

User's guide

CableXpertTM

CME1100



DAKOS

Before you Begin

This user's guide describes how to install and use the DAKOS Cable Modem(CableXpert™). This introduces general information, network installation and technical support for CableXpert™.

We recommend you read this very carefully before installing or using CableXpert™.

CableXpert™ is delicately designed that users do not need to open the housing and touch the inside. Therefore, for upgrade or repair, you should contact the dealer who sold you the modem or call one of our service centers to get help from a qualified technician.

Please, call the dealer or one of our service centers if you have further questions regarding the manual or installation and use of CableXpert™.

This equipment is certified against EMI (Electronic Magnetic Interference) and can be safely used in residential and other areas.

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1. Introduction to the DAKOS cable modem (CableXpert™)

1-1. Feature

CableXpert™ (CME1100) complies with DOCSIS v1.0 (Data Over Cable Service Interface Specification) Standard.

CableXpert™ connects Internet and multimedia services with CPE (Customer Premises Equipment), such as CATV network cables. You can then get the benefit of high-speed Internet service such as the World Wide Web, interactive communication and file transfers through the existing CATV network.

CableXpert™ (CME1100) is compatible with any Cable Modem Termination System (CMTS) devices which complies with DOCSIS v 1.0.

CableXpert™ (CME1100) is able to transmit and receive data up to 100-times faster than established telephone lines.

1-2. Appearance



Front



Back

1-3. Product specifications

Cable Modem Main Body

	Downstream	Upstream
Frequency range	91 ~ 857 MHz	5 ~ 42 MHz
Modulation method	64/256 QAM	QPSK/16 QAM
Bandwidth	Max 30 Mbps/64 QAM Max 40 Mbps/256QAM	Max 5.12 Mbps/QPSK Max 10.24Mbps/16QAM
FEC	RS(128,122)Trellis	RS(programmable)
Symbol Speed	5.056941 Msym/sec at 64QAM 5.360537 Msym/sec at 256QAM	160,320,640,1280,2560 ksym/sec
Signal level	-15 ~ +15 dBmV	+8 ~ +58 dBmV/QPSK +8 ~ +55 dBmV/16QAM
Security	56bit DES with RSA Key	56bit DES with RSA Key
Carrier to noise ratio	>23.5 dB @ BER < 10 ⁻⁸ / 64 QAM >30 dB @ BER < 10 ⁻⁸ / 256 QAM	
Maximum CPE numbers	15 unit	
Size	205(mm) X 140(mm) X 32(mm)	
Weight	330g	

Power supply

Type	AC/DC Adapter 12 V / 1000 mA
Input voltage	220 V
Input frequency	60 Hz
Size(package size)	100(MM) X 87(MM) X 54(MM)

2. Caution

- Make sure that the place to set up CableXpert™ is flat. Otherwise it may be damaged.
- Do not put heavy material such as a TV monitor over CableXpert™
- Do not set up CableXpert™ in the following places:
 - A void vibration, humidity, and direct sunlight
 - A void humid poorly ventilated rooms
 - A void very high or low temperatures
- Before you operate this device, read this user's guide carefully.
- Never open the housing. If you touch the inside, you might receive an electric shock and be seriously injured.
- Arrange all the electric components safely; do not touch them with wet hands.
- This device must use a 220V power supply. Therefore you should verify the input power.

3. Installation of DAKOS cable modem (CableXpert™)

3-1. Product Verification



Main body



External adapter



User's guide



RJ-45 UTP Cable



USB Cable (optional)(Extra)



A support

3-2. Pre-Installation checklist

Before setup and installation of your Dakos CableXpert™, you must check the following:

Set up DAKOS CableXpert™ in an area with access to a cable network service.

At the office or house, wherever you want to set up your DAKOS CableXpert™, if you do not have access to a cable network service, call your local cable network service company.

Usually an installer visits your home to set up the cable modem when you subscribe to a cable network service.

Make sure that your PC has an operable Ethernet Interface.

If there isn't one, you should ask your local cable network service company to install an Ethernet Interface.

Install the Ethernet interface then set up a TCP/IP interface such as DHCP, domain name, host name, DNS service search order, main/sub WINS server, IP Address, and so on. Usually an Installer visits your home to set up the cable modem when you subscribe to a cable network service.

3-3. Connecting Your DACOS Cable Modem

Connection of cable modem (Household version)

Connect coaxial cable from your local cable network provider to the RF connector on the back of the cable modem.

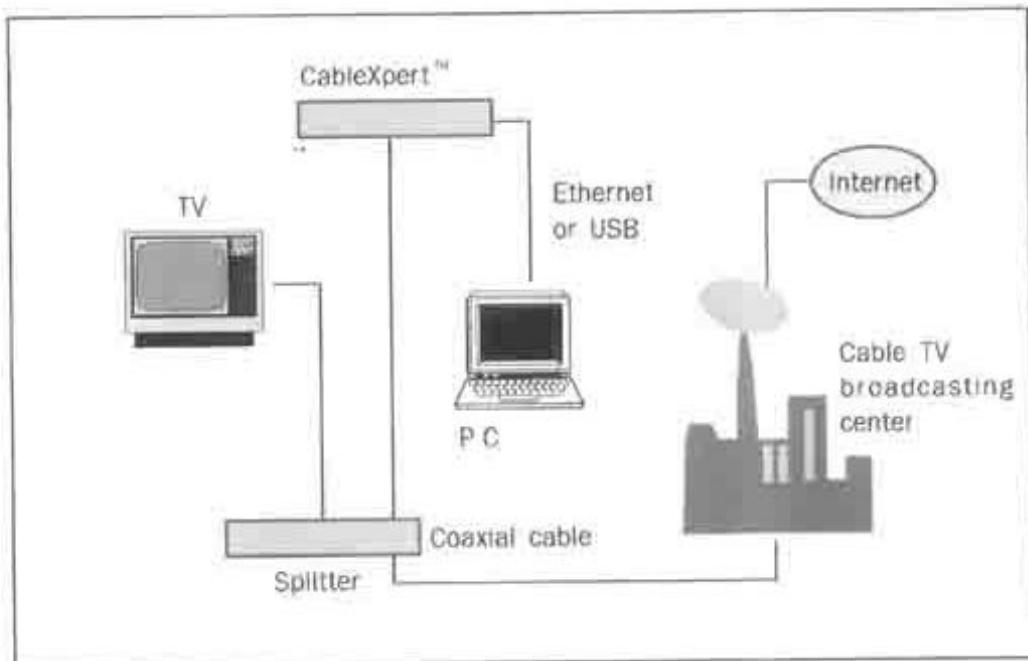
You must select either the RJ-45 UTP or USB (optional) cable included in the DAKOS CableXpert™ package.

If you select RJ-45 UTP cable, connect this cable to the 10BT terminal on the back of the cable modem and connect the other side of the line to the RJ-45 terminal of the PC Ethernet card. If you select the USB cable, connect this cable to the USB terminal on back of the cable modem and connect the other line to the USB terminal of the PC. (USB drivers for the DACOS CableXpert™ are provided on our web site or by CD.)

4. DAKOS cable modem (CableXpert™): Appearance and Description

4-1. Interpreting the LEDs on the Front of Cable Modem

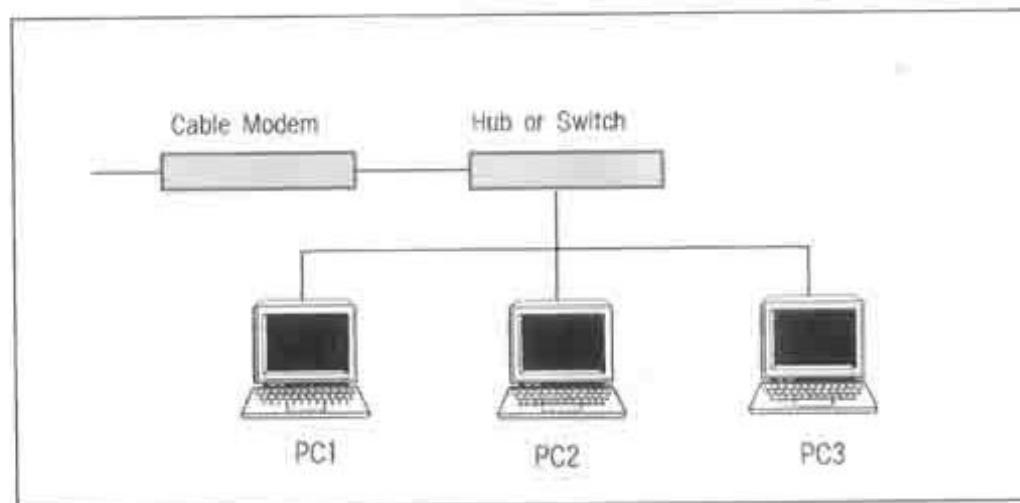




Connection of cable modem (Office version)

Connect coaxial cable from your local cable network provider to the RF terminal on the back of the cable modem.

Connect the RJ-45 UTP cable included in the DAKOS CableXpert™ package to 10BT terminal on the back of the cable modem and connect the other side of the line to the trunk terminal of the network Hub.



① Power

If the power to the Dakos CableXpert™ is turned on, the power LED will light up RED. This LED will remain on while the modem is working correctly.

② LAN

When you connect the UTP cable to the RJ-45 connector on the back of the DAKOS CableXpert™ cable modem, the LAN LED will light up GREEN. The other end of the UTP cable must be connected to the LAN card on the PC or another port on the network equipment. If both of them are lit, the connection is working properly.

In other words, this LED indicates that the cable modem is connected to the LAN normally.

③ RX

The RX LED blinks green when the cable modem receives data from the head end of the CMTS through the RF cable.

When receiving data, this LED blinks green.

④ TX

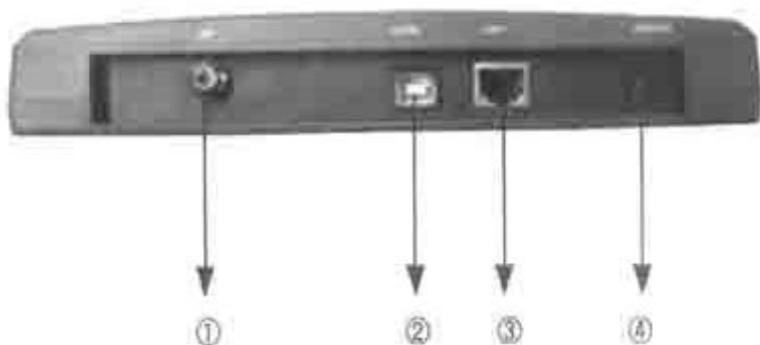
The TX LED blinks green when the cable modem transmits data from the head end CMTS through the RF cable.

When transmitting data, this LED blinks orange.

⑤ SYNC

While the DAKOS CableXpert™ initializes, the SYNC LED blinks green. And after the LED blink is repeated, this LED continues on while normal operating processes continue.

4-2. Connectors of the Rear Panel of Cable Modem



① Cable connector (RF)

Coaxial cable is connected to the cable connector on the back of the cable modem.

This coaxial cable is connected from the cable network service.

② USB connector (USB)

USB cable is connected to the USB connector on the cable modem.

This USB cable is also connected to the USB port on the PC.

In this case, the 10 BT connector on the back of the cable modem cannot be used.

③ 10 base-T Ethernet Connector (10BT)

This is a port to connect to a PC or network equipment (HUB, Switch, Router and so on).

Use the RJ-45 UTP cable included to CableXpert™ package.

In this case, the USB connector on the back of the cable modem cannot be used.

④ Cable Modem Connector (Power)

This connector is a power adaptor for the DAKOS CableXpert™ connected to provide power to the cable modem.

Note: You must use the power adaptor in the DAKOS CableXpert™ package. Otherwise, the cable modem may be damaged.

5. Solutions

① No light on front panel LED

Check that power connector is connected properly.

Check power plug.

② No light on power LED

Check power plug.

Check cable modem power connector.

③ No Light on LAN LED

Check that the computer is turned on.

Check that UTP cable is connected to Ethernet interface.

④ No light on RX, TX LED

Check cable modem coaxial cable connections.

Check whether the coaxial cable is damaged or not.

⑤ Not working properly

Pull out the power connector on the back of the cable modem and reconnect and reset the cable modem.

Technical Support

You may ask for technical support and submit inquiries through the DACOS website or purchase place.

FCC NOTICE

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.