

CRY3202

1/2" Pressure-field Prepolarized Wide- Frequency Microphone

Features

- **Key Specifications**

Sensitivity	12.5 mV/Pa
Dynamic Range	23 dB to 160 dB
Frequency Range	3.15 Hz to 20 kHz ± 2 dB

- **Applications**

In-ear monitor measurements – used in conjunction with a coupler
Wideband earbud measurements – used in conjunction with a coupler

- **Standards**

IEC 61094 4:1995 Measurement microphones – Part 4

Introduction

CRY3202 is a 1/2 inch diameter pressure field prepolarization measurement microphone designed to be used in conjunction with a coupled chamber for relevant electroacoustic testing.

Its unique design allows for high-quality, wide-band testing of in-ear monitors and earplugs. Its frequency range extends up to 20kHz, beyond the test capabilities of most analog ears.

Highlights

- **Use of Wide-frequency Pressure-field Microphones**

Wide-frequency microphones can cover a wide frequency range from very low frequencies to high frequencies, making them highly suitable for testing and measuring various acoustic environments and sound sources. 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 CRY3202 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(± 1.5 dB)	12.5 mV/Pa, -38 dB re 1V/Pa
Frequency Response	3.15 Hz to 20 kHz ± 2 dB
Polarization Voltage	0 V
Capacitance	13 pF (@250 Hz)
Dynamic Range(re.20uPa)	23 dB to 160 dB
Inherent noise	23 dBA
Operating Temperature	-30°C to +80°C (-22°F to +176°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	WS2P

Dimensions

Height with Grid	12.7 mm (0.500")
Diameter with Grid	13.2 mm (0.520")

Ordering Information

TEDS Combinations

Microphone Set	CRY3202-S01 Microphone Set (CRY3501 IEPE Preamplifier) CRY3202-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]

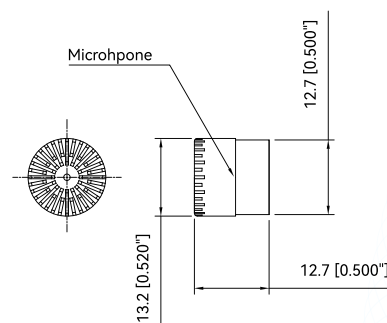


Fig.1 CRY3202 Microphone Drawings

Frequency Response

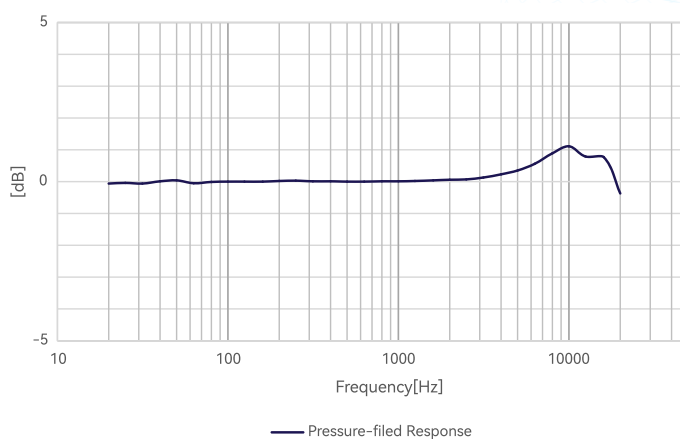


Fig.2 CRY3202 Microphone Typical Frequency Response

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
CRY3204	1/2" pressure-field prepolarized high-sensitivity microphone, 50 mV/Pa, 3.15 Hz-10 kHz, 16 dB-146 dB
CRY3404	1/4" pressure-field prepolarized high-level microphone, 0.56 mV/Pa, 10 Hz-20kHz, 59dB-175dB