

LINK

Lava I/O News

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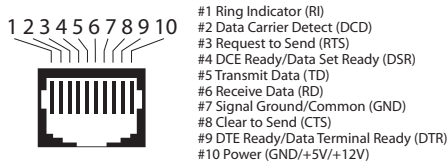
New Lava RJ-45 Serial Port Products

This issue of Link presents a real fistful of new products for both industrial users and end users. In it we show two new Quattro RJ-45 cards, three new RJ-45 Ether-Serial Links, and the sixteen-port RJ-45 Serial Port Bank and its companion interface card.

In addition to these RJ-45 products, we also are shipping two new 3.3-volt PCI cards, and two new RS-422 cards. Quite a wealth of riches.

Lava's RJ-45 Pinout

All of the RJ-45 serial connector cards that Lava produces are designed for maximum flexibility. While some manufacturers' RJ-45 serial ports support only eight lines in their RJ-45 connectors, Lava products have ten. This enables users to transmit power across their RJ-45 serial connection should they so wish.



The RJ-45 connectors on these cards differ in another regard from DB-9 serial port connectors, as they are 10-wire connectors. This enables them to supply power across the serial port. The power output of the cards' ports is controllable port-by-port using on-board jumpers. Ports can supply +12 volts, +5 volts, or no power, depending on need.

The Quattro-550/RJ uses 16550 UARTs, each offering 115.2 kbps of throughput, and 16-byte transmit and receive FIFO buffers.

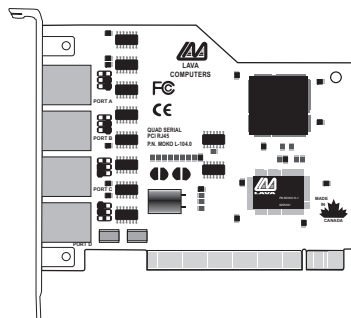
For demanding and high-speed applications,

the Quattro-950/RJ uses 16950 UARTs, with 921.6 kbps of throughput per port. This card, based on the Oxford OX16PCI954 chip, has 128-byte deep transmit and receive FIFO buffers to dramatically reduce data overrun errors and to maximize speed. It is PCI 2.2 compliant and offers support for PCI Power Management.

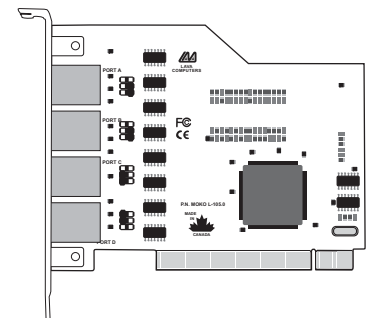
Apart from making efficient use of physical space, these cards use system IRQs efficiently, taking only one PCI IRQ for all four ports. They work with all major PC operating systems, and are covered fully by the Lava Lifetime

Quattro-550/RJ & Quattro-950/RJ

Lava has just added two new four-port cards to their serial port line-up. The Quattro-550/RJ and the Quattro-950/RJ enable system builders, POS customers, and others to make efficient use of PCI slot space and chassis openings. The four RJ-45 connectors on these cards' serial ports make it possible to add four serial ports on one chassis opening, without the use of a header ribbon cable running to a second slot opening. In addition, no extra quad splitter cable is needed.

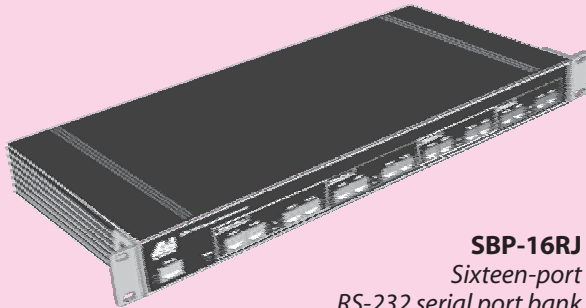


Quattro-550/RJ



Quattro-950/RJ

Coming soon: A rack-mountable 16-port serial bank



SPB-16RJ
*Sixteen-port
RS-232 serial port bank*

In this edition of Link, Lava introduces a powerful and unique product—the 16-port serial bank. This new product combines the best of Lava's modular engineering design with its many years of serial port expertise.

For users needing sixteen intelligent, non-blocking serial ports in a rack-mount form factor, the Lava SPB-16/RJ is ideal. The SPB-16/RJ has sixteen RJ-45 serial ports, each with a 16550 UART. Like the other new RJ-45 serial ports announced in this issue, the RJ-45 ports of the SPB-16/RJ are capable of delivering power to attached peripherals: +12 volts, +5 volts, or no power. The power output of the serial ports can be configured on groups of four.

This serial port bank has a companion interface board in the form of a PCI expansion card that can be fitted into any PC. This card is the interface between the rack-mount SPB-16/RJ and the computer. A

CAT5 UTP cable with RJ-45 connectors joins the SPB-16/RJ to the companion interface board, and the PC holding the interface board can be up to 4000 feet away from the serial port bank. This cable carries all the traffic for the serial port bank, without any need for repeaters and without compromising the speed of the transmission. The SPB-16/RJ is ideal for multi-port serial expansion that also breaks the 50' cable limitation of conventional RS-232 serial connections. Yet, at the same time, each port on the SPB-16/RJ is precisely like having that serial port installed directly in your computer, regardless of the distance. Applications—even legacy DOS applications—accessing the ports of the SPB-16/RJ operate perfectly transparently, with no rewriting of the software.

Ether-Serial Links: Now with RJ-45 connectors

Three New Ether-Serial Links

Lava extends its Ether-Serial Link product line with three new products—one-, two-, and four-port RJ-45 versions of the Ether-Serial Link. These Ether-Serial Links are just like their DB-9 brothers—simple to install and use, and cost-effective. Like the DB-9 Ether-Serial Links, these three products offer RS-232 serial ports with 16550 UARTs, giving 115.2 kbps throughput per port.

These new Ether-Serial Links differ from the DB-9 Ether-Serial links not just because of the form factor of the connector, but because the RJ-45 pinout we use has 10 wires, allowing these Ether-Serial Links to supply power on their serial ports. Each port can supply +12 volts, +5 volts, or no power, (the same as the pinout voltages of the Quattro-550/RJ and Quattro-950/RJ PCI boards described earlier in this newsletter). This powered serial port is

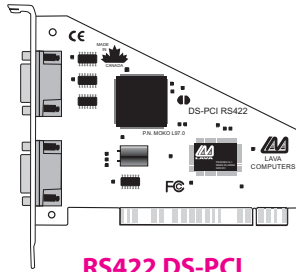
ideal for peripherals with relatively low power demands, and in many cases can eliminate bulky transformers and messy power wiring.

**Ether-Serial Links
now come with 10-wire
RJ-45 connectors.**

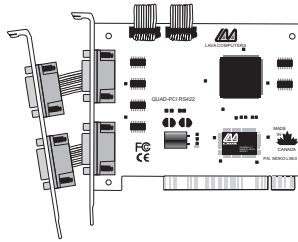


Two New RS-422 Cards

Lava has just added two RS-422 cards to the lineup: the RS-422 DS-PCI and the RS-422 Quattro-PCI. These two newcomers complement the RS422-550 (Lava's 2-port ISA RS422 card, and one of its longest-running products), and the RS422 SSerial-PCI.



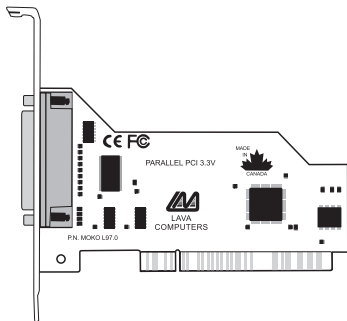
RS422 DS-PCI



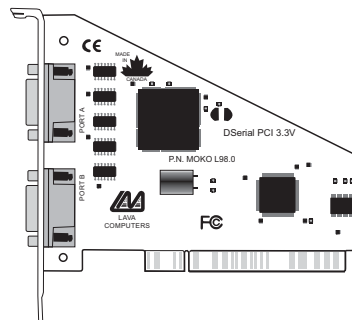
RS422 Quattro-PCI

3.3 Volt PCI versions of Lava's most popular cards

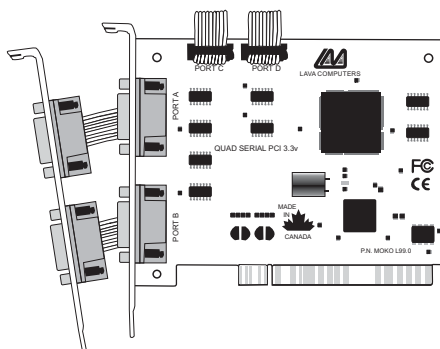
Buyers can now get 3.3-volt versions of Lava's most popular cards. In addition to the Parallel-PCI 3.3V and the SSerial-PCI 3.3V, Lava is now shipping the Quattro-PCI 3.3V and the DSerial-PCI 3.3V boards. These boards all have Lava's rock-solid dedicated 3.3-volt design and are perfect for expansion where 3.3-volt conventional PCI or PCI-X slots are being used.



Parallel-PCI 3.3V



DSerial-PCI 3.3V



Quattro-PCI 3.3V



Profile

From the time JDR Microdevices was established by Jeffrey D. Rose in 1979, it has consistently and reliably marketed electronic components directly to hobbyists and the technical engineering communities. In 1983, JDR added PC peripherals and upgrades to their product line, while remaining committed to their original component-selling mission.

As well as selling through their retail store in San Jose, JDR markets their products through two separate catalogs. *Electronic Components* includes a wide range of ICs, discrete components, prototyping boards and tools, test equipment, connectors, and more. *PC Products* covers products for upgrading and building PC systems. Featured product lines include PC Systems, high-performance MCT motherboards, hard drives, memory modules, video cards, I/O cards, CD-ROM drives, multimedia audio and video, printers and of course, Lava products.

JDR Microdevices keeps its edge by offering:

- Flexibility
- Outstanding Customer Service
- 30-Day Money-Back Guarantee
- 1-Year JDR Warranty on every Product
- Fast Delivery
- Huge Inventory
- Pre-Qualified Products
- Toll-Free Technical Support
- Special Order Desk
- 24 Years in Business



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ETHER-SERIAL LINK PRODUCT SUMMARY

Product	Ports			Connectors			Modes			
	1	2	4	DB-9	RJ-45	Powered	RS-232	RS-422	RS-485	TTL
Ether-Serial Link 1-DB9	✓			✓			✓			
Ether-Serial Link 2-DB9		✓		✓			✓			
Ether-Serial Link 4-DB9			✓	✓			✓			
Ether-Serial Link 1-RJ45	✓				✓	✓	✓			
Ether-Serial Link 2-RJ45		✓			✓	✓	✓			
Ether-Serial Link 4-RJ45			✓		✓	✓	✓			
Ether-Serial Link 1-DB9/P	✓			✓		✓	✓			
Ether-Serial Link 2-DB9/P		✓		✓		✓	✓			
Ether-Serial Link 4-DB9/P			✓	✓		✓	✓			
Ether-Serial Link 1-DB9/422	✓			✓				✓		
Ether-Serial Link 2-DB9/422		✓		✓				✓		
Ether-Serial Link 4-DB9/422			✓	✓				✓		
Ether-Serial Link 1-RJ45/422	✓				✓	✓		✓		
Ether-Serial Link 2-RJ45/422		✓			✓	✓		✓		
Ether-Serial Link 4-RJ45/422			✓		✓	✓		✓		
Ether-Serial Link 1-DB9/485	✓			✓					✓	
Ether-Serial Link 2-DB9/485		✓		✓					✓	
Ether-Serial Link 4-DB9/485			✓	✓					✓	
Ether-Serial Link 1-RJ45/485	✓				✓	✓			✓	
Ether-Serial Link 2-RJ45/485		✓			✓	✓			✓	
Ether-Serial Link 4-RJ45/485			✓		✓	✓			✓	
Ether-Serial Link 1-TTL	✓									✓

OTHER LAVA PRODUCTS

Serial Boards

PCI	SSerial-PCI	Single 9-pin serial, 16550 UART
	SSerial-PCI/LP	Single 25-pin serial, 16550 UART, low profile
	SSerial-PCI 3.3V	Single 9-pin serial, 16550 UART, for 3.3 volt PCI
	RS422 SS-PCI	Single 9-pin serial, 16550 UART, RS-422 pinouts
	DSerial-PCI	Dual 9-pin serial, 16550 UARTs
	DSerial-PCI/LP	Dual 9-pin serial, 16550 UARTs, low profile
	DSerial-PCI 3.3V	Dual 9-pin serial, 16550 UARTs, for 3.3 volt PCI
	RS422 DS-PCI	Dual 9-pin serial, 16550 UARTs, RS-422 pinouts
	Quattro-PCI	Four-port 9-pin serial, 16550 UARTs
	Quattro-PCI 3.3V	Four-port 9-pin serial, 16550 UARTs, for 3.3 volt PCI
	Quattro-550/RJ	Four 10-wire RJ-45 serial, 16550 UARTs
	Quattro-950/RJ	Four 10-wire RJ-45 serial, 16950 UARTs
ISA	RS422 Quattro-PCI	Four-port 9-pin serial, 16550 UARTs, RS-422 pinouts
	Octopus-550	Eight-port 9-pin serial, 16550 UARTs
	LavaPort-650	Single 9-pin serial, 16650 UART
	LavaPort-PCI	Dual 9-pin serial, 16650 UARTs
	LavaPort-Quad	Four-port 9-pin serial, 16650 UARTs
	SSerial-550	Single 25-pin serial, Com 1-4, 16550 UART, IRQ 3/4/5/7
	DSerial-550	Dual 9-pin serial, Com 1-4, 16550 UARTs, IRQ 2/3/4/5/7/10/11/12/15
	RS422-550	Dual 9-pin serial, 16550 UARTs, RS-422 pinout
	LavaPort-ISA	Single 9-pin serial, Com 1-4, 16650 UART, IRQ 2/3/4/5/10/11/12/15
	LavaPort-PnP	Single 9-pin serial, 16650 UART, Plug and Play

Serial Port Bank

PCI	SPB-16/RJ	Sixteen port 10-wire RJ-45 serial, 16550 UARTs, 1U rack mount, with switching power supply and PCI interface board
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Parallel Boards

PCI	Parallel-PCI	Single EPP parallel
	Parallel-PCI/LP	Single EPP parallel, low profile
	Parallel-PCI 3.3V	Single EPP parallel, for 3.3 volt PCI
ISA	Dual Parallel-PCI	Dual EPP parallel
	Parallel-Bi-dir.	Single bi-directional parallel port, LPT 1/2/3, IRQ 5/7
	Parallel-ECP/EPP	Single ECP/EPP parallel, LPT 1-6, IRQ 2/3/4/5/7/10/11/12

Combo Boards

PCI	SP-PCI	Single 9-pin serial, 16550 UART + single bi-directional parallel
	2SP-PCI	Dual serial (9 & 25-pin), 16550 UARTs + single EPP parallel
	LavaPort-Plus	Dual serial (9 & 25 pin), 16650 UARTs + single EPP parallel
ISA	2SP-550	Dual 9-pin serial, Com 1-4, 16550 UARTs + single bi-dir. parallel, LPT 1-2

USB 2.0 & 1.1 Devices

	USB 2.0 Host	Dual USB 2.0 ports, 480 Mbps, fits in PCI slot
	USB 1.1 Host	Dual USB 1.1 ports, 12 Mbps, fits in PCI slot
	SPH-USB 1.1 Hub	Three powered USB 1.1 ports, parallel port, serial port, connects to USB

IEEE 1394 (FireWire®) Devices

	IEEE 1394 FireHost	Dual IEEE 1394 ports, 400 Mbps, fits in PCI slot
	IEEE 1394/IDE Controller	FireWire®-to-IDE hard drive interface

Specialty Boards

PCI	8255-PIO	8255 PIO interface card
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Speak to us about your design needs. Apart from the products listed here, Lava customizes and modifies designs to suit specific customer needs.



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