

DirecDuo™



BROUGHT TO YOU BY
HUGHES
NETWORK SYSTEMS

WHO'S HUGHES?

Hughes Network Systems is an original equipment manufacturer of DSS, DirecPC™, and other satellite-related products. We're the only company making DSS dishes that's been in the satellite business from the very beginning.

Never heard of us? Bet you've heard of the other companies in our Hughes family:

- **DIRECTV.** Featuring the hottest lineup of movies, sports, and family entertainment. DIRECTV is satellite TV at its best.
- **Hughes Telecommunications and Space.** World's largest satellite manufacturer. Builders of the digital satellites that beam DIRECTV to our DSS dishes all across the U.S.
- **General Motors.** Our parent company.

HUGHES
NETWORK SYSTEMS
A HUGHES ELECTRONICS COMPANY

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**FINALLY, THERE'S A PRODUCT FOR EVERYONE WHO KNOWS
THERE'S ONLY ONE THING MORE AGGRAVATING THAN WAITING
FOR THE INTERNET TO DOWNLOAD: LOOKING FOR SOMETHING
TO WATCH ON TV.**

DirecDuo™

DIRECDUO™ SERVES UP ALL THE INTERNET AND TV YOU CAN HANDLE.

With a single 21-inch elliptical dish, DirecDuo gives you the fastest Internet access available nationwide—up to 14 times faster than a 28.8-Kbps modem, *and* up to 200 channels from DIRECTV® and USSB®. DirecDuo. We're dishing out more excitement than you ever imagined.

GET DIREPC™ INTERNET SERVICES!

Your DirecDuo™ dish delivers the fastest Internet access available nationwide.

With DirecPC™ Turbo Internet™ service, Web sites will scream to life with graphics, real-life audio, video and multimedia. And, with our Turbo Webcast™ and Turbo Newscast™ services, your favorite web sites and newsgroups are delivered to you automatically—without ever having to tie up your phone line.

GET DIRECTV® ENTERTAINMENT SERVICES!

DirecDuo™ delivers both DIRECTV® and USSB® programming. That means you can choose from hundreds of top channels—the latest hit movies, exclusive sporting events, news, and other family entertainment programming—all with crystal-clear digital picture and CD-quality sound.



 +  = **DirecDuo™**

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DirecDuo™

MORE TV. FASTER INTERNET. ONE DISH.

DirecDuo™ is an advanced satellite antenna which enables you to receive DIRECTV /USSB® programming *and* high-speed Internet access at up to 14 times faster than a 28.8-Kbps modem. All you need is the DirecPC™ 21-inch elliptical dish, a Digital Satellite System receiver that sits on your TV, a DirecPC™ adapter card, and our DirecPC™ software.

DIRECDUO™ OPTIONS.

Now that you've decided to get a DirecDuo system, which configuration is right for you?

FEATURES

- ✓ Supports DirecPC Turbo Internet, Turbo Webcast, and Turbo News-cast services
- ✓ Speeds up to 14 times faster than a 28.8-Kbps modem
- ✓ Supports DIRECTV and USSB services
- ✓ Up to 200 channels of TV programming
- ✓ Provides Dual LNB for DSS—watch two different channels on two different TVs

If you already have DSS and you want to add DirecPC or you want the ability to add DSS later and get DirecPC now, you want **DirecDuo with DirecPC** (see details below).

If you want both DSS and DirecPC now, you want the **DirecDuo Full System** (see details below).

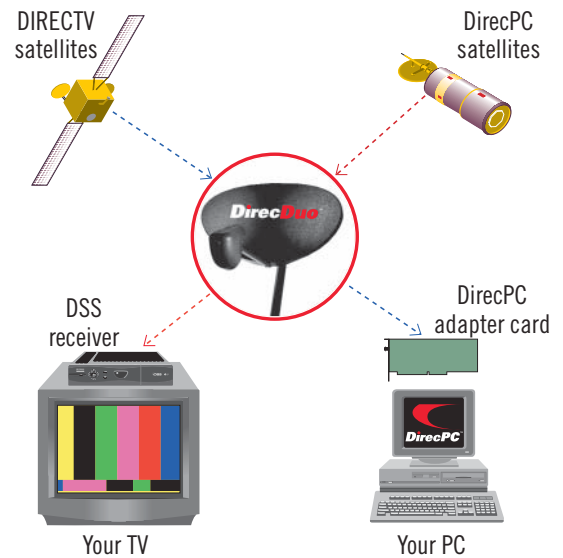
DirecDuo™ with DirecPC

- 21-inch elliptical DirecDuo satellite dish
 - ◆ Single LNB for DirecPC
 - ◆ Dual DSS LNB
- DirecPC Satellite Access card
- DirecPC Turbo Internet software
- Universal mount
- Add a DSS® receiver to get up to 200 channels of programming from DIRECTV® and USSB® on your DirecDuo dish.



ask for Model 53-P

HOW DirecDuo WORKS



DirecDuo™ Full System

- 21-inch DirecDuo elliptical satellite dish
 - ◆ Single LNB for DirecPC
 - ◆ Dual DSS LNB
- Hughes-brand digital satellite receiver with these exclusive features:
 - ◆ Title Guide. Displays programs in an alphabetic listing for quick selection
 - ◆ OneLine™ Guide. Enables you to channel surf while watching your favorite program
 - ◆ TurboTune™. Provides quick access to your favorite channels
 - ◆ Logo Guide. Displays programs by full-color channel logos for easy selection
- DirecPC Satellite Access card
- DirecPC Turbo Internet software
- Universal mount



ask for Model B2353-P

INTERNET TOO SLOW?

T1 LINE TOO EXPENSIVE?

GET THE INTERNET BY SATELLITE WITH *DirecPC*TM

THE FASTEST INTERNET ACCESS AVAILABLE NATIONWIDE

"Downloading files is so blow-your-hair-back fast it looks like a trick or a simulation."

Equip, Winter 1997

"...unless you've got a T1 or T2 Internet connection...you've probably never experienced the kind of speed at which

DirecPC can transmit data to your desktop."

Home Theater Magazine, December 1997

"...blew a standard modem connection away."

Video Magazine, February 1998

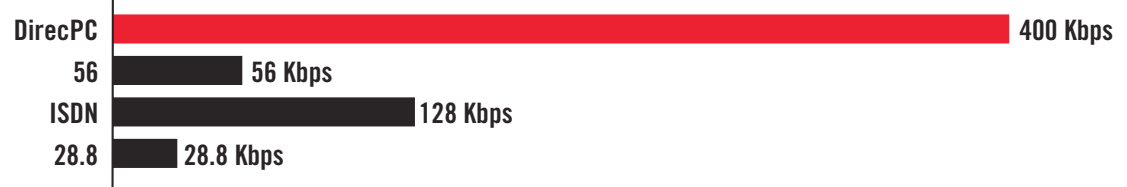
SATISFY YOUR NEED FOR SPEED.

You've gotten a taste of what the Internet can offer, but you know you can't really enjoy the Web until you're surfing at serious speeds.

That's where DirecPC comes in. Whether you're online for business or for pleasure, DirecPC's blazing speed enables you to finally realize the true potential of the Net. By avoiding overcrowded phone networks, you'll download files and software in no time, watch your favorite Web sites scream to life, and—finally—enjoy live audio, seamless video, and all the rich graphics the Web has to offer.

HOW FAST IS IT?

As always, specific download times can vary. But at up to 14 times faster than a 28.8-Kbps modem, you may never see anything faster. A 2-Mbyte movie clip, for example, normally takes 7 to 10 minutes to download over a standard 28.8-Kbps modem. With DirecPC, the same file can be blasted into your PC in as little as 30 to 40 seconds.*



TURBO WEBCASTTM AND TURBO NEWSCASTTM

DirecPC is incredibly fast for interactive use (surfing) of the web. But what if you could get the most popular sites on the Web instantly—with no waiting at all? Turbo Webcast does that for you—delivering the hottest Internet content straight into your PC by satellite, without tying up your phone line. It's always up to date, and always there when you need it. Turbo Newscast does the same thing for your favorite Usenet newsgroups—so you'll never be behind on the news that matters to you.



DirecPCTM

Provides the hardware and software you need to access the Internet at speeds up to 14 times faster than a 28.8-Kbps modem

- 21-inch elliptical satellite dish
- DirecPC Satellite Access card
- DirecPC Turbo Internet software
- Universal mount ask for Model DAK-06P



*Actual download times may vary depending on time of day and network traffic.

DirecPC™ HIGH-SPEED INTERNET SERVICES

WINDOWS® 95 REQUIREMENTS

- ✓ Intel® Pentium® processor running Windows® 95
- ✓ 16 MB of RAM
- ✓ 20 MB of hard disk space
- ✓ 9600-baud (V.32) modem or faster
- ✓ Internet Service Provider account

WINDOWS® NT REQUIREMENTS

- ✓ Intel® Pentium® processor running Windows® NT 4.0
- ✓ 32 MB of RAM
- ✓ 20 MB of hard disk space
- ✓ 9600-baud (V.32) modem or faster
- ✓ Internet Service Provider account

DIRECPC IS:

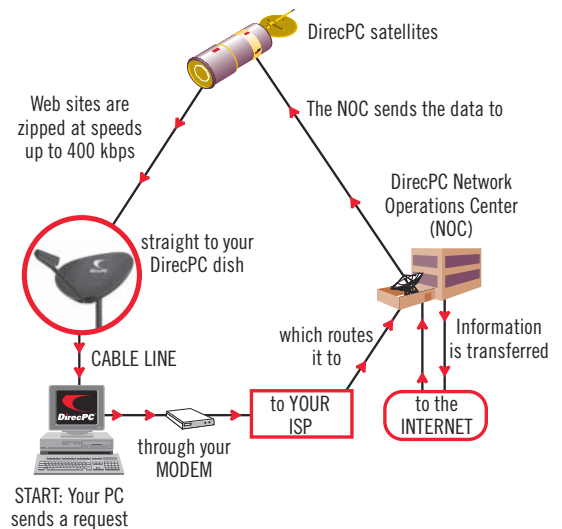
- ✓ **Turbo Internet**—Fully interactive access to the Internet at speeds up to 400 Kbps—14X faster than a 28.8 modem!
- ✓ **Turbo Webcast**—Automatic broadcast delivery of the most popular Websites to your PC's hard drive
- ✓ **Turbo Newscast**—Automatic broadcast delivery of up to 30,000 Usenet Newsgroups to your PC's hard drive
- ✓ **ISP Service Included**—Dial-up access to the Internet

TURBO INTERNET™—HOW IT WORKS

DirecPC™ Turbo Internet service is a fully interactive service. It delivers its blazing speed by using the slower phone line to *send* small bits of data (requests) and by using the fast satellite link to *receive* large amounts of data (Web sites, files, etc.), the following happens:

- You dial into your Internet Service Provider (ISP) via analog modem
- You enter the Web site address into your browser
- That request goes via your analog modem to your ISP
- The ISP forwards the request to the DirecPC Network Operations Center (NOC)
- The NOC forwards your request to the Web site
- The Web site sends the requested data back to the NOC
- The NOC transmits the data up to the satellite
- The satellite transmits the data down to the DirecPC or DirecDuo antenna
- The antenna delivers the data to your PC using the DirecPC Adapter Card *at blazing speed!*

HOW DirecPC WORKS



TURBO WEBCAST™ AND TURBO NEWSCAST™—HOW THEY WORK

DirecPC™ Turbo Webcast™ and Turbo Newscast™ services are *broadcast Internet services* that you can access *without having to dial out with your modem!* Using the DirecPC Electronic Program Guide (EPG), you choose from a Turbo Webcast listing of top web sites and a Turbo Newscast listing of 30,000 Usenet newsgroups. The DirecPC software then “captures” the selected web sites and newsgroups as they are broadcast by the DirecPC satellite and automatically stores them on your PC’s disk drive.

News-oriented web sites are typically updated every half-hour. Entertainment-oriented web sites are typically updated several times per day. Usenet newsgroups are updated daily.

Depending on the size and complexity of the web site, you will typically receive and store 3 to 4 levels of the web site. When you want to go to areas that are not stored, DirecPC Turbo Internet automatically dials into the Internet and takes you to the desired web page.

DirecPC™ HERE'S WHAT YOU'LL GET

	RESIDENTIAL		BUSINESS
	Executive Surfer <i>Your time is valuable. When you go on the Web you need immediate results.</i>	Family Surfer <i>Your family's on the Web all the time. You need speed, and lots of it.</i>	Office Surfer <i>It may be a small office, but you need speed in a big way—and the ability to network.</i>
Price	\$29.99 per month	\$49.99 per month	\$129.99 per month
Availability	24 hours a day	24 hours a day	24 hours a day
Online Time (Turbo Internet and ISP Service)	25 hours per month	100 hours per month	200 hours per month
E-Mail Accounts	One	One	Four

HUGHES NETWORK SYSTEMS DIGITAL SATELLITE SYSTEM

BREAKING THE BOUNDARIES OF CONVENTIONAL TV

Hughes, the leader in satellite technology, continues to push the envelope by combining the best in satellite TV with the most impressive digital receiving and recording technology on the market today. It's faster, easier, smarter, and more colorful than ever, and it's all as simple to operate as your remote control.



FEATURES

- ✓ Get up to 200 channels of DIRECTV® and USSB®
- ✓ Logo Guide. Organize your television viewing graphically with colorful channel logos.
- ✓ OneLine™ Guide. The OneLine Guide features on-screen program information presented one channel at a time, superimposed on the channel you are watching.
- ✓ Turbo Tune for quick channel access. Switch channels from the one you are watching to one of nine preselected channels displayed as a grid of nine colorful logos.
- ✓ Color-coded channel guide categories. Programs listed on the programing guide can be color-coded for viewing ease.
- ✓ StarSight® technology

Here's just some of the special capabilities of the newest Hughes DSS (some capabilities are not available on all DSS systems, see below for specific systems information):

- **PreSelect Programming.** Choose the programs you want to watch in advance and the receiver automatically switches to that channel when the program starts.
- **32 Event Scheduler.** Program up to 32 preselected programs.
- **WatchWord Search.** Choose up to 8 "key" words to identify programs that interest you, then let your DSS do the work. It automatically searches program titles and descriptions for those key words, and alerts you on the WatchWord on-screen guide.
- **Custom Name "Favorite" Lists.** Organize the channels on your DSS into convenient programming lists.
- **Top 10 "Favorite" List.** Remembers the 10 channels you spend the most time watching, and compiles them into a "favorites" list.
- **AutoSet "Favorite" Lists for Subscribed Channels.** Automatically skip over blocked channels and view only the channels in your subscription package.
- **One-Touch Record.** Control your VCR using StarSight™ one-button record technology.
- **D-VHS capability.** The top of the line Hughes DSS receiver comes ready for integration with a new, state-of-the-art Digital-VHS recorder. Use on-screen menu controls to record crisp, digital copies of your favorite movies and television programs.



BASIC DIGITAL SATELLITE SYSTEM

- Single LNB, 18-inch steel dish
- HIRD-B22 receiver with the following features:
 - ◆ PreSelect Programming
 - ◆ 32 event scheduler
 - ◆ Custom name "Favorite" lists
 - ◆ Automatic channel list set-up
 - ◆ Top Ten list
- Basic universal remote

ask for Model HSYS-B2231

PREMIUM DIGITAL SATELLITE SYSTEM

- Dual LNB, 18-inch steel dish
- HIRD-B33 receiver with all of the features found in the HIRD-B22 receiver *plus*:
 - ◆ StarSight One-Button Record
 - ◆ VCR control
- Back-lit universal remote

ask for Model HSYS-B3332

DELUXE DIGITAL SATELLITE SYSTEM

- Dual LNB, 18-inch steel dish
- HIRD-B43 receiver with all of the features found in the HIRD-B33 receiver *plus*:
 - ◆ D-VHS capability
 - ◆ WatchWord (key word search) capability
- Back-lit universal remote

ask for Model HSYS-B4332