



**AMINA**

DATASHEET Revision 1.0

# SAPPHIRE 250iB

FULL-RANGE, HIGH PERFORMANCE INVISIBLE LOUDSPEAKER  
WITH INTEGRATED BACKBOX AND FAST FRONT-MOUNTING SYSTEM



## THE PERFECT BALANCE

The Sapphire250iB represents the ideal harmony between performance, versatility and installation flexibility in invisible audio technology. Refined through continuous acoustic innovation since 1999, it features our precision-engineered 'Symphony Cell' composite soundboard and optimized dual-exciter configuration, delivering remarkably balanced audio across the entire frequency spectrum while maintaining complete invisibility.

## IMPRESSIVE BASS RESPONSE

The Sapphire250iB breaks the invisible speaker paradigm with its remarkable low-frequency extension. Incorporating our proprietary LowFreq™ driver technology, this slender invisible speaker produces rich, articulate bass that defies its discreet form factor. The innovative dual-driver design works in harmony with our specially developed composite soundboard, Symphony Cell, to deliver bass you can feel with authority and precision, eliminating the need for visible subwoofers in all but the most demanding applications.

## EFFORTLESS BY DESIGN

Designed for a precise, front-referencing fit, the 'iB' system automatically aligns perfectly in most installation scenarios - no adjustments, no guesswork. An integrated backbox keeps everything neatly contained, making installation faster, cleaner, and beautifully straightforward.

## PERFECT IN PLASTER FINISHES

Compatible with all plaster finishes—including Venetian, lime, clay, microcement and spray-applied systems—the Sapphire250iB is designed for complete flexibility. The Symphony Cell soundboard handles high-moisture applications with ease, even when drying times are extended.

## FEATURES AT-A-GLANCE



### 50W RMS/100W PEAK

Providing a maximum sound pressure of 97dB SPL from 50W at four ohms



### 180° DISPERSION

Hemispheric dispersion throughout the speakers frequency range



### SONIC CLARITY

Room-filling sound with Hi-Fi voicing and impeccable intelligibility



### INSTALL SIMPLICITY

Front referencing install process automatically sets the speaker at the correct depth



### WARM VOICING

True full-frequency-range performance without subwoofer support

# SAPPHIRE 250iB SPECIFICATION

MEASURED AT 20°C WITH A 2MM PLASTER SKIM

|                                                 |                                                           |
|-------------------------------------------------|-----------------------------------------------------------|
| <b>NOMINAL IMPEDANCE</b>                        | 4 Ohms                                                    |
| <b>SENSITIVITY</b>                              | 83dB (2.83V / 1m)                                         |
| <b>EQUIVALENT SENSITIVITY</b> (without plaster) | 88dB SPL                                                  |
| <b>RATED MAXIMUM SPL</b>                        | 97dB SPL                                                  |
| <b>FREQUENCY RANGE (-10dB)</b>                  | 56Hz - 20kHz                                              |
| <b>FREQUENCY RESPONSE (-6dB)</b>                | 58Hz - 20kHz                                              |
| <b>COVERAGE (H/V)</b>                           | 180°/180°                                                 |
| <b>POWER HANDLING (RMS/PEAK)</b>                | 50w/100w                                                  |
| <b>RECOMMENDED HIGH PASS FILTER</b>             | 30Hz, (24dB per Oct.)                                     |
| <b>ELECTRICAL CONNECTION</b>                    | Wago Lever-Splice 16–10 AWG (1.5–6 mm²)                   |
| <b>PRODUCT DIMENSIONS</b>                       | 452mm X 348mm X 77mm<br>(17 13/16" x 13 11/16" x 3 1/16") |
| <b>PRODUCT WEIGHT</b>                           | 2.4kg (5lb 4 5/8oz)                                       |

|                              |                                       |
|------------------------------|---------------------------------------|
| <b>DRIVERS</b>               | 2 x Precision Tuned DML Drivers       |
| <b>VOICE COIL DIAMETER</b>   | 1x 19mm, 1x 32mm                      |
| <b>VOICE COIL CONDUCTOR</b>  | Dual Layer Wound Copper               |
| <b>SUSPENSION DESIGN</b>     | Engineered Spiderless Coupler         |
| <b>DIAPHRAGM DESIGN</b>      | Bending Wave Principle                |
| <b>DIAPHRAGM MATERIAL</b>    | Phenolic Honeycomb                    |
| <b>RADIATOR SURFACE AREA</b> | 450mm X 345mm<br>(17" 3/4 x 13" 9/16) |

## AVAILABLE ACCESSORIES

|                              |                                   |
|------------------------------|-----------------------------------|
| <b>LOW-Z PROTECTION</b>      | Guardian 2/8/16                   |
| <b>HIGH-Z TRANSFORMER</b>    | Multitap Or Fixed Value Available |
| <b>MANUFACTURER WARRANTY</b> | 10 Years                          |
| <b>MOUNTING HARDWARE</b>     | All fixings provided              |
| <b>FIRE BARRIER</b>          | Firehood 345                      |

## APPLICATION SPOTLIGHT

The Sapphire250iB excels in applications requiring precise acoustic performance and fast, simple installation:

**HERITAGE PROPERTIES:** Ideal for integrating into historic buildings with limited cavity space.

**BOUTIQUE HOSPITALITY:** Perfect for luxury hotel suites and fine dining establishments.

**CONFERENCE FACILITIES:** Exceptional speech intelligibility for meeting rooms and presentation spaces.

**MULTI-ROOM AUDIO:** Consistent, balanced sound throughout the home with invisible integration.

**MUSIC-FOCUSED ENVIRONMENTS:** Extended bass response delivers complete listening experience.

## INSTALLATION SUPPORT

Comprehensive installation instructions, training resources, CAD files, and application notes covering various finishing materials are available at [aminasound.com](https://aminasound.com). Our support team is always available to provide guidance for challenging installations.

## ENGINEERED TO LAST

All Amina low-impedance loudspeakers require effective protection from being overdriven to qualify for our 10-year warranty. We recommend using Amina's Guardian protection devices in-line between your amplifier and loudspeaker for optimal performance and longevity.

## WARRANTY INFORMATION

Amina loudspeakers are designed to operate reliably for many years. Correctly installed in accordance with instructions, Amina warrants the loudspeakers against defective materials and workmanship for a period of ten years. Full warranty statement available at [aminasound.com/warranty](https://aminasound.com/warranty).



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