ASCENDO

ELEVATE YOUR SOUND

THE GAN SERIES

The GAN Series is ASCENDO's comprehensive series of multichannel amplifiers for high-performance audio applications in markets where high channel count is required. Energy conservation is a major design goal for this range of products, which directly impacts CO2 emissions.

The power amplifiers are cutting edge multi-channel devices combining FPGA-based signal processing with advanced Class D power stages and universal power supply for global use.

The use of a Power Factor Correction (PFC) results in a sinusoidal current consumption from the mains. The reduced mains harmonics no longer burden the power grid. Another effect is a much-improved power delivery from unstable mains.

These amplifiers diagnose themselves and provide information about channel and device status. The output current of all channels is measured and feed to a 20kHz detector. By using a pilot tone via the internal generator, the connection and voice coil of the speakers can be monitored.

Inputs are DANTE AES67, and outputs are Phoenix connections.

Their DSP sections:

- Adjustable limiter options. Limit the channel by current, voltage or power.

- FIR Filters are included to equalize the speakers or the acoustics of your listening room to a phase linear response.
  (Unlike IIR-Filters, you have the choice to adjust the phase response of the system.)

- To achieve simple and easy-to-use filtering, we also offer 32 IIR Filters per channel. These filters can be used to build crossovers and equalize the system.

- To adjust the time shift in your speaker system or the acoustic circumstances, every channel can be delayed up to 48000 samples, allowing more than 1 sec of delay time (approximately 330m of physical offset).

- Build read and write protected presets for specific speakers. Import, export and share them.

Extensive web-based user-interface:

- Control your ASCENDO GAN device with the shipped software. NO installation required.

- Use the overview page to watch and control every channel state.

- Create mute groups to mute multiple channels at once.

- Manage the input patching. Patch multiple inputs on each channel.

- Control device configurations, from network up to fan speed settings.

- Monitor channel events, peaks, level and more.

- Save, load, modify and import or export channel and device presets.

- Control the device from everywhere within the device network.

- Discover all GAN devices in the network, even across subnet boundaries.

- Configure network settings for each device.

- Identify individual devices and assign meaningful names.

- Easy firmware updater for multiple devices.

- Firmware manager which keeps you up to date.

Software integration:

- ASCENDO GAN devices provide an interface based on the REST standard to programmatically access and control all their settings and features. To simplify integration, an OPEN API documentation is provided which can be found on the devices webpage or on Github.

- Partnership: We offer planning and implementation of automation solutions with LOXONE hard- and software. Integrate GAN devices seamlessly into a LOXONE environment. Control power, volume, mute, preset changes and many more settings.

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GAN Series	GAN16/16-4504	GAN32/16-4504	GAN24/24-6704	GAN32/24-6704	GAN24/24-6704²	GAN32/24-6704²	GAN32/32-6704	GAN32/32-6704²
DSP Channels	16	32	24	32	24	32	32	32
Channels	16	16	24	24	24	24	32	32
Output Power 230V @4Ω	16 x 280 W	16 x 280 W	24 x 280 W	24 x 280 W	24 x 280 W	24 x 280 W	32 x 280 W	32 x 280 W
Output Power 230V @8Ω	16 x 140 W	16 x 140 W	24 x 140 W	24 x 140 W	24 x 140 W	24 x 140 W	32 x 140 W	32 x 140 W
Bridged: Output Power 230V @8Ω	8 x 500 W	8 x 500 W	12 x 500 W	12 x 500 W	12 x 500 W	12 x 500 W	16 x 500 W	16 x 500 W
W x H X D (mm)	483 x 87,5 x 421	483 x 87,5 x 421	483 x 87,5 x 421	483 x 87,5 x 421	483 x 132,6 x 431	483 x 132,6 x 431	483 x 87,5 x 421	483 x 132,6 x 431
W x H X D (inch)	19 x 3,5 x 16,6	19 x 3,5 x 16,6	19 x 3,5 x 16,6	19 x 3,5 x 16,6	19 x 5,2 x 17	19 x 5,2 x 17	19 x 3,5 x 16,6	19 x 5,2 x 17
Weight (kg)	11,2	11,2	12,9	12,9	17,5	17,5	13,4	18
Weight (lbs)	24,69	24,69	28,44	28,44	38,58	38,58	29,54	39,68
Speaker output	Phoenix	Phoenix	Phoenix	Phoenix	Phoenix	Phoenix	Phoenix	Phoenix
Input	16 x input matrix per channel (Dante AES67 / MADI)	32 x input matrix per channel (Dante AES67 / MADI)	24 x input matrix per channel (Dante AES67 / MADI)	32 x input matrix per channel (Dante AES67 / MADI)	24 x input matrix per channel (Dante AES67 / MADI)	32 x input matrix per channel (Dante AES67 / MADI)	32 x input matrix per channel (Dante AES67 / MADI)	32x input matrix per channel (Dante AES67 / MADI)
Filter per channel	32 x EQ / Highpass / Lowepass / bell, notch, highshelf, lowshelf, 6-48 dB / Oct. Besser, Butterworth, Linkwitz/Riley, Variable Q							
FIR Filter	2047 Tabs, ACII file import							
Delay	48000 Samples / 330 m / 1000 ms per channel							
THD+N @ 4 Ω	1W < 0,05% / 10W < 0,05% / 280W < 1% / 300W < 2%							
Analog Gain	Software Adjustable, 0dBFS on any Input Interface ⇒20Vp- 60Vp (default: 60Vp)							
Protection	Overtemperature / DC / Overcurrent							
Power supply	Universal, regulated switch mode with PFC (Power Factor Correction)	Universal, regulated switch mode with PFC (Power Factor Correction	Universal, regulated switch mode with PFC (Power Factor Correction	Universal, regulated switch mode with PFC (Power Factor Correction	Two Universal, regulated switch mode with PFC (Power Factor Correction)	Two Universal, regulated switch mode with PFC (Power Factor Correction)	Universal, regulated switch mode with PFC (Power Factor Correction	Two Universal, regulated switch mode with PFC (Power Factor Correction)
Required AC Mains VAC (50Hz-60Hz)	90- 264	90- 264	90- 264	90- 264	90- 264	90- 264	90- 264	90- 264
Inrush Current	50A max.	50A max.	50A max.	50A max.	60A max.	60A max.	50A max	60A max.
Amps power off @ 230V	31 kcal/h – 123 BTU/h		31 kcal/h – 123 BTU/h				31 kcal/h – 123 BTU/h	
Idle @ 230 V	58 kcal/h – 230 BTU7h		71 kcal/h – 282 BTU7h				84 kcal/h – 333 BTU7h	
1/8 power @ 4 Ω @ 230 V	150 kcal/h – 595 BTU/h		210 kcal/h – 833 BTU/h				269 kcal/h – 1066 BTU/h	
Amps power off @ 110 V	31 kcal/h – 123 BTU/h		31 kcal/h – 123 BTU/h				31 kcal/h – 123 BTU/h	
Idle @ 110 V	58 kcal/h – 230 BTU7h		72 kcal/h – 286 BTU7h				88 kcal/h – 349 BTU7h	
1/8 power @ 4 Ω @ 110 V	152 kcal/h – 603 BTU/h		212 kcal/h – 840 BTU/h				270 kcal/h – 1071 BTU/h	
Technical modifications subject to change without further notice								