10") cone  
Treble 25 mm (1") metal dome  
Both drivers are magnetically shielded

Weight: 21.7 kg (46 lb)

Dimensions:  
Height 495 mm (19 1/2")  
Width 320 mm (12 7/8")  
Depth 290 mm (11 7/16")

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**AMPLIFIER SECTION**

- Bass amplifier output power with an 4 Ohm load: 180 W  
- Treble amplifier output power with an 8 Ohm load: 120 W  
- Long term output power is limited by driver unit protection circuitry.  
- Slew rate: 80 V/µs

Amplifier system distortion at nominal output:  
THD ≤ 0.05%  
SMPTE-IM ≤ 0.05%  
CCIF-IM ≤ 0.05%  
DIM 100 ≤ 0.05%

Signal to Noise ratio, referred to full output:  
Bass ≥ 100 dB  
Treble ≥ 100 dB

Mains voltage: 100/200 V or 115/230 V  
Voltage operating range nominal ±10%

Power consumption:  
Idle 50 W  
Full output 200 W

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**CROSSOVER SECTION**

- Input connector: XLR female  
  - pin 1 gnd  
  - pin 2 +  
  - pin 3 -

- Input impedance: 10 kOhm balanced

- Input level for 100 dB SPL output @1 m: variable from +6 to -6 dBu

- Input level for maximum short term output of 113 dB SPL @1 m: variable from +19 to +7 dBu

- Subsonic filter below 40 Hz: 18 dB/octave

- Ultrasonic filter above 25 kHz: 12 dB/octave

- Crossover frequency, Bass/Treble: 1.8 kHz

- Crossover acoustical slopes: 24 - 32 dB/octave

- Treble tilt control operating range in 2 dB steps: +2 to -4 dB & MUTE

- Bass roll-off control operating range in 2 dB steps: 0 to -8 dB @40 Hz

- Bass tilt control operating range in 2 dB steps: 0 to -6 dB & MUTE

- The 'CAL' position is with all tone controls set to 'off' and input sensitivity control to maximum.

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All data subject to change without prior notice