HKS-9609B　Specification

The Specification of HKS-9609B

Doc ID: KGC-HKS-9609B- 2

Ver.1.03
Keisokugiken Corporation

Contents

1. Input Output Specification
1-1. 8Ch AD-DA Version Specification

Analog Input

Item	Spec.
Channel-to-Channel	Non-isolated
Input CH	8 CH
Resolution	16bit
Sampling rate	50MS/s(4ch), 25MS/s(8ch)
Latency	70ns(4ch), 290ns(8ch)
Input Range	Differential±12V
Input Impedance	80MΩ
Analog Filter	200kHz
Input Absolute Maximum Rating	±15V

Analog Output

Item	Spec.
Channel-to-Channel	Non-isolated
Output CH	8CH
Resolution	16bit
Sampling Rate	50MS/s
Settling Time	20ns
Output Range	Single End±12V
Output Current	5mA～20mA (select resistor for current limiting or impedance matching when ordering)
Output Resistance	0.3Ω～2kΩ (select resistor for current limiting or impedance matching when ordering)
Alanog Ffilter	200kHz
Disconnect Switch	Existence

Digital Input

Item	Spec.
Channel-to-Channel	Non-isolated
Input CH	16CH
Sampling Rate	50MS/s
Latency	8ns
Input Low Voltage	Less Than 0.8V
Input Hi Voltage	More Than 2.0V
Input Current	5μA
Input Absolute Maximum Rating	-0.5V～6.5V
Input Pull-up Resistor	5V/4.7kΩ (specify with or without when ordering)

Digital Output

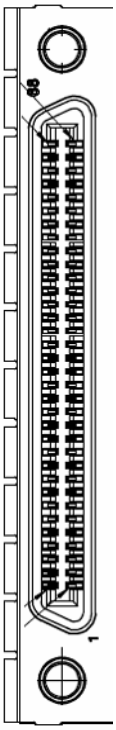
Item	Spec.
Channel-to-Channel	Non-isolated
Output CH	16CH
Sampling Rate	50MS/s
Latency	8ns
Output Low Voltage	Less Than 0.2V
Output Hi Voltage	More Than 4.8V

Output Current	±10mA
Output Absolute Maximum Rating	-0.5V～5.5V

2. I/O Connector Pin Assignment
2-1. 8Ch AD-DA Version I/O Connector Pin Assignment

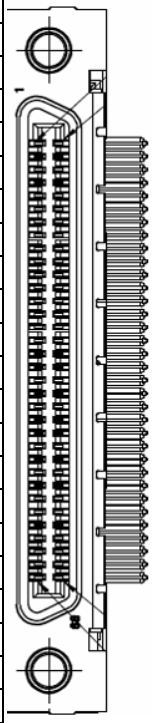
CONNECTOR 1 (DIO)

DGND	68		34	DGND
DGND	67		33	DGND
DGND	66		32	DO15
DGND	65		31	DO14
DGND	64		30	DO13
DGND	63		29	DO12
DGND	62		28	DO11
DGND	61		27	DO10
DGND	60		26	DO9
DGND	59		25	DO8
DGND	58		24	DO7
DGND	57		23	DO6
DGND	56		22	DO5
DGND	55		21	DO4
DGND	54		20	DO3
DGND	53		19	DO2
DGND	52		18	DO1
DGND	51		17	DO0
DGND	50		16	DI15
DGND	49		15	DI14
DGND	48		14	DI13
DGND	47		13	DI12
DGND	46		12	DI11
DGND	45		11	DI10
DGND	44		10	DI9
DGND	43		9	DI8
DGND	42		8	DI7
DGND	41		7	DI6
DGND	40		6	DI5
DGND	39		5	DI4
DGND	38		4	DI3
DGND	37		3	DI2
DGND	36		2	DI1
DGND	35		1	DI0



CONNECTOR 0 (AIO)

AI0+	1		35	AI0-
AGND	2		36	AGND
AI1+	3		37	AI1-
AI2+	4		38	AI2-
AGND	5		39	AGND
AI3+	6		40	AI3-
N.C	7		41	N.C
AGND	8		42	AGND
N.C	9		43	N.C
AI4+	10		44	AI4-
AGND	11		45	AGND
AI5+	12		46	AI5-
AI6+	13		47	AI6-
AGND	14		48	AGND
AI7+	15		49	AI7-
N.C	16		50	N.C
AGND	17		51	AGND
N.C	18		52	N.C
AGND	19		53	AGND
AGND	20		54	AGND
AO0	21		55	AGND
AO1	22		56	AGND
AO2	23		57	AGND
AO3	24		58	AGND
AO4	25		59	AGND
AO5	26		60	AGND
AO6	27		61	AGND
AO7	28		62	AGND
N.C	29		63	AGND
N.C	30		64	AGND
N.C	31		65	AGND
N.C	32		66	AGND
AGND	33		67	AGND
AGND	34		68	AGND

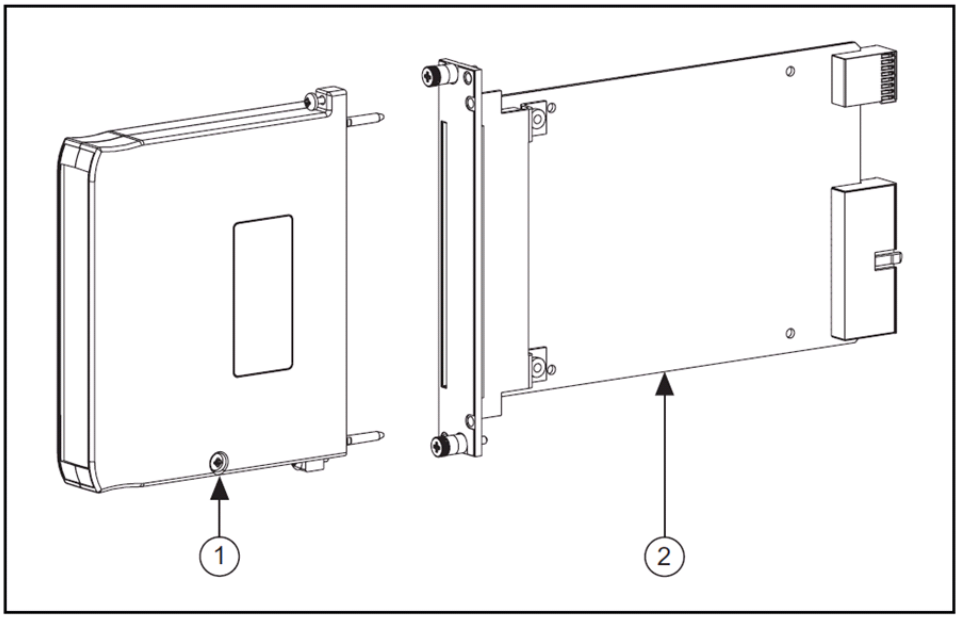


Note: The analog ground for the AI and the AO are separate.
Use AI0- to AI7- for the AI ground. Use AGND for the AO ground.

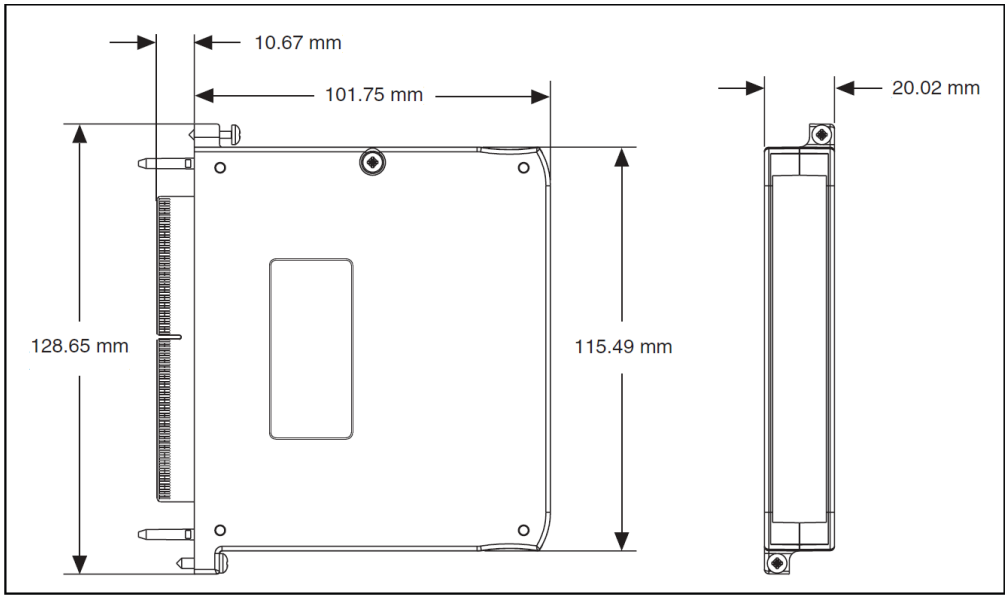
3. Compatible Accessory
NI SHC68-68-S
NI SCB-68
NI CB-68LPR

Supported NI FlexRIO FPGA module: Virtex-5 series

4. Dimension



1 HKS-9609B	2 NI PXI-795*x*R FlexRIO FPGA Module



5. Exterior

FRONT

RIGHT

6. Accessory
AC adaptor (Input AC100～240V OutputDC15V/45W)

Power cable(1m)

7. Document Update

Date	Version	Page	Changes
06.Dec.2013	1.03	-	The Product name 9609 changing to 9609B
25.Sep.2013	1.02	5 7	1-2. 8Ch AD-DA Version Specification 2-2. 8Ch I/O Connector Pin Assignment
01.Nov.2012	1.01	9	5. Exterior
4.Sep.2011	1.00		First Generation