

# SM81 Cardioid Condenser Microphone

## Overview

The legendary SM81 is an industry-standard, flat-response cardioid condenser microphone, featuring a wide frequency response and low self-noise. Highly versatile, the SM81's renowned sonic accuracy is a constant choice around the world for acoustic stage and studio performance, including guitar, piano and drum overhead applications.

## Features

- 20 Hz to 20 kHz frequency response
- Flat response curve for accurate reproduction of sound sources
- Low noise and high output clipping level
- Low distortion over a wide range of load impedances
- Cardioid polar pattern, uniform with frequency and symmetric about axis, providing maximum rejection and minimum coloration of off-axis sounds
- Low RF susceptibility
- Selectable low-frequency response: flat, 6 or 18 dB/octave rolloff
- 0 dB/10 dB lockable attenuator switch
- Phantom powering (DIN 45 596 voltages of 12 to 48 Vdc)
- Rugged steel construction for durability
- Field-usable over wide range of temperature and humidity conditions



SM81

## Available Models

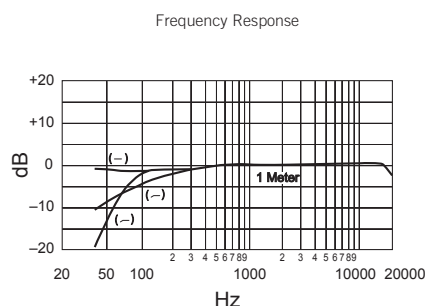
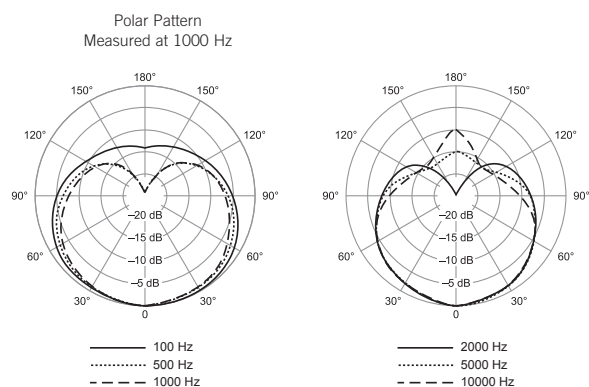
<b>SM81-LC</b>	Includes stand adapter and zippered pouch
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## Specifications

<b>Type</b>	Condenser
<b>Frequency Response</b>	20 to 20,000 Hz
<b>Polar Pattern</b>	Cardioid
<b>Sensitivity</b> (at 1,000 Hz)	Open circuit voltage: -45 dBV/Pascal (5.6 mV) (1 Pa = 94 dB SPL)
<b>Impedance</b>	Rated at 150 Ω (85 Ω actual) Recommended minimum load impedance: 800 Ω
<b>Output Clipping Level</b>	800 Ω Load: -4 dBV (0.63 V) 150 Ω Load: -15 dBV (0.18 V)
<b>Maximum SPL</b> (at 1,000 Hz)	800 Ω load: 136 dB (attenuator at 0) 146 dB (attenuator at -10) 150 Ω load: 128 dB (attenuator at 0) 138 dB (attenuator at -10)
<b>Self-Noise</b>	16 dB typical, A-weighted 19 dB typical, weighted per DIN 45 405
<b>Hum Pickup</b>	-3 dB equivalent SPL in a 1 mOe field (60 Hz)
<b>Signal-to-Noise Ratio</b>	78 dB (IEC 651)* at 94 dB SPL S/N ratio is difference between 94 dB SPL and equivalent SPL of self-noise A-weighted
<b>Overvoltage and Reverse Polarity Protection</b>	Max. external voltage applied to pins 2 and 3 with respect to pin 1: +52 Vdc Reverse polarity protection: 200 mA max. (diode-clamped)
<b>Polarity</b>	Positive pressure on diaphragm produces positive voltage on pin 2 relative to pin 3
<b>Power</b>	11 to 52 vdc, 1.2 mA
<b>Case</b>	Steel construction with vinyl metallic paint finish and stainless steel screens
<b>Connector</b>	Three-pin professional audio connector (male XLR type)
<b>Weight</b>	230 g
<b>Dimensions</b>	212 mm L x 23.5 mm W

## Optional Accessories and Replacement Parts

<b>A57F</b>	Microphone clip	<b>A81G</b>	Grille and windscreen	<b>A81WS</b>	Large foam windscreen
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