PLANET
Networking & Communication

10/100Base-TX to 100Base-FX Intelligent Media Converter

WFT-20X

User's Manual

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FCC Warning

This equipment has been tested and found to comply with the regulations 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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

REVISION

User's manual for PLANET Intelligent Media Converter

For Models: WFT-201, WFT-202, WFT-202S15

Rev 1.0 (Dec. 2002)

Part No. EM-WFT20xv1

Table of Contents

The Intelligent 10/100Base-TX to 100Base-FX Media Converter series (WFT-20x) support the conversion of different media between the copper Fast Ethernet (10/100Base-TX) and fiber Fast Ethernet (100Base-FX).

The WFT-20x had built-in Micro Processor to monitor the WFT-20x status and to configure the device's advanced function. Through in-band management via TELNET, Web Browser and SNMP management utility or the out-band management via RS-232 console to monitor the status.

The WFT-20x supports SNMP agent to advise the network manager while the device occur an abnormal.

1.1 Overview of this User's Manual

Introduction. Describes the WFT-20x and its features.

Unpacking and Setup. Helps you get started with the basic installation of the WFT-20x.

Identifying External Components. Describes the front panel and LED indicators of the WFT-20x.

Configure The Media Converter. Helps you how to configure the WFT-20x.

Technical Specifications. Lists the technical (general, physical and environmental, performance and Routers settings) specifications of the WFT-20x.

Chapter 2
Unpacking and Setup

This chapter provides unpacking and setup information for the WFT-20x.

2.1 Unpacking

Open the box of the WFT-20x and carefully unpack it. The box should contain the following items:

- One Intelligent Media Converter

- One Power Cord

- One RS-232 Cable (9 pin female to 9 pin female)

- Rubber Feet

- CD-ROM

- This User's Manual

If any item is found missing or damaged, please contact your local reseller for replacement.

2.2 Setup

The setup of the WFT-20x can be performed using the following steps:

- The power outlet should be within 1.82 meters (6 feet) of the WFT-20x Converter.

- Visually inspect the AC power cord and make sure that it is fully secured to the device.

Make sure that there is proper heat dissipation from and adequate ventilation around the WFT-20x. Do not place heavy objects on the WFT-20x.

Chapter 3
Identifying External Components

This section identifies all the major external components of the WFT-20x. The front panel is shown, followed by a description of each panel feature. The indicator panel is described in detail in the next chapter.

3.1 Front Panel

The figure below shows the front panels of the WFT-20x.

LED Indicatr   Console Port   Reset   Copper port   Fiber port
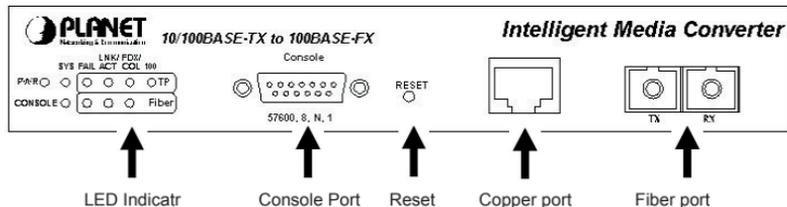
- LED Indicator Panel

    Refer to the next section for detailed information.

- Console Port (RS-232)

    To configure the device through Terminal Emulation Program via the RS-232 serial port.

- Reset

    To reset all the setting in case of messy setting.

- 10/100Base-TX Twisted-Pair Port

    The 10/100Mbps Fast Ethernet port supports automatic MDI/MDIX crossover detection function gives true 'plug and play' capability without the need of confusing crossover cables or crossover ports.

- Fiber Port

    To connect with fiber optic cable to the fiber port.

3.2 LED Indicators

PWR	Lights Green	power is inserted
SYS (System CPU)	Lights Amber	power is inserted and it is fail
CONSOLE	Blinks Green	the data is transmitting
	Blinks Amber	transmitting the wrong data
FAIL (TP/Fiber)	Lights Amber	the link is fail
LNK/ACT (TP/Fiber)	Lights Green	when link to networking Ethernet
	Blinks Green	when link is activity
FDX/COL (TP/Fiber)	Lights Green	link is in full duplex mode
	Lights Off	link is in half duplex mode
	Blinks Green	there is collision happens
100 (Speed for TP)	Lights Green	the link speed at 100Mbps
	Lights Off	the link speed at 10Mbps

Power Notice:

1. The device is a power-required device, it means, it will not work till it is powered. If your networks should active all the time, please consider using UPS (Uninterrupted Power Supply) for your device. It will prevent you from network data loss or network downtime.

2. In some area, installing a surge suppression device may also help to protect your switch from being damaged by unregulated surge or current to the media converter.

Configure The Media Converter

This chapter helps you how to configure the WFT-20x.

4.1 Configure Through Terminal Emulator/TELNET Program

4.1.1 Terminal Emulator program setting

The WFT-20x can be accessed using a terminal or terminal emulator attached to the RS-232 serial port.

1. Locate correct DB9 serial port cable with female DB9 connector.

2. Attach the DB9 serial port female cable connector to the male DB9 serial port connector on the chassis system.

3. Attach the other end of the DB9 serial port cable to a remote the workstation.

4. By default, the WFT-20x uses the following serial port parameter values:

Bits per second	57600
Stop bits	1
Data bits	8
Parity	NONE
Flow Control	NONE

The default Login name and password is both "***root***".
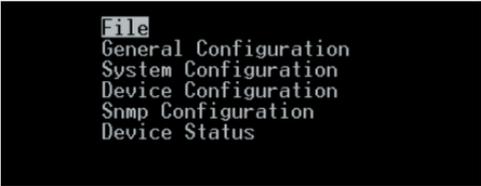
4.1.2 TELNET program setting

The WFT-20x system can be accessible using TELNET through LAN.

1. Run TELNET program.

2. Enter the IP address "192.168.1.1" (the factory-default IP address setting).

3. The default Login name and password are both "***root***".

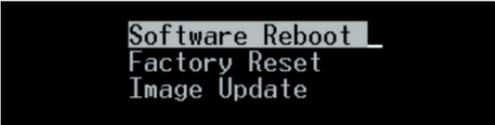### 4.1.3 Configure the Intelligent WFT-20x

4.1.3.1 Main Menu

The main menu shows the setting of the File, General Configuration, System Configuration, Device Configuration, SNMP Configuration and Device Status.

4.1.3.2 Files

To set the Software Reboot, Factory Reset and Image Update.


4.1.3.2.1 Software Reboot

After configuring the software, you need to reboot the device by pressing the Software Reboot to change the setting.

4.1.3.2.2 Factory Reset

This function is to set the device back to the factory default setting in case of the messy setting.

4.1.3.2.3 Image Update

The section is to set the TFTP Server IP Address first, and the default address was set to "192.168.1.2". The Image File can be updated by uploading the image file from the TFTP server.
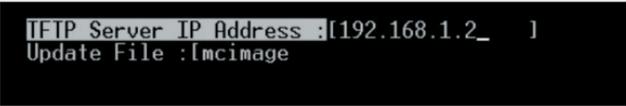
Note: The content of the image file will write the whole firmware of the management module, please be sure that the image file is correct.

4.1.3.3 General Configurations

This page is to configure the device name, passwords and location.

```
Hardware revision A1
BIOS revision 1.00
Firmware revision 1.00
Change Password:[
Confirm Password:[
System Name:[
Location:[
```

• Hardware revision: noted the version of the hardware.

• BIOS revision: noted the version of the BIOS.

• Firmware revision: noted the version of the firmware.

• Change Password: the changing of the admit password.

• Confirm Password: to confirm the setting of admit password.

• System Name: to authorize the device system name.

• Location: to show the device where it is located.

4.1.3.4 System Configurations

This page is for setting the MAC Address, IP Address, Subnet Mask and Gateway Address.

```
MAC Address : 00:40:05:13:57:90
IP Address :[172.16.2.12    ]
Subnet Mask :[255.255.0.0    ]
Default GW :[172.16.1.254   ]
```

• MAC Address: will show out the MAC address of the device.

• IP Address: to allocate an IP address for the device, the default IP is "192.168.1.1".

• Subnet Mask: to set the Subnet Mask, the default is "255.255.255.0".

• Default Gateway: to set the gateway address, the default is "192.168.1.254".

4.1.3.5 Device Configurations

This page needs to configure the Copper and Fiber Setting.

```
                        10/100T-100SX v1.0
/Device Configuration


          ---------------------------------------------------------------
              Auto        Dup      Speed      Flow Control     Enable
Copper:    [Enable ]     [Full ]   [100M ]    [Enable ]        [ON ]
Fiber:                   [Full ]
```

- Copper Setting: to set the Auto-Negotiation Mode, Duplex mode, Speed, Flow Control and Link Enable setting.

- Auto-Negotiation: when set to "Auto", it will detect the speed from other end if it will be 10Mbps or 100Mbps and will set itself to be the same speed, and when set to "Force" then it can be only set to 100Mbps or 10Mbps.

- Duplex Mode: to set the device runs in Full Duplex mode or Half Duplex mode.

- Speed: to set the device to run in speed of 10Mbps or 100Mbps.

- Flow Control: to enable or disable to flow control of the device.

- Enable: to enable or disable the linkage of the copper (RJ45).

- Fiber Setting: to set the Duplex Mode of the Fiber to be Full duplex or Half duplex mode.

  NOTE: After configuring the system device, need to press the save button to save the setting.

4.1.3.6 SNMP Configurations

To set the SNMP setting on MIB Browser to monitor the device.

```
Get Community Name :[public                          ]
Set Community Name :[private                         ]
Trap Community Name :[public                         ]
Trap Host IP Address :[192.168.1.2     ]
Cold Start Trap :[Enable ]
Warm Start Trap :[Enable ]
Authentication Fail Trap :[Enable ]
MC Link Up Trap :[Enable ]
MC Link Down Trap :[Enable ]
MC Broken Trap :[Enable ]
```

- Get Community Name: to get the device community name (default = public).

- Set Community Name: to set the device community name (default = private).

- Trap Community Name: to authorize the device trap community name (default = public).

- Trap Host IP Address: to set the trap host IP address (same as monitoring station IP address).

• Cold Start trap: to set the trap for rebooting the device (default = enable).

• Authentication Fail Trap: to set the warning trap when the community name of the device and workstation are different (default = enable).

• MC Link Up Trap: to enable the trap that if other device has linked up.

• Warm Start Trap: to enable a trap that if the device was restart.

• MC Broken Trap: to enable the trap that announcing the WFT-20x was destruct.

• MC Link Down Trap: to enable the trap that if the linked of the device was pulled down.

4.1.3.7 Device Status

This page shows that the device's copper and fiber linking status.

4.2 Configure Through Web browser

1. Open up the Internet Web browser.

2. Enter the IP address http://192.168.1.1 (the factory-default IP address setting) to the URL web address location.

3. Enter the user name and password you have configured (the default Login name and password are both "***root***).

4. The web configuration will be shown. Point the selections in the left side of the menu screen. The menu includes System Reboot, Factory Reset, Image Update, Device Status, General Configuration, System Configuration, Device Configuration and SNMP Configuration and that to be explainde in the next section.

4.2.1 System Reboot

After configuring the converter, you need to reboot the device by pressing the System Reboot to access the new setting.

Software Reboot
Reboot

4.2.2 Factory Reset

This function is to set the device back to the factory default setting in case of the messy setting.

Factory Reset
Reset

4.2.3 Image Update

This function allows you to update the firmware on the media converter. Please first setup a TFTP server and copy the firmware file to the server's directory. Enter the server's IP on the "TFTP Server IP" section the firmware file name on "Image File" section then click "Update" to update the converter's firmware. Please regularly check PLANET web site for any new available firmware.

TFTP Server Image Update	
TFTP Server IP :	192.168.1.2
Image File :	mcimage
Update	
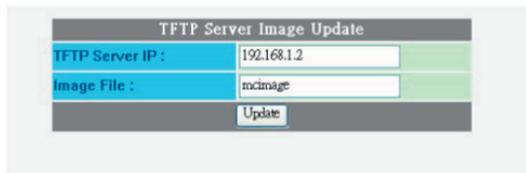
Note: The content of the image file will write the whole firmware of the WFT-20x, please be sure that the image file is correct.

4.2.4 Device Status

This page shows that the device's copper and fiber linking status.

System Status					
	Link	Speed	Duplex	Flow Control	Fail
Copper:	v	100M	F	v	x
Fiber:	x	*	*	*	v

4.2.5 General Configuration

This page is to configure the device name, passwords and location.

General Configuration	
Hardware revision :	A1
BIOS revision :	1.01
Firmware revision :	1.02
Change Password :	****
Confirm Password :	****
System Name :	WFT-201
Location :	Factory1
	Save

• Hardware revision: noted the version of the hardware.

• BIOS revision: noted the version of the BIOS.

• Firmware revision: noted the version of the firmware.

• Change Password: the changing of the administrator password.

• Confirm Password: to confirm the setting of administrator password.

• System Name: to authorize the device system name.

• Location: to show the device where it is located.

4.2.6 System Configuration

This page is for setting or displaying the MAC Address, IP Address, Subnet Mask and Gateway Address.

System Configuration	
MAC Address :	00:30:4f:47:28:e0
IP Address :	203.70.249.158
Subnet Mask :	255.255.255.0
Default GateWay :	203.70.249.254
	Save

• MAC Address: will show out the MAC address of the device.

• IP Address: to allocate an IP address for the device, the default IP is "192.168.1.1".

• Subnet Mask: to set the Subnet Mask, the default is "255.255.255.0".

• Default Gateway: to set the gateway address, the default is "192.168.1.254".

4.2.7 Device Configuration

This page needs to configure the Copper and Fiber Setting.

Configuration				
Copper Setting				
Auto Negotiation	Duplex	Speed	Flow Control	Enable
⊙ Auto ○ Force	⊙ Full ○ Half	⊙ 100M ○ 10M	⊙ Enable ○ Disable	⊙ ON ○ OFF
Fiber Setting				
Duplex				
⊙ Full ○ Half				
Save				

- Copper Setting: to set the Auto-Negotiation Mode, Duplex mode, Speed, Flow Control and Link Enable setting.

- Auto-Negotiation: when set to "Auto", it will detect the speed from other end if it will be 10Mbps or 100Mbps and will set itself to be the same speed, and when set to "Force" then it can be only set to 100Mbps or 10Mbps.

- Duplex Mode: to set the device runs in Full Duplex mode or Half Duplex mode.

- Speed: to set the device to run in speed of 10Mbps or 100Mbps.

- Flow Control: to enable or disable the flow control of the device.

- Enable: to enable or disable the linkage of the copper (RJ45).

- Fiber Setting: to set the Duplex Mode of the Fiber to be Full duplex or Half duplex mode.

    NOTE: After configuring the system device, need to press the save button to save the setting.

4.2.8 SNMP Configuration

Configuring the SNMP setting on MIB Browser to monitor the device.

SNMP Configuration			
Get Community Name :	public	Set Community Name :	private
Trap Community Name :	public	Trap Host IP Address :	203.70.249.53
Cold Start Trap :	⊙ Enable ○ Disable	Warm Start Trap :	⊙ Enable ○ Disable
Authentication Fail Trap :	⊙ Enable ○ Disable	MC Broken Trap :	⊙ Enable ○ Disable
MC Link Up Trap :	⊙ Enable ○ Disable	MC Link Down Trap :	⊙ Enable ○ Disable
Save			

- Get Community Name: to get the device community name (default = public).

- Set Community Name: to set the device community name (default = private).

- Trap Community Name: to authorize the device trap community name (default = public).

- Trap Host IP Address: to set the trap host IP address (same as monitoring station IP address).

- Cold Start trap: to set the trap for rebooting the device (default = enable).

- Authentication Fail Trap: to set the warning trap when the community name of the device and workstation are different (default = enable).

- MC Link Up Trap: to enable the trap that if other device has linked up.

- Warm Start Trap: to enable a trap that if the device was restart.

- MC Broken Trap: to enable the trap that announcing the WFT-20x was destruct.

- MC Link Down Trap: to enable the trap that if the linked of the device was pulled down.

Standards	IEEE802.3 10Base-T
	IEEE802.3u 100Base-TX, 100Base-FX
Ports	1 x 10/100 Base-TX port,
	1 x 100 Base-FX port
Speed	10/20Mbps for half/full-duplex
	100/200Mbps for half/full-duplex
LED Indicators	Unit: Power, System, Console
	TP: FAIL, LINK/ACT, FDX/COL, 100M
	Fiber: FAIL, LINK/ACT, FDX/COL
Cable	10Base-T: 2-pair UTP Cat. 3,4,5, up to 100 m (328 ft)
	100Base-TX: 2-pair UTP Cat. 5, up to 100 m (328 ft)
	100Base-FX:
	WFT-201, WFT-202 –
	62.5/125µm or 50/125µm multi-mode fiber optic up to
	2km
	WFT-202S15 –
	9/125µm single-mode fiber optic up to 15km
Power Consumption	6 Watts (maximum)
Dimensions	190 × 120 × 38 mm (L × W × H)
Power	Internal Power 100~240VAC
Temperature	Operating : 0°C ~ 40°C (32°F ~ 104°F)
	Storage : -25°C ~ 70°C (-13°F ~ 158°F)
Humidity	10 ~ 90%, non-condensing
Emissions	FCC Class B, CE Marking Class B, VCCI Class B

CE