

RACAL



WINstream™

ISDN Modem

- 128 Kbps throughput with Multilink PPP
- Windows 95® Plug and Play compatible
- Two analog ports for phone, fax, and analog modem
- Flash ROM for easy upgrades
- PAP and CHAP network security
- BACP dynamic bandwidth allocation
- Async to sync PPP conversion
- Optional Voice UPS
- Internet access software included
- Worldwide ISDN standards compliance
- Compact unit fits anywhere

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If you use a PC at home or in a small office, and you've been looking for a faster way to access the Internet or corporate LAN, you've probably thought about ISDN. After all, ISDN gives you nearly instantaneous connections and speeds that are four times faster than standard analog modems. If you've resisted the move to ISDN because you thought it was either too complicated or too expensive, there's no need to wait any longer.

The Racal™ WINstream™ ISDN modem is designed to make your move to ISDN a breeze. Installation, setup, and operation are a snap, even for the novice. And WINstream comes with an unsurpassed set of features that let you take full advantage of the powerful ISDN service — 128 Kbps throughput with Multilink PPP, BACP dynamic bandwidth allocation, network security with PAP and CHAP, two analog ports with UPS backup power, and Flash ROM.

Installs in Minutes

The WINstream ISDN modem makes installation simple and easy. Non-technical users can typically install the unit and have it working in minutes. WINstream supports Windows 95® Plug and Play for easy installation. It comes with a custom Windows™-based setup program that lets you quickly define unit options without having to enter AT commands. This program, specifically designed for WINstream, lets you select options by simply clicking on your desired choice with a mouse.

The WINstream modem also simplifies the process of ordering ISDN service. It complies with Bellcore ISDN Ordering Codes (IOCs) and EZ ISDN, which allows you to easily order all of the ISDN services and features you need using a single code (U.S. only).

High-Speed Data Transfer Increases Your Productivity

The WINstream modem uses Multilink PPP to provide the highest data throughput possible. By combining the two ISDN B channels into a single high-speed link, Multilink PPP enables data throughput up to 128 Kbps without compression. In addition, WINstream supports DTE rates up to 230 Kbps. With WINstream's speed, your productivity will soar as you spend more time working and less time waiting for large file transfers and graphic downloads from the Web.

Dynamic Bandwidth Allocation

In combination with Multilink PPP, WINstream uses BACP (Bandwidth Allocation Control Protocol) to dynamically add or drop B channels according to your needs. For example, if you need to make a voice call while you're downloading a file at 128 Kbps over both B channels, WINstream automatically drops one of the B channels so you can make the call. When the call ends, WINstream automatically restores the B channel to resume 128 Kbps downloading.

Network Access Security with PAP and CHAP

As remote dial-in access to networks continues its explosive growth, the need to keep those networks private and secure becomes paramount. WINstream supports PAP (Password Authentication Protocol) and CHAP (Challenge Handshake Authorization Protocol) security on both B channels of a Multilink PPP connection. With PAP and CHAP, the two authentication methods used in most PPP systems, network access is restricted to authorized users only.

Two Analog Ports for Voice and Fax

The WINstream Data + Voice model provides two independent ports for connecting analog equipment, such as phones, modems, and fax machines, to the ISDN line. WINstream provides the proper ringing signals for incoming calls and call progress tones for outgoing calls, enabling these devices to operate as they normally would over the analog network. WINstream can ring multiple analog devices around your home or office, provided that the sum of the devices' Ringer Equivalence Numbers (RENs) does not exceed four per port.

On a single ISDN line, you can simultaneously send computer data and talk on the phone or send faxes. You can also use both analog ports simultaneously, maximizing the use of the two B channels.

Optional Voice UPS Lets You Remove Your Analog Service

The WINstream modem is available with an optional Voice UPS (uninterruptable power supply) that provides backup power for the two analog ports. With this option, you can continue to place outgoing analog telephone calls over the ISDN line during a power outage. The Voice UPS comes in a compact case that snaps into the bottom of the WINstream case.

The Voice UPS is essential in applications where the ISDN line is the only telephone access to a site. While analog circuits provide power to allow phone calls during a power outage, most ISDN circuits do not. The Voice UPS ensures that your phone will never be without power, enabling you to remove your existing analog service and greatly reduce your line costs.

Async to Sync PPP Conversion for Connection to LAN and Internet

The WINstream modem converts the async PPP protocol received from a PC into sync PPP for transmission over the ISDN link. This feature allows the unit to connect directly to a far-end ISDN router or other ISDN device running sync PPP, eliminating the need for a far-end ISDN modem.



Voice UPS provides backup power to analog ports.
WINstream mounts conveniently on top.

Internet Access Software Included

To get you onto the Internet as soon as possible, WINstream comes with Internet with an Accent™. This multilingual Internet access software lets you browse the Web, send e-mail, and create Web pages in over 30 languages. Included with Internet with an Accent is 30 days of free Internet access provided through CompuServe®, EarthLink and IBM® Global Network™.

Versatile Call Routing

The WINstream modem supports Directory Numbering (called Multiple Subscriber Numbering in some countries), which enables you to assign each port a separate phone number for routing incoming calls. This means that a connected PC, phone, and fax machine can have separate telephone numbers, but share the same ISDN line. This feature provides a cost-effective alternative to ordering multiple analog circuits.

Flash ROM for Easy Upgrades

Upgrading WINstream is easy with Flash ROM. New software can be downloaded into the unit from your PC. This feature lets you add new enhancements without the need for field service visits and expensive hardware replacements.

Worldwide Compatibility

The WINstream modem is compatible with ISDN standards worldwide. It is available in models with a U interface for operation in the U.S., Canada, and South America, and an S interface for operation in Europe, the Middle East, Africa, South America, and the Asia/Pacific region. WINstream supports V.120 and X.75 rate adaption, ensuring compatibility with any ISDN device that supports these standards.

Reliable Racal Support

All Racal products are backed by a full range of customer support services, including free expert phone support, online product information, and a variety of installation and maintenance services.

WINstream Applications

WINstream is ideally suited for home and small office PC applications. Typical applications include:

- Internet access
- Telecommuting
- Branch office access to corporate LAN
- E-mail
- Data conferencing
- High-speed file transfer
- Retail point-of-sale (POS)

Internet Access

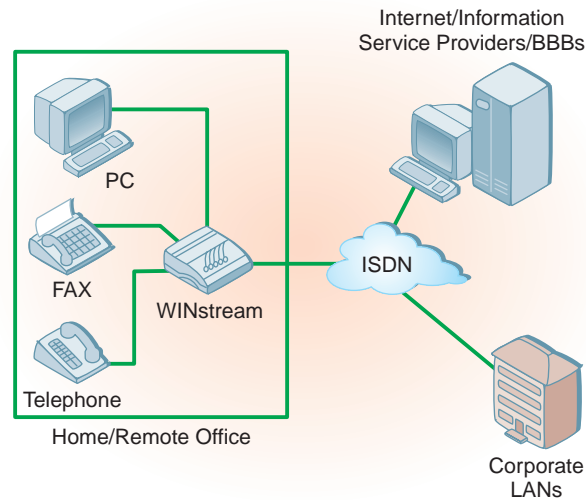
Internet service providers are recognizing the improved performance offered by ISDN and are now offering ISDN connectivity. The extra speed offered by ISDN is particularly important as the amount of graphical data on the Internet increases. Video and voice clips also require the transfer of large quantities of data. ISDN access reduces your connection bills and reduces the waiting time for complex pages.

Telecommuting

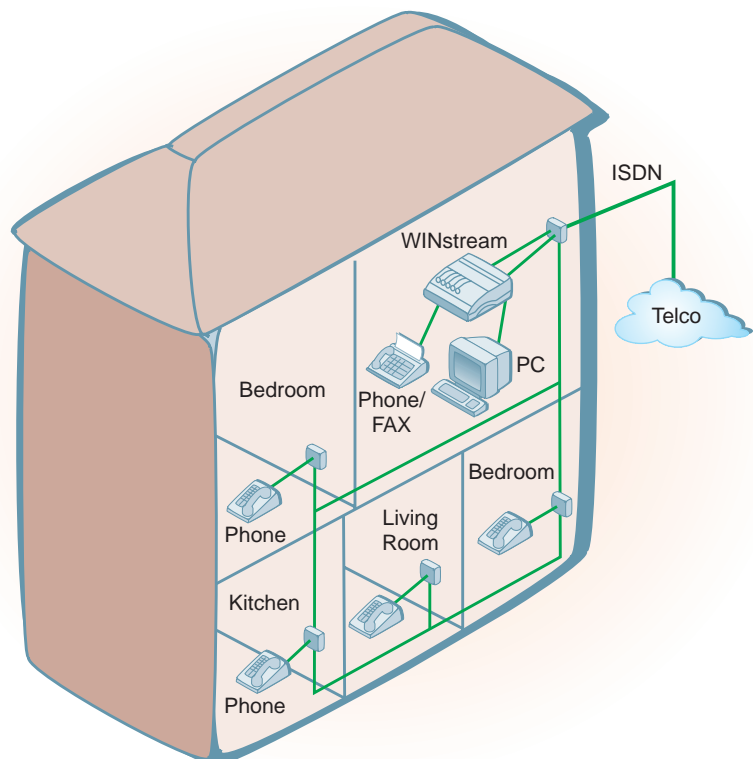
The WINstream modem can provide a simple and effective solution for online telecommuting. ISDN can be used to provide high-speed access to the corporate network for remote LAN access, e-mail access, and for applications such as Lotus Notes® and Microsoft Exchange. ISDN is particularly appropriate given the size of the attached files now transported over e-mail. With the introduction of information databases, replication of data for the host server to the local databases requires the high-speed access provided by ISDN.

Branch Office

In the small branch office environment, WINstream is an effective means of providing low-cost, high-speed connectivity to the corporate network.



Typical WINstream Application



Complete Replacement of Analog Service

The combination of the Voice UPS and the ability to ring eight analog devices enables WINstream to completely replace your analog service.

technical specifications

Line Requirements	Models available for operation over 2-wire (U interface) or 4-wire (S interface) ISDN Basic Rate service	
DTE Port	Number of ports	One
	Specification	RS-232, V.24/V.28
	Connector	25-pin D-type female
	Data Format	Asynchronous
	DTE Rates	9.6, 19.2, 38.4, 57.6, 115.2, and 230.4 Kbps
	Rate Adaption	V.120 or X.75
ISDN Port	Specification	NI-1, AT&T 5ESS, NT DMS 100, NET-3, Euro ISDN
	Format	2-wire U interface or 4-wire S interface (model-dependent)
	Connector	RJ-45 jack
Analog Ports	Number of ports	Two (available only on Data + Voice models)
	Type	Two-wire telephone instrument interface
	Connector	RJ-11 jack
	Ringing Capability	Can ring multiple analog devices, provided that the sum of the devices' Ringer Equivalence Numbers (RENS) does not exceed four per port
Voice UPS	Backup Operation	During power outage, outgoing analog calls can be made
	Battery Type	Four C-size alkaline batteries (not supplied)
	Continuous Standby Operation	Up to 5.5 hours of standby service
	Continuous Outgoing Call	Up to 3 hours of talk time
ISDN Supplementary Services Supported	Directory Numbers (also called Multiple Subscriber Numbers), Sub-Addressing (S interface models only), Calling Line Identification	
Protocol Support	Multilink PPP, BACP, PAP, CHAP, Async to Sync PPP	
Power Supply	Type	External
	Power Requirements	100-250 VAC
	Power Consumption	9 watts
Physical Dimensions - WINstream	Height	1.3" (3.3 cm)
	Width	6.8" (17.3 cm)
	Depth	4.9" (12.4 cm)
Physical Dimensions - Voice UPS	Height	1.7" (4.3 cm)
	Width	5.9" (15 cm)
	Depth	4.2" (10.7 cm)

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