

DCM425 Digital Cable Modem



CABLE

SATELLITE

TELECOM

TERRESTRIAL

Data

Voice

Video

RCA's latest DOCSIS 2.0 certified cable modem, the DCM425 incorporates the latest generation of silicon. The DCM425 supports up to 16 upstream flows and improved data throughput rates. It represents a significant improvement of our DOCSIS product-line in a small form factor.

The 16 upstream flows allow operators to provide tiered data services and support more efficient traffic prioritization schemes for advanced services. The DCM425 allows symmetrical data transfer, and tripled upstream throughput.

The modem also integrates Propane™ technology, enabling the connection of more Internet users without additional network bandwidth. RCA's case design is consistent throughout its product line of cable modems and gateways.

RCA's other broadband cable products include:

- DCW725: DOCSIS 2.0 ready 4-port Wireless Gateway
- DHG525: 2 lines PacketCable DOCSIS VoIP E-MTA

- DOCSIS 1.0, 1.1, 2.0 certified.
- Bridging between the USB and Ethernet port.
- Easy access to advanced diagnostics web pages.
- USB port for easy installation.
- Reliable high-performance platform.
- Surf the Internet up to 100 times faster than a 56k analog Modem ⁽¹⁾

1 - Compared with a 56 kbps analog telephone modem.
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Technical Specifications

DOCSIS Based Design

The cable modem is certified to work on any DOCSIS based HFC cable system (DOCSIS1.0, DOCSIS1.1, or DOCSIS2.0).

Bridging

Allows simultaneous connection of two PCs and enables Ethernet and USB port data traffic bridging.

E-Z Start-Up Indicators

Easy-to-use LED lights on the front of the unit provide the user an intuitive mechanism for verifying the modem's operation and connectivity.

Simple-to-Use Illustrated Setup Guide

The guide steps users through the connections of the broadband cable, electrical power, and Ethernet or USB cables.

Security

Supports BPI+ communications privacy to support secure data exchange between modems and cable operators' servers.

LED Administrative Disable indicator

Helps prevent unnecessary truck rolls.

Internal Web Pages

The DCM425 contains multiple integrated Web pages allowing direct access to information about the status of the modem and product settings including privacy and security.

Internet Security Button

Turning the modem off puts the modem into "standby" mode. The modem remains locked to the CMTS, responding to SNMP, enabling subscribers to resume activity quickly when toggled again.

The button serves as a security feature, assuring the customer that the PC-network connection is de-activated when the button is in the off position, alleviating security concerns of an "always on" connection.

Propane Technology

This advanced transport technology (Dynamic Payload Header Suppression) provides the subscriber with faster data transfers. It also allows operators to increase the number of subscribers on their network without affecting subscriber connection speeds. Under typical network conditions, both the subscribers and operators can benefit from more data bandwidth per customer, and of more voice channels for IP-telephony.

For more information

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Standards

DOCSIS 1.0, 1.1, 2.0 capable DOCSIS 2.0 Certified

Receiver

Downstream Modulation	64/256 QAM
Center Frequency Range	91-857 MHz
Channel Bandwidth	6 MHz
Maximum Downstream	27/38 Mbps {64QAM/256QAM}
Data Rate	
RF Input Sensitivity	+15 to -15 dBmV
64QAM:>23.5dB, 256QAM:>30dB	BER <1e-8
Input Impedance	75 Ohm

Transmitter

Frequency Range	5-42 MHz
Upstream Modulator	8/16/32/64/128 QPSK or QAM
Channel Bandwidth	200KHz, 400KHz, 800KHz, 1.6MHz, 3.2MHz, 6.4 MHz
Maximum Upstream	Data Rate Max 5.12/10.24 Mbps {QPSK/16QAM}, 30Mbps with A-TDMA and S-CDMA
RF Output Level	+8 to +55 dBmV (16QAM) ; +8 to +58 dBmV (QPSK) ;
Automatic Level Adjust	Yes
Gain Control Range	50dB
Frequency Stability	± 5 kHz
Output Impedance	75 Ohms

Silicon support for quality of service

Number of upstream flows (SIDs) supported	16 (Enables support for advanced Quality of service support & tiered data services)
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Software Features

Software Downloadable	Yes
Protocol Filtering	Ethernet & IP
SNMP Management	V2, V3
Security	BPI+
Privacy	Through encryption between the gateway and the PC
LED Diagnostics	5 LEDs used for status
Local configuration through http Server	Hardware, Software status Basic settings Advanced settings Firewall

Physical

Cabinet Dimensions	4.96"(W) x 4.21"D x 1.5"H (126mmx 107mm x 39mm)
Packaging dimensions (inch)	11 3/4" (L) x 9 1/2" (D) x 3" (H)
Overpack dimensions (inch)	20 1/4" (L) x 15 3/4" (D) x 16 1/4" (H)
Approx. Shipping Weight	<3 lbs.
Overpack shipping Weight appr.	29 lbs
Overpack Quantity	10
Operating Temperature	32°F to 104°F (0°C to +40°C)
Cables	USB & Ethernet
CD-ROM	Yes

I/O Interfaces

Ethernet 10Base-T or 100Base-T	RJ45 – auto-detect
RF Connector	F-Type
Power {Wall Pack}	120Vac 60Hz
USB Port,	98SE, 2000, Me and XP
OS Supported - Windows	
User Switches	On/Off & Reset

PC Compatible

CPU	486DX 66MHz (Pentium Preferred)
System RAM	16MB (32MB Preferred)
Operating System	Windows XP, Me, 2000
Available Disk Space	76 MB
Sound Card	16-Bit
Video	VGA (SVGA Preferred)
Ethernet	10 or 100 Base-T
USB	Windows 98SE or later
Drive	CD-ROM