

ECM-680S

MS stereo shotgun Electret condenser microphone



Overview

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. 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

Superior Sound Quality

The ECM-680S uses the Mid-Side (MS) technique that offers natural stereo sound and excellent localization. Equipped with large diaphragm microphone capsules with bidirectional 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

Switchable between Stereo and Mono

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.

Flat and Wide Frequency Response

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

Compact and Lightweight

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.

Specifications

Audio Section

Capsule Type

Stereo MS Electret Condenser

| | |
|---|---|
| Frequency Response | Stereo: 50 Hz to 20 kHz |
| Frequency Response | Monaural: 40 Hz to 20 kHz |
| Directivity | Stereo: Uni-directional |
| Directivity | Monaural: Super-cardioid |
| Sensitivity *[1] | Stereo: -28 dB \pm 3 dB Monaural: -32 dB \pm 3 dB |
| Output Impedance * [2] | 100 Ω \pm 20%, Balanced |
| Dynamic Range | Stereo: 104 dB or more Monaural: 106 dB or more |
| Signal-to-Noise Ratio *[3] | Stereo: 74 dB or more Monaural: 76 dB or more |
| Inherent Noise *[4] | Stereo: 21 dB SPL or less Monaural: 20 dB SPL or less |
| Induction Noise From External Magnetic Field *[5] | 0 dB SPL or less |
| Wind Noise *[6] | 60 dB SPL or less (with windscreen) 55 dB SPL (without windscreen) |
| Maximum Input Sound Pressure Level *[7] | 124 dB SPL |

General Section

| | |
|----------------------|---|
| Connector | XLR-5-12C(male) |
| Mic Cable | XLR-5 pin to XLR-5pin (To connect with a Sony camcorder equipped with front 5-pin mic input connector) 380 mm 15 inches |
| Power Requirements | DC 40 V to 52 V |
| Dimensions *[8] | $\phi 20 \times 250$ mm $\phi 13/16 \times 9 7/8$ inches |
| Mass | Approx. 4.9 oz Approx. 105 g |
| Supplied Accessories | Windscreen (1) Stand screw adaptor (PF 1/2 thread - W 3/8 thread) (1) Stand screw adaptor (PF 1/2 thread - NS 5/8 thread) (1) Operating instructions (1) Microphone cable (LR-5-pin to LR-5-pin) (1) Mic spacer (2) Mic holder (1) Carrying case (1) |

Notes

- Note
- *[1] 0 dB = 1 V/Pa, at 1 kHz
 - *[2] Output impedance at 1 kHz
 - *[3] A-weighted, 1 kHz, 1 Pa.
 - *[4] 0 dB SPL = 20 μ Pa.
 - *[5] dB SPL/1E-7 T, 0 dB SPL = 20 μ Pa.
 - *[6] Wind noise at 2m/s (0 dB SPL = 20 μ Pa.)
 - *[7] 0 dB SPL = 20 μ Pa.
 - *[8] The values for dimensions are approximate.
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Gallery

