**PROTOCOL**

1. Each parameter marks its length in bytes with the bracket.

2.XX and YY, respectively, said a byte. An X or Y said 4 bit

4.when the ID is 0xFFF for the broadcast command, all units can receive the command.

5.Network communication---PC as a TCP / IP client.

Default main unit work as server with IP：192.168.10.100

Port No：10166

Gateway:192.168.10.1

Subnet mask：255.255.255.0

Hardware MAC：0x00,0x08,0xDC,0x00,0x11,0x22

6. If there is no special statement, the return message of the main unit is the same as PC send to the main unit. Special command will be stated with note

7. The maximum cache of main unit to receive from PC is 200 bytes. PC packets can not send too fast or too large

1. **Packet format of PC software(or programable controller) to the main unit**

**1.** **Frame format：** Total number of bytes (2 Byte) + packet type (1 byte) + data

2. Support multi-frame superimposed first frame + second frame + third frame ..., the largest not more than 200 bytes.

3. The total number of bytes in a frame refers to the total number of bytes in a frame, excluding the length of the total number of bytes.

4. The sending speed of a frame of data is around 10ms and not accept too fast.

5. Packet type

1. 0x00： PC send ordinary command(Total byte is 6 bytes,00 06 as start)

Ordinary command：（00 06+00+ Command type +（Parameter High 4bit+Command word 4bit）+ Parameter end 8bit+0xFCFC（Frame tail）

（Eg：00 06 00 00 03 00 FC FC is the command to turn on the ID3 microphone ）

1. Command type

0x00：Working mode setting

0x01：Main unit parameter settings

0x02：Vote settings

0x03：Sign-in settings

0x04：Start encoding ID

0x05：Start scanning unit

0x06：Restore factory settings

0x09：Zone setting

0x0C：Enabled operation for Conference unit microphone, sign-in, voting function

0x0B：IP address, MAC address, interpreter related settings

0x0D：Language setting

0x0F：Tea service processing

0x10：Internal call service processing

0x11：PC switch microphone

0x17：IC CARD setting

0x18：Start ID address setting for setting the ID

0x19：IC card response signal sent

0x1A: WIFI parameter settings related

0x20：Get the ID address of the device

1. Command word

Corresponding command type inside the instruction difference

1. Parameter12bit
2. 0x01：PC sends a short message (extension)
3. 0x02：: PC is under the interpreter channel language
4. 0x09：PC sends packets to the host serial port

**6. command word**

**7. parameter 12bit**

1. **VIS-DCP2000 parameter setting**

|  |  |  |  |
| --- | --- | --- | --- |
| **Protocol function** | **PC(controller) to main unit**  (Empty means that the command is from main unit to PC) | **Protocol parameter note** | **PC Main unit return to PC(controller)** |
| Conference mode and Max. active mic | 00 06 00 01 00 XY FC FC | X：Conference mode  OVERRIDE X=1  OPEN X=2  VOICE X=3  APPLY X=4  Y：Max. active mic  1 Mic Y = 0  2 Mic Y = 1  4 Mic Y = 2  6 Mic Y = 3 | FE 01 00 XY FC |
| Line in volume | 00 06 00 01 11 YY FC FC | Line in setting YY（0-41）：0=0dB  1=-1dB，2=-2dB…，-3Db TO -40dB，41=mute | FE 01 11 YY FC |
| Line out volume | 00 06 00 01 41 YY FC FC | Line out setting YY（0-41）：0=0dB  1=-1dB，-2dB，-3Db TO-40dB，41=mute | FE 01 41 YY FC |
| Earphone volume | 00 06 00 01 F1 YY FC FC | Line out volume YY（0-41）：0=0dB  1=-1dB，-2dB，-3Db TO -40dB，41=mute | FE 01 41 YY FC |
| IP address 1 | 00 06 00 0B X1 YY FC FC | IP address XYY.168.10.100 | - |
| IP address 2 | 00 06 00 0B X2 YY FC FC | IP address 192.XYY.10.100 | - |
| IP address 3 | 00 06 00 0B X3 YY FC FC | IP address 192.168.XYY.100 | - |
| IP address 4（enable the IP setting finish） | 00 06 00 0B X4 YY FC FC | IP address 192.168.10.XYY | - |
| Revise MAC address 6  （Default MAC address:  0x00 0x08 0xDC 0x00 0x3A 0x00） | 00 06 00 0B X8 YY FC FC | XYY:MAC address  0x00 0x08 0xDC 0x00 0x3A XYY | - |
| Revise MAC address 5 | 00 06 00 0B X9 YY FC FC | 0x00 0x08 0xDC 0x00 XYY 0x00 | - |
| Revise MAC address 4 | 00 06 00 0B XA YY FC FC | 0x00 0x08 0xDC XYY 0x3A 0x00 | - |
| Revise MAC address 3 | 00 06 00 0B XB YY FC FC | 0x00 0x08 XYY 0x00 0x3A 0x00 | - |
| Revise MAC address 2 | 00 06 00 0B XC YY FC FC | 0x00 XYY 0xDC 0x00 0x3A 0x00 | - |
| Revise MAC address 1 | 00 06 00 0B XD YY FC FC | XYY 0x08 0xDC 0x00 0x3A 0x00 | Receive the last address, the main unit reboot automatically |

**2. MICROPHONE Control protocol**

|  |  |  |  |
| --- | --- | --- | --- |
| **Protocol function** | **PC(controller) to main unit**  (Empty means that the command is from main unit to PC) | **Protocol parameter note** | **Main unit return to PC(controller)** |
| Interpreter on |  | **This is the command received by the PC or controller（XYY：ID）** | FE 1E X0 YY FC |
| Interpreter off |  | **This is the command received by the PC or controller（（XYY：ID）** | FE 1F X0 YY FC |
| Microphone on |  | **This is the command received by the PC or controller（（XYY：ID）** | FE 11 X0 YY FC |
| Microphone off |  | **This is the command received by the PC or controller（（XYY：ID）** | FE 11 X1 YY FC |
| An ID microphone is waiting |  | **This is the command received by the PC or controller** | FE 11 X2 YY FC |
| An ID microphone is canceled waiting |  | **This is the command received by the PC or controller** | FE 11 X3 YY FC |
| Chairman switch off all delegate |  | **This is the command 。received by the PC or controller received by the PC** | FE 11 XB YY FC |
| Scan units and get the total microphone number |  | **This is the command received by the PC or controller** | FE 05 X1 YY FC |
| Scan units and get the total chairman number |  | **This is the command received by the PC or controller** | FE 05 X2 YY FC |
| Scan units and get the total delegate number |  | **This is the command received by the PC or controller** | FE 05 X3 YY FC |
| Scan units and get the total interpreter number |  | **This is the command received by the PC or controller** | FE 05 X4 YY FC |
| Switch on an ID mic | 00 06 00 11 X0 YY FC FC | XYY：ID  ID1=001  ID2=002  ID3=003  …ID10=00A  …  ID20=014  … | FE 11 X0 YY FC |
| Switch off an ID mic | 00 06 00 11 X1 YY FC FC | XYY：ID  ID1=001  ID2=002  ID3=003  …ID10=00A  …  ID20=014  … | FE 11 X1 YY FC |
| Disable an ID (unit is in standby mode) | 00 06 00 0C X0 YY FC FC | XYY：ID | FE 0C X0 YY FC |
| Enable an ID | 00 06 00 0C X1 YY FC FC |  | FE 0C X1 YY FC |
| Disable the microphone function of an ID | 00 06 00 0C X2 YY FC FC | XYY：ID | FE 0C X2 YY FC |
| Enable the microphone function of an ID | 00 06 00 0C X3 YY FC FC |  | FE 0C X3 YY FC |