Power Amplifiers
MDA Series - MDA4-1000M

MDA-41000M is a highly flexible, powerful and intelligent 4-Channel power amplifier delivering up to a total of 4x 1000W @ 4 ohms, or able to drive 70V Constant Voltage line, in Direct Drive without using internal transformers. It provides a full set of value added features such as high output power, efficient cooling system, on board DSP and USB/Ethernet for monitoring and controlling via PC software. MDA4-1000M includes a highly efficient Switch Mode Power Supply, the 4 output stages use the Class D module, and also equipped with a full set of circuit protections. Furthermore the Clip/Limiter function provides output monitoring to prevent speaker damage with gentle gain reduction at clip threshold, in addition to the efficient heat dissipation system and Over-Heat protection which themselves ensure uncompromised reliability.

MDA-41000M is more than just an amplifier. It is also a capable and sophisticated loudspeaker processor, thanks to its powerful MARANI® DSP running 96kHz/24bit (96 bit precision for the internal intermediate processed) and high performance 24bit/AO/DA Converters. It offers 4 channels of slope up to 48dB/Oct IIR HP/LP crossover filters, or up to 512 taps FIR filters, RMS compressor, parametric Eq, alignment delay, white/pink noise internal generator, everything needed to optimize a loudspeaker system. Moreover, MDA4-1000M allows a 12dB headroom process. User can also set the parameters, select input/source, load presets, etc with the extraordinary touchscreen LCD in front panel. Apart from regular analog and digital source input, DANTE is also optional.

Features

Outstanding Performance
High power output: 4 x 1000W @ 4 ohm or 70V Direct Drive. High efficiently Switch Mode Power Supply. Class D A M P module full bandwidth PWM modulator with ultra low distortion. Excellent sonic performance with 24bit, high and converters coupled with 96kHz sample rate full protection circuitry. Support: DANTE audio (optional). Warm Backup is available, by setting source priority and activating "AutoSwitch" function in PC SW.

Top Grade DSP Engine
12 band parametric equalization per input channel. 4 band parametric equalization per output channel. Each band can be switched to Bell, Lobes/Filtering Q FIR or IIR Filters for X over FIR filters up to 512 taps, with selectable type and the Out Band attenuation, whose coefficient can be imported from or exported to external applications, IIR filter with slopes from 6 ~ 48 dB/Octave.

Direct PC/Network Connection & Control
Front panel USB connector for direct PC communications. Ethernet interface and M-LAN connection for system setup, monitoring and control via managable remote PC software. Front panel interactive touchscreen LCD display for parametric setting, input source selection, preset loading and all on Simultaneous control up to 32 units via PC software/50 Preset Selection.

including Butterworth, Beasal, Linkwitz-Riley and customized topologies. Each input channel includes a pink/white noise internal generator, noise gate function. RMS compressor each output channel is equipped as a general Limiter with selectable ratio, attack/release time, Adjustable Delay time up to 500.999ms for input channel, and 340.999ms for output channel.

DSP & Processing

DSP Engine
MARANI® DSP: 24 x 32 bit filter processing 96bit accumulation registers, 96 bit precision on intermediate processing data.

Parametric Equalization
12 band PEQ per input, 12 band PEQ per output, Gain range from -15 to +15 dBu. Bell, Shaping, HP/LP Band Pass, Notch Filter, All Pass.

Center Frequency
Asymmetrical 512 Taps, allowing also FIR latency Adjustment/reduction.

RMS Compressor
Coefficients can be generated by PC. Use embedded Wizard tool, imported by external third party applications, and exported to third parties applications.

IIR Crossover section
Selectable with 0.5dBu resolution step from 20Hz up to 20kHz,

Bell: 0.5 to 13kHz

Shaping: 0.5 to 1kHz

Bandpass/Notch: 0.5 to 1kHz, steps 100 Bandpass/Notch: Gm from 4 to 104, steps 100

Gm: 4-40kHz

Butterworth 0.128 to 8kHz, Bessel 4kHz, Linkwitz-Riley 12kHz, 24kHz Bandpass.

Center Frequency

IRF Crossover section
Class D Amp Module - full bandwith PWM modulator with ultra low distortion.

Center Frequency

Output Crossover section
Class D Amp Module - full bandwith PWM modulator with ultra low distortion.

Center Frequency

Network Configuration

MDA Series - MDA4-1000M

Power Amplifiers
MDA Series - MDA4-1000M

Power & Amplifier Sections

Number of Channels

Max Output Power per Channel

Output Circuitry

Signal To Noise Ratio

THD+N

Output Circuitry

Frequency Response (DSP)

Weight, Net/Shipping

Max Output Power per Channel

4 x 1000W @ 4 ohm or 70V Direct Drive

Class D Amp Module - full bandwidth PWM modulator with ultra low distortion

-0.999

>105 dB (A-weighted, AES-17 filter)

-13dB (+13dB)

>105 dB (A-weighted, AES-17 filter)

<0.01%

>580 (8Ω load, 1kHz and below)

>105 dB (A-weighted, AES-17 filter)

<0.01%