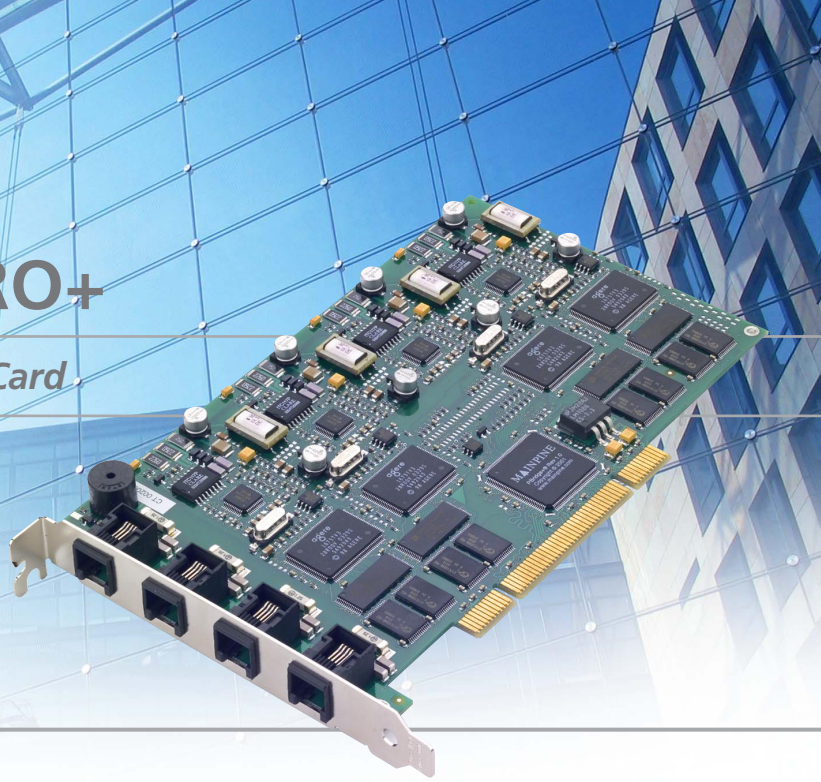
MAINPINE

RockForce™ QUATRO+

Four Port Analog Communication Card



RockForce™ analog communication cards are available in two, four, and eight port variants.

All cards feature standard RJ-11 connectors for connecting to public or private telephone networks worldwide.

All ports have dedicated CPU and DSP hardware that guarantees high performance in data, fax, and speech applications of any size.

Key Benefits

- **Extreme Flexibility**
  Any combination of data, fax, voice or speech applications
- **Ultra High Performance Onboard Processing**
  Dedicated 116Mhz CPU and DSP per port
- **Best-In-Class Hardware Design**
  Tested for compliance with PCI 3.0 specifications
- **Full Scalability**
  Unlimited number of cards can be operated concurrently
- **Native Operating System Support**
  Microsoft Windows, Linux and most Unix variants
- **Ultra Quick and Simple Installation**
  Fully Plug and Play compatible, no manual configuration required
- **Superior Reliability**
  Mean Time Between Failure (MTBF) of 49 years
- **Unique Concurrent Debug**
  RockForce™ 'SideBand' API displays concurrent debug traces
- **Peace Of Mind**
  30-Day Satisfaction Guarantee
  Three Year Warranty

The RockForce™ QUATRO+ provides four independent analog ports. Demanding applications including V.92 data, V.44 compression, V.34 Super G3 fax, voice, and speech can be supported simultaneously on any combination of ports.

The fully scalable architecture provides each port with its own dedicated Controller (CPU) and Digital Signal Processor (DSP). This guarantees sufficient processing power regardless of how demanding the application may be.

With support for the very latest industry standards, the RockForce™ cards are compatible with any PCI or PCI-X system, including those using Universal PCI (3Volt & 5Volt) signaling. Industry leading 'short board' form factor enables the RockForce™ cards to fit into any system, from the very smallest cube, to the very largest rack.

Any number or combination of RockForce™ cards may be operated concurrently in your system. Passive cooling makes fans unnecessary.

Native operating system support does not require any additional drivers. This ensures compatibility with the very earliest and very latest PC operating systems and minimises the delays incurred waiting for driver releases.

Standard's based installation and programming interfaces enable RockForce™ cards to integrate quickly and seamlessly with all popular systems and application software.

Telecommunication industry standard reliability prediction methodologies estimate a Mean Time Between Failure (MTBF) of 49 Years for the RockForce™ QUATRO+.

The RockForce™ SideBand API provides unique, enhanced card management features in addition to the standard system and application interfaces, including the ability to read the card's electronic serial number, reset individual ports and display port debug traces in real-time.

Mainpine offers total peace of mind to it's customers, giving a Three Year Warranty on all its products. On top of this, if you're not completely satisfied with your RockForce™ product within 30 days, we will offer you a full refund.

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Fax

The RockForce™ QUATRO+ supports high speed V.34 Super Group 3, providing facsimile send and receive speeds up to 33600 bps.

V.34 fax sends and receives faxes at more than double the speed of the V.17/14400bps standard. When V.34 is combined with document compression such as JBIG, you are able to send a typical 60-second high resolution fax (V.17) in less than 15 seconds.

Fax software securely controls and monitors fax calls by communicating directly with the modem via a Class 1 or 1.0 command interface.

Almost every fax machine sold today is Super G3 (V.34) fax capable. The RockForce™ QUATRO+ unlocks this potential making it the ideal choice for your Fax Server application.

Data

The RockForce™ QUATRO+ has V.92 data modems providing: increased upload/download speed, V.44 data compression, QuickConnect, and Modem-On-Hold Capability.

Data Modem V.92 data speeds are 56Kbps downstream and 48Kbps upstream when connecting to a V.92 server. V.44 provides data compression which is typically 10–120% faster than the existing V.42 bis standard.

QuickConnect can typically halve handshake times to a V.92 server by remembering previous connection parameters.

Modem-On-Hold allows a data call to be paused for an incoming phone call to be answered, or an outgoing call to be made, and then resumed instantaneously.

Voice and Speech

Voice support is provided by an enhanced version of the IS-101 "AT+V" command set. Speech mode features include: 8-bit linear code at 8KHz sample rate, tone detection/generation, call discrimination, and concurrent DTMF detection.

ASPCM (4-bit IMA) coding is also supported to meet Microsoft WHQL logo requirements.

Universal PCI Plug & Play

PCI 3.0 Plug and Play compliance ensures that there are no switches or jumpers to set. The board simply installs with the operating system's standard procedures and installation wizards. Universal PCI support enables use with 3.3V/5V, 32/64Bit, 33/66Mhz, and PCI/PCI-X system slots, ensuring compatibility with any system.

Full Range of Software Support

The RockForce™ QUATRO+ is designed to work with all of the leading remote access, voice, modem pooling, and fax applications. Drivers for Windows Server 2003, Windows XP, Windows 2000, Linux and most Unix variants are readily available.

Worldwide Operation

The RockForce™ QUATRO+ operates in FCC Part 68, IC CS03, TBR21, and other countries. Country code ID's are defined by ITU-U T.35. Country dependant modem parameters are fully programmable.

Target Applications

- Modem Pooling
- High Speed Internet Connections
- Fax Servers
- Voice Servers
- Process Control and Automation

Technical Specification

Data
- ITU-T V.92, V.90, V.34, V.32 bis, V.32, V.22 bis, V.22, V.23, and V.21
- Bell 212A and Bell 103 V.42 LAPM, MNP 2-4, and MNP 10 error correction
- V.44, V.42 bis and MNP5 data compression
- MNP 10EC enhanced cellular performance

Fax
- ITU-T V.34 (Super G3), V.17, V.29, V.27 ter and V.21 ch. 2
- Fax classes 1, 1.0
- ECM Error Correction Mode

Voice/Speech
- "AT+V" voice commands
- Enhanced ADCPM compression/decompression
- Tone detection/generation and call discrimination
- Concurrent DTMF detection
- 8-bit linear PCM data encoding at 8000Hz

Caller ID
- On Hook/Off Hook Caller ID and Distinctive Ring Detection

World-Class Operation
- Call progress
- Blacklisting
- Complies to FCC Part 68, IC CS03, TBR21, and other country requirements

Host interface
- PCI Bus Specification 3.0 compliant
- Universal PCI Plug and Play
- 64 Byte FIFO's
- 5V and 3.3V Signalling
- 16550A UART compatible
- Single interrupt per card
- Software controlled per port hardware reset
- Software readable electronic serial number
- Concurrent port debug tracing
- On board speaker

Line interface
- POTS: Four RJ11 Connectors

Physical
- Dimensions: 174mm x 106mm x 20mm (PCI 'short' card)

Environmental
- Operating temperature: 0° - 50° C
- Storage temperature: -20° - 85° C
- Relative humidity: 10% - 80%
- Non-condensing Altitude: 0 - 3660m

Electrical
- Power Consumption: 2.5 Watts, typical

Standards & Approvals
- Telecom: TIA 968-A (FCC Part 68), IC CS03, TS 103 021 (TBR21)
- EMC: FCC Part 15, ICES-003, EN 55022, EN 55024
- Safety: UL 60950, CSA 60950, EN 60950
- CE Mark
- PCI 3.0

Warranty
- Mainpine offer a 30 day satisfaction guarantee and a Three Year Warranty

Part Numbers
- RF2020

Authorised dealer

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GFI GOLD Authorised distributor

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