EDX Commands Guide

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1 About the EDX Commands

1-1 Interfaces

There are three types of converting interfaces:

RS232-to-EDX interface: DP-112E, RS232-to-EDX on DP-107E
RS485-to-EDX interface: DP-105E, RS485-to-EDX on DP-107E
Ethernet-to-EDX interface: DP-104E, Ethernet-to-EDX on DP-107E

DP-107E features RS232-to-EDX, RS485-to-EDX, Ethernet-to-EDX interfaces.
DP-107E share the same command format with DP-112E on RS232-to-EDX interface.
DP-107E share the same command format with DP-105E on RS485-to-EDX interface.
DP-107E share the same command format with DP-104E on Ethernet-to-EDX interface.

*In the following part, DP-112E and RS232-to-EDX on DP-107E will refer as "**RS232-to-EDX**".*
*DP-105E and RS485-to-EDX on DP-107E will refer as "**RS485-to-EDX**".*
*DP-104E and Ethernet-to-EDX on DP-107E will refer as "**Ethernet-to-EDX**".*

1-2 Format of Commands

All commands are listed in hexical code (bytes)

However, on RS232-to-EDX convertor and RS485-to-EDX convertor , all commands are transmitted in ASCII code rather than hexical type.
For example, if a byte of the command is 0x80, it is "80" in ASCII code on DP-112E or DP-105E.
If a byte of the command is 0x13, it is "13" in ASCII code on RS232-to-EDX and RS485-to-EDX interfaces.

The commands of RS232-to-EDX convertor and RS485-to-EDX convertor also apply different headers.
The original commands started by **0x80** or **0x81**.
The commands of "RS232-to-EDX" started by **"#01"** or **"$01"**.
The commands of "RS485-to-EDX" started by **"#" + ID_NO of RS485-to-EDX interface** or **"$" + ID_NO of the RS485-to-EDX interface**

1-3 About Ethernet-to-EDX Interfaces

The “Ethernet-to-EDX” interface is based on UDP protocol.
To make “Ethernet-to-EDX interfaces” to communicate with the PC, a UDP client must be established and send a handshake command to the interface.

The handshake command

0x55	0xAA	0x01	0x00	0x05

Once receive the handshake command, Ethernet-EDX interface will reply the same command:

0x55	0xAA	0x01	0x00	0x05

You can use any programming language to create an UDP to communicate with the interface.

C# Example:

```
//C# Code:
UdpClient udpClient = new UdpClient();//Create a UdpClient
int portNum = 56113;//Port No.
byte[] sendBytes = new Byte[] { 0x55, 0xAA, 0x01, 0x05, 0x01 };//Handshake command
string ipAddress = "192.168.0.111"; //IP Address of Eternet to EDX interface
udpClient.Send(sendBytes, sendBytes.Length, ipAddress, portNum);//Send handshake command
```

2 Scene

2-1 Recall a Scene

Command (HEX)

0x80	ZONE_NO	**0x13**	SCENE_NO	BYTE_1	0x00	0x05

RS232-to-EDX (ASCII)

#	01	ZONE_NO	**13**	SCENE_NO	BYTE_1	00	05

RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**13**	SCENE_NO	BYTE_1	00	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x13**	SCENE_NO	BYTE_1	0x00	0x05

BYTE_1:

When the scene is recalled for first time, make BYTE_1 = 0x86 and the scene will show with fade time.

When the scene is recalled for second time, make BYTE_1 = 0x80 and the scene will show immediately without fade time.

Example:

0x80-0x01-0x13-0x05-0x86-0x00-0x05: to recall zone 1 scene 5 with fade time.

0x80-0x03-0x13-0x06-0x80-0x00-0x05: to recall zone 3 scene 6 without fade time.

2-2 Query Scene Status

Command (HEX)

0x80	ZONE_NO	**0x13**	0xFF	0x00	0x00	0x05

RS232-to-EDX (ASCII)

#	01	ZONE_NO	**13**	FF	00	00	05

RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**13**	FF	00	00	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x13**	0xFF	0x00	0x00	0x05

Example:
0x80-0x05-0x13-0xFF-0x00-0x00-0x05: query scene status in zone 5

2-3 Response of Scene Status:

A dimmer or switch actuator or DP-NEX1 (central controller) will return scene status after it receives scene command or after receiving a query scene command:

Response (HEX)

0x81	Zone	**0x13**	SC_L	SC_H	BYTE_1	0x05

RS232-to-EDX (ASCII)

$	01	ZONE_NO	**13**	SC_L	SC_H	BYTE_1	05

RS485-to-EDX (ASCII)

$	ID_NO	ZONE_NO	**13**	SC_L	SC_H	BYTE_1	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x81	ZONE_NO	**0x13**	SC_L	SC_H	BYTE_1	0x05

Note:

1. Identify EDX or NEX1 system:

DP-NEX1 will return scene status with Byte_1 = **0x20**.

A dimmer or a switch actuator in EDX system will return scene status with BYTE_1 = **0x00**.

2. Scene Status Response (EDX system):

SC_L represent the scene number presented.

3. Scene Status Response (NEX1 system):

The format of scene status data is

SC_L presents scene 0 – scene 7

SC_H presents scene 8 – scene 15

The returned data is 0x81, 0x01, 0x13, 0x05, 0x01, 0x20, 0x05

SC_L is 0x05; SC_H is 0x01

Convert them to binary: SC_L = 00000101; SC_H = 00000001

The first bit (scene 0) of SC_L is 1 and the third bit (scene 2) of SC_L is 1, that means scene 0 and scene 2 in zone 1 is enabled.

The first bit (scene 8) of SC_H is 1. That means scene 8 in zone 1 is enabled.

	Bit	Scene No.
SC_L	0	0
	1	1
	2	2
	3	3
	4	4
	5	5
	6	6
	7	7
SC_H	0	8
	1	9
	2	10
	3	11
	4	12
	5	13
	6	14
	7	15

3 Channel Level

3-1 Set Channel Level

Command (HEX)

0x80	ZONE_NO	**0x43**	CH_L	CH_H	LEVEL	0x05

RS232-to-EDX (ASCII)

#	01	ZONE_NO	**43**	CH_L	CH_H	LEVEL	05

RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**43**	CH_L	CH-H	LEVEL	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x43**	CH_L	CH_H	LEVEL	0x05

CH_L, CH_H: please refer appendix 2.
Level: please refer appendix 1.

Example:
Set channel 1 in zone 5 as 100%: 0x80-0x05-0x43-0x01-0x00-0xFF-0x05
Set channel 128 in zone 2 as 50%: 0x80-0x02-0x43-0x80-0x00-0x80-0x05

3-2 Query Channel Level

Command (HEX)

0x80	ZONE_NO	**0x43**	CH_L	CH_H + 0x80	0x00	0x05

Command on RS232-to-EDX (ASCII)

#	01	ZONE_NO	**43**	CH_L	CH_H + 80	0x00	05

Command on RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**43**	CH_L	CH-H + 80	0x00	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x43**	CH_L	CH_H + 0x80	0x00	0x05

CH_L, CH_H: please refer appendix 2.

Example:
Query channel 10 level in zone 2: 0x80-0x02-0x43-0x0A-**0x80**-0x00-0x05

3-3 Response of Channel Level

Response (HEX)

0x81	ZONE_NO	**0x43**	CH_L	CH_H	LEVEL	0x05

RS232-to-EDX (ASCII)

$	01	ZONE_NO	**43**	CH_L	CH_H	LEVEL	05

RS485-to-EDX (ASCII)

$	ID_NO	ZONE_NO	**43**	CH_L	CH_H	LEVEL	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x81	ZONE_NO	**0x43**	CH_L	CH_H	LEVEL	0x05

CH_L, CH_H: please refer appendix 2.

4 Dim Up/Down

4-1 Dim Up/Down All Channels

Command (HEX)

0x80	ZONE_NO	**0x32/0x42**	0x00	0x00	0x05

RS232-to-EDX (ASCII)

#	01	ZONE_NO	**32/42**	0x00	0x00	05

RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**32/42**	0x00	0x00	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x32/0x42**	0x00	0x00	0x05

0x32: Dim up
0x42: Dim down

Example:
Dim up all channels in zone 10: 0x80-0x0A-0x32-0x00-0x00-0x05

4-2 Dim Up/Down Single Channel

Command (HEX)

0x80	ZONE_NO	**0x32/0x42**	CH_L	CH_H + 0x80	0x05

RS232-to-EDX (ASCII)

#	01	ZONE_NO	**32/42**	CH_L	CH_H + 80	05

RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**32/42**	CH_L	CH_H + 80	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x32/0x42**	CH_L	CH_H + 0x80	0x05

0x32: Dim up
0x42: Dim down
CH_L, CH_H: please refer appendix 2.

Example:
Dim down channel 5 in zone 1: 0x80-0x05-0x42-0x05-0x80-0x05

4-3 Force Dim Up/Down Single Channel

0x80	ZONE_NO	**0x32/0x42**	CH_L	CH_H + 0xC0	0x05

RS232-to-EDX(ASCII)

#	01	ZONE_NO	**32/42**	CH_L	CH_H + C0	05

RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**32/42**	CH_L	CH_H + C0	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x32/0x42**	CH_L	CH_H + 0xC0	0x05

CH_L, CH_H: please refer appendix 2.

About Force dim up/down:
In NEX system, only the channels included in the presented scenes can be dim up/down by general dim up/down commands.
By using "Force Dim Up/Down" command, the channel can be dimmed in any condition.

For example, if scene 1 is presented in zone 1, scene 1 includes/controls channel 1,2,3. By using general dim up/down, only these three channels can be dimmed up/down.
By using force dim up/down, any other channel can be dimmed up/down.

5 HVAC

5-1 Set HVAC

Command (HEX)

0x80	ZONE_NO	**0x46**	CH_L	CH_H	COOL/HEAT	FAN_ SPEED	SET_TEMP	0x00	0x05

RS232-to-EDX (ASCII)

#	01	ZONE_NO	**46**	CH_L	CH_H	COOL/HEAT	FAN_ SPEED	SET_TEMP	00	05

RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**46**	CH_L	CH_H	COOL/HEAT	FAN_ SPEED	SET_TEMP	00	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x46**	CH_L	CH_H	COOL/HEAT	FAN_ SPEED	SET_TEMP	0x00	0x05

CH_L, CH_H: please refer appendix 2.

COOL/HEAT:

Cool = 0x72; Heat = 0x71

SET_TEMP:

Set desired temperature from 16 C to 35 C.

Please note that temperature here is **NOT** hexical. For instance, if you want to set temperature to 20℃, you should enter 20 rather than 14 in the command.

To keep the set temperature, set SET_TEMP as **0x00.**

FAN_SPEED:

Off = 0x00; Low = 0x01; Med = 0x02; High = 0x03; Auto = 0x04**;** Unchanged = 0x80

Example:

If the HVAC is in zone 3 , channel 40 and 41:

cool mode + high speed + 28 degree: 80-03-46-28-00-72-03-28-00-05

heat mode + auto speed + not change temperature: 80-03-46-28-00-71-04-00-00-05

cool mode + not change speed + 26 degree: 80-03-46-28-00-72-80-26-00-05

5-2 Query HVAC Status

Command (HEX)

0x80	ZONE_NO	**0x46**	CH_L	CH_H	0x80	0x00	0x00	0x00	0x05

RS232-to-EDX (ASCII)

#	01	ZONE_NO	**46**	CH_L	CH_H	80	00	00	00	05

RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**46**	CH_L	CH_H	80	00	00	00	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x46**	CH_L	CH_H	0x80	0x00	0x00	0x00	0x05

CH_L, CH_H: please refer appendix 2.

5-3 Response of HVAC Status

Response (HEX)

0x81	ZONE_NO	**0x46**	CH_L	CH_H	COOL/HEAT	FAN_ SPEED	SET_TEMP	REAL_TEMP	0x05

RS232-to-EDX (ASCII)

$	01	ZONE_NO	**46**	CH_L	CH_H	COOL/HEAT	FAN_ SPEED	SET_TEMP	REAL_TEMP	05

RS485-to-EDX (ASCII)

$	ID_NO	ZONE_NO	**46**	CH_L	CH_H	COOL/HEAT	FAN_ SPEED	SET_TEMP	REAL_TEMP	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	ZONE_NO	**0x46**	CH_L	CH_H	COOL/HEAT	FAN_SPEED	SET_TEMP	REAL_TEMP	0x05

CH_L, CH_H: please refer appendix 2.

COOL/HEAT:

Cool = 0x82; Heat = 0x81

FAN_SPEED:

Off = 0x00; Low = 0x01; Med = 0x02; High = 0x03; Auto = 0x04

SET_TEMP/ REAL_TEMP:

Please note that the temperature is hexical. For instance, if real temperature read is 0x1B, the real temperature is 27℃.

Example:
If the HVAC is in zone 1 , channel 25 and 26:
The query command should be 80-01-46-19-00-80-00-00-00-05
If the response is 81-01-46-19-00-81-02-23-1B-05,
19-00: channel 25
81: heat
02: medium fan speed
23: set temperature is 0x23 = 35℃.
1B: real temperature is 0x1B = 27℃.

5-4 Fan Speed +/-

Command (HEX)

0x80	ZONE_NO	**0x73**	CH_L	CH_H	**0x32/0x42**	0x05

0x32: fan speed +

0x42: fan speed –

CH_L, CH_H: please refer appendix 2.

Example:

Increase fan speed in zone 2 channel 2: 0x80-0x02-0x73-0x02-0x00-0x32-0x05

5-5 Temperature +/-

Command (HEX)

0x80	ZONE_NO	**0x93**	CH_L	CH_H	**0x32/0x42**	0x05

0x32: temperature +

0x42: temperature –

CH_L, CH_H: please refer appendix 2.

Example:

Decrease 1 degree temperature in zone 2 channel 2: 0x80-0x02-0x93-0x02-0x00-0x42-0x05

6 Set Service

6-1 Enable a Service

Command (HEX)

0x80	**0x00**	**0x55**	0x00	0x00	SERVICE_NO	0x00	0x00	0x05

RS232-to-EDX (ASCII)

#	01	**00**	**55**	00	00	SERVICE_NO	00	00	05

RS485-to-EDX (ASCII)

#	ID_NO	**00**	**55**	00	00	SERVICE_NO	00	00	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	**0x00**	**0x55**	0x00	0x00	SERVICE_NO	0x00	0x00	0x05

6-2 Disable a Service

Command (HEX)

0x80	**0x00**	**0x55**	0x00	0x70	SERVICE_NO	0x00	0x00	0x05

RS232-to-EDX (ASCII)

#	01	**00**	**55**	00	70	SERVICE_NO	00	00	05

RS485-to-EDX (ASCII)

#	ID_NO	**00**	**55**	00	70	SERVICE_NO	00	00	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	**0x00**	**0x55**	0x00	0x70	SERVICE_NO	0x00	0x00	0x05

6-3 Query Service Status

Command (HEX)

0x80	0x00	**0x55**	0x00	0x80	0x00	0x00	0x00	0x05

RS232-to-EDX (ASCII)

#	01	00	**55**	00	80	SERVICE_NO	00	00	05

RS485-to-EDX (ASCII)

#	ID_NO	00	**55**	80	00	SERVICE_NO	00	00	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x80	0x00	**0x55**	0x00	0x80	0x00	0x00	0x00	0x05

6-4 Response of Service Status

Response (HEX)

0x81	ZONE_NO	**0x55**	0x00	SEGMENT	SERVICE_NO_1	SERVICE_NO_2	SERVICE_NO_3	0x05

RS232-to-EDX (ASCII)

#	01	ZONE_NO	**55**	00	SEGMENT	SERVICE_NO_1	SERVICE_NO_2	SERVICE_NO_3	05

RS485-to-EDX (ASCII)

#	ID_NO	ZONE_NO	**55**	00	SEGMENT	SERVICE_NO_1	SERVICE_NO_2	SERVICE_NO_3	05

Ethernet-to-EDX (HEX)

0x55	**0xAA**	**0x03**	**0x00**	**0x00**	0x81	ZONE_NO	**0x55**	0x00	SEGMENT	SERVICE_NO_1	SERVICE_NO_2	SERVICE_NO_3	0x05

If more than three services existed, there are more than one response.
For example, if services 01, 03, 05, 08 are enabled, the response will be two commands:
*81-00-55-00-**01**-01-03-05-05*
*81-00-55-00-**02**-08-00-00-05*
The fifth byte (SEGMENT) is the order number of the responses.

Appendix 1. Percentage in HEX format

%	HEX
0	0x00
1	0x03
2	0x05
3	0x08
4	0x0A
5	0x0D
6	0x0F
7	0x12
8	0x14
9	0x17
10	0x1A
11	0x1C
12	0x1F
13	0x21
14	0x24
15	0x26
16	0x29
17	0x2B
18	0x2E
19	0x30
20	0x33
21	0x36
22	0x38
23	0x3B
24	0x3D
25	0x40
26	0x42
27	0x45
28	0x47
29	0x4A
30	0x4D
31	0x4F
32	0x52
33	0x54

%	HEX
34	0x57
35	0x59
36	0x5C
37	0x5E
38	0x61
39	0x63
40	0x66
41	0x69
42	0x6B
43	0x6E
44	0x70
45	0x73
46	0x75
47	0x78
48	0x7A
49	0x7D
50	0x80
51	0x82
52	0x85
53	0x87
54	0x8A
55	0x8C
56	0x8F
57	0x91
58	0x94
59	0x96
60	0x99
61	0x9C
62	0x9E
63	0xA1
64	0xA3
65	0xA6
66	0xA8
67	0xAA

%	HEX
68	0xAD
69	0xB0
70	0xB3
71	0xB5
72	0xB8
73	0xBA
74	0xBD
75	0xBF
76	0xC2
77	0xC4
78	0xC7
79	0xC9
80	0xCC
81	0xCF
82	0xD1
83	0xD4
84	0xD6
85	0xD9
86	0xDB
87	0xDE
88	0xE0
89	0xE3
90	0xE6
91	0xE8
92	0xEB
93	0xED
94	0xF0
95	0xF2
96	0xF5
97	0xF7
98	0xFA
99	0xFC
100	0xFF

Appendix 2 Channel Format

Channel	CH_L	CH_H	Channel	CH_L	CH_H	Channel	CH_L	CH_H	Channel	CH_L	CH_H	Channel	CH_L	CH_H	Channel	CH_L	CH_H
1	0x01	0x00	**34**	0x22	0x00	**67**	0x43	0x00	**100**	0x64	0x00	**133**	0x85	0x00	**166**	0xA6	0x00
2	0x02	0x00	**35**	0x23	0x00	**68**	0x44	0x00	**101**	0x65	0x00	**134**	0x86	0x00	**167**	0xA7	0x00
3	0x03	0x00	**36**	0x24	0x00	**69**	0x45	0x00	**102**	0x66	0x00	**135**	0x87	0x00	**168**	0xA8	0x00
4	0x04	0x00	**37**	0x25	0x00	**70**	0x46	0x00	**103**	0x67	0x00	**136**	0x88	0x00	**169**	0xA9	0x00
5	0x05	0x00	**38**	0x26	0x00	**71**	0x47	0x00	**104**	0x68	0x00	**137**	0x89	0x00	**170**	0xAA	0x00
6	0x06	0x00	**39**	0x27	0x00	**72**	0x48	0x00	**105**	0x69	0x00	**138**	0x8A	0x00	**171**	0xAB	0x00
7	0x07	0x00	**40**	0x28	0x00	**73**	0x49	0x00	**106**	0x6A	0x00	**139**	0x8B	0x00	**172**	0xAC	0x00
8	0x08	0x00	**41**	0x29	0x00	**74**	0x4A	0x00	**107**	0x6B	0x00	**140**	0x8C	0x00	**173**	0xAD	0x00
9	0x09	0x00	**42**	0x2A	0x00	**75**	0x4B	0x00	**108**	0x6C	0x00	**141**	0x8D	0x00	**174**	0xAE	0x00
10	0xA	0x00	**43**	0x2B	0x00	**76**	0x4C	0x00	**109**	0x6D	0x00	**142**	0x8E	0x00	**175**	0xAF	0x00
11	0xB	0x00	**44**	0x2C	0x00	**77**	0x4D	0x00	**110**	0x6E	0x00	**143**	0x8F	0x00	**176**	0xB0	0x00
12	0xC	0x00	**45**	0x2D	0x00	**78**	0x4E	0x00	**111**	0x6F	0x00	**144**	0x90	0x00	**177**	0xB1	0x00
13	0xD	0x00	**46**	0x2E	0x00	**79**	0x4F	0x00	**112**	0x70	0x00	**145**	0x91	0x00	**178**	0xB2	0x00
14	0xE	0x00	**47**	0x2F	0x00	**80**	0x50	0x00	**113**	0x71	0x00	**146**	0x92	0x00	**179**	0xB3	0x00
15	0xF	0x00	**48**	0x30	0x00	**81**	0x51	0x00	**114**	0x72	0x00	**147**	0x93	0x00	**180**	0xB4	0x00
16	0x10	0x00	**49**	0x31	0x00	**82**	0x52	0x00	**115**	0x73	0x00	**148**	0x94	0x00	**181**	0xB5	0x00
17	0x11	0x00	**50**	0x32	0x00	**83**	0x53	0x00	**116**	0x74	0x00	**149**	0x95	0x00	**182**	0xB6	0x00
18	0x12	0x00	**51**	0x33	0x00	**84**	0x54	0x00	**117**	0x75	0x00	**150**	0x96	0x00	**183**	0xB7	0x00
19	0x13	0x00	**52**	0x34	0x00	**85**	0x55	0x00	**118**	0x76	0x00	**151**	0x97	0x00	**184**	0xB8	0x00
20	0x14	0x00	**53**	0x35	0x00	**86**	0x56	0x00	**119**	0x77	0x00	**152**	0x98	0x00	**185**	0xB9	0x00
21	0x15	0x00	**54**	0x36	0x00	**87**	0x57	0x00	**120**	0x78	0x00	**153**	0x99	0x00	**186**	0xBA	0x00
22	0x16	0x00	**55**	0x37	0x00	**88**	0x58	0x00	**121**	0x79	0x00	**154**	0x9A	0x00	**187**	0xBB	0x00
23	0x17	0x00	**56**	0x38	0x00	**89**	0x59	0x00	**122**	0x7A	0x00	**155**	0x9B	0x00	**188**	0xBC	0x00
24	0x18	0x00	**57**	0x39	0x00	**90**	0x5A	0x00	**123**	0x7B	0x00	**156**	0x9C	0x00	**189**	0xBD	0x00
25	0x19	0x00	**58**	0x3A	0x00	**91**	0x5B	0x00	**124**	0x7C	0x00	**157**	0x9D	0x00	**190**	0xBE	0x00
26	0x1A	0x00	**59**	0x3B	0x00	**92**	0x5C	0x00	**125**	0x7D	0x00	**158**	0x9E	0x00	**191**	0xBF	0x00
27	0x1B	0x00	**60**	0x3C	0x00	**93**	0x5D	0x00	**126**	0x7E	0x00	**159**	0x9F	0x00	**192**	0xC0	0x00
28	0x1C	0x00	**61**	0x3D	0x00	**94**	0x5E	0x00	**127**	0x7F	0x00	**160**	0xA0	0x00	**193**	0xC1	0x00
29	0x1D	0x00	**62**	0x3E	0x00	**95**	0x5F	0x00	**128**	0x80	0x00	**161**	0xA1	0x00	**194**	0xC2	0x00
30	0x1E	0x00	**63**	0x3F	0x00	**96**	0x60	0x00	**129**	0x81	0x00	**162**	0xA2	0x00	**195**	0xC3	0x00
31	0x1F	0x00	**64**	0x40	0x00	**97**	0x61	0x00	**130**	0x82	0x00	**163**	0xA3	0x00	**196**	0xC4	0x00
32	0x20	0x00	**65**	0x41	0x00	**98**	0x62	0x00	**131**	0x83	0x00	**164**	0xA4	0x00	**197**	0xC5	0x00
33	0x21	0x00	**66**	0x42	0x00	**99**	0x63	0x00	**132**	0x84	0x00	**165**	0xA5	0x00	**198**	0xC6	0x00

Channel	CH_L	CH_H
199	0xC7	0x00
200	0xC8	0x00
201	0xC9	0x00
202	0xCA	0x00
203	0xCB	0x00
204	0xCC	0x00
205	0xCD	0x00
206	0xCE	0x00
207	0xCF	0x00
208	0xD0	0x00
209	0xD1	0x00
210	0xD2	0x00
211	0xD3	0x00
212	0xD4	0x00
213	0xD5	0x00
214	0xD6	0x00
215	0xD7	0x00
216	0xD8	0x00
217	0xD9	0x00
218	0xDA	0x00
219	0xDB	0x00
220	0xDC	0x00
221	0xDD	0x00
222	0xDE	0x00
223	0xDF	0x00
224	0xE0	0x00
225	0xE1	0x00
226	0xE2	0x00
227	0xE3	0x00
228	0xE4	0x00
229	0xE5	0x00
230	0xE6	0x00
231	0xE7	0x00

Channel	CH_L	CH_H
232	0xE8	0x00
233	0xE9	0x00
234	0xEA	0x00
235	0xEB	0x00
236	0xEC	0x00
237	0xED	0x00
238	0xEE	0x00
239	0xEF	0x00
240	0xF0	0x00
241	0xF1	0x00
242	0xF2	0x00
243	0xF3	0x00
244	0xF4	0x00
245	0xF5	0x00
246	0xF6	0x00
247	0xF7	0x00
248	0xF8	0x00
249	0xF9	0x00
250	0xFA	0x00
251	0xFB	0x00
252	0xFC	0x00
253	0xFD	0x00
254	0xFE	0x00
255	0xFF	0x00
256	0x00	0x01
257	0x01	0x01
258	0x02	0x01
259	0x03	0x01
260	0x04	0x01
261	0x05	0x01
262	0x06	0x01
263	0x07	0x01
264	0x08	0x01

Channel	CH_L	CH_H
265	0x09	0x01
266	0xA	0x01
267	0xB	0x01
268	0xC	0x01
269	0xD	0x01
270	0xE	0x01
271	0xF	0x01
272	0x10	0x01
273	0x11	0x01
274	0x12	0x01
275	0x13	0x01
276	0x14	0x01
277	0x15	0x01
278	0x16	0x01
279	0x17	0x01
280	0x18	0x01
281	0x19	0x01
282	0x1A	0x01
283	0x1B	0x01
284	0x1C	0x01
285	0x1D	0x01
286	0x1E	0x01
287	0x1F	0x01
288	0x20	0x01
289	0x21	0x01
290	0x22	0x01
291	0x23	0x01
292	0x24	0x01
293	0x25	0x01
294	0x26	0x01
295	0x27	0x01
296	0x28	0x01
297	0x29	0x01

Channel	CH_L	CH_H
298	0x2A	0x01
299	0x2B	0x01
300	0x2C	0x01
301	0x2D	0x01
302	0x2E	0x01
303	0x2F	0x01
304	0x30	0x01
305	0x31	0x01
306	0x32	0x01
307	0x33	0x01
308	0x34	0x01
309	0x35	0x01
310	0x36	0x01
311	0x37	0x01
312	0x38	0x01
313	0x39	0x01
314	0x3A	0x01
315	0x3B	0x01
316	0x3C	0x01
317	0x3D	0x01
318	0x3E	0x01
319	0x3F	0x01
320	0x40	0x01
321	0x41	0x01
322	0x42	0x01
323	0x43	0x01
324	0x44	0x01
325	0x45	0x01
326	0x46	0x01
327	0x47	0x01
328	0x48	0x01
329	0x49	0x01
330	0x4A	0x01

Channel	CH_L	CH_H
331	0x4B	0x01
332	0x4C	0x01
333	0x4D	0x01
334	0x4E	0x01
335	0x4F	0x01
336	0x50	0x01
337	0x51	0x01
338	0x52	0x01
339	0x53	0x01
340	0x54	0x01
341	0x55	0x01
342	0x56	0x01
343	0x57	0x01
344	0x58	0x01
345	0x59	0x01
346	0x5A	0x01
347	0x5B	0x01
348	0x5C	0x01
349	0x5D	0x01
350	0x5E	0x01
351	0x5F	0x01
352	0x60	0x01
353	0x61	0x01
354	0x62	0x01
355	0x63	0x01
356	0x64	0x01
357	0x65	0x01
358	0x66	0x01
359	0x67	0x01
360	0x68	0x01
361	0x69	0x01
362	0x6A	0x01
363	0x6B	0x01

Channel	CH_L	CH_H
364	0x6C	0x01
365	0x6D	0x01
366	0x6E	0x01
367	0x6F	0x01
368	0x70	0x01
369	0x71	0x01
370	0x72	0x01
371	0x73	0x01
372	0x74	0x01
373	0x75	0x01
374	0x76	0x01
375	0x77	0x01
376	0x78	0x01
377	0x79	0x01
378	0x7A	0x01
379	0x7B	0x01
380	0x7C	0x01
381	0x7D	0x01
382	0x7E	0x01
383	0x7F	0x01
384	0x80	0x01
385	0x81	0x01
386	0x82	0x01
387	0x83	0x01
388	0x84	0x01
389	0x85	0x01
390	0x86	0x01
391	0x87	0x01
392	0x88	0x01
393	0x89	0x01
394	0x8A	0x01
395	0x8B	0x01
396	0x8C	0x01

Channel	CH_L	CH_H
397	0x8D	0x01
398	0x8E	0x01
399	0x8F	0x01
400	0x90	0x01
401	0x91	0x01
402	0x92	0x01
403	0x93	0x01
404	0x94	0x01
405	0x95	0x01
406	0x96	0x01
407	0x97	0x01
408	0x98	0x01
409	0x99	0x01
410	0x9A	0x01
411	0x9B	0x01
412	0x9C	0x01
413	0x9D	0x01
414	0x9E	0x01
415	0x9F	0x01
416	0xA0	0x01
417	0xA1	0x01
418	0xA2	0x01
419	0xA3	0x01
420	0xA4	0x01
421	0xA5	0x01
422	0xA6	0x01
423	0xA7	0x01
424	0xA8	0x01
425	0xA9	0x01
426	0xAA	0x01
427	0xAB	0x01
428	0xAC	0x01
429	0xAD	0x01

Channel	CH_L	CH_H
430	0xAE	0x01
431	0xAF	0x01
432	0xB0	0x01
433	0xB1	0x01
434	0xB2	0x01
435	0xB3	0x01
436	0xB4	0x01
437	0xB5	0x01
438	0xB6	0x01
439	0xB7	0x01
440	0xB8	0x01
441	0xB9	0x01
442	0xBA	0x01
443	0xBB	0x01
444	0xBC	0x01
445	0xBD	0x01
446	0xBE	0x01
447	0xBF	0x01
448	0xC0	0x01
449	0xC1	0x01
450	0xC2	0x01
451	0xC3	0x01
452	0xC4	0x01
453	0xC5	0x01
454	0xC6	0x01
455	0xC7	0x01
456	0xC8	0x01
457	0xC9	0x01
458	0xCA	0x01
459	0xCB	0x01
460	0xCC	0x01
461	0xCD	0x01
462	0xCE	0x01

Channel	CH_L	CH_H
463	0xCF	0x01
464	0xD0	0x01
465	0xD1	0x01
466	0xD2	0x01
467	0xD3	0x01
468	0xD4	0x01
469	0xD5	0x01
470	0xD6	0x01
471	0xD7	0x01
472	0xD8	0x01
473	0xD9	0x01
474	0xDA	0x01
475	0xDB	0x01
476	0xDC	0x01
477	0xDD	0x01
478	0xDE	0x01
479	0xDF	0x01
480	0xE0	0x01
481	0xE1	0x01
482	0xE2	0x01
483	0xE3	0x01
484	0xE4	0x01
485	0xE5	0x01
486	0xE6	0x01
487	0xE7	0x01
488	0xE8	0x01
489	0xE9	0x01
490	0xEA	0x01
491	0xEB	0x01
492	0xEC	0x01
493	0xED	0x01
494	0xEE	0x01
495	0xEF	0x01

Channel	CH_L	CH_H
495	0xEF	0x01
496	0xF0	0x01
497	0xF1	0x01
498	0xF2	0x01
499	0xF3	0x01
500	0xF4	0x01
501	0xF5	0x01
502	0xF6	0x01
503	0xF7	0x01
504	0xF8	0x01
505	0xF9	0x01
506	0xFA	0x01
507	0xFB	0x01
508	0xFC	0x01
509	0xFD	0x01
510	0xFE	0x01
511	0xFF	0x01
512	0x00	0x02