



CRY3201-S01

1/2" Free-field, Pre-polarised, High frequency Microphone Set



Features

● Features

Sensitivity	12.5 mV/Pa
Dynamic Range	23 dBA to 148 dB
Frequency Range	3.15 Hz to 40 kHz

● Applications

High-frequency (ultrasonic) measurements
High-definition speakers and NVH measurements
High sound pressure level (SPL) measurements

● Standards

IEC 61094 4:1995 Measurement microphones - Part 4

● Components

CRY3201 1/2 Free-field Pre-polarized Microphone
CRY3501 1/2 IEPE Preamplifier

Introduction

CRY3201-S01 is a 1/2" free-field, prepolarized microphone and preamplifier set designed for high frequency and high dynamic range acoustic measurements. With a flat frequency response to 40k Hz and sound pressure levels up to 148 dB, it is an excellent general purpose measurement microphone for High-Definition Audio measurements and other ultrasonic acoustic applications.

Check out our Microphone Selection Guide

acsoft.co.uk/microphone-selection-tool

Highlights

● Use of High-level Pressure-field Microphones

High-frequency microphones can accurately capture high frequency sounds and are highly suitable for ultrasonic detection, high-frequency acoustic research, and other similar applications.

Free-field microphone sets are specifically designed for measurements in environments that are free from reflections or echoes and are widely used in fields such as acoustic research, noise monitoring, and sound system testing.

● Compatibility

The CRY SOUND prepolarized microphone kit requires a constant current source power module (IEPE power supply) that can provide a current of 2mA to 20mA and a no-load voltage of 24V.

IEPE is a universal constant current source power supply technology used on sensors. Each manufacturer has different names, such as ICP, CCP, etc.

● TEDS Microphone Set

Supports TEDS, and TEDS programmed to the IEEE 1451.4 standard for SMART transducers, V 1.0 format

● Calibration

Each CRY SOUND microphone set is calibrated at the factory using traceable calibration equipment. Calibration certificates are provided with each unit. CRY SOUND recommends recalibration at least once a year

● Quality & Warranty

All CRY SOUND microphone capsules use 3rd generation titanium diaphragms and protection grids and synthetic sapphire insulators - resulting in the most rugged and reliable measurement microphones on the market. Titanium provides superior corrosion resistance, high temperature stability, impact resistance and strength-to-mass than traditional nickel and stainless steel. All capsules are assembled in strict clean-room environments for maximum quality.

CRY SOUND microphones and preamplifiers are supported by a 10-year warranty offering one of the best service guarantee in the world.

Technical Specifications

Specifications

Field Type	Free-field
Sensitivity (± 3 dB)	12.5 mV/Pa, -38 dB re 1 V/Pa
Frequency Response	3.15 Hz to 40 kHz ± 2 dB
Polarization Voltage	0 V
Dynamic Range (re.20uPa)	23 dBA to 148 dB
Operating Temperature	-30°C to +70°C (-22°F to +158°F)
Temperature Stability	0.005 dB/°C (-10°C to +50°C) 0.003 dB/°F (+14°F to +122°F)
Static Pressure Stability	-0.01 dB/kPa
Operating Humidity Range	0 to 90%RH no condensation
Humidity Stability	< 0.1 dB (0 to 90%RH no condensation)
Pressure Equalization Vent	Rear vented
IEC 61094-4 Type	WS2F
Output Impedance	< 50 Ω
Maximum Output Voltage	>10.0 Vp
DC Bias Voltage	IEPE (2 mA to 20 mA)
Current Source	12V $\pm$ 2 V
Typical Operating Current	4 mA
Interface Type	BNC

Frequency Response

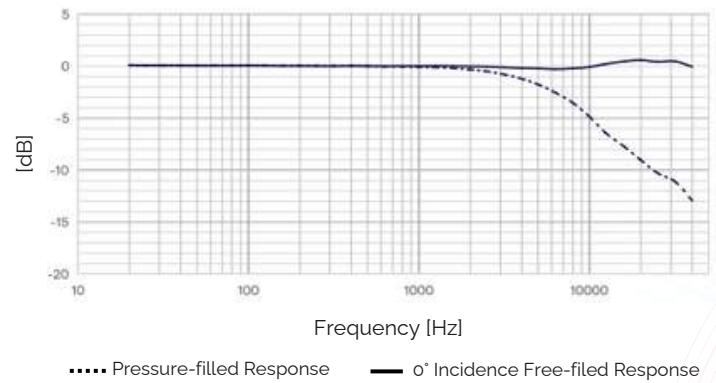


Fig.1 CRY3201-S01 Microphone Set Typical Frequency Response

Dimensions

Height with Grid	88 mm (3.46)
Diameter with Grid	13.2 mm (0.52)

Drawings (mm) [inch]

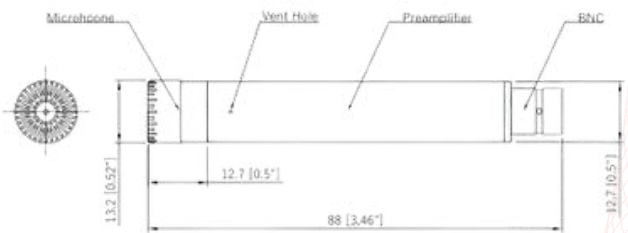


Fig.2 CRY3201-S01 Microphone Set Drawings

Ordering information

Consisting of

Measurement Microphone	CRY3201 1/2 Free-field Prepolarized Microphone
Preamplifier	CRY3501 1/2 IEPE Preamplifier
Cable	BL5001 BNC to BNC Cable /1.6m

Optional Accessories

Microphone Clamp	1/2 Microphone Clamp
Power Supply	CRY575 Three-channel Microphone Power Supply
Cable	BL5001 BNC to BNC Cable /1.0m BL5001 BNC to BNC Cable /3.2m BL5001 BNC to BNC Cable /5.0m

Related Products

CRY3101 S01	1 free field prepolarized low noise microphone set, 50 mV/Pa, 4 Hz 16kHz, 12 dBA 136dB
CRY3202 S01	1/2 pressure field prepolarized wide frequency microphone set, 12.5 mV/Pa, 3.15 Hz 20kHz, 23 dBA 148dB
CRY3203 S01	1/2 free field prepolarized high sensitivity microphone set, 50 mV/Pa, 3.15 Hz 20kHz, 15 dBA 136dB
CRY3403 S01	1/4 free field prepolarized high frequency microphone set, 4 mV/Pa, 4 Hz 90kHz, 35dBA 158dB
CRY3261 S01	1/2 free field prepolarized ultra low noise microphone set, 354 mV/Pa, 3.15 Hz 20kHz, 7.5dBA 115dB