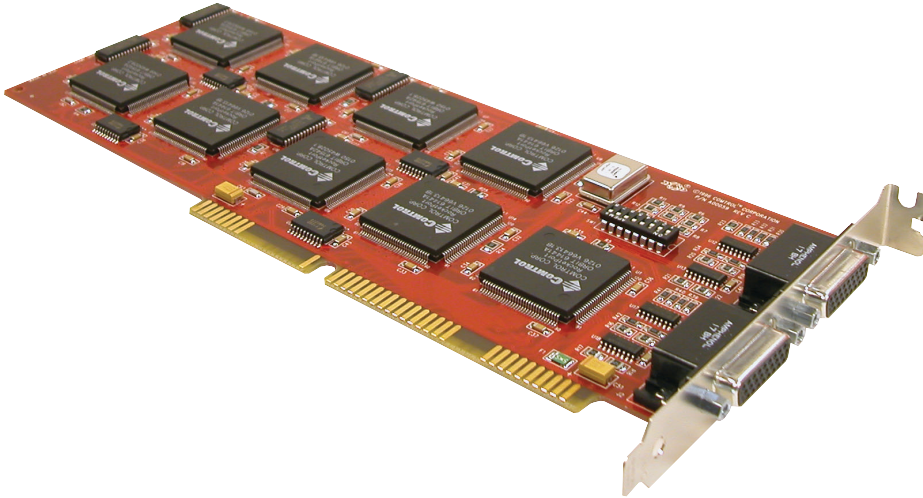


- **RocketPort Series**
- **Fast Multiport Serial Adapters**



- **Intelligent Serial Communications**

RocketPort has revolutionized multiport connectivity by making serial boards more powerful, more reliable, easier to use and more cost-effective than any other controllers on the market today. When installed in a PCI, or ISA slot of a PC, RocketPort transmits and receives a significantly greater amount of data, enabling more work to be accomplished in a shorter period. In addition, host CPU utilization is minimized to allow more system resources to be available for running existing software applications.

RocketPort performance capabilities make it ideal for high-level remote access, Internet access and peripheral control applications. As banks of high-speed modems and ISDN terminal adapters are installed to provide remote access to corporate resources on the network, only superior multiport boards such as RocketPort can accommodate the higher

speeds. Dedicated 36MHz processors ensure that the high throughput needed by modems and ISDN terminal adapters is sustained across all ports. To ensure data integrity and minimize load on the host CPU, RocketPort uses transmit and receive FIFOs 16 and 64 times larger respectively than multiport boards designed with 16550 UARTs. Thus RocketPort virtually eliminates data loss and bottlenecks at the serial-controller level, while conserving CPU resources and ensuring data integrity.

Highest Performance/Price Rating in the Industry

RocketPort sustains throughput at speeds up to 230.4kbps (RS-232/422) for up to thirty-two ports or 460.8kbps (quadcable or octacable) for up to eight ports - 10 to 20x the throughput of most conventional multiport serial boards for a much lower price.

- **Throughput up to 460kbps simultaneously**
- **4-, 8-, 16-, & 32-port models**
- **ISA & PCI models available**
- **Onboard 36MHz processor for each of the eight ports**
- **I/O mapped like a non-intelligent card**
- **High MTBF**
- **Install up to four boards in one system**
- **Windows®2000 (native). Supplied with drivers for Windows 98/NT/Me/XP**
- **Free drivers by request: Linux®, QNX, OS2, Solaris™, Novell®, UNIX® and more**

With RocketPort's unparalleled performance, text-only applications are easily upgraded to the sophisticated graphics capabilities of X-terminals. Users gain the power and capabilities of LANs while retaining the simplicity and cost-competitive edge of multiuser systems. Text- and graphics-based applications perform at record speed and screens refresh at record rates.

Powerful ASIC-Based Architecture

RocketPort performance is driven by specially designed ASICs that optimize I/O functionality. Only RocketPort controllers maximize throughput at each port by dedicating one 36MHz processor to every eight ports for a consistent application of power, from 4 to 128 ports. These ASICs replace virtually all major hardware components, including the processor, bus interface logic and miscellaneous logic. ASIC integration reduces the number of components by 80%, resulting in fewer chances for failure. RocketPort implements key communications software functions such as flow control and line disciplines in the ASIC firmware to boost I/O processing speed. With serial I/O control as their sole task, RocketPort ASICs focus full resources on preserving absolute data integrity and moving data at maximum speed, while minimizing CPU use.

State-of-the-Art Configuration and Installation Features

I/O mapping makes the RocketPort easy to install. Memory collisions that often occur with cache memory are eliminated, simplifying configuration. To further expedite installation, there are no switches or jumpers to configure for the RS-232

interface unit. Simply plug it in with the supplied cable. Selectable IRQs can be changed easily via the device driver configuration. RocketPort uses either no interrupts or one interrupt, depending on the operating system. A system comprised of four RocketPort 32-port controllers would use only one interrupt for all 128 ports!

RocketPort RS-232/422 interface units were designed with externally accessible switches, allowing selection between RS-232 and RS-422 by flipping a switch. This protects against damage during initial installation & configuration and expedites & simplifies field reconfiguration. Interface unit components are highly integrated; a single interface provides full modem control for up to sixteen ports.

Driver Support

The RocketPort cards are supplied with Windows®98/NT/Me/XP drivers on CD and are native to Windows 2000.

Other drivers available include: OS/2, QNX (4.11 & 4.2), SCO Open Server, Solaris™, Novell®, NetWare®, BSDI, FreeBSD, SVR3.2 UNIX® (3.2v3 & 3.2v4), SVR4 UNIX (SVR4.2 & UnixWare® 2x), Windows 3.1, Windows 95, Linux® (v1.2.0 or higher), FOSSIL (v5.0) and DOS.

- **Minimal "host" CPU utilization**
- **Large FIFOs, 64x a 16550 UART**
- **No shared memory to configure**
- **No IRQs required**

▶ RocketPort Series - Technical Specifications

Bus

- PCI and ISA

Baud Rate*

4J/8J

- 50 to 460.8kpbs (RS-232)

PCI-4J/8J

- 50 to 460.8kpbs (RS-232)

4-32

- 50 to 230.4kpbs (RS-232/422)

QUAD/OCT

- 50 to 460.8kpbs (RS-232)

QUAD/OCT-422

- 50 to 460.8kpbs (RS-422)

*Speed is dependent upon the hardware configuration and operating system except for 4J, 8J and quadable/octacable models.

Number of Ports

- 4, 8, 16 or 32

Number of Cards per System

- Four (max.)

Communications Chip

- Custom Intelligent ASIC

Throughput

- 50 to 460kpbs

I/O Addressing

- ISA 100 to 3C3 (DIP switches)
- PCI - auto select

Interrupts

- One or none per board

Interface

- RS-232 (optional RS-422, non "J" versions)

Data Bits

- Seven or eight

Stop Bits

- One or two

Card Dimensions (D x H)

4J

- 6.25 x 4.2-inch (160 x 107mm)

8J

- 6.25 x 4.2-inch (160 x 107mm)

4/8

- 8.1 x 4.2-inch (206 x 107mm)

16

- 8.1 x 4.2-inch (206 x 107mm)

32

- 13 x 4.2-inch (330 x 107mm)

/QAD & OCT

- 6.25 x 4.2-inch (160 x 107mm)

PCI-4J

- 5.1 x 4.2-inch (130 x 107mm)

PCI-8J

- 6 x 4.2-inch (153 x 107mm)

PCI/QUAD-422

- 4.9 x 4.2-inch (125 x 107mm)

PCI/OCT-422

- 4.9 x 4.2-inch (125 x 107mm)

Interface Panel Dimensions (W x H x D)

RPI8-232

- 5.8 x 0.6 x 4.8-inch (148 x 15 x 122mm)

RPI16-232

- 5.8 x 0.6 x 8-inch (148 x 15 x 204mm)

RPI4-232/422

- 5.8 x 0.6 x 4.8-inch (148 x 15 x 122mm)

RPI8-232/422

- 5.8 x 0.6 x 4.8-inch (148 x 15 x 122mm)

RPI16-232/422

- 5.8 x 0.6 x 8.5-inch (148 x 15 x 216mm)

RPI8S-232/422

- 5.8 x 0.6 x 5.3-inch (148 x 15 x 135mm)

RPI16S-232/422

- 5.8 x 0.6 x 8.5-inch (148 x 15 x 216mm)

RPIRM16/RJ45

- 8 x 1.74 x 16.75-inch (204 x 44 x 427mm)

Power Requirements

4J

- +5VDC (350mA)
- +12VDC (100mA)
- -12VDC (160mA)

8J

- +5VDC (700mA)
- +12VDC (65mA)
- -12VDC (80mA)

4/8

- +5VDC (700mA)
- +12VDC (105mA)
- -12VDC (115mA)

16

- +5VDC (950mA)
- +12VDC (210mA)
- -12VDC (330mA)

32

- +5VDC (1900mA)
- +12VDC (420mA)
- -12VDC (660mA)

/QAD & OCT

- +5VDC (350mA)
- +12VDC (100mA)
- -12VDC (160mA)

PCI-4J

- +5VDC (200mA)
- +12VDC (50mA)
- -12VDC (10mA)

PCI-8J

- +5VDC (440mA)
- +12VDC (100mA)
- -12VDC (160mA)

PCI/QUAD-422

- +5VDC (850mA)

PCI/OCT-422

- +5VDC (850mA)

RocketPort Series - Technical Specifications

Environmental

Operating Temperature

- 0 ° to 40 °C (32 ° to 104 °F)

Storage Temperature

- -20 ° to 85 °C (-4 ° to 185 °F)

Humidity

- 8 to 80% RHNC (system on)

MTBF

- 4J: 85.3yrs
- 8J: 84.4yrs
- 4/8: 78.5yrs
- 16: 56.4yrs
- 32: 84.4yrs
- /QAD & OCT: 28.8yrs
- PCI-4J: 103.4yrs
- PCI-8J: 31.8yrs
- PCI/QUAD-422: 55.8yrs
- PCI/OCT-422: 55.8yrs
- RPI8-232: 40.5yrs
- RPI16-232: 21.9yrs
- RPI4-232/422: 60.3yrs
- RPI8-232/422: 28.1yrs
- RPI16-232/422: 14.8yrs
- RPI8S-232/422: 23.8yrs
- RPI16S-232/422: 12.7yrs

RJ45 Connectors

(4J & RPIM Models)

Pin 1

- RTS (RS-232 signal)

Pin 2

- DTR (RS-232 signal)

Pin 3

- GND (RS-232 signal)

Pin 4

- TxD (RS-232 signal)

Pin 5

- RxD (RS-232 signal)

Pin 6

- DCD (RS-232 signal)

Pin 7

- DSR (RS-232 signal)

Pin 8

- CTS (RS-232 signal)

RJ11 Connectors

(ROCKETPORT8J and ROCKET/PCI-8J Models)

Pin 1

- DTR (RS-232 signal)

Pin 2

- GND (RS-232 signal)

Pin 3

- TxD (RS-232 signal)

Pin 4

- RxD (RS-232 signal)

Pin 5

- DCD (RS-232 signal)

Pin 6

- Not connected

DB25 Connectors

Standard Panels (Female), Surge Panels and QUAD & OCT Models (Male)

Pin 1

- Not used (RS-232/RS-422 signals)

Pin 2

- TxD (RS-232 signal)
- Not used* (RS-422 signal)

Pin 3

- RxD (RS-232 signal)
- Not used* (RS-422 signal)

Pin 4

- RTS (RS-232 signal)
- Not used* (RS-422 signal)

Pin 5

- CTS (RS-232 signal)
- Not used* (RS-422 signal)

Pin 6

- DSR (RS-232 signal)
- Not used* (RS-422 signal)

Pin 7

- Signal ground (RS-232/RS-422* signals)

Pin 8

- DCD (RS-232 signal)
- Not used* (RS-422 signal)

Pin 9 to 14

- Not used (RS-232/RS-422 signals)

Pin 15

- Not used (RS-232 signal)
- RxD+ (RS-422 signal)

Pin 16

- Not used (RS-232/RS-422 signals)

Pin 17

- Not used (RS-232 signal)
- RxD- (RS-422 signal)

Pin 18

- Not used (RS-232/RS-422 signals)

Pin 19

- Not used (RS-232 signal)
- TxD+ (RS-422 signal)

Pin 20

- DTR (RS-232 signal)
- Not used* (RS-422 signal)

Pin 21 to 24

- Not used (RS-232/RS-422 signals)

Pin 25

- Not used (RS-232 signal)
- TxD- (RS-422 signal)

*All RS-232 signals are present in RS-422 mode.

DB9 Connectors

QUAD & OCT Models (Male)

Pin 1

- Not used (RS-422 DTE/RS-422 DCE modes)
- CD (RS-232 models)

Pin 2

- TxD- (RS-422 DTE mode)
- RxD- (RS-422 DCE mode)
- RxD (RS-232 models)

Pin 3

- RxD- (RS-422 DTE mode)
- TxD- (RS-422 DCE mode)
- TxD (RS-232 models)

Pin 4

- Not used (RS-422 DTE/RS-422 DCE modes)
- DTR (RS-232 models)

Pin 5

- Not used (RS-422 DTE/RS-422 DCE modes)
- Signal ground (RS-232 models)

Pin 6

- Not used (RS-422 DTE/RS-422 DCE modes)
- DSR (RS-232 models)

Pin 7

- TxD- (RS-422 DTE mode)
- RxD- (RS-422 DCE mode)
- RTS (RS-232 models)

Pin 8

- RxD- (RS-422 DTE mode)
- TxD- (RS-422 DCE mode)
- CTS (RS-232 models)

Pin 9

- Frame Ground (RS-422 DTE/RS-422 DCE modes)
- Not used (RS-232 models)

Certifications

- FCC Class A
- Canadian EMC
- CE Class A
- UL Recognized

Surge Protection

- Meets standard EIA-232E and provides ESD surge protection exceeding 10kV

OS Support

- Supplied with Windows®98/NT/Me/XP drivers on CD and are native to Windows 2000.
- Other drivers available include: OS/2, QNX (4.11 & 4.2), SCO Open Server, Solaris™, Novell®, NetWare®, BSDI, FreeBSD, SVR3.2 UNIX® (3.2v3 & 3.2v4), SVR4 UNIX (SVR4.2 & UnixWare® 2x), Windows 3.1, Windows 95, Linux® (v1.2.0 or higher), FOSSIL (v5.0), and DOS.

Support

- Superior pre- and post sales technical support
- All products carry a two year warranty

▶ RocketPort Series - Ordering Guide

Ordering Guide

PCI Models

ROCKET/PCI-8J

- 8-port PCI RS-232 with RJ11 connectors

PCI/OCT-422

- 8-port PCI with RS-422 fan-out cable DB9 male

PCI/QUAD-422

- 4-port PCI with RS-422 fan-out cable, DB9 male

ROCKET/PCI-4J

- 4-port PCI RS-232 with RJ45 connectors

*For more PCI models see universal PCI RocketPort boards.

Accessory Cables

(Connects Board to Interface Panel)

RPCABLE/10FT

- 10-foot cable

ISA Models

ROCKETPORT32

- 32-port ISA (Qty. two, 16-port panels required)

ROCKETPORT16

- 16-port ISA (16-port panel option required)

ROCKETPORT8

- 8-port ISA (8-port panel option required)

ROCKETPORT/OCT

- 8-port ISA with RS-232 fan-out cable, DB25 male

ROCKET/OCT-DB9

- 8-port with RS-232 fan-out cable, DB9 male

ROCKETPORT8J

- 8-port ISA RS-232 with RJ11 connectors

ROCKETPORT4

- 4-port ISA (4-port panel option required)

ROCKETPORT/QAD

- 4-port ISA with RS-232 fan-out cable, DB25 male

ROCKETPORT4J

- 4-port ISA RS-232 with RJ45 connectors

Interface Panels

(All Have DB25 Female Connectors)

RPIRM32/RJ45

- 32-port rack mount panel, RJ45 connectors, RS-232, 10-foot host cable (1U rack height)

RPI16-232

- 16-port RS-232 panel only

RPI16-232/422

- 16-port RS-232/422 panel only

RPIRM16/RJ45

- 16-port rack mount panel, RJ45 connectors, RS-232, 10 foot host cable (1U rack height)

RPI16S-232/422

- 16-port RS-232/422 panel with surge protection

RPI8-232

- 8-port RS-232 panel only

RPI8-232/422

- 8-port RS-232/422 panel only

RPI8S-232/422

- 8-port RS-232/422 panel with surge protection

RPI4-232/422

- 4-port RS-232/422 panel only



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