

Mini IO Protocol

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History

| Version | Author | Edit date | Changes |
|---------|--------|------------|---------|
| 1.0 | Da | 2013-10-13 | MinilO |

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1 Commands Shared

Address Detection

1.1.1 Detect Address

Remark: Detect address by pressing broadcast address button

Supported Device: All modules which have broadcast button

Generation-4 SBUS Minil O Protocol Using Inside V1.0

| Operation Code: 0xE5F5 | | | |
|------------------------------------|-------------------|------|--|
| Target Subnet ID: | Broadcast address | 0xFF | |
| Target Device ID: | | | |
| Additional Content | | | |
| LEN of additional content:: 0 byte | | | |

Response

| Operation Code: 0xE5F6 | | | | | |
|------------------------------------|----------------------------|-------|--|--|--|
| Target Subnet ID: | Broadcast address | 0xFF | | | |
| Target Device ID: | | 0xFF | | | |
| Additional Content | Additional Content | | | | |
| LEN of additional content::2 bytes | | | | | |
| Index of Additional | Remark | Value | | | |
| Content | | | | | |
| 0 | Subnet ID of target device | 1byte | | | |
| 1 | Device ID of target device | 1byte | | | |

1.1.2Modify Address

Supported Device: All modules which have address broadcast button

| Operation Code: 0xE5F | Operation Code: 0xE5F7 | | | | |
|-------------------------|---|--|--|--|--|
| Target Subnet ID: | Specify old subnet ID of target scope 1-254 | | | | |
| | device | | | | |
| Target Device ID: | Specify old device ID of target scope 1-254 | | | | |
| | device | | | | |
| Additional Content | Additional Content | | | | |
| LEN of additional conte | LEN of additional content::2 bytes | | | | |
| Index of Additional | Remark Value | | | | |
| Content | | | | | |
| 0 | New Subnet ID 1byte , scope 1-254 | | | | |
| 1 | New Device ID 1byte , scope 1-254 | | | | |

| Operation Code: 0xE5F8 | | | | |
|----------------------------------|----------------------------------|------|--|--|
| Target Subnet ID: | Broadcast address | 0xFF | | |
| Target Device ID: | | 0xFF | | |
| Additional Content | | | | |
| LEN of additional conte | LEN of additional content::1byte | | | |
| Index of Additional Remark Value | | | | |
| Content | | | | |





| 0 | Flag for success or Failure | 1byte |
|---|-----------------------------|---------------|
| | | Success =0xF8 |
| | | Failure=0xF5 |
| | | |

1.2Device Backup

1.2.1Request Total QTY of packages from PC to target

Device

Supported Device: All G4 Modules

| Operation Code: 0xDC10 | | | |
|----------------------------------|------------------------------------|--------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 | |
| Is Big UDP Package format : No | | | |
| Additional Content | | | |
| LEN of additional content:0 byte | | | |

| Operation Code: 0xDC11 | | | | |
|-------------------------|------------------------------------|---------------------------|--|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 | | |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 | | |
| Is Big UDP Package for | rmat: No | | | |
| Additional Content | | | | |
| LEN of additional conte | nt:3bytes | | | |
| Index of Additional | Remark | Value | | |
| Content | | | | |
| 0 | Flag of success or failure | 1byte | | |
| | | Success=0xF8 | | |
| | | Failure=0xF5 | | |
| 1 | High 8 bits of Total QTY of | Total QTY of Packages : 2 | | |
| | packages | bytes | | |
| 2 | Low 8 bits Total QTY of packages | | | |





1.2.2Request Current Small Package from PC to target device

Supported Device: all G4 modules

| Operation Code: 0xDC14 | | | |
|-------------------------|------------------------------------|-----------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 | |
| Is big UDP Package for | mat :No | | |
| Additional Content | Additional Content | | |
| LEN of additional conte | LEN of additional content::2 bytes | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | High 8 bits of current Package No | Current Package No: 2 | |
| 1 | Low 8 bits of current Package No | bytes | |

| Operation Code: 0xDC15 | | |
|-------------------------|---------------------------------------|------------------------|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 |
| Is big UDP Package for | mat : No | |
| Additional Content | | |
| LEN of additional conte | nt: MAX. 65 bytes (Max. Flash data is | 59 bytes) |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | High 8 bits of current package No | Current Package No : 2 |
| 1 | low 8 bits of current package No | bytes |
| 2 | Flag of external flash or inner | 1byte |
| | memory | external flash=1 |
| | | inner memory=0 |
| 3 | High 8 bits of flash Start Address | 3 bytes |
| 4 | Medium 8 bits of flash Start | |
| | Address | |
| 5 | Low 8 bits of flash Start Address | |
| 6 | Flash data start | |
| | | |
| 64 (MAX.) | Flash data end | |





Device Restore 1.3

Send Total QTY of Packages from PC to Target Device

Supported Device: All Modules

| Operation Code: 0xDC16 | | | |
|-----------------------------------|------------------------------------|---------------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 | |
| Is Big UDP Package fo | rmat : No | | |
| Additional Content | Additional Content | | |
| LEN of additional content:2 bytes | | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | High 8 bits of total QTY of | Total QTY of packages : 2 | |
| | packages | bytes | |
| 1 | Low 8 bits total QTY of packages | | |

Response

| Operation Code: 0xDC17 | | | |
|-------------------------|------------------------------------|-------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 | |
| Is Big UDP Package for | rmat: No | | |
| Additional Content | | | |
| LEN of additional conte | LEN of additional content:1byte | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag of success or failure | 1byte | |
| | | Success=0xF8 | |
| | | Failure=0xF5 | |

1.3.2Send Small Package from PC to Target Device

Supported Device: All modules

Operation Code: 0xDC1A

MinilO Protocol Using Inside V1.0

| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 | |
|-------------------------|---------------------------------------|------------------------|--|
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 | |
| Is Big UDP Package for | rmat : No | | |
| Additional Content | | | |
| LEN of additional conte | nt: MAX. 65 bytes (Max. Flash data is | 59 bytes) | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | High 8 bits of current package No | Current Package No : 2 | |
| 1 | low 8 bits of current package No | bytes | |
| 2 | Flag of external flash or inner | 1byte | |
| | memory | external flash=1 | |
| | | inner memory=0 | |
| 3 | High 8 bits of flash start address | 3 bytes | |
| 4 | Medium 8 bits of flash Start | | |
| | Address | | |
| 5 | Low 8 bits of flash start address | | |
| 6 | Flash data start | | |
| | | | |
| 64 (MAX.) | Flash data end | | |

| Operation Code: 0xDC1B | | |
|-----------------------------------|------------------------------------|-----------------------|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 |
| Is Big UDP Package fo | rmat: No | |
| Additional Content | | |
| LEN of additional content::3bytes | | |
| Index of Additional | Remark | Value |
| index of Additional | Remark | value |
| Content | Remark | value |
| | Flag of success or failure | 1byte |
| Content | | |
| Content | | 1byte |
| Content | | 1byte Success=0xF8 |





1.4MAC Address

Read MAC Address 1.4.1

Supported Device: All modules

| Operation Code: 0xF003 | | |
|-----------------------------------|------------------------------------|--------------------|
| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 |
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 |
| Is Big UDP Package format : No | | |
| Additional Content | | |
| LEN of additional content: 0 byte | | |
| Index of Additional | Remark | Value |
| Content | | |

| Operation Code: 0xF004 | | |
|-------------------------|---|----------------------------|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 |
| Is Big UDP Package for | rmat: No | |
| Additional Content | | |
| LEN of additional conte | nt: If is not hotel devices ,8 bytes, mor | re bytes no use |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | MAC 1st byte | 1byte |
| 1 | MAC 2nd byte | 1byte |
| 2 | MAC 3rd byte | 1byte |
| 3 | MAC 4th byte | 1byte |
| 4 | MAC 5th byte | 1byte |
| 5 | MAC 6th byte | 1byte |
| 6 | MAC 7th byte | 1byte |
| 7 | MAC 8th byte | 1byte |
| 8 | 1 st byte of Remark | 20bytes, |
| 9 | 2 nd byte of remark | If the length of remark is |
| 10 | 3 rd byte of remark | less than 20, please use |
| 11 | 4 th byte of remark | ASCII of space. |
| | | |





1.4.2 Modify MAC Address

Supported Device: All modules

| Operation Code: 0xF001 | | |
|-------------------------|------------------------------------|--------------------|
| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 |
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 |
| Is Big UDP Package for | rmat : No | |
| Additional Content | | |
| LEN of additional conte | nt: 8 bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | MAC 1st byte | 1byte |
| 1 | MAC 2nd byte | 1byte |
| 2 | MAC 3rd byte | 1byte |
| 3 | MAC 4th byte | 1byte |
| 4 | MAC 5th byte | 1byte |
| 5 | MAC 6th byte | 1byte |
| 6 | MAC 7th byte | 1byte |
| 7 | MAC 8th byte | 1byte |

Response

| Operation Code: 0xF002 | | | |
|-------------------------|------------------------------------|-------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 | |
| Additional Content | | | |
| LEN of additional conte | LEN of additional content: 1 byte | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag of success or failure | 1byte | |
| | | Success=0xF8 | |
| | | Failure=0xF5 | |

1.5 Read device remark

Remark: This operation has two ways to use

1 Send to specify device to get its remark

2 Broadcast to the LAN to get there devices' remark on the LAN

Supported Device: All modules

1

Operation Code: 0x000E

MinilO Protocol Using Inside V1.0

| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 |
|--------------------------------|------------------------------------|--------------------|
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 |
| Is Big UDP Package format : No | | |

Response

| Operation Code: 0x000F | | |
|-------------------------|------------------------------------|----------------------------|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 |
| Additional Content | | |
| LEN of additional conte | ent: 20 byte | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | 1 st byte of Remark | 20bytes, |
| 1 | 2 nd byte of remark | If the length of remark is |
| 2 | 3 rd byte of remark | less than 20, please use |
| 3 | 4 th byte of remark | ASCII of space. |
| 4 | 5 th byte of remark | |
| 5 | 6 th byte of remark | |
| 6 | 7 th byte of remark | |
| 7 | 8 th byte of remark | |
| 8 | 9 th byte of remark | |
| 9 | 10 th byte of remark | |
| 10 | 11 th byte of remark | |
| 11 | 12 th byte of remark | |
| 12 | 13 th byte of remark | |
| 13 | 14 th byte of remark | |
| 14 | 15 th byte of remark | |
| 15 | 16 th byte of remark | |
| 16 | 17 th byte of remark | |
| 17 | 18 th byte of remark | |
| 18 | 19 th byte of remark | |
| 19 | 20 th byte of remark | |
| | | |

2

| | Operation Code: 0x000E | | |
|--------------------------------|------------------------|-------------------|------|
| | Target Subnet ID: | Broadcast address | 0xFF |
| | Target Device ID: | Broadcast address | 0xFF |
| Is Big UDP Package format : No | | | |

Response:

Devices in the same LAN will relay a random number time to response , Every one response as send to specify device ${\sf E}$





1.6 Write device remark

Supported Device: All modules

| Operation Code: 0x001 | 0 | |
|-------------------------|------------------------------------|----------------------------|
| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 |
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 |
| Is Big UDP Package fo | rmat : No | |
| Additional Content | | |
| LEN of additional conte | ent: 20 byte | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | 1 st byte of Remark | 20bytes, |
| 1 | 2 nd byte of remark | If the length of remark is |
| 2 | 3 rd byte of remark | less than 20, please use |
| 3 | 4 th byte of remark | ASCII of space. |
| 4 | 5 th byte of remark | |
| 5 | 6 th byte of remark | |
| 6 | 7 th byte of remark | |
| 7 | 8 th byte of remark | |
| 8 | 9 th byte of remark | |
| 9 | 10 th byte of remark | |
| 10 | 11 th byte of remark | |
| 11 | 12 th byte of remark | |
| 12 | 13 th byte of remark | |
| 13 | 14 th byte of remark |] |
| 14 | 15 th byte of remark | |
| 15 | 16 th byte of remark | |
| 16 | 17 th byte of remark | |
| 17 | 18 th byte of remark | |
| 18 | 19 th byte of remark | |
| 19 | 20 th byte of remark | |

| Operation Code: 0x0011 | | | |
|-------------------------|------------------------------------|-------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 | |
| Additional Content | | | |
| LEN of additional conte | LEN of additional content: 1 byte | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag for success/ failure | 1byte, | |





| | Success=0xF8 |
|--|---------------|
| | Failure =0xF5 |

1.7 Read firmware version

Supported Device: All modules

| Operation Code: 0xEEFD | | | |
|-----------------------------------|------------------------------------|--------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 | |
| Is Big UDP Package format : No | | | |
| Additional Content | | | |
| LEN of additional content: 0 byte | | | |

Response

| Operation Code: 0xEEFE | | | |
|--------------------------------------|------------------------------------|-------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 | |
| Is Big UDP Package for | Is Big UDP Package format: No | | |
| Additional Content | | | |
| LEN of additional content: 22 bytes, | | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 ~21 | Version info | 22 bytes | |

1.8 ModifysubnetID and DeviceIDby Mac address

Supported Device: All modules

| Operation Code: 0xF005 | | | |
|-------------------------------------|------------------------------------|--------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 | |
| Is Big UDP Package for | rmat : No | | |
| Additional Content | Additional Content | | |
| LEN of additional content: 10 bytes | | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | MAC 1st byte | 1byte | |
| 1 | MAC 2nd byte | 1byte | |
| 2 | MAC 3rd byte | 1byte | |

MinilO Protocol Using Inside V1.0

| 3 | MAC 4th byte | 1byte |
|---|--------------|-------|
| 4 | MAC 5th byte | 1byte |
| 5 | MAC 6th byte | 1byte |
| 6 | MAC 7th byte | 1byte |
| 7 | MAC 8th byte | 1byte |
| 8 | SubnetID | 1byte |
| 9 | SubDeciveID | 1byte |

Response

| Operation Code: 0xF002 | | | |
|-------------------------|------------------------------------|-------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 | |
| Additional Content | Additional Content | | |
| LEN of additional conte | LEN of additional content: 1 byte | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag of success or failure | 1byte | |
| | | Success=0xF8 | |
| | | Failure=0xF5 | |

1.9 To see whether the specify device is on line

Supported Device: All modules

| Operation Code: 0xF065 | | |
|-----------------------------------|------------------------------------|--------------------|
| Target Subnet ID: | Specify subnet ID of target device | 1byte, scope 1-254 |
| Target Device ID: | Specify device ID of target device | 1byte, scope 1-254 |
| Is Big UDP Package format : No | | |
| Additional Content | | |
| LEN of additional content: 0 byte | | |

| Operation Code: 0xF06 | peration Code: 0xF066 | | |
|-------------------------------------|------------------------------------|-------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | 1byte,scope 1-254 | |
| Target Device ID: | Specify device ID of target device | 1byte,scope 1-254 | |
| Is Big UDP Package format: No | | | |
| Additional Content | | | |
| LEN of additional content: 0 bytes, | | | |





1.2MinilO

1.1Read Dry Connector NC/NO & Current Status

| Operation Code: 0x012C | | | |
|-----------------------------------|------------------------------------|-------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | | | |
| LEN of additional content::1 byte | | | |
| 0 | Reserved | 1byte | |
| | | | |

| · | | | |
|-------------------------|--|------------------------|--|
| Operation Code: 0x012D | | | |
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | | | |
| LEN of additional conte | ent: 2 + 2*(QTY of Dry connector) byte | S | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag of success or failure | 1byte | |
| | | Success=0xF8 | |
| | | Failure=0xF5 | |
| 1 | QTY of Dry connector | 1byte | |
| | | | |
| 2 | NC/NO for dry connector 1 | 0x00 = NC | |
| | NC:normally close | 0x01 = NO | |
| | NO:normally open | Other value is invalid | |
| 3 | NC/NO for dry connector 2 | 0x00 = NC | |
| | NC:normally close | 0x01 = NO | |
| | NO:normally open | Other value is invalid | |
| | | | |
| | | | |
| 1 + QTY of dry | NC/NO for last dry connector | 0x00 = NC | |
| connector | NC:normally close | 0x01 = NO | |
| | NO:normally open | Other value is invalid | |
| 1 + QTY of dry | Status of Dry connector 1 | 1byte | |
| connector +1 | | 0 = Connected | |
| | | 1 = Disconnected | |





| 1 + QTY of dry | Status of Dry connector 2 | 1byte |
|-----------------|---------------------------|------------------|
| connector +1+2 | | 0 = Connected |
| | | 1 = Disconnected |
| | | |
| | | |
| 1 + (QTY of dry | Status of Dry connector 1 | 1byte |
| connector)*2 +1 | | 0 = Connected |
| | | 1 = Disconnected |

1.2 Forwardly Report Status by 3Z

Remark: if status of 3Z is changed, the 3Zwill report status of 4 contacts to the network by broadcast

To make sure the data will not be loss, 3Z need to send 3 times, interval delay is 1second.

It means devices will report 3 times, every 1 second will send 1 time. Total is 3 times.

| Operation Code:0xDC22 | | | |
|-------------------------|-------------------------|----------------------|--|
| Target Subnet ID: | Broadcast address | 0xFF | |
| Target Device ID: | | 0xFF | |
| Additional Content | | | |
| LEN of additional conte | ent:: 9 bytes | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | QTY of dry contacts | 1byte | |
| | | Here QTY is 4 | |
| 1 | Type of dry contact 1 | 1byte | |
| | | Type of dry contact: | |
| | | NC=1 | |
| | | NO=0 | |
| | | Invalid=2 | |
| 2 | Type of dry contact 2 | 1byte | |
| | | | |
| 3 | Type of dry contact 3 | 1byte | |
| 4 | Type of dry contact 4 | 1byte | |
| 5 | Status of dry contact 1 | 1byte | |
| | | Status: | |
| | | Open =1 | |
| | | Close =0 | |
| | | | |
| 6 | Status of dry contact 2 | 1byte | |
| 7 | Status of dry contact 3 | 1byte | |
| | | | |





| 8 Status of dry contact 4 1byte |
|---------------------------------|
|---------------------------------|

1 3Zmode

2 Settings

2.1 Read type of button control

| Operation Code: 0xD205 | | | | |
|--|--|--|--|--|
| Target Subnet ID: Specify subnet ID of target device scope 0-254 | | | | |
| Target Device ID: Specify device ID of target device scope 0-254 | | | | |
| Additional Content | | | | |
| LEN of additional content:0 byte | | | | |

| Operation Code: 0xD206 | | | |
|---------------------------|------------------------------------|------------------------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | | | |
| LEN of additional conte | ent: 1 + QTY of button bytes | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flagof success or failure | 1byte | |
| | | Success=0xF8 | |
| | | Failure=0xF5 | |
| 1 | Type of button 1 | 1byte | |
| | | For detail see table Button | |
| | | Type below | |
| 2 | Type of button 2 | 1byte | |
| | | For detail see table Button | |
| | | Type below | |
| | | | |
| QTY of buttons | Type of last button | 1byte | |
| | | For detail see table Button | |
| | | Type below | |





Button Type

| Mechanic al | Single on | Single on/off | Combination on | Combination off | Combinati on on/Off | Invalid |
|----------------|--------------|---------------|----------------|-----------------|------------------------|---------|
| Switch | | | | | | |
| 0 | 1 | 2 | 3 | 4 | 5 | 0xFF |

2.2 Write type of button control

| Operation Code: 0xD207 | | | |
|-------------------------|------------------------------------|------------------------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | | | |
| LEN of additional conte | ent: 1 + QTY of button bytes | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Type of button 1 | 1byte | |
| | | For detail see table Button | |
| | | Type up | |
| 1 | Type of button 2 | 1byte | |
| | | For detail see table Button | |
| | | <u>Type</u> up | |
| | | | |
| QTY of buttons | Type of last button | 1byte | |
| | | For detail see table Button | |
| | | Type up | |

| Operation Code: 0xD208 | | | | |
|-----------------------------|--|-------------|--|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | | |
| Additional Content | | | | |
| LEN of additional conte | LEN of additional content: 1 + QTY of button bytes | | | |
| | | | | |
| Index of Additional | Remark | Value | | |
| Index of Additional Content | Remark | Value | | |
| | Remark Flag of success or failure | Value 1byte | | |
| Content | | | | |





| 1 | Type of button 1 | 1byte |
|----------------|---------------------|-----------------------------|
| | | For detail see table Button |
| | | <u>Type</u> up |
| 2 | Type of button 2 | 1byte |
| | | For detail see table Button |
| | | <u>Type</u> up |
| | | |
| QTY of buttons | Type of last button | 1byte |
| | | For detail see table Button |
| | | <u>Type</u> up |

2.3 Read work mode of Electronic button

| Operation Code: 0xD230 | | | | |
|--|--|--|--|--|
| Target Subnet ID: Specify subnet ID of target device scope 0-254 | | | | |
| Target Device ID: Specify device ID of target device scope 0-254 | | | | |
| Additional Content | | | | |
| LEN of additional content:0 byte | | | | |

| Operation Code: 0xD231 | | | |
|-------------------------|------------------------------------|--------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | | | |
| LEN of additional conte | ent: 1 + QTY of button bytes | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag of success or failure | 1byte | |
| | | Success=0xF8 | |
| | | Failure=0xF5 | |
| 1 | Mode of button 1 | 1byte | |
| | | 0 = On/Off mode | |
| | | 1 = Dimming | |
| | | Mode&On/Off mode | |
| 2 | Mode of button2 | 1byte | |
| | | 0 = On/Off mode | |
| | | 1 = Dimming Mode & | |
| | | On/Off mode | |
| | | | |
| QTY of buttons | Mode of last button | 1byte | |



| | 0 = On/Off mode |
|--|--------------------|
| | 1 = Dimming Mode & |
| | On/Off mode |

2.4 Modify work mode of Electronic button

| Operation Code: 0xD232 | | |
|-------------------------|------------------------------------|--------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | ent::QTY of buttons byte | |
| 1 | Mode of button 1 | 1byte |
| | | 0 = On/Off mode |
| | | 1 = Dimming Mode & |
| | | On/Off mode |
| 2 | Mode of button2 | 1byte |
| | | 0 = On/Off mode |
| | | 1 = Dimming Mode & |
| | | On/Off mode |
| | | |
| QTY of buttons -1 | Mode of last button | 1byte |
| | | 0 = On/Off mode |
| | | 1 = Dimming Mode & |
| | | On/Off mode |

| Operation Code: 0xD233 | | |
|---------------------------|------------------------------------|--------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | ent: 1 + QTY of button bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Flag of success or failure | 1byte |
| | | Success=0xF8 |
| | | Failure=0xF5 |
| 1 | Mode of button 1 | 1byte |
| | | 0 = On/Off mode |
| | | 1 = Dimming Mode & |
| | | On/Off mode |





| 2 | Mode of button2 | 1byte |
|----------------|---------------------|--------------------|
| | | 0 = On/Off mode |
| | | 1 = Dimming Mode & |
| | | On/Off mode |
| | | |
| QTY of buttons | Mode of last button | 1byte |
| | | 0 = On/Off mode |
| | | 1 = Dimming Mode & |
| | | On/Off mode |

2.5 Read remark of button

| Operation Code: 0xD210 | | |
|-------------------------|------------------------------------|------------------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | ent::2 bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Button No. | 1byte |
| | | Scope 0~ QTY of buttons |
| 1 | Flag of switch type | 1byte |
| | | If mechanical switch: 0 = |
| | | remark of off, 1 = remark of |
| | | on |
| | | else = 1 |

| Operation Code: 0xD211 | | |
|-------------------------|------------------------------------|--------------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | ent: 22 bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Button No. | 1byte |
| | | |
| 1 | Flag of switch type | 1byte |
| | | 0 = remark of mechanical |
| | | switch Off |
| | | 1 = remark of mechanical |





| | | switch On or other type switch |
|--------|-------------|--------------------------------|
| 2 ~ 21 | Remark data | 20 bytes |

2.6Modify remark of button

| Operation Code: 0xD220 | | |
|-------------------------|------------------------------------|------------------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | nt::23 bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Button No. | 1byte |
| | | Scope 0~ QTY of buttons |
| 1 | Flag of switch type | 1byte |
| | | If mechanical switch: 0 = |
| | | remark of off, 1 = remark of |
| | | on |
| | | else = 1 |
| 2 ~ 22 | Remark data | 20 bytes |

| Operation Code: 0xD221 | | |
|-------------------------|------------------------------------|--------------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | ent: 3 bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Flag of success or failure | 1byte |
| | | Success=0xF8 |
| | | Failure=0xF5 |
| 1 | Button No. | 1byte |
| | | |
| 2 | Flag of switch type | 1byte |
| | | 0 = remark of mechanical |
| | | switch Off |



| | 1 = remark of mechanical |
|--|--------------------------|
| | switch On or other type |
| | switch |
| | |

2.7 Read relay time of mechanical switch

| Operation Code: 0xD218 | | |
|-------------------------|------------------------------------|-------------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | nt::2 bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Button No. | 1byte |
| | | Scope 0~ QTY of buttons |
| 1 | Mechanical switch on or off | 1byte |
| | | Delay of mechanical |
| | | switch off = 0 |
| | | Delay of mechanical |
| | | switch on=1 |

| reopenee | | |
|-------------------------|------------------------------------|---------------------|
| Operation Code: 0xD219 | | |
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | ent: 5 bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Flag of success or failure | 1byte |
| | | Success=0xF8 |
| | | Failure=0xF5 |
| 1 | Button No. | 1byte |
| | | |
| 2 | Flag of switch type | 1byte |
| | | Delay of mechanical |
| | | switch off = 0 |
| | | Delay of mechanical |
| | | switch on=1 |





| 3 | High 8 bit of delay time | 2 bytes |
|---|--------------------------|----------------|
| 4 | Low 8 bit of delay time | Scope 0-3600ms |

2.8Write relay time of mechanical switch

| Operation Code: 0xD20C | | |
|-------------------------|------------------------------------|--------------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | nt::23 bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Button No. | 1byte |
| | | Scope 0~ QTY of buttons |
| 1 | Flag of switch type | 1byte |
| | | 0 = remark of mechanical |
| | | switch Off |
| | | 1 = remark of mechanical |
| | | switch On or other type |
| | | switch |
| 2 ~ 22 | Remark data | 20 bytes |
| | | |

| Operation Code: 0xD20D | | | |
|-------------------------|------------------------------------|--------------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | | | |
| LEN of additional conte | ent: 3 bytes | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag of success or failure | 1byte | |
| | | Success=0xF8 | |
| | | Failure=0xF5 | |
| 1 | Button No. | 1byte | |
| | | | |
| 2 | Flag of switch type | 1byte | |
| | | 0 = remark of mechanical | |
| | | switch Off | |
| | | 1 = remark of mechanical | |



| | switch On or other type switch |
|--|--------------------------------|
| | |

2.9 Read settings of specify command of specify button

| Operation Code: 0xD21C | | |
|-------------------------|------------------------------------|--------------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | nt::3 bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Button No. | 1byte |
| | | Scope 0~ QTY of buttons |
| 1 | Flag of switch type | 1byte |
| | | 0 = remark of mechanical |
| | | switch Off |
| | | 1 = remark of mechanical |
| | | switch On or other type |
| | | switch |
| 2 | Sequence No. | 1 byte |
| | | Scope 0-99 |

| Operation Code: 0xD21D | | | |
|-----------------------------|--------------------------------------|-----------------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | | | |
| LEN of additional conte | ent: 7 + N bytes ; N depends on Comm | and type | |
| | CommandType Definition | | |
| | | | |
| Index of Additional | Remark | Value | |
| Index of Additional Content | Remark | Value | |
| | Remark Flag of success or failure | 1byte | |
| Content | | | |
| Content | | 1byte | |
| Content | | 1byte Success=0xF8 | |



| 2 | Flag of switch type | 1byte 0 = remark of mechanical switch Off 1 = remark of mechanical switch On or other type switch |
|-----|-------------------------------------|---|
| 3 | Sequence No. | 1byte Scope 0-99 |
| 4 | Command type | 1byte For detail see tableCommandType Definition |
| 5 | Target subnet ID | 1byte |
| 6 | Target device ID | 1byte |
| 7 ~ | Parameters ,depends on Command type | Number of byte depends on Command type |

2.10Write settings of specify command of specify button

| Operation Code: 0xD21E | | |
|-------------------------|--------------------------------------|--------------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | nt:: 7 + N bytes ; N depends on Comn | nand type |
| CommandType Definition | <u>on</u> | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Button No. | 1byte |
| | | Scope 0~ QTY of buttons |
| 1 | Flag of switch type | 1byte |
| | | 0 = remark of mechanical |
| | | switch Off |
| | | 1 = remark of mechanical |
| | | switch On or other type |
| | | switch |
| 2 | Sequence No. | 1 byte |
| | | Scope 0-99 |





| 4 | Command type | 1byte |
|-----|--------------------------------|------------------------|
| | | For detail see table |
| | | CommandType Definition |
| 5 | Target subnet ID | 1byte |
| | | |
| 6 | Target device ID | 1byte |
| | | |
| 7 ~ | Parameters ,depends on Command | Number of byte depends |
| | type | on Command type |

Response

| response | | | |
|-------------------------|------------------------------------|--------------------------|--|
| Operation Code: 0xD21F | | | |
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | | | |
| LEN of additional conte | ent: : 4bytes | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag of success or failure | 1byte | |
| | | Success=0xF8 | |
| | | Failure=0xF5 | |
| 1 | Button No. | 1byte | |
| | | | |
| 2 | Flag of switch type | 1byte | |
| | | 0 = remark of mechanical | |
| | | switch Off | |
| | | 1 = remark of mechanical | |
| | | switch On or other type | |
| | | switch | |
| | | | |
| 3 | Sequence No. | 1byte | |
| | | Scope 0-99 | |

2.11 Read info of button enable or not

| Operation Code: 0x0128 | | |
|-----------------------------------|------------------------------------|-------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional content::0 byte | | |





Response

| Operation Code: 0x0129 | | |
|---------------------------|------------------------------------|---------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | ent: QTY of buttons bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Button1 enable or not | 1byte |
| | | 0 = Disenable |
| | | 1 = Enable |
| 1 | Button2 enable or not | 1byte |
| | | 0 = Disenable |
| | | 1 = Enable |
| | | |
| QTY of buttons - 1 | Last Button enable or not | 1byte |
| | | 0 = Disenable |
| | | 1 = Enable |

2.12Modify info of button enable or not

| Operation Code: 0x012A | | | |
|-------------------------|--|---------------|--|
| Target Subnet ID: | Specify subnet ID of target device scope 0-254 | | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | | | |
| LEN of additional conte | ent::QTY of buttons bytes | | |
| 0 | Button1 enable or not | 1byte | |
| | | 0 = Disenable | |
| | | 1 = Enable | |
| 1 | Button2 enable or not | 1byte | |
| | | 0 = Disenable | |
| | 1 = Enable | | |
| | | | |
| QTY of buttons - 1 | Last Button enable or not | 1byte | |
| | | 0 = Disenable | |
| | | 1 = Enable | |

Response

Operation Code: 0x012B



| Target Subnet ID: | Specify subnet ID of target device scope 0-254 | | | |
|---------------------------|--|--------------|--|--|
| Target Device ID: | Specify device ID of target device scope 0-254 | | | |
| Additional Content | | | | |
| LEN of additional conte | LEN of additional content: 1 byte | | | |
| Index of Additional | Remark Value | | | |
| Content | | | | |
| 0 | Flag of success or failure | 1byte | | |
| | | Success=0xF8 | | |
| | | Failure=0xF5 | | |

2.13 Modify button enable or not by universal switch command

| Operation Code: 0xE01C | | | |
|-------------------------|--|---|--|
| Target Subnet ID: | Specify subnet ID of target device scope 0-254 | | |
| Target Device ID: | Specify device ID of target device scope 0-254 | | |
| Additional Content | | | |
| LEN of additional conte | ent::QTY of buttons bytes | | |
| 0 | Channel of dry connector | 1byte 251 = 1 st dry connector 252 = 2 nd dry connector 253 = 3 rd dry connector 254 = 4 th dry connector | |
| 1 | Enable or not | 1byte 0 = Disenable 1 = Enable | |

| Operation Code: 0xE01D | | | | |
|------------------------------------|--------------------------------|-------------------------|--|--|
| Target Subnet ID: | Broadcast | 0xFF | | |
| Target Device ID: | Broadcast | 0xFF | | |
| Additional Content | Additional Content | | | |
| LEN of additional content: 2 bytes | | | | |
| Index of Additional Remark Value | | Value | | |
| Content | | | | |
| 0 | Channel of dry connector 1byte | | | |
| | | 251 = 1st dry connector | | |



| | | 252 = 2nd dry connector 253 = 3rd dry connector 254 = 4th dry connector |
|---|---------------|---|
| 1 | Enable or not | 1byte 0 = Disenable 1 = Enable |

2.14Read remark of that specify security zone

| Operation Code: 0XD210 | | | |
|-------------------------|--|-------|--|
| Target Subnet ID: | Specify subnet ID of target device scope 0-254 | | |
| Target Device ID: | Specify device ID of target device scope 0-254 | | |
| Additional Content | | | |
| LEN of additional conte | LEN of additional content::0 byte | | |
| Index of Additional | Remark | Value | |
| | - Communic | Value | |
| Content | | Value | |
| | Channel No. of Dry Connector | 1byte | |
| Content | | | |
| Content | | 1byte | |

| Operation Code: 0XD211 | | | |
|-------------------------------|--|--------------|--|
| Target Subnet ID: | Specify subnet ID of target device scope 0-254 | | |
| Target Device ID: | Specify device ID of target device scope 0-254 | | |
| Additional Content | | | |
| LEN of additional conte | ent: 23 bytes | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag of success or failure 1byte | | |
| | | Success=0xF8 | |
| | Failure=0xF5 | | |
| 1 | Channel No. of Dry Connector 1byte | | |
| | Scope 4-7 | | |
| 2 | Reserved 1byte | | |
| | | | |





| 3 ~ 22 | Remark data | 20 bytes |
|--------|-------------|----------|
| | | |

2.15Write remark of that specify security zone

| Operation Code: 0XD220 | | | |
|-------------------------|--|-----------|--|
| Target Subnet ID: | Specify subnet ID of target device scope 0-254 | | |
| Target Device ID: | Specify device ID of target device scope 0-254 | | |
| Additional Content | | | |
| LEN of additional conte | ent::22 bytes | | |
| Index of Additional | Remark Value | | |
| Content | | | |
| 0 | Channel No. of Dry Connector | 1byte | |
| | | Scope 4-7 | |
| 1 | Reserved | 1byte | |
| | | | |
| 2 ~ 21 | Remark data 20 bytes | | |
| | | | |

| Operation Code: 0XD221 | | | |
|-------------------------|--|-----------|--|
| Target Subnet ID: | Specify subnet ID of target device scope 0-254 | | |
| Target Device ID: | Specify device ID of target device scope 0-254 | | |
| Additional Content | | | |
| LEN of additional conte | ent: QTY of buttons bytes | | |
| Index of Additional | Remark Value | | |
| Content | | | |
| 0 | Flag of success or failure | 1byte | |
| | Success=0xF8 | | |
| | Failure=0xF5 | | |
| 1 | Channel No. of Dry Connector 1byte | | |
| | | Scope 4-7 | |





2.16Read security configuration info for specify dry connector NO.

| Operation Code: 0X0124 | | | | |
|-----------------------------------|--|-----------|--|--|
| Target Subnet ID: | Specify subnet ID of target device scope 0-254 | | | |
| Target Device ID: | Specify device ID of target device scope 0-254 | | | |
| Additional Content | | | | |
| LEN of additional content::1 byte | | | | |
| Index of Additional | Remark Value | | | |
| Content | | | | |
| 0 | Channel No. of Dry Connector 1byte | | | |
| | | Scope 1-4 | | |

| Operation Code: 0X0215 | | | |
|-------------------------------|-------------------------------|-------|---|
| Target Subnet | Specify subnet ID scope 0-254 | | e 0-254 |
| ID: | of target device | | |
| Target Device | Specify device ID | scope | e 0-254 |
| ID: | of target device | | |
| Additional Con | tent | | |
| LEN of additiona | al content: 10 bytes | | |
| Index of | Remark | | Value |
| Additional | | | |
| Content | | | |
| 0 | Flag of success or fa | ilure | 1byte |
| | | | Success=0xF8 |
| | | | Failure=0xF5 |
| 1 | Channel No. of Dry | | 1byte |
| | Connector | | Scope 4-7 |
| 2 | Security Enable or no | ot | 1byte |
| | | | 0xF8 = Allow the dry connector to send |
| | | | security commands |
| | | | 0xF5 = Disallow the dry connector to send |
| | | | security commands |
| 3 | The condition to tr | igger | 1 byte |
| | the security events | | 0 = Connect |
| | | | 1 = Disconnect |
| | | | |
| 4 | Subnet ID of sp | ecify | 1byte |
| | security module | | |





| 5 | Device ID of specify | 1byte |
|---|----------------------|--|
| | security module | |
| 6 | Zone NO. of specify | 1byte |
| | security module | |
| 7 | 24Hours Active Zone | 1byte |
| | | 0x01=Fire |
| | | 0x04:Panic |
| | | 0x10:Current |
| | | 0x02:Gas |
| | | 0x08:Salience Emergency |
| 8 | Security Arm Mode | 1byte |
| | | Value = Day(bit4)+Night |
| | | Guest(bit3)+Night(Bit2)+Away(bit1)+Vacatio |
| | | n(Bit0) |
| | | 0 = the mode is invalid |
| | | 1 = the mode is valid |
| | | |
| 9 | Trigger Delay | 1byte |
| | | 0x00 = Not delay |
| | | 0x81 = 1multiple |
| | | 0x82 = 2multiple |
| | | 0x83 = 4multiple |

2.17Modify security configuration info for specify dry connector NO.

| Operation Code | : 0X0126 | |
|-----------------------|---------------------|-------------|
| Target Subnet | Specify subnet ID | scope 0-254 |
| ID: | of target device | |
| Target Device | Specify device ID | scope 0-254 |
| ID: | of target device | |
| Additional Con | tent | |
| LEN of additiona | al content::9 bytes | |
| Index of | Remark | Value |
| Additional | | |
| Content | | |





| | Channel No. of Day | 4 hto |
|----------|--------------------------------------|---|
| 0 | Channel No. of Dry | 1byte |
| _ | Connector | Scope 1-4 |
| 1 | Security Enable or not | 1byte |
| | | 0xF8 = Allow the dry connector to send |
| | | security commands |
| | | 0xF5 = Disallow the dry connector to send |
| | | security commands |
| 2 | The condition to trigger | 1 byte |
| | the security events | 0 = Connect |
| | | 1 = Disconnect |
| | Outract ID of specific | Abote |
| 3 | Subnet ID of specify | 1byte |
| 4 | security module | 1 hydro |
| 4 | Device ID of specify security module | 1byte |
| 5 | Zone NO. of specify | 1byte |
| | security module | lisyte |
| 6 | 24Hours Active Zone | 1byte |
| | Z-1 louis / tolive Zone | 0x01=Fire |
| | | 0x04:Panic |
| | | 0x10:Current |
| | | 0x02:Gas |
| | | 0x08:Salience Emergency |
| 7 | Security Arm Mode | 1byte |
| , | occurity Arm Wood | Value = Day(bit4)+Night |
| | | Guest(bit3)+Night(Bit2)+Away(bit1)+Vacation |
| | | (Bit0) |
| | | 0 = the mode is invalid |
| | | 1 = the mode is valid |
| | | 1 - the mode is valid |
| 8 | Trigger Delay | 1byte |
| | | 0x00 = Not delay |
| | | 0x81 = 1multiple |
| | | 0x82 = 2multiple |
| | | 0x83 = 4multiple |
| <u> </u> | | - |

| Response | | | |
|--------------------|----------------------|-------------|--|
| Operation Code | : 0X0217 | | |
| Target Subnet | Specify subnet ID | scope 0-254 | |
| ID: | of target device | | |
| Target Device | Specify device ID | scope 0-254 | |
| ID: | of target device | | |
| Additional Content | | | |
| LEN of additiona | al content: 23 bytes | | |





| | | Value | | | |
|-----------------------------|----------------------------|--|--|--|--|
| Index of Additional Content | Remark | Value | | | |
| 0 | Flag of success or failure | 1byte | | | |
| | | Success=0xF8 | | | |
| | | Failure=0xF5 | | | |
| 1 | Channel No. of Dry | 1byte | | | |
| | Connector | Scope 1-4 | | | |
| 2 | Security Enable or not | 1byte | | | |
| | | 0xF8 = Allow the dry connector to send | | | |
| | | security commands | | | |
| | | 0xF5 = Disallow the dry connector to send | | | |
| | | security commands | | | |
| 3 | The condition to trigger | 1 byte | | | |
| | the security events | 0 = Connect | | | |
| | | 1 = Disconnect | | | |
| | | | | | |
| 4 | Subnet ID of specify | 1byte | | | |
| | security module | | | | |
| 5 | Device ID of specify | 1byte | | | |
| | security module | | | | |
| 6 | Zone NO. of specify | 1byte | | | |
| | security module | | | | |
| 7 | 24Hours Active Zone | 1byte | | | |
| | | 0x01=Fire | | | |
| | | 0x04:Panic | | | |
| | | 0x10:Current | | | |
| | | 0x02:Gas | | | |
| | | 0x08:Salience Emergency | | | |
| 8 | Security Arm Mode | 1byte | | | |
| | | Value = Day(bit4)+Night | | | |
| | | Guest(bit3)+Night(Bit2)+Away(bit1)+Vacatio | | | |
| | | n(Bit0) | | | |
| | | 0 = the mode is invalid | | | |
| | | 1 = the mode is valid | | | |
| | | | | | |
| 9 | Trigger Delay | 1byte | | | |
| | | 0x00 = Not delay | | | |
| | | 0x81 = 1multiple | | | |
| | | 0x82 = 2multiple | | | |
| | | 0x83 = 4multiple | | | |





CommandType Definition

| Command | Command Type | Remark | FirstParameter | SecondPa | ThirdParameter |
|---------|---------------------|--------|----------------|----------|----------------|
| TypeID | Name | | | rameter | |
| 0 | Scene control | | Zone No | Scene No | Unused |
| | | | (1-254) | (0-254) | (set 0) |
| 1 | Sequence | | Zone No | Sequence | Unused |





| | | | totocoi Osing mside VI. | <u></u> | |
|----|-----------------------------|--|--|---|--------------------------------------|
| | Control | | (1-254) | No (0-254) | (set 0) |
| 2 | Universal Switch Control | | Universal Switch ID (0-255) | Switch Control status (255:on 0: off) | Unused (set 0) |
| 3 | Invalid | Invalid command, it will not take any actions | Any value (0-255) | Any value (0-255) | Any value (0-65535) |
| 4 | Single Channel Control | | Channel No (1-255) | Brightness percentag e (0 -100) | Running Time, unit: second (0 -3600) |
| 5 | Broadcast scene | Run the specific scene in all area of current module | Broadcast area (Must be set 255) | Scene No (0-254) | Unused (set 0) |
| 6 | Broadcast All channels | Control all the channels of current module | Broadcast all channels (Must be set 255) | percentag | Running Time, unit: second (0 -3600) |
| 7 | Curtain Control | Control curtain if you are using g3 curtain module | Curtain No (1-4) | Curtain Control Status (0: Stop 1: Open 2: Close) | Unused (set 0) |
| 8 | Timer Control | | Channel No (1-255) | Control Status (255: open 0 : close) | Unused (set 0) |
| 9 | SMS Control | Control G3 SMS module | Type ID (0: invalid 1: SMS Message) | SMS Command No (0-255) | Unused (set 0) |
| 10 | Panel control | | Panel control fo | r A/C | |



| | | FirstParameter | | Second | Parameter | ThirdParameter |
|----|--------------------|-------------------|---------|------------|-----------|----------------|
| | | (TypeID) | | (Value) | | |
| | | 0=(invalid) | | | | 0 |
| | | 1=(enable/disable | | | | 0 |
| | | receive function | n of | 1: (enab | | |
| | | DLP) | | | | |
| | | 3=(Power on/off | | | | 0 |
| | | | | 1: (powe | | |
| | | 4=(cool Set point | | | | 0 |
| | | | | | | |
| | | 5=(FAN Speed) | | | | 0 |
| | | | | 1: (High) | | |
| | | | | 2: (Medi | | |
| | | | | | | |
| | | 6=(AC mode) | | | | 0 |
| | | | | 1: (Heat | | |
| | | | | 2: (FAN) | | |
| | | | | 3: (Auto | | |
| | | 7=(Heat set point | | | | |
| | | | | | | |
| | | 8=(Auto Set poin | | | | |
| | | _ | | 32-86F | | |
| 11 | Security Mode | Zone no | Mode | | Unused | |
| | control | (1-8) | 1: vac | | (set 0) | |
| | | | 2: awa | • | | |
| | | | 3: nigh | ght with | | |
| | | | guest | giit witii | | |
| | | | 5: Day | <i>'</i> | | |
| | | | 6: Disa | | | |
| 12 | Security Alarm | Zone no | Alarm | | Unused | |
| | Jees.ity / italiii | (1-8) | 1: vaca | | (set 0) | |
| | | · - / | 2: Awa | | () | |
| | | | 4: Nigl | - | | |
| | | | | ght with | | |
| | | | guest | - | | |
| | | | 16: Da | ay | | |
| | | | 32: Sir | ren | | |
| | | | 64: Po | wer | | |
| | | | | | | |
| | | | 128: | | | |
| | | | Tempe | erature | | |
| | | | | | | |
| | | | 256: F | ire | | |

| | SMART-BUS G4 Gene | eration-4 SBUS MiniIO Pr | otocol Using Inside V1. 0 |) | | | |
|----|-------------------|-----------------------------|----------------------------------|-------------|--|---------------------|--|
| | | | | 2048 Eme | : Panic | | |
| 18 | Z-Audio | | Z-Audio FirstParameter (Type ID) | | SecondPa (Value) | arameter | ThirdParamet er |
| | | | 1=Music Source | | SD card = Audio In = FTP Serve FM Radio | :1 :2 er =3 | N/A |
| | | | 3=Song List / F List Control | Radio | PREV. So Next Sond Specify So PREV Rad Next Radi | | Song List No / Radio No (only available when Second Parameter is equal 3 or 6) |
| | | | 4=Play Control | | Previous S Next Song Play=3 Stop=4 | | N/A |
| | | | 5=Volume Contro | ol | Percentag (0~ 100, 1 0 is mute) | 100% is max. VOL, | N/A |
| | | | 6=Specify Control | Song | Song List (1byte,0-2 is for alarr | 255, Song List No 0 | Song No (1 – 999) |
| | | | | | | | |





Current、Voltage mode

2.18 Read the mode of input port

| Operation Code: 0x0150 | | | | | | |
|--|------------------------------------|--------------------|--|--|--|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | | | | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | | | | |
| Additional Content | | | | | | |
| LEN of additional conte | nt:0bytes | | | | | |
| Index of Additional | Remark | Value | | | | |
| Content | | | | | | |
| Response | | | | | | |
| Operation Code: 0x015 | 31 | | | | | |
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | | | | |
| | | | | | | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | | | | |
| Target Device ID: Additional Content | Specify device ID of target device | scope 0-254 | | | | |
| | | scope 0-254 | | | | |
| Additional Content | | scope 0-254 Value | | | | |
| Additional Content LEN of additional conte | nt:9 bytes | | | | | |

| Index of Additional | Remark | Value | |
|---------------------|------------------------|-----------------------|--|
| Content | | | |
| 0 | Input port 1 | 1byte | |
| | | 1: Current 2: Voltage | |
| | | 3: Invalid 4: 3Z | |
| 1 | Voltage/Current (High) | 2byte | |
| 2 | Voltage/Current (Low) | V (precision: 0.1V) | |
| | | mA (0.1mA) | |
| 3 | Input port 2 | 1byte | |
| | | Voltage/Current/3Z | |
| 4 | Voltage/Current (High) | 2byte | |
| 5 | Voltage/Current (Low) | V (precision: 0.1V) | |
| | | mA (0.1mA) | |
| 6 | Input port 3 | 1byte | |
| | | Voltage/Current/3Z | |
| 7 | Voltage/Current (High) | 2byte | |
| 8 | Voltage/Current (Low) | V (precision: 0.1V) | |
| | | mA (0.1mA) | |



2.19 Modify the mode of input port

| Operation Code: 0x0152 | | | | | |
|-------------------------|------------------------------------|-----------------------|--|--|--|
| Target Subnet ID: | scope 0-254 | | | | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | | | |
| Additional Content | | | | | |
| LEN of additional conte | nt:9 bytes | | | | |
| Index of Additional | Remark | Value | | | |
| Content | | | | | |
| 0 | Input port 1 | 1byte | | | |
| | | 1: Current 2: Voltage | | | |
| | | 3: Invalid 4: 3Z | | | |
| 1 | I Input port 2 | 1byte | | | |
| | | 1: Current 2: Voltage | | | |
| | | 3: Invalid 4: 3Z | | | |
| 2 | Input port 3 | 1byte | | | |
| | | 1: Current 2: Voltage | | | |
| | | 3: Invalid 4: 3Z | | | |

| Operation Code: 0x0153 | | |
|-----------------------------------|------------------------------------|-------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional content:1 bytes | | |
| | | |
| Index of Additional | Remark | Value |
| Index of Additional Content | Remark | Value |
| | Remark Flag | Value 1byte |
| Content | | |



2.20 Read the limits of input port

| Operation Code: 0xD932 | | | |
|----------------------------------|------------------------------------|-------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | Additional Content | | |
| LEN of additional content:2bytes | | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Input port | 1byte | |
| | | 0-2 | |
| 1 | Conditions | 0-4 | |

| Operation Code: 0xD933 | | |
|-------------------------|------------------------------------|-------------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional conte | ent:6bytes | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Flag | 1byte |
| | | Success=0xF8 |
| | | Failure=0xF5 |
| 1 | Input port | 0-2 |
| 2 | Conditions | 0-4 |
| 3 | Enabled | Volid/Invalid |
| 4-5 | Start Limits | 2byte |
| | | 0-15.0V/0-50. 0mA |
| 6-7 | End Limits | 2byte |
| | | 0-15.0V/0-50. 0mA |



2.21 Modify the limits of condition

| Operation Code: 0xD934 | | |
|----------------------------------|------------------------------------|----------------|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional content:5bytes | | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Input port | 0-2 |
| 1 | Conditions | 0-4 |
| 2 | Enabled | Volid/Invalid |
| 3-4 | Start Limits | 1byte |
| | | 0-15.0V/0-50mA |
| 5-6 | End Limits | 1byte |
| | | 0-15.0V/0-50mA |

| Operation Code: 0xD935 | | | |
|----------------------------------|------------------------------------|-------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | Additional Content | | |
| LEN of additional content:1bytes | | | |
| Index of Additional | Remark | Value | |
| illuex of Additional | Remark | value | |
| Content | Remark | value | |
| | Flag | 1byte | |
| Content | | | |





2.22 Read the remark of condition

| Operation Code: 0xD210 | | | |
|----------------------------------|------------------------------------|-------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | Additional Content | | |
| LEN of additional content:2bytes | | | |
| | | | |
| Index of Additional | Remark | Value | |
| Index of Additional Content | Remark | Value | |
| | Remark Input port | Value 1byte | |
| Content | | | |

Response

| Operation Code: 0xD211 | | | |
|-----------------------------------|------------------------------------|--------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | Additional Content | | |
| LEN of additional content:23bytes | | | |
| Index of Additional | Remark | Value | |
| Content | | | |
| 0 | Flag | 1byte | |
| | | Success=0xF8 | |
| | | Failure=0xF5 | |
| 1 | Input port | 0-2 | |
| 2 | Conditions | 0-4 | |
| 3-22 | remark | 0-0xff | |

2.23 Modify the remark of condition

| Operation Code: 0xD220 | | | |
|-----------------------------|------------------------------------|-------------|--|
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 | |
| Target Device ID: | Specify device ID of target device | scope 0-254 | |
| Additional Content | Additional Content | | |
| LEN of additional conte | LEN of additional content:22bytes | | |
| | | | |
| Index of Additional | Remark | Value | |
| Index of Additional Content | Remark | Value | |
| | Remark Input port | Value 0-2 | |
| Content | | | |

| | Willing I lotocol Osing hiside V1.0 | |
|----------------------------------|-------------------------------------|--------------|
| Operation Code: 0xD221 | | |
| Target Subnet ID: | Specify subnet ID of target device | scope 0-254 |
| Target Device ID: | Specify device ID of target device | scope 0-254 |
| Additional Content | | |
| LEN of additional content:2bytes | | |
| Index of Additional | Remark | Value |
| Content | | |
| 0 | Flag | 1byte |
| | | Success=0xF8 |
| | | Failure=0xF5 |
| 1 | Input port | 1byte |
| | | 0-5 |
| 1 | Conditions | 0-4 |