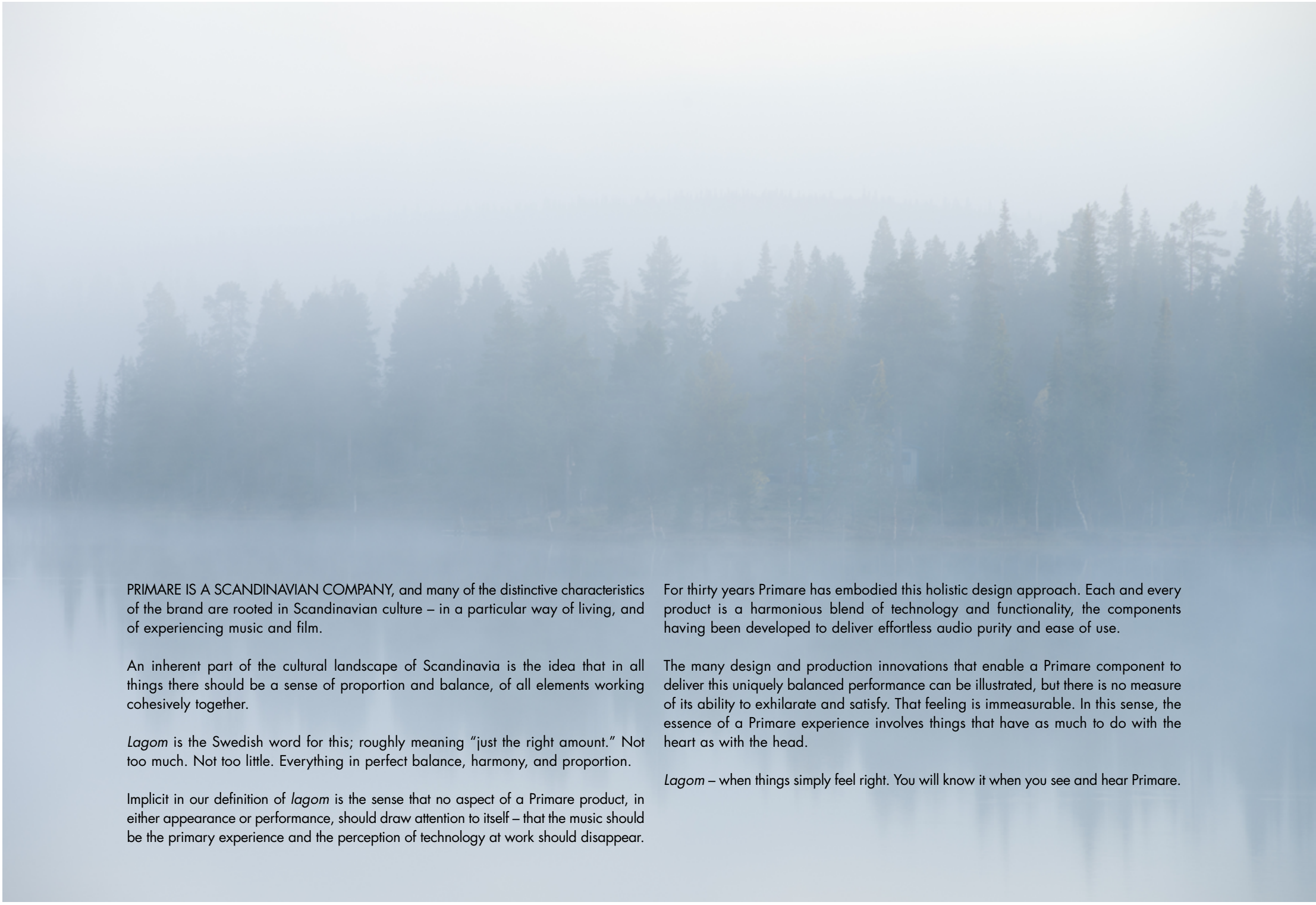
PRIMARE

PRIMARE STEREO

Bringing sound to life



PRIMARE IS A SCANDINAVIAN COMPANY, and many of the distinctive characteristics of the brand are rooted in Scandinavian culture – in a particular way of living, and of experiencing music and film.

An inherent part of the cultural landscape of Scandinavia is the idea that in all things there should be a sense of proportion and balance, of all elements working cohesively together.

Lagom is the Swedish word for this; roughly meaning "just the right amount." Not too much. Not too little. Everything in perfect balance, harmony, and proportion.

Implicit in our definition of *lagom* is the sense that no aspect of a Primare product, in either appearance or performance, should draw attention to itself – that the music should be the primary experience and the perception of technology at work should disappear.

For thirty years Primare has embodied this holistic design approach. Each and every product is a harmonious blend of technology and functionality, the components having been developed to deliver effortless audio purity and ease of use.

The many design and production innovations that enable a Primare component to deliver this uniquely balanced performance can be illustrated, but there is no measure of its ability to exhilarate and satisfy. That feeling is immeasurable. In this sense, the essence of a Primare experience involves things that have as much to do with the heart as with the head.

Lagom – when things simply feel right. You will know it when you see and hear Primare.

To achieve this level of performance, Primare follows a practical design approach based on sound fundamental principles: thoroughly implemented power supply designs that enable all elements to operate effortlessly at their fullest effectiveness, and artfully crafted ultra-short signal paths, so that each individual component and sub-circuit operates sympathetically to achieve a cohesive whole.

Primare constantly scans the horizon for new developments and is often at the forefront of new technologies, having been among the first to embrace streaming and stored digital technologies, as well as class D amplification for true high-end performance.

However, Primare's product development decisions are never made with marketing in mind; that is, never for the purposes of drawing attention. Rather, a new feature is implemented only if a profound performance improvement will be realized. For this reason, Primare prefers to perfect rather than pioneer; to introduce new models only when a significant increase in performance can be realized; and to do so with a fierce devotion to using whatever technology can provide the best possible experience, and with a firm conviction to build components that have the broadest possible long-term use value.

The timeless, uncluttered exterior of the products, designed to be both pleasing to the eye and easy to use, reflects this approach. Primare products are for those who appreciate quality, but place the musical experience over the technological.

Ultimately, the goal is to provide the greatest musical value to the greatest number of music lovers, whether the source is analogue or digital, stored or streamed, wired or wireless.

The I22 integrated amplifier and CD22 CD player are our most affordable products, yet still possess that balanced blend of quality design and performance that defines Primare.

Matching displays and compatible connections provide excellent operational synergy between the components, as well as within a larger home control system. Power-up, display brightness, and control are synchronized when both units are connected via IR and operated using the supplied C24 system remote control. A variety of system control options make integration with custom installations routine, and through a wide range of inputs and outputs all system components can benefit from the quality of Primare's audio engineering.

I22 INTEGRATED AMPLIFIER

The I22 delivers 80 watts per channel, utilizing twin Ultra Fast Power Device (UFPD) power modules. Primare's proprietary UFPD amplification technology results in naturally fast, clean, and agile power delivery over a wide frequency range and with exceptional headroom. Because of the greater energy efficiency of UFPD technology, the compact I22 offers powerful performance while generating virtually no heat, for both immediate and long-term benefits. Additionally, UFPD allows for the shortest signal path from input to output, minimizing noise and distortion.

The highly visible VFD display reveals the I22's versatile menu system, which allows access to custom settings that include power-up volume, input re-naming, gain and balance trim for each input, as well as maximum volume level. A surround sound pass-through (SSP) option allows for seamless home theatre system integration, while utilizing the I22's two channels of amplifier power for front left and right speakers.

An optional DAC (digital to analogue converter) board is available for the I22, comprising three digital inputs for the upgrading of existing CD players via their digital outputs, and the streaming of music files from PCs and Macs. The isochronous USB-B input features special processing that re-clocks the incoming data for reduced jitter and greater bit resolution, optimizing sound quality from music files.

CD22 CD PLAYER

Based on many of the design features of the more sophisticated CD32, the CD22 delivers superior high-fidelity playback from compact discs, as well as MP3 or WMA files via USB or disc. The CD22 incorporates a CD-transport system exclusively designed for CD playback (rather than the more common multi-format disc drives), which employs a five-second buffer memory to provide jitter suppression and protection from mechanical shock. There are no capacitors in the CD22's signal paths, and SMD technology and separate PCB modules are used throughout the design in order to keep the signal paths isolated and as short as possible. All analogue and digital audio circuits are supplied from separate R-core transformer windings for further isolation and reduction in noise. Sample frequencies can be selected from 44.1 kHz, 48 kHz, 96 kHz or 192kHz to suit listening preferences and recording characteristics. Output options include unbalanced (RCA) analogue, paired SPDIF and TOSLINK digital.

The I32 integrated amplifier and CD32 CD player are the latest examples of Primare's iconic 30 series integrated amplifiers and CD players.

The CD32 and I32 are equipped with complementary, low-noise, fully balanced electrical designs. The shortest possible signal paths are populated by discrete high-quality components in order to maximize bandwidth and minimize circuit-induced noise. Multiple power supplies feed discrete circuits individually optimized for the audio, control, and display sections. Both the CD32 and I32 chassis are of matching heavy-gauge steel, which provides strength, rigidity, and screening while being effective at damping vibrations from external sources. Connection between these components is possible through professional-grade, noise-cancelling balanced circuitry.

I32 INTEGRATED AMPLIFIER

Fully balanced from input to output, the I32 is an extraordinarily capable, 120-watt, two-channel integrated amplifier utilizing twin Ultra Fast Power Device (UFPD) power modules in a balanced output configuration. UFPD amplification provides massive, stable, low-distortion power output over the entire ruler-flat frequency bandwidth into any speaker load, with minimal operating power draw from the wall and no negative effects on the power supplied to partnering system components – all that with positive considerations for AC power demands and heat, leading to an easily installed, compact cabinet.

The I32's dimmable OLED display offers clear status indication and access to a versatile menu system that allows for setting power-up volume, channel balance, input re-naming, input disabling, and gain matching for each input in fine steps of 1dB. For seamless home theatre system integration, the I32 has a surround system pass through, allowing the use of its power amplification for front left and right channels.

The optional MM30 digital media board further expands the choice of sources, offering up to 24 bit/192 kHz streaming of files from the Internet, NAS drives, or PCs, as well as Internet radio content and digital audio inputs for a range of devices including CD players, smart phones, personal players, and satellite boxes.

reddot design award
winner 2011

CD32 CD PLAYER

The CD32 shares many of the features found in the CD22; a transport designed specifically for CD playback; a five-second buffer memory system providing jitter suppression and protection from mechanical shock; separate R-core transformer windings supplying all analogue and digital audio circuits; no capacitors in the signal paths, with SMD technology and separate PCB modules used throughout to keep those signal paths isolated and as short as possible; and selectable digital conversion parameters to allow for customization of the listening experience.

Distinguishing the CD32 is the digital to analog conversion stage and output circuitry deployed. As an example of Primare's practical design approach, the up-converting twin DAC chip set was selected for use after extensive listening tests determined it to be superior sounding to anything else available, even though its highest sampling frequency is 24/96 kHz. This highly refined conversion stage feeds an equally sophisticated balanced output section, which includes both XLR and RCA analogue connection. Digital outputs include professional-grade AES/EBU, as well as SPDIF and TOS-link digital connection. All functions are clearly visible from the OLED display, which can be dimmed to match the I32's display when the units are connected via IR. During operation the displays will auto-dim so as not to disturb the listening experience.

The PRE32 preamplifier and the A34.2 UFPD power amplifier represent the essence of Primare design, blending our trademark low-noise, wide-bandwidth signal processing and control with effortless ease of use and superb minimalist aesthetics.

The ensemble further refines the features found in the EISA Award–winning I32 integrated amplifier, making greater reserves of supremely clean, efficient, and dynamic UFPD power available to a wide range of source components through low-noise, balanced connections and excellent OLED display architecture. The PRE32 and A34.2 combine beautifully with the CD32 CD player under the operation of a single remote control to deliver audio purity, convenience, and elite design integrity in the finest Primare tradition.

The PRE32 and A34.2 are equipped with excellent complementary low-noise electrical designs. All signal paths are fully balanced and as short as possible, while multiple power supplies feed discrete circuits individually optimized for the digital and analogue audio, control, and display sections. Source selection, volume, and channel balance trims from the PRE32 are performed purely in the analogue domain. Its unbalanced input signals are upgraded to low-noise balanced signals by a conversion stage comprising the finest discrete components.

PRE32 PREAMPLIFIER

The PRE32 features fully balanced circuitry, incorporating two pairs (L/R) of low-noise balanced XLR inputs and four pairs of RCA inputs. In addition there are two pairs of RCA outputs and a single pair of balanced XLR outputs for low-noise connection to the A34.2 and other balanced power amplifiers. Switching between inputs is easy from the C24 system remote control or front panel with the aid of the OLED display, dimmable in four steps. The display auto-dims after a few seconds, returning to programmed brightness at the touch of a control.

Setup also includes control over power-up volume, maximum volume level, channel balance, input renaming (up to six characters), input disabling, and gain matching for each input in steps of 1dB. A surround processor bypass feature allows signals from an AV processor to travel straight to the A34.2 or any other power amplifier. The PRE32 incorporates a very low eco mode for standby: power consumption is just 0.2W!

The optional MM30 digital media board further expands the choice of sources, offering up to 24 bit/192 kHz streaming of files from the Internet, NAS drives, or PCs, as well as Internet radio content and digital audio inputs for a range of devices including CD players, smart phones, personal players, and satellite boxes.

A34.2 STEREO AMPLIFIER

The A34.2 is a 2 x 150 watt stereo power amplifier utilizing Primare's proprietary UFPD technology. UFPD treats all signals equally regardless of frequency or slew rate and has the ability to suppress the filter resonance entirely. Consequently distortion is kept very low at all frequencies. With a very wide, "load independent" frequency response, UFPD is able to drive any speaker while maintaining control and accuracy.

The A34.2 is a fully balanced design, using two discrete UFPD amplifiers, each channel incorporating unbalanced (RCA) and balanced (XLR) inputs, with unbalanced input signals being converted to balanced. Balanced signal transmission comes from the professional recording and concert world, and means that two identical signal lines are used to carry the same signal with opposite phase. Any noise is common to both lines and is present in equal amounts with identical phase. At the receiving end a (differential) receiver retains the opposite phase signals (music) and rejects the common phase signals (noise), leaving only the pure original signal. Balanced circuits therefore keep the signal as free as possible from interference, delivering the greatest level of detail. For additional power and precision, the A34.2 can easily be bridged to deliver an extraordinarily powerful mono channel of amplification capable of delivering up to 550W into 8 ohms.

DIGITAL MEDIA PROCESSORS

Your favorite music deserves fidelity whether it's stored as data on a CD, or streamed from local NAS or online players. And since the rules of high performance remain the same, we've built the DAC30 and NP30 with the care we apply to every Primare product – designed and engineered to be easy to use and integrate with existing systems, while reducing noise and distortion so the music shines through.

DAC30 DIGITAL TO ANALOGUE CONVERTER

Built with the experience that comes from over thirty years of specialized hi-fi and digital design, the DAC30 brings Primare's signature engineering to the audio path from any digital source. Wherever your music is stored – on compact discs or digital files, on hard drive or NAS – the DAC30 will render every selection in its native resolution; from standard 16bit/44kHz CD right up to HD files at 24/192. And the process is seamless and automatic – rarely will you need to pick up the remote supplied. Simply select power and one of five inputs, including asynchronous USB-B, stereo balanced AES/EBU, and three pairs of coaxial and TOSLINK connectors. With such a comprehensive range of inputs you can upgrade the performance of existing high-end CD players, SAT boxes, or game consoles, as well as transform the sound of stored or streamed files through the DAC30's supreme audio processing.

When it comes to making music, the DAC30 is equipped to reveal the nature of your music collection as never before. From the very first groundbreaking Primare product, we've specialized in the art of reducing circuit-borne noise to very low levels while preserving the fidelity of the recorded work. Behind the DAC30's elegant fascia, a rigid steel chassis protects the ultra-low-noise signal paths from external vibrations. Superior signal to noise performance results from the use of multiple regulated power supplies, delivering the precise power needed to advanced digital signal processing, which is isolated from our trademark balanced low-noise analogue output stage to deliver the cleanest, most dynamic wideband audio.

NP30 NETWORK PLAYER

The NP30 Network Player is a high-fidelity bridge to the world of music on your computer, smartphone, and favorite online sources. It adapts any high-quality music system for audiophile streaming, Internet radio, and gapless audio playback, through integration with PCs, Macs, and hard drives; as well as with iPod®, iPad®, iPhone® and USB thumb drive.

Use the proprietary Primare APP on your tablet or phone to view and play all your networked shared content, including online streams from Internet radio and your favorite music sites. The Primare APP will display playlists and the format details of the song in play. You can fast forward or back through the selection and change volume, select the sources connected to the NP30, rename your network, and manage software upgrades – all from your mobile device.

Consistent with Primare's philosophy, the NP30 incorporates multiple individual power supplies – six for the analogue and three for the digital sections – so that optimum levels of clean power reach the sensitive signal processing parts of the design. To further protect the purity of the sound, digital and analogue signal paths have their own dedicated ground planes to remove any possibility of electrical noise. This provides the foundation necessary for the 24 bit/192kHz Digital-to-Analogue Converter (DAC) to transform digital files into richly musical, fully balanced analogue output signals. Connect any network-attached music source through a wide range of inputs, including a specialized USB interface, which ensures that the highest resolution files arrive without a hitch and in perfect quality. The NP30's volume control allows for direct connection to a power amp and speaker or active loudspeakers to create a compact, super-smart high-fidelity system.

MM30 DIGITAL MEDIA MODULE FOR I32 AND PRE32

MM30 DIGITAL MEDIA MODULE

The MM30 digital media module provides the award-winning I32 integrated amplifier and the PRE32 stereo preamplifier with high-performance streaming, Internet radio, and gapless audio playback through integration with UPnP devices such as PC/Mac/NAS, iPod®, iPad®, iPhone®, and USB thumb drive. It includes a 24/192 DAC board including coax, TOSLINK, USB-A and USB-B digital inputs (incorporating an asynchronous master clock for low jitter), and a high-resolution coax digital output. True to Primare's design philosophy, the digital and analogue signal paths within the Primare digital media module have their own dedicated ground planes; a design feature that protects the purity of the analogue signals.

The MM30 also features high-quality Bluetooth connectivity via aptX (Android) and AAC (Apple). For compatibility with Primare's high-performance audio design, the MM30 is a receiver-only module, and rather than use an integrated DAC (as employed in other Bluetooth implementations), the output of the receiver is fed to the MM30's own Sample Rate Converter and up-sampled to 192kHz for optimum performance through the module's high-resolution DACs. In this way Primare's Bluetooth connection circuitry adds superior sound quality to the convenience of wireless connection.

R32 PHONO PREAMPLIFIER

The R32 Phono Preamplifier provides the ideal interface between the low-level output of a cartridge and the line-level inputs of your hi-fi system. For sonic excellence and low noise, Primare's signature dual-mono design philosophy has been applied wherever possible, using the optimum mix of discrete lead-free components from the best semiconductor suppliers. Superior tantalum and low-impedance capacitors are employed throughout the design.

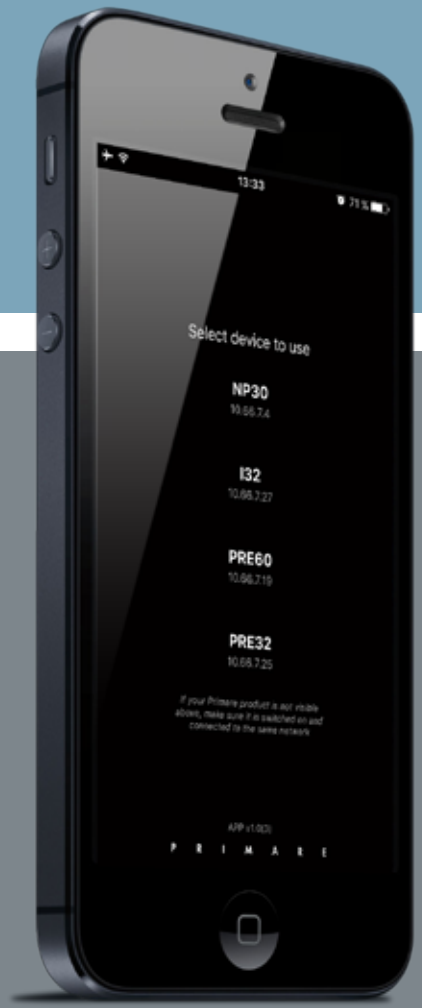
The R32 accepts either moving-magnet (MM) or moving-coil (MC) cartridges. Gain and impedance can be adjusted to match virtually any cartridge with the preamplifier. When using a low-output moving-magnet cartridge, an additional 5dB increase in gain is available by fitting an internal jumper.

The mains transformer is of the R-core type, recognized for its low noise and minimal magnetic leakage. To further provide protection for the sensitive signal circuits from any possible interference, a shield-plate protects the sensitive amplification components from the transformer, which is placed in the corner of the cabinet opposite of the signal-carrying circuits. The transformer includes separate windings for left and right channel supplies (dual mono design), which are then rectified and individually regulated in order to provide the different voltages required by the R32.

Output and input RCA connectors are gold plated and have Teflon insulation to preserve the quality of the delicate low-level signal from the cartridge. The R32 includes a relay controlled mute circuit for silent power on and off.

APPLICATIONS

The Primare APP control app and AIR streaming app complete Primare's suite of digital playback offerings, making it easy to enjoy the full range of today's digital listening options.



PRIMARE APP

Use the proprietary Primare APP on your tablet or phone to view and play all your networked shared content, including online streams from vTuner Internet radio and your favorite music sites. The Primare APP will display playlists and the format details of the song being played, as well as allow you to change volume, and fast forward or reverse through the selection in play; select sources; rename your network; and manage software upgrades – all from your mobile device. The Primare APP allows you to play music files at resolutions up to 24bit/192kHz from stored and streamed music sources through the NP30, PRE60, and from I32 and PRE32 with installed MM30 board. The free Primare APP is available for iPhone/iPad and Android devices from the App Store and Google Play.

PRIMARE AIR

Primare AIR enables playback of streaming services through any of Primare's network-enabled devices, including the NP30 media player, the MM30 media board, in either the I32 integrated amplifier or the PRE32 preamplifier, and the PRE60 preamplifier. Primare AIR features TuneIn Radio, providing commercial-free music, 100,000 radio stations, 5.7 million podcasts, sports play-by-play, and audiobooks; as well as Deezer and Tidal services, both streaming a world of high-definition music, videos, and exclusive content. Additional music services will be added in the future by way of simple updates as available. Compatible with both iOS and Android (free download available from the App Store and Google Play), Primare AIR requires only an account with the preferred music service to realize the pure sound of Primare hi-res streaming.

TECHNOLOGIES

Primare's practical design approach places primary emphasis on power supply implementation, with massive and multiple power supplies feeding discrete circuits individually perfected for the audio, control, and display sections. Optimized ultra-short signal paths are populated by high-quality components in order to maximize bandwidth and minimize circuit-induced noise. All chassis are of matching heavy-gauge steel, which provides strength, rigidity, and screening from radio frequency interference, while being effective at damping vibrations from external sources. As part of the low-noise regime, all Primare models' control and display components are placed between the front panel and the main steel chassis to provide the best isolation from the sensitive analogue circuits. This has long been an innovative feature of Primare design.

Primare's exclusive Ultra Fast Power Device, or UFPD, is the result of three decades of dedication to creating industry-leading analogue amplifiers. This experience led to the eventual understanding that no other design topology could offer the total package of advantages that a properly implemented class D analogue design could provide.

- Instant and Sustained Delivery of Immense Power – lightning-fast rise times, over the entire operating frequency bandwidth.
- Precise Control of that Power – flat frequency response, independent of speaker load, in part due to low output impedance.
- No Noise – as a result of this power delivery capacity, very low total harmonic distortion throughout the entire audio band, coupled with extremely low overall system noise.
- No Heat – virtually no heat generated by the amplification technology, even at full output, reducing the need for the kind of heat dissipation that inevitably leads to longer signal path and much larger physical design associated with more conventional solid state or tube amplifier designs.
- Compact Electrical and Physical Design – due not only to the lack of heat generated by this technology, but also to the inherently small size of the module, the amplifier's electrical design can be astonishingly compact, leading to the shortest possible signal path, contributing to lower noise and distortion, and further to compact physical designs that allow for ease of placement, for improved sonic as well as aesthetic considerations.
- Considerate of the Environment – minimal power draw from the AC mains circuit, particularly at idle, and virtually no effect on the total system's AC power environment when used with Primare's APFC (Active Power Factor Correction) power supply.

Based on these inherent capabilities, Primare has optimized the performance of its innovative all-analogue UFPD amplifier module designs with the precise selection of circuit component values and qualities, verifying the design with extensive measurement and, of course, careful listening.

In conjunction with UFPD, Primare uses PFC (Power Factor Control) technology in the power supply, which controls the current from the mains voltage so that it is a pure sine wave with the same frequency and phase as the mains voltage. This means that even if 1000W is taken from the mains, other equipment in the room will not be affected.

Using these synergistic technologies, Primare creates products of absolutely convincing capabilities, characterized by an inherently musical, balanced, and harmonious sound that allows for explosive power with rhythm, agility, and finesse.

The review icons here are only a small sampling of the consistent praise from journalists around the world validating Primare's practical design approach.

I22 | INTEGRATED AMPLIFIER

Output Power	2x 80W at 8Ω 2x 160W at 4Ω
Analogue Inputs	4 pair RCA (L & R)
Input Impedance	15kΩ
Analogue Record Output	1 pair RCA (L & R)
Pre Out	1 pair RCA (L & R)
Output Impedance	RCA 94Ω
Frequency Response	10Hz – 20kHz, -0.5dB
THD + N	< 0.05%, 20Hz – 20kHz, 10W at 8Ω
Signal to Noise	-95 dB
Optional DAC Board	1x USB-B input 1x Digital Optical input (1 Toslink) 1x Digital Coaxial input (1 RCA jack)
Power Consumption	Standby 0.3W; Operation: 19W
Dimensions (WxDxH)	430 x 420 x 106 mm
Weight	10 kg
Color Options	Black, Titanium

CD22 | CD PLAYER

Mechanism	Asatech 8210.B01-02, Sanyo SF-P101N
D/A Converter	1x PCM1792, 24/192 kHz
Analogue Outputs	1 pair RCA, 1.9 Vrms
Output Impedance	RCA 100Ω
Digital Outputs	1x SPDIF (RCA); 1x optical (TOS-link)
Frequency Response	20Hz – 20 kHz -0.5dB
Signal to Noise	20Hz – 20kHz unweighted -100dB
THD + N	20Hz – 20kHz <0.01%
Other Inputs	USB interface; IR input 3.5mm; RS232;
Trigger In/Out	3.5mm
Power Consumption	Standby 0.3W; Operation 25W
Dimensions (WxDxH)	430 x 375 x 106 mm
Weight	10.5 kg
Color Options	Black, Titanium

I32 | INTEGRATED AMPLIFIER

Output Power	2x 120W at 8Ω 2x 230W at 4Ω
Analogue Inputs	2 pair XLR (L & R) 3 pair RCA (L & R)
Input Impedance	Both RCA and XLR 36kΩ
Analogue Record Output	1 pair RCA (L & R)
Pre Out	1 pair RCA (L & R)
Output Impedance	RCA 94Ω
Other Inputs/Outputs	IR in/out 3.5mm; RS232; Trigger in/out 3.5mm
Digital I/O	see MM30 media module
Frequency Response	10Hz – 20kHz, -0.5dB
THD + N	< 0.05%, 20Hz – 20kHz, 10W at 8Ω
Signal to Noise	-100 dBV
Power Consumption	Standby 0.2W; Operation: 31W
Dimensions (WxDxH)	430 x 420 x 106mm
Weight	11 kg
Color Options	Black, Titanium

DAC30 | DIGITAL TO ANALOGUE CONVERTER

Analogue Outputs	1 pair Stereo XLR and 1 pair RCA both 2,2Vrms
Digital Outputs	1 x SPDIF (RCA)
Inputs	USB-B, 3 x SPDIF (RCA) 3 x optical (TOS-link), 1x AES/EBU (XLR)
D/A Converter	Crystal DSD DAC CS4398
Output Impedance	RCA 100Ohm; XLR 110Ohm
Power Consumption	Standby 0.5W; Operation 60W
Dimensions	430 x 370 x 95 mm
Weight	8.5kg
Color Options	Black, Titanium

NP30 | NETWORK PLAYER

Audio Formats	WAV, AIFF, FLAC, MP3, AAC, WMA, OGG, and ALAC
Volume Control	Yes, available from both C24 as well as Primare APP
Sample Rates	32-192kHz
WLAN	b, g, n mode; WEP (64 and 128Bit), WPA &WPA2 (TKIP & AES)
Connections Output	XLR, RCA, Digital (192 kHz), IR out, TRIG out
Connections Input	3x optical, 1x SPDIF, USB-A, USB-B, WLAN, LAN, RS232
Signal to Noise	120dB
Output Impedance	RCA 100 Ohm; XLR 110 Ohm XLR/RCA output both 2.2V
Power Consumption	Standby 0.5W; Operation 20W
Dimensions (WxDxH)	430 x 370 x 95 mm
Weight	8.5 kg
Color Options	Black, Titanium

R32 | PHONO PREAMPLIFIER

Inputs	1 pair RCA
Outputs	1 pair RCA
Input Impedance	10, 20, 50, 100, 200, 500 Ω and 47k Ω
Output Impedance	100 Ω
Gain	MM 41.5dB, MM with internal jumper 46.5dB, MC 62dB
Signal to Noise	20Hz – 20kHz unweighted MM -70dB MC -60dB
THD+N	20Hz – 20kHz MM <0.02%, MC <0.05%
Power Consumption	Operation 11.5W
Dimensions (WxDxH)	430 x 380 x 95mm
Weight	8.5 kg
Color Options	Black, Titanium

CD32 | CD PLAYER

Mechanism	Asatech 8210.B01-02, Sanyo SF-P101N
D/A Converter	2x PCM1704, DF1706 (digital filter), 24/96 kHz
Analogue Outputs	1 pair RCA, 2.1 Vrms; 1 pair XLR, 4.1 Vrms
Output Impedance	RCA 390Ω; XLR 47Ω
Digital Outputs	1x SPDIF (RCA); 1x AES/EBU (XLR); 1x optical (TOS-link)
Frequency Response	20Hz – 20 kHz -0.5dB
Signal to Noise	20Hz – 20kHz unweighted -100dB
THD + N	20Hz – 20kHz <0.01%
Other Inputs	USB interface; IR input 3.5mm; RS232; Trigger in/out 3.5mm
Power Consumption	Standby 0.5W; Operation 25W
Dimensions (WxDxH)	430 x 375 x 106mm
Weight	10.5 kg
Color Options	Black, Titanium

MM30 | DIGITAL MEDIA MODULE

Audio Formats	WAV, LPCM, AIFF, FLAC, ALAC, MP3, MP4 (AAC), WMA, OGG
Sample Rates	32-192kHz
WLAN	b, g, n mode; WEP (64 and 128Bit), WPA &WPA2 (TKIP & AES)
Digital Output	1x SPDIF RCA192 kHz)
Inputs	3x Toslink optical (96kHz) 1x SPDIF RCA (192kHz) USB-A (192kHz) USB-B (192kHz) WLAN (48kHz) LAN (192kHz) Bluetooth® (aptX, AAC, MP3)

PRE32 | PREAMPLIFIER

Analogue Inputs	2 pair XLR (L & R), 4 pair RCA (L & R)
Input Impedance	15k both RCA and XLR
Analogue Record Output	1 pair RCA (L & R)
Pre Output	2 pair RCA (L & R), 1 pair XLR (L & R)
Output Impedance	110 ohms
Other Inputs/Outputs	RS232, IR in/out, trigger in/out, RF
Digital I/O	see MM30 media module
Frequency Response	20 Hz – 100 kHz -3 dB
THD + N	<0.003%, 20 Hz – 100 kHz, 0 dB gain
Signal to Noise	-115 dBV
Max In /Out Level	10 Vrms
Gain	16 dB
Power Consumption	Standby 0.2 W; Operation: 23 W
Dimensions (WxDxH)	430 x 385 x 105 mm
Weight	10.5 kg
Color Options	Black, Titanium

C24 | REMOTE CONTROL

The C24 remote control provides complete Primare system control for integrated amplifiers, preamplifiers, disc players, and digital and surround processors.

A34.2 | AMPLIFIER

Stereo Mode

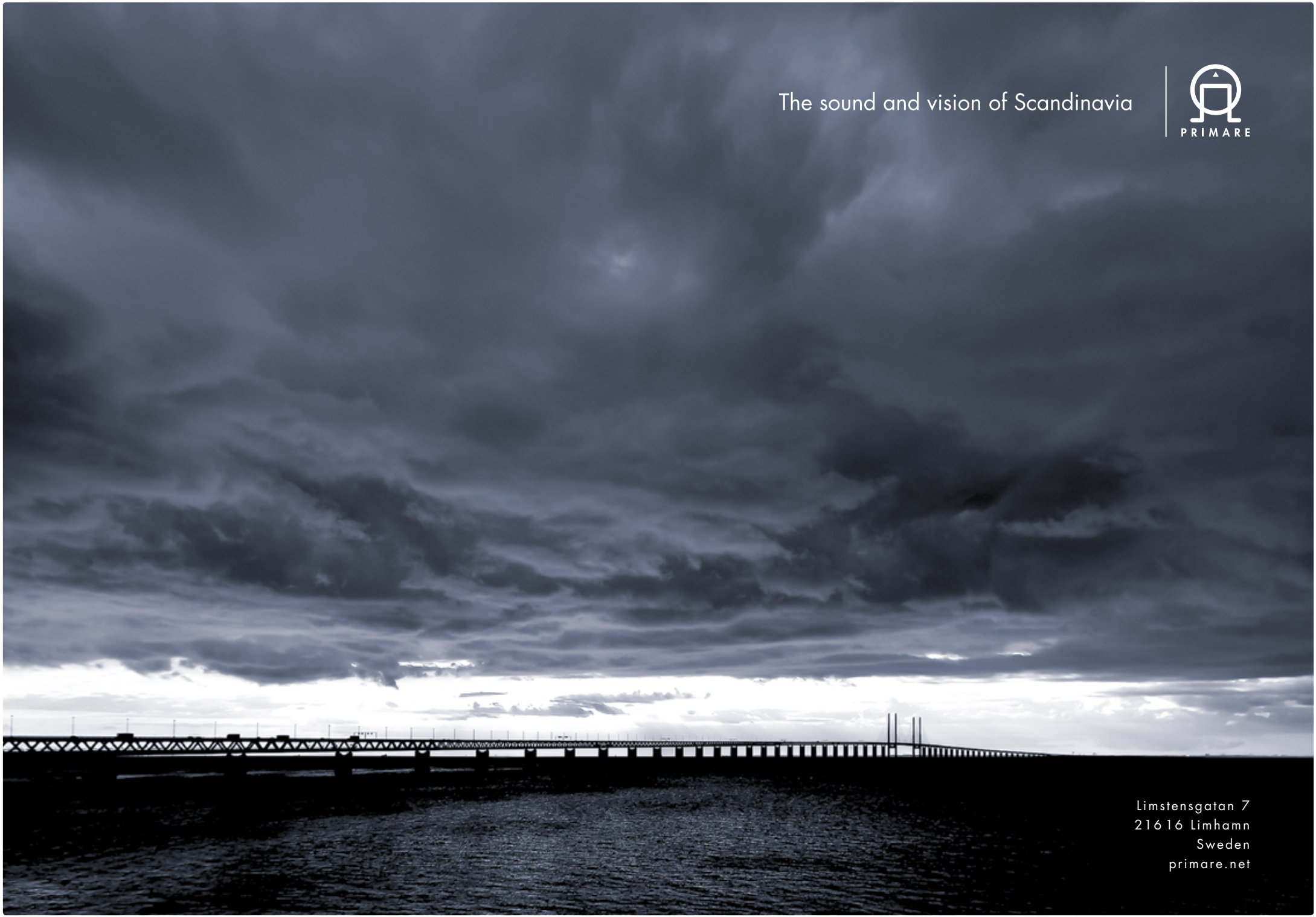
Output Power	2 x 150 W / 8 ohm THD+N <0.1%
Inputs	2 x RCA / 2 x XLR switchable, RS232, trigger (12 V)
Input Impedance	15k ohm RCA and XLR
Output Impedance	0.3 ohm at 1 kHz
Gain	30 dB unbalanced, 26 dB balanced
Frequency Response	20 Hz – 20 kHz, -0.5 dB
Signal to Noise	20 Hz – 20 kHz unweighted 105 dBV
THD + N	<0,005% (1 kHz, 100 W, 8 ohm)
THD + N	<0,02% (20 Hz – 20K Hz, 10W, 8 ohm)

Bridged Mono Mode

Output Power	1 x 550 W / 8 ohm THD+N <0.1%
Inputs	1 x RCA / 1 x XLR switchable, RS232, trigger (12 V)
Input Impedance	15k ohm RCA/XLR
Output Impedance	0.6 ohm at 1 kHz
Gain	30 dB unbalanced, 26 dB balanced
Frequency Response	20 Hz – 20 kHz, -0.4 dB
Signal to Noise	20 – 20 kHz unweighted 105 dBV
THD + N	<0,004% (1 kHz, 100 W, 8 ohm)
THD + N	<0.015% 20 Hz – 20K Hz (10 W, 8 ohm)

Common (stereo + bridge mode)

Power Consumption	Standby 0.3 W; Operation 24 W
Dimensions (WxDxH)	430 x 385 x 105 mm
Weight	10.5 kg
Color Options	Black, Titanium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