The XK-009 opens up a new realm in cassette audio, with several important advances to push sound performance to the highest level possible. Aiwa's original AMTS (anti-modulation tape stabilizer) cuts resonance for clear sound, while the Elias Shield Head Block works during recording to shield the playback head from the detrimental effects of recording flux. Amorphous heads are used for both recording and playback, with internal coils wound with PC-COC (pure crystal—Ohno continuous casting) copper wire for optimum conductivity. This translates to greater audio accuracy, particularly in music with delicate passages and subtle transients.

The heavy-duty power supply has dual transformers, one for the mechanism and one for the audio section, to reduce current fluctuations for more stable operation and better overall sound quality. The advanced 3-motor drive mechanism uses dual capstans to create a "closed loop" effect for increased tape-to-head and tape drive stability. These capstans feature Aiwa's exclusive micro-grain finish to improve pinchroller adhesion for reduced IM distortion.

In addition to Dolby B and C noise reduction, the XK-009 features dbx which enables a remarkable 125dB dynamic range to capture the essence of today's high quality digital sound sources. In addition, the Dolby HX Professional system operates during recording for extended high frequency response upon playback, regardless of the type of player. In features, design, and fidelity, the XK-009 represents the ultimate in cassette performance.