

UbiSurf™ software modems

Internet connectivity with great savings

DATA SHEET



The **SM56 UbiSurf™** softmodem is a unique, powerful—and yet low-cost—communications solution for Internet-accessible devices.”



Need to cut costs?

Motorola's groundbreaking softmodem is a unique, powerful—and yet low-cost—communications solution for Internet-accessible devices such as PCs, set-top boxes, Internet appliances, e-mail/Web terminals, and much more.

With Motorola softmodem technology, you can build Internet appliances with the most robust communications technology available while reducing production costs at the same time. Using a software configurable Data Access Arrangement (DAA) you can provide worldwide coverage with a single hardware configuration. This simplifies product qualification/design-in and forecasting.

What is a Softmodem?

The SM56 UbiSurf softmodem is Motorola's unique software modem, a technology that relies on software to eliminate the need for a dedicated modem processor. The result is lower cost with a smaller footprint. Motorola's softmodem is particularly attractive to the highly competitive PC and embedded information appliance market. The Motorola SM56 UbiSurf softmodem has already passed rigorous qualification testing. In the most important test of all, name-brand PC manufacturers have selected the Motorola softmodem to install in millions of today's PCs.

How does the SM56 Softmodem help me?

The SM56 UbiSurf softmodem is designed to meet the specific needs of the desktop and portable PC OEM. UbiSurf software gives manufacturers greater flexibility in platform design while offering significant cost savings, because it greatly reduces the amount of modem hardware. In a nutshell, the SM56 is:

- Lower cost,
- Smaller,
- Lower power,
- Easily software upgradable,
- Available in USB, PCI, MDC and Modem-on-Motherboard form factors and,
- Supports Windows® 2000, XP, Vista, Mac OS and Linux.

Also, extensive diagnostic support with detailed phone line quality statistics reduce the number of technical support calls and the length of each call.

What's in it for the end user?

The Motorola SM56 UbiSurf softmodem offers three powerful features that every end user wants: lower cost, higher functionality, and easy upgradability. Motorola's softmodem comes feature-packed with ITU-T V.92/V.44, ITU-T V.90 and K56flex™ auto-negotiation with auto-fallback to ITU-T V.34 and below. Software upgrades are made simple with a user-friendly Upgrade Utility, making it easy for end users to keep current with new communications technology.

What about the competition?

The SM56 UbiSurf Softmodem from Motorola gives you a unique industry advantage: it's a software-designed system available from Motorola, a world leader in electronics.

Features & Benefits

Supports Software-only Upgrades

- Users stay current with the latest communications technology

ITU-T V.92/V.44, ITU-T V.90 and K56flex™ auto-negotiation with auto-fallback to ITU-T V.34

- High-speed 56 Kbps¹ data transfer with maximum degree of interoperability

Enhanced Caller ID²

- Early warning and call logging (U.S., Canada, Japan)

Group III, Class 1 Fax

- Fax transfers up to 14.4 Kbps

Answering Machine

- Use the PC as a telephone attendant
- Allows for remote message retrieval



General Specifications and Features

Data Modem

- V.92/V.44 with auto fallback
- V.90 & K56flex™ (up to 56 Kbps receive*)
- V.34 (33,600 bps - 2,400 bps)
- V.32bis (14,400 bps - 4,800 bps)
- V.32 (9,600 bps - 4,800 bps)
- V.22bis (2,400 bps - 1,200 bps)
- V.22 (1,200 bps)
- V.23 (75/1,200-600 bps)
- V.21 (300 bps)
- Bell 212A (1,200 bps)
- Bell 103 (300 bps)

Voice Features

- 8kHz PCM and IMA ADPCM
- Concurrent DTMF detection
- Voice/silence detection

Error Correction

- V.42, LAP-M & MNP 2-4

Data Compression

- V.42bis & MNP 5
- V.44

Fax Modem

- Group III, Class 1
- Class 1 fax error correction mode
- V.17 (14,400/12,000 bps)
- V.29 (9,600/7,200 bps)
- V.27ter (4,800/2,400 bps)
- V.21 (300 bps)

Speaker Phone Option

- Full-duplex w/acoustic and line echo reduction
- Microphone AGC and muting
- Software volume control
- Flash-hook

Enhanced Caller ID² (Available with TAM)

- Supports name and number

Video Phone

Ready Modem

- V.80 sync access mode interface
- Transparent & framed sub-modes
- Voice call first supports Intel Video Phone with ProShare technology

Adaptive

Connection Support

- V.8 automode negotiation
- V.8 PRIME & V.8bis
- Adaptive Rate Renegotiation
- Automatically adjusts speeds up and down to accommodate changing line conditions

Power Management

- ACPI (D0-D3 states)
- Wake PC from D3 Cold

Extensive

Diagnostics Support

- AT&V, AT#UD- Call setup and phone line quality statistics
- Real-time modem connection statistics

Tone Detections

- Dial tone, second dial tone
- Ring back, busy
- Data/fax answering tones
- DTMF

Distinctive Ring² (Available with TAM option)

Reference Designs Available

NEED MORE INFORMATION?

Contact your Motorola representative or

e-mail

softmodem@motorola.com

or go to www.motorola.com/pcsolutions

THE MOTOROLA SOFTWARE ADVANTAGE

Motorola's software development and testing procedures are governed by the Software Engineering Institute's Capability Maturity Model Integration (CMMI) processes. These well-known and highly recognized best-practices ensure the highest level of software quality and flexibility for our customers. Indeed, the majority of our software development teams are ranked at SEI Level 5, the highest possible level. Moreover, our leading-edge software products and services leverage Motorola's vision of bringing the Internet, wireless, broadband and embedded solutions capabilities to the person, home and work team.



¹ 56K modems are capable of receiving 56 Kbps from a compatible service provider. Receiving is currently limited in the U.S. and Canada to 53 Kbps, and transmitting up to 33.6 Kbps. Actual speeds will vary depending on line conditions.

² Requires additional service through your local phone company. Check with your local phone company for availability.



Motorola, Inc. 1303 E. Algonquin Road, Schaumburg, Illinois 60196 U.S.A.
www.motorola.com

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