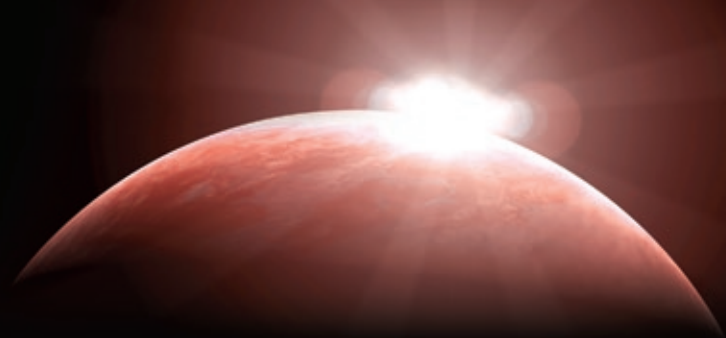


# 350P Preamplifier



MOON

Power

Emotion

Soul

The MOON 350P is a high-performance differential preamplifier. Using circuitry derived from the Evolution Series, the 350P is a modular design that accepts optional plug-in modules: (i) a 24-bit/192kHz high-performance D/A converter with USB, optical (TosLink) and RCA (S/PDIF) inputs, and (ii) a configurable MC/MM Phono stage. The MOON 350P's wide bandwidth and excellent dynamic range allows it to effortlessly reproduce high-resolution audio. A well organized and thorough rear panel allows for connectivity to virtually any audio component.

Digital ... Analog ... or Both.



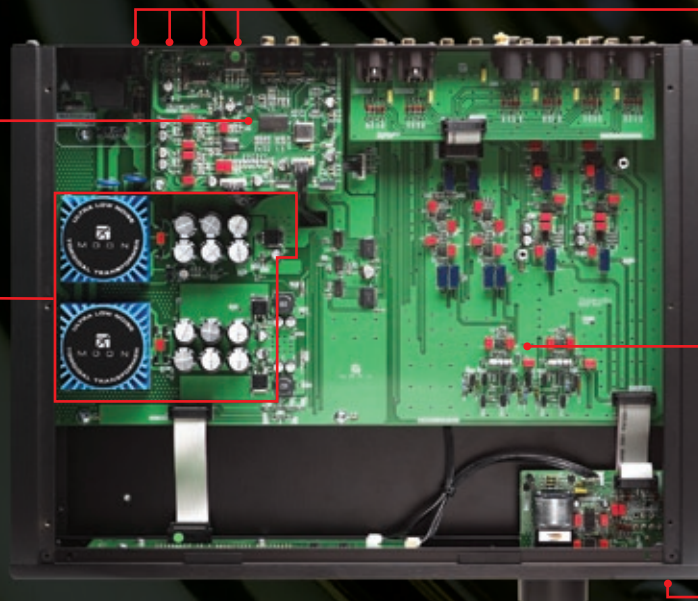
For the headphone enthusiast, the 350P is engineered with a discrete headphone amplifier stage, which allows it to effortlessly drive even the world's finest headphones. An audiophile-grade product with a toroidal transformer-based large power supply, military-spec passive and active components, and state-of-the-art surface-mount manufacturing techniques help make the MOON 350P the finest affordable MOON preamplifier to date.

## Significant Design Features

Optional digital-to-analog converter circuit for use with a PC, digital music server or external transport, etc

An oversized power supply using 2 toroidal transformers in conjunction with 3 stages of DC voltage regulation

- ▲ 6 line-level inputs - 4 Single-ended and 2 balanced
- ▲ One single-ended input which functions as a "pass-through", bypassing the gainstage to accommodate a component such as a home-theater processor, whose own volume control is used instead.



RS-232 port for (i) full unsolicited bidirectional feedback and (ii) firmware updates; IR input for external control; 12V trigger for remote operation; SimLink controller port allows for 2-way communications between other compatible MOON components

Discrete headphone amplifier circuit with the output on a standard 1/4" jack located on the front panel

Front-mounted line-level input on 1.8" mini-jack for personal media players

- ▲ Optional internal phono preamp circuit with adjustments for capacitance and resistance loading, as well as gain level.
- ▲ A full-function monitor loop



Simaudio Ltd. has been designing and manufacturing innovative, leading-edge audio and video products since 1980. MOON products have been globally recognized for their world-class performance, garnering numerous accolades for this outstanding achievement. Our products are engineered and built in Canada, utilizing advanced, efficient, "green" assembly techniques with strict quality control. Furthermore, our manufacturing processes are part of our philosophy, whereas the high quality and long-life of MOON products are the best way to preserve our environment, avoiding premature obsolescence. MOON products meet or exceed all international requirements for safety, performance and durability. At Simaudio, great music matters. However, great music for a lifetime matters most.

## Balanced Audio Circuitry

When using an unbalanced interconnect, the audio signal runs through both the center wire and the shield/ground wire. Any noise picked up by this interconnect (ie. nearby magnetic fields such as an AC power cord) will be reproduced by both the preamplifier and amplifier, then heard through the loudspeakers. Conversely, a balanced interconnect has three separate conductors; one for the ground and two for the actual signal. These two signals are identical except that one is 180 degrees out of phase with the other. For example, when one conductor is carrying a signal of +5 Volts, the other will be carrying a signal of -5 Volts. When these two inverted signals on a balanced line are output from the MOON 350P, any noise picked up by the interconnect will be eliminated since a differential circuit amplifies only the difference between these two signals: Noise on a balanced interconnect will be equal on both conductors and therefore not be processed.

## Optional Digital-to-Analog Converter

The MOON 350P features an optional Digital-to-Analog Converter (DAC) module with an exceptionally versatile interface offering 4 digital inputs: a USB-B input that allows for use with a computer; two S/PDIF and one optical TosLink for digital audio source components such as a music server, digital transport, etc. Intended to fulfill the demands of the discerning music aficionado, this DAC will bring new life to all of your digital audio files, regardless of their storage format.



- ▲ Internal upsampling which uses 24-bit/352.8kHz processing
- ▲ BurrBrown PCM1793 high-resolution 24-bit/192-kHz D/A and 8X oversampling digital filter
- ▲ Accurate digital clocking system for exceptionally low intrinsic jitter levels
- ▲ Advanced analog signal path using a DC servo circuit and proprietary analog filter

With internal upsampling using 24-bit/352.8kHz processing, the MOON 350P's modular DAC will faithfully reproduce your digital music in a genuine life-like fashion. This DAC will accept an input signal ranging from 44.1 to 192kHz, with a bit-depth range from 16 to 24-bits. Thanks to our highly regarded proprietary digital clocking system, jitter is a virtual non-issue. Sonically, all of the Simaudio hallmarks are present: clean, powerful, fast and extended bass combined with an open midrange and airy extended high frequencies.

Uncompromising and versatile digital playback

## Optional Phono Preamplifier Circuit

The MOON 350P also features an optional phono stage module for high quality analog playback. Representing a significant step forward in modular phono preamplifier design, a great deal has been paid to noise levels and dynamic range, making this one of the quietest phono preamplifiers to be incorporated directly into a linestage preamplifier's chassis. Just like the DAC module, this phono stage portrays all of Simaudio's sonic hallmarks.



- ▲ Mirror-image symmetrical circuit design
- ▲ End-user adjustable impedance loading (100Ω and 47kΩ)
- ▲ End-user adjustable capacitance loading (0pF and 100pF)
- ▲ End-user adjustable gain for moving magnet (40dB) & moving coil cartridges (60dB)
- ▲ Accurate matching of military-grade components with ultra-tight tolerances using surface-mount technology for extremely short signal paths

One of the strengths of this phono stage is its flexibility with respect to end-user adjustments for resistance and capacitance loading as well as gain - changing your cartridge will not force you to change your phono preamplifier.

Simplified yet lifelike analog reproduction

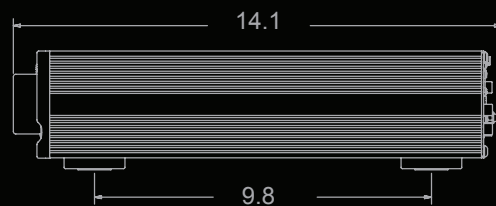
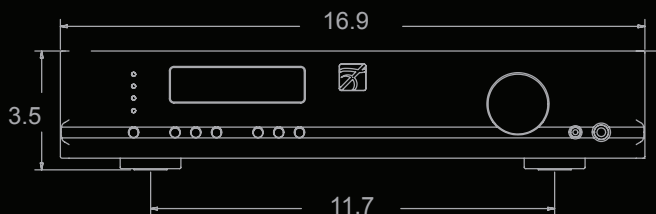
# MOON 350P Specifications

Configuration	Fully balanced
Power Supply Transformers	2 custom proprietary toroidals transformers
Balanced inputs (XLR)	2 pairs
Single-ended inputs (RCA)	4 pairs
Mini-jack input	1 (1/8")
Monitor Loop (RCA)	1
Input Impedance	22,000Ω
Input Sensitivity	200mV – 10.0V RMS
Balanced outputs (XLR)	1 pair
Single-ended outputs (RCA)	2 pairs (fixed and variable)
Output Impedance	100Ω
Gain	6dB
Signal-to-noise Ratio (20Hz-20kHz)	120dB @ full output
Maximum Output Voltage	16 Volts (XLR) / 8 Volts (RCA)
Audible Frequency Response	20Hz - 20kHz ±0.1dB
Full-Range Frequency Response	5Hz - 100kHz +0/-3.0dB
Crosstalk @ 1kHz	< -96dB
Intermodulation Distortion (IMD)	Unmeasurable
THD (20Hz - 20kHz)	< 0.0005%
Remote Control	Full-Function (CRM)
Power Consumption @ idle	12.5 Watts
AC Power Requirements	120V / 60Hz or 240V / 50Hz
Shipping Weight	16.5 lbs / 7.5 Kgs
Dimensions (W x H x D, inches)	16.9 x 3.5 x 14.1

Optional Digital-to-Analog Converter:	
Digital Input Types	S/PDIF (RCA) x 2    USB x 1    TosLink x 1
Digital-to-Analog Converter / Digital Filter	BurrBrown PCM1793
Bit-depth range	16 - 24 bits
Sampling Frequency Rate range	32, 44.1, 48, 88.2, 96, 176.4 and 192kHz
Frequency Response (full range)	2Hz - 72kHz +0/-3dB
THD @ 1kHz, 0dBFS	< 0.001%
IMD	< 0.004%
Dynamic Range	> 116dB
Signal-to-noise ratio	> 115dB @ full output
Channel Separation	> 115dB
Intrinsic Jitter	< 25 picoseconds RMS

Optional Phono Section:	
Input Impedance - Adjustable	100Ω and 47KΩ
Input Capacitance - Adjustable	0pF and 100pF
Gain - Adjustable	40dB and 60dB
Input overload @ 40dB gain	58mV RMS
Input overload @ 60dB gain	3mV RMS
Signal-to-noise Ratio @ 40dB gain	107dB (full scale)
Signal-to-noise Ratio @ 60dB gain	85dB (full scale)
Frequency Response	20Hz - 20kHz (±0.5dB)
Crosstalk @ 1kHz	-97dB
THD (20Hz - 20kHz)	< 0.001%
IMD	< 0.009%

Specifications subject to change without notice



MANUFACTURED IN CANADA

Distributed by:



**M O O N**

**Simaudio Ltd.:** 95 Chemin du Tremblay, Unit 3, Boucherville, Quebec CANADA J4B 7K4  
**Simaudio Ltd.:** 2002 Ridge Road, Champlain, NY 12919 NY USA

(877) 980-2400

(450) 449-9947

[info@simaudio.com](mailto:info@simaudio.com)

[www.simaudio.com](http://www.simaudio.com)