



PRELIMINARY INFORMATION, November 10, 2001

ESPSX3 Ethernet Serial Port Server X 3

The ESPSX3 is an Ethernet Serial Port Sever with two RS232 and one RS232/RS485/RS422 ports. The R485/RS422 port has galvanic isolation for industrial/robust applications. These ports can be accessed via the local network or over the World Wide Web. ESPSX3 configuration can be accomplished via the web browser, windows configuration software, or with DHCP/BOOTP protocol.

Factory Default Settings:

PORT	BAUD	TCP/IP	PORT
COM1	9600,N,8,1*	BOOTP/DHCP ENABLED	9101
COM2	9600,N,8,1	DEFAULT IP : 128.0.0.100	9102
COM3	9600,N,8,1	NETMASK : 255.255.255.0	9103

* Communications N,8,1 = no parity, eight bits, one stop bit

JUMPER SETTINGS

J10	FUNCTION
I	Normal operation of COM3
R	Enable Monitor Configuration Via COM3 at 9600

J11	FUNCTION
I	Normal operation
R	On power on factory defaults a restored, must be installed for normal operation.

Windows 98/ME/NT/2000 Configuration Utility

R.E. SMITH TCP/IP CONFIGURATION UTILITY

IP Search

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CONFIGURATION | **TERMINAL**

SERIAL PORT CONFIGURATION

	PORT ADDRESS	BAUD	DATA BITS	STOP BITS
PORT 1	9101	9600	8	1
PORT 2	9102	9600	8	1
PORT 3	9103	300	8	1

DEFAULT IP PARAMETERS

IP ADDRESS: 128.0.0.100

NETMASK: 255.255.255.0

GATEWAY:

CONFIG PROTOCOL

DHCP/BOOTP ☒ RARP ☐
 BOOTP ☐ STATIC ☐

SEARCH

SERIAL SERVERS

MAC ADDRESS	IP ADDRESS
00:90:C2:C0:20:75	128.0.0.205
00:90:C2:C0:20:1F	128.0.0.206

Search Network: 128 . 0 . 0 . 255

SEARCH **SAVE SETTINGS**

00:90:C2:C0:20:75
 Make changes on left and click save settings, make sure to select protocol.

The TCP/IP Configuration Utility can be used to search a given network for serial server devices. In the above screen capture the network 128.0.0.xxx is searched this includes TCP/IP addresses 128.0.0.1 – 128.0.0.254. In this case the DHCP (Dynamic Host Configuration Protocol) server assigned addresses of 128.0.0.10 and 128.0.0.11 to the serial port servers. The user can configure a device with this software after selecting from the list of serial port servers found, then changing the appropriate parameters and then pressing the “SAVE SETTINGS” button. Note! The user must fill in the appropriate search Network for the search to work.

A second method for configuration can be done via COM3 with Jumper J10 removed, the following menus will be displayed after a carriage return is sent to COM3.

MAIN MENU

1. DISPLAY CURRENT SETTINGS
2. SETUP IP PARAMETERS
3. SETUP GATEWAY ADDRESS
4. ENABLE/DISABLE DHCP CONFIGURATION
5. SETUP PORT NUMBERS
6. RESET FACTORY DEFAULTS
7. REBOOT TO USE MODIFIED SETTINGS

Sub Display (1)

```
CURRENT SETTINGS
DEFAULT TCP SETTINGS :
TCP/IP Address : 128.0.0.10
NETMASK : 255.255.255.0

DEFAULT GATEWAY : ...

***** CONFIGURED FOR STATIC ADDRESS
```

Sub Display (2) Enter TCP/IP parameters

```
Enter TCP/IP Address : 128.0.0.12
128.0.0.12
Enter Netmask : 255.255.255.0
255.255.255.0
NOTE! TO ENABLE STATIC YOU MUST DISABLE DHCP (option 4)
AND THEN REBOOT!
PRESS ENTER TO CONTINUE
```

Sub Display (3) Enter Gateway parameters

```
GATEWAY NOT SUPPORTED THIS VERSION
```

Sub Display (4) Enable/Disable DHCP

```
USE DHCP Y/N (Enter 'N' for Static Address) : y
  USING DHCP ASSIGNED ADDRESS WHEN REBOOTED
  PRESS ENTER TO CONTINUE
```

Sub Display (5) Setup Port Numbers

```
PORT NUMBERS ARE CONFIGURED ON WEB PAGE
```

Sub Display (6) Reset Factory Defaults

```
FACTORY DEFAULTS HAVE BEEN RESTORED
REBOOTING PLEASE WAIT
```

Sub Display (7) Reboot

```
Rebooting Please Wait:
```

Once the TCP/IP address is known the user can adjust settings via their web browser.

ESPSX3 CONFIGURATION - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print Mail News RSS Feeds

Address http://128.0.0.205/ Go Links >>

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MODEL ESPSX3 - ETHERNET SERIAL PORT SERVER - RS232/RS485/RS422

IP ADDRESS CONFIGURATION		DEFAULT IP PARAMETERS	
SOFTWARE VERSION : OCT 14, 2001		ADDRESS: <input type="text" value="128"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="100"/>	
ENABLE DHCP: <input checked="" type="radio"/> USE STATIC ADDRESS: <input type="radio"/>		SUBNET MASK: <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="0"/>	
		DEFAULT GATEWAY: <input type="text" value=""/> . <input type="text" value=""/> . <input type="text" value=""/> . <input type="text" value=""/>	


COMMUNICATION PORT SETUP				
COMM PORT	BAUD RATE	DATA BITS	STOP BITS	NETWORK PORT
1	<input type="text" value="9600"/>	8	1	<input type="text" value="9101"/>
2	<input type="text" value="9600"/>	8	1	<input type="text" value="9102"/>
3	<input type="text" value="9600"/>	8	1	<input type="text" value="9103"/>

PRESS SUBMIT TO UPDATE CONFIGURATIONS SETTINGS

Done Internet

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CONFIGURATION | TERMINAL

SERIAL PORT CONFIGURATION

	PORT ADDRESS	BAUD	DATA BITS	STOP BITS
PORT 1	9101	9600	8	1
PORT 2	9102	9600	8	1
PORT 3	9103	9600	8	1

DEFAULT IP PARAMETERS

IP ADDRESS
128.0.0.206

NETMASK
255.255.255.0

GATEWAY
...

CONFIG PROTOCOL

DHCP/BOOTP ☒

RARP ☐

BOOTP ☐

STATIC ☐

LAB1

SEARCH

SERIAL SERVERS

IP ADDRESS	LOCATION/NAME
128.0.0.206	LAB1

Search Network: 128 . 0 . 0 . 255

SEARCH

☐ MAC ADDR
☒ IP ADDRESS

GET SETTINGS
SAVE SETTINGS

00:90:c2:c0:20:75
 Make changes on left and click save settings, make sure to select protocol.

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CONFIGURATION | TERMINAL

G0303F0-0000030175*L0303F0

Address: 128.0.0.206

Port: 9103

Close

STATUS: CONNECTED 128.0.0.206 9103

TCP/IP USING VISUAL BASIC

Accessing the Ethernet serial port server via the internet or local area network using Visual Basic 6.0 or higher. Note!

1. First open ESPSX3 serial port 1 with the Winsock component.

```
Winsock1.RemoteHost = "128.0.0.206"  
Winsock1.RemotePort = "9101"  
Winsock1.Connect
```

2. Second, Send to Serial Port 1 on the ESPSX3

```
Winsock1.SendData ("HELLO WORLD")
```

3. Finally, Data can be received with the DataArrival event.

```
Private Sub Winsock1_DataArrival(ByVal bytesTotal As Long)  
    Dim strData As String  
    Winsock1.GetData strData, vbString  
End Sub
```

There are several other event functions available for the Winsock component including (Connect, Close, ConnectionRequest, DataArrival, Error, SendComplete, and SendProgress).