# **Technical Specifications**

## **Deviation:**

±1 dB in the audible band ±5° relative phase throughout entire overlap Exceptional pair-matching Usable output extends from below 20 Hz to above 40 kHz

## **Drivers:**

BilletCore™ ultra-high-rigidity woofer and mid-woofers ForgeCore<sup>™</sup> ultra-low-distortion tweeter

### Filters:

Sonja<sup>™</sup> is fully-passive. A semi-active version is available for acoustically-problematic rooms Proprietary DualCoherent<sup>™</sup> crossover at 65 Hz and 1.75 kHz Designed using software developed in-house ToroAir<sup>™</sup> inductors eliminate cross-talk

# Sensitivity:

88 dB / 2.83 V / 1 m 2π anechoic

## Impedance:

 $4\Omega$  nominal,  $3\Omega$  minimum

#### **Dimensions:**

Sonja<sup>™</sup> 1.1 - 50x21x53 cm (20x8x21") HxWxD Sonja<sup>™</sup> 1.2 - 129x33x63 cm (51x13x25") HxWxD Sonja<sup>™</sup> 1.3 - 179x43x72 cm (70x17x28") HxWxD

## Weiaht:

Sonja™ 1.1 / Sonja™ 1C - 57 kg (124 lbs) per channel unpackaged

Sonja<sup>™</sup> 1.2 - 135 kg (296 lbs) per channel unpackaged Sonja<sup>™</sup> 1.3 - 230 kg (506 lbs) per channel unpackaged



YG Acoustics<sup>™</sup> constantly strives to update and improve existing products as well as create new products and technologies. Therefore, specifications and construction details are subject to change without notice.





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Sonja™ 1.3





#### Description

Sonja<sup>™</sup> is YG Acoustics<sup>™</sup> flagship, and represents everything that we know about speaker-design. Driven by innovative applications of acoustical engineering and world-class precision-manufacturing, Sonja pushes the edge of the art. Marrying these elements with stunning industrial design, results in a loudspeaker which is transformative in both performance and sheer visual beauty. Sonja<sup>™</sup> unparalleled sonics, timelessly elegant form, pure seduction... handmade in U.S.A.

Innovations include, first and foremost, breakthrough drivers machined in-house, and proprietary toroidal air-core crossover inductors. These enhancements result in ultra-low distortion, while preserving the industry-leading frequency and phase response that YG Acoustics<sup>™</sup> is famous for.

The bass and midrange units are made in-house using YG Acoustics<sup>™</sup>, proprietary **BilletCore<sup>™</sup>**\* technology: the drivers are precisely machined out of massive slabs of aircraft grade aluminum. This unique process offers overwhelmingly superior dynamics, musical delicacy and low distortion due to industryleading rigidity and accuracy (tight tolerances).

The tweeter incorporates YG Acoustics<sup>™</sup> ingenious ForgeCore<sup>™</sup> system: in-house CNC-cutting introduces sophisticated 3D geometries into the motor system. The resulting improvement is greatly reduced distortion and a sense of ease to the sound.

YGAcoustics<sup>™</sup> crossover circuits are all created using proprietary software developed entirely in-house. **DualCoherent<sup>™</sup>**\* technology provides the best frequency response and relative phase available. Competing speakers are optimized in either the frequency domain (most common) or time domain. Only YG Acoustics<sup>™</sup> has the ability to optimize both domains simultaneously.

Sonja<sup>™</sup>'s crossover uses **ToroAir<sup>™</sup>** technology: in-house CNC-wound toroidal air-core inductors are unique in eliminating cross-talk (crosscontamination) common in crossover circuits. The result is preservation of high-frequency detail without harshness, brightness or sibilance.

Sonja<sup>™</sup>'s exquisite **Cabinet**<sup>\*</sup> combines visual refinement with over-engineering. It is constructed of precision-machined aircraft-grade aluminum alloy. This material, using vibration-free pressurized assembly, allows for the most acoustically desirable enclosure achievable. The multi-layered structure is optimized for each module's specific frequency range. This ensures the lowest vibration achievable, even at extreme volume levels.

FocusedElimination<sup>™</sup> \* anti-resonance technology keeps mechanical losses lower than any competing speaker, by combining the minimized turbulence



Sonja™ 1.2

of a sealed design with the low friction otherwise associated with enclosure-free concepts.

YG Acoustics<sup>™</sup> speakers are not voiced. All measurements are verified using extensive listening tests, but the speakers are not artificially manipulated. YG Acoustics<sup>™</sup> speakers simply convey the recording – nothing more, nothing less. The end-result: Sonja<sup>™</sup> sets benchmarks in transparency, 3D-soundstaging, dynamics, bandwidth, inner-detail, and the natural sound of a live performance that YG Acoustics<sup>™</sup> is famous for. This is all presented in a refined, elegant speaker with an exquisite fit-and-finish that is the showpiece of the world's finest listening environments.

#### Configurations

Sonja<sup>™</sup> is available in four fully modular configurations, each of which can be expanded to the next at any time, without the need to replace existing modules:

- Sonja<sup>™</sup> 1.1 an ultra-high-end compact speaker, available with or without a matching stand.
- Sonja<sup>™</sup> 1C a center-channel speaker, available with or without a matching stand.
- Sonja<sup>™</sup> 1.2 an ultra-high-end medium-sized floorstanding speaker. Consists of Sonja<sup>™</sup> 1.1 interlocked atop a matching bass module.
- Sonja<sup>™</sup> 1.3 the flagship; an ultra-high-end large floorstanding speaker Consists of Sonja<sup>™</sup> 1.1 interlocked atop dual matching bass modules.

Sonja<sup>™</sup> is fully compatible with multi-channel audio and home-theater systems. Sonja<sup>™</sup> speakers can also be combined with speakers from YG Acoustics<sup>™</sup>, other lines for properly phase-coherent multichannel systems.

