Trademarks

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 Gigabit Ethernet Media Converter

For Models: WGT-702, WGT-702S, WGT-705A

Rev 1.0 (Mar. 2004)

Part No. EM-WGT7v2

This page is intentionally left blank

Table of Contents

This page is intentionally left blank

Chapter 1
OVERVIEW

Thank you for choosing the 1000 Base Gigabit Ethernet Media Converter, The Converter introduced here provides one channel media conversion between 1000BASE-T, 1000BASE-SX/LX and 1000BASE-SX/LX through mini-GBIC (WGT-705A only).

About Media Converter

Media Converter utilizes a network technology specified by IEEE 802.3ab and IEEE 802.3z 1000BASE- T/FX standards.

About Link Pass Through

When LLCF is enabled, the ports do not transmit a link signal until they receive a link signal from the opposite port. Link loss is "carried forward" to the managed switch or hub that is sending the link. LLCF can be used for either the copper or fiber ports.

When LLR is enabled, the fiber port's transmitter shuts down if its receiver fails to detect a valid receive link. If one of the optical conductors is bad, the card with LLR enabled will return a no link condition to its link partner. LLR is used to detect link problems only on the fiber port.

Chapter 2
PRODUCT FEATURES

- One-channel media conversion between 1000BASE-T and 1000BASE-SX/LX
- Provide one 1000BASE-T and one mini-GBIC port supporting either multi-mode or single-mode (WGT-705A)
- Fiber media allows: multi-mode fiber and single-mode fiber using SC connector
- Link Pass Through function
- Auto negotiation of duplex mode on TP port
- Auto MDI/MDI-X for TP port
- Full wire-speed forwarding rate
- Front panel status LEDs
- Used as a stand-alone device or with a chassis
- Hot-swappable when used with a chassis
- Manageable through Intelligent Chassis System

Chapter 3
MODEL LIST

Your Gigabit Ethernet Converter comes with one of the following models.

- WGT-702 1000Baes-SX Multimode, SC
- WGT-702S 1000Baes-LX Singlemode, SC, 10km
- WGT-705A Depends on the Mini-GBIC module capacity

In the following sections, the term "WGT-70X" indicates the product family above.

Chapter 4
CHECKLIST

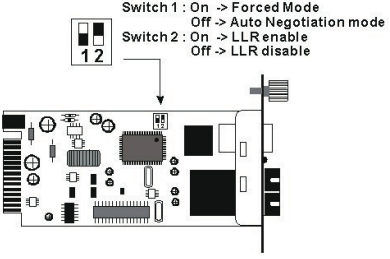
Your WGT-702/WGT-705A carton should contain the following items:

- The Gigabit Ethernet Converter
- AC-DC Power Adapter (Output: 7.5VDC, 1.5 A max.)
- This user's manual

If any item is missing or damaged, please consult the dealer from whom you purchased your Gigabit Ethernet Converter.

Chapter 5
DIP SWITCH

There is a DIP switch for the setting on copper and fiber port. Refer to the table below for more details.



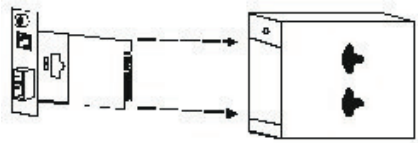
Switch 1	On	Fiber is Forced Mode
	Off	Fiber is Auto-Negotiation
Switch 2	On	LLR enable
	Off	LLR disable

✍ NOTE:

1. Be sure the opposite end is using the same setting (forced or Auto-negotiation). And when using two converters at the same time, the two converters MUST set to forced mode.
2. When using two converters, don't enable the both device's LLR function at the same time.

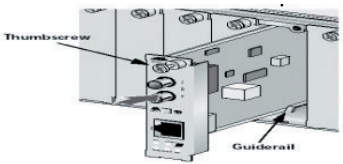
Chapter 6
INSTALLING THE CONVERTER TO CHASSIS

Step 1- Unscrew and pull out the media converter board



Step 2- Remove a blank faceplate from an empty expansion slot on the front of the chassis. The module can be installed in any expansion slot.

Step 3- Slide the module into the expansion slot, aligning it with the guiderails, until it firmly connects to the chassis' backplane.

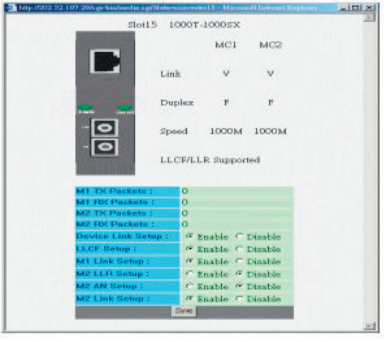


Step 4- Secure the module to the chassis by tightening the thumbscrew.

Chapter 7
MANAGE THE MEDIA CONVERTER

The Intelligent Media Converter Chassis that can control this Smart Media Converter through the management system, this Smart Media Converter can be controlled through Web Browser, SNMP management utility and terminal emulation program.

The Intelligent Media Converter Chassis will detect the setting on the DIP switches and display out the status, also the Management Chassis can control the function through the maanagement system.



✍ NOTE: To control the function in a working station, need to collocate together with Intelligent Media

Chapter 8
LED INDICATORS

The LED indicators give you instant feedback on status of the converter:

LEDs	State	Indication
PWR (Power)	Lights on	Power on
	Lights off	Power off
LINK/ACT	Lights on	Linking
	Lights Blinking	Data transmitting and receiving
	Lights off	Not Linking

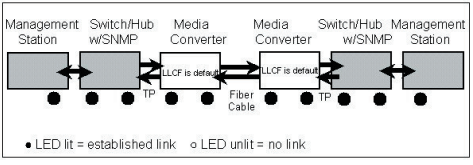
Chapter 9
LINK THROUGH FUNCTION

Link Loss Carry Forward (LLCF)

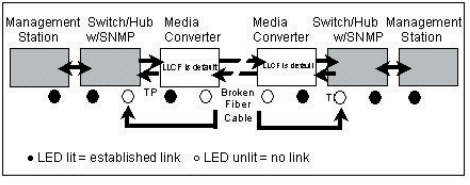
When a device connected to the converter and the TP line loss the link, the converter's fiber will disconnect the link of transmit, so that the other ends will know that there is a linkage error on this end. And when the Fiber line loss the link, the converter's TP will dis-connected, and the other end will know that there is linkage problem exist.

There is a default LLCF setting on this converter.

The diagram below shows a typical network configu-ration with a good link status using Smart Media Converter modules for remote connectivity.



If the connection breaks, the Smart Media Converter modules that link loss forward to the switch/hub which generates a trap to the management station. The administrator can then determine the source of the problem.

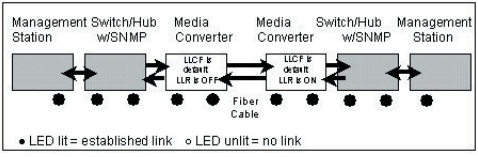


Link Loss Return (LLR)

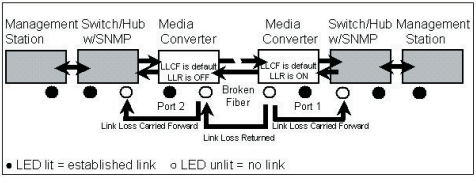
The fiber ports of the Smart Media Converter have been designed with an LLR function for trouble-shooting a remote connection. LLR works in conjunc-tion with LLCF.

When LLR is enabled*, the port's transmitter shuts down when its receiver fails to detect a valid receive link. LLR should only be enabled on one end of the link and is typically enabled on either the unmanaged or remote device.

The diagram below shows a typical network configu-ration with a good link status using Smart Media Converter for remote connectivity. Note that LLR is enabled as indicated in the diagram.



If one of the optical conductors is bad (as shown in the diagram box below), the converter with LLR enabled will return a no-link condition to its link partner. With LLCF default, the no-link condition is carried forward to the switch/hub where a trap is generated to the management station, and the administrator can then determine the source of the loss.



✍ IMPORTANT:	LLR must NOT be active on both ends of a configuration. If it is, the link can never be established.

*Units are shipped with the LLR function disabled (DOWN).

Chapter 10
PRODUCT SPECIFICATION

Standards:	IEEE802.3ab 1000BASE-T IEEE802.3z 1000BASE-SX/LX
Duplex Mode:	Full Duplex Mode
LED indicators:	PWR, LINK/ACT
Cable	1000BASE-T -- 4 pair Cat. 5, EIA/TIA-568 100-ohm screened twisted-pair (STP), up to 100m 1000BASE-SX -- 62.5/125μm multi-mode fiber optic cable, up to 220m 50/125μm multi-mode fiber optic cable, up to 550m 1000BASE-LX -- 9/125μm single-mode fiber optic cable, up to 10km
Dimensions	L 120 × W 88 × H 25 mm
Power	External power adaptor 7.5V 1.5A
Media Interface:	RJ-45, SC / Mini-GBIC
EMI Compatibility:	FCC Class B, CE Certification Class B
Temperature:	Storage: -10°C ~ 70°C Operating: 0°C ~ 40°C
Humidity:	10% ~90% non-condensing
Power Consumption:	7.2 Watts (maximum)

This page is intentionally left blank

EM_WGT7v2