



# CRY3203-S01

## 1/2" Free-field Pre-polarized High Sensitivity Microphone Set

### Features

- **Key Specifications**

Nominal Sensitivity	-26 ±1.5dB re 1V/Pa
Dynamic Range	16dBA to 132dB
Frequency Range	3.15Hz to 20kHz ±2dB

- **Applications**

Anechoic chamber test  
 Electroacoustic test  
 Noise test

- **Standards**

IEC 61094 4:1995 Measurement microphones - Part 4

- **Components**

CRY3203 1/2" Free-field Pre-polarized Microphone  
 CRY3501 1/2" IEPE Pre-amplifier

### Introduction

CRY3203-S01 is a free-field pre-polarized microphone and pre-amplifier set widely used in acoustic testing environments, such as anechoic chambers and quiet rooms. Its frequency response range matches the auditory frequency range of the human ear, making it highly suitable for noise detection. Additionally, it is also widely applicable in various fields including electroacoustic measurements, audio measurements, and acoustical research.

### Highlights

- **Use of High Sensitivity Free-field Microphones**

High Sensitivity microphone sets have a broad measurement frequency range and are applicable to a variety of measurement scenarios.

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**

CRY SOUND microphone set requires an input module capable of providing a constant current of 4mA and an unloaded IEPE power supply 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 pre-amplifiers are supported by a 10-year warranty—offering one of the best service guarantees in the world.

# Technical Specifications

## Specifications

Field Type	Free-field
Nominal Sensitivity	50mV/Pa, -26 ±1.5dB re 1V/Pa
Frequency Response	3.15Hz to 20kHz ±2dB
Polarization Voltage	0V
Dynamic Range(re.20uPa)	16dBA to 132dB
Operating Temperature	-30 to +70°C (-22 to +158°F)
Temperature Stability	0.012dB/°C (-10 to +50°C) 0.007dB/°F (+14 to +122°F)
Static Pressure Stability	-0.01dB/kPa
Operating Humidity Range	0 to 90%RH no condensation
Humidity Stability	< 0.1dB (0 to 90%RH no condensation)
Pressure Equalization Vent	Rear vented
IEC 61094-4 Type	WS2F
Output Impedance	<20Ω
Maximum Output Voltage	>5.0Vrms
Current Source	IEPE (2mA to 10mA)
Typical Operating Current	4mA
Interface Type	BNC

## Ordering Information

### Consisting of

Measurement Microphone	CRY3203 1/2" Free-field Prepolarized Microphone
Preamplifier	CRY3501 1/2" IEPE Preamplifier
Cable	BL5001 BNC to BNC Cable /1.6m

### Optional Accessories

Electrostatic Actuator	TA0302 1/2" Electrostatic Actuator
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

## Frequency Response

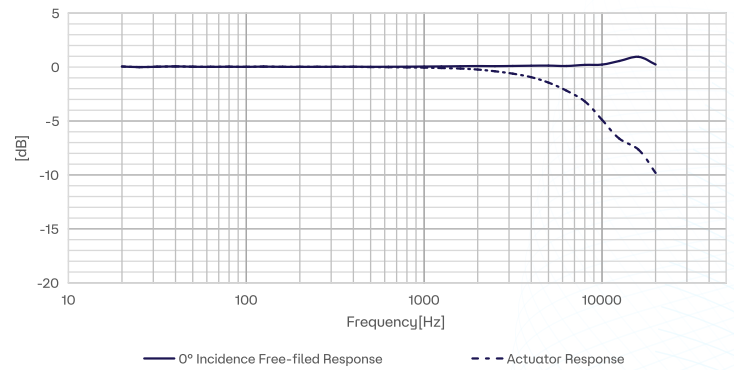


Fig.1 CRY3203-S01 Microphone Set Typical Frequency Response

## Dimensions

Height with Grid	91.5mm (3.6")
Diameter with Grid	13.2mm (0.52")

## Drawings(mm)[inch]

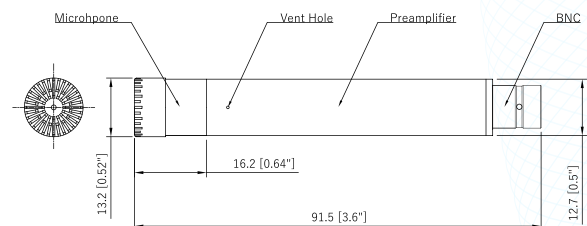


Fig.2 CRY3203-S01 Microphone Set Drawings

## Related Products

CRY3203-S02	1/2" Free-field, Prepolarized, High sensitivity Microphone Set
CRY3101-S01	1" Free-field, Prepolarized, Low Noise Microphone Set
CRY3201-S01	1/2" Free-field, Prepolarized, High Frequency Microphone Set
CRY3403-S01	1/4" Free-field, Prepolarized, Ultra High Frequency Microphone Set
CRY3261-S01	1/2" Free-field, Prepolarized, Ultra Low Noise Microphone Set