



The original cinema experience at home

Technology backgrounder

Philips Immersive Sound HD home theater HTS9520



PHILIPS

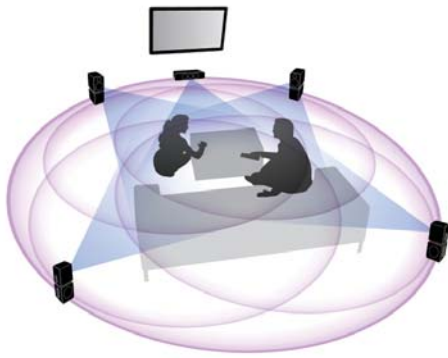


360Sound brings you an unforgettable home cinema experience. Philips' brilliant track record in surround sound delivery is backed by state-of-the-art acoustic technologies to bring you the top-end of its Immersive Sound home theater range – and a movie experience that will keep you glued to your seats.

Surround sound from all angles, just like in the movies

360Sound ensures you get the HD sound experience that is becoming rampantly available on Blu-ray Discs. Encoded on these discs are 7.1 distinct channels of sound that can only be enjoyed on the right sound system. Delivering all 7.1 channels with clear and immersive surround sound, 360Sound transforms movie nights at home into an out-of-this world experience.

Unique design for unique delivery



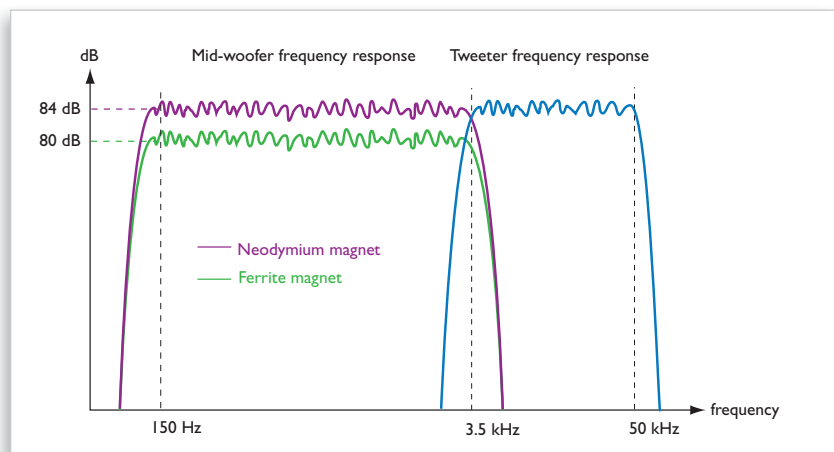
360Sound is as unique in its design as it is in its delivery. Decidedly different from conventional 5.1 home theater speakers which only have front firing drivers, each 360Sound speaker houses two side-firing drivers. These two drivers ensure that sound is not simply sent in a straight line directly at you. Instead, they deliver sound that curves around to fully envelop you. Each 360Sound home theater features four such satellite speakers, together with a center speaker, a subwoofer and a main unit that plays Blu-ray Discs and DVDs.

Satellite speakers – compact yet powerful



Three high-quality drivers sit in each 360Sound satellite speaker – a front firing driver and two side firing drivers. Within the front firing driver is a one-inch soft dome tweeter – a high fidelity element that charts a more stable curve at frequencies as high as 50kHz, and thereby delivering amazingly clear audio with more details. Together with the tweeter is a 2.5-inch woofer that employs the use of a Neodymium magnet. Though small and light, the Neodymium magnet is distinctively more powerful than the more commonly-used ferrite magnet. It allows the 360Sound tweeter to emit high frequencies without any crackling, creating an incredibly wide dynamic range with the lowest possible distortion levels.

360Sound: mid-woofer and tweeter frequency response





The two full-range side-firing drivers propel sound around the listener for an immersive audio experience. Like the front firing drivers, they are built with outstanding no-compromise quality, and also feature Neodymium magnets. With all four satellite speakers housing a total of ten high-performance amplifiers, 360Sound surpasses the delivery of conventional 5.1 home theatres – which feature only six amplifiers. In fact, 360Sound delivers no less than the larger systems – letting you reap the colossal benefits associated with 7.1 and 9.1 configurations.

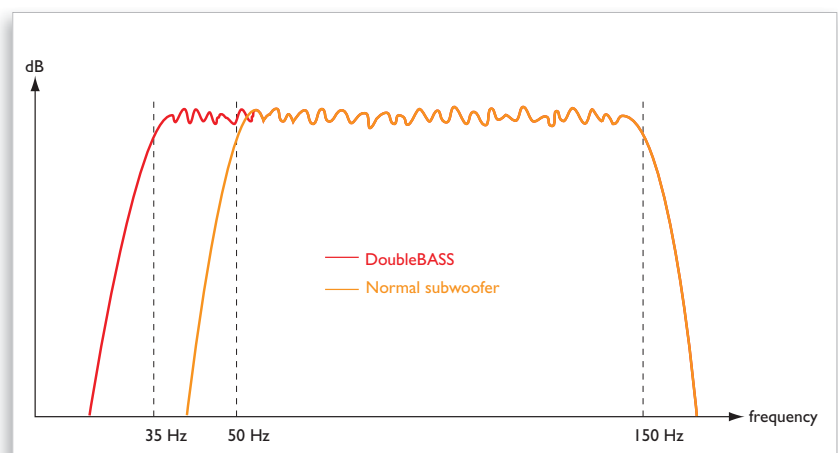
Center speaker and subwoofer – completing the equation



Designed and constructed with equally high standards and premium materials, the center speaker is engineered to deliver an even wider frequency range of up to 50kHz. By using 2 mid-woofers with a soft dome tweeter in a Mid woofer-tweeter-Mid woofer configuration (also known as the D'Appolito configuration), it further enhances voice reproduction for pristine dialogue Intelligibility.

Philips' proprietary DoubleBASS technology is applied in the subwoofer for a lower bass. The algorithm captures sound with frequencies lower than 30Hz and recreates them within the audible range of the subwoofer. A 6.5 inch long-throw excursion woofer puts even more energy and life into the bass by pumping more air through. The result is bass that is deep and rich, in spite of the subwoofer's modest size.

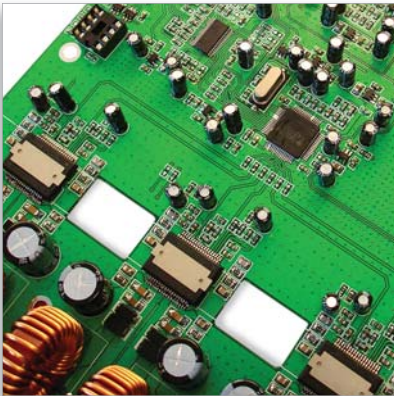
360Sound: subwoofer frequency response





The DNA of 360Sound

Class D digital amplifiers – for high-power performance



Each of 360Sound's ten amplifiers works at a superb efficiency rate of up to 95%, optimizing power to deliver incredibly dynamic sound. The Class D digital amplifiers are also designed such that less heat is dissipated, resulting in the need of a much smaller heat sink. This in turn allows the amplifier to remain small and compact without having to suppress power. Being digital, the amplifiers convert analog signals into digital ones within the power module to achieve even further efficiency – and performance with even more energy and power.

Proprietary sound algorithm – putting us above the rest



With a strong legacy and expertise in audio technology research, it was only natural that Philips developed its own proprietary sound algorithm. 360Sound uses the principle of dipoles to achieve its brilliant embracing sound effect. Two amplifiers are used to create each dipole, which is then post-processed by Philips' proprietary sound algorithms. Driving the algorithms is an external 24bit/192kHz Digital Signal Processor – a superior component usually used in high-end audiophile equipment, which provides more details to deliver incredibly natural sound.

360Sound redefines home cinema

Finished exquisitely in premium materials and featuring high-fidelity acoustic components, 360Sound stands apart from the rest. It raises the home cinema experience to a brand new level, and gives you that special cinema feeling in your very own home. 360Sound delivers sound from all angles, no matter where you are seated – embracing and surrounding you in sound.

360Sound is a superbly successful blend of outstanding performance, high-quality components, brilliantly innovative speaker engineering, premium materials, beautiful finishing and stunning design.

360Sound – for sound that comes to you from all angles, no matter where you are in the room.



Specifications

Sound	
Output power (RMS)	800W
Signal to noise ratio	> 65 dB
Equalizer settings	Action, Classic, Concert, Drama, Jazz, News, Rock, Sports

Loudspeakers	
Center frequency range	150 - 20000Hz
Center speaker drivers	3" full range woofer
Center speaker impedance	4 ohm
Satellite speaker	Magnetically shielded front, Wireless rear speakers
Satellite speaker drivers	2 x 3" full range woofer
Satellite speaker frequency range	150 - 20000Hz
Satellite speaker impedance	8 ohm
Subwoofer driver	1 x 6.5" Long throw woofer
Subwoofer frequency range	35 - 150000Hz
Subwoofer impedance	4 ohm
Subwoofer type	Passive

Audio Playback	
Compression format	MP3, WMA & WAV
MP3 bit rates	112kbps - 320kbps
WMA bit rates	48kbps - 192kbps
Playback media	Audio CD, CD-R/RW, MP3-CD, WMA-CD DVD+R/+RW, DVD+R/R DL, DVD-R/RW USB flash drive

Video Playback	
Compression format	AVCHD, AVI, DivX 3.11, DivX 4.x, DivX 5.x, DivX 6.0, DivX Ultra, MKV, MPEG4, WMV
Playback media	BD Video, BD-R/RE 2.0 DVD+R/+RW, DVD-R/-RW, DVD-Video, Video CD/SVCD CD-R/CD-RW USB flash drive
Video disc playback system	NTSC, PAL

Still Picture Playback	
Picture compression format	GIF, JPEG
Picture enhancement	Rotate, Slideshow with music playback, Zoom
Playback media	CD-R/RW DVD+R/+RW USB flash drive

Tuner / Reception / Transmission	
RDS	Station name
Tuner Bands	FM

Convenience	
Multimedia	DLNA media Browser Net TV services

Specifications

Connectivity

Front/Side connections	Hi-Speed USB, MP3 Line-in, USB
Rear connections	Component Video output Composite video (CVBS) output Digital coaxial in Digital optical in Dock connector Easy-Fit speaker connectors FM Antenna HDMI output Subwoofer out LAN, Wi-Fi USB, Wireless Rear Audio

Power

Power consumption	100W
Power supply	220-240V, 50Hz
Standby power consumption	<0.3W

Dimensions & Weight

	Width	Height	Depth	Weight
Center speaker	435mm	85mm	117mm	0.68kg
Front speaker	99mm	247mm	117mm	0.66kg
Rear speaker	99mm	85mm	117mm	0.68kg
Subwoofer	196mm	395mm	342mm	6.3kg

Accessories (included in box)

FM antenna
Quick start guide
Remote control & batteries
User manual
HDMI cable
Power cord

Compatible Accessories (optional)

RWSS9500	Wireless Rear Audio module
WUB1110	Wi-Fi USB Adaptor
DCK3060	Dock for iPod
STS1300	Floor stand
STS9500	Speaker stands
STS9510	Wall-mount brackets



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