Whether for remote access, fax, e-mail, connection to your company network or to the Internet: proven system solutions from AVM integrate all the possibilities of ISDN communication for professional use.



- Active ISDN-Controller for up to two BRI lines in a server
- StrongARM CPU with 270 MIPS at 233 MHz, 16 MB **SDRAM**
- Digital and analog (fax and modem) communication simultaneously
- Fax reception on up to four channels simultaneously

AVM ISDN-Controller C2

High-Tech ISDN

ISDN is the ideal medium for business communication, offering fast, reliable, high-availability access to all communications services; integrating data, voice and internetworking. The need for powerful, reliable communication solutions in companies is continuously growing. Internet access, fax servers, remote clients, multiprotocol routers—the applications are as varied as they are demanding.

The AVM ISDN-Controllers C2 and C4 are the ideal platform for any kind of communication over ISDN. They provide two or four basic-rate lines for four or eight simultaneous connections. Designed for any ISDN service, the C2 and C4 fulfill the most demanding tasks. State-of-the-art technology, flexible architecture and years of ISDN expertise are the distinctive components of these ISDN-Controllers.

Maximum Performance without Restriction

One AVM ISDN-Controller C2 connects the PC to one or two basic-rate ISDN lines, using only one of the system's PCI slots, one I/O address block and one interrupt. This is especially advantageous in complex server systems. The AVM C2's active design—with its own powerful microprocessor and memory on board—guarantees the availability of all ISDN features even under capacity loads.

Because all communications protocol processing is performed by the controller itself, the load on the host system remains negligible, even in large-scale systems with many lines—regardless of the communication tasks in progress. The embedded-device design also improves system stability. The C2 is thus an outstanding platform for professional internetworking applications (routers, remote access servers), fax servers or unified messaging solutions.

Advanced Concepts in Hardware and Software

As an active ISDN-Controller, the AVM ISDN-Controller C2 is equipped with its own CPU and memory. Its extremely powerful RISC processor is a StrongARM SA-110 clocked at 233 MHz. At this clock rate the processor attains a peak computational speed of 270 MIPS. The controller's memory, 16 MB SDRAM at 66 MHz, provides the AVM C2 with the necessary bandwidth for optimum performance.

The AVM C2's controller software is an implementation of the AVM ISDN Driver Model, AVM's architecture for drivers in conformance with Common-ISDN-API (CAPI) 2.0. Drivers are provided for the operating systems Windows Server 2003 (included 64-bit variation)/XP/2000 and NT, NetWare and Linux, and support all interfaces defined in the CAPI specification.



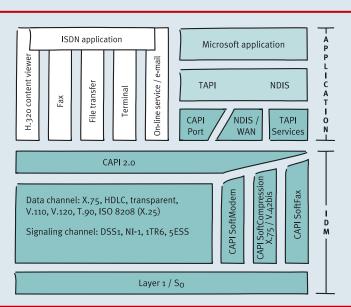


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The AVM ISDN-Controller C2 can be used on all customary (point-to-multipoint) BRI lines. Its software also supports operation on point-to-point and leased lines. Different line types can even be mixed on the same controller. The AVM C2 was developed to be usable for all communications services that ISDN offers. In addition to the digital protocols, the controller also supports all common analog communication techniques, so that it can connect to analog fax and modem equipment. Available protocols for digital data communication include X.75, HDLC transparent and X.31. For X.75 connections in particular, the controller supports V.42bis data communication, the controller supports V.42bis data com-

ISDN for Every Requirement

Wherever versatility, reliability and a maximum of features are the decisive criteria, the AVM ISDN-Controller C2 is the ideal solution. Its exclusive features, its coexistence with other AVM ISDN-Controllers in the same system and its full exploitation of open standards are guarantees of a high-value product. Exemplary support for the broadest possible range of ISDN protocols ensures efficient communication in connections to ISDN, to other digital networks, to the analog network and to GSM—this makes the AVM C2 a versatile solution for all kinds



pression. The AVM C2's fax transmission and reception capabilities go beyond the customary V.17 standard (14,400 bit/s) to provide the latest data compression standards, two-dimensional MR/MMR and JBIG. Furthermore, fax transmission is secured using Error Correction Mode (ECM). The AVM ISDN-Controller C2 also supports V.32bis data connections to analog modems.

The ISDN-Controller is equipped with 16 MB SDRAM for software and data, accessed over a 32-bit bus.

AVM's active ISDN-Controllers are designed to load their software from the host PC at every system boot. This technique ensures that updates can be performed effortlessly at any time, simply by copying a new software file. In this way new features can be added to existing controllers, and existing features can be improved, without touching the hardware.

The AVM ISDN-Controller C2 is connected to the PC through the PCI bus. The controller is a PCI bus master with direct memory access (DMA). Up to four active ISDN-Controllers from AVM can be installed in one PC. The C2's implementation as a PCI adapter also has the advantage of allowing automatic configuration. The individual components on the controller card are interconnected by a 64-bit bus.

of communication tasks. Especially in server environments, the C2's powerful design unfolds the full potential of ISDN. Parallel installation of different active AVM ISDN-Controller models ensures that the C2 will have a long useful life even in an evolving data processing environment.

The fax capability in particular permits applications such as fax servers or unified messaging systems with new, attractive features.

Technical Data

Features of the AVM ISDN-Controller C2 at a glance

- ISDN-Controller for the PCI bus and BRI lines
- One or two BRIs
- Active ISDN-Controller with on-board CPU and memory
- Heavy-duty StrongARM SA-110: 270 MIPS at 233 MHz
- 16 MB SDRAM
- State-of-the-art technology, incl. BGA devices, SDRAM, 3.3 V supply voltage, etc.
- Low power consumption: about 3 W
- PCI bus master DMA for maximum throughput with minimum system load
- Suitable for all ISDN applications:
 - Internet access
 - Internetworking
 - Remote access
 - File transfer
 - Fax
 - Voice
 - Video
 - Digital transfer to other networks
- Application interface: Common-ISDN-API2.0
- CAPI SoftCompression V.42bis and channel bundling in accordance with CAPI specification
- CAPI SoftFax: fax at 2400, 4800, 9600 and 14.400 bit/s
- CAPI SoftModem: analog modem connections at 1200/75, 2400, 4800, 9600 and 14,400 bit/s
- Digital protocols: X.75, HDLC transparent, bit-transparent, X.25, ISO 8208 (X.25 DTE— DTE), X.31 case a/b, T.70, T.90, Mobile ISDN (ISO 3309) including HSCSD support, V.110, V.120
- Analog protocols: Group 3 fax (T.30, V.17, V.29, V.27ter), Group 3 Annex A (Error Correction Mode) and two-dimensional data compression
- Modem connections with V.21, V.22, V.22bis,V.32, V.32bis and DTMF detection
- Support for point-to-point and leased lines
- Supplementary Services (including Hold & Retrieve, Suspend & Resume (TP), 3PTY, ECT, ...)
- All protocol software off-loaded to the controller
- AVM NDIS WAN CAPI Driver for Windows 2003 (x64), XP (x64), 2000 and Windows NT
- For Windows Server 2003 (x64), XP (x64), 2000, Windows NT, NetWare 4.x, or higher and Linux (64 Bit included)
- Up to four active AVM ISDN-Controllers in one system
- International approvals

