

TCP Server mode for ATEN Secure Device Server

This tech note applies to the following ATEN Secure Device Server models:

Model	Product Name				
SN3001	1-Port RS-232 Secure Device Server				
SN3001P	1-Port RS-232 Secure Device Server with PoE				
SN3002	2-Port RS-232 Secure Device Server				
SN3002P	2-Port RS-232 Secure Device Server with PoE				

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A. What is TCP Server mode?

SN (Secure Device Server) configured as TCP Servers can be connected by host PCs running TCP client programs and securely collect data from them over a network. TCP Server mode can be simultaneously connected to and collect data from up to 16 host PCs.





B. How to configure TCP Server mode?

The following procedures use SN3002P as an example:

- 1. Using a null modem cable, connect the SN's serial port 1 to a serial device (e.g. PC's COM port, CNC machine, etc.).
- 2. Using an Ethernet cable, connect the SN's LAN port to your local network.
- On a host PC, use IP Installer utility (can be downloaded from SN's product page) to discover the IP address of the SN3002P.



- 4. Using a web browser, enter the SN3002P's IP address, and log in.
- 5. Under Serial Ports, click the EDIT button of Port 1.

										P 👗 💡
	TEN SN3002P									
				Port Name	Operating Mode	Ethernet Port	Baud Rate	Online	In Use	Action
	Serial Ports		 [01]	Port 1	Real COM	5200	9600	Online	No	EDIT DUMP BUFFER
*	Network		 [02]	Port 2	Real COM	5200	9600	Offline	No	EDIT DUMP BUFFER
٥	System	^								
	General Settings									
	Notification									
	Security									
	Update & Restore									
÷	User Accounts	~								
Ē	Logs									
				ATE	N International Co., Ltd	All rights reserved.				



6. Under *PROPERTIES*, configure the necessary serial communication settings (e.g. baud rate, parity, etc.) to match with the connected serial device.

								P 🕹 📀
E1	TEN 5N300	Edit					×	Action
-		PROPERTIE	OPERATING MODE	PORT BUFFERING				
	Network							
ø	System	Port num	ber		1			
	General Settings	Port name			Port 1			
	Notification	Baud rate			9600		-	
		Parity			None		•	
	Security	Data bits			8 bits		•	
	Update & Restore	Stop bits			1 bit		-	
.	User Accounts	Flow cont	rol		None		•	
Ë								
						SAVE & APPLY ALL	SAVE CANCEL	
				ATEN International	Co., Ltd.All rights reserv	ed.		

7. Under *OPERATING MODE*, select **TCP Server** from the dropdown list. Optionally enable the **Secure transfer** option if you want the data to be encrypted and transmitted securely over a network.

			۶ ۴	0
ENEN SN300	Edit	×	Action	
📟 Serial Ports	PROPERTIES OPERATING MODE PORT BUFFERING	זעסן ד	MP BUFFER	
🛃 Network				
Svstem	Mode	Real COM -	MP BUFFER	
• •)•••••	Secure transfer	Console Management		
User Accounts		Real COM		
😑 Logs		TCP Server		
		TCP Client		
		UDP		
		Serial Tunnel Server		
		Serial Tunnel Client		
		Disabled		
		SAVE & APPEL ALL SAVE CANCEL		
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Note: When *Secure transfer* is enabled for secure connection, every connecting serial device must be connected via another SN device, in *TCP Client* mode with *Secure transfer* enabled.



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8. Once configured, the Ethernet port of SN3002P's port 1 is assigned to 5301, the port number for TCP communication.

	 							P 🛓 😧
SN3002P								
😑 Serial Ports		Port Name	Operating Mode	Ethernet Port	Baud Rate	Online	In Use	Action
	 [01]	Port 1	TCP Server	5301	9600	Online	No	EDIT DUMP BUFFER
	 [02]	Port 2	TCP Client		9600	Offline	No	EDIT DUMP BUFFER
System V								
💄 User Accounts 🛛 🗸 🗸								
🚊 Logs								
		AT	EN International Co., Lt	d.All rights reserved.				

Note: The Ethernet port is assigned based on **base socket** settings in *System > General Settings > Service Ports.*



C. How to test TCP Server mode?

Using PC1 as the TCP client and PC2's COM port as a serial device, presume the settings of the SN3002P have been properly configured, as mentioned in the previous section.



1. On PC1, use TCP Test Tool, a third-party utility, to send or receive data to or from PC2, as illustrated below.

Client Fort IP Address/Name Fort 10.3 66.129 5301 Elapo Tima Connection Status 00.00.30 Reset	- Server Current Connections 0/250 Set Listening Port 12345 Bind
Edit/Send Data	Edit/Send Data Enter data to send
ASCII Hex Line Feel Carriege Return Arb Send Send every 1 zec. Edu/Data Log	ASCII Hex Line Feed Carniage Return Auto Send Send every 1 sec. Clear Send EditDeta Log
Display data as:	Display dals as: ASCII Binary Decimal Hex HEX Dala Log
Diphy Sound Time Date Enabled ClearLog	Dipley Sound Tune Dele Enabled Clear Log

2. On PC2, use Putty, a third-party utility, to configure its serial communication settings, as illustrated below.



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3. On the TCP Test Tool of PC1 (host), you can enter any text to test if it can be received by the Putty of PC2 (serial device), as exemplified below.

TCP Test Tool 3.0 <u>File Edit Clear H</u> elp	<pre>@ COM1-PuTTY kello</pre>	X
Client IP Address/Name 10.3.66.129 5301 Disconnect		
Elaps Time 00.09.28 Reset Edit/Send Data		
hello		
PC1 PC1 PC1 PC1 PC1 PC1 PC1 PC1		PC2

Note: Conversely, you can also enter any text on the Putty of PC2 to test if it can be received by the TCP Test Tool of PC1.

D. Appendix

ATEN Secure Device Server Pin Assignment

Pin	Configuration
r m	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS