



H A Harman International Company

C 414 B/ULS

Large Diaphragm Condenser Microphone

Description

The AKG Model C 414 B/ULS is certainly the most ubiquitous studio condenser microphone in the United States, and very likely in the rest of the world as well. It is designed around dual back-to-back large 1 in. (25 mm) gold sputtered diaphragms for multiple pickup patterns. The microphone's pickup patterns are easily switchable among omnidirectional, cardioid, hypercardioid, and figure-eight. Additional flexibility in the studio operating environment allows a bass cut of 12 dB/octave below 150 or 75 Hz and pre-preamp attenuation of either 10 or 20 dB. The self noise of the microphone is a low 14 dB (A weighted). On-axis sensitivity for all patterns is 12.5 mV/Pa, and for unpadding operation maximum program level is 140 dB for 0.5% total harmonic distortion.

The C 414 B/ULS is one of the most accurate multi-pattern microphones available to the engineer. The far-field on-axis response for all four switchable patterns is remarkably flat, varying no more than +/-2 dB over the range from 20 to 20 kHz.

Specifications

Transducer Principle:	Condenser, externally polarized
Frequency Range:	20–20,000 Hz
Polar Pattern:	Omnidirectional, cardioid, hypercardioid, and figure-eight
Sensitivity at 1,000 Hz:	12.5 mV/Pa = $\hat{=}$ -38 dBV
Equivalent Noise Level:	14 dB-A
Sound Pressure Level for 0.5% THD:	134 dB, wide-band (unpadding) 140 dB, 1 kHz (unpadding)
S/N Ratio (A-weighted):	80 dB
Electr. Impedance:	180 ohms
Load Impedance:	> 1,000 ohms
Power Requirement:	12–48 volts nominal Phantom powering
Connector:	3-pin XLR type
Finish:	Non-reflective black
Size:	5.6 x 1.8 x 1.4 in. (141 x 45 x 35 mm)
Net/Shipping Weight:	11 oz. (320 g)/2.1 lbs. (950 g)
Included Accessories:	H 100 Elastic Suspension W 414 Windscreen
Optional Accessories:	SA 18/3 B Stand Adapter B 18 Battery supply unit N 62 E Power supply



Features

- One of the world's most celebrated studio condenser microphones
- Large 25 millimeter gold sputtered diaphragm format optimized for studio applications
- Dual diaphragm for multiple polar patterns
- High acoustic level capability (140 dB-SPL for 0.5% THD)
- Low self noise (14 dB-A)

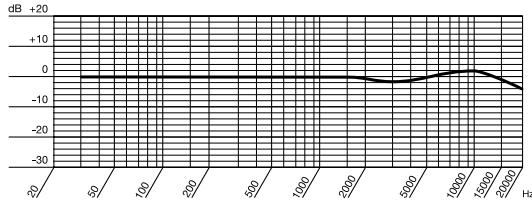
Architects and Engineers Specifications

The microphone shall provide at least four switchable pickup patterns that are nominally omnidirectional, cardioid, hypercardioid, and figure-eight. The microphone shall have maximum sensitivity along its radius, and that sensitivity shall be no less than 12.5 mV/Pa for all patterns. The microphone shall provide a switchable 12 dB/octave roll-off at frequencies of 75 and 150 Hz. Pre-preamp attenuation switches of -10 and -20 dB shall also be provided, and

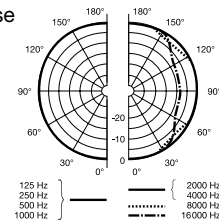
the self noise floor of the microphone in its unpadding operation shall be no greater than 14 dB (A weighted). The unpadding microphone shall operate in a wide-band sound field of 140 dB-SPL with no more than 0.5 % total harmonic distortion. The microphone case shall fit within a rectangular envelope no larger than 141 x 45 x 35 mm. The microphone shall be the AKG Acoustics Model C 414 B/U/LS.

Graphical Data

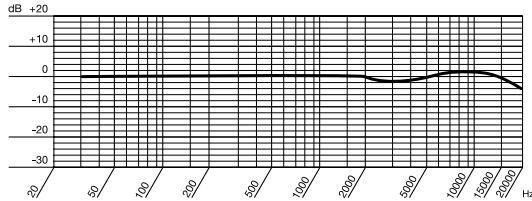
Omnidirectional On-axis Frequency Response (measured at 1 meter)



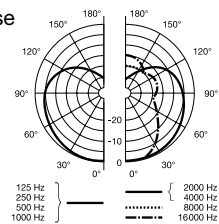
Polar Response



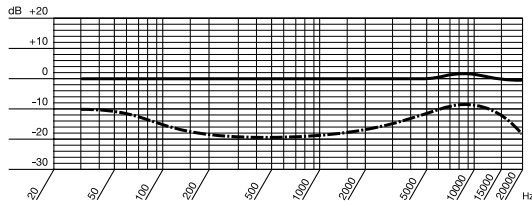
Cardioid On-axis Frequency Response (measured at 1 meter)



Polar Response



Hypercardioid On-axis Frequency Response (measured at 1 meter)



Polar Response

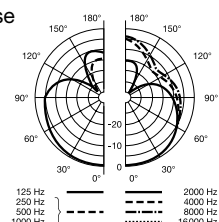
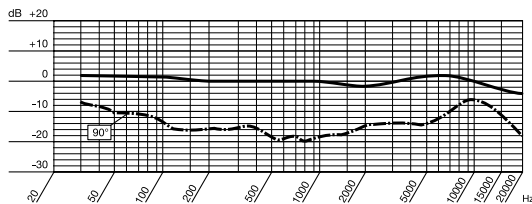
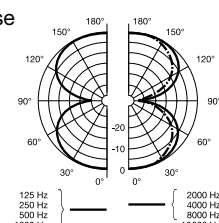


Figure eight On-axis Frequency Response (measured at 1 meter)



Polar Response



Limited Warranty

Valid only in the United States. AKG Acoustics warrants AKG products against defects in material or workmanship for a period of three years from the date of original purchase for use, and agrees to repair or, at our option, replace any defective unit without charge for either parts or labor. Important: This warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, the affixing of any attachment not provided with the product, loss of parts or connecting the product to any but the specified receptacles. This warranty is void unless service or repairs are performed by an authorized service center. No responsibility is assumed for any

special, incidental or consequential damages. However, the limitation of any right or remedy shall not be effective where such is prohibited or restricted by law. Simply take or ship your AKG product prepaid to our service department. Be sure to include your sales slip as proof of purchase date. (We will not repair transit damage under the no-charge terms of this warranty.) Note: No other warranty, written or oral is authorized by AKG Acoustics, Inc. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above exclusions and limitation may not apply to you.

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AKG is constantly improving and modifying its products, therefore, specifications are subject to change without notice.