POWER & PASSION

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PURE AMP

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B.M.C.'s PureAmp is a Load-Effect Free (LEF) versatile amplifier that can be used as integrated or pure power amplifier. The crucial secret of the PureAmp sound is that it avoids distortion, instead of compensating for it through a negative feedback loop.
The PureAmp does not need a preamplifier delivering a short, pure signal path. It features a Volume Control using our exclusive Discrete Intelligent Gain Management (DIGM) system, and an input selector. The lossless DIGM volume adjustment eliminates unnecessary signal attenuation at the input, as well as unnecessary high amplification.
Combining the PureAmp with a B.M.C.'s PureDAC transforms it into a power amplifier that offers DIGM gain adjustment set by the DAC's volume control. In addition, B.M.C.'s balanced Current Injection (CI) input enhances the immediacy of reproduced music by processing the signal current of the source until it reaches the speaker's output voltage.

B.M.C.'s LEF output stage avoids distortion before it occurs by relieving the sound-critical single-ended Class-A transistor of all duties other than providing perfect signal reproduction.
Unlike other amplifiers, a LEF amplifier handles a speaker's current demand separately from the voltage demand. The result is an unparalleled mastery of musical complexity that brings to startling life delicate details, impressive power, high dynamics, sonic vitality, and accurate imaging — all on a three-dimensional soundstage. Load-Effect Free amplification is a new experience that must be heard to be fully appreciated.

The PureAmp's dynamic power and speaker control are exceptional.
The amplifier outputs 2 channels of 100 Watts into 8 Ohms, and 2 channels of 150 Watts into 4 Ohms. A large 300W toroidal transformer, and 180.000uF energy storage, provide the muscle behind the music even as the amp itself runs cooler than traditional class A designs, while being more linear than traditional Class A.

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LEF Amplifier

An innovative low-distortion amplifier circuit without overall negative feedback loop.

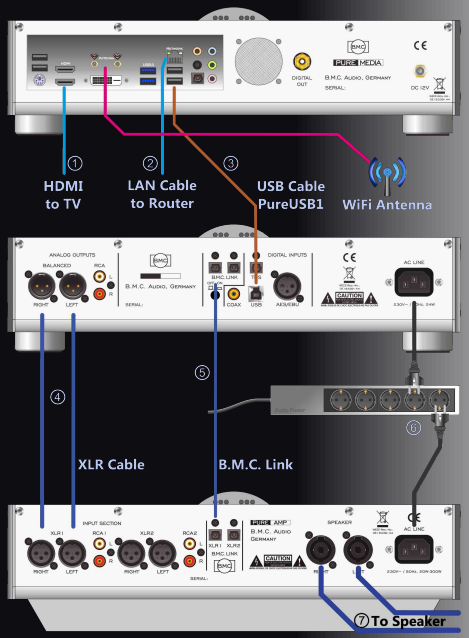
A new circuit solves distortion problems by removing their cause, instead of trying to correct distortion afterwards. Therefore a negative feedback loop is obsolete with all its unwanted "contributions" to the music reproduction.
This revolutionary circuit we call LEF, Load Effect Free, because the music signal voltage source, which determines the sound quality, is freed from voltage and current swings, so it perfectly delivers the music signal to the speakers.

The significant, relatively small voltage-source transistors just care about the music signal, but never deliver any power. Everything related to power is handled by separate external circuits, and the unloading of power from the signal-voltage source removes the cause of distortion.

The LEF amplifier delivers signal voltage and current from separate, phase- independent sources. Besides avoiding distortions, this also delivers superior control of the speaker. And compression effects never occur, so you can enjoy complex orchestral tutti or passionate sopranos in effortless and natural sound.

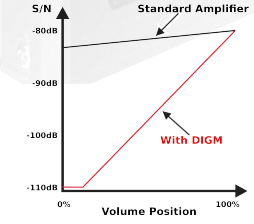
This is the basic working principle.

LEF = Load effect free.



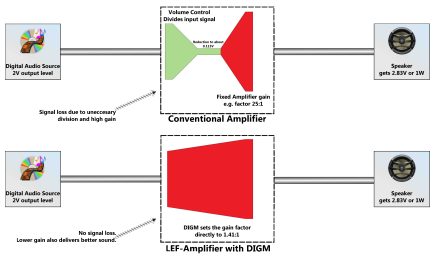
DIGM Volume Control

DIGM (Discrete Intelligent Gain Management) replaces a traditional lossy volume control in an audio system, delivering significantly better performance. Gain control instead of signal waste!
The source signal does not get divided but instead is fully used, avoiding the usual degradation. Instead, DIGM controls the amplification factor (gain) in a way that just the gain needed for the selected volume is applied. Because after the DIGM there is no further gain stage the output noise is reduced proportionally with the volume level.
You experience more quietness.



DIGM - Discrete Intelligent Gain Management

Example of DIGM operation compared to traditional amplifiers, targeting 1W / 8Ω (=2.83V) of output power.



Specifications

Output Power	2 x 100 Watt / 8 Ohm, 2 x 140 Watt / 4 Ohm
Frequency Response 20Hz – 20kHz, 1W	-0.08dB
Bandwidth 1W / -3dB	2Hz – 180kHz
Signal/Noise at DIGM 57 (relative to Pmax)	110dB
Signal/Noise at DIGM 40 (relative to Pmax)	125dB
Signal/Noise at DIGM 40 (relative to 1W)	103dB
THD+N at 1 Watt, 1kHz	0.03%
THD+N from 50mW to 50W, 1kHz	under 0.02%
THD+N under 0,1%	from 0.3 mW to 90 Watt
Damping Factor (8 Ohm, 10W)	200
Inputs	2 x balanced XLR and 2 x unbalanced RCA
Input Impedance	22kOhm to GND, 44kOhm differential at XLR
Input Sensivity	max. 750mV/RCA, 1.5V/XLR
Volume Adjustment	DIGM in 66 precise 1.5dB increments
Speaker Output	1 Stereo-Pair Neutrik SpeakON
AC Voltage	AC 100V, 115V or 230V, 50/60 Hz
Power Consumption	24W – 300W
Dimensions Enclosure (W x D x H)	365 × 328 × 121 mm (14,4 x 12,9 x 4,8'')
Weight	10.3kg (22,7lbs), gross: 12.3kg (27.1lbs)

Note: Technical specifications and design are subject to change without notification. All specifications without warranty.