Chip		Υ	in Chip Connect	Χ	Notes
A	Unc A	0	ı	0	Unconnected A
А	2	1	J	1	
А	3	2	В	2	
А	4	3	В	3	
А	5	4	С	4	
А	6	5	С	5	
А	7	6	D	6	
А	8	7	D	7	
А			Е	8	
А			K	9	
А			F	10	
А			F	11	
А			G	12	
Α			G	13	
Α			Н	14	
А			Н	15	
В	Unc B	0	А	0	Unconnected B
В	9	1	А	1	
В	10	2	1	2	
В	11	3	J	3	
В	12	4	С	4	
В	13	5	С	5	
В	14	6	D	6	
В	15	7	D	7	
В			Е	8	
В			Е	9	
В			F	10	
В			K	11	
В			G	12	
В			G	13	
В			Н	14	
В			Н	15	
С	Unc C	0	А	0	Unconnected C
С	16	1	А	1	
С	17	2	В	2	
С	18	3	В	3	
С	19	4	ı	4	
С	20	5	J	5	
С	21	6	D	6	
С	22	7	D	7	
С			E	8	
С			E	9	
С			F	10	
С			F	11	

C						
C	С			G	12	
C Unc D O A O Unconnected D D 23 1 A 1 D 24 2 B 2 D 25 3 B 3 D 26 4 C 4 D 27 5 C 5 D 28 6 I 6 D 29! 7 J 7 or BB row 1 D E 8 D E 9 D F 10 D F 11 D F 1						
D Unc D O A O Unconnected D D 23 1 A 1 D 24 2 B 2 D 25 3 B 3 B 3 D 26 4 C 4 D 27 5 C 5 D 28 6 I 6 D 29! 7 J 7 D E 8 8 D E 9 D D F 10 D F 11 D G 12 D G 13 D H 14 D K 15 E Unc E O A O Unconnected E 33 B 3 E 33 C 5 E 33 C 5 E 33 C 5 E 33 C 5 E 34 C 4 E 7 D 7 D 7 E 8 C 5 E 7 D 7 D 7 E 8 C 7 E 9 C 7 E 9 C 9 D Unconnected E 9 E 9 C 9 D Unconnected E 9 D Unco						
D 23	С			Н	15	
D 24 2 B 2	D	Unc D	0	А	0	Unconnected D
D 25 3 B 3 C 4 C 4 C 4 C 5 C 5 C 5 C 5 C 5 C 5 C 5	D	23		А		
D 26 4 C 4 C 5 D 27 S C 5 D 28 6 D 29! 7 J 7 Or BB row 1 D 29! 7 J 7 Or BB row 1 D E 8 8	D	24		В		
D 27	D	25	3	В	3	
D 28 6 I 6 O 7 OF BB row 1 D 29! 7 J 7 OF BB row 1 D E 8 8 D D E 9 OF F 10 D F 11 D G 12 D G 13 D H 14 D G 13 D H 14 D D K 15 E 33 1 K 1 E 34 2 B 2 E 35 3 B 3 E 36 4 C 4 E 37 5 C 5 E 38 6 D 6 E 39 7 D 7 E 18 8 E 1	D	26	4	С	4	
D 29! 7 J 7 Or BB row 1 D E 8 8 D D E 9 D F 10 D F 11 D G 12 D G 13 D H 14 D K 15 E 33 1 K 1 E 34 2 B 2 E 35 3 B 3 E 36 4 C 4 E 37 5 C 5 E 38 6 D 6 E 39 7 D 7 E 1 8 8 E 36 F 10 E 1 8 8 E 36 F 10 E 1 8 8 E 37 5 C 5 E 38 6 D 6 E 39 7 D 7 E 1 8 8 E 36 F 10 E 1 8 8 E 36 F 10 E 1 8 8 E 37 F 10 E 1 8 8 E 38 F 10 E 1 8 8 E	D	27	5	С		
D E 8	D	28	6	I	6	
D	D	29!	7	J	7	or BB row 1
D	D			Е	8	
D	D			Е	9	
D G 12 D G 13 D H 14 D K 15 E Unc E O A O Unconnected E E 33 1 K 1 E 34 2 B 2 E 35 3 B 3 E 36 4 C 4 E 37 5 C 5 E 38 6 D 6 E 39 7 D 7 E 1 8 E 1 9 E 1 10 E 1 8 E 1 11 E 1 8 E 1 10 E 1 11 E 1 1 1 E 1 1	D			F	10	
D	D			F		
D H 14 D K 15 E Unc E 0 A 0 Unconnected E E 33 1 K 1 Image: Control of the control	D			G	12	
D K 15 Unconnected E E Unc E O A O Unconnected E E 33 1 K 1 E 34 2 B 2 E 35 3 B 3 E 36 4 C 4 E 38 6 D 6 E 38 6 D 6 E 39 7 D 7 E 1 8 8 E J 9 9 E F 10 10 E F 11 10 E G 12 11 E G 13 12 E H	D			G		
E Unc E 0 A 0 Unconnected E E 33 1 K 1 E 34 2 B 2 E 35 3 B 3 E 36 4 C 4 E 37 5 C 5 E 38 6 D 6 E 39 7 D 7 E I 8 E I 8 E I 8 E I 9 E I 8 E I 9 E I 8 E I 9 E I 8 E I 9 E I 8 E I 9 E I 8 E I 9 E I 8 E I 9 E I 1 8 E I 9 E I 1 8 E I 9 E I 1 8 E	D			Н	14	
E 33 1 K 1 E 34 2 B 2 E 35 3 B 3 E 35 3 B 3 E 36 4 C 4 E 37 5 C 5 E 38 6 D 6 E 39 7 D 7 E 1 8 E 1 8 E 1 1 8 E 1 1 1 E 1 1 E 1 1 E 1 1 E 1 1 E 1 1 E 1 1 E 1	D			K	15	
E 34 2 B 2	Е	Unc E	0	А	0	Unconnected E
E 35 3 B 3 E 3 E 36 E 36 4 C 4 E 37 5 C 5 E 38 6 D 6 E 39 7 D 7 E I 8 E 5 I 1 E 5 I 1 E 5 I 1 E 5 I 1 E 5 I 1 E 5 I 1 E 5 I 1 I 1 E 5 I 1 I 1 I 1 I 1 I 1 I 1 I 1 I 1 I 1 I	Е	33	1	K	1	
E 36 4 C 4 E 37 5 C 5 E 38 6 D 6 E 39 7 D 7 E I 8 E J 9 F 10 E F 11 E G 12 E G 13 E F 14 1	Е	34	2	В	2	
E 36 4 C 4 E 37 5 C 5 E 38 6 D 6 E 39 7 D 7 E I 8 E J 9 F 10 E F 11 E G 12 E G 13 E F 14 1	Е	35	3	В	3	
E 37 5 C 5	Е	36	4	С	4	
E 38 6 D 6 E 39 7 D 7 D 7 E I 8 E I 8 E I 8 E I 9 F 10 E I 1 E I 1 E I 1 E I 1 E I 1 E I 1 E I 1 E I 1 E I 1 E I I 1 E I I I I	Е	37	5	С		
E I 8 E J 9 E F 10 E F 11 E G 12 E G 13 E H 14 E H 15 F Unc F 0 A 0 Unconnected F F 40 1 A 1 T T F 41 2 B 2 D T	Е	38	6	D	6	
E J 9 E F 10 E F 11 E G 12 E G 13 E H 14 E H 15 F Unc F 0 A 0 Unconnected F F 40 1 A 1 T T F 41 2 B 2 T	Е	39	7	D	7	
E F 10 E F 11 E G 12 E G 13 E H 14 E H 15 F Unc F O A O Unconnected F F 40 1 A 1 F F 41 2 B 2 C F F 43 4 C 4 C 4 C	Е			I	8	
E F 11 E G 12 E G 13 E H 14 E H 15 F Unc F 0 A 0 Unconnected F F 40 1 A 1 F F 41 2 B 2 C F F 43 4 C 4 C 4 C 4 C 4 C 4 C 4 C 4 C C 4 C C A C	Е			J	9	
E G 12 E G 13 E H 14 E H 15 F Unc F 0 A 0 Unconnected F F 40 1 A 1 T	Е			F	10	
E G 13 E H 14 E H 15 F Unc F O A O Unconnected F F 40 1 A 1 F F F 41 2 B 2 F <	Е			F	11	
E H 14 E H 15 F Unc F 0 A 0 Unconnected F F 40 1 A 1 I I F 41 2 B 2 I <t< td=""><td>Е</td><td></td><td></td><td>G</td><td>12</td><td></td></t<>	Е			G	12	
E H 15 Unconnected F F Unc F 0 A 0 Unconnected F F 40 1 A 1 Image: A Image:	Е			G	13	
F Unc F 0 A 0 Unconnected F F 40 1 A 1 F 41 2 B 2 F 42 3 K 3 F 43 4 C 4	Е				14	
F 40 1 A 1 F 41 2 B 2 F 42 3 K 3 F 43 4 C 4	Е			Н	15	
F 41 2 B 2 F 42 3 K 3 F 43 4 C 4	F	Unc F	0	А		Unconnected F
F 42 3 K 3 F 43 4 C 4		40		А		
F 43 4 C 4		41				
F 44 5 C 5						
F 45 6 D 6						
F 46 7 D 7		46	7			
F E 8	F			Е	8	

F			E	9	
F			1	10	
F			J	11	
F			G	12	
F			G	13	
F			Н	14	
F			Н	15	
G	Unc G	0	A	0	Unconnected G
G	47	1	A	1	Officonfilected G
		2		2	
G	48		В		
G	49	3	В	3	
G	50	4	С	4	
G	51	5	K	5	
G	52	6	D	6	
G	53	7	D	7	
G			Е	8	
G			Е	9	
G			F	10	
G			F	11	
G			1	12	
G			J	13	
G			Н	14	
				4.5	
G			Н	15	
	Unc H	0			Unconnected H
Н	Unc H	0	А	0	Unconnected H
H H	54	1	A A	0	Unconnected H
H H H	54 55	1 2	A A B	0 1 2	Unconnected H
H H H	54 55 56	1 2 3	A A B B	0 1 2 3	Unconnected H
H H H H	54 55 56 57	1 2 3 4	A A B B	0 1 2 3 4	Unconnected H
H H H H	54 55 56 57 58	1 2 3 4 5	A A B C C	0 1 2 3 4 5	Unconnected H
H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C D	0 1 2 3 4 5	
H H H H H H	54 55 56 57 58	1 2 3 4 5	A A B B C C C K	0 1 2 3 4 5 6	Unconnected H or BB row 33
H H H H H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C C D K	0 1 2 3 4 5 6 7	
H H H H H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C C D K E E	0 1 2 3 4 5 6 7 8	
H H H H H H H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C C D K E E F	0 1 2 3 4 5 6 7 8 9	
H H H H H H H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C C D K E E F F	0 1 2 3 4 5 6 7 8 9 10	
H H H H H H H H H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C C D K E E F F G	0 1 2 3 4 5 6 7 8 9 10 11	
H H H H H H H H H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C C D K E E F G G	0 1 2 3 4 5 6 7 8 9 10 11 12 13	
H H H H H H H H H H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C C D K E E F G G G	0 1 2 3 4 5 6 7 8 9 10 11 12 13	
H H H H H H H H H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C C D K E F G G G I	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14	
H H H H H H H H H H H H H H	54 55 56 57 58 59	1 2 3 4 5	A A B B C C C D K E E F G G G	0 1 2 3 4 5 6 7 8 9 10 11 12 13	
H H H H H H H H H H H H H H H H H H H	54 55 56 57 58 59 60!	1 2 3 4 5 6 7	A A B B C C C D K E F G G G I	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 0	
H H H H H H H H H H H H H H H H H H H	54 55 56 57 58 59 60!	1 2 3 4 5 6 7	A A B B C C C D K E E F G G G I J A0	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	
H H H H H H H H H H H H H H H H H H H	54 55 56 57 58 59 60!	1 2 3 4 5 6 7	A A B B C C C D K E E F G G G I J A0 D1	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 0	
H H H H H H H H H H H H H H H H H H H	54 55 56 57 58 59 60! AI BI CI DI	1 2 3 4 5 6 7	A A B B C C C D K E E F F G G G I J A0 D1 A2	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 0 1	
H H H H H H H H H H H H H H H H H H H	54 55 56 57 58 59 60!	1 2 3 4 5 6 7	A A B B C C C D K E E F G G G I J A0 D1 A2 D3	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 0 1 1 2 3	

	GI	6	A6	6	
1	HI	7	D7	7	
1			D11	8	
ı			D9	9	
ı			D13	10	
1			NANO_RESET	11	
1			TOP_RAIL	12	
ı			BOTTOM_RAIL	13	
ı			GND	14	
1			DAC_0-5V	15	
J	AJ	0	D0	0	Unconnected H
J	BJ	1	A1	1	
J	CJ	2	D2	2	
J	DJ	3	A3	3	
J	EJ	4	D4	4	
J	FJ	5	A5	5	
J	GJ	6	D6	6	
J	HJ	7	A7	7	or BB row 33
J			D8	8	
J			D10	9	
J			D12	10	
J			AREF	11	
J			TOP_RAIL	12	
J			BOTTOM_RAIL	13	
J			GND	14	
J			DAC_+-9V	15	
K	AK	0	A0	0	Unconnected H
K	BK	1	A1	1	
K	CK	2	A2	2	
K	DK	3	A3	3	
K	EK	4	A4	4	
K	FK	5	A5	5	
K	GK	6	A6	6	
K	HK	7	A7	7	or BB row 33
K			D2	8	
K			D3	9	
K			D4	10	
K			D5	11	
K			D6	12	
K			D7	13	
K			D8	14	
K			D9	15	

Net	t Name	e con	nectionsMatr	iv[]	
IVE	Al	COII	ilectionsiviati		
	AJ				
	AB1				
	AB2				
	AC1				
	AC2				
	AD1				
	AD2				
	AE1				
	AK1				
	AF1				
	AF2				
	AG1				
	AG2				
	AH1				
	AH2				
	AB1				
	AB2				
	ВІ				
	BJ				
	BC1				
	BC2				
	BD1				
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	BE1				
	BE2				
	BF1				
	BK1				
	BG1				
	BG2				
	BH1				
	BH2				
	AC1				
	AC2				
	BC1				
	BC2				
	CI CJ				
	CD1				
	CD2				
	CE1				
	CE2				
	CF1				
	CF2				
	CIZ				

CG1		
CK1		
CH1		
CH2		
AD1		
AD2		
BD1		
BD2		
CD1		
CD2		
DI		
DJ		
DE1		
DE2		
DF1		
DF2		
DG1		
DG2		
DH1		
DK1		
AE1		
EK1		
BE1		
BE2		
CE1		
CE2		
DE1		
DE2		
ΕI		
EJ		
EF1		
EF2		
EG1		
EG2		
EH1		
EH2		
AF1		
AF2		
BF1		
FK1		
CF1		
CF2		
DF1		
DF2		
EF1		

EF2		
FI		
FJ		
FG1		
FG2		
FH1		
FH2		
AG1		
AG2		
BG1		
BG2		
CG1		
GK1		
DG1		
DG2		
EG1		
EG2		
FG1		
FG2		
GI		
GJ		
GH1		
GH2		
AH1		
AH2		
BH1		
BH2		
CH1		
CH2		
DH1		
HK1		
EH1		
EH2		
FH1		
FH2		
GH1		
GH2		
HI		
HJ		

Row Labels	Count of Al
CF2	2
EG2	2
DF2	2
AB2	2
GH2	2
AC1	2
CH2	2
AC2	2
DH2	2
AD1	2
FG2	2
AD2	2
CE2	2
AE1	2
CG2	2
AE2	2
DE2	2
AF1	2
DG2	2
AF2	2
EF2	2
AG1	2
EH2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
AG2	2
FH2	2
AH1	2
CE1	2
AH2	2
CF1	2
BC1	2
AB1	2
BC2	2
CH1	2
BD1	2
DE1	2 2 2 2 2 2 2 2 2 2 2 2 2
BD2	2
DF1	2
BE1	2
DG1	2
BE2	2
DH1	2
BF1	2
EF1	2

CI CI	1 1 1
DJ AJ	1 1
EJ FJ	1 1
HI	1
EI	1
BJ	1
GI	1
DI	1
CD2 CG1	2
CD1	2 2
GH1	2
BH2	2
FH1	2
BH1	2
FG1	2
BG2	2
EH1	2
BG1	2
EG1	2