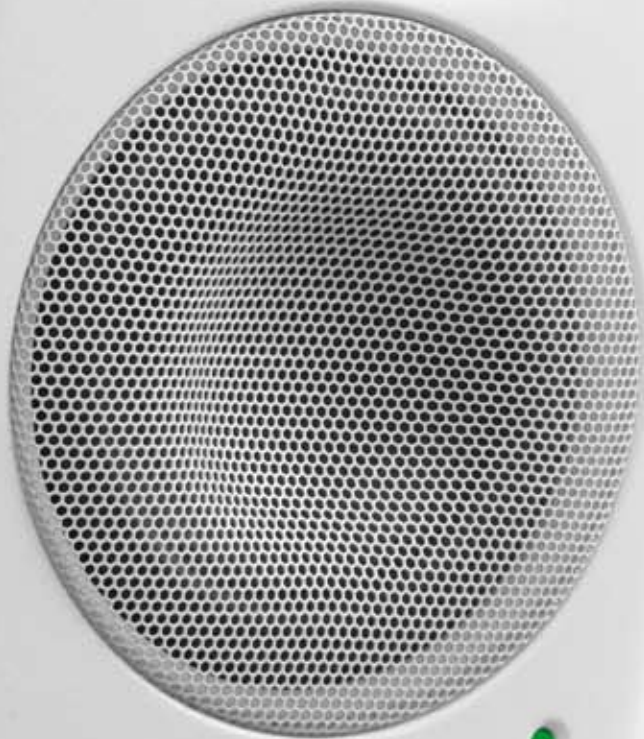


ACTIVE

IN PROFESSIONAL
INSTALLATIONS



GENELEC

Genelec 4020A and 4030A are compact but powerful two-way active loudspeakers designed for indoor commercial and professional installations. Both models contain an integrated amplification unit comprising an active electronic crossover, overload protection circuitry and two power amplifiers, one for each driver.

Designing the power amplifiers, active crossover, drivers and loudspeaker enclosure as one integrated unit presents a number of benefits:

- Excellent sound quality due to exact matching of the crossover, amplifiers and drivers.
- High sound pressure capability despite a small enclosure.
- Reliable overload protection circuitry for the amplifiers and drivers.
- Precise Room Response Controls for optimizing the loudspeaker's response to suit different acoustical environments.
- No need for external power amplifiers.
- Balanced 10 kOhm line level audio input for easy and interference-resistant cabling.

SYSTEM SPECIFICATIONS

	4020A	4030A
Lower cut-off frequency, -3 dB	≤ 65 Hz	≤ 55 Hz
Upper cut-off frequency, -3 dB	≥ 21 kHz	≥ 21 kHz
Free field frequency response	66 Hz - 20 kHz (± 2.5 dB)	58 Hz - 20 kHz (± 2.0 dB)
Maximum short term sine wave acoustic output on axis in half space, averaged from 100 Hz to 3 kHz	@ 1 m ≥ 96 dB SPL	@ 1 m ≥ 100 dB SPL
Maximum long term RMS acoustic output in same conditions with IEC weighted noise (limited by driver unit protection circuit)	@ 1 m ≥ 95 dB SPL	@ 1 m ≥ 97 dB SPL
Maximum peak acoustic output per pair with music material	@ 1 m ≥ 105 dB	@ 1 m ≥ 108 dB
Self generated noise level in half space at 1 m on axis (A-weighted)	≤ 10 dB	≤ 10 dB
Harmonic distortion at 85 dB SPL at 1 m on axis Freq: 50...100 Hz > 100 Hz	< 3 % < 0.5 %	< 2 % < 0.5 %
Drivers Bass Treble	105 mm (4") cone 19 mm (3/4") metal dome	130 mm (5") cone 19 mm (3/4") metal dome
Weight	3.6 kg (7.9 lb)	5.5 kg (12.1 lb)
Dimensions Height Width Depth	226 mm (8 ⁷ / ₈ "") 151 mm (6") 142 mm (5 ⁵ / ₈ "")	285 mm (11 ¹ / ₄ "") 189 mm (7 ⁷ / ₁₆ "") 178 mm (7 ¹ / ₁₆ "")

AMPLIFIER SECTION

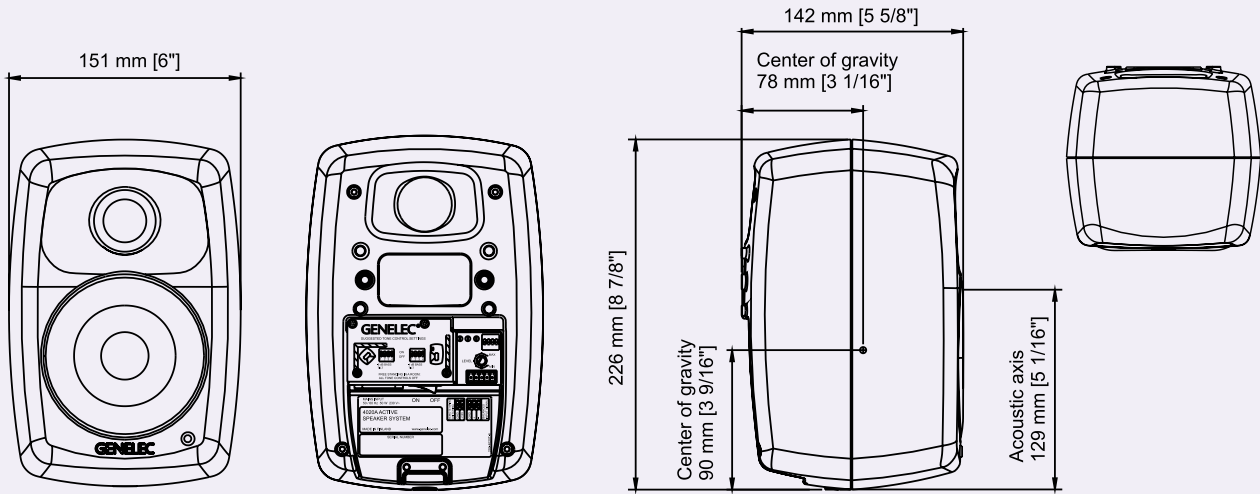
	4020A	4030A
Bass amplifier short term output power Treble amplifier short term output power	20 W at 8 Ohm load 20 W at 8 Ohm load	40 W at 8 Ohm load 40 W at 8 Ohm load
Long term output power is limited by driver unit protection circuitry		
Amplifier system THD at nominal output	< 0.08 %	< 0.08 %
Mains voltage Voltage operating range:	100, 120, 220 or 230 V according to region ±10 %	100, 120, 220 or 230 V according to region ±10 %
Power consumption (average) Idle Full output	5 VA 50 VA	10 VA 80 VA

CROSSOVER SECTION

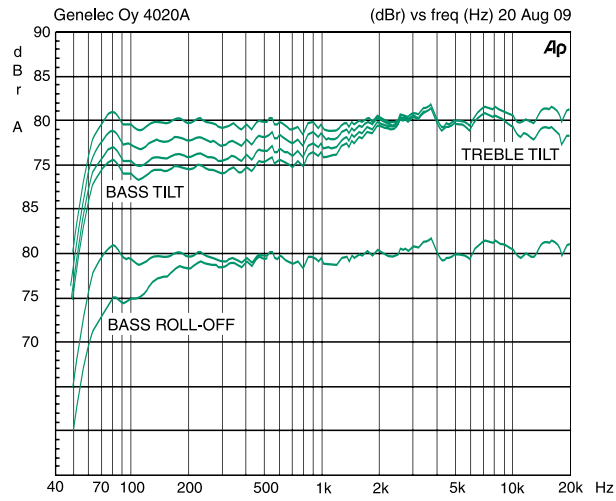
	4020A	4030A
Signal input connector	Balanced 10 kOhm	Balanced 10 kOhm
Input level for 100 dB SPL output at 1 m	-6 dBu at volume control max	-6 dBu at volume control max
Sensitivity control range	-80 dB relative to max output Output signal level is 0 dB relative to input signal level but adjustable by sensitivity control	-80 dB relative to max output Output signal level is 0 dB relative to input signal level but adjustable by sensitivity control
Crossover frequency, Bass/Treble	3.0 kHz	3.0 kHz
Treble Tilt control operating range	0 to -2 dB @ 15 kHz	0 to -2 dB @ 15 kHz
Bass Tilt control operating range in 2 dB steps	From 0 to -6 dB @ 100 Hz	From 0 to -6 dB @ 100 Hz
Bass Roll-Off control	-6 dB step @ 85 Hz	-6 dB step @ 85 Hz

The 'CAL' position is with all tone controls set to 'off' and the input sensitivity control to maximum (fully clockwise).

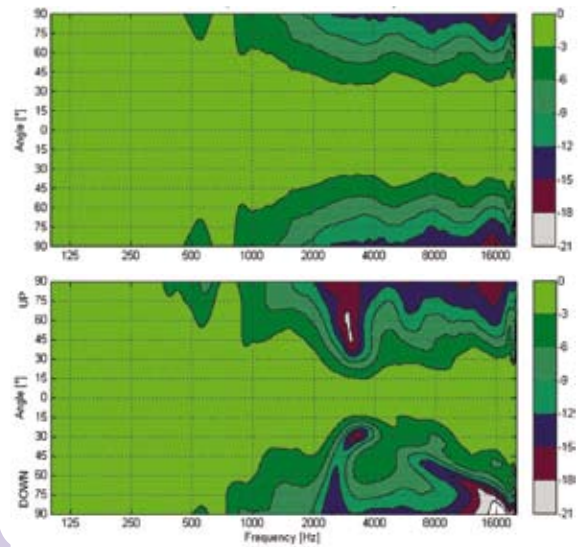
4020A LOUDSPEAKER DIMENSIONS AND PERFORMANCE MEASUREMENTS



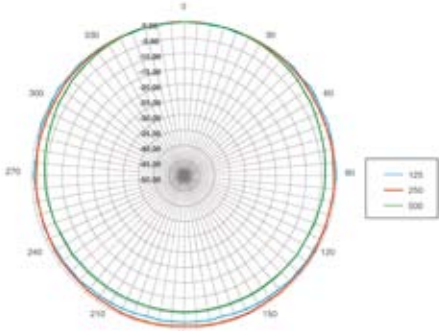
The effect of the Bass Tilt, Treble Tilt and Bass Roll-Off controls on the free field response.



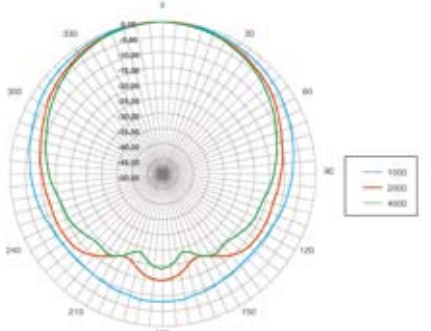
4020A horizontal and vertical directivity plot



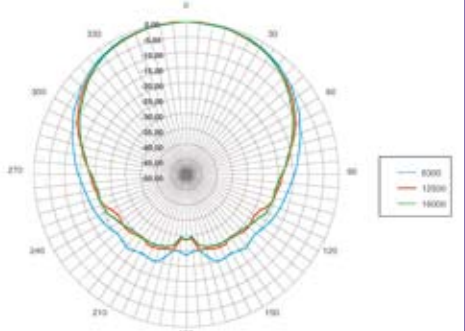
4020A HORIZONTAL polar response 125 to 500 Hz



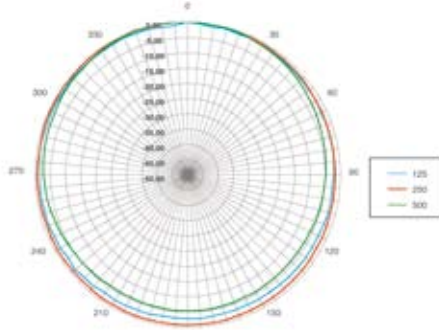
1 to 4 kHz



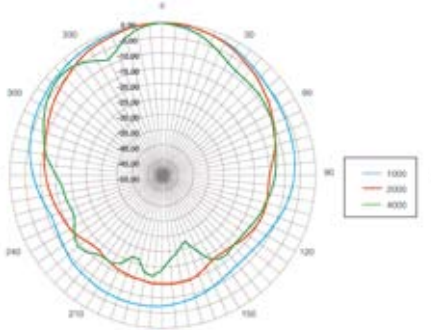
6.3 to 16 kHz



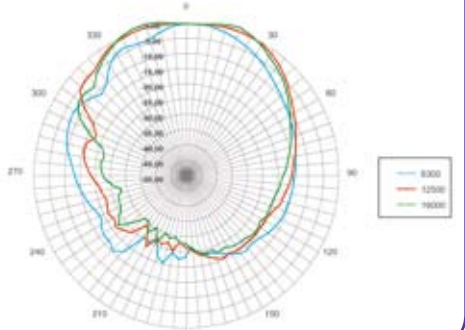
4020A VERTICAL polar response 125 to 500 Hz



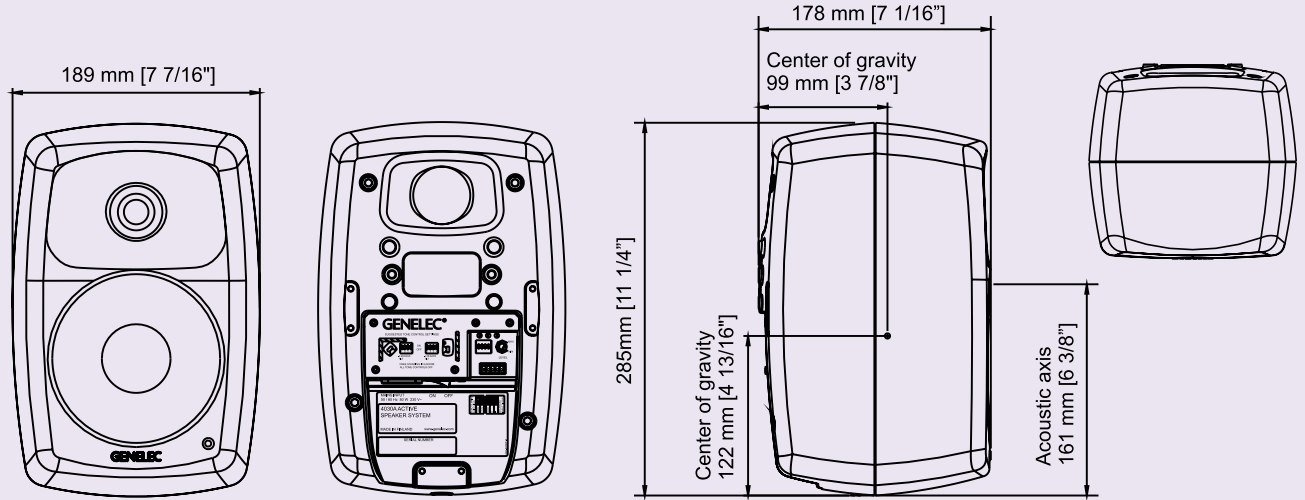
1 to 4 kHz



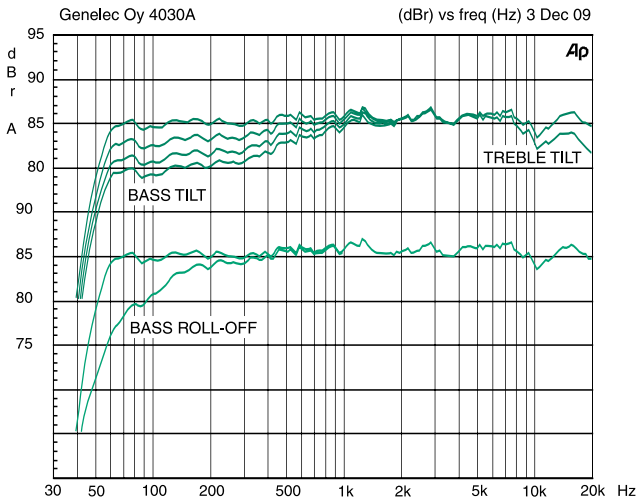
6.3 to 16 kHz



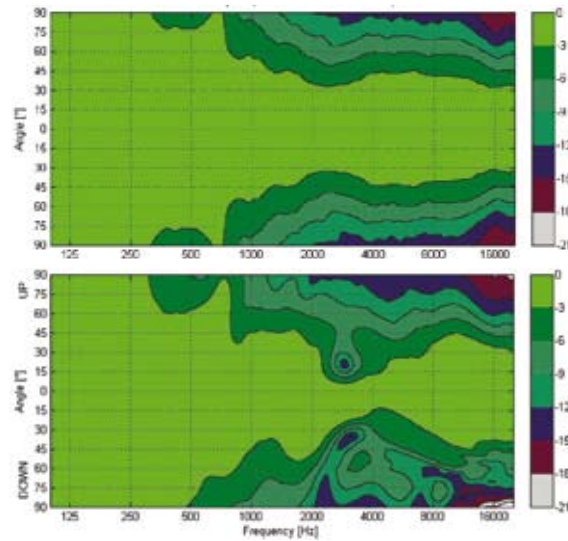
4030A LOUDSPEAKER DIMENSIONS AND PERFORMANCE MEASUREMENTS



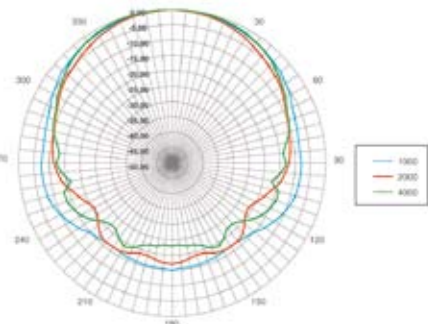
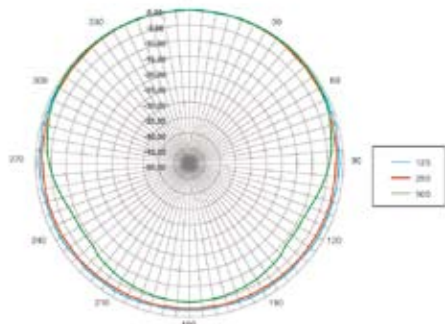
The effect of the Bass Tilt, Treble Tilt and Bass Roll-Off controls on the free field response.



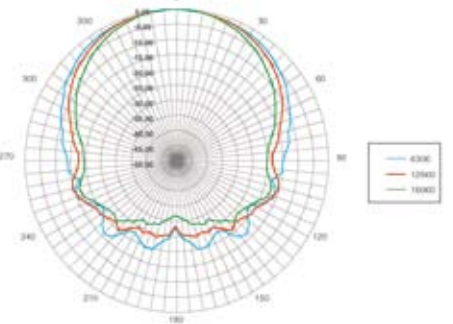
4030A horizontal and vertical directivity plot



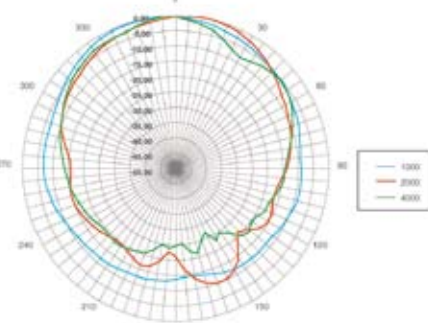
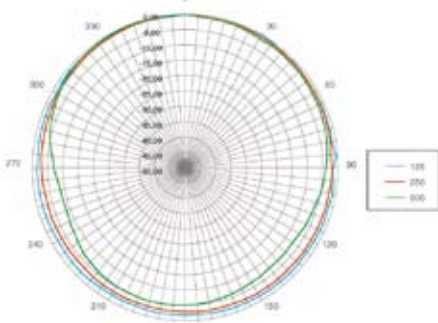
4030A HORIZONTAL polar response 125 to 500 Hz 1 to 4 kHz



6.3 to 16 kHz



4030A VERTICAL polar response 125 to 500 Hz



6.3 to 16 kHz

