



SOUNDTECHNIK

TOURING SOUND SYTEM

Σ POWER

Introduction



ΣPOWER

BIEMA Σ POWER is a double 10" full range line array speaker. It features high power but extra compact cabinet, low distortion but high SPL, flexible combination but light weight, making it the best choice for many kinds of applications no matter touring , rental or permanent installations. Σ POWER offers all of the benefits of BIEMA's decades of manufacturing self-powered systems, including carrying interval amplification, complex crossover, driver protection and frequency and phase correction circuitry on board. All components were all special designed to meet stringent performance requirements. Each speaker contains all of its amplification and processing within the loudspeaker cabinet, providing greater performance, lower cost and more convenience Quickly rigging hardware is fixed on the cabinet. Flying the speakers as line array is a snap.



Features

- Biema proprietary aluminum rigging hardware for easy and fast set ting up ●

Multiple angles option for precise dispersion

- Highly noise absorbable materials
- Flexible application and easy installation
- Italian –made neodymium drivers;
- Better frequency response and higher resolution
- Flight case for transportation protection (2pcs each flight case)
- Environmental King Kong painting finishing
- Supper harden steel grille
- Multi-layer birch laminate construction
- Best for touring sound, indoor or outdoor medium-size sound reinforcement or permanent installation for multi function halls, stadiums and the like.

Specifications

Frequency response: 50Hz-18KHz

Drivers: Hi 1x3 " neodymium driver (75mm voice coil)

Low 2x10 " neodymium woofer (65mm voice coil)

Directivity angle: H100°xV10°

Sensitivity: LOW 100dB HI 108dB

Impedance : LOW 8ohm HI 8ohm

Long-term power(RMS): LOW 600W HI 100W

Power peak: LOW 1200W HI 200W

Maximum SPL:LOW 130dB HI 131dB

Connection:2x4-pin Speakon (+1-1 LOW +2-2 HI)

Suspension angle: 0°,2°,4°,6°,8°,10°

Product dimensions(WxDxH):900x530x320mm



Σ P O W E R

Lavoce

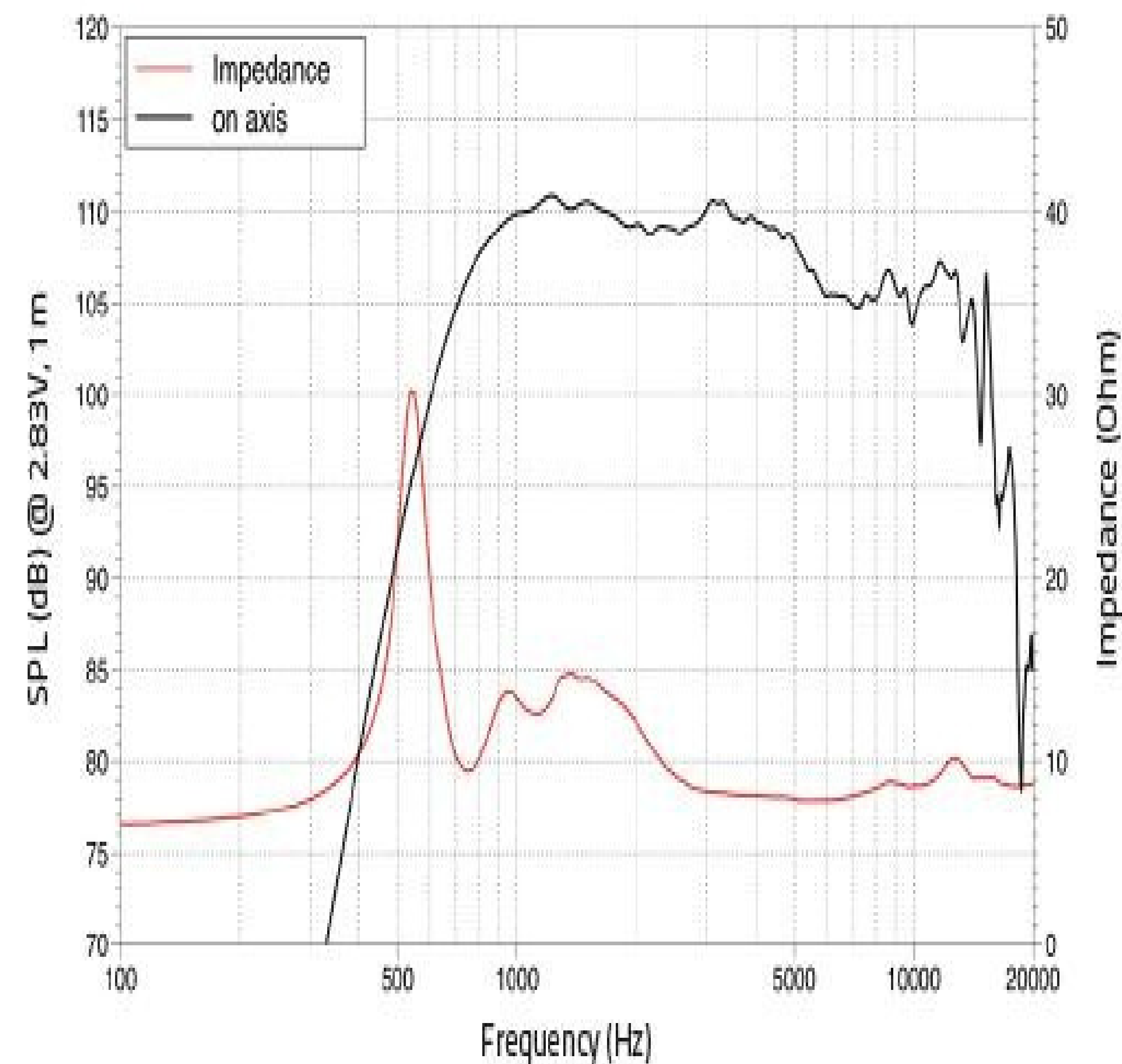


3" TWEETER
Neodymium

GENERAL SPECIFICATIONS

Throat diameter	mm (in.)	36 (1.4)
Nominal Impedance	Ω	8
Minimum Impedance	Ω	7,8
Program power (1)	W	160
AES Power rating (2)	W	80
Sensitivity (3)	dB	108
Frequency range	Hz	1000 ÷ 18000
Voice coil diameter	mm (in.)	65 (2.5)
Magnet material	Neodymium	
Magnet OD	mm (in.)	110 (4.3)
Coil material	Edgewound CCA	
Former material	Kapton	
Diaphragm material	Titanium	
Surround material	Titanium	
Voice coil Inductance	mH	0,11
Flux density	T	1,9
Recommended crossover (4)	Hz	1200
Driver displacement volume	l (ft ³)	0,4 (0.015)

FREQUENCY RESPONSE



Lavoce



10" Woofer
Neodymium

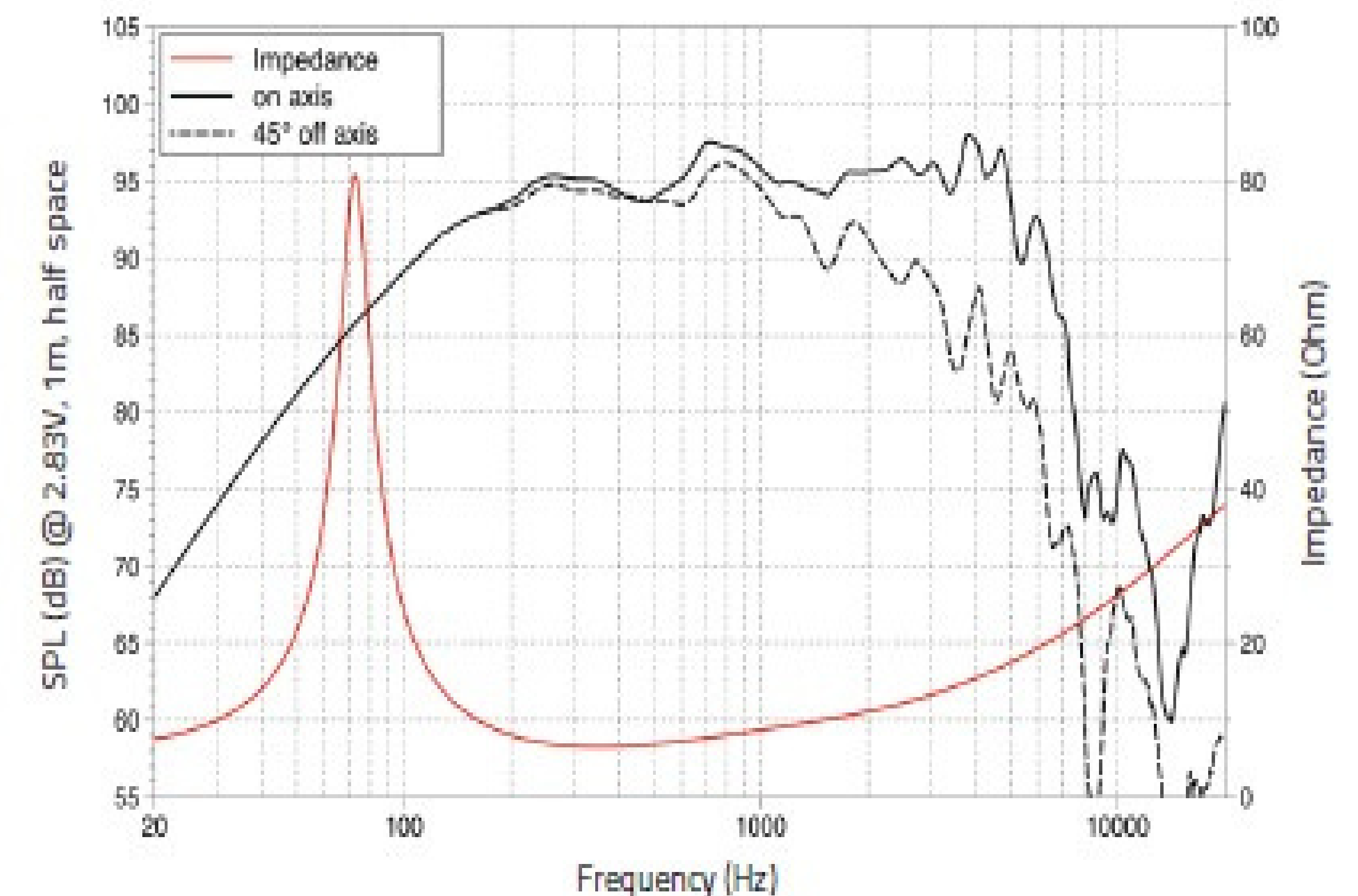
GENERAL SPECIFICATIONS

Nominal diameter	mm (in.)	250 (10)
Nominal impedance	Ω	8
Minimum impedance	Ω	6,3
Program power (1)	W	600
AES Power rating (2)	W	300
Sensitivity (3)	dB	97
Frequency range	Hz	75 ÷ 4500
Voice coil diameter	mm (in.)	65 (2.5)
Chassis material	Aluminium	
Magnet material	Neodymium	
Magnet dimensions OD x ID x h	mm (in.)	64 x 8 (2.52 x 0.31)
Coil material	CCAW	
Former material	Glass Fiber	
Cone material	Water Proof Treated Paper	
Surround material	Polycotton	
Xmax (4)	mm (in.)	5,1 (0.2)
Xmech (5)	mm (in.)	9,1 (0.36)
Gap height	mm (in.)	8 (0.31)
Voice coil winding height	mm (in.)	14,2 (0.56)
Driver displacement volume	l (ft ³)	1,2 (0.04)

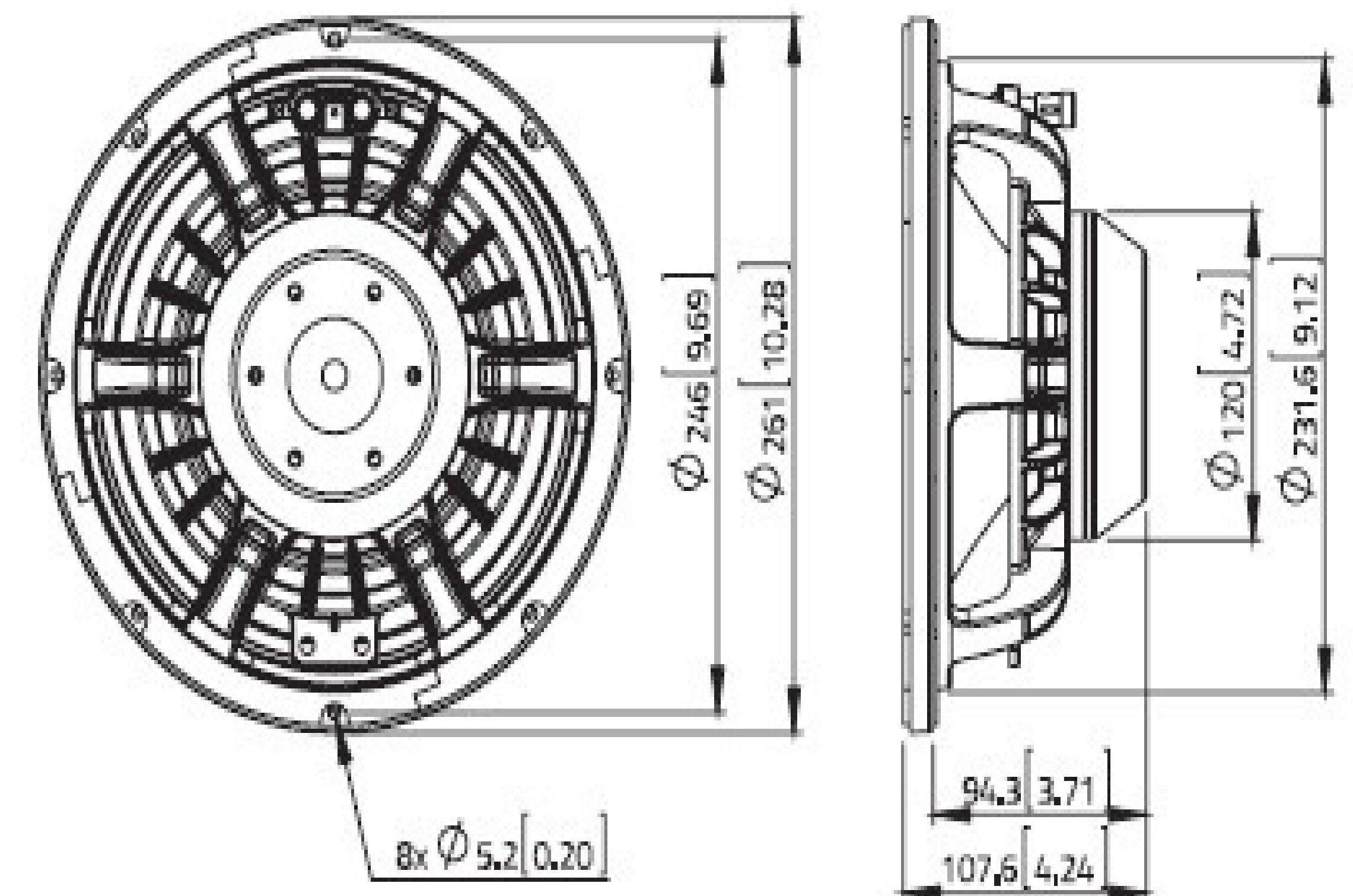
SMALL SIGNAL PARAMETERS

DC resistance	Re	Ohm	5,5
Resonance frequency	Fs	Hz	75
Moving mass	Mms	g (oz)	34 (1.2)
Compliance	Cms	mm/N	0,13
Force factor	BxL	N/A	14,5
Mechanical Q-factor	Qms		4,3
Electrical Q-factor	Qes		0,40
Total Q-factor	Qts		0,37
Equivalent air volume	Vas	l (ft ³)	23 (0.81)
Voice coil Inductance	Le	mH	0,50
Diaphragm area	Sd	cm ² (in. ²)	350 (54.25)
Reference efficiency	Eta 0	%	2,30

FREQUENCY RESPONSE



DIMENSIONS mm (in.)





Amplifier control

1. XLR signal input Can accept balance signal:
Pin1: Ground, Pin2: Positive(+), Pin3: Negative(-)
2. XLR signal output Can be connected to the signal input of an another speaker : Pin1: Ground, Pin2: Positive(+), Pin3: Negative(-)
3. Bass Volume knob Turn this knob clockwise to increase the master volume. Turn it anti-clockwise to decrease the mater volume.
4. Power switch On/off power switch for the amplifier. When it is set to ON, the amplifier is powered up. When it is set to OFF, the amplifier is powered off.
5. AC IN Standard power cone connector for power input to the amplifier.
6. AC OUT Power link connector, link the power to another speaker
7. DSP CONTROL This USB allows computer connect to adjust the DSP parameters.
- 8, Bass gain enhance button ON for enhancement and OFF for inactive

DSP control

The interface is divided into several sections:

- Top Bar:** Includes a 'Disconnect' button with a red 'X' icon, 'Current Preset' (Pre: 1), 'Preset name' input, 'Load' dropdown, and 'Save' dropdown with 'Pre1' selected.
- Channel Controls:** Four rows for 'Main', 'High', 'Main', and 'Low' channels. Each row has buttons for 'Main EQ', 'Main delay', 'Volume', 'Mute', 'Mute', 'Gain', 'HPF/LPF/EQ', 'Limiter', 'Delay', and '+'. The 'HPF/LPF/EQ' button for the 'High' channel is highlighted in yellow.
- Right Panel:** Contains buttons for 'save one group to PC', 'load one group to DV', 'save 20-group to PC', and 'load 20-group to DV'.
- EQ Section:** On the left, 'H/LPF' settings for HPF (19.7, 12db-Bworth) and LPF (21900, 12db-Bworth). On the right, an 'EQ' table with columns for Frequency, Q Value, Gain, and Type. A '0 dB' button is also present.
- EQ Table:**

	Frequency	Q Value	Gain	Type
1	19.7	1	0	PEQ
2	51.1	1	0	PEQ
3	102	1	0	PEQ
4	198	1	0	PEQ
5	500	1	0	PEQ
6	1000	1	0	PEQ
- EQ Graph:** A frequency response graph with a logarithmic x-axis (20Hz to 20KHz) and a linear y-axis (-30dB to +15dB). Six colored dots (1-6) are plotted on the 0dB line at their respective frequencies.
- Bottom Bar:** A 'Disconnect' button.

Applications



Wedding ceremony

Live concert



Banquet halls

Stadiums