

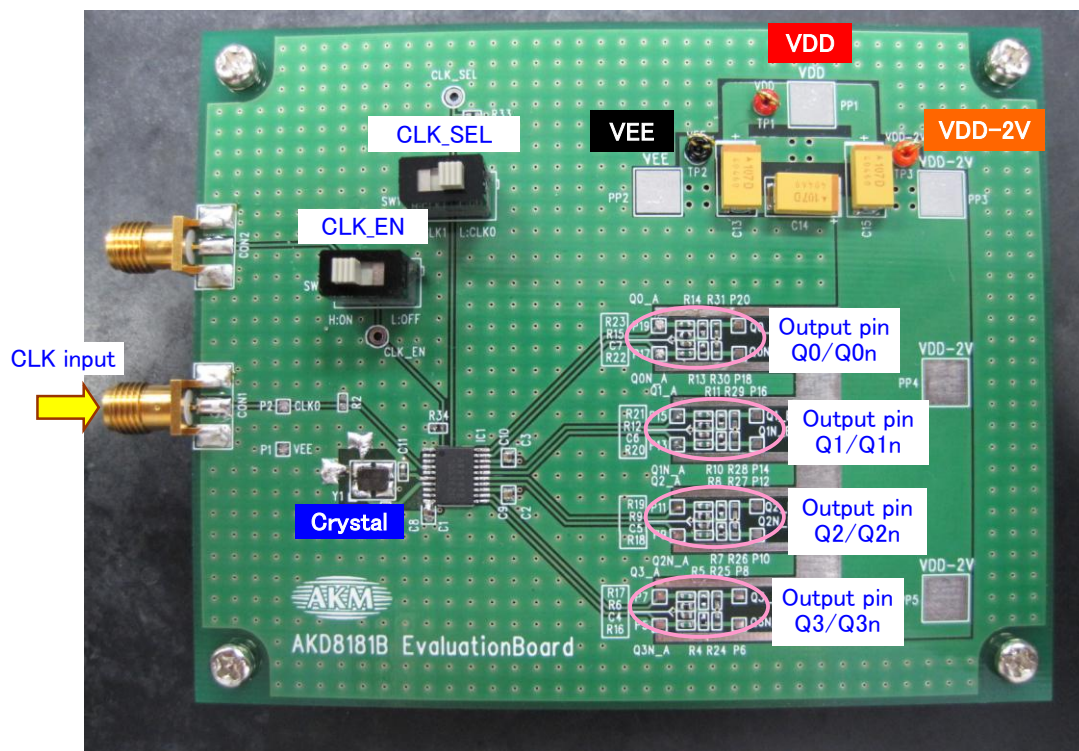


# AKD8181B

## AK8181B Evaluation Board

The AKD8181B is an evaluation board for AK8181B. Therefore, it is easy to evaluate DC/AC characteristics and confirm product functions.

- SMA terminal input
- Crystal can be mounted
- Enable to construct three types of output load circuit
- Preparing terminal and land pattern for VDD/VEE
- CLK\_SEL and CLK\_EN control switch



**Power**

There are the following three power supplies.

※If you have configured a termination circuit with resistor only (Pattern A or B), it becomes possible to evaluate even without applying power to the VDD-2V terminal.

- VDD           The core power supply of AK8181B (3.3V)
- VEE           The core power supply of AK8181B (GND)
- VDD-2V       Power supply for the end of the output load resistor (=VDD-2V)

Note) GND of the SMA terminal is connected to the VEE inside the substrate.

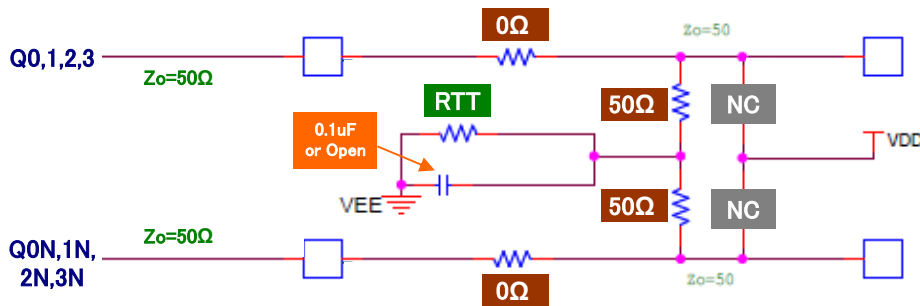
**Clock input**

AK8181B inputs the clock selected by CLK\_SEL switch. (External input or crystal)  
 The clock input signal can terminate at 50Ω if needed. (50Ω is connected to R2 pattern)  
 Inputs 266MHz or less.

**Output load circuit**

It can terminate by the following three methods. (Pattern A/B/C)  
 The state of initial shipment is **【Pattern A】**.

**【Pattern A】**           ※Composition at the time of shipment

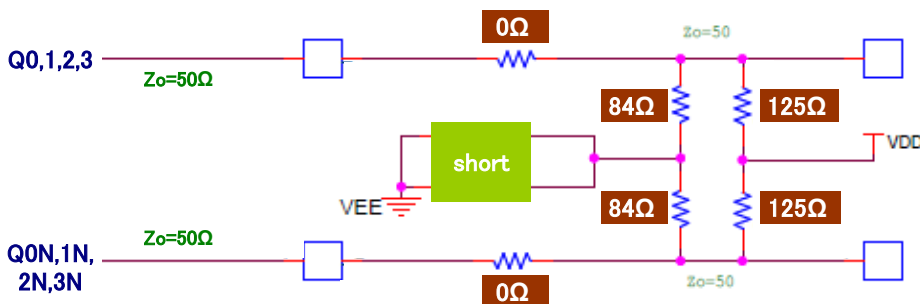


$$RTT = \left[ \frac{1}{((V_{OH} + V_{OL}) / (V_{CC} - 2)) - 2} \right] Z_0$$

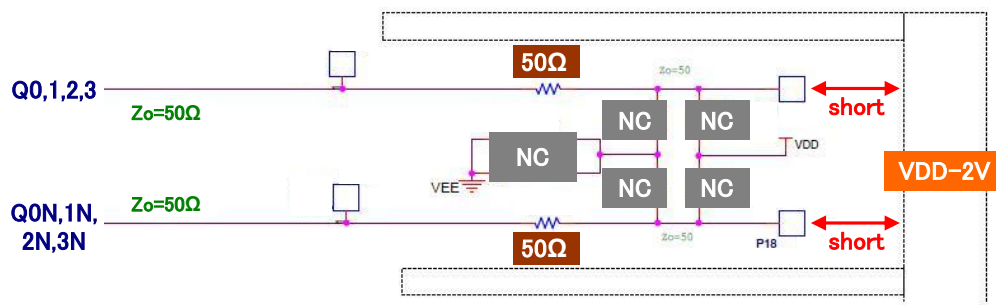
NC: No components

※RTT: 50Ω is mounted at the time of shipment

**【Pattern B】**

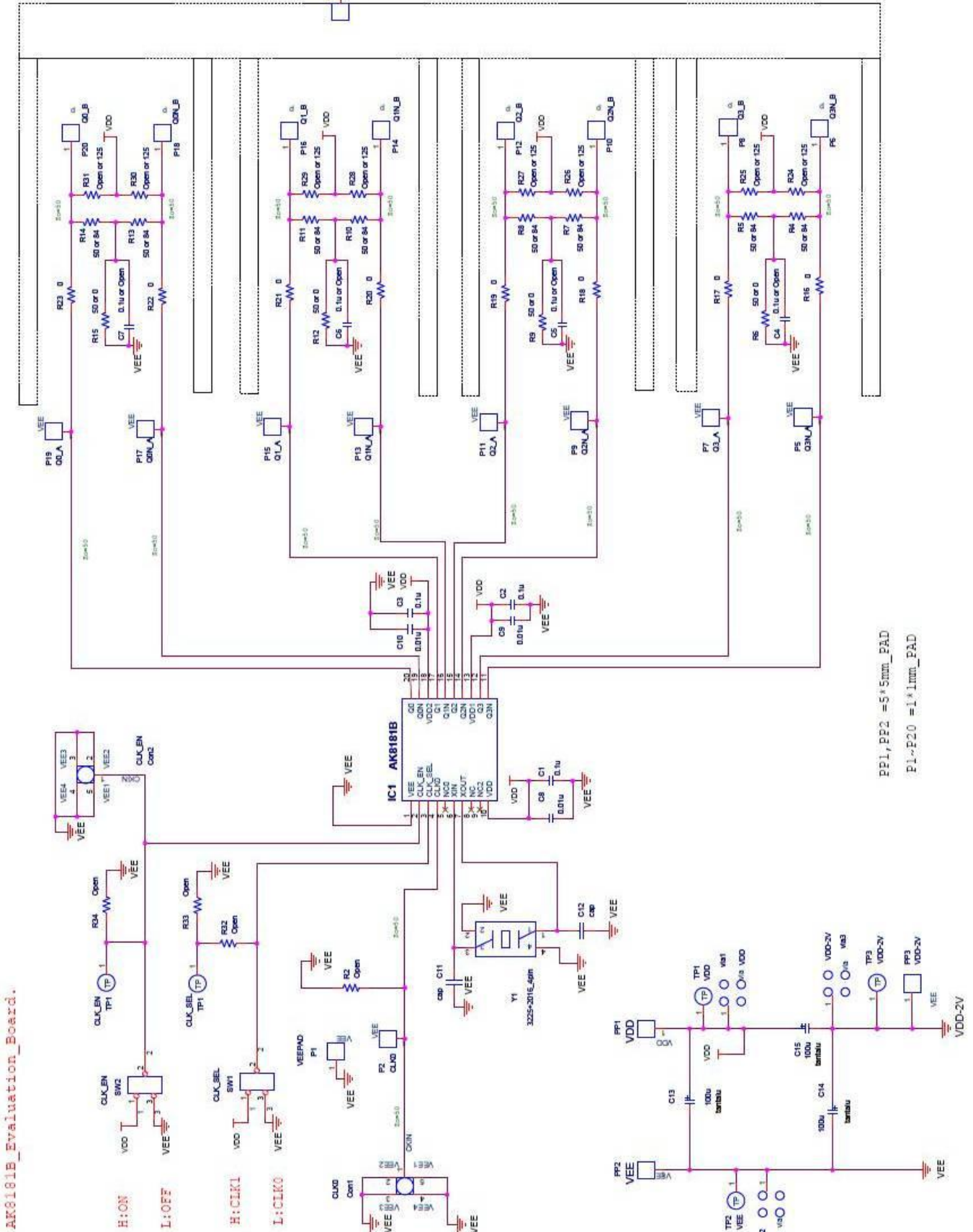


【Pattern C】



※Please impress a power to VDD-2V terminal.

According to the circumstances, please set up the output load circuit of Q0/0N, Q1/1N, Q2/2N and Q3/3N.  
 The state of initial shipment is **【Pattern A】**.  
 (Refer to the "Output load circuit" at page 2.)



AKD8181B\_Evaluation\_Board.

P1, P2 = 5\*5mm\_PAD  
 P1~P20 = 1\*1mm\_PAD