

Product Review

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Phase Technology® SPF-35 Outdoor Speakers

Outdoor speakers have a tough time meeting the demands of critical listeners largely because the listening environment can be unpredictable. In addition, outdoor speakers require a robust design to survive the effects of the sun, varying humidity, and in many cases extreme temperature changes.

The folks at Phase Technology have introduced the Solaris SPF-35 outdoor speakers that are designed to not only survive the elements, but also sound great.

The speakers use an SPF high-density resin enclosure that is a paintable, UV-resistant, composite enclosure which can be matched to any decor. The speakers are available in either black or white for those whose prefer a factory color. The design includes water-tight fittings, a polypropylene woofer and a powder-coated aluminum grille, enabling the speakers to withstand nature's fury. The exposed hardware is stainless steel or brass and the binding posts have gold over brass to

prevent corrosion. All this leads to a product that is designed to last.



Mounting

The SPF-35 speakers come with a set of C-clamps that are designed to mount to a flat surface and attach at both ends of the speaker with adjustable knobs. This allows the speaker to pivot on the mounting axis for an optimal listening angle directed towards the listener. The speakers also include a set of pre-threaded inserts imbedded in the housing that make them compatible with a wide variety of standard swivel mounts. For our installation, we used the C-clamps that came with the speakers and mounted them under the eaves of our roof to minimize direct exposure to rain and the sun.

Wiring

Our speakers were wired using a pair of 14-gauge Tributaries speaker cables coming directly from our Sonos ZP100 Zone Player. The ZP100 is capable of 50 watts per channel and in this application these speakers were a nice match. The SPF-35 terminals include 5-way binding posts with great build quality and gives the user flexible wiring options. When possible, I like to use banana plugs instead of stripped wire for a solid connection that is easy to disconnect when needed. The terminals on these speakers allowed me to do this. The screw-down knobs are made of metal instead of cheap plastic.

“These new outdoor speakers are the best we have heard in our patio and they are here to stay.”

Impedance

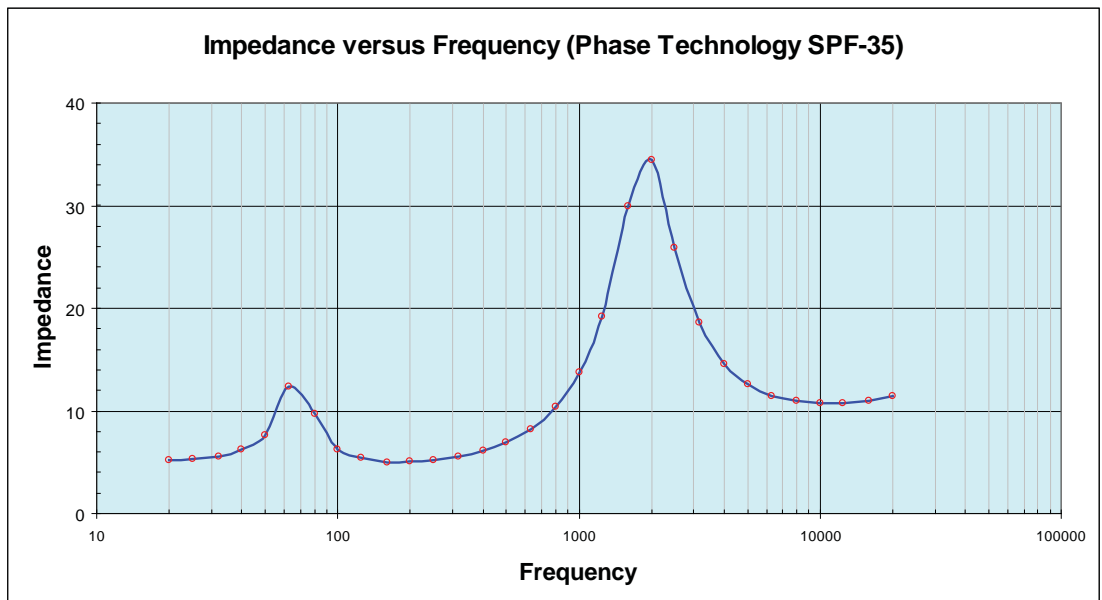
The Solaris SPF-35 speakers are rated at 8 ohms impedance. We measured the impedance of the speakers to get a better idea of what the connected amplifier might encounter. Like many speakers, the impedance of the SPF-35 varies significantly as a function of frequency. Using a 1/3 octave sweep on our Sencore SP295 Audio Analyzer, we found typical peaks and valleys in the impedance spectrum. We measured a maximum impedance of 34.5 ohms at 2 kHz and a minimum of 5 ohms at 160 Hz. Average impedance below 1kHz was about 7 ohms and above 1 kHz was about 17 ohms. Our Sonos Digital Music system used to drive the speakers sounded excellent with these speakers and had no problem driving them at reasonably loud listening levels.

Frequency response was good with significant bass extending below 50 Hz with a slight increase in the output level (bass bump) around 100Hz. Beyond that, the speaker has a fairly flat response out to 20 kHz with a slight dip round 1-2 kHz. This somewhat coincides with the increase in impedance at these frequencies.

Sound Quality

The Solaris SPF-35 speakers features a 1" titanium dome tweeter and 6.5" mineral-filled polypropylene woofer, perfect for outdoor applications. The speakers delivers impressive sound quality and exhibits smooth off-axis performance thanks to the Absolute Phase™ crossover design. We encountered very pleasing sound virtually anywhere we sat around the speakers. This is an important attribute when it comes to outdoor applications since those listening to the music are rarely in one place the entire time.

Engineered to outlast the elements, the Solaris SPF-35 features a 1" titanium dome tweeter and 6.5" mineral-filled polypropylene cone. With adjustable C-clamps



and mounting hardware, and inserts for standard OmniMount™ brackets, the SPF-35 can easily be installed indoors and out.

Conclusion

Phase Technology has engineered an excellent outdoor speaker balancing sound quality, build quality, and cost. While the SPF-35 speakers are designed to withstand the elements outdoors, they also sound excellent as an indoor speaker and offer good looks in a lightweight enclosure weighing only 8.5 pounds. Outdoor patios benefit where conventional loudspeakers may not fair well. Our installation used the Sonos Music System as a source with the internal 50W per channel amplifiers and the sound was fantastic. We played a variety of music through the speakers and were quite impressed with the sound quality. Bass extension was quite good with the larger 6.5" drivers especially when compared to some of the other outdoor speakers we have used in the past. The crossover design in the speaker allows consistent sound quality regardless of the angle from the front baffle (no lobing). These new outdoor speakers are the best we have heard in our patio and they are here to stay.

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