![OCTAL Engenharia de Sistemas, S.A. logo]

OCTAL
ENGENHARIA DE SISTEMAS, S.A.

PCBiT

ISDN INTERFACE FOR PCs

The power of communication in your computer !

INESC
TECHNOLOGY

PCBiT

THE PCBIT BOARD ALLOWS...

The connection of a Personal Computer to the ISDN (Integrated Services Digital Network), through the basic rate interface (2B+D), in conformance with the most recent standards (Euro-ISDN) from the European Telecommunications Standards Institute, already adopted by the national telecommunications operators.

HIGH SPEED DATA COMMUNICATION...

With rates of 64 Kbits/s, in each of the two independent channels, the communication can be made over the most common data protocols. Due to the specialized hardware and software implemented on the board, those communication protocols do not, in any way, represent an overhead to the computer performance.

...EASILY AS A SIMPLE PHONE CALL...

The communications handled by the PCBIT board are circuit switched, point to point calls, totally controlled by the computer. The ISDN installation procedures and tariffs, are similar to the telephony network counterparts, also providing an access to the huge international network.

...WITHOUT CHANGING ALREADY EXISTING APPLICATIONS.

The PCBIT board can be used by a large set of existing applications, without changes, due to the capability of MODEM emulation. Besides that functional compatibility, all the advantages provided by the advanced digital technology of ISDN become automatically available.

ARCHITECTURE

The PCBIT board has an open and modular architecture, both at the software and hardware level, making possible the constant development and maintenance of new features. The applications running in the personal computer talk with the board by means of a standard application programming interface (API), available for the MS-DOS and WINDOWS environments.

EXPANDABILITY AND MAINTENANCE

The board provides the IOM^2 ("ISDN Oriented Modular Interface - 2nd generation") electrical interface, allowing the (piggybacked) mountig of expansion modules with direct acess to the data channels of the ISDN interface. The use of these additional modules, makes possible the emulation of analog MODEM and fax devices, or the handling of voice calls with an handset, converting the personal computer into a multifunctional digital telephone, controlled from the respective keyboard. Because the board software is downloaded from the personal computer, the procedures for upgrading to new versions are very simple. This is an essencial factor to guarantee the permanent conformance with the evolution of ISDN itself.
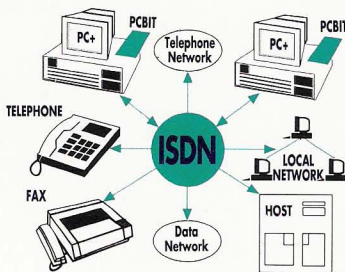
APPLICATIONS
File transfer
Remote access to computers and networks
Access to value added services (banking services,
electronic mail, alfaphotografic videotex, etc)

LEGEND:
MICROPROCESSOR BUS
IOM2 BUS
AT BUS INTERFACE
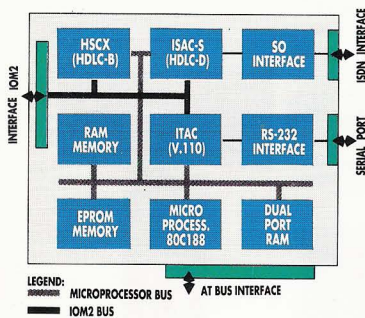
Tecnical data

ISDN INTERFACE
1 basic access 2B+D

Mechanical specification:	4-W 8 pin connector (RJ45, ISO 8877)
Electrical specification:	ETS 300 012
Channel D spec. (signalling):	LAPD - ETS 300 125
	Call control - ETS 300 102-1
Channel B spec (data):	Transparent, HDLC,LAPB,LAPD,X.25,V.110/X.30

SERIAL PORT

Mechanical specification:	Connector D-25 Female (ISO 2110)
Electrical specification:	V.28/RS-232
Circuit definition:	V.24/RS-232, DCE mode
Call control:	AT/Hayes command set

Asynchronous bit rate:	1200,2400,4800,9600,19200,38400 bit/s
Synchronous bit rate:	48,56,64 Kbit/s
Rate adaptation:	V.110

IOM^2 INTERFACE
Version 2.1

AT BUS INTERFACE

Mechanical specification:	PC/AT (1/2 length)
Electrical specification:	PC/AT (configurable interrupt)
Communication:	dual port RAM
	(1 Kbyte with configurable base address)

O C T A L
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