



AMINA

DATASHEET Revision 1.7

SAPPHIRE Series 250

2-EXCITER, 50W RMS HIGH PERFORMANCE
FULLY COVERED INVISIBLE LOUDSPEAKER



THE PERFECT BALANCE

The Sapphire250 represents the ideal harmony between performance, versatility and installation flexibility in invisible audio technology. Built upon 25 years of acoustic innovation, 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 Sapphire250 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.

THE VERSATILITY ADVANTAGE

The Sapphire250 excels in scenarios requiring exceptional flexibility and adaptability. Its narrow form factor allows installation between studs or joists on 400mm centers or greater, while its slim 31mm profile, without a backbox, enables placement in limited cavity spaces where traditional speakers could never fit. Ideal for boutique hospitality venues, high-end residential spaces, heritage properties, and multi-purpose environments requiring both aesthetic elegance and audio precision.

SURFACE FREEDOM

The Sapphire250 disappears completely behind your choice of finish, opening unlimited design possibilities. Compatible with all plaster types including Venetian, lime, clay, and spray-on systems; luxury materials such as marble, wood veneer, leather, and natural stone; modern composites including synthetic stone, micro-cement, and Dibond mirror finish panels; and designer wallcoverings.

FEATURES AT-A-GLANCE



50W RMS/100W PEAK

Providing a maximum continuous sound pressure of 96dB SPL from 50W at four ohms



180° DISPERSION

Hemispheric dispersion throughout the speakers frequency range



SONIC CLARITY

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



INSTALL FLEXIBILITY

Install in wall, ceiling or cabinetry and cover with almost any material



POWERFUL BASS

Full-frequency range performance with a warm low frequency tilt

SAPPHIRE 2⁵⁰ SPECIFICATION

MEASURED AT 20°C WITH A 2MM PLASTER SKIM

NOMINAL IMPEDANCE	4 Ohms
SENSITIVITY	82dB (2.83V / 1m)
EQUIVALENT SENSITIVITY (without plaster)	88dB SPL
RATED MAXIMUM SPL (continuous)	96dB SPL
FREQUENCY RANGE (-10dB)	50Hz - 20kHz
FREQUENCY RESPONSE (-6dB)	52Hz - 20kHz
COVERAGE (H/V)	180°/180°
POWER HANDLING (RMS/PEAK)	50w/100w
RECOMMENDED HIGH PASS FILTER	30Hz, (24dB per Oct.)
ELECTRICAL CONNECTION	Wago Lever-Splice 16–10 AWG (1.5–6 mm ²)
PRODUCT DIMENSIONS	450mm X 345mm X 32.7mm (17" ³ / ₄ x 13" ⁹ / ₁₆ x 1" ⁵ / ₁₆)
PRODUCT WEIGHT	1.3kg (2lb 14oz)

DRIVERS	2 x Precision Tuned DML Drivers
VOICE COIL DIAMETER	1x 19mm, 1x 36mm
VOICE COIL CONDUCTOR	Dual Layer Wound Copper
SUSPENSION DESIGN	Engineered Spiderless Coupler
DIAPHRAGM DESIGN	Bending Wave Principle
DIAPHRAGM MATERIAL	Phenolic Honeycomb
RADIATOR SURFACE AREA	450mm X 345mm (17" ³ / ₄ x 13" ⁹ / ₁₆)

AVAILABLE ACCESSORIES

LOW-Z PROTECTION	Guardian 2/8/16
HIGH-Z TRANSFORMER	Multitap Or Fixed Value Available
MANUFACTURER WARRANTY	10 Years
MOUNTING HARDWARE	CV345 Backbox / SW345 Backbox / Tab Mounting Kit
FIRE BARRIER	Firehood 345

APPLICATION SPOTLIGHT

The Sapphire250 excels in applications requiring precise acoustic performance and installation flexibility:

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

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.

Comprehensive installation instructions, training resources, CAD files, and application notes covering various finishing materials are available at aminasound.com. Our support team is always available to provide guidance for challenging installation

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.



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