

## USER GUIDE

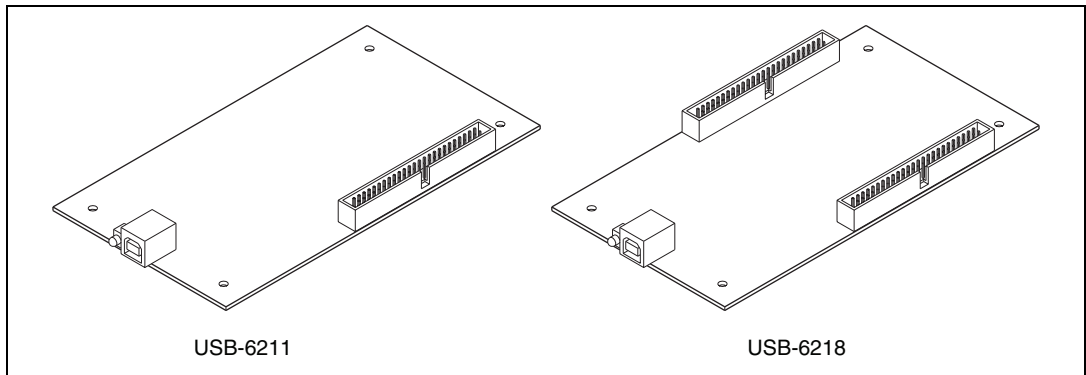
# NI USB-6211/6218 OEM

This document provides information about the dimensions, mounting options, connectors, and other components of the NI USB-6211/6218 OEM devices.



**Caution** There are no product safety, electromagnetic compatibility (EMC), or CE marking compliance claims made for the USB-6211/6218 OEM devices. Conformity to any and all compliance requirements rests with the end product supplier.

Figure 1 shows the USB-6211 OEM and USB-6218 OEM devices.

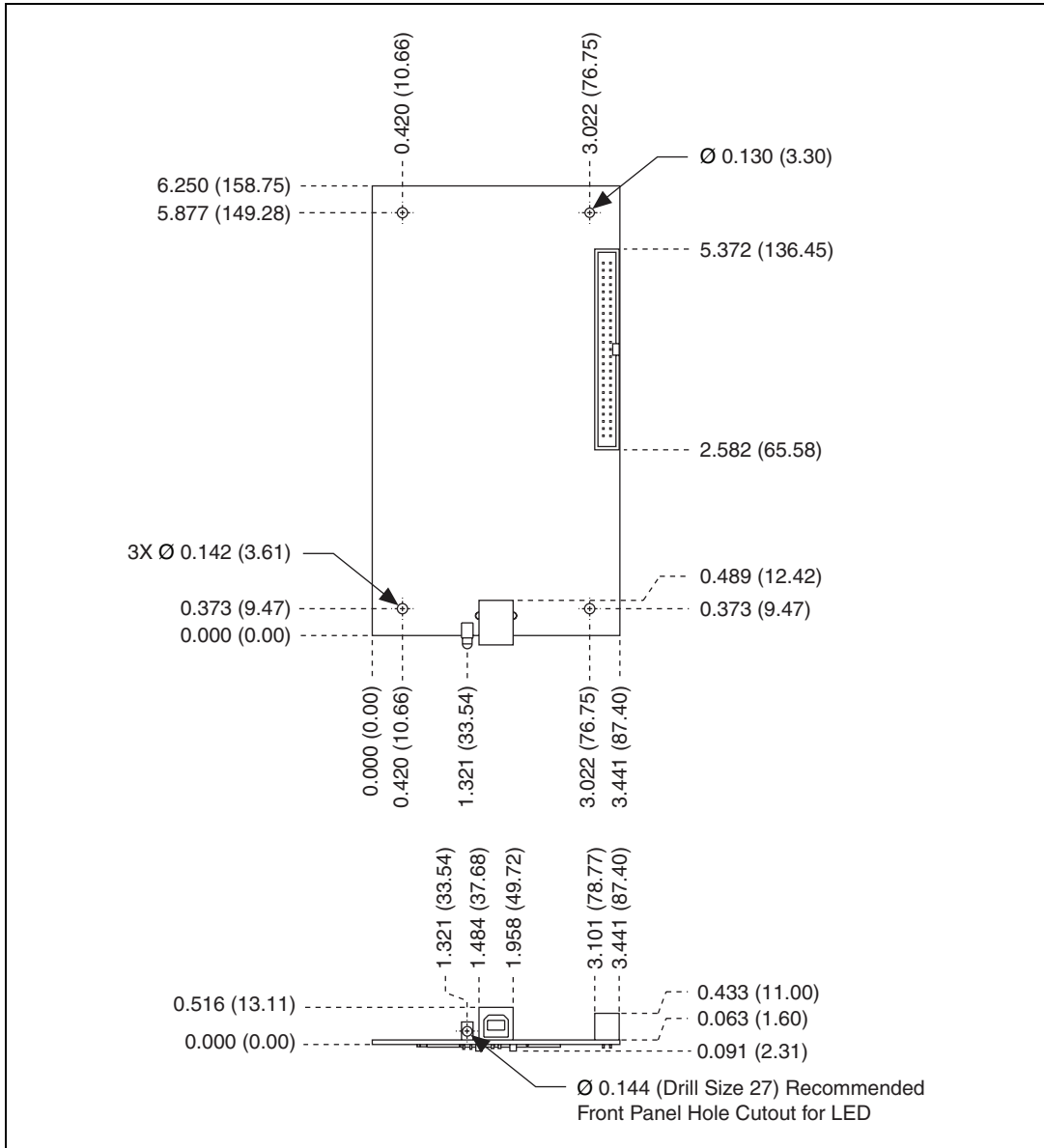


**Figure 1.** USB-621x OEM Devices

Refer to the *NI USB-621x Specifications* document for USB-6211/6218 specifications and the *NI USB-621x User Manual* for more information about USB-6211/6218 devices. You can find all documentation at [ni.com/manuals](http://ni.com/manuals).

# Dimensions

Figure 2 shows the dimensions of the USB-6211 OEM device.



**Figure 2.** USB-6211 OEM Dimensions in Inches (Millimeters)

Figure 3 shows the dimensions of the USB-6218 OEM device.

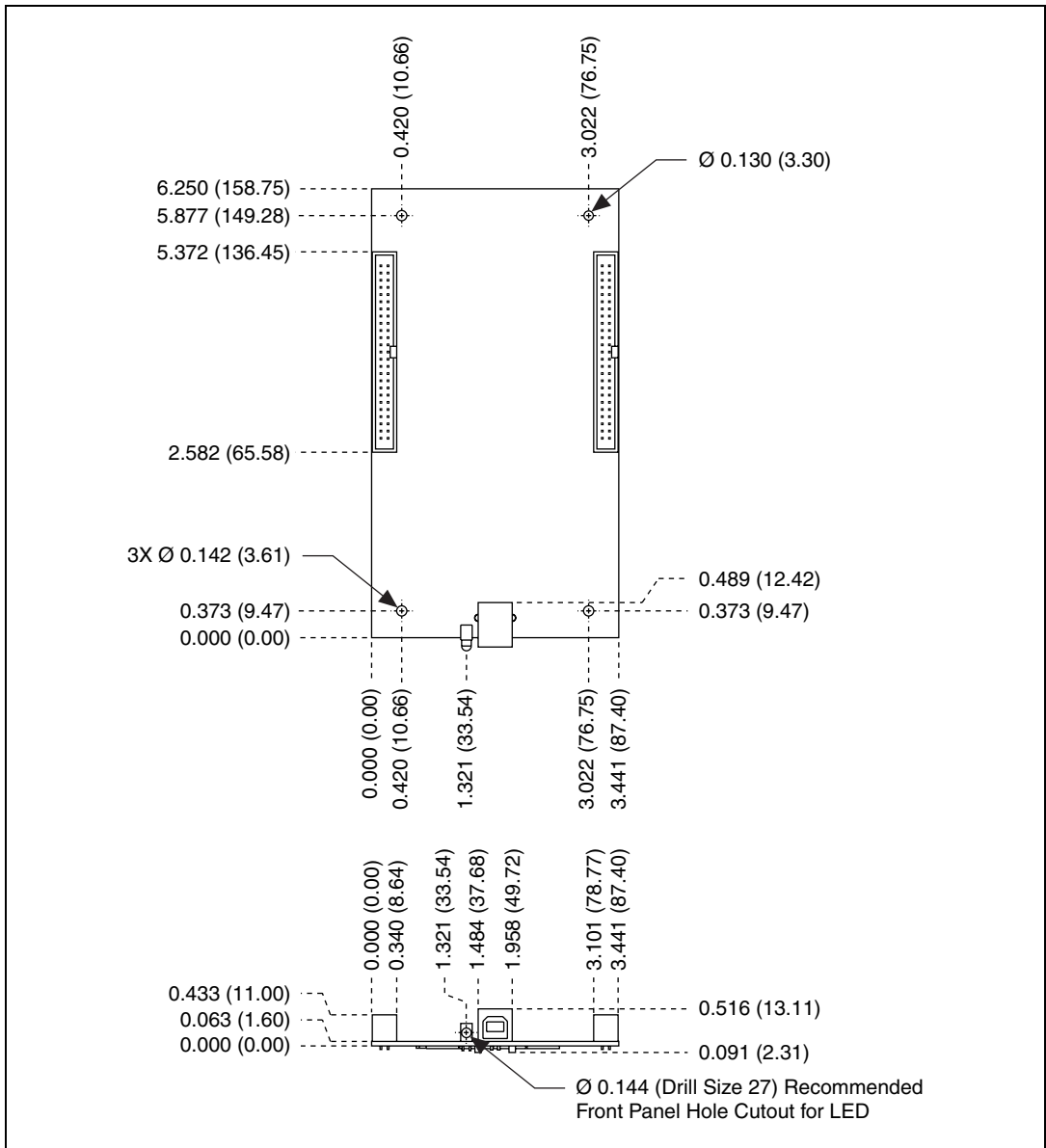
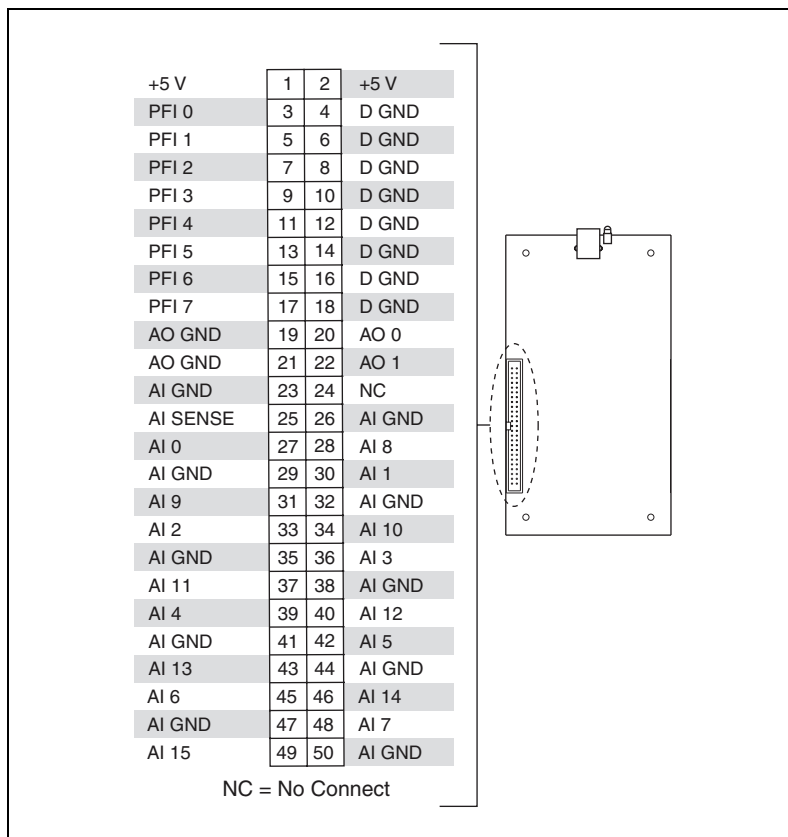


Figure 3. USB-6218 OEM Dimensions in Inches (Millimeters)

# I/O Connector Pinouts

Figure 4 shows the connector pinout on the USB-6211 OEM device.



**Figure 4.** USB-6211 OEM Connector Pinout

Figure 5 shows the connector pinouts on the USB-6218 OEM device.

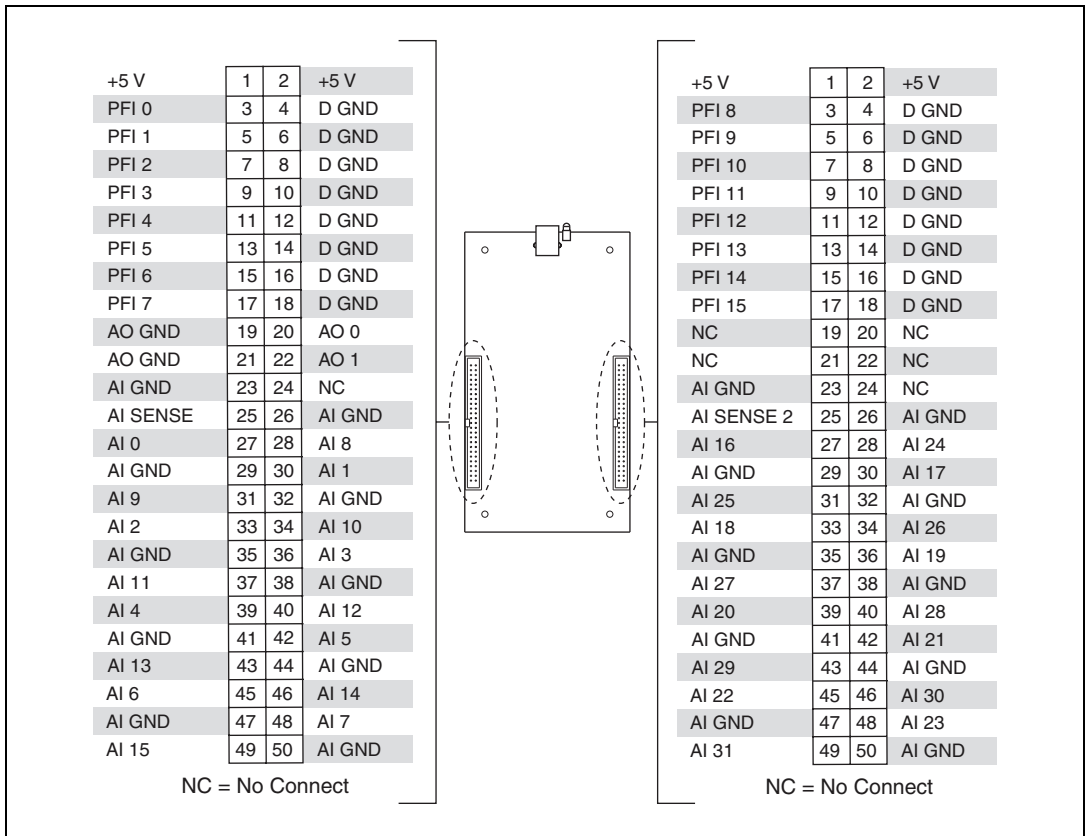


Figure 5. USB-6218 OEM Connector Pinout



**Note** In non-referenced single-ended (NRSE) mode, the USB-6218 OEM device measures AI <0..15> relative to the AI SENSE input, and AI <16..35> relative to AI SENSE 2.

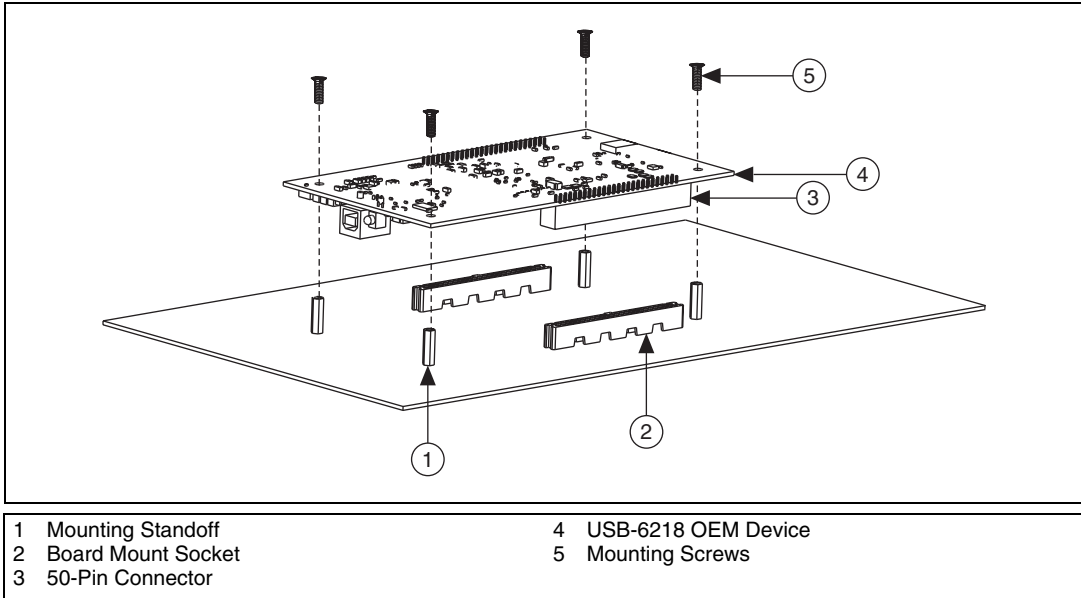
Refer to the *NI USB-621x User Manual* at [ni.com/manuals](http://ni.com/manuals) for more information about USB-6211/6218 signals and how to connect them.

# Board Mounting the USB-621x OEM

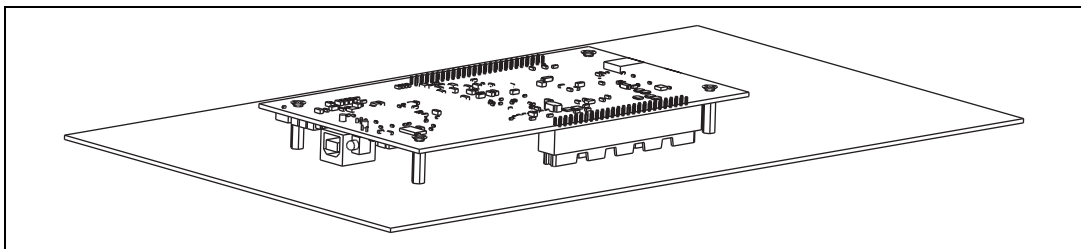
The USB-621x OEM device can be mounted on a motherboard using the 50-pin connector(s) and board mount socket(s), as shown in Figures 6 and 7.



**Note** You can use either one or both 50-pin connectors to board mount the USB-6218 OEM device.



**Figure 6.** USB-621x OEM Mounting Using 50-Pin Connectors  
(USB-6218 OEM Device Shown)



**Figure 7.** USB-621x OEM Device Installed on Motherboard  
(USB-6218 OEM Device Shown)

Refer to the [Device Components](#) section for more information about mounting components.

# Device Components

Table 1 contains information about the components used for interfacing and interacting with the USB-621x OEM device.

**Table 1.** USB-621x OEM Components

| Component   | Reference Designator(s) on PCB | Manufacturer            | Manufacturer Part Number           |
|---|--------------------------------|-------------------------|------------------------------------|
| 50-pin connector  | J6*, J7                        | 3M                      | N2550-6002UB                       |
| USB connector   | J5                             | AMP                     | 787780-1                           |
| 50-pin board mount socket†  | —                              | 3M                      | 8550-4500PL (or equivalent)        |
| Mounting standoff, using board mount socket   | —                              | RAF Electronic Hardware | M1261-3005-SS‡ with M3 × 0.5 screw |
| Mounting standoff, using ribbon cable   | —                              | RAF Electronic Hardware | 2053-440-SS** with 4-40 screw      |
| <p>* J6 is available on USB-6218 OEM devices only.<br/>           † You can use either one or both 50-pin connectors to board mount the USB-6218 OEM device.<br/>           ‡ 3/16 in. HEX female-to-female, 14 mm long.<br/>           ** 3/16 in. HEX female-to-female, 1/4 in. long.</p> |                                |                         |                                    |

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