

UDP 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					
SN3401	1-Port RS-232/422/485 Secure Device Server					
SN3401P	1-Port RS-232/422/485 Secure Device Server with PoE					
SN3402	2-Port RS-232/422/485 Secure Device Server					
SN3402P	2-Port RS-232/422/485 Secure Device Server with PoE					

Table of Contents

Α.	What is UDP mode?	1
В.	How to configure UDP mode?	2
C.	How to test UDP mode?	5
D.	Appendix	6
	ATEN Secure Device Server Pin Assignment	6

A. What is UDP mode?

UDP mode is a faster, simpler, and more efficient way to unicast or multi-unicast data from a serial device to one or multiple host computers and vice versa. UDP mode does not undergo any error checking nor data encryption and is suitable for message display-related applications.



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B. How to configure UDP 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, LED signboard, etc.).
- 2. Using an Ethernet cable, connect the SN's LAN port to your local network.
- 3. 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.

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	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 🗸 🗸									
Ë	Logs									
		-		AT	EN International Co., Lte	d.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.

							¥	- 0	
13	IEN SN300	Edit				×	Action		
	Serial Ports	PROPERTI	S OPERATING MODE	PORT BUFFERING					
	Network								
٥	System	Port nun	hber		1				
	General Settings	Port nan	1e		Port 1				
	Notification	Baud rat	e		9600	•			
		Parity			None	•			
	Security	Data bits	5		8 bits	•			
	Update & Restore	Stop bits			1 bit	•			
.	User Accounts	Flow cor	itrol		None	-			
Ë	Logs								
					SAVE & APPLY AL	L SAVE CANCEL			
	ATEN International Co., Ltd All rights reserved.								

7. Under *OPERATING MODE*, select **UDP** from the dropdown list. Enter the *IP address(es)* of the host computers you want to send or receive data to or from, with a UDP port number of 5301.

						P 🕹 🕜			
TEN SN300	Edit				×	Action			
📟 Serial Ports	PROPERTIES OPERATING MODE PORT BUFFERING								
Retwork					^				
🗿 System	Mode	UDP			-				
Luser Accounts	Destination host 1	Start IP 10.3.200.22	End IP 10.3.200.22	Port 5301					
🚊 Logs	Destination host 2	Start IP	End IP	Port 0					
	Destination host 3	Start IP	End IP	Port 0					
	Destination host 4	Start IP	End IP	Port 0					
	Destination host 5	Start IP	End IP	Port 0					
			SAVE & APPLY ALL	SAVE	CANCEL				
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8. Once configured, the Ethernet port of SN3002P's port 1 is assigned to 5301, the port number for UDP communication.

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A TE	EN SN3002P										
					Port Name	Operating Mode	Ethernet Port	Baud Rate	Online	In Use	Action
Se Se	erial Ports			[01]	Port 1	UDP	5301	9600	Online	Yes	EDIT DUMP BUFFER
📑 Ne	etwork			[02]	Port 2	TCP Client		9600	Offline	No	EDIT DUMP BUFFER
🗿 sy	ystem	~									
💄 Us	ser Accounts	~									
🚊 Lo	ogs										
	ATEN International Co., Ltd.All rights reserved.										

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



C. How to test UDP mode?

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



1. On PC1, enter the IP address of SN3002P and port 5301 on UDP Client Server, a third-party utility, to send and/or receive data to and/or from PC2, as illustrated below.



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



5

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3. On the UDP Client Server of PC1, you can enter any text to test if it can be received by PC2, as exemplified below.

UDP Client Server	B COM1 - PuTTY	
Udo Client Server	P	
Network Utility for Testing Network Programs		
UDP Client Server Interface: 10.3.200.22 IP: 10.3.66.129 Port: 5301		
Start Server Shutdown Send Text	8	
Send hello	-	
PC1		PC2

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

D. Appendix

ATEN Secure Device Server Pin Assignment

Pin	Configuration										
	RS-232	RS-422/RS-485 (4-wire)	RS-485 (2-wire)								
1	DCD	RxD- (A)									
2	RxD	RxD+ (B)									
3	TxD	TxD+ (B)	Data+ (B)								
4	DTR	TxD- (A)	Data- (A)								
5	GND	GND	GND								
6	DSR	-									
7	RTS	-									
8	CTS	-									
9	-	-	-								