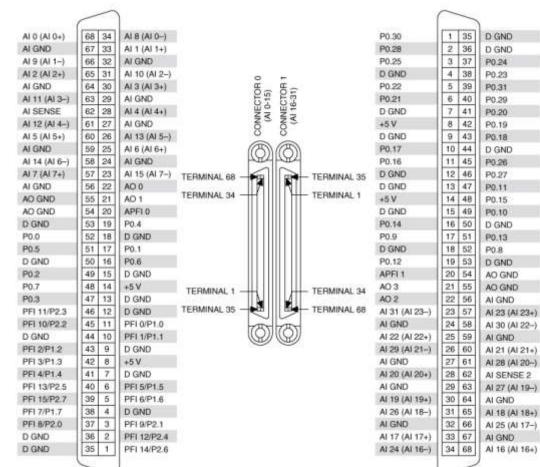
PCIe DAQ Schematics for Pair Examples

N

PCIe-6353 X Series



Counter/Timer Signal	Default Connector 0 Pin Number (Name
CTR 0 SRC	37 (PFI 8)
CTR 0 GATE	3 (PFI 9)
CTR 0 AUX	45 (PFI 10)
CTR 0 OUT	2 (PFI 12)
CTR 0 A	37 (PFI 8)
CTR 0 Z	3 (PFI 9)
CTR 0 B	45 (PFI 10)
CTR 1 SRC	42 (PFI 3)
CTR 1 GATE	41 (PFI 4)
CTR 1 AUX	46 (PFI 11)
CTR 1 OUT	40 (PFI 13)
CTR 1 A	42 (PFI 3)
CTR 1 Z	41 (PFI 4)
CTR 1 B	46 (PFI 11)
CTR 2 SRC	11 (PFI 0)
CTR 2 GATE	10 (PFI 1)
CTR 2 AUX	43 (PFI 2)
CTR 2 OUT	1 (PFI 14)
CTR 2 A	11 (PFI 0)
CTR 2 Z	10 (PFI 1)
CTR 2 B	43 (PFI 2)
CTR 3 SRC	6 (PFI 5)
CTR 3 GATE	5 (PFI 6)
CTR 3 AUX	38 (PFI 7)
CTR 3 OUT	39 (PFI 15)
CTR 3 A	6 (PFI 5)
CTR 3 Z	5 (PFI 6)
CTR 3 B	38 (PFI 7)
FREQ OUT	1 (PFI 14)

NI 6251/6255/6259/6281/6289 (M Series) and NI 635x/636x/6375/6376/6378 (X Series) Devices Connector 0 (AI 0-15)

- ANALOG	ANALOG/ DIGITAL	DIGITAL -
(+01A) 01A 89	SIGITAL	Mark to design
34 A18 (A1 0-)	-700	101 341
7 ALGND	12 D GND	T PR 14/P2.6
33 ALT (ALT+)	46 PFI 11 / P2.3	36 D GND
ALPIALT.	13 D GND	2 PFI 13/ P2,4
AI GND	47 Po.3	36 D GND
E 412(A12H	14 +6V	3 PF19/P,2.1
81 AL10 (AL2-)	48 70,7	37 PR 8 / P2.0
H ALGND	16 D GND	4 D GNO
4 S [A] 3 [A] 3 [A]	49 P0.2	38 PFL7/P1.7
83 A/ 11 (A/ 3-)	18 P0.6	5 PR 6 / P1.8
P9 ALGND	50 D GND	39 PR 15 / P2.7
AI SENSE	17 P6.1	6 PR 6 (P1.5
8 Al 4 (Al 4+)	[51] Po.s	40 PR 13 / P2.5
61 Al 12 (Al 4-)	(18) D GND	7 D GNO
ALGND	S2 P0.0	41 FH 4/F1.4
00 ALE (ALE+)	19 P0.4	8 +6V
M AI 13 (AI 5-)	53 D GND	42 PR 3 / P2.3
SB ALGND	(20) APR 0	9 D GND
25 A) 6 (A) 6+)	54 AO GND	43 PR 2 / P1.2
8 Al 14 (Al 6-)	(21) AO 1	10 PR.1 / P1.1
A GND	65 AO GND	44 D GND
57 A17 (A17+)	[22] AO 0	[11] PRI 0 / P1.0
21 Al 15 (Al 7-)	56 ALGND	45 PR 10 / P2.2

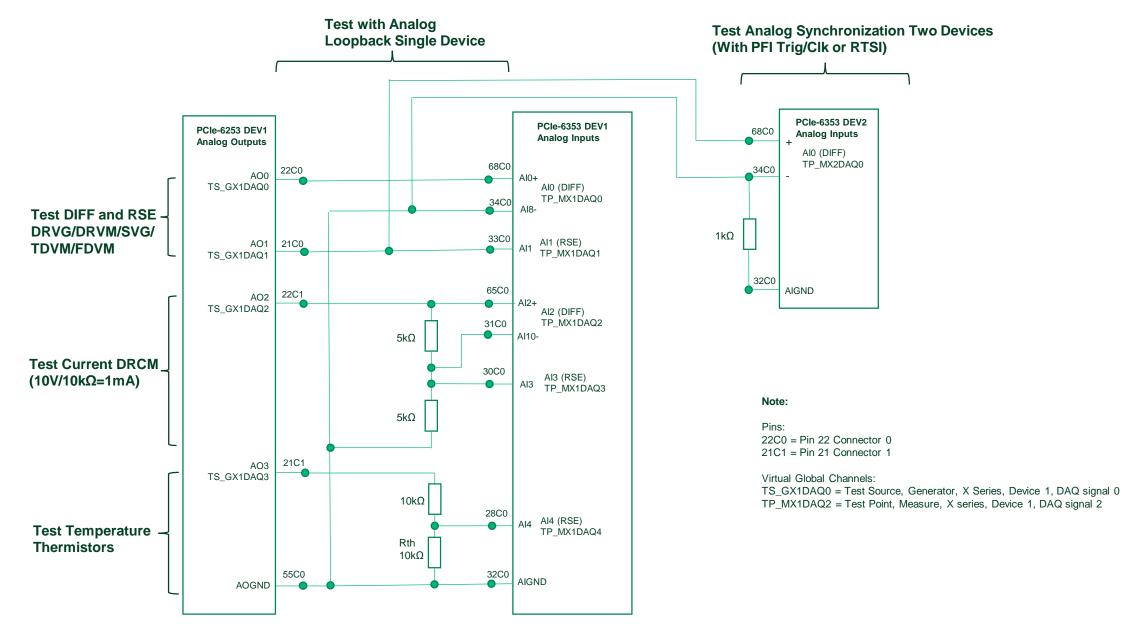
NI 6259/6289 (M Series) and NI 6353/6358/6363/6368/6378 (X Series) Devices

Connector 1 (Al 16-30)

ANALOG BB ALTE(ALTE) AL 24 (ALTE) AL 24 (ALTE) AL 24 (ALTE) AL 35 (ALTE) BB ALTE(ALTE) BB ALTE(ALTE) BB ALTE(ALTE) BB ALTE(ALTE) BB ALTE(ALTE) BB ALTE(ALTE) ALTE(ALTE) BB AL		Connector 1 (Al 16-30)
88 Al 16 [Al 164] 34 Al 24 (Al 164) 37 Al GND 38 Al 17 (Al 174) 48 P0.27 49 P0.11 30 Al 18 (Al 184) 40 P0.11 41 Al 26 (Al 184) 42 P0.11 43 Al 18 (Al 184) 44 P0.15 44 Al GND 45 P0.15 46 Al GND 47 P0.15 48 P0.15 49 P0.15 40 P0.15 40 P0.15 41 P0.10 42 P0.10 43 Al 27 (Al 194) 44 GND 45 P0.10 46 Al GND 47 P0.10 48 P0.10 49 P0.15 40 GND 40 GND 41 P0.10 42 P0.10 43 Al 27 (Al 194) 44 GND 45 P0.10 46 Al 27 (Al 194) 47 P0.10 48 Al 28 (Al 204) 48 P0.10 49 P0.10 40 P0.10 40 P0.10 41 P0.10 42 P0.10 43 P0.10 44 GND 45 P0.10 46 Al 28 (Al 204) 47 P0.9 48 Al 28 (Al 204) 48 P0.10 49 P0.10 40 P0.10 40 P0.10 40 P0.10 41 P0.10 42 P0.10 43 P0.10 44 P0.10 45 P0.10 46 P0.10 47 P0.10 48 P0.10 49 P0.10 49 P0.10 40 P0	ANALOG -	
34 Al 24 (Al 16-) 67 Al GND 12 D GND 13 Al 17 (Al 17-) 66 Al 36 (Al 17-) 13 D GND 147 PO.11 15 Al 36 (Al 18-) 67 Al 36 (Al 18-) 68 Al 36 (Al 18-) 69 Al 40 GND 15 D GND 16 D GND 16 D GND 17 PO.16 88 Al 37 (Al 19-) 18 Po.16 89 Al 37 (Al 19-) 19 Al GND 19 D		DIGITAL
ST Al GND 12 D GND		
33 Al 17 (Al 174) 66 P0.27		
06	A CONTRACTOR OF THE PROPERTY O	the state of the s
22 Al GND 47 P0.11 65 Al 18 (Al 18+) 14 46V 31 Al 26 (Al 18-) 68 P0.15 64 Al GND 15 D GND 30 Al 15 (Al 18-) 49 P0.15 68 Al 27 (Al 18-) 16 P0.14 79 Al GND 50 D GND 62 Al SENSE 17 P0.9 79 Al GND 51 P0.13 61 Al 28 (Al 20-) 18 D GND 27 Al GND 52 P0.8 60 Al 21 (Al 21-) 53 D GND 58 Al 28 (Al 21-) 55 Al GND 59 Al GND 20 Al FIT 1 58 Al 28 (Al 22-) 54 AD GND 58 Al GND 20 APFIT 1 58 Al 38 (Al 22-) 54 AD GND 58 Al 38 (Al 22-) 55 AD GND		1000
55 At 18 (At 184) 14 46V 31 At 26 (At 184) 460 90, 155 460 At 27 (At 184) 460 90, 155 47 (At 184) 460 47 (At 184)	66 Al 25 (Al 17-I	13 D GND
31 Al 26 (Al 18-) 40 Al 26 (Al 18-) 40 Al 27 (Al 19-) 50 Al 19 (Al 19-) 51 Al 27 (Al 19-) 52 Al 36 (Al 20-) 53 Al 26 (Al 20-) 54 Al 26 (Al 20-) 55 Al 26 (Al 21-) 56 Al 26 (Al 21-) 57 Al 26 (Al 21-) 58 Al 26 (Al 22-) 58 Al 36 (Al 22-) 59 Al 27 (Al 22-) 50 Al 27 (Al 21-) 50 Al 27 (Al 21-) 51 Al 28 (Al 21-) 52 Al 28 (Al 21-) 53 Al 28 (Al 21-) 54 Al 28 (Al 22-) 55 Al 27 (Al 22-) 56 Al 28 (Al 22-) 57 Al 29 (Al 22-) 58 Al 36 (Al 22-) 58 Al 36 (Al 22-) 59 Al 37 (Al 21-) 50 Al 38 Al 36 (Al 22-) 50 Al 37 (Al 21-) 51 Al 38 Al 36 (Al 22-) 51 Al 38 Al 36 (Al 22-) 52 Al 27 (Al 21-) 53 Al 38 (Al 22-) 54 Al 38 (Al 22-)	32 AI GND	47 (90.11
64 Al GND 15 D GND 30 Al 19 (Al 19+) 49 P0.10 68 Al 27 (Al 19+) 16 P0.14 79 Al GND 60 D GND 22 Al SENSE 17 P0.9 78 Al 20 (Al 20+) 51 P0.13 61 Al 28 (Al 20+) 18 D GND 77 Al GND 52 P0.8 60 Al 21 (Al 21+) 53 D GND 55 Al GND 20 Al 29 (Al 22+) 55 Al 20 (Al 22+) 55 Al 20 (Al 22+) 55 Al 20 (Al 22+) 55 Al GND 55 Al 22 (Al 22+) 55 Al GND 58 Al 36 (Al 22-) 21 Al 3	65 Al 18 (Al 18+)	14 +6V
20 Al 19 (Al 10+)	31 At 26 (At 18-)	48 Po.15
68 Al 27 (Al 19-1) 16 P0, 14 16 P0, 14 17 P0.9 17 P0.9 17 P0.9 17 P0.9 18 D CAND 18	64 ALGNO	15 D GND
28	30 At 19 (At 19+)	49 F0.10
62 Al SENSE 17 Po.9 78 Al 20 (Al 20+) 51 Po.13 61 Al 28 (Al 20-) 18 D GND 77 Al GND 52 Po.8 60 Al 21 (Al 21+) 53 D GND 78 Al GND 20 APF1 1 78 Al 22 (Al 22+) 54 Al GND 78 Al 36 (Al 22-) 21 Al 3 79 Al GND 20 APF1 1 79 Al 20 (Al 22-) 21 Al 3 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (Al 22-) 21 Al 30 (Al 22-) 70 Al 30 (A	63 AL27 (AL19-)	16 P0.14
28 Al 20 Al 20 B D GND	29 ALGNO	TO D GND
61 Al 28 (Al 20-) 18 D GND 27 Al GNO 52 P0.8 60 Al 21 (Al 21-1) 53 D GND 28 Al 28 (Al 21-1) 53 D GND 29 Al GND 20 APFI 1 25 Al 22 (Al 22+1) 54 AD GND 38 Al 39 (Al 22-) 21 AO 3	62 AI SENSE	17 P0.9
27 Al GNO	28 Al 20 (Al 20+)	[61] P0.13
60 Al 21 (A8 21+4) 19 P3, 12 28 Al 29 (A8 21-4) 53 D GND 20 APFI 1 25 Al 22 (Al 22+4) 54 Al3 GND 21 AO 3	61 At 28 (At 20-)	18 D GND
28 Al 28 (Al 21-)	27 ALGNO	52 P0.8
59 A/ GND 20 AFFI 1	60 Al 21 (Al 21+)	19 Po.12
25 Al 22 (Al 22+)	26 Al 29 (Al 21-)	53 D-GMD
S8 Al 36 (Al 22-) 21 AO 3	59 AFGND	20 APFI 1
	25 Al 22 (Al 22+)	54 AD GND
	58 At 30 (At 22-)	21 AO 3
	34 ALGNO	55 AO GND
57 Al 22 (Al 23+) 22 AO 2	A CONTROLLED	(2.95)
23 Al 31 (Al 23-) 96 Al GND		Control Control

_	- DIGITAL	•	
1	Po 30		
-	D GND		
,	P0.28		
30	D GND		
3	P0.25		
37	P0.24		
4	D GND		
38	F0.23		
5	P0.22		
30	P0.31		
6	P0.21		
80	P0.29		
7	D GND		
41	P0.20		
8	+6V		
42.	P0.19		
9	D GND		
43	P0.18		
10	P0.17		
44	D GND		
11	P0.16		
45	P0.26		

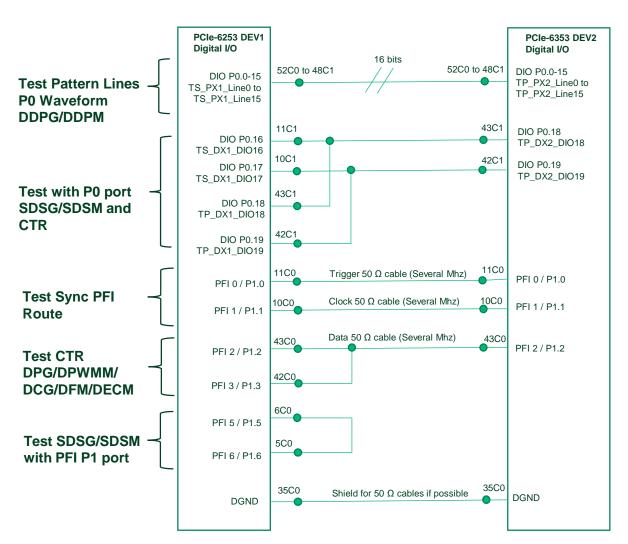




Digital







DIO P0.0-15

0 - 52C0	8 - 52C1
1 - 17C0	9 - 17C1
2 - 49C0	10 - 49C1
3 - 47C0	11 - 47C1
4 - 19C0	12- 19C1
5 - 51C0	13 - 51C1
6 - 16C0	14 - 16C1
7 - 48C0	15 - 48C1

Note:

Virtual Global Channels:

TS_PX1_Line0 = Test Source, Pattern, X Series, Device 1, Line 0 TP_DX2_DIO19 = Test Point, Digital, X series, Device 2, DIO 19