



# **SerialComm ETH-SER-EE9 AT Command Configuration Guide**

**Version 1.0 - January 20, 2015**

## CHANGE HISTORY

Version	Date	Description of Changes
1.0	January 20, 2015	Initial Publication of Document

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## 1 SCOPE

This configuration guide describes the AT Command Set used with SerialComm's ETH-SER-EE9 Serial Device Server (Ethernet to Serial Converter). Use of the AT Command Set requires an active and open virtual COM port accessing the ETH-SER-EE9.

## 2 AT COMMAND SET

The ETH-SER-EE9 can be configured by the serial port using the AT Command Set. The AT Command Set is a standard configuration interface that configures and displays the main functions of ETH-SER-EE9. It is an option to use the AT Command Set and is not necessary if configuring the Ethernet port with the VSP software management system and built in browser-based configuration tool. The AT Command Set is useful if you are using SCM (Software Configuration Management) or your own software to configure the ETH-SER-EE9. In order to use the AT Command Set it is necessary to have an established and working virtual COM port.

### 2.1 AT COMMAND TYPE

AT Commands are supported by the ETH-SER-EE9. They are case sensitive and always begin with "AT" and end with "\r\n" (Enter/Line Feed). Return values and the format of the parameter description are fixed. There are three types of AT Commands; Non-parameter Command, Query Command, and Parameter Command.

**Non-parameter Command:** This command type is the simplest type; no parameters are required. The format is AT + Space + [command]\r\n. For example, the quit command is AT + Space + QUIT\r\n.

**Query Command:** This command type is used for querying the configuration command. The format is AT + Space + [command]?\r\n. For example, the name command is AT + NAME? \r\n.

**Parameter Command:** This is the most widely used format. It is used to enter configuration parameters. The format is AT + Space + [command] = [],[],[]..r\n. For example, the IP command is AT+IP=192.168.1.254\r\n.

### 2.2 TYPICAL COMMAND RESPONSES

The following table shows the typical command errors and successful responses:

Type	Condition	Return Value
Incorrect info	No Login	No Login! ERROR
	Command does not have an "AT"	Not Supported! ERROR
	"AT+LOGIN" Login, password incorrect	ERROR
	Command non-existent	Not Supported! ERROR
	When configure parameters, such as the parameter type is incorrect or input parameter was out of range	ERROR
	Input parameters quantity less than the required parameters	ERROR
	Configure the display-only parameters	Not Supported! ERROR
Correct info	Query command, display the current value	display the correct parameter, OK
	Parameters configure successful	OK

## 2.3 AT COMMAND DEFINITION TABLE

This table defines the supported AT Commands:

NO.	AT Command	Operation Description	Parameters Description	Function Description
1	LOGIN	At +Space+login="N"	N consists of letters and/or numbers and the length is less than 30 characters. It is case sensitive	If the user name and password is correct, then you can enter AT commands
2	QUIT	AT+Space+QUIT	Quit AT operation. If did not restart the device, operation disable	Use to query the parameter
3	ETH	AT+Space+ETH="N"	N is "0-N" N is the network card subtracted by 1. Used with multiple network cards	Set the network card. Support multiple network cards
		AT+Space+ETH?	Display current network card	

4	COM	AT+Space+COM= "N"	N is corresponding serial port	Set serial port, used with multiple serial ports.
		AT+Space+COM?	Display current serial port	
5	SES	AT+Space+SES= "N"	N are sessions, range: 0-3, total 4 sessions, default is 0	Configure and display current session
		AT+Space+SES?	Display current session	
6	ECHO	AT+Space+ECHO= "N"	N is 0 or 1. If N is 1 supports Echo. IF N is 0, does not support echo	Set AT command echo or not
		AT+Space+ECHO?	Display support echo or not	
7	DEF	AT+Space+DEF	No parameter	Default factory
8	RBT	AT+Space+RBT	No parameter	Device restart
9	SAVE	AT+Space+SAVE	No parameter	Save current parameter and write into flash or eeprom
10	VER	AT+Space+VER	No parameter	Display the version of software and hardware
11	TYPE	AT+Space+TYPE= "N"	N are characters including letters, digits, dash ('-') and underscore ('_'). No more than 30 characters. It is case sensitive	Set or display description information
		AT+Space+TYPE?	display description information	
12	NAME	AT+Space+NAME= "N"	N are characters including letters, digits, dash ('-') and underscore ('_'). No more than 30 characters. It is case sensitive	Set or display name information
		AT+Space+NAME?	Display name information	
13	MAC	AT+Space+MAC?	Display MAC address	Please did not modify the MAC address
14	IPM	AT+Space+IPM= "N"	N is 0 or 1. 0 is dynamic IP, 1 is static IP	Set or display dynamic or static IP mode
		AT+Space+IPM?	Display current IP mode	
15	IP	AT+Space+IP= "N"	N is a legal IP address, can set as octal, decimal or	Set or display IP address, save it as configured

			hexadecimal, but display is decimal	address. Effect or not, it is up to IP mode
		AT+Space+IP?	Display current IP address	
16	MASK	AT+Space+MASK="N"	N is a legal Mask address, can set as octal, decimal or hexadecimal, but display is decimal	Set or display the Mask address. Save it as configured address. Effect or not, it is up to IP mode
		AT+Space+MASK?	Display current Mask address	
17	GATE	AT+Space+GATE="N"	N is a legal Gateway address, can set as octal, decimal or hexadecimal, but display is decimal	Set or display Gateway address, save it as configured address. Effect or not, it is up to IP mode
		AT+Space+GATE?	Display current Gateway address	
18	DNSM	AT+Space+DNSM="N"	N is 0 or 1. 0 is the DNS working mode as static, 1 is DNS working mode as dynamic	Set or display the DNS address, save it as configured address. Effect or not, it is up to IP mode
		AT+Space+DNSM?	Display current DNS working mode	
19	DNSA	AT+Space+DNSA="N"	N is a legal DNS address. You can set as octal, decimal or hexadecimal, but display is decimal	Set or display the DNS address. Save it as configured address. Effect or not, it is up to IP mode
		AT+Space+DNSA?	Display current DNS address	
20	SYSWM	AT+Space+SYSWM="N"	N is 0 or 1. 0 is in low consumption, 1 is in high consumption	Set or display system working mode
		AT+Space+SYSWM?	Display system working mode	
21	SESE	AT+Space+SESE="N"	N is 0 or 1, 0 is session enable valid, 1 is session enable invalid	Set or display the session. You can just set the session when the session is enabled
		AT+Space+SESE?	Display the status of session enable	
22	WM	AT+Space+WM="N"	N is 0,1, 2 or 3. 0 is UTP mode, 1 is TCP Server mode, 2 is TCP Client mode and 3 is	The setting is available in RealCOM, Socket and

			TCP Auto mode	Pair Connection modes
		AT+Space+WM?	Display current working mode	
23	SESS	AT+Space+SESS?	Display is 0, disconnect, 1, Must be connected	Display the information after the session connection
24	LP	AT+Space+LP= "N"	N is an integer from "1–65535". Includes 1 and 65535	Set or display Destination port information
		AT+Space+LP?	Display Destination port information	
25	DAF	AT+Space+DAF= "N"	N is 0 or 1. 0 is the current IP address, 1 is the current domain name address	Set or display the current IP address of the current session
		AT+Space+DAF?	Display the current format of destination address (IP address, domain name address)	
26	DIP	AT+Space+DIP= "N"	If DAF=0 then can set DIP value, N as a legal IP address	Set or display the current IP address of the current session
		AT+Space+DIP?	Display the destination IP address. Display the current IP address. N is a legal Mask address and can be the set as octal, decimal or hexadecimal, but display is decimal	
27	DDN	AT+Space+DDN= "N"	If DAF=1 then can set DDN value. N is a legal domain name address, including letters, digits, dash ('-') and underscore ('_'). No more than 30 characters. It is case sensitive	Set or display the current domain name address of the current session
		AT+Space+DDN?	Display the current domain name address	
28	DP	AT+Space+DP= "N"	N is a integer in "1–65535", includes 1 and 65535	Set or display the information of destination port number
		AT+Space+DP?	Display port number	



			information	
29	CM	AT+Space+CM= "N"	N is 0 or 1. 0 is connect immediately (power on, connect). 1 is "trigger mode" (It is available once in working mode in the TCP client or PPPOE mode.) 0 is keep connection	Set or display the information of the connection mode
		AT+Space+CM?	Display session's connection mode (Trigger or Connect immediately)	
30	KAT	AT+Space+KAT= "N"	N is a integer in "1-65535", including 1 and 65535	Set or display the time of keep-live
		AT+Space+KAT?	Display keep-live time	
31	COMM	AT+Space+COMM= "N"	N is 0 or 1. 0 is half-duplex, 1 is full-duplex	Set or display serial working mode
		AT+Space+COMM?	Display serial working mode (half or full duplex)	
32	RCE	AT+Space+RCE= "N"	N is 0 or 1. 0 is RealCom close mode, 1 is RealCom open mode	Set or display the RealCom working mode
		AT+Space+RCE?	Display RealCom information	
33	BR	AT+Space+BR?	Display baud rate	Set or display the serial baud rate
		AT+Space+BR= "N"	Set baud rate N to 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600 or 115200	
34	DB	AT+Space+DB= "N"	N is 5, 6, 7 or 8. The data bits. If in 5 bit, can transfer maximum decimal of 31, hexadecimal 1F. If in 6 bit, can transfer maximum decimal of 63, hexadecimal 3F. If in 7 bit, can transfer maximum decimal of 127, hexadecimal 7F. If in 8 bit, can transfer maximum decimal of 255, hexadecimal FF	Set or display the length of the serial data bits
		AT+Space+DB?	Display serial data bit	

35	PT	AT+Space+PT= "N"	N is 0, 1, 2 or 3. 0:none 1:even 2:odd 3:space 4:mark	Set display parity: (0:none 1:even 2:odd 3:space and 4:mark)
		AT+Space+PT?	Display parity	
36	SB	AT+Space+SB= "N"	N is 0 or 2. 0 is 1 bit; 2 is 2 bit	Set or display stop bits (0:1bit and 2:2bit)
		AT+Space+SB?	Display stop bit	
37	LEN	AT+Space+LEN= "N"	N is the length of character string, range is 1-1024 includes 1, 1024	Set or display the information of the serial data frame
		AT+Space+LEN?	Display the length of the serial data frame	
38	DLY	AT+Space+DLY= "N"	N is the length of the character string, range is 1-500 includes 1, 500	Set or display the length of the character string
		AT+Space+DLY?	Display the length of character string	
39	UN	AT+Space+UN= "N"	N is user name, it consists of letters and/or numbers. It is case sensitive	Set user name
40	PWD	AT+Space+PWD= "N"	N is password, it consists of letters and/or numbers, it is case sensitive	Set password
41	AIMC	AT+Space+AIMC= "N"	N is 0 or 1. 0 is CtrlBreak inactive, 1 is CtrlBreak active. With N = 1, press "Ctrl+Break", to enter hyper terminal	Set or display the information of CtrlBreak
		AT+Space+AIMC?	Display the status of CtrlBreak	
42	AIMS	AT+Space+AIMS= "0/1+Space+xx-xx-xx"	xx value is 01-1F. if the format is "0+Space+xx-xx-xx" then just require to close this function. The format can as simple as "0+Space+0". If you want to zero clear, can set all xx to 0 (must be 0). If the format is "1+Space+xx-xx-xx", it opens the trigger	Set or display the trigger mode of character string

			mode of character string, and sets the character string.	
		AT+Space+AIMS?	Display the information of character string	
43	CBOT	AT+Space+CBOT= "N"	N is CtrlBreak default output time, range is 0-60000	Set or the display CtrlBreak default output time
		AT+Space+CBOT?	Display CtrlBreak default output time	



When using DEF command to default factory it must be used with the SAVE and RBT commands, otherwise DEF is ineffective.



First enter into AT command mode and enter the input password. After entering into AT command mode, if the password is incorrect, it will forbid quit and you will need to enter the password again. If there is no operation within 5 minutes, system will forbid user quit to AT command, and you will need to enter again. Between AT and the next AT command, there must be 1 space. AT commands are case sensitive.