

Command Code

PO-55H / PO-55F

1. Communication Equipment

PID SET & PID Control Center

2. Communication Standard

Recommended Standard 232(RS232), 8-N-1, 4800 baud

Baud Rate: 4800

Start Bit: 1 Bit

Data Bit: 8 Bit

Parity Bit: None

Stop Bit: 1 Bit

3. Communication Points

- (1) Modbus is a master/slave protocol, there is no way for a field device to "report by exception".
- (2) The master node must routinely poll each field device and look for changes in the data.
- (3) Time interval of packages sending from control center and polling cycle must be fixed.

4. Communication Time

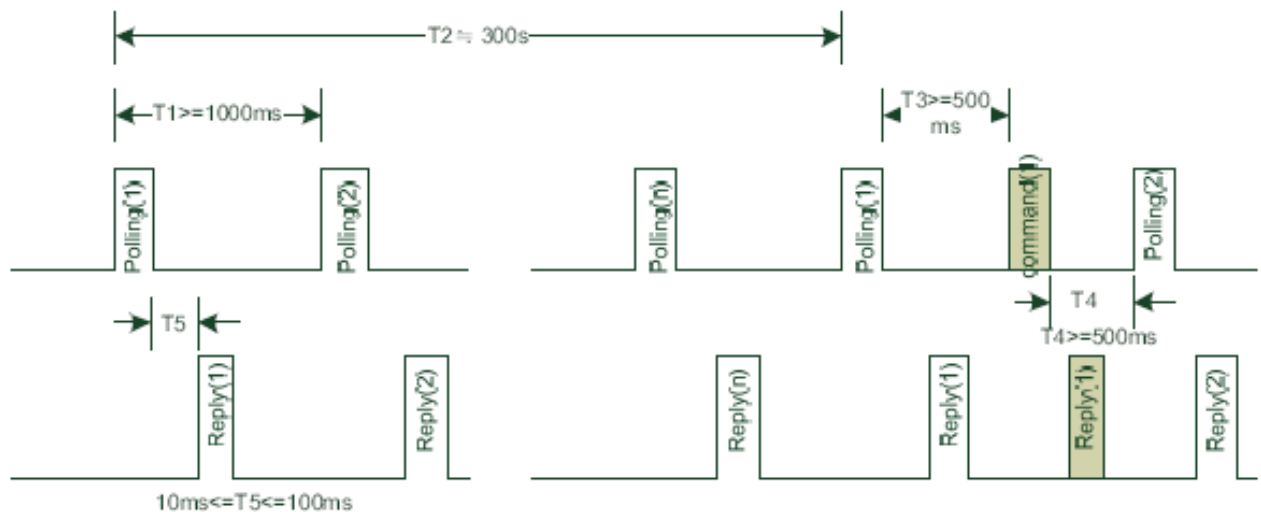
4.1. Time Points:

- (1) Polling interval is $T1 \geq 1000\text{ms}$, polling cycle is $T2 \approx 300$ second for PID SET time

Synchronization.

- (2) The interval between the command sending from control center and polling is $T3 \geq 500\text{ms}$. To Avoid communication collisions or command misses.
- (3) After the control center sends the command, the time interval must be separated by $T4 \geq 500\text{ms}$ to be next polling or next command.

4.2. Timing Chart:



5. Communication Format

Slave Address	Function Code	Data Context (Parameters)	CRC
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5.1 Slave address:

- Expressed in 1 byte. Each slave device on the network must have a unique address (range: 1 ~ 247).
- The SlaveAddr address is used to address the slave device and is initiated by the Master.
- Address '0' is used in broadcast mode and does not require any response.

5.2 Function code:

- Function code, as shown in <Table 1> below:

Table 1:

Name	Function Code	Description
Read holding register	03H	Get a current value of analog output
Preset single register	06H	Force set the value of single analog output
Preset multiple registers	10H	Force set the value of multiple analog outputs

5.3. Data_Context:

- Data_context consists of two parts, the first part is Address code and the second part is Data code, expressed in Word. Send the high byte first, then the low byte; Length of the Data code is determined according to the Function Code, see in section 6.
- Display registers decoding information, as shown in <Table 2>.

5.4. CRC:

- Cyclic Redundancy Check (CRC-16), polynomial reference is as follows:

$$G(X) = X^{16} + X^{15} + \dots + X^2 + 1$$

- Send low order byte first, then high order byte
- CRC-16 calculation as follows
 - (a). Load a 16bit register with 0xFFFF hex (all 1's). Call this the CRC register.
 - (b). Exclusive OR the first 8bit byte of the message with the low order byte of the 16bit CRC register, putting the result in the CRC register. High order byte of the 16bit CRC register is unchanged.
 - (c). Shift the CRC register one bit to the right (toward the LSB), zero filling the MSB. Extract and examine the LSB.
 - (d). (If the LSB get from Step (c) was 0): Repeat Step (c) (another shift). (If the LSB was 1): Exclusive OR the CRC register with the polynomial value 0xA001 hex (1010 0000 0000 0001).
 - (e). Repeat Steps (c) and (d) until 8 shifts have been performed. When this is done, a complete 8bit byte will have been processed.
 - (f). Repeat Steps (b) ~ (e) to handle next 8bit byte.
 - (g). After calculate according to the above steps to obtain the high order and low order 8bit bytes of CRC-16, the CRC check code is the result of exchange them.

6. Command Description

6.1 Read holding register:

6.1.1 Function: Get a current value of analog output.

Slave Address	Function Code (03H)	Data Context (Parameters)	CRC
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Parameters = Starting Address + No. of Registers

6.1.2 Description:

6.1.2.1 Request:

Slave Address,
Function Code (03H),
Starting Address Hi + Starting Address Lo,
No. of Registers Hi (N) + No. of Registers Lo (N),
CRC-16 Lo + CRC-16 Hi

6.1.2.2 ACK Response:

Slave Address,
Function Code (03H),
Byte Count (2NH),
Register Value Hi (1st) + Register Value Lo (1st),
Register Value Hi (2nd) + Register Value Lo (2nd),
...
Register Value Hi (N-th) + Register Value Lo (N-th),
CRC-16 Lo + CRC-16 Hi

6.1.2.3 NAK Response:

Error Code (83H),
Exception Code

Table 3: 03H Exception Code

Exception Code	Description
01H	Function code isn't within the range of definition
02H	Starting Address isn't within the range of definition
03H	No. of Registers isn't within the range of definition
04H	Continuous reading exception

6.2 Write Single Register:

6.2.1 Function: Force set the value of single analog output.

Slave Address	Function Code (06H)	Data Context (Parameters)	CRC
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Parameters = Register Address. + Register value

6.2.2 Description:

6.2.2.1 Request:

Slave Address,
Function Code (06H),
Register Address Hi, Register Address Lo,
Register Value Hi, Register Value Lo,
CRC-16 Lo, CRC-16 Hi

6.2.2.2 ACK Response:

Slave Address,
Function Code (06H),
Register Address Hi, Register Address Lo,
Register Value Hi, Register Value Lo,
CRC-16 Lo, CRC-16 Hi

6.2.2.3 NAK Response:

Error Code (86H),
Exception Code

Table4: 06H Exception Code

Exception Code	Description
01H	Function code isn't within the range of definition
02H	Register Address isn't within the range of definition
03H	Register Value isn't within the range of definition
04H	Write failed or write outliers

6.3 Write Multiple Register:

6.3.1 Function: Force set the value of multiple analog outputs.

Slave Address	Function Code (10H)	Data Context (Parameters)	CRC
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Parameters = Starting Address. + No. of Registers + Byte Count + Registers value

6.3.2 Description:

6.3.2.1 Request

Slave Address,
Function Code (10H),
Starting Address Hi, Starting Address Lo,
No. of Registers Hi (N), No. of Registers Lo (N),
Byte Count (2NH),
Register Value Hi (1), Register Value Lo (1),
Register Value Hi (2), Register Value Lo (2),
.....
Register Value Hi (N), Register Value Lo (N),
CRC-16 Lo, CRC-16 Hi

6.3.2.2 ACK Response

Slave Address,
Function Code (10H),
Register Address Hi, Register Address Lo,
Register No Hi, Register No Lo,
CRC-16 Lo, CRC-16 Hi

6.3.2.3 NAK Response

Error Code (90H),
Exception Code

Table5: 10H Exception Code

Exception Code	Description
01H	Function code isn't within the range of definition
02H	Starting Address isn't within the range of definition
03H	No. of Registers isn't within the range of definition or Byte count is not equal to 2 times No. of Registers.
04H	Write failed or write outliers

Table 2: Register decoding information**1. Monitor ID****1.1 Message – Set**

Function Code	Registers Address	Description of Parameter Set Value
06h	00h	0: Set ID to 0, and disable next Uart channel. 1~100 (0x00 ~ 0x64): Set ID to X, and enable next Uart channel. (Only ID=0 can be set to X)

Example: Set – ID = 2 (Now Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	00	00	02	08	0B

1.2 Message – Set Reply

Example: Set – ID = 2 (Now Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
02h	06h	00	00	00	02	08	38

1.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	00h	0: Set ID to 0, and disable next Uart channel. 1~100 (0x00 ~ 0x64): Set ID to X, and enable next Uart channel. (Only ID=0 can be set to X)

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	00	00	01	84	0A

1.4 Message – Get Reply

Example: Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	01		79	84

2. Power Status

2.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	01h	0: Power OFF 1: Power ON

Example: Set – Power OFF = 0 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	01	00	00	D8	0A

2.2 Message – Set Reply

Example: Set Reply – Power OFF = 0 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	01	00	00	D8	0A

2.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	01h	0: Power OFF 1: Power ON

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	01	00	01	D5	CA

2.4 Message – Get Reply

Example: Get Reply - Power ON = 1 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	01		79	84

3. Volume

3.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	02h	0 ~ 100 (0x00 ~ 0x64): Audio Volume

Example: Set – Volume = 0x11 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	02	00	11	E8	06

3.2 Message – Set Reply

Example: Set Reply – Volume = 0x11 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	02	00	11	E8	06

3.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	02h	0 ~ 100 (0x00 ~ 0x64): Audio Volume

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	02	00	01	25	CA

3.4 Message – Get Reply

Example: Get Reply - Volume = 0x11 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	11	78	48	

4. Video Source

4.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	04h	0x00: VGA 0x02: DVI 0x04: HDMI 0x0B: DP

Example: Set – DVI = 0x02 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	04	00	02	49	CA

4.2 Message – Set Reply

Example: Set Reply – DVI = 0x02 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	04	00	02	49	CA

4.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	04h	0x00: VGA 0x02: DVI 0x04: HDMI 0x0B: DP

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	04	00	01	C5	CB

4.4 Message – Get Reply

Example: Get Reply - DVI = 0x02 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	02		39	85

5. Contrast Ratio

5.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	05h	0 ~ 100 (0x00 ~ 0x64): Contrast Ratio

Example: Set – Contrast = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	05	00	00	99	CB

5.2 Message – Set Reply

Example: Set Reply – Contrast = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	05	00	00	99	CB

5.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	05h	0 ~ 100 (0x00 ~ 0x64): Contrast Ratio

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	05	00	01	94	0B

5.4 Message – Get Reply

Example: Get Reply - Contrast = 0x00 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	00		B8	44

6. Brightness

6.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	06h	0 ~ 100 (0x00 ~ 0x64): Brightness

Example: Set – Brightness = 0x64 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	06	00	64	68	20

6.2 Message – Set Reply

Example: Set Reply – Brightness = 0x64 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	06	00	64	68	20

6.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	06h	0 ~ 100 (0x00 ~ 0x64): Brightness

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	06	00	01	64	0B

6.4 Message – Get Reply

Example: Get Reply - Brightness = 0x64 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)			CRC	
01h	03h	02	00	64	B9	AF

7. Color Temperature

7.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	07h	0: Warm (6500K) 1: Default (9300K) 2: Cool (11500K) 3: sRGB 4: User

Example: Set – Color Temperature = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	07	00	00	38	0B

7.2 Message – Set Reply

Example: Set Reply – Color Temperature = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	07	00	00	38	0B

7.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	07h	0: Warm (6500K) 1: Default (9300K) 2: Cool (11500K) 3: sRGB 4: User

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	07	00	01	35	CB

7.4 Message – Get Reply

Example: Get Reply - Color Temperature = 0x00 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	00		B8	44

8. Anti-Burn in

8.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	08h	0: Close (OFF) 1: Enable (ON)

Example: Set – Close = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	08	00	00	08	08

8.2 Message – Set Reply

Example: Set Reply – Close = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	08	00	00	08	08

8.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	08h	0: Close (OFF) 1: Enable (ON)

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	08	00	01	05	C8

8.4 Message – Get Reply

Example: Get Reply - Close = 0x00 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)			CRC	
01h	03h	02	00	00	B8	44

9. Power Saving

9.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	09h	0: Close (OFF) 1: Enable (ON)

Example: Set – Close = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	09	00	00	59	C8

9.2 Message – Set Reply

Example: Set Reply – Close = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	09	00	00	59	C8

9.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	09h	0: Close (OFF) 1: Enable (ON)

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	09	00	01	54	08

9.4 Message – Get Reply

Example: Get Reply - Close = 0x00 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)			CRC	
01h	03h	02	00	00	B8	44

10. Auto Dimming

10.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	0Bh	0: Close (OFF) - manual dimming 1: Enable (ON) - auto dimming by lux table.

Example: Set – Close = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	0B	00	00	F8	08

10.2 Message – Set Reply

Example: Set Reply – Close = 0x00 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	0B	00	00	F8	08

10.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	0Bh	0: Close (OFF) - manual dimming 1: Enable (ON) - auto dimming by lux table.

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	0B	00	01	F5	C8

10.4 Message – Get Reply

Example: Get Reply - Close = 0x00 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)			CRC	
01h	03h	02	00	00	B8	44

11. Temperature Value

11.1 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	0Fh	-127 ~ +127

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	0F	00	01	B4	09

11.2 Message – Get Reply

Example: Get Reply - Temperature Value = 27 (0x1B) - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	1B	F8	4F	

12. Color Temperature

12.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	1Ch 1Dh 1Eh	1Ch: User R gain, 0 ~ 100 (0x00 ~ 0x64). 1Dh: User G gain, 0 ~ 100 (0x00 ~ 0x64). 1Eh: User B gain, 0 ~ 100 (0x00 ~ 0x64).

Example: Set – 0x1C - User R gain = 100 - 0x64 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	1C	00	64	49	E7

12.2 Message – Set Reply

Example: Set Reply – 0x1C - User R gain = 100 - 0x64 (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	1C	00	64	49	E7

12.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	1Ch 1Dh 1Eh	1Ch: User R gain, 0 ~ 100 (0x00 ~ 0x64). 1Dh: User G gain, 0 ~ 100 (0x00 ~ 0x64). 1Eh: User B gain, 0 ~ 100 (0x00 ~ 0x64).

Example: Get – 0x1C - User R gain - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	1C	00	01	45	CC

12.4 Message – Get Reply

Example: Get Reply - 0x1C - User R gain = 0x64 - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	64	B9	AF	

13. VGA Phase

13.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	20h	0 ~ 100 (0x00 ~ 0x64)

Example: Set – Phase = 37 - 0x25 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	20	00	25	49	DB

13.2 Message – Set Reply

Example: Set Reply – Phase = 37 - 0x25 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	20	00	25	49	DB

13.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	20h	0 ~ 100 (0x00 ~ 0x64)

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	20	00	01	85	C0

13.4 Message – Get Reply

Example: Get Reply - Phase = 37 - 0x25 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	25	79	9F	

14. VGA Clock

14.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	21h	0 ~ 100 (0x00 ~ 0x64)

Example: Set – Clock = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	21	00	32	58	15

14.2 Message – Set Reply

Example: Set Reply – Clock = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	21	00	32	58	15

14.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	21h	0 ~ 100 (0x00 ~ 0x64)

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	21	00	01	D4	00

14.4 Message – Get Reply

Example: Get Reply - Clock = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	32	39	91	

15. VGA H Position

15.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	22h	0 ~ 100 (0x00 ~ 0x64)

Example: Set – H Position = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	22	00	32	A8	15

15.2 Message – Set Reply

Example: Set Reply – H Position = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	22	00	32	A8	15

15.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	22h	0 ~ 100 (0x00 ~ 0x64)

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	22	00	01	24	00

15.4 Message – Get Reply

Example: Get Reply - H Position = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	32	39	91	

16. VGA V Position

16.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	23h	0 ~ 100 (0x00 ~ 0x64)

Example: Set – V Position = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	23	00	32	F9	D5

16.2 Message – Set Reply

Example: Set Reply – V Position = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	23	00	32	F9	D5

16.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	23h	0 ~ 100 (0x00 ~ 0x64)

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	23	00	01	75	C0

16.4 Message – Get Reply

Example: Get Reply - V Position = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	32	39	91	

17. VGA Auto Adjustment

17.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	24h	0x01: Enable

Example: Set – V Position = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	24	00	01	08	01

17.2 Message – Set Reply

Example: Set Reply – V Position = 50 - 0x32 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	24	00	01	08	01

18. Display Size

18.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	2Ah	0: Full Screen 1: Smart Fit 2: 4:3

Example: Set – Display size = 4:3 – 0x02 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	2A	00	02	29	C3

18.2 Message – Set Reply

Example: Set Reply – Display size = 4:3 – 0x02 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	2A	00	02	29	C3

18.3 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	2Ah	0: Full Screen 1: Smart Fit 2: 4:3

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	2A	00	01	A5	C2

18.4 Message – Get Reply

Example: Get Reply - Display size = 4:3 – 0x02 – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	00	02		39	85

19. Reset

19.1 Message – Set

Function Code	Registers Address	Description of Parameter Set Value
06h	2Bh	1: Enable system reset

Example: Set – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	2B	00	01	38	02

19.2 Message – Set Reply

Example: Set Reply – (Monitor ID = 1)

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	06h	00	2B	00	01	38	02

20. F/W Version

20.1 Message – Get

Function Code	Registers Address	Description of Parameter Get Value
03h	40h	FW Version

Example: Get – Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	00	40	00	01	85	DE

20.2 Message – Get Reply

Example: Get Reply – F/W Version = **1.08** - Monitor ID = 1

Slave Address	Function Code	Data Context (Parameters)				CRC	
01h	03h	02	01	08		B8	12

7. Command Summary

Command Name	Set Command	Get Command	Addr.	Remark
Monitor ID set	V		00h	
Monitor ID get		V	00h	
Power Status set	V		01h	
Power Status get		V	01h	
Volume set	V		02h	
Volume get		V	02h	
Input Source set	V		04h	
Input Source get		V	04h	
Contrast set	V		05h	
Contrast get		V	05h	
Brightness set	V		06h	
Brightness get		V	06h	
Color Temp. set	V		07h	
Color Temp. get		V	07h	
Anti-Burn in set	V		08h	
Anti-Burn in get		V	08h	
Power saving set	V		09h	
Power saving get		V	09h	
Auto Dimming set	V		0Bh	
Auto Dimming get		V	0Bh	
Temperature value get		V	0Fh	
Color Temp. USER R gain set	V		1Ch	
Color Temp. USER R gain get		V	1Ch	
Color Temp. USER G gain set	V		1Dh	
Color Temp. USER G gain get		V	1Dh	
Color Temp. USER B gain set	V		1Eh	
Color Temp. USER B gain get		V	1Eh	
VGA Phase set	V		20h	
VGA Phase get		V	20h	
VGA Clock set	V		21h	
VGA Clock get		V	21h	
VGA H Position set	V		22h	
VGA H Position get		V	22h	
VGA V Position set	V		23h	
VGA V Position get		V	23h	

Command Name	Set Command	Get Command	Addr.	Remark
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VGA auto adjustment set	V		24h	
Display size set	V		2Ah	
Display size get		V	2Ah	
Reset set	V		2Bh	
F/W version get		V	40h	