NET Function Command

Version: V 1.0.2

Definitions and Declarations

A. The numbers in this paper are represented by hexadecimal except that they are represented by adding (DEC) after hexadecimal numbers
B. An integer is represented by a high-order byte before the low-order byte
C. None in the body of the following agreement means empty, and this field needs to be skipped
D. XX in the following documents represents an unfixed dynamic value

Instruction Description

CMD_NET_SET_SERVER_IP

Description

Setting the server's IP address for linking

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: 00 LL: 08	
DEVICE	DH:XX DL: XX	
CMD	CH: 03 CL: 00	
DATA	IP_B0	1 byte
	IP_B1	1 byte
	IP_B2	1 byte
	IP_B3	1 byte
CHK	XX	

Data Field

IP_B0 ~ IP_B3: Fix the 4 bytes separately to the IP address

Response Data Field

None

Example

Set the server's ID as 192.168.1.80
→ AA BB 00 08 00 00 03 00 C0 A8 01 50 89
← AA BB 00 05 00 00 03 00 00 BD

CMD_NET_GET_SERVER_IP

Description

Get the server's ID address saved

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00 LL: 04
DEVICE	DH:XX DL: XX
CMD	CH: 03 CL: 01
DATA	none
CHK	XX

Data Field

None

Response Data Field

IP: The IP address got, 4 bytes

Example

→ AA BB 00 04 00 00 03 01 BD
← AA BB 00 09 00 00 03 01 00 C0 A8 01 50 89

CMD_NET_SET_SERVER_PORT

Description

Set the port server listening

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: 00 LL: 06	
DEVICE	DH:XX DL: XX	
CMD	CH: 03 CL: 02	
DATA	PORT	2 bytes
CHK	XX	

Data Field

PORT: The server's listen port, 2 bytes

Response Data Field

None

Example

Set server's listen port as 82
→ AA BB 00 06 00 00 03 02 00 52 EE
← AA BB 00 05 00 00 03 02 00 BF

CMD_NET_GET_SERVER_PORT

Description

Get the server's listen port saved

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00
	LL: 04
DEVICE	DH:XX
	DL: XX
CMD	CH: 03
	CL: 03
DATA	none
CHK	XX

Data Field

None

Response Data Field

Data format as below:

Parameter	Length (byte)
Port	02

Example

→ AA BB 00 04 00 00 03 03 BF
← AA BB 00 07 00 00 03 03 00 00 52 EE

CMD_NET_SET_HB_INTV

Description

Set the heart beat interval , disable heart beat if set to 0

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00

	LL: 06	
DEVICE	DH:XX	
	DL: XX	
CMD	CH: 03	
	CL: 08	
DATA	INTV	2 bytes
CHK	XX	

Data Field

INTV: Interval, a 16 bits integer, unit 100ms. For example, it is 1000 ms when set to 10, 10*100= 1000

Response Data Field

None

Example

Set the heart beat as 10 seconds (10000 ms)
→ AA BB 00 06 00 00 03 08 27 10 81
← AA BB 00 05 00 00 03 08 00 B5

CMD_NET_GET_HB_INTV

Description

Get current heart beat interval

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00
	LL: 04
DEVICE	DH:XX
	DL: XX
CMD	CH: 03
	CL: 09
DATA	none
CHK	XX

Data Field

None

Response Data Field

Data format as below:

Parameter	Length (byte)
Heart Beat Interval	02

Example

→ AA BB 00 04 00 00 03 09 B5
← AA BB 00 07 00 00 03 09 00 27 10 81

CMD_SET_CONTENT_TYPE

Description

Set the content-type for reporting

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: 00 LL: 05	
DEVICE	DH:XX DL: XX	
CMD	CH: 03 CL: 0A	
DATA	Type	1byte
CHK	XX	

Data Field

Type: the content-type, value defined as below:
0 –> raw type
1 –> json
2 –> x-www-form-urlencoded

Response Data Field

None

Example

Set the content-type as json
→ AA BB 00 05 00 00 03 0A 01 B6
← AA BB 00 05 00 00 03 0A 00 B7

CMD_GET_CONTENT_TYPE

Description

Get the content-type

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00
	LL: 04
DEVICE	DH:XX
	DL: XX
CMD	CH: 03
	CL: 0B
DATA	none
CHK	XX

Data Field

None

Response Data Field

Type: See the Data Field define in CMD_SET_CONTENT_TYPE

Example

→ AA BB 00 04 00 00 03 0B B7
← AA BB 00 06 00 00 03 0B 00 01 B4

CMD_SET_PARA_TITLE_DATA

Description

Set the para-data title used when enable auto up report

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: XX LL: XX	
DEVICE	DH:XX DL: XX	
CMD	CH: 03 CL: 10	
DATA	Title	X bytes
CHK	XX	

Data Field

Title: tile name, max length 8 bytes

Response Data Field

None

Example

Set para-data title to "Data"
→ AA BB 00 08 00 00 03 10 44 61 74 61 90
← AA BB 00 05 00 00 03 10 00 AD

CMD_GET_PARA_TITLE_DATA

Description

Get para-data title

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00
	LL: 04
DEVICE	DH:XX
	DL: XX
CMD	CH: 03
	CL: 11
DATA	none
CHK	XX

Data Field

None

Response Data Field

Title: string , max 8 bytes

Example

→ AA BB 00 04 00 00 03 11 AD
← AA BB 00 09 00 00 03 11 00 44 61 74 90

CMD_SET_PARA_TITLE_ADDR

Description

Set para-addr title used when enable auto up report

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: XX
	LL: XX
DEVICE	DH:XX
	DL: XX
CMD	CH: 03

	CL: 12	
DATA	Title	X byte
CHK	XX	

Data Field

Title: tile name, max length 8 bytes

Response Data Field

None

Example

Set parameter address title to "Addr"
→ AA BB 00 08 00 00 03 12 41 64 64 72 91
← AA BB 00 05 00 00 03 12 00 AF

CMD_GET_PARA_TITLE_ADDR

Description

Get para-addr title

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00
	LL: 04
DEVICE	DH:XX
	DL: XX
CMD	CH: 03
	CL: 13
DATA	none
CHK	XX

Data Field

None

Response Data Field

Title: string , max 8 bytes

Example

→ AA BB 00 04 00 00 03 13 AF
← AA BB 00 09 00 00 03 13 00 41 64 64 72 91

CMD_SET_PARA_TITLE_TIME

Description

Set the para-time title used when enable auto up report

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: XX	
	LL: XX	
DEVICE	DH:XX	
	DL: XX	
CMD	CH: 03	
	CL: 14	
DATA	Title	X byte
CHK	XX	

Data Field

Title: tile name, max length 8 bytes

Response Data Field

None

Example

Set parameter- time title to "Time"
→ AA BB 00 08 00 00 03 14 54 69 6D 65 91

← AA BB 00 05 00 00 03 14 00 A9

CMD_GET_PARA_TITLE_TIME

Description

Get para-time title

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00 LL: 04
DEVICE	DH:XX DL: XX
CMD	CH: 03 CL: 15
DATA	none
CHK	XX

Data Field

None

Response Data Field

Title: string , max 8 bytes

Example

→ AA BB 00 04 00 00 03 15 A9
← AA BB 00 09 00 00 03 15 00 54 69 6D 65 91

CMD_SET_PARA_TITLE_DATATYPE

Description

Set the para-dataType title used when enable auto up report

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: XX	
	LL: XX	
DEVICE	DH:XX	
	DL: XX	
CMD	CH: 03	
	CL: 16	
DATA	Title	X byte
CHK	XX	

Data Field

Title: tile name, max length 8 bytes

Response Data Field

None

Example

Set parameter- dataType title to "DType"
→ AA BB 00 09 00 00 03 16 44 54 79 70 65 DB
← AA BB 00 05 00 00 03 16 00 AB

CMD_GET_PARA_TITLE_DATATYPE

Description

Get para-dataType title

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00

	LL: 04
DEVICE	DH:XX
	DL: XX
CMD	CH: 03
	CL: 17
DATA	none
CHK	XX

Data Field

None

Response Data Field

Title: string , max 8 bytes

Example

→ AA BB 00 04 00 00 03 17 AB
← AA BB 00 0A 00 00 03 17 00 44 54 79 70 65 D9

CMD_SET_PARA_TITLE_PACKTYPE

Description

Set the para-packType title, this function reserved

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: XX	
	LL: XX	
DEVICE	DH:XX	
	DL: XX	
CMD	CH: 03	
	CL: 18	
DATA	Title	X byte
CHK	XX	

Data Field

Title: tile name, max length 8 bytes

Response Data Field

None

Example

Set parameter- time title to "PType"
→ AA BB 00 09 00 00 03 18 50 54 79 70 65 C1
← AA BB 00 05 00 00 03 18 00 A5

CMD_GET_PARA_TITLE_PACKTYPE

Description

Get para-packType title

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00
	LL: 04
DEVICE	DH:XX
	DL: XX
CMD	CH: 03
	CL: 19
DATA	none
CHK	XX

Data Field

None

Response Data Field

Title: string , max 8 bytes

Example

→ AA BB 00 04 00 00 03 19 AB
← AA BB 00 0A 00 00 03 19 00 50 54 79 70 65 C3

CMD_NET_SET_MQTT_CLIENT

Description

Set the client ID when using MQTT mode

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: XX LL: XX	
DEVICE	DH:XX DL: XX	
CMD	CH: 03 CL: 20	
DATA	Client Name	X byte
CHK	XX	

Data Field

Client Name: string , maximum length 64 bytes

Response Data Field

None

Example

Set client name as "Client"
→ AA BB 00 0A 00 00 03 20 43 6C 69 65 6E 74 AB
← AA BB 00 05 00 00 03 20 00 9D

CMD_NET_GET_MQTT_CLIENT

Description

Get client ID used for MQTT mode

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00 LL: 04
DEVICE	DH:XX DL: XX
CMD	CH: 03 CL: 21
DATA	none
CHK	XX

Data Field

None

Response Data Field

Client Name: string , maximum length 64 bytes

Example

→ AA BB 00 04 00 00 03 21 9D
← AA BB 00 0B 00 00 03 21 00 43 6C 69 65 6E 74 AB

CMD_NET_SET_MQTT_USER

Description

Set the user name when using MQTT mode

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: XX	
	LL: XX	
DEVICE	DH:XX	
	DL: XX	
CMD	CH: 03	
	CL: 22	
DATA	User Name	X byte
CHK	XX	

Data Field

User Name: string, maximum length 64 bytes

Response Data Field

None

Example

Set the user name as "User"
→ AA BB 00 08 00 00 03 22 55 73 65 72 A3
← AA BB 00 05 00 00 03 22 00 9F

CMD_NET_GET_MQTT_USER

Description

Get user name used for MQTT mode

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00
	LL: 04

DEVICE	DH:XX
	DL: XX
CMD	CH: 03
	CL: 23
DATA	none
CHK	XX

Data Field

None

Response Data Field

User Name: string, maximum length 64 bytes

Example

→ AA BB 00 04 00 00 03 23 9F
← AA BB 00 09 00 00 03 23 00 55 73 65 72 A3

CMD_NET_SET_MQTT_USERPASS

Description

Set the user password when using MQTT mode

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: XX	
	LL: XX	
DEVICE	DH:XX	
	DL: XX	
CMD	CH: 03	
	CL: 24	
DATA	User Password	X byte
CHK	XX	

Data Field

User Password: string , maximum length 64 bytes

Response Data Field

None

Example

Set user password as "123456"
→ AA BB 00 0A 00 00 03 24 31 32 33 34 35 36 91
← AA BB 00 05 00 00 03 24 00 99

CMD_NET_GET_MQTT_USERPASS

Description

Get user password used for MQTT mode

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00 LL: 04
DEVICE	DH:XX DL: XX
CMD	CH: 03 CL: 25
DATA	none
CHK	XX

Data Field

None

Response Data Field

User Password: string , maximum length 64 bytes

Example

→ AA BB 00 04 00 00 03 25 9F
← AA BB 00 0B 00 00 03 25 00 31 32 33 34 35 36 91

CMD_NET_SET_MQTT_PUB_TOPIC

Description

Set the publish topic when using MQTT mode

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: XX LL: XX	
DEVICE	DH:XX DL: XX	
CMD	CH: 03 CL: 26	
DATA	Topic	X byte
CHK	XX	

Data Field

Topic: the publish topic , string maximum 128 bytes

Response Data Field

None

Example

Set publish topic as "topic"
→ AA BB 00 09 00 00 03 26 74 6F 70 69 63 F6
← AA BB 00 05 00 00 03 26 00 9B

CMD_NET_GET_MQTT_PUB_TOPIC

Description

Get publish topic used for MQTT mode

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00 LL: 04
DEVICE	DH:XX DL: XX
CMD	CH: 03 CL: 27
DATA	none
CHK	XX

Data Field

无

Response Data Field

Topic: MQTT publish topic, string maximum length 128 bytes

Example

→ AA BB 00 04 00 00 03 27 9F
← AA BB 00 0A 00 00 03 27 00 74 6F 70 69 63 F4

CMD_NET_SET_URL

Description

Set the URL when using HTTP mode

Command Frame

Field	Value	
STX	AA	
INX	XX	
LEN	LH: XX	
	LL: XX	
DEVICE	DH:XX	
	DL: XX	
CMD	CH: 03	
	CL: 06	
DATA	URL	X byte
CHK	XX	

Data Field

URL: the URL string maximum length 128 bytes

Response Data Field

None

Example

Set URL as "http://httpbin.org/get"
→ AA BB 00 1A 00 00 03 06 68 74 74 70 3A 2F 2F 68 74 74 70 62 69 6E 2E 6F 72 67 2F 67 65 74 F6
← AA BB 00 05 00 00 03 06 00 BB

CMD_NET_GET_URL

Description

Get the URL used for HTTP mode

Command Frame

Field	Value
STX	AA
INX	XX
LEN	LH: 00
	LL: 04
DEVICE	DH:XX

	DL: XX
CMD	CH: 03
	CL: 07
DATA	none
CHK	XX

Data Field

None

Response Data Field

URL: the URL string , maximum length 128 bytes

Example

→ AA BB 00 04 00 00 03 07 BB
← AA BB 00 1B 00 00 03 07 00 68 74 74 70 3A 2F 2F 68 74 74 70 62 69 6E 2E 6F 72 67 2F 67 65 74 F6