



# CRY3543

## 1/4", IEPE Microphone Preamplifier with 10-32UNF Connector and TEDS

### Features

- **Key Specifications**

Frequency Range	1 Hz to 200 kHz ( $\pm 0.2$ dB)
Power Supply	IEPE(2mA ~ 20mA)
Max Output Voltage	>10.0Vp

- **Applications**

For use with prepolarized condenser microphones

### Introduction

The CRY3543 is a general purpose measurement microphone preamplifier that can be used with all prepolarized condenser microphones.

CRY3543 converts high input impedance to low output impedance, allowing the use of longer extension cables; The advantages of low background noise, almost will not cause load to the microphone; It supports TEDS function, which can reduce the test time; Good design and toughness make it suitable for a wide range of environmental conditions.

### Highlights

- **What is IEPE?**

IEPE is a generic name for CRY SOUND products which operate on a constant current power supply. IEPE products give output signals in the form of voltage modulation on the power supply line. One of the advantages of this is that you can use inexpensive coaxial cables.

- **Compatibility**

The CRY3543 IEPE preamplifier is compatible with CRY SOUND prepolarized measurement microphones and can be used together with data acquisition hardware that supports IEPE microphones, such as the CRY6151B electroacoustic analyzer.

- **TEDS**

CRY3543 supports the Transducer Electronic Data Sheet (TEDS) conforming to the IEEE 1451.4 V1.0 standard. It is capable of being compatible with smart sensor technology to facilitate the integration and automated management of sensor information.

- **Calibration**

Each CRY SOUND preamplifier 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 preamplifiers are made of stainless steel with good corrosion resistance and robustness, suitable for long-term storage. CRY SOUND preamplifiers are supported by a 10-year warranty—offering one of the best service guarantee in the world.

## Technical Specifications

### Specifications

Frequency Response	1 Hz to 200 kHz ( $\pm 0.2$ dB)
Input Impedance	$> 28 \text{ G}\Omega/0.4\text{pF}$
Output Impedance	$< 50 \Omega$
Attenuation	$-0.4 \text{ dB}$
Distortion (THD) at 1V <sub>out</sub>	$-74 \text{ dB @1kHz (0.02\%)}$ $-74 \text{ dB @10kHz (0.02\%)}$
Phase Matching	1kHz to 10kHz: $< 0.01^\circ$ 100Hz to 20kHz: $< 0.02^\circ$
Power Supply	IEPE(2 mA to 20 mA , Typical: 4 mA)
Max Output Voltage	$> 10.0 \text{ Vp}$
Noise (A-weighting)	$< 3.0 \mu\text{Vrms}$
Noise (linear 20 Hz to 20kHz)	$< 4.0 \mu\text{Vrms}$
DC Bias Voltage	$12 \text{ V} \pm 2 \text{ V}$
Output Slew Rate	$3 \text{ V}/\mu\text{s}$
Start-up Time	$< 1 \text{ s}$
voltage linearity	$< 0.1 \text{ dB (-90dBV to +15dBV)}$
Temperature	$-40^\circ\text{C to } +80^\circ\text{C} (-40^\circ\text{F to } 176^\circ\text{F})$
Humidity	0 to 90%RH, no condensation
Connector Type	10-32UNF
Thread Interface Diameter	5.7 mm-60 UNS

### Dimensions

Height	47.75mm (1.88")
Diameter	6.35mm (0.25")

### Drawings(mm)[inch]

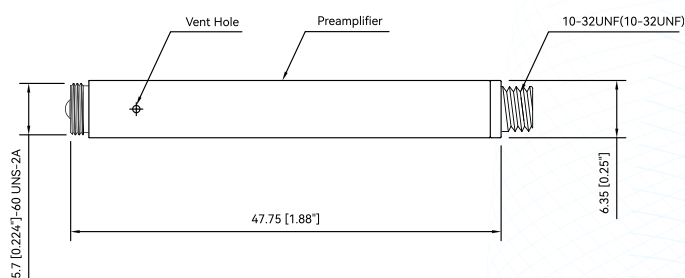


Fig.1 CRY3543 preamplifier Drawings

## Ordering Information

### Optional Accessories

Microphone Cartridges	CRY3203 1/2" Free-field Prepolarized Microphone CRY3404 1/4" Pressure-field Prepolarized Microphone
Adapter	TA0502 1/4" to 1/2" Adapter Ring
Power Supply	CRY575 Three-channel Microphone Power Supply
Cable	10-32UNF to BNC Cable / 1.5m

### Related Products

CRY3501	1/2" IEPE microphone preamplifier with BNC connector and TEDS
CRY3521	1/2" IEPE microphone preamplifier with BNC connector, base-type
CRY3503	1/2" IEPE microphone preamplifier with 10-32UNF connector and TEDS, very short
CRY3541	1/4", IEPE microphone preamplifier with SMB connector and TEDS
CRY3542	1/4", IEPE microphone preamplifier with SMB connector and TEDS, short