

USR-C210 AT Command Set

(Firmware 2.2.3)

File version: 1.0.0

Content

USR-C210 AT Command Set	1
1. What is the AT command.	4
2. How to use the AT command	4
2.1. How to enter AT command mode.....	4
3. AT command set	4
4. AT command details	6
4.1. AT+ENTM	6
4.2. AT+E	6
4.3. AT+Z	7
4.4. AT+CFGTF	7
4.5. AT+RELD	7
4.6. AT+MAC	7
4.7. AT+SEARCH.....	7
4.8. AT+MID.....	8
4.9. AT+PLANG.....	8
4.10. AT+VER	8
4.11. AT+WSCAN.....	8
4.12. AT+WMODE.....	9
4.13. AT+WSTA	9
4.14. AT+WANN	9
4.15. AT+WSLK	10
4.16. AT+WAP.....	10
4.17. AT+LANN.....	11
4.18. AT+CHANNEL	11
4.19. AT+SOCKA.....	11
4.20. AT+SOCKTOA	12
4.21. AT+SOCKLKA.....	12
4.22. AT+SOCKDISA.....	12
4.23. AT+SOCKB.....	13
4.24. AT+SOCKTOB	13
4.25. AT+SOCKLKB.....	13
4.26. AT+SOCKDISB.....	14
4.27. AT+REGENA	14
4.28. AT+REGID	15
4.29. AT+REGUSR	15
4.30. AT+REGCLOUD.....	15
4.31. AT+UART.....	16
4.32. AT+UARTTE.....	16
4.33. AT+SLPTYPE.....	17
4.34. AT+RFCENA.....	17
4.35. AT+WKMOD	18

4.36. AT+HTPSV	18
4.37. AT+HTPTP	18
4.38. AT+HTPHEAD	19
4.39. AT+HTPURL	19
4.40. AT+HTPCHD	19
4.41. AT+HTPTO	20
4.42. AT+PING	20
4.43. AT+WEBU	20
4.44. AT+GPIO	21
4.45. AT+SMTSL	21
4.46. AT+SMTLK	21
4.47. AT+NTPEN	21
4.48. AT+NTPTM	22
4.49. AT+NTPSER	22
4.50. AT+NTPRF	22
4.51. AT+WAPM	23
4.52. AT+HEARTEN	23
4.53. AT+HEARTTP	23
4.54. AT+HEARTDT	23
4.55. AT+HEARTTM	24
4.56. AT+MDCH	24
5. Contact	25
6. Disclaimer	25
7. Update History	25

1. What is the AT command.

AT command is used for controlling module. You can use AT command to configure and query the settings.

2. How to use the AT command

For USR device is in transparent mode normally, you must enter AT command mode at first. Then you can send AT command to configure or query the settings. After you configure the USR device, you should restart the USR device to make the settings take effect. Every time module restart will work in work mode rather AT command mode.

Every AT command must add character carriage return <CR> and line feed <LF>. In Hex, <CR> is 0x0D <LF> is 0x0A.

2.1. How to enter AT command mode

Please read this FAQ about entering AT command mode.

<http://www.usriot.com/enter-serial-command-mode/>

3. AT command set

Command	Function
Basic Command	
ENTM	Exit serial AT command mode and enter work mode
E	Query/Set AT command echo
Z	Restart the USR device
CFGTF	Save the current setting as the user default factory setting
RELD	Restore user default factory setting
MAC	Query MAC address
SEARCH	Query/Set search port and keyword in LAN
MID	Query/Set module name
PLANG	Query/Set default language of settings webpage
VER	Query firmware version
WSCAN	Search surrounding AP
WIFI Settings command	
WMODE	Query/Set work mode of WIFI
WSTA	Query/Set SSID and password of connected AP
WANN	Query/Set module DHCP or Static IP, IP address, Mask, gateway address and

	DNS
WSLK	Query the status and RSSI in STA work mode
WAP	Query/Set AP parameter(SSID and key)
LANN	Query/Set IP address and MASK of module in AP work mode
CHANNEL	Query/Set the channel of module in AP work mode
Socket command	
SOCKA	Query/Set Networking protocol parameter of socketA
SOCKTOA	Query/Set timeout time of socketA
SOCKLKA	Query socketA TCP connection connect/disconnected
SOCKDISA	Query/Set socketA establish TCP connection ON/OFF
SOCKB	Query/Set Networking protocol parameter of socketB
SOCKTOB	Query/Set timeout time of socketB
SOCKLKB	Query socketB TCP connection connect/disconnected
SOCKDISB	Query/Set socketB establish TCP connection ON/OFF
Identity Header command	
REGENA	Query/Set status and method of identity header
REGID	Query/Set ID of identity header
REGUSR	Query/Set Customer's Self-defined identity header data
REGCLOUD	Query/Set USR Cloud name and password
UART command	
UART	Query/Set UART parameters
UARTTE	Query/Set interval of UART Free-Frame
SLPTYPE	Query/Set sleep mode
RFCENA	Query/Set similar RFC2217 function ON/OFF
WKMOD	Query/Set Socket work mode
HTTPD Client command	
HTPSV	Query/Set HTTP Server Address and Port
HTPTP	Query/Set HTTP method
HTPHEAD	Query/Set HTTP header
HTPURL	Query/Set HTTP URL
HTPCHD	Query/Set filtering HTTP header of response data ON/OFF
HTPTO	Query/Set HTTP request timeout time
Other command	
PING	Network PING function
WEBU	Query/Set settings webpage username and password
GPIO	Query/Set GPIO parameters
SMTSL	Query/Set module smart connection mode
SMTLK	Enter smart connection mode
NTPEN	Query/Set NTP Network Clock function ON/OFF
NTPTM	Query time of Network Clock

NTPSER	Query/Set NTP server IP and timezone
NTPRF	Query/Set interval of proofing time
WAPM	Set displaying MAC suffix in SSID in AP mode ON/OFF;Set AP mode password;Set MAC suffix length
HEARTEN	Query/Set Heartbeat Packet ON/OFF
HEARTTP	Query/Set sending method of Heartbeat Packet
HEARTDT	Query/Set Heartbeat Packet data
HEARTTM	Query/Set sending interval of Heartbeat Packet
MDCH	Query/Set WIFI exception handling status

4. AT command details

Special Characters		
Character	Note	Hex
<CR>	Carriage Return	0x0D
<LF>	Line Feed	0x0A

4.1. AT+ENTM

Format	
Set	AT+ENTM<CR>
Return	<CR><LF>+OK<CR><LF>

4.2. AT+E

Parameter	Description	Default Value	Range
<Status>	Echo of AT command	ON	ON: Enable the echo
			OFF: Disable the echo
Format			
Query	AT+E<CR>		
Return	<CR><LF>+OK=<Status><CR><LF>		
Set	AT+E=<Status><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.3. AT+Z

Format	
Set	AT+Z<CR>
Return	<CR><LF>+OK<CR><LF>

4.4. AT+CFGTF

Parameter	Description	Range
<Status>	Results of saving the current setting as the factory setting	SAVED: Saving successfully
		NON-SAVED: Saving unsuccessfully
Format		
Set	AT+CFGTF<CR>	
Return	<CR><LF>+OK=<Status><CR><LF>	

4.5. AT+RELD

Format	
Set	AT+RELD<CR>
Return	<CR><LF>+OK=REBOOTING...<CR><LF>

4.6. AT+MAC

Parameter	Description
<MAC>	MAC address of the module.
Format	
Query	AT+MAC<CR>
Return	<CR><LF>+OK=<MAC><CR><LF>

4.7. AT+SEARCH

Parameter	Description	Default Value	Range
<Port>	UDP Port for searching	48899	1~65535
<Keyword>	Search keyword	www.usr.cn	1~20 bytes
Format			
Query	AT+SEARCH<CR>		
Return	<CR><LF>+OK=<Port>,<Keyword><CR><LF>		
Set	AT+SEARCH=<Port>,<Keyword><CR>		

Return	<CR><LF>+OK<CR><LF>
--------	---------------------

4.8. AT+MID

Parameter	Description	Default Value	Range
<MID>	Module name	USR-C210	1~20 Bytes
Format			
Query	AT+MID<CR>		
Return	<CR><LF>+OK=<MID><CR><LF>		
Set	AT+MID=<MID><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.9. AT+PLANG

Parameter	Description	Default Value	Range
<Language>	language of webpage	CN	EN: English CN: Chinese
Format			
Query	AT+PLANG<CR>		
Return	<CR><LF>+OK=<Language><CR><LF>		
Set	AT+PLANG=<Language><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.10. AT+VER

Parameter	Description
<VER>	Firmware version of the module
Format	
Query	AT+VER<CR>
Return	<CR><LF>+OK=<VER><CR><LF>

4.11. AT+WSCAN

Parameter	Description
<SSID>	SSID that be searched by module
<BSSID>	MAC address of SSID that be searched by module
<Security>	Encryption security mode of SSID that searched by module
<Indicator>	RSSI of SSID that be searched by module
Format	

Query	AT+WSCAN<CR>
Return	<CR><LF>+OK=<LF><CR>SSID,BSSID,SECURITY,INDICATOR<LF><CR>><SSID1>,<BSSID1>,<Security1>,<Indicator1><LF><CR><SSID2>,<BSSID2>,<Security2>,<Indicator2><LF><CR>.....<LF><CR><SSIDN><BSSIDN>><SecurityN><IndicatorN><CR><LF>

4.12. AT+WMODE

Parameter	Description	Default Value	Range
<Status>	WIFI work mode of module	AP	AP:AP mode
			STA:STA mode
			APSTA:AP+STA mode
Format			
Query	AT+WMODE<CR>		
Return	<CR><LF>+OK=<Status><CR><LF>		
Set	AT+WMODE=<Status><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.13. AT+WSTA

Parameter	Description	Range
<SSID>	SSID of connected AP	1~32 bytes and can't be “ , ”
<PASSWORD>	Password of connected AP	Can't be “ , ”
Format		
Query	AT+WSTA<CR>	
Return	<CR><LF>+OK=<SSID>,<PASSWORD ><CR><LF>	
Set	AT+WSTA=<SSID>,<PASSWORD ><CR>	
Return	<CR><LF>+OK<CR><LF>	

4.14. AT+WANN

Parameter	Description	Default Value	Range
<Mode>	Method of how to get IP address	DHCP	STATIC: Get the IP address manually
			DHCP: Get the IP address automatically
<IP address>	IP address	10.10.100.254	0.0.0.0~255.255.255.255
<Mask>	Subnet mask	255.255.255.0	0.0.0.0~255.255.255.255

<Gateway>	Gateway address	10.10.100.254	0.0.0.0~255.255.255.255
<DNS>	DNS address	208.67.222.222	0.0.0.0~255.255.255.255
Format			
Query	AT+WANN<CR>		
Return	<CR><LF>+OK=<Mode>,<IP address>,<Mask>,<Gateway>,<DNS><CR><LF>		
Set	AT+WANN=<Mode>,<IP address>,<Mask>,<Gateway>,<DNS><CR> use Static IP method/AT+WANN=DHCP<CR> use DHCP method		
Return	<CR><LF>+OK<CR><LF>		

4.15. AT+WSLK

Parameter	Description	Range
<Status>	Connection status of module in STA mode	DISCONNECTED:no connection with any AP
		SSID of connected AP if connected
<RSSI>	RSSI	0-100
Format		
Query	AT+WSLK<CR>	
Return	<CR><LF>+OK=<Status>,<RSSI><CR><LF>	

4.16. AT+WAP

Parameter	Description	Default Value	Range
<SSID>	SSID of module in AP mode	USR-C210	Can't have “, ”
<PASSWORD>	Password of module in AP mode	NONE	>=8 bytes and can't have “, ”
			NONE:no password
Format			
Query	AT+WAP<CR>		
Return	<CR><LF>+OK=<SSID>,<PASSWORD><CR><LF>		
Set	AT+WAP=<SSID>,<PASSWORD><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.17. AT+LANN

Parameter	Description	Default Value	Range
<IP address>	IP address of module in AP mode	10.10.100.254	0.0.0.0~255.255.255.255
<Mask>	Subnet mask of module in AP mode	255.255.255.0	0.0.0.0~255.255.255.255
Format			
Query	AT+LANN<CR>		
Return	<CR><LF>+OK=<IP address>,<Mask><CR><LF>		
Set	AT+LANN=<IP address>,<Mask><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.18. AT+CHANNEL

Parameter	Description	Default Value	Range
<NUM>	Channel of module in AP mode	6	1-11
Format			
Query	AT+CHANNEL<CR>		
Return	<CR><LF>+OK=<NUM><CR><LF>		
Set	AT+CHANNEL=<NUM><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.19. AT+SOCKA

Parameter	Description	Default Value	Range
<Protocol>	Network protocol of SocketA	TCPS	TCPS: TCP Server mode
			TCPC: TCP Client mode
			UDPS: UDP Server mode
			UDPC: UDP Client mode
<IP address>	Remote Server IP address (in client mode) of SocketA	10.10.100.254	0.0.0.0~255.255.255.255
<Port>	Port number of SocketA	8899	1~65535 Local port in Server mode Remote port in Client mode

Format	
Query	AT+SOCKA<CR>
Return	<CR><LF>+OK=<Protocol>,<IP address>,<Port><CR><LF>
Set	AT+SOCKA=<Protocol>,<IP address>,<Port><CR>
Return	<CR><LF>+OK<CR><LF>

4.20. AT+SOCKTOA

Parameter	Description	Default Value	Range
<Time>	Timeout time of socket A	OFF	60-600s
			OFF(Close fuction)
Format			
Query	AT+SOCKTOA<CR>		
Return	<CR><LF>+OK=<Time><CR><LF>		
Set	AT+SOCKTOA=<Time><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.21. AT+SOCKLKA

Parameter	Description	Range
<Station>	Station of TCP connection of Socket A	CONNECT
		DISCONNECTED
Format		
Query	AT+SOCKLKA<CR>	
Return	<CR><LF>+OK=<Station><CR><LF>	

4.22. AT+SOCKDISA

Parameter	Description	Default Value	Range
<Station>	Allowing socket A to establish TCP connection	off	on/off
Format			
Query	AT+SOCKDISA<CR>		
Return	<CR><LF>+OK=<Station><CR><LF>		
Set	AT+SOCKDISA=<Station><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.23. AT+SOCKB

Parameter	Description	Default Value	Range
<Protocol>	Network protocol of Socket B	NONE	TCP: TCP Client mode
			UDPS: UDP Server mode
			UDPC: UDP Client mode
<IP address>	Remote Server IP address (in client mode) of Socket B	NONE	0.0.0.0~255.255.255.255
<Port>	Port number of Socket B		1~65535 Local port in Server mode Remote port in Client mode
Format			
Query	AT+SOCKB<CR>		
Return	<CR><LF>+OK=<Protocol>,<IP address>,<Port><CR><LF>		
Set	AT+SOCKB=<Protocol>,<IP address>,<Port><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.24. AT+SOCKTOB

Parameter	Description	Default Value	Range
<Time>	Timeout time of socket B	OFF	60-600s
			OFF(Close fuction)
Format			
Query	AT+SOCKTOB<CR>		
Return	<CR><LF>+OK=<Time><CR><LF>		
Set	AT+SOCKTOB=<Time><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.25. AT+SOCKLKB

Parameter	Description	Range
<Station>	Station of TCP connection of Socket B	CONNECT
		DISCONNECTED
Format		
Query	AT+SOCKLKB<CR>	
Return	<CR><LF>+OK=<Station><CR><LF>	

4.26. AT+SOCKDISB

Parameter	Description	Default Value	Range
<Station>	Allowing socket B to establish TCP connection	off	on/off
Format			
Query	AT+SOCKDISB<CR>		
Return	<CR><LF>+OK=<Station><CR><LF>		
Set	AT+SOCKDISB=<Station><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.27. AT+REGENA

Parameter	Description	Default Value	Range
<Status>	Status of identity header	OFF	ID: Use 2 bytes ID code and 2 bytes ID inverse code as identity header
			MAC: Use 6 bytes MAC address as identity header
			USR: Use the Customer's Self-defined identity header, less than 32 bytes
			CLOUD: Using USR Cloud ID as Identity header
			OFF: Disable the identity header
<Method>	Method of Sending identity header	No Default Value	First: Send Identity header before first packet after the connected
			Every: Send Identity header in every packet.
Format			
Query	AT+REGENA<CR>		
Return	<CR><LF>+OK=<Status>,<Method><CR><LF>		
Set	AT+REGENA=<Status>,<Method><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.28. AT+REGID

Parameter	Description	Default Value	Range
<NUM>	ID identity header	1	1-65535
Format			
Query	AT+REGID<CR>		
Return	<CR><LF>+OK=<NUM><CR><LF>		
Set	AT+REGID=<NUM><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.29. AT+REGUSR

Parameter	Description	Default Value	Range
<Data>	Customer's Self-defined identity header data	USR-C210	Length: 1~32 bytes
Format			
Query	AT+REGUSR<CR>		
Return	<CR><LF>+OK=<Data><CR><LF>		
Set	AT+REGUSR=<Data><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.30. AT+REGCLOUD

Parameter	Description	Range
<ID>	ID of USR Cloud	Length: 20 bytes
<Password>	Password of USR Cloud	Length: Less than 8 bytes
Format		
Query	AT+REGCLOUD<CR>	
Return	<C+R><LF>+OK=<ID>,<Password><CR><LF>	
Set	AT+REGCLOUD=<ID>,<Password><CR>	
Return	<CR><LF>+OK<CR><LF>	

4.31. AT+UART

Parameter	Description	Default Value	Range
<Baudrate>	Baudrate	115200	1200,2400,4800,9600,14400,19200,38400,57600,115200,128000,230400,460800
<Data bits>	Data bits	8	7,8
<Stop bits>	Stop bits	1	1,2
<Parity>	Parity	NONE	NONE,EVEN,ODD,MARK,SPACE
<Flow Control>	Flow Control	NFC	NFC: No flow control
			FC: Hardware flow control(RTS/CTS)
			485:UART_RTS used to 485 communication
Format			
Query	AT+UART<CR>		
Return	<CR><LF>+OK=<Baudrate>,<Data bits>,<Stop bits>,<Parity><Flow Control><CR><LF>		
Set	AT+UART=<Baudrate>,<Data bits>,<Stop bits>,<Parity><Flow Control><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.32. AT+UARTTE

Parameter	Description	Default Value	Range
<Interval>	Time interval of adjacent bytes in Free-Frame mode of UART	20ms	20-250ms.And time interval will automatically change according to baudrate.(Baudrate<=1200,time=250 ms;Baudrate>=20000,time=20ms;1200<Baudrate<20000,time=265-Baudrate*0.01223,time is integer) So user should set Bauardrate before set Time interval.
Format			
Query	AT+UARTTE<CR>		
Return	<CR><LF>+OK=<Interval><CR><LF>		
Set	AT+UARTTE=<Interval><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.33. AT+SLPTYPE

Parameter	Description	Default Value	Range
<Mode>	Sleep Mode	0(Active Mode)	0:Active mode
			1:Sleep mode
			2:Deepsleep mode
<Time>	Module without communication last time. When last time no data transmission, enter sleep mode	No Default Value	5-240 s
Format			
Query	AT+SLPTYPE<CR>		
Return	<CR><LF>+OK=<Mode>,<Time><CR><LF>		
Set	AT+SLPTYPE=<Mode>,<Time><CR>/AT+SLPTYPE=0<CR> to set active mode		
Return	<CR><LF>+OK<CR><LF>		

4.34. AT+RFCENA

Parameter	Description	Default Value	Range
<Station>	Station of similar RFC2217 function	OFF	ON/OFF
Format			
Query	AT+RFCENA<CR>		
Return	<CR><LF>+OK=<Station><CR><LF>		
Set	AT+RFCENA=<Station><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.35. AT+WKMOD

Parameter	Description	Default Value	Range
<Mode>	Work mode	TRANS	TRANS:Transparent Transmission mode
			HTPC:HTTPD Client Transmission mode
Format			
Query	AT+WKMOD<CR>		
Return	<CR><LF>+OK=<Mode><CR><LF>		
Set	AT+WKMOD=<Mode><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.36. AT+HTPSV

Parameter	Description	Default Value	Range
<Address>	Server Address in HTTPD Client mode	test.usr.cn	IP address:0.0.0.0~255.255.255.255
			Server address:1-64 BYTES
<Port>	Server Port in HTTPD Client mode	80	0-65535
Format			
Query	AT+HTPSV<CR>		
Return	<C+R><LF>+OK=<Address>,<Port><CR><LF>		
Set	AT+HTPSV=<Address>,<Port><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.37. AT+HTPTP

Parameter	Description	Default Value	Range
<Method>	HTTP request method	GET	GET: HTTP GET
			POST: HTTP POST
Format			
Query	AT+HTPTP<CR>		
Return	<CR><LF>+OK=<Method><CR><LF>		
Set	AT+HTPTP=<Method><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.38. AT+HTPHEAD

Parameter	Description	Default Value	Range
<Header>	HTTP Header data	Connection: Keep-Alive[0D][0A]([0D][0A] mean Carriage Return and Line Feed,[] used to transfer meaning by HEX.And paramter must be end with [0D][0A])	Length: 0~200 bytes
Format			
Query	AT+HTPHEAD<CR>		
Return	<CR><LF>+OK=<Header><CR><LF>		
Set	AT+HTPHEAD=<Header><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.39. AT+HTPURL

Parameter	Description	Default Value	Range
<URL>	HTTP URL	/1.php[3F]([3F] means ?)	Length:1~64 bytes
Format			
Query	AT+HTPURL<CR>		
Return	<CR><LF>+OK=<URL><CR><LF>		
Set	AT+HTPURL=<URL><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.40. AT+HTPCHD

Parameter	Description	Default Value	Range
<Status>	Status of filtering HTTP header of response data	OFF	ON: Enable the filter of HTTP header
			OFF: Disable the filter of HTTP header
Format			
Query	AT+HTPCHD<CR>		
Return	<CR><LF>+OK=<Status><CR><LF>		
Set	AT+HTPCHD=<Status><CR>		
Return:	<CR><LF>+OK<CR><LF>		

4.41. AT+HTPTO

Parameter	Description	Default Value	Range
<Time>	HTTP Request Timeout time	10s	1-30s
Format			
Query	AT+HTPTO<CR>		
Return	<CR><LF>+OK=<Time><CR><LF>		
Set	AT+HTPTO=<Time><CR>		
Return:	<CR><LF>+OK<CR><LF>		

4.42. AT+PING

Parameter	Description	Range
<Address>	Default IP address or Domain Name of module	Can be IP address 10.10.100.254 or Domain Name www.usr.cn
<Station>	Station of ping	Success/Timeout/Unknown host
Format		
Query	AT+PING=<Address><CR>	
Return	<CR><LF>+OK=<Station><CR><LF>	

4.43. AT+WEBU

Parameter	Description	Default Value	Range
<Username>	Username of module	admin	Less than 16 bytes,can't be NUL
<Password>	Password of module	admin	Less than 16 bytes
Format			
Query	AT+WEBU<CR>		
Return	<CR><LF>+OK=<Username>,<Password><CR><LF>		
Set	AT+WEBU=<Username>,<Password><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.44. AT+GPIO

Parameter	Description	Range
<PIN>	PIN number	18、30、31、33、34、35、36、37、43
<Return>	Query return value	1:High level
		0:Low level
<Status>	Setting status	IN:Input mode
		1:Output High level
		0:Output Low level
		OFF:Clear setting status
Format		
Query	AT+GPIO=<PIN><CR>	
Return	<CR><LF>+OK=<Return><CR><LF>	
Set	AT+GPIO=<PIN>,<Status><CR>	
Return	<CR><LF>+OK<CR><LF>	

4.45. AT+SMTSL

Parameter	Description	Default Value	Range
<Station>	smart connection mode	sim	sim:Simple Config mode
			air:Airkiss mode
Format			
Query	AT+SMTSL<CR>		
Return	<CR><LF>+OK=<Station><CR><LF>		
Set	AT+SMTSL=<Station><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.46. AT+SMTLK

Format	
Set	AT+SMTLK<CR>
Return	<CR><LF>+OK<CR><LF>

4.47. AT+NTPEN

Parameter	Description	Default Value	Range
<Status>	Status of NTP Network Clock function	OFF	ON/OFF
Format			
Query	AT+NTPEN<CR>		
Return	<CR><LF>+OK=<Status><CR><LF>		

Set	AT+NTPEN=<Status><CR>
Return	<CR><LF>+OK<CR><LF>

4.48. AT+NTPTM

Parameter	Description	Default Value	Range
<Time>	Network Clock time	Not Available	Clock time,format:such as 2017-07-06 15:50:00 Mon
			Not Available
Format			
Query	AT+NTPTM<CR>		
Return	<CR><LF>+OK=<Time><CR><LF>		

4.49. AT+NTPSER

Parameter	Description	Default Value	Range
<Address>	NTP Server address	cn.ntp.org.cn	
<Time Zone>	Time zone	8	Western time zone need add '-' such as: -8
Format			
Query	AT+NTPSER<CR>		
Return	<CR><LF>+OK=<Address>,<Time Zone><CR><LF>		
Set	AT+NTPSER=<Address>,<Time Zone><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.50. AT+NTPRF

Parameter	Description	Default Value	Range
<Interval>	Interval of proofing time	30 minutes	10-720 minutes,0 means close function
Format			
Query	AT+NTPRF<CR>		
Return	<CR><LF>+OK=<Interval><CR><LF>		
Set	AT+NTPRF=<Interval><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.51. AT+WAPM

Parameter	Description	Range
<SSID>	SSID of AP mode	Total length of <SSID> and <LEN> less than 32 bytes
<Password>	Password of AP mode	More than 8 bytes
<LEN>	Length of MAC suffix of SSID	0 means no MAC suffix,6 means MAC last 6 bytes,12 means 12 bytes MAC
Format		
Set	AT+WAPM=<SSID>,<Password>,<LEN><CR>	
Return	<CR><LF>+OK<CR><LF>	

4.52. AT+HEARTEN

Parameter	Description	Default Value	Range
<Status>	Status of Heartbeat Packet function	OFF	ON/OFF
Format			
Query	AT+HEARTEN<CR>		
Return	<CR><LF>+OK=<Status><CR><LF>		
Set	AT+HEARTEN=<Status><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.53. AT+HEARTTP

Parameter	Description	Default Value	Range
<Type>	Sending method of Heartbeat Packet	NET	NET:Sending to Network Server
			COM:Sending to serial port
Format			
Query	AT+HEARTTP<CR>		
Return	<CR><LF>+OK=<Type><CR><LF>		
Set	AT+HEARTTP=<Type><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.54. AT+HEARTDT

Parameter	Description	Default Value	Range
<Data>	Heartbeat Packet data	7777772E7573 722E636E	Less than 80 bytes

Format	
Query	AT+HEARTDT<CR>
Return	<CR><LF>+OK=<Data><CR><LF>
Set	AT+HEARTDT=<Data><CR>
Return	<CR><LF>+OK<CR><LF>

4.55. AT+HEARTTM

Parameter	Description	Default Value	Range
<Interval>	Heartbeat Packet sending interval	30s	Can be set between 1-6000s. But keep-alive time is 60s, so Heartbeat Packet sending interval can only take effect between 1-60s
Format			
Query	AT+HEARTTM<CR>		
Return	<CR><LF>+OK=<Interval><CR><LF>		
Set	AT+HEARTTM=<Interval><CR>		
Return	<CR><LF>+OK<CR><LF>		

4.56. AT+MDCH

Parameter	Description	Default Value	Range
<status>	Status of WIFI exception handling	10 minutes	OFF: Close WIFI exception handling ON: Open WIFI mode switching function. Connecting to AP/STA mode automatically when connecting unsuccessfully in STA mode 2-240 minutes: WIFI exception detection interval
Format			
Query	AT+MDCH<CR>		
Return	<CR><LF>+OK=<status><CR><LF>		
Set	AT+MDCH=<status><CR>		
Return	<CR><LF>+OK<CR><LF>		

5. Contact

Company: Jinan USR IOT Technology Limited

Address: Floor 11, Building No.1, No.1166, Xinluo Street, Gaoxin District, Jinan city, Shandong province, 250101 China

Tel: 86-531-88826739

Web: www.usriot.com

Support: h.usriot.com

Email: sales@usr.cn

6. Disclaimer

This document provide the information of USR-C210 products, it hasn't been granted any intellectual property license by forbidding speak or other ways either explicitly or implicitly. Except the duty declared in sales terms and conditions, we don't take any other responsibilities. We don't warrant the products sales and use explicitly or implicitly, including particular purpose merchantability and marketability, the tort liability of any other patent right, copyright, intellectual property right. We may modify specification and description at any time without prior notice.

7. Update History

2017-07-04 V1.0.0 created based on firmware version 2.2.3