



DESCRIPTION

The iConverter 4GT standalone module is an unmanaged four-port 10/100/1000Mbps Ethernet switch that supports Half/Full Duplex and auto-negotiation on each RJ-45 port. When auto-negotiation is not available, the ports can be manually configured.

The module can be used as a tap for sniffing live traffic when MAC learning is disabled.

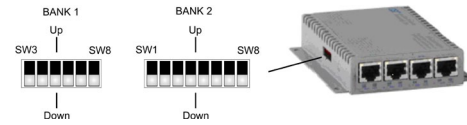
The standalone module is available with AC/DC power adapter or DC terminal. The DC terminal has a voltage range of 7 to 60VDC, allowing for variety of installation environments.

[See Data Sheet for power supply model numbers.](#)

DIP-SWITCH SETTING

DIP-Switch Bank 1

The location of the DIP-switches is shown below.



1000Mbps Manual operation is not supported. For 1000Mbps operation, configure the ports for AN operation.

The functions of DIP-switch Bank 1 are shown below.

Switch	Legend	Function	DOWN (Default)	UP
SW1		Not accessible		
SW2		Not accessible		
SW3	AN/Man	Port 1 Negotiation	AN	Man
SW4	100/10	Port 1 Speed	100	10
SW5	FDX/HDX	Port 1 Duplex	FDX	HDX
SW6	AN/Man	Port 2 Negotiation	AN	Man
SW7	100/10	Port 2 Speed	100	10
SW8	FDX/HDX	Port 2 Duplex	FDX	HDX

SW1 and SW2 - Reserved

These DIP-switches are not accessible and must be left in the factory default position.

SW3 - Port 1 "AN/Man"

When this DIP-switch is configured for AN, the port automatically determines the speed, duplex and pause capability of the connected device. When this DIP-switch is configured for Man, the speed and duplex is determined by the 100/10 and FDX/HDX DIP-switches.

SW4 - Port 1 Speed "100/10"

When the AN/Man DIP-switch is configured for AN, the 100/10 DIP-switch is ignored. When the AN/Man DIP-switch is configured for Man, the 100/10 DIP-switch determines the speed of the port.

SW5 - Port 1 Duplex "FDX/HDX"

This DIP-switch determines the duplex mode of the port when the AN/Man DIP-switch is configured for Man.

SW6 - Port 2 "AN/Man"

When this DIP-switch is configured for AN, the port automatically determines the speed, duplex and pause capability of the connected device. When this DIP-switch

is configured for Man, the speed and duplex is determined by the 100/10 and FDX/HDX DIP-switches.

SW7 - Port 2 Speed "100/10"

When the AN/Man DIP-switch is configured for AN, the 100/10 DIP-switch is ignored. When the AN/Man DIP-switch is configured for Man, the 100/10 DIP-switch determines the speed of the port.

SW8 - Port 2 Duplex "FDX/HDX"

This DIP-switch determines the duplex mode of the port when the AN/Man DIP-switch is configured for Man.

AN/Man	100/10	FDX/HDX	RJ-45 Mode of Operation
AN	10 or 100	FDX or HDX	When set to AN the following modes are advertised: 1000FDX, 1000HDX, 100FDX, 100HDX, 10FDX, 10HDX
Man	100	FDX	Port is set to manual 100FDX
Man	100	HDX	Port is set to manual 100HDX
Man	10	FDX	Port is set to manual 10FDX
Man	10	HDX	Port is set to manual 10HDX

DIP-Switch Bank 2

The functions of DIP-switch Bank 2 are shown below.

Switch	Legend	Function	DOWN (Default)	UP
SW1	AN/Man	Port 3 Negotiation	AN	Man
SW2	100/10	Port 3 Speed	100	10
SW3	FDX/HDX	Port 3 Duplex	FDX	HDX
SW4	AN/Man	Port 4 Negotiation	AN	Man
SW5	100/10	Port 4 Speed	100	10
SW6	FDX/HDX	Port 4 Duplex	FDX	HDX
SW7	Off/On	Pause	Disabled	Enabled
SW8	On/Off	MAC Learning	Enabled	Disabled

SW1 - Port 3 "AN/Man"

When this DIP-switch is configured for AN, the port automatically determines the speed, duplex and pause capability of the connected device. When this DIP-switch is configured for Man, the speed and duplex is determined by the 100/10 and FDX/HDX DIP-switches.

SW2 - Port 3 Speed "100/10"

When the AN/Man DIP-switch is configured for AN, the 100/10 DIP-switch is ignored. When the AN/Man DIP-switch is configured for Man, the 100/10 DIP-switch determines the speed of the port.

SW3 - Port 3 Duplex "FDX/HDX"

This DIP-switch determines the duplex mode of the port when the AN/Man DIP-switch is configured for Man.

SW4 - Port 4 "AN/Man"

When this DIP-switch is configured for AN, the port automatically determines the speed, duplex and pause capability of the connected device. When this DIP-switch is configured for Man, the speed and duplex is determined by the 100/10 and FDX/HDX DIP-switches.

SW5 - Port 4 Speed "100/10"

When the AN/Man DIP-switch is configured for AN, the 100/10 DIP-switch is ignored. When the AN/Man DIP-switch is configured for Man, the 100/10 DIP-switch determines the speed of the port.

SW6 - Port 4 Duplex "FDX/HDX"

This DIP-switch determines the duplex mode of the port when the AN/Man DIP-switch is configured for Man.

AN/Man	100/10	FDX/HDX	RJ-45 Mode of Operation
AN	10 or 100	FDX or HDX	When set to AN the following modes are advertised: 1000FDX, 1000HDX, 100FDX, 100HDX, 10FDX, 10HDX
Man	100	FDX	Port is set to manual 100FDX
Man	100	HDX	Port is set to manual 100HDX
Man	10	FDX	Port is set to manual 10FDX
Man	10	HDX	Port is set to manual 10HDX

SW7 - Pause "Off/On"

The Pause DIP-switch sets the flow control functionality for all four ports on the module, including pause mode advertisement, pause functionality, and half duplex back pressure.

When the DIP-switch is in the Pause Enable "On" position, flow control functionality is enabled. When this DIP-switch is in the Pause Disable "Off" position (factory default), flow control functionality is disabled.

If Pause is Enabled on the module and the port is in half duplex, then half duplex flow control is enabled. When a port is in half duplex flow control it generates a back pressure signal when internal buffer resources are low.

If Pause is Enabled on the module and the port is in full duplex, then full duplex flow control is enabled. When a port is in full duplex flow control and internal buffering resources are low, a pause frame is generated to slow down the traffic flow to the port.

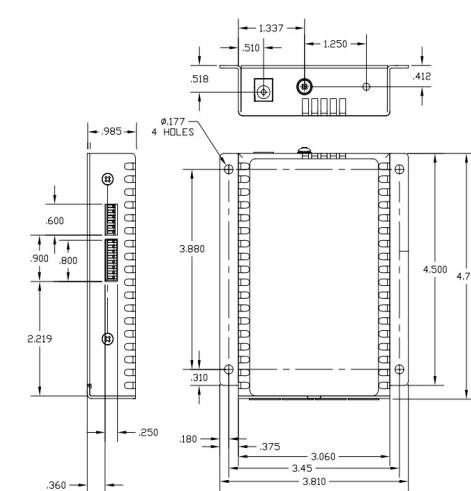
SW8 - MAC Learning

When this DIP-switch is in the Enable "On" position (factory default), all ports on the module will learn the source MAC address of each received packet and store the address so packets destined for the stored addresses can be forwarded to the appropriate interface on the module. When the DIP-switch is in the Disable "Off" position, learning is turned off and all received packets are forwarded to all ports.

LED INDICATORS

LED	Color	Description
Pwr	Yellow	Module has power
Port 1 "100"	Green	OFF: Not linked at 100Mbps ON: Linked at 100Mbps Blinking: Data activity
Port 1 "1000"	Green	OFF: Not linked at 1000Mbps ON: Linked at 1000Mbps Blinking: Data activity
Port 1 "100 + 1000"	Green	OFF: Not linked at 10Mbps ON: Linked at 10Mbps Blinking: Data activity
Port 2 "100"	Green	OFF: Not linked at 100Mbps ON: Linked at 100Mbps Blinking: Data activity
Port 2 "1000"	Green	OFF: Not linked at 1000Mbps ON: Linked at 1000Mbps Blinking: Data activity
Port 2 "100 + 1000"	Green	OFF: Not linked at 10Mbps ON: Linked at 10Mbps Blinking: Data activity
Port 3 "100"	Green	OFF: Not linked at 100Mbps ON: Linked at 100Mbps Blinking: Data activity
Port 3 "1000"	Green	OFF: Not linked at 1000Mbps ON: Linked at 1000Mbps Blinking: Data activity
Port 3 "100 + 1000"	Green	OFF: Not linked at 10Mbps ON: Linked at 10Mbps Blinking: Data activity
Port 4 "100"	Green	OFF: Not linked at 100Mbps ON: Linked at 100Mbps Blinking: Data activity
Port 4 "1000"	Green	OFF: Not linked at 1000Mbps ON: Linked at 1000Mbps Blinking: Data activity
Port 4 "100 + 1000"	Green	OFF: Not linked at 10Mbps ON: Linked at 10Mbps Blinking: Data activity

MECHANICAL



SPECIFICATIONS

Standard Compliances	IEEE 802.3		
Regulatory Compliances	Safety:	UL, CE, UKCA	
	EMI:	FCC Class A	
	ACT:	TAA, BAA, NDA	
Environmental	RoHS, WEEE, REACH		
Frame Size	Up to 10,240 bytes		
Port Types	Copper:	10/100/1000BASE-T (RJ-45)	
Cable Types	Copper:	EIA/TIA 568A/B, Cat 5 UTP and higher	
DC Power Requirements	DC Input: (Terminal)	7-60VDC, 0.3A @ 9VDC (typical) 2-Pin Terminal (non-isolated)	
	DC Input: (AC Adapter)	7-60VDC, 0.3A @ 9VDC (typical) 2.5mm Barrel Connector	
Dimensions W x D x H	3.8" x 4.8" x 1.0" (96.5 mm x 121.9 mm x 25.4 mm)		
Weight	1.0 lb. (453.6 grams) - without AC Adapter 1.5 lbs. (680.4 grams) - with AC Adapter		
Temperature	Commercial:	0 to 50°C	
	Wide:	-40 to 60°C	
	Storage:	-40 to 80°C	
Humidity	5 to 95% (non-condensing)		
Altitude	-100m to 4,000m		
MTBF (hrs)	600,000 - Module 250,000 - Module with US AC Adapter 100,000 - Module with Universal AC Adapter		
Warranty	Lifetime warranty and 24/7/365 free Technical Support		

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This product is warranted to the original purchaser (Buyer) against defects in material and workmanship for a period of two (2) years from the date of shipment. A lifetime warranty may be obtained by the original purchaser by registering this product at www.omnitron-systems.com/support within ninety (90) days from the date of shipment. During the warranty period, Omnitron will, at its option, repair or replace a product which is proven to be defective with the same product or with a product with at least the same functionality.

For warranty service, the product must be sent to an Omnitron designated facility, at Buyer's expense. Omnitron will pay the shipping charge to return the product to Buyer's designated US address using Omnitron's standard shipping method.

Limitation of Warranty

The foregoing warranty shall not apply to product malfunctions resulting from improper or inadequate use and/or maintenance of the equipment by Buyer, Buyer-supplied equipment, Buyer-supplied interfacing, unauthorized modifications or tampering with equipment (including removal of equipment cover by personnel not specifically authorized and certified by Omnitron), or misuse, or operating outside the environmental specification of the product (including but not limited to voltage, ambient temperature, radiation, unusual dust, etc.), or improper site preparation or maintenance.

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The remedies provided herein are the Buyer's sole and exclusive remedies. Omnitron shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any legal theory.

Environmental Notices

The equipment covered by this manual must be disposed of or recycled in accordance with the Waste Electrical and Electronic Equipment Directive (WEEE Directive) of the European Community directive 2012/19/EU on waste electrical and electronic equipment (WEEE) which, together with the RoHS Directive 2015/863/EU, for electrical and electronic equipment sold in the EU after July 2019. Such disposal must follow national legislation for IT and Telecommunication equipment in accordance with the WEEE directive: (a) Do not dispose waste equipment with unsorted municipal and household waste. (b) Collect equipment waste separately. (c) Return equipment using collection method agreed with Omnitron.

The equipment is marked with the WEEE symbol shown to indicate that it must be collected separately from other types of waste. In case of small items the symbol may be printed only on the packaging or in the user manual. If you have questions regarding the correct disposal of equipment go to www.omnitron-systems.com/support or e-mail to Omnitron at intlinfo@omnitron-systems.com.



MOUNTING AND CABLE ATTACHMENT

The 4GT standalone has integrated mounting brackets allowing the module to be mounted to a wall, backboard or other flat surface.

For AC models:

To power the unit using the AC/DC adapter, connect the AC/DC adapter to an AC outlet. Then connect the barrel plug at the end of the wire on the AC/DC adapter to the 2.5mm DC barrel connector (center-positive) on the unit. Confirm that the unit has powered up properly by checking the power status LED located on the front of the unit.

For DC Models:

To power the unit using a DC power source, prepare a power cable using a two conductor insulated wire (not supplied) with 12AWG to 14AWG thickness. Cut the power cable to the length required. Strip approximately 3/8 of an inch of insulation from the power cable wires. Connect the power cables to the unit by fastening the stripped ends to the DC power connector.

Connect the power wires to the DC power source. The Power LED should indicate the presence of power.

WARNING: Note the wire colors used in making the positive and negative connections. Use the same color assignment for the connection at the DC power source.

NOTE: If mounting with a safety ground attachment, use the safety ground screw at the rear of the unit.

Using a Category 5 or better Ethernet cable, attach the RJ-45 port (or ports) to a 10/100/1000 Ethernet device.

Safety Warnings and Cautions



ATTENTION: Observe precautions for handling electrostatic discharge sensitive devices.



WARNING: Potential damage to equipment and personal injury.



WARNING: Risk of electrical shock.

Customer Support Information

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