# UEM81C Instrument Condenser Microphone

## OVERVIEW

The UEM81C is a pre-polarized condenser microphone used for stage, home, studio, video applications and broadcast applications. The UEM81C is conveniently powered by one AA battery; therefore it is not dependent on phantom power for operation. Known for its clear, accurate response and flexibility to handle close or distance miking, the UEM81C is well suited for a wide variety of vocal and instrument applications.

Characterized with a uniformly controlled cardioid polar pattern, the UEM81C is designed to capture the acoustics of vocals or instruments while at the same time isolating it from the rest of the ambient noise on stage or in the room. With a wide frequency range of 40 Hz – 20 kHz, the UEM81C is equipped with an on-off switch as well as with a bass roll-off switch.

The UEM81C is very easy to position, durable and manufactured with high standards and tight tolerances. Roadworthy construction includes a machined aluminum body and capsule housing, black e-coat finish, interchangeable threaded capsule and snap to fit composite clip.

## SUPPLIED ACCESSORIES

**PS81** - Modular preamp supply with on-off switch and bass roll-off filter
**CPS81C** - Modular cardioid capsule
**MC81** - Tension-fit clip
**WS81C** - External Foam Windscreen
**CBL20** - 20' XLR-XLR mic cable
- Vinyl carrying box

## OPTIONAL ACCESSORIES

**DClip** - Heavy duty tension clip
**SMT25** - Shockmount suspension clip
**TRIPOD** - Tripod mic stand
**CPS81S** - Modular shotgun capsule

## REPLACEMENT CAPSULE

**CPS81C** - Modular cardioid capsule

## FEATURES

- Excellent sonic quality
- AA Battery operated
- On-off switch, bass roll-off filter
- Lightweight, easy to position
- Modular capsule

## APPLICATIONS

- Live sound, recording, video
- Vocals - lead, background, group
- Acoustic instruments
- Overheads, room ambience

WS81C

UEM81C on MC81

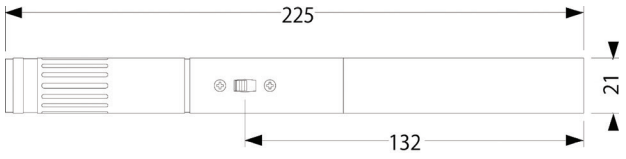
SMT25

TRIPOD

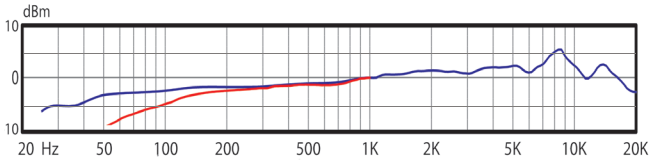
## SPECIFICATIONS

| | |
|---|---|
| Transducer Type | Pre-Polarized Condenser |
| Frequency Response | 40 Hz - 20 kHz |
| Polar Pattern | Cardioid |
| Output Impedance | 600 ohms |
| Sensitivity | 4 mV / Pa @ 1k |
| Equivalent Noise Level | 27 dB (A weighted) |
| Signal to Noise Ratio | 82 dB |
| Maximum SPL | ≥128 dB |
| Power Requirements | AA Battery |
| Connector | 20' XLR-XLR |
| Polarity | Positive pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 |
| Materials / Finish | Machined Aluminum / Black Finish |
| Weight | 236.6 g / 8 oz |
| Length | 225 mm / 8.9 in |

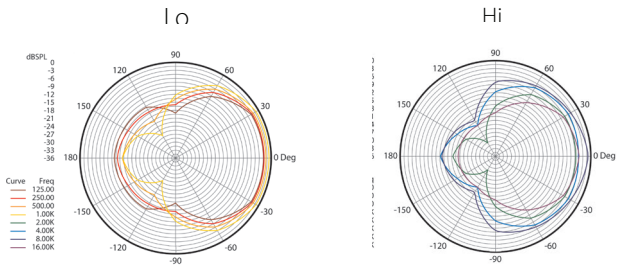
## DIMENSIONS (mm)




## FREQUENCY RESPONSE




## POLAR PATTERNS




## ARCHITECT AND ENGINEER SPECIFICATIONS

The microphone shall be a back plate pre-polarized condenser with a modular capsule and cardioid polar pattern. The microphone shall operate on 3 volts DC (AA Battery) and the nominal output impedance shall be equal to 600 ohms at 1 kHz. The microphone shall have switches for on-off function and bass roll-off filter. The microphone shall have a sensitivity of 4 mV / Pa at 1 kHz and a maximum SPL level of ≥128 dB with a THD of 0.5%. The microphone shall be machined from aluminum brass with dimensions of 21 mm in diameter and 225 mm in length. The microphone shall be the Audix UEM81C.

## OPERATION AND MAINTENANCE

The UEM81C is a low impedance microphone and should be plugged into the mic level input of your mixer, console, or recording device. The UEM81C does not require phantom power as it is powered by one AA battery and will operate for 100 hours under normal usage. If batteries are not installed, you will experience frequency loss in the bass frequencies and higher self noise. Avoid plugging or unplugging the microphone from a PA system unless the channel is muted or the volume of the system is turned down. Failure to do so may result in a loud "popping" noise which could seriously damage the speakers in the PA system.

**On-Off Switch:** The switch must be in the ON position in order for the microphone to operate. Avoid using the switch unless the PA system is muted or the volume turned down. When the microphone is not in use, be sure to turn the microphone OFF in order to conserve battery power.

**M/V Bass Roll-Off Switch:** This feature gently rolls off the bass frequencies starting at 150 Hz which is very helpful in reducing boominess for voice. This feature is engaged when the switch is in the "150 Hz" position. For full range frequency response for musical instruments put the switch in the "Flat" position.

**Replacing the battery:** If the microphone begins to sound distorted or weak, it is time to change the battery. Battery is housed in bottom section of the mic above the XLR connector. Unscrew the housing to replace the battery.

**Windscreen:** The windscreen can be utilized to help control wind noise, breath noise, popping and sibilance sounds.

## USER TIPS

The UEM81C is an excellent utility microphone for all types of vocal and instrument applications. The UEM81C has a cardioid pattern, however, because of its sensitivity the UEM81C is very effective as an area microphone for miking group vocals, a group of instruments, or drum overheads. If using multiple microphones, be sure to have a distance of 4 - 5' between microphones.
For home recording, the UEM81C is an excellent choice for speech or acoustic instruments.

Further miking techniques may be found at www.audixusa.com.

**PRODUCT REGISTRATION:** Please register your product online at www.audixusa.com/docs_12/about/product_registration.shtml.
**SERVICE AND WARRANTY:** This microphone is under warranty for a period of 3 years to be free of defects in material and workmanship. In the event of a product failure due to materials or workmanship, Audix will repair or replace said product at no charge with proof of purchase. Audix does not pay or reimburse shipping costs for warranty repairs or returns. The warranty excludes any causes other than manufacturing defects, such as normal wear, abuse, environmental damage, shipping damage or failure to use or maintain the product per the supplied instructions. No Implied Warranties: All implied warranties, including but not limited to implied warranties of merchantability and fitness for a particular purpose are hereby excluded. The liability of Audix, if any, for damages relating to allegedly defective products shall be limited to the actual price paid by Dealer for such products and shall in no event include incidental or consequential damages of any kind. Should your microphone fail in any way, please contact the Audix Service department at 503.682.6933. A Return Authorization is required before returning any product. OTHER THAN THIS WARRANTY, AUDIX MAKES NO WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCTS, THE USE OF THE PRODUCTS, THE PERFORMANCE OF THE PRODUCTS. AUDIX SHALL NOT BE LIABLE FOR SPECIAL INCIDENTAL, CONSEQUENTIAL, INDIRECT OR SIMILAR DAMAGES ARISING FROM OR BASED ON THE SALE, USE, STORAGE OR DISPOSAL OF THE PRODUCTS, AUDIX'S SERVICE WORK, BREACH OF WARRANTY, BREACH OF CONTRACT. NEGLIGENCE, OR ANY OTHER THEORY OF LIABILITY, EVEN IF AUDIX HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.**

www.audixusa.com
503.682.6933 Fax: 503.682.7114
Audix Corporation 9400 SW Barber St. Wilsonville, OR 97070

AUDIX

ver 2.0 05-16