Whether for remote access over GSM, fax, e-mail, access to the company's LAN or to the Internet—AVM's proven system solutions integrate all the possibilities of ISDN communication for professional applications in server or high-end workstation environments.



## **ready for** Windows Vista

- StrongT multitasking RISC processor (50 MIPS)
- 1 MB of SRAM on-board
- PCI bus-mastering DMA
- Complete CAPI 2.0 drivers for 12 operating systems
- Group 3 fax at up to 14,400 bit/s; plus ECM and MR/MMR
- Up to 4 ISDN-Controllers in one PCI system

# AVM ISDN-Controller B1 PCI v4.0

#### **High Performance by AVM**

As a leading manufacturer of PC communications solutions, AVM supplies powerful products for fast Internet access over ISDN and DSL. The AVM line ranges from high-performance active controllers and sophisticated networking solutions for professional users to the versatile FRITZ! products for the SOHO segment. The FRITZ! product family also includes wireless communications solutions based on Bluetooth and WLAN, as well as new, advanced developments for Internet telephony, Voice over IP.

In ISDN-based communication, AVM's concept goes far beyond conventional PC solutions. No matter what bus system a PC uses—PCI, USB, or a notebook's ExpressCard or Type II PCMCIA slot—with AVM's ISDN/ADSL-Controllers keep all the options open.

## **High Tech for BRI Lines**

The AVM ISDN-Controller B1 PCI v4.0 is the most advanced stage of development in the best-selling family of active ISDN-Controllers in the world: the AVM ISDN-Controller B1 line. The success of the B1 technology is built on years of experience with RISC-based processors. Thanks to its uncompromising high-performance architecture, the powerful StrongT microprocessor developed by AVM permits a new dimension of performance in active ISDN-Controllers for BRI lines. At the same time, the B1 PCI v4.0 maintains complete downward compatibility with previous AVM B1s.

Equipped with AVM's own StrongT RISC CPU and a megabyte of fast SRAM on-board memory, the B1 PCI v4.0 in applications such as communication servers maximizes the advantages of the digital ISDN network.

# The AVM ISDN-Controller B1 PCI v4.0

The AVM ISDN-Controller B1 PCI v4.0 has an  $\rm S_0$  interface for the ISDN BRI and is designed for simultaneous processing of two 64-kbit/s data channels.

The 50-MIPS StrongT multitasking RISC CPU, developed by AVM, is the controller's central component and the cornerstone of its extremely high capabilities. The AVM ISDN-Controller B1 PCI v4.0 provides high-speed data communication, network and host connectivity, and G3/G4 fax, while minimizing the burden on the host system through PCI bus-mastering DMA. The uncompromising high-performance architecture permits on-the-fly V.42bis data compression over X.75 connections for data rates of up to 550 kbit/s.

Another special feature: The B1 PCI v4.0 supports Group 3 (G3) fax connections to the analog world at speeds of up to 14,400 bit/s, with ECM (Error Correction Mode) and MR/MMR (two-dimensional compression) included. And both B channels can be used simultaneously.





Standard equipment in the AVM ISDN-Controller B1 PCI v4.0 package includes the ISDN file transfer programs Connect2/32 (compatible with FRITZ!data and IDtrans), the AVM NDIS WAN CAPI Driver and the AVM CAPI Port Driver for Windows Server 2003, XP, 2000, NT, Me and 9x. The package also includes the AVM ISDN TAPI Services for CAPI, to support the use of TAPI 2.1-based telephony applications such as MS Outlook in Windows Server 2003, XP, 2000, NT, Me and 98. The TAPI Services for CAPI also permit the use of the ISDN line by Windows XP's and 2000's

## Special Features of the AVM ISDN-Controller B1 PCI v4.0

- StrongT multitasking RISC processor (50 MIPS); 1 MB of SRAM on-board
- Bus-mastering DMA for optimum system integration
- Designed for full data loads on both B channels
- Plug&Play installation in accordance with the PCI 2.1 specification
- V.42bis data compression

#### **Full Compatibility**

The new AVM ISDN-Controller B1 PCI v4.0 is fully compatible with its predecessor, the B1 PCI. Existing CAPI 2.0 application software for the B1 PCI works with the B1 PCI v4.0. All ISDN applications can continue in use without modification, and benefit from the B1 PCI v4.0's enhanced features. The ISDN-Controller is completely CAPI 2.0-compliant.

#### ISDN application Microsoft application H.320 content viewer e-mail File transfer TAPI NDIS service , Terminal Fax NDIS . TAPI Services CAPI 2.0 CAPI SoftModem Data channel: X.75, HDLC, transparent, V.110, V.120, T.90, ISO 8208 (X.25) Signaling channel: DSS1, NI-1, 1TR6, 5ESS Layer 1 / So

integrated fax services, MS Small Business Server 2000/2003 (SBS) and Back Office Server 2000 (BOS).

### CAPI 2.0 Support in All Popular Operating Systems

Like all AVM ISDN-Controllers, the B1 PCI v4.0 supports the standardized applications interface Common ISDN API (CAPI 2.0). This means all commercially available ISDN applications can address the ISDN-Controller B1 PCI v4.0 directly through this interface and are thus automatically compatible. The AVM B1 PCI v4.0 features a wide range of drivers to support nearly all leading PC operating systems: Windows Server 2003, XP, XP 64-Bit, 2000; Novell NetWare 6.x, 5.x, 4.x, 3.12 and Linux are supported directly. The new Windows Vista and Vista x64 Edition already include compatible drivers.

# Reliable Operation through Broad Compatibility and Certification

The B1 is certified by Windows Hardware Quality Labs (WHQL), and for NetWare 6.x, 5.x and 4.x by Novell Labs. Signed software drivers are integrated in the installation CDs of Microsoft's Windows Vista, XP, Server 2003, and 2000 operating systems. The DTS seal attests broad compatibility with standard Group 3 fax devices. The B1 is also directly certified for operation with Lotus Notes. Explicit certification has also been given by the manufacturers of many software packages, such as David and WinFax PRO.

- For use in a wide variety of operating systems (Vista, XP, Server 2003 (incl. x64 edition), 2000, NT, Me, 98, 95, 3.x; Novell NetWare 6.x, 5.x, 4.x and 3.12; Linux, OS/2 and MS-DOS)
- D-channel driver software loadable for E-DSS1 (Euro-ISDN), 1TR6, NI-1, 5ESS
- Group 3 fax at up to 14,400 bit/s; V.110 bit rate adaptation
- 32-bit WDM driver for Windows Vista, XP, 2000,
- 64-bit WDM driver for Windows Vista, XP 64bit, Server 2003 x64 Edition
- Extensive system driver suite available; Internet, RAS and telephony applications in Windows Server 2003 (x64), XP (x64), NT, Me, 98, 95
- Package includes Connect2/32 file transfer software and comprehensive system drivers for full ISDN integration in Microsoft operating systems, including the AVM NDIS WAN CAPI Drivers (Windows Server 2003 (x64), XP (x64), 2000, NT, Me, 98, 95), the AVM ISDN CAPI Port driver (Windows Server 2003, XP, 2000, NT, Me, 98, 95) and AVM ISDN TAPI Services for CAPI (Windows Server 2003, XP, 2000, NT, Me, 98)
- Up to four ISDN-Controllers installable in one PC, including mixed configurations with AVM ISDN-Controller models C2/C4

#### **Technical Data**

- Internal ISDN adapter for the PCI bus (SMT construction)
- S<sub>0</sub> interface for BRI lines and PBX extensions
- StrongT multitasking RISC processor (50 MIPS)
- 1 MB of SRAM (static RAM) on-board
- PCI bus-mastering DMA; up to four controllers per system
- Throughput: 2 x 64 kbit/s and 1 x 16 kbit/s
- Full downward compatibility with the AVM ISDN-Controller B1 PCI
- Drivers provide D-channel (DSS1, 1TR6, NI-1, 5ESS) and B-channel protocols: X.75, T.70, T.90, X.31 (Cases A and B), T.30 (Group 3 fax), V.110, V.120, HDLC
- Group 3 fax (incl. fax polling) at up to 14,400 bit/s on both B-channels simultaneously; ECM and MR/MMR included
- Also implemented: DTMF, secured data connections to GSM terminal equipment (mobile phones etc.), incl. V.42bis data compression and OS-dependent support for CAPI 1.1 applications
- Standardized programming interface Common ISDN API 2.0
- Supplementary Services available in conformance with CAPI 2.0
- Short card: approx. 146 x 120 mm (incl. back plate)
- Power consumption: about 2 W
- 5-year limited hardware warranty
- Free driver support through AVM Data Call Center (BBS) and web site
- Approvals and certifications (selection): CE; EMC-tested per EN 55022/ 4.1987 and EN 50082-a.1992; electrical safety (TÜVtested design) per IEC 950, EN 41003, EN 60950, VDE 0804, VDE 0805
- Made in Germany

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