

Bias D1



The highly versatile Bias D1 amplifier is simple and easy to set up. Its front panel LED display provides status feedback, which can alternatively be obtained by connecting the amp to a PC running Armonia Pro Audio Suite™ software. A fully integrated, state-of-the-art DSP offers extensive system management features, including sound shaping and limiter functionality.

Key features

- Easy to set up, versatile to use
- Status feedback provided via front panel LED display or connection to a PC running Armonia Pro Audio Suite™ software
- Eco-friendly, energy efficient
- Minimal operational costs and carbon footprint
- Fully integrated, state-of-the-art DSP for extensive system management functionality
- Sound shaping and limiter function
- DSP hardware enables compliance with IEC 60849
- Designed to work with lo-Z (from 2 Ω) and with 70V/100V distributed lines; any mixed configuration of low and high impedance output loads can be attained

Applications

- Bar, club, lounge
- Corporate and AV
- Indoor and outdoor dance events
- Large-scale touring
- Live music venues.

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Channel Handling

Number of output channels	2 Hi-Z or Lo-Z (bridgeable per ch. pair)	Phoenix PC 5/8-STF1-7,62
Number of input channels		
Analog	2	Phoenix MC 1,5/12-ST-3,81

Audio

Gain	26 dB	29 dB	32 dB	35 dB
Input sensitivity @ 8 Ω	4.08 Vrms	2.89 Vrms	2.04 Vrms	1.45 Vrms
Max input level	20 dBu			
Frequency Response (±0.5 dB , 1 W @ 8 Ω)	20 Hz - 20 kHz			
Crosstalk (1 kHz)	typical -70 dB			
S/N (32 dB gain, analog input 20 Hz - 20 kHz @ 8 Ω)	> 109 dB(A)			
Input impedance	20 kΩ balanced			
THD+N (from 0.1 W to Full Power)	< 0.1% (typical < 0.05%)			
DIM (from 0.1 W to Full Power)	< 0.05%			
Slew Rate (input filter bypassed @ 8 Ω)	> 50 V/μs			
Damping Factor @ 8 Ω, 20 Hz - 100 Hz	> 500			

DSP

AD converters	24 Bit Tandem™ @ 48 kHz 125 dB-A Dynamic Range - 0.005 % THD+N
DA converters	24 Bit Tandem™ @ 48 kHz 117 dB-A Dynamic Range - 0.003 % THD+N
Sample rate converter	24 Bit @ 44.1 kHz to 192 kHz 140 dB Dynamic Range - 0.0001 % THD+N
Internal precision	32 bit floating point
Latency	2.5 ms fixed latency architecture
Memory/Presets	128 MB (RAM) plus 512 MB flash for presets
Delay	2 s (input) + 100 ms (output) for time alignment
Equalizer	Raised-cosine, custom FIR, parametric IIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass
Crossover	linear phase (FIR), Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR)
Limiters	TruePower™, RMS voltage, RMS current, Peak limiter
Damping control	Active DampingControl™ and LiveImpedance™ measurement

Output Stage

Maximum output power per channel @ 8 Ω	800 W
Maximum output power per channel @ 4 Ω	800 W
Maximum output power per channel @ 2 Ω	1000 W
Maximum output power @ 4 Ω Bridged	2000 W
Maximum output power @ 8 Ω Bridged	1600 W
Maximum output power @ Hi-Z distributed line 100 V	800 W
Maximum output power @ Hi-Z distributed line 70 V	800 W
Maximum unclipped output voltage @ 8 Ω	115 V _{peak}
Maximum output current	45 A _{peak}

The power figure is calculated by driving and loading symmetrically all the channels: uneven loads allow to achieve higher performances.

AC Mains Power

Power supply	Universal regulated switch mode with PFC, SRM			
Nominal voltage (±10%)	100-240 V @ 50-60Hz			
Power factor (> 500 W output)	> 0.95			
Consumption/current draw	@ 115 V			@ 230 V
Idle (DSP+D)	23.0 W	0.34 A	23.3 W	0.21 A
1/8 Max Output Power @ 4 Ω	267 W	2.5 A	274 W	1.5 A

AC Mains connector IEC C20 inlet (20 A max)
region-specific power cord provided

Thermal

Cooling	Fan, continuously variable speed, temperature controlled, front to rear airflow			
Thermal dissipation	@ 115 V			@ 230 V
Idle	78 BTU/h	19.66 kcal/h	79 BTU/h	19.91kcal/h
1/8 Max Output Power @ 4 Ω	229 BTU/h	57.71 kcal/h	251 BTU/h	63.25 kcal/h

Construction

Dimensions	483 x 44.5 x 358 mm 19.0 x 1.75 x 14.1 in
Weight	7.0 Kg (15.4 lb)

Networking

Standards compliance	auto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)
Supported topologies	Star
Remote interface	Armonia Pro Audio Suite™