4 Z Protocol

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Contents

History

Version	Author	Edit date	Changes
1.1	Da	2013-6-5	4 Z
1.2	Glen	2013-6-13	Add Forwardly Report Status by 4Z

SN	Title
1	**Commands Shared**
1.1	*Address Detection*
1.1.1	Detect address [0xE5F5]
1.1.2	Modify address [0xE5F7]
1.2	*Device Backup*
1.2.1	Request total QTY of packages from PC to target device [0xDC10]
1.2.2	Request Current Small Package from PC to target device [0xDC14]
1.3	*Device Restore*
1.3.1	Send Total QTY of Packages from PC to Target Device [0xDC16]
1.3.2	Send Small Package from PC to Target Device [0xDC1A]
1.4	*MAC Address*
1.4.1	Read MAC Address [0xF003]
1.4.2	Modify MAC address [0xF001]
1.5	Read device remark [0x 000E]
1.6	Write device remark [0x 0010]
1.7	Read firmware version [0xEEFD]
1.8	Modify subnetID and DeviceID through Mac address
1.9	To see whether the specify device is on line
12	**4 Z**
1	**Control And statue**
1.1	Read Dry Connector NC/NO & Current Status [0x012C]
1.2	Forwardly Report Status by 4Z [0xDC22]
2	**Settings**
2.1	Read type of button control [0xD205]

2.2	Write type of button control [0xD207]
2.3	Read work mode of Electronic button [0xD230]
2.4	Modify work mode of Electronic button [0xD232]
2.5	Read remark of button [0xD210]
2.6	Modify remark of button [0xD220]
2.7	Read relay time of mechanical switch [0xD218]
2.8	Write relay time of mechanical switch [0xD20C]
2.9	Read settings of specify command of specify button [0xD21C]
2.10	Write settings of specify command of specify button [0xD21E]
2.11	Read info of button enable or not [0x0128]
2.12	Modify info of button enable or not [0x12A]
2.13	Modify button enable or not by universal switch command [0xE01C]
2.14	Read remark of that specify security zone [0xD210]
2.15	Modify remark of that specify security zone [0xD220]
2.16	Read security configuration info for specify dry connector NO. [0x0124]
2.17	Modify security configuration for specify dry connector NO. [0x0126]

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

Operation Code: **0x E5F5**		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:		
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: **0x E5F6**		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:		0xFF
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	**Remark**	**Value**
0	Subnet ID of target device	1byte
1	Device ID of target device	1byte

1.1.2 Modify Address

Supported Device: All modules which have address broadcast button

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

Response

Operation Code: **0x E5F8**		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:		0xFF
Additional Content		
LEN of additional content::1byte		
Index of Additional Content	**Remark**	**Value**
0	Flag for success or Failure	1byte Success =0xF8 Failure=0xF5

1.2 Device Backup

1.2.1 Request 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		

Response

Operation Code: **0x DC11**		
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:3bytes		
Index of Additional Content	**Remark**	**Value**
0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5
1	High 8 bits of Total QTY of packages	Total QTY of Packages : 2 bytes
2	Low 8 bits Total QTY of packages	

1.2.2 Request 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 format :No		
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	**Remark**	**Value**
0	High 8 bits of current Package No	Current Package No: 2 bytes
1	Low 8 bits of current Package No	

Response

Operation Code: **0x DC15**		
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: MAX. 65 bytes (Max. Flash data is 59 bytes)		
Index of Additional Content	**Remark**	**Value**
0	High 8 bits of current package No	Current Package No : 2 bytes
1	low 8 bits of current package No	
2	Flag of external flash or inner memory	1byte 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	

1.3 Device Restore

1.3.1 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 format : No		
Additional Content		
LEN of additional content:2 bytes		
Index of Additional Content	**Remark**	**Value**
0	High 8 bits of total QTY of packages	Total QTY of packages : 2 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 format: No		
Additional Content		
LEN of additional content:1byte		
Index of Additional Content	**Remark**	**Value**
0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5

1.3.2 Send Small Package from PC to Target Device

Supported Device: All modules

Operation Code: **0xDC1A**

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: MAX. 65 bytes (Max. Flash data is 59 bytes)		
Index of Additional Content	**Remark**	**Value**
0	High 8 bits of current package No	Current Package No : 2 bytes
1	low 8 bits of current package No	
2	Flag of external flash or inner memory	1byte 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	

Response

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 format: No		
Additional Content		
LEN of additional content::3bytes		
Index of Additional Content	**Remark**	**Value**
0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5
1	High 8 bits of current package No	Current Package No : 2 bytes
2	Low 8 bits of current package No	

1.4 MAC Address

1.4.1 Read MAC Address

Supported Device: All modules

Operation Code: **0x F003**		
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 Content	**Remark**	**Value**

Response

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 format: No		
Additional Content		
LEN of additional content: If is not hotel devices ,8 bytes, more bytes no use		
Index of Additional Content	**Remark**	**Value**
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	1st byte of Remark	20bytes, If the length of remark is less than 20, please use ASCII of space.
9	2nd byte of remark	
10	3rd byte of remark	
11	4th byte of remark	

1.4.2 Modify MAC Address

Supported Device: All modules

Operation Code: **0x F001**		
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: 8 bytes		
Index of Additional Content	**Remark**	**Value**
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 content: 1 byte		
Index of Additional Content	**Remark**	**Value**
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: **0x 000E**

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 content: 20 byte		
Index of Additional Content	**Remark**	**Value**
0	1st byte of Remark	20bytes, If the length of remark is less than 20, please use ASCII of space.
1	2nd byte of remark	
2	3rd byte of remark	
3	4th byte of remark	
4	5th byte of remark	
5	6th byte of remark	
6	7th byte of remark	
7	8th byte of remark	
8	9th byte of remark	
9	10th byte of remark	
10	11th byte of remark	
11	12th byte of remark	
12	13th byte of remark	
13	14th byte of remark	
14	15th byte of remark	
15	16th byte of remark	
16	17th byte of remark	
17	18th byte of remark	
18	19th byte of remark	
19	20th byte of remark	

2

Operation Code: **0x 000E**		
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

1.6 Write device remark

Supported Device: All modules

Operation Code: **0x 0010**		
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: 20 byte		
Index of Additional Content	**Remark**	**Value**
0	1st byte of Remark	20bytes, If the length of remark is less than 20, please use ASCII of space.
1	2nd byte of remark	
2	3rd byte of remark	
3	4th byte of remark	
4	5th byte of remark	
5	6th byte of remark	
6	7th byte of remark	
7	8th byte of remark	
8	9th byte of remark	
9	10th byte of remark	
10	11th byte of remark	
11	12th byte of remark	
12	13th byte of remark	
13	14th byte of remark	
14	15th byte of remark	
15	16th byte of remark	
16	17th byte of remark	
17	18th byte of remark	
18	19th byte of remark	
19	20th byte of remark	

Response

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 content: 1 byte		
Index of Additional Content	**Remark**	**Value**
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 format: No		
Additional Content		
LEN of additional content: 22 bytes,		
Index of Additional Content	**Remark**	**Value**
0 ~21	Version info	22 bytes

1.8 Modify subnetID and DeviceID by Mac address

Supported Device: All modules

Operation Code: **0x F005**		
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: 10 bytes		
Index of Additional Content	**Remark**	**Value**
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	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		
LEN of additional content: 1 byte		
Index of Additional Content	**Remark**	**Value**
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		

Response

Operation 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,		

12 4 Z

1 Control And Statue

1.1 Read 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

Response

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 content: 2 + 2*(QTY of Dry connector) bytes		
Index of Additional Content	**Remark**	**Value**
0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5
1	QTY of Dry connector	1byte
2	NC/NO for dry connector 1 NC: normally close NO: normally open	0x00 = NC 0x01 = NO Other value is invalid
3	NC/NO for dry connector 2 NC: normally close NO: normally open	0x00 = NC 0x01 = NO Other value is invalid
…	…	…

1 + QTY of dry connector	NC/NO for **last** dry connector NC: normally close NO: normally open	0x00 = NC 0x01 = NO Other value is invalid
1 + QTY of dry connector +1	Status of Dry connector 1	1byte 0 = Connected 1 = Disconnected
1 + QTY of dry connector +1+2	Status of Dry connector 2	1byte 0 = Connected 1 = Disconnected
…	…	…
1 + (QTY of dry connector)*2 +1	Status of Dry connector 1	1byte 0 = Connected 1 = Disconnected

1.2 Forwardly Report Status by 4Z

Remark: if status of 4z is changed, the 4z will report status of 4 contacts to the network by broadcast

To make sure the data will not be loss, 4z 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 content:: 9 bytes		
Index of Additional Content	**Remark**	**Value**
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 Logic mode

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		

Response

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 content: 1 + QTY of button bytes		
Index of Additional Content	**Remark**	**Value**
0	Flag of 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

Mechanical Switch	Single on	Single on/off	Combination on	Combination off	Combination on/Off	Invalid
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 content: 1 + QTY of button bytes		
Index of Additional Content	**Remark**	**Value**
0	Type of button 1	1byte For detail see table **Button Type** up
1	Type of button 2	1byte For detail see table **Button Type** up
…	…	…
QTY of buttons	Type of last button	1byte For detail see table **Button Type** up

Response

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 content: 1 + QTY of button bytes		
Index of Additional Content	**Remark**	**Value**
0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5
1	Type of button 1	1byte For detail see table **Button Type** up
2	Type of button 2	1byte For detail see table **Button Type** up
…	…	…
QTY of buttons	Type of last button	1byte For detail see table **Button Type** 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		

Response

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 content: 1 + QTY of button bytes		
Index of Additional Content	**Remark**	**Value**
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 content::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

Response

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 content: 1 + QTY of button bytes		
Index of Additional Content	**Remark**	**Value**

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 content::2 bytes		
Index of Additional Content	**Remark**	**Value**
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

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		
LEN of additional content: 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

2.6 Modify 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 content::23 bytes		
Index of Additional Content	**Remark**	**Value**
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

Response

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: 3 bytes		
Index of Additional Content	**Remark**	**Value**

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 content::2 bytes		
Index of Additional Content	**Remark**	**Value**
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

Response

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 content: 5 bytes		
Index of Additional Content	**Remark**	**Value**
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 Scope 0-3600ms
4	Low 8 bit of delay time	

2.8 Write 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 content::23 bytes		
Index of Additional Content	**Remark**	**Value**
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

Response

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 content: 3 bytes		
Index of Additional Content	**Remark**	**Value**

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 content::3 bytes		
Index of Additional Content	**Remark**	**Value**
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

Response

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 content: 7 + N bytes ; N depends on Command type Command Type Definition		
Index of Additional Content	**Remark**	**Value**
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
4	Command type	1byte For detail see table Command Type Definition
5	Target subnet ID	1byte
6	Target device ID	1byte
7 ~	Parameters ,depends on Command type	Number of byte depends on Command type

2.10 Write 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 content:: 7 + N bytes ; N depends on Command type Command Type Definition		
Index of Additional Content	**Remark**	**Value**
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 Command Type Definition
5	Target subnet ID	1byte
6	Target device ID	1byte
7 ~	Parameters ,depends on Command type	Number of byte depends on Command type

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 content: : 4bytes		
Index of Additional Content	**Remark**	**Value**
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 content: QTY of buttons bytes		
Index of Additional Content	**Remark**	**Value**
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

2.12 Modify 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 content::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 content: 1 byte		
Index of Additional Content	**Remark**	**Value**
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 content::QTY of buttons bytes		
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

Response

Operation Code: **0xE01D**		
Target Subnet ID:	Broadcast	0xFF
Target Device ID:	Broadcast	0xFF
Additional Content		
LEN of additional content: 2 bytes		
Index of Additional Content	**Remark**	**Value**
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

2.14 Read 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 content::0 byte		
Index of Additional Content	**Remark**	**Value**
0	Channel No. of Dry Connector	1byte Scope 4-7
1	Reserved	1byte

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		
LEN of additional content: 23 bytes		
Index of Additional Content	**Remark**	**Value**
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

2.15 Write 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 content::22 bytes		
Index of Additional Content	**Remark**	**Value**
0	Channel No. of Dry Connector	1byte Scope 4-7
1	Reserved	1byte
2 ~ 21	Remark data	20 bytes

Response

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: QTY of buttons bytes		
Index of Additional Content	**Remark**	**Value**

0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5
1	Channel No. of Dry Connector	1byte Scope 4-7

2.16 Read 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 Content	**Remark**	**Value**
0	Channel No. of Dry Connector	1byte Scope 1-4

Response

Operation Code: **0X0215**		
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: 10 bytes		
Index of Additional Content	**Remark**	**Value**
0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5
1	Channel No. of Dry Connector	1byte Scope 4-7
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 the security events	1 byte 0 = Connect 1 = Disconnect
4	Subnet ID of specify security module	1byte
5	Device ID of specify security module	1byte
6	Zone NO. of specify security module	1byte
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)+Vacation(Bit0) 0 = the mode is invalid 1 = the mode is valid
9	Trigger Delay	1byte 0x00 = Not delay 0x81 = 1 multiple 0x82 = 2 multiple 0x83 = 4 multiple

2.17 Modify security configuration info for specify dry connector NO.

Operation Code: **0X0126**		
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::9 bytes		
Index of Additional Content	**Remark**	**Value**
0	Channel No. of Dry Connector	1byte 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 the security events	1 byte 0 = Connect 1 = Disconnect
3	Subnet ID of specify security module	1byte
4	Device ID of specify security module	1byte
5	Zone NO. of specify security module	1byte
6	24Hours Active Zone	1byte 0x01=Fire 0x04:Panic 0x10:Current 0x02:Gas 0x08:Salience Emergency
7	Security Arm Mode	1byte Value = Day(bit4)+Night Guest(bit3)+Night(Bit2)+Away(bit1)+Vacation (Bit0) 0 = the mode is invalid 1 = the mode is valid
8	Trigger Delay	1byte 0x00 = Not delay 0x81 = 1 multiple 0x82 = 2 multiple 0x83 = 4 multiple

Response

Operation Code: **0X0217**		
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: 23 bytes		
Index of Additional Content	**Remark**	**Value**
0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5
1	Channel No. of Dry Connector	1byte 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 the security events	1 byte 0 = Connect 1 = Disconnect
4	Subnet ID of specify security module	1byte
5	Device ID of specify security module	1byte
6	Zone NO. of specify security module	1byte
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)+Vacation(Bit0) 0 = the mode is invalid 1 = the mode is valid

9	Trigger Delay	1byte 0x00 = Not delay 0x81 = 1 multiple 0x82 = 2 multiple 0x83 = 4 multiple

Command Type Definition

Command TypeID	Command Type Name	Remark	First Parameter	Second Parameter	Third Parameter
0	Scene control		Zone No (1-254)	Scene No (0-254)	Unused (set 0)
1	Sequence Control		Zone No (1-254)	Sequence No (0-254)	Unused (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 percentage (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)	Brightness percentage (0 -100)	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	Unused (set 0)

<table>
<tr><td></td><td></td><td></td><td></td><td>(255: open
0 :
close)</td><td></td></tr>
<tr><td>9</td><td>SMS Control</td><td>Control G3 SMS module</td><td>Type ID
(0: invalid
1: SMS Message)</td><td>SMS Command No
(0-255)</td><td>Unused
(set 0)</td></tr>
<tr><td>10</td><td>Panel control</td><td></td><td colspan="3">Panel control for A/C
<table><tr><td>FirstParameter (TypeID)</td><td>SecondParameter (Value)</td><td>ThirdParameter</td></tr><tr><td>0=(invalid)</td><td>0</td><td>0</td></tr><tr><td>1=(enable/disable IR receive function of DLP)</td><td>0: (disable)
1: (enable)</td><td>0</td></tr><tr><td>3=(Power on/off A/C)</td><td>0: (power off)
1: (power on)</td><td>0</td></tr><tr><td>4=(cool Set point)</td><td>0-30 c
32-86F</td><td>0</td></tr><tr><td>5=(FAN Speed)</td><td>0: (auto)
1: (High)
2: (Medium)
3: (low)</td><td>0</td></tr><tr><td>6=(AC mode)</td><td>0: (Cool)
1: (Heat)
2: (FAN)
3: (Auto)</td><td>0</td></tr><tr><td>7=(Heat set point)</td><td>0-30 c
32-86F</td><td></td></tr><tr><td>8=(Auto Set point)</td><td>0-30 c
32-86F</td><td></td></tr></table></td></tr>
<tr><td>11</td><td>Security Mode control</td><td></td><td>Zone no
(1-8)</td><td>Mode No
1: vacation
2: away
3: night
4: Night with guest
5: Day
6: Disarm</td><td>Unused
(set 0)</td></tr>
<tr><td>12</td><td>Security Alarm</td><td></td><td>Zone no
(1-8)</td><td>Alarm No
1: vacation
2: Away
4: Night
8: Night with guest</td><td>Unused
(set 0)</td></tr>
</table>

				16: Day 32: Siren 64: Power 128: Temperature 256: Fire 512: Gas 1024: Panic 2048: Emergency 4096: Current	
18	Z-Audio		Z-Audio		

FirstParameter (Type ID)	**SecondParameter** (Value)	**ThirdParameter**
1=Music Source	Music Source No SD card =1 Audio In =2 FTP Server =3 FM Radio =4	N/A
3=Song List / Radio List Control	**Type of list Control** PREV. Song List =1 Next Song List=2 Specify Song List No=3 PREV Radio Channel=4 Next Radio Channel =5 Specify Radio No=6	Song List No / Radio No (only available when Second Parameter is equal 3 or 6)
4=Play Control	Previous Song=1 Next Song=2 Play=3 Stop=4	N/A
5=Volume Control	Percentage of VOL (0~ 100, 100% is max. VOL, 0 is mute)	N/A
6=Specify Song Control	Song List No (1byte,0-255, Song List No 0 is for alarm voice)	**Song No** (1 – 999)