

## Description

The MT830R is a subminiature condenser microphone intended to be worn on the clothing of performers for excellent yet unobtrusive sound pickup. The wide-range capability of the MT830R ensures clean, accurate reproduction with high intelligibility for lecturers, singers, stage and TV performers, as well as musical instruments. Its small size makes the MT830R ideal for use in applications where minimum visibility is required.

The MT830R is intended for use in professional applications where remote power is available. It will accommodate any external phantom power source supplying from 9V to 52V DC, such as the Audio-Technica CP8508 single-channel 24V phantom power supply and the CP8506 four-channel 48V phantom power supply.

The microphone element is enclosed in a rugged housing with low-reflectance finish. Internal construction is designed to minimize handling and clothing noise. A 25' (7.6 m) cable is provided between the microphone and remote power module. A clothing clip and accessory windscreens are also provided.

## Operation and Maintenance

Output is low impedance balanced. The power module output connector mates with XLR-type cable connectors. The balanced signal appears across Pins 2 and 3, while the ground (shield) connection is Pin 1. Output is phased so that positive acoustic pressure produces positive voltage at Pin 2 in accordance with industry convention.

DC phantom power (from 9V to 52V) must be applied equally to Pins 2 and 3, with the ground for the power supply connected to Pin 1. This connection is standard for almost all input electronics which supply phantom power, including the recommended CP8506 and CP8508 power supplies.

The microphone can be clipped to a tie, lapel, or dress using the clasp provided. An open-pore foam windscreen attaches to the front of the microphone, effectively reducing wind noise and "popping" when used extra close.

While a modern condenser microphone is not unduly sensitive to the environment, temperature extremes can be harmful. Exposure to high temperature can result in gradual and permanent reduction of the output level. Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for long periods of time. Extremely high humidity should also be avoided.

## Architects and Engineers Specifications

The microphone shall be a fixed-charge condenser with an omnidirectional polar pattern and a frequency response of 30 Hz to 20,000 Hz. It shall be capable of operating from an external 9V to 52V DC phantom power source. Nominal open-circuit output voltage shall be 19.9 mV at 1 kHz, 1 Pascal. Output with remote power module shall be low impedance balanced (200 ohms).

The microphone shall have a permanently-attached 25' (7.6 m) miniature cable between the microphone and remote power module. The remote power module shall terminate in a 3-pin XLRM-type connector.

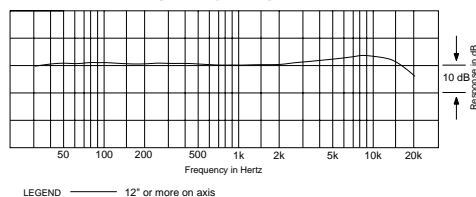
The microphone shall be mountable in an included clothing clip. The microphone shall be 0.62" (15.8 mm) long with a width of 0.33" (8.3 mm) and a depth of 0.19" (5.0 mm). The microphone weight shall be 0.05 oz (1.3 grams). Finish shall be low-reflectance black.

The Audio-Technica MT830R is specified.

## MT830R SUBMINIATURE OMNIDIRECTIONAL CONDENSER MICROPHONE

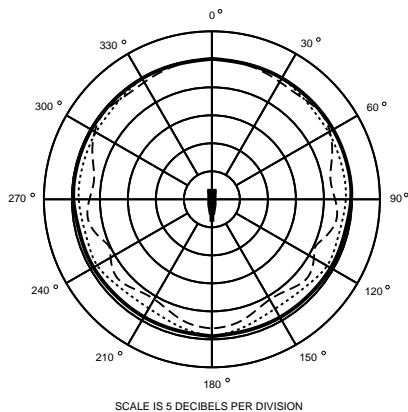


Frequency Response



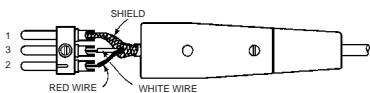
# MT830R

## Polar Pattern

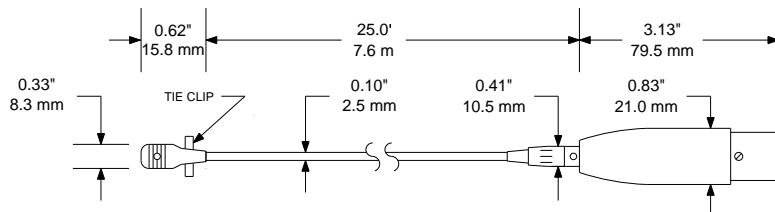


LEGEND  
 200 Hz — same as 1 kHz  
 1 kHz - - - - -  
 5 kHz ·······  
 8 kHz - · - · -

## XLRM-Type Plug Wiring Low Impedance Balanced



## Dimensions



## MT830R SPECIFICATIONS<sup>†</sup>

<b>ELEMENT</b>	Subminiature, fixed-charge back plate, permanently polarized condenser
<b>POLAR PATTERN</b>	Omnidirectional
<b>FREQUENCY RESPONSE</b>	30-20,000 Hz
<b>OPEN CIRCUIT SENSITIVITY</b>	-34 dB (19.9 mV) re 1V at 1 Pa*
<b>IMPEDANCE</b>	200 ohms
<b>MAXIMUM INPUT SOUND LEVEL</b>	131 dB SPL, 1 kHz at 1% T.H.D.
<b>DYNAMIC RANGE (TYPICAL)</b>	107 dB, 1 kHz at Max SPL
<b>SIGNAL-TO-NOISE RATIO<sup>†</sup></b>	70 dB, 1 kHz at 1 Pa*
<b>PHANTOM POWER REQUIREMENTS</b>	9-52V DC, 2 mA typical
<b>WEIGHT (LESS CABLE AND ACCESSORIES)</b>	
<b>MICROPHONE</b>	0.05 oz (1.3 grams)
<b>POWER MODULE</b>	1.81 oz (51.4 grams)
<b>DIMENSIONS</b>	
<b>MICROPHONE</b>	0.62" (15.8 mm) long, 0.33" (8.5 mm) wide, 0.19" (5.0 mm) thick
<b>POWER MODULE</b>	3.13" (79.5 mm) long, 0.83" (21.0 mm) diameter
<b>OUTPUT CONNECTOR</b>	Integral 3-pin XLRM-type
<b>CABLE</b>	25' (7.6 m) long (permanently attached to microphone), 0.10" (2.5 mm) diameter, 2-conductor, shielded cable with TA3F output connector
<b>ACCESSORIES FURNISHED</b>	AT8533 power module; clothing clip; windscreens

<sup>†</sup> In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

\* 1 Pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL

<sup>†</sup> Typical, A-weighted, using Audio Precision System One.

## Optional Accessories:

- AT8130 subminiature foam windscreens (packet of three).
- CP8201 line matching transformer (Lo-Z to 50,000 ohms).
- AT8202 adjustable in-line attenuator for use with low-impedance microphones.
- AT8314 2-conductor, shielded, vinyl-jacketed, broadcast-type cable with XLRM-type connector at microphone end, XLRM-type connector at equipment end. Available in 10', 20', 25', 30', 50' & 100' lengths.
- CP8506 four-channel 48V phantom power supply (AC powered).
- CP8508 single-channel 24V phantom power supply (AC powered).

## One-Year Limited Warranty

Audio-Technica microphones and accessories purchased in the U.S.A. are warranted for one year from date of purchase by Audio-Technica U.S., Inc. (A.T.U.S.) to be free of defects in materials and workmanship. In event of such defect, product will be repaired promptly without charge or, at our option, replaced with a new product of equal or superior value if delivered to A.T.U.S. or an Authorized Service Center, prepaid, together with the sales slip or other proof of purchase date. **Prior approval from A.T.U.S. is required for return.** This warranty excludes defects due to normal wear, abuse, shipping damage, or failure to use product in accordance with instructions. This warranty is void in the event of unauthorized repair or modification.

**For return approval and shipping information,** contact the Service Department, Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224.

Except to the extent precluded by applicable state law, **A.T.U.S. will have no liability for any consequential, incidental, or special damages; any warranty of merchantability or fitness for particular purpose expires when this warranty expires.**

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.



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Outside the U.S.A., please contact your local dealer for warranty details.