YAMAHA

Powered Monitor Speakers

# MSP5/10/10M

Powered Subwoofer

# SW10

# Compact Solutions for Critical Monitoring Applications

**Yamaha is no newcomer when it comes to creating top-performance monitor speaker systems. From the classic NS1000 through the ever-popular NS10M series, professionals worldwide have chosen Yamaha speaker systems for critical monitoring applications because of their exceptionally accurate, natural reproduction and reliability. Now the MSP5, MSP10 and MSP10M (maple finish) Powered Monitor Speakers take Yamaha monitor performance to new levels with state-of-the art materials and design as well as high-performance built-in biamplification. And for systems requiring extended bass response that only a subwoofer can provide, the SW10 Powered Subwoofer is a perfect match for the MSP5, MSP10 or MSP10M speakers.**

MSP5

## Why Built-in Power?

Simple: quality. The interaction between a power amplifier and the speaker it drives has a huge impact on the way the system sounds. Since component amplifiers are expected to drive a wide variety of speakers with varying characteristics while providing the best possible performance, they have to be designed with a certain amount of compromise. The same goes for passive speakers. But in the MSP5 and MSP10/10M the speakers and built-in amplifiers have been designed from the start to work together to achieve uncompromising audio quality. Also, the fact that the left and right channel amplifiers are completely separate - in separate enclosures with independent power supplies - eliminates interaction between channels that can compromise sound quality in dual-channel component amplifiers.
Convenience is another benefit. Obviously, you won't need external power amplifiers, and your monitor system can be easily transported and quickly set up anywhere you need outstanding audio reproduction.

## Why Biamplification?

The usual approach in speaker systems is to power the separate drivers - woofer/midrange and tweeter - from a single power amplifier through a passive crossover network in the speaker's cabinet. A properly designed system of this sort can provide excellent performance, but some phase aberrations and distortion introduced by the passive network and speaker interaction near the crossover point are unavoidable, as well as power loss through these passive components. Biamplification completely bypasses these problems by using separate power amplifiers for the low-mid-frequency driver and the tweeter. An active crossover separates the frequency bands before the power amplifiers. This means the crossover handles line-level signals, while the speakers are directly driven by separate power amplifiers so electronic interaction is virtually impossible. Building the amplifiers into the speaker cabinet allows for the best possible damping, for tight, controlled bass and fast transient response for accurate high frequency reproduction. The overall result is exceptionally smooth, natural response over the crossover range with an absolute minimum of distortion at all frequencies. In short, incredibly accurate reproduction. Specifically, the MSP10/10M has a 120-watt power amplifier for the low/mid driver and a 60-watt power amplifier for the tweeter (total power 180 watts). The MSP5 powers the low/mid driver with a 40-watt amplifier and the tweeter with a 27-watt amplifier (total power 67 watts).

## State-of-the-Art Materials & Design

The MSP5, MSP10/10M, and SW10 all take advantage of the latest advances in materials and design technology. The drivers - 20-cm (8") woofer and 2.5-cm (1") titatium-dome tweeter in the MSP10/10M, 12-cm (5") woofer and the same dome tweeter in the MSP5 - are all-new designs featuring advanced magnetic structures that achieve exceptionally low distortion. The tweeter operates in conjunction with a unique waveguide horn that achieves broad, uniform high-frequency dispersion for optimum balance regardless of listening position. Advanced driver and enclosure design also ensures smooth, uniform dispersion across the system's full reproduction range.

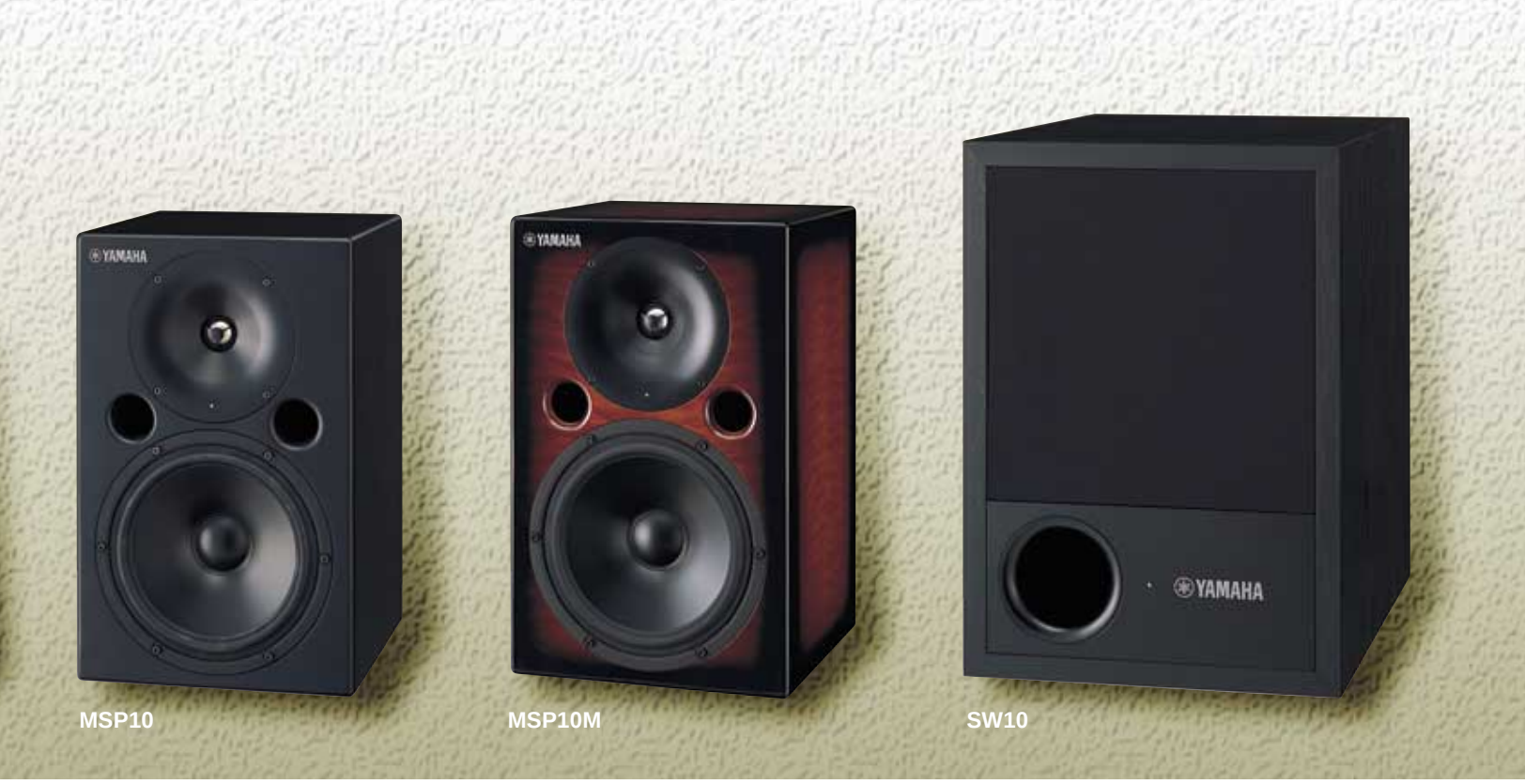
MSP5

## Professional Connectivity

The MSP5 has unbalanced 1/4" phone jacks for input from unbalanced line sources, and all models offer balanced XLR-type inputs for direct compatibility with professional equipment. Balanced lines are ideal if the speakers are to be placed at the end of long cable runs which, if unbalanced, might be susceptible to hum and induced noise.

MSP5 Rear Panel

MSP10/10M Rear Panel




MSP10 MSP10M SW10

## Trim Switches for Easy Room Matching

The MSP10/10M and MSP5 feature low- and high-frequency trim switches that can be used to optimise system response in a wide range of acoustic environments. The MSP10/10M has 3-position low and high trim switches, while the MSP5 has a 4-position low and 3-position high trim switch. The MSP10/10M additionally features a low-cut filter for optimum matching with a high-performance subwoofer system such as the SW10 (see below).

## Compact Magnetically-shielded Enclosures

For their power and performance the MSP10/10M and MSP5 are remarkably compact. They also feature full magnetic shielding and can be placed near all types of audio, video, and computer equipment without fear of degraded sound quality or negative effects on the surrounding equipment.

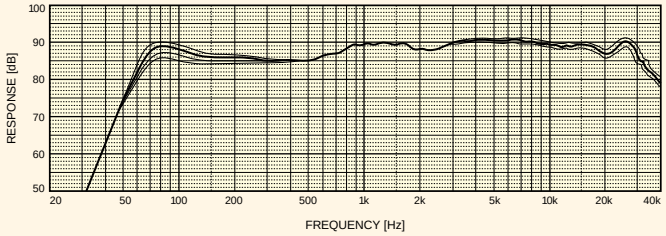
## SW10 Powered Subwoofer for Extended Lows

If you need the kind of bass response normally only available from a large speaker system without giving up the compact convenience and positioning ease of the MSP5 or MSP10/10M, simply add an SW10 Powered Subwoofer for solid, accurate bass response down to well below the audible limit. The SW10 features a newly designed long-stroke 25-cm (10") woofer which achieves exceptionally smooth, accurate low-frequency reproduction, while a built-in high-performance 180-watt power amplifier delivers solid, highly damped power. A variable low pass filter (40 Hz through 120 Hz) makes it easy to achieve optimum crossover with just about any main speaker system, and a built-in phase switch allows instantaneous phase reversal without having to modify cables or connections. The SW10 features three balanced XLR-type inputs and outputs (the outputs feed the audio signal through to the main speakers) for direct compatibility with professional equipment.

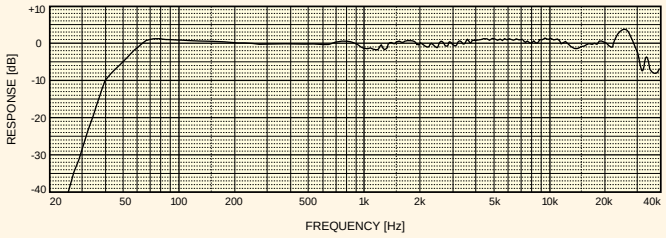
SW10 Rear Panel

## PERFORMANCE GRAPHS

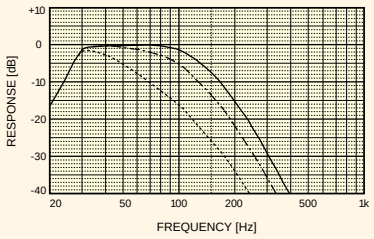
**MSP5 Frequency Response**




**MSP10/10M Frequency Response**




**SW10 Frequency Response**



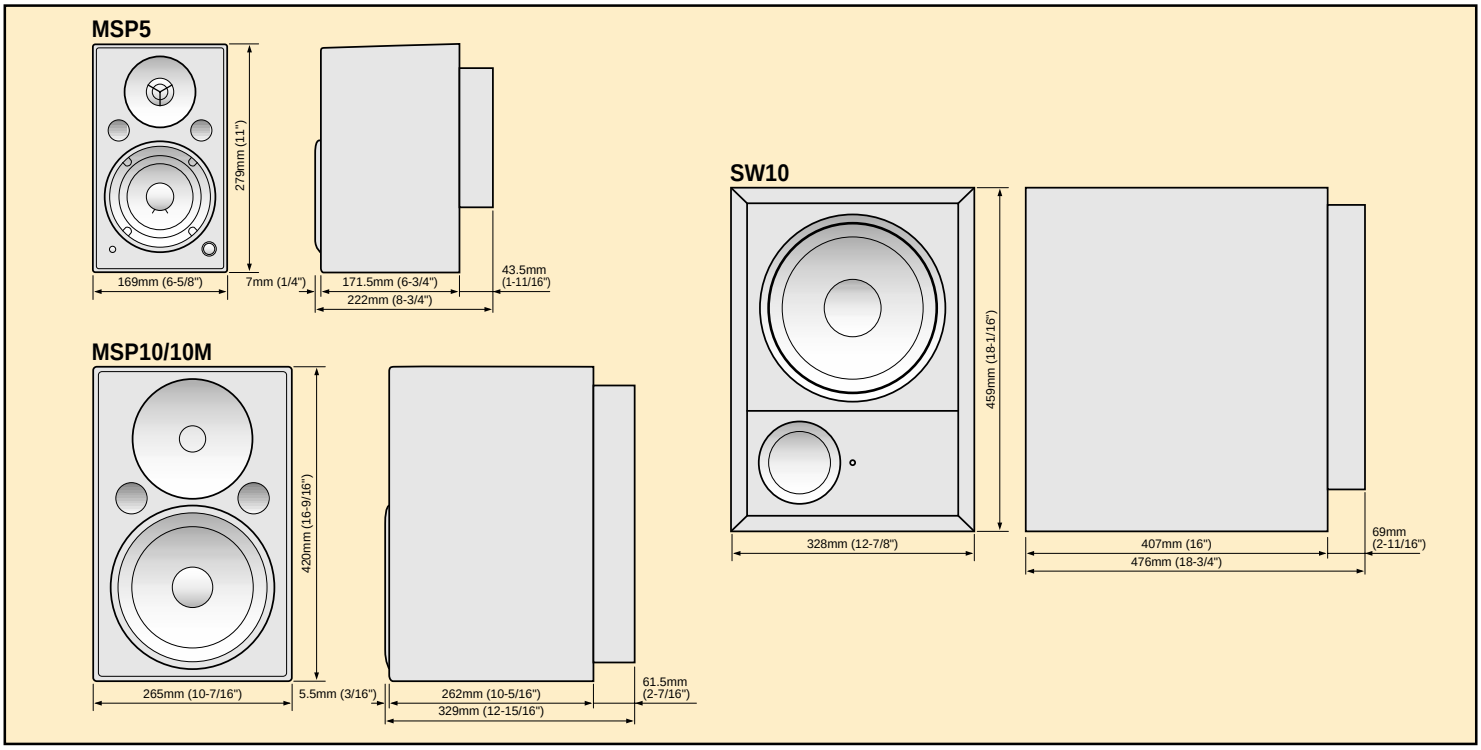

1W at 1kHz/1m

# SPECIFICATIONS

| | MSP5 | MSP10/10M | SW10 |
|---|---|---|---|
| **GENERAL** | | | |
| **Type** | Biamp. 2-way, bass-reflex powered speaker | | Amplified bass-reflex powered speaker |
| **Crossover Frequency** | 2.5kHz | 2.0kHz | – |
| **Overall Frequency Response** | 50Hz~40kHz (–10dB) | 40Hz ~ 40kHz (–10dB) | 25Hz ~ 150Hz (–10dB) |
| **Maximum SPL** | 101dB (1m on axis) | 110dB (1m on axis) | 111dB (1m on axis) |
| **Dimensions (W × H × D)** | 169mm × 279mm × 222mm<br>(6-5/8" × 11" × 8-3/4") | 265 × 420 × 329mm<br>(10-7/16" × 16-9/16" × 12-15/16") | 328 × 459 × 476mm<br>(12-7/8" × 18-1/16" × 18-3/4") |
| **Weight** | 7.5kg (16.5 lbs) | 20kg (44.1 lbs.) | 26kg (57.3 lbs.) |
| **SPEAKER SECTION** | | | |
| **Components** | LF: 12cm(4-2/7") cone (4Ω)<br>HF: 2.5cm(1") titanium dome (6Ω) | LF: 20cm (8") cone<br>HF: 2.5cm (1") titanium dome | 25cm (10") cone |
| **Enclosure** | Bass reflex type<br>Magnetic shielding construction | | |
| **AMPLIFIER SECTION** | | | |
| **Output Power** | Biamplified system<br>LF: 40W at 400Hz. RL=4Ω<br>HF: 27W at 10kHz. RL=6Ω | Biamplified system<br>LF: 120W at 400Hz. RL=4Ω<br>HF: 60W at 10kHz. RL=8Ω | 180W at 100Hz. RL=8Ω |
| **Input Sensitivity/ Impedance** | INPUT 1: +4dB/10kΩ/XLR balanced<br>INPUT 2: –10dB/10kΩ/Phone | INPUT 1: –6dB ~ +4dB/10KΩ/XLR balanced | INPUT 1~3: –6dB ~ +4dB/10KΩ/<br>XLR balanced |
| **S/N** | ≥100dB (IEC-A weighting) | ≥98dB (IEC-A weighting) | ≥100dB (IEC-A weighting) |
| **Controls** | MASTER VOLUME CONTROL<br>TONE CONTROL<br>LOW: 4 position<br>(+1.5dB, 0dB, –1.5dB, –3.0dB at 60Hz)<br>HIGH: 3 position<br>(+1.5dB, 0dB, –1.5dB, at 15kHz)<br>Power Switch: ON/OFF | MASTER VOLUME CONTROL<br>TONE CONTROL<br>LOW: 3 position<br>(0dB, –1.5dB, –3.0dB at 50Hz)<br>HIGH: 3 position<br>(+1.5dB, 0dB, –1.5dB, at 10kHz)<br>LOW CUT FILTER: ON/OFF (80Hz)<br>Power Switch: ON/OFF | MASTER VOLUME CONTROL<br>VARIABLE LOW PASS FILTER<br>(40Hz~120Hz)<br>PHASE Switch (Normal, Reverse)<br>Power Switch: ON/OFF |
| **Power Indicator** | Green LED: Power ON | Green/Red LED: Green=Power ON<br>Red=Amp. Clipping | |
| **Power Requirement** | US & Canadian Models: AC120V 60Hz<br>General Models: AC230V 50Hz | US & Canadian Models: AC120V 60Hz<br>European Models: AC230V 50Hz<br>AT Models: AC240V 50Hz | |
| **Power Consumption** | 60W | 150W | 160W |
| **Optional Accessory** | – | Wall Bracket: BWS251-300 | – |

** Specifications and appearance subject to change without notice.*

# DIMENSIONS

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