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The XID Accessory Connector

XID devices feature an extremely flexible Accessory Connector that provides 6 input/output lines. These I/O lines can be configured by software in many different ways. Physically, the connector uses an RJ45 connector that is similar to the ones used on Ethernet networks.



RJ45 Receptacle and Plug

The Different Possibilities

The Accessory Connector can be used in one of two modes:

- In **General Purpose** mode, you can control the I/O lines at will and assign any pin as either input or output. In this mode, each individual I/O lines can be set as either input or output. Lines set as input can be pulled high or low via an XID command, as well as have the debouncing period set.
- In **Reflective** mode, the I/O lines automatically indicate (reflect) which key was pressed. This applies also to voice key.

When in Reflective Mode, the following options are offered:

Reflective Mode	When a Push Button is Pressed...
Continuous	...the corresponding pin on the Accessory Connector goes high and stays high until the push button is released.
Single Pulse Mode	...a single pulse is sent on the corresponding pin. The pulse's duration can be adjusted. This mode works well with products from Neuroscan and Brain Products GmbH .
Double Pulse Mode	...a pulse is sent on the corresponding pin; when the push button is released, a second pulse is sent.

For response pads, a pin on the Accessory Connector provides an optional "OR" output. It goes high when any push button is pressed.

When in General Purpose mode, the Accessory Connector can be used for general purpose input/output (I/O) operations.

- Any I/O lines can be used for either input or output.
- Lines selected for input can be pulled high or pulled low.

Features Highlight

XID provides several features designed exclusively to meet the needs of researchers, including:

- **Timers:** Built-in experiment-wide and reaction time timers make it possible for the software application to present visual stimuli asynchronously and without having to worry about keeping an eye on the input device. Built-in timers also help overcome timing issues in personal computers' operating systems.
- **Universal Support:** XID devices communicate with personal computers using one of four different protocols to support all the leading software packages including E-Prime, Inquisit, MEDx, Presentation, and SuperLab.
- **Flexible I/O:** All XID devices feature an Accessory Connector that provides up to six I/O lines that are highly configurable.
- **Port Testing Procedures:** Two testing procedures are included with each XID device to help estimate delays sometimes found when sending and receiving information between the device and the personal computer.

XID provides other [miscellaneous features](#) as well such as the ability to download updates to the device without having to replace the microchip and the ability to lock the device's manual controls to prevent accidental changes during an experiment or a session.

See Also

[Accessory Connector Commands Summary](#)