

# Boulder

## 1012 DAC Preamplifier



### *Boulder Digital Signal Processing provides optimum Upandoversampling<sup>™</sup>*

The 1012 is a very unique product because it combines a full featured preamplifier with a high resolution digital to analog converter. Now in one chassis you can have all the signal management of CDs and LPs you need. This simple approach for all low-level functions minimizes cabling, resulting in further improved sonic clarity.

Upandoversampling<sup>™</sup> takes the confusion out of today's digital reproduction by performing all the sampling rate multiplication (the *up*) and low-pass filtering (the *over*) in one coherent process. The multi-bit approach was chosen as it is the de facto standard for sonic clarity being free from the problems found in sigma delta schemes.

To achieve sixteen times Upandoversampling<sup>™</sup> of CDs, and the 32-bit eigenfilter interpolation, an expensive, powerful, one gigaflop DSP engine was required.

Boulder has the only true 24 bit digital filter because all false imaging in the audio band is rejected by at least 144 dB. Twenty- four bit words are delivered at a sample rate of over 700kHz per channel to the four Burr Brown Converters, including from CD sources.

Boulder's DSP performs 8x and 4x speed improvements on current 96kHz and future 192kHz

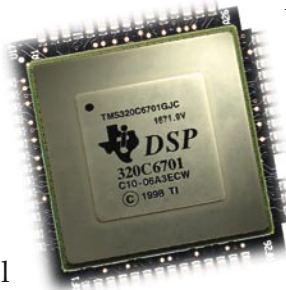
sources. The digital receiver module and rear panel connectors can be upgraded to accommodate new digital formats.

The Boulder 2020 D/A Converter pioneered the concept that a DAC's analog circuitry should be given much more attention to its design. The required analog filter uses a 3-stage, 6-pole Bessel to eliminate group delay problems, overshoot and ringing. By using more stages, greater accuracy and lower distortion are obtained.

The combination of Upandoversampling<sup>™</sup> and precision analog filter make Boulder's D/A converter truly unique. Whether your source is from disc, tape, computer, or some future storage medium, keeping the D/A conversion process separate in the 1012 will always yield maximum performance.

The Boulder 1012 uses the 983 gain stage as the basis for its analog circuitry. Surface mount construction combines the best of discrete transistors and micro-circuitry with performance approaching the renowned Boulder 993. Low noise and accuracy assure the clarity and presentation of every sonic nuance.

The future of digital sources is uncertain, but investing in the Boulder 1012 DAC Preamplifier assures ultimate digital and analog listening pleasure.





A hallmark of Boulder design is the use of balanced connectors for every input and output. This positively removes all ground loops, hum, RF and other sources of interference from the system. Balanced inputs use the sophisticated 3-stage true instrumentation style design for lowest distortion and highest common-mode rejection possible.

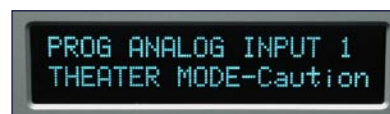


For playing those irreplaceable vinyl recordings, the 1012's RIAA phono section is ready to reproduce them more faithfully than ever. Boulder's sonically superior multi-stage design, advanced component placement, and four-layer circuit boards deliver wide bandwidth, low distortion and low noise.

Boulder's very successful solid-state attenuator used in the 2010 Preamplifier is replicated in the 1012 with discrete resistors and microcircuit switching. The 200 very accurate half-dB steps allow a 100 dB range.

The digital and analog sections have completely separate power supplies and transformers. When an analog input is selected, power is turned off to the entire DSP and digital audio sections. All control commands are sent to the analog section via optocouplers, maintaining complete separation.

A theater mode programming option allows an input to be dedicated to a surround sound

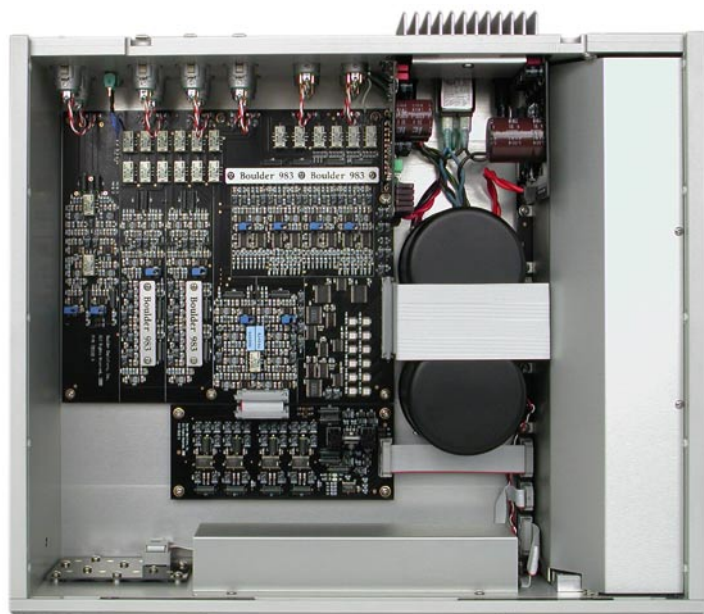


processor assuring easy system integration. The large display is easily visible from across the room.

Made of polished stainless steel and satin aluminum, the ultra-rigid, machined chassis and remote control set a very stylish, timeless appearance which complements any decor.

Whether your favorite source is analog or digital, the Boulder 1012 DAC Preamplifier delivers every musical note perfectly.

Upondoversampling™ is a trademark of Boulder Amplifiers, Inc.



### SPECIFICATIONS

DIGITAL INPUTS	3 AES, 1 Toslink
ANALOG INPUTS	3 Balanced Line, 1 MC/MM Phono
OUTPUTS	Balanced Main & Record
PHONO	Hi(MC) / Lo(MM) Gain Selection
VOLUME	100 dB range in 0.5 dB steps
MAX GAIN	20 dB Line, 80 dB MC Phono
MAX OUTPUT	14.0 Vrms
CLIP TO NOISE	118 dB
FREQ RESPONSE	+0, -0.03 dB, 20 Hz to 20 kHz
THD+N, 2V OUT	0.0015%, 20 Hz to 20 kHz
SYSTEM	Boulderlink to Power Amps
SIZE	18.0 wide, 5.75 high, 15.85 deep (in.)
WEIGHT	35, Shipping: 49 Pounds
POWER	120 VAC, 50-60 Hz, 75 W

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