



# Prepolarized ICP® Array Microphones

## Highlights

- Low per channel cost
- Powered by ICP® sensor signal conditioners
- Integrated preamplifier
- TEDS IEEE 1451.4 enabled
- Rugged water and dust resistant model available

## Applications

- Holography and beamforming
- Sound pressure mapping
- Multichannel measurements
- Spatial transformation of sound
- Noise source identification
- Non-contact defect detection
- Audible range testing
- Brake and tire noise



Prepolarized ICP® Array microphones are a cost-effective alternative to the precision microphones and are suitable for measuring sound within the normal range of the human hearing capability. PCB's 130 series of array microphones are single piece units that include a built-in preamplifier and have excellent phase specifications. Using multiple microphones and spacing them in a predetermined pattern coordinated with the proper software, special transformation of a complex sound field is projected to effectively map the acoustic energy flow. End users can now pinpoint the noise source, and determine the speed and direction of sound. Array microphones are an excellent choice for noise identification, near-field acoustic holography, sound pressure mapping, beamforming and other large channel count applications.

Transducer Electronic Data Sheets (TEDS) enhance the identification of each microphone. This is very helpful in large channel count applications. All PCB® array microphones come standard with TEDS functionality and are compliant with the IEEE 1451.4 standard.

### Calibration & Warranty

PCB® adheres to a systematic quality control procedure using the finest materials, assembled in a clean room environment. Our microphones are hand-crafted at our 300,000 sq.ft. sales and manufacturing campus, and machined at our adjacent state-of-the-art 52,000 sq.ft. CNC machine shop - giving us greater control over quality and delivery. Each unit is quality inspected with a traceable calibration certification. Our "Best in Class" 5-year no limitation warranty is unmatched by the industry and our microphones are backed by **Total Customer Satisfaction** no risk policy.





**Model 130A23**  
(SMB Connector)



**Model 130A24**  
(BNC Connector)



**Model 130F20**  
(BNC Connector)



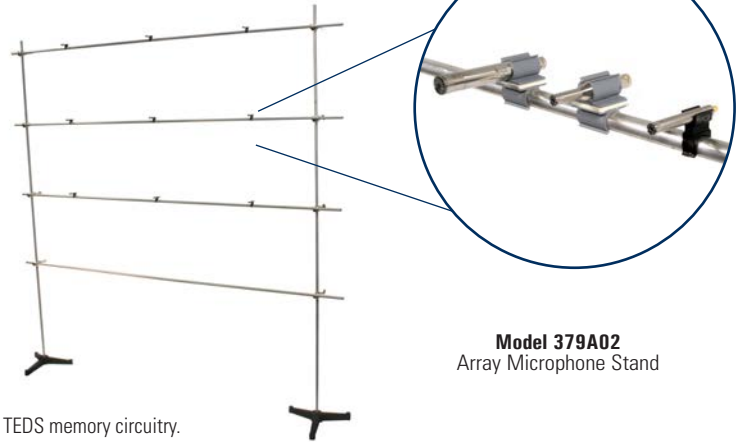
**Model 130B40**  
Low Profile  
Surface Microphone Pad



**Model 130F21**  
(10-32 Connector)



**Model 130F22**  
(SMB Connector)



**Model 379A02**  
Array Microphone Stand

CE **TEDS** All series 130 microphones are CE marked and contain IEEE 1451.4 TEDS memory circuitry.

**ICP® Array Microphones with Integral Preamp**

Model Number	(New) 130A24	130A23	130F20	130F21	130F22	130B40
Microphone Diameter	1/2 in	1/4 in	1/4 in [4]	1/4 in	1/4 in	1/4 in
Response	Free-field	Free-field	Free-field	Free-field	Free-field	Pressure
Sensitivity (± 3 dB at 250 Hz)	10 mV/Pa	14 mV/Pa	45 mV/Pa	45 mV/Pa	45 mV/Pa	8.5 mV/Pa
Frequency response (± 2 dB)	20 Hz to 16 kHz [2]	20 Hz to 20 kHz	10 Hz to 20 kHz [1]	10 Hz to 20 kHz [1]	10 Hz to 20 kHz [1]	20 Hz to 10 kHz [2]
Dynamic Range	< 30 dBA to >143 dB [3]	< 30 dBA to >143 dB [3]	26 dBA to >122 dB	26 dBA to >122 dB	26 dBA to >122 dB	<32 dBA to >142 dB [3]
Polarized Voltage	0 V	0 V	0 V	0 V	0 V	0 V
Temperature Range	-14 to +122 °F -10 to +50 °C	-14 to +122 °F -10 to +50 °C	+14 to +122 °F -10 to +50 °C	+14 to +122 °F -10 to +50 °C	+14 to +122 °F -10 to +50 °C	-40 to +176 °F -40 to +80 °C
Connector	BNC Jack	SMB Socket	BNC Jack	10-32 Jack	SMB Socket	10-32 Jack
Application	Rugged water and dust resistant	High frequency and high amplitudes	General purpose	General purpose	Quick release connector	Low profile and surface mount to minimize wind noise

**Notes**

[1] ± 4 dB. [2] ± 3 dB, 20 to 20 kHz ± 6 dB. [3] 150 dB max without clipping. [4] 1/2" preamplifier diameter.



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AS9100 CERTIFIED ■ ISO 9001 CERTIFIED

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**PCB PIEZOTRONICS, INC.** is a designer, manufacturer, and global supplier of accelerometers, microphones, force, torque, load, strain, and pressure sensors, as well as the pioneer of ICP® technology. This instrumentation is used for test, measurement, monitoring, and control requirements in automotive, aerospace, industrial, R&D, military, educational, commercial, OEM applications, and more. Our Platinum Stock Sensors program ensures fast shipment of over 10,000 sensors that are covered by a Lifetime Warranty. With a support team of Customer Service Representatives and Application Engineers, PCB® proudly stands behind their products with the services you value most, including 24-hour technical support, a global distribution network, and the industry's only commitment to **Total Customer Satisfaction**. Visit us at www.pcb.com.

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