

Engineering Masterpiece. Audio Magnificence.

Genelec 1236 SAM™ System



GENELEC®

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Genelec's new 1236 Smart Active Monitoring (SAM™) system and its individually calibrated Remote Amplifier Module RAM XL are designed to achieve extreme performance requirements for the most demanding recording and mixing environments. The 1236 SAM system is a masterpiece of modern technology, providing the highest possible performance in large format, flush-mounted main monitoring systems.

The Flagship Design

The design and manufacture of large main monitors require an approach with little room for compromise. The goal is to provide significant headroom in all performance areas for the most demanding applications. Because of its extreme performance requirements, every aspect of the monitor design, construction and performance comes under scrutiny. The design of our flagship model applies the tightest tolerances with the highest production standards. No detail too small is ignored.

As the last and final part of the electro-acoustic chain, an audio monitor creates the audible presentation of the recorded signal. A flagship monitor should be capable of delivering the exact acoustical interpretation of the electronic signal.

Some History

During the early 1980's the Genelec 1025 had been our flagship main monitor, featuring dual 15 in drivers, large soft dome midrange driver and dual tweeters, delivering 120 dB of maximum sound pressure level output, reaching down to 28 Hz (-3 dB) with very low distortion and noise level. However, the 1025 was not loud enough, did not have a Directivity Control Waveguide (DCW™) and the off-axis response differed from the well-controlled on-axis response. This was causing challenges in monitoring rooms that had issues with acoustic control. An advancement in monitoring design was clearly needed.

Within a ten year span the 1035A and 1035B main monitors were developed as the solutions to obtain more maximum sound pressure level and improved off-axis response control to the listening experience in all studio control rooms. The maximum sound pressure level increased by 10 dB with no change in distortion or self-generated noise. The cornerstones to achieve this performance was the creation of Genelec's proprietary 5 in midrange driver and the development of a new Directivity Control Waveguide, present in most Genelec three-way products.

In 1997, in order to meet the challenging requirement for more low frequency output, the 1036A was developed, featuring a high efficiency bass reflex cabinet, dual large woofers (18 in), and super low LF cut-off extending to 19 Hz.

Today's Masterpiece

Now, Genelec introduces the 1236 SAM™ main monitoring system. Based on the flagship 1036, the enclosure is complemented with new electronics in a 3U high rack mountable remote amplifier module, the RAM XL, delivering a high precision, performance-oriented flagship product.

The 1236 system frequency response extends from 17 Hz to 26 kHz with the capability of delivering 130 dB of sound pressure level referred to 1 meter distance. This is achieved through a combination of sophisticated digital signal processing and efficient Class D amplifiers, providing 2 x 1000 W, 800 W, and 400 W of short-term power into woofers, midrange and tweeter channels, respectively. The 430 litre enclosure features two high linearity 18 inch woofers, two Genelec proprietary high efficiency 5 inch midrange drivers and a 2 inch compression driver with an output into a 1 inch throat, mounted in a very large DCW.

Smart Active Monitoring (SAM™) technology is a vital inherent part of the RAM XL design. All crossovers, driver protection circuitry, and frequency calibrations are implemented in the digital domain with the highest precision. In addition, the Genelec Loudspeaker Manager (GLM™) software ensures that the speaker-to-room interaction remains as near to perfect as possible.

The Genelec 1236 SAM system packs the most modern and intelligent technology into a powerful, high performance main monitoring system. All parts of the system are designed, assembled, tested, and individually calibrated in the Genelec factory in Finland. Today, Genelec is proud of this new product featuring magnificent performance.



GLM 2.0 software



Remote Amplifier Module RAM XL



Network adapter and measurement microphone


- **Directivity Control Waveguide (DCW™)** technology provides a wide and controlled listening area, minimizing early reflections for accurate sound reproduction on the acoustical axis and off-axis.
- **High SPL and low distortion** thanks to high efficiency drivers and high power Class D amplifiers.
- **Quality electronic design** and precision DSP algorithms ensure high dynamic range and extremely low self-generated noise.
- **Temperature controlled forced air cooling** makes RAM XL extremely silent. It can also be installed in the listening space.
- **Dual woofer design** enhances the directivity control along the shorter front baffle dimension.
- **Genelec AutoCal™** measures the response in the listening area and applies accurate compensation in the low and low-mid frequencies to minimise the detrimental room acoustic anomalies as well as differences between various listening positions.
- **Smart Active Monitoring systems** eliminate guesswork in system configuration and acoustic performance.
- **Sustainability and green values.** Efficient use of materials, low energy consumption and extremely long life time by design.


Features and benefits


- Complete solution-oriented Smart Active Monitoring systems eliminate guesswork in system configuration and acoustic performance.
- Genelec AutoCal™ measures the response in the listening area and applies relevant compensation in the low and low-mid frequencies to minimise detrimental room acoustic anomalies as well as differences between various listening positions.
- Genelec advanced Directivity Control Waveguide provides a wide controlled listening area, minimizing early reflections for very accurate sound reproduction on-axis and off-axis.
- Dual woofer design extends directivity control to low midrange frequencies.
- The RAM XL features high efficiency Class D amplifiers providing high SPL, high dynamic range, low distortion, and high reliability.
- Thoughtful thermal design makes RAM XL extremely silent in order to be installed in the listening space.
- Genelec Intelligent Signal Sensing (ISS™) switches the system to standby when no audio input is detected, providing significant power consumption savings.
- Genelec quality and reliability ensure long-term security of investment, low energy consumption, and outstanding audio quality.


Note: the RAM XL unit visible on the front cover image features Genelec optional brushed aluminium front panel.


Technical specifications 1236 SAM™ System


 130 dB¹


 400 Hz and 3.2 kHz


 H 960 x W 1180 x D 650 mm
(37 3/4 x 46 1/2 x 25 5/8 in)
RAM XL: height 3U / 19 in rack


 17 Hz – 26 kHz (-6 dB)

 2x woofer 458 mm (18 in),
2x midrange 125 mm (5 in),
compression driver 50 mm (2 in)
into 25 mm (1 in) throat + DCW™

 182 kg / 401 lb
11.2 kg / 25 lb

 ± 2 dB (21 Hz - 20 kHz)

 Woofers 2x 1000 W,
midrange 800 W,
tweeter 400 W (all Class D)

 1x XLR analogue input
2x XLR AES/EBU input / output
2x RJ45 control network

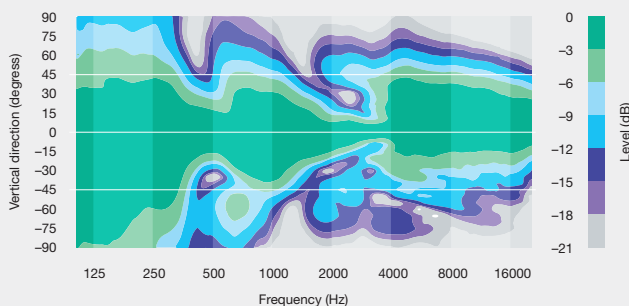
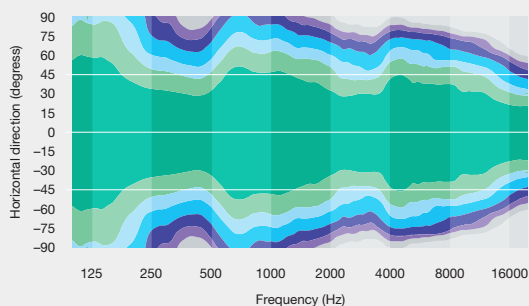
¹ Maximum short term sine wave acoustic output averaged from 100 Hz to 3 kHz, measured in half space referred to 1 meter.

For more detailed technical information and specifications, please consult the product's datasheet.

Free-standing 1236 / RAM XL
Horizontal Plane Directivity
(normalized with on-axis)



Free-standing 1236 / RAM XL
Vertical Plane Directivity
(normalized with on-axis)



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