

HALO-2B300

AMPLIFIERS

Networkable Amplifiers



PRODUCT OVERVIEW

HALO-2B300 is a 2-channel Class D amplifier with networked DSP, delivering 2×300 W in low-impedance mode at 4Ω or 8Ω . Its two output channels can be bridged to drive high-impedance 70 V or 100 V loudspeaker lines.

It features 4 balanced analogue inputs, 4 Dante®/AES67 digital inputs and outputs, 2 balanced auxiliary outputs, and a flexible 4×4 digital matrix. Its comprehensive DSP includes input and output parametric equalization, graphic output equalization, crossovers, delay, and configurable peak and RMS limiters.

The built-in web application provides intuitive configuration, control and monitoring of the amplifier. Two Ethernet ports with integrated switch functionality allow network daisy-chaining and provide access to control, Dante®/AES67 audio transport and remote management. HALO-2B300 also supports customizable user control panels and integration with EclerCLOUD and the PULSO digital control panel series.

KEY FEATURES

- 2 amplified outputs.
- 4 Dante®/AES67 outputs (2 flows) and 4 Dante®/AES67 inputs (2 flows).
- 4 analogue inputs.
- 2 Ethernet ports for Dante®/AES67 and Control management.
- MicroSD/SDHC audio player.
- Internal matrix and signal processing.
- Web application for device configuration.
- Event control and scheduling for automation.
- Customizable user panels.
- Remote control user app for iOS/Android/Web.
- Ultra-low power consumption mode.
- Compatible with the Remote Monitoring & Control Platform EclerCLOUD.

APPLICATIONS

- Retail
- Hospitality
- Education
- Corporate
- Sport & Wellness

ACCESSORIES & COMPATIBLE PRODUCTS

- PULSO Series



TECHNICAL SPECIFICATIONS

HALO-2B300

CHANNELS		
Number of Outputs channels	2	
Output connection type	2-pin Euroblock. Pitch: 7,62 mm	
Output configuration	2 Lo-Z connections, bridgeable for Hi-Z	
Number of Inputs channels	4	
Input connection type	3-pin Euroblock. Balanced. Pitch: 3,5 mm	
Number of digital inputs	4	
Input configuration	Digital matrix 4 in x 4 out	
AUXILIAR OUTPUTS		
Number of auxiliar outputs	2	
Auxiliar output connection type	3-pin Euroblock. Balanced. Pitch: 3,5 mm	
DIGITAL OUTPUTS		
Number of digital outputs	4	
Digital output connection type	Ethernet, managed via Dante®/AES67 Controller	
OUTPUT POWER All channels driven @1kHz @CF9dB @ 1%THD		
Max output power @ 8Ω	300 W	
Max output power @ 4Ω	300 W	
Max output power @ 8Ω bridge mode	600 W	
Max output power @ 100V	550 W	
Max output power @ 70V	600 W	
OUTPUT POWER Single channel driven @1kHz @CF9dB @ 1%THD		
Max output power @ 8Ω	300 W	
Max output power @ 4Ω	300 W	
Max output power @ 8Ω bridge mode	600 W	
Max output power @ 100V	550 W	
Max output power @ 70V	600 W	
OUTPUT POWER - All channels driven @ 1%THD		
Max output power @ 8Ω	300 W	
Max output power @ 4Ω	300 W	
Max output power @ 8Ω bridge mode	600 W	
Max output power @ 100V	550 W	
Max output power @ 70V	600 W	
OUTPUT POWER - Single channel driven		
Max output power @ 8Ω	300 W	
Max output power @ 4Ω	300 W	
Max output power @ 8Ω bridge mode	600 W	
Max output power @ 100V	550 W	
Max output power @ 70V	600 W	
SIGNAL		
Voltage gain	28 to 40 dBV 30,2 to 42,2 dBu	
Input sensitivity	0dBV to +12dBV	
Input impedance	>5kΩ Single Ended >10kΩ Differential Pair	

Max input level	+18 dBV +20,2 dBu
Frequency response	20Hz - 25kHz
THD + Noise	< 0,1 % 0,03 Typical @ 1kHz, from 0,1W to Full Power
SNR	>85 dB
Crosstalk	>80 dB
CMRR	>65 dB Typical
Damping factor	>500 @ 8Ω, from 20Hz to 1kHz

ELECTRICAL

Power supply	Universal, regulated SMPS with PFC
AC mains requirement	100-240 V @ 50-60Hz (±10%)
Power factor correction	> 0,8 (Total Output Power > 150W)
AC mains connector	IEC C14 inlet

POWER CONSUMPTION

Power Consumption (1/8 POWER, @ 4Ω all channels driven)	116 W 168 VA
Power Consumption (IDLE)	20 W 50 VA
Power Consumption (STBY/SLEEP)	11 W 30 VA

POWER & HEAT @230VAC

1/4 POWER, @ 4Ω (all channels driven)	
Power	205 W 260 VA
Current Draw	1,2 Arms
Thermal Loss	188 BTU/h 47 kcal/h
1/8 POWER, @ 4Ω (all channels driven)	
Power	116 W 168 VA
Current Draw	0,7 Arms
Thermal Loss	140 BTU/h 35 kcal/h
IDLE (all channels driven)	
Power	20 W 50 VA
Current Draw	0,22 Arms
Thermal Loss	68 BTU/h 17 kcal/h
STANDBY/SLEEP MODE (all channels driven)	
Power	11 W 30 VA
Current Draw	0,13 Arms
Thermal Loss	38 BTU/h 10 kcal/h

POWER & HEAT @120VAC

1/4 POWER, @ 4Ω (all channels driven)	
Power	206 W 224 VA

1/8 POWER, @ 4Ω (all channels driven)	Current Draw	1,8 Arms
	Thermal Loss	191 BTU/h 48 kcal/h
	Power	114 W 132 VA
	Current Draw	1,1 Arms
IDLE (all channels driven)	Thermal Loss	133 BTU/h 34 kcal/h
	Power	20 W 38 VA
	Current Draw	0,3 Arms
	Thermal Loss	68 BTU/h 17 kcal/h
STANDBY/SLEEP MODE (all channels driven)	Power	11 W 22 VA
	Current Draw	0,16 Arms
	Thermal Loss	38 BTU/h 10 kcal/h
TECHNOLOGIES		
	Amplification technology	Class D
	Energy saving	Auto standby function programmable per channel Sleep Mode function selectable
	Efficiency	73% (1/4 POWER, @ 4Ω, 230VAC IN)
	Cooling	Fan
	Maximum fan noise	49 dBA (Maximum acoustical noise @1m)
DSP		
	AD converters	32 Bit @ 48 kHz - AKM 111 dB Dynamic Range, -103 dB THD+N
	DA converters	32 Bit @ 48 kHz - AKM 115 dB Dynamic Range, -107 dB THD+N
	Sample rate converter	48 kHz
	Internal precision	32 / 64 bit floating point
	Latency	5,6 ms
	Memory/Presets	20 presets
	Delay	Up to 1s at outputs
	Equalizer	Graphic EQ - 8 bands at Outputs Parametric EQ - 12 bands both Inputs and Outputs
	Crossover	With Parametric EQ
	Limiters	Output Peak and RMS Limiter, configurable by user
	Inputs processing	PEQ
	Outputs processing	PEQ, GEQ, Delay, Limiters
PROTECTIONS		
	DC protection	Yes
	HF protection	Yes
	Short-circuit protection	Yes
	Clip limiter	Yes
	Long term limiter	Yes
	Thermal protection	Yes

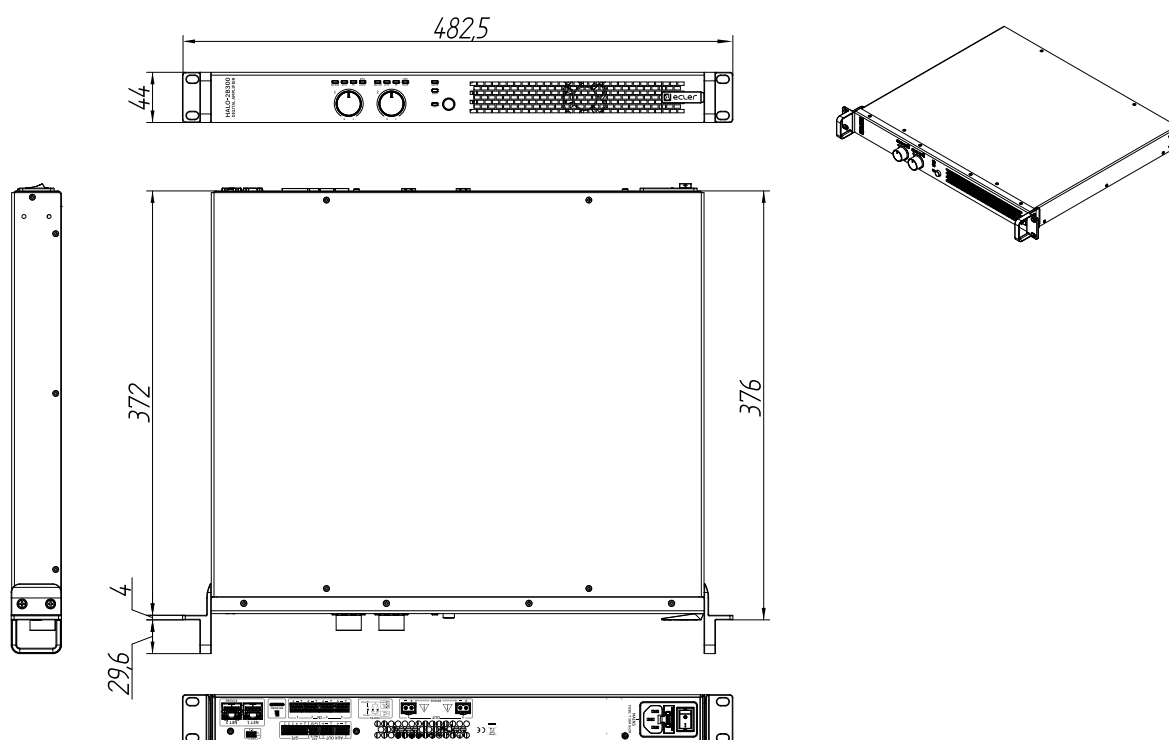
REMOTE CONTROL CONNECTIONS		
ON / OFF	No	
GPIs	x4 GPIs (0-12V)	
External MUTE	Yes, contact	
LOCAL CONTROL		
Attenuators	Programmable Front panel knobs	
Output mode settings	Output mode selection per channel in Lo-Z modes: 4Ω, 8Ω. Output mode selection per pair of channels in Hi-Z modes (bridge): 100V, 70V, 8Ω BR	
RUN/SLEEP mode	Yes, front panel push-button	
Power ON/OFF	Yes, back panel switch	
SETTINGS		
Filters	20/35/50/70 Hz, high pass filter selectable per output Fixed 15Hz 3rd order Butterworth	
Output settings	Lo - Z 4Ω / 8Ω configurable each channel Hi - Z 8Ω / 70V / 100V configurable bridged pair	
Gain	28 to 40 dBV 30,2 to 42,2 dBu	
Auto standby function	Yes, configurable by user	
Auto standby threshold	-30dB to -80dB in -10dB steps	
Auto standby time	30s to 1h, configurable via steps	
Power ON/OFF	Yes, front panel switch	
CONNECTIVITY		
Ethernet	Ethernet Base-Tx 10/100/1000Mb Auto X-Over 2 Ports Ethernet Switch capability	
DANTE Protocol	Dante®/AES67 4x Tx / 4x Rx channels (2/2 flows)	
Programming and control	Embedded web application	
MONITORING		
Signal Present	SP/CLIP LED (Green - Orange - Red) per channel	
Clipping	SP/CLIP LED (Green - Orange - Red) per channel	
Protect	PROT LED (Red) per channel	
Standby / Mute	MUTE / STBY LED (Red, Orange) per channel	
Thermal	THERMAL LED (Orange) per channel	
Dante	DANTE LED (Green / red) per unit	
Data	DATA LED (White) per unit	
On	ON LED (Green) per unit	
DIGITAL ENGINE		
Processor	Quad core 64bits 1,5GHz	
AUDIO CONVERTERS		
Sampling rate	48 kHz	
Resolution	24 bit	
Dynamic range	111 dB	
REAL-TIME CLOCK		
Retention time	30 days	
Accuracy	1 minutes /month	
LOCAL STORAGE		
Micro SD	SDXC	
Capacity	Up to 2TB	
File system	FAT16, FAT 32, VFAT (read/write) NTFS (read) Multi-partition up to 1	

Playable audio files	mp3, ogg, WAV, FLAC, AIFF
Files analysis	65354 playable folders 65354 playable folders within each folder 65354 playable files within each folder
Folder hierarchy	Up to 8 containing the root directory
Sorting	UNICODE, in alphabetical order Up to 100 folders / files by folder Folders/files over 100 sorted in the FAT order
PHYSICAL	
Operating temperature	Min.: 0 °C / 32 °F Max.: 50 °C / 122 °F Performance may be reduced above 40 °C / 104 °F
Operating humidity	5 - 85% RH, non-condensing
Storage temperature	Min.: -10 °C / 14 °F Max.: 50 °C / 122 °F
Storage humidity	5 - 85% RH, non-condensing
Installation options	Rack 19" installation & desktop
Included accessories	Schuko AC cable, Euroblock Connectors (inputs /outputs), Desktop feet, rack 19" installation hardware
Optional accessories	Compatible with Ecler PULSO Series.
Dimensions (WxHxD)	Handles incl.: 482.5 x 44 x 405,6 mm. / 19 x 1.73 x 15.97 in. Handles excl.: 482.5 x 44 x 372 mm. / 19 x 1.73 x 14.65 in.
Weight	4.9 kg / 10.8 lb
Shipping dimensions (WxHxD)	583 x 75 x 580 mm / 22.95 x 2.95 x 22.83 in.
Shipping weight	7.45 Kg / 16.42 lb.

MECHANICAL DIAGRAM



Ecler HALO-2B300 Mechanical Diagram



All the measurements are in mm

6I-1233-0100

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