



Evaluation Board for AKD8174x

Description

AKD8174x _Evaluation Board is a common evaluation board for the ICs; AK8174x and AK8173x series.

Ordering Information

■ AKD8174X_EB

X: Device type

N: AK8174B

A: AK8173A (Under development)

C: Input clock type

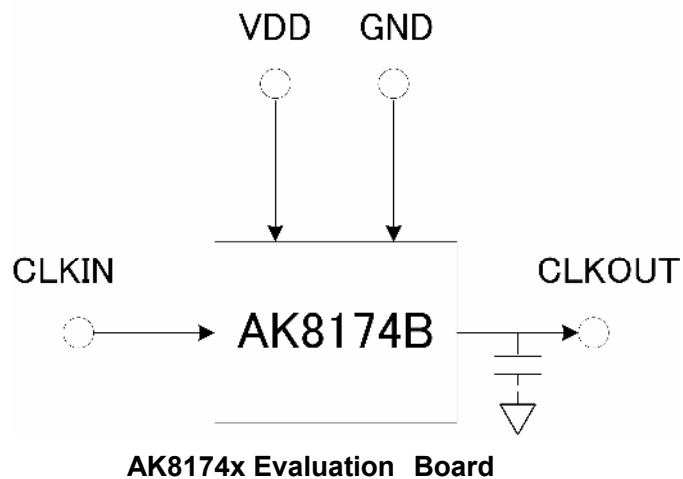
N: Crystal oscillator (SMD type)

A: Crystal oscillator (DIP-8pin compatible type)

B: External clock through SMA connector

Configuration

Block Diagram



Functions

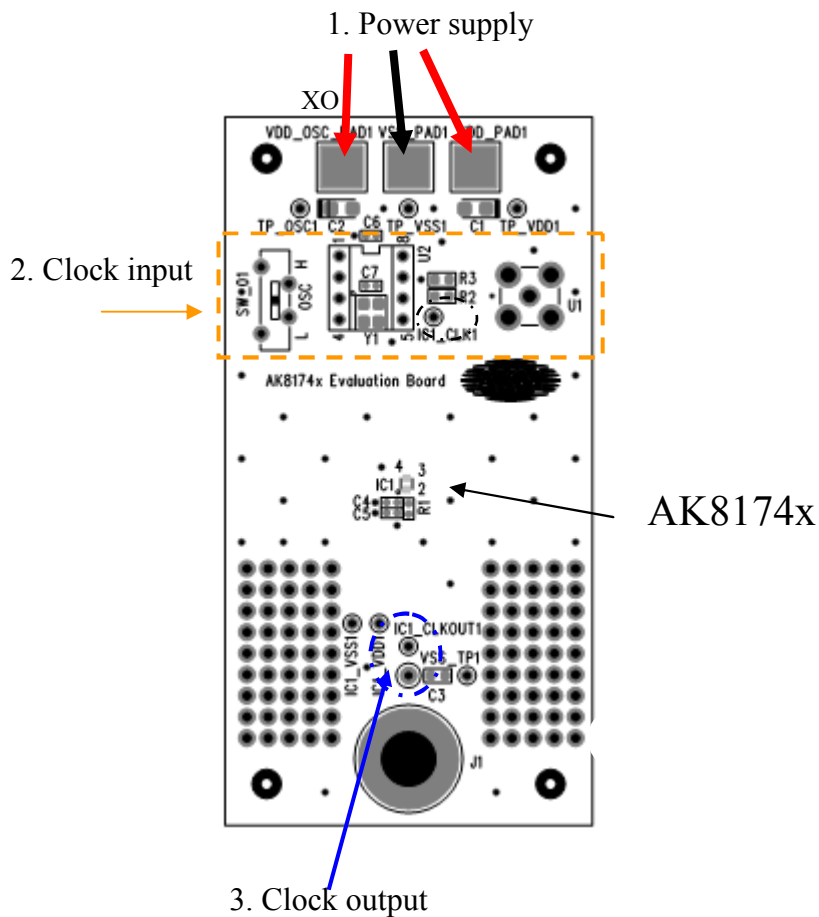


Figure 1. AKD8174x EB top view

Circuit Diagram is attached in last page.

1. Power Supply

Please connect the lead line to VDD (3.3V; Red) and VSS (GND; Black).
When using a crystal oscillator as an input, please supply 3.3V to VDD_OSC PAD too.

2. Clock input

It is possible to input the clock from Crystal oscillator (DIP 8 pin compatible type or SMD type) and external clock from SMA-A connector.

- **Crystal Unit**
Y1: 2520 type crystal oscillator is mountable.
Clock output from crystal oscillator is selected by setting "SW_01".
"SW_01"=H: Clock output enabled
"SW_01"=L: Oscillation stop

U2: 8pin DIP compatible type crystal oscillator is available here.
- **External Clock**
U1: It is possible to input clock from SMA-A connector.

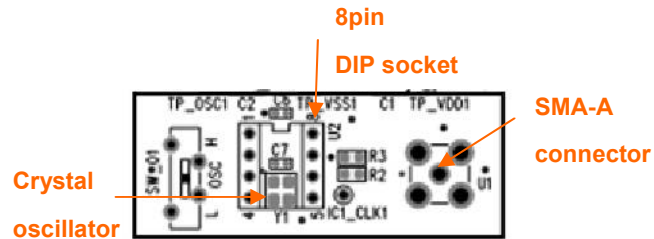


Figure.2 Crystal Unit

3. Clock output

Clock output from AK8174x leads to this connector. Spectrum Analyzer or Oscilloscope is available to measure clock performances by connecting here.

There are dummy capacitor loads, C3.
It is useful to measure clock performance or current consumption by loading capacitor which is virtually assumed in the system. A clock outputs from AK8174x lead to TP1 through J1. Chassis mount test jacks for miniature probe (Tektronix 131-0258-00) are available by mounting there.

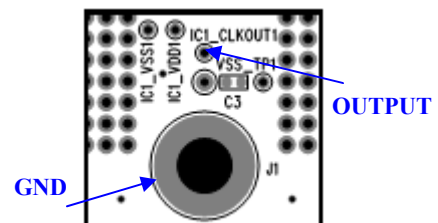


Figure.3 Clock Output