COMPREHENSIVE SERVICES

We offer competitive repair and calibration services, as well as easily accessible documentation and free downloadable resources.

SELL YOUR SURPLUS

We buy new, used, decommissioned, and surplus parts from every NI series. We work out the best solution to suit your individual needs.

Sell For Cash Get Credit Receive a Trade-In Deal

OBSOLETE NI HARDWARE IN STOCK & READY TO SHIP

We stock **New, New Surplus, Refurbished,** and **Reconditioned** NI Hardware.

APEX WAVES

Bridging the gap *between the manufacturer and your legacy test system.*

1-800-915-6216

www.apexwaves.com

sales@apexwaves.com

Request a Quote CLICK HERE ***USB-6221***

USER GUIDE

NI USB-622*x*/625*x*/628*x* OEM

M Series USB-6221/6225/6229/6251/6255/6259/6281/6289 OEM Devices

This document provides dimensions, pinouts, and information about the connectors, switch, LEDs, and chassis ground of the National Instruments USB-6221 OEM, USB-6225 OEM, USB-6229 OEM, USB-6251 OEM, USB-6255 OEM, USB-6259 OEM, USB-6281 OEM, and USB-6289 OEM devices. It also explains how to modify the USB device name in Microsoft Windows.

Caution There are no product safety, electromagnetic compatibility (EMC), or CE marking compliance claims made for the USB-622*x*/625*x*/628*x* OEM devices. Conformity to any and all compliance requirements rests with the end product supplier.

Caution (USB-628*x* Devices) Exercise caution when placing USB-628*x* OEM devices inside an enclosure. Auxiliary cooling may be necessary to keep the device under the maximum ambient temperature rating of 45 °C, as specified in the *NI 628x Specifications*.

Figure 1 shows the USB-6221/6251/6281 OEM and USB-6225/6229/6255/6259/6289 OEM devices.

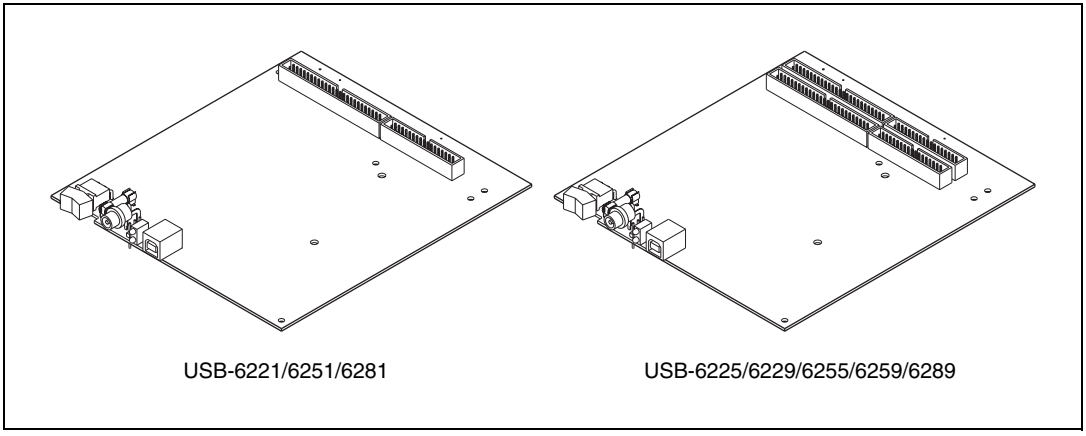


Figure 1. USB-622*x*/625*x*/628*x* OEM Devices

NATIONAL INSTRUMENTS

Refer to the *NI 622x Specifications* document for USB-6221/6225/6229 specifications, the *NI 625x Specifications* document for USB-6251/6255/6259 specifications, and the *NI 628x Specifications* document for USB-6281/6289 specifications. Refer to the *M Series User Manual* for more information about USB-622*x*/625*x*/628*x* devices. You can find all documentation at `ni.com/manuals`.

Dimensions

Figure 2 shows the dimensions of the USB-6221/6251/6281 OEM device.

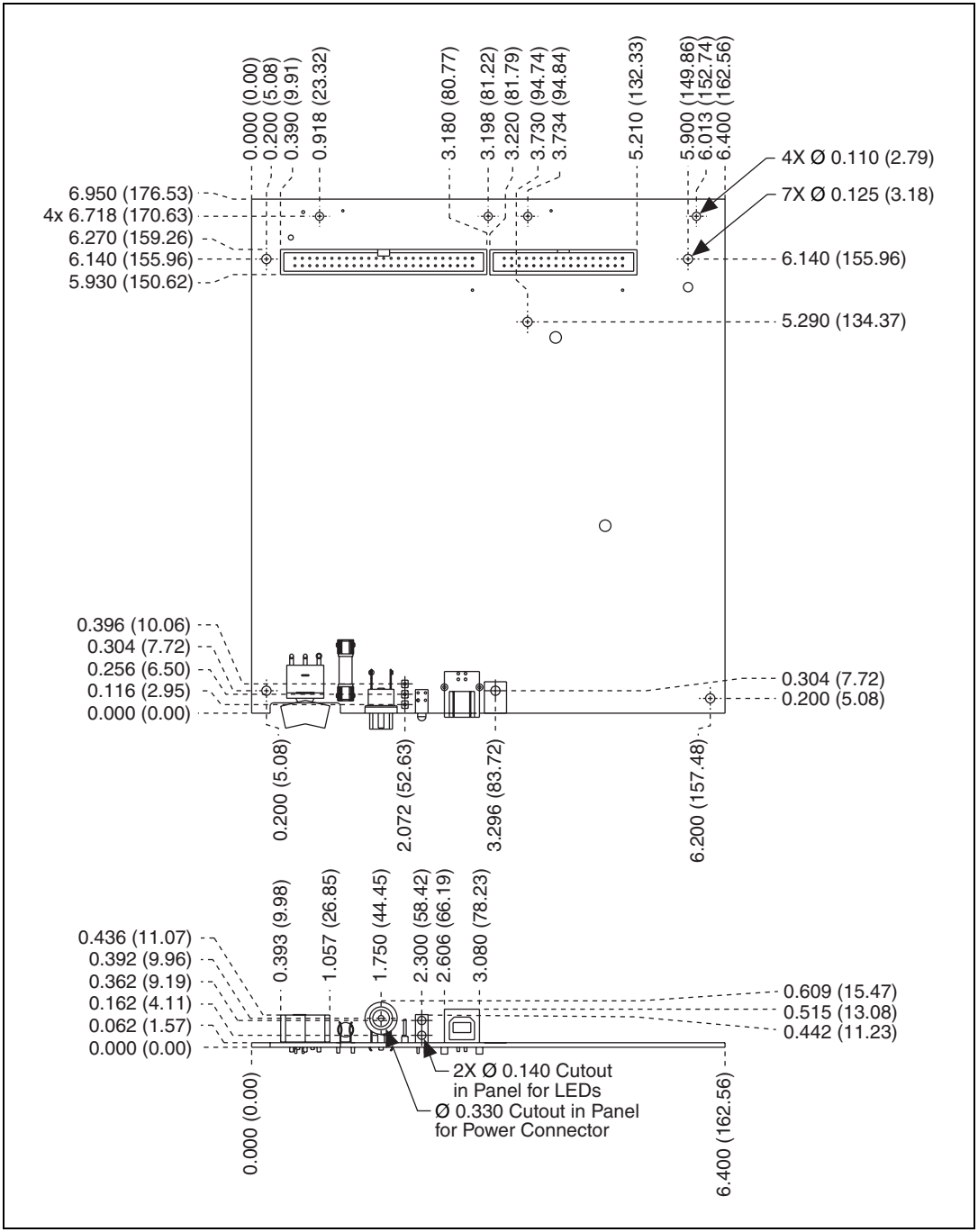


Figure 2. USB-6221/6251/6281 OEM Dimensions in Inches (Millimeters)

Figure 3 shows the dimensions of the USB-6225/6229/6255/6259/6289 OEM device.

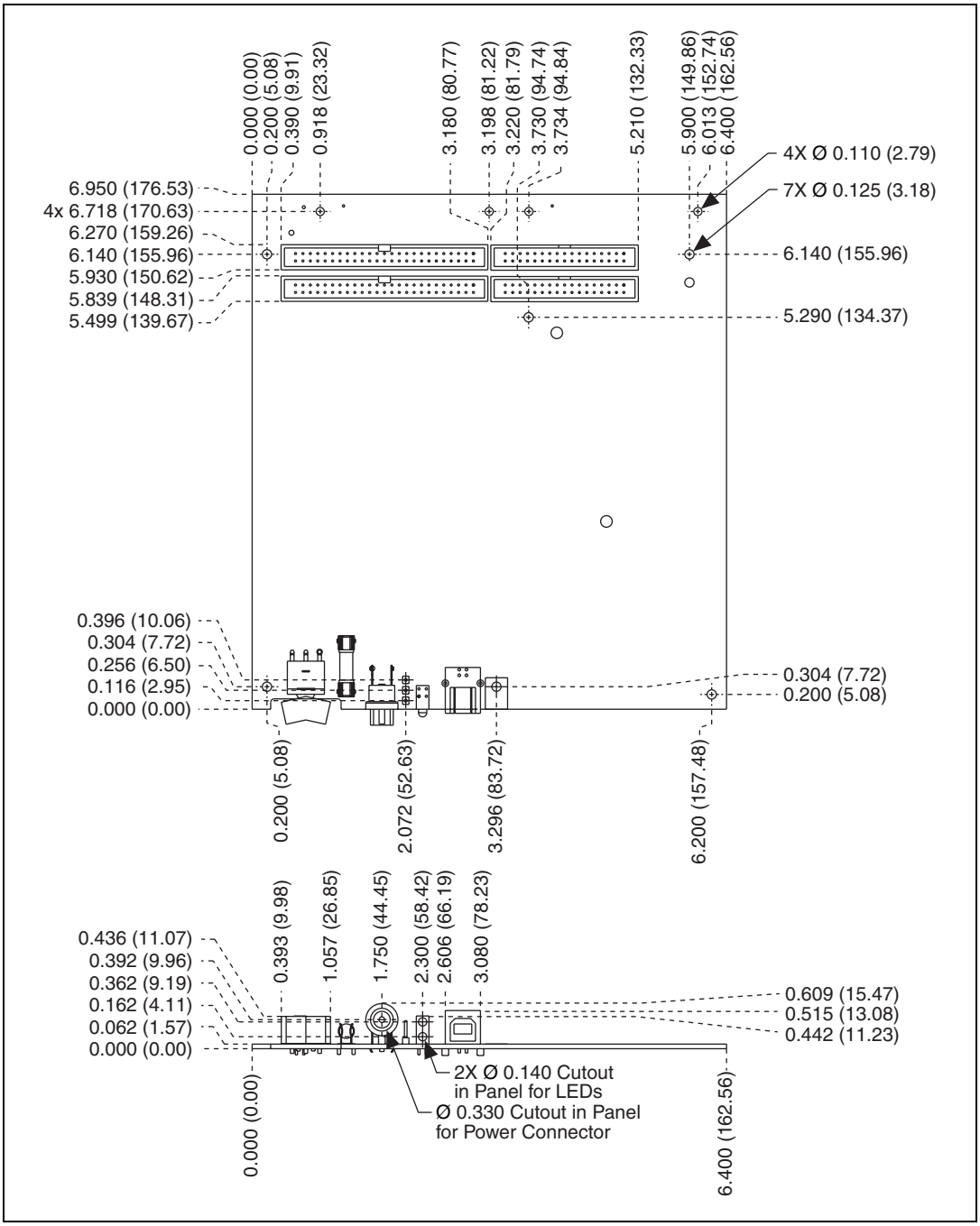
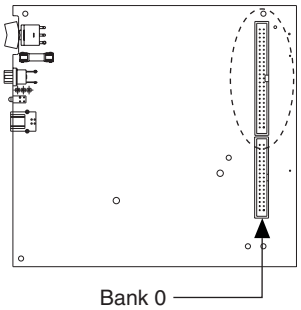


Figure 3. USB-6225/6229/6255/6259/6289 OEM Dimensions in Inches (Millimeters)

I/O Connector Pinouts

Figures 4 through 9 show the connector pinouts for the USB-6221 OEM, USB-6225 OEM, USB-6229 OEM, USB-6251 OEM, USB-6255 OEM, USB-6259 OEM, USB-6281 OEM, and USB-6289 OEM devices.

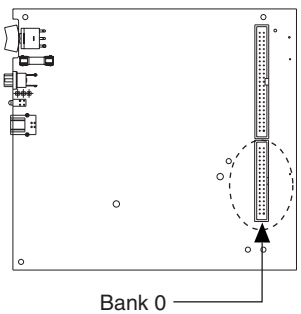
Refer to the *M Series User Manual* at `ni.com/manuals` for more information about USB-622*x*/625*x*/628*x* signals and how to connect them.



Bank 0

50-Pin Digital Connector

+5 V	50	49	+5 V
D GND	48	47	PFI 15
D GND	46	45	PFI 14
D GND	44	43	PFI 13
D GND	42	41	PFI 12
D GND	40	39	PFI 11
D GND	38	37	PFI 10
D GND	36	35	PFI 9
D GND	34	33	PFI 8
D GND	32	31	PFI 7
D GND	30	29	PFI 6
D GND	28	27	PFI 5
D GND	26	25	PFI 4
D GND	24	23	PFI 3
D GND	22	21	PFI 2
D GND	20	19	PFI 1
D GND	18	17	PFI 0
D GND	16	15	P0.7
D GND	14	13	P0.6
D GND	12	11	P0.5
D GND	10	9	P0.4
D GND	8	7	P0.3
D GND	6	5	P0.2
D GND	4	3	P0.1
D GND	2	1	P0.0



Bank 0

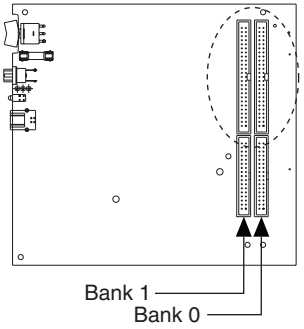
34-Pin Analog Connector

AI GND	34	33	AI 15
AI 7	32	31	AI GND
AI 14	30	29	AI 6
AI GND	28	27	AI 13
AI 5	26	25	AI GND
AI 12	24	23	AI 4
AI GND	22	21	AI 11
AI 3	20	19	AI GND
AI 10	18	17	AI 2
AI GND	16	15	AI 9
AI 1	14	13	AI GND
AI 8	12	11	AI 0
AI GND	10	9	AI SENSE
AI GND	8	7	NC
AI GND	6	5	AO GND
AO 1	4	3	AO GND
AO 0	2	1	AO GND

NC = No Connect

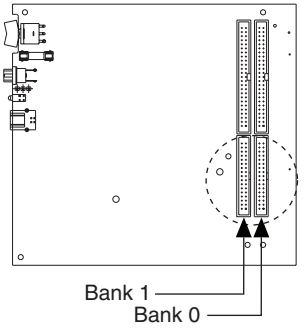
Figure 4. USB-6221 OEM Connector Pinout

50-Pin Analog/Digital Connectors



	Bank 1			Bank 0		
+5 V	50	49	+5 V	AI 71	50	49	AI 79
D GND	48	47	PFI 15	AI 78	48	47	AI 70
D GND	46	45	PFI 14	AI GND	46	45	AI 69
D GND	44	43	PFI 13	AI 77	44	43	AI 76
D GND	42	41	PFI 12	AI 68	42	41	AI GND
D GND	40	39	PFI 11	AI 67	40	39	AI 75
D GND	38	37	PFI 10	AI 74	38	37	AI 66
D GND	36	35	PFI 9	AI GND	36	35	AI 65
D GND	34	33	PFI 8	AI 73	34	33	AI 72
D GND	32	31	PFI 7	AI 64	32	31	AI GND
D GND	30	29	PFI 6	AI 55	30	29	AI 63
D GND	28	27	PFI 5	AI 62	28	27	AI 54
D GND	26	25	PFI 4	AI GND	26	25	AI 53
D GND	24	23	PFI 3	AI 61	24	23	AI 60
D GND	22	21	PFI 2	AI 52	22	21	AI GND
D GND	20	19	PFI 1	AI 51	20	19	AI 59
D GND	18	17	PFI 0	AI 58	18	17	AI 50
D GND	16	15	P0.7	AI GND	16	15	AI 49
D GND	14	13	P0.6	AI 57	14	13	AI 56
D GND	12	11	P0.5	AI 48	12	11	AI GND
D GND	10	9	P0.4	AI 39	10	9	AI 47
D GND	8	7	P0.3	AI 46	8	7	AI 38
D GND	6	5	P0.2	AI GND	6	5	AI 37
D GND	4	3	P0.1	AI 45	4	3	AI GND
D GND	2	1	P0.0	AI 44	2	1	AI 36

34-Pin Analog Connectors

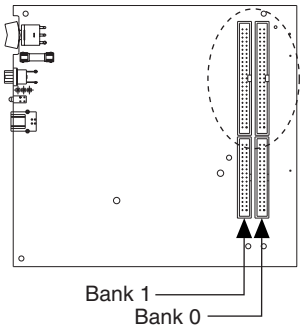


	Bank 1			Bank 0		
AI GND	34	33	AI 15	AI 43	34	33	AI 35
AI 7	32	31	AI GND	AI GND	32	31	AI 34
AI 14	30	29	AI 6	AI 42	30	29	AI 41
AI GND	28	27	AI 13	AI 33	28	27	AI GND
AI 5	26	25	AI GND	AI 32	26	25	AI 40
AI 12	24	23	AI 4	AI 31	24	23	AI 23
AI GND	22	21	AI 11	AI GND	22	21	AI 22
AI 3	20	19	AI GND	AI 30	20	19	AI 29
AI 10	18	17	AI 2	AI 21	18	17	AI GND
AI GND	16	15	AI 9	AI 28	16	15	AI 20
AI 1	14	13	AI GND	AI GND	14	13	AI 27
AI 8	12	11	AI 0	AI 19	12	11	AI GND
AI GND	10	9	AI SENSE	AI 26	10	9	AI 18
AI GND	8	7	NC	AI GND	8	7	AI 25
AI GND	6	5	AO GND	AI 17	6	5	AI GND
AO 1	4	3	AO GND	AI 24	4	3	AI 16
AO 0	2	1	AO GND	AI GND	2	1	AI SENSE 2

NC = No Connect

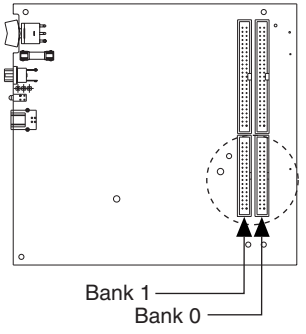
Figure 5. USB-6225 OEM Connector Pinout

50-Pin Digital Connectors



Bank 1				Bank 0			
+5 V	50	49	+5 V	+5 V	50	49	+5 V
D GND	48	47	P0.31	D GND	48	47	PFI 15
D GND	46	45	P0.30	D GND	46	45	PFI 14
D GND	44	43	P0.29	D GND	44	43	PFI 13
D GND	42	41	P0.28	D GND	42	41	PFI 12
D GND	40	39	P0.27	D GND	40	39	PFI 11
D GND	38	37	P0.26	D GND	38	37	PFI 10
D GND	36	35	P0.25	D GND	36	35	PFI 9
D GND	34	33	P0.24	D GND	34	33	PFI 8
D GND	32	31	P0.23	D GND	32	31	PFI 7
D GND	30	29	P0.22	D GND	30	29	PFI 6
D GND	28	27	P0.21	D GND	28	27	PFI 5
D GND	26	25	P0.20	D GND	26	25	PFI 4
D GND	24	23	P0.19	D GND	24	23	PFI 3
D GND	22	21	P0.18	D GND	22	21	PFI 2
D GND	20	19	P0.17	D GND	20	19	PFI 1
D GND	18	17	P0.16	D GND	18	17	PFI 0
D GND	16	15	P0.15	D GND	16	15	P0.7
D GND	14	13	P0.14	D GND	14	13	P0.6
D GND	12	11	P0.13	D GND	12	11	P0.5
D GND	10	9	P0.12	D GND	10	9	P0.4
D GND	8	7	P0.11	D GND	8	7	P0.3
D GND	6	5	P0.10	D GND	6	5	P0.2
D GND	4	3	P0.9	D GND	4	3	P0.1
D GND	2	1	P0.8	D GND	2	1	P0.0

34-Pin Analog Connectors

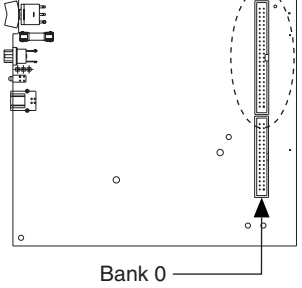


Bank 1				Bank 0			
AI GND	34	33	AI 31	AI GND	34	33	AI 15
AI 23	32	31	AI GND	AI 7	32	31	AI GND
AI 30	30	29	AI 22	AI 14	30	29	AI 6
AI GND	28	27	AI 29	AI GND	28	27	AI 13
AI 21	26	25	AI GND	AI 5	26	25	AI GND
AI 28	24	23	AI 20	AI 12	24	23	AI 4
AI GND	22	21	AI 27	AI GND	22	21	AI 11
AI 19	20	19	AI GND	AI 3	20	19	AI GND
AI 26	18	17	AI 18	AI 10	18	17	AI 2
AI GND	16	15	AI 25	AI GND	16	15	AI 9
AI 17	14	13	AI GND	AI 1	14	13	AI GND
AI 24	12	11	AI 16	AI 8	12	11	AI 0
AI GND	10	9	AI SENSE 2	AI GND	10	9	AI SENSE
AI GND	8	7	NC	AI GND	8	7	NC
AI GND	6	5	AO GND	AI GND	6	5	AO GND
AO 3	4	3	AO GND	AO 1	4	3	AO GND
AO 2	2	1	AO GND	AO 0	2	1	AO GND

NC = No Connect

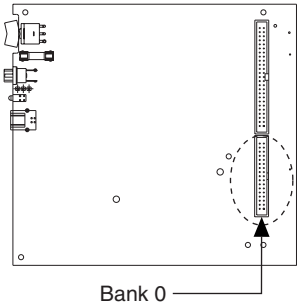
NC = No Connect

Figure 6. USB-6229 OEM Connector Pinout



50-Pin Digital Connector

	Bank 0		
+5 V	50	49	+5 V
D GND	48	47	PFI 15
D GND	46	45	PFI 14
D GND	44	43	PFI 13
D GND	42	41	PFI 12
D GND	40	39	PFI 11
D GND	38	37	PFI 10
D GND	36	35	PFI 9
D GND	34	33	PFI 8
D GND	32	31	PFI 7
D GND	30	29	PFI 6
D GND	28	27	PFI 5
D GND	26	25	PFI 4
D GND	24	23	PFI 3
D GND	22	21	PFI 2
D GND	20	19	PFI 1
D GND	18	17	PFI 0
D GND	16	15	P0.7
D GND	14	13	P0.6
D GND	12	11	P0.5
D GND	10	9	P0.4
D GND	8	7	P0.3
D GND	6	5	P0.2
D GND	4	3	P0.1
D GND	2	1	P0.0

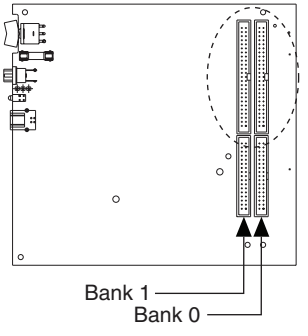


34-Pin Analog Connector

	Bank 0		
AI GND	34	33	AI 15
AI 7	32	31	AI GND
AI 14	30	29	AI 6
AI GND	28	27	AI 13
AI 5	26	25	AI GND
AI 12	24	23	AI 4
AI GND	22	21	AI 11
AI 3	20	19	AI GND
AI 10	18	17	AI 2
AI GND	16	15	AI 9
AI 1	14	13	AI GND
AI 8	12	11	AI 0
AI GND	10	9	AI SENSE
AI GND	8	7	APFI 0
AI GND	6	5	AO GND
AO 1	4	3	AO GND
AO 0	2	1	AO GND

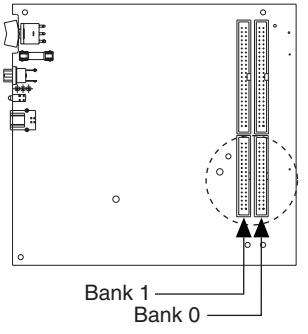
Figure 7. USB-6251/6281 OEM Connector Pinout

50-Pin Analog/Digital Connectors



	Bank 1			Bank 0		
+5 V	50	49	+5 V	AI 71	50	49	AI 79
D GND	48	47	PFI 15	AI 78	48	47	AI 70
D GND	46	45	PFI 14	AI GND	46	45	AI 69
D GND	44	43	PFI 13	AI 77	44	43	AI 76
D GND	42	41	PFI 12	AI 68	42	41	AI GND
D GND	40	39	PFI 11	AI 67	40	39	AI 75
D GND	38	37	PFI 10	AI 74	38	37	AI 66
D GND	36	35	PFI 9	AI GND	36	35	AI 65
D GND	34	33	PFI 8	AI 73	34	33	AI 72
D GND	32	31	PFI 7	AI 64	32	31	AI GND
D GND	30	29	PFI 6	AI 55	30	29	AI 63
D GND	28	27	PFI 5	AI 62	28	27	AI 54
D GND	26	25	PFI 4	AI GND	26	25	AI 53
D GND	24	23	PFI 3	AI 61	24	23	AI 60
D GND	22	21	PFI 2	AI 52	22	21	AI GND
D GND	20	19	PFI 1	AI 51	20	19	AI 59
D GND	18	17	PFI 0	AI 58	18	17	AI 50
D GND	16	15	P0.7	AI GND	16	15	AI 49
D GND	14	13	P0.6	AI 57	14	13	AI 56
D GND	12	11	P0.5	AI 48	12	11	AI GND
D GND	10	9	P0.4	AI 39	10	9	AI 47
D GND	8	7	P0.3	AI 46	8	7	AI 38
D GND	6	5	P0.2	AI GND	6	5	AI 37
D GND	4	3	P0.1	AI 45	4	3	AI GND
D GND	2	1	P0.0	AI 44	2	1	AI 36

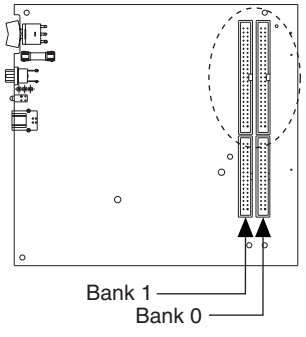
34-Pin Analog Connectors



	Bank 1			Bank 0		
AI GND	34	33	AI 15	AI 43	34	33	AI 35
AI 7	32	31	AI GND	AI GND	32	31	AI 34
AI 14	30	29	AI 6	AI 42	30	29	AI 41
AI GND	28	27	AI 13	AI 33	28	27	AI GND
AI 5	26	25	AI GND	AI 32	26	25	AI 40
AI 12	24	23	AI 4	AI 31	24	23	AI 23
AI GND	22	21	AI 11	AI GND	22	21	AI 22
AI 3	20	19	AI GND	AI 30	20	19	AI 29
AI 10	18	17	AI 2	AI 21	18	17	AI GND
AI GND	16	15	AI 9	AI 28	16	15	AI 20
AI 1	14	13	AI GND	AI GND	14	13	AI 27
AI 8	12	11	AI 0	AI 19	12	11	AI GND
AI GND	10	9	AI SENSE	AI 26	10	9	AI 18
AI GND	8	7	APFI 0	AI GND	8	7	AI 25
AI GND	6	5	AO GND	AI 17	6	5	AI GND
AO 1	4	3	AO GND	AI 24	4	3	AI 16
AO 0	2	1	AO GND	AI GND	2	1	AI SENSE 2

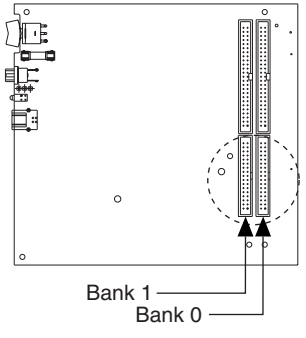
Figure 8. USB-6255 OEM Connector Pinout

50-Pin Digital Connectors



Bank 1				Bank 0			
+5 V	50	49	+5 V	+5 V	50	49	+5 V
D GND	48	47	P0.31	D GND	48	47	PFI 15
D GND	46	45	P0.30	D GND	46	45	PFI 14
D GND	44	43	P0.29	D GND	44	43	PFI 13
D GND	42	41	P0.28	D GND	42	41	PFI 12
D GND	40	39	P0.27	D GND	40	39	PFI 11
D GND	38	37	P0.26	D GND	38	37	PFI 10
D GND	36	35	P0.25	D GND	36	35	PFI 9
D GND	34	33	P0.24	D GND	34	33	PFI 8
D GND	32	31	P0.23	D GND	32	31	PFI 7
D GND	30	29	P0.22	D GND	30	29	PFI 6
D GND	28	27	P0.21	D GND	28	27	PFI 5
D GND	26	25	P0.20	D GND	26	25	PFI 4
D GND	24	23	P0.19	D GND	24	23	PFI 3
D GND	22	21	P0.18	D GND	22	21	PFI 2
D GND	20	19	P0.17	D GND	20	19	PFI 1
D GND	18	17	P0.16	D GND	18	17	PFI 0
D GND	16	15	P0.15	D GND	16	15	P0.7
D GND	14	13	P0.14	D GND	14	13	P0.6
D GND	12	11	P0.13	D GND	12	11	P0.5
D GND	10	9	P0.12	D GND	10	9	P0.4
D GND	8	7	P0.11	D GND	8	7	P0.3
D GND	6	5	P0.10	D GND	6	5	P0.2
D GND	4	3	P0.9	D GND	4	3	P0.1
D GND	2	1	P0.8	D GND	2	1	P0.0

34-Pin Analog Connectors



Bank 1				Bank 0			
AI GND	34	33	AI 31	AI GND	34	33	AI 15
AI 23	32	31	AI GND	AI 7	32	31	AI GND
AI 30	30	29	AI 22	AI 14	30	29	AI 6
AI GND	28	27	AI 29	AI GND	28	27	AI 13
AI 21	26	25	AI GND	AI 5	26	25	AI GND
AI 28	24	23	AI 20	AI 12	24	23	AI 4
AI GND	22	21	AI 27	AI GND	22	21	AI 11
AI 19	20	19	AI GND	AI 3	20	19	AI GND
AI 26	18	17	AI 18	AI 10	18	17	AI 2
AI GND	16	15	AI 25	AI GND	16	15	AI 9
AI 17	14	13	AI GND	AI 1	14	13	AI GND
AI 24	12	11	AI 16	AI 8	12	11	AI 0
AI GND	10	9	AI SENSE 2	AI GND	10	9	AI SENSE
AI GND	8	7	APFI 1	AI GND	8	7	APFI 0
AI GND	6	5	AO GND	AI GND	6	5	AO GND
AO 3	4	3	AO GND	AO 1	4	3	AO GND
AO 2	2	1	AO GND	AO 0	2	1	AO GND

Figure 9. USB-6259/6289 OEM Connector Pinout

Default Counter/Timer Pinouts

By default, NI-DAQmx routes the counter/timer inputs and outputs to the PFI pins, shown in Table 1.

Table 1. NI-DAQmx Default Counter/Timer Pins

Counter/Timer Signal	Default Terminal Name
CTR 0 SRC	PFI 8
CTR 0 GATE	PFI 9
CTR 0 AUX	PFI 10
CTR 0 OUT	PFI 12
CTR 0 A	PFI 8
CTR 0 Z	PFI 9
CTR 0 B	PFI 10
CTR 1 SRC	PFI 3
CTR 1 GATE	PFI 4
CTR 1 AUX	PFI 11
CTR 1 OUT	PFI 13
CTR 1 A	PFI 3
CTR 1 Z	PFI 4
CTR 1 B	PFI 11
FREQ OUT	PFI 14

Attaching External LEDs

USB-622*x*/625*x*/628*x* OEM devices have two LEDs that reflect the device state. The green READY LED indicates when the device is powered on and configured as a USB device. The yellow ACTIVE LED indicates USB bus activity.

Three connectors on the device allow you to connect an external LED circuit to the device, as shown in Figure 10. To connect an external READY LED, use E1 as the positive connection (+3.3 V) and E2 as the negative connection. To connect an external ACTIVE LED, use E1 as the positive connection and E3 as the negative connection. E1 is current limited with a 100 Ω resistor to the 3.3 V internal supply. This configuration limits the current to approximately 16 mA into a single external LED or approximately 8 mA each when both LEDs are lit. You also can limit this current further by using external resistors, also shown in Figure 10.

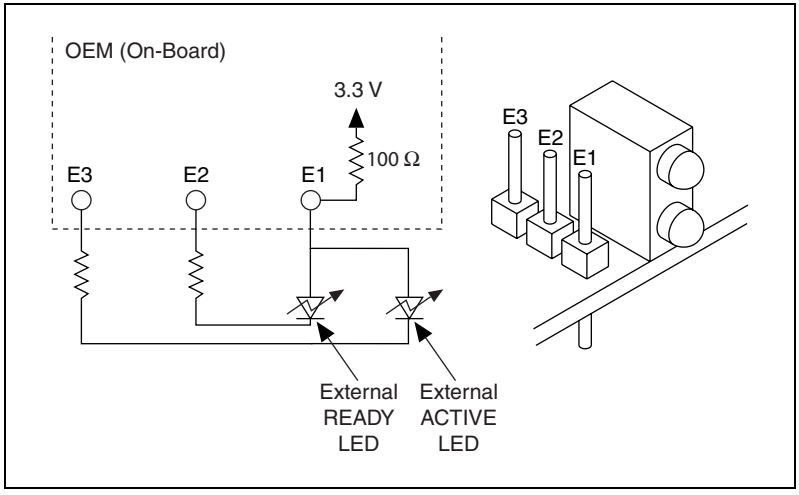


Figure 10. Schematic for External LED Circuits

Power Switch

The power switch on the USB-622*x*/625*x*/628*x* OEM device powers the device on and off. Figure 11 shows the pins on the power switch and circuitry.

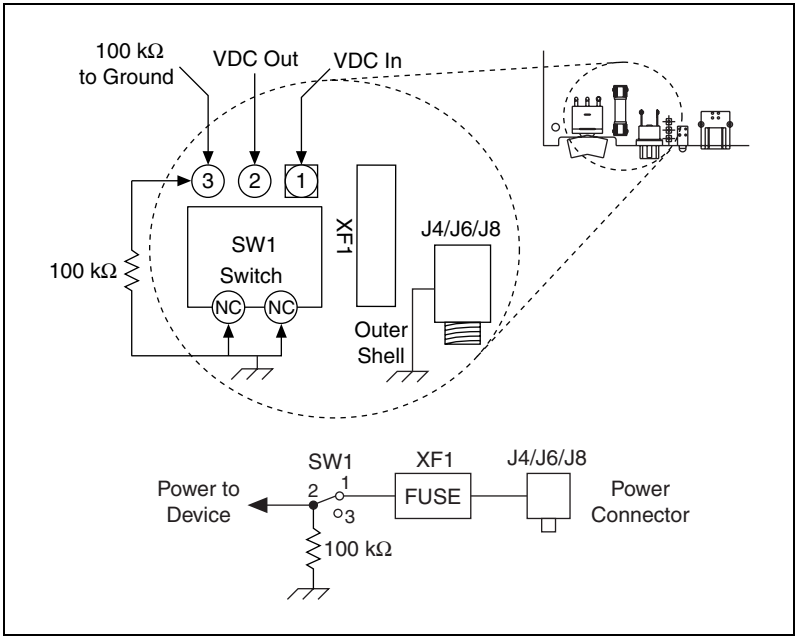


Figure 11. Schematic for the Power Switch

Pin 1, VDC In, is connected to VDC through the fuse (reference designator XF1). The VDC is the voltage provided by the power supply through the power connector (reference designator J4/J6/J8[1]) and must be 11–30 VDC, 20 W.

Pin 2, VDC Out, provides power to the circuitry on the device. When the switch is in the On position, the VDC power supply from pin 1 is routed to pin 2.

Pin 3, 100 kΩ to Ground, connects pin 2 to ground through a 100 kΩ resistor when the switch is in the Off position.

[1] The power connector is designated as J4 on USB-6225/6255 OEM devices, J6 on USB-6221/6229 OEM devices, and J8 on USB-6251/6259/6281/6289 OEM devices.

Connecting the USB-622*x*/625*x*/628*x* OEM Device to Your Chassis

The USB-622*x*/625*x*/628*x* OEM device includes several plated mounting holes that are designed for customer grounded connections, as shown in Figure 12.

Caution Do *not* use the holes labeled A in Figure 12 as mounting holes.

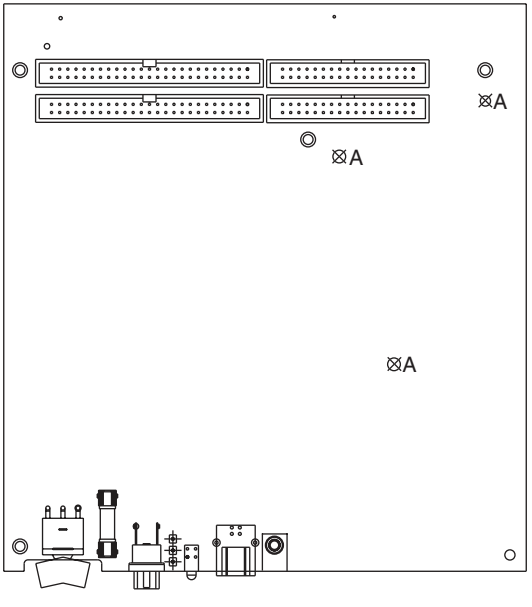


Figure 12. Customer Mounting Holes (USB-6225/6229/6255/6259/6289 OEM Shown)

Caution **(USB-628*x* Devices)** Exercise caution when placing USB-628*x* OEM devices inside an enclosure. Auxiliary cooling may be necessary to keep the device under the maximum ambient temperature rating of 45 °C, as specified in the *NI 628x Specifications*.

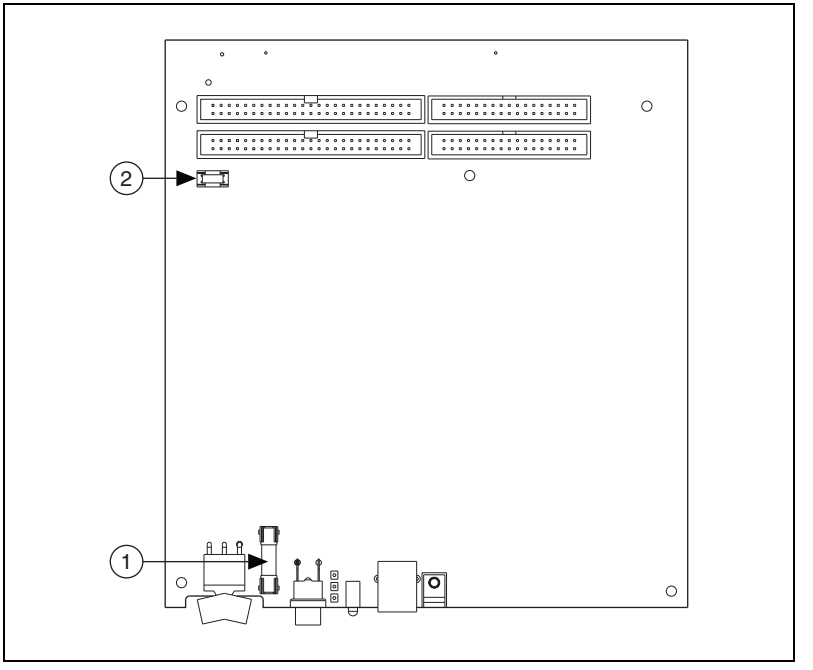
Replacing Fuses

USB-622*x*/625*x*/628*x* OEM devices have a replaceable T 2A 250V (5 × 20 mm) fuse that protects the device from overcurrent through the power connector.

(USB-628*x* Devices Only) USB-628*x* OEM devices also have a replaceable F 2A 125V fuse that protects the device from overcurrent through the +5 V terminal(s).

Replacement fuse information can be found in Table 2. To replace a broken fuse in USB-622*x*/625*x*/628*x* OEM devices, complete the following steps.

1. Power down and unplug the device.
2. Replace the broken fuse while referring to Figure 13 for the fuse locations.



1	T 2A 250V (5 x 20 mm) Fuse
2	F 2A 125V Fuse on USB-628*x* OEM Devices

Figure 13. USB-622*x*/625*x*/628*x* OEM Fuse Locations

Device Components

Table 2 contains information about the components used for interfacing and interacting with the USB-622*x*/625*x*/628*x* OEM device.

Table 2. USB-622*x*/625*x*/628*x* OEM Components

Component	Reference Designator(s) on PCB	Manufacturer	Manufacturer Part Number
LEDs	DS1	Dialight	553-0332
34-pin connectors	**(USB-6221/6251/6281 OEM)** J1	3M	N2534-6002RB
	(USB-6225/6229/6255/6259/6289 OEM) J1, J2		
50-pin connectors	**(USB-6221/6251/6281 OEM)** P1	3M	N2550-6002UB
	(USB-6225/6229/6255/6259/6289 OEM) P1, P2		
USB connector	J3	AMP	787780-1
Power connector	**(USB-6221/6229 OEM)** J6	Switchcraft	722RA
	(USB-6225/6255 OEM) J4		
	(USB-6251/6259/6281/6289 OEM) J8		
Power switch	SW1	ITT Industries, Cannon	E101J1A3QE2
T 2A 250V fuse	XF1	Littelfuse	218.002XP
F 2A 125V fuse	**(USB-6281/6289 OEM)** F1	Littelfuse	0453002
68-pin connectors*	**(USB-6221 OEM)** J8	Honda	PCS-E68RLMD1+
	(USB-6225/6229/6255 OEM) J7, J8		
	(USB-6251/6281 OEM) J7		
	(USB-6259/6289 OEM) J6, J7		

* Optional mass termination connectors. These are not populated by default.

Modifying the USB Device Name in Microsoft Windows

You can change how the USB-622*x*/625*x*/628*x* OEM device name appears when users install the device in both the Found New Hardware Wizard that appears when the device is initially installed and in the Windows Device Manager.

Windows Vista/XP Users

Figure 14 depicts how a USB-6251 OEM device name appears in the Found New Hardware Wizard and Windows Device Manager.

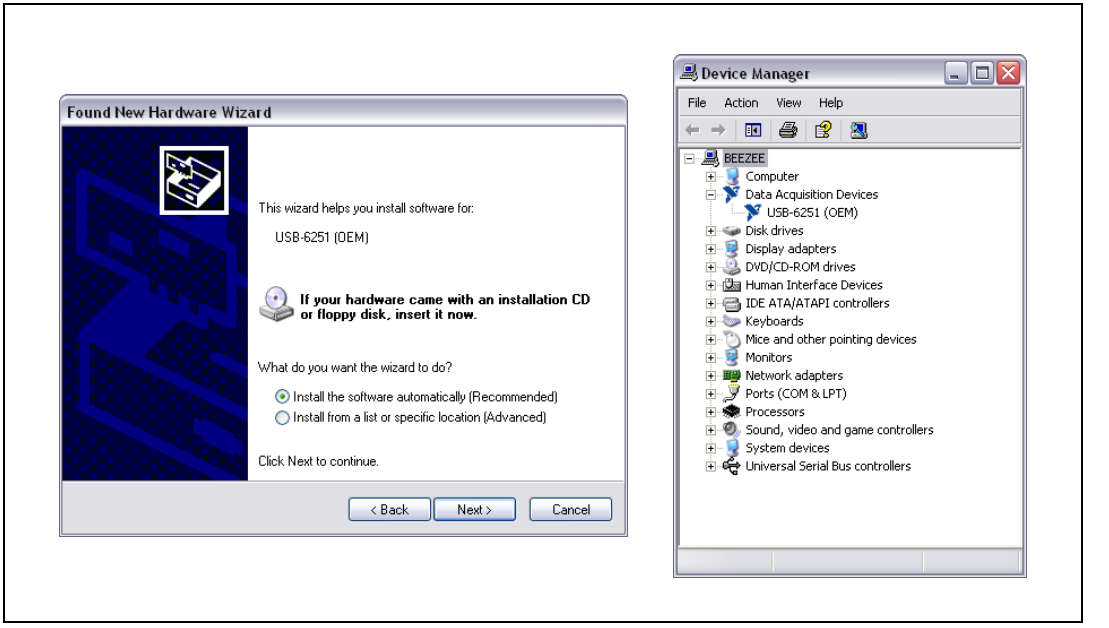


Figure 14. USB-6251 OEM Device in the Found New Hardware Wizard and Device Manager (Windows Vista/XP)

To modify the device name in the Found New Hardware Wizard and Windows Device Manager in Microsoft Windows Vista/XP, complete the following steps.

Note You *must* have NI-DAQmx 8.7 or later installed on your PC.

1. Locate the `OEMx.inf` file in the `y:\WINDOWS\inf\` directory, where `x` is the random number assigned to the INF file by Windows, and `y:\` is the root directory where Windows is installed.

Note New security updates to Microsoft Vista and NI-DAQ 8.6 or later create random INF files for NI hardware. Windows assigns random file numbers to all INF files, which causes the user to search through several INF files until the correct file is located.

If you want to revert back, save a copy of this file as `OEMx_original.inf` in a different location.

2. Edit the device INF file by opening `OEMx.inf` with a text editor.

   At the bottom of this file are the descriptors where Windows looks to identify the device. Locate the two lines of text that contain in quotes the descriptors for the device name you are modifying. Change the descriptor on *both* lines to the new device name, as shown in Figure 15.

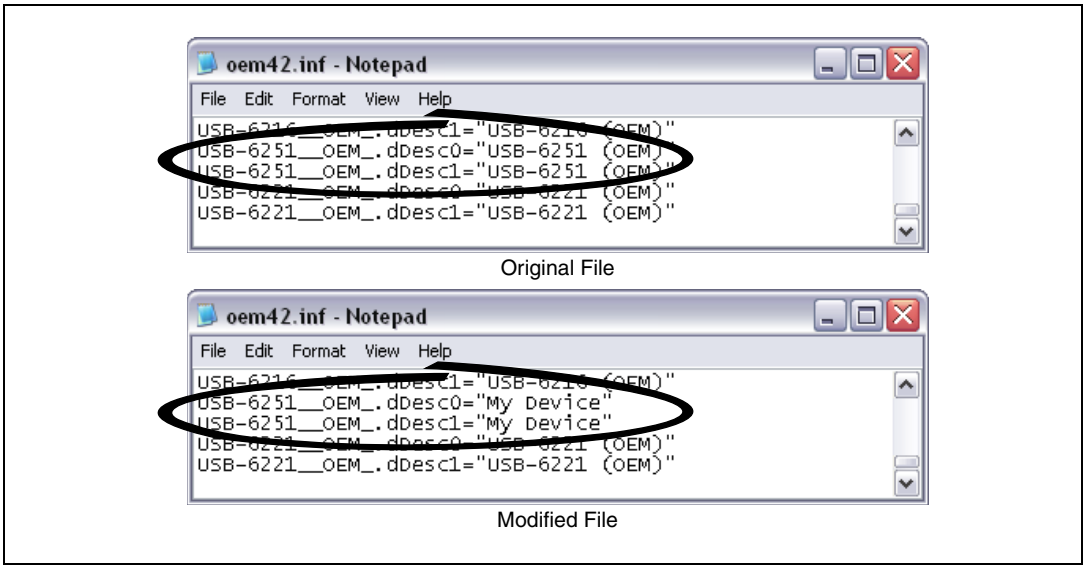


Figure 15. INF File Descriptors Changed to "My Device" (Windows Vista/XP)

3. Save and close the INF file.
4. Go to the Windows Device Manager.

   (Windows Vista) In the Device Manager, notice that the OEM device now appears as `My Device`, as shown in Figure 16.

   (Windows XP) In the Device Manager, right-click the OEM device under Data Acquisition Devices, and select **Uninstall**. Power down the OEM device and disconnect the USB cable from your PC.

When you reconnect and power on the device, it appears as `My Device` in the Found New Hardware Wizard and Windows Device Manager, as shown in Figure 16.

Note When the device is initially installed, the Windows alert message may display the following: **`Found New Hardware: M Series USB 62xx (OEM)`**. This message appears for a few seconds until the custom name appears and the Found New Hardware Wizard is launched. This alert message device name cannot be changed.

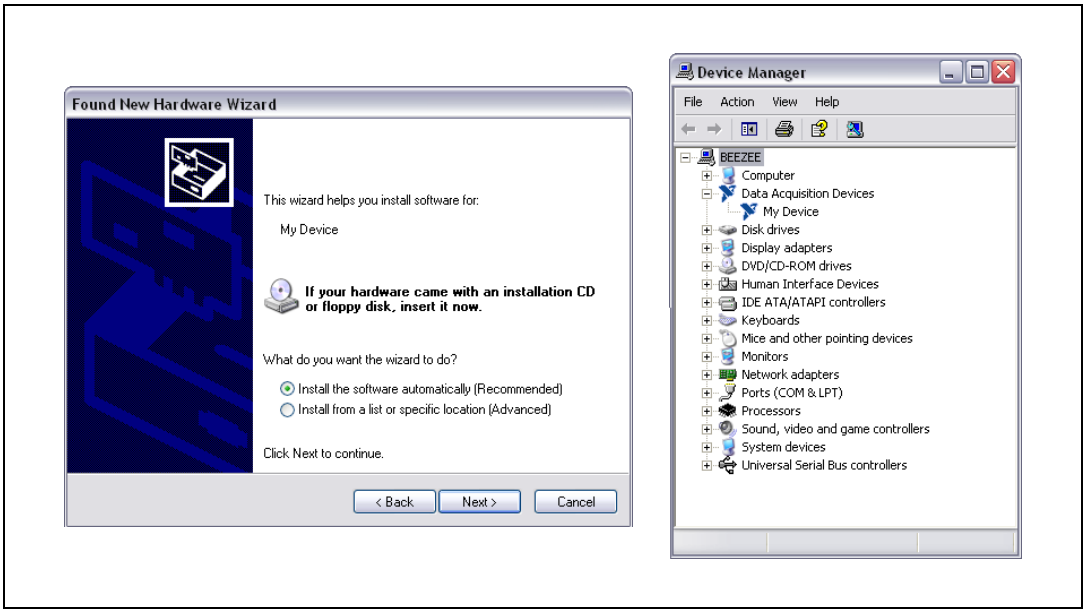


Figure 16. "My Device" in the Found New Hardware Wizard and Device Manager (Windows Vista/XP)

Note Modifying the INF file will *not* change the USB-622*x*/625*x*/628*x* OEM device name in Measurement & Automation Explorer (MAX).

Windows 2000 Users

Figure 17 depicts how a USB-6251 OEM device name appears in the Found New Hardware Wizard and Windows Device Manager.

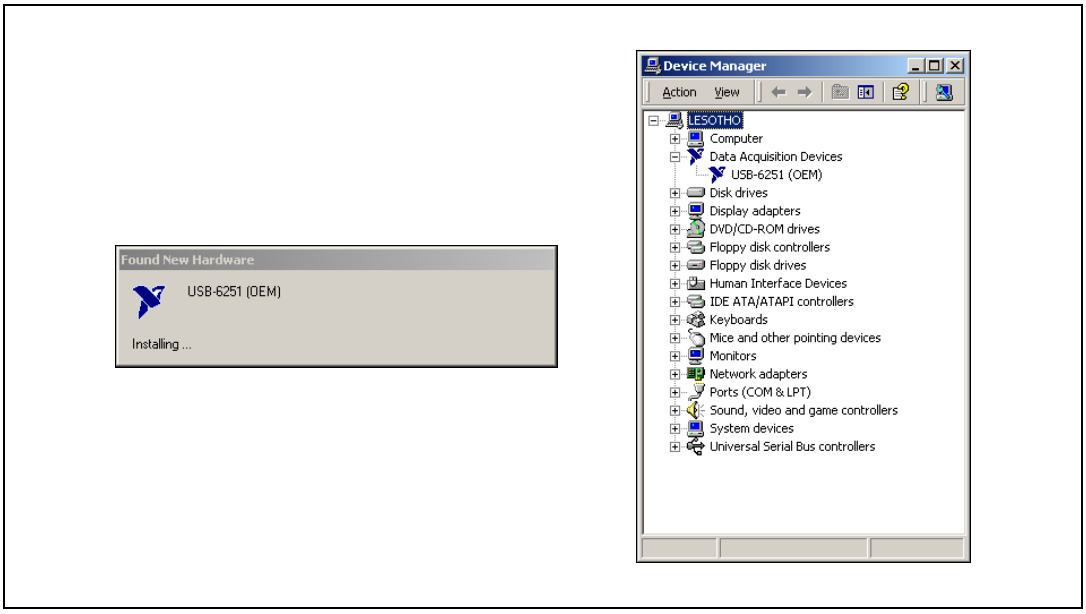


Figure 17. USB-6251 OEM Device in the Found New Hardware Wizard and Device Manager (Windows 2000)

To modify the device name in the Found New Hardware Wizard and Windows Device Manager in Windows 2000, complete the following steps.

Note You *must* have NI-DAQmx 8.7 or later installed on your PC.

1. Locate the `nimioxsu.inf` file in the `x:\WINNT\inf\` directory, where `x:\` is the root directory where Windows is installed.

   If you want to revert back, save a copy of this file as `nimioxsu_original.inf` in a different location.

2. Edit the device INF file by opening `nimioxsu.inf` with a text editor.

   At the bottom of this file are the descriptors where Windows looks to identify the device. Locate the two lines of text that contain in quotes the descriptors for the device name you are modifying. Change the descriptor on *both* lines to the new device name, as shown in Figure 18.

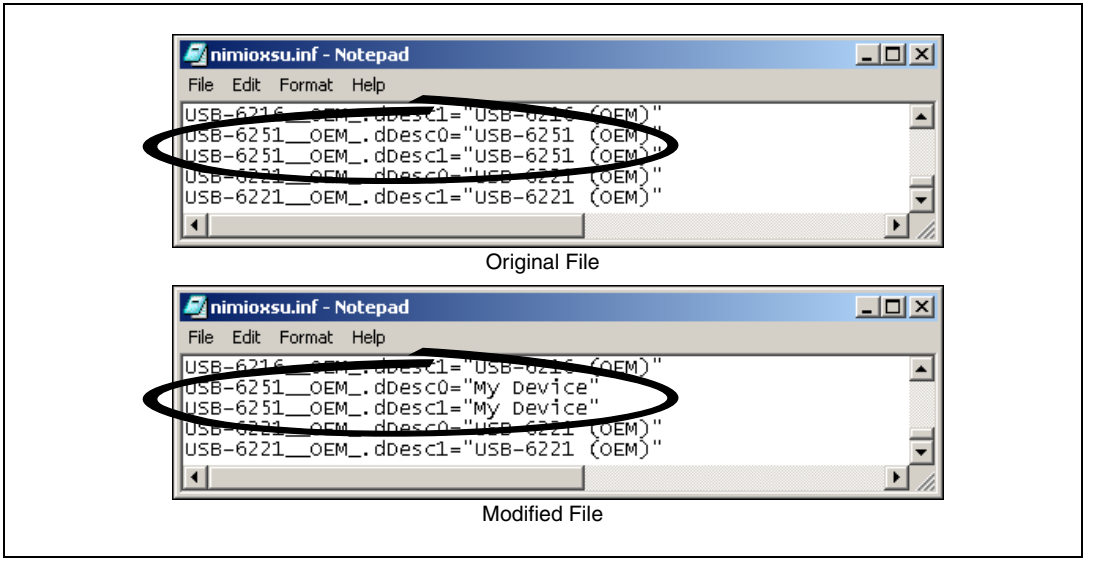


Figure 18. INF File Descriptors Changed to “My Device” (Windows 2000)

3. Save and close the INF file.
4. Go to the Windows Device Manager, right-click the OEM device under Data Acquisition Devices, and select **Uninstall**.
5. Power down the OEM device and disconnect the USB cable from your PC.

When you reconnect and power on the device, it appears as `My Device` in the Found New Hardware Wizard and Windows Device Manager, as shown in Figure 19.

Note When the device is initially installed, the Windows alert message may display the following: **`Found New Hardware: M Series USB 62xx (OEM)`**. This message appears for a few seconds until the custom name appears and the Found New Hardware Wizard is launched. This alert message device name cannot be changed.

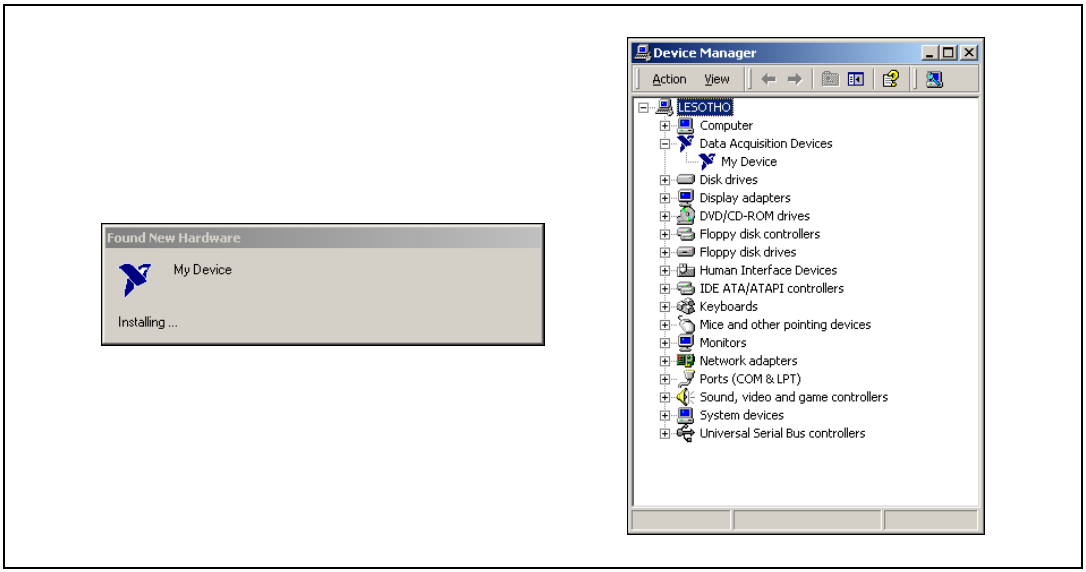


Figure 19. "My Device" in the Found New Hardware Wizard and Device Manager (Windows 2000)

Note Modifying the INF file will *not* change the USB-622*x*/625*x*/628*x* OEM device name in Measurement & Automation Explorer (MAX).