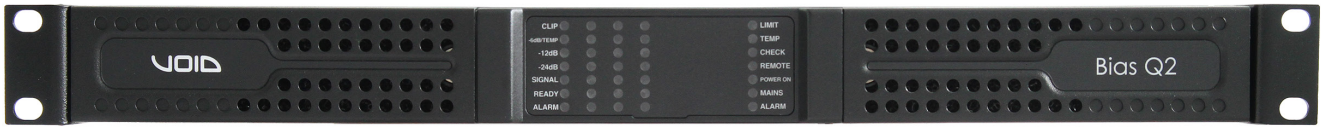


# Bias Q2

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The Bias Q2 has favourably smaller dimensions and a lighter weight while still being reliably durable and maintaining an impressive sound quality.

A high efficiency microprocessor-controlled power supply with built in PFC (Power Factor Correction) allows flawless worldwide operation with any AC mains voltage in the range of 85-275 VAC, tolerant to peak up to 400 V. The patented SRM (Smart Rails Management) technology maximises the efficiency, while drastically reducing power consumption at any load and usage condition. A secondary, highly efficient power supply keeps the system responsive at any operating condition, so that system checks and monitoring can be performed even in stand-by and deep-sleep modes.

Designed to work with lo-Z (from 2  $\Omega$ ) and with 70V/100V distributed lines, any mixed configuration of low and high impedance output loads can be achieved, making the Bias Q2 suitable for all applications in installed sound reinforcement systems.

DSP+D versions of the Bias Q2 extend system performance, with the support of Dante™ digital audio networking architecture and the on-board, high-end signal processing.

## Key features:

- Smaller dimensions and lighter weight in just 1 RU
- Impressive sound quality and reliability
- Highly efficient, microprocessor-controlled power supply with built in PFC (Power Factor Correction) for flawless worldwide operation with any AC mains voltage in the range 85-275 VAC tolerant to peak up to 400 V.
- Patented SRM (Smart Rails Management) technology
- Responsive at any operating condition
- Works with lo-Z (from 2  $\Omega$ ) and with 70V/100V distributed lines so any mixed configuration of low and high impedance output loads can be attained
- DSP+D versions extend system performance, with the support of Dante™ digital audio networking architecture and the on-board, high-end signal processing

## Applications:

- Bar, club, lounge
- Corporate and AV
- Indoor and outdoor dance events
- Medium- to large-scale touring
- Live music venues

# Bias Q2

## Channel Handling

Number of output channels	4 Hi-Z or Lo-Z (bridgeable per ch. pair)	Phoenix PC 5/8-STF1-7,62
Number of input channels		
Analog	4	Phoenix MC 1,5/12-ST-3,81
Dante™	4	1 x RJ45

## Audio

Gain	26 dB	29 dB	32 dB	35 dB
Input sensitivity @ 8 Ω	4.9 Vrms	3.47 Vrms	2.45 Vrms	1.73 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)	> 110 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

## Networking

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

## Output Stage

Maximum output power per channel @ 8 Ω	1200 W
Maximum output power per channel @ 4 Ω	1200 W
Maximum output power per channel @ 2 Ω	1500 W
Maximum output power @ 4 Ω Bridged	3000 W
Maximum output power @ 8 Ω Bridged	2400 W
Maximum output power @ Hi-Z distributed line 100 V	1200 W
Maximum output power @ Hi-Z distributed line 70 V	1200 W
Maximum unclipped output voltage @ 8 Ω	139 V <sub>peak</sub>
Maximum output current	45 A <sub>peak</sub>

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)	33.6 W	0.5 A	33.7 W	0.35 A
1/8 Max Output Power @ 4 Ω	850 W	9.16 A	826.8 W	5.02 A
1/4 Max Output Power @ 4 Ω	1718 W	15.96 A	1651 W	9.41 A
AC Mains connector	IEC C20 inlet (20 A max) region-specific power cord provided			

## Thermal

Operating temperature	-10° - 35° C / 14° - 95° F			
Cooling	Fan, continuously variable speed, temperature controlled, front to rear airflow			
Thermal dissipation	@ 115 V		@ 230 V	
Idle	110.3 BTU/h	27.8 kcal/h	110.6 BTU/h	27.9 kcal/h
Idle (DSP+D)	114.7 BTU/h	28.92 kcal/h	115.1 BTU/h	29.02 kcal/h
1/8 Max Output Power @ 4 Ω	853.5 BTU/h	215.2 kcal/h	768.1 BTU/h	193.7 kcal/h
1/4 Max Output Power @ 4 Ω	1768.5 BTU/h	445.9 kcal/h	1539.8 BTU/h	388.3 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)

