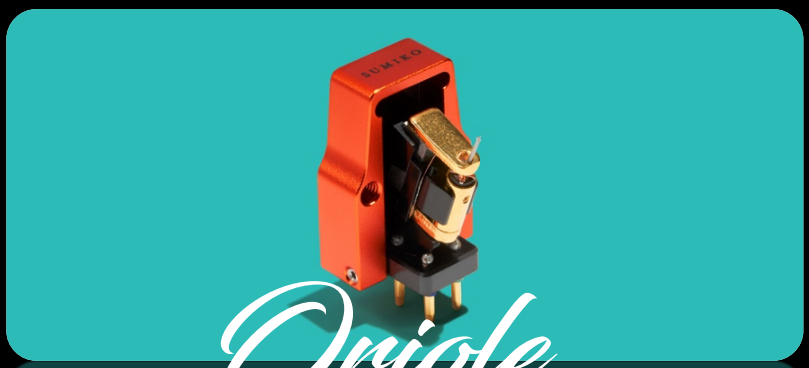
# SUMIKO

PHONO CARTRIDGES




## Oriole

## Low Output Moving Coil

Oriole maintains the tonally balanced, refined & fatigueless character for which Sumiko is globally regarded. Enhanced with a low-impedance generator and nude Shibata line-contact stylus, Oriole confidently asserts itself as a meaningful upgrade from Songbird that approaches the performance of our venerable Starling. It delivers impeccable tracking and detail, emotionally captivating dynamics, speedy attack and sweet resolution. Deeply musical and endlessly listenable, Oriole is alluring in its wholly analog-sounding character. It portrays musical material in natural balance with its surrounding ambience for a cohesive, insightful and immersive sonic display. Silent in the groove, music blossoms from a stark black background and invites you into the most intimate spaces of a keenly rendered soundstage.

**Hand-Assembled in Japan**

Oriole is made with the finest materials Japan has to offer, and by the most skilled of craftsmen at Excel Sound in Yokohama – a relationship we've proudly maintained for nearly four decades.

**Nude Shibata Line-Contact Stylus**

The stylus takes a rich, even-handed approach to detail retrieval that avoids analytical tendencies. The single-piece nude diamond reduces moving mass for heightened fidelity and responds with high accuracy to very fine groove undulations.

**Reinforced Cantilever**

The alloy-reinforced hollow aluminum cantilever is both high in rigidity and low in mass, responding with great speed and accuracy to convey the finest movement of the stylus to the moving coil assembly.

**Individually Wound Cross-Coils**

A critical process that requires the utmost patience and precision by a skilled technician for clean and balanced signal transfer.

**High-Purity Copper**

The coils are wound with specially selected high-purity copper that carries signal with minimal loss and distortion, also lending to the smooth and rich sonic character of the cartridge.

**Low Internal Impedance**

Fewer coil turns of low-impedance copper reduces moving mass, shortens the signal path and drastically reduces internal impedance. This means faster attack, improved resolution, more detail and improved dynamics.

**Purpose-Selected MC Damper**

We use a special synthetic rubber compound to control resonance, minimize distortion and enable top-tier tracking.

**High-Efficiency Magnetic Circuit**

The warm, smooth-sounding Alnico magnet works with pure iron yokes and pole. Pure materials are oriented with expertise to minimize distortion and losses while achieving low magnetic saturation and high-efficiency energy capture.

**Resonance Control is Key**

Resonance control was a primary consideration in the development of our Reference Series open-body cartridges. First, the open-body itself reduces the potential for resonance-born distortion and coloration that can be propagated by the conventional cartridge housing. To further target internal resonance, individual components of the magnetic circuit are mechanically damped. For the terminal and mounting plates, we use a sophisticated material known as PEEK. Typically, in more demanding applications such as aerospace engineering, it is used for its extremely high mechanical stability, stiffness and durability over time. It provides an ultra-stable base for the generator, easily allowing uncontrolled resonance to pass through. The PEEK mounting plate is bonded to a strategically shaped terminal in the headblock through which remaining resonance is dispersed and drained down the tonearm where it can be dissipated harmlessly. This multi-faceted approach to resonance control takes no small part in the overall listenability of these cartridges.

**Quality Control**

Each Oriole cartridge is hand-assembled with the utmost care and precision by highly experienced craftsmen at Excel Sound. Components are inspected microscopically to ensure quality and trueness, and all cartridges are tested for electrical balance, trackability and performance to spec.

## Technical Specifications

Type: Low Output Moving Coil
Series: Reference Series
Stylus: Nude Shibata (6.5µm x 40µm)
Tip Material: Natural Diamond
Cantilever: Hollow, Reinforced Al. (Ø0.5mm)
Magnet: Alnico
Yokes/Pole: Pure Iron
Coil Wire: High-Purity Copper
Internal Impedance (1kHz): 5.5Ω
Load Impedance: >60Ω
Frequency Response: 12Hz - 45KHz
Output (3.54cm/sec @ 1kHz): 0.3mV
Channel Separation (1kHz): 30dB
Channel Balance (1kHz): 0.5dB
Compliance (100Hz): 12x10-6cm/dyne
Tracking Force Range (Rec.) 1.8 - 2.2g (2.0g)
Tracking Ability (315Hz, 2g VTF): 70µm
DC Resistance : 5.5Ω
Internal Inductance: 11µH
Vertical Tracking Angle: 20°
Cartridge Mass: 7.3g

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