

Internet Counter iServer

iServer MicroServer™

iFPX



- ✓ Displays Rate, Frequency, Pulse, Total, Batch, and Quadrature over Ethernet and Internet
- ✓ Web-Based Interface
- ✓ No Special Software Needed
- ✓ Up to 500 kHz Input
- ✓ Chart, Bar Graph, and X/Y Displays
- ✓ 2 Channel Input/Output
- ✓ Custom Firmware and Private Labeling for OEMs

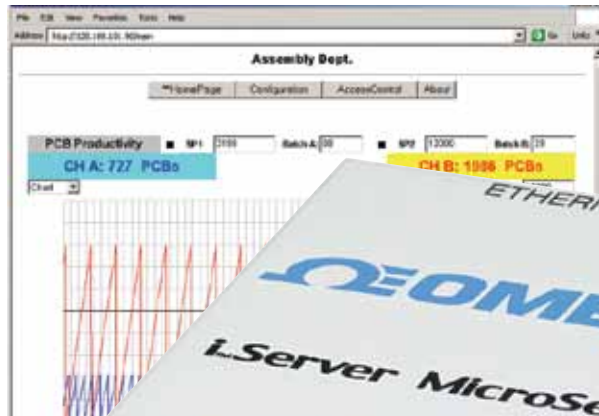
The OMEGA® iFPX internet counter puts “dumb” data on the world wide web. This revolutionary technology transmits virtually any conventional counting application up to 500 kHz over an Ethernet network or the internet.

The OMEGA iFPX (Internet Frequency Pulse Transmitter) can count contacts from the simplest button or switch, as well as count pulses from almost any conventional transducer, such as a proximity sensor or quadrature encoder. The iFPX converts raw data to intelligent information.

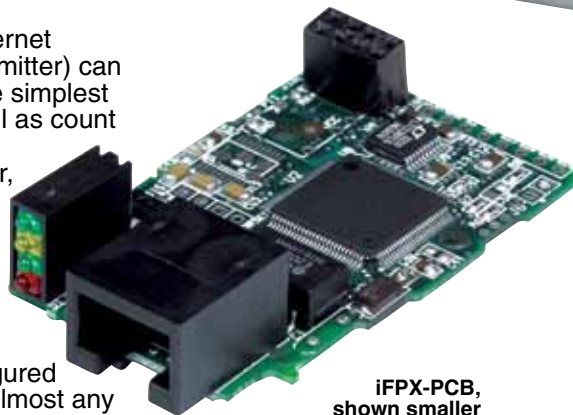
The iFPX can be configured as a virtual version of almost any rate/frequency meter, totalizer, or batch controller. It is a node on an Ethernet network with a unique IP address and serves the data to any authorized computer on a LAN, WAN or the Internet.

Setpoints can be programmed to trigger an alarm and even send email automatically to a Web-enabled cell phone.

No special software or drivers are required. A user can type the unit's IP address (or assigned name) on the address line of a Web browser such as Internet Explorer. The device then serves actual JAVA-based active Web pages that present the information numerically and graphically.



iFPX-W shown larger than actual size.



iFPX-PCB, shown smaller than actual size.

The iFPX supports the common Ethernet/Internet protocols: TCP, UDP, ARP, Telnet, DHCP, DNS, and HTTP. The device integrates seamlessly with data acquisition and industrial automation programs. The iFPX offers password protection for security.

The iFPX provides 2 discrete input/output channels. For applications that use 2 inputs, it can perform calculations with the data from channels A and B that can be presented numerically or graphically, such as charting position on an XY graph.



iFPX-D with DIN rail case, shown smaller than actual size.

The OMEGA iFPX is offered as a PC board for OEM applications, and as a stand-alone device suitable for industrial or commercial applications.



Specifications

INPUT TYPE

Dual Input A and B:

Min low level signal input (magnetic pickups); 120 mV

Open Collector NPN:

Max current source; 1.66 mA

Open Collector PNP:

Max current sink; 5 mA

TTL/CMOS Input:

Low $\leq 0.8V$, high $\geq 3.5V$
(for input; 1Hz to 30 kHz)

Low $\leq 0.8V$, high $\geq 10V$
(for input; 1Hz to 60 kHz)

OPERATING MODES

Frequency:

Range: 1 Hz to 100 kHz

Max Input Frequency:

Input level 0 to 5V; 50 kHz

Input level 0 to 12V; 100 kHz

Frequency Resolution:

1 x 10-10 Hz

Totalizer:

Range = 0 to 999999999*

Totalizer Accuracy: 0.3%

* Resolution is 1 count

A/B Totalize/Frequency

(A Input Used with B Input):

Could be A + B, A - B, A x B, A/B

Range = -999999999 to 999999999*

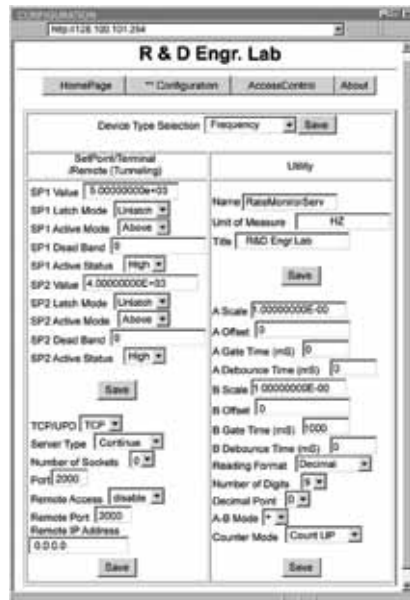
Batch: Similar to totalize except the batch = 0 to 65,535

Quadrature: Range = -999999999 to 999999999; resolution is 1 count

Output A and B: Open-collector transistors, rated 150 mA sink, 30V. For external supply.

Embedded Web Server:

Serves dynamic Web pages and Java applets (256 KB capacity)



NETWORK INTERFACE

Interface: Ethernet 10Base-T

Connector: RJ45

Protocols: TCP/IP, UDP/IP, ARP, ICMP, DHCP, DNS, HTTP, Telnet

Indicators (LEDs): Power, network activity, network link and diagnostics

Memory: 512 KB flash, 16 KB SRAM

Management: Embedded Web server, Telnet login, serial login

GENERAL

Input Impedance: 1 M Ω to +EXC 5V

Excitation: 5V at 25 mA

(per channel)

Debounce Time: Programmable

Gate Time: Programmable

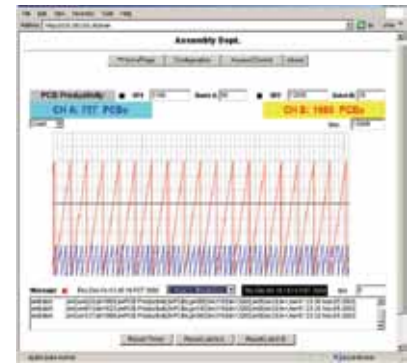
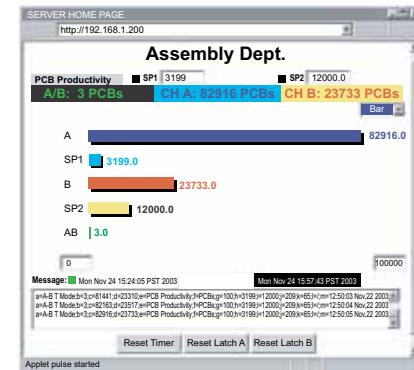
Isolation: Dielectric strength per 1 minute test based on EN 61010

iFPX-W: Power to Ethernet; 1500 Vrms; power to input/output; none; input/output to Ethernet: 1500 Vrms

iFPX-D: Pwr to Ethernet; 1500 Vrms; power to input/output; 1500 Vrms; input/output to Ethernet; 1500 Vrms

POWER

iFPX-W: 9 Vdc at 200 mA; AC/DC power adaptor included (9 Vdc at 0.5 A min)



iFPX-D: 10 to 32 Vdc; 2 W max consumption

iFPX-PCB: 5 Vdc at 150 mA

ENVIRONMENTAL

Operating Temperature: 0 to 70°C (32 to 158°F)

Storage Temperature: -40 to 125°C (-40 to 257°F)

Relative Humidity:

90% at 40°C non-condensing

PHYSICAL

iFPX-W: Metal case with flange mount

Dimensions:

20.8 H x 61.6 W x 90.3 mm D (0.83 x 2.93 x 3.56")

Weight: 180 g (0.4 lb)

iFPX-D: Polycarbonate case with DIN rail mount

Dimensions:

90.2 H x 25.1 W x 115.0 mm D (3.54 x 0.99 x 4.53")

Weight: 113 g (0.25 lb)

iFPX-PCB: circuit board; FR-4

Board Surface Area: Approximately 76 mm² (3 in²)

Weight: 23 g (0.05 lb)

To Order

Model No.	Input	Physical
iFPX-W	Up to 100 kHz with EMC filtering	Metal case, with AC adaptor
iFPX-D		DIN rail mount
iFPX-PCB*		PC board, TTL serial interface
iFPX-W5	Up to 500 kHz without EMC filtering	Metal case, with AC adaptor
iFPX-D5		DIN rail mount
iFPX-PCB5*		PC board, TTL serial interface

* Consult OMEGA for application assistance and quantity pricing.

Accessory

Model No.	Description
iDRN-PS-100	95 to 240 Vac power supply, 24 Vdc output @ 850 mA DIN rail mount; for up to 7 units

Ordering Examples: **iFPX-W** iServer MicroServer™ for frequency inputs to 100 kHz, with AC adaptor.

iFPX-D5 DIN rail mount industrial iServer MicroServer™ for frequency inputs to 500 kHz, with **iDRN-PS-100**, DIN rail mount power supply.