This document shows circuit and layout diagrams of the AK9223 as the reference design.

■ Circuit Diagram
It shows compositions of power supply decoupling capacitors and analog input filters. Switching land patterns are also shown here since the internal/external VREF or CLK can be selected with the AK9223.

Peripheral Parts/Pattern Details
R1, R2, C1, C2, C3: Low-pass Filter of the AIN1
R3, R4, C4, C5, C6: Low-pass Filter of the AIN0
C7, C8, C12, C13: Decoupling Capacitor for AVDD
C9: Decoupling Capacitor for DVDD
C10: Decoupling Capacitor for REF1
C11: Decoupling Capacitor for REF0
SH0, SH1: Internal/External Switching of the VREF
EXT, INT: Internal/External Switching of the CLK

Figure 1. AK9223 Circuit Diagram
Layout

Four layered printing board is used. The second layer is for the ground and the third layer is for power supply. AVDD and DVDD are separated on the power supply layer. All areas except parts and wirings are GND in the first and the fourth layers. All used chip parts here are located as 1005 (1.0mm x 0.5mm) size layout.

Figure 2. First Layer Layout
Figure 3. Second Layer Layout
Figure 4. Third Layer Layout
Figure 5. Fourth Layer Layout (Reverse Side)

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Inquiry

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