

Specifications

Specifications subject to change without notice.

Maximum Distance*	350 feet
Bandwidth	DC to 1 MHz
Power	No power required
Signals Transmitted	Mouse data, mouse clock, keyboard data, keyboard clock, VCC, ground
Unshielded Twisted Pair Cabling Specifications (24 gauge or lower solid copper)	Maximum capacitance: 20 pf/foot Impedance: 100 ohms @ 1 MHz Attenuation: 6.6 dB/1000 ft. @ 1 MHz <i>Cat 5, Cat 5e, Cat 6, Cat 7 compatible</i>
Connectors	Send balun: Two (2) female 6-pin mini DIN to one (1) RJ45 Receive balun: Two (2) male 6-pin mini DIN to one (1) RJ45
Color Code	Purple: Keyboard Green: Mouse
RJ45 Pinout	Keyboard: 7 & 8, pair 4 4 & 5, pair 1 Mouse: 1 & 2, pair 2 3 & 6, pair 3
Temperature	Operating: 32 to 131 F (0 to 55 C) Storage: -4 to 185 F (-20 to 85 C) Humidity: up to 95% non-condensing
Enclosure	ABS fire retardant black plastic
Dimensions	Send balun: 2.4" x 2.3" x 1.0" Receive balun: 2.0" x 1.0" x 1.0" with two 7.5" lead cables
Weight	1.6 oz (45 grams)
Ordering Information	PS2, includes both send and receive baluns
Regulatory	FCC, CE (pending)
Warranty	2 years

* Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches. Intelix specifications are based on straight-through cabling with standard-grade Cat 5.

Contact Information



Intelix
2222 Pleasant View Road
Middleton, WI 53562

Toll-free: 866-4-MATMIX
Phone: 608-831-0880
Fax: 608-831-1833
www.intelix.com

AVoverCat5.com

Intelix PS/2 Keyboard and Mouse Extender Installation Manual



The Intelix PS2 balun extends a computer's PS/2 keyboard and mouse up to 350 feet over structured cabling, such as Cat 5. Typical applications include classroom and educational facilities, corporate and boardroom audio-visual systems, digital signage, collaborative PC systems, and bio-medical information systems.

The Intelix PS2 contains both a send and receive balun. Both models are completely passive and do not require a power supply.

Installation

Caution: Do not attempt to open the balun housing. There are no user-serviceable parts inside the PS2. Opening the unit will void your warranty.

To install the PS2 baluns, perform the following steps:

1. Turn off power and disconnect the computer and any other connecting equipment by following the manufacturer's instructions.
2. Connect the source keyboard to the purple connector on the send PS2 balun, then connect the source mouse to the green connector on the send PS2 balun.

Caution: Do not mount the balun over equipment ventilation openings. Covering the openings may cause the equipment to overheat.

3. Connect the receive PS2 to the computer or destination equipment by connecting the purple connector into the computer's keyboard port and the green connector into the computer's mouse port.
4. Choose the structured cabling to be used. Verify the desired structured cabling is not being used for other LAN or telephony equipment.

Caution: Do not connect the PS2 to a telecommunication outlet wired to unrelated equipment. Making such a connection may damage the equipment and/or balun. Please ensure all wiring is "straight-through."

5. Complete the connection between the send and receive PS2 baluns using structured cabling, such as Cat 5. Ensure the RJ45 connector pinout conforms to EIA/TIA 568 A or B crimp patterns.
6. Power on the computer or related equipment and test for correct operation.

Troubleshooting

If your equipment malfunctions with PS2 baluns in place, follow the troubleshooting procedures below:

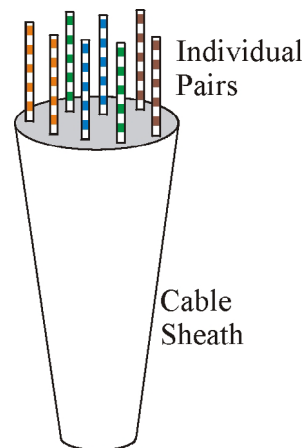
1. Perform diagnostics on your computer equipment by following the manufacturer's instructions.
2. Check all the connections and the structured cabling system. Verify the RJ45 crimp pattern conforms to either EIA/TIA 568A or 568B standards.
3. Check the pin configuration of the structured cabling.
4. The maximum operational distances over which the PS2 can be transmitted is dependant on the equipment used and cable. Ensure that the maximum recommended operational distances have not been exceeded.
5. Check that only twisted pair patch cords are being used.
6. Verify the connectors are properly matched; i.e., keyboard to keyboard and mouse to mouse.
7. Connect the devices per the recommended procedure and then reboot the computer.
8. Replace the PS2 balun with another PS2 that is known to be working.
9. If you still cannot diagnose the problem, contact Intelix for support.

Frequently Asked Questions

How do I expose the individual pairs in Cat 5 cabling?

There is no single method when exposing the four individual pairs in twisted pair cabling, such as Cat 5 and Cat 6; however, it does help to have a cable stripping tool designed to strip the cable jacket/insulation.

Begin by stripping back the cable's outer jacket/insulation about an inch (or more depending on whether multiple baluns will be connected to the pairs of a single cable) so that the internal wires are exposed. Be careful not to cut the internal wires when stripping the insulation/jacket. Eight twisted wires and a string should now be visible; the string is unnecessary and may be removed. These eight wires, which when combined form four pairs, connect directly to the baluns. Typical protocol pairs similar colors; the important thing is to verify the same color-coded pairs are used on each end.

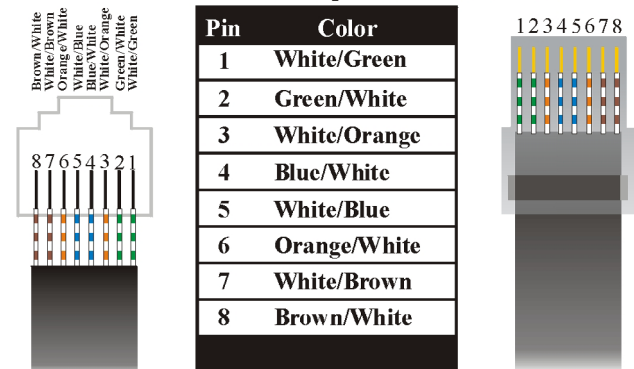


How do I crimp an unshielded RJ45 connector onto Cat 5?

Crimping an RJ45 connector onto Cat 5 is a fairly straight forward task, assuming you have the proper tools. Keep in mind that baluns require either the EIA/TIA 568A or 568B crimp pattern, which are the industry standards for networking.

1. First, strip a portion of the insulation about 3/4" to expose the four twisted pairs.
2. Next, untwist the wires and fan them out so that they match either EIA/TIA 568A or 568B pattern.
3. Evenly trim the wires to about 1/2". Most RJ45 crimp tools feature a built-in wire trimmer.
4. Insert the trimmed wires into the RJ45 connector so that each wire is in its individual slot. Verify each wire is completely inserted.
5. Finally, insert the RJ45 connector into the crimp tool and squeeze firmly.
6. Repeat the above steps on the other end of the Cat 5 cable and verify pinout is identical on each end.

EIA/TIA 568A Crimp Pattern Standard



EIA/TIA 568B Crimp Pattern Standard

