



# CRY3204

## 1/2" Pressure-field Prepolarized High- sensitivity Microphone

### Features

- **Key Specifications**

Sensitivity	50 mV/Pa
Dynamic Range	16 dB to 146 dB
Frequency Range	3.15 Hz to 10 kHz $\pm 2$ dB

- **Applications**

Anechoic chamber test  
Electroacoustic test  
Noise test

- **Standards**

IEC 61094 4:1995 Measurement microphones – Part 4

### Introduction

CRY3204 is a 1/2 inch pressure field prepolarization measurement microphone designed to be used with couplers for relevant electroacoustic testing.

It can be tested on a variety of electro-acoustic devices, such as speakers and headphones. In addition, it has a wide range of applications in the field of acoustic design research and audio equipment calibration.

### Highlights

- **Use of High-sensitivity Pressure-field Microphones**

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

Pressure-field microphones are specifically designed for measurements in small enclosed cavities or near the sound source ports, and are widely used in fields such as acoustic research and electroacoustic testing.

- **Compatibility**

The CRY3204 measuring microphone is compatible with the IEPE preamplifier of CRY SOUND.

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

- **Calibration**

Each CRY SOUND microphone 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 are supported by a 10-year warranty—offering one of the best service guarantee in the world.

## Technical Specifications

### Specifications

Field Type	Pressure-field
Sensitivity( $\pm 1.5$ dB)	50 mV/Pa, -26 dB re 1V/Pa
Frequency Response	3.15 Hz to 10 kHz $\pm 2$ dB
Polarization Voltage	0 V
Capacitance	17 pF (@250 Hz)
Dynamic Range(re.20uPa)	16 dB to 146 dB
Inherent noise	16 dBA
Operating Temperature	-30°C to +80°C(-22°F to +176°F)
Temperature Stability	0.012 dB/°C (-10°C to +50°C) 0.007 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	WS2P

### Dimensions

Height with Grid	16.2 mm (0.64")
Diameter with Grid	13.2 mm (0.52")

## Ordering Information

### TEDS Combinations

Microphone Set	CRY3204-S01 Microphone Set (CRY3501 IEPE Preamplifier) CRY3204-S02 Microphone Set (CRY3503 IEPE Preamplifier)
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### Optional Accessories

Preamplifier	CRY3541 1/4" SMB Interface CRY3502 1/2" SMB Interface
Microphone Holder	1/2" Microphone Holder
Adapter	TA0502 1/4" to 1/2" Adapter Ring
Power Supply	CRY575 Three-channel Microphone Power Supply

### Drawings(mm)[inch]

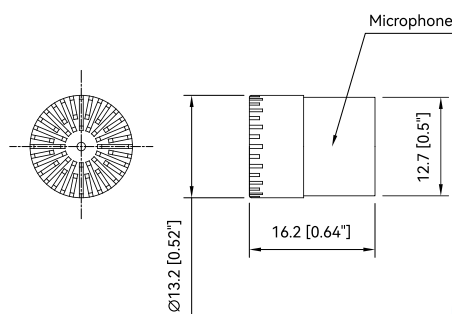


Fig.1 CRY3204 Microphone Drawings

### Frequency Response

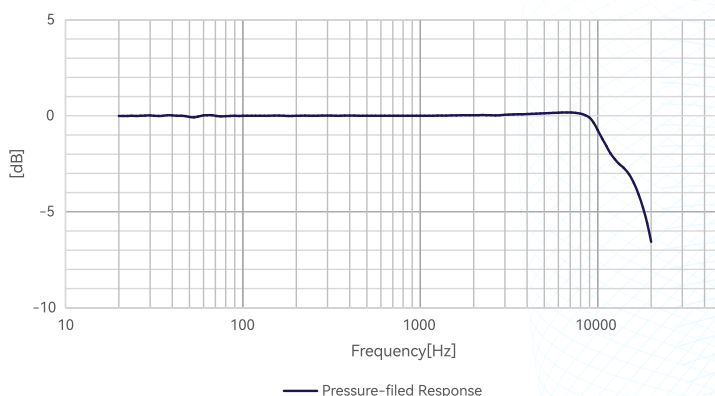


Fig.2 CRY3204 Microphone Typical Frequency Response

### Related Products

CRY3102	1" pressure-field prepolarized low-noise microphone, 50 mV/Pa, 4 Hz-8 kHz, 12 dB-146 dB
CRY3201	1/2" free-field prepolarized high-frequency microphone, 12.5 mV/Pa, 3.15 Hz-40 kHz, 23 dB-160 dB
CRY3202	1/2" pressure-field prepolarized wide-frequency microphone, 12.5 mV/Pa, 3.15 Hz-20kHz, 23 dB-160 dB
CRY3404	1/4" pressure-field prepolarized high-level microphone, 0.56 mV/Pa, 10 Hz-20kHz, 59dB-175dB