

## Protocol Board Inverter(Test Port) to Monitor

Board Inverter จะส่งค่าข้อมูลออกมาเป็นระยะทุกๆ 2.5 วินาที  
Monitor จะอ่านค่าถ้าไม่มีคำสั่งใดจะตอบ Response กลับไป  
แต่ถ้าต้องการส่งคำสั่งจะส่งคำสั่งตอบไปแทน Response

**PC AND UNIFY MONITOR READ ONLY**

| Transmission and Reception Type |       |
|---------------------------------|-------|
| Method                          | UART  |
| Baud rate                       | 600   |
| Form                            | 8-n-1 |

|         | Bit 7                                     | Bit 6 | Bit 5 | Bit 4 | Bit 3         | Bit 2 | Bit 1 | Bit 0 |
|---------|---|-------|-------|-------|---------------|-------|-------|-------|
| Byte 0  | Address 1 (0xFF)                          |       |       |       |               |       |       |       |
| Byte 1  | Address 2 (0xFE)                          |       |       |       |               |       |       |       |
| Byte 2  | LED Code                                  |       |       |       |               |       |       |       |
| Byte 3  | DC Volte (Byte High)                      |       |       |       |               |       |       |       |
| Byte 4  | DC Volte (Byte Low)                       |       |       |       |               |       |       |       |
| Byte 5  | Indoor Mode                               |       |       |       | Indoor Power  |       |       |       |
| Byte 6  | Indoor Fan                                |       |       |       | Indoor Louver |       |       |       |
| Byte 7  | Indoor Set Temp ( Set Temp / 2 )          |       |       |       |               |       |       |       |
| Byte 8  | Indoor Humidity                           |       |       |       |               |       |       |       |
| Byte 9  | Indoor Room Temp ( Room Temp / 4 )        |       |       |       |               |       |       |       |
| Byte 10 | Indoor Inlet Temp ( (Inlet - 40) / 2 )    |       |       |       |               |       |       |       |
| Byte 11 | Indoor OurletTemp ( (Outlet - 40) / 2 )   |       |       |       |               |       |       |       |
| Byte 12 | Indoor Status                             |       |       |       |               |       |       |       |
| Byte 13 | EXV (Byte High)                           |       |       |       |               |       |       |       |
| Byte 14 | EXV (Byte Low)                            |       |       |       |               |       |       |       |
| Byte 15 | Current (Data Current x 10)               |       |       |       |               |       |       |       |
| Byte 16 | AC Volte                                  |       |       |       |               |       |       |       |
| Byte 17 | Temp Dish                                 |       |       |       |               |       |       |       |
| Byte 18 | Temp Amb                                  |       |       |       |               |       |       |       |
| Byte 19 | Temp Shell                                |       |       |       |               |       |       |       |
| Byte 20 | Temp Mid                                  |       |       |       |               |       |       |       |
| Byte 21 | Outdoor Status 0                          |       |       |       |               |       |       |       |
| Byte 22 | Outdoor Status 1                          |       |       |       |               |       |       |       |
| Byte 23 | Driver Error Massege                      |       |       |       |               |       |       |       |
| Byte 24 | Target Frequency                          |       |       |       |               |       |       |       |
| Byte 25 | Outdoor Status 2                          |       |       |       |               |       |       |       |
| Byte 26 | Target Demand                             |       |       |       |               |       |       |       |
| Byte 27 | Software Revision                         |       |       |       |               |       |       |       |
| Byte 28 | Capacity                                  |       |       |       |               |       |       |       |
| Byte 29 | (1's complement of Byte 0 to Byte 28) + 1 |       |       |       |               |       |       |       |

### Indoor Status

Bit 0 : Normal / Trip Mode    0 = Normal Mode,    1 = Trip Mode  
Bit 1 : Normal / Defrost Mode    0 = Normal Mode,    1 = Defrost Mode  
Bit 2 - 7 : Reserve

### Outdoor Status 0

|                                |                                   |
|--------------------------------|-----------------------------------|
| Bit 0 : Driver running message | 0 = Normal, 1 = Error             |
| Bit 1 : Fan low                | 0 = Fan low off, 1 = Fan low on   |
| Bit 2 : Fan high               | 0 = Fan high off, 1 = Fan high on |
| Bit 3 : Rv                     | 0 = Rv off, 1 = Rv on             |
| Bit 4 : Heater                 | 0 = Heater off, 1 = Heater on     |
| Bit 5 : Indoor commu           | 0 = Connect, 1 = Loss             |
| Bit 6 : Driver commu           | 0 = Connect, 1 = Loss             |
| Bit 7 : Mode                   | 0 = Cool, 1 = Heat                |

### Outdoor Status 1

|                          |                      |
|--------------------------|----------------------|
| Bit 0 : System           | 0 = Normal, 1 = Trip |
| Bit 1 : Out door defrost | 0 = N/A, 1 = Active  |
| Bit 2 : Compressor       | 0 = Off, 1 = On      |
| Bit 3 : 3min             | 0 = Off, 1 = On      |
| Bit 4 : Exv Operate      | 0 = Auto, 1 = Manual |

### Outdoor Status 2

|             |                     |
|-------------|---------------------|
| Bit 3 : H/L | 0 = Close, 1 = Open |
|-------------|---------------------|

### Louver

Value 0 : Auto  
Value 1 : Level 1  
Value 2 : Level 2  
Value 3 : Level 3  
Value 4 : Level 4  
Value 5 : Level 5

### Fan

Value 0 : Auto  
Value 1 : Low  
Value 2 : Meduim  
Value 3 : High  
Value 4 : Hi Hi  
Value 5 : Turbo  
Value 6 : Off

### Operating

Value 0 : Cool mode  
Value 1 : Dry mode  
Value 2 : Auto mode  
Value 3 : Heat mode  
Value 4 : Fan mode

### Power

Bit 0 : Off / On Mode    0 = Off Mode,    1 = On Mode

## PC AND UNIFY MONITOR WRITE ONLY

| Master          | Value    |
|-----------------|----------|
| Slave address   | 0x01     |
| Function        | 0x06     |
| Address (Hi)    |          |
| Address (Lo)    |          |
| Value (Hi)      |          |
| Value (Lo)      |          |
| Error Check(Lo) | CRC (Lo) |
| Error Check(Hi) | CRC (Hi) |

### 1) Control Command : Address 108

Bit 0 : Off / On Mode    0 = Off Mode,    1 = On Mode

Bit 1 : Exv Auto / Exv manual    0 = Auto,    1 = Manual

Bit 2-7: Reserve

### 2) Operating Command : Address 109

Value 0 : Cool mode

Value 1 : Dry mode

Value 2 : Auto mode

Value 3 : Heat mode

Value 4 : Fan mode

### 3) Fan Command : Address 110

Value 0 : Auto

Value 1 : Low

Value 2 : Meduim

Value 3 : High

Value 4 : Hi Hi

Value 5 : Turbo

Value 6 : OFF

### 4) Louver Command : Address 111

Value 0 : Auto

Value 1 : Level 1

Value 2 : Level 2

Value 3 : Level 3

Value 4 : Level 4

Value 5 : Level 5

### 5) Set Temp Command : Address 112

0 - 60 : 0 - 30 Degree

### 6) Humidity Command : Address 113

0 - 100 %

### 7) Exv Command : Address 114

0 - 480

## PC AND UNIFY RESPOND

| Master          | Value |
|-----------------|-------|
| Slave address   | 0x01  |
| Function        | 0x03  |
| Address (Hi)    | 0x00  |
| Address (Lo)    | 0x00  |
| Value (Hi)      | 0x00  |
| Value (Lo)      | 0x00  |
| Error Check(Lo) | 0x45  |
| Error Check(Hi) | 0xCA  |