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You can read the recommendations in the user guide, the technical guide or the installation guide for SMC FXST V.2 . You'll find the answers to all your questions on the SMC FXST V.2 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual SMC FXST V.2
User guide SMC FXST V.2
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Instruction manual SMC FXST V.2

Enhanced 10/ 100BASE-TX to 100BASE-FX Media Converter

User's Manual

SMCFXSC, SMCFXST, SMCFSSC



V2.0



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Manual abstract:

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COYRIGHT & WARRANTY page 2 page 4 page 6 page 16 page 17 page 18 page 21 page 23 1 INTRODUCTION Welcome Thank you for choosing the
Enhanced 10/100Base-TX to 100Base-FX Media Converter. This device integrates copper and multi-mode/single mode fiber networks in one flexible package.

Purpose This guide discusses how to setup and install your Enhanced 10/100Base-TX to 100Base-FX Converter. **Terms/Usage** In this guide, the term "Converter" (first letter upper case) refers to your Enhanced 10/100Base-TX to 100Base-FX Converter, and "converter" (first letter lower case) refers to other converters. **Features** English English · Automatic MDI/MDI-X selection on RJ-45 port · Link Fault Signaling (LFS) · Store-and-forward at full wire speed · Auto-negotiation, NWay support · Half/Full duplex mode selection · Remote and local loopback Test via DIP switch · When DIP switches are set, the system auto-reboots to new configurations without powering-off. · Extends distance of up to 2km (6600 feet) multi-mode fiber and 60km (198000 feet) long-haul single mode fiber · Compatible with other 10Base-T & 100Base-TX /FX devices · LEDs for at-a-glance device status · Suitable as stand-alone or in 19"

4/12-slot rack-mount converter chassis or the single slot mini chassis (with internal power supply) · FCC Class A & CE approved 1 2 Specifications Standard: Connector: IEEE 802.3 (10BASE-T Ethernet), IEEE 802.3u (100BASE-TX/FX Fast Ethernet) 1x duplex fiber optic connector: ST/SC types or 1x simplex fiber optic connector: WDM single fiber types 1x UTP 100/120ohm; RJ-45 type Package Contents · One converter unit · One AC adapter (please check connector type) · Self-adhesive pads (4 pieces) · User's Manual Max. Distance: UTP: 100m Cat 3/4/5 Fiber Optic: 2km MM, dual fiber 60km Long-haul SM, dual fiber 20km (66000ft) SM, single fiber 40km Long-haul SM, single fiber 2

HARDWARE DESCRIPTION Product Overview The Converter is enhanced with Link Fault Signaling (LFS) and Loopback Test (LBK) functions to offer the most comprehensive network status monitoring and connection diagnostics. It is designed for large workgroups who demand higher speed and wider bandwidth.

It allows migration and expansion from a copper-based Ethernet to a fiber optic Fast Ethernet. It features automatic MDI detection setting. This function allows for simple direct connection to a workstation, switch or hub. Therefore, network managers no longer need to worry about cable type configuration when establishing a connection between RJ-45 ports. @@@@ @@@@ When selecting a site, we recommend considering the following rules: English · Install the Converter in a fairly cool and dry place.

See Technical Specifications for the acceptable temperature and humidity operating ranges. · Install the Converter in a location free from strong electromagnetic field generators (such as motors), vibration, dust, and direct exposure to sunlight. · Leave at least 10cm of space at the front and rear of the unit for ventilation. · Affix the provided rubber pads to the bottom of the Converter to protect the case from scratching. 5 6 DIP Switches DIP 1 Enables / disables auto-negotiation (RJ-45) DIP 2 Copper port (RJ-45) duplex mode: full or half-duplex DIP 3 Copper port (RJ-45) data bit rate: 10Mbps or 100Mbps DIP 4 Fiber port duplex mode: full duplex or half-duplex DIP 5 Enables / disables Link Fault Signaling (LFS) DIP 6 Enables / disables Local Loop Back (LLB) DIP 7 Enables / disables Remote Loop Back (RLB) If NO: Set the NWay DIP switch to the OFF position.

Then Use DIP switch 2 to manually select between half (HD) and full duplex (FD) modes. Use DIP switch 3 to manually select between 10Mbps or 100Mbps speeds. Set NWay switch to OFF position when connecting to an auto-sensing device that only supports 10/100Mbps detection. Some early switch models only support auto-sensing of speed, and NOT auto detection of speed and duplex mode (auto-negotiation). **Important English Notes:** All models in this series feature the above set of DIP switches. ! In order to configure DIP switches 2 (duplex mode) and 3 (speed), you must set DIP switch 1 (NWay) to the OFF position English NWay DIP Switch Setting Use the NWay DIP switch to activate NWay operations. Factory NWay DIP switch default set to ON position. Check that the networking device to be connected to the Converter has NWay support. If YES: Check that the NWay DIP switch is set to the ON position. The Converter will automatically set the optimum speed and duplex mode on the copper segment.

Users can skip the settings for DIP switches 2 and 3, when NWay is activated. NWay DIP Switch Setting continue Setting the duplex mode is feasible while the media converter is "on-line" Note: If you experience the following problems, please check if the NWay switch is properly set. 1. The LNK (link) LED is not lit and the connection cannot be established 2. The LNK LED is lit and the connection is ok, but cannot transmit or receive data 3. The converter functions properly for a while, then, it does not work. And then it works after powering off and then on again. 7 8 Link Fault Signaling (LFS) LFS is a "nice to have" function that is extremely beneficial in terms of network status monitoring. The LFS LED will immediately light to indicate when a cable has been severed or when some other cause of disruption in service has occurred. The LFS function monitors both copper and fiber segments giving a total connection status report.

Loopback Test This Converter features DIP switches to activate both local and remote loopback diagnostic test functions. Use local loop back to check if the copper segment is connected properly, and use remote loop back to check if the fiber segment is connected properly. Please see Diagram below: Set LFS to ON position for normal operational use. Set LFS to OFF position when installing cables or when testing the network connection. Dip Switch 6 ON: enables local loop back function OFF: disables local loop back function Note: The LFS feature influences both fiber and copper segments.

Therefore, when disruption occurs on either segment, the LFS feature will be activated and the LED will light to indicate that the entire connection is down. Dip Switch 7 ON: enables remote loop back function OFF: disables remote loop back function English ! English Make sure that the cables are connected properly before getting started. Conduct either the local or remote test, not both at the same time. @@@@ By default, transmission of data will travel via the primary link. @@@@ Typically, the instructions will be similar to the following: a.



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@@Click on the START button c. @@Other methods include the use of SmartBits series testing equipment. @@@@Typically, the instructions will be similar to the following: a. @@Click on the START button c. @@@@1. @@2. @@3. Apply AC power to the Converter. (The green PWR LED on the front panel should light). 4.

@@@@@1. @@2. Plug the power adapter into an available socket. Note: For International use, you may need to change the AC power adapter cord. You must use a power cord set that has been approved for the receptacle type and electrical current in your country. This Converter can also be mounted on a vertical surface. Simply use the underside of the unit as a template to measure and mark out the position of the holes on to the sureasy to install · Adds fiber connectivity to otherwise copper based networks · Supports 10/100/1000Base, copper, fiber, single/multi-mode, ST, SC, MT-RJ, VF-45, LC, WDM connector converters · Supports one media converter · Suitable for all size of networks in all locations · Provides internal AC and DC switching power supply · Made from high quality durable steel · Optional external redundant power adapter 17 18 English Appendix B About RJ-45 Cables When connecting your network devices, use standard Category 3 eight-way cables for 10Base-T configurations and Category 5 cable for 100Base-TX. The pin assignments are as follows:
Pin Pin Pin Pin Pin Pin Pin Pin 1 2 3 4 5 6 7 8 TD+ TDRX+ N/A N/A RXN/A N/A Pair Pair Pair Pair Pair Pair 2 2 3 1 1 3 4 4 White/Orange Orange/White White/Green Blue/White White/Blue Green/White Brown/White Brown/White Affixing Brackets We have supplied 2 special brackets that easily attaches to the Converter. This allows for the secure placement of the Converter into the Chassis. It also seals off the front of Chassis and allows it to function correctly.

Step 1 Using a Phillips screwdriver, remove two screws from the side panels on the converter. Installing the Converter Once the Converter has been attached to the bracket, it can be installed into the Chassis. Special care must be taken to ensure the correct mating of the power connector. Align the Converter so that it fits between the upper and lower guide rails. Warning Always ensure that the converter power socket is positioned at the base of the Chassis.

Never force the Converter into the Chassis - check power socket position and alignment. ! English English Rear view of Chassis and specifications Step 2 Place the converter and brackets on a flat horizontal surface as illustrated above. Secure the brackets by replacing the screws. Ensure that the rails are flush-mounted with the underside of the Converter. The Converter is now ready for loading into the Chassis.

Rear View of Chassis with AC Power Supply Power: 100 - 240V AC (Optional 12V Adapter) Dimensions: 109 x 174 x 44.3 mm (L x W x H) Rear View of Chassis with DC Power Supply Power: -48V DC (Optional 12V Adapter) Dimensions: 109 x 174 x 44.3 mm (L x W x H) 19 20 Appendix D Application Diagrams To effectively expanding a Fast Ethernet network, position two converters back-to-back as illustrated. Application Diagram I In the figure below, the Converter is functioning as a high-speed bridge between switches creating increased capacity for each user (node) on the local area network. It is providing a 100Mbps full duplex link to a variety of Fast Ethernet network devices within a LAN. Switch _ CONVERTER _ CONVERTER _ Switch Application Diagram III In the figure below, the Converter is functioning as a high-speed dedicated link within a campus network configuration. It is providing a 100Mbps full duplex link to a remote network node. Switch _ CONVERTER _ CONVERTER _ Switch English English Application Diagram II In the figure below, the Converter is functioning as a server aggregation for an enterprise or LAN configuration. It is providing a 100Mbps full duplex link to a workgroups of 10/100 switches located on separate floors within a single building. Switch _ CONVERTER _ CONVERTER _ Server 21 22 Full Installation Manual Full installation manuals are provided on the Installation CD-Rom.

Manuals in other languages than those included on the CD-Rom are provided on www.smc-europe.com (section support). Firmware and Drivers For latest driver, technical information and bug-fixes please visit www.smc-europe.com (section support). Limited Lifetime Warranty Statement For detailed information on SMC's limited lifetime warranty please check the English full manual on this CD-Rom or visit www.smceurope.com (section support, product registration). Limitation of Liability In no event, whether based in contract or tort (including negligence), shall SMC be liable for incidental, consequential, indirect, special or punitive damages of any kind, or for loss of revenue, loss of business or other financial loss arising out of or in connection with the sale, installation, maintenance, use, performance, failure or interruption of its products, even if SMC or its authorized reseller has been advised of the possibility of such damages.

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