

HOW DOES IT WORK?

SoundField B-Format:



The capsules are placed tightly together to eliminate the phase problems associated with 'spaced' multi-microphone set-ups.

From a single point source sound is received from all directions, reproducing a realistic listening experience.

The SoundField Four Capsule Array

The four outputs from the capsules of SoundField microphones (called SoundField A-Format audio signals) are converted by the DSF-1 processor into four components known as SoundField B-Format. These convey all of the information of the entire sound field, and are the three directional vectors - Left/Right, Front/Rear and Up/Down - and absolute pressure.



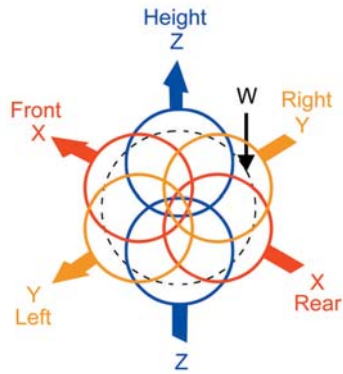
The signals from the four capsules are fed to the DSF-1 processor where it is converted into four channels of SoundField B-Format, entitled W, X, Y and Z.

Mono, Stereo, Mid-Side, 5.1 and all future surround formats can be derived from this information.



DSF-1 Digital B-Format Outputs (AES/EBU)





B-Format Illustration

B-Format is three dimensional acoustical information and consists of three figure of eight polar patterns called X, Y and Z plus one omni called W.

X gives Front to Rear depth information, Y gives Left to Right horizontal information and Z gives vertical height information. From the omni W sub-bass (LFE) is extracted.

SoundField are the only microphones in the world that generate B-Format.

The four channels of the B-Format signal are represented by three bidirectional and one omnidirectional pickup, all centred at a single point in space, and are labelled W (pressure), X (Front/Rear), Y (Left/Right), and Z (Up/Down). These signals contain all of the information required to describe a soundwave and are the essential elements needed to create any conventional mono, stereo, or surround format where the microphone positions and polar patterns can be fully variable. By recording the four B-Format outputs from the DSF-1 controller these components can be preserved for subsequent production and processing of current and all future surround formats.

