Designed to Adapt

Genelec Smart Active Monitoring (SAM™) Systems

GENELEC®

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The last decade has experienced a rapid increase in global media content creation, resulting in significant changes in the way network facilities deal with increased workload. Now, more than ever, a growing number of audio productions are done in tighter, more confined working environments. This increases acoustic problems and lowers the reliability of monitoring. At the same time, a professional audio engineer needs high confidence in the monitoring system which should be acoustically adjusted to its environment.

Genelec, the world's pioneer in active monitoring technology for over 37 years now provides the industry's first, highly intelligent monitoring solution with its full-range product line – the Smart Active Monitoring (SAM™) Systems. From the smallest 8320A to the flagship 1236A, including a full range of highly versatile subwoofers, Genelec SAM Systems offer the most advanced solutions for recording studios, radio and TV broadcasting, mobile production vehicles and post-production houses of any type and size.

SAM technology creates a computer controlled, flexible network of monitors and subwoofers which allows you to easily and quickly set up all types of monitoring system from traditional stereo to various 3D immersive audio applications, or even experimental and research sound systems, with the entirely new and highly intuitive Genelec Loudspeaker Manager (GLM™) 2.0 software.

With Genelec proprietary AutoCal™ and the powerful DSP capability included in every SAM System, GLM can automatically measure, analyze and adjust every monitor and subwoofer on the network, and make the monitoring environment a fully aligned and integrated system with regards to level, timing and room response equalization adapting to different room acoustics. SAM Systems are today´s most sophisticated tool for accurate and reliable monitoring and an indispensable solution for any production facility.

Features and Benefits

Unprecedented powerful monitoring system

- Management of up to 30 SAM studio monitors and subwoofers covering all types of monitoring systems from traditional stereo to various 3D immersive audio applications, or even experimental and research sound systems.

- Handling both digital and analogue input signals (8330 and above)

- Volume control functions via GLM software master fader or via external wired or wireless volume controllers (optional) covering all possible applications.

- Flexible control of Solo, Mute, Bypass Bass Management and delay compensation for video system.

Intelligent and accurate calibration

- Controlled via Genelec proprietary Loudspeaker Manager (GLM) network and software, AutoCal provides the industry's first integrated process for complete automated measurement, analysis and adjustment of every monitor on the network, achieving accurate sound reproduction with few clicks only.

- GLM AutoCal automatically optimizes and aligns each monitor and subwoofer for relative levels, time of flight, subwoofer crossover phase as well as individual room response compensations, while full manual control of all acoustic settings remains available to meet specific adjustment needs.

- SAM technology integrates the monitoring system into the listening environment by automatically compensating for detrimental room influences, especially when dealing with the challenging reality of room acoustics.

- SAM technology achieve results quickly and easily to implement neutral and consistent monitoring environment even in unfamiliar or improvised working environment, saving time and cost for your work.

- GLM allows to switch and compare the calibration results with just one click.

Multiple flexible functions

- SinglePoint™ and MultiPoint™ microphone positions provide measurements for one, two or three person mixing environments, optimizing the listening conditions over an area.

- Ability to store Group calibration settings for different listening positions (ex: recording/mixing engineer, musician and producer positions), to be re-called instantly.

- On-screen, real-time SPL reading of the active monitor Group allows to monitor carefully the production sound pressure level.

- SAM Systems can be used in Stand-alone mode without any computer. All monitoring system calibration parameters can be stored in each individual monitor and subwoofer if the GLM network needs to be disconnected.

GLM 2.0 User Kit

The GLM 2.0 is a powerful loudspeaker management system for all Genelec Smart Active Monitor (SAM™) systems. Available for Mac (Mavericks, Yosemite, El Capitan) and Windows PC, GLM 2.0 provides control to every aspect of any Genelec SAM product that is connected on the Genelec network.
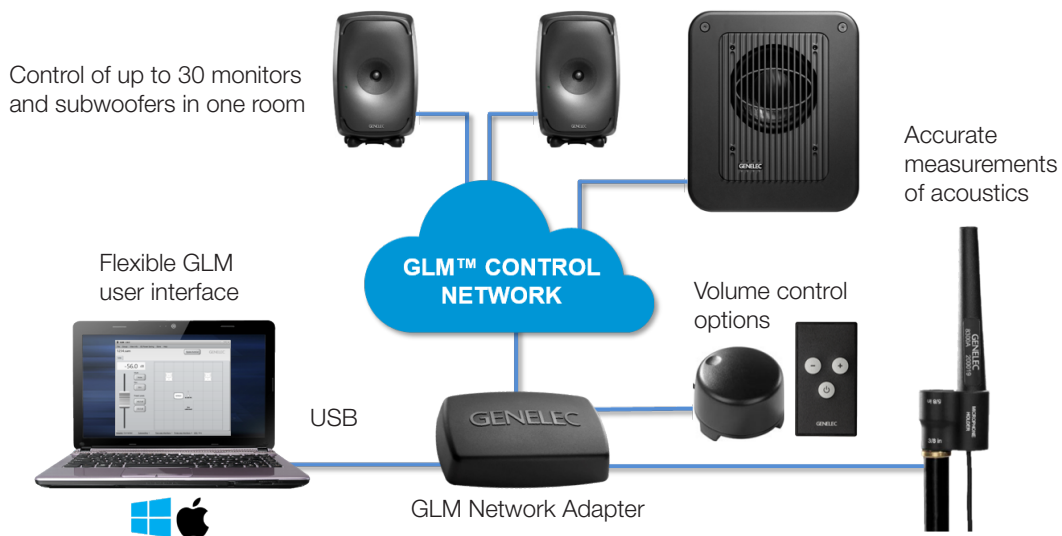
AutoCal™ provides the industry's first integrated process for complete automated measurement, analysis and adjustment of every monitor on the network, which can automatically optimize and align each monitor and subwoofer for relative levels, time of flight, sub-woofer crossover phase as well as individual room response compensations.

GLM 2.0 simple, intuitive, but yet feature-rich user interface allows fast setting up and calibration procedures. GLM 2.0 allows your monitoring system to adapt to different room acoustics, providing neutral, accurate, reliable sound reproduction, reducing perceived differences between listening environments or positions, and allowing a monitor to be turned into the reference it needs to be for the challenging and complex tasks encountered by engineers today.
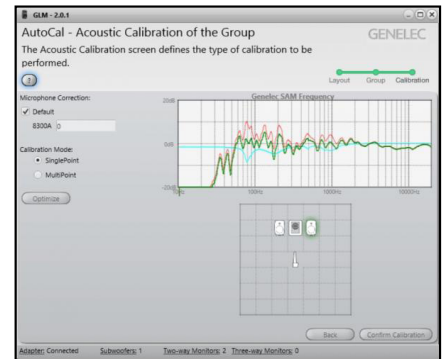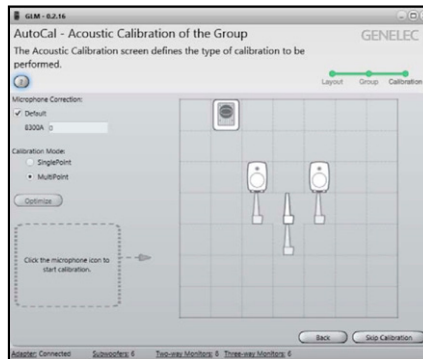
The GLM 2.0 User Kit includes the Genelec Loudspeaker Manager software, a factory-calibrated measurement microphone and a network adapter unit.

GLM System Connections

Control of up to 30 monitors
and subwoofers in one room

Accurate
measurements
of acoustics

Flexible GLM
user interface

GLM™ CONTROL NETWORK

Volume control
options

USB

GLM Network Adapter

GLM 2.0 Software

Windows

Operating System
Windows 8 or 8.1 (32- or 64 bit), Windows 7 SP1 or newer
(32- or 64 bit), Vista, XP
Processor: Intel Pentium or compatible, 1.6 GHz minimum.
GPU*: DirectX 11.0 class or better.
RAM: 2 GB
Disk space: 1 GB
Display: 1024 x 768 or higher-resolution monitor.

*GPU - Graphics Processing Unit

Mac

Operating System
OS X 10.11 El Capitan, OS X 10.10 Yosemite,
OS X 10.9 Mavericks
Processor and GPU*: Mac has a qualified Processor and
GPU if Mac is running either of the operating systems above.
RAM: 2 GB
Disk space: 1 GB
Display: 1024 x 768 or higher-resolution monitor.

Compact SAM Systems

Perfect tools for audio monitoring in small environments

Small in stature, outstanding in performance, flexible to install, the 8320A and 8330A monitors and 7350A subwoofer offer the most advanced monitoring solutions especially for challenging small environments such as OB vans, radio and TV studios as well as audio and video production rooms.

8320

100 dB	3.0 kHz	H 242 × W 151 × D 142 mm H 9 1/2 x W 6 x D 5 5/8 in
55 Hz - 23 kHz (-6 dB)	Woofer 50 W Tweeter 50 W	1 x XLR analogue input 2 x RJ45 control network
± 1.5 dB (66 Hz - 20 kHz)	Woofer 4 in Tweeter 3/4 in	3.2 kg / 7.0 lb

8330

104 dB	3.0 kHz	H 299 × W 189 × D 178 mm H 11 7/8 x W 7 1/2 x D 7 1/16 in
45 Hz - 23 kHz (-6 dB)	Woofer 50 W Tweeter 50 W	1 x XLR analogue input 2 x XLR AES/EBU input/output 2 x RJ45 control network
± 1.5 dB (58 Hz - 20 kHz)	Woofer 5 in Tweeter 3/4 in	5.5 kg / 12.1 lb

7350

104 dB	50 - 100 Hz in 5 Hz step	H 410 × W 350 × D 319 mm H 16 1/8 x W 13 3/4 x D 12 5/8 in
22 Hz - 160 Hz (-6 dB)	Woofer 150 W	5.1 in / 5 x out XLR analog 2 x XLR digital input/output 2 x RJ45 control network
+/- 3 dB (25 Hz - 150 Hz)	Woofer 8 in	18 kg / 39.7 lb

The three-way revolution continues

8351 Acoustically Coaxial SAM Studio Monitor

The Genelec 8351 marks a unique achievement in electroacoustic engineering. Multiple innovations combine to create an astounding coaxial three-way system with the size of a typical two-way monitor. The Minimum Diffraction Coaxial (MDC™) midrange/tweeter combined with dual Acoustically Concealed Woofers (ACW™) design form an acoustically coaxial three-way system featuring an extremely large waveguide (MaxDCW™) across the entire front baffle. The 8351 breaks new ground. Extremely well controlled directivity in bother vertical and horizontal orientation. Absence of sound colouration. Outstanding accuracy. Inventive design.

110 dB	490 Hz, 2.6 kHz	H 452 × W 267 × D 278 mm H 17 3/4 x W 11 1/3 x D 11 in
32 Hz - 40 kHz (-6 dB)	Woofers 150 W (Class D) Midrange 120 W (Class D) Tweeter 90 W (Class AB)	1 x XLR analogue input 2 x XLR AES/EBU input/output 2 x RJ45 control network
± 1.5 dB (38 Hz - 21 kHz)	2x Woofers 8 1/2 x 4 in Coaxial Mid/Tweeter MDC™ 5 / 3/4 in + DCW™	19 kg / 42 lb

8351 Vertical Plane Directivity (normalized with on-axis)
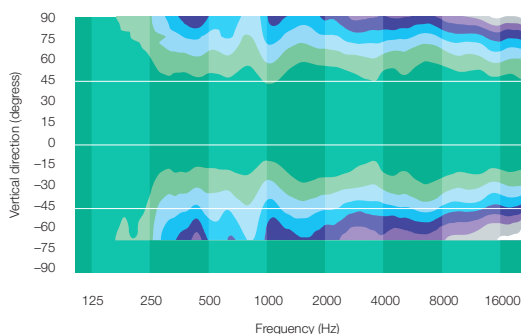
8351 Horizontal Plane Directivity (normalized with on-axis)
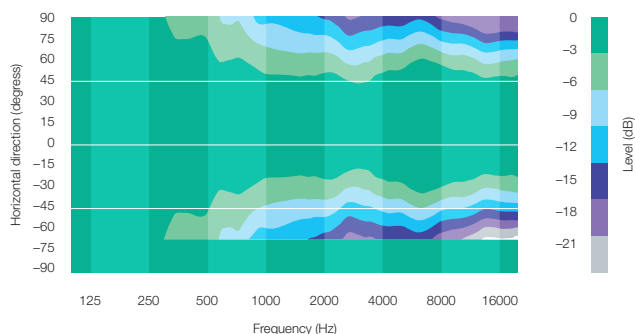
SAM Studio Monitors

8240

105 dB	3.0 kHz
41 Hz - 23 kHz (-6 dB)	Woofer 90 W Tweeter 90 W
± 1 dB (48 Hz - 20 kHz)	Woofer 6 1/2 in Tweeter 3/4 in + DCW™

H 365 × W 237 × D 223 mm
H 14 3/8 x W 9 3/8 x
D 8 13/16 in

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

9.4 kg / 20.8 lb

8250

110 dB	1.8 kHz
32 Hz - 23 kHz (-6 dB)	Woofer 150 W Tweeter 120 W
± 1 dB (38 Hz - 20 kHz)	Woofer 8 in Tweeter 1 in + DCW™

H 452 × W 286 × D 278 mm
H 17 13/16 x W 11 1/4 x
D 10 15/16 in

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

14.6 kg / 32 lb

8260

113 dB	490 Hz, 2.6 kHz
23 Hz - 40 kHz (-6 dB)	Woofer 150 W Midrange 120 W Tweeter 120 W
± 1 dB (29 Hz - 21 kHz)	Woofer 10 in Coaxial Mid/Tweeter MDC™ 5 / ¾ in + DCW™

H 593 × W 357 × D 347 mm
H 23 3/8 x W 14 1/16 x
D 13 5/8 in

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

27.5 kg / 60.5 lb

SAM Studio Subwoofers

7260

📊 108 dB	🔲 85 Hz	📦 H 527 × W 462 × D 363 mm H 20 3/4 x W 18 3/16 x D 14 5/16 in
📈 19 Hz - 100 Hz (-6 dB)	▶ Woofer 120 W	🔌 4 x XLR AES/EBU input/output 2 x RJ45 control network
📉 ± 3 dB (19 Hz - 100 Hz)	↕ Woofer 10 in	⚖ 27 kg / 59 lb

7270

📊 112 dB	🔲 85 Hz	📦 H 625 × W 555 × D 490 mm H 24 5/8 x W 21 7/8 x D 19 5/16 in
📈 19 Hz - 100 Hz (-6 dB)	▶ Woofer 250 W	🔌 4 x XLR AES/EBU input/output 2 x RJ45 control network
📉 ± 3 dB (19 Hz - 100 Hz)	↕ Woofer 12 in	⚖ 51 kg / 112 lb

7271

📊 118 dB	🔲 85 Hz	📦 H 755 × W 803 × D 490 mm H 29 3/4 x W 31 5/8 x D 19 5/16 in
📈 19 Hz - 100 Hz (-6 dB)	▶ Woofers 500 W	🔌 4 x XLR AES/EBU input/output 2 x RJ45 control network
📉 ± 3 dB (19 Hz - 100 Hz)	↕ Woofers 2 x 12 in	⚖ 82 kg / 180 lb

Three-way SAM Studio Monitors

Based on the highly successful and much respected 1037 and 1038, the 1237 and 1238 three-way SAM studio monitors feature on-board intelligence that allows them to automatically adapt to various acoustic environments. Both models benefit from a powerful new rack-mountable Remote Amplifier Module, RAM L, which can also be removed from the monitor's enclosure for flush mounting installations. The RAM L amplifier unit can easily be installed in a 3U height standard 19 inch rack. The 1237 and 1238 are the perfect solutions for powerful and accurate monitoring in mid to large size production environments.

1237

118 dB	450 Hz, 3.0 kHz	H 680 × W 400 × D 380 mm H 26 3/4 x W 15 3/4 x D 15 in
32 Hz - 22 kHz (-6 dB)	Woofer 500 W Midrange 250 W Tweeter 200 W	1 x XLR analogue input 2 x XLR AES/EBU input / output 2 x RJ45 control network
± 2.5 dB (37 Hz - 20 kHz)	Woofer 12 in Midrange 5 in Tweeter 1 in + DCW™	42 kg / 93 lb

1238
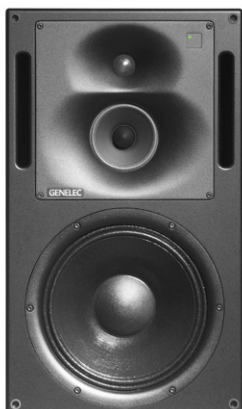
121 dB	420 Hz, 3.0 kHz	H 810 × W 480 × D 420 mm H 32 x W 19 x D 16 1/2 in
30 Hz - 22 kHz (-6 dB)	Woofer 500 W Midrange 250 W Tweeter 200 W	1 x XLR analogue input 2 x XLR AES/EBU input / output 2 x RJ45 control network
± 2.5 dB (35 Hz - 20 kHz)	Woofer 15 in Midrange 5 in Tweeter 1 in + DCW™	57 kg / 126 lb

1238CF

117 dB	420 Hz, 2.8 kHz	H 610 × W 470 × D 235 mm H 24 x W 18 1/2 x D 9 1/4 in
50 Hz - 20 kHz (-6 dB)	Woofer 150 W Midrange 120 W Tweeter 120 W	Woofers 2 x 8 in Midrange 5 in Tweeter 1 in + DCW™
± 2 dB (57 Hz - 20 kHz)	Woofers 2 x 8 in Midrange 5 in Tweeter 1 in + DCW™	42 kg / 93 lb

Accurate. Powerful. Intelligent.

1234 SAM Main Studio Monitor

Based on the highly successful 1034, the 1234 integrates the state-of-art SAM technology, complete with a new Genelec-designed Remote Amplifier Module, the RAM XL.
Achieving accurate and powerful sound reproduction in demanding recording and mixing environments, the 1234 SAM System represents the best in modern, high performance, large main monitoring systems.

Remote Amplifier Module RAM XL.

125 dB	420 Hz, 3.2 kHz	H 700 × W 890 × D 383 mm H 27 9/16 x W 35 x D 15 in RAM XL: 3U / 19 in
29 Hz - 21 kHz (-6 dB)	Woofers 2 x 750 W Midrange 400 W Tweeter 250 W	1 x XLR analogue input 2 x XLR AES/EBU input/output 2 x RJ45 control network
± 2 dB (34 Hz - 20 kHz)	Woofers 2 x 12 in Midrange 5 in Tweeter 1 in + DCW™	73 kg / 161 lb 11.2 kg / 25 lb

Engineering Masterpiece.
Audio Magnificence.

1236 Flagship SAM Main Studio Monitor

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. All parts of the system are designed, assembled, tested, and individually calibrated in the Genelec factory in Finland to achieve such magnificent performance.

130 dB

17 Hz – 26 kHz (-6 dB)

± 2 dB (21 Hz - 20 kHz)

400 Hz, 3.2 kHz

Woofers 2 x 1000 W
Midrange 800 W
Tweeter 400 W (all Class D)

Woofers 2 x 18 in
Midrange 2 x 5 in
Compression Tweeter 2 in + DCW™

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

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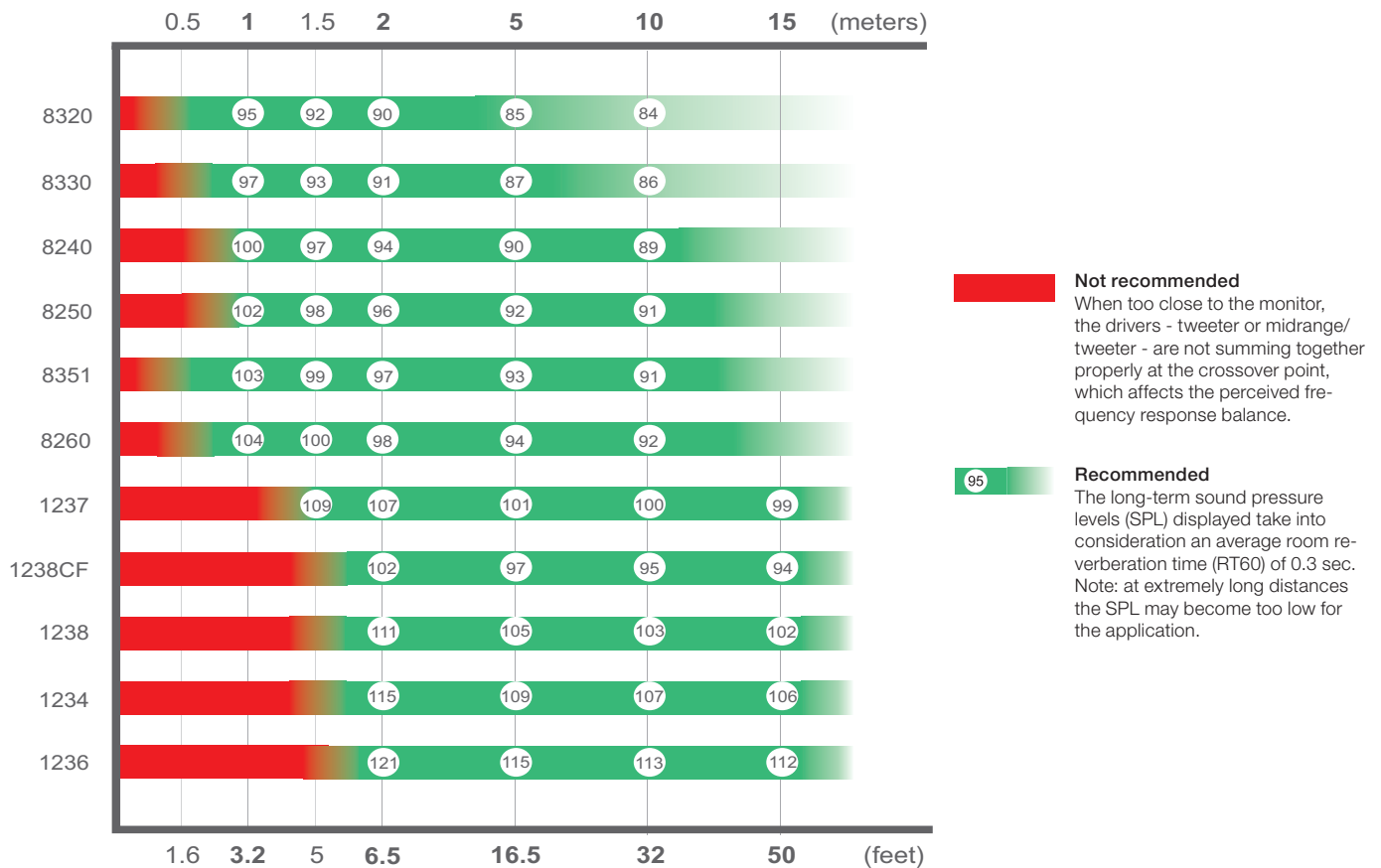2 x RJ45 control network

182 kg / 401 lb
11.2 kg / 25 lb

Product Performance

| Monitors	-6 dB LF Extension	Maximum SPL at 1 m *	Room volume up to	Subwoofers for 2 channels	Subwoofers for 5 channels
8320	55 Hz	100 dB	65 m^3	7350	7350
8330	45 Hz	104 dB	75 m^3	7350	7350
8240	41 Hz	105 dB	85 m^3	7260	7270
8250 / 8351	32 Hz	110 dB	95 m^3	7270	7271
8260	23 Hz	113 dB	115 m^3	7271	2x 7271
1237	32 Hz	118 dB	125 m^3	7271	2x 7271
1238CF	50 Hz	118 dB	125 m^3	7271	2x 7271
1238	30 Hz	121 dB	170 m^3	7271	2x 7271
1234	29 Hz	125 dB	200 m^3	7073	2× 7073
1236	17 Hz	130 dB	400 m^3	2x 7073	3× 7073

*) Maximum short term sine wave acoustic output on axis in half space, averaged from 100 Hz to 3 kHz at 1 m distance.

Listening Distance Recommendations

Not recommended
When too close to the monitor, the drivers - tweeter or midrange/tweeter - are not summing together properly at the crossover point, which affects the perceived frequency response balance.

Recommended
The long-term sound pressure levels (SPL) displayed take into consideration an average room reverberation time (RT60) of 0.3 sec. Note: at extremely long distances the SPL may become too low for the application.
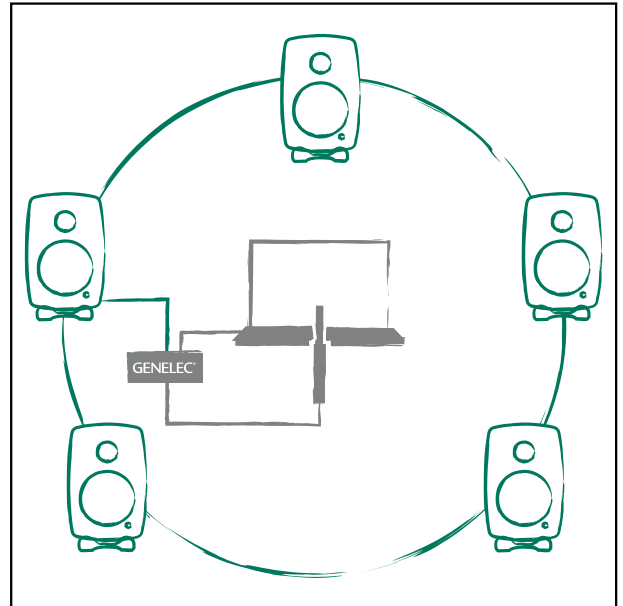
GLM System - Quick Start

1) Download and install the GLM 2.0 software from www. genelec.com and connect the GLM Network Adapter.
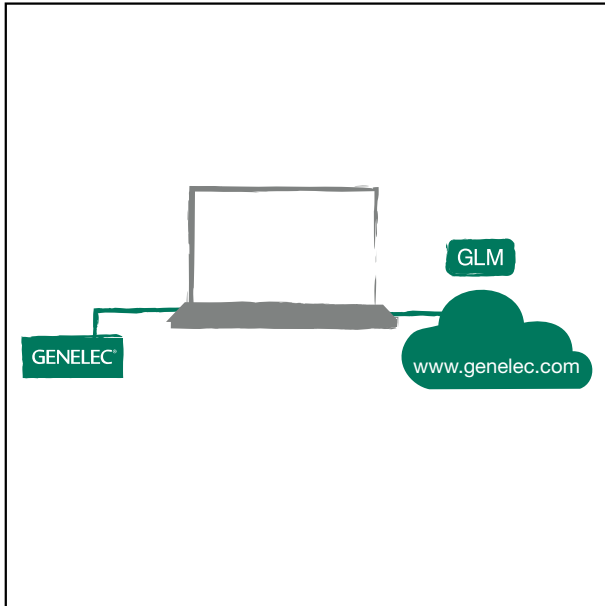

2) Place your monitoring system and connect each monitor to the GLM network in a daisy chain manner, regardless of the connecting order.

3) Place the Genelec measurement microphone at the listening position at typical ear height and connect it to the GLM Network Adapter.
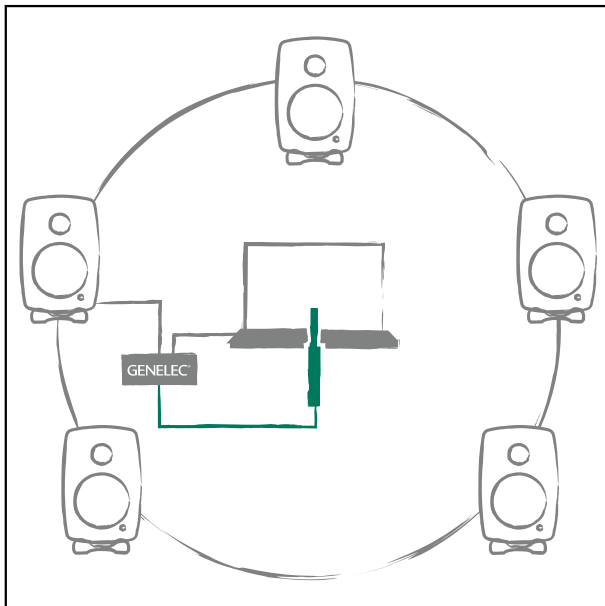
4) Start the GLM 2.0 software and follow the instructions in order to define your monitors' location and setup configuration.
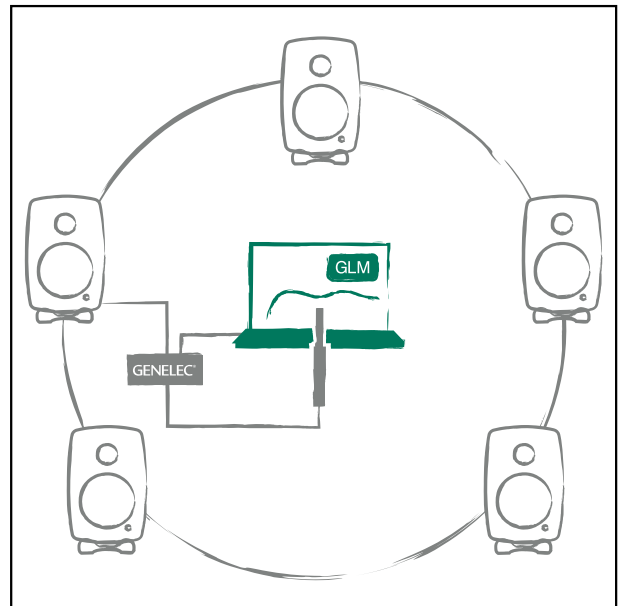
5) Follow the instructions to automatically calibrate the system using GLM AutoCal.

Once the calibration is done, you can use the GLM 2.0 software to control your monitoring system conveniently. If needed, you can also store all settings in each individual monitor and subwoofer and disconnect the GLM network.

Designed to Adapt

Genelec Smart Active Monitoring (SAM™) Systems

Networked Smart Active Monitor (SAM™) systems feature automatic calibration to the acoustic environment.

Directivity Control Waveguide (DCW™) for flat on- and off-axis response.

Minimum Diffraction Enclosure (MDE™) for uncoloured sound reproduction.

Each transducer is driven by its own optimized amplifier.

Active crossover operating at low signal levels.

Sophisticated drive unit protection circuitry for safe operation.

Advanced reflex port design for extended low frequency response.

Highly efficient Laminar Spiral Enclosure (LSE™) provides accurate low frequency reproduction

Minimum Diffraction Coaxial (MDC™) transducer reproduces outstanding sound image.

Versatile mounting options for all installation needs.

Vibration decoupling Iso-Pod™ stand improves sound image definition.

Intelligent Signal Sensing (ISS™) for power consumption reduction in stand-by mode.

Detailed Datasheets of all Genelec models, Quick Setup, Guides and other useful information can be downloaded at

www.genelec.com

GENELEC®
the sonic reference