Evaluation Board for AK8127/8
AKD8127/8

Description

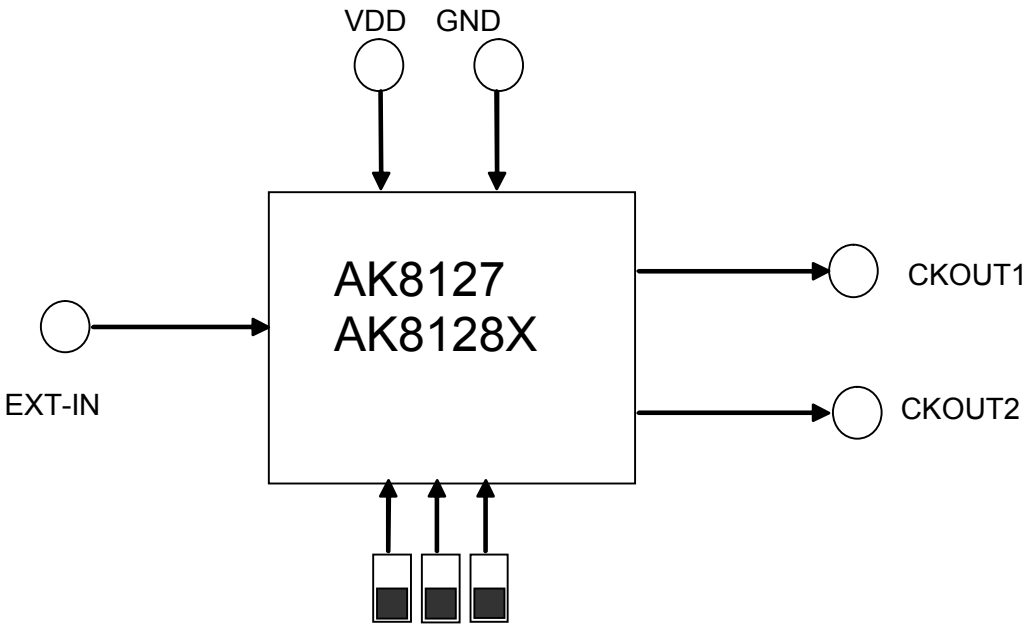
The AKD8127/8 is a common evaluation board for clock generator, AK8127 and AK8128 family. Therefore, it is possible to evaluate spectrum characteristics and other performances.

Ordering guide

- AKD8127XY

	Device Type
XY:70:	AK8127
8A:	AK8128A
8B:	AK8128B
8C:	AK8128C

Block Diagram



Configuration SW

AKD8127 Evaluation Board

Functions

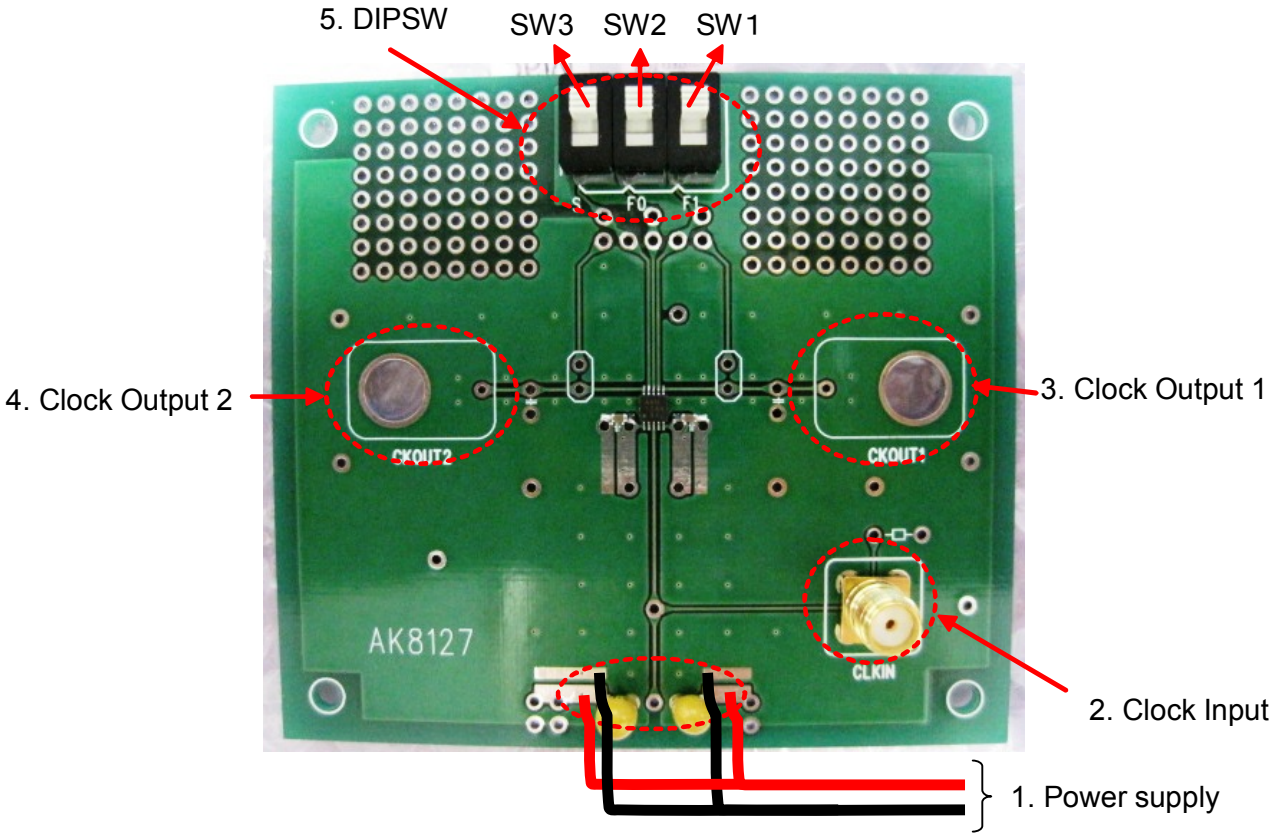


Figure1. AKD8127/8 Top view

1. Power Supply

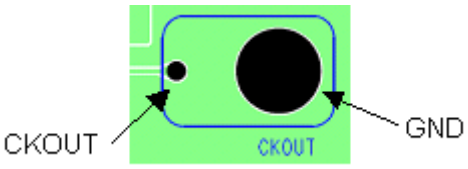
Please connect the lead line to VDD (3.3V; Red) and VSS (GND; Black).

2. Clock input

It is possible to input clock from SMA-A connector.

3. 4. Clock output

Clock output from AK8127_AK8128X leads to this connector. Spectrum Analyzer or Oscilloscope is available to measure clock performances by connecting here.



	AK8127	AK8128A	AK8128B	AK8128C
CLKOUT1	CKOUT1	-	-	CKOUT
CLKOUT2	CKOUT2	CKOUT	CKOUT	-

5. DIPSW

L: Connect to GND
M: Open
H; Connect to VDD

5.1 AK8127

SW3 Spread Ratio Selection

SW3 (S: Pin9)	Spread Ratio
L	±1.5%
M (L)	±1.5%
H	±3.0%

SW2 SW3 Output Frequency Selection

SW1(F1:Pin7)	SW2(F0:Pin8)	CKOUT1(MHz)	CKOUT2(MHz)
L	L	20	60
L	M	20	75
L	H	20	80
M(L)	L	20	60
M(L)	M	20	75
M(L)	H	20	80
H	L	20	95
H	M	20	97.5
H	H	20	96.675

5.2 AK8128A

SW3 SW2 Output Frequency Selection

SW3(F1:Pin9)	SW2(F0:Pin8)	CKOUT(MHz)
L	L	74.25
L	M(L)	74.25
L	H	74.25/1.001
M(L)	L	74.25
M(L)	M(L)	74.25
M(L)	H	74.25/1.001
H	L	148.5
H	M(L)	148.5
H	H	148.5/1.001

SW1 Not Used

5.3 AK8128B

SW3 SW2 Output Frequency Selection

SW3(F1:Pin9)	SW2(F0:Pin8)	CKOUT(MHz)
L	L	74.25
L	M(L)	74.25
L	H	74.25/1.001
M(L)	L	74.25
M(L)	M(L)	74.25
M(L)	H	74.25/1.001
H	L	148.5
H	M(L)	148.5
H	H	148.5/1.001

SW1 Input Clock Frequency Selection

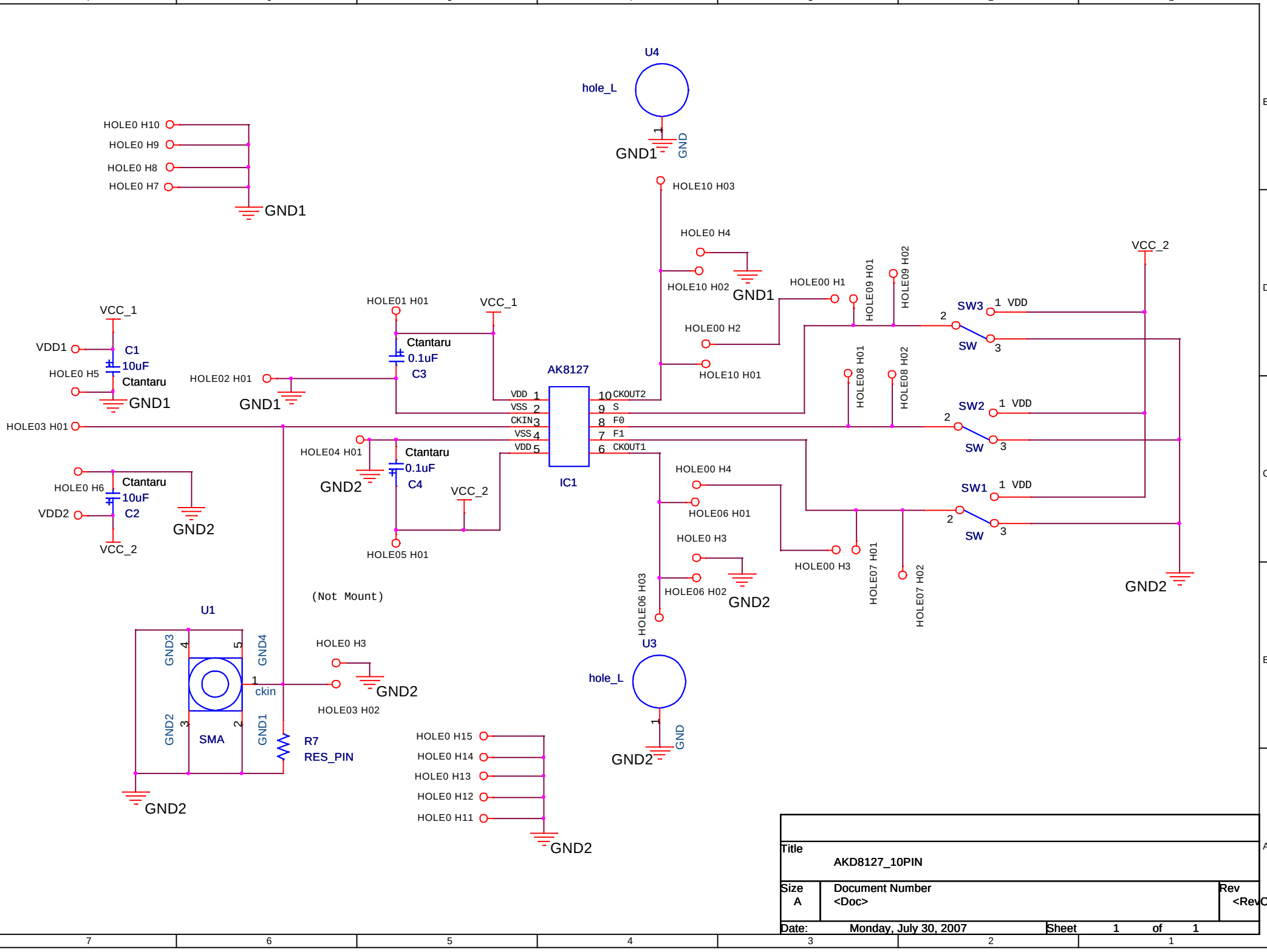
SW1 (S: Pin9)	Input Frequency (MHz)
L	27.000
M (L)	27.000
H	48.000

5.4 AK8128C

SW3 SW2 Output Frequency Selection

SW3(F1:Pin9)	SW2(F0:Pin8)	CKOUT(MHz)
L	L	33.8688
L	M(L)	33.8688
L	H	36.864
M(L)	L	33.8688
M(L)	M(L)	33.8688
M(L)	H	36.864
H	L	12.288
H	M(L)	12.288
H	H	24.576

SW1 Not Used


U4
hole_L
GND1
HOLE0 H10
HOLE0 H9
HOLE0 H8
HOLE0 H7
GND1
HOLE10 H03
HOLE0 H4
HOLE10 H02
GND1
HOLE00 H1
HOLE09 H01
HOLE09 H02
VCC_2
SW3
1 VDD
2
SW
3
HOLE00 H2
HOLE10 H01
HOLE01 H01
VCC_1
Ctantaru
0.1uF
C3
VCC_1
VDD1
C1
10uF
HOLE0 H5
Ctantaru
GND1
HOLE02 H01
GND1
AK8127
VDD 1
VSS 2
CKIN 3
VSS 4
VDD 5
10 CKOUT2
9 S
8 F0
7 F1
6 CKOUT1
HOLE08 H01
HOLE08 H02
SW2
1 VDD
2
SW
3
HOLE03 H01
HOLE04 H01
Ctantaru
0.1uF
C4
GND2
VCC_2
HOLE05 H01
IC1
HOLE0 H6
Ctantaru
10uF
C2
VDD2
GND2
VCC_2
HOLE00 H4
HOLE06 H01
SW1
1 VDD
2
SW
3
HOLE0 H3
HOLE06 H02
GND2
HOLE00 H3
HOLE07 H01
HOLE07 H02
GND2
HOLE06 H03
(Not Mount)
U1
GND3
GND4
GND2
GND1
SMA
ckin
HOLE0 H3
GND2
HOLE03 H02
R7
RES_PIN
U3
hole_L
GND
GND2
HOLE0 H15
HOLE0 H14
HOLE0 H13
HOLE0 H12
HOLE0 H11
GND2
Title
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A
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Rev
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Date:
Monday, July 30, 2007
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