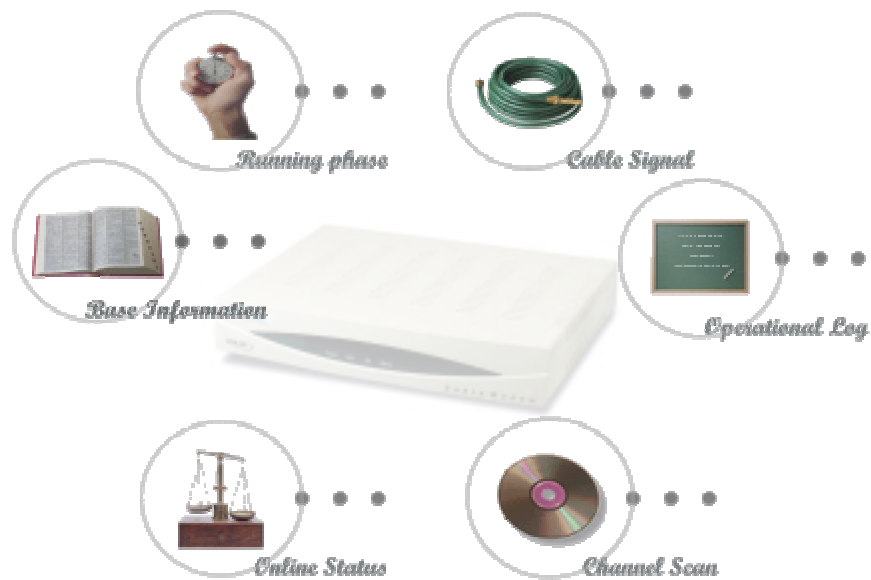


Cable Modem

Web-Configure Illustration



For advanced technical checking purpose...

Web-Configure Illustration

This Cable Modem (CM) is built-in Web-Configure facility in providing CATV service installers more faster, convenient configuration tools to check the Cable Modem status information which consists of:

- **System** – Cable Modem Basic Information

Check CM's basic factory default information.



- **Startup** – Startup Status

To monitor CM's startup status and provide CATV installer necessary setting environment information.



- **Signal** – Cable Signal Quality Status

To detect current signal's quality and modulation mode information received by CM.



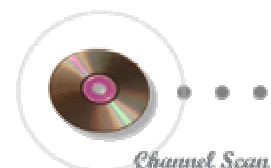
- **Status** – Online Status

To inquire CM's online status and authorization status.



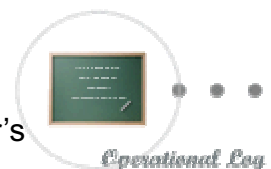
- **Scan** – Channel Scan

To set up the starting/terminating frequency of downstream and upstream frequency manually.



- **Log** – CM Status Log File

To log CM's internal operational record for technical installer's checking purpose.



Important Notice before Use

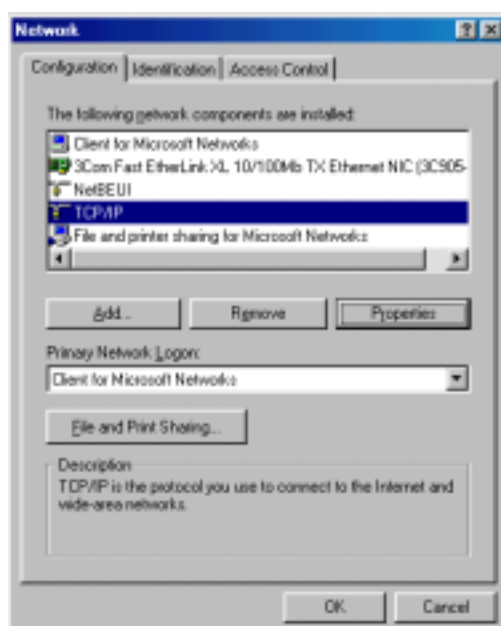
A. Verify the Correct Installation of Hardware

1. Make sure the CM is already connected to the power and the coaxial cable.
2. CM's Ethernet port is already connected to computer's Ethernet card.
(Note: Currently, this function is only supporting connection from Cable Modem's Ethernet port to CPE.)
3. When CM's power is on, check whether "Link" LED is on (Link LED on indicates that CM detects is with Ethernet connection) and "STS" LED status is blinking (when CM is searching for CMTS signal) or on (CM has locked the signal)...
(Please refer to User Manual's LED Illustration for more details.)

B. Change PC's Setting before access Web-Configure Function

1. Modify computer's [TCP/IP].
(Please write down original setting IP address for backup purpose. After web-configure testing, you will set it back to original IP address when necessary.)
2. Change TC/PIP address to **192.168.100.XXX**. Whereas "XXX" indicates to key-in one of the number between "3~254". For example as figure shown below, set the IP address to 192.168.100.19.
3. After changing the IP address, press "Enter" to save the new IP setting.
If you are using Windows 98SE, your PC will ask you to re-boot again. If you are Windows 2000 or later version, you don't need to re-start the PC and the new IP setting is already modified.
4. After restart the computer, please access your browser (IE 4.0 or later version as suggested) and type URL address to start the Web-Configure function.

<http://192.168.100.1/info.htm>



- **System – Cable Modem Basic Information**

Check CM's basic factory default information.



Cable Modem Base Information.	
Product Name	XXX-XXXX
Hardware Version	XX_XX_XX_XX
Software Version	XX_XX_XX_XX
Serial Number	0000000001
Cable MAC Address	00:30:3B:00:00:01
CPE Interface	External Ethernet/USB Cable Modem
Vendor Version	01.04.17.w1

- ◇ **Product Name**

- ➔ To check the Product's Name & Model No.

- ◇ **Hardware Version**

- ➔ CM's hardware version.

- ◇ **Software Version**

- ➔ CM's software version.

- ◇ **Serial Number**

- ➔ CM's serial number.

- ◇ **Cable MAC Address**

- ➔ To provide CATV installer's installation/control information of CM's MAC (Media Access Control) address, i.e. 00:30:3B:00:00:01.

- ◇ **CPE Interface**

- ➔ Indicates this CM's interface to the CPE (Customer Premises Equipment). i.e. External Ethernet/USB Cable Modem.

- ◇ **Vendor Version**

- ➔ CM's shipping version for tracing purpose only.

- **Startup – Startup Status**

To monitor CM's startup status and provide CATV installer necessary setting environment information.



This page indicates the startup status between the CM and the CMTS (Cable Modem Termination System). Please refer to the following explanation.

Procedure	Status	Comment
Acquired D/S Frequency	Locked	signal.htm
UCD Message	Got 1 UCDs	
DHCP IP	OK	IP: 10.2.1.33
Time of Day	OK	TUE APR 17 2001 15:59:42
Configuration File	Got File	"cm.bin"
Registration	OK	
BPI information	OK	

- ❖ **Acquired D/S Frequency**

- The CM will scan the D/S (Downstream) frequency until it locks the signal. When the cable D/S frequency signal is been locked, the “Status” column will show “Locked”, otherwise, it will show N/A (Not Available). Within the column – “Comment”, there is a hyperlink item [signal.htm](#), for installer to link to CM’s “Signal Status” page to check CM’s RF (Radio Frequency) status.

- ❖ **UCD (Upstream Channel Descriptor) Message**

- When there is only one upstream channel, the column “Status” will show “Got 1 UCDs”. If there are 2 upstream channels, it shows “Got 2 UCDs”...etc. It will also indicate which frequency is been used in the column “Comment”.

- ❖ **DHCP IP**

- This indicates the IP address CM got from DHCP, otherwise, it show N/A.

- ❖ **Time of Day**

- Display the current time from the system, i.e. TUE APR 17 200115:59:42.

- ❖ **Configuration File**

- Display the CM’s configuration file name.

- ❖ **Registration**

- Indicate the CM’s “Registration” status to be OK or N/A.

- ❖ **BPI information**

- Indicate the CM’s BPI status, OK or N/A.

- **Signal – Cable Cable Signal Quality Status**

To detect current signal's quality and modulation mode information and RF status detected by CM.



"Downstream channel information" shows the D/S status from CMTS to CM and "Upstream channel information" shows the U/S status from CM to CMTS.

The screenshot shows the 'Signal' tab of a Cable Modem status page. It displays two tables: 'Downstream channel information' and 'Upstream channel information'.

Channel ID	0
Channel Frequency	855000000 Hz
Modulation Mode	QAM 256
Symbol Rate	5360537 sym/sec
Max Bit Rate	10000000 bps
SNR	36.8

Channel ID	1
Channel Frequency	40400000 Hz
Modulation Mode	QPSK
Symbol Rate	2560000 sym/sec
Max Bit Rate	2000000 bps
Channel Power	41.0/4 dBmV

- ❖ **Channel ID**
 - ➔ Display the U/S or D/S's Channel ID.
- ❖ **Channel Frequency**
 - ➔ Indicates the U/S and D/S's frequency been used.
- ❖ **Modulation Mode**
 - ➔ Display the CMTS's modulation mode.
- ❖ **Symbol Rate**
 - ➔ Display the CM's symbol rate.
- ❖ **Max Bit Rate**
 - ➔ Indicate the CM's max bit rate.
- ❖ **SNR**
 - ➔ Display CM's SNR (Signal Noise Ratio).
- ❖ **Channel Power**
 - ➔ Indicate CM's channel power. i.e. U/S's channel power is 41.0/4dBmV, that means 41.0 dBmV.

- **Status – Online Status**

To inquire CM's online status and authorization status.



The screenshot shows the 'Cable Modem' web interface with the following data:

Online Status	
Online Time	0Day 00:02:21
Network Access	Allowed

Downstream Channel Status	
Channel Frequency	855000000 Hz
SNR	36.8

Upstream Channel Status	
Channel Frequency	40400000 Hz
Channel Power	41.04 dBmV

CPE Status	
CPE-1	00:00:e8:4f:58:7d

- ✧ **Online Status**

- **Online Time**

- Indicate CM's continuously time of usage.

- **Network Access**

- Display whether the CM is allowed to connect to the network or not.

- ✧ **Downstream Channel Status** (The signal status from CMTS to CM)

- **Channel Frequency**

- Display the D/S channel frequency.

- **SNR**

- Indicate CM's SNR.

- ✧ **Upstream Channel Status :**

- **Channel Frequency**

- Display the U/S channel frequency.

- **Channel Power**

- Indicate CM's channel power.

- ✧ **CPE Status**

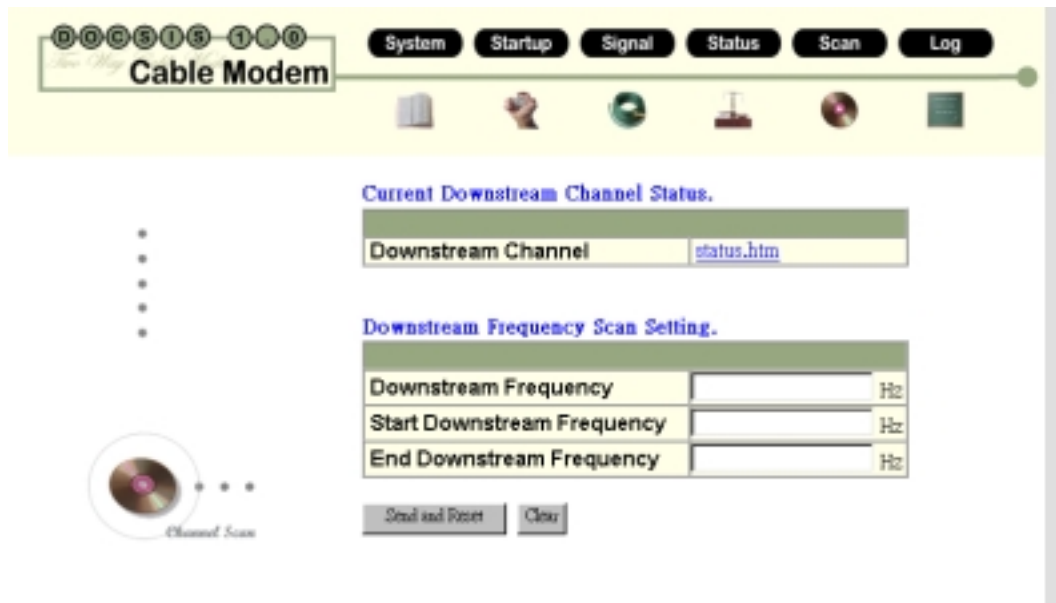
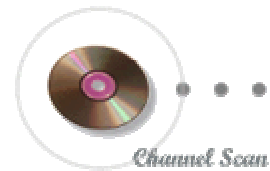
- CPE-1 ➤ Here is to show the CPE's identification, i.e. 00:00:e8:4f:58:7d. If the CM access to more than one CPE (max. support 15 CPEs as CableLabs defined.), this column will indicate the information from the CMTS of the number of CPEs can be supported by this CM.

- **Scan – Channel Scan**

To set up the starting/terminating frequency of downstream and upstream frequency manually.

With this function, the installer can skip the long waiting time from CM to scan the signal and can manually pre-set the known frequency and scan, lock the signal. This is to save CATV installer's time of the installation.

"Current Downstream channel status" provides the hyperlink function to check the downstream channel status.



- ◇ **Downstream Frequency Scan Setting**

- **Downstream Frequency**

- ⌚ Key-in your known D/S frequency for CM's starting frequency.

- **Start Downstream Frequency**

- ⌚ Set up the starting downstream frequency.

- **End Downstream Frequency**

- ⌚ Set up the ending downstream frequency.

- **Send and reset**

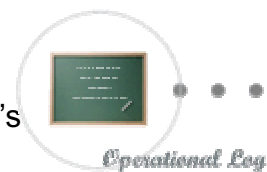
- ⌚ To execute the setting command and CM will start to scan base on the above setting.

- **Clear**

- ⌚ To clear the above setting.

- **Log – CM Status Log File**

To log CM's internal operational record for technical installer's checking purpose.



Cable Modem [System] [Startup] [Signal] [Status] [Scan] [Log]

Cable Modem Event Logs.

Index	Time	Level	Event
#148	00:00:00	2	Background Timer Set
#149	00:00:00	7	OEM: EMAC set to 00:30:3b:00:00:00
#150	00:00:00	7	OEM: CMAC set to 00:30:3b:00:00:01
#151	00:00:00	7	OEM: Initialization complete
#152	00:00:00	6	BFI Informational: AFSM State Changed to Start State
#153	00:00:00	7	Scanning channel 134, 855000000 Hz (Last Good)
#154	00:00:00	7	Ethernet Interface is down
#155	00:00:00	7	MAC Interface is up
#156	00:00:00	7	Downstream Interface is up
#157	00:00:04	7	Acquired D/S Freq: 855000000 Mod: QAM 256
#158	00:00:04	7	Found UCD ID's: 1
#159	00:00:06	7	Upstream Interface is up
#160	00:00:07	7	Starting DHCP
#161	00:00:07	7	Added MAC address 0000E84F587D
#162	00:00:20	7	DHCP successful: CM IP: 10.2.1.33
#163	00:00:20	7	Starting TOD at 10.1.1.2
#164	15:58:09	7	TOD Successful: TUE APR 17 2001 15:58:09
#165	15:58:09	7	Starting Tftp Config File Get 'cm.bin' at 10.1.1.2
#166	15:58:09	7	Config File Get Successful.
#167	15:58:09	7	Performing check for boot-state based SWUpgrade.
#168	15:58:09	7	Starting Registration with temp Sid: 38
#169	15:58:09	7	Reg Rsp OK: Successful
#170	15:58:09	7	Service Class: Id 1 SID 38
#171	15:58:09	7	Max CPE set to 1 by config file
#172	15:58:09	6	BFI Informational: AFSM State Changed to Auth Wait State
#173	15:58:10	7	Snmp Cold Start Successful
#174	15:58:10	7	Performing check for post config-file based SWUpgrade.
#175	15:58:10	7	*** CM Operational ***
#176	15:58:12	7	Added MAC address 0000E84F587D
#177	15:58:19	6	BFI Informational: AFSM State Changed to Auth Wait State