



SMART BUS G4 Commands

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DD22, DD23 is reserved for andy.(Sep 26, 2012)

1. Lighting Control

1.1 Scene Control

Supported Device: Dimmer/Relay

Operation Code: 0x0002		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	Area No	1byte scope 1-254
1	Scene No Scene No 0 is for stopping scene	1byte scope 0-254

Response

Operation Code: 0x0003		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:	Broadcast address	0xFF
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	Area No	1byte
1	Scene No	1byte

1.2 Single Channel Control

Supported Device: Dimmer/Relay

Operation Code: 0x0031		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 4 bytes		
Index of Additional Content	Remark	Value
0	Light Channel No	1byte 1-255 if Channel no is 255, it means broadcast channels of the device.
1	Brightness Level	1byte,0-100 it's percentage of brightness
2	High 8 bits of Running time	Scope of Running time is 0-3600s $H=(\text{Running time}) \div 256$
3	Low 8 bits of Running Time	$L=(\text{Running time}) \text{ Mod } 256$

Response

Operation Code: 0x0032		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:	Broadcast address	0xFF
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	Current Channel No	1byte,
1	Flag for success/ failure	1byte, Success=0xF8 Failure =0xF5

1.3. Sequence Control

Supported Device: Dimmer

Operation Code: 0x001A		
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	Area No	1byte 1-254
1	Sequence No No 0 is for stopping sequence	1byte 0-254

Response

Operation Code: 0x001B		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:	Broadcast address	0xFF
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	Area No	1byte
1	Sequence No	1byte

1.4 Read Status of Channels**Supported Device: Dimmer/Relay**

Operation Code: 0x0033		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0x0034		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: (QTY of Channels + 1) bytes		
Index of Additional Content	Remark	Value
0	QTY of Channels	1byte
1	Status of Channel 1	1byte , scope 1-100

2	Status of Channel 2	1byte , scope 1-100
...
QTY of Channels	Status of last channel	1byte , scope 1-100

1.5 Reversing Control

Supported Device: Dimmer/Relay

Remark:

If current status of channel is on, then it will be switched off when received command below;

if current status of channel is off, then it will be switched on when received command below;

Operation Code: 0xDC1C		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 4 bytes		
Index of Additional Content	Remark	Value
0	Channel No	1byte
1	reserved	1byte
2	High 8bits of Running time	1byte
3	Low 8bits of Running time	1byte

Response

Operation Code: 0xDC1D		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2bytes		
Index of Additional Content	Remark	Value
0	Channel No	1byte
1	Flag of success or failure Success=0xF8 Failure=0xF5	1byte

2. Motor Control

2.1 by G3 Curtain Module

2.1.1 Curtain Control

Supported Device: G3 Curtain Module

Operation Code: 0xE3E0		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	Curtain Switch No	1byte
1	Curtain control Type	1byte Stop=0 Open=1 Close=2

Response

Operation Code: 0xE3E1		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:	Broadcast address	0xFF
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	QTY of Channels	1byte
1	Curtain Switch No	1byte
2	Curtain control Type	1byte Stop=0 Open=1 Close=2

2.1.2 Read Status of Curtain

Supported Device: G3 Curtain Module

Operation Code: 0xE3E2		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1byte		
Index of Additional Content	Remark	Value

Content		
0	Curtain Switch No	1byte

Response

Operation Code: 0xE3E3		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	QTY of Channels	1byte
1	Curtain Switch No	1byte
2	Curtain control Type	1byte Stop=0 Open=1 Close=2

2.2 By G4 Relay Module

2.2.1 Motor Control by Single Channel Command

by using **Single Channel Control command** 0x0031 to control motor through G4 Relay module,

First Parameter is Channel No

Second Parameter is for on/off (on=100, off=0)

Third Parameter is for motor running time,

If running time is 0, it means the motor will run with max. Time;

if running time is more than 0 but less than max. Time, then motor will run with this specify time.

For command detail, please see

1.2 Single Channel Control

2.2.2 Read Motor Group Table from G4 Relay module

Supported Device: G4 Relay Module

Operation Code: 0xDC23		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254

Additional Content
LEN of additional content:: 0 byte

Response

Operation Code: 0xDC24		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 9 bytes		
Index of Additional Content	Remark	Value
0	Motor Group table	1byte Please see below Motor Group Table
1		Running Time for group 1 On, 1byte 1-180s
2		Running Time for group 2 On, 1byte 1-180s
3		Running Time for group 3 On, 1byte 1-180s
4		Running Time for group 4 On, 1byte 1-180s
5		Running Time for group 5 On, 1byte 1-180s
6		Running Time for group 6 On, 1byte 1-180s
7		Running Time for group 7 On, 1byte 1-180s
8		Running Time for group 8 On, 1byte 1-180s

Motor Settings Table (1 byte):

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Group8:Ch 14,15	Group7:Ch 13,14	Group6:Ch 11,12	Group5:C h9,10	Grou p4: Ch7,8	Grou p3: Ch5,6	Grou p2: Ch3,4	Grou p1: Ch1,2
Grouped=1 Ungrouped=0, if channels are ungrouped, they are used as normal relay channel. If the channels are grouped, they are used as motor control.							

2.4 Modify Motor Group Table from G4 Relay module

Supported Device: Relay Module

Operation Code: 0xDC25

Target Subnet ID:	Specify subnet ID of target device	1byte, 0-254	scope
Target Device ID:	Specify device ID of target device	1byte, 0-254	scope
Additional Content			
LEN of additional content:: 9 bytes			
Index of Additional Content	Remark	Value	
0	Motor Group table	1byte Please see above Motor Group Table	
1		Running Time for group 1 On, 1byte 1-180s	
2		Running Time for group 2 On, 1byte 1-180s	
3		Running Time for group 3 On, 1byte 1-180s	
4		Running Time for group 4 On, 1byte 1-180s	
5		Running Time for group 5 On, 1byte 1-180s	
6		Running Time for group 6 On, 1byte 1-180s	
7		Running Time for group 7 On, 1byte 1-180s	
8		Running Time for group 8 On, 1byte 1-180s	

Response

Operation Code: 0xDC26			
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254	
Target Device ID:	Specify device ID of target device	1byte, 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	

3. Universal Switch

3.1 Universal Switch

Supported Device: 9 in 1 sensor/PIR Sensor/Logic/IR

Emitter

Operation Code: 0xE01C		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	Universal Switch No	1byte
1	Control Type (ON/OFF)	1byte ON=255 Off=0

Response

Operation Code: 0xE01D		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2bytes		
Index of Additional Content	Remark	Value
0	Universal Switch No	1 byte
1	Control Type (ON/OFF)	1byte ON=1 Off=0

4. DDP

4.1 Read Celsius/Fahrenheit Flag

Supported Device: DDP, HVAC, 9 in 1/6 in 1/5 in 1,Zone

Beast

Operation Code: 0x E120		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0xE121		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1byte		
Index of Additional Content	Remark	Value
0	Celsius/ Fahrenheit flag	1byte Celsius =0; Fahrenheit =1

4.2 Modify Celsius/Fahrenheit Flag

Supported Device: DDP, HVAC, Zone Beast, 9 in1 /6 in 1/5 in 1,Zone Beast

Operation Code: 0xE122		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1byte		
Index of Additional Content	Remark	Value
0	Celsius/ Fahrenheit flag	1 byte Celsius =0; Fahrenheit =1;

Response

Operation Code: 0xE123		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1byte		
Index of Additional Content	Remark	Value
0	Flag of success or failure	1 byte success =0xF8; failure =0xF5;

4.3 AC Temperature Range

4.3.1 Read AC Temperature Range

Supported Device: DDP, HVAC2, Zone Beast

Operation Code: 0x1900		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0x1901		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 6bytes		
Index of Additional Content	Remark	Value
0	The start temperature of cool range	1byte
1	The end temperature of cool range	1byte
2	The start temperature of heat range	1byte
3	The end temperature of heat range	1byte
4	The start temperature of auto range	1byte
5	The end temperature of auto range	1byte

4.3.2 Modify AC Temperature Range

Supported Device: DDP, HVAC2, Zone Beast

Operation Code: 0x1902		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 6 bytes		
Index of Additional Content	Remark	Value
0	The start temperature of cool	1byte

	range	
1	The end temperature of cool range	1byte
2	The start temperature of heat range	1byte
3	The end temperature of heat range	1byte
4	The start temperature of auto range	1byte
5	The end temperature of auto range	1byte

Response

Operation Code: 0x1903		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1byte		
Index of Additional Content	Remark	Value
0	Flag of success or failure	1byte Success=0xF8 Failure =0xF5

4.4 The count of Fan Speed and Mode

4.4.1 Read AC the count of Fan Speed and Mode

Supported Device: DDP, Zone Beast

Operation Code: 0xE124		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content::10 bytes		

Response

Operation Code: 0xE125		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
Index of Additional Content	Remark	Value

0	LEN of FAN table	1byte
1	1 st FAN value	1byte CONST_FAN_AUTO_ID=0; CONST_FAN_HIGH_ID=1; CONST_FAN_MEDIUM_ID=2; CONST_FAN_LOW_ID=3;
...
LEN of FAN table	Last FAN Value	1byte
5	LEN of AC mode table	1byte
6	1 st AC mode value	1byte CONST_AC_MODE_COOL_ID=0; CONST_AC_MODE_HEAT_ID=1; CONST_AC_MODE_FAN_ID=2; CONST_AC_MODE_AUTO_ID=3;
...
...	Last AC Mode value	1byte

Example source code which is made by Delphi:

```

bytLenOfFanTable:= arrayReceiveBuffer [9+0];
  setLength(marrayFAN, bytLenOfFanTable);
  if bytLenOfFanTable >0 then
  begin
    for byteI :=0 to High(marrayFAN) do
    begin
      marrayFAN[byteI]:= arrayReceiveBuffer [10+ byteI];
    end;
  end;

  bytLenOfModeTable:= arrayReceiveBuffer [9+5];
  setLength(marrayACMode, bytLenOfModeTable);
  if bytLenOfModeTable >0 then
  begin
    for byteI :=0 to High(marrayACMode) do
    begin
      marrayACMode[byteI]:= arrayReceiveBuffer [15+byteI];
    end;
  end;

```

For Example

You have Fan Auto/High/Medium, you disable Low Fan from SBUS Software, so

bytLenOfFanTable =3

marrayFAN [0..2]={0,1,2}

You have AC Mode Cool/FAN/Auto, you disable mode heat from SBUS software,so

LenOfModeTable=3
 marrayACMode[0..2]={0,2,3}

Above information you will need it when you read AC status below.

4.4.2 Modify AC the count of Fan Speed and Mode

Supported Device: DDP, Zone Beast

Operation Code: 0xE126		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content::10 bytes		
Index of Additional Content	Remark	Value
0	LEN of FAN table	1byte
1	1 st FAN value	1byte CONST_FAN_AUTO_ID=0; CONST_FAN_HIGH_ID=1; CONST_FAN_MEDIUM_ID=2; CONST_FAN_LOW_ID=3;
...
LEN of FAN table	Last FAN Value	1byte
5	LEN of AC mode table	1byte
6	1 st AC mode value	1byte CONST_AC_MODE_COOL_ID=0; CONST_AC_MODE_HEAT_ID=1; CONST_AC_MODE_FAN_ID=2; CONST_AC_MODE_AUTO_ID=3;
...
...	Last AC Mode value	1byte

Response

Operation Code: 0xE127		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		

LEN of additional content::1 byte		
Index of Additional Content	Remark	Value
0	Flag of success of failure	1byte Success=0xF8 Failure=0xF5

4.5 Read AC Current Status

Supported Device: DDP

Operation Code: 0xE0EC		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0x E0ED		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 8 bytes		
Index of Additional Content	Remark	Value
0	Status of AC on/off	1byte AC On=1 AC Off=0
1	Cool temperature set point	1byte
2	Fan Index and Mode Index	Lower 4 bits is Fan index of Fan Table higher 4 bits is AC mode index of Mode Table. Please see explanation blow
3	Local Flag	1byte (Useless now)
4	Current temperature	1byte
5	Heat temperature set point	1byte
6	Preserved	1byte
7	Auto temperature Set point	1byte

Explanation of Fan Index and Mode Index:

```
byteTmp:= arrayReceiveBuffer [9+2];
bytFANIndex:= byteTmp and $0F; //Low 4 bits
bytACModeIndex:=( byteTmp and $F0) shr 4 ; //High 4 bits
```

According to the above fan table marrayFAN & mode table marrayACMode you got (**0xE125**).

For example

```
bytFANIndex=2
bytACModeIndex=1
```

So

```
marrayFAN [0..2]={0,1,2}
Fan = marrayFAN[bytFANIndex]= marrayFAN[2]=2
so current fan is MEDIUM speed
```

```
marrayACMode[0..2]={0,2,3}
Mode= marrayACMode[bytACModeIndex]= marrayACMode[1]=2
So Current AC mode is FAN.
```

4.6 Panel Control

Supported Device: DDP, HVAC2

Operation Code: 0xE3D8		
Target Subnet ID:	Specify subnet ID of DDP	1byte, scope 0-254
Target Device ID:	Specify device ID of DDP	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	Type	1byte
1	Value, it depends on type above	1byte
Definition		
Function	Type	Value
Invalid	0x00	0x00
IR receiver function	0x01	Enable=0x01 Disable=0x00
Button Lock	0x02	No lock=0x00 Lock=0x01

AC ON	0x03	0x01
AC Off	0x03	0x00
Cool temperature Set Point	0x04	1byte, Cool set point 0-30 c 32F-86F
Fan Speed	0x05	Auto=0 High=1 Medial=2 Low=3
AC Mode	0x06	Cool=0 Heat=1 FAN=2 Auto=3
Heat temperature Set Point	0x07	1byte,Heat Set Point 0-30 c 32F-86F
Auto temperature Set Point	0x08	1byte,Auto Set Point 0-30 c 32F-86F
Go to Page	0x16	Page No 1-7

Response

Operation Code: 0xE3D9		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:		0xFF
Additional Content		
LEN of additional content:: 2bytes		
Index of Additional Content	Remark	Value
0	Type of AC control	1 byte
1	Value, it depends on type above	1byte

4.7 Read flag of showing Temperature or Temperature &

Clock

Supported Device: DDP

Operation Code: 0xDC1E		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254

Additional Content
LEN of additional content:: 0 byte

Response

Operation Code: 0x DC1F		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	Flag	1byte Show Temperature only =0 Show Temperature & Clock =1

4.8 Modify flag of showing Temperature or Temperature & Clock

Supported Device: DDP

Operation Code: 0xDC20		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	Flag	1byte Show Temperature only =0 Show Temperature & Clock =1

Response

Operation Code: 0x DC21		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value

Content		
0	Flag	1byte Success=0xF8 Failure=0xF5

4.7 Read flag of showing Temperature or Temperature & Clock

Supported Device: DDP

Operation Code: 0xDC1E		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0x DC1F		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	Flag	1byte Show Temperature only =0 Show Temperature & Clock =1

4.8 Modify flag of showing Temperature or Temperature & Clock

Supported Device: DDP

Operation Code: 0xDC20		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1 byte		

Index of Additional Content	Remark	Value
0	Flag	1byte Show Temperature only =0 Show Temperature & Clock =1

Response

Operation Code: 0x DC21		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	Flag	1byte Success=0xF8 Failure=0xF5

4.9 Read status of enabling or disabling multi-channels dimming on DDP

(New, added on Dec 23, 2011)

Supported Device: DDP

Operation Code: 0xDC27		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0x DC28		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 16 bytes		
Index of Additional Content	Remark	Value
0	Status of button 1	1byte

		enable=1 Disable=0
1	Status of button 2	1byte
2	Status of button 3	1byte
3	Status of button 4	1byte
4	Status of button 5	1byte
5	Status of button 6	1byte
6	Status of button 7	1byte
7	Status of button 8	1byte
8	Status of button 9	1byte
9	Status of button 10	1byte
10	Status of button 11	1byte
11	Status of button 12	1byte
12	Status of button 13	1byte
13	Status of button 14	1byte
14	Status of button 15	1byte
15	Status of button 16	1byte

4.10 Modify status of enabling or disabling multi-channels dimming on DDP

(New, added on Dec 23, 2011)

Supported Device: DDP

Operation Code: 0xDC29		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 16 bytes		
Index of Additional Content	Remark	Value
0	Status of button 1	1byte enable=1 Disable=0
1	Status of button 2	1byte
2	Status of button 3	1byte
3	Status of button 4	1byte
4	Status of button 5	1byte
5	Status of button 6	1byte
6	Status of button 7	1byte
7	Status of button 8	1byte

8	Status of button 9	1byte
9	Status of button 10	1byte
10	Status of button 11	1byte
11	Status of button 12	1byte
12	Status of button 13	1byte
13	Status of button 14	1byte
14	Status of button 15	1byte
15	Status of button 16	1byte

Response

Operation Code: 0x DC2A		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	Flag of success/failure Success=0xF8 Failure=0xF5	1byte

4.11 Read configuration of remote control button

Supported Device: DDP

Operation Code: 0xDC2B		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 2 bytes		
Is UDP Big Package: No		
Index of Additional Content	Remark	Value
0	Button ID Away Arm=1 Night=2 Panic=3 Gate=4 Garden=5 Building=6	1byte

	Fountain=7 Coffee=8 Food Mood=9 Curtain Open=10 Curtain Close=11 Curtain Stop=12 Hotel DND=13 Hotel Clean=14 Hotel Laundry=15 Hotel Food=16	
1	Command ID	1byte 1-8

Response

Operation Code: 0xDC2C		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 9 bytes		
Is UDP Big Package: No		
Index of Additional Content	Remark	Value
0	Button ID	1byte
1	Command ID	1byte Start from 1 MAX. Value is 8
2	Control Type 0=Scene 1=Sequence 2=Universal switch 3=Invalid 4=Single channel lighting control 7=Curtain Switch 11=Broadcast curtain 13=SMS Control 14=Panel control 17=Security Module 18=Zone-Audio 2 19=Reversing Control	1byte
3	Subnet ID	1byte

4	Device ID	1byte
5	Para 1	1byte
6	Para 2	1byte
7	High 8 bits of Para3	1byte
8	Low 8 bits of Para3	1byte

4.12 Modify configuration of remote control button

Supported Device: DDP

Operation Code: 0xDC2D		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 1 byte		
Is UDP Big Package: No		
Index of Additional Content	Remark	Value
0	Button ID	1byte
1	Command ID	1byte Start from 1 MAX. Value is 8
2	Control Type 0=Scene 1=Sequence 2=Universal switch 3=Invalid 4=Single channel lighting control 7=Curtain Switch 11=Broadcast curtain 13=SMS Control 14=Panel control 17=Security Module 18=Zone-Audio 2 19=Reversing Control	1byte
3	Subnet ID	1byte
4	Device ID	1byte
5	Para 1	1byte
6	Para 2	1byte
7	High 8 bits of Para3	1byte
8	Low 8 bits of Para3	1byte

Response

Operation Code: 0xDC2E		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 3 bytes		
Is UDP Big Package: No		
Index of Additional Content	Remark	Value
0	Flag of success /failure Success=0xF8 Failure=0xF5	
1	button ID	1byte
2	Command ID	1byte

5. Power Meter

5.1 Read Coefficient from Power Meter

Supported Device: Power Meter

Operation Code: 0xD920		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0xD921		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	High 8 bits of coefficient	1byte
1	Low 8 bits of coefficient	1byte
coefficient = arrayReceiveBuffer[9+0]*256+ arrayReceiveBuffer [9+1];		

5.2. Read KWH from Power Meter

Supported Device: Power Meter

Operation Code: 0xD91A		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0xD91B		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 16 bytes		
Index of Additional Content	Remark	Value
0	Active KWH of phase A	1byte (HEX)
1		1byte (HEX)
2		1byte (HEX)
3		1byte (HEX)
4	Active KWH of phase B	1byte (HEX)
5		1byte(HEX)
6		1byte(HEX)
7		1byte(HEX)
8	Active KWH of phase C	1byte (HEX)
9		1byte(HEX)
10		1byte(HEX)
11		1byte(HEX)
12	Active KWH of Total	1byte(HEX)
13		1byte(HEX)
14		1byte(HEX)
15		1byte(HEX)

Example source code which is made by Delphi:

How to get KWH of Total?

```
strTotalKWH:=inttoHex(arrayReceiveBuffer [9+12],2)
    +inttoHex(arrayReceiveBuffer [9+13],2)
    +inttoHex(arrayReceiveBuffer [9+14],2)
    +inttoHex(arrayReceiveBuffer [9+15],2);
intTotalKWH:=strtoint('$'+ strTotalKWH) * coefficient div 3200;
```

5.3 Read Current from Power Meter

Supported Device: Power Meter

Operation Code: 0xD908		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0xD909		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 16 bytes		
Index of Additional Content	Remark	Value
0	Current of phase A (Unit: Amp)	1byte (HEX)
1		1byte (Decimal)
2		1byte (Decimal)
3		1byte (Decimal)
4	Current of phase B (Unit: Amp)	1byte (HEX)
5		1byte (Decimal)
6		1byte (Decimal)
7		1byte (Decimal)
8	Current of phase C (Unit: Amp)	1byte (HEX)
9		1byte (Decimal)
10		1byte (Decimal)
11		1byte (Decimal)
12	Current of Total (Unit: Amp)	1byte (HEX)
13		1byte (Decimal)
14		1byte (Decimal)
15		1byte (Decimal)

How to get current from power meter?

Example source code which is Made by Delphi below:

```
strIT:='$'+inttoHex(arrayReceiveBuffer [9+12],2);
```

```
strIT:=inttostr(strtoint(strIT));
```

```
strIT:=strIT+'.'+inttostr(arrayReceiveBuffer [9+13])
```

```
      +inttostr(arrayReceiveBuffer [9+14])
```

```
      +inttostr(arrayReceiveBuffer [9+15]);
```

```
floatT:=strtofloat(strIT)* coefficient;
```

6. Security

6.1 Arm/Disarm Security

Supported Device: Security Module

Operation Code: 0x0104		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	Security Zone No	1byte
1	Security Mode	1byte vacation=1 Away=2 Night=3 Night with visitor=4 Day=5 Disarm=6

Response

Operation Code: 0x0105		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:		0xFF
Additional Content		
LEN of additional content:: 2bytes		
Index of Additional Content	Remark	Value
0	Security Zone No	1 byte
1	Security Mode	1byte

6.2 Active Alarm

Supported Device: Security Module

Operation Code: 0x010C		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 5 bytes		

Index of Additional Content	Remark	Value
0	Security Zone No	1byte 1-8
1	Alarm type	2bytes please sea the definition below
2		
3	reserved	1byte Default 0
4	reserved	1byte Default 0

Definition of Alarm Type

Alarm Type Dec Value (2bytes)	Description	Binary value (2bytes)
4096	Current	0001 0000 0000 0000
2048	Emergency	0000 1000 0000 0000
1024	Panic	0000 0100 0000 0000
512	Gas	0000 0010 0000 0000
256	Fire	0000 0001 0000 0000
128	Temperature	0000 0000 1000 0000
64	Power	0000 0000 0100 0000
32	Siren	0000 0000 0010 0000
16	Day	0000 0000 0001 0000
8	Night with guest	0000 0000 0000 1000
4	Night	0000 0000 0000 0100
2	Away	0000 0000 0000 0010
1	vacation	0000 0000 0000 0001

Response

Operation Code: 0x010D		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:		0xFF
Additional Content		
LEN of additional content:: 5 bytes		
Index of Additional Content	Remark	Value
0	Security Zone No	1byte 1-8
1	Alarm type	2bytes please sea the definition below
2		

3	reserved	1byte Default 0
4	reserved	1byte Default 0

7. Sensors

7.1 Read Status from 9in1 Sensor

Supported Device: 9 in 1 Sensor

Operation Code: 0xDB00		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0byte		

Response

Operation Code: 0xDB01		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 8bytes		
Index of Additional Content	Remark	Value
0	Status of dry contact no 1	1 byte
1	Status of dry contact no 2	1byte
2	LUX value	1byte
3	Status of motion sensor	1byte ok=0 Movement=1
4	reserved	
5	reserved	
6	reserved	
7	reserved	

7.2 Read temperature from 9in1/6in1 sensor

Supported Device: 9 in 1/6 in 1 sensor

Operation Code: 0xDC00		
-------------------------------	--	--

Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0byte		

Response

Operation Code: 0xDC01		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2bytes		
Index of Additional Content	Remark	Value
0	Celsius/ Fahrenheit flag	1 byte Celsius =0; Fahrenheit =1;
1	Current temperature	1byte

7.3 Forwardly Report Status by 9in1/6in1/5in1 sensor

Remark: if status of 9in1 is changed, the 9in1 will report status of 2 contacts and motion sensor to the network by broadcast

To make sure the data will not be loss, 9in1 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.

Supported Device: 9 in 1, 6 in 1, 5 in 1

Operation Code: 0x02CA		
Target Subnet ID:	Broadcast address	0xFF
Target Device ID:		0xFF
Additional Content		
LEN of additional content:: 8 bytes		
Index of Additional Content	Remark	Value
0	QTY of dry contacts	1byte 9 in 1 sensor has 2 dry contacts No.
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	Status of dry contact 1	1byte Status: Open =1 Close =0
4	Status of dry contact 2	1byte
5	Status of motion sensor	1byte Motion=1 No motion =0
6	LUX Value	2 bytes
7		

7.4 Read the address of linked DDP for Remote Control (New,

Added on March 16, 2012)

Supported Device: 9 in 1/6 in 1 sensor/5 in 1 sensor

Operation Code: 0xDC30		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0byte		

Response

Operation Code: 0xDC31		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2bytes		
Index of Additional Content	Remark	Value
0	Subnet ID of linked DDP	1 byte
1	Device ID of linked DDP	1byte

7.5 Modify the address of linked DDP for Remote Control

(New, Added on March 16, 2012)

Supported Device: 9 in 1/6 in 1 sensor/5 in 1 sensor

Operation Code: 0xDC32		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0byte		
Index of Additional Content	Remark	Value
0	Subnet ID of linked DDP	1 byte
1	Device ID of linked DDP	1byte

Response

Operation Code: 0xDC33		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	Flag of success or failure	1 byte Success=0xF8 Failure =0xF5

7.6 Send Command from sensor to DDP for remote control

(New, Added on March 16, 2012)

Supported Device: 9 in 1/6 in 1 sensor/5 in 1 sensor

Operation Code: 0xDC34		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 1byte		
Index of Additional Content	Remark	Value
0	Button ID of Remote Control Please see the definition below	1 byte

Definition of Buttons of Remote Control

Button ID	Button Name	Remark
1	Away	Security control
2	Night	
3	Panic	
4	Gate	
5	Garden	Mood
6	Building	
7	Fountain	
8	Coffee	
9	Food mood	
10	Curtain Open	Curtain
11	Curtain Close	
12	Curtain Stop	
13	DND Service	Service
14	Clean Service	
15	Laundry Service	
16	Food Service	
17	ALL OFF	
18	A/C on/off	
19	M1	
20	M2	
21	M3	
22	M4	
23	Number 1	
24	Number 2	
25	Number 3	
26	Number 4	
27	Number 5	
28	Number 6	
29	Number 7	
30	Number 8	
31	Next Page	
32	PREV. Album	
33	NEXT Album	
34	VOL+	
35	VOL-	
36	PREV Song	
37	Next Song	
38	Play & Stop	
39	Mute	

40	PA.	
41	SD	
42	FM	
43	FTP	
44	AUX	
45	FAN Mode	
46	DRY Mode	
47	T -	
48	T+	
49	AUTO Fan Speed	
50	High Fan Speed	
51	MED. Fan Speed	
52	Low Fan Speed	
53	Cold Mode	
54	Cool Mode	
55	Warm	
56	HOT	

Response

Operation Code: 0xDC35		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	Flag of success or failure	1 byte Success=0xF8 Failure =0xF5
1	Button ID	1byte

8. 4Z

8.1 Read Status from 4Z

Supported Device: 4Z

Operation Code: 0x012C		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		

 LEN of additional content:: 0byte

Response

Operation Code: 0x012D		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 10bytes		
Index of Additional Content	Remark	Value
0	Flag of success/failure	1 byte Success=0xF8 Failure=0xF5
1	QTY of dry contacts	1byte Here QTY=4
2	Type of dry contact 1	1byte Type: NC=1 NO=0 Invalid=2
3	Type of dry contact 2	1byte
4	Type of dry contact 3	1byte
5	Type of dry contact 4	1byte
6	Status of dry contact 1	1byte Status: Open =1 Close =0
7	Status of dry contact 2	1byte
8	Status of dry contact 3	1byte
9	Status of dry contact 4	1byte

8.2 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.

Supported Device: 4Z

Operation Code: 0xDC22 (Updated on Dec 16,2011)		
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

9. Address Detection

9.1 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:		0xFF
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

9.2 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

10. Device Backup

10.1 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	

10.2 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	

11. Device Restore

11.1 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

11.2 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	

12. MAC Address

12.1 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: 28 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	1 st byte of Remark	20bytes, If the length of remark is less than 20, please use ASCII of space.
9	2 nd byte of remark	
10	3 rd byte of remark	
11	4 th byte of remark	
12	5 th byte of remark	
13	6 th byte of remark	
14	7 th byte of remark	

15	8 th byte of remark	
16	9 th byte of remark	
17	10 th byte of remark	
18	11 th byte of remark	
19	12 th byte of remark	
20	13 th byte of remark	
21	14 th byte of remark	
22	15 th byte of remark	
23	16 th byte of remark	
24	17 th byte of remark	
25	18 th byte of remark	
26	19 th byte of remark	
27	20 th byte of remark	

12.2 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

Content		
0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5

13. Logic

13.1 Read date time from logic module

Supported Device: Logic modules

Operation Code: 0x 02C0		
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: 0 bytes		

Response

Operation Code: 0x02C1		
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: 6 bytes		
Index of Additional Content	Remark	Value
0	Year, Real year =year + 2000	1byte
1	Month	1-12
2	Day	1-31
3	Hour	0-23
4	Minute	0-59
5	Second	0-59

13.2 Read logic sync status

Supported Device: G4 Logic Module

Operation Code: 0x 02C2		
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: 0 byte		

Response

Operation Code: 0x02C3		
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: 3 bytes		
Index of Additional Content	Remark	Value
0	Logic sync status	0: no sync 1: yes, with logic sync date time
1	subnet ID of sync logic module(if no sync, here is 0)	1byte
2	Device ID of sync logic module (if no sync, here is 0)	1byte

13.3 Modify logic sync

Supported Device: G4 Logic Module

Operation Code: 0x 02C4		
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: 3 byte		
0	Flag of Logic sync 0: no sync 1: yes, with sync	1byte
1	subnet ID of another logic module (if no sync, here is 0)	1byte
2	Device ID of another logic module (if no sync, here is 0)	1byte

Response

Operation Code: 0x02C5		
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 bytes		
Index of Additional Content	Remark	Value
0	Flag of success or failure	Success=0xF8 Failure= 0xF5

14. Temperature Sensor

14.1 Read Temperature Value

Supported Device: HVAC, Zone Beast, 9in1/6in1 Sensor

Operation Code: 0XE3E7		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content: 1byte		
Index of Additional Content	Remark	Value
0	Temperature unit	1byte Celsius=1 Fahrenheit =0

Response

Operation Code: 0XE3E8		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content: Max 17 bytes		
Index of Additional Content	Remark	Value
0	Temperature unit	1byte Celsius=1 Fahrenheit =0
1	Temperature value 1	1byte
2	Temperature value 2 (optional)	1byte
3	Temperature value 3 (optional)	1byte
4	Temperature value 4 (optional)	1byte
5	Temperature value 5 (optional)	1byte
6	Temperature value 6 (optional)	1byte
7	Temperature value 7 (optional)	1byte
8	Temperature value 8 (optional)	1byte
9	Flag or plus/minus of temperature 1 (optional)	1byte Plus=0,Minus=1
10	Flag or plus/minus of temperature 2 (optional)	1byte Plus=0,Minus=1
11	Flag or plus/minus of temperature 3 (optional)	1byte Plus=0,Minus=1
12	Flag or plus and minus of temperature 4 (optional)	1byte Plus=0,Minus=1
13	Flag or plus and minus of temperature	1byte

	5 (optional)	Plus=0,Minus=1
14	Flag or plus/minus of temperature 6 (optional)	1byte Plus=0,Minus=1
15	Flag or plus/minus of temperature 7 (optional)	1byte Plus=0,Minus=1
16	Flag or plus/minus of temperature 8 (optional)	1byte Plus=0,Minus=1

14.2 Read Temperature Compensation

Supported Device: 9in1/6in1 sensor

Operation Code: 0x02C6		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:0 byte		
Index of Additional Content	Remark	Value

Response

Operation Code: 0X02C7		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: MAX 8 bytes		
Index of Additional Content	Remark	Value
0	Temperature Compensation 1	1byte scope 1- 16 Really value = Temperature Compensation + 8
1	Temperature Compensation 2 (optional)	1byte scope 1- 16 Really value = Temperature Compensation + 8
2	Temperature Compensation 3 (optional)	1byte scope 1- 16 Really value = Temperature Compensation + 8
3	Temperature Compensation 4 (optional)	1byte scope 1- 16

		Really value = Temperature Compensation + 8
4	Temperature Compensation 5 (optional)	1byte scope 1- 16 Really value = Temperature Compensation + 8
5	Temperature Compensation 6 (optional)	1byte scope 1- 16 Really value = Temperature Compensation + 8
6	Temperature Compensation 7 (optional)	1byte scope 1- 16 Really value = Temperature Compensation + 8
7	Temperature Compensation 8 (optional)	1byte scope 1- 16 Really value = Temperature Compensation + 8

14.3 Modify Temperature Compensation

Supported Device: 9 in 1/6in1 sensor

Operation Code: 0x02C8		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: MAX 8 bytes		
Index of Additional Content	Remark	Value
0	Temperature Compensation 1	1byte 0- 16 Temperature Compensation= Really value + 8
1	Temperature Compensation 2 (optional)	1byte 0- 16 Temperature Compensation= Really value + 8
2	Temperature Compensation 3 (optional)	1byte 0- 16 Temperature

		Compensation= Really value + 8
3	Temperature Compensation 4 (optional)	1byte 0- 16 Temperature Compensation= Really value + 8
4	Temperature Compensation 5 (optional)	1byte 0- 16 Temperature Compensation= Really value + 8
5	Temperature Compensation 6(optional)	1byte 0- 16 Temperature Compensation= Really value + 8
6	Temperature Compensation 7(optional)	1byte 0- 16 Temperature Compensation= Really value + 8
7	Temperature Compensation 8 (optional)	1byte 0- 16 Temperature Compensation= Really value + 8

Response

Operation Code: 0X02C9		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:2 bytes		
Index of Additional Content	Remark	Value
0	Flag of Success/Failure Success=0xF8 Failure=0xF5	1byte

15. HVAC Control

15.1 HVAC Automatic Control

Supported Device: HVAC, Hotel Mix Controller

Operation Code: 0x193A		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 13 bytes		
Index of Additional Content	Remark	Value
0	AC No.	1byte, default value is 1
1	Temperature unit	1byte , Celsius:0 , Fahrenheit:1
2	Reserved	1byte , Reserved
3	Cool set temperature value	1byte
4	Heat set temperature value	1byte
5	Auto set temperature value	1byte
6	Reserved	1byte , Reserved
7	AC Mode & Fan Speed	1byte, Higher 4bits is AC mode (cold=0, heat=1 , FAN=2, Auto=3, dry=4) , Lower 4 bits is fan speed(Auto=0 , high fan speed=1 , medium fan speed=2, low fan speed=3)
8	HVAC Power	1byte, 1-on , 0-off
9	Reserved	1byte , Reserved
10	Reserved	1byte , Reserved
11	Reserved	1byte , Reserved
12	Reserved	1byte , Reserved

Response

Operation Code: 0x193B		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Broadcast address	0xFF
Additional Content		
LEN of additional content: 13 bytes		
Index of Additional Content	Remark	Value
0	AC No.	1byte, default value is 1
1	Temperature type	1byte, Celsius:0, Fahrenheit:1,
2	Reserved	1byte , Reserved
3	Cool set temperature value	1byte
4	Heat set temperature value	1byte

5	Auto set temperature value	1byte
6	Reserved	1byte , Reserved
7	AC mode & fan Speed	Higher 4bits is AC mode (cold=0, heat=1, FAN=2, Auto=3, dry=4) , Lower 4 bits is fan speed(Auto=0, high fan speed=1, medium fan speed=2, low fan speed=3)
8	HVAC active flag	1byte, 1-on 0-off
9	Reserved	1byte , Reserved
10	Reserved	1byte , Reserved
11	Reserved	1byte , Reserved
12	Reserved	1byte , Reserved

15.2 Delays for Compressor and Fan

15.2.1 Read delays for Compressor and Fan

Supported Device: HVAC, Zone Beast

Operation Code: 0x E3F4		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0x E3F5		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content: 4 bytes		
Index of Additional Content	Remark	Value
0	Delay for fan on	1byte,1-10s
1	Delay for fan off	1byte,1-10s
2	Delay for compressor on	1byte, 3-127s or 1-10mins if bit[7]=1, then it means second If bit[7]=0, then it means minute
3	Delay for compressor off	1byte, 1-10s

15.2.2 Modify delays for Compressor and Fan

Supported Device: HVAC, Zone Beast

Operation Code: 0x E3F6		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254

Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 4 bytes		
Index of Additional Content	Remark	Value
0	Delay for fan on	1byte,1-10s
1	Delay for fan off	1byte,1-10s
2	Delay for compressor on	1byte, 3-127s or 1-10mins if bit[7]=1, then it means second If bit[7]=0, then it means minute
3	Delay for compressor off	1byte, 1-10s

Response

Operation Code: 0x E3F7		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content: 1 byte		
Index of Additional Content	Remark	Value
0	Flag of Success of failure	1byte Success=0xF8 Failure =0xF5

//

15.3 Running Sequences for compressor

15.3.1 Read running Sequences for compressor

Supported Device: HVAC, Zone Beast

Operation Code: 0x E3FC		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 2 bytes		
Index of Additional Content	Remark	Value
0	Constant Flag	1byte,0xF8
1	Relay No for AC Mode	1byte, 1-3 M1=1 M2=2 M3=3

Response

Operation Code: 0x E3FD		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 7 bytes		
Index of Additional Content	Remark	Value
0	Flag of Success or Failure	1byte, Success=0xF8 Failure=0xF5
1	Relay No for AC Mode	1byte, 1-3 M1=1 M2=2 M3=3
2	AC Mode No	1byte,
3	duration for 1 st step on	1byte
4	duration for 2 nd step off	1byte
5	duration for 3rd step on	1byte
6	duration for 4 th step off	1byte

15.3.2 Modify running Sequences for compressor**Supported Device: HVAC, Zone Beast**

Operation Code: 0x E3FE		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 7 bytes		
Index of Additional Content	Remark	Value
0	Constant Flag	1byte, 0xF8
1	Relay No for AC Mode	1byte, 1-3 M1=1 M2=2 M3=3
2	AC Mode No	1byte,
3	Delay for 1 st step on	1byte
4	Delay for 2 nd step off	1byte
5	Delay for 3rd step on	1byte
6	Delay for 4 th step off	1byte

Response

Operation Code: 0x E3FF		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content: 1 byte		
Index of Additional Content	Remark	Value
0	Flag of Success of failure	1byte Success=0xF8 Failure =0xF5

15.4 Temperature Sensors for HVAC

15.4.1 Read temperatures sensor for HVAC

Supported Device: HVAC, Zone Beast

Operation Code: 0x 018C		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0x 018D		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content: 12 bytes		
Index of Additional Content	Remark	Value
0	Reserved	1byte
1	Enabled for Sensor 1	1byte Enabled =1,disabled=0
2	Compensation for sensor 1	1byte,
3	Enabled for Sensor 2	1byte Enabled =1,disabled=0
4	Subnet ID Of Sensor 2	1byte,1-254
5	Device ID Of Sensor 2	1byte,1-254
6	Reserved	1byte
7	Enabled for Sensor 3	1byte Enabled =1,disabled=0
8	Subnet ID Of Sensor 3	1byte,1-254
9	Device ID Of Sensor 3	1byte,1-254
10	Reserved	1byte
11	Way Of Calculation	1byte

		const_max_temperature=1; const_avg_temperature=2; const_min_temperature=3;
--	--	--

15.4.2 Modify temperatures sensor for HVAC

Supported Device: HVAC, Zone Beast

Operation Code: 0x 018E		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 12 bytes		
Index of Additional Content	Remark	Value
0	Reserved	1byte
1	Enabled for Sensor 1	1byte Enabled =1,disabled=0
2	Compensation for sensor 1	1byte,
3	Enabled for Sensor 2	1byte Enabled =1,disabled=0
4	Subnet ID Of Sensor 2	1byte,1-254
5	Device ID Of Sensor 2	1byte,1-254
6	Reserved	1byte
7	Enabled for Sensor 3	1byte Enabled =1,disabled=0
8	Subnet ID Of Sensor 3	1byte,1-254
9	Device ID Of Sensor 3	1byte,1-254
10	Reserved	1byte
11	Way Of Calculation	1byte const_max_temperature=1; const_avg_temperature=2; const_min_temperature=3;

Response

Operation Code: 0x 018F		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content: 12 bytes		
Index of Additional Content	Remark	Value
0	Reserved	1byte

15.5 lasting time for ignoring if temperature changing is not more that 1c degree

15.5.1 Read lasting time**Supported Device: HVAC, DDP, Zone Beast**

Operation Code: 0x DD24		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0x DD25		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content: 1 byte		
Index of Additional Content	Remark	Value
0	Lasting time	1byte 3 - 240 seconds

15.5.2 Modify lasting time**Supported Device: HVAC, DDP, Zone Beast**

Operation Code: 0x DD26		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	Lasting time	1byte 3 - 240 seconds

Response

Operation Code: 0x DD27		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content: 1 byte		
Index of Additional Content	Remark	Value
0	Flag of success / failure	1byte Success =0xF8 Failure =0xF5

17. Z-Audio

17.1 IR Receiver on Z-Audio

17.1.1 Read the IR status of IR Receiver on Z-Audio

Supported Device: Z-Audio 2

Operation Code: 0xDC36		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0xDC37		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Broadcast address	0xFF
Additional Content		
LEN of additional content: 1 byte		
Index of Additional Content	Remark	Value
0	IR Status of IR Receiver	1byte 1=enable IR receiver 0=disable IR Receiver

17.1.2 Modify the IR status of IR Receiver on Z-Audio

Supported Device: Z-Audio 2

Operation Code: 0xDC38		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	IR Status of IR Receiver	1byte 1=enable IR receiver 0=disable IR Receiver

Response

Operation Code: 0xDC39		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254

Target Device ID:	Broadcast address	0xFF
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

17.2 IP Address of FTP

17.2.1 Read IP Address of FTP from Z-Audio

Supported Device: Z-Audio

Operation Code: 0x022A		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	Type ID 1=Read IP address of FTP	1byte

Response

Operation Code: 0x022B		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Broadcast address	0xFF
Additional Content		
LEN of additional content: 6 bytes		
Index of Additional Content	Remark	Value
0	Flag of success or failure	1byte Success=0xF8 Failure=0xF5
1	Type ID	1byte
2	IP Address of FTP Server	4bytes
3		
4		
5		

18. IR Macro

18.1 Macro Remark

18.1.1 Read Macro Remark

Supported Device: IR Emitter V1.1 or Above

Operation Code: 0x DC3A		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 byte		
Index of Additional Content	Remark	Value
0	macro number	1byte Number Range(1 to 10)

Response

Operation Code: 0x DC3B		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::21 bytes		
Index of Additional Content	Remark	Value
0	Specify macro number	1byte Number Range(1 to 10)
1~20	Macro Remark	20bytes

18.1.2 Modify Macro Remark

Supported Device: IR Emitter V1.1 or Above

Operation Code: 0x DC3C		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::21 bytes		
Index of Additional Content	Remark	Value
0	macro number	1byte Number Range(1 to 10)
1~20	Remark	20bytes

Response

Operation Code: 0x DC3D		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	Success flag	1byte 0xf8 =success 0xF5=error
1	macro number	1byte Number Range(1 to 10)

18.2 Commands of Macro**18.2.1 Read Commands of Macro**

Supported Device: IR Emitter V1.1 or Above

Operation Code: 0x DC3E		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	macro number	1byte Number Range(1 to 10)
1	CMD ID	1byte Number Range(1 to 50)

Response

Operation Code: 0xDC3F		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::8 bytes		
Index of Additional Content	Remark	Value
0	macro number	1byte Number Range(1 to 10)
1	CMD ID	1byte Number Range(1 to 50)

2	IR Number	1byte Range: 1-249 invalid: 0 or 255
3	On/off status	On:255 Off:0
4	Delay after sending the command 0.1s -10hour	4bytes 高 8 位在前, 低 8 位在后面 ie. 200=200/10=20s 10=10/10=1s 1=1/10=0.1s
5		
6		
7		

18.2.2 Modify Commands of Macro

Supported Device: IR Emitter V1.1 or Above

Operation Code: 0x DD00		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::8 bytes		
Index of Additional Content	Remark	Value
0	macro number	1byte Number Range(1 to 10)
1	CMD #	1byte Number Range(1 to 50)
2	IR Number	1byte Range: 1-249 invalid: 0 or 255
3	On/off status	On:255 Off:0
4	Delay after sending the command 0.1s -10hour	4bytes 高 8 位在前, 低 8 位在后面 ie. 200=200/10=20s 10=10/10=1s 1=1/10=0.1s
5		
6		
7		

Response

Operation Code: 0x DD01		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254

Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::3 bytes		
Index of Additional Content	Remark	Value
0	Success flag	1byte 0xf8 =success 0xF5=error
1	macro number	1byte Number Range(1 to 10)
2	CMD #	1byte Number Range(1 to 50)

18.3 IR# which works with current sensor

18.3.1 Read IR# which works with current sensor

Supported Device: IR Emitter V1.1 or Above

Operation Code: 0Xd962		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::0 bytes		
Index of Additional Content	Remark	Value

Response

Operation Code: 0xd963		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::4 bytes		
Index of Additional Content	Remark	Value
0	IR# 1 for on	1byte Number Range(1 to 249)
1	IR# 1 for off	1byte Number Range(1 to 249)
2	IR# 2 for on	1byte Number Range(1 to 249)
3	IR# 2 for off	1byte Number Range(1 to 249)

18.3.2 Modify IR# which works with current sensor

Supported Device: IR Emitter V1.1 or Above

Operation Code: 0Xd960		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::4bytes		
Index of Additional Content	Remark	Value
0	IR# 1 for on	1byte Number Range(1 to 249)
1	IR# 1 for off	1byte Number Range(1 to 249)
2	IR# 2 for on	1byte Number Range(1 to 249)
3	IR# 2 for off	1byte Number Range(1 to 249)

Response

Operation Code: 0xd961		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 bytes		
Index of Additional Content	Remark	Value
0	Success flag	1byte 0xf8 =success 0xF5=error

18.4 Current Value of current sensor**18.4.1 Read current value of current sensor****Supported Device: IR Emitter V1.1 or Above**

Operation Code: 0X DD1A		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::0 byte		
Index of Additional Content	Remark	Value
0	IR No	1byte 1-249

Response

Operation Code: 0xDD1B		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::22 bytes		
Index of Additional Content	Remark	Value
0	IR No	1byte 1-249
1	Valid or IR	1byte Valid=1 Invalid=0
2-21	Remark of IR If IR is valid, return the remark of IR; if IR is invalid, return empty string.	20bytes

18.4.2 Modify current value of current sensor

Supported Device: IR Emitter V1.1 or Above

Operation Code: 0Xd972		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::4 bytes		
Index of Additional Content	Remark	Value
0	Delay time of 1 st current sensor	1byte 0-255 s
1	Stand-by current of 1 st current sensor	1byte
2	Delay time of 2nd current sensor	1byte 0-255 s
3	Stand-by current of 2nd current sensor	1byte

Response

Operation Code: 0xd973		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 byte		
Index of Additional Content	Remark	Value
0	Success flag	1byte

		0xf8 =success 0xF5=error
--	--	-----------------------------

18.5 IR Remark

18.5.1 Read IR Remark

Supported Device: IR Emitter V1.1 or Above

Operation Code: 0X DD1A		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 byte		
Index of Additional Content	Remark	Value
0	IR No	1byte 1-249

Response

Operation Code: 0x DD1B		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 22 bytes		
Index of Additional Content	Remark	Value
0	IR No	1byte 1-249
1	Validity	1byte Valid=1 Invalid=0
2 - 21	Remark Of IR	20bytes

18.6 Mode of Macro

18.6.1 read mode of Macro

Supported Device: IR Macro

Operation Code: 0X DD1E		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::0 byte		

Index of Additional Content	Remark	Value
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Response

Operation Code: 0xDD1F		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 10 bytes		
Index of Additional Content	Remark	Value
0	Mode of macro 1	1byte 1= exclusive (stop all old macros, run only new one) 0= not exclusive (keep all old macros, and add new macro)
1	Mode of macro 2	1byte
2	Mode of macro 3	1byte
3	Mode of macro 4	1byte
4	Mode of macro 5	1byte
5	Mode of macro 6	1byte
6	Mode of macro 7	1byte
7	Mode of macro 8	1byte
8	Mode of macro 9	1byte
9	Mode of macro 10	1byte

18.6.2 Modify mode of Macro

Supported Device: IR Macro

Operation Code: 0X DD20		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::10 bytes		
Index of Additional Content	Remark	Value
0	Mode of macro 1	1byte 1= exclusive (stop all old macros, run only new one) 0= not exclusive (keep all old macros, and add new macro)

1	Mode of macro 2	1byte
2	Mode of macro 3	1byte
3	Mode of macro 4	1byte
4	Mode of macro 5	1byte
5	Mode of macro 6	1byte
6	Mode of macro 7	1byte
7	Mode of macro 8	1byte
8	Mode of macro 9	1byte
9	Mode of macro 10	1byte

Response

Operation Code: 0x DD21		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content:: 1 byte		
Index of Additional Content	Remark	Value
0	Flag of success/failure	1byte Success=0xF8 Failure=0xF5

19. Impulse Counter

19.1 Logic Address

19.1.1 Read address of logic module

Supported Device: Impulse Counter

Operation Code: 0xDD02		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::0 bytes		
Index of Additional Content	Remark	Value

Response

Operation Code: 0xDD03		
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Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	Subnet ID of the logic module	1byte
1	Device ID of the logic module	1byte

19.1.2 Modify address of logic module

Supported Device: Impulse Counter

Operation Code: 0xDD04		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	Subnet ID of the logic module	1byte
1	Device ID of the logic module	1byte

Response

Operation Code: 0xDD05		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 bytes		
Index of Additional Content	Remark	Value
0	Success flag	1byte 0xF8 =success 0xF5=error

19.2 Initial Data

19.2.1 Read Initial Data

Supported Device: Impulse Counter

Operation Code: 0xDD06		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4)

Response

Operation Code: 0x DD07		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::3 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4)
1	High 8 bits of the Initial Value	1byte
2	Low 8 bits of the Initial Value	1byte

19.2.2 Read Initial Data

Supported Device: Impulse Counter

Operation Code: 0x DD08		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::3 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4)
1	High 8 bits of the Initial Value	1byte
2	Low 8 bits of the Initial Value	1byte

Response

Operation Code: 0x DD09		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		

LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	Success flag	1byte 0xF8 =success 0xF5=error
1	Channel No.	1byte Number Range(1 to 4)

19.3 Channel Remark

19.3.1 Read Channel Remark

Supported Device: Impulse Counter

Operation Code: 0x DD0A		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4)

Response

Operation Code: 0x DD0B		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::21 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4)
1~20	Remark	20bytes

19.3.2 Modify Channel Remark

Supported Device: Impulse Counter

Operation Code: 0x DD0C		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		

LEN of additional content::21 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4)
1~20	Remark	20byte

Response

Operation Code: 0x DD0D		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	Success flag	1byte 0xF8 =success 0xF5=error
1	Channel No.	1byte Number Range(1 to 4)

19.4 Log of impulse counter

19.4.1 Read total QTY of package for the log between dates

Supported Device: Impulse Counter

Operation Code: 0x DD0E		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::7 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4) 0xFF = All Channel
1	Start Year Real Year = Start + 2000 For example 2011 = 11 + 2000	
2	Start Month	
3	Start Day	
4	End Year	

	Real Year = End + 2000 For example 2011 = 11 + 2000	
5	End Month	
6	End Day	

Response

Operation Code: 0x DD0F		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	Total QTY of Package.	2byte
1		

19.4.2 Read Total QTY of package for the log before the date

Supported Device: Impulse Counter

Operation Code: 0x DD10		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::4 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4) or 0xFF = All Channel
1	End Year Real Year = End + 2000 For example 2011 = 11 + 2000	
2	End Month	
3	End Day	

Response

Operation Code: 0x DD11		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::3 bytes		
Index of Additional Content	Remark	Value

Content		
0	Channel No	1byte
1	Total QTY of Package.	2byte
2		

19.4.3 Read log of current package

Supported Device: Impulse Counter

Operation Code: 0x DD12		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::3 bytes		
Index of Additional Content	Remark	Value
0	Channel No	1byte
1	Current Package No	2byte
2		

Response

Operation Code: 0x DD13		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::58 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4) or 0xFF = All Channel
1	Current Package No	2bytes
2		
3	Channel No. of 1 st log	1byte Number Range(1 to 4)
4	Year of 1 st log	1byte Number Range(0 to 255)
5	Month of 1 st log	1byte Number Range(1 to 12)
6	Day of 1 st log	1byte Number Range(1 to 31)
7	Hour of 1 st log	1byte Number Range(0 to 23)
8~11	Count Value of 1 st log	4bytes (不包括初始值)

12	Channel No. of 2 nd log	1byte Number Range(1 to 4)
13	Year of 2 nd log	1byte Number Range(0 to 99)
14	Month of 2 nd log	1byte Number Range(1 to 12)
15	Day of 2 nd log	1byte Number Range(1 to 31)
16	Hour of 2 nd log	1byte Number Range(0 to 23)
17~20	Count Value of 2 nd log	4bytes (不包括初始值)
...		
...		
Max. log is 6 in one package		

19.4.4 Read total counter value between dates

Supported Device: Impulse Counter

Operation Code: 0x DD14		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::7 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4) 0xFF = All Channel
1	Start Year Real Year = Start + 2000 For example 2011 = 11 + 2000	
2	Start Month	
3	Start Day	
4	End Year Real Year = End + 2000 For example 2011 = 11 + 2000	
5	End Month	
6	End Day	

Response

Operation Code: **0x DD15**

Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::5 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4) 0xFF = All Channel
1~4	Total value	4bytes (不包括初始值)

19.4.5 Delete logs between dates

Supported Device: Impulse Counter

Operation Code: 0x DD16		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::7 bytes		
Index of Additional Content	Remark	Value
0	Channel No.	1byte Number Range(1 to 4) 0xFF = All Channel
1	Start Year Real Year = Start + 2000 For example 2011 = 11 + 2000	
2	Start Month	
3	Start Day	
4	End Year Real Year = End + 2000 For example 2011 = 11 + 2000	
5	End Month	
6	End Day	

Response

Operation Code: 0x DD17		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::2 bytes		

Index of Additional Content	Remark	Value
0	Success flag	1byte 0xF8 =success 0xF5=error
1	Channel No.	1byte Number Range(1 to 4) or 0xFF = All Channel

19.4.6 Delete all logs

Supported Device: Impulse Counter

Operation Code: 0x DD18		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::0 bytes		
Index of Additional Content	Remark	Value

Response

Operation Code: 0x DD19		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 bytes		
Index of Additional Content	Remark	Value
0	Success flag	1byte 0xF8 =success 0xF5=error

20.Microwave Sensor

20.1 Sensitive

20.1.1 Read Sensitive

Supported Device: Microwave

Operation Code: 0xD828		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::0 byte		

Index of Additional Content	Remark	Value
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Response

Operation Code: 0x D829		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254

Additional Content

LEN of additional content::4 bytes

Index of Additional Content	Remark	Value
0	Sensitive of PIR 1	1byte,0-100 100=MAX. sensitive 0=min. sensitive
1	Sensitive of PIR 2	1byte,0-100 100=MAX. sensitive 0=min. sensitive
2	Sensitive of PIR 3	1byte,0-100 100=MAX. sensitive 0=min. sensitive
3	Sensitive of microwave	1byte,0-100 100=MAX. sensitive 0=min. sensitive

20.1.2 Modify Sensitive**Supported Device: Microwave**

Operation Code: 0xD826		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254

Additional Content

LEN of additional content::4 bytes

Index of Additional Content	Remark	Value
0	Sensitive of PIR 1	1byte,0-100 100=MAX. sensitive 0=min. sensitive
1	Sensitive of PIR 2	1byte,0-100 100=MAX. sensitive 0=min. sensitive
2	Sensitive of PIR 3	1byte,0-100 100=MAX. sensitive 0=min. sensitive
3	Sensitive of microwave	1byte,0-100 100=MAX. sensitive

		0=min. sensitive
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Response

Operation Code: 0x D827		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 byte		
Index of Additional Content	Remark	Value
0	Flag of success/failure	1byte Success=0xF8 Failure=0xF5

20.2 Trigger Delay when movement turns to no movement

20.2.1 Read Trigger Delay

Supported Device: Microwave

Operation Code: 0xD818		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::0 byte		
Index of Additional Content	Remark	Value

Response

Operation Code: 0x D819		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	Reserved	1byte
1	Departure time	1byte 1-255 s

20.2.2 Modify Trigger Delay

Supported Device: Microwave

Operation Code: 0x d80C		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254

Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::2 bytes		
Index of Additional Content	Remark	Value
0	Reserved	1byte
1	Departure time	1byte 1-255 s

Response

Operation Code: 0x d80d		
Target Subnet ID:	Specify subnet ID of target device	scope 1-254
Target Device ID:	Specify device ID of target device	scope 1-254
Additional Content		
LEN of additional content::1 byte		
Index of Additional Content	Remark	Value
0	Flag of success/failure	1byte Success=0xF8 Failure=0xF5

20.3 Dry Contact

20.3.1 Read the status of dry contact

Supported Device: microwave

Operation Code: 0x041A		
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		
Is UDP Big Package: No		

Response

Operation Code: 0x041B		
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		
Is UDP Big Package: No		
Index of Additional Content	Remark	Value
0	NC NO flag of f 1 st dry contact	NO=1

		NC=0
1	Status of 1 st dry contact	Opened=1 Closed=0

20.3.2 Modify NO/NC flag for dry contact

Supported Device: microwave

Operation Code: 0x041C		
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:: 1byte		
Is UDP Big Package: No		
Index of Additional Content	Remark	Value
0	NC or NO flag of 1 st dry contact	NO=1 NC=0

Response

Operation Code: 0x041D		
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		
Is UDP Big Package: No		
Index of Additional Content	Remark	Value
0	Flag of success or failure	Success=1 Failure=0

20.4 Forwardly report status of dry contact

Please take 8.2 above as reference

20.5 Sensor Status

20.5.1 Read Sensor Status

Supported Device: microwave

Operation Code: 0x DD1C		
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:: 1byte		

Is UDP Big Package: No		
Index of Additional Content	Remark	Value

Response

Operation Code: 0x DD1D		
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		
Is UDP Big Package: No		
Index of Additional Content	Remark	Value
0	General status if any status of 4 sensors is movement, general status is movement. if all status of 4 sensors are no movement, general status is no movement.	1byte Movement =1 No movement =0
1	Status of PIR 1	1byte
2	Status of PIR 2	1byte
3	Status of PIR 3	1byte
4	Status of microwave sensor	1byte

21. Fan Controller

21.1 Gears Settings

21.1.1 Read gears settings of Fan

Supported Device: Fan Controller

Operation Code: 0xDD28		
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	1byte 1 to 6

Response

Operation Code: 0xDD29		
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::6 bytes		
Index of Additional Content	Remark	Value
0	Channel No	1byte 1 to 6
1	Value of 1 st gear	1byte 0-100
2	Value of 2 nd gear	1byte 0-100
3	Value of 3rd gear	1byte 0-100
4	Value of 4 th gear	1byte 0-100
5	Value of 5 th gear	1byte 0-100

21.1.2 Modify gears settings of Fan

Supported Device: Fan Controller

Operation Code: 0xDD2A		
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::6 bytes		
Index of Additional Content	Remark	Value
0	Channel No	1byte 1 to 6
1	Value of 1 st gear	1byte 0-100
2	Value of 2 nd gear	1byte 0-100
3	Value of 3rd gear	1byte 0-100
4	Value of 4 th gear	1byte 0-100
5	Value of 5 th gear	1byte 0-100

Response

Operation Code: 0xDD2B		
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	Channel No	1byte 1 to 6
1	Flag of Success /failure	1byte Success=0xF8 Failure=0xF5

21.2 Control gear of Fan

Supported Device: Fan Controller

Operation Code: 0x0031		
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::4 bytes		
Index of Additional Content	Remark	Value
0	Channel No	1byte 1 to 6 255 means broadcast all channels
1	Gear No	1byte 0-5 0 = off 1=1 st gear 2=2 nd gear 3=3 rd gear 4=4 th gear 5=5 th gear 5 th gear is strongest
2	Reserved	1byte
3	Reserved	1byte

Response

Operation Code: 0x0032		
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	Current Channel No	1byte,
1	Flag for success/ failure	1byte, Success=0xF8 Failure =0xF5

21.3 Read status of fan controller**Supported Device: Fan Controller**

Operation Code: 0x0033		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: 0 byte		

Response

Operation Code: 0x0034		
Target Subnet ID:	Specify subnet ID of target device	1byte, scope 0-254
Target Device ID:	Specify device ID of target device	1byte, scope 0-254
Additional Content		
LEN of additional content:: (QTY of Channels + 1) bytes		
Index of Additional Content	Remark	Value
0	QTY of Channels	1byte
1	Status of Channel 1	1byte gear No from 0-5
2	Status of Channel 2	1byte gear No from 0-5
...
QTY of Channels	Status of last channel	1byte gear No from 0-5