

## AKG C214

The newest branch on AKG's 'C'-series family tree leans towards the 'bright' end of the spectrum.

**Text:** Robin Gist



▶ The latest release from AKG's lauded microphone stable is the C214 side-address condenser. Adding its name to a (lengthy) string of classic microphones that date back to 1953 (when the legendary C12 valve microphone was first introduced), the C214 has quite a reputation to uphold. Designed, engineered and built in Vienna, the fixed-cardioid pattern C214 is intended as a cost-effective alternative to the C-414 while still offering large diaphragm performance, wide dynamic range, rugged construction and a sound similar to that of the C-414 B-XLS. The AKG C-414 with its myriad suffixes and variations, is in turn, a direct descendant of the C12A, which was the first mic in the AKG lineage to sport the highly recognisable faceted body styling. [For a brief history of AKG's 'C'-Series range see the timeline (right)].

### ENCAPSULATING THE HISTORY

As with any microphone, the capsule is the all-important heart of the device. Arguably one of the most revered and famous capsule designs is the precision built AKG 'brass ring' CK12, found in the valve C12 microphone and later C12A(&B) models, which also incorporated the metal cased NuVistor valve. For commercial and export reasons the CK12 was also used in the Elam/Telefunken M250 and M251 microphones but with different valves and electronics. The 'brass ring' CK12 was later replaced by a different sounding nylon version that was cheaper to produce. AKG later designed *yet another* capsule that tried to emulate the original 'brass ring' sound, and this version was used in the C-414 B-TLII and C12VR microphones that were released in the early '90s.

### NOT THE GOLDEN RING

While researching this review, I came across a brochure supplied by AKG which states about the new microphone: "Because the C214 uses the same one-inch diaphragm as the C-414, the essence of that heralded C-414 sound has been captured in this newest model." This is not strictly correct. While the C-414 uses a DC-polarised capsule, the C214 uses an electret capsule that is technically closer to those found in the AKG C3000 and C4000 microphones. The C214's capsule is, in fact, only one half of a 414 capsule, with the addition of the "patented back-plate"

which turns the combination into an electret capsule. As a result, the C214 has a higher noise floor – at 13dBA – when compared to the C-414's significantly lower 6dBA. There's nothing wrong with modern electret condenser microphones of course, except for this higher noise floor. [See the box item (right) for a brief, but not overly technical, explanation on the differences between the two capsules.]

### C FOR CONSTRUCTION

Like all previous AKG 'C'-series mics, the C214 is a solidly built microphone, constructed from a scratch resistant, die-cast metal body that will likely withstand the rigours of whatever life throws at it – either in the studio or on the road. The sturdy double-mesh grille surrounding and protecting the capsule is simultaneously designed for high RF rejection, plosive control and acoustic transparency. While the mic isn't the most 'sensitive' large diaphragm on the market when confronted with plosives from a vocalist, a pop shield is still mandatory on any recording session. The capsule itself also has an integrated suspension system to help reduce transmitted mechanical noise from the stand that supports it. The low frequency roll-off switch located on the right side of the mic provides a relatively gentle 6dB per-octave slope at 160Hz, while the pad switch on the left allows for 20dB signal attenuation in high-SPL sound fields.

To combat the confusion often experienced by first-time users of C-414s, the 'front' of the C214 is signposted with the new AKG logo and silver grille, with the rear grille coloured black; you'd have to flip it around to see the logo for that all-important video shot – à la Lenny Kravitz and his Neumann! The XLR connector is gold plated and the C214 comes complete with a foam windsock, a plastic spider-type shock mount, a camera style metal carry case and an instruction booklet.

### AT THE TOP END

During my time working with the C214, I tested it on a wide variety of instruments and voices while recording an upcoming Australian TV series. The main songs and underscore of the show had light orchestral arrangements that included voice, strings, double bass, accordion, brass,

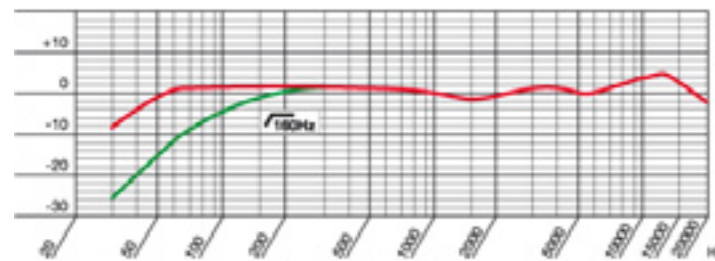
### THE CAPACITY TO UNDERSTAND or C THE LIGHT

In a DC polarised capsule design, a voltage is applied across the diaphragm and a rear plate. This voltage is supplied either by phantom or battery power and the capacitance between the plates is varied due to the air pressure on the diaphragm changing the distance between the diaphragm and the rear plate. With a bit of electronic wizardry this variation can be converted into a useful signal.

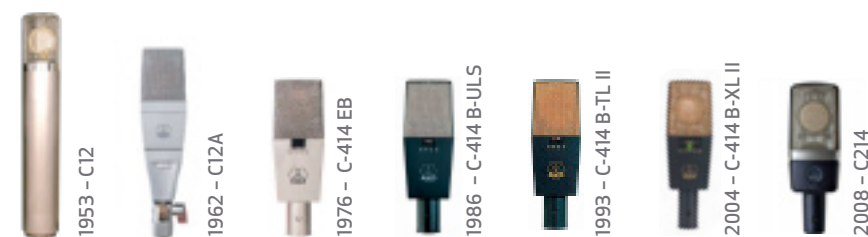
An electret capsule meanwhile has a permanently charged rear plate and doesn't require any external voltage applied to it. The varying air pressure still alters the capacitance between the diaphragm and the charged plate and again, with the addition of some circuitry, we have a useful audio signal. The distinction is that the power applied to electret type microphones (via phantom or a battery) is used only for the internal preamp electronics.



The precision built AKG 'brass ring' CK12, found in the valve C12 microphone and older C12A(&B) models.



**Hitting the highs:** The C214 frequency response graph shows the obvious top-end boost that gives the mic its bright character.



THE TIMELINE

woodwind and a nylon-stringed guitar. I tried the C214 on most of these instruments and came to the conclusion that the character of the microphone definitely sat at the 'bright' end of the spectrum, and best suited instruments and voices that didn't have lots of high frequency energy in their sound. Unfortunately, I couldn't test a stereo pair of 214s on piano recordings or drum overheads – a very common application for C-414s – since I only had one mic, but my suspicion is that they'd work pretty well in pairs. ['Matched' pairs of C214s are due for release later in the year, according to AKG.]

#### HITTING A HIGH C

The C214 offers lots of detail in the top end and even a sideways glance at the on-axis frequency response curve [see graph] shows why. There's a pronounced 5dB hump at around 12kHz, which would account for the slight harshness I heard when trying the C214 on a violin and a soprano voice. This top end boost is apparently one of the major differences between the current AKG capsule designs and the famed CK12 'brass ring' capsule. However, the mic did sound good on low-end instruments like tuba, viola,

bass clarinet and a baritone voice, coping well with the dynamic range of the wind instruments and in particular the oft heard, aforementioned tuba. It showed once again that a mic is only as good as its marriage with the sound source – it's really up to the user to choose which mic best suits which application. The C214's ability to handle high SPL (156dB @ 0.5% THD with the pad switched in) would also make it very suitable for recording loud electric guitars, drum overheads and (the often mentioned, but never tested) jet engines.

#### AT THE C SIDE

For those of you wanting an AKG large diaphragm condenser, but without the \$2k plus price tag associated with a new C-414 variant, the C214 is certainly worthy of investigation. It straddles the middle ground in the AKG range between the C3000B and the C-414 B-XLII, and I would suggest that with its rugged construction, ability to handle high SPL and a wide phantom power operating range that it would make either a good recording mic, a reliable in-house stage mic or a trusty hire workhorse. ■

**NEED TO KNOW**

**Price**  
\$1099

**Contact**  
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**Pros**  
Handles high SPL.  
Wide phantom voltage range.  
Rugged construction.  
Good on low-end instruments.

**Cons**  
Higher noise floor than the C-414.  
Accentuated top end not great for brighter sound sources.

**Summary**  
The C214 is a mid-priced, fixed cardioid pattern microphone that's well made and can handle high SPL. Its accentuated top-end response makes it great on bassy sound sources and not so great for 'bright' sources.

**Technical Highlights**  
Polar pattern: Fixed cardioid.  
Frequency range: 20Hz – 20kHz.  
Max. SPL: 136/156dB SPL (for 0.5% THD).  
Equivalent noise level: 13dBA to IEC 60268-4 (A-weighted).  
Impedance: <math>\leq 200\Omega</math>.