

"The Teatro TSB3.0 is the best-sounding soundbar I've used to date"

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## TRANSFORMERS

AGE OF EXTINCTION

Phase Technology  
TSB3.0 Review Inside



\$5.99 US \$7.99 Canada  
Volume 23, Number 8  
Issue 190, October 2014  
[www.WidescreenReview.com](http://www.WidescreenReview.com)





## Phase Technology Teatro TSB3.0 Soundbar And Power FL-8 Subwoofer

*Doug Blackburn*

Phase Technology is a Florida-based manufacturer with an interesting history, beginning in 1955. United Speaker Systems made loudspeakers for a number of audio companies, including Fisher, one of the premier high-fidelity brands of that era. The Phase Technology brand was launched in 1983 and today, both United Speaker Systems and Phase Technology are subsidiaries of MSE Audio of Overland, Kansas. Another MSE Audio brand most people are likely to be familiar with is Induction Dynamics loudspeakers. Today, Phase Technology designs their products in the U.S. and manufactures products both in the U.S. and abroad. Their product line encompasses home stereo and home theatre loudspeakers, outdoor loudspeakers, pendant/hanging loudspeakers, subwoofers (including wireless), soundbars, in-wall loudspeakers, and DARTS digital loudspeakers and amplifier (in-wall and free-standing models). The Teatro TSB3.0 is their newest soundbar.

The Teatro TSB3.0 is essentially three separate loudspeakers (left, center, right) in a single extruded aluminum enclosure. There is no amplification or anything other than loudspeaker cable inputs and threaded bosses for the wall-mount or tabletop mounting hardware. That means you need an AVR or surround processor and amplifier to use the Teatro TSB3.0. The Power FL-8 subwoofer sent along with the sound bar is a fairly conventional, small-but-not-tiny, subwoofer that makes an excellent companion to the sound bar. The soundbar's spec says bass extension is good down to 75 Hz (most likely at -5 dB from higher frequencies). I'd subjectively peg the lower-end response of the soundbar at around 90 to 95 Hz sitting on a table and maybe 80 to 85 Hz mounted on a wall. That bass response is far better than the internal loudspeakers in any flat screen TV. In fact, I'd say for casual family listening, the Power FL-8 subwoofer isn't really needed. But if you want more satisfaction from movies, either on TV or from disc or streaming, the subwoofer certainly adds some big-bang-boom that makes for a more engaging movie experience. There aren't too many TV programs that benefit from having a subwoofer, but those into *Game Of Thrones*, *True Blood*, *Falling Skies*, *Defiance*, *Extant*, *Agents Of S.H.I.E.L.D.*, *The Last Ship*, and similar programs that are more cinematic than the usual TV fare will find the subwoofer is really worth the additional cost.

Setup is exactly the same process you would use if you had three separate loudspeakers and an LFE subwoofer. Tell the AVR you have no side-surround or rear-surround loudspeakers, but that you do have LCR loudspeakers and a subwoofer. Use the LFE output from the AVR as the input to the Power FL-8 subwoofer. Loudspeaker cables connect to the Teatro TSB3.0 with what are called "euroblock" connectors, made of plastic, with capture screws for the + and - loudspeaker cable connections. Bare wire will work with these euroblock connectors, but I doubt any other connections will work, except, perhaps, pin connectors. The lock screws will likely chew up pin connectors, though, so you may as well use bare wire.



**Phase Technology Teatro TSB3.0 Soundbar****Features**

43 Inches Wide  
 Two 3-inch woofers and one ¾-inch tweeter for each of the 3 channels (LCR)  
 Side-firing Spatial Field Expanders produce a wider soundfield, 1-inch aluminum inverted dome drivers  
 Unpowered – Requires an AVR or surround processor and 3 amplifier channels  
 Recommended amplifier power – 15 to 100 watts per channel  
 Brushed black finish  
 Perforated metal grille protects drivers, durable black powder-coat finish on grille  
 Includes hardware for wall mounting or tabletop placement  
 Operates as three separate loudspeakers in a single "soundbar" enclosure  
 Speaker connections require (provided) 90-degree connectors that accept bare wire  
 EVT Enhanced Voice Technology – front panel switch boosts dialog loudness  
 Extruded aluminum housing/enclosure

**Specifications**

Dimensions (WHD In Inches): 43 x 2.25 x 6.75  
 Weight: not specified  
 Impedance: nominal 8 (ohms)  
 Sensitivity: 90 dB, unspecified conditions  
 Power Requirements: none  
 Frequency response: 75 – 20,000 (Hz), +/- 5 (dB)  
 Crossover: Absolute Phase™ 3500 Hz  
 Designed in: USA  
 Assembled in: China  
 Warranty: 10 years  
 MSRP: \$738

## SPECIFICATIONS

**Phase Technology FL-8 Subwoofer****Features**

Black-finish wood-grain cabinet  
 Forward firing 8-inch woofer with downward firing passive radiator  
 Curved left and right enclosure sides  
 Auto-on/off amplifier module responds to presence or absence of input signal  
 Stereo speaker-level inputs  
 LFE input (RCA jack)  
 Three line level inputs  
 Variable crossover setting  
 Power switch  
 Variable volume setting  
 0/180 Phase switch  
 Oversize butyl rubber surround on the driver supports long excursions supporting lower frequencies and higher output sound levels  
 Mineral-filled polypropylene woofer cone

**Specifications**

Dimensions (WHD In Inches): 11.25 x 15.25 x 14.625  
 Weight (In Pounds): 23  
 Frequency response: 32 – 150 (Hz), +/-3 (dB)  
 Amplifier power: 250 continuous, 600 peak (watts)  
 Crossover setting range: 40 – 110 Hz + LFE mode (no crossover)  
 Designed in: USA  
 Assembled in: USA  
 Warranty: 2 years on electronics; 10 years on cabinet, driver, and passive radiator  
 MSRP: \$678

**Manufactured by:**

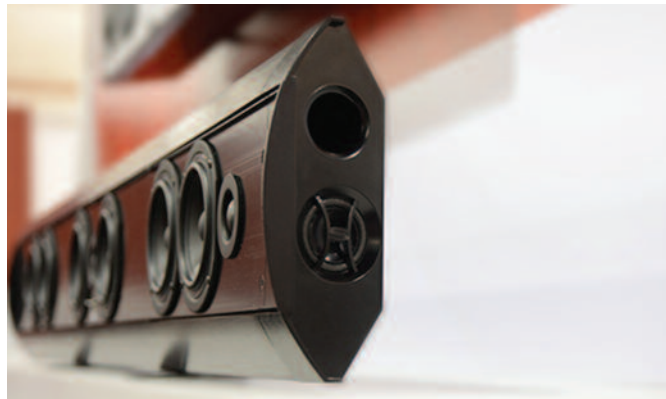
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If the AVR or surround processor you use has good room correction capabilities (like Audyssey or Anthem's ARC or other good room correction software), you'll get even better results, likely far exceeding the results you get with powered soundbars that typically do not have built-in room correction.

The Teatro TSB3.0 soundbar has a total of six, three-inch mid-woofers, two for each of the channels and a single ¾-inch tweeter for each channel. In addition, the flat ends of the Teatro TSB3.0 contain a port and a 1-inch diameter, inverted aluminum dome driver (full-range says Phase Technology, but realistically, it's not going to deliver a lot of information below 300 Hz or so). The purpose of the additional side-firing drivers is to expand the "size" of the sound the Teatro TSB3.0 sends into the room. The more spacious presentation provides sound that seems bigger than the Teatro TSB3.0's 43-inch length. Phase Technology does the passive processing for these side-firing drivers internal to the soundbar so you don't need to do anything extra. Because of the side-firing drivers, you'd do better using the Teatro TSB3.0 where it's out in the open without nearby walls or furniture to "block" the sound from the side-firing drivers. How much space should you give this soundbar to the sides? I'd recommend 3 feet, but 2 feet was still working pretty well. Four or five feet worked OK also. I didn't try any larger spaces. How "big" is bigger when it comes to these side-firing drivers? I wouldn't say it's revolutionarily "big" but it did help the soundbar create a more convincing and less localized sound. So these little drivers aren't a gimmick, but there's only so much that 1-inch diameter inverted dome drivers can do. Don't expect a miracle, but do expect some definite expansion of the apparent size of the sound. The fact that Phase Technology has done this with internal passive circuits means you don't have to do anything special with the AVR/processor or with the room-correction application.

The Power FL-8 subwoofer was just the right size to work in our family room. Not too tiny, like most compact subwoofers, but certainly far from large, the FL-8 worked very well with the Teatro TSB3.0 soundbar. While no new ground is broken with design or features in the Power FL-8, it is certainly well made. All the most useful features you want in a subwoofer are included: level control; phase inversion; LFE input; stereo inputs; loudspeaker level inputs; variable crossover; and LFE crossover bypass. Phase Technology says bass response is -3 dB at 32 Hz, and that's not far off from what I got. If I was permanently adding the Power FL-8 to that room, placement closer to a wall or corner would provide more low-bass reinforcement, making the very lowest frequencies the Power FL-8 can reproduce several dB better.

I used Onkyo's TX-NR727 AVR (current street price about \$600) to drive the Phase Technology loudspeakers. This AVR costs a bit more than the least-expensive AVRs, but is very much worth the additional



cost when it comes to having a decent version of Audyssey, better amplifier sound quality, and better-sounding digital front end. In fact, the Onkyo AVR paired with the Phase Technology loudspeakers produced the best sound I've experienced from a soundbar so far. The Teatro TSB3.0 sounded like three decent standalone bookshelf loudspeakers. The Power FL-8 subwoofer did its job unobtrusively, acting just like an extension of the Teatro TSB3.0. Some may want the simplified system integration and simple system use you get from a self-powered soundbar that auto-senses active inputs, but those seeking the best sound quality are going to be happier with an AVR-driven setup like the Phase Technology Teatro TSB3.0... provided you select the AVR carefully. The most inexpensive AVRs in the \$200 to \$500 range are going to compromise sound quality compared to the capabilities of the Phase Technology products. But get into a better-performing mid-range AVR like the Onkyo I used, and you'll get some pretty impressive sound quality. The Teatro TSB3.0 is so good, it will easily reveal the murkier sound you get from low-end AVRs.

Because the Teatro TSB3.0 does not have built-in electronics, you won't be limited to Dolby® Digital or DTS® sound (the early compressed versions of both) as you are with the self-powered soundbars I've used. That means you can get full benefit of the higher sound quality of Dolby TrueHD and DTS-HD Master Audio™ via the AVR you use. If some new sound innovation comes along in the future, all you'll need to do is get a new AVR with the new sound capability and keep on using your Teatro TSB3.0. Self-powered soundbars are unlikely to be upgradeable, so if technology moves along as it inevitably does, you might find a self-powered soundbar to become obsolete, while the Teatro TSB3.0 only needs a new AVR to drive it.

Dialogue intelligibility was excellent, even without EVT (enhanced voice technology), Phase Technology's dialogue enhancement mode controlled by a front panel switch. Engaging EVT did, indeed, raise the level of dialogue compared to other sounds, so this might be something you could use for late-night TV watching if the AVR lacks a "late night mode" that compresses audio to avoid loud sounds that might disturb others in the household. Our family room is a mix of reflective and absorptive surfaces. But I could see a more lively room, perhaps with more glass and without area rugs covering hard floors, needing a bit of a boost in the dialogue frequency range to help dialogue cut through reflected sound better. Since EVT is frequency based, all sounds with components within the range of human speech (roughly 85 Hz to 300 Hz plus higher harmonics) are going to be louder in the mix also. There were a few times I noticed some sounds being a bit louder than they should be with EVT engaged, but that was an agreeable tradeoff to get louder, easier-to-hear dialogue if you need that in your room. If you are using room correction, I would run room correction with EVT off and turn it on after the room-correction calibration is done. If you don't do that, the room-correction software is likely to cancel out any enhancement that EVT makes. In that case, turning EVT off would cause dialogue to be unnaturally reticent.

The Teatro TSB3.0 soundbar has a frequency-response profile that is extremely similar to what you'd get with three separate and excellent bookshelf loudspeakers. Highs aren't the least bit harsh or too loud. In fact, the highs are so perfectly integrated with the rest of the sound that they really had no identifiable character of their own. And that is a very good thing. It's way too common to hear some or all of the treble octaves being too loud compared to everything else and/or to have some identifiable characteristic that keeps calling your attention to the highs. I never had that experience with the Teatro TSB3.0. It sounded like a single, perfectly balanced driver for each of the three channels. That's a sign of well-integrated sound that won't be fatiguing or annoying over the many years you will enjoy a product like this.

While TV and movies sounded great on the Teatro TSB3.0, until I listened to CD-quality (or better) music over the system, all I knew

was that the Teatro TSB3.0 sounded really good. With music, the sound quality became much more obvious. Music was really well balanced and entertaining. Not a single fault could be identified without going into obsessive audiophile mode—but that's not the real point of the Teatro TSB3.0. The point is, doing away with the lousy sound you get from flat panel loudspeakers, and the Teatro TSB3.0 was exceptionally accomplished at that job. Detail was excellent, tonal balance and octave-to-octave integrity were excellent, and intelligibility of lyrics was also excellent. The Power FL-8 did a respectable job supporting the bottom end of music, insuring that you could hear everything except the deepest organ notes. Electric bass had good pitch articulation so that each note was identifiable, rather than the booming and fuzziness you can get with some smaller and lower-cost subwoofers. I'm not saying you can't get better sound with freestanding individual loudspeakers than you can get with the Teatro TSB3.0, but within the context of performance of a soundbar, the Teatro TSB3.0 is definitely excellent. If I were to compare three good standalone loudspeakers selling for close to the soundbar's price, then I'd revise the performance summary from excellent to very good. The Teatro TSB3.0 really does sound so good that it can complete with good standalone loudspeakers selling for about \$250 each. Soundbars, as a group, tend to fall a bit short of standalone loudspeakers when it comes to ultimate sound quality. Not that soundbars don't sound good, but the form factor (not much depth, long, and not-very-high drivers placed closer together than they would probably be if they were standalone loudspeakers, etc.) definitely makes it a significant design challenge to get a soundbar to sound as good as modestly priced standalone loudspeakers. This was my first experience with a Phase Technology product, and I feel like they did an outstanding job with the Teatro TSB3.0.

### Conclusion

The Teatro TSB3.0 is the best-sounding soundbar I've used to date, though, it requires a good AVR (roughly \$600 or more) or surround processor/amplifier combo to achieve that level of performance. Fed by an inexpensive AVR, the sound quality will not be quite as good due to compromises in the performance of the AVR. The sound quality of the Teatro TSB3.0 is so good, you will hear performance differences between inexpensive and mid-priced AVRs. The Teatro TSB3.0's side-firing drivers improve the "spread" of the soundfield enough to make the 43-inch long soundbar seem larger with the drivers placed farther apart. There's less convenience in an unpowered soundbar product like the Teatro TSB3.0 because adding an AVR adds another layer of complexity to the system. But for that extra bit of inconvenience, you benefit from better sound quality, more inputs, more types of inputs, lossless audio formats, more mode options, more expandability, and potentially streaming content over your home network or Internet streaming.

Phase Technology's Power FL-8 is a decent-performing subwoofer and is a very good match for the Teatro TSB3.0 soundbar. Together, the two products produced very satisfying movie-watching experiences, with only the very deepest bass frequencies absent or down in level (frequencies below about 30 Hz in my room). For casual TV viewing, the Teatro TSB3.0 certainly gets the job done by itself, without needing a subwoofer. Bass is fine down to 80 to 90 Hz, depending on whether you wall-mount the soundbar or place it on a table-top. With a "big" system in another room with low-frequency response down to 16 Hz, I probably don't need a Power FL-9 with the Teatro TSB3.0 soundbar, but having it as part of the review became addictive over the months so I used the Phase Technology products in our second room. It was pretty cool to have the small sub in there bolstering the bottom end. Highly recommended for those looking for the higher-end of soundbar audio quality. **WSR**