

Polar Patterns and Directionality

Omnidirectional

Unidirectional



Omnidirectional

Directionality

Equal at any angle. An omni will pick up ambient or room sound as well as the sound you intend to amplify.

Use

Often used in theater applications since the feedback associated with loudspeakers is rarely an issue. They are less susceptible to wind and breath noise than unidirectional mics, but are generally not recommended for recording or live performance.

Polar Patterns and Directionality

Omnidirectional

Unidirectional



Cardioid



Supercardioid

Unidirectional (Cardioid and Supercardioid)

Directionality

Most sensitive to sound arriving on axis and less sensitive to sound as it moves off axis. There are two types: Cardioid which have a 130-degree pickup angle in front and the narrower Supercardioid, with a 115-degree pickup angle.

Use

Cardioid mics are by far the most popular for recording, especially for home recording since acoustics are generally less than perfect outside the studio. Since the mic is designed to pick up sounds that the mic is pointing at, ambient sounds outside the 130-degree pickup pattern are reduced.