



ECM-680S

Electret Condenser Microphone

OUTLINE

The Sony ECM-680S is an MS stereo shotgun, electret condenser-type microphone, ideal for a broad range of field production and broadcast studio applications. Incorporating newly developed microphone capsules, the ECM-680S offers excellent sensitivity, low inherent noise, and a flat-and-wide frequency response.*

The most distinguished feature of the ECM-680S is its switchable operation between a highly directional monaural mode and stereo mode. Monaural mode provides highly directional sound pickup, while stereo mode delivers natural and spatial sound. The ECM-680S is compact and lightweight, making it well-suited to use with a range of Sony professional camcorders. In addition, it can be mounted on a boom pole for more versatility.

With its excellent quality and versatility, the ECM-680S is an ideal choice for quality-conscious sound gathering applications.

* MS microphone signal of the ECM-680S is internally decoded to L and R (stereo) outputs.

FEATURES

Excellent Sound Quality

The ECM-680S uses the Mid-Side (MS) technique that offers natural stereo sound and excellent localization. Equipped with newly developed large-diaphragm microphone capsules with bi-directional characteristics, the ECM-680S delivers a superb sensitivity of -28 dB* (stereo)/-32 dB* (monaural), and extremely low inherent noise of less than 20 dB SPL (stereo/monaural).

* 0 dB=1 V/Pa

Stereo and Monaural Switchable

The ECM-680S can operate in either stereo or monaural (uni-directional) mode, allowing it to be used in both EFP and ENG applications. Stereo mode is ideal for capturing environmental sound with natural sound quality, while monaural mode is ideal for clearly capturing voice and sound from a distance. These modes can be selected from the switch on the microphone or from compatible Sony professional camcorders*. The LED on the microphone lights up when the ECM-680S is set to stereo mode, to easily notify the user that operating mode is currently selected.

* Stereo and monaural modes can be switched from the Sony HDW-F900R CineAlta™ camcorder, HDW-790 HDCAM™ camcorder, and PDW-F350/F330 XDCAM™ HD camcorder.

Flat-and-Wide Frequency Response

The ECM-680S microphone has a flat-and-wide frequency response (50 Hz to 20 kHz (stereo)/40 Hz to 20 kHz (monaural)) in both stereo and monaural modes, and will provide sound reproduction that is extremely smooth and natural.

Built-in Low Cut Filter

The built-in two-position (M, V) low cut switch provides a simple method of reducing the effects of undesired ambient noise.

Compact and Lightweight Design

The ECM-680S has been designed to be a compact yet high-performance stereo shotgun microphone, ideal for camera-mounted use. It measures only 250 mm (9 7/8 inches) in length and weighs less than 140 g (4.9 oz), maintaining good balance and mobility when mounted on a range of Sony professional camcorders.



The ECM-680S attached to a Sony PDW-F350 XDCAM HD camcorder.

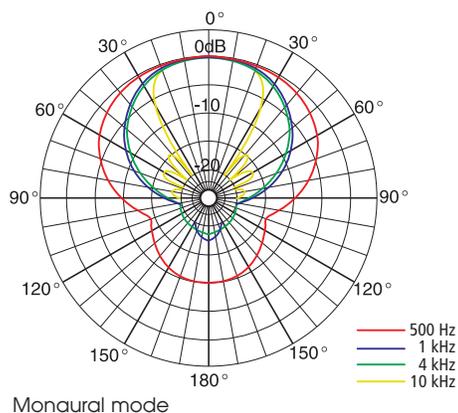
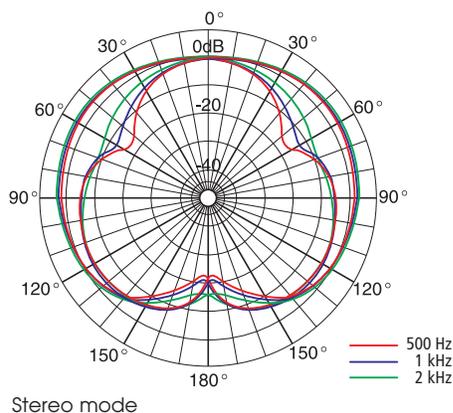
SPECIFICATIONS

ECM-680S	
Capsule type	Electret condenser
Stereo type	MS (Mid-Side) stereo microphone
Directivity	Uni-directional
Frequency response	Stereo: 50 Hz to 20 kHz Monaural: 40 Hz to 20 kHz
Sensitivity (at 1 kHz)	Stereo: $-28 \text{ dB}^1 \pm 3 \text{ dB}$ Monaural: $-32 \text{ dB}^1 \pm 3 \text{ dB}$
Output impedance (at 1 kHz)	$100 \Omega \pm 20\%$
Dynamic range	Stereo: 104 dB or more Monaural: 106 dB or more
Signal-to-noise ratio (IEC179 A-weighted, 1 kHz, 1Pa)	Stereo: 74 dB or more Monaural: 76 dB or more
Inherent noise	20 dB SPL^2 or less
Wind noise	60 dB SPL^2 or less (with windscreen), 55 dB SPL^2 (without windscreen)
Induction noise from external magnetic field	0 dB SPL^2 or less
Maximum input sound pressure level	124 dB SPL^2
Power requirements	DC 40 to 52 V
Power consumption	Stereo: 4 mA or less x 2ch Monaural: 4 mA or less
Dimensions	$\phi^{13/16} \times 9^{7/8}$ inches ($\phi 20 \times 250$ mm)
Weight	Approx. 4.9 oz (140 g)
Supplied accessories	Windscreen (x1), Microphone holder (x1), Microphone spacer (x1), Microphone cable (XLR-5-pin to XLR-5-pin) (x1), Stand screw adaptor (PF1/2 thread – NS5/8 thread, PF1/2 thread – W3/8 thread) (x1 each), Carrying case (x1), Operating instructions (x1)

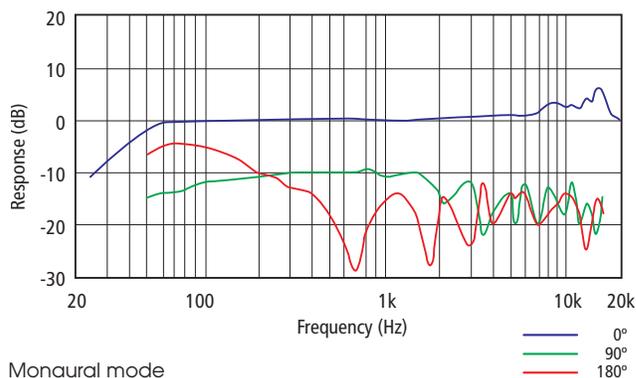
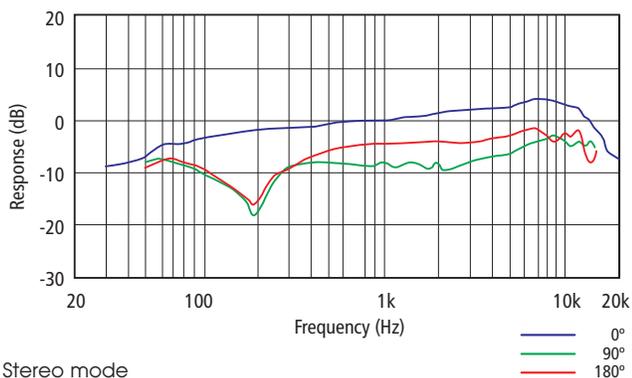
¹ 0 dB=1 V/Pa, at 1 kHz

² 0 dB=20 μ Pa

Directivity Characteristics



Frequency Response Characteristics



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