

# peachtree

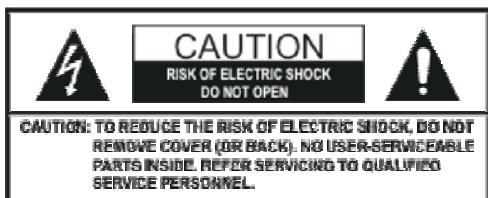


## Carina

# IMPORTANT SAFETY INSTRUCTIONS

- ❶ Read these instructions—All the safety and operating instructions should be read before this product is operated.
- ❷ Keep these instructions—The safety and operating instructions should be retained for future reference.
- ❸ Heed all warnings—All warnings on the appliance and in the operating instructions should be adhered to.
- ❹ Follow all instructions.
- ❺ Do not use this apparatus near water—The appliance should not be used near water or moisture—for example, in a wet basement or near a swimming pool, and the like.
- ❻ Clean only with dry cloth.
- ❼ Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- ❽ Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- ❾ Do not defeat the safety purpose of the polarized or grounding plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- ❿ Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.
- ⓫ Only use attachments/accessories specified by the manufacturer.
-  ❿ Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- ⓭ Unplug this apparatus during lightning storms or when unused for long periods of time.
- ⓮ Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way such as the power cord or plug is damaged. Other damage may occur if liquid or objects have been dropped or spilled into the apparatus. Dropping the apparatus, exposure to rain, and excessive moisture may cause additional damage.
- ⓯ Please keep the unit in a good ventilation environment.
- ⓰ CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
- ⓱ WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and objects filled with liquids, such as vases, shall not be placed on apparatus.

- 18 **WARNING:** The mains plug/appliance coupler is used as disconnect device, the disconnect device shall remain readily operable.



- 19 The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated ?dangerous voltage? within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

**WARNING:** To reduce the risk of electric shock, do not remove cover (or back), as there are no user-serviceable parts inside. Refer servicing to qualified personnel.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

- 20 No naked flame sources, such as lighted candles, should be placed on the apparatus.
- 21 Batteries are included for the remote control. Do not expose these batteries to direct sunlight or excessive heat such as a fire. Care should be taken in the act of battery disposal as they include toxic materials that may harm the environment. Please refer to your local recycling and hazardous waste center for advice with battery disposal.



- 22 **WARNING:** The terminals marked with symbol of “+/-” may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made insulated leads or cords.

- 23 Correct disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

## Unpacking and Warranty

- 1 Please keep all packing materials for any potential shipping needs.
- 2 Please keep a copy of the sales receipt and note the serial number on it for warranty and insurance purposes.
- 3 Please register your product online at [www.peachtreeaudio.com](http://www.peachtreeaudio.com).

#### FCC Warning

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

# Carina

- 6 — Introduction
- 7 — Back panel
- 10 — Front panel
- 11 — Remote control
- 12 — Menu
- 13 — Warranty and Repair
- 15 — Specification

# INTRODUCTION

Thank you for choosing the Peachtree Audio Carina!

Carina is an integrated amplifier designed to please your eyes and ears. Housed in a beautiful chassis crafted of aluminum and wood, Carina is several audio components in one; Digital-to-Analog Converter (DAC), preamplifier, power amplifier and a premium headphone amplifier.

Carina includes several digital audio inputs for multiple sources: USB-B for a computer, Bluetooth for wireless devices, two coaxial inputs and one optical input for a streamer, CD transport or other legacy devices. And it even has an I2S input for devices that offer that type of output. Carina includes a variable stereo analog output for integration with subwoofer(s) or an external power amplifier. Additionally, a USB-C port is provided to power, or charge, an external device as needed.

Internally, Carina features a 32-bit architecture that is capable of handling all of the major digital audio formats available today including; compressed audio, uncompressed audio, high-resolution audio and ultra-high resolution audio all the way up to 24-bit/768kHz PCM and octuple rate DSD (DSD512)! Carina utilizes two separate ESS 9068 DAC chips in "mono mode" with one dedicated to converting the left channel and the other the right channel. The 9068 is widely regarded as one of the best DACs available today and has an extremely neutral, transparent and musical presentation. By dedicating one DAC to each channel, the signal-to-noise ratio, dynamic range and channel separation of the system are maximized. Carina also offers DAC filter and other adjustments to fine-tune the sound to your system and liking.

The Hypex NCORE power amplifier section in Carina is one of the cleanest, neutral, and most powerful ones available today. It is capable of driving speakers with nominal impedances between 2.5Ω to 16Ω and delivers an impressive 300 Watts-Per-Channel (WPC) into 8 ohms. Carina has ample power to properly drive the majority of speakers available today to their full potential while delivering deep, tight bass and transparent, natural upper frequencies without inducing listener fatigue.

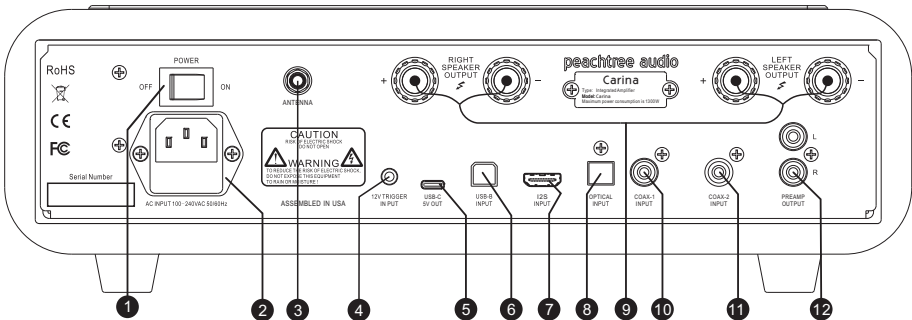
Carina features a premium-quality, fully-balanced headphone amplifier design that provides an exceptional listening experience when listening to headphones. It has an extremely low noise floor so the music comes through clearly and free from artifacts. The HP amplifier includes a traditional unbalanced output and a balanced output to drive headphones that can accept that type of drive. The headphone amplifier in Carina is designed to compare favorably to stand-alone headphone amplifiers.

Please familiarize yourself with all of the features of Carina to get the most out of your system. While enjoying Carina, please visit [www.peachtreeaudio.com](http://www.peachtreeaudio.com) to register your unit. Your information will NOT be shared and we will only contact you with information that is pertinent to your purchase! If you have additional questions or feedback please contact your reseller or Peachtree Audio directly.

We sincerely hope that you love your Carina and that it brings you many years of listening enjoyment. It embodies the essence of Peachtree Audio products; timeless design, exceptional sound quality, and amazing value. Thank you again for choosing Peachtree Audio and happy listening!

– The team at Peachtree Audio

## BACK PANEL



### ❶ Power ON/OFF Switch:

Connects and disconnects **AC** power to the unit when the power cord is connected between the **AC INPUT** and a 100-240VAC 50/60Hz AC outlet.

### ❷ AC INPUT & Fuse Holder:

For connection to a 100-240 VAC 50/60 Hz AC outlet using the included power cord. The fuse should only be replaced after turning the **POWER** switch **OFF** and removing the power cord from the **AC INPUT**. See the **SPECIFICATION** section for the specific fuse values required. **Caution:** using an improper fuse value may cause damage to the unit. **Peachtree Audio** accepts no responsibility for any damage caused by use of improper fuse value.

### ❸ ANTENNA CONNECTOR:

Provides an external antenna connection to maximize the reception range from Bluetooth enabled devices.

### ❹ 12V TRIGGER INPUT:

Enables power on/off control from another product with a 12V trigger output. Insert one end of a 3.5mm cable into this input and connect the other end to a 12V trigger output of the product that will control it. Once connected, **Carina** should power on and off along with the product controlling it. The trigger can be configured in the menu to work with specific input(s).

### ❺ USB-C OUT:

Provides a 5V DC output for powering or charging connected devices. It is **NOT** a full a USB port capable of accepting digital audio input signals or other type of USB functionality.

**6 USB-B INPUT:**

Accepts digital audio input up to 32-bit/762kHz PCM & octuple DSD (aka DSD512). Windows users note: For playback of files above 96kHz, Windows requires installation of the USB 2.0 driver on your PC before it will be compatible with the USB 2.0 setting. Please visit <http://www.peachtreeaudio.com/pages/usb-drivers-and-firmware> to download the latest version.

**7 I2S INPUT:**

Accepts digital audio input up to 32-bit/762kHz PCM & octuple DSD (aka DSD512). Please Note: This is NOT an HDMI or eARC input!

**8 OPTICAL INPUT:**

Accepts **S/PDIF** digital audio input from an optical (**Toslink** style) output up to 192kHz.

**9 RIGHT & LEFT SPEAKER Outputs:**

Speaker wire binding post outputs that accept banana connectors (insert into hole on back of the post), spade connectors (loosen, position spade around post, tighten), pin connectors (loosen, insert pin through hole on post, tighten) or bare wire connections (loosen, loop around post or insert through the hole on the post, tighten).

**10 COAX-1 INPUT:**

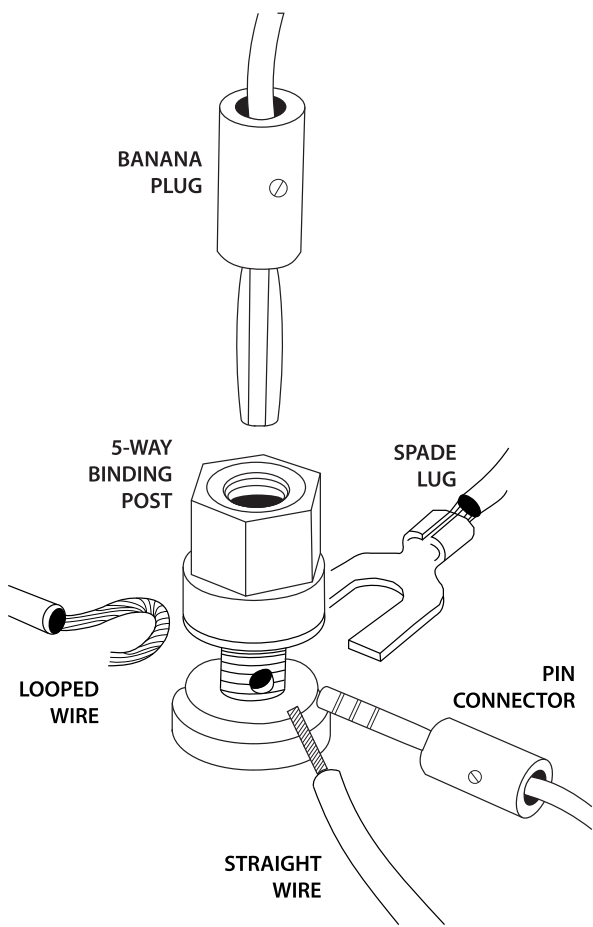
Accepts S/PDIF digital audio input from a coaxial style digital audio output up to 24-bit/192kHz PCM.

**11 COAX-2 INPUT:**

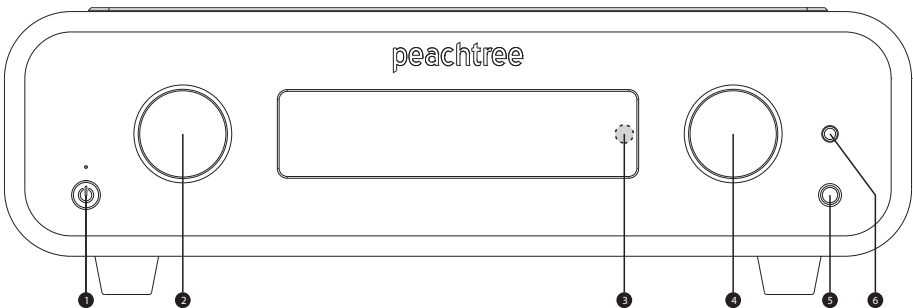
Accepts S/PDIF digital audio input from a coaxial style digital audio output up to 24-bit/192kHz PCM.

**12 PREAMP OUTPUT:**

Provides analog audio output to connect to a powered subwoofer or an external power amplifier. Note: the **RIGHT** and **Left** speaker outputs remain active when the **PREAMP OUTPUT** is used and both sets of outputs are automatically muted when the mute function is engaged or when headphones are connected via the front panel.



## FRONT PANEL



**1 On/Standby Button:**

Toggles the unit between On mode and Standby mode which lights the **LED** red. Note **AC** power cord must be connected and rear panel **POWER** switch set to **ON** for this button to function.

**2 Left knob**

Rotate in either direction to select the desired input. Push and hold knob for ~ 3 seconds to enter the setup menu. Rotate knob to move the option selection arrow up or down. Rotate the Right knob to change the setting of the currently selected setup option. To exit the setup menu, press and hold this knob for ~3 seconds.

**3 IR Receiver:**

For receiving Infra-Red (IR) commands from the included hand-held remote control or third-party remote control system.

**4 Right knob**

Rotate clockwise or counter-clockwise to increase or decrease the volume /output level. Push and release to mute and unmute the output. When in the setup menu, rotate to change the setting of the currently selected setup option.

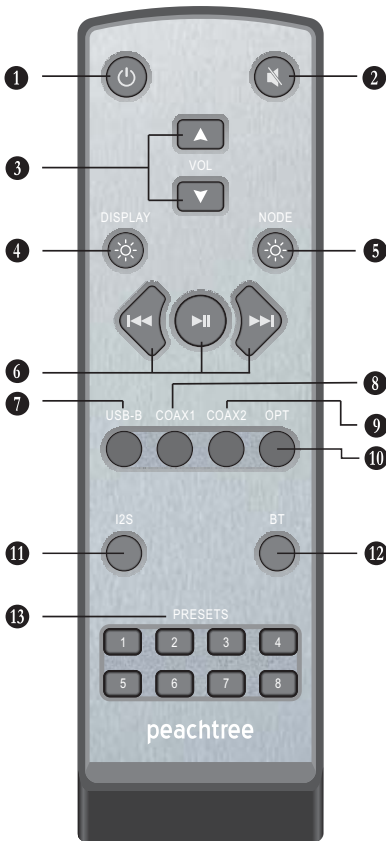
**5 1/4" Unbalanced Headphone Output Connection**

Inserting a headphone connection automatically mutes the **RIGHT & LEFT Speakers** and **L & R PREAMP OUTPUTS**. Removing a headphone connection automatically un-mutes the **RIGHT & LEFT Speaker** and **L/R PREAMP OUTPUTS**. **Caution:** please lower the output level when inserting or removing headphone connections as headphone sensitivity varies widely and a comfortable speaker listening level may be extremely loud when switching to headphones.

**6 4.4mm Balanced T/R/R/S Headphone Output Connection**

Inserting a headphone connection automatically mutes the **RIGHT & LEFT Speakers** and **L & R PREAMP OUTPUTS**. Removing a headphone connection automatically un-mutes the **RIGHT & LEFT Speaker** and **L/R PREAMP OUTPUTS**. **Caution:** please lower the output level when inserting or removing headphone connections as headphone sensitivity varies widely and a comfortable speaker listening level may be extremely loud when switching to headphones.

# REMOTE CONTROL



- ❶ **On/Standby Button**  
Toggles the unit between On mode and Standby mode which lights the LED red.
- ❷ **Mute Button**  
Toggles the mute function on and off.
- ❸ **Volume Up & Down Button**  
Increase and decrease the volume/output level
- ❹ **Display Brightness Button**  
Toggles the brightness of the display on **Carina** through the available setting.
- ❺ **NODE Display Brightness Button**  
Toggles the brightness of the display on **NODE** through the available setting.
- ❻ **Transport Control Buttons**  
Affects the playback of compatible devices such as **Bluesound NODE**, a computer connected via **USB-B** and mobile devices connected via **Bluetooth**.
- ❼ **USB-B Button**  
Selects the **USB-B INPUT**.
- ❽ **COAX1 Button**  
Selects the **COAX-1 INPUT**.

- ❾ **COAX2 Button**  
Selects the **COAX-2 INPUT**.

- ❿ **COAX2 Button**  
Selects the **COAX-2 INPUT**.

- ⓫ **I2S Button**  
Selects the **I2S INPUT**.

- ⓬ **Bluetooth Button**  
Selects the **Bluetooth INPUT**.

- ⓭ **Presets 1-8**  
Selects preset 1-8 in the **Bluesound NODE**. See **Bluesound NODE** documentation for instructions on how to set up the presets.

# MENU

## ① PCM filter----L-FAST, H-FAST, M-SLOW

**L-FAST** is a Linear phase FAST roll-off filter. It is the most common type of digital filter and is the most accurate and neutral acoustically.

**H-FAST** is a Hybrid FAST roll-off filter. The length of the pre-ringing is shorter and more consistent than the length of the post-ringing which is more like musical instruments.

**M-SLOW** is a Minimum phase SLOW roll-off filter. It has smooth signal out-of-band attenuation characteristics, and because of its in-band attenuation characteristics, it has a smoother overall sound.

Each filter has an objective (measurable) and subjective (audible to most) effect on the sound. We encourage people to audition all three filters to determine the one that sounds the best to them. Most people will experience the differences in high-frequency reproduction where they are more readily heard. There is no "right" or "wrong" answer here, its all about personal preference, room acoustics and the characteristics of your speakers...

## ② NOS MODE

**ON** bypasses the oversampling feature in the **DAC**, sending the original digital signal straight to the modulator. This mode is useful if you want to experiment with any software-based oversampling features in products like **Roon**, etc.

**OFF** engages the 8x oversampling feature in the **DAC**.

## ③ BT POWER

**BT INPUT** powers up the **Bluetooth** input receiver only when the unit is on and the Bluetooth input is selected.

**ALWAYS** keep the **Bluetooth** receiver powered up regardless of input selection.

## ④ VOLUME

**DIGITAL** - Uses a digital volume control.

**ANALOG** - Uses an analog level control. This volume control utilizes relays for optimal performance. There will be some clicking sounds from inside the unit when the relays switch as well as some audible noise that can be heard through the speakers at certain level changes. This is normal and expected behavior for this type of volume control and will not damage anything.

## ⑤ DISPLAY

**ALWAYS** keeps the display on whenever the unit is on.

**AUTO OFF** turns the display off after several seconds.

## ⑥ BRIGHTNESS

"8" is the brightest setting for the front panel display.

"1" is the dimmest.

## 7 **TRIGGER SEL INPUTS & LAST**

The 12V trigger can be set to select one of the specific **INPUTS** or to select the **LAST** input used when the unit was put into standby.

## 8 **[SOURCE] VOLUME**

This feature allows you to set the beginning starting point for the volume level for each input independently. Push the right knob to select the input to affect. Rotate the right knob to change the initial volume setting for THAT input.

LAST sets the volume to the LAST level used when the unit was put into standby. -20, -35, -50 sets the volume level to these specific values.

FIXED sets the unit to 0dB FS (full) gain (please use with extreme caution!).

## 9 **INPUT 12S, COAX-1, COAX-2, OPT**

These inputs can be renamed: **CD**, **SACD**, **TV**, **STREAM**, or **AUX**. The USB and Bluetooth inputs can NOT be re-named.

## WARRANTY AND REPAIR

### **International Warranty**

Peachtree Audio warrants this product for two (2) years, parts and labor, from the original date of purchase from an authorized Peachtree Audio re-seller. If you register your product online at <https://www.peachtreeaudio.com/pages/product-registration> the warranty is extended to three (3) years, parts and labor.

Peachtree Audio reserves the right to refuse any warranty claims if coverage cannot be verified by a valid proof of sale or serial number.

Peachtree Audio assumes no responsibility for product failures caused by accident, neglect, misuse, modification or unauthorized repair.

Warranty does not cover shipping costs.

Visit [www.peachtreeaudio.com](http://www.peachtreeaudio.com) for complete warranty details.

### **Repair Process**

In the event that a product fails, please repack it in its original carton and contact an authorized Peachtree reseller for further instructions. If the reseller is unable to assist, please contact Peachtree Audio directly at [service@peachtreeaudio.com](mailto:service@peachtreeaudio.com) or +1-704-391-9337 to obtain a Return Authorization (RA) number *prior* to shipping the product.

Any products received without an RA number may be misdirected and repair delayed.

If a RA number is issued by Peachtree Audio, please ship the product using FedEx or UPS. Do not ship using a Postal Service.

Peachtree Audio assumes no responsibility for products in transit. Please insure the shipment for the product's replacement value in the unlikely event it is lost, stolen or damaged in transit.

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

# SPECIFICATIONS

|                                                |                         |
|------------------------------------------------|-------------------------|
| Compatible Speakers                            | 2.5-16Ω                 |
| Output Power (WPC, 8Ω   4Ω, <1% THD+N, AES 17) | 300W/580W               |
| Dynamic Range (AES-17)                         | 116dB                   |
| Damping Factor (1kHz)                          | >625 (8Ω)               |
| Frequency Response (20 - 20kHz)                | <+/- 0.3dB              |
| Inter-Modulation Distortion (SMPTE)            | -90dB below fundamental |
| Total Harmonic Distortion (AES17, 1kHz, 8Ω)    | 0.001%                  |
| Channel Separation (1kHz, 8Ω)                  | >95dB                   |

## PREAMP OUTPUT

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Output Voltage (rms)                | 2.5V @ 0dBFS input                 |
| Output Impedance                    | 100Ω                               |
| Signal-to-Noise Ratio (un-weighted) | 114dB                              |
| Channel Separation (1kHz)           | >116dB at 1 KHz                    |
| Frequency Response (8Hz-20KHz)      | +/- 0.5dB                          |
| Total Harmonic Distortion           | <0.0004 (2V RMS, 1KHz, unweighted) |

## HEADPHONE OUTPUT

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Output Power (32Ω, rms   peak)      | 1200mW   2770mW                    |
| Output Power (300Ω, rms   peak)     | 330mW   700mW                      |
| Output Power (600Ω, rms   peak)     | 170mW   350mW                      |
| Output Impedance                    | 1Ω                                 |
| Signal-to-Noise Ratio (un-weighted) | 107dB   106dB                      |
| Dynamic Range (un-weighted)         | 107dB   100dB                      |
| Channel Separation (1kHz)           | >100dB at 1kHz                     |
| Frequency Response (8Hz-20KH)       | <0.5dB                             |
| Total Harmonic Distortion           | 0.003% (2V rms, 1kHz, un-weighted) |

## USB-B & I2S Inputs

|                                          |                                                            |
|------------------------------------------|------------------------------------------------------------|
| PCM Sampling Rate and DSD Frequency Rate | PCM 16-24bit/44.1-768kHz, DSD, DOP64-256, NATIVE DSD64-512 |
|------------------------------------------|------------------------------------------------------------|

## COAX and OPT Inputs

|                                          |                                      |
|------------------------------------------|--------------------------------------|
| PCM Sampling Rate and DSD Frequency Rate | PCM 16-24bit/44.1-192kHz, DSD, DOP64 |
|------------------------------------------|--------------------------------------|

## AC Power

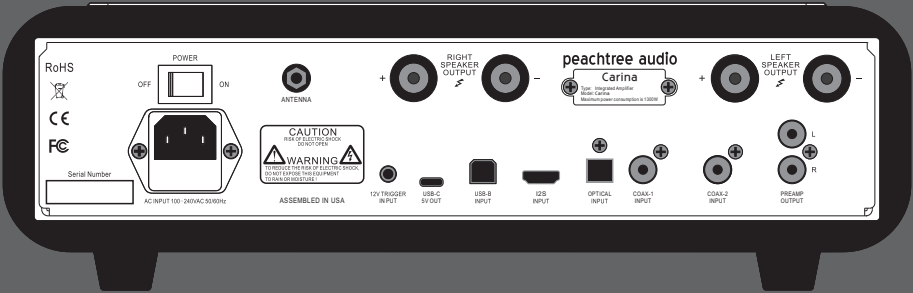
|                                  |                                                                                  |
|----------------------------------|----------------------------------------------------------------------------------|
| AC Input                         | 100-240VAC, 50/60Hz                                                              |
| Maximum Power Consumption        | 1000W                                                                            |
| On Mode (Idle) Power Consumption | 36W                                                                              |
| Standby Mode Power Consumption   | <0.5W                                                                            |
| Fuse                             | 100-120VAC: 8A/250V<br>Medium Acting<br><br>220-240VAC: 4A/250V<br>Medium Acting |

## Physical

|                                                         |                                    |
|---------------------------------------------------------|------------------------------------|
| Height (including feet)                                 | 111 mm   4.37 inches               |
| Width                                                   | 356 mm   14.02 inches              |
| Depth (including volume knob and speaker binding posts) | 361.95 mm   14.25 inches           |
| Weight (shipping)                                       | 15 lbs (19 lbs)<br>6.8 kg (8.6 kg) |

All specifications subject to change without notice.

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