



**Modules
for
DHR-800 / DHR-800P
Installation Guide**

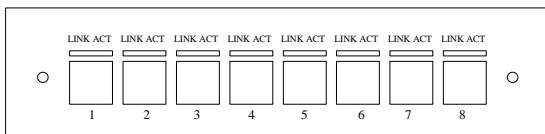
**DHR-8TP / DHR-BRG /DHR-4ST
DHR-4SC / DHR-1 ST / DHR-1SC**

1. Hardware Description

The following sections describe the hardware function, and usage of the four different modules

1. 8-Port 10/100Base-TX Dual-Speed Module

DHR-8TP



The front panel of DHR-8TP

This module provides two different running speed – 10Mbps and 100Mbps and automatically distinguish the speed of incoming connection and group the same speed of ports in same network segment, i.e., each port has auto-negotiation Nway function.

The following sections describe the function of LEDs on the front panel of module.

Port's Link/Act

Color: Green

Label: Link/Act

Function: Each RJ45 station port on the module is assigned two LEDs for monitoring port “Good Link” and data traffic. The LEDs are normally “Off” after the power on operation. The left LED will light up steadily to show “Good Link” when port is been connected. The right LED will flash rapidly to show data passing in and out the port.

Port's Speed

Color: Yellow

Label: 100Mbps

Function: Each RJ45 station port on the hub is assigned an LED on the main panel of the hub (DHR-800/DHR-800P) following to the slot installed (i.e. slot1, slot2) to indicate the running speed. The LED is normally in state of “On-Off-On-Off...” at fixed frequency after power on operation. It means the station port is sensing the incoming connection will be 100Mbps or 10Mbps device. If the connection is

running at 100Mbps, the LED will keep “On”, otherwise, keep “Off” when it is at 10Mbps state. The speed LEDs of module are located at the left side of main panel of the DHR-800 series labeled with “Slot1” or “Slot2”.

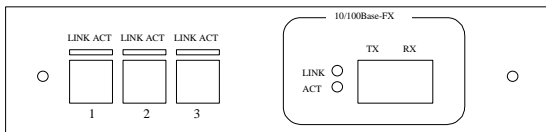
Station Ports

There are 8 RJ-45 jacks on the front panel of the module. Each jack is (MDI-X) labeled with a port number. All ports' transmit and receive lines are crossed within the hub. A 10/100Base-TX port must be internally cross-wired to let you connect an end node using straight-wired cabling.

2. 3-Port 10/100Base-TX Dual-Speed and 1 port

100Base-FX Optic Fiber Module

DHR-1SC/DHR-1ST



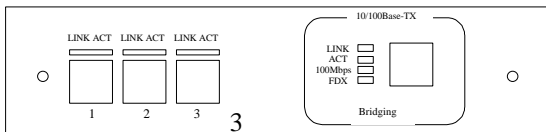
The front panel of DHR-1ST/DHR-1SC

This module provides two different media – twisted-pair wire and optic fiber. The TP ports have the same functions as described in above section. The optic fiber port lets user has the choice to link this hub to optic fiber environment. There are two kinds of connector -- ST or SC types. This port is running in 100Mbps and half duplex mode only. The connection rule and limitation are same as normal optic fiber class II repeater.

The function of LEDs of TP ports and FX port are same as DHR-8TP, 8 port TP module – Link and Activity. There are only four speed LEDs will display on the main panel of the hub (DHR-800/DHR800P) – TP ports’ function is same as 8 port module, and FX port is always “On” because it is running at 100Mbps speed.

3. 3-Port 10/100Base-TX Dual-Speed and One 10/100Mbps port Bridging Module

DHR-BRG



The front panel of DHR-BRG

This module provides one special port for extending the cable length to another hub (10Base or 100Base hub) in 100 meters, this port is a switching port or called “Bridging Port” .

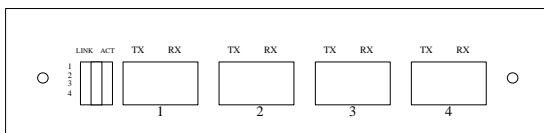
The main hub basically is a Class II hub, it means the cable length between two 100Base hubs through “Uplink” port is only 5 meters. It is the limitation of 100Base-TX Class II hub. This module not only provide the ability to extending the cable length, but also the all functions of bridging hub – address learning and filtering, error packet filtering, store-and-forwarding, CRC checking, separating collision domain, etc. Another feature is the cabling behavior is similar to 10Base-T network.

The function of the other 3 ports is same as 8 port dual-speed TP module.

The operating method of extending cable length in 100 meters is by driving one end of 100 meters cable to extend port and the other end of cable to another hub’s normal station port. Because the extending ports’ transmit and receive signals are not cross over (MDI-II), therefore the cable between two hubs is straight-through TP wires.

The functions of LEDs of extending port – Link, Activity, Speed, and Full Duplex.

4. 4-port 100Base-FX Optic Fiber Module DHR-4SC/DHR-4ST



The front panel of DHR-4ST/DHR-4SC

This module provides 4 port SC or ST type optic fiber ports. All the functions are same as the optic fiber port’s in “3 TP + 1 Optic Fiber” module. Please refer to the section above, DHR-1 ST/DHR-1SC.

Notice that all four ports are running in 100Mbps and half duplex mode and four speed LEDs will display on the main panel of the hub (DHR-800/DHR-800P).

2. Installation

1. Module installation

1. Turn main hub off.
2. Remove the “Blank” bracket with label – Expansion Slot
3. Lift the handles, and let both edges of PCB following the “Plastic Guide” slide into the end of slot, then the surface of front panel of module will fit into the slot exactly
4. Fasten the screws
5. Turn main hub on

2. Connection Guide

The maximum connection length allowed between two nodes:

Ports	Cable	Distance
10/100Base TX ports (Station Port, MDI-X)	UTP or STP straight-through cable	100 meters to a PC
10/100Base-FX	Multi-mode 62.5/125 fiber optic cable	208 meters (stand alone) 111 meters (if with 5 meters cable) cascade with another class II hub
10/100Base-TX Bridging ports (MDI-II)	UTP or STP straight-through cable	100 meters to another hub

3. SPECIFICATION

Model	DHR-8TP	DHR-BRG	DHR-1SC/ST	DHR-4ST/SC
Standard	IEEE802.3/IEEE802.3u			IEEE802.3u
Network Standard	100Base-TX: UTP/STP category 5 cable 10Base-T: UTP/STP category 3 or 5 cable 100Base-FX: Multi-mode 62.5/125 micron fiber optic cable			
Connector	8 STP RJ-45 ports for 10/100Mbps	4 STP RJ-45 ports for 10/100Mbps	3 STP RJ-45 ports for 10/100Mbps, 1 SC/ST optic fiber connector	4 SC/ST optic fiber connector
LED Indicators	Link, Activity	Link, Speed, Activity, FDX	Link, Activity,	Link, Activity
Dimension	125mm (W) x138mm (L) x34mm (H)			
Temperature	Operating: 0 to 50 degree C			
	Storage: 20 to 70 degree C			
Humidity	Operating: 10% to 90% RH			
	Storage: 10% to 90% RH			
Input Power Requirement	5V, 1.5A max.			
Registrations	FCC Part 15 Class A, CE			